

Appendix F2 Additional Climate Scenario Sensitivity Analysis

F2.1 Updated Modeled Alternatives with Additional Climate Scenario

Additional climate change modeling was performed to analyze operational changes under various climate change projections for the ROC on LTO. The revised No Action Alternative and revised Alternative 1 (for revised No Action Alternative and Alternative 1 modeling please see Appendix F, Attachment 1) were simulated with CalSim II under 2035 Central Tendency (CT) climate conditions with 15 cm of sea level rise (SLR). These CalSim II results are compared against the revised No Action Alternative and Alternative 1 under 2025 ELT Q5 climate projections with 15 cm of SLR, presented in this Attachment, to understand sensitivity of incremental differences to climate change. This attachment summarizes key CalSim II results for the No Action Alternative and Alternative 1 under the ELT Q5 and 2035 CT climate scenarios.

F2.1.1 Climate Change Scenarios

2035 CT climate projections are centered around 2035 (2020 – 2049) conditions, based on a reference period centered around 1995 (1980 – 2009), and derived from an ensemble of 20 CMIP5 localized constructed analog (LOCA) downscaled global climate projections (Pierce et al. 2014). California Department of Water Resources (DWR) Climate Change Technical Advisory Group (CCTAG) selected these 20 CMIP5 global climate projections as the most appropriate projections for California water resources evaluation and planning (DWR CCTAG 2015).

2035 CT projections indicate a warmer and wetter future. Average temperatures would increase by at least 1.5 degrees Celsius in all major watersheds (Figure 2.3-2). Precipitation is also projected increase by at least 2 percent in all major watersheds (Figure 2.3-3). Precipitation increases are higher in Northern California watersheds than in Southern California watersheds. Detailed description of 2035 CT climate scenarios, projections, and methodology are described in Section F2.3.

ELT Q5 climate change projections are centered around 2025 (2011 – 2040) conditions, based on a reference period centered around 1980 (1971 – 2000), and derived from an ensemble of all 112 bias-corrected and statistically downscaled (BCSD) CMIP3 global climate projections. The ELT Q5 scenario is derived from the central tending climate projections, representing the inner quantiles (25th to 75th percentile) of temperature and precipitation change, of the 112 BCSD downscaled projections.

ELT Q5 projections predict a warmer future with spatially varying changes to precipitation. Annual average temperature would increase by at least 1 degree Celsius in each of the major watersheds. Projected precipitation varies from North to South. Average annual precipitation in Northern California (e.g. Feather River watershed) and Southern California (e.g. Tuolumne River watershed) are expected to increase by 1.5 percent and decrease by 2.5 percent, respectively. Detailed description of ELT Q5 climate scenarios, projections, and methodology are described in the Bay Delta Conservation Plan/California WaterFix Final EIR/EIS Appendix 5A (ICF 2016).

Although relative changes of each climate projection are based on different reference periods, relative change in reference period is minimal compared to projected future changes. Therefore, based on changes described above, 2035 CT conditions are warmer and wetter than ELT Q5 conditions. Depending on seasonal variation, warmer and wetter climates would lead to increased reservoir storages and river flows in the wet season, and decreased storages and flows in the dry season. These findings are further described and demonstrated in Sections F2.1.2 and F2.2.

F2.1.2 Climate Change Comparison

2035 CT climate conditions were applied to revised No Action Alternative and Alternative 1 to assess sensitivity of conclusions to climate conditions. Comparisons of revised No Action Alternative and Alternative 1 under 2035 CT conditions to revised No Action Alternative and Alternative 1 under ELT Q5 conditions are displayed in Section F2.2. Findings from this analysis indicate that incremental differences observed between revised No Action Alternative and Alternative 1 under 2035 CT climate conditions remain similar to incremental differences between revised No Action Alternative and Alternative 1 under ELT Q5 climate conditions. Revised model assumptions are discussed in Appendix F, Attachment 1.

Under both modeled alternatives CVP storage increases in drier years and decreases in wetter years under 2035 CT conditions as compared to ELT Q5 conditions. Incremental differences between revised No Action Alternative and Alternative 1 under 2035 CT conditions remain similar to incremental differences under ELT Q5 climate conditions. Similar patterns are observed at Lake Oroville, as shown in Section F2.2.1.

Compared to ELT Q5 conditions, revised No Action Alternative and Alternative 1 Sacramento River at Keswick flow under 2035 CT conditions remains similar, as shown in Section F2.2.2.

As compared to ELT Q5 conditions, Sacramento River at Freeport, Feather River, American River, Yolo Bypass, and San Joaquin River flows under 2035 CT conditions generally increase during Winter to early-Spring (December through April) and decrease during Spring to early-Summer (May through July) under both modeled alternatives, as shown in Section F2.2.2. A similar pattern is reflected in Delta outflow results. Incremental differences between revised No Action Alternative and Alternative 1 under 2035 CT conditions remain similar to incremental differences between revised No Action Alternative and Alternative 1 under ELT Q5 conditions.

Combined Old and Middle River flow under revised No Action Alternative and Alternative 1 at 2035 CT conditions remains similar to revised No Action Alternative and Alternative 1 at ELT Q5 conditions (Section F2.2.2). Total Delta exports under revised Alternative 1 under 2035 CT conditions decreases in July as compared to revised Alternative 1 under ELT Q5 conditions. Revised No Action Alternative results are similar under both climate conditions (Section F2.2.3). Incremental differences of combined Old and Middle River flow and Delta exports under revised No Action Alternative and Alternative 1 at 2035 CT conditions remain similar to incremental differences under revised No Action Alternative and Alternative 1 at ELT Q5 conditions (Sections F2.2.2 through F2.2.4).

F2.2 Modeled Results for Updated Modeled Alternatives with Additional Climate Scenario

Results for revised No Action Alternative and Alternative 1 at ELT Q5 and 2035 CT climate conditions are compiled in tables and charts in the following sections:

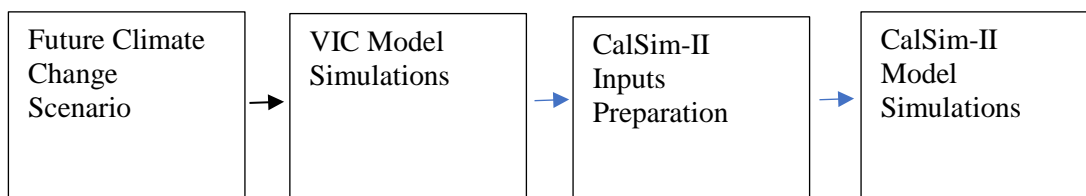
- Section F2.2.1, Storage and Elevation Results (CalSim II)
- Section F2.2.2, Flow Results (CalSim II)
- Section F2.2.3, Diversion Results (CalSim II)
- Section F2.2.4, Water Supply Results (CalSim II)
- Section F2.2.5, X2 Position Results (CalSim II)

Note that the X2 results are from CalSim II. As CalSim II results demonstrate that incremental differences between revised No Action Alternative and Alternative 1 do not change under the 2035 CT climate conditions, no additional modeling was needed. Although DSM2-QUAL is the preferred model for quantifying X2 position, the standard report from DSM2-QUAL is unavailable for this sensitivity analysis.

F2.3 Climate Changes Projections Development

The purpose of this section is to detail the steps in developing climate change boundary conditions for the CalSim II model. Figure F2.3-1 presents the dataset development and modeling sequence.

Figure F2.3-1 Dataset Development and Modeling Sequence



F2.3.1 Historical Observed Meteorological data

Livneh et al. (2013) daily historical meteorology data at 1/16th degree (~6 km) (~3.75 miles) spatial resolution over the period 1915 through 2011 was used to develop historical VIC simulation and future climate change scenarios based on quantile mapping approach. These historical data were adjusted based on PRISM data (Daly et al., 1994) to correct biases found in the pre-1950 period. These datasets have already been reviewed under the Sacramento – San Joaquin River Basins Study, Central Valley Flood Protection Plan (CVFPP) 2017 Update, and Water Storage Investment Program (WSIP).

F2.3.2 Future Climate Change Scenario

The climate change scenario centered around 2035 (2020-2049) was developed with the ensemble informed climate change scenarios method, using the 20 Coupled Model Intercomparison Project 5 (CMIP5) global climate model projections. These projections were downscaled using the localized

constructed analog (LOCA) method at 1/16th degree (approximately 6 kilometers [km], or approximately 3.75 miles) spatial resolution (Pierce et al., 2014). The LOCA method is a statistical scheme that uses future climate projections combined with historical analog events to produce daily downscaled precipitation, and maximum and minimum temperature time series data. Further details on LOCA downscaling can be found in WSIP Technical Reference Document Appendix A (CWC, 2017).

The 20 CMIP5 global climate projections were selected by the California Department of Water Resources (DWR) Climate Change Technical Advisory Group (CCTAG) as the most appropriate projections for California water resources evaluation and planning (DWR CCTAG, 2015) (Table F2.3-1). The climate model projections were generated with two emission scenarios, one optimistic (Representative Concentration Pathway [RCP] 4.5) and one pessimistic (RCP 8.5), identified by the IPCC for the Fifth Assessment Report (AR5) (IPCC, 2013).

Table F2.3-1. CCTAG Recommended Climate models

Model Number	Model Name	Model Institution	Model Resolution ^a
1	ACCESS-1.0	Commonwealth Scientific and Industrial Research Organisation and Bureau of Meteorology	192 x 145 (165 km)
2	CCSM4	National Center for Atmospheric Research	288 x 192 (110 km)
3	CESM1-BGC	National Science Foundation, Department of Energy, National Center for Atmospheric Research	288 x 192 (110 km)
4	CMCC-CMS	Centro Euro-Mediterraneo per I Cambiamenti Climatici	192 x 96 (165 km)
5	CNRM-CM5	Centre National de Recherches Météorologiques, Centre Européen de Recherche et Formation Avancées en Calcul Scientifique	256 x 128 (123 km)
6	CanESM2	Canadian Centre for Climate Modeling and Analysis	128 x 64 (247 km)
7	GFDL-CM3	Geophysical Fluid Dynamics Laboratory	144 x 90 (219km)
8	HadGEM2-CC	Met Office Hadley Centre	192 x 145 (165 km)
9	HadGEM2-ES	Met Office Hadley Centre; additional HadGEM2-ES realizations contributed by Instituto Nacional de Pesquisas Espaciais	192 x 145 (165 km)
10	MIROC5	Atmosphere and Ocean Research Institute at the University of Tokyo, National Institute for Environmental Studies, and Japan Agency for Marine-Earth Science and Technology	256 x 128 (123km)

Notes:

km = kilometers

Models are listed alphabetically.

^aSize of the model's atmospheric grid (number of longitudes by number of latitudes)

Consistent with the Bay-Delta Conservation Plan/California WaterFix Analyses (ICF, 2016), historical temperature and precipitation were adjusted to represent future conditions with the quantile mapping approach. Adjustments to temperature and precipitation were calculated with cumulative distribution

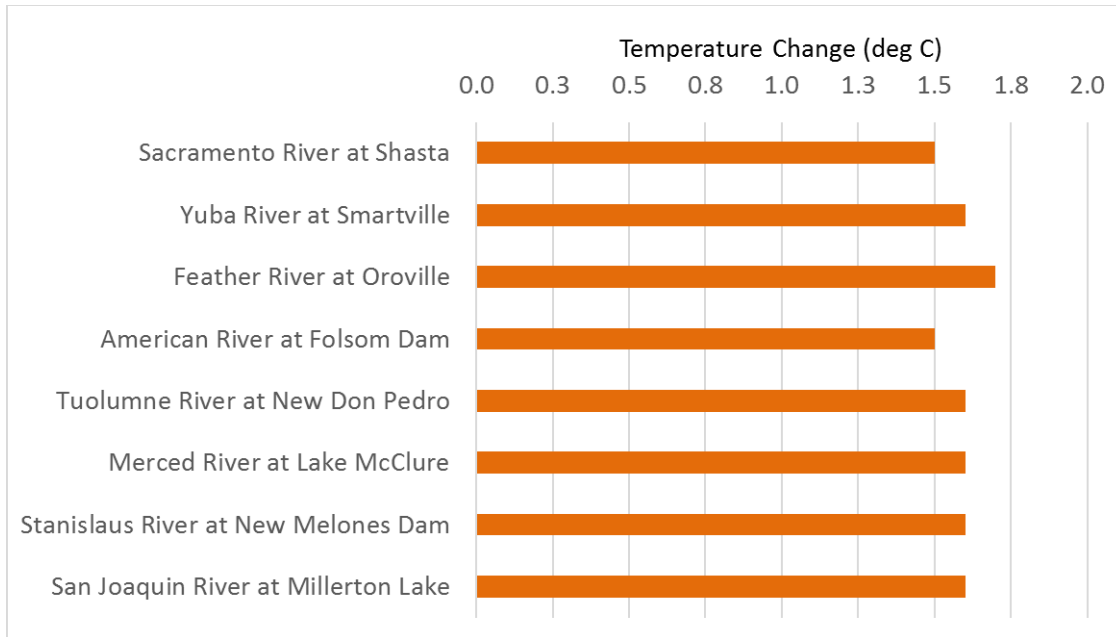
functions mapped with the 20 downscaled global climate model projections from the Coupled Model Intercomparison Project Phase 5 (CMIP5) (Taylor et al., 2012).

The quantile mapping approach involves the following steps:

- i. Extract a 30-year slice of climate model data (precipitation, and maximum and minimum temperatures) from downscaled ensemble climate projection centered on reference (1995: 1980-2009) and future periods (2035: 2020-2049).
- ii. For each calendar month (e.g. January) of the future period, calculate cumulative distribution function (CDF) of temperature and precipitation at each grid cell.
- iii. For each calendar month of the model simulated reference period (1980-2009), calculate CDFs of temperature and precipitation at each grid cell.
- iv. Calculate the ratio (future period divided by reference period) for precipitation and ‘deltas’ (future period minus reference period) for temperature at each quantile from the reference and future period CDFs.
- v. Apply these ratios and deltas to develop a monthly time series of precipitation and temperature at 1/16th degree (~6 km) (~3.75 miles) over the period 1915 -2011 that incorporates the climate shift of the future period.
- vi. Convert monthly time series to a daily time series by scaling monthly values to daily sequence found in the observed record.

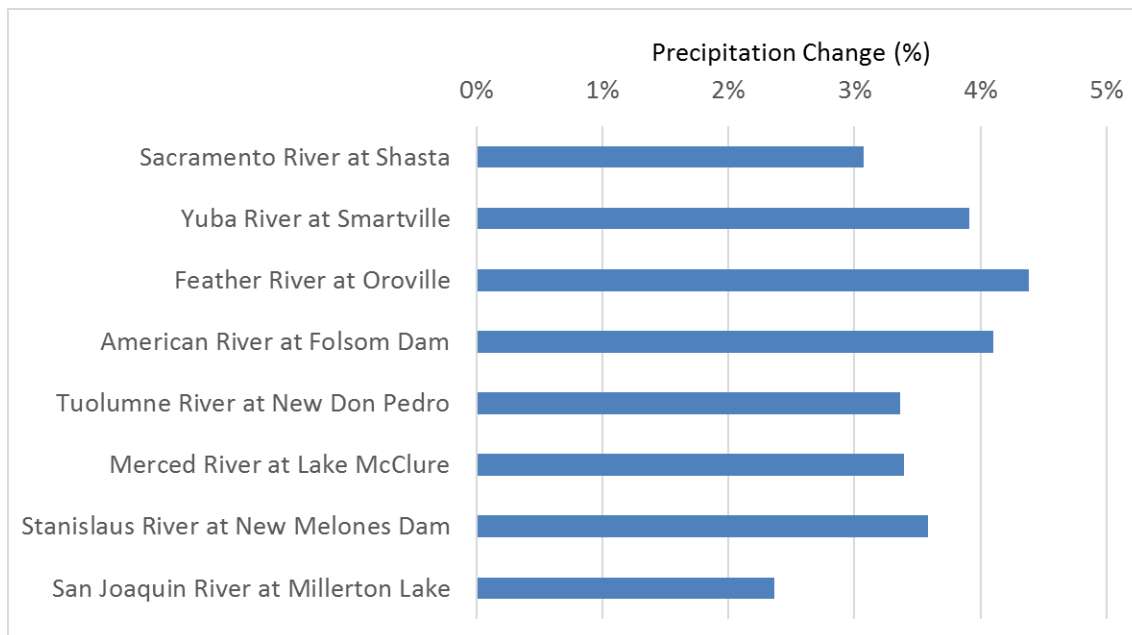
Figure F2.3-2 shows the projected change in long-term average temperature for the major watersheds in the Sacramento and San Joaquin River Basins using the climate change scenario for 2035 future conditions. Compared to the reference period (1995), average temperature is projected to increase by at least 1.5°C in all major watersheds. The highest temperature increases in the Sacramento River Basin occur in the Yuba River (1.6°C) and Feather River (1.7°C) watersheds. All major San Joaquin River Basin watersheds are expected to increase by 1.6°C.

Figure F2.3-2. Projected Change in Average Temperature for Major Watersheds in the Sacramento and San Joaquin River Basins



Projected change in long-term average precipitation for major watersheds in the Sacramento and San Joaquin River Basins are presented in Figure F2.3-3. Overall, all major watersheds are projected to be wetter, with average precipitation increases of 2.4% to 4.4%. Sacramento River Basin is projected to experience a higher increase in long-term average precipitation than the San Joaquin River Basin.

Figure F2.3-3. Projected Change in Precipitation for Major Watersheds in the Sacramento and San Joaquin River Basins



Projected streamflow data were generated by inputting adjusted temperature and precipitation time series data for 2035 conditions into the Variable Infiltration Capacity (VIC) hydrologic model.

F2.3.3 VIC Model Simulations

Historical and projected surface runoff and baseflow at 1/16th degree (approximately 6 km, or 3.75 miles) were generated by inputting historical and projected meteorological data into the VIC model. The VIC Model (Liang et al., 1994, 1996; Nijssen et al., 1997) simulates land-surface-atmosphere exchanges of moisture and energy at each model grid cell. The VIC Model incorporates spatially distributed parameters describing topography, soils, land use, and vegetation classes.

VIC simulated surface runoff and baseflow were used to produce routed streamflows at several locations in the Sacramento and San Joaquin River Basin. VIC model and routing model network are consistent with modeling conducted in the WSIP. Further details on the VIC model and routing model can be found in WSIP Technical Reference Document Appendix A (CWC, 2017).

F2.3.4 Sea Level Rise Scenarios

For this analysis, CalSim II studies were modeled using climate centered around year 2035 with 15 cm of SLR.

F2.3.5 CalSim-II Inputs Preparation

Climate and sea-level change are incorporated into CalSim-II in two ways: changes to the input hydrology, and changes to the flow-salinity relationship in the Delta due to SLR.

The following methods were used to calculate projected CalSim-II inflow data:

- i. For larger and smaller watersheds, simulated changes in streamflows (simulated future streamflows divided by historical simulated streamflows) were applied to the CalSim-II inflows. These fractional changes were first applied for every month of the 82-year period consistent with the VIC Model simulated patterns. A second order correction was then applied to confirm that the annual shifts in runoff at each location were consistent with that generated from the VIC Model. Similarly, fractional changes were also used to simulate change in precipitation and temperature as needed for calculation of certain parameters used in CalSim-II. This approach is consistent with the approach used in the BDCP/CA WaterFix modeling.
- ii. For larger watersheds where streamflows are heavily impaired, a process was implemented by calculating historical impairment based on observed data, and adding that impairment back onto the VIC Model simulated flows at a location upstream of the impairment. This approach is consistent with the approach used in the WSIP CalSim-II modeling under future conditions.
- iii. Water year types and other indices used in system operation decisions by CalSim II were regenerated using adjusted flows, precipitation, or temperature as needed in their respective methods.
- iv. SLR effects on the flow-salinity response in CalSim-II were incorporated by a separate Artificial Neural Network (ANN) for future climate condition.

- v. SLR effects were used in the regression equations to estimate the flow split between the Sacramento River and Georgiana Slough at times when the Delta Cross Channel (DCC) is open or closed.

F2.3.5.1 *Use of Fractional Changes for Climate Data*

Fractional changes in streamflows (simulated future streamflows divided by historical simulated streamflows) were applied to the CalSim-II inflows for larger and smaller watersheds. In addition, projected precipitation, used to calculate forecasts, were projected with fractional changes. Change in temperature, used to calculate Old and Middle River flow requirements, were projected with absolute changes. These are further described in the following subsections.

F2.3.5.1.1 Streamflows

For smaller and larger watersheds in the system, climate change ratios were used to adjust CalSim-II inflow data obtained from the 2017 SWP Delivery Capability Report (DWR, 2018). Tables F2.3-2 and F2.3-3 list these small and large watersheds, respectively. The climate change ratios were computed based on VIC Model simulations using historical, detrended climate forcing and climate change projections.

Table F2.3-2. River Locations for Upper Watersheds in CalSim-II

River Locations	CalSim Arc	Approach
Trinity River at Trinity Lake	I1	Developed climate change ratio
Sacramento River at Shasta Dam	I4	Developed climate change ratio
Feather River at Oroville	I6	Developed climate change ratio
American River North Fork + Middle Fork	I300	Developed climate change ratio. Partitioned from American River (I300 + I8) based on monthly ratios (I300/(I300+I8)) in CalSim-II inflow ¹
American River South Fork + Local Flow	I8	Developed climate change ratio. Partitioned from American River (I300 + I8) based on monthly ratios (I8/(I300+I8)) in CalSim-II inflow ¹
Cosumnes River at Michigan Bar	I501	Developed climate change ratio
Calaveras River at New Hogan	I92	Developed climate change ratio
Merced River at Lake McClure	I20	Developed climate change ratio
San Joaquin River at Millerton Lake	I18_SJR + I18_FG	Developed climate change ratio
San Joaquin River at Millerton Lake (without Fine Gold Creek)	I18_SJR	Developed climate change ratio. Partitioned from San Joaquin River inflow to Millerton Lake (I18) based on monthly ratios in CalSim-II inflow ¹

¹CalSim-II inflow data were obtained from the DWR ITP baseline study.

Table F2.3-3. River Locations for Small Watershed Tributaries in CalSim-II

Tributary	CalSim Arc	Approach
Cow Creek	I10801	Developed climate change ratio, and used as reference for other locations
Battle Creek	I10803	Used climate change ratio developed based on Cow Creek
Cottonwood Creek	I10802	Developed climate change ratio
Deer Creek	I11309	Developed climate change ratio, and used as reference for other locations
Paynes Creek	I11001	Used climate change ratio developed based on Deer Creek
Red Bank Creek	I112	Used climate change ratio developed based on Deer Creek
Antelope Creek	I11307	Used climate change ratio developed based on Deer Creek
Mill Creek	I11308	Used climate change ratio developed based on Deer Creek
Thomes Creek	I11304	Developed climate change ratio, and used as reference for other locations
Elder Creek	I11303	Used climate change ratio based on Thomes Creek
Lewiston inflow	I100	Not modified
Whiskeytown inflow	I3	Developed climate change ratio
Bear river inflow	I285	Developed climate change ratio
Butte Creek	I217	Developed climate change ratio, and used as reference for other locations
Big Chico Creek	I11501	Used climate change ratio developed based on Butte Creek
Kelly Ridge	I200	Not modified
Fresno River inflow to Hensley Lake	I52	Developed climate change ratio, and used as reference for other locations
Chowchilla River inflow to Eastman Lake	I53	Used climate change ratio developed based on Fresno River inflow to Hensley Lake

Inflow to Black Butte	I42	Developed climate change ratio, and used as reference for other locations
Stony Creek inflow East Park	I40	Used climate change ratio developed based on inflow to Black Butte
Inflow to Stony Gorge	I41	Used climate change ratio developed based on inflow to Black Butte

F2.3.5.1.2 Precipitation

CalSim-II requires runoff forecasts for the Shasta, Feather, and American river basins. In practice, statistical forecast functions are developed based on observed precipitation and runoff. To mimic the same procedure for forecasts in future climate conditions, forecast functions were developed using projected precipitation and runoff. This approach is consistent with the WSIP.

The following steps were taken:

- i. Basin-wide average precipitation was computed for future climate condition.
- ii. Sensitivity factors for precipitation were calculated in reference to historical data for future climate scenario.
- iii. Historical precipitation indices were perturbed to obtain estimated precipitation indices under future climate scenario. Sensitivity factors for precipitation indices are calculated as the ratio of climate precipitation to historical precipitation for each basin.
- iv. Perturbed precipitation index estimates were then used to develop regression equations for forecasted runoff.

F2.3.5.2 *Temperature*

CalSim-II uses temperature data at Sacramento Executive Airport (SEA) to establish trigger dates for Old and Middle River flow requirement in spring months, per U.S. Fish and Wildlife (USFWS) Biological Opinion Reasonable and Prudent Alternative Action 3. To mimic these modeled trigger dates under future climate, temperature sensitivity factors for each climate scenario were calculated at the VIC Model grid location best representative of SEA. Perturbation was applied to the baseline temperature dataset to establish future climate temperature trigger dates.

F2.3.6 **Use of Projected Runoff from the VIC Model for Impaired Streamflows**

Consistent with the WSIP, impairment observed in CalSim-II was reintroduced into projected VIC Model runoff at select locations (Table F2.3-4). As information on specific local project operations (impairment) at these locations was not available, impairment was calculated as the difference between the unimpaired historical flow and the CalSim-II inflow time series. The same difference was then applied to projected unimpaired flow to obtain future conditions impaired flows. This method assumes the local project operations will be the same in future climate conditions and does not account for any adaptation in local project operations.

Table F2.3-4. River Locations for Upper Watersheds in CalSim-II

River Locations	CalSim Arc	Basis of Bias Correction
Yuba River at Smartsville	I230	Unimpaired flows for use of re-impairment method (re-impairment method uses historical impairment included in CalSim-II inflows based on output from the YCWA HEC model)
American River at Folsom	I300 + I8	Unimpaired flows for use of re-impairment method (re-impairment method uses historical impairment included in CalSim-II inflows based on DWR American River HEC3 model)
Mokelumne River	I504	Unimpaired flows into Pardee Reservoir (I90, use input from EBMUDSIM) for use of re-impairment method (re-impairment method uses historical impairment included in CalSim-II inflows at I504 based on output from EBMUD SIM; in this case re-impairment includes other smaller inflow between I90 and I504)
Stanislaus River at New Melones Dam	I10	Unimpaired flows for use of re-impairment method (re-impairment method uses historical impairment included in CalSim-II inflows)
Tuolumne River at New Don Pedro	I81	Unimpaired flows for use of re-impairment method (re-impairment method uses historical impairment included in CalSim-II inflows)
<p>Key:</p> <p>EBMUD SIM = East Bay Municipal Utility District Simulation</p> <p>YCWA HEC = Yuba County Water Agency Hydrologic Engineering Center</p>		

F2.3.7 Updating Water Year Types and Indices

Water year types and other hydrologic indices used in CalSim-II operational decisions were regenerated using the projected flows and temperatures based on VIC Model simulations (Table F2.3-5).

Table F2.3-5. Water Year Types and Other Hydrologic Indices Used in CalSim II

Item/Index	Input	CalSim-II File Name	Specification	Raw Data	Raw Data Source	CDEC Station Location/ Station used in VIC Model for Projected Flows
Forecasting	Folsom Inflow Forecast	American_Runoff_Forecast.table	Fn (WY precip, known streamflows at the time of forecast)	Unimpaired; Basin Precipitation	CDEC; other DWR	AMF; Folsom Basin Precipitation (Index of Gaged)
	Oroville Inflow Forecast	Feather_Runoff_Forecast.table		Unimpaired; Basin Precipitation	CDEC; other DWR	FTO; Feather Basin Precipitation (Index of Gaged)
	Shasta Inflow Forecast	Sacramento_Runoff_Forecast.table		Unimpaired; Basin Precipitation	CDEC; other DWR	SIS; Shasta Basin Precipitation (Index of Gaged)
Indices for broad regulatory criteria (simulated with perfect foresight in CalSim-II)	8RI	EightRiver.table	Sum of eight stations' monthly flows (SacValleyIndex + SJValleyIndex)	Full Natural Flow	CDEC	AMF, FTO, SBB, YRS, MRC, SJF, SNS, TLG
	X2 Days	x2days.table	Based on 8RI PMI	Full Natural Flow; Table of electrical conductivity requirements	CDEC; Table available in spreadsheet	8RI (previous line)
	SacValley Index	SacValleyIndex.table	Sum of four stations' monthly flows	Full Natural Flow	CDEC	AMF, FTO, SBB, YRS
	Sacramento Index	wytypes.table	Water Quality Control Plan 40-30-30	Full Natural Flow	CDEC	AMF, FTO, SBB, YRS
	San Joaquin Index	wytypes.table	Water Quality Control Plan 60-20-20	Full Natural Flow	CDEC	MRC, SJF, SNS, TLG
	San Joaquin Index	wytypeSJR.table	Water Quality Control Plan 60-20-20	Full Natural Flow	CDEC	MRC, SJF, SNS, TLG
	San Joaquin Index – 5-year average	wytypeSJR5.table	5-year running average of WQCP 60- 20-20	Full Natural Flow	CDEC	MRC, SJF, SNS, TLG

Item/Index	Input	CalSim-II File Name	Specification	Raw Data	Raw Data Source	CDEC Station Location/ Station used in VIC Model for Projected Flows
Indices and other inputs for Operations policies (with regulatory significance)	Trinity Index	wytypes.table	Based on TNL WY Total	Full Natural Flow	CDEC	TNL
	Shasta Index	wytypes.table	Based on SIS Apr-Jul and WY Totals	Full Natural Flow	CDEC	SIS
	Feather River Index	wytypes.table	Based on FTO Apr-Jul and WY Totals	Full Natural Flow	CDEC	FTO
	UIFR	UIFR.table	Based on AMF Mar-Nov Totals	--	--	AMF
	AmerD893 Index	wytypes.table	Based on AMF Apr-Sep Totals	Full Natural Flow	CDEC	AMF
	Delta Index	Delta_Index.table	Based on Jan-May 8RI	Full Natural Flow	CDEC	AMF, FTO, SBB, YRS, MRC, SJF, SNS, TLG

Key:

BRI = VAN DUZEN R NR BRIDGEVILLE AT GRIZZLY CR	SBB = SACRAMENTO RIVER ABV BEND BRIDGE
AMF = AMERICAN R AT FOLSOM	SIS = SACTO INFLOW-SHASTA
Apr-Jul = April through July	SJF = SAN JOAQUIN RIVER BELOW FRIANT
Apr-Sep = April through September	SNS = STANISLAUS R-GOODWIN
FTO = FEATHER RIVER AT OROVILLE	TLG = TUOLUMNE R-LA GRANGE DAM
Mar-Nov = March through November	TNL = TRINITY R AT LEWISTON
MRC = MERCED R NR MERCED FALLS	WY = wet years
	YRS = YUBA RIVER NEAR SMARTVILLE

F2.3.8 Incorporating Effects of SLR in CalSim-II through ANN

Determination of flow-salinity relationships in the Delta is critical to both water project operations and ecosystem management. Operation of the CVP and SWP facilities and management of Delta flows often depend on Delta flow needs for salinity standards.

Salinity in the Delta cannot be simulated accurately by the simple mass balance routing and coarse time step used in CalSim-II. An ANN has been developed that estimates the flow-salinity relationships as simulated in DSM2 and provides a rapid transformation of this information into a form usable by CalSim-II (Sandhu et al., 1999). The ANN is implemented in CalSim-II to confirm operations of the upstream reservoirs and Delta export pumps satisfy specific salinity requirements in the Delta. A more detailed description of the use of ANNs in the CalSim-II model is provided by Wilbur and Munévar (2001).

The ANN developed by DWR (Sandhu et al., 1999; Seneviratne and Wu, 2007) statistically correlates salinity results from a particular DSM2 model run to the peripheral flows (Delta inflows, exports, and diversions), gate operations, and an indicator of tidal energy. The ANN is trained on DSM2 results that may represent historical or future conditions using a full circle analysis (Seneviratne and Wu, 2007). For example, a future SLR may significantly affect the hydrodynamics of the system. The ANN is able to represent this new condition by being retrained using the results from the DSM2 model representing the conditions with the SLR.

The current ANN predicts salinity at various locations in the Delta using the following parameters as input:

- Northern inflows
- San Joaquin River inflow
- DCC gate position
- Total exports and diversions
- Net Delta consumptive use
- An indicator of the tidal energy
- San Joaquin River at Vernalis salinity

Northern inflows include Sacramento River at Freeport flow; Yolo Bypass flow; and combined flow from the Mokelumne, Cosumnes, and Calaveras rivers (eastside streams) minus North Bay Aqueduct and Vallejo exports. Total exports and diversions include those at the SWP Banks Pumping Plant, the CVP Jones Pumping Plant, and Contra Costa Water District (CCWD) diversions, including diversions to Los Vaqueros Reservoir. A total of 148 days of values of each of these parameters is included in the correlation, representing an estimate of the length of memory of antecedent conditions in the Delta.

The ANN model approximates DSM2 model-generated salinity at the following key locations for modeling Delta water quality standards:

- X2
- Sacramento River at Emmaton
- San Joaquin River at Jersey Point
- Sacramento River at Collinsville
- Old River at Rock Slough

In addition, the ANN is capable of providing salinity estimates for Clifton Court Forebay, CCWD Alternate Intake Project, and Los Vaqueros diversion locations.

The ANN may not fully capture the dynamics of the Delta under conditions other than those for which it was trained. It is possible that the ANN will exhibit errors for flow regimes beyond those for which it was

trained. Therefore, a new ANN is needed for any SLR scenario or any new Delta configuration (physical changes in Delta) that may result in changed flow-salinity relationships in the Delta.

One ANN, retrained by the DWR Bay-Delta Modeling staff, representing the 15 cm SLR scenario was used with the future conditions CalSim-II models, representing 2035. ANN retraining involved the following steps:

- i. The DSM2 model was corroborated using the UnTRIM model to account for SLR effects, enabling a one-dimensional (1-D) model, DSM2, to approximate changes observed in a three-dimensional (3-D) model, UnTRIM.
- ii. A range of example long-term CalSim-II scenarios were developed to provide a broad range of boundary conditions for the DSM2 models.
- iii. Using the grid configuration and the correlations from the corroboration process, several 16-year (water years 1976-1991) DSM2 planning runs were simulated based on the boundary conditions from the identified CalSim-II scenarios to create a training dataset for each new ANN.
- iv. ANNs were trained using the Delta flows and Delta cross-channel operations from CalSim-II, along with the salinity (electrical conductivity [EC]) results from DSM2 and the Martinez tide.
- v. The training dataset was divided into two parts: one was used for training the ANN, and the other for validating.
- vi. Once the ANN was ready, a full circle analysis was performed to assess the performance of the ANN and confirm similar results were obtained from CalSim-II and DSM2.

A detailed description of the ANN training procedure and the full circle analysis is provided in DWR's 2007 annual report (Seneviratne and Wu, 2007).

F2.3.9 Incorporating Effects of SLR in Sacramento River- Georgiana Slough Flow Split

15 cm SLR would change the flow split between Sacramento River and DCC-Georgiana Slough flow. This requires modification of the linear regression equations used to estimate DCC-Georgiana Slough flow in CalSim-II. Table F2.3-6 shows the equations to be used in CalSim-II for each SLR condition. The changes to the regression coefficients are made in the `.\common\Delta\Xchannel\xc-gates.wresl` file.

Table F2.3-6. Regression Results for DSM2 Monthly Averaged Cross-Delta Flow (Y-axis) versus Sacramento River Flow Upstream of Sutter Slough (X-axis).

#	Scenario	DCC Open		DCC Closed	
		Slope	Intercept	Slope	Intercept
1	Current Conditions DSM2 ¹	0.3217	1050.7	0.1321	1086.6
2	15 or 45 cm SLR DSM2 ²	0.3187	1094.6	0.1316	1102.0

Key:

BDCP = Bay Delta Conservation Plan

¹ Regression coefficients from 2009 DSM2 recalibration model.

² Regression coefficients from 2009 DSM2 recalibration model under 15- and 45-cm SLR using Bay Delta Conservation Plan 040110 No Action CalSim-II results.

The equations to be used with current sea level are:

$$\text{Cross-Delta flow (i.e., DCC flow plus Georg. Sl. Flow)} = (\text{slope} * \text{Sac Flow}) + \text{intercept}$$

Where:

$$\text{slope} = 0.3217, \text{ intercept} = 1051 \text{ cubic feet per second (cfs) when DCC is open}$$

$$\text{slope} = 0.1321, \text{ intercept} = 1087 \text{ cfs when DCC is closed.}$$

Assuming the Georgianna Slough flow portion would remain the same whether DCC is open or closed, the split between Georgianna Slough and DCC is calculated as:

$$\text{Georgianna Sl. Flow} = 0.1321 * Q_{\text{sac}} + 1087 \text{ (whether DCC is open or closed)}$$

and

$$\text{DCC Flow} = 0.1896 * Q_{\text{sac}} - 36 \text{ when DCC is open}$$

$$\text{DCC Flow} = 0.0 \text{ when DCC is closed}$$

The equation to be used with SLR of 15 or 45 cm are:

$$\text{Cross-Delta flow (i.e., DCC flow plus Georg. Sl. Flow)} = (\text{slope} * \text{Sac Flow}) + \text{intercept}$$

Where

$$\text{slope} = 0.3187, \text{ intercept} = 1095 \text{ cfs when DCC is open}$$

$$\text{slope} = 0.1316, \text{ intercept} = 1102 \text{ cfs when DCC is closed}$$

Assuming the Georgianna Slough flow portion would remain the same whether DCC is open or closed, the split between Georgianna Slough and DCC is calculated as:

$$\text{Georgianna Sl. Flow} = 0.1316 * Q_{\text{sac}} + 1102 \text{ (whether DCC is open or closed)}$$

and

$$\text{DCC Flow} = 0.1871 * Q_{\text{sac}} - 7 \text{ when DCC is open}$$

$$\text{DCC Flow} = 0.0 \text{ when DCC is closed}$$

F2.4 References

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Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.1 – Storage and Elevation Results (CalSim II)

The following results of the CalSim II model are included for reservoir storage conditions for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity Lake Storage	S1	1-1 to 1-4	1-1 to 1-18
Trinity Lake Elevation	Post-processed	1a-1 to 1a-4	1a-1 to 1a-18
Shasta Lake Storage	S4	3-1 to 3-4	3-1 to 3-18
Shasta Lake Elevation	Post-processed	3a-1 to 3a-4	3a-1 to 3a-18
Lake Oroville Storage	S6	4-1 to 4-4	4-1 to 4-18
Lake Oroville Elevation	Post-processed	4a-1 to 4a-4	4a-1 to 4a-18
Folsom Lake Storage	S8	5-1 to 5-4	5-1 to 5-18
Folsom Lake Elevation	Post-processed	5a-1 to 5a-4	5a-1 to 5a-18
San Luis Reservoir Storage	S11+S12	6-1 to 6-4	6-1 to 6-18
San Luis Reservoir Elevation	Post-processed	6a-1 to 6a-4	6a-1 to 6a-18
CVP San Luis Reservoir Storage	S11	6b-1 to 6b-4	6b-1 to 6b-18
SWP San Luis Reservoir Storage	S12	6c-1 to 6c-4	6c-1 to 6c-18
New Melones Reservoir Storage	S10	7-1 to 7-4	7-1 to 7-18
New Melones Reservoir Elevation	Post-processed	7a-1 to 7a-4	7a-1 to 7a-18
Millerton Lake Storage	S18	8-1 to 8-4	8-1 to 8-18
Millerton Lake Elevation	Post-processed	8a-1 to 8a-4	8a-1 to 8a-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 1-1. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,833	1,850	1,900	2,000	2,100	2,300	2,354	2,299	2,248	2,127	1,920
20%	1,775	1,749	1,805	1,871	2,000	2,100	2,270	2,281	2,212	2,093	1,958	1,854
30%	1,506	1,545	1,653	1,749	1,945	2,092	2,222	2,163	2,059	1,914	1,759	1,597
40%	1,410	1,407	1,529	1,668	1,764	1,998	2,141	2,070	1,944	1,796	1,580	1,422
50%	1,254	1,262	1,380	1,512	1,674	1,781	1,910	1,859	1,775	1,642	1,469	1,338
60%	1,171	1,182	1,264	1,322	1,520	1,663	1,796	1,718	1,650	1,498	1,323	1,203
70%	1,053	1,063	1,148	1,193	1,277	1,417	1,559	1,591	1,488	1,390	1,236	1,098
80%	880	921	982	1,002	1,123	1,254	1,405	1,365	1,284	1,125	1,008	911
90%	654	652	657	687	830	925	1,005	977	925	853	754	672
Long Term												
Full Simulation Period ^d	1,257	1,263	1,325	1,406	1,534	1,663	1,807	1,784	1,720	1,591	1,443	1,310
Water Year Types ^{b,c}												
Wet (32%)	1,690	1,675	1,691	1,761	1,931	2,059	2,229	2,254	2,200	2,087	1,954	1,787
Above Normal (16%)	1,465	1,452	1,494	1,501	1,712	1,898	2,084	2,058	1,971	1,842	1,673	1,527
Below Normal (13%)	1,159	1,173	1,250	1,485	1,573	1,680	1,837	1,762	1,668	1,508	1,333	1,189
Dry (24%)	1,024	1,065	1,208	1,195	1,289	1,421	1,559	1,511	1,442	1,292	1,151	1,043
Critical (15%)	568	576	616	812	854	934	978	944	918	817	679	600

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,850	1,850	1,900	2,000	2,100	2,300	2,351	2,314	2,243	2,130	1,975
20%	1,816	1,843	1,850	1,900	2,000	2,100	2,270	2,281	2,205	2,094	1,995	1,870
30%	1,572	1,610	1,707	1,789	1,989	2,096	2,232	2,189	2,086	1,957	1,784	1,617
40%	1,421	1,455	1,595	1,717	1,854	2,032	2,167	2,097	2,003	1,791	1,602	1,454
50%	1,298	1,309	1,436	1,595	1,704	1,823	1,985	1,891	1,780	1,647	1,452	1,328
60%	1,196	1,223	1,300	1,315	1,521	1,707	1,814	1,811	1,679	1,503	1,351	1,247
70%	1,112	1,132	1,211	1,240	1,378	1,478	1,613	1,621	1,574	1,412	1,231	1,118
80%	939	978	989	1,046	1,154	1,315	1,487	1,461	1,365	1,216	1,054	959
90%	689	699	732	763	811	915	1,068	1,045	1,013	913	788	691
Long Term												
Full Simulation Period ^d	1,287	1,306	1,369	1,444	1,568	1,692	1,837	1,813	1,745	1,613	1,462	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,716	1,735	1,754	1,777	1,946	2,066	2,237	2,261	2,203	2,089	1,951	1,812
Above Normal (16%)	1,485	1,506	1,546	1,545	1,739	1,922	2,108	2,082	1,984	1,846	1,674	1,526
Below Normal (13%)	1,205	1,210	1,286	1,556	1,642	1,731	1,888	1,811	1,715	1,543	1,366	1,242
Dry (24%)	1,058	1,099	1,240	1,246	1,339	1,472	1,608	1,559	1,492	1,346	1,192	1,083
Critical (15%)	596	592	632	838	880	961	1,010	974	945	841	709	630

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	17	0	0	0	0	0	-3	15	-5	3	55
20%	40	94	45	29	0	0	0	0	26	43	25	16
30%	66	66	54	40	44	3	11	26	26	59	-5	22
40%	11	48	66	50	90	34	27	27	59	5	-16	-10
50%	44	47	56	83	29	42	75	32	5	5	-16	-10
60%	25	42	36	-7	1	43	18	93	29	5	28	44
70%	58	68	63	47	101	61	54	30	86	21	-5	20
80%	59	57	7	44	31	61	82	96	81	91	46	47
90%	35	47	74	76	-19	-10	63	68	88	60	34	19
Long Term												
Full Simulation Period ^d	30	43	43	38	34	29	30	29	26	23	18	29
Water Year Types ^{b,c}												
Wet (32%)	26	60	63	16	15	7	8	7	4	2	-2	24
Above Normal (16%)	19	54	51	44	27	24	24	24	12	3	1	-1
Below Normal (13%)	46	37	36	71	69	51	51	49	47	35	34	54
Dry (24%)	35	33	33	51	50	50	49	48	50	54	42	41
Critical (15%)	28	15	16	26	26	27	32	31	27	25	30	31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1-2. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,747	1,758	1,850	1,900	2,000	2,100	2,300	2,289	2,192	2,107	1,975	1,819
20%	1,564	1,597	1,742	1,893	2,000	2,100	2,278	2,191	2,021	1,953	1,801	1,639
30%	1,460	1,478	1,628	1,780	1,968	2,100	2,231	2,056	1,960	1,821	1,689	1,529
40%	1,320	1,352	1,461	1,624	1,814	2,053	2,146	1,986	1,875	1,748	1,572	1,408
50%	1,247	1,255	1,380	1,546	1,687	1,838	1,993	1,862	1,751	1,582	1,410	1,302
60%	1,140	1,163	1,276	1,384	1,625	1,727	1,846	1,756	1,635	1,511	1,364	1,222
70%	999	1,039	1,118	1,242	1,352	1,561	1,730	1,611	1,529	1,310	1,126	1,024
80%	880	922	975	1,045	1,144	1,268	1,428	1,331	1,259	1,152	1,032	939
90%	694	687	765	891	981	1,048	1,114	1,064	1,030	939	816	722
Long Term												
Full Simulation Period ^d	1,227	1,240	1,334	1,443	1,589	1,725	1,861	1,773	1,679	1,556	1,411	1,283
Water Year Types ^{b,c}												
Wet (32%)	1,587	1,579	1,642	1,775	1,961	2,089	2,246	2,194	2,080	1,973	1,837	1,683
Above Normal (16%)	1,380	1,386	1,442	1,526	1,739	1,935	2,116	1,984	1,867	1,756	1,601	1,442
Below Normal (13%)	1,186	1,203	1,312	1,545	1,659	1,752	1,894	1,758	1,657	1,501	1,336	1,216
Dry (24%)	1,040	1,084	1,249	1,240	1,364	1,523	1,658	1,556	1,471	1,329	1,180	1,070
Critical (15%)	627	640	707	882	933	1,021	1,061	1,011	974	866	736	659

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,849	1,850	1,900	2,000	2,100	2,300	2,291	2,189	2,099	1,958	1,889
20%	1,606	1,704	1,825	1,900	2,000	2,100	2,277	2,191	2,041	1,950	1,783	1,648
30%	1,458	1,506	1,671	1,860	1,995	2,100	2,249	2,091	1,956	1,812	1,650	1,511
40%	1,356	1,413	1,560	1,716	1,904	2,079	2,190	2,012	1,867	1,707	1,527	1,403
50%	1,279	1,294	1,396	1,622	1,783	1,937	2,048	1,916	1,790	1,626	1,438	1,331
60%	1,212	1,223	1,333	1,435	1,620	1,748	1,910	1,803	1,690	1,530	1,384	1,262
70%	1,078	1,120	1,235	1,311	1,447	1,614	1,764	1,648	1,557	1,406	1,218	1,111
80%	970	1,005	1,006	1,105	1,193	1,389	1,585	1,473	1,413	1,280	1,108	1,000
90%	724	750	806	889	989	1,093	1,152	1,080	1,050	963	845	754
Long Term												
Full Simulation Period ^d	1,268	1,295	1,382	1,490	1,630	1,762	1,898	1,809	1,708	1,577	1,426	1,312
Water Year Types ^{b,c}												
Wet (32%)	1,637	1,663	1,707	1,802	1,982	2,099	2,254	2,201	2,083	1,970	1,831	1,707
Above Normal (16%)	1,406	1,442	1,501	1,585	1,776	1,971	2,151	2,019	1,890	1,740	1,570	1,443
Below Normal (13%)	1,222	1,235	1,343	1,604	1,718	1,810	1,951	1,805	1,696	1,546	1,374	1,254
Dry (24%)	1,091	1,130	1,292	1,294	1,417	1,577	1,712	1,611	1,522	1,380	1,230	1,121
Critical (15%)	659	670	734	931	986	1,073	1,116	1,064	1,018	904	771	687

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	103	91	0	0	0	0	0	3	-3	-8	-17	70
20%	42	107	83	7	0	0	-1	0	20	-3	-17	9
30%	-2	28	43	80	28	0	18	35	-4	-8	-39	-18
40%	36	61	99	92	91	26	44	26	-8	-41	-45	-5
50%	33	39	16	76	96	100	55	54	39	44	28	29
60%	72	60	56	51	-5	21	64	47	55	20	19	40
70%	79	82	117	70	94	53	34	36	28	96	92	86
80%	90	83	31	59	49	121	157	142	153	128	75	61
90%	30	63	40	-2	9	45	39	16	20	24	28	31
Long Term												
Full Simulation Period ^d	42	55	49	46	41	37	37	35	29	20	16	29
Water Year Types ^{b,c}												
Wet (32%)	49	84	65	27	21	10	7	7	3	-3	-6	24
Above Normal (16%)	26	55	59	59	38	36	35	35	23	-16	-31	1
Below Normal (13%)	36	32	31	58	58	58	57	47	39	45	38	38
Dry (24%)	51	47	43	54	53	54	54	54	52	50	50	50
Critical (15%)	31	29	28	49	53	52	55	54	44	38	35	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-3. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,833	1,850	1,900	2,000	2,100	2,300	2,354	2,299	2,248	2,127	1,920
20%	1,775	1,749	1,805	1,871	2,000	2,100	2,270	2,281	2,212	2,093	1,958	1,854
30%	1,506	1,545	1,653	1,749	1,945	2,092	2,222	2,163	2,059	1,914	1,759	1,597
40%	1,410	1,407	1,529	1,668	1,764	1,998	2,141	2,070	1,944	1,796	1,580	1,422
50%	1,254	1,262	1,380	1,512	1,674	1,781	1,910	1,859	1,775	1,642	1,469	1,338
60%	1,171	1,182	1,264	1,322	1,520	1,663	1,796	1,718	1,650	1,498	1,323	1,203
70%	1,053	1,063	1,148	1,193	1,277	1,417	1,559	1,591	1,488	1,390	1,236	1,098
80%	880	921	982	1,002	1,123	1,254	1,405	1,365	1,284	1,125	1,008	911
90%	654	652	657	687	830	925	1,005	977	925	853	754	672
Long Term												
Full Simulation Period ^d	1,257	1,263	1,325	1,406	1,534	1,663	1,807	1,784	1,720	1,591	1,443	1,310
Water Year Types ^{b,c}												
Wet (32%)	1,690	1,675	1,691	1,761	1,931	2,059	2,229	2,254	2,200	2,087	1,954	1,787
Above Normal (16%)	1,465	1,452	1,494	1,501	1,712	1,898	2,084	2,058	1,971	1,842	1,673	1,527
Below Normal (13%)	1,159	1,173	1,250	1,485	1,573	1,680	1,837	1,762	1,668	1,508	1,333	1,189
Dry (24%)	1,024	1,065	1,208	1,195	1,289	1,421	1,559	1,511	1,442	1,292	1,151	1,043
Critical (15%)	568	576	616	812	854	934	978	944	918	817	679	600

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,747	1,758	1,850	1,900	2,000	2,100	2,300	2,289	2,192	2,107	1,975	1,819
20%	1,564	1,597	1,742	1,893	2,000	2,100	2,278	2,191	2,021	1,953	1,801	1,639
30%	1,460	1,478	1,628	1,780	1,968	2,100	2,231	2,056	1,960	1,821	1,689	1,529
40%	1,320	1,352	1,461	1,624	1,814	2,053	2,146	1,986	1,875	1,748	1,572	1,408
50%	1,247	1,255	1,380	1,546	1,687	1,838	1,993	1,862	1,751	1,582	1,410	1,302
60%	1,140	1,163	1,276	1,384	1,625	1,727	1,846	1,756	1,635	1,511	1,364	1,222
70%	999	1,039	1,118	1,242	1,352	1,561	1,730	1,611	1,529	1,310	1,126	1,024
80%	880	922	975	1,045	1,144	1,268	1,428	1,331	1,259	1,152	1,032	939
90%	694	687	765	891	981	1,048	1,114	1,064	1,030	939	816	722
Long Term												
Full Simulation Period ^d	1,227	1,240	1,334	1,443	1,589	1,725	1,861	1,773	1,679	1,556	1,411	1,283
Water Year Types ^{b,c}												
Wet (32%)	1,587	1,579	1,642	1,775	1,961	2,089	2,246	2,194	2,080	1,973	1,837	1,683
Above Normal (16%)	1,380	1,386	1,442	1,526	1,739	1,935	2,116	1,984	1,867	1,756	1,601	1,442
Below Normal (13%)	1,186	1,203	1,312	1,545	1,659	1,752	1,894	1,758	1,657	1,501	1,336	1,216
Dry (24%)	1,040	1,084	1,249	1,240	1,364	1,523	1,658	1,556	1,471	1,329	1,180	1,070
Critical (15%)	627	640	707	882	933	1,021	1,061	1,011	974	866	736	659

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-103	-76	0	0	0	0	0	-65	-107	-141	-152	-101
20%	-211	-153	-63	22	0	0	8	-90	-191	-140	-157	-214
30%	-45	-66	-25	31	23	8	9	-107	-99	-93	-70	-68
40%	-89	-55	-68	-43	49	55	6	-84	-70	-48	-8	-14
50%	-7	-7	-1	34	12	56	83	3	-24	-60	-59	-36
60%	-31	-19	12	62	105	63	51	38	-15	13	41	19
70%	-54	-25	-30	49	75	145	171	20	42	-80	-110	-74
80%	0	1	-7	43	21	14	22	-34	-25	27	24	27
90%	40	34	108	205	151	123	109	87	105	86	62	50
Long Term												
Full Simulation Period ^d	-30	-23	8	38	55	62	54	-10	-41	-34	-33	-28
Water Year Types ^{b,c}												
Wet (32%)	-103	-96	-48	14	30	30	17	-60	-120	-114	-117	-105
Above Normal (16%)	-85	-66	-52	25	27	37	32	-74	-104	-87	-72	-85
Below Normal (13%)	27	30	62	60	86	72	57	-4	-11	-7	3	27
Dry (24%)	16	18	42	45	75	102	99	45	29	38	29	27
Critical (15%)	59	64	90	69	79	87	83	67	56	49	57	59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. Trinity Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,850	1,850	1,900	2,000	2,100	2,300	2,351	2,314	2,243	2,130	1,975
20%	1,816	1,843	1,850	1,900	2,000	2,100	2,270	2,281	2,205	2,094	1,995	1,870
30%	1,572	1,610	1,707	1,789	1,989	2,096	2,232	2,189	2,086	1,957	1,784	1,617
40%	1,421	1,455	1,595	1,717	1,854	2,032	2,167	2,097	2,003	1,791	1,602	1,454
50%	1,298	1,309	1,436	1,595	1,704	1,823	1,985	1,891	1,780	1,647	1,452	1,328
60%	1,196	1,223	1,300	1,315	1,521	1,707	1,814	1,811	1,679	1,503	1,351	1,247
70%	1,112	1,132	1,211	1,240	1,378	1,478	1,613	1,621	1,574	1,412	1,231	1,118
80%	939	978	989	1,046	1,154	1,315	1,487	1,461	1,365	1,216	1,054	959
90%	689	699	732	763	811	915	1,068	1,045	1,013	913	788	691
Long Term												
Full Simulation Period ^d	1,287	1,306	1,369	1,444	1,568	1,692	1,837	1,813	1,745	1,613	1,462	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,716	1,735	1,754	1,777	1,946	2,066	2,237	2,261	2,203	2,089	1,951	1,812
Above Normal (16%)	1,485	1,506	1,546	1,545	1,739	1,922	2,108	2,082	1,984	1,846	1,674	1,526
Below Normal (13%)	1,205	1,210	1,286	1,556	1,642	1,731	1,888	1,811	1,715	1,543	1,366	1,242
Dry (24%)	1,058	1,099	1,240	1,246	1,339	1,472	1,608	1,559	1,492	1,346	1,192	1,083
Critical (15%)	596	592	632	838	880	961	1,010	974	945	841	709	630

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,849	1,850	1,900	2,000	2,100	2,300	2,291	2,189	2,099	1,958	1,889
20%	1,606	1,704	1,825	1,900	2,000	2,100	2,277	2,191	2,041	1,950	1,783	1,648
30%	1,458	1,506	1,671	1,860	1,995	2,100	2,249	2,091	1,956	1,812	1,650	1,511
40%	1,356	1,413	1,560	1,716	1,904	2,079	2,190	2,012	1,867	1,707	1,527	1,403
50%	1,279	1,294	1,396	1,622	1,783	1,937	2,048	1,916	1,790	1,626	1,438	1,331
60%	1,212	1,223	1,333	1,435	1,620	1,748	1,910	1,803	1,690	1,530	1,384	1,262
70%	1,078	1,120	1,235	1,311	1,447	1,614	1,764	1,648	1,557	1,406	1,218	1,111
80%	970	1,005	1,006	1,105	1,193	1,389	1,585	1,473	1,413	1,280	1,108	1,000
90%	724	750	806	889	989	1,093	1,152	1,080	1,050	963	845	754
Long Term												
Full Simulation Period ^d	1,268	1,295	1,382	1,490	1,630	1,762	1,898	1,809	1,708	1,577	1,426	1,312
Water Year Types ^{b,c}												
Wet (32%)	1,637	1,663	1,707	1,802	1,982	2,099	2,254	2,201	2,083	1,970	1,831	1,707
Above Normal (16%)	1,406	1,442	1,501	1,585	1,776	1,971	2,151	2,019	1,890	1,740	1,570	1,443
Below Normal (13%)	1,222	1,235	1,343	1,604	1,718	1,810	1,951	1,805	1,696	1,546	1,374	1,254
Dry (24%)	1,091	1,130	1,292	1,294	1,417	1,577	1,712	1,611	1,522	1,380	1,230	1,121
Critical (15%)	659	670	734	931	986	1,073	1,116	1,064	1,018	904	771	687

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-1	0	0	0	0	0	-60	-125	-144	-172	-86
20%	-209	-139	-25	0	0	0	7	-90	-165	-144	-212	-221
30%	-114	-104	-36	71	7	4	17	-98	-130	-145	-134	-107
40%	-65	-42	-34	-1	50	47	23	-85	-136	-84	-74	-50
50%	-18	-15	-41	27	79	115	63	24	10	-20	-15	3
60%	16	0	32	120	98	41	96	-8	11	27	32	15
70%	-33	-12	24	71	68	137	150	27	-17	-6	-13	-7
80%	31	27	17	58	39	74	98	12	47	64	53	41
90%	34	50	74	126	178	179	84	36	36	50	57	63
Long Term												
Full Simulation Period ^d	-18	-11	13	46	62	71	61	-4	-37	-37	-36	-27
Water Year Types ^{b,c}												
Wet (32%)	-80	-72	-46	25	36	33	17	-60	-120	-119	-120	-105
Above Normal (16%)	-78	-64	-44	40	37	49	43	-63	-93	-106	-104	-83
Below Normal (13%)	16	25	56	48	76	79	63	-6	-19	3	8	12
Dry (24%)	33	31	52	48	78	105	104	52	30	34	37	37
Critical (15%)	62	78	102	93	106	112	105	90	73	62	62	56

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

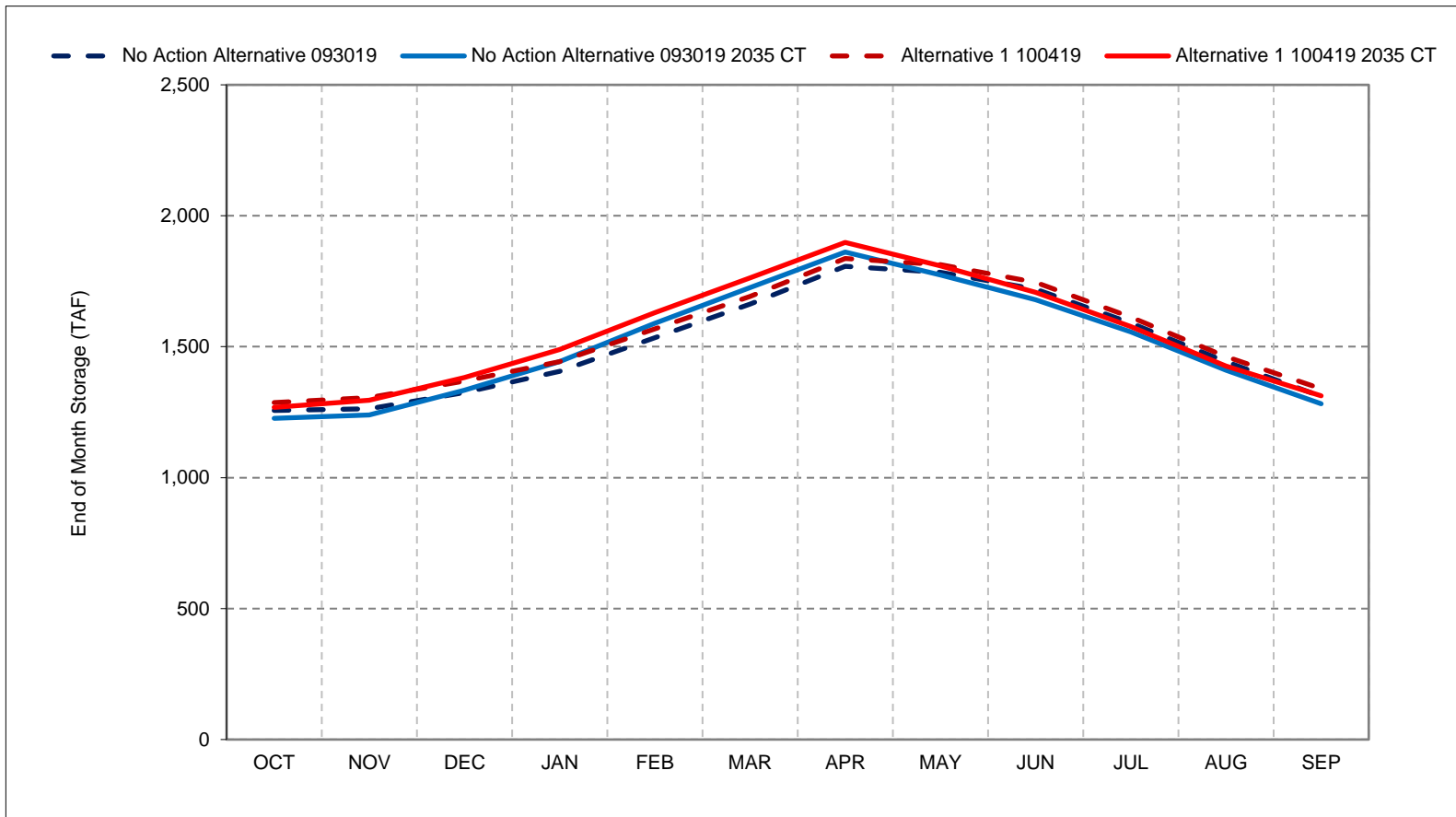
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. Trinity Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

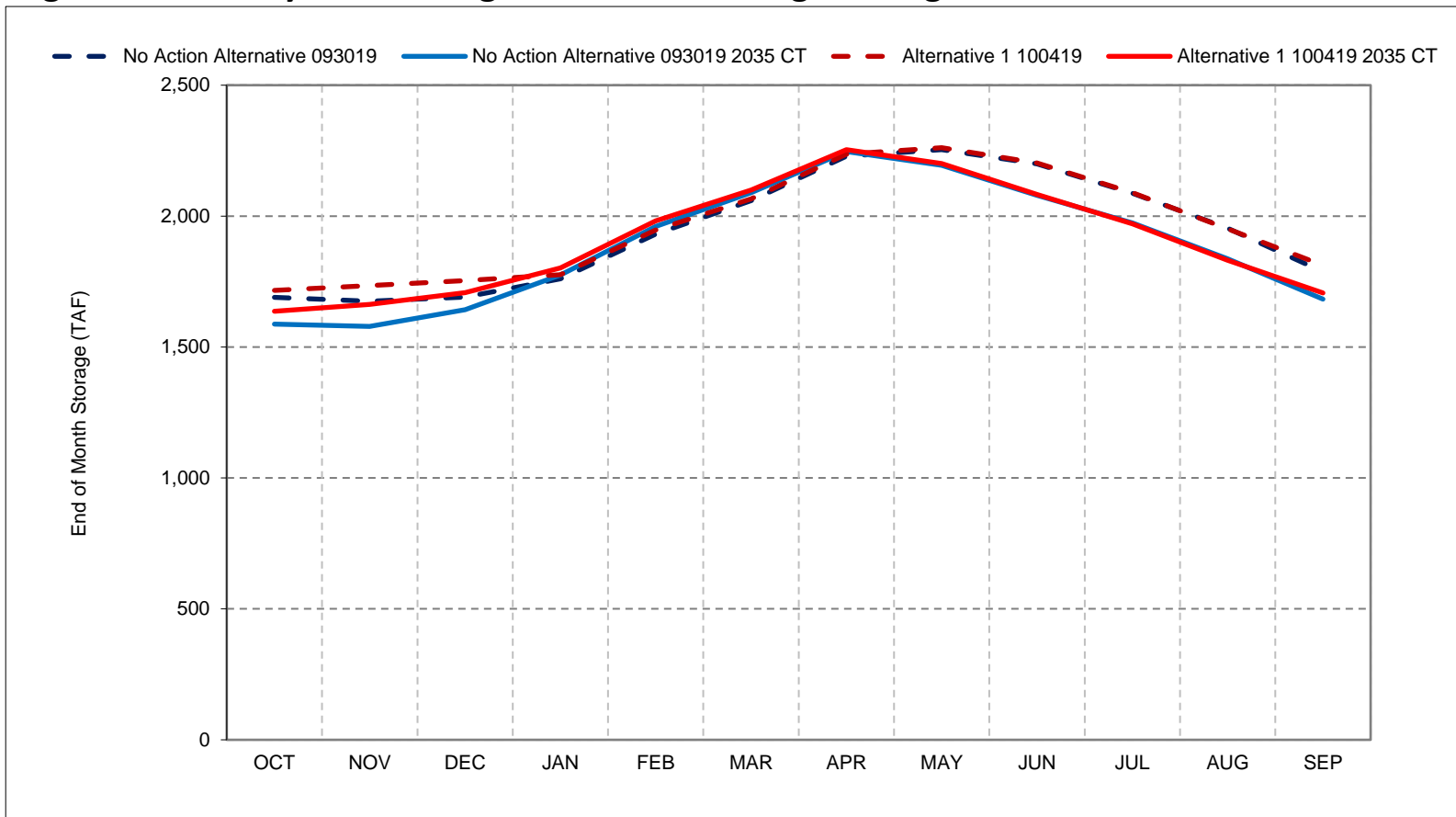
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-2. Trinity Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

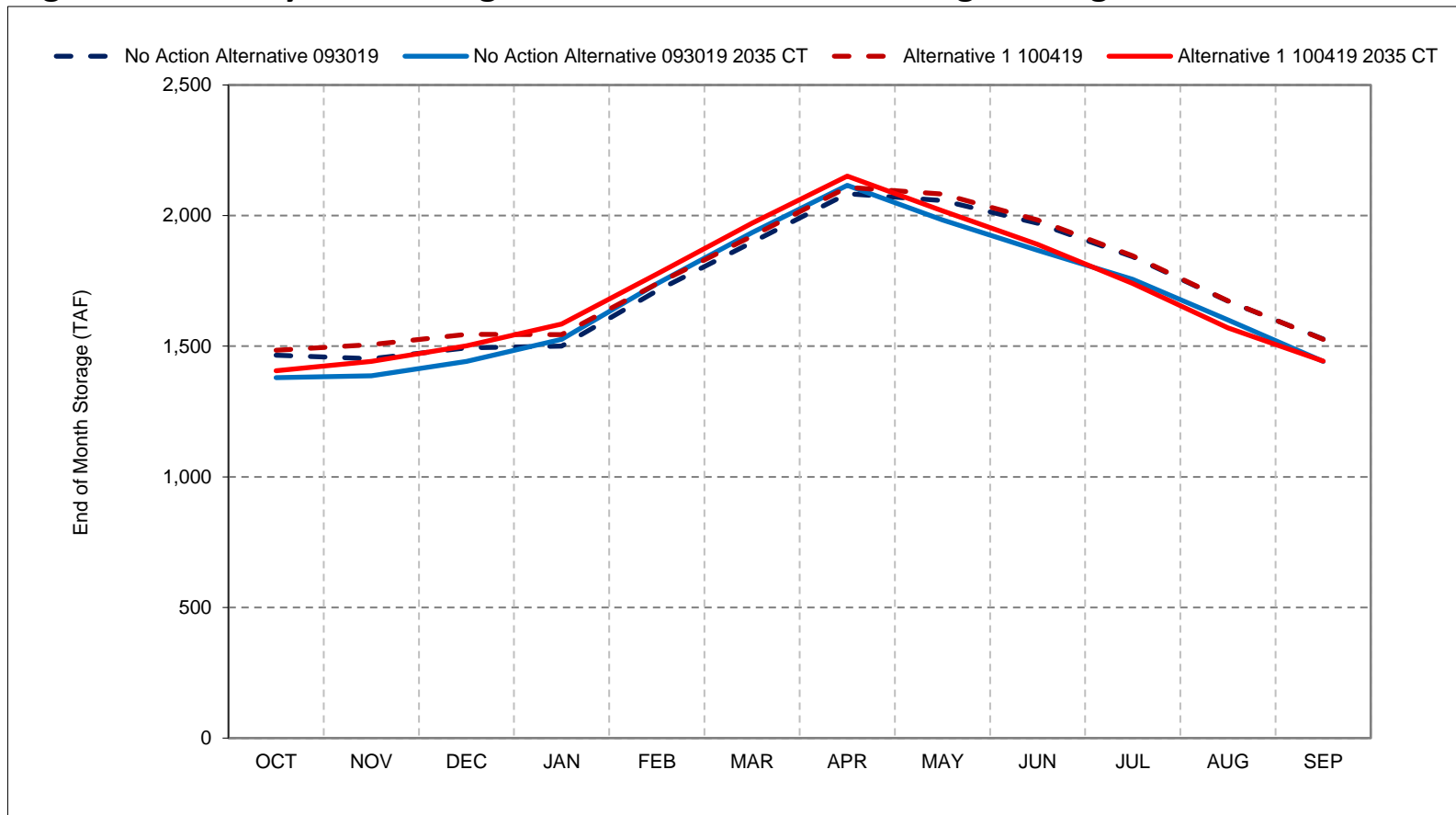
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-3. Trinity Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

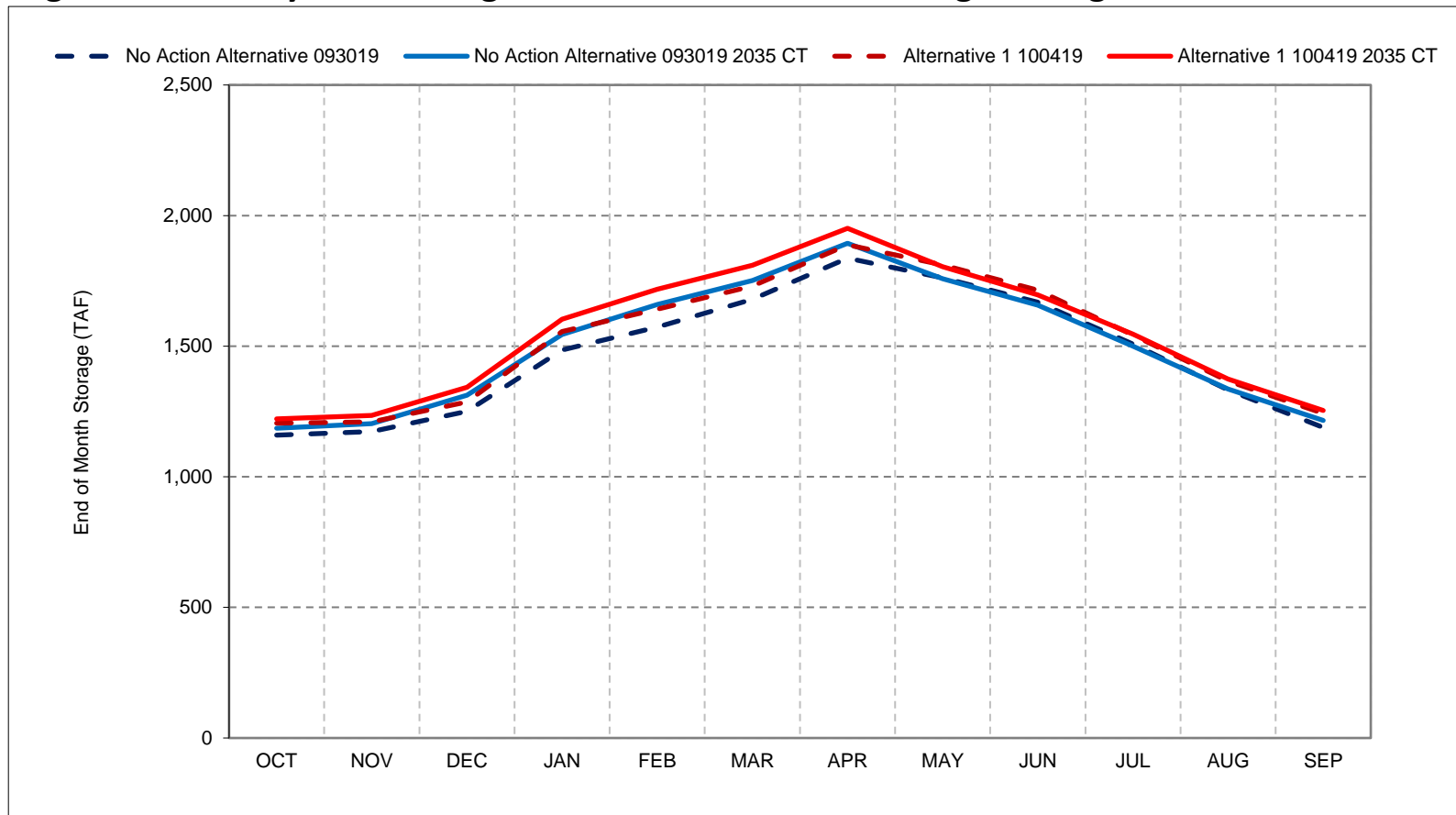
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-4. Trinity Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

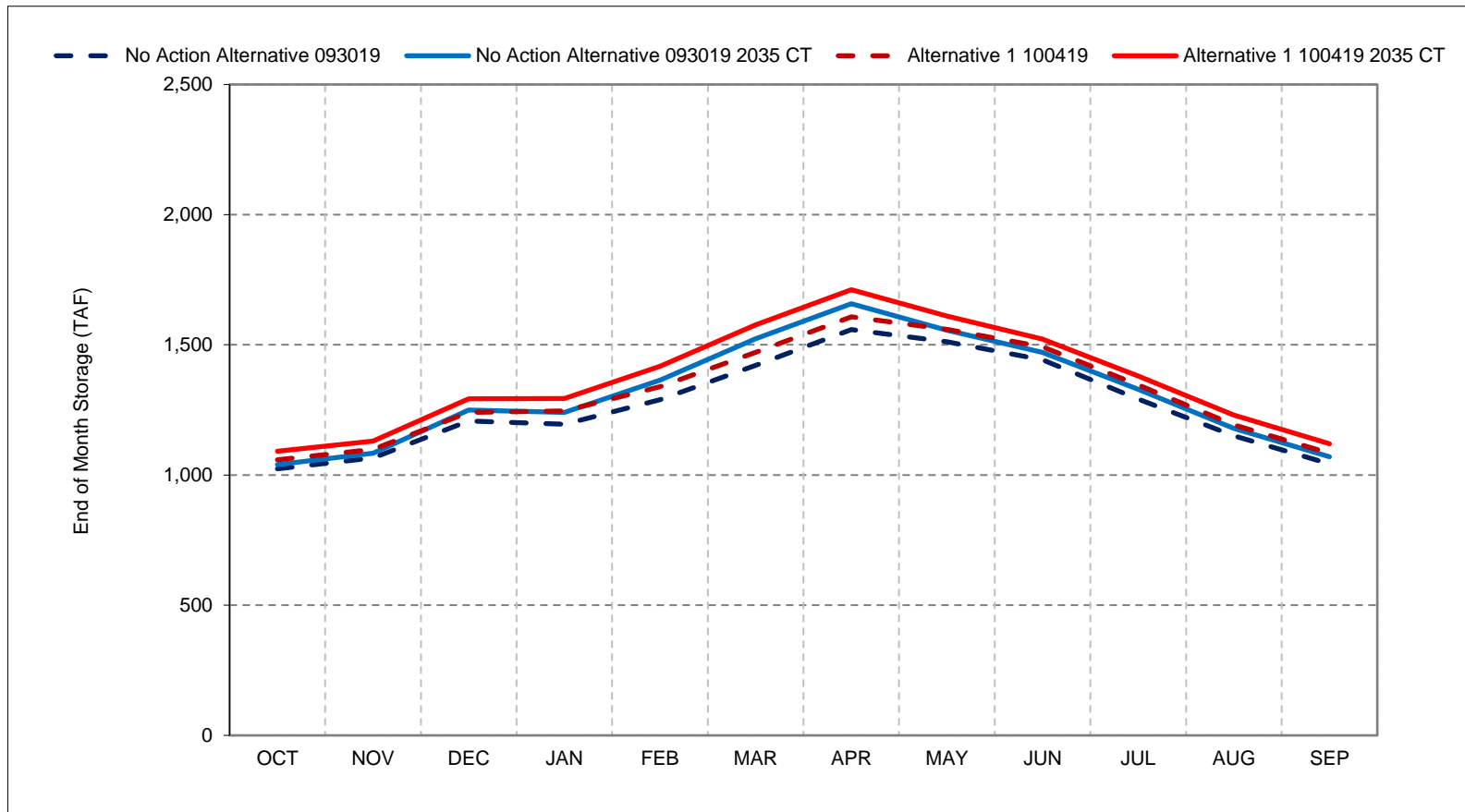
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-5. Trinity Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

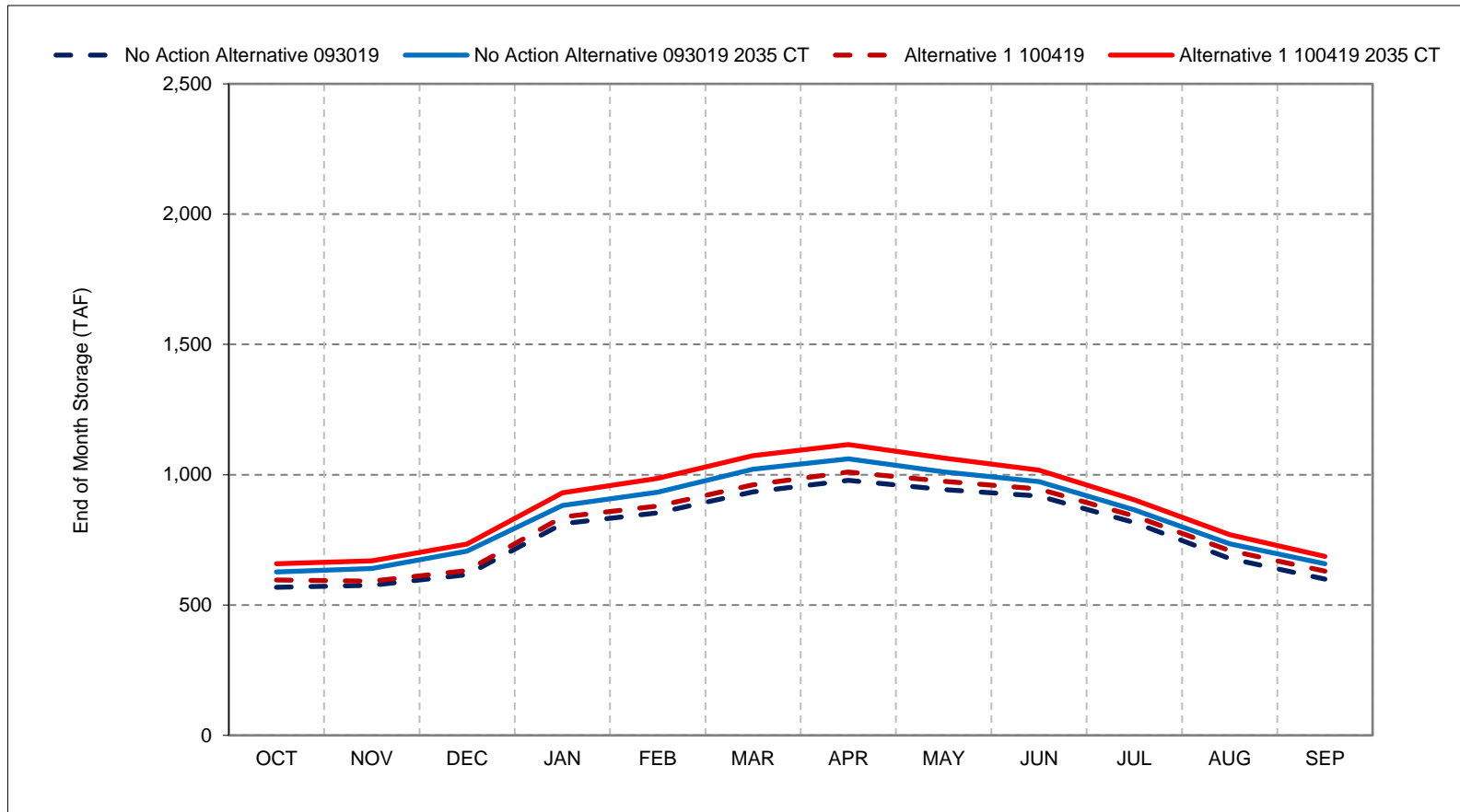
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-6. Trinity Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

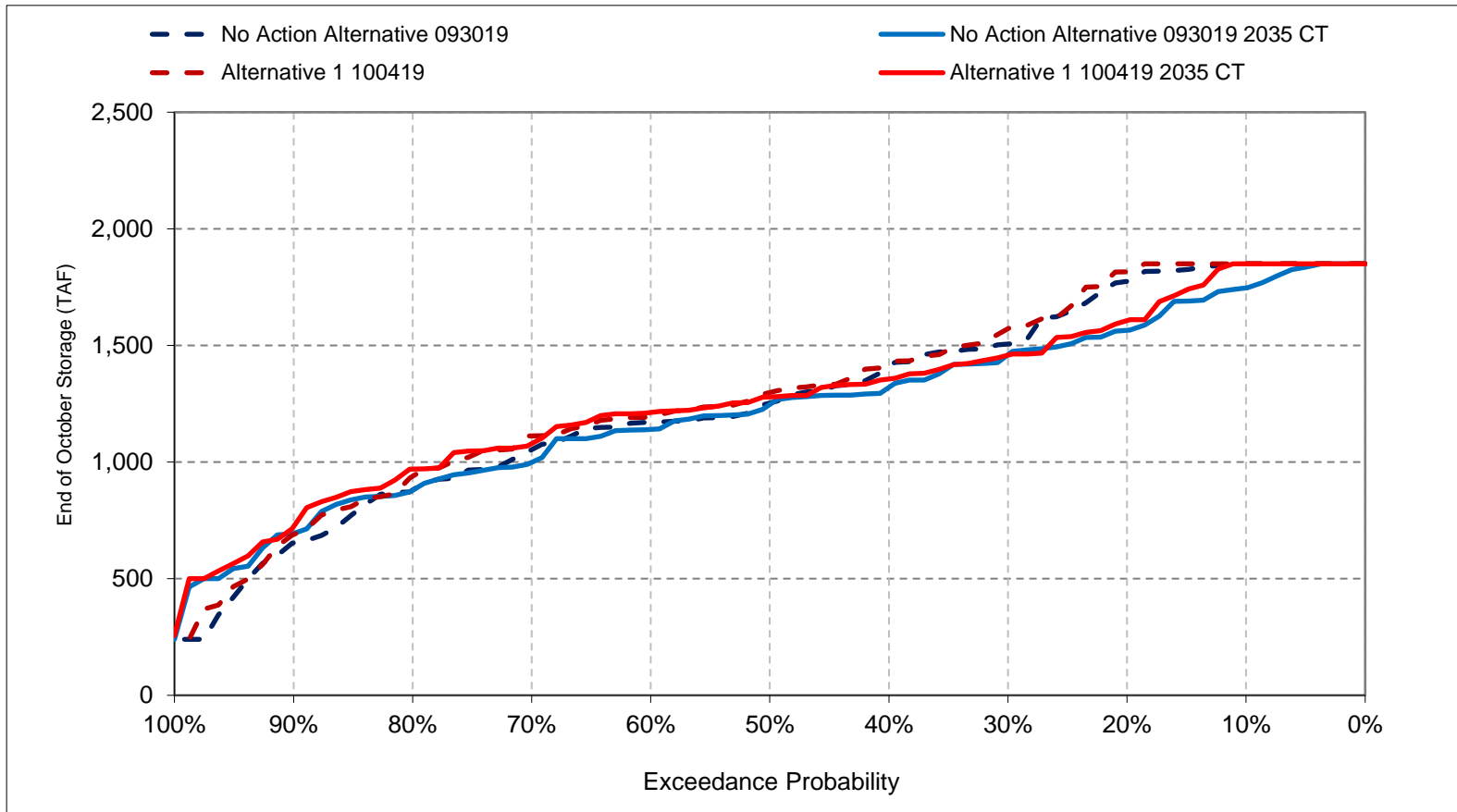
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

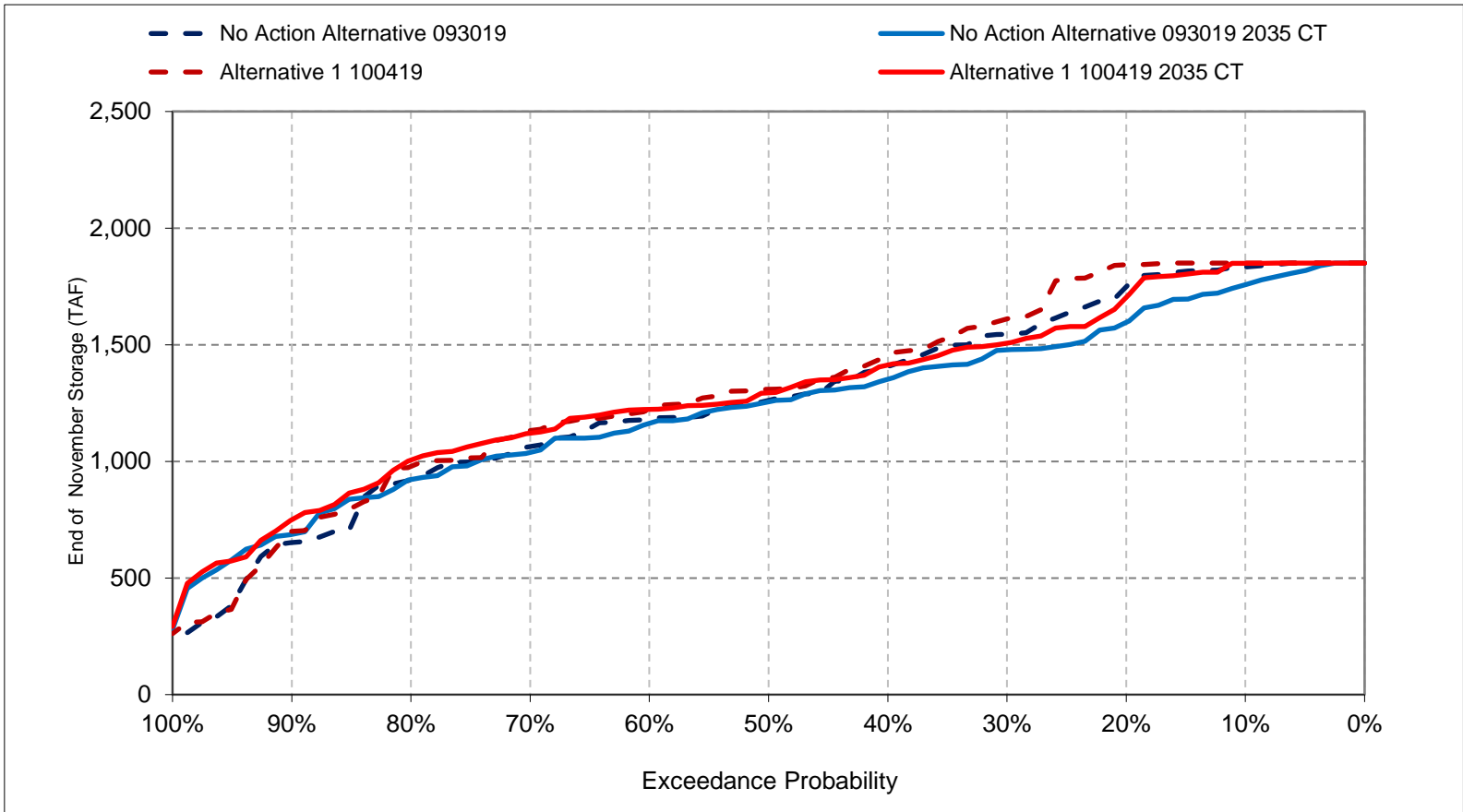
Figure 1-7. Trinity Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

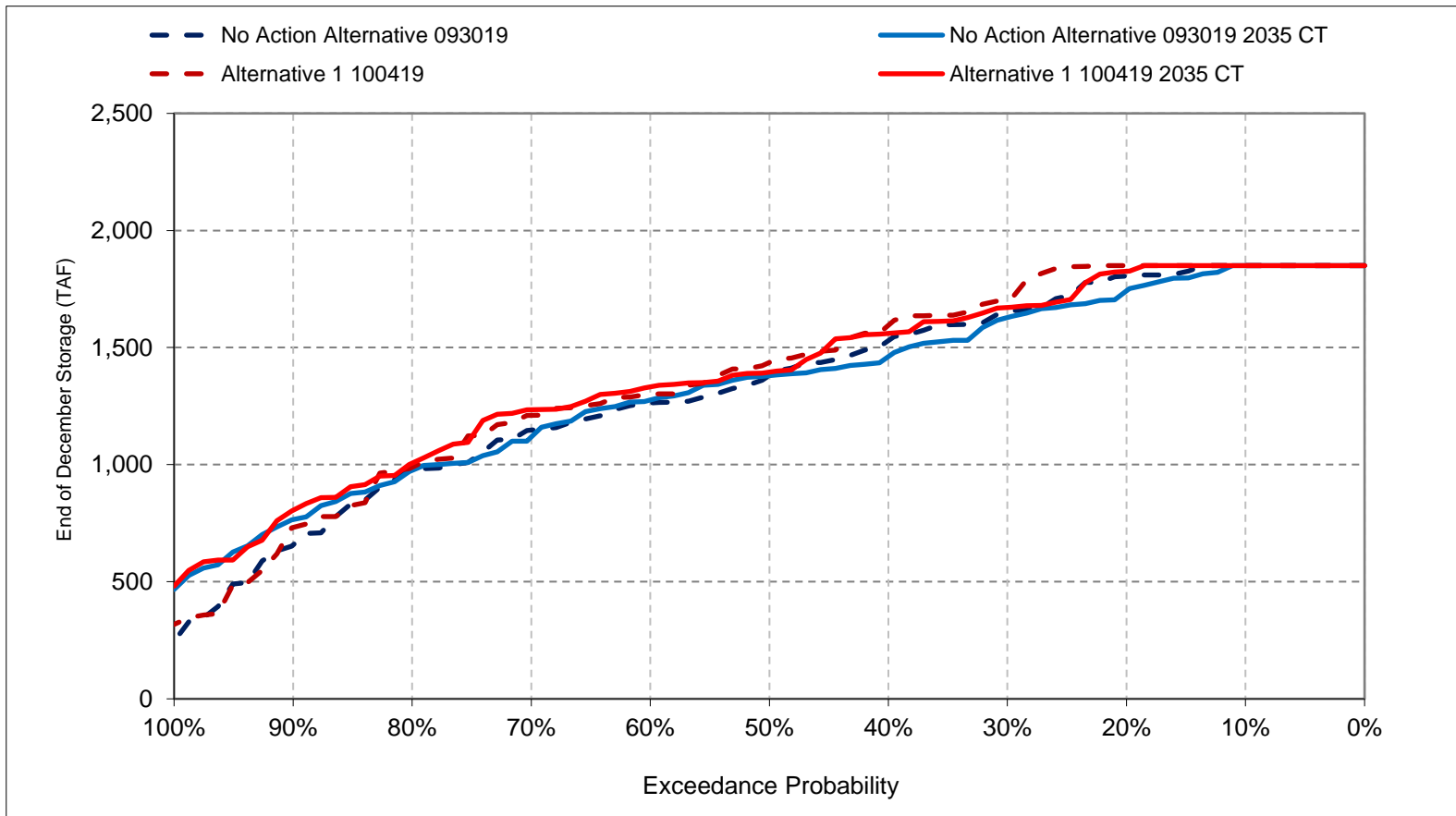
Figure 1-8. Trinity Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

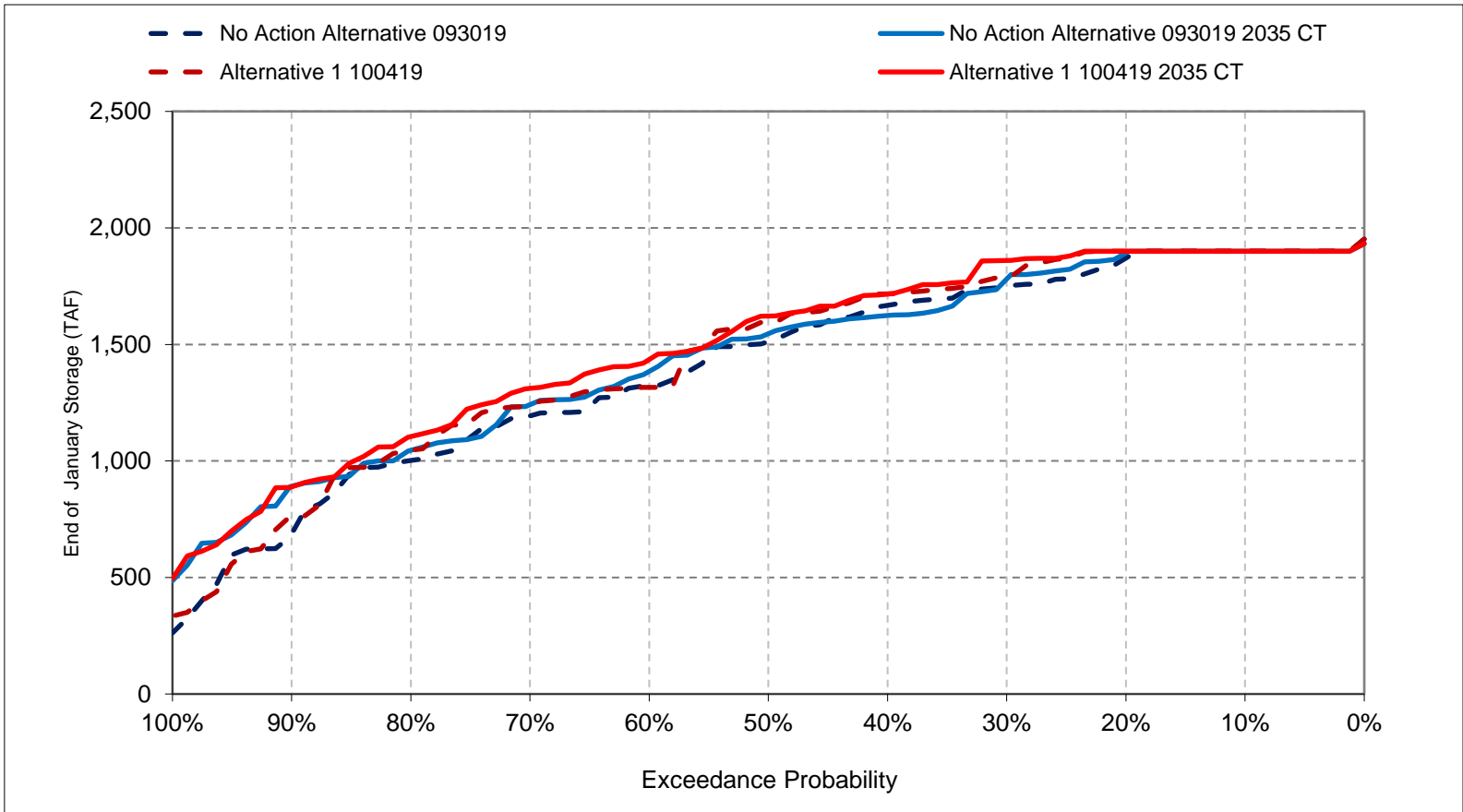
Figure 1-9. Trinity Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

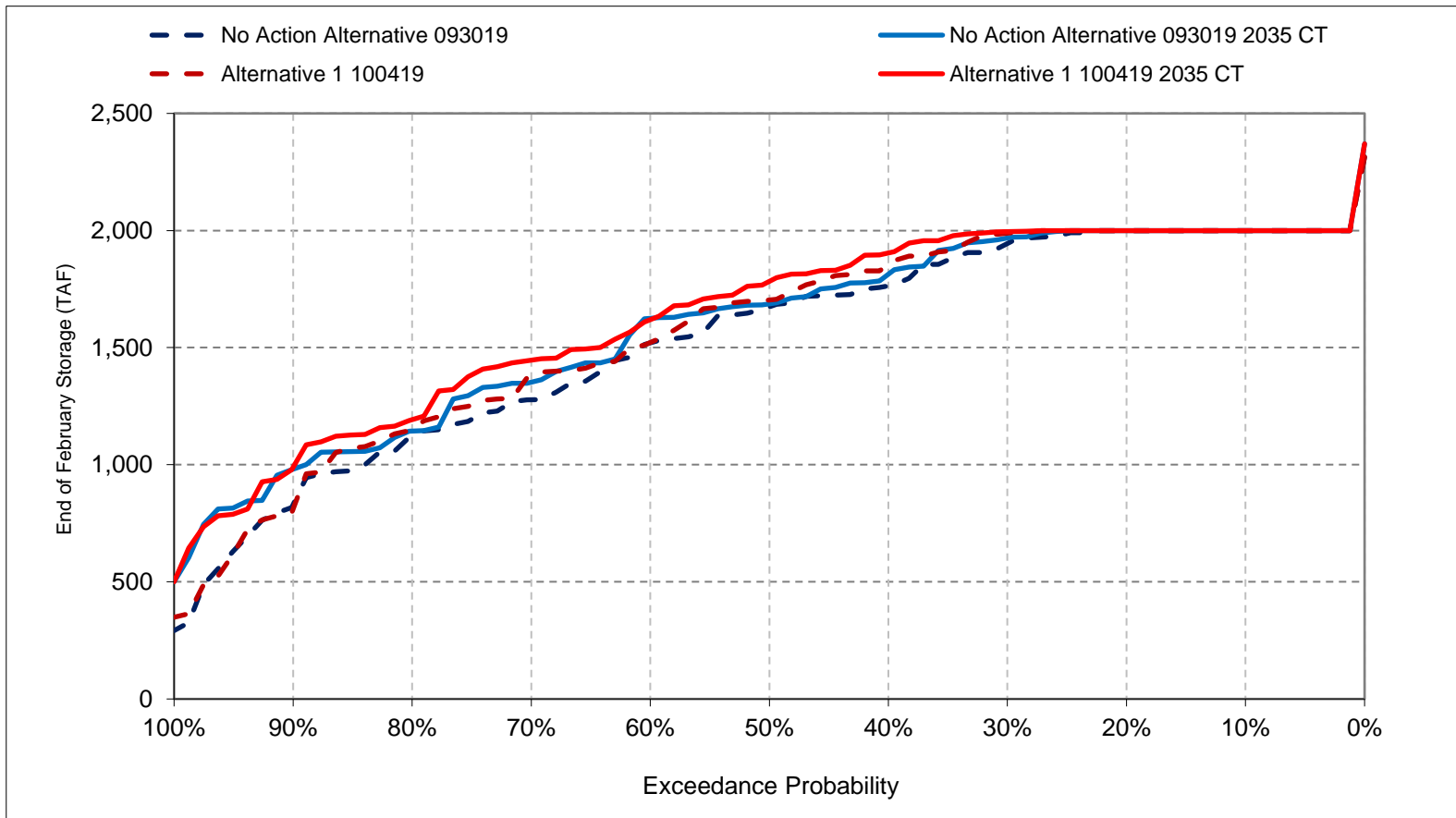
Figure 1-10. Trinity Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

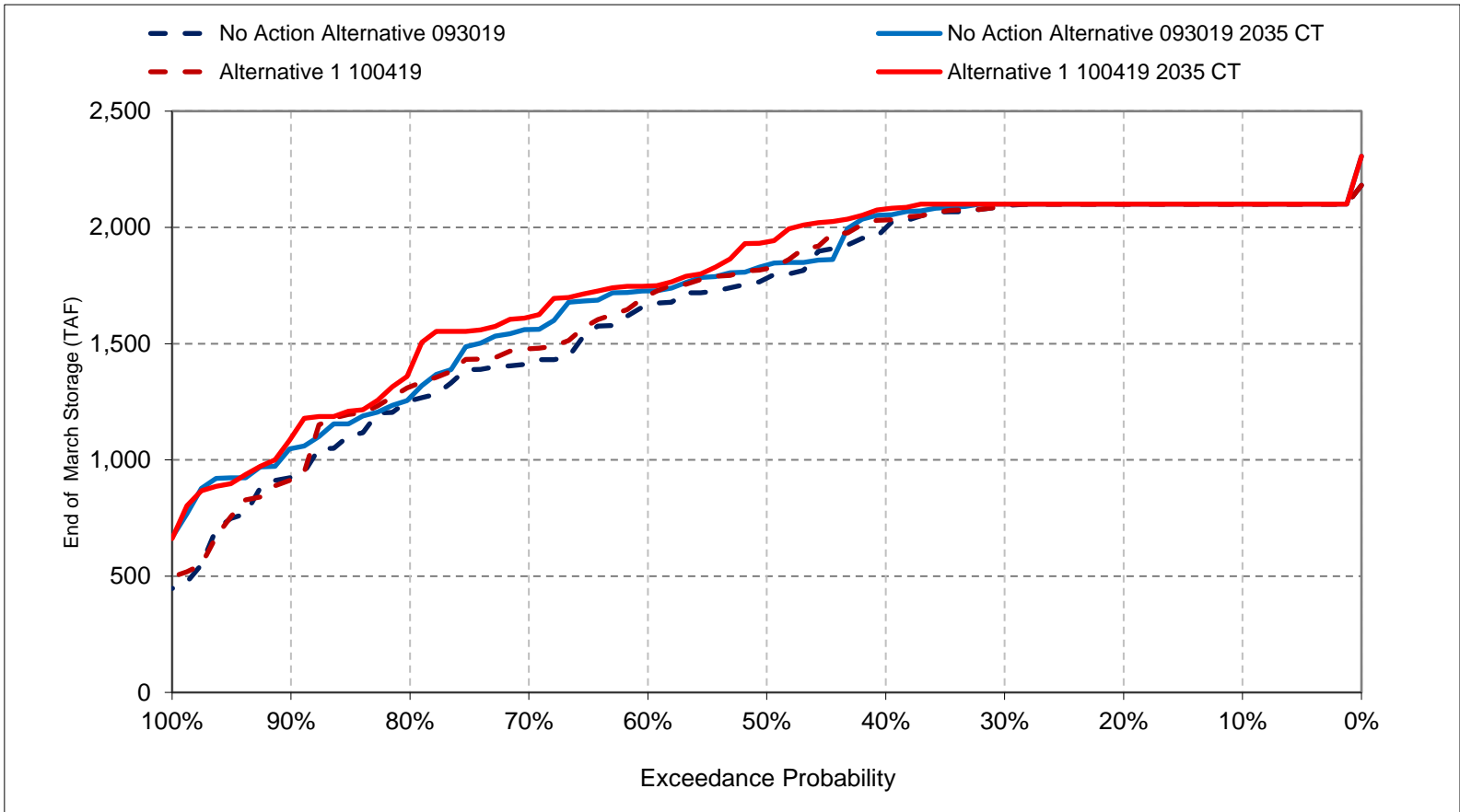
Figure 1-11. Trinity Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

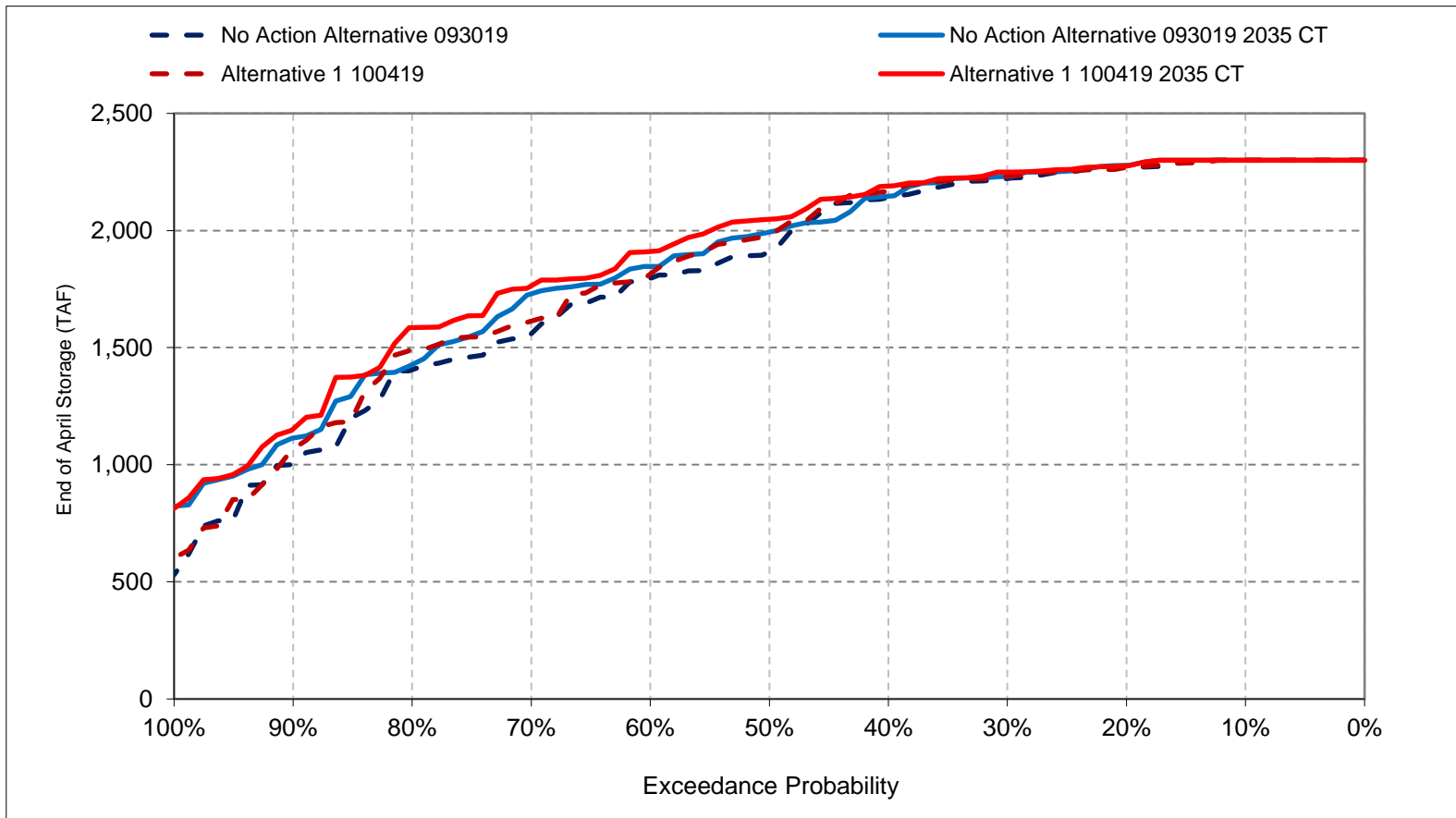
Figure 1-12. Trinity Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

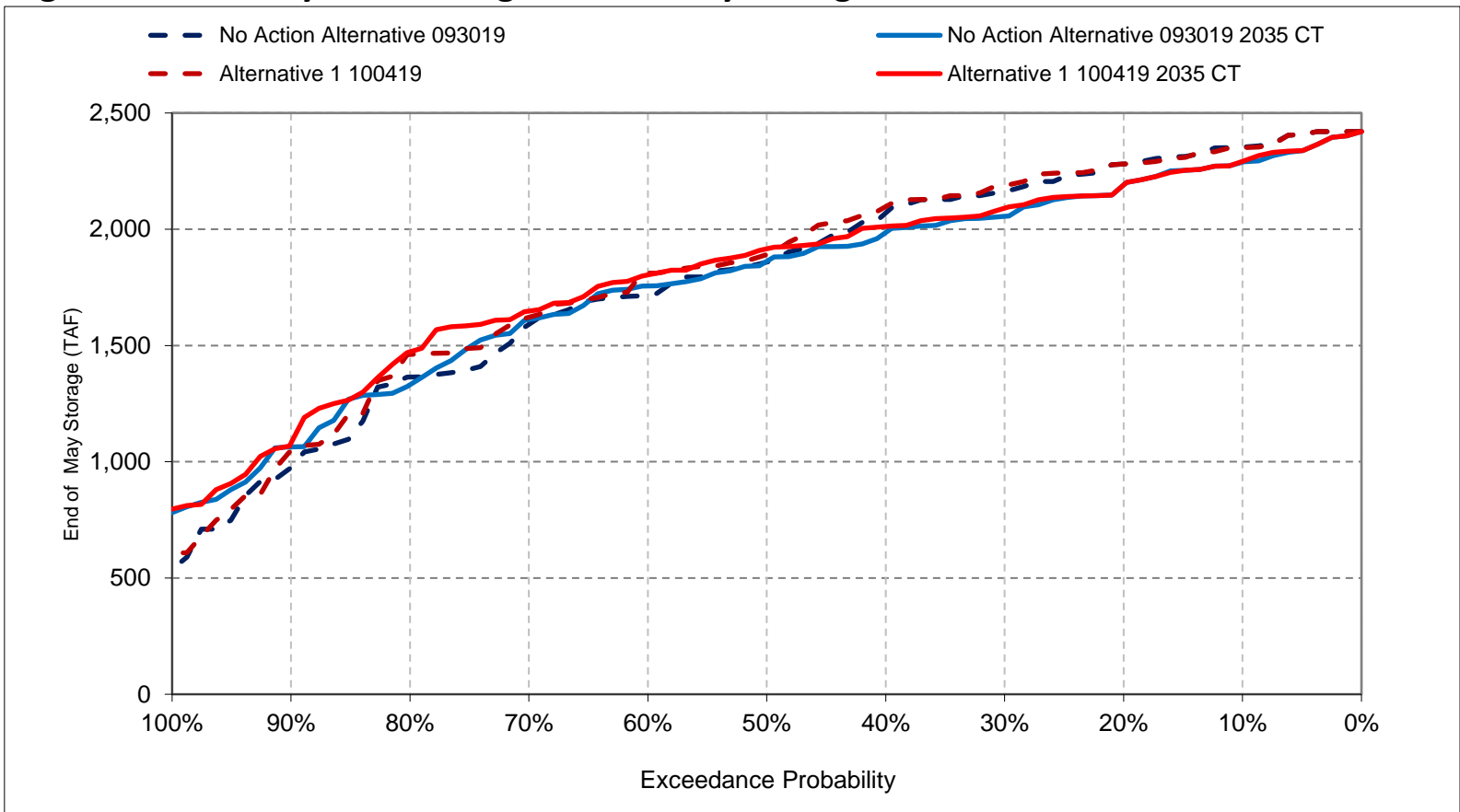
Figure 1-13. Trinity Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

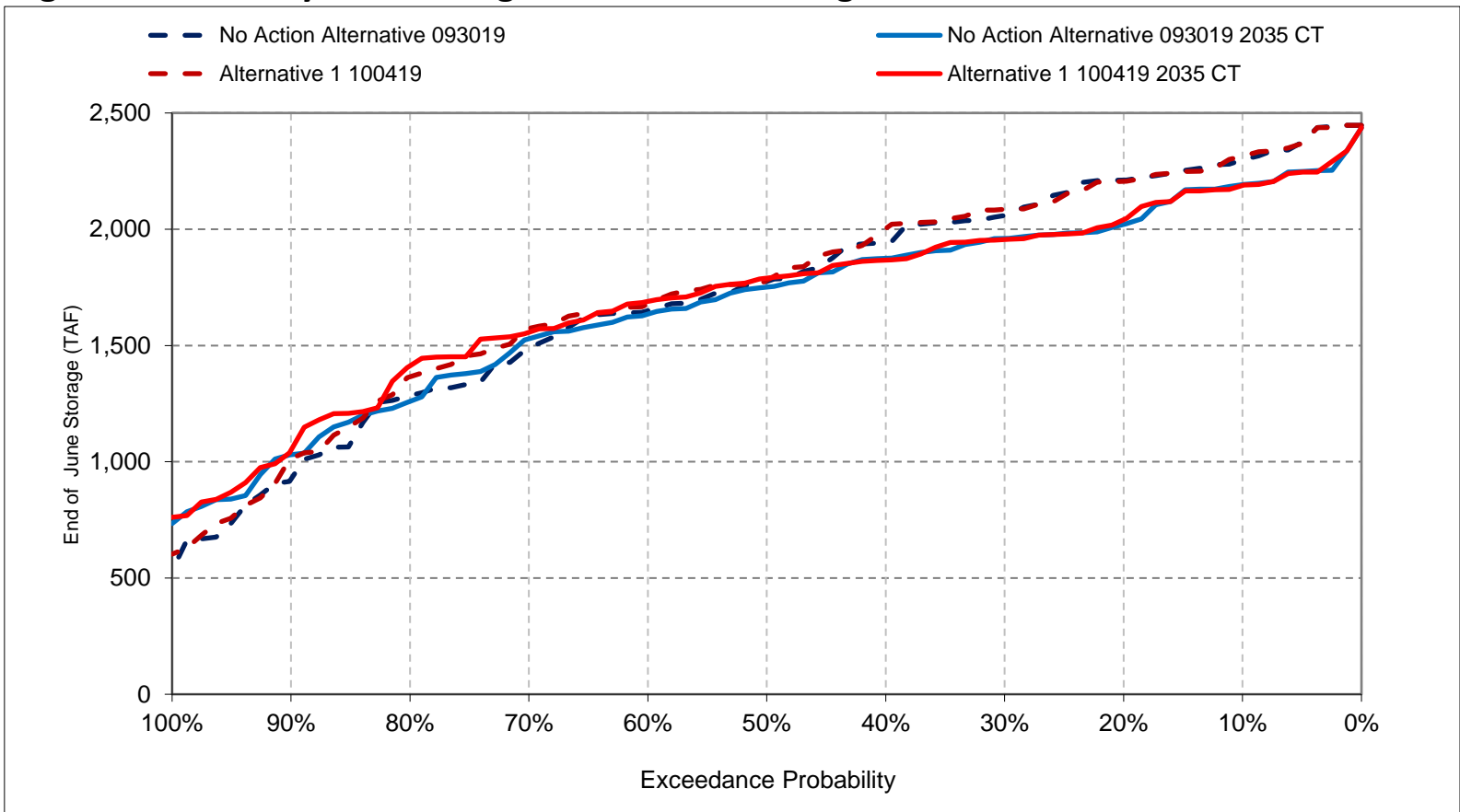
Figure 1-14. Trinity Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

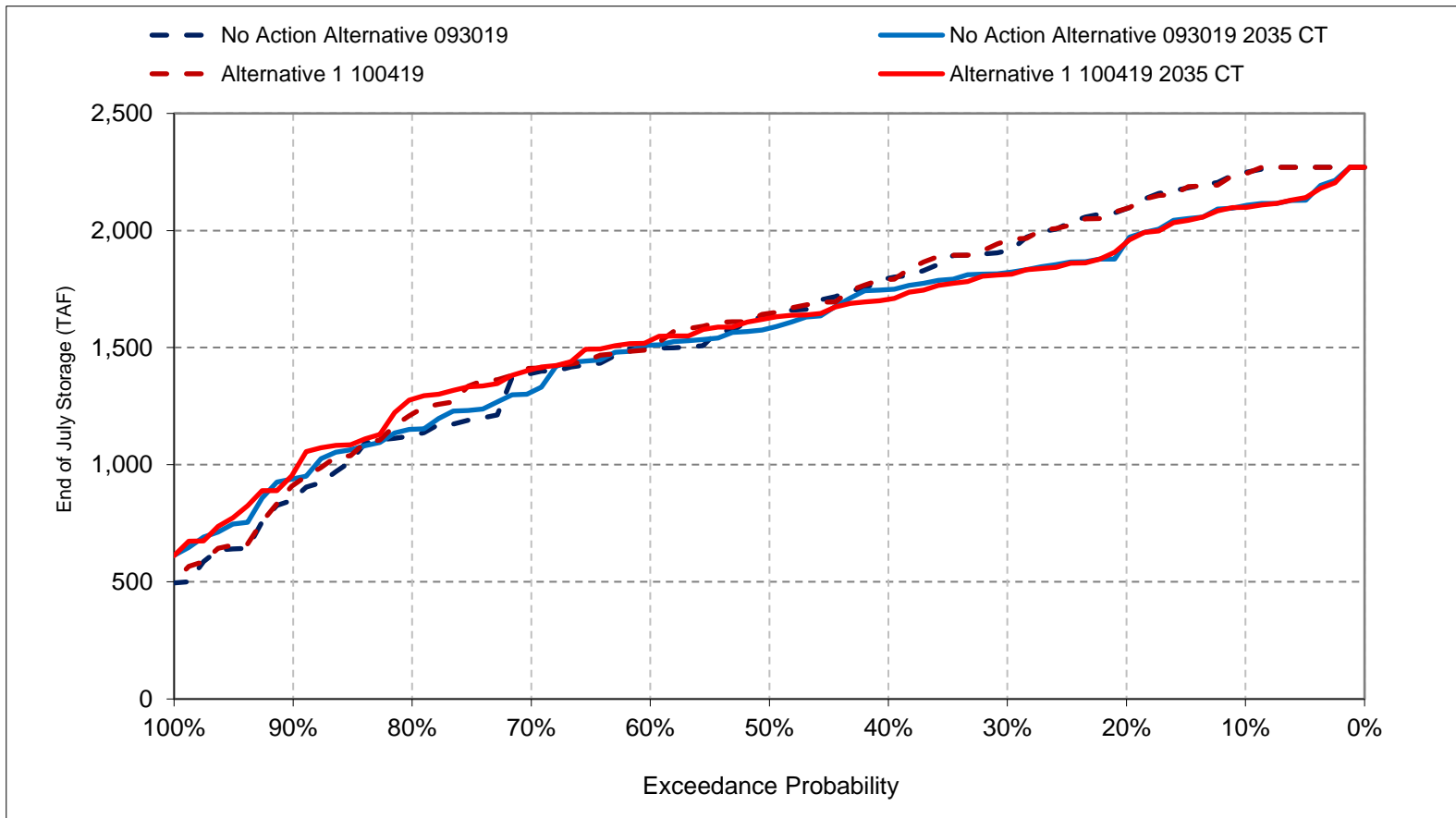
Figure 1-15. Trinity Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

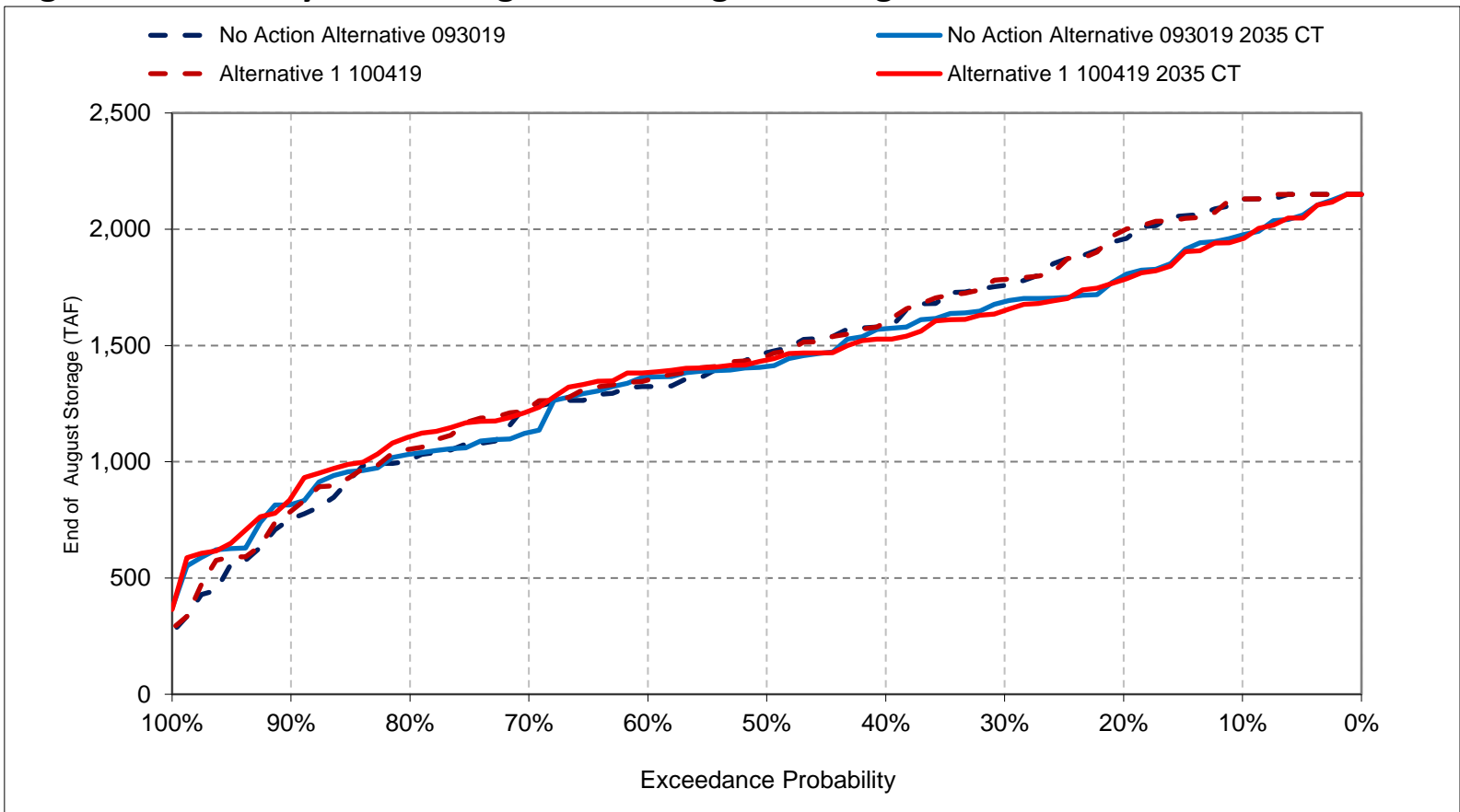
Figure 1-16. Trinity Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

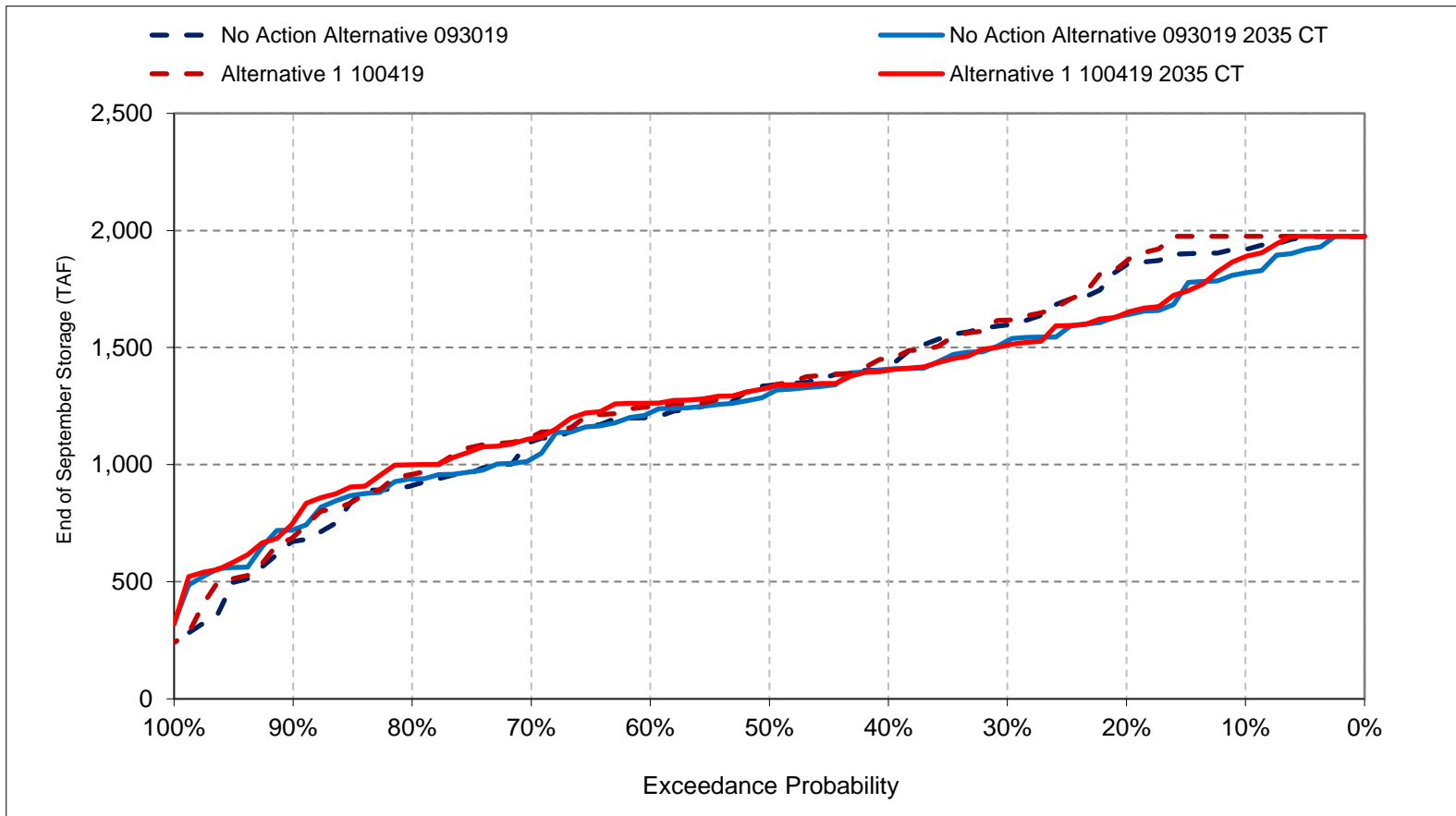
Figure 1-17. Trinity Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-18. Trinity Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-1. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,331	2,332	2,337	2,345	2,350	2,361	2,364	2,361	2,358	2,352	2,338
20%	2,326	2,324	2,328	2,334	2,345	2,350	2,359	2,360	2,356	2,350	2,341	2,333
30%	2,303	2,306	2,316	2,324	2,340	2,350	2,357	2,354	2,348	2,338	2,324	2,311
40%	2,295	2,295	2,305	2,317	2,325	2,344	2,353	2,349	2,340	2,328	2,309	2,296
50%	2,281	2,282	2,292	2,304	2,317	2,326	2,337	2,333	2,326	2,315	2,300	2,289
60%	2,273	2,274	2,282	2,288	2,304	2,316	2,328	2,321	2,315	2,302	2,288	2,276
70%	2,261	2,262	2,271	2,275	2,284	2,296	2,308	2,310	2,302	2,293	2,280	2,266
80%	2,241	2,246	2,253	2,255	2,268	2,281	2,295	2,291	2,284	2,269	2,256	2,245
90%	2,210	2,209	2,210	2,214	2,235	2,246	2,256	2,252	2,246	2,238	2,224	2,212
Long Term												
Full Simulation Period ^d	2,274	2,275	2,281	2,289	2,302	2,313	2,323	2,321	2,317	2,306	2,292	2,280
Water Year Types ^{b,c}												
Wet (32%)	2,319	2,317	2,319	2,325	2,339	2,347	2,357	2,359	2,355	2,348	2,339	2,327
Above Normal (16%)	2,299	2,298	2,302	2,301	2,320	2,335	2,347	2,346	2,340	2,331	2,317	2,305
Below Normal (13%)	2,269	2,270	2,277	2,299	2,307	2,316	2,328	2,323	2,316	2,302	2,286	2,273
Dry (24%)	2,256	2,260	2,273	2,271	2,281	2,293	2,306	2,302	2,296	2,283	2,269	2,258
Critical (15%)	2,183	2,188	2,196	2,223	2,230	2,242	2,249	2,245	2,242	2,229	2,206	2,192

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,364	2,362	2,358	2,352	2,343
20%	2,329	2,332	2,332	2,337	2,345	2,350	2,359	2,360	2,356	2,350	2,345	2,334
30%	2,309	2,312	2,320	2,327	2,344	2,350	2,357	2,355	2,350	2,341	2,327	2,312
40%	2,296	2,299	2,311	2,321	2,333	2,347	2,354	2,350	2,345	2,327	2,311	2,299
50%	2,286	2,286	2,297	2,311	2,320	2,330	2,344	2,336	2,326	2,315	2,299	2,288
60%	2,276	2,278	2,286	2,287	2,304	2,320	2,329	2,329	2,318	2,303	2,290	2,281
70%	2,267	2,269	2,277	2,280	2,292	2,301	2,312	2,313	2,309	2,295	2,279	2,268
80%	2,248	2,252	2,254	2,260	2,271	2,287	2,301	2,299	2,291	2,278	2,261	2,250
90%	2,215	2,216	2,221	2,225	2,232	2,245	2,263	2,260	2,257	2,245	2,229	2,215
Long Term												
Full Simulation Period ^d	2,277	2,279	2,286	2,293	2,305	2,315	2,326	2,324	2,319	2,308	2,294	2,283
Water Year Types ^{b,c}												
Wet (32%)	2,321	2,322	2,324	2,326	2,340	2,348	2,358	2,359	2,355	2,348	2,339	2,329
Above Normal (16%)	2,301	2,303	2,306	2,304	2,322	2,337	2,349	2,347	2,341	2,331	2,317	2,305
Below Normal (13%)	2,274	2,274	2,281	2,305	2,313	2,320	2,332	2,327	2,320	2,305	2,289	2,278
Dry (24%)	2,260	2,264	2,277	2,276	2,285	2,298	2,311	2,307	2,301	2,288	2,274	2,262
Critical (15%)	2,190	2,192	2,200	2,228	2,234	2,246	2,253	2,249	2,246	2,233	2,212	2,198

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1	0	0	0	0	0	0	1	0	0	5
20%	3	8	4	2	0	0	0	0	0	0	3	1
30%	6	6	5	3	4	0	1	1	1	4	2	2
40%	1	4	6	4	8	2	1	1	5	0	2	3
50%	4	4	5	7	2	4	6	3	0	0	-1	-1
60%	2	4	3	-1	0	4	2	8	2	0	2	4
70%	6	7	6	5	9	5	5	3	7	2	-1	2
80%	7	7	1	5	3	6	7	8	7	9	5	5
90%	5	7	11	11	-3	-1	7	8	10	7	5	3
Long Term												
Full Simulation Period ^d	4	4	4	4	3	3	3	3	2	2	2	3
Water Year Types ^{b,c}												
Wet (32%)	2	5	5	1	1	1	1	0	0	0	0	2
Above Normal (16%)	2	5	5	4	2	2	2	2	1	0	0	0
Below Normal (13%)	5	4	3	6	6	4	4	4	4	3	3	5
Dry (24%)	4	4	3	5	5	4	4	4	4	5	4	5
Critical (15%)	7	5	4	5	4	4	4	4	4	4	6	6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1a-2. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,323	2,324	2,332	2,337	2,345	2,350	2,361	2,360	2,355	2,351	2,343	2,330
20%	2,308	2,311	2,323	2,336	2,345	2,350	2,360	2,355	2,346	2,341	2,328	2,314
30%	2,299	2,301	2,313	2,326	2,342	2,350	2,357	2,348	2,342	2,330	2,319	2,305
40%	2,287	2,290	2,299	2,313	2,329	2,348	2,353	2,344	2,334	2,324	2,309	2,295
50%	2,281	2,282	2,292	2,306	2,318	2,331	2,344	2,333	2,324	2,309	2,295	2,286
60%	2,270	2,272	2,284	2,293	2,313	2,322	2,332	2,324	2,314	2,303	2,291	2,278
70%	2,255	2,259	2,268	2,280	2,290	2,308	2,322	2,312	2,305	2,287	2,269	2,258
80%	2,241	2,246	2,252	2,260	2,270	2,283	2,296	2,288	2,282	2,271	2,259	2,248
90%	2,215	2,214	2,225	2,243	2,253	2,261	2,267	2,262	2,258	2,248	2,233	2,219
Long Term												
Full Simulation Period ^d	2,273	2,275	2,284	2,295	2,308	2,319	2,329	2,322	2,315	2,305	2,291	2,279
Water Year Types ^{b,c}												
Wet (32%)	2,310	2,309	2,314	2,326	2,341	2,350	2,358	2,355	2,348	2,341	2,330	2,318
Above Normal (16%)	2,292	2,292	2,297	2,304	2,323	2,338	2,350	2,342	2,333	2,324	2,311	2,297
Below Normal (13%)	2,273	2,275	2,285	2,305	2,316	2,323	2,333	2,324	2,316	2,302	2,287	2,276
Dry (24%)	2,258	2,263	2,278	2,277	2,290	2,304	2,316	2,307	2,300	2,287	2,273	2,261
Critical (15%)	2,200	2,204	2,216	2,237	2,244	2,255	2,260	2,255	2,250	2,237	2,219	2,207

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,361	2,355	2,350	2,341	2,336
20%	2,312	2,320	2,330	2,337	2,345	2,350	2,360	2,355	2,347	2,341	2,327	2,315
30%	2,299	2,303	2,317	2,333	2,345	2,350	2,358	2,350	2,341	2,329	2,315	2,303
40%	2,290	2,295	2,308	2,321	2,337	2,349	2,355	2,346	2,334	2,320	2,305	2,294
50%	2,284	2,285	2,294	2,313	2,327	2,340	2,348	2,338	2,327	2,313	2,297	2,288
60%	2,277	2,278	2,288	2,297	2,313	2,324	2,337	2,328	2,319	2,305	2,293	2,282
70%	2,264	2,268	2,279	2,287	2,298	2,312	2,325	2,315	2,307	2,295	2,278	2,267
80%	2,252	2,256	2,256	2,266	2,275	2,293	2,310	2,300	2,295	2,284	2,267	2,255
90%	2,220	2,223	2,231	2,242	2,254	2,265	2,271	2,264	2,261	2,251	2,237	2,224
Long Term												
Full Simulation Period ^d	2,278	2,281	2,289	2,299	2,312	2,322	2,332	2,325	2,318	2,307	2,293	2,282
Water Year Types ^{b,c}												
Wet (32%)	2,314	2,316	2,320	2,328	2,343	2,350	2,359	2,356	2,348	2,340	2,330	2,320
Above Normal (16%)	2,294	2,297	2,303	2,309	2,326	2,341	2,352	2,345	2,335	2,323	2,308	2,298
Below Normal (13%)	2,277	2,278	2,287	2,311	2,321	2,328	2,338	2,328	2,319	2,306	2,291	2,280
Dry (24%)	2,264	2,268	2,282	2,282	2,294	2,308	2,320	2,312	2,304	2,291	2,278	2,267
Critical (15%)	2,205	2,209	2,219	2,242	2,249	2,260	2,266	2,260	2,255	2,241	2,223	2,212

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9	8	0	0	0	0	0	0	0	0	-1	6
20%	4	9	7	1	0	0	0	0	1	0	-1	1
30%	0	2	4	7	2	0	1	2	0	-1	-3	-2
40%	3	5	8	8	8	1	2	2	-1	-3	-4	0
50%	3	4	1	6	8	8	3	5	3	4	2	2
60%	7	6	5	4	0	2	5	4	5	2	2	4
70%	9	9	12	6	8	4	3	3	2	8	9	9
80%	10	9	3	6	5	10	13	12	13	13	8	7
90%	4	9	6	0	1	5	4	2	2	3	4	4
Long Term												
Full Simulation Period ^d	4	6	5	4	4	3	3	3	3	2	2	3
Water Year Types ^{b,c}												
Wet (32%)	4	7	6	2	2	1	0	0	0	0	0	2
Above Normal (16%)	3	5	5	5	3	3	2	3	2	-1	-3	0
Below Normal (13%)	4	3	3	5	5	5	5	4	3	4	4	4
Dry (24%)	6	5	4	5	5	5	4	5	4	5	5	5
Critical (15%)	6	5	4	5	5	5	5	5	4	4	4	4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-3. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,331	2,332	2,337	2,345	2,350	2,361	2,364	2,361	2,358	2,352	2,338
20%	2,326	2,324	2,328	2,334	2,345	2,350	2,359	2,360	2,356	2,350	2,341	2,333
30%	2,303	2,306	2,316	2,324	2,340	2,350	2,357	2,354	2,348	2,338	2,324	2,311
40%	2,295	2,295	2,305	2,317	2,325	2,344	2,353	2,349	2,340	2,328	2,309	2,296
50%	2,281	2,282	2,292	2,304	2,317	2,326	2,337	2,333	2,326	2,315	2,300	2,289
60%	2,273	2,274	2,282	2,288	2,304	2,316	2,328	2,321	2,315	2,302	2,288	2,276
70%	2,261	2,262	2,271	2,275	2,284	2,296	2,308	2,310	2,302	2,293	2,280	2,266
80%	2,241	2,246	2,253	2,255	2,268	2,281	2,295	2,291	2,284	2,269	2,256	2,245
90%	2,210	2,209	2,210	2,214	2,235	2,246	2,256	2,252	2,246	2,238	2,224	2,212
Long Term												
Full Simulation Period ^d	2,274	2,275	2,281	2,289	2,302	2,313	2,323	2,321	2,317	2,306	2,292	2,280
Water Year Types ^{b,c}												
Wet (32%)	2,319	2,317	2,319	2,325	2,339	2,347	2,357	2,359	2,355	2,348	2,339	2,327
Above Normal (16%)	2,299	2,298	2,302	2,301	2,320	2,335	2,347	2,346	2,340	2,331	2,317	2,305
Below Normal (13%)	2,269	2,270	2,277	2,299	2,307	2,316	2,328	2,323	2,316	2,302	2,286	2,273
Dry (24%)	2,256	2,260	2,273	2,271	2,281	2,293	2,306	2,302	2,296	2,283	2,269	2,258
Critical (15%)	2,183	2,188	2,196	2,223	2,230	2,242	2,249	2,245	2,242	2,229	2,206	2,192

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,323	2,324	2,332	2,337	2,345	2,350	2,361	2,360	2,355	2,351	2,343	2,330
20%	2,308	2,311	2,323	2,336	2,345	2,350	2,360	2,355	2,346	2,341	2,328	2,314
30%	2,299	2,301	2,313	2,326	2,342	2,350	2,357	2,348	2,342	2,330	2,319	2,305
40%	2,287	2,290	2,299	2,313	2,329	2,348	2,353	2,344	2,334	2,324	2,309	2,295
50%	2,281	2,282	2,292	2,306	2,318	2,331	2,344	2,333	2,324	2,309	2,295	2,286
60%	2,270	2,272	2,284	2,293	2,313	2,322	2,332	2,324	2,314	2,303	2,291	2,278
70%	2,255	2,259	2,268	2,280	2,290	2,308	2,322	2,312	2,305	2,287	2,269	2,258
80%	2,241	2,246	2,252	2,260	2,270	2,283	2,296	2,288	2,282	2,271	2,259	2,248
90%	2,215	2,214	2,225	2,243	2,253	2,261	2,267	2,262	2,258	2,248	2,233	2,219
Long Term												
Full Simulation Period ^d	2,273	2,275	2,284	2,295	2,308	2,319	2,329	2,322	2,315	2,305	2,291	2,279
Water Year Types ^{b,c}												
Wet (32%)	2,310	2,309	2,314	2,326	2,341	2,350	2,358	2,355	2,348	2,341	2,330	2,318
Above Normal (16%)	2,292	2,292	2,297	2,304	2,323	2,338	2,350	2,342	2,333	2,324	2,311	2,297
Below Normal (13%)	2,273	2,275	2,285	2,305	2,316	2,323	2,333	2,324	2,316	2,302	2,287	2,276
Dry (24%)	2,258	2,263	2,278	2,277	2,290	2,304	2,316	2,307	2,300	2,287	2,273	2,261
Critical (15%)	2,200	2,204	2,216	2,237	2,244	2,255	2,260	2,255	2,250	2,237	2,219	2,207

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-9	-6	0	0	0	0	0	-4	-6	-8	-9	-9
20%	-18	-13	-5	2	0	0	0	-5	-10	-9	-13	-18
30%	-4	-6	-2	3	2	0	0	-6	-7	-8	-6	-6
40%	-8	-5	-6	-4	4	3	0	-5	-6	-4	-1	-1
50%	-1	-1	0	3	1	5	7	0	-2	-5	-5	-3
60%	-3	-2	1	5	9	5	4	3	-1	1	3	2
70%	-6	-3	-3	5	6	12	15	2	4	-7	-11	-8
80%	0	0	-1	5	2	1	2	-3	-2	3	3	3
90%	6	5	15	28	18	14	12	10	12	10	9	7
Long Term												
Full Simulation Period ^d	0	0	3	5	7	6	5	1	-1	-1	-1	0
Water Year Types ^{b,c}												
Wet (32%)	-9	-8	-4	1	2	2	1	-3	-7	-7	-9	-9
Above Normal (16%)	-8	-6	-4	3	3	3	3	-4	-7	-7	-6	-7
Below Normal (13%)	4	4	7	7	9	7	5	1	0	0	1	4
Dry (24%)	2	3	5	6	9	10	9	5	3	4	3	4
Critical (15%)	17	16	20	14	14	13	11	10	8	8	13	15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-4. Trinity Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,364	2,362	2,358	2,352	2,343
20%	2,329	2,332	2,332	2,337	2,345	2,350	2,359	2,360	2,356	2,350	2,345	2,334
30%	2,309	2,312	2,320	2,327	2,344	2,350	2,357	2,355	2,350	2,341	2,327	2,312
40%	2,296	2,299	2,311	2,321	2,333	2,347	2,354	2,350	2,345	2,327	2,311	2,299
50%	2,286	2,286	2,297	2,311	2,320	2,330	2,344	2,336	2,326	2,315	2,299	2,288
60%	2,276	2,278	2,286	2,287	2,304	2,320	2,329	2,329	2,318	2,303	2,290	2,281
70%	2,267	2,269	2,277	2,280	2,292	2,301	2,312	2,313	2,309	2,295	2,279	2,268
80%	2,248	2,252	2,254	2,260	2,271	2,287	2,301	2,299	2,291	2,278	2,261	2,250
90%	2,215	2,216	2,221	2,225	2,232	2,245	2,263	2,260	2,257	2,245	2,229	2,215
Long Term												
Full Simulation Period ^d	2,277	2,279	2,286	2,293	2,305	2,315	2,326	2,324	2,319	2,308	2,294	2,283
Water Year Types ^{b,c}												
Wet (32%)	2,321	2,322	2,324	2,326	2,340	2,348	2,358	2,359	2,355	2,348	2,339	2,329
Above Normal (16%)	2,301	2,303	2,306	2,304	2,322	2,337	2,349	2,347	2,341	2,331	2,317	2,305
Below Normal (13%)	2,274	2,274	2,281	2,305	2,313	2,320	2,332	2,327	2,320	2,305	2,289	2,278
Dry (24%)	2,260	2,264	2,277	2,276	2,285	2,298	2,311	2,307	2,301	2,288	2,274	2,262
Critical (15%)	2,190	2,192	2,200	2,228	2,234	2,246	2,253	2,249	2,246	2,233	2,212	2,198

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,361	2,355	2,350	2,341	2,336
20%	2,312	2,320	2,330	2,337	2,345	2,350	2,360	2,355	2,347	2,341	2,327	2,315
30%	2,299	2,303	2,317	2,333	2,345	2,350	2,358	2,350	2,341	2,329	2,315	2,303
40%	2,290	2,295	2,308	2,321	2,337	2,349	2,355	2,346	2,334	2,320	2,305	2,294
50%	2,284	2,285	2,294	2,313	2,327	2,340	2,348	2,338	2,327	2,313	2,297	2,288
60%	2,277	2,278	2,288	2,297	2,313	2,324	2,337	2,328	2,319	2,305	2,293	2,282
70%	2,264	2,268	2,279	2,287	2,298	2,312	2,325	2,315	2,307	2,295	2,278	2,267
80%	2,252	2,256	2,256	2,266	2,275	2,293	2,310	2,300	2,295	2,284	2,267	2,255
90%	2,220	2,223	2,231	2,242	2,254	2,265	2,271	2,264	2,261	2,251	2,237	2,224
Long Term												
Full Simulation Period ^d	2,278	2,281	2,289	2,299	2,312	2,322	2,332	2,325	2,318	2,307	2,293	2,282
Water Year Types ^{b,c}												
Wet (32%)	2,314	2,316	2,320	2,328	2,343	2,350	2,359	2,356	2,348	2,340	2,330	2,320
Above Normal (16%)	2,294	2,297	2,303	2,309	2,326	2,341	2,352	2,345	2,335	2,323	2,308	2,298
Below Normal (13%)	2,277	2,278	2,287	2,311	2,321	2,328	2,338	2,328	2,319	2,306	2,291	2,280
Dry (24%)	2,264	2,268	2,282	2,282	2,294	2,308	2,320	2,312	2,304	2,291	2,278	2,267
Critical (15%)	2,205	2,209	2,219	2,242	2,249	2,260	2,266	2,260	2,255	2,241	2,223	2,212

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	-4	-7	-8	-10	-7
20%	-18	-12	-2	0	0	0	0	-5	-9	-9	-18	-19
30%	-10	-9	-3	6	1	0	1	-5	-8	-12	-11	-9
40%	-5	-4	-3	0	4	3	1	-5	-11	-7	-6	-4
50%	-2	-1	-3	2	7	10	4	2	1	-2	-1	0
60%	2	0	3	10	8	4	8	-1	1	2	3	2
70%	-3	-1	2	7	6	12	13	2	-1	-1	-1	-1
80%	4	3	2	6	4	6	8	1	4	6	6	5
90%	5	7	11	17	22	20	8	4	4	6	8	9
Long Term												
Full Simulation Period ^d	0	1	3	6	7	7	6	1	-1	-1	-1	-1
Water Year Types ^{b,c}												
Wet (32%)	-7	-6	-4	2	3	2	1	-4	-7	-8	-9	-9
Above Normal (16%)	-7	-6	-4	4	4	4	3	-3	-6	-9	-9	-7
Below Normal (13%)	3	4	7	5	7	7	6	1	-1	1	2	2
Dry (24%)	4	4	6	6	9	11	10	5	3	4	4	5
Critical (15%)	15	16	19	15	15	14	13	11	9	9	11	14

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

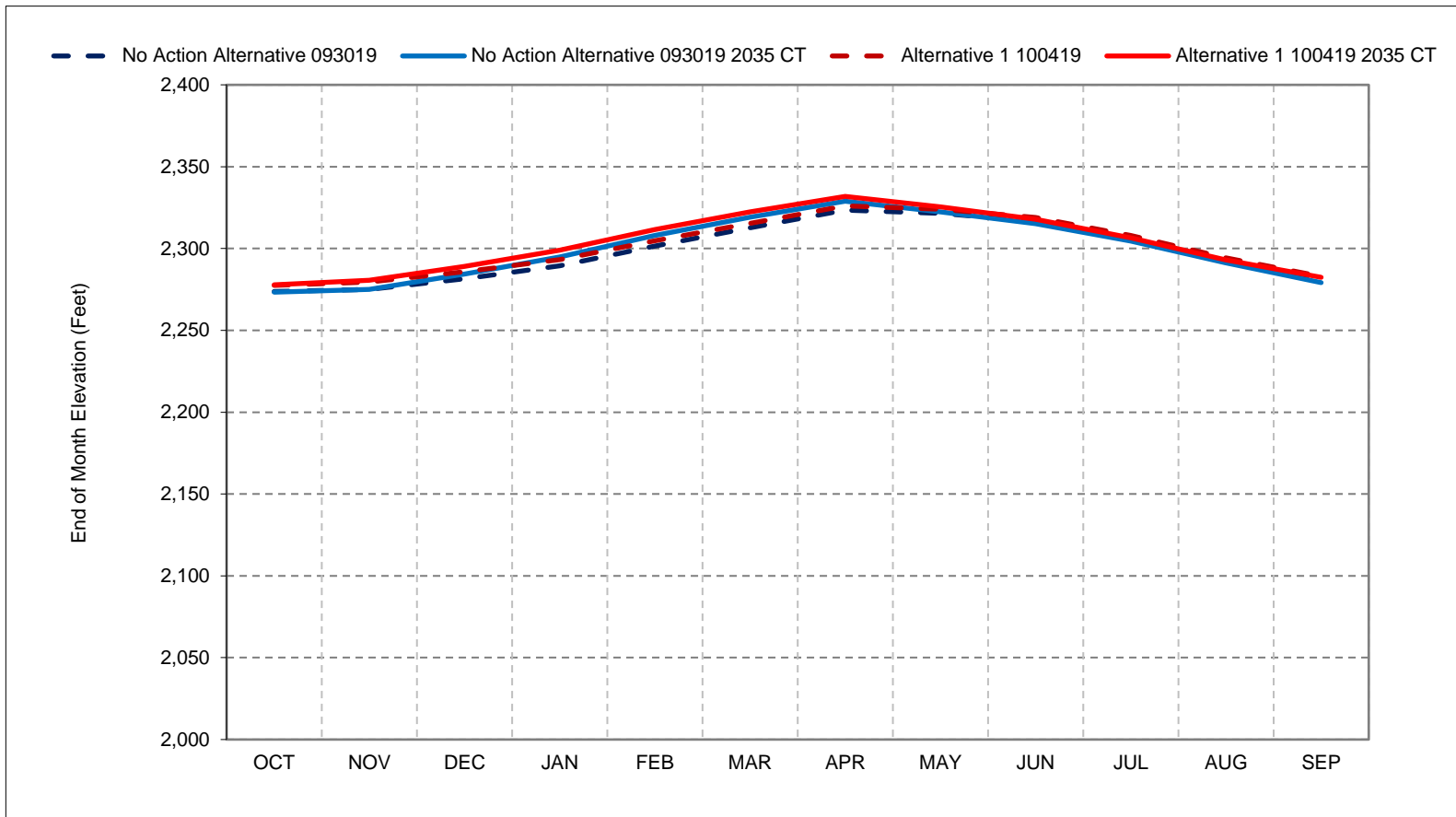
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1a-1. Trinity Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

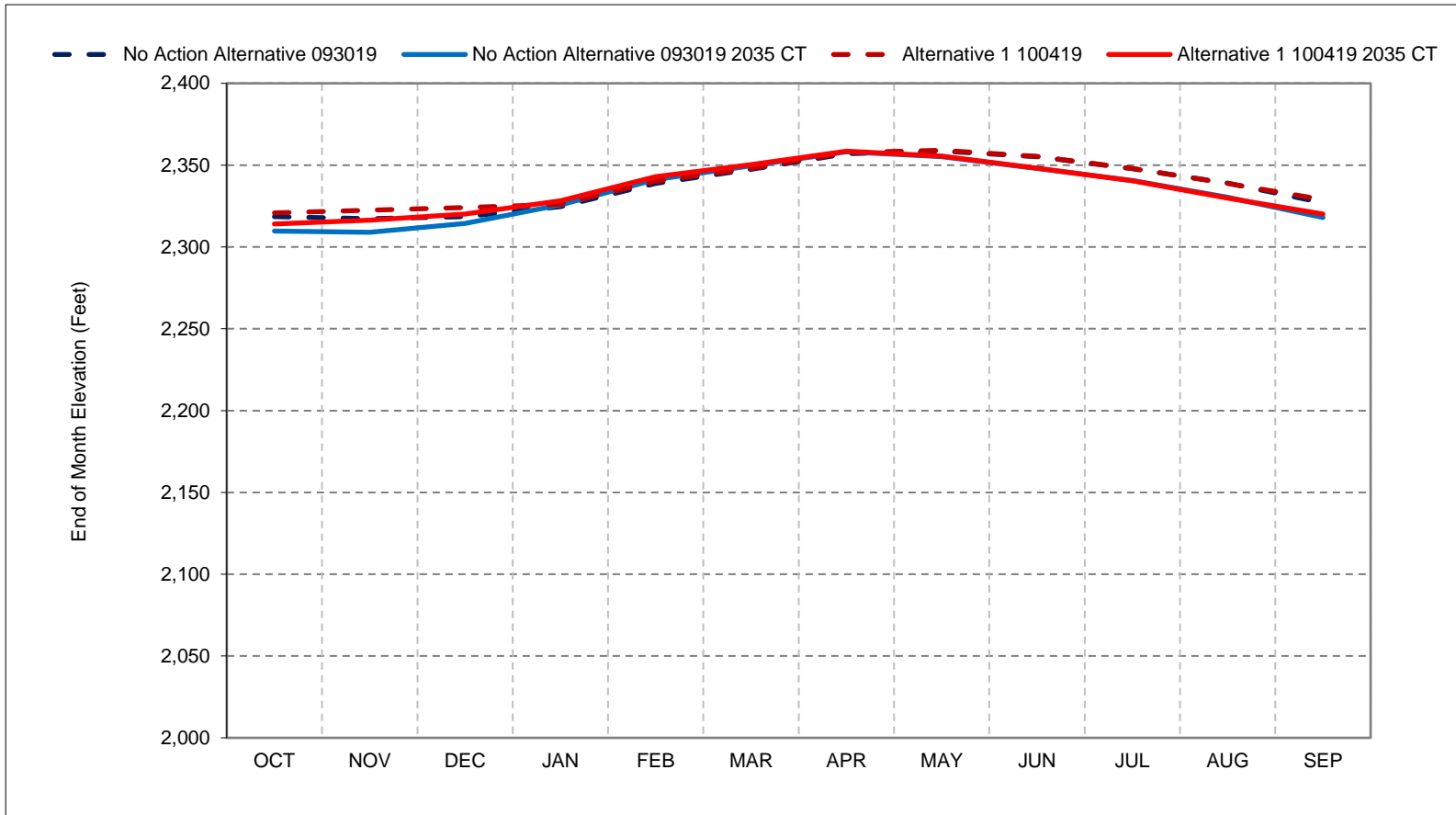
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-2. Trinity Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

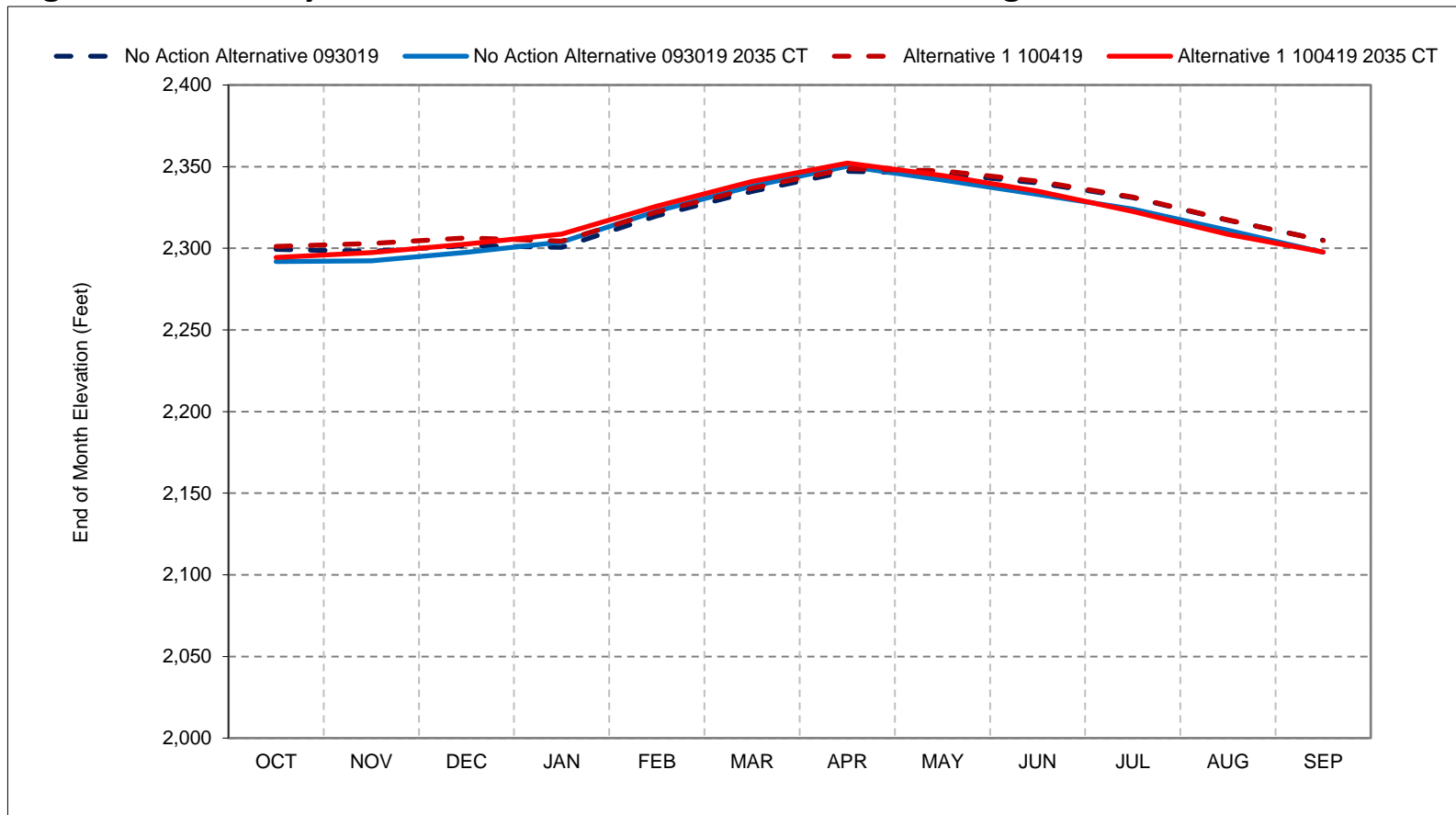
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-3. Trinity Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

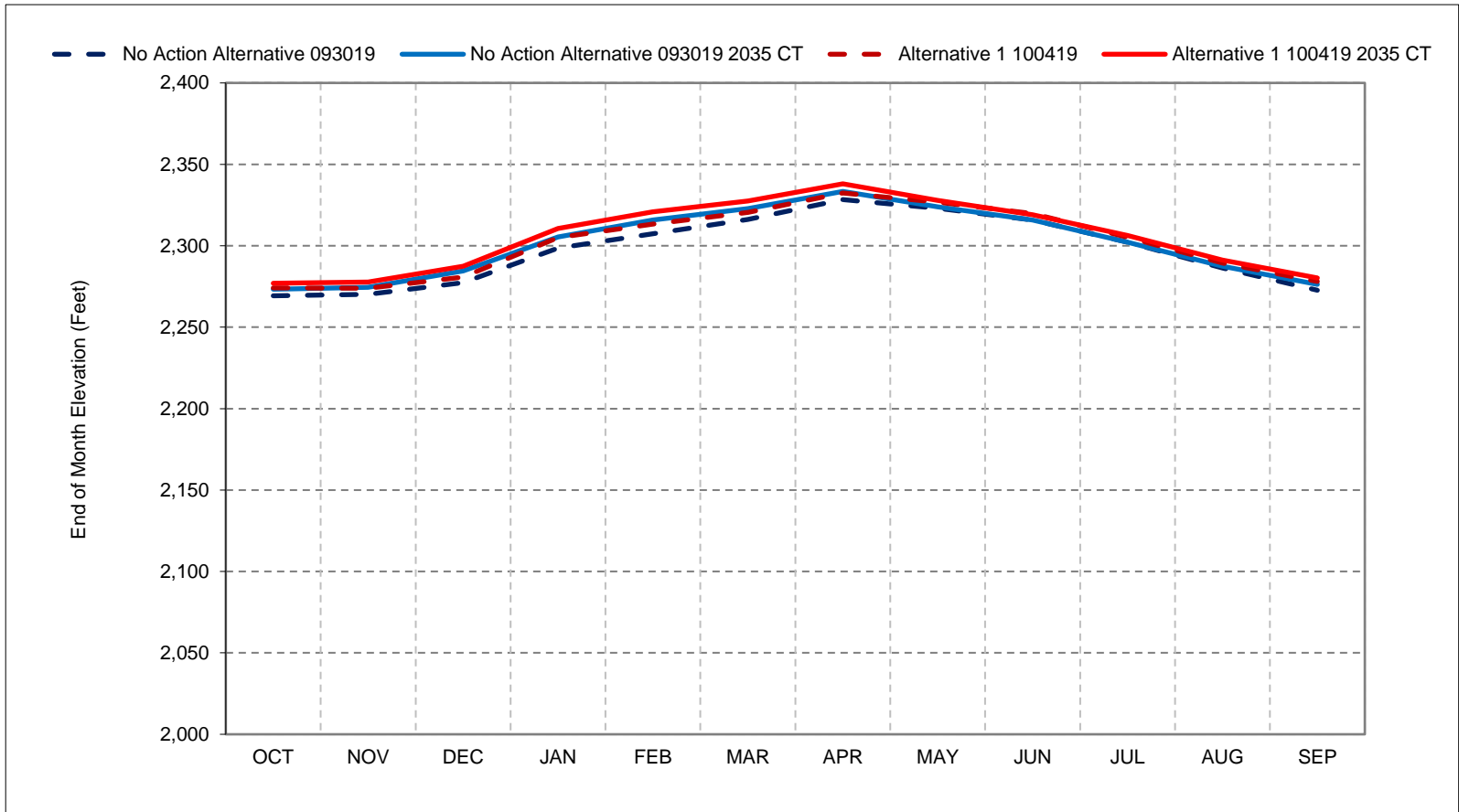
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-4. Trinity Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

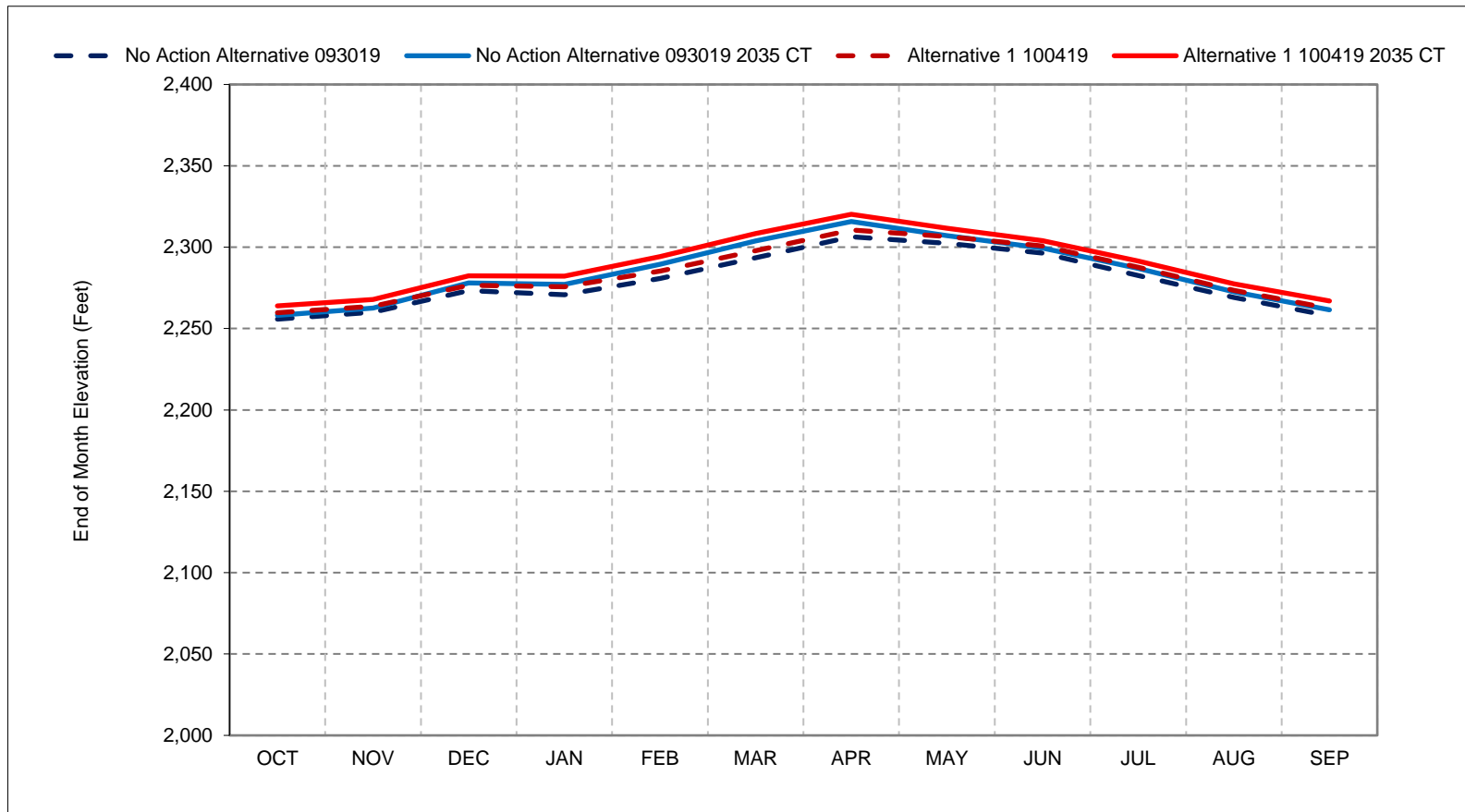
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-5. Trinity Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

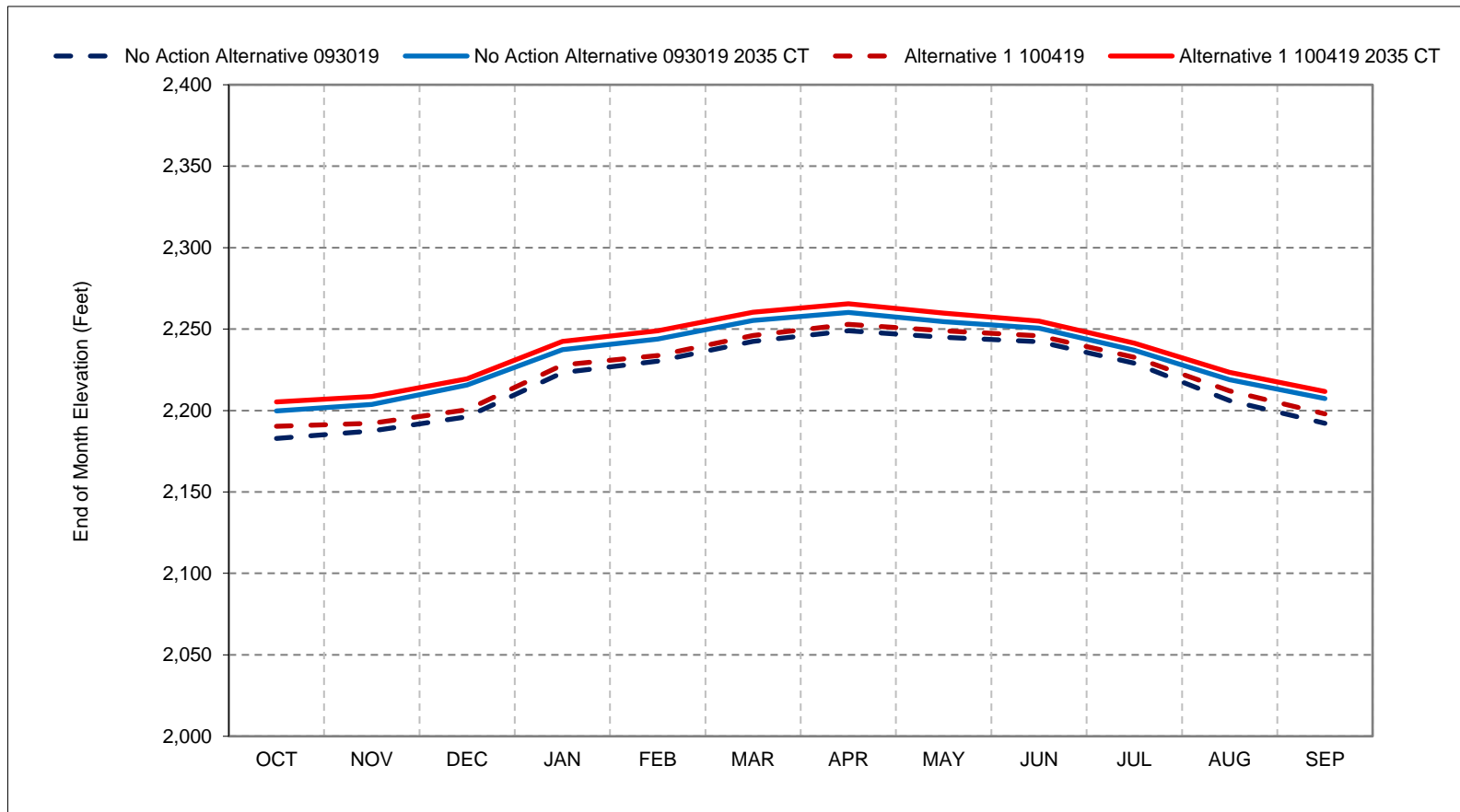
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-6. Trinity Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

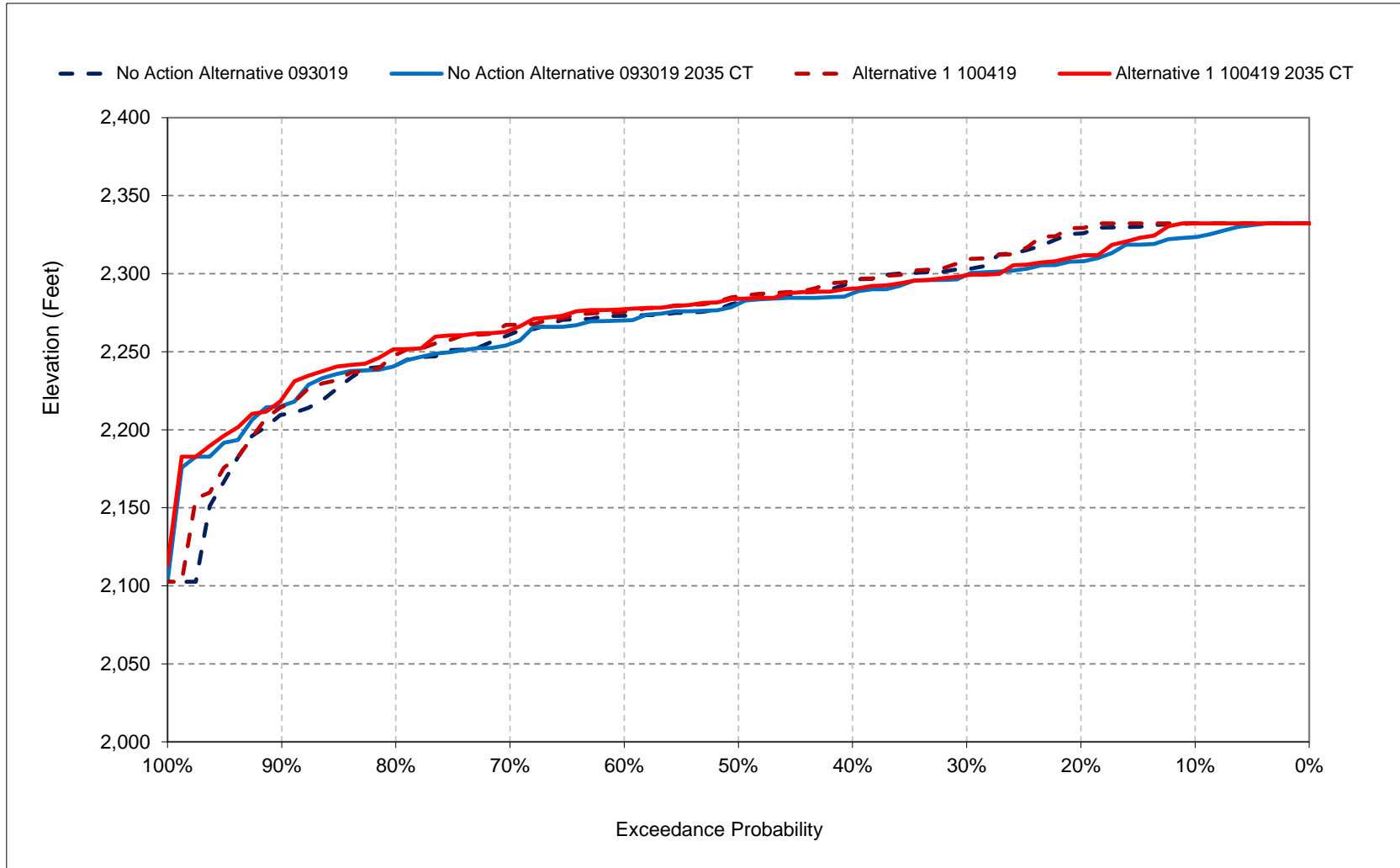
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

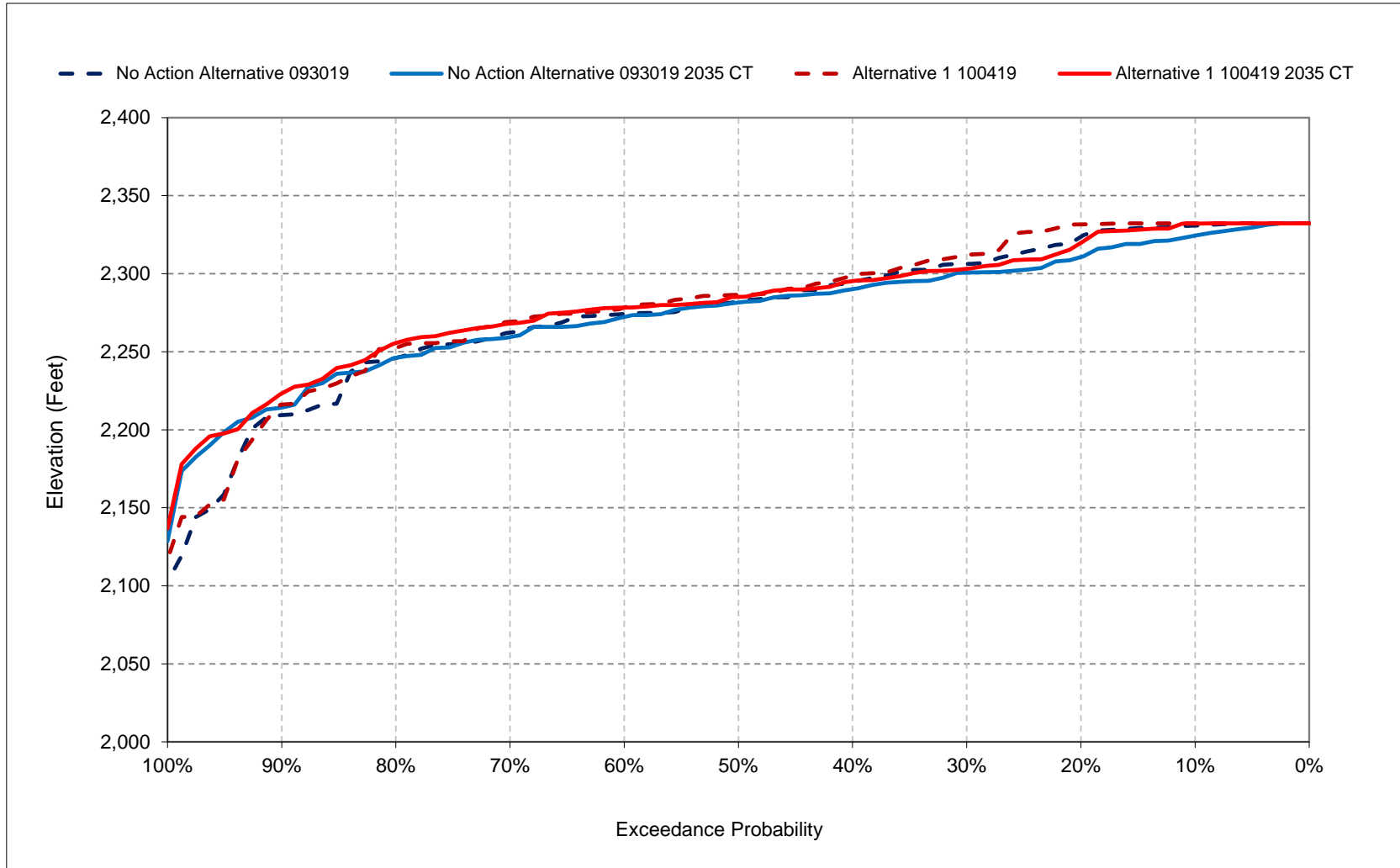
Figure 1a-7. Trinity Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

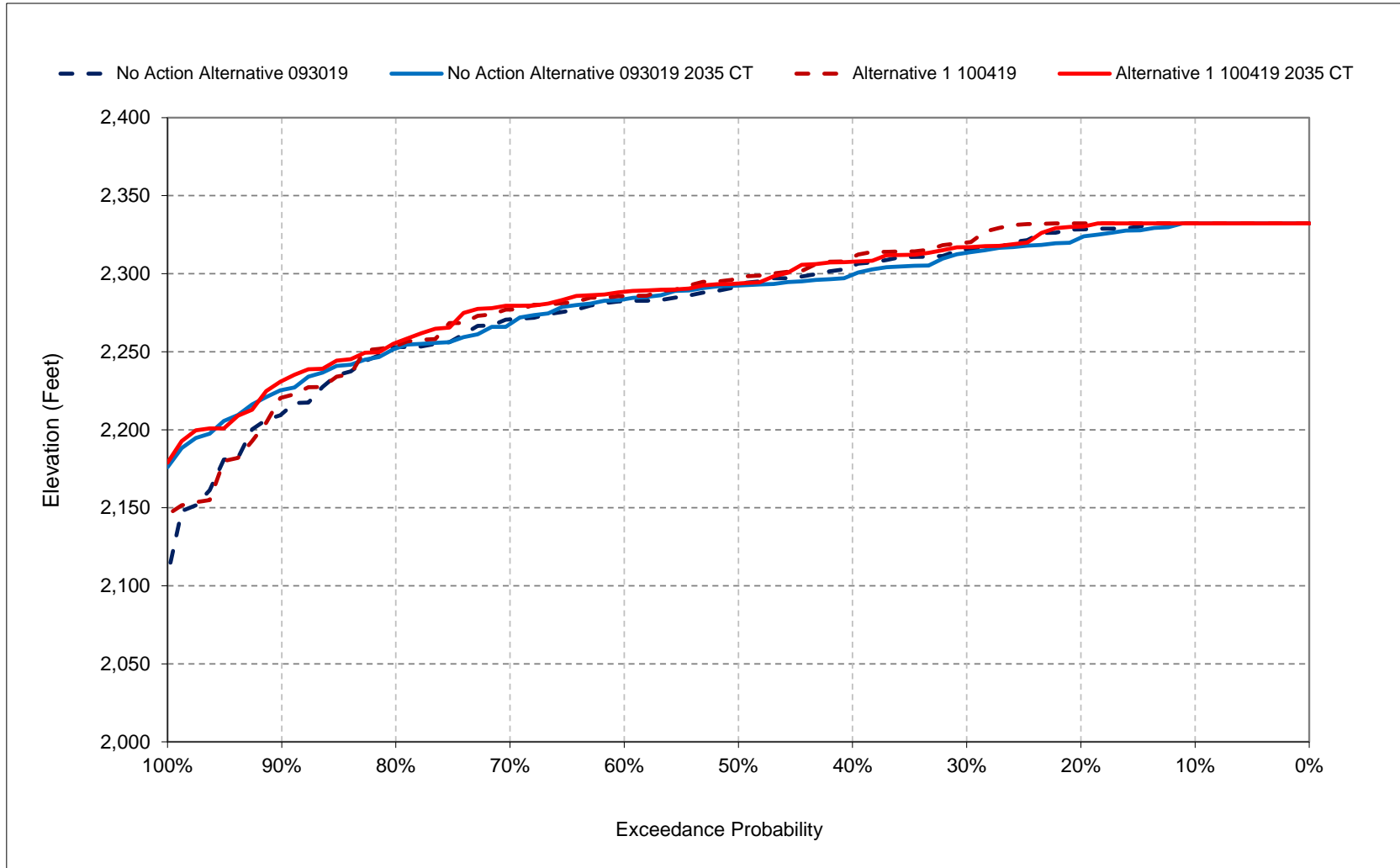
Figure 1a-8. Trinity Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

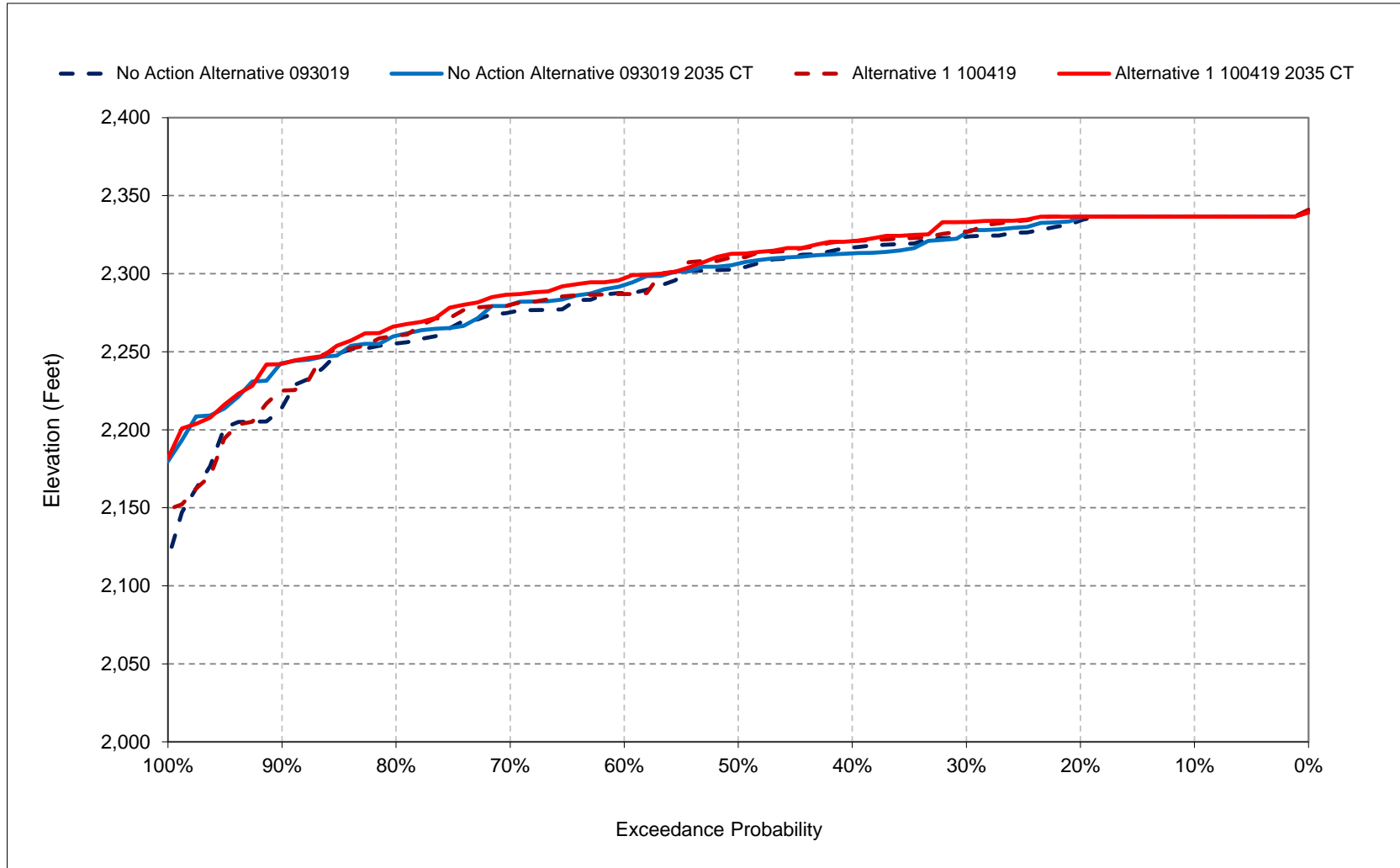
Figure 1a-9. Trinity Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

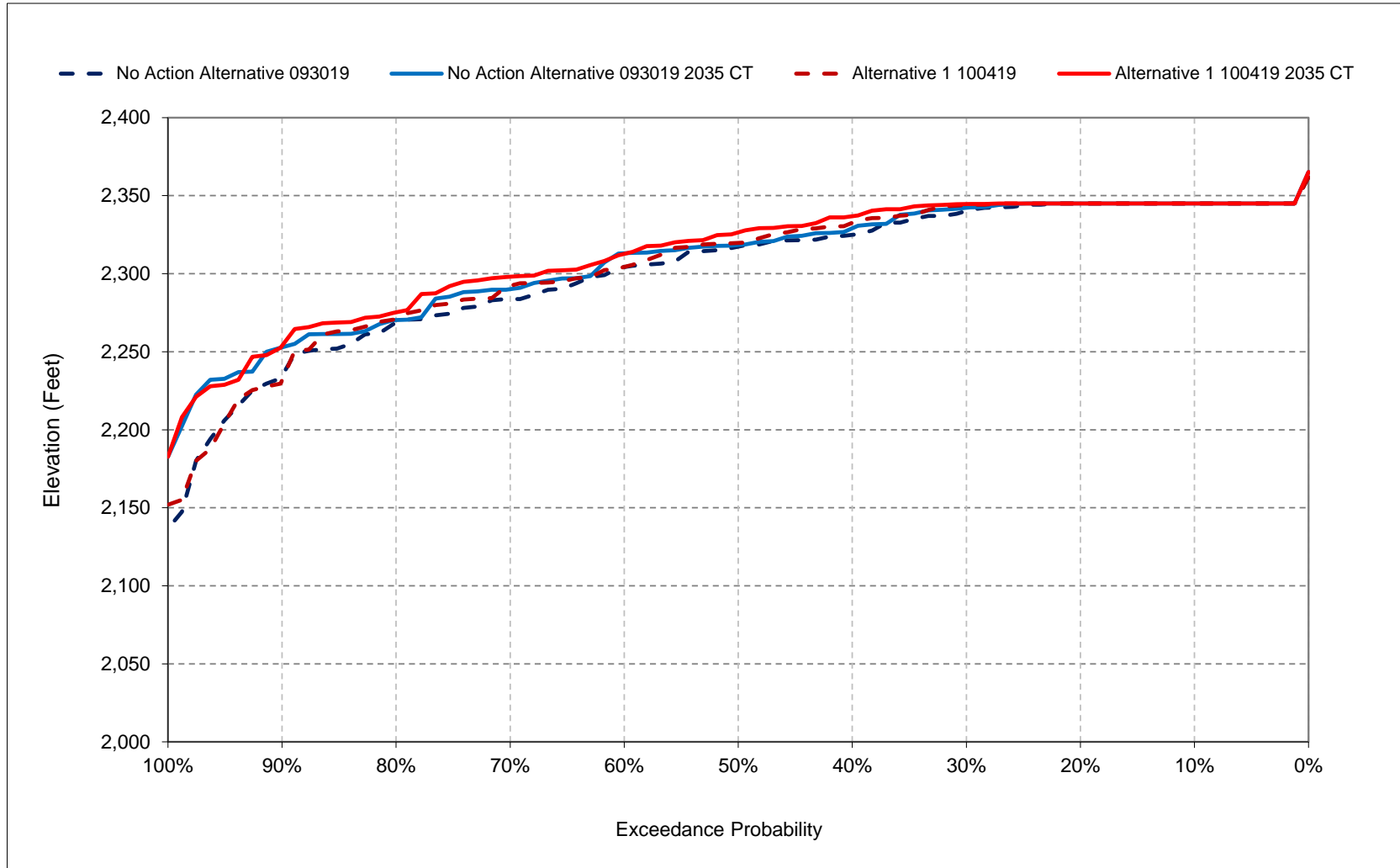
Figure 1a-10. Trinity Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

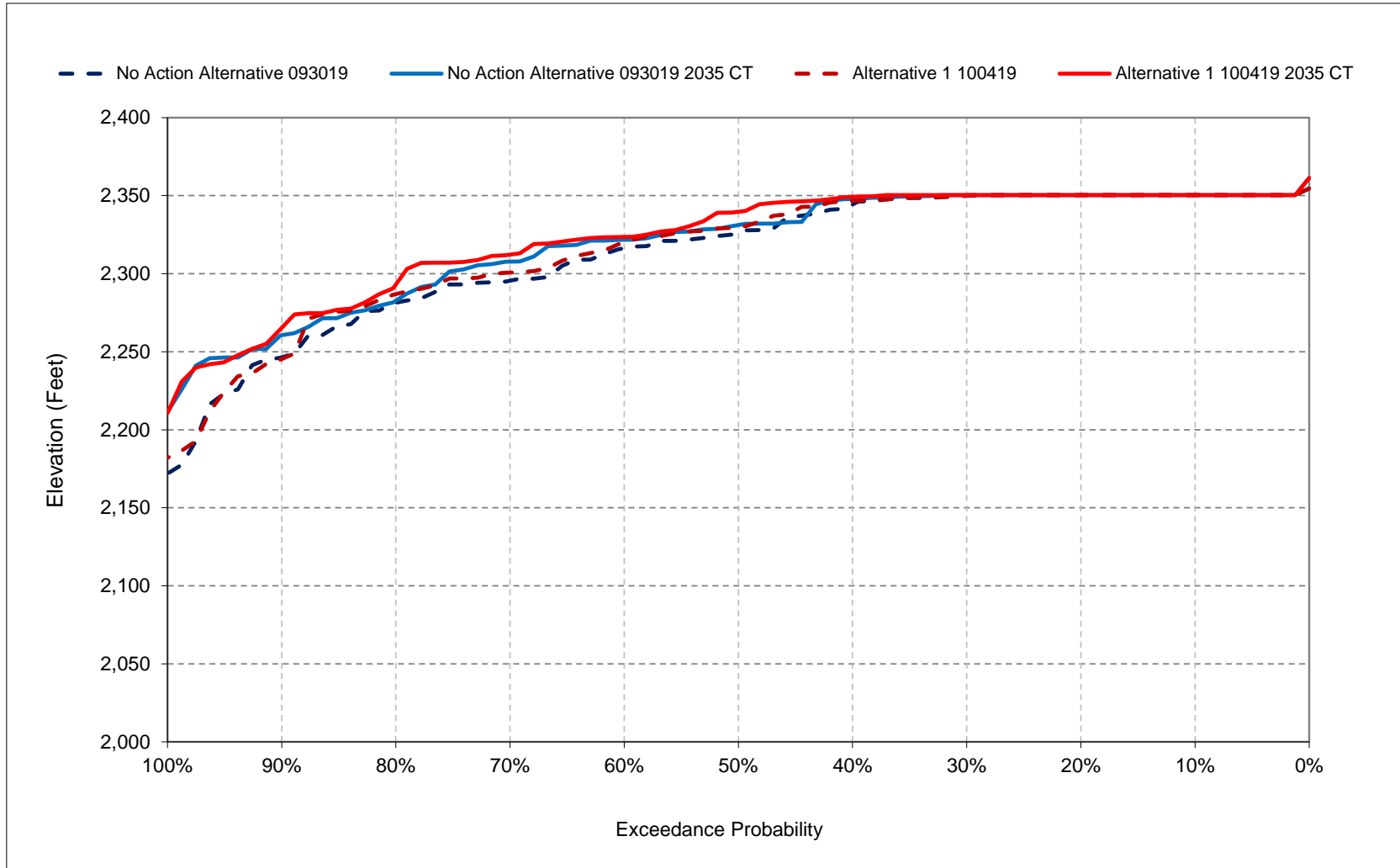
Figure 1a-11. Trinity Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

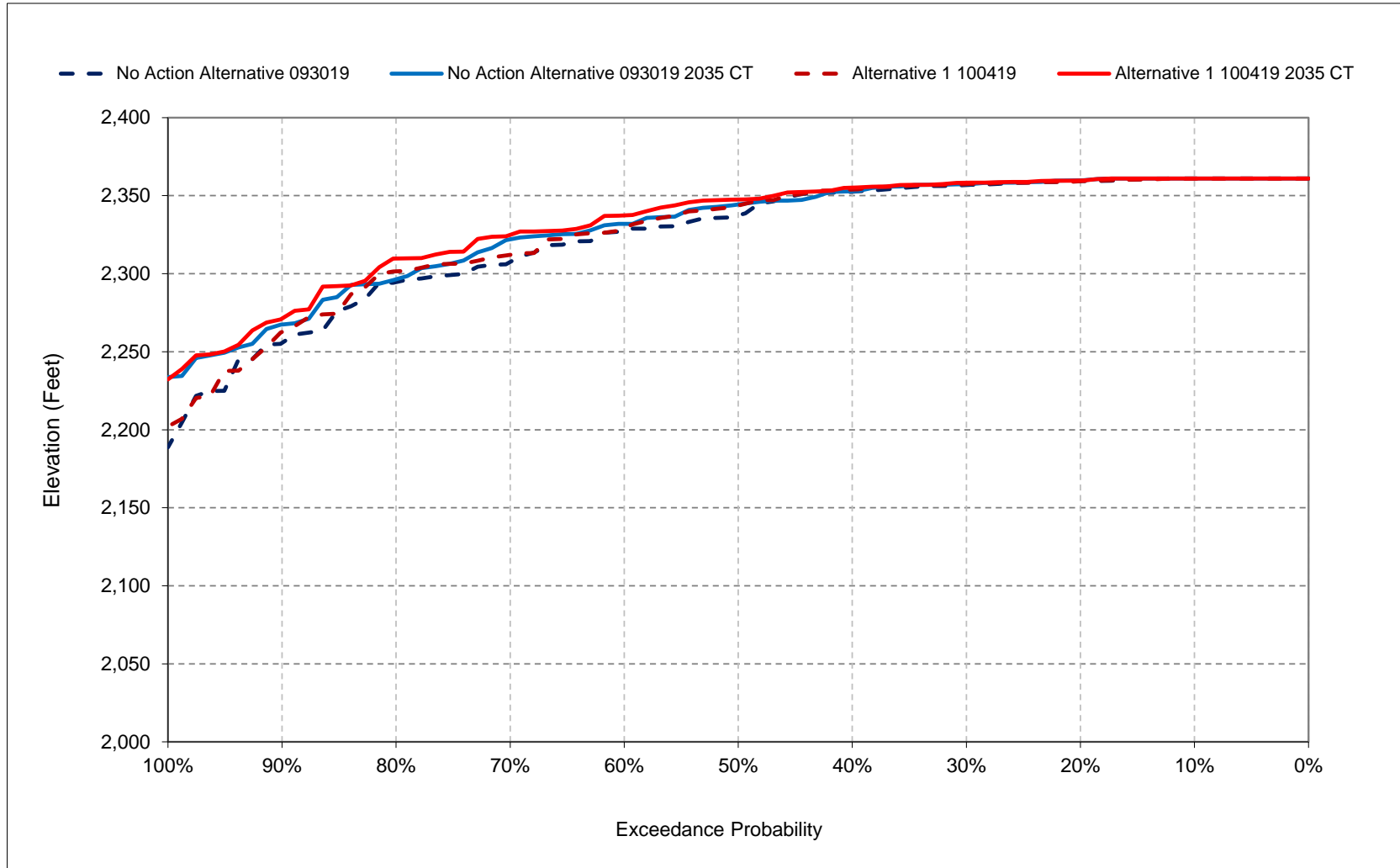
Figure 1a-12. Trinity Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

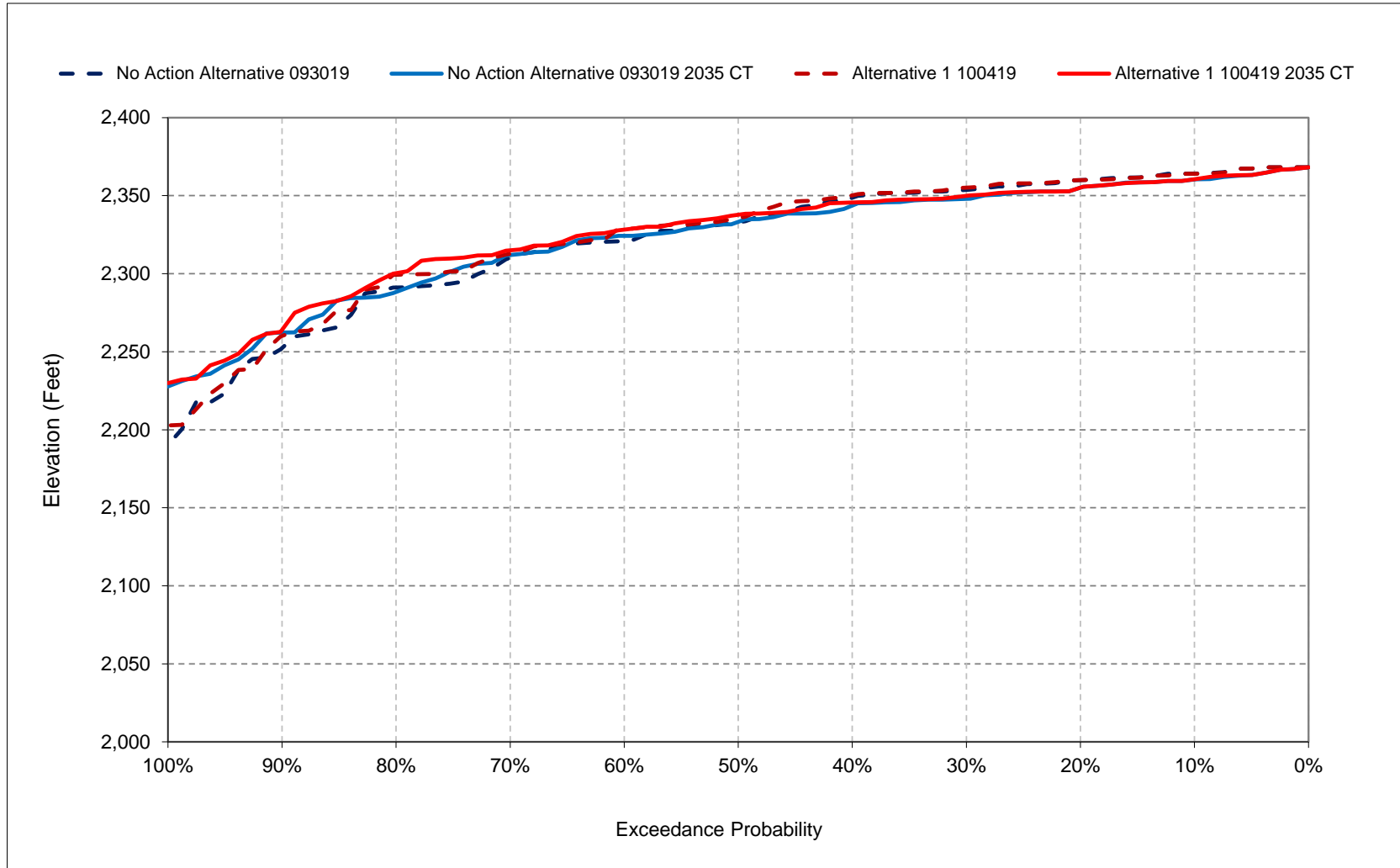
Figure 1a-13. Trinity Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

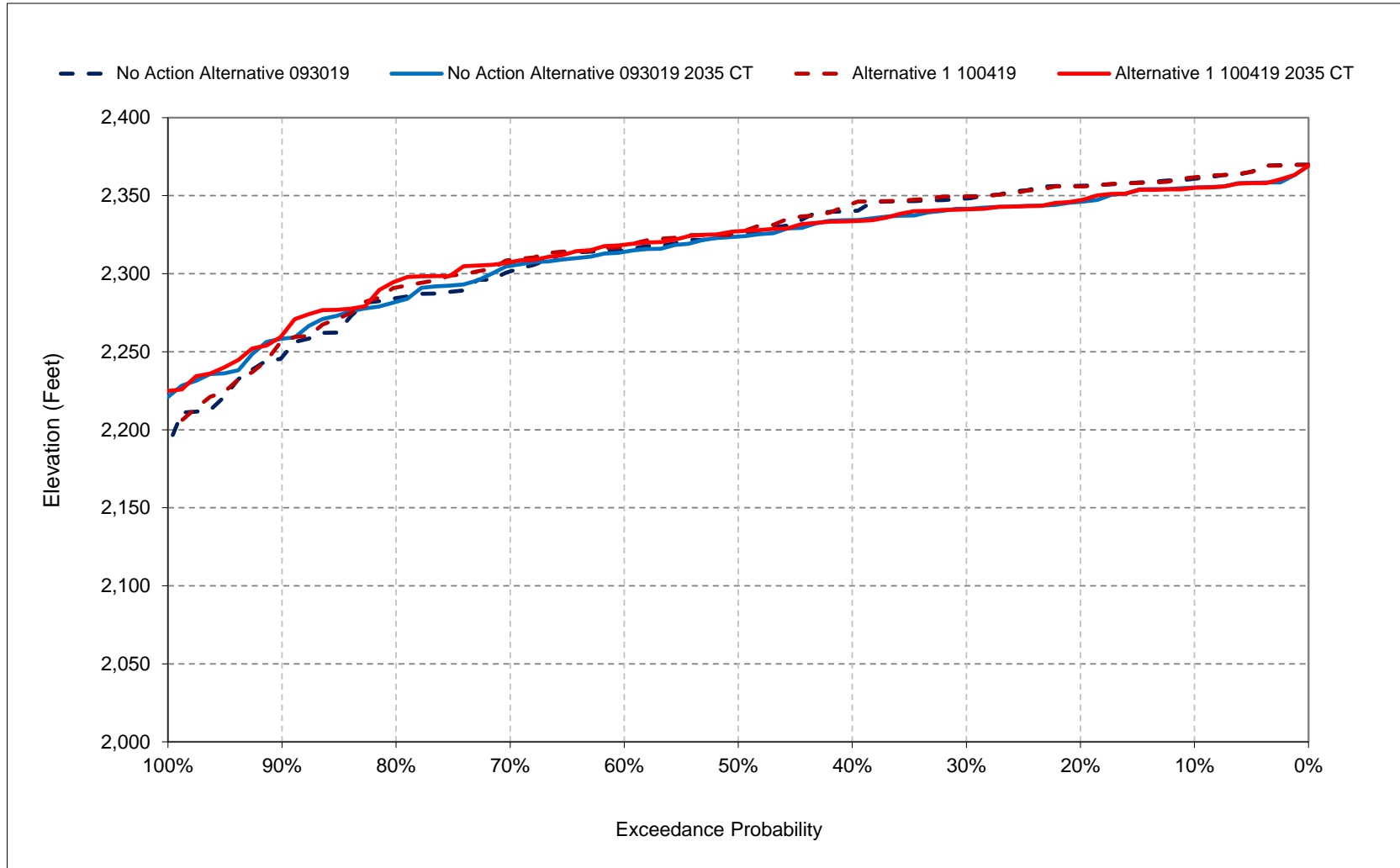
Figure 1a-14. Trinity Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

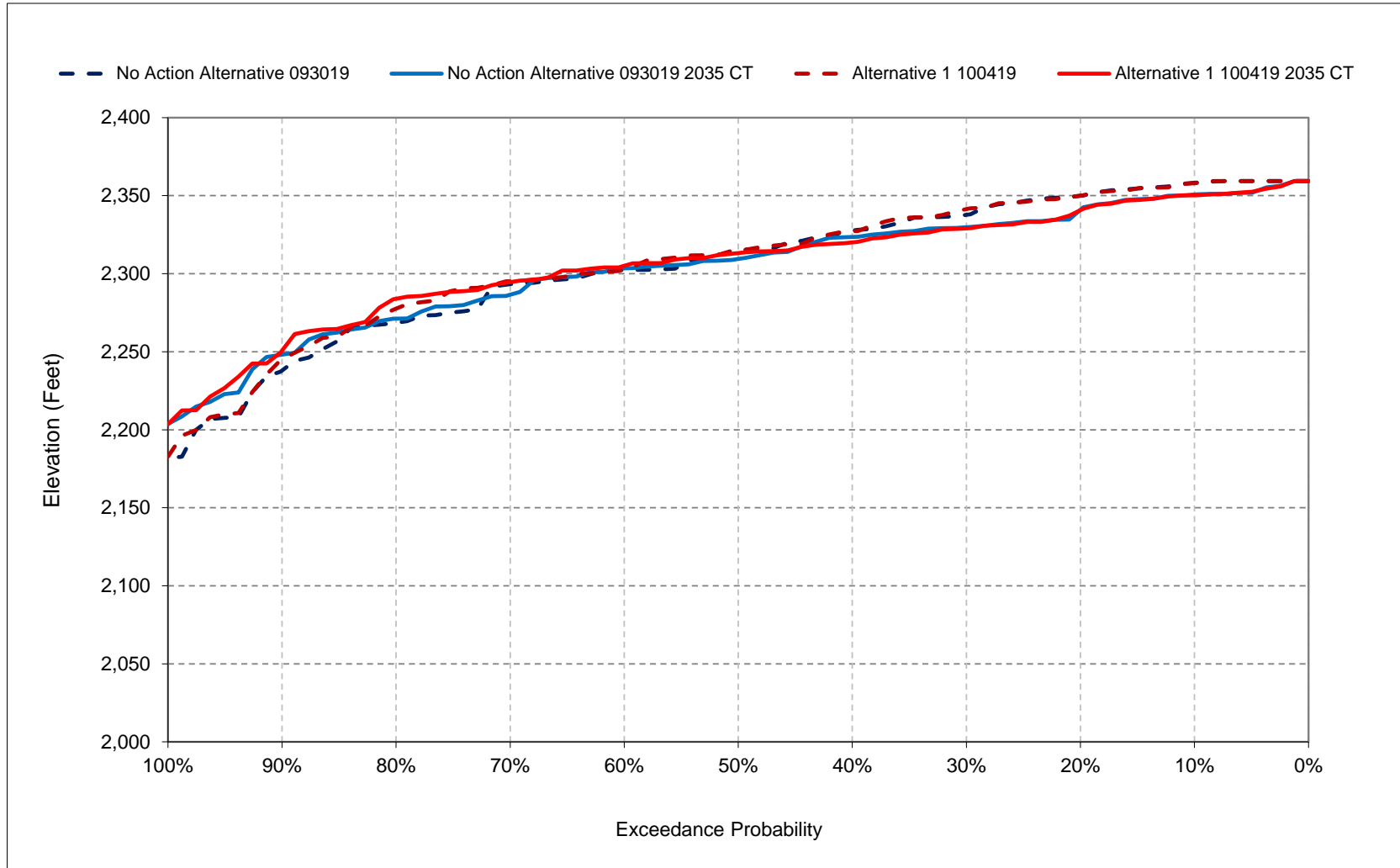
Figure 1a-15. Trinity Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

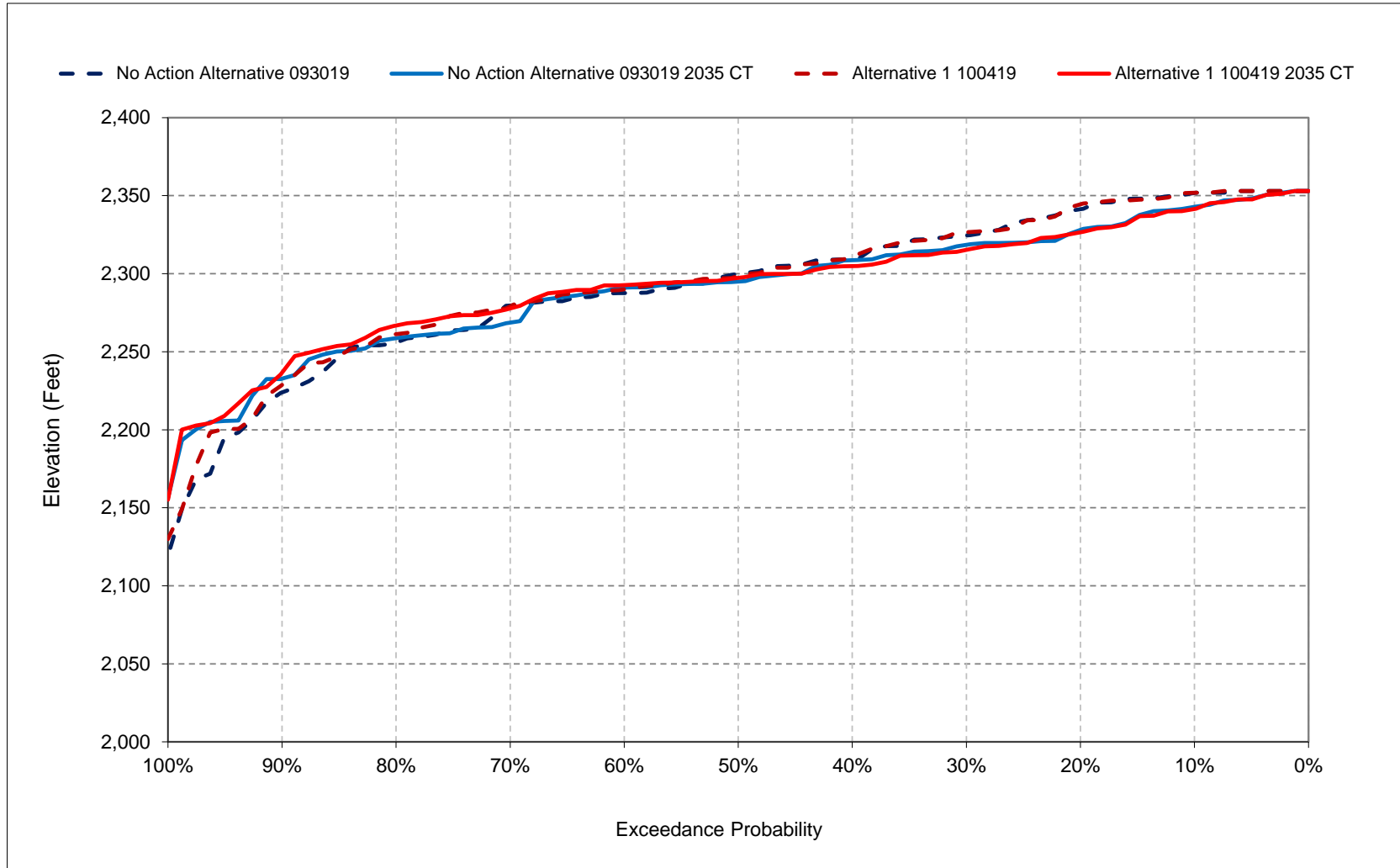
Figure 1a-16. Trinity Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

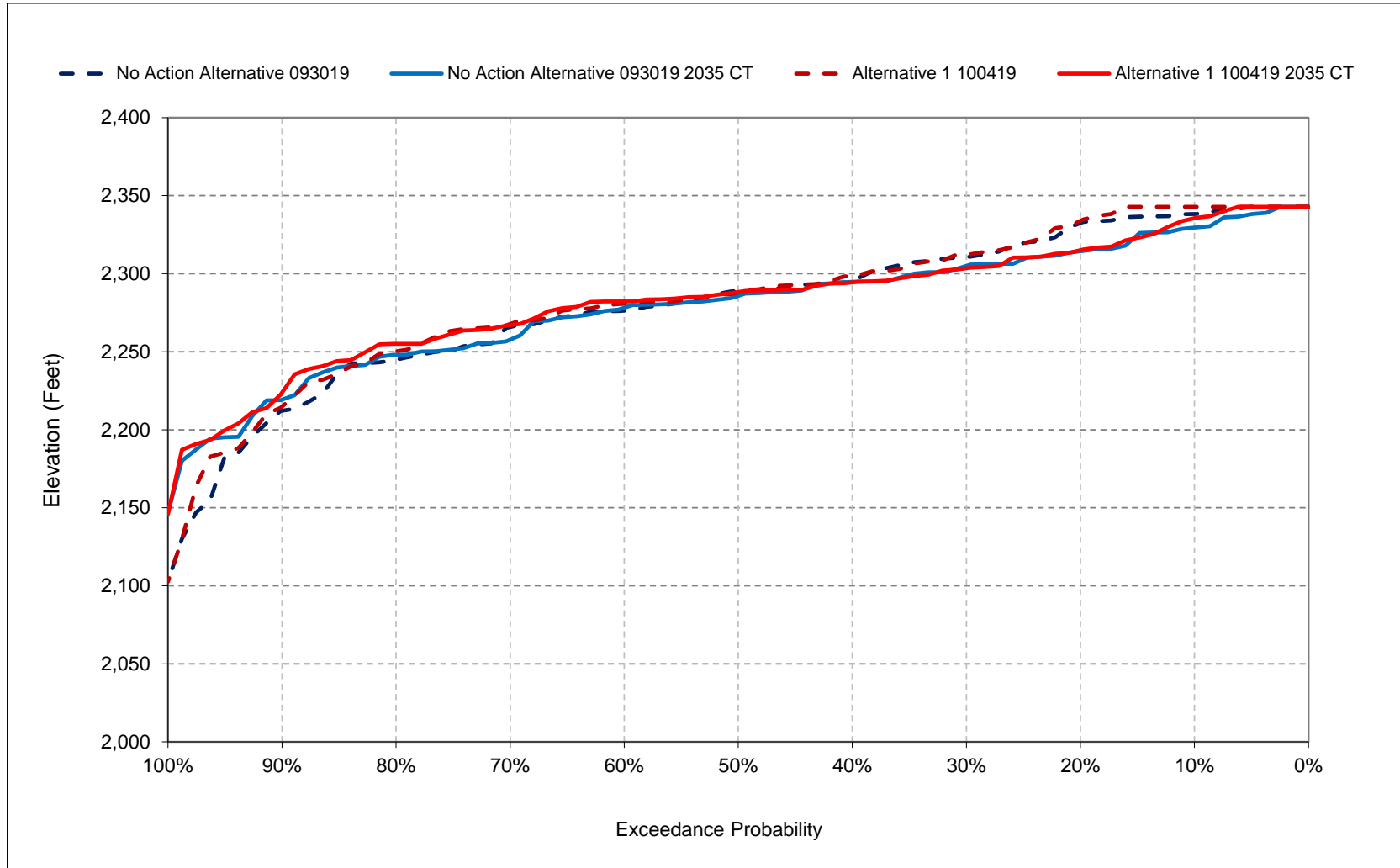
Figure 1a-17. Trinity Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1a-18. Trinity Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-1. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,222	3,252	3,335	3,602	3,875	4,229	4,552	4,552	4,500	4,002	3,670	3,200
20%	3,004	2,926	3,303	3,539	3,744	4,117	4,544	4,552	4,402	3,789	3,476	3,085
30%	2,874	2,799	3,260	3,388	3,635	4,032	4,475	4,548	4,279	3,614	3,277	2,989
40%	2,729	2,654	3,013	3,300	3,515	3,980	4,389	4,486	4,079	3,441	3,152	2,895
50%	2,629	2,554	2,756	3,231	3,453	3,863	4,232	4,347	3,886	3,326	3,015	2,789
60%	2,519	2,482	2,618	3,007	3,358	3,713	4,103	4,203	3,791	3,151	2,843	2,661
70%	2,247	2,278	2,394	2,737	3,252	3,426	3,960	3,951	3,406	2,891	2,655	2,446
80%	2,008	2,064	2,169	2,518	2,884	3,360	3,605	3,352	2,946	2,516	2,222	2,167
90%	1,399	1,236	1,702	1,934	2,302	2,591	2,710	2,569	2,239	1,805	1,592	1,539
Long Term												
Full Simulation Period ^d	2,456	2,421	2,641	2,951	3,251	3,609	3,951	3,936	3,640	3,109	2,799	2,561
Water Year Types ^{b,c}												
Wet (32%)	2,839	2,685	2,920	3,390	3,652	3,892	4,360	4,492	4,340	3,818	3,477	2,984
Above Normal (16%)	2,683	2,573	2,832	3,232	3,517	4,065	4,501	4,489	4,133	3,458	3,115	2,821
Below Normal (13%)	2,670	2,713	2,840	3,139	3,504	3,874	4,199	4,094	3,725	3,126	2,763	2,711
Dry (24%)	2,496	2,595	2,854	2,680	3,095	3,551	3,845	3,766	3,400	2,916	2,645	2,579
Critical (15%)	1,120	1,124	1,295	1,976	2,121	2,356	2,419	2,268	1,914	1,499	1,277	1,196

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,650	3,928	4,223	4,552	4,552	4,500	4,015	3,672	3,400
20%	3,250	3,252	3,321	3,604	3,793	4,123	4,518	4,552	4,408	3,806	3,464	3,377
30%	3,170	3,162	3,305	3,526	3,705	4,044	4,454	4,535	4,251	3,594	3,257	3,197
40%	3,008	3,029	3,268	3,383	3,615	3,998	4,369	4,440	4,019	3,444	3,120	3,023
50%	2,793	2,818	3,209	3,322	3,514	3,964	4,268	4,324	3,872	3,288	3,008	2,940
60%	2,721	2,702	2,920	3,226	3,434	3,831	4,139	4,173	3,681	3,164	2,798	2,735
70%	2,427	2,500	2,624	2,927	3,263	3,605	4,038	3,892	3,467	2,889	2,708	2,580
80%	2,241	2,321	2,311	2,601	2,989	3,405	3,792	3,520	3,087	2,681	2,430	2,357
90%	1,559	1,415	1,859	2,042	2,519	2,682	2,772	2,781	2,426	2,012	1,741	1,628
Long Term												
Full Simulation Period ^d	2,616	2,626	2,791	3,062	3,330	3,666	3,996	3,961	3,637	3,127	2,822	2,713
Water Year Types ^{b,c}												
Wet (32%)	3,133	3,120	3,224	3,422	3,655	3,880	4,336	4,474	4,312	3,783	3,436	3,260
Above Normal (16%)	2,781	2,750	2,960	3,353	3,561	4,046	4,471	4,437	4,059	3,399	3,054	2,922
Below Normal (13%)	2,732	2,762	2,879	3,381	3,670	4,005	4,304	4,153	3,699	3,139	2,818	2,767
Dry (24%)	2,608	2,675	2,921	2,828	3,239	3,691	3,977	3,854	3,448	3,008	2,743	2,687
Critical (15%)	1,229	1,213	1,374	2,063	2,218	2,441	2,497	2,338	1,977	1,601	1,379	1,296

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	28	0	14	47	53	-5	0	0	0	13	2	200
20%	246	326	18	65	49	7	-26	0	6	18	-13	293
30%	296	363	45	138	70	12	-21	-13	-27	-20	-20	208
40%	278	375	256	83	101	18	-21	-47	-59	3	-31	127
50%	164	264	453	91	60	102	36	-22	-15	-39	-7	152
60%	202	220	302	219	76	118	36	-30	-110	13	-45	74
70%	180	222	230	190	11	179	78	-59	62	-2	53	134
80%	233	257	141	84	106	44	187	167	140	165	208	190
90%	160	179	158	108	217	91	62	212	187	207	150	89
Long Term												
Full Simulation Period ^d	160	205	150	111	80	57	45	26	-3	19	23	152
Water Year Types ^{b,c}												
Wet (32%)	293	435	303	32	3	-12	-24	-18	-28	-35	-41	275
Above Normal (16%)	98	177	128	121	44	-19	-30	-52	-74	-59	-61	101
Below Normal (13%)	63	49	39	241	166	131	104	59	-26	13	55	55
Dry (24%)	112	80	68	148	144	139	132	88	48	91	98	108
Critical (15%)	109	90	79	87	97	85	78	70	63	102	102	100

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 3-2. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,137	3,250	3,334	3,621	3,879	4,249	4,552	4,552	4,419	3,869	3,500	3,155
20%	2,908	2,896	3,299	3,552	3,755	4,139	4,551	4,552	4,292	3,712	3,386	2,986
30%	2,781	2,703	3,252	3,388	3,612	4,066	4,482	4,498	4,176	3,510	3,170	2,893
40%	2,670	2,612	2,997	3,327	3,548	4,000	4,435	4,374	3,971	3,311	3,001	2,809
50%	2,514	2,510	2,738	3,186	3,427	3,918	4,290	4,281	3,843	3,187	2,885	2,749
60%	2,437	2,390	2,529	3,054	3,304	3,717	4,145	4,113	3,672	3,040	2,803	2,550
70%	2,187	2,218	2,385	2,786	3,247	3,490	3,922	3,903	3,424	2,960	2,581	2,323
80%	1,979	2,023	2,203	2,471	2,938	3,416	3,669	3,416	3,005	2,607	2,297	2,137
90%	1,501	1,379	1,844	2,118	2,413	2,564	2,851	2,625	2,308	1,943	1,695	1,657
Long Term												
Full Simulation Period ^d	2,409	2,405	2,650	2,984	3,283	3,673	4,016	3,956	3,620	3,071	2,775	2,534
Water Year Types ^{b,c}												
Wet (32%)	2,747	2,629	2,892	3,392	3,644	3,910	4,363	4,450	4,228	3,686	3,376	2,886
Above Normal (16%)	2,494	2,447	2,726	3,236	3,503	4,074	4,502	4,425	4,036	3,332	2,989	2,681
Below Normal (13%)	2,645	2,703	2,854	3,230	3,558	3,978	4,281	4,111	3,712	3,103	2,761	2,702
Dry (24%)	2,494	2,622	2,893	2,692	3,120	3,623	3,949	3,834	3,438	2,923	2,661	2,601
Critical (15%)	1,227	1,239	1,450	2,085	2,280	2,528	2,608	2,440	2,069	1,677	1,441	1,347

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,654	3,940	4,249	4,552	4,552	4,423	3,875	3,502	3,400
20%	3,208	3,218	3,327	3,599	3,815	4,158	4,547	4,552	4,256	3,722	3,396	3,277
30%	3,062	3,134	3,289	3,524	3,690	4,106	4,482	4,485	4,084	3,415	3,166	3,129
40%	2,822	2,980	3,255	3,396	3,639	4,012	4,438	4,339	3,851	3,302	3,006	2,953
50%	2,719	2,860	3,196	3,328	3,510	3,970	4,288	4,260	3,744	3,199	2,933	2,851
60%	2,632	2,648	2,867	3,251	3,442	3,854	4,173	4,125	3,630	3,080	2,801	2,723
70%	2,491	2,514	2,642	2,996	3,283	3,595	4,080	3,859	3,423	2,901	2,602	2,548
80%	2,205	2,311	2,398	2,665	3,064	3,420	3,829	3,591	3,130	2,726	2,481	2,382
90%	1,730	1,588	1,874	2,317	2,704	2,667	3,123	2,891	2,541	2,203	1,951	1,872
Long Term												
Full Simulation Period ^d	2,605	2,640	2,818	3,106	3,377	3,729	4,062	3,974	3,605	3,089	2,798	2,717
Water Year Types ^{b,c}												
Wet (32%)	3,081	3,096	3,216	3,432	3,658	3,897	4,344	4,420	4,179	3,643	3,323	3,205
Above Normal (16%)	2,662	2,688	2,936	3,381	3,580	4,060	4,476	4,367	3,935	3,267	2,923	2,813
Below Normal (13%)	2,743	2,775	2,913	3,400	3,690	4,051	4,351	4,146	3,683	3,110	2,819	2,791
Dry (24%)	2,627	2,727	2,942	2,870	3,296	3,785	4,095	3,928	3,490	3,035	2,772	2,729
Critical (15%)	1,347	1,328	1,532	2,223	2,396	2,618	2,683	2,502	2,127	1,768	1,546	1,470

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	113	2	15	33	60	0	0	0	4	7	2	245
20%	300	321	29	47	60	20	-4	0	-36	10	10	292
30%	281	431	37	136	78	40	0	-13	-92	-94	-4	236
40%	152	368	258	69	91	12	3	-34	-120	-10	5	144
50%	205	350	458	142	83	52	-2	-22	-99	11	48	103
60%	195	257	338	197	138	137	28	12	-42	40	-2	173
70%	304	297	257	210	37	104	158	-44	-1	-59	21	225
80%	226	288	195	194	126	4	160	175	125	119	183	246
90%	229	210	29	198	291	103	273	265	234	260	256	214
Long Term												
Full Simulation Period ^d	196	235	168	122	94	56	46	18	-15	18	23	183
Water Year Types ^{b,c}												
Wet (32%)	334	467	324	41	14	-14	-18	-31	-49	-43	-53	319
Above Normal (16%)	168	241	210	145	77	-14	-25	-58	-101	-65	-66	133
Below Normal (13%)	98	72	59	170	132	73	70	35	-30	7	58	89
Dry (24%)	133	105	49	178	176	162	146	94	52	112	111	128
Critical (15%)	120	89	83	138	115	90	76	62	57	91	105	123

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-3. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,222	3,252	3,335	3,602	3,875	4,229	4,552	4,552	4,500	4,002	3,670	3,200
20%	3,004	2,926	3,303	3,539	3,744	4,117	4,544	4,552	4,402	3,789	3,476	3,085
30%	2,874	2,799	3,260	3,388	3,635	4,032	4,475	4,548	4,279	3,614	3,277	2,989
40%	2,729	2,654	3,013	3,300	3,515	3,980	4,389	4,486	4,079	3,441	3,152	2,895
50%	2,629	2,554	2,756	3,231	3,453	3,863	4,232	4,347	3,886	3,326	3,015	2,789
60%	2,519	2,482	2,618	3,007	3,358	3,713	4,103	4,203	3,791	3,151	2,843	2,661
70%	2,247	2,278	2,394	2,737	3,252	3,426	3,960	3,951	3,406	2,891	2,655	2,446
80%	2,008	2,064	2,169	2,518	2,884	3,360	3,605	3,352	2,946	2,516	2,222	2,167
90%	1,399	1,236	1,702	1,934	2,302	2,591	2,710	2,569	2,239	1,805	1,592	1,539
Long Term												
Full Simulation Period ^d	2,456	2,421	2,641	2,951	3,251	3,609	3,951	3,936	3,640	3,109	2,799	2,561
Water Year Types ^{b,c}												
Wet (32%)	2,839	2,685	2,920	3,390	3,652	3,892	4,360	4,492	4,340	3,818	3,477	2,984
Above Normal (16%)	2,683	2,573	2,832	3,232	3,517	4,065	4,501	4,489	4,133	3,458	3,115	2,821
Below Normal (13%)	2,670	2,713	2,840	3,139	3,504	3,874	4,199	4,094	3,725	3,126	2,763	2,711
Dry (24%)	2,496	2,595	2,854	2,680	3,095	3,551	3,845	3,766	3,400	2,916	2,645	2,579
Critical (15%)	1,120	1,124	1,295	1,976	2,121	2,356	2,419	2,268	1,914	1,499	1,277	1,196

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,137	3,250	3,334	3,621	3,879	4,249	4,552	4,552	4,419	3,869	3,500	3,155
20%	2,908	2,896	3,299	3,552	3,755	4,139	4,551	4,552	4,292	3,712	3,386	2,986
30%	2,781	2,703	3,252	3,388	3,612	4,066	4,482	4,498	4,176	3,510	3,170	2,893
40%	2,670	2,612	2,997	3,327	3,548	4,000	4,435	4,374	3,971	3,311	3,001	2,809
50%	2,514	2,510	2,738	3,186	3,427	3,918	4,290	4,281	3,843	3,187	2,885	2,749
60%	2,437	2,390	2,529	3,054	3,304	3,717	4,145	4,113	3,672	3,040	2,803	2,550
70%	2,187	2,218	2,385	2,786	3,247	3,490	3,922	3,903	3,424	2,960	2,581	2,323
80%	1,979	2,023	2,203	2,471	2,938	3,416	3,669	3,416	3,005	2,607	2,297	2,137
90%	1,501	1,379	1,844	2,118	2,413	2,564	2,851	2,625	2,308	1,943	1,695	1,657
Long Term												
Full Simulation Period ^d	2,409	2,405	2,650	2,984	3,283	3,673	4,016	3,956	3,620	3,071	2,775	2,534
Water Year Types ^{b,c}												
Wet (32%)	2,747	2,629	2,892	3,392	3,644	3,910	4,363	4,450	4,228	3,686	3,376	2,886
Above Normal (16%)	2,494	2,447	2,726	3,236	3,503	4,074	4,502	4,425	4,036	3,332	2,989	2,681
Below Normal (13%)	2,645	2,703	2,854	3,230	3,558	3,978	4,281	4,111	3,712	3,103	2,761	2,702
Dry (24%)	2,494	2,622	2,893	2,692	3,120	3,623	3,949	3,834	3,438	2,923	2,661	2,601
Critical (15%)	1,227	1,239	1,450	2,085	2,280	2,528	2,608	2,440	2,069	1,677	1,441	1,347

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-86	-2	-1	19	5	20	0	0	-81	-134	-170	-45
20%	-96	-30	-5	13	11	22	7	0	-110	-76	-90	-99
30%	-92	-96	-8	1	-24	34	7	-50	-103	-104	-107	-95
40%	-59	-43	-15	27	33	20	46	-113	-107	-129	-151	-86
50%	-115	-45	-18	-46	-26	56	57	-65	-43	-139	-130	-40
60%	-81	-91	-89	47	-54	4	42	-90	-119	-111	-40	-111
70%	-60	-61	-9	50	-5	64	-38	-48	18	69	-73	-123
80%	-29	-41	33	-47	54	56	64	64	59	91	76	-31
90%	103	143	143	184	111	-27	141	57	69	137	103	119
Long Term												
Full Simulation Period ^d	-47	-16	8	32	32	64	65	20	-21	-37	-24	-27
Water Year Types ^{b,c}												
Wet (32%)	-92	-56	-29	2	-8	18	3	-42	-112	-132	-101	-98
Above Normal (16%)	-189	-126	-106	5	-13	9	1	-64	-98	-125	-126	-140
Below Normal (13%)	-25	-11	14	91	54	104	82	16	-12	-23	-2	-9
Dry (24%)	-1	26	39	12	25	72	104	68	38	7	16	22
Critical (15%)	106	115	155	109	160	172	189	172	156	178	163	151

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-4. Shasta Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,650	3,928	4,223	4,552	4,552	4,500	4,015	3,672	3,400
20%	3,250	3,252	3,321	3,604	3,793	4,123	4,518	4,552	4,408	3,806	3,464	3,377
30%	3,170	3,162	3,305	3,526	3,705	4,044	4,454	4,535	4,251	3,594	3,257	3,197
40%	3,008	3,029	3,268	3,383	3,615	3,998	4,369	4,440	4,019	3,444	3,120	3,023
50%	2,793	2,818	3,209	3,322	3,514	3,964	4,268	4,324	3,872	3,288	3,008	2,940
60%	2,721	2,702	2,920	3,226	3,434	3,831	4,139	4,173	3,681	3,164	2,798	2,735
70%	2,427	2,500	2,624	2,927	3,263	3,605	4,038	3,892	3,467	2,889	2,708	2,580
80%	2,241	2,321	2,311	2,601	2,989	3,405	3,792	3,520	3,087	2,681	2,430	2,357
90%	1,559	1,415	1,859	2,042	2,519	2,682	2,772	2,781	2,426	2,012	1,741	1,628
Long Term												
Full Simulation Period ^d	2,616	2,626	2,791	3,062	3,330	3,666	3,996	3,961	3,637	3,127	2,822	2,713
Water Year Types ^{b,c}												
Wet (32%)	3,133	3,120	3,224	3,422	3,655	3,880	4,336	4,474	4,312	3,783	3,436	3,260
Above Normal (16%)	2,781	2,750	2,960	3,353	3,561	4,046	4,471	4,437	4,059	3,399	3,054	2,922
Below Normal (13%)	2,732	2,762	2,879	3,381	3,670	4,005	4,304	4,153	3,699	3,139	2,818	2,767
Dry (24%)	2,608	2,675	2,921	2,828	3,239	3,691	3,977	3,854	3,448	3,008	2,743	2,687
Critical (15%)	1,229	1,213	1,374	2,063	2,218	2,441	2,497	2,338	1,977	1,601	1,379	1,296

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,654	3,940	4,249	4,552	4,552	4,423	3,875	3,502	3,400
20%	3,208	3,218	3,327	3,599	3,815	4,158	4,547	4,552	4,256	3,722	3,396	3,277
30%	3,062	3,134	3,289	3,524	3,690	4,106	4,482	4,485	4,084	3,415	3,166	3,129
40%	2,822	2,980	3,255	3,396	3,639	4,012	4,438	4,339	3,851	3,302	3,006	2,953
50%	2,719	2,860	3,196	3,328	3,510	3,970	4,288	4,260	3,744	3,199	2,933	2,851
60%	2,632	2,648	2,867	3,251	3,442	3,854	4,173	4,125	3,630	3,080	2,801	2,723
70%	2,491	2,514	2,642	2,996	3,283	3,595	4,080	3,859	3,423	2,901	2,602	2,548
80%	2,205	2,311	2,398	2,665	3,064	3,420	3,829	3,591	3,130	2,726	2,481	2,382
90%	1,730	1,588	1,874	2,317	2,704	2,667	3,123	2,891	2,541	2,203	1,951	1,872
Long Term												
Full Simulation Period ^d	2,605	2,640	2,818	3,106	3,377	3,729	4,062	3,974	3,605	3,089	2,798	2,717
Water Year Types ^{b,c}												
Wet (32%)	3,081	3,096	3,216	3,432	3,658	3,897	4,344	4,420	4,179	3,643	3,323	3,205
Above Normal (16%)	2,662	2,688	2,936	3,381	3,580	4,060	4,476	4,367	3,935	3,267	2,923	2,813
Below Normal (13%)	2,743	2,775	2,913	3,400	3,690	4,051	4,351	4,146	3,683	3,110	2,819	2,791
Dry (24%)	2,627	2,727	2,942	2,870	3,296	3,785	4,095	3,928	3,490	3,035	2,772	2,729
Critical (15%)	1,347	1,328	1,532	2,223	2,396	2,618	2,683	2,502	2,127	1,768	1,546	1,470

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	4	12	26	0	0	-77	-140	-170	0
20%	-42	-34	6	-5	22	35	29	0	-152	-84	-68	-100
30%	-108	-28	-16	-2	-15	62	28	-50	-168	-179	-91	-68
40%	-186	-49	-14	13	23	14	69	-100	-168	-142	-114	-70
50%	-73	42	-13	6	-4	6	20	-65	-128	-89	-75	-89
60%	-89	-54	-53	25	8	23	34	-48	-50	-84	3	-11
70%	64	14	18	69	21	-10	42	-33	-44	12	-106	-32
80%	-36	-10	87	63	75	16	37	71	43	45	50	26
90%	171	174	14	275	185	-15	351	110	115	190	210	244
Long Term												
Full Simulation Period ^d	-12	14	27	44	47	63	66	13	-32	-38	-25	5
Water Year Types ^{b,c}												
Wet (32%)	-52	-24	-8	10	3	17	8	-54	-133	-141	-112	-55
Above Normal (16%)	-119	-61	-24	29	19	14	6	-70	-124	-131	-131	-108
Below Normal (13%)	11	13	34	19	20	46	48	-8	-16	-28	2	24
Dry (24%)	20	52	21	42	57	95	118	73	42	27	29	42
Critical (15%)	118	115	158	160	178	177	187	164	150	167	167	174

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

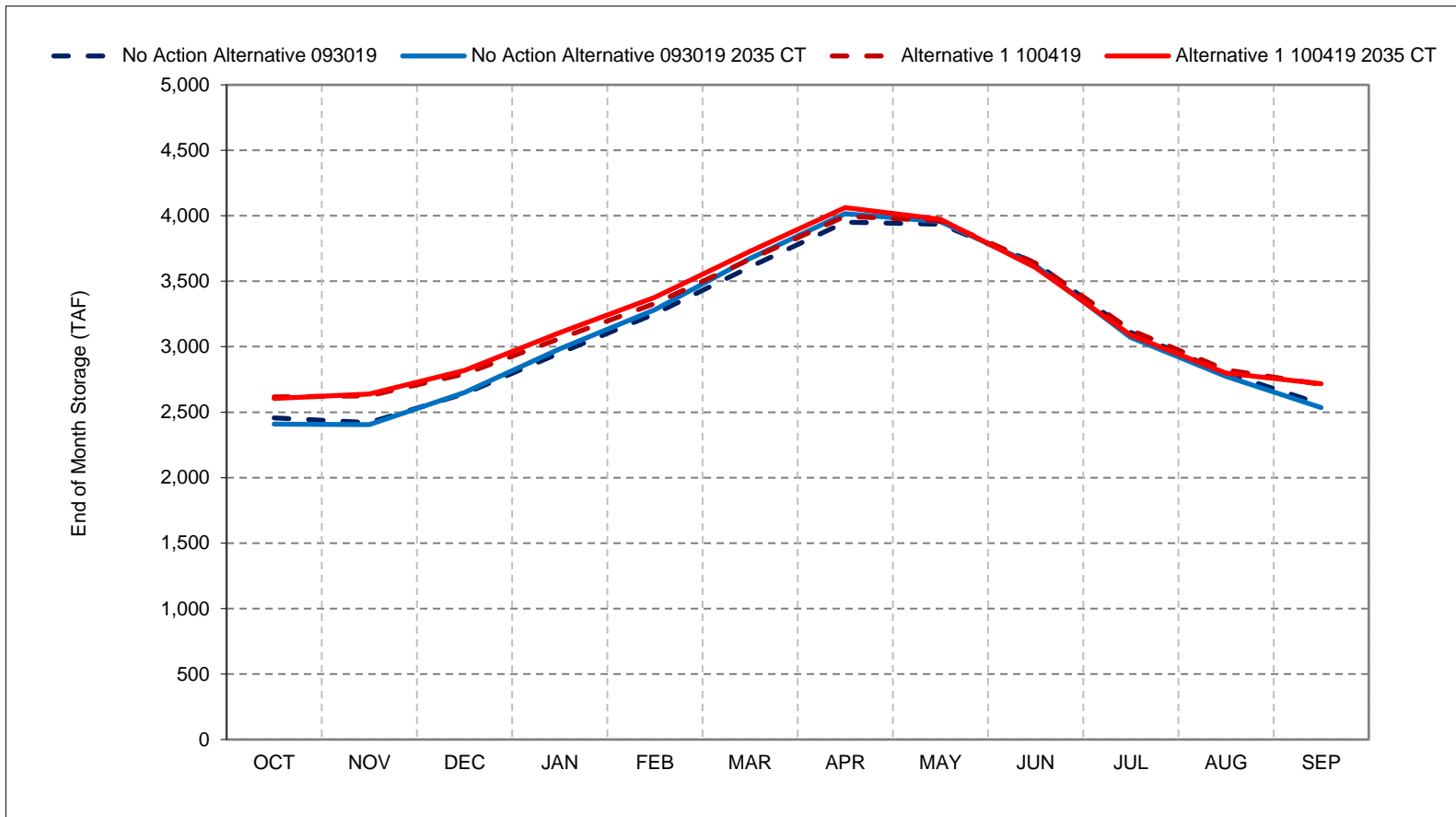
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3-1. Shasta Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

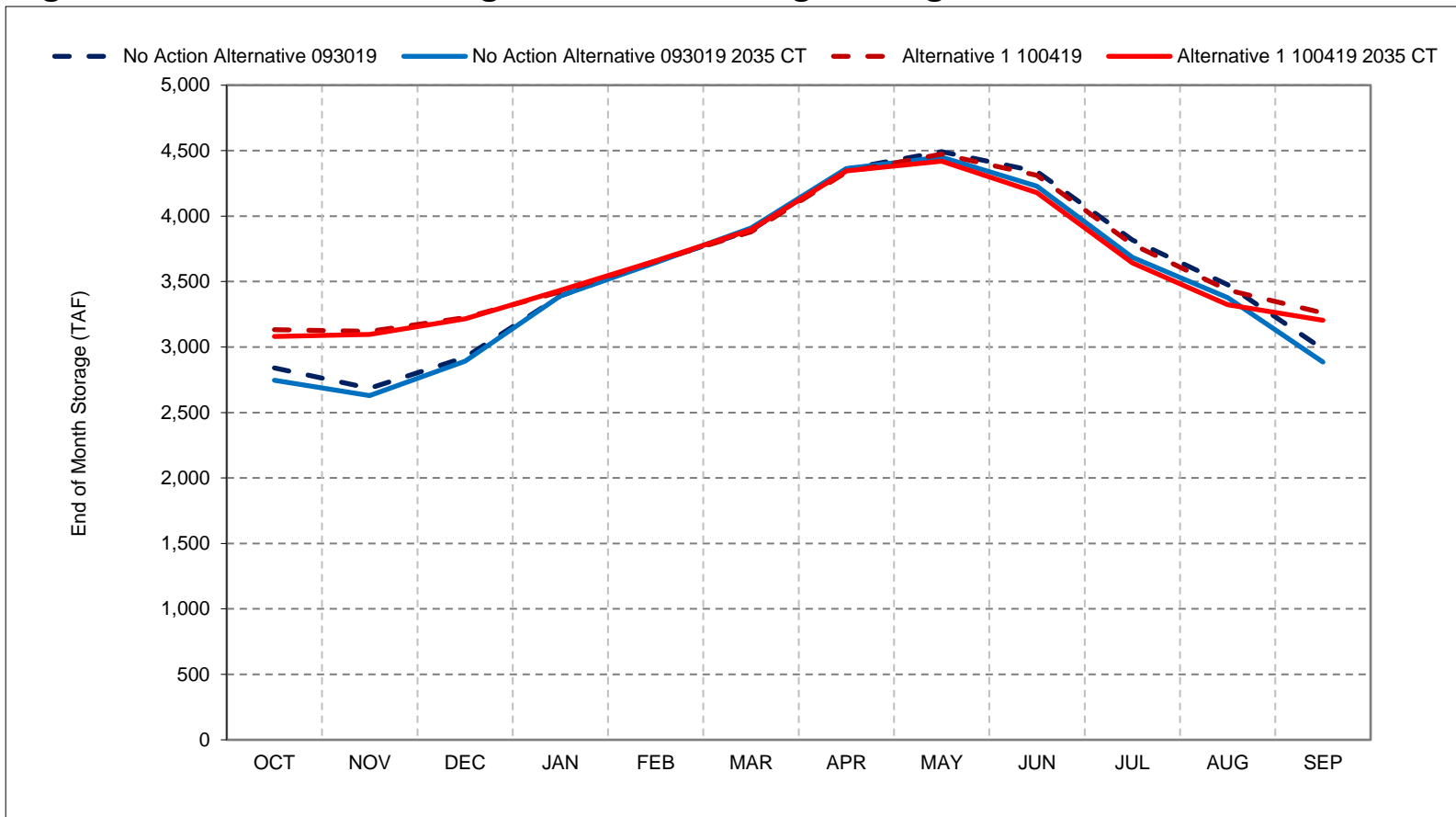
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-2. Shasta Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

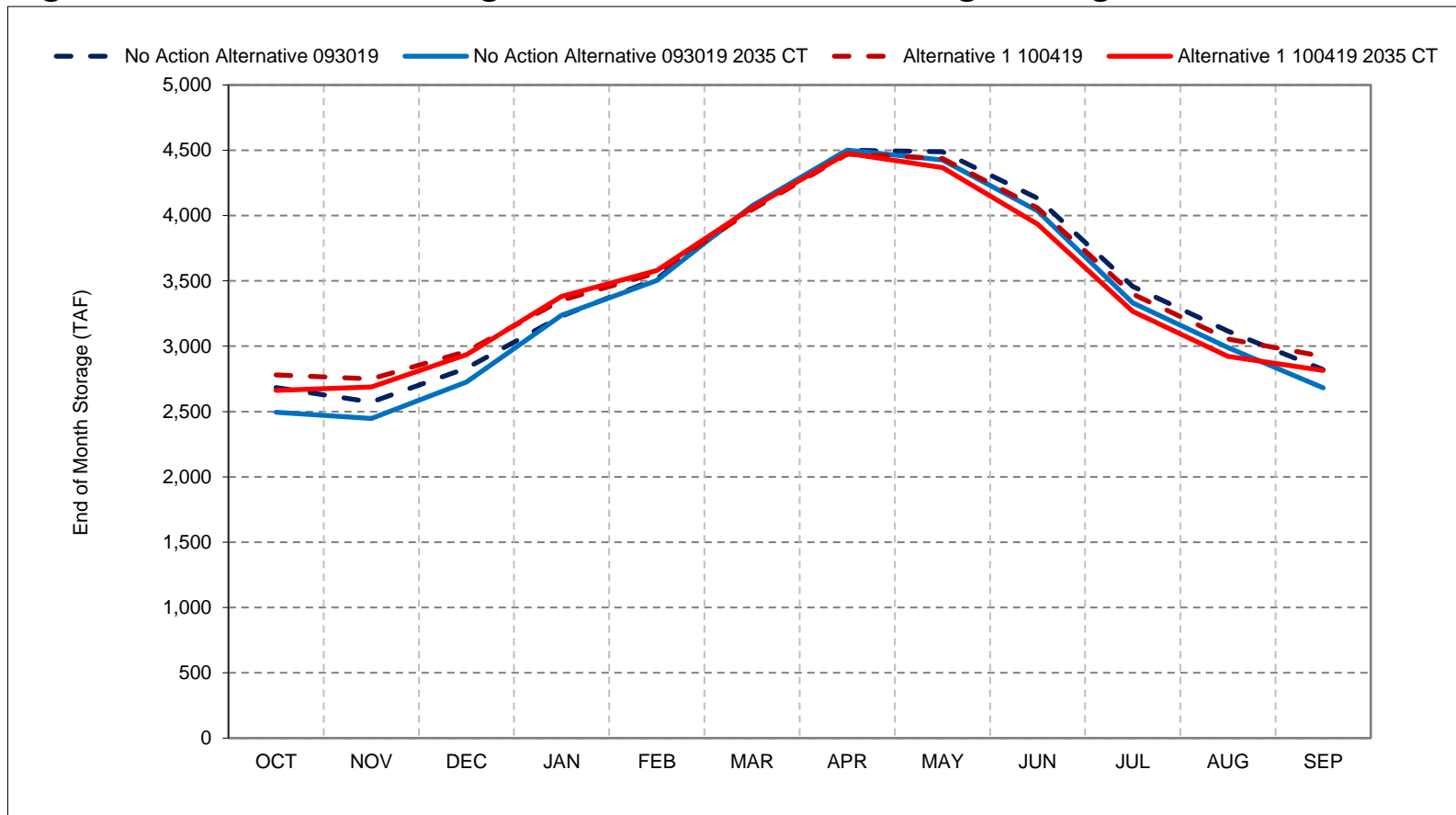
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-3. Shasta Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

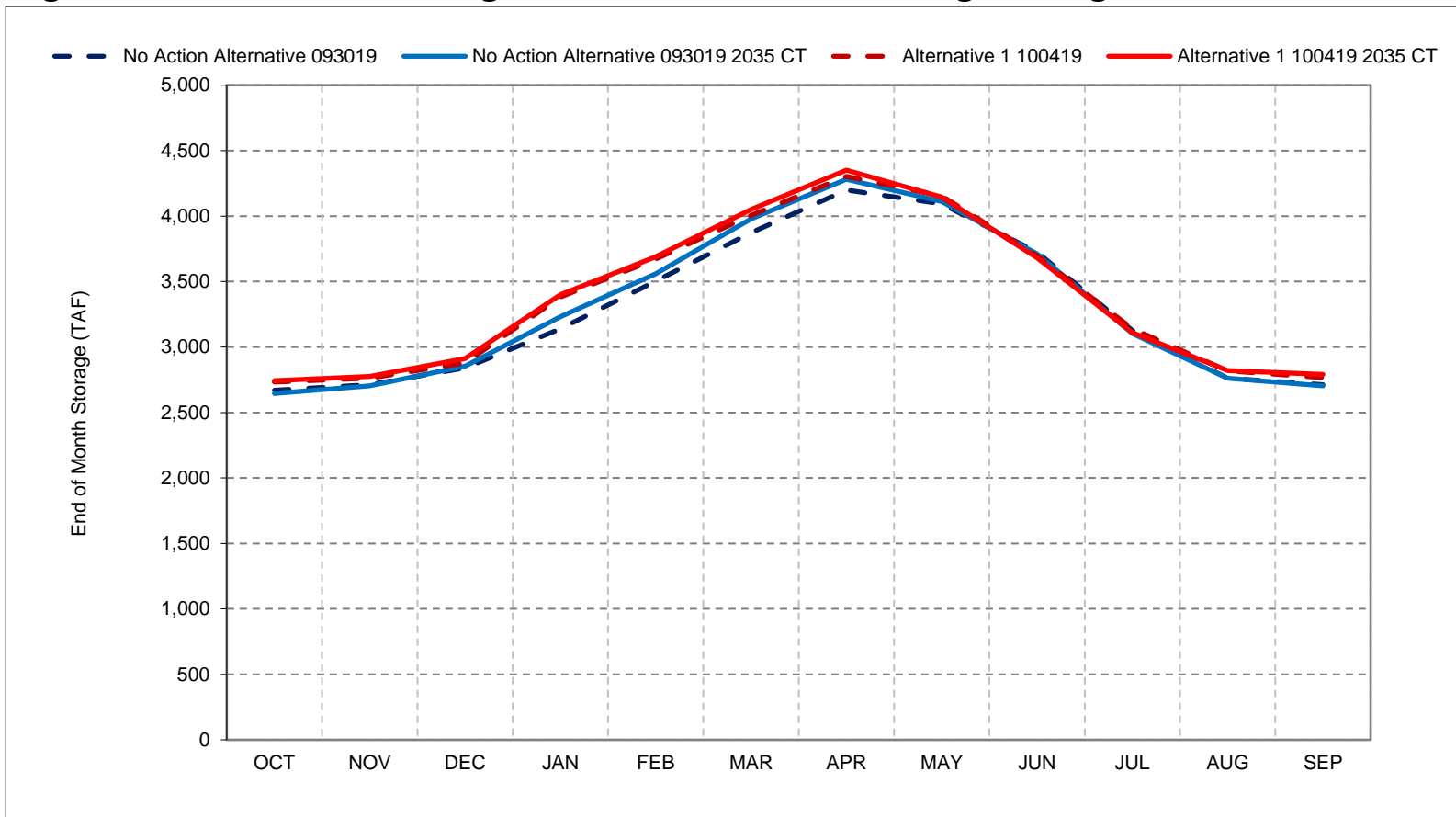
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-4. Shasta Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

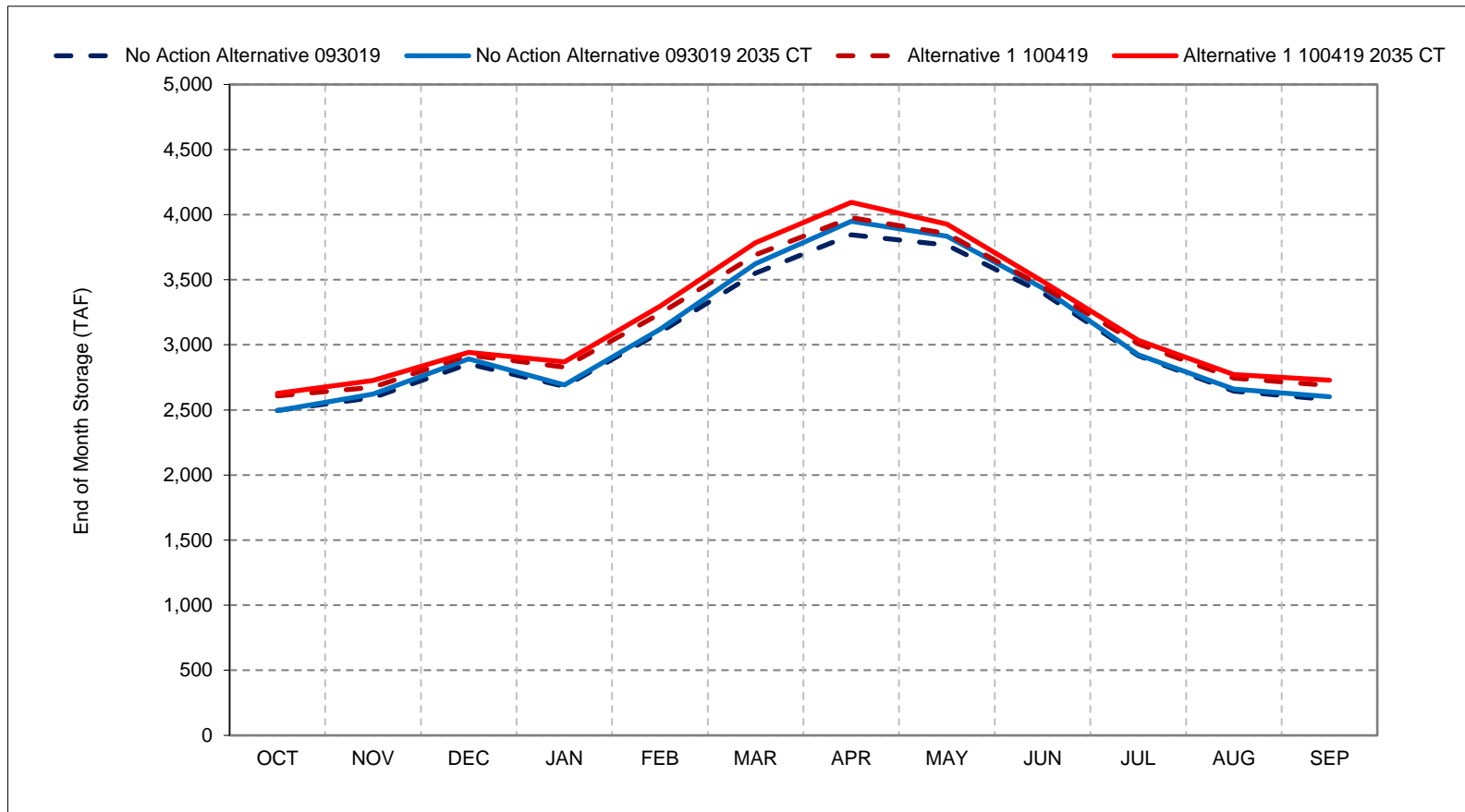
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-5. Shasta Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

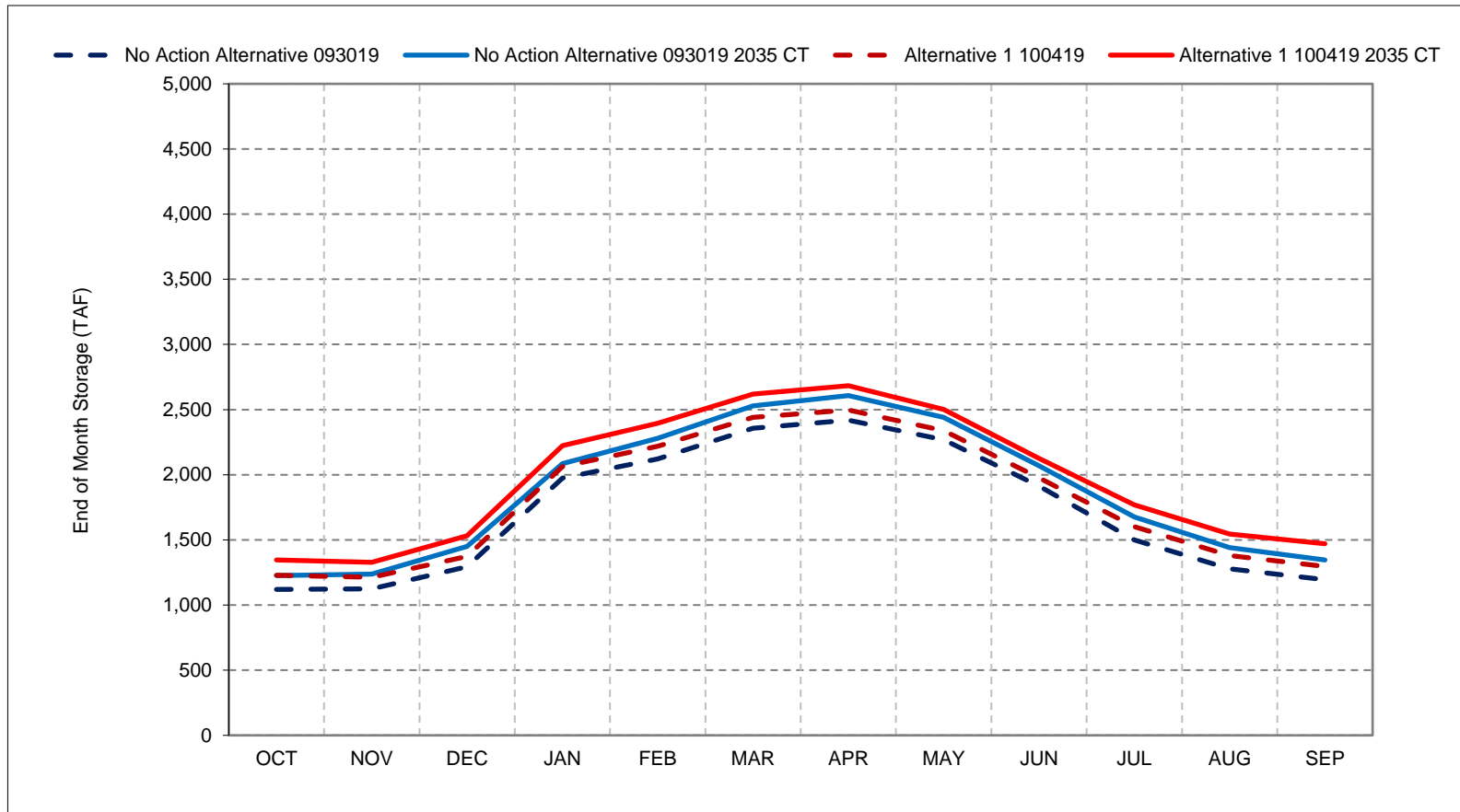
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-6. Shasta Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

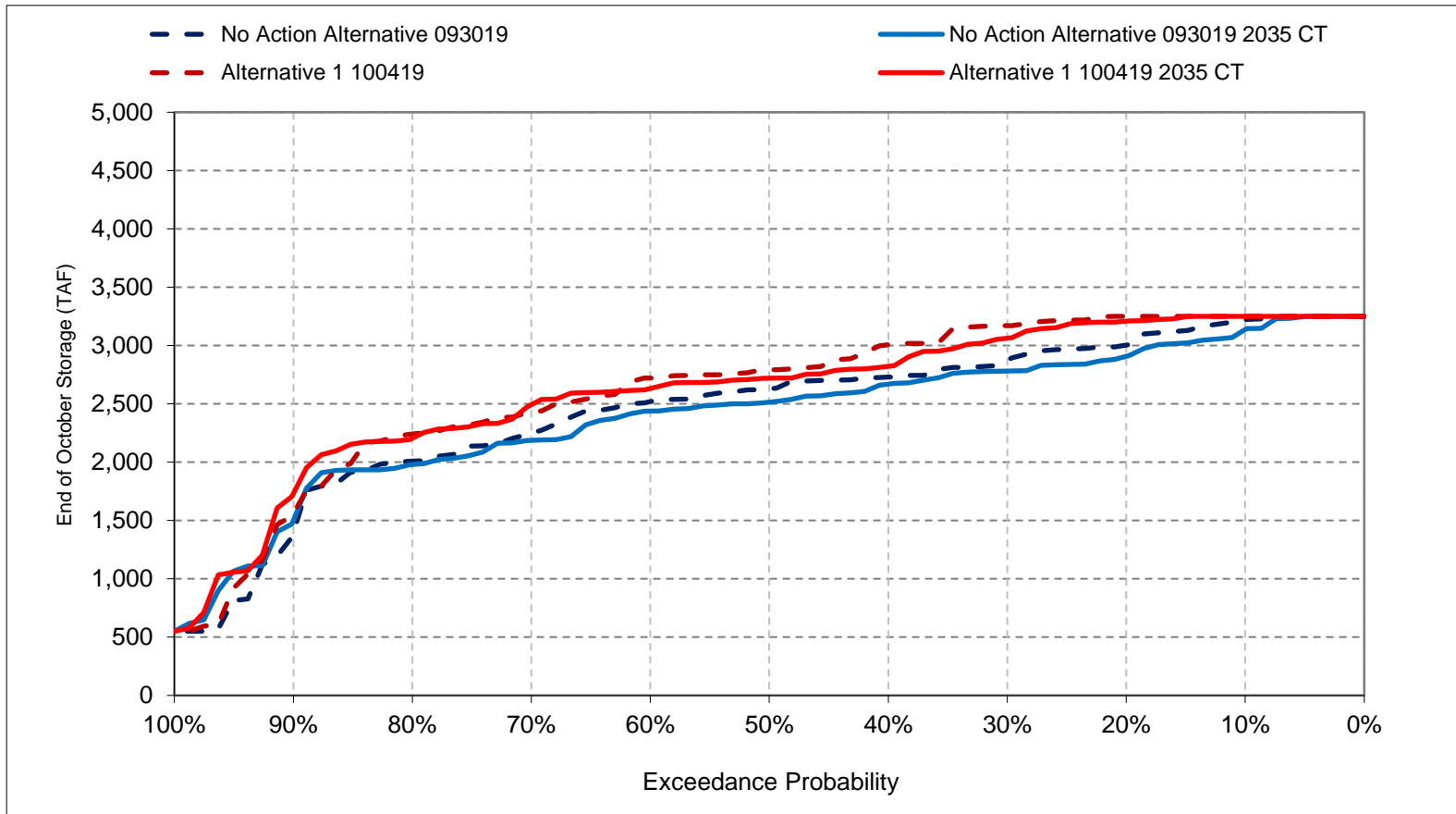
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

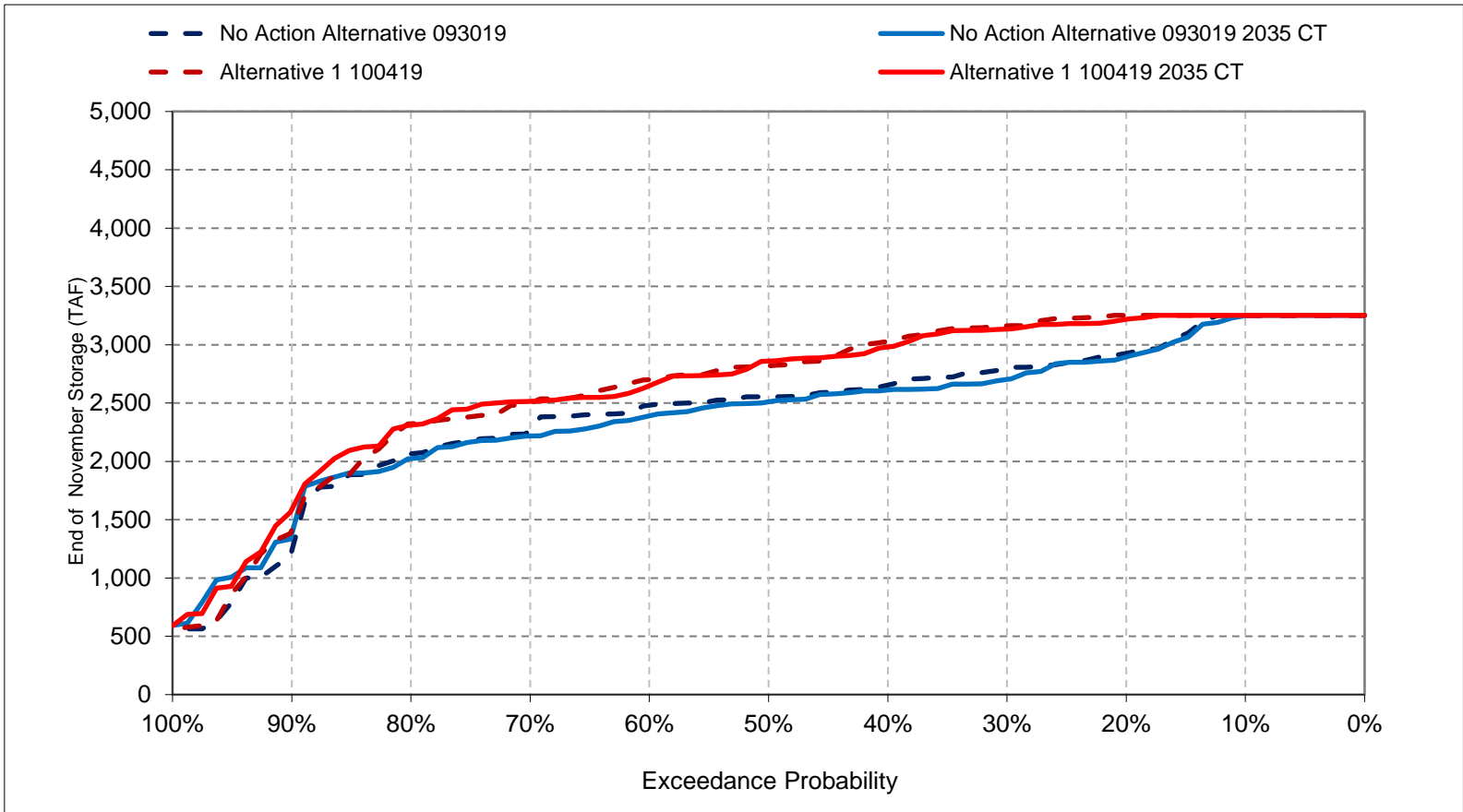
Figure 3-7. Shasta Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

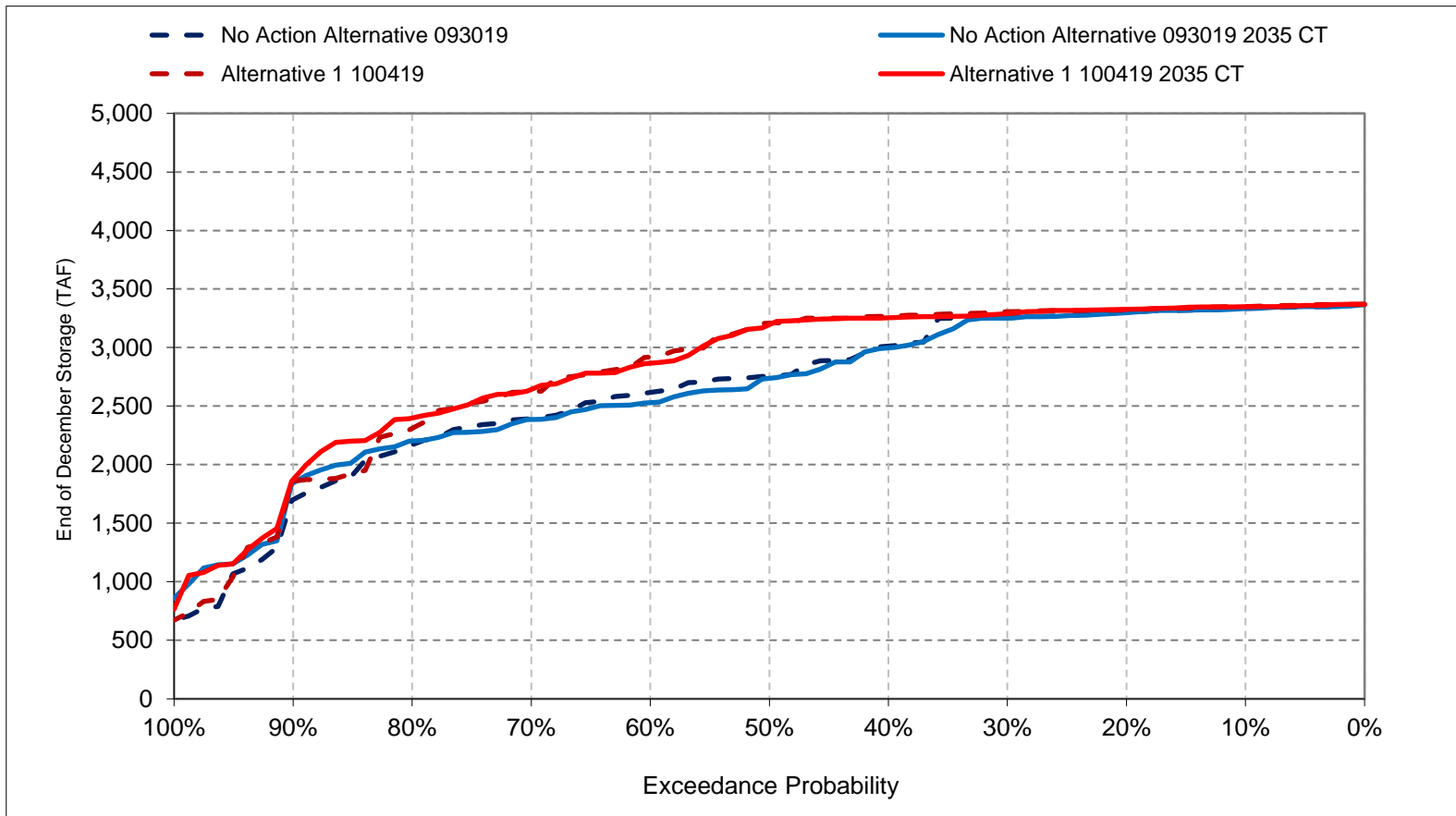
Figure 3-8. Shasta Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

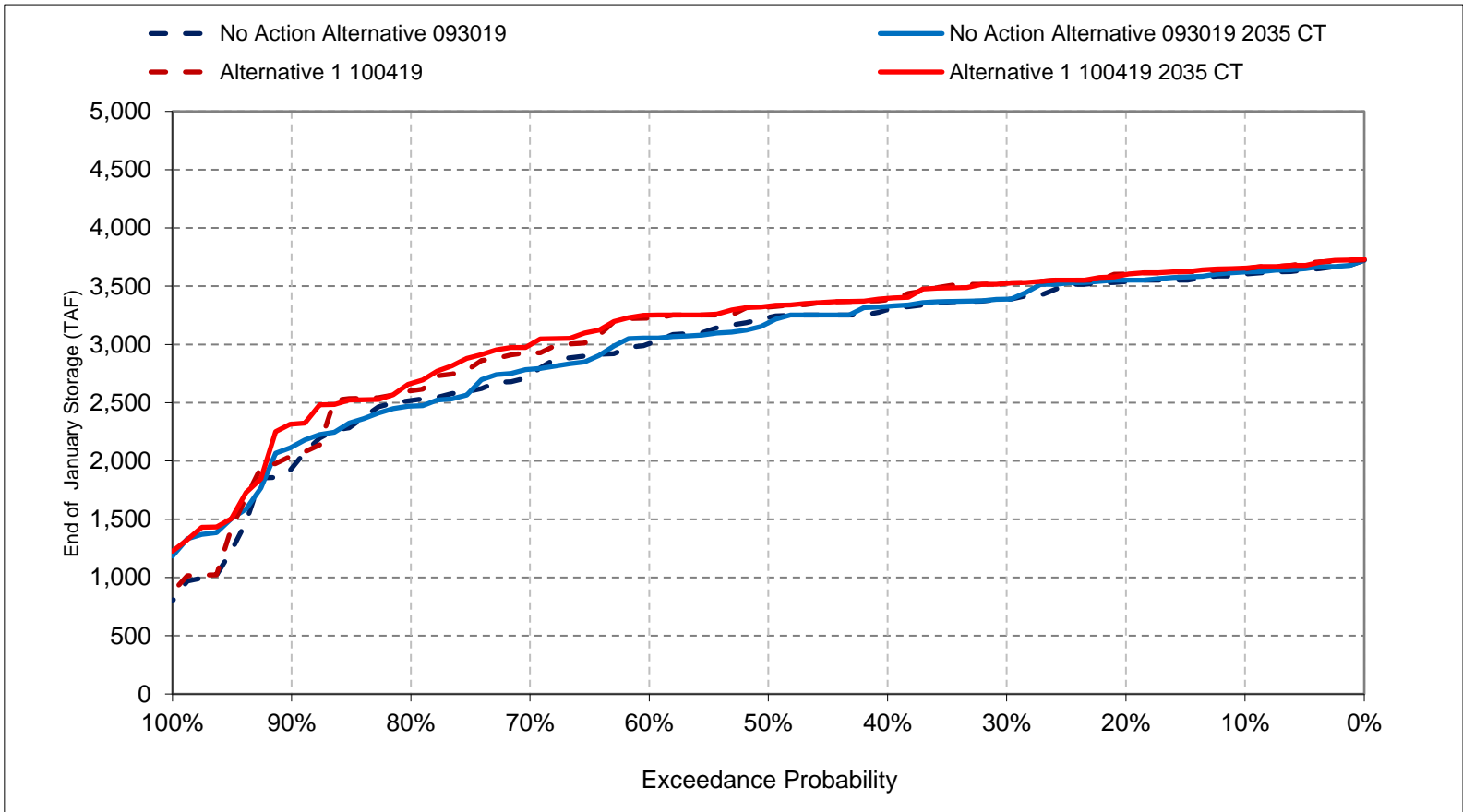
Figure 3-9. Shasta Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

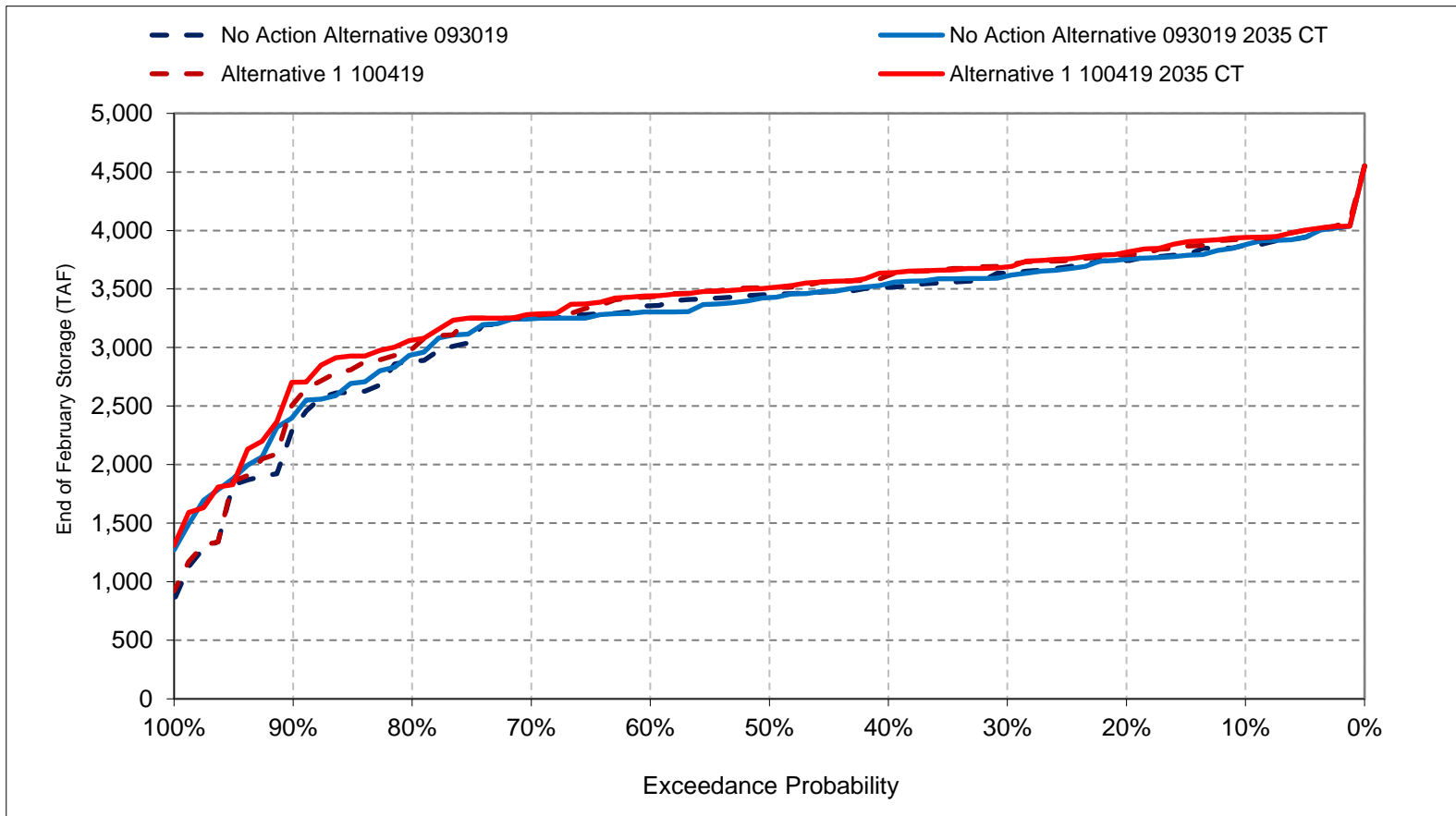
Figure 3-10. Shasta Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

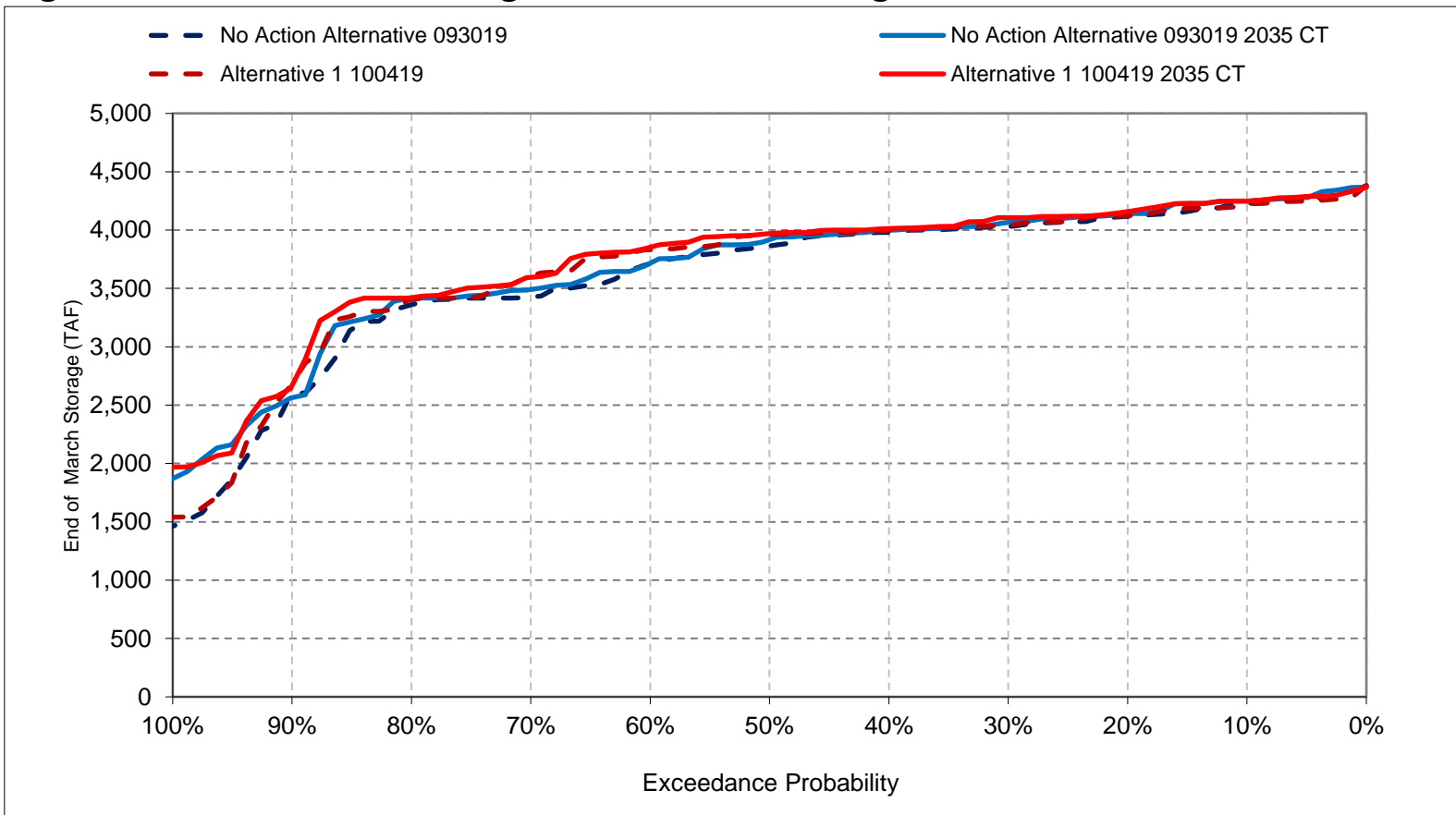
Figure 3-11. Shasta Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

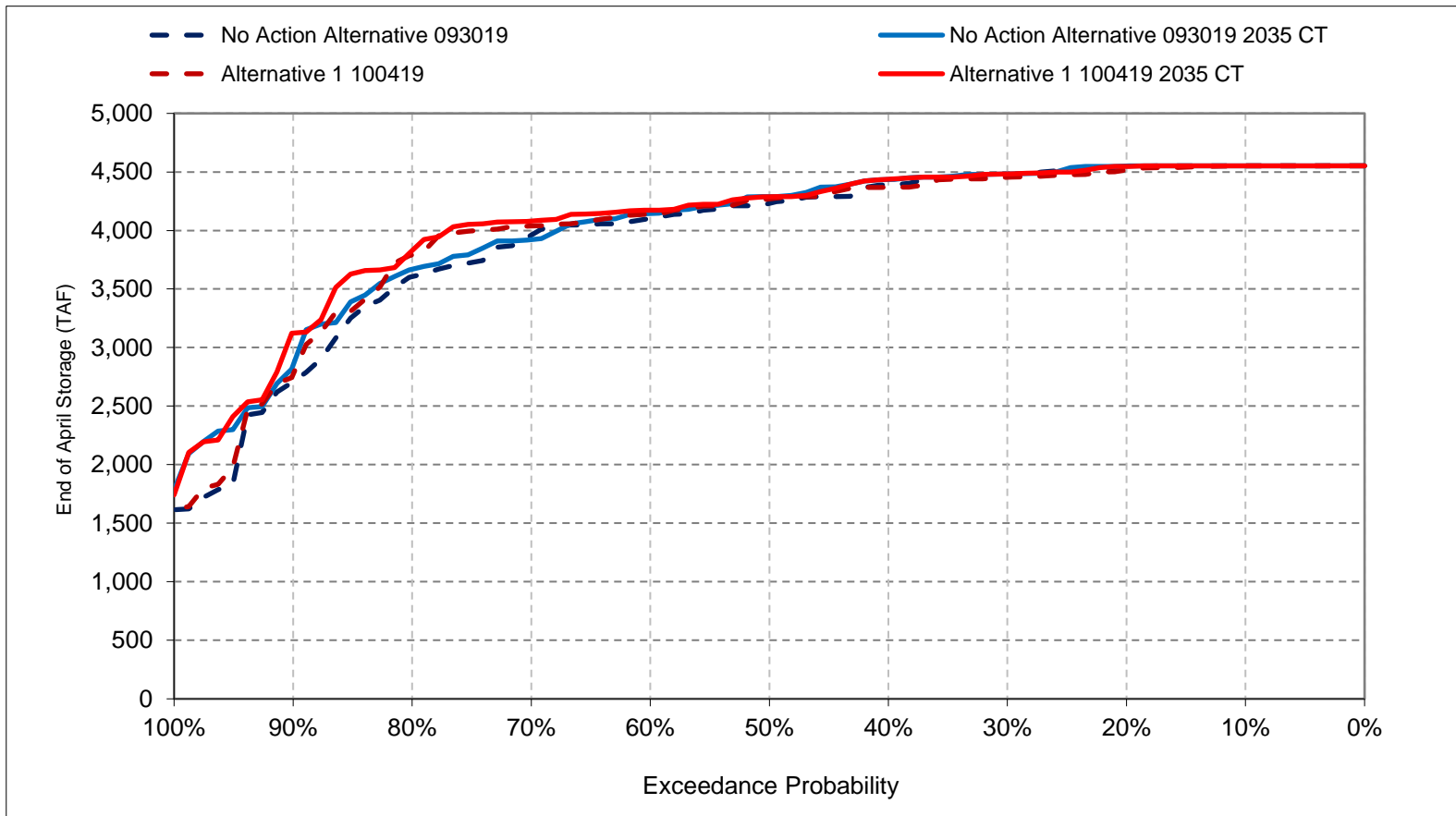
Figure 3-12. Shasta Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

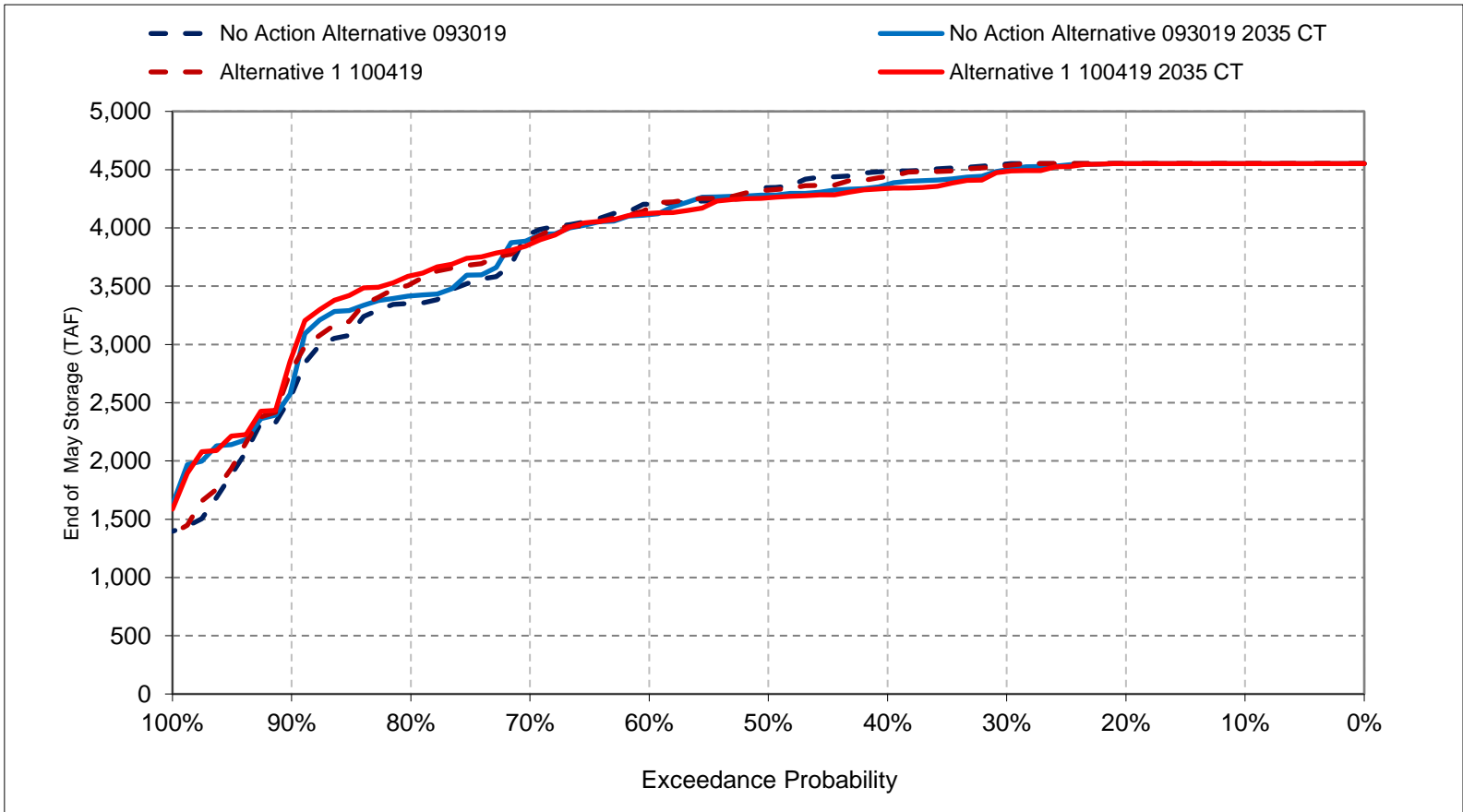
Figure 3-13. Shasta Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

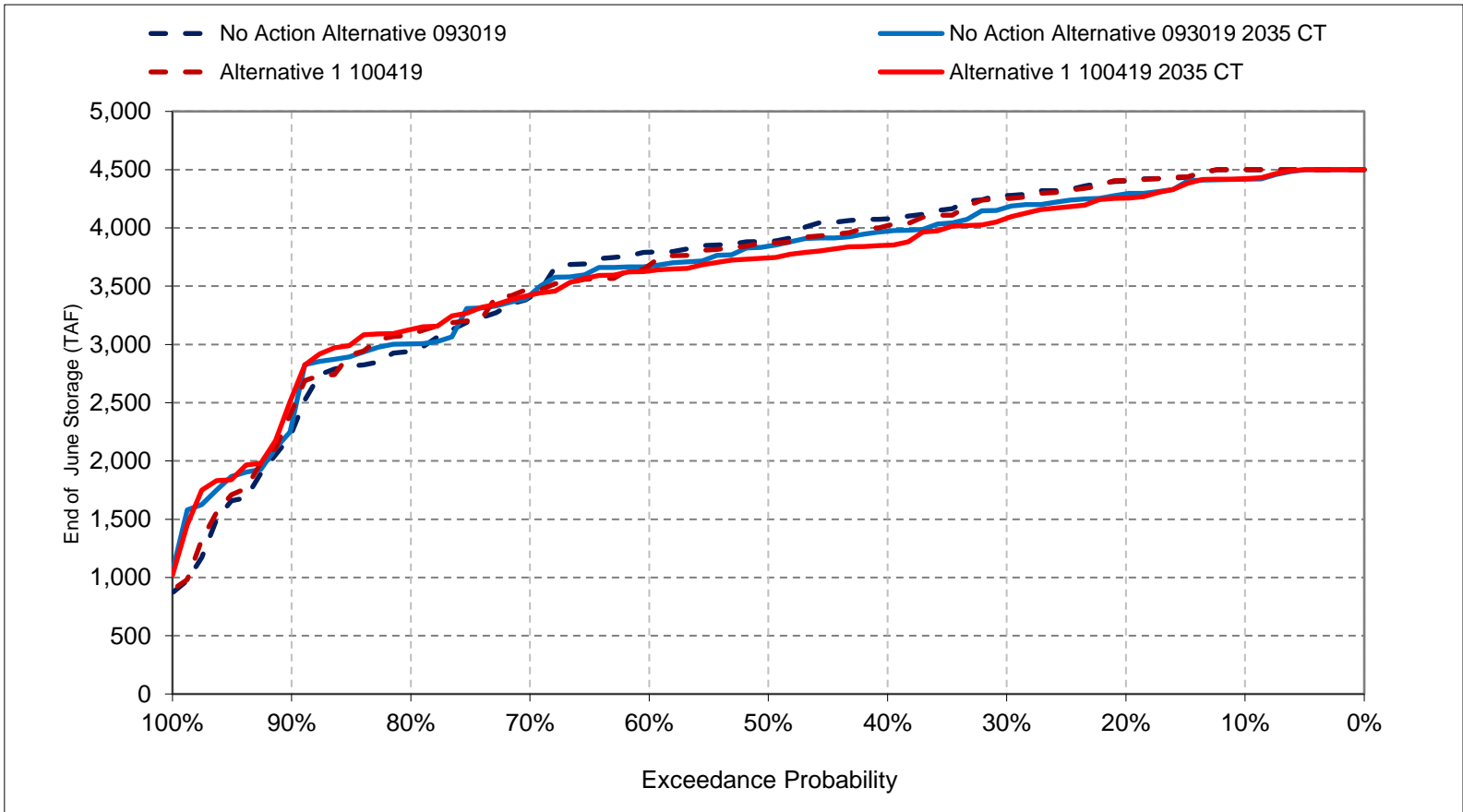
Figure 3-14. Shasta Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

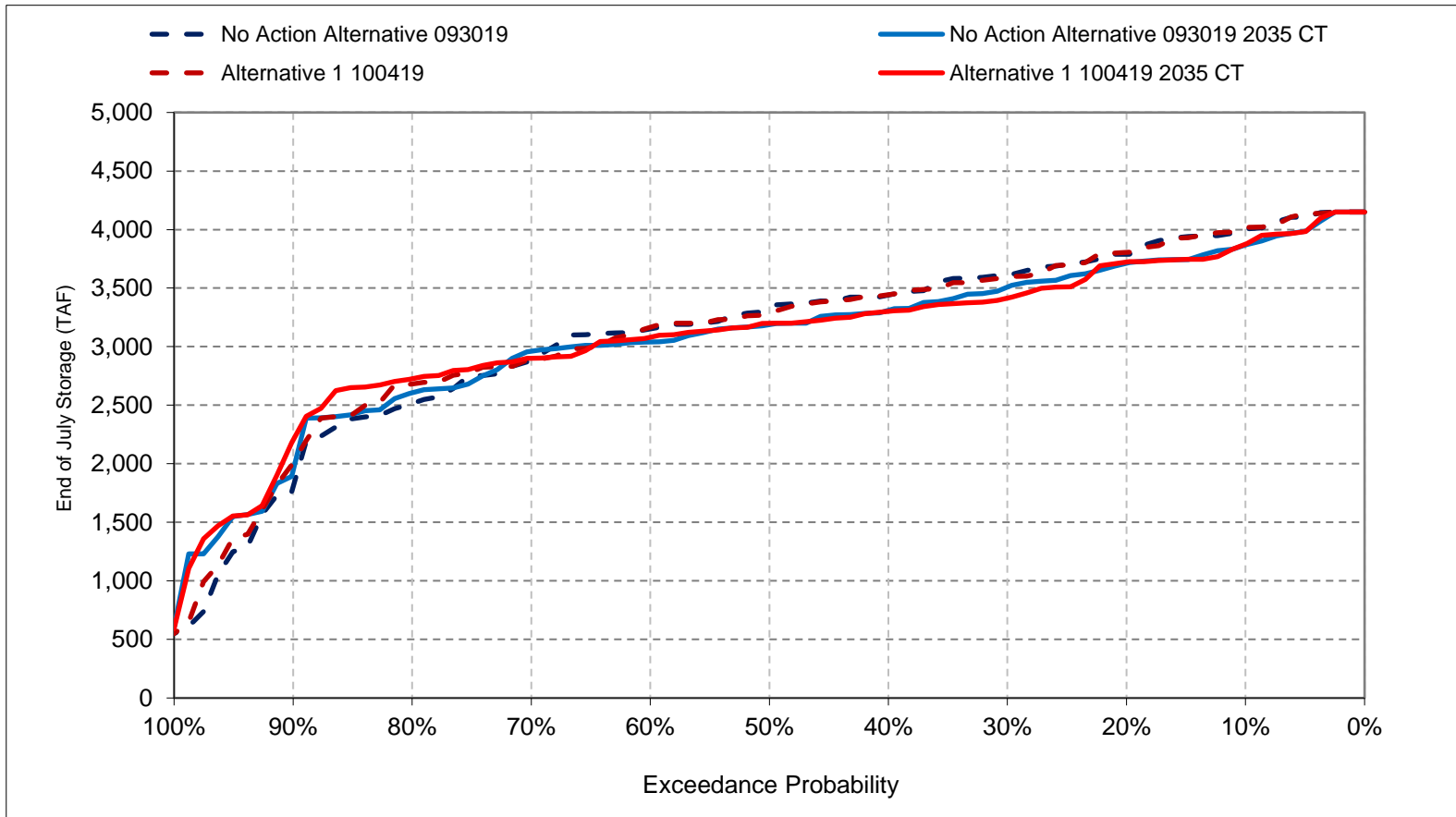
Figure 3-15. Shasta Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

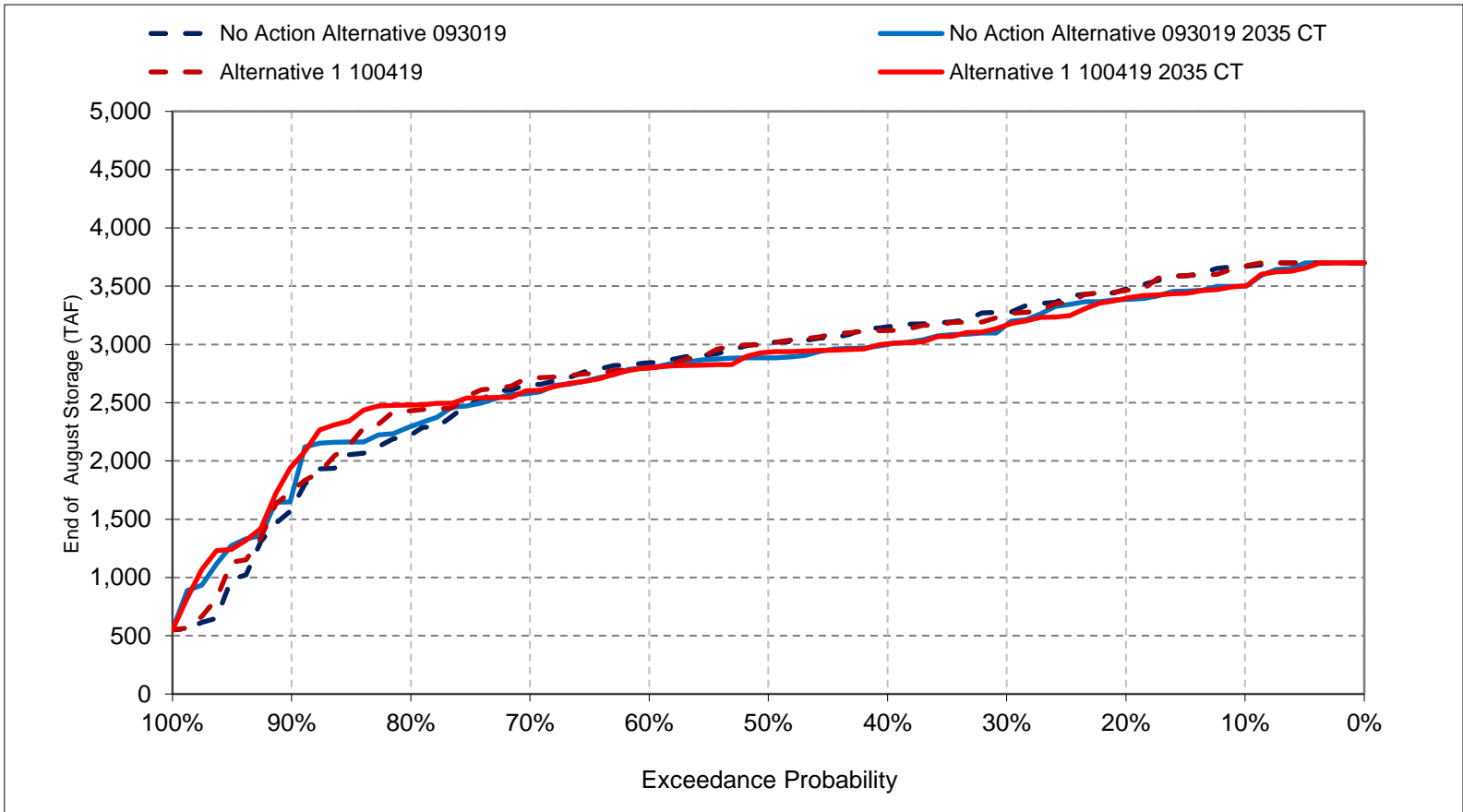
Figure 3-16. Shasta Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

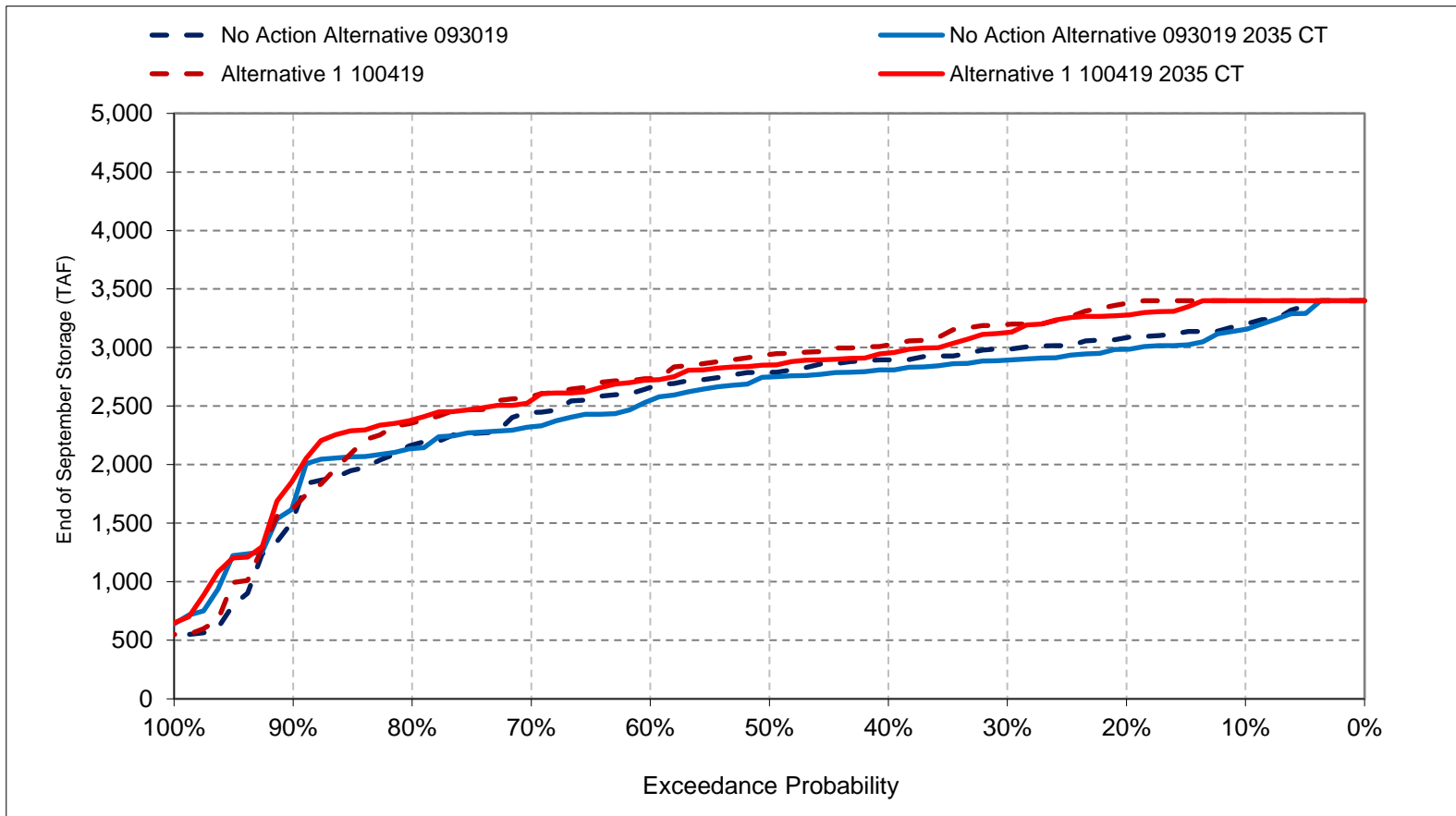
Figure 3-17. Shasta Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3-18. Shasta Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-1. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,016	1,017	1,021	1,032	1,043	1,055	1,067	1,067	1,065	1,047	1,035	1,015
20%	1,006	1,003	1,019	1,029	1,038	1,051	1,067	1,067	1,062	1,040	1,027	1,010
30%	1,001	997	1,017	1,023	1,034	1,048	1,064	1,067	1,057	1,033	1,018	1,006
40%	994	991	1,007	1,019	1,028	1,047	1,061	1,065	1,050	1,025	1,013	1,002
50%	990	987	995	1,016	1,026	1,042	1,056	1,060	1,043	1,020	1,007	997
60%	985	983	989	1,006	1,022	1,037	1,051	1,055	1,040	1,013	999	991
70%	970	972	978	995	1,017	1,025	1,046	1,046	1,024	1,001	991	981
80%	956	959	965	985	1,001	1,022	1,032	1,021	1,004	985	968	965
90%	917	905	939	952	973	988	993	987	969	945	931	927
Long Term												
Full Simulation Period ^d	976	974	985	1,001	1,015	1,030	1,043	1,042	1,029	1,007	992	981
Water Year Types ^{b,c}												
Wet (32%)	998	992	1,002	1,023	1,034	1,043	1,060	1,065	1,059	1,040	1,027	1,005
Above Normal (16%)	991	986	998	1,016	1,028	1,049	1,065	1,065	1,052	1,026	1,011	998
Below Normal (13%)	990	992	998	1,012	1,028	1,042	1,054	1,050	1,036	1,011	995	992
Dry (24%)	982	987	998	989	1,009	1,028	1,041	1,037	1,023	1,002	989	986
Critical (15%)	887	887	903	947	957	972	976	967	945	916	899	892

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,055	1,067	1,067	1,065	1,048	1,035	1,023
20%	1,017	1,017	1,020	1,032	1,040	1,052	1,066	1,067	1,062	1,040	1,026	1,022
30%	1,013	1,013	1,019	1,029	1,037	1,049	1,063	1,066	1,056	1,032	1,017	1,015
40%	1,006	1,007	1,018	1,023	1,033	1,047	1,060	1,063	1,048	1,025	1,011	1,007
50%	997	998	1,015	1,020	1,028	1,046	1,057	1,059	1,043	1,019	1,006	1,003
60%	994	993	1,003	1,016	1,025	1,041	1,052	1,053	1,036	1,013	997	995
70%	980	984	990	1,003	1,017	1,032	1,049	1,043	1,026	1,001	993	988
80%	969	974	973	989	1,006	1,024	1,040	1,029	1,010	992	980	976
90%	929	918	948	958	985	992	996	997	980	956	941	934
Long Term												
Full Simulation Period ^d	984	984	993	1,006	1,018	1,032	1,045	1,043	1,030	1,008	994	988
Water Year Types ^{b,c}												
Wet (32%)	1,012	1,011	1,016	1,024	1,034	1,043	1,059	1,064	1,058	1,039	1,025	1,017
Above Normal (16%)	996	994	1,004	1,021	1,030	1,049	1,064	1,063	1,049	1,023	1,008	1,003
Below Normal (13%)	993	994	1,000	1,023	1,035	1,047	1,058	1,053	1,035	1,012	997	995
Dry (24%)	987	991	1,002	996	1,015	1,034	1,046	1,041	1,025	1,006	994	991
Critical (15%)	895	894	908	952	962	977	980	971	949	923	907	900

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	0	1	2	2	0	0	0	0	0	0	9
20%	11	14	1	3	2	0	-1	0	0	1	-1	13
30%	13	16	2	6	3	0	-1	0	-1	-1	-1	9
40%	12	16	11	4	4	1	-1	-2	-2	0	-1	6
50%	7	11	20	4	3	4	1	-1	-1	-2	0	7
60%	9	10	13	9	3	4	1	-1	-4	1	-2	3
70%	10	12	12	8	0	8	3	-2	3	0	2	7
80%	13	15	8	4	5	2	8	7	6	7	12	11
90%	12	13	9	6	12	4	3	9	10	12	10	7
Long Term												
Full Simulation Period ^d	8	10	7	5	4	2	2	1	0	1	2	7
Water Year Types ^{b,c}												
Wet (32%)	13	20	14	1	0	0	-1	-1	-1	-2	-2	12
Above Normal (16%)	5	8	6	5	2	-1	-1	-2	-3	-3	-3	5
Below Normal (13%)	3	3	2	10	7	5	4	2	-1	1	3	3
Dry (24%)	6	4	3	7	6	6	5	4	2	4	5	6
Critical (15%)	9	7	6	5	5	4	4	4	4	7	8	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT Q5 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 3a-2. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,012	1,017	1,021	1,033	1,043	1,056	1,067	1,067	1,062	1,043	1,028	1,013
20%	1,002	1,002	1,019	1,030	1,038	1,052	1,067	1,067	1,058	1,037	1,023	1,005
30%	997	993	1,017	1,023	1,033	1,050	1,065	1,065	1,054	1,028	1,013	1,001
40%	992	989	1,006	1,020	1,030	1,047	1,063	1,061	1,046	1,020	1,006	998
50%	985	985	995	1,014	1,025	1,044	1,058	1,057	1,042	1,014	1,001	995
60%	981	978	986	1,008	1,019	1,037	1,052	1,051	1,035	1,008	998	987
70%	966	968	978	997	1,017	1,027	1,044	1,044	1,024	1,004	988	974
80%	955	957	967	983	1,003	1,024	1,035	1,024	1,006	989	973	964
90%	924	915	947	963	979	987	1,000	990	973	953	938	935
Long Term												
Full Simulation Period ^d	974	974	987	1,003	1,017	1,033	1,046	1,043	1,030	1,006	992	981
Water Year Types ^{b,c}												
Wet (32%)	994	989	1,001	1,023	1,033	1,044	1,060	1,063	1,055	1,035	1,022	1,001
Above Normal (16%)	982	979	993	1,016	1,028	1,050	1,065	1,062	1,048	1,020	1,006	991
Below Normal (13%)	989	991	998	1,016	1,030	1,046	1,057	1,051	1,036	1,010	995	992
Dry (24%)	982	988	1,001	990	1,011	1,032	1,045	1,040	1,025	1,003	990	987
Critical (15%)	898	899	917	957	969	983	987	978	957	932	915	907

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,056	1,067	1,067	1,062	1,043	1,028	1,023
20%	1,015	1,015	1,020	1,032	1,041	1,053	1,067	1,067	1,056	1,037	1,023	1,018
30%	1,009	1,012	1,019	1,029	1,036	1,051	1,065	1,065	1,050	1,024	1,013	1,012
40%	998	1,005	1,017	1,023	1,034	1,048	1,063	1,059	1,042	1,019	1,006	1,004
50%	994	1,000	1,015	1,020	1,028	1,046	1,058	1,057	1,038	1,015	1,003	1,000
60%	990	991	1,000	1,017	1,025	1,042	1,053	1,052	1,033	1,010	997	994
70%	984	985	991	1,006	1,018	1,032	1,050	1,042	1,024	1,002	989	986
80%	967	973	978	992	1,009	1,024	1,041	1,032	1,012	994	983	977
90%	940	931	949	974	993	992	1,011	1,001	986	967	953	949
Long Term												
Full Simulation Period ^d	984	986	995	1,009	1,021	1,035	1,048	1,044	1,029	1,007	994	990
Water Year Types ^{b,c}												
Wet (32%)	1,009	1,010	1,015	1,025	1,034	1,043	1,060	1,062	1,053	1,033	1,020	1,015
Above Normal (16%)	990	992	1,003	1,022	1,031	1,049	1,064	1,060	1,045	1,018	1,003	997
Below Normal (13%)	994	995	1,001	1,023	1,035	1,049	1,060	1,052	1,035	1,011	998	996
Dry (24%)	989	993	1,003	999	1,018	1,038	1,050	1,044	1,027	1,008	996	994
Critical (15%)	906	904	922	965	974	987	990	981	960	937	921	916

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	5	0	1	1	2	0	0	0	0	0	0	11
20%	13	14	1	2	2	1	0	0	-1	0	0	13
30%	12	19	2	6	3	1	0	0	-3	-4	0	10
40%	7	16	11	3	4	0	0	-1	-4	0	0	6
50%	9	15	20	6	4	2	0	-1	-4	0	2	4
60%	9	13	15	9	6	5	1	0	-2	2	0	8
70%	17	17	13	9	2	5	6	-2	0	-3	1	12
80%	13	16	11	9	5	0	6	8	5	5	10	14
90%	16	15	2	11	14	4	12	12	13	15	15	13
Long Term												
Full Simulation Period ^d	10	11	8	6	4	2	2	1	0	1	1	9
Water Year Types ^{b,c}												
Wet (32%)	15	21	15	2	1	0	-1	-1	-2	-2	-2	14
Above Normal (16%)	8	12	10	6	3	0	-1	-2	-4	-3	-3	6
Below Normal (13%)	5	4	3	7	5	3	2	1	-1	0	3	4
Dry (24%)	7	5	2	8	7	6	5	4	2	5	5	7
Critical (15%)	8	6	5	7	6	4	3	3	3	5	7	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-3. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,016	1,017	1,021	1,032	1,043	1,055	1,067	1,067	1,065	1,047	1,035	1,015
20%	1,006	1,003	1,019	1,029	1,038	1,051	1,067	1,067	1,062	1,040	1,027	1,010
30%	1,001	997	1,017	1,023	1,034	1,048	1,064	1,067	1,057	1,033	1,018	1,006
40%	994	991	1,007	1,019	1,028	1,047	1,061	1,065	1,050	1,025	1,013	1,002
50%	990	987	995	1,016	1,026	1,042	1,056	1,060	1,043	1,020	1,007	997
60%	985	983	989	1,006	1,022	1,037	1,051	1,055	1,040	1,013	999	991
70%	970	972	978	995	1,017	1,025	1,046	1,046	1,024	1,001	991	981
80%	956	959	965	985	1,001	1,022	1,032	1,021	1,004	985	968	965
90%	917	905	939	952	973	988	993	987	969	945	931	927
Long Term												
Full Simulation Period ^d	976	974	985	1,001	1,015	1,030	1,043	1,042	1,029	1,007	992	981
Water Year Types ^{b,c}												
Wet (32%)	998	992	1,002	1,023	1,034	1,043	1,060	1,065	1,059	1,040	1,027	1,005
Above Normal (16%)	991	986	998	1,016	1,028	1,049	1,065	1,065	1,052	1,026	1,011	998
Below Normal (13%)	990	992	998	1,012	1,028	1,042	1,054	1,050	1,036	1,011	995	992
Dry (24%)	982	987	998	989	1,009	1,028	1,041	1,037	1,023	1,002	989	986
Critical (15%)	887	887	903	947	957	972	976	967	945	916	899	892

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,012	1,017	1,021	1,033	1,043	1,056	1,067	1,067	1,062	1,043	1,028	1,013
20%	1,002	1,002	1,019	1,030	1,038	1,052	1,067	1,067	1,058	1,037	1,023	1,005
30%	997	993	1,017	1,023	1,033	1,050	1,065	1,065	1,054	1,028	1,013	1,001
40%	992	989	1,006	1,020	1,030	1,047	1,063	1,061	1,046	1,020	1,006	998
50%	985	985	995	1,014	1,025	1,044	1,058	1,057	1,042	1,014	1,001	995
60%	981	978	986	1,008	1,019	1,037	1,052	1,051	1,035	1,008	998	987
70%	966	968	978	997	1,017	1,027	1,044	1,044	1,024	1,004	988	974
80%	955	957	967	983	1,003	1,024	1,035	1,024	1,006	989	973	964
90%	924	915	947	963	979	987	1,000	990	973	953	938	935
Long Term												
Full Simulation Period ^d	974	974	987	1,003	1,017	1,033	1,046	1,043	1,030	1,006	992	981
Water Year Types ^{b,c}												
Wet (32%)	994	989	1,001	1,023	1,033	1,044	1,060	1,063	1,055	1,035	1,022	1,001
Above Normal (16%)	982	979	993	1,016	1,028	1,050	1,065	1,062	1,048	1,020	1,006	991
Below Normal (13%)	989	991	998	1,016	1,030	1,046	1,057	1,051	1,036	1,010	995	992
Dry (24%)	982	988	1,001	990	1,011	1,032	1,045	1,040	1,025	1,003	990	987
Critical (15%)	898	899	917	957	969	983	987	978	957	932	915	907

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	0	0	1	0	1	0	0	-3	-5	-7	-2
20%	-4	-1	0	1	0	1	0	0	-4	-3	-4	-4
30%	-4	-4	0	0	-1	1	0	-2	-4	-5	-5	-4
40%	-3	-2	-1	1	1	1	2	-4	-4	-6	-7	-4
50%	-5	-2	-1	-2	-1	2	2	-2	-2	-6	-6	-2
60%	-5	-5	-4	2	-2	0	2	-3	-5	-5	-2	-5
70%	-3	-3	-1	2	0	3	-1	-2	1	3	-3	-7
80%	-2	-2	2	-3	2	2	3	3	3	4	4	-2
90%	7	10	8	10	6	-1	6	2	3	8	7	8
Long Term												
Full Simulation Period ^d	-1	0	2	2	2	3	3	2	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	-4	-3	-1	0	0	1	0	-2	-4	-5	-4	-5
Above Normal (16%)	-9	-7	-5	0	-1	0	0	-2	-4	-5	-5	-7
Below Normal (13%)	-1	0	1	4	2	4	3	1	0	-1	0	0
Dry (24%)	0	2	2	2	2	3	4	3	2	1	1	2
Critical (15%)	11	12	14	10	12	11	11	11	12	16	16	15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-4. Shasta Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,055	1,067	1,067	1,065	1,048	1,035	1,023
20%	1,017	1,017	1,020	1,032	1,040	1,052	1,066	1,067	1,062	1,040	1,026	1,022
30%	1,013	1,013	1,019	1,029	1,037	1,049	1,063	1,066	1,056	1,032	1,017	1,015
40%	1,006	1,007	1,018	1,023	1,033	1,047	1,060	1,063	1,048	1,025	1,011	1,007
50%	997	998	1,015	1,020	1,028	1,046	1,057	1,059	1,043	1,019	1,006	1,003
60%	994	993	1,003	1,016	1,025	1,041	1,052	1,053	1,036	1,013	997	995
70%	980	984	990	1,003	1,017	1,032	1,049	1,043	1,026	1,001	993	988
80%	969	974	973	989	1,006	1,024	1,040	1,029	1,010	992	980	976
90%	929	918	948	958	985	992	996	997	980	956	941	934
Long Term												
Full Simulation Period ^d	984	984	993	1,006	1,018	1,032	1,045	1,043	1,030	1,008	994	988
Water Year Types ^{b,c}												
Wet (32%)	1,012	1,011	1,016	1,024	1,034	1,043	1,059	1,064	1,058	1,039	1,025	1,017
Above Normal (16%)	996	994	1,004	1,021	1,030	1,049	1,064	1,063	1,049	1,023	1,008	1,003
Below Normal (13%)	993	994	1,000	1,023	1,035	1,047	1,058	1,053	1,035	1,012	997	995
Dry (24%)	987	991	1,002	996	1,015	1,034	1,046	1,041	1,025	1,006	994	991
Critical (15%)	895	894	908	952	962	977	980	971	949	923	907	900

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,056	1,067	1,067	1,062	1,043	1,028	1,023
20%	1,015	1,015	1,020	1,032	1,041	1,053	1,067	1,067	1,056	1,037	1,023	1,018
30%	1,009	1,012	1,019	1,029	1,036	1,051	1,065	1,065	1,050	1,024	1,013	1,012
40%	998	1,005	1,017	1,023	1,034	1,048	1,063	1,059	1,042	1,019	1,006	1,004
50%	994	1,000	1,015	1,020	1,028	1,046	1,058	1,057	1,038	1,015	1,003	1,000
60%	990	991	1,000	1,017	1,025	1,042	1,053	1,052	1,033	1,010	997	994
70%	984	985	991	1,006	1,018	1,032	1,050	1,042	1,024	1,002	989	986
80%	967	973	978	992	1,009	1,024	1,041	1,032	1,012	994	983	977
90%	940	931	949	974	993	992	1,011	1,001	986	967	953	949
Long Term												
Full Simulation Period ^d	984	986	995	1,009	1,021	1,035	1,048	1,044	1,029	1,007	994	990
Water Year Types ^{b,c}												
Wet (32%)	1,009	1,010	1,015	1,025	1,034	1,043	1,060	1,062	1,053	1,033	1,020	1,015
Above Normal (16%)	990	992	1,003	1,022	1,031	1,049	1,064	1,060	1,045	1,018	1,003	997
Below Normal (13%)	994	995	1,001	1,023	1,035	1,049	1,060	1,052	1,035	1,011	998	996
Dry (24%)	989	993	1,003	999	1,018	1,038	1,050	1,044	1,027	1,008	996	994
Critical (15%)	906	904	922	965	974	987	990	981	960	937	921	916

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	1	0	0	-3	-5	-7	0
20%	-2	-1	0	0	1	1	0	0	-5	-3	-3	-4
30%	-5	-1	-1	0	-1	2	1	-2	-6	-8	-4	-3
40%	-8	-2	-1	1	1	1	2	-4	-6	-6	-5	-3
50%	-3	2	-1	0	0	0	1	-2	-5	-4	-3	-4
60%	-4	-2	-2	1	0	1	1	-2	-2	-4	0	0
70%	4	1	1	3	1	0	1	-1	-2	1	-5	-1
80%	-2	-1	5	3	3	1	1	3	2	2	3	1
90%	12	13	1	16	8	-1	15	5	6	11	12	15
Long Term												
Full Simulation Period ^d	0	1	2	3	3	3	3	1	0	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	-2	-1	0	0	0	1	0	-2	-5	-6	-5	-2
Above Normal (16%)	-6	-3	-1	1	1	1	0	-2	-5	-6	-6	-5
Below Normal (13%)	1	1	2	1	1	2	2	0	-1	-1	0	1
Dry (24%)	1	3	1	3	3	4	5	3	2	1	2	2
Critical (15%)	10	10	13	12	12	10	10	10	11	14	14	16

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

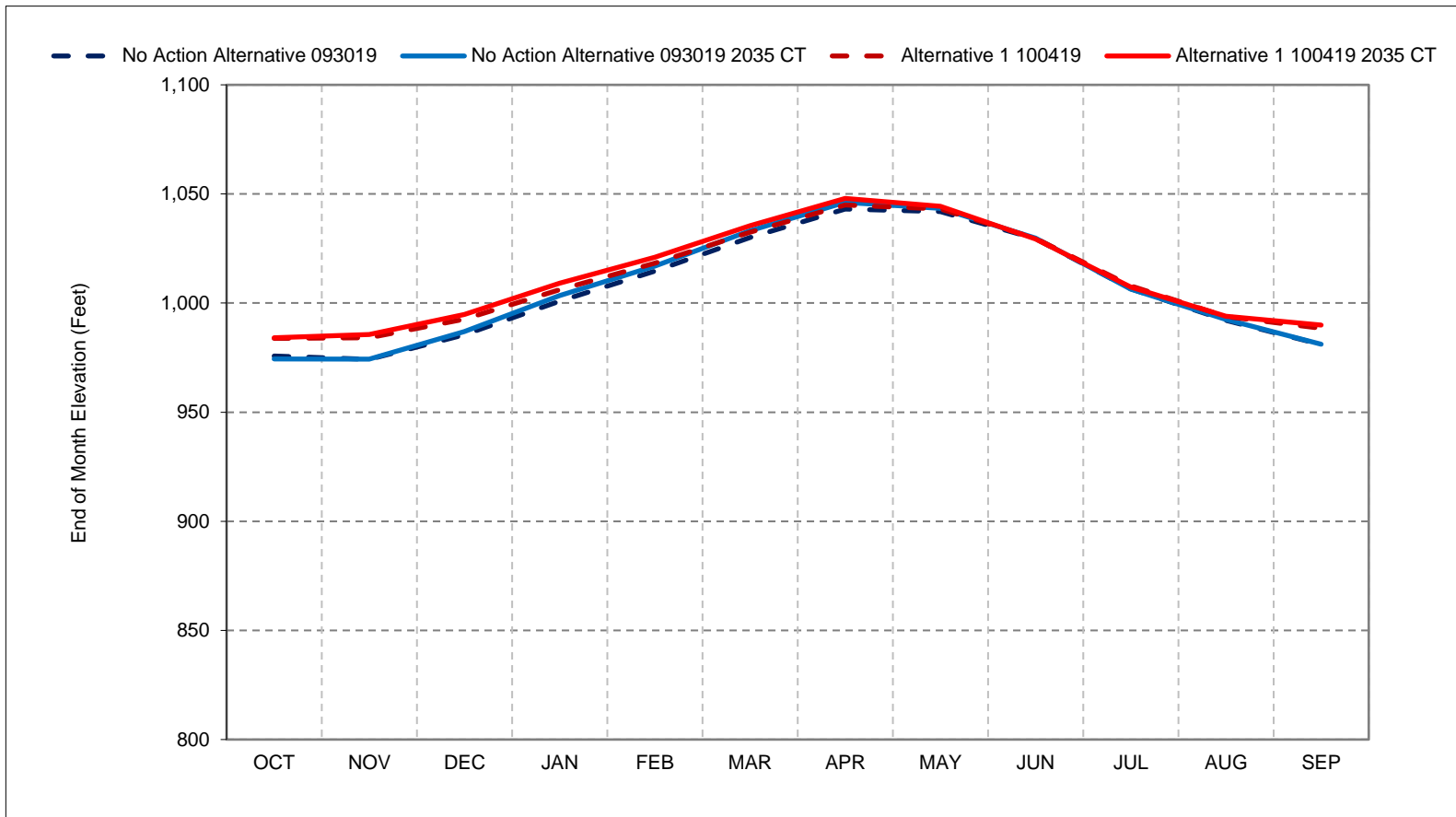
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3a-1. Shasta Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

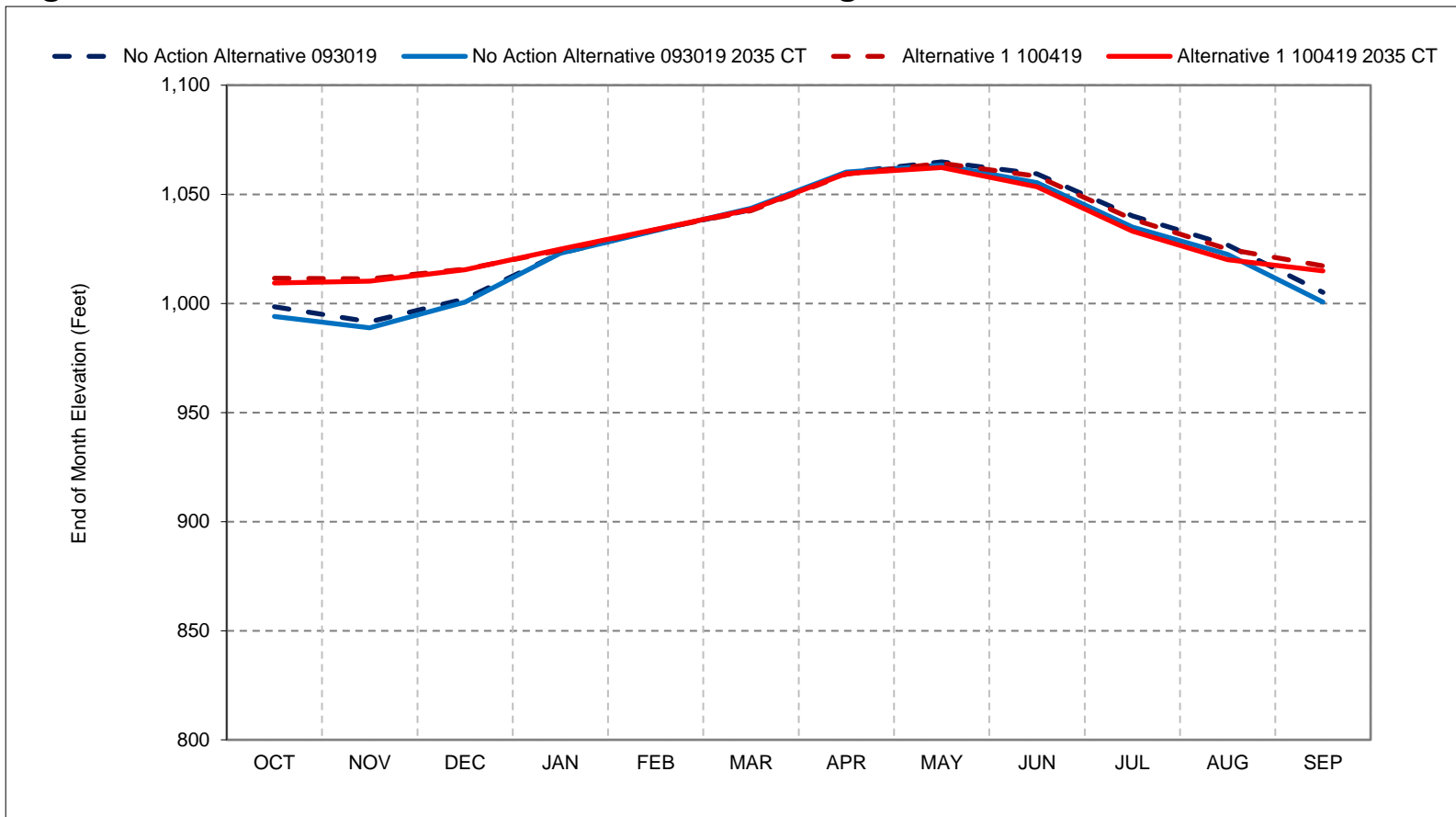
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-2. Shasta Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

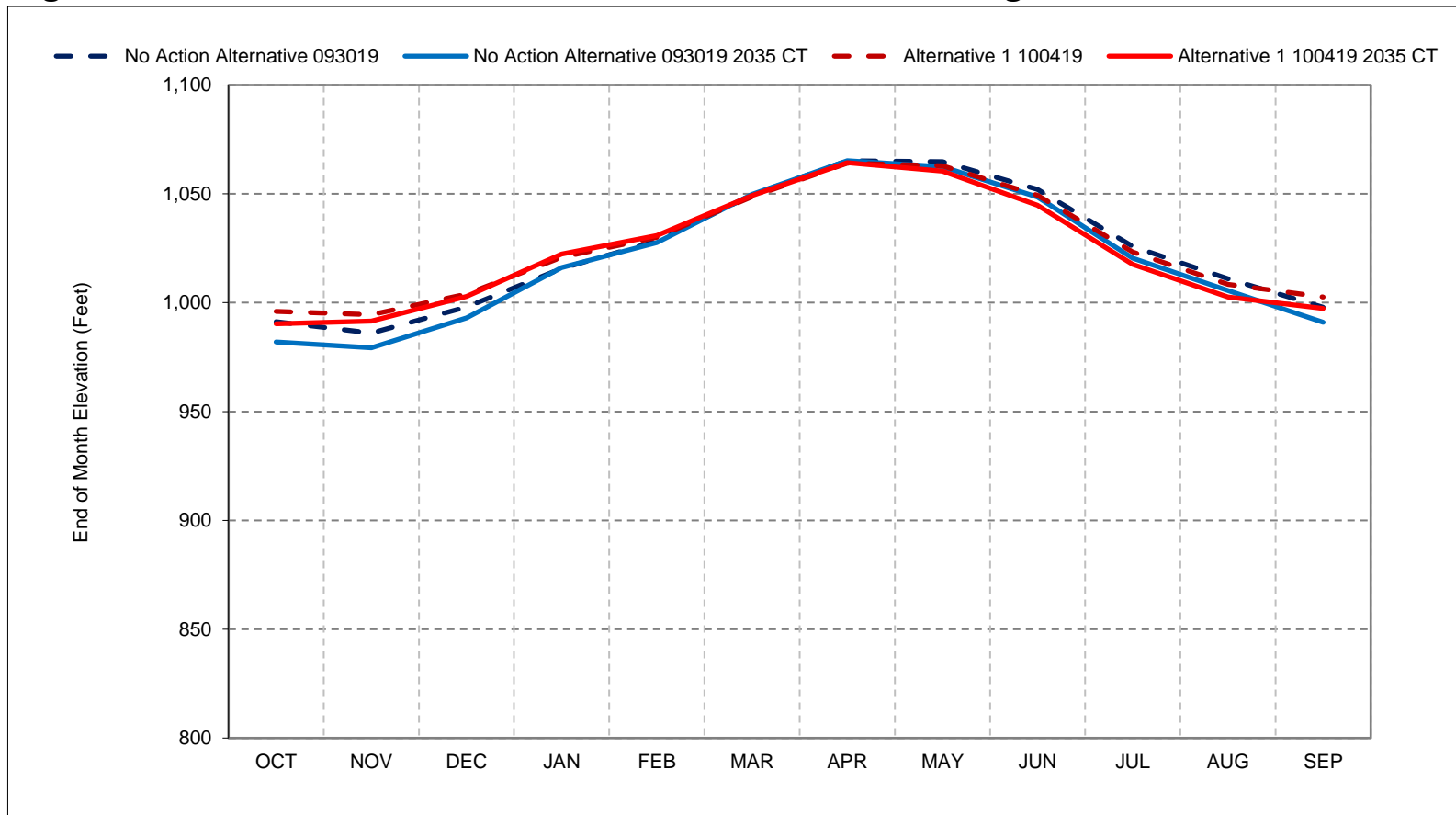
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-3. Shasta Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

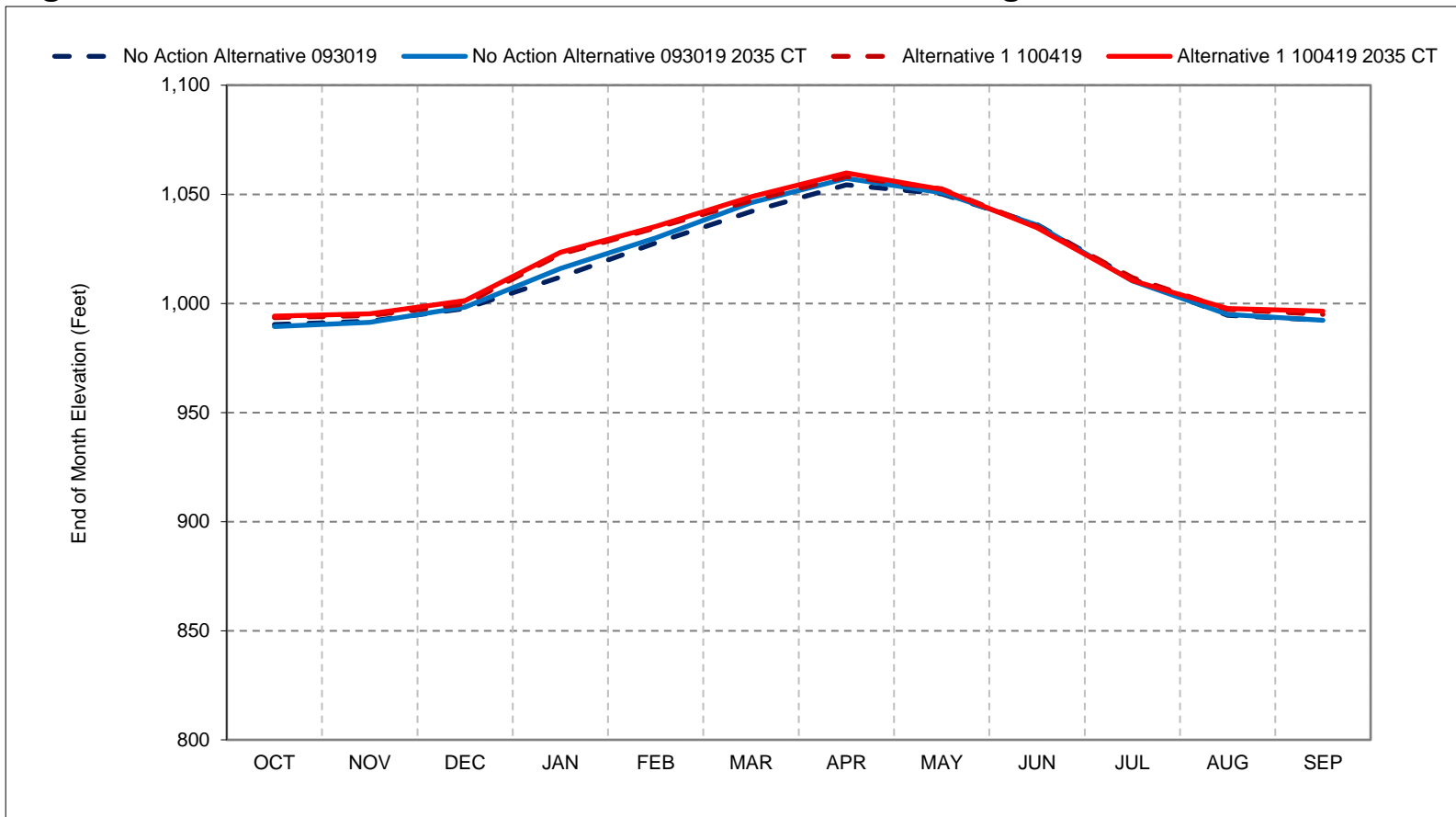
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-4. Shasta Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

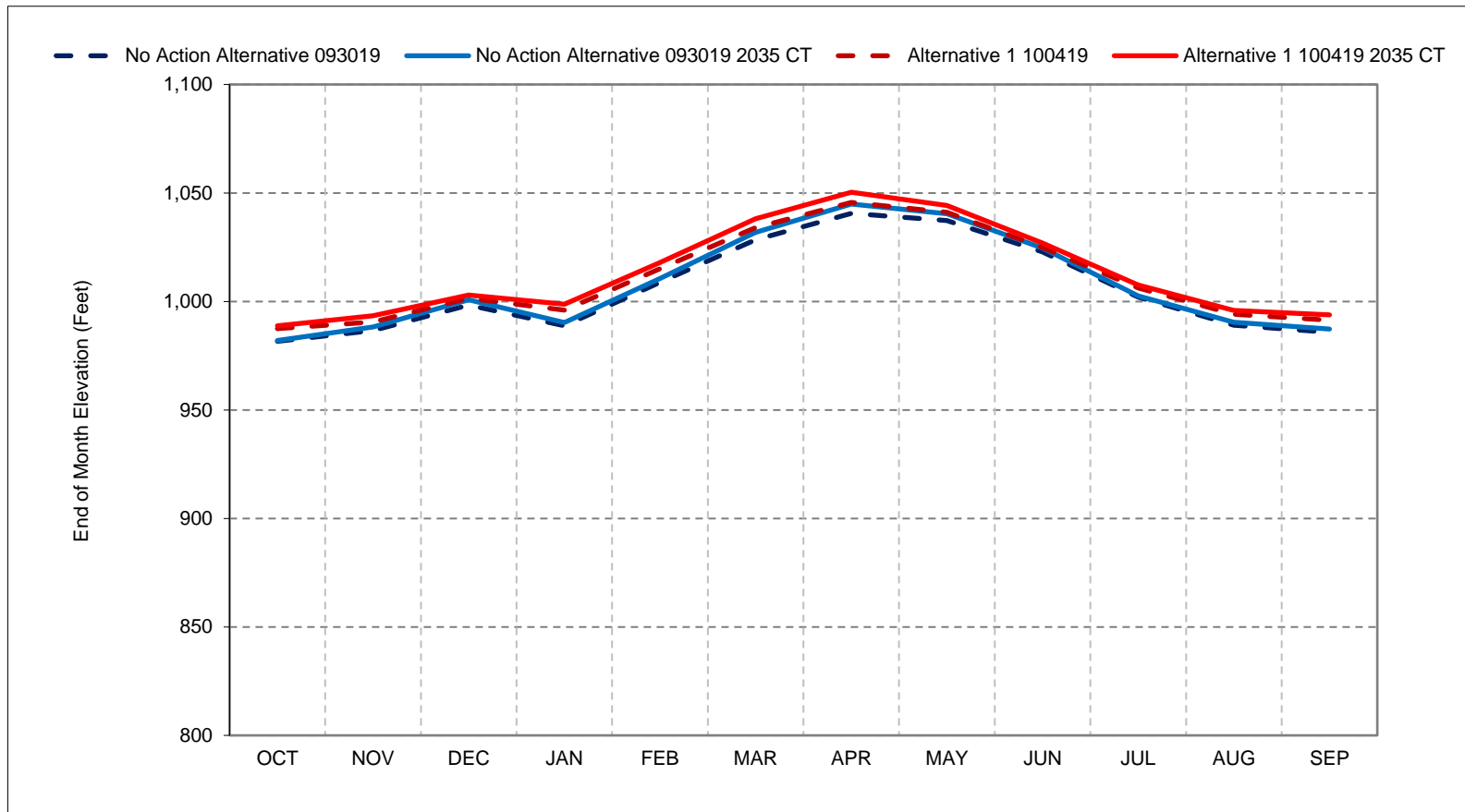
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-5. Shasta Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

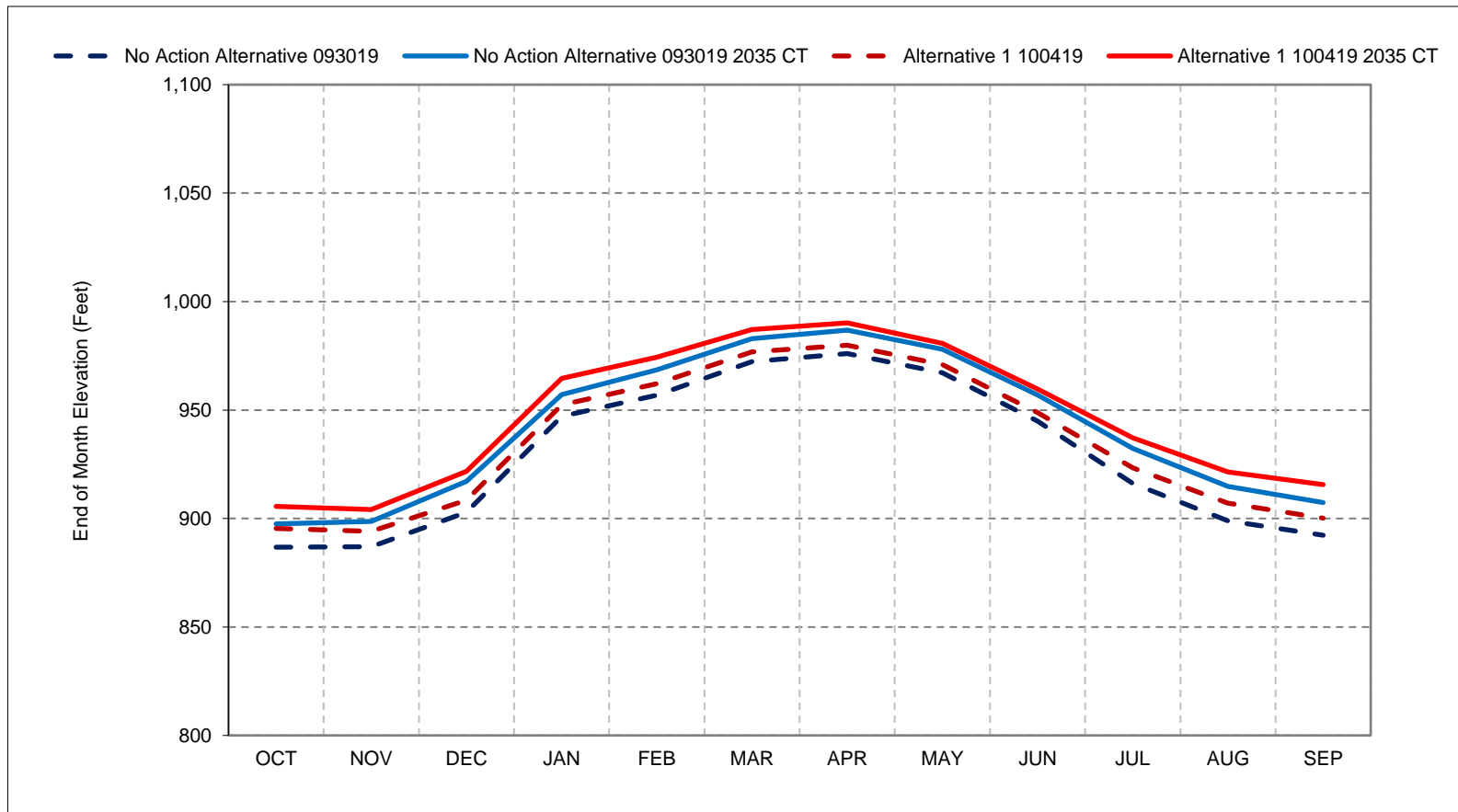
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-6. Shasta Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

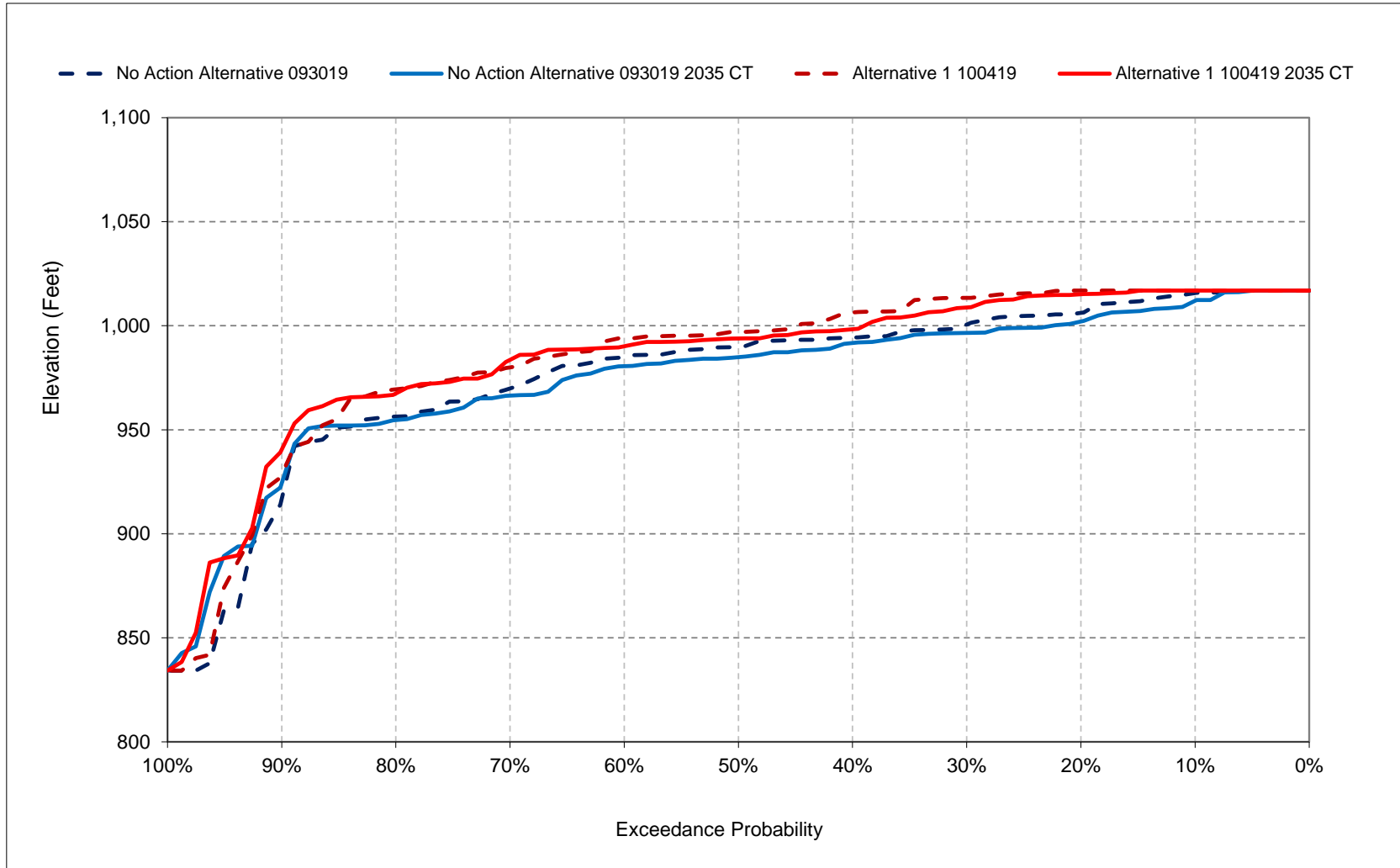
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

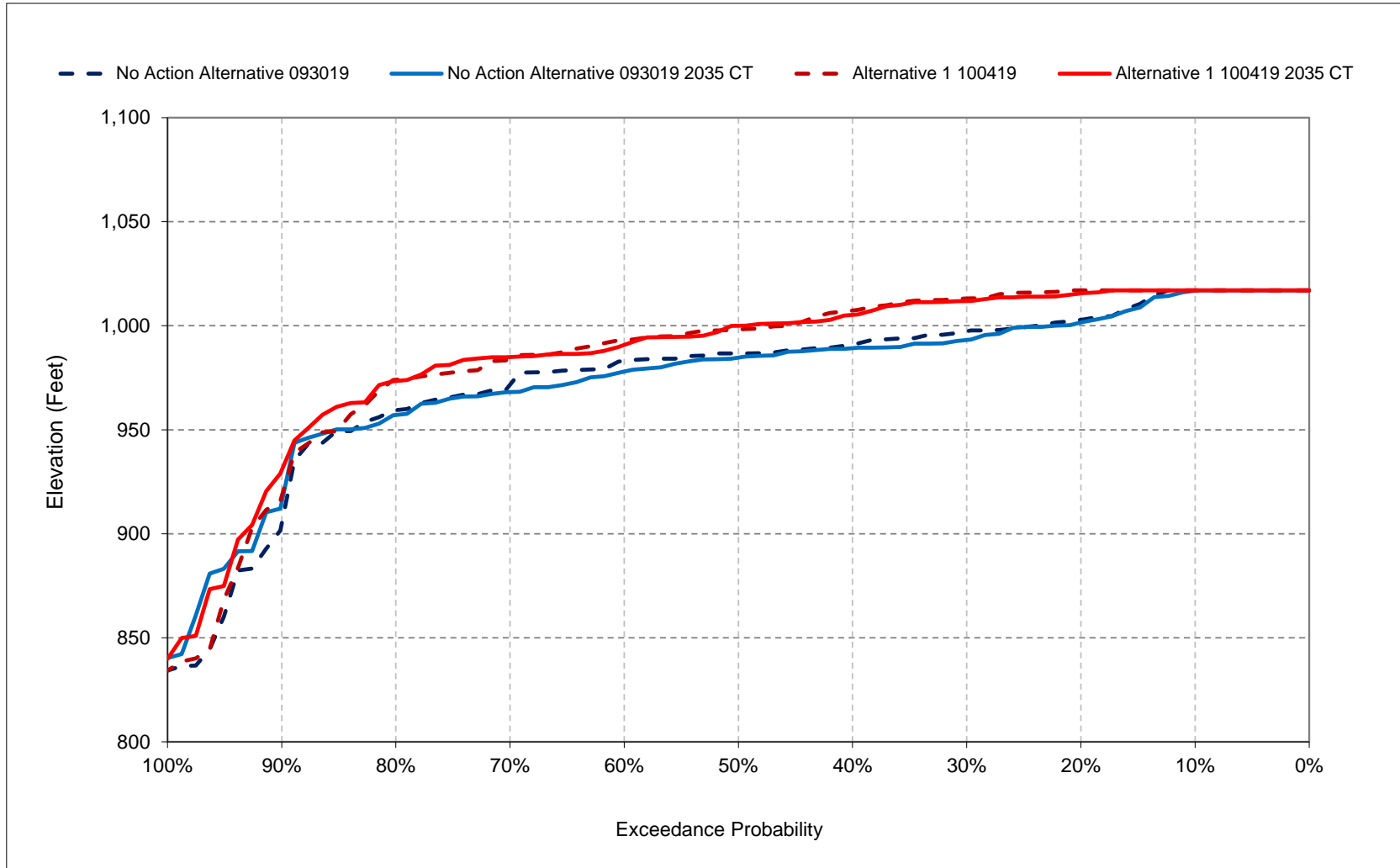
Figure 3a-7. Shasta Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

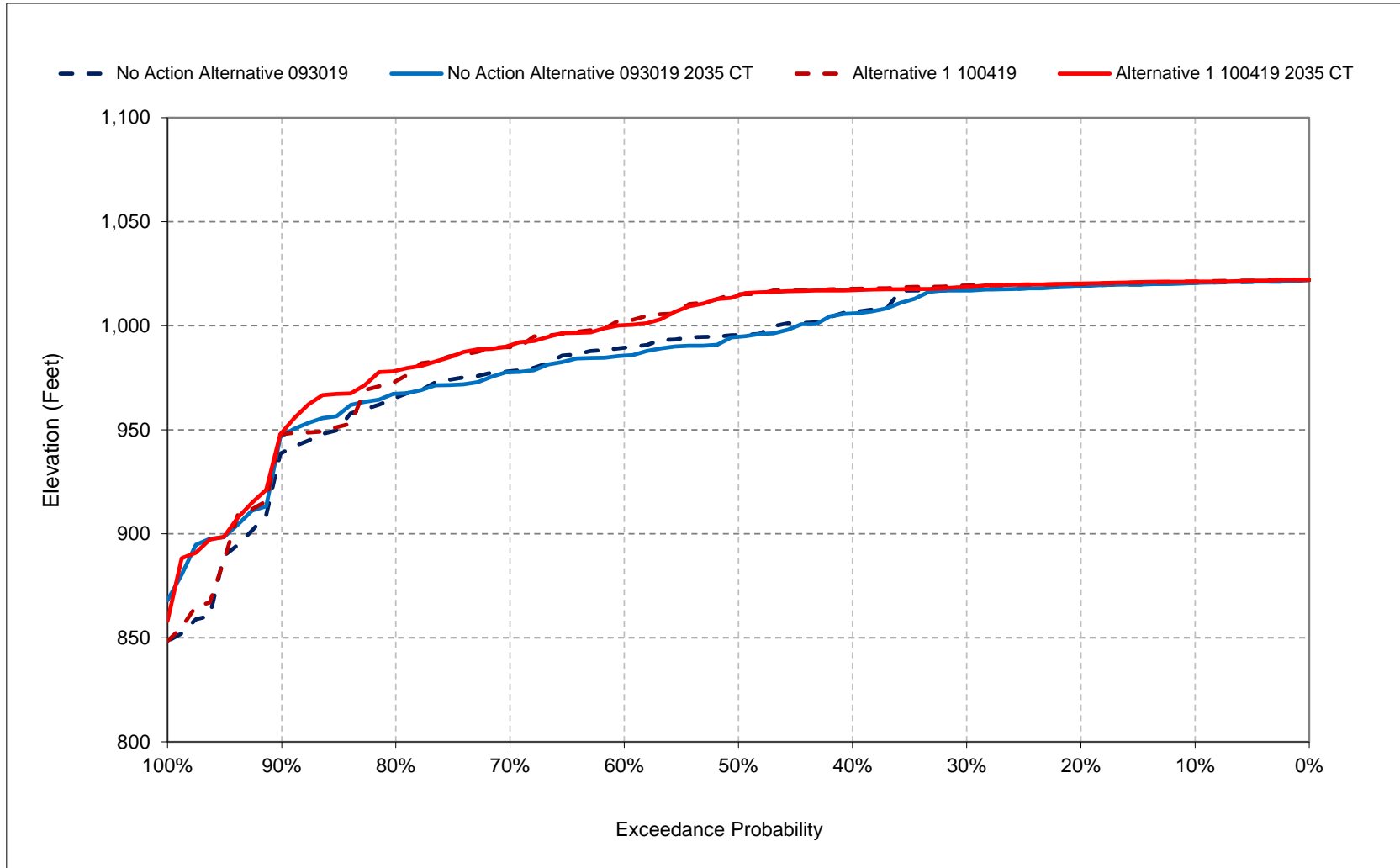
Figure 3a-8. Shasta Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

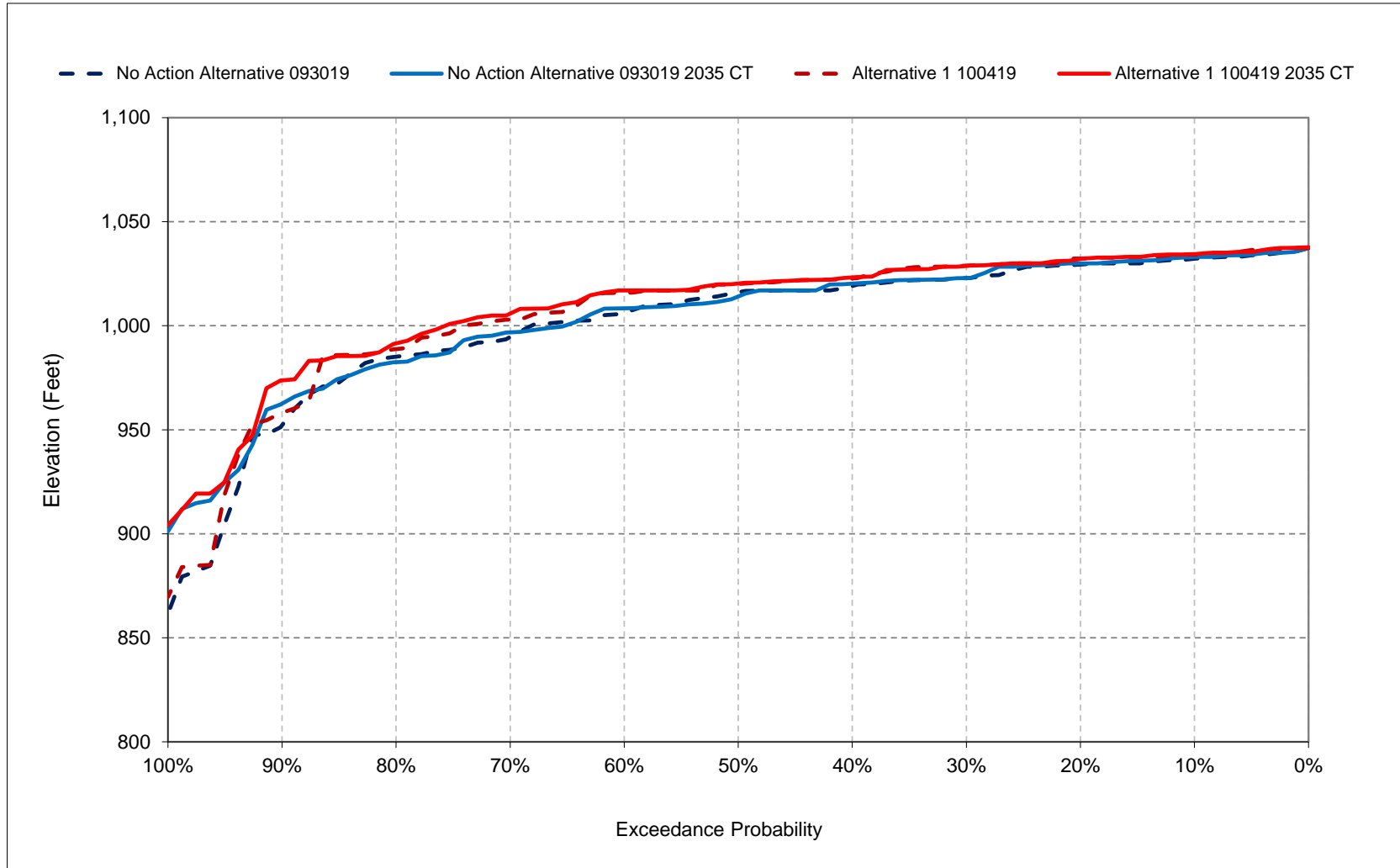
Figure 3a-9. Shasta Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

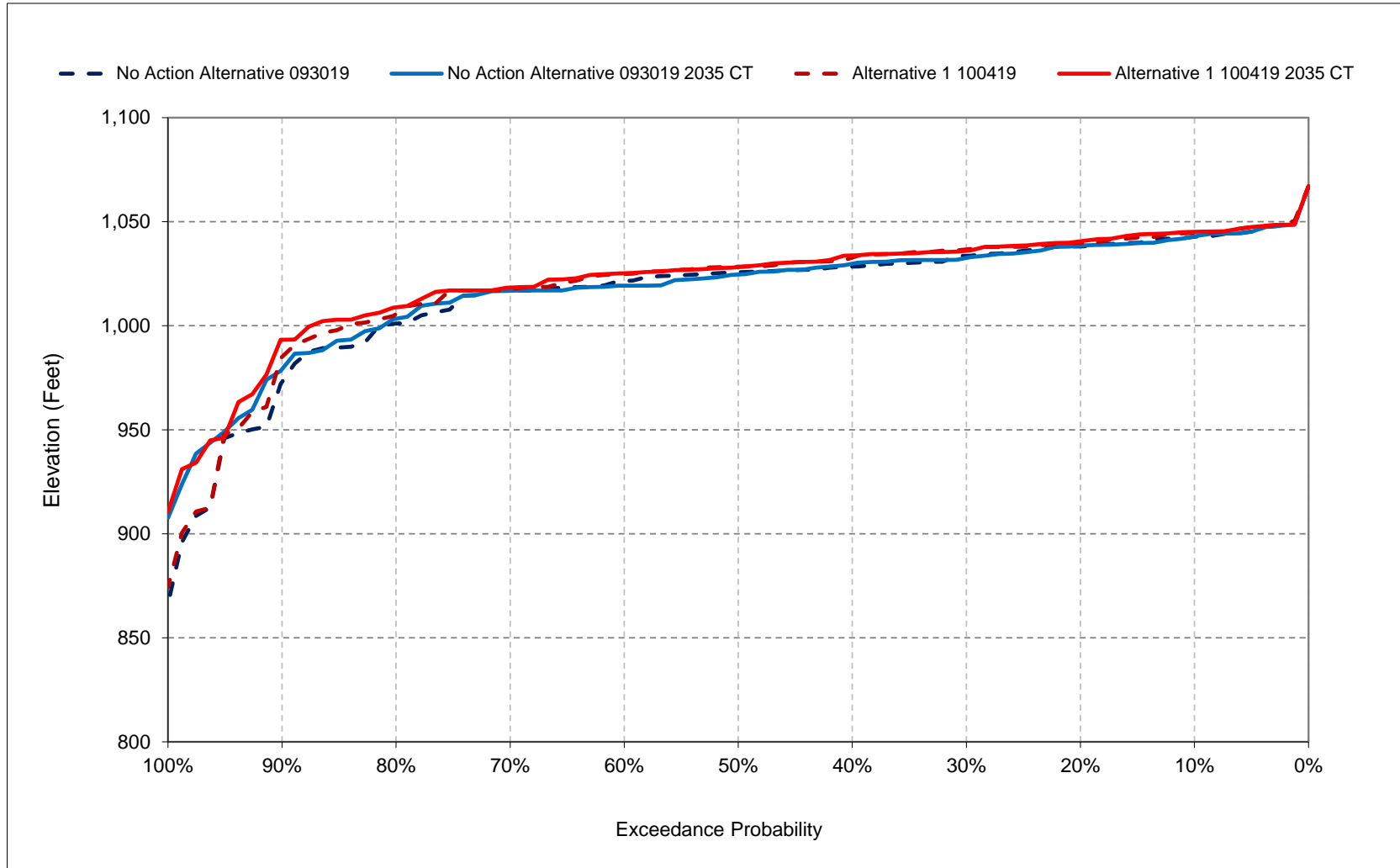
Figure 3a-10. Shasta Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

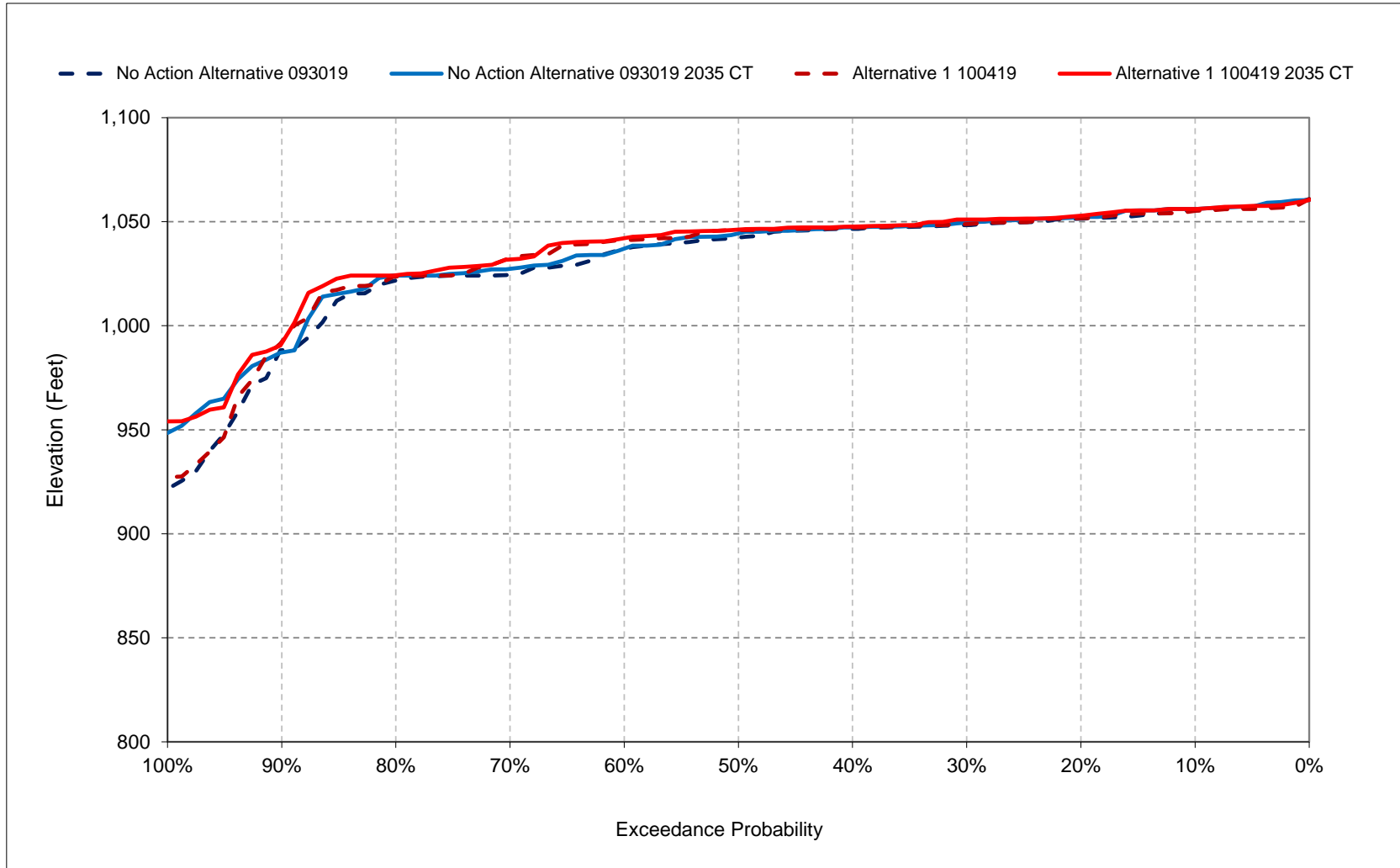
Figure 3a-11. Shasta Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

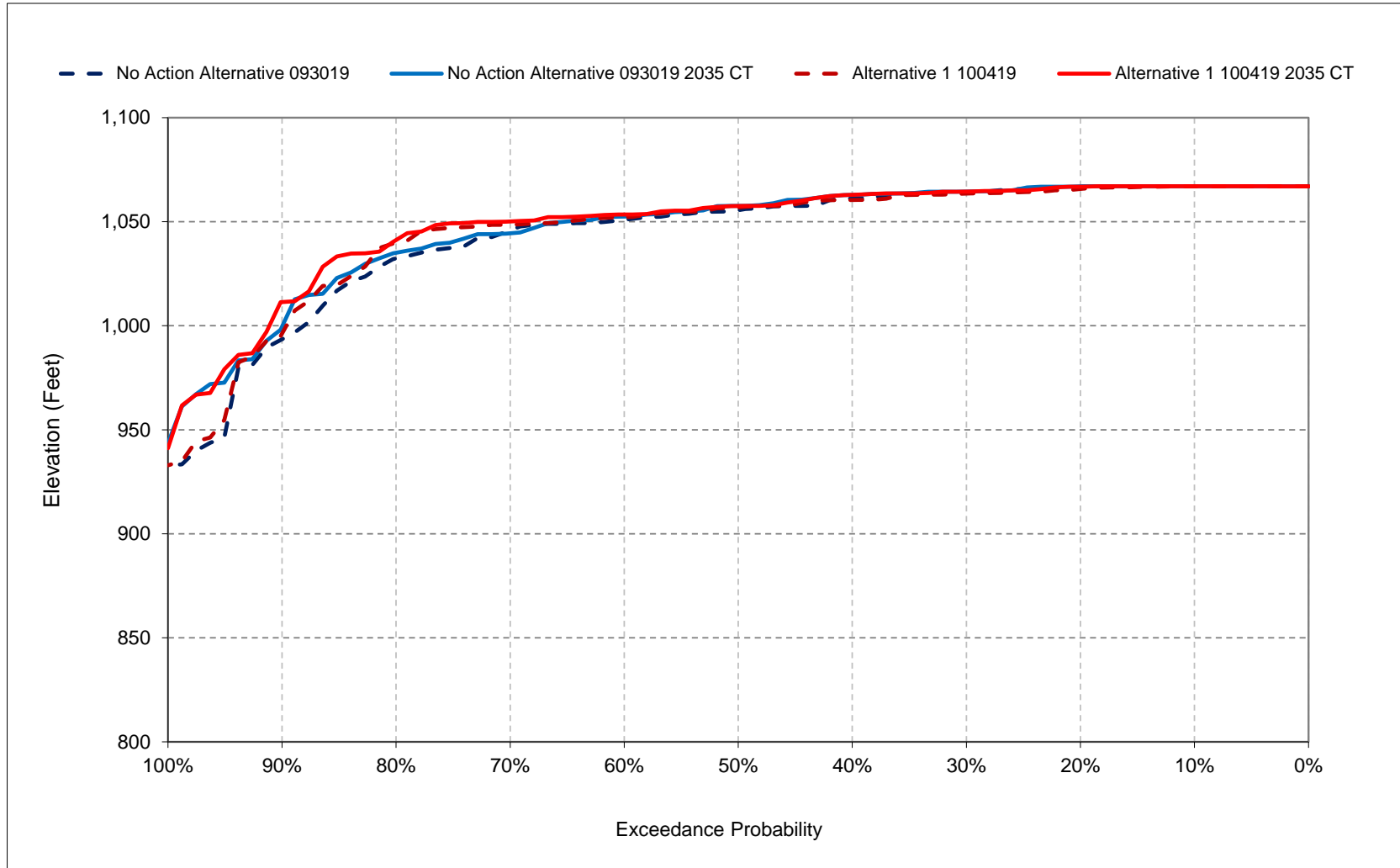
Figure 3a-12. Shasta Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

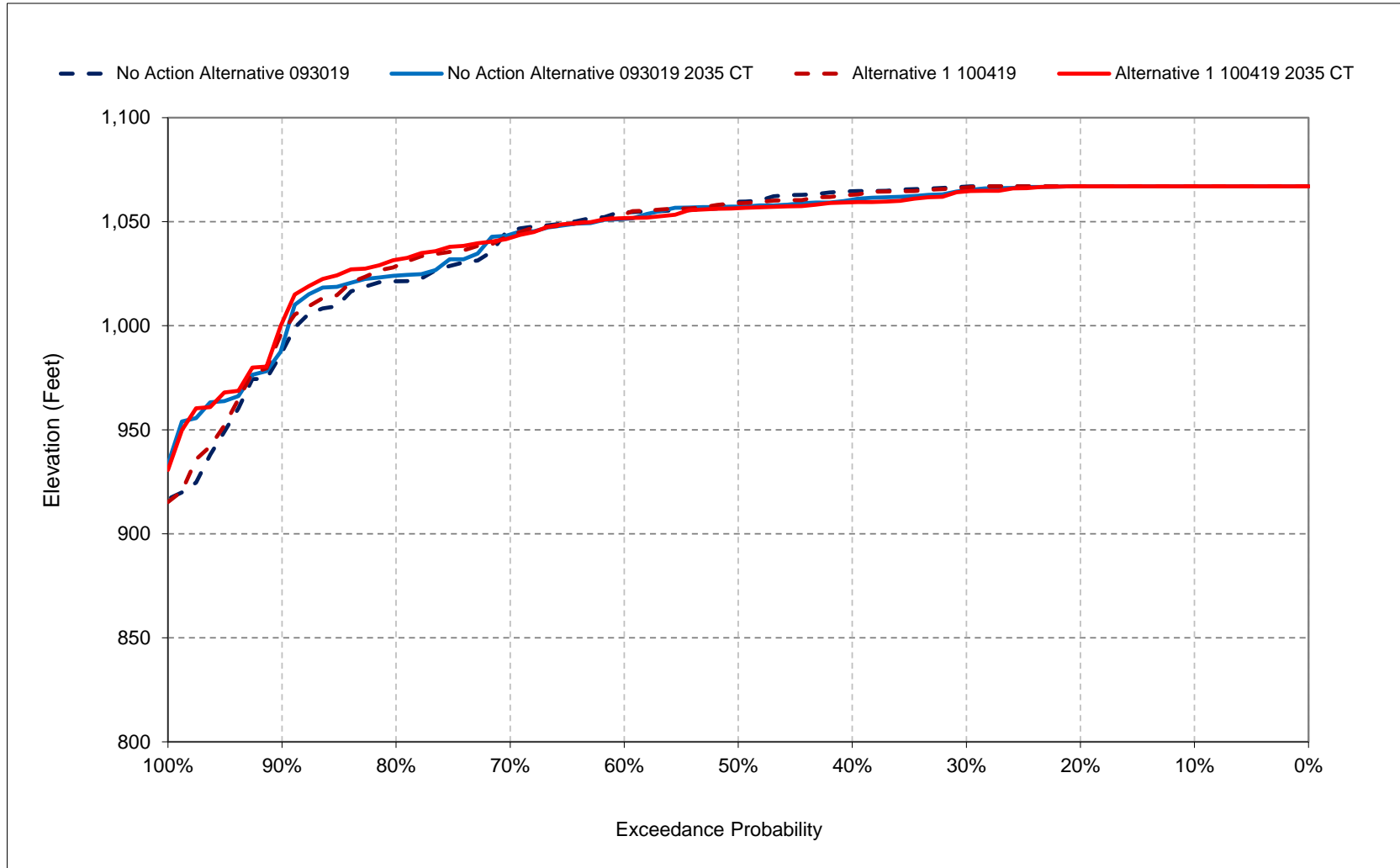
Figure 3a-13. Shasta Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

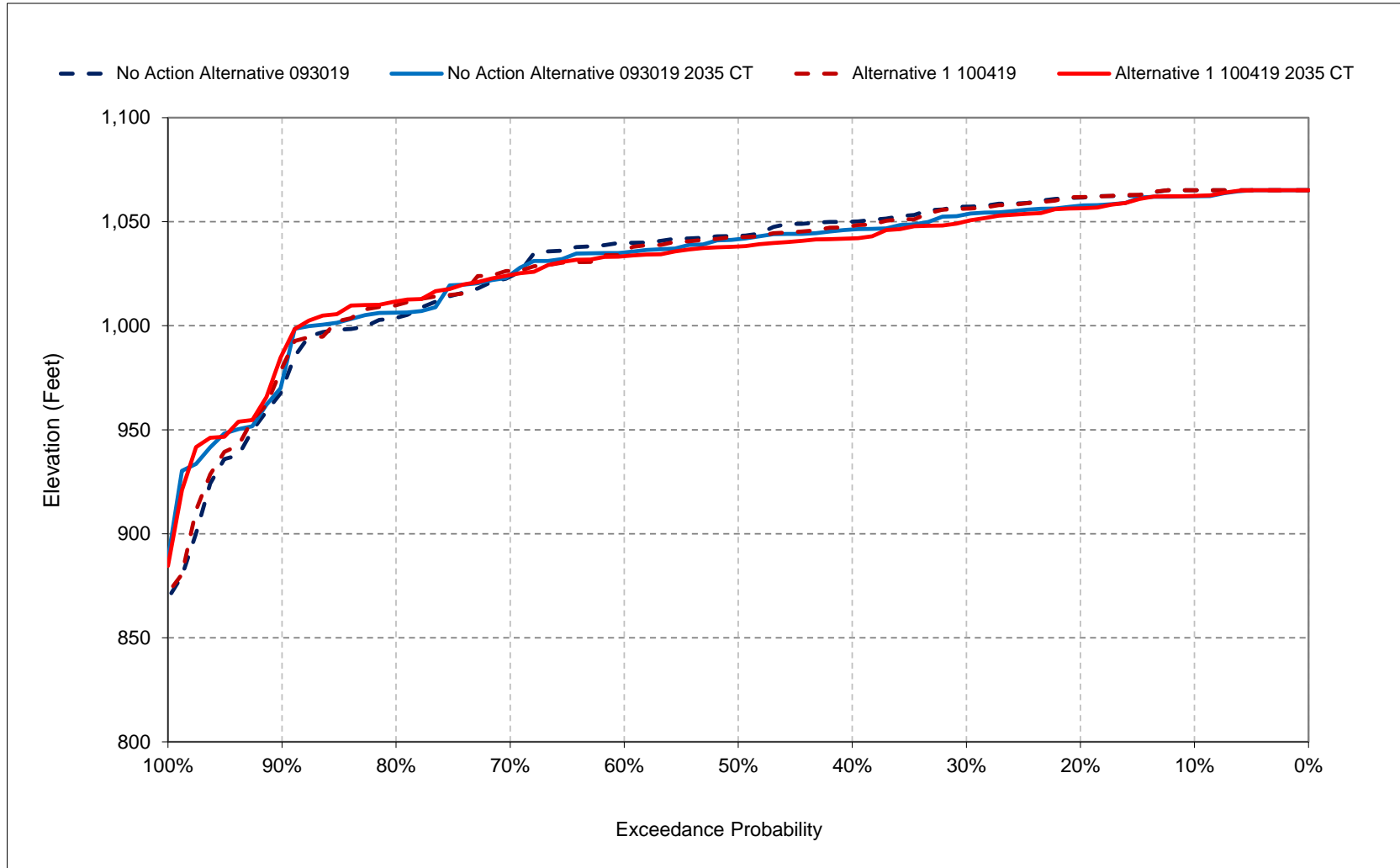
Figure 3a-14. Shasta Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

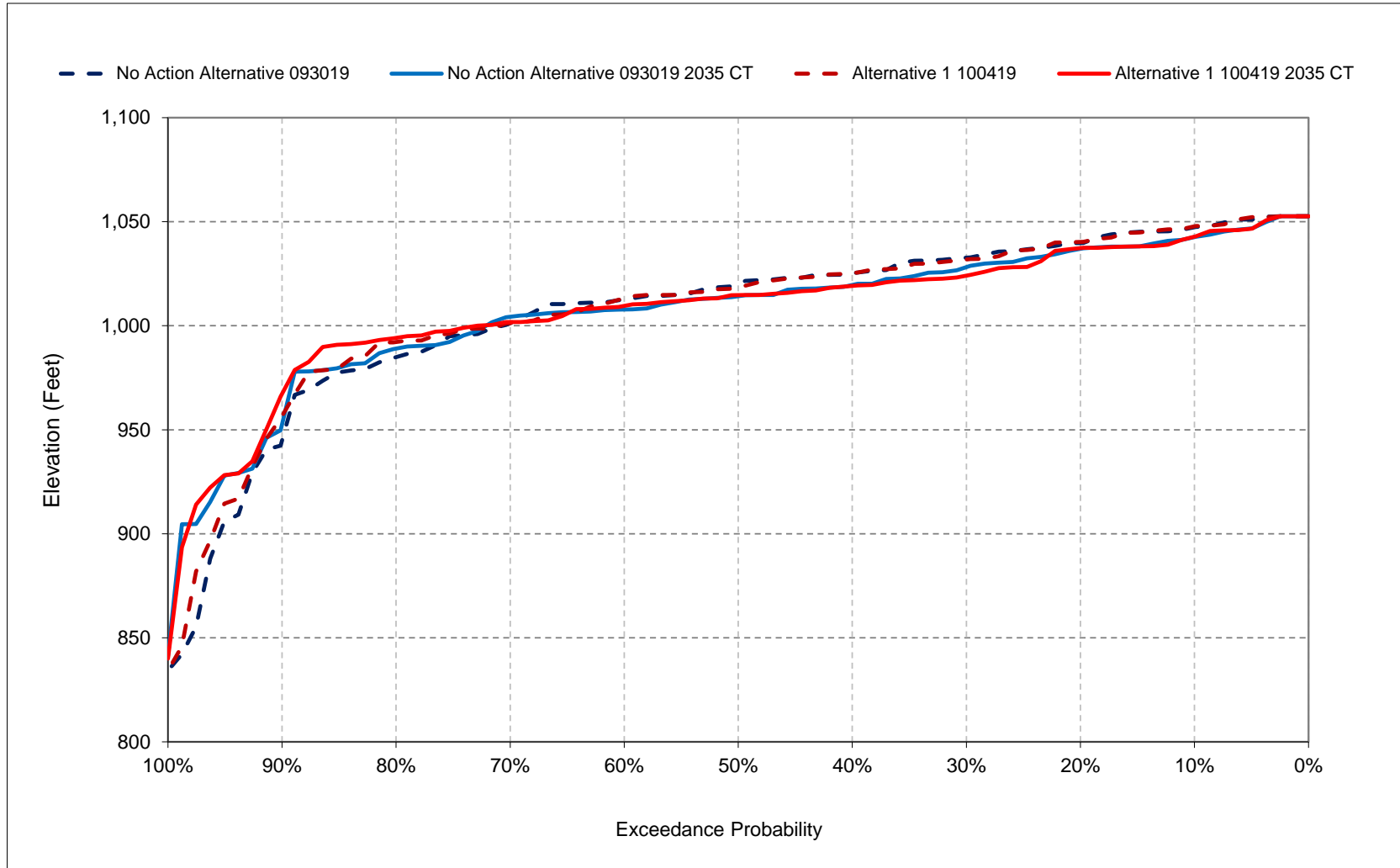
Figure 3a-15. Shasta Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

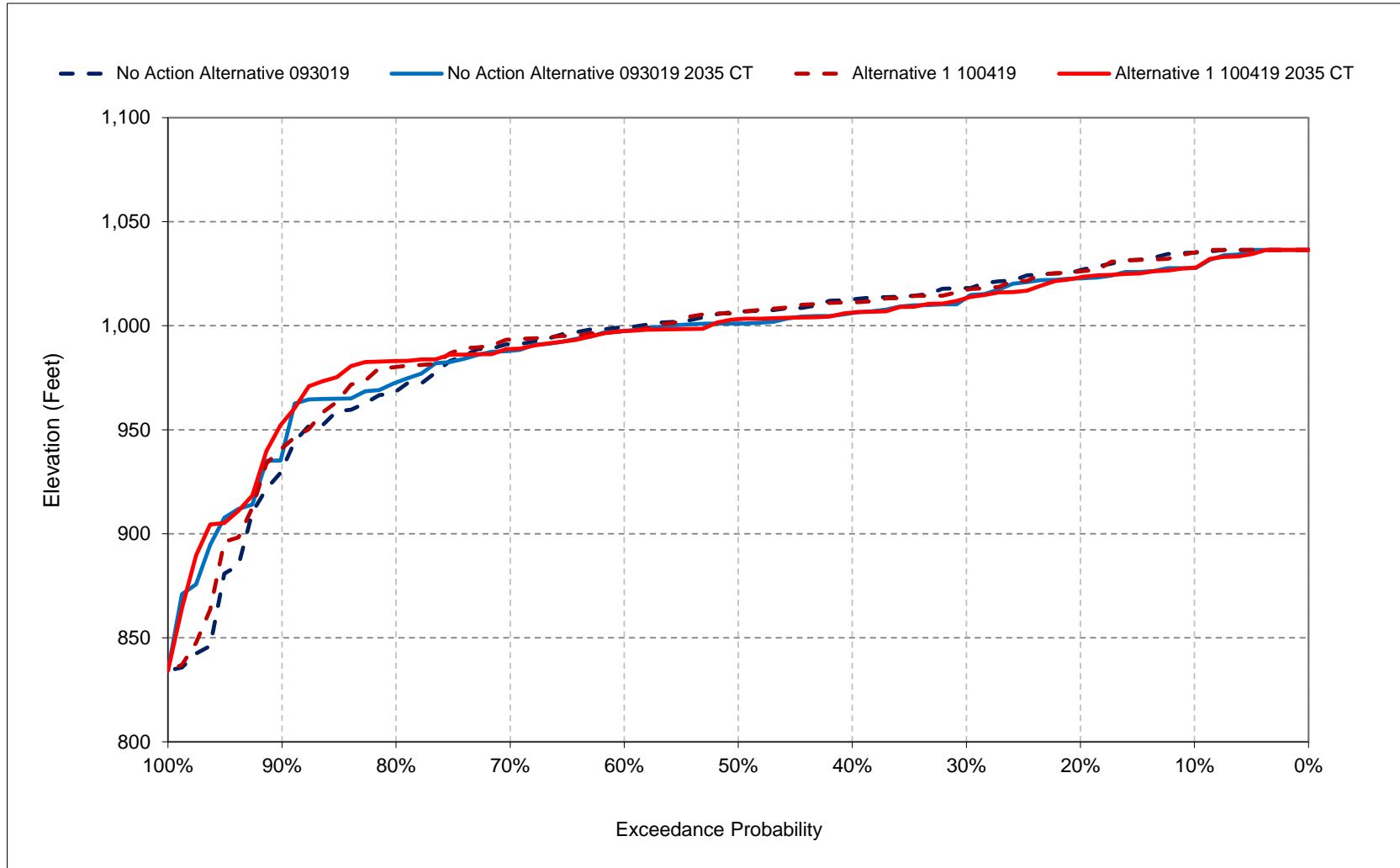
Figure 3a-16. Shasta Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

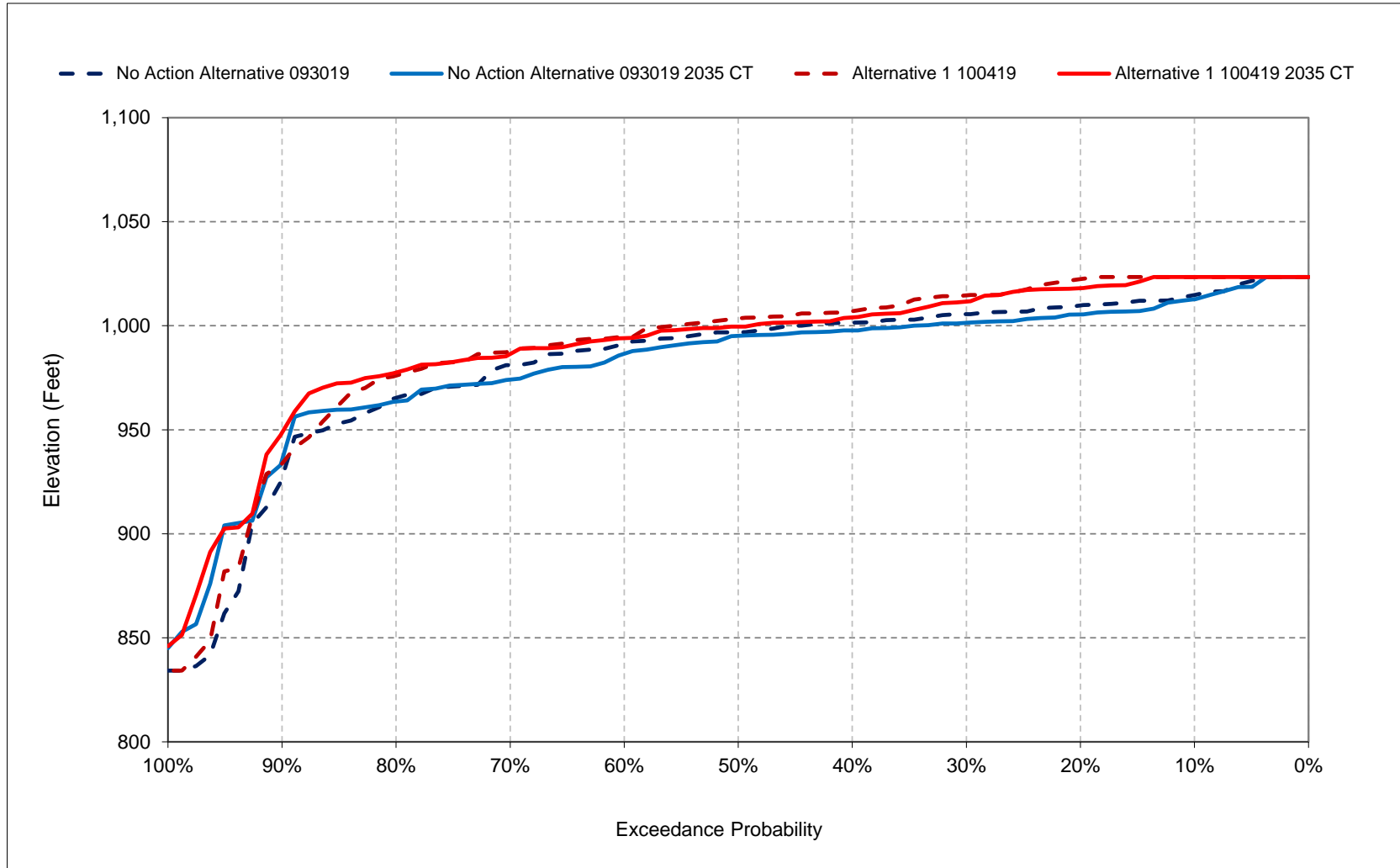
Figure 3a-17. Shasta Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3a-18. Shasta Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-1. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,147	2,150	2,784	2,788	2,924	3,042	3,352	3,538	3,538	3,060	2,750	2,223
20%	1,832	1,854	2,100	2,753	2,788	2,964	3,302	3,538	3,534	2,977	2,546	2,008
30%	1,704	1,734	1,896	2,396	2,788	2,909	3,273	3,488	3,366	2,826	2,370	1,893
40%	1,548	1,550	1,721	1,966	2,673	2,788	3,209	3,356	3,191	2,598	2,127	1,686
50%	1,483	1,463	1,553	1,804	2,206	2,655	2,904	2,993	2,876	2,271	1,813	1,543
60%	1,357	1,259	1,407	1,554	2,009	2,365	2,653	2,699	2,449	1,812	1,541	1,481
70%	1,202	1,148	1,198	1,432	1,735	2,109	2,251	2,307	2,010	1,540	1,410	1,327
80%	1,123	1,016	1,031	1,218	1,550	1,835	1,998	1,991	1,772	1,527	1,365	1,259
90%	882	890	901	1,000	1,223	1,448	1,570	1,603	1,381	1,119	977	932
Long Term												
Full Simulation Period ^d	1,472	1,452	1,618	1,874	2,172	2,410	2,677	2,767	2,613	2,161	1,871	1,595
Water Year Types ^{b,c}												
Wet (32%)	2,004	1,965	2,080	2,613	2,858	2,942	3,300	3,487	3,446	3,005	2,671	2,184
Above Normal (16%)	1,654	1,636	1,754	1,980	2,502	2,916	3,264	3,413	3,297	2,708	2,228	1,794
Below Normal (13%)	1,410	1,330	1,447	1,777	2,179	2,452	2,708	2,755	2,585	1,995	1,630	1,482
Dry (24%)	1,210	1,245	1,564	1,354	1,630	1,978	2,224	2,253	1,977	1,556	1,409	1,312
Critical (15%)	612	601	714	1,112	1,224	1,392	1,418	1,373	1,153	903	739	676

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,551	2,548	2,788	2,788	2,961	3,058	3,352	3,538	3,538	3,059	2,611	2,579
20%	2,242	2,290	2,428	2,788	2,838	2,994	3,302	3,538	3,534	2,972	2,505	2,368
30%	2,116	2,127	2,271	2,603	2,788	2,941	3,276	3,474	3,312	2,791	2,356	2,246
40%	1,972	1,920	2,124	2,440	2,788	2,863	3,223	3,377	3,170	2,564	2,112	2,025
50%	1,551	1,585	1,774	2,255	2,697	2,788	3,143	3,136	2,925	2,365	1,892	1,608
60%	1,396	1,337	1,553	1,686	2,147	2,671	2,835	2,770	2,500	1,871	1,541	1,512
70%	1,276	1,202	1,219	1,527	1,923	2,272	2,543	2,491	2,136	1,568	1,453	1,409
80%	1,128	1,011	1,061	1,272	1,617	1,890	2,152	2,159	1,805	1,532	1,369	1,256
90%	953	899	904	1,068	1,307	1,530	1,641	1,637	1,460	1,239	1,112	1,057
Long Term												
Full Simulation Period ^d	1,672	1,651	1,788	2,019	2,293	2,504	2,768	2,844	2,653	2,189	1,875	1,779
Water Year Types ^{b,c}												
Wet (32%)	2,412	2,380	2,439	2,695	2,892	2,942	3,300	3,484	3,427	2,995	2,605	2,542
Above Normal (16%)	1,955	1,927	2,002	2,161	2,641	2,957	3,293	3,424	3,273	2,698	2,221	2,087
Below Normal (13%)	1,462	1,380	1,495	2,057	2,417	2,679	2,935	2,956	2,721	2,107	1,687	1,529
Dry (24%)	1,238	1,267	1,576	1,520	1,806	2,156	2,401	2,398	2,059	1,583	1,442	1,341
Critical (15%)	677	659	770	1,198	1,314	1,483	1,506	1,466	1,234	976	813	749

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	404	399	4	0	37	16	0	0	0	0	-139	355
20%	410	436	328	35	50	30	0	0	0	-5	-41	360
30%	412	393	376	207	0	32	3	-14	-54	-35	-14	353
40%	424	370	403	475	115	75	14	21	-21	-34	-15	339
50%	68	122	221	451	492	133	239	143	49	93	78	65
60%	39	78	146	132	138	306	182	71	52	59	0	31
70%	74	54	21	94	188	163	292	184	126	29	43	82
80%	5	-4	30	54	67	55	154	168	33	6	4	-3
90%	70	9	3	69	84	82	71	34	79	119	135	125
Long Term												
Full Simulation Period ^d	200	198	171	146	121	93	91	77	40	28	4	184
Water Year Types ^{b,c}												
Wet (32%)	408	415	359	82	35	0	0	-3	-19	-10	-66	358
Above Normal (16%)	301	290	248	182	139	41	29	11	-23	-10	-8	293
Below Normal (13%)	52	51	48	281	238	227	226	201	136	112	57	47
Dry (24%)	28	22	11	167	177	178	177	145	82	27	33	29
Critical (15%)	65	59	56	86	89	90	88	94	81	74	74	72

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 4-2. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,055	2,073	2,788	2,807	2,961	3,056	3,351	3,538	3,538	3,016	2,658	2,180
20%	1,806	1,853	2,299	2,788	2,812	2,964	3,292	3,538	3,443	2,903	2,489	1,980
30%	1,581	1,702	1,902	2,624	2,788	2,933	3,237	3,338	3,177	2,598	2,209	1,799
40%	1,547	1,537	1,695	2,076	2,689	2,817	3,189	3,221	3,017	2,460	1,981	1,595
50%	1,483	1,444	1,554	1,783	2,381	2,788	3,063	3,055	2,848	2,287	1,826	1,543
60%	1,381	1,314	1,401	1,701	2,027	2,560	2,782	2,797	2,542	1,889	1,546	1,530
70%	1,263	1,210	1,247	1,500	1,857	2,133	2,423	2,369	2,047	1,540	1,425	1,374
80%	1,177	1,084	1,121	1,346	1,591	2,014	2,125	2,056	1,859	1,539	1,390	1,300
90%	926	891	1,021	1,183	1,432	1,671	1,785	1,790	1,533	1,261	1,104	1,030
Long Term												
Full Simulation Period ^d	1,485	1,480	1,674	1,976	2,269	2,506	2,755	2,801	2,627	2,155	1,847	1,598
Water Year Types ^{b,c}												
Wet (32%)	1,965	1,944	2,087	2,681	2,875	2,942	3,280	3,446	3,378	2,918	2,578	2,141
Above Normal (16%)	1,584	1,590	1,751	2,100	2,590	2,935	3,229	3,283	3,130	2,532	2,058	1,664
Below Normal (13%)	1,414	1,349	1,512	1,893	2,304	2,576	2,809	2,783	2,587	1,998	1,631	1,483
Dry (24%)	1,251	1,294	1,636	1,449	1,766	2,163	2,404	2,384	2,117	1,658	1,445	1,361
Critical (15%)	794	782	904	1,271	1,419	1,607	1,636	1,591	1,339	1,065	905	850

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,464	2,485	2,788	2,843	2,985	3,074	3,352	3,538	3,538	3,043	2,602	2,543
20%	2,204	2,212	2,463	2,788	2,883	3,014	3,299	3,538	3,388	2,855	2,428	2,342
30%	2,059	2,084	2,329	2,784	2,788	2,953	3,254	3,319	3,128	2,731	2,330	2,158
40%	1,763	1,830	2,086	2,553	2,788	2,906	3,205	3,166	2,942	2,428	2,024	1,854
50%	1,547	1,538	1,869	2,233	2,635	2,788	3,107	3,046	2,743	2,169	1,733	1,570
60%	1,388	1,351	1,535	1,755	2,295	2,659	2,925	2,878	2,529	1,933	1,591	1,543
70%	1,334	1,239	1,278	1,596	2,008	2,439	2,648	2,651	2,299	1,665	1,537	1,469
80%	1,175	1,122	1,134	1,339	1,705	2,074	2,245	2,233	1,854	1,539	1,370	1,307
90%	1,004	912	956	1,217	1,440	1,643	1,892	1,768	1,543	1,299	1,144	1,074
Long Term												
Full Simulation Period ^d	1,667	1,658	1,829	2,101	2,362	2,576	2,823	2,844	2,618	2,164	1,859	1,775
Water Year Types ^{b,c}												
Wet (32%)	2,350	2,332	2,443	2,729	2,890	2,942	3,280	3,423	3,316	2,912	2,555	2,486
Above Normal (16%)	1,821	1,813	1,935	2,296	2,718	2,962	3,256	3,276	3,068	2,515	2,064	1,941
Below Normal (13%)	1,455	1,389	1,552	2,173	2,502	2,749	2,982	2,909	2,628	2,036	1,649	1,537
Dry (24%)	1,302	1,338	1,659	1,591	1,908	2,306	2,546	2,502	2,168	1,682	1,493	1,411
Critical (15%)	820	805	923	1,312	1,461	1,654	1,680	1,633	1,358	1,087	934	877

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	408	413	0	36	24	18	1	0	0	27	-55	364
20%	399	359	164	0	72	50	7	0	-55	-48	-61	362
30%	478	382	427	160	0	20	16	-19	-49	133	122	359
40%	217	293	391	477	99	89	16	-55	-75	-32	43	259
50%	63	94	316	450	254	0	44	-9	-105	-118	-93	27
60%	6	37	135	53	267	99	144	81	-13	45	45	13
70%	72	29	31	96	152	307	224	283	252	126	113	95
80%	-2	37	13	-7	114	60	120	177	-6	0	-20	7
90%	78	22	-65	34	8	-28	107	-22	11	38	40	44
Long Term												
Full Simulation Period ^d	181	178	156	125	93	69	68	44	-9	10	12	177
Water Year Types ^{b,c}												
Wet (32%)	385	388	355	48	15	0	0	-22	-62	-6	-24	346
Above Normal (16%)	237	223	184	197	128	26	26	-7	-62	-17	6	277
Below Normal (13%)	41	40	40	280	198	173	172	125	41	39	19	55
Dry (24%)	50	44	24	142	143	144	143	118	51	24	48	50
Critical (15%)	26	24	19	41	43	47	44	42	19	22	29	27

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-3. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,147	2,150	2,784	2,788	2,924	3,042	3,352	3,538	3,538	3,060	2,750	2,223
20%	1,832	1,854	2,100	2,753	2,788	2,964	3,302	3,538	3,534	2,977	2,546	2,008
30%	1,704	1,734	1,896	2,396	2,788	2,909	3,273	3,488	3,366	2,826	2,370	1,893
40%	1,548	1,550	1,721	1,966	2,673	2,788	3,209	3,356	3,191	2,598	2,127	1,686
50%	1,483	1,463	1,553	1,804	2,206	2,655	2,904	2,993	2,876	2,271	1,813	1,543
60%	1,357	1,259	1,407	1,554	2,009	2,365	2,653	2,699	2,449	1,812	1,541	1,481
70%	1,202	1,148	1,198	1,432	1,735	2,109	2,251	2,307	2,010	1,540	1,410	1,327
80%	1,123	1,016	1,031	1,218	1,550	1,835	1,998	1,991	1,772	1,527	1,365	1,259
90%	882	890	901	1,000	1,223	1,448	1,570	1,603	1,381	1,119	977	932
Long Term												
Full Simulation Period ^d	1,472	1,452	1,618	1,874	2,172	2,410	2,677	2,767	2,613	2,161	1,871	1,595
Water Year Types ^{b,c}												
Wet (32%)	2,004	1,965	2,080	2,613	2,858	2,942	3,300	3,487	3,446	3,005	2,671	2,184
Above Normal (16%)	1,654	1,636	1,754	1,980	2,502	2,916	3,264	3,413	3,297	2,708	2,228	1,794
Below Normal (13%)	1,410	1,330	1,447	1,777	2,179	2,452	2,708	2,755	2,585	1,995	1,630	1,482
Dry (24%)	1,210	1,245	1,564	1,354	1,630	1,978	2,224	2,253	1,977	1,556	1,409	1,312
Critical (15%)	612	601	714	1,112	1,224	1,392	1,418	1,373	1,153	903	739	676

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,055	2,073	2,788	2,807	2,961	3,056	3,351	3,538	3,538	3,016	2,658	2,180
20%	1,806	1,853	2,299	2,788	2,812	2,964	3,292	3,538	3,443	2,903	2,489	1,980
30%	1,581	1,702	1,902	2,624	2,788	2,933	3,237	3,338	3,177	2,598	2,209	1,799
40%	1,547	1,537	1,695	2,076	2,689	2,817	3,189	3,221	3,017	2,460	1,981	1,595
50%	1,483	1,444	1,554	1,783	2,381	2,788	3,063	3,055	2,848	2,287	1,826	1,543
60%	1,381	1,314	1,401	1,701	2,027	2,560	2,782	2,797	2,542	1,889	1,546	1,530
70%	1,263	1,210	1,247	1,500	1,857	2,133	2,423	2,369	2,047	1,540	1,425	1,374
80%	1,177	1,084	1,121	1,346	1,591	2,014	2,125	2,056	1,859	1,539	1,390	1,300
90%	926	891	1,021	1,183	1,432	1,671	1,785	1,790	1,533	1,261	1,104	1,030
Long Term												
Full Simulation Period ^d	1,485	1,480	1,674	1,976	2,269	2,506	2,755	2,801	2,627	2,155	1,847	1,598
Water Year Types ^{b,c}												
Wet (32%)	1,965	1,944	2,087	2,681	2,875	2,942	3,280	3,446	3,378	2,918	2,578	2,141
Above Normal (16%)	1,584	1,590	1,751	2,100	2,590	2,935	3,229	3,283	3,130	2,532	2,058	1,664
Below Normal (13%)	1,414	1,349	1,512	1,893	2,304	2,576	2,809	2,783	2,587	1,998	1,631	1,483
Dry (24%)	1,251	1,294	1,636	1,449	1,766	2,163	2,404	2,384	2,117	1,658	1,445	1,361
Critical (15%)	794	782	904	1,271	1,419	1,607	1,636	1,591	1,339	1,065	905	850

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-92	-77	4	19	37	14	-1	0	0	-44	-92	-44
20%	-27	-1	198	35	24	0	-10	0	-91	-74	-57	-28
30%	-123	-31	6	228	0	24	-36	-150	-189	-228	-162	-93
40%	-1	-12	-26	111	16	29	-20	-135	-173	-139	-145	-91
50%	0	-20	1	-21	175	133	159	62	-28	15	13	0
60%	24	55	-7	148	18	195	128	98	93	77	6	48
70%	61	62	49	68	122	24	172	62	36	0	15	47
80%	54	69	90	128	41	179	127	65	87	12	25	40
90%	44	1	120	184	209	223	216	188	152	142	127	98
Long Term												
Full Simulation Period ^d	14	27	56	103	98	96	78	34	14	-6	-23	3
Water Year Types ^{b,c}												
Wet (32%)	-39	-20	7	68	17	0	-20	-42	-68	-87	-92	-44
Above Normal (16%)	-70	-47	-3	120	88	19	-35	-131	-167	-176	-171	-131
Below Normal (13%)	4	20	65	117	125	124	101	29	2	3	1	1
Dry (24%)	41	49	72	95	136	185	180	131	140	102	36	49
Critical (15%)	182	181	190	158	194	215	218	219	186	162	166	173

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-4. Lake Oroville Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,551	2,548	2,788	2,788	2,961	3,058	3,352	3,538	3,538	3,059	2,611	2,579
20%	2,242	2,290	2,428	2,788	2,838	2,994	3,302	3,538	3,534	2,972	2,505	2,368
30%	2,116	2,127	2,271	2,603	2,788	2,941	3,276	3,474	3,312	2,791	2,356	2,246
40%	1,972	1,920	2,124	2,440	2,788	2,863	3,223	3,377	3,170	2,564	2,112	2,025
50%	1,551	1,585	1,774	2,255	2,697	2,788	3,143	3,136	2,925	2,365	1,892	1,608
60%	1,396	1,337	1,553	1,686	2,147	2,671	2,835	2,770	2,500	1,871	1,541	1,512
70%	1,276	1,202	1,219	1,527	1,923	2,272	2,543	2,491	2,136	1,568	1,453	1,409
80%	1,128	1,011	1,061	1,272	1,617	1,890	2,152	2,159	1,805	1,532	1,369	1,256
90%	953	899	904	1,068	1,307	1,530	1,641	1,637	1,460	1,239	1,112	1,057
Long Term												
Full Simulation Period ^d	1,672	1,651	1,788	2,019	2,293	2,504	2,768	2,844	2,653	2,189	1,875	1,779
Water Year Types ^{b,c}												
Wet (32%)	2,412	2,380	2,439	2,695	2,892	2,942	3,300	3,484	3,427	2,995	2,605	2,542
Above Normal (16%)	1,955	1,927	2,002	2,161	2,641	2,957	3,293	3,424	3,273	2,698	2,221	2,087
Below Normal (13%)	1,462	1,380	1,495	2,057	2,417	2,679	2,935	2,956	2,721	2,107	1,687	1,529
Dry (24%)	1,238	1,267	1,576	1,520	1,806	2,156	2,401	2,398	2,059	1,583	1,442	1,341
Critical (15%)	677	659	770	1,198	1,314	1,483	1,506	1,466	1,234	976	813	749

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,464	2,485	2,788	2,843	2,985	3,074	3,352	3,538	3,538	3,043	2,602	2,543
20%	2,204	2,212	2,463	2,788	2,883	3,014	3,299	3,538	3,388	2,855	2,428	2,342
30%	2,059	2,084	2,329	2,784	2,788	2,953	3,254	3,319	3,128	2,731	2,330	2,158
40%	1,763	1,830	2,086	2,553	2,788	2,906	3,205	3,166	2,942	2,428	2,024	1,854
50%	1,547	1,538	1,869	2,233	2,635	2,788	3,107	3,046	2,743	2,169	1,733	1,570
60%	1,388	1,351	1,535	1,755	2,295	2,659	2,925	2,878	2,529	1,933	1,591	1,543
70%	1,334	1,239	1,278	1,596	2,008	2,439	2,648	2,651	2,299	1,665	1,537	1,469
80%	1,175	1,122	1,134	1,339	1,705	2,074	2,245	2,233	1,854	1,539	1,370	1,307
90%	1,004	912	956	1,217	1,440	1,643	1,892	1,768	1,543	1,299	1,144	1,074
Long Term												
Full Simulation Period ^d	1,667	1,658	1,829	2,101	2,362	2,576	2,823	2,844	2,618	2,164	1,859	1,775
Water Year Types ^{b,c}												
Wet (32%)	2,350	2,332	2,443	2,729	2,890	2,942	3,280	3,423	3,316	2,912	2,555	2,486
Above Normal (16%)	1,821	1,813	1,935	2,296	2,718	2,962	3,256	3,276	3,068	2,515	2,064	1,941
Below Normal (13%)	1,455	1,389	1,552	2,173	2,502	2,749	2,982	2,909	2,628	2,036	1,649	1,537
Dry (24%)	1,302	1,338	1,659	1,591	1,908	2,306	2,546	2,502	2,168	1,682	1,493	1,411
Critical (15%)	820	805	923	1,312	1,461	1,654	1,680	1,633	1,358	1,087	934	877

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-87	-63	0	55	24	17	0	0	0	-16	-9	-35
20%	-38	-78	35	0	46	20	-3	0	-146	-117	-77	-26
30%	-57	-42	58	181	0	12	-22	-155	-184	-60	-26	-87
40%	-209	-89	-38	113	0	43	-18	-211	-228	-137	-88	-171
50%	-5	-47	96	-22	-63	0	-36	-90	-182	-196	-159	-38
60%	-8	14	-17	69	148	-12	90	108	29	62	50	31
70%	58	37	58	69	86	167	104	160	162	97	84	60
80%	46	110	73	67	88	184	93	75	49	7	1	51
90%	51	13	53	149	133	113	251	132	84	60	32	17
Long Term												
Full Simulation Period ^d	-5	7	41	82	69	72	55	1	-35	-24	-16	-4
Water Year Types ^{b,c}												
Wet (32%)	-62	-47	4	35	-3	0	-20	-61	-111	-83	-50	-56
Above Normal (16%)	-135	-114	-67	135	77	5	-38	-148	-205	-183	-157	-146
Below Normal (13%)	-7	9	57	116	86	70	47	-47	-93	-70	-37	8
Dry (24%)	64	71	84	71	102	150	146	104	109	100	51	70
Critical (15%)	143	146	153	114	148	171	174	167	124	110	120	128

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

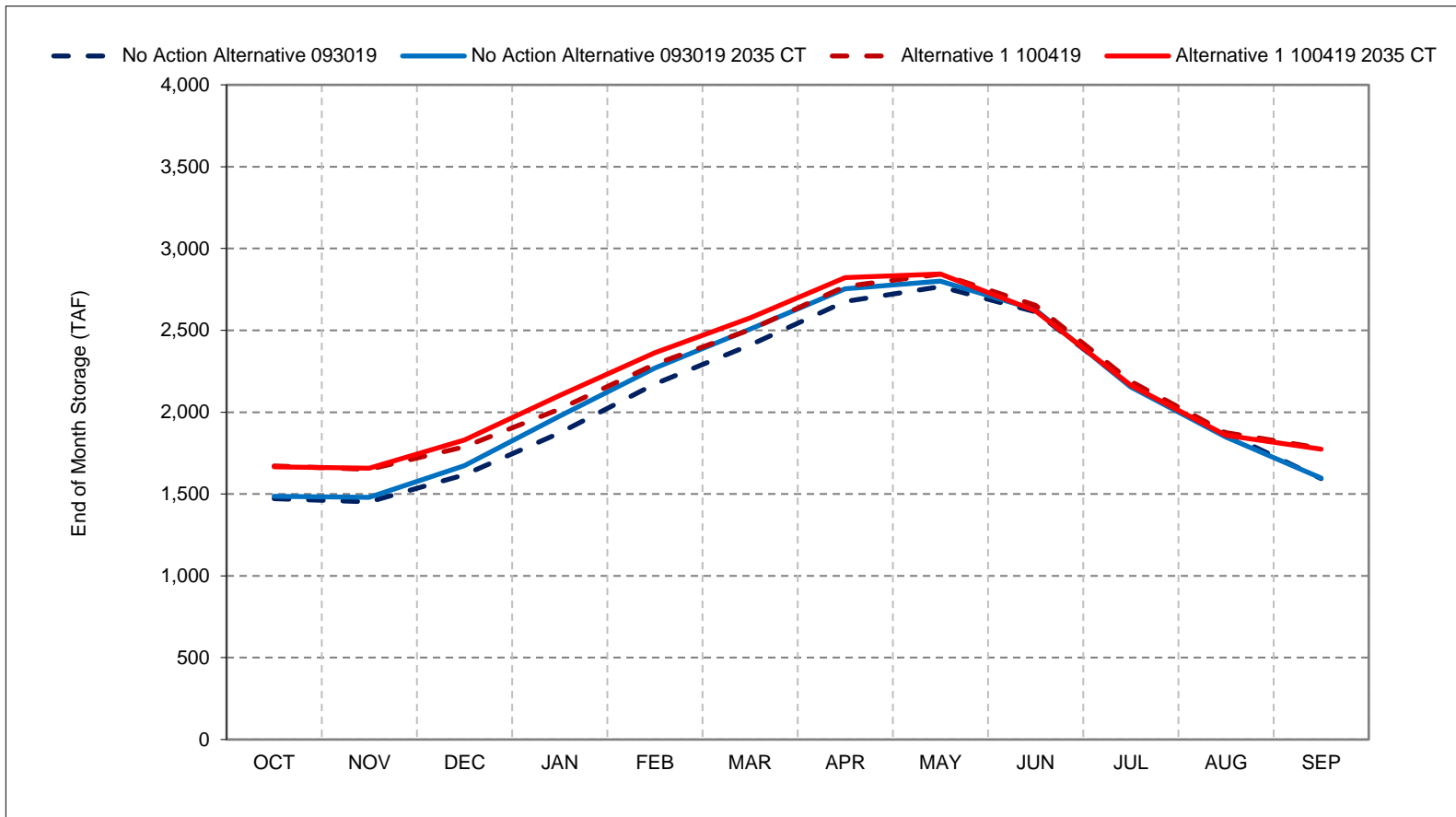
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4-1. Lake Oroville Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

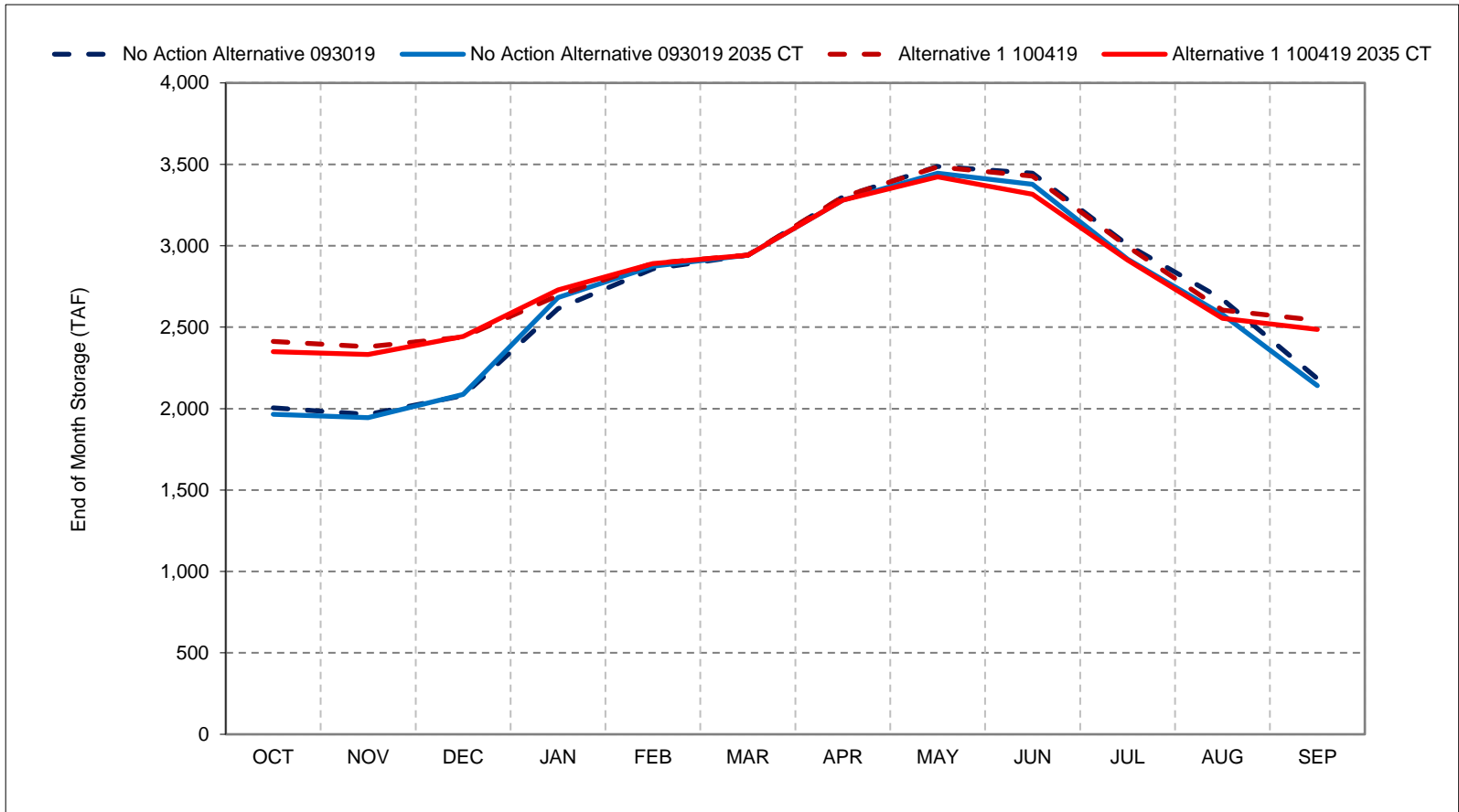
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-2. Lake Oroville Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

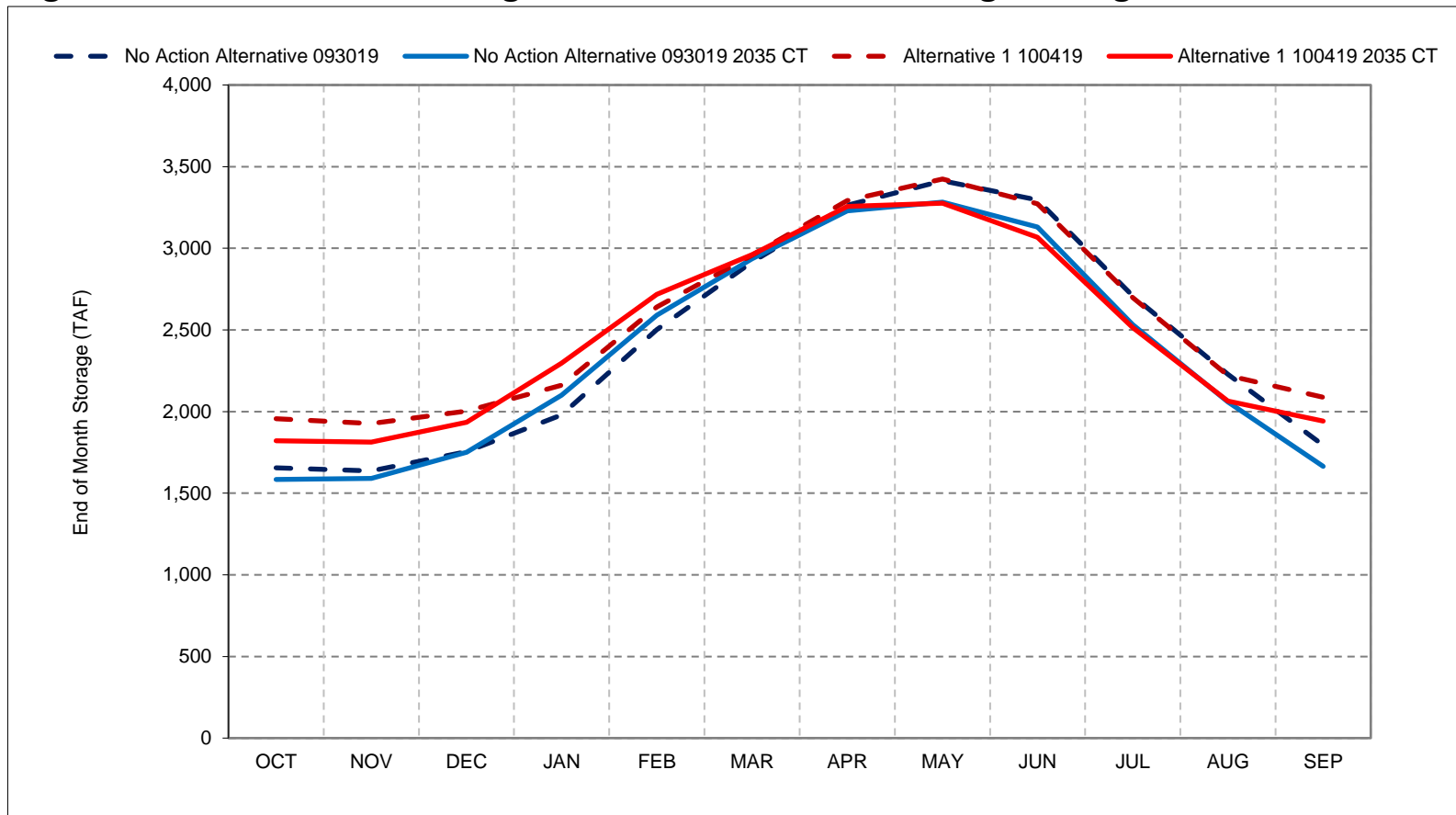
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-3. Lake Oroville Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

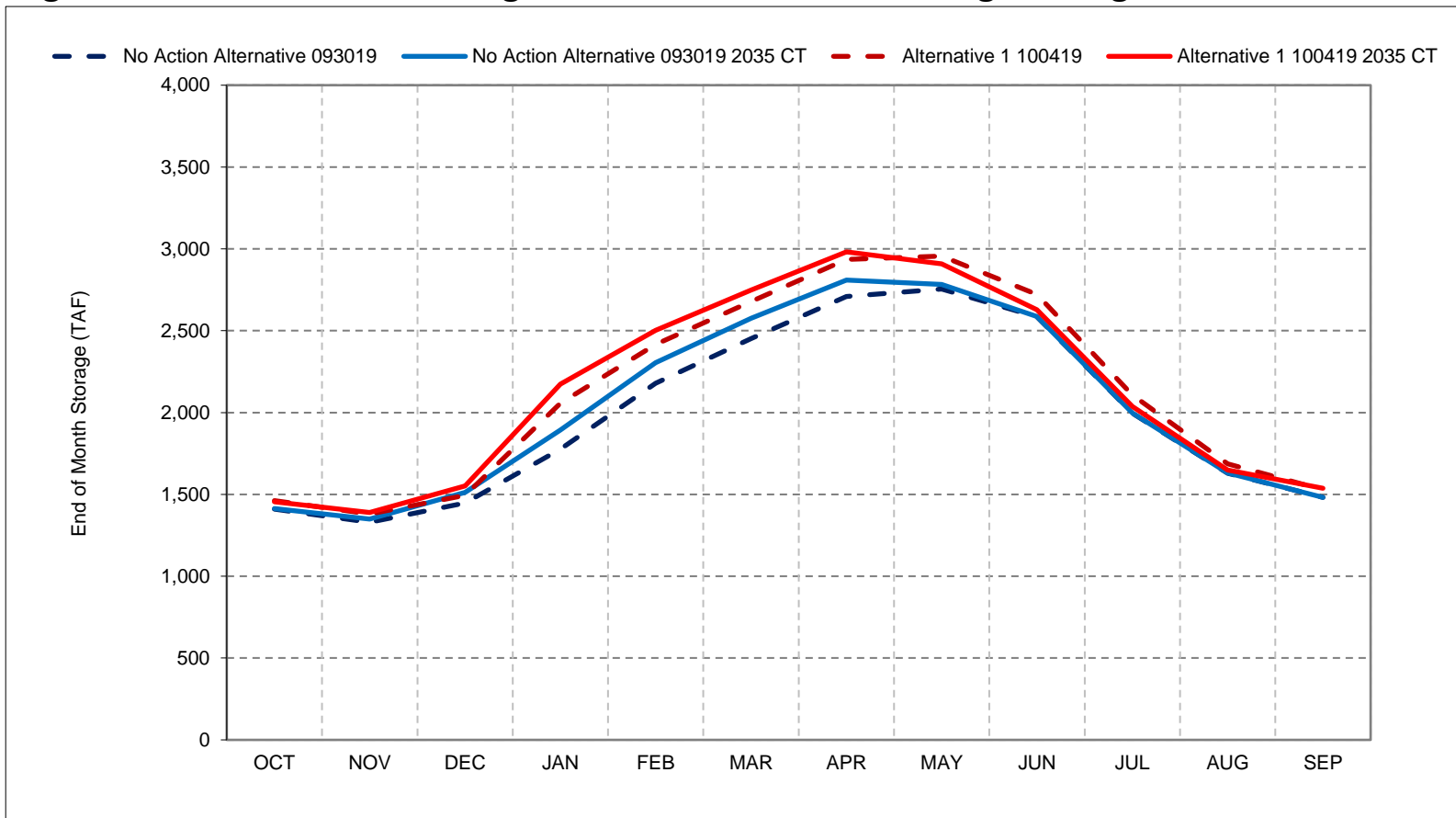
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-4. Lake Oroville Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

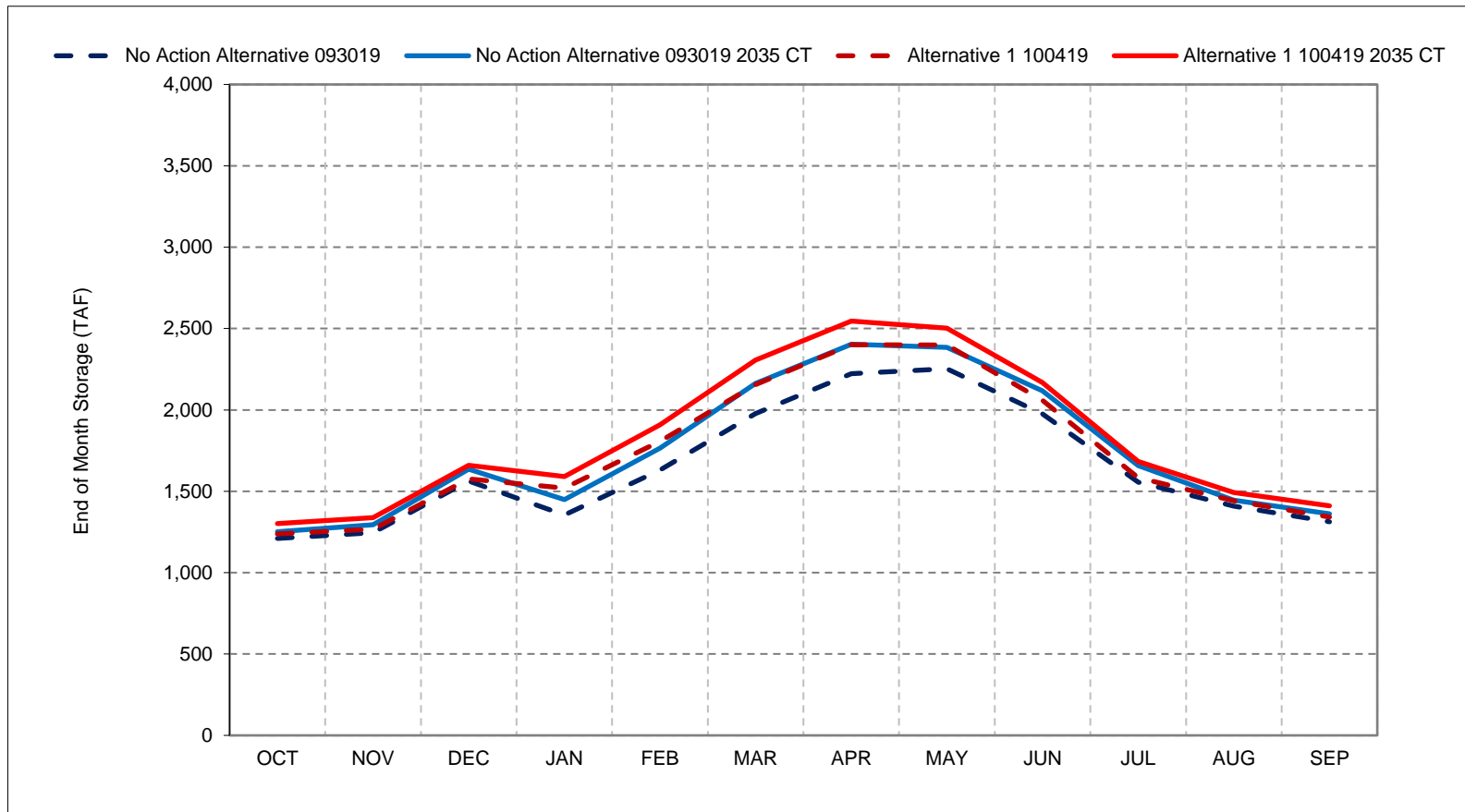
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-5. Lake Oroville Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

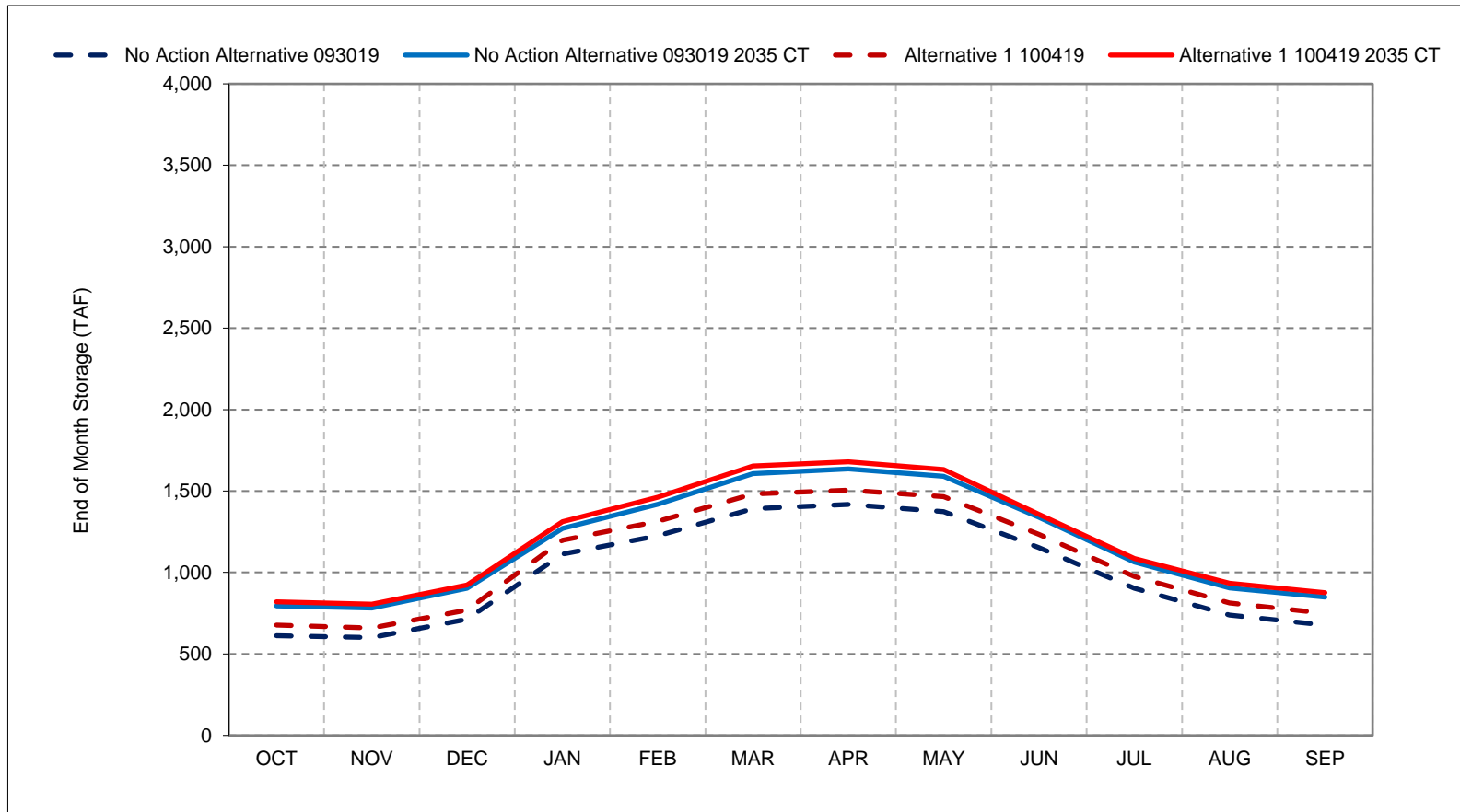
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-6. Lake Oroville Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

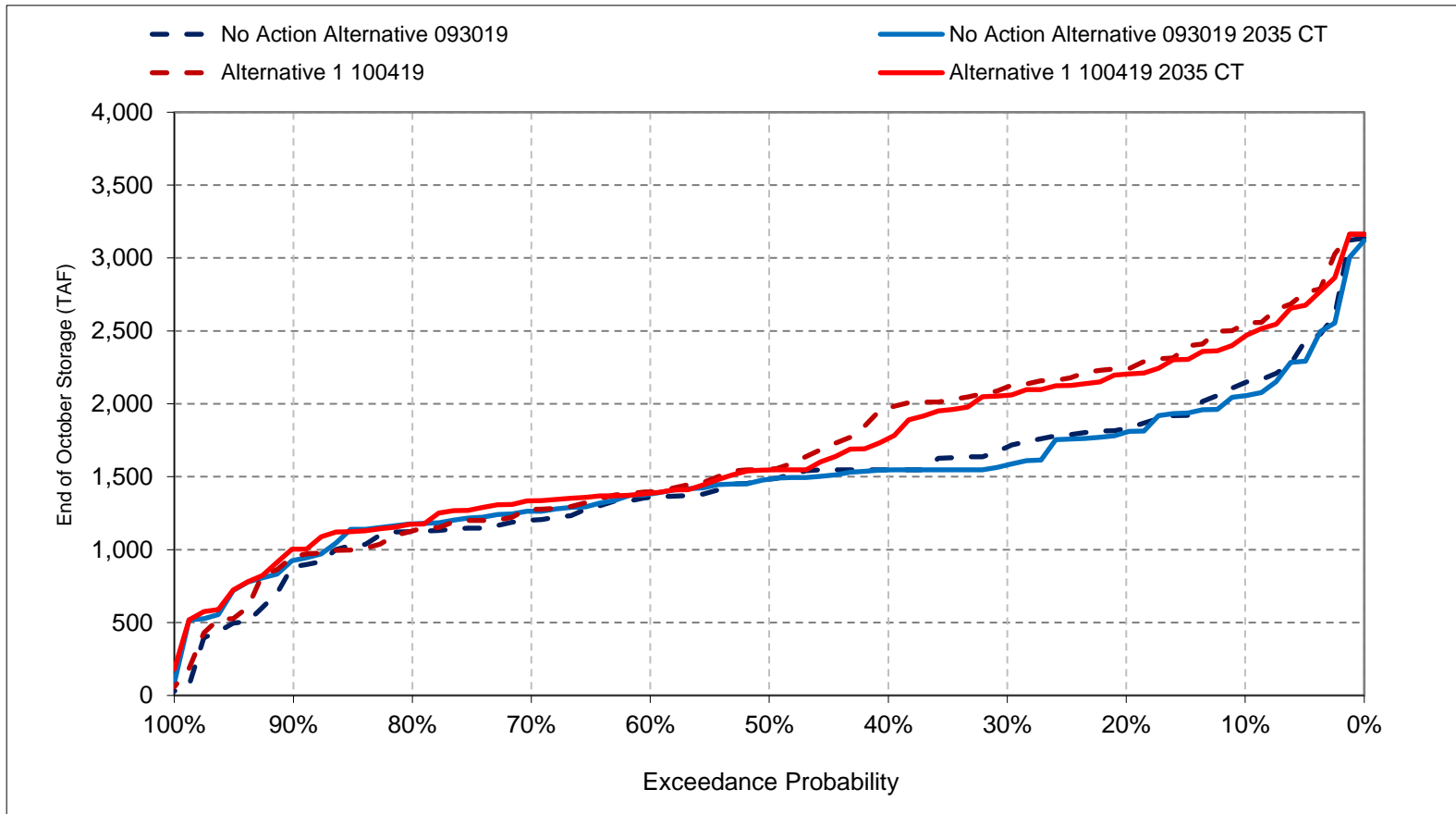
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

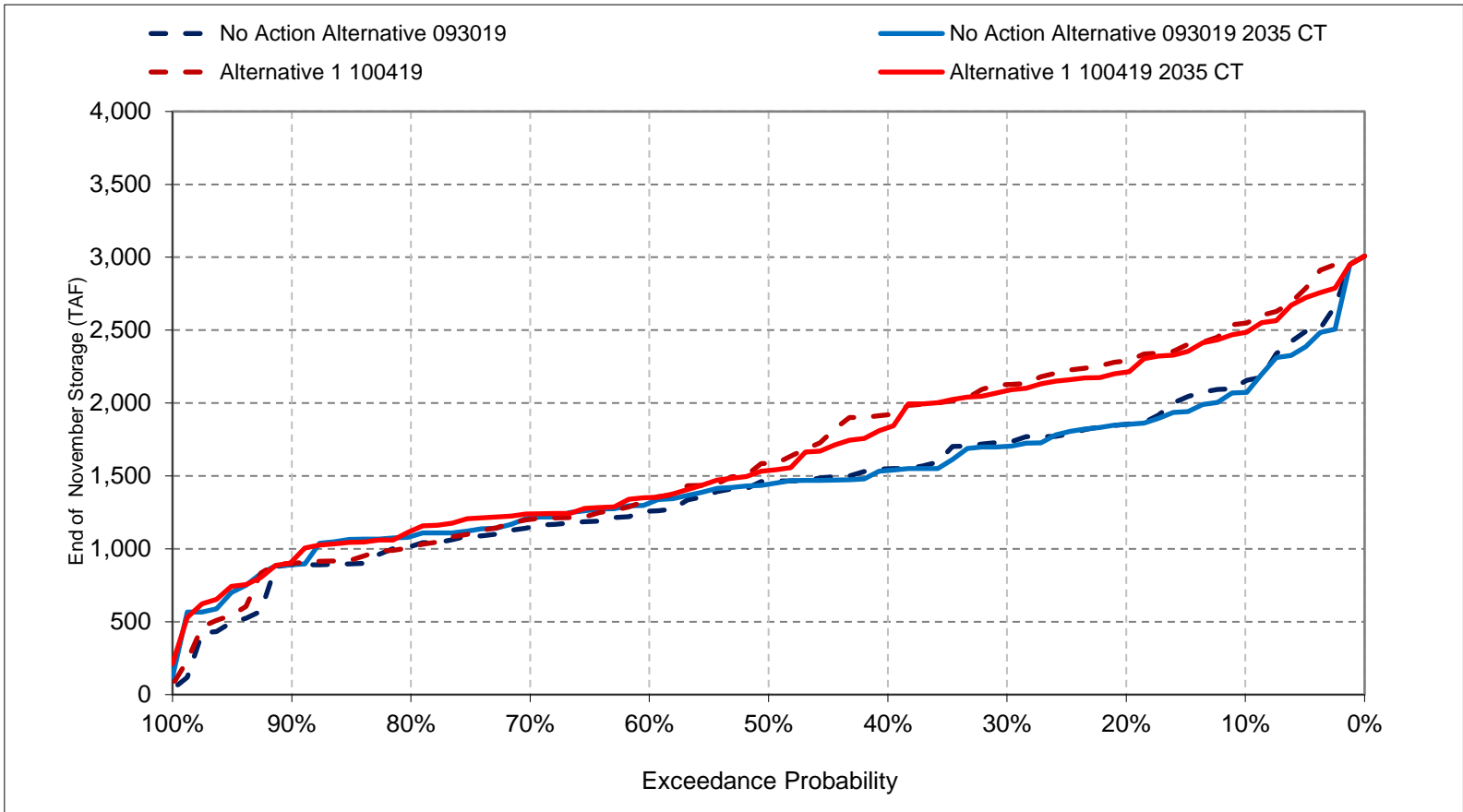
Figure 4-7. Lake Oroville Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

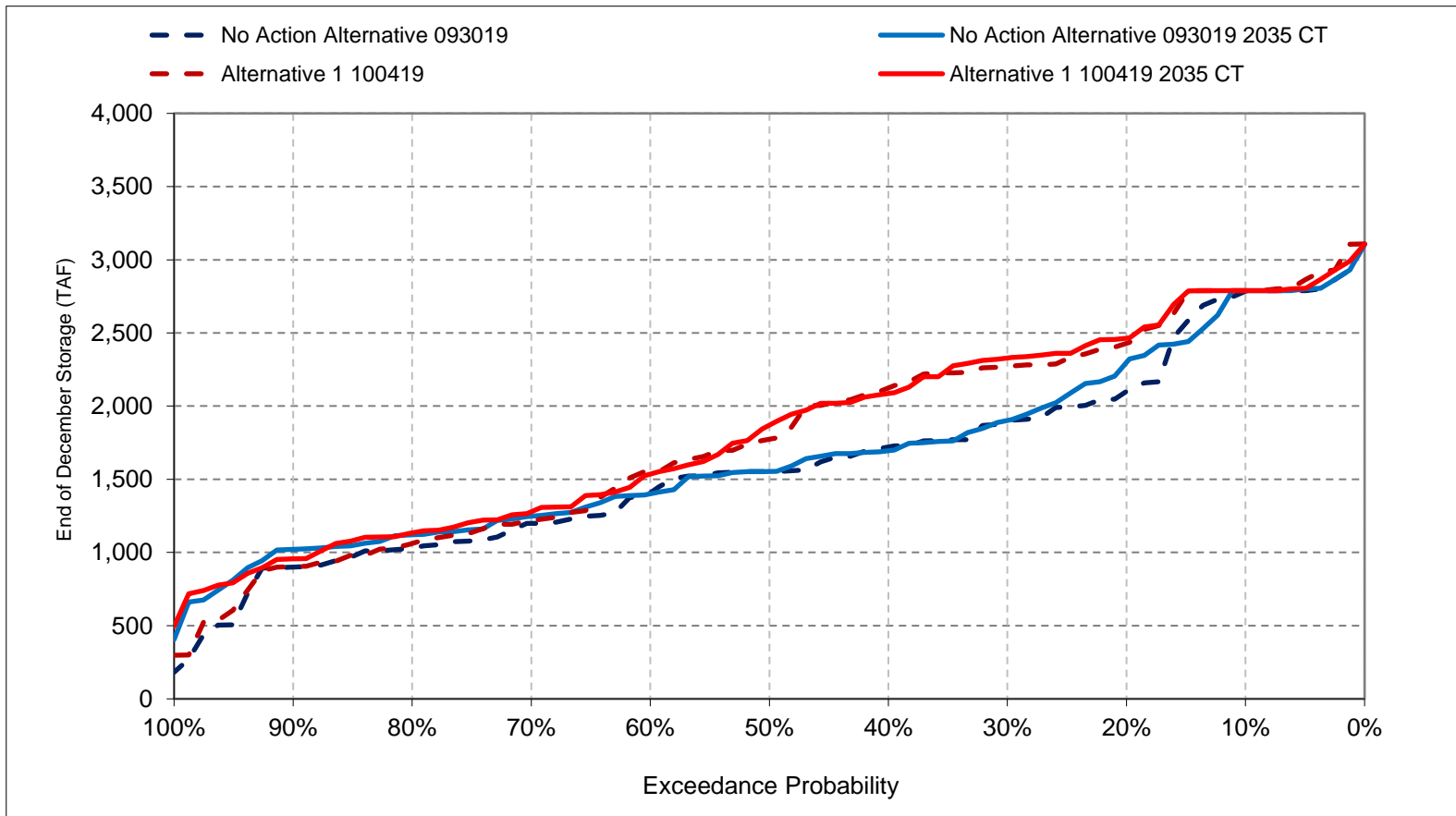
Figure 4-8. Lake Oroville Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

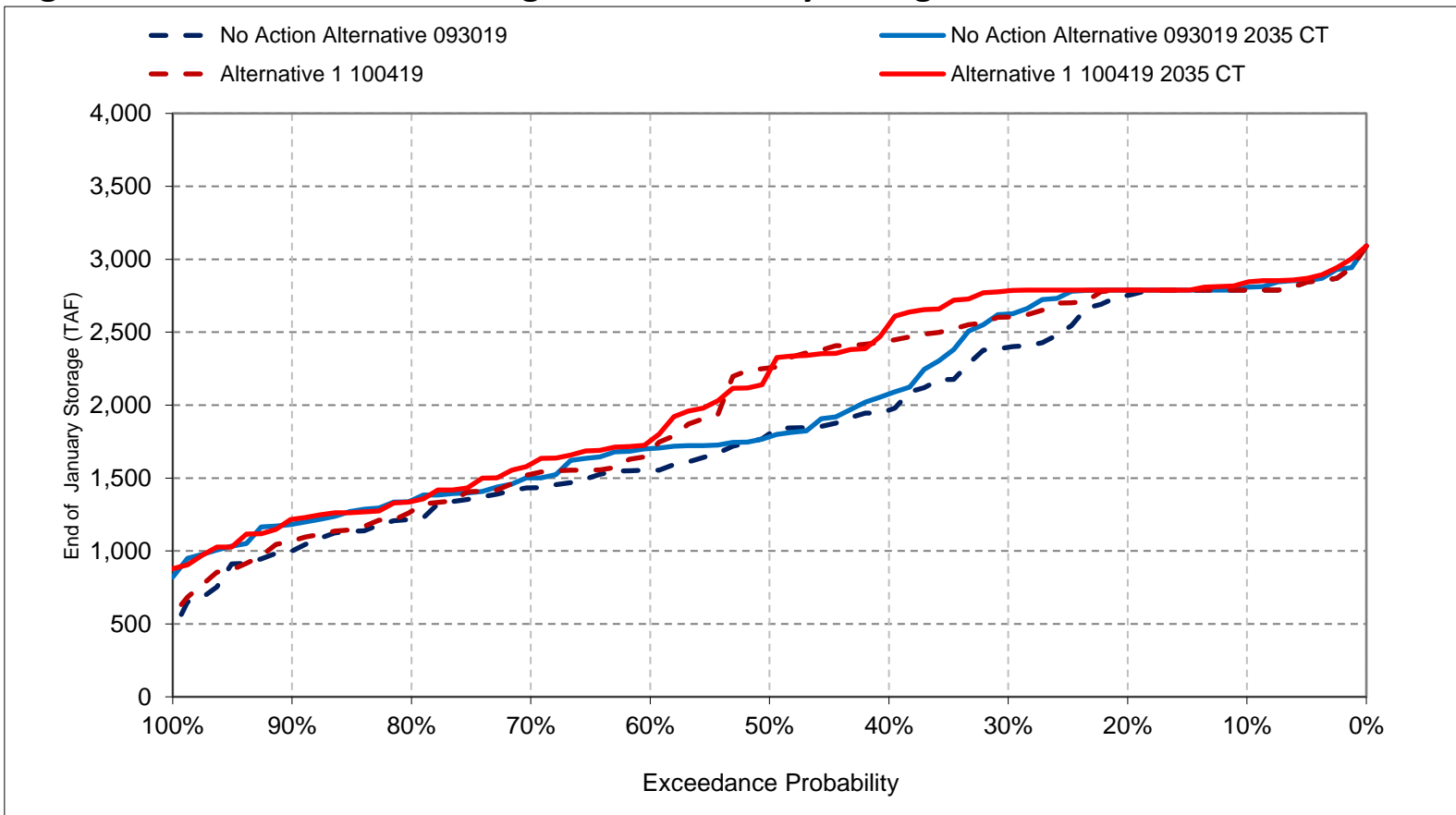
Figure 4-9. Lake Oroville Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

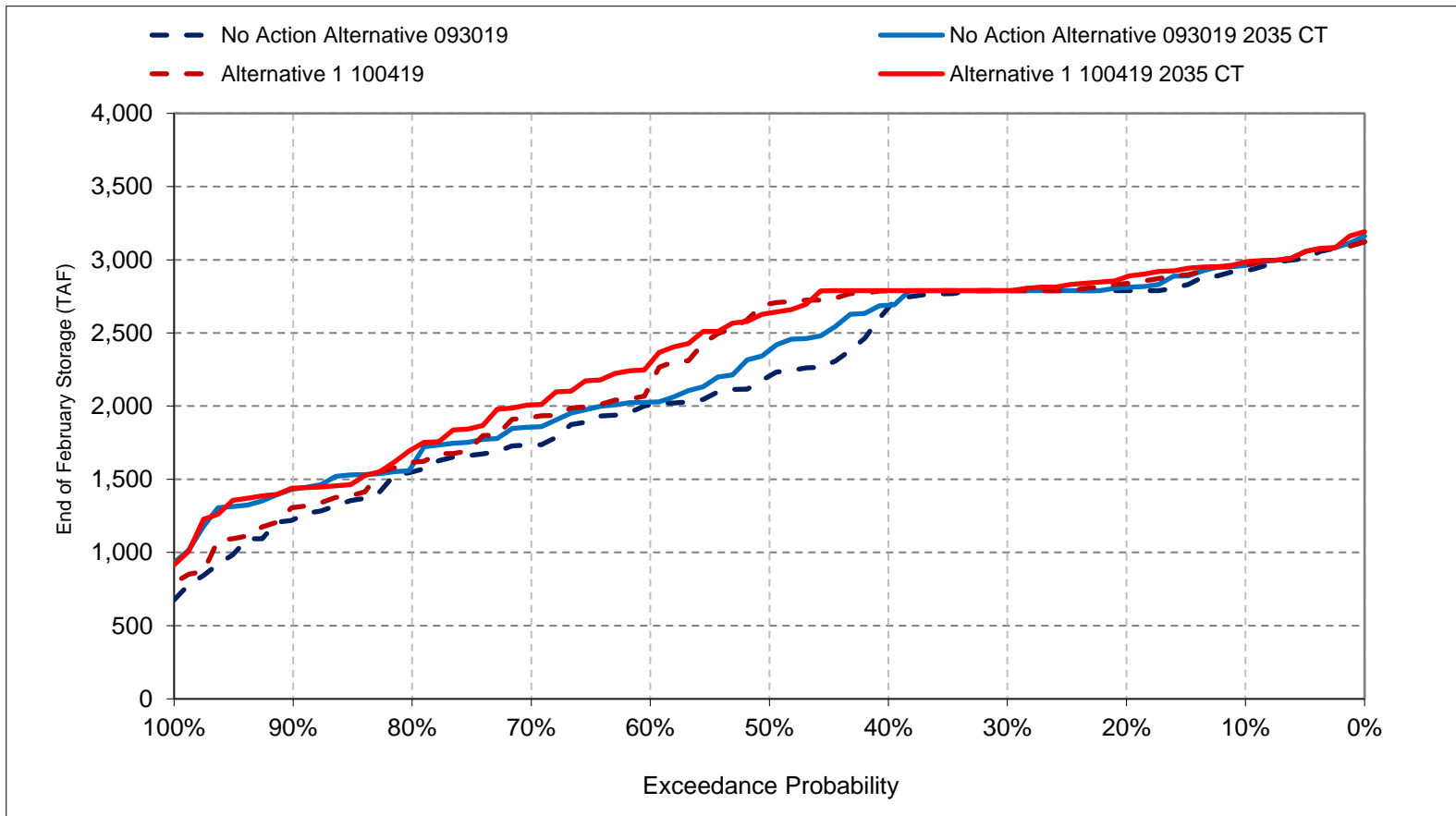
Figure 4-10. Lake Oroville Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

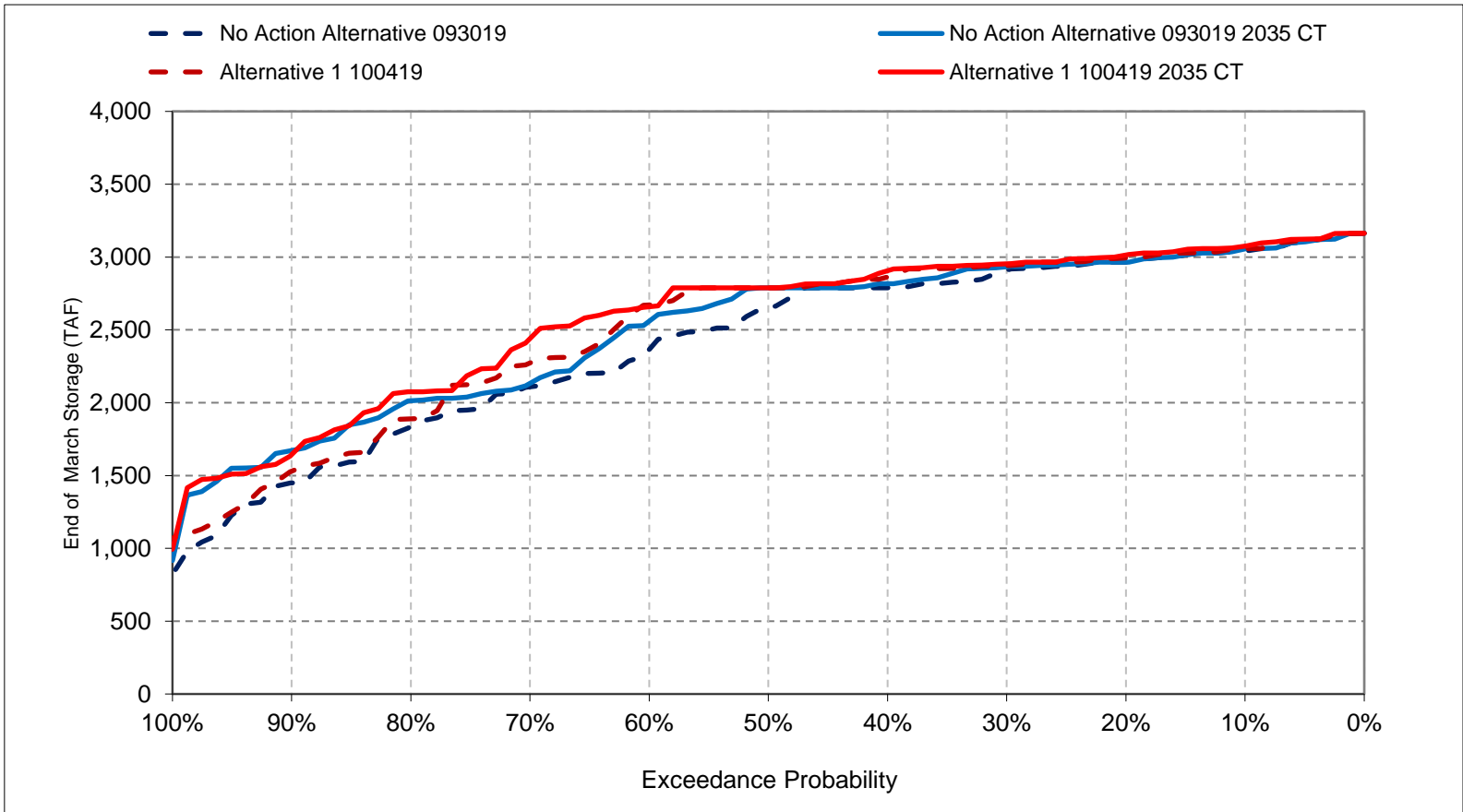
Figure 4-11. Lake Oroville Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

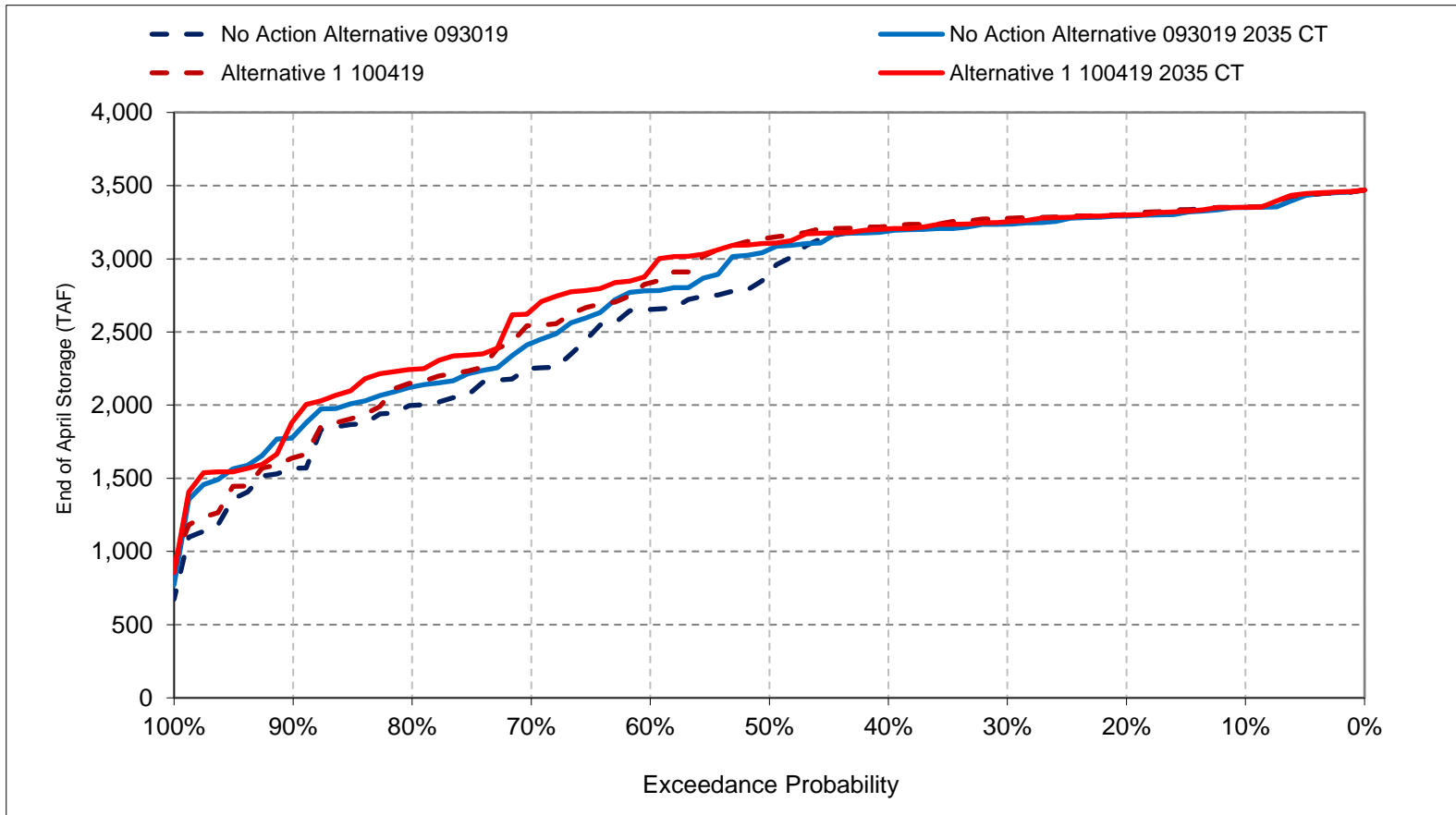
Figure 4-12. Lake Oroville Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

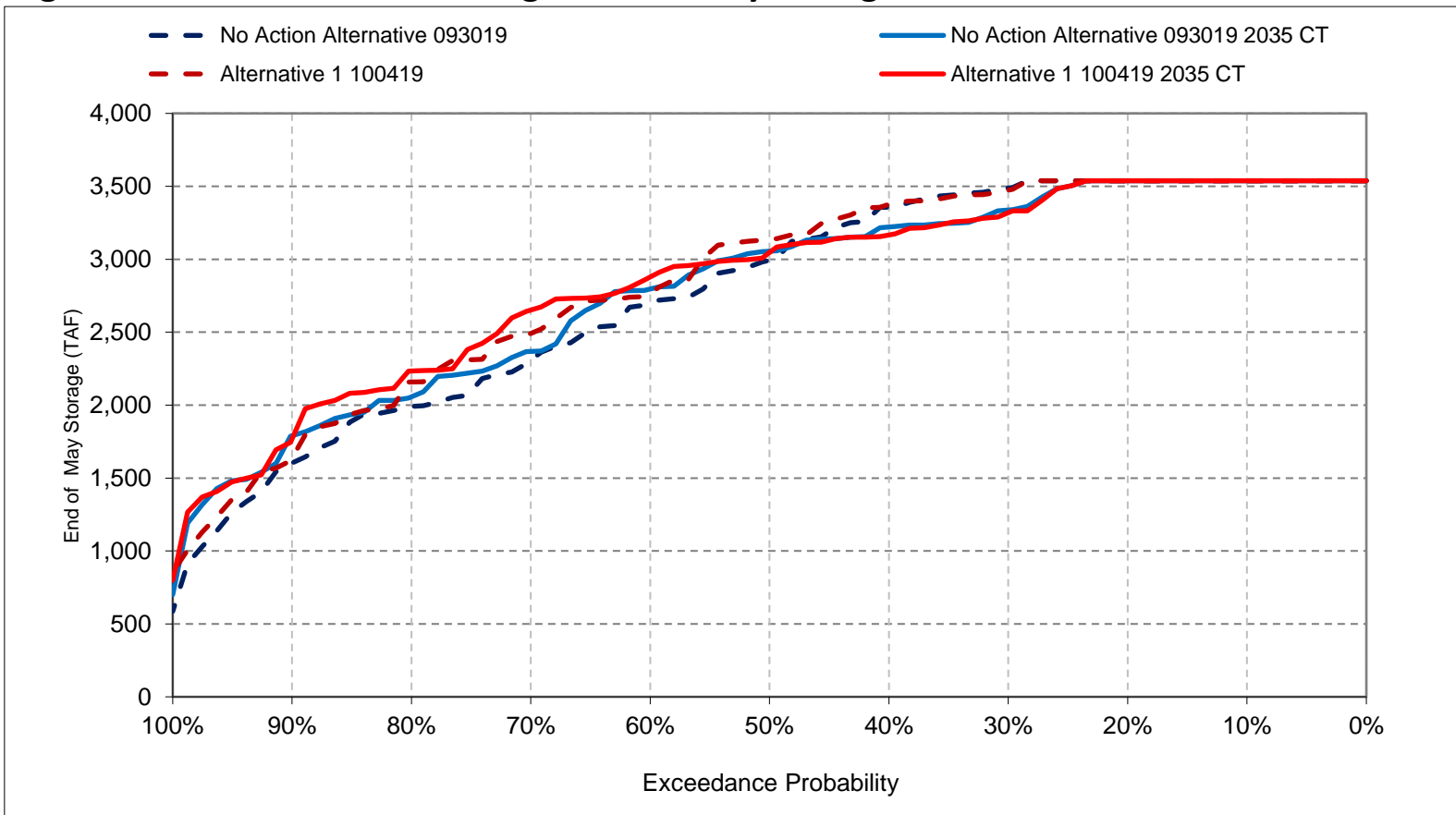
Figure 4-13. Lake Oroville Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

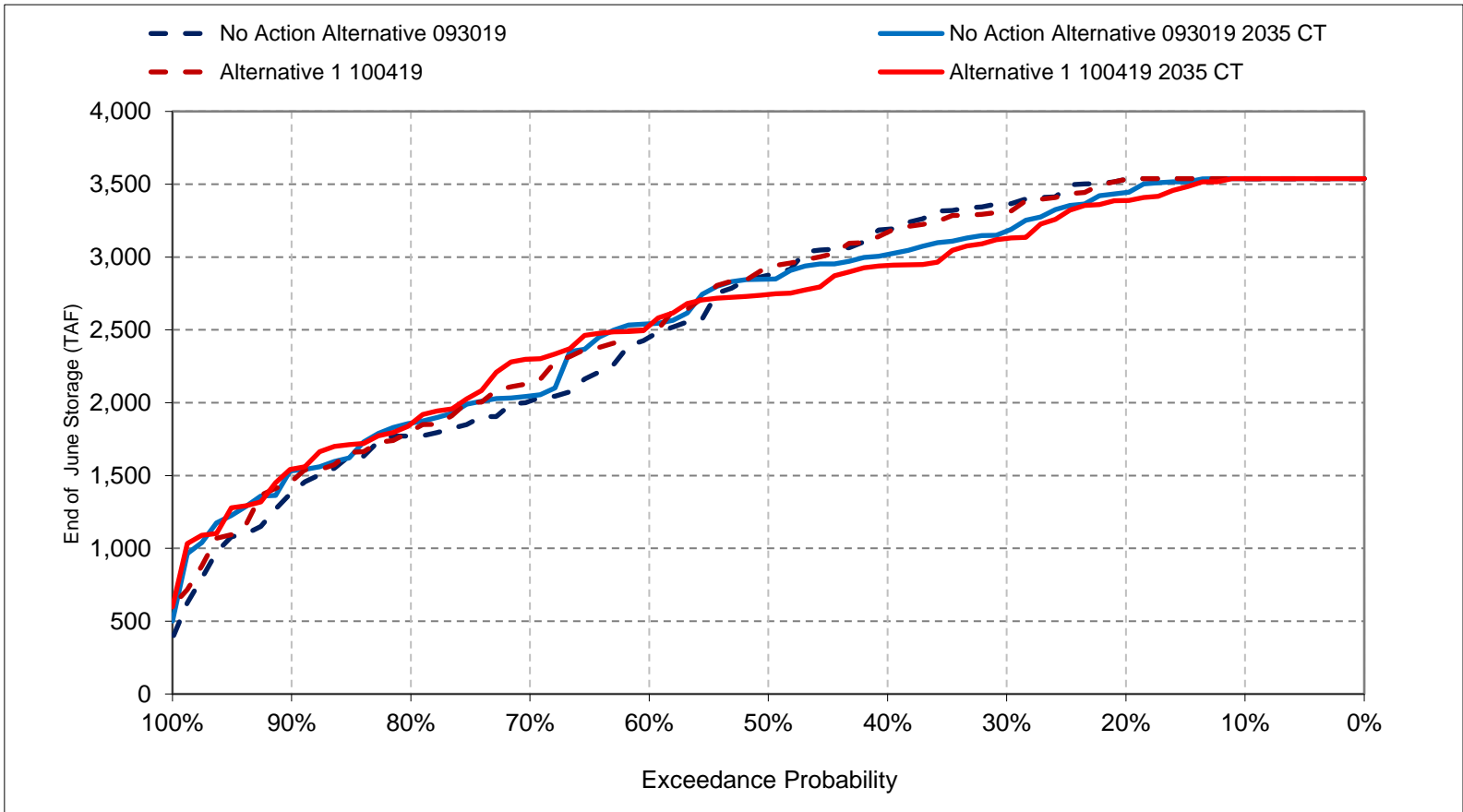
Figure 4-14. Lake Oroville Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

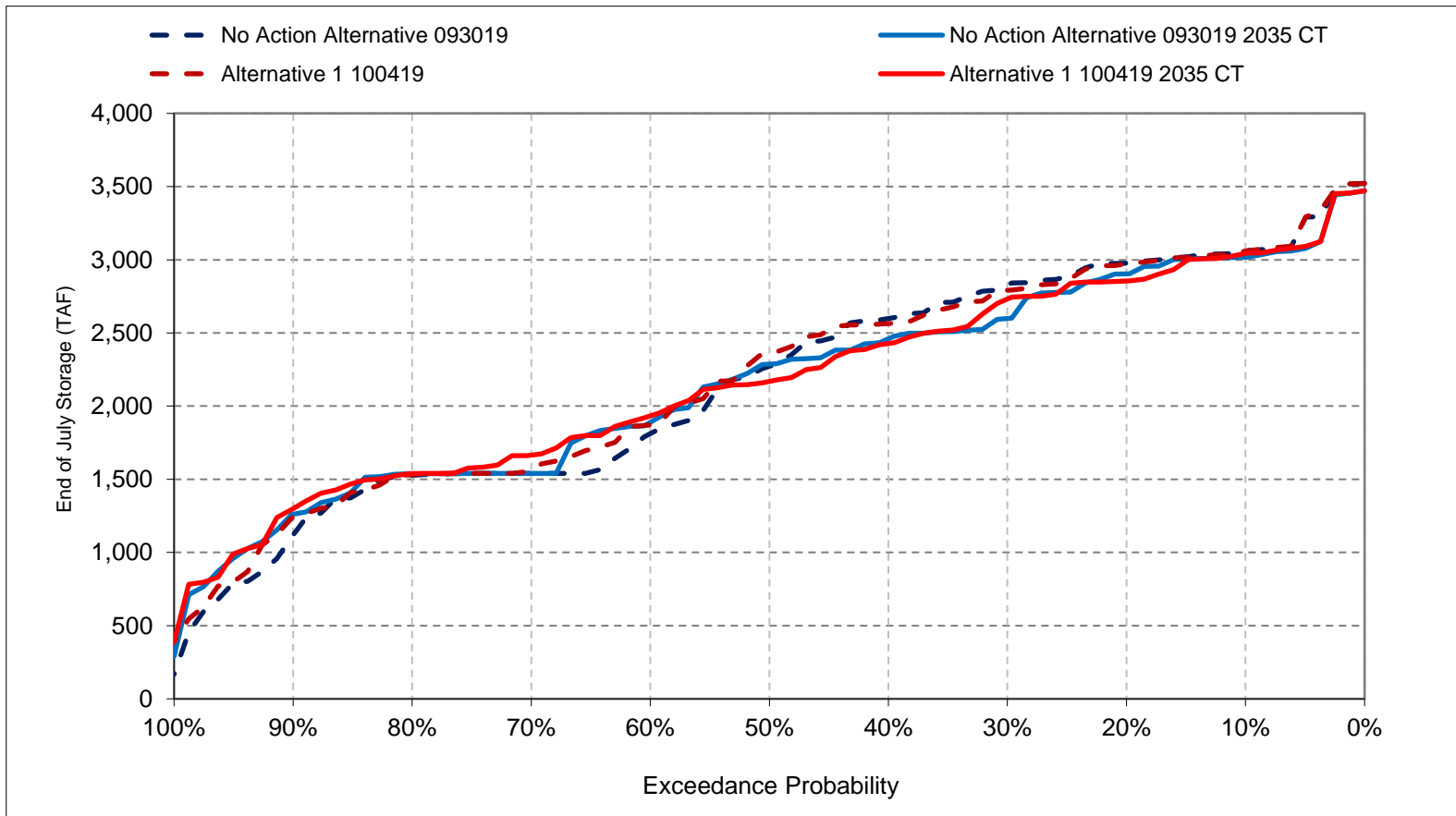
Figure 4-15. Lake Oroville Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

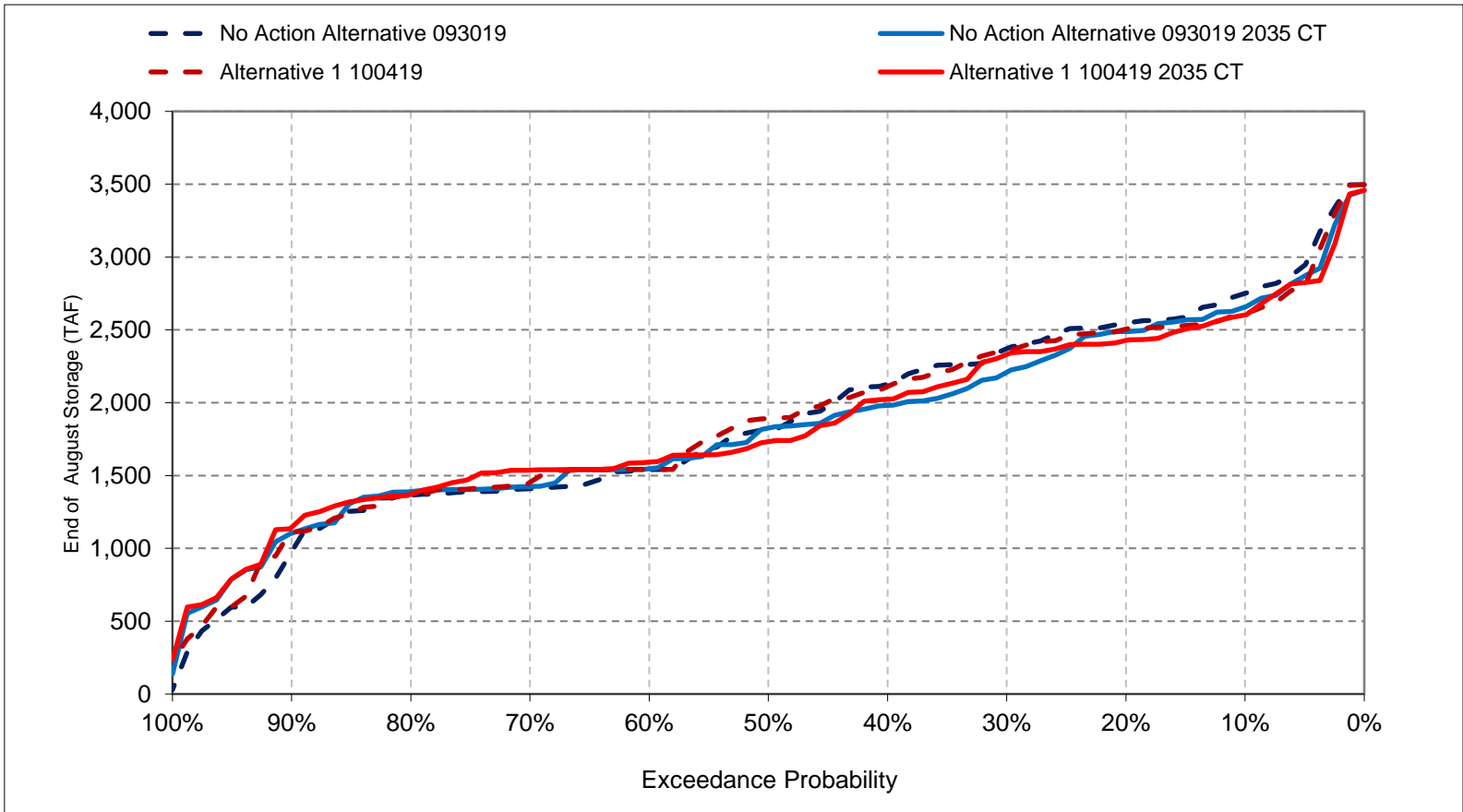
Figure 4-16. Lake Oroville Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

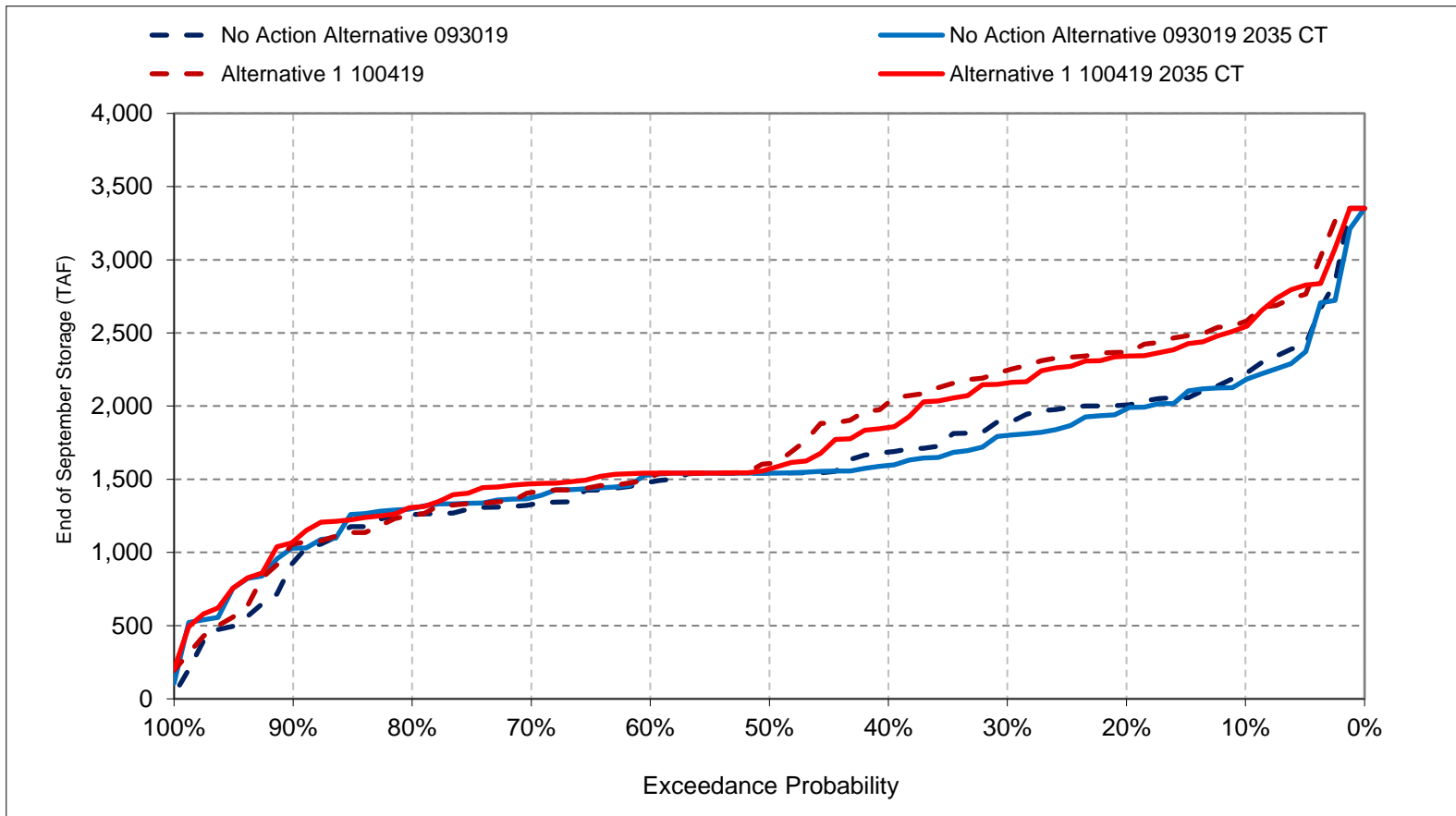
Figure 4-17. Lake Oroville Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4-18. Lake Oroville Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-1. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	798	798	848	849	858	866	887	900	900	867	846	806
20%	766	768	793	846	849	861	884	900	900	862	832	784
30%	752	755	772	822	849	857	882	897	888	851	820	772
40%	734	734	754	779	841	849	877	888	876	836	796	751
50%	726	724	734	763	804	840	857	863	855	811	764	733
60%	711	699	717	735	784	819	840	843	826	764	733	726
70%	692	685	691	720	756	794	809	814	784	733	717	707
80%	682	669	671	694	734	766	783	782	759	731	712	699
90%	645	647	649	666	694	722	737	741	714	682	662	654
Long Term												
Full Simulation Period ^d	714	712	731	761	791	813	833	839	824	785	756	729
Water Year Types ^{b,c}												
Wet (32%)	780	776	786	834	854	859	884	896	894	864	840	798
Above Normal (16%)	746	742	754	777	826	858	881	891	883	843	805	761
Below Normal (13%)	716	706	719	757	799	822	842	845	832	782	743	726
Dry (24%)	692	695	727	706	741	779	803	805	779	734	717	705
Critical (15%)	571	574	604	677	692	713	715	709	678	636	598	586

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	833	832	849	849	861	867	887	900	900	867	837	834
20%	808	813	824	849	852	863	884	900	900	861	829	820
30%	795	796	811	836	849	859	882	896	885	849	819	808
40%	780	775	796	825	849	854	878	889	875	833	794	785
50%	734	738	760	809	843	849	873	873	858	820	772	741
60%	715	708	734	750	798	841	852	848	829	770	733	730
70%	701	692	694	731	775	811	832	828	797	736	722	717
80%	683	668	674	700	742	772	798	799	763	732	712	698
90%	658	648	649	675	705	732	745	744	723	696	681	674
Long Term												
Full Simulation Period ^d	736	734	749	775	802	821	841	846	829	789	760	749
Water Year Types ^{b,c}												
Wet (32%)	819	817	821	841	856	859	884	896	892	863	835	830
Above Normal (16%)	778	774	781	795	837	860	883	892	882	843	804	792
Below Normal (13%)	723	713	725	783	817	839	858	860	843	793	749	732
Dry (24%)	696	697	728	725	759	795	818	818	788	738	721	709
Critical (15%)	591	590	616	688	703	725	727	722	691	652	622	610

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	35	34	0	0	3	1	0	0	0	0	-9	29
20%	42	45	31	2	3	2	0	0	0	0	-3	36
30%	42	40	39	14	0	2	0	-1	-4	-2	-1	36
40%	46	41	41	46	8	5	1	1	-1	-2	-2	35
50%	8	15	25	46	39	9	16	10	3	9	8	8
60%	5	10	18	16	14	22	12	5	4	6	0	4
70%	9	7	3	11	19	17	23	14	13	3	5	10
80%	1	-1	4	7	8	6	16	17	3	1	0	0
90%	13	2	1	9	10	10	9	4	10	15	19	20
Long Term												
Full Simulation Period ^d	22	22	18	15	11	8	8	7	5	4	4	20
Water Year Types ^{b,c}												
Wet (32%)	39	41	36	7	2	0	0	0	-1	-1	-4	33
Above Normal (16%)	32	31	27	18	11	3	2	1	-2	-1	-1	31
Below Normal (13%)	6	7	6	25	19	16	16	15	11	12	6	6
Dry (24%)	4	2	1	18	18	16	15	12	9	3	4	4
Critical (15%)	20	16	12	11	12	12	12	13	14	16	24	24

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 4a-2. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	789	790	849	850	861	867	887	900	900	864	840	801
20%	763	768	814	849	850	861	883	900	893	857	828	781
30%	738	752	773	838	849	859	879	886	875	836	804	762
40%	734	733	752	791	842	851	876	878	864	826	781	740
50%	726	721	735	761	821	849	868	867	853	812	765	733
60%	714	705	716	752	786	833	848	849	832	771	734	732
70%	699	693	697	728	768	796	824	820	788	733	719	713
80%	689	677	682	709	739	784	796	789	768	733	715	704
90%	653	647	670	689	720	749	761	761	732	699	680	671
Long Term												
Full Simulation Period ^d	720	719	740	772	801	823	841	843	828	787	758	733
Water Year Types ^{b,c}												
Wet (32%)	776	775	787	839	855	859	882	894	889	858	832	794
Above Normal (16%)	737	737	754	788	833	859	879	883	872	831	788	747
Below Normal (13%)	717	708	726	770	809	832	850	847	832	781	743	726
Dry (24%)	697	702	736	721	757	797	818	816	791	745	721	711
Critical (15%)	617	619	645	700	717	739	741	735	705	665	637	627

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	827	828	849	853	862	868	887	900	900	866	836	832
20%	804	805	827	849	855	864	884	900	890	853	824	818
30%	789	792	817	848	849	860	881	885	872	845	817	799
40%	759	765	792	833	849	857	877	875	859	824	785	768
50%	734	733	769	807	838	849	871	866	846	800	755	737
60%	714	710	732	758	813	840	858	855	831	776	739	733
70%	708	696	701	740	784	825	839	839	814	748	733	724
80%	688	682	683	708	753	790	808	807	768	733	712	704
90%	667	651	659	694	721	745	772	759	733	704	685	676
Long Term												
Full Simulation Period ^d	739	738	756	784	809	828	847	847	828	789	760	751
Water Year Types ^{b,c}												
Wet (32%)	814	813	822	843	856	859	882	892	885	857	831	825
Above Normal (16%)	763	761	773	807	844	861	881	882	868	829	789	776
Below Normal (13%)	722	713	730	793	824	843	862	856	836	785	745	732
Dry (24%)	704	707	739	736	771	810	830	826	797	749	727	717
Critical (15%)	626	625	649	703	721	744	746	740	708	670	643	634

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	38	0	2	2	1	0	0	0	2	-4	31
20%	41	37	13	0	5	3	0	0	-4	-3	-4	37
30%	51	39	44	11	0	1	1	-1	-3	9	12	37
40%	25	33	40	42	7	6	1	-4	-5	-2	4	28
50%	8	11	35	46	18	0	3	-1	-7	-12	-10	3
60%	1	5	16	5	27	7	10	6	-1	5	5	2
70%	9	4	4	12	16	28	15	19	26	15	14	12
80%	0	5	2	-1	14	6	12	18	-1	0	-2	1
90%	14	4	-11	4	1	-4	11	-2	1	5	5	5
Long Term												
Full Simulation Period ^d	20	19	16	12	8	6	6	4	0	2	2	18
Water Year Types ^{b,c}												
Wet (32%)	38	38	35	4	1	0	0	-2	-4	-1	-1	32
Above Normal (16%)	26	24	19	19	11	2	2	0	-4	-2	0	29
Below Normal (13%)	5	5	4	23	15	12	12	9	4	4	2	6
Dry (24%)	6	5	2	15	14	12	12	10	6	3	6	6
Critical (15%)	8	6	4	4	4	5	5	5	3	5	6	7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-3. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	798	798	848	849	858	866	887	900	900	867	846	806
20%	766	768	793	846	849	861	884	900	900	862	832	784
30%	752	755	772	822	849	857	882	897	888	851	820	772
40%	734	734	754	779	841	849	877	888	876	836	796	751
50%	726	724	734	763	804	840	857	863	855	811	764	733
60%	711	699	717	735	784	819	840	843	826	764	733	726
70%	692	685	691	720	756	794	809	814	784	733	717	707
80%	682	669	671	694	734	766	783	782	759	731	712	699
90%	645	647	649	666	694	722	737	741	714	682	662	654
Long Term												
Full Simulation Period ^d	714	712	731	761	791	813	833	839	824	785	756	729
Water Year Types ^{b,c}												
Wet (32%)	780	776	786	834	854	859	884	896	894	864	840	798
Above Normal (16%)	746	742	754	777	826	858	881	891	883	843	805	761
Below Normal (13%)	716	706	719	757	799	822	842	845	832	782	743	726
Dry (24%)	692	695	727	706	741	779	803	805	779	734	717	705
Critical (15%)	571	574	604	677	692	713	715	709	678	636	598	586

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	789	790	849	850	861	867	887	900	900	864	840	801
20%	763	768	814	849	850	861	883	900	893	857	828	781
30%	738	752	773	838	849	859	879	886	875	836	804	762
40%	734	733	752	791	842	851	876	878	864	826	781	740
50%	726	721	735	761	821	849	868	867	853	812	765	733
60%	714	705	716	752	786	833	848	849	832	771	734	732
70%	699	693	697	728	768	796	824	820	788	733	719	713
80%	689	677	682	709	739	784	796	789	768	733	715	704
90%	653	647	670	689	720	749	761	761	732	699	680	671
Long Term												
Full Simulation Period ^d	720	719	740	772	801	823	841	843	828	787	758	733
Water Year Types ^{b,c}												
Wet (32%)	776	775	787	839	855	859	882	894	889	858	832	794
Above Normal (16%)	737	737	754	788	833	859	879	883	872	831	788	747
Below Normal (13%)	717	708	726	770	809	832	850	847	832	781	743	726
Dry (24%)	697	702	736	721	757	797	818	816	791	745	721	711
Critical (15%)	617	619	645	700	717	739	741	735	705	665	637	627

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-9	-8	0	1	3	1	0	0	0	-3	-6	-4
20%	-3	0	20	2	2	0	-1	0	-6	-5	-4	-3
30%	-14	-3	1	16	0	2	-2	-10	-13	-16	-16	-10
40%	0	-2	-3	11	1	2	-1	-9	-12	-9	-15	-11
50%	0	-2	0	-2	17	9	11	4	-2	2	1	0
60%	3	7	-1	18	2	14	9	7	6	8	1	6
70%	7	8	6	8	13	2	15	6	4	0	2	6
80%	7	8	11	16	5	18	13	7	9	2	3	5
90%	8	0	21	23	26	27	24	21	18	17	18	17
Long Term												
Full Simulation Period ^d	6	7	9	12	11	10	8	4	4	3	2	4
Water Year Types ^{b,c}												
Wet (32%)	-4	-2	1	5	1	0	-1	-3	-5	-6	-7	-4
Above Normal (16%)	-8	-5	-1	12	8	1	-2	-9	-11	-13	-17	-14
Below Normal (13%)	0	3	8	12	10	9	7	2	0	-1	0	0
Dry (24%)	5	7	9	14	16	18	15	10	12	11	5	6
Critical (15%)	47	45	41	23	26	26	26	26	27	29	39	41

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-4. Lake Oroville Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	833	832	849	849	861	867	887	900	900	867	837	834
20%	808	813	824	849	852	863	884	900	900	861	829	820
30%	795	796	811	836	849	859	882	896	885	849	819	808
40%	780	775	796	825	849	854	878	889	875	833	794	785
50%	734	738	760	809	843	849	873	873	858	820	772	741
60%	715	708	734	750	798	841	852	848	829	770	733	730
70%	701	692	694	731	775	811	832	828	797	736	722	717
80%	683	668	674	700	742	772	798	799	763	732	712	698
90%	658	648	649	675	705	732	745	744	723	696	681	674
Long Term												
Full Simulation Period ^d	736	734	749	775	802	821	841	846	829	789	760	749
Water Year Types ^{b,c}												
Wet (32%)	819	817	821	841	856	859	884	896	892	863	835	830
Above Normal (16%)	778	774	781	795	837	860	883	892	882	843	804	792
Below Normal (13%)	723	713	725	783	817	839	858	860	843	793	749	732
Dry (24%)	696	697	728	725	759	795	818	818	788	738	721	709
Critical (15%)	591	590	616	688	703	725	727	722	691	652	622	610

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	827	828	849	853	862	868	887	900	900	866	836	832
20%	804	805	827	849	855	864	884	900	890	853	824	818
30%	789	792	817	848	849	860	881	885	872	845	817	799
40%	759	765	792	833	849	857	877	875	859	824	785	768
50%	734	733	769	807	838	849	871	866	846	800	755	737
60%	714	710	732	758	813	840	858	855	831	776	739	733
70%	708	696	701	740	784	825	839	839	814	748	733	724
80%	688	682	683	708	753	790	808	807	768	733	712	704
90%	667	651	659	694	721	745	772	759	733	704	685	676
Long Term												
Full Simulation Period ^d	739	738	756	784	809	828	847	847	828	789	760	751
Water Year Types ^{b,c}												
Wet (32%)	814	813	822	843	856	859	882	892	885	857	831	825
Above Normal (16%)	763	761	773	807	844	861	881	882	868	829	789	776
Below Normal (13%)	722	713	730	793	824	843	862	856	836	785	745	732
Dry (24%)	704	707	739	736	771	810	830	826	797	749	727	717
Critical (15%)	626	625	649	703	721	744	746	740	708	670	643	634

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-6	-4	0	4	2	1	0	0	0	-1	-1	-2
20%	-4	-8	2	0	3	1	0	0	-10	-8	-5	-2
30%	-6	-4	6	12	0	1	-2	-11	-13	-4	-2	-9
40%	-21	-9	-4	8	0	3	-1	-14	-16	-9	-9	-18
50%	-1	-6	10	-2	-4	0	-2	-6	-12	-20	-16	-5
60%	-1	2	-2	7	15	-1	6	7	2	6	6	4
70%	7	5	7	8	9	14	7	11	17	12	10	7
80%	6	14	9	8	10	19	10	8	5	1	0	6
90%	9	2	9	18	16	14	27	15	10	7	4	2
Long Term												
Full Simulation Period ^d	3	4	7	9	8	7	5	1	-1	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	-5	-4	1	2	0	0	-1	-4	-8	-6	-4	-5
Above Normal (16%)	-15	-13	-8	12	7	0	-3	-10	-14	-14	-16	-15
Below Normal (13%)	-1	0	6	10	6	5	3	-4	-7	-8	-4	1
Dry (24%)	8	9	10	11	13	14	12	8	10	11	6	9
Critical (15%)	35	35	33	16	18	20	19	18	17	18	21	24

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

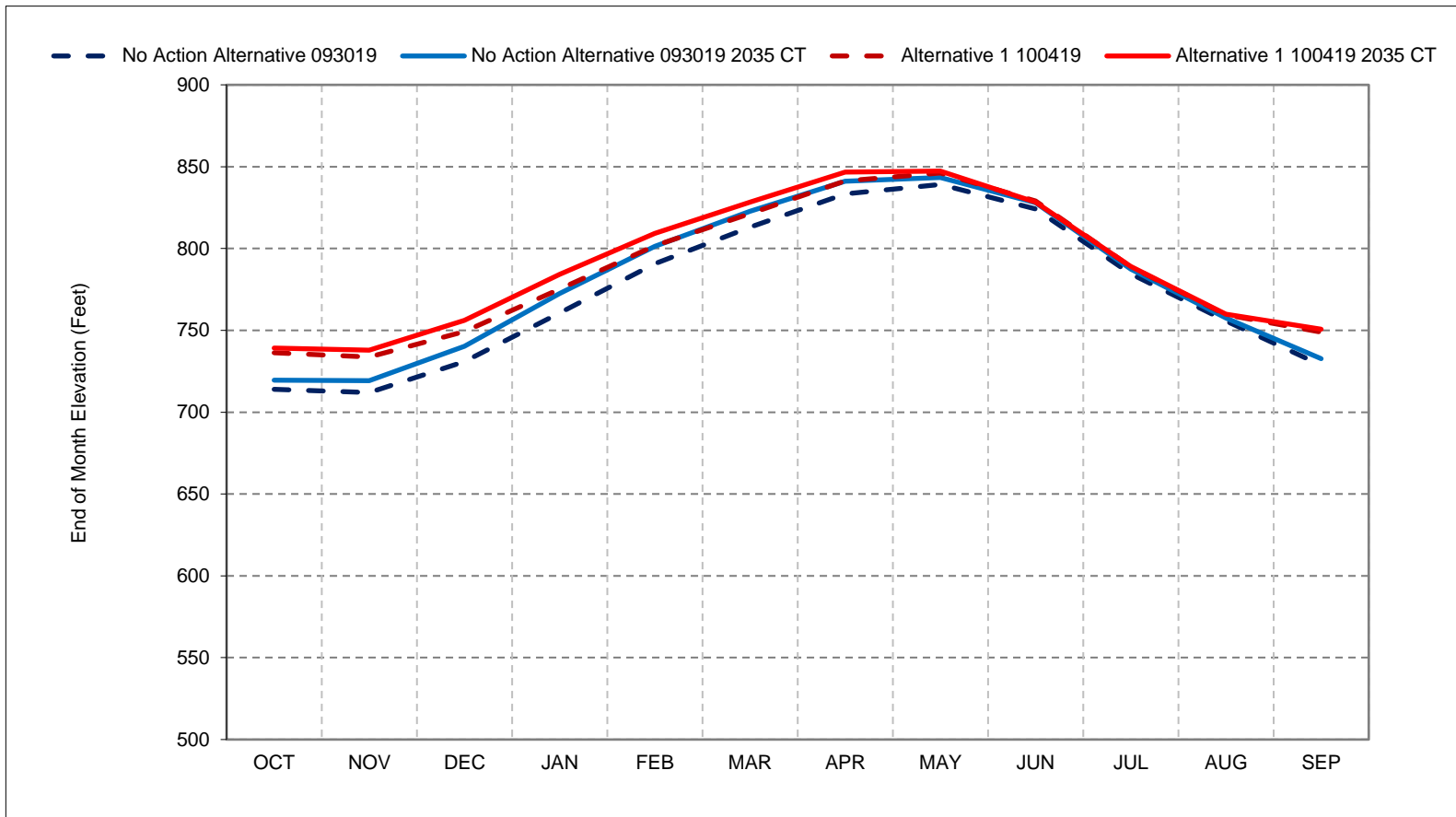
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4a-1. Lake Oroville Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

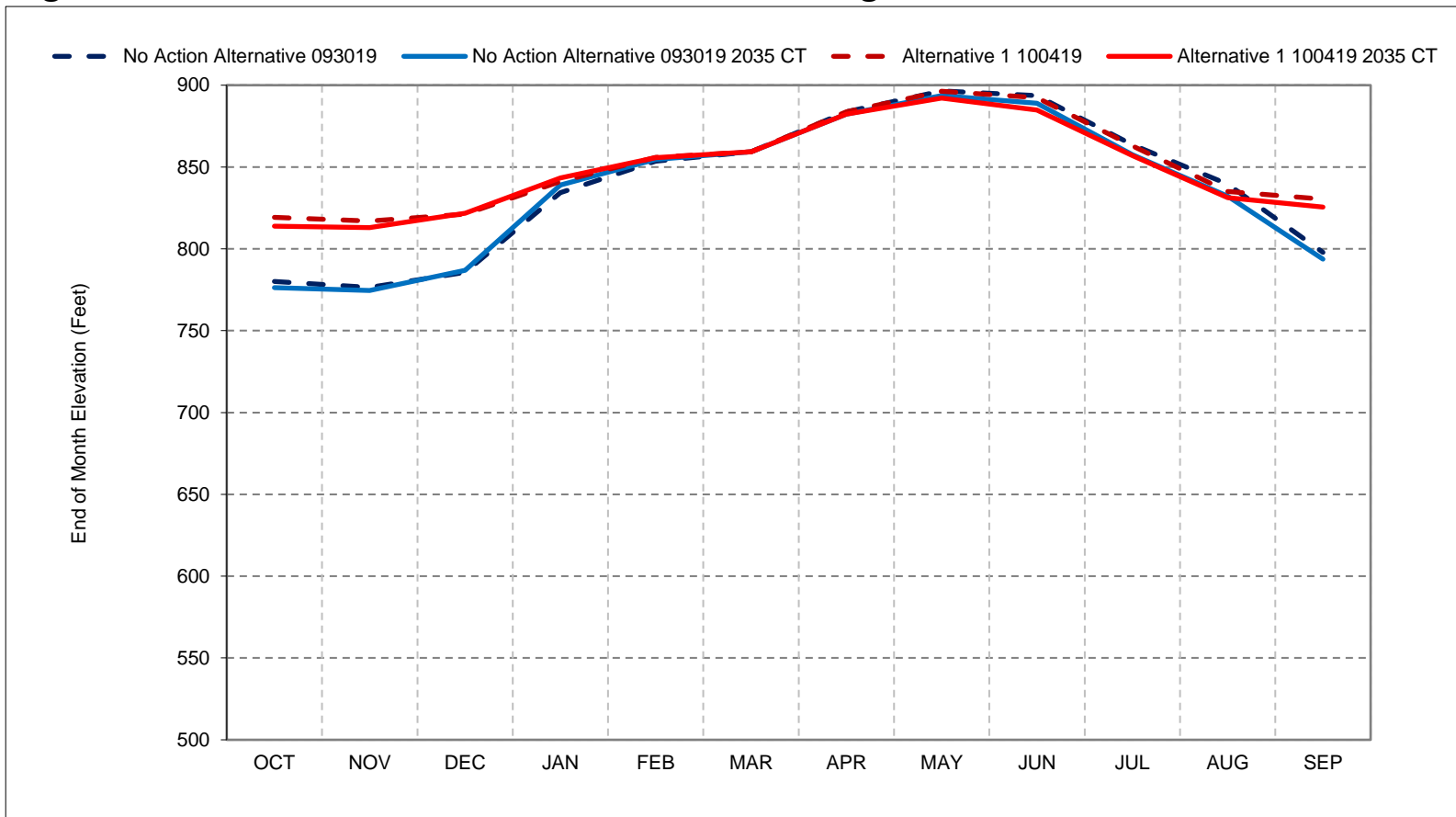
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-2. Lake Oroville Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

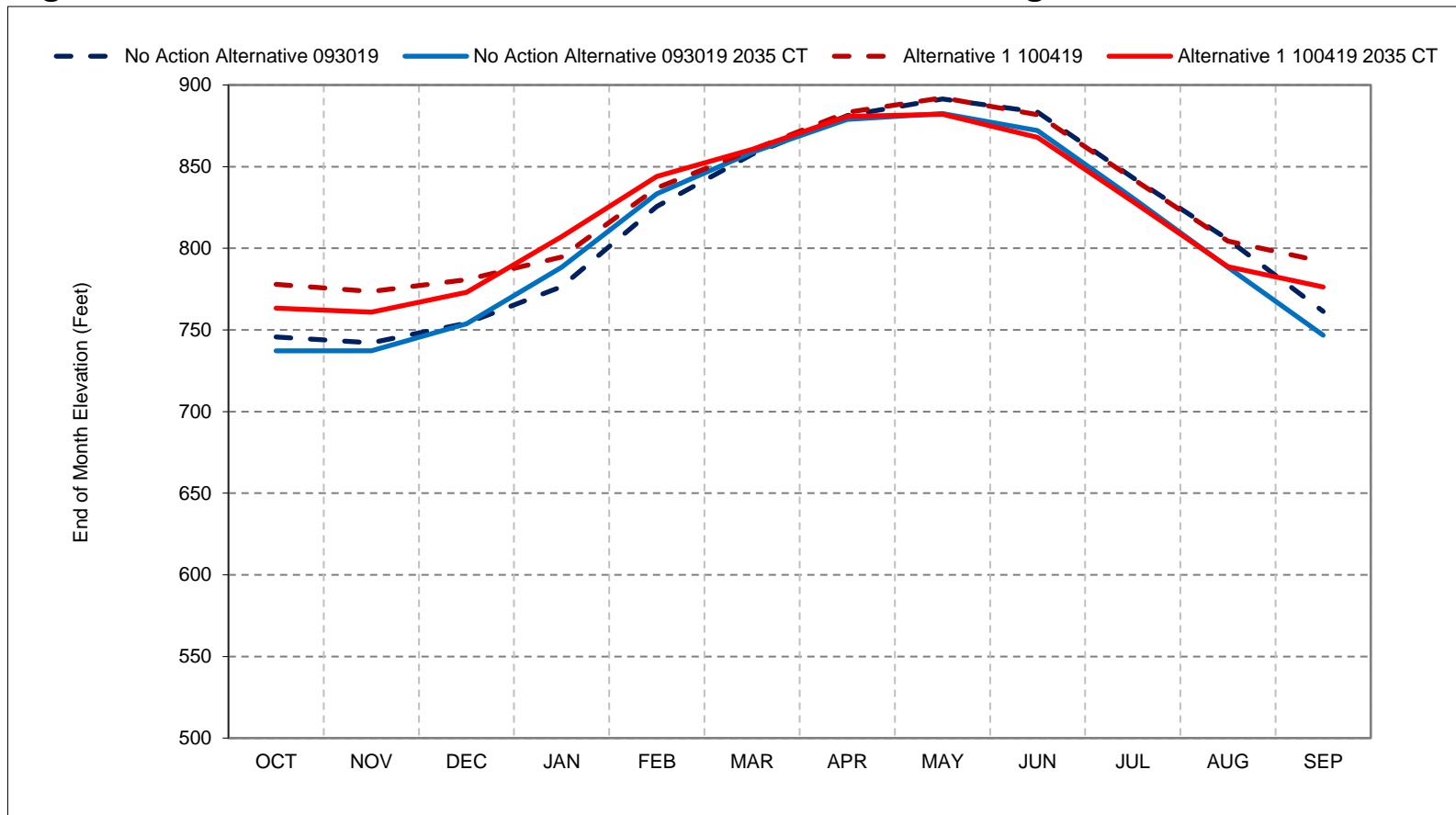
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-3. Lake Oroville Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

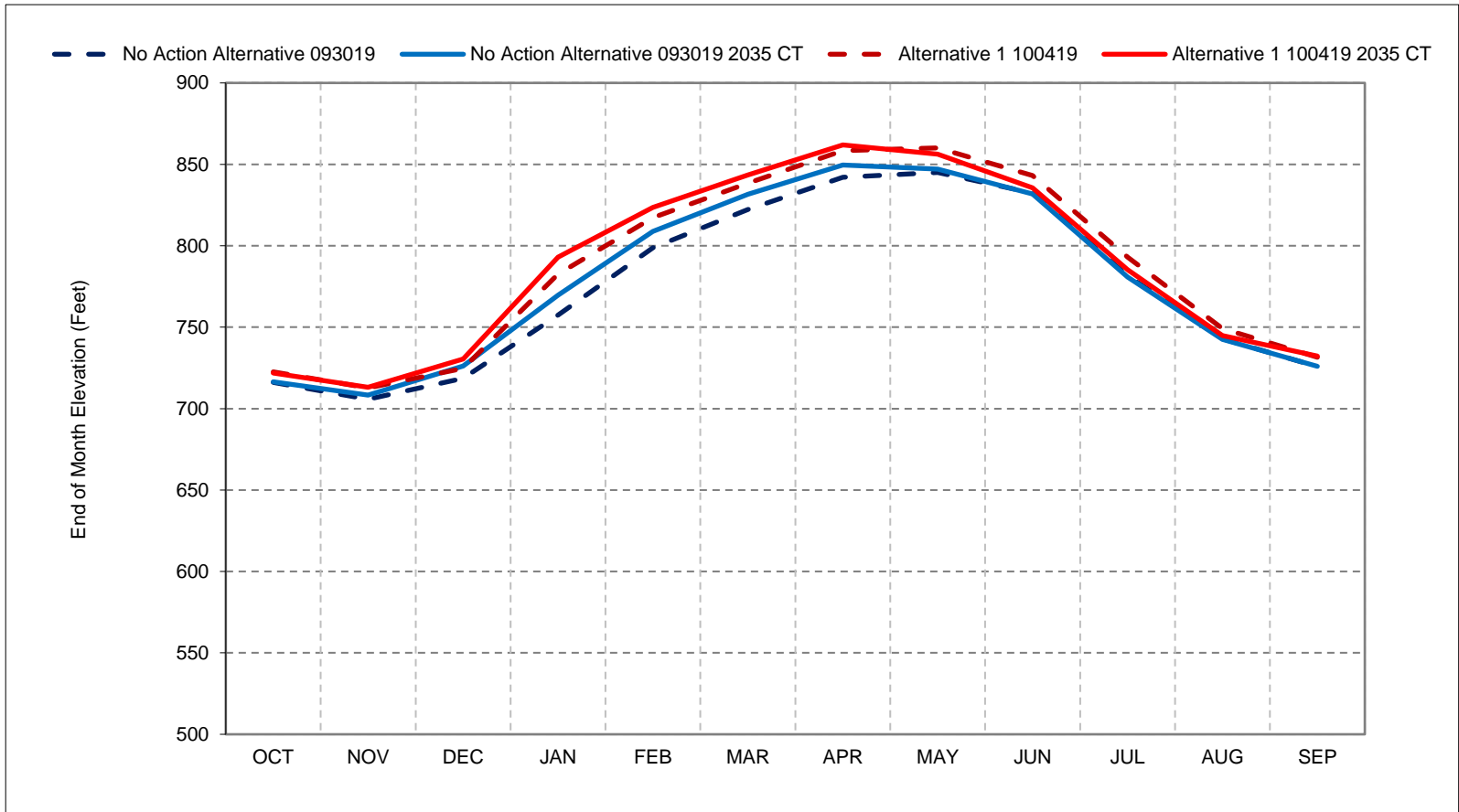
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-4. Lake Oroville Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

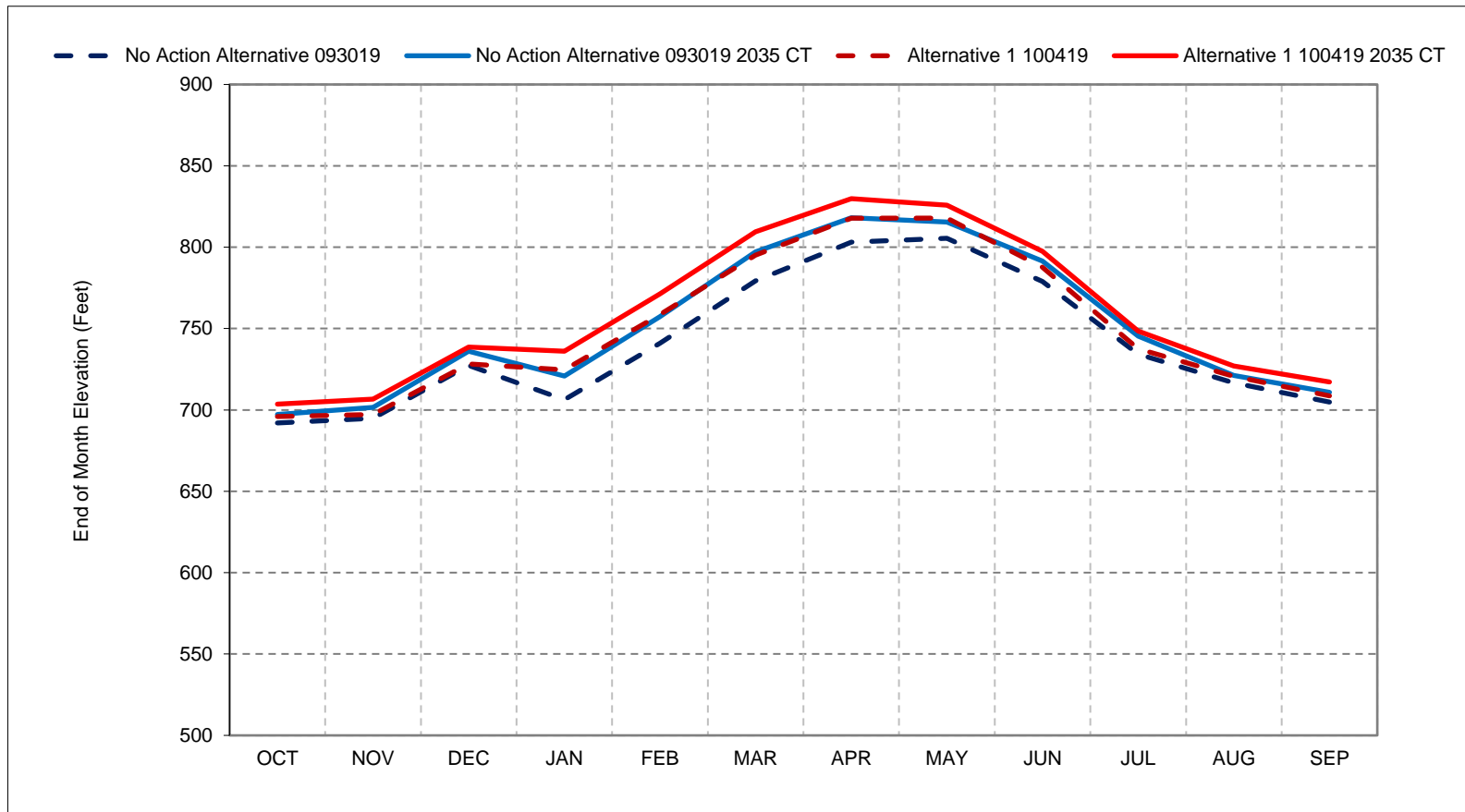
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-5. Lake Oroville Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

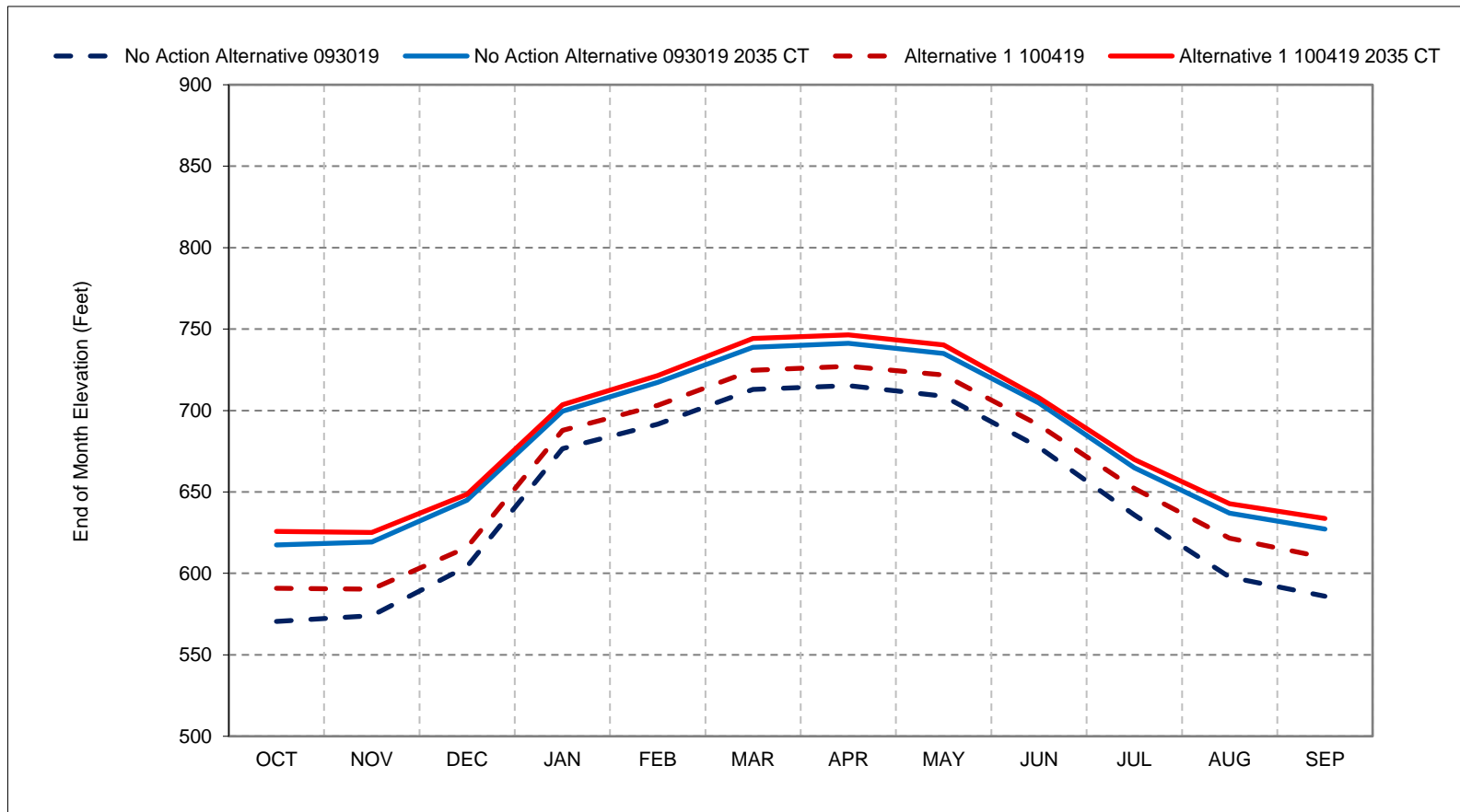
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-6. Lake Oroville Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

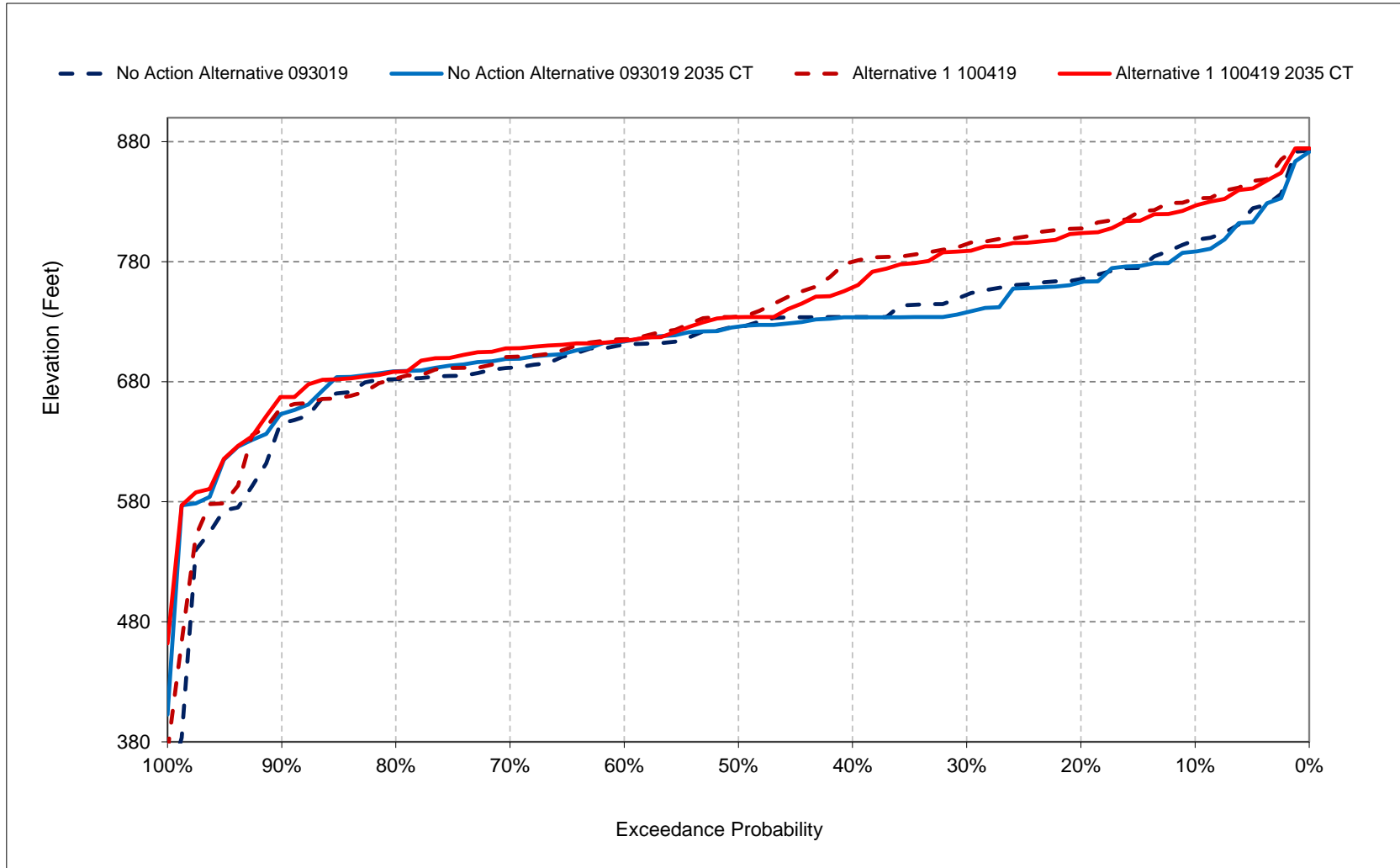
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

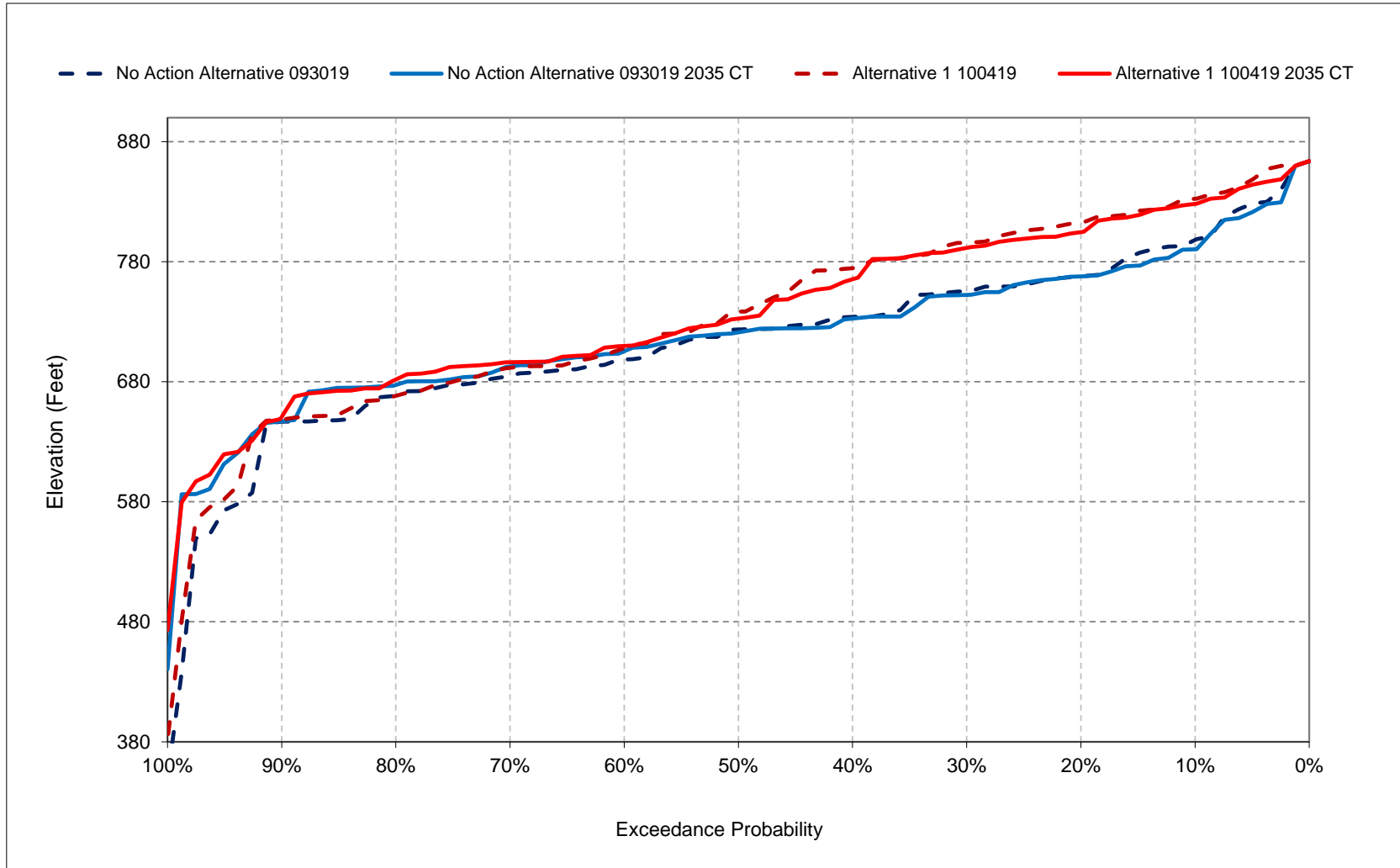
Figure 4a-7. Lake Oroville, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

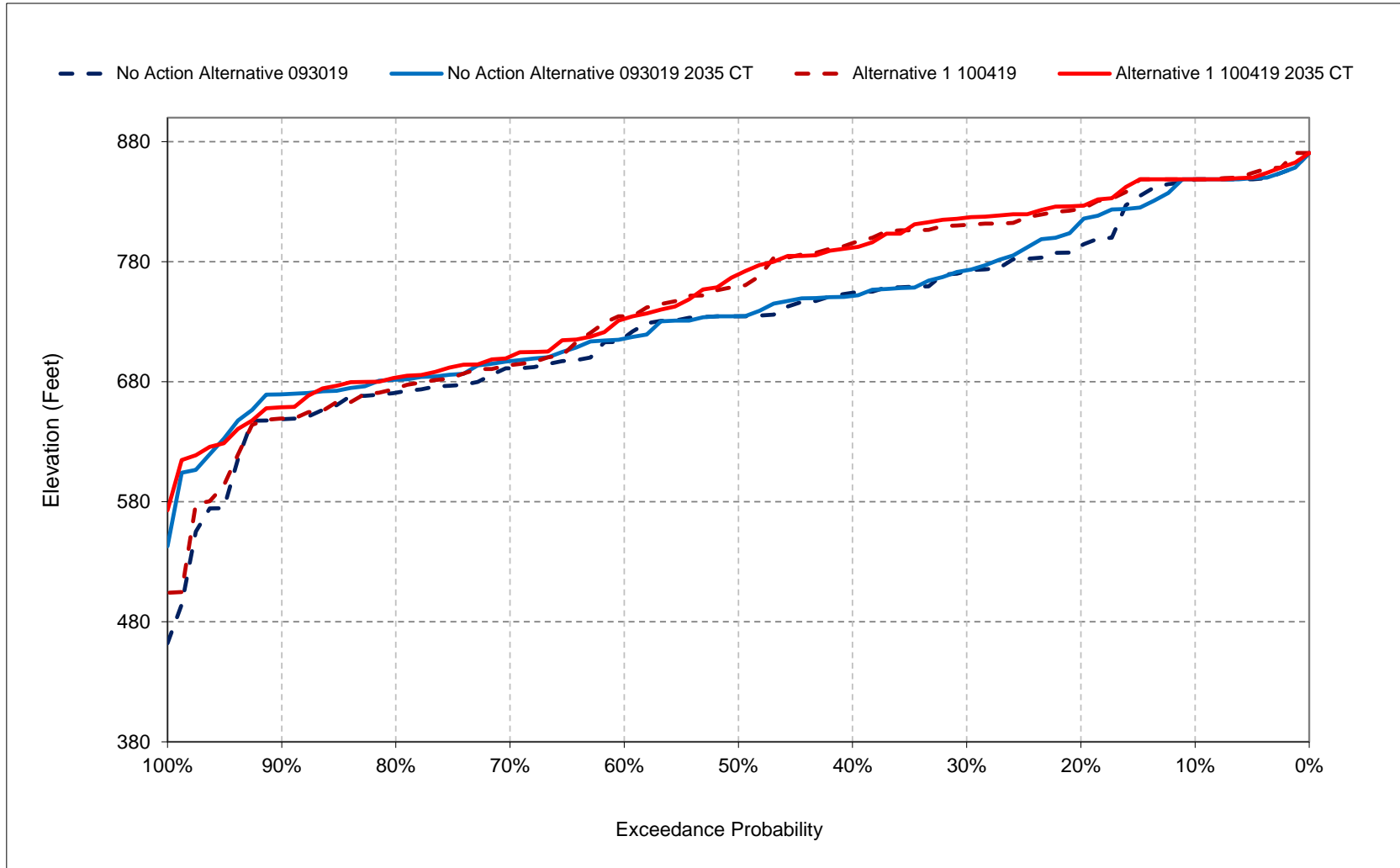
Figure 4a-8. Lake Oroville, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

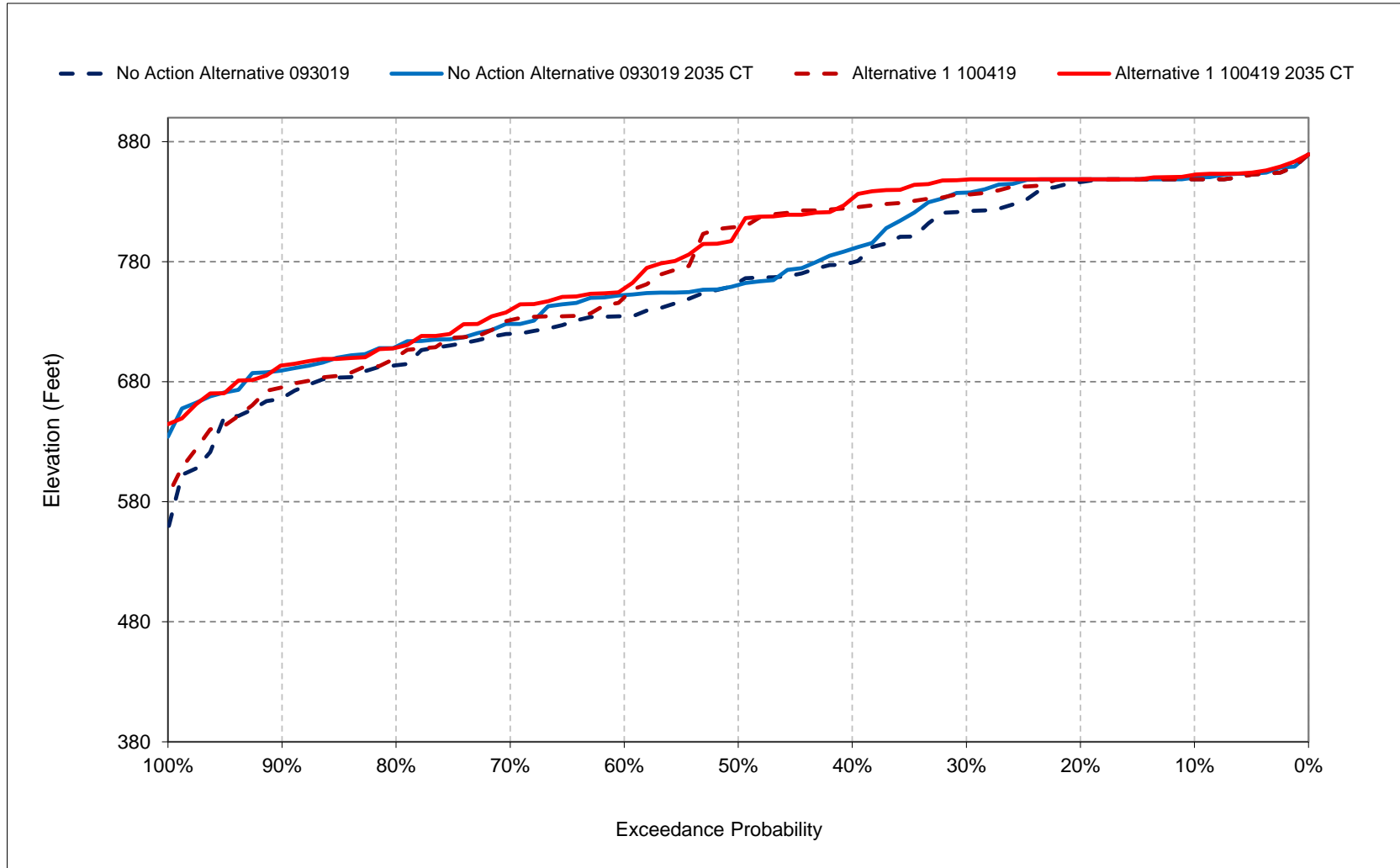
Figure 4a-9. Lake Oroville, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

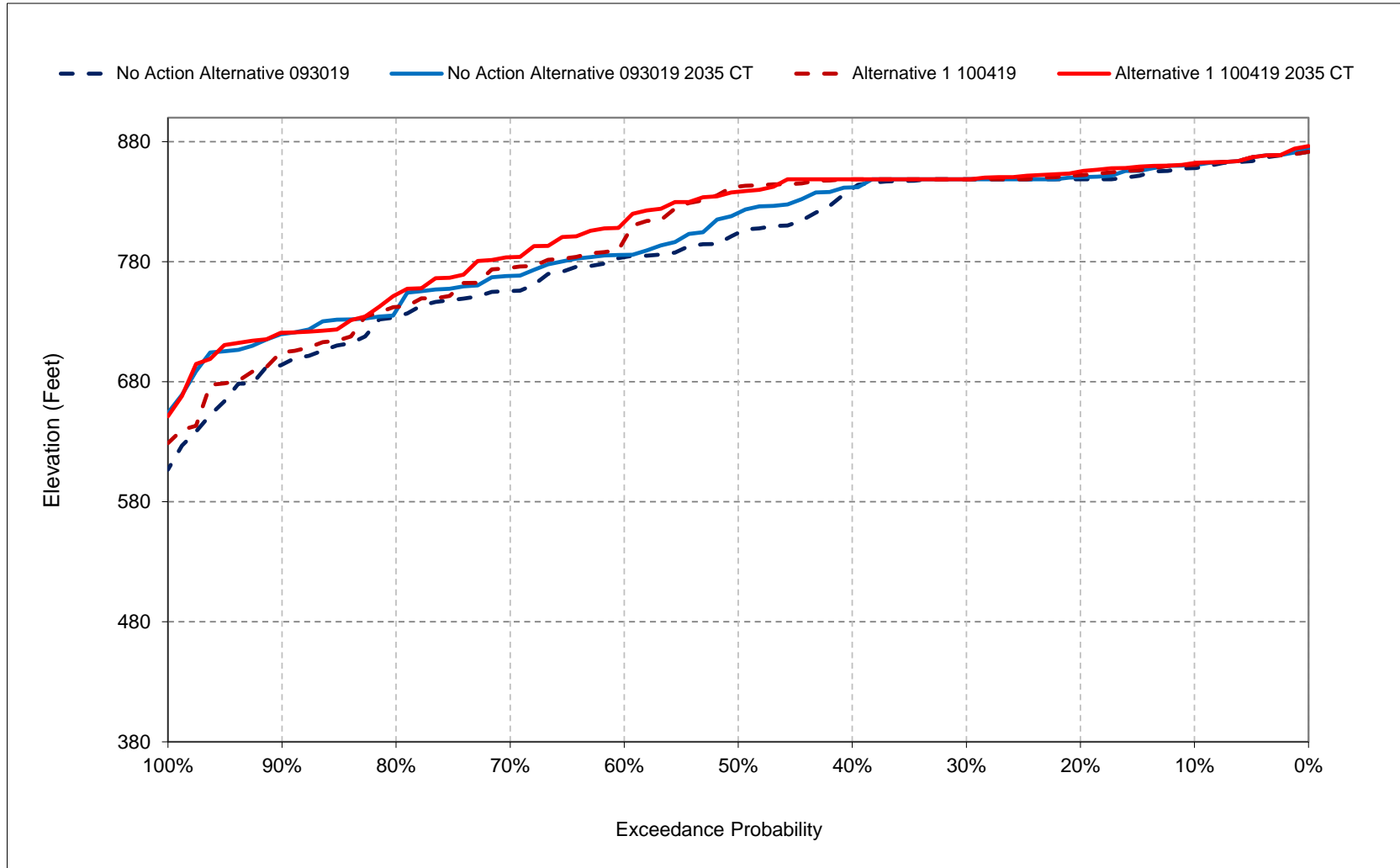
Figure 4a-10. Lake Oroville, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

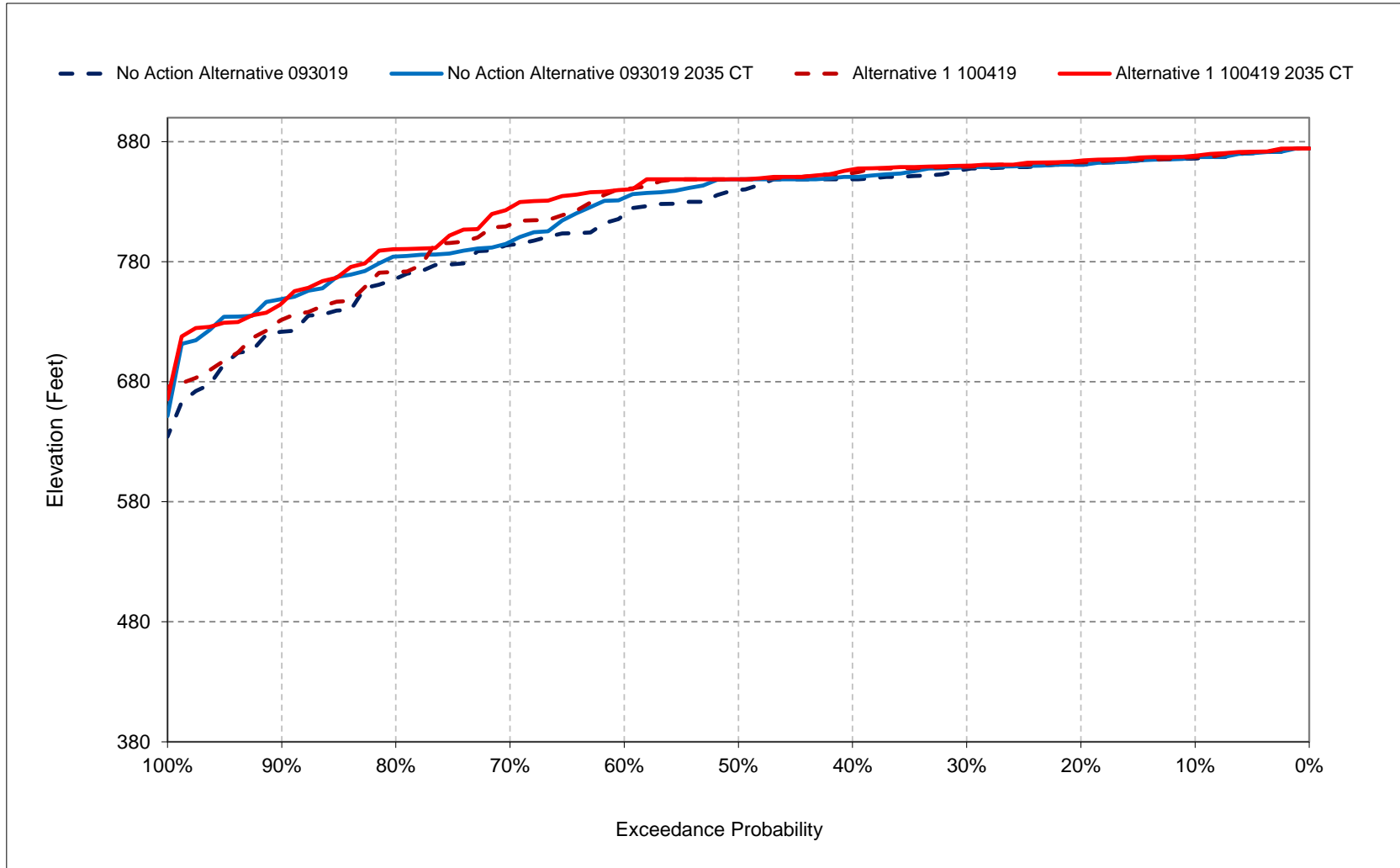
Figure 4a-11. Lake Oroville, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

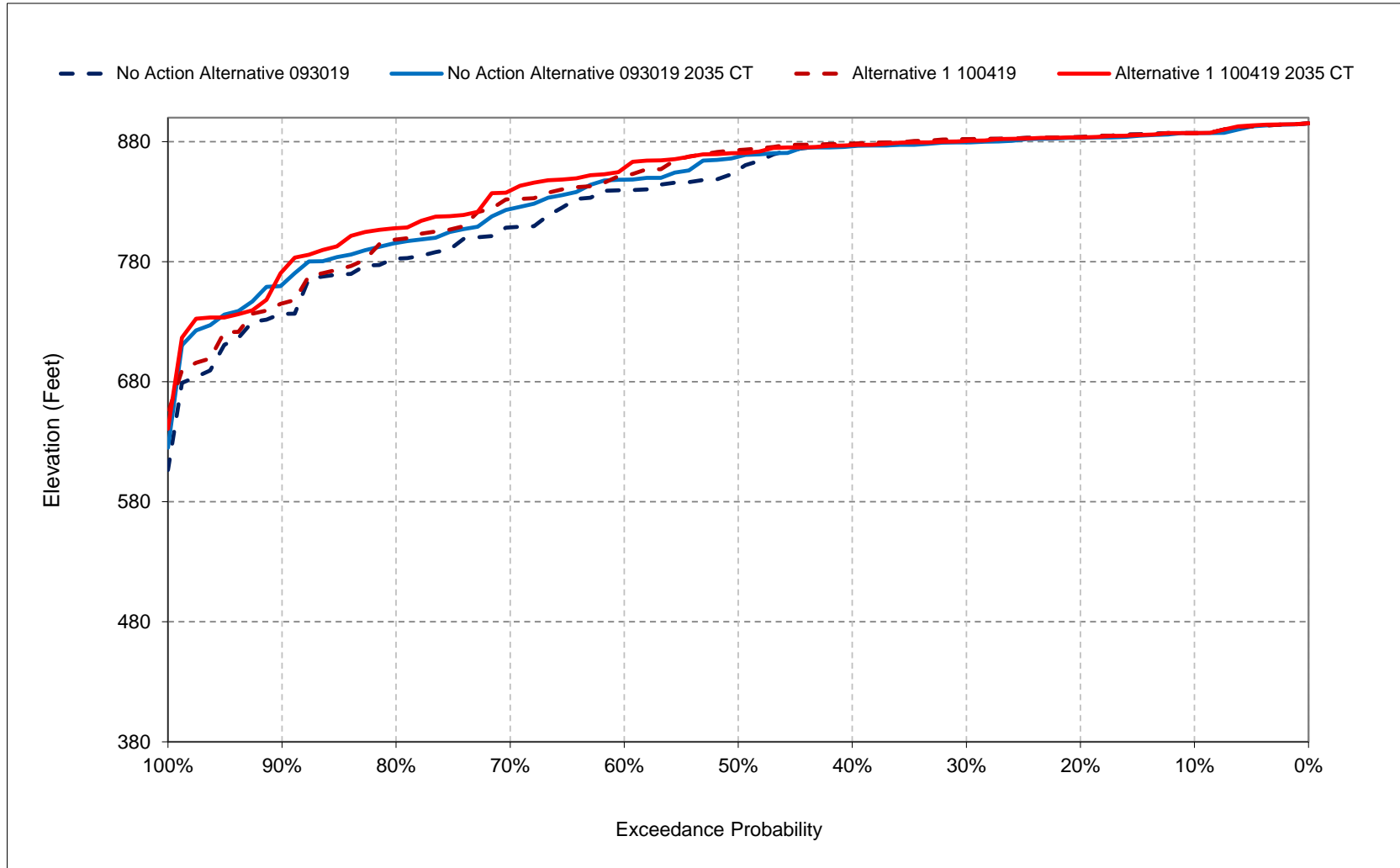
Figure 4a-12. Lake Oroville, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

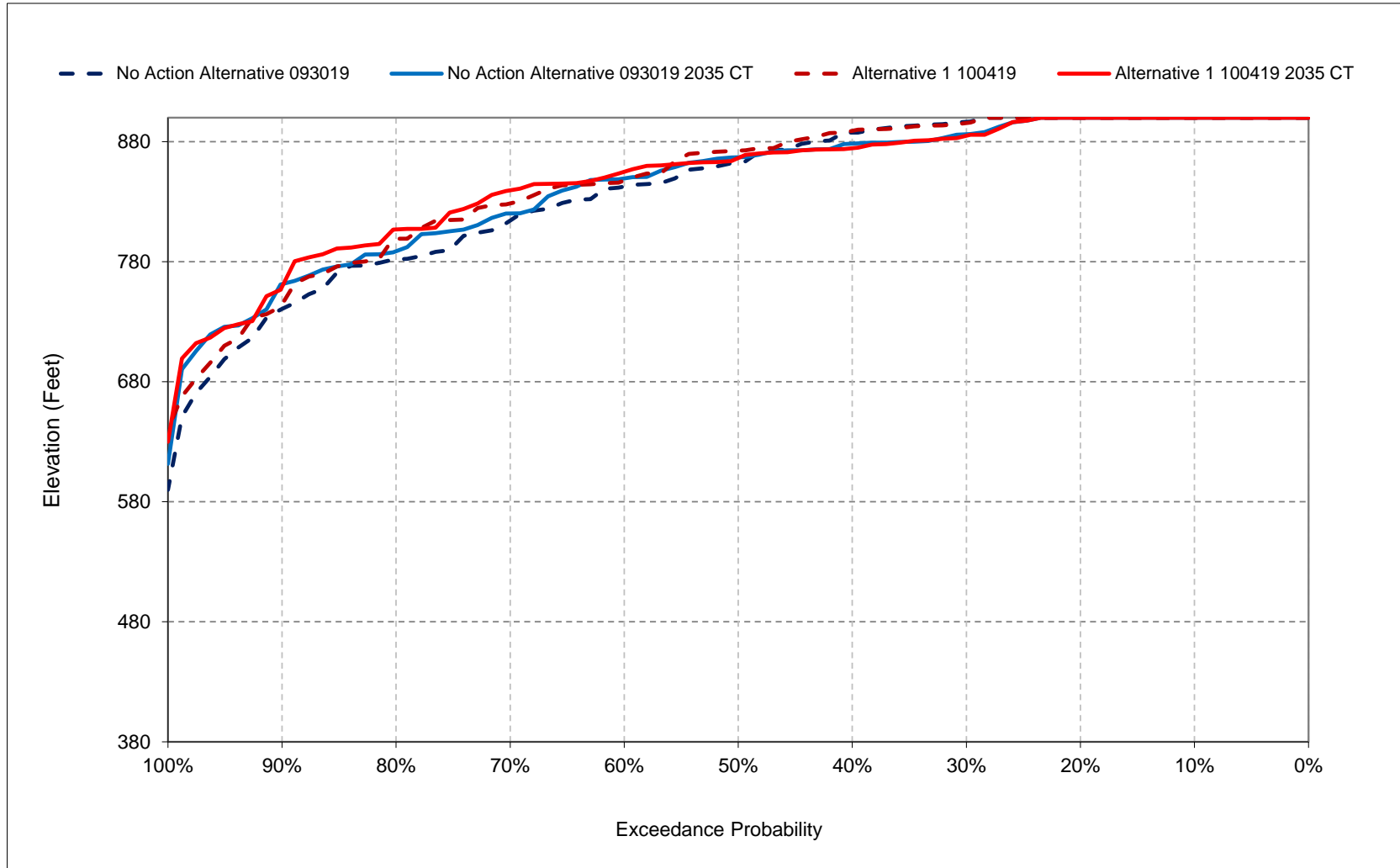
Figure 4a-13. Lake Oroville, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

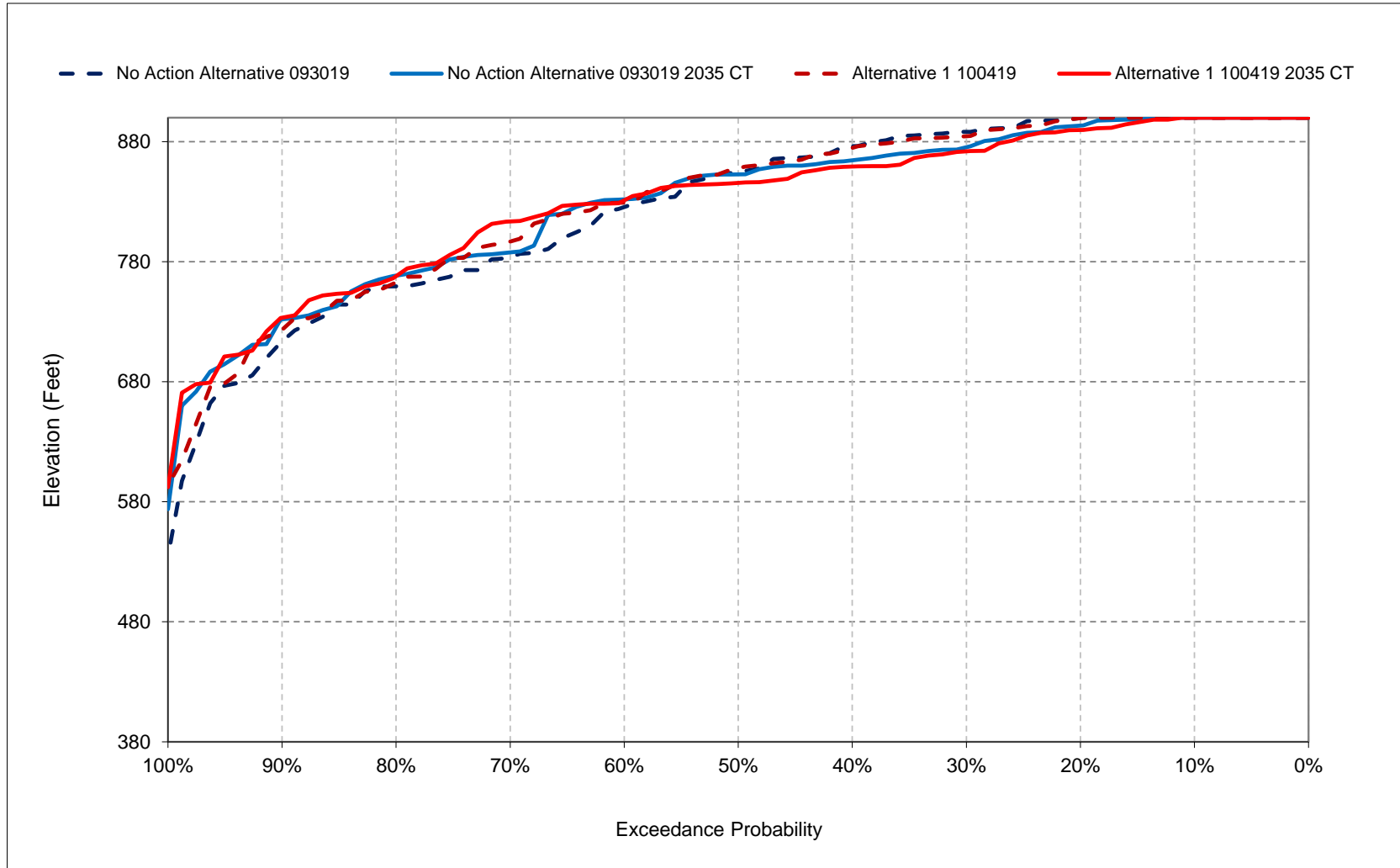
Figure 4a-14. Lake Oroville, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

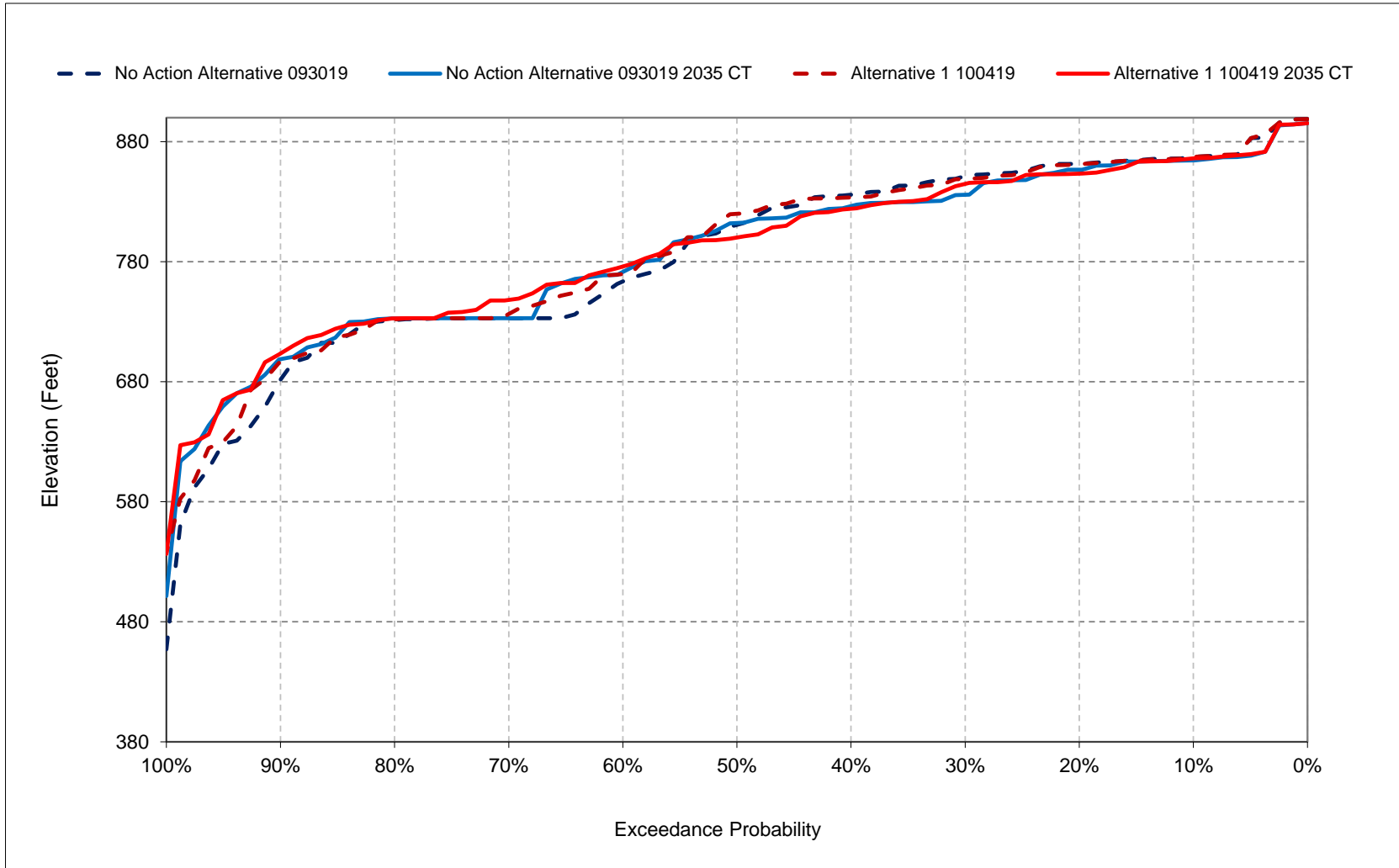
Figure 4a-15. Lake Oroville, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

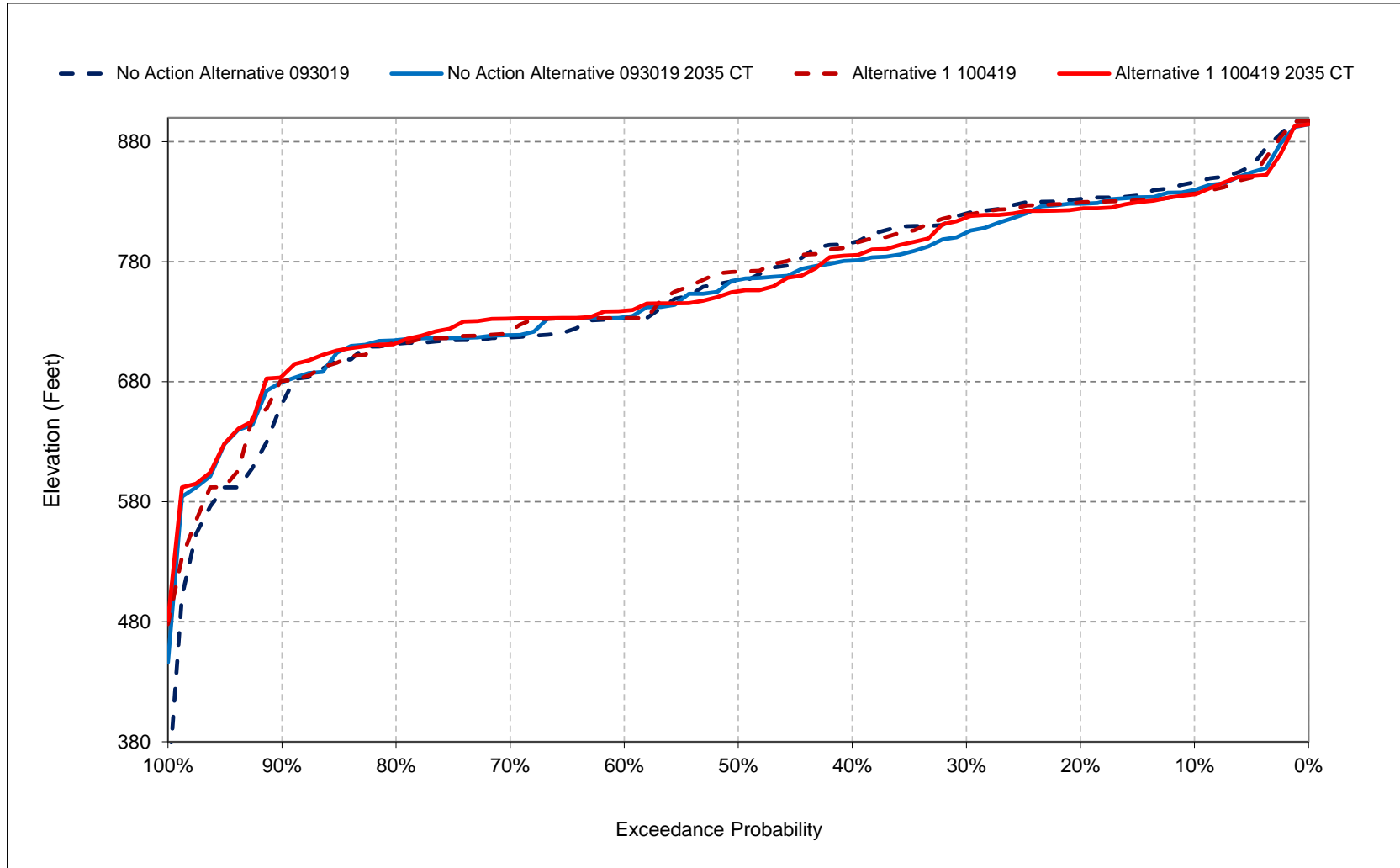
Figure 4a-16. Lake Oroville, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

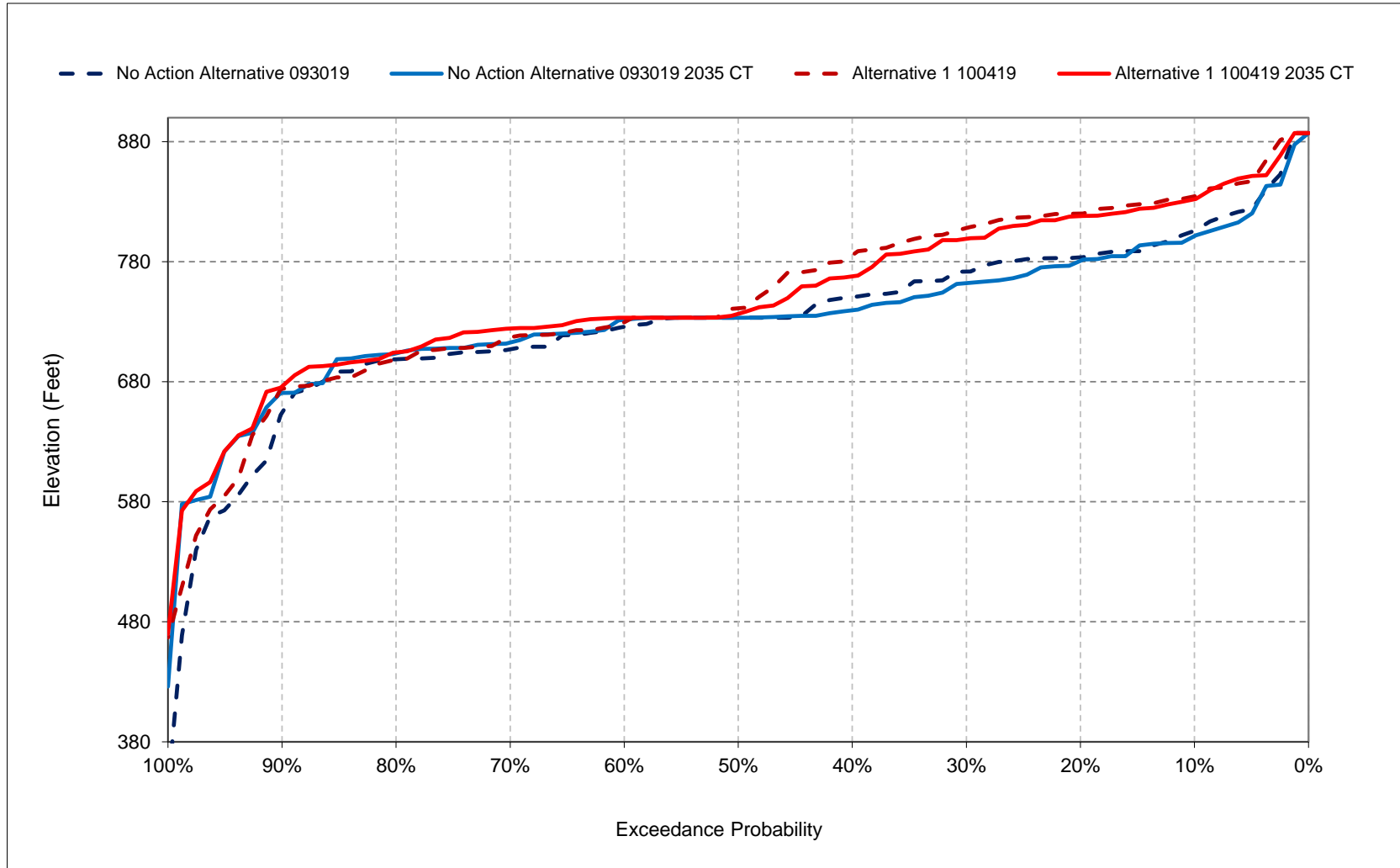
Figure 4a-17. Lake Oroville, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4a-18. Lake Oroville, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-1. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	592	545	567	567	567	659	792	967	967	913	792	681
20%	534	482	567	564	565	656	792	967	967	847	767	622
30%	484	452	520	556	558	652	792	967	955	765	683	558
40%	438	421	479	522	553	644	792	967	911	657	571	508
50%	401	402	437	476	528	632	792	960	833	595	521	467
60%	351	375	410	435	485	621	783	852	765	519	458	408
70%	318	344	377	405	453	595	731	747	667	453	395	372
80%	288	304	345	346	403	515	596	614	532	397	350	298
90%	256	255	241	296	358	410	469	474	422	342	296	278
Long Term												
Full Simulation Period ^d	407	391	434	454	484	584	707	813	761	603	529	463
Water Year Types^{b,c}												
Wet (32%)	495	435	476	517	515	632	784	950	935	792	696	579
Above Normal (16%)	413	407	451	506	526	640	786	944	872	607	538	473
Below Normal (13%)	411	405	444	483	529	615	753	831	766	540	477	442
Dry (24%)	386	403	428	411	468	564	678	748	659	529	463	431
Critical (15%)	239	245	324	306	355	427	457	467	427	369	318	271

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	702	567	567	567	567	659	792	967	967	910	792	742
20%	591	558	567	567	567	656	792	967	967	868	745	654
30%	546	539	566	565	564	652	792	967	948	763	677	597
40%	498	503	527	557	558	642	792	967	900	682	589	547
50%	439	456	496	543	553	629	792	959	805	604	535	479
60%	390	421	456	495	516	621	792	880	760	567	491	438
70%	352	379	425	450	472	606	726	747	659	521	456	407
80%	333	349	379	415	444	556	648	629	536	429	375	342
90%	295	303	308	329	380	456	522	545	477	395	331	295
Long Term												
Full Simulation Period ^d	456	443	468	487	501	593	716	823	760	629	545	493
Water Year Types^{b,c}												
Wet (32%)	603	531	526	525	515	632	786	954	926	809	705	649
Above Normal (16%)	441	434	473	539	539	640	789	948	859	643	555	498
Below Normal (13%)	422	427	458	541	545	620	756	828	750	575	488	438
Dry (24%)	412	442	461	439	494	580	693	763	670	561	489	443
Critical (15%)	256	276	358	378	401	457	485	499	451	386	332	283

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	110	22	0	0	0	0	0	0	0	-4	0	61
20%	57	76	0	3	2	0	0	0	0	21	-22	32
30%	62	87	47	9	6	0	0	0	-7	-2	-7	40
40%	60	81	48	34	5	-2	0	0	-11	25	19	39
50%	38	54	60	67	25	-3	0	-1	-28	9	14	13
60%	39	47	47	60	31	0	9	28	-6	48	33	31
70%	34	35	48	45	19	11	-5	0	-8	68	62	36
80%	45	46	34	69	41	41	52	15	4	33	25	44
90%	39	48	68	33	22	45	53	70	55	53	35	17
Long Term												
Full Simulation Period ^d	49	52	34	33	17	9	9	10	0	26	16	30
Water Year Types^{b,c}												
Wet (32%)	108	96	51	9	0	0	2	4	-9	17	9	70
Above Normal (16%)	28	27	22	33	13	0	3	4	-13	37	17	25
Below Normal (13%)	11	23	14	58	16	5	3	-4	-16	35	11	-5
Dry (24%)	26	39	33	27	26	16	15	15	11	31	26	12
Critical (15%)	18	31	34	72	47	30	27	32	25	17	14	12

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 5-2. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	560	542	567	567	567	661	792	967	959	831	771	632
20%	492	457	567	567	567	658	792	967	879	742	698	571
30%	440	429	553	566	566	656	792	931	830	639	570	506
40%	417	397	507	560	559	652	792	890	790	576	518	470
50%	384	386	430	546	555	644	792	804	714	547	459	442
60%	347	362	407	485	535	629	789	762	682	467	413	390
70%	314	335	375	426	483	617	725	703	619	433	378	365
80%	294	301	342	372	441	594	658	652	555	385	355	315
90%	254	257	269	285	368	452	499	477	436	355	314	275
Long Term												
Full Simulation Period ^d	396	383	439	475	499	604	718	777	706	558	502	446
Water Year Types ^{b,c}												
Wet (32%)	475	428	483	522	515	633	780	912	869	723	660	546
Above Normal (16%)	369	375	446	527	539	641	776	833	754	528	471	419
Below Normal (13%)	414	399	456	503	533	631	755	772	697	509	449	436
Dry (24%)	379	389	422	442	507	609	717	737	634	501	444	419
Critical (15%)	268	265	350	344	372	465	487	493	430	373	339	313

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	672	567	567	567	567	661	792	967	959	850	760	725
20%	569	551	567	567	567	658	792	967	896	762	678	612
30%	522	515	567	567	566	656	792	933	834	656	597	567
40%	438	474	554	564	558	651	792	893	786	624	533	489
50%	405	422	496	556	555	642	792	818	726	573	497	450
60%	391	392	441	527	535	627	773	745	645	538	478	427
70%	368	380	400	453	493	615	720	690	605	493	429	392
80%	348	344	353	411	445	577	647	599	530	440	383	363
90%	288	302	302	323	394	510	537	518	467	386	335	309
Long Term												
Full Simulation Period ^d	444	431	467	492	507	608	720	778	709	588	520	476
Water Year Types ^{b,c}												
Wet (32%)	576	515	520	529	515	632	778	909	865	747	668	619
Above Normal (16%)	433	423	467	542	539	641	777	837	758	604	534	485
Below Normal (13%)	418	416	471	537	546	637	748	764	686	546	469	427
Dry (24%)	397	420	450	449	512	607	717	734	642	521	460	421
Critical (15%)	275	289	378	387	410	493	513	517	450	379	333	296

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	112	25	0	0	0	0	0	0	0	19	-11	92
20%	77	95	0	0	0	0	0	0	17	20	-20	41
30%	82	86	14	1	0	0	0	1	4	18	28	61
40%	21	77	47	4	-1	-1	0	3	-4	48	15	19
50%	21	35	65	10	0	-2	0	13	12	25	39	9
60%	44	30	33	42	0	-2	-17	-18	-37	71	65	37
70%	55	44	25	27	10	-1	-5	-13	-14	60	51	27
80%	54	43	11	40	4	-17	-12	-53	-25	54	28	48
90%	34	45	33	38	26	57	37	42	31	31	21	34
Long Term												
Full Simulation Period ^d	48	48	28	17	8	4	3	1	3	31	18	30
Water Year Types ^{b,c}												
Wet (32%)	101	87	37	7	0	-1	-2	-3	-4	24	7	73
Above Normal (16%)	64	48	21	16	0	0	1	4	4	76	63	66
Below Normal (13%)	4	17	16	34	13	6	-7	-8	-11	38	20	-9
Dry (24%)	19	31	28	7	4	-2	0	-3	8	20	16	2
Critical (15%)	7	24	28	43	38	27	26	24	20	6	-6	-17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-3. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	592	545	567	567	567	659	792	967	967	913	792	681
20%	534	482	567	564	565	656	792	967	967	847	767	622
30%	484	452	520	556	558	652	792	967	955	765	683	558
40%	438	421	479	522	553	644	792	967	911	657	571	508
50%	401	402	437	476	528	632	792	960	833	595	521	467
60%	351	375	410	435	485	621	783	852	765	519	458	408
70%	318	344	377	405	453	595	731	747	667	453	395	372
80%	288	304	345	346	403	515	596	614	532	397	350	298
90%	256	255	241	296	358	410	469	474	422	342	296	278
Long Term												
Full Simulation Period ^d	407	391	434	454	484	584	707	813	761	603	529	463
Water Year Types ^{b,c}												
Wet (32%)	495	435	476	517	515	632	784	950	935	792	696	579
Above Normal (16%)	413	407	451	506	526	640	786	944	872	607	538	473
Below Normal (13%)	411	405	444	483	529	615	753	831	766	540	477	442
Dry (24%)	386	403	428	411	468	564	678	748	659	529	463	431
Critical (15%)	239	245	324	306	355	427	457	467	427	369	318	271

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	560	542	567	567	567	661	792	967	959	831	771	632
20%	492	457	567	567	567	658	792	967	879	742	698	571
30%	440	429	553	566	566	656	792	931	830	639	570	506
40%	417	397	507	560	559	652	792	890	790	576	518	470
50%	384	386	430	546	555	644	792	804	714	547	459	442
60%	347	362	407	485	535	629	789	762	682	467	413	390
70%	314	335	375	426	483	617	725	703	619	433	378	365
80%	294	301	342	372	441	594	658	652	555	385	355	315
90%	254	257	269	285	368	452	499	477	436	355	314	275
Long Term												
Full Simulation Period ^d	396	383	439	475	499	604	718	777	706	558	502	446
Water Year Types ^{b,c}												
Wet (32%)	475	428	483	522	515	633	780	912	869	723	660	546
Above Normal (16%)	369	375	446	527	539	641	776	833	754	528	471	419
Below Normal (13%)	414	399	456	503	533	631	755	772	697	509	449	436
Dry (24%)	379	389	422	442	507	609	717	737	634	501	444	419
Critical (15%)	268	265	350	344	372	465	487	493	430	373	339	313

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-32	-3	0	0	0	2	0	0	-8	-82	-21	-49
20%	-43	-25	0	3	2	2	0	0	-88	-105	-70	-51
30%	-44	-23	33	10	8	4	0	-36	-125	-126	-113	-52
40%	-21	-24	28	37	6	8	0	-77	-121	-82	-53	-38
50%	-17	-15	-6	70	27	12	0	-155	-119	-48	-63	-25
60%	-4	-13	-2	50	50	8	7	-90	-83	-52	-45	-18
70%	-5	-9	-2	21	30	22	-5	-44	-48	-20	-16	-6
80%	6	-3	-4	25	38	79	62	38	22	-11	5	17
90%	-2	2	29	-11	10	42	30	2	14	13	18	-3
Long Term												
Full Simulation Period ^d	-11	-8	5	20	15	19	11	-36	-54	-45	-27	-17
Water Year Types ^{b,c}												
Wet (32%)	-20	-7	7	5	0	1	-5	-38	-66	-69	-36	-34
Above Normal (16%)	-44	-32	-5	21	13	1	-10	-111	-119	-79	-67	-53
Below Normal (13%)	3	-6	11	20	4	16	2	-59	-69	-31	-28	-6
Dry (24%)	-8	-13	-6	30	39	45	38	-11	-25	-29	-18	-13
Critical (15%)	29	20	26	38	17	39	29	25	3	4	21	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-4. Folsom Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	702	567	567	567	567	659	792	967	967	910	792	742
20%	591	558	567	567	567	656	792	967	967	868	745	654
30%	546	539	566	565	564	652	792	967	948	763	677	597
40%	498	503	527	557	558	642	792	967	900	682	589	547
50%	439	456	496	543	553	629	792	959	805	604	535	479
60%	390	421	456	495	516	621	792	880	760	567	491	438
70%	352	379	425	450	472	606	726	747	659	521	456	407
80%	333	349	379	415	444	556	648	629	536	429	375	342
90%	295	303	308	329	380	456	522	545	477	395	331	295
Long Term												
Full Simulation Period ^d	456	443	468	487	501	593	716	823	760	629	545	493
Water Year Types ^{b,c}												
Wet (32%)	603	531	526	525	515	632	786	954	926	809	705	649
Above Normal (16%)	441	434	473	539	539	640	789	948	859	643	555	498
Below Normal (13%)	422	427	458	541	545	620	756	828	750	575	488	438
Dry (24%)	412	442	461	439	494	580	693	763	670	561	489	443
Critical (15%)	256	276	358	378	401	457	485	499	451	386	332	283

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	672	567	567	567	567	661	792	967	959	850	760	725
20%	569	551	567	567	567	658	792	967	896	762	678	612
30%	522	515	567	567	566	656	792	933	834	656	597	567
40%	438	474	554	564	558	651	792	893	786	624	533	489
50%	405	422	496	556	555	642	792	818	726	573	497	450
60%	391	392	441	527	535	627	773	745	645	538	478	427
70%	368	380	400	453	493	615	720	690	605	493	429	392
80%	348	344	353	411	445	577	647	599	530	440	383	363
90%	288	302	302	323	394	510	537	518	467	386	335	309
Long Term												
Full Simulation Period ^d	444	431	467	492	507	608	720	778	709	588	520	476
Water Year Types ^{b,c}												
Wet (32%)	576	515	520	529	515	632	778	909	865	747	668	619
Above Normal (16%)	433	423	467	542	539	641	777	837	758	604	534	485
Below Normal (13%)	418	416	471	537	546	637	748	764	686	546	469	427
Dry (24%)	397	420	450	449	512	607	717	734	642	521	460	421
Critical (15%)	275	289	378	387	410	493	513	517	450	379	333	296

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-30	0	0	0	0	2	0	0	-8	-59	-32	-17
20%	-22	-7	0	0	0	2	0	0	-71	-106	-67	-42
30%	-25	-24	1	2	2	4	0	-34	-114	-107	-79	-31
40%	-60	-29	27	7	0	9	0	-74	-115	-58	-56	-59
50%	-34	-34	-1	13	3	13	0	-141	-79	-31	-38	-29
60%	1	-29	-16	32	19	6	-19	-136	-115	-29	-13	-12
70%	17	1	-25	3	21	9	-6	-58	-54	-28	-27	-15
80%	15	-5	-27	-4	1	21	-1	-30	-6	10	8	21
90%	-7	0	-6	-6	14	54	15	-26	-10	-9	4	14
Long Term												
Full Simulation Period ^d	-12	-12	-1	5	6	14	4	-45	-51	-41	-25	-17
Water Year Types ^{b,c}												
Wet (32%)	-28	-16	-6	3	0	0	-8	-44	-61	-62	-38	-31
Above Normal (16%)	-8	-10	-6	3	0	1	-12	-111	-102	-39	-21	-13
Below Normal (13%)	-4	-12	13	-4	1	17	-8	-63	-64	-29	-19	-11
Dry (24%)	-15	-22	-11	10	18	27	24	-29	-28	-40	-28	-22
Critical (15%)	18	13	20	9	9	36	28	18	-2	-7	0	13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

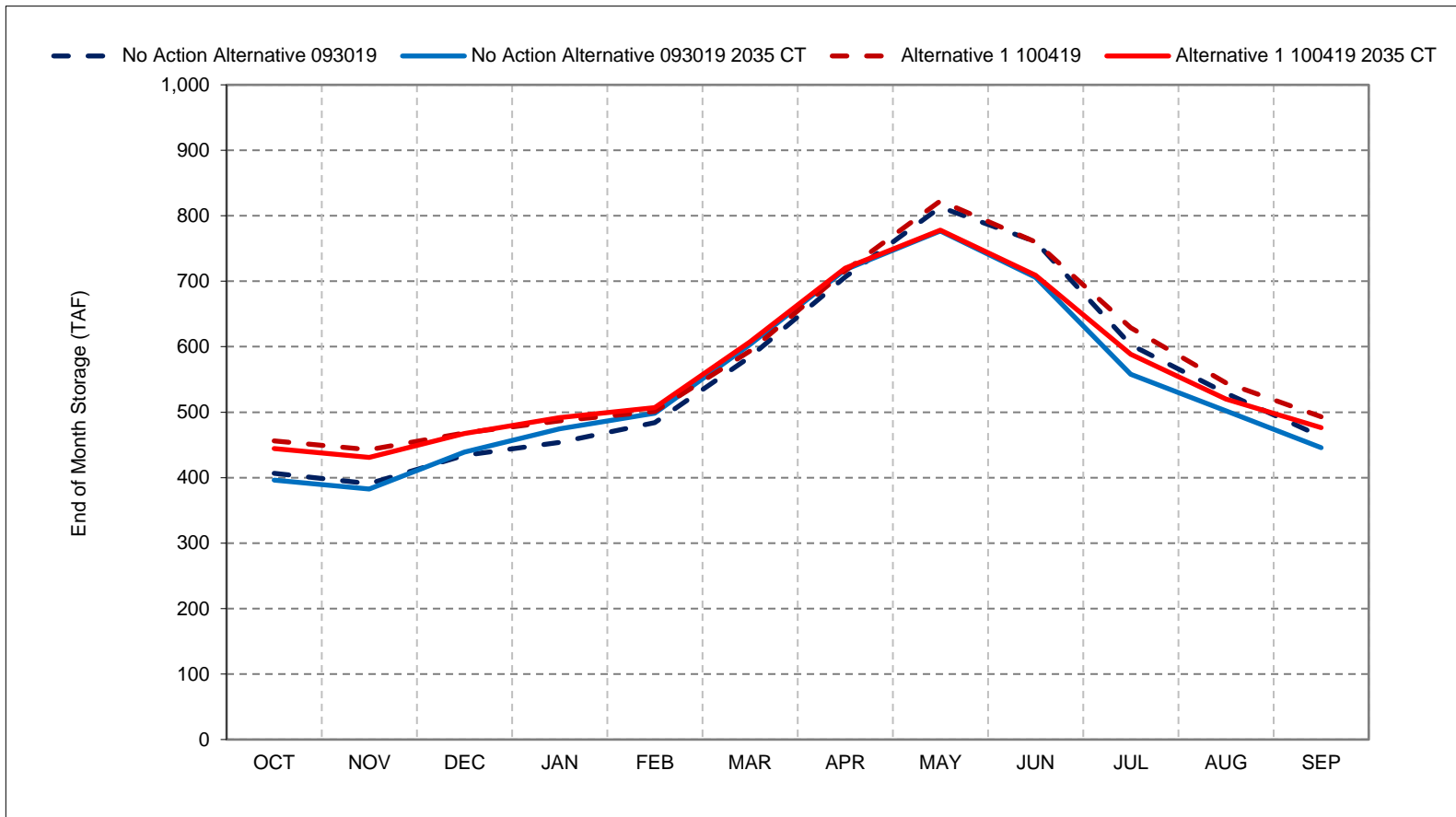
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5-1. Folsom Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

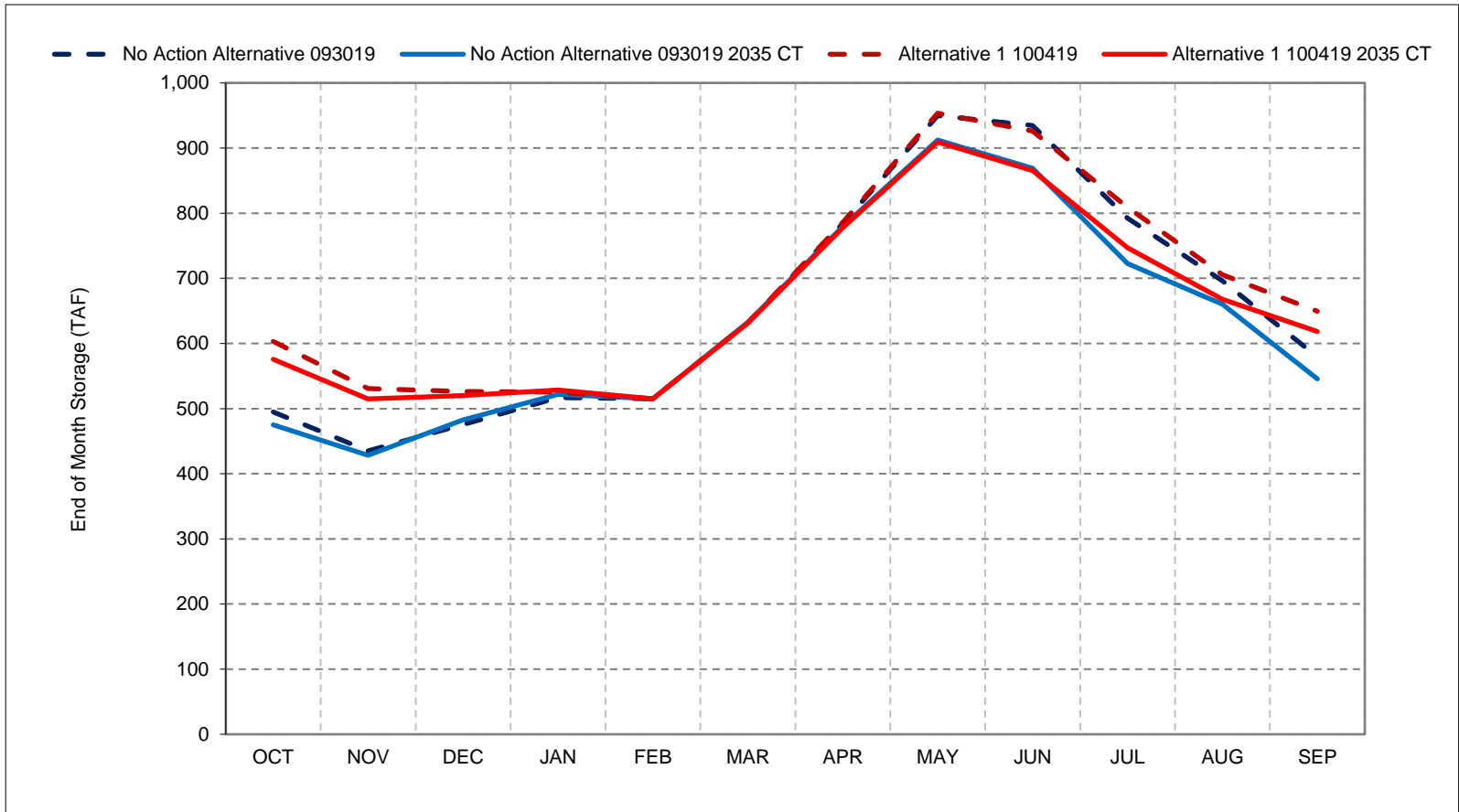
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-2. Folsom Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

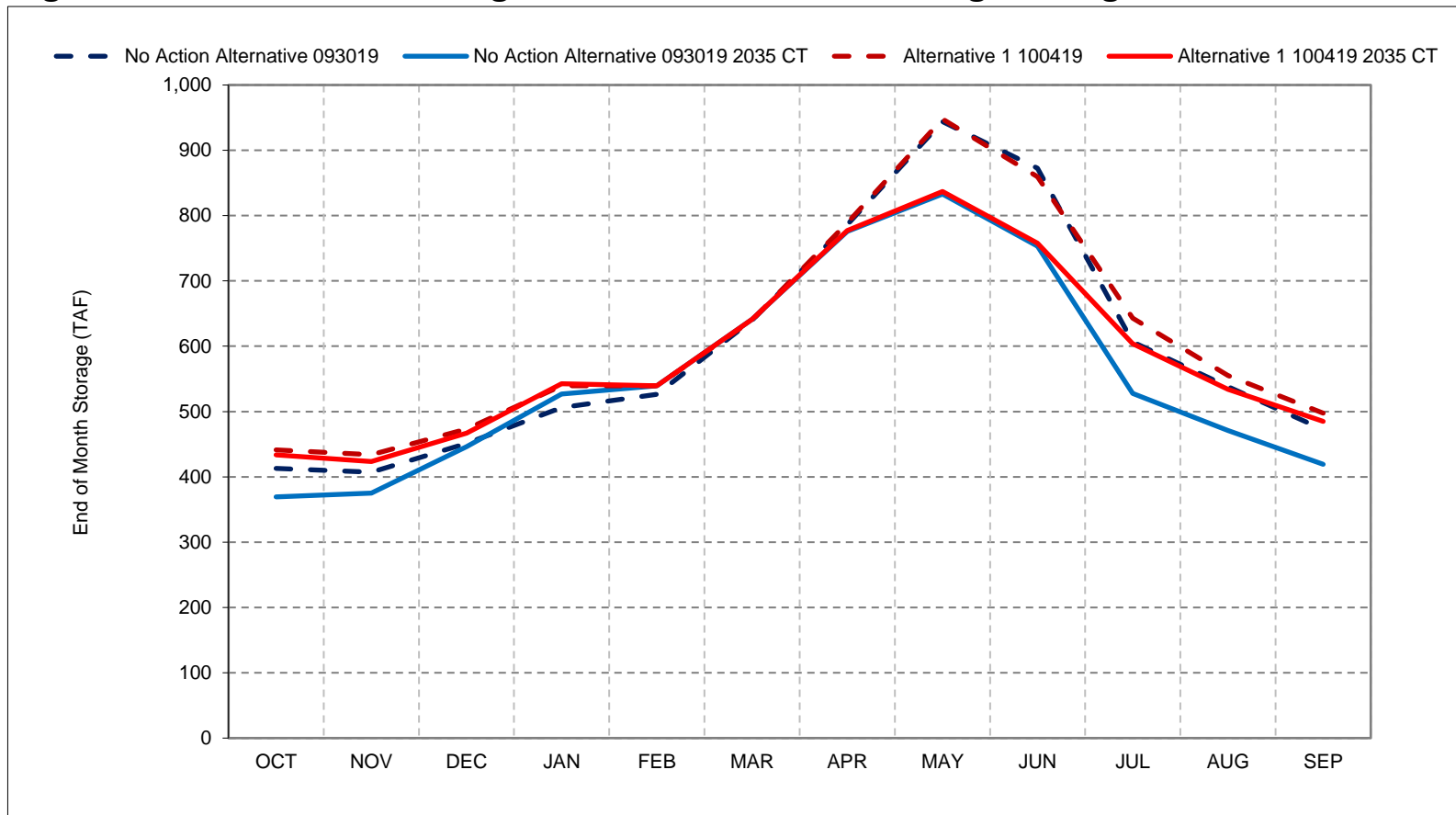
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-3. Folsom Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

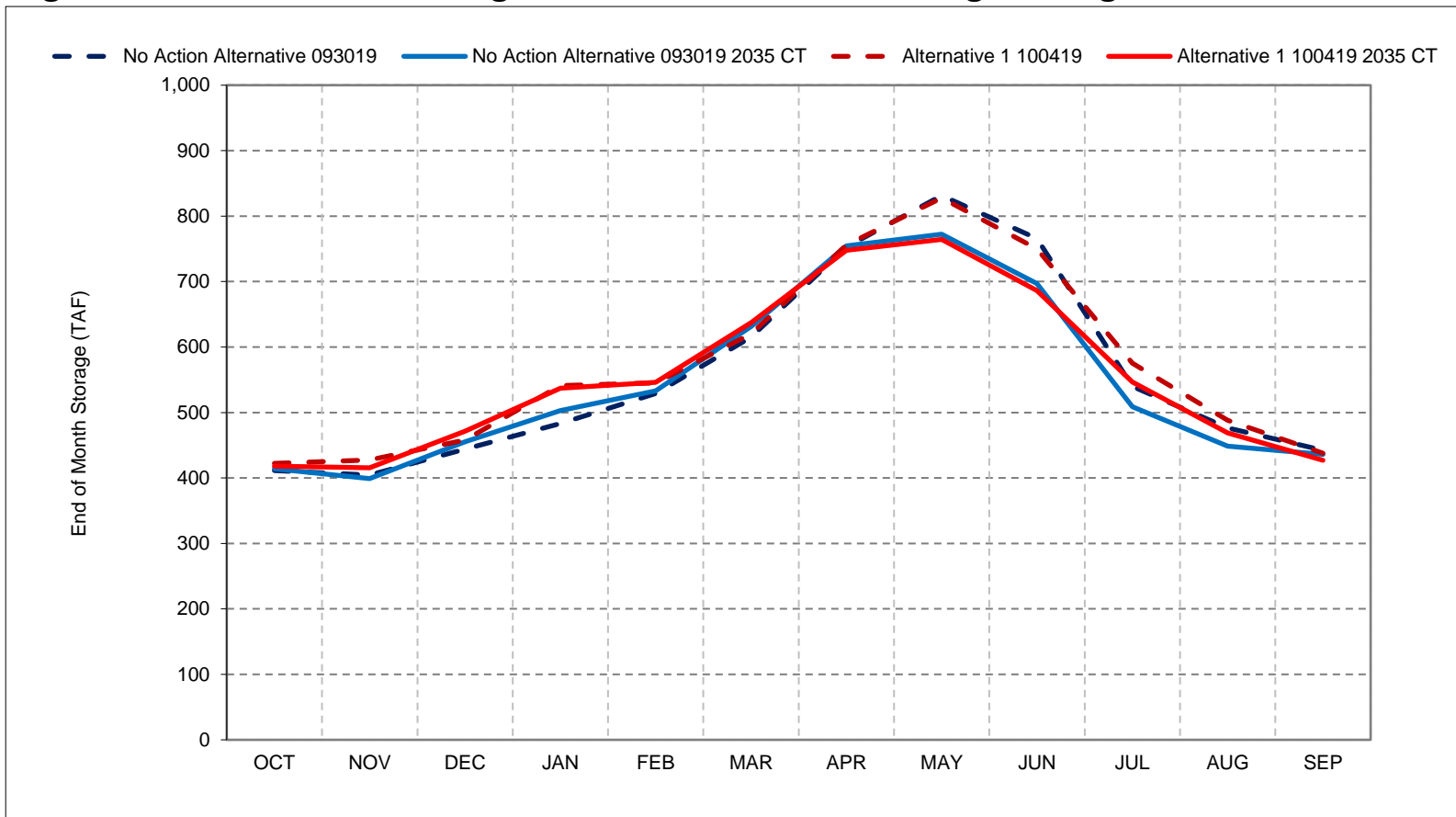
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-4. Folsom Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

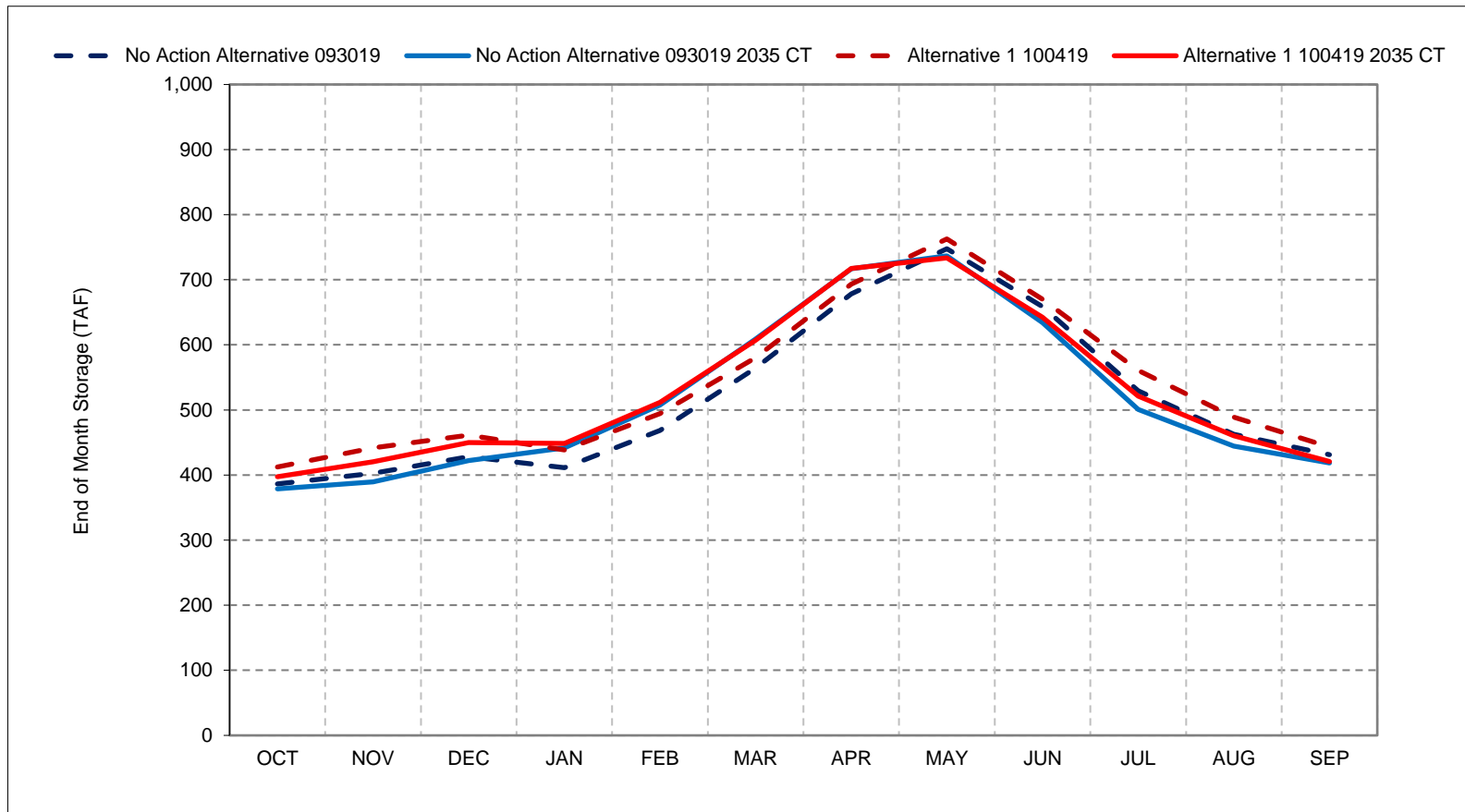
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-5. Folsom Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

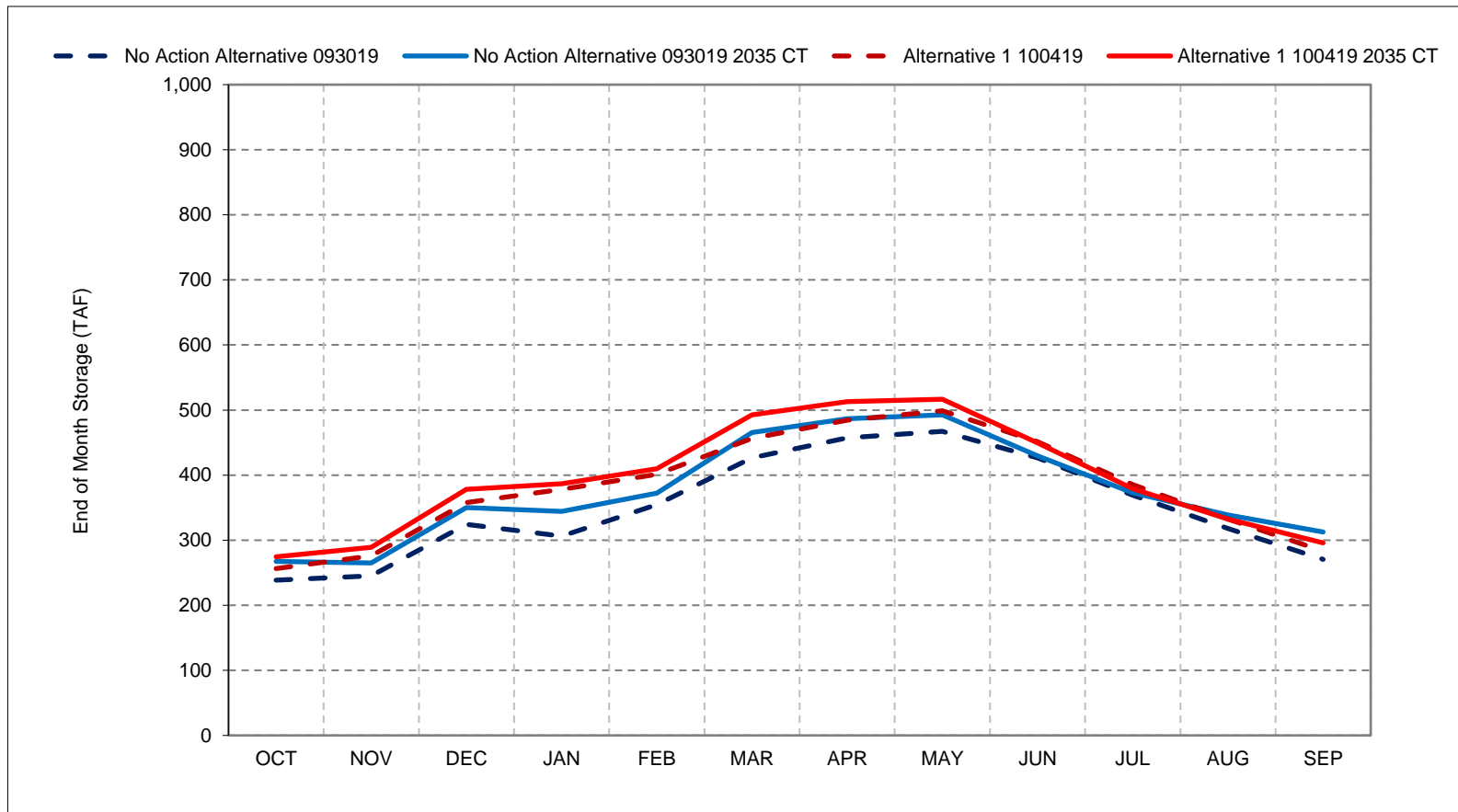
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-6. Folsom Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

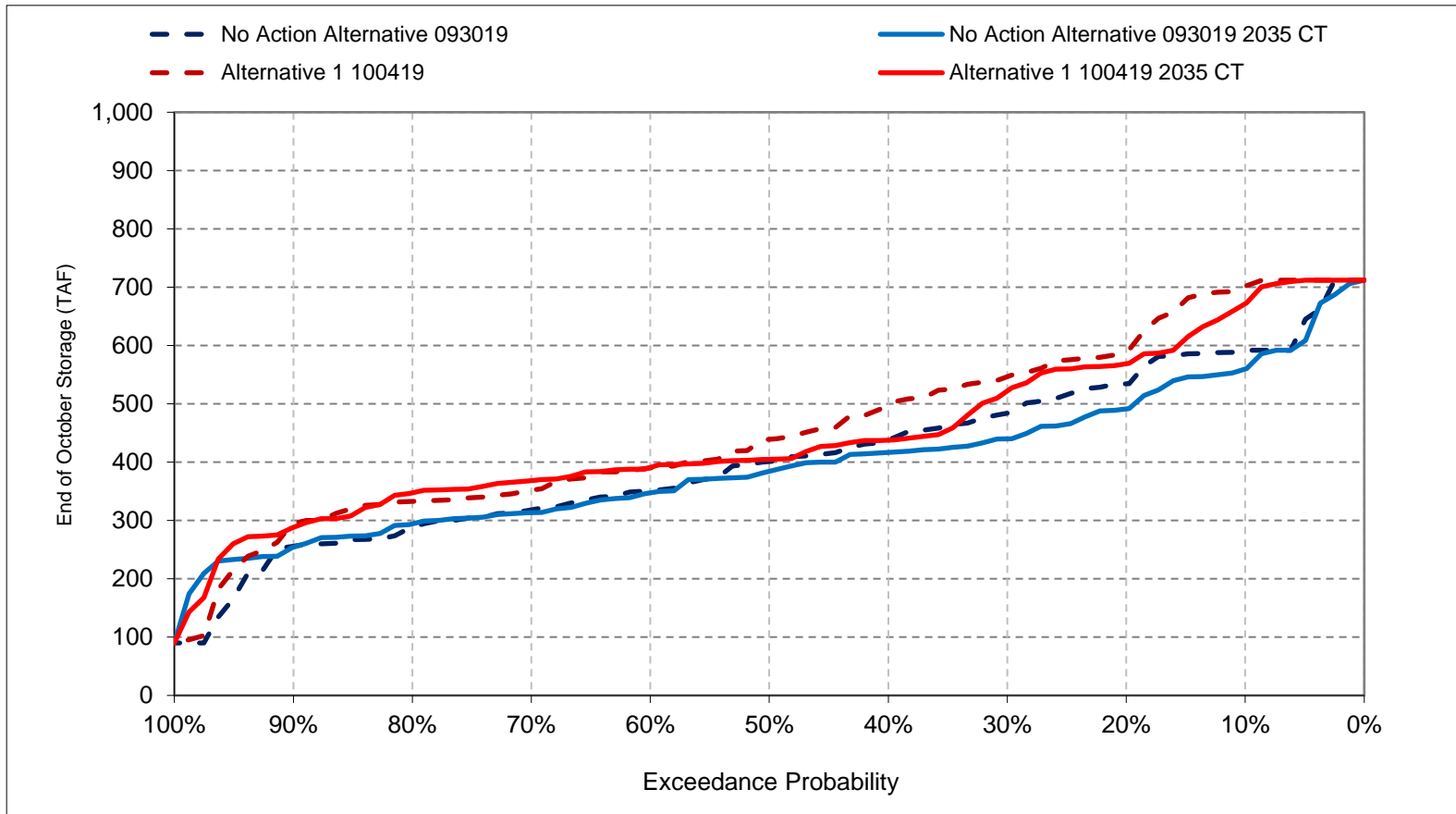
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

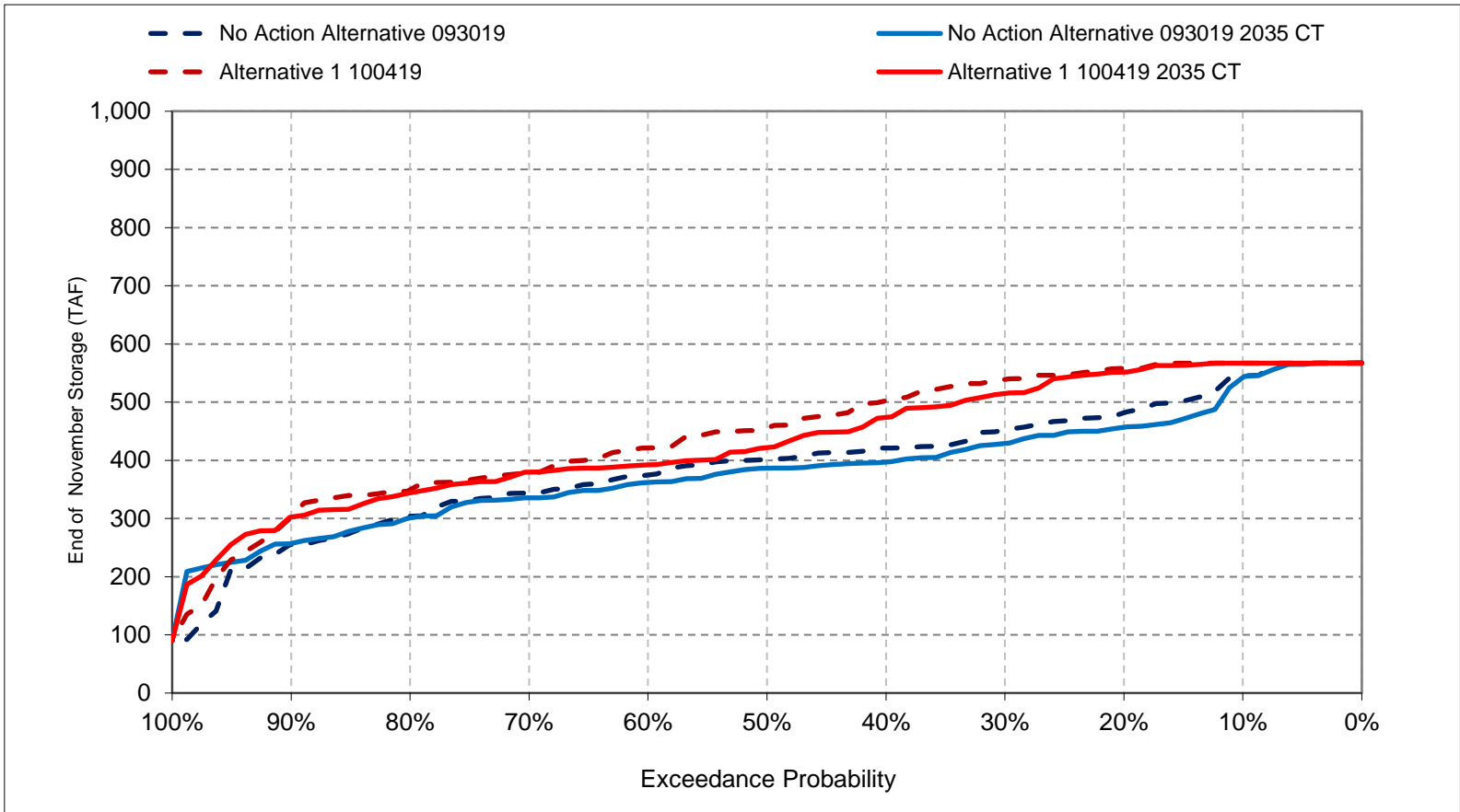
Figure 5-7. Folsom Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

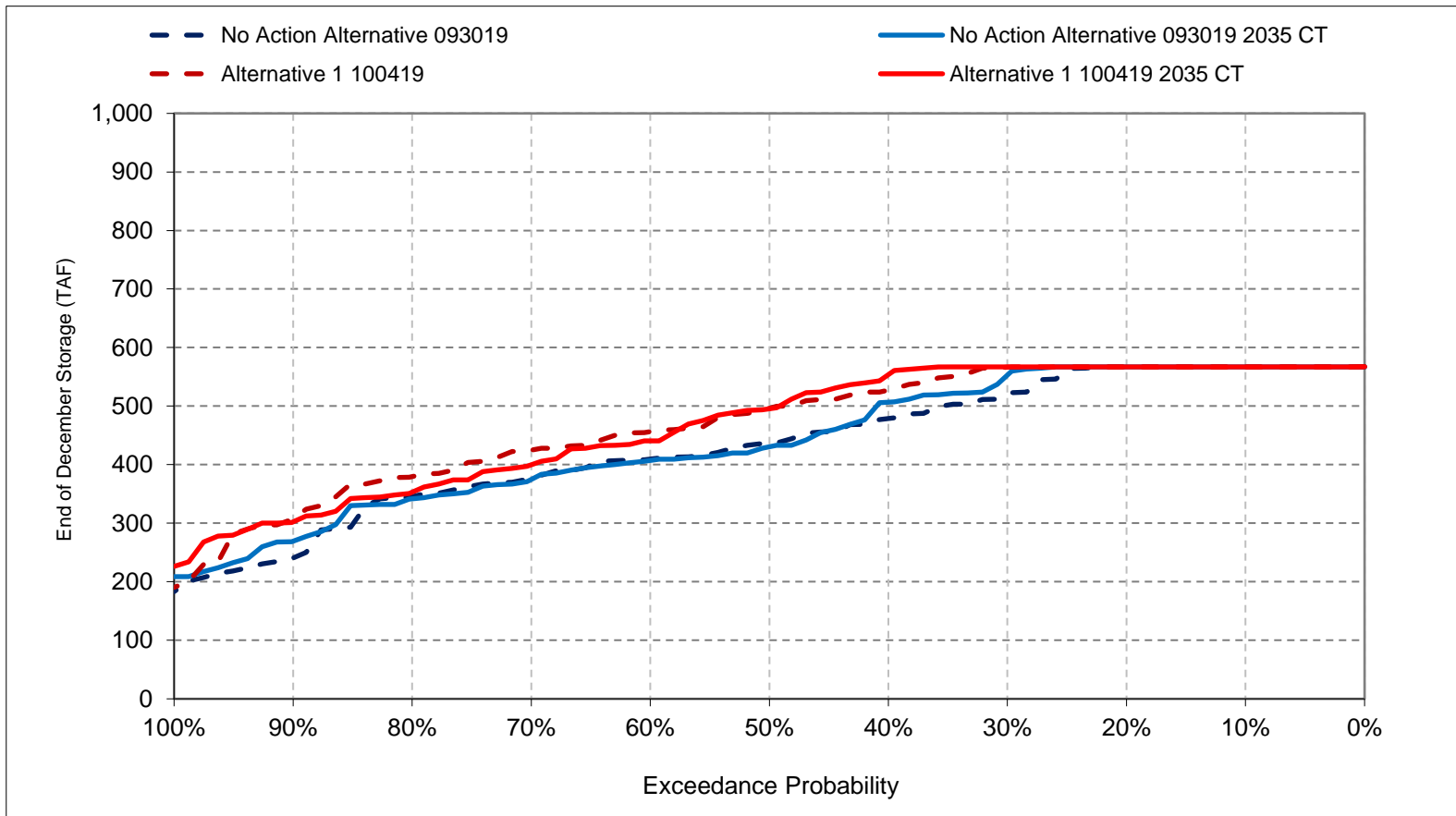
Figure 5-8. Folsom Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

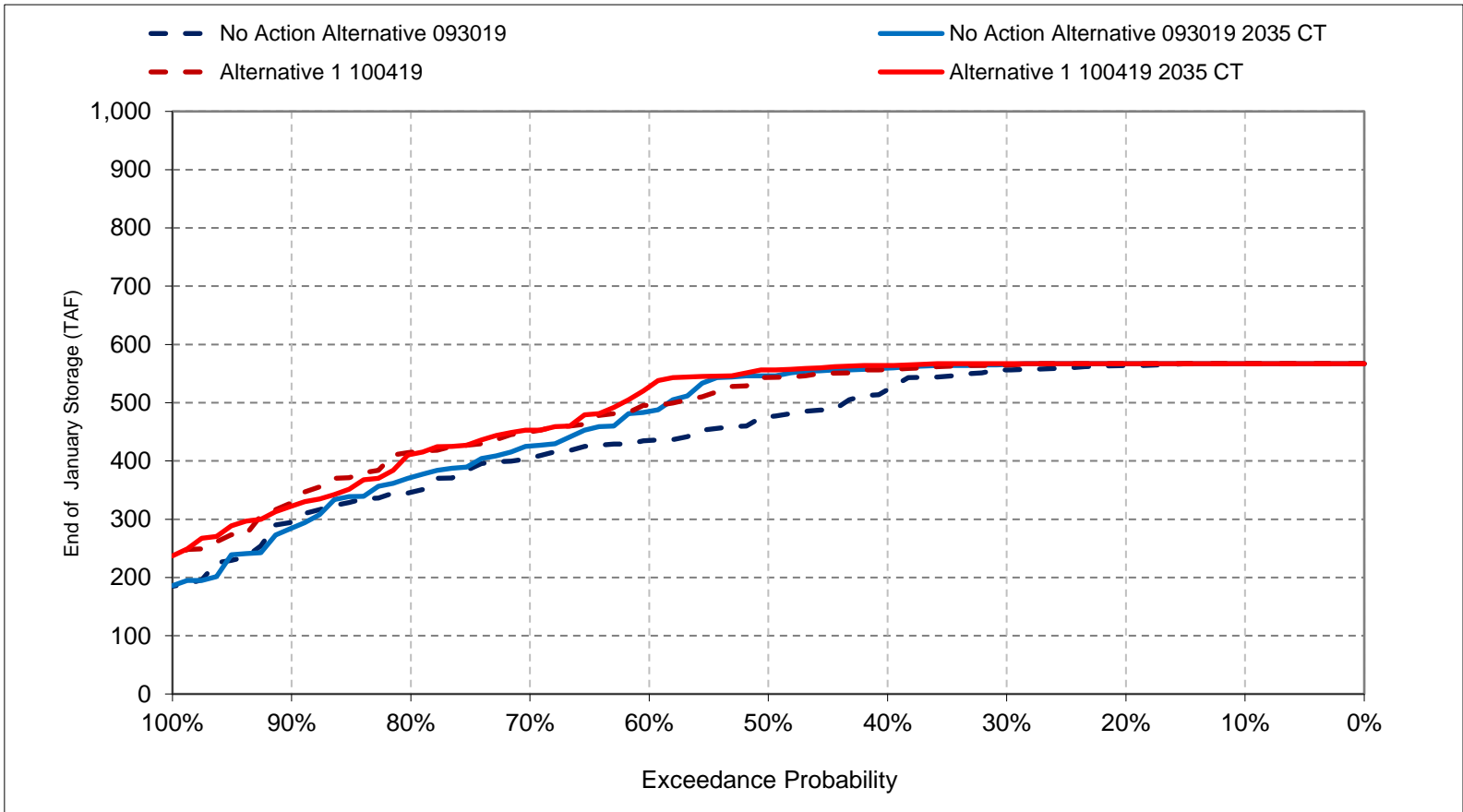
Figure 5-9. Folsom Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

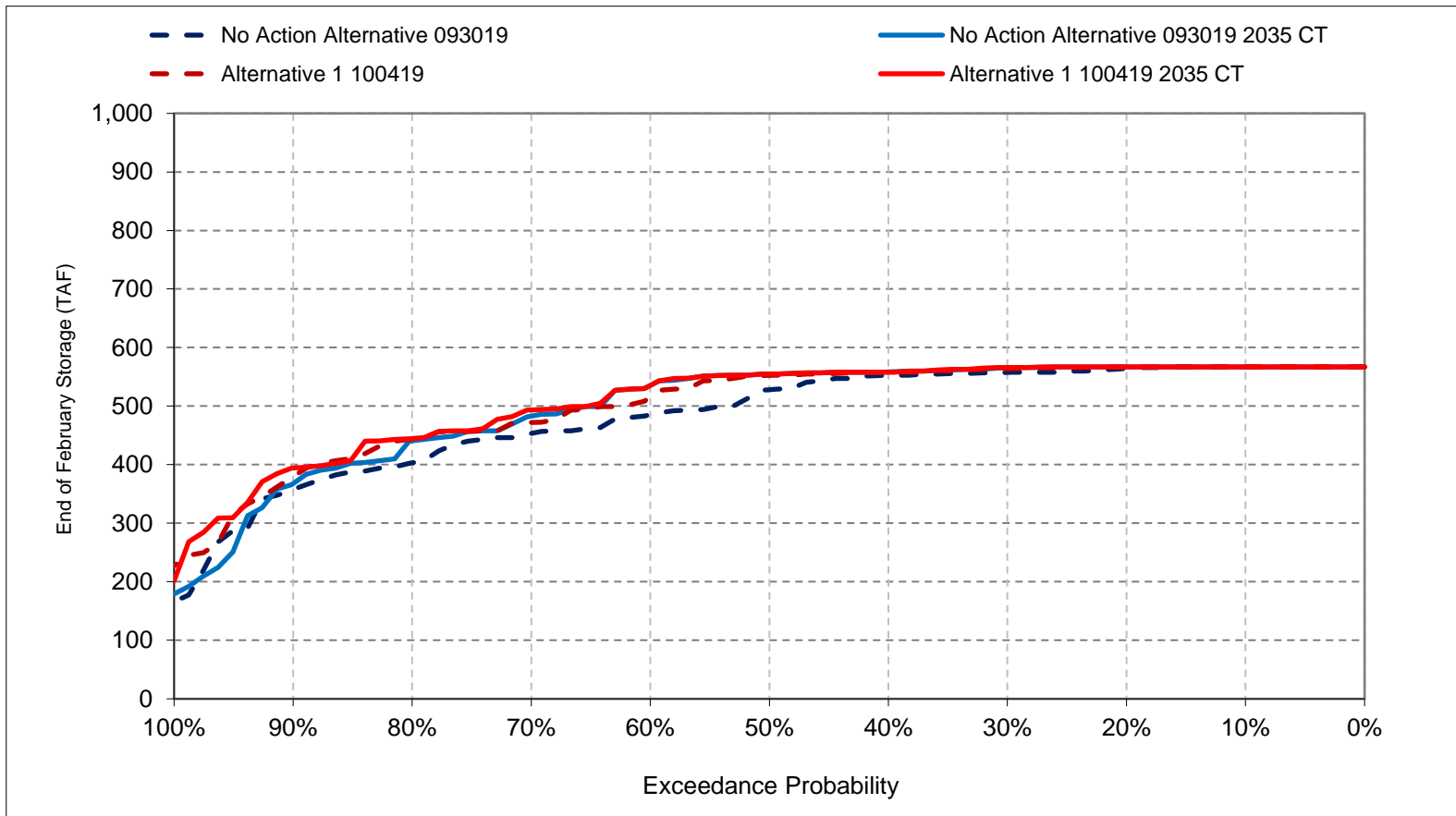
Figure 5-10. Folsom Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

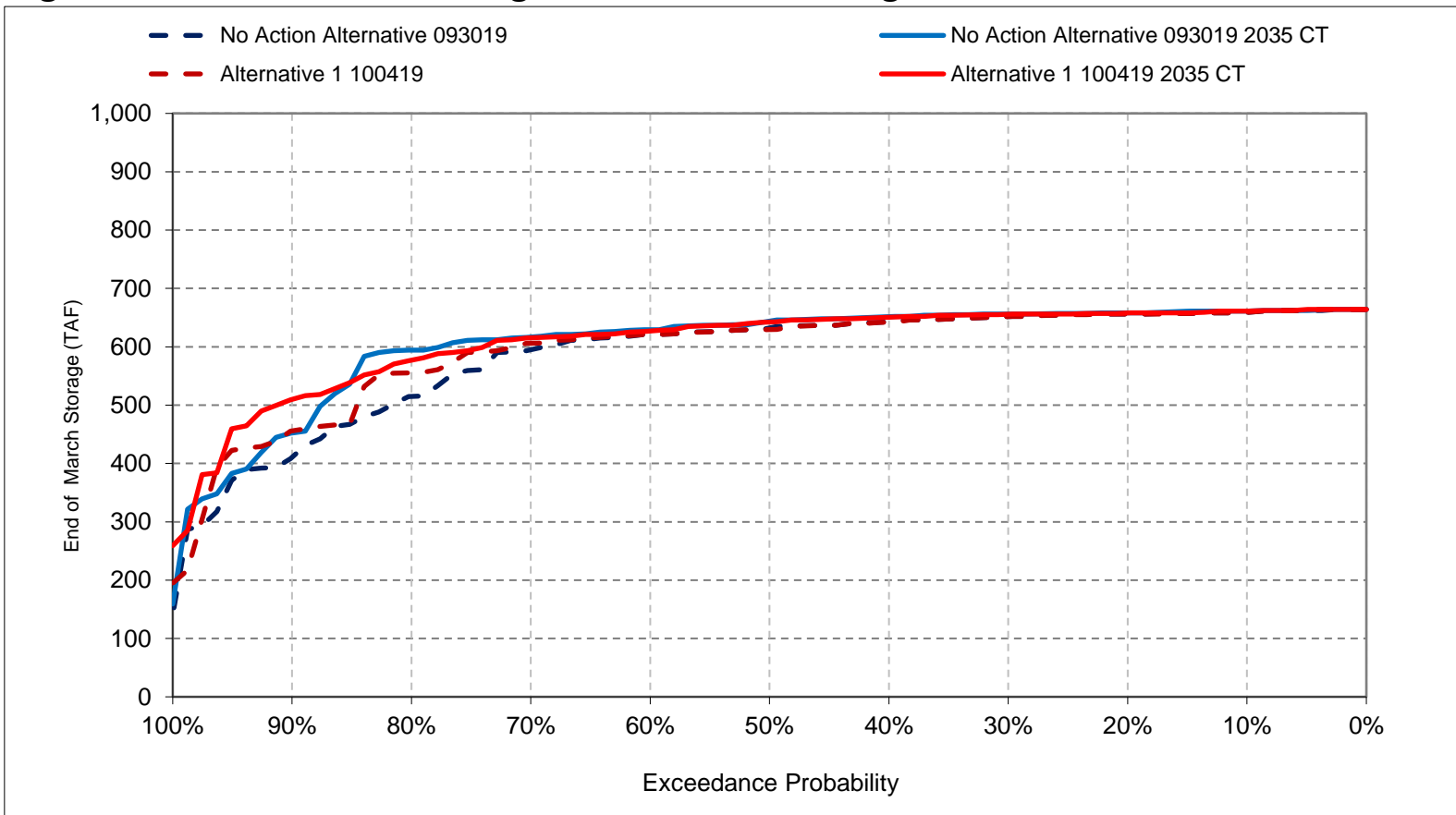
Figure 5-11. Folsom Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

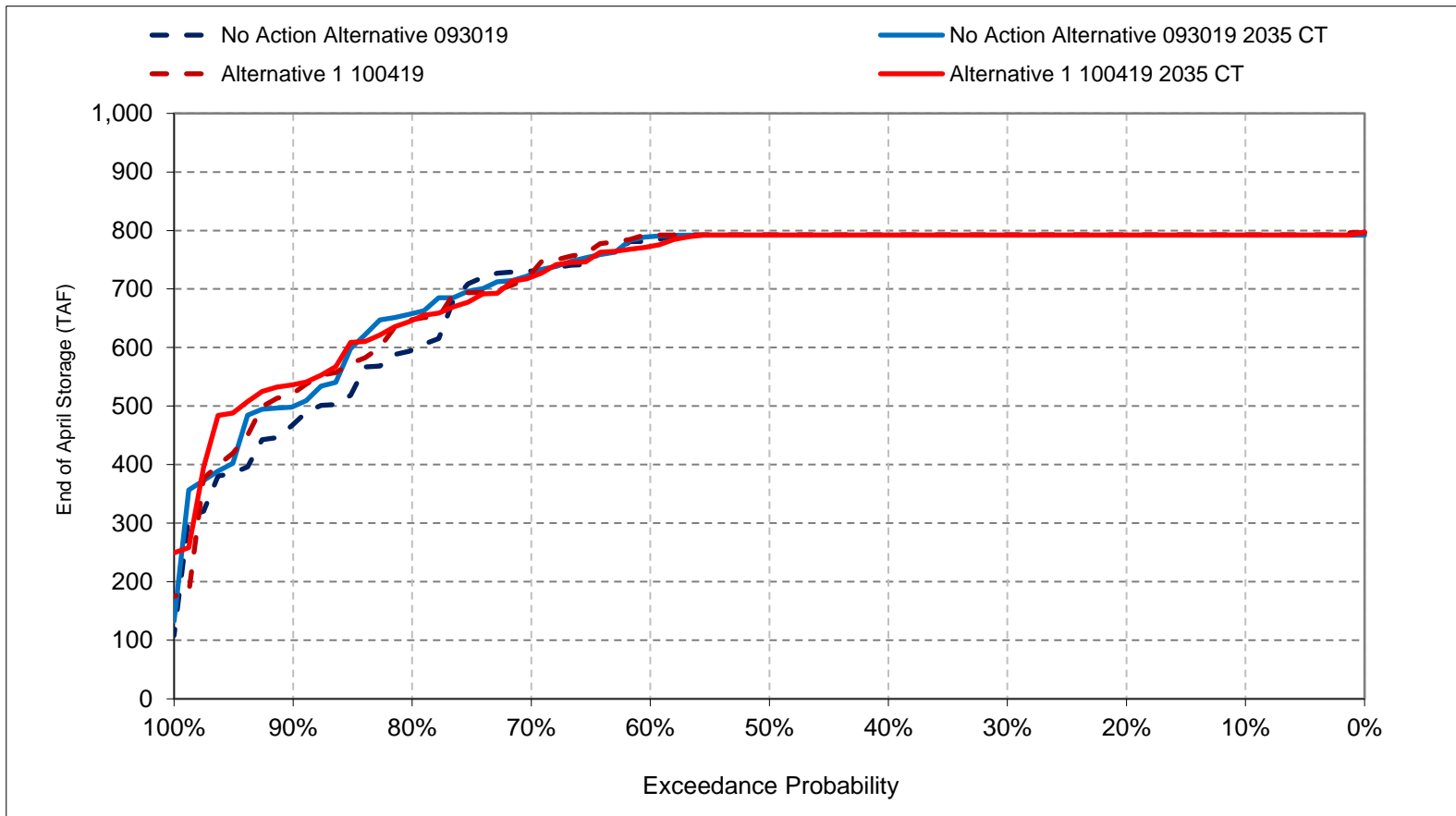
Figure 5-12. Folsom Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

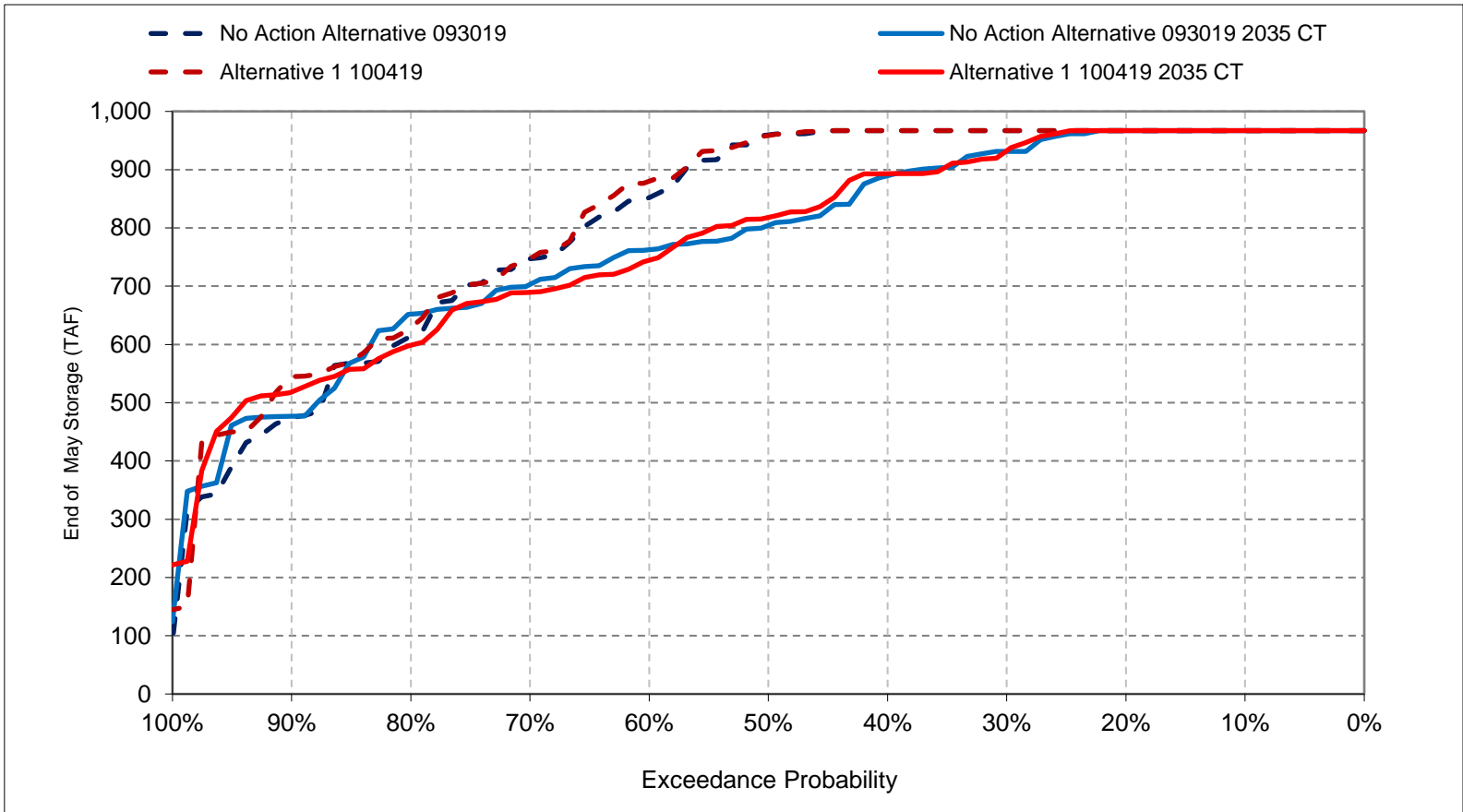
Figure 5-13. Folsom Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

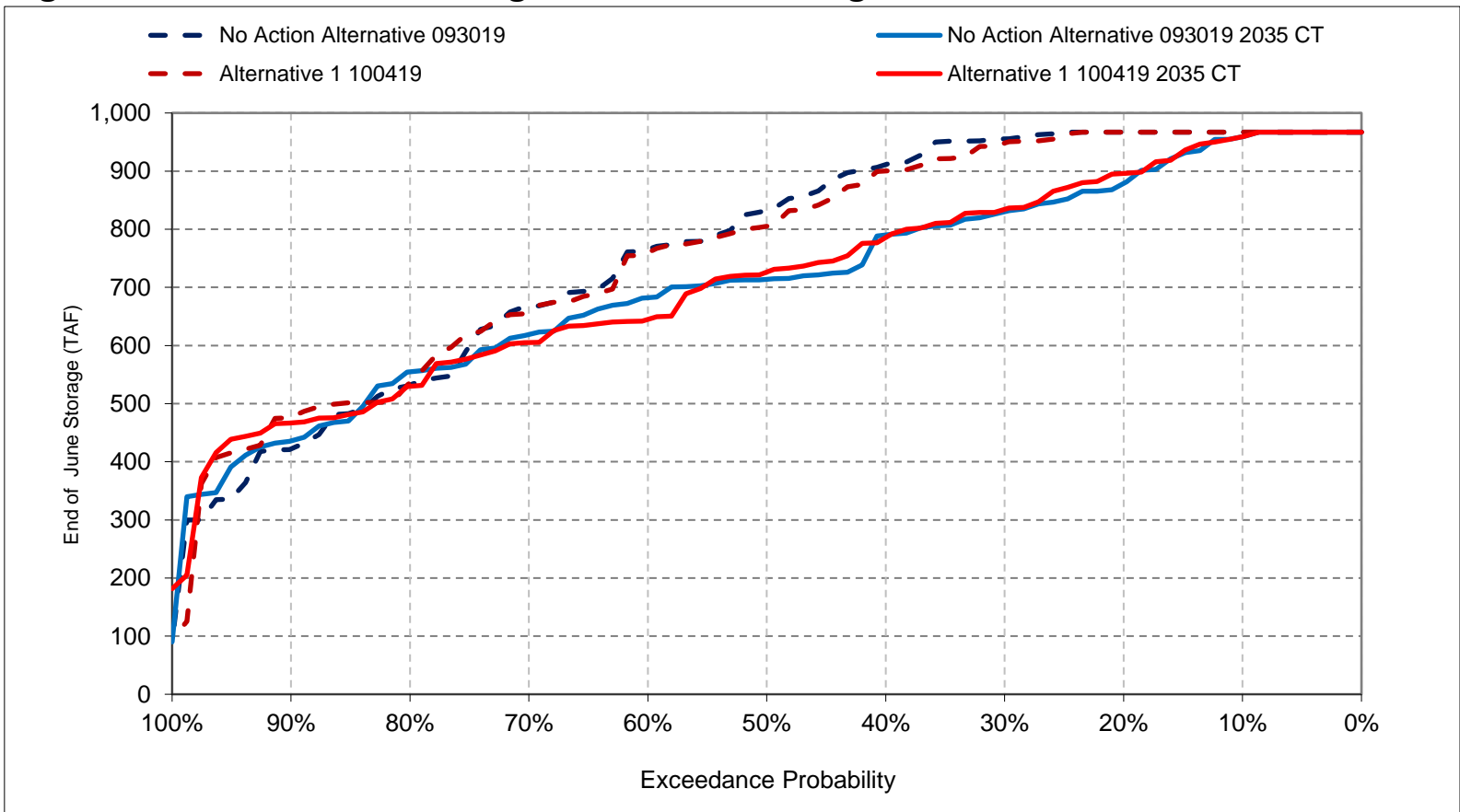
Figure 5-14. Folsom Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

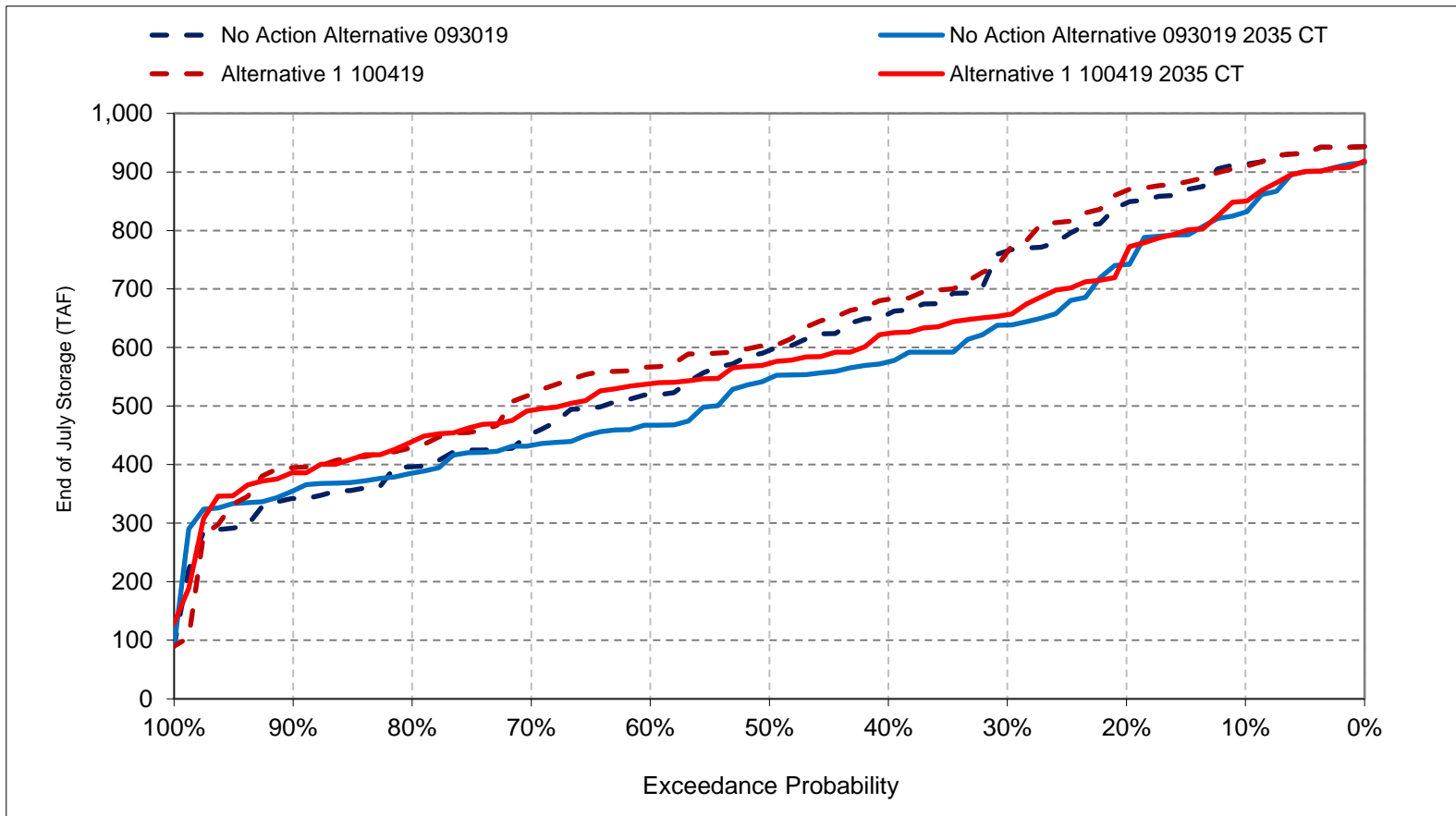
Figure 5-15. Folsom Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

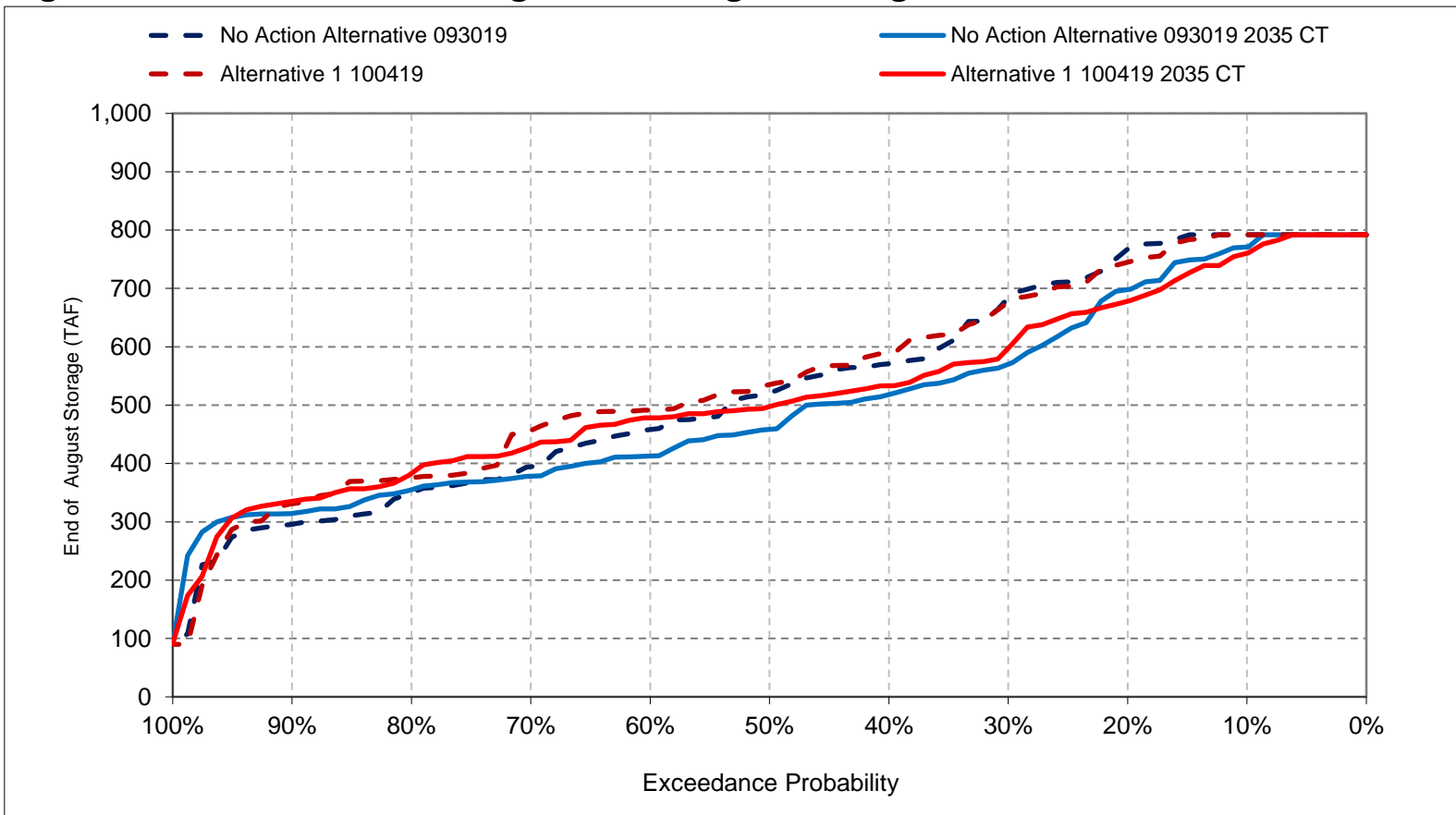
Figure 5-16. Folsom Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

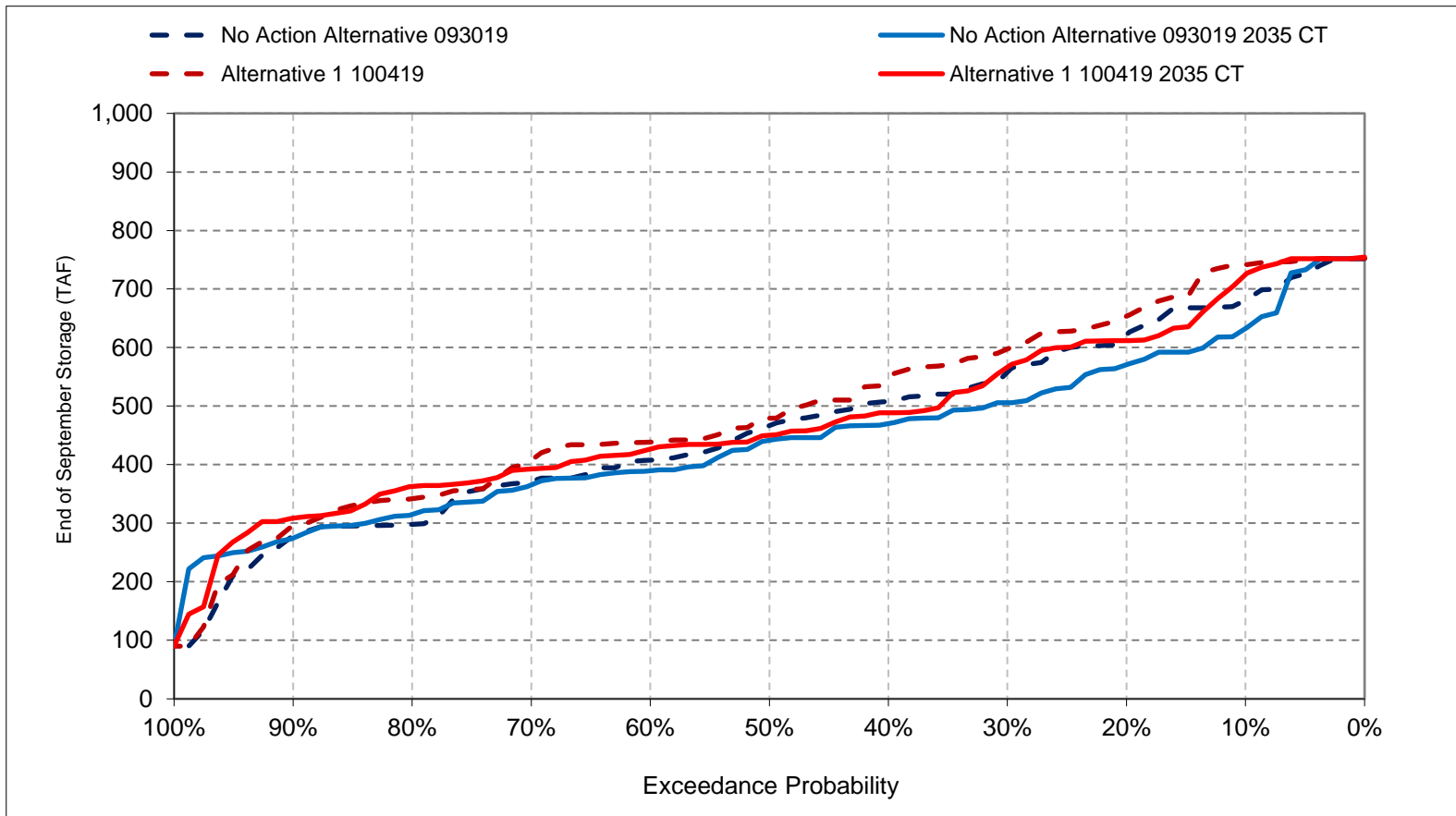
Figure 5-17. Folsom Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5-18. Folsom Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-1. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	427	422	424	424	424	436	449	466	466	461	449	438
20%	420	414	424	424	424	435	449	466	466	454	447	431
30%	414	410	418	423	423	435	449	466	465	446	438	423
40%	408	406	413	419	423	434	449	466	461	436	425	417
50%	404	404	408	413	419	432	449	465	453	428	419	412
60%	396	400	405	408	414	431	448	455	446	418	411	405
70%	391	395	401	404	410	428	443	445	437	410	403	400
80%	386	389	395	395	404	418	428	430	420	403	396	387
90%	380	380	377	387	397	405	412	413	406	395	387	384
Long Term												
Full Simulation Period ^d	401	400	406	409	413	426	439	449	444	426	417	409
Water Year Types^{b,c}												
Wet (32%)	414	407	413	418	418	432	448	464	463	448	438	425
Above Normal (16%)	405	404	410	417	419	433	448	464	457	429	421	413
Below Normal (13%)	403	402	407	414	420	430	445	453	446	420	412	407
Dry (24%)	400	403	406	403	412	424	436	444	434	419	410	406
Critical (15%)	370	372	390	387	394	404	407	408	402	394	385	376

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	440	424	424	424	424	436	449	466	466	460	449	444
20%	427	423	424	424	424	435	449	466	466	456	444	435
30%	422	421	424	424	424	435	449	466	464	446	438	428
40%	416	416	419	423	423	434	449	466	460	438	427	422
50%	408	411	416	421	423	432	449	465	450	429	420	413
60%	402	406	411	415	418	431	449	458	446	424	415	408
70%	396	401	407	410	413	429	443	445	436	419	411	404
80%	393	396	401	405	409	423	434	432	421	407	400	395
90%	387	388	389	393	401	410	419	422	413	403	393	387
Long Term												
Full Simulation Period ^d	408	407	411	414	416	427	440	450	444	429	420	413
Water Year Types^{b,c}												
Wet (32%)	428	420	419	419	418	432	448	465	462	450	440	434
Above Normal (16%)	409	407	412	421	421	433	449	464	456	433	423	416
Below Normal (13%)	405	406	409	421	422	431	445	452	444	425	414	407
Dry (24%)	404	409	411	407	415	426	438	445	435	423	414	408
Critical (15%)	374	379	395	399	401	409	411	412	404	395	387	378

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	13	3	0	0	0	0	0	0	0	0	0	6
20%	7	10	0	0	0	0	0	0	0	2	-2	4
30%	8	11	6	1	1	0	0	0	-1	0	-1	5
40%	7	10	6	4	1	0	0	0	-1	3	2	5
50%	5	7	7	8	3	0	0	0	-3	1	2	2
60%	6	6	6	7	4	0	1	3	-1	6	4	4
70%	6	6	6	6	2	1	0	0	-1	9	8	5
80%	7	8	6	10	5	5	6	2	1	4	4	7
90%	7	9	12	5	4	6	7	9	7	8	6	3
Long Term												
Full Simulation Period ^d	7	7	5	5	2	1	1	1	0	3	2	4
Water Year Types^{b,c}												
Wet (32%)	14	12	7	1	0	0	0	0	-1	2	1	9
Above Normal (16%)	4	4	3	4	2	0	0	0	-1	4	2	3
Below Normal (13%)	2	3	2	8	2	1	0	0	-2	5	2	-1
Dry (24%)	4	6	5	4	3	2	2	2	1	4	4	2
Critical (15%)	4	7	6	12	8	4	4	4	2	1	1	2

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 5a-2. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	421	424	424	424	436	449	466	465	453	447	433
20%	415	411	424	424	424	436	449	466	457	444	440	425
30%	409	407	423	424	424	435	449	463	453	433	425	417
40%	406	403	417	423	423	435	449	458	449	425	418	412
50%	402	402	407	422	423	434	449	450	441	422	411	409
60%	396	398	404	414	420	432	449	446	438	412	405	402
70%	390	394	400	407	414	431	443	440	431	408	401	399
80%	387	388	395	400	409	428	436	435	423	402	397	390
90%	379	380	382	385	399	410	416	413	408	397	390	383
Long Term												
Full Simulation Period ^d	401	399	407	412	415	429	440	446	439	422	415	408
Water Year Types^{b,c}												
Wet (32%)	412	407	414	419	418	433	448	461	456	441	434	420
Above Normal (16%)	398	399	409	419	421	434	447	453	445	419	412	405
Below Normal (13%)	404	402	409	416	420	432	445	447	439	416	409	407
Dry (24%)	400	401	405	408	417	430	441	443	432	416	409	405
Critical (15%)	380	379	394	391	396	410	412	412	404	397	391	387

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	437	424	424	424	424	436	449	466	465	455	446	442
20%	425	422	424	424	424	436	449	466	459	446	438	430
30%	419	418	424	424	424	435	449	463	453	435	428	424
40%	408	413	423	424	423	435	449	459	448	431	420	415
50%	404	406	415	423	423	434	449	452	443	425	416	410
60%	402	403	409	419	420	432	447	444	434	421	413	407
70%	399	401	404	410	415	430	442	439	429	415	407	403
80%	396	395	397	405	409	426	434	428	420	408	401	398
90%	386	388	388	392	403	417	421	418	412	402	394	389
Long Term												
Full Simulation Period ^d	407	406	411	414	417	429	441	446	439	425	417	411
Water Year Types^{b,c}												
Wet (32%)	425	418	418	420	418	432	448	460	456	444	435	430
Above Normal (16%)	408	406	411	421	421	434	448	453	445	429	420	414
Below Normal (13%)	404	404	411	421	422	433	445	446	437	421	411	406
Dry (24%)	403	406	409	409	417	429	441	442	433	419	411	406
Critical (15%)	380	383	399	400	403	414	416	416	407	397	389	383

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14	3	0	0	0	0	0	0	0	2	-1	10
20%	10	12	0	0	0	0	0	0	2	2	-2	5
30%	10	11	2	0	0	0	0	0	0	2	3	8
40%	3	10	6	1	0	0	0	0	0	6	2	2
50%	3	4	8	1	0	0	0	1	1	3	5	1
60%	7	4	4	5	0	0	-2	-2	-4	9	8	5
70%	9	7	3	3	1	0	0	-1	-2	7	6	4
80%	9	7	2	5	0	-2	-1	-7	-3	7	5	8
90%	6	8	6	6	4	7	5	5	4	5	4	6
Long Term												
Full Simulation Period ^d	7	7	4	3	1	1	1	0	0	4	2	4
Water Year Types^{b,c}												
Wet (32%)	13	11	5	1	0	0	0	0	0	3	1	10
Above Normal (16%)	9	7	3	2	0	0	0	0	0	9	8	9
Below Normal (13%)	1	3	3	5	2	1	-1	-1	-1	5	3	-1
Dry (24%)	3	5	4	1	1	0	0	0	1	3	2	1
Critical (15%)	0	4	4	8	7	4	4	4	4	1	-2	-5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-3. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	427	422	424	424	424	436	449	466	466	461	449	438
20%	420	414	424	424	424	435	449	466	466	454	447	431
30%	414	410	418	423	423	435	449	466	465	446	438	423
40%	408	406	413	419	423	434	449	466	461	436	425	417
50%	404	404	408	413	419	432	449	465	453	428	419	412
60%	396	400	405	408	414	431	448	455	446	418	411	405
70%	391	395	401	404	410	428	443	445	437	410	403	400
80%	386	389	395	395	404	418	428	430	420	403	396	387
90%	380	380	377	387	397	405	412	413	406	395	387	384
Long Term												
Full Simulation Period ^d	401	400	406	409	413	426	439	449	444	426	417	409
Water Year Types ^{b,c}												
Wet (32%)	414	407	413	418	418	432	448	464	463	448	438	425
Above Normal (16%)	405	404	410	417	419	433	448	464	457	429	421	413
Below Normal (13%)	403	402	407	414	420	430	445	453	446	420	412	407
Dry (24%)	400	403	406	403	412	424	436	444	434	419	410	406
Critical (15%)	370	372	390	387	394	404	407	408	402	394	385	376

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	421	424	424	424	436	449	466	465	453	447	433
20%	415	411	424	424	424	436	449	466	457	444	440	425
30%	409	407	423	424	424	435	449	463	453	433	425	417
40%	406	403	417	423	423	435	449	458	449	425	418	412
50%	402	402	407	422	423	434	449	450	441	422	411	409
60%	396	398	404	414	420	432	449	446	438	412	405	402
70%	390	394	400	407	414	431	443	440	431	408	401	399
80%	387	388	395	400	409	428	436	435	423	402	397	390
90%	379	380	382	385	399	410	416	413	408	397	390	383
Long Term												
Full Simulation Period ^d	401	399	407	412	415	429	440	446	439	422	415	408
Water Year Types ^{b,c}												
Wet (32%)	412	407	414	419	418	433	448	461	456	441	434	420
Above Normal (16%)	398	399	409	419	421	434	447	453	445	419	412	405
Below Normal (13%)	404	402	409	416	420	432	445	447	439	416	409	407
Dry (24%)	400	401	405	408	417	430	441	443	432	416	409	405
Critical (15%)	380	379	394	391	396	410	412	412	404	397	391	387

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	0	0	0	0	0	0	0	-1	-8	-2	-6
20%	-5	-3	0	0	0	0	0	0	-9	-10	-7	-6
30%	-5	-3	4	1	1	1	0	-3	-12	-13	-14	-6
40%	-3	-3	3	5	1	1	0	-8	-12	-10	-7	-5
50%	-2	-2	-1	9	3	1	0	-15	-12	-6	-8	-3
60%	-1	-2	0	6	6	1	1	-9	-8	-6	-6	-2
70%	-1	-1	0	3	4	3	-1	-4	-6	-2	-2	-1
80%	1	-1	-1	4	5	10	8	5	3	-1	1	3
90%	0	0	6	-2	2	5	4	0	2	2	3	-1
Long Term												
Full Simulation Period ^d	0	0	1	3	2	2	1	-3	-5	-5	-3	-1
Water Year Types ^{b,c}												
Wet (32%)	-3	-1	1	1	0	0	0	-4	-7	-7	-4	-4
Above Normal (16%)	-6	-5	-1	3	2	0	-1	-11	-12	-10	-9	-8
Below Normal (13%)	1	-1	2	2	0	2	0	-6	-7	-4	-3	0
Dry (24%)	-1	-2	-1	4	5	6	4	-1	-2	-3	-2	-1
Critical (15%)	10	7	5	4	2	5	5	4	1	2	6	11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-4. Folsom Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	440	424	424	424	424	436	449	466	466	460	449	444
20%	427	423	424	424	424	435	449	466	466	456	444	435
30%	422	421	424	424	424	435	449	466	464	446	438	428
40%	416	416	419	423	423	434	449	466	460	438	427	422
50%	408	411	416	421	423	432	449	465	450	429	420	413
60%	402	406	411	415	418	431	449	458	446	424	415	408
70%	396	401	407	410	413	429	443	445	436	419	411	404
80%	393	396	401	405	409	423	434	432	421	407	400	395
90%	387	388	389	393	401	410	419	422	413	403	393	387
Long Term												
Full Simulation Period ^d	408	407	411	414	416	427	440	450	444	429	420	413
Water Year Types ^{b,c}												
Wet (32%)	428	420	419	419	418	432	448	465	462	450	440	434
Above Normal (16%)	409	407	412	421	421	433	449	464	456	433	423	416
Below Normal (13%)	405	406	409	421	422	431	445	452	444	425	414	407
Dry (24%)	404	409	411	407	415	426	438	445	435	423	414	408
Critical (15%)	374	379	395	399	401	409	411	412	404	395	387	378

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	437	424	424	424	424	436	449	466	465	455	446	442
20%	425	422	424	424	424	436	449	466	459	446	438	430
30%	419	418	424	424	424	435	449	463	453	435	428	424
40%	408	413	423	424	423	435	449	459	448	431	420	415
50%	404	406	415	423	423	434	449	452	443	425	416	410
60%	402	403	409	419	420	432	447	444	434	421	413	407
70%	399	401	404	410	415	430	442	439	429	415	407	403
80%	396	395	397	405	409	426	434	428	420	408	401	398
90%	386	388	388	392	403	417	421	418	412	402	394	389
Long Term												
Full Simulation Period ^d	407	406	411	414	417	429	441	446	439	425	417	411
Water Year Types ^{b,c}												
Wet (32%)	425	418	418	420	418	432	448	460	456	444	435	430
Above Normal (16%)	408	406	411	421	421	434	448	453	445	429	420	414
Below Normal (13%)	404	404	411	421	422	433	445	446	437	421	411	406
Dry (24%)	403	406	409	409	417	429	441	442	433	419	411	406
Critical (15%)	380	383	399	400	403	414	416	416	407	397	389	383

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	0	0	0	0	0	0	0	-1	-6	-3	-2
20%	-3	-1	0	0	0	0	0	0	-7	-10	-7	-5
30%	-3	-3	0	0	0	0	0	-3	-11	-11	-10	-4
40%	-8	-4	3	1	0	1	0	-7	-11	-7	-7	-7
50%	-4	-4	0	2	0	2	0	-14	-8	-4	-5	-4
60%	0	-4	-2	4	2	1	-2	-13	-12	-4	-2	-1
70%	3	0	-3	0	3	1	-1	-6	-7	-3	-3	-2
80%	2	-1	-4	0	0	3	0	-4	-1	1	1	3
90%	-1	0	-1	-1	2	7	2	-3	-1	-1	1	2
Long Term												
Full Simulation Period ^d	-1	-1	0	1	1	2	1	-4	-5	-4	-2	-1
Water Year Types ^{b,c}												
Wet (32%)	-4	-2	-1	0	0	0	-1	-4	-6	-7	-4	-4
Above Normal (16%)	-1	-2	-1	0	0	0	-1	-11	-10	-4	-3	-2
Below Normal (13%)	0	-1	2	-1	0	2	-1	-7	-7	-3	-2	-1
Dry (24%)	-1	-3	-1	1	2	3	3	-3	-3	-4	-3	-2
Critical (15%)	6	4	3	1	1	6	5	4	3	3	2	5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

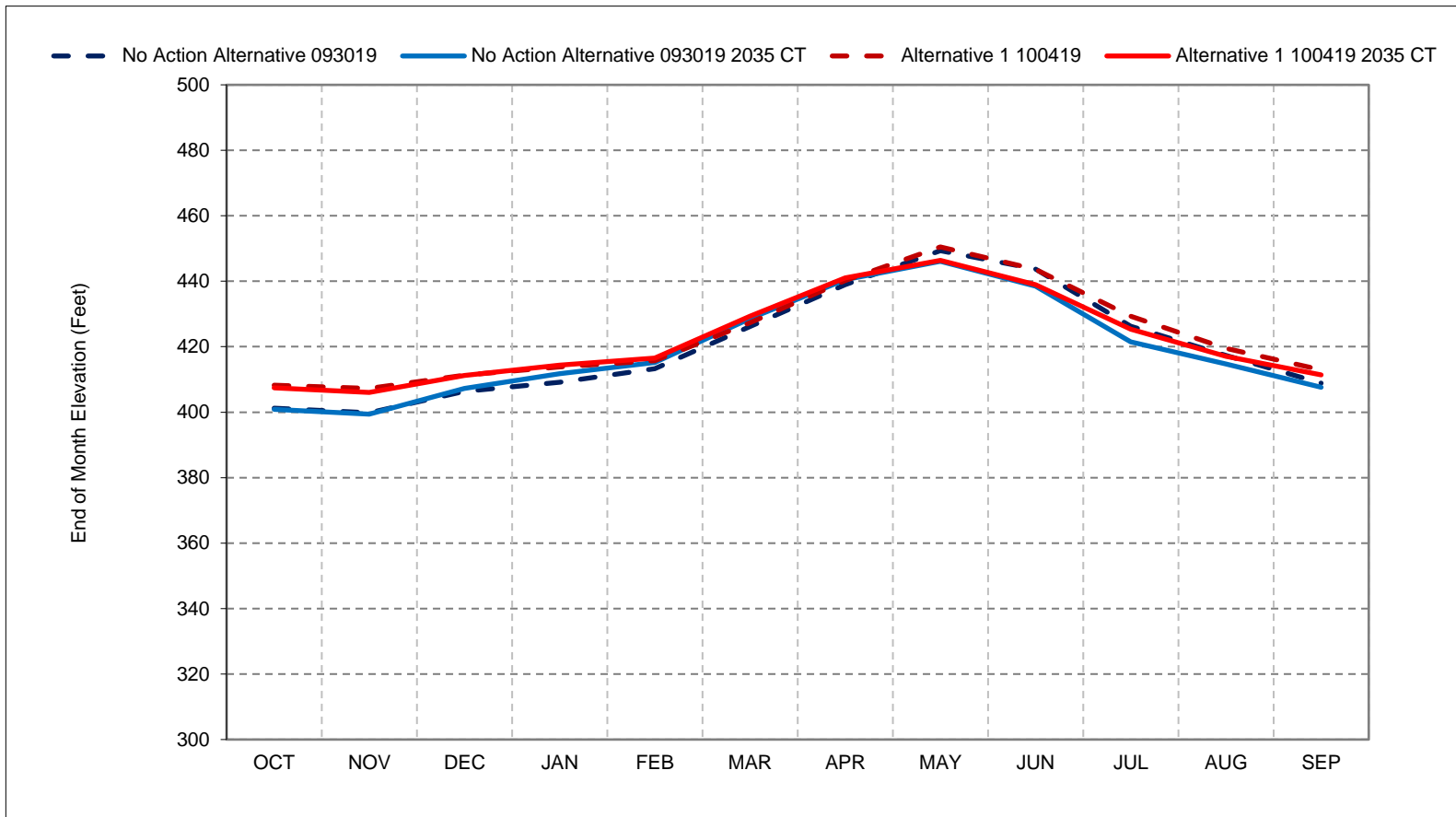
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5a-1. Folsom Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

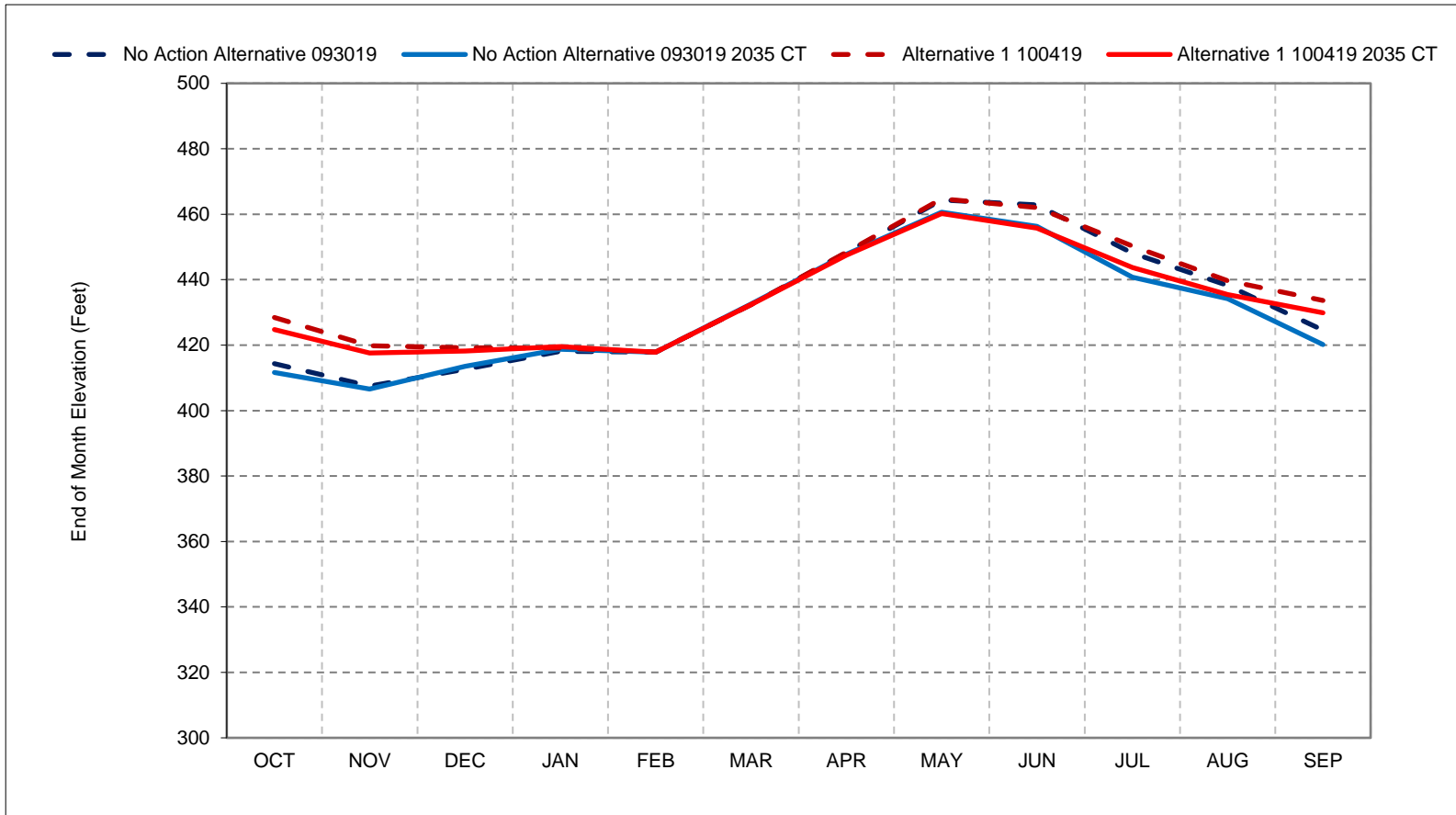
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-2. Folsom Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

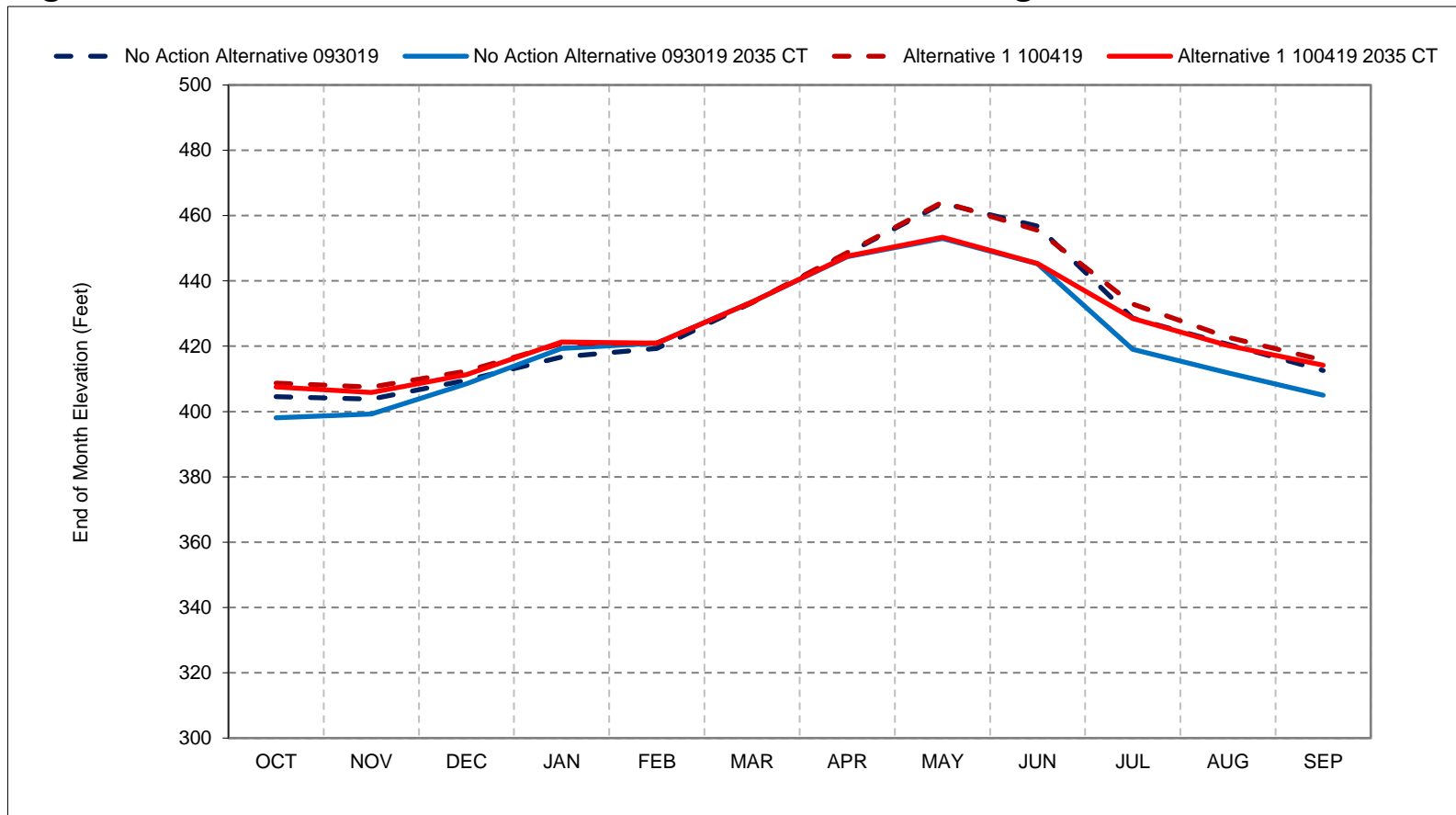
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-3. Folsom Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

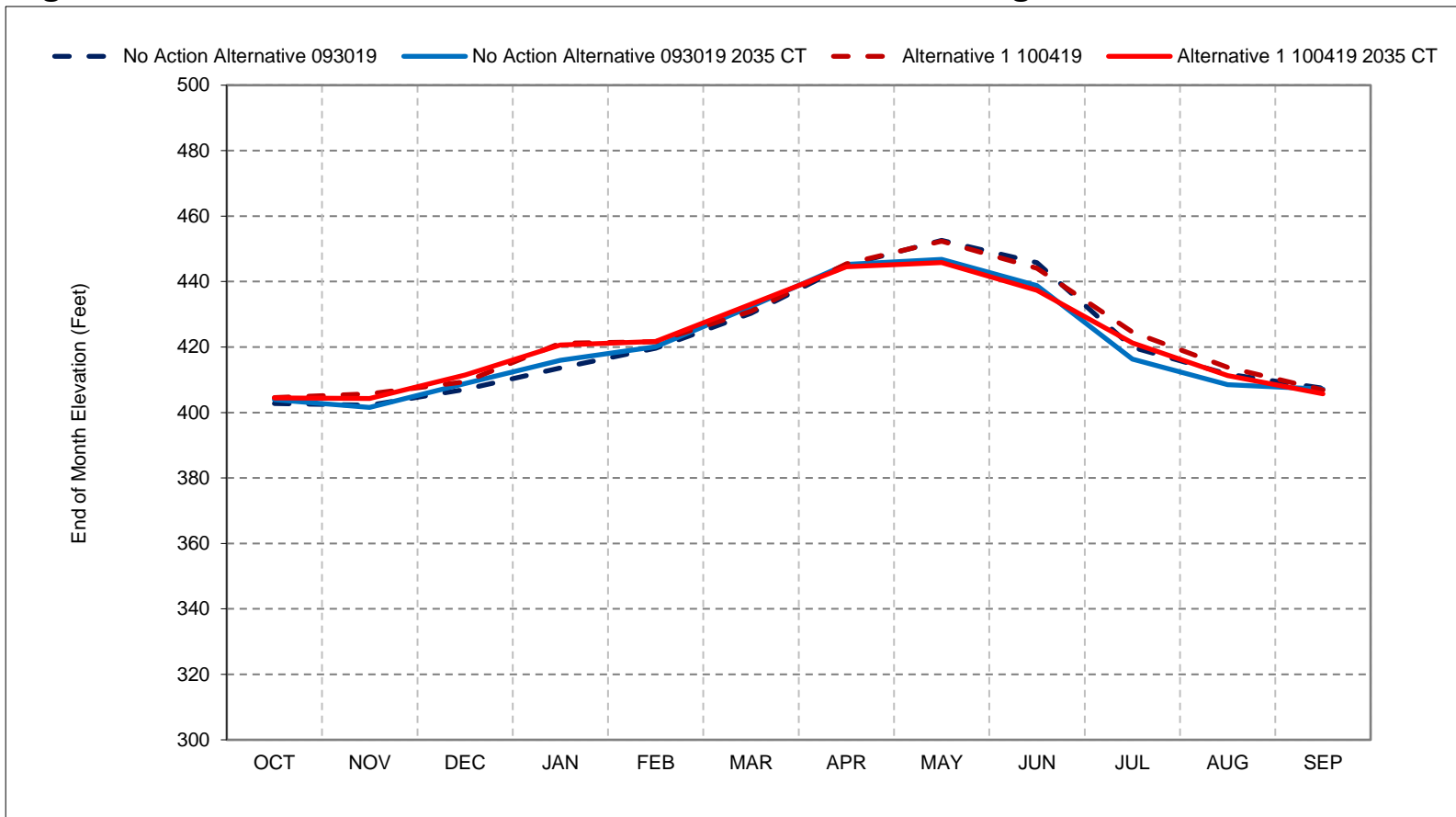
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-4. Folsom Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

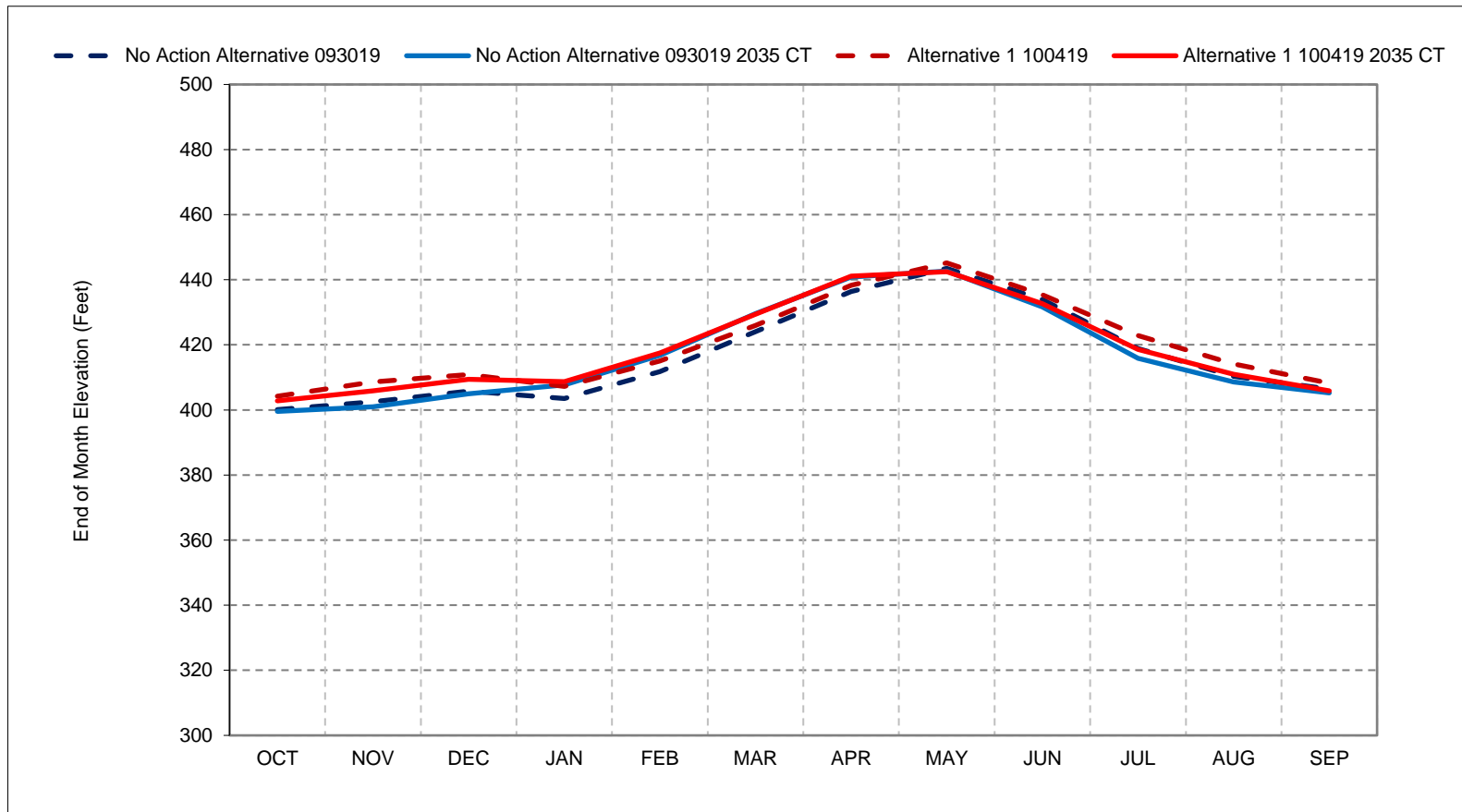
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-5. Folsom Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

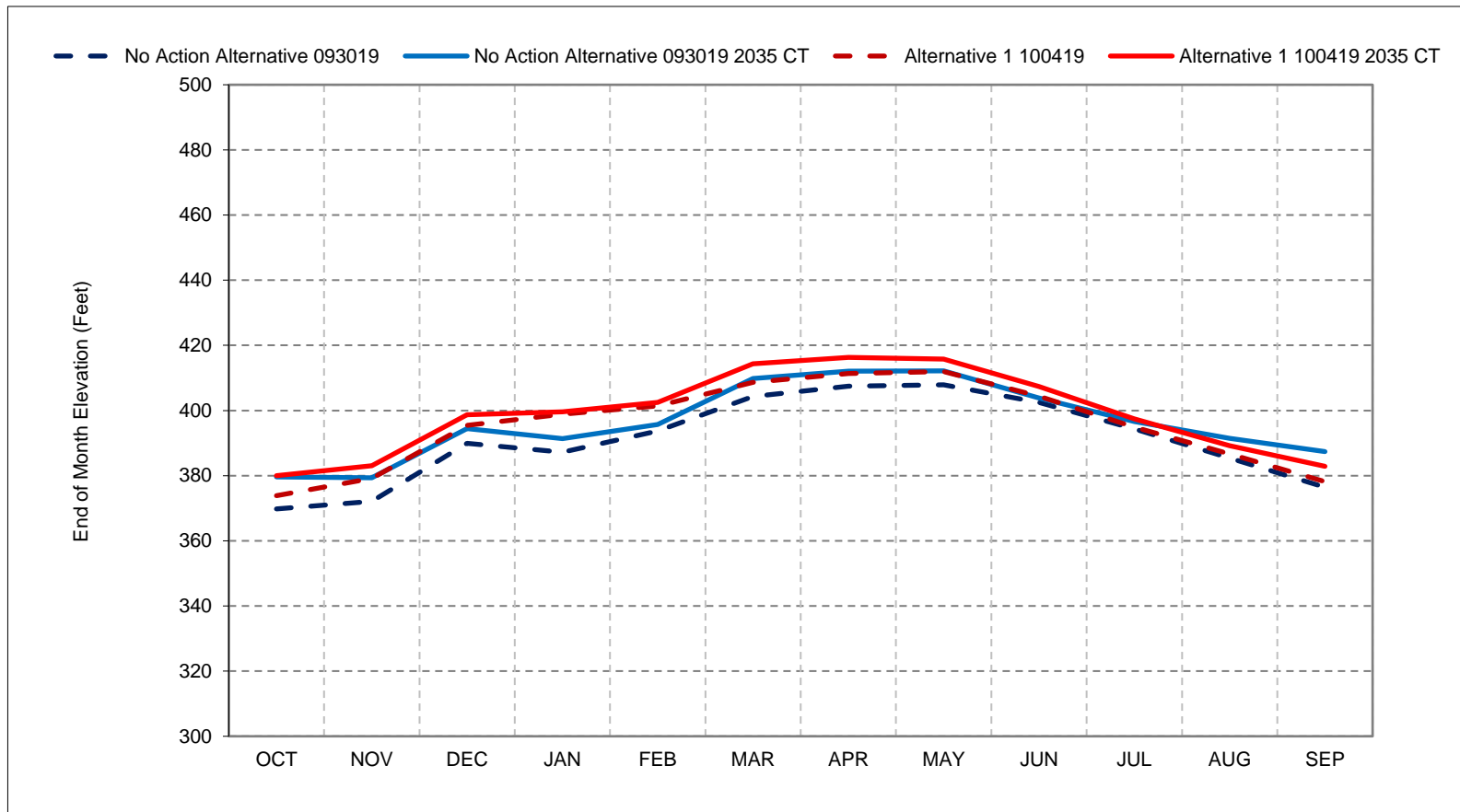
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-6. Folsom Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

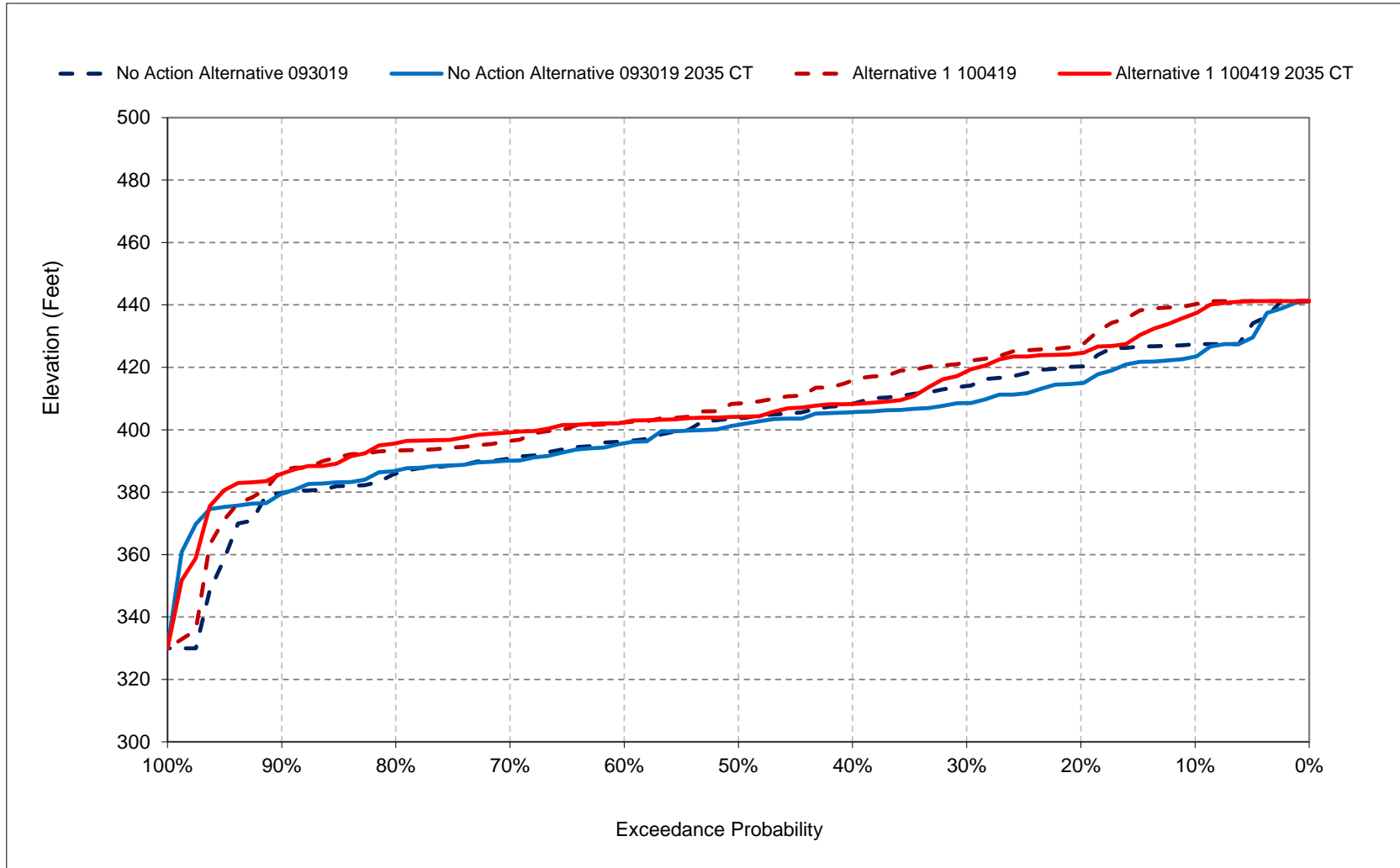
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

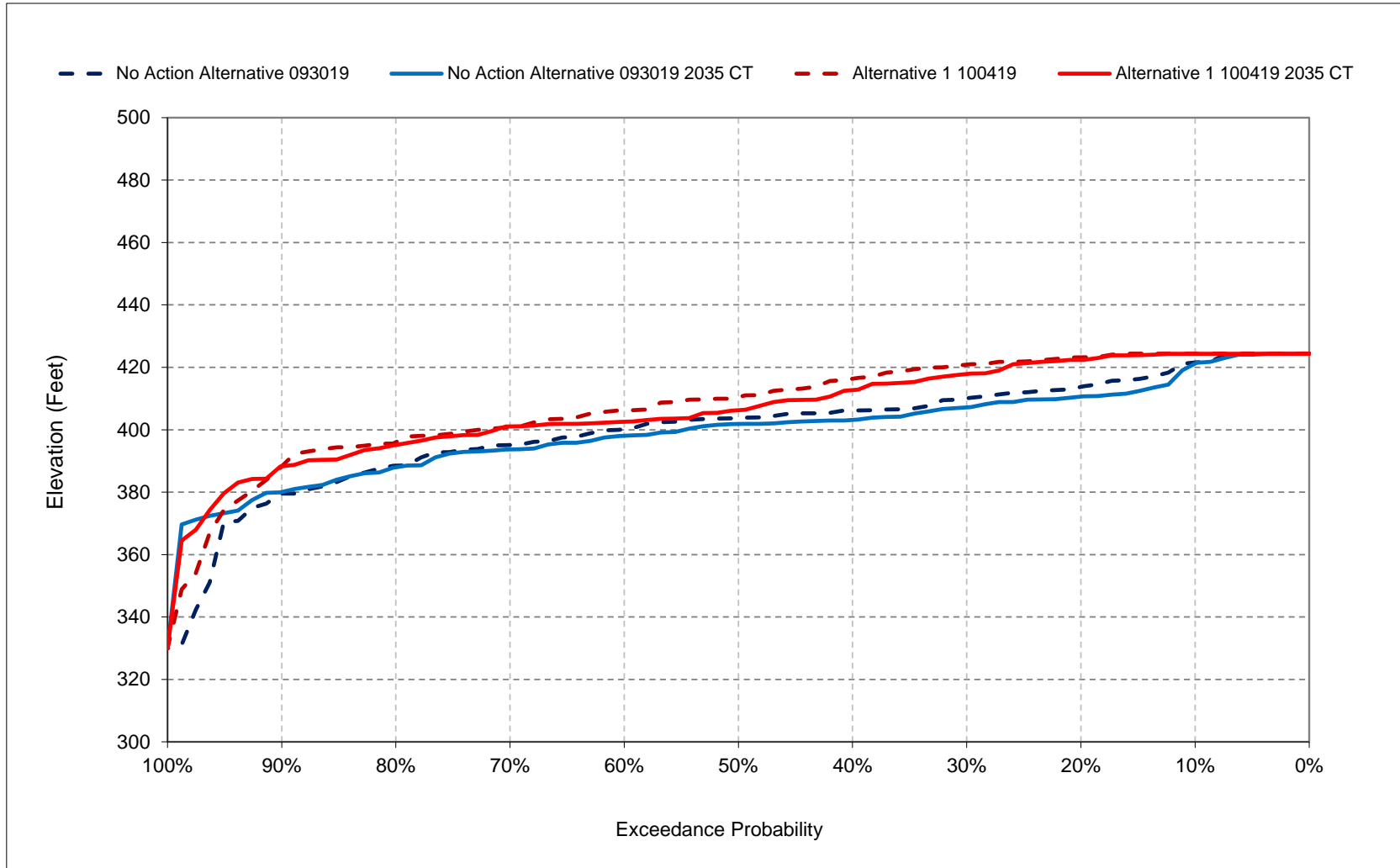
Figure 5a-7. Folsom Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

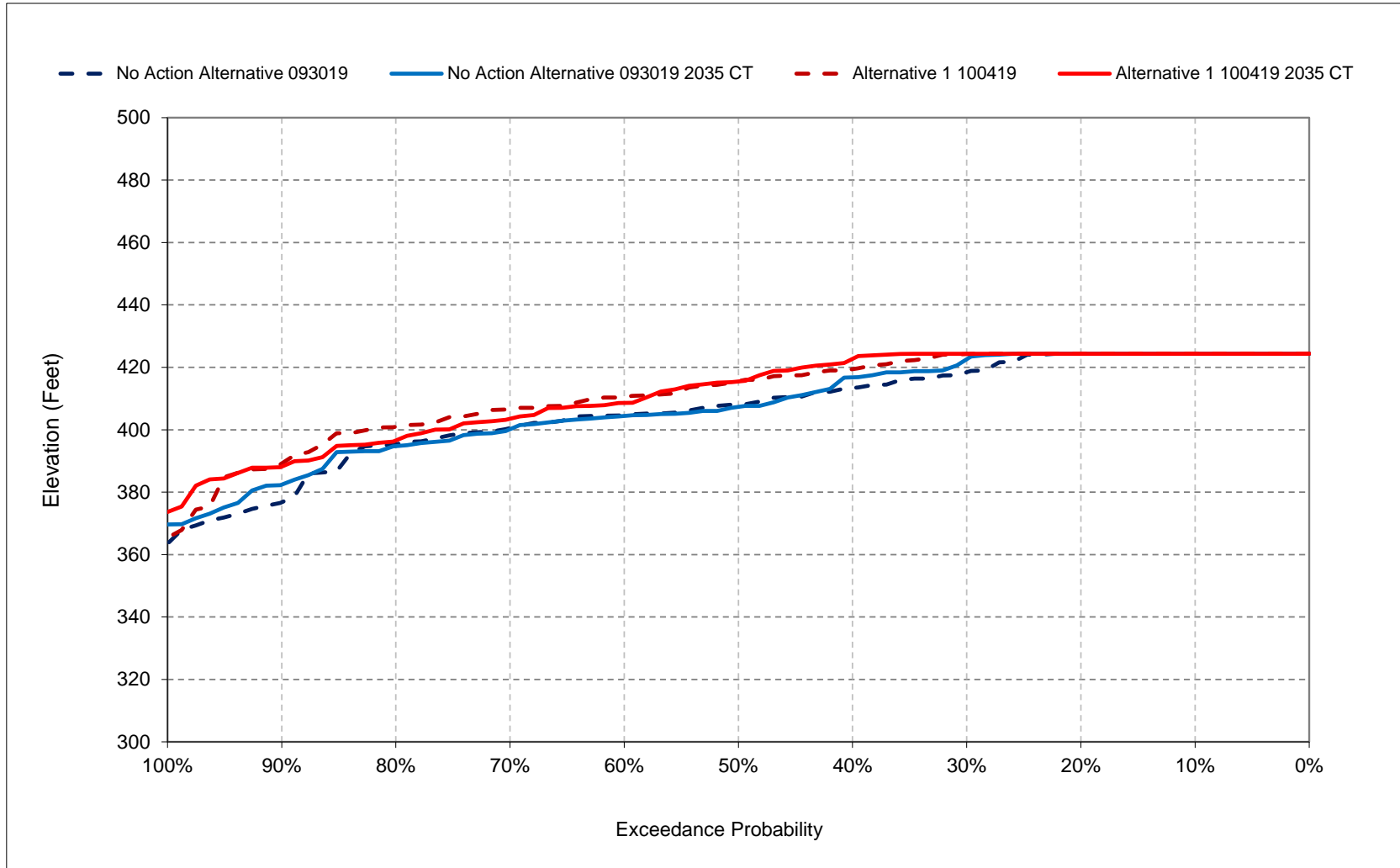
Figure 5a-8. Folsom Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

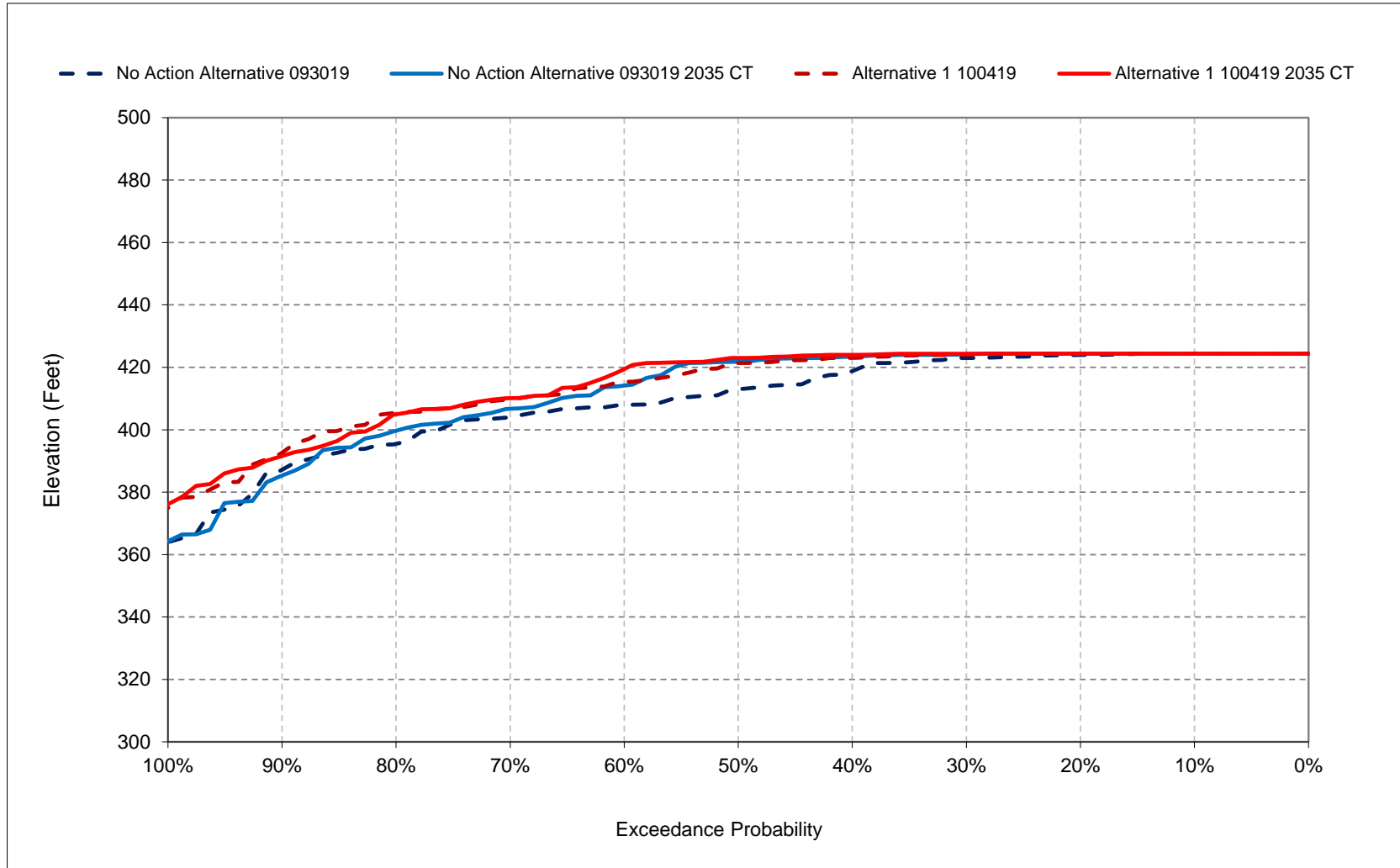
Figure 5a-9. Folsom Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

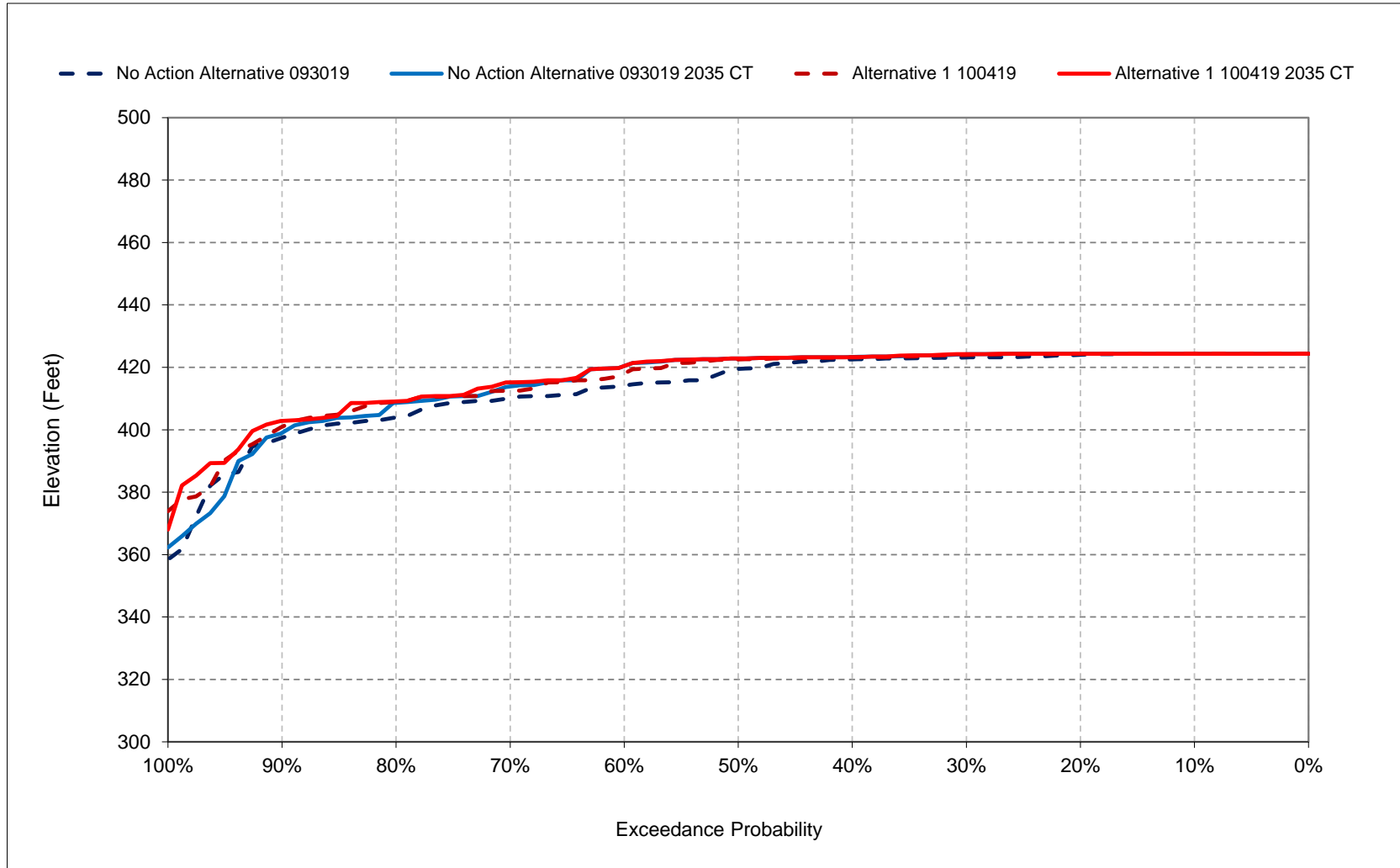
Figure 5a-10. Folsom Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

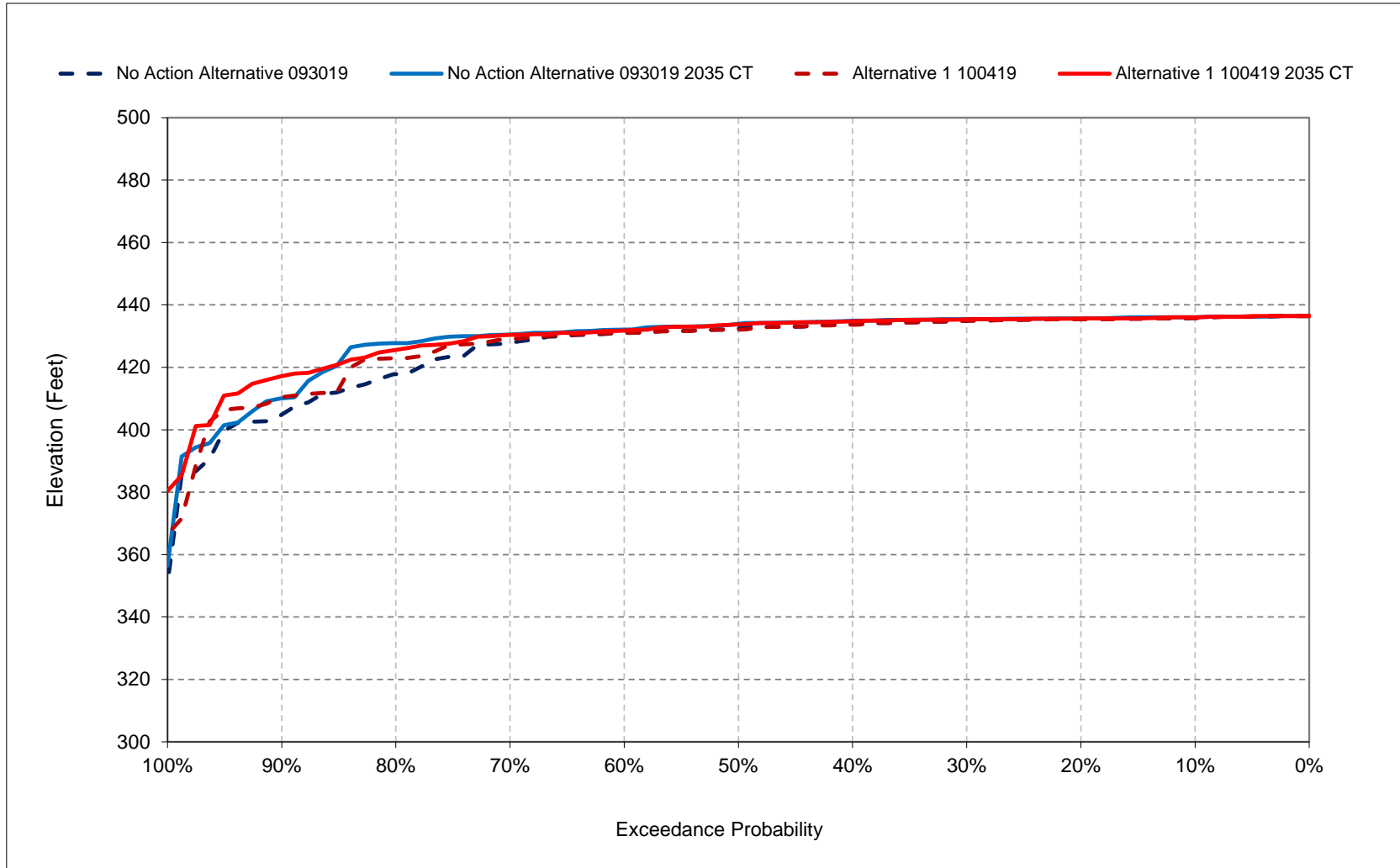
Figure 5a-11. Folsom Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

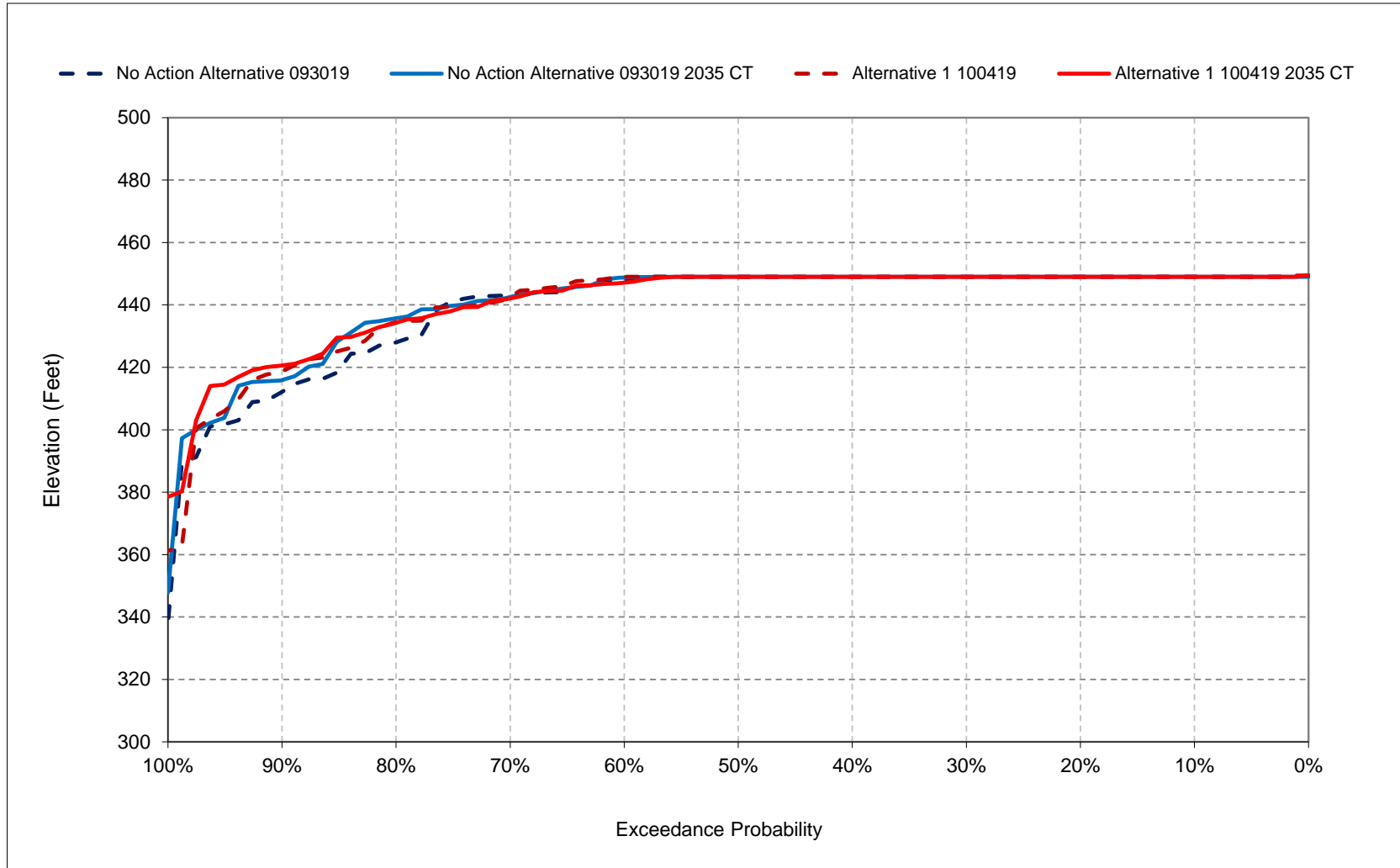
Figure 5a-12. Folsom Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

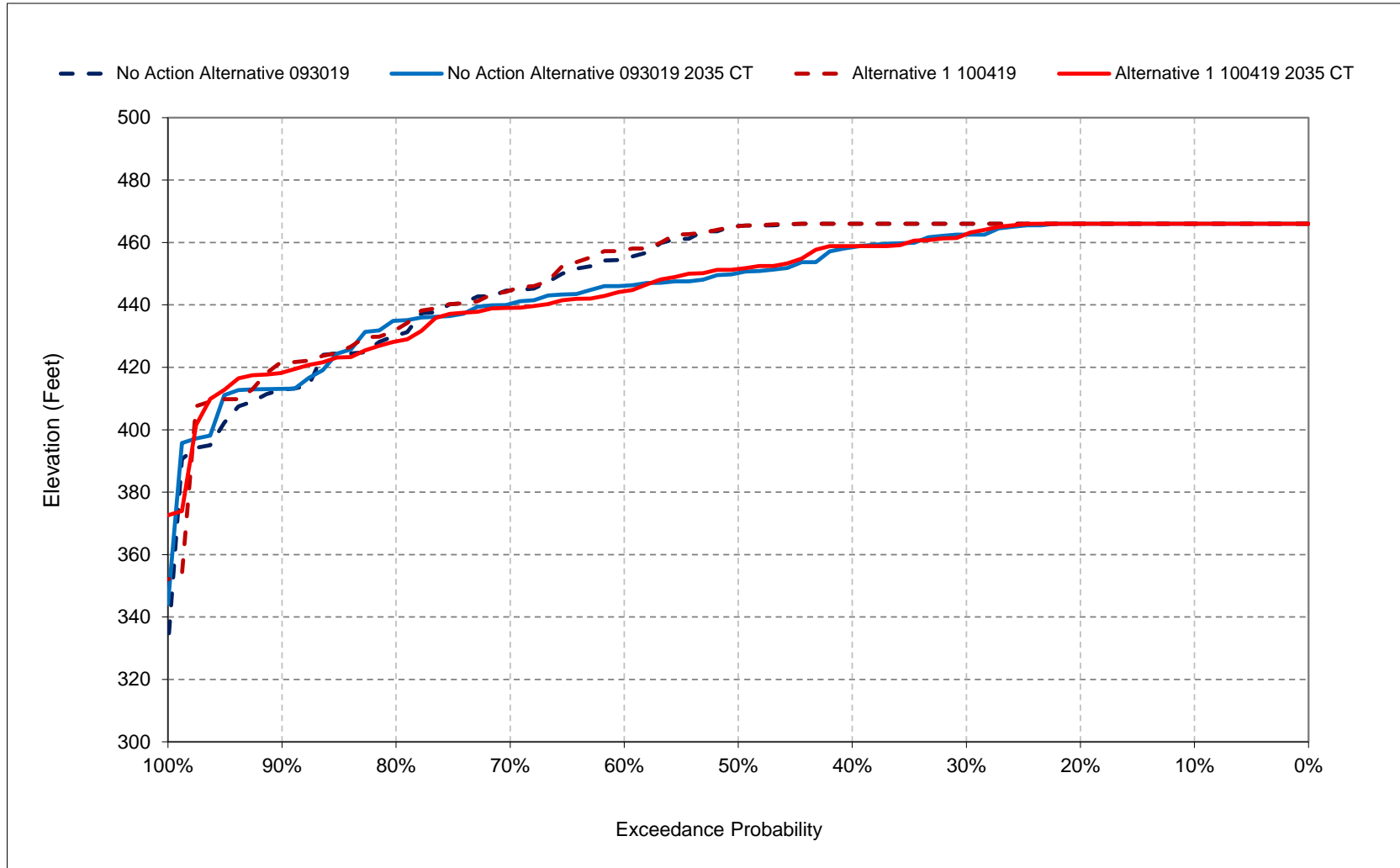
Figure 5a-13. Folsom Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

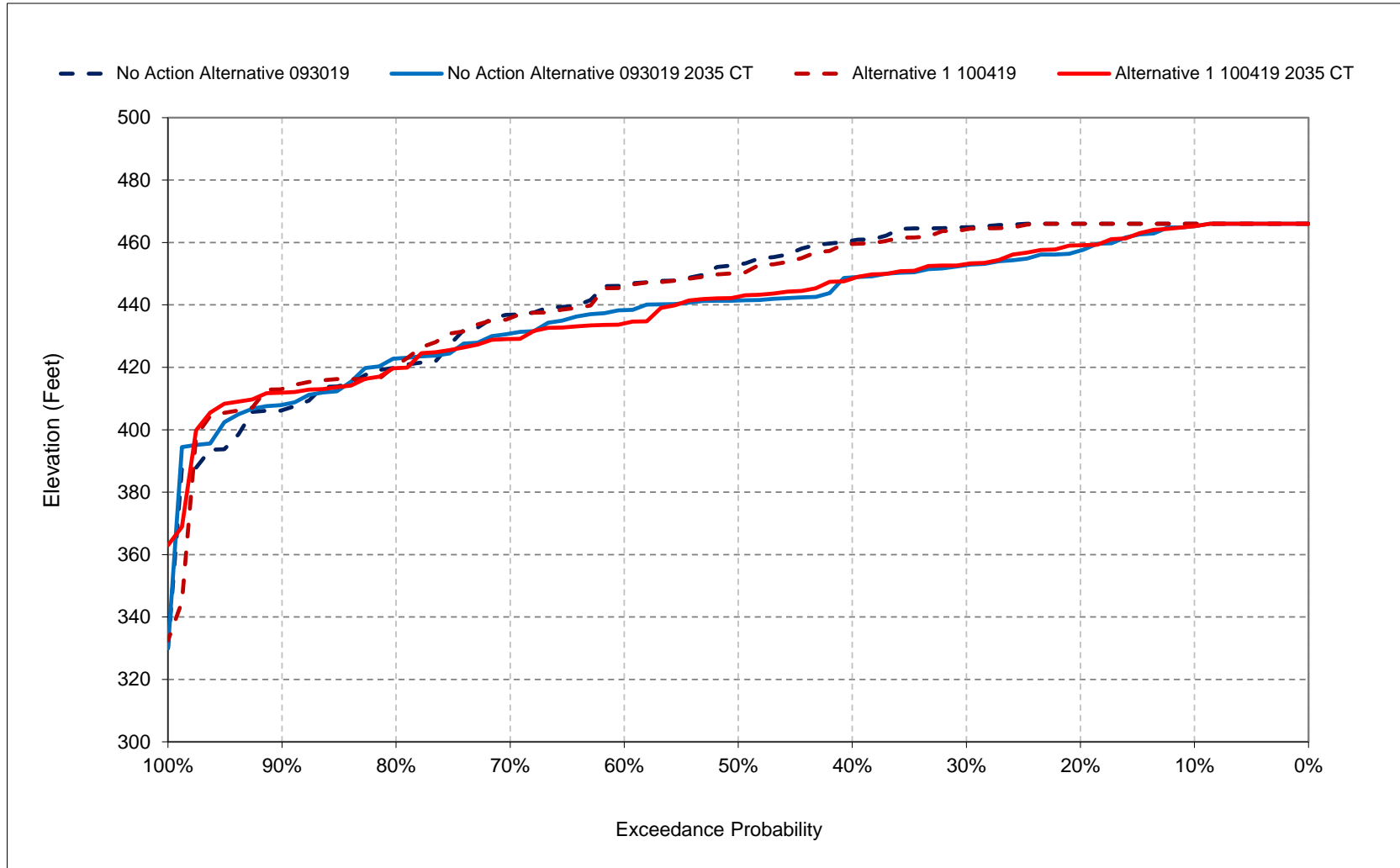
Figure 5a-14. Folsom Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

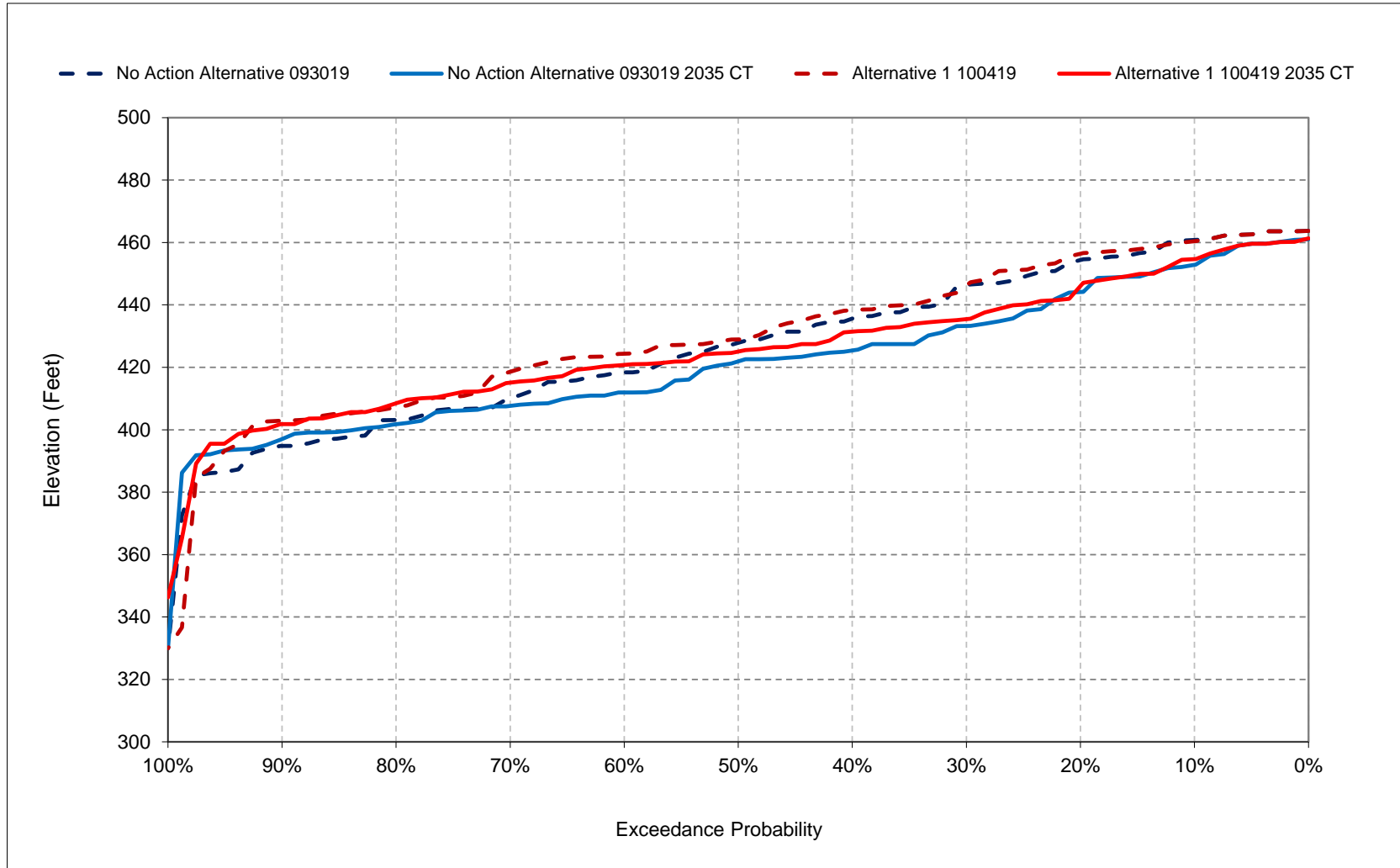
Figure 5a-15. Folsom Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

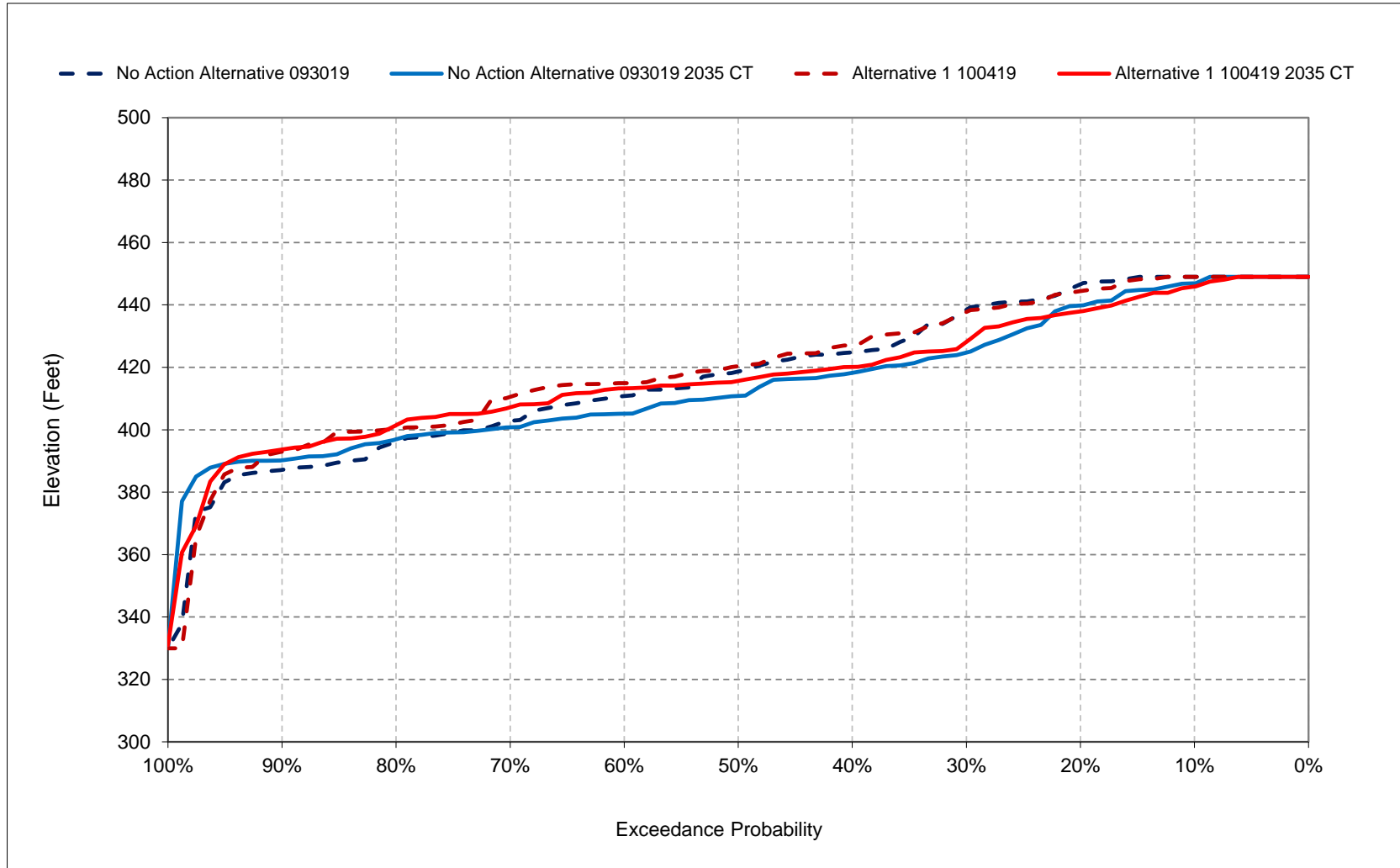
Figure 5a-16. Folsom Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

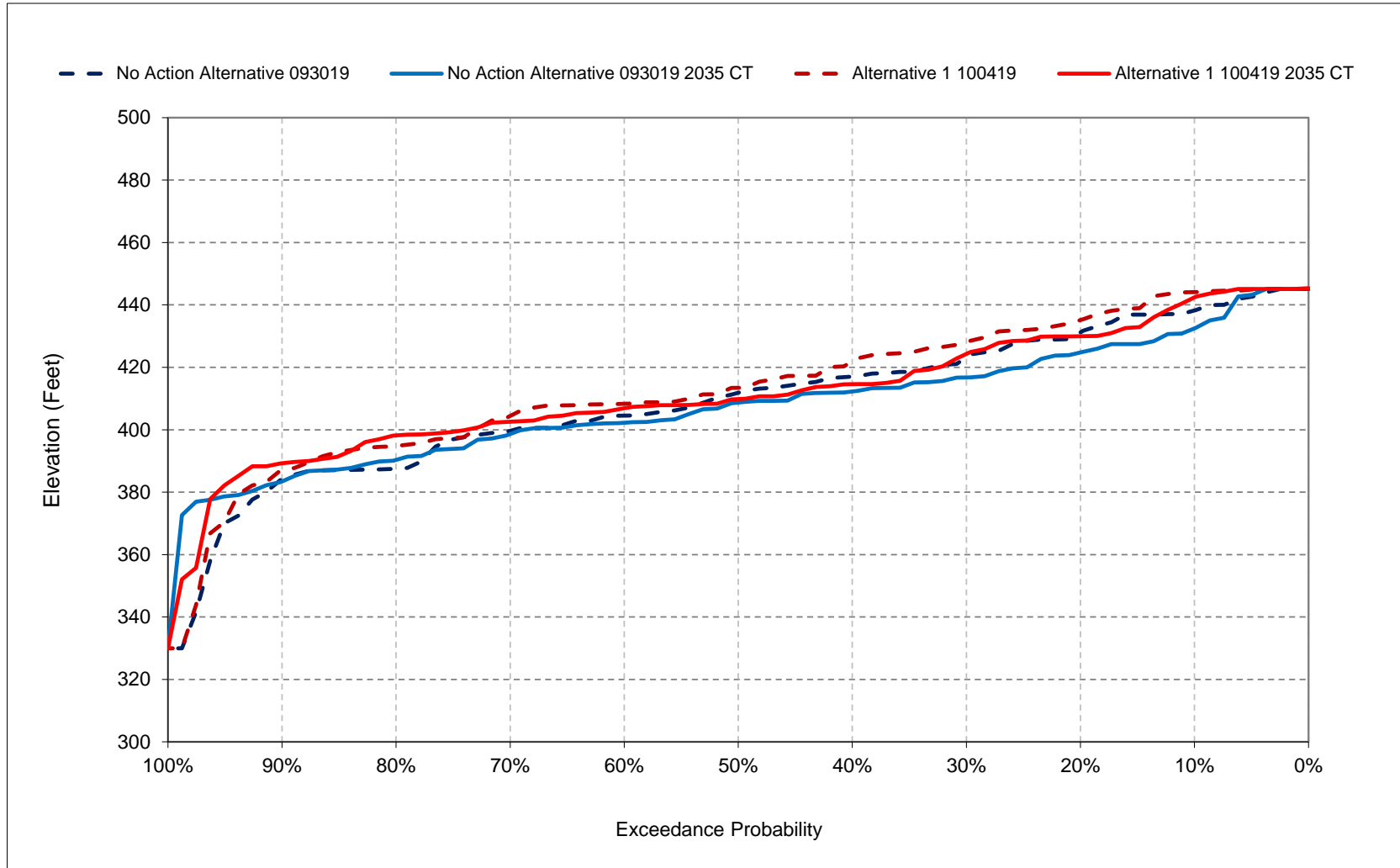
Figure 5a-17. Folsom Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5a-18. Folsom Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-1. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	686	889	1,129	1,532	1,935	2,039	1,838	1,443	1,223	911	672	687
20%	528	689	1,029	1,311	1,572	1,960	1,751	1,346	951	717	522	588
30%	473	599	910	1,221	1,492	1,773	1,583	1,241	853	602	467	505
40%	440	540	835	1,137	1,398	1,677	1,490	1,145	772	529	362	446
50%	382	480	734	1,014	1,332	1,527	1,371	1,071	714	443	313	377
60%	321	436	694	933	1,196	1,384	1,273	1,002	628	408	256	313
70%	270	422	599	870	1,066	1,314	1,182	919	582	380	201	236
80%	211	346	515	813	970	1,223	1,105	814	509	304	167	197
90%	170	275	423	716	914	1,054	936	737	390	233	129	150
Long Term												
Full Simulation Period ^d	419	542	781	1,073	1,319	1,533	1,397	1,102	768	544	380	424
Water Year Types ^{b,c}												
Wet (32%)	578	619	892	1,202	1,517	1,808	1,623	1,276	954	709	587	649
Above Normal (16%)	440	555	845	1,097	1,369	1,608	1,402	1,019	634	394	356	465
Below Normal (13%)	360	493	683	980	1,180	1,394	1,242	917	528	415	289	322
Dry (24%)	299	520	763	1,029	1,226	1,421	1,355	1,114	780	558	267	274
Critical (15%)	303	442	592	930	1,118	1,167	1,114	961	712	441	233	239

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	815	993	1,331	1,723	1,990	2,039	2,039	2,000	1,655	1,209	956	859
20%	573	773	1,003	1,276	1,614	1,952	2,013	1,814	1,411	1,061	785	610
30%	478	663	865	1,177	1,447	1,612	1,766	1,731	1,296	921	698	454
40%	336	561	794	1,081	1,374	1,517	1,609	1,449	1,139	813	557	361
50%	290	494	707	1,001	1,266	1,444	1,481	1,273	972	701	476	325
60%	233	417	652	942	1,206	1,344	1,380	1,211	891	595	433	238
70%	202	367	584	880	1,140	1,283	1,292	1,142	799	546	285	210
80%	160	348	521	813	1,055	1,202	1,171	1,030	751	458	231	147
90%	100	302	439	740	969	1,123	1,115	926	638	411	186	102
Long Term												
Full Simulation Period ^d	399	589	801	1,087	1,346	1,502	1,544	1,406	1,076	779	544	404
Water Year Types ^{b,c}												
Wet (32%)	519	737	976	1,204	1,495	1,710	1,808	1,701	1,357	1,052	849	573
Above Normal (16%)	150	371	614	1,123	1,357	1,471	1,536	1,379	969	634	466	188
Below Normal (13%)	451	587	721	1,080	1,319	1,422	1,414	1,203	826	606	446	435
Dry (24%)	409	610	846	1,009	1,262	1,425	1,438	1,303	1,027	747	396	381
Critical (15%)	341	470	621	930	1,178	1,289	1,277	1,155	896	557	301	284

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	129	104	202	191	54	0	201	556	432	298	283	172
20%	45	83	-26	-36	43	-7	262	468	460	344	264	22
30%	5	64	-44	-44	-45	-161	183	490	443	319	230	-51
40%	-104	21	-41	-56	-23	-160	120	304	367	284	196	-85
50%	-92	14	-27	-14	-66	-83	111	202	258	257	164	-52
60%	-88	-19	-42	9	10	-40	107	209	263	186	177	-75
70%	-68	-54	-15	10	74	-31	109	223	217	166	84	-26
80%	-51	2	7	0	85	-21	66	216	242	154	64	-50
90%	-70	27	16	24	55	69	178	189	247	178	57	-48
Long Term												
Full Simulation Period ^d	-20	47	20	14	27	-30	147	304	308	235	163	-20
Water Year Types ^{b,c}												
Wet (32%)	-59	119	84	3	-22	-98	185	425	403	343	262	-76
Above Normal (16%)	-290	-185	-231	26	-12	-138	134	359	335	240	110	-277
Below Normal (13%)	90	94	38	100	139	29	172	286	299	191	157	113
Dry (24%)	110	90	84	-20	36	4	83	189	247	189	130	107
Critical (15%)	38	28	28	0	60	122	163	193	184	116	69	46

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6-2. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	669	820	1,167	1,546	1,906	2,039	1,858	1,542	1,206	863	657	674
20%	532	652	1,003	1,274	1,647	1,997	1,778	1,378	981	709	550	595
30%	447	583	919	1,184	1,498	1,810	1,629	1,286	882	614	460	539
40%	411	546	798	1,108	1,359	1,711	1,519	1,139	754	558	409	432
50%	344	470	717	1,064	1,293	1,583	1,413	1,058	690	485	335	360
60%	302	422	628	977	1,200	1,413	1,302	993	645	460	260	298
70%	256	375	581	840	1,117	1,268	1,200	953	588	406	202	224
80%	216	333	506	795	975	1,157	1,082	858	558	335	159	186
90%	193	294	437	692	865	1,028	950	725	463	268	142	155
Long Term												
Full Simulation Period ^d	404	526	768	1,067	1,323	1,542	1,415	1,125	784	558	389	416
Water Year Types ^{b,c}												
Wet (32%)	554	588	850	1,212	1,571	1,872	1,712	1,383	1,052	751	601	628
Above Normal (16%)	351	456	732	1,133	1,413	1,659	1,464	1,084	666	408	356	452
Below Normal (13%)	374	522	694	938	1,188	1,394	1,288	973	559	449	302	330
Dry (24%)	324	539	801	1,011	1,174	1,367	1,270	1,017	692	533	282	280
Critical (15%)	298	445	643	893	1,058	1,127	1,078	927	687	444	223	224

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	699	876	1,165	1,502	1,974	2,039	2,039	2,036	1,688	1,207	889	718
20%	557	740	970	1,272	1,636	1,928	2,028	1,902	1,510	1,036	724	601
30%	424	632	850	1,160	1,475	1,703	1,865	1,708	1,283	867	652	451
40%	358	552	805	1,089	1,394	1,593	1,693	1,519	1,119	832	575	367
50%	264	514	706	1,018	1,338	1,457	1,552	1,376	1,006	715	504	302
60%	232	413	638	971	1,242	1,416	1,437	1,254	924	606	421	228
70%	204	347	577	879	1,165	1,320	1,320	1,157	861	538	276	203
80%	165	317	496	805	1,082	1,255	1,233	1,060	761	484	223	160
90%	100	284	425	686	971	1,127	1,085	933	648	418	182	100
Long Term												
Full Simulation Period ^d	375	562	775	1,079	1,359	1,530	1,573	1,437	1,104	772	523	381
Water Year Types ^{b,c}												
Wet (32%)	444	655	890	1,208	1,548	1,774	1,862	1,767	1,429	1,032	791	497
Above Normal (16%)	188	399	623	1,158	1,407	1,530	1,606	1,451	1,026	647	478	252
Below Normal (13%)	441	597	739	930	1,216	1,358	1,380	1,191	829	611	431	410
Dry (24%)	390	575	822	1,033	1,276	1,444	1,451	1,298	999	719	387	357
Critical (15%)	342	482	647	929	1,168	1,305	1,291	1,166	915	578	304	284

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	31	56	-2	-43	68	0	181	495	481	344	231	44
20%	26	87	-33	-2	-11	-70	250	524	529	327	174	6
30%	-22	49	-69	-24	-22	-107	236	422	401	253	192	-87
40%	-52	6	8	-19	35	-117	174	380	365	274	166	-65
50%	-80	43	-11	-47	45	-127	139	318	316	230	170	-58
60%	-70	-9	10	-5	42	3	135	261	278	146	161	-69
70%	-52	-28	-4	39	48	53	120	204	273	132	74	-21
80%	-51	-16	-10	10	106	98	152	202	204	150	64	-26
90%	-93	-9	-13	-6	106	99	135	208	185	150	41	-55
Long Term												
Full Simulation Period ^d	-29	37	7	12	37	-12	158	312	321	214	134	-35
Water Year Types ^{b,c}												
Wet (32%)	-110	67	40	-3	-23	-99	150	383	377	281	190	-131
Above Normal (16%)	-162	-57	-109	25	-6	-129	142	367	360	239	122	-200
Below Normal (13%)	67	75	45	-8	29	-37	92	217	269	162	129	80
Dry (24%)	66	36	20	22	101	77	182	281	307	186	104	76
Critical (15%)	44	37	4	36	111	178	214	240	228	133	80	60

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-3. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	686	889	1,129	1,532	1,935	2,039	1,838	1,443	1,223	911	672	687
20%	528	689	1,029	1,311	1,572	1,960	1,751	1,346	951	717	522	588
30%	473	599	910	1,221	1,492	1,773	1,583	1,241	853	602	467	505
40%	440	540	835	1,137	1,398	1,677	1,490	1,145	772	529	362	446
50%	382	480	734	1,014	1,332	1,527	1,371	1,071	714	443	313	377
60%	321	436	694	933	1,196	1,384	1,273	1,002	628	408	256	313
70%	270	422	599	870	1,066	1,314	1,182	919	582	380	201	236
80%	211	346	515	813	970	1,223	1,105	814	509	304	167	197
90%	170	275	423	716	914	1,054	936	737	390	233	129	150
Long Term												
Full Simulation Period ^d	419	542	781	1,073	1,319	1,533	1,397	1,102	768	544	380	424
Water Year Types ^{b,c}												
Wet (32%)	578	619	892	1,202	1,517	1,808	1,623	1,276	954	709	587	649
Above Normal (16%)	440	555	845	1,097	1,369	1,608	1,402	1,019	634	394	356	465
Below Normal (13%)	360	493	683	980	1,180	1,394	1,242	917	528	415	289	322
Dry (24%)	299	520	763	1,029	1,226	1,421	1,355	1,114	780	558	267	274
Critical (15%)	303	442	592	930	1,118	1,167	1,114	961	712	441	233	239

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	669	820	1,167	1,546	1,906	2,039	1,858	1,542	1,206	863	657	674
20%	532	652	1,003	1,274	1,647	1,997	1,778	1,378	981	709	550	595
30%	447	583	919	1,184	1,498	1,810	1,629	1,286	882	614	460	539
40%	411	546	798	1,108	1,359	1,711	1,519	1,139	754	558	409	432
50%	344	470	717	1,064	1,293	1,583	1,413	1,058	690	485	335	360
60%	302	422	628	977	1,200	1,413	1,302	993	645	460	260	298
70%	256	375	581	840	1,117	1,268	1,200	953	588	406	202	224
80%	216	333	506	795	975	1,157	1,082	858	558	335	159	186
90%	193	294	437	692	865	1,028	950	725	463	268	142	155
Long Term												
Full Simulation Period ^d	404	526	768	1,067	1,323	1,542	1,415	1,125	784	558	389	416
Water Year Types ^{b,c}												
Wet (32%)	554	588	850	1,212	1,571	1,872	1,712	1,383	1,052	751	601	628
Above Normal (16%)	351	456	732	1,133	1,413	1,659	1,464	1,084	666	408	356	452
Below Normal (13%)	374	522	694	938	1,188	1,394	1,288	973	559	449	302	330
Dry (24%)	324	539	801	1,011	1,174	1,367	1,270	1,017	692	533	282	280
Critical (15%)	298	445	643	893	1,058	1,127	1,078	927	687	444	223	224

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-17	-69	39	14	-29	0	20	98	-17	-47	-15	-12
20%	4	-37	-26	-38	75	37	27	32	30	-8	28	7
30%	-26	-16	9	-37	6	37	46	45	29	12	-7	34
40%	-29	6	-37	-29	-39	34	29	-7	-18	29	47	-14
50%	-38	-10	-17	50	-39	56	42	-13	-24	42	22	-17
60%	-18	-14	-66	43	4	29	29	-9	17	51	3	-16
70%	-14	-47	-18	-30	51	-47	18	34	6	26	1	-12
80%	5	-13	-9	-18	6	-66	-24	45	49	31	-8	-11
90%	23	19	14	-24	-49	-26	14	-12	73	35	13	5
Long Term												
Full Simulation Period ^d	-15	-16	-13	-7	4	9	18	23	15	14	9	-8
Water Year Types ^{b,c}												
Wet (32%)	-24	-30	-42	10	54	64	88	107	99	42	14	-21
Above Normal (16%)	-89	-99	-113	36	45	50	62	65	32	14	0	-13
Below Normal (13%)	14	29	11	-42	8	1	46	56	32	34	13	8
Dry (24%)	25	19	39	-18	-52	-54	-85	-97	-88	-25	16	7
Critical (15%)	-5	3	51	-37	-60	-40	-36	-35	-25	4	-9	-15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-4. San Luis Storage (CVP and SWP), End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	815	993	1,331	1,723	1,990	2,039	2,039	2,000	1,655	1,209	956	859
20%	573	773	1,003	1,276	1,614	1,952	2,013	1,814	1,411	1,061	785	610
30%	478	663	865	1,177	1,447	1,612	1,766	1,731	1,296	921	698	454
40%	336	561	794	1,081	1,374	1,517	1,609	1,449	1,139	813	557	361
50%	290	494	707	1,001	1,266	1,444	1,481	1,273	972	701	476	325
60%	233	417	652	942	1,206	1,344	1,380	1,211	891	595	433	238
70%	202	367	584	880	1,140	1,283	1,292	1,142	799	546	285	210
80%	160	348	521	813	1,055	1,202	1,171	1,030	751	458	231	147
90%	100	302	439	740	969	1,123	1,115	926	638	411	186	102
Long Term												
Full Simulation Period ^d	399	589	801	1,087	1,346	1,502	1,544	1,406	1,076	779	544	404
Water Year Types ^{b,c}												
Wet (32%)	519	737	976	1,204	1,495	1,710	1,808	1,701	1,357	1,052	849	573
Above Normal (16%)	150	371	614	1,123	1,357	1,471	1,536	1,379	969	634	466	188
Below Normal (13%)	451	587	721	1,080	1,319	1,422	1,414	1,203	826	606	446	435
Dry (24%)	409	610	846	1,009	1,262	1,425	1,438	1,303	1,027	747	396	381
Critical (15%)	341	470	621	930	1,178	1,289	1,277	1,155	896	557	301	284

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	699	876	1,165	1,502	1,974	2,039	2,039	2,036	1,688	1,207	889	718
20%	557	740	970	1,272	1,636	1,928	2,028	1,902	1,510	1,036	724	601
30%	424	632	850	1,160	1,475	1,703	1,865	1,708	1,283	867	652	451
40%	358	552	805	1,089	1,394	1,593	1,693	1,519	1,119	832	575	367
50%	264	514	706	1,018	1,338	1,457	1,552	1,376	1,006	715	504	302
60%	232	413	638	971	1,242	1,416	1,437	1,254	924	606	421	228
70%	204	347	577	879	1,165	1,320	1,320	1,157	861	538	276	203
80%	165	317	496	805	1,082	1,255	1,233	1,060	761	484	223	160
90%	100	284	425	686	971	1,127	1,085	933	648	418	182	100
Long Term												
Full Simulation Period ^d	375	562	775	1,079	1,359	1,530	1,573	1,437	1,104	772	523	381
Water Year Types ^{b,c}												
Wet (32%)	444	655	890	1,208	1,548	1,774	1,862	1,767	1,429	1,032	791	497
Above Normal (16%)	188	399	623	1,158	1,407	1,530	1,606	1,451	1,026	647	478	252
Below Normal (13%)	441	597	739	930	1,216	1,358	1,380	1,191	829	611	431	410
Dry (24%)	390	575	822	1,033	1,276	1,444	1,451	1,298	999	719	387	357
Critical (15%)	342	482	647	929	1,168	1,305	1,291	1,166	915	578	304	284

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-115	-117	-165	-220	-15	0	0	37	33	-2	-67	-141
20%	-16	-33	-33	-4	22	-25	15	88	99	-25	-62	-9
30%	-53	-31	-16	-17	28	91	99	-23	-13	-53	-46	-3
40%	23	-9	11	8	20	77	84	70	-20	19	18	6
50%	-26	20	-1	17	72	13	71	102	34	15	28	-22
60%	-1	-4	-14	29	36	72	57	43	33	11	-12	-10
70%	2	-21	-7	-1	25	37	28	15	62	-8	-10	-7
80%	5	-32	-25	-8	27	52	62	30	11	26	-8	13
90%	0	-17	-15	-54	2	4	-30	7	10	7	-3	-2
Long Term												
Full Simulation Period ^d	-24	-27	-25	-8	13	28	29	31	28	-7	-20	-23
Water Year Types ^{b,c}												
Wet (32%)	-75	-82	-86	4	53	63	53	66	73	-20	-57	-76
Above Normal (16%)	38	29	10	35	50	59	69	72	57	13	13	64
Below Normal (13%)	-10	10	18	-150	-103	-65	-34	-12	2	5	-15	-26
Dry (24%)	-19	-35	-25	23	14	19	14	-5	-29	-27	-10	-24
Critical (15%)	2	13	27	-1	-9	16	15	12	18	21	2	-1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

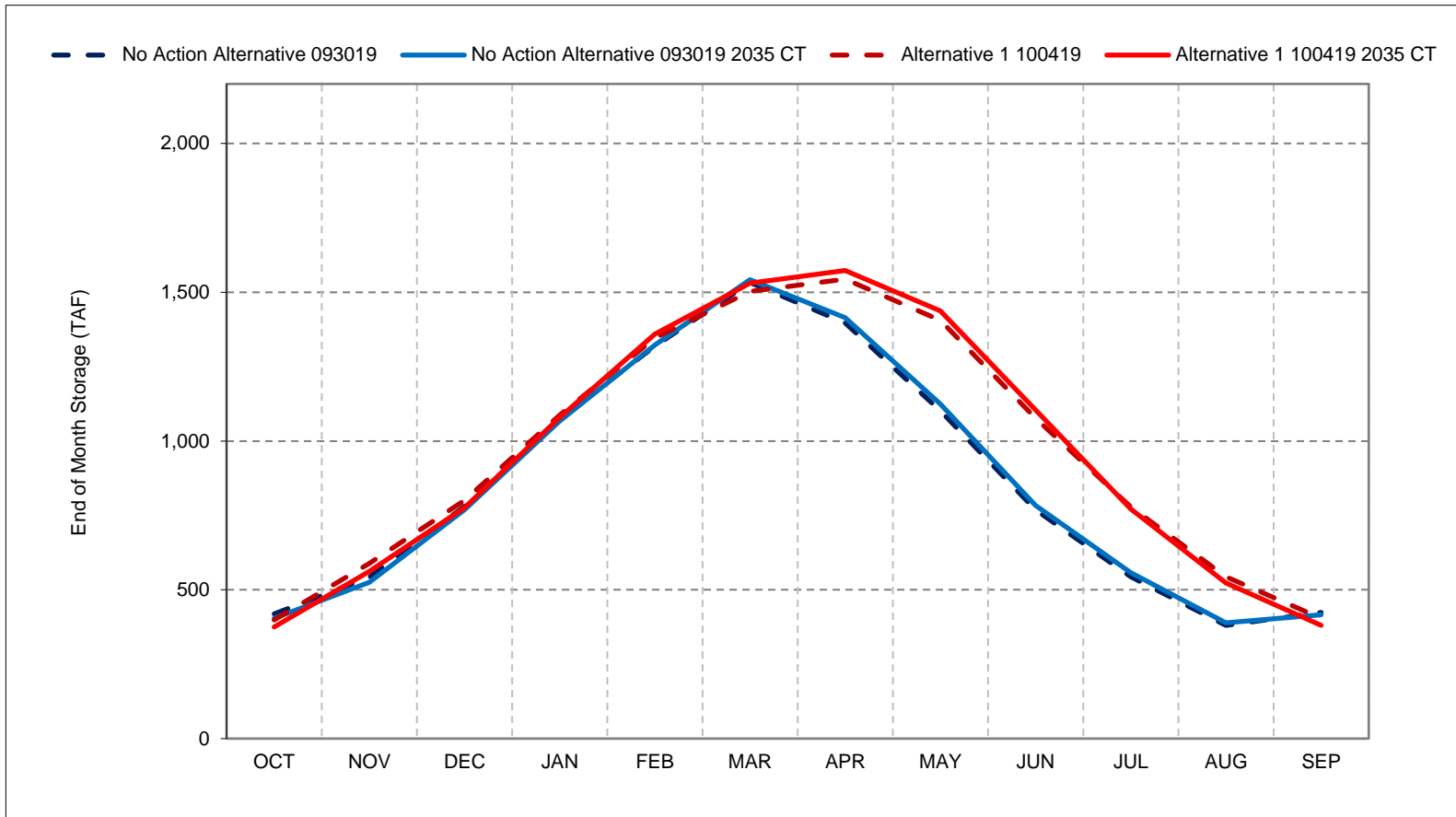
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6-1. San Luis Storage (CVP and SWP), Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

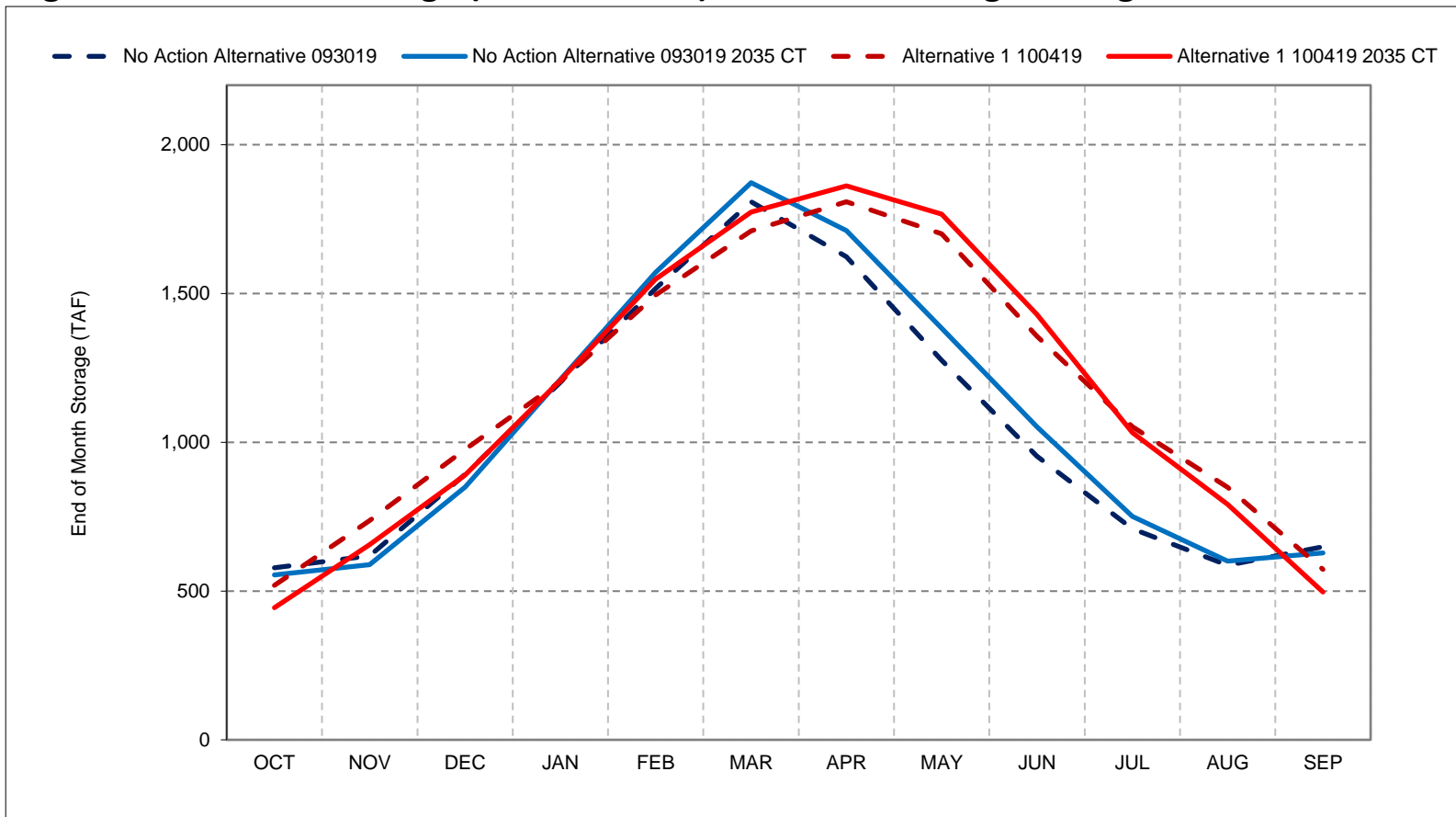
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-2. San Luis Storage (CVP and SWP), Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

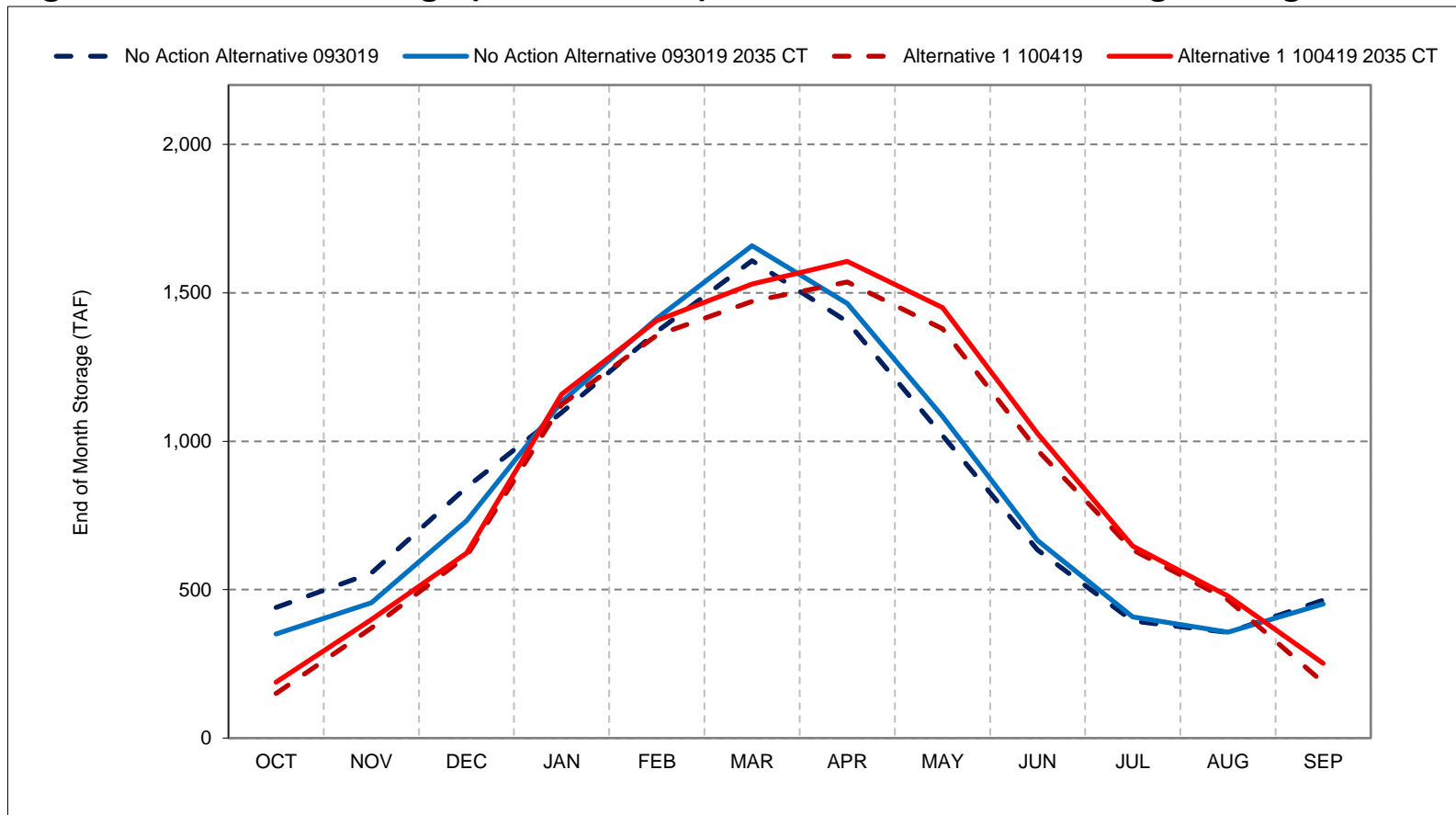
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-3. San Luis Storage (CVP and SWP), Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

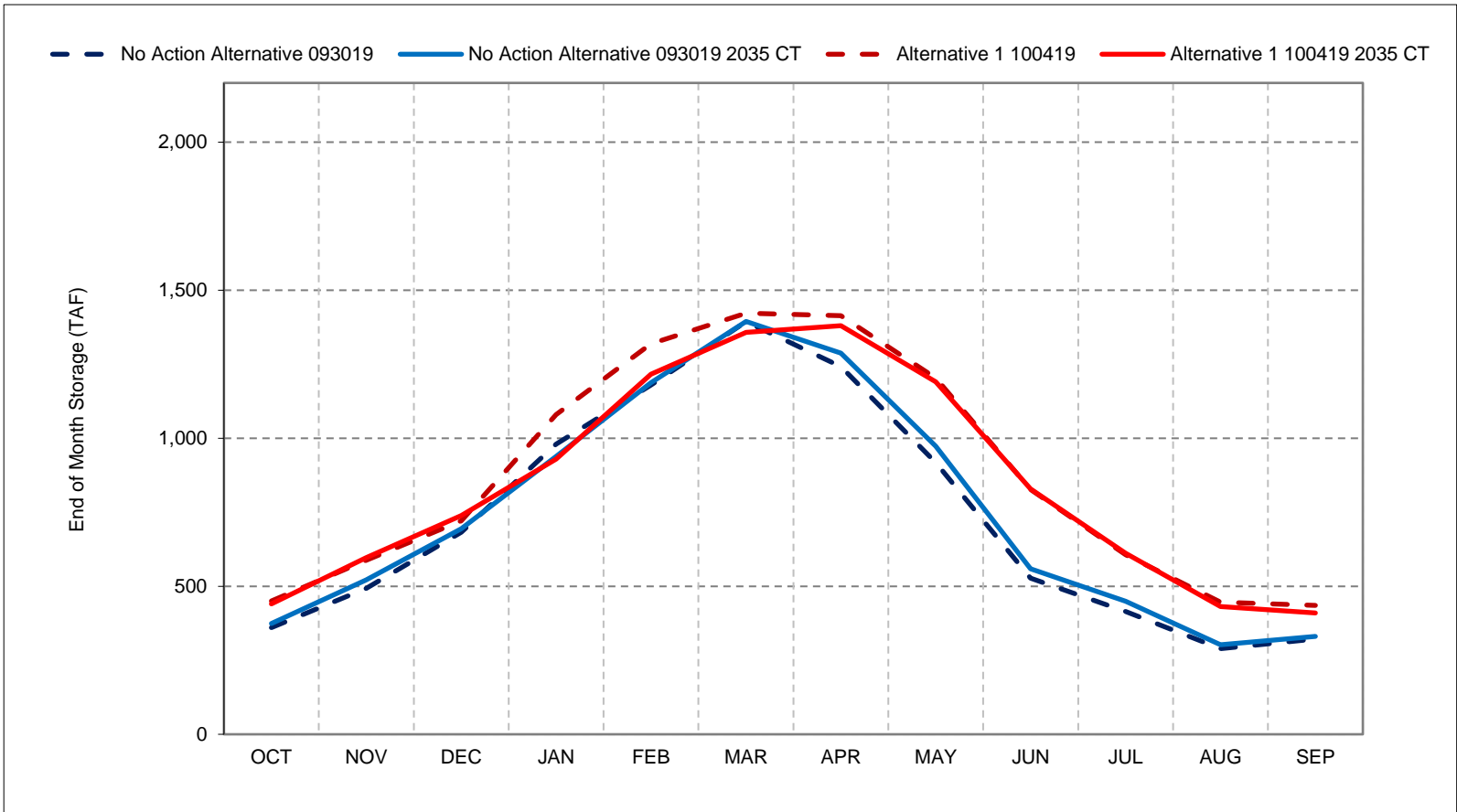
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-4. San Luis Storage (CVP and SWP), Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

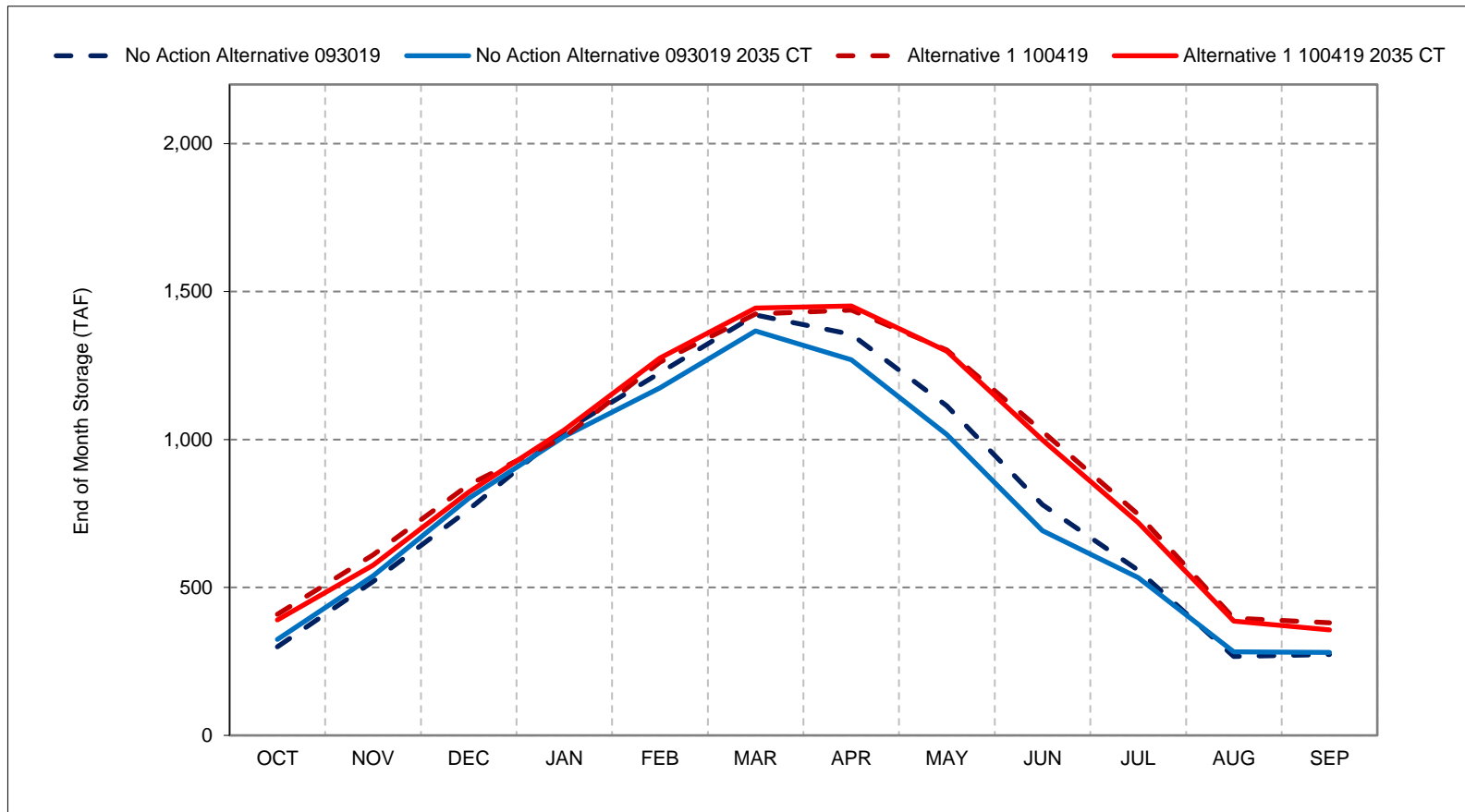
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-5. San Luis Storage (CVP and SWP), Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

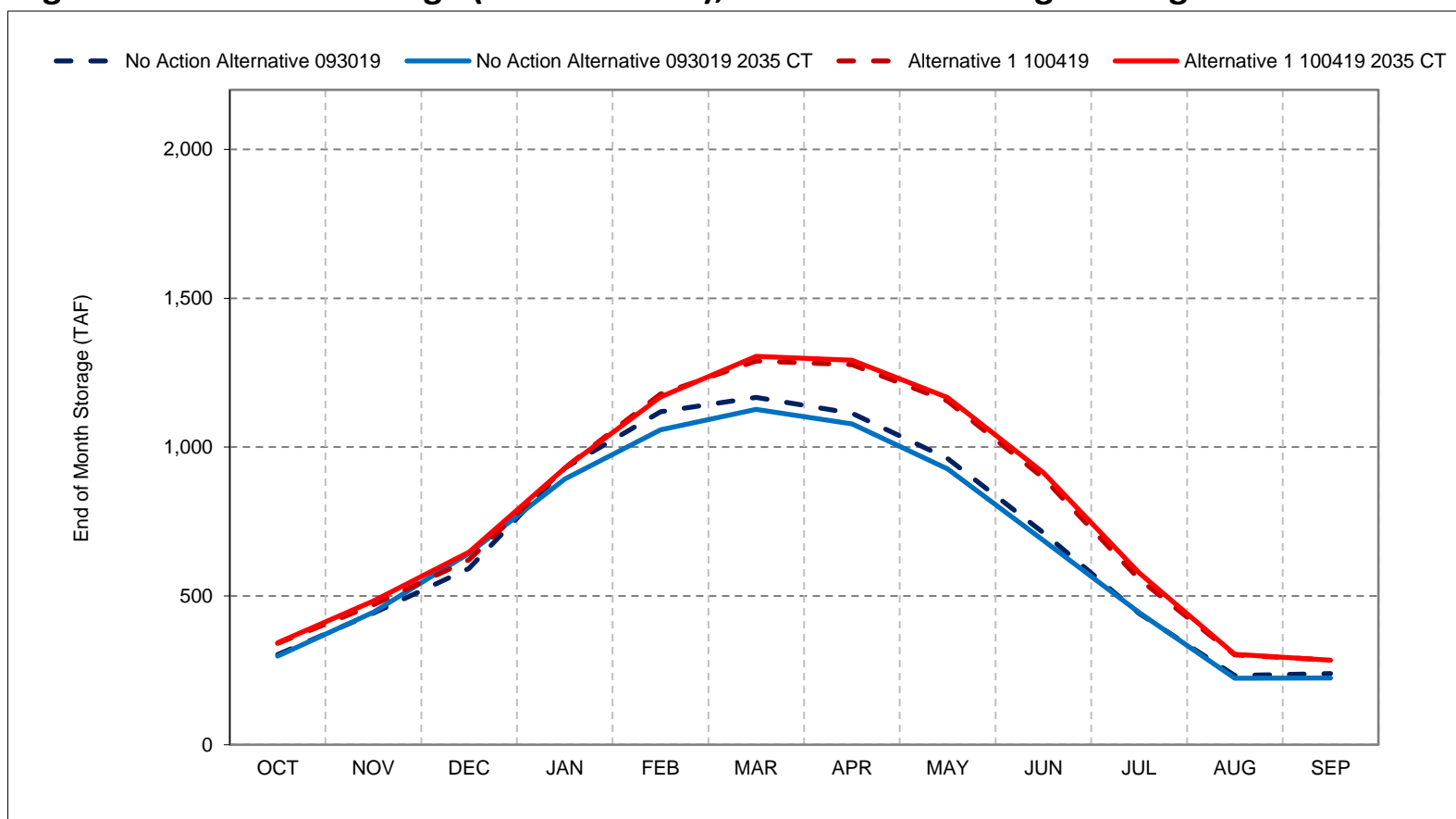
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-6. San Luis Storage (CVP and SWP), Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

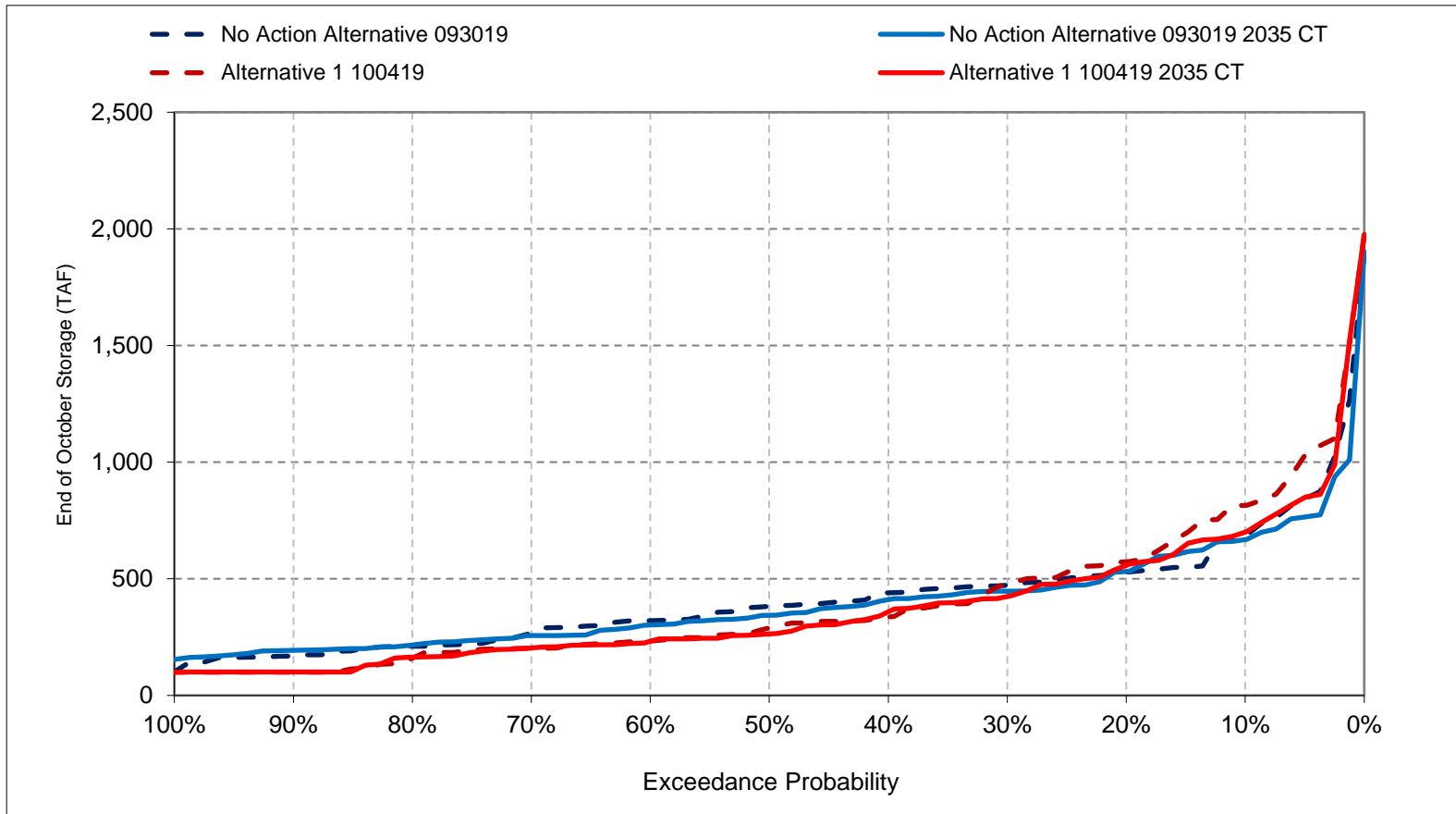
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

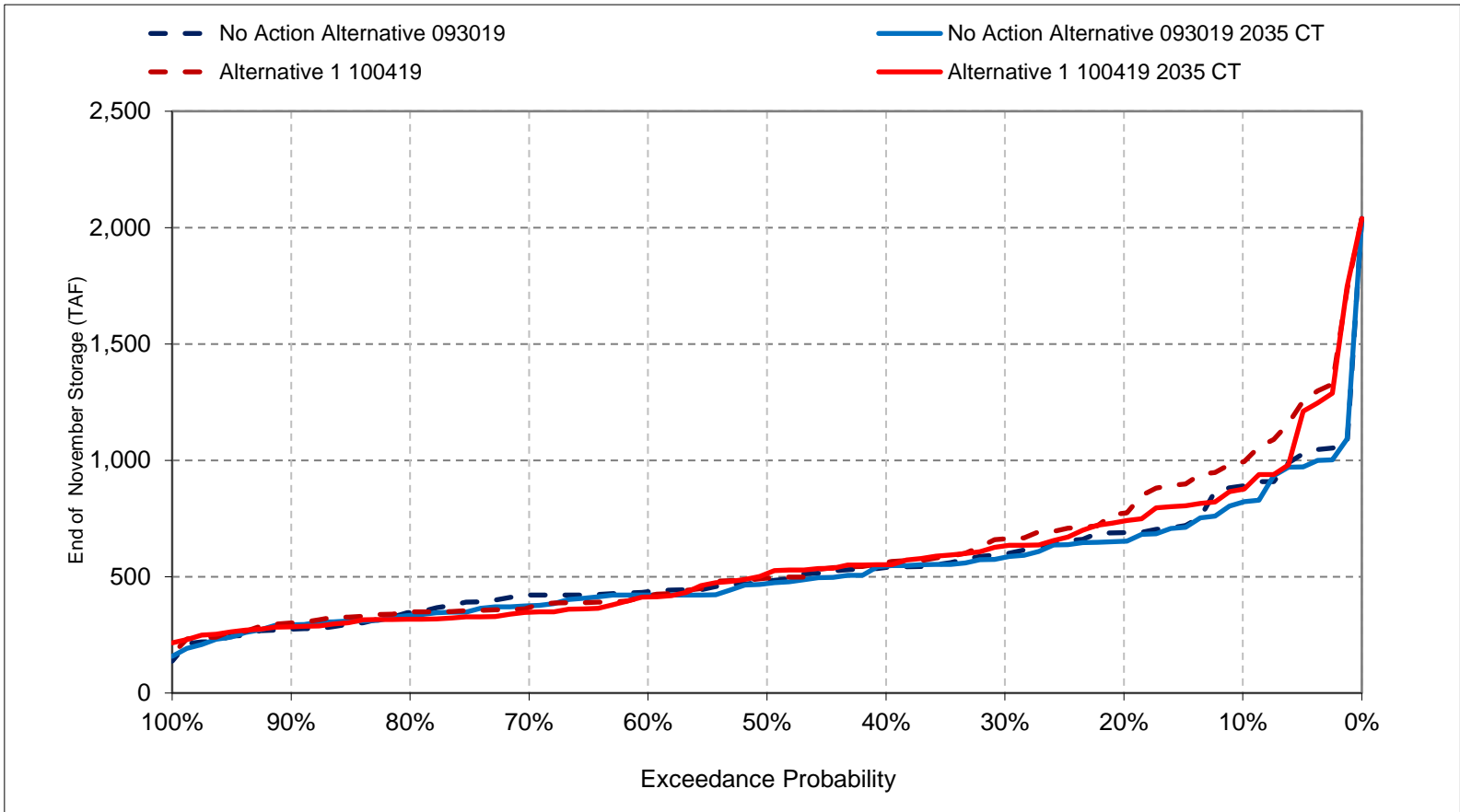
Figure 6-7. San Luis Storage (CVP and SWP), End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

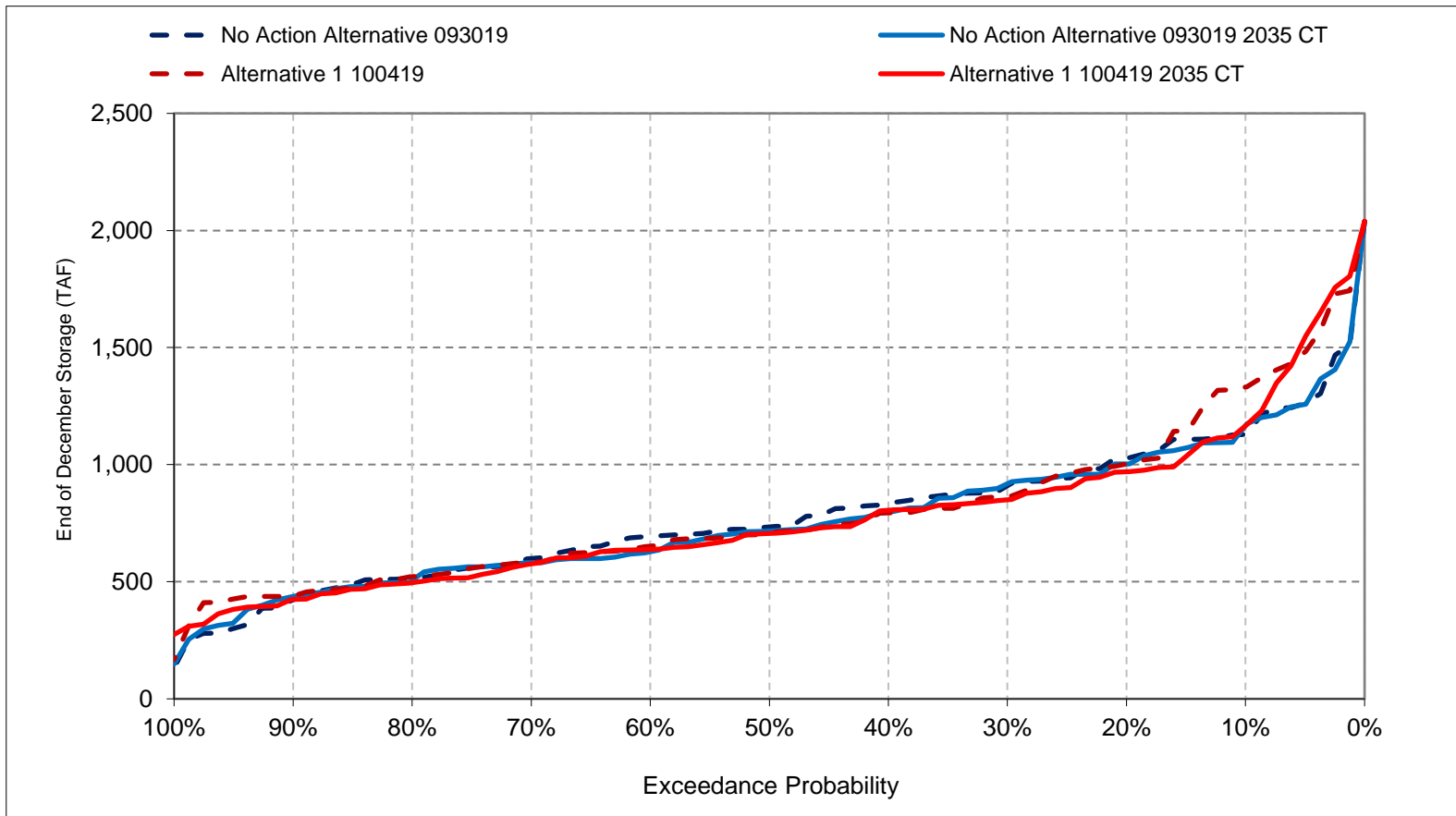
Figure 6-8. San Luis Storage (CVP and SWP), End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

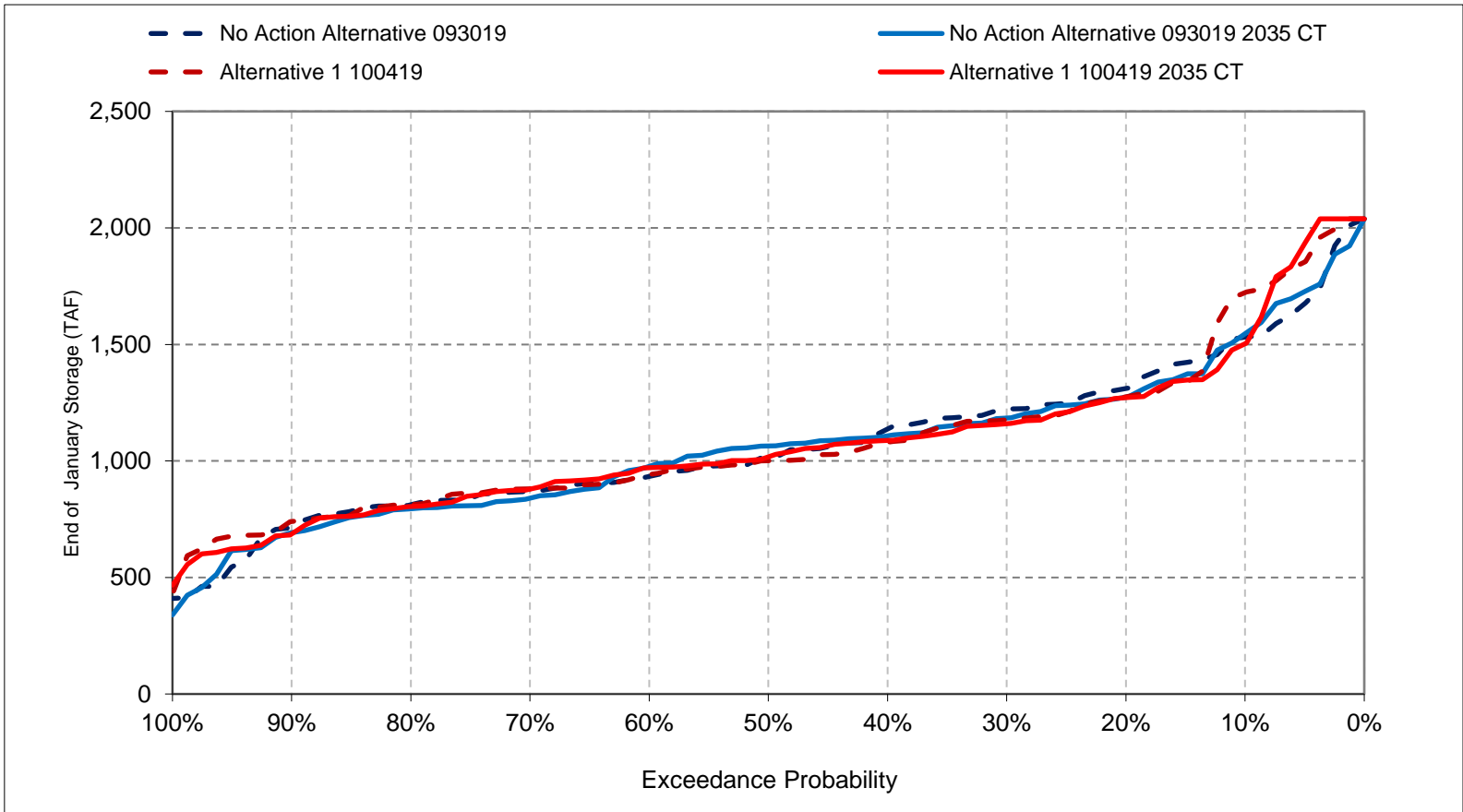
Figure 6-9. San Luis Storage (CVP and SWP), End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

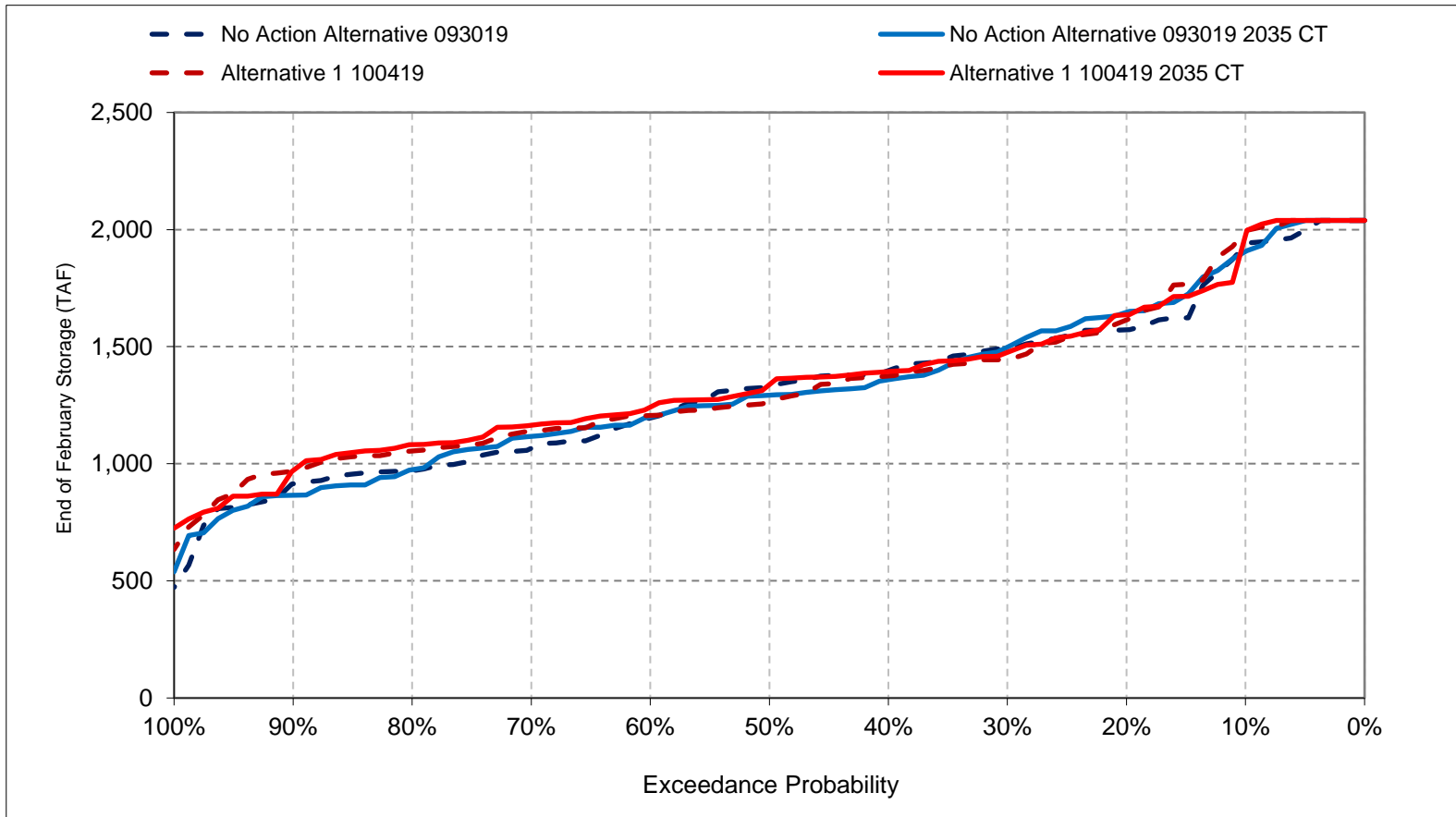
Figure 6-10. San Luis Storage (CVP and SWP), End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

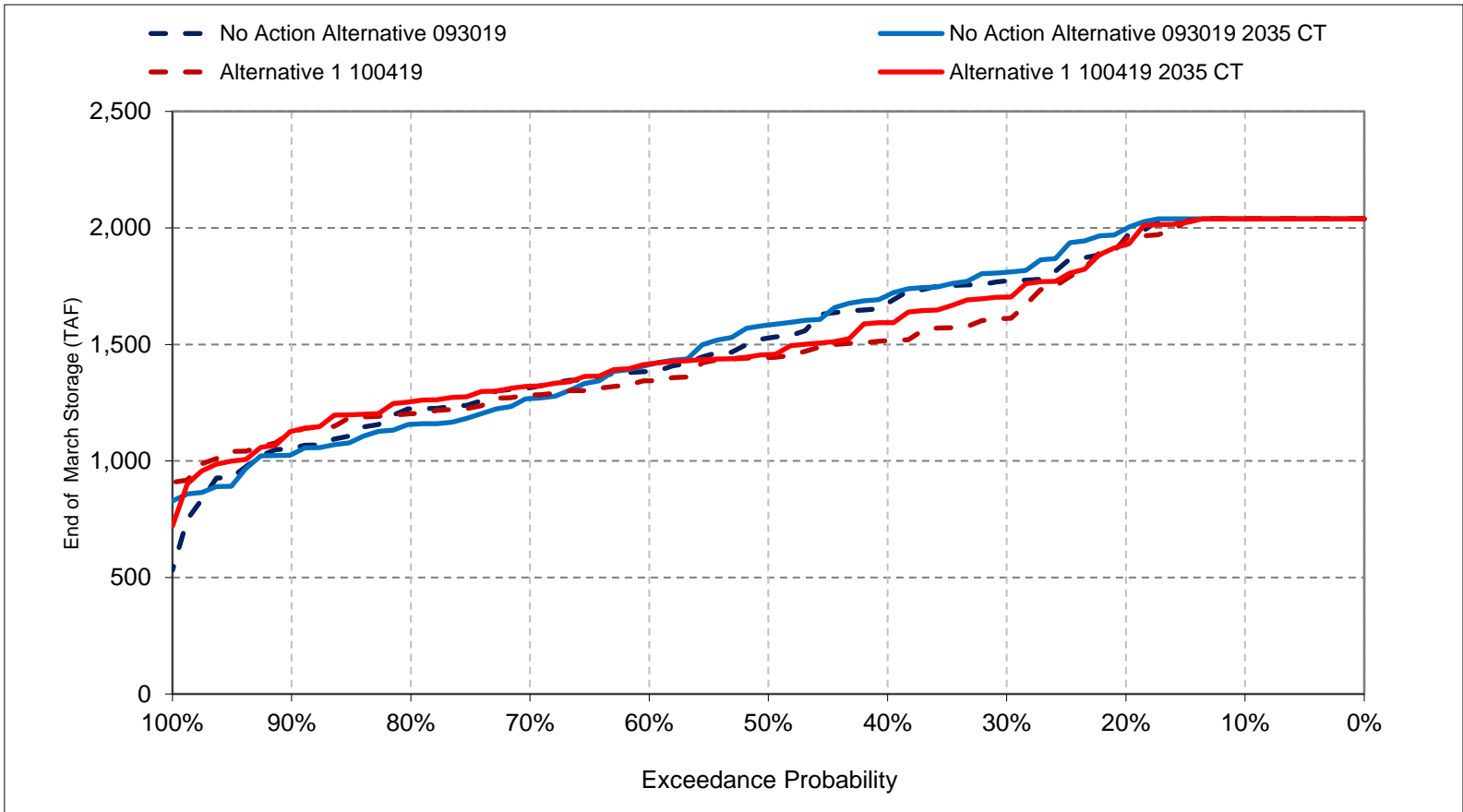
Figure 6-11. San Luis Storage (CVP and SWP), End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

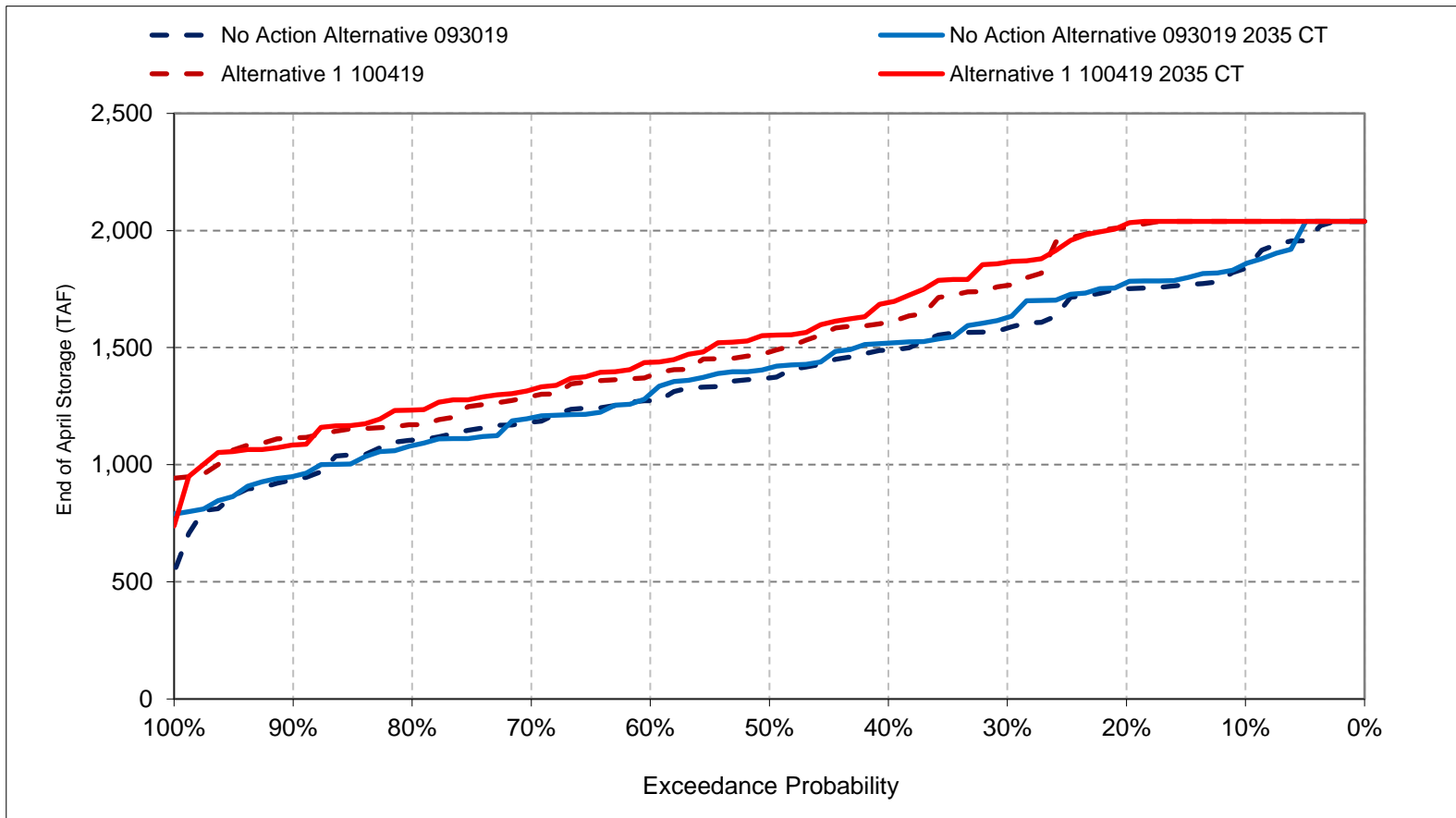
Figure 6-12. San Luis Storage (CVP and SWP), End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

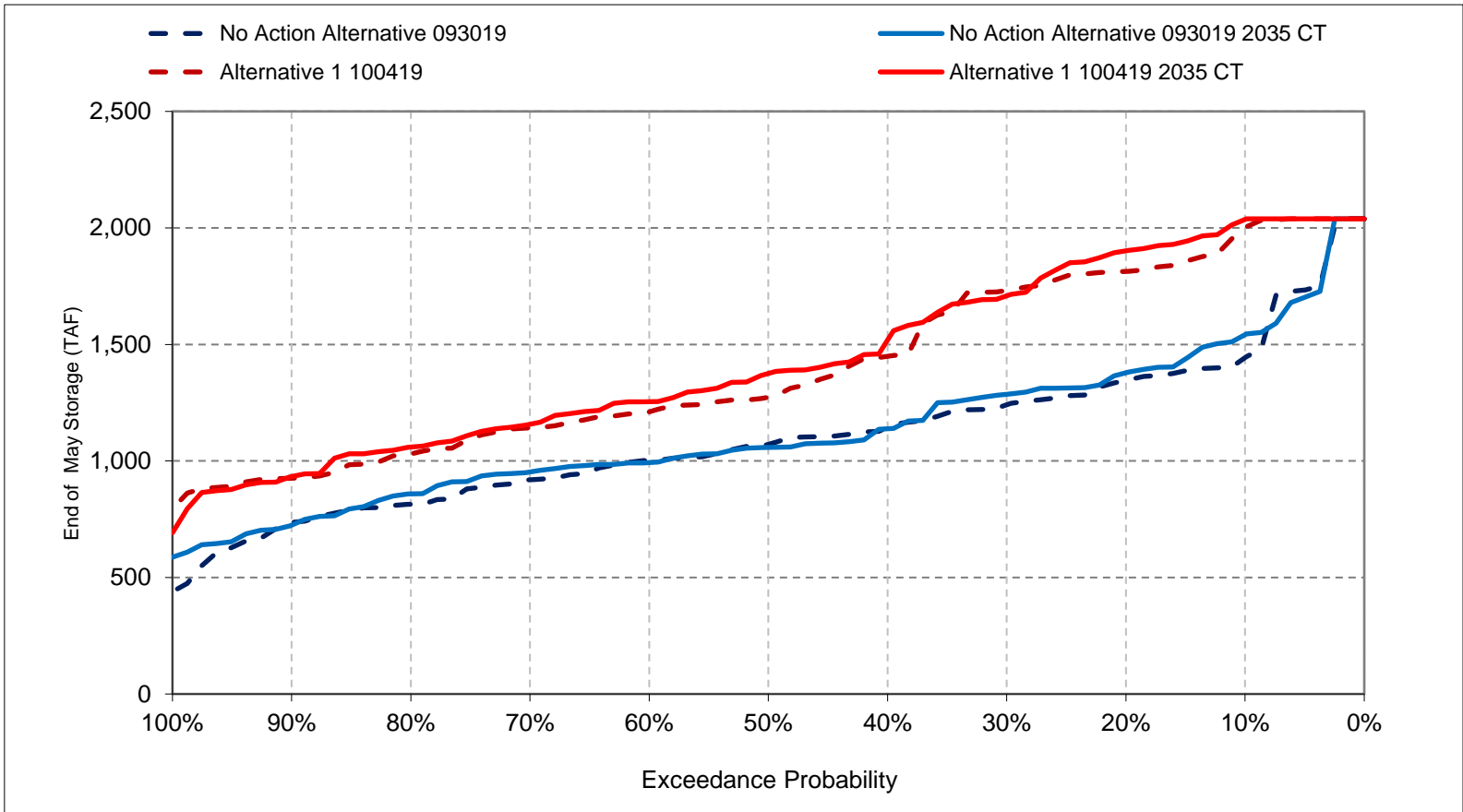
Figure 6-13. San Luis Storage (CVP and SWP), End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

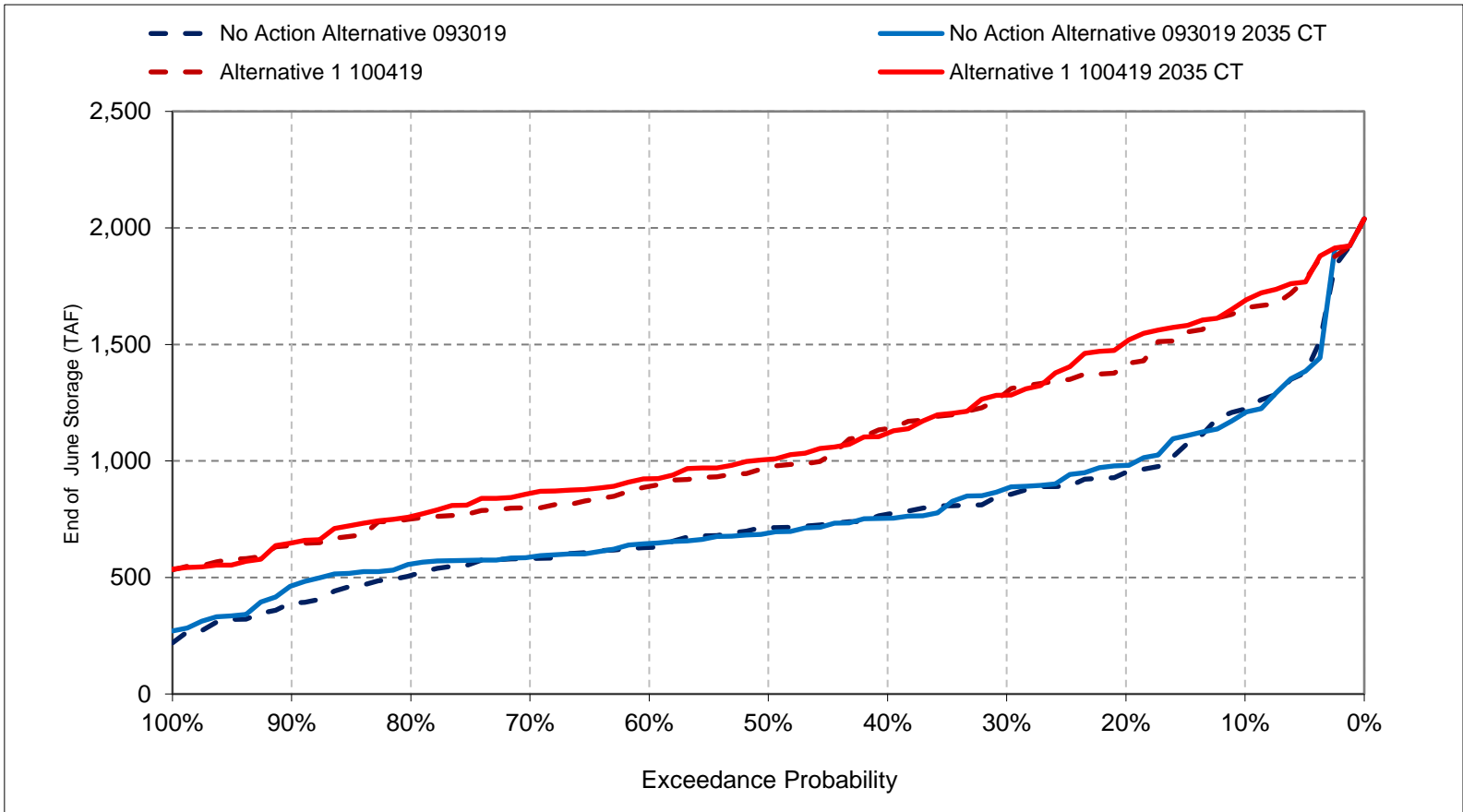
Figure 6-14. San Luis Storage (CVP and SWP), End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

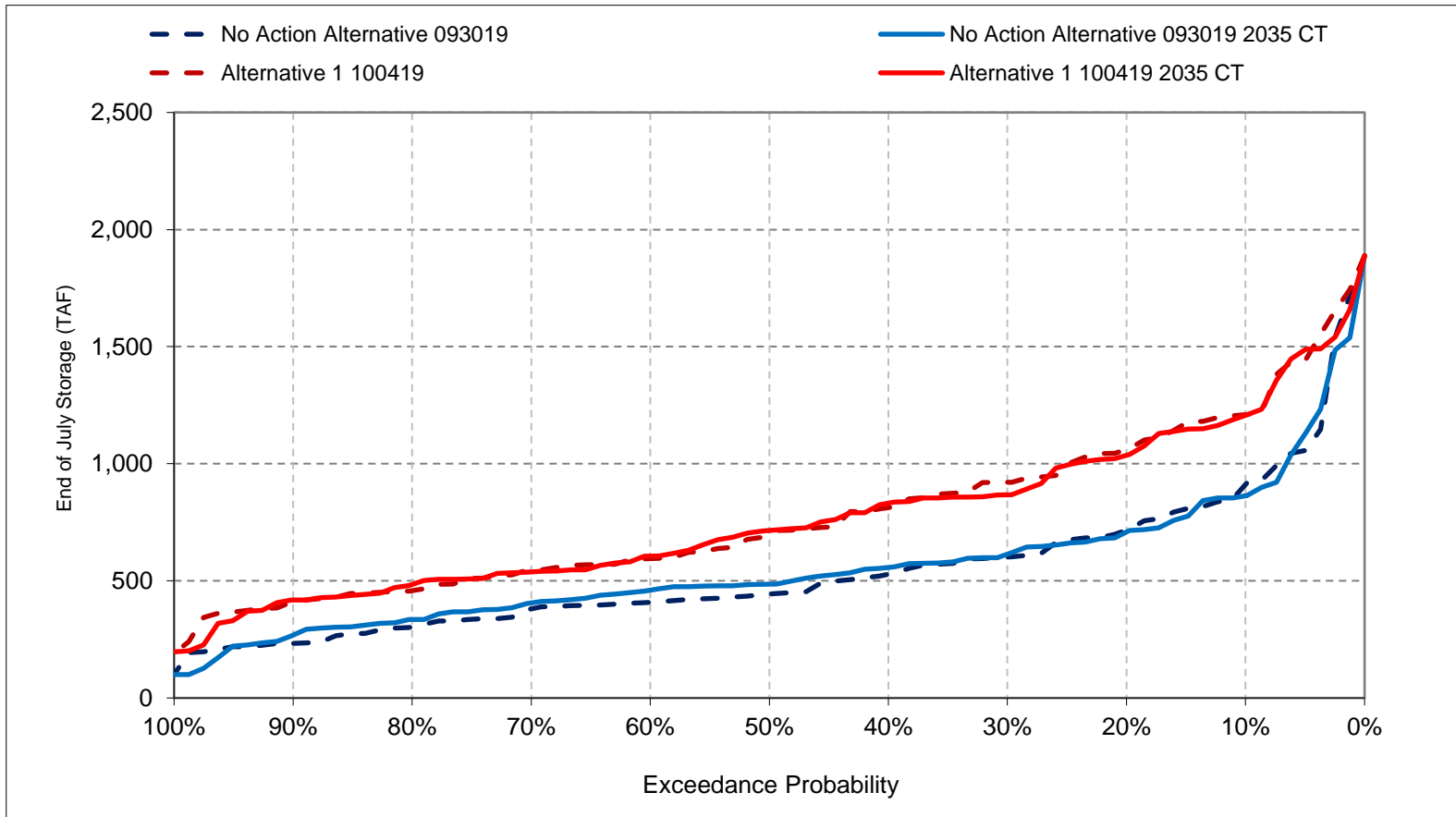
Figure 6-15. San Luis Storage (CVP and SWP), End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

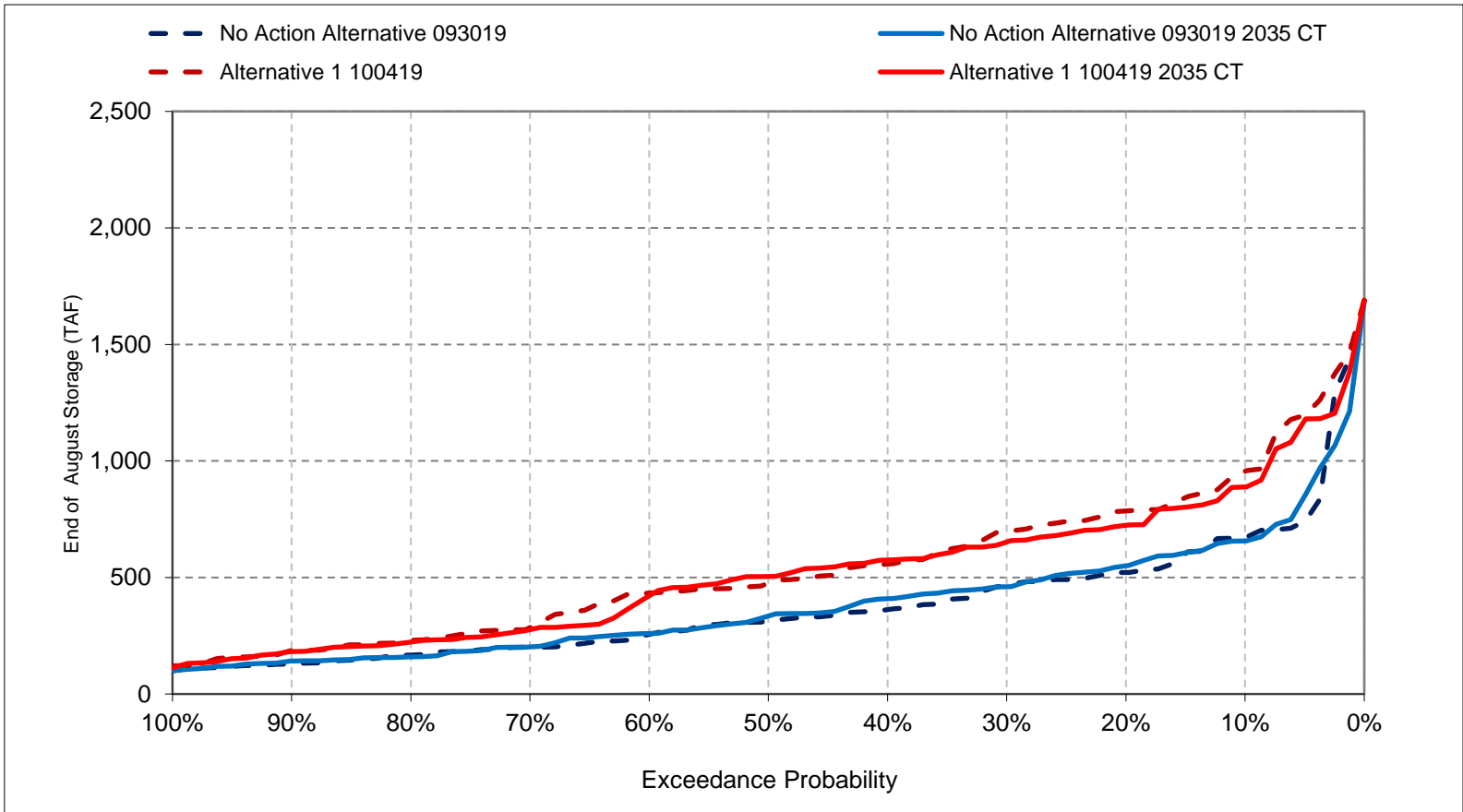
Figure 6-16. San Luis Storage (CVP and SWP), End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

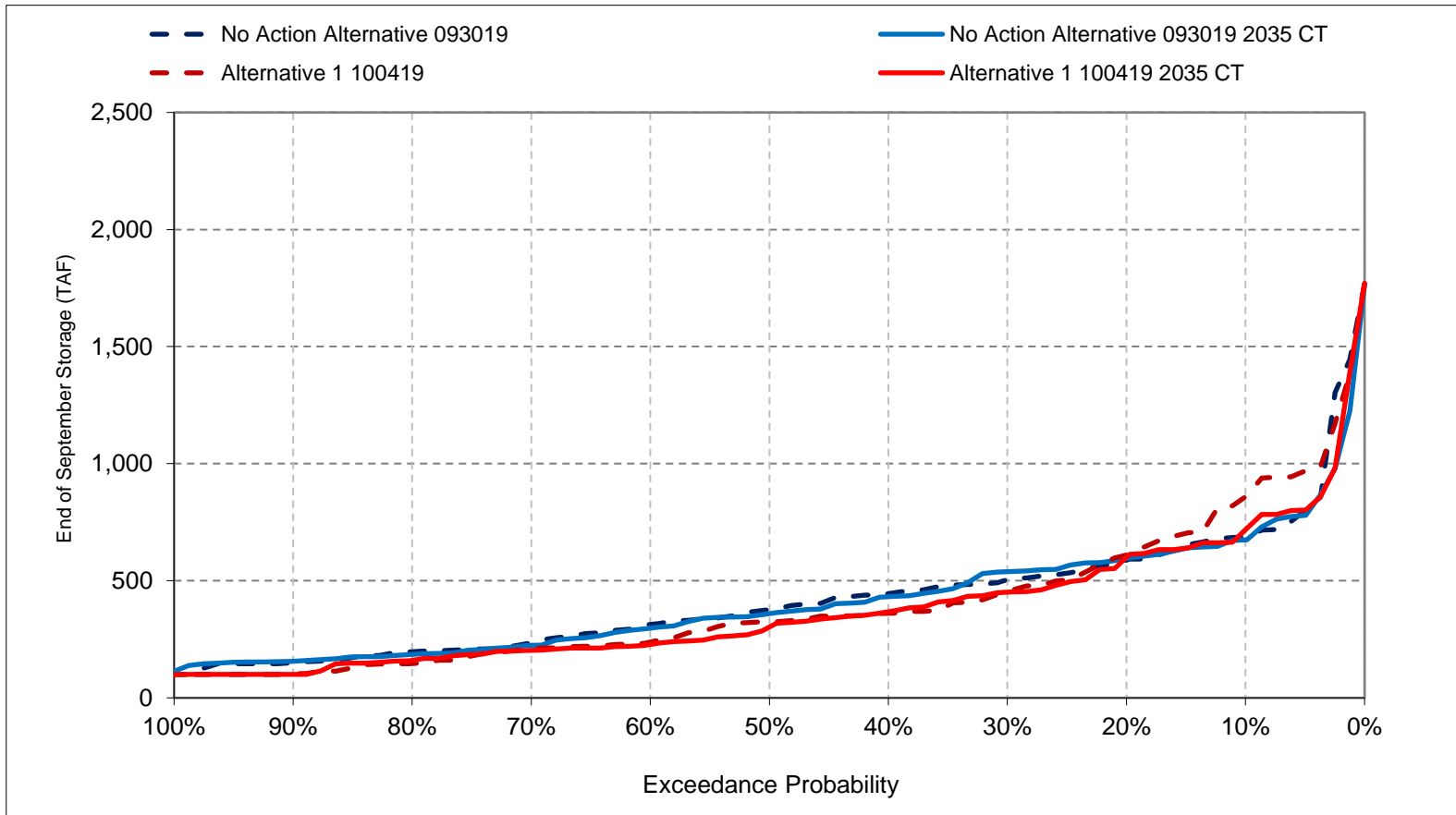
Figure 6-17. San Luis Storage (CVP and SWP), End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6-18. San Luis Storage (CVP and SWP), End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-1. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	439	480	506	538	544	536	514	500	445	412	417
20%	395	429	468	500	527	544	529	499	475	422	383	396
30%	386	429	467	493	519	543	523	488	454	403	362	374
40%	381	421	463	490	511	529	515	481	443	399	352	368
50%	379	415	452	485	503	521	510	477	430	392	349	361
60%	377	409	447	477	494	515	503	468	423	386	347	356
70%	373	399	435	471	489	505	494	462	418	377	336	351
80%	369	389	430	459	477	494	483	454	412	365	331	348
90%	356	376	399	442	458	476	465	443	404	348	329	344
Long Term												
Full Simulation Period ^d	385	413	448	479	500	516	504	477	441	395	361	372
Water Year Types^{b,c}												
Wet (32%)	398	429	466	491	516	535	524	497	466	411	375	384
Above Normal (16%)	378	411	455	477	502	523	507	472	437	368	346	365
Below Normal (13%)	379	404	435	474	492	510	495	462	418	382	347	367
Dry (24%)	378	408	442	477	493	509	500	474	433	399	360	368
Critical (15%)	378	400	424	466	483	484	474	456	425	393	360	366

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	451	475	508	537	544	544	544	544	526	465	433	440
20%	421	452	487	509	538	544	544	544	510	448	407	407
30%	400	429	466	498	519	540	544	533	495	436	389	391
40%	382	413	455	487	513	531	539	524	480	424	380	378
50%	374	410	448	479	507	526	532	516	474	416	373	368
60%	369	400	439	475	497	519	520	506	468	409	368	355
70%	352	391	435	465	488	510	507	490	457	402	358	348
80%	329	386	424	457	486	499	496	481	446	397	352	329
90%	329	379	411	450	477	487	483	471	443	388	346	329
Long Term												
Full Simulation Period ^d	383	418	453	483	506	520	521	510	478	423	382	376
Water Year Types^{b,c}												
Wet (32%)	398	442	480	495	516	534	541	534	503	448	404	391
Above Normal (16%)	340	396	442	479	503	518	526	516	482	411	364	338
Below Normal (13%)	387	409	437	488	510	522	517	502	469	413	371	379
Dry (24%)	388	414	448	474	498	512	509	495	461	410	372	379
Critical (15%)	385	406	430	471	495	505	497	484	454	413	377	378

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	28	35	28	31	7	0	8	30	27	20	21	23
20%	26	24	19	9	11	0	16	46	35	26	23	11
30%	14	0	0	5	0	-3	22	44	41	32	27	17
40%	1	-8	-8	-3	2	2	25	43	37	25	28	10
50%	-5	-6	-4	-6	4	5	22	39	44	24	24	7
60%	-7	-8	-8	-2	2	5	17	38	44	24	22	-1
70%	-21	-7	0	-6	-1	5	13	29	39	25	22	-3
80%	-40	-2	-6	-2	9	5	14	26	34	31	22	-19
90%	-27	3	12	7	19	10	18	28	38	40	16	-15
Long Term												
Full Simulation Period ^d	-1	5	5	4	6	4	17	33	36	28	21	4
Water Year Types^{b,c}												
Wet (32%)	0	14	14	4	0	-1	16	36	36	37	28	7
Above Normal (16%)	-39	-14	-12	2	1	-5	19	45	45	42	18	-27
Below Normal (13%)	9	5	2	14	18	12	22	40	50	30	24	12
Dry (24%)	10	6	6	-2	5	3	9	21	28	12	12	11
Critical (15%)	7	6	6	5	12	21	23	28	29	20	17	11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6a-2. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	401	429	470	504	542	544	539	522	501	442	397	400
20%	389	428	466	496	526	544	529	501	470	410	374	378
30%	385	422	463	489	519	541	526	490	452	403	358	371
40%	381	415	456	484	505	534	521	481	440	396	352	365
50%	380	409	450	478	499	516	502	473	434	390	348	359
60%	377	404	442	472	490	506	498	466	423	381	344	355
70%	372	400	433	462	476	498	488	459	417	375	336	351
80%	369	387	417	450	468	488	477	446	407	370	331	348
90%	363	376	403	436	450	464	453	434	399	334	329	346
Long Term												
Full Simulation Period ^d	382	409	445	475	496	513	503	476	440	392	357	367
Water Year Types ^{b,c}												
Wet (32%)	398	422	460	489	516	538	529	504	474	412	376	386
Above Normal (16%)	375	400	445	477	504	525	511	479	439	365	346	363
Below Normal (13%)	376	406	438	466	488	508	497	466	422	387	346	362
Dry (24%)	374	403	440	469	481	498	486	458	420	389	348	358
Critical (15%)	377	400	426	457	474	478	469	451	419	386	349	353

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	457	491	519	544	544	544	544	520	459	417	411
20%	404	438	475	504	535	544	544	544	503	444	397	391
30%	389	420	462	492	522	540	544	533	493	432	392	382
40%	381	410	450	485	512	535	544	526	486	424	379	374
50%	374	406	445	479	503	528	533	516	476	416	372	368
60%	371	403	440	472	493	518	521	504	466	405	367	356
70%	356	394	436	467	489	506	506	490	454	402	359	348
80%	329	388	431	460	483	500	496	480	447	397	355	329
90%	329	381	414	448	476	490	485	472	441	385	347	329
Long Term												
Full Simulation Period ^d	377	414	450	481	505	520	522	510	477	420	378	361
Water Year Types ^{b,c}												
Wet (32%)	382	430	469	493	518	536	542	535	505	443	401	377
Above Normal (16%)	338	393	438	483	507	523	531	521	481	404	362	289
Below Normal (13%)	385	413	442	479	503	516	514	499	463	413	370	375
Dry (24%)	383	409	448	474	495	510	507	493	459	408	366	370
Critical (15%)	390	411	433	470	494	505	497	484	453	410	373	373

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	22	28	21	15	2	0	5	22	18	17	20	11
20%	15	10	8	8	9	0	15	43	33	34	23	12
30%	4	-1	0	3	3	-1	19	42	41	29	34	10
40%	0	-5	-7	2	7	1	23	44	46	28	27	8
50%	-6	-3	-5	1	4	12	31	43	43	27	24	9
60%	-6	-1	-3	0	3	12	23	38	43	25	24	1
70%	-16	-6	3	5	13	8	18	30	37	28	23	-3
80%	-40	1	14	10	15	12	19	34	40	26	24	-19
90%	-34	5	11	12	26	26	32	37	42	50	18	-17
Long Term												
Full Simulation Period ^d	-5	5	5	7	9	7	19	34	36	28	21	-7
Water Year Types ^{b,c}												
Wet (32%)	-16	8	9	3	2	-1	13	31	30	31	24	-9
Above Normal (16%)	-37	-7	-7	5	3	-2	19	43	42	38	15	-74
Below Normal (13%)	10	7	4	13	14	8	18	33	41	26	23	13
Dry (24%)	9	6	8	4	14	12	21	35	39	20	18	12
Critical (15%)	13	11	7	13	20	27	28	33	34	24	24	20

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-3. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	439	480	506	538	544	536	514	500	445	412	417
20%	395	429	468	500	527	544	529	499	475	422	383	396
30%	386	429	467	493	519	543	523	488	454	403	362	374
40%	381	421	463	490	511	529	515	481	443	399	352	368
50%	379	415	452	485	503	521	510	477	430	392	349	361
60%	377	409	447	477	494	515	503	468	423	386	347	356
70%	373	399	435	471	489	505	494	462	418	377	336	351
80%	369	389	430	459	477	494	483	454	412	365	331	348
90%	356	376	399	442	458	476	465	443	404	348	329	344
Long Term												
Full Simulation Period ^d	385	413	448	479	500	516	504	477	441	395	361	372
Water Year Types^{b,c}												
Wet (32%)	398	429	466	491	516	535	524	497	466	411	375	384
Above Normal (16%)	378	411	455	477	502	523	507	472	437	368	346	365
Below Normal (13%)	379	404	435	474	492	510	495	462	418	382	347	367
Dry (24%)	378	408	442	477	493	509	500	474	433	399	360	368
Critical (15%)	378	400	424	466	483	484	474	456	425	393	360	366

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	401	429	470	504	542	544	539	522	501	442	397	400
20%	389	428	466	496	526	544	529	501	470	410	374	378
30%	385	422	463	489	519	541	526	490	452	403	358	371
40%	381	415	456	484	505	534	521	481	440	396	352	365
50%	380	409	450	478	499	516	502	473	434	390	348	359
60%	377	404	442	472	490	506	498	466	423	381	344	355
70%	372	400	433	462	476	498	488	459	417	375	336	351
80%	369	387	417	450	468	488	477	446	407	370	331	348
90%	363	376	403	436	450	464	453	434	399	334	329	346
Long Term												
Full Simulation Period ^d	382	409	445	475	496	513	503	476	440	392	357	367
Water Year Types^{b,c}												
Wet (32%)	398	422	460	489	516	538	529	504	474	412	376	386
Above Normal (16%)	375	400	445	477	504	525	511	479	439	365	346	363
Below Normal (13%)	376	406	438	466	488	508	497	466	422	387	346	362
Dry (24%)	374	403	440	469	481	498	486	458	420	389	348	358
Critical (15%)	377	400	426	457	474	478	469	451	419	386	349	353

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-22	-10	-10	-2	4	0	3	8	2	-3	-16	-17
20%	-7	-1	-2	-4	-1	0	1	3	-4	-12	-9	-18
30%	-1	-7	-4	-4	0	-2	3	2	-2	0	-5	-3
40%	0	-6	-6	-6	-6	5	7	0	-3	-2	0	-3
50%	1	-7	-2	-7	-4	-5	-8	-4	4	-2	-1	-2
60%	0	-5	-5	-5	-5	-9	-5	-2	0	-5	-3	-2
70%	0	1	-2	-9	-13	-7	-6	-2	0	-2	0	0
80%	0	-2	-13	-9	-9	-5	-6	-8	-4	5	0	0
90%	7	0	4	-6	-8	-12	-12	-9	-5	-14	0	2
Long Term												
Full Simulation Period ^d	-2	-5	-3	-5	-4	-2	-2	-1	-1	-3	-4	-5
Water Year Types^{b,c}												
Wet (32%)	-1	-7	-6	-2	1	3	4	7	8	1	1	2
Above Normal (16%)	-4	-11	-10	0	2	2	4	7	3	-3	0	-2
Below Normal (13%)	-3	3	3	-8	-3	-2	2	4	4	4	-1	-5
Dry (24%)	-5	-4	-1	-7	-11	-11	-13	-15	-14	-10	-12	-10
Critical (15%)	-1	0	2	-9	-9	-5	-5	-5	-5	-7	-11	-13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-4. San Luis Reservoir (SWP and CVP), End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	451	475	508	537	544	544	544	544	526	465	433	440
20%	421	452	487	509	538	544	544	544	510	448	407	407
30%	400	429	466	498	519	540	544	533	495	436	389	391
40%	382	413	455	487	513	531	539	524	480	424	380	378
50%	374	410	448	479	507	526	532	516	474	416	373	368
60%	369	400	439	475	497	519	520	506	468	409	368	355
70%	352	391	435	465	488	510	507	490	457	402	358	348
80%	329	386	424	457	486	499	496	481	446	397	352	329
90%	329	379	411	450	477	487	483	471	443	388	346	329
Long Term												
Full Simulation Period ^d	383	418	453	483	506	520	521	510	478	423	382	376
Water Year Types ^{b,c}												
Wet (32%)	398	442	480	495	516	534	541	534	503	448	404	391
Above Normal (16%)	340	396	442	479	503	518	526	516	482	411	364	338
Below Normal (13%)	387	409	437	488	510	522	517	502	469	413	371	379
Dry (24%)	388	414	448	474	498	512	509	495	461	410	372	379
Critical (15%)	385	406	430	471	495	505	497	484	454	413	377	378

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	457	491	519	544	544	544	544	520	459	417	411
20%	404	438	475	504	535	544	544	544	503	444	397	391
30%	389	420	462	492	522	540	544	533	493	432	392	382
40%	381	410	450	485	512	535	544	526	486	424	379	374
50%	374	406	445	479	503	528	533	516	476	416	372	368
60%	371	403	440	472	493	518	521	504	466	405	367	356
70%	356	394	436	467	489	506	506	490	454	402	359	348
80%	329	388	431	460	483	500	496	480	447	397	355	329
90%	329	381	414	448	476	490	485	472	441	385	347	329
Long Term												
Full Simulation Period ^d	377	414	450	481	505	520	522	510	477	420	378	361
Water Year Types ^{b,c}												
Wet (32%)	382	430	469	493	518	536	542	535	505	443	401	377
Above Normal (16%)	338	393	438	483	507	523	531	521	481	404	362	289
Below Normal (13%)	385	413	442	479	503	516	514	499	463	413	370	375
Dry (24%)	383	409	448	474	495	510	507	493	459	408	366	370
Critical (15%)	390	411	433	470	494	505	497	484	453	410	373	373

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-28	-18	-17	-18	0	0	0	0	-7	-6	-16	-29
20%	-17	-14	-12	-5	-3	0	0	0	-7	-4	-9	-16
30%	-10	-8	-4	-6	3	0	0	0	-2	-4	2	-10
40%	-1	-3	-5	-1	-1	3	5	1	6	1	0	-5
50%	1	-4	-3	0	-4	3	0	0	3	1	-1	0
60%	2	2	1	-3	-4	-2	2	-2	-1	-4	-1	0
70%	4	2	1	2	0	-4	-1	-1	-3	1	2	0
80%	0	2	6	3	-2	1	0	0	1	0	3	0
90%	0	3	3	-1	-2	3	2	1	-1	-3	2	0
Long Term												
Full Simulation Period ^d	-6	-4	-3	-2	0	0	0	0	-1	-3	-4	-15
Water Year Types ^{b,c}												
Wet (32%)	-16	-13	-11	-3	3	2	1	2	2	-4	-3	-13
Above Normal (16%)	-2	-3	-5	4	4	5	5	5	-1	-7	-3	-49
Below Normal (13%)	-2	4	5	-9	-7	-5	-3	-3	-5	0	-2	-4
Dry (24%)	-5	-4	0	-1	-3	-2	-2	-1	-2	-2	-6	-9
Critical (15%)	5	5	3	-2	-1	0	0	0	-1	-3	-4	-5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

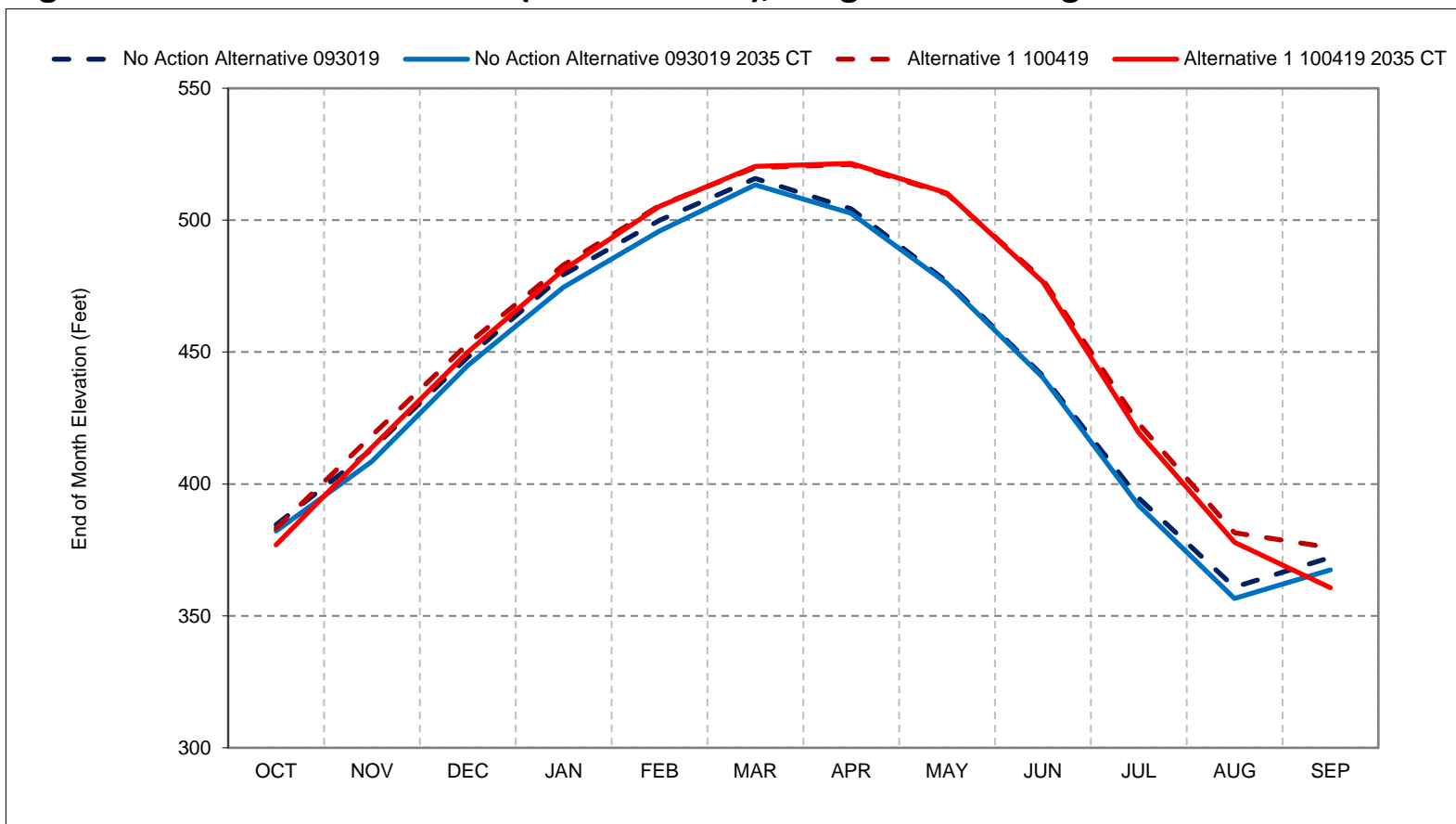
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6a-1. San Luis Reservoir (SWP and CVP), Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

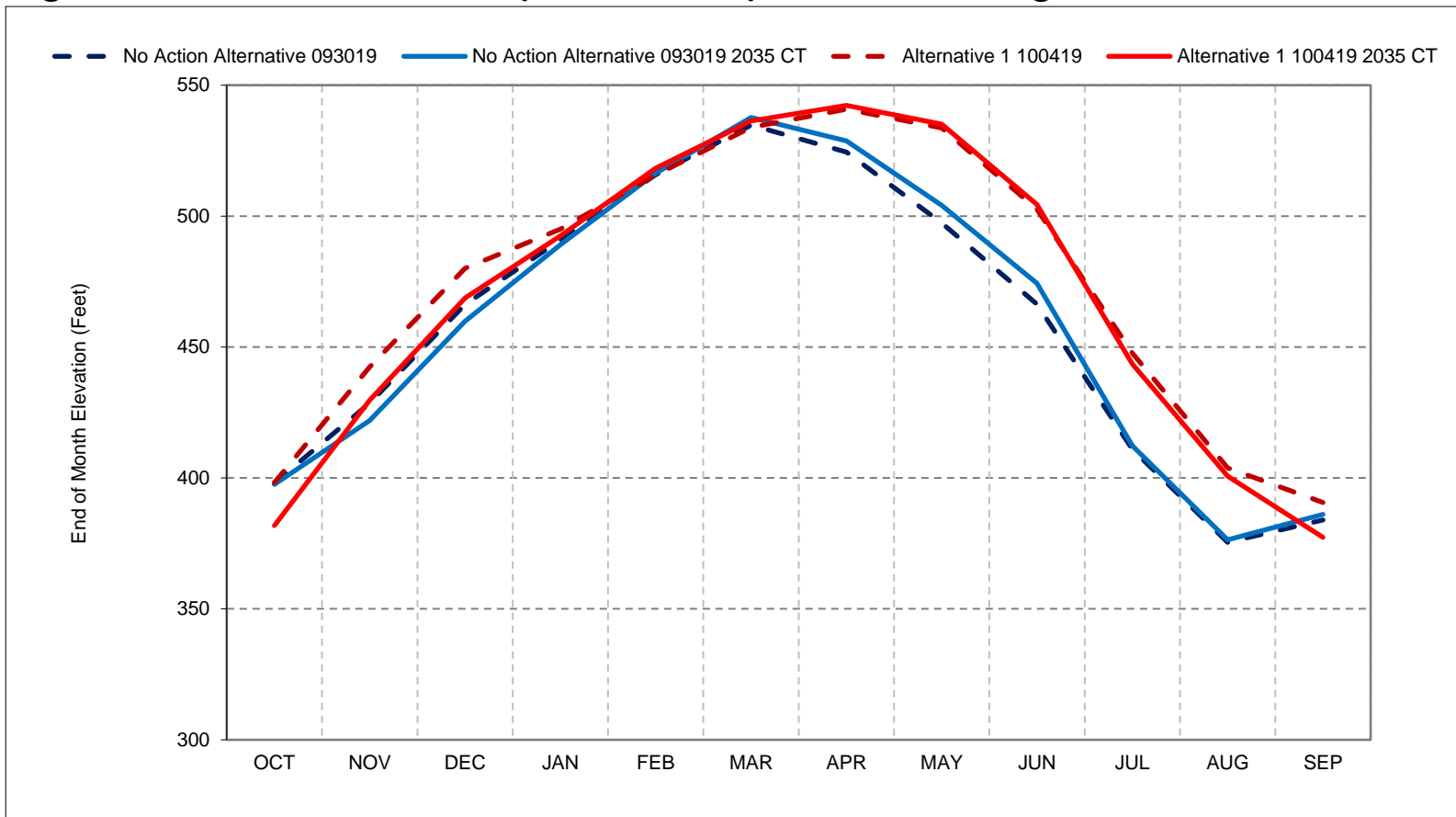
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-2. San Luis Reservoir (SWP and CVP), Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

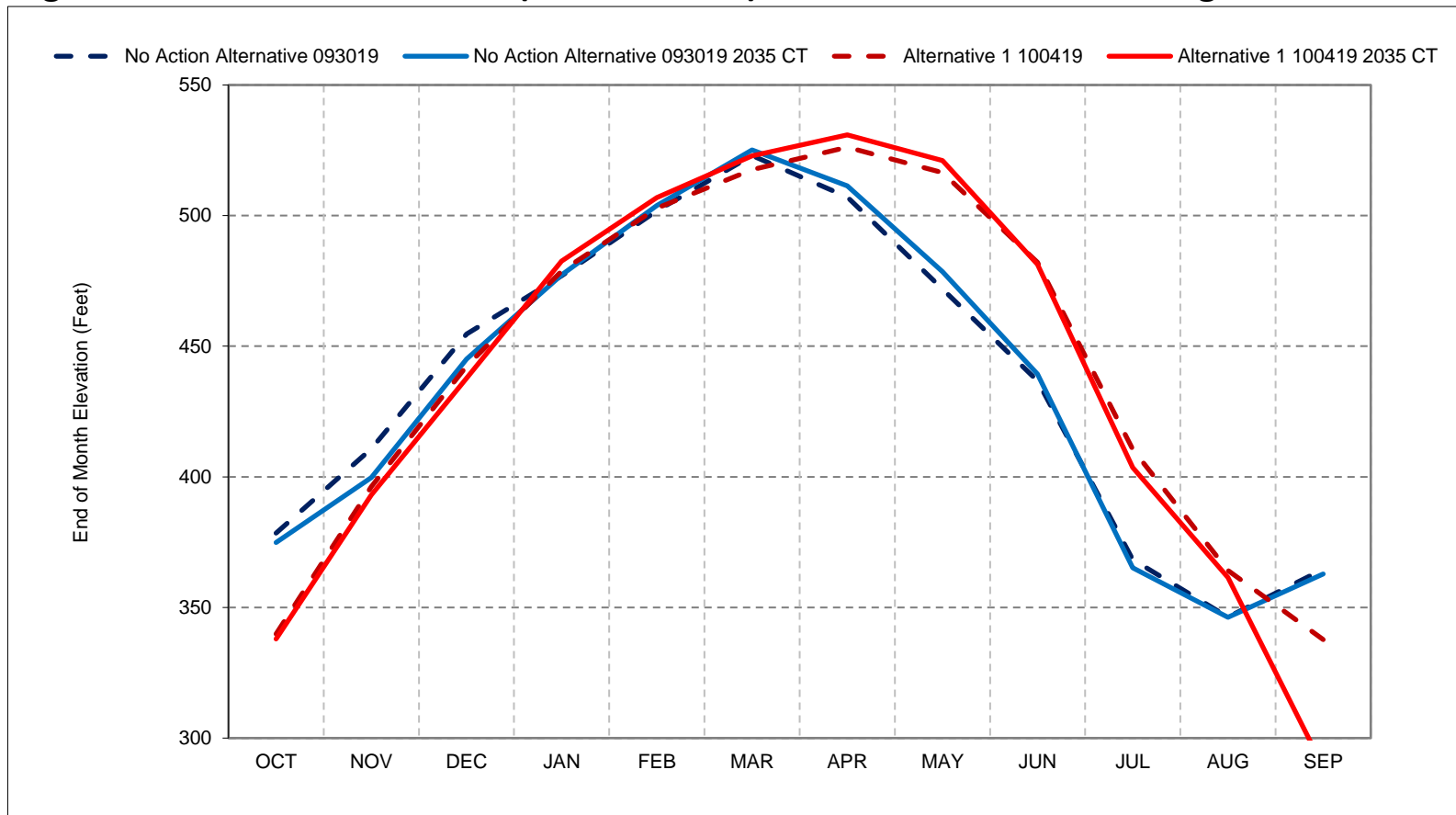
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-3. San Luis Reservoir (SWP and CVP), Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

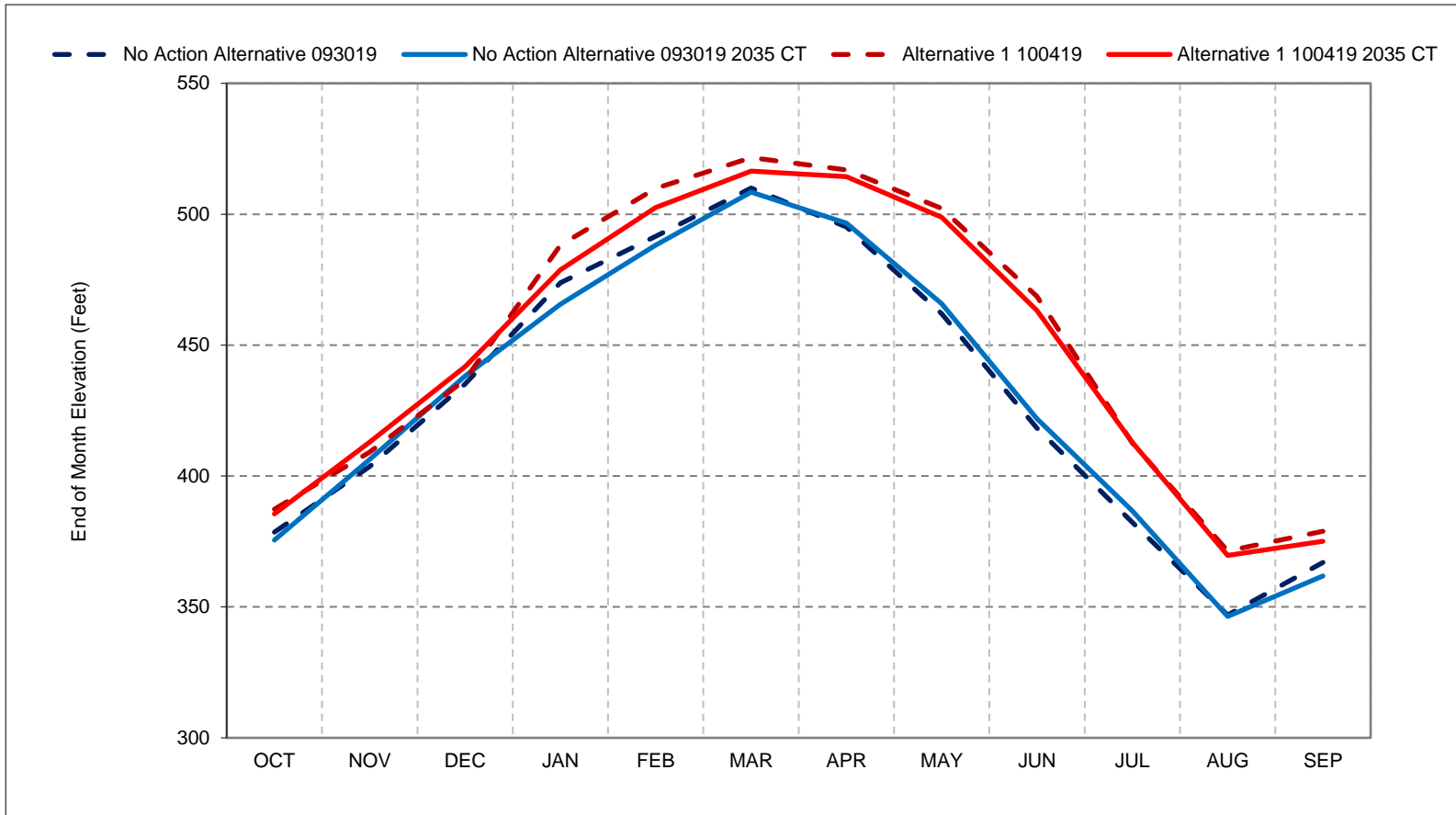
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-4. San Luis Reservoir (SWP and CVP), Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

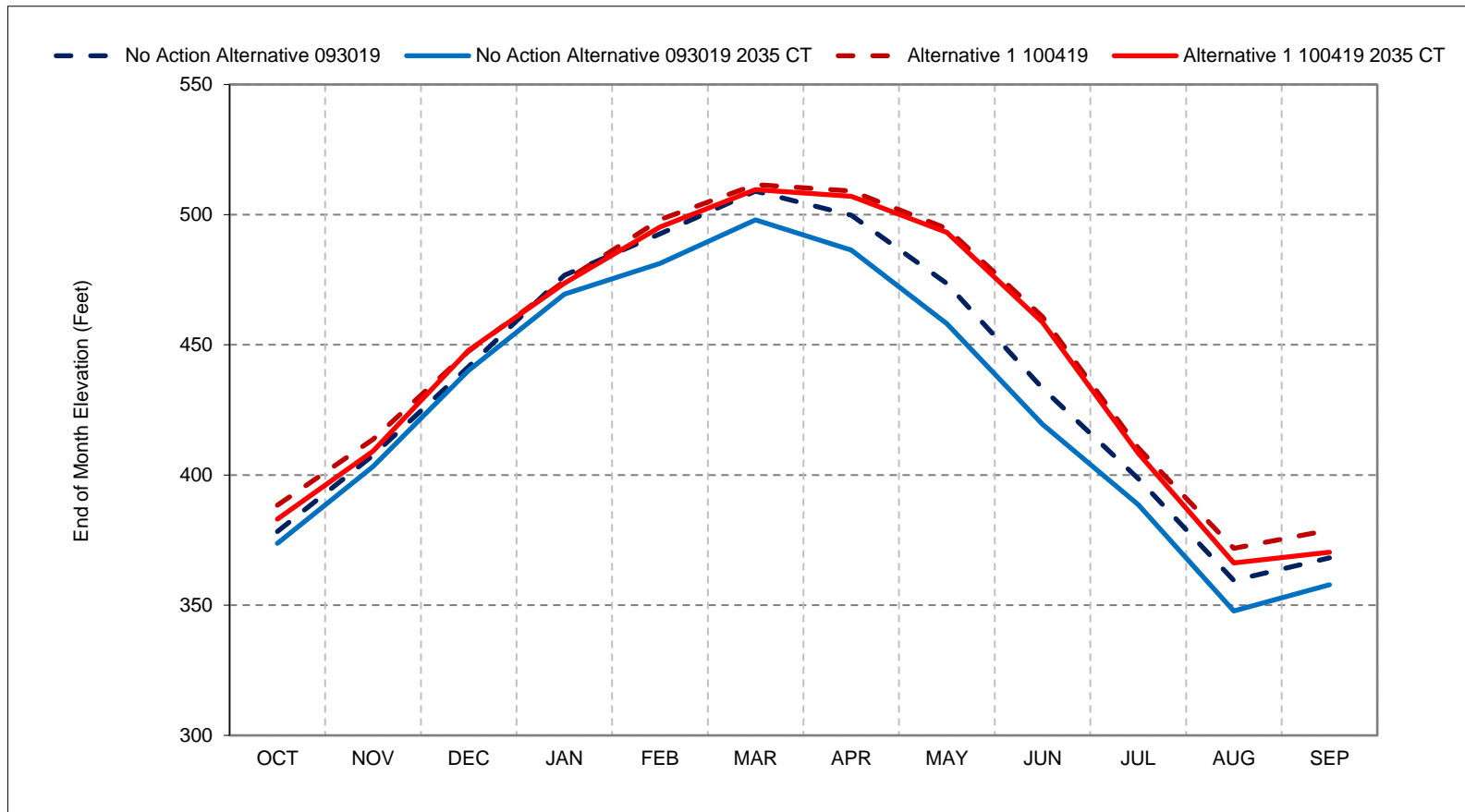
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-5. San Luis Reservoir (SWP and CVP), Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

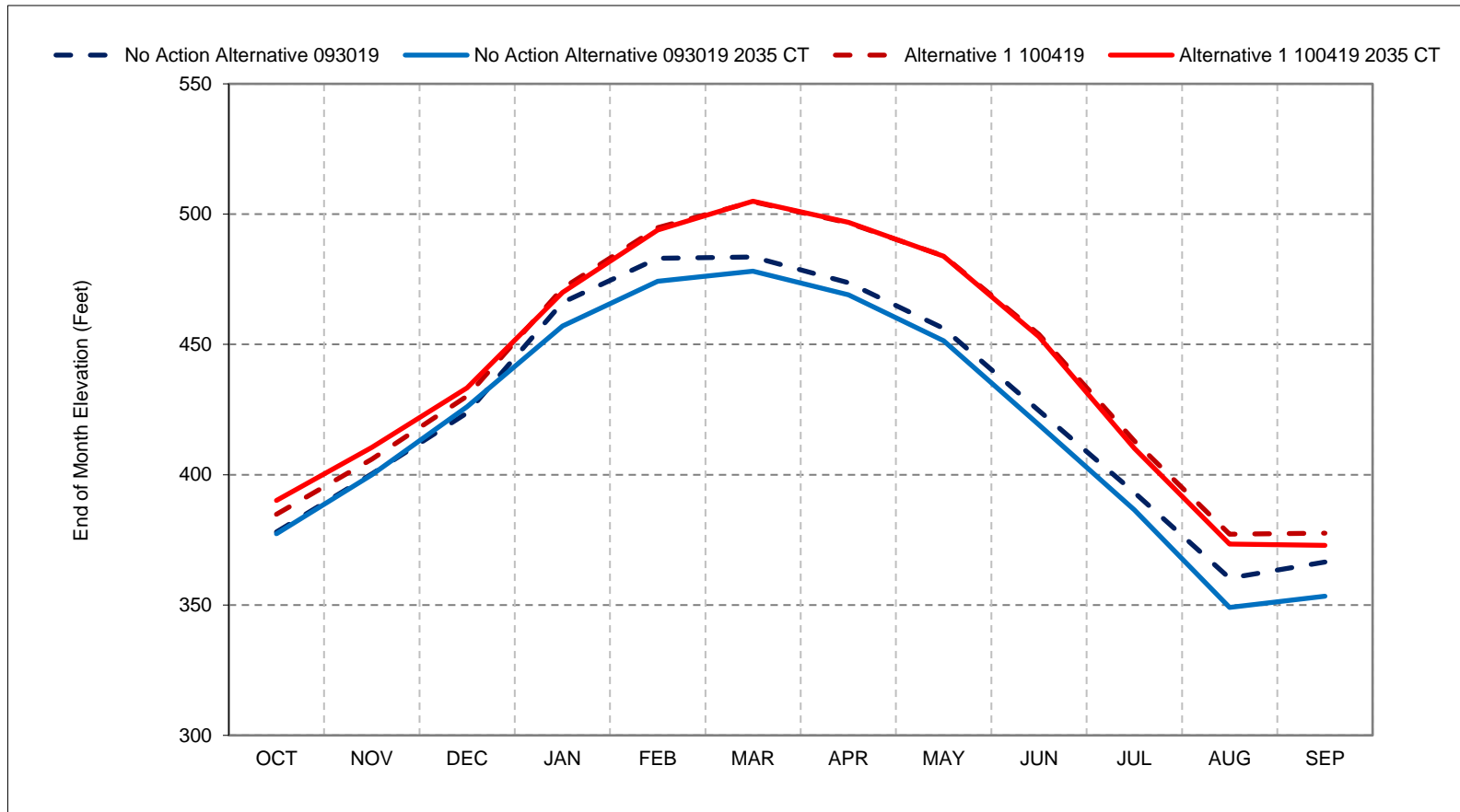
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-6. San Luis Reservoir (SWP and CVP), Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

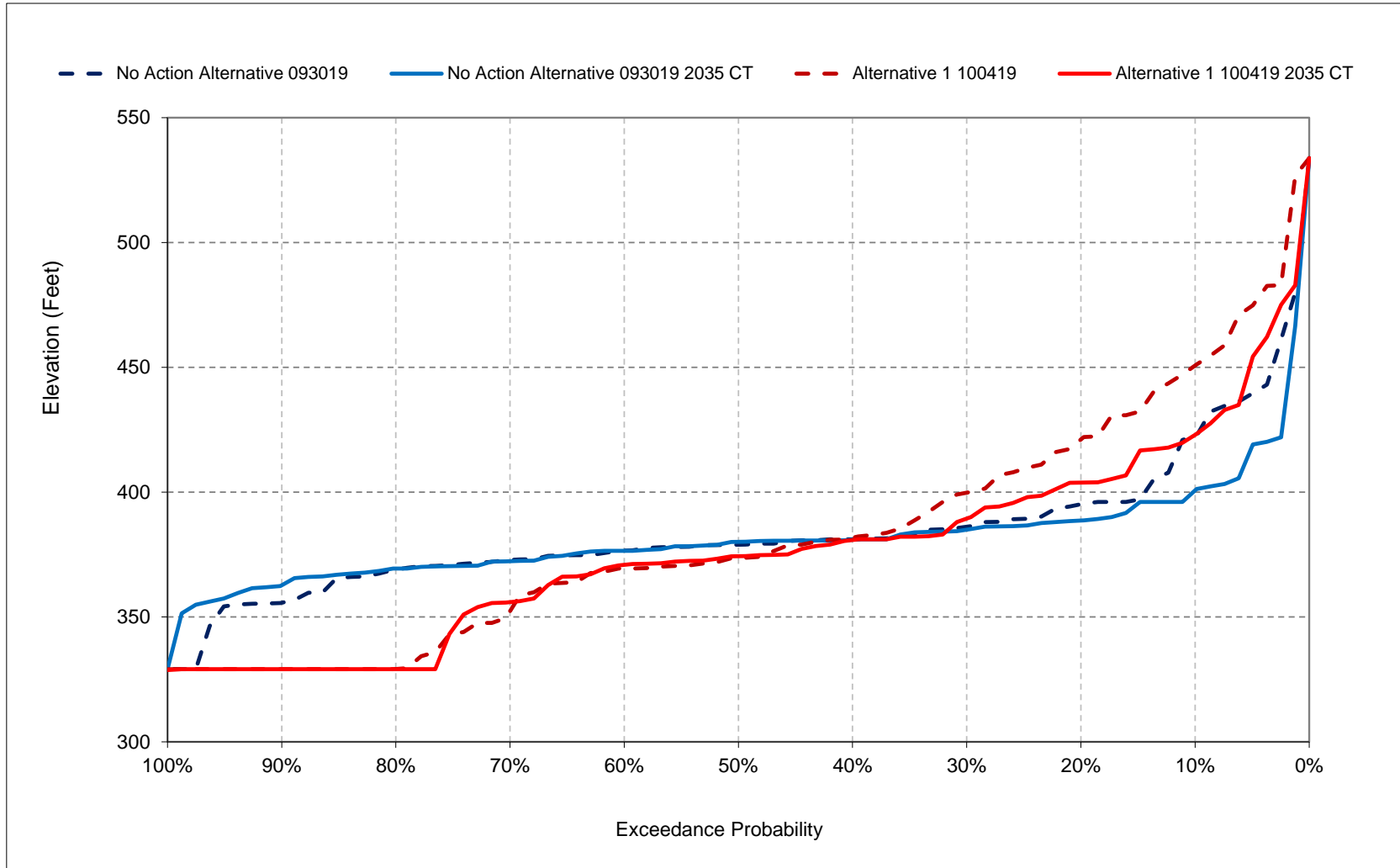
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

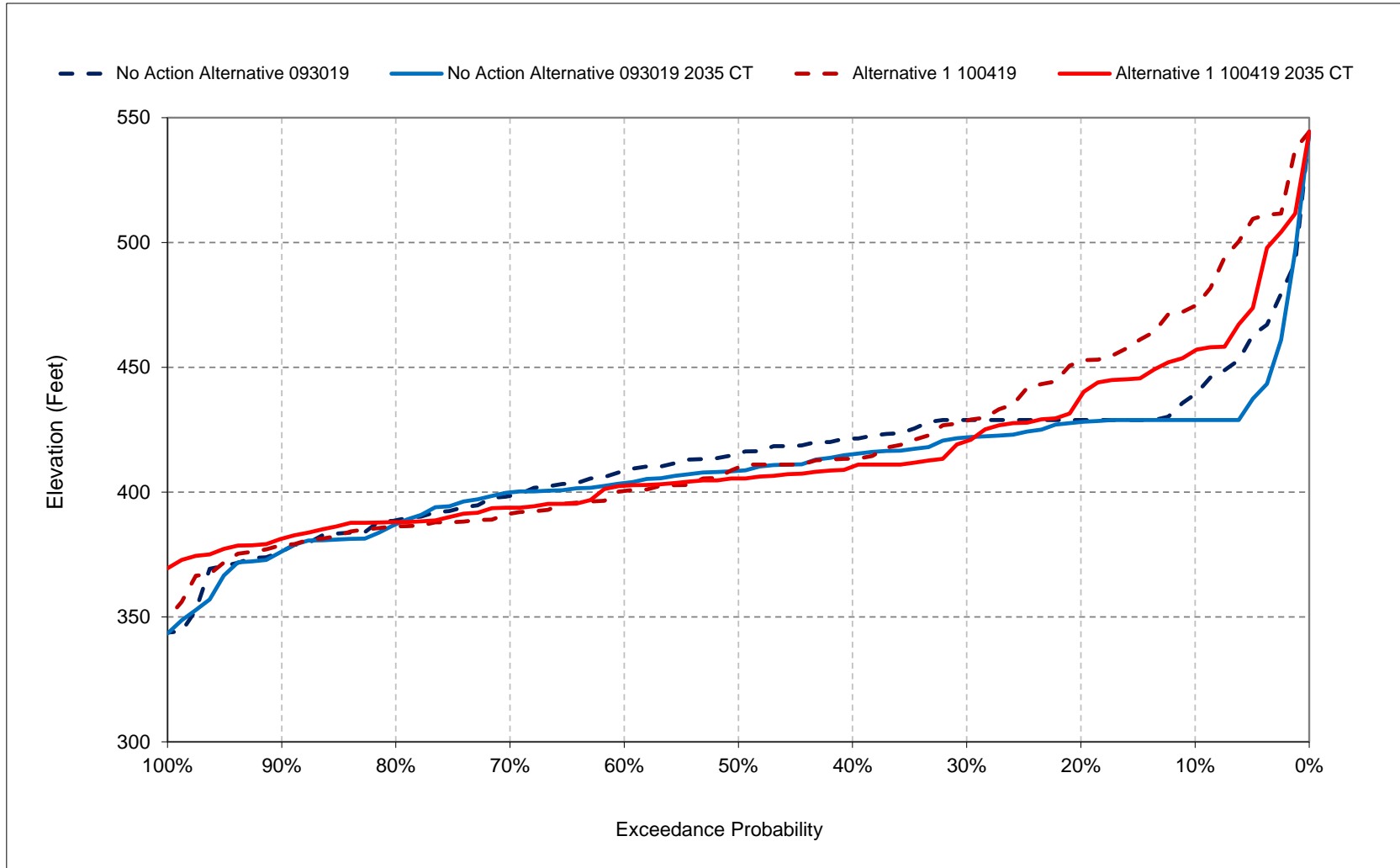
Figure 6a-7. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

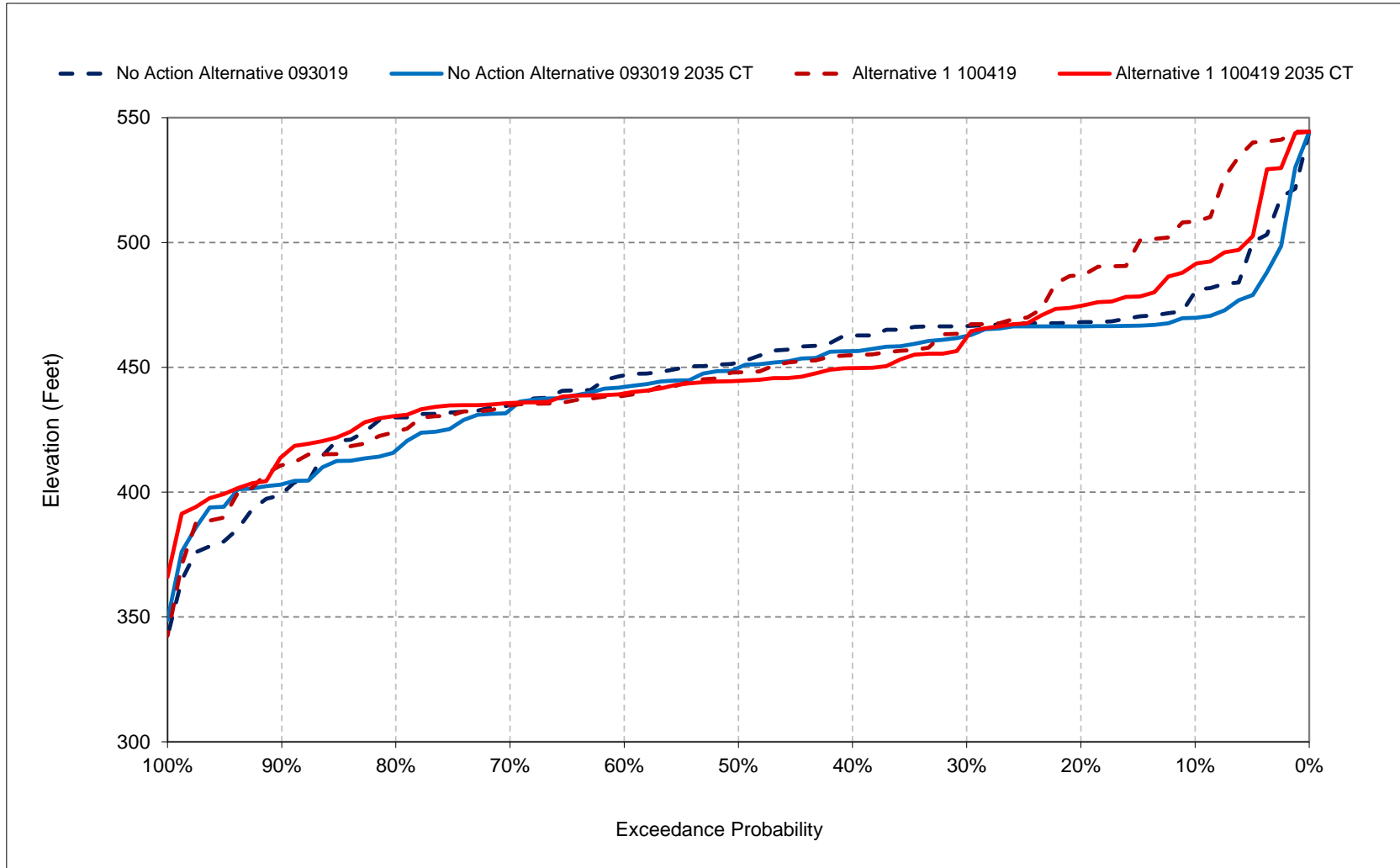
Figure 6a-8. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

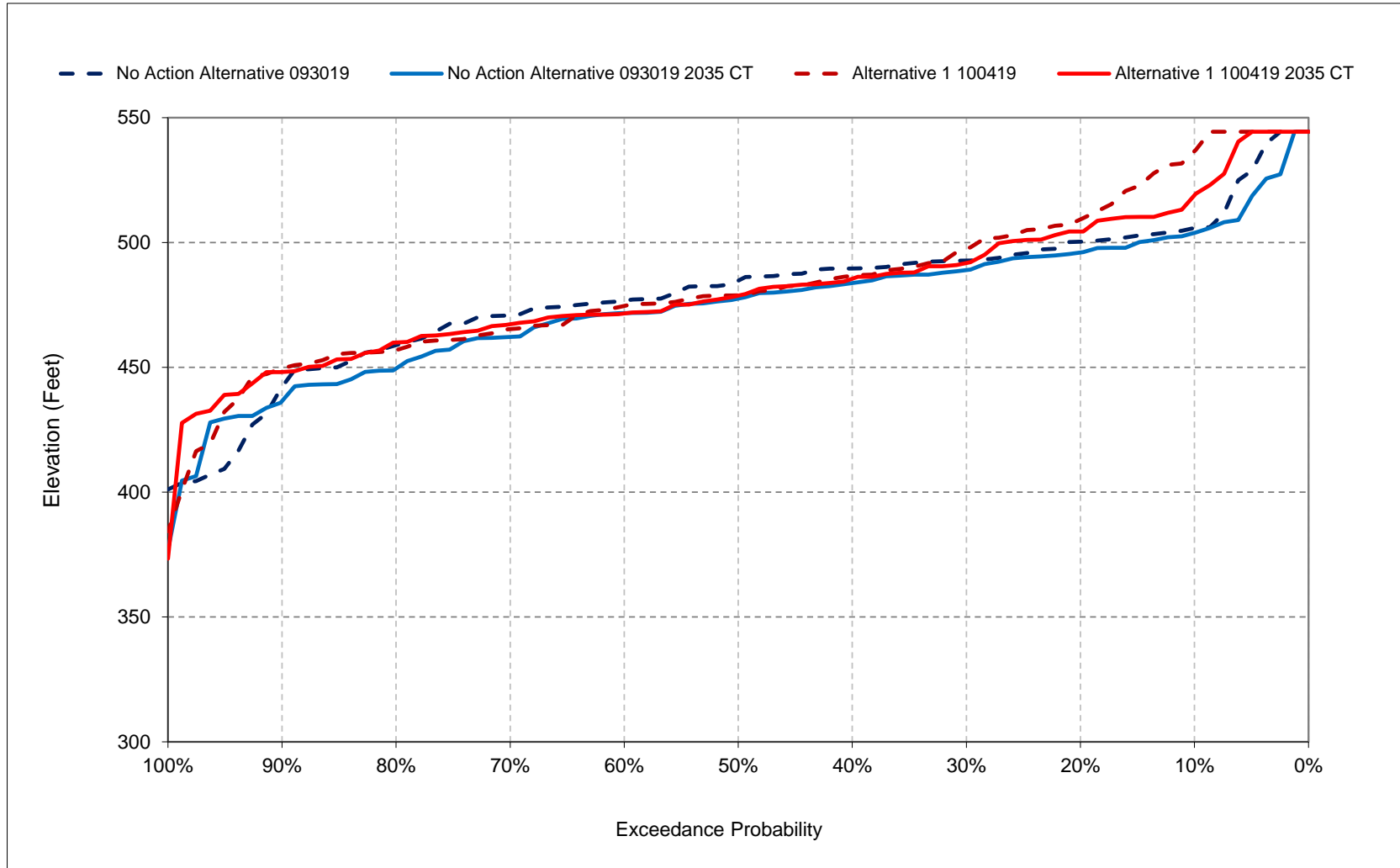
Figure 6a-9. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

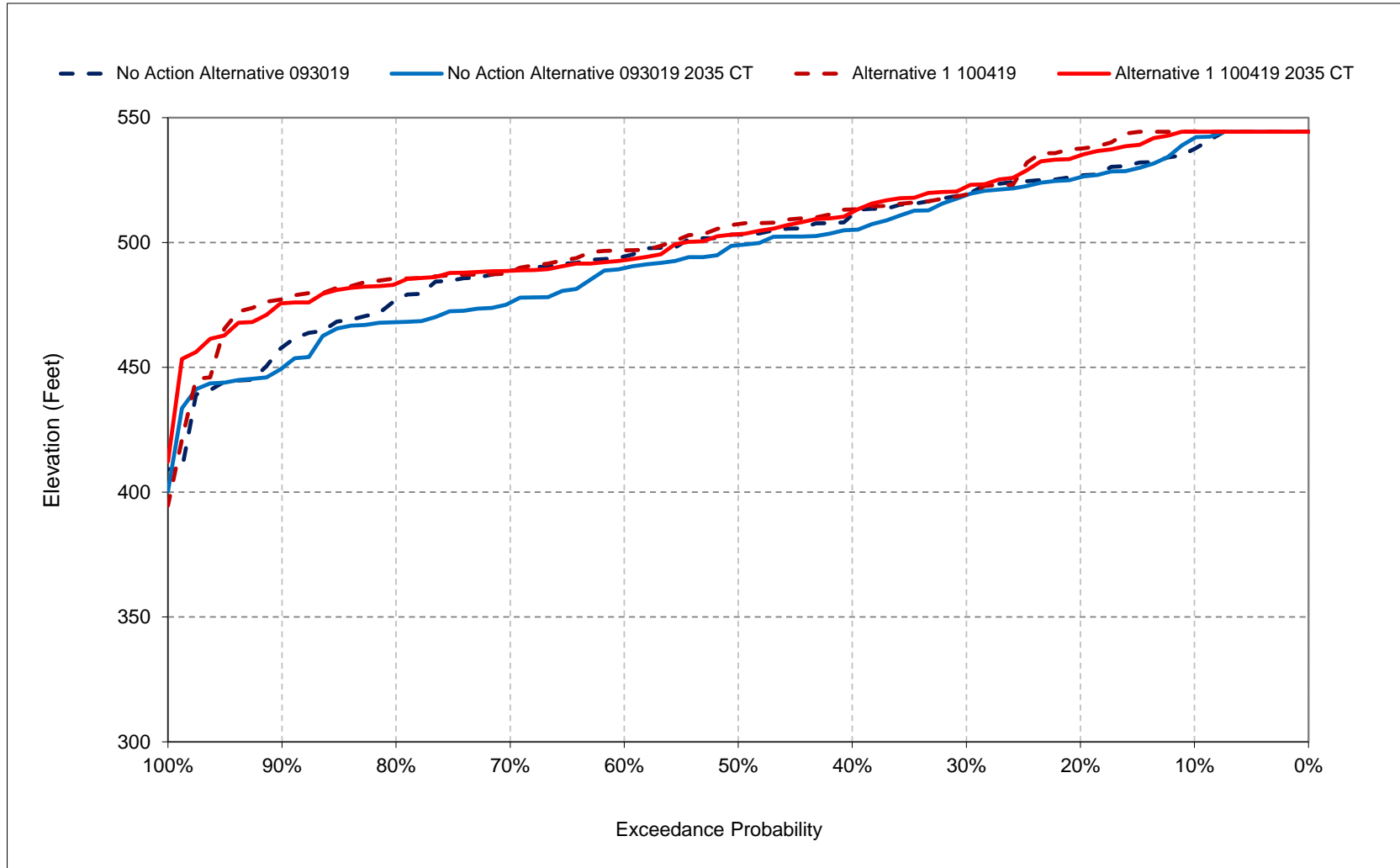
Figure 6a-10. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

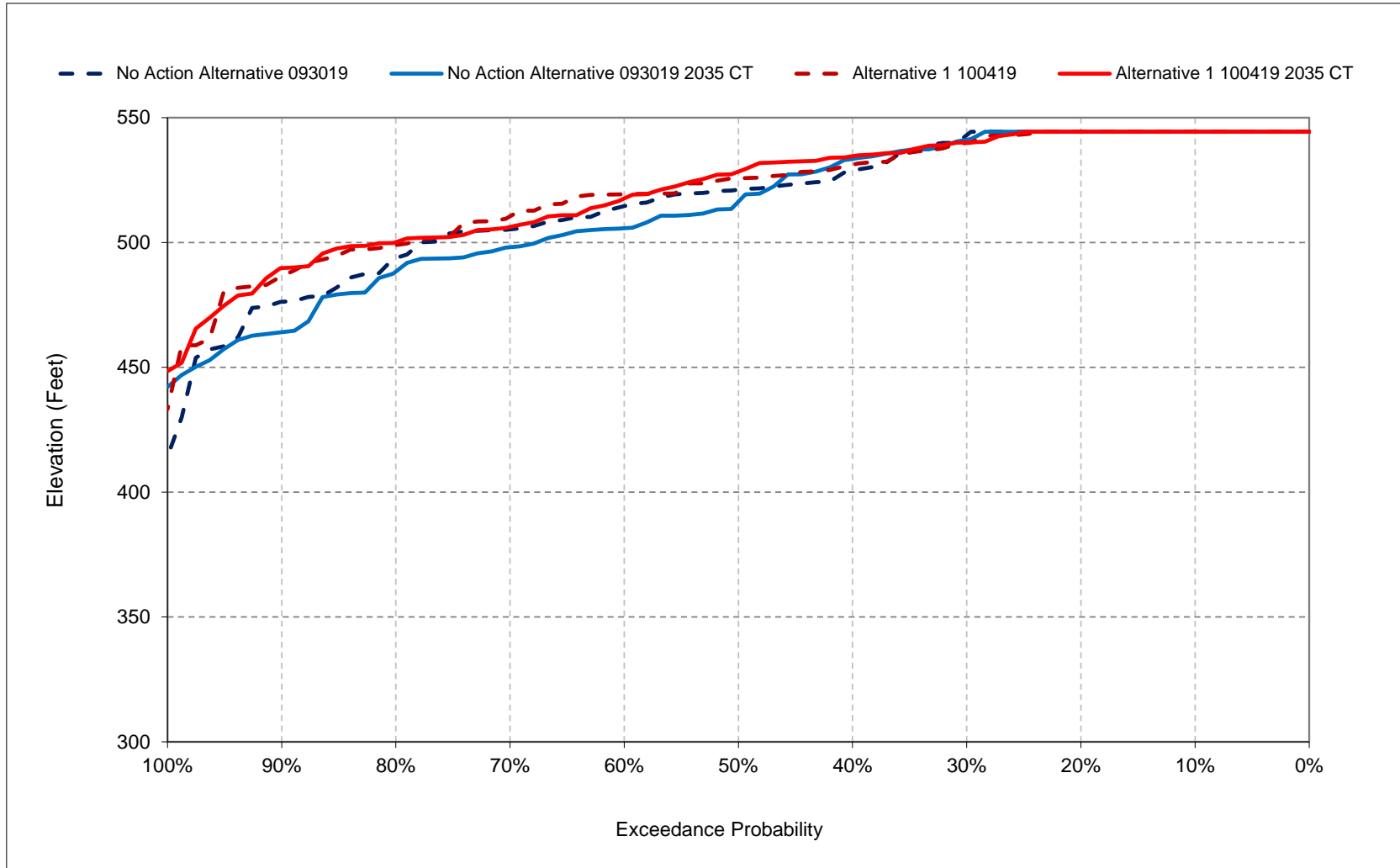
Figure 6a-11. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

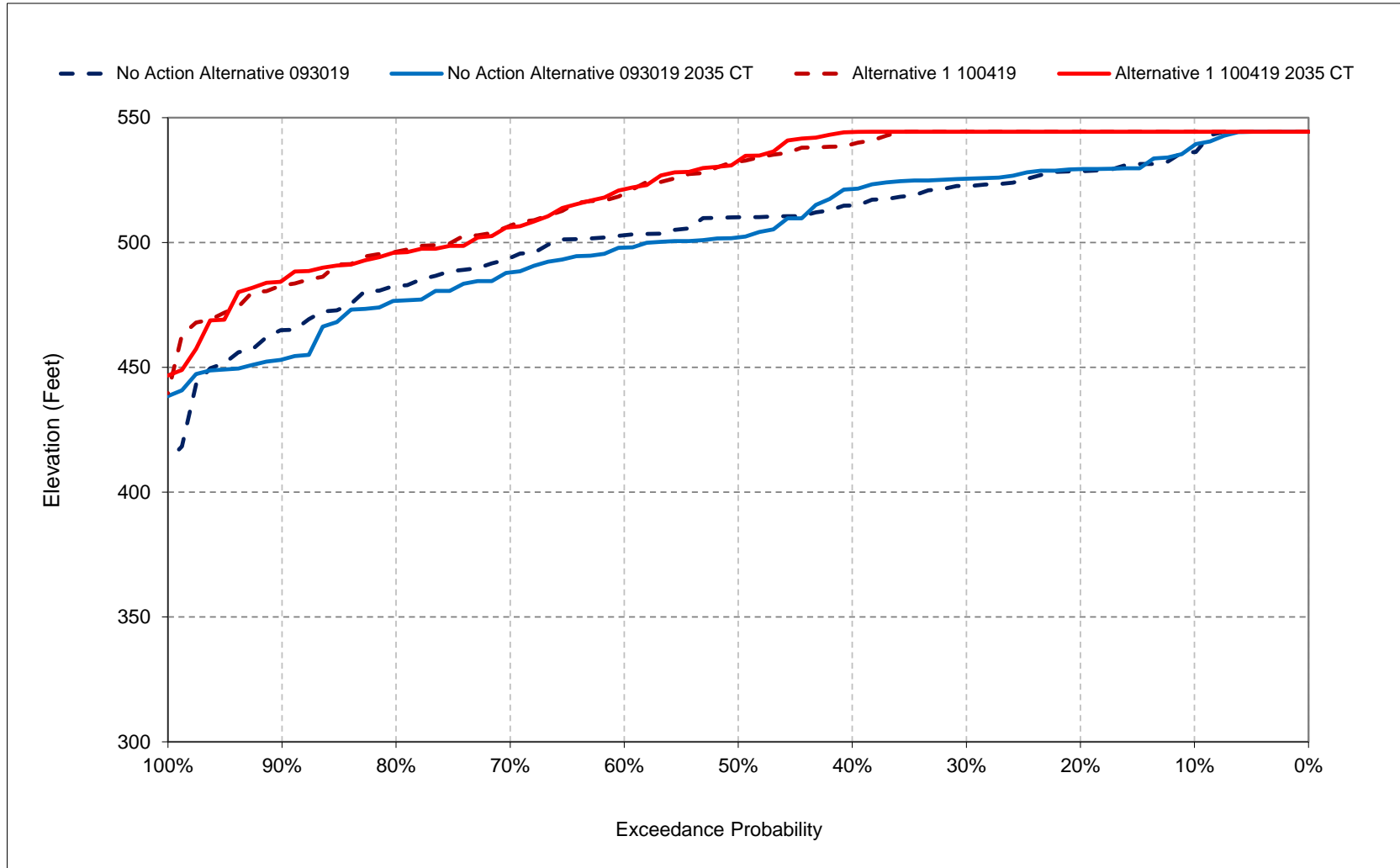
Figure 6a-12. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

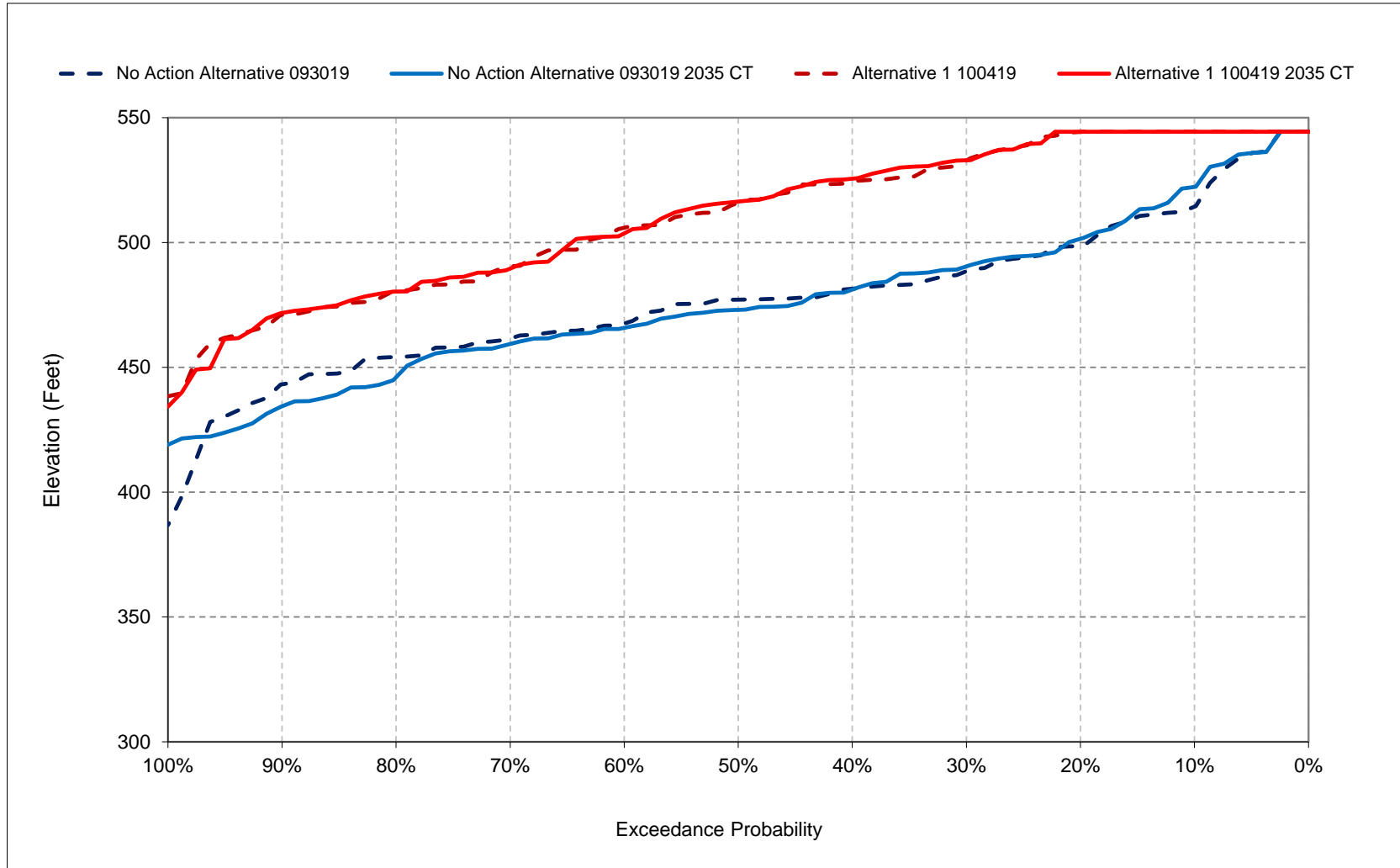
Figure 6a-13. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

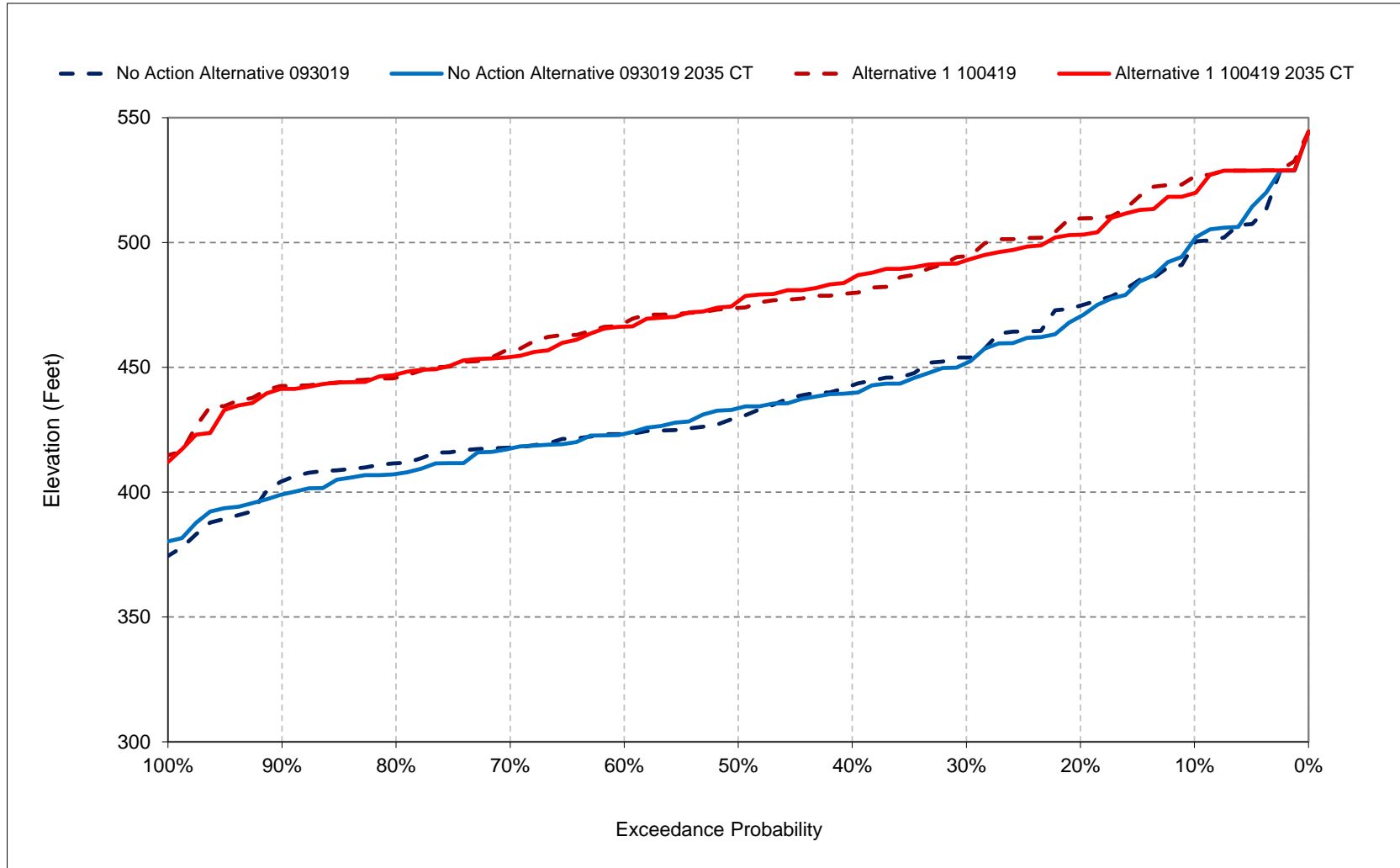
Figure 6a-14. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

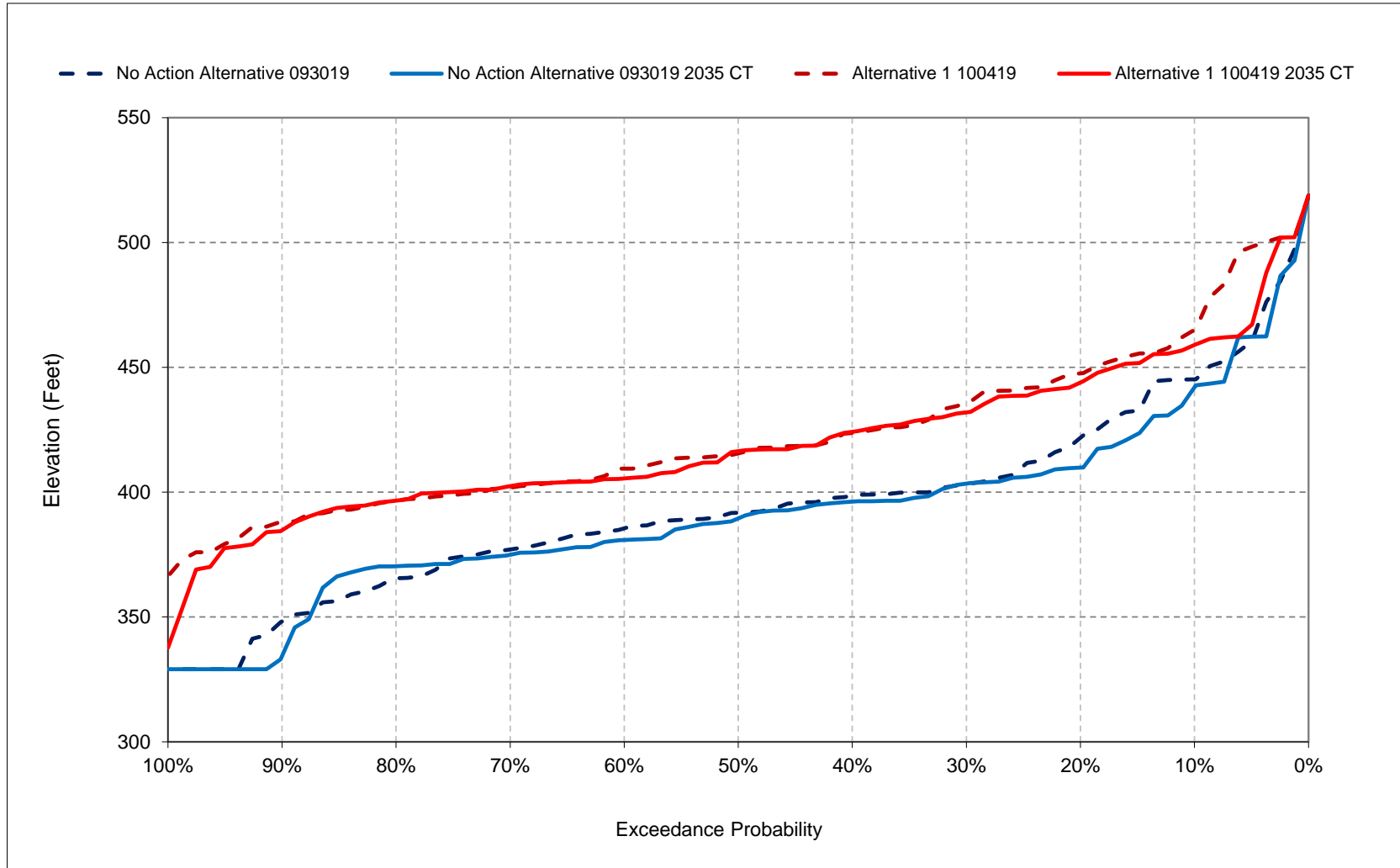
Figure 6a-15. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

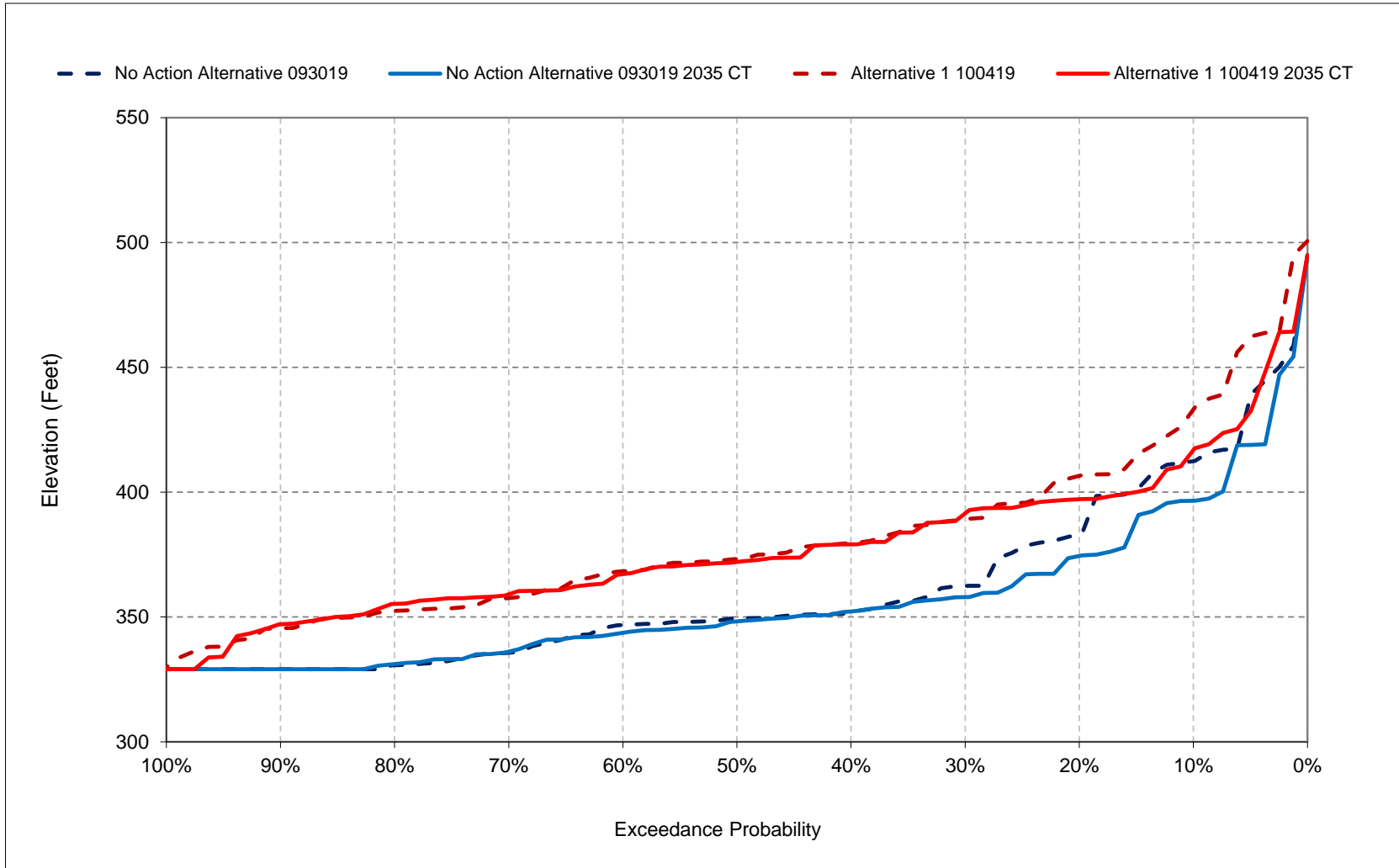
Figure 6a-16. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

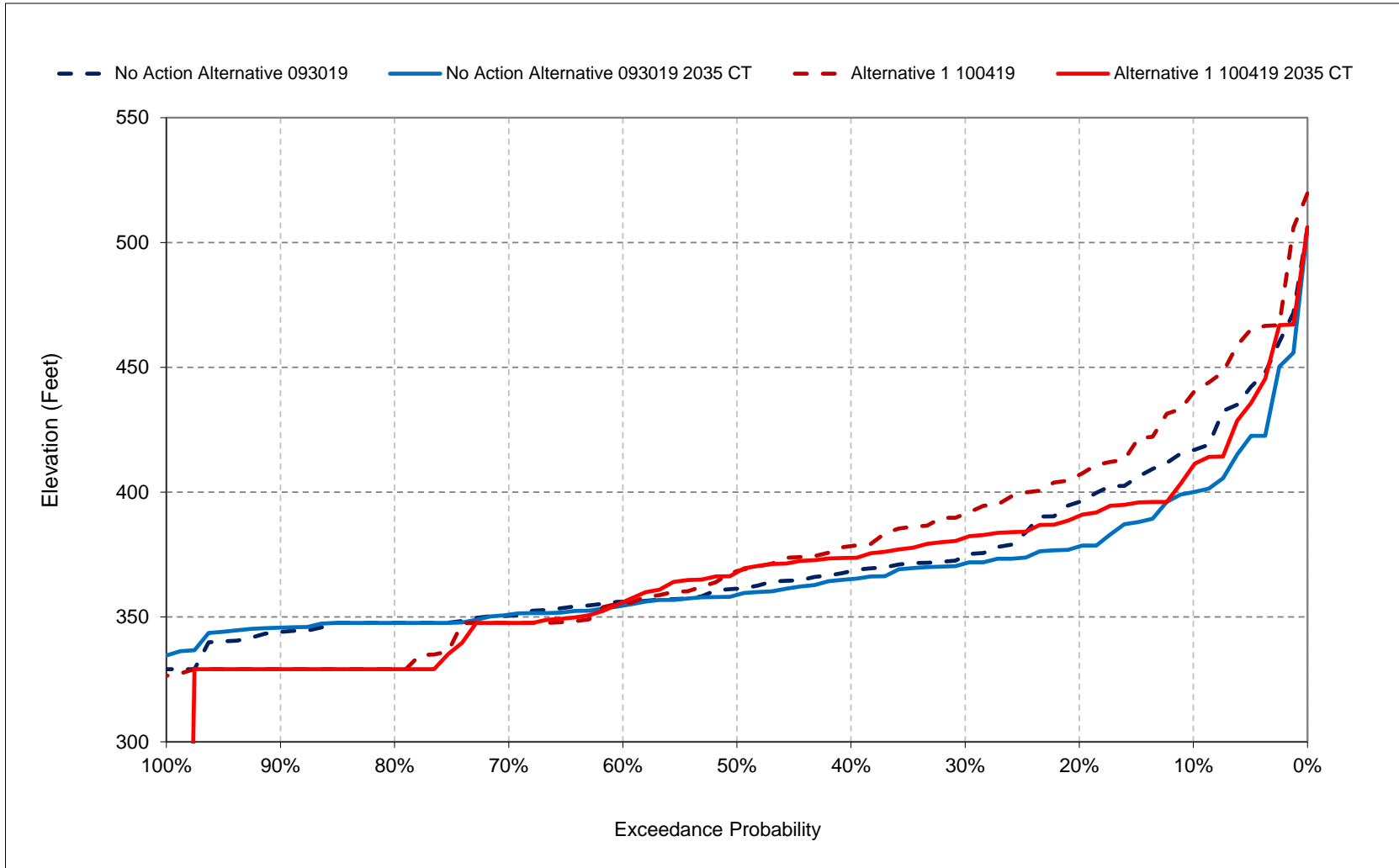
Figure 6a-17. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6a-18. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-1. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	339	414	614	749	931	972	923	796	715	441	299	317
20%	232	367	552	719	868	972	878	709	585	337	191	235
30%	201	367	544	678	825	964	844	655	481	262	126	161
40%	183	336	525	660	779	879	799	619	430	244	101	140
50%	176	311	471	636	735	835	773	598	372	220	94	123
60%	168	283	448	595	686	797	733	549	343	199	88	111
70%	155	243	394	566	656	746	684	519	321	169	61	97
80%	142	210	371	506	596	683	625	482	295	133	49	90
90%	110	167	246	427	501	593	536	432	266	92	45	81
Long Term												
Full Simulation Period ^d	205	310	464	615	723	811	747	602	433	247	138	169
Water Year Types^{b,c}												
Wet (32%)	254	373	547	676	810	916	856	708	554	320	192	214
Above Normal (16%)	175	295	488	603	732	849	759	573	407	160	90	137
Below Normal (13%)	177	269	404	588	681	780	698	529	332	193	90	143
Dry (24%)	183	289	438	597	681	770	720	585	396	249	127	153
Critical (15%)	192	265	358	549	636	638	586	499	355	231	136	157

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	466	585	764	925	972	972	972	972	865	536	386	416
20%	334	473	647	768	931	972	972	972	770	451	275	277
30%	248	365	542	704	824	945	972	903	687	398	211	218
40%	186	303	486	646	790	893	942	853	611	344	178	174
50%	158	289	453	606	758	862	900	805	581	312	156	140
60%	143	250	411	585	700	825	826	750	550	287	140	109
70%	101	219	393	538	654	775	754	665	496	256	114	90
80%	45	201	347	496	640	712	697	615	444	237	102	45
90%	45	175	292	460	599	645	626	567	428	208	85	45
Long Term												
Full Simulation Period ^d	216	338	491	636	754	833	840	778	606	352	200	189
Water Year Types^{b,c}												
Wet (32%)	283	446	622	699	808	911	951	909	737	462	282	249
Above Normal (16%)	72	238	429	617	741	819	867	812	627	301	140	68
Below Normal (13%)	213	295	418	663	778	843	815	734	557	303	157	181
Dry (24%)	219	313	462	587	710	784	771	695	520	295	164	190
Critical (15%)	222	294	387	576	699	749	704	637	487	308	187	196

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	127	172	150	176	41	0	49	176	151	96	87	99
20%	102	107	95	49	64	0	94	262	185	114	84	42
30%	47	-1	-2	26	-1	-19	128	248	207	136	85	58
40%	2	-33	-39	-15	12	14	143	234	181	101	78	34
50%	-18	-23	-18	-30	23	27	127	207	209	91	62	17
60%	-25	-33	-37	-11	14	27	93	200	207	88	52	-1
70%	-54	-25	-1	-28	-3	29	71	146	176	87	53	-7
80%	-97	-8	-25	-10	44	28	72	133	148	103	53	-45
90%	-65	9	46	34	97	52	90	135	162	116	40	-36
Long Term												
Full Simulation Period ^d	11	28	27	21	30	22	93	176	173	105	62	20
Water Year Types^{b,c}												
Wet (32%)	29	73	75	23	-2	-5	95	201	183	143	90	35
Above Normal (16%)	-104	-57	-59	14	8	-30	108	239	220	141	49	-70
Below Normal (13%)	36	27	14	75	97	63	117	205	225	110	66	38
Dry (24%)	37	23	24	-10	29	13	51	109	125	46	38	37
Critical (15%)	30	29	29	27	63	112	119	139	132	77	52	39

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6b-2. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	252	367	561	739	957	972	940	841	724	426	236	249
20%	209	363	544	695	864	972	883	725	564	288	160	174
30%	197	337	524	657	822	953	861	665	470	262	115	150
40%	183	310	494	631	745	907	836	618	416	235	101	133
50%	180	283	462	600	712	807	729	577	388	212	91	117
60%	168	263	427	570	661	749	706	541	343	182	80	107
70%	153	248	385	522	591	707	652	508	319	162	62	98
80%	143	204	316	460	552	654	595	444	278	146	50	90
90%	127	167	261	401	461	532	477	391	245	58	45	86
Long Term												
Full Simulation Period ^d	193	291	447	590	702	797	738	598	430	235	123	151
Water Year Types ^{b,c}												
Wet (32%)	252	350	518	665	812	933	881	744	593	323	192	219
Above Normal (16%)	166	255	443	601	743	861	783	607	419	153	89	131
Below Normal (13%)	165	277	416	546	658	767	702	543	342	204	87	125
Dry (24%)	162	267	427	561	624	711	649	508	335	211	91	117
Critical (15%)	172	253	363	505	591	607	560	473	329	203	95	105

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	342	495	670	822	972	972	972	972	827	506	317	292
20%	264	410	585	741	915	972	972	972	734	435	239	216
30%	212	331	522	672	842	946	972	903	678	380	219	186
40%	182	290	461	640	784	913	971	861	641	347	177	158
50%	160	271	438	606	735	877	903	807	594	315	152	139
60%	148	259	415	570	678	815	836	737	543	271	138	110
70%	110	227	397	548	656	751	751	660	482	258	118	90
80%	45	207	374	511	630	718	695	614	449	237	109	45
90%	45	184	306	454	590	661	636	571	423	196	89	45
Long Term												
Full Simulation Period ^d	188	314	471	624	751	835	842	780	601	337	184	158
Water Year Types ^{b,c}												
Wet (32%)	222	388	563	683	822	925	960	918	745	443	268	200
Above Normal (16%)	67	226	408	633	762	849	894	838	622	278	132	65
Below Normal (13%)	200	304	432	611	735	812	801	715	530	302	147	164
Dry (24%)	194	291	459	582	694	773	759	685	508	284	141	156
Critical (15%)	222	299	398	571	693	752	707	639	483	295	166	167

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	90	128	109	83	15	0	32	131	103	80	80	43
20%	55	47	41	46	51	0	89	247	171	146	78	42
30%	15	-6	-2	15	19	-6	111	238	207	118	104	35
40%	0	-20	-33	9	39	6	135	243	225	111	75	25
50%	-20	-12	-24	6	24	70	174	230	206	103	61	22
60%	-19	-4	-12	-1	17	66	130	197	200	88	57	3
70%	-43	-21	12	26	64	44	99	152	162	96	56	-8
80%	-98	3	58	51	77	64	99	170	171	90	59	-45
90%	-82	18	45	53	129	129	159	179	178	138	44	-41
Long Term												
Full Simulation Period ^d	-5	23	24	34	48	38	104	182	171	102	62	7
Water Year Types ^{b,c}												
Wet (32%)	-30	37	45	18	10	-8	79	173	153	119	75	-19
Above Normal (16%)	-98	-29	-35	32	19	-12	112	231	203	125	43	-66
Below Normal (13%)	36	28	16	66	77	45	99	172	188	98	60	39
Dry (24%)	32	24	32	21	70	62	110	177	173	73	50	39
Critical (15%)	50	46	35	65	101	145	147	166	154	91	71	63

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-3. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	339	414	614	749	931	972	923	796	715	441	299	317
20%	232	367	552	719	868	972	878	709	585	337	191	235
30%	201	367	544	678	825	964	844	655	481	262	126	161
40%	183	336	525	660	779	879	799	619	430	244	101	140
50%	176	311	471	636	735	835	773	598	372	220	94	123
60%	168	283	448	595	686	797	733	549	343	199	88	111
70%	155	243	394	566	656	746	684	519	321	169	61	97
80%	142	210	371	506	596	683	625	482	295	133	49	90
90%	110	167	246	427	501	593	536	432	266	92	45	81
Long Term												
Full Simulation Period ^d	205	310	464	615	723	811	747	602	433	247	138	169
Water Year Types ^{b,c}												
Wet (32%)	254	373	547	676	810	916	856	708	554	320	192	214
Above Normal (16%)	175	295	488	603	732	849	759	573	407	160	90	137
Below Normal (13%)	177	269	404	588	681	780	698	529	332	193	90	143
Dry (24%)	183	289	438	597	681	770	720	585	396	249	127	153
Critical (15%)	192	265	358	549	636	638	586	499	355	231	136	157

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	252	367	561	739	957	972	940	841	724	426	236	249
20%	209	363	544	695	864	972	883	725	564	288	160	174
30%	197	337	524	657	822	953	861	665	470	262	115	150
40%	183	310	494	631	745	907	836	618	416	235	101	133
50%	180	283	462	600	712	807	729	577	388	212	91	117
60%	168	263	427	570	661	749	706	541	343	182	80	107
70%	153	248	385	522	591	707	652	508	319	162	62	98
80%	143	204	316	460	552	654	595	444	278	146	50	90
90%	127	167	261	401	461	532	477	391	245	58	45	86
Long Term												
Full Simulation Period ^d	193	291	447	590	702	797	738	598	430	235	123	151
Water Year Types ^{b,c}												
Wet (32%)	252	350	518	665	812	933	881	744	593	323	192	219
Above Normal (16%)	166	255	443	601	743	861	783	607	419	153	89	131
Below Normal (13%)	165	277	416	546	658	767	702	543	342	204	87	125
Dry (24%)	162	267	427	561	624	711	649	508	335	211	91	117
Critical (15%)	172	253	363	505	591	607	560	473	329	203	95	105

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-87	-47	-53	-11	26	0	17	45	10	-15	-62	-68
20%	-22	-4	-8	-24	-3	0	5	16	-22	-49	-30	-61
30%	-4	-29	-20	-20	-3	-11	17	10	-10	1	-11	-10
40%	-1	-26	-31	-29	-34	28	38	-1	-14	-8	1	-8
50%	4	-28	-10	-36	-23	-27	-44	-21	16	-8	-3	-6
60%	0	-20	-21	-25	-25	-49	-27	-9	0	-16	-8	-4
70%	-2	5	-9	-44	-65	-39	-31	-11	-1	-7	1	1
80%	1	-5	-55	-46	-44	-29	-30	-38	-17	13	1	0
90%	17	0	15	-25	-41	-61	-59	-40	-21	-34	0	4
Long Term												
Full Simulation Period ^d	-12	-20	-17	-24	-21	-13	-9	-4	-3	-12	-15	-18
Water Year Types ^{b,c}												
Wet (32%)	-3	-23	-29	-10	3	17	25	37	39	4	1	5
Above Normal (16%)	-10	-40	-45	-2	11	12	24	34	12	-7	-2	-6
Below Normal (13%)	-13	8	11	-43	-23	-12	4	14	9	11	-3	-18
Dry (24%)	-21	-22	-11	-36	-57	-59	-71	-77	-60	-38	-36	-36
Critical (15%)	-20	-12	4	-44	-45	-31	-26	-26	-26	-28	-41	-52

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-4. San Luis CVP Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	466	585	764	925	972	972	972	972	865	536	386	416
20%	334	473	647	768	931	972	972	972	770	451	275	277
30%	248	365	542	704	824	945	972	903	687	398	211	218
40%	186	303	486	646	790	893	942	853	611	344	178	174
50%	158	289	453	606	758	862	900	805	581	312	156	140
60%	143	250	411	585	700	825	826	750	550	287	140	109
70%	101	219	393	538	654	775	754	665	496	256	114	90
80%	45	201	347	496	640	712	697	615	444	237	102	45
90%	45	175	292	460	599	645	626	567	428	208	85	45
Long Term												
Full Simulation Period ^d	216	338	491	636	754	833	840	778	606	352	200	189
Water Year Types ^{b,c}												
Wet (32%)	283	446	622	699	808	911	951	909	737	462	282	249
Above Normal (16%)	72	238	429	617	741	819	867	812	627	301	140	68
Below Normal (13%)	213	295	418	663	778	843	815	734	557	303	157	181
Dry (24%)	219	313	462	587	710	784	771	695	520	295	164	190
Critical (15%)	222	294	387	576	699	749	704	637	487	308	187	196

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	342	495	670	822	972	972	972	972	827	506	317	292
20%	264	410	585	741	915	972	972	972	734	435	239	216
30%	212	331	522	672	842	946	972	903	678	380	219	186
40%	182	290	461	640	784	913	971	861	641	347	177	158
50%	160	271	438	606	735	877	903	807	594	315	152	139
60%	148	259	415	570	678	815	836	737	543	271	138	110
70%	110	227	397	548	656	751	751	660	482	258	118	90
80%	45	207	374	511	630	718	695	614	449	237	109	45
90%	45	184	306	454	590	661	636	571	423	196	89	45
Long Term												
Full Simulation Period ^d	188	314	471	624	751	835	842	780	601	337	184	158
Water Year Types ^{b,c}												
Wet (32%)	222	388	563	683	822	925	960	918	745	443	268	200
Above Normal (16%)	67	226	408	633	762	849	894	838	622	278	132	65
Below Normal (13%)	200	304	432	611	735	812	801	715	530	302	147	164
Dry (24%)	194	291	459	582	694	773	759	685	508	284	141	156
Critical (15%)	222	299	398	571	693	752	707	639	483	295	166	167

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-124	-91	-94	-103	0	0	0	0	-38	-31	-69	-125
20%	-70	-63	-62	-27	-16	0	0	0	-36	-17	-36	-61
30%	-36	-34	-20	-31	18	1	0	0	-10	-17	8	-33
40%	-3	-13	-25	-6	-6	20	29	7	30	2	-2	-16
50%	2	-18	-15	0	-22	15	3	2	13	3	-4	-1
60%	5	9	4	-15	-22	-10	10	-12	-7	-16	-3	1
70%	9	8	5	10	2	-24	-3	-4	-14	2	4	0
80%	0	6	28	15	-10	6	-2	-1	6	0	7	0
90%	0	9	14	-7	-9	16	10	4	-5	-12	4	0
Long Term												
Full Simulation Period ^d	-28	-24	-19	-11	-3	3	3	2	-5	-14	-16	-31
Water Year Types ^{b,c}												
Wet (32%)	-61	-58	-59	-15	14	14	8	9	9	-19	-14	-49
Above Normal (16%)	-4	-12	-21	16	21	30	27	26	-4	-23	-8	-3
Below Normal (13%)	-13	9	14	-52	-43	-31	-15	-19	-27	-1	-9	-17
Dry (24%)	-25	-21	-3	-5	-16	-11	-12	-10	-12	-10	-23	-34
Critical (15%)	1	5	11	-6	-6	3	3	1	-4	-13	-22	-29

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

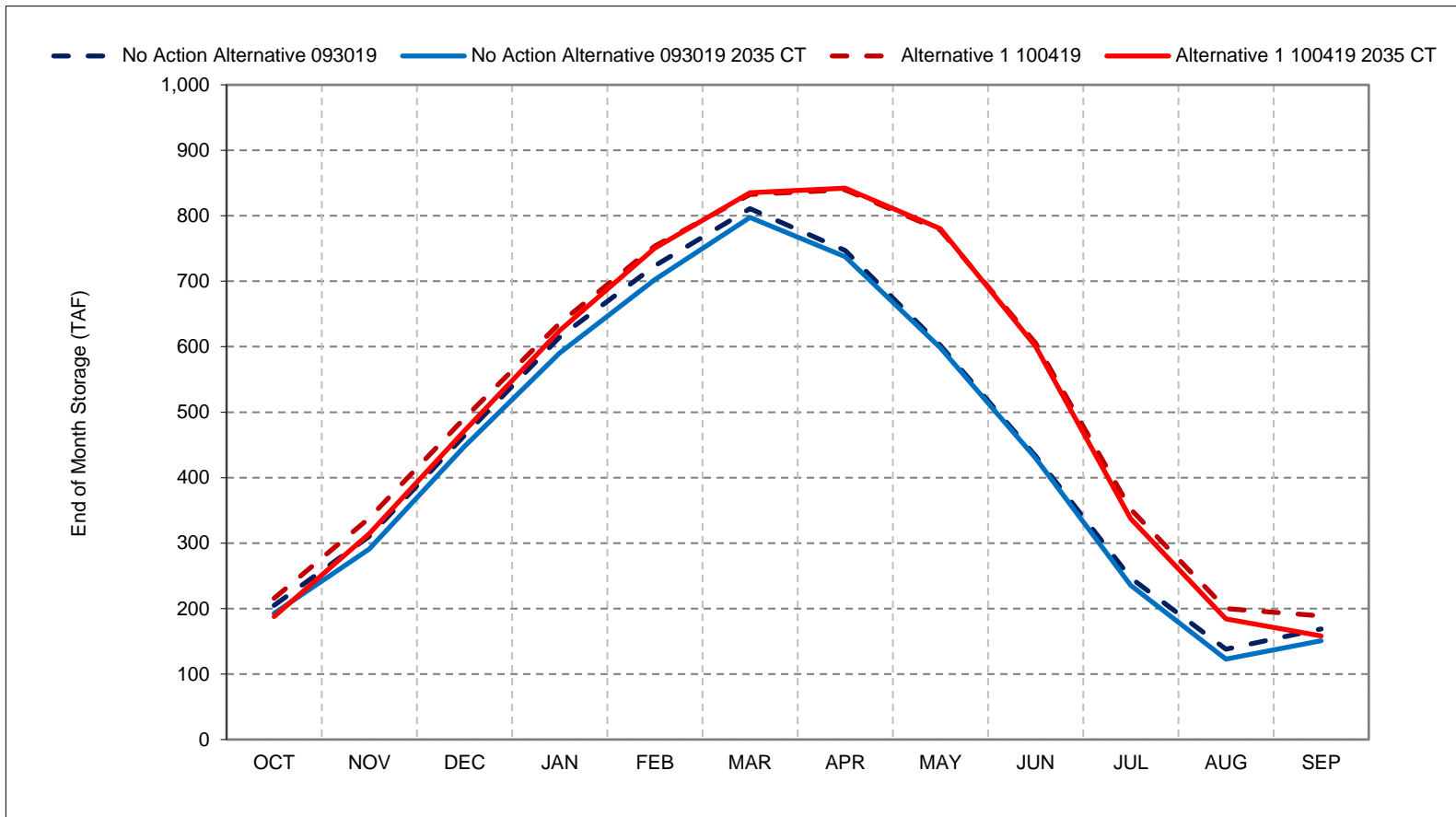
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6b-1. San Luis CVP Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

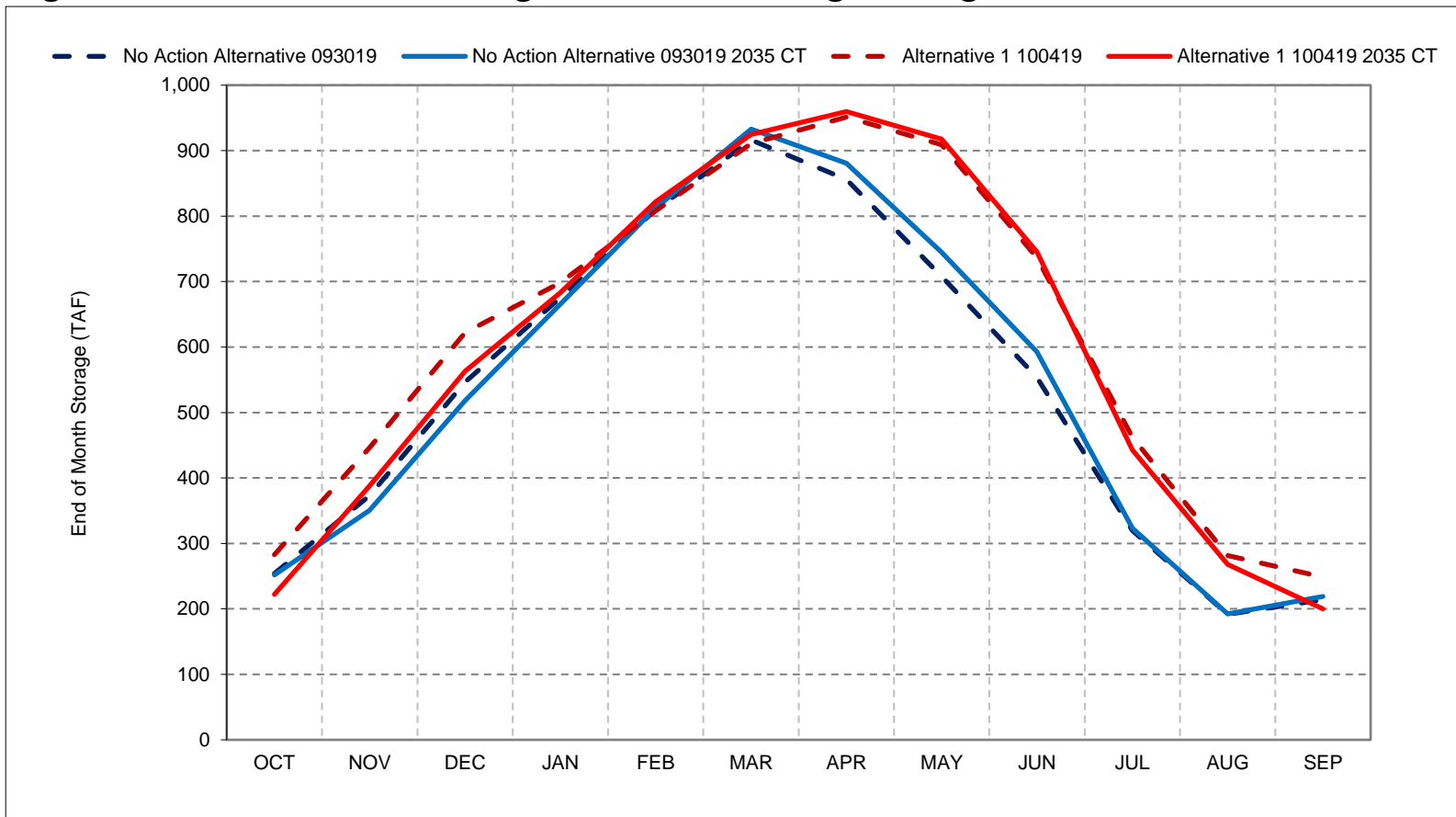
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-2. San Luis CVP Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

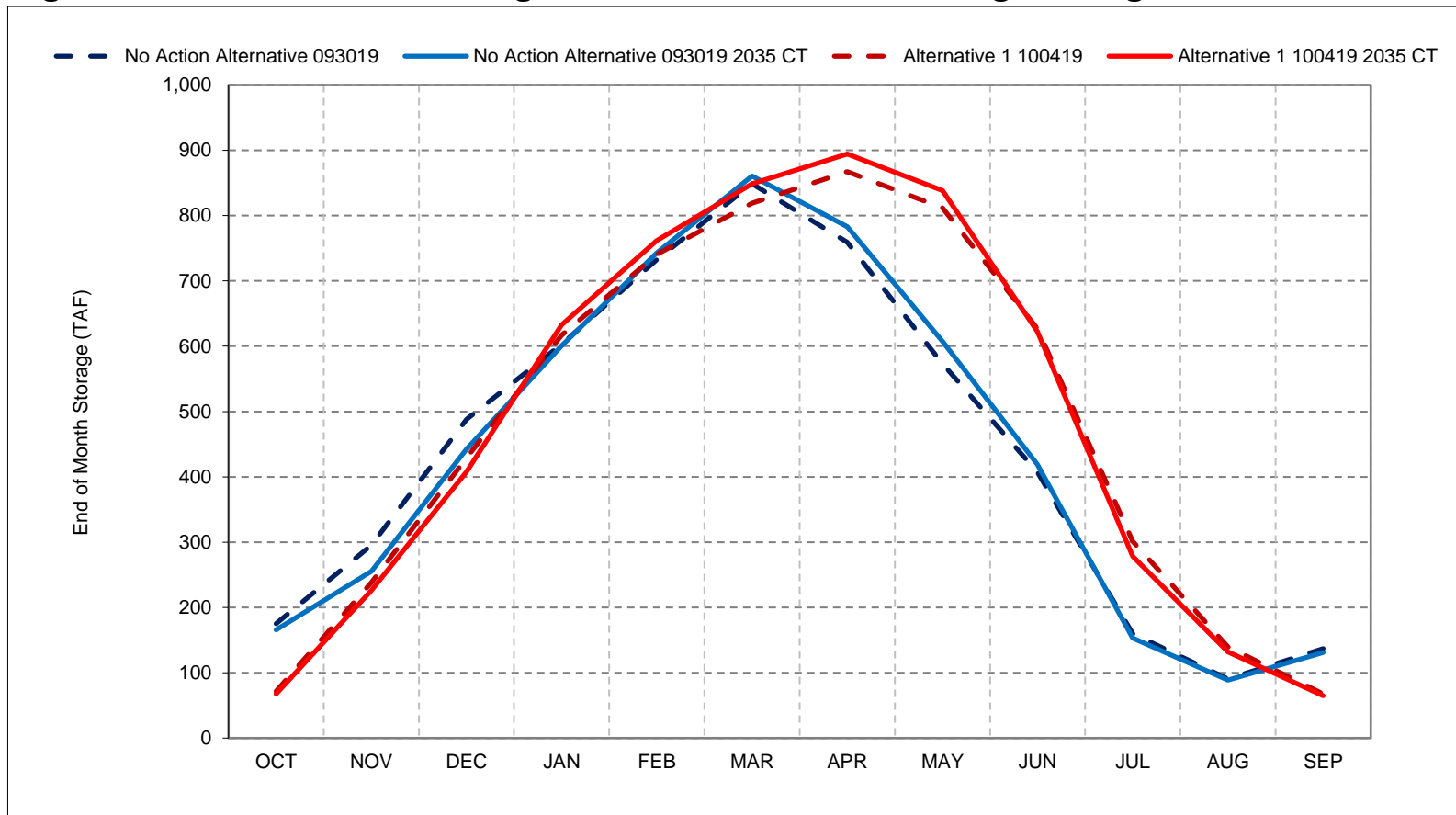
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-3. San Luis CVP Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

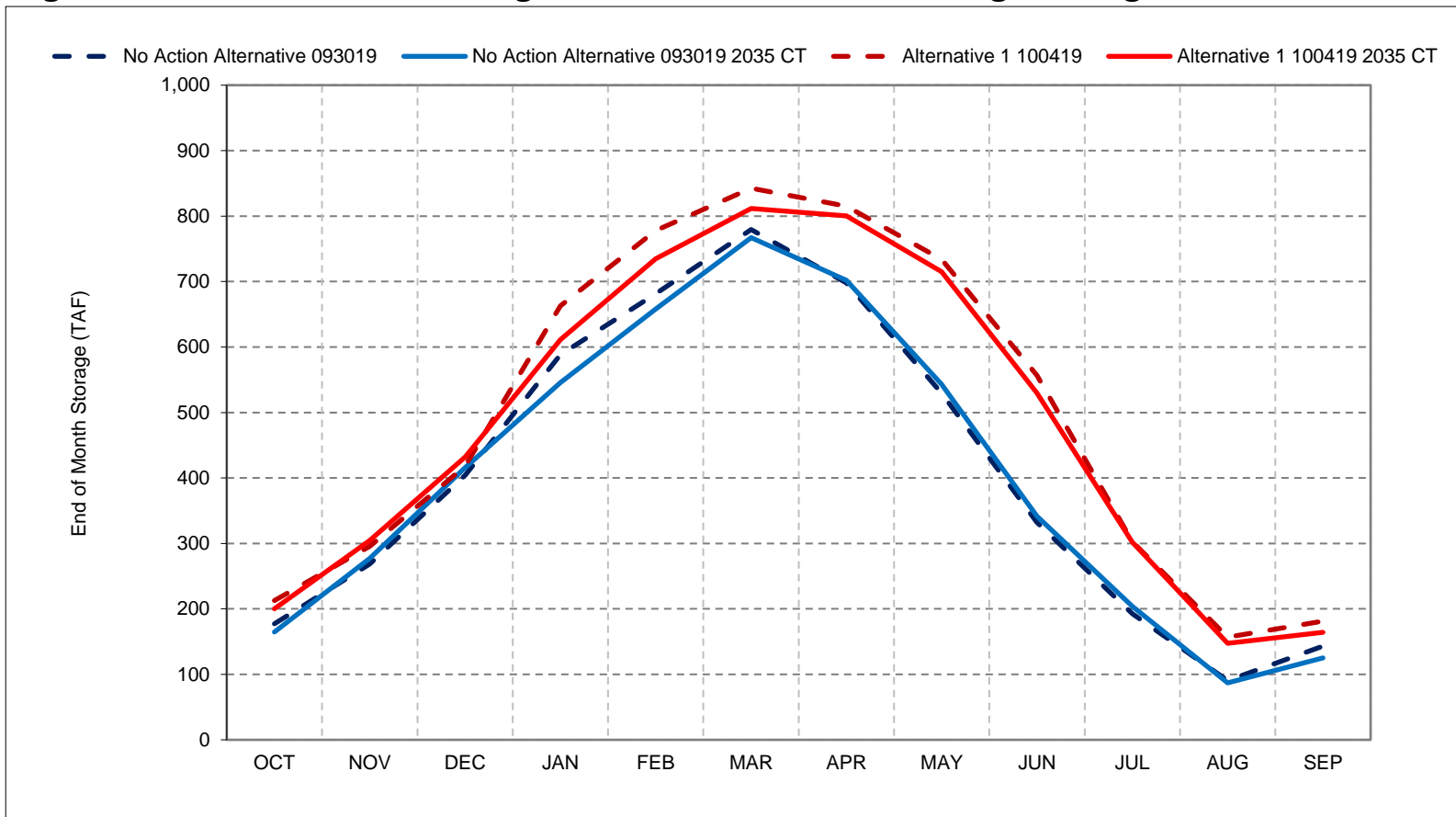
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-4. San Luis CVP Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

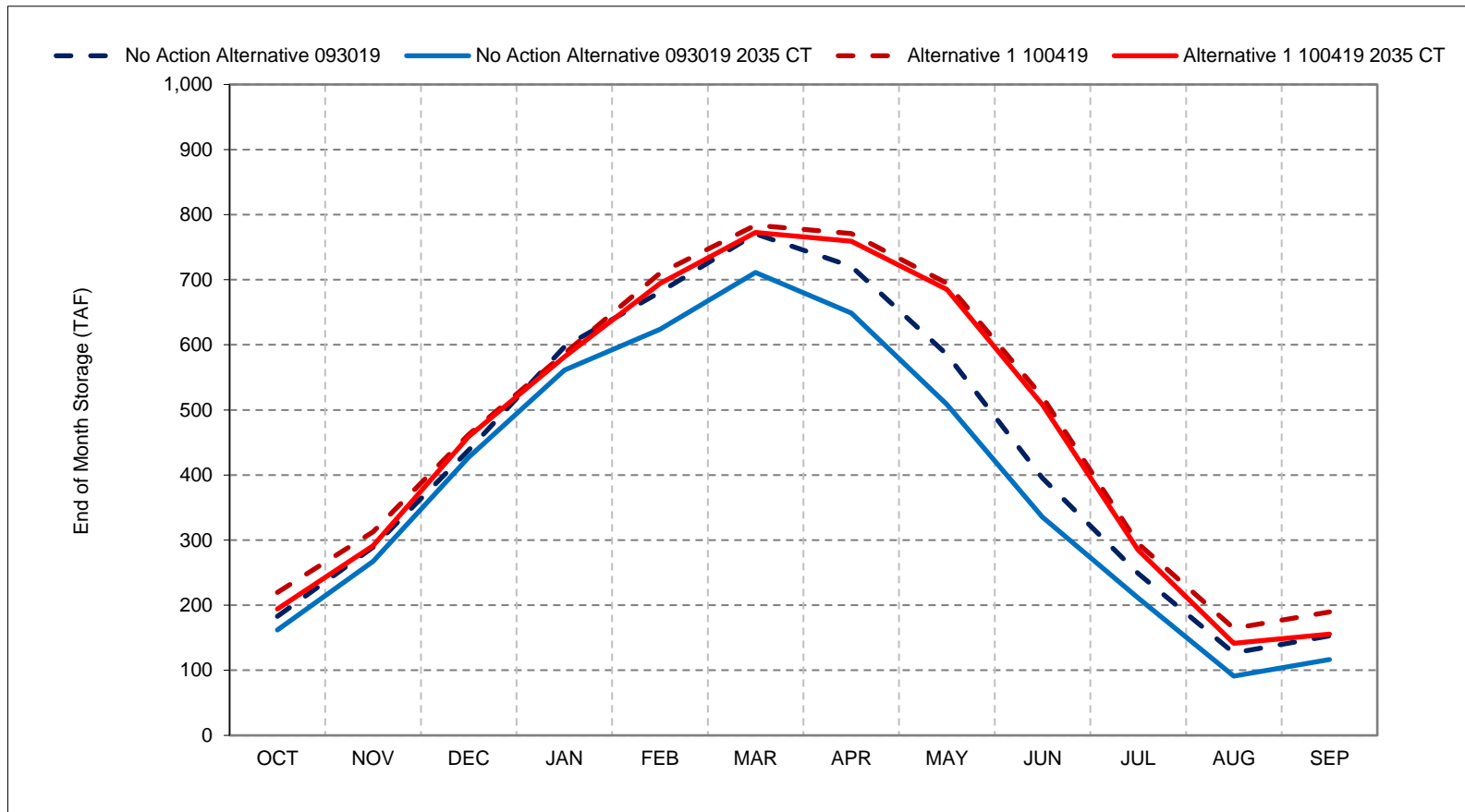
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-5. San Luis CVP Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

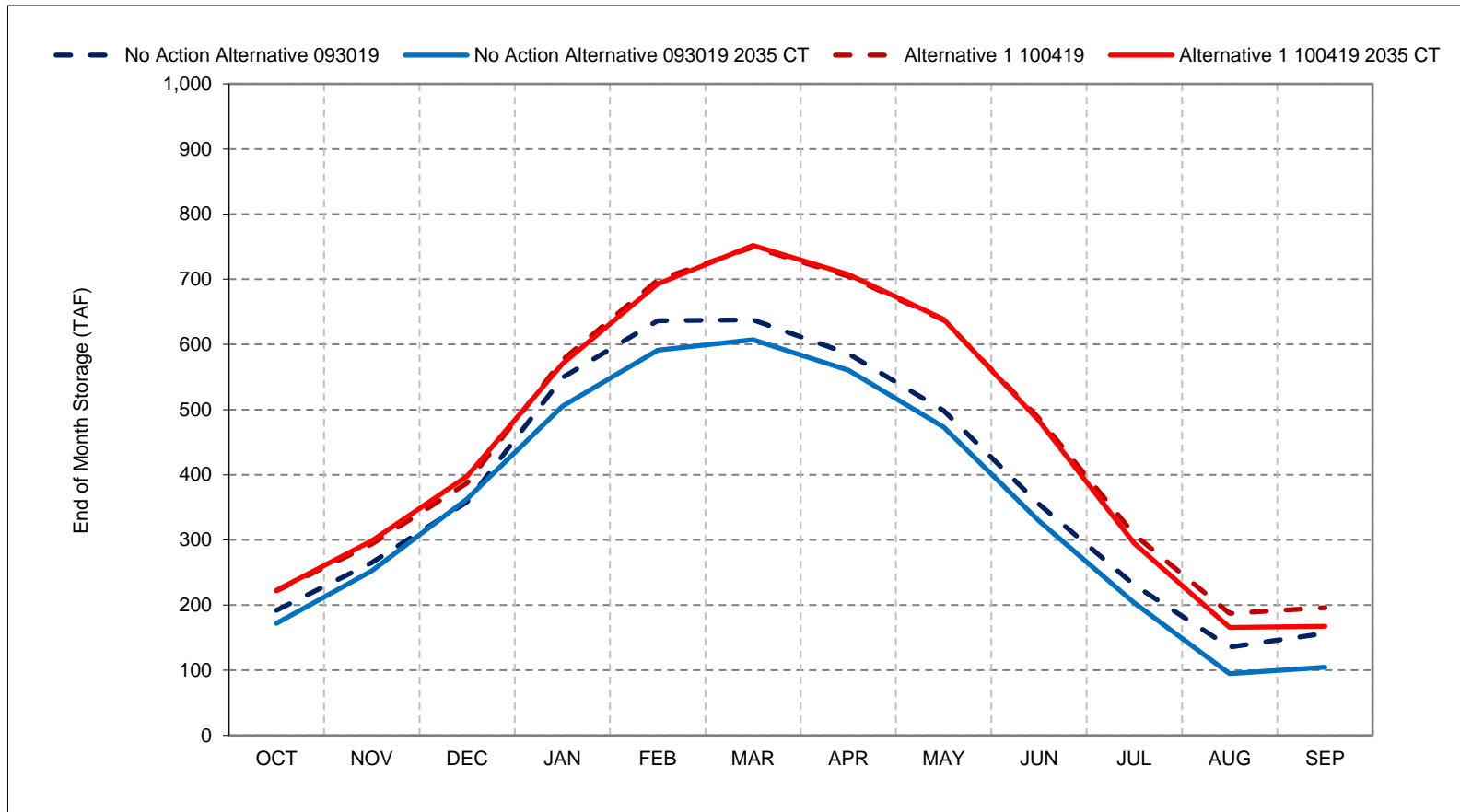
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-6. San Luis CVP Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

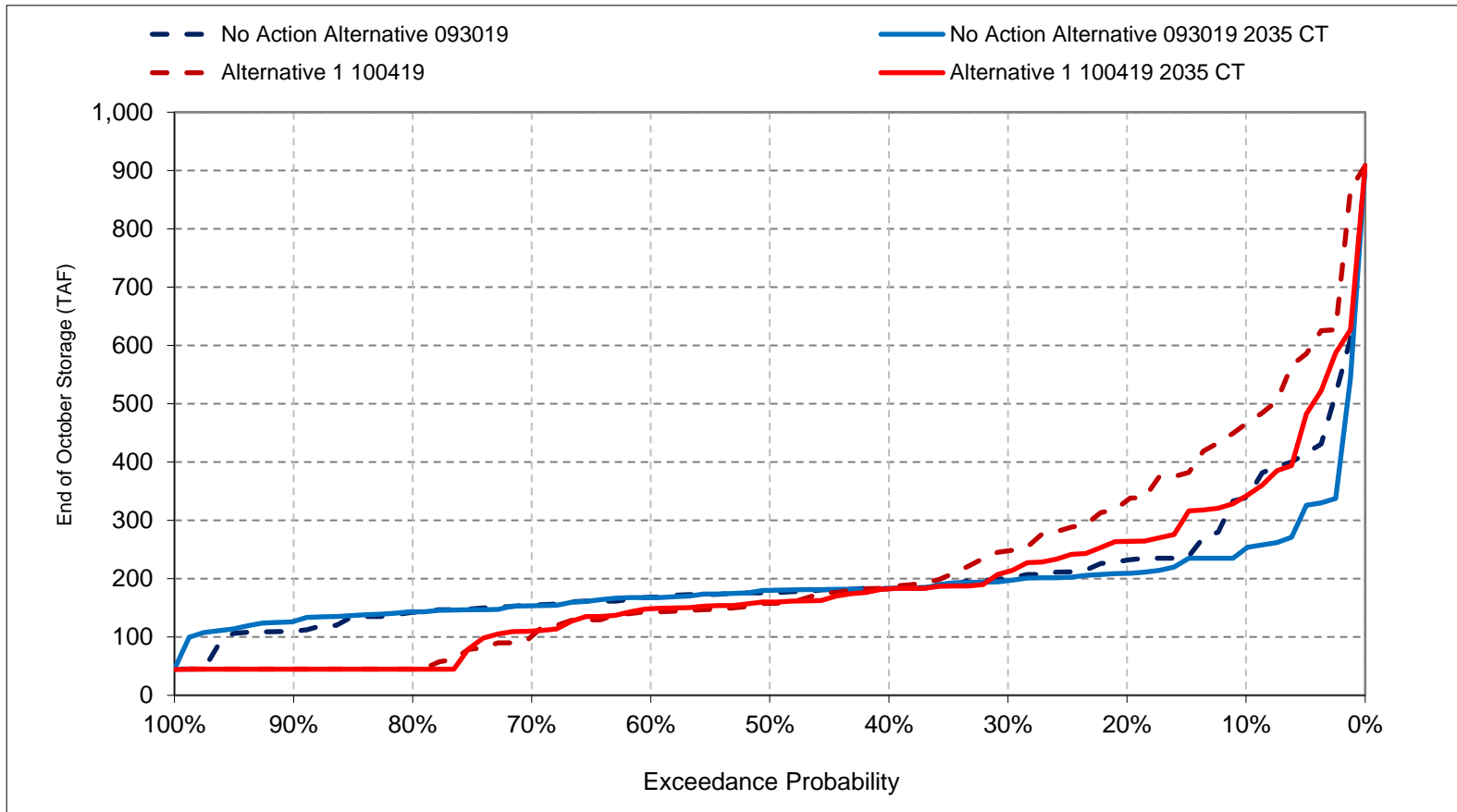
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

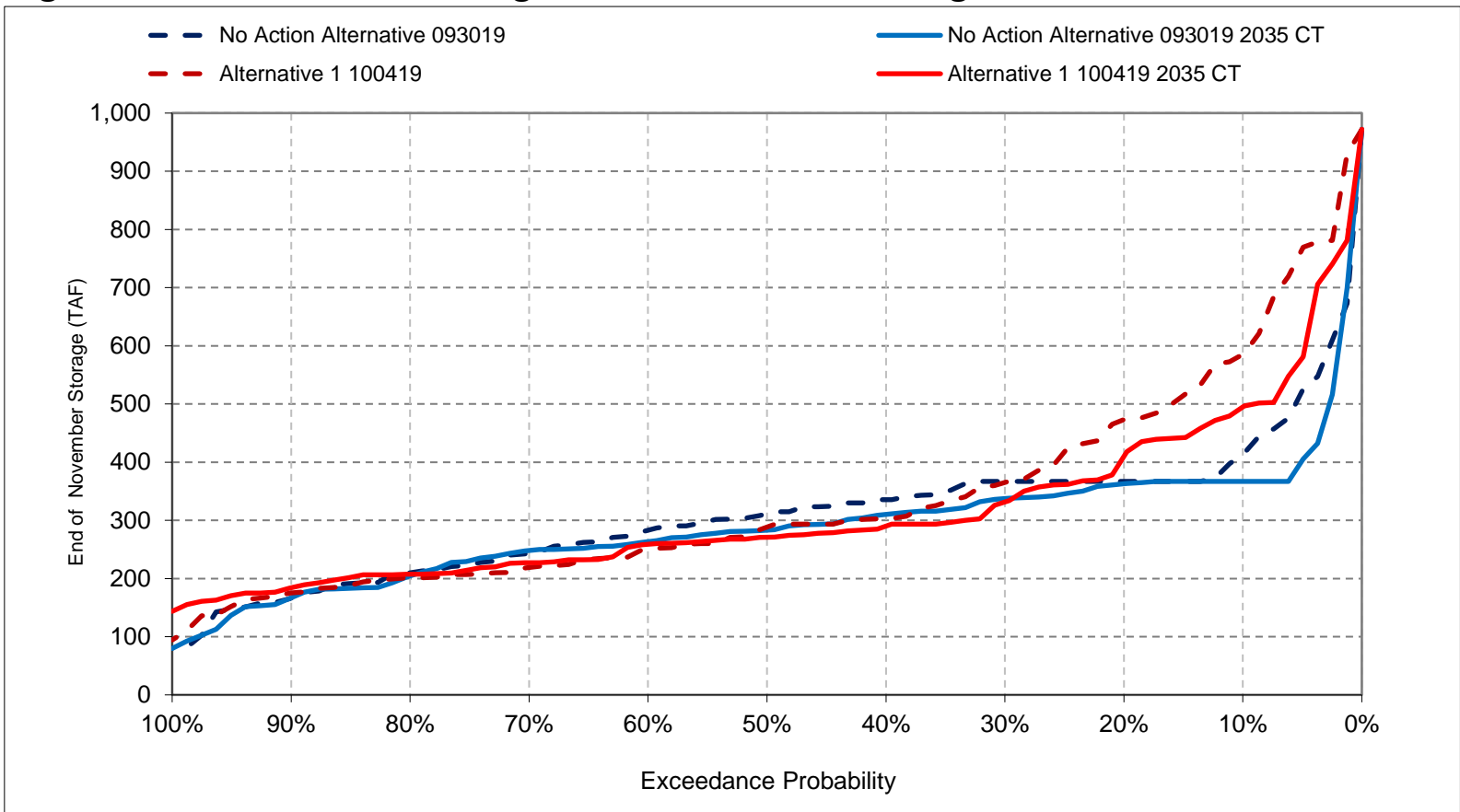
Figure 6b-7. San Luis CVP Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

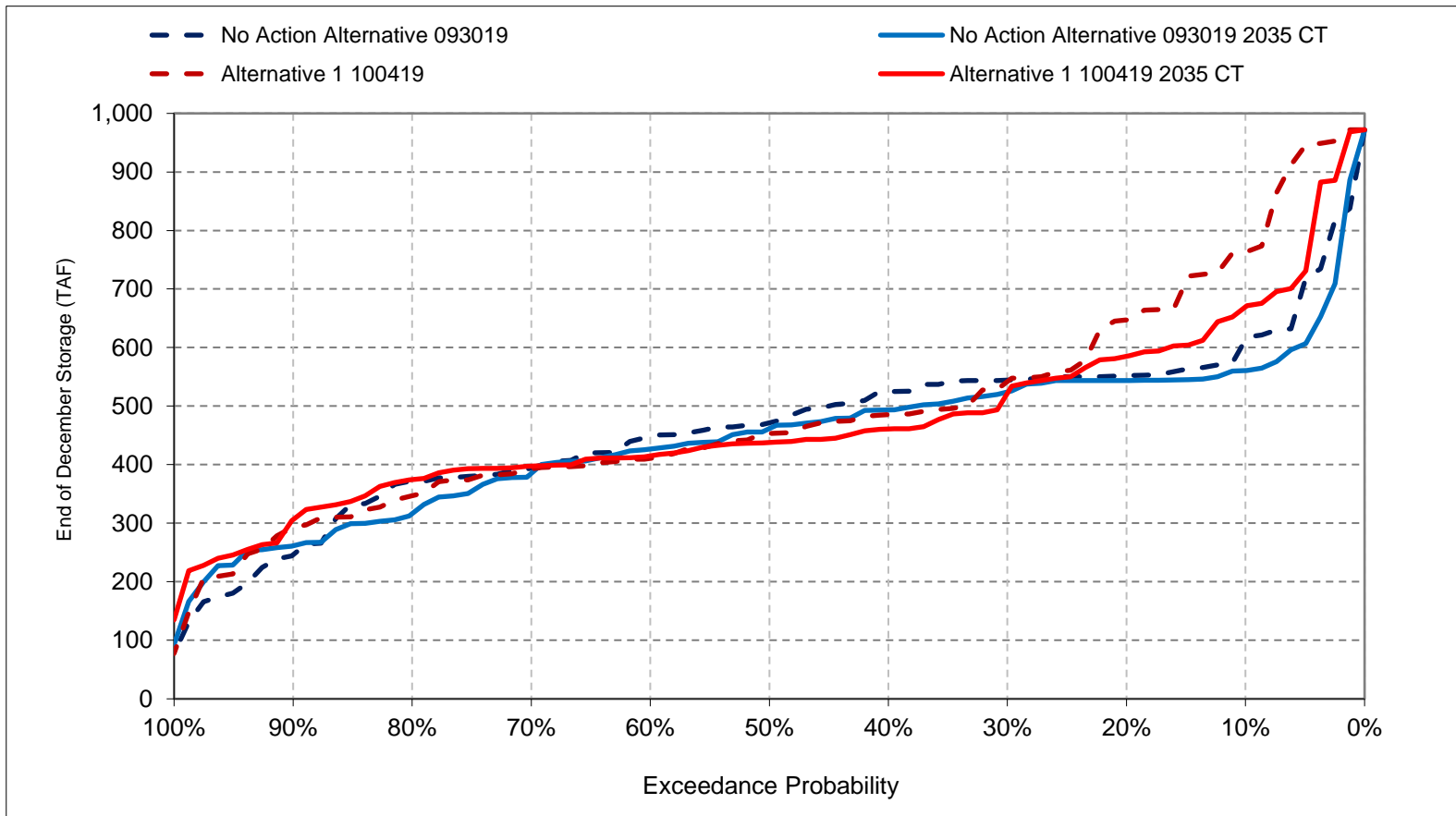
Figure 6b-8. San Luis CVP Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

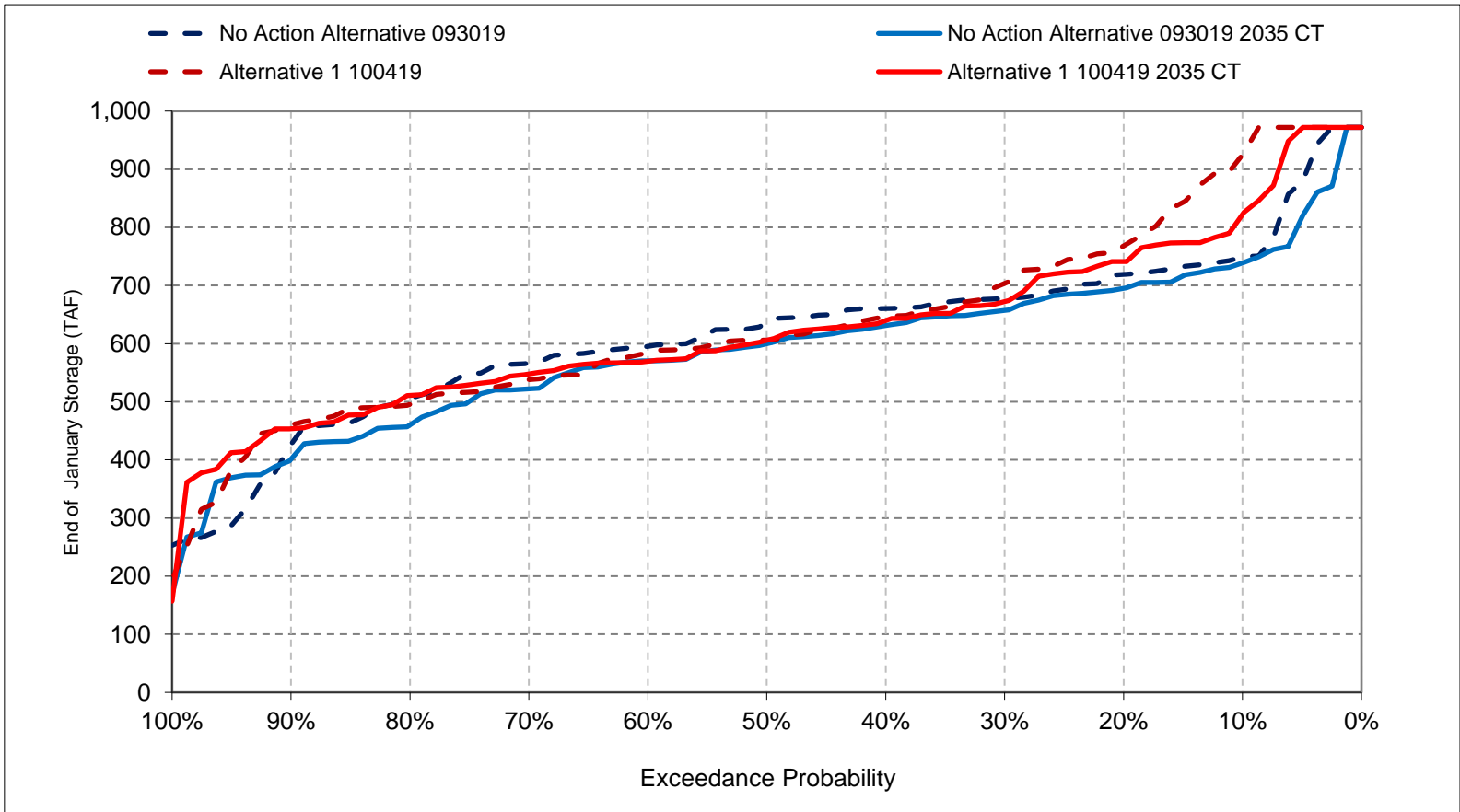
Figure 6b-9. San Luis CVP Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

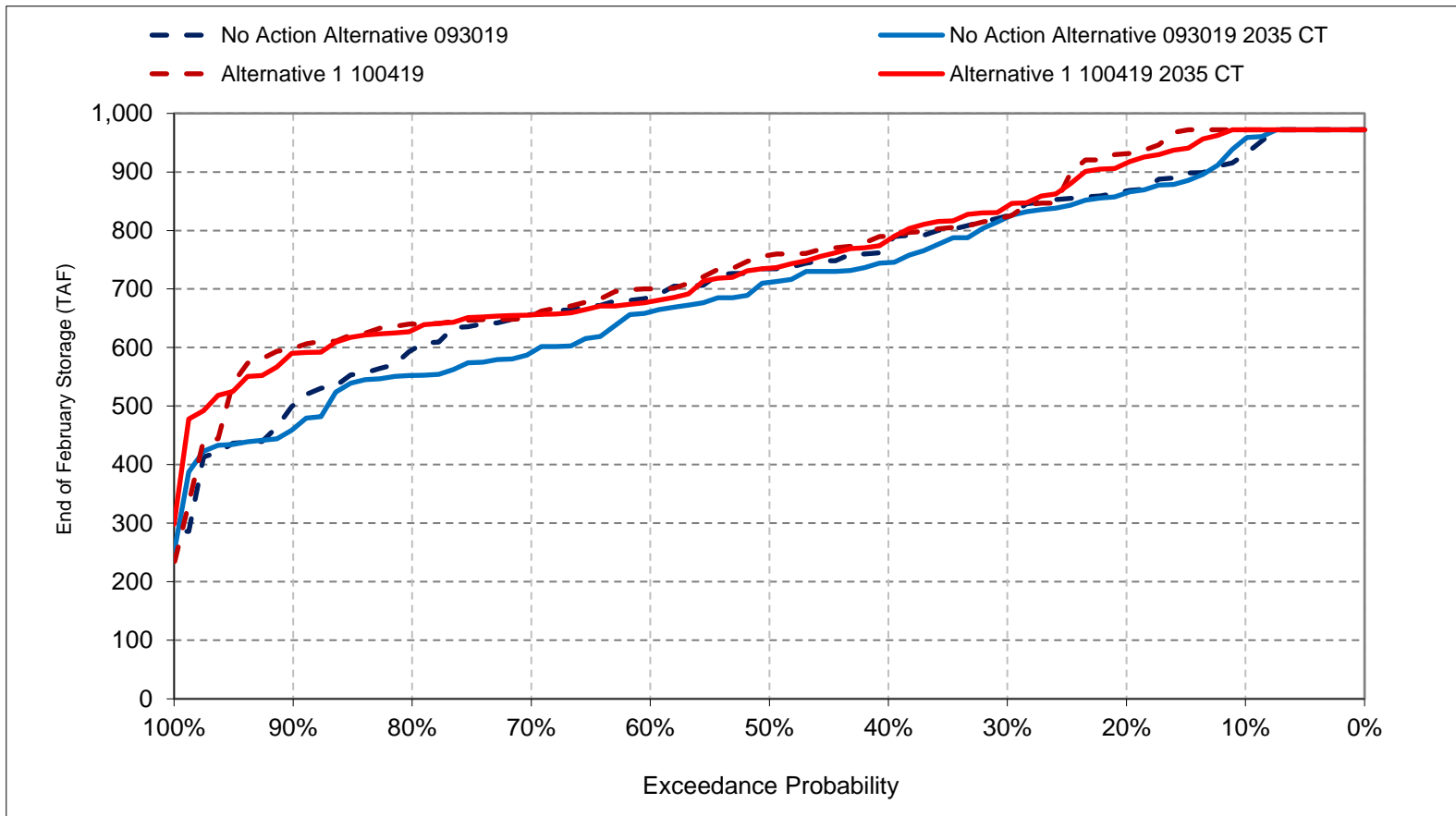
Figure 6b-10. San Luis CVP Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

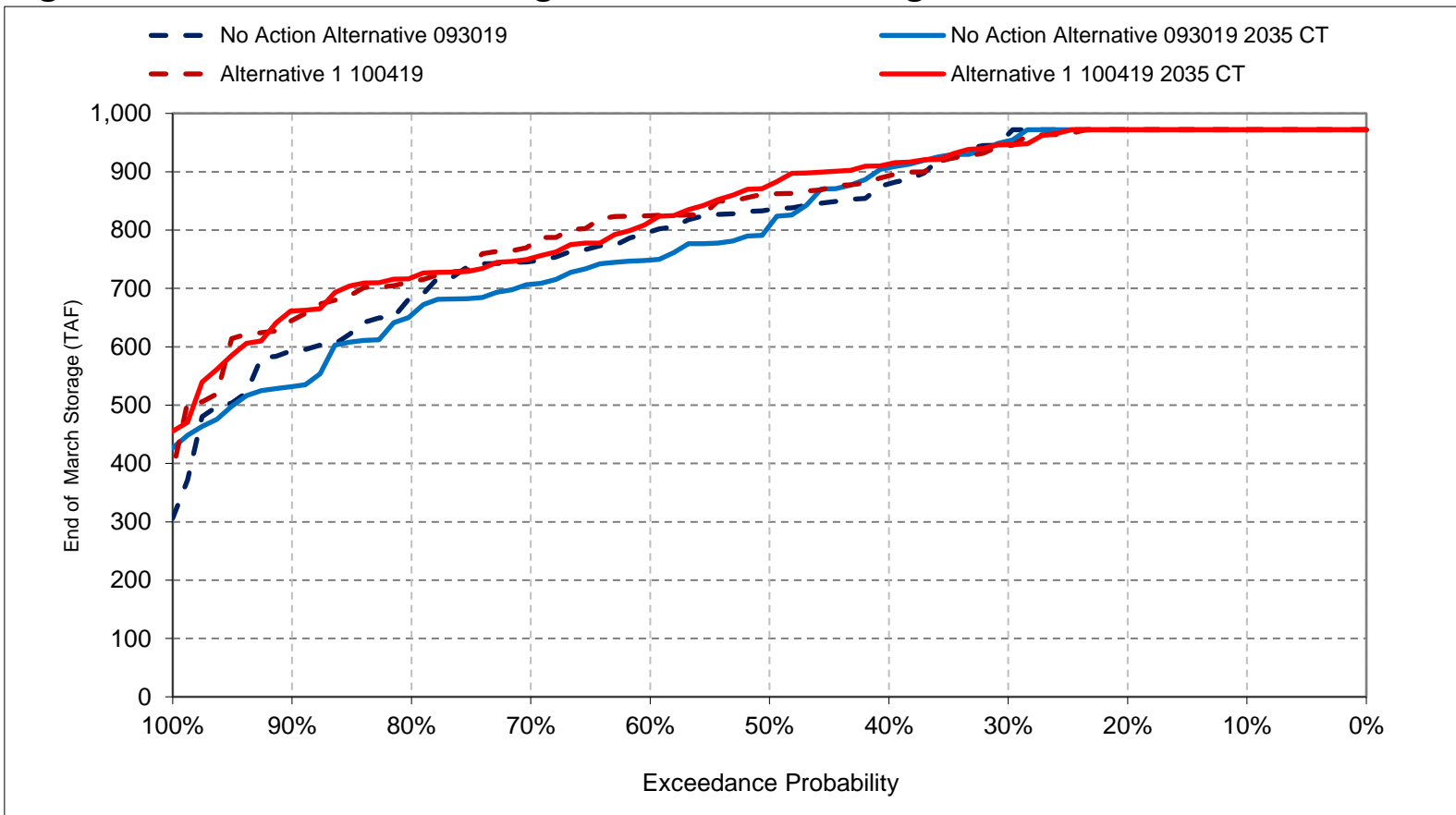
Figure 6b-11. San Luis CVP Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

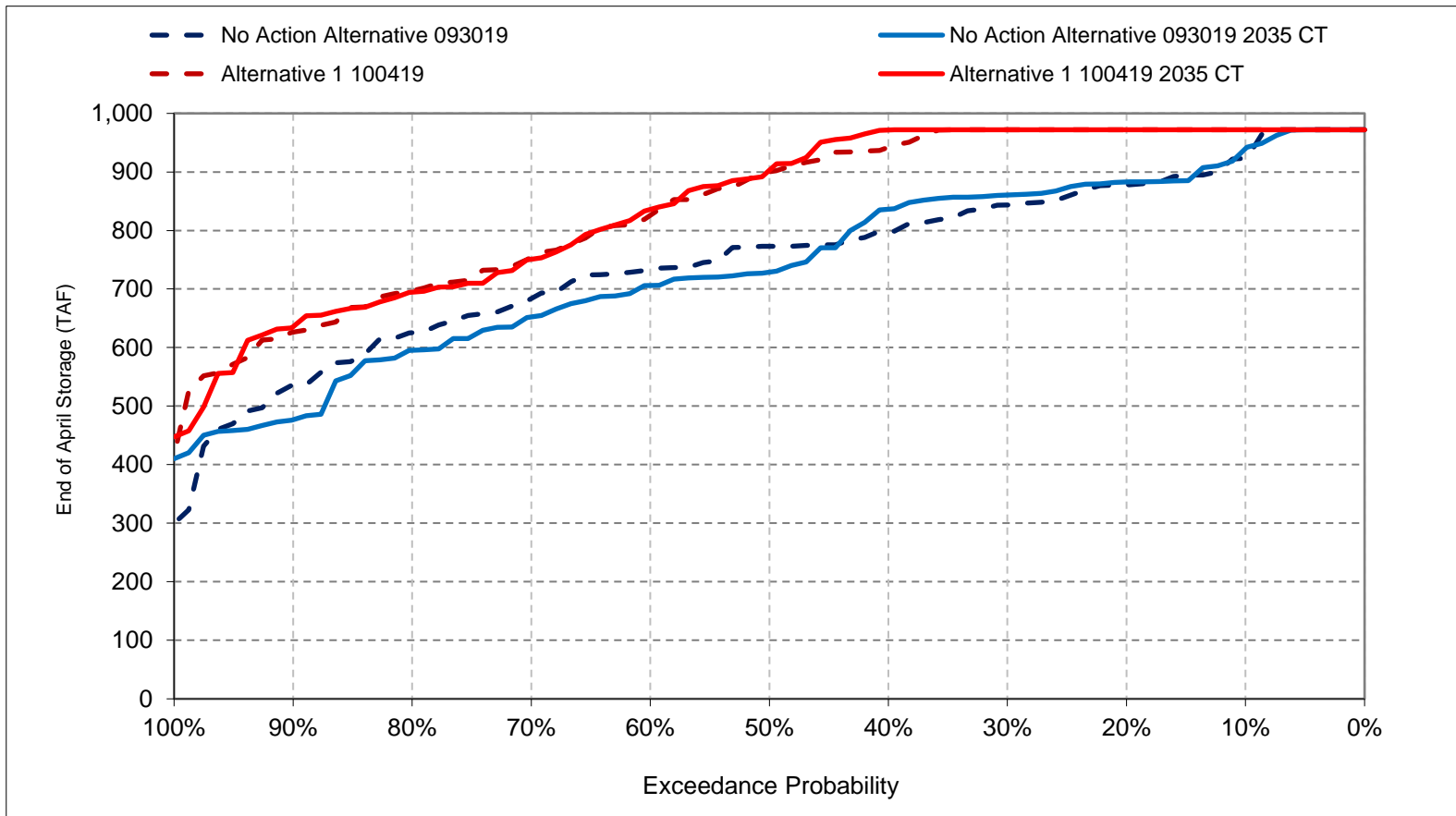
Figure 6b-12. San Luis CVP Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

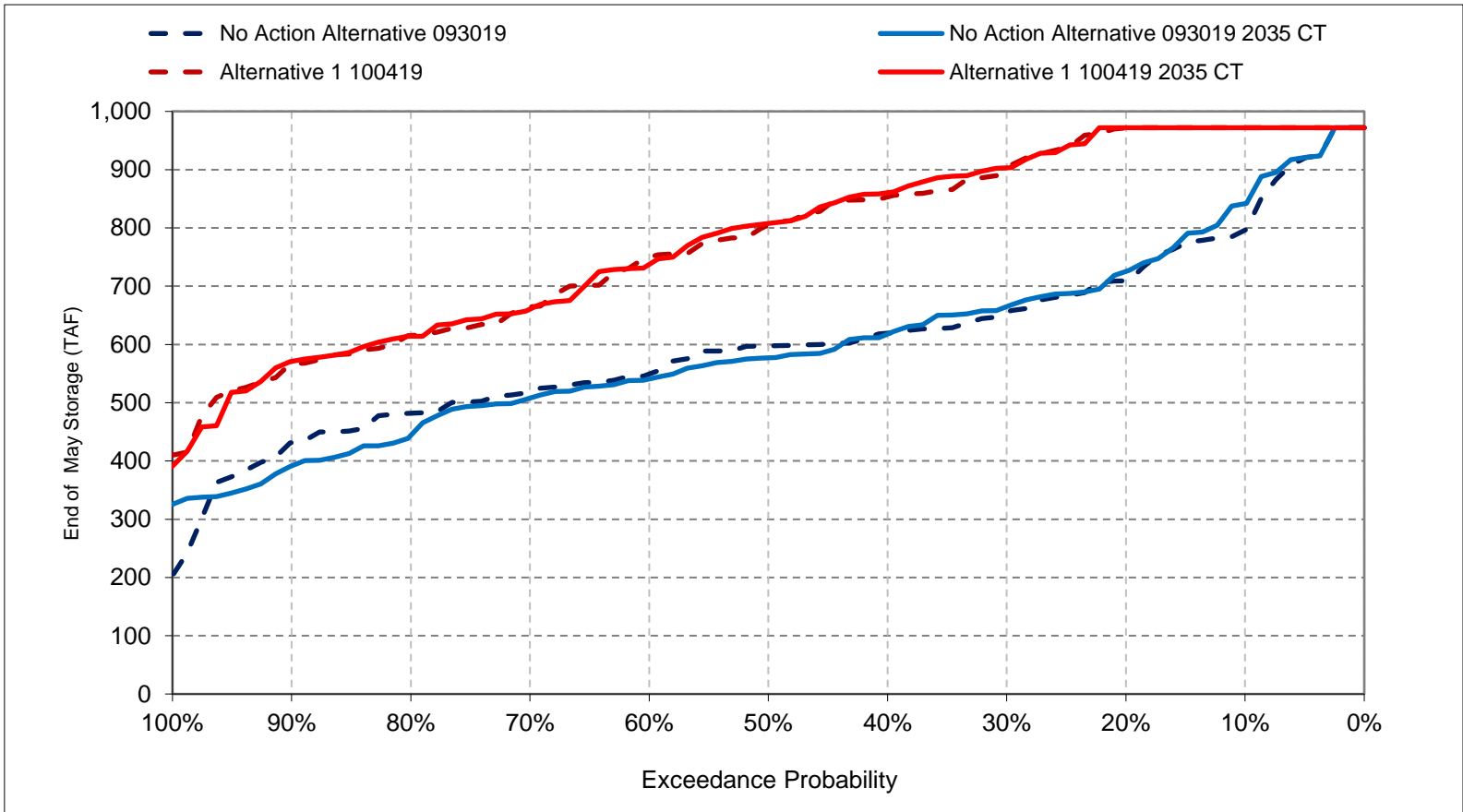
Figure 6b-13. San Luis CVP Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

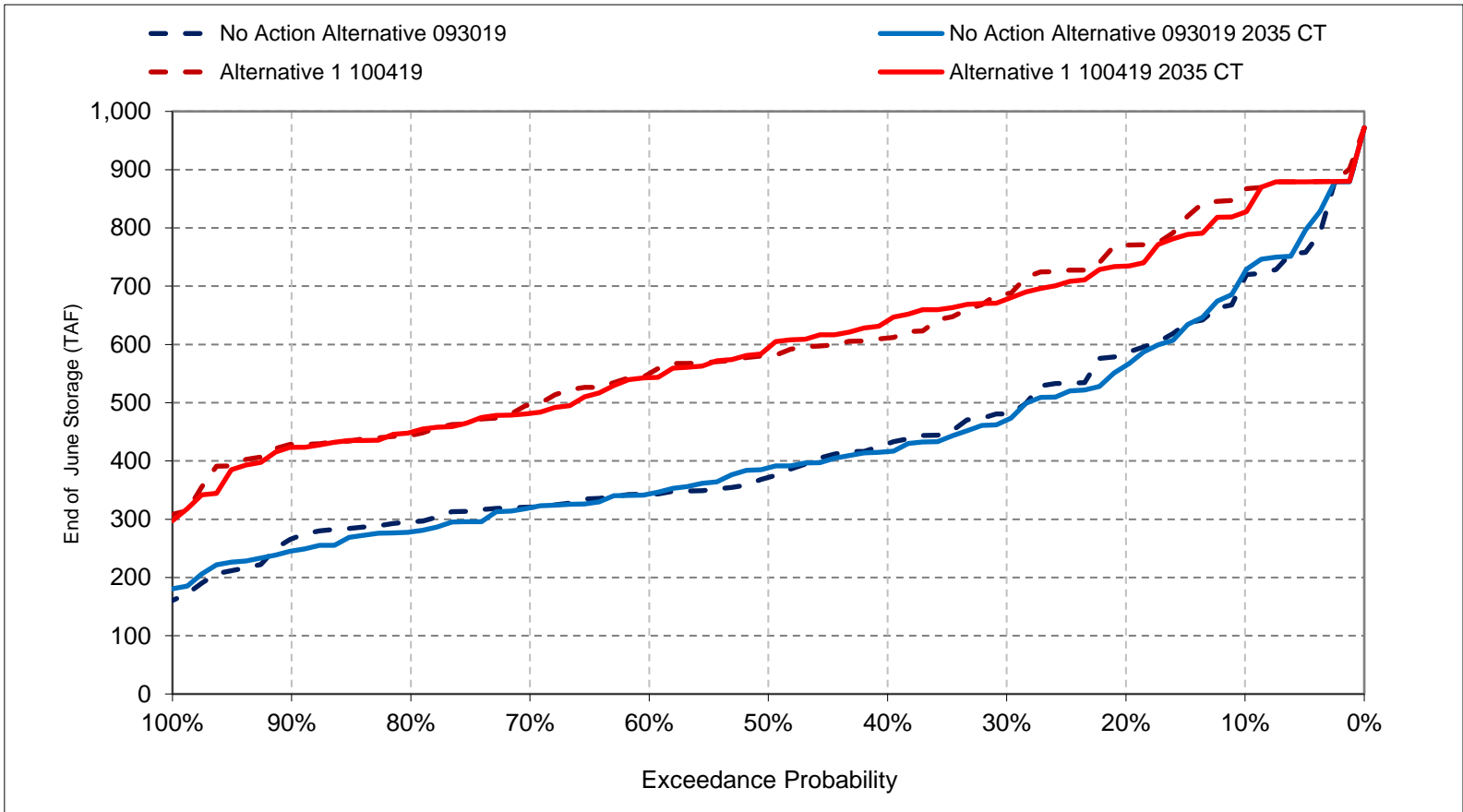
Figure 6b-14. San Luis CVP Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

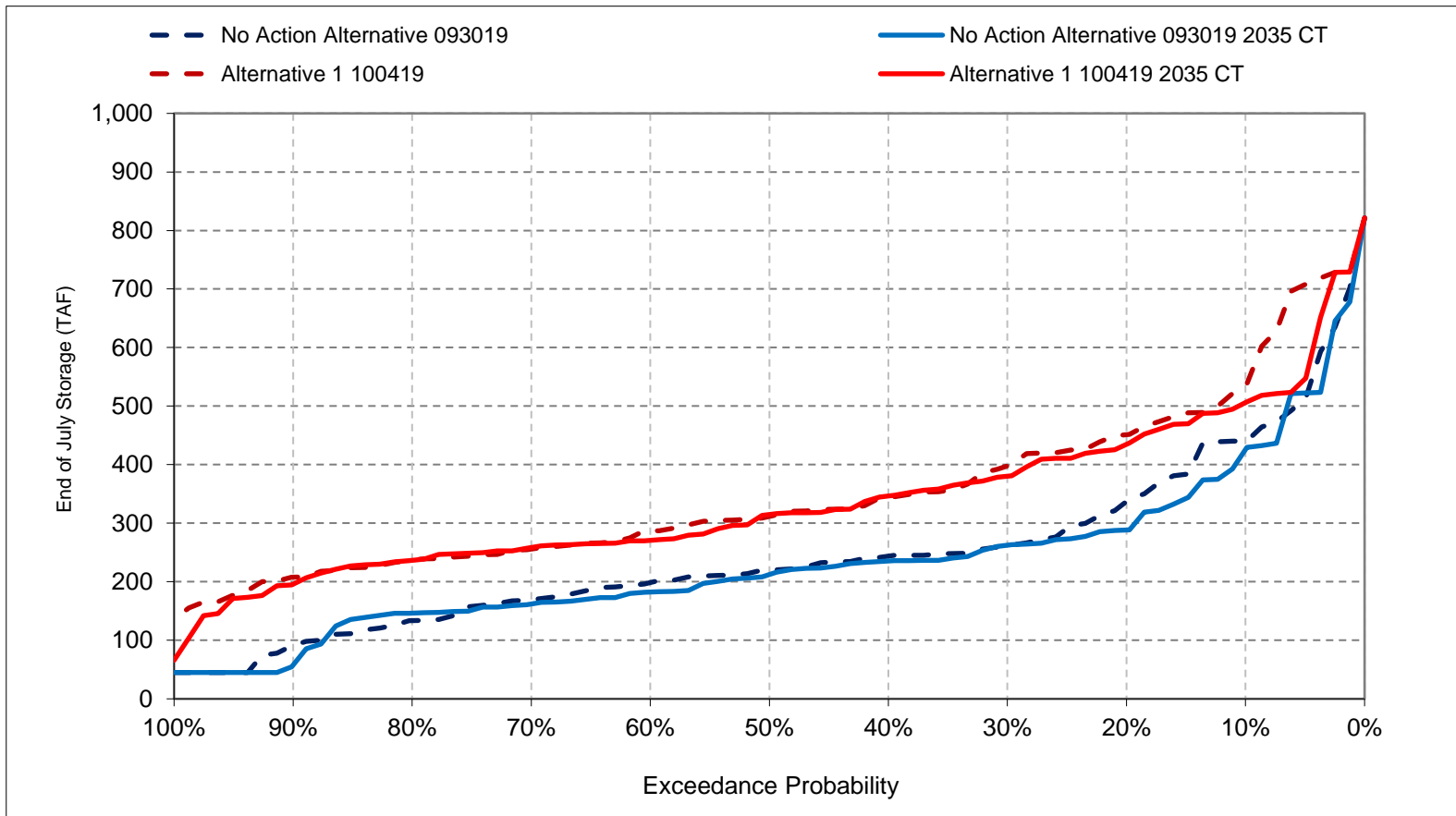
Figure 6b-15. San Luis CVP Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

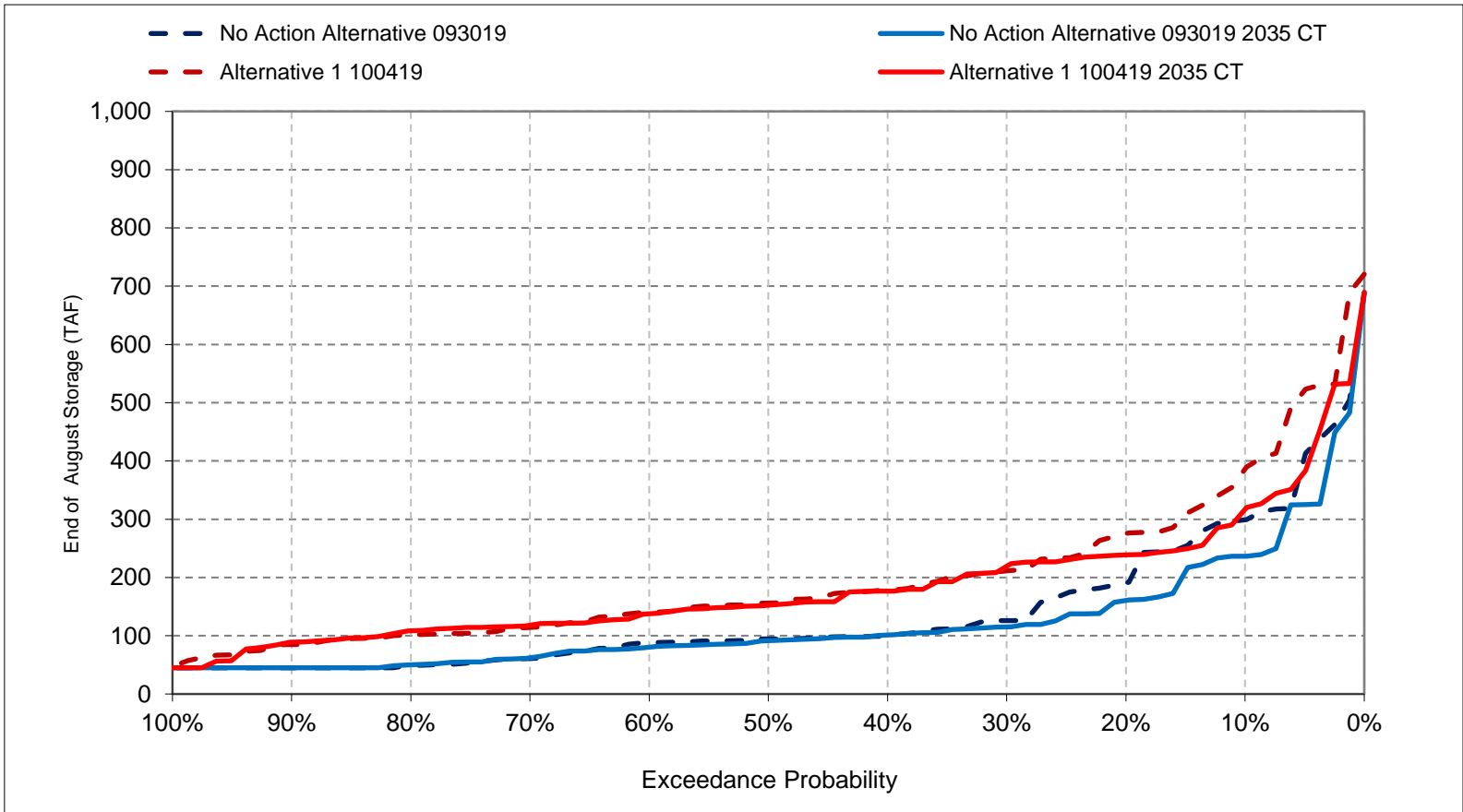
Figure 6b-16. San Luis CVP Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

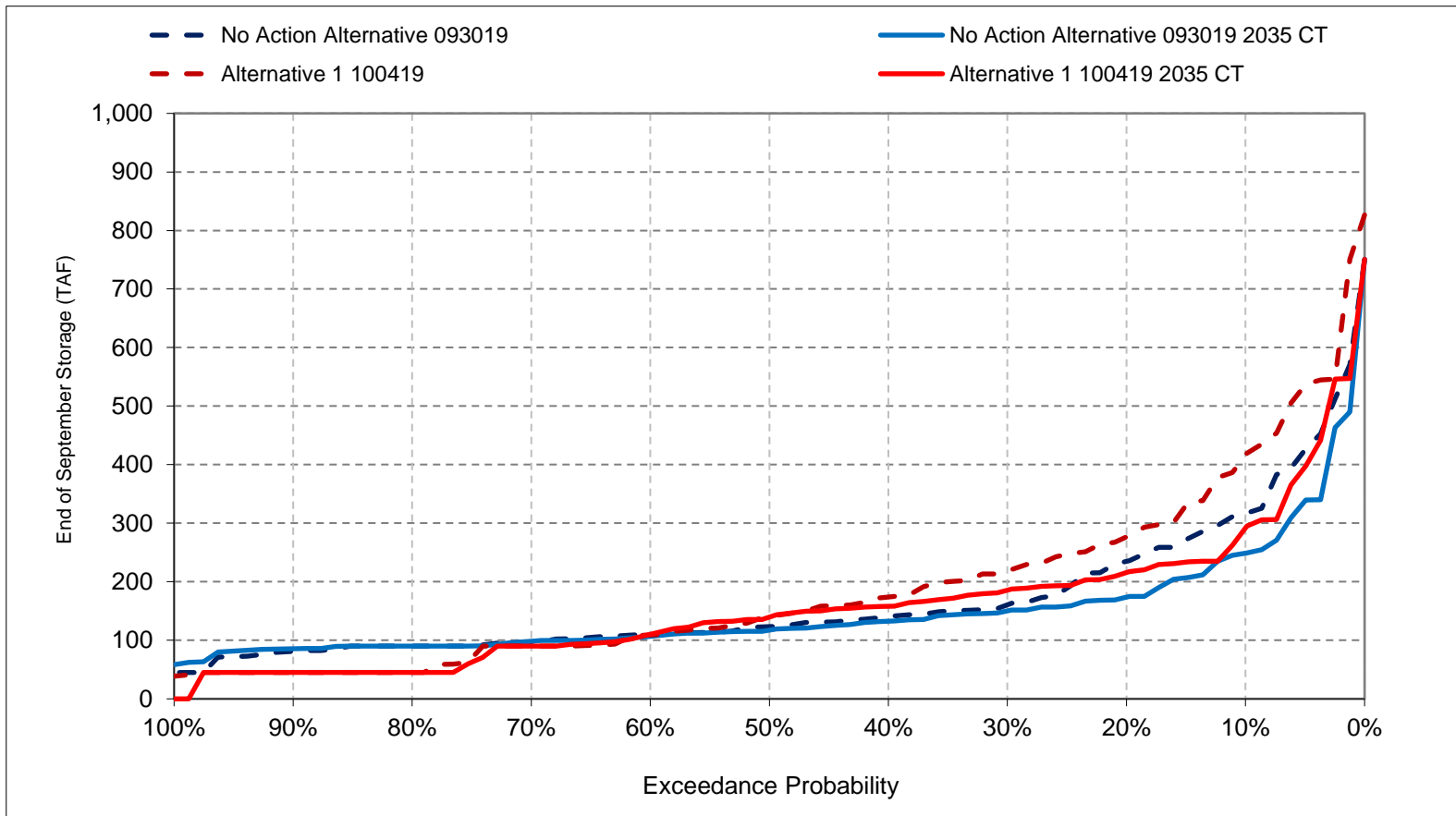
Figure 6b-17. San Luis CVP Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6b-18. San Luis CVP Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-1. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	467	490	655	762	990	1,067	941	788	564	478	424	451
20%	297	382	500	679	804	1,021	892	641	466	409	361	424
30%	268	318	407	566	719	897	809	612	396	358	315	364
40%	229	224	359	492	649	813	725	520	352	310	234	278
50%	179	185	285	400	578	710	630	494	303	263	204	228
60%	128	142	204	342	513	636	579	440	250	208	174	164
70%	61	68	144	272	418	549	495	357	219	186	104	97
80%	55	55	89	217	329	456	417	293	181	145	75	55
90%	55	55	55	199	296	378	344	238	77	100	55	55
Long Term												
Full Simulation Period ^d	214	231	317	459	595	722	650	499	335	297	242	255
Water Year Types ^{b,c}												
Wet (32%)	324	245	345	526	707	892	767	568	400	390	395	435
Above Normal (16%)	264	260	357	494	636	759	643	446	227	235	266	328
Below Normal (13%)	183	224	279	392	499	614	544	388	195	222	199	179
Dry (24%)	116	231	325	432	545	651	635	528	385	310	140	121
Critical (15%)	111	177	234	381	482	529	528	463	357	210	97	82

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	381	476	614	770	1,067	1,067	1,067	1,029	793	723	640	459
20%	281	378	477	653	840	1,007	1,056	891	710	642	562	332
30%	225	332	389	534	680	809	840	837	620	587	480	278
40%	167	261	348	425	585	647	747	669	533	478	367	229
50%	107	184	274	371	493	611	633	547	454	378	306	161
60%	55	154	208	327	435	535	585	487	372	300	277	102
70%	55	94	125	277	408	483	533	427	255	263	183	55
80%	55	55	92	226	377	445	459	381	214	223	89	55
90%	55	55	55	210	344	386	410	328	189	156	61	55
Long Term												
Full Simulation Period ^d	183	251	310	451	593	670	704	628	471	427	344	215
Water Year Types ^{b,c}												
Wet (32%)	236	291	354	506	687	799	857	791	620	590	567	324
Above Normal (16%)	79	132	184	506	616	652	669	567	343	333	326	120
Below Normal (13%)	238	292	303	417	541	580	599	469	269	303	290	254
Dry (24%)	190	297	384	422	551	641	666	608	507	452	232	191
Critical (15%)	119	176	233	354	479	540	572	517	409	249	114	88

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-86	-13	-41	8	77	0	126	241	228	245	216	8
20%	-16	-4	-23	-26	36	-14	164	250	244	233	200	-92
30%	-43	14	-18	-31	-40	-88	31	225	224	229	166	-86
40%	-62	37	-11	-67	-63	-166	23	149	181	169	133	-49
50%	-71	-1	-11	-28	-85	-98	2	54	152	115	102	-67
60%	-73	12	4	-15	-78	-101	5	47	121	92	103	-62
70%	-6	25	-19	5	-10	-66	38	70	36	76	79	-42
80%	0	0	3	9	49	-11	42	88	33	78	15	0
90%	0	0	0	11	49	8	66	90	112	56	6	0
Long Term												
Full Simulation Period ^d	-31	19	-7	-7	-3	-52	54	128	136	130	101	-40
Water Year Types ^{b,c}												
Wet (32%)	-88	46	9	-20	-20	-93	90	223	220	200	172	-111
Above Normal (16%)	-186	-128	-173	12	-20	-108	26	121	116	98	60	-208
Below Normal (13%)	55	68	24	25	43	-34	54	81	74	81	91	75
Dry (24%)	74	67	59	-10	6	-10	32	80	123	143	92	70
Critical (15%)	8	-1	0	-27	-3	11	44	55	52	39	17	6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6c-2. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	448	453	653	812	1,065	1,067	954	748	545	533	497	511
20%	320	384	508	634	864	1,064	902	680	462	430	398	404
30%	236	322	433	591	696	963	808	616	422	401	324	334
40%	197	257	382	532	672	829	714	571	392	334	292	301
50%	173	201	286	448	625	740	667	524	364	289	226	228
60%	119	126	199	381	553	679	627	459	272	250	172	196
70%	58	55	132	275	456	590	543	401	239	214	129	122
80%	55	55	55	232	352	438	429	375	188	168	97	58
90%	55	55	55	187	287	389	365	274	140	100	55	55
Long Term												
Full Simulation Period ^d	211	235	321	477	620	744	677	526	354	323	266	265
Water Year Types ^{b,c}												
Wet (32%)	302	238	332	546	758	939	831	639	460	428	408	409
Above Normal (16%)	185	201	289	532	670	798	681	476	247	255	268	321
Below Normal (13%)	209	245	278	393	530	627	586	430	218	245	215	205
Dry (24%)	162	272	374	450	550	656	621	509	357	322	191	164
Critical (15%)	126	192	281	388	466	519	517	454	358	241	129	119

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	419	536	647	882	1,067	1,067	1,067	1,067	878	745	641	468
20%	297	410	498	634	842	1,034	1,066	954	783	667	523	369
30%	233	309	400	521	752	881	903	862	623	565	463	305
40%	148	252	328	454	654	752	819	716	560	497	415	263
50%	86	170	231	385	551	657	743	637	472	402	366	134
60%	55	130	135	313	489	561	642	537	408	326	246	80
70%	55	77	84	274	434	508	553	475	331	271	133	55
80%	55	55	55	241	369	458	475	381	266	198	75	55
90%	55	55	55	189	319	402	405	334	159	144	55	55
Long Term												
Full Simulation Period ^d	187	248	304	455	609	695	731	657	504	434	339	223
Water Year Types ^{b,c}												
Wet (32%)	222	268	327	525	726	849	902	849	684	589	523	297
Above Normal (16%)	121	174	215	525	645	681	712	612	404	369	346	187
Below Normal (13%)	240	292	307	319	482	546	580	476	299	310	284	245
Dry (24%)	196	284	363	451	582	672	692	613	490	435	245	201
Critical (15%)	120	184	250	359	476	553	584	528	432	283	138	117

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-28	82	-6	70	1	0	113	319	333	212	143	-43
20%	-23	26	-9	1	-21	-31	164	274	321	237	124	-35
30%	-3	-12	-33	-70	56	-82	95	246	200	163	139	-29
40%	-49	-5	-54	-77	-18	-77	104	145	167	162	122	-38
50%	-87	-31	-55	-62	-74	-83	76	113	108	113	140	-94
60%	-64	4	-64	-68	-64	-118	14	78	136	76	75	-116
70%	-3	22	-48	0	-22	-83	10	74	92	57	4	-67
80%	0	0	0	9	18	21	46	5	78	30	-21	-3
90%	0	0	0	2	33	13	40	60	19	44	0	0
Long Term												
Full Simulation Period ^d	-24	13	-17	-22	-12	-49	54	131	150	112	73	-43
Water Year Types ^{b,c}												
Wet (32%)	-81	30	-5	-21	-32	-90	71	210	224	162	115	-112
Above Normal (16%)	-64	-27	-74	-7	-25	-117	30	136	157	114	79	-134
Below Normal (13%)	31	47	29	-74	-48	-81	-6	46	81	64	68	40
Dry (24%)	34	12	-11	1	31	16	72	104	134	113	54	37
Critical (15%)	-6	-9	-31	-29	9	33	66	74	74	42	9	-3

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-3. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	467	490	655	762	990	1,067	941	788	564	478	424	451
20%	297	382	500	679	804	1,021	892	641	466	409	361	424
30%	268	318	407	566	719	897	809	612	396	358	315	364
40%	229	224	359	492	649	813	725	520	352	310	234	278
50%	179	185	285	400	578	710	630	494	303	263	204	228
60%	128	142	204	342	513	636	579	440	250	208	174	164
70%	61	68	144	272	418	549	495	357	219	186	104	97
80%	55	55	89	217	329	456	417	293	181	145	75	55
90%	55	55	55	199	296	378	344	238	77	100	55	55
Long Term												
Full Simulation Period ^d	214	231	317	459	595	722	650	499	335	297	242	255
Water Year Types ^{b,c}												
Wet (32%)	324	245	345	526	707	892	767	568	400	390	395	435
Above Normal (16%)	264	260	357	494	636	759	643	446	227	235	266	328
Below Normal (13%)	183	224	279	392	499	614	544	388	195	222	199	179
Dry (24%)	116	231	325	432	545	651	635	528	385	310	140	121
Critical (15%)	111	177	234	381	482	529	528	463	357	210	97	82

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	448	453	653	812	1,065	1,067	954	748	545	533	497	511
20%	320	384	508	634	864	1,064	902	680	462	430	398	404
30%	236	322	433	591	696	963	808	616	422	401	324	334
40%	197	257	382	532	672	829	714	571	392	334	292	301
50%	173	201	286	448	625	740	667	524	364	289	226	228
60%	119	126	199	381	553	679	627	459	272	250	172	196
70%	58	55	132	275	456	590	543	401	239	214	129	122
80%	55	55	55	232	352	438	429	375	188	168	97	58
90%	55	55	55	187	287	389	365	274	140	100	55	55
Long Term												
Full Simulation Period ^d	211	235	321	477	620	744	677	526	354	323	266	265
Water Year Types ^{b,c}												
Wet (32%)	302	238	332	546	758	939	831	639	460	428	408	409
Above Normal (16%)	185	201	289	532	670	798	681	476	247	255	268	321
Below Normal (13%)	209	245	278	393	530	627	586	430	218	245	215	205
Dry (24%)	162	272	374	450	550	656	621	509	357	322	191	164
Critical (15%)	126	192	281	388	466	519	517	454	358	241	129	119

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-36	-2	50	75	0	13	-40	-20	55	74	60
20%	23	2	7	-45	60	43	9	38	-4	21	37	-20
30%	-31	4	26	26	-23	66	-1	3	27	44	10	-30
40%	-32	33	22	40	23	16	-10	51	41	25	59	23
50%	-6	15	2	48	47	30	37	31	61	27	22	0
60%	-9	-16	-5	39	40	43	48	19	21	42	-2	32
70%	-3	-13	-13	3	38	42	48	44	20	28	25	25
80%	0	0	-34	15	23	-18	12	82	7	23	22	3
90%	0	0	0	-12	-9	10	21	37	62	0	0	0
Long Term												
Full Simulation Period ^d	-3	3	4	18	25	23	27	27	18	26	24	10
Water Year Types ^{b,c}												
Wet (32%)	-21	-7	-13	20	51	47	64	71	60	38	13	-26
Above Normal (16%)	-79	-59	-67	38	34	39	38	30	20	21	2	-7
Below Normal (13%)	26	21	0	1	31	13	42	42	22	23	17	26
Dry (24%)	46	41	49	18	5	5	-14	-20	-28	12	51	43
Critical (15%)	14	16	47	7	-15	-10	-11	-9	0	31	32	37

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-4. San Luis SWP Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	381	476	614	770	1,067	1,067	1,067	1,029	793	723	640	459
20%	281	378	477	653	840	1,007	1,056	891	710	642	562	332
30%	225	332	389	534	680	809	840	837	620	587	480	278
40%	167	261	348	425	585	647	747	669	533	478	367	229
50%	107	184	274	371	493	611	633	547	454	378	306	161
60%	55	154	208	327	435	535	585	487	372	300	277	102
70%	55	94	125	277	408	483	533	427	255	263	183	55
80%	55	55	92	226	377	445	459	381	214	223	89	55
90%	55	55	55	210	344	386	410	328	189	156	61	55
Long Term												
Full Simulation Period ^d	183	251	310	451	593	670	704	628	471	427	344	215
Water Year Types ^{b,c}												
Wet (32%)	236	291	354	506	687	799	857	791	620	590	567	324
Above Normal (16%)	79	132	184	506	616	652	669	567	343	333	326	120
Below Normal (13%)	238	292	303	417	541	580	599	469	269	303	290	254
Dry (24%)	190	297	384	422	551	641	666	608	507	452	232	191
Critical (15%)	119	176	233	354	479	540	572	517	409	249	114	88

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	419	536	647	882	1,067	1,067	1,067	1,067	878	745	641	468
20%	297	410	498	634	842	1,034	1,066	954	783	667	523	369
30%	233	309	400	521	752	881	903	862	623	565	463	305
40%	148	252	328	454	654	752	819	716	560	497	415	263
50%	86	170	231	385	551	657	743	637	472	402	366	134
60%	55	130	135	313	489	561	642	537	408	326	246	80
70%	55	77	84	274	434	508	553	475	331	271	133	55
80%	55	55	55	241	369	458	475	381	266	198	75	55
90%	55	55	55	189	319	402	405	334	159	144	55	55
Long Term												
Full Simulation Period ^d	187	248	304	455	609	695	731	657	504	434	339	223
Water Year Types ^{b,c}												
Wet (32%)	222	268	327	525	726	849	902	849	684	589	523	297
Above Normal (16%)	121	174	215	525	645	681	712	612	404	369	346	187
Below Normal (13%)	240	292	307	319	482	546	580	476	299	310	284	245
Dry (24%)	196	284	363	451	582	672	692	613	490	435	245	201
Critical (15%)	120	184	250	359	476	553	584	528	432	283	138	117

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	59	32	112	0	0	0	38	85	22	1	9
20%	17	31	22	-18	2	26	10	62	74	25	-39	37
30%	9	-23	11	-13	72	72	63	24	3	-22	-17	27
40%	-19	-9	-20	29	69	104	71	47	27	18	48	35
50%	-21	-14	-43	14	58	45	110	90	17	25	60	-26
60%	0	-24	-73	-14	54	26	57	49	36	26	-31	-22
70%	0	-17	-41	-2	26	24	19	48	76	8	-49	0
80%	0	0	-37	15	-8	14	17	0	53	-25	-14	0
90%	0	0	0	-21	-25	16	-5	7	-31	-12	-6	0
Long Term												
Full Simulation Period ^d	4	-3	-6	3	16	25	26	29	33	7	-5	7
Water Year Types ^{b,c}												
Wet (32%)	-14	-23	-27	19	39	50	45	57	64	0	-43	-27
Above Normal (16%)	42	41	31	19	29	29	42	46	61	36	20	67
Below Normal (13%)	3	0	4	-98	-60	-34	-19	7	29	6	-6	-9
Dry (24%)	6	-13	-21	28	30	31	26	5	-17	-17	13	10
Critical (15%)	1	7	16	5	-3	13	12	10	22	35	24	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

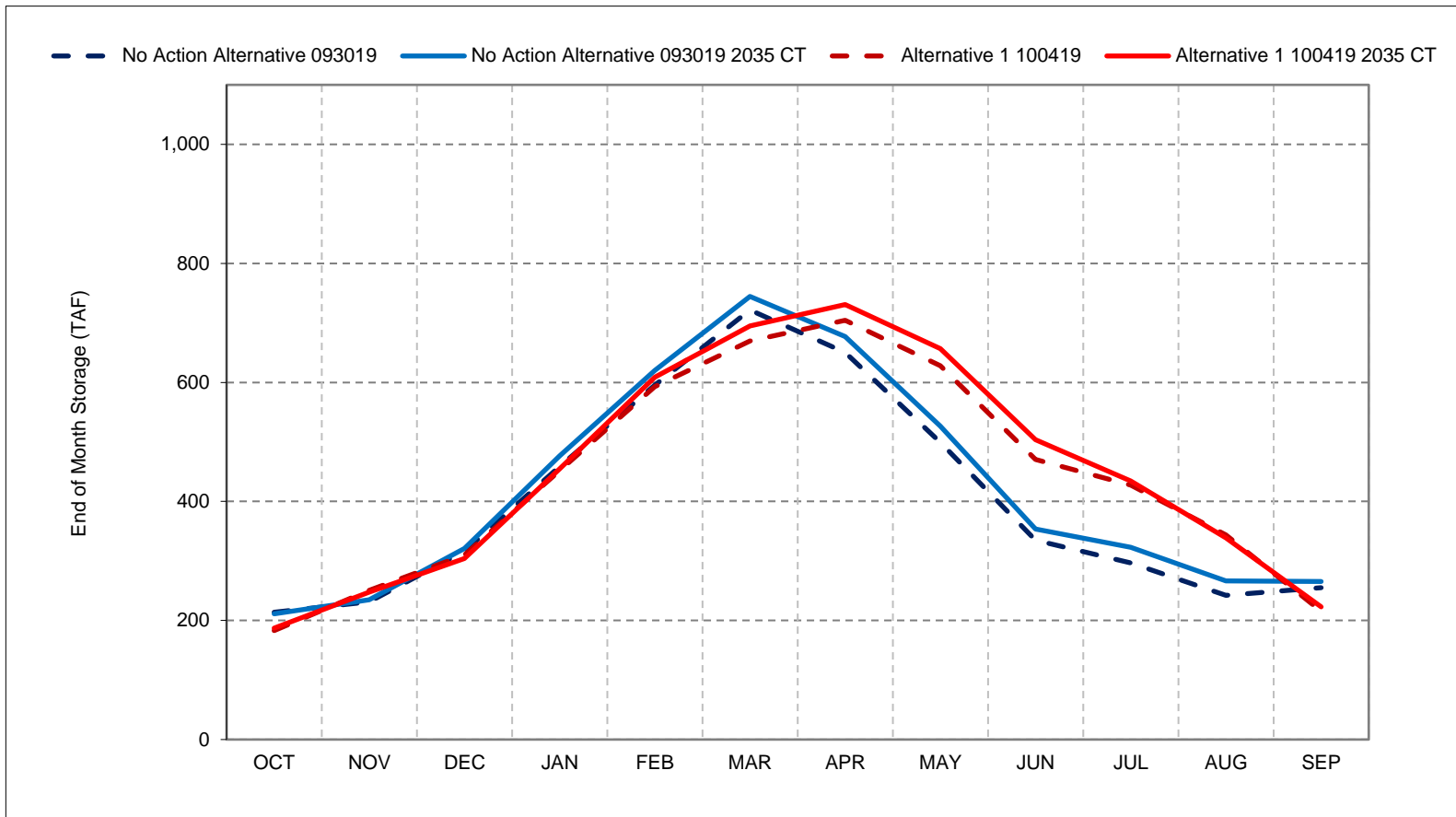
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6c-1. San Luis SWP Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

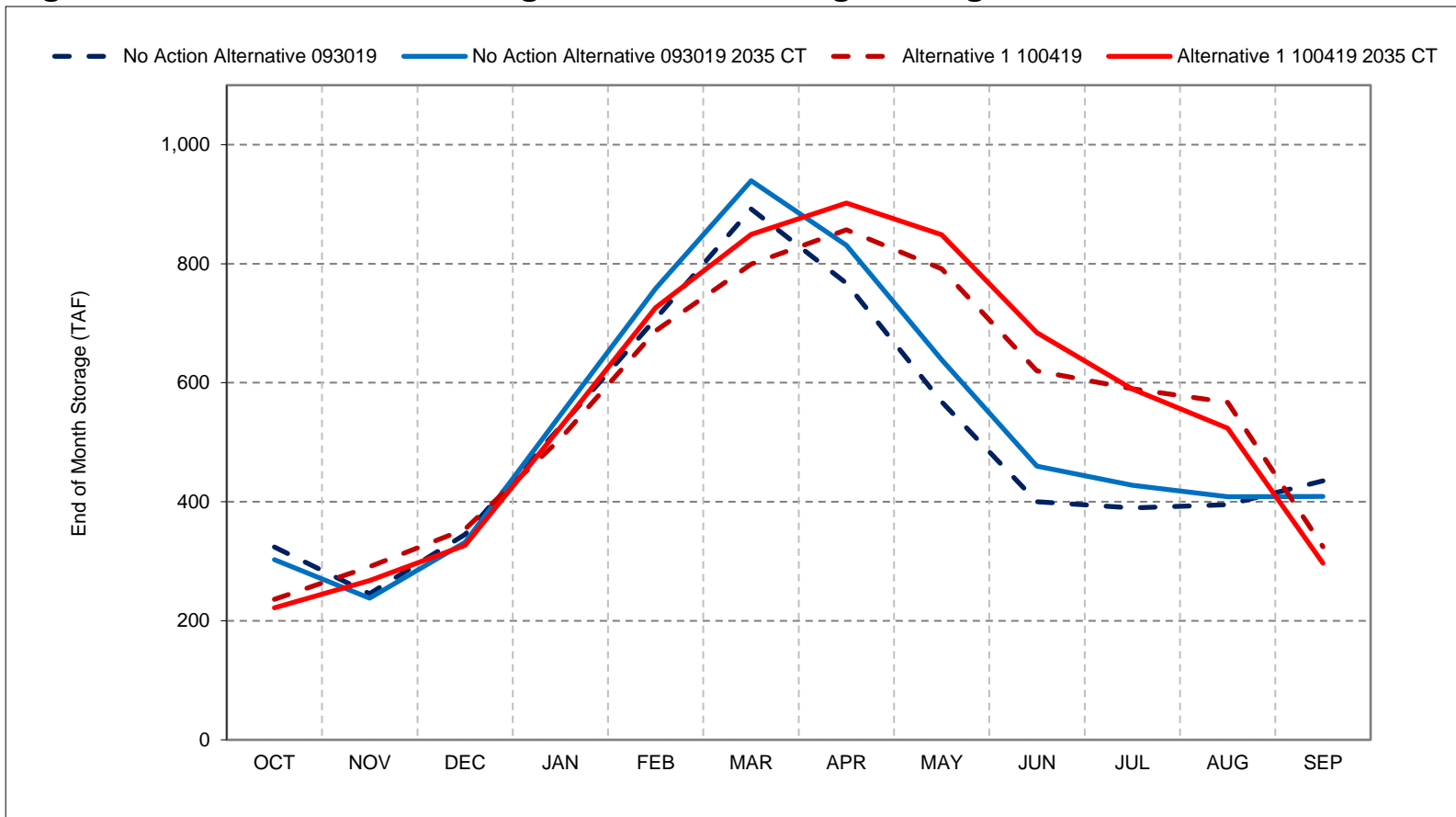
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-2. San Luis SWP Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

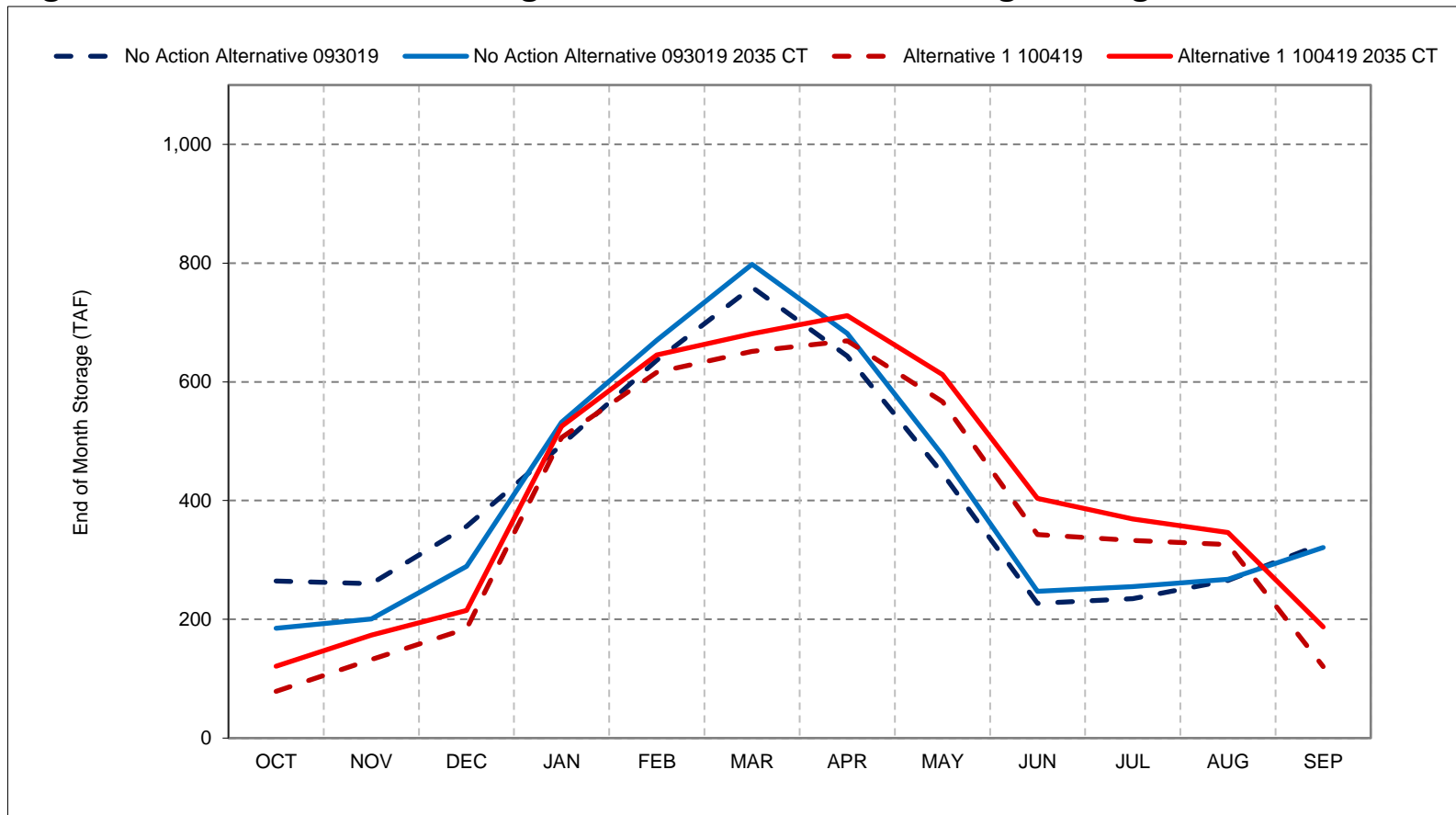
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-3. San Luis SWP Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

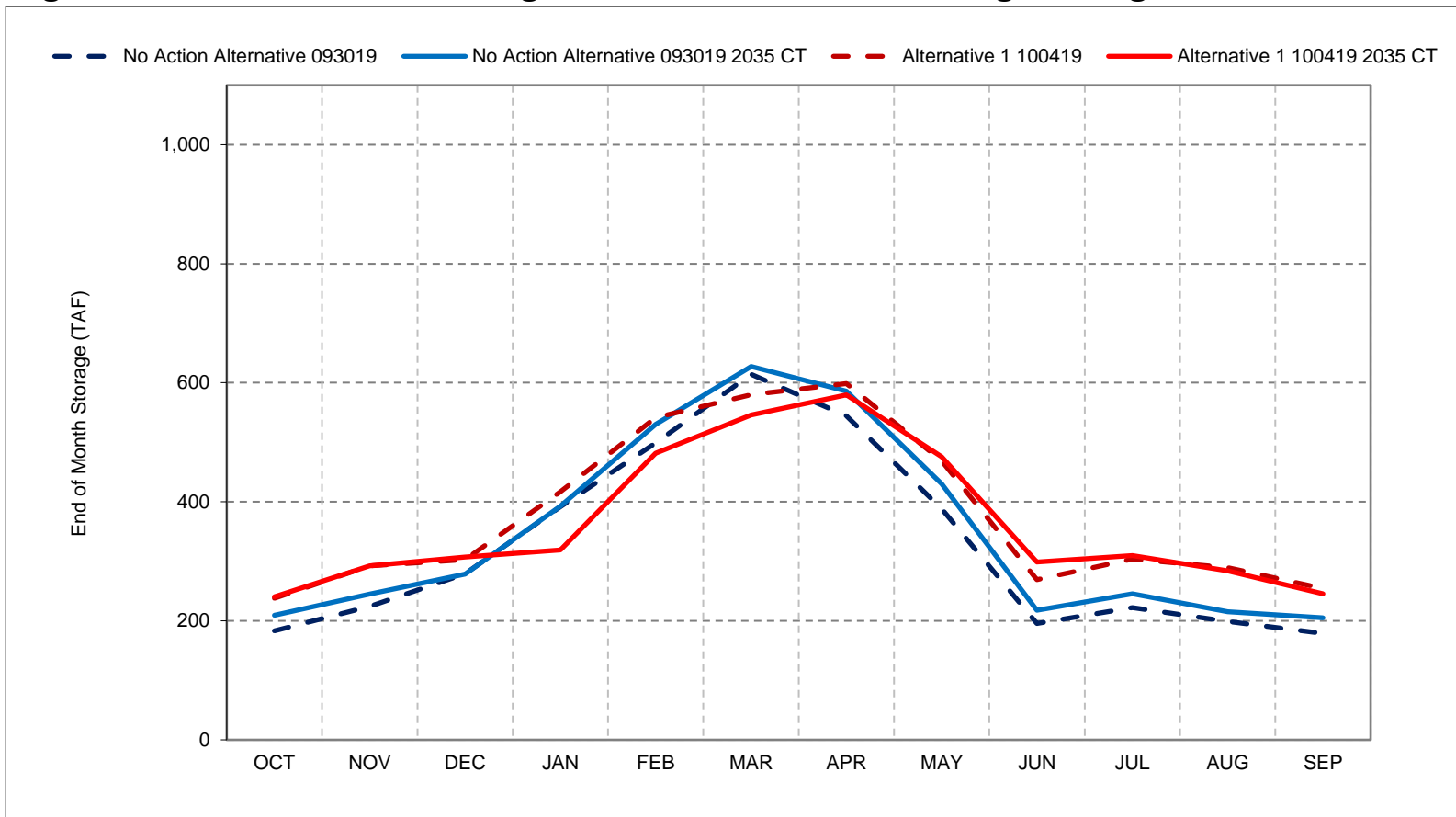
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-4. San Luis SWP Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

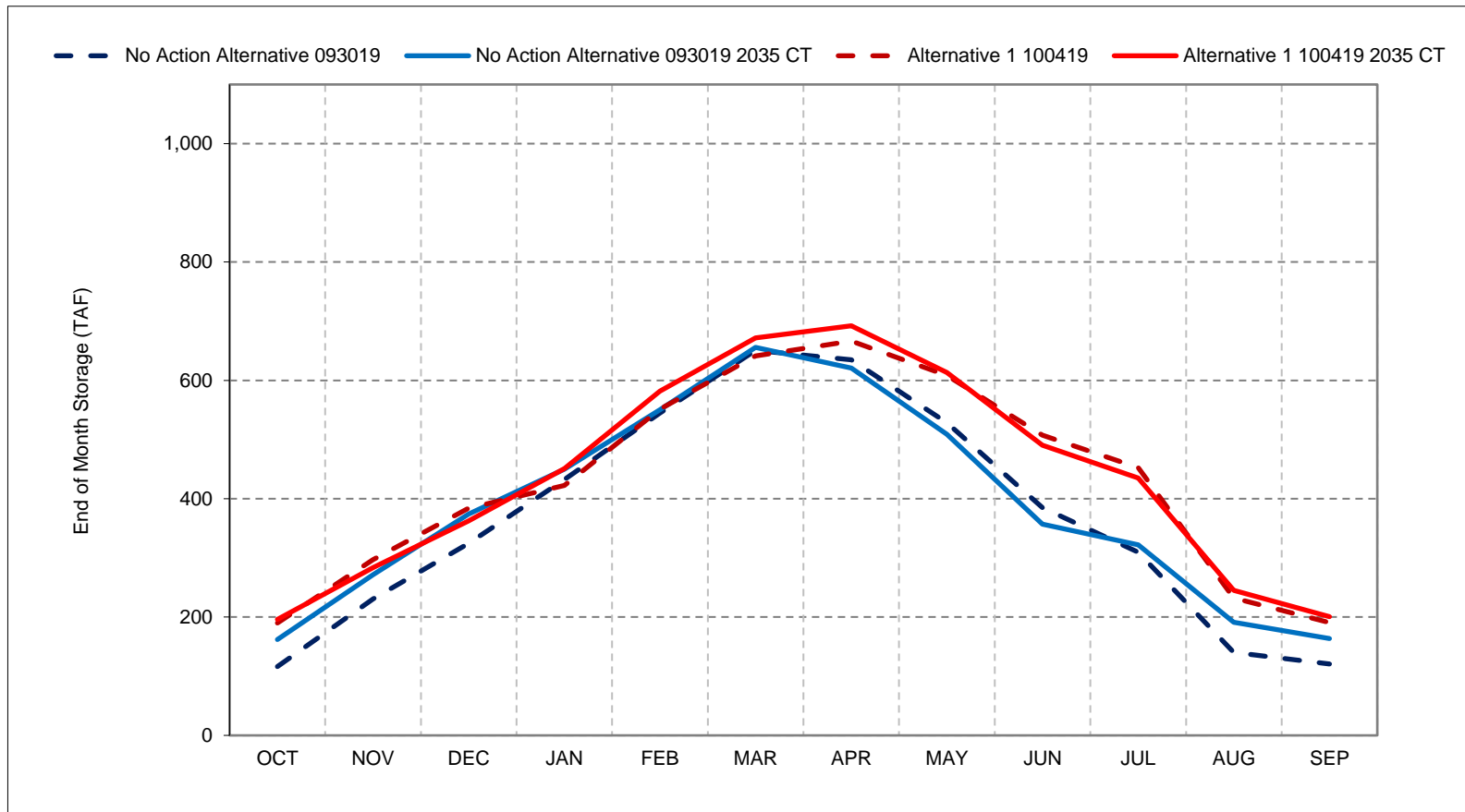
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-5. San Luis SWP Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

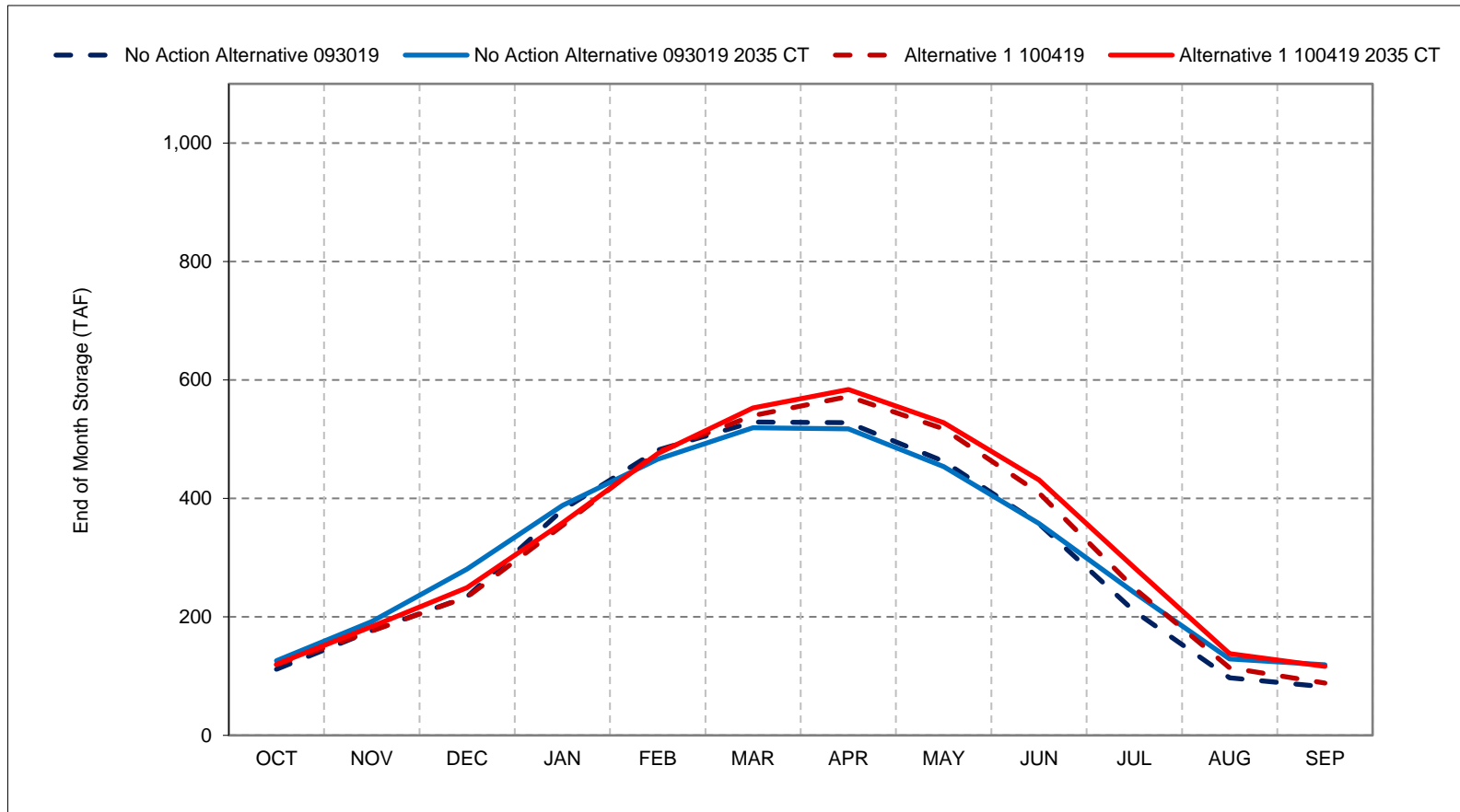
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-6. San Luis SWP Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

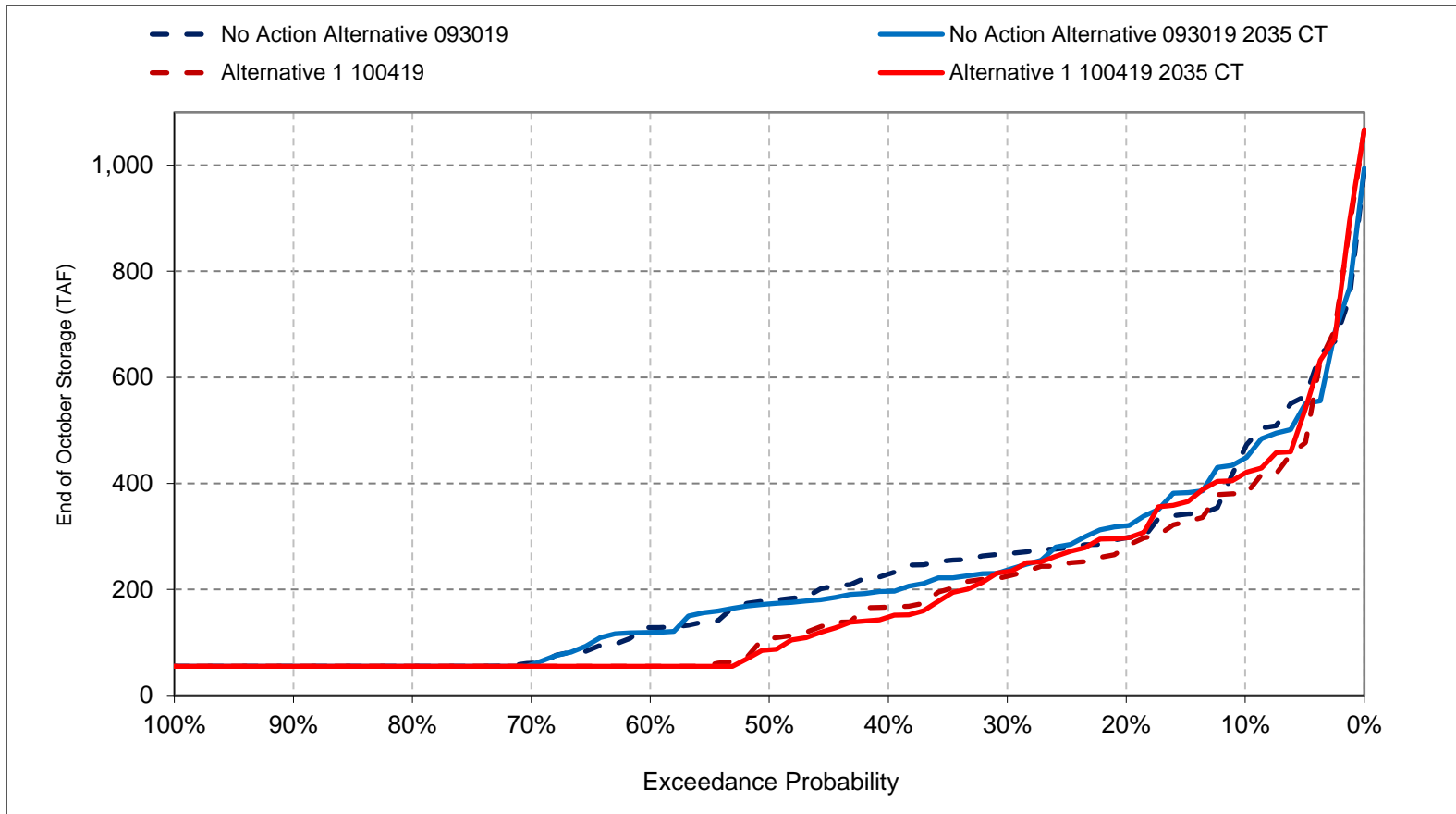
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

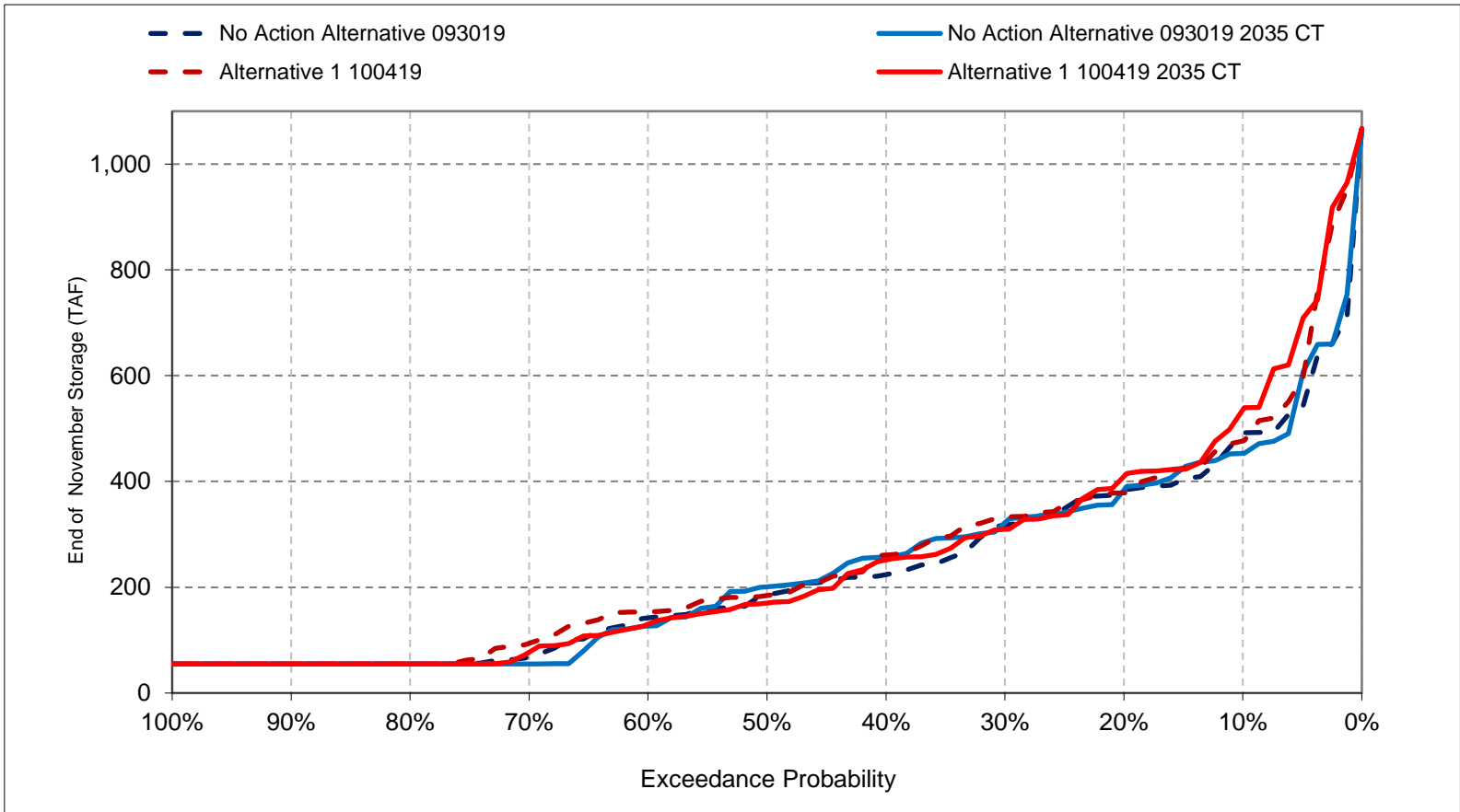
Figure 6c-7. San Luis SWP Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

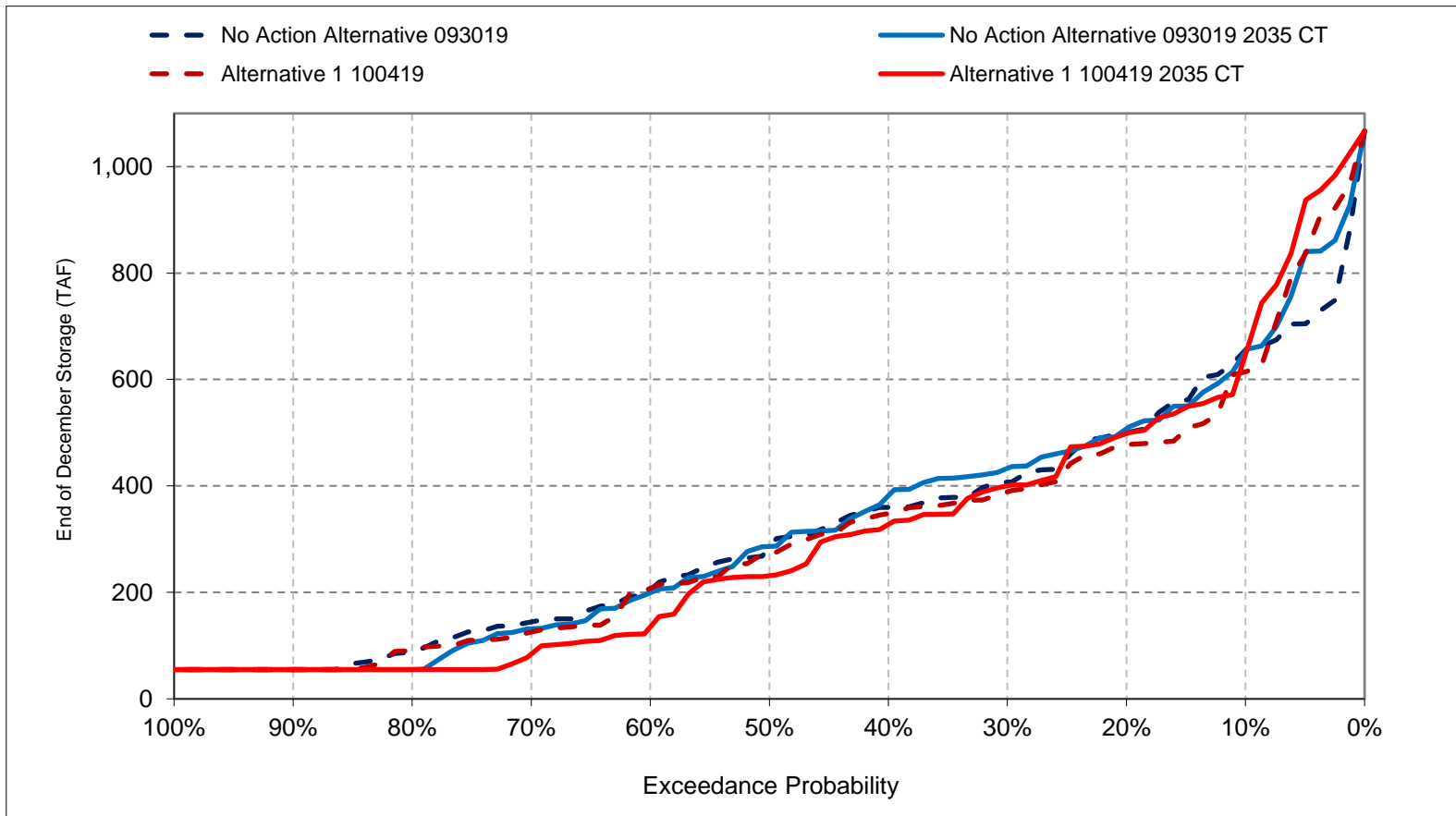
Figure 6c-8. San Luis SWP Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

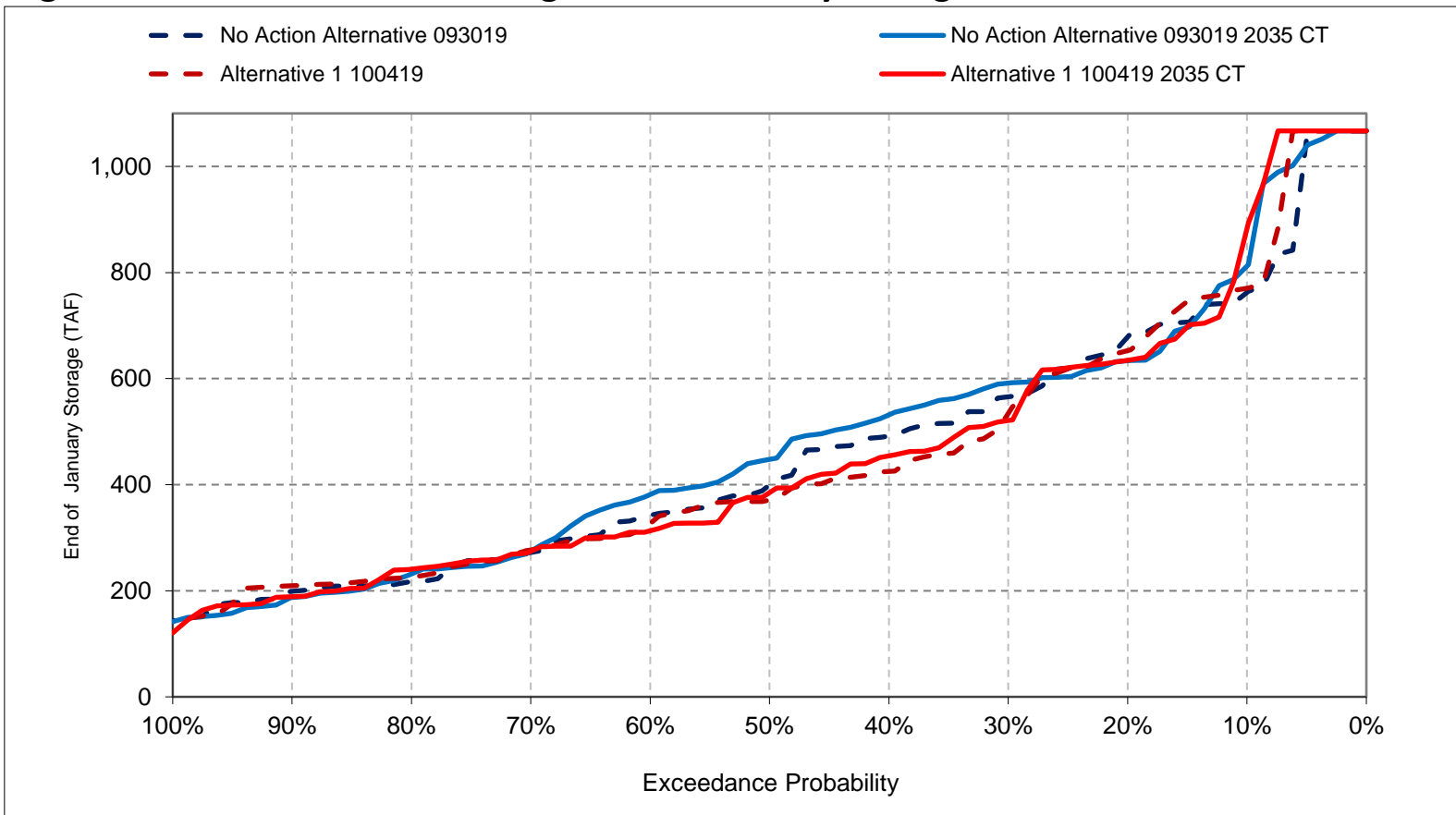
Figure 6c-9. San Luis SWP Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

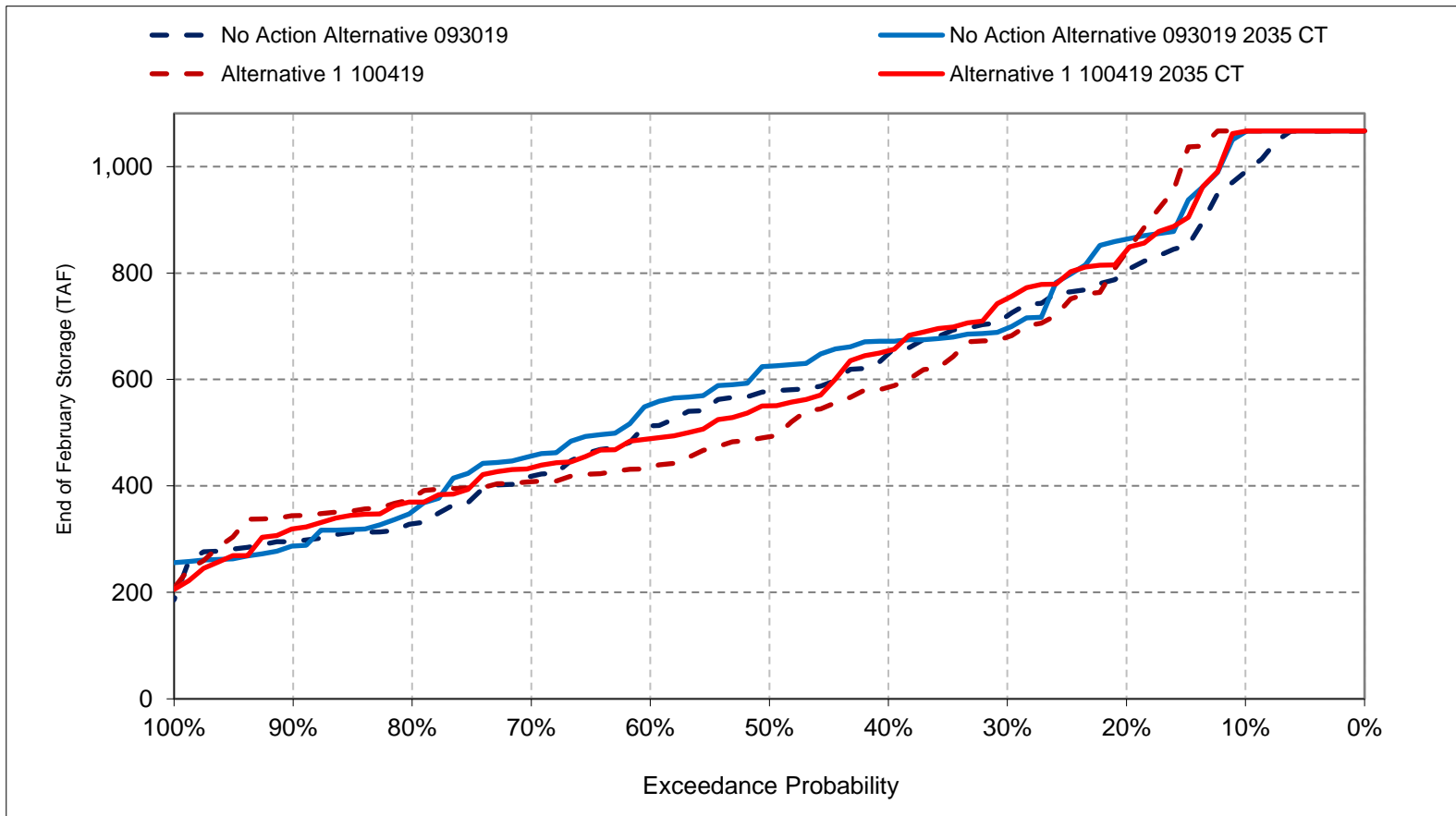
Figure 6c-10. San Luis SWP Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

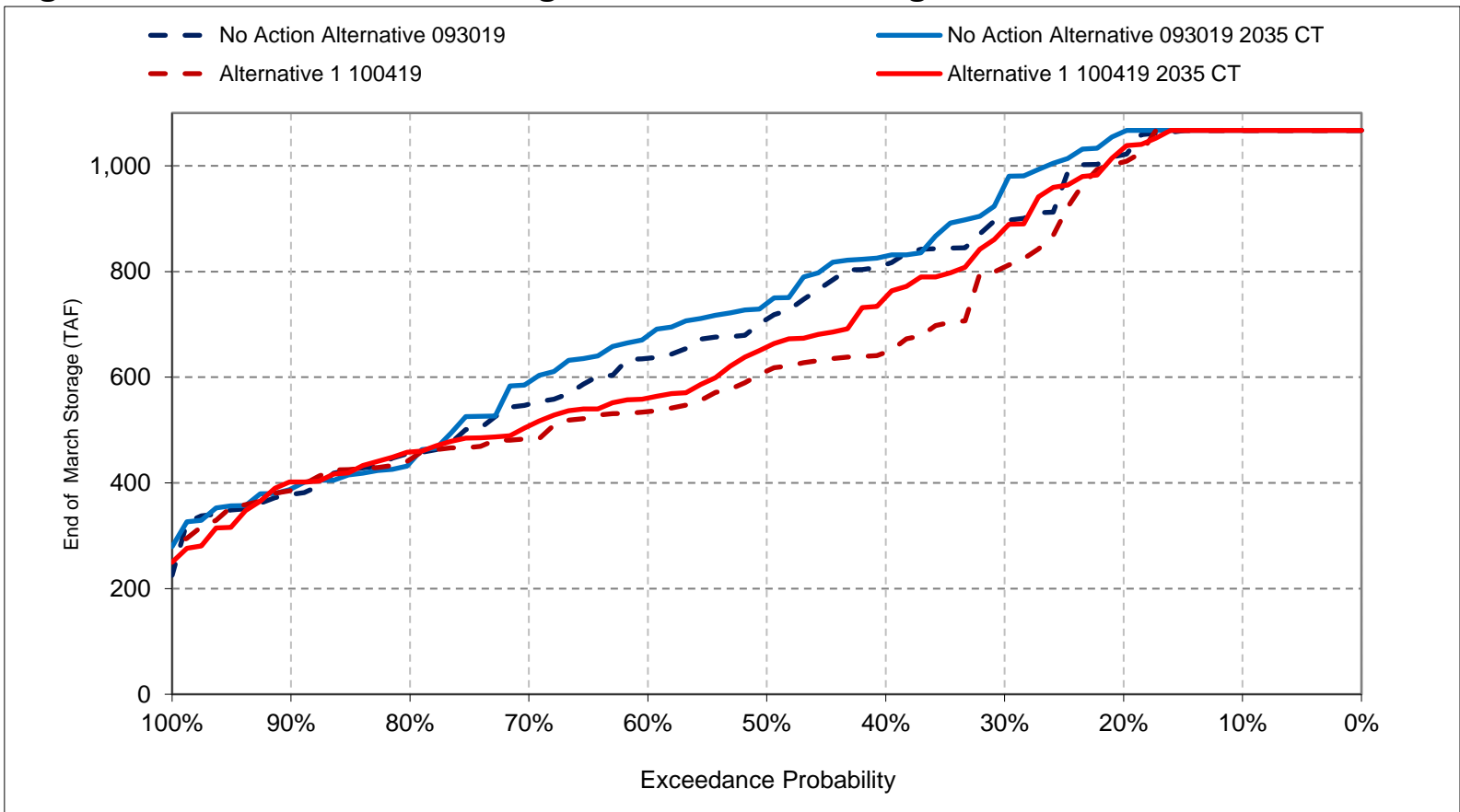
Figure 6c-11. San Luis SWP Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

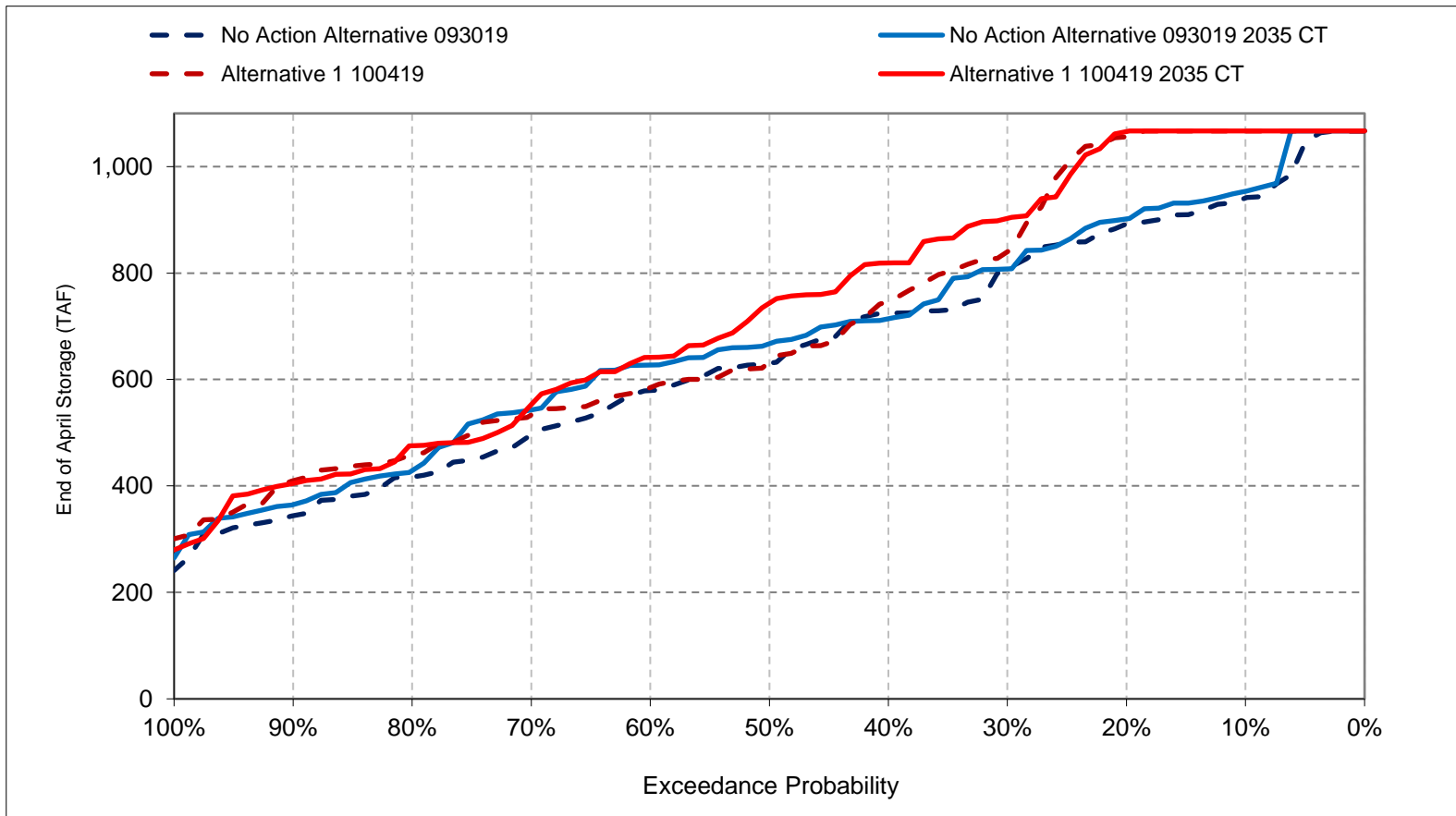
Figure 6c-12. San Luis SWP Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

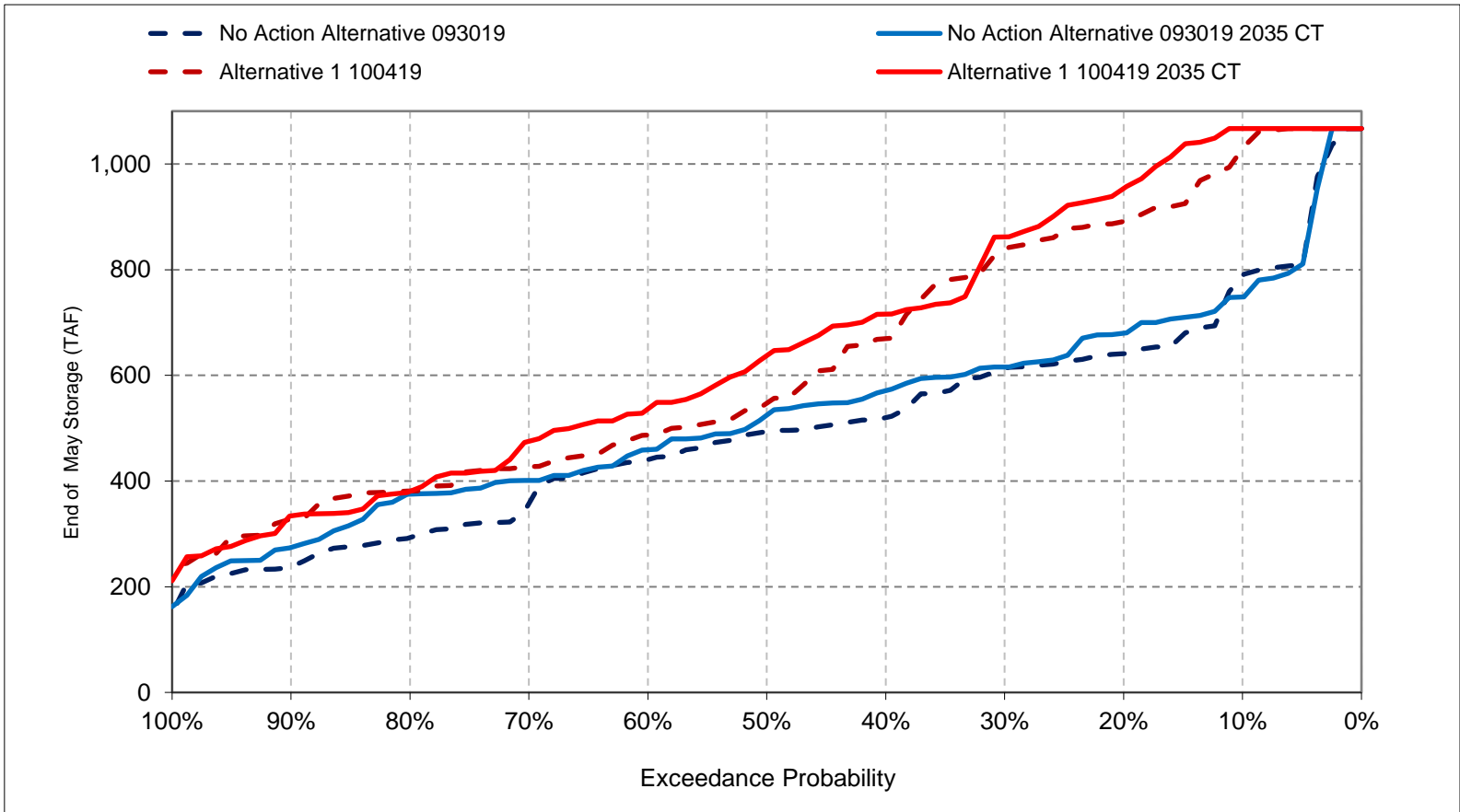
Figure 6c-13. San Luis SWP Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

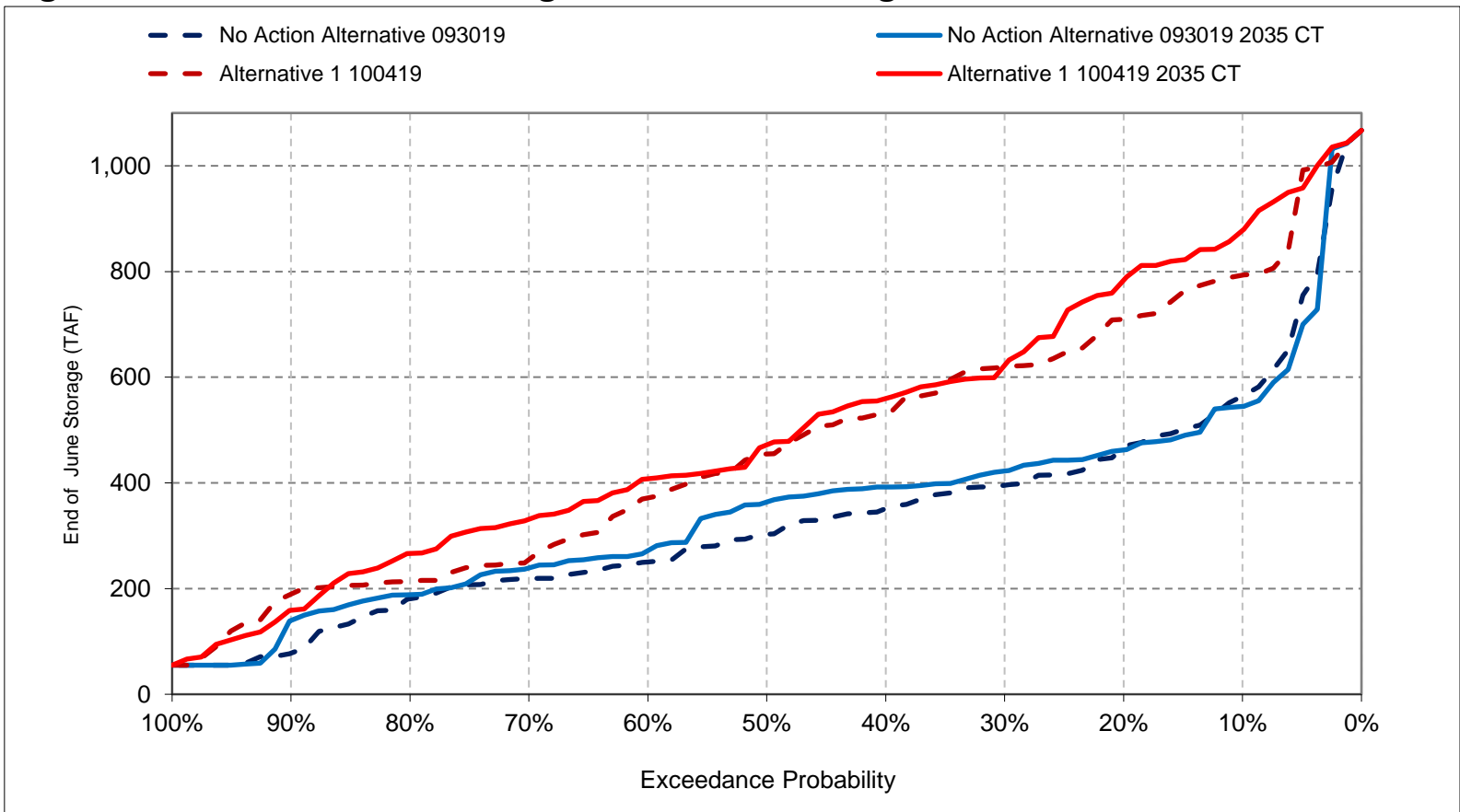
Figure 6c-14. San Luis SWP Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

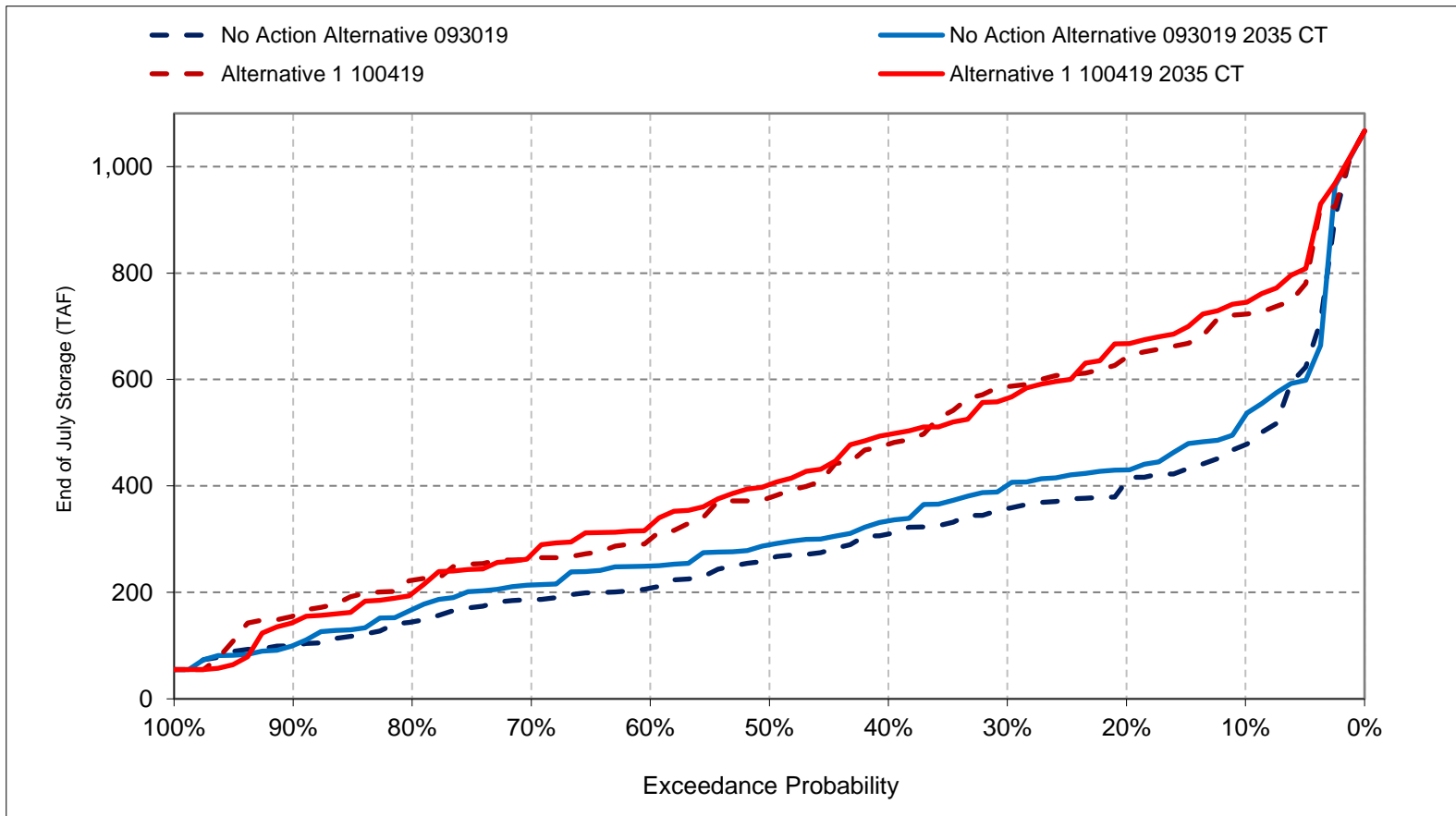
Figure 6c-15. San Luis SWP Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

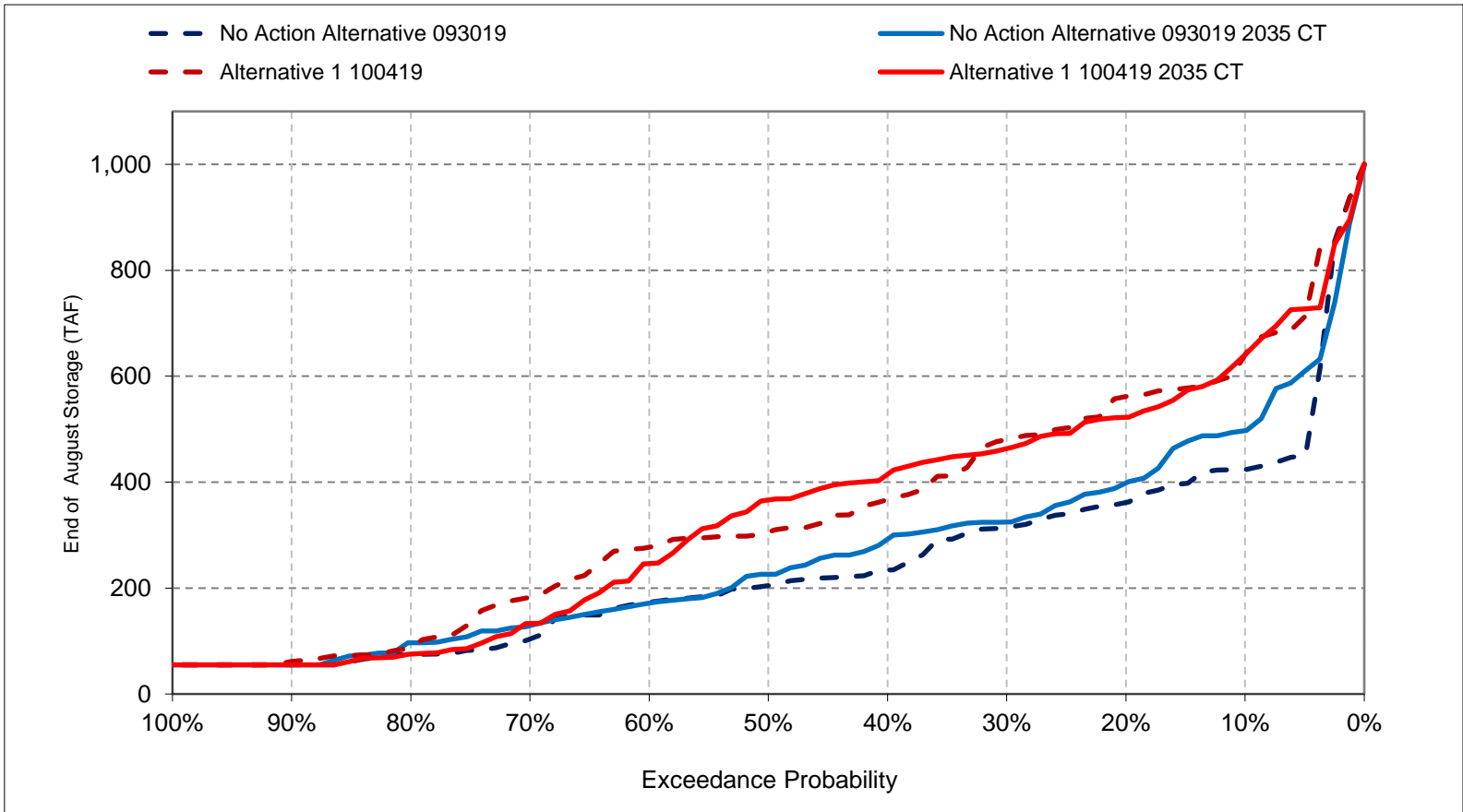
Figure 6c-16. San Luis SWP Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

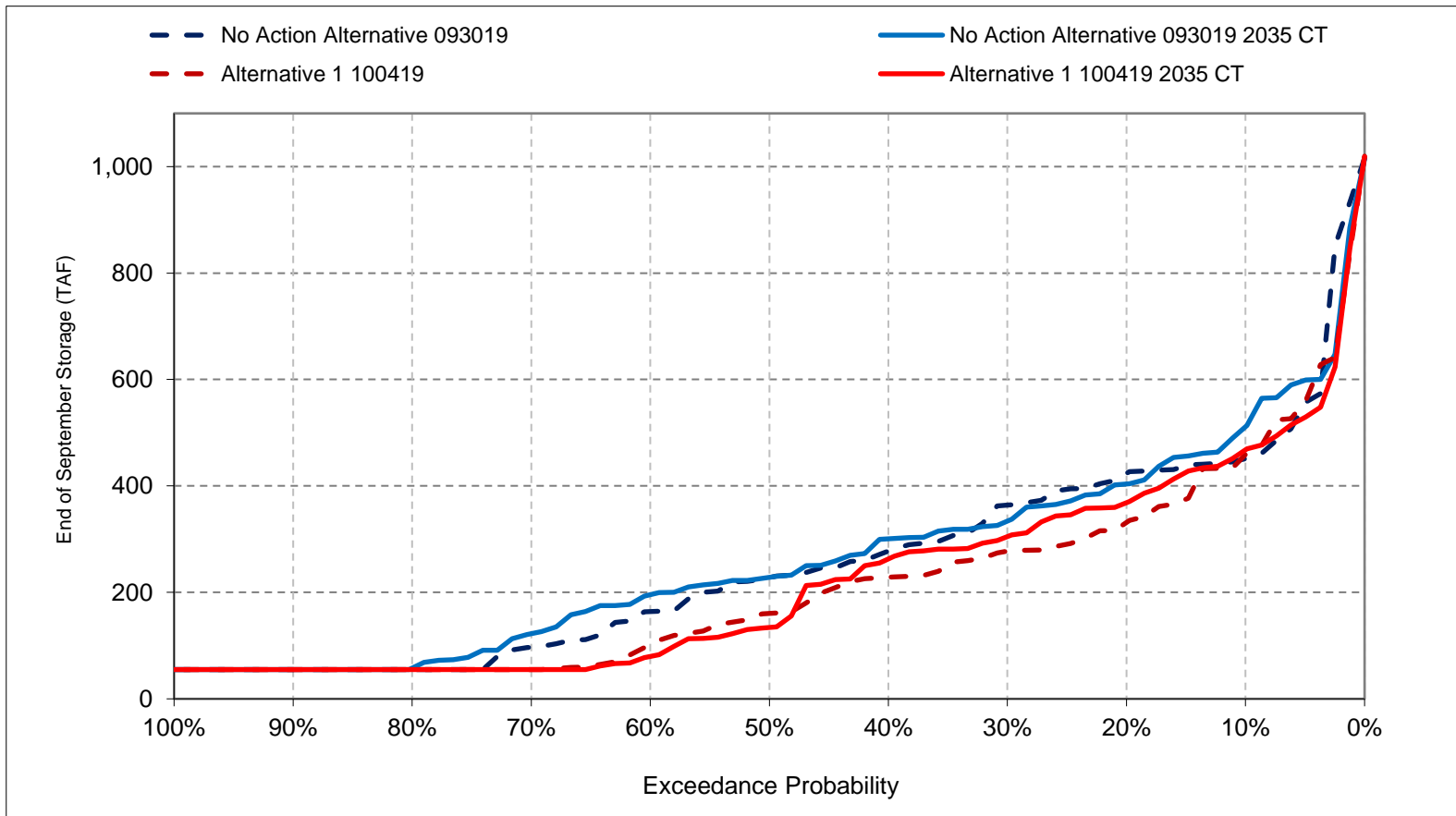
Figure 6c-17. San Luis SWP Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6c-18. San Luis SWP Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-1. New Melones Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,765	1,759	1,823	1,880	1,931	1,980	1,946	2,053	2,075	1,978	1,870	1,806
20%	1,612	1,631	1,647	1,687	1,768	1,799	1,834	1,901	1,877	1,798	1,692	1,634
30%	1,533	1,537	1,555	1,597	1,687	1,730	1,687	1,745	1,786	1,707	1,605	1,557
40%	1,272	1,274	1,432	1,515	1,594	1,618	1,592	1,534	1,539	1,433	1,333	1,274
50%	1,120	1,127	1,154	1,308	1,436	1,535	1,462	1,443	1,392	1,283	1,190	1,156
60%	1,024	1,042	1,079	1,146	1,199	1,273	1,279	1,336	1,277	1,200	1,103	1,055
70%	882	911	986	1,015	1,038	1,057	1,083	1,090	1,087	994	910	868
80%	646	658	682	684	735	808	835	878	871	808	733	692
90%	430	435	440	486	541	569	574	586	630	566	507	473
Long Term												
Full Simulation Period ^d	1,132	1,142	1,180	1,237	1,305	1,348	1,338	1,373	1,381	1,300	1,208	1,159
Water Year Types^{b,c}												
Wet (23%)	1,725	1,729	1,754	1,496	1,637	1,703	1,757	1,913	2,035	1,968	1,845	1,772
Above Normal (24%)	1,229	1,239	1,271	1,174	1,267	1,342	1,366	1,470	1,480	1,387	1,290	1,241
Below Normal (10%)	1,201	1,206	1,228	1,464	1,518	1,550	1,495	1,502	1,502	1,408	1,307	1,249
Dry (16%)	931	965	1,040	1,254	1,277	1,315	1,265	1,226	1,175	1,080	996	958
Critical (27%)	614	615	656	978	993	994	935	860	804	734	674	643

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,884	1,877	1,911	1,965	1,970	2,030	2,010	2,086	2,207	2,117	2,008	1,942
20%	1,745	1,748	1,780	1,860	1,942	1,975	1,918	1,989	2,023	1,919	1,828	1,785
30%	1,619	1,628	1,685	1,781	1,833	1,857	1,818	1,867	1,900	1,817	1,713	1,655
40%	1,504	1,539	1,586	1,652	1,738	1,765	1,752	1,759	1,753	1,653	1,569	1,527
50%	1,411	1,432	1,456	1,522	1,620	1,669	1,628	1,662	1,623	1,560	1,483	1,439
60%	1,317	1,341	1,361	1,408	1,473	1,554	1,531	1,552	1,560	1,485	1,384	1,349
70%	1,131	1,160	1,254	1,299	1,369	1,403	1,379	1,376	1,369	1,277	1,211	1,173
80%	974	974	1,013	1,027	1,055	1,112	1,068	1,174	1,166	1,103	1,045	1,004
90%	594	580	589	597	616	690	672	734	834	765	692	642
Long Term												
Full Simulation Period ^d	1,316	1,326	1,366	1,422	1,483	1,526	1,516	1,558	1,572	1,490	1,398	1,349
Water Year Types^{b,c}												
Wet (23%)	1,753	1,758	1,791	1,593	1,703	1,758	1,816	1,973	2,073	1,997	1,874	1,800
Above Normal (24%)	1,339	1,349	1,379	1,304	1,396	1,474	1,475	1,570	1,610	1,515	1,413	1,361
Below Normal (10%)	1,383	1,387	1,407	1,675	1,719	1,758	1,691	1,692	1,695	1,597	1,493	1,433
Dry (16%)	1,234	1,270	1,347	1,495	1,523	1,563	1,528	1,509	1,469	1,380	1,299	1,264
Critical (27%)	938	940	983	1,245	1,262	1,266	1,224	1,168	1,121	1,056	997	968

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	118	118	88	85	39	50	64	33	132	138	138	137
20%	134	117	133	173	173	176	84	88	146	121	136	151
30%	86	91	130	184	147	128	131	122	115	110	108	99
40%	233	264	154	137	143	146	160	226	214	219	236	254
50%	290	305	303	214	183	134	166	218	231	277	292	283
60%	293	299	282	262	274	281	252	216	283	285	281	294
70%	249	249	268	284	330	347	296	285	282	282	301	304
80%	329	316	331	343	320	305	233	297	296	295	312	312
90%	164	146	149	110	76	121	98	147	204	198	185	170
Long Term												
Full Simulation Period ^d	184	184	186	185	178	177	179	184	191	190	190	190
Water Year Types^{b,c}												
Wet (23%)	28	29	37	97	67	55	59	60	37	29	29	28
Above Normal (24%)	111	110	108	130	129	132	109	100	129	128	123	121
Below Normal (10%)	181	180	180	211	201	207	196	190	193	189	186	184
Dry (16%)	303	305	307	242	247	248	263	283	294	300	304	306
Critical (27%)	324	325	327	267	269	271	289	308	316	321	323	325

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 7-2. New Melones Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,739	1,751	1,928	1,957	1,970	2,027	2,048	2,113	2,129	1,974	1,863	1,801
20%	1,654	1,653	1,675	1,748	1,954	1,927	1,947	1,976	1,926	1,826	1,741	1,690
30%	1,515	1,510	1,623	1,693	1,791	1,833	1,847	1,846	1,775	1,675	1,587	1,545
40%	1,322	1,333	1,498	1,620	1,685	1,734	1,685	1,662	1,578	1,481	1,389	1,343
50%	1,217	1,233	1,266	1,381	1,555	1,616	1,572	1,539	1,483	1,376	1,276	1,230
60%	1,098	1,100	1,158	1,246	1,331	1,393	1,456	1,427	1,369	1,262	1,167	1,125
70%	913	973	1,008	1,074	1,104	1,136	1,231	1,203	1,142	1,050	966	927
80%	669	670	684	780	916	984	975	955	888	807	747	718
90%	541	564	581	585	645	656	638	753	686	620	572	552
Long Term												
Full Simulation Period ^d	1,172	1,183	1,231	1,310	1,391	1,454	1,462	1,474	1,431	1,333	1,243	1,197
Water Year Types ^{b,c}												
Wet (23%)	1,736	1,742	1,778	1,588	1,733	1,824	1,898	2,030	2,066	1,960	1,844	1,779
Above Normal (24%)	1,273	1,287	1,333	1,264	1,375	1,456	1,506	1,578	1,531	1,420	1,329	1,284
Below Normal (10%)	1,238	1,247	1,282	1,502	1,572	1,620	1,594	1,584	1,535	1,430	1,338	1,284
Dry (16%)	1,000	1,032	1,120	1,313	1,347	1,414	1,378	1,317	1,233	1,136	1,052	1,013
Critical (27%)	660	662	704	1,042	1,068	1,096	1,045	951	872	793	725	692

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,918	1,930	1,967	1,970	1,970	2,030	2,071	2,203	2,219	2,115	2,011	1,950
20%	1,774	1,765	1,837	1,968	1,970	2,030	2,016	2,074	2,085	1,977	1,875	1,825
30%	1,648	1,653	1,738	1,833	1,938	1,976	1,957	1,942	1,877	1,769	1,687	1,667
40%	1,542	1,559	1,646	1,730	1,815	1,867	1,887	1,876	1,806	1,703	1,616	1,576
50%	1,485	1,511	1,541	1,620	1,715	1,809	1,794	1,796	1,720	1,619	1,537	1,505
60%	1,398	1,422	1,471	1,544	1,629	1,692	1,667	1,685	1,623	1,543	1,460	1,433
70%	1,237	1,259	1,333	1,404	1,461	1,508	1,525	1,514	1,460	1,377	1,302	1,260
80%	1,077	1,088	1,121	1,171	1,205	1,265	1,252	1,306	1,281	1,215	1,150	1,110
90%	726	729	760	788	908	945	978	1,011	952	889	828	778
Long Term												
Full Simulation Period ^d	1,381	1,392	1,441	1,512	1,575	1,639	1,649	1,669	1,637	1,546	1,458	1,411
Water Year Types ^{b,c}												
Wet (23%)	1,789	1,796	1,831	1,697	1,783	1,871	1,947	2,080	2,114	2,020	1,903	1,832
Above Normal (24%)	1,402	1,415	1,460	1,436	1,538	1,616	1,642	1,705	1,678	1,568	1,472	1,425
Below Normal (10%)	1,421	1,429	1,464	1,706	1,764	1,826	1,787	1,774	1,729	1,621	1,525	1,470
Dry (16%)	1,356	1,391	1,480	1,588	1,616	1,682	1,669	1,636	1,568	1,482	1,407	1,373
Critical (27%)	1,007	1,010	1,055	1,306	1,335	1,366	1,334	1,263	1,196	1,128	1,067	1,037

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	178	179	40	13	0	3	23	89	90	141	148	149
20%	120	112	162	220	16	103	70	98	158	151	134	134
30%	133	142	116	140	147	143	110	97	102	94	99	121
40%	220	225	148	110	131	133	202	214	228	222	227	233
50%	268	278	275	239	160	194	222	257	236	243	261	276
60%	299	322	313	298	298	299	211	258	254	281	293	308
70%	323	287	325	330	358	373	294	311	318	327	335	333
80%	408	418	437	391	289	281	278	350	393	408	403	391
90%	186	166	179	203	263	289	340	258	267	269	256	226
Long Term												
Full Simulation Period ^d	209	209	209	201	184	185	187	196	206	213	215	214
Water Year Types ^{b,c}												
Wet (23%)	53	53	53	108	50	48	49	51	48	60	59	53
Above Normal (24%)	129	128	127	171	163	160	136	127	148	148	143	141
Below Normal (10%)	183	182	182	204	192	206	193	190	194	191	187	186
Dry (16%)	356	359	360	276	269	268	291	319	336	346	355	359
Critical (27%)	347	348	351	264	267	270	289	312	324	334	342	345

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-3. New Melones Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,765	1,759	1,823	1,880	1,931	1,980	1,946	2,053	2,075	1,978	1,870	1,806
20%	1,612	1,631	1,647	1,687	1,768	1,799	1,834	1,901	1,877	1,798	1,692	1,634
30%	1,533	1,537	1,555	1,597	1,687	1,730	1,687	1,745	1,786	1,707	1,605	1,557
40%	1,272	1,274	1,432	1,515	1,594	1,618	1,592	1,534	1,539	1,433	1,333	1,274
50%	1,120	1,127	1,154	1,308	1,436	1,436	1,535	1,462	1,443	1,392	1,283	1,190
60%	1,024	1,042	1,079	1,146	1,199	1,273	1,279	1,336	1,277	1,200	1,103	1,055
70%	882	911	986	1,015	1,038	1,057	1,083	1,090	1,087	994	910	868
80%	646	658	682	684	735	808	835	878	871	808	733	692
90%	430	435	440	486	541	569	574	586	630	566	507	473
Long Term												
Full Simulation Period ^d	1,132	1,142	1,180	1,237	1,305	1,348	1,338	1,373	1,381	1,300	1,208	1,159
Water Year Types ^{b,c}												
Wet (23%)	1,725	1,729	1,754	1,496	1,637	1,703	1,757	1,913	2,035	1,968	1,845	1,772
Above Normal (24%)	1,229	1,239	1,271	1,174	1,267	1,342	1,366	1,470	1,480	1,387	1,290	1,241
Below Normal (10%)	1,201	1,206	1,228	1,464	1,518	1,550	1,495	1,502	1,502	1,408	1,307	1,249
Dry (16%)	931	965	1,040	1,254	1,277	1,315	1,265	1,226	1,175	1,080	996	958
Critical (27%)	614	615	656	978	993	994	935	860	804	734	674	643

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,739	1,751	1,928	1,957	1,970	2,027	2,048	2,113	2,129	1,974	1,863	1,801
20%	1,654	1,653	1,675	1,748	1,954	1,927	1,947	1,976	1,926	1,826	1,741	1,690
30%	1,515	1,510	1,623	1,693	1,791	1,833	1,847	1,846	1,775	1,675	1,587	1,545
40%	1,322	1,333	1,498	1,620	1,685	1,734	1,685	1,662	1,578	1,481	1,389	1,343
50%	1,217	1,233	1,266	1,381	1,555	1,616	1,572	1,539	1,483	1,376	1,276	1,230
60%	1,098	1,100	1,158	1,246	1,331	1,393	1,456	1,427	1,369	1,262	1,167	1,125
70%	913	973	1,008	1,074	1,104	1,136	1,231	1,203	1,142	1,050	966	927
80%	669	670	684	780	916	984	975	955	888	807	747	718
90%	541	564	581	585	645	656	638	753	686	620	572	552
Long Term												
Full Simulation Period ^d	1,172	1,183	1,231	1,310	1,391	1,454	1,462	1,474	1,431	1,333	1,243	1,197
Water Year Types ^{b,c}												
Wet (23%)	1,736	1,742	1,778	1,588	1,733	1,824	1,898	2,030	2,066	1,960	1,844	1,779
Above Normal (24%)	1,273	1,287	1,333	1,264	1,375	1,456	1,506	1,578	1,531	1,420	1,329	1,284
Below Normal (10%)	1,238	1,247	1,282	1,502	1,572	1,620	1,594	1,584	1,535	1,430	1,338	1,284
Dry (16%)	1,000	1,032	1,120	1,313	1,347	1,414	1,378	1,317	1,233	1,136	1,052	1,013
Critical (27%)	660	662	704	1,042	1,068	1,096	1,045	951	872	793	725	692

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-26	-8	104	77	39	47	102	60	54	-5	-7	-5
20%	43	22	28	61	186	128	113	75	49	28	49	57
30%	-18	-26	68	96	105	104	160	101	-10	-32	-17	-11
40%	50	59	66	105	90	116	93	128	39	47	56	70
50%	97	106	112	73	119	81	110	96	92	93	86	73
60%	74	58	79	100	132	119	177	92	93	62	64	70
70%	31	61	22	59	65	79	148	113	55	56	56	59
80%	23	12	2	96	182	177	139	78	17	-1	14	26
90%	111	129	141	99	105	87	63	167	56	53	65	79
Long Term												
Full Simulation Period ^d	40	41	51	74	85	106	124	100	50	33	35	38
Water Year Types ^{b,c}												
Wet (23%)	11	14	24	92	96	121	141	117	31	-8	-1	7
Above Normal (24%)	44	48	62	91	108	114	141	108	50	33	39	44
Below Normal (10%)	37	40	54	38	54	70	98	83	33	23	31	35
Dry (16%)	69	67	79	59	71	100	113	92	58	56	57	56
Critical (27%)	46	46	48	64	75	102	110	91	68	59	51	48

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-4. New Melones Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,884	1,877	1,911	1,965	1,970	2,030	2,010	2,086	2,207	2,117	2,008	1,942
20%	1,745	1,748	1,780	1,860	1,942	1,975	1,918	1,989	2,023	1,919	1,828	1,785
30%	1,619	1,628	1,685	1,781	1,833	1,857	1,818	1,867	1,900	1,817	1,713	1,655
40%	1,504	1,539	1,586	1,652	1,738	1,765	1,752	1,759	1,753	1,653	1,569	1,527
50%	1,411	1,432	1,456	1,522	1,620	1,669	1,628	1,662	1,623	1,560	1,483	1,439
60%	1,317	1,341	1,361	1,408	1,473	1,554	1,531	1,552	1,560	1,485	1,384	1,349
70%	1,131	1,160	1,254	1,299	1,369	1,403	1,379	1,376	1,369	1,277	1,211	1,173
80%	974	974	1,013	1,027	1,055	1,112	1,068	1,174	1,166	1,103	1,045	1,004
90%	594	580	589	597	616	690	672	734	834	765	692	642
Long Term												
Full Simulation Period ^d	1,316	1,326	1,366	1,422	1,483	1,526	1,516	1,558	1,572	1,490	1,398	1,349
Water Year Types ^{b,c}												
Wet (23%)	1,753	1,758	1,791	1,593	1,703	1,758	1,816	1,973	2,073	1,997	1,874	1,800
Above Normal (24%)	1,339	1,349	1,379	1,304	1,396	1,474	1,475	1,570	1,610	1,515	1,413	1,361
Below Normal (10%)	1,383	1,387	1,407	1,675	1,719	1,758	1,691	1,692	1,695	1,597	1,493	1,433
Dry (16%)	1,234	1,270	1,347	1,495	1,523	1,563	1,528	1,509	1,469	1,380	1,299	1,264
Critical (27%)	938	940	983	1,245	1,262	1,266	1,224	1,168	1,121	1,056	997	968

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,918	1,930	1,967	1,970	1,970	2,030	2,071	2,203	2,219	2,115	2,011	1,950
20%	1,774	1,765	1,837	1,968	1,970	2,030	2,016	2,074	2,085	1,977	1,875	1,825
30%	1,648	1,653	1,738	1,833	1,938	1,976	1,957	1,942	1,877	1,769	1,687	1,667
40%	1,542	1,559	1,646	1,730	1,815	1,867	1,887	1,876	1,806	1,703	1,616	1,576
50%	1,485	1,511	1,541	1,620	1,715	1,809	1,794	1,796	1,720	1,619	1,537	1,505
60%	1,398	1,422	1,471	1,544	1,629	1,692	1,667	1,685	1,623	1,543	1,460	1,433
70%	1,237	1,259	1,333	1,404	1,461	1,508	1,525	1,514	1,460	1,377	1,302	1,260
80%	1,077	1,088	1,121	1,171	1,205	1,265	1,252	1,306	1,281	1,215	1,150	1,110
90%	726	729	760	788	908	945	978	1,011	952	889	828	778
Long Term												
Full Simulation Period ^d	1,381	1,392	1,441	1,512	1,575	1,639	1,649	1,669	1,637	1,546	1,458	1,411
Water Year Types ^{b,c}												
Wet (23%)	1,789	1,796	1,831	1,697	1,783	1,871	1,947	2,080	2,114	2,020	1,903	1,832
Above Normal (24%)	1,402	1,415	1,460	1,436	1,538	1,616	1,642	1,705	1,678	1,568	1,472	1,425
Below Normal (10%)	1,421	1,429	1,464	1,706	1,764	1,826	1,787	1,774	1,729	1,621	1,525	1,470
Dry (16%)	1,356	1,391	1,480	1,588	1,616	1,682	1,669	1,636	1,568	1,482	1,407	1,373
Critical (27%)	1,007	1,010	1,055	1,306	1,335	1,366	1,334	1,263	1,196	1,128	1,067	1,037

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	34	52	56	5	0	0	61	116	12	-2	3	8
20%	29	17	57	108	28	55	99	85	62	57	47	40
30%	29	25	54	52	105	119	138	76	-23	-48	-27	11
40%	38	20	60	78	78	103	135	117	53	50	47	49
50%	74	79	85	98	95	140	166	134	97	60	54	66
60%	80	81	110	136	156	138	136	134	63	58	76	85
70%	105	99	79	105	93	105	146	138	91	100	90	88
80%	102	115	108	144	150	153	184	131	114	112	105	106
90%	132	149	171	191	292	255	306	278	119	124	136	135
Long Term												
Full Simulation Period ^d	64	66	74	90	92	113	133	112	65	56	60	62
Water Year Types ^{b,c}												
Wet (23%)	35	38	40	104	79	113	132	108	41	23	29	32
Above Normal (24%)	63	66	81	132	142	142	167	135	69	53	59	64
Below Normal (10%)	39	43	56	31	45	69	96	82	34	24	32	37
Dry (16%)	122	121	133	93	93	120	141	128	100	103	108	109
Critical (27%)	69	70	71	61	73	100	110	95	75	72	70	69

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

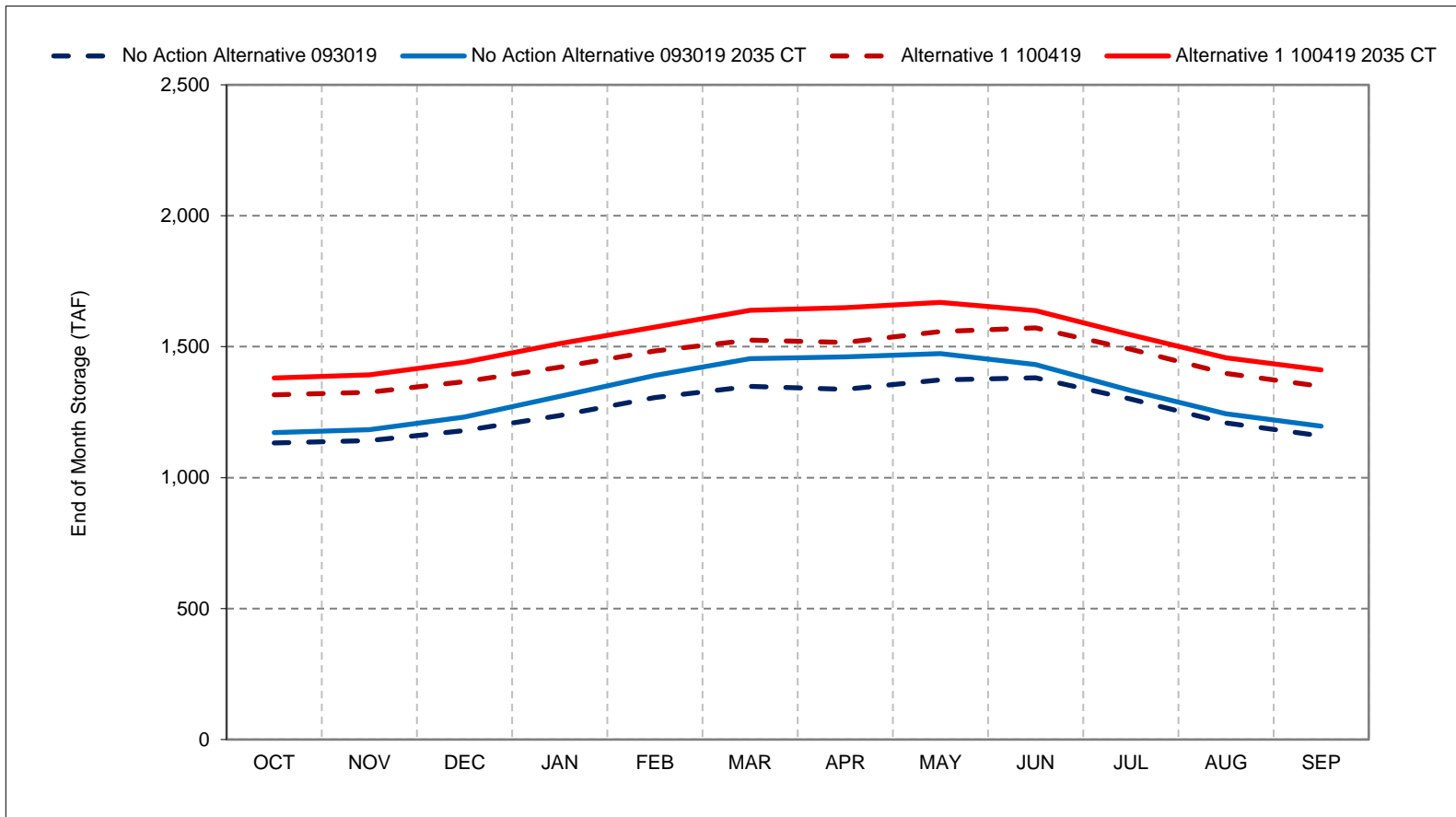
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7-1. New Melones Storage, Long-Term Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

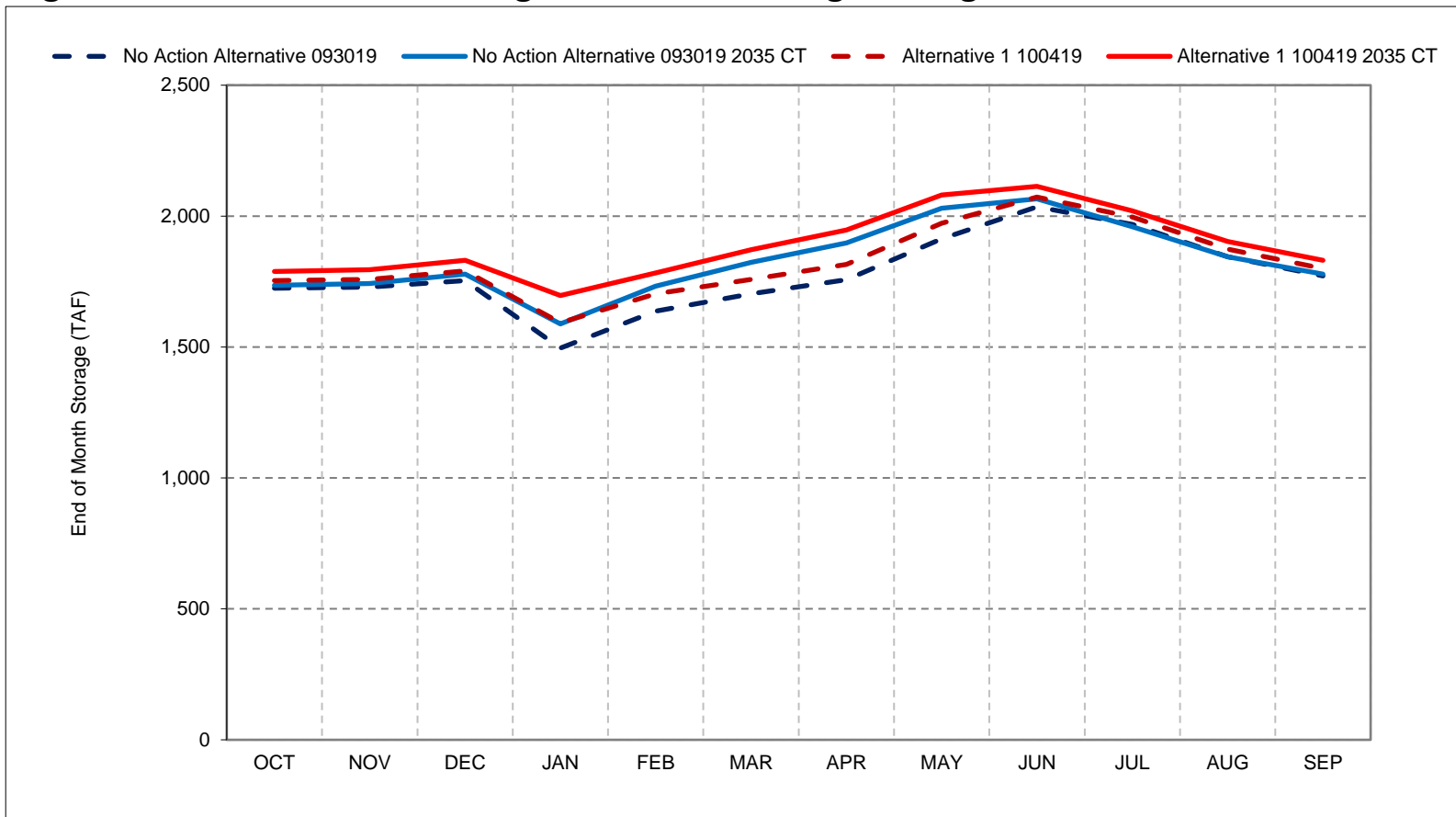
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-2. New Melones Storage, Wet Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

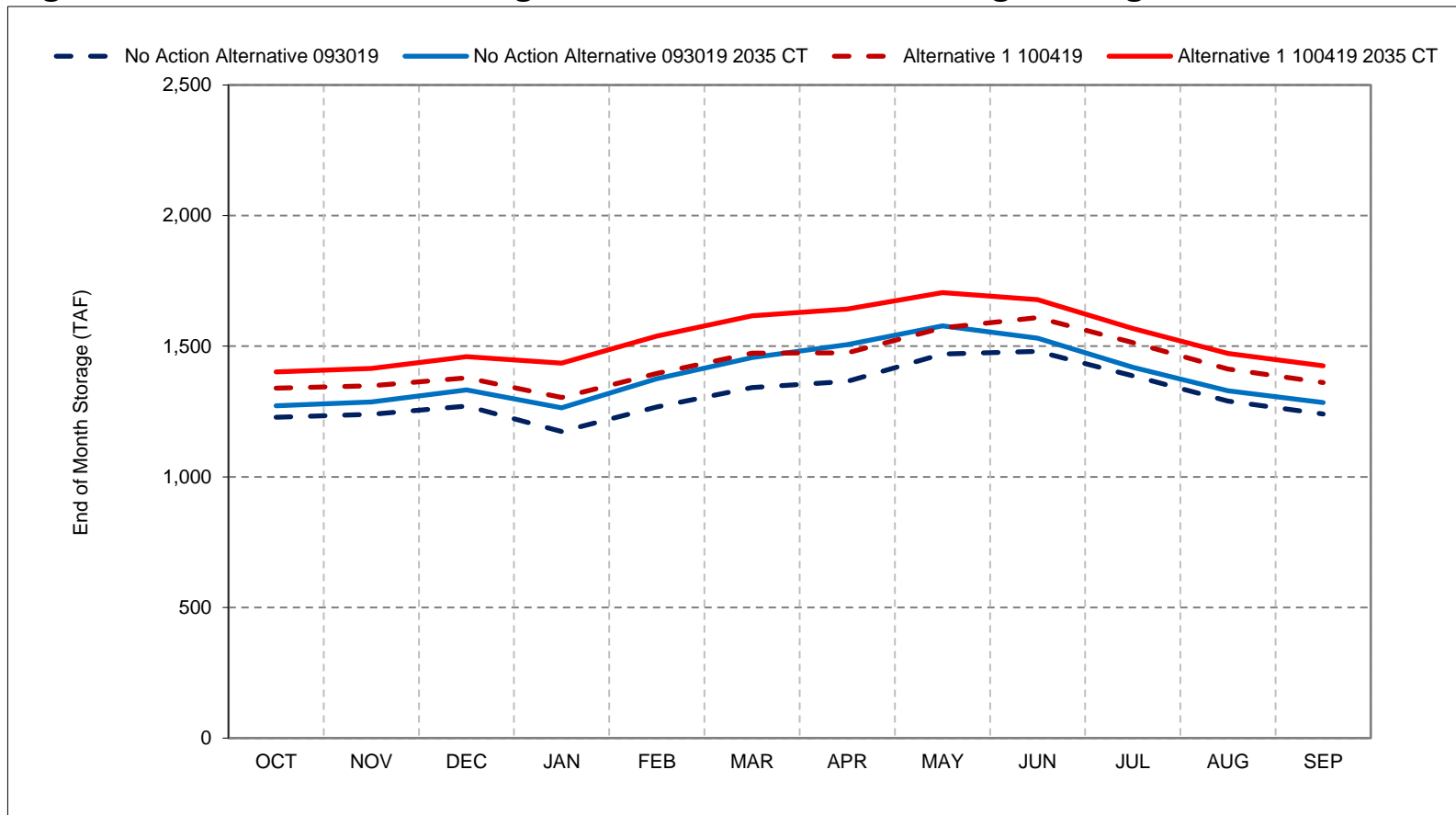
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-3. New Melones Storage, Above Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

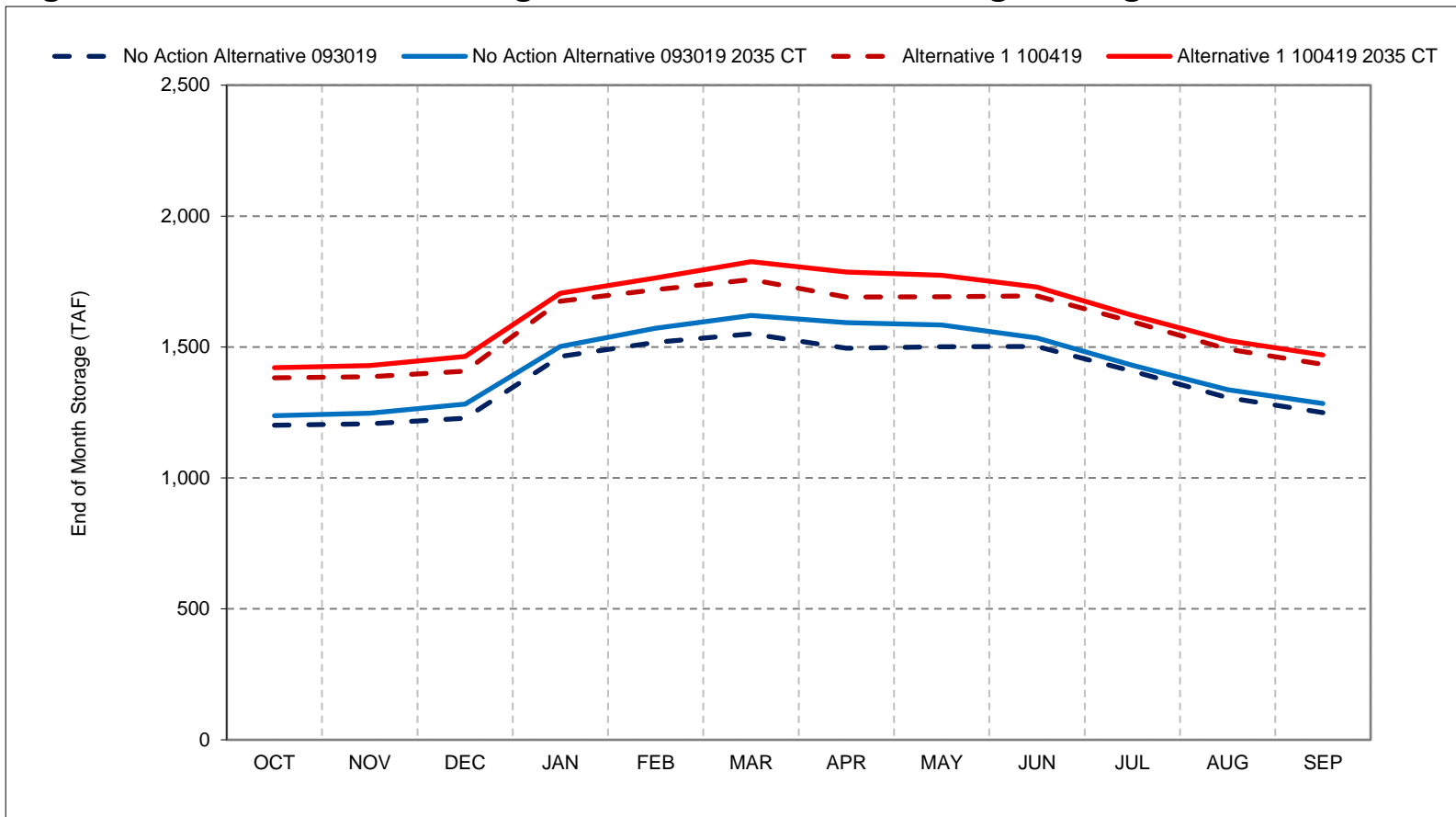
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-4. New Melones Storage, Below Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

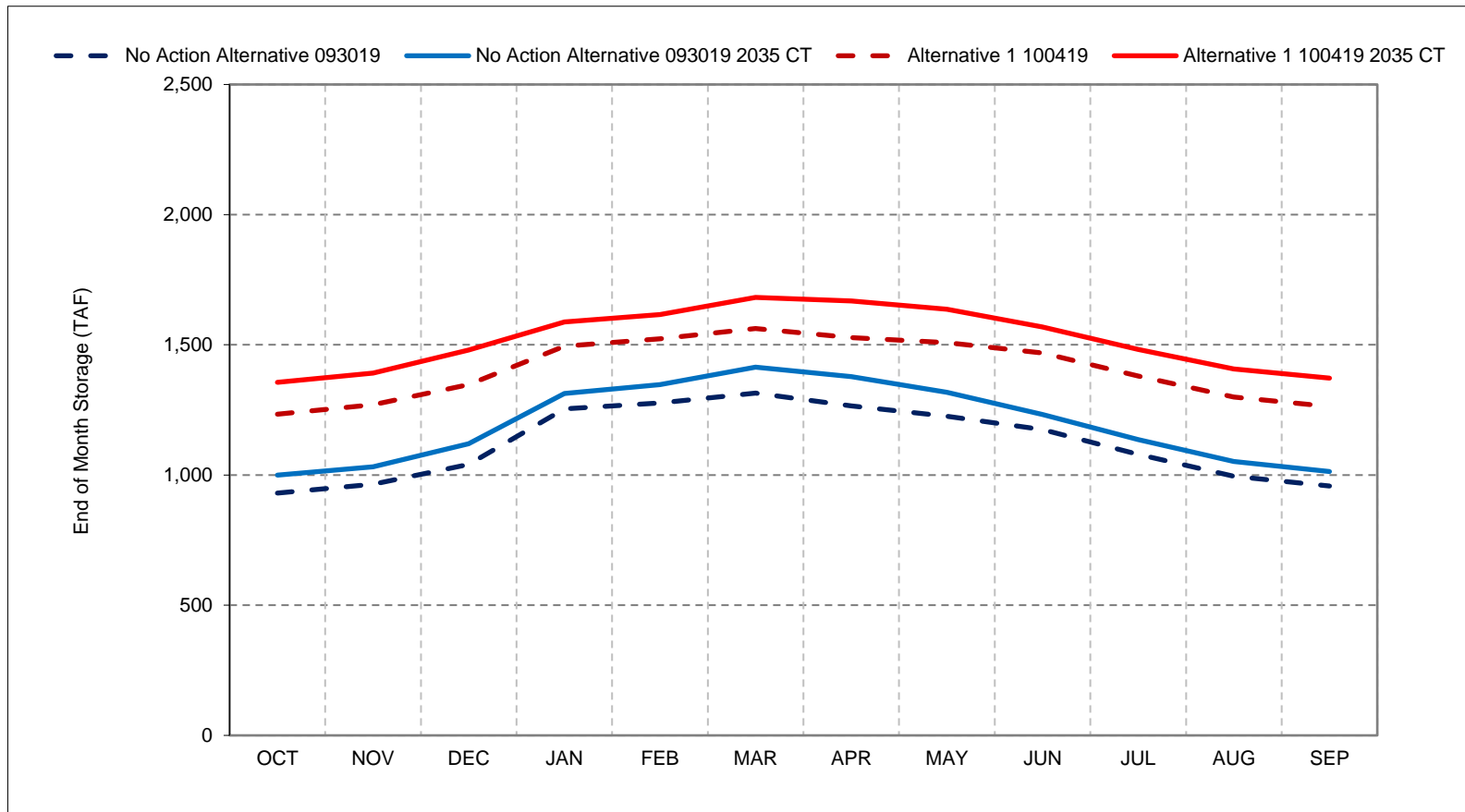
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-5. New Melones Storage, Dry Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

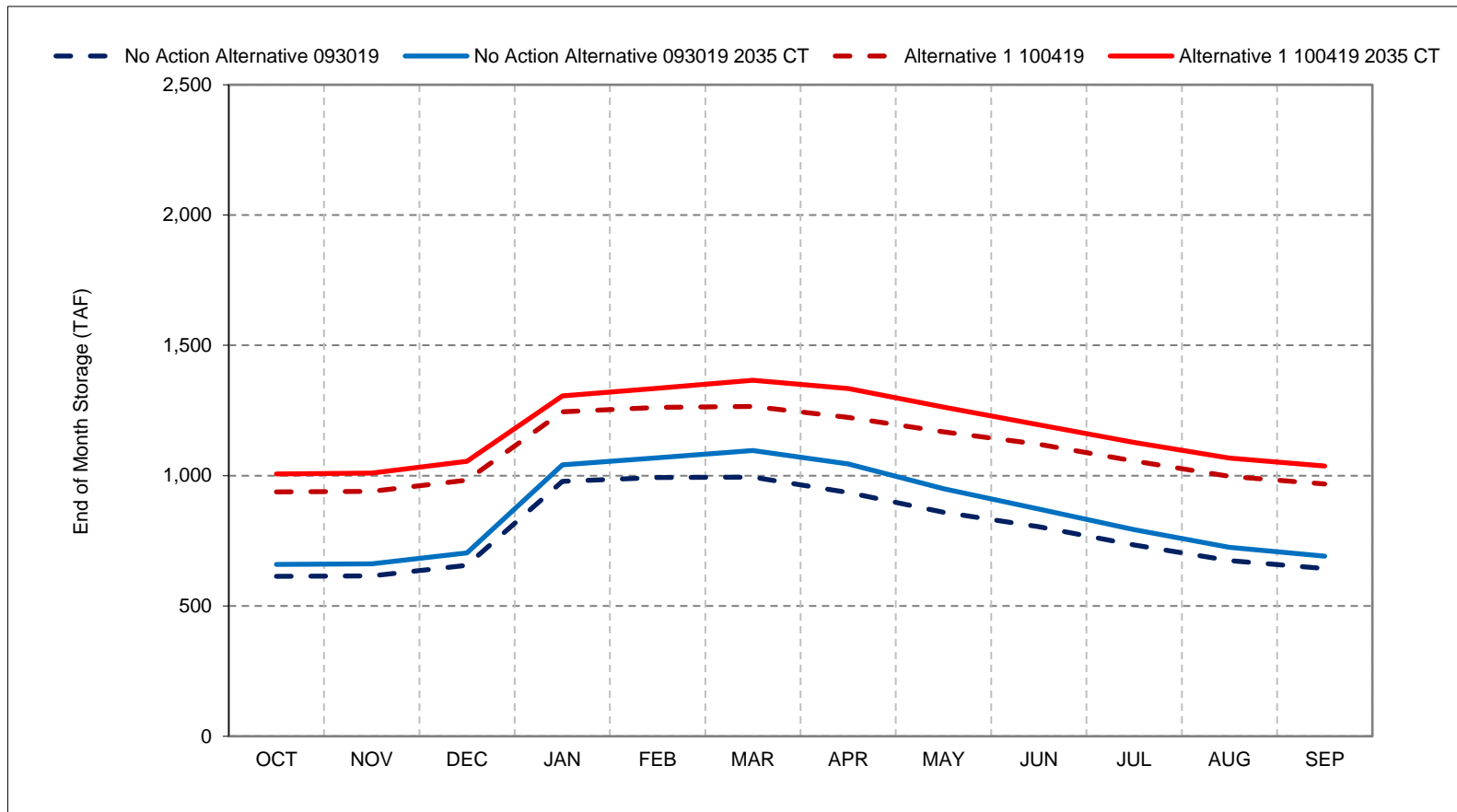
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-6. New Melones Storage, Critical Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

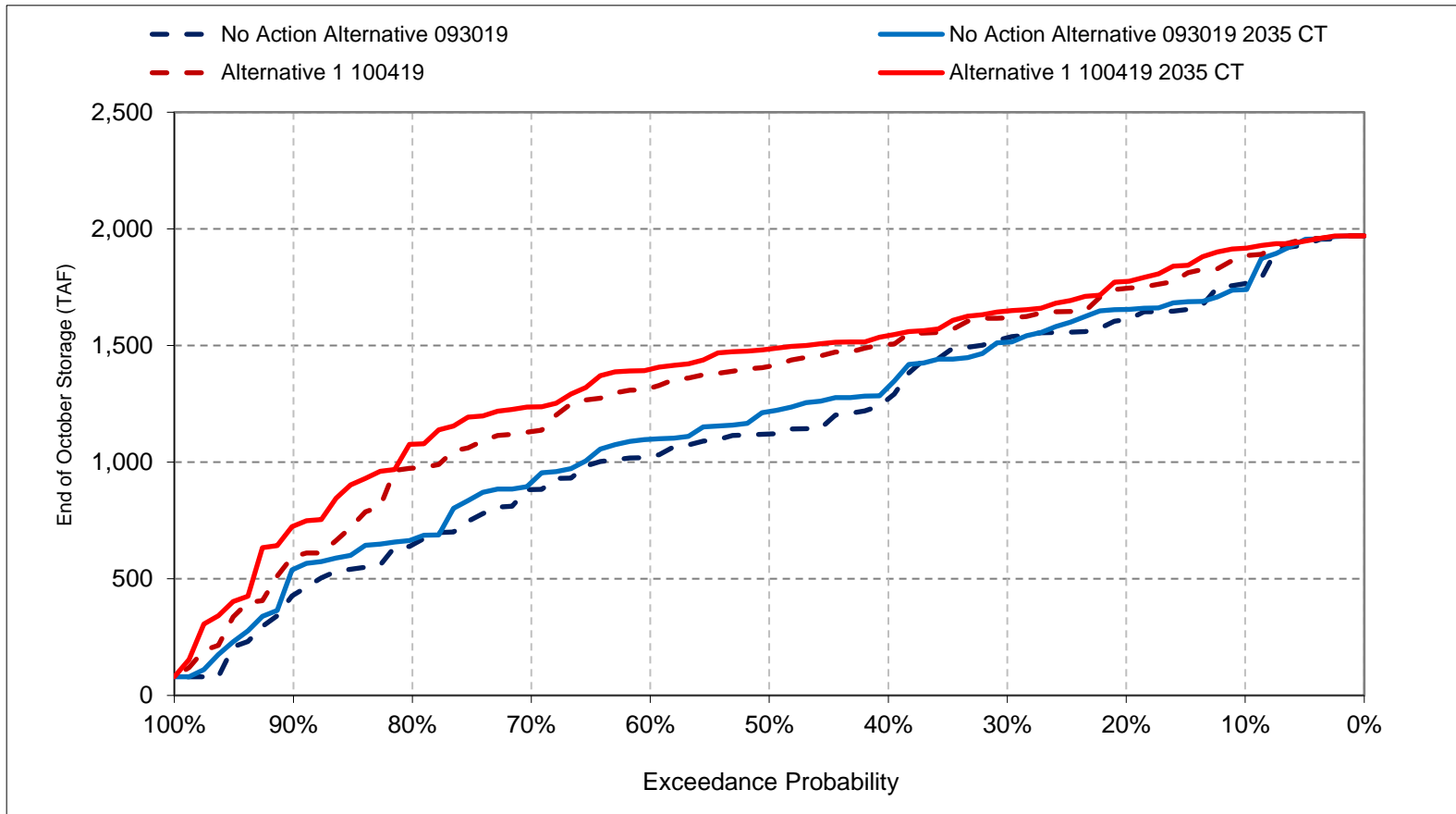
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

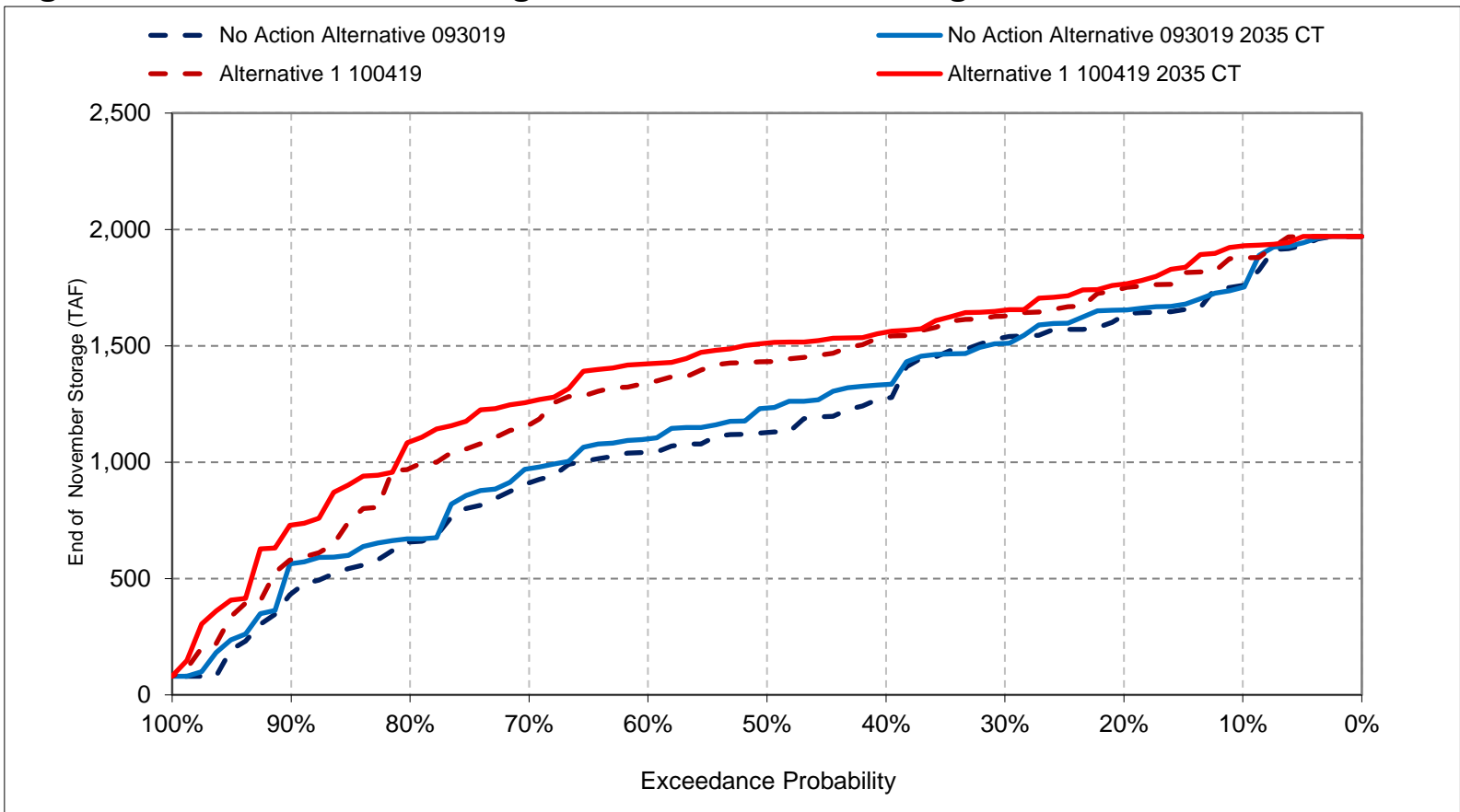
Figure 7-7. New Melones Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

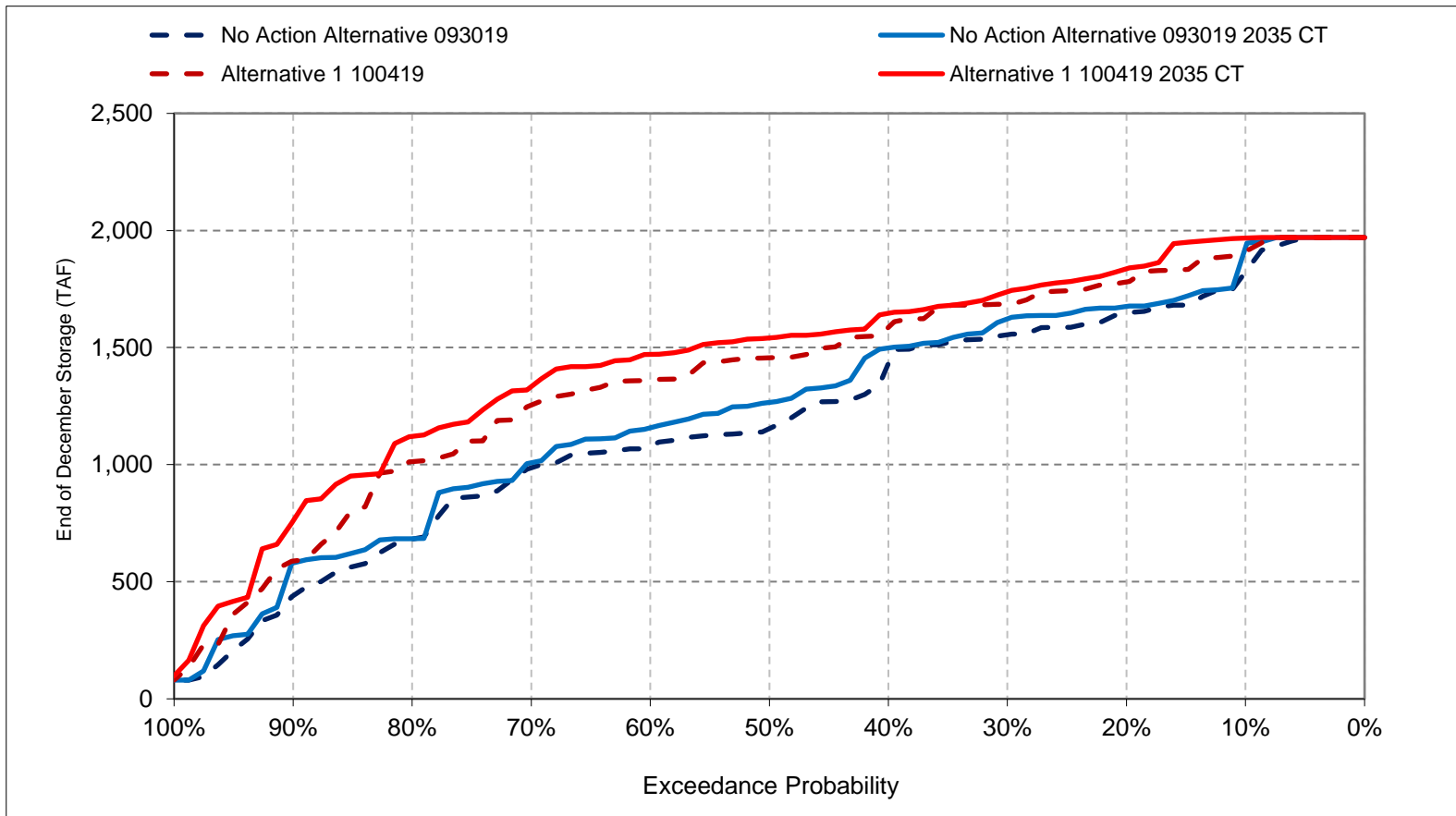
Figure 7-8. New Melones Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

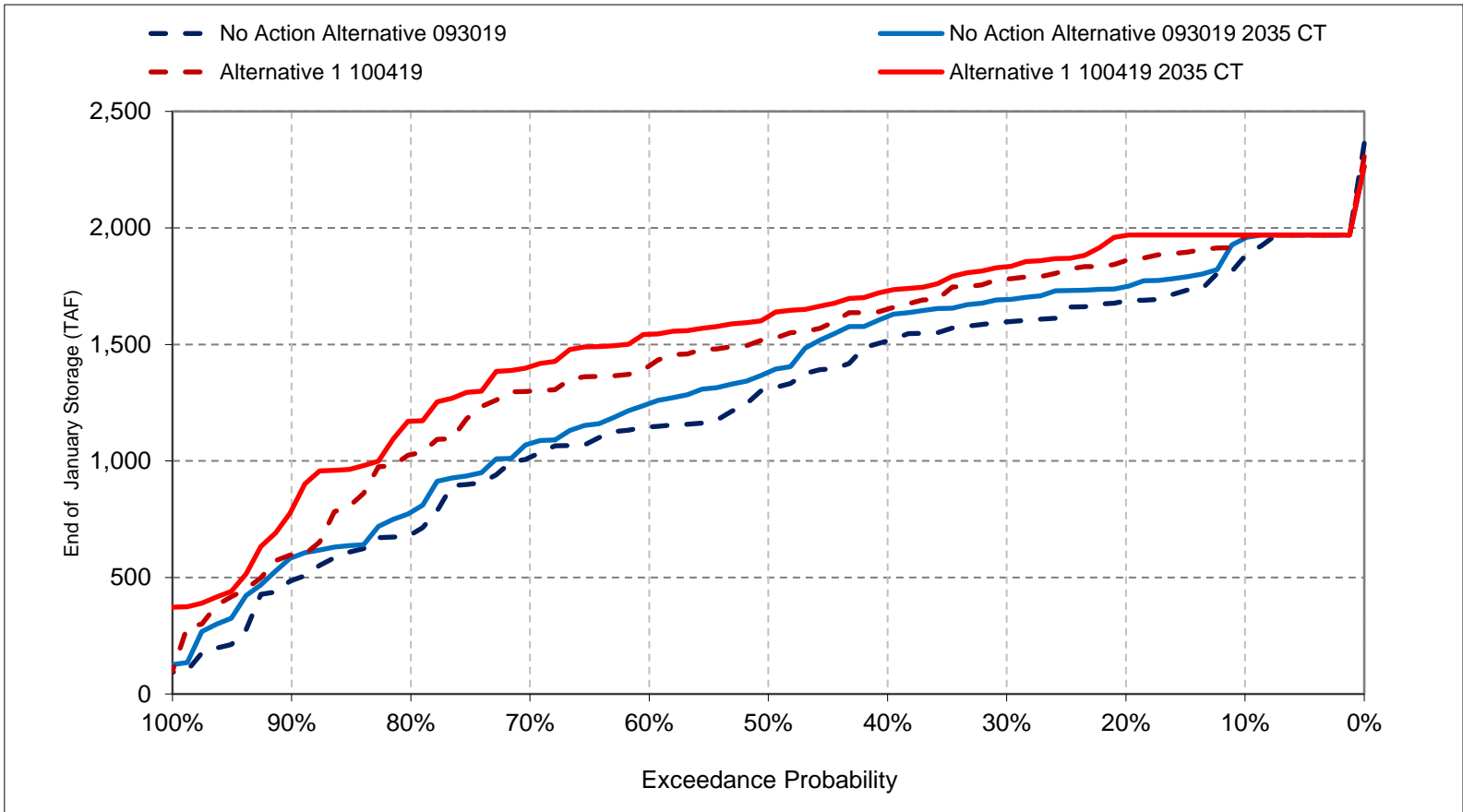
Figure 7-9. New Melones Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

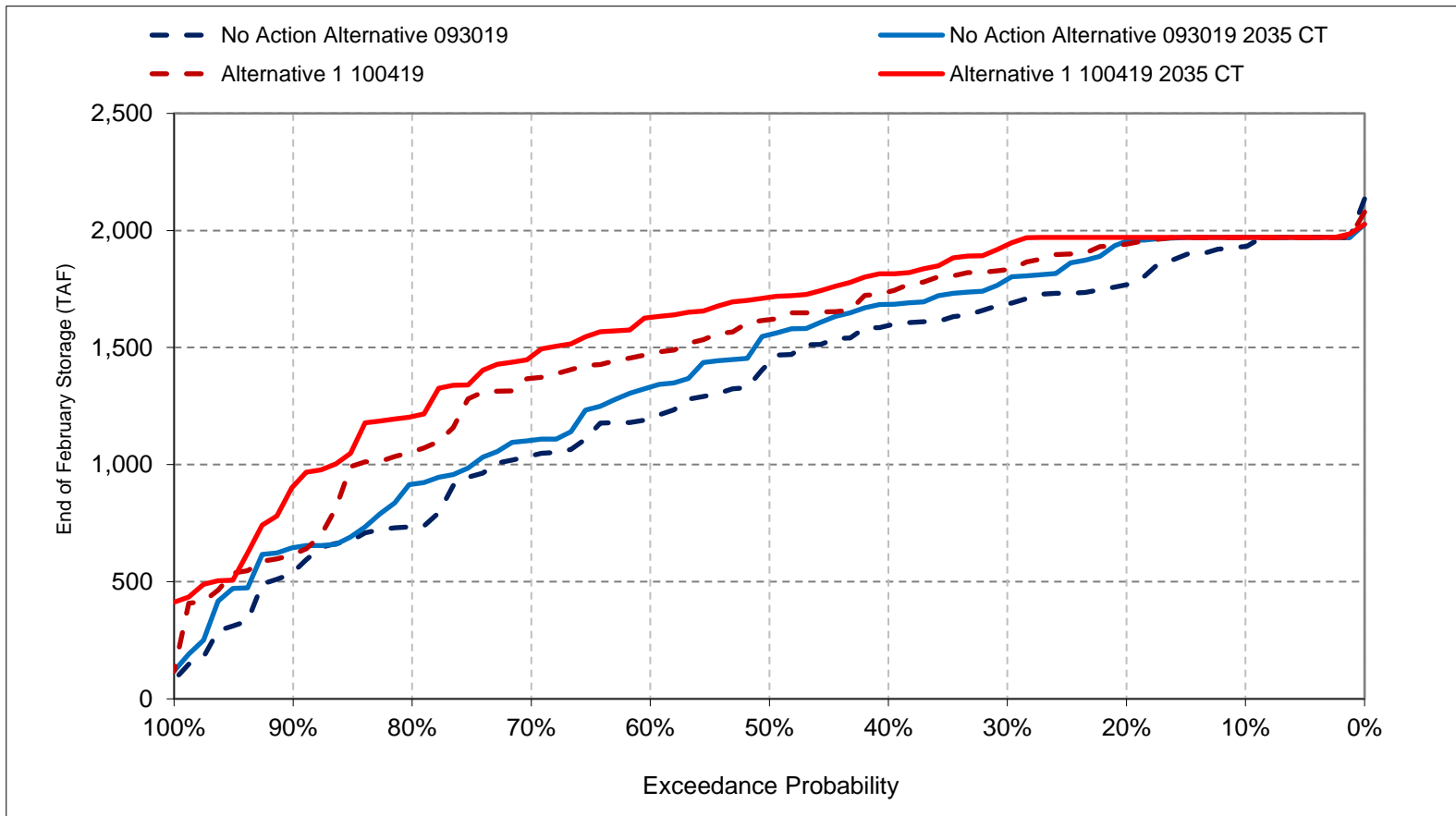
Figure 7-10. New Melones Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

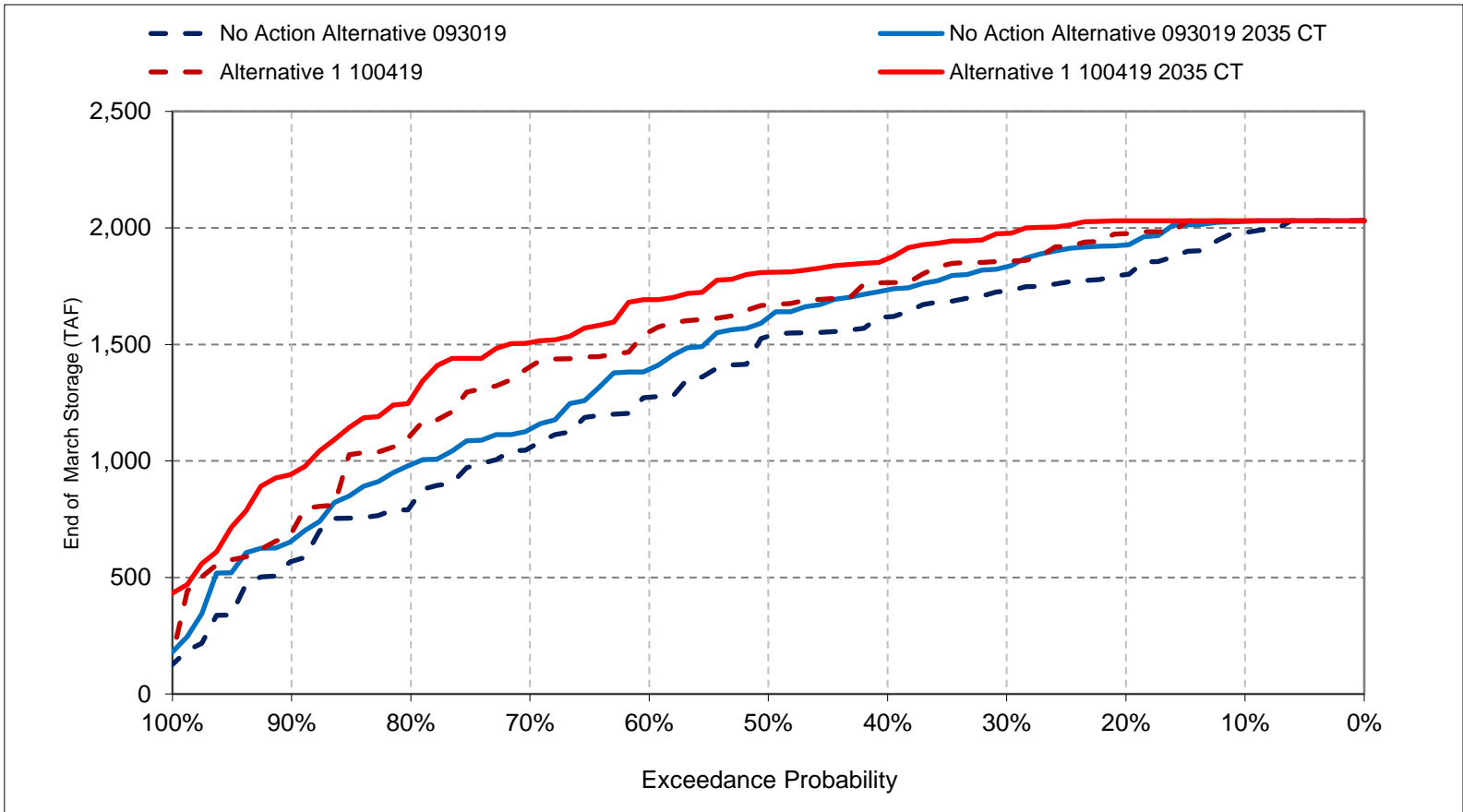
Figure 7-11. New Melones Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

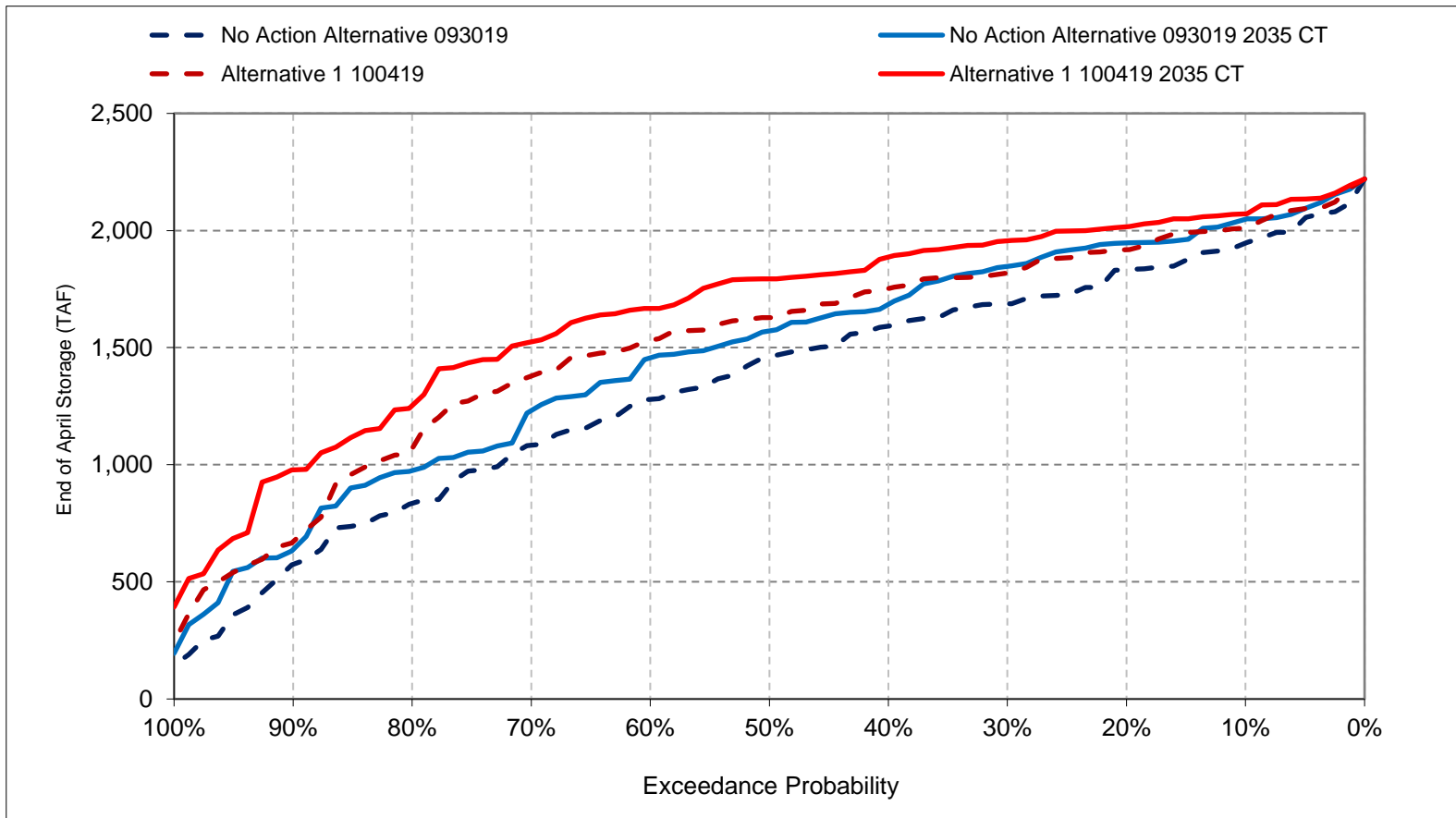
Figure 7-12. New Melones Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

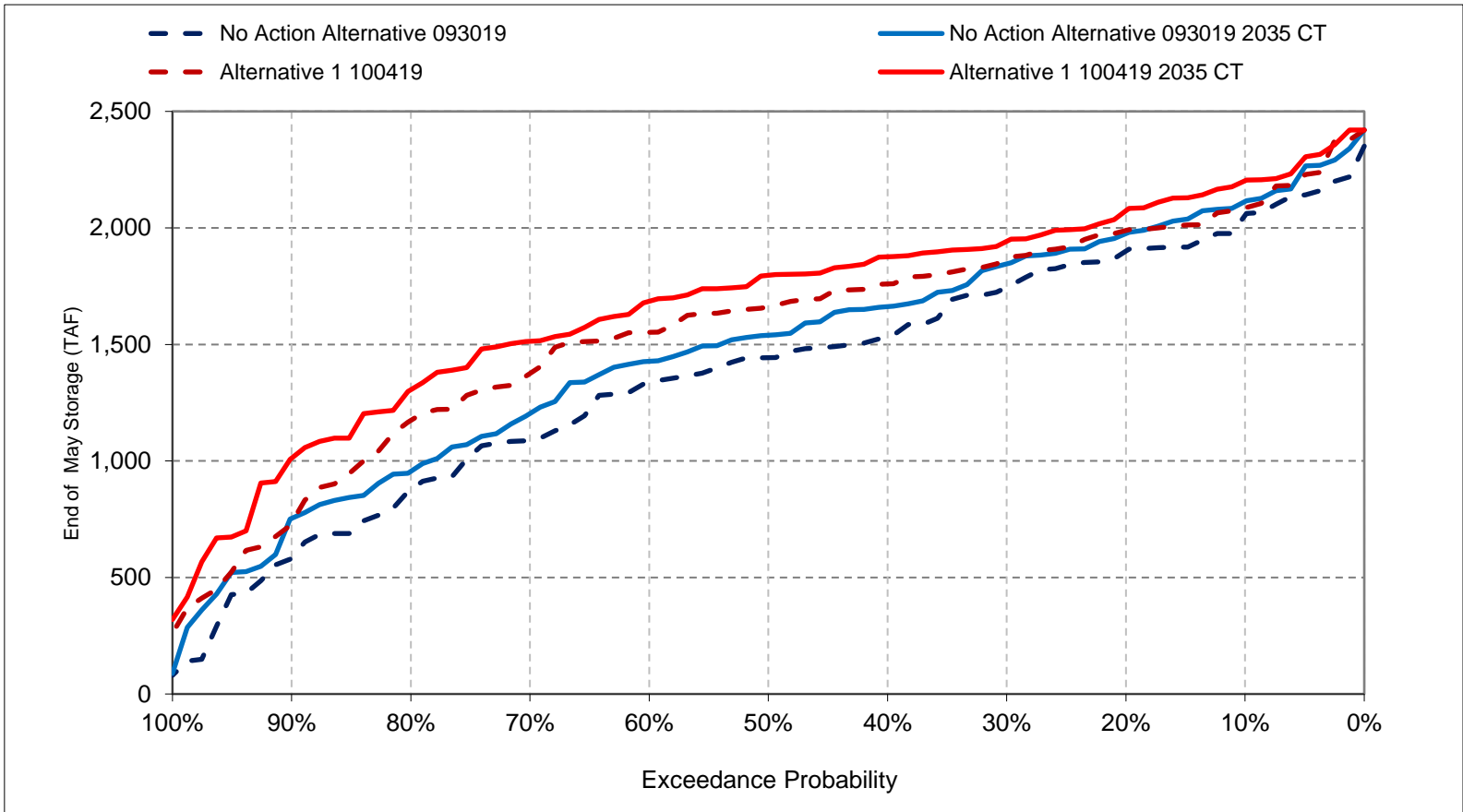
Figure 7-13. New Melones Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

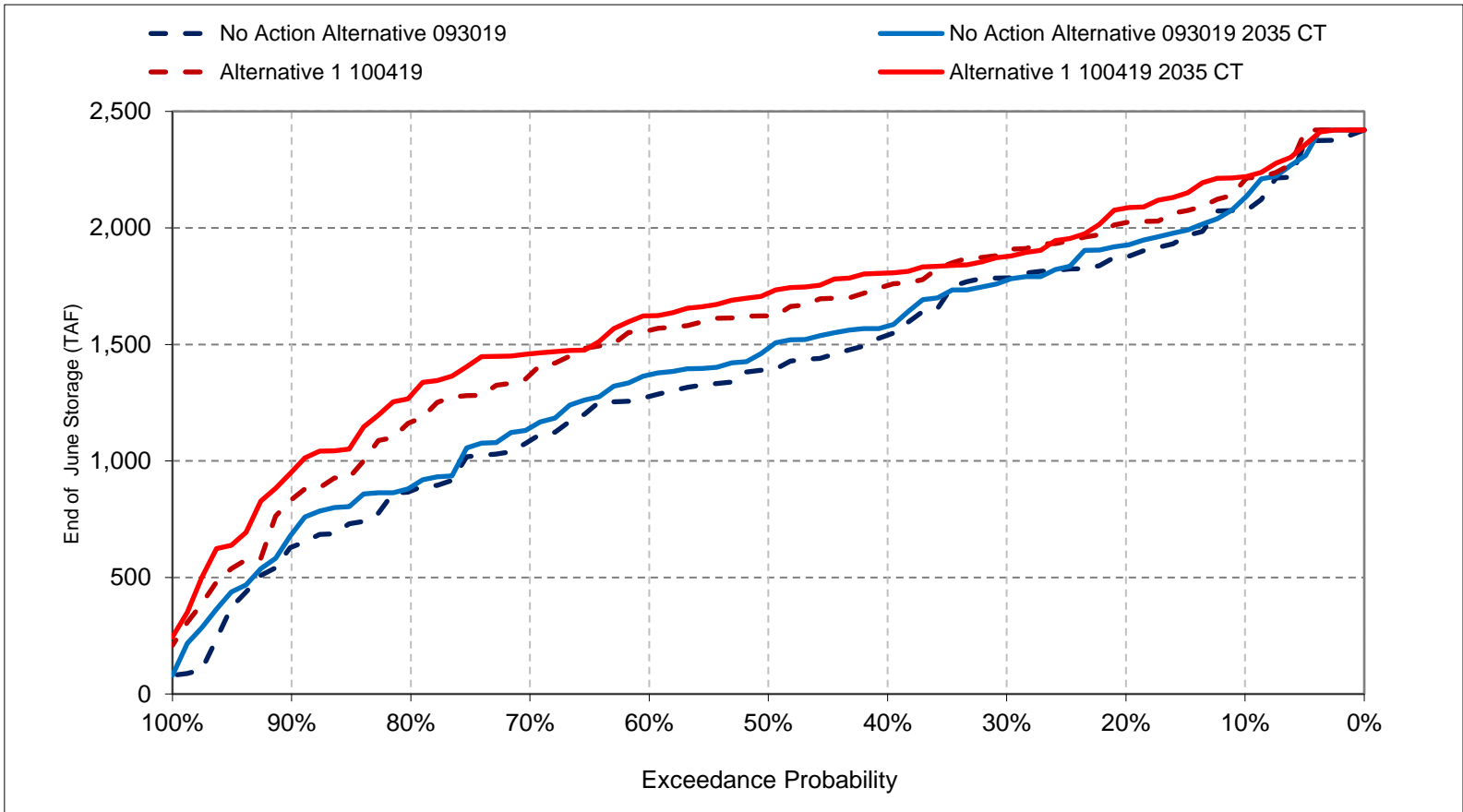
Figure 7-14. New Melones Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

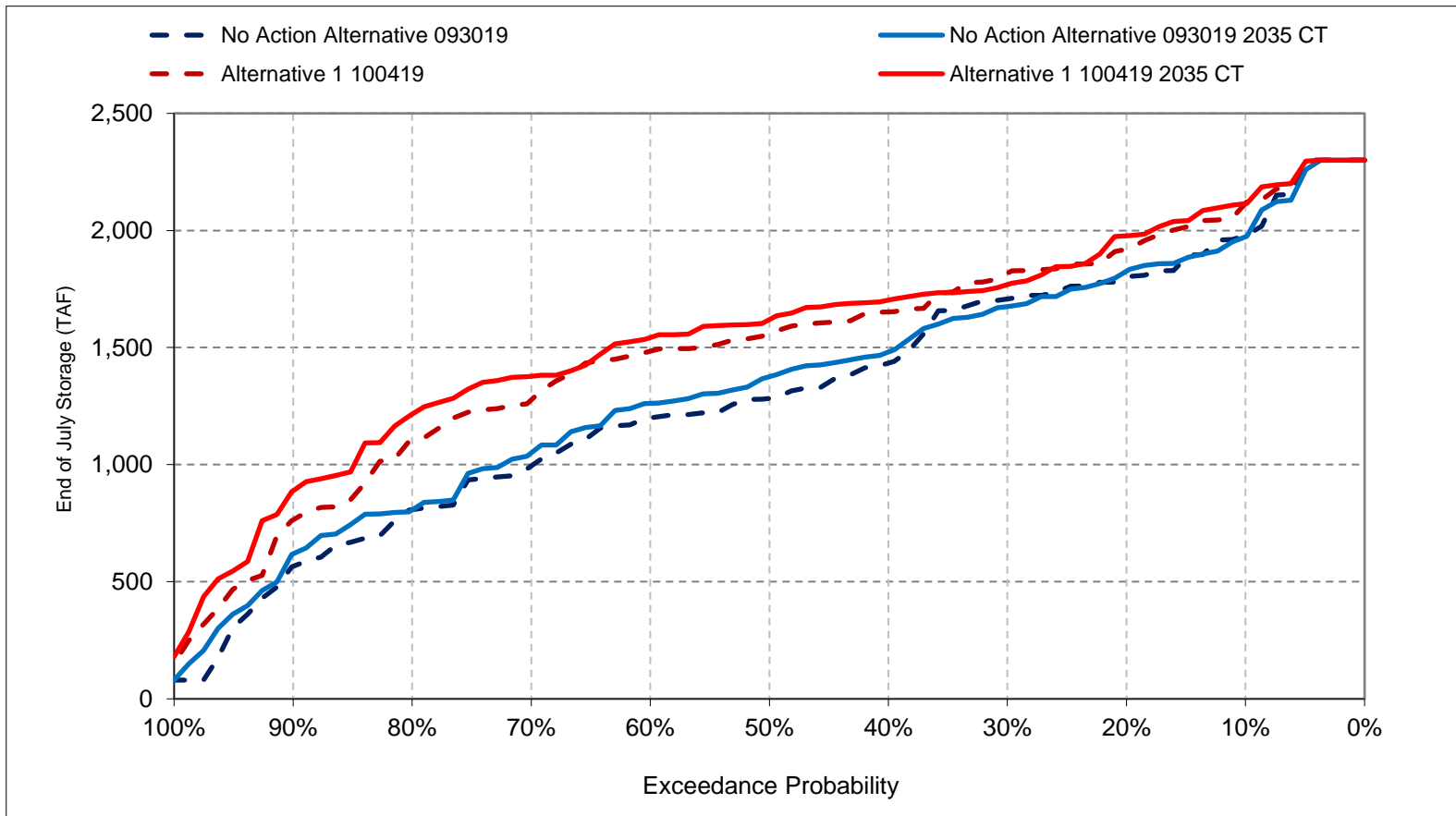
Figure 7-15. New Melones Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

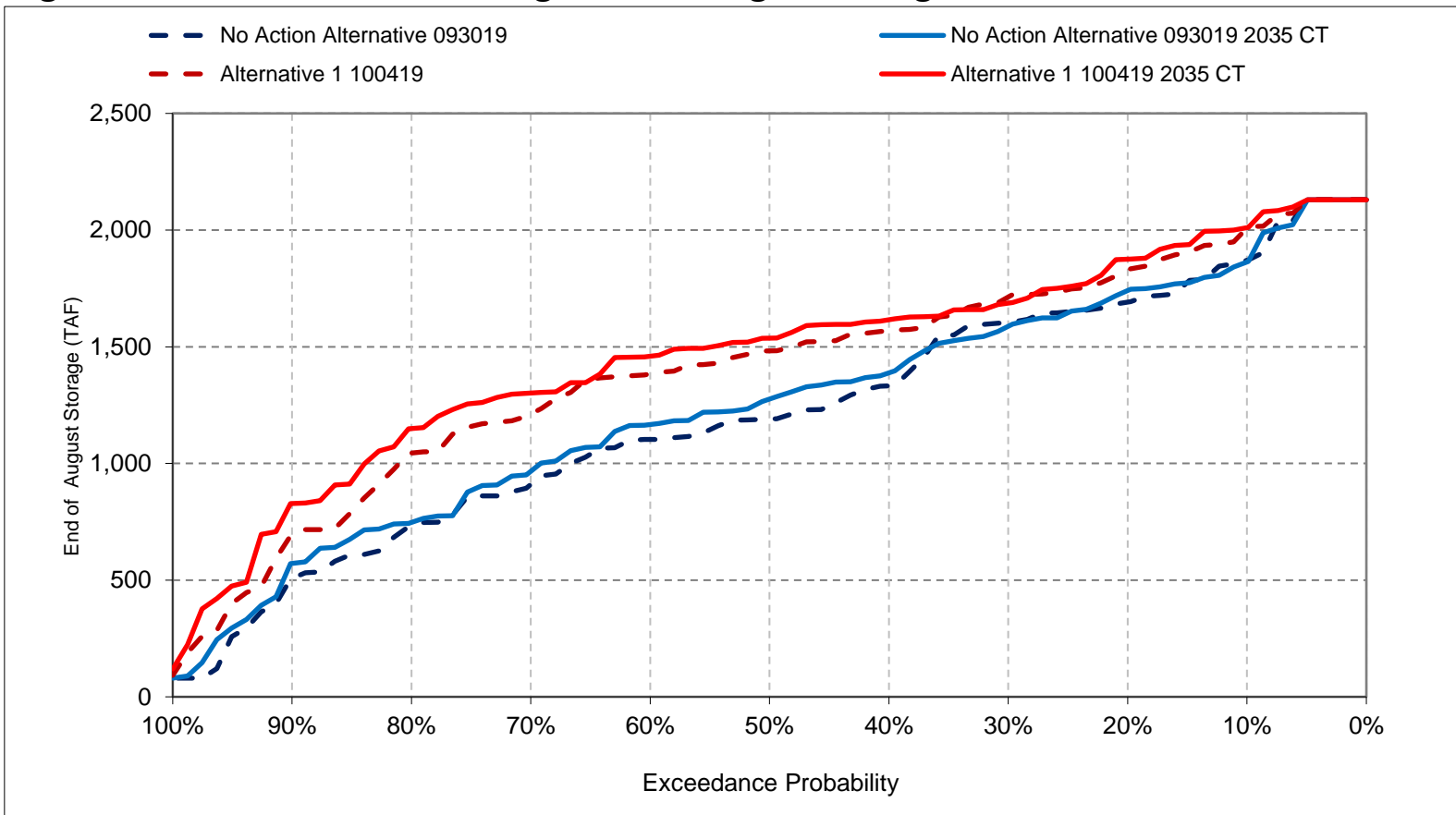
Figure 7-16. New Melones Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

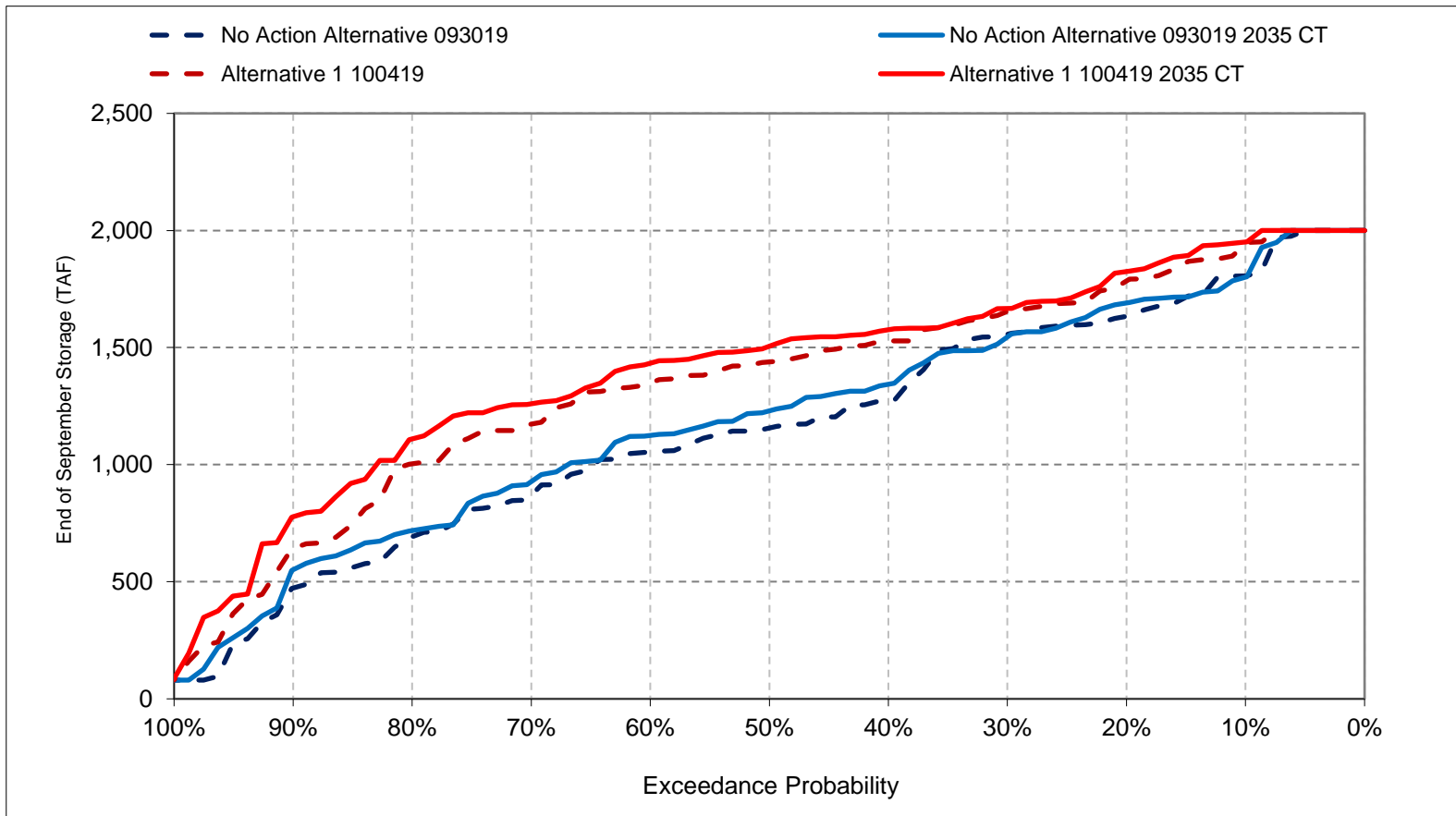
Figure 7-17. New Melones Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7-18. New Melones Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-1. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,029	1,028	1,035	1,040	1,046	1,050	1,047	1,057	1,059	1,050	1,039	1,033
20%	1,013	1,015	1,017	1,021	1,029	1,032	1,036	1,043	1,040	1,032	1,022	1,016
30%	1,006	1,006	1,008	1,012	1,021	1,025	1,021	1,027	1,031	1,023	1,013	1,008
40%	975	976	995	1,004	1,012	1,014	1,011	1,006	1,006	995	983	976
50%	956	957	960	980	996	1,006	998	996	991	977	965	960
60%	943	945	950	959	966	976	976	984	976	966	953	947
70%	925	928	938	942	945	947	951	952	951	939	928	923
80%	879	881	886	887	897	912	918	924	923	912	897	888
90%	835	836	837	846	857	863	864	867	876	863	850	843
Long Term												
Full Simulation Period ^d	944	945	950	958	968	974	973	976	976	965	954	947
Water Year Types^{b,c}												
Wet (23%)	1,024	1,025	1,027	996	1,012	1,021	1,026	1,042	1,054	1,047	1,036	1,029
Above Normal (24%)	963	965	969	945	959	970	976	991	994	983	971	965
Below Normal (10%)	963	963	966	990	998	1,001	996	998	999	988	976	969
Dry (16%)	924	929	939	967	970	975	969	965	960	947	935	929
Critical (27%)	858	859	867	922	925	927	917	903	893	881	870	864

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,041	1,040	1,044	1,049	1,050	1,055	1,053	1,060	1,070	1,062	1,053	1,047
20%	1,027	1,027	1,030	1,038	1,047	1,050	1,044	1,051	1,054	1,044	1,035	1,031
30%	1,014	1,015	1,021	1,031	1,036	1,038	1,034	1,039	1,043	1,034	1,024	1,018
40%	1,003	1,006	1,011	1,017	1,026	1,029	1,028	1,028	1,028	1,018	1,009	1,005
50%	993	995	998	1,004	1,014	1,019	1,015	1,018	1,015	1,008	1,000	996
60%	981	984	987	993	999	1,008	1,005	1,007	1,008	1,001	990	985
70%	957	961	973	979	988	992	989	989	988	976	968	963
80%	937	937	942	943	947	955	949	963	962	953	946	941
90%	868	865	867	869	873	888	884	897	917	903	888	878
Long Term												
Full Simulation Period ^d	970	972	977	984	992	997	996	1,000	1,001	992	981	975
Water Year Types^{b,c}												
Wet (23%)	1,027	1,028	1,031	1,007	1,019	1,026	1,032	1,048	1,057	1,050	1,039	1,032
Above Normal (24%)	972	973	977	962	976	986	987	1,001	1,006	995	982	975
Below Normal (10%)	987	988	990	1,018	1,023	1,027	1,020	1,020	1,021	1,011	1,000	993
Dry (16%)	966	971	979	998	1,001	1,005	1,001	999	995	985	975	971
Critical (27%)	916	916	923	964	966	967	961	953	946	936	926	921

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	12	12	9	9	4	4	6	3	11	12	13	14
20%	13	12	13	17	17	18	9	9	14	12	14	15
30%	9	9	13	19	15	13	13	12	12	11	11	10
40%	27	30	16	14	14	15	16	23	22	22	26	29
50%	38	39	38	24	18	14	17	22	23	31	36	36
60%	38	39	37	34	34	32	29	24	32	35	37	38
70%	32	32	35	37	43	45	39	37	37	37	39	40
80%	58	55	55	57	50	43	31	39	39	41	49	52
90%	34	30	30	23	15	25	20	30	42	41	38	35
Long Term												
Full Simulation Period ^d	27	27	26	25	24	23	23	24	26	27	27	28
Water Year Types^{b,c}												
Wet (23%)	3	3	4	11	7	6	6	6	4	3	3	3
Above Normal (24%)	9	9	9	17	16	16	11	9	12	12	11	11
Below Normal (10%)	24	24	24	28	26	25	24	22	22	22	24	24
Dry (16%)	42	41	40	31	31	30	32	34	35	38	40	42
Critical (27%)	57	57	56	41	41	40	44	49	53	55	56	57

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 7a-2. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,026	1,027	1,045	1,048	1,050	1,054	1,056	1,062	1,063	1,050	1,039	1,033
20%	1,018	1,018	1,020	1,027	1,048	1,045	1,047	1,050	1,045	1,035	1,026	1,021
30%	1,004	1,003	1,015	1,022	1,032	1,036	1,037	1,037	1,030	1,020	1,011	1,007
40%	982	983	1,002	1,014	1,021	1,026	1,021	1,019	1,010	1,000	991	985
50%	968	970	975	990	1,008	1,014	1,009	1,006	1,001	989	976	970
60%	953	953	961	972	983	991	998	995	988	974	962	956
70%	929	936	941	950	954	958	970	966	959	947	936	931
80%	884	884	887	906	929	938	937	934	925	912	900	894
90%	857	862	865	866	879	881	877	901	887	874	864	860
Long Term												
Full Simulation Period ^d	950	952	958	969	979	988	989	989	984	971	960	954
Water Year Types ^{b,c}												
Wet (23%)	1,026	1,026	1,030	1,007	1,023	1,034	1,041	1,053	1,057	1,047	1,036	1,030
Above Normal (24%)	969	971	976	959	974	986	994	1,005	1,000	987	976	970
Below Normal (10%)	969	970	974	996	1,005	1,011	1,009	1,009	1,004	992	981	974
Dry (16%)	936	940	951	975	979	987	983	977	967	955	944	938
Critical (27%)	869	869	877	933	937	943	936	921	908	895	881	875

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,044	1,046	1,049	1,050	1,050	1,055	1,058	1,069	1,071	1,062	1,053	1,048
20%	1,030	1,029	1,036	1,049	1,050	1,055	1,054	1,058	1,059	1,050	1,040	1,035
30%	1,017	1,018	1,026	1,036	1,046	1,050	1,048	1,047	1,040	1,029	1,021	1,019
40%	1,006	1,008	1,017	1,025	1,034	1,039	1,041	1,040	1,033	1,023	1,014	1,010
50%	1,001	1,003	1,006	1,014	1,024	1,033	1,032	1,032	1,024	1,014	1,006	1,003
60%	992	994	999	1,007	1,015	1,022	1,019	1,021	1,015	1,006	998	995
70%	971	974	983	993	998	1,003	1,005	1,004	998	989	979	974
80%	950	952	956	962	967	975	973	980	977	968	960	954
90%	895	896	902	908	928	933	937	941	934	926	916	906
Long Term												
Full Simulation Period ^d	980	981	987	996	1,004	1,012	1,012	1,014	1,010	1,000	989	984
Water Year Types ^{b,c}												
Wet (23%)	1,031	1,032	1,036	1,017	1,028	1,038	1,046	1,058	1,061	1,052	1,042	1,035
Above Normal (24%)	982	984	989	984	998	1,007	1,010	1,017	1,015	1,002	991	985
Below Normal (10%)	992	993	997	1,022	1,028	1,034	1,030	1,029	1,025	1,013	1,003	997
Dry (16%)	983	987	996	1,010	1,013	1,019	1,018	1,015	1,008	998	989	985
Critical (27%)	928	928	935	972	976	980	976	966	957	948	938	933

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	18	18	4	1	0	0	2	8	8	12	14	15
20%	12	11	16	22	2	9	6	8	14	15	14	14
30%	13	14	12	14	15	14	11	10	10	9	10	12
40%	24	25	15	11	13	13	20	22	23	22	23	25
50%	32	33	32	25	16	20	22	26	24	25	30	33
60%	39	41	39	35	32	30	21	26	26	32	36	39
70%	42	37	42	43	45	45	35	37	40	43	44	43
80%	66	68	69	56	38	37	36	46	51	56	60	61
90%	38	34	37	41	49	52	60	41	47	52	53	46
Long Term												
Full Simulation Period ^d	30	30	29	27	25	23	23	24	26	28	30	30
Water Year Types ^{b,c}												
Wet (23%)	6	6	6	11	5	5	5	4	4	6	6	5
Above Normal (24%)	13	13	13	25	23	21	16	13	15	15	15	15
Below Normal (10%)	24	23	23	26	23	23	21	20	21	21	22	23
Dry (16%)	47	47	46	35	34	33	35	38	41	43	46	47
Critical (27%)	59	59	58	39	38	37	40	45	49	53	56	58

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-3. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,029	1,028	1,035	1,040	1,046	1,050	1,047	1,057	1,059	1,050	1,039	1,033
20%	1,013	1,015	1,017	1,021	1,029	1,032	1,036	1,043	1,040	1,032	1,022	1,016
30%	1,006	1,006	1,008	1,012	1,021	1,025	1,021	1,027	1,031	1,023	1,013	1,008
40%	975	976	995	1,004	1,012	1,014	1,011	1,006	1,006	995	983	976
50%	956	957	960	980	996	1,006	998	996	991	977	965	960
60%	943	945	950	959	966	976	976	984	976	966	953	947
70%	925	928	938	942	945	947	951	952	951	939	928	923
80%	879	881	886	887	897	912	918	924	923	912	897	888
90%	835	836	837	846	857	863	864	867	876	863	850	843
Long Term												
Full Simulation Period ^d	944	945	950	958	968	974	973	976	976	965	954	947
Water Year Types ^{b,c}												
Wet (23%)	1,024	1,025	1,027	996	1,012	1,021	1,026	1,042	1,054	1,047	1,036	1,029
Above Normal (24%)	963	965	969	945	959	970	976	991	994	983	971	965
Below Normal (10%)	963	963	966	990	998	1,001	996	998	999	988	976	969
Dry (16%)	924	929	939	967	970	975	969	965	960	947	935	929
Critical (27%)	858	859	867	922	925	927	917	903	893	881	870	864

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,026	1,027	1,045	1,048	1,050	1,054	1,056	1,062	1,063	1,050	1,039	1,033
20%	1,018	1,018	1,020	1,027	1,048	1,045	1,047	1,050	1,045	1,035	1,026	1,021
30%	1,004	1,003	1,015	1,022	1,032	1,036	1,037	1,037	1,030	1,020	1,011	1,007
40%	982	983	1,002	1,014	1,021	1,026	1,021	1,019	1,010	1,000	991	985
50%	968	970	975	990	1,008	1,014	1,009	1,006	1,001	989	976	970
60%	953	953	961	972	983	991	998	995	988	974	962	956
70%	929	936	941	950	954	958	970	966	959	947	936	931
80%	884	884	887	906	929	938	937	934	925	912	900	894
90%	857	862	865	866	879	881	877	901	887	874	864	860
Long Term												
Full Simulation Period ^d	950	952	958	969	979	988	989	989	984	971	960	954
Water Year Types ^{b,c}												
Wet (23%)	1,026	1,026	1,030	1,007	1,023	1,034	1,041	1,053	1,057	1,047	1,036	1,030
Above Normal (24%)	969	971	976	959	974	986	994	1,005	1,000	987	976	970
Below Normal (10%)	969	970	974	996	1,005	1,011	1,009	1,009	1,004	992	981	974
Dry (16%)	936	940	951	975	979	987	983	977	967	955	944	938
Critical (27%)	869	869	877	933	937	943	936	921	908	895	881	875

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	-1	11	8	4	4	9	5	5	0	-1	0
20%	4	2	3	6	19	13	11	7	5	3	5	6
30%	-2	-3	7	10	11	10	16	10	-1	-3	-2	-1
40%	7	8	7	11	9	12	9	13	4	5	7	9
50%	13	14	15	9	12	8	11	10	9	12	11	10
60%	10	8	10	13	17	15	21	11	12	8	8	9
70%	4	8	3	8	9	10	19	15	7	7	7	8
80%	5	3	0	20	32	26	19	10	2	0	3	5
90%	23	26	29	20	21	18	13	34	12	11	13	16
Long Term												
Full Simulation Period ^d	7	7	8	11	12	14	16	13	8	6	6	6
Water Year Types ^{b,c}												
Wet (23%)	1	2	3	11	11	13	15	11	3	-1	0	1
Above Normal (24%)	6	6	7	15	15	16	18	13	6	4	5	6
Below Normal (10%)	6	6	8	6	8	9	13	11	5	4	5	6
Dry (16%)	12	11	11	8	9	12	14	12	8	8	9	9
Critical (27%)	10	10	10	10	12	16	18	18	16	14	12	11

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-4. New Melones Reservoir, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,041	1,040	1,044	1,049	1,050	1,055	1,053	1,060	1,070	1,062	1,053	1,047
20%	1,027	1,027	1,030	1,038	1,047	1,050	1,044	1,051	1,054	1,044	1,035	1,031
30%	1,014	1,015	1,021	1,031	1,036	1,038	1,034	1,039	1,043	1,034	1,024	1,018
40%	1,003	1,006	1,011	1,017	1,026	1,029	1,028	1,028	1,028	1,018	1,009	1,005
50%	993	995	998	1,004	1,014	1,019	1,015	1,018	1,015	1,008	1,000	996
60%	981	984	987	993	999	1,008	1,005	1,007	1,008	1,001	990	985
70%	957	961	973	979	988	992	989	989	988	976	968	963
80%	937	937	942	943	947	955	949	963	962	953	946	941
90%	868	865	867	869	873	888	884	897	917	903	888	878
Long Term												
Full Simulation Period ^d	970	972	977	984	992	997	996	1,000	1,001	992	981	975
Water Year Types ^{b,c}												
Wet (23%)	1,027	1,028	1,031	1,007	1,019	1,026	1,032	1,048	1,057	1,050	1,039	1,032
Above Normal (24%)	972	973	977	962	976	986	987	1,001	1,006	995	982	975
Below Normal (10%)	987	988	990	1,018	1,023	1,027	1,020	1,020	1,021	1,011	1,000	993
Dry (16%)	966	971	979	998	1,001	1,005	1,001	999	995	985	975	971
Critical (27%)	916	916	923	964	966	967	961	953	946	936	926	921

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,044	1,046	1,049	1,050	1,050	1,055	1,058	1,069	1,071	1,062	1,053	1,048
20%	1,030	1,029	1,036	1,049	1,050	1,055	1,054	1,058	1,059	1,050	1,040	1,035
30%	1,017	1,018	1,026	1,036	1,046	1,050	1,048	1,047	1,040	1,029	1,021	1,019
40%	1,006	1,008	1,017	1,025	1,034	1,039	1,041	1,040	1,033	1,023	1,014	1,010
50%	1,001	1,003	1,006	1,014	1,024	1,033	1,032	1,032	1,024	1,014	1,006	1,003
60%	992	994	999	1,007	1,015	1,022	1,019	1,021	1,015	1,006	998	995
70%	971	974	983	993	998	1,003	1,005	1,004	998	989	979	974
80%	950	952	956	962	967	975	973	980	977	968	960	954
90%	895	896	902	908	928	933	937	941	934	926	916	906
Long Term												
Full Simulation Period ^d	980	981	987	996	1,004	1,012	1,012	1,014	1,010	1,000	989	984
Water Year Types ^{b,c}												
Wet (23%)	1,031	1,032	1,036	1,017	1,028	1,038	1,046	1,058	1,061	1,052	1,042	1,035
Above Normal (24%)	982	984	989	984	998	1,007	1,010	1,017	1,015	1,002	991	985
Below Normal (10%)	992	993	997	1,022	1,028	1,034	1,030	1,029	1,025	1,013	1,003	997
Dry (16%)	983	987	996	1,010	1,013	1,019	1,018	1,015	1,008	998	989	985
Critical (27%)	928	928	935	972	976	980	976	966	957	948	938	933

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3	5	6	1	0	0	5	10	1	0	0	1
20%	3	2	6	11	3	5	9	7	5	6	5	4
30%	3	2	5	5	11	12	14	8	-2	-5	-3	1
40%	4	2	6	8	8	10	14	12	5	5	5	5
50%	7	8	9	10	10	14	17	14	10	6	5	7
60%	10	10	12	14	16	14	14	13	6	6	8	10
70%	14	13	10	14	10	11	15	15	10	13	12	11
80%	13	15	14	19	20	20	24	17	15	15	14	14
90%	27	31	35	39	55	45	53	45	17	22	28	28
Long Term												
Full Simulation Period ^d	10	10	10	12	12	14	16	14	8	8	9	9
Water Year Types ^{b,c}												
Wet (23%)	4	4	4	11	8	12	13	10	4	2	3	3
Above Normal (24%)	10	10	12	22	22	20	22	17	8	7	9	10
Below Normal (10%)	5	6	7	4	5	7	10	9	4	3	4	4
Dry (16%)	16	16	17	12	12	15	17	16	13	13	14	14
Critical (27%)	13	12	12	8	10	13	15	14	11	12	12	12

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

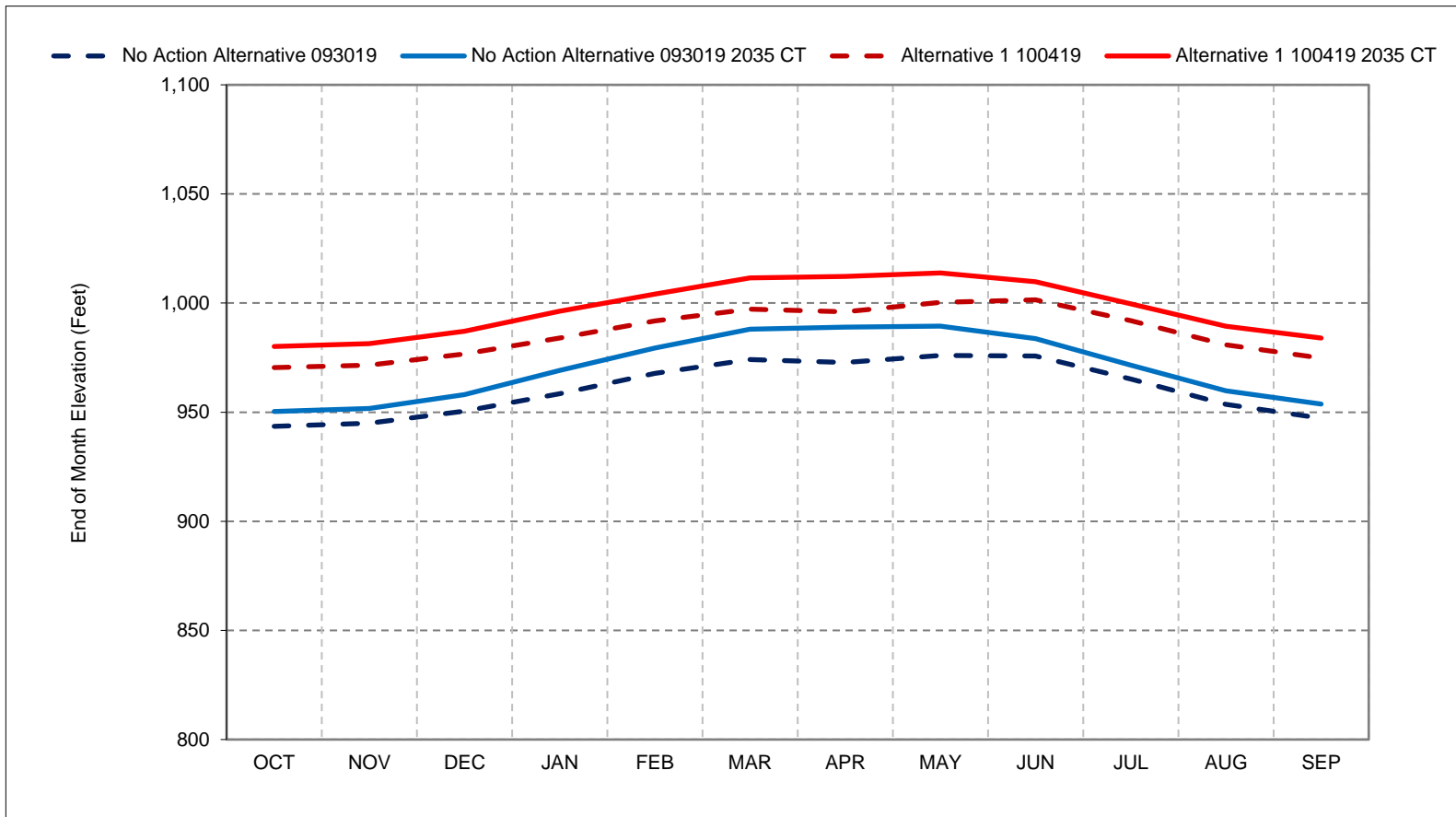
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7a-1. New Melones Reservoir, Long-Term Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

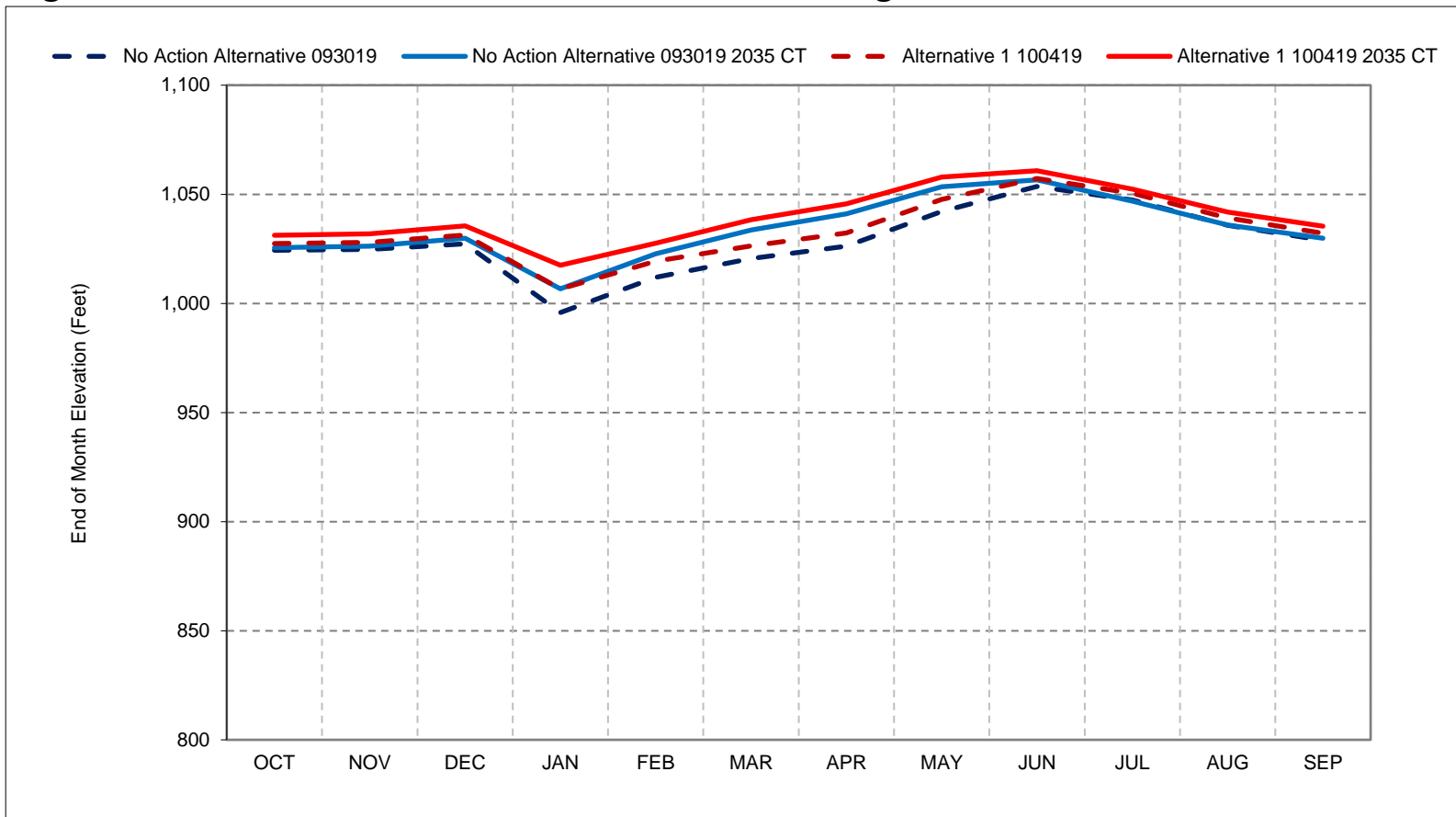
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-2. New Melones Reservoir, Wet Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

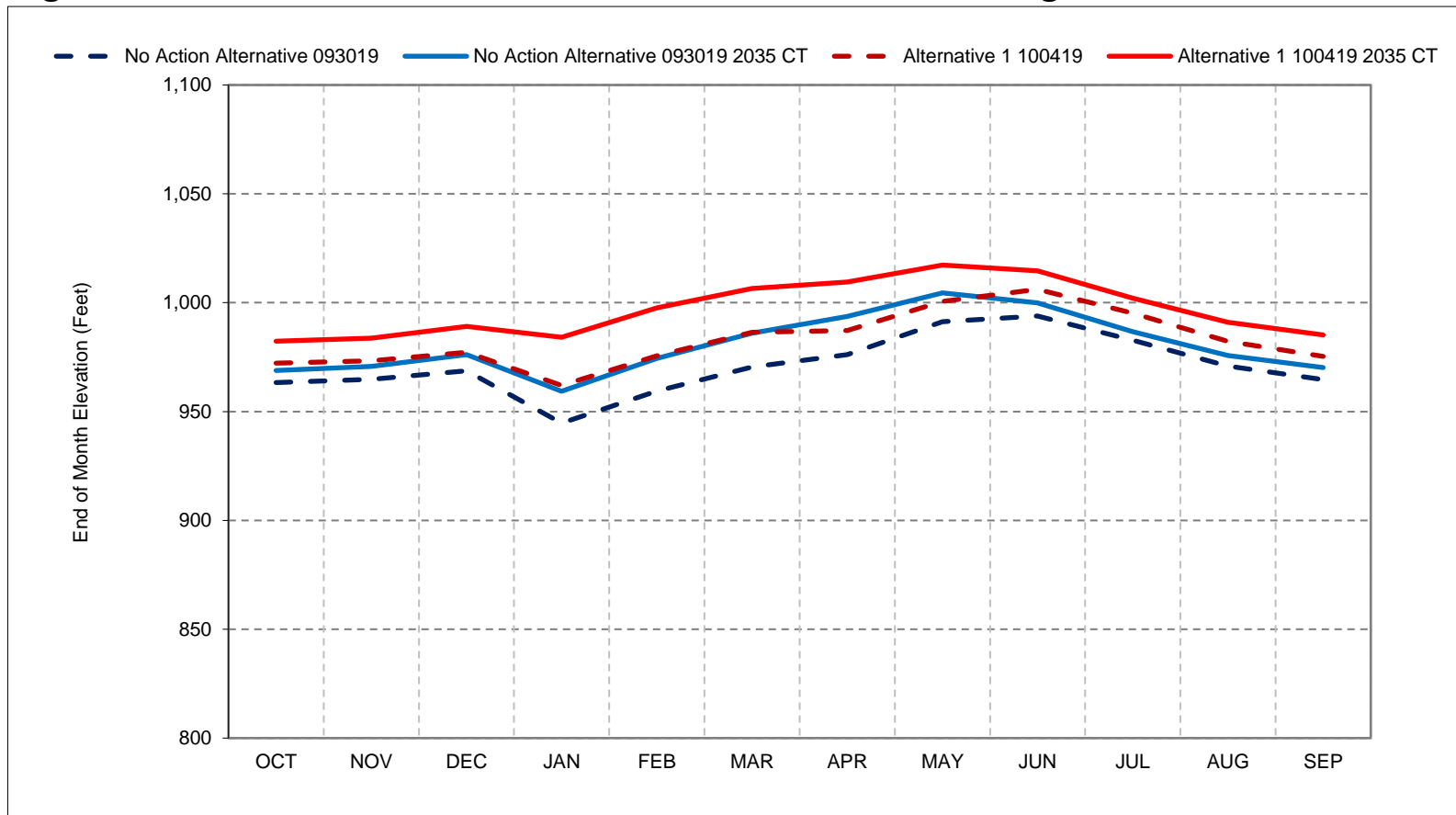
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-3. New Melones Reservoir, Above Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

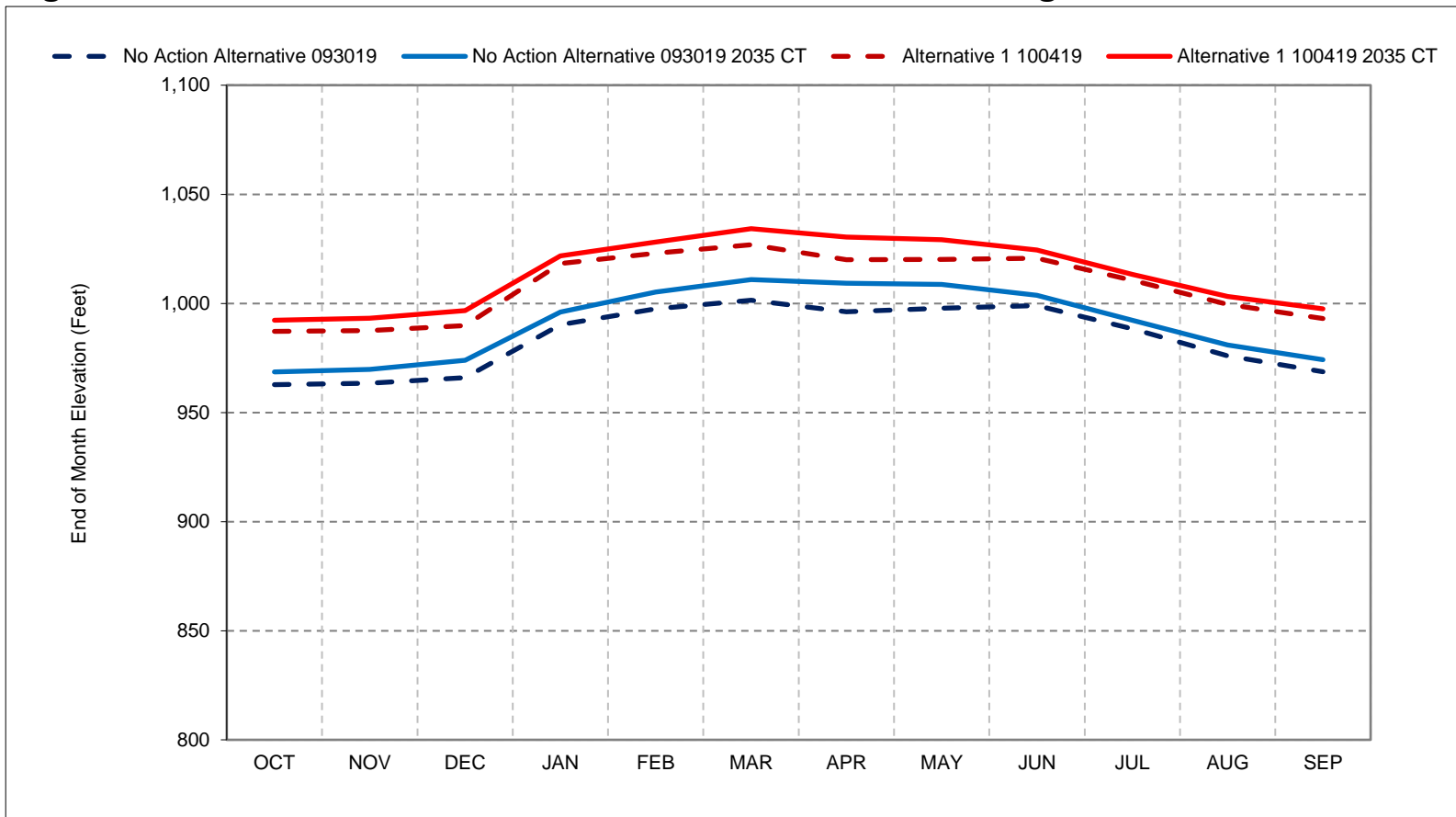
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-4. New Melones Reservoir, Below Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

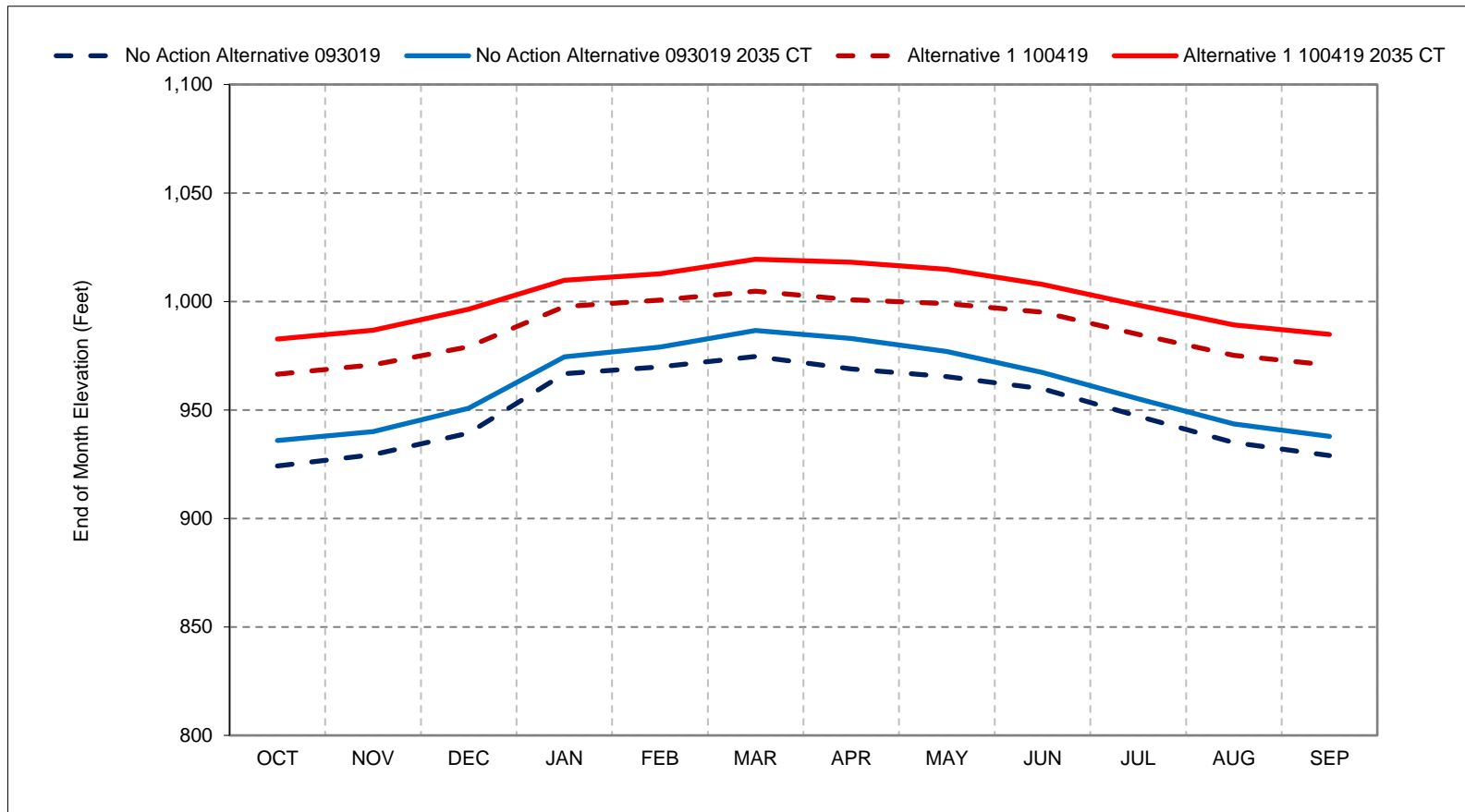
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-5. New Melones Reservoir, Dry Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

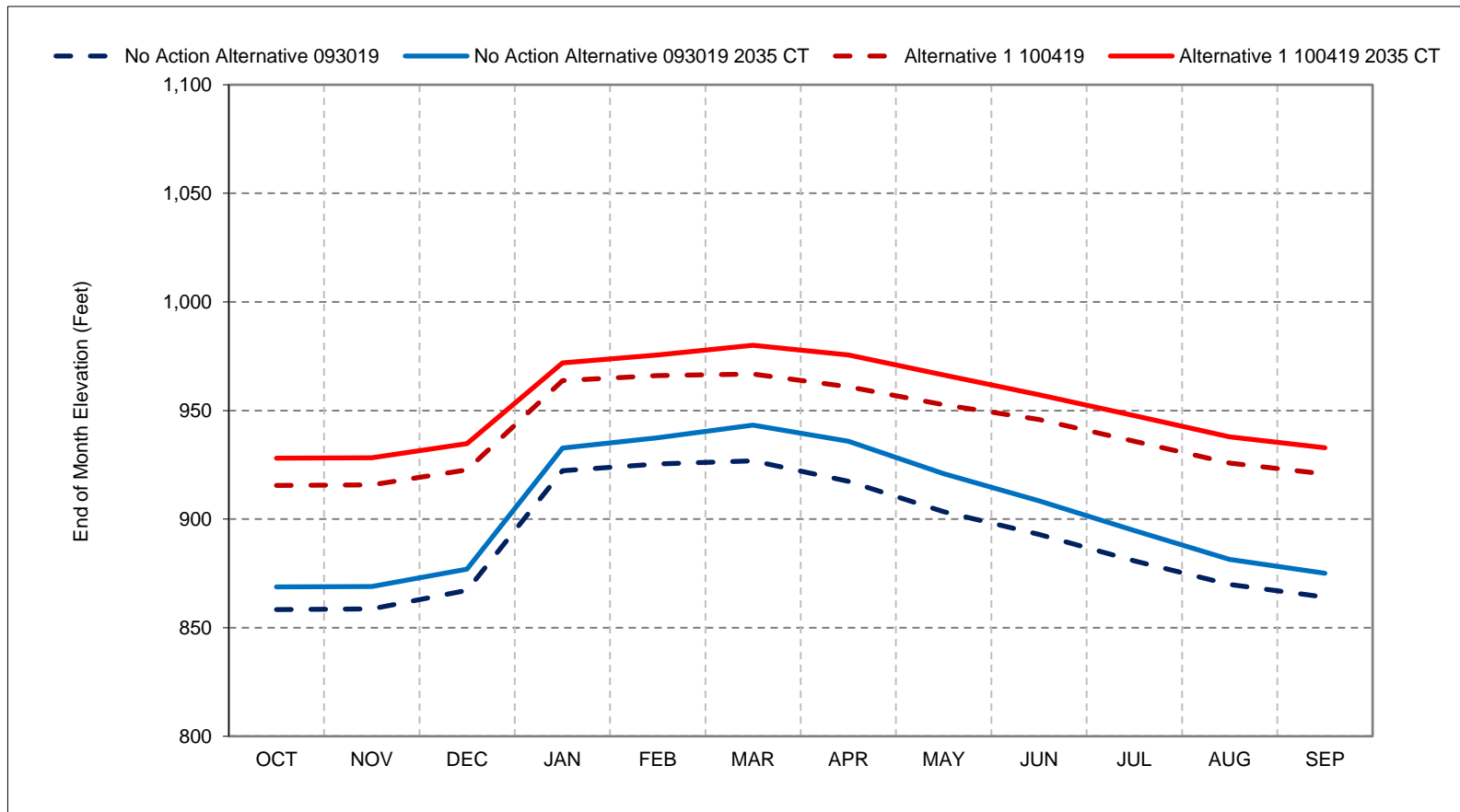
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-6. New Melones Reservoir, Critical Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

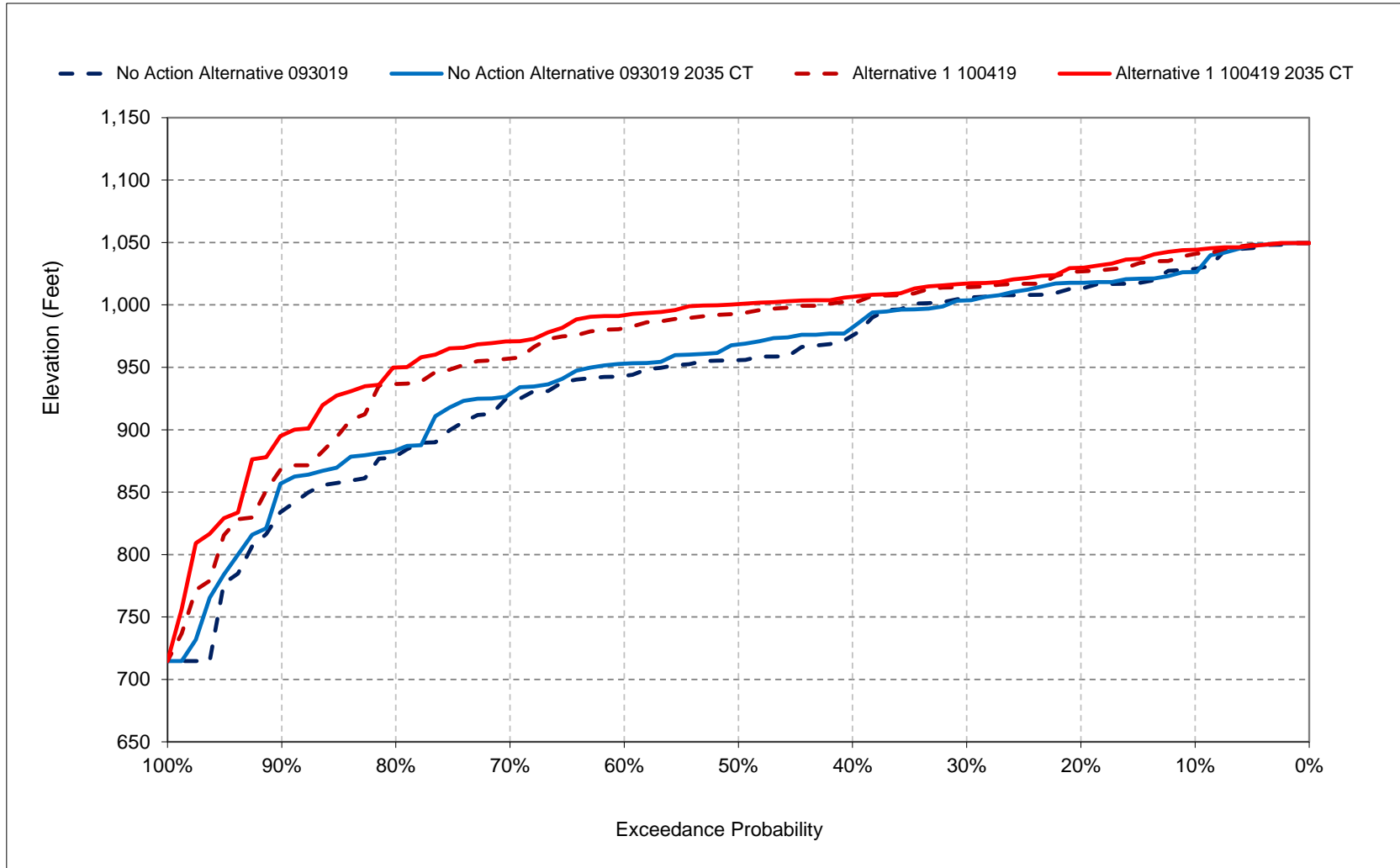
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

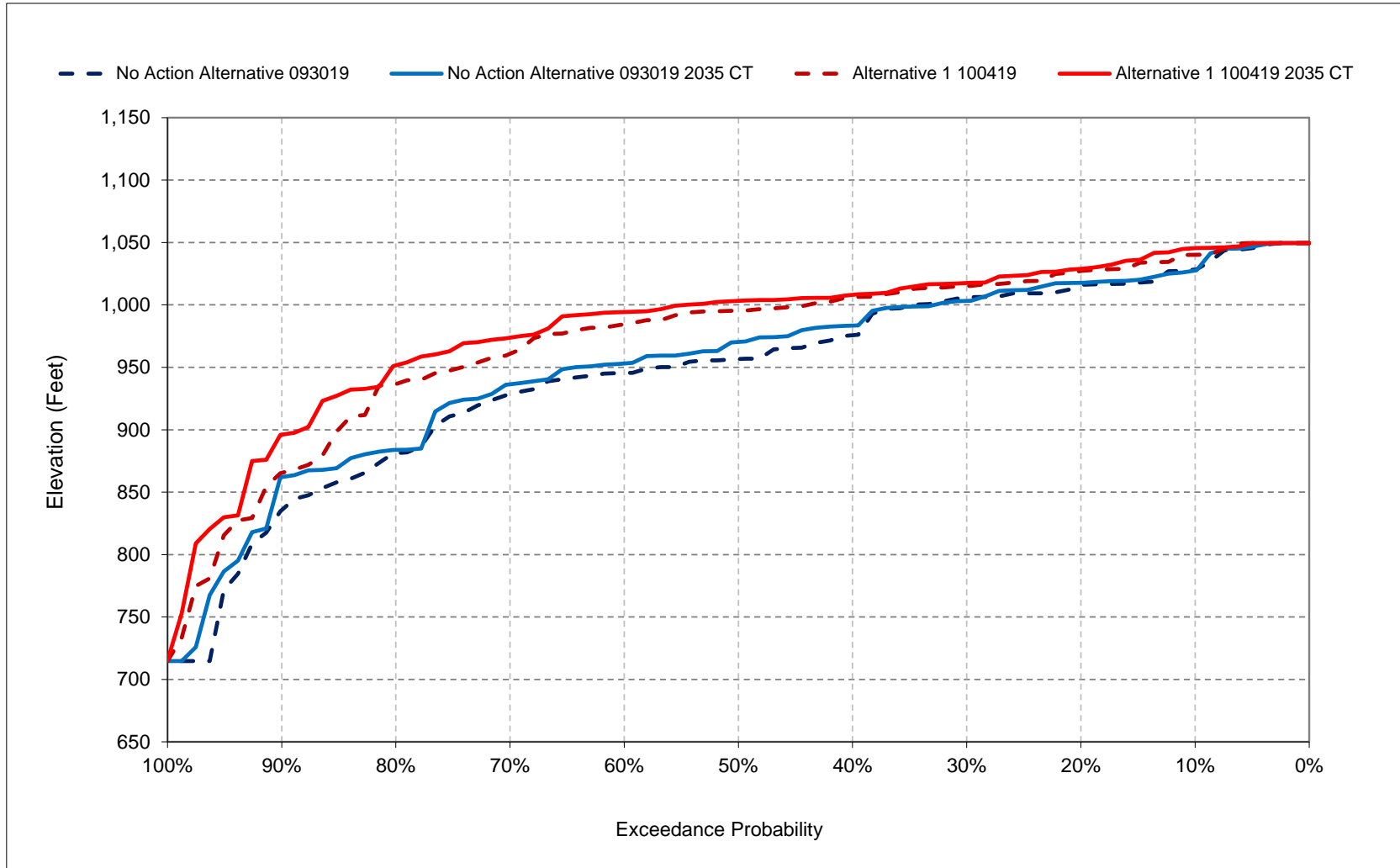
Figure 7a-7. New Melones Reservoir, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

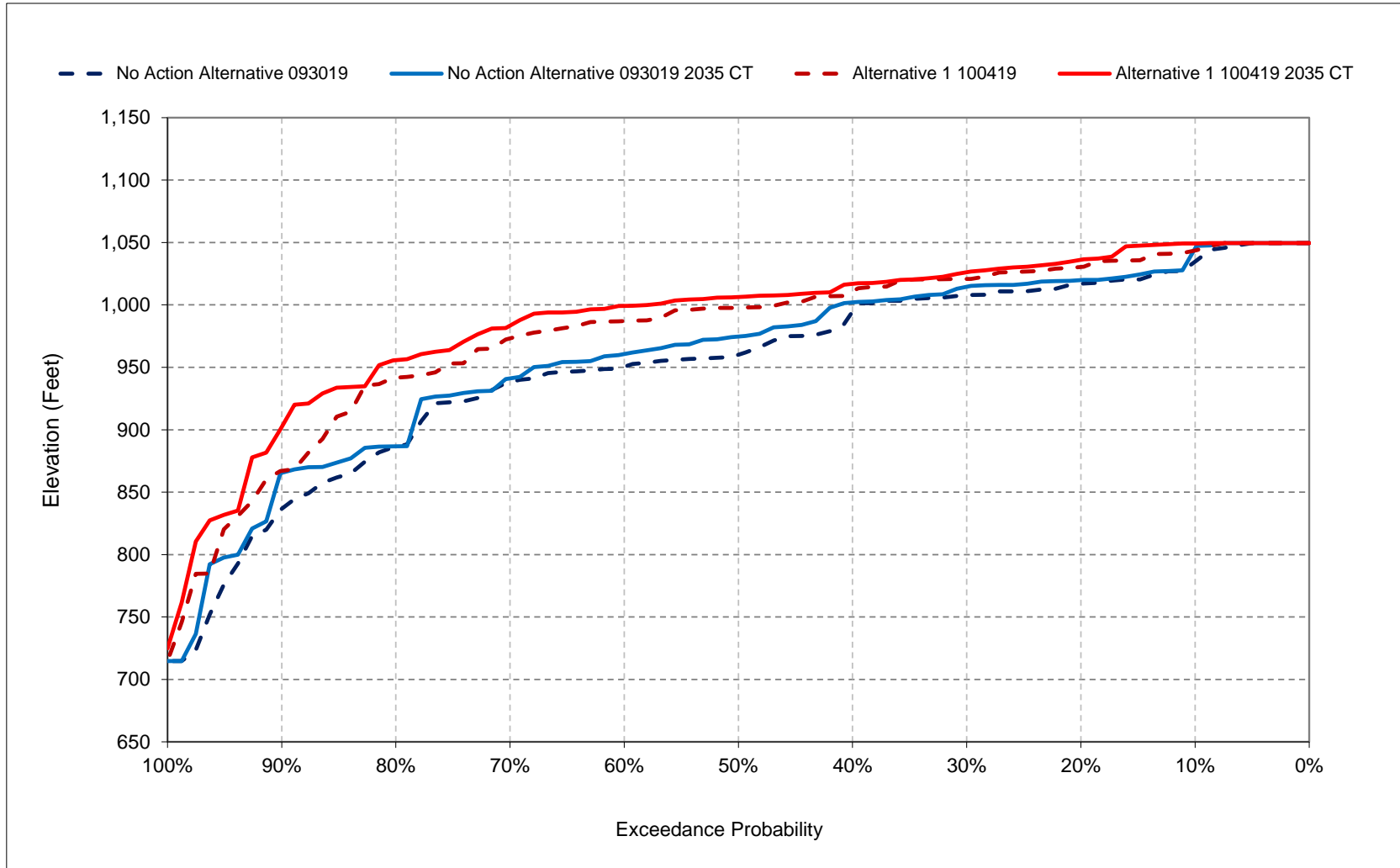
Figure 7a-8. New Melones Reservoir, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

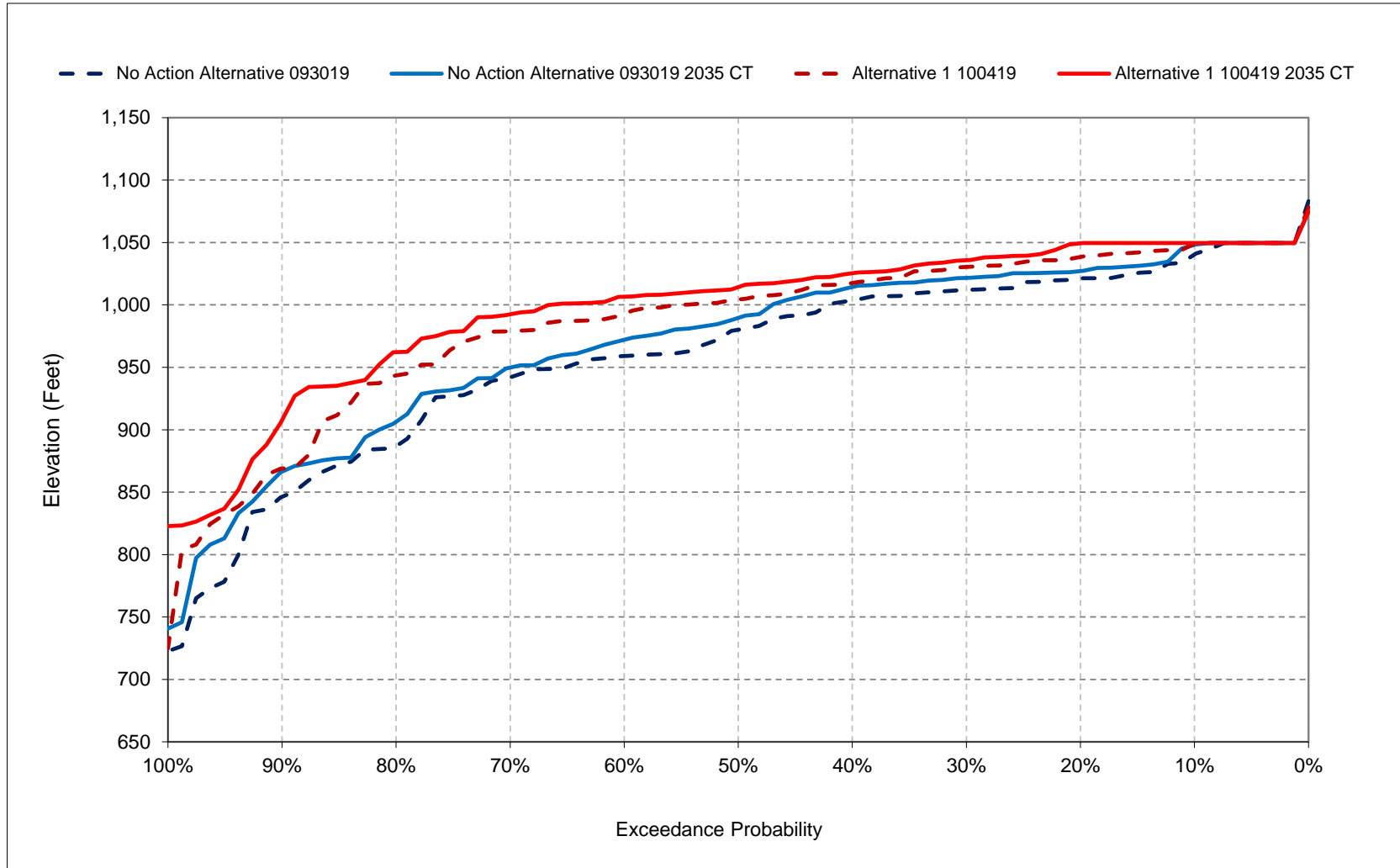
Figure 7a-9. New Melones Reservoir, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

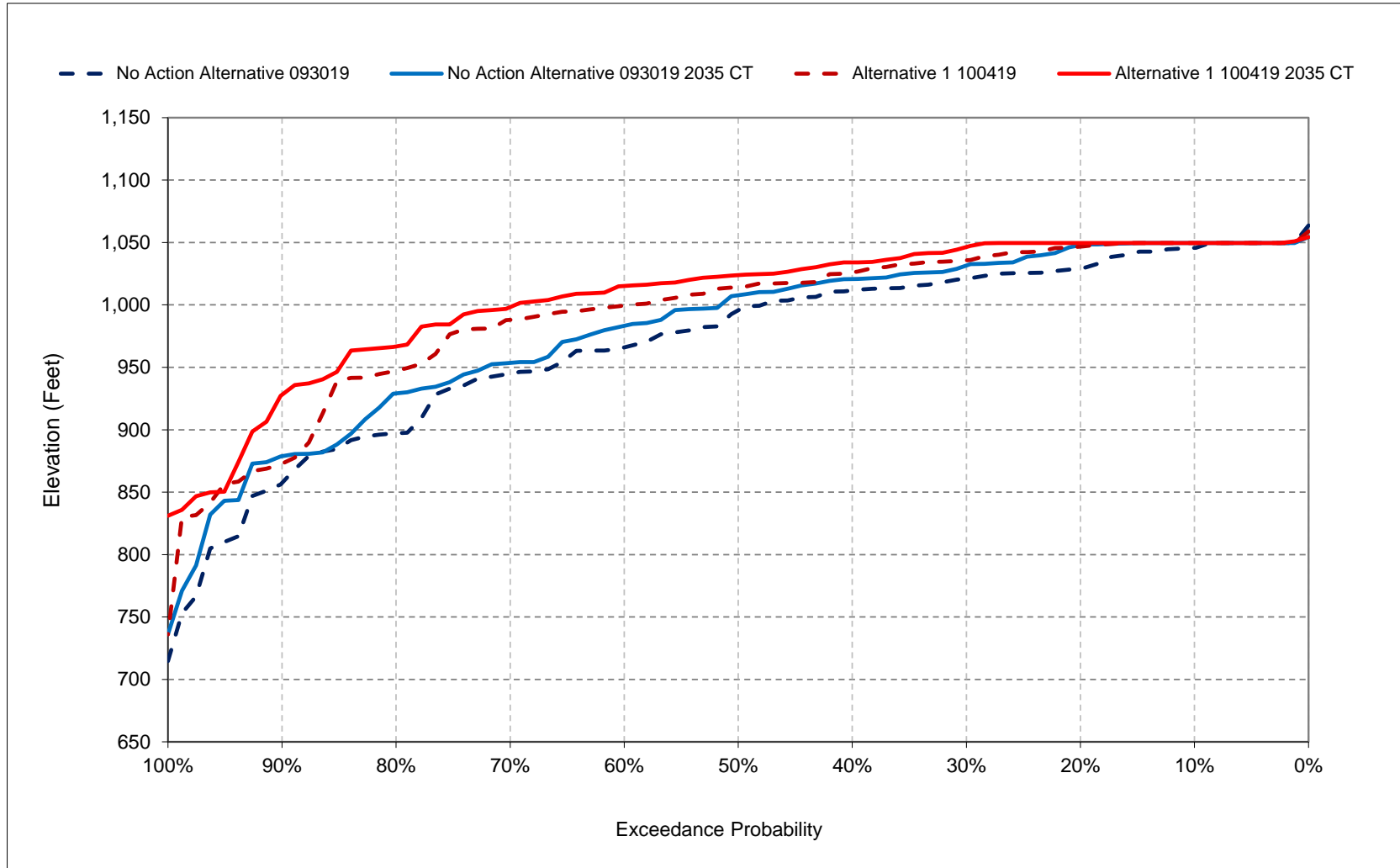
Figure 7a-10. New Melones Reservoir, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

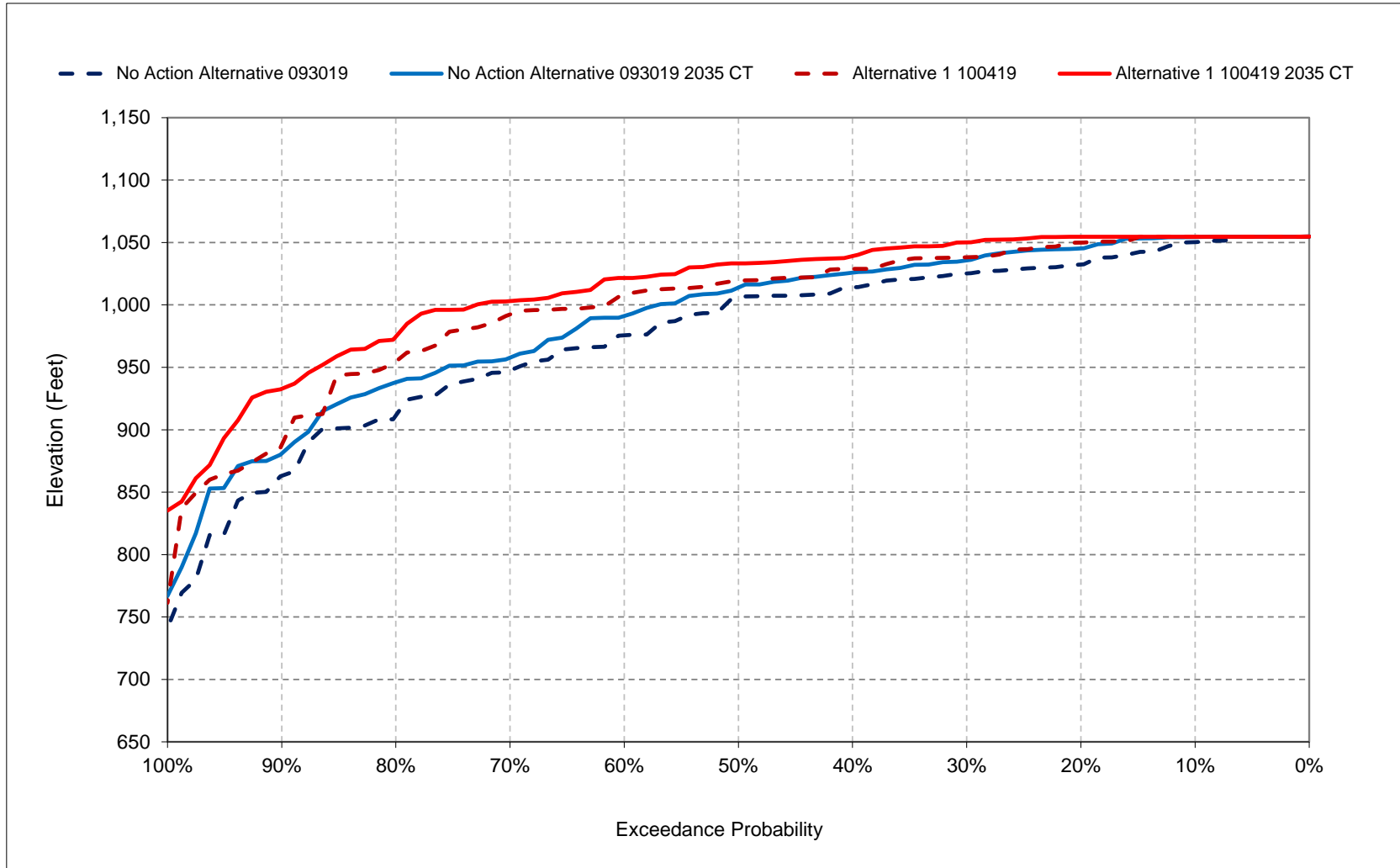
Figure 7a-11. New Melones Reservoir, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

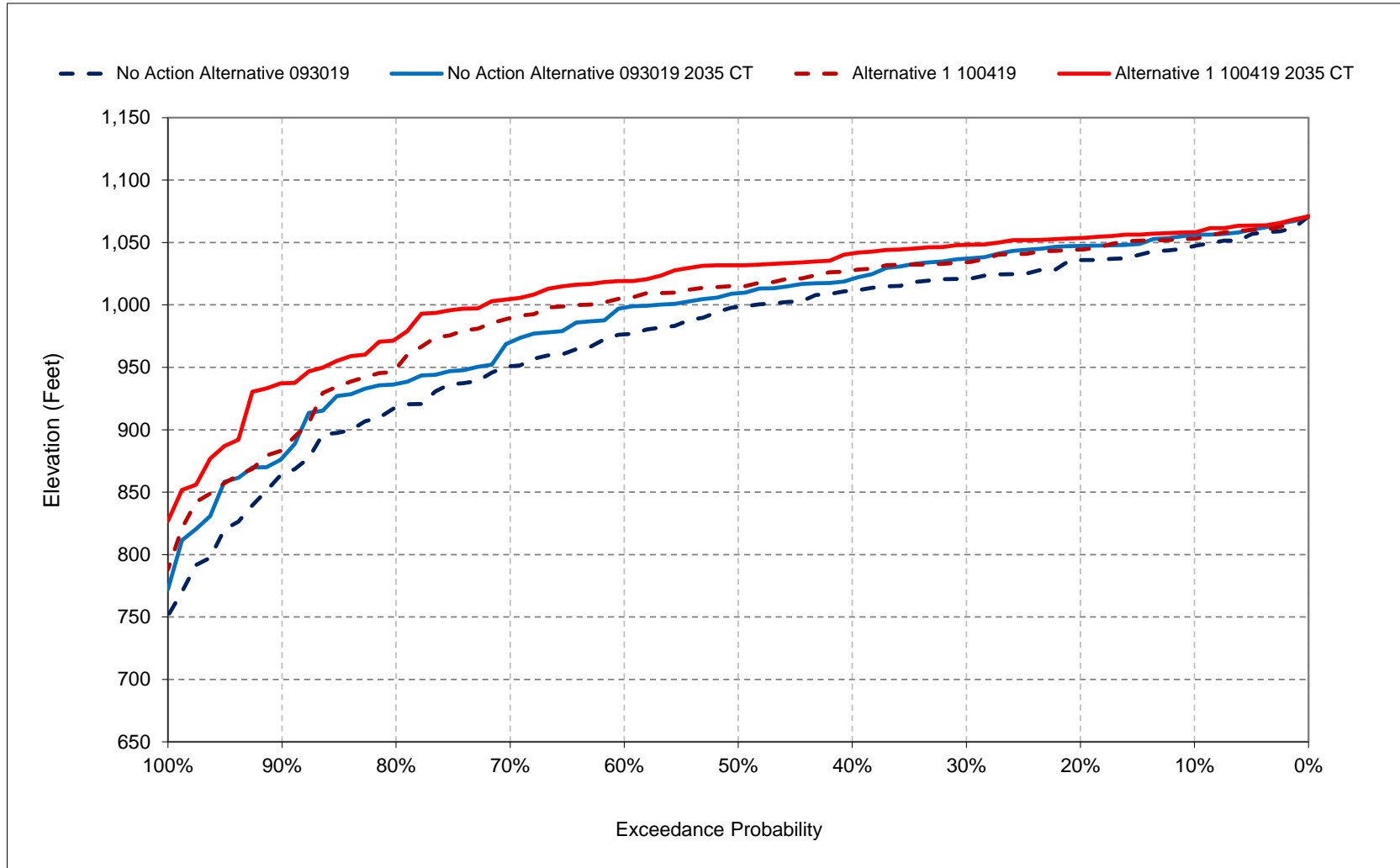
Figure 7a-12. New Melones Reservoir, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

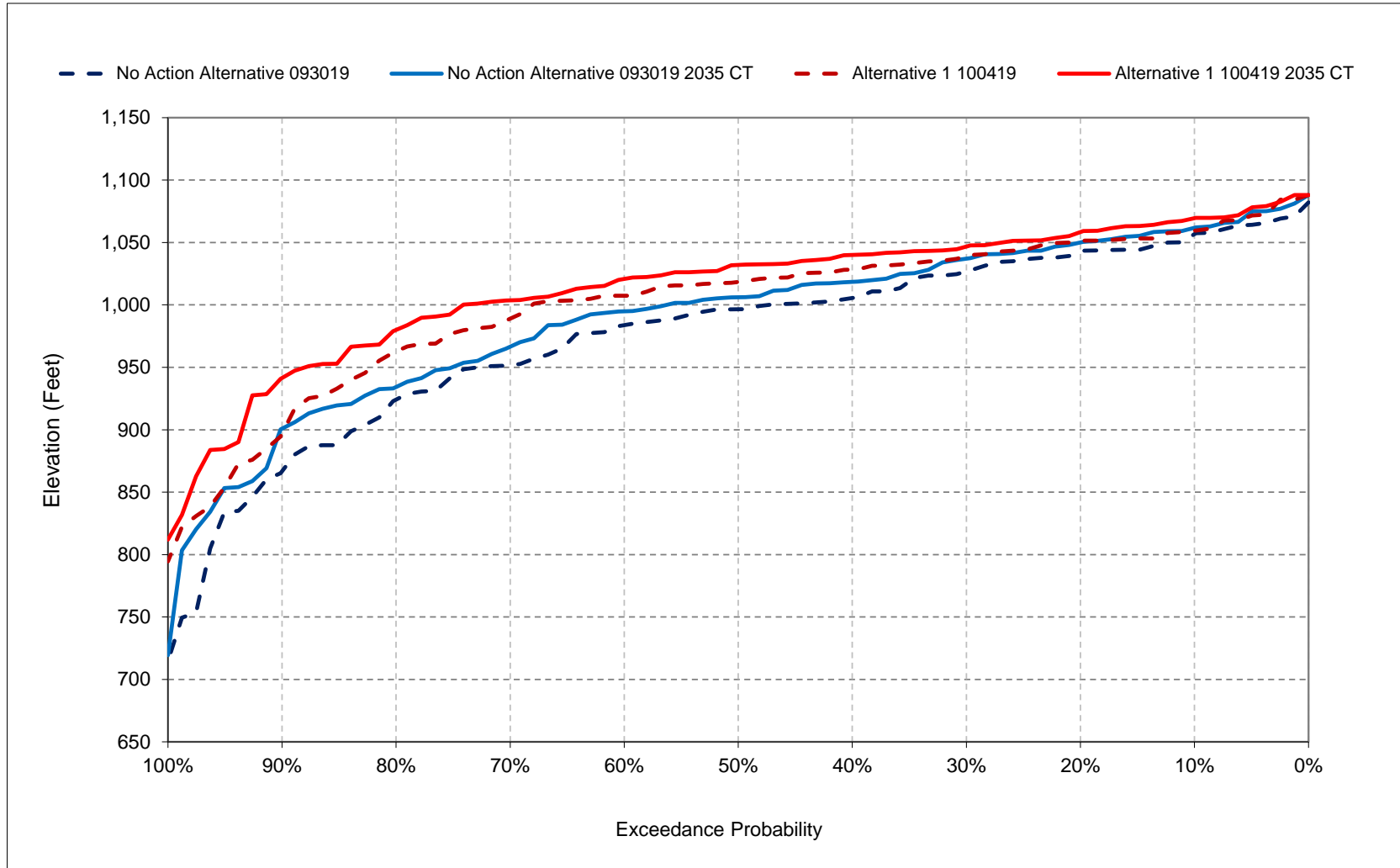
Figure 7a-13. New Melones Reservoir, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

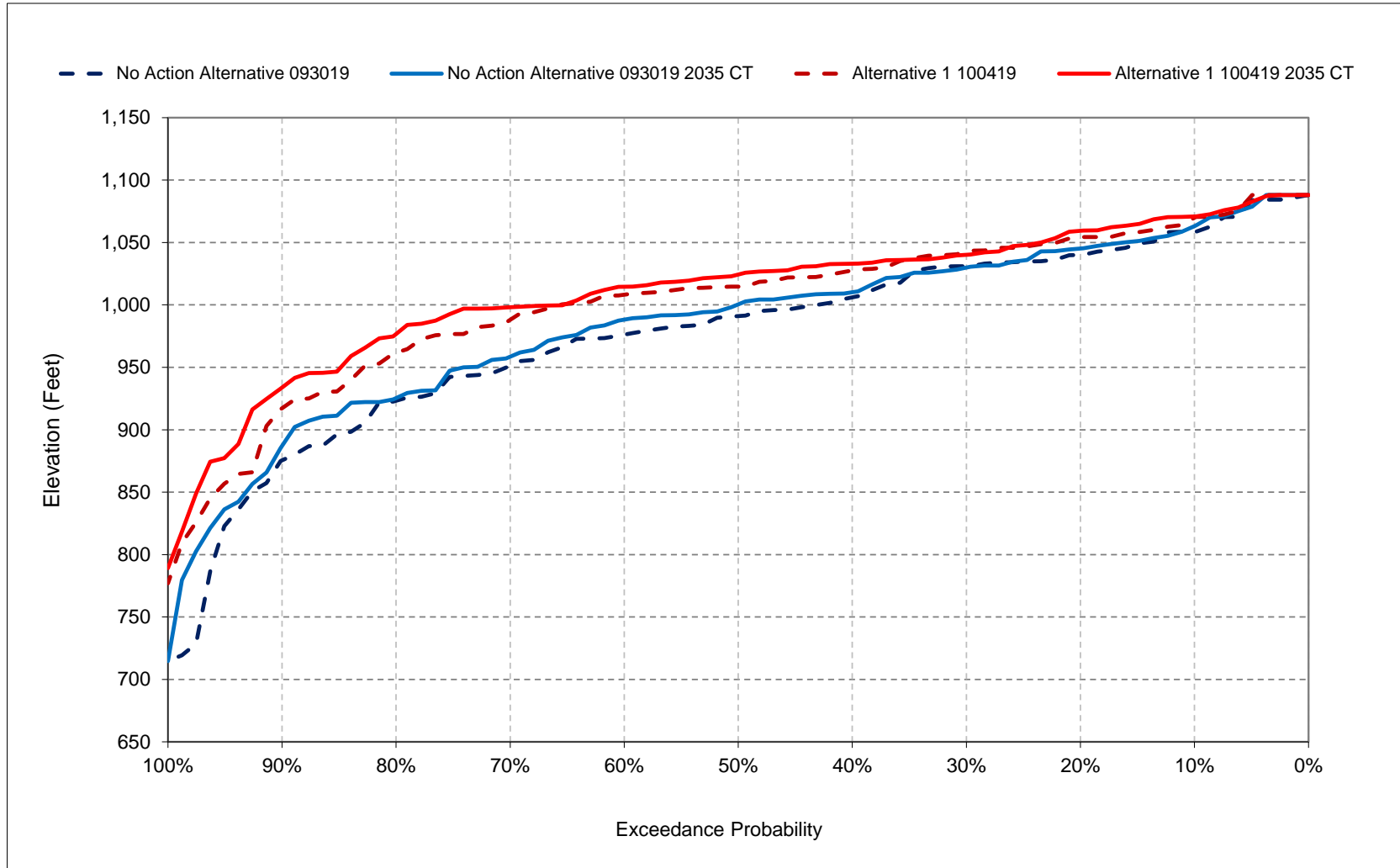
Figure 7a-14. New Melones Reservoir, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

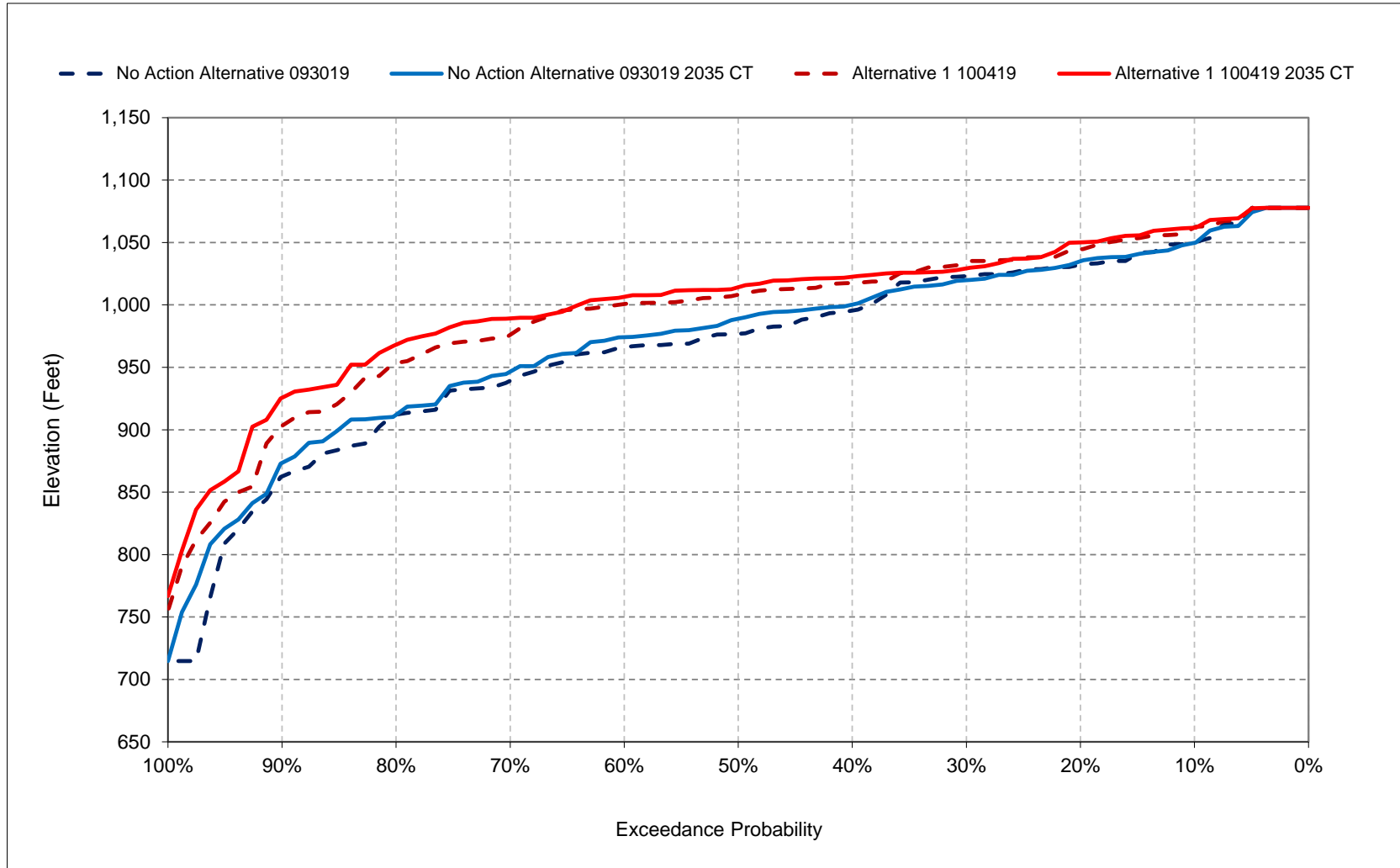
Figure 7a-15. New Melones Reservoir, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

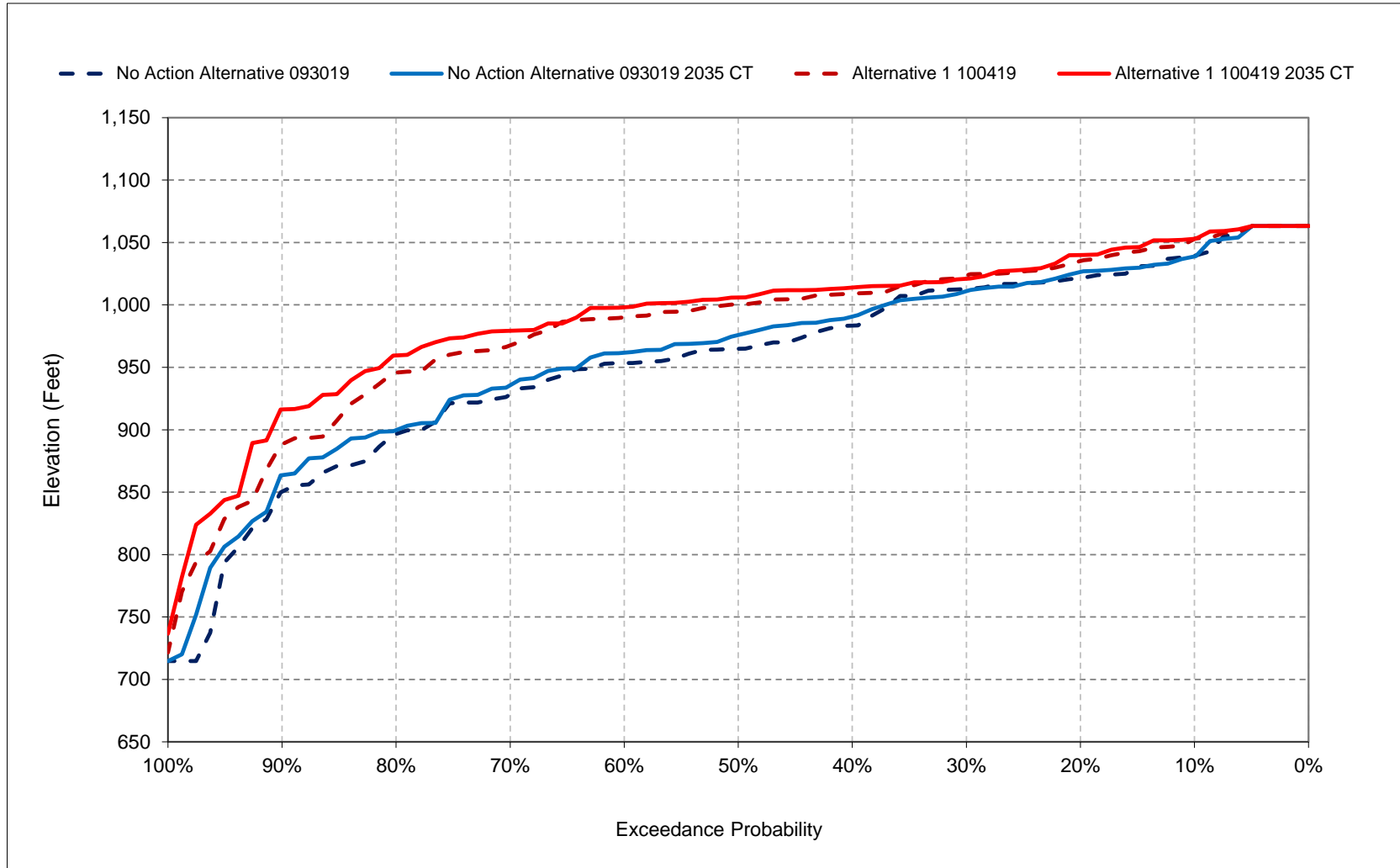
Figure 7a-16. New Melones Reservoir, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

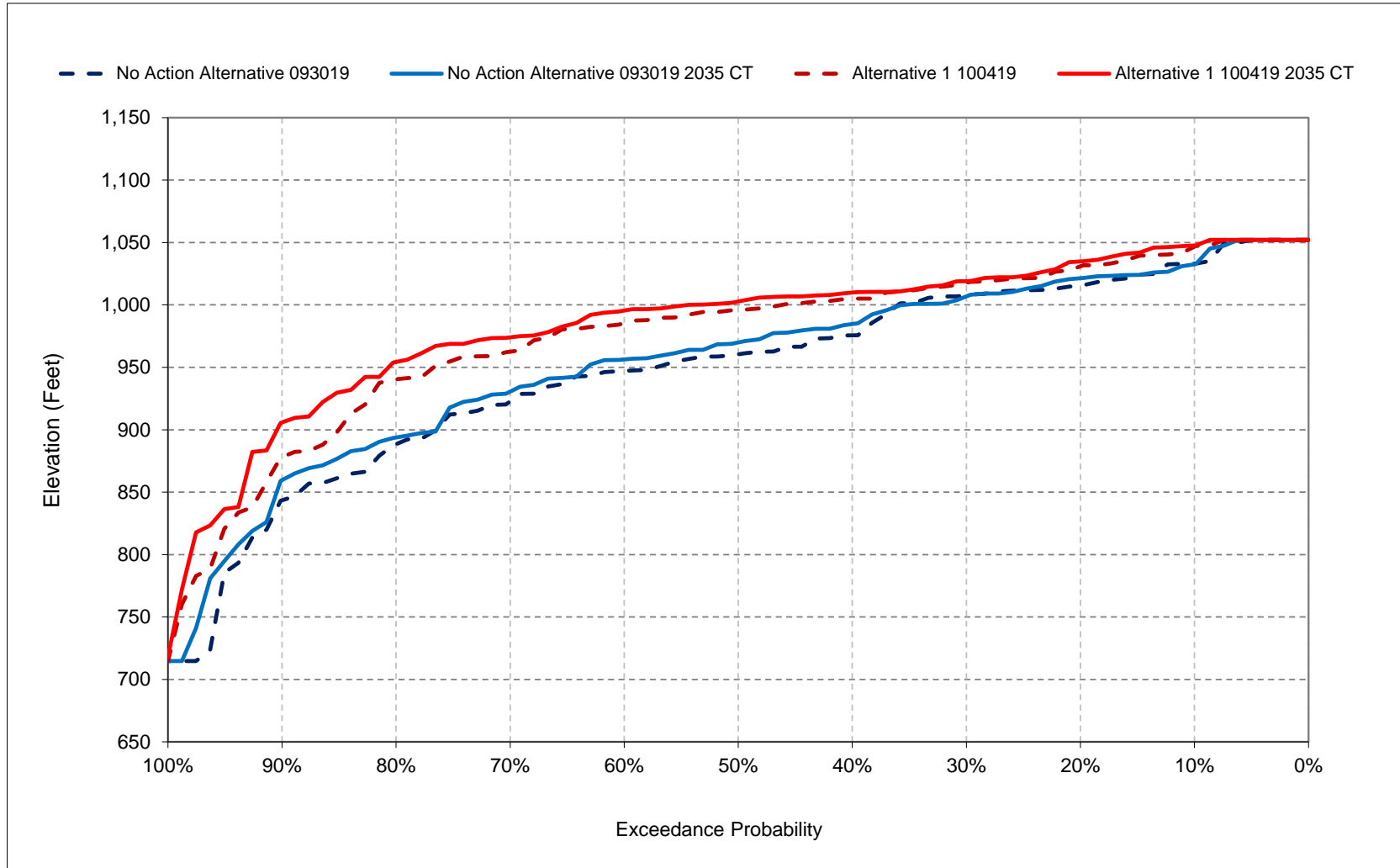
Figure 7a-17. New Melones Reservoir, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7a-18. New Melones Reservoir, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-1. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 8-2. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-3. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types ^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types ^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-5	7	0	0	0	34	0	0	-81	-60	-38
20%	-18	-8	28	27	0	0	58	1	-5	-93	-72	-27
30%	-19	-18	16	62	0	6	60	44	-5	-50	-33	-15
40%	-13	-3	13	37	20	42	57	68	-30	-44	-15	-8
50%	-10	-4	4	41	53	67	61	79	11	-21	-15	-6
60%	-2	1	4	37	57	56	52	46	5	-19	-12	-5
70%	-5	6	6	29	23	45	70	43	12	0	-9	-6
80%	-5	3	7	28	40	48	74	33	4	-3	-17	-8
90%	-4	6	5	28	16	32	38	72	28	2	-5	-6
Long Term												
Full Simulation Period ^d	-10	-2	10	28	23	34	53	36	2	-31	-30	-16
Water Year Types ^{b,c}												
Wet (23%)	-29	-18	-5	25	2	14	44	28	-9	-68	-83	-46
Above Normal (24%)	-14	-3	10	43	21	26	55	26	-14	-54	-36	-19
Below Normal (10%)	-7	1	17	33	32	51	70	68	29	-12	-12	-7
Dry (16%)	2	4	18	21	40	52	58	42	4	-8	-5	-1
Critical (27%)	2	8	18	18	29	41	48	36	15	1	-1	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-4. Millerton Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types ^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types ^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-5	7	0	0	0	34	0	0	-81	-60	-38
20%	-18	-8	28	27	0	0	58	1	-5	-93	-72	-27
30%	-19	-18	16	62	0	6	60	44	-5	-50	-33	-15
40%	-13	-3	13	37	20	42	57	68	-30	-44	-15	-8
50%	-10	-4	4	41	53	67	61	79	11	-21	-15	-6
60%	-2	1	4	37	57	56	52	46	5	-19	-12	-5
70%	-5	6	6	29	23	45	70	43	12	0	-9	-6
80%	-5	3	7	28	40	48	74	33	4	-3	-17	-8
90%	-4	6	5	28	16	32	38	72	28	2	-5	-6
Long Term												
Full Simulation Period ^d	-10	-2	10	28	23	34	53	36	2	-31	-30	-16
Water Year Types ^{b,c}												
Wet (23%)	-29	-18	-5	25	2	14	44	28	-9	-68	-83	-46
Above Normal (24%)	-14	-3	10	43	21	26	55	26	-14	-54	-36	-19
Below Normal (10%)	-7	1	17	33	32	51	70	68	29	-12	-12	-7
Dry (16%)	2	4	18	21	40	52	58	42	4	-8	-5	-1
Critical (27%)	2	8	18	18	29	41	48	36	15	1	-1	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

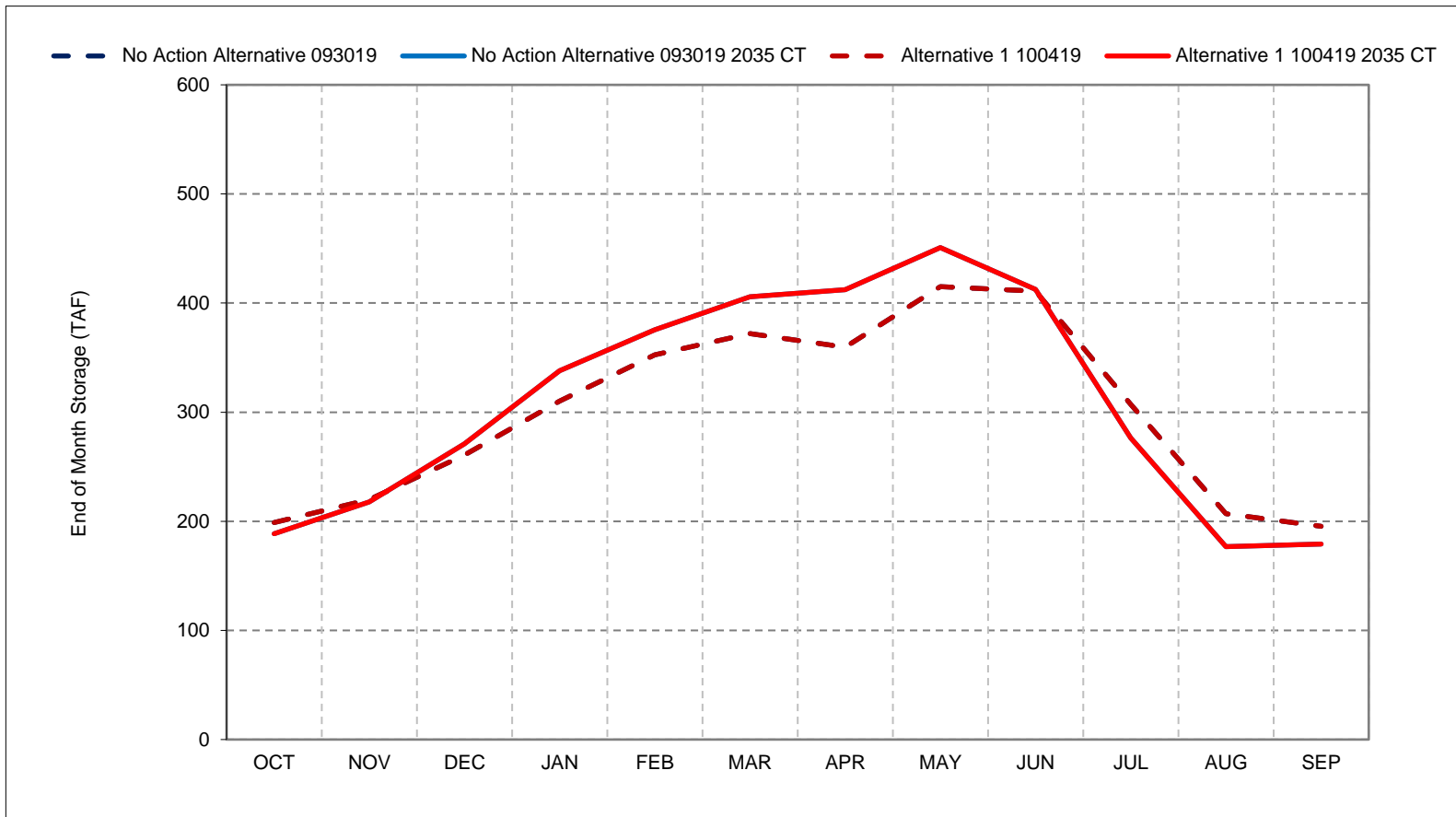
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8-1. Millerton Lake Storage, Long-Term Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

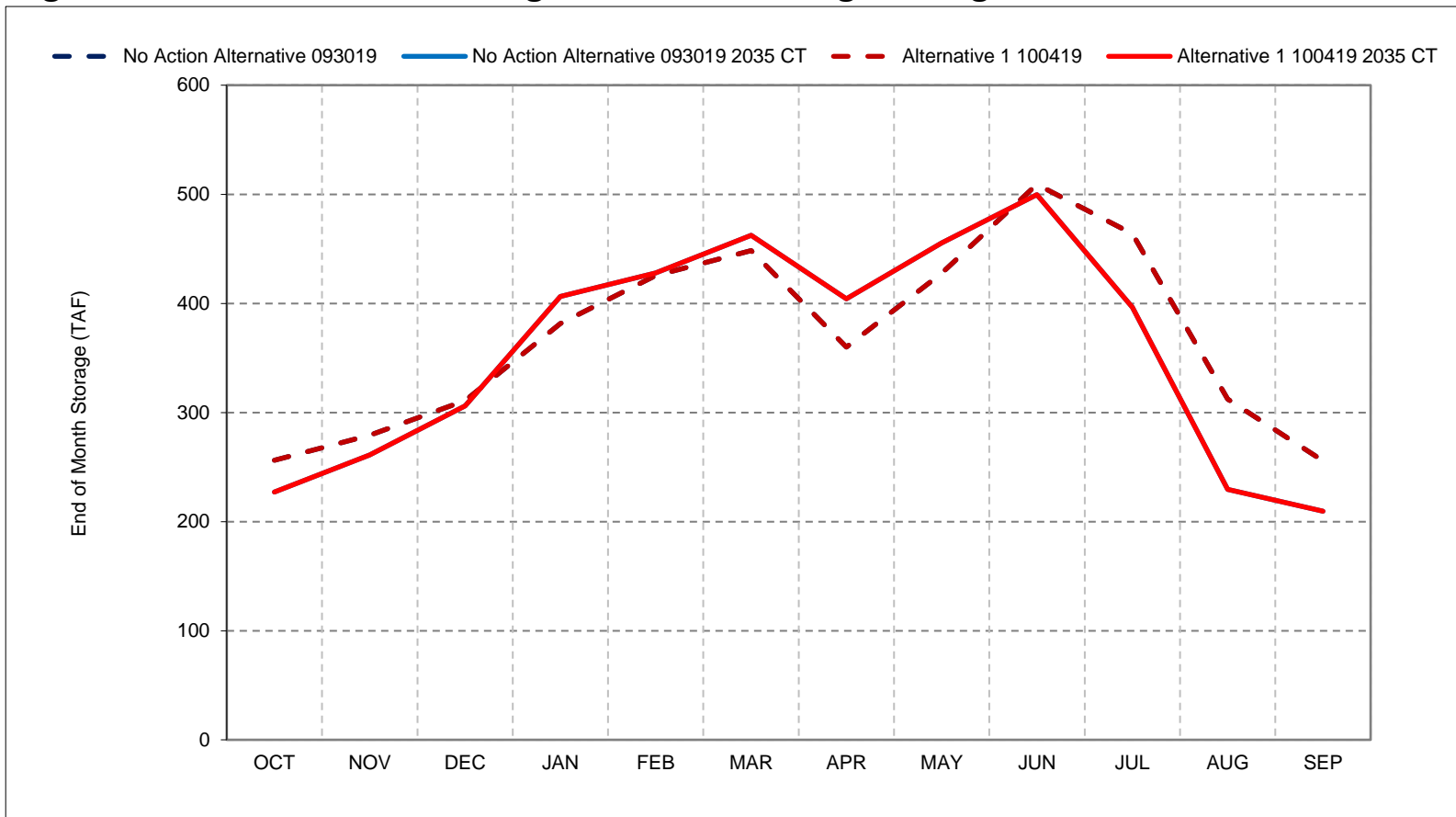
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-2. Millerton Lake Storage, Wet Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

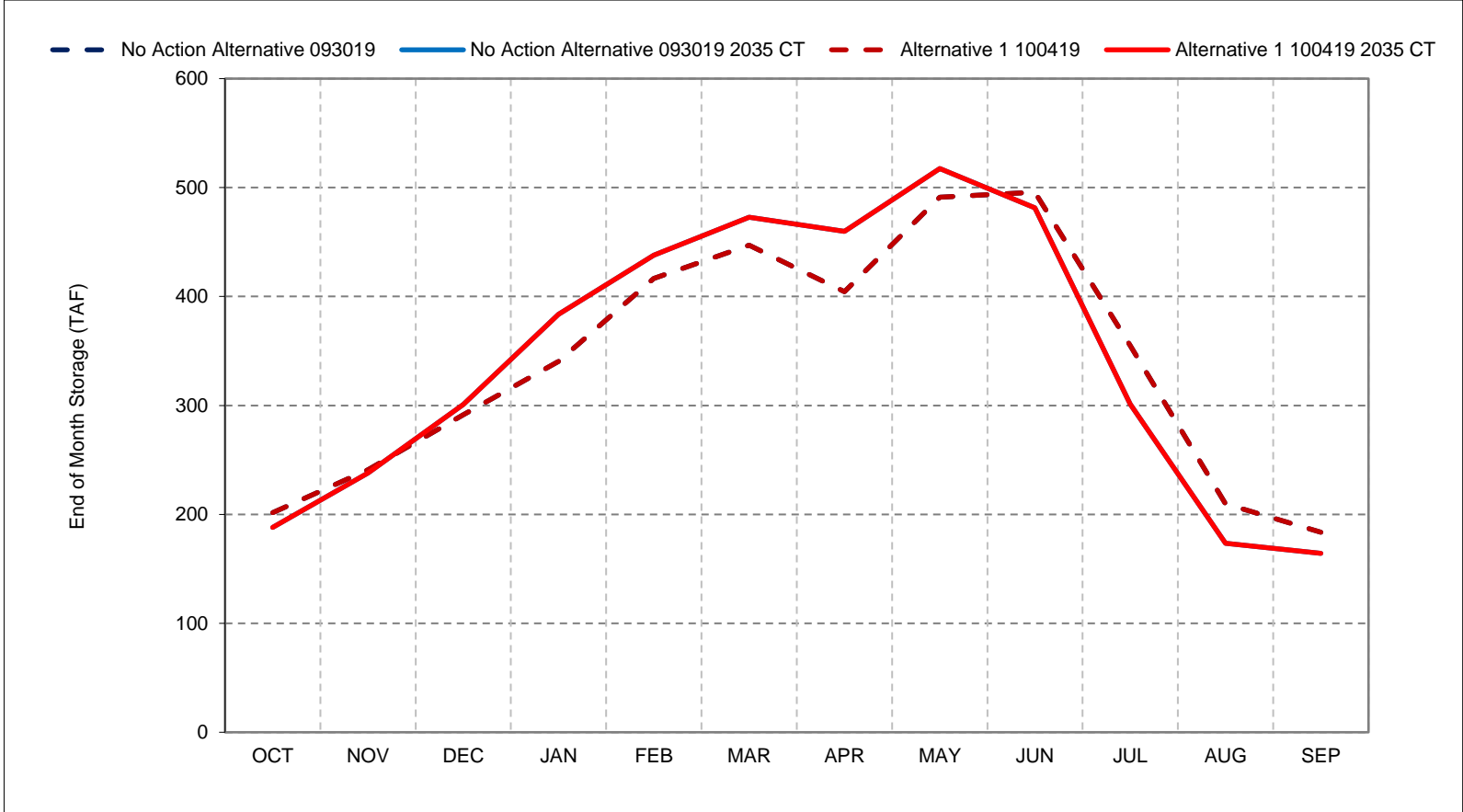
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-3. Millerton Lake Storage, Above Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

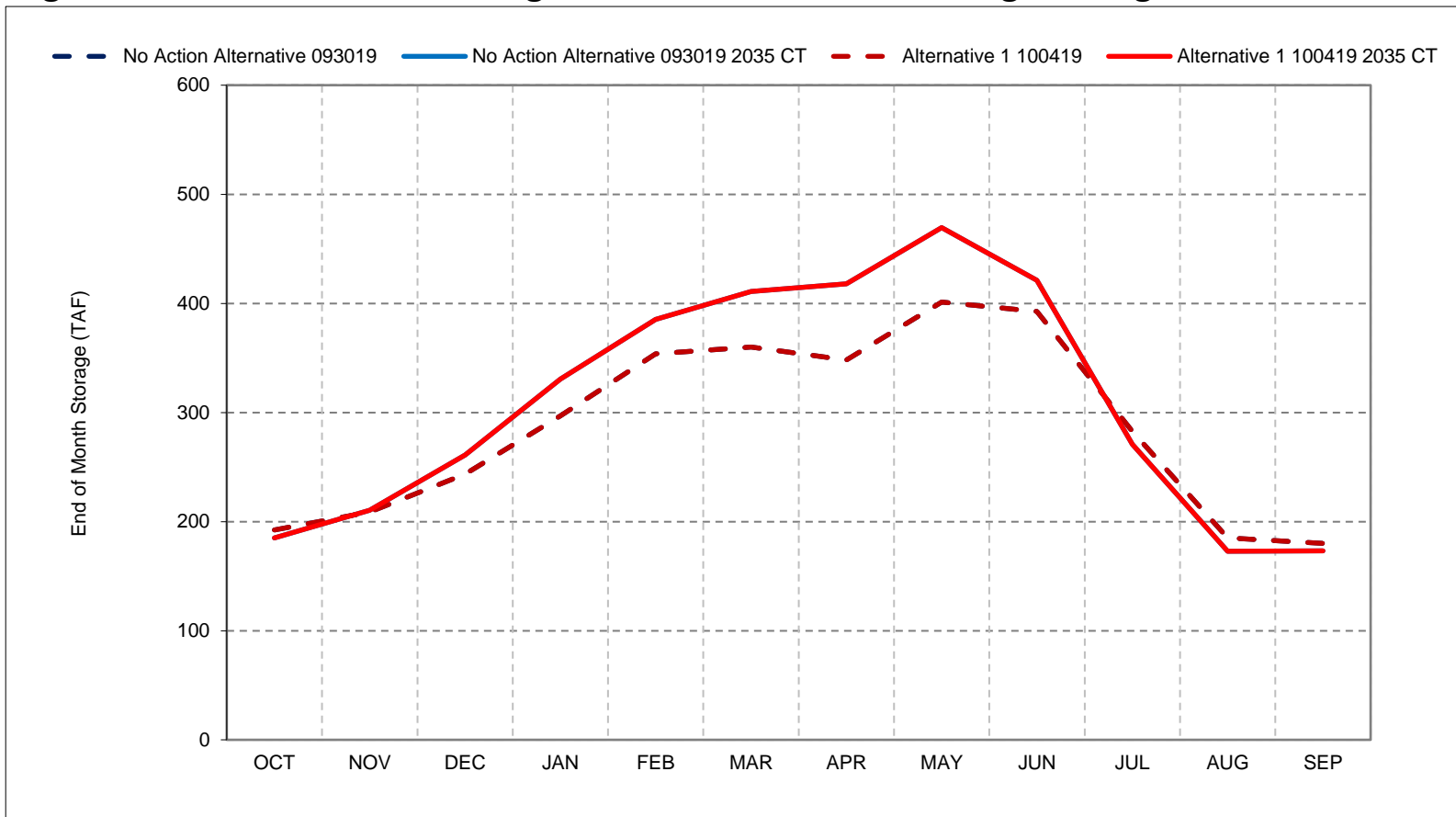
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-4. Millerton Lake Storage, Below Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

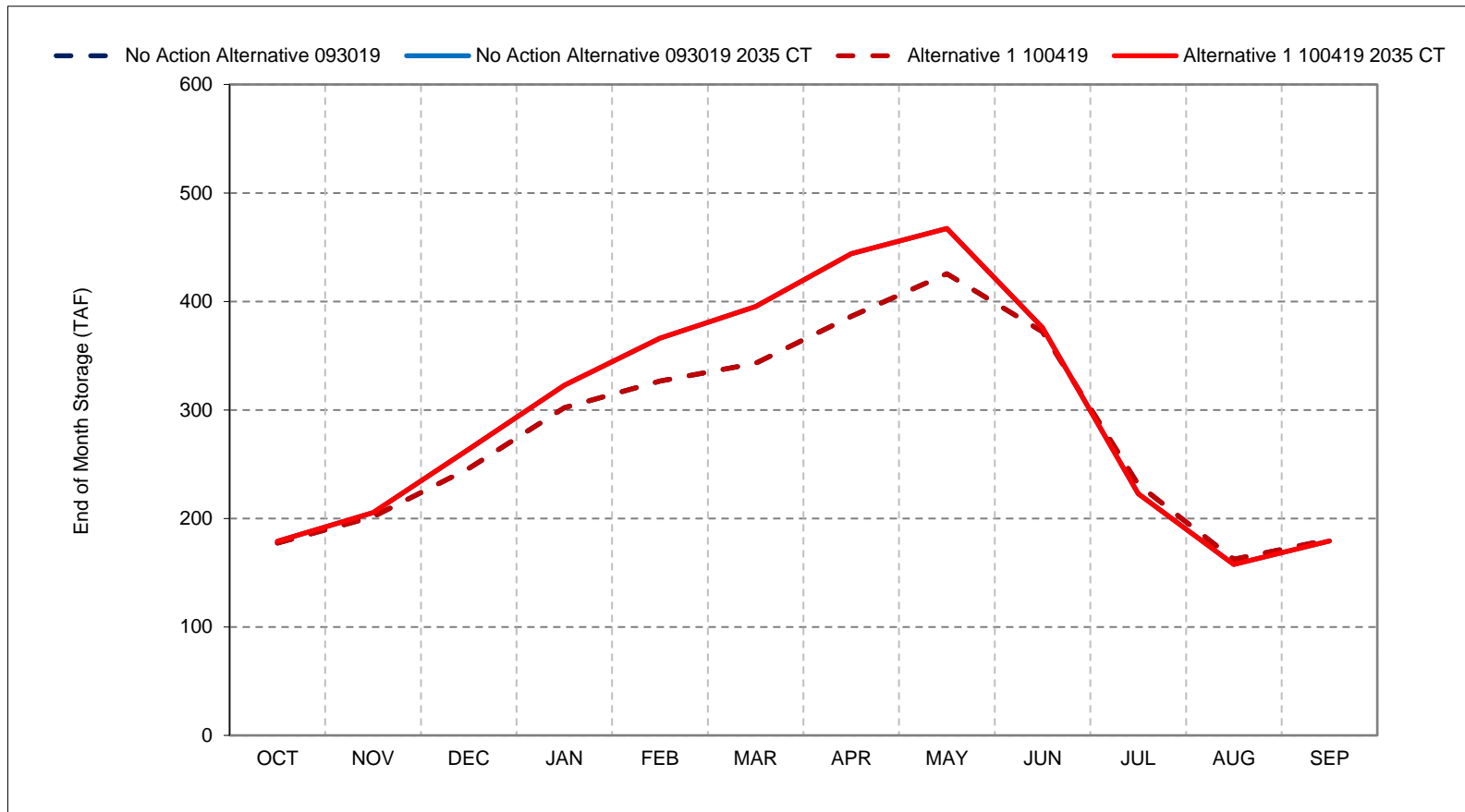
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-5. Millerton Lake Storage, Dry Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

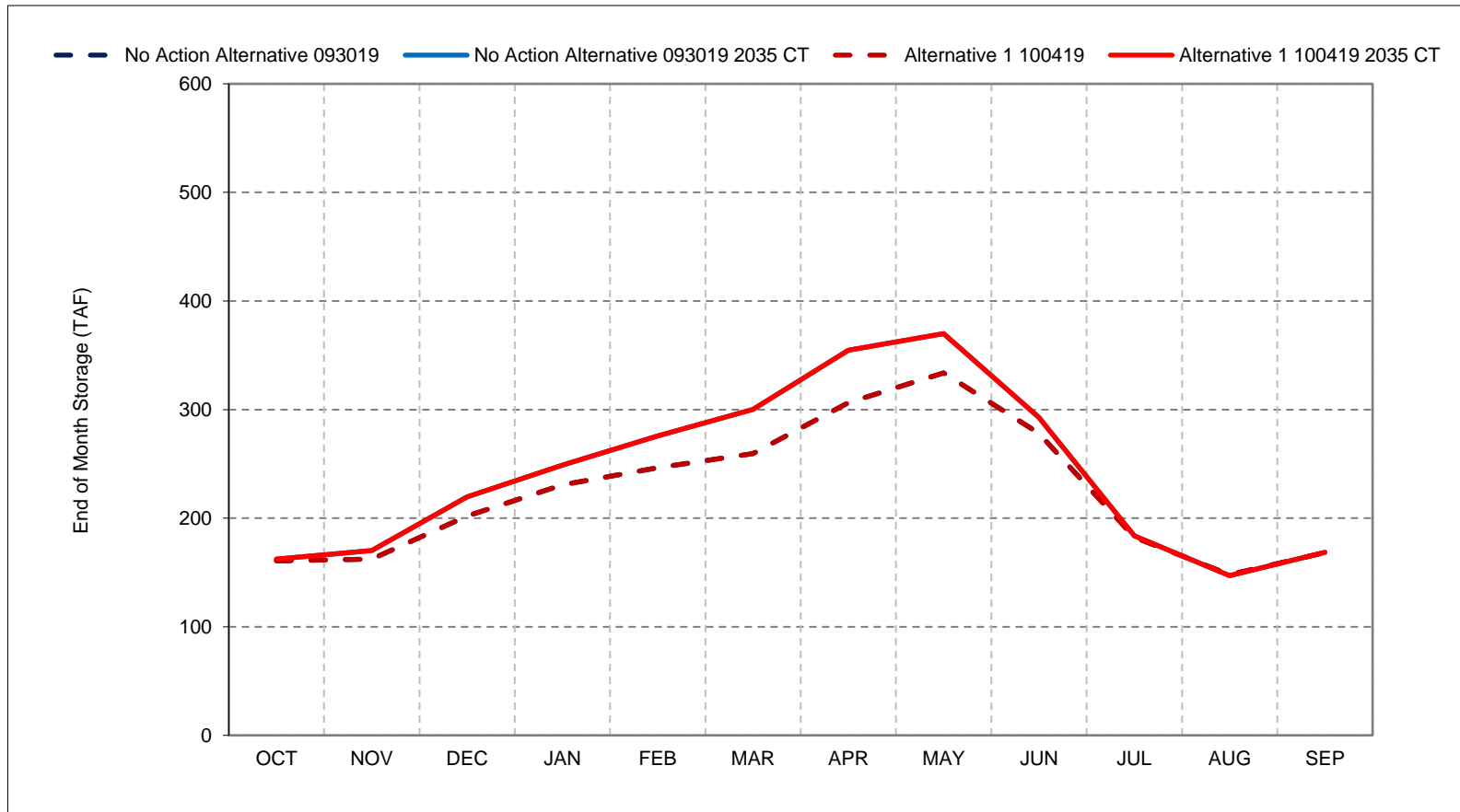
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-6. Millerton Lake Storage, Critical Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

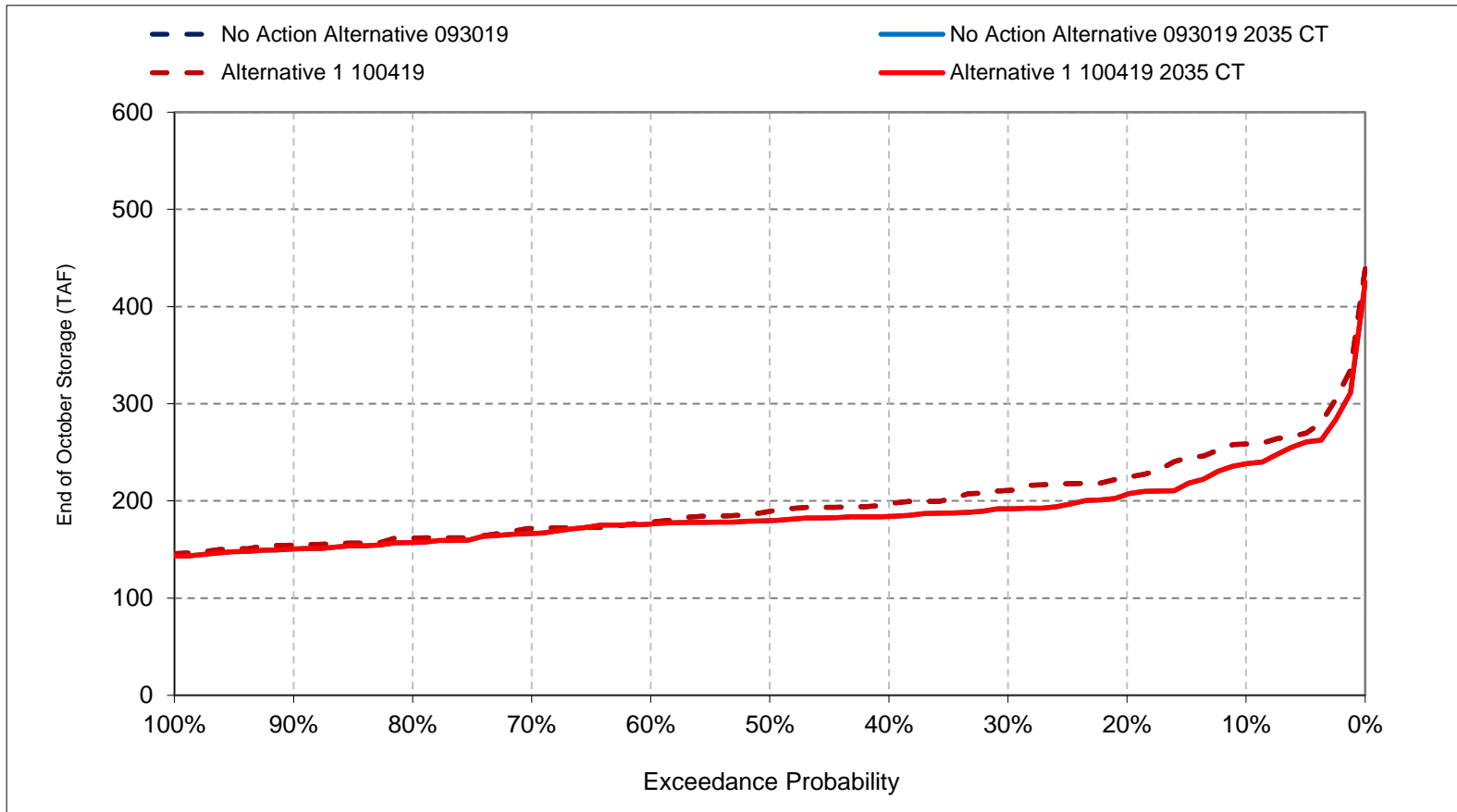
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

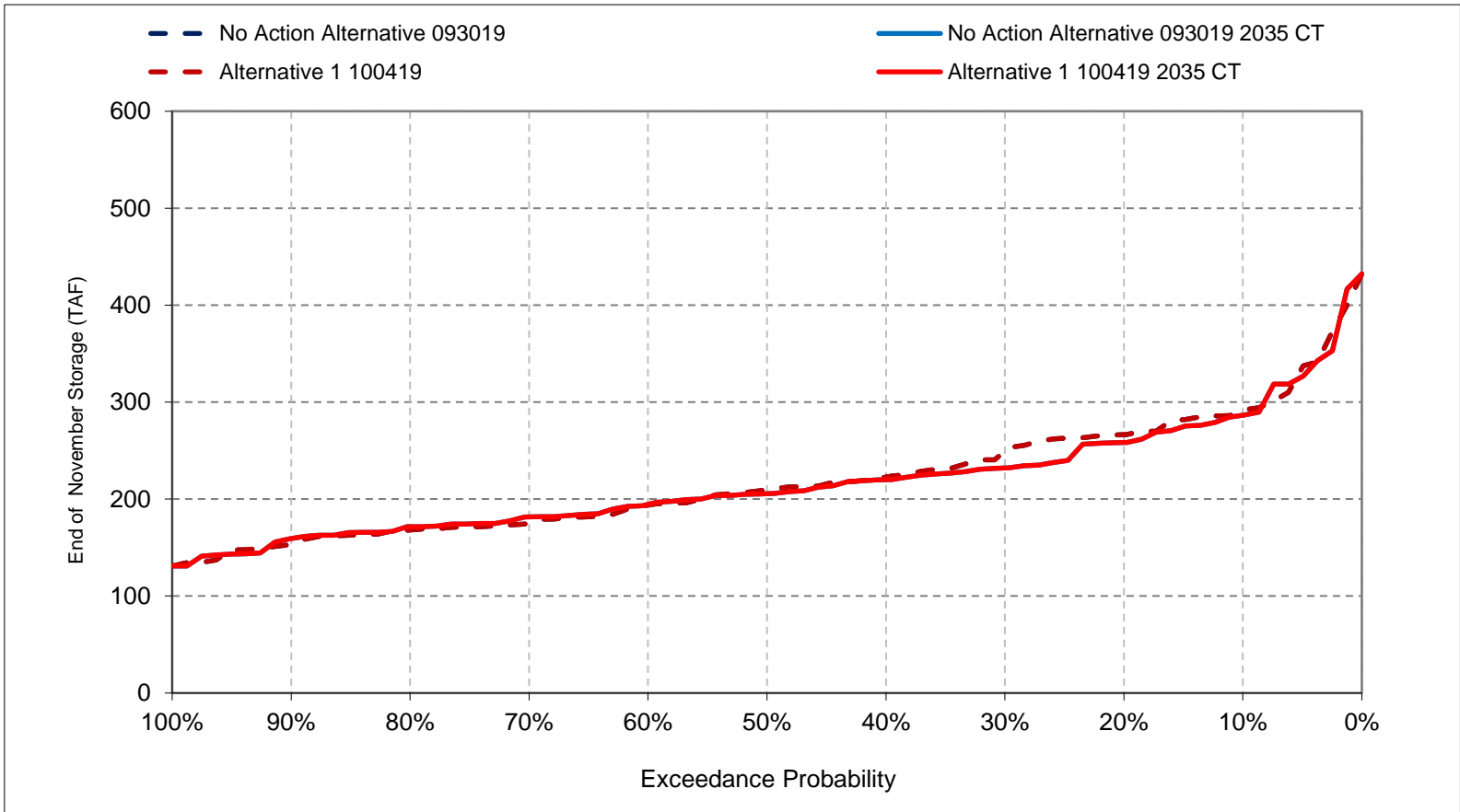
Figure 8-7. Millerton Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

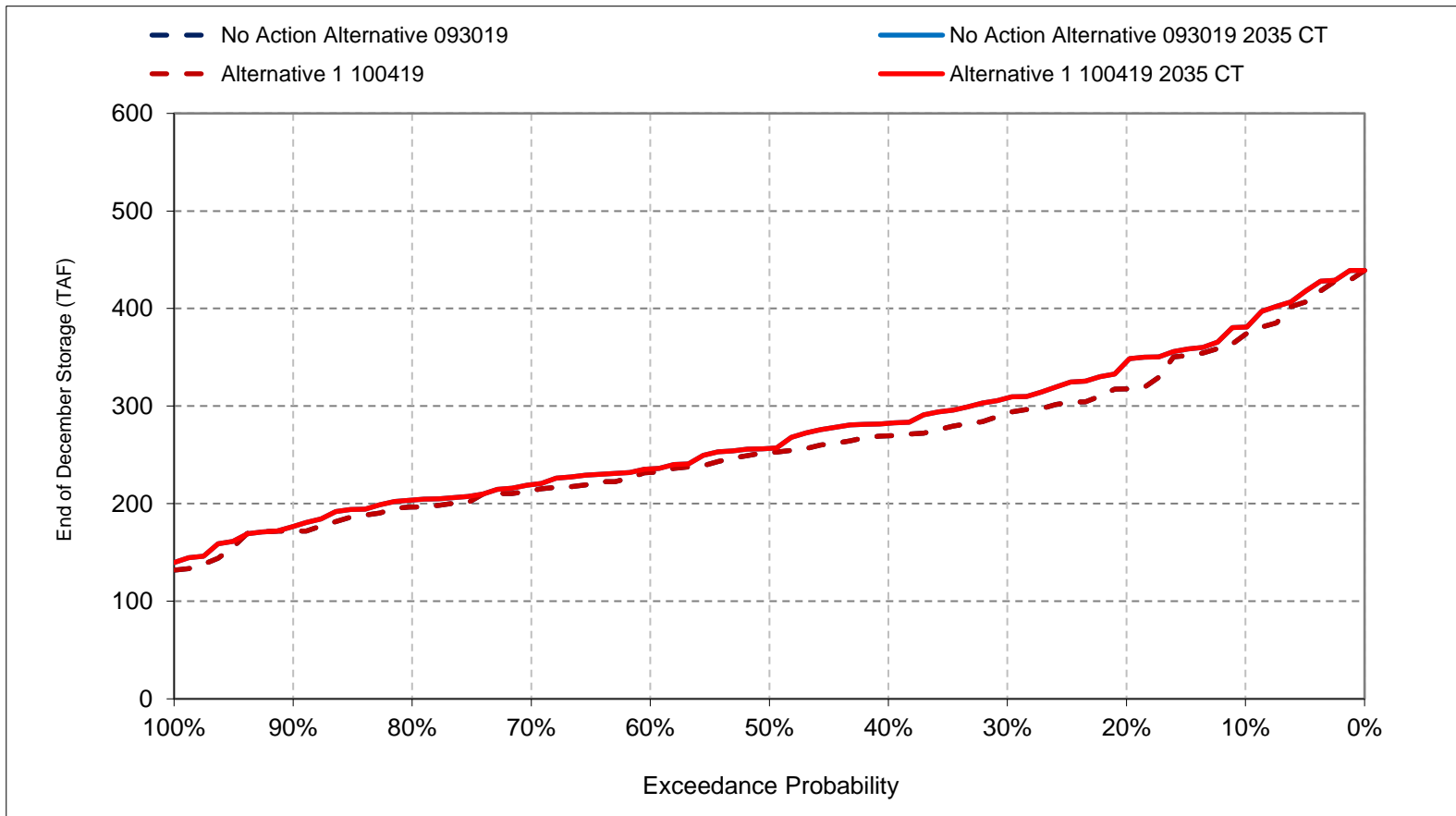
Figure 8-8. Millerton Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

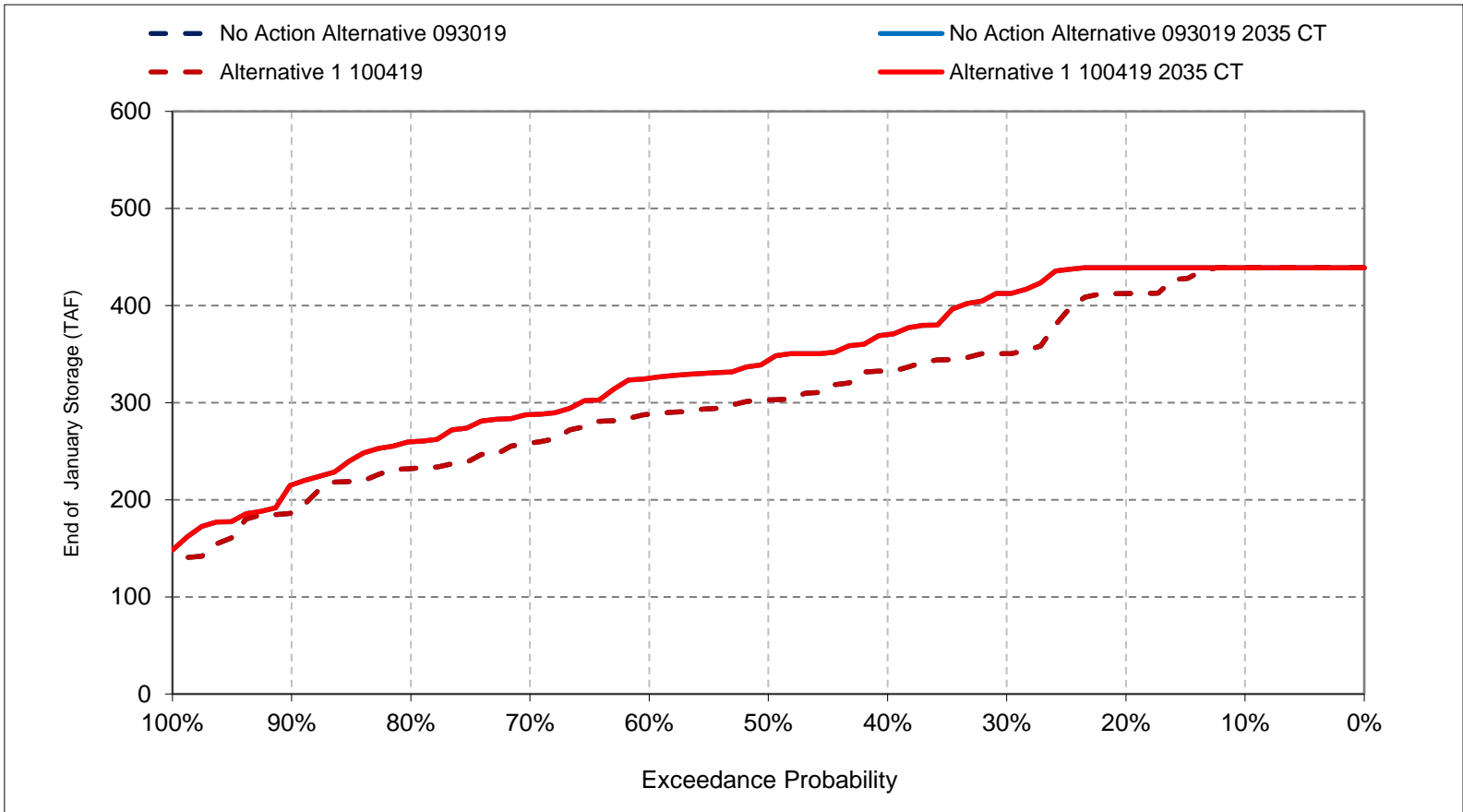
Figure 8-9. Millerton Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

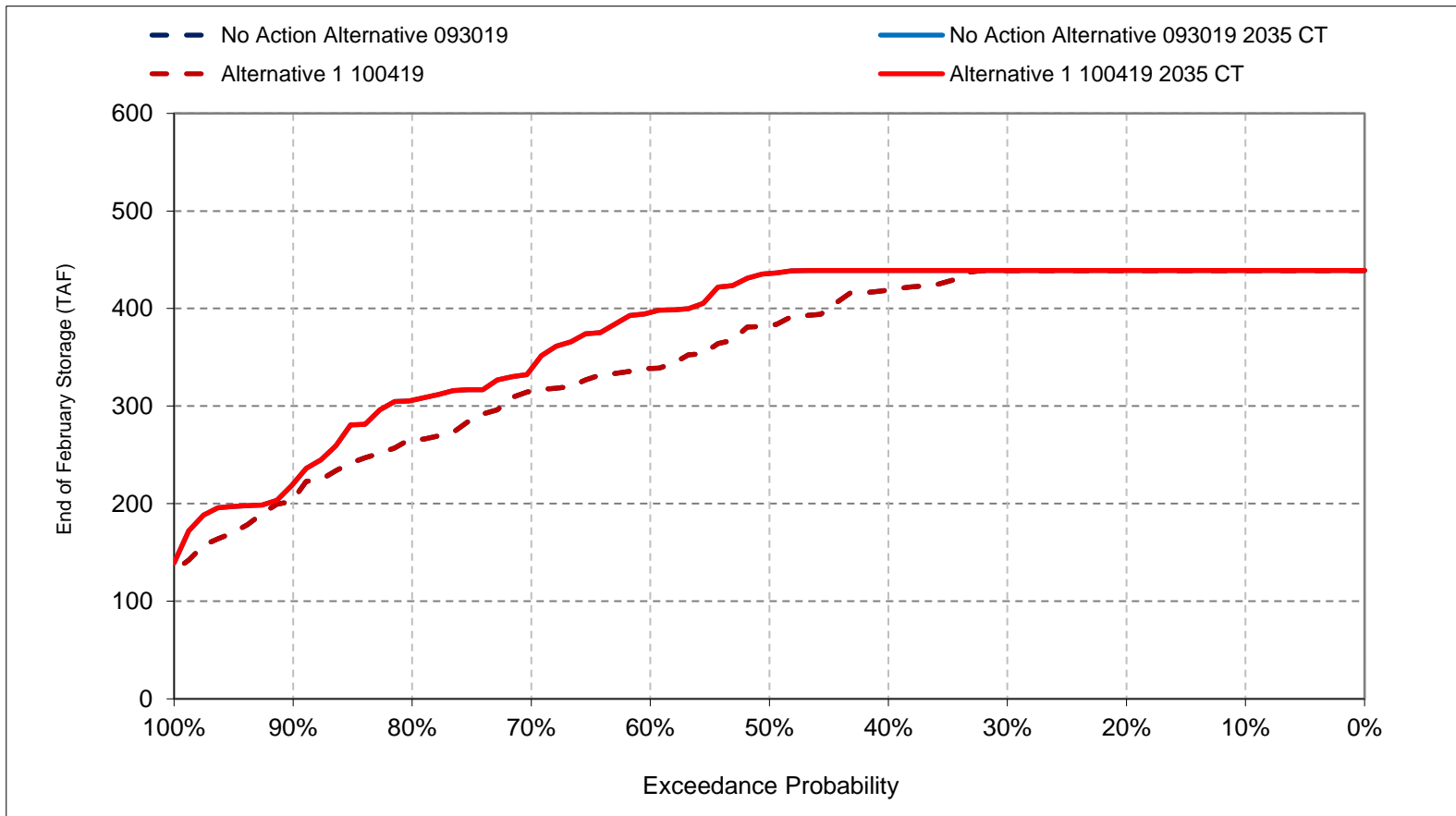
Figure 8-10. Millerton Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

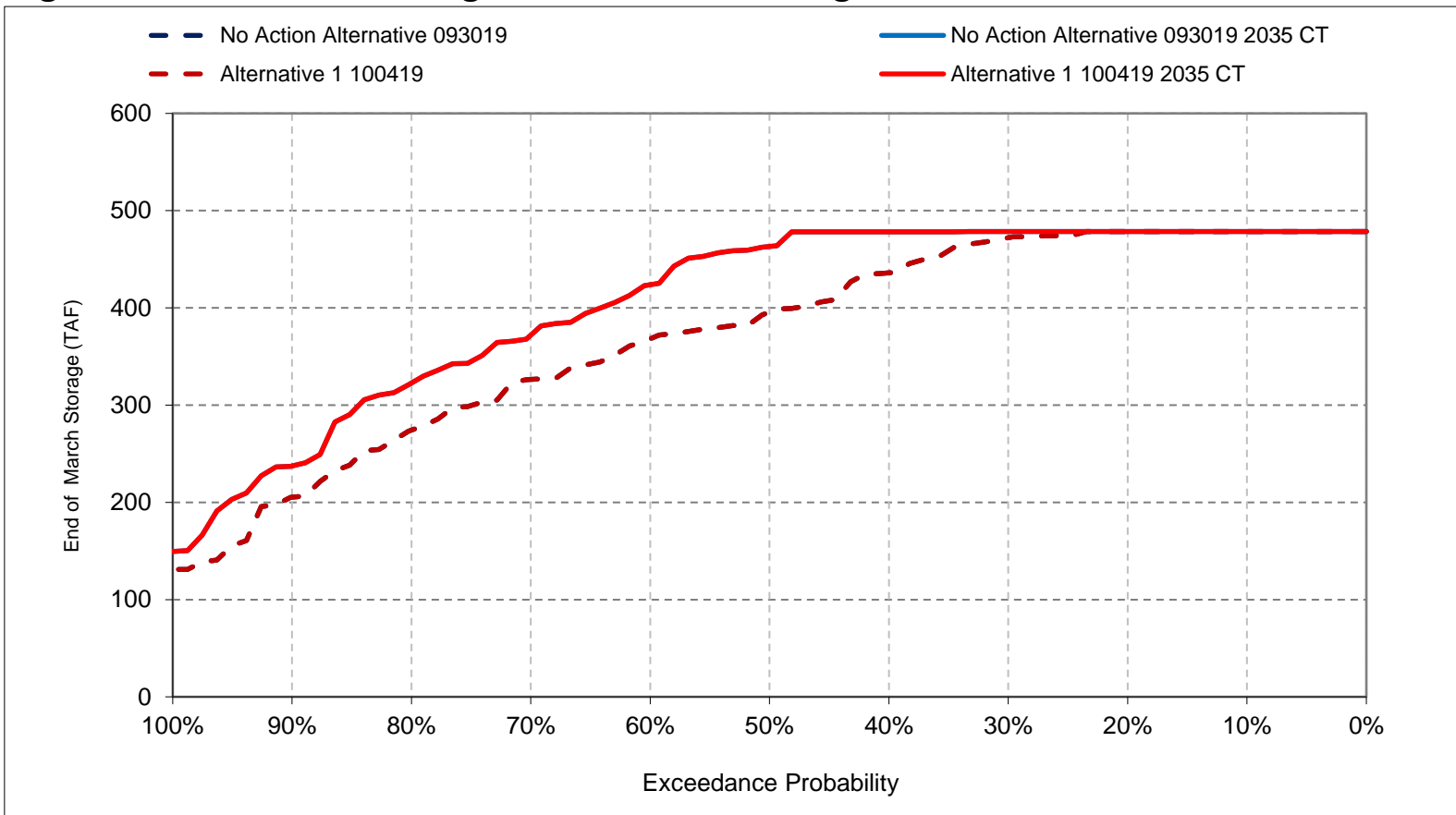
Figure 8-11. Millerton Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

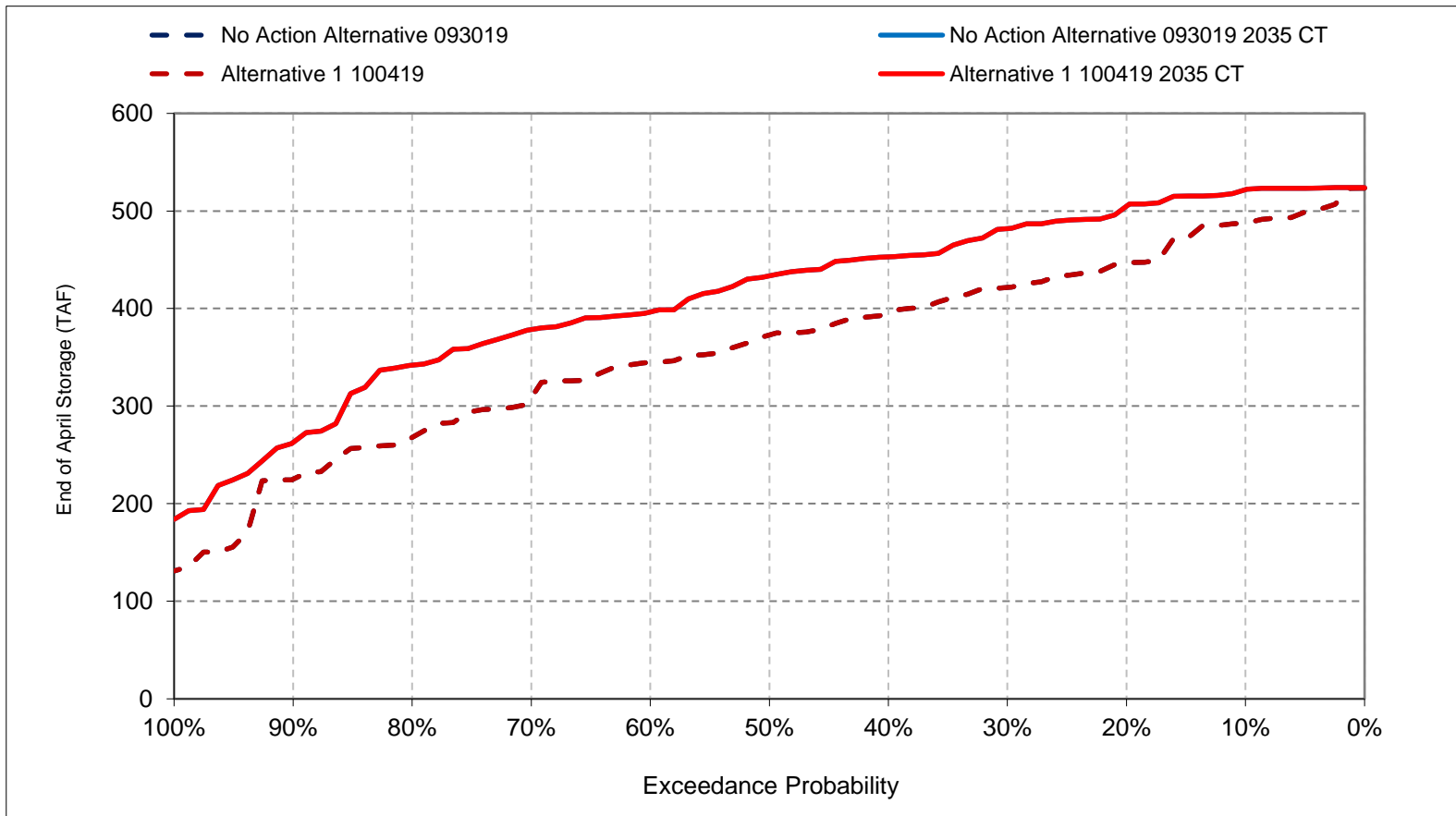
Figure 8-12. Millerton Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

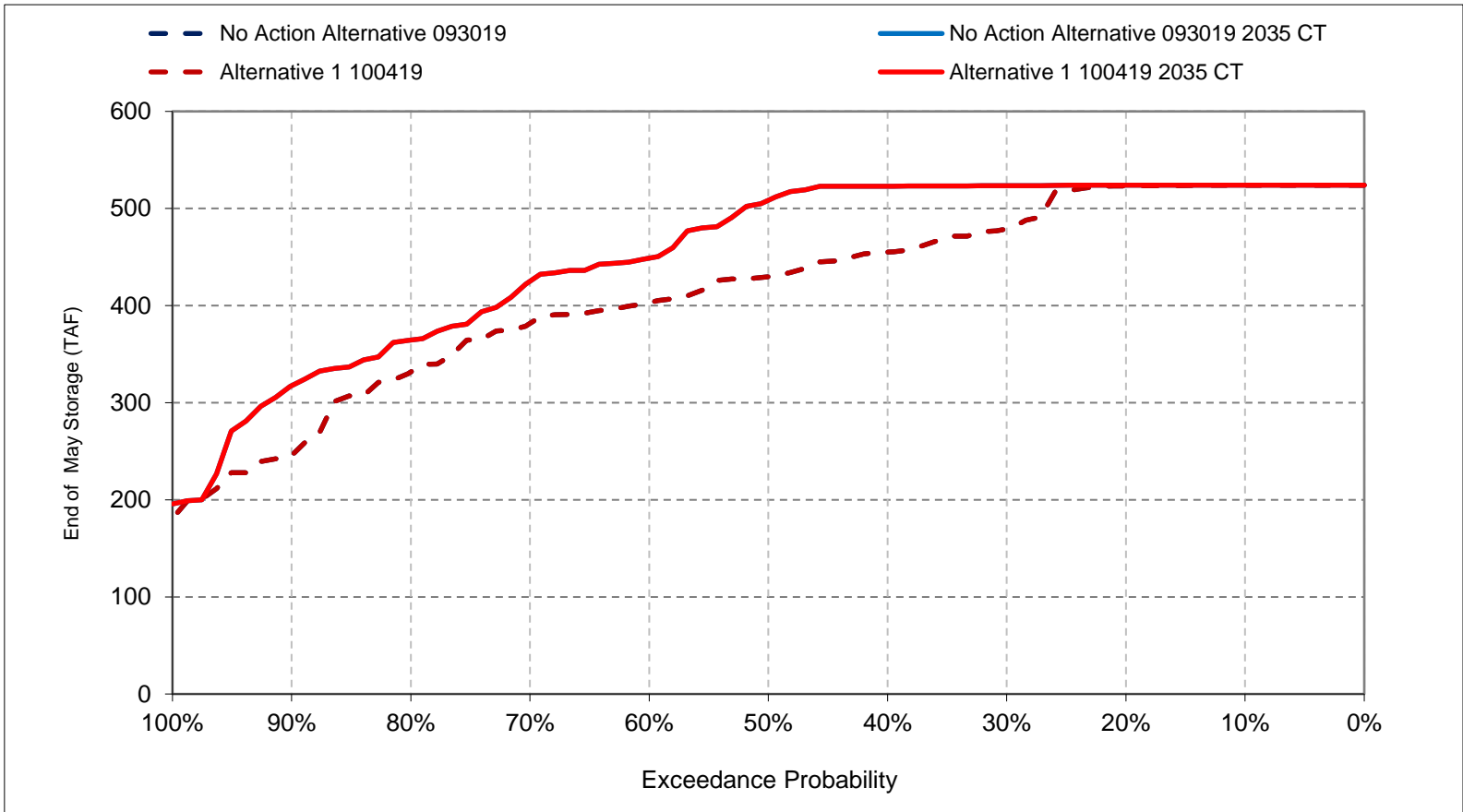
Figure 8-13. Millerton Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

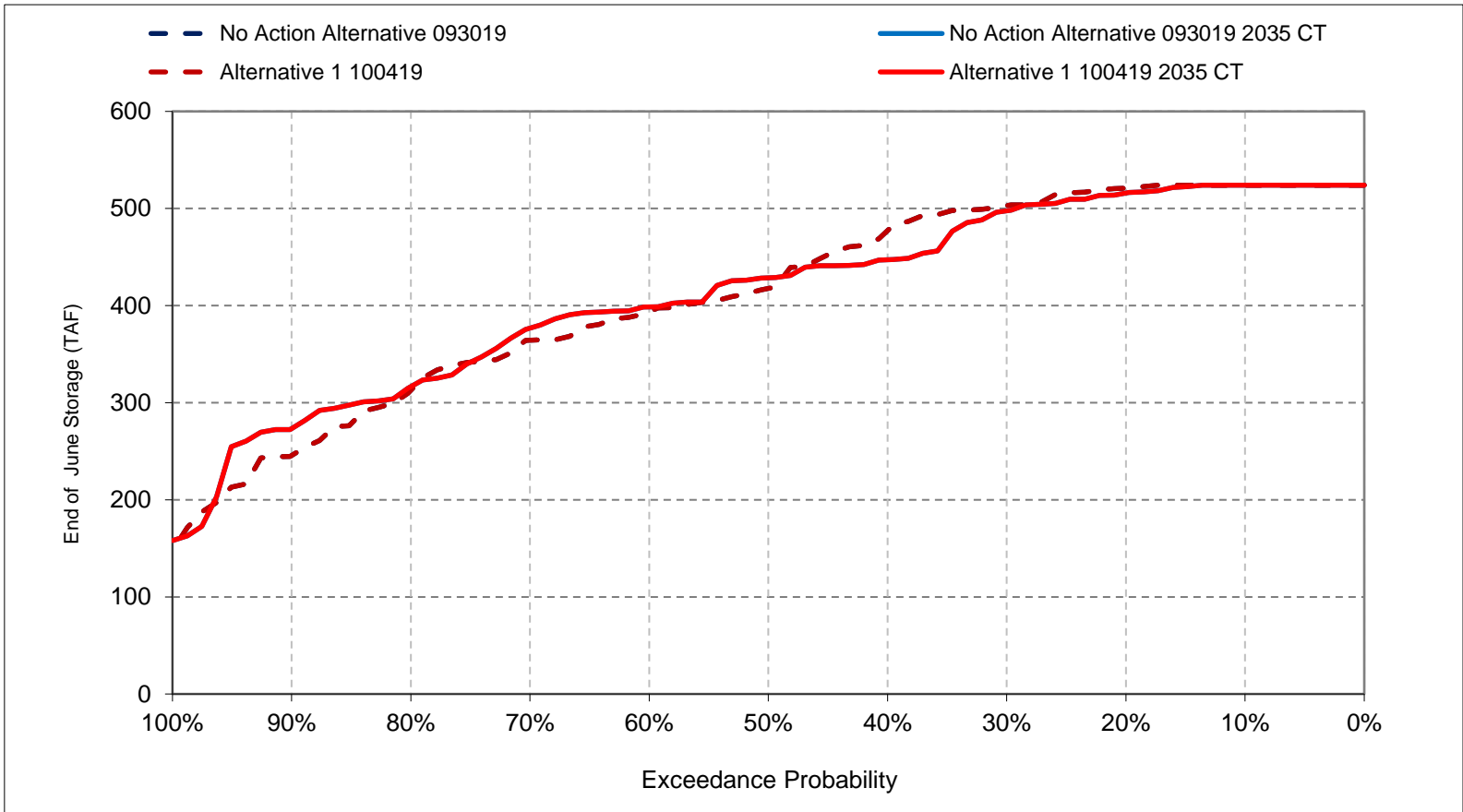
Figure 8-14. Millerton Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

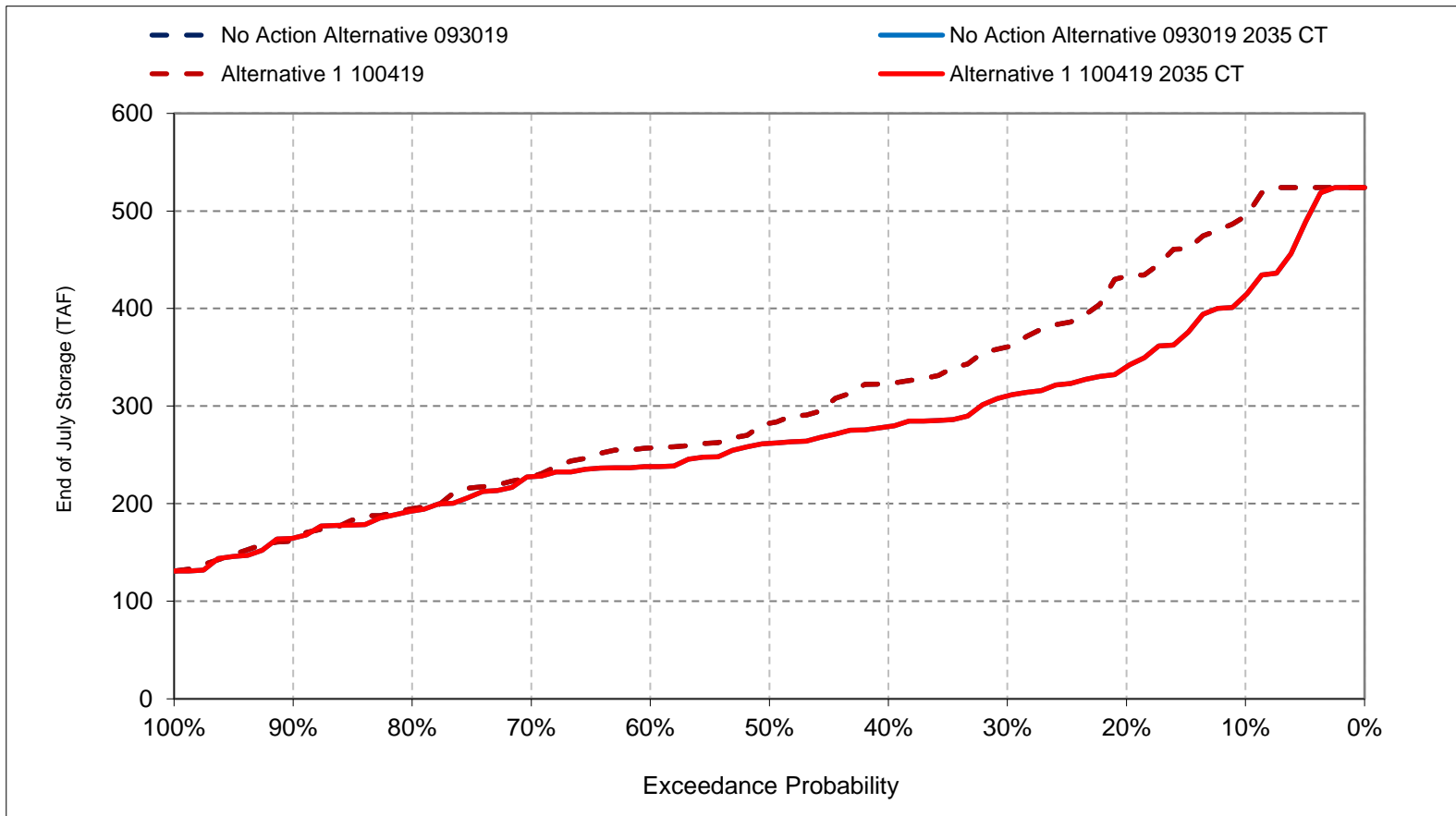
Figure 8-15. Millerton Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

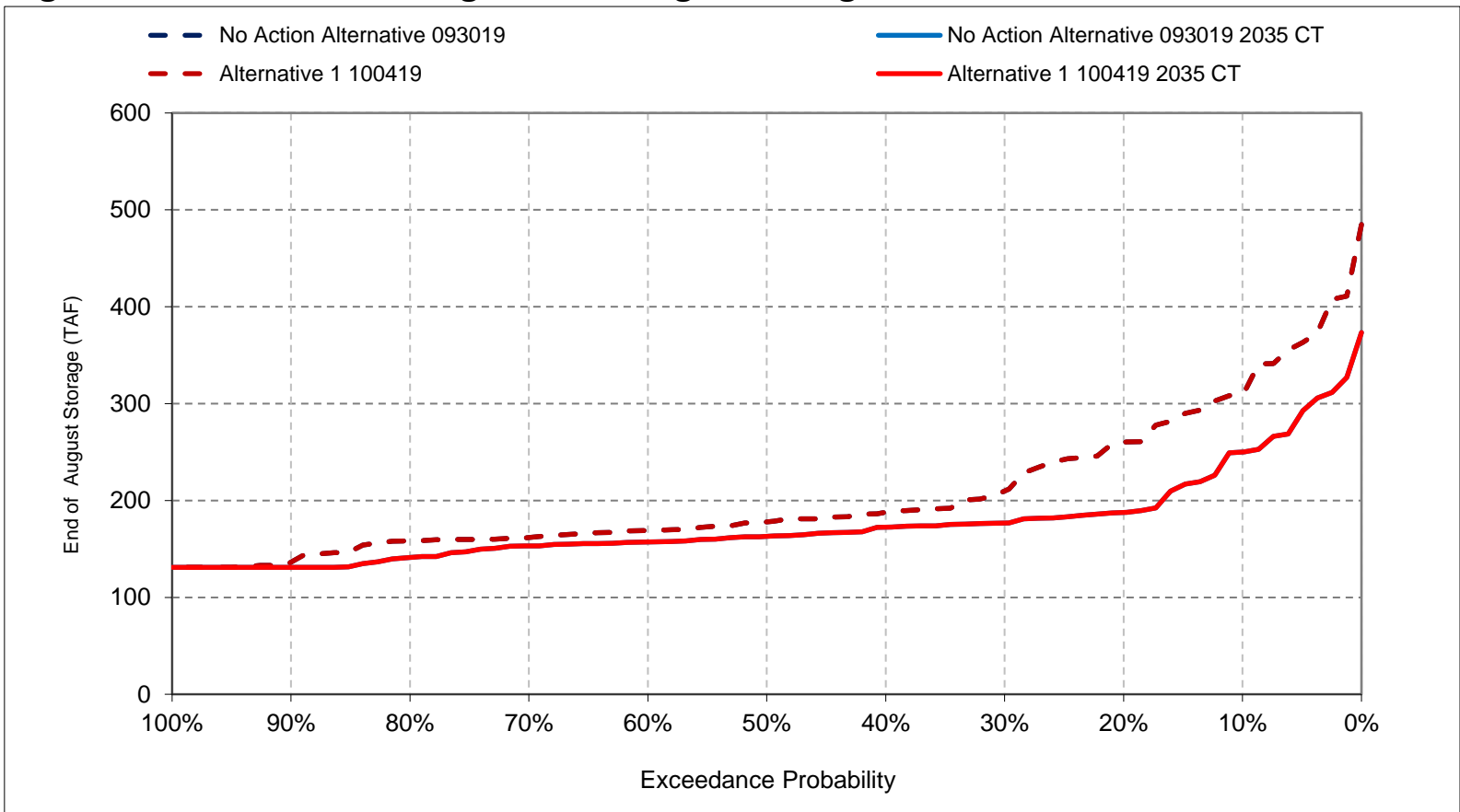
Figure 8-16. Millerton Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

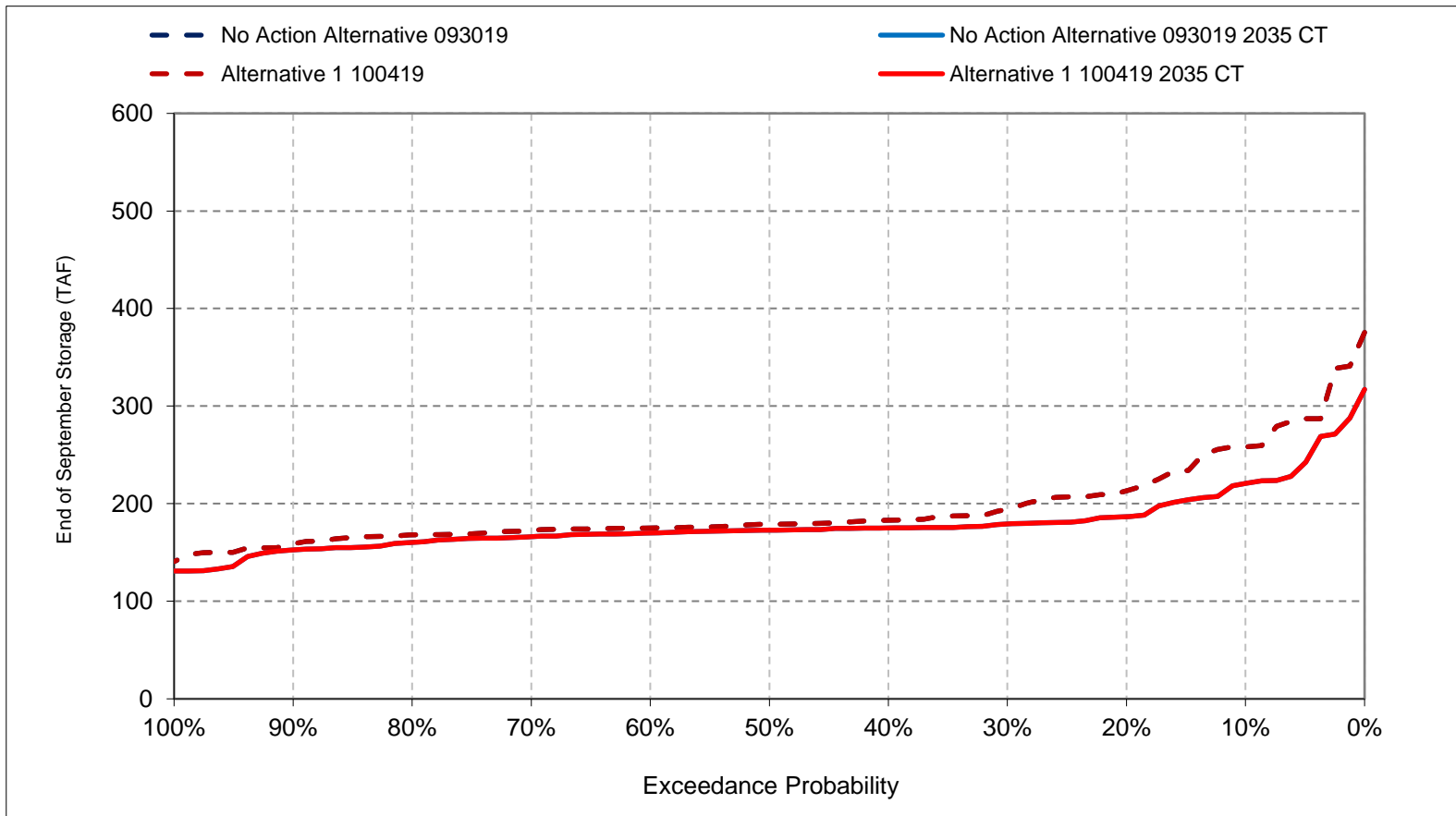
Figure 8-17. Millerton Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8-18. Millerton Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-1. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 8a-2. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-3. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types ^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-7	-2	2	0	0	0	6	0	0	-16	-18	-13
20%	-6	-2	7	6	0	0	11	0	-1	-22	-25	-10
30%	-7	-6	5	15	0	1	12	8	-1	-13	-13	-6
40%	-5	-1	4	10	4	8	12	13	-6	-13	-7	-3
50%	-4	-1	1	11	11	14	13	15	2	-6	-7	-3
60%	-1	0	1	10	14	12	13	10	1	-6	-5	-2
70%	-2	3	2	9	6	12	18	9	3	0	-4	-3
80%	-2	2	2	9	12	14	21	8	1	-1	-8	-3
90%	-2	3	2	10	6	11	13	22	9	1	-3	-3
Long Term												
Full Simulation Period ^d	-4	-1	3	8	6	9	13	8	1	-8	-10	-6
Water Year Types ^{b,c}												
Wet (23%)	-10	-6	-2	6	0	3	12	5	-2	-15	-26	-16
Above Normal (24%)	-5	-1	3	11	5	6	13	5	-3	-14	-14	-8
Below Normal (10%)	-3	0	5	10	8	12	16	14	6	-4	-5	-3
Dry (16%)	0	2	6	6	10	13	13	9	1	-3	-2	-1
Critical (27%)	1	3	6	6	9	13	14	10	4	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-4. Millerton Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types ^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-7	-2	2	0	0	0	6	0	0	-16	-18	-13
20%	-6	-2	7	6	0	0	11	0	-1	-22	-25	-10
30%	-7	-6	5	15	0	1	12	8	-1	-13	-13	-6
40%	-5	-1	4	10	4	8	12	13	-6	-13	-7	-3
50%	-4	-1	1	11	11	14	13	15	2	-6	-7	-3
60%	-1	0	1	10	14	12	13	10	1	-6	-5	-2
70%	-2	3	2	9	6	12	18	9	3	0	-4	-3
80%	-2	2	2	9	12	14	21	8	1	-1	-8	-3
90%	-2	3	2	10	6	11	13	22	9	1	-3	-3
Long Term												
Full Simulation Period ^d	-4	-1	3	8	6	9	13	8	1	-8	-10	-6
Water Year Types ^{b,c}												
Wet (23%)	-10	-6	-2	6	0	3	12	5	-2	-15	-26	-16
Above Normal (24%)	-5	-1	3	11	5	6	13	5	-3	-14	-14	-8
Below Normal (10%)	-3	0	5	10	8	12	16	14	6	-4	-5	-3
Dry (16%)	0	2	6	6	10	13	13	9	1	-3	-2	-1
Critical (27%)	1	3	6	6	9	13	14	10	4	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

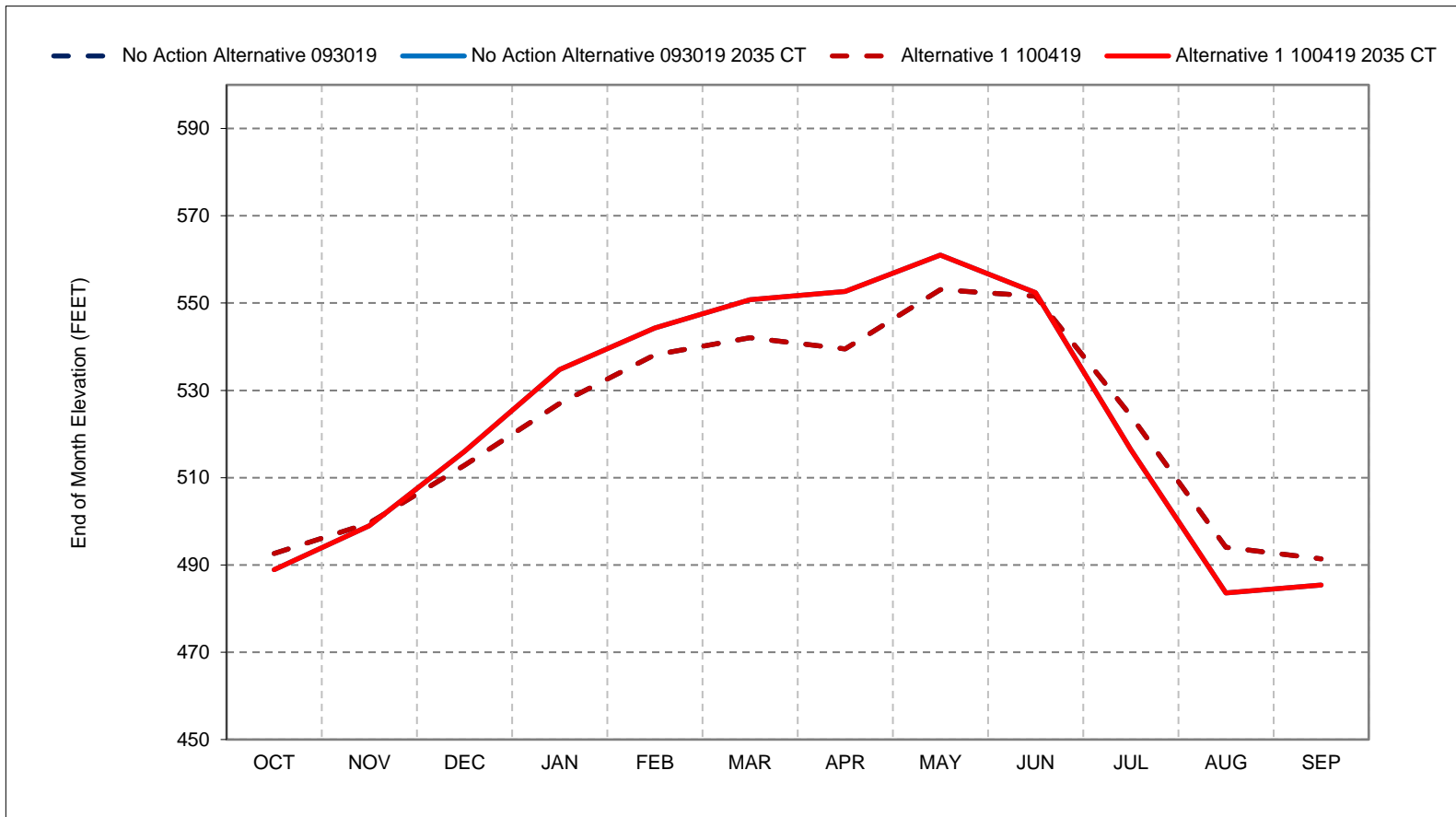
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8a-1. Millerton Lake Elevation, Long-Term Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

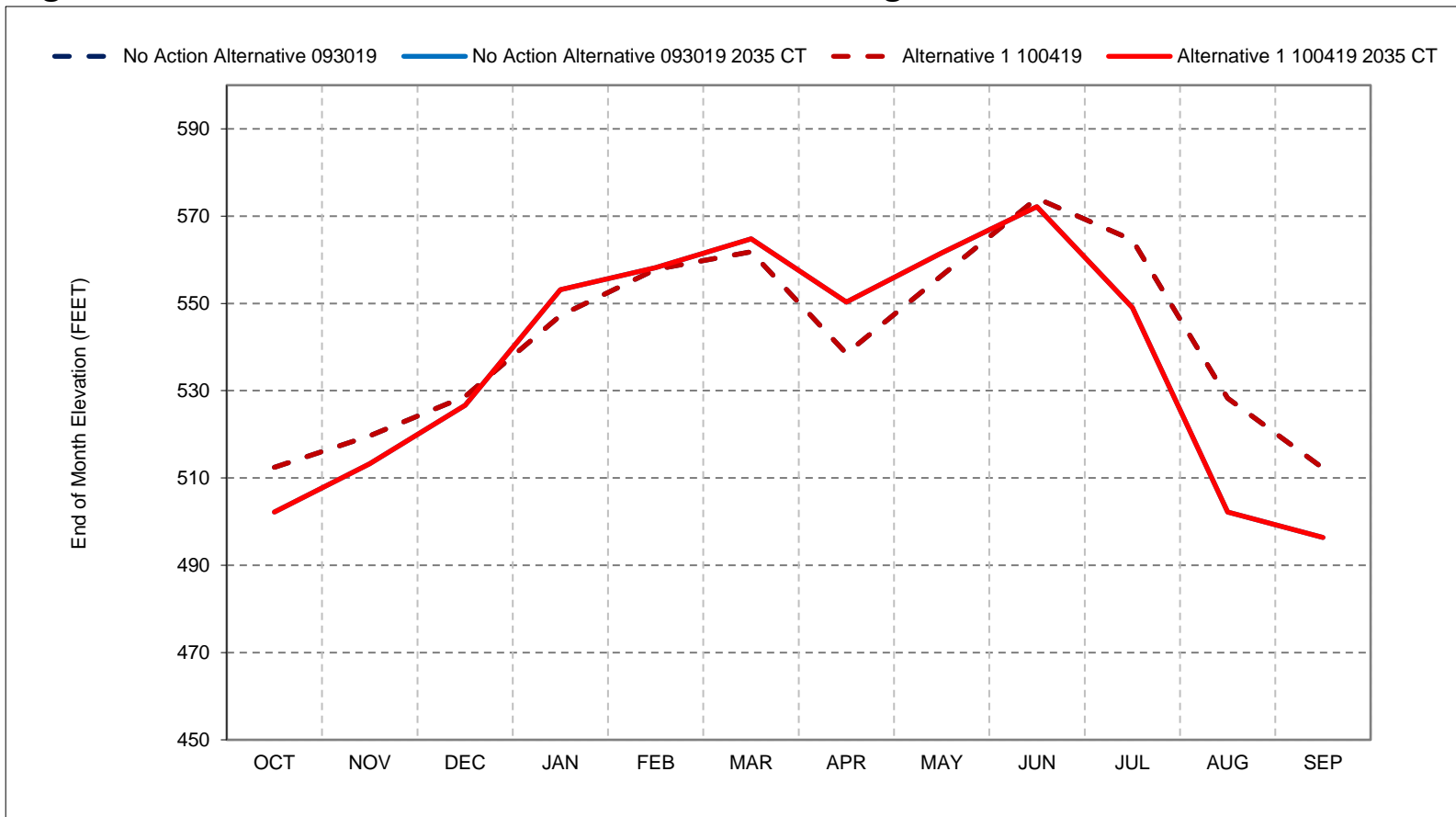
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-2. Millerton Lake Elevation, Wet Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

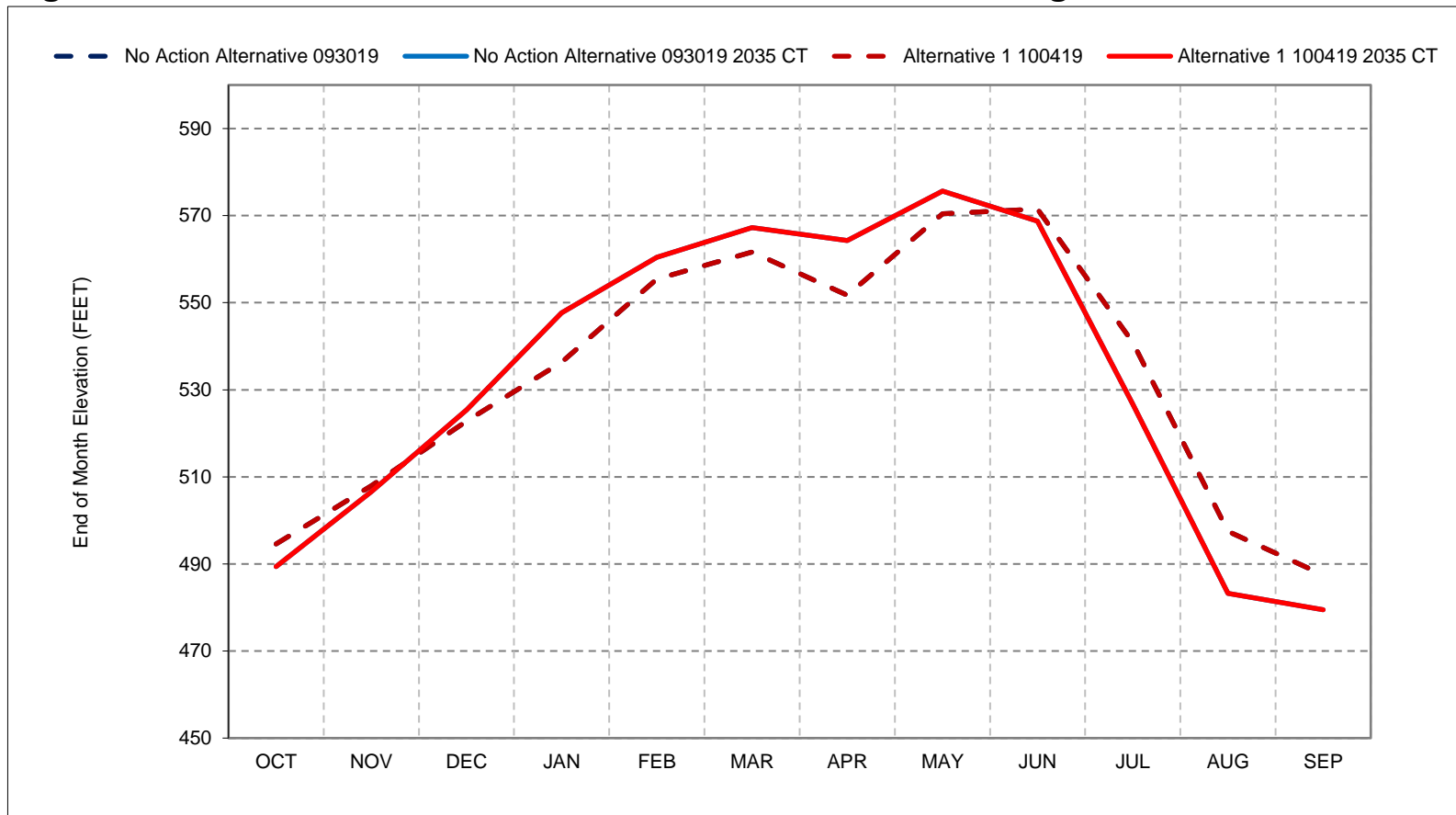
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-3. Millerton Lake Elevation, Above Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

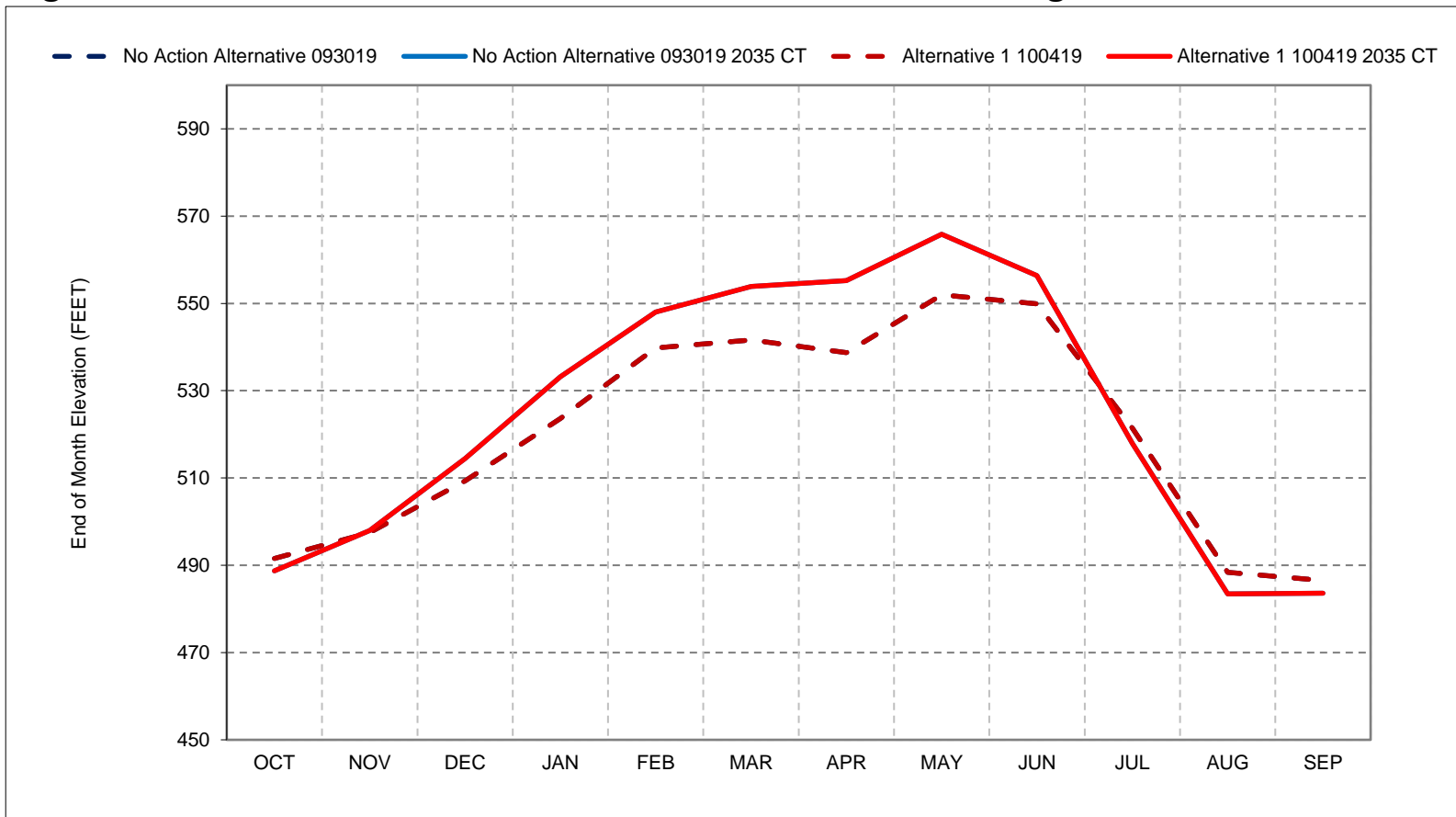
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-4. Millerton Lake Elevation, Below Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

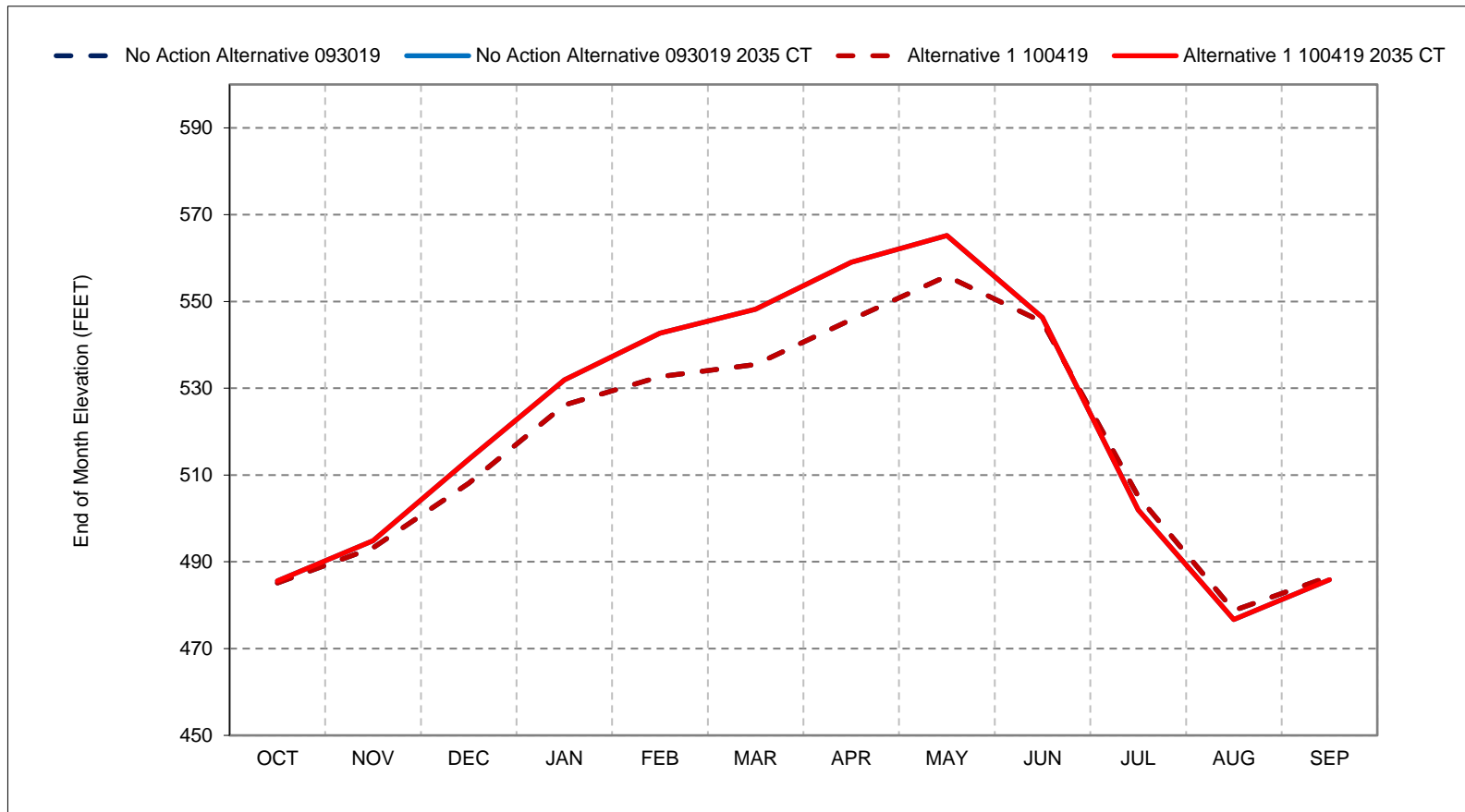
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-5. Millerton Lake Elevation, Dry Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

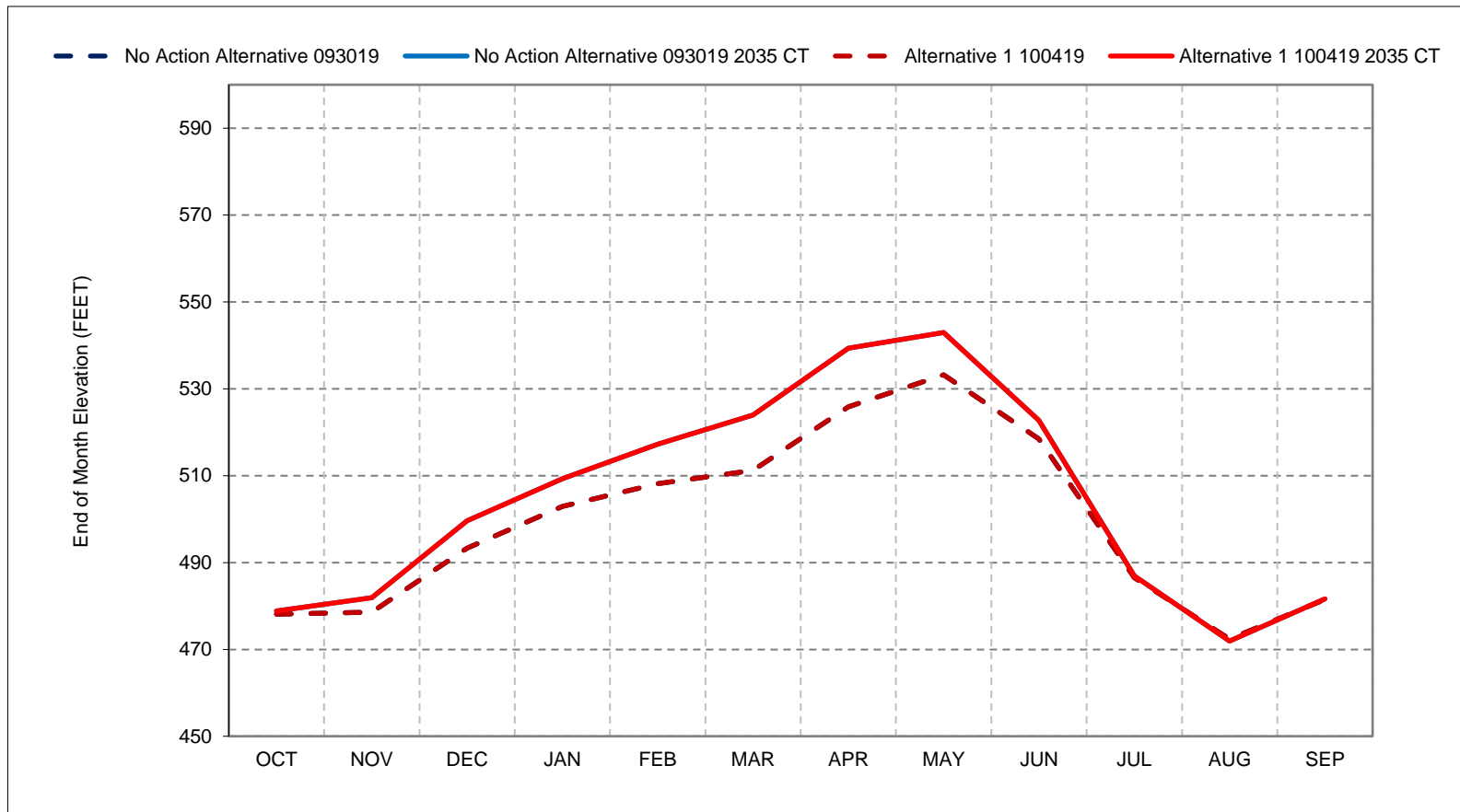
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-6. Millerton Lake Elevation, Critical Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

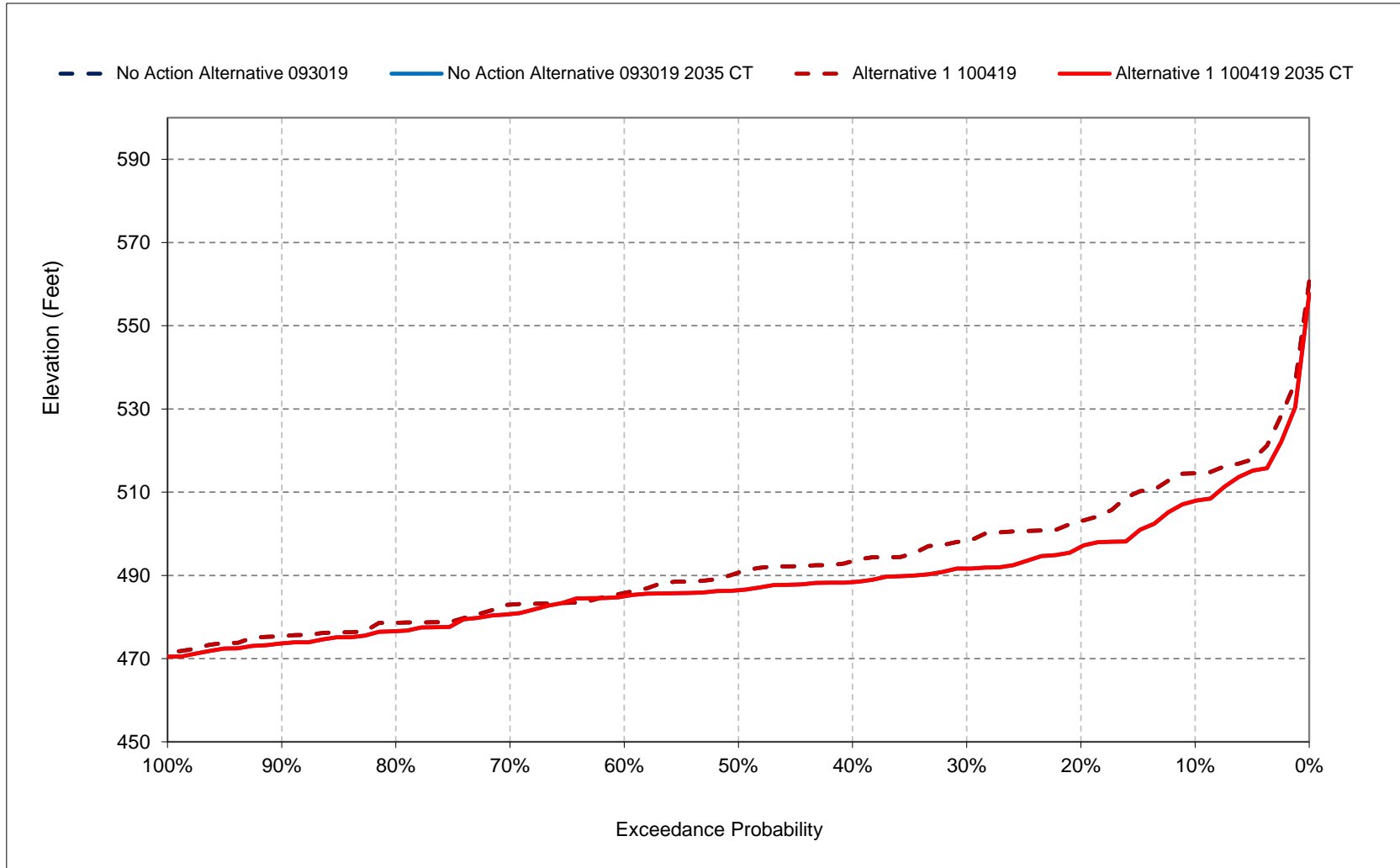
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

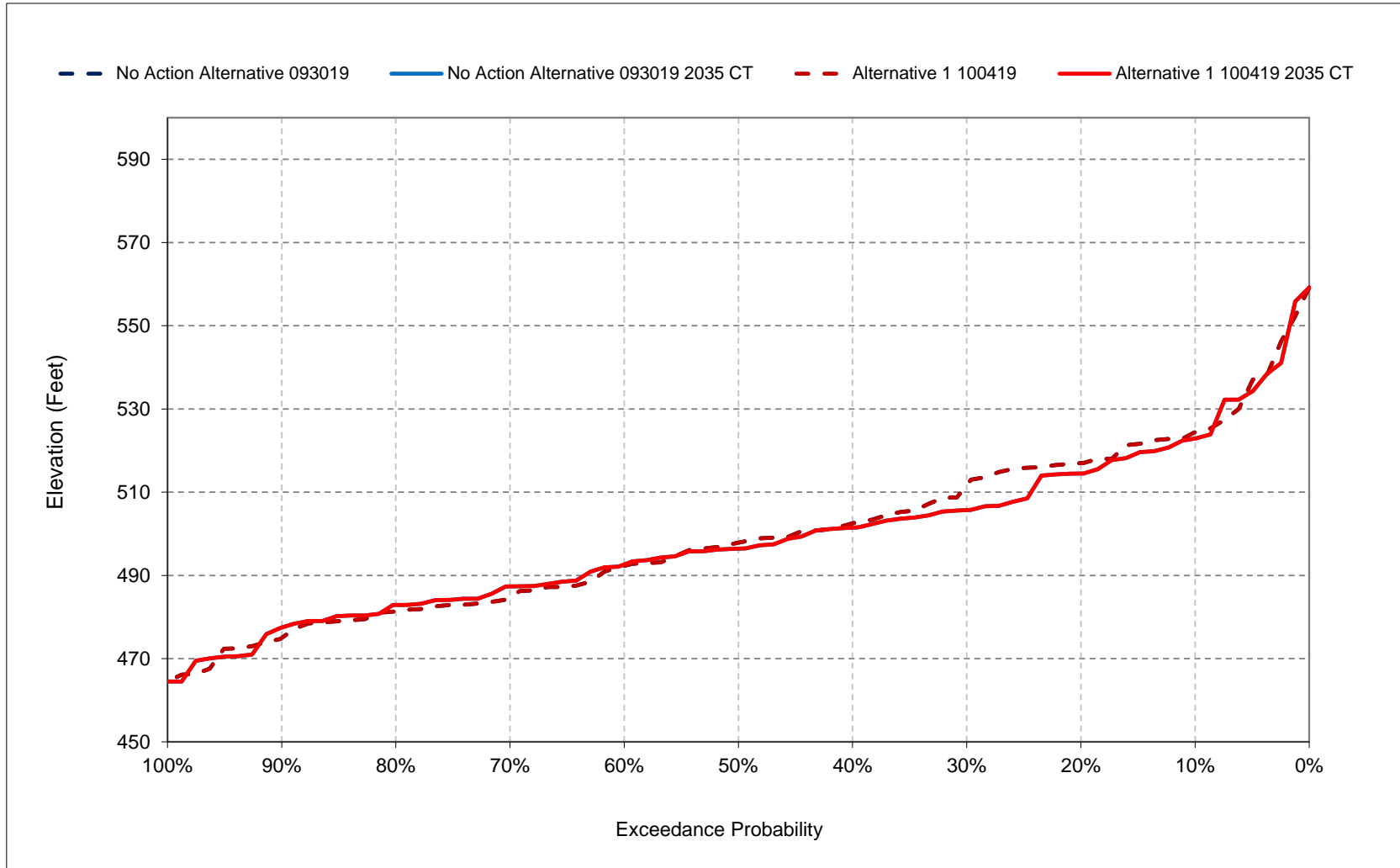
Figure 8a-7. Millerton Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

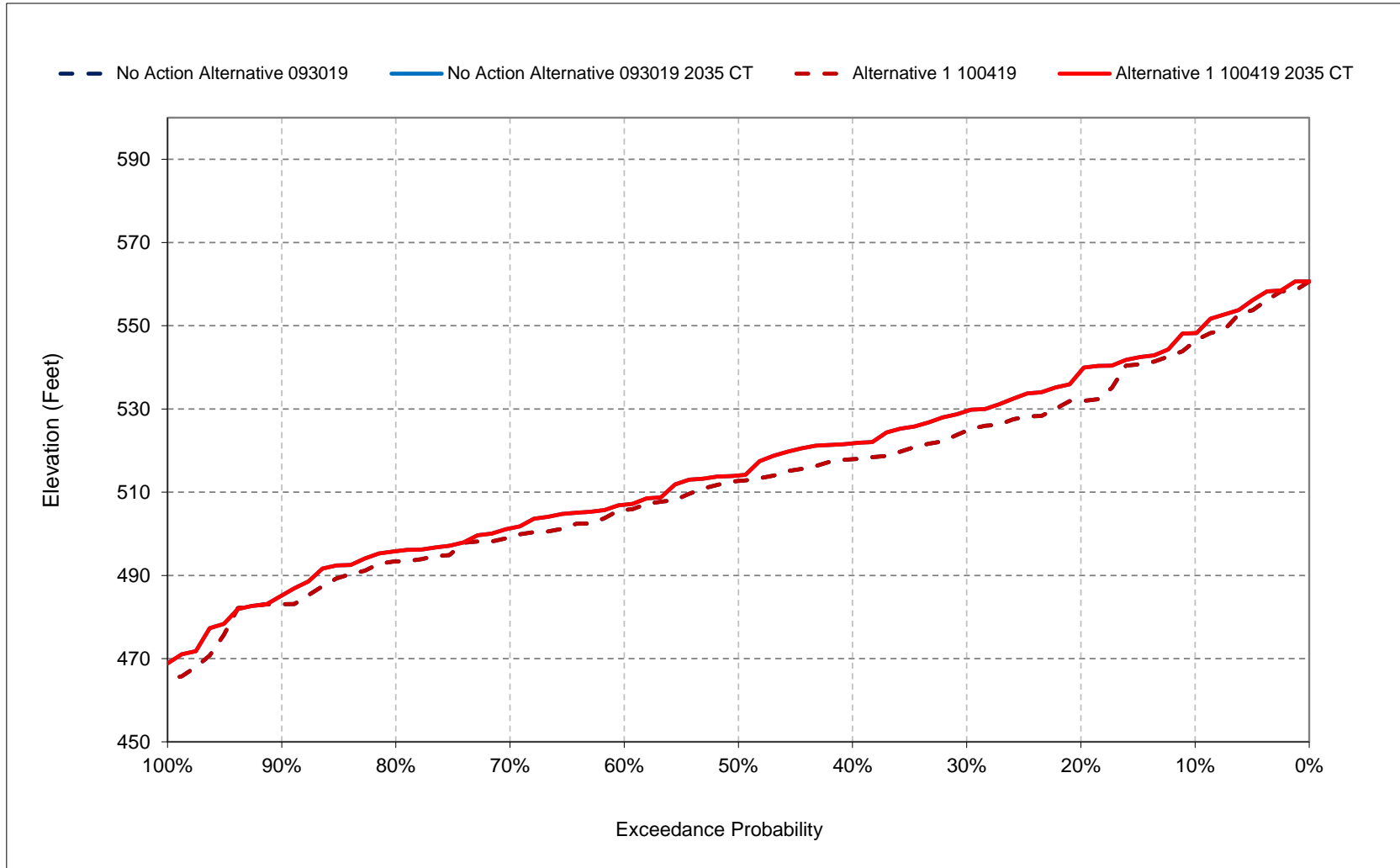
Figure 8a-8. Millerton Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

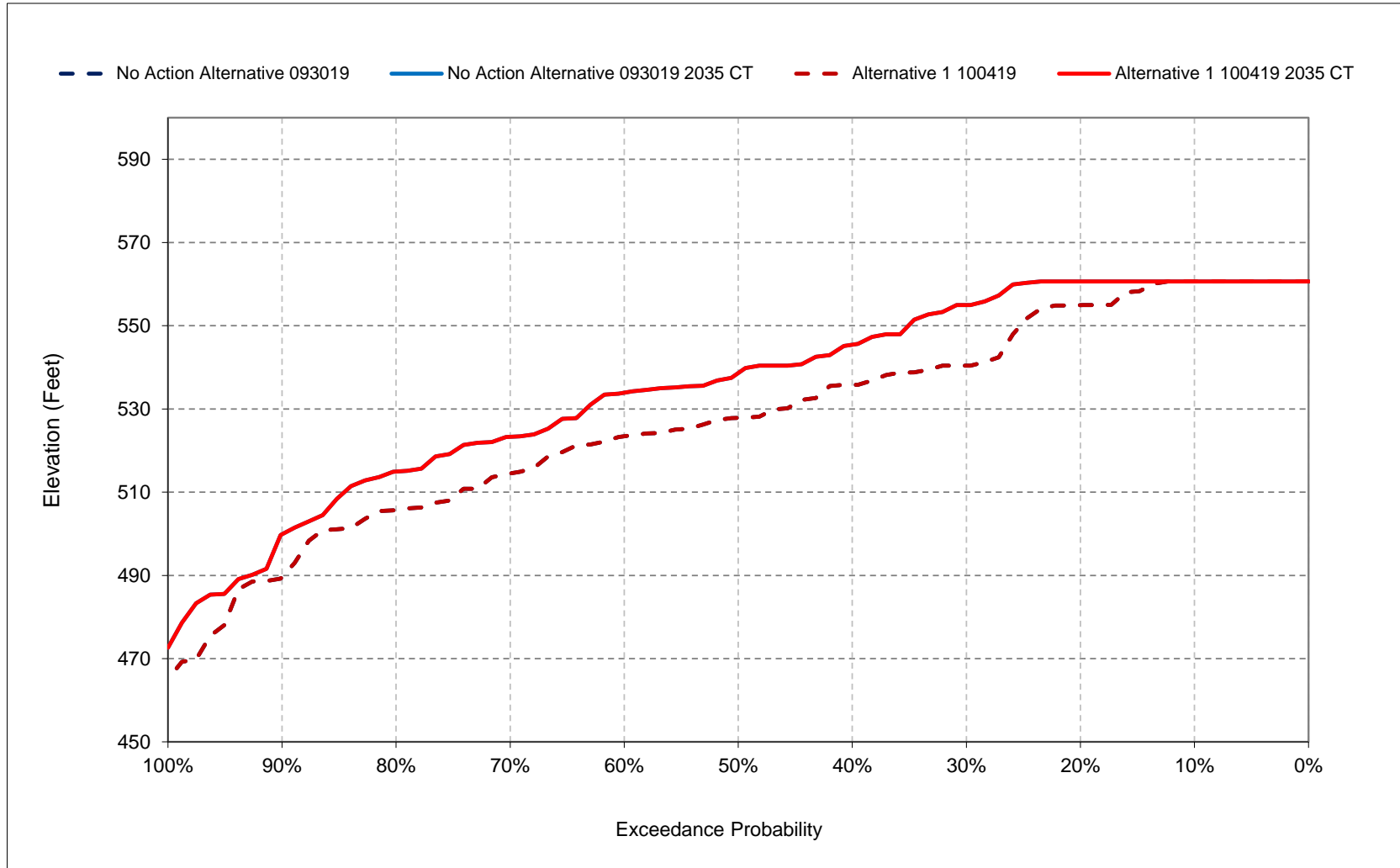
Figure 8a-9. Millerton Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

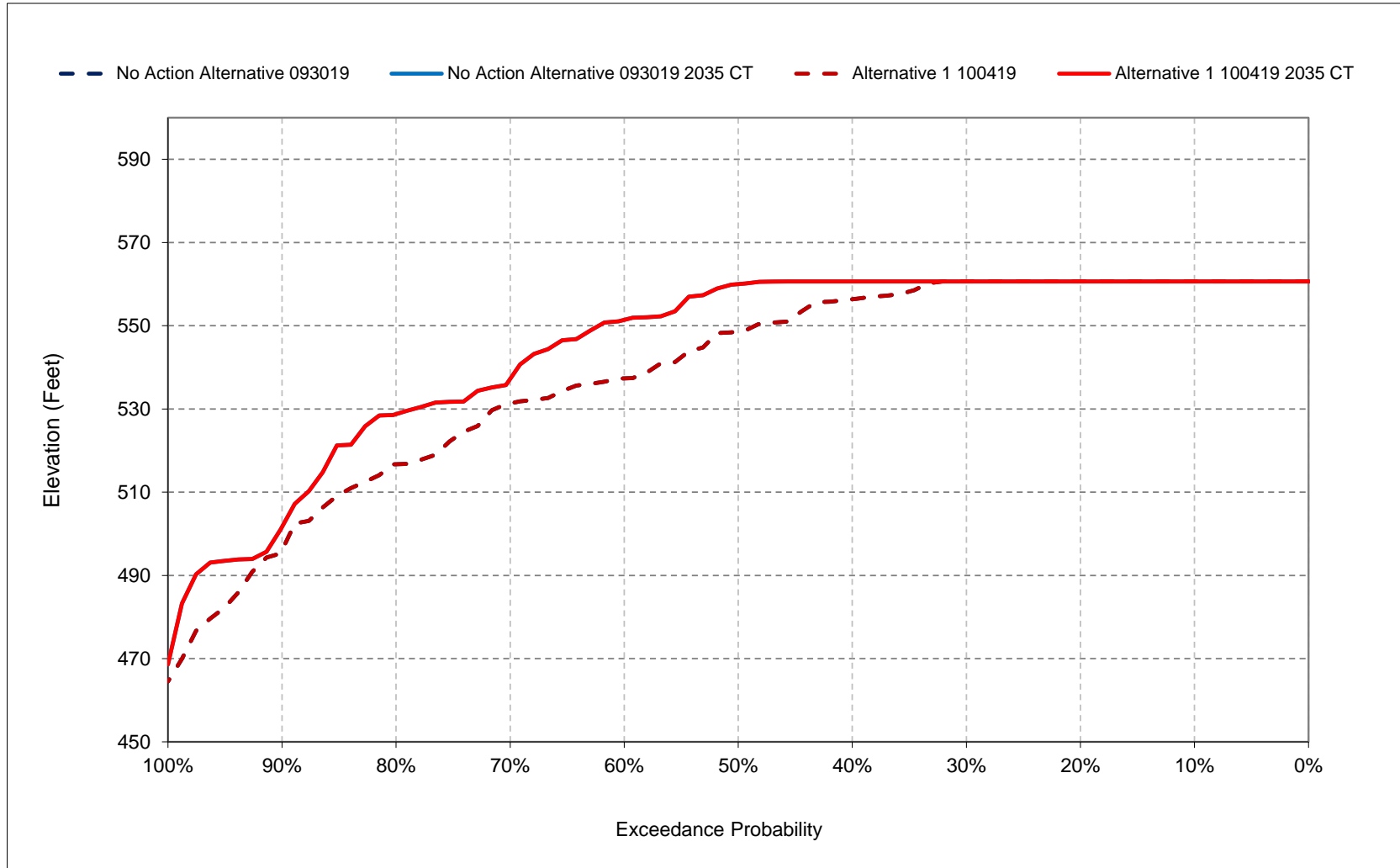
Figure 8a-10. Millerton Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

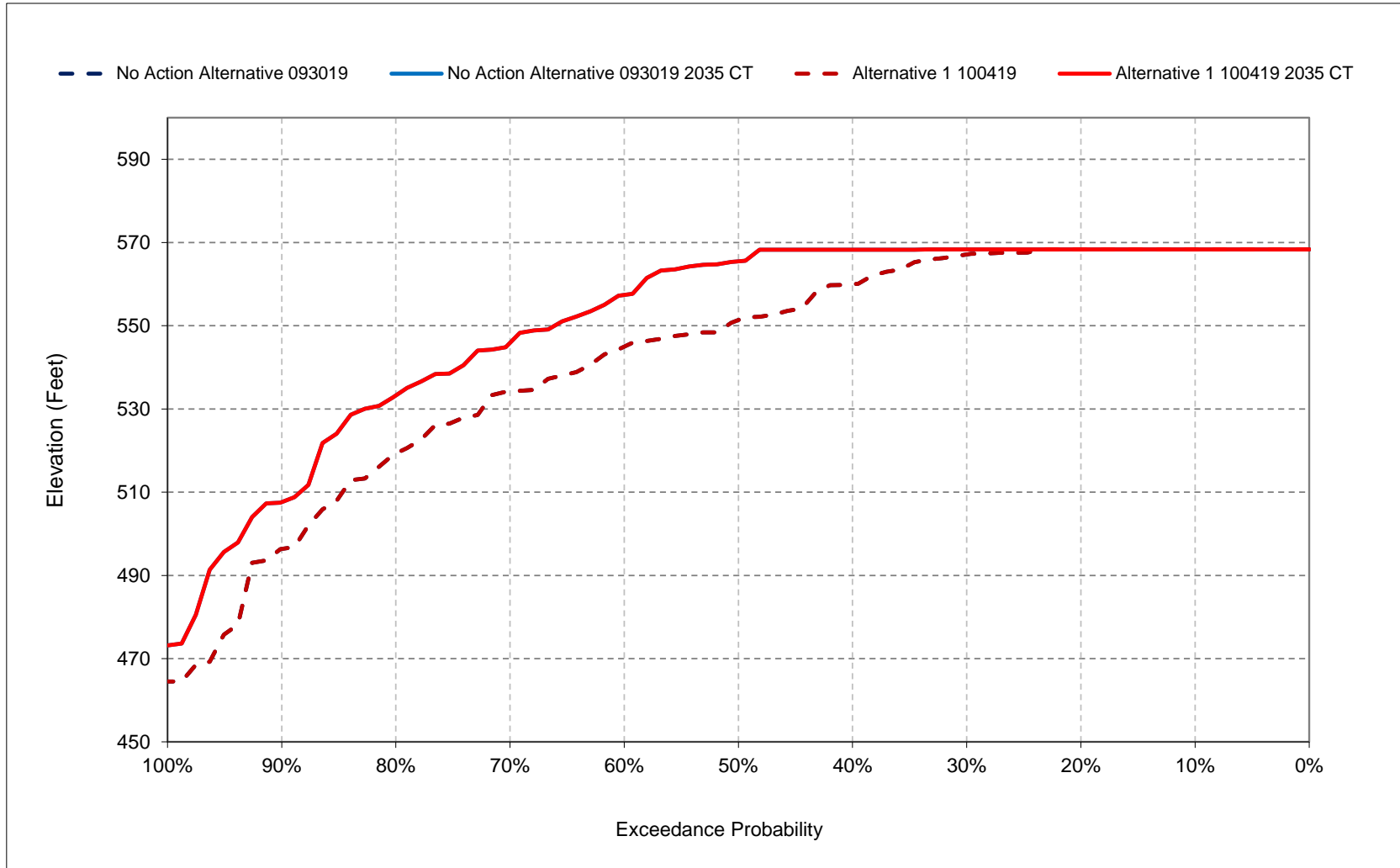
Figure 8a-11. Millerton Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

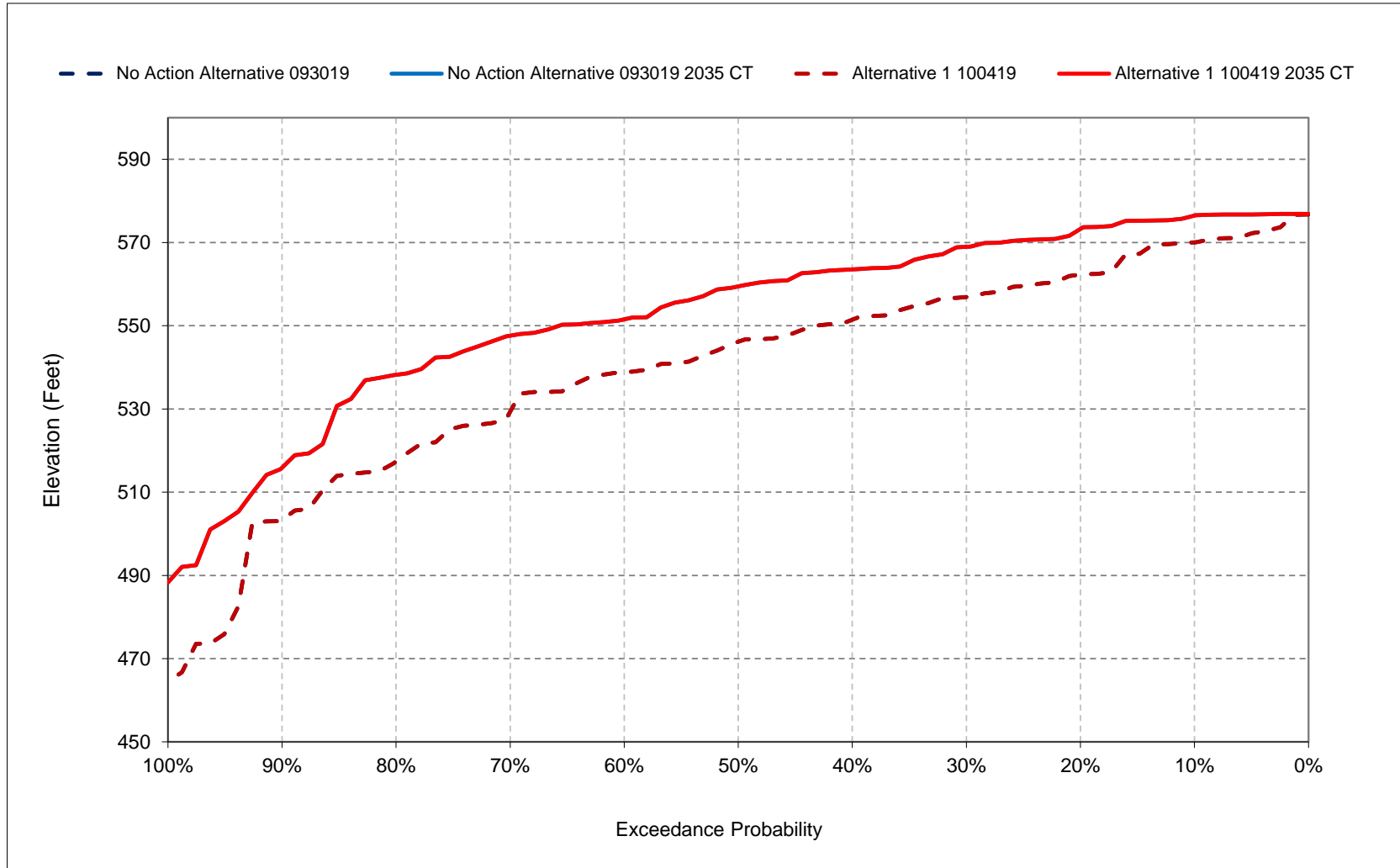
Figure 8a-12. Millerton Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

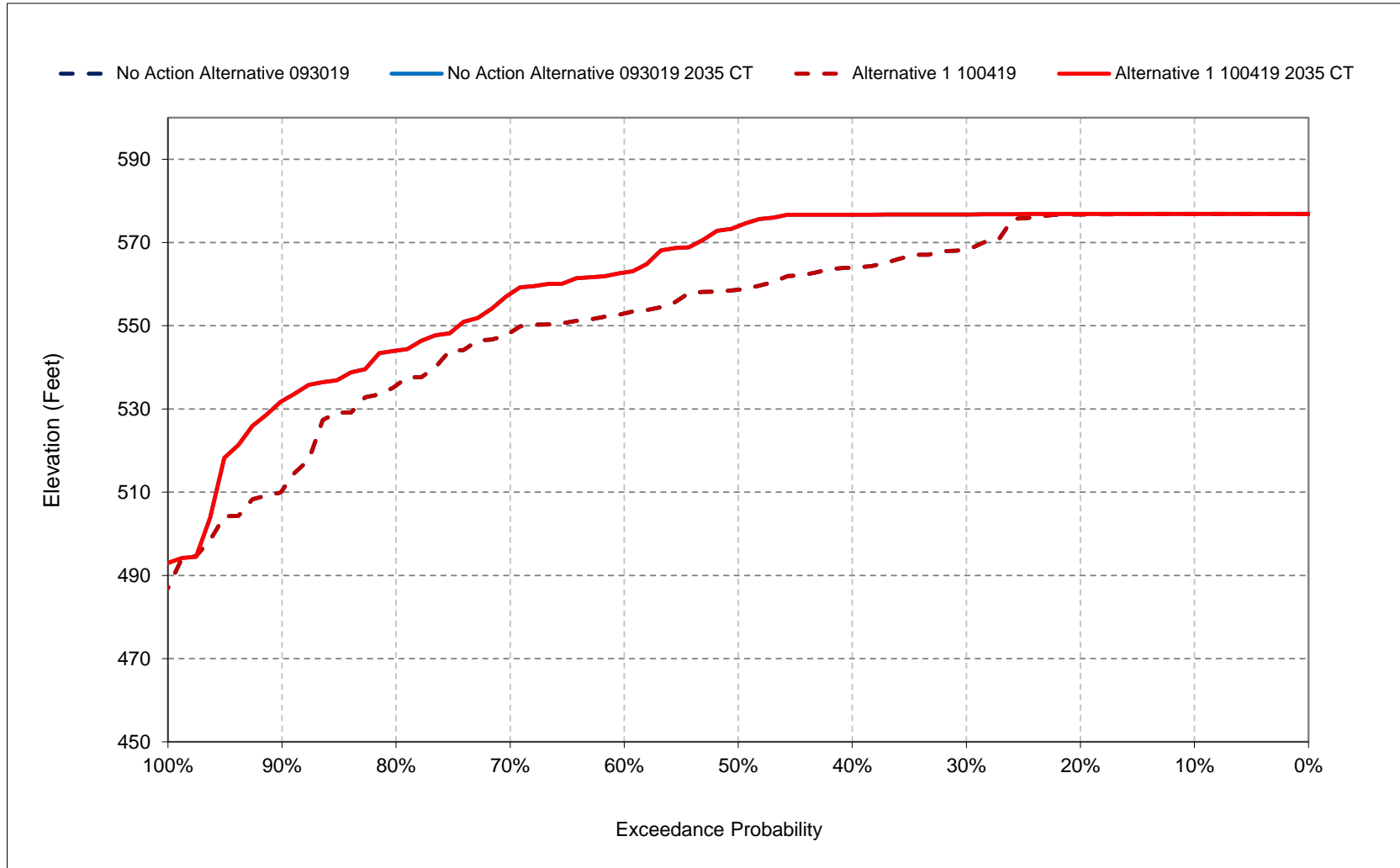
Figure 8a-13. Millerton Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

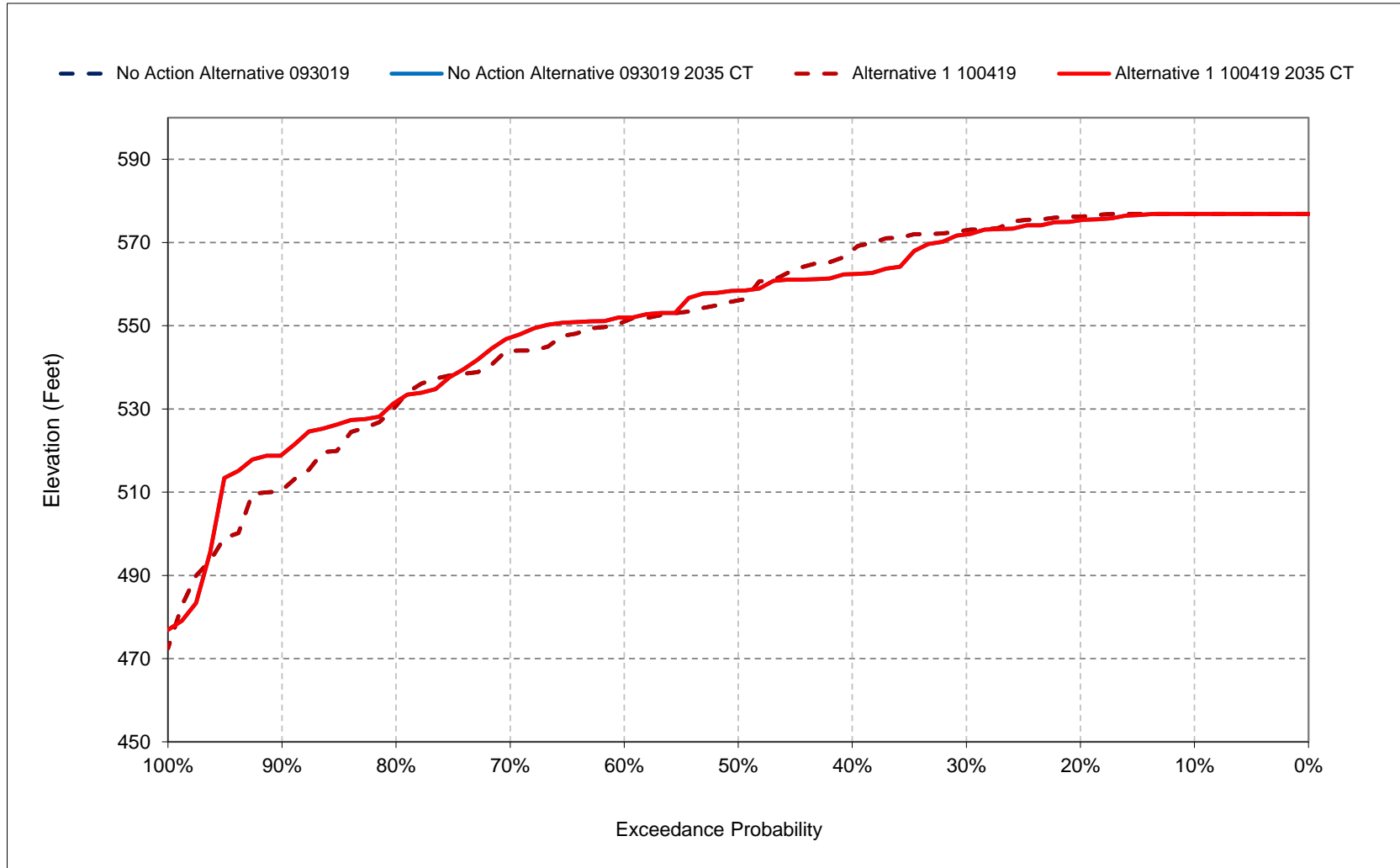
Figure 8a-14. Millerton Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

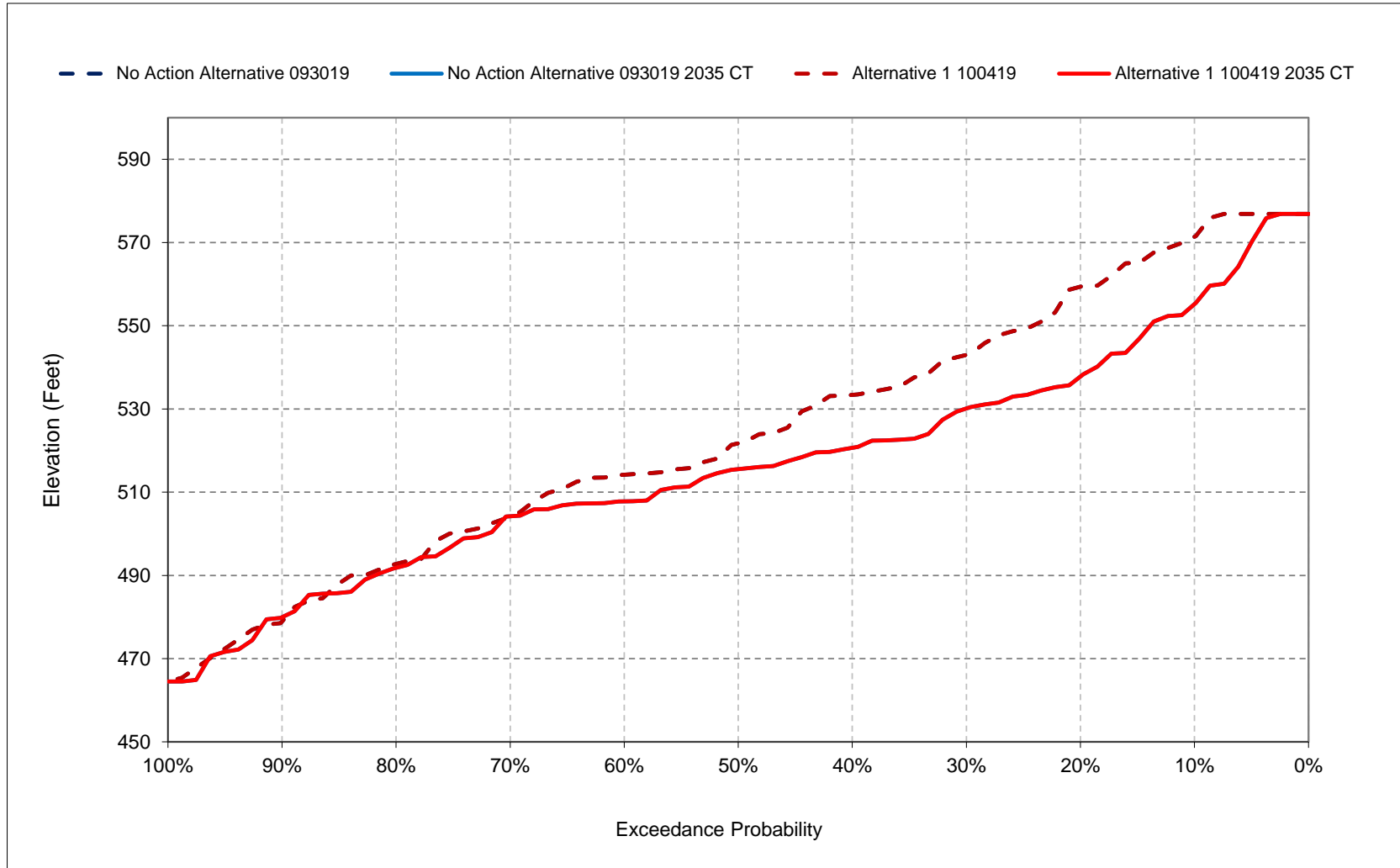
Figure 8a-15. Millerton Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

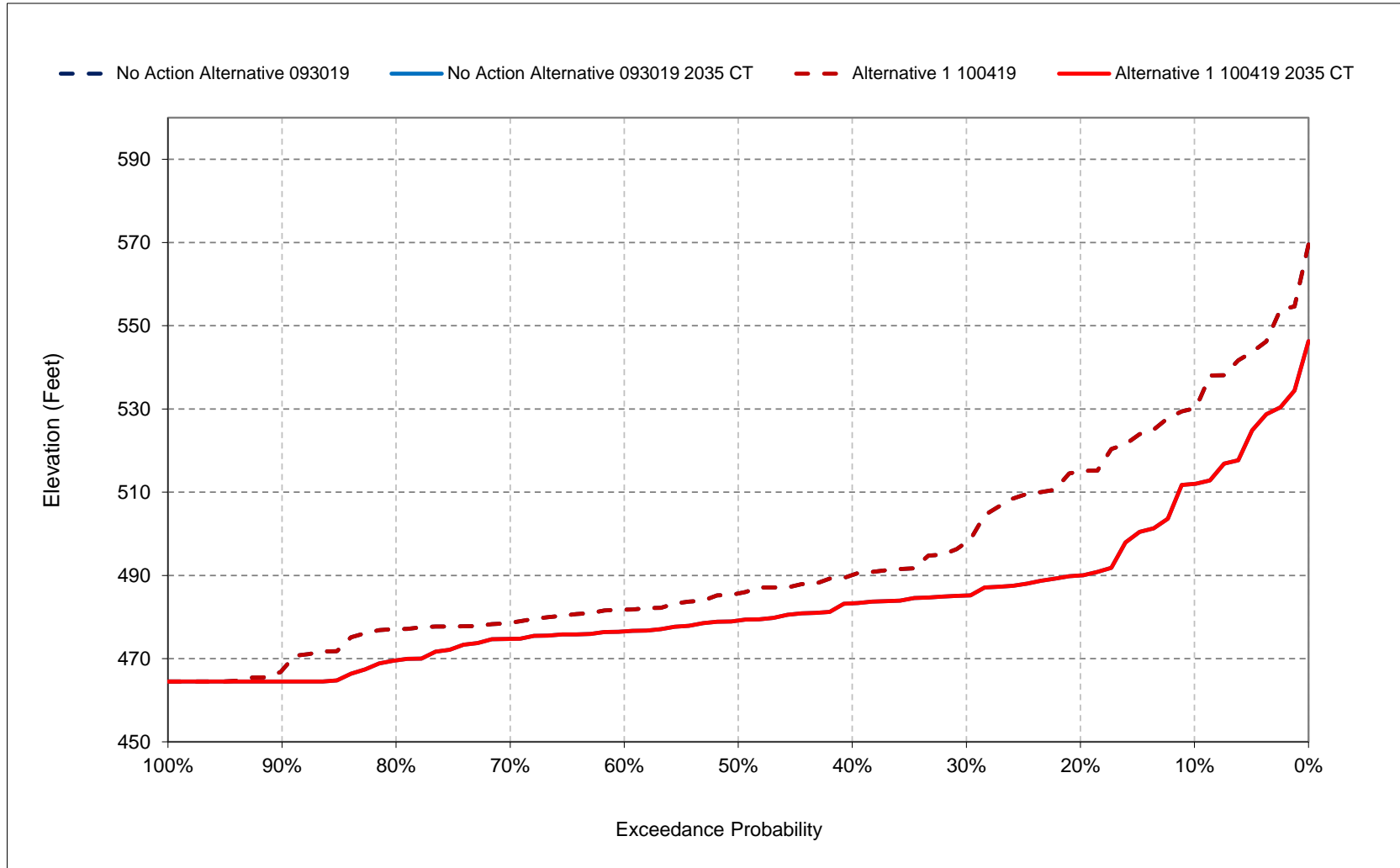
Figure 8a-16. Millerton Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

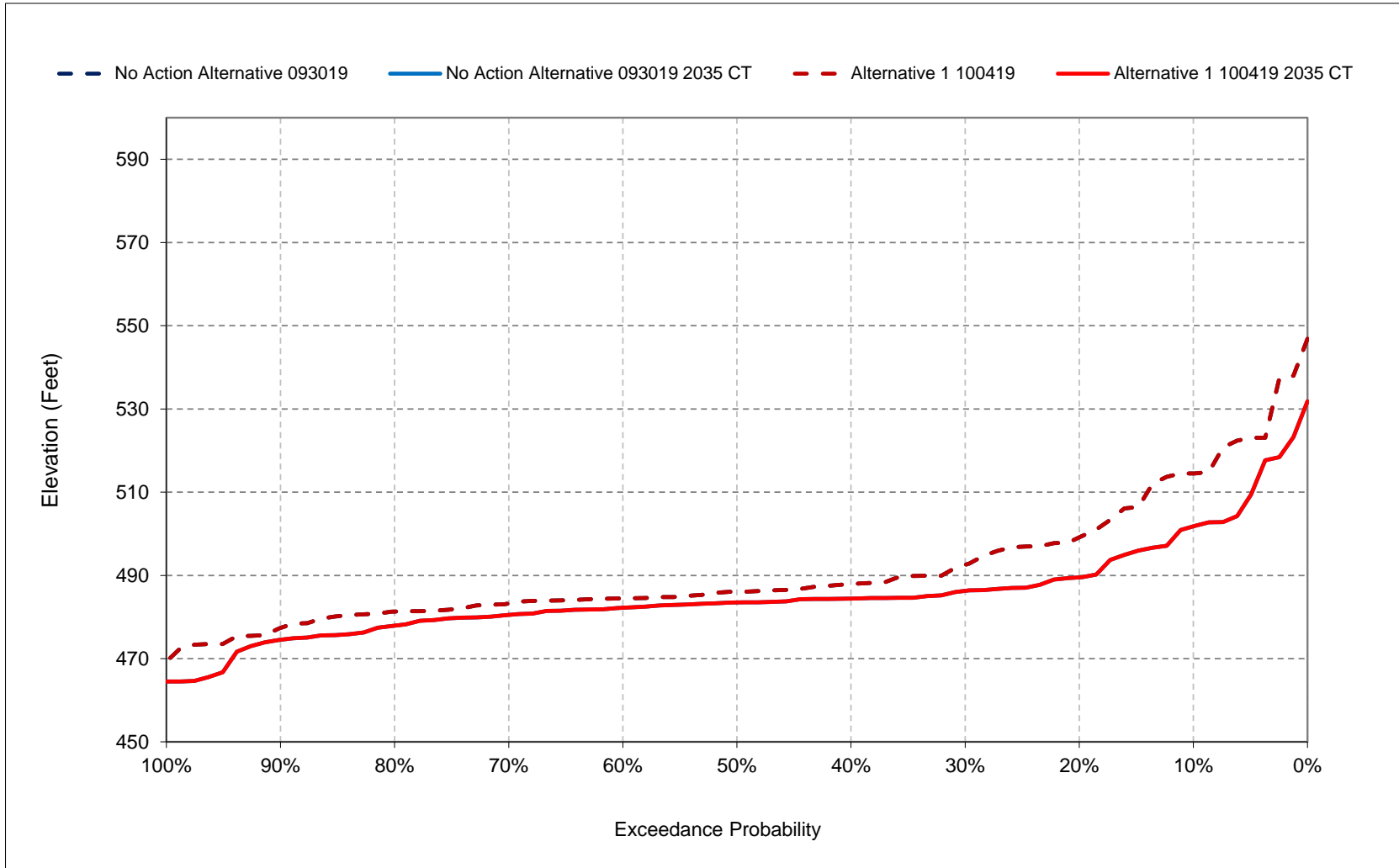
Figure 8a-17. Millerton Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8a-18. Millerton Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.2 – Flow Results (CalSim II)

The following results of the CalSim II model are included for river flow conditions for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity River Flow below Lewiston	C100	12-1 to 12-4	12-1 to 12-18
Clear Creek below Whiskeytown Dam Flow	C3	14-1 to 14-4	14-1 to 14-18
Sacramento River Flow downstream of Keswick Reservoir	C5	15-1 to 15-4	15-1 to 15-18
Sacramento Flow River at Bend Bridge	C109	16-1 to 16-4	16-1 to 16-18
Sacramento River below Red Bluff Diversion Dam Flow	C112	17-1 to 17-4	17-1 to 17-18
Sacramento River Flow at Hamilton City	C114	18-1 to 18-4	18-1 to 18-18
Sacramento River at Wilkins Slough Flow	C129	19-1 to 19-4	19-1 to 19-18
Feather River Flow downstream of Thermalito	C203	21-1 to 21-4	21-1 to 21-18
Feather River at Sacramento River Confluence Flow	C223	22-1 to 22-4	22-1 to 22-18
Fremont Weir Spills	D160	24-1 to 24-4	24-1 to 24-18
Yolo Bypass Flow	C157	25-1 to 25-4	25-1 to 25-18
American River below Nimbus Dam Flow	C9	27-1 to 27-4	27-1 to 27-18
American River at H Street	C303	28-1 to 28-4	28-1 to 28-18
Sacramento River Flow at Freeport	C169	29-1 to 29-4	29-1 to 29-18
Sacramento River Flow at Rio Vista (Alternative 3 revised DXC equation)	C405	32-1 to 32-4	32-1 to 32-18
San Joaquin River Flow at Gravelly Ford	C603	33-1 to 33-4	33-1 to 33-18
San Joaquin River Flow below Sack Dam	C608	34-1 to 34-4	34-1 to 34-18
San Joaquin River Flow below confluence with Merced	C620	35-1 to 35-4	35-1 to 35-18
Stanislaus River Flow below Goodwin	C520	37-1 to 37-4	37-1 to 37-18
Stanislaus River Flow at	C528	38-1 to 38-4	38-1 to 38-18

Mouth			
San Joaquin River at Vernalis	C639	39-1 to 39-4	39-1 to 39-18
San Joaquin River at Vernalis (60-20-20)	C639	39b-1 to 39b-4	39b-1 to 39b-18
Old and Middle River Flow	C408	40-1 to 40-4	40-1 to 40-18
Delta Outflow	C406	41-1 to 41-4	41-1 to 41-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 12-1. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	532	1,219	501	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	356	639	698	678	658	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,192	1,555	1,250	1,348	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	678	652	300	545	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	582	300	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	275	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,372	2,099	1,544	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	346	672	728	739	694	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,297	1,650	1,293	1,462	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	593	652	300	803	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	630	303	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	300	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	839	880	1,043	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	-10	33	30	61	36	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	105	95	42	114	0	0	0	0	0	0
Above Normal (16%)	0	-86	0	0	258	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	47	3	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	25	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 12-2. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,539	2,881	1,775	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	347	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	306	513	784	875	764	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	761	1,811	1,490	1,658	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	338	720	330	1,018	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	2,881	3,926	2,167	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	350	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	307	672	853	970	804	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	1,264	1,967	1,592	1,785	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	341	720	452	1,411	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,341	1,045	391	0	0	0	0	0	0
20%	0	0	0	0	3	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	1	159	69	95	40	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	502	156	102	127	0	0	0	0	0	0
Above Normal (16%)	0	4	0	122	393	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 12-3. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	532	1,219	501	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	356	639	698	678	658	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,192	1,555	1,250	1,348	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	678	652	300	545	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	582	300	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	275	300	300	300	300	575	2,092	783	450	870	798

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,539	2,881	1,775	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	347	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	306	513	784	875	764	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	761	1,811	1,490	1,658	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	338	720	330	1,018	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,007	1,661	1,275	0	0	0	0	0	0
20%	0	0	0	0	47	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	139	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	33	143	0	0	0	0
Long Term												
Full Simulation Period ^d	5	-50	-126	86	197	106	86	34	-139	-27	26	36
Water Year Types^{b,c}												
Wet (32%)	0	0	-431	256	240	310	273	16	-242	-59	48	48
Above Normal (16%)	0	-341	68	30	473	46	5	21	-323	0	65	65
Below Normal (13%)	0	0	0	0	345	0	-4	62	-85	-59	0	0
Dry (24%)	0	0	0	0	0	0	-3	71	0	0	0	0
Critical (15%)	31	25	0	0	0	0	0	0	0	0	0	73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 12-4. Trinity River Flow below Lewiston, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,372	2,099	1,544	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	346	672	728	739	694	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,297	1,650	1,293	1,462	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	593	652	300	803	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	630	303	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	300	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	2,881	3,926	2,167	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	350	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	307	672	853	970	804	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	1,264	1,967	1,592	1,785	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	341	720	452	1,411	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,509	1,826	623	0	0	0	0	0	0
20%	0	0	0	0	50	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	139	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	33	143	0	0	0	0
Long Term												
Full Simulation Period ^d	5	-40	0	125	231	109	86	34	-139	-27	26	36
Water Year Types^{b,c}												
Wet (32%)	0	0	-34	317	299	323	273	16	-242	-59	48	48
Above Normal (16%)	0	-251	68	152	607	46	5	21	-323	0	65	65
Below Normal (13%)	0	0	0	0	298	-3	-4	62	-85	-59	0	0
Dry (24%)	0	0	0	0	0	0	-3	71	0	0	0	0
Critical (15%)	31	0	0	0	0	0	0	0	0	0	0	73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

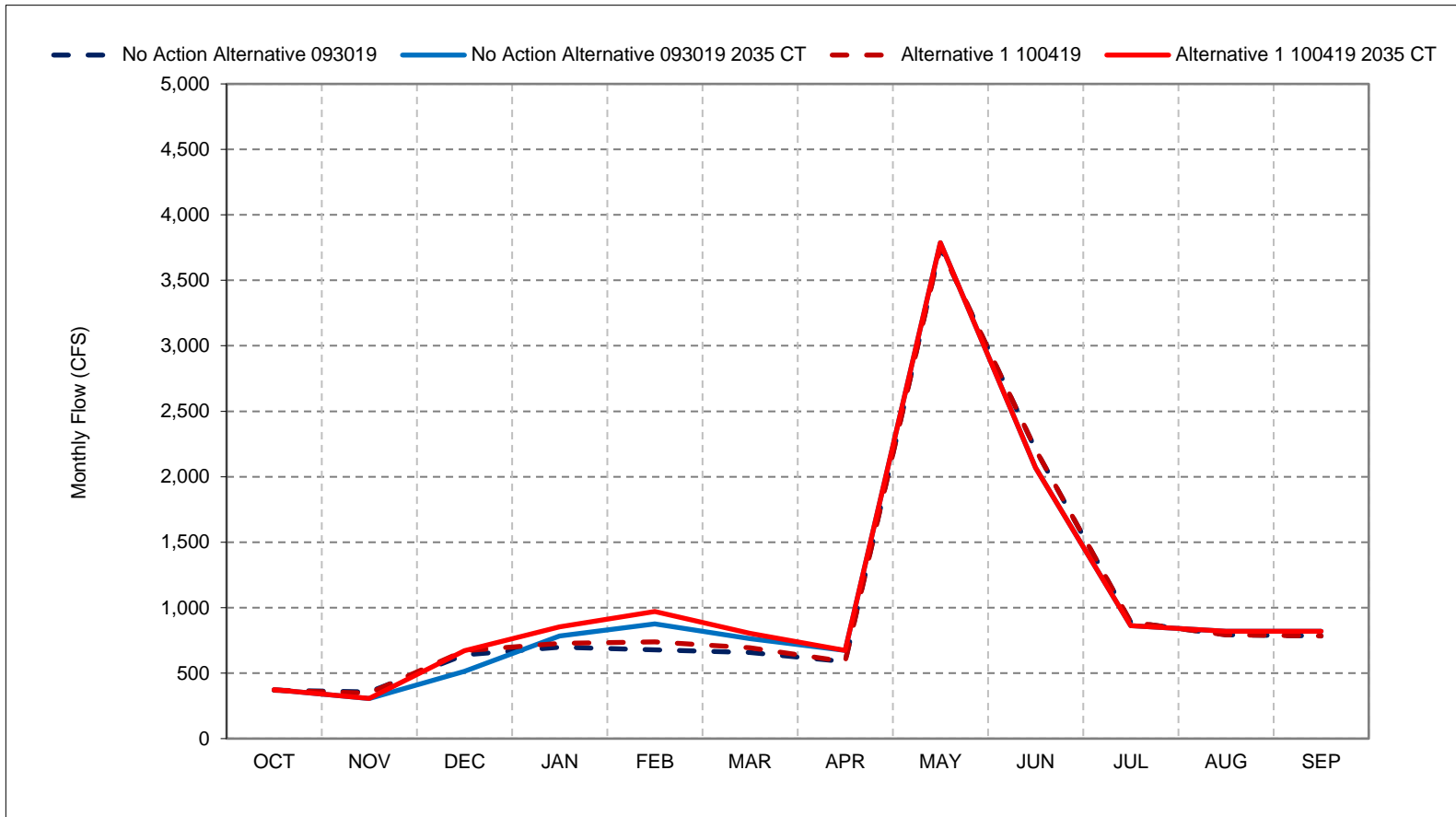
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 12-1. Trinity River Flow below Lewiston, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

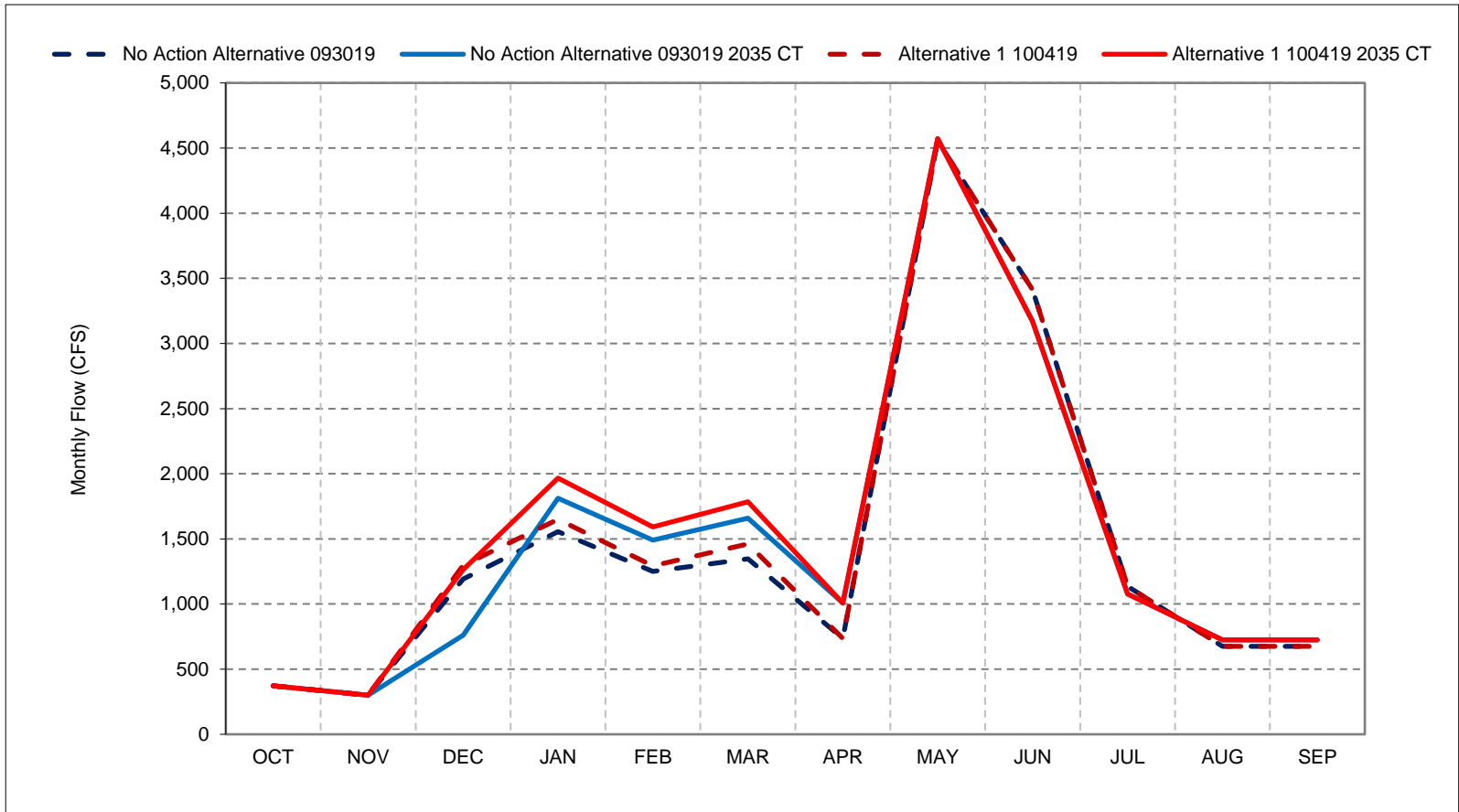
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-2. Trinity River Flow below Lewiston, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

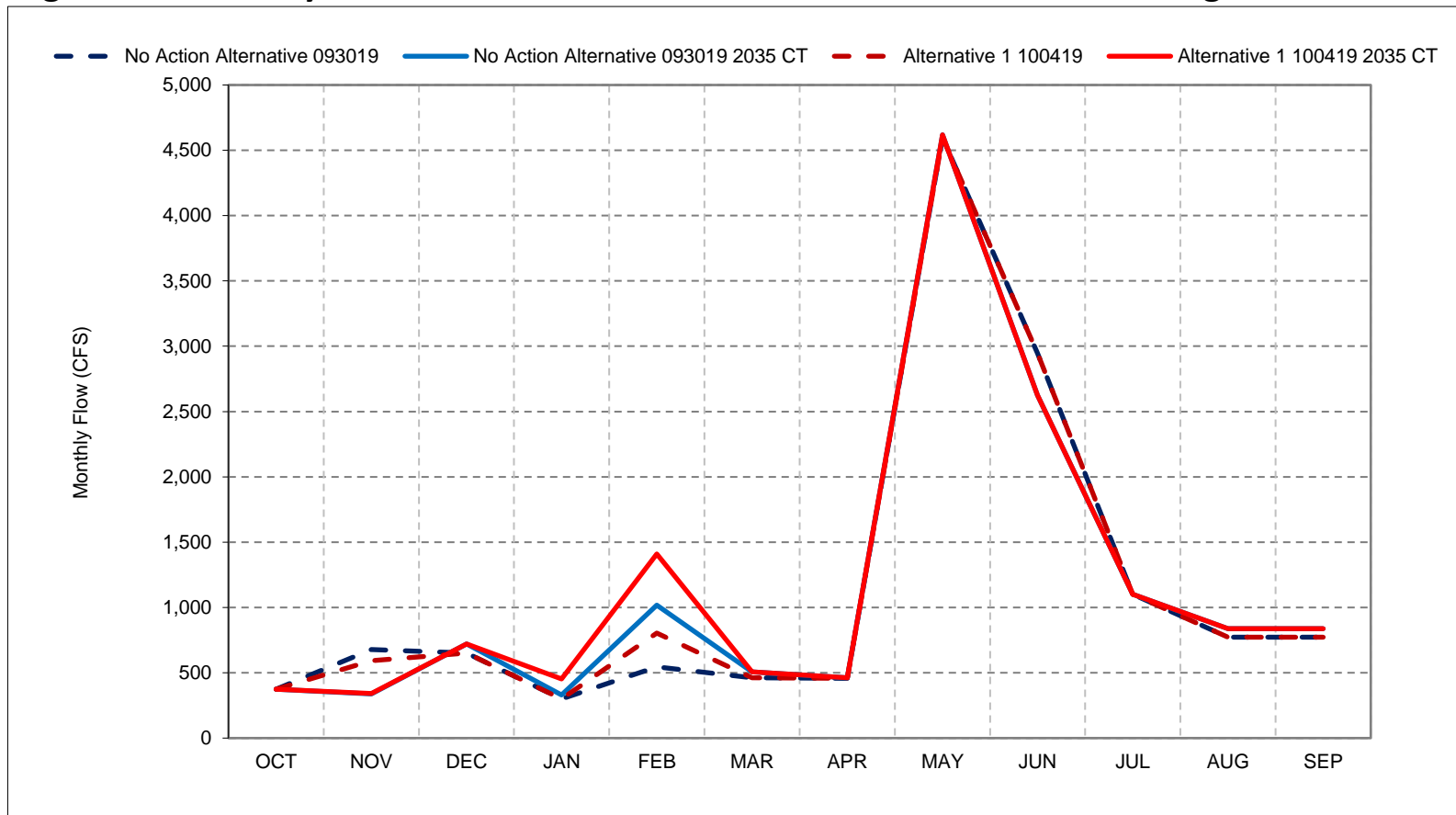
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-3. Trinity River Flow below Lewiston, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

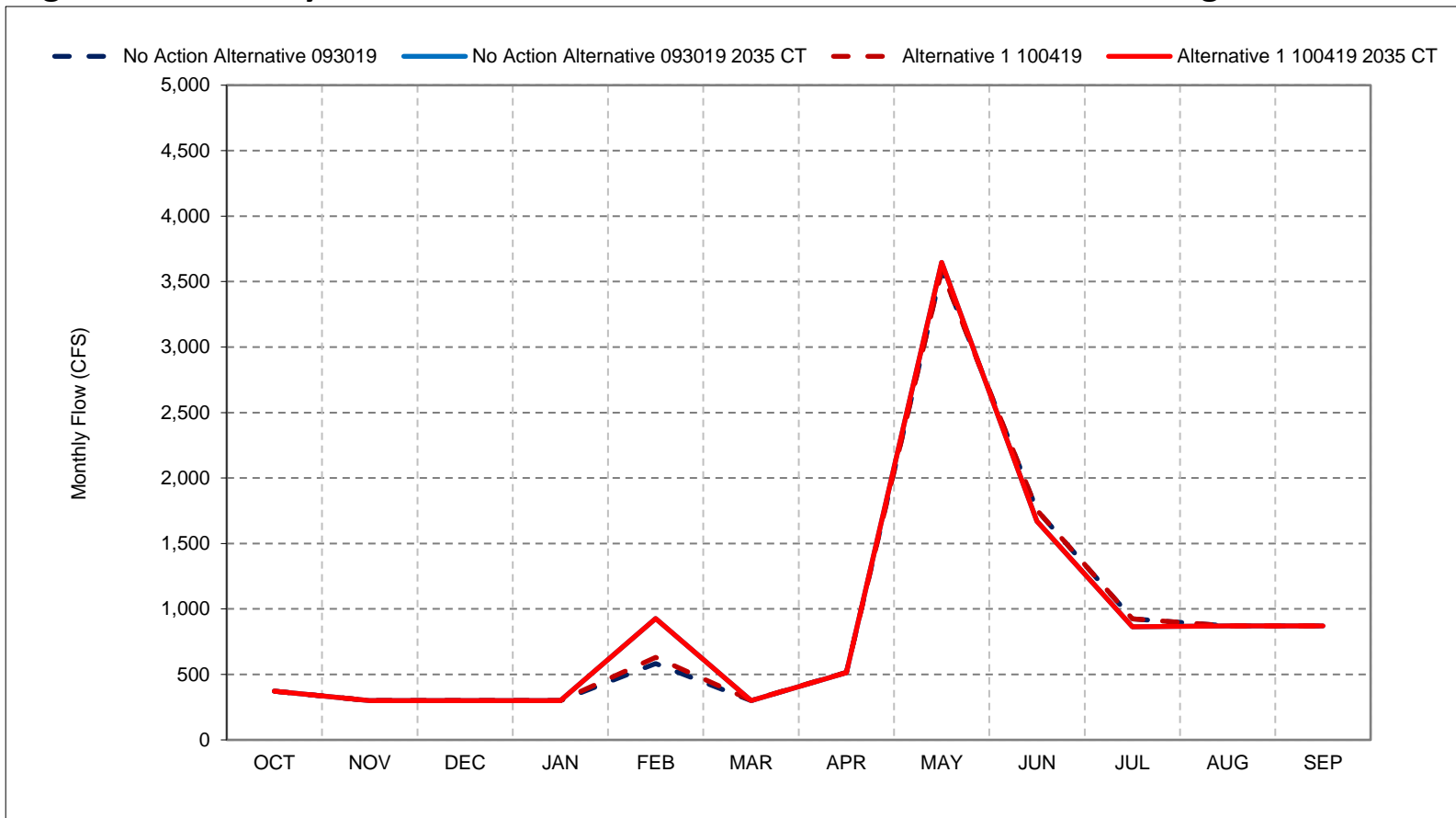
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-4. Trinity River Flow below Lewiston, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

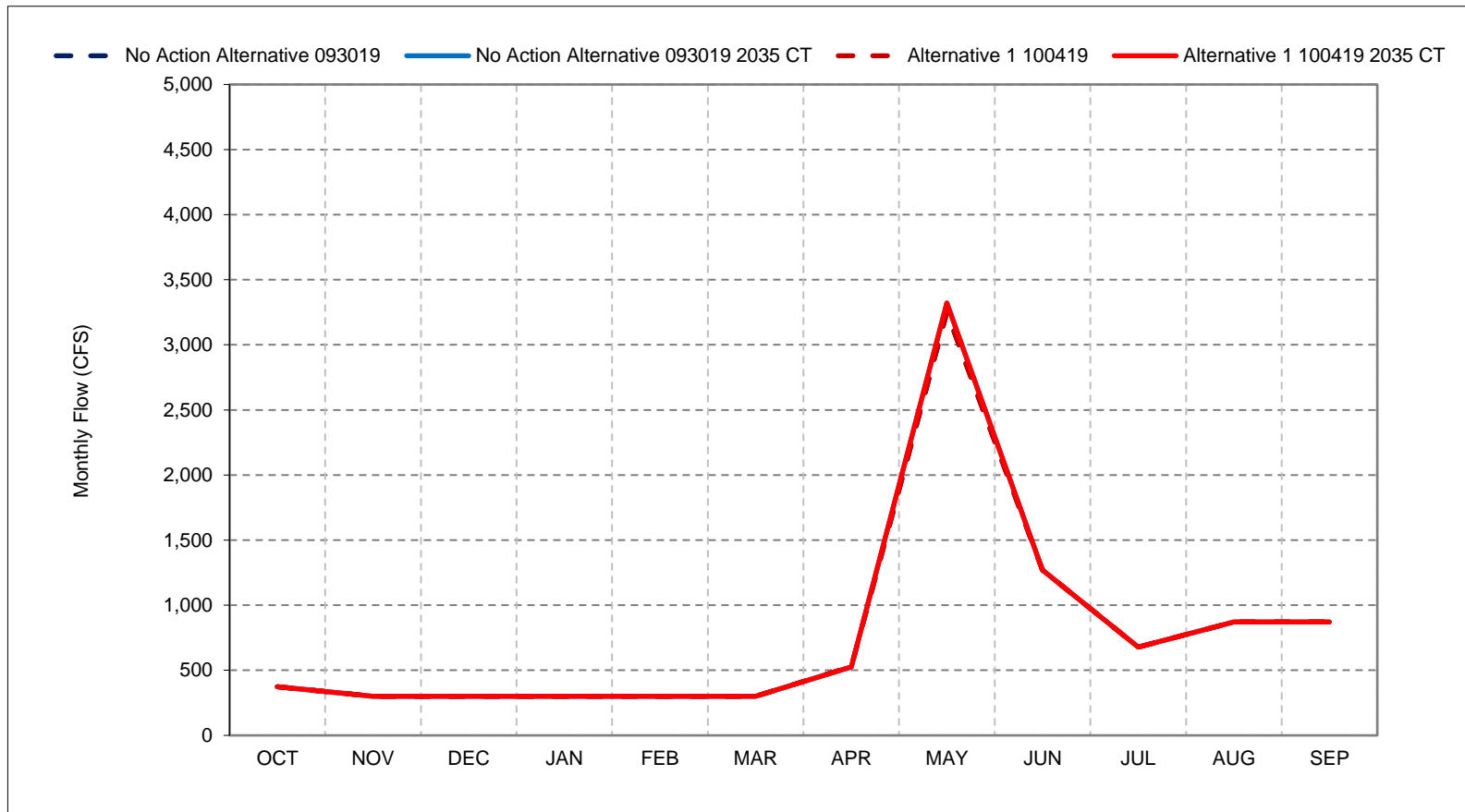
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-5. Trinity River Flow below Lewiston, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

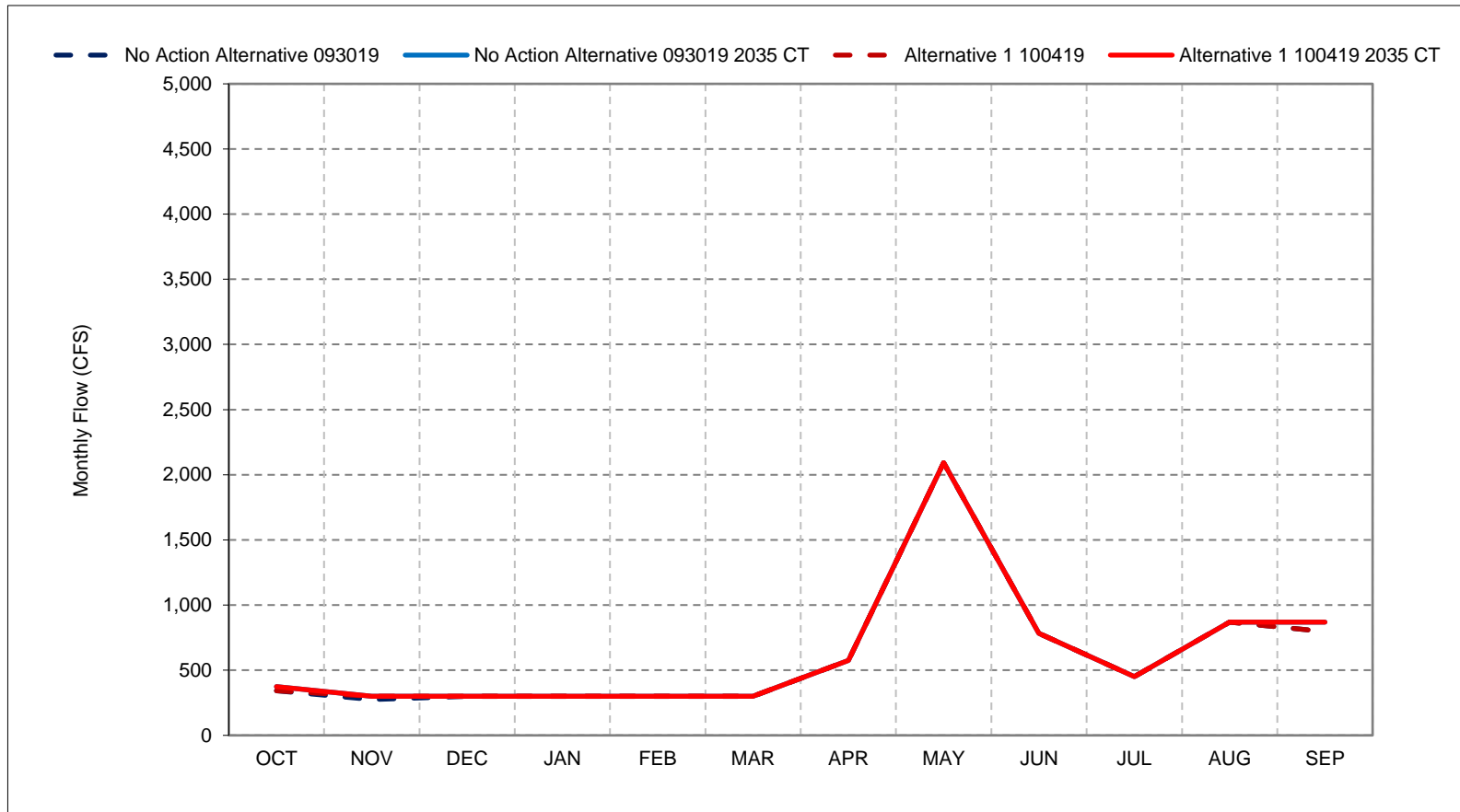
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-6. Trinity River Flow below Lewiston, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

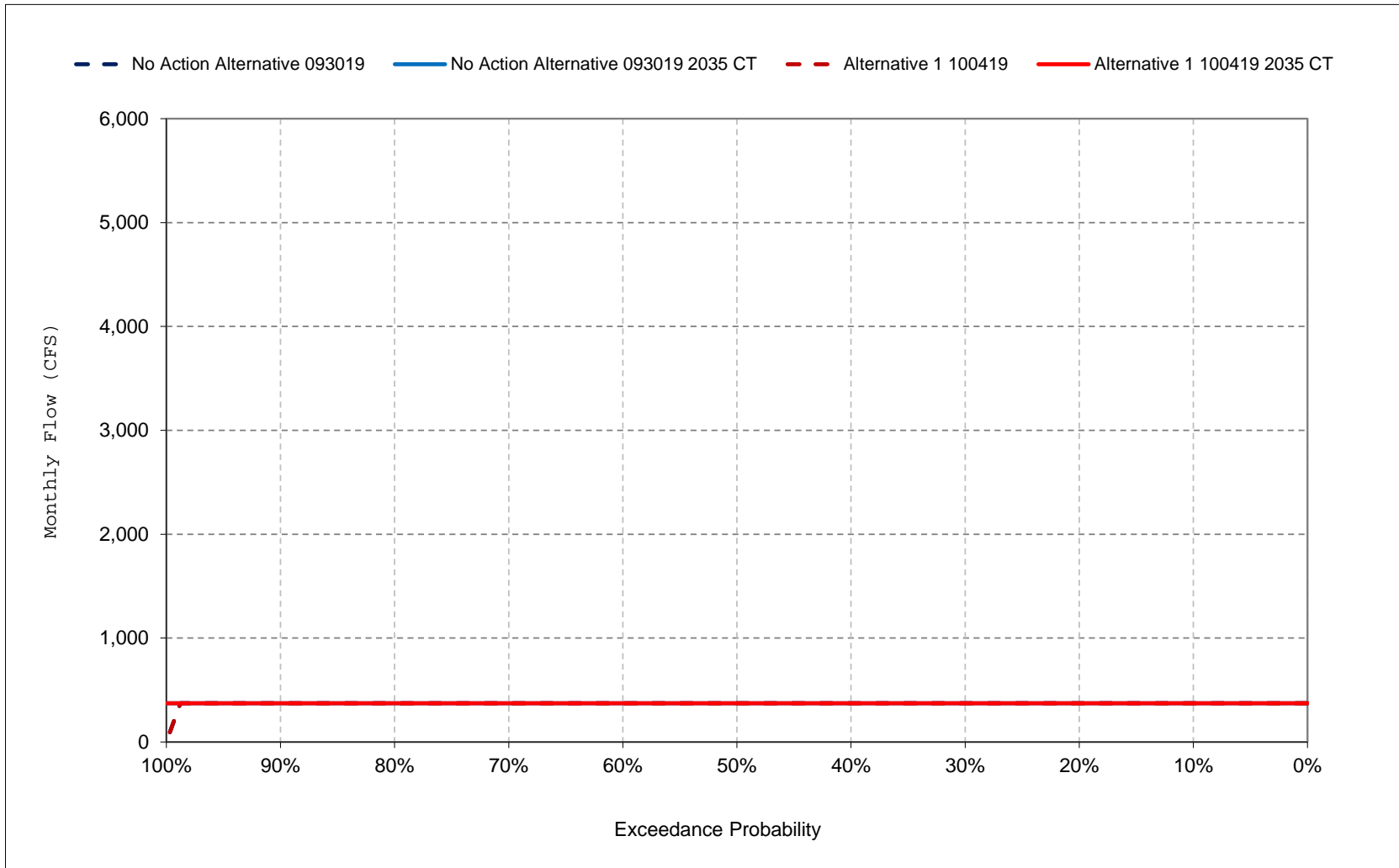
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

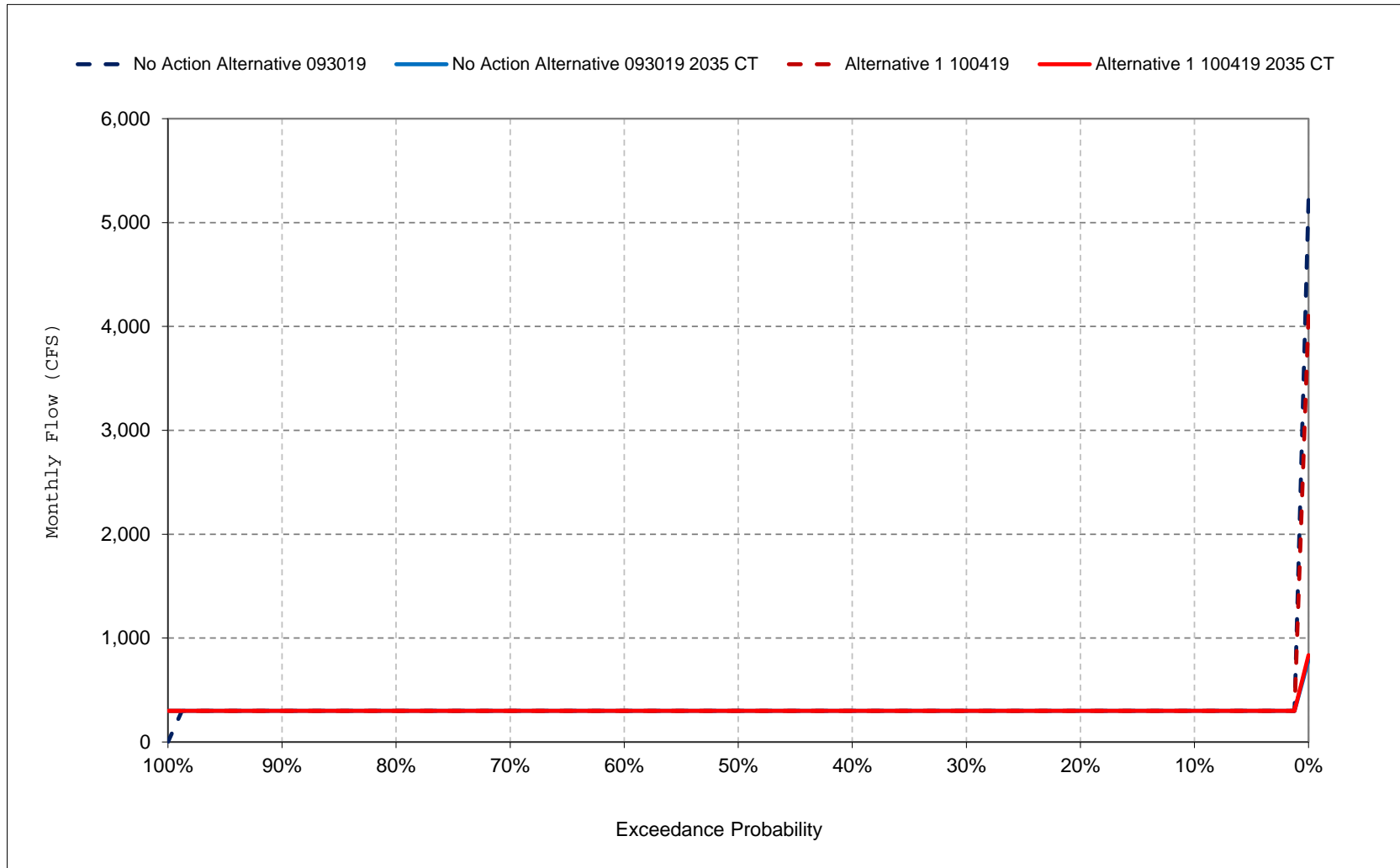
Figure 12-7. Trinity River Flow below Lewiston, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

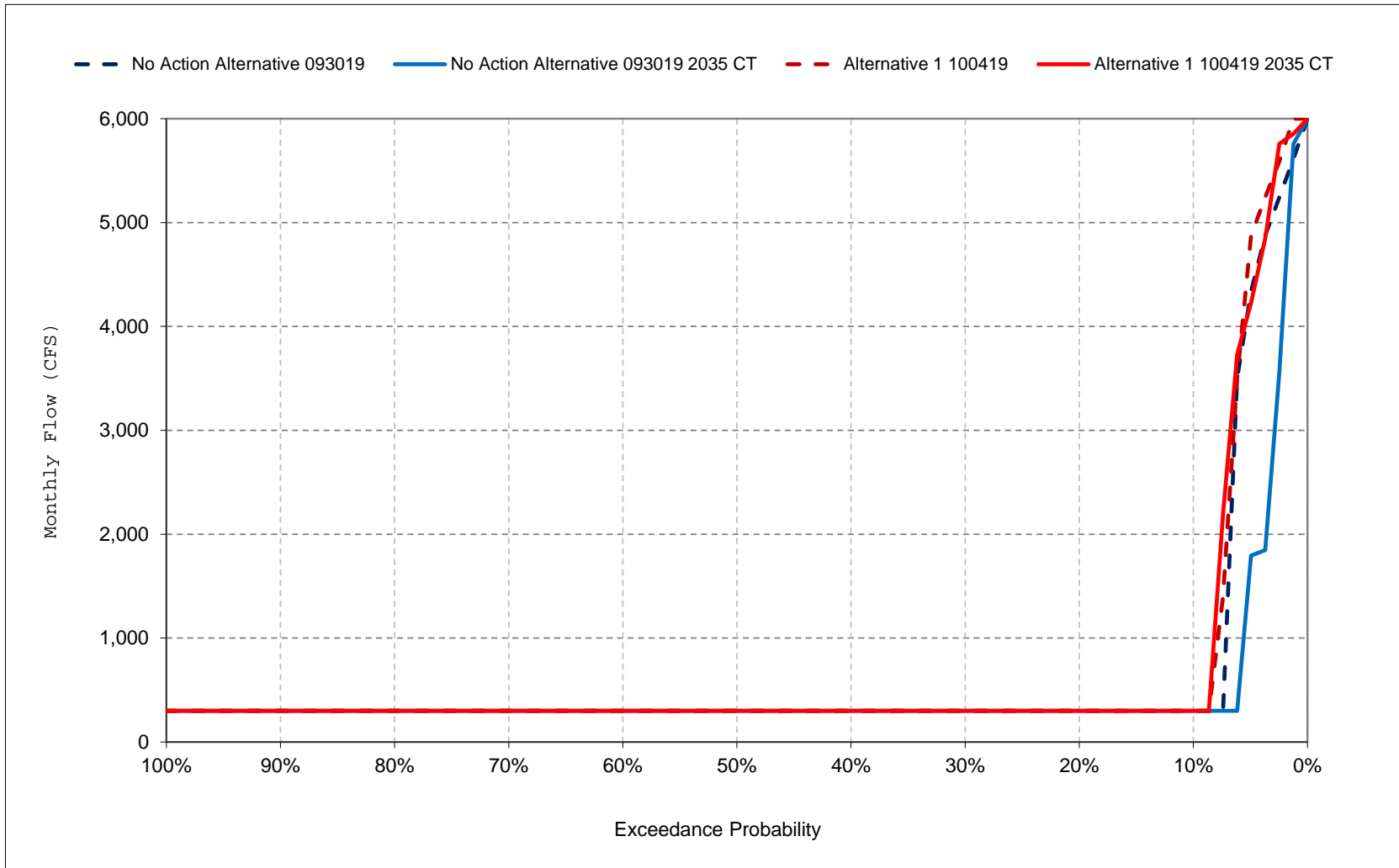
Figure 12-8. Trinity River Flow below Lewiston, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

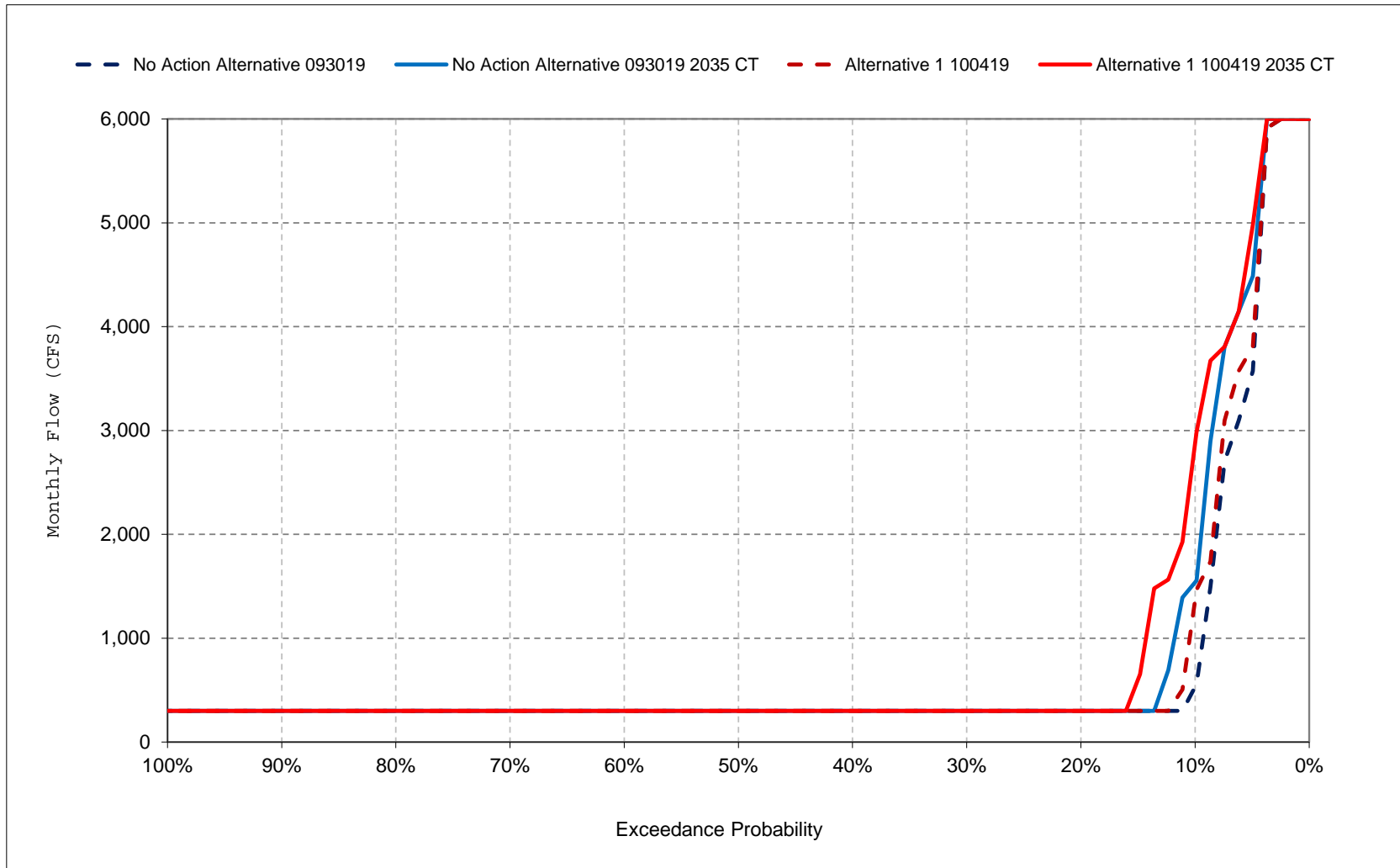
Figure 12-9. Trinity River Flow below Lewiston, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

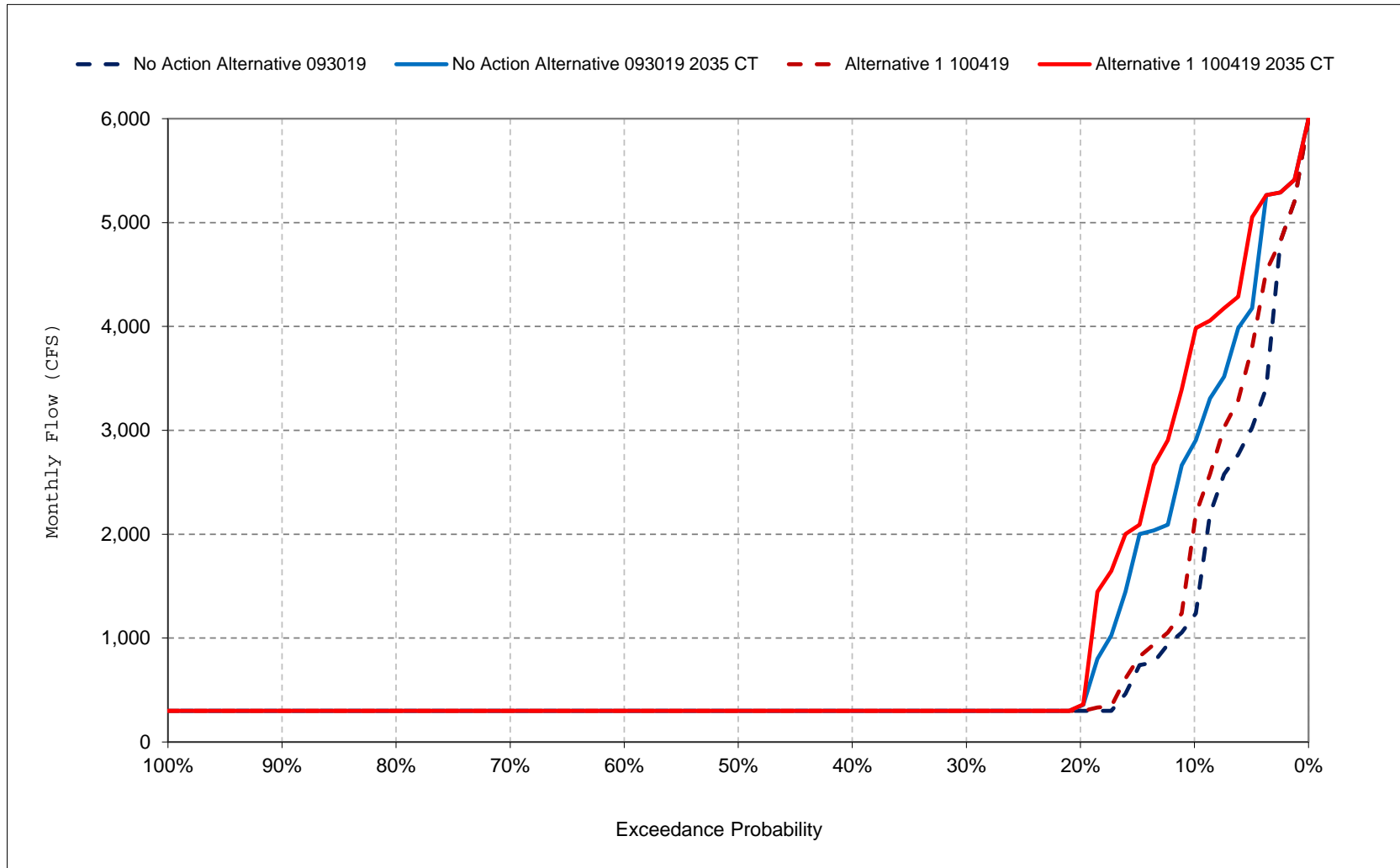
Figure 12-10. Trinity River Flow below Lewiston, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

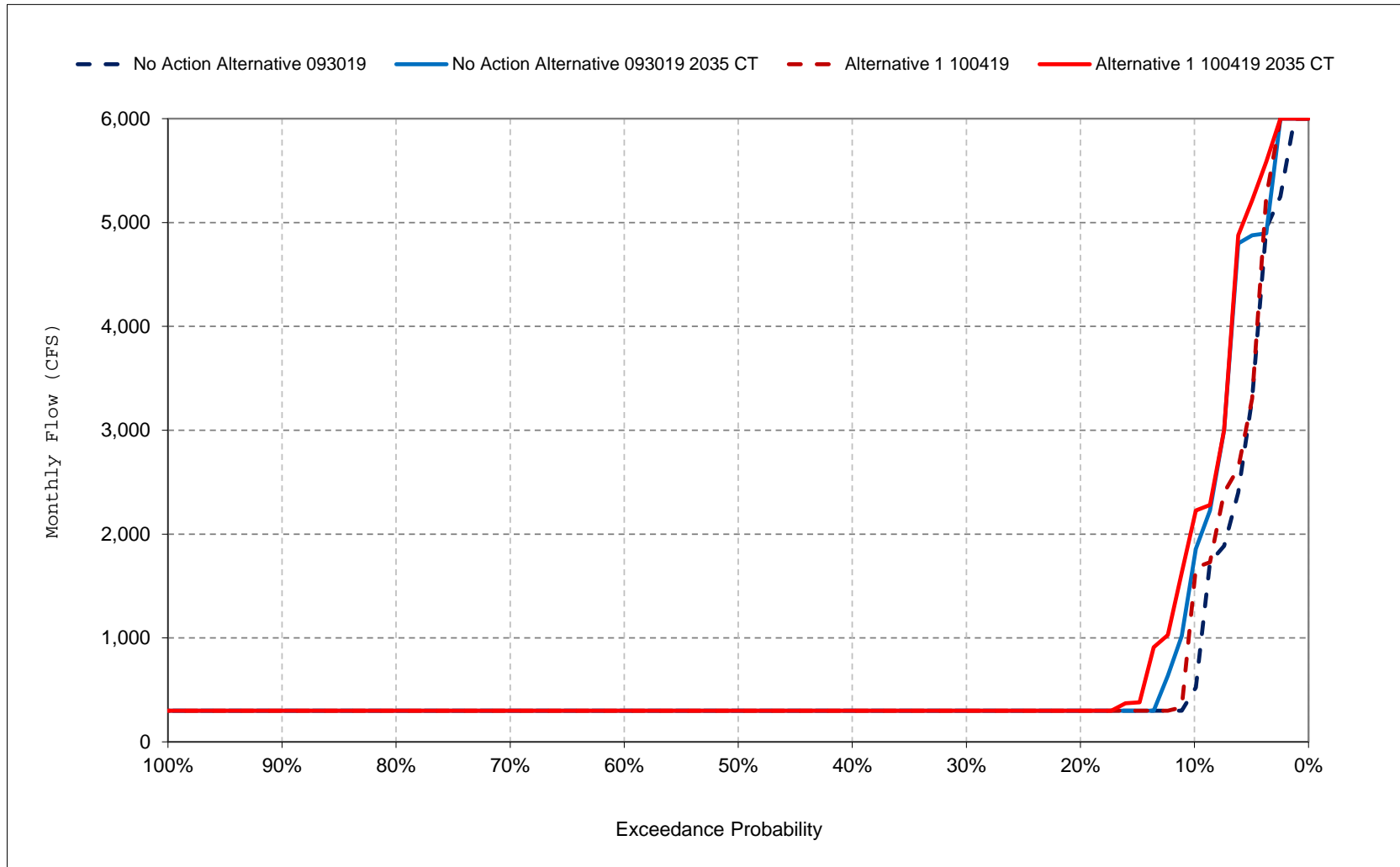
Figure 12-11. Trinity River Flow below Lewiston, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

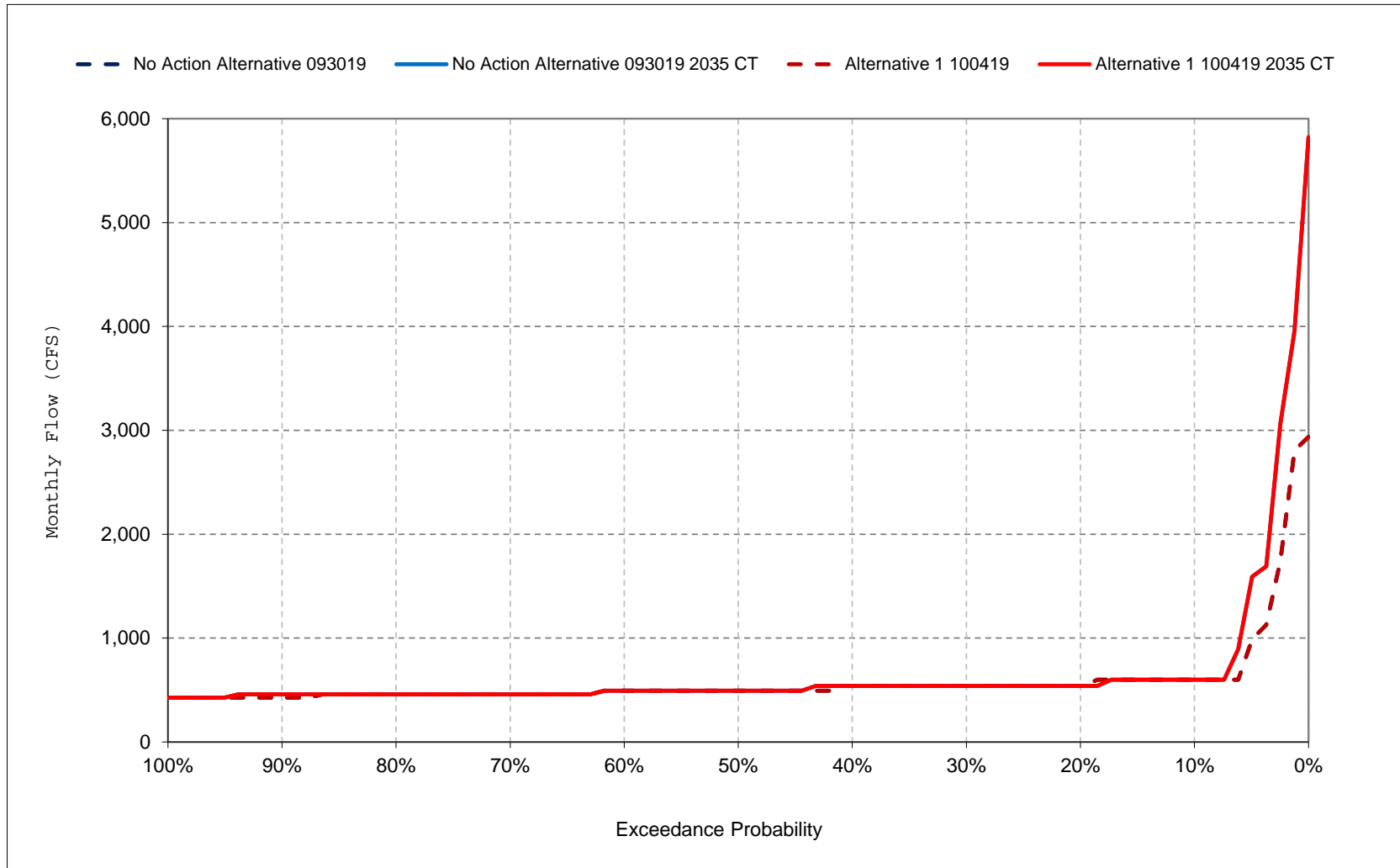
Figure 12-12. Trinity River Flow below Lewiston, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

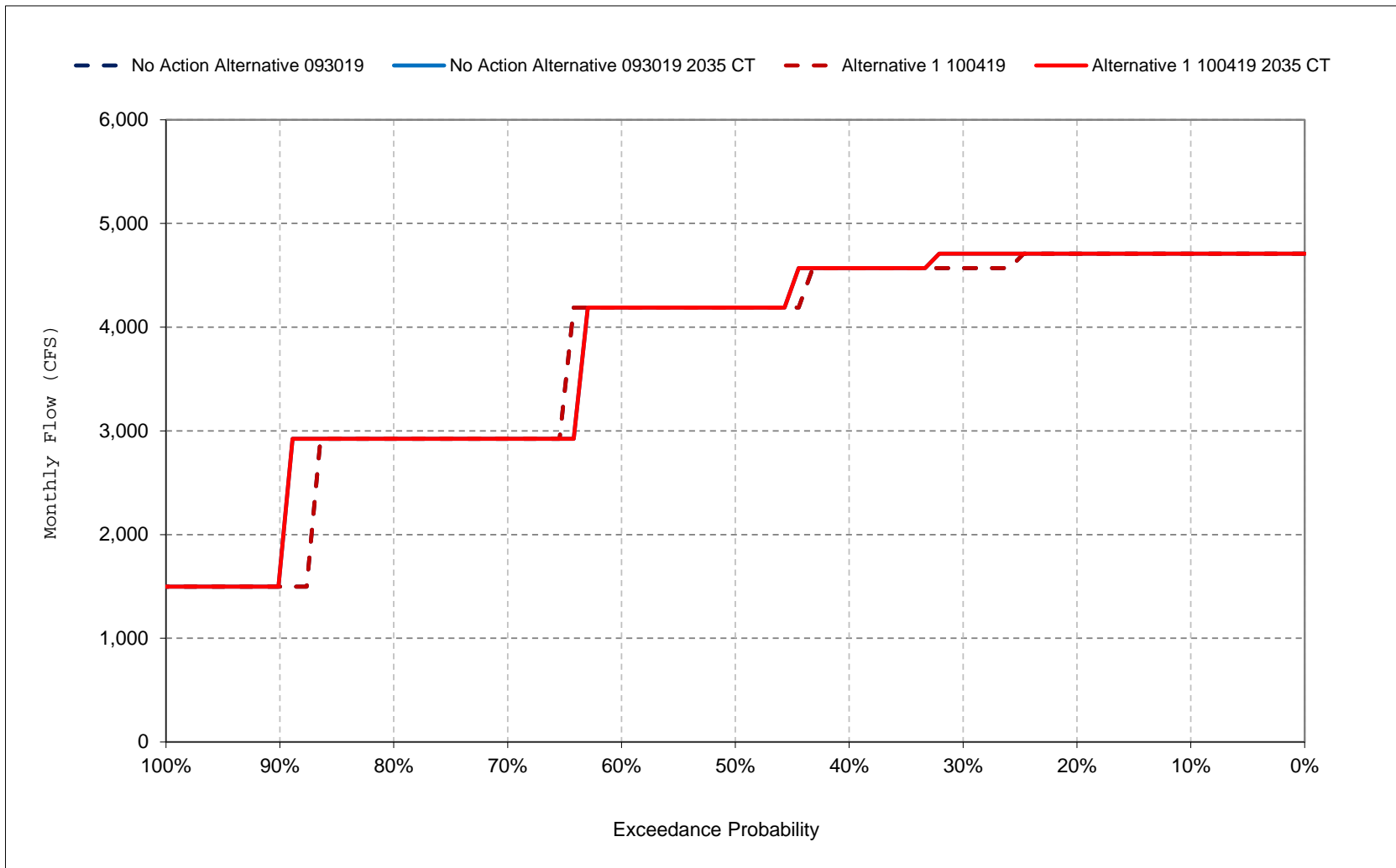
Figure 12-13. Trinity River Flow below Lewiston, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

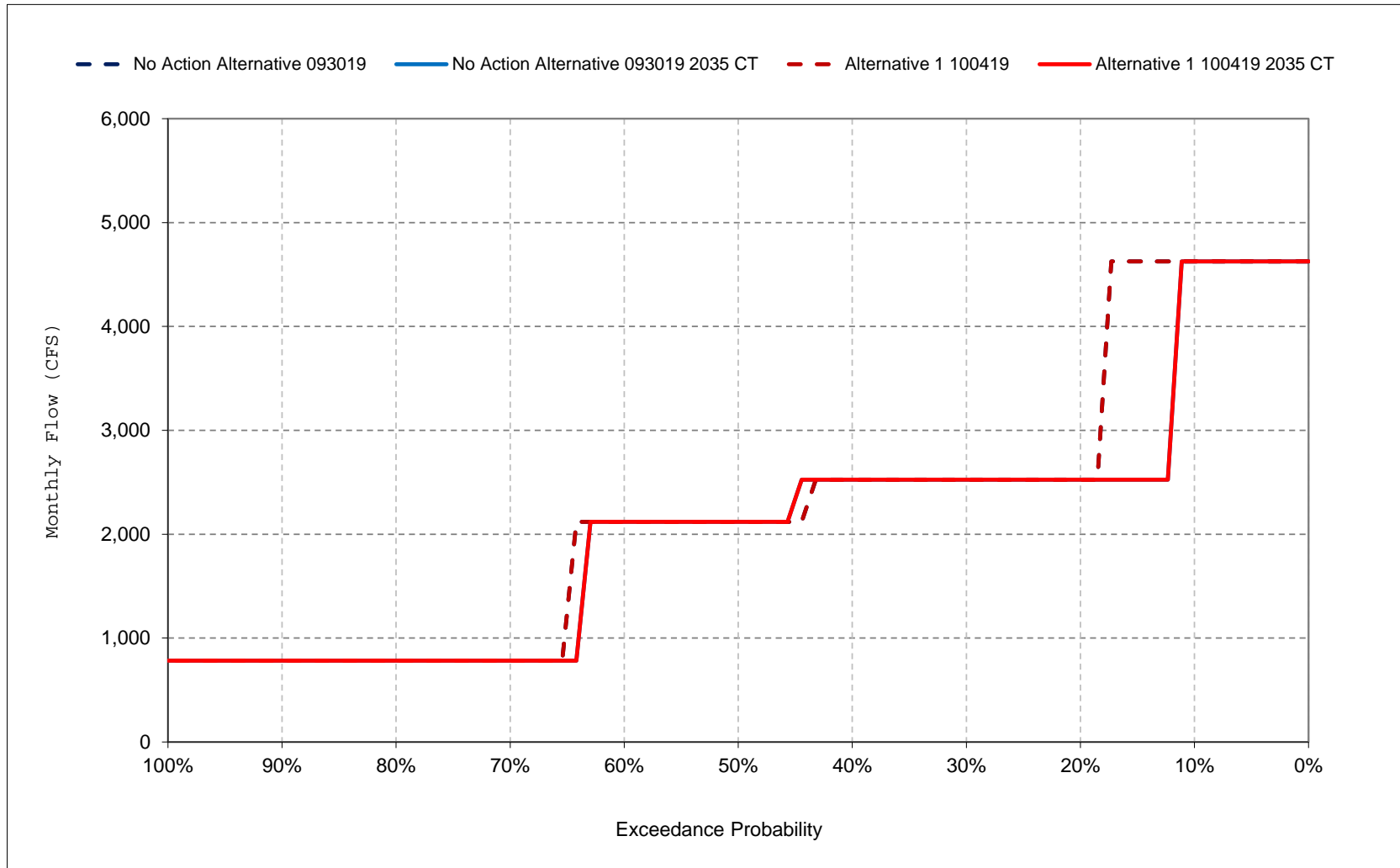
Figure 12-14. Trinity River Flow below Lewiston, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

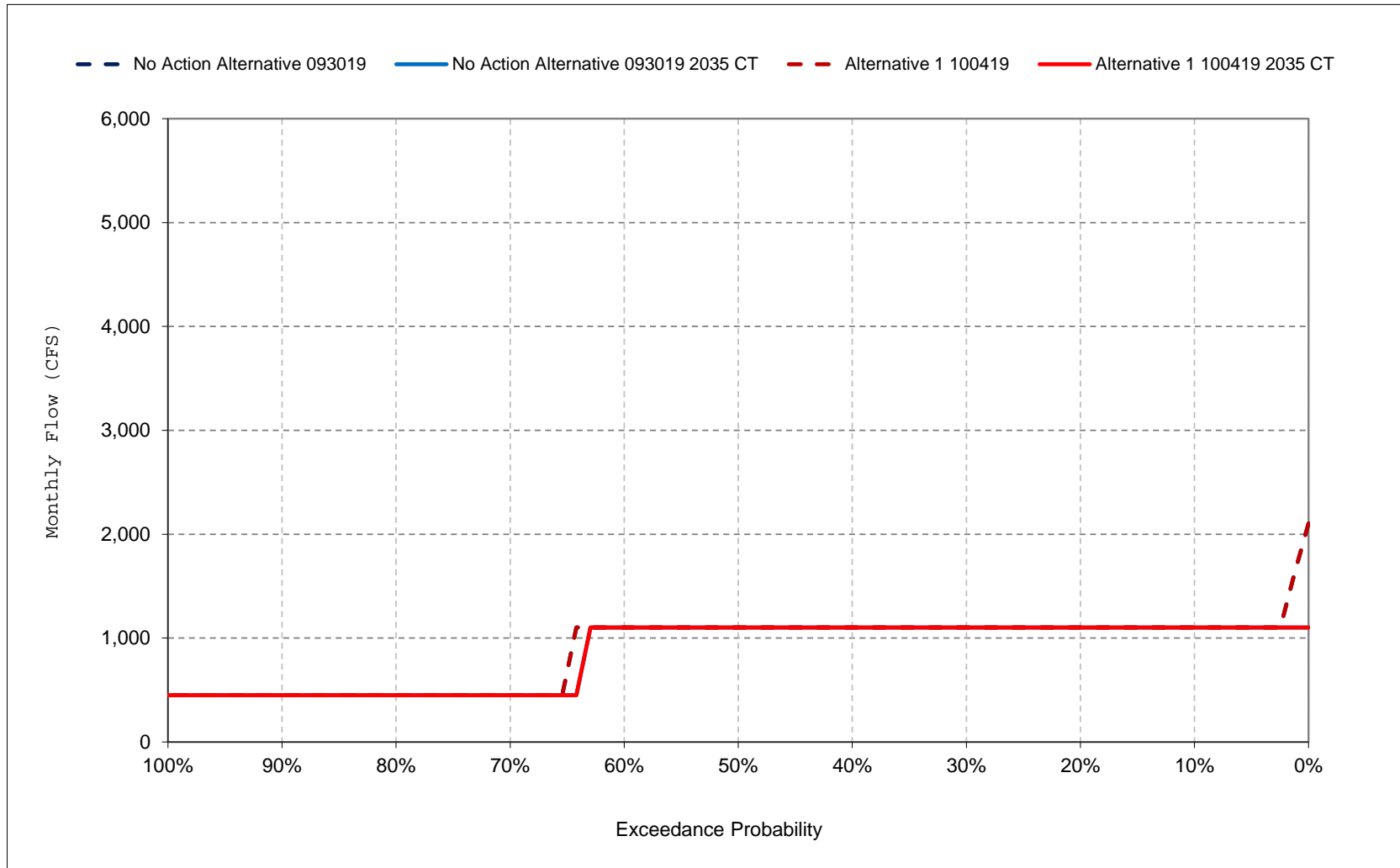
Figure 12-15. Trinity River Flow below Lewiston, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

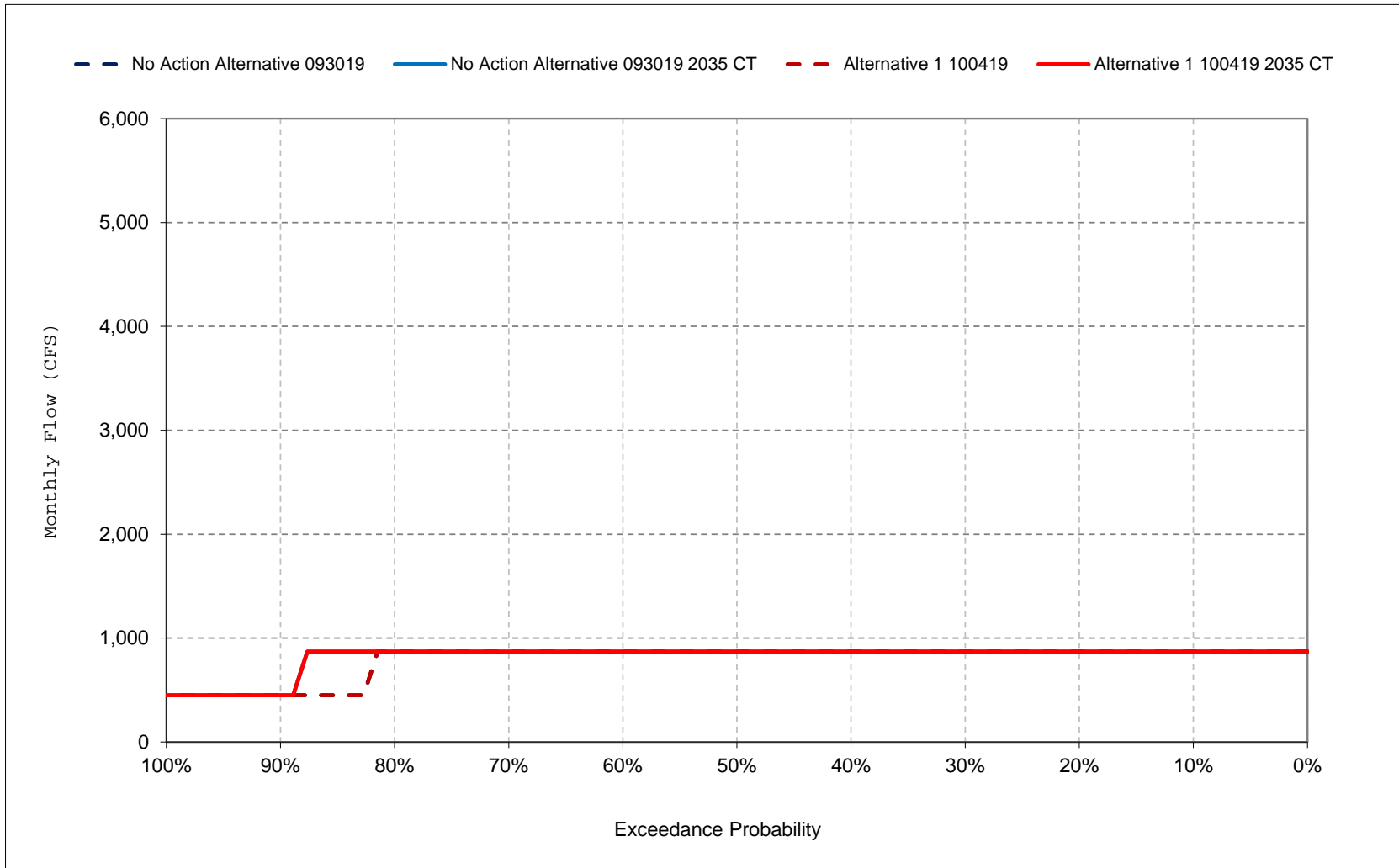
Figure 12-16. Trinity River Flow below Lewiston, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

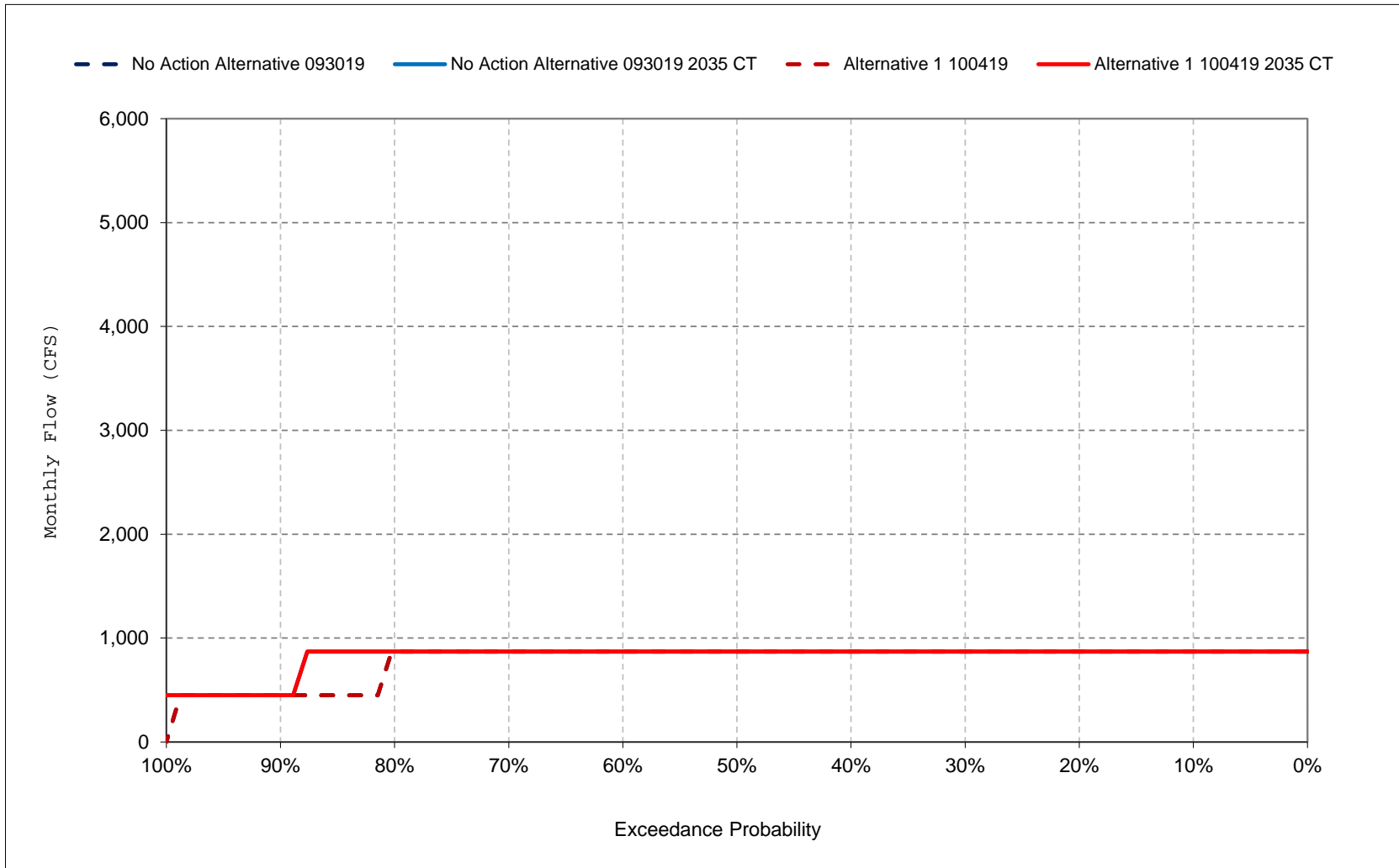
Figure 12-17. Trinity River Flow below Lewiston, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 12-18. Trinity River Flow below Lewiston, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-1. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	188	190	225	207	194	191	265	181	86	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	249	207	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	141	154	167	167	167	167	214	111	90	85	133

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	150	150	150	155	200	200	200	237	318	150	150	150
Long Term												
Full Simulation Period ^d	194	194	194	229	319	195	197	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	421	192	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	378	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	200	200	200	277	318	150	150	150
Critical (15%)	158	158	158	179	179	179	179	244	318	150	150	150

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	180	0	0	0	118	65	65	0
20%	0	0	0	0	180	0	0	0	118	65	65	0
30%	0	0	0	0	180	0	0	0	118	65	65	0
40%	0	0	0	0	180	0	0	0	118	65	65	0
50%	0	0	0	0	174	0	0	0	118	65	65	0
60%	0	0	0	0	174	0	0	0	118	65	65	0
70%	0	0	0	0	0	0	0	0	118	65	65	0
80%	0	0	0	0	0	0	0	0	168	65	65	0
90%	0	0	0	5	50	50	50	0	168	65	65	0
Long Term												
Full Simulation Period ^d	7	6	4	4	112	1	5	7	137	64	65	2
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	172	-14	0	0	118	65	65	0
Above Normal (16%)	0	0	0	0	182	4	4	0	118	65	65	0
Below Normal (13%)	5	5	5	5	182	5	5	4	127	65	65	0
Dry (24%)	13	13	13	5	10	10	10	10	136	65	65	0
Critical (15%)	25	18	4	13	13	13	13	30	207	60	65	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 14-2. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	187	189	245	202	209	191	265	181	85	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	372	233	256	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	138	152	164	164	164	164	214	111	85	85	133

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	155	155	155	200	200	200	200	241	318	150	150	150
Long Term												
Full Simulation Period ^d	195	195	195	243	320	210	198	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	350	405	238	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	345	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	236	200	200	277	318	150	150	150
Critical (15%)	163	163	163	183	188	188	188	247	318	150	150	150

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	180	0	0	0	118	65	65	0
20%	0	0	0	0	180	0	0	0	118	65	65	0
30%	0	0	0	0	180	0	0	0	118	65	65	0
40%	0	0	0	0	180	0	0	0	118	65	65	0
50%	0	0	0	0	174	0	0	0	118	65	65	0
60%	0	0	0	0	174	0	0	0	118	65	65	0
70%	0	0	0	0	0	0	0	0	118	65	65	0
80%	0	0	0	0	0	0	0	0	168	65	65	0
90%	5	5	5	50	50	50	50	4	168	65	65	0
Long Term												
Full Simulation Period ^d	8	7	5	-2	118	2	7	8	137	65	65	2
Water Year Types^{b,c}												
Wet (32%)	0	0	0	-21	172	-17	0	0	118	65	65	0
Above Normal (16%)	0	0	0	0	182	4	4	0	118	65	65	0
Below Normal (13%)	5	5	5	5	150	5	5	4	127	65	65	0
Dry (24%)	13	13	13	5	46	10	10	10	136	65	65	0
Critical (15%)	29	24	11	19	23	23	23	33	207	65	65	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-3. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	188	190	225	207	194	191	265	181	86	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	249	207	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	141	154	167	167	167	167	214	111	90	85	133

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	187	189	245	202	209	191	265	181	85	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	372	233	256	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	138	152	164	164	164	164	214	111	85	85	133

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	19	-5	15	0	0	0	-1	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	63	-15	49	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	-3	-3	-3	-3	-3	-3	0	0	-5	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-4. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	150	150	150	155	200	200	200	237	318	150	150	150
Long Term												
Full Simulation Period ^d	194	194	194	229	319	195	197	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	421	192	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	378	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	200	200	200	277	318	150	150	150
Critical (15%)	158	158	158	179	179	179	179	244	318	150	150	150

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	155	155	155	200	200	200	200	241	318	150	150	150
Long Term												
Full Simulation Period ^d	195	195	195	243	320	210	198	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	350	405	238	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	345	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	236	200	200	277	318	150	150	150
Critical (15%)	163	163	163	183	188	188	188	247	318	150	150	150

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	5	5	5	45	0	0	0	4	0	0	0	0
Long Term												
Full Simulation Period ^d	1	1	1	14	1	16	1	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	41	-15	46	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	-33	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	36	0	0	0	0	0	0	0
Critical (15%)	4	4	4	4	8	8	8	3	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

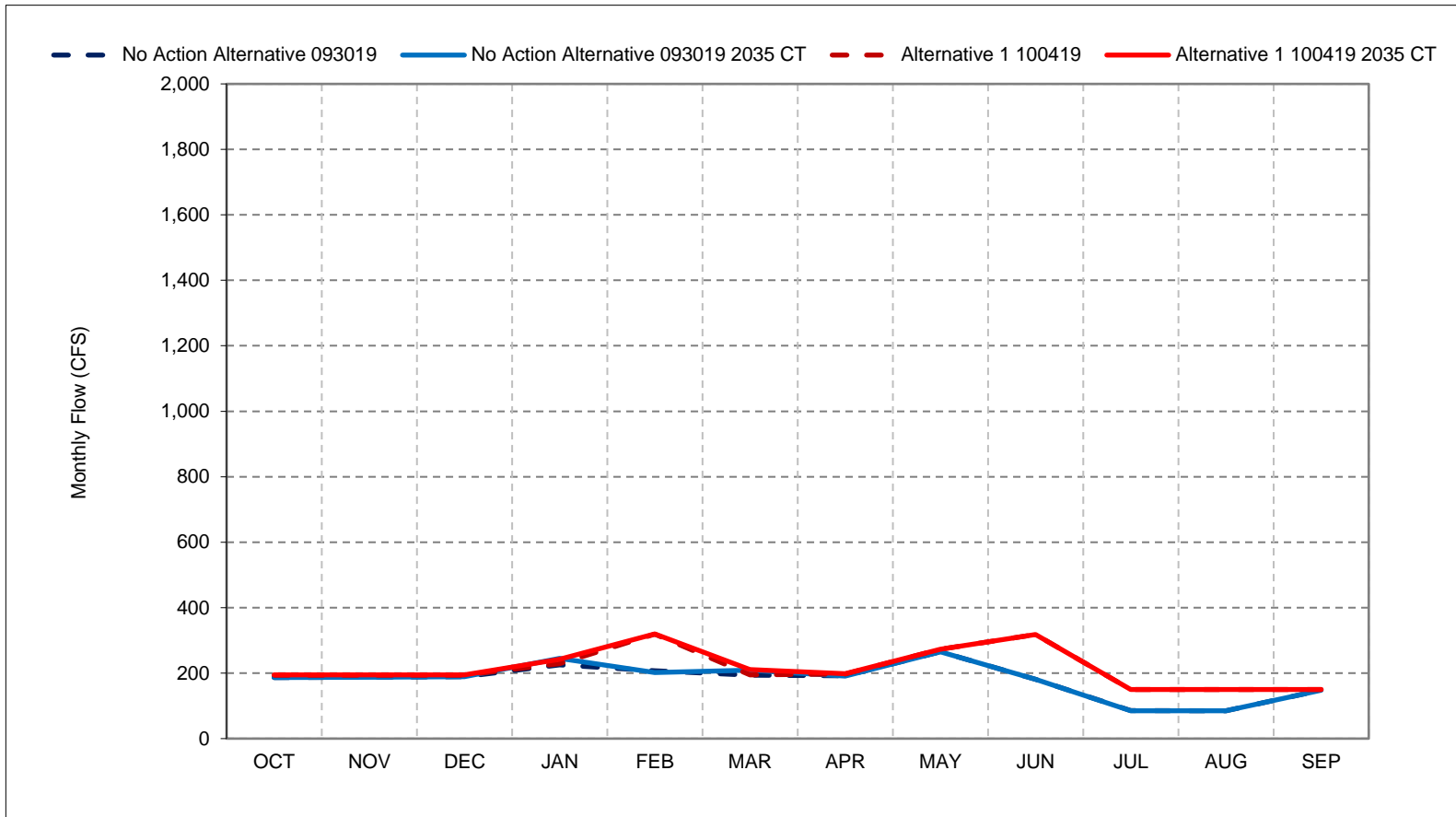
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 14-1. Clear Creek below Whiskeytown Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

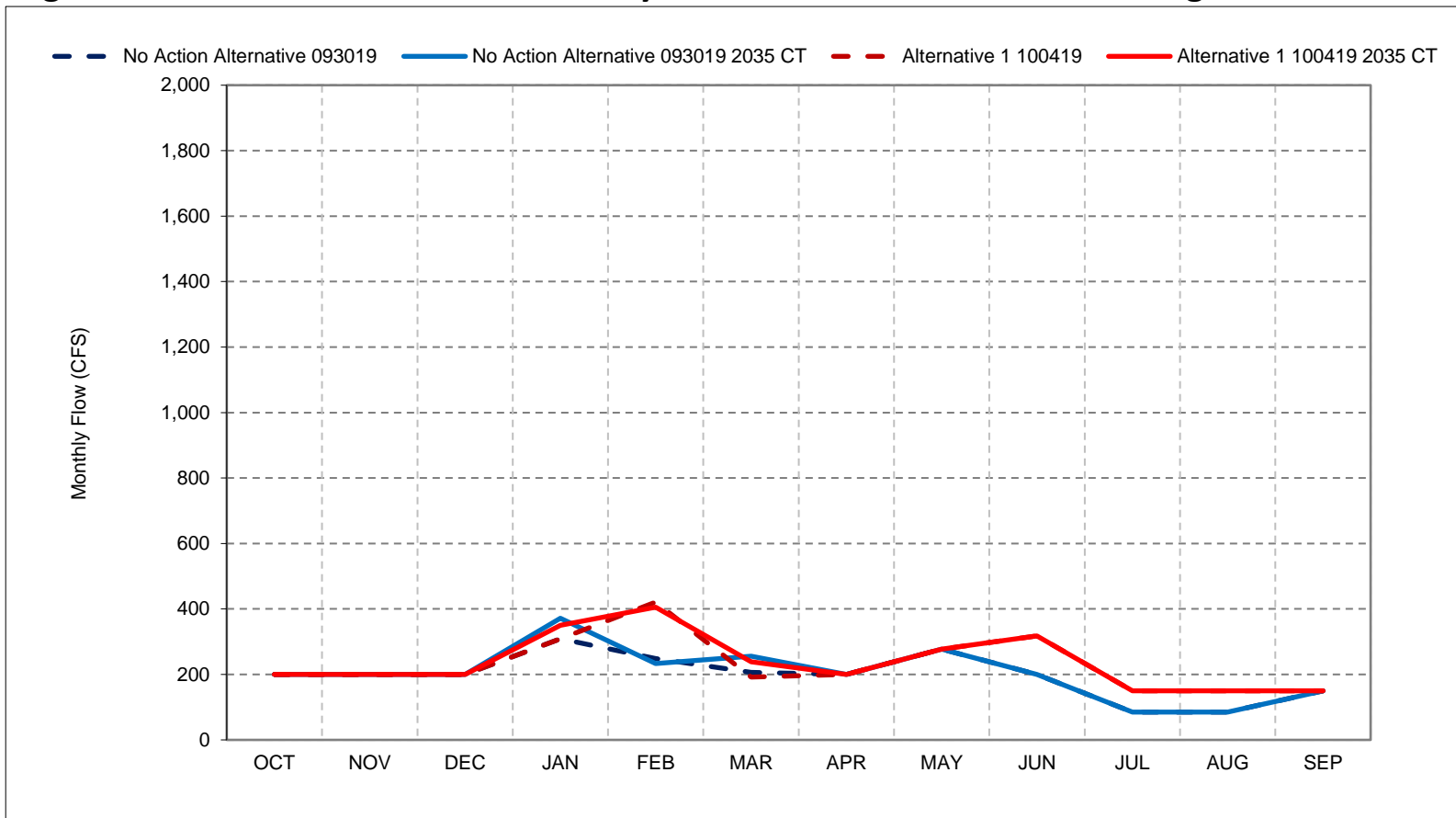
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-2. Clear Creek below Whiskeytown Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

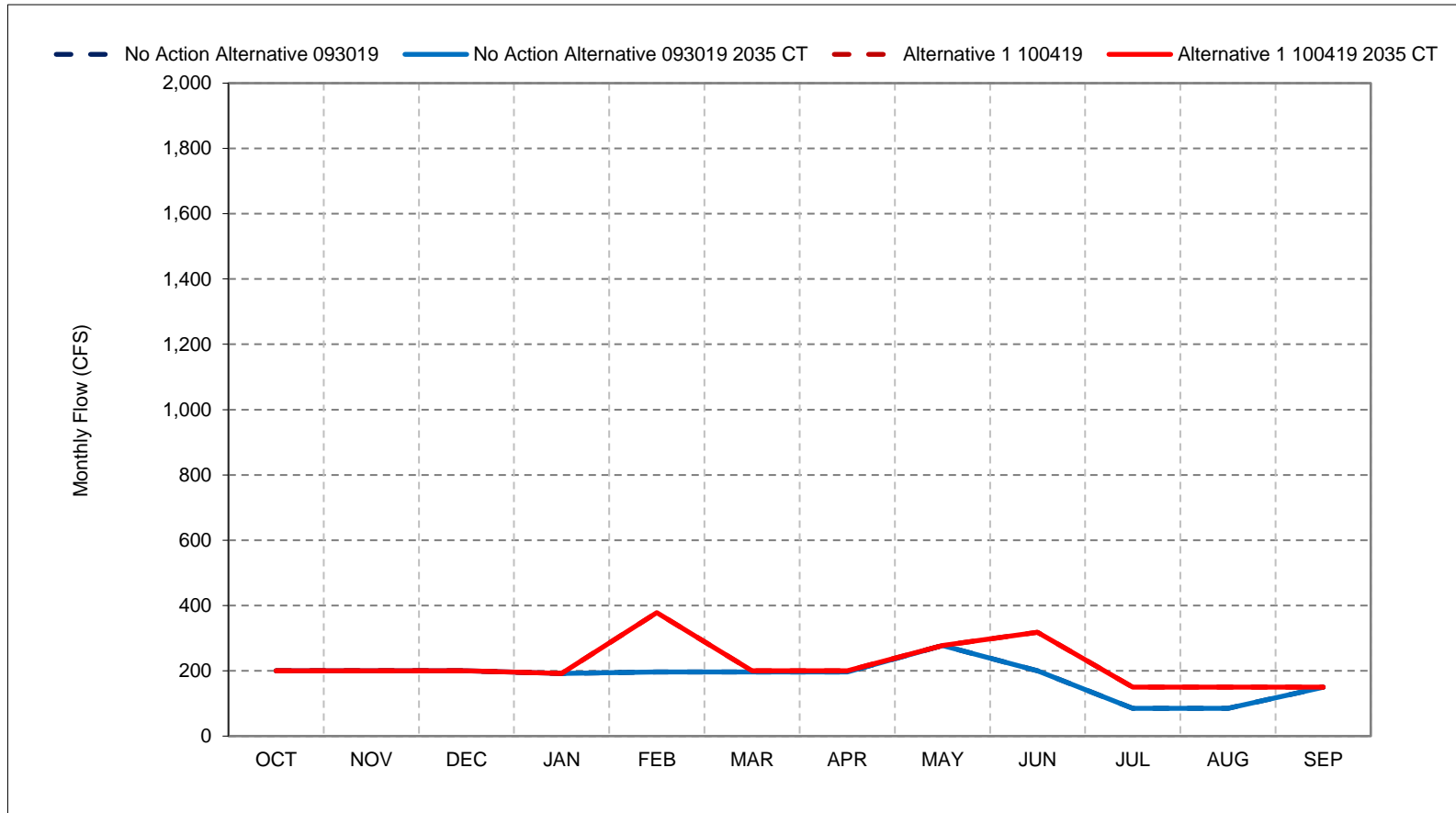
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-3. Clear Creek below Whiskeytown Dam Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

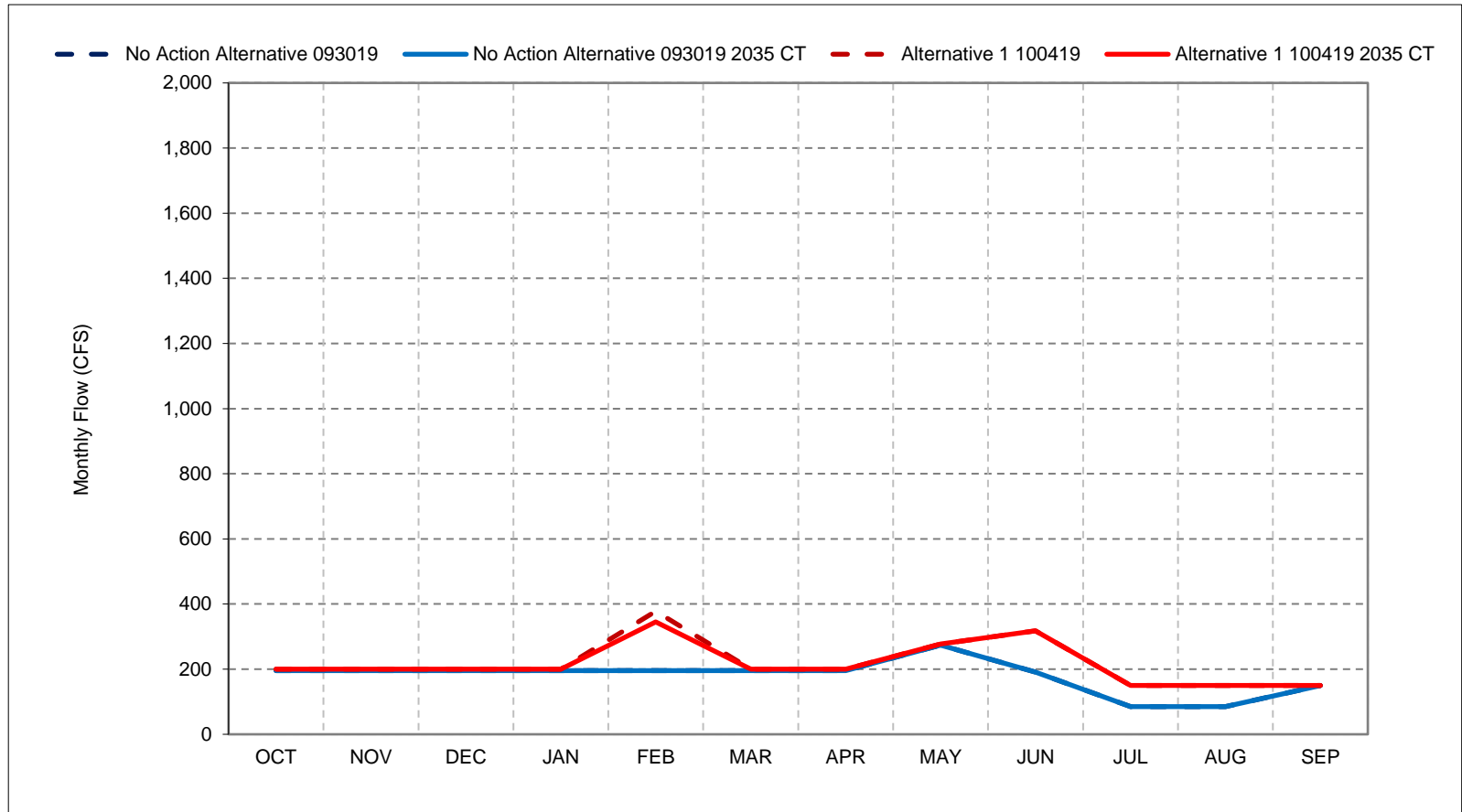
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-4. Clear Creek below Whiskeytown Dam Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

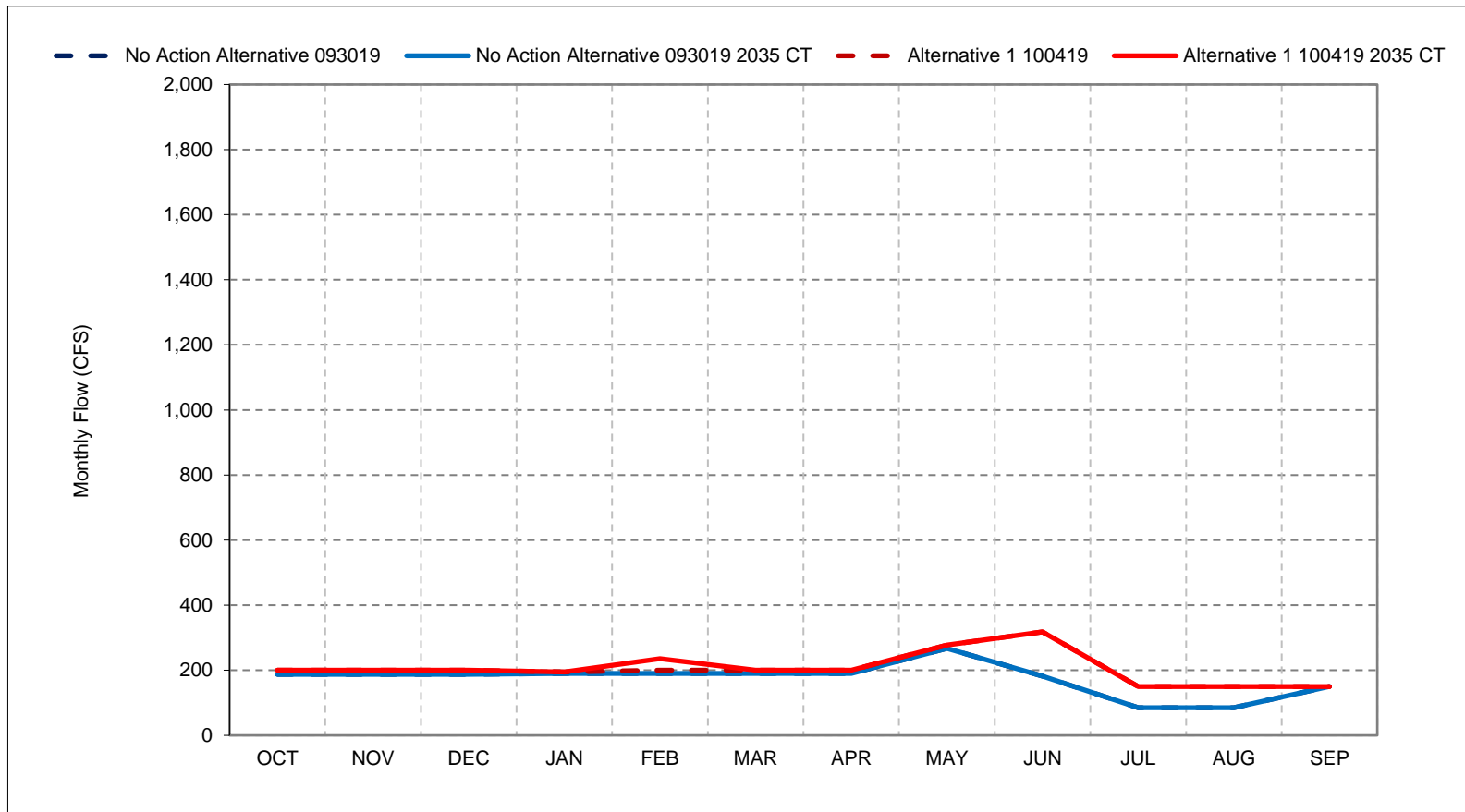
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-5. Clear Creek below Whiskeytown Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

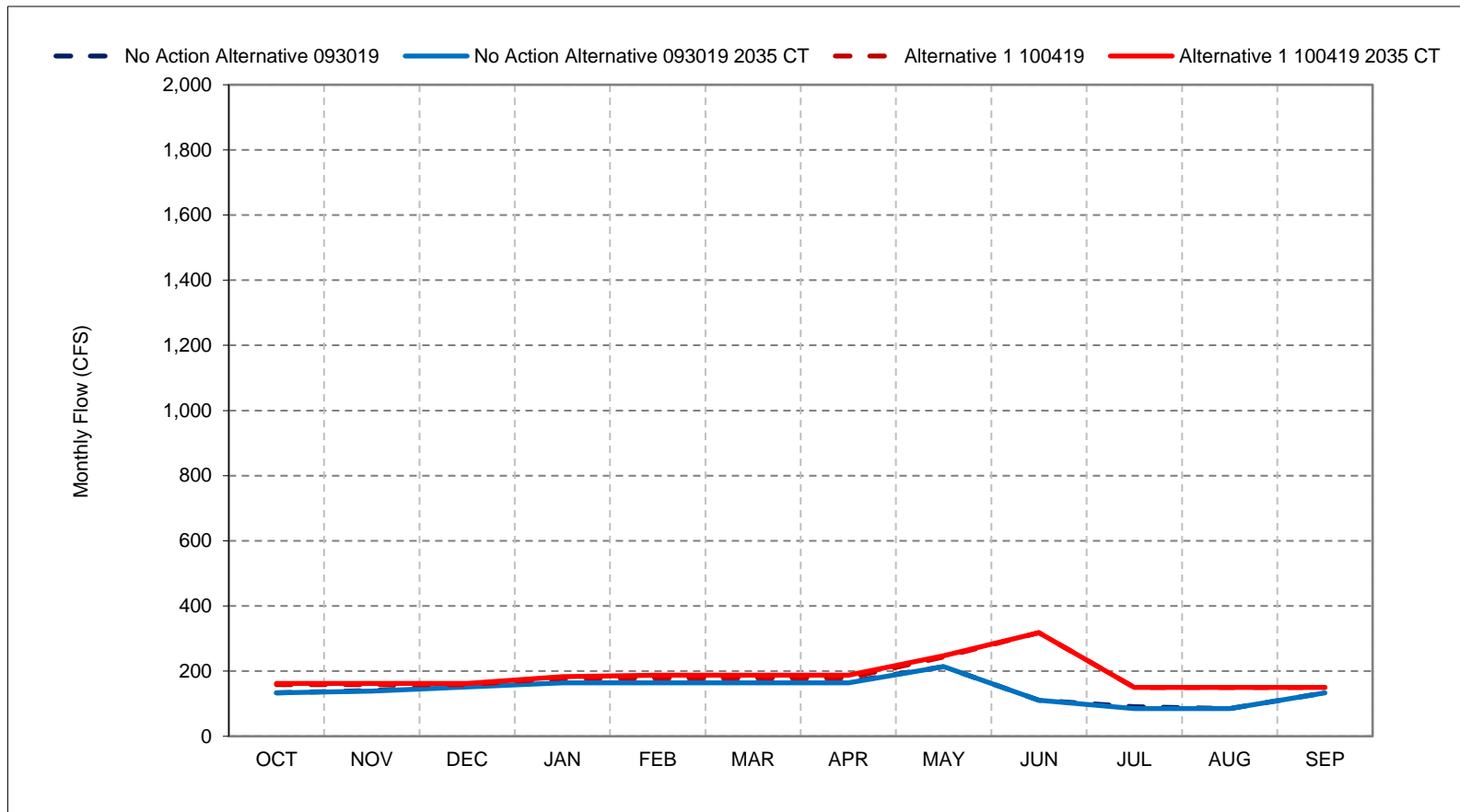
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-6. Clear Creek below Whiskeytown Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

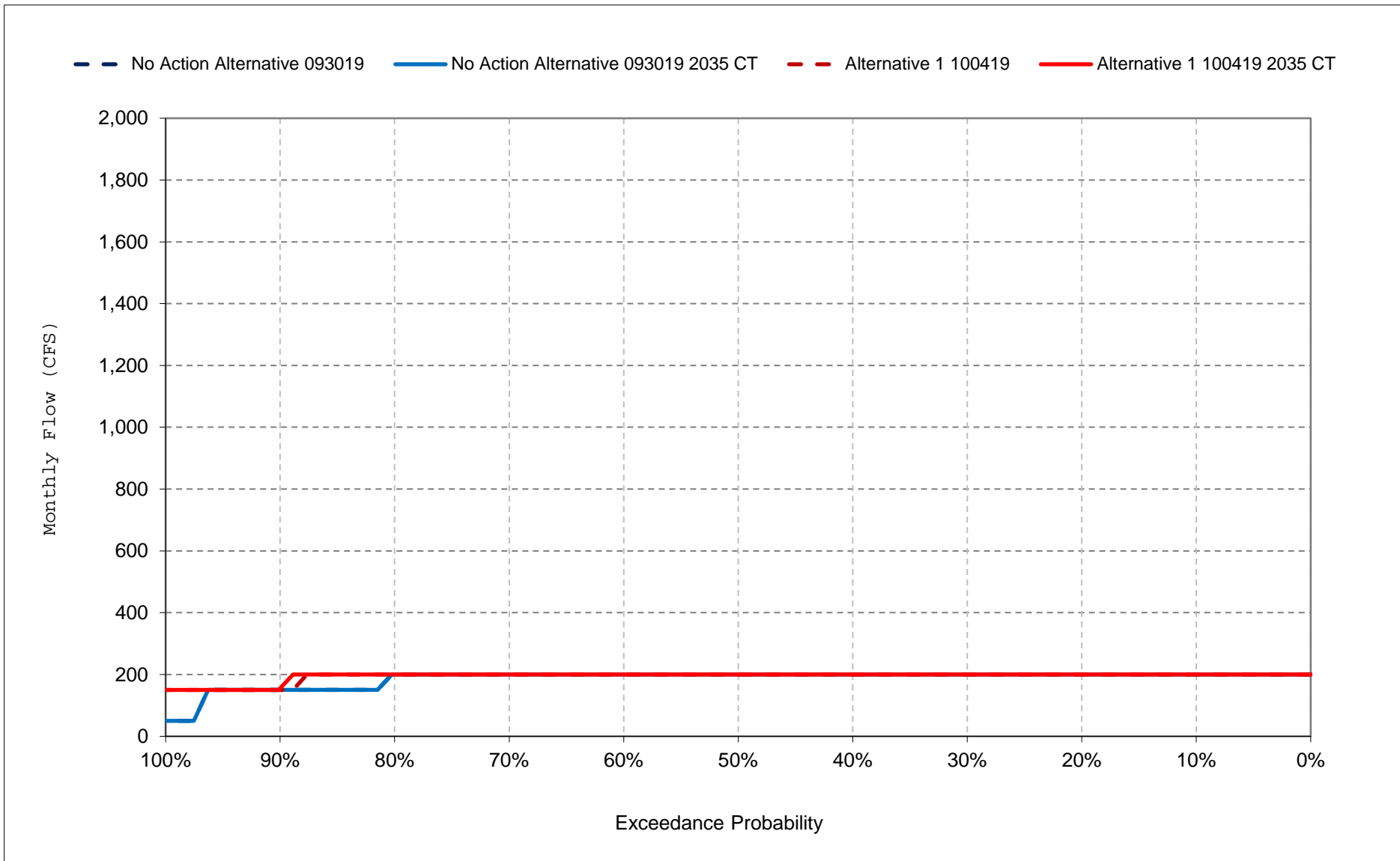
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

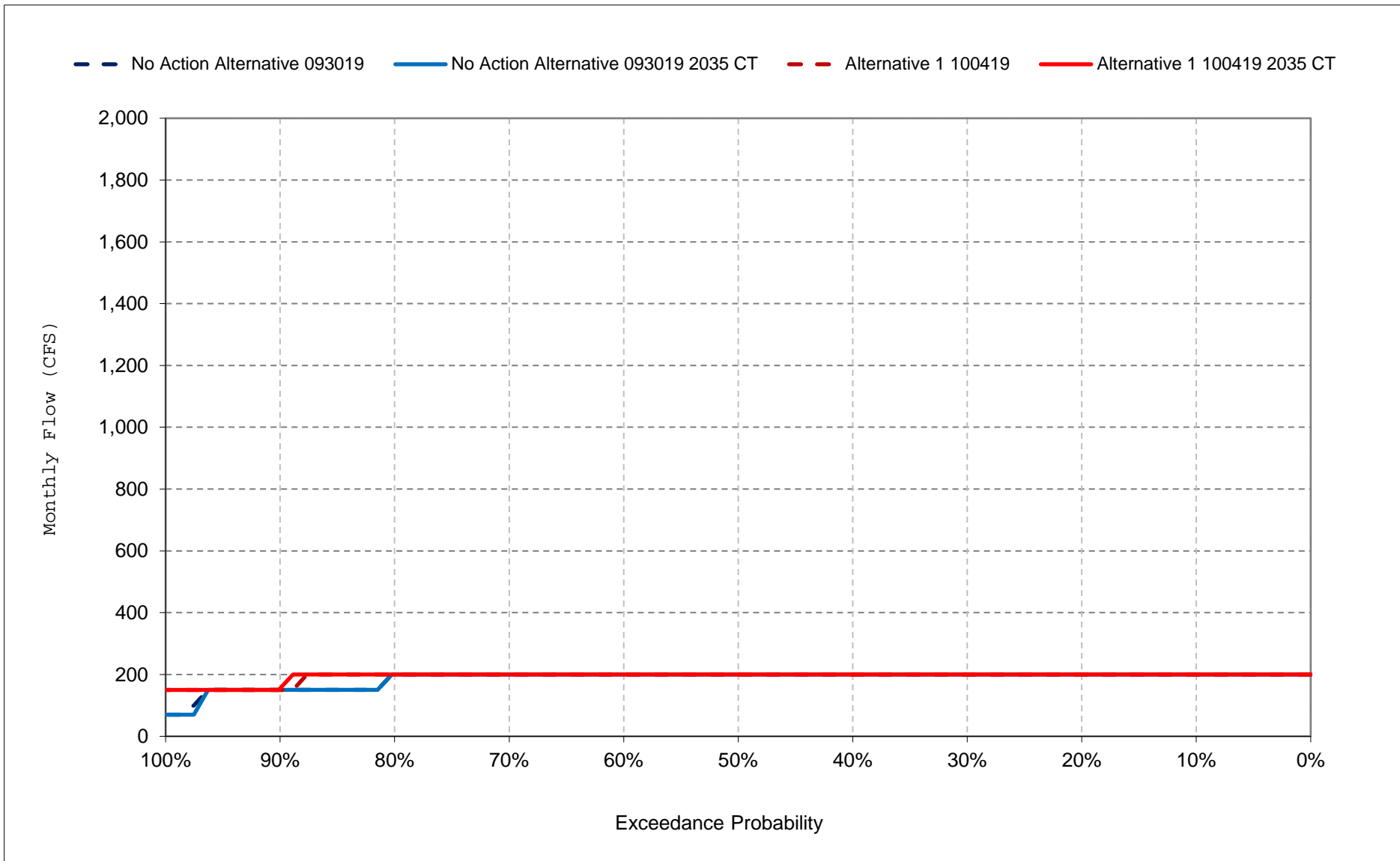
Figure 14-7. Clear Creek below Whiskeytown Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

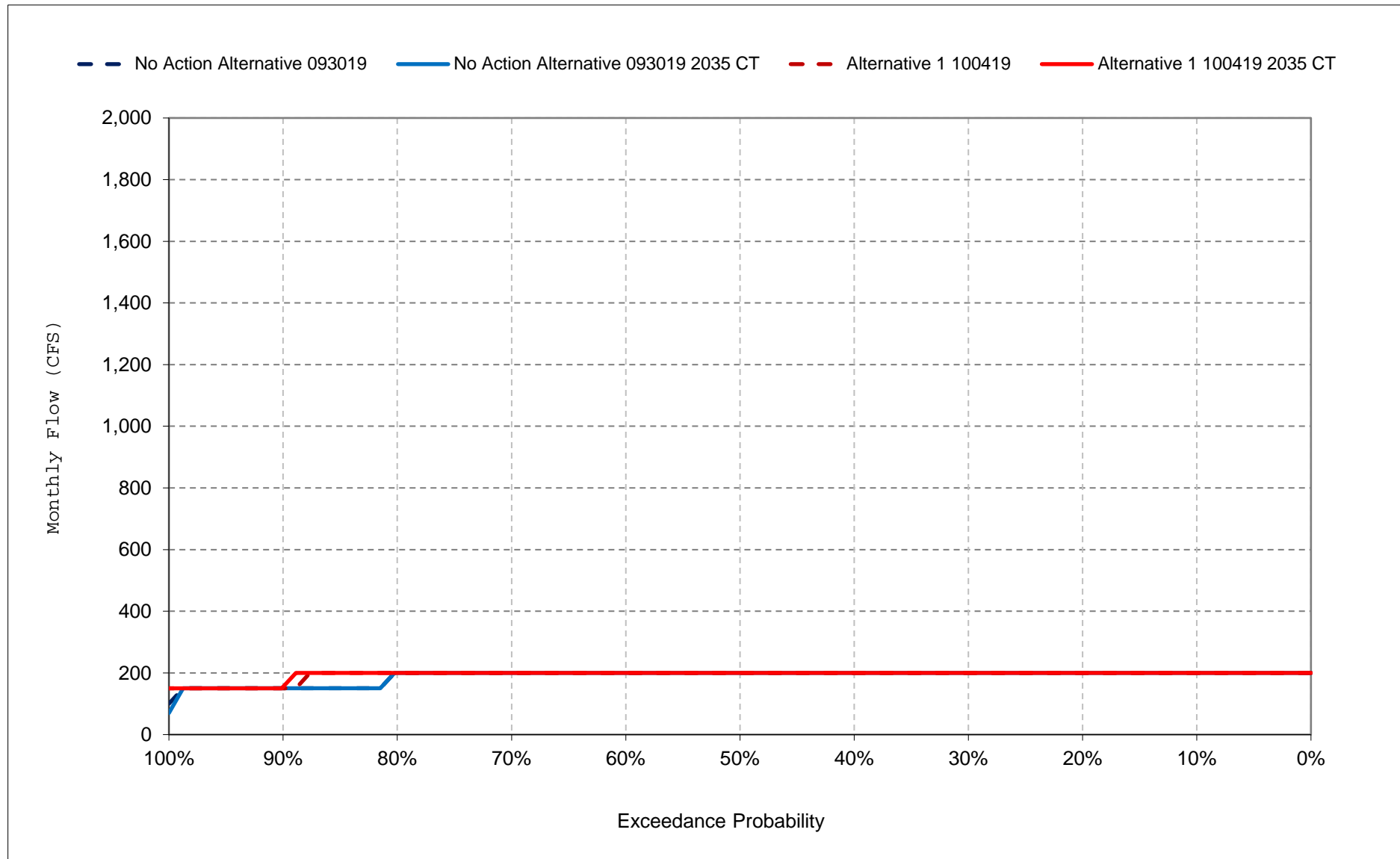
Figure 14-8. Clear Creek below Whiskeytown Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

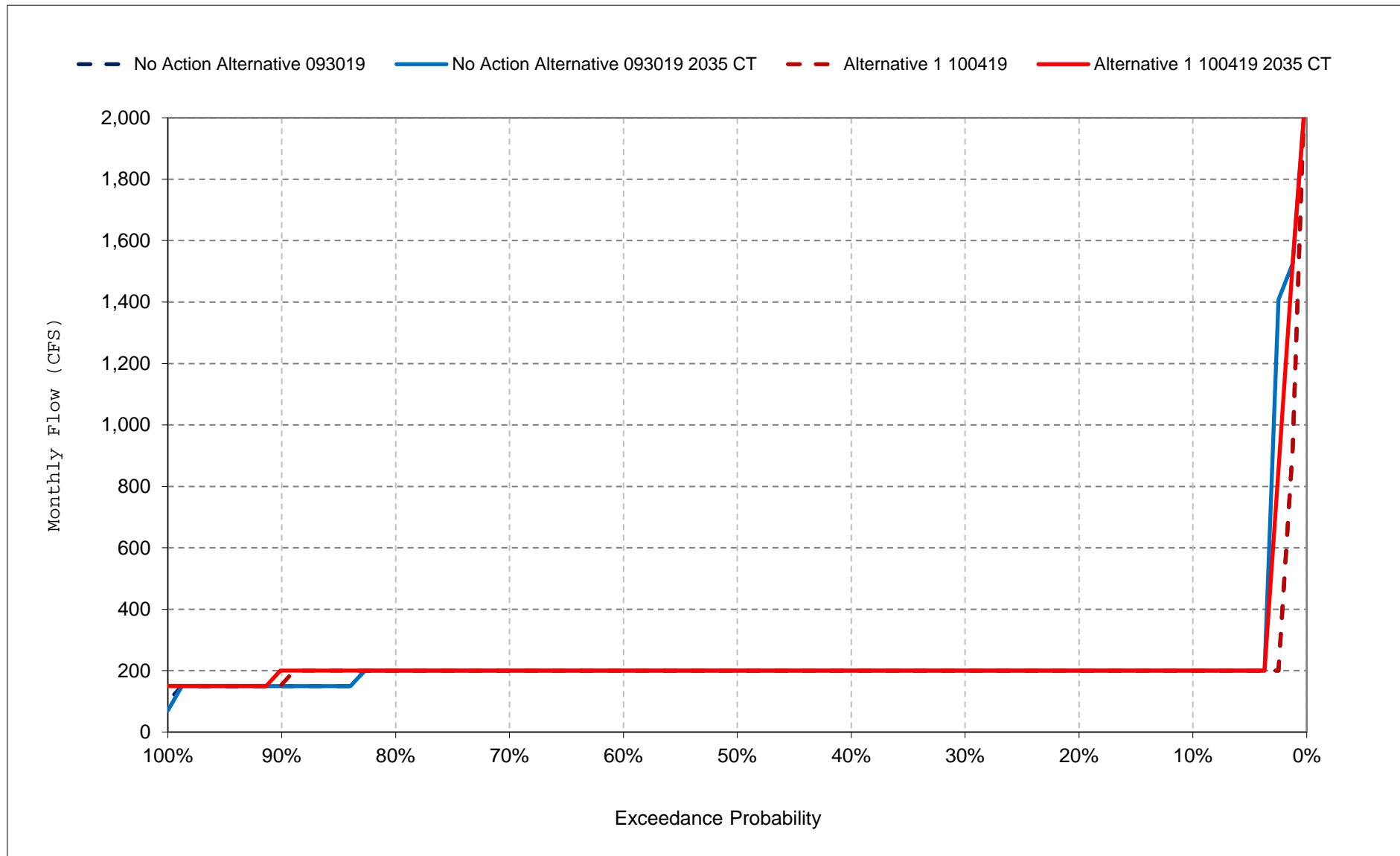
Figure 14-9. Clear Creek below Whiskeytown Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

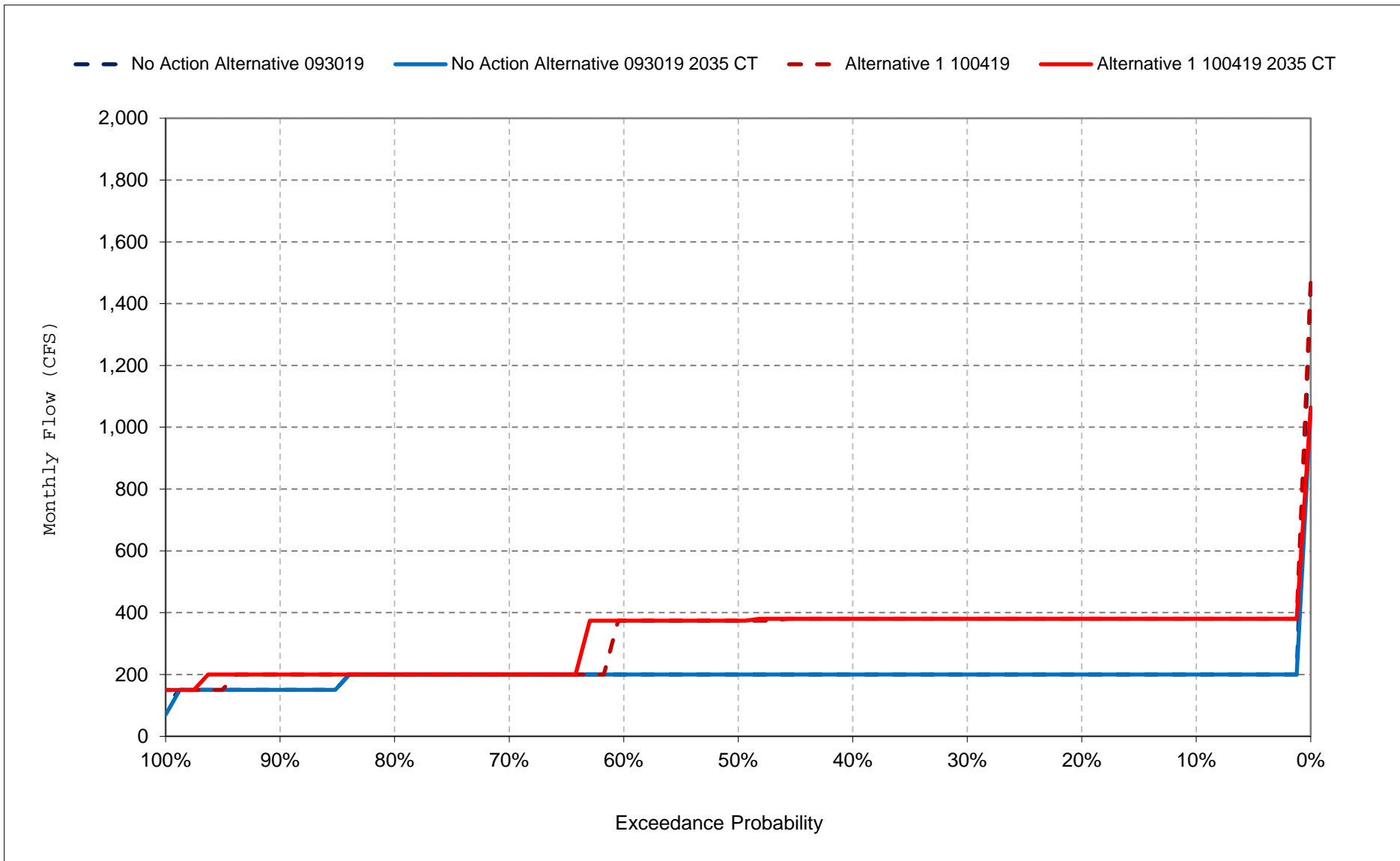
Figure 14-10. Clear Creek below Whiskeytown Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

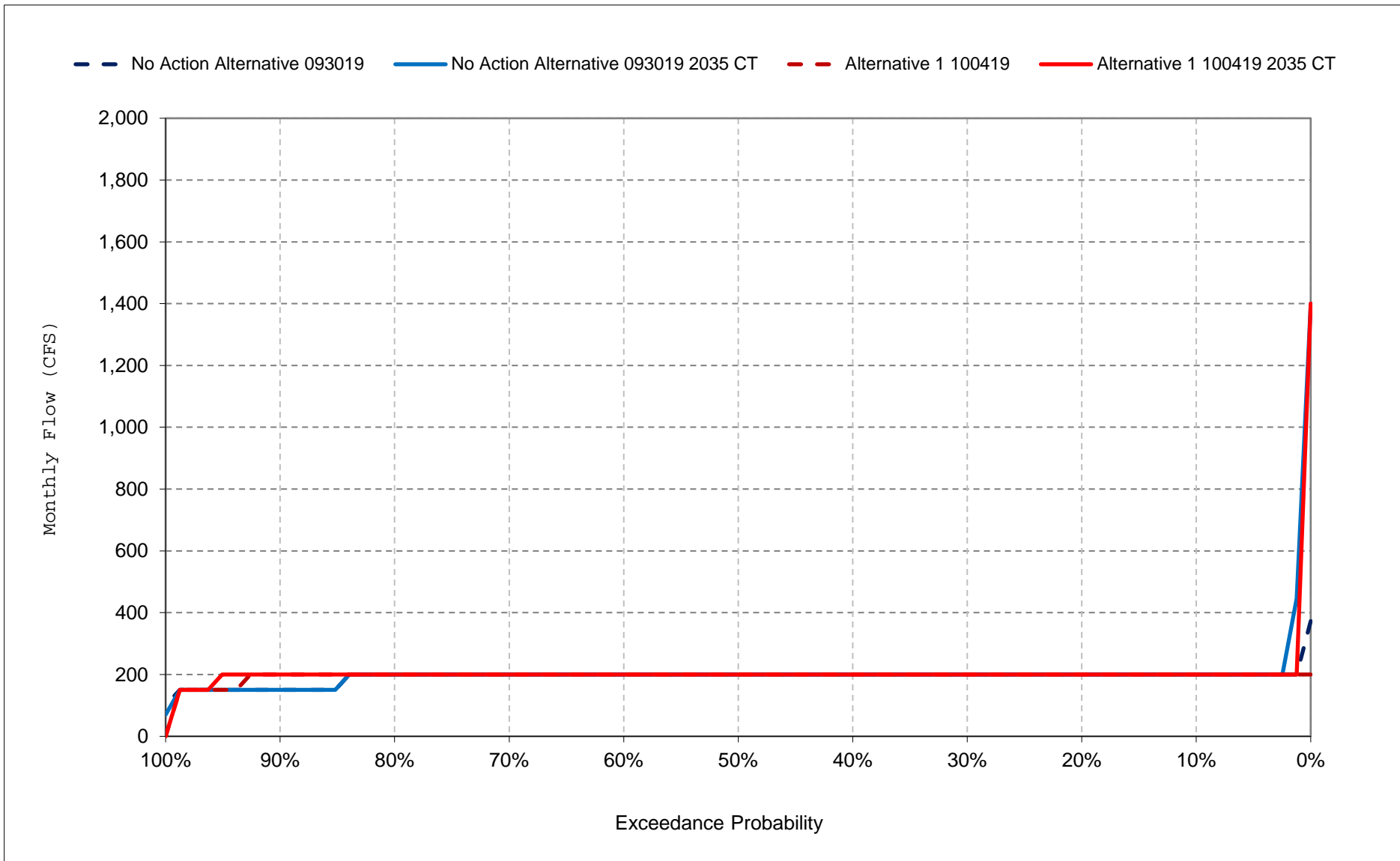
Figure 14-11. Clear Creek below Whiskeytown Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

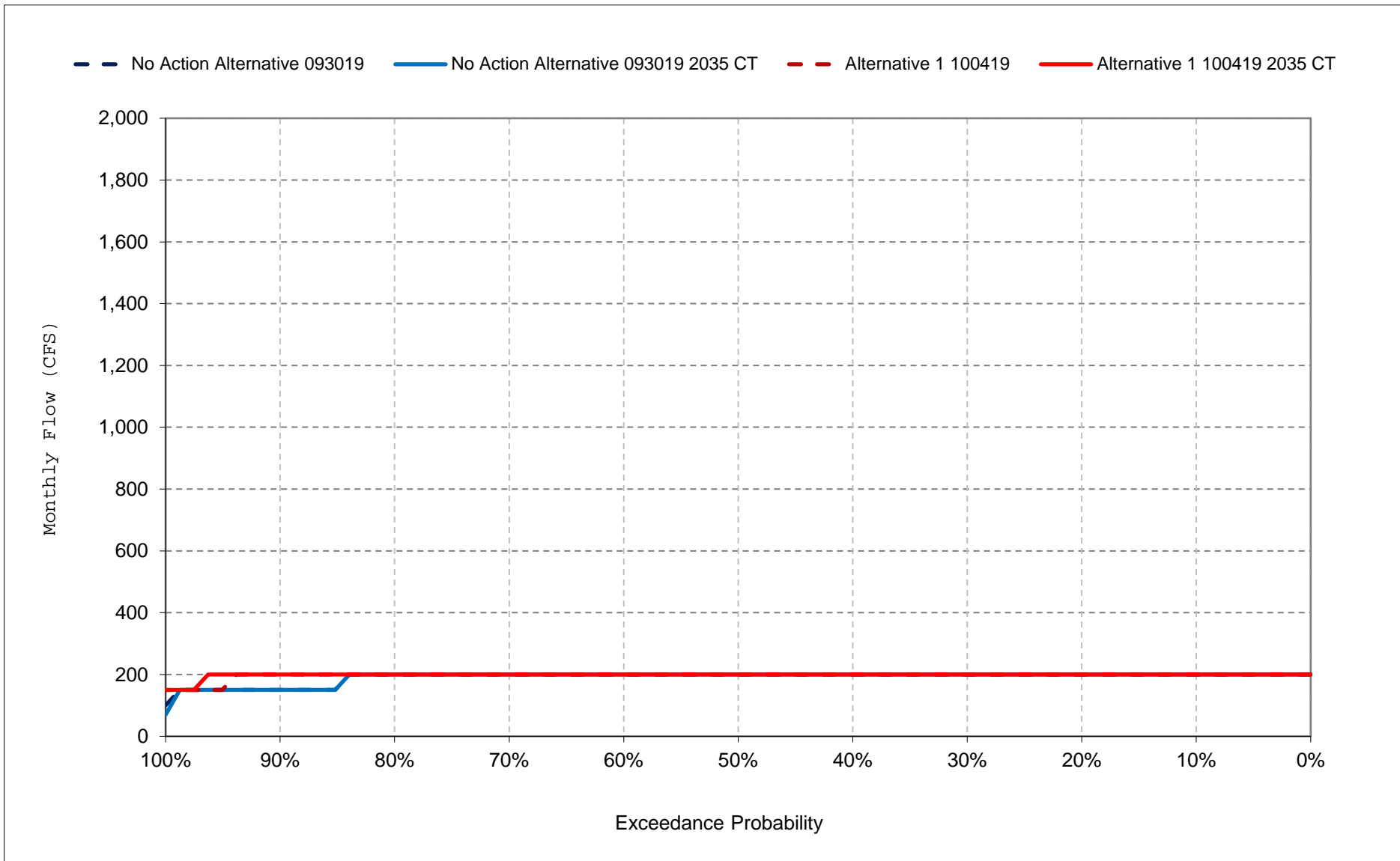
Figure 14-12. Clear Creek below Whiskeytown Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

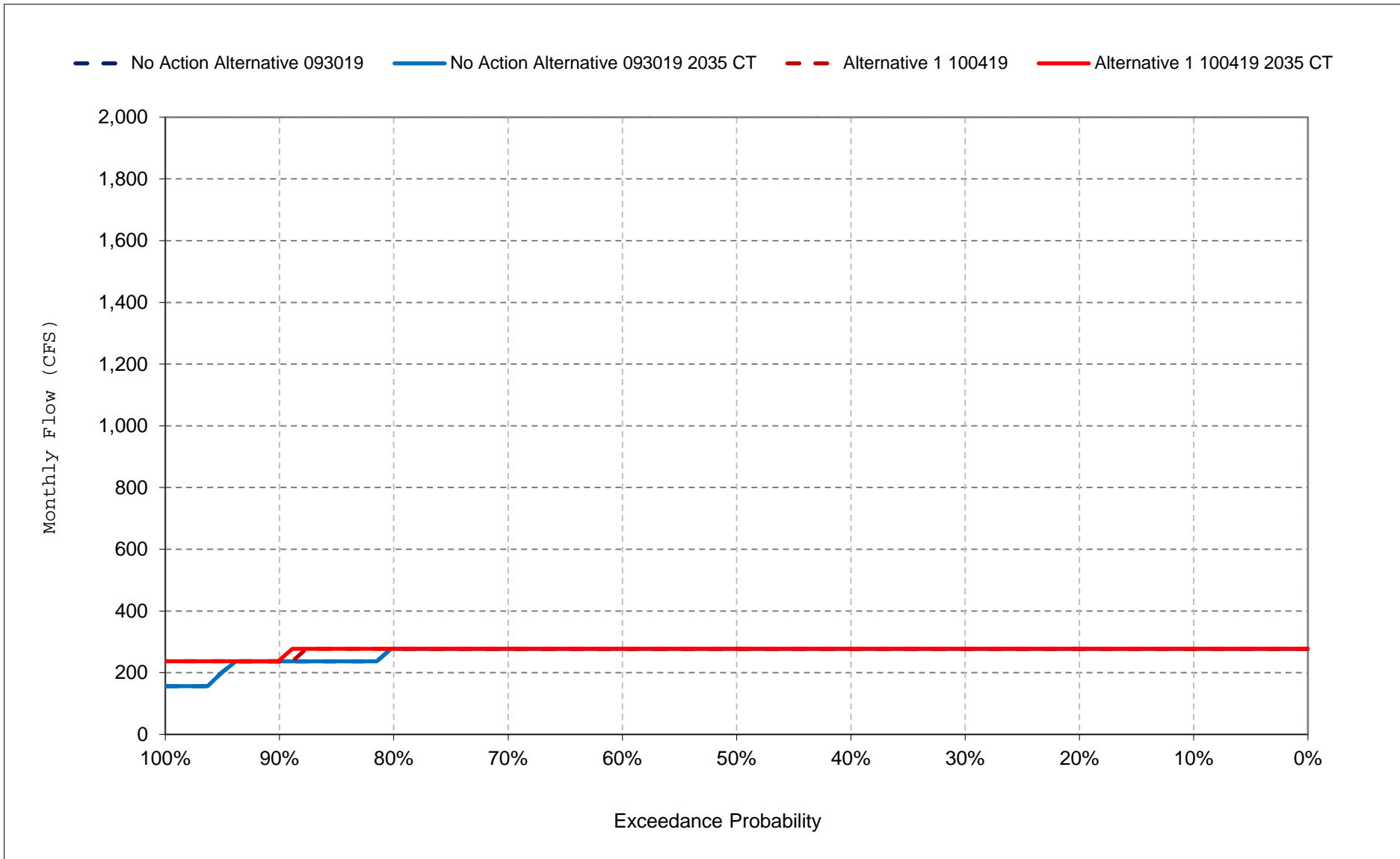
Figure 14-13. Clear Creek below Whiskeytown Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

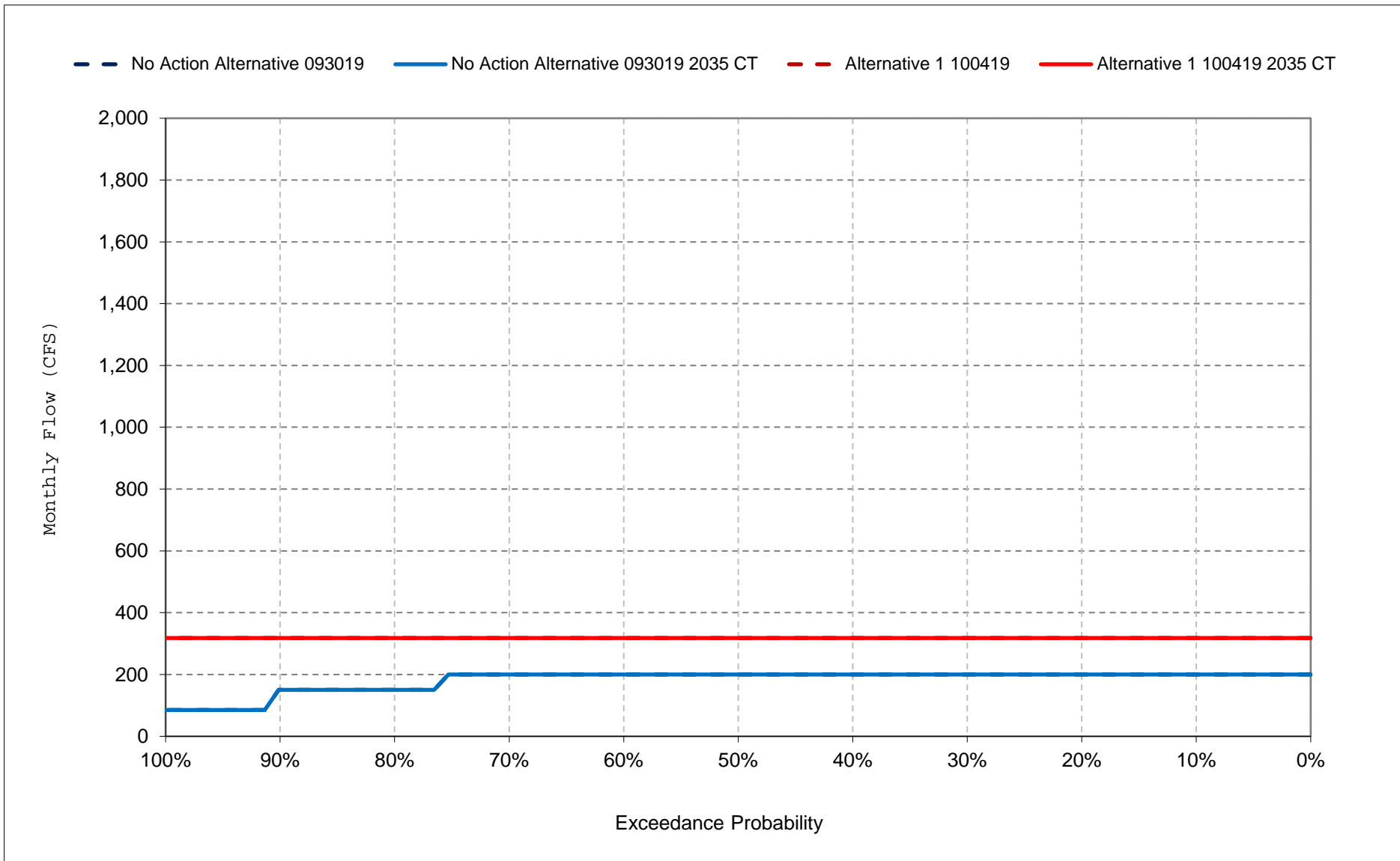
Figure 14-14. Clear Creek below Whiskeytown Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

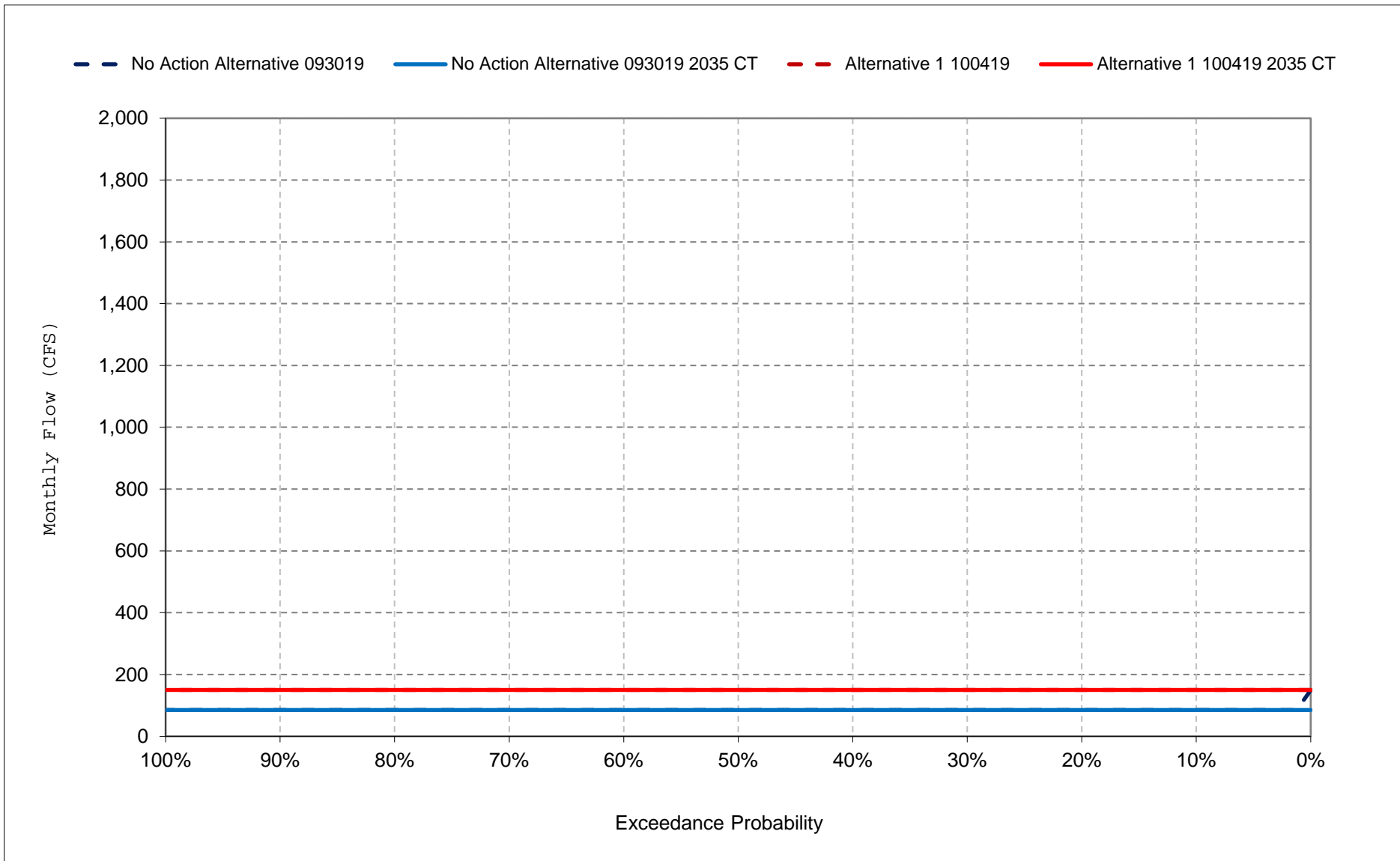
Figure 14-15. Clear Creek below Whiskeytown Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

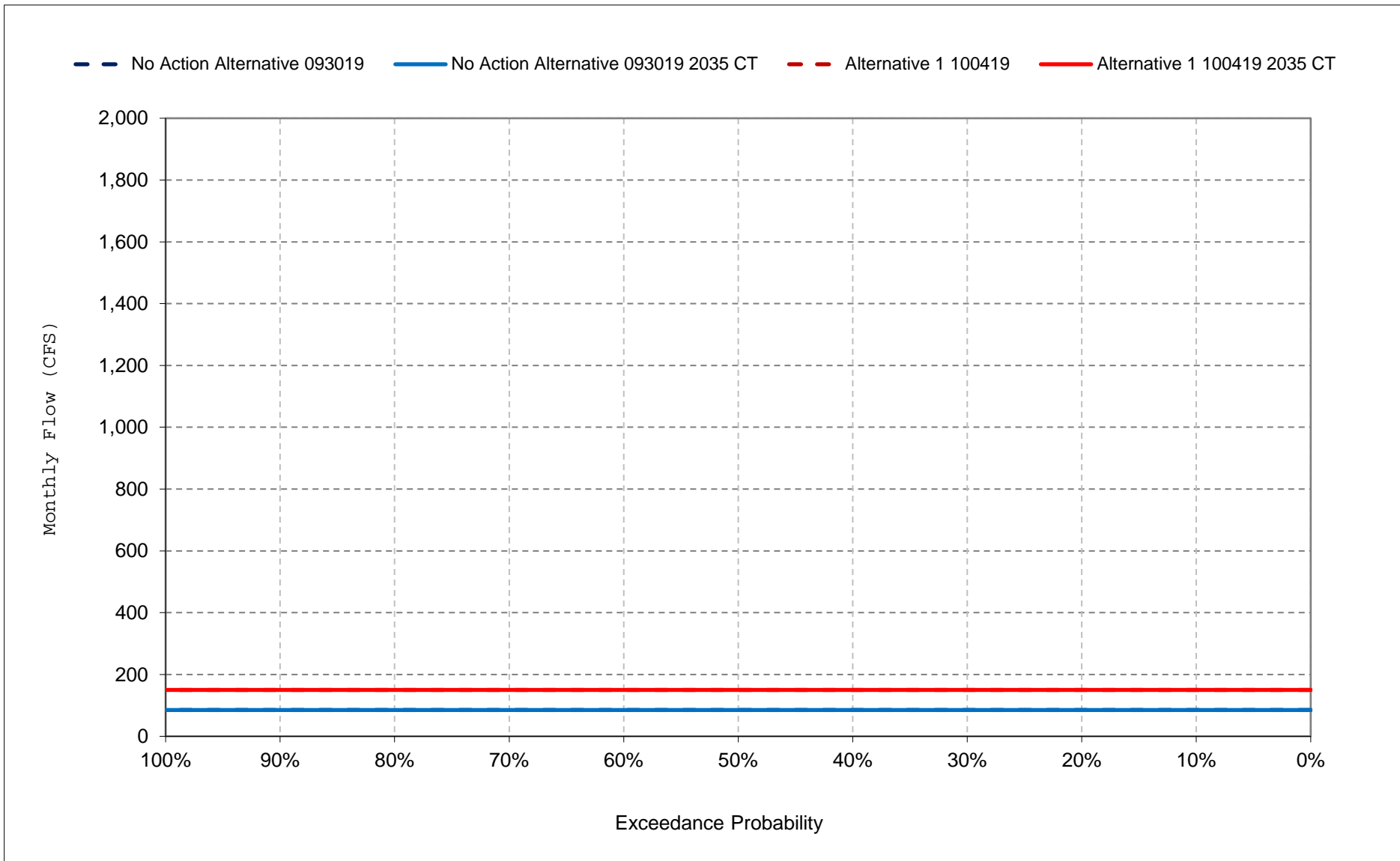
Figure 14-16. Clear Creek below Whiskeytown Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

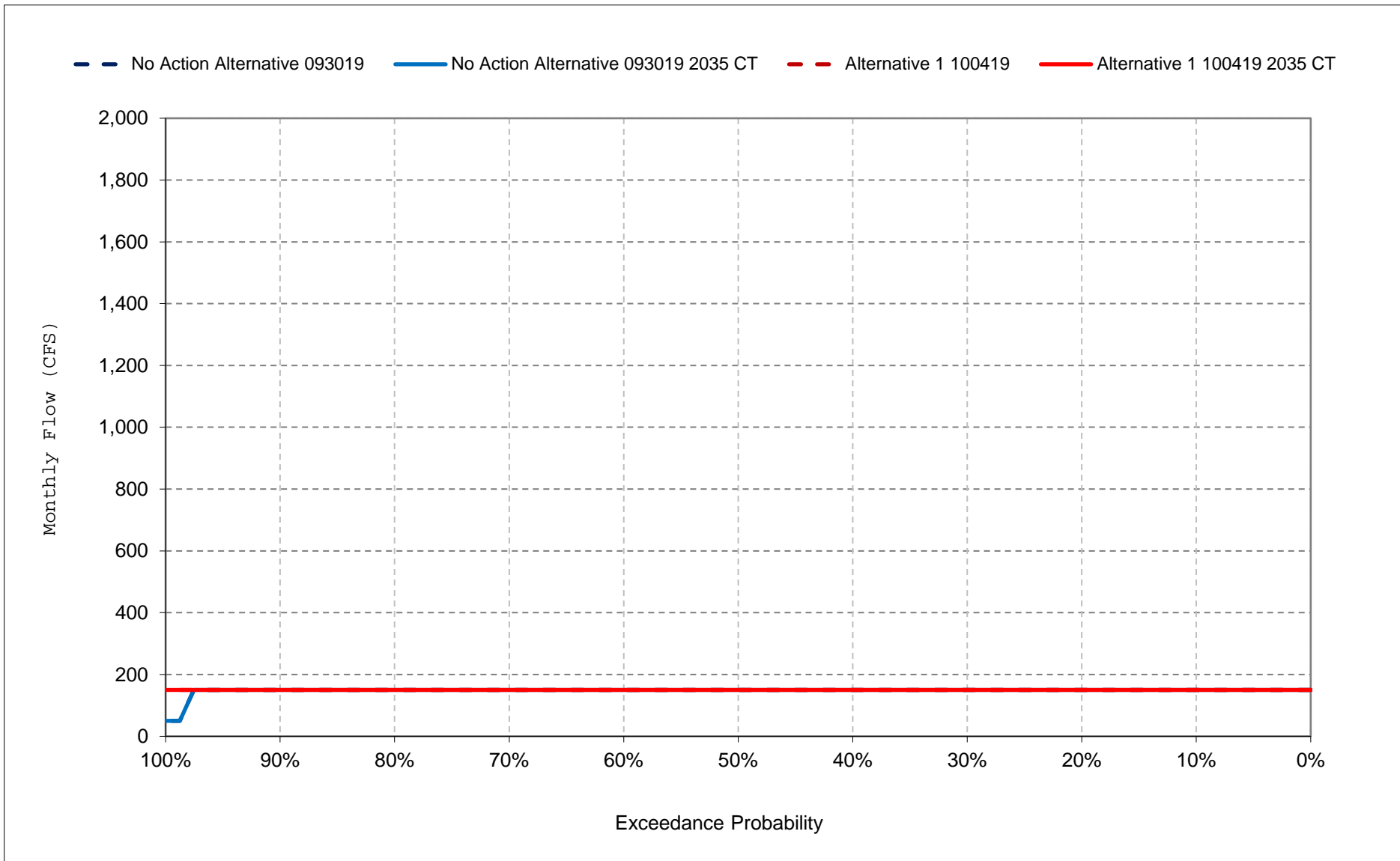
Figure 14-17. Clear Creek below Whiskeytown Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 14-18. Clear Creek below Whiskeytown Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-1. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,260	11,896	16,906	20,957	30,533	18,502	10,385	10,438	13,182	16,000	11,926	15,678
20%	8,276	10,437	9,072	12,166	23,093	12,316	6,774	9,491	11,541	16,000	10,965	13,351
30%	7,485	8,843	5,112	7,729	11,072	7,916	4,490	8,775	10,869	15,672	10,429	11,603
40%	7,015	7,668	4,486	3,592	4,136	4,156	3,719	8,240	9,904	14,278	9,701	9,546
50%	6,280	6,332	3,582	3,250	3,250	3,250	3,250	7,634	9,309	13,308	9,503	6,414
60%	5,921	5,790	3,367	3,250	3,250	3,250	3,250	7,150	8,897	12,322	9,171	5,547
70%	5,363	4,486	3,250	3,250	3,250	3,250	3,250	6,656	8,401	11,515	8,718	5,248
80%	4,904	3,602	3,250	3,250	3,250	3,250	3,250	6,014	8,126	10,802	8,221	4,865
90%	4,296	3,250	3,250	3,250	3,250	3,250	3,250	5,117	7,591	9,809	7,609	4,341
Long Term												
Full Simulation Period ^d	6,603	7,231	6,955	8,689	11,017	8,450	5,525	7,799	9,888	13,202	9,640	8,687
Water Year Types ^{b,c}												
Wet (32%)	8,021	9,866	7,441	17,792	19,245	16,127	8,455	8,663	8,971	13,464	10,501	14,061
Above Normal (16%)	7,394	10,104	6,298	7,444	16,207	8,331	5,221	7,926	10,435	15,324	10,549	9,996
Below Normal (13%)	5,839	5,014	7,557	3,328	6,912	3,925	3,731	7,865	10,908	14,379	10,758	5,610
Dry (24%)	5,781	5,160	8,619	3,705	3,511	4,006	3,740	7,034	10,446	12,434	8,521	4,960
Critical (15%)	4,742	3,891	3,287	3,535	3,842	3,499	4,122	7,006	9,418	10,535	7,632	4,657

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,559	9,060	19,004	22,149	30,593	19,078	10,156	10,499	13,807	16,000	11,616	9,092
20%	7,903	7,286	11,909	14,917	21,627	12,718	6,798	9,753	12,418	15,817	10,678	8,132
30%	7,361	6,708	6,656	9,342	12,886	9,001	5,746	9,253	11,759	14,484	10,231	7,408
40%	6,903	5,939	4,989	6,199	6,743	5,632	4,510	8,616	10,594	13,351	9,830	6,168
50%	6,334	5,579	4,428	3,619	3,970	4,470	3,691	8,267	9,902	12,438	9,620	5,693
60%	5,793	5,223	3,871	3,250	3,250	3,250	3,250	7,735	9,069	11,778	9,083	5,167
70%	5,411	4,825	3,250	3,250	3,250	3,250	3,250	7,003	8,534	11,393	8,722	4,970
80%	5,024	4,304	3,250	3,250	3,250	3,250	3,250	6,161	8,116	10,146	8,071	4,490
90%	4,332	3,498	3,250	3,250	3,250	3,250	3,250	5,422	7,665	9,601	7,598	4,224
Long Term												
Full Simulation Period ^d	6,412	6,261	7,807	9,378	11,457	8,860	5,702	8,122	10,305	12,822	9,551	6,332
Water Year Types ^{b,c}												
Wet (32%)	7,691	6,914	9,421	18,493	19,566	16,396	8,634	8,587	9,103	13,506	10,625	8,278
Above Normal (16%)	6,891	8,278	7,133	8,569	17,409	9,405	5,402	8,276	10,918	15,142	10,559	7,311
Below Normal (13%)	5,846	5,387	7,730	4,503	8,026	4,794	4,165	8,629	12,250	13,871	10,015	5,250
Dry (24%)	5,793	5,707	8,808	3,908	3,633	4,053	3,869	7,739	10,949	11,581	8,538	4,809
Critical (15%)	4,673	4,385	3,445	4,093	3,628	3,677	4,136	7,125	9,385	9,934	7,396	4,583

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-701	-2,836	2,098	1,192	60	576	-229	60	625	0	-310	-6,587
20%	-373	-3,151	2,837	2,751	-1,466	402	24	262	876	-183	-287	-5,219
30%	-124	-2,134	1,544	1,613	1,814	1,085	1,256	478	890	-1,188	-198	-4,195
40%	-111	-1,729	503	2,607	2,607	1,476	792	376	690	-928	130	-3,378
50%	54	-753	846	369	720	1,220	441	633	593	-870	117	-721
60%	-127	-567	505	0	0	0	0	584	172	-543	-88	-380
70%	48	339	0	0	0	0	0	347	133	-121	3	-278
80%	120	703	0	0	0	0	0	147	-10	-656	-150	-375
90%	36	248	0	0	0	0	0	306	75	-209	-11	-117
Long Term												
Full Simulation Period ^d	-191	-970	853	689	440	410	177	323	417	-380	-89	-2,355
Water Year Types ^{b,c}												
Wet (32%)	-330	-2,952	1,980	701	321	268	178	-76	132	42	124	-5,783
Above Normal (16%)	-503	-1,826	835	1,125	1,202	1,074	181	350	484	-182	10	-2,685
Below Normal (13%)	7	374	173	1,175	1,115	869	434	764	1,343	-508	-743	-359
Dry (24%)	12	547	190	202	122	47	130	705	503	-852	17	-151
Critical (15%)	-69	494	158	559	-215	178	13	119	-33	-602	-236	-74

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 15-2. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,422	11,642	15,722	22,213	28,482	19,848	11,602	10,370	13,374	16,000	11,443	15,711
20%	8,464	9,645	8,505	11,827	22,006	13,384	7,408	9,306	12,032	16,000	10,904	14,798
30%	7,212	8,279	4,984	8,973	13,171	8,856	5,473	8,876	11,187	15,873	10,171	12,124
40%	6,829	7,011	3,962	3,613	5,042	4,950	4,071	8,522	10,698	14,987	9,757	9,915
50%	6,369	6,075	3,407	3,250	3,250	3,250	3,538	8,147	9,966	13,972	9,471	6,158
60%	6,042	4,712	3,250	3,250	3,250	3,250	3,250	7,858	9,399	13,182	9,123	5,504
70%	5,438	4,148	3,250	3,250	3,250	3,250	3,250	7,024	9,047	12,134	8,682	5,273
80%	5,021	3,390	3,250	3,250	3,250	3,250	3,250	6,330	8,694	11,403	8,271	4,977
90%	4,509	3,250	3,250	3,250	3,250	3,250	3,250	5,876	8,070	9,851	7,789	4,425
Long Term												
Full Simulation Period ^d	6,656	6,698	6,571	8,978	10,975	8,949	6,022	8,148	10,286	13,577	9,592	8,821
Water Year Types ^{b,c}												
Wet (32%)	7,783	9,308	6,937	18,680	18,813	17,028	9,377	8,581	9,282	13,743	10,291	14,017
Above Normal (16%)	7,783	8,819	5,745	7,429	16,100	8,468	5,877	8,440	10,930	15,812	10,546	10,645
Below Normal (13%)	5,678	4,688	7,061	3,284	7,843	4,330	4,508	8,664	11,225	14,908	10,424	5,558
Dry (24%)	5,823	4,697	8,345	3,608	3,725	4,435	3,738	7,493	10,933	13,073	8,664	5,023
Critical (15%)	5,278	3,921	3,266	3,806	3,392	3,720	4,100	7,510	9,825	10,419	7,831	4,910

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,982	8,372	16,927	24,105	29,272	19,860	11,303	11,052	14,358	16,000	11,254	8,101
20%	7,287	7,184	11,109	15,657	22,117	14,245	7,760	10,142	12,820	15,885	10,754	7,346
30%	6,985	6,141	5,987	9,550	13,045	11,099	5,799	9,621	11,954	14,978	10,205	6,549
40%	6,407	5,624	5,000	4,764	7,319	7,054	4,811	9,030	11,507	13,715	9,826	5,765
50%	6,198	5,313	4,522	3,501	4,000	4,470	3,972	8,496	10,690	12,988	9,513	5,276
60%	5,788	4,882	3,657	3,250	3,250	3,250	3,356	8,031	10,035	12,281	9,098	5,020
70%	5,487	4,418	3,250	3,250	3,250	3,250	3,250	7,600	9,263	11,713	8,673	4,786
80%	5,188	4,000	3,250	3,250	3,250	3,250	3,250	7,031	8,613	10,866	8,111	4,507
90%	4,397	3,250	3,250	3,250	3,250	3,250	3,250	5,973	7,789	9,749	7,634	4,123
Long Term												
Full Simulation Period ^d	6,218	5,801	7,598	9,685	11,366	9,579	6,183	8,623	10,805	13,114	9,518	5,891
Water Year Types ^{b,c}												
Wet (32%)	7,111	6,484	9,062	19,543	19,148	17,537	9,497	8,787	9,569	13,666	10,438	7,248
Above Normal (16%)	6,675	7,106	6,195	8,628	17,103	9,953	6,086	8,969	11,748	15,798	10,746	6,775
Below Normal (13%)	5,559	5,181	7,299	5,215	8,348	5,298	4,554	9,395	12,308	14,143	9,641	5,036
Dry (24%)	5,710	5,227	9,302	3,774	3,783	4,612	3,994	8,307	11,540	12,040	8,603	4,726
Critical (15%)	5,237	4,431	3,381	3,419	3,699	4,132	4,251	7,709	9,859	9,856	7,605	4,717

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,440	-3,269	1,204	1,891	790	12	-299	682	984	0	-188	-7,611
20%	-1,177	-2,460	2,603	3,830	111	861	353	835	788	-115	-151	-7,451
30%	-227	-2,138	1,003	576	-126	2,243	325	745	768	-895	33	-5,575
40%	-422	-1,386	1,038	1,151	2,277	2,104	740	508	810	-1,272	69	-4,151
50%	-171	-762	1,115	251	750	1,220	434	349	724	-984	42	-882
60%	-253	169	407	0	0	0	106	174	636	-900	-25	-485
70%	49	271	0	0	0	0	0	576	216	-422	-9	-488
80%	167	610	0	0	0	0	0	701	-82	-537	-161	-470
90%	-113	0	0	0	0	0	0	97	-281	-102	-154	-302
Long Term												
Full Simulation Period ^d	-438	-897	1,027	707	392	630	162	475	519	-463	-75	-2,931
Water Year Types ^{b,c}												
Wet (32%)	-672	-2,825	2,125	863	335	509	120	205	287	-76	147	-6,769
Above Normal (16%)	-1,108	-1,712	450	1,199	1,003	1,485	208	529	818	-14	200	-3,870
Below Normal (13%)	-118	493	238	1,931	505	968	46	730	1,083	-765	-783	-522
Dry (24%)	-113	530	957	166	58	177	256	814	607	-1,033	-61	-297
Critical (15%)	-42	510	116	-386	307	412	152	199	34	-562	-226	-193

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-3. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,260	11,896	16,906	20,957	30,533	18,502	10,385	10,438	13,182	16,000	11,926	15,678
20%	8,276	10,437	9,072	12,166	23,093	12,316	6,774	9,491	11,541	16,000	10,965	13,351
30%	7,485	8,843	5,112	7,729	11,072	7,916	4,490	8,775	10,869	15,672	10,429	11,603
40%	7,015	7,668	4,486	3,592	4,136	4,156	3,719	8,240	9,904	14,278	9,701	9,546
50%	6,280	6,332	3,582	3,250	3,250	3,250	3,250	7,634	9,309	13,308	9,503	6,414
60%	5,921	5,790	3,367	3,250	3,250	3,250	3,250	7,150	8,897	12,322	9,171	5,547
70%	5,363	4,486	3,250	3,250	3,250	3,250	3,250	6,656	8,401	11,515	8,718	5,248
80%	4,904	3,602	3,250	3,250	3,250	3,250	3,250	6,014	8,126	10,802	8,221	4,865
90%	4,296	3,250	3,250	3,250	3,250	3,250	3,250	5,117	7,591	9,809	7,609	4,341
Long Term												
Full Simulation Period ^d	6,603	7,231	6,955	8,689	11,017	8,450	5,525	7,799	9,888	13,202	9,640	8,687
Water Year Types ^{b,c}												
Wet (32%)	8,021	9,866	7,441	17,792	19,245	16,127	8,455	8,663	8,971	13,464	10,501	14,061
Above Normal (16%)	7,394	10,104	6,298	7,444	16,207	8,331	5,221	7,926	10,435	15,324	10,549	9,996
Below Normal (13%)	5,839	5,014	7,557	3,328	6,912	3,925	3,731	7,865	10,908	14,379	10,758	5,610
Dry (24%)	5,781	5,160	8,619	3,705	3,511	4,006	3,740	7,034	10,446	12,434	8,521	4,960
Critical (15%)	4,742	3,891	3,287	3,535	3,842	3,499	4,122	7,006	9,418	10,535	7,632	4,657

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,422	11,642	15,722	22,213	28,482	19,848	11,602	10,370	13,374	16,000	11,443	15,711
20%	8,464	9,645	8,505	11,827	22,006	13,384	7,408	9,306	12,032	16,000	10,904	14,798
30%	7,212	8,279	4,984	8,973	13,171	8,856	5,473	8,876	11,187	15,873	10,171	12,124
40%	6,829	7,011	3,962	3,613	5,042	4,950	4,071	8,522	10,698	14,987	9,757	9,915
50%	6,369	6,075	3,407	3,250	3,250	3,250	3,538	8,147	9,966	13,972	9,471	6,158
60%	6,042	4,712	3,250	3,250	3,250	3,250	3,250	7,858	9,399	13,182	9,123	5,504
70%	5,438	4,148	3,250	3,250	3,250	3,250	3,250	7,024	9,047	12,134	8,682	5,273
80%	5,021	3,390	3,250	3,250	3,250	3,250	3,250	6,330	8,694	11,403	8,271	4,977
90%	4,509	3,250	3,250	3,250	3,250	3,250	3,250	5,876	8,070	9,851	7,789	4,425
Long Term												
Full Simulation Period ^d	6,656	6,698	6,571	8,978	10,975	8,949	6,022	8,148	10,286	13,577	9,592	8,821
Water Year Types ^{b,c}												
Wet (32%)	7,783	9,308	6,937	18,680	18,813	17,028	9,377	8,581	9,282	13,743	10,291	14,017
Above Normal (16%)	7,783	8,819	5,745	7,429	16,100	8,468	5,877	8,440	10,930	15,812	10,546	10,645
Below Normal (13%)	5,678	4,688	7,061	3,284	7,843	4,330	4,508	8,664	11,225	14,908	10,424	5,558
Dry (24%)	5,823	4,697	8,345	3,608	3,725	4,435	3,738	7,493	10,933	13,073	8,664	5,023
Critical (15%)	5,278	3,921	3,266	3,806	3,392	3,720	4,100	7,510	9,825	10,419	7,831	4,910

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	162	-255	-1,184	1,257	-2,051	1,346	1,218	-68	192	0	-483	33
20%	187	-792	-566	-339	-1,087	1,068	634	-185	491	0	-61	1,447
30%	-273	-563	-128	1,244	2,099	940	983	101	318	201	-258	521
40%	-186	-657	-524	21	906	794	352	282	794	709	56	370
50%	89	-256	-175	0	0	0	288	513	657	664	-32	-256
60%	121	-1,077	-117	0	0	0	0	707	502	860	-48	-42
70%	75	-338	0	0	0	0	0	368	646	620	-37	25
80%	117	-212	0	0	0	0	0	316	569	601	51	112
90%	213	0	0	0	0	0	0	760	479	42	180	84
Long Term												
Full Simulation Period ^d	53	-533	-384	289	-43	499	497	349	398	376	-48	134
Water Year Types ^{b,c}												
Wet (32%)	-238	-558	-504	888	-432	901	922	-81	312	279	-210	-45
Above Normal (16%)	389	-1,286	-553	-16	-107	136	657	514	495	488	-3	649
Below Normal (13%)	-162	-325	-496	-44	931	405	777	799	317	530	-334	-52
Dry (24%)	42	-463	-274	-97	214	429	-1	459	487	639	143	63
Critical (15%)	536	30	-21	271	-450	221	-22	504	407	-116	199	253

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-4. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,559	9,060	19,004	22,149	30,593	19,078	10,156	10,499	13,807	16,000	11,616	9,092
20%	7,903	7,286	11,909	14,917	21,627	12,718	6,798	9,753	12,418	15,817	10,678	8,132
30%	7,361	6,708	6,656	9,342	12,886	9,001	5,746	9,253	11,759	14,484	10,231	7,408
40%	6,903	5,939	4,989	6,199	6,743	5,632	4,510	8,616	10,594	13,351	9,830	6,168
50%	6,334	5,579	4,428	3,619	3,970	4,470	3,691	8,267	9,902	12,438	9,620	5,693
60%	5,793	5,223	3,871	3,250	3,250	3,250	3,250	7,735	9,069	11,778	9,083	5,167
70%	5,411	4,825	3,250	3,250	3,250	3,250	3,250	7,003	8,534	11,393	8,722	4,970
80%	5,024	4,304	3,250	3,250	3,250	3,250	3,250	6,161	8,116	10,146	8,071	4,490
90%	4,332	3,498	3,250	3,250	3,250	3,250	3,250	5,422	7,665	9,601	7,598	4,224
Long Term												
Full Simulation Period ^d	6,412	6,261	7,807	9,378	11,457	8,860	5,702	8,122	10,305	12,822	9,551	6,332
Water Year Types ^{b,c}												
Wet (32%)	7,691	6,914	9,421	18,493	19,566	16,396	8,634	8,587	9,103	13,506	10,625	8,278
Above Normal (16%)	6,891	8,278	7,133	8,569	17,409	9,405	5,402	8,276	10,918	15,142	10,559	7,311
Below Normal (13%)	5,846	5,387	7,730	4,503	8,026	4,794	4,165	8,629	12,250	13,871	10,015	5,250
Dry (24%)	5,793	5,707	8,808	3,908	3,633	4,053	3,869	7,739	11,949	11,581	8,538	4,809
Critical (15%)	4,673	4,385	3,445	4,093	3,628	3,677	4,136	7,125	9,385	9,934	7,396	4,583

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,982	8,372	16,927	24,105	29,272	19,860	11,303	11,052	14,358	16,000	11,254	8,101
20%	7,287	7,184	11,109	15,657	22,117	14,245	7,760	10,142	12,820	15,885	10,754	7,346
30%	6,985	6,141	5,987	9,550	13,045	11,099	5,799	9,621	11,954	14,978	10,205	6,549
40%	6,407	5,624	5,000	4,764	7,319	7,054	4,811	9,030	11,507	13,715	9,826	5,765
50%	6,198	5,313	4,522	3,501	4,000	4,470	3,972	8,496	10,690	12,988	9,513	5,276
60%	5,788	4,882	3,657	3,250	3,250	3,250	3,356	8,031	10,035	12,281	9,098	5,020
70%	5,487	4,418	3,250	3,250	3,250	3,250	3,250	7,600	9,263	11,713	8,673	4,786
80%	5,188	4,000	3,250	3,250	3,250	3,250	3,250	7,031	8,613	10,866	8,111	4,507
90%	4,397	3,250	3,250	3,250	3,250	3,250	3,250	5,973	7,789	9,749	7,634	4,123
Long Term												
Full Simulation Period ^d	6,218	5,801	7,598	9,685	11,366	9,579	6,183	8,623	10,805	13,114	9,518	5,891
Water Year Types ^{b,c}												
Wet (32%)	7,111	6,484	9,062	19,543	19,148	17,537	9,497	8,787	9,569	13,666	10,438	7,248
Above Normal (16%)	6,675	7,106	6,195	8,628	17,103	9,953	6,086	8,969	11,748	15,798	10,746	6,775
Below Normal (13%)	5,559	5,181	7,299	5,215	8,348	5,298	4,554	9,395	12,308	14,143	9,641	5,036
Dry (24%)	5,710	5,227	9,302	3,774	3,783	4,612	3,994	8,307	11,540	12,040	8,603	4,726
Critical (15%)	5,237	4,431	3,381	3,419	3,699	4,132	4,251	7,709	9,859	9,856	7,605	4,717

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-577	-687	-2,078	1,956	-1,320	782	1,147	553	551	0	-362	-991
20%	-616	-102	-800	740	491	1,527	963	388	402	69	75	-785
30%	-376	-567	-669	207	159	2,098	53	368	195	494	-27	-859
40%	-497	-314	11	-1,435	576	1,422	300	414	913	364	-5	-403
50%	-136	-265	94	-118	30	0	281	229	788	550	-108	-417
60%	-5	-342	-215	0	0	0	106	296	966	503	15	-148
70%	76	-407	0	0	0	0	0	597	729	319	-49	-184
80%	164	-304	0	0	0	0	0	870	497	720	40	17
90%	65	-248	0	0	0	0	0	551	124	148	37	-101
Long Term												
Full Simulation Period ^d	-194	-460	-209	307	-91	719	482	500	500	292	-34	-441
Water Year Types ^{b,c}												
Wet (32%)	-580	-431	-359	1,050	-418	1,141	863	200	466	160	-187	-1,031
Above Normal (16%)	-217	-1,172	-938	59	-306	548	684	693	829	657	186	-536
Below Normal (13%)	-287	-206	-431	712	322	503	389	766	57	273	-374	-215
Dry (24%)	-83	-480	494	-134	150	559	125	568	591	458	64	-83
Critical (15%)	564	46	-64	-674	72	455	116	584	474	-77	209	134

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

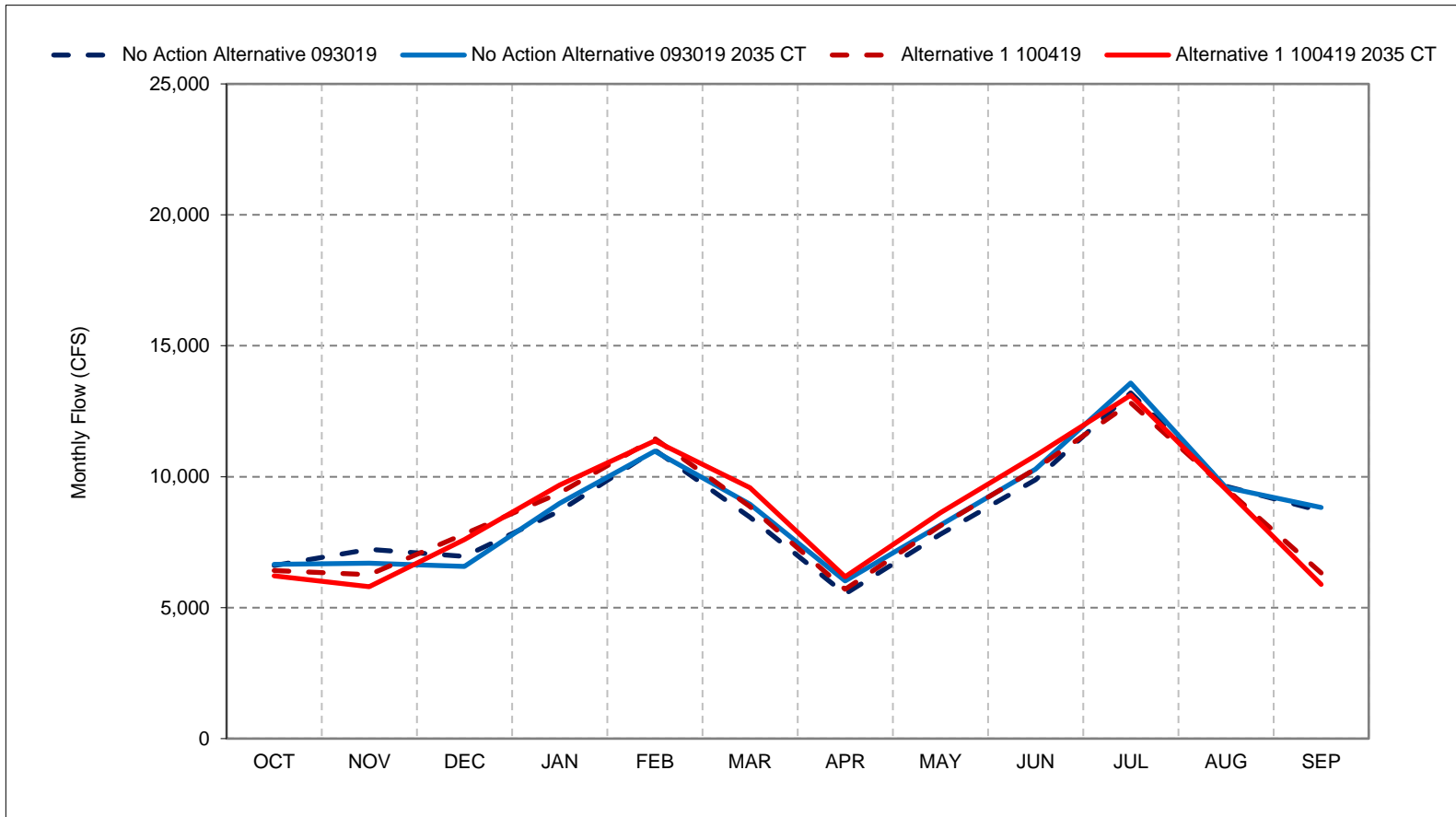
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 15-1. Sacramento River Flow downstream of Keswick Reservoir, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

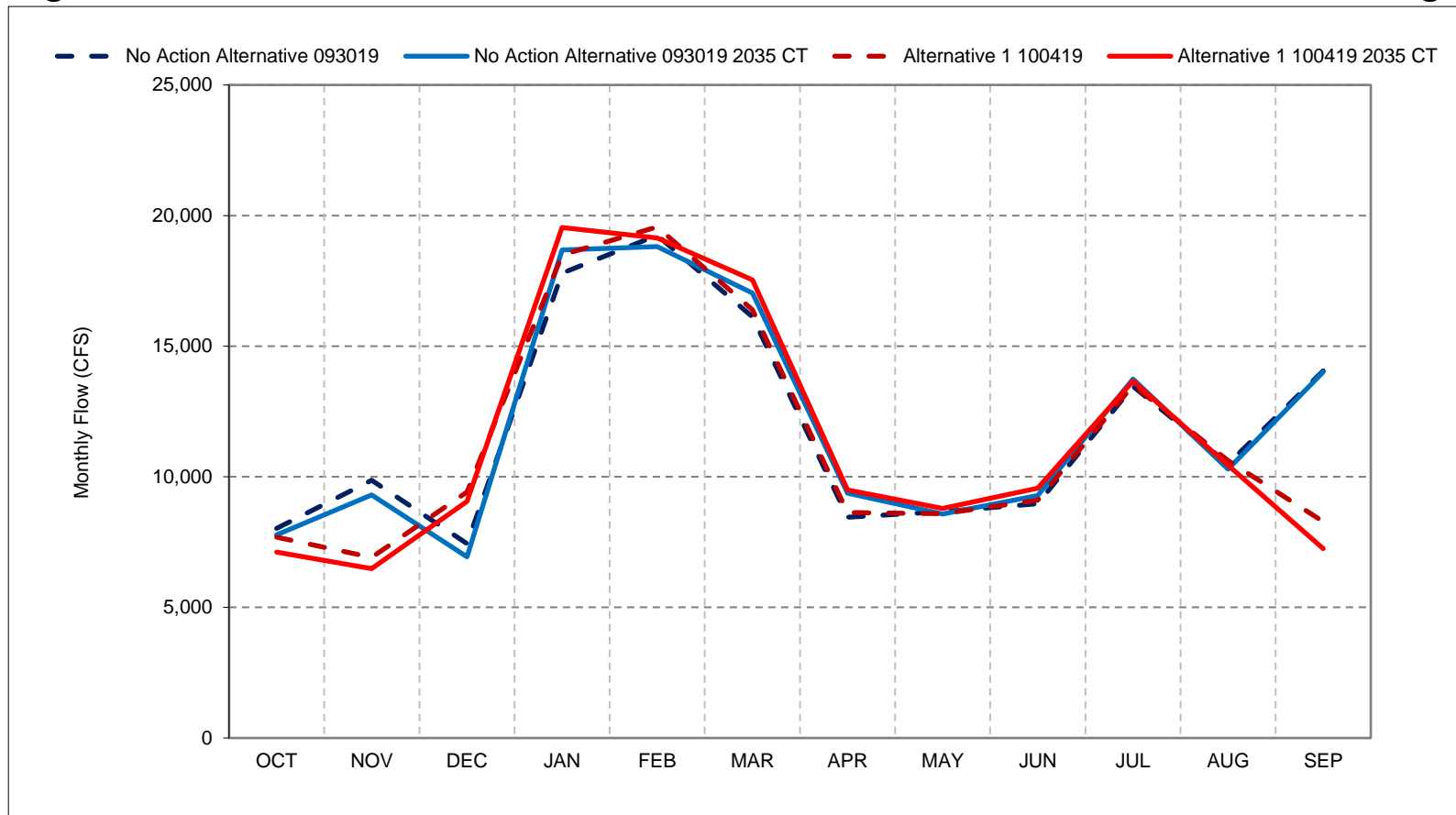
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-2. Sacramento River Flow downstream of Keswick Reservoir, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

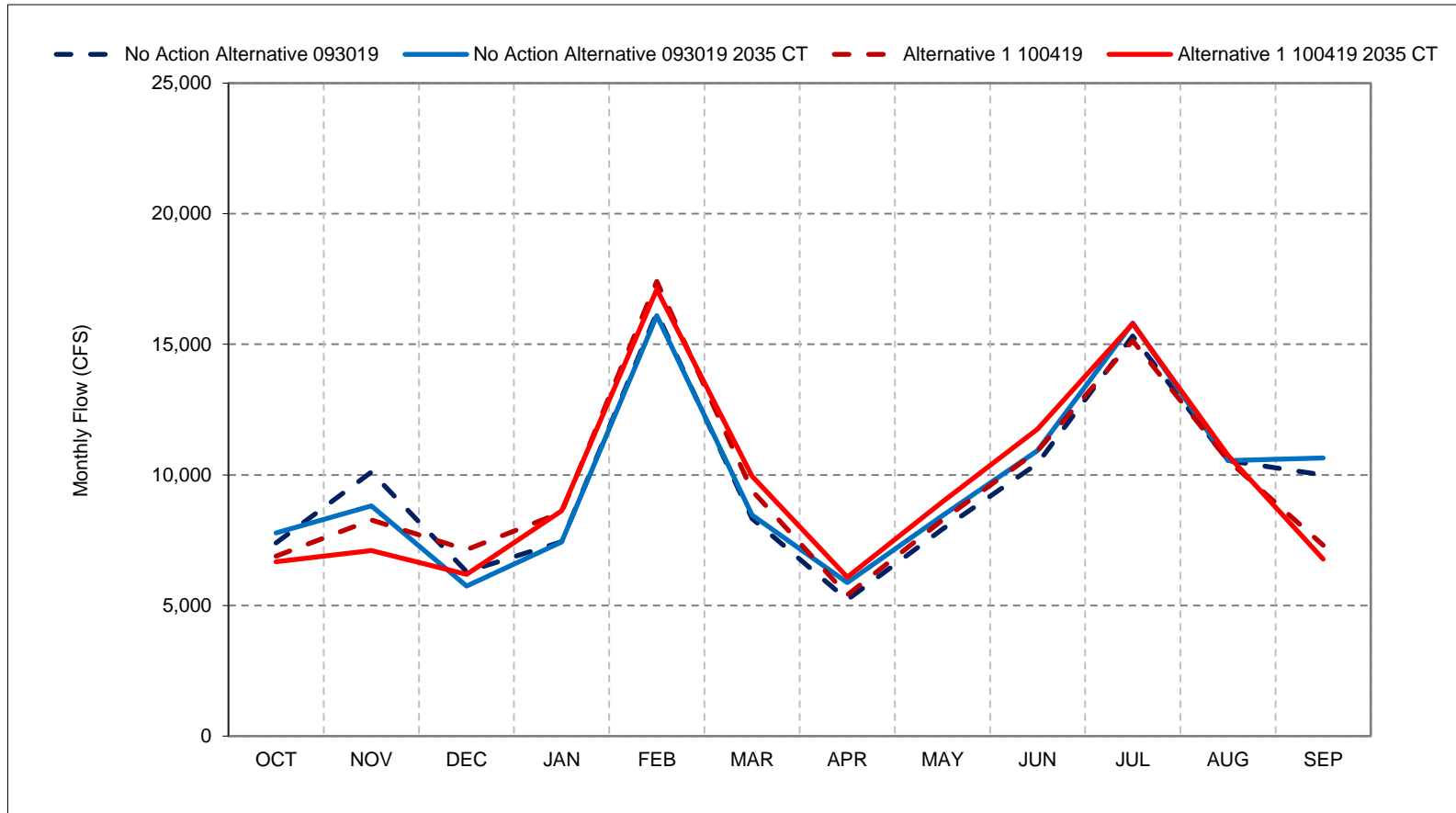
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-3. Sacramento River Flow downstream of Keswick Reservoir, Above Normal Year Average



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

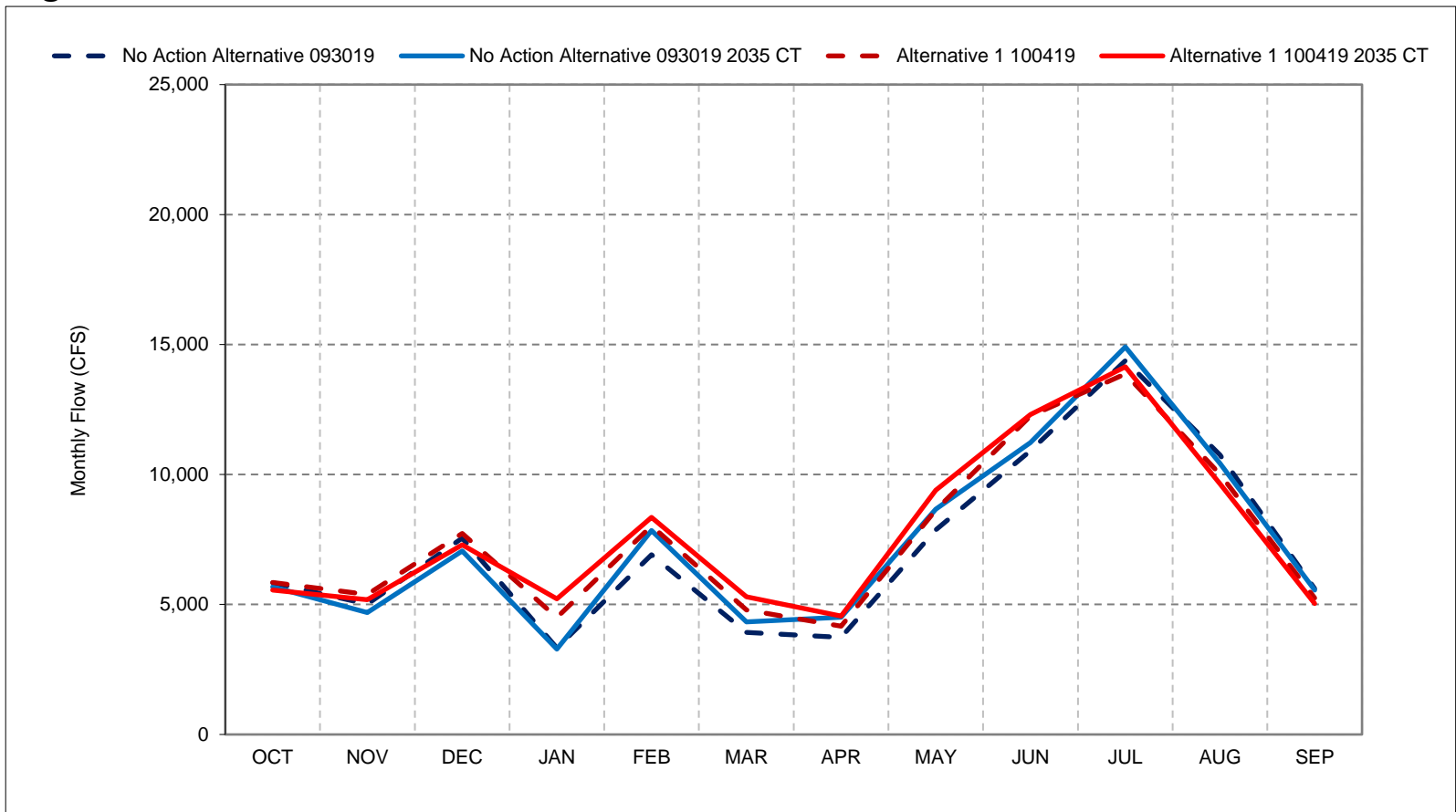
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-4. Sacramento River Flow downstream of Keswick Reservoir, Below Normal Year Averag



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

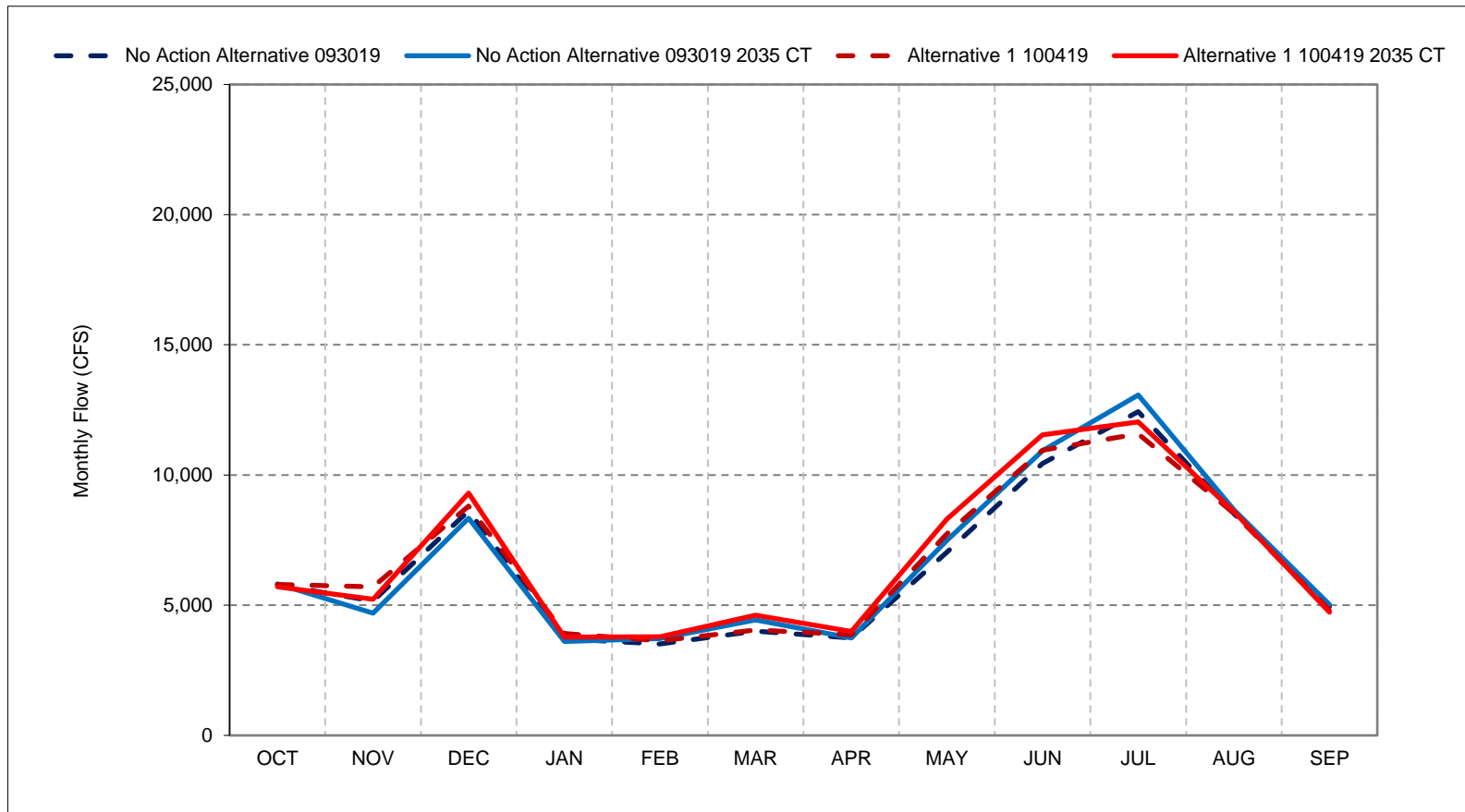
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-5. Sacramento River Flow downstream of Keswick Reservoir, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

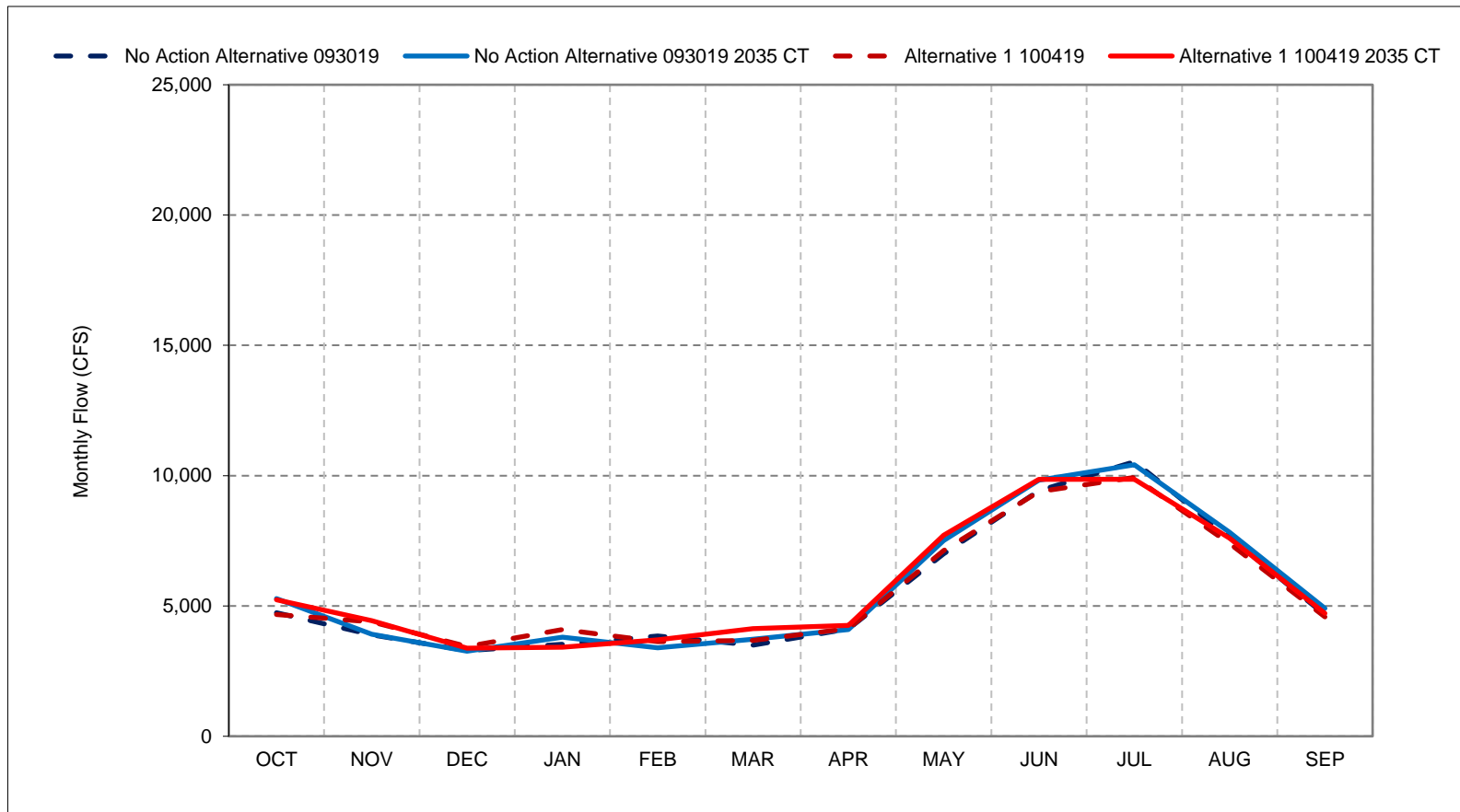
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-6. Sacramento River Flow downstream of Keswick Reservoir, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

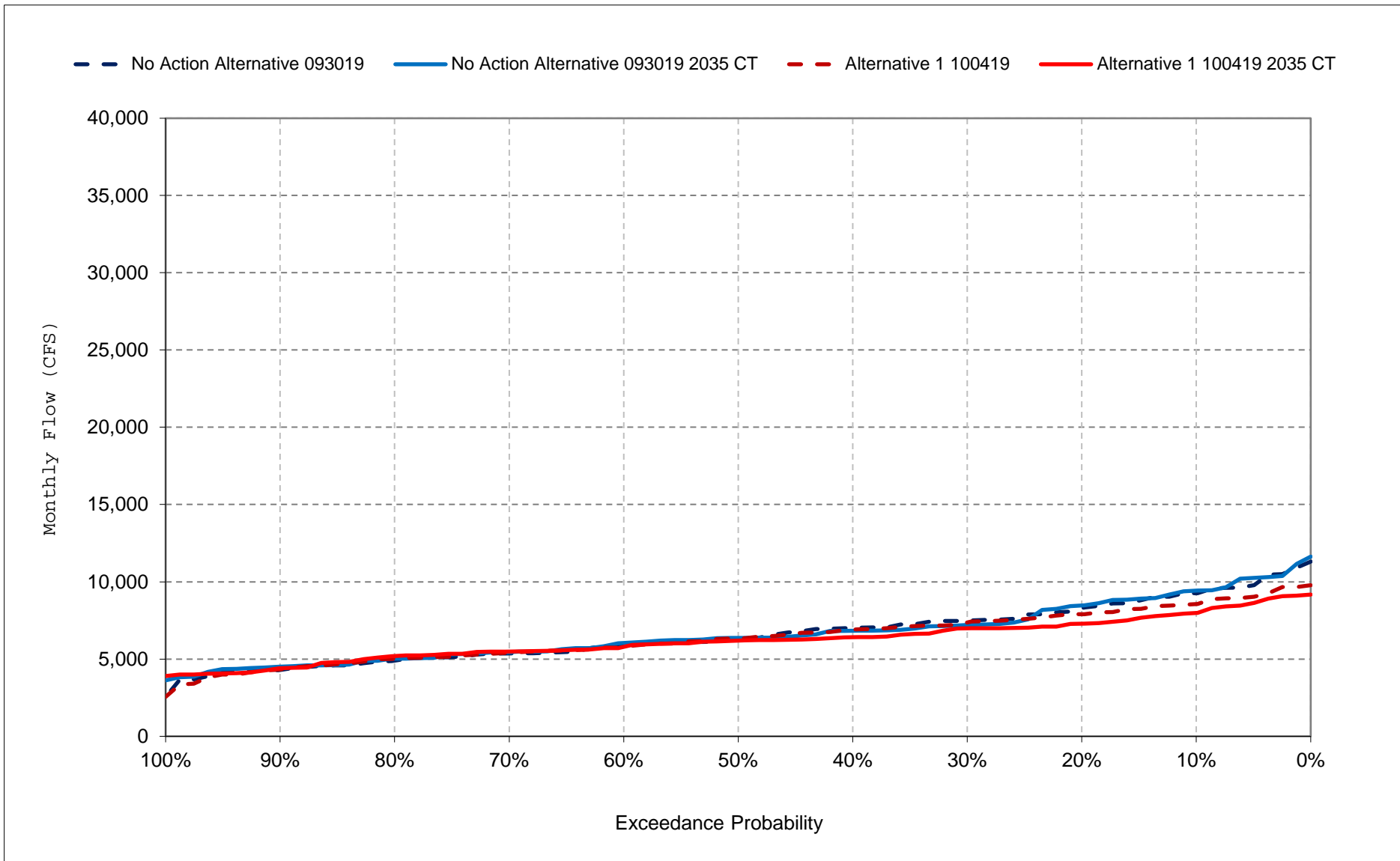
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

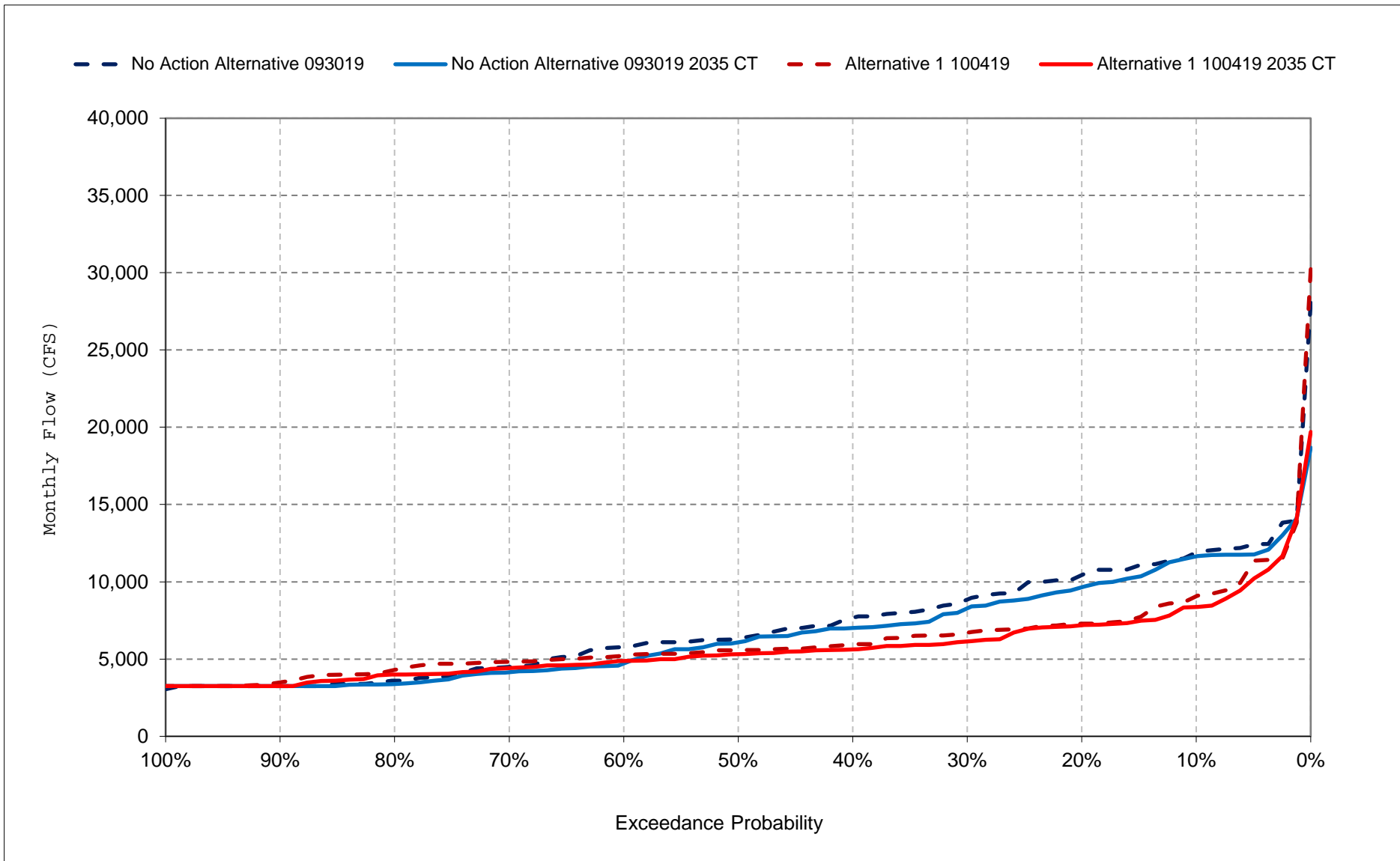
Figure 15-7. Sacramento River Flow downstream of Keswick Reservoir, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

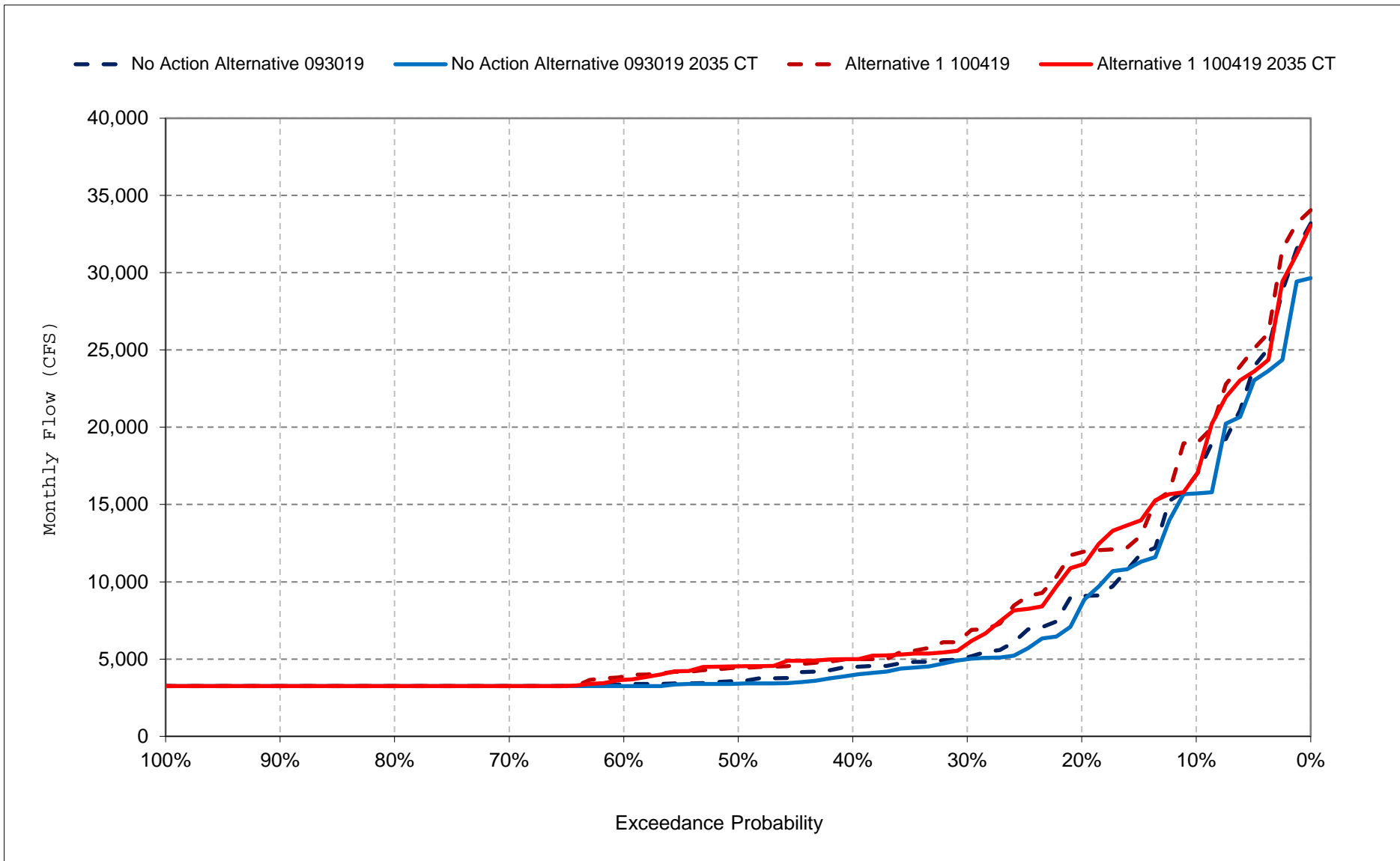
Figure 15-8. Sacramento River Flow downstream of Keswick Reservoir, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

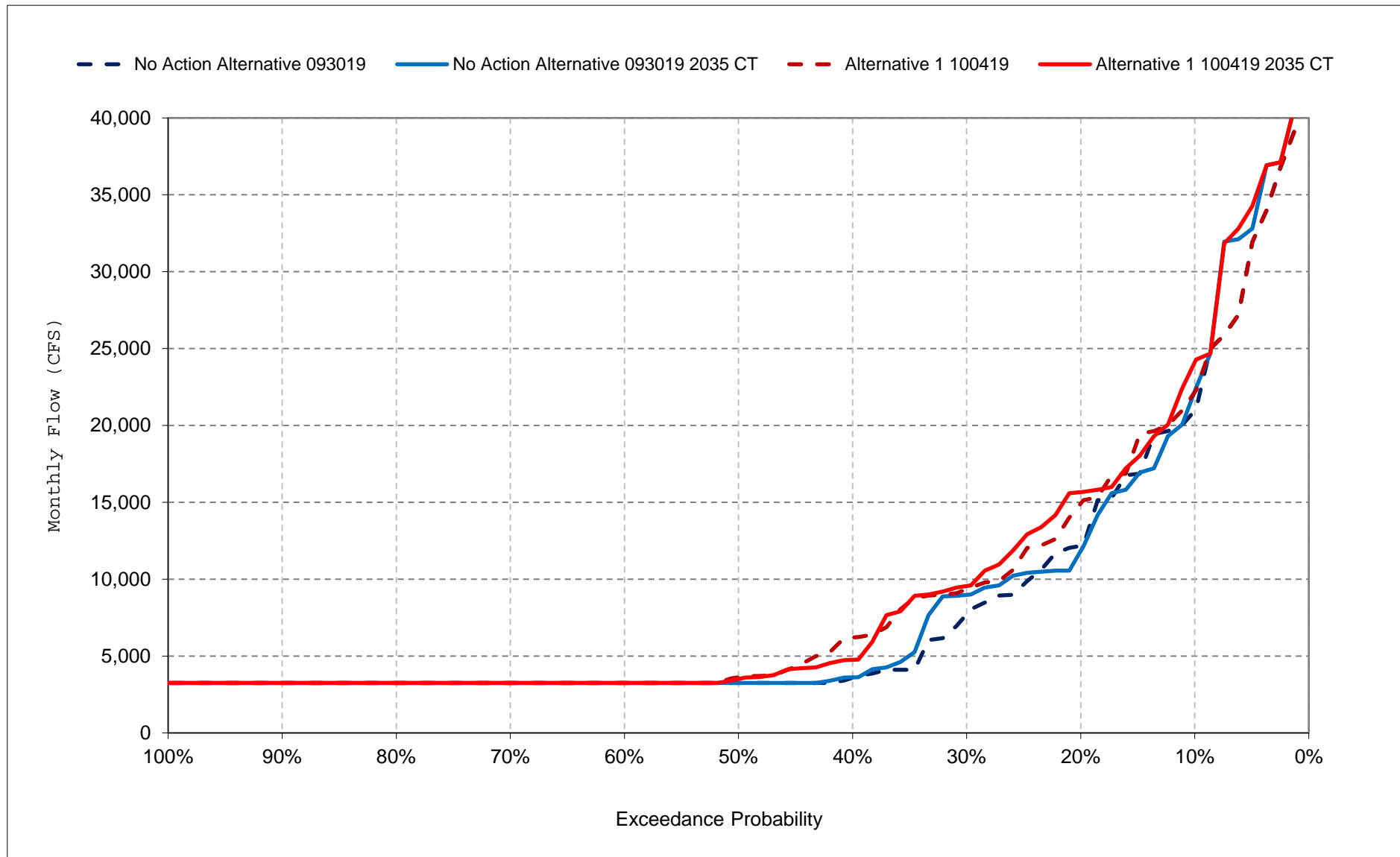
Figure 15-9. Sacramento River Flow downstream of Keswick Reservoir, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

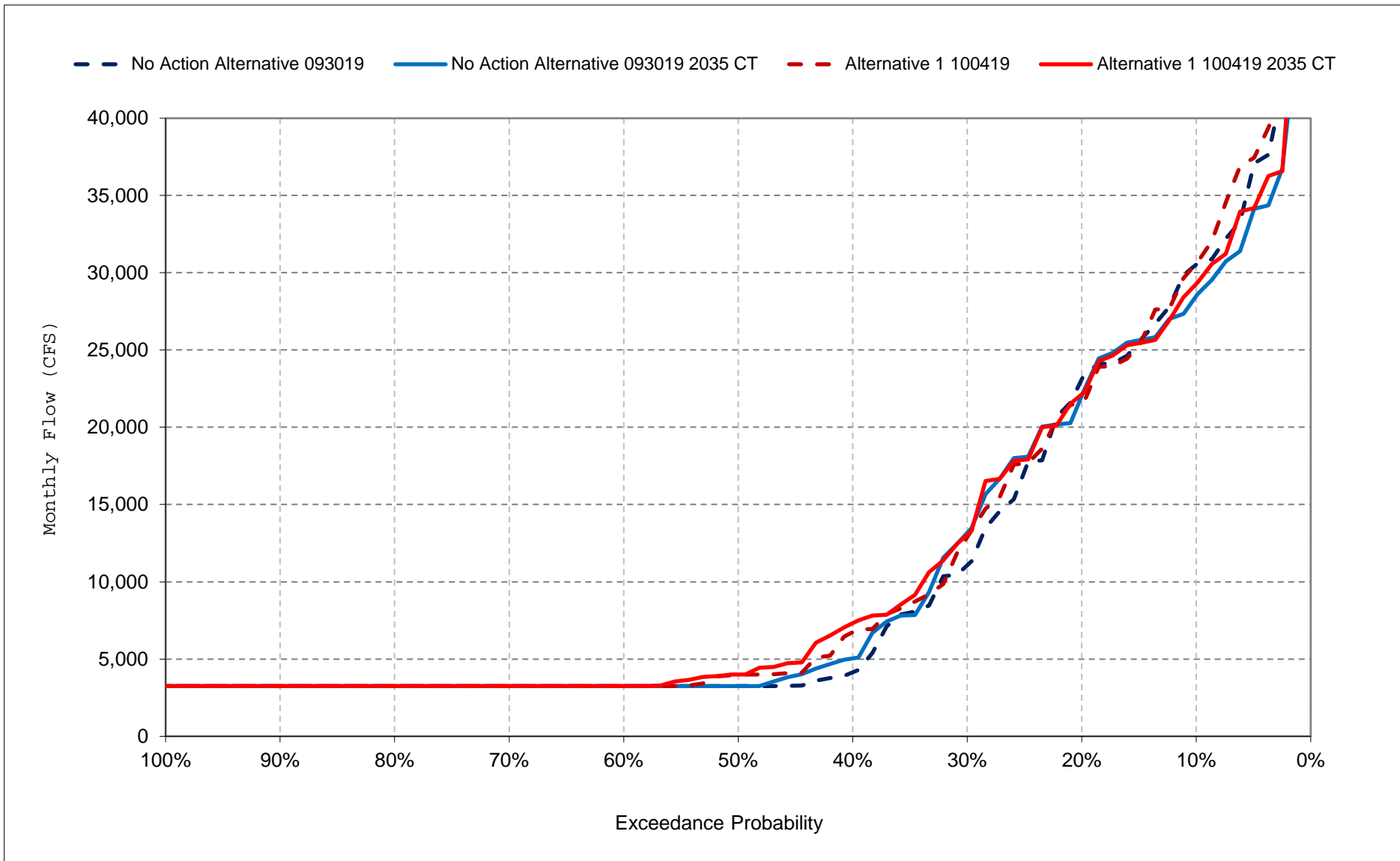
Figure 15-10. Sacramento River Flow downstream of Keswick Reservoir, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

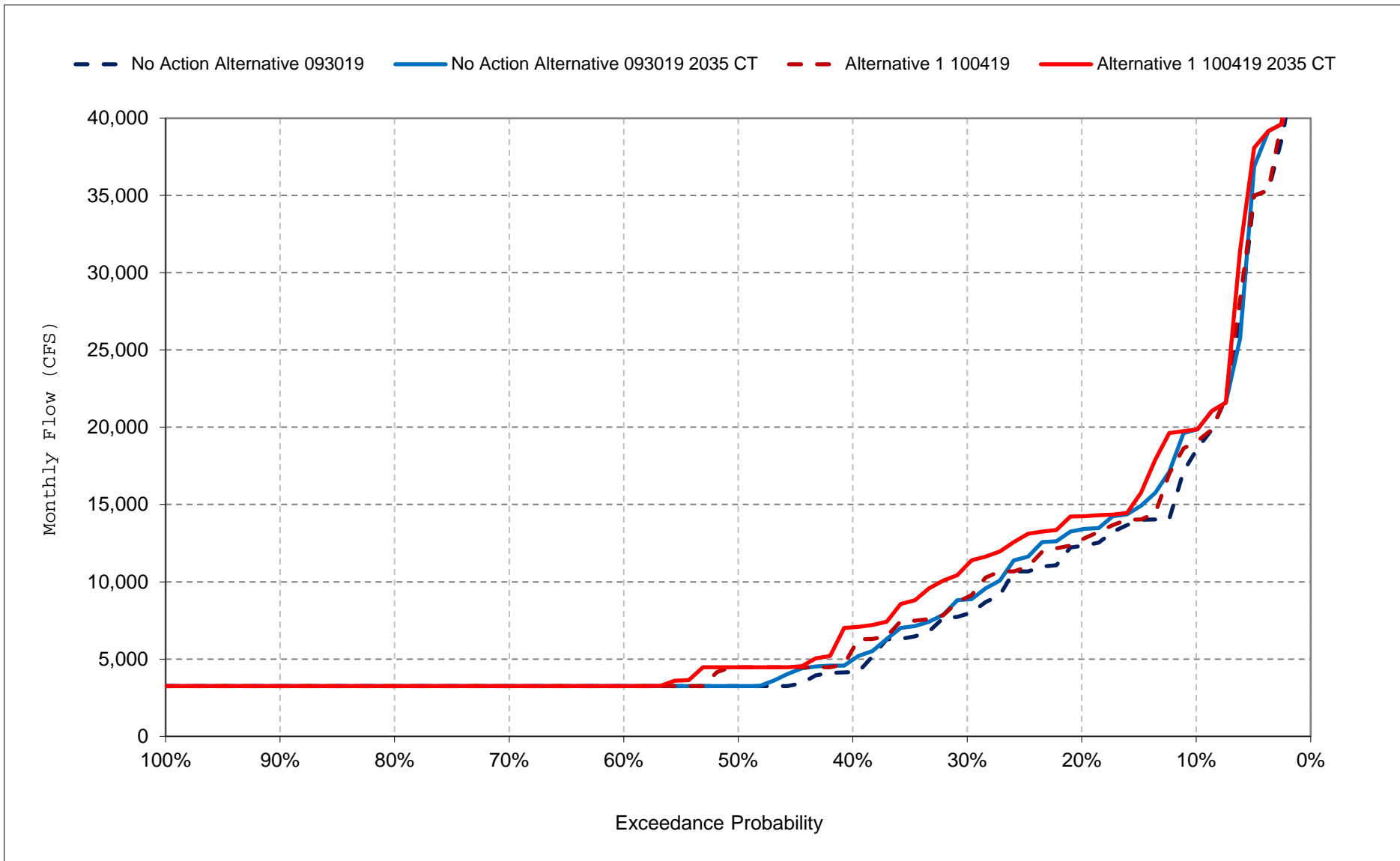
Figure 15-11. Sacramento River Flow downstream of Keswick Reservoir, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

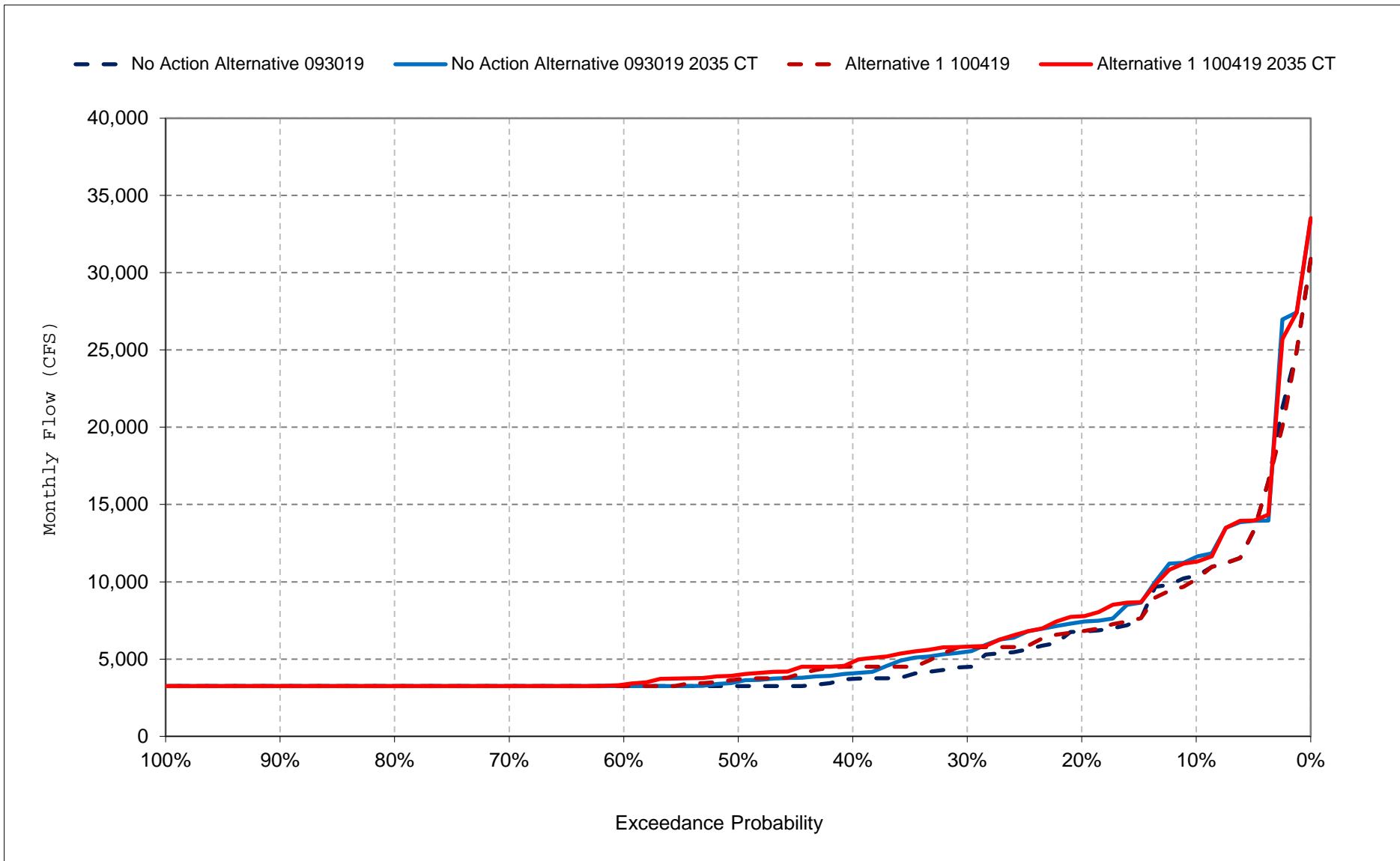
Figure 15-12. Sacramento River Flow downstream of Keswick Reservoir, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

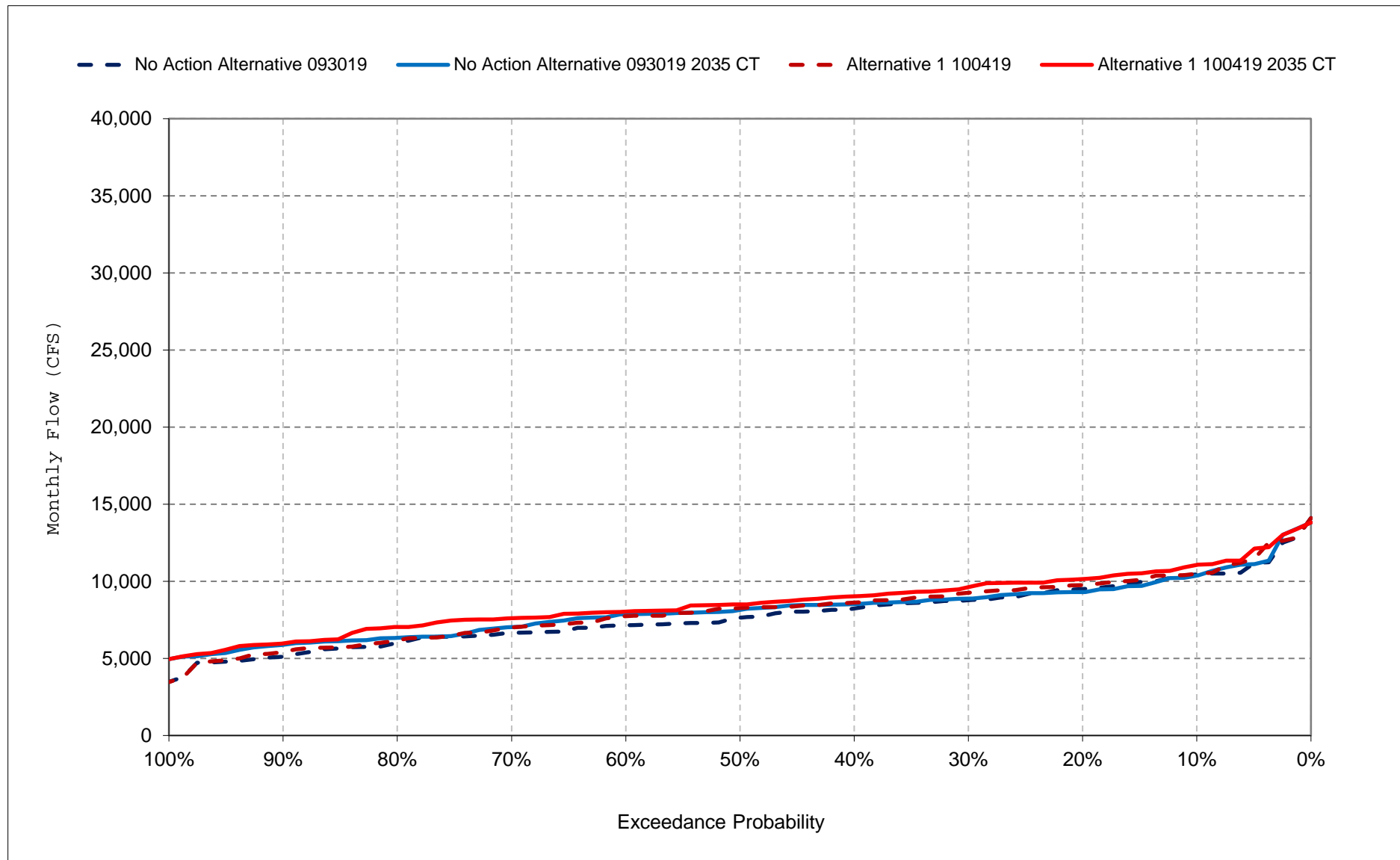
Figure 15-13. Sacramento River Flow downstream of Keswick Reservoir, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

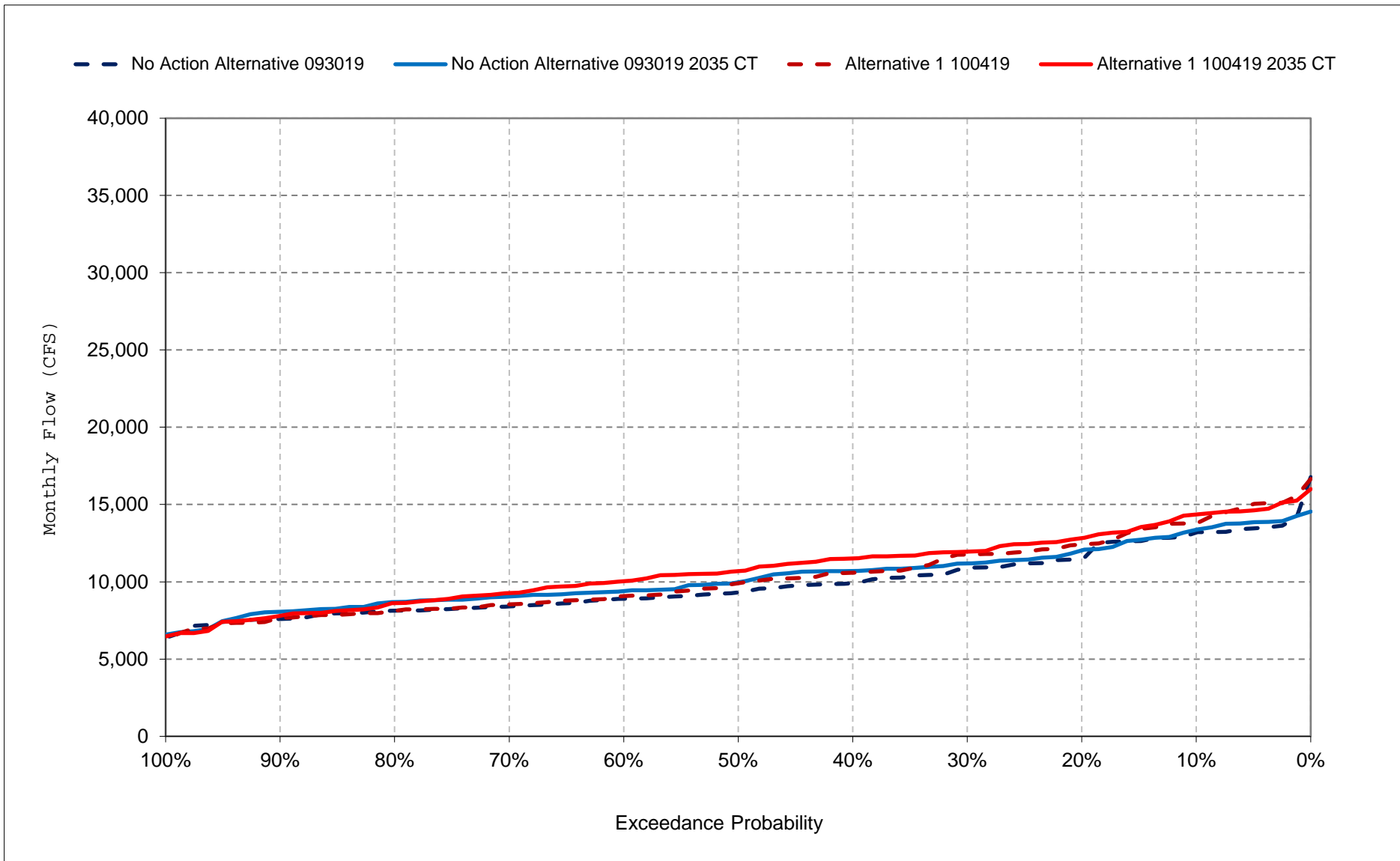
Figure 15-14. Sacramento River Flow downstream of Keswick Reservoir, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

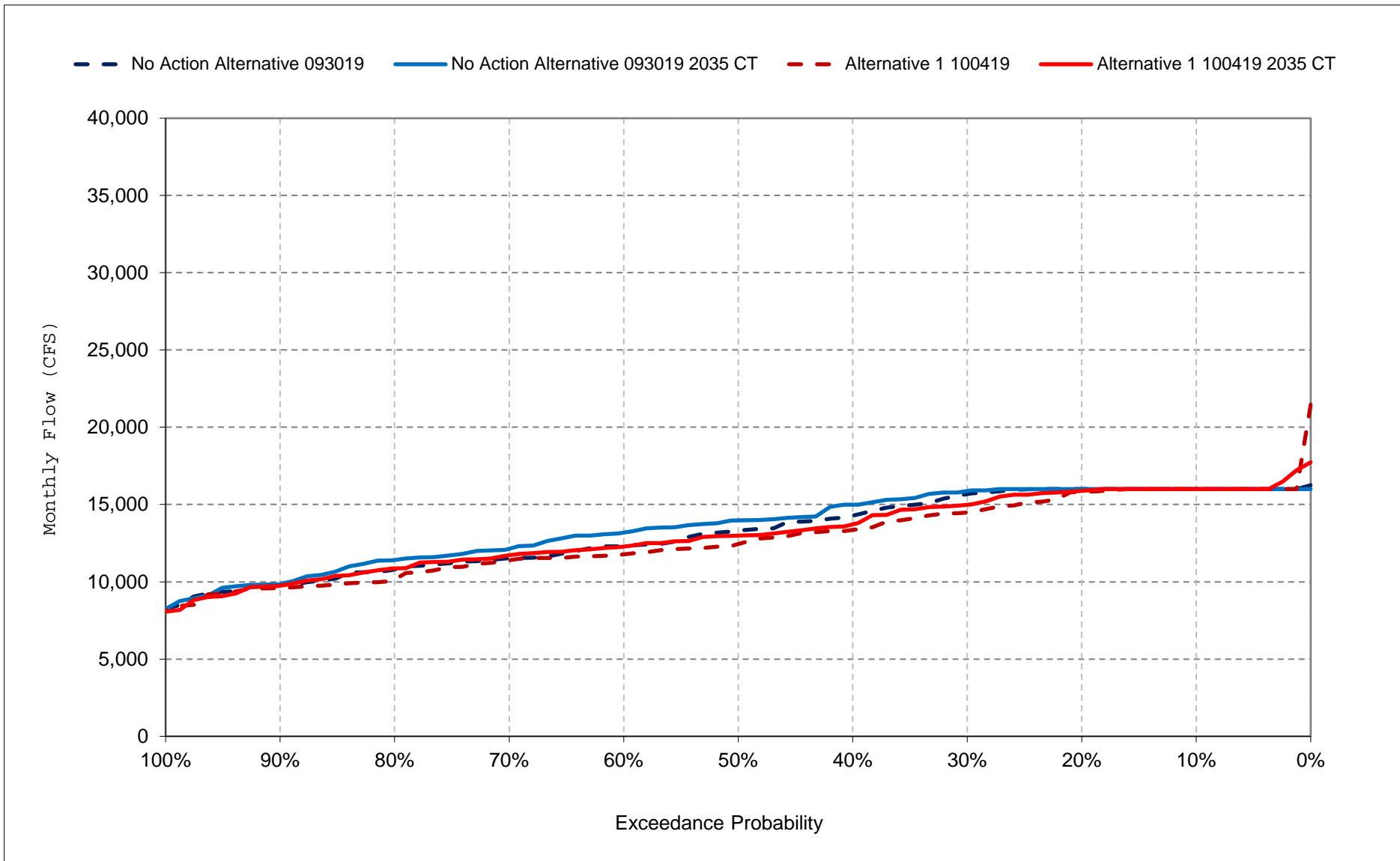
Figure 15-15. Sacramento River Flow downstream of Keswick Reservoir, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

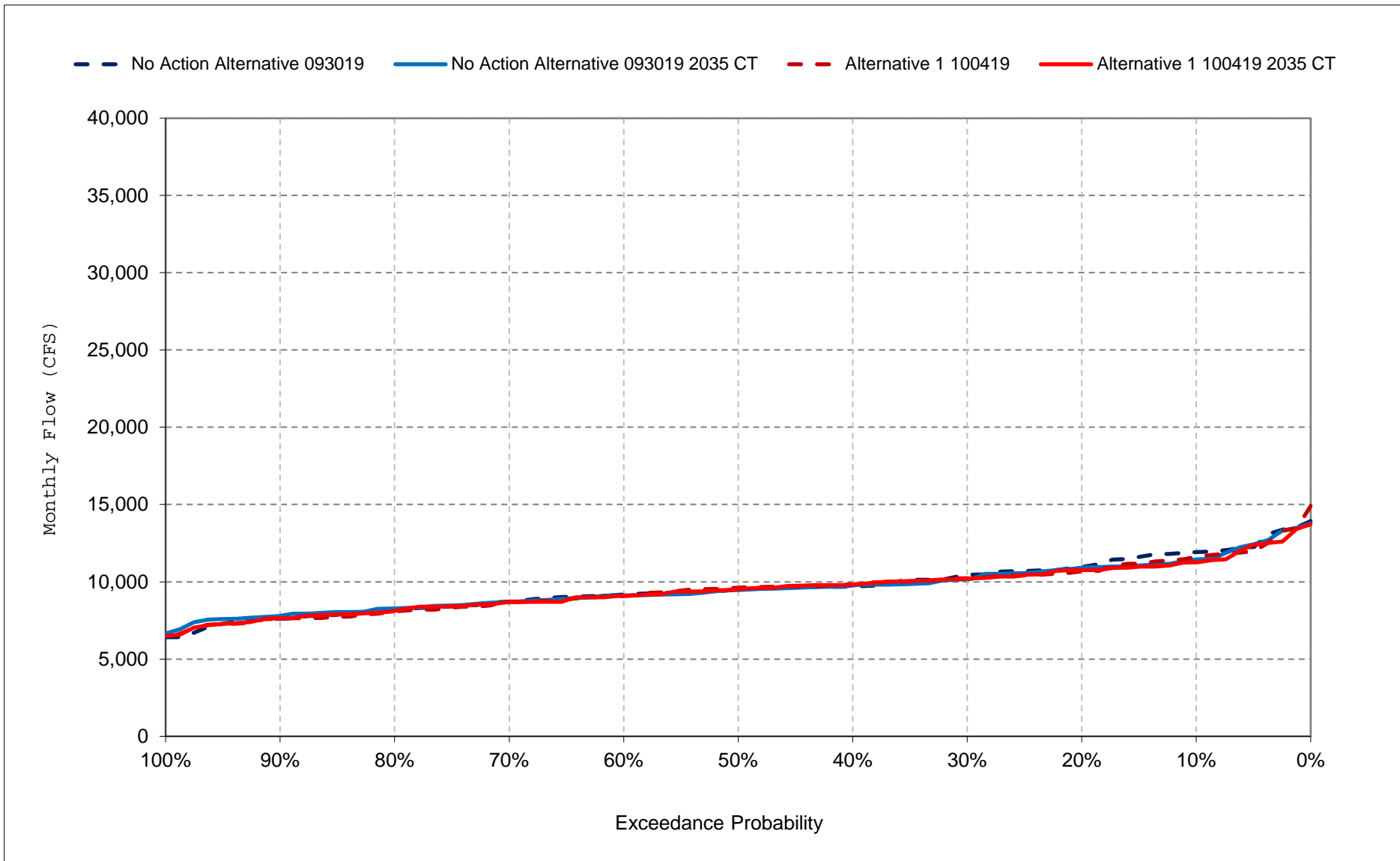
Figure 15-16. Sacramento River Flow downstream of Keswick Reservoir, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

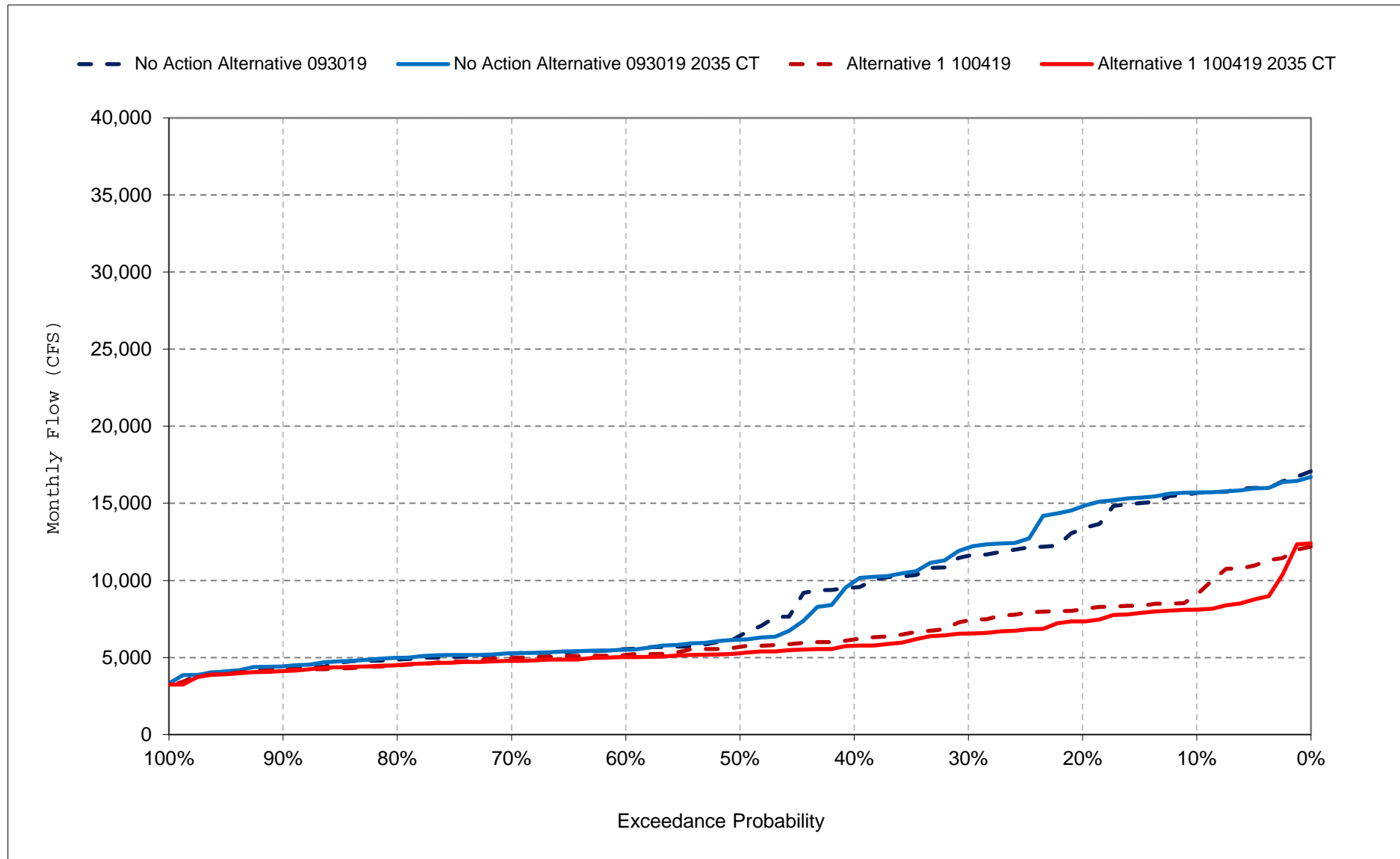
Figure 15-17. Sacramento River Flow downstream of Keswick Reservoir, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 15-18. Sacramento River Flow downstream of Keswick Reservoir, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-1. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,198	13,953	26,688	35,638	46,109	29,262	16,420	13,490	13,551	16,306	12,112	16,020
20%	9,498	12,211	15,873	23,609	32,798	19,328	12,773	11,737	12,471	15,987	11,287	13,911
30%	8,462	11,288	10,517	15,778	21,195	14,704	8,502	10,439	11,286	15,695	10,484	11,975
40%	7,922	10,189	7,881	11,219	12,726	10,332	7,391	9,564	10,723	14,509	10,023	10,170
50%	7,346	8,607	6,865	8,652	10,395	8,537	6,357	8,987	10,334	13,470	9,675	7,057
60%	6,574	7,355	6,269	7,028	8,309	7,612	5,807	8,557	9,943	12,467	9,377	5,866
70%	6,171	6,547	5,741	6,470	7,352	6,586	5,469	8,058	9,685	11,691	8,850	5,669
80%	5,818	5,927	5,387	5,793	5,852	5,734	5,242	7,767	9,277	11,074	8,363	5,328
90%	5,155	5,163	5,015	4,941	5,103	5,308	4,898	6,907	8,721	10,298	7,835	4,725
Long Term												
Full Simulation Period ^d	7,529	9,445	11,764	15,505	18,752	14,404	9,161	9,828	10,812	13,424	9,822	9,127
Water Year Types ^{b,c}												
Wet (32%)	8,976	12,271	12,210	29,245	30,766	24,888	13,986	11,642	10,481	13,927	10,755	14,538
Above Normal (16%)	8,375	12,465	10,942	16,112	25,805	15,721	9,621	10,248	11,260	15,411	10,700	10,438
Below Normal (13%)	6,912	6,720	11,740	7,446	12,327	7,257	6,300	9,296	11,605	14,450	10,870	6,082
Dry (24%)	6,744	7,760	14,998	7,168	9,322	8,960	6,452	8,495	11,039	12,524	8,692	5,386
Critical (15%)	5,350	5,355	6,319	6,361	6,689	5,888	5,349	8,151	9,941	10,738	7,775	5,011

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,822	11,114	29,772	38,805	47,109	29,725	16,203	13,852	14,735	16,223	11,697	9,621
20%	8,844	9,366	20,581	25,056	31,587	19,309	12,814	11,831	13,413	15,892	10,954	8,383
30%	8,199	8,144	11,327	16,650	22,645	16,537	8,681	10,762	12,213	14,740	10,458	7,818
40%	7,530	7,749	8,955	13,252	13,213	10,674	7,506	10,304	11,164	13,857	10,129	6,732
50%	7,140	7,302	6,954	9,040	10,625	8,857	6,863	9,838	10,913	12,682	9,856	6,111
60%	6,666	7,034	6,590	7,342	8,427	7,849	6,093	8,960	10,578	11,864	9,516	5,662
70%	6,245	6,661	5,964	6,634	7,539	7,188	5,676	8,501	9,822	11,451	8,800	5,369
80%	5,891	6,116	5,590	5,851	6,070	5,804	5,266	7,850	9,461	10,680	8,207	4,908
90%	5,463	5,606	5,215	4,941	5,367	5,276	4,930	7,252	8,755	9,846	7,838	4,639
Long Term												
Full Simulation Period ^d	7,358	8,479	12,625	16,190	19,299	14,812	9,341	10,154	11,359	13,101	9,796	6,773
Water Year Types ^{b,c}												
Wet (32%)	8,683	9,312	14,204	29,931	31,255	25,141	14,164	11,566	10,733	14,034	10,945	8,756
Above Normal (16%)	7,894	10,639	11,788	17,231	27,182	16,793	9,801	10,601	11,863	15,295	10,779	7,755
Below Normal (13%)	6,924	7,098	11,914	8,618	13,613	8,122	6,728	10,046	13,051	13,976	10,176	5,718
Dry (24%)	6,768	8,320	15,197	7,368	9,450	9,015	6,589	9,203	11,664	11,726	8,771	5,229
Critical (15%)	5,289	5,866	6,478	6,933	6,482	6,083	5,371	8,298	10,111	10,190	7,603	4,952

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-376	-2,839	3,084	3,167	1,001	462	-217	362	1,184	-83	-415	-6,399
20%	-654	-2,845	4,708	1,447	-1,211	-18	41	94	942	-95	-333	-5,528
30%	-263	-3,145	810	873	1,451	1,833	179	323	927	-955	-26	-4,157
40%	-392	-2,440	1,073	2,034	487	342	115	740	441	-652	105	-3,437
50%	-206	-1,305	89	388	230	321	507	851	579	-788	180	-946
60%	92	-321	321	313	117	238	285	403	635	-603	139	-204
70%	75	114	223	164	187	603	207	443	136	-240	-50	-300
80%	72	189	203	58	218	69	24	83	184	-394	-156	-420
90%	308	444	200	0	264	-32	32	344	34	-453	3	-86
Long Term												
Full Simulation Period ^d	-171	-966	862	685	547	408	179	327	547	-323	-26	-2,355
Water Year Types ^{b,c}												
Wet (32%)	-293	-2,959	1,994	686	489	253	178	-76	252	107	190	-5,783
Above Normal (16%)	-481	-1,826	846	1,119	1,377	1,072	181	353	603	-116	79	-2,683
Below Normal (13%)	12	377	175	1,172	1,287	865	428	750	1,446	-474	-695	-364
Dry (24%)	24	560	199	200	129	55	137	708	625	-798	80	-157
Critical (15%)	-61	511	159	571	-206	194	23	147	170	-548	-172	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 16-2. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,333	13,298	24,754	35,634	43,884	30,551	17,667	13,078	14,009	16,315	11,637	16,102
20%	9,528	11,706	15,894	23,106	32,003	20,449	12,644	10,973	12,562	16,106	10,837	15,475
30%	8,069	10,742	10,888	17,049	22,329	16,982	8,777	10,113	11,666	15,865	10,377	12,705
40%	7,546	9,595	8,264	12,301	13,483	10,615	7,667	9,625	11,238	15,143	9,980	10,264
50%	7,113	7,886	7,038	8,813	10,949	8,851	6,348	9,300	10,767	14,145	9,581	6,553
60%	6,553	6,888	6,297	7,699	8,483	7,863	5,678	9,046	9,994	13,529	9,289	6,019
70%	6,241	6,381	5,778	6,705	7,061	6,763	5,462	8,224	9,754	12,449	8,819	5,607
80%	5,937	5,670	5,323	5,872	5,842	5,764	5,036	7,690	9,403	11,669	8,437	5,366
90%	5,567	5,151	4,959	5,056	5,270	5,277	4,669	7,374	8,758	10,328	8,092	4,896
Long Term												
Full Simulation Period ^d	7,505	8,938	11,591	16,269	18,776	15,047	9,525	9,749	10,988	13,812	9,774	9,272
Water Year Types^{b,c}												
Wet (32%)	8,649	11,729	11,908	30,758	30,184	25,960	14,778	10,834	10,315	14,229	10,555	14,513
Above Normal (16%)	8,688	11,193	10,542	16,714	25,692	15,887	10,137	10,284	11,663	15,925	10,704	11,100
Below Normal (13%)	6,658	6,455	11,501	7,763	13,523	7,711	6,846	9,853	11,786	14,981	10,525	6,042
Dry (24%)	6,721	7,328	14,929	7,400	9,804	9,673	6,334	8,674	11,447	13,172	8,838	5,460
Critical (15%)	5,829	5,408	6,564	6,975	6,332	6,173	5,252	8,513	10,220	10,617	7,944	5,252

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,836	10,759	26,849	39,360	44,225	30,557	17,550	13,275	14,841	16,403	11,504	8,479
20%	8,183	9,459	18,995	26,361	32,093	22,463	12,685	11,350	13,550	16,028	10,977	7,789
30%	7,739	7,950	11,780	18,718	22,364	18,192	8,962	10,988	12,959	15,213	10,411	6,802
40%	7,251	7,463	9,060	14,037	14,351	10,896	7,708	10,414	12,117	14,197	10,088	6,153
50%	6,904	7,027	7,624	9,340	11,342	9,334	6,868	9,952	11,484	13,482	9,835	5,689
60%	6,687	6,590	6,908	7,842	8,710	8,247	6,126	9,384	10,962	12,471	9,333	5,430
70%	6,161	6,490	5,991	6,742	7,350	7,496	5,491	9,017	10,330	11,842	8,857	5,277
80%	6,064	6,170	5,767	5,925	6,015	6,017	5,182	8,106	9,437	11,069	8,438	4,927
90%	5,500	5,554	5,501	5,097	5,444	5,282	4,845	7,423	8,745	10,184	7,909	4,657
Long Term												
Full Simulation Period ^d	7,094	8,047	12,626	16,964	19,281	15,676	9,688	10,227	11,636	13,406	9,762	6,341
Water Year Types^{b,c}												
Wet (32%)	8,021	8,899	14,044	31,583	30,686	26,451	14,896	11,040	10,720	14,216	10,769	7,744
Above Normal (16%)	7,607	9,485	10,998	17,908	26,869	17,371	10,341	10,813	12,597	15,973	10,970	7,229
Below Normal (13%)	6,548	6,952	11,738	9,687	14,161	8,681	6,883	10,579	12,976	14,259	9,797	5,517
Dry (24%)	6,621	7,872	15,894	7,562	9,905	9,858	6,595	9,486	12,172	12,187	8,836	5,154
Critical (15%)	5,817	5,943	6,686	6,606	6,668	6,606	5,422	8,744	10,458	10,116	7,783	5,075

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,497	-2,538	2,095	3,726	340	6	-117	197	832	88	-133	-7,623
20%	-1,346	-2,247	3,100	3,255	90	2,014	41	377	988	-77	139	-7,686
30%	-330	-2,792	892	1,668	34	1,210	186	875	1,293	-652	33	-5,903
40%	-296	-2,132	796	1,737	868	281	41	789	879	-947	108	-4,111
50%	-209	-859	586	527	392	483	519	652	717	-664	253	-864
60%	135	-298	611	143	227	384	448	337	968	-1,058	44	-589
70%	-80	109	213	36	289	733	28	793	575	-608	38	-331
80%	127	501	444	53	173	253	146	416	33	-599	2	-440
90%	-67	403	542	41	174	5	176	49	-14	-144	-183	-239
Long Term												
Full Simulation Period ^d	-411	-891	1,035	694	505	629	163	479	648	-407	-12	-2,931
Water Year Types^{b,c}												
Wet (32%)	-628	-2,831	2,137	825	502	490	118	206	405	-12	214	-6,769
Above Normal (16%)	-1,081	-1,708	456	1,193	1,176	1,483	204	529	934	48	267	-3,871
Below Normal (13%)	-110	497	237	1,924	638	970	38	726	1,190	-722	-728	-525
Dry (24%)	-100	544	966	163	101	185	261	812	725	-985	-2	-305
Critical (15%)	-11	534	122	-369	336	433	170	231	238	-501	-161	-177

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-3. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,198	13,953	26,688	35,638	46,109	29,262	16,420	13,490	13,551	16,306	12,112	16,020
20%	9,498	12,211	15,873	23,609	32,798	19,328	12,773	11,737	12,471	15,987	11,287	13,911
30%	8,462	11,288	10,517	15,778	21,195	14,704	8,502	10,439	11,286	15,695	10,484	11,975
40%	7,922	10,189	7,881	11,219	12,726	10,332	7,391	9,564	10,723	14,509	10,023	10,170
50%	7,346	8,607	6,865	8,652	10,395	8,537	6,357	8,987	10,334	13,470	9,675	7,057
60%	6,574	7,355	6,269	7,028	8,309	7,612	5,807	8,557	9,943	12,467	9,377	5,866
70%	6,171	6,547	5,741	6,470	7,352	6,586	5,469	8,058	9,685	11,691	8,850	5,669
80%	5,818	5,927	5,387	5,793	5,852	5,734	5,242	7,767	9,277	11,074	8,363	5,328
90%	5,155	5,163	5,015	4,941	5,103	5,308	4,898	6,907	8,721	10,298	7,835	4,725
Long Term												
Full Simulation Period ^d	7,529	9,445	11,764	15,505	18,752	14,404	9,161	9,828	10,812	13,424	9,822	9,127
Water Year Types ^{b,c}												
Wet (32%)	8,976	12,271	12,210	29,245	30,766	24,888	13,986	11,642	10,481	13,927	10,755	14,538
Above Normal (16%)	8,375	12,465	10,942	16,112	25,805	15,721	9,621	10,248	11,260	15,411	10,700	10,438
Below Normal (13%)	6,912	6,720	11,740	7,446	12,327	7,257	6,300	9,296	11,605	14,450	10,870	6,082
Dry (24%)	6,744	7,760	14,998	7,168	9,322	8,960	6,452	8,495	11,039	12,524	8,692	5,386
Critical (15%)	5,350	5,355	6,319	6,361	6,689	5,888	5,349	8,151	9,941	10,738	7,775	5,011

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,333	13,298	24,754	35,634	43,884	30,551	17,667	13,078	14,009	16,315	11,637	16,102
20%	9,528	11,706	15,894	23,106	32,003	20,449	12,644	10,973	12,562	16,106	10,837	15,475
30%	8,069	10,742	10,888	17,049	22,329	16,982	8,777	10,113	11,666	15,865	10,377	12,705
40%	7,546	9,595	8,264	12,301	13,483	10,615	7,667	9,625	11,238	15,143	9,980	10,264
50%	7,113	7,886	7,038	8,813	10,949	8,851	6,348	9,300	10,767	14,145	9,581	6,553
60%	6,553	6,888	6,297	7,699	8,483	7,863	5,678	9,046	9,994	13,529	9,289	6,019
70%	6,241	6,381	5,778	6,705	7,061	6,763	5,462	8,224	9,754	12,449	8,819	5,607
80%	5,937	5,670	5,323	5,872	5,842	5,764	5,036	7,690	9,403	11,669	8,437	5,366
90%	5,567	5,151	4,959	5,056	5,270	5,277	4,669	7,374	8,758	10,328	8,092	4,896
Long Term												
Full Simulation Period ^d	7,505	8,938	11,591	16,269	18,776	15,047	9,525	9,749	10,988	13,812	9,774	9,272
Water Year Types ^{b,c}												
Wet (32%)	8,649	11,729	11,908	30,758	30,184	25,960	14,778	10,834	10,315	14,229	10,555	14,513
Above Normal (16%)	8,688	11,193	10,542	16,714	25,692	15,887	10,137	10,284	11,663	15,925	10,704	11,100
Below Normal (13%)	6,658	6,455	11,501	7,763	13,523	7,711	6,846	9,853	11,786	14,981	10,525	6,042
Dry (24%)	6,721	7,328	14,929	7,400	9,804	9,673	6,334	8,674	11,447	13,172	8,838	5,460
Critical (15%)	5,829	5,408	6,564	6,975	6,332	6,173	5,252	8,513	10,220	10,617	7,944	5,252

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	136	-656	-1,933	-4	-2,224	1,289	1,247	-413	458	9	-475	82
20%	30	-506	21	-503	-795	1,122	-129	-764	90	119	-450	1,564
30%	-393	-547	371	1,272	1,135	2,278	275	-326	380	170	-107	730
40%	-375	-594	383	1,082	758	283	276	61	515	635	-43	94
50%	-233	-721	173	162	554	314	-8	312	433	675	-94	-505
60%	-21	-468	28	671	174	251	-129	489	51	1,062	-88	153
70%	71	-167	37	235	-291	177	-7	166	69	759	-31	-62
80%	119	-258	-65	79	-11	30	-206	-77	126	595	74	38
90%	413	-12	-56	115	166	-31	-229	466	38	29	257	171
Long Term												
Full Simulation Period ^d	-24	-506	-172	764	24	643	363	-79	176	389	-49	145
Water Year Types ^{b,c}												
Wet (32%)	-327	-541	-302	1,513	-582	1,072	792	-808	-166	301	-200	-26
Above Normal (16%)	314	-1,272	-401	602	-113	166	516	35	403	514	4	662
Below Normal (13%)	-255	-265	-239	317	1,196	454	545	557	181	532	-346	-40
Dry (24%)	-23	-432	-69	232	483	713	-118	179	408	648	146	73
Critical (15%)	479	54	245	613	-357	285	-97	362	279	-121	169	241

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-4. Sacramento Flow River at Bend Bridge, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,822	11,114	29,772	38,805	47,109	29,725	16,203	13,852	14,735	16,223	11,697	9,621
20%	8,844	9,366	20,581	25,056	31,587	19,309	12,814	11,831	13,413	15,892	10,954	8,383
30%	8,199	8,144	11,327	16,650	22,645	16,537	8,681	10,762	12,213	14,740	10,458	7,818
40%	7,530	7,749	8,955	13,252	13,213	10,674	7,506	10,304	11,164	13,857	10,129	6,732
50%	7,140	7,302	6,954	9,040	10,625	8,857	6,863	9,838	10,913	12,682	9,856	6,111
60%	6,666	7,034	6,590	7,342	8,427	7,849	6,093	8,960	10,578	11,864	9,516	5,662
70%	6,245	6,661	5,964	6,634	7,539	7,188	5,676	8,501	9,822	11,451	8,800	5,369
80%	5,891	6,116	5,590	5,851	6,070	5,804	5,266	7,850	9,461	10,680	8,207	4,908
90%	5,463	5,606	5,215	4,941	5,367	5,276	4,930	7,252	8,755	9,846	7,838	4,639
Long Term												
Full Simulation Period ^d	7,358	8,479	12,625	16,190	19,299	14,812	9,341	10,154	11,359	13,101	9,796	6,773
Water Year Types ^{b,c}												
Wet (32%)	8,683	9,312	14,204	29,931	31,255	25,141	14,164	11,566	10,733	14,034	10,945	8,756
Above Normal (16%)	7,894	10,639	11,788	17,231	27,182	16,793	9,801	10,601	11,863	15,295	10,779	7,755
Below Normal (13%)	6,924	7,098	11,914	8,618	13,613	8,122	6,728	10,046	13,051	13,976	10,176	5,718
Dry (24%)	6,768	8,320	15,197	7,368	9,450	9,015	6,589	9,203	11,664	11,726	8,771	5,229
Critical (15%)	5,289	5,866	6,478	6,933	6,482	6,083	5,371	8,298	10,111	10,190	7,603	4,952

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,836	10,759	26,849	39,360	44,225	30,557	17,550	13,275	14,841	16,403	11,504	8,479
20%	8,183	9,459	18,995	26,361	32,093	22,463	12,685	11,350	13,550	16,028	10,977	7,789
30%	7,739	7,950	11,780	18,718	22,364	18,192	8,962	10,988	12,959	15,213	10,411	6,802
40%	7,251	7,463	9,060	14,037	14,351	10,896	7,708	10,414	12,117	14,197	10,088	6,153
50%	6,904	7,027	7,624	9,340	11,342	9,334	6,868	9,952	11,484	13,482	9,835	5,689
60%	6,687	6,590	6,908	7,842	8,710	8,247	6,126	9,384	10,962	12,471	9,333	5,430
70%	6,161	6,490	5,991	6,742	7,350	7,496	5,491	9,017	10,330	11,842	8,857	5,277
80%	6,064	6,170	5,767	5,925	6,015	6,017	5,182	8,106	9,437	11,069	8,438	4,927
90%	5,500	5,554	5,501	5,097	5,444	5,282	4,845	7,423	8,745	10,184	7,909	4,657
Long Term												
Full Simulation Period ^d	7,094	8,047	12,626	16,964	19,281	15,676	9,688	10,227	11,636	13,406	9,762	6,341
Water Year Types ^{b,c}												
Wet (32%)	8,021	8,899	14,044	31,583	30,686	26,451	14,896	11,040	10,720	14,216	10,769	7,744
Above Normal (16%)	7,607	9,485	10,998	17,908	26,869	17,371	10,341	10,813	12,597	15,973	10,970	7,229
Below Normal (13%)	6,548	6,952	11,738	9,687	14,161	8,681	6,883	10,579	12,976	14,259	9,797	5,517
Dry (24%)	6,621	7,872	15,894	7,562	9,905	9,858	6,595	9,486	12,172	12,187	8,836	5,154
Critical (15%)	5,817	5,943	6,686	6,606	6,668	6,606	5,422	8,744	10,458	10,116	7,783	5,075

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-985	-355	-2,923	555	-2,885	833	1,347	-577	106	180	-193	-1,142
20%	-661	93	-1,586	1,305	507	3,154	-129	-480	137	136	23	-594
30%	-461	-194	454	2,067	-282	1,655	281	226	746	473	-48	-1,016
40%	-280	-286	106	785	1,139	222	203	110	953	340	-40	-579
50%	-236	-275	670	301	717	476	4	114	570	799	-21	-422
60%	22	-444	318	501	284	398	33	424	385	607	-183	-232
70%	-84	-171	27	107	-189	308	-185	516	508	391	58	-92
80%	174	54	177	74	-55	214	-84	256	-24	389	232	19
90%	38	-52	286	156	76	6	-86	171	-11	338	71	17
Long Term												
Full Simulation Period ^d	-264	-432	1	774	-18	864	347	73	277	305	-34	-431
Water Year Types ^{b,c}												
Wet (32%)	-662	-413	-159	1,652	-569	1,309	732	-526	-13	183	-177	-1,012
Above Normal (16%)	-286	-1,155	-790	677	-313	578	540	212	734	678	191	-526
Below Normal (13%)	-377	-145	-176	1,069	547	559	155	533	-75	284	-379	-201
Dry (24%)	-148	-448	697	194	455	843	6	284	508	461	64	-75
Critical (15%)	528	77	209	-327	186	524	51	446	346	-74	180	123

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

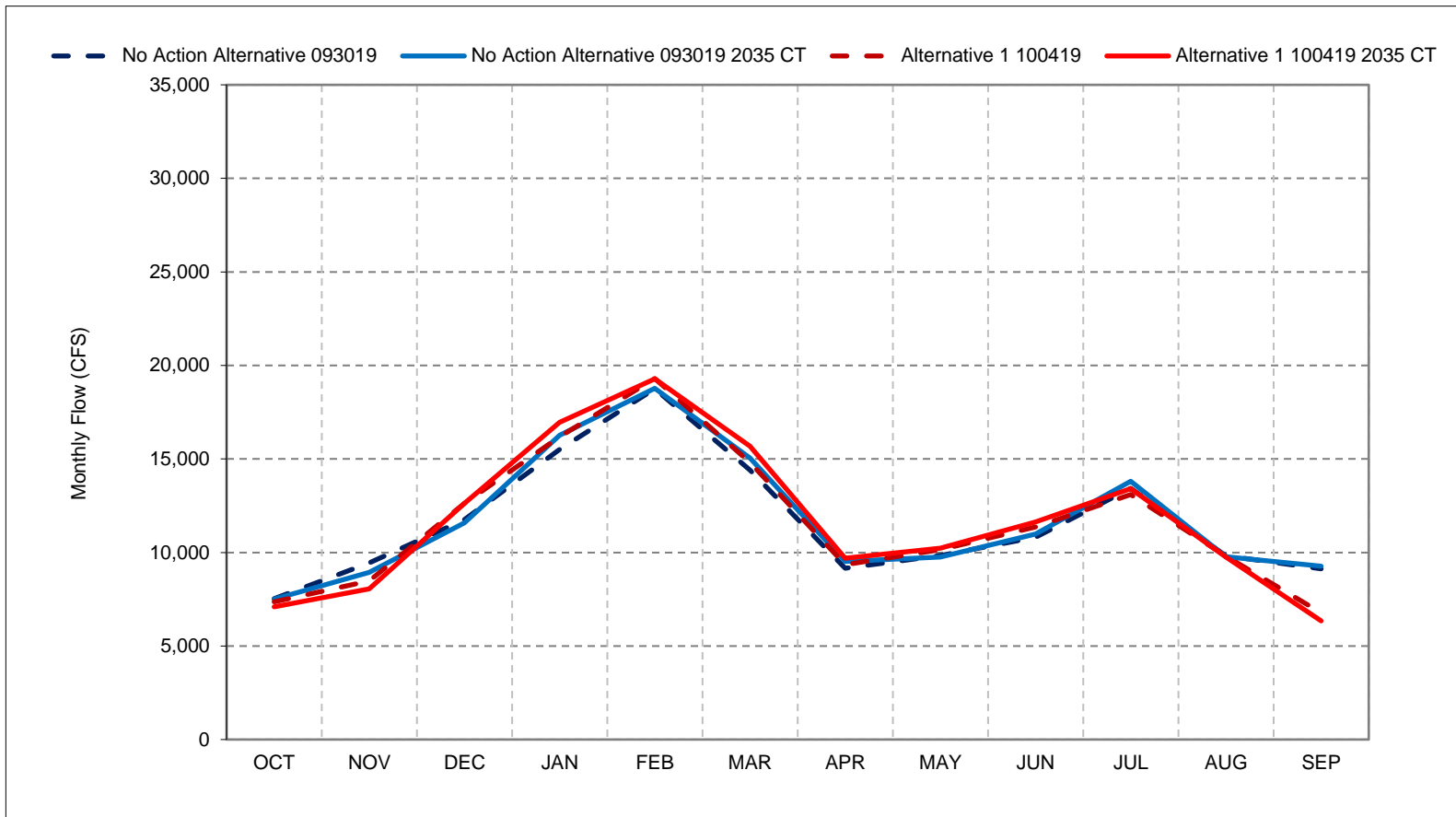
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 16-1. Sacramento Flow River at Bend Bridge, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

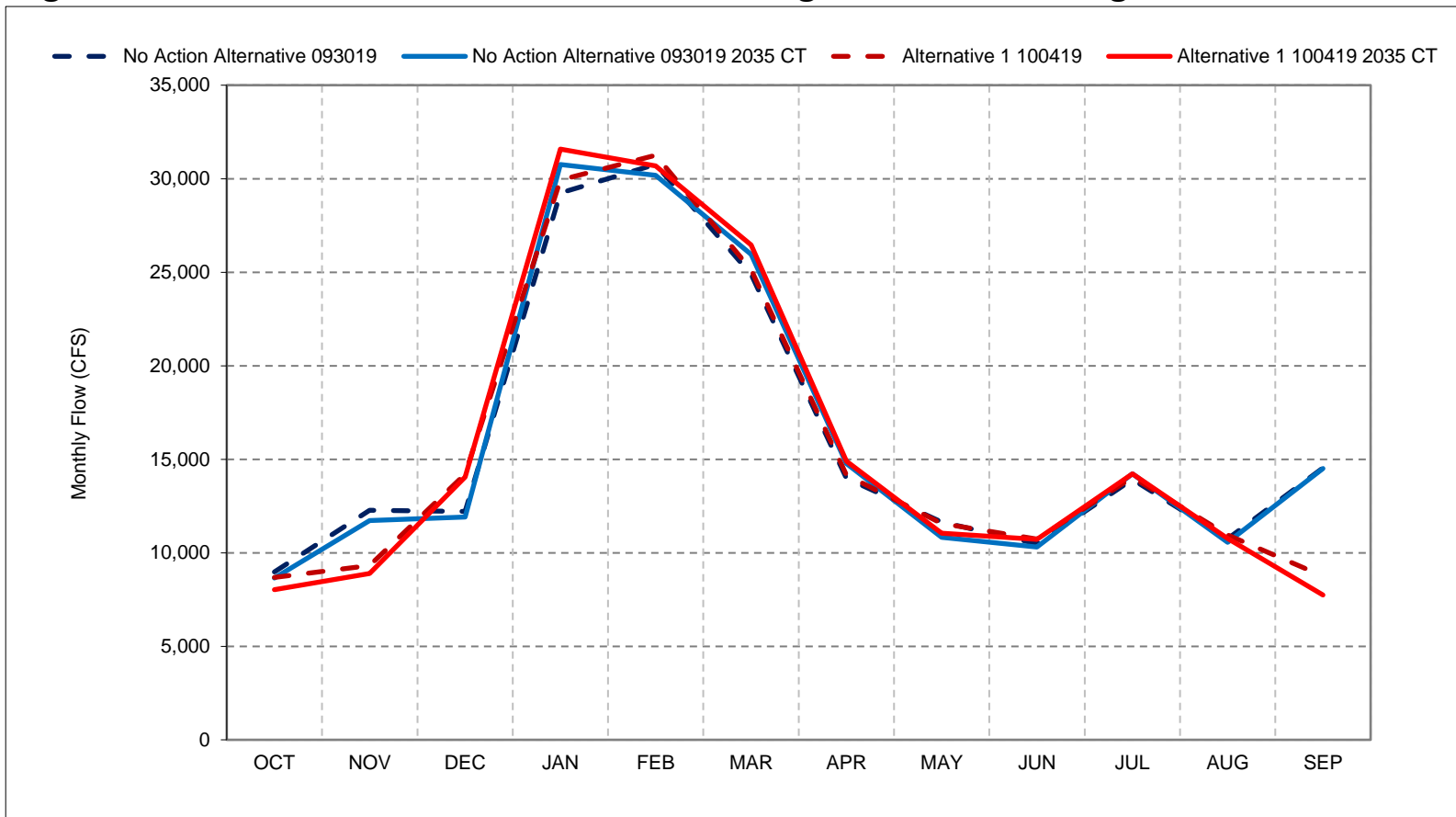
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-2. Sacramento Flow River at Bend Bridge, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

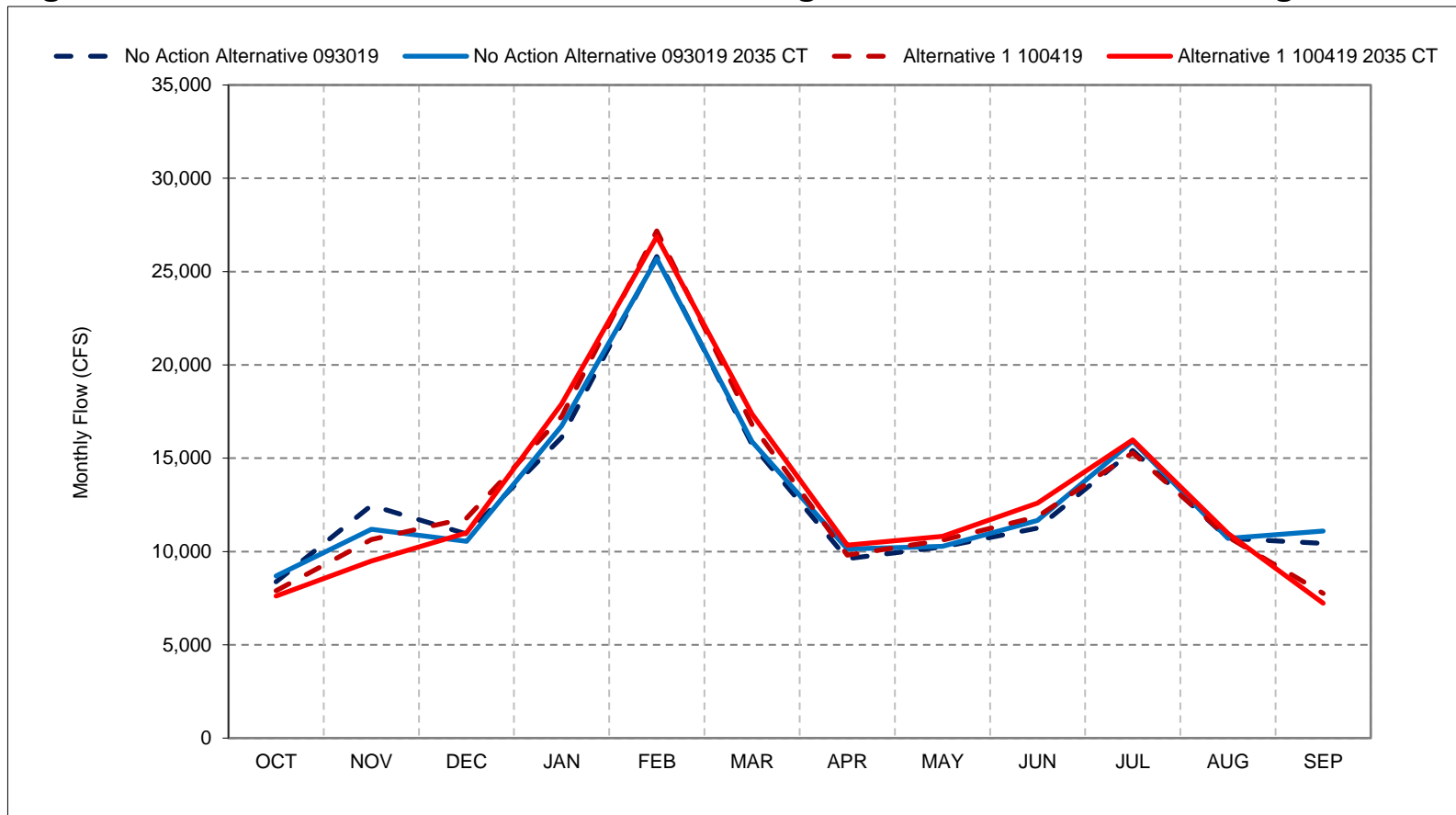
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-3. Sacramento Flow River at Bend Bridge, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

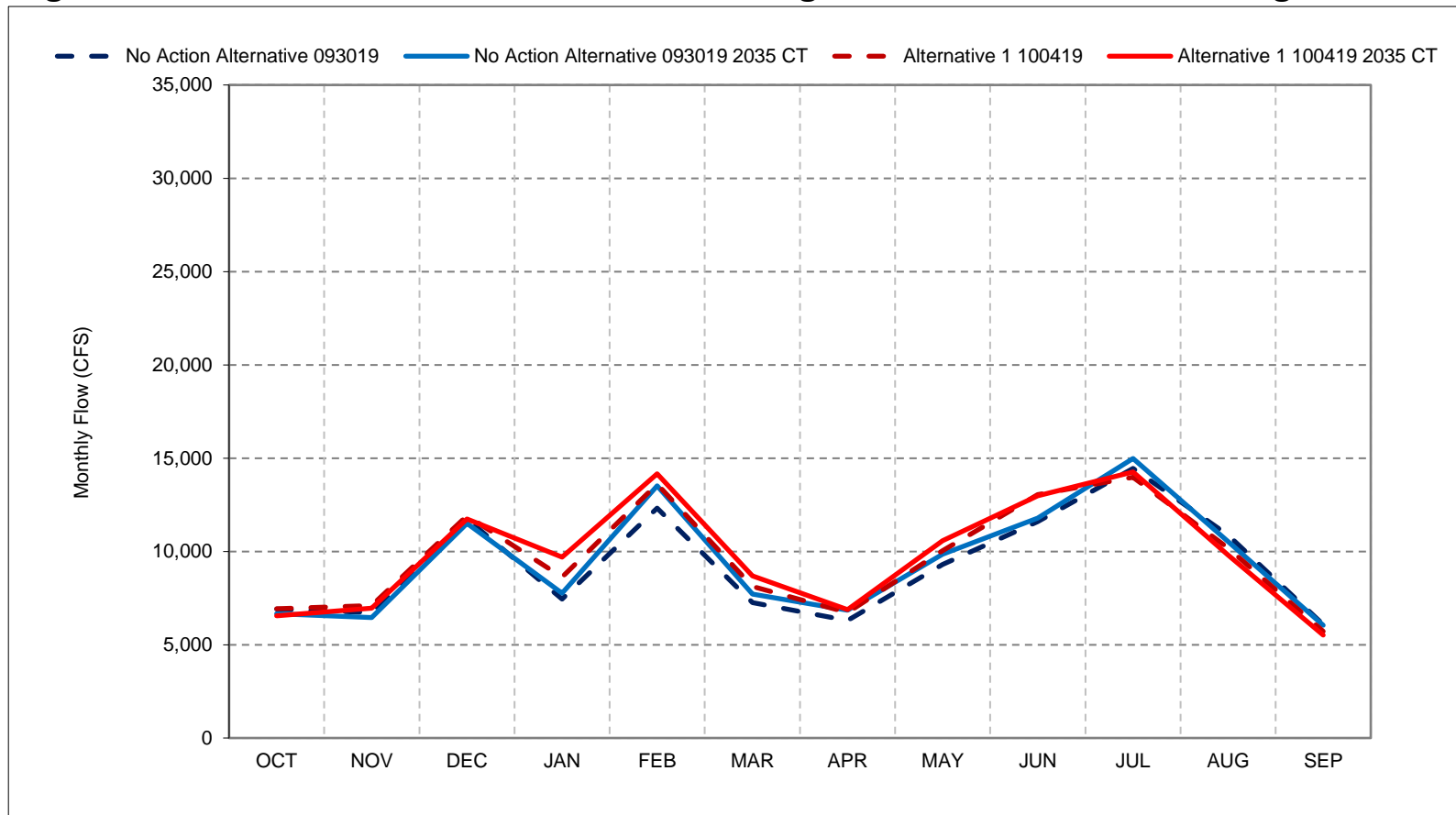
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-4. Sacramento Flow River at Bend Bridge, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

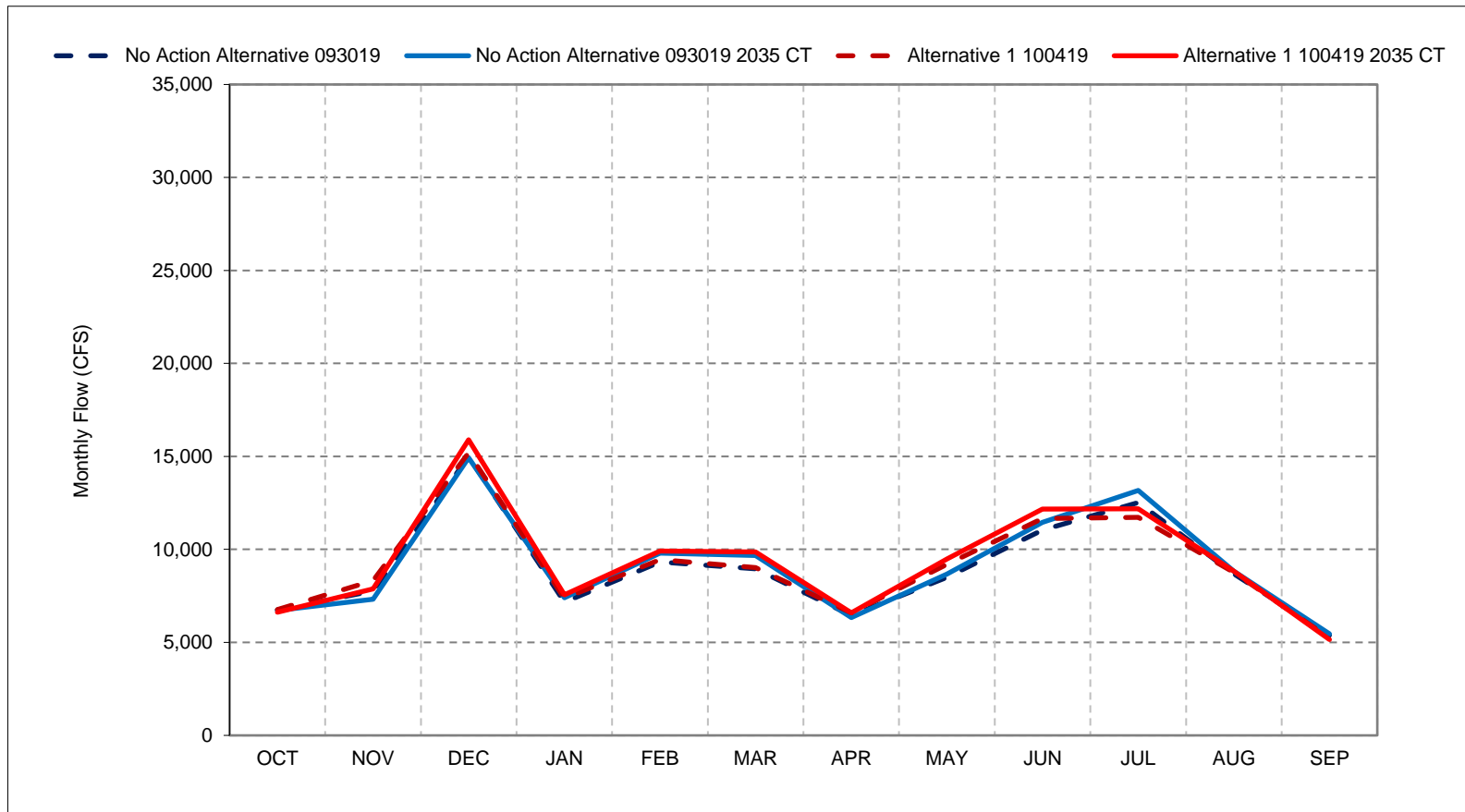
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-5. Sacramento Flow River at Bend Bridge, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

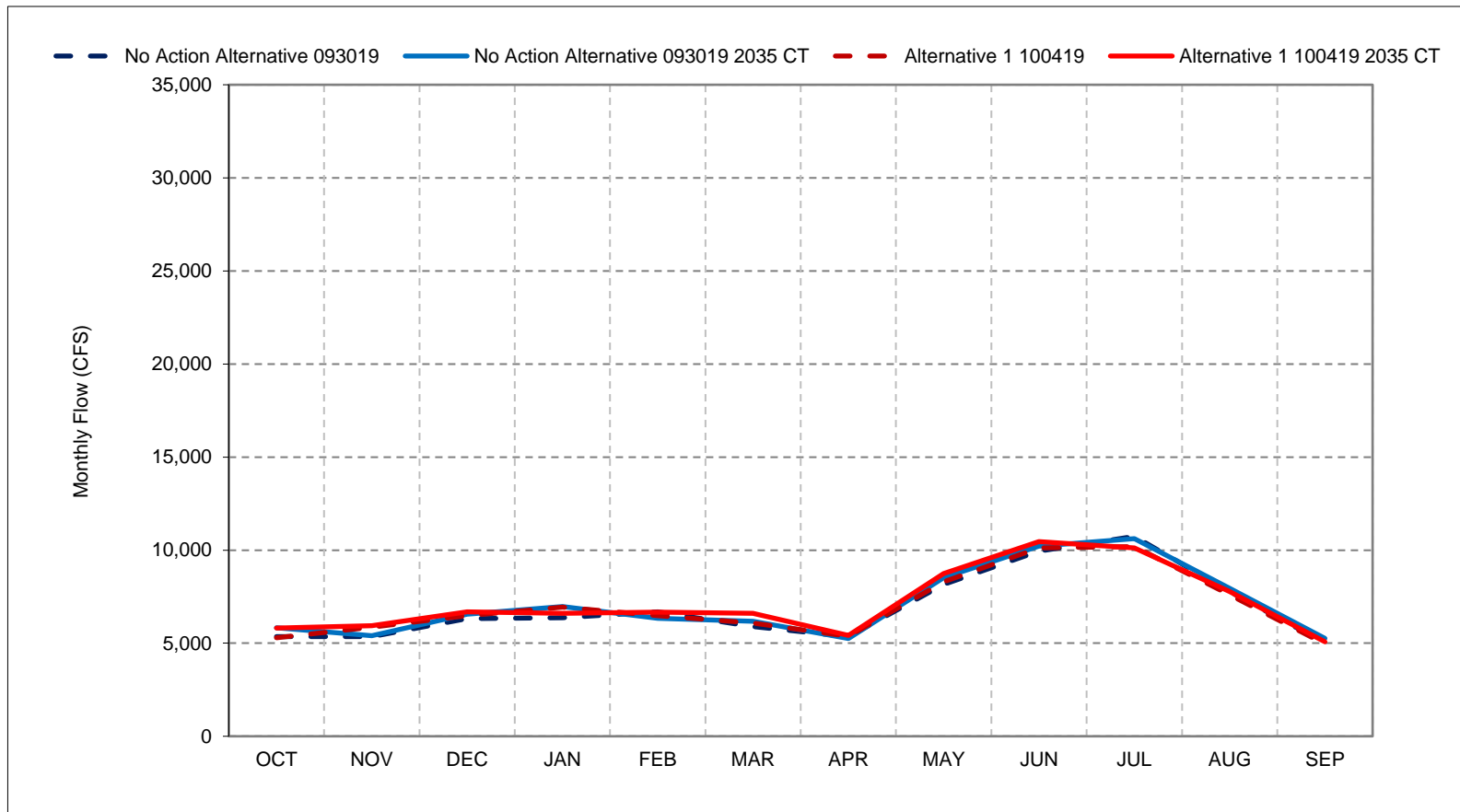
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-6. Sacramento Flow River at Bend Bridge, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

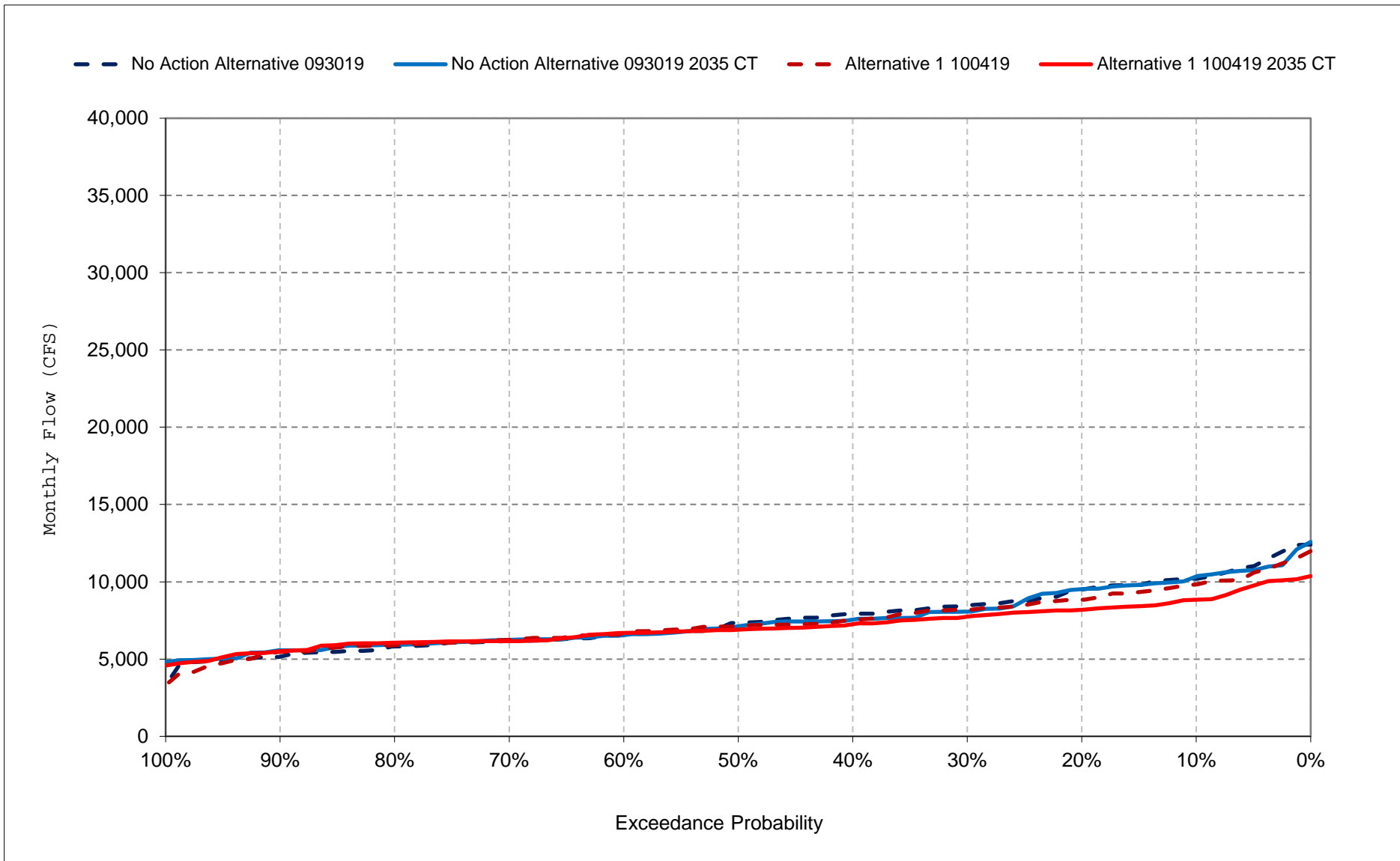
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

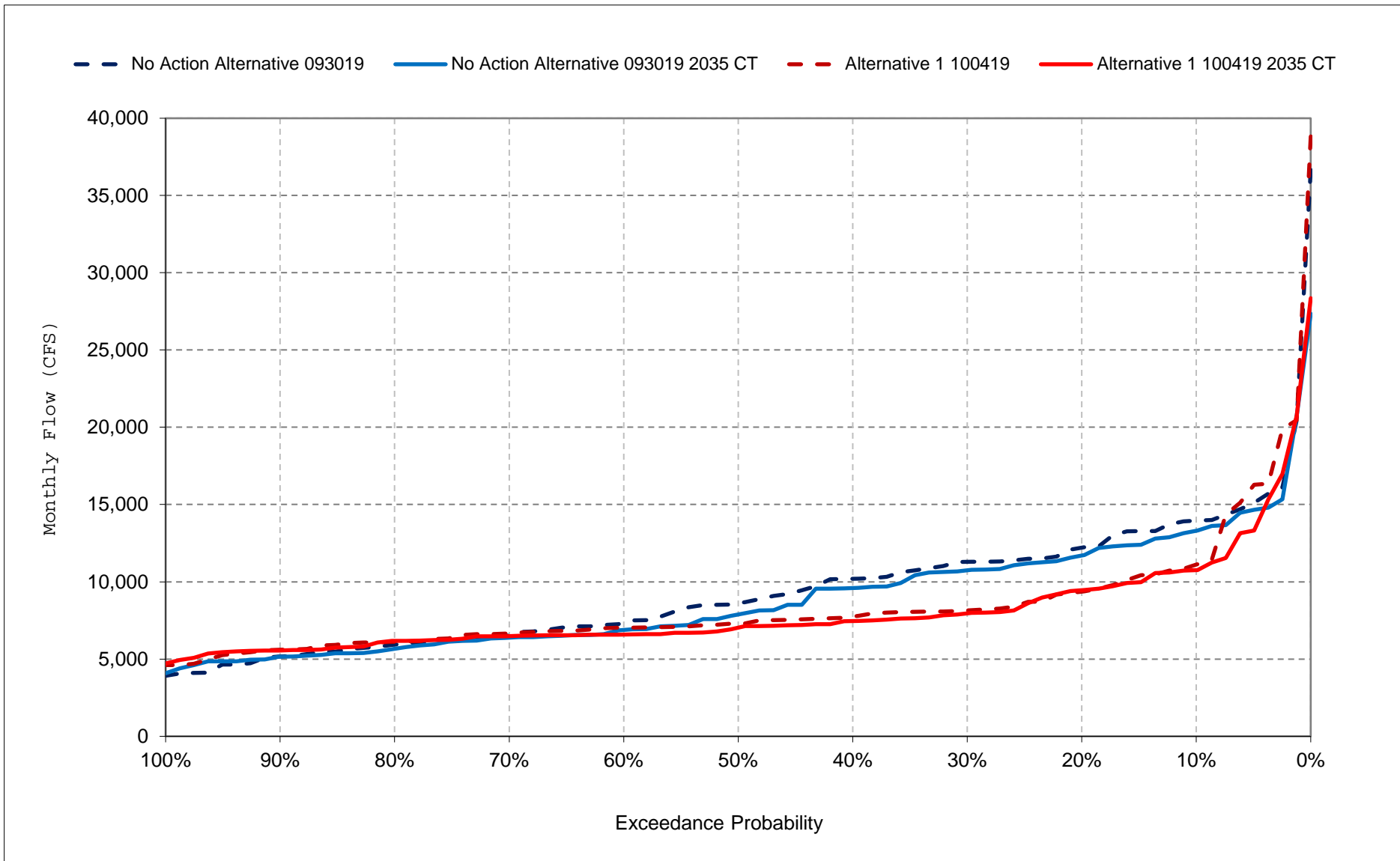
Figure 16-7. Sacramento Flow River at Bend Bridge, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

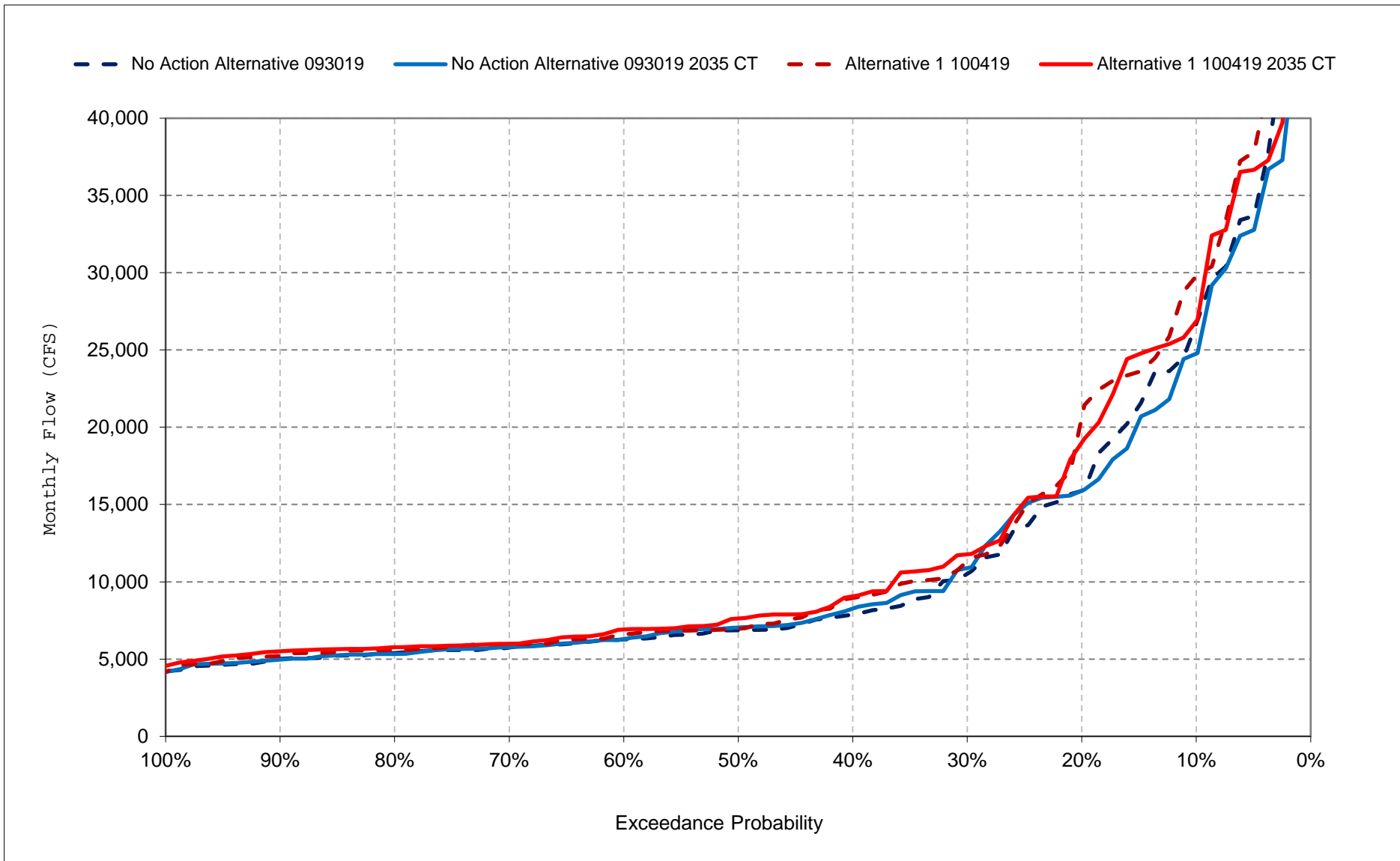
Figure 16-8. Sacramento Flow River at Bend Bridge, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

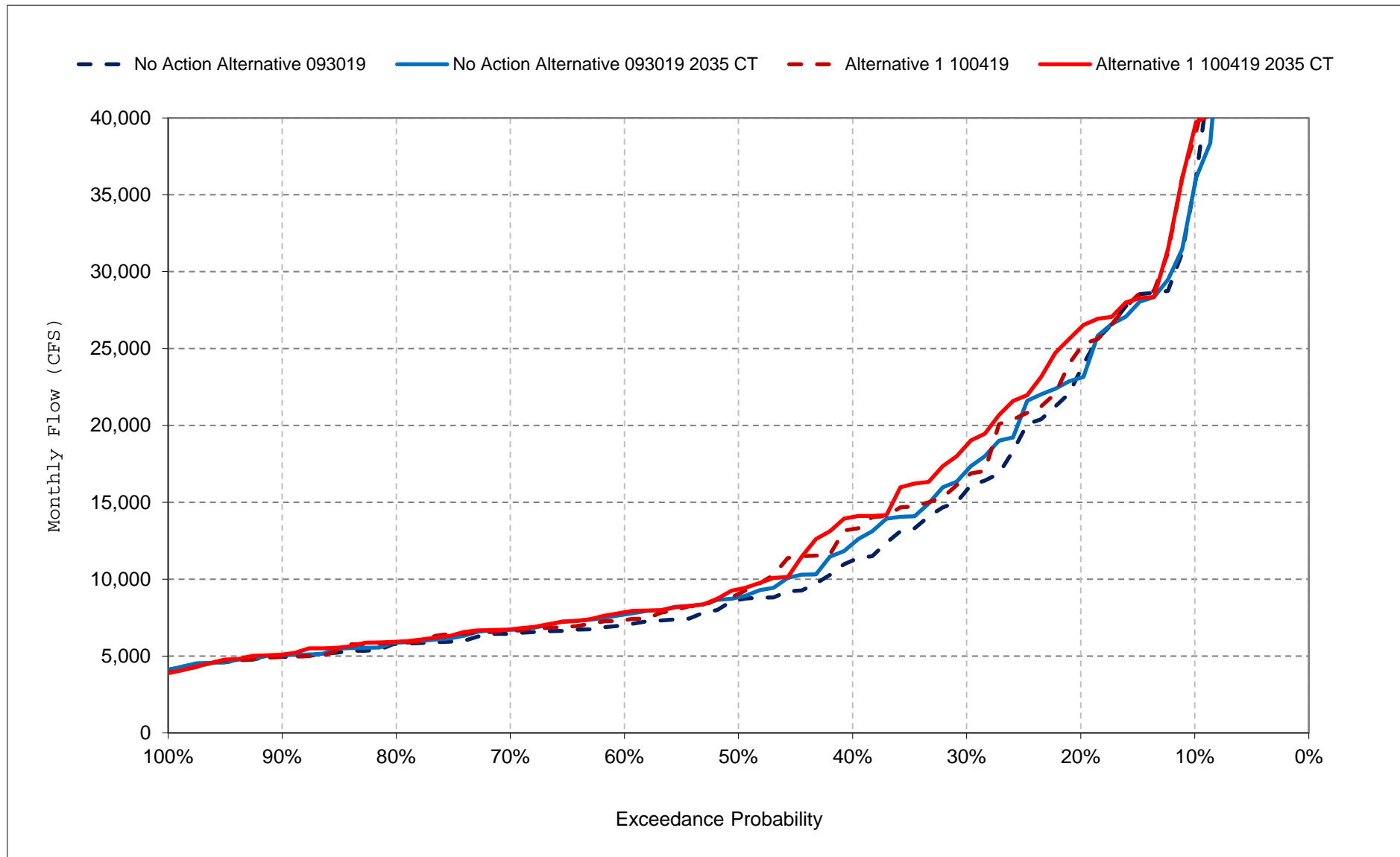
Figure 16-9. Sacramento Flow River at Bend Bridge, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

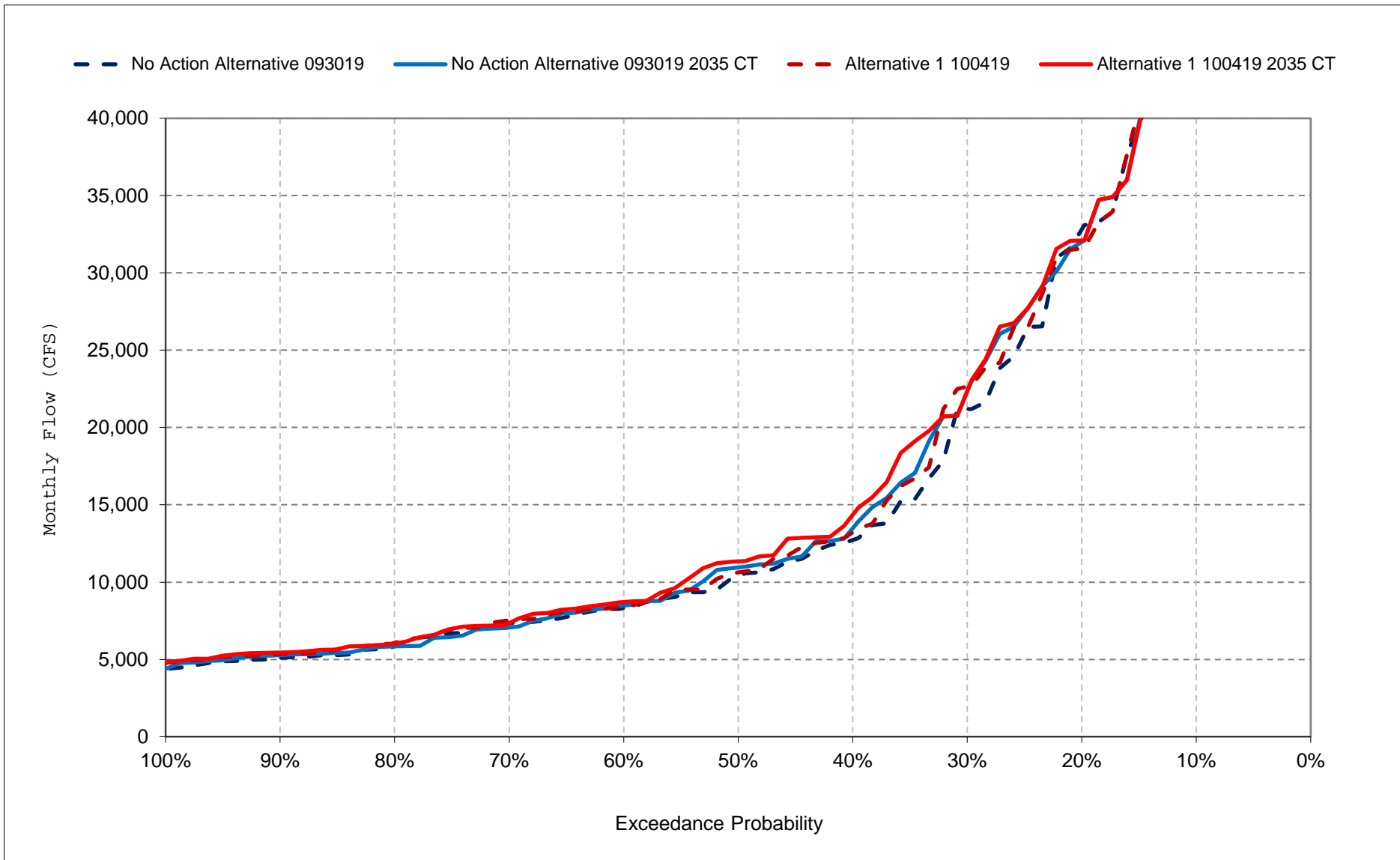
Figure 16-10. Sacramento Flow River at Bend Bridge, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

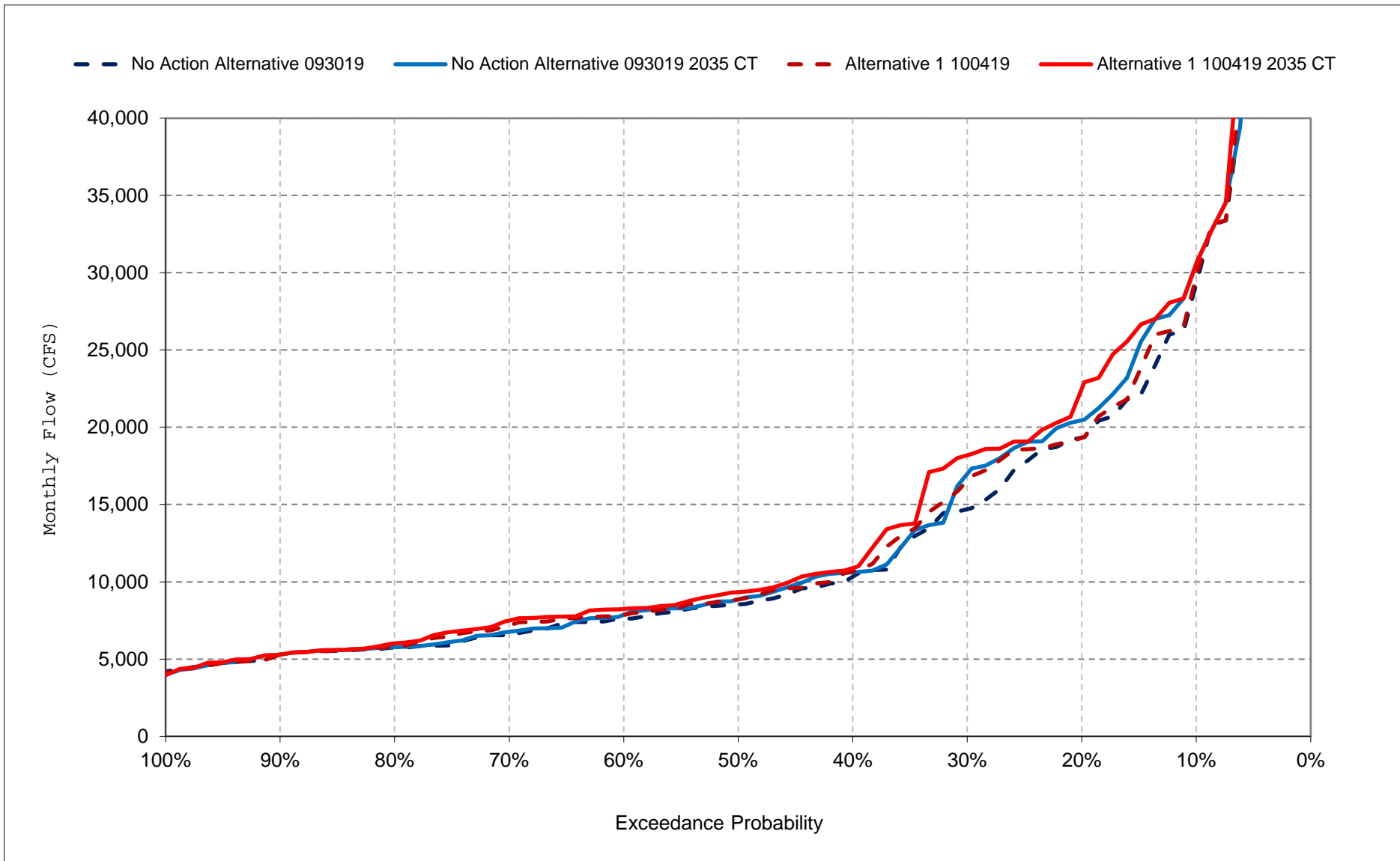
Figure 16-11. Sacramento Flow River at Bend Bridge, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

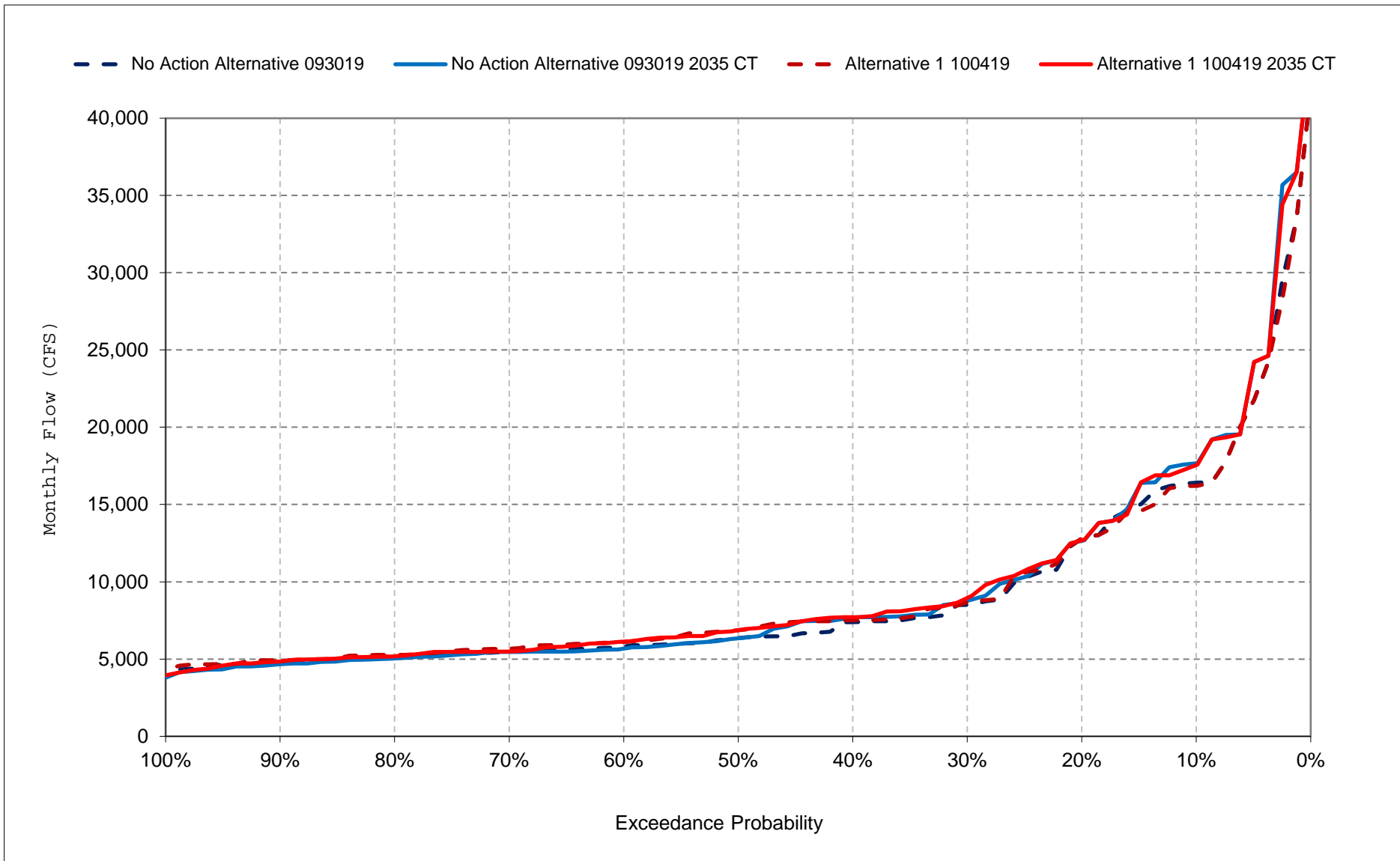
Figure 16-12. Sacramento Flow River at Bend Bridge, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

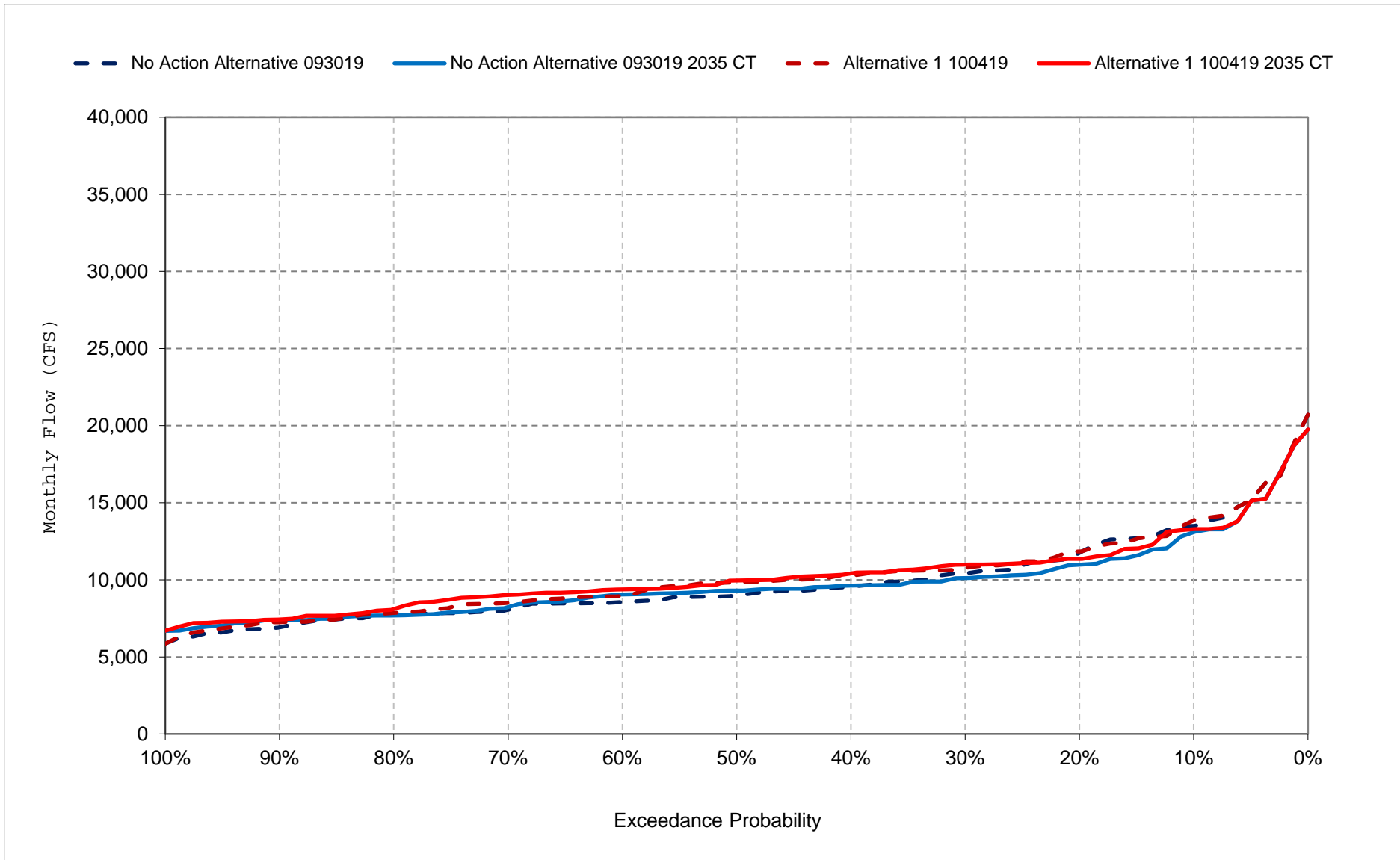
Figure 16-13. Sacramento Flow River at Bend Bridge, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

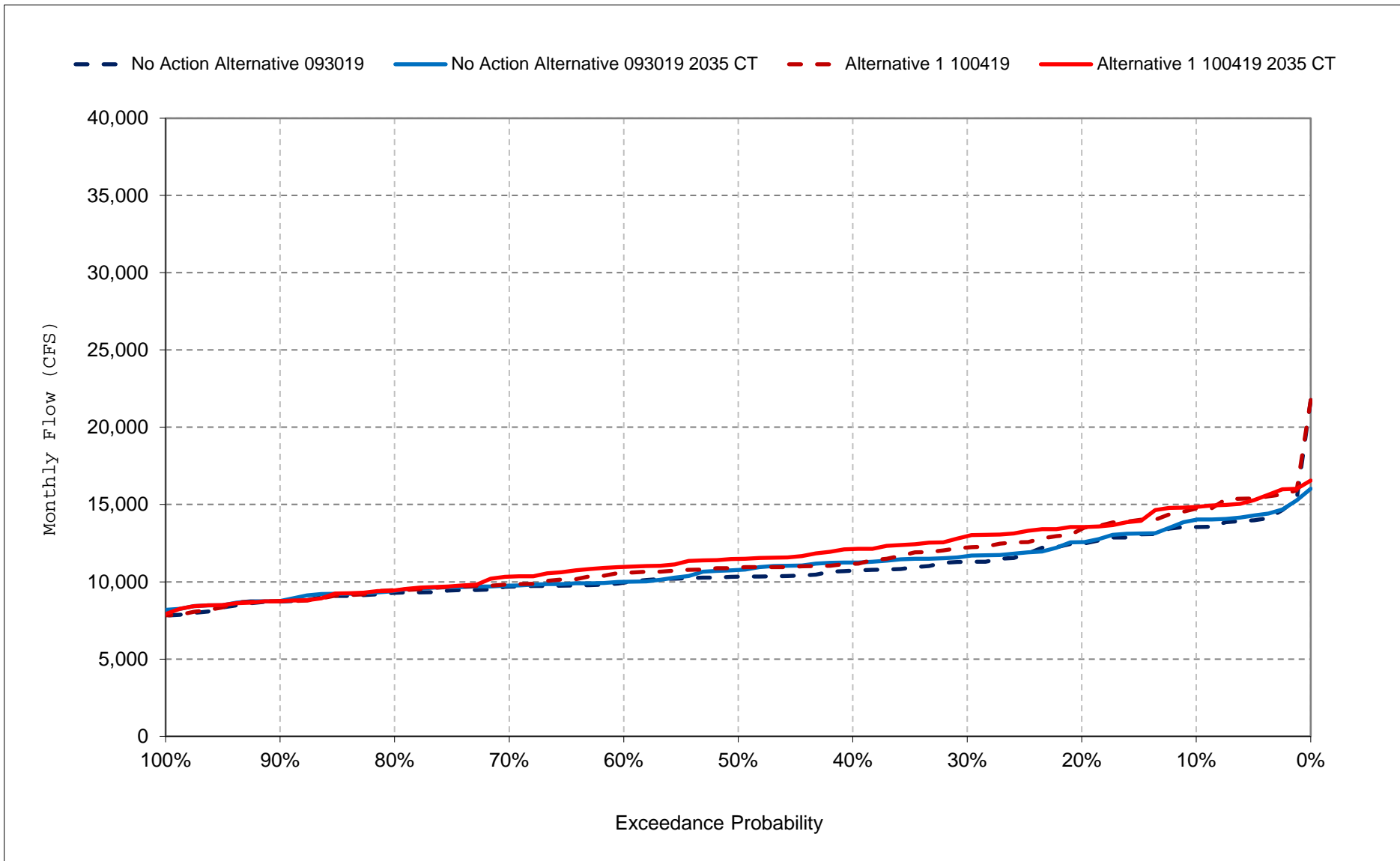
Figure 16-14. Sacramento Flow River at Bend Bridge, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

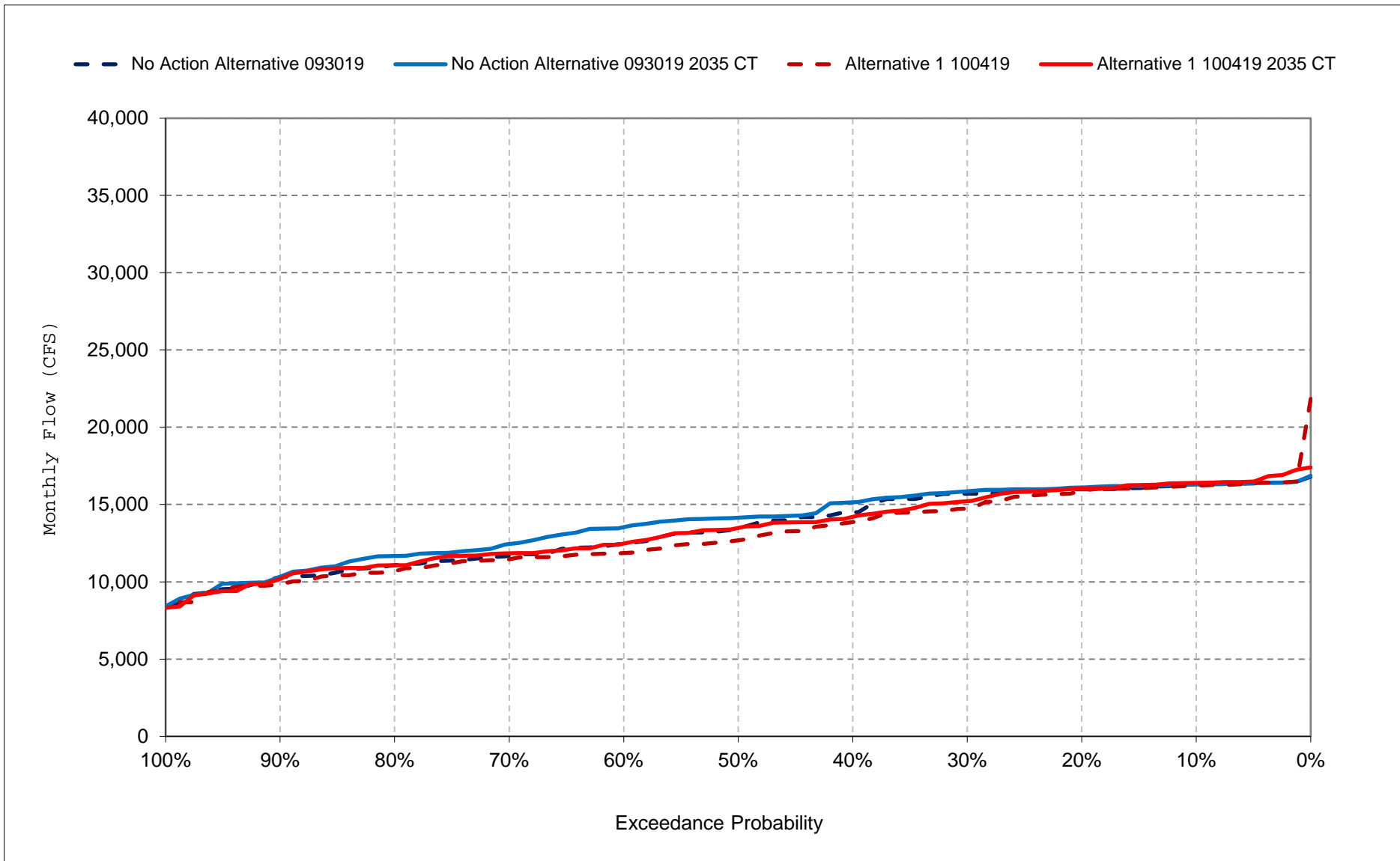
Figure 16-15. Sacramento Flow River at Bend Bridge, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

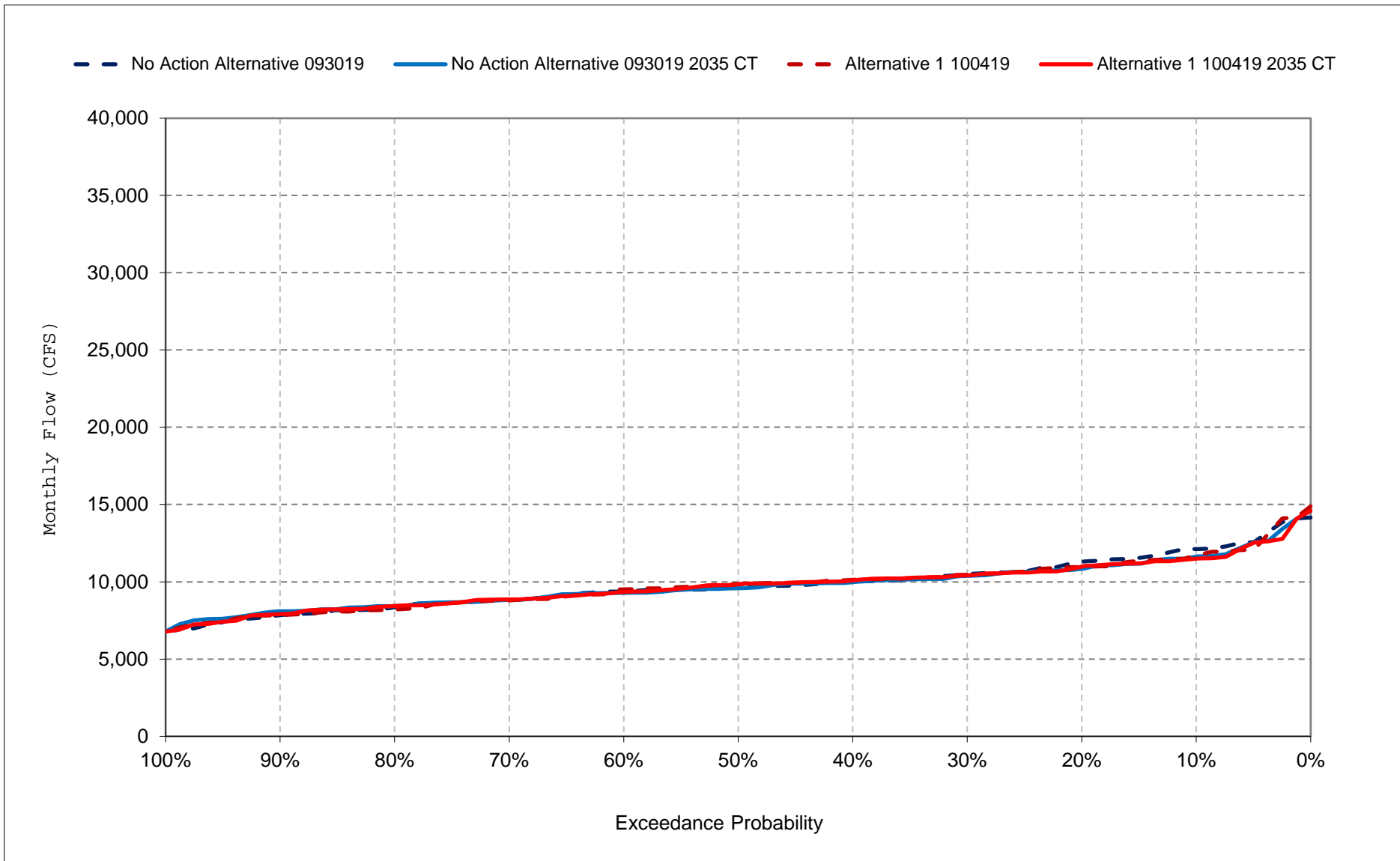
Figure 16-16. Sacramento Flow River at Bend Bridge, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

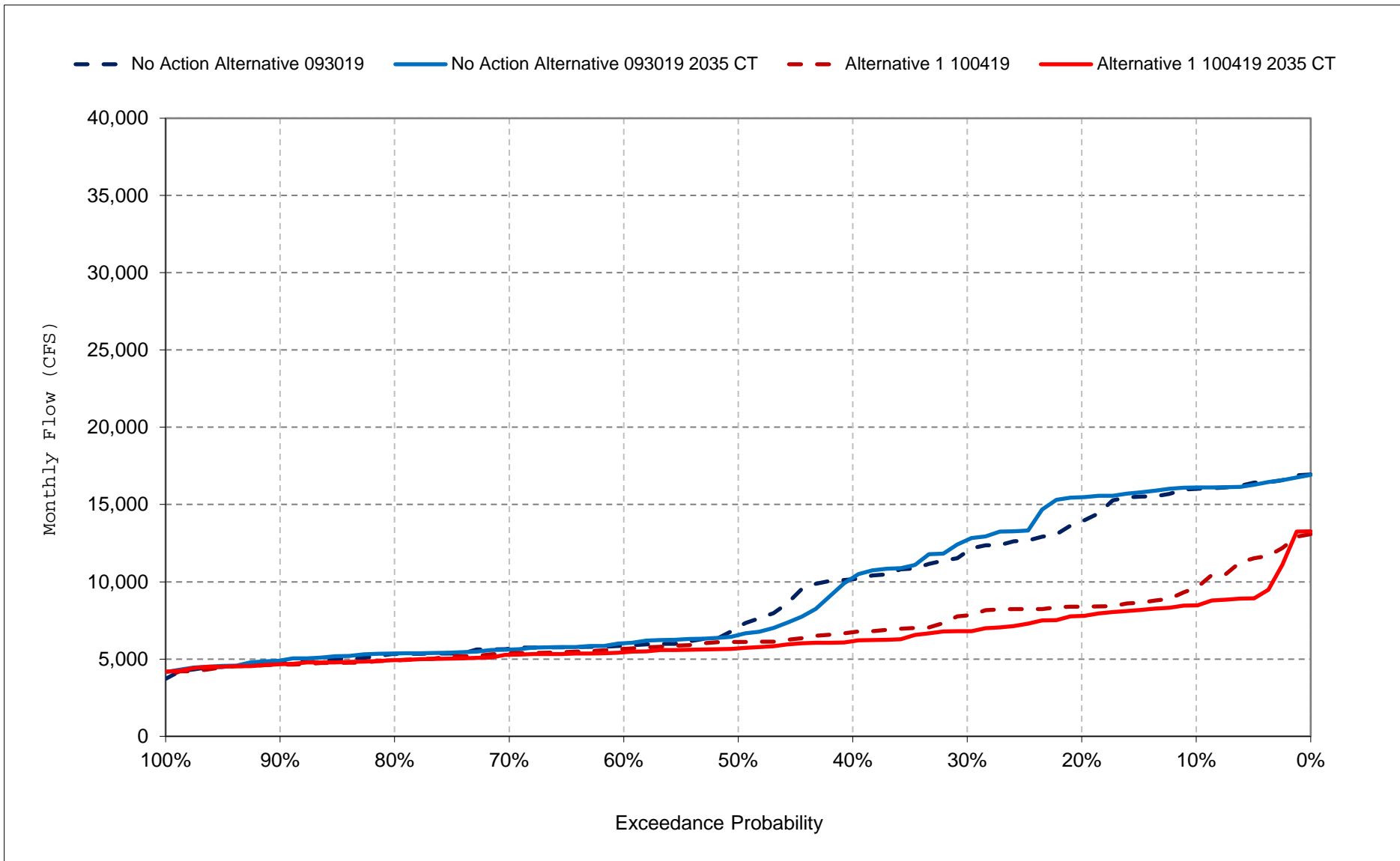
Figure 16-17. Sacramento Flow River at Bend Bridge, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 16-18. Sacramento Flow River at Bend Bridge, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-1. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,017	13,965	27,074	36,351	46,941	29,623	16,602	13,122	12,968	15,249	11,408	15,799
20%	9,366	12,194	16,314	24,185	33,404	19,585	13,008	11,124	11,883	14,883	10,277	13,682
30%	8,274	11,312	10,713	16,194	21,593	14,900	8,412	9,878	10,487	14,524	9,534	11,817
40%	7,806	10,331	8,071	11,498	13,059	10,522	7,223	9,155	10,029	13,717	9,230	10,011
50%	7,237	8,636	6,976	8,852	10,588	8,716	6,016	8,700	9,542	12,545	8,865	6,859
60%	6,456	7,426	6,322	7,152	8,534	7,750	5,487	8,064	9,227	11,841	8,515	5,768
70%	6,065	6,557	5,808	6,579	7,537	6,651	5,298	7,736	8,671	10,986	8,382	5,575
80%	5,695	6,000	5,456	5,870	5,964	5,771	5,044	7,403	8,309	10,201	7,853	5,164
90%	5,103	5,159	5,047	5,027	5,168	5,331	4,659	6,602	7,928	9,360	7,624	4,651
Long Term												
Full Simulation Period ^d	7,421	9,496	11,959	15,865	19,096	14,587	9,072	9,397	10,056	12,545	9,124	8,960
Water Year Types ^{b,c}												
Wet (32%)	8,835	12,325	12,419	29,900	31,303	25,200	14,016	11,059	9,412	12,682	9,768	14,299
Above Normal (16%)	8,260	12,531	11,127	16,587	26,265	15,956	9,460	9,610	10,181	14,173	9,728	10,196
Below Normal (13%)	6,810	6,758	11,913	7,653	12,611	7,306	6,075	8,849	10,892	13,601	10,206	5,927
Dry (24%)	6,658	7,832	15,244	7,311	9,520	9,089	6,353	8,254	10,571	11,991	8,268	5,310
Critical (15%)	5,281	5,366	6,428	6,460	6,789	5,945	5,221	7,973	9,690	10,444	7,511	4,915

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,705	11,122	30,177	39,517	47,844	30,071	16,604	13,460	13,687	14,948	10,764	9,379
20%	8,737	9,388	21,061	25,647	32,306	19,531	13,047	11,429	12,459	14,663	9,972	8,148
30%	8,049	8,178	11,623	17,083	23,110	16,487	8,494	10,372	11,532	13,784	9,534	7,595
40%	7,331	7,808	9,138	13,869	13,475	10,870	7,305	9,772	10,465	13,008	9,171	6,511
50%	7,013	7,323	7,033	9,371	10,838	9,112	6,890	9,342	10,037	12,017	8,933	5,875
60%	6,537	7,070	6,707	7,538	8,583	7,911	5,898	8,673	9,652	11,152	8,595	5,520
70%	6,144	6,666	6,019	6,772	7,660	7,290	5,474	8,069	9,000	10,591	8,270	5,270
80%	5,789	6,141	5,653	5,961	6,165	5,871	5,128	7,450	8,553	9,927	7,797	4,737
90%	5,386	5,614	5,259	5,026	5,413	5,234	4,724	6,957	7,959	9,296	7,587	4,517
Long Term												
Full Simulation Period ^d	7,246	8,530	12,821	16,550	19,644	14,991	9,231	9,693	10,550	12,161	9,051	6,592
Water Year Types ^{b,c}												
Wet (32%)	8,541	9,366	14,414	30,586	31,792	25,452	14,203	10,979	9,658	12,782	9,954	8,515
Above Normal (16%)	7,779	10,704	11,973	17,705	27,642	17,026	9,625	9,966	10,773	14,044	9,798	7,512
Below Normal (13%)	6,807	7,134	12,088	8,824	13,897	8,154	6,438	9,452	12,154	12,911	9,342	5,533
Dry (24%)	6,677	8,392	15,444	7,512	9,649	9,143	6,457	8,932	11,121	11,107	8,280	5,127
Critical (15%)	5,216	5,875	6,587	7,031	6,583	6,136	5,216	8,097	9,818	9,846	7,299	4,838

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-312	-2,843	3,102	3,166	903	447	1	338	719	-300	-644	-6,420
20%	-629	-2,807	4,747	1,462	-1,098	-55	39	306	575	-220	-305	-5,535
30%	-225	-3,134	910	889	1,517	1,586	82	494	1,045	-741	0	-4,222
40%	-475	-2,523	1,067	2,370	416	348	82	617	436	-709	-59	-3,500
50%	-224	-1,313	57	518	249	395	873	643	495	-528	68	-984
60%	81	-356	385	387	49	161	411	609	426	-689	80	-248
70%	79	109	211	193	123	639	176	333	328	-395	-112	-305
80%	94	141	197	91	201	100	83	48	244	-274	-55	-427
90%	284	455	212	0	245	-97	66	355	32	-64	-36	-134
Long Term												
Full Simulation Period ^d	-175	-966	862	685	547	404	159	296	494	-384	-74	-2,368
Water Year Types ^{b,c}												
Wet (32%)	-294	-2,959	1,994	686	489	252	187	-79	246	101	186	-5,784
Above Normal (16%)	-481	-1,827	846	1,119	1,377	1,070	165	356	592	-129	69	-2,684
Below Normal (13%)	-3	377	175	1,172	1,287	848	363	603	1,262	-690	-864	-394
Dry (24%)	19	560	199	200	129	54	104	678	550	-884	12	-184
Critical (15%)	-65	510	159	571	-206	190	-5	124	129	-598	-212	-76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 17-2. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,214	13,363	25,166	36,521	44,631	30,844	17,739	12,301	13,086	15,219	10,716	15,849
20%	9,420	11,799	16,181	23,805	32,569	20,699	12,726	10,553	12,041	14,934	9,986	15,265
30%	8,073	10,792	11,090	17,704	22,803	17,249	8,581	9,733	10,941	14,716	9,561	12,423
40%	7,371	9,623	8,533	12,514	14,058	10,778	7,366	9,223	10,308	14,148	9,070	9,969
50%	7,036	7,888	7,119	9,087	11,249	9,020	6,118	8,672	9,867	13,334	8,870	6,488
60%	6,429	6,894	6,367	7,982	8,714	8,022	5,499	8,467	9,417	12,626	8,784	5,812
70%	6,169	6,420	5,807	6,826	7,204	6,811	5,174	7,918	9,060	11,753	8,361	5,507
80%	5,835	5,672	5,370	5,962	5,903	5,794	4,943	7,317	8,628	10,601	7,982	5,209
90%	5,392	5,152	4,977	5,147	5,360	5,303	4,484	6,930	8,033	9,698	7,628	4,868
Long Term												
Full Simulation Period ^d	7,393	8,988	11,800	16,675	19,141	15,217	9,402	9,301	10,224	12,931	9,077	9,105
Water Year Types ^{b,c}												
Wet (32%)	8,509	11,777	12,132	31,468	30,732	26,256	14,771	10,241	9,274	13,026	9,602	14,282
Above Normal (16%)	8,571	11,262	10,745	17,258	26,180	16,096	9,912	9,660	10,590	14,698	9,742	10,860
Below Normal (13%)	6,547	6,496	11,701	8,005	13,832	7,757	6,620	9,367	11,043	14,099	9,832	5,897
Dry (24%)	6,631	7,397	15,175	7,577	10,032	9,797	6,199	8,402	10,958	12,618	8,398	5,369
Critical (15%)	5,747	5,419	6,690	7,103	6,449	6,221	5,108	8,310	9,914	10,263	7,661	5,156

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,702	10,854	27,355	40,050	44,798	30,850	17,688	12,830	13,945	15,184	10,489	8,265
20%	8,123	9,468	19,377	26,782	32,600	22,670	12,767	10,912	12,988	14,730	9,995	7,541
30%	7,528	7,946	11,935	19,061	22,840	18,279	8,729	10,347	12,101	14,134	9,510	6,519
40%	7,098	7,494	9,194	14,367	14,640	11,092	7,505	9,872	11,233	13,278	9,195	5,977
50%	6,773	7,115	7,719	9,683	11,743	9,433	6,670	9,382	10,498	12,358	8,854	5,565
60%	6,564	6,646	6,943	8,081	8,841	8,334	5,832	8,721	10,089	11,667	8,539	5,317
70%	6,085	6,507	6,011	6,858	7,494	7,630	5,287	8,557	9,506	10,906	8,324	5,158
80%	5,986	6,179	5,800	6,034	6,090	5,984	4,986	7,871	8,587	10,430	7,991	4,789
90%	5,368	5,600	5,548	5,245	5,530	5,308	4,670	7,123	8,018	9,546	7,492	4,522
Long Term												
Full Simulation Period ^d	6,978	8,097	12,835	17,369	19,646	15,843	9,542	9,736	10,816	12,460	9,015	6,160
Water Year Types ^{b,c}												
Wet (32%)	7,880	8,946	14,269	32,292	31,234	26,745	14,872	10,442	9,671	13,005	9,808	7,510
Above Normal (16%)	7,487	9,552	11,202	18,452	27,357	17,577	10,095	10,142	11,490	14,708	9,978	6,981
Below Normal (13%)	6,429	6,993	11,938	9,929	14,470	8,714	6,587	9,975	12,101	13,224	8,985	5,356
Dry (24%)	6,522	7,941	16,140	7,739	10,133	9,979	6,432	9,154	11,574	11,508	8,298	5,038
Critical (15%)	5,733	5,952	6,812	6,734	6,785	6,652	5,283	8,517	10,124	9,729	7,474	4,952

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,512	-2,509	2,189	3,529	166	6	-50	529	859	-35	-227	-7,585
20%	-1,296	-2,331	3,196	2,977	30	1,972	41	359	947	-204	9	-7,724
30%	-545	-2,847	845	1,356	36	1,030	148	614	1,160	-581	-51	-5,904
40%	-272	-2,129	661	1,852	582	314	139	649	925	-870	125	-3,991
50%	-263	-774	600	596	493	413	552	710	630	-977	-16	-923
60%	135	-248	576	99	127	313	334	255	672	-959	-246	-495
70%	-84	88	205	32	290	818	113	638	447	-848	-37	-349
80%	151	507	429	72	187	190	43	554	-41	-171	9	-420
90%	-23	448	570	98	170	5	186	193	-16	-152	-135	-346
Long Term												
Full Simulation Period ^d	-416	-891	1,035	694	505	626	139	435	591	-471	-63	-2,945
Water Year Types ^{b,c}												
Wet (32%)	-629	-2,831	2,137	825	502	489	102	201	397	-21	207	-6,772
Above Normal (16%)	-1,084	-1,710	456	1,193	1,176	1,481	183	481	899	10	236	-3,879
Below Normal (13%)	-119	497	237	1,924	638	957	-33	608	1,057	-875	-848	-541
Dry (24%)	-108	544	966	163	101	182	233	753	616	-1,110	-100	-330
Critical (15%)	-14	533	122	-369	336	431	175	208	210	-535	-187	-204

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-3. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,017	13,965	27,074	36,351	46,941	29,623	16,602	13,122	12,968	15,249	11,408	15,799
20%	9,366	12,194	16,314	24,185	33,404	19,585	13,008	11,124	11,883	14,883	10,277	13,682
30%	8,274	11,312	10,713	16,194	21,593	14,900	8,412	9,878	10,487	14,524	9,534	11,817
40%	7,806	10,331	8,071	11,498	13,059	10,522	7,223	9,155	10,029	13,717	9,230	10,011
50%	7,237	8,636	6,976	8,852	10,588	8,716	6,016	8,700	9,542	12,545	8,865	6,859
60%	6,456	7,426	6,322	7,152	8,534	7,750	5,487	8,064	9,227	11,841	8,515	5,768
70%	6,065	6,557	5,808	6,579	7,537	6,651	5,298	7,736	8,671	10,986	8,382	5,575
80%	5,695	6,000	5,456	5,870	5,964	5,771	5,044	7,403	8,309	10,201	7,853	5,164
90%	5,103	5,159	5,047	5,027	5,168	5,331	4,659	6,602	7,928	9,360	7,624	4,651
Long Term												
Full Simulation Period ^d	7,421	9,496	11,959	15,865	19,096	14,587	9,072	9,397	10,056	12,545	9,124	8,960
Water Year Types ^{b,c}												
Wet (32%)	8,835	12,325	12,419	29,900	31,303	25,200	14,016	11,059	9,412	12,682	9,768	14,299
Above Normal (16%)	8,260	12,531	11,127	16,587	26,265	15,956	9,460	9,610	10,181	14,173	9,728	10,196
Below Normal (13%)	6,810	6,758	11,913	7,653	12,611	7,306	6,075	8,849	10,892	13,601	10,206	5,927
Dry (24%)	6,658	7,832	15,244	7,311	9,520	9,089	6,353	8,254	10,571	11,991	8,268	5,310
Critical (15%)	5,281	5,366	6,428	6,460	6,789	5,945	5,221	7,973	9,690	10,444	7,511	4,915

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,214	13,363	25,166	36,521	44,631	30,844	17,739	12,301	13,086	15,219	10,716	15,849
20%	9,420	11,799	16,181	23,805	32,569	20,699	12,726	10,553	12,041	14,934	9,986	15,265
30%	8,073	10,792	11,090	17,704	22,803	17,249	8,581	9,733	10,941	14,716	9,561	12,423
40%	7,371	9,623	8,533	12,514	14,058	10,778	7,366	9,223	10,308	14,148	9,070	9,969
50%	7,036	7,888	7,119	9,087	11,249	9,020	6,118	8,672	9,867	13,334	8,870	6,488
60%	6,429	6,894	6,367	7,982	8,714	8,022	5,499	8,467	9,417	12,626	8,784	5,812
70%	6,169	6,420	5,807	6,826	7,204	6,811	5,174	7,918	9,060	11,753	8,361	5,507
80%	5,835	5,672	5,370	5,962	5,903	5,794	4,943	7,317	8,628	10,601	7,982	5,209
90%	5,392	5,152	4,977	5,147	5,360	5,303	4,484	6,930	8,033	9,698	7,628	4,868
Long Term												
Full Simulation Period ^d	7,393	8,988	11,800	16,675	19,141	15,217	9,402	9,301	10,224	12,931	9,077	9,105
Water Year Types ^{b,c}												
Wet (32%)	8,509	11,777	12,132	31,468	30,732	26,256	14,771	10,241	9,274	13,026	9,602	14,282
Above Normal (16%)	8,571	11,262	10,745	17,258	26,180	16,096	9,912	9,660	10,590	14,698	9,742	10,860
Below Normal (13%)	6,547	6,496	11,701	8,005	13,832	7,757	6,620	9,367	11,043	14,099	9,832	5,897
Dry (24%)	6,631	7,397	15,175	7,577	10,032	9,797	6,199	8,402	10,958	12,618	8,398	5,369
Critical (15%)	5,747	5,419	6,690	7,103	6,449	6,221	5,108	8,310	9,914	10,263	7,661	5,156

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	196	-602	-1,908	170	-2,310	1,220	1,136	-821	118	-30	-692	50
20%	54	-395	-133	-380	-835	1,113	-282	-571	158	51	-291	1,582
30%	-201	-520	377	1,511	1,210	2,349	168	-145	454	191	28	605
40%	-436	-708	463	1,016	998	255	143	68	279	431	-160	-42
50%	-200	-748	143	235	661	304	101	-28	325	789	4	-371
60%	-27	-532	45	831	180	272	12	402	190	786	269	44
70%	104	-137	-2	247	-333	161	-124	182	388	767	-21	-68
80%	140	-327	-86	92	-61	23	-102	-86	319	400	129	45
90%	289	-7	-69	120	192	-28	-175	328	106	338	4	217
Long Term												
Full Simulation Period ^d	-28	-508	-159	810	44	631	330	-96	169	386	-47	145
Water Year Types ^{b,c}												
Wet (32%)	-326	-548	-287	1,568	-571	1,056	755	-817	-138	344	-166	-17
Above Normal (16%)	310	-1,270	-382	672	-85	140	452	50	409	525	13	664
Below Normal (13%)	-262	-262	-212	352	1,222	452	545	518	152	498	-373	-30
Dry (24%)	-27	-435	-70	265	511	708	-154	148	387	627	130	58
Critical (15%)	466	53	261	644	-340	276	-113	337	225	-180	150	241

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-4. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,705	11,122	30,177	39,517	47,844	30,071	16,604	13,460	13,687	14,948	10,764	9,379
20%	8,737	9,388	21,061	25,647	32,306	19,531	13,047	11,429	12,459	14,663	9,972	8,148
30%	8,049	8,178	11,623	17,083	23,110	16,487	8,494	10,372	11,532	13,784	9,534	7,595
40%	7,331	7,808	9,138	13,869	13,475	10,870	7,305	9,772	10,465	13,008	9,171	6,511
50%	7,013	7,323	7,033	9,371	10,838	9,112	6,890	9,342	10,037	12,017	8,933	5,875
60%	6,537	7,070	6,707	7,538	8,583	7,911	5,898	8,673	9,652	11,152	8,595	5,520
70%	6,144	6,666	6,019	6,772	7,660	7,290	5,474	8,069	9,000	10,591	8,270	5,270
80%	5,789	6,141	5,653	5,961	6,165	5,871	5,128	7,450	8,553	9,927	7,797	4,737
90%	5,386	5,614	5,259	5,026	5,413	5,234	4,724	6,957	7,959	9,296	7,587	4,517
Long Term												
Full Simulation Period ^d	7,246	8,530	12,821	16,550	19,644	14,991	9,231	9,693	10,550	12,161	9,051	6,592
Water Year Types ^{b,c}												
Wet (32%)	8,541	9,366	14,414	30,586	31,792	25,452	14,203	10,979	9,658	12,782	9,954	8,515
Above Normal (16%)	7,779	10,704	11,973	17,705	27,642	17,026	9,625	9,966	10,773	14,044	9,798	7,512
Below Normal (13%)	6,807	7,134	12,088	8,824	13,897	8,154	6,438	9,452	12,154	12,911	9,342	5,533
Dry (24%)	6,677	8,392	15,444	7,512	9,649	9,143	6,457	8,932	11,121	11,107	8,280	5,127
Critical (15%)	5,216	5,875	6,587	7,031	6,583	6,136	5,216	8,097	9,818	9,846	7,299	4,838

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,702	10,854	27,355	40,050	44,798	30,850	17,688	12,830	13,945	15,184	10,489	8,265
20%	8,123	9,468	19,377	26,782	32,600	22,670	12,767	10,912	12,988	14,730	9,995	7,541
30%	7,528	7,946	11,935	19,061	22,840	18,279	8,729	10,347	12,101	14,134	9,510	6,519
40%	7,098	7,494	9,194	14,367	14,640	11,092	7,505	9,872	11,233	13,278	9,195	5,977
50%	6,773	7,115	7,719	9,683	11,743	9,433	6,670	9,382	10,498	12,358	8,854	5,565
60%	6,564	6,646	6,943	8,081	8,841	8,334	5,832	8,721	10,089	11,667	8,539	5,317
70%	6,085	6,507	6,011	6,858	7,494	7,630	5,287	8,557	9,506	10,906	8,324	5,158
80%	5,986	6,179	5,800	6,034	6,090	5,984	4,986	7,871	8,587	10,430	7,991	4,789
90%	5,368	5,600	5,548	5,245	5,530	5,308	4,670	7,123	8,018	9,546	7,492	4,522
Long Term												
Full Simulation Period ^d	6,978	8,097	12,835	17,369	19,646	15,843	9,542	9,736	10,816	12,460	9,015	6,160
Water Year Types ^{b,c}												
Wet (32%)	7,880	8,946	14,269	32,292	31,234	26,745	14,872	10,442	9,671	13,005	9,808	7,510
Above Normal (16%)	7,487	9,552	11,202	18,452	27,357	17,577	10,095	10,142	11,490	14,708	9,978	6,981
Below Normal (13%)	6,429	6,993	11,938	9,929	14,470	8,714	6,587	9,975	12,101	13,224	8,985	5,356
Dry (24%)	6,522	7,941	16,140	7,739	10,133	9,979	6,432	9,154	11,574	11,508	8,298	5,038
Critical (15%)	5,733	5,952	6,812	6,734	6,785	6,652	5,283	8,517	10,124	9,729	7,474	4,952

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,003	-269	-2,821	532	-3,046	779	1,085	-630	258	236	-275	-1,114
20%	-614	80	-1,684	1,135	294	3,140	-280	-518	529	67	24	-607
30%	-521	-232	312	1,978	-271	1,793	234	-24	569	351	-24	-1,076
40%	-233	-314	57	498	1,165	222	200	100	768	270	24	-534
50%	-240	-208	686	312	905	322	-220	40	460	341	-79	-310
60%	27	-424	235	543	258	424	-65	48	437	515	-57	-203
70%	-59	-158	-7	86	-166	340	-187	487	507	315	54	-113
80%	197	38	147	73	-76	113	-141	420	34	504	194	52
90%	-18	-14	289	219	117	74	-54	166	58	250	-95	6
Long Term												
Full Simulation Period ^d	-268	-434	15	820	2	852	310	43	266	298	-36	-432
Water Year Types ^{b,c}												
Wet (32%)	-661	-419	-145	1,707	-558	1,293	669	-537	12	222	-146	-1,006
Above Normal (16%)	-292	-1,152	-771	747	-285	551	470	175	717	664	180	-531
Below Normal (13%)	-378	-142	-150	1,104	573	561	148	523	-53	312	-357	-177
Dry (24%)	-154	-451	697	228	484	836	-25	222	453	401	17	-89
Critical (15%)	517	76	225	-297	201	516	67	420	305	-117	175	114

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

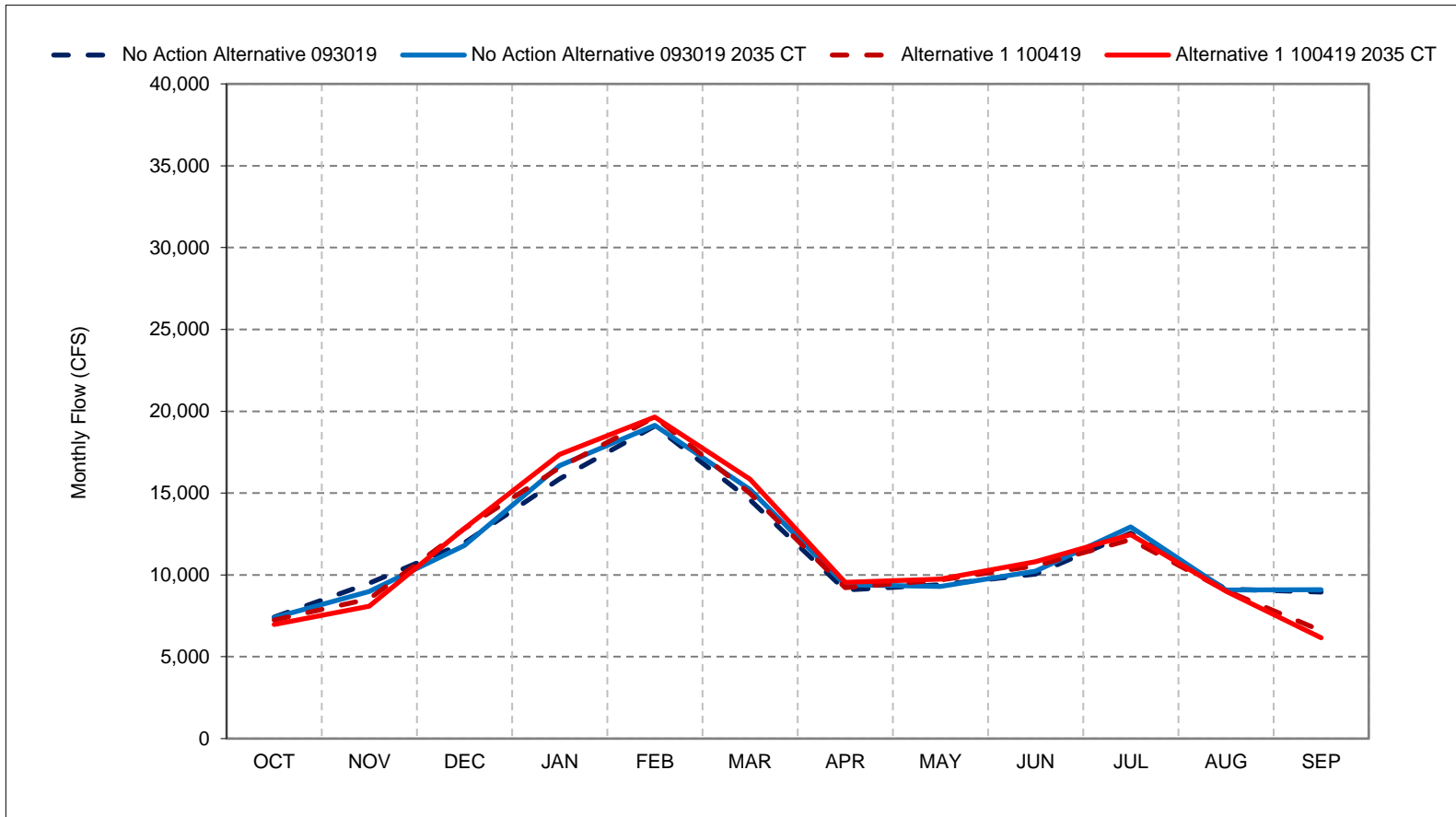
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 17-1. Sacramento River below Red Bluff Diversion Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

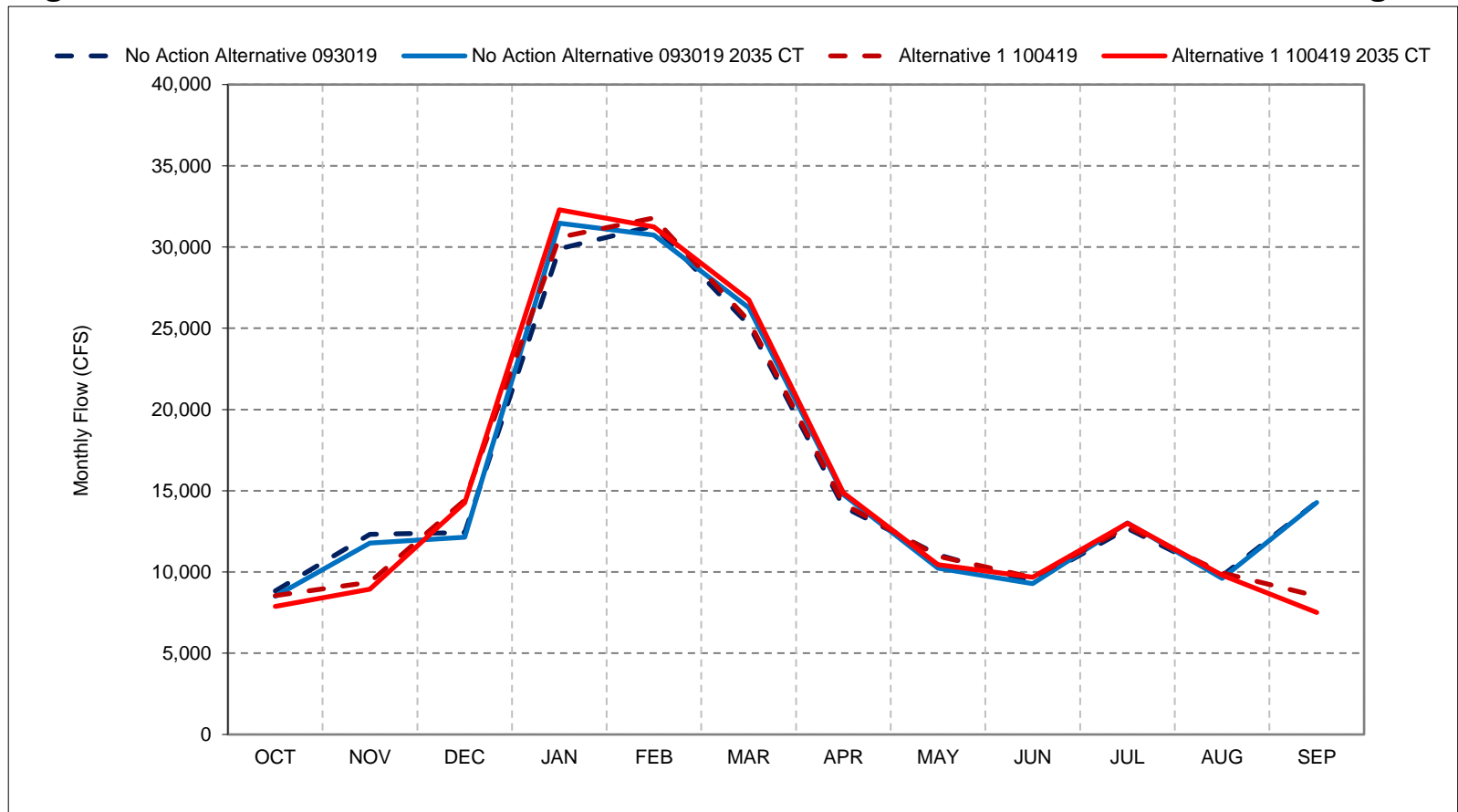
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-2. Sacramento River below Red Bluff Diversion Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

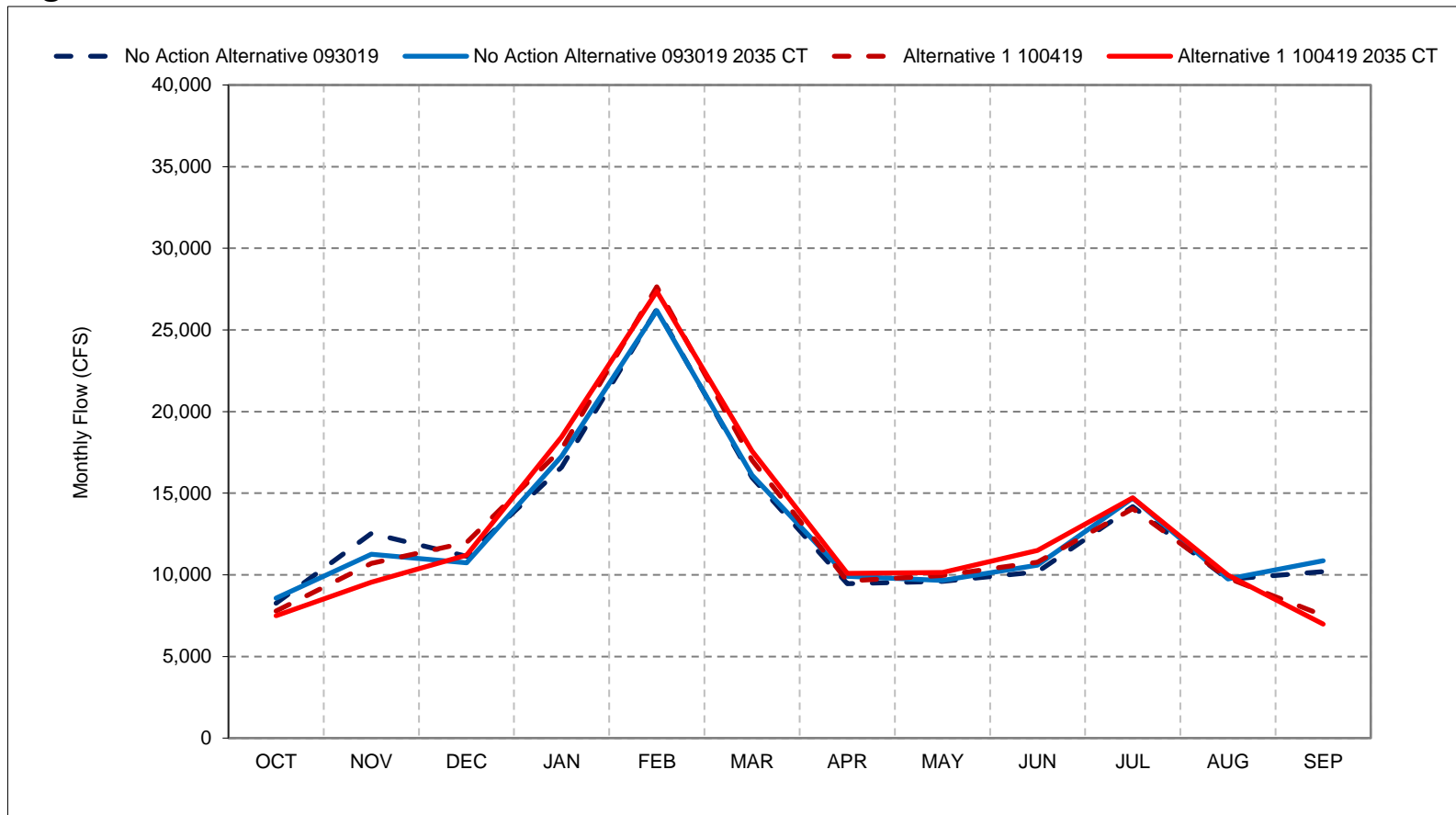
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-3. Sacramento River below Red Bluff Diversion Dam Flow, Above Normal Year Average f



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

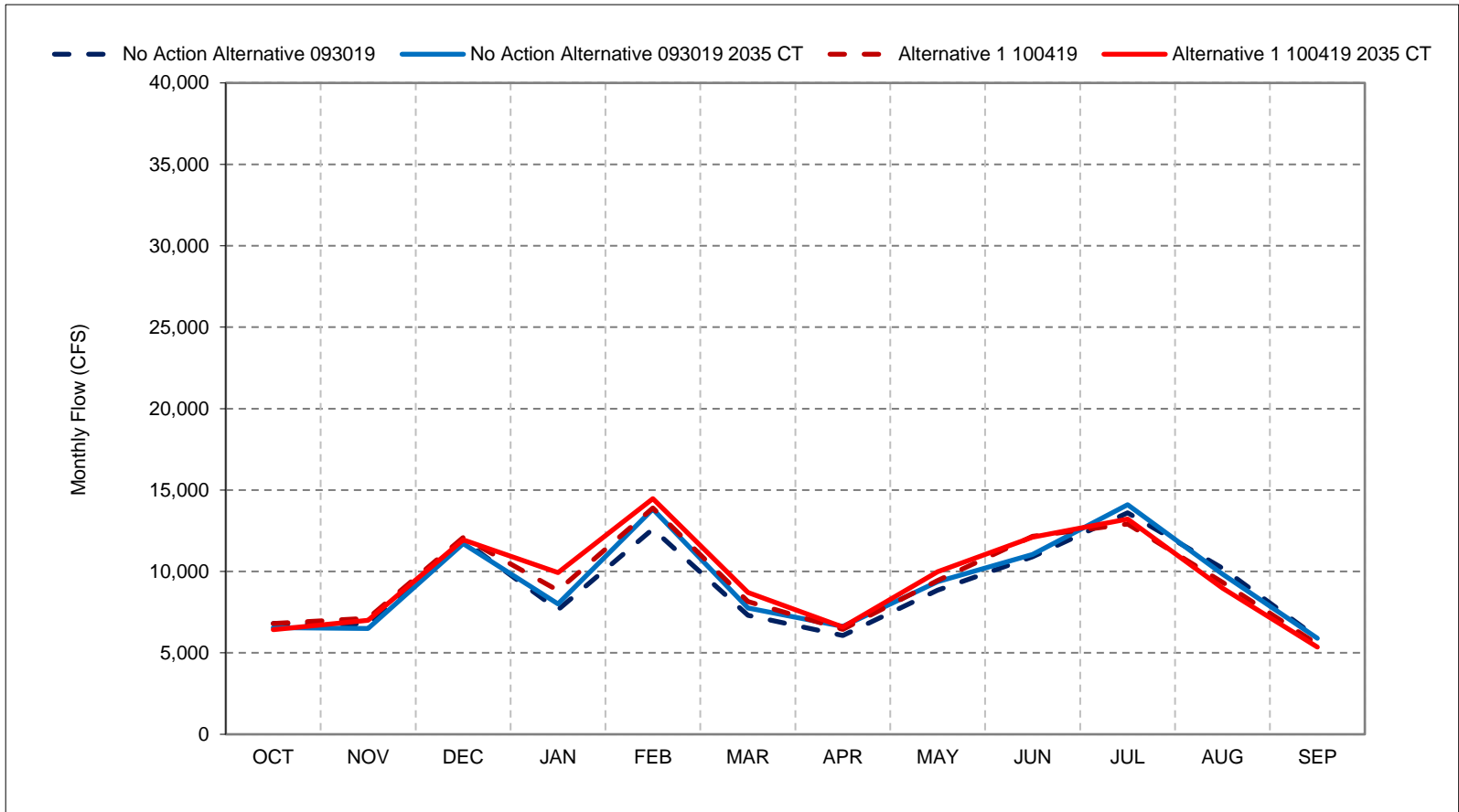
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-4. Sacramento River below Red Bluff Diversion Dam Flow, Below Normal Year Average F



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

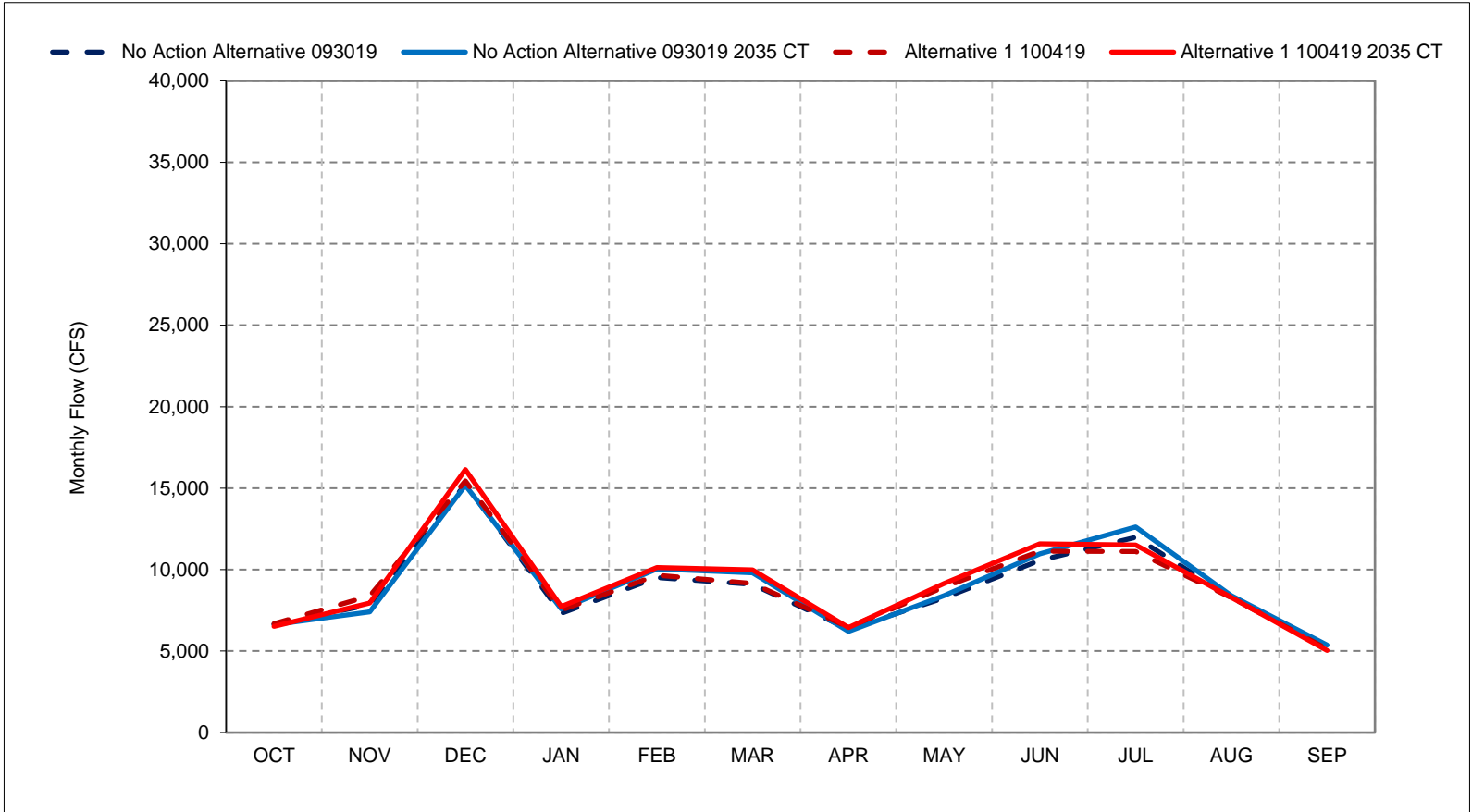
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-5. Sacramento River below Red Bluff Diversion Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

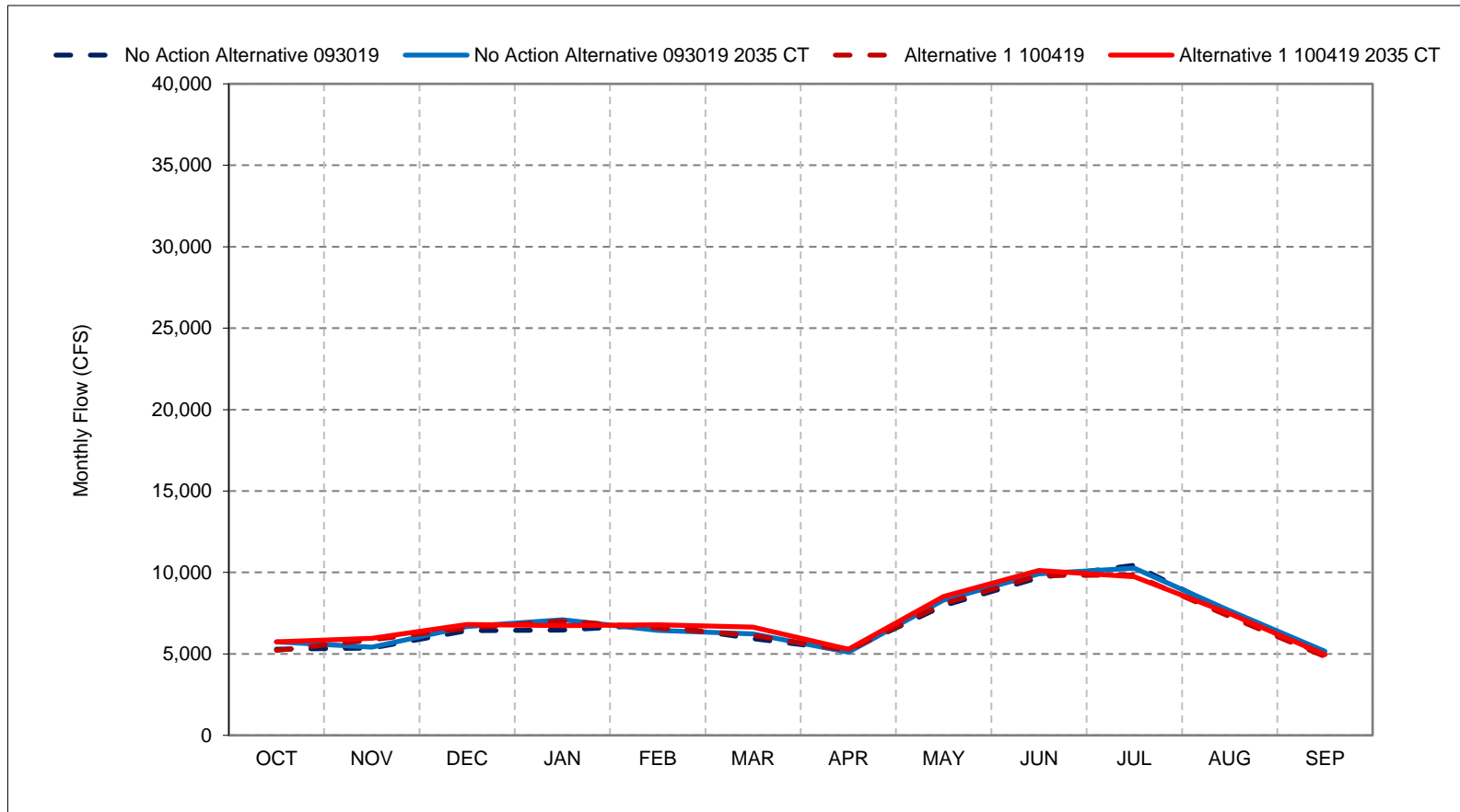
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-6. Sacramento River below Red Bluff Diversion Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

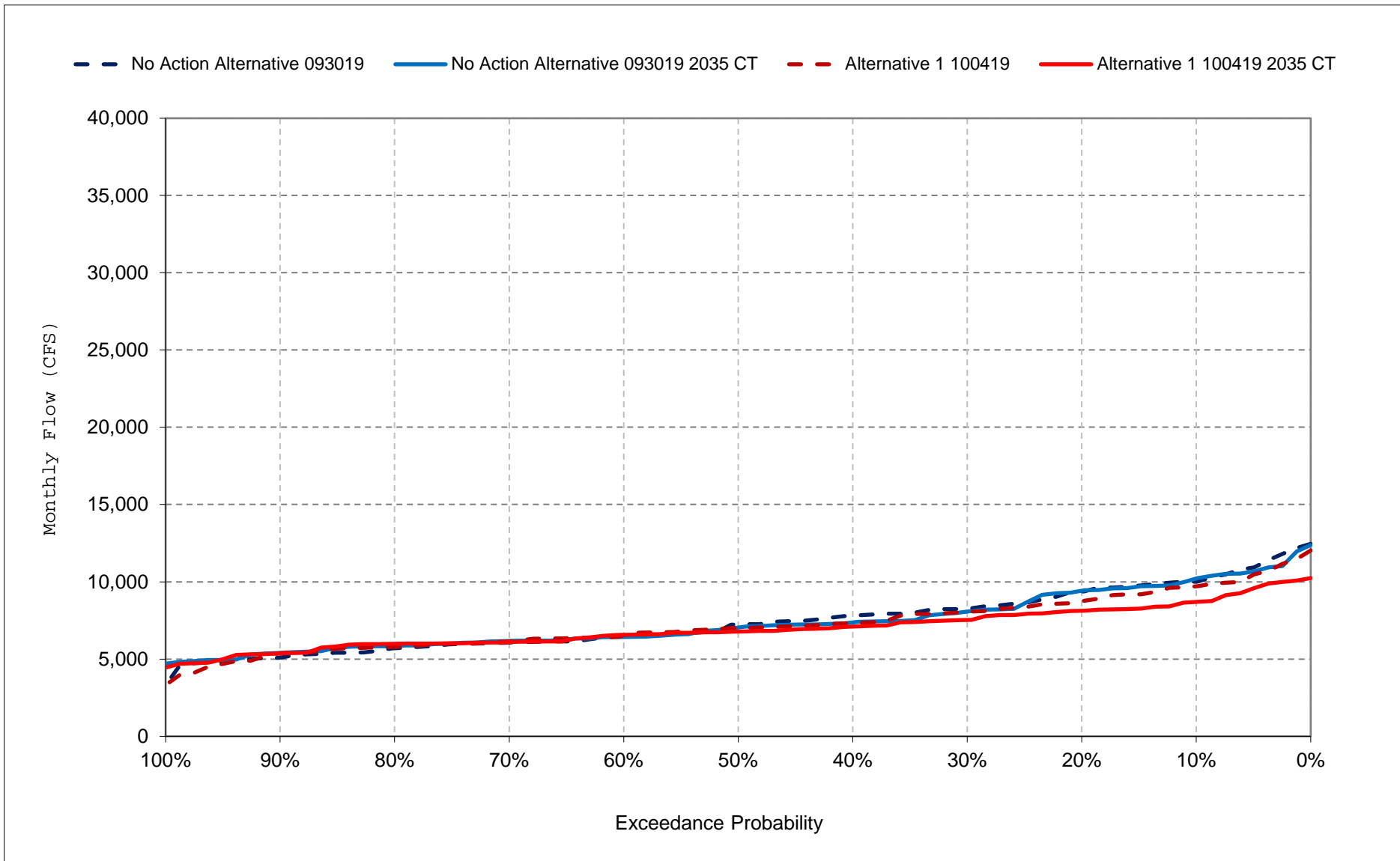
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

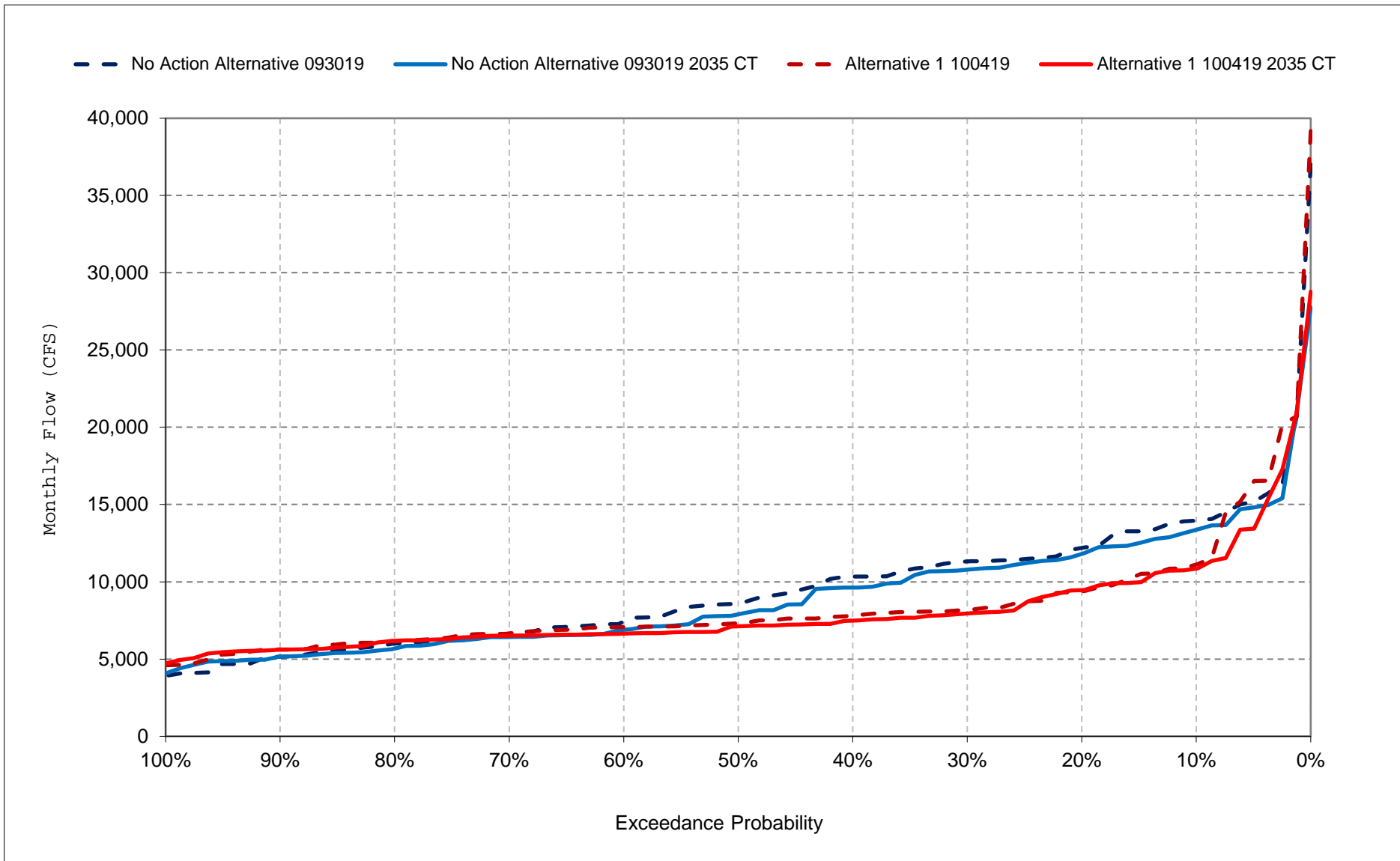
Figure 17-7. Sacramento River below Red Bluff Diversion Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

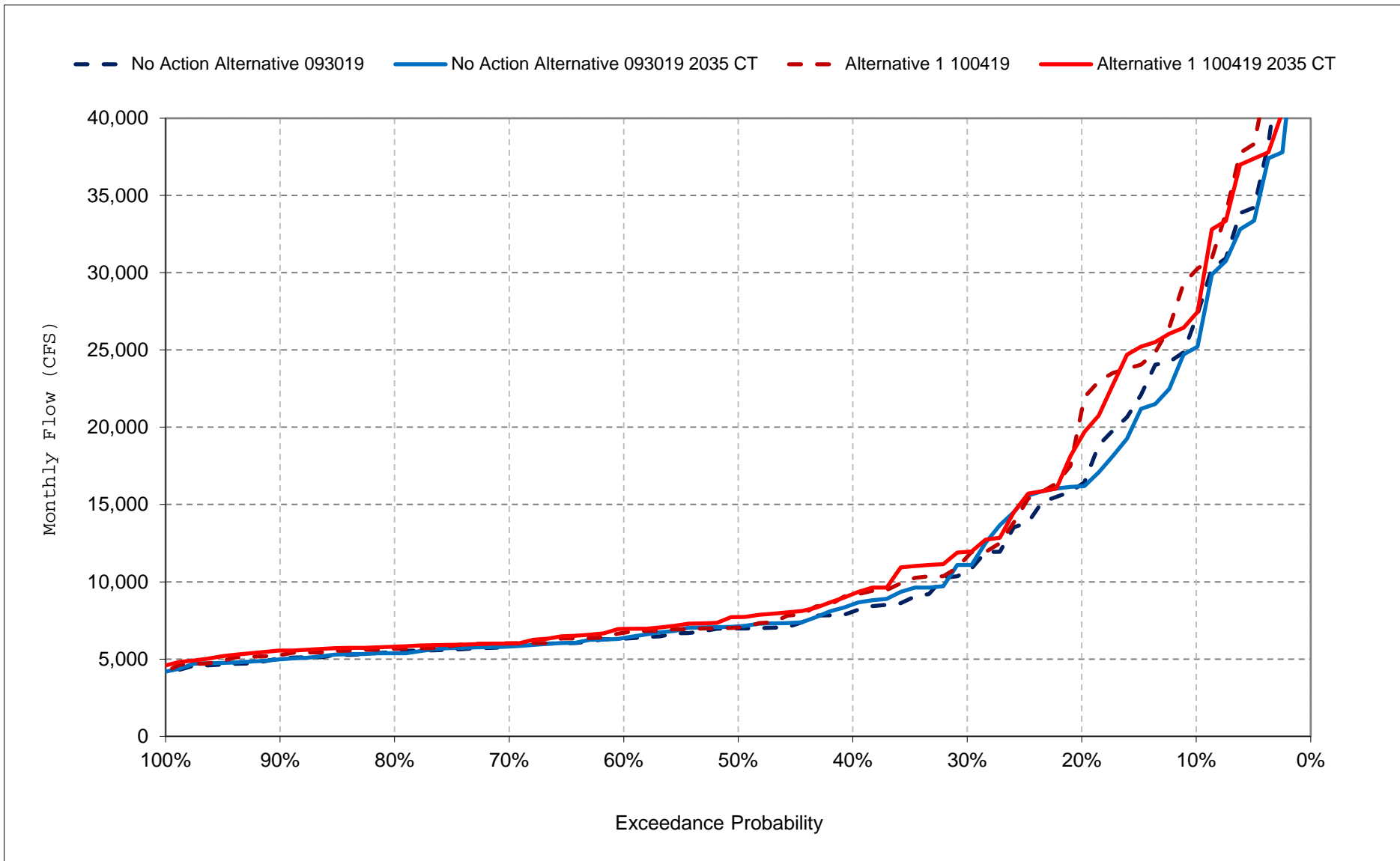
Figure 17-8. Sacramento River below Red Bluff Diversion Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

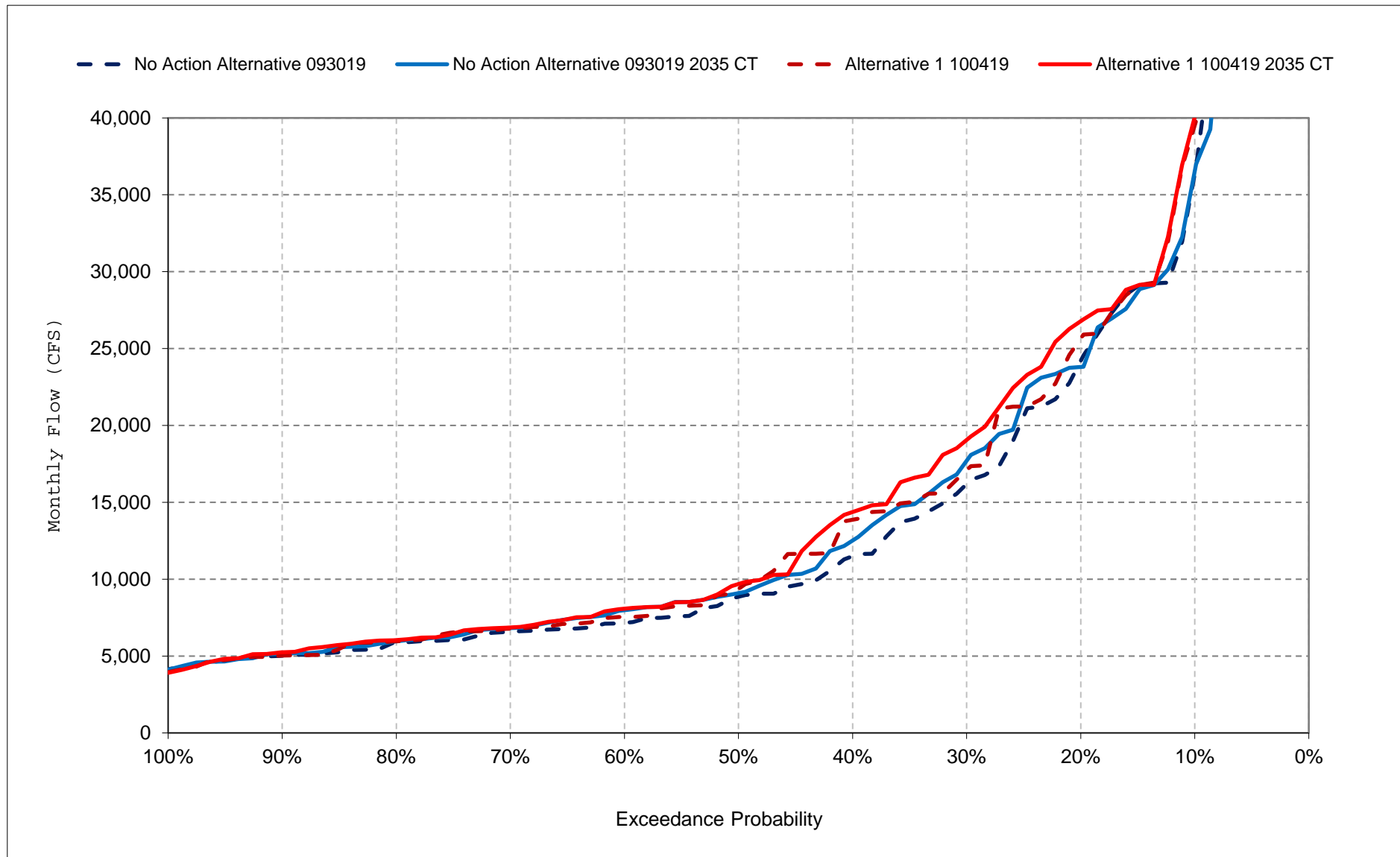
Figure 17-9. Sacramento River below Red Bluff Diversion Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

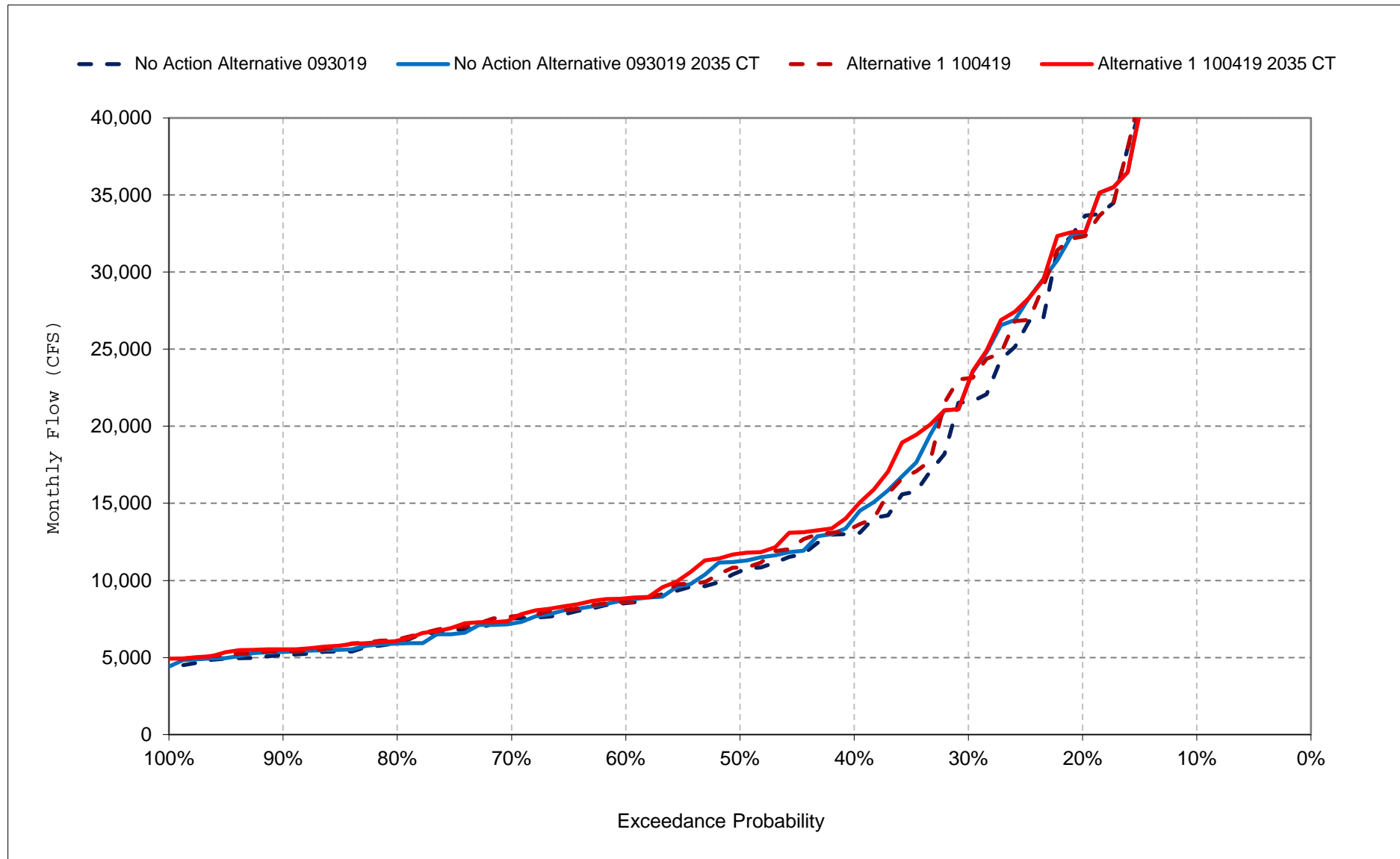
Figure 17-10. Sacramento River below Red Bluff Diversion Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

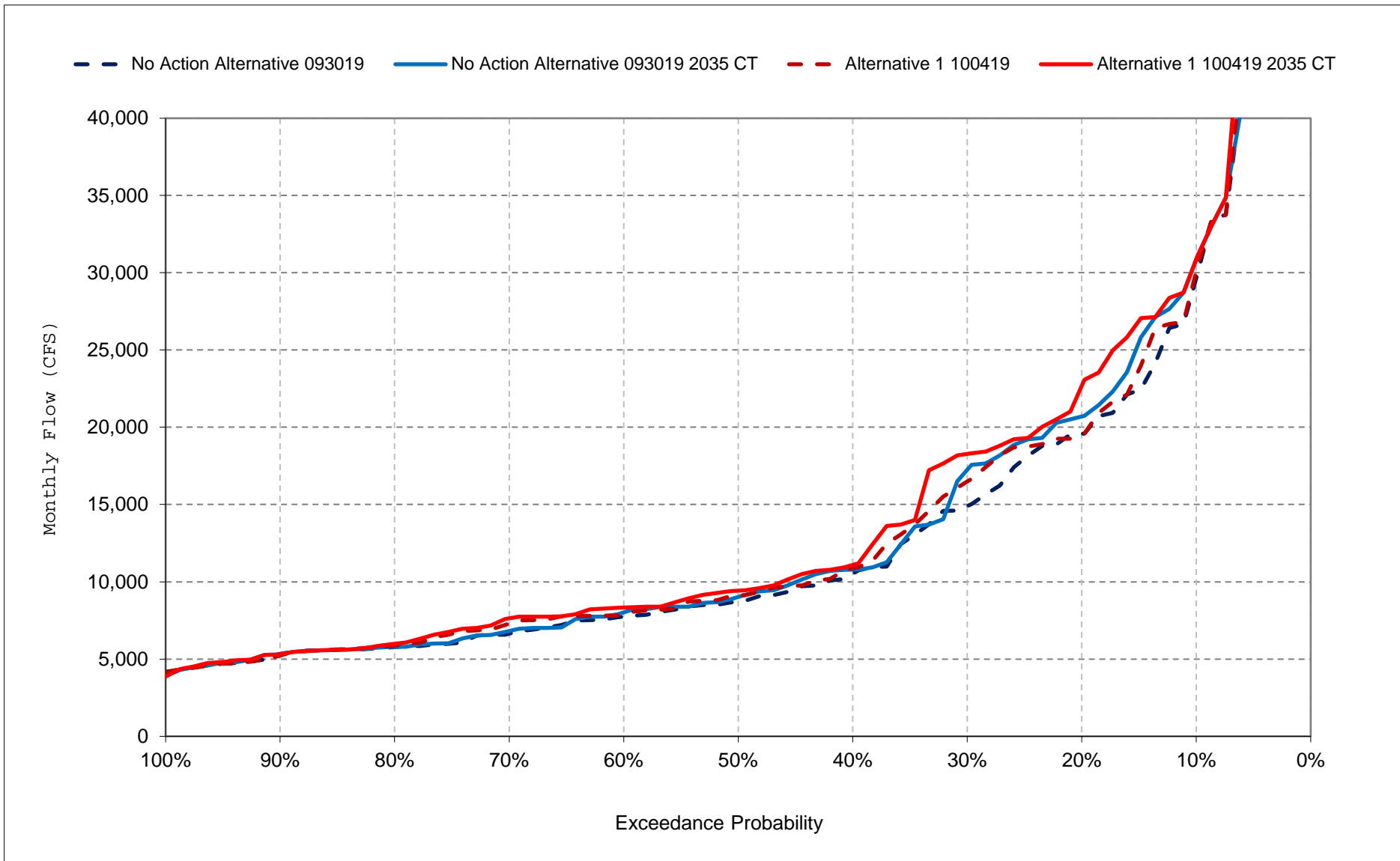
Figure 17-11. Sacramento River below Red Bluff Diversion Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

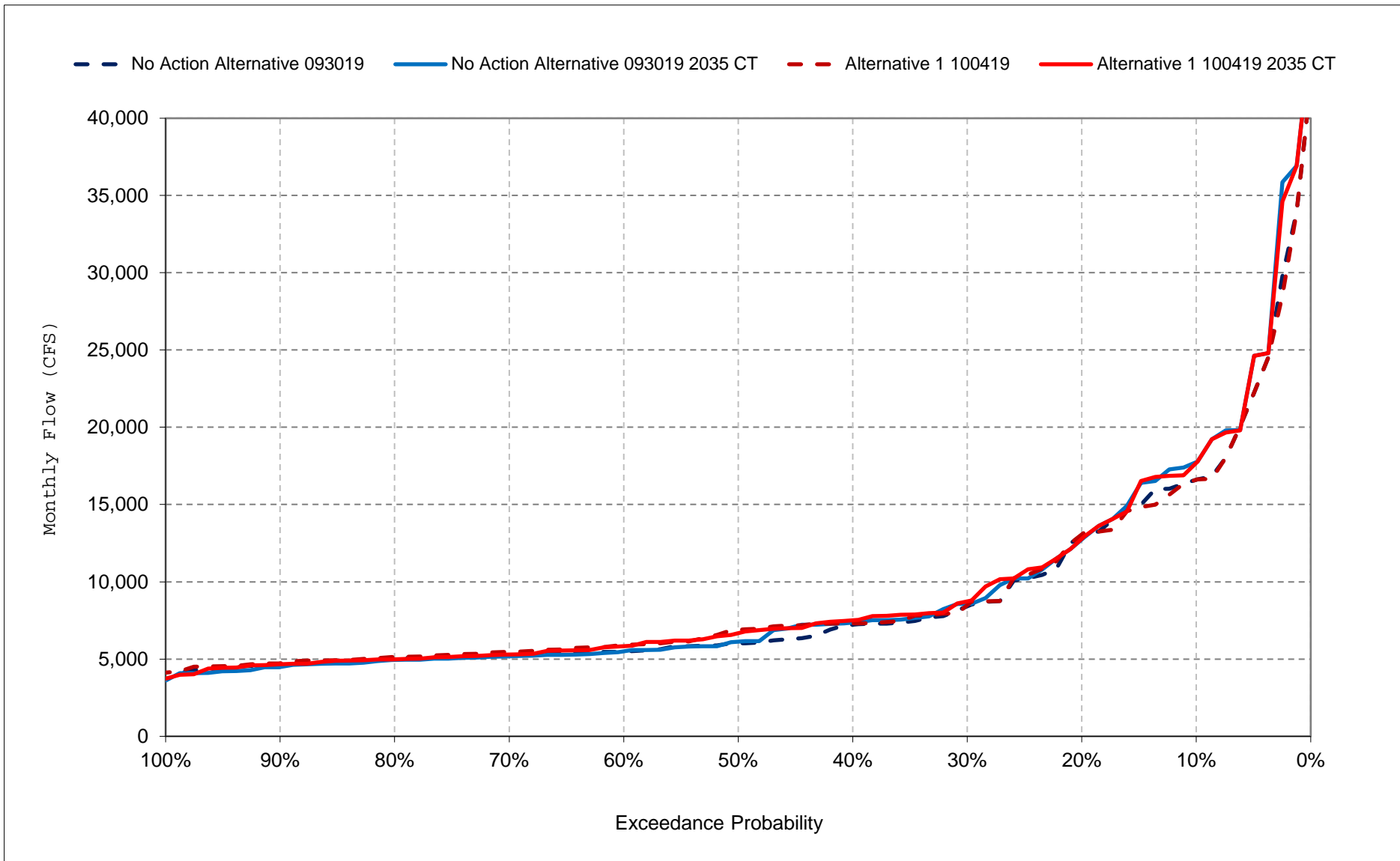
Figure 17-12. Sacramento River below Red Bluff Diversion Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

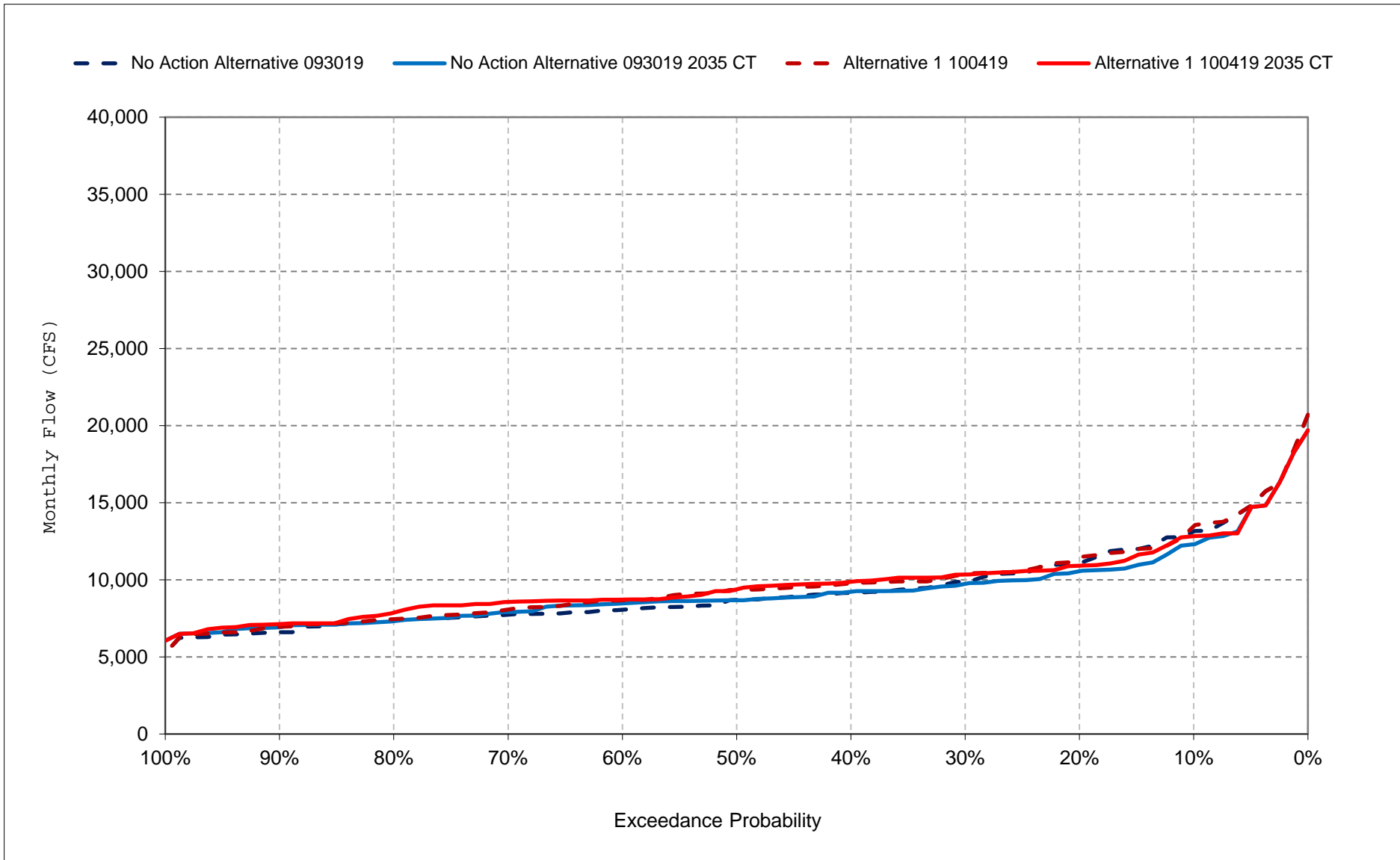
Figure 17-13. Sacramento River below Red Bluff Diversion Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

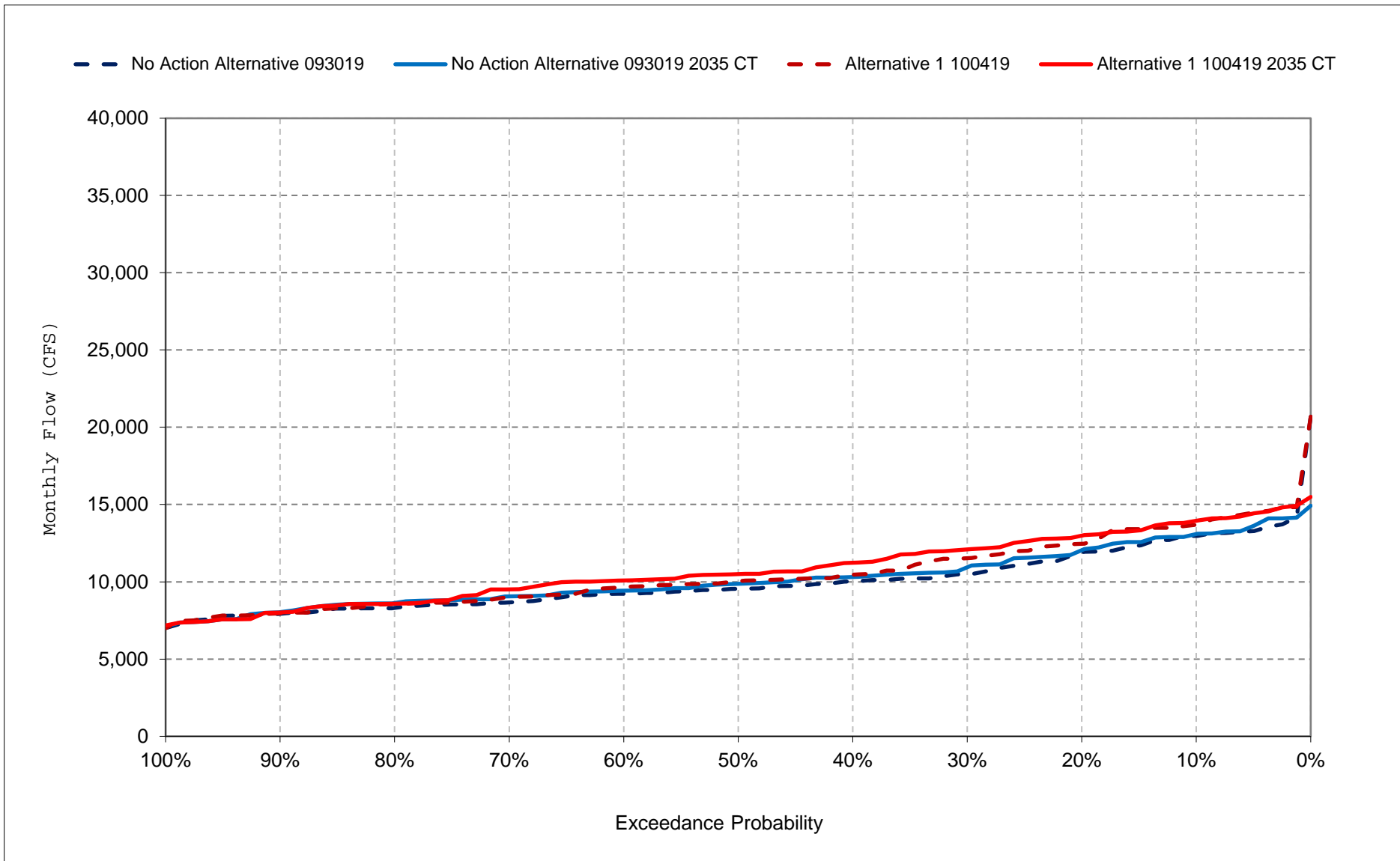
Figure 17-14. Sacramento River below Red Bluff Diversion Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

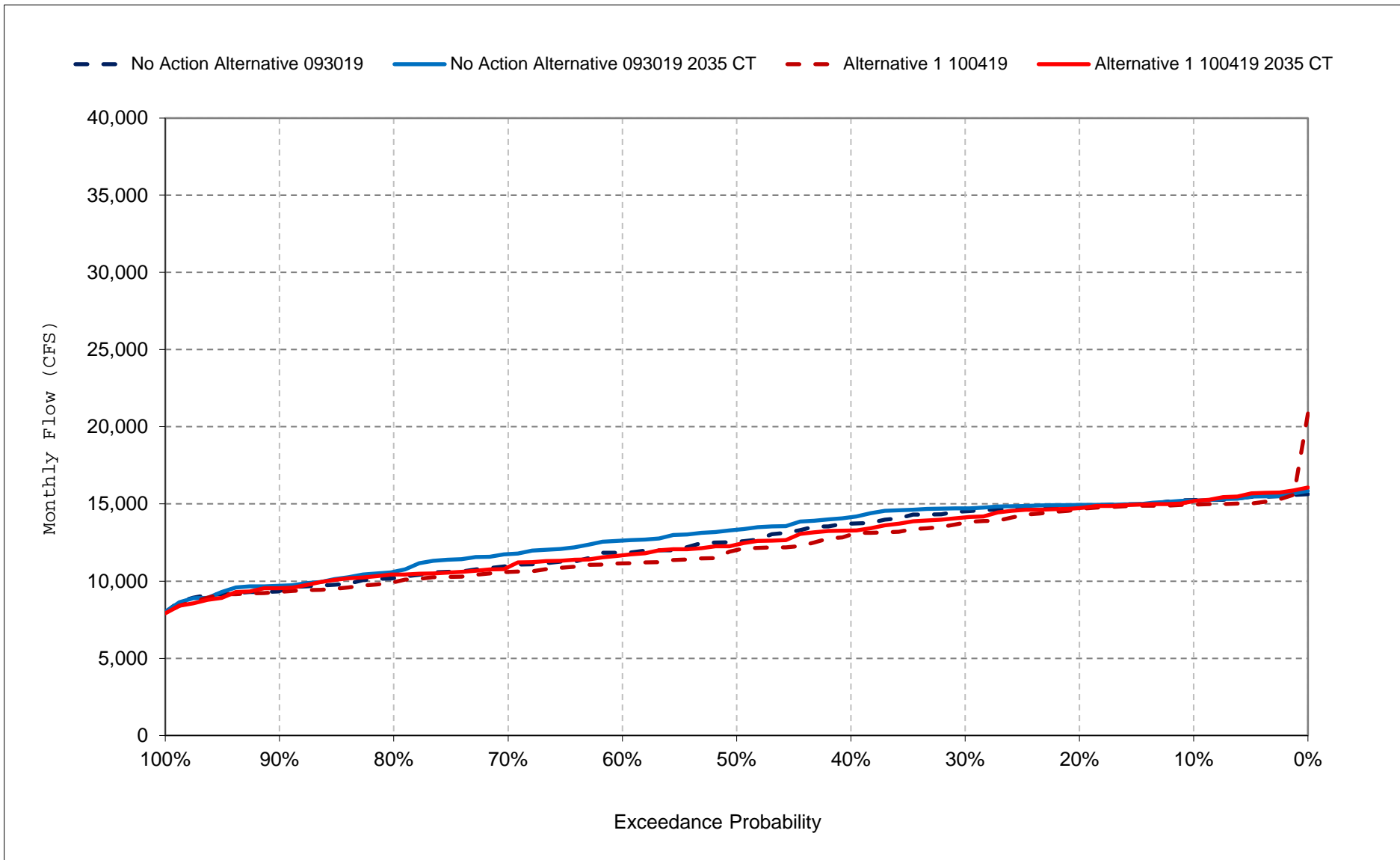
Figure 17-15. Sacramento River below Red Bluff Diversion Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

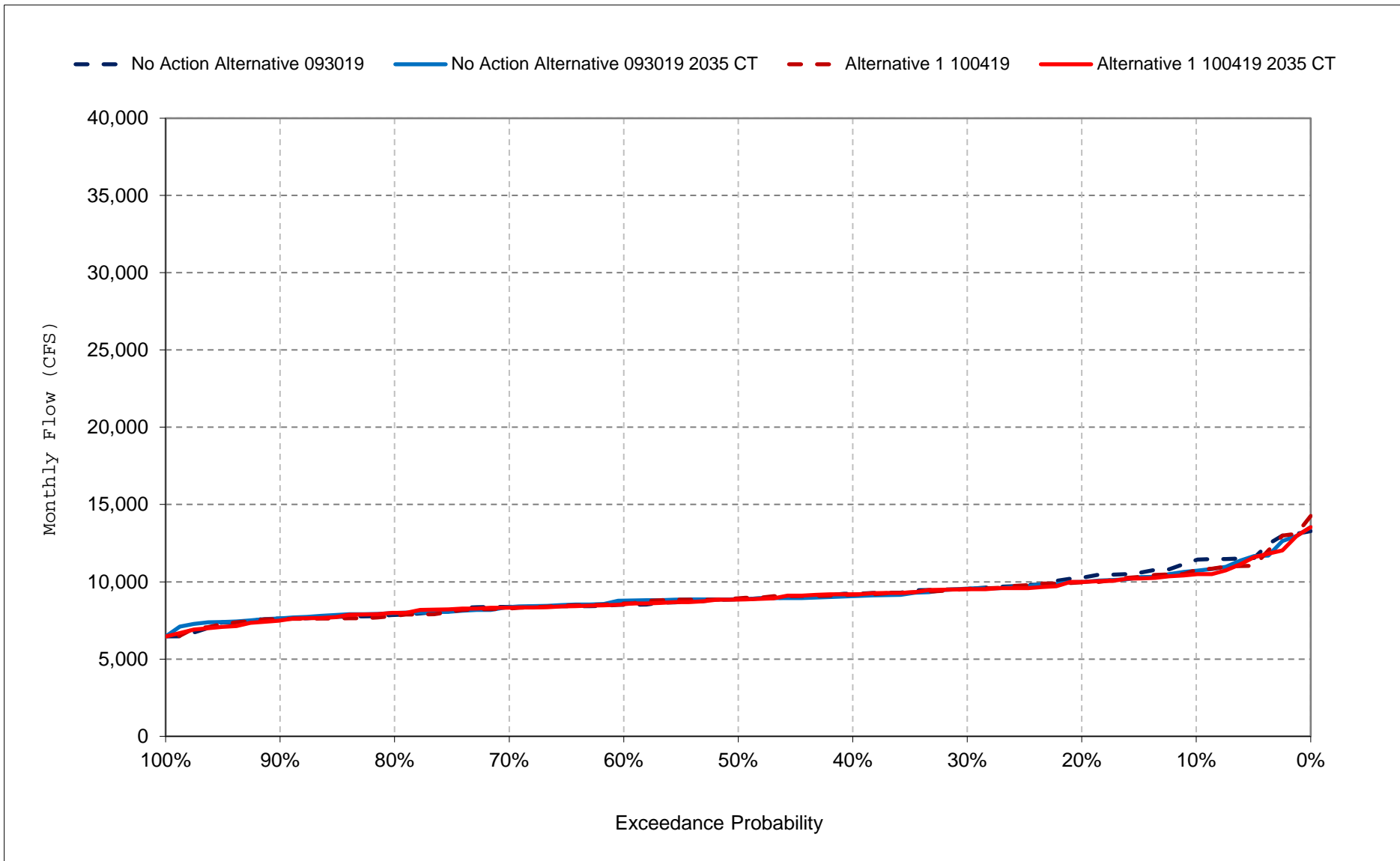
Figure 17-16. Sacramento River below Red Bluff Diversion Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

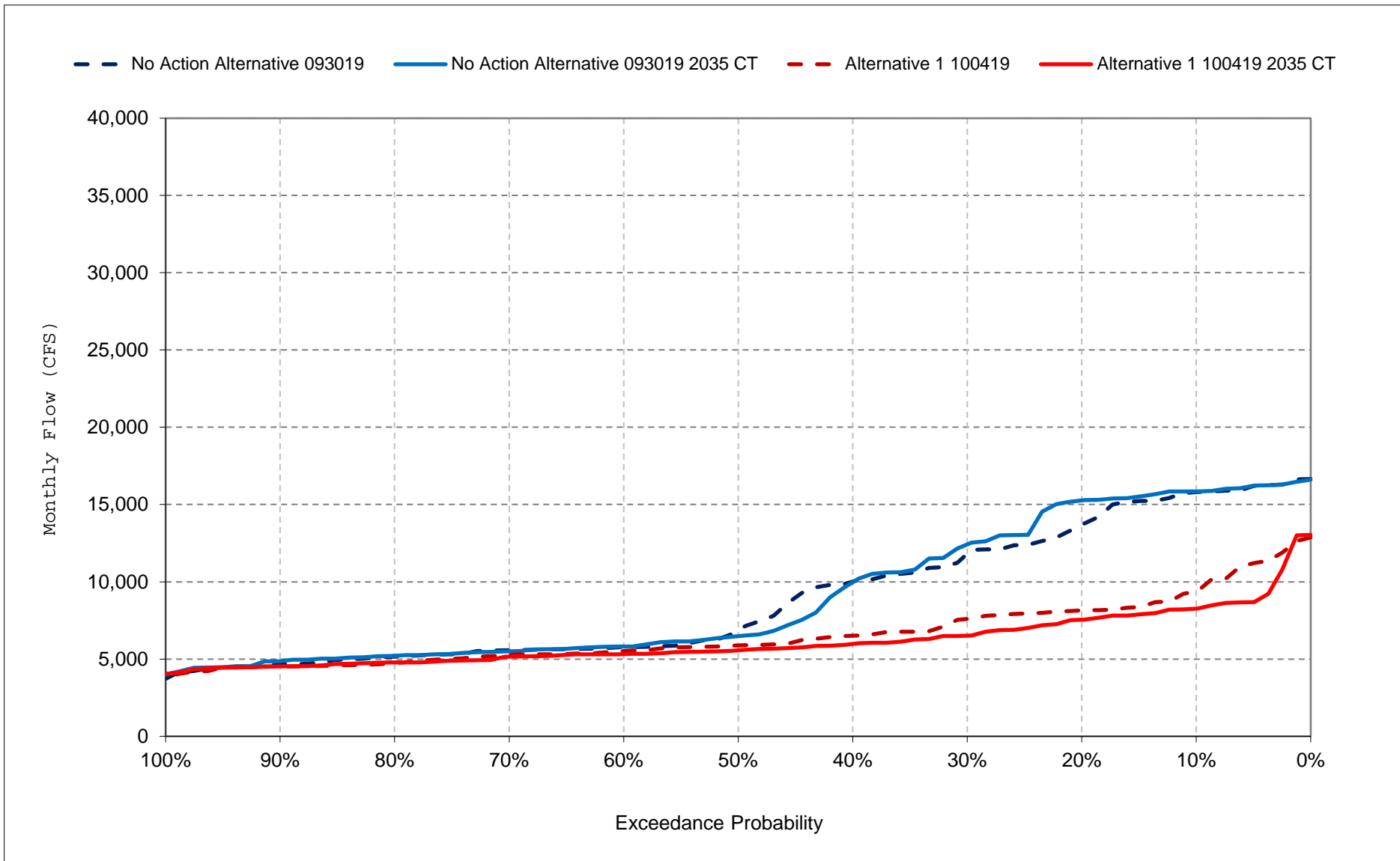
Figure 17-17. Sacramento River below Red Bluff Diversion Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 17-18. Sacramento River below Red Bluff Diversion Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-1. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,533	14,514	30,454	40,895	51,928	33,410	19,892	13,667	10,490	12,795	9,381	15,318
20%	9,137	11,964	18,666	26,959	36,320	22,469	15,439	11,335	9,589	12,458	8,069	13,180
30%	7,718	11,342	11,974	18,701	24,155	17,461	9,651	8,554	8,702	12,074	7,628	11,244
40%	7,314	10,538	9,354	13,004	15,887	12,300	7,794	7,444	7,998	11,276	7,252	9,491
50%	6,628	8,952	7,755	10,368	11,802	10,484	7,129	7,104	7,653	10,195	6,873	6,441
60%	5,920	7,700	6,702	8,239	10,219	9,310	6,399	6,770	7,186	9,473	6,596	5,180
70%	5,494	6,660	6,170	7,032	8,669	7,907	5,977	6,462	6,911	8,610	6,421	4,978
80%	5,116	5,957	5,568	6,358	7,193	6,759	5,606	5,942	6,765	7,906	6,000	4,689
90%	4,762	5,062	5,147	5,443	5,738	6,104	5,027	5,633	6,250	7,083	5,788	4,140
Long Term												
Full Simulation Period ^d	6,929	9,736	13,273	17,954	21,489	16,693	10,444	8,521	8,163	10,170	7,193	8,464
Water Year Types ^{b,c}												
Wet (32%)	8,327	12,618	13,752	33,701	35,050	28,342	16,373	11,144	8,195	10,422	7,757	13,845
Above Normal (16%)	7,758	12,844	12,277	19,245	29,447	18,600	11,053	8,831	8,346	11,738	7,749	9,687
Below Normal (13%)	6,429	6,841	13,002	8,952	14,297	8,532	7,040	7,434	8,670	11,120	8,241	5,434
Dry (24%)	6,108	8,224	17,136	8,121	10,990	10,694	7,270	6,820	8,162	9,498	6,373	4,762
Critical (15%)	4,826	5,302	7,123	7,075	7,574	6,866	5,351	6,333	7,432	8,176	5,776	4,426

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,529	11,628	33,595	43,813	52,523	33,844	19,846	13,031	11,494	12,531	8,698	8,927
20%	8,476	9,418	23,477	28,534	35,439	22,900	15,436	10,920	10,232	12,294	8,040	7,612
30%	7,663	8,347	12,940	19,297	25,966	19,460	9,477	9,170	9,279	11,405	7,558	7,114
40%	6,954	7,491	10,171	16,596	15,909	12,669	8,858	8,206	8,794	10,602	7,177	5,993
50%	6,659	7,194	7,868	11,157	12,260	11,290	7,407	7,819	8,149	9,583	6,992	5,316
60%	6,292	6,888	6,989	8,503	10,224	9,380	6,862	7,131	7,629	8,745	6,709	5,023
70%	5,798	6,408	6,473	7,474	8,654	8,422	6,198	6,636	7,127	8,219	6,317	4,760
80%	5,502	5,698	5,761	6,555	7,352	7,003	5,708	6,372	6,843	7,602	5,914	4,338
90%	4,949	5,408	5,481	5,440	5,986	6,364	5,235	5,752	6,246	7,005	5,777	3,954
Long Term												
Full Simulation Period ^d	6,976	8,534	14,134	18,638	22,036	17,097	10,603	8,811	8,655	9,787	7,109	6,097
Water Year Types ^{b,c}												
Wet (32%)	8,269	9,415	15,746	34,387	35,539	28,595	16,560	11,062	8,436	10,523	7,915	8,058
Above Normal (16%)	7,511	10,776	13,123	20,364	30,824	19,670	11,218	9,187	8,938	11,609	7,787	7,004
Below Normal (13%)	6,655	6,981	13,176	10,124	15,584	9,380	7,403	8,025	9,927	10,422	7,388	5,049
Dry (24%)	6,361	8,540	17,332	8,321	11,118	10,747	7,374	7,483	8,713	8,618	6,400	4,583
Critical (15%)	4,914	5,609	7,282	7,647	7,368	7,056	5,346	6,459	7,561	7,586	5,557	4,350

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-2,886	3,141	2,918	595	434	-47	-636	1,003	-265	-682	-6,391
20%	-661	-2,546	4,811	1,575	-881	431	-3	-415	644	-163	-28	-5,568
30%	-54	-2,994	966	597	1,811	1,999	-174	616	578	-669	-70	-4,130
40%	-360	-3,047	817	3,592	22	370	1,064	762	796	-673	-75	-3,498
50%	31	-1,758	113	789	458	805	278	715	496	-612	119	-1,125
60%	372	-812	286	264	5	71	463	360	443	-728	113	-158
70%	304	-251	303	442	-15	515	221	174	216	-391	-104	-218
80%	387	-260	194	197	160	245	102	429	78	-303	-86	-351
90%	187	347	334	-3	248	260	208	119	-3	-79	-11	-186
Long Term												
Full Simulation Period ^d	47	-1,202	861	685	547	404	159	290	492	-383	-84	-2,367
Water Year Types ^{b,c}												
Wet (32%)	-58	-3,203	1,994	686	489	253	187	-83	241	101	158	-5,787
Above Normal (16%)	-247	-2,068	846	1,119	1,377	1,070	165	356	592	-129	38	-2,684
Below Normal (13%)	225	141	175	1,172	1,287	848	363	592	1,257	-699	-853	-385
Dry (24%)	253	317	196	200	129	54	104	664	551	-880	26	-179
Critical (15%)	88	307	159	571	-206	190	-5	126	129	-590	-219	-76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 18-2. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,698	13,722	28,124	42,263	49,956	34,648	20,434	11,725	10,566	12,669	8,632	15,393
20%	8,966	12,072	19,359	30,041	37,324	24,551	15,842	8,648	9,608	12,436	7,954	14,741
30%	7,454	11,190	13,030	21,087	26,541	19,936	9,750	7,897	8,506	12,239	7,503	11,896
40%	6,709	9,724	10,216	14,559	17,323	13,174	8,261	7,252	8,067	11,714	7,106	9,410
50%	6,401	7,836	8,165	10,992	13,427	11,116	6,813	6,918	7,534	11,049	6,940	6,137
60%	5,770	7,035	7,009	9,519	10,602	9,635	6,112	6,587	6,951	10,105	6,715	5,255
70%	5,620	6,493	6,307	7,882	8,912	7,772	5,636	6,328	6,870	9,480	6,371	4,962
80%	5,241	5,710	5,743	6,731	6,893	6,820	5,180	5,892	6,655	8,111	6,122	4,629
90%	4,936	5,064	5,055	5,749	6,152	6,032	4,584	5,601	6,140	7,444	5,691	4,287
Long Term												
Full Simulation Period ^d	6,820	9,298	13,425	19,361	22,049	17,520	10,529	7,867	7,983	10,481	7,120	8,591
Water Year Types ^{b,c}												
Wet (32%)	7,917	12,123	13,795	36,128	35,100	29,678	16,887	9,437	7,359	10,563	7,551	13,803
Above Normal (16%)	8,004	11,692	12,254	20,688	29,960	18,875	11,105	8,223	8,438	12,230	7,744	10,358
Below Normal (13%)	6,083	6,649	13,153	9,779	16,082	9,090	7,342	7,557	8,614	11,582	7,833	5,378
Dry (24%)	6,013	7,864	17,301	8,774	11,965	11,650	6,898	6,581	8,391	10,128	6,509	4,809
Critical (15%)	5,178	5,399	7,678	8,022	7,476	7,224	5,103	6,511	7,583	7,988	5,873	4,629

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,488	11,656	31,485	45,102	50,192	34,685	20,482	11,675	11,543	12,701	8,456	7,793
20%	7,732	9,406	21,905	30,707	37,553	25,315	15,835	9,431	10,538	12,260	7,906	7,050
30%	7,165	7,642	13,978	22,255	26,577	20,325	9,934	8,582	9,718	11,607	7,483	6,015
40%	6,690	7,383	10,921	16,750	17,306	13,740	8,365	8,134	8,805	10,886	7,133	5,453
50%	6,387	6,995	8,521	11,418	14,273	11,442	7,136	7,592	8,247	10,019	6,893	5,108
60%	6,114	6,717	7,280	9,599	10,673	9,742	6,380	6,946	7,936	9,145	6,635	4,782
70%	5,797	6,145	6,753	7,877	8,920	8,869	5,859	6,653	7,344	8,459	6,388	4,543
80%	5,544	5,733	6,012	6,743	7,175	7,053	5,456	6,379	6,635	7,960	6,100	4,264
90%	5,044	5,321	5,704	5,779	6,334	6,249	4,839	5,811	6,048	7,252	5,645	3,982
Long Term												
Full Simulation Period ^d	6,634	8,169	14,460	20,055	22,554	18,146	10,668	8,291	8,566	10,010	7,055	5,641
Water Year Types ^{b,c}												
Wet (32%)	7,525	9,049	15,932	36,953	35,602	30,168	16,989	9,631	7,745	10,549	7,746	7,022
Above Normal (16%)	7,155	9,742	12,711	21,881	31,136	20,356	11,286	8,685	9,323	12,228	7,971	6,465
Below Normal (13%)	6,198	6,904	13,390	11,703	16,720	10,046	7,309	8,150	9,660	10,691	7,002	4,838
Dry (24%)	6,139	8,164	18,266	8,937	12,068	11,831	7,131	7,320	9,008	9,017	6,414	4,483
Critical (15%)	5,361	5,729	7,801	7,653	7,811	7,655	5,277	6,707	7,789	7,472	5,679	4,425

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,210	-2,066	3,362	2,839	236	37	47	-50	977	32	-176	-7,600
20%	-1,234	-2,666	2,546	666	229	764	-7	783	931	-176	-49	-7,691
30%	-290	-3,548	948	1,169	36	389	184	685	1,211	-632	-21	-5,881
40%	-19	-2,341	704	2,191	-18	566	104	883	738	-828	27	-3,957
50%	-14	-840	356	426	846	326	323	675	713	-1,029	-47	-1,029
60%	345	-318	271	81	71	107	268	359	985	-960	-81	-474
70%	178	-347	446	-5	8	1,097	223	324	475	-1,022	17	-419
80%	303	23	270	12	282	233	276	487	-20	-151	-22	-364
90%	108	257	649	30	182	216	255	210	-91	-191	-47	-305
Long Term												
Full Simulation Period ^d	-186	-1,129	1,035	694	506	626	139	424	583	-471	-65	-2,949
Water Year Types ^{b,c}												
Wet (32%)	-393	-3,075	2,137	825	502	490	102	195	385	-15	195	-6,782
Above Normal (16%)	-849	-1,951	457	1,193	1,176	1,481	181	462	885	-1	228	-3,893
Below Normal (13%)	115	255	237	1,924	638	957	-33	593	1,046	-891	-831	-539
Dry (24%)	126	300	966	163	104	182	233	740	616	-1,111	-95	-326
Critical (15%)	183	330	122	-369	336	431	175	196	206	-517	-194	-204

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-3. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,533	14,514	30,454	40,895	51,928	33,410	19,892	13,667	10,490	12,795	9,381	15,318
20%	9,137	11,964	18,666	26,959	36,320	22,469	15,439	11,335	9,589	12,458	8,069	13,180
30%	7,718	11,342	11,974	18,701	24,155	17,461	9,651	8,554	8,702	12,074	7,628	11,244
40%	7,314	10,538	9,354	13,004	15,887	12,300	7,794	7,444	7,998	11,276	7,252	9,491
50%	6,628	8,952	7,755	10,368	11,802	10,484	7,129	7,104	7,653	10,195	6,873	6,441
60%	5,920	7,700	6,702	8,239	10,219	9,310	6,399	6,770	7,186	9,473	6,596	5,180
70%	5,494	6,660	6,170	7,032	8,669	7,907	5,977	6,462	6,911	8,610	6,421	4,978
80%	5,116	5,957	5,568	6,358	7,193	6,759	5,606	5,942	6,765	7,906	6,000	4,689
90%	4,762	5,062	5,147	5,443	5,738	6,104	5,027	5,633	6,250	7,083	5,788	4,140
Long Term												
Full Simulation Period ^d	6,929	9,736	13,273	17,954	21,489	16,693	10,444	8,521	8,163	10,170	7,193	8,464
Water Year Types ^{b,c}												
Wet (32%)	8,327	12,618	13,752	33,701	35,050	28,342	16,373	11,144	8,195	10,422	7,757	13,845
Above Normal (16%)	7,758	12,844	12,277	19,245	29,447	18,600	11,053	8,831	8,346	11,738	7,749	9,687
Below Normal (13%)	6,429	6,841	13,002	8,952	14,297	8,532	7,040	7,434	8,670	11,120	8,241	5,434
Dry (24%)	6,108	8,224	17,136	8,121	10,990	10,694	7,270	6,820	8,162	9,498	6,373	4,762
Critical (15%)	4,826	5,302	7,123	7,075	7,574	6,866	5,351	6,333	7,432	8,176	5,776	4,426

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,698	13,722	28,124	42,263	49,956	34,648	20,434	11,725	10,566	12,669	8,632	15,393
20%	8,966	12,072	19,359	30,041	37,324	24,551	15,842	8,648	9,608	12,436	7,954	14,741
30%	7,454	11,190	13,030	21,087	26,541	19,936	9,750	7,897	8,506	12,239	7,503	11,896
40%	6,709	9,724	10,216	14,559	17,323	13,174	8,261	7,252	8,067	11,714	7,106	9,410
50%	6,401	7,836	8,165	10,992	13,427	11,116	6,813	6,918	7,534	11,049	6,940	6,137
60%	5,770	7,035	7,009	9,519	10,602	9,635	6,112	6,587	6,951	10,105	6,715	5,255
70%	5,620	6,493	6,307	7,882	8,912	7,772	5,636	6,328	6,870	9,480	6,371	4,962
80%	5,241	5,710	5,743	6,731	6,893	6,820	5,180	5,892	6,655	8,111	6,122	4,629
90%	4,936	5,064	5,055	5,749	6,152	6,032	4,584	5,601	6,140	7,444	5,691	4,287
Long Term												
Full Simulation Period ^d	6,820	9,298	13,425	19,361	22,049	17,520	10,529	7,867	7,983	10,481	7,120	8,591
Water Year Types ^{b,c}												
Wet (32%)	7,917	12,123	13,795	36,128	35,100	29,678	16,887	9,437	7,359	10,563	7,551	13,803
Above Normal (16%)	8,004	11,692	12,254	20,688	29,960	18,875	11,105	8,223	8,438	12,230	7,744	10,358
Below Normal (13%)	6,083	6,649	13,153	9,779	16,082	9,090	7,342	7,557	8,614	11,582	7,833	5,378
Dry (24%)	6,013	7,864	17,301	8,774	11,965	11,650	6,898	6,581	8,391	10,128	6,509	4,809
Critical (15%)	5,178	5,399	7,678	8,022	7,476	7,224	5,103	6,511	7,583	7,988	5,873	4,629

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	165	-791	-2,330	1,368	-1,972	1,238	542	-1,942	75	-127	-749	75
20%	-171	108	693	3,083	1,004	2,082	403	-2,687	19	-22	-114	1,561
30%	-263	-152	1,056	2,386	2,385	2,474	99	-657	-196	165	-125	651
40%	-605	-814	862	1,556	1,437	875	467	-192	69	439	-146	-81
50%	-227	-1,116	410	624	1,624	632	-316	-186	-120	853	67	-305
60%	-151	-666	306	1,280	383	325	-287	-183	-235	632	120	75
70%	126	-167	137	850	243	-135	-341	-133	-41	871	-50	-16
80%	125	-247	175	373	-300	61	-426	-50	-110	206	122	-60
90%	174	2	-92	306	414	-72	-443	-32	-110	360	-97	147
Long Term												
Full Simulation Period ^d	-109	-439	152	1,407	560	827	84	-653	-180	311	-74	127
Water Year Types ^{b,c}												
Wet (32%)	-409	-494	43	2,427	50	1,335	514	-1,708	-836	141	-206	-42
Above Normal (16%)	246	-1,152	-23	1,442	512	275	52	-607	92	492	-5	671
Below Normal (13%)	-346	-192	151	827	1,785	558	302	124	-55	461	-408	-57
Dry (24%)	-95	-360	165	653	975	956	-372	-239	230	630	136	47
Critical (15%)	352	97	555	947	-98	359	-249	178	151	-188	97	203

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-4. Sacramento River Flow at Hamilton City, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,529	11,628	33,595	43,813	52,523	33,844	19,846	13,031	11,494	12,531	8,698	8,927
20%	8,476	9,418	23,477	28,534	35,439	22,900	15,436	10,920	10,232	12,294	8,040	7,612
30%	7,663	8,347	12,940	19,297	25,966	19,460	9,477	9,170	9,279	11,405	7,558	7,114
40%	6,954	7,491	10,171	16,596	15,909	12,669	8,858	8,206	8,794	10,602	7,177	5,993
50%	6,659	7,194	7,868	11,157	12,260	11,290	7,407	7,819	8,149	9,583	6,992	5,316
60%	6,292	6,888	6,989	8,503	10,224	9,380	6,862	7,131	7,629	8,745	6,709	5,023
70%	5,798	6,408	6,473	7,474	8,654	8,422	6,198	6,636	7,127	8,219	6,317	4,760
80%	5,502	5,698	5,761	6,555	7,352	7,003	5,708	6,372	6,843	7,602	5,914	4,338
90%	4,949	5,408	5,481	5,440	5,986	6,364	5,235	5,752	6,246	7,005	5,777	3,954
Long Term												
Full Simulation Period ^d	6,976	8,534	14,134	18,638	22,036	17,097	10,603	8,811	8,655	9,787	7,109	6,097
Water Year Types ^{b,c}												
Wet (32%)	8,269	9,415	15,746	34,387	35,539	28,595	16,560	11,062	8,436	10,523	7,915	8,058
Above Normal (16%)	7,511	10,776	13,123	20,364	30,824	19,670	11,218	9,187	8,938	11,609	7,787	7,004
Below Normal (13%)	6,655	6,981	13,176	10,124	15,584	9,380	7,403	8,025	9,927	10,422	7,388	5,049
Dry (24%)	6,361	8,540	17,332	8,321	11,118	10,747	7,374	7,483	8,713	8,618	6,400	4,583
Critical (15%)	4,914	5,609	7,282	7,647	7,368	7,056	5,346	6,459	7,561	7,586	5,557	4,350

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,488	11,656	31,485	45,102	50,192	34,685	20,482	11,675	11,543	12,701	8,456	7,793
20%	7,732	9,406	21,905	30,707	37,553	25,315	15,835	9,431	10,538	12,260	7,906	7,050
30%	7,165	7,642	13,978	22,255	26,577	20,325	9,934	8,582	9,718	11,607	7,483	6,015
40%	6,690	7,383	10,921	16,750	17,306	13,740	8,365	8,134	8,805	10,886	7,133	5,453
50%	6,387	6,995	8,521	11,418	14,273	11,442	7,136	7,592	8,247	10,019	6,893	5,108
60%	6,114	6,717	7,280	9,599	10,673	9,742	6,380	6,946	7,936	9,145	6,635	4,782
70%	5,797	6,145	6,753	7,877	8,920	8,869	5,859	6,653	7,344	8,459	6,388	4,543
80%	5,544	5,733	6,012	6,743	7,175	7,053	5,456	6,379	6,635	7,960	6,100	4,264
90%	5,044	5,321	5,704	5,779	6,334	6,249	4,839	5,811	6,048	7,252	5,645	3,982
Long Term												
Full Simulation Period ^d	6,634	8,169	14,460	20,055	22,554	18,146	10,668	8,291	8,566	10,010	7,055	5,641
Water Year Types ^{b,c}												
Wet (32%)	7,525	9,049	15,932	36,953	35,602	30,168	16,989	9,631	7,745	10,549	7,746	7,022
Above Normal (16%)	7,155	9,742	12,711	21,881	31,136	20,356	11,286	8,685	9,323	12,228	7,971	6,465
Below Normal (13%)	6,198	6,904	13,390	11,703	16,720	10,046	7,309	8,150	9,660	10,691	7,002	4,838
Dry (24%)	6,139	8,164	18,266	8,937	12,068	11,831	7,131	7,320	9,008	9,017	6,414	4,483
Critical (15%)	5,361	5,729	7,801	7,653	7,811	7,655	5,277	6,707	7,789	7,472	5,679	4,425

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,041	28	-2,110	1,289	-2,331	841	636	-1,356	49	170	-242	-1,134
20%	-744	-11	-1,571	2,173	2,114	2,415	399	-1,489	306	-34	-135	-562
30%	-499	-705	1,038	2,958	610	865	458	-588	438	203	-76	-1,099
40%	-264	-108	749	155	1,397	1,070	-492	-72	11	283	-44	-540
50%	-272	-199	653	261	2,013	152	-271	-227	98	436	-99	-208
60%	-177	-171	291	1,096	449	362	-482	-185	307	400	-74	-241
70%	-1	-263	280	403	266	447	-339	17	217	240	71	-217
80%	41	35	251	188	-177	50	-252	8	-208	358	186	-74
90%	95	-87	223	339	348	-115	-396	59	-198	248	-132	28
Long Term												
Full Simulation Period ^d	-342	-365	326	1,417	519	1,049	65	-520	-89	223	-55	-455
Water Year Types ^{b,c}												
Wet (32%)	-744	-366	186	2,566	63	1,573	429	-1,431	-691	26	-169	-1,036
Above Normal (16%)	-357	-1,034	-412	1,517	312	686	68	-501	385	619	184	-538
Below Normal (13%)	-456	-77	214	1,579	1,136	666	-95	125	-267	270	-386	-211
Dry (24%)	-222	-376	935	615	950	1,084	-244	-163	295	399	14	-100
Critical (15%)	447	120	518	7	444	599	-69	248	228	-114	122	76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

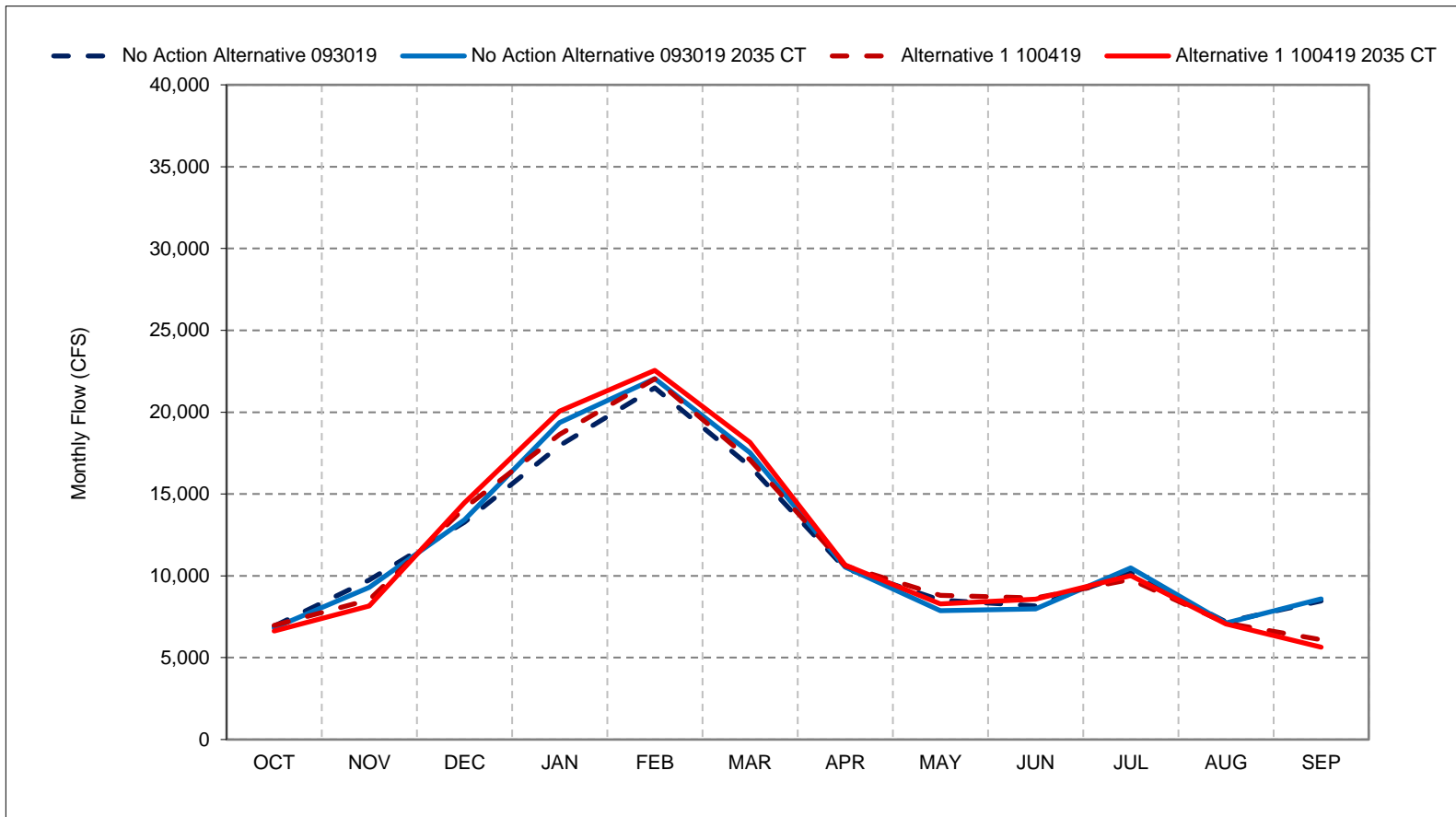
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 18-1. Sacramento River Flow at Hamilton City, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

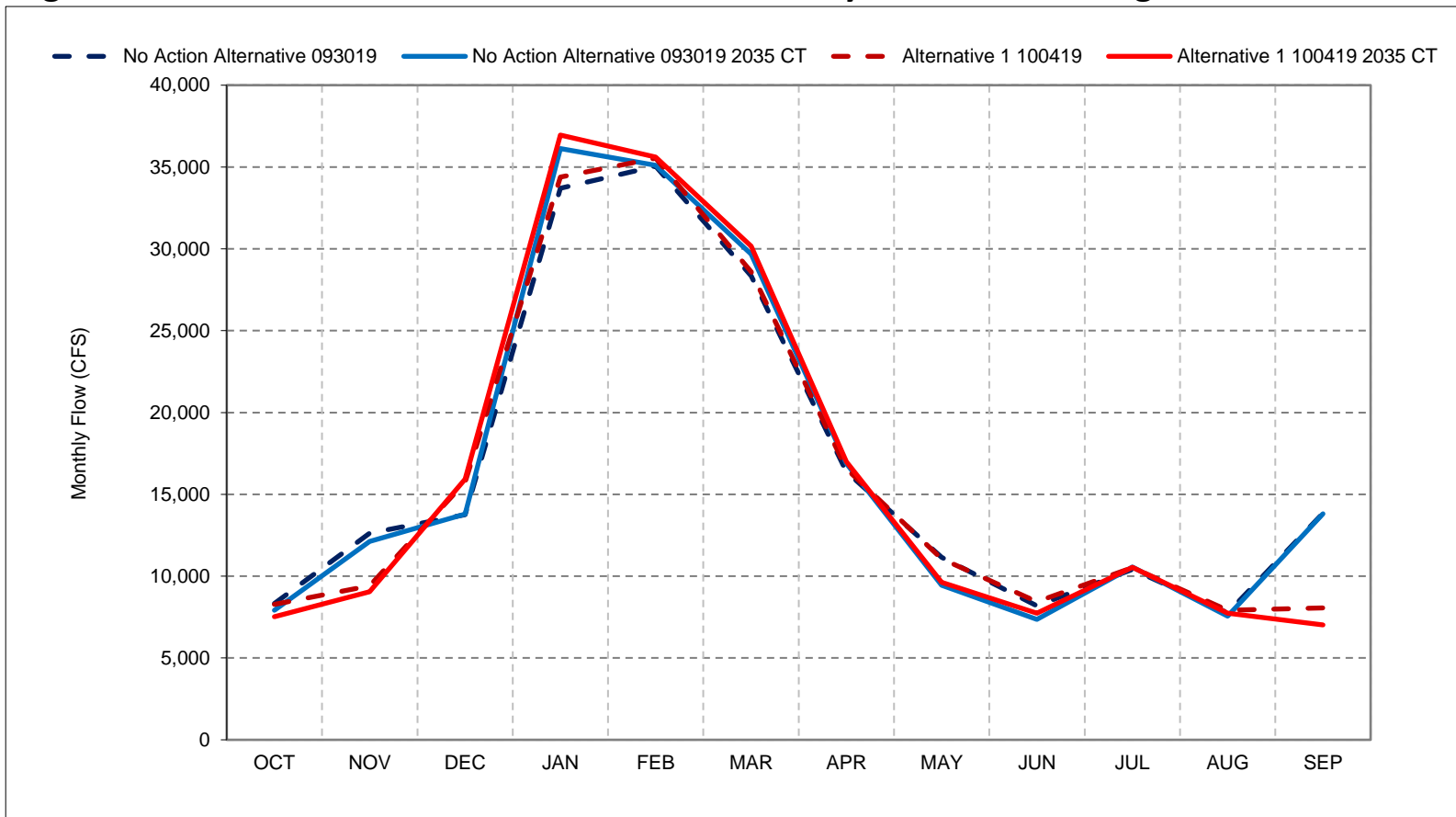
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-2. Sacramento River Flow at Hamilton City, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

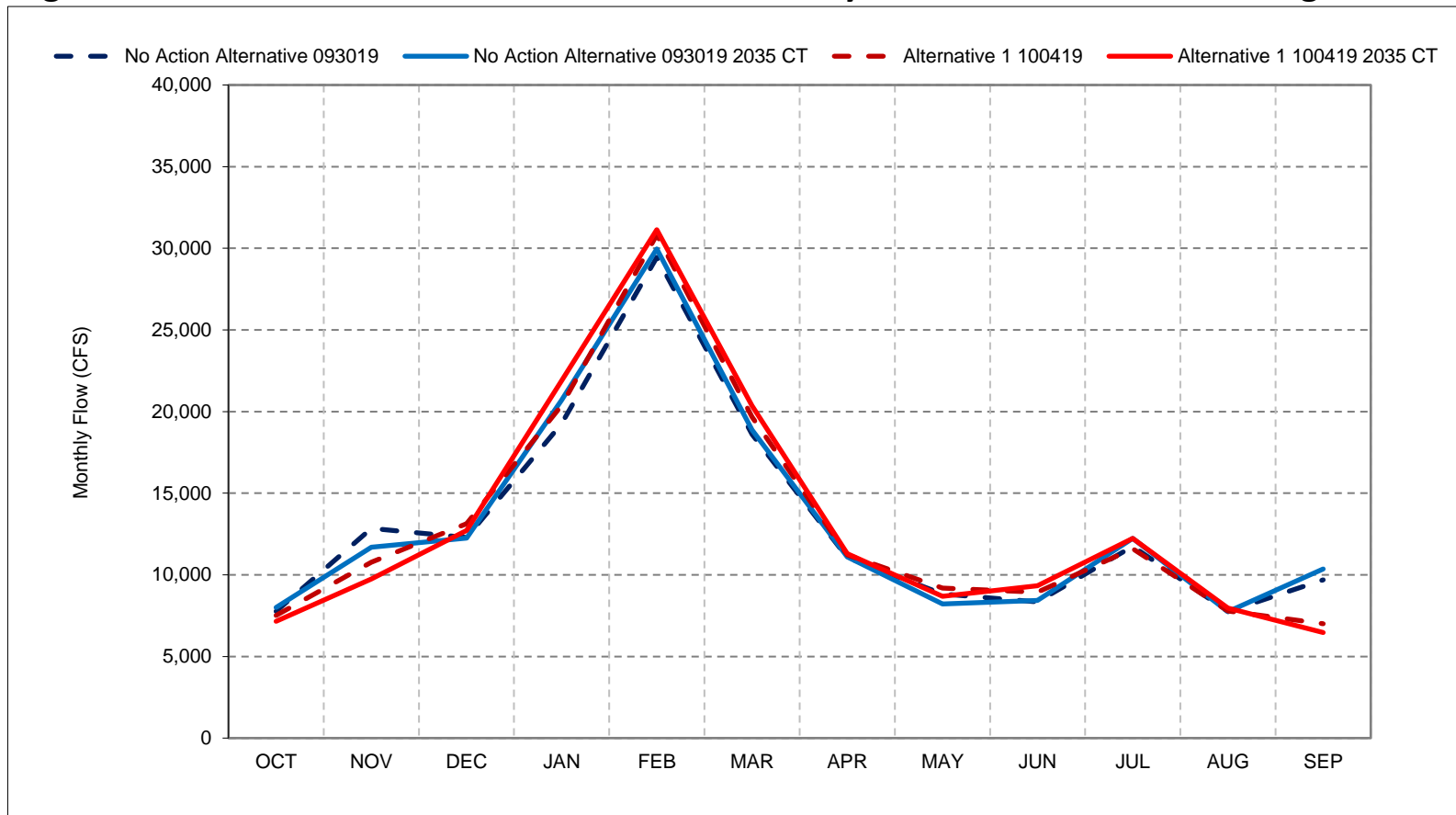
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-3. Sacramento River Flow at Hamilton City, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

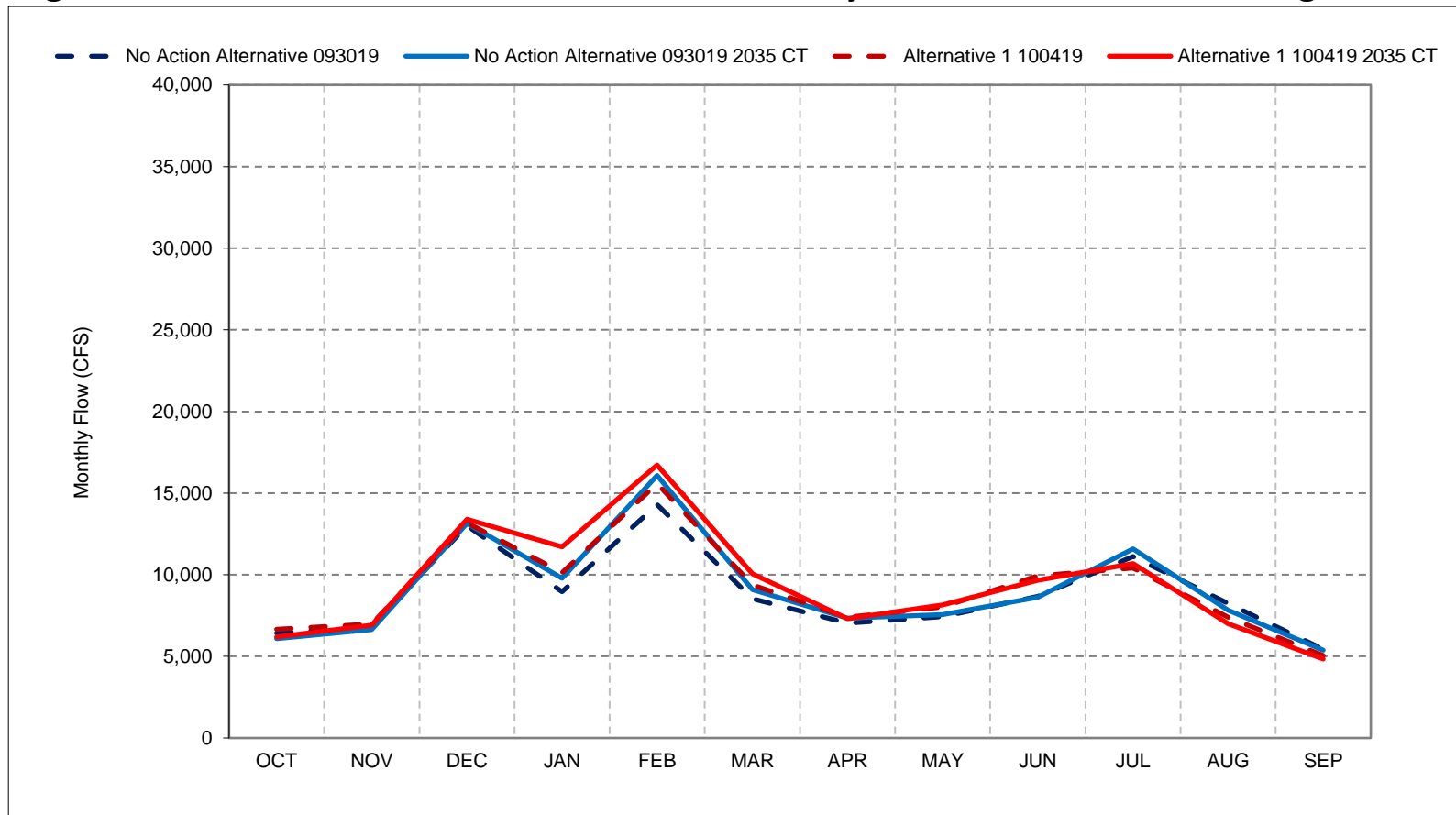
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-4. Sacramento River Flow at Hamilton City, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

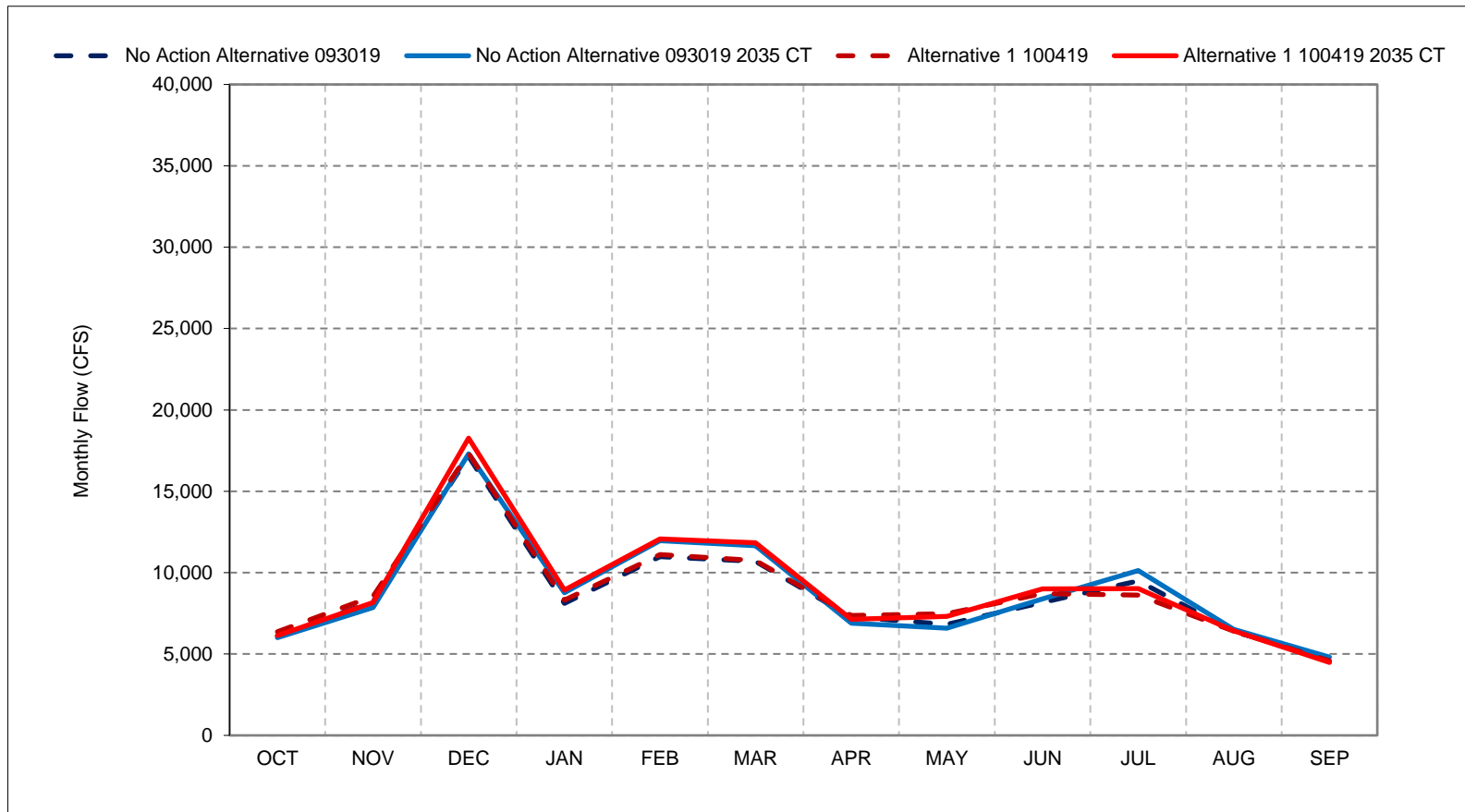
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-5. Sacramento River Flow at Hamilton City, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

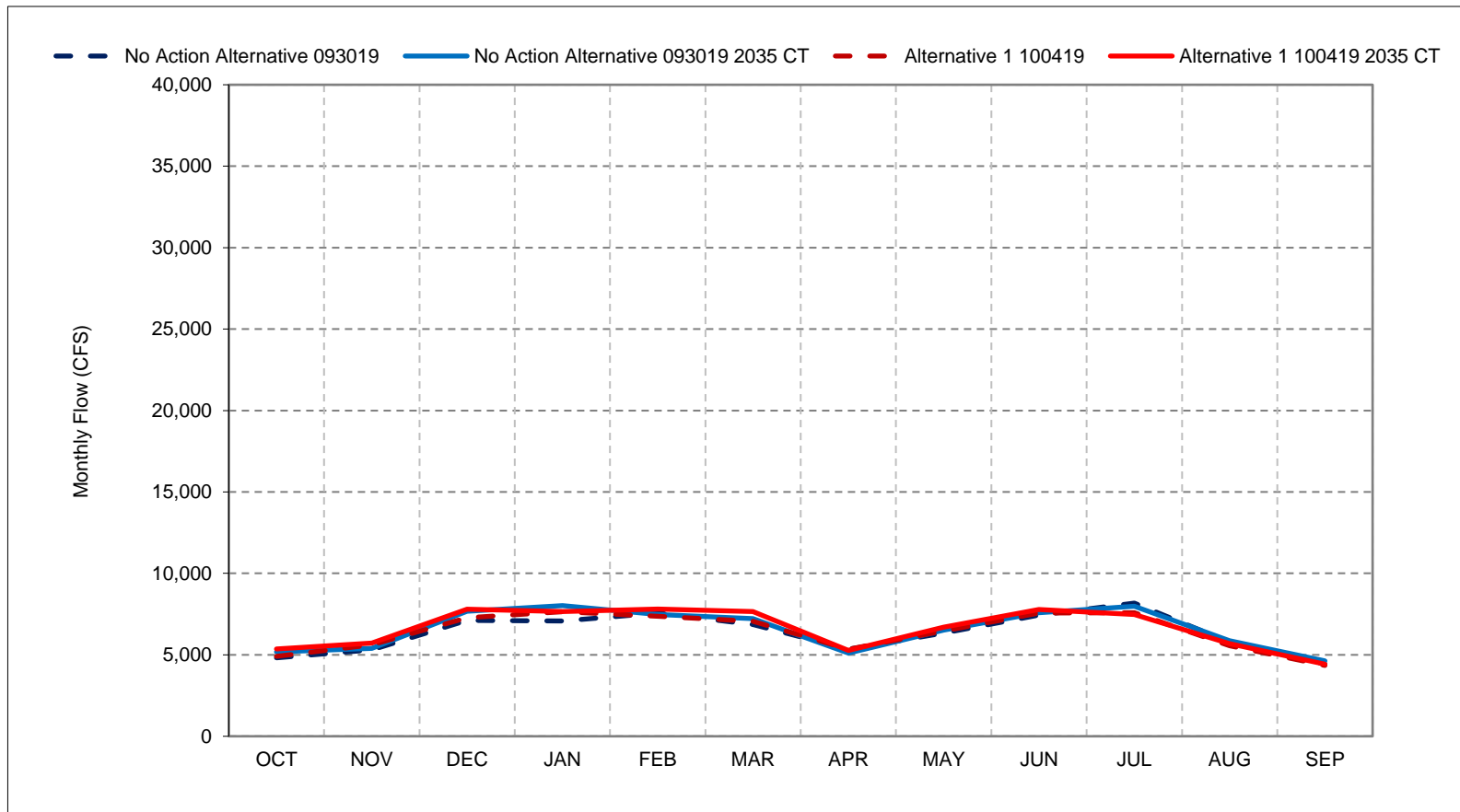
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-6. Sacramento River Flow at Hamilton City, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

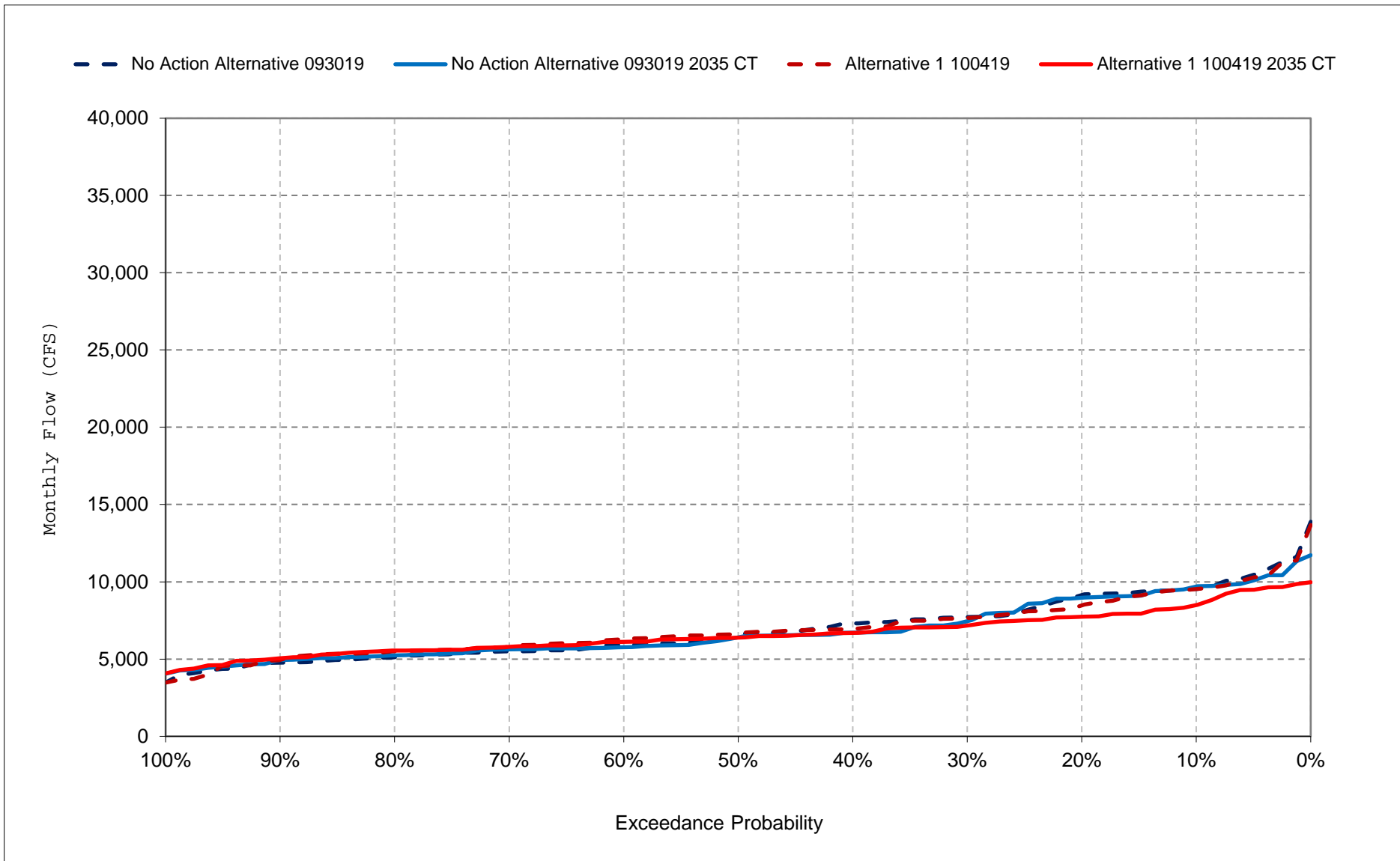
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

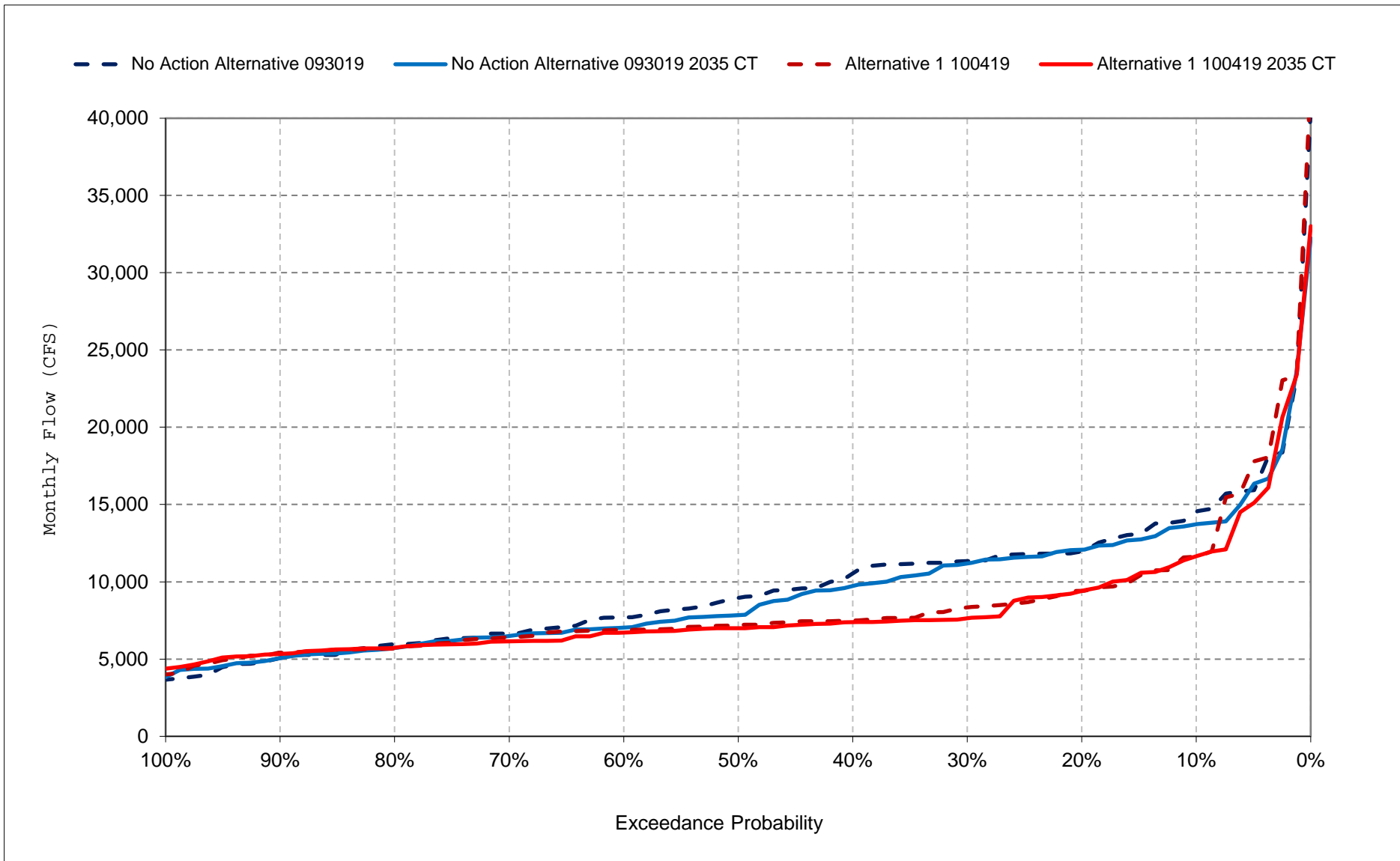
Figure 18-7. Sacramento River Flow at Hamilton City, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

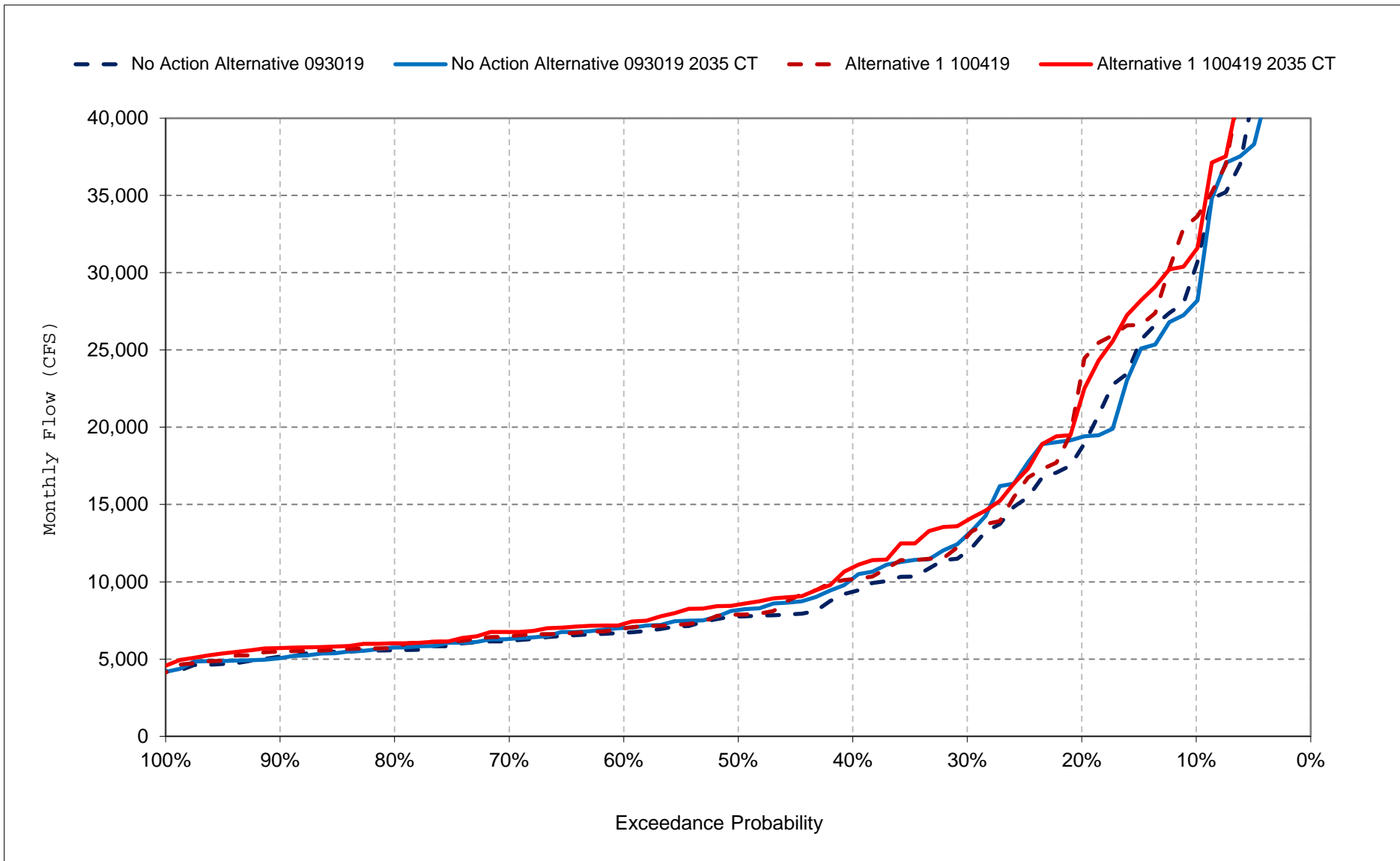
Figure 18-8. Sacramento River Flow at Hamilton City, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

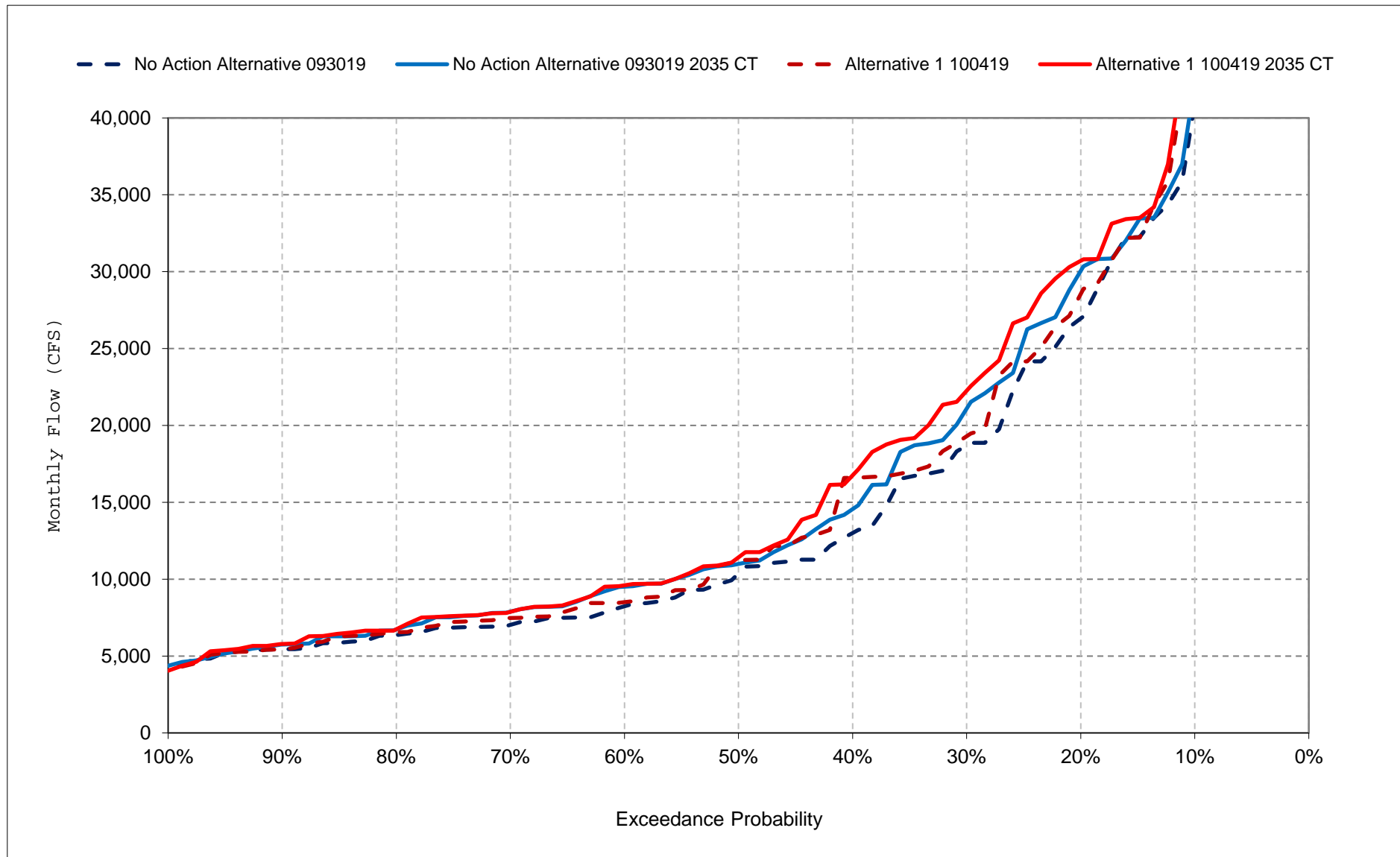
Figure 18-9. Sacramento River Flow at Hamilton City, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

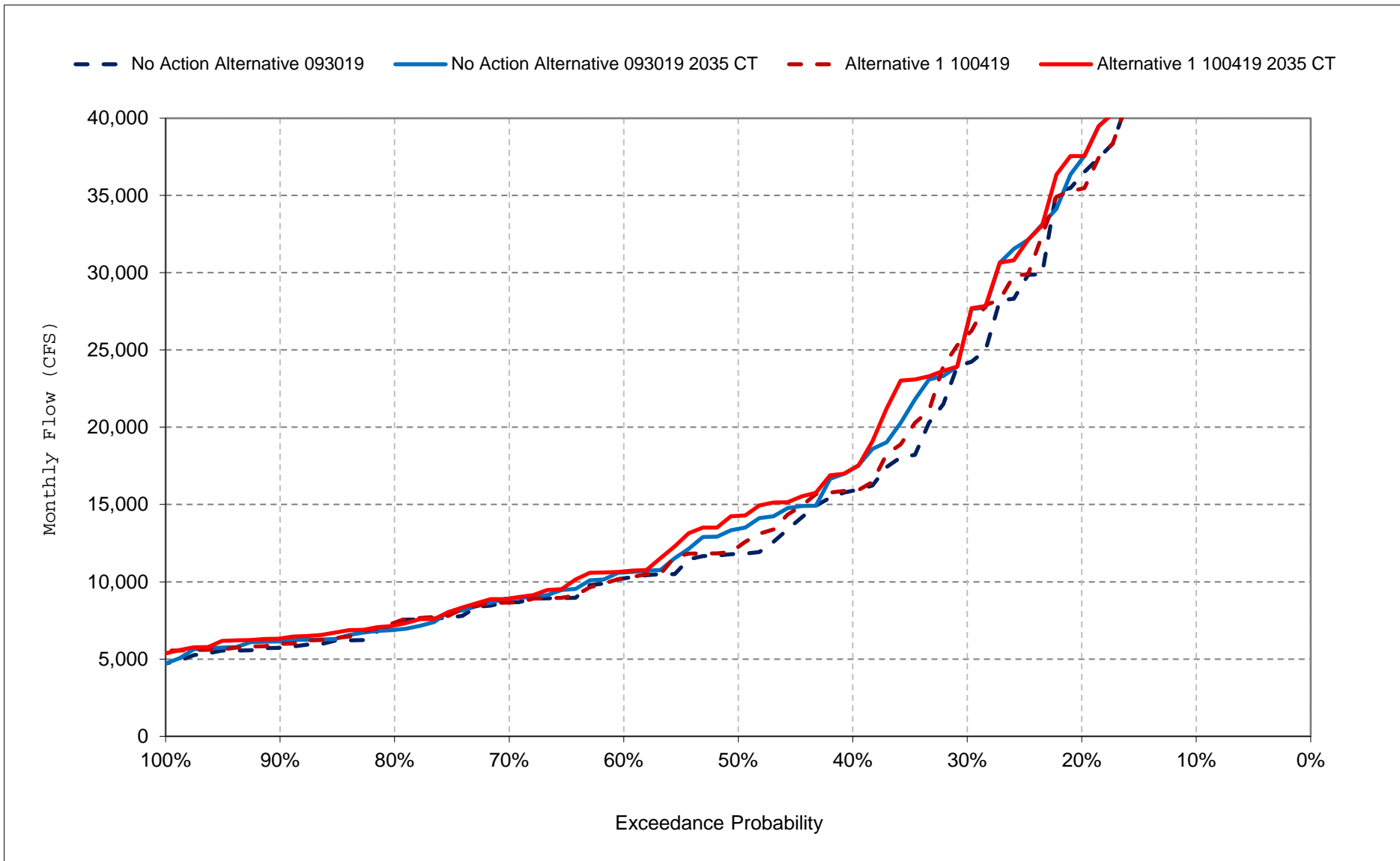
Figure 18-10. Sacramento River Flow at Hamilton City, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

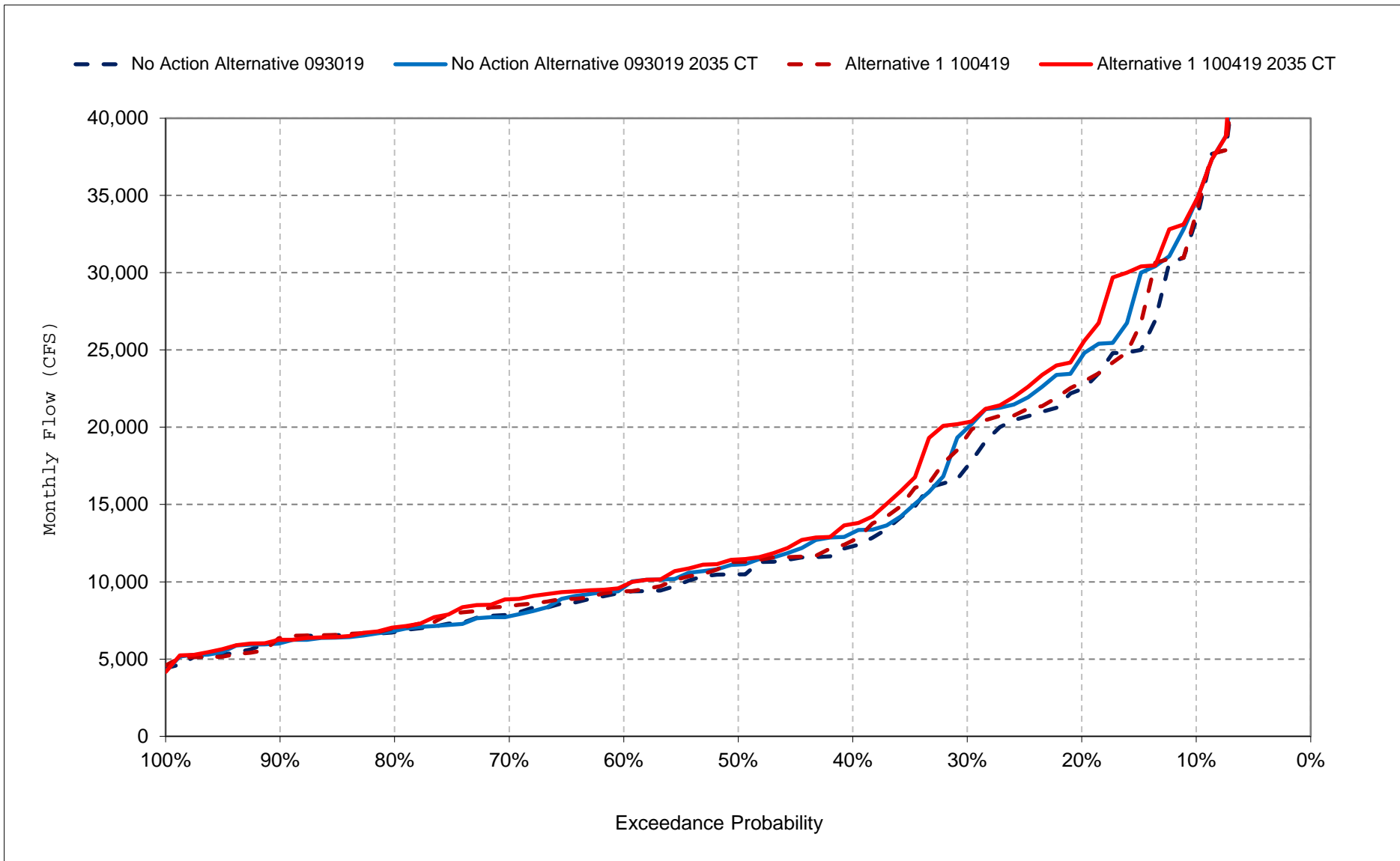
Figure 18-11. Sacramento River Flow at Hamilton City, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

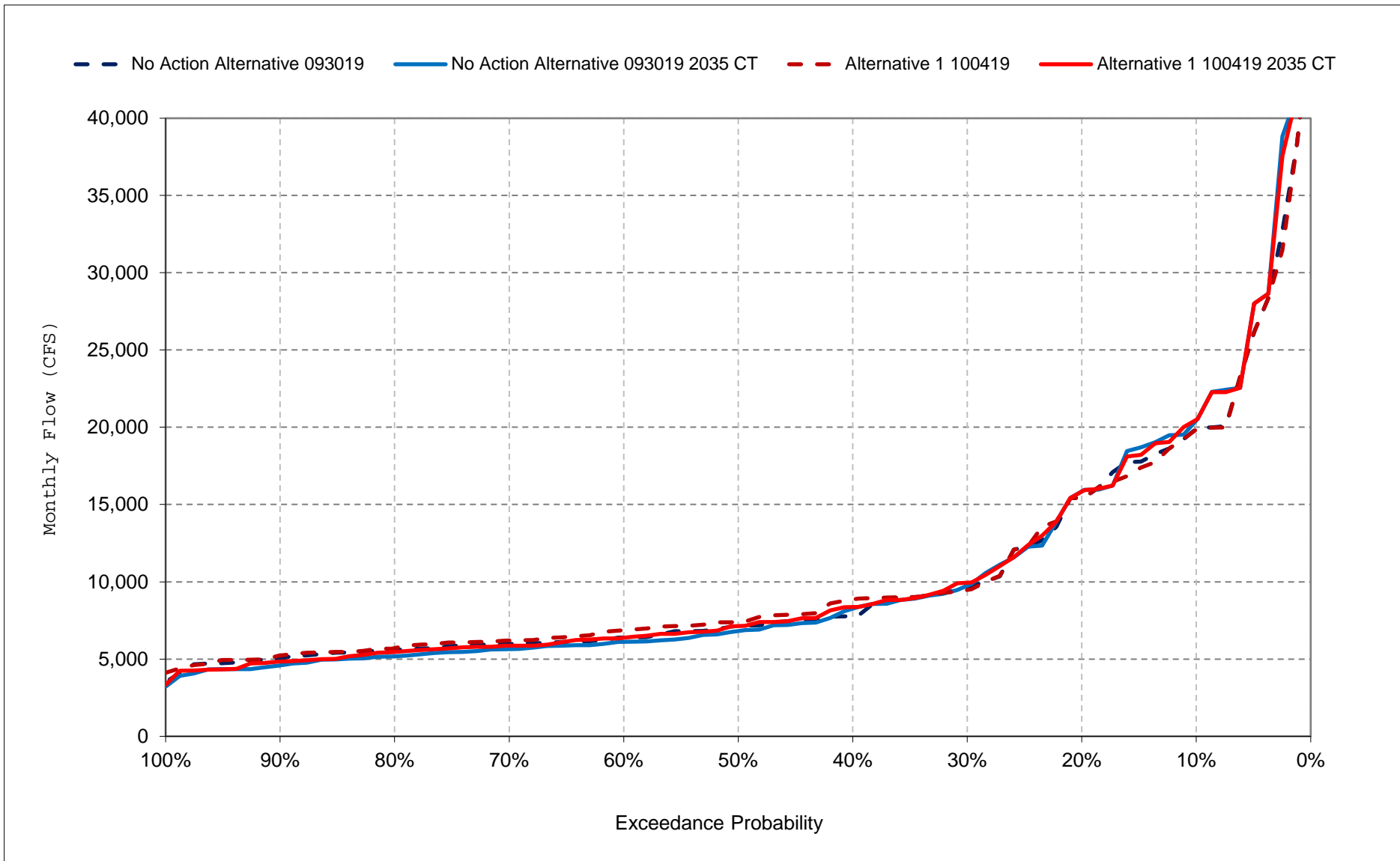
Figure 18-12. Sacramento River Flow at Hamilton City, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

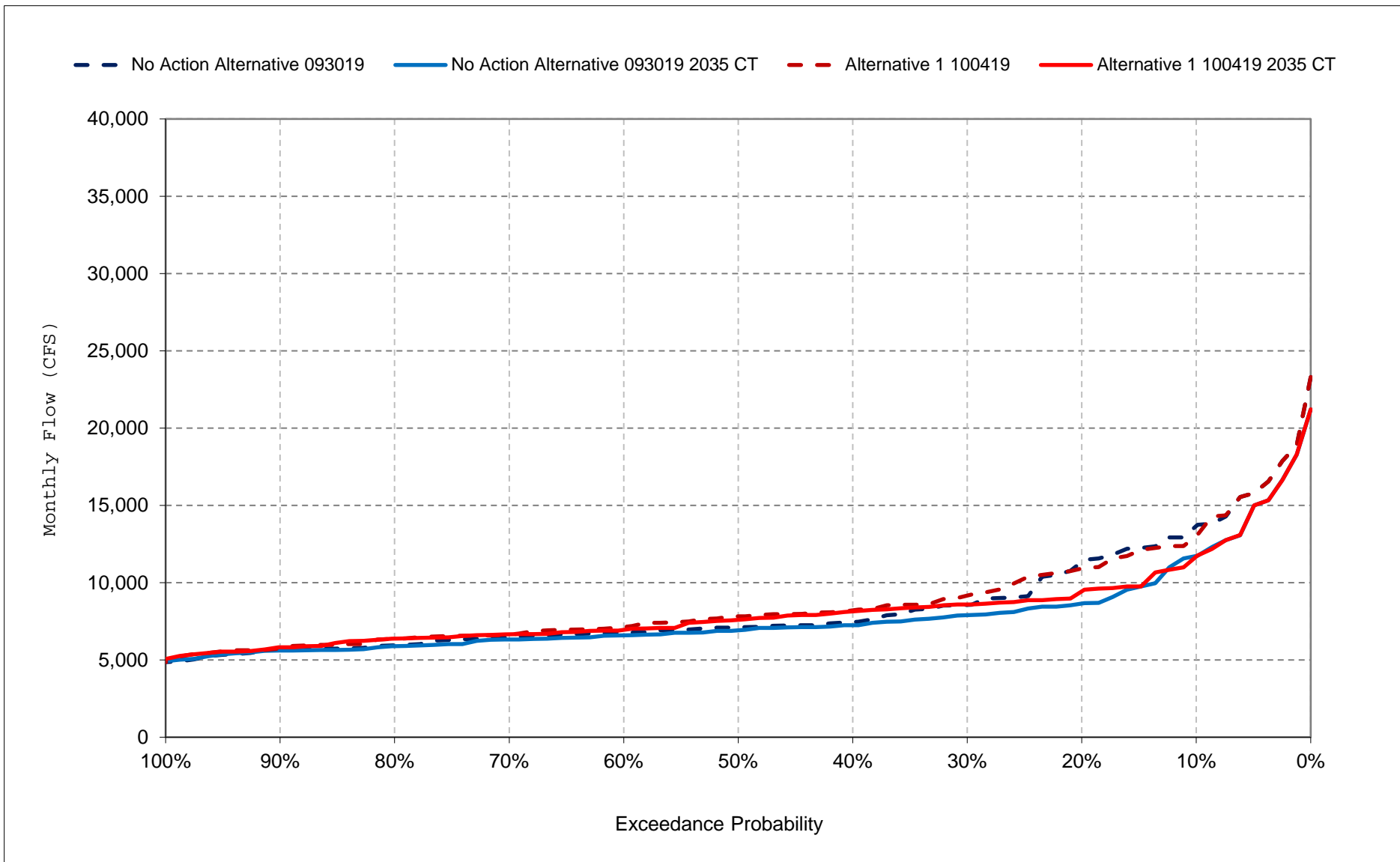
Figure 18-13. Sacramento River Flow at Hamilton City, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

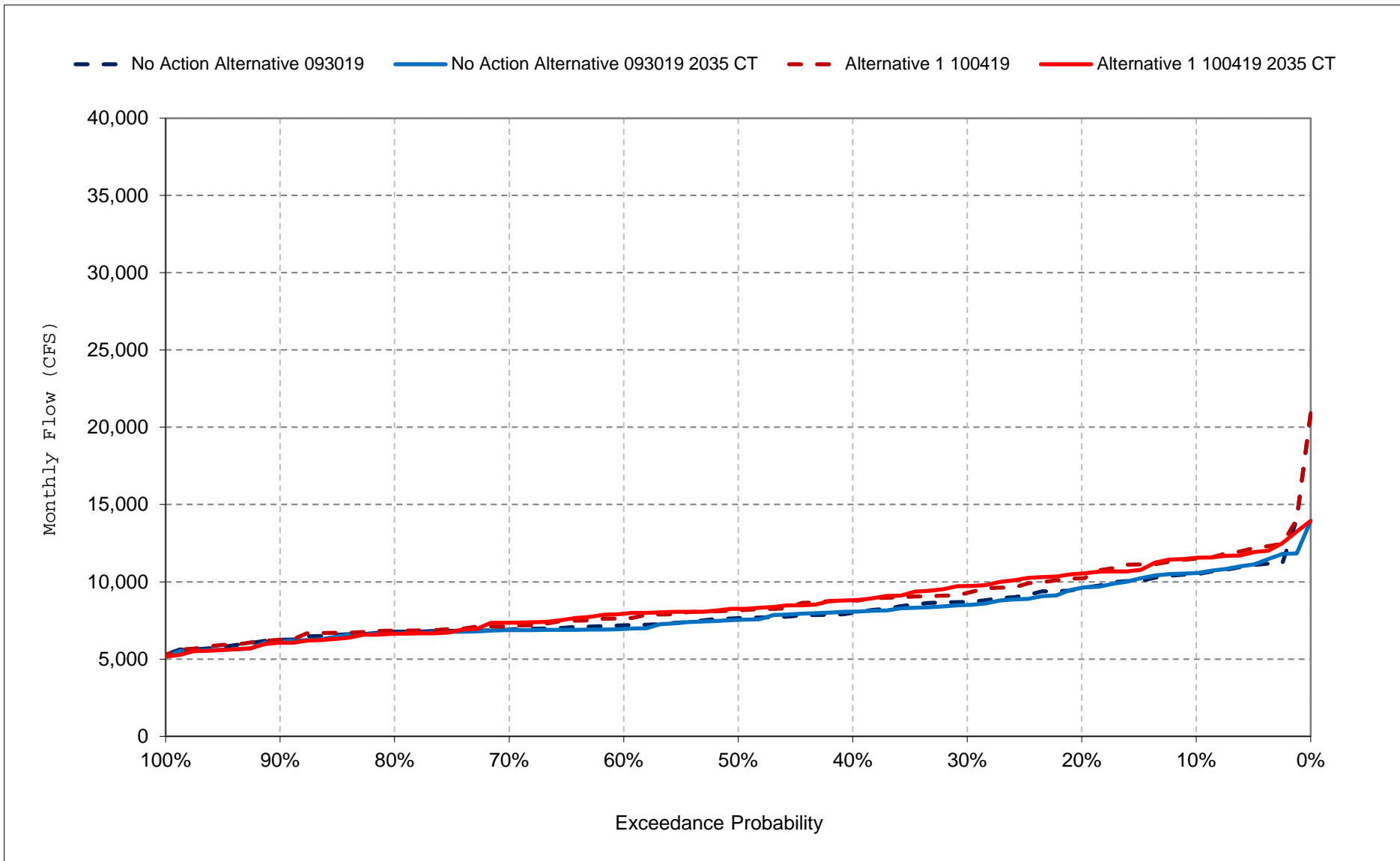
Figure 18-14. Sacramento River Flow at Hamilton City, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

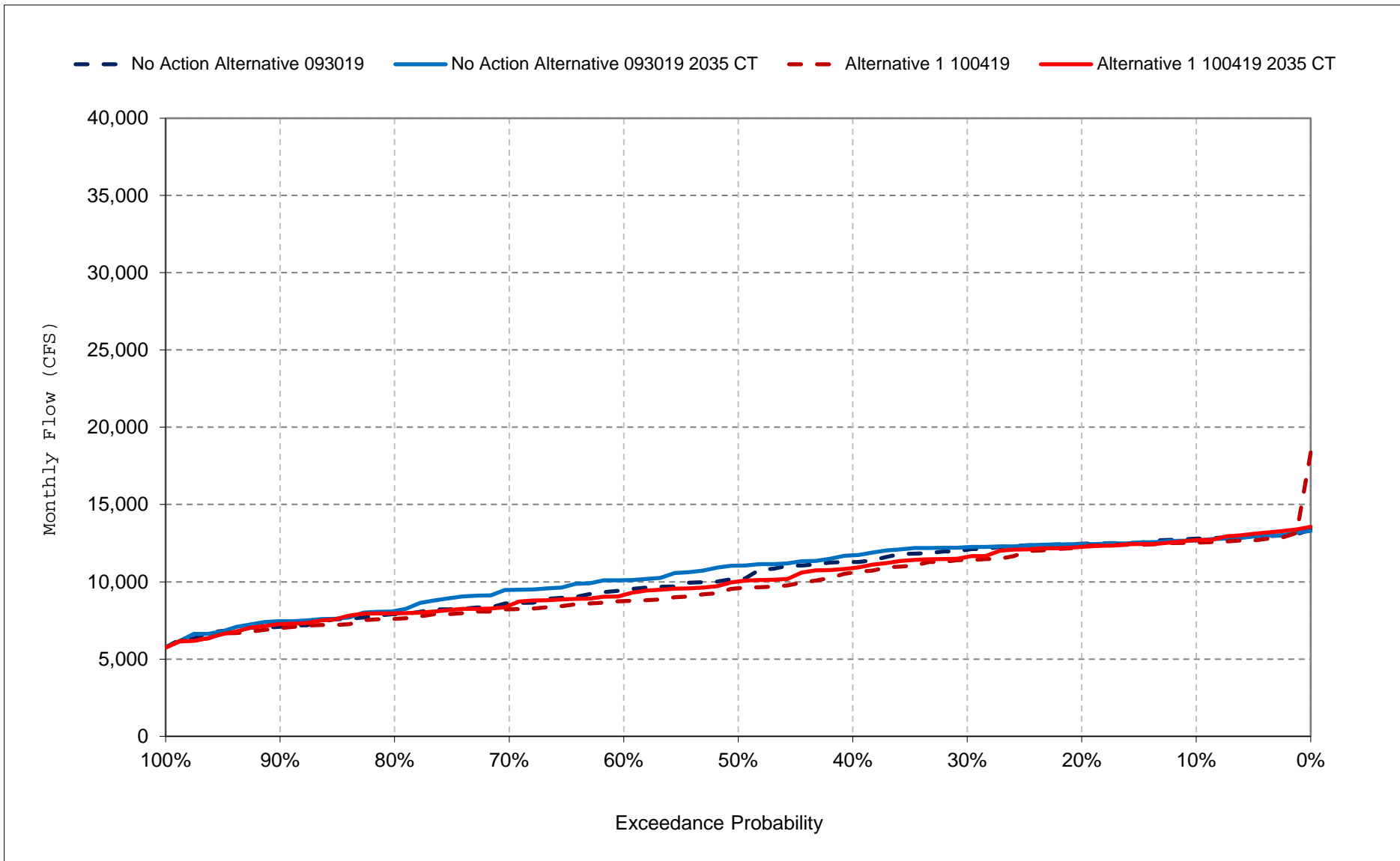
Figure 18-15. Sacramento River Flow at Hamilton City, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

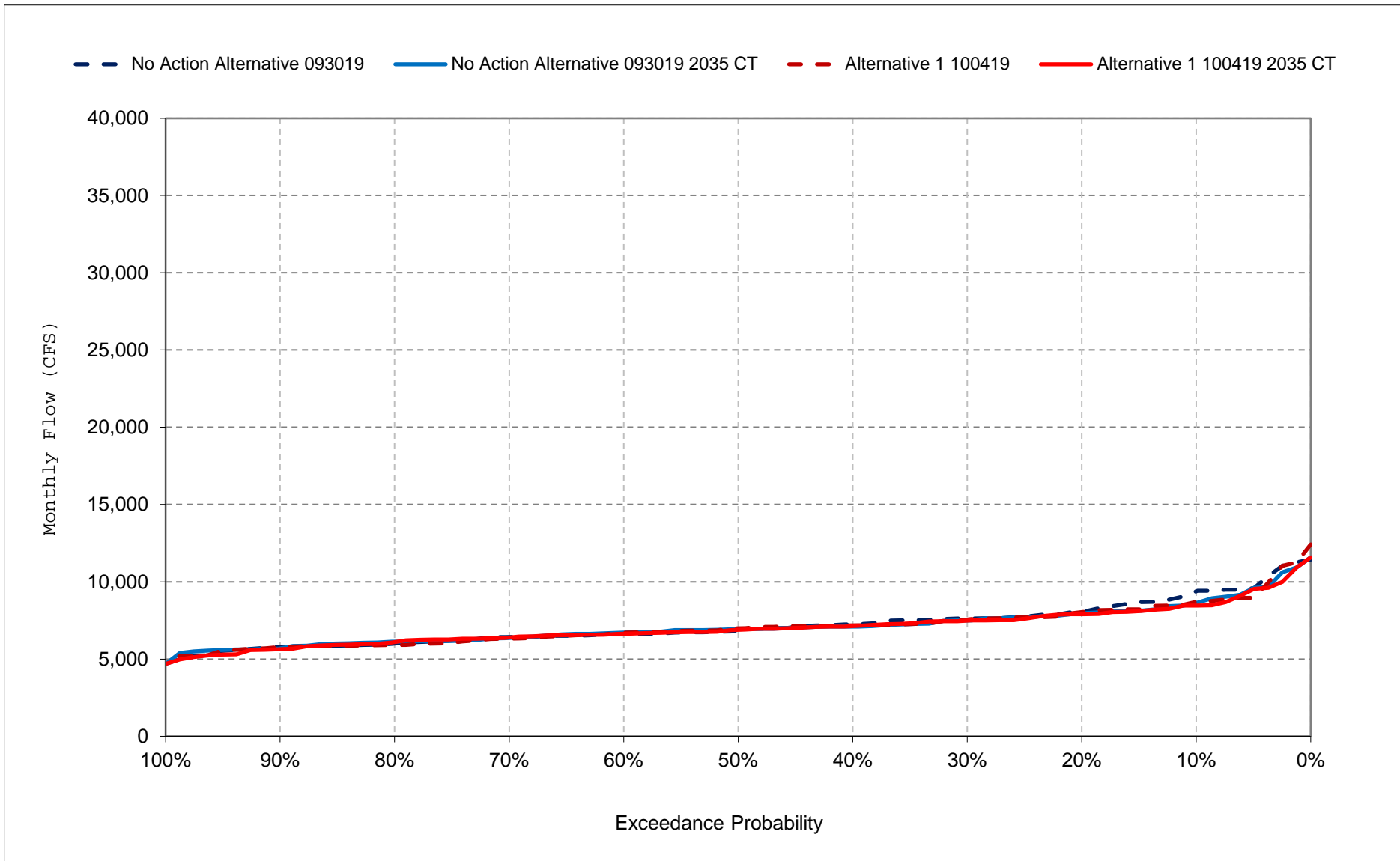
Figure 18-16. Sacramento River Flow at Hamilton City, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

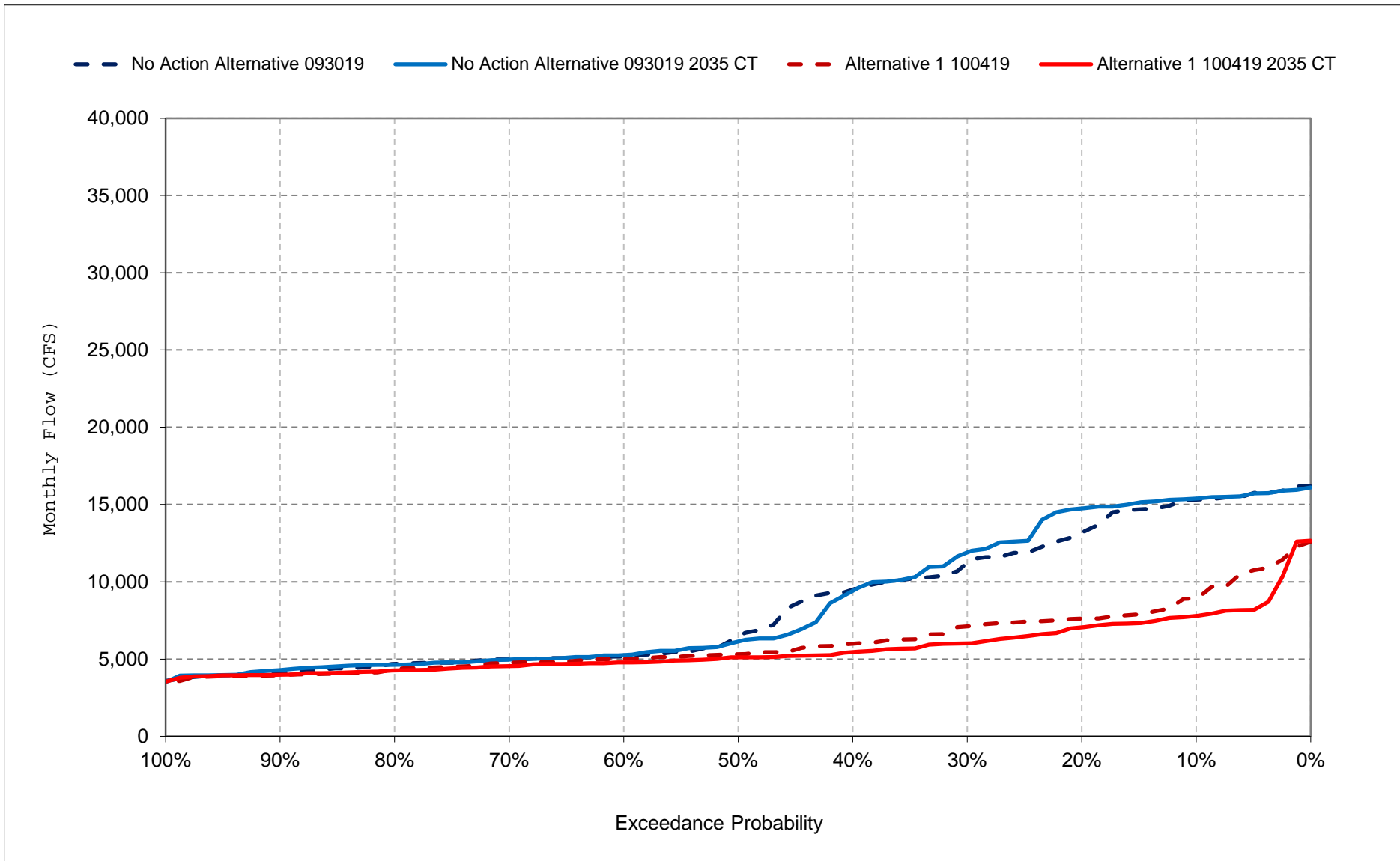
Figure 18-17. Sacramento River Flow at Hamilton City, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 18-18. Sacramento River Flow at Hamilton City, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-1. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,085	13,680	21,054	22,004	22,663	21,629	19,305	12,626	7,647	9,651	6,604	15,000
20%	8,058	12,740	19,478	21,246	21,557	20,322	17,770	9,257	6,993	9,342	5,490	13,578
30%	6,899	11,329	13,790	19,595	20,842	18,849	11,344	6,196	6,309	8,911	5,164	10,896
40%	6,477	10,258	11,682	15,309	19,622	15,823	9,141	5,251	5,529	8,538	4,706	9,358
50%	5,903	9,074	8,485	10,934	15,932	13,561	7,733	4,691	5,083	7,329	4,546	6,362
60%	5,455	7,395	7,185	9,497	12,629	10,304	6,915	4,505	4,836	6,392	4,519	5,258
70%	4,796	6,283	6,108	7,878	10,574	9,133	6,401	4,101	4,735	5,502	4,158	4,675
80%	4,470	5,372	5,670	7,058	7,685	7,985	5,750	3,677	4,620	4,959	3,863	4,349
90%	4,002	4,466	4,991	6,212	6,408	6,215	5,156	3,510	3,649	4,191	3,442	4,001
Long Term												
Full Simulation Period ^d	6,232	9,230	11,257	13,457	15,264	13,880	10,353	6,553	5,746	7,136	4,875	8,370
Water Year Types^{b,c}												
Wet (32%)	7,619	12,240	11,638	18,867	19,561	17,809	14,595	9,612	6,414	7,547	5,281	13,895
Above Normal (16%)	7,040	11,188	11,140	16,786	18,478	17,386	12,415	7,171	6,148	8,548	5,420	9,640
Below Normal (13%)	6,031	6,518	11,368	10,427	13,493	9,849	7,410	5,495	5,868	7,832	5,714	5,213
Dry (24%)	5,332	8,146	12,802	9,108	12,411	12,203	8,103	4,421	5,230	6,445	4,208	4,627
Critical (15%)	4,040	4,883	7,879	8,156	8,851	8,055	5,375	3,779	4,606	5,233	3,749	4,158

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,455	11,933	21,332	22,273	22,721	21,625	19,299	12,491	8,675	9,650	6,079	9,511
20%	7,777	9,189	20,239	21,202	21,568	20,370	17,637	9,259	7,883	9,024	5,478	7,511
30%	7,276	7,832	15,000	19,711	20,994	19,091	11,363	7,084	7,040	8,353	5,171	6,796
40%	6,676	6,972	12,001	18,137	19,623	16,138	9,314	6,198	6,075	7,310	4,774	6,141
50%	6,397	6,500	8,853	12,511	16,156	13,918	8,006	5,072	5,724	6,457	4,542	5,334
60%	6,001	6,077	7,551	9,589	13,234	11,705	7,344	4,741	5,248	5,666	4,514	4,861
70%	5,479	5,650	6,604	8,398	10,693	9,321	6,768	4,459	4,930	5,128	4,268	4,526
80%	5,048	5,061	5,791	7,144	7,977	8,073	6,259	4,182	4,706	4,632	3,760	4,194
90%	4,527	4,629	5,375	6,333	6,452	7,117	5,132	3,599	3,683	4,052	3,485	3,551
Long Term												
Full Simulation Period ^d	6,612	7,660	11,671	13,838	15,439	14,108	10,528	6,843	6,231	6,743	4,828	6,008
Water Year Types^{b,c}												
Wet (32%)	8,029	8,661	12,579	18,885	19,632	17,961	14,828	9,524	6,665	7,641	5,448	8,105
Above Normal (16%)	7,168	8,696	11,647	17,686	19,000	17,790	12,595	7,531	6,736	8,408	5,485	6,963
Below Normal (13%)	6,504	6,379	11,390	11,283	14,123	10,588	7,767	6,087	7,115	7,099	4,927	4,881
Dry (24%)	5,844	8,008	12,849	9,252	12,486	12,146	8,212	5,086	5,751	5,557	4,296	4,439
Critical (15%)	4,319	4,963	8,022	8,720	8,624	8,267	5,365	3,914	4,733	4,642	3,567	4,075

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	369	-1,747	278	269	59	-4	-6	-134	1,028	-1	-525	-5,489
20%	-281	-3,551	761	-45	11	48	-133	2	889	-318	-12	-6,068
30%	377	-3,496	1,210	116	152	242	20	888	731	-557	7	-4,100
40%	199	-3,286	319	2,828	0	316	174	947	545	-1,228	68	-3,218
50%	494	-2,574	368	1,577	224	357	273	382	642	-872	-4	-1,028
60%	546	-1,319	366	92	605	1,401	430	237	412	-727	-5	-397
70%	683	-633	496	520	119	188	368	358	195	-374	109	-150
80%	577	-311	121	86	292	88	509	505	86	-328	-103	-155
90%	525	162	384	121	44	901	-24	89	34	-139	43	-450
Long Term												
Full Simulation Period ^d	380	-1,571	414	381	175	228	175	290	485	-394	-47	-2,363
Water Year Types^{b,c}												
Wet (32%)	410	-3,579	940	18	71	152	232	-88	251	94	167	-5,790
Above Normal (16%)	128	-2,493	507	901	523	404	180	360	588	-140	65	-2,676
Below Normal (13%)	473	-139	21	856	630	739	357	592	1,246	-733	-787	-332
Dry (24%)	512	-138	47	144	75	-57	110	665	521	-888	88	-188
Critical (15%)	279	80	143	564	-228	211	-10	135	127	-590	-182	-83

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 19-2. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,783	13,326	21,080	22,097	22,566	21,591	19,685	10,350	7,576	9,683	6,051	15,000
20%	8,160	12,522	19,287	21,352	21,596	20,810	17,922	6,727	6,771	9,241	5,324	14,950
30%	6,534	11,034	15,280	20,063	21,105	19,522	11,727	5,169	5,804	8,878	4,958	12,447
40%	5,955	9,695	12,357	17,611	20,064	16,549	8,500	4,861	5,617	8,422	4,597	9,648
50%	5,675	7,699	9,259	11,695	17,744	14,379	7,560	4,681	5,034	7,753	4,535	6,074
60%	5,126	6,856	7,601	10,395	13,268	10,829	6,714	4,583	4,930	7,161	4,515	4,995
70%	4,785	5,992	6,317	9,073	10,605	9,043	6,222	4,229	4,739	6,544	4,245	4,746
80%	4,552	5,129	5,798	7,449	7,754	7,548	5,315	3,752	4,427	5,232	4,069	4,463
90%	4,064	4,453	4,943	6,352	6,581	7,001	4,655	3,530	4,016	4,591	3,612	4,239
Long Term												
Full Simulation Period ^d	6,095	8,876	11,560	14,086	15,552	14,166	10,194	5,932	5,649	7,440	4,779	8,503
Water Year Types^{b,c}												
Wet (32%)	7,160	11,711	11,806	19,217	19,727	18,041	14,399	7,974	5,832	7,690	5,044	13,855
Above Normal (16%)	7,265	10,591	11,521	17,540	18,528	17,387	12,395	6,601	6,265	9,022	5,388	10,320
Below Normal (13%)	5,667	6,311	11,766	11,096	14,192	10,286	7,651	5,606	5,794	8,282	5,270	5,191
Dry (24%)	5,237	7,829	13,018	9,828	13,064	12,610	7,738	4,194	5,470	7,059	4,317	4,683
Critical (15%)	4,345	4,972	8,453	9,065	8,675	8,431	5,120	3,976	4,747	5,045	3,864	4,345

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,130	12,040	21,358	22,367	22,609	21,584	19,651	9,824	8,757	9,593	6,365	7,675
20%	7,337	9,031	19,797	21,358	21,553	20,855	17,820	7,699	7,648	9,107	5,473	6,727
30%	6,813	7,280	16,672	20,312	21,101	19,501	11,379	6,194	7,033	8,470	4,939	6,110
40%	6,333	6,546	12,536	18,388	20,061	17,521	8,709	5,342	6,295	7,724	4,580	5,525
50%	6,135	6,268	9,192	11,632	18,000	14,619	7,662	5,141	5,714	7,043	4,527	4,990
60%	5,666	5,935	8,109	10,444	13,550	11,897	7,146	4,913	5,461	6,243	4,455	4,569
70%	5,365	5,447	6,973	9,069	10,933	9,658	6,511	4,614	5,016	5,688	4,149	4,451
80%	5,064	4,968	6,085	7,478	7,733	7,784	5,907	4,327	4,796	4,722	4,020	4,055
90%	4,643	4,593	5,565	6,342	6,933	7,091	4,784	3,713	3,978	4,366	3,565	3,776
Long Term												
Full Simulation Period ^d	6,269	7,442	12,035	14,261	15,759	14,455	10,347	6,355	6,218	6,955	4,756	5,557
Water Year Types^{b,c}												
Wet (32%)	7,284	8,290	12,846	19,219	19,787	18,249	14,526	8,167	6,214	7,667	5,252	7,069
Above Normal (16%)	6,831	8,311	11,755	18,017	18,981	17,811	12,618	7,062	7,138	8,995	5,644	6,427
Below Normal (13%)	6,040	6,279	11,886	12,220	14,521	10,981	7,634	6,214	6,815	7,361	4,510	4,693
Dry (24%)	5,624	7,841	13,325	9,842	13,141	12,619	7,969	4,926	6,054	5,938	4,298	4,349
Critical (15%)	4,745	5,067	8,571	8,682	9,043	8,844	5,282	4,175	4,955	4,528	3,706	4,144

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-653	-1,286	278	271	43	-7	-34	-525	1,181	-89	315	-7,325
20%	-823	-3,491	510	6	-43	44	-102	972	877	-134	150	-8,223
30%	278	-3,754	1,391	249	-3	-21	-348	1,025	1,229	-408	-20	-6,337
40%	378	-3,150	179	777	-2	971	210	481	678	-698	-17	-4,123
50%	459	-1,431	-67	-62	256	240	102	460	680	-710	-8	-1,084
60%	540	-921	508	48	282	1,068	433	330	532	-918	-60	-426
70%	580	-545	656	-4	328	614	289	385	277	-856	-97	-295
80%	512	-161	286	30	-21	236	592	575	369	-510	-49	-407
90%	580	140	623	-10	352	90	129	183	-38	-224	-47	-463
Long Term												
Full Simulation Period ^d	173	-1,434	475	175	207	289	153	424	569	-484	-23	-2,946
Water Year Types^{b,c}												
Wet (32%)	124	-3,421	1,040	3	60	208	127	194	381	-24	208	-6,785
Above Normal (16%)	-434	-2,279	234	477	453	424	223	461	874	-27	256	-3,892
Below Normal (13%)	373	-32	120	1,124	329	695	-18	607	1,021	-921	-761	-499
Dry (24%)	387	12	307	14	76	8	231	731	584	-1,121	-19	-333
Critical (15%)	399	95	118	-383	367	413	162	199	207	-517	-158	-201

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-3. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,085	13,680	21,054	22,004	22,663	21,629	19,305	12,626	7,647	9,651	6,604	15,000
20%	8,058	12,740	19,478	21,246	21,557	20,322	17,770	9,257	6,993	9,342	5,490	13,578
30%	6,899	11,329	13,790	19,595	20,842	18,849	11,344	6,196	6,309	8,911	5,164	10,896
40%	6,477	10,258	11,682	15,309	19,622	15,823	9,141	5,251	5,529	8,538	4,706	9,358
50%	5,903	9,074	8,485	10,934	15,932	13,561	7,733	4,691	5,083	7,329	4,546	6,362
60%	5,455	7,395	7,185	9,497	12,629	10,304	6,915	4,505	4,836	6,392	4,519	5,258
70%	4,796	6,283	6,108	7,878	10,574	9,133	6,401	4,101	4,735	5,502	4,158	4,675
80%	4,470	5,372	5,670	7,058	7,685	7,985	5,750	3,677	4,620	4,959	3,863	4,349
90%	4,002	4,466	4,991	6,212	6,408	6,215	5,156	3,510	3,649	4,191	3,442	4,001
Long Term												
Full Simulation Period ^d	6,232	9,230	11,257	13,457	15,264	13,880	10,353	6,553	5,746	7,136	4,875	8,370
Water Year Types^{b,c}												
Wet (32%)	7,619	12,240	11,638	18,867	19,561	17,809	14,595	9,612	6,414	7,547	5,281	13,895
Above Normal (16%)	7,040	11,188	11,140	16,786	18,478	17,386	12,415	7,171	6,148	8,548	5,420	9,640
Below Normal (13%)	6,031	6,518	11,368	10,427	13,493	9,849	7,410	5,495	5,868	7,832	5,714	5,213
Dry (24%)	5,332	8,146	12,802	9,108	12,411	12,203	8,103	4,421	5,230	6,445	4,208	4,627
Critical (15%)	4,040	4,883	7,879	8,156	8,851	8,055	5,375	3,779	4,606	5,233	3,749	4,158

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,783	13,326	21,080	22,097	22,566	21,591	19,685	10,350	7,576	9,683	6,051	15,000
20%	8,160	12,522	19,287	21,352	21,596	20,810	17,922	6,727	6,771	9,241	5,324	14,950
30%	6,534	11,034	15,280	20,063	21,105	19,522	11,727	5,169	5,804	8,878	4,958	12,447
40%	5,955	9,695	12,357	17,611	20,064	16,549	8,500	4,861	5,617	8,422	4,597	9,648
50%	5,675	7,699	9,259	11,695	17,744	14,379	7,560	4,681	5,034	7,753	4,535	6,074
60%	5,126	6,856	7,601	10,395	13,268	10,829	6,714	4,583	4,930	7,161	4,515	4,995
70%	4,785	5,992	6,317	9,073	10,605	9,043	6,222	4,229	4,739	6,544	4,245	4,746
80%	4,552	5,129	5,798	7,449	7,754	7,548	5,315	3,752	4,427	5,232	4,069	4,463
90%	4,064	4,453	4,943	6,352	6,581	7,001	4,655	3,530	4,016	4,591	3,612	4,239
Long Term												
Full Simulation Period ^d	6,095	8,876	11,560	14,086	15,552	14,166	10,194	5,932	5,649	7,440	4,779	8,503
Water Year Types^{b,c}												
Wet (32%)	7,160	11,711	11,806	19,217	19,727	18,041	14,399	7,974	5,832	7,690	5,044	13,855
Above Normal (16%)	7,265	10,591	11,521	17,540	18,528	17,387	12,395	6,601	6,265	9,022	5,388	10,320
Below Normal (13%)	5,667	6,311	11,766	11,096	14,192	10,286	7,651	5,606	5,794	8,282	5,270	5,191
Dry (24%)	5,237	7,829	13,018	9,828	13,064	12,610	7,738	4,194	5,470	7,059	4,317	4,683
Critical (15%)	4,345	4,972	8,453	9,065	8,675	8,431	5,120	3,976	4,747	5,045	3,864	4,345

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-302	-354	26	93	-96	-38	380	-2,276	-72	32	-554	0
20%	102	-219	-191	105	39	488	152	-2,530	-222	-101	-166	1,372
30%	-365	-295	1,491	467	263	672	383	-1,027	-505	-32	-205	1,551
40%	-521	-563	675	2,302	441	727	-641	-391	87	-116	-109	290
50%	-228	-1,376	774	761	1,812	818	-173	-10	-49	424	-11	-288
60%	-329	-540	416	898	639	525	-201	79	93	769	-4	-262
70%	-11	-291	209	1,195	31	-90	-179	128	4	1,042	87	71
80%	81	-243	129	391	69	-437	-435	76	-193	272	205	114
90%	62	-14	-48	140	173	786	-501	21	367	400	170	239
Long Term												
Full Simulation Period ^d	-137	-355	303	629	288	287	-159	-621	-97	304	-96	133
Water Year Types^{b,c}												
Wet (32%)	-459	-529	168	350	166	232	-196	-1,638	-582	144	-236	-40
Above Normal (16%)	225	-598	380	755	50	0	-20	-570	117	474	-32	680
Below Normal (13%)	-364	-207	397	669	699	437	242	111	-74	451	-443	-22
Dry (24%)	-96	-317	216	720	653	408	-365	-226	240	614	108	55
Critical (15%)	306	89	574	908	-176	376	-255	197	141	-187	116	187

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-4. Sacramento River at Wilkins Slough Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,455	11,933	21,332	22,273	22,721	21,625	19,299	12,491	8,675	9,650	6,079	9,511
20%	7,777	9,189	20,239	21,202	21,568	20,370	17,637	9,259	7,883	9,024	5,478	7,511
30%	7,276	7,832	15,000	19,711	20,994	19,091	11,363	7,084	7,040	8,353	5,171	6,796
40%	6,676	6,972	12,001	18,137	19,623	16,138	9,314	6,198	6,075	7,310	4,774	6,141
50%	6,397	6,500	8,853	12,511	16,156	13,918	8,006	5,072	5,724	6,457	4,542	5,334
60%	6,001	6,077	7,551	9,589	13,234	11,705	7,344	4,741	5,248	5,666	4,514	4,861
70%	5,479	5,650	6,604	8,398	10,693	9,321	6,768	4,459	4,930	5,128	4,268	4,526
80%	5,048	5,061	5,791	7,144	7,977	8,073	6,259	4,182	4,706	4,632	3,760	4,194
90%	4,527	4,629	5,375	6,333	6,452	7,117	5,132	3,599	3,683	4,052	3,485	3,551
Long Term												
Full Simulation Period ^d	6,612	7,660	11,671	13,838	15,439	14,108	10,528	6,843	6,231	6,743	4,828	6,008
Water Year Types ^{b,c}												
Wet (32%)	8,029	8,661	12,579	18,885	19,632	17,961	14,828	9,524	6,665	7,641	5,448	8,105
Above Normal (16%)	7,168	8,696	11,647	17,686	19,000	17,790	12,595	7,531	6,736	8,408	5,485	6,963
Below Normal (13%)	6,504	6,379	11,390	11,283	14,123	10,588	7,767	6,087	7,115	7,099	4,927	4,881
Dry (24%)	5,844	8,008	12,849	9,252	12,486	12,146	8,212	5,086	5,751	5,557	4,296	4,439
Critical (15%)	4,319	4,963	8,022	8,720	8,624	8,267	5,365	3,914	4,733	4,642	3,567	4,075

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,130	12,040	21,358	22,367	22,609	21,584	19,651	9,824	8,757	9,593	6,365	7,675
20%	7,337	9,031	19,797	21,358	21,553	20,855	17,820	7,699	7,648	9,107	5,473	6,727
30%	6,813	7,280	16,672	20,312	21,101	19,501	11,379	6,194	7,033	8,470	4,939	6,110
40%	6,333	6,546	12,536	18,388	20,061	17,521	8,709	5,342	6,295	7,724	4,580	5,525
50%	6,135	6,268	9,192	11,632	18,000	14,619	7,662	5,141	5,714	7,043	4,527	4,990
60%	5,666	5,935	8,109	10,444	13,550	11,897	7,146	4,913	5,461	6,243	4,455	4,569
70%	5,365	5,447	6,973	9,069	10,933	9,658	6,511	4,614	5,016	5,688	4,149	4,451
80%	5,064	4,968	6,085	7,478	7,733	7,784	5,907	4,327	4,796	4,722	4,020	4,055
90%	4,643	4,593	5,565	6,342	6,933	7,091	4,784	3,713	3,978	4,366	3,565	3,776
Long Term												
Full Simulation Period ^d	6,269	7,442	12,035	14,261	15,759	14,455	10,347	6,355	6,218	6,955	4,756	5,557
Water Year Types ^{b,c}												
Wet (32%)	7,284	8,290	12,846	19,219	19,787	18,249	14,526	8,167	6,214	7,667	5,252	7,069
Above Normal (16%)	6,831	8,311	11,755	18,017	18,981	17,811	12,618	7,062	7,138	8,995	5,644	6,427
Below Normal (13%)	6,040	6,279	11,886	12,220	14,521	10,981	7,634	6,214	6,815	7,361	4,510	4,693
Dry (24%)	5,624	7,841	13,325	9,842	13,141	12,619	7,969	4,926	6,054	5,938	4,298	4,349
Critical (15%)	4,745	5,067	8,571	8,682	9,043	8,844	5,282	4,175	4,955	4,528	3,706	4,144

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,325	107	26	94	-112	-41	352	-2,667	81	-57	286	-1,836
20%	-440	-158	-441	157	-15	485	182	-1,560	-235	82	-5	-783
30%	-463	-552	1,672	601	108	409	16	-890	-6	117	-232	-686
40%	-343	-426	535	251	439	1,383	-605	-856	220	413	-194	-615
50%	-262	-233	339	-879	1,844	701	-344	68	-11	586	-15	-344
60%	-335	-142	559	854	316	192	-198	172	213	578	-59	-292
70%	-113	-203	369	672	240	337	-258	155	86	560	-119	-74
80%	16	-93	294	334	-244	-289	-353	145	90	90	259	-139
90%	116	-36	190	9	482	-25	-347	114	295	315	80	225
Long Term												
Full Simulation Period ^d	-343	-217	365	422	320	347	-181	-488	-13	213	-72	-450
Water Year Types ^{b,c}												
Wet (32%)	-745	-371	268	334	155	288	-302	-1,357	-451	26	-196	-1,036
Above Normal (16%)	-337	-385	107	331	-19	21	24	-469	402	587	159	-536
Below Normal (13%)	-464	-100	497	937	398	393	-133	127	-299	262	-417	-188
Dry (24%)	-220	-167	476	590	655	473	-243	-160	303	381	2	-90
Critical (15%)	426	105	549	-38	419	578	-83	261	221	-114	139	69

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

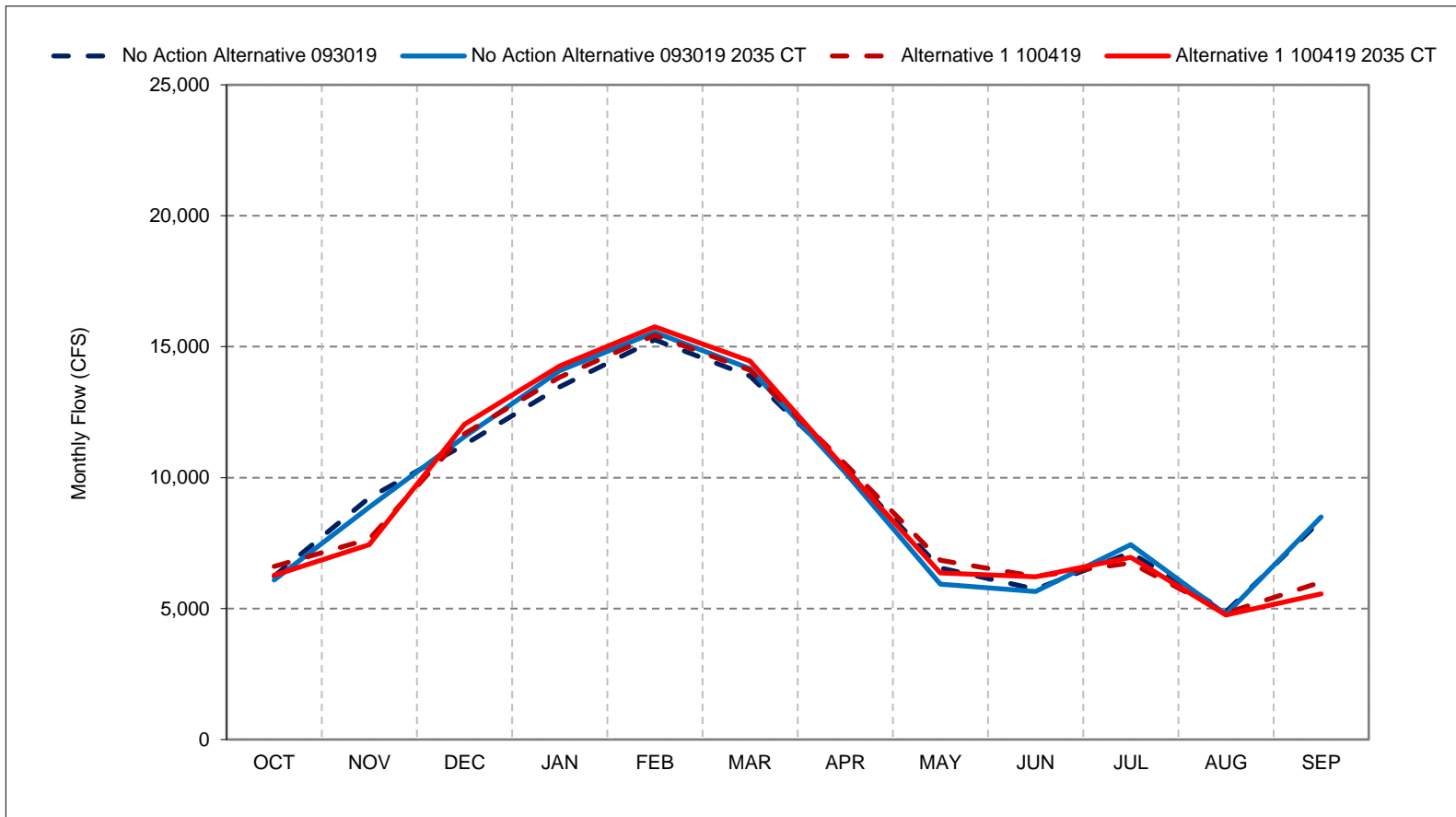
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 19-1. Sacramento River at Wilkins Slough Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

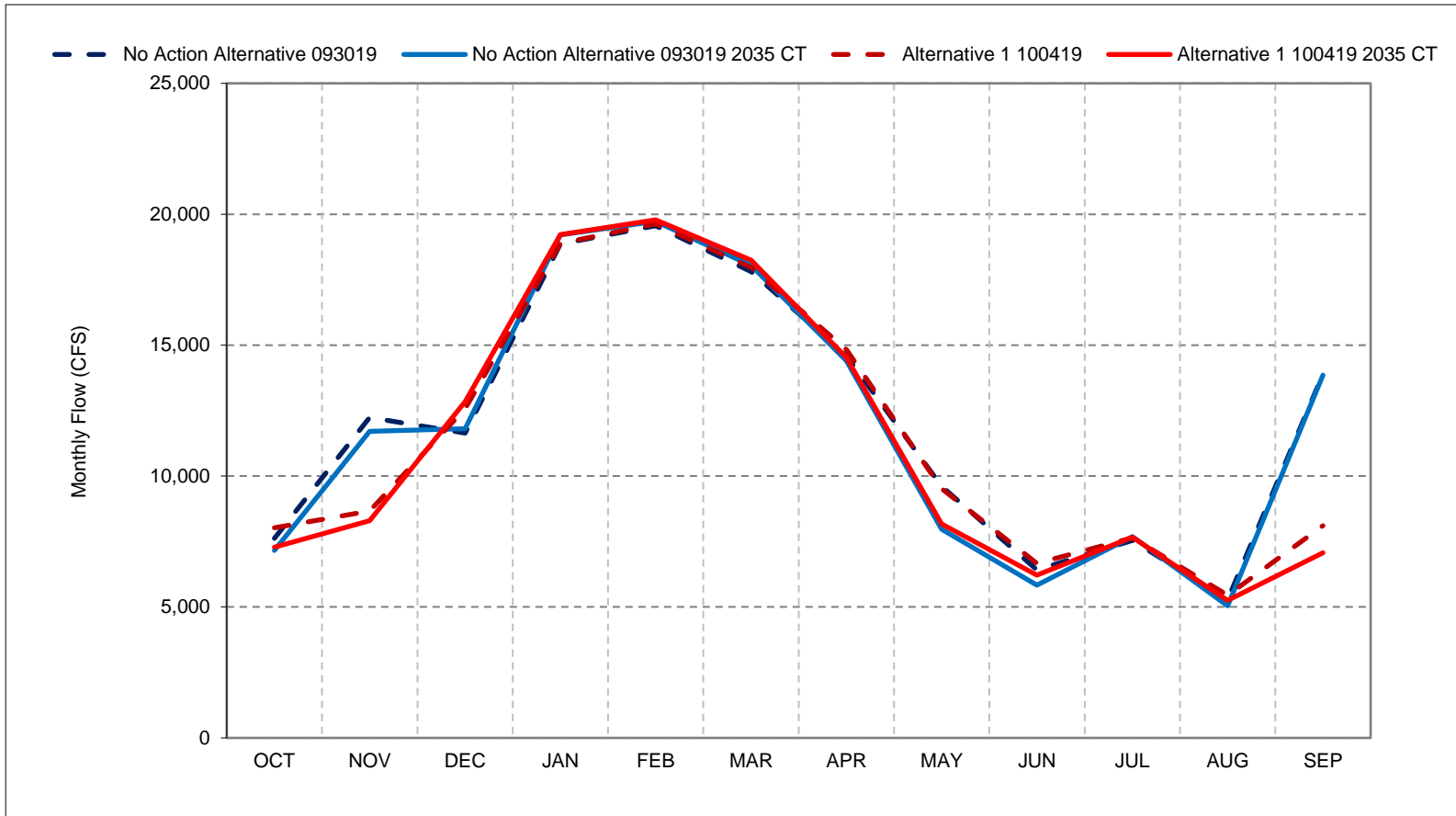
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-2. Sacramento River at Wilkins Slough Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

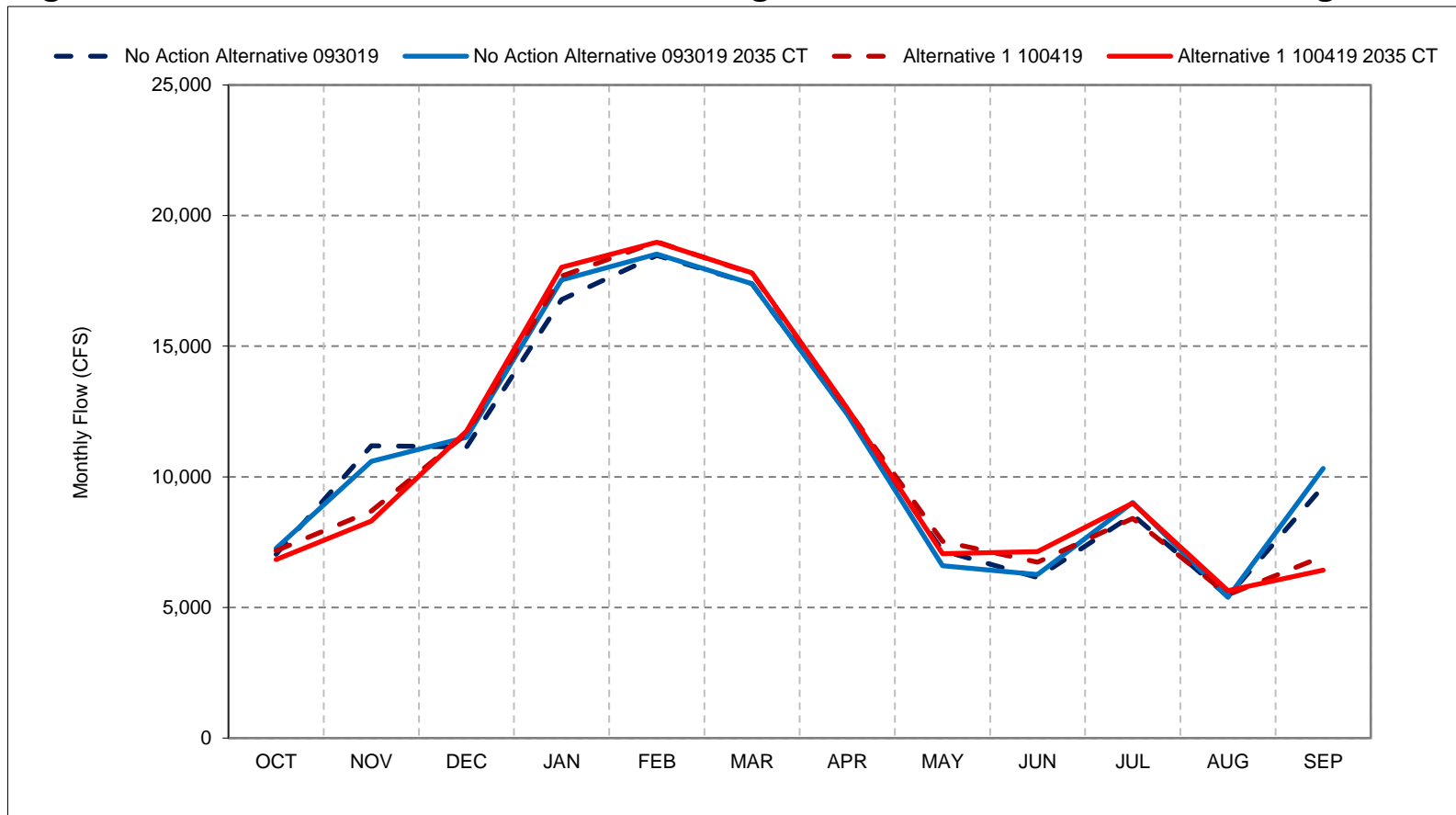
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-3. Sacramento River at Wilkins Slough Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

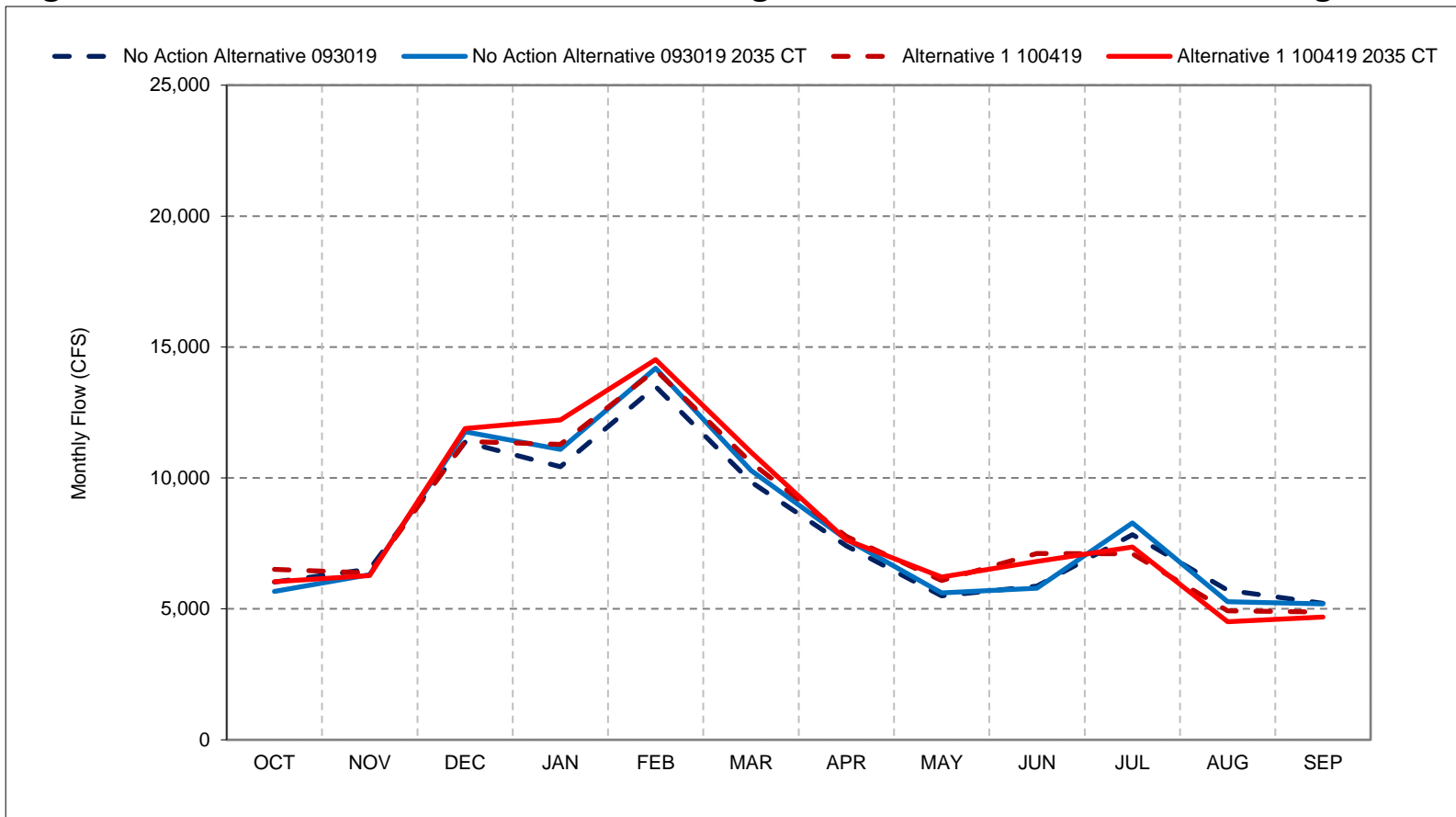
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-4. Sacramento River at Wilkins Slough Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

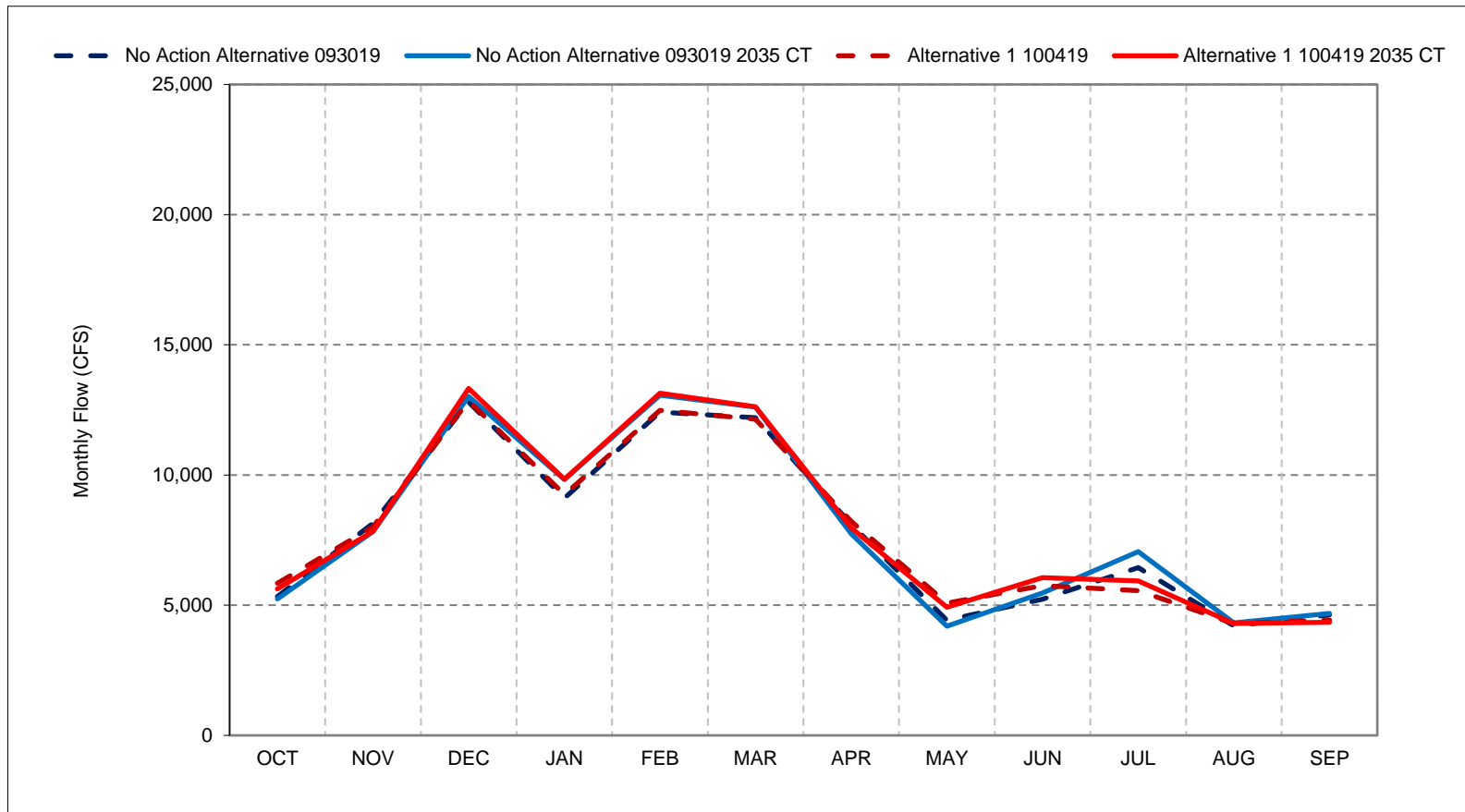
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-5. Sacramento River at Wilkins Slough Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

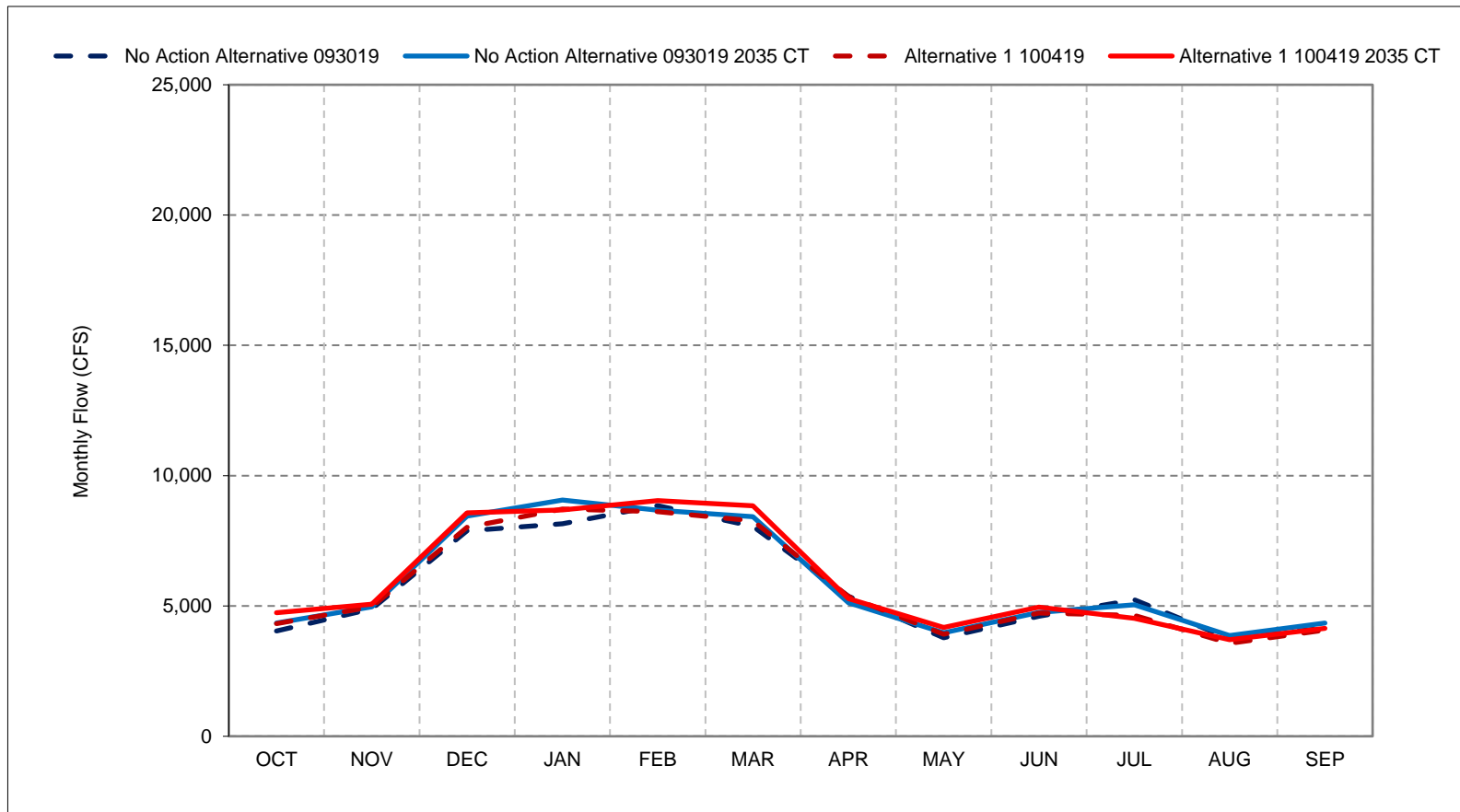
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-6. Sacramento River at Wilkins Slough Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

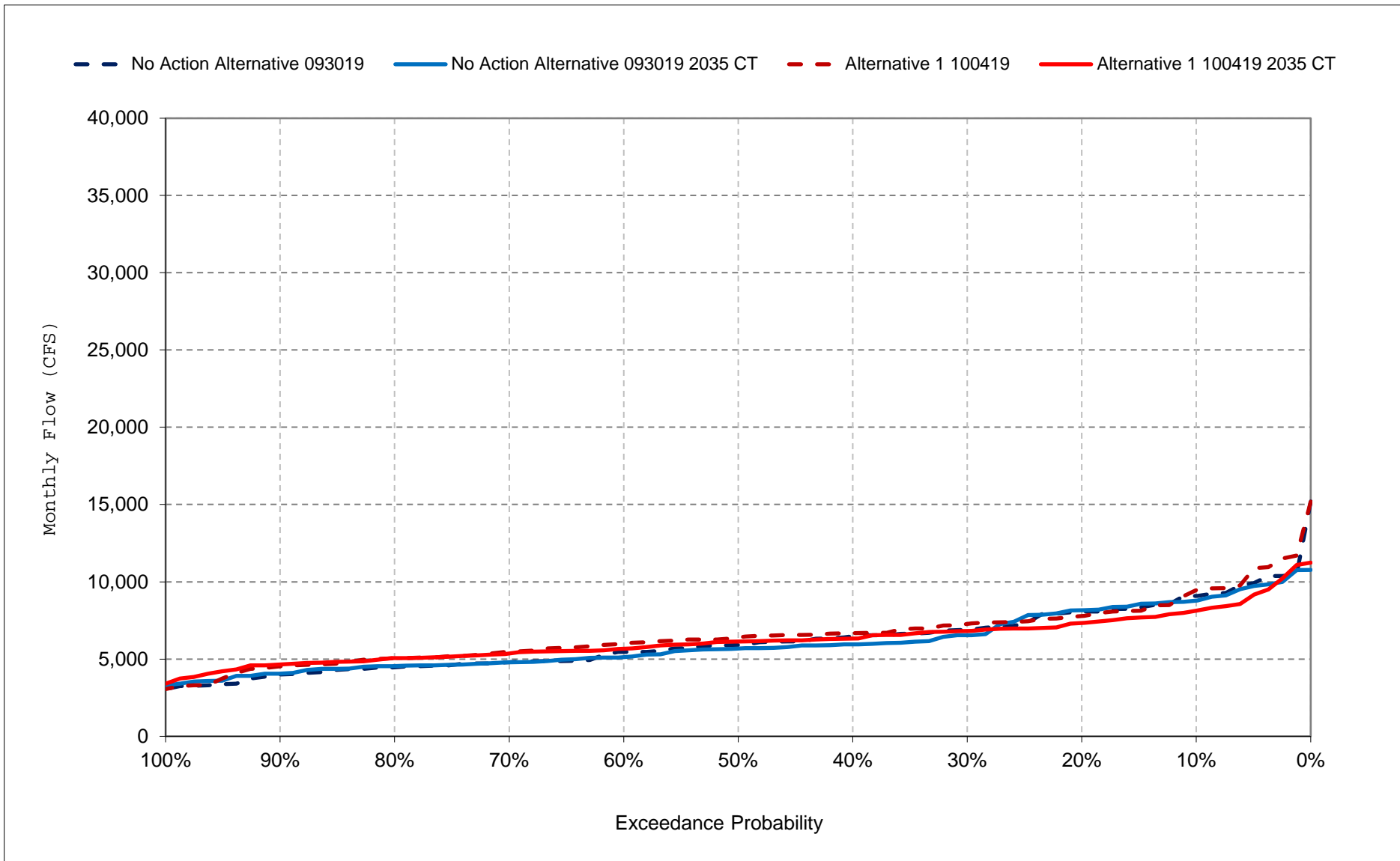
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

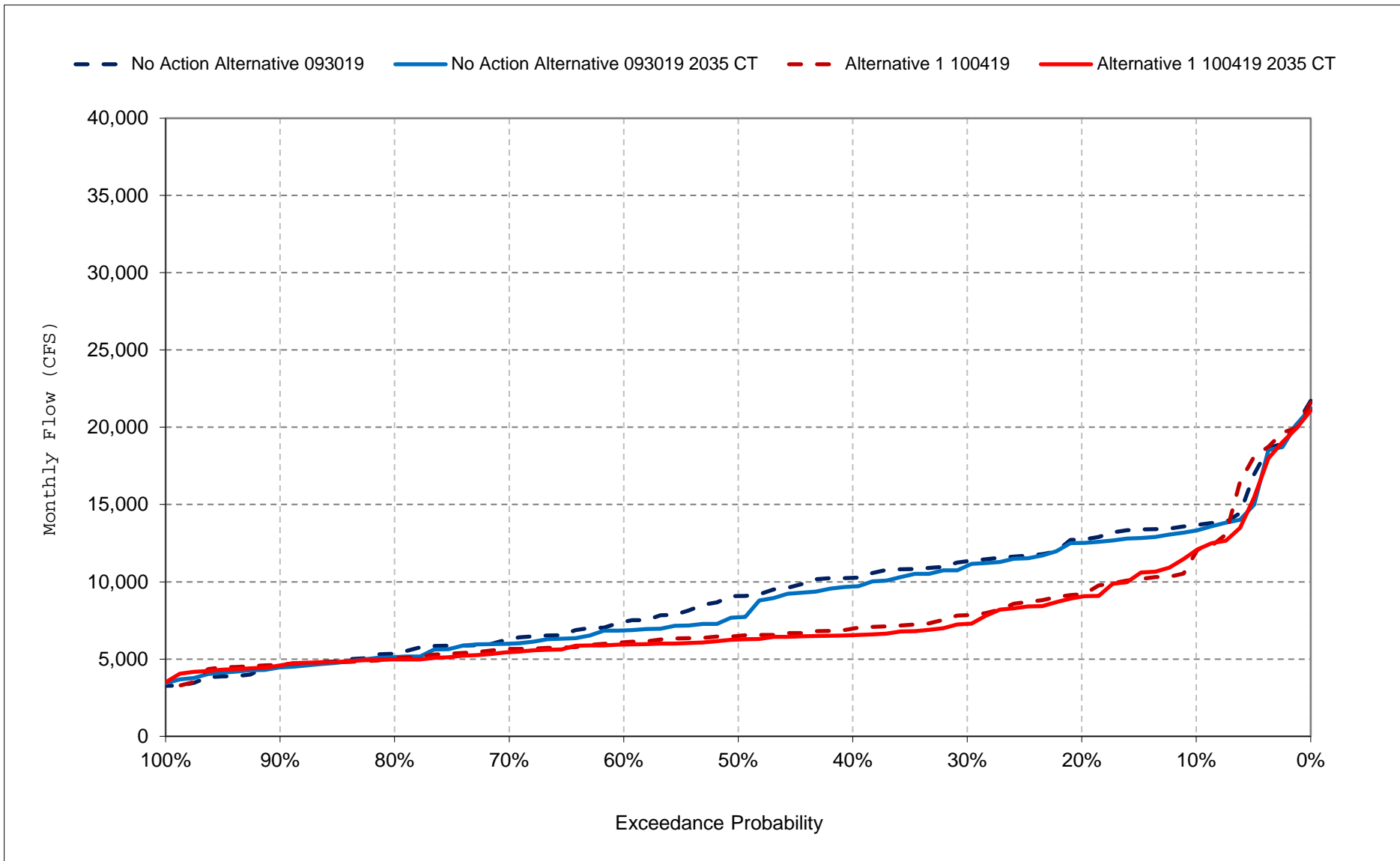
Figure 19-7. Sacramento River at Wilkins Slough Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

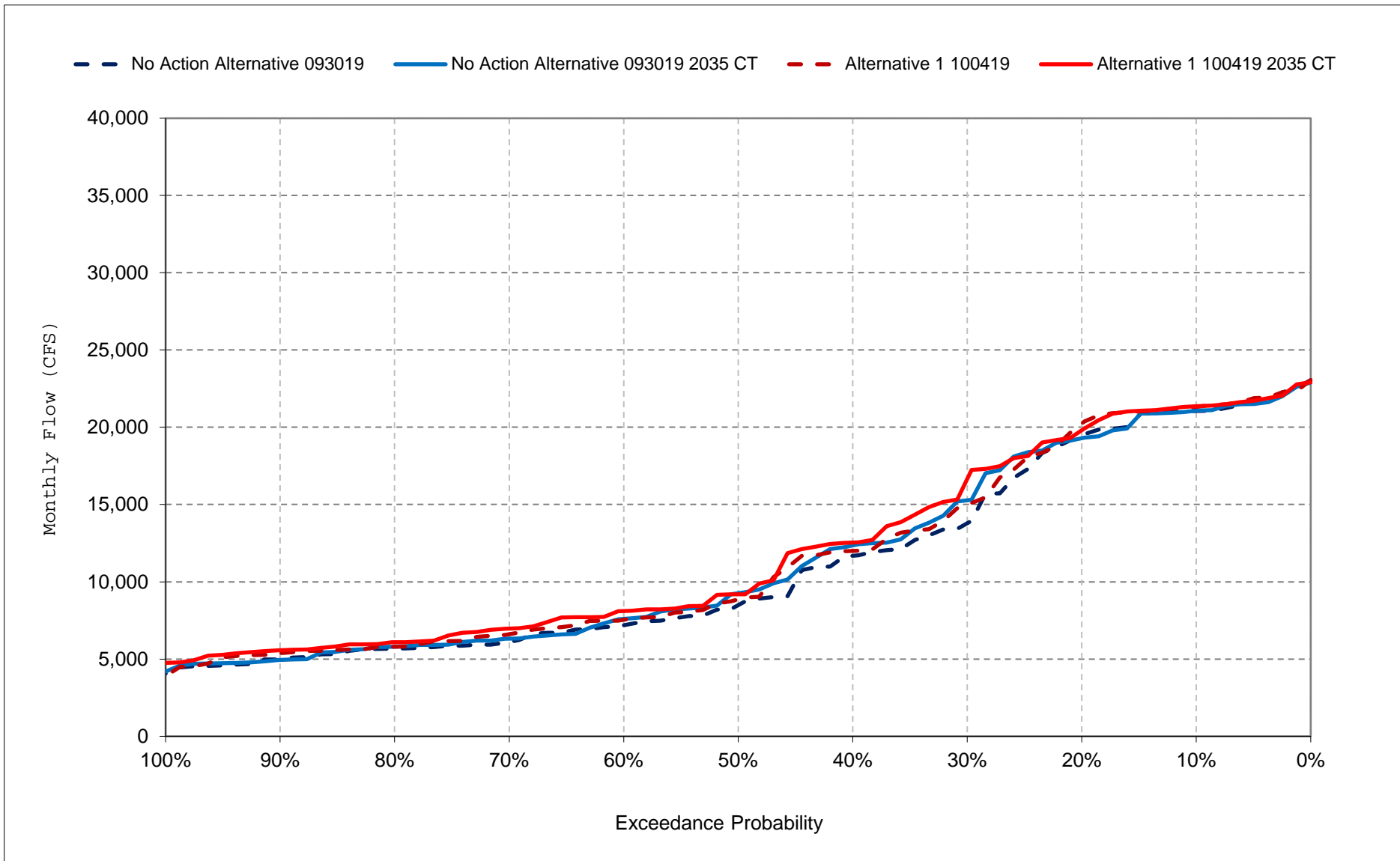
Figure 19-8. Sacramento River at Wilkins Slough Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

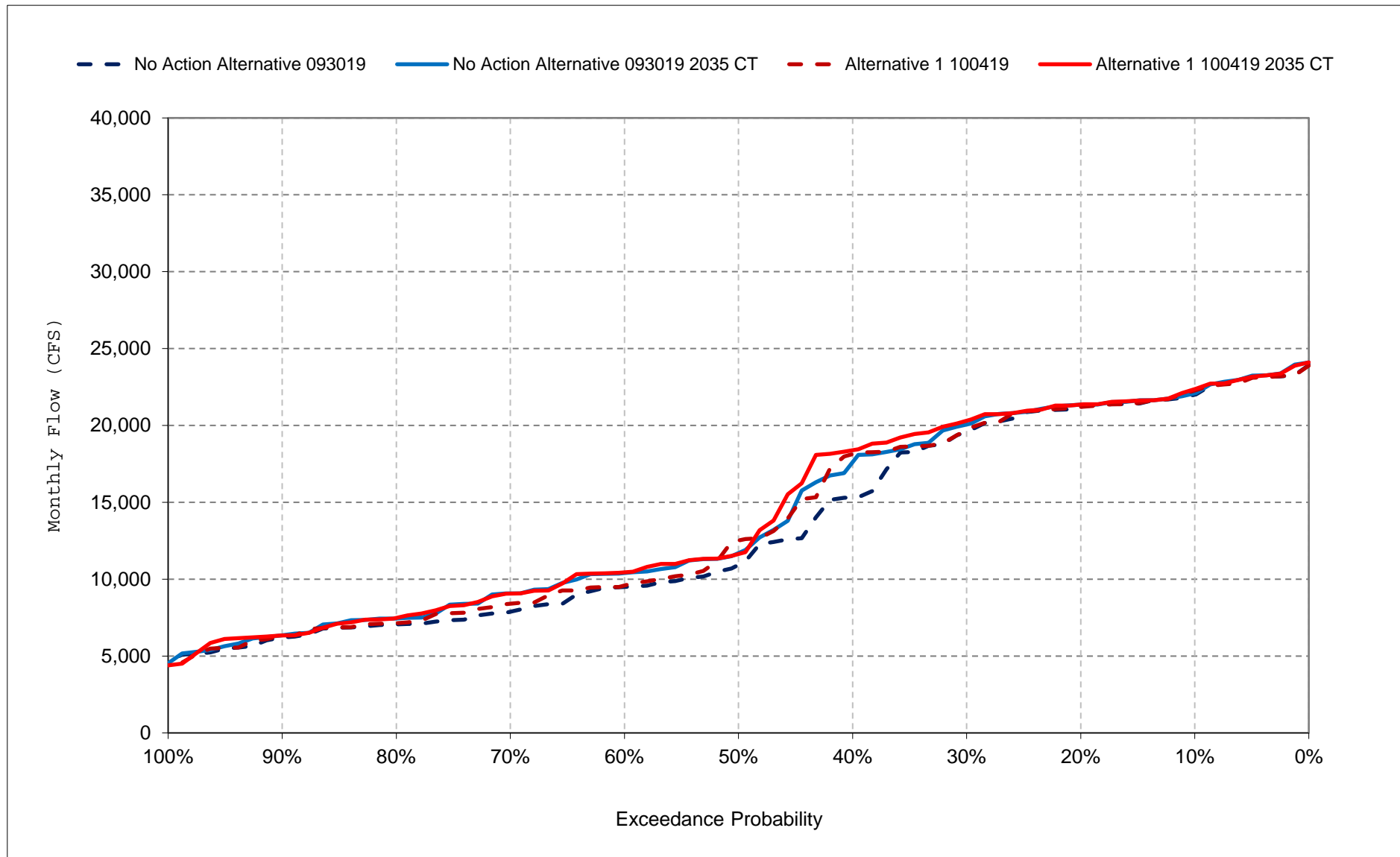
Figure 19-9. Sacramento River at Wilkins Slough Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

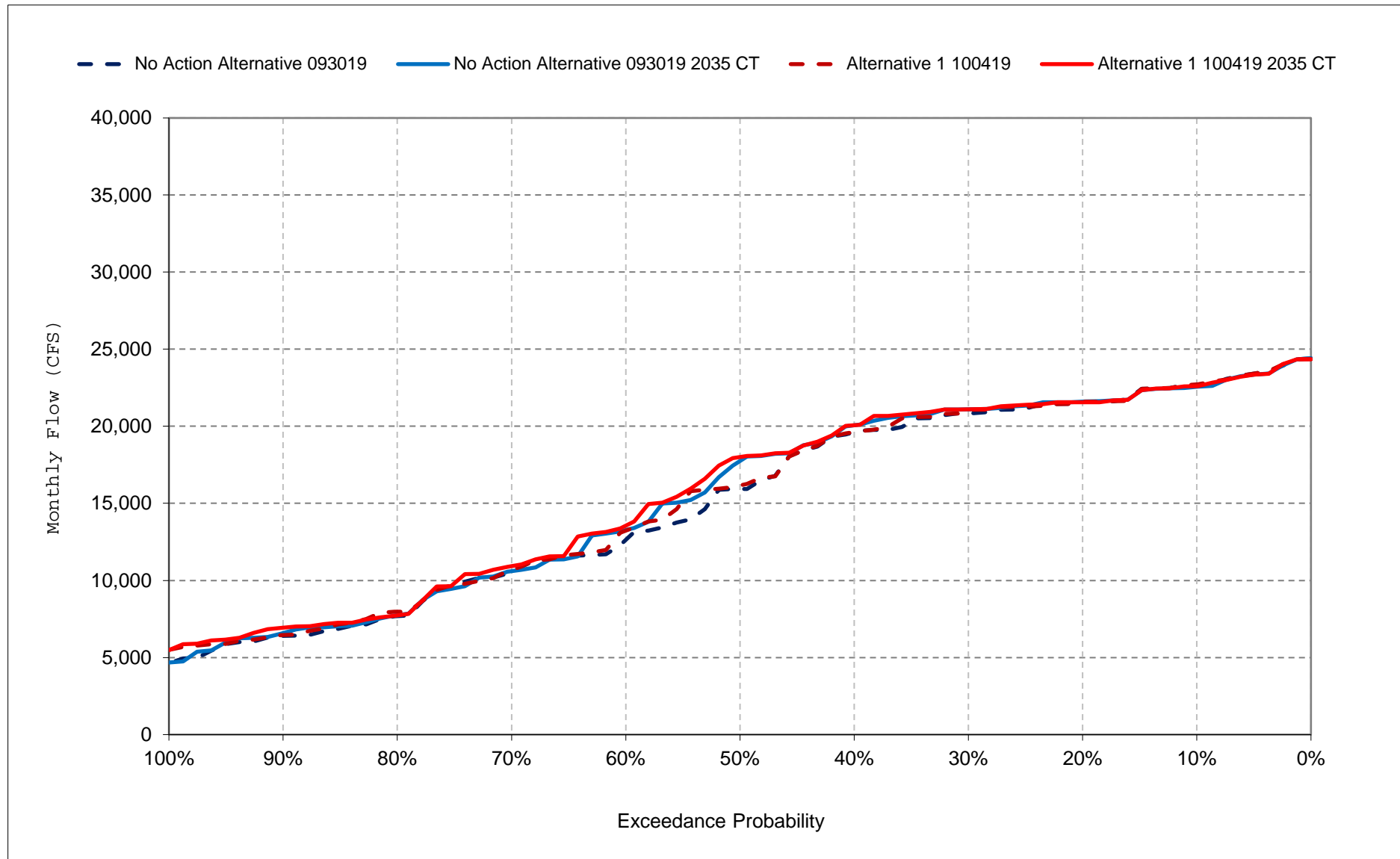
Figure 19-10. Sacramento River at Wilkins Slough Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

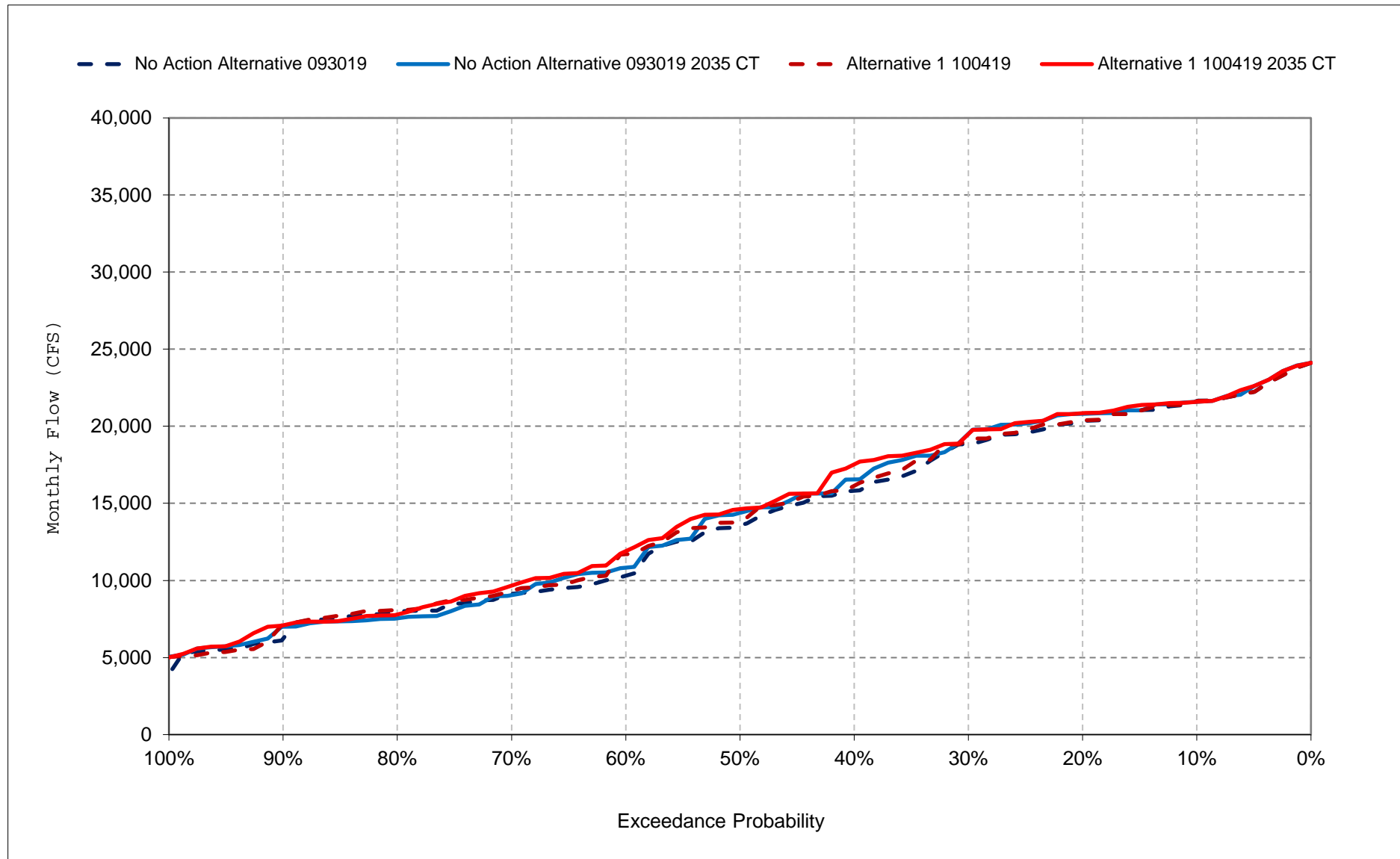
Figure 19-11. Sacramento River at Wilkins Slough Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

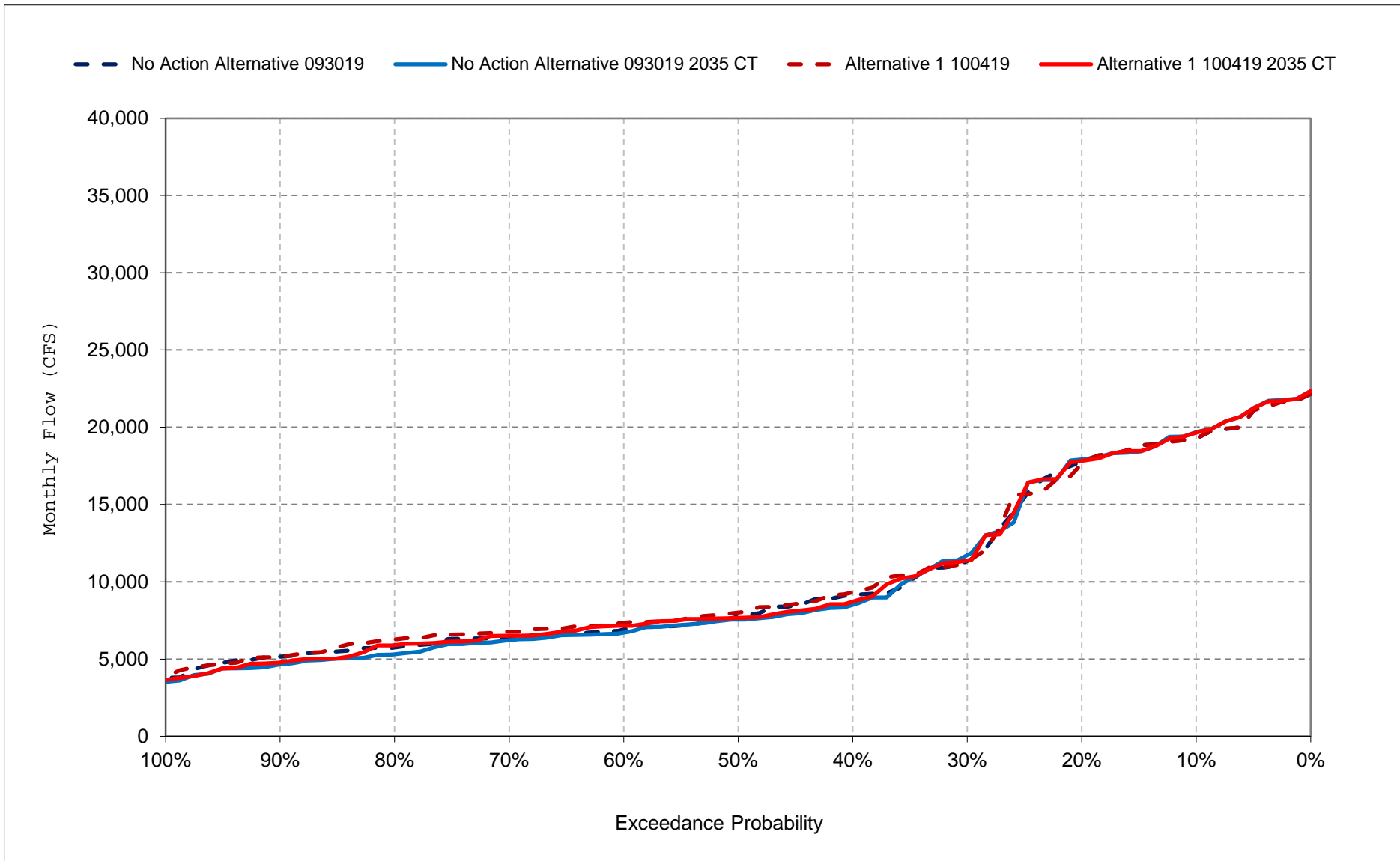
Figure 19-12. Sacramento River at Wilkins Slough Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

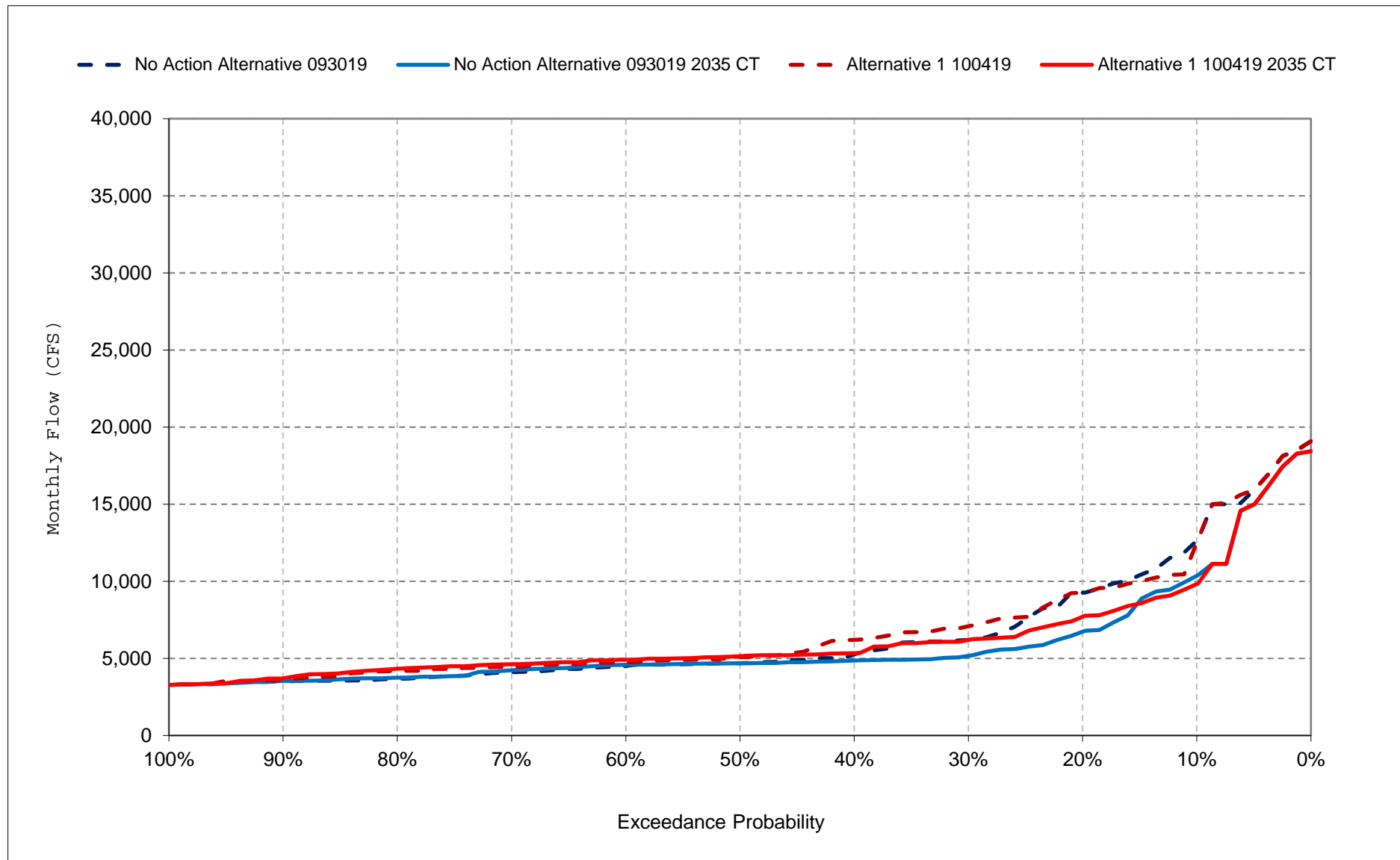
Figure 19-13. Sacramento River at Wilkins Slough Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

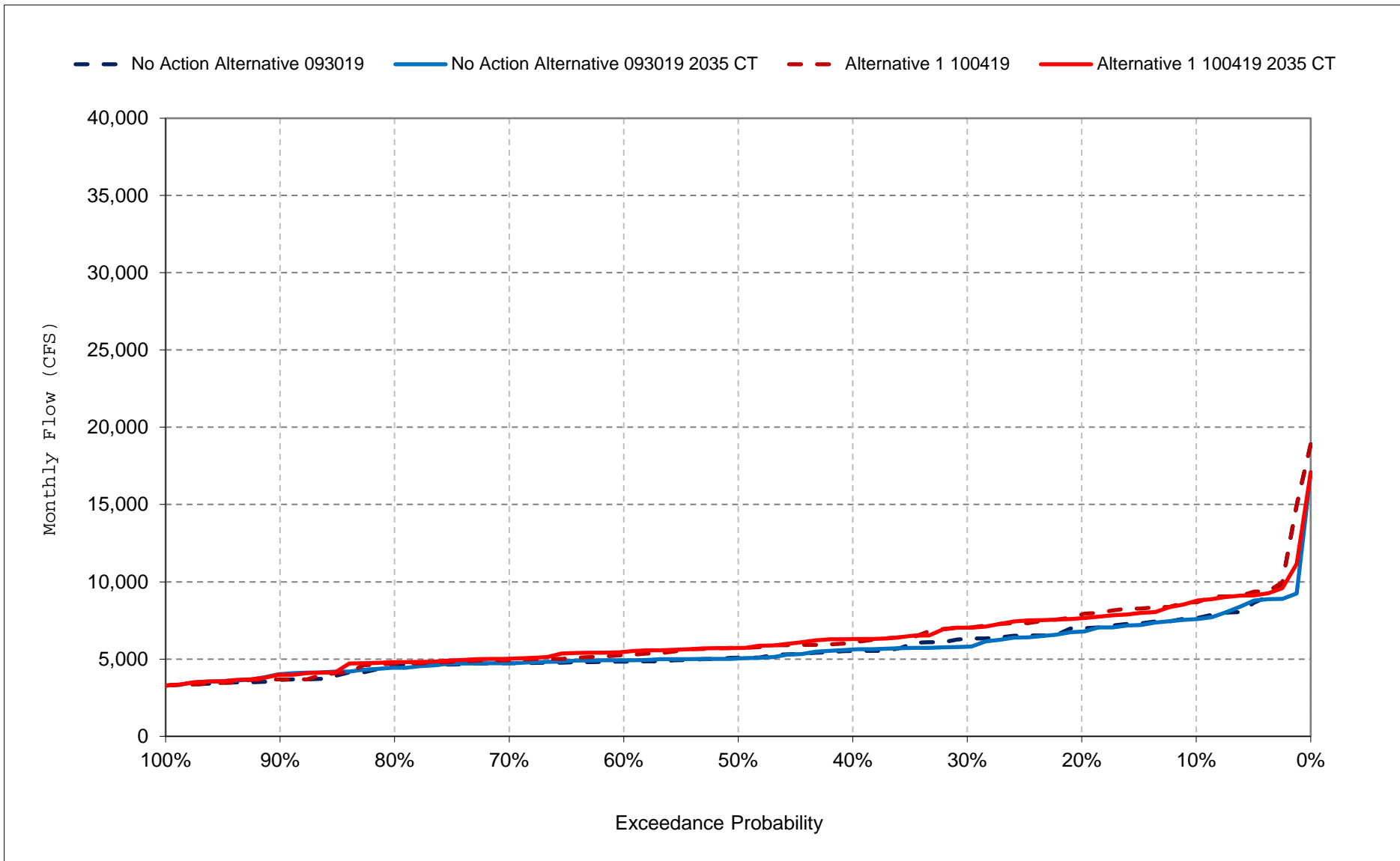
Figure 19-14. Sacramento River at Wilkins Slough Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

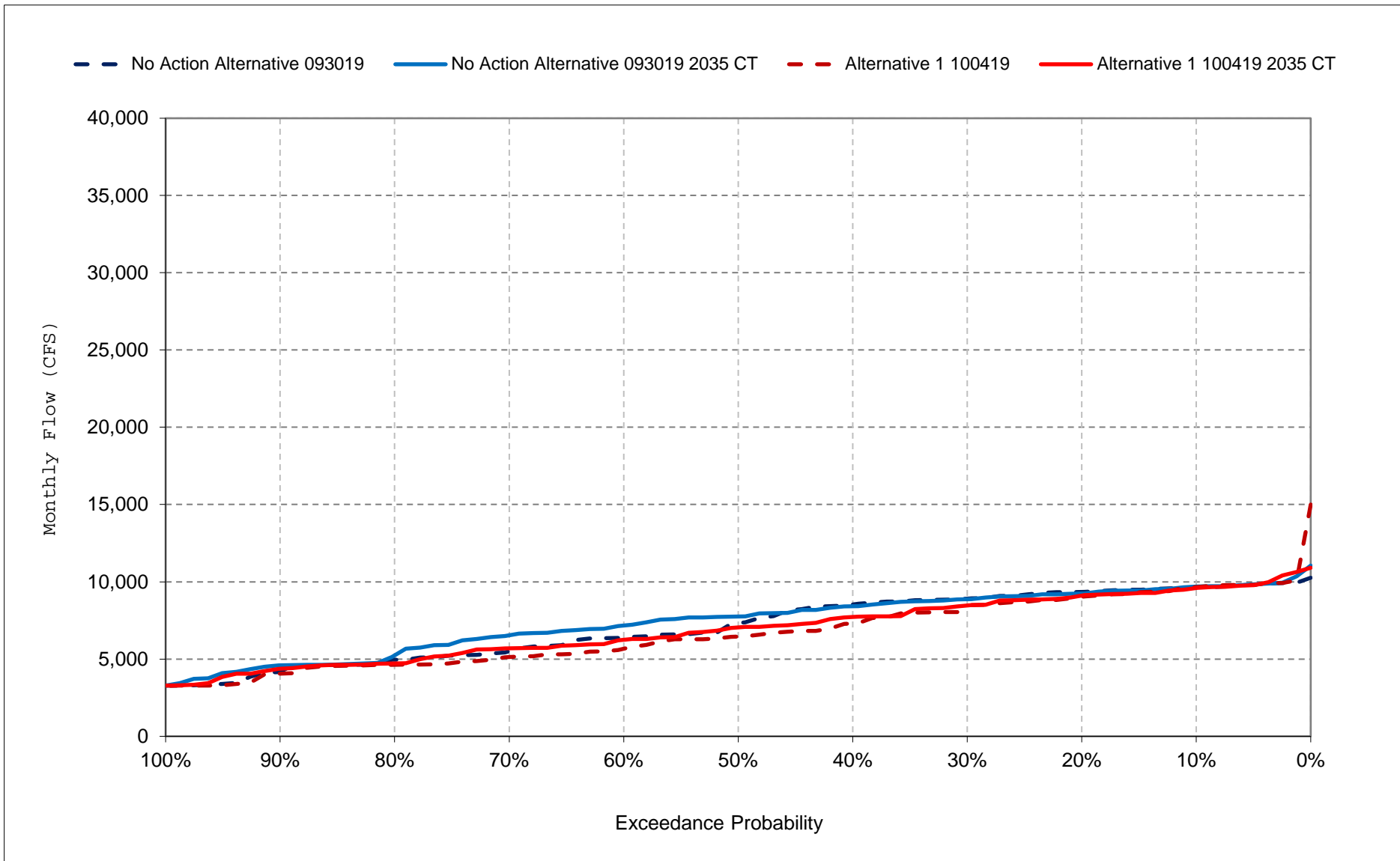
Figure 19-15. Sacramento River at Wilkins Slough Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

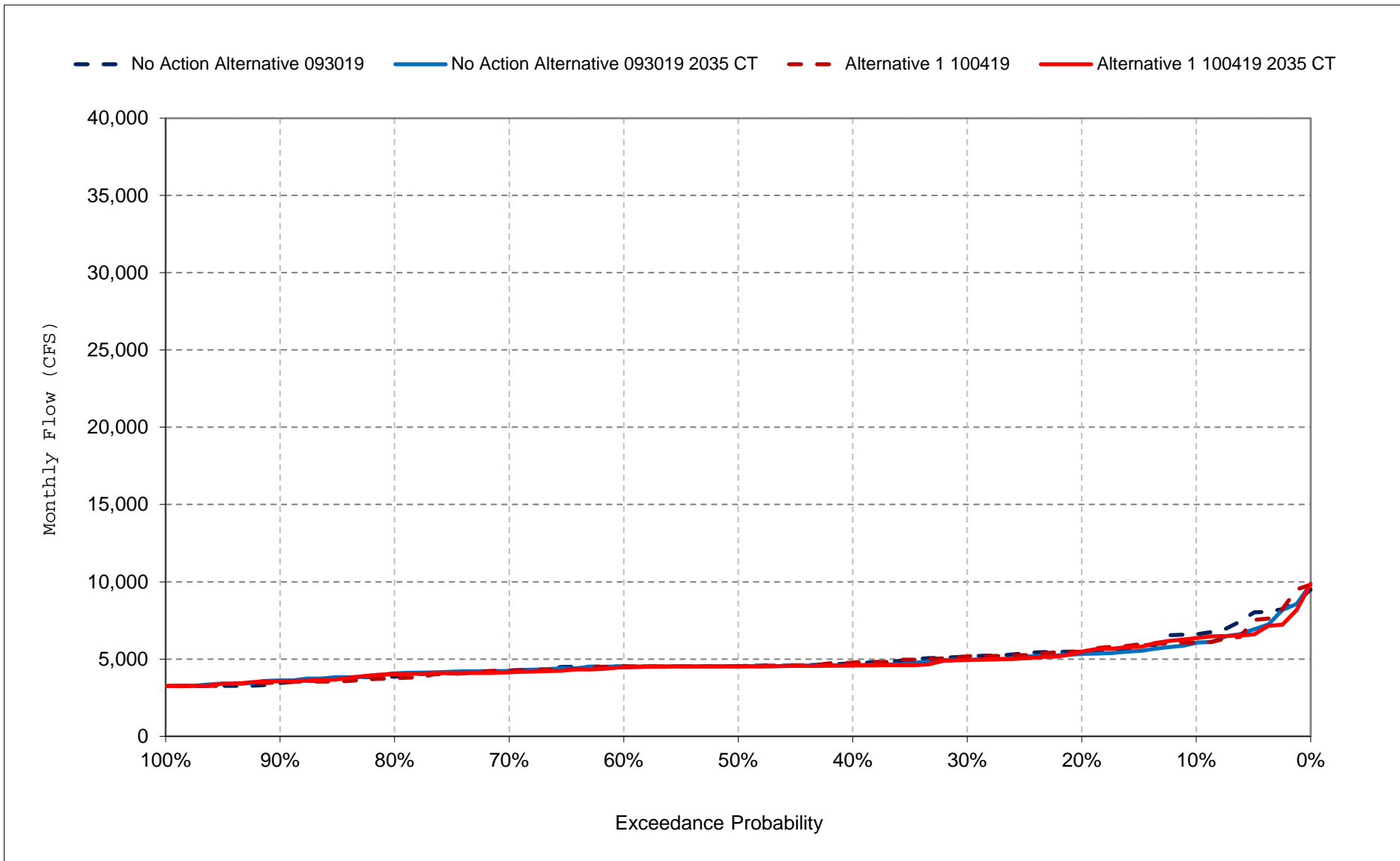
Figure 19-16. Sacramento River at Wilkins Slough Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

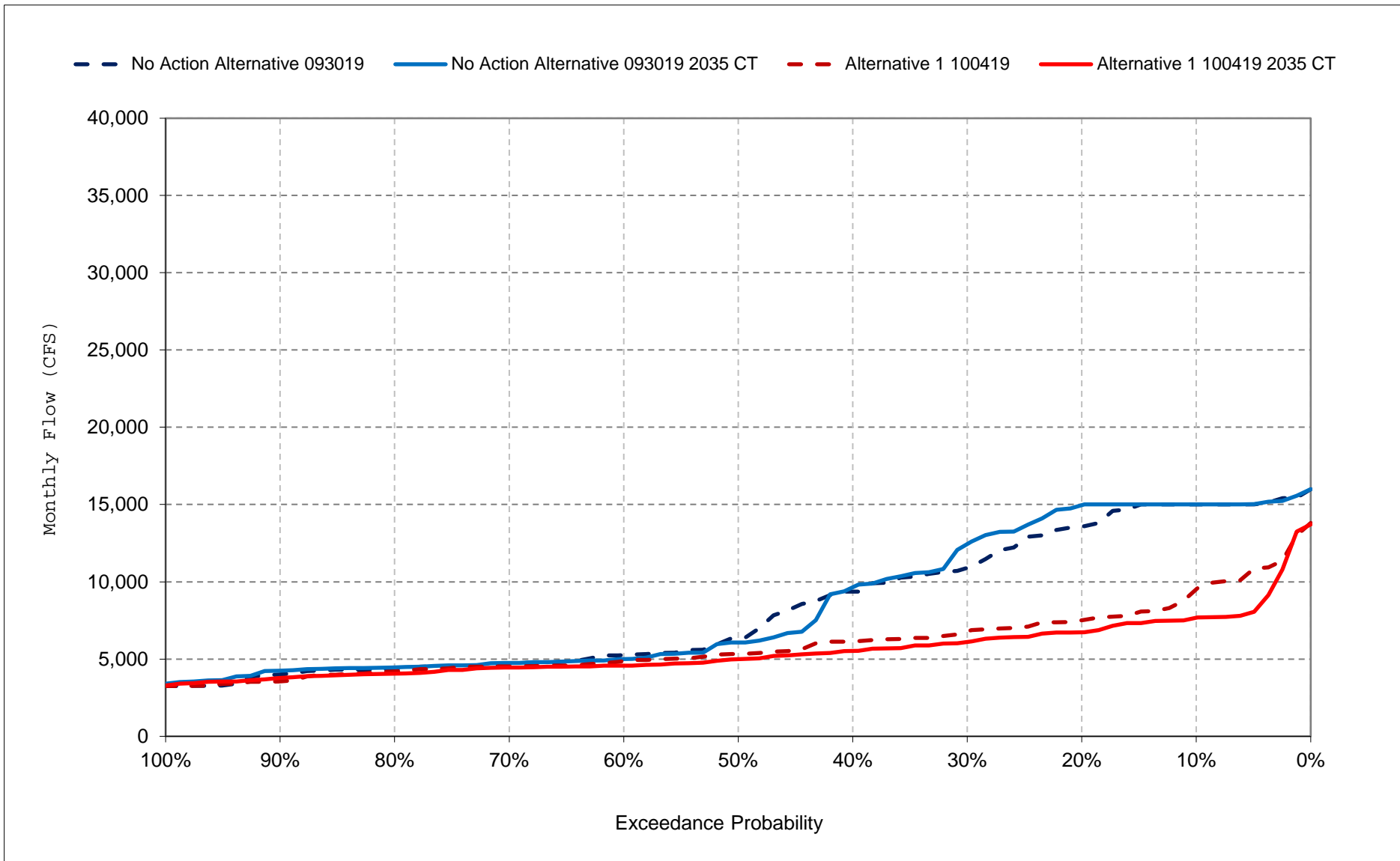
Figure 19-17. Sacramento River at Wilkins Slough Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 19-18. Sacramento River at Wilkins Slough Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-1. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,986	13,760	17,818	14,306	8,408	8,297	5,564	9,650	7,982	9,482
20%	4,000	2,500	3,301	2,024	10,725	8,929	3,597	5,400	4,241	9,170	7,501	9,012
30%	4,000	2,427	2,098	1,700	4,284	6,733	2,615	3,185	3,956	8,696	7,084	7,888
40%	3,026	1,880	1,855	1,700	1,700	4,675	1,648	2,574	3,413	8,285	6,101	7,341
50%	1,927	1,700	1,700	1,700	1,700	1,700	1,152	2,089	3,148	8,001	4,740	3,789
60%	1,858	1,700	1,700	1,700	1,700	1,700	1,000	1,420	2,820	7,189	2,848	1,749
70%	1,700	1,385	1,700	1,200	1,700	1,700	1,000	1,000	2,594	4,462	2,284	1,204
80%	1,375	1,200	1,307	960	1,200	1,000	1,000	1,000	2,234	3,529	1,828	1,008
90%	1,125	1,124	917	900	900	800	758	1,000	1,717	2,921	1,435	1,000
Long Term												
Full Simulation Period ^d	2,552	2,020	2,829	4,460	5,436	6,072	3,040	3,527	3,427	6,794	4,604	4,815
Water Year Types ^{b,c}												
Wet (32%)	3,793	2,993	4,430	10,639	12,543	13,565	6,589	6,935	3,757	7,169	5,750	8,775
Above Normal (16%)	3,341	2,144	2,438	2,389	4,111	6,137	2,040	2,013	2,156	8,856	7,636	7,462
Below Normal (13%)	1,737	1,651	1,622	1,595	1,589	1,885	1,279	1,986	2,685	8,689	5,627	2,419
Dry (24%)	1,539	1,400	2,408	1,360	1,514	1,299	1,136	1,843	4,187	5,983	1,886	1,330
Critical (15%)	1,442	1,146	1,591	1,108	1,538	1,560	1,225	2,000	3,503	3,359	2,424	1,375

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,614	2,500	5,661	13,863	20,147	14,824	8,408	8,262	6,452	9,821	8,202	3,339
20%	3,162	2,500	3,972	5,104	11,464	11,020	3,656	5,390	5,207	9,274	7,904	2,317
30%	2,730	2,500	2,740	1,700	6,134	7,638	2,578	3,647	4,519	8,938	7,664	1,798
40%	2,132	1,866	1,763	1,700	2,678	5,038	1,713	3,263	4,250	8,521	7,069	1,550
50%	1,962	1,700	1,700	1,700	1,700	2,486	1,184	2,476	3,916	8,097	5,103	1,285
60%	1,846	1,700	1,700	1,700	1,700	1,700	1,000	1,796	3,593	7,459	3,227	1,093
70%	1,700	1,423	1,700	1,216	1,700	1,700	1,000	1,263	3,247	4,728	2,231	1,003
80%	1,354	1,205	1,307	960	1,200	1,000	1,000	1,000	2,877	3,826	1,882	1,000
90%	1,125	1,123	916	900	900	800	758	1,000	2,223	3,289	1,504	1,000
Long Term												
Full Simulation Period ^d	2,209	2,019	3,293	4,898	5,900	6,528	3,070	3,758	4,041	6,964	4,995	1,750
Water Year Types ^{b,c}												
Wet (32%)	2,938	2,902	5,356	11,938	13,386	14,130	6,587	6,982	4,022	7,012	6,659	1,624
Above Normal (16%)	2,760	2,311	3,210	2,388	4,869	7,728	2,226	2,315	2,727	8,643	7,594	2,295
Below Normal (13%)	1,753	1,638	1,622	1,595	2,339	2,064	1,279	2,382	3,773	9,022	6,550	2,441
Dry (24%)	1,565	1,415	2,596	1,401	1,513	1,310	1,145	2,351	5,245	6,772	1,858	1,407
Critical (15%)	1,525	1,149	1,603	1,218	1,376	1,545	1,212	1,940	3,742	3,475	2,377	1,372

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-386	0	675	104	2,329	518	0	-34	888	171	220	-6,143
20%	-838	0	671	3,080	739	2,092	60	-10	966	104	403	-6,695
30%	-1,270	73	642	0	1,849	906	-37	462	564	243	580	-6,090
40%	-894	-14	-92	0	978	363	65	689	837	236	968	-5,791
50%	36	0	0	0	0	786	32	387	769	96	363	-2,504
60%	-13	0	0	0	0	0	0	377	773	270	378	-656
70%	0	38	0	16	0	0	0	263	653	266	-53	-201
80%	-21	5	0	0	0	0	0	0	643	297	54	-8
90%	0	-1	0	0	0	0	0	0	507	368	69	0
Long Term												
Full Simulation Period ^d	-342	0	464	438	464	456	29	231	613	170	391	-3,065
Water Year Types ^{b,c}												
Wet (32%)	-855	-91	926	1,299	843	565	-2	46	265	-157	909	-7,151
Above Normal (16%)	-580	167	772	-1	757	1,591	185	302	570	-213	-43	-5,167
Below Normal (13%)	16	-13	0	0	750	179	0	396	1,088	333	923	22
Dry (24%)	26	15	188	41	0	10	10	508	1,058	789	-29	77
Critical (15%)	83	3	13	110	-162	-15	-13	-59	239	116	-47	-3

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 21-2. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,897	15,118	20,347	17,187	8,173	5,184	4,597	9,724	8,062	9,464
20%	4,000	2,500	3,201	2,295	13,455	11,258	3,512	3,407	4,153	9,229	7,681	8,966
30%	3,899	2,070	2,080	1,700	6,699	8,391	2,080	2,923	3,853	8,954	7,435	7,688
40%	2,026	1,847	1,799	1,700	2,136	5,062	1,449	2,695	3,444	8,590	6,678	5,886
50%	1,889	1,700	1,700	1,700	1,700	2,924	1,000	2,013	3,242	8,346	5,648	3,771
60%	1,785	1,700	1,700	1,700	1,700	1,700	1,000	1,468	3,003	7,917	4,296	1,672
70%	1,508	1,423	1,700	1,464	1,700	1,700	1,000	1,044	2,753	6,704	2,685	1,163
80%	1,241	1,200	1,233	980	1,200	1,000	1,000	1,000	2,220	4,279	1,959	1,013
90%	1,111	1,078	1,064	900	900	800	750	1,000	1,755	3,072	1,559	1,000
Long Term												
Full Simulation Period ^d	2,388	1,948	2,767	4,856	6,308	7,003	2,978	2,697	3,212	7,226	5,044	4,564
Water Year Types ^{b,c}												
Wet (32%)	3,746	2,893	4,444	11,756	14,581	15,416	6,567	4,161	2,774	7,529	6,080	8,167
Above Normal (16%)	2,603	1,918	2,201	2,594	5,592	8,112	1,868	1,845	2,554	9,156	7,739	7,027
Below Normal (13%)	1,718	1,663	1,604	1,597	1,929	2,185	1,236	2,276	3,065	8,900	5,868	2,446
Dry (24%)	1,563	1,393	2,293	1,360	1,452	1,296	1,061	1,961	3,894	6,669	3,071	1,370
Critical (15%)	1,204	1,120	1,604	1,170	1,263	1,498	1,195	2,059	3,872	3,875	2,410	1,354

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,535	2,500	5,433	15,905	20,671	17,223	8,174	5,210	5,522	9,853	8,183	3,369
20%	3,275	2,500	3,440	6,080	13,737	12,434	3,496	4,354	5,125	9,181	7,851	2,393
30%	2,648	1,942	2,224	2,015	9,247	8,413	2,074	3,647	4,806	8,857	7,642	2,051
40%	2,134	1,857	1,700	1,700	3,595	6,198	1,476	3,140	4,505	8,424	6,909	1,710
50%	1,901	1,700	1,700	1,700	1,700	3,329	1,079	2,637	4,244	7,875	5,386	1,371
60%	1,865	1,700	1,700	1,700	1,700	1,700	1,000	2,193	3,743	6,787	3,324	1,174
70%	1,508	1,407	1,700	1,249	1,700	1,700	1,000	1,645	3,488	4,837	2,551	1,010
80%	1,204	1,200	1,364	960	1,200	1,000	1,000	1,000	3,155	3,937	2,042	1,000
90%	1,125	1,123	1,066	900	900	800	750	1,000	2,416	3,137	1,727	1,000
Long Term												
Full Simulation Period ^d	2,198	1,992	3,139	5,398	6,885	7,405	2,980	3,095	4,086	6,873	5,031	1,787
Water Year Types ^{b,c}												
Wet (32%)	3,030	2,878	4,987	13,357	15,196	15,662	6,567	4,521	3,452	6,620	6,365	1,960
Above Normal (16%)	2,679	2,163	3,009	2,745	6,804	9,764	1,868	2,381	3,485	8,426	7,361	2,358
Below Normal (13%)	1,870	1,644	1,604	1,684	3,373	2,594	1,246	3,031	4,473	8,884	6,143	1,955
Dry (24%)	1,574	1,438	2,590	1,392	1,452	1,333	1,075	2,346	4,979	6,959	2,784	1,350
Critical (15%)	1,211	1,129	1,598	1,108	1,242	1,492	1,182	2,086	4,268	3,751	2,341	1,366

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-465	0	536	787	324	35	1	26	925	128	120	-6,095
20%	-725	0	240	3,785	282	1,176	-15	947	973	-48	170	-6,572
30%	-1,251	-128	145	315	2,548	22	-6	723	953	-97	207	-5,637
40%	108	10	-99	0	1,458	1,136	27	445	1,061	-166	231	-4,176
50%	13	0	0	0	0	405	79	624	1,002	-472	-262	-2,400
60%	81	0	0	0	0	0	0	725	740	-1,130	-972	-498
70%	0	-15	0	-215	0	0	0	601	735	-1,867	-135	-153
80%	-37	0	131	-20	0	0	0	0	936	-342	83	-13
90%	14	46	2	0	0	0	0	0	661	65	168	0
Long Term												
Full Simulation Period ^d	-191	44	372	542	578	403	3	398	874	-353	-13	-2,777
Water Year Types ^{b,c}												
Wet (32%)	-716	-15	543	1,601	615	246	-1	359	678	-909	285	-6,207
Above Normal (16%)	76	245	808	151	1,213	1,652	0	536	932	-730	-378	-4,669
Below Normal (13%)	152	-19	0	88	1,443	409	10	755	1,408	-15	275	-492
Dry (24%)	11	45	298	32	0	37	14	385	1,085	290	-287	-20
Critical (15%)	7	9	-6	-61	-21	-6	-13	27	396	-124	-69	12

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-3. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,986	13,760	17,818	14,306	8,408	8,297	5,564	9,650	7,982	9,482
20%	4,000	2,500	3,301	2,024	10,725	8,929	3,597	5,400	4,241	9,170	7,501	9,012
30%	4,000	2,427	2,098	1,700	4,284	6,733	2,615	3,185	3,956	8,696	7,084	7,888
40%	3,026	1,880	1,855	1,700	1,700	4,675	1,648	2,574	3,413	8,285	6,101	7,341
50%	1,927	1,700	1,700	1,700	1,700	1,700	1,152	2,089	3,148	8,001	4,740	3,789
60%	1,858	1,700	1,700	1,700	1,700	1,700	1,000	1,420	2,820	7,189	2,848	1,749
70%	1,700	1,385	1,700	1,200	1,700	1,700	1,000	1,000	2,594	4,462	2,284	1,204
80%	1,375	1,200	1,307	960	1,200	1,000	1,000	1,000	2,234	3,529	1,828	1,008
90%	1,125	1,124	917	900	900	800	758	1,000	1,717	2,921	1,435	1,000
Long Term												
Full Simulation Period ^d	2,552	2,020	2,829	4,460	5,436	6,072	3,040	3,527	3,427	6,794	4,604	4,815
Water Year Types ^{b,c}												
Wet (32%)	3,793	2,993	4,430	10,639	12,543	13,565	6,589	6,935	3,757	7,169	5,750	8,775
Above Normal (16%)	3,341	2,144	2,438	2,389	4,111	6,137	2,040	2,013	2,156	8,856	7,636	7,462
Below Normal (13%)	1,737	1,651	1,622	1,595	1,589	1,885	1,279	1,986	2,685	8,689	5,627	2,419
Dry (24%)	1,539	1,400	2,408	1,360	1,514	1,299	1,136	1,843	4,187	5,983	1,886	1,330
Critical (15%)	1,442	1,146	1,591	1,108	1,538	1,560	1,225	2,000	3,503	3,359	2,424	1,375

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,897	15,118	20,347	17,187	8,173	5,184	4,597	9,724	8,062	9,464
20%	4,000	2,500	3,201	2,295	13,455	11,258	3,512	3,407	4,153	9,229	7,681	8,966
30%	3,899	2,070	2,080	1,700	6,699	8,391	2,080	2,923	3,853	8,954	7,435	7,688
40%	2,026	1,847	1,799	1,700	2,136	5,062	1,449	2,695	3,444	8,590	6,678	5,886
50%	1,889	1,700	1,700	1,700	1,700	2,924	1,000	2,013	3,242	8,346	5,648	3,771
60%	1,785	1,700	1,700	1,700	1,700	1,700	1,000	1,468	3,003	7,917	4,296	1,672
70%	1,508	1,423	1,700	1,464	1,700	1,700	1,000	1,044	2,753	6,704	2,685	1,163
80%	1,241	1,200	1,233	980	1,200	1,000	1,000	1,000	2,220	4,279	1,959	1,013
90%	1,111	1,078	1,064	900	900	800	750	1,000	1,755	3,072	1,559	1,000
Long Term												
Full Simulation Period ^d	2,388	1,948	2,767	4,856	6,308	7,003	2,978	2,697	3,212	7,226	5,044	4,564
Water Year Types ^{b,c}												
Wet (32%)	3,746	2,893	4,444	11,756	14,581	15,416	6,567	4,161	2,774	7,529	6,080	8,167
Above Normal (16%)	2,603	1,918	2,201	2,594	5,592	8,112	1,868	1,845	2,554	9,156	7,739	7,027
Below Normal (13%)	1,718	1,663	1,604	1,597	1,929	2,185	1,236	2,276	3,065	8,900	5,868	2,446
Dry (24%)	1,563	1,393	2,293	1,360	1,452	1,296	1,061	1,961	3,894	6,669	3,071	1,370
Critical (15%)	1,204	1,120	1,604	1,170	1,263	1,498	1,195	2,059	3,872	3,875	2,410	1,354

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	-90	1,358	2,529	2,882	-235	-3,113	-967	75	81	-18
20%	0	0	-100	271	2,730	2,329	-85	-1,993	-88	60	180	-46
30%	-101	-357	-18	0	2,414	1,658	-535	-261	-103	258	351	-199
40%	-1,000	-32	-57	0	436	387	-198	122	31	305	577	-1,455
50%	-38	0	0	0	0	1,224	-152	-76	94	345	908	-17
60%	-74	0	0	0	0	0	0	48	183	727	1,448	-77
70%	-192	37	0	264	0	0	0	44	159	2,242	401	-41
80%	-134	0	-75	20	0	0	0	0	-14	749	131	5
90%	-14	-46	147	0	0	0	-8	0	39	151	124	0
Long Term												
Full Simulation Period ^d	-163	-71	-62	396	871	930	-63	-830	-215	433	440	-251
Water Year Types ^{b,c}												
Wet (32%)	-47	-100	13	1,117	2,038	1,851	-22	-2,774	-982	360	330	-608
Above Normal (16%)	-738	-226	-237	205	1,480	1,975	-172	-168	397	300	103	-435
Below Normal (13%)	-19	12	-18	2	341	300	-43	291	379	210	241	27
Dry (24%)	24	-6	-116	0	-61	-3	-75	118	-293	685	1,184	40
Critical (15%)	-238	-26	13	61	-275	-62	-30	59	369	516	-14	-21

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-4. Feather River Flow downstream of Thermalito, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,614	2,500	5,661	13,863	20,147	14,824	8,408	8,262	6,452	9,821	8,202	3,339
20%	3,162	2,500	3,972	5,104	11,464	11,020	3,656	5,390	5,207	9,274	7,904	2,317
30%	2,730	2,500	2,740	1,700	6,134	7,638	2,578	3,647	4,519	8,938	7,664	1,798
40%	2,132	1,866	1,763	1,700	2,678	5,038	1,713	3,263	4,250	8,521	7,069	1,550
50%	1,962	1,700	1,700	1,700	1,700	2,486	1,184	2,476	3,916	8,097	5,103	1,285
60%	1,846	1,700	1,700	1,700	1,700	1,700	1,000	1,796	3,593	7,459	3,227	1,093
70%	1,700	1,423	1,700	1,216	1,700	1,700	1,000	1,263	3,247	4,728	2,231	1,003
80%	1,354	1,205	1,307	960	1,200	1,000	1,000	1,000	2,877	3,826	1,882	1,000
90%	1,125	1,123	916	900	900	800	758	1,000	2,223	3,289	1,504	1,000
Long Term												
Full Simulation Period ^d	2,209	2,019	3,293	4,898	5,900	6,528	3,070	3,758	4,041	6,964	4,995	1,750
Water Year Types ^{b,c}												
Wet (32%)	2,938	2,902	5,356	11,938	13,386	14,130	6,587	6,982	4,022	7,012	6,659	1,624
Above Normal (16%)	2,760	2,311	3,210	2,388	4,869	7,728	2,226	2,315	2,727	8,643	7,594	2,295
Below Normal (13%)	1,753	1,638	1,622	1,595	2,339	2,064	1,279	2,382	3,773	9,022	6,550	2,441
Dry (24%)	1,565	1,415	2,596	1,401	1,513	1,310	1,145	2,351	5,245	6,772	1,858	1,407
Critical (15%)	1,525	1,149	1,603	1,218	1,376	1,545	1,212	1,940	3,742	3,475	2,377	1,372

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,535	2,500	5,433	15,905	20,671	17,223	8,174	5,210	5,522	9,853	8,183	3,369
20%	3,275	2,500	3,440	6,080	13,737	12,434	3,496	4,354	5,125	9,181	7,851	2,393
30%	2,648	1,942	2,224	2,015	9,247	8,413	2,074	3,647	4,806	8,857	7,642	2,051
40%	2,134	1,857	1,700	1,700	3,595	6,198	1,476	3,140	4,505	8,424	6,909	1,710
50%	1,901	1,700	1,700	1,700	1,700	3,329	1,079	2,637	4,244	7,875	5,386	1,371
60%	1,865	1,700	1,700	1,700	1,700	1,700	1,000	2,193	3,743	6,787	3,324	1,174
70%	1,508	1,407	1,700	1,249	1,700	1,700	1,000	1,645	3,488	4,837	2,551	1,010
80%	1,204	1,200	1,364	960	1,200	1,000	1,000	1,000	3,155	3,937	2,042	1,000
90%	1,125	1,123	1,066	900	900	800	750	1,000	2,416	3,137	1,727	1,000
Long Term												
Full Simulation Period ^d	2,198	1,992	3,139	5,398	6,885	7,405	2,980	3,095	4,086	6,873	5,031	1,787
Water Year Types ^{b,c}												
Wet (32%)	3,030	2,878	4,987	13,357	15,196	15,662	6,567	4,521	3,452	6,620	6,365	1,960
Above Normal (16%)	2,679	2,163	3,009	2,745	6,804	9,764	1,868	2,381	3,485	8,426	7,361	2,358
Below Normal (13%)	1,870	1,644	1,604	1,684	3,373	2,594	1,246	3,031	4,473	8,884	6,143	1,955
Dry (24%)	1,574	1,438	2,590	1,392	1,452	1,333	1,075	2,346	4,979	6,959	2,784	1,350
Critical (15%)	1,211	1,129	1,598	1,108	1,242	1,492	1,182	2,086	4,268	3,751	2,341	1,366

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-79	0	-228	2,041	524	2,399	-234	-3,052	-930	32	-19	30
20%	113	0	-532	976	2,272	1,414	-160	-1,036	-82	-92	-53	77
30%	-81	-558	-516	315	3,113	775	-504	0	287	-82	-22	253
40%	2	-9	-63	0	917	1,160	-237	-122	255	-97	-159	160
50%	-61	0	0	0	0	843	-105	161	327	-222	283	86
60%	20	0	0	0	0	0	0	397	150	-673	98	81
70%	-192	-16	0	33	0	0	0	382	241	109	319	7
80%	-150	-5	57	0	0	0	0	0	278	111	159	0
90%	0	0	149	0	0	0	-8	0	192	-153	223	0
Long Term												
Full Simulation Period ^d	-12	-27	-154	500	985	877	-89	-662	46	-91	36	37
Water Year Types ^{b,c}												
Wet (32%)	92	-24	-370	1,419	1,810	1,532	-20	-2,461	-569	-393	-294	336
Above Normal (16%)	-81	-148	-201	357	1,936	2,036	-358	66	759	-217	-232	63
Below Normal (13%)	117	5	-19	89	1,034	529	-33	649	700	-138	-406	-486
Dry (24%)	9	23	-6	-9	-61	23	-71	-5	-266	187	926	-56
Critical (15%)	-315	-20	-5	-110	-134	-52	-30	146	526	276	-36	-6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

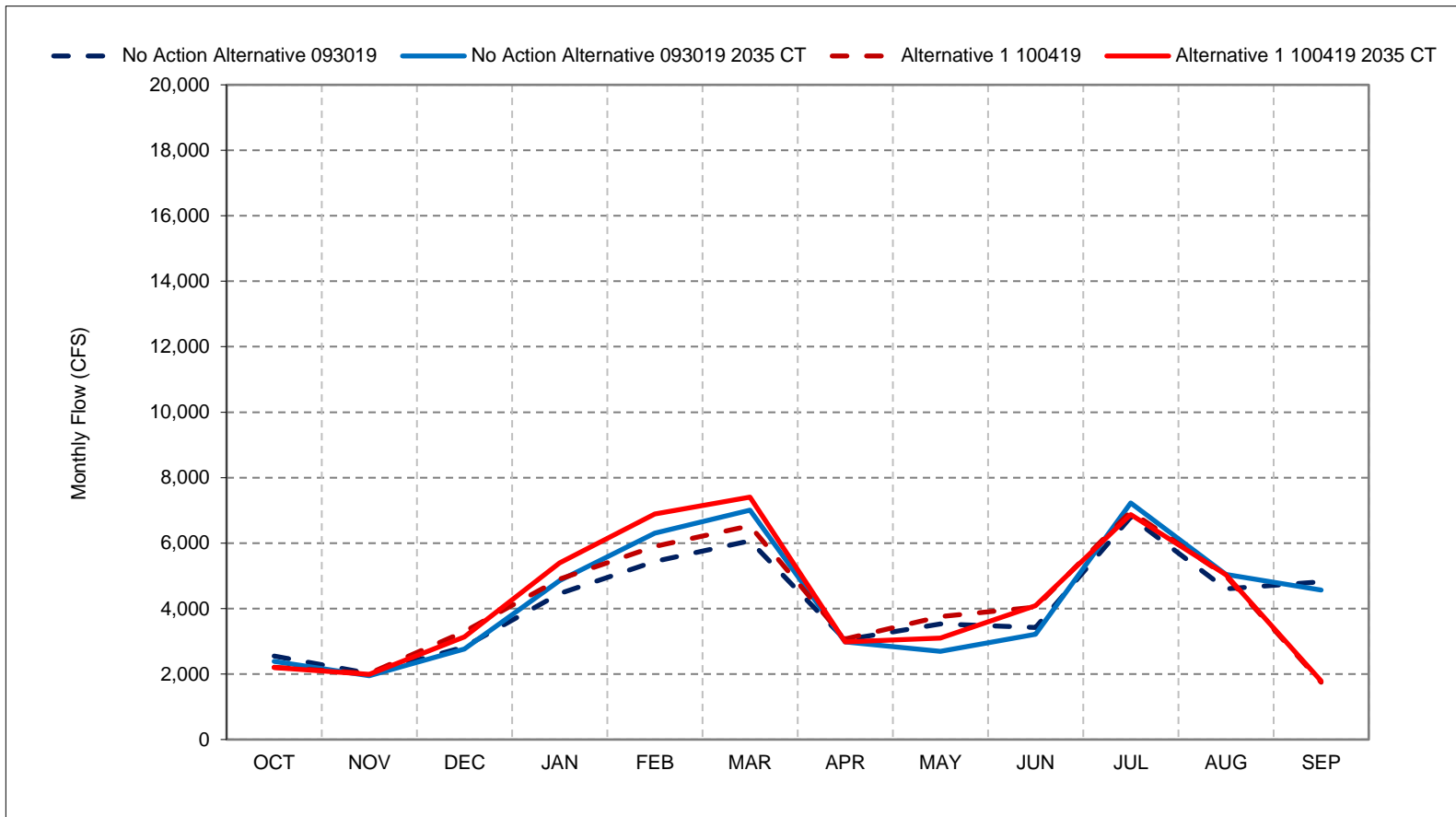
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 21-1. Feather River Flow downstream of Thermalito, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

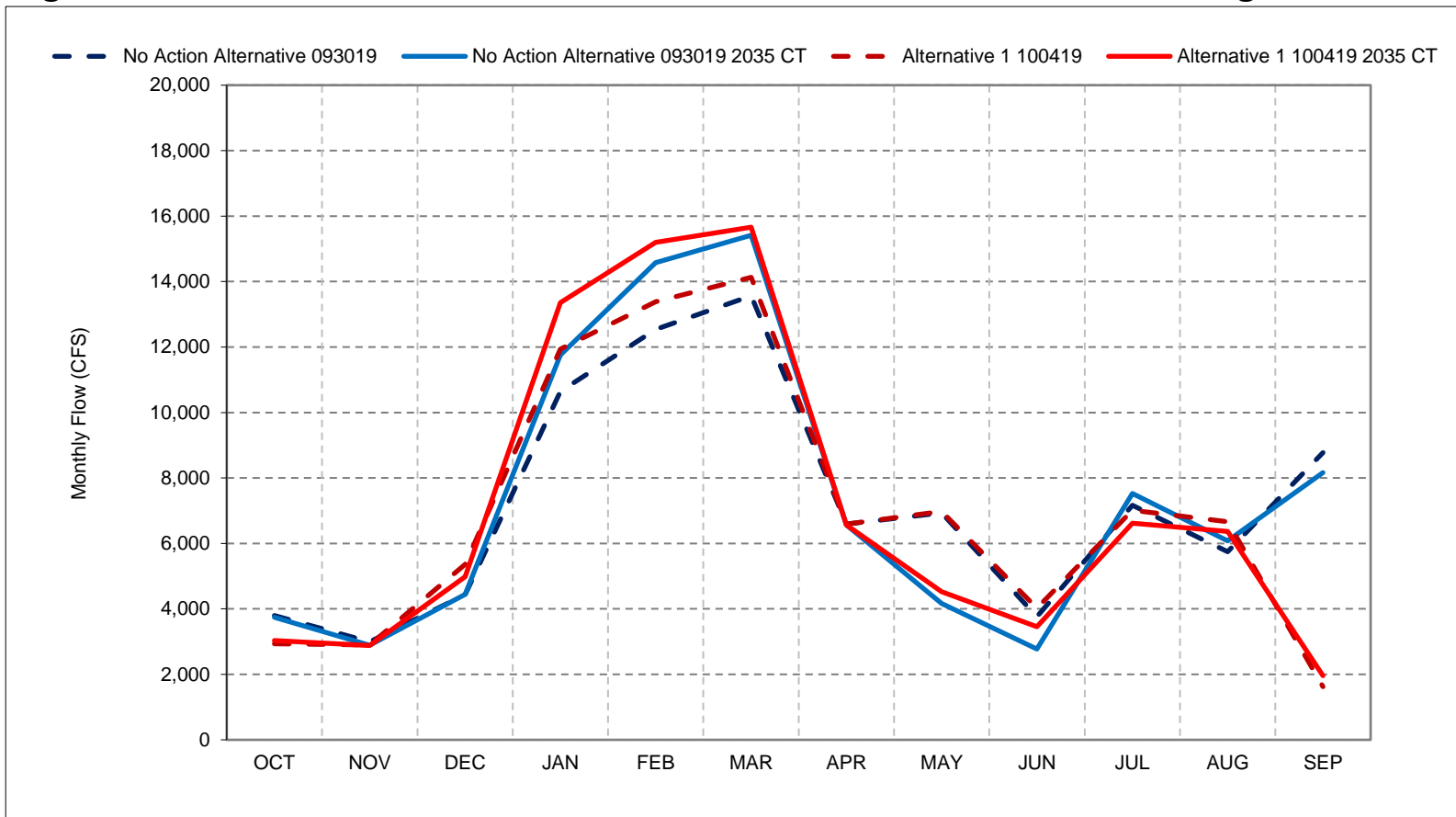
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-2. Feather River Flow downstream of Thermalito, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

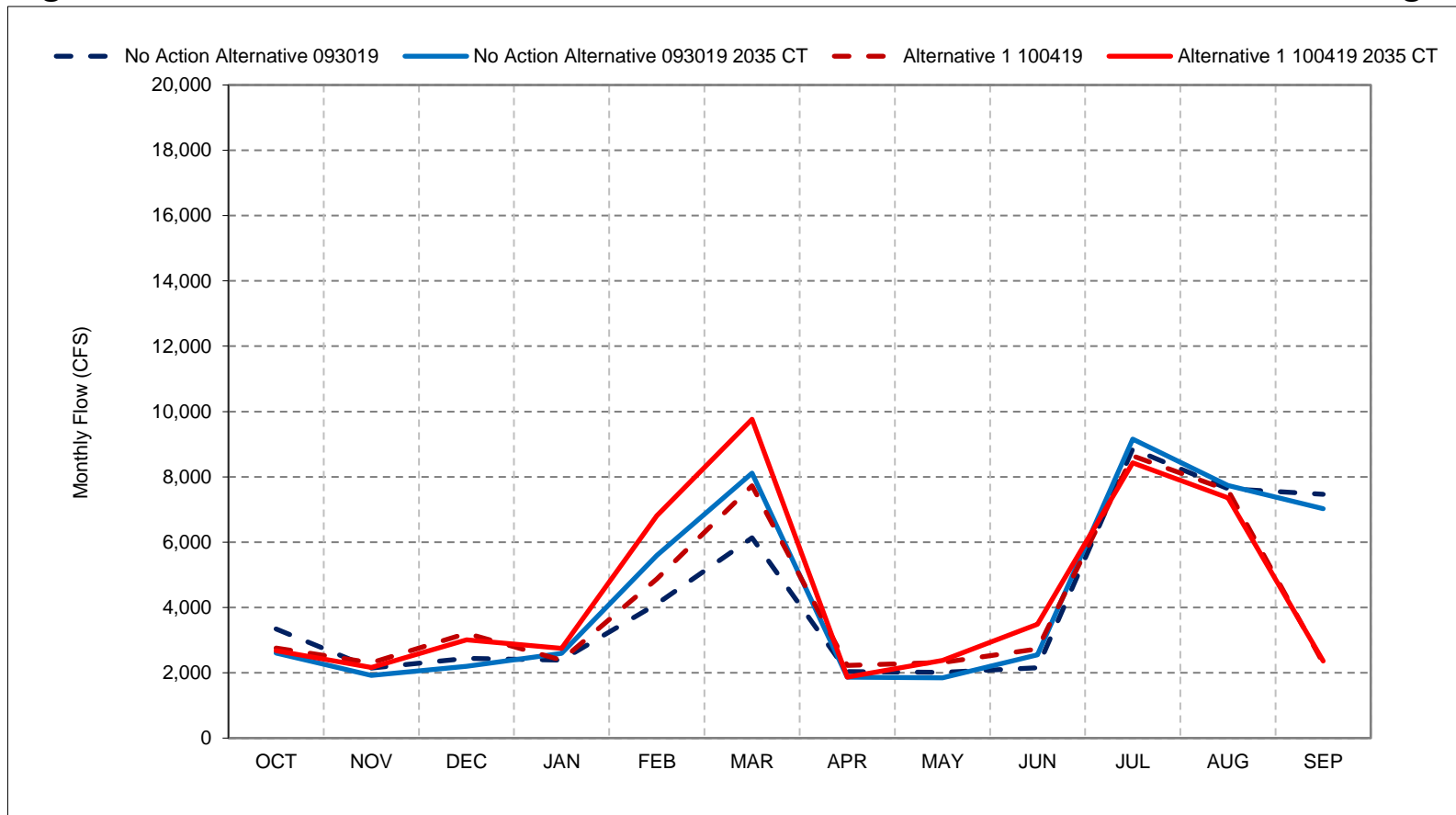
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-3. Feather River Flow downstream of Thermalito, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

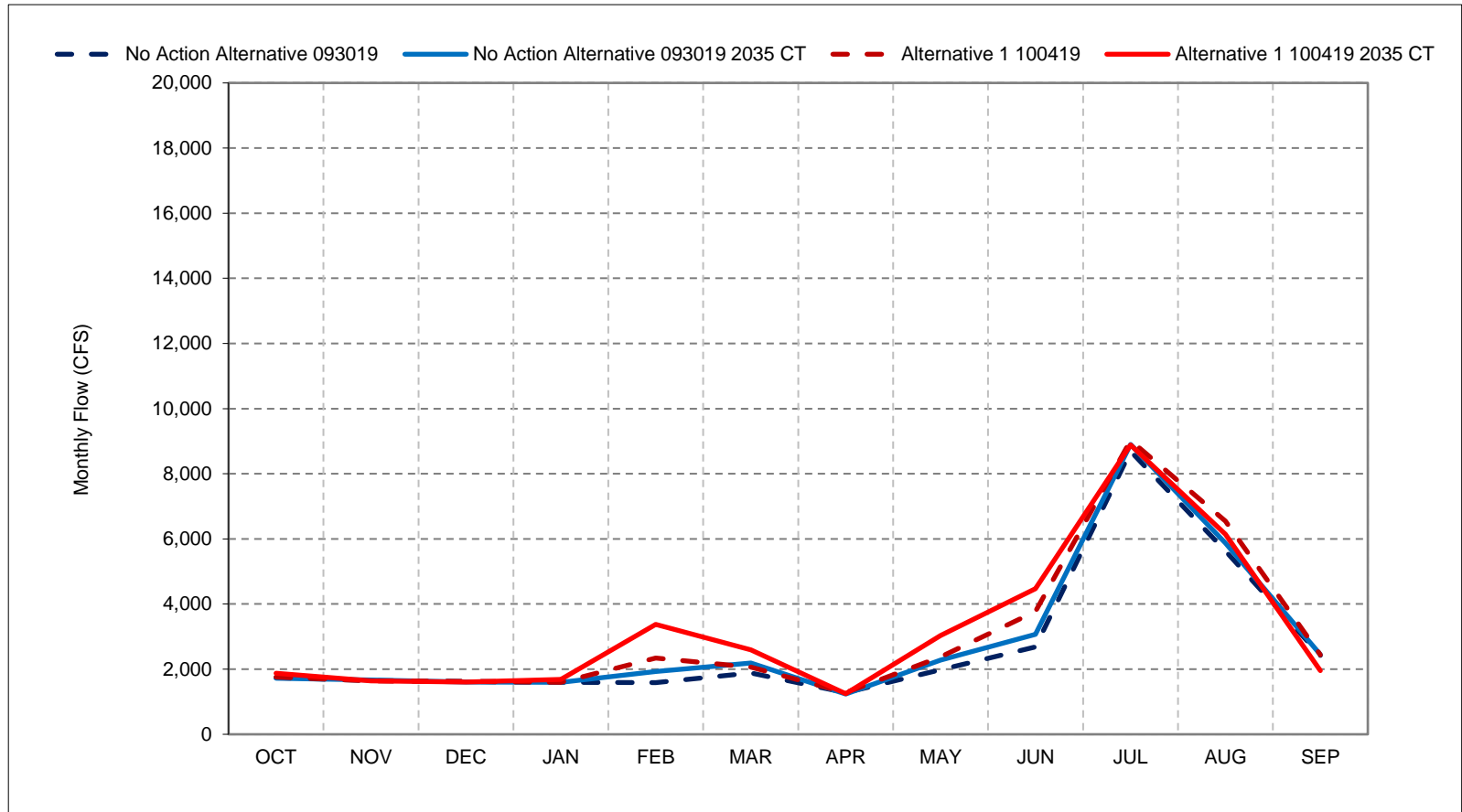
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-4. Feather River Flow downstream of Thermalito, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

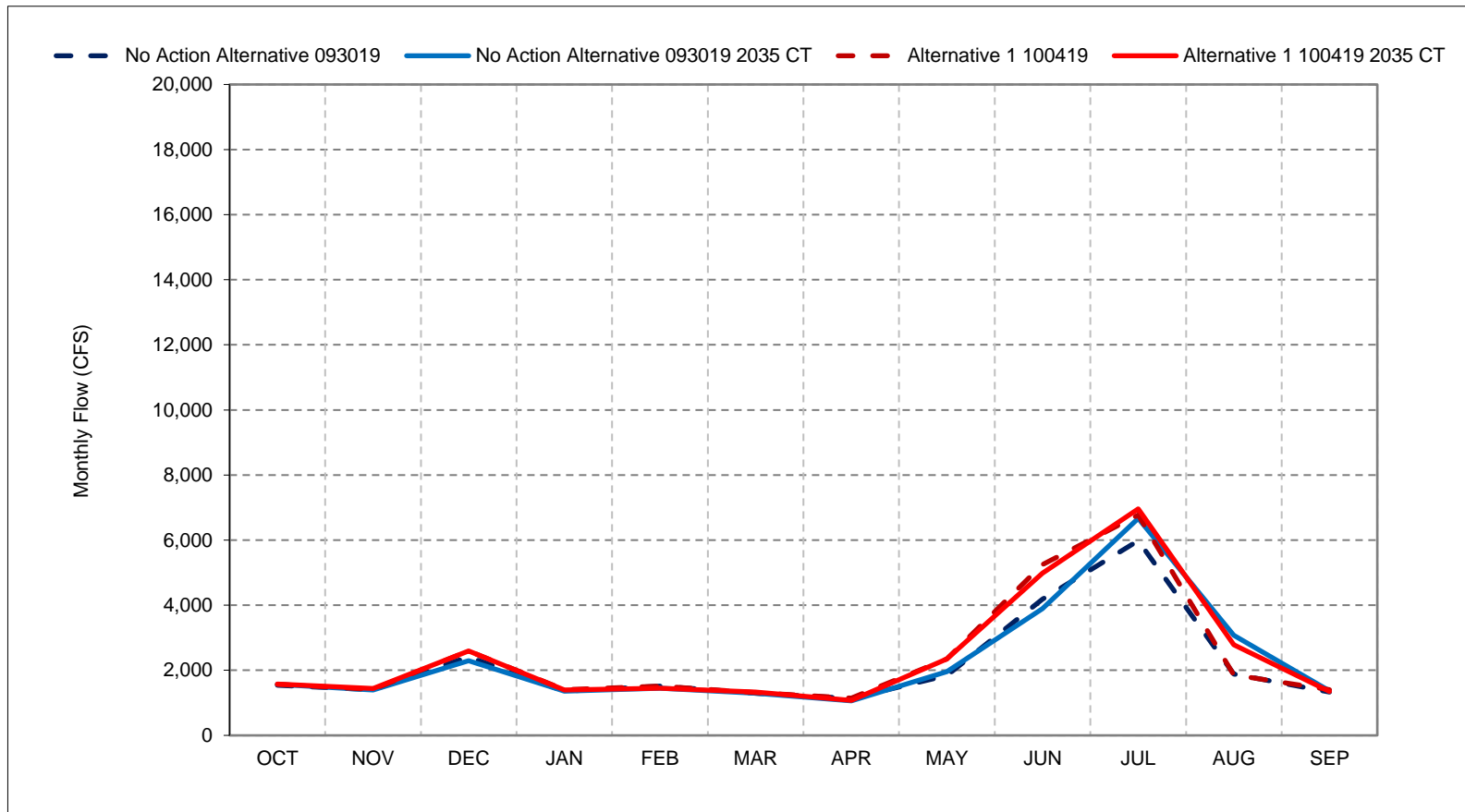
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-5. Feather River Flow downstream of Thermalito, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

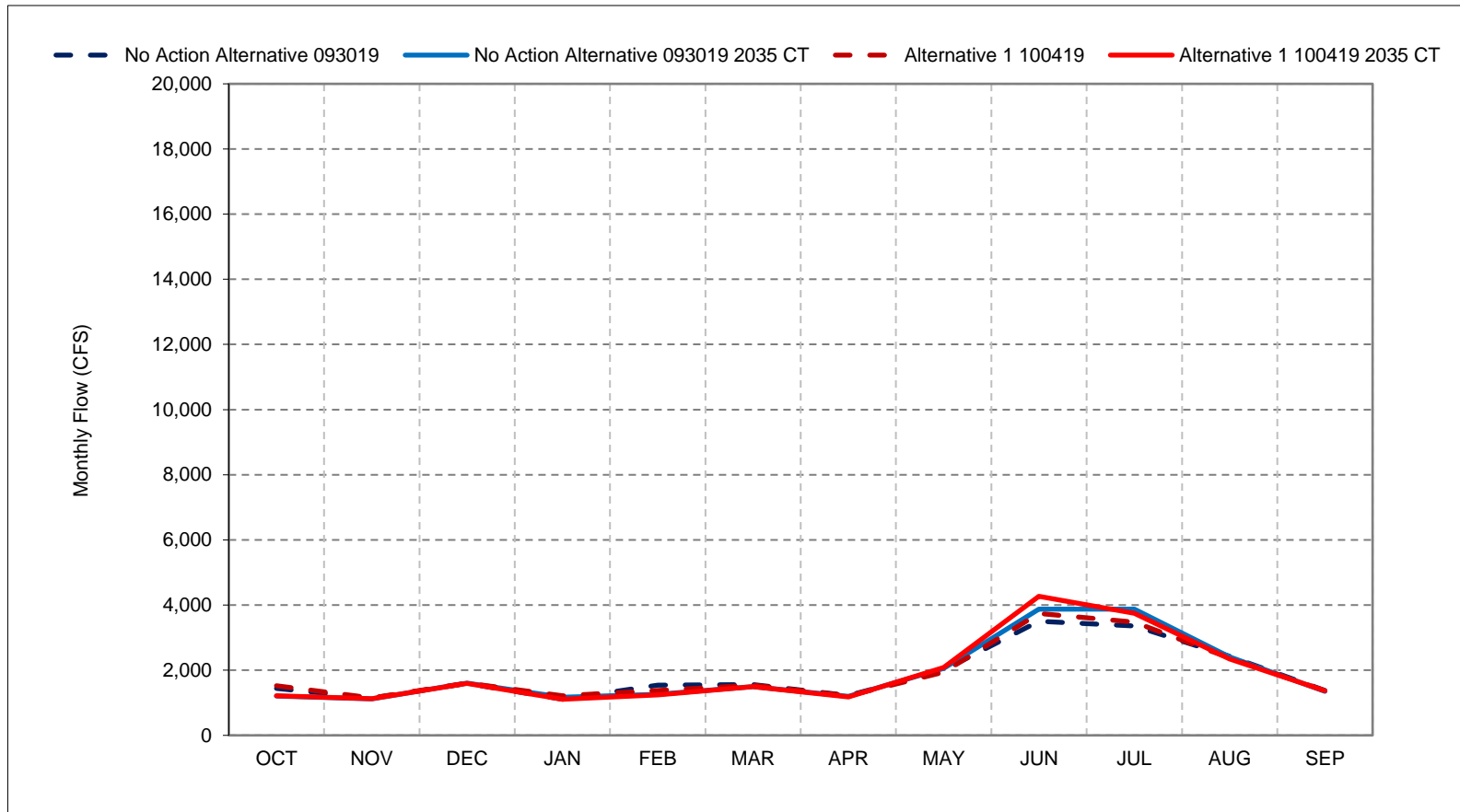
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-6. Feather River Flow downstream of Thermalito, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

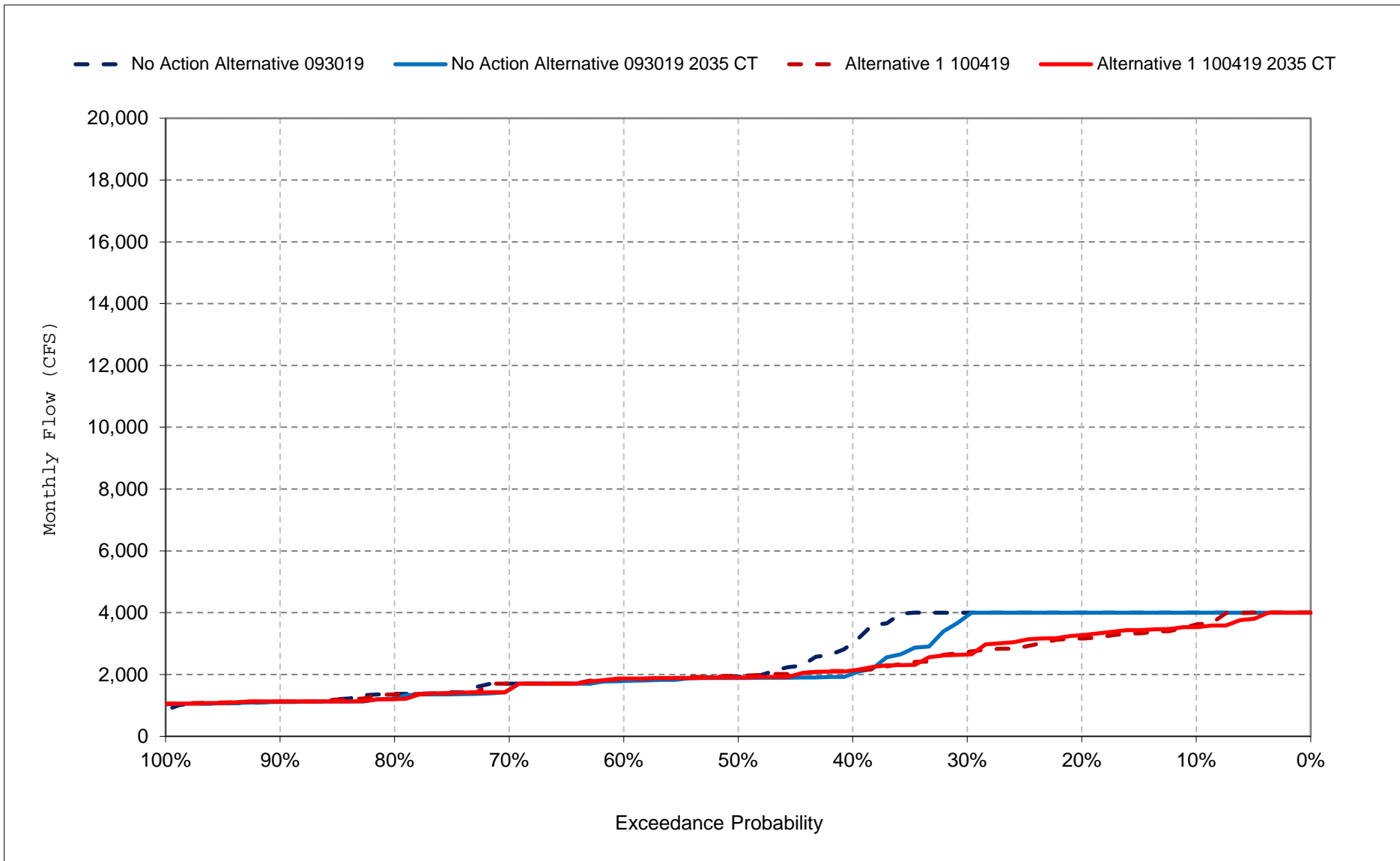
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

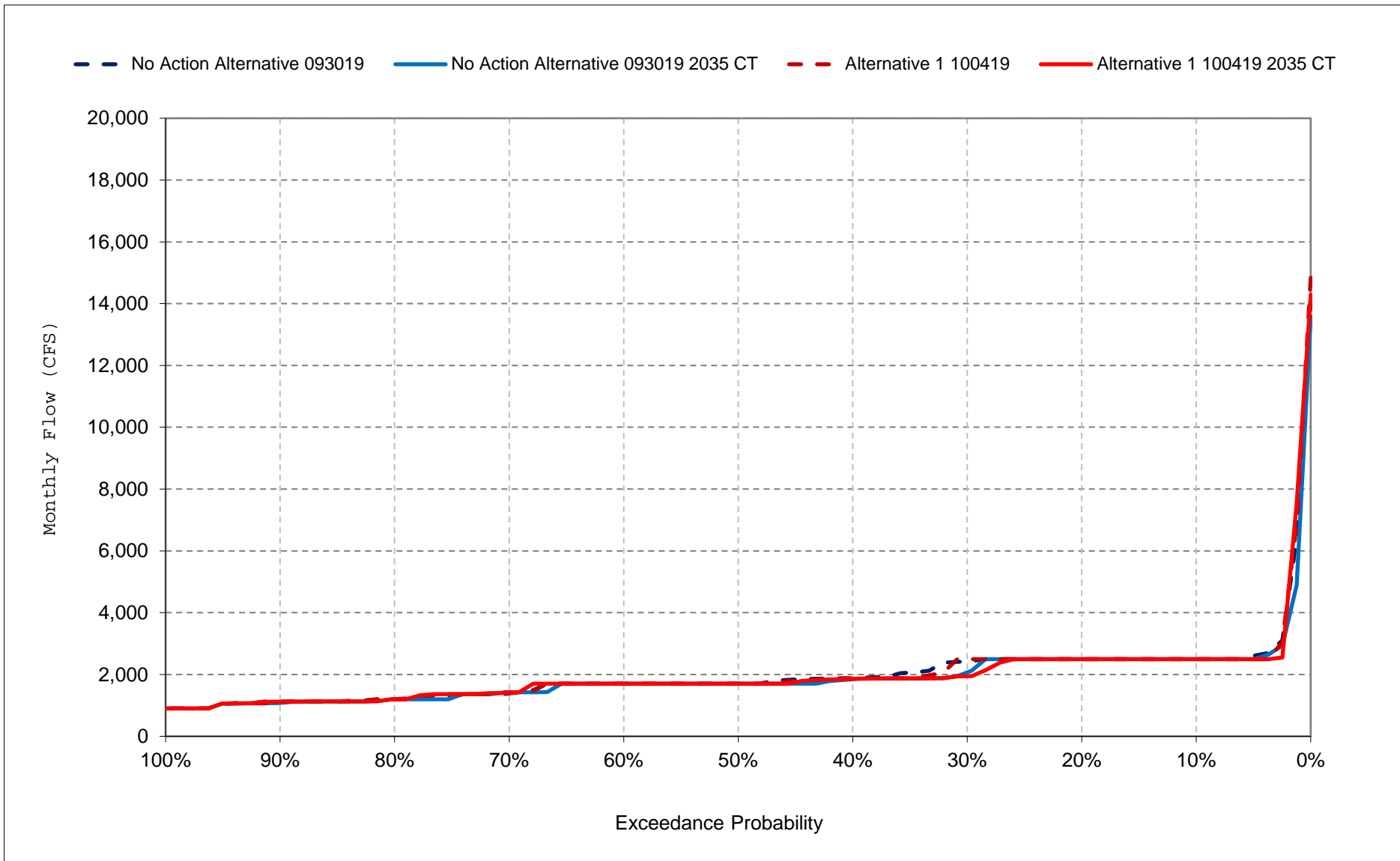
Figure 21-7. Feather River Flow downstream of Thermalito, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

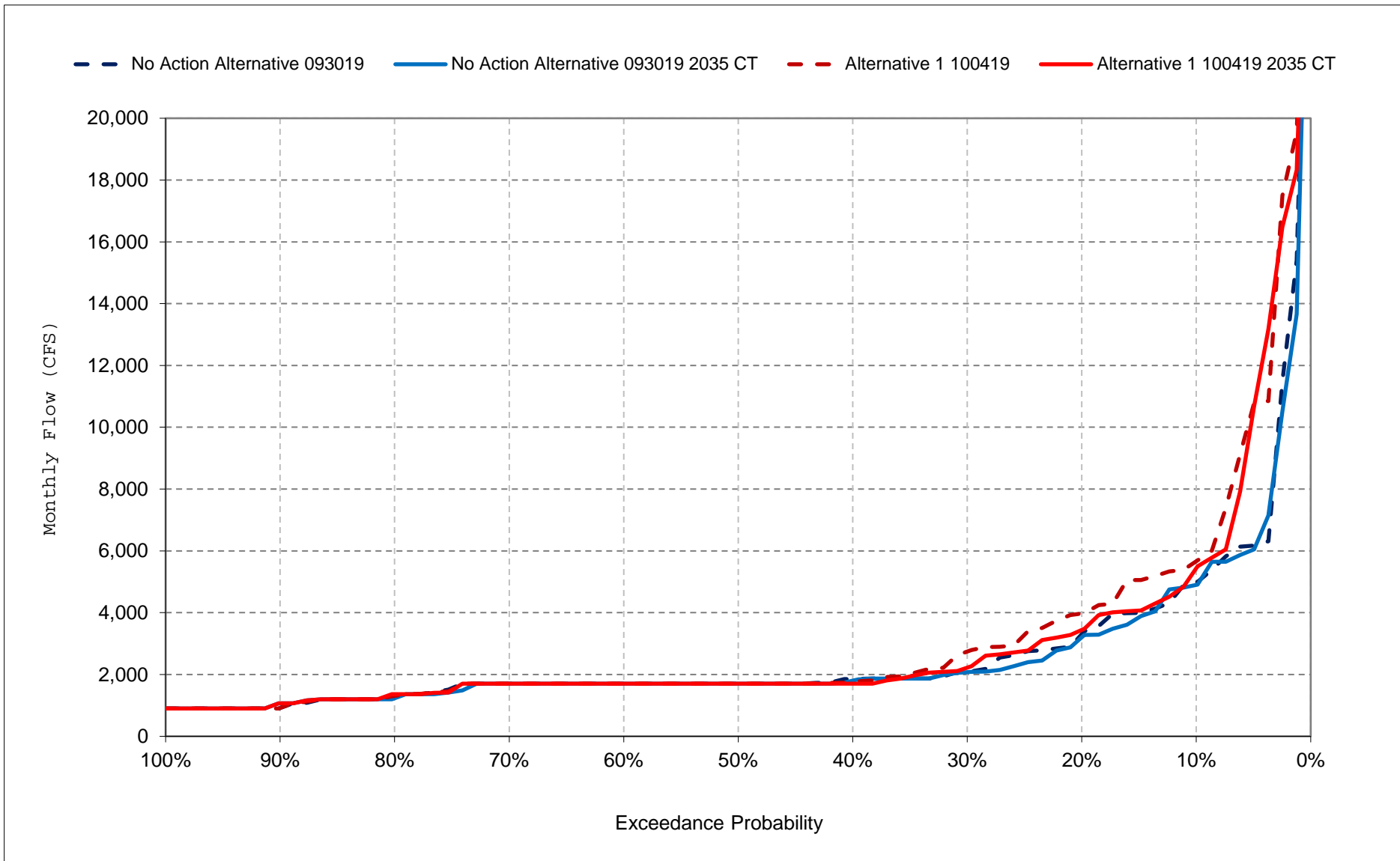
Figure 21-8. Feather River Flow downstream of Thermalito, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

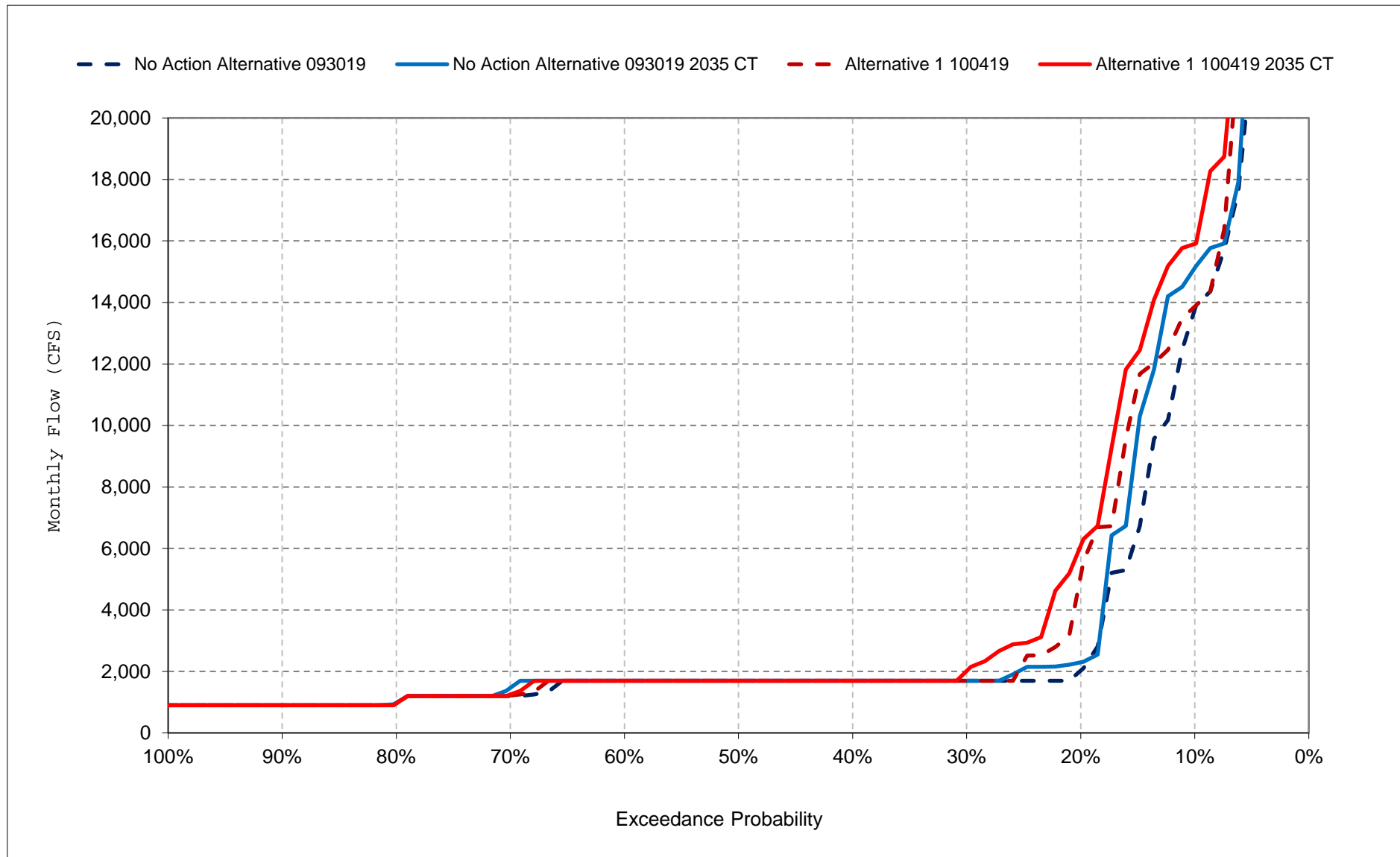
Figure 21-9. Feather River Flow downstream of Thermalito, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

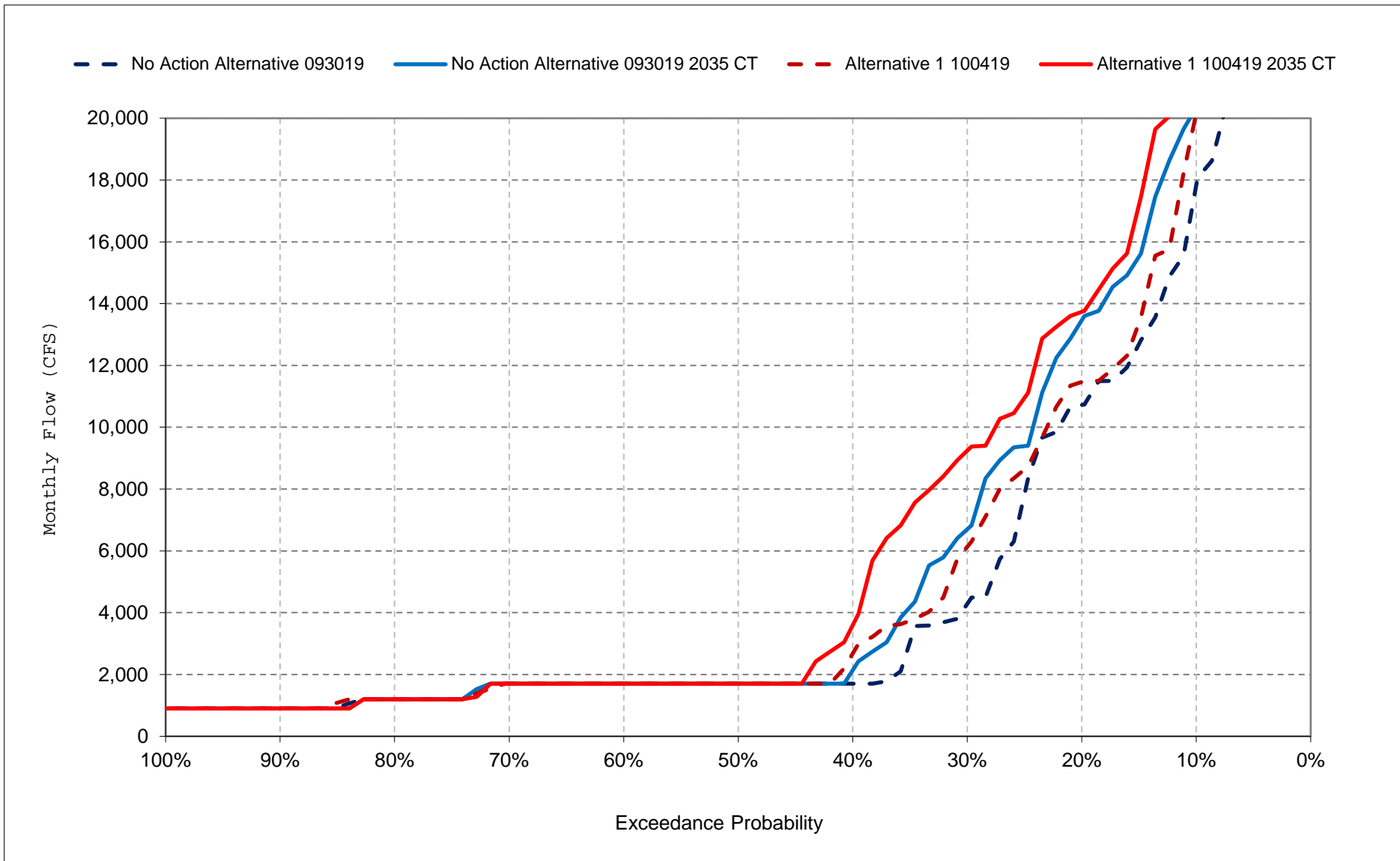
Figure 21-10. Feather River Flow downstream of Thermalito, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

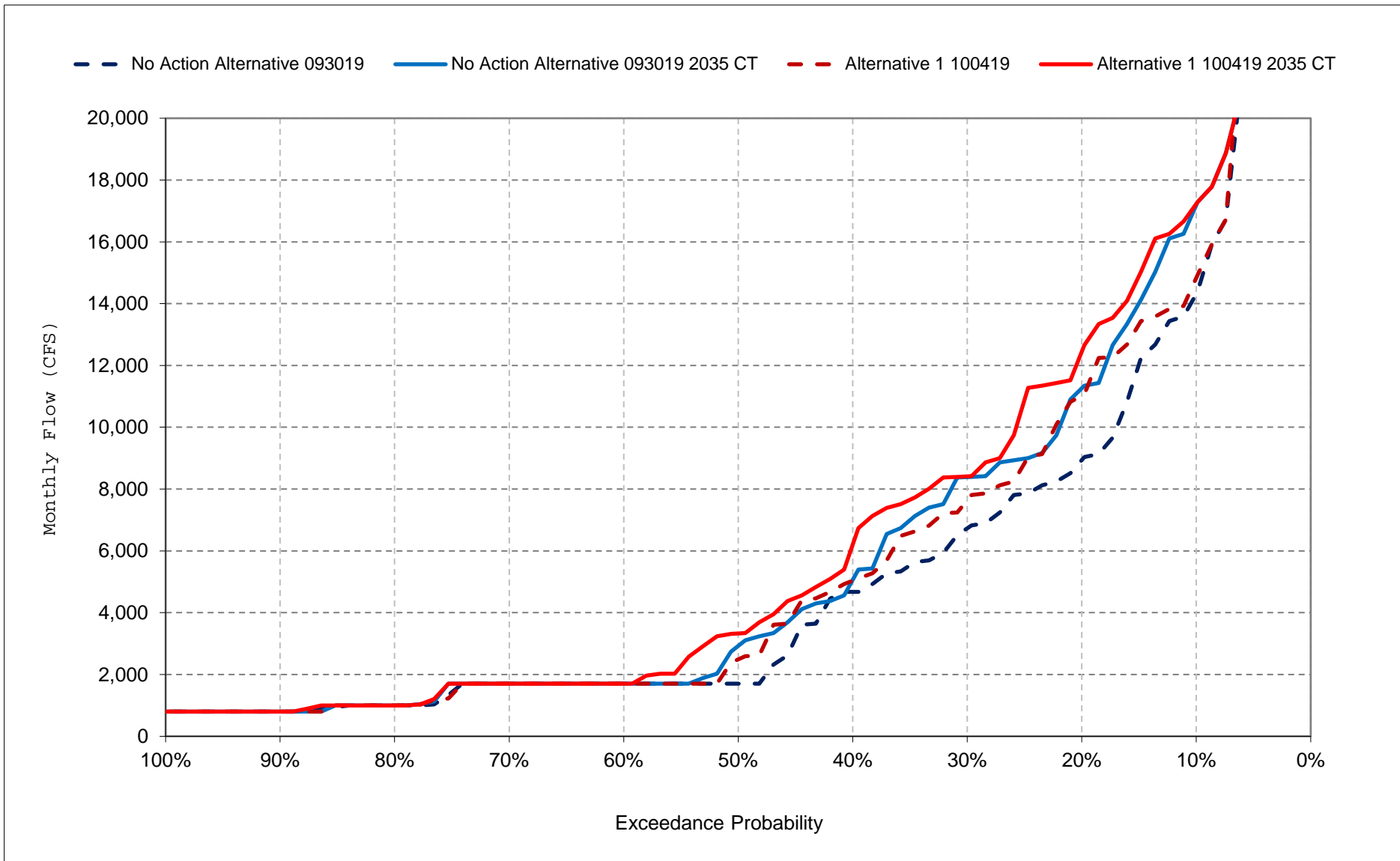
Figure 21-11. Feather River Flow downstream of Thermalito, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

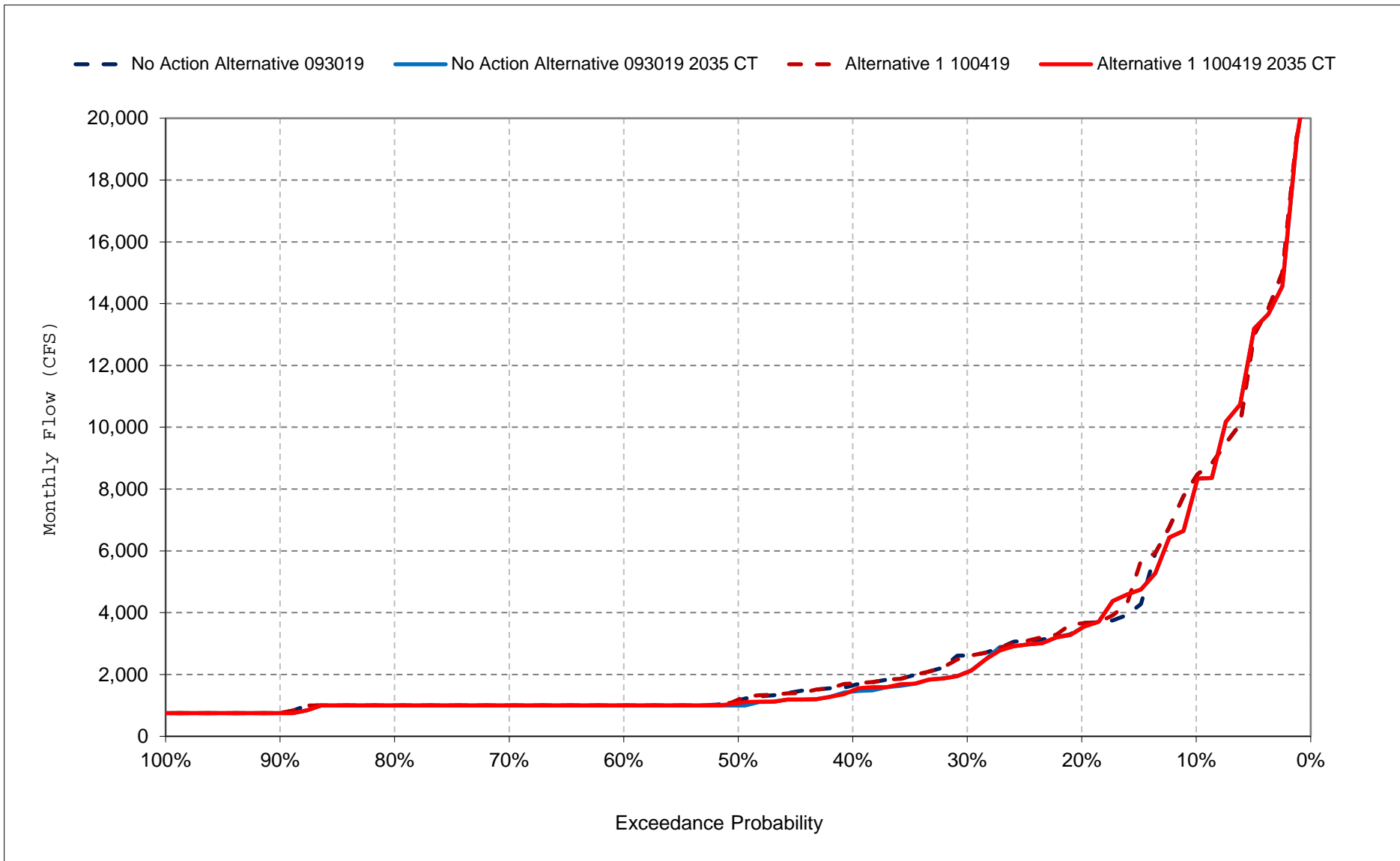
Figure 21-12. Feather River Flow downstream of Thermalito, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

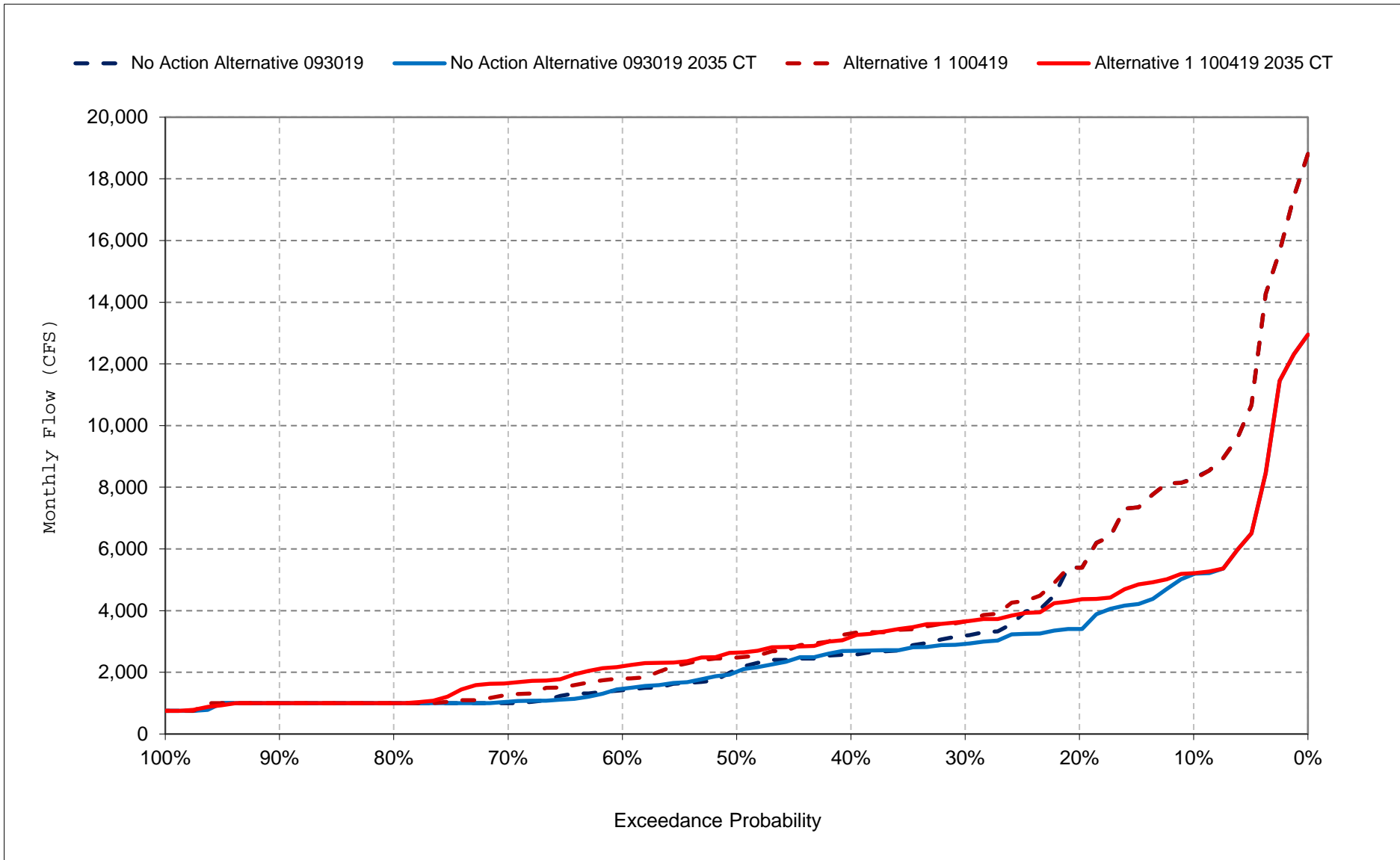
Figure 21-13. Feather River Flow downstream of Thermalito, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

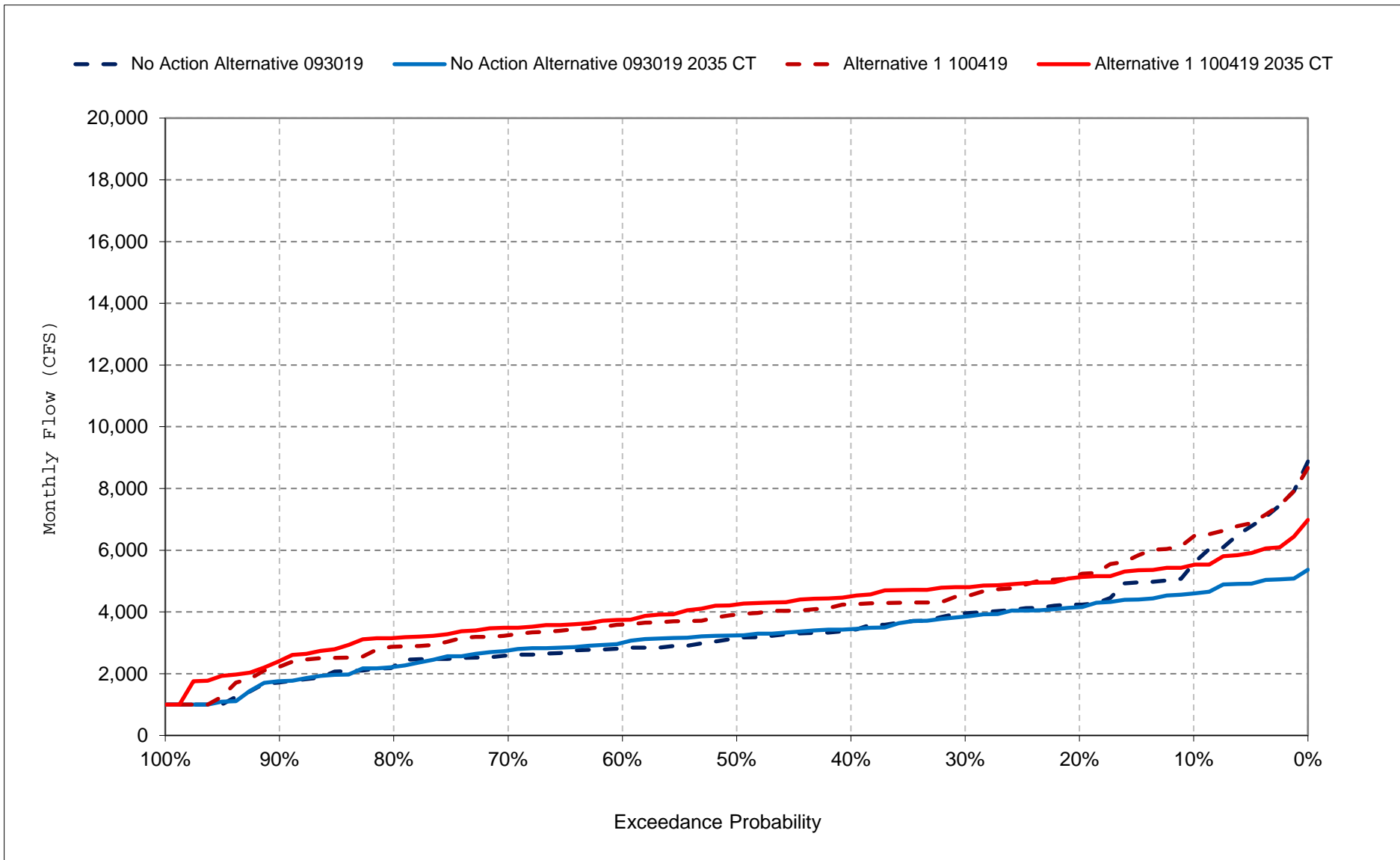
Figure 21-14. Feather River Flow downstream of Thermalito, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

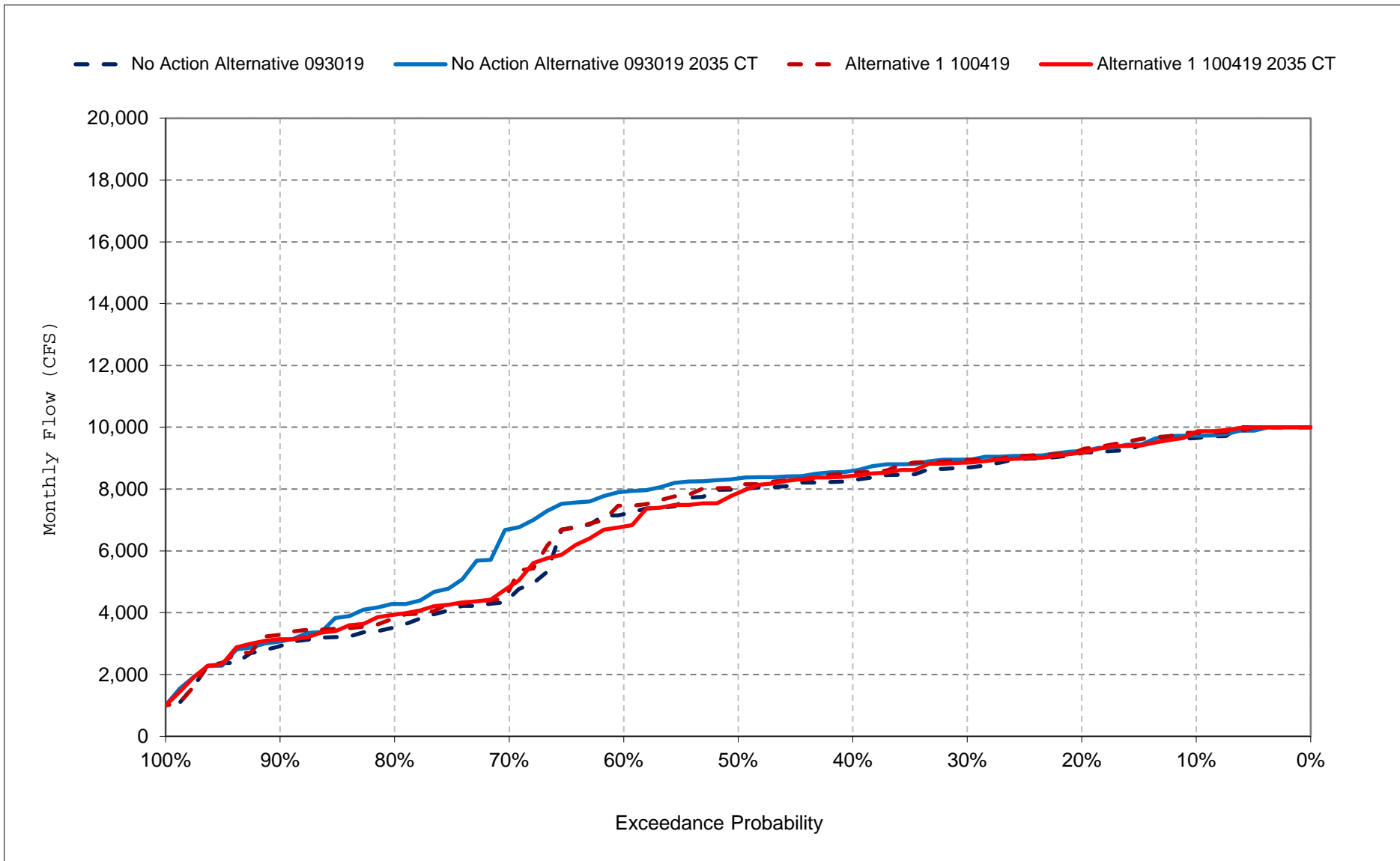
Figure 21-15. Feather River Flow downstream of Thermalito, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

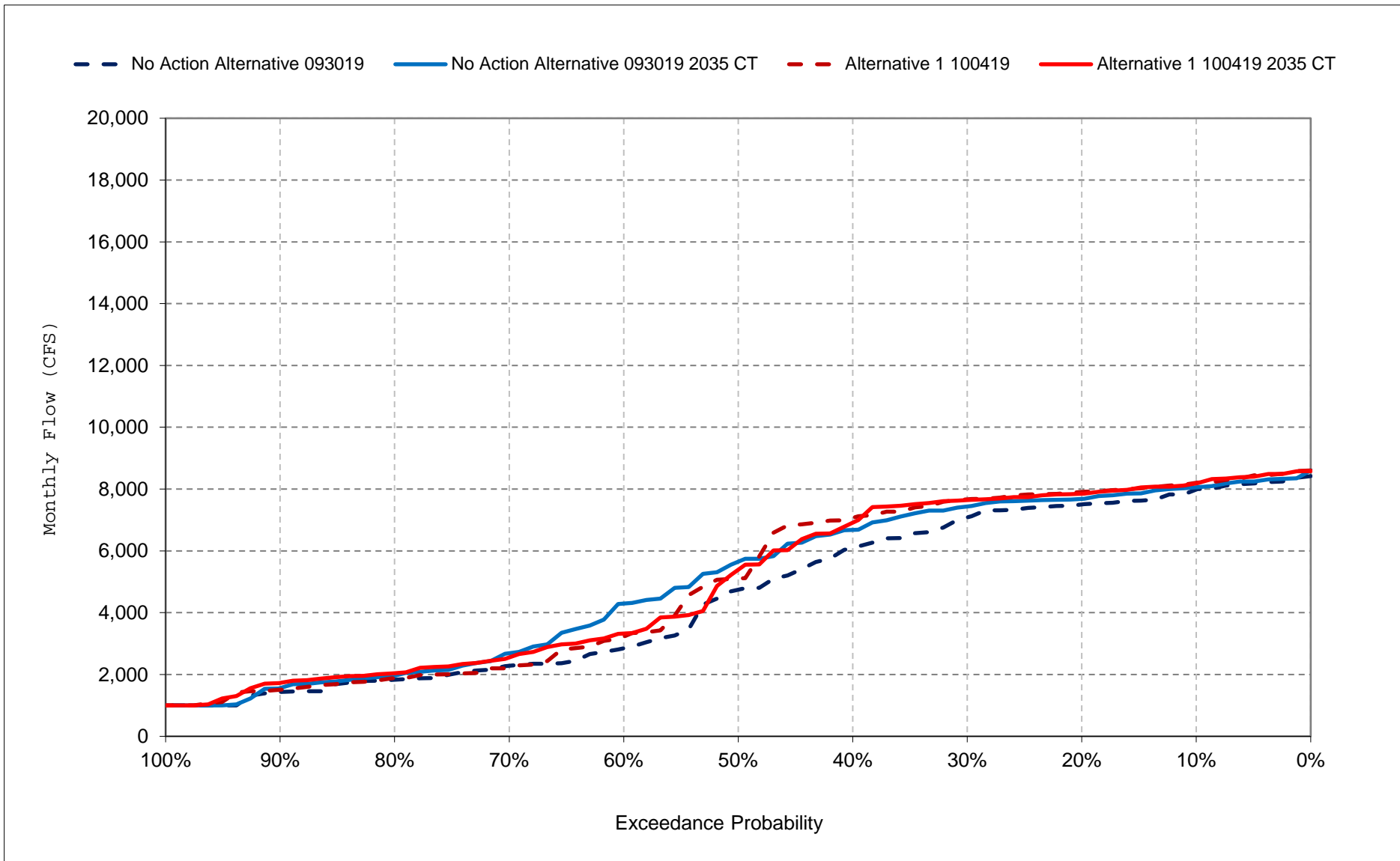
Figure 21-16. Feather River Flow downstream of Thermalito, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

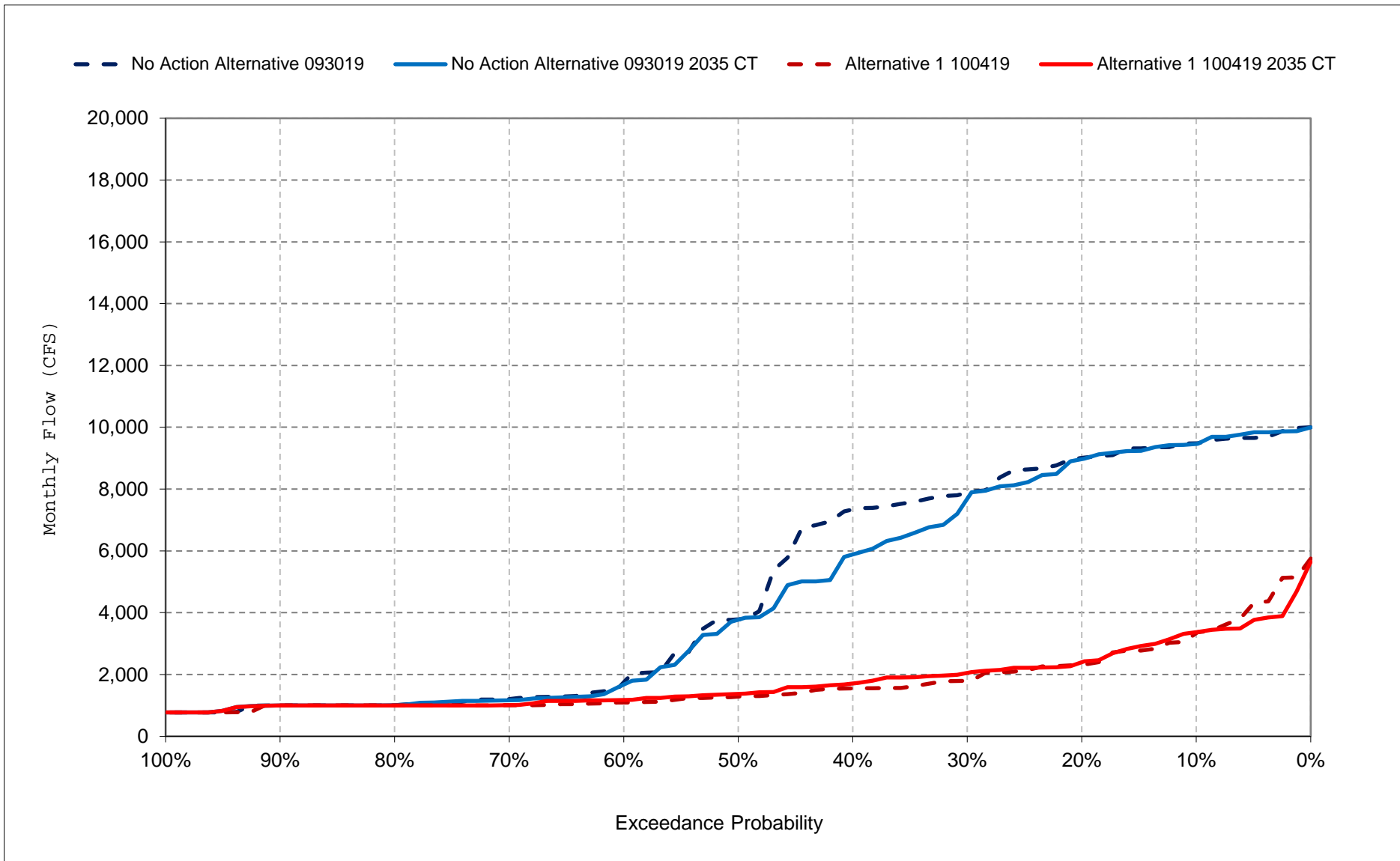
Figure 21-17. Feather River Flow downstream of Thermalito, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 21-18. Feather River Flow downstream of Thermalito, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-1. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,841	4,662	10,528	23,578	33,695	31,621	20,963	15,602	9,008	9,734	8,637	11,410
20%	4,467	3,131	6,550	16,882	24,493	21,216	11,923	10,226	6,218	9,416	8,382	11,009
30%	3,945	2,929	5,010	10,855	16,466	13,587	8,210	6,585	5,121	8,943	8,018	9,899
40%	3,420	2,571	3,865	8,535	11,070	11,523	6,523	4,917	4,579	8,673	7,243	8,954
50%	2,579	2,404	3,243	5,369	6,813	8,214	5,721	4,421	3,943	8,083	5,551	6,158
60%	2,232	2,222	2,808	4,544	5,321	5,661	4,104	4,048	3,678	7,177	3,158	3,107
70%	1,977	1,875	2,017	3,714	4,239	4,149	3,602	3,650	3,388	5,082	2,544	2,832
80%	1,730	1,587	1,717	2,904	2,682	3,230	3,027	3,061	3,133	3,183	2,418	2,609
90%	1,571	1,365	1,206	2,272	1,863	2,301	2,800	2,800	2,672	2,666	2,128	2,531
Long Term												
Full Simulation Period ^d	3,055	2,968	5,637	11,560	13,509	13,327	8,700	7,307	5,337	6,882	5,361	6,517
Water Year Types ^{b,c}												
Wet (32%)	4,179	3,815	8,315	23,745	27,631	25,039	16,022	13,871	8,218	7,862	6,919	10,813
Above Normal (16%)	3,873	3,141	4,196	11,530	13,471	18,282	9,162	5,610	3,693	8,761	8,442	9,306
Below Normal (13%)	3,114	2,600	4,245	4,186	6,827	5,784	4,598	4,474	3,624	8,723	6,289	4,261
Dry (24%)	1,896	2,928	6,172	4,373	4,915	5,508	4,578	4,086	4,637	5,775	2,556	3,092
Critical (15%)	1,612	1,349	1,783	3,927	3,398	2,530	2,965	2,887	3,615	2,883	2,475	1,968

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,295	4,667	13,075	23,855	34,046	32,487	20,965	15,604	9,459	9,866	9,050	5,757
20%	3,747	3,055	6,412	19,753	25,546	21,204	12,528	10,222	7,056	9,545	8,684	4,464
30%	3,094	2,885	5,074	11,475	17,165	16,317	8,375	6,916	5,836	9,165	8,341	3,756
40%	2,669	2,573	3,972	8,551	11,635	12,859	6,523	5,379	5,168	8,719	8,080	3,160
50%	2,410	2,405	3,353	5,372	7,517	8,334	5,724	4,917	4,899	8,161	6,598	2,987
60%	2,072	2,199	2,861	4,564	5,369	5,708	4,110	4,416	4,637	7,475	3,304	2,778
70%	1,883	1,851	1,955	3,851	4,263	4,284	3,609	3,914	4,275	5,472	2,588	2,591
80%	1,720	1,606	1,723	2,940	2,655	3,227	3,083	3,634	3,706	3,809	2,276	2,561
90%	1,595	1,323	1,207	2,435	1,985	2,298	2,800	2,823	3,090	2,859	1,976	2,355
Long Term												
Full Simulation Period ^d	2,725	2,966	6,101	12,048	14,038	13,835	8,730	7,541	5,948	7,021	5,656	3,417
Water Year Types ^{b,c}												
Wet (32%)	3,357	3,724	9,237	25,106	28,552	25,667	16,022	13,923	8,473	7,644	7,635	3,657
Above Normal (16%)	3,317	3,300	4,967	11,545	14,234	19,875	9,341	5,916	4,265	8,513	8,330	4,142
Below Normal (13%)	3,135	2,591	4,249	4,252	7,705	6,037	4,599	4,873	4,714	9,035	7,184	4,254
Dry (24%)	1,924	2,946	6,362	4,461	4,982	5,577	4,590	4,596	5,695	6,559	2,472	3,068
Critical (15%)	1,677	1,340	1,796	4,088	3,278	2,570	2,954	2,830	3,851	2,977	2,379	1,927

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-546	5	2,547	277	350	867	2	1	451	132	413	-5,653
20%	-720	-76	-138	2,871	1,054	-12	605	-4	838	128	302	-6,546
30%	-851	-44	64	620	699	2,730	165	331	715	222	323	-6,143
40%	-751	2	106	16	566	1,337	-1	463	589	47	837	-5,794
50%	-169	1	110	3	704	121	2	496	956	78	1,047	-3,171
60%	-160	-23	52	20	48	47	6	368	959	299	146	-329
70%	-94	-24	-62	137	24	135	7	263	887	389	44	-241
80%	-11	19	6	36	-27	-3	56	573	573	625	-142	-48
90%	24	-42	0	162	122	-2	0	23	418	193	-152	-176
Long Term												
Full Simulation Period ^d	-330	-2	464	488	530	508	30	234	610	139	295	-3,100
Water Year Types ^{b,c}												
Wet (32%)	-822	-90	922	1,361	922	628	-1	51	255	-218	716	-7,156
Above Normal (16%)	-555	159	772	15	763	1,593	179	305	572	-248	-113	-5,164
Below Normal (13%)	21	-10	4	66	878	253	1	399	1,090	312	896	-6
Dry (24%)	28	18	190	88	66	69	12	510	1,057	785	-84	-24
Critical (15%)	65	-8	13	161	-120	39	-10	-58	236	94	-96	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 22-2. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,865	4,077	13,885	28,912	36,345	32,935	20,705	10,643	6,826	9,859	8,700	11,404
20%	4,179	3,056	5,957	20,670	27,796	25,368	12,646	7,502	5,558	9,566	8,481	10,986
30%	3,807	2,881	4,921	12,858	16,607	17,955	9,242	4,861	4,672	9,206	8,200	9,396
40%	2,745	2,658	4,578	8,825	12,505	14,251	6,471	4,438	4,406	8,982	7,677	7,677
50%	2,407	2,298	3,287	6,111	8,443	8,978	5,362	3,709	4,005	8,718	6,903	5,447
60%	2,208	2,134	2,407	5,076	6,425	6,842	4,227	3,202	3,527	8,191	4,224	3,229
70%	1,909	1,982	1,958	3,909	4,749	5,119	3,649	2,914	3,187	6,342	2,843	2,810
80%	1,778	1,700	1,701	3,195	3,218	3,955	3,290	2,800	2,958	3,956	2,267	2,613
90%	1,460	1,412	1,069	2,526	2,102	2,401	2,800	2,267	2,378	2,863	1,957	2,482
Long Term												
Full Simulation Period ^d	2,906	2,911	5,847	12,975	15,412	15,479	9,039	5,622	4,497	7,351	5,647	6,250
Water Year Types ^{b,c}												
Wet (32%)	4,185	3,858	8,772	26,423	31,082	28,655	16,583	9,855	5,712	8,137	7,240	10,180
Above Normal (16%)	3,164	2,963	4,285	13,283	16,160	21,828	9,221	3,868	3,278	9,226	8,372	8,846
Below Normal (13%)	2,939	2,422	4,406	5,188	8,208	6,940	4,915	4,181	3,681	8,932	6,172	4,269
Dry (24%)	1,957	2,831	6,293	4,838	5,653	6,533	4,908	3,742	4,447	6,520	3,470	3,122
Critical (15%)	1,406	1,382	1,780	4,200	3,516	2,790	3,159	2,802	4,017	3,550	2,394	1,957

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,294	4,117	13,664	29,313	36,459	37,159	20,706	10,646	7,617	9,779	9,214	5,460
20%	3,738	3,046	5,894	22,870	30,608	25,368	12,641	7,494	6,202	9,483	8,597	4,466
30%	3,220	2,877	4,846	13,258	18,874	20,070	9,239	5,942	5,869	9,143	8,247	3,821
40%	2,756	2,628	4,450	8,911	14,679	14,823	6,471	5,103	5,253	8,780	7,631	3,405
50%	2,489	2,317	3,475	6,131	8,461	9,692	5,352	4,350	5,020	8,153	5,724	3,075
60%	2,183	2,148	2,486	5,075	6,428	6,928	4,228	3,980	4,896	6,982	3,768	2,838
70%	1,915	1,979	2,021	3,909	4,829	5,159	3,652	3,371	4,487	5,070	3,001	2,727
80%	1,777	1,667	1,702	3,329	3,216	4,139	3,249	2,977	3,877	3,525	2,448	2,579
90%	1,432	1,412	1,070	2,497	2,084	2,667	2,800	2,770	3,412	2,878	1,988	2,476
Long Term												
Full Simulation Period ^d	2,730	2,954	6,218	13,537	16,013	15,909	9,041	6,020	5,370	6,978	5,615	3,438
Water Year Types ^{b,c}												
Wet (32%)	3,498	3,842	9,311	28,050	31,724	28,942	16,584	10,218	6,386	7,213	7,509	9,395
Above Normal (16%)	3,263	3,205	5,090	13,442	17,378	23,484	9,214	4,407	4,211	8,472	7,972	4,140
Below Normal (13%)	3,099	2,404	4,408	5,287	9,673	7,355	4,924	4,939	5,089	8,898	6,433	3,767
Dry (24%)	1,970	2,878	6,589	4,891	5,685	6,607	4,923	4,120	5,531	6,784	3,170	3,052
Critical (15%)	1,415	1,392	1,781	4,166	3,516	2,807	3,148	2,831	4,414	3,409	2,283	1,940

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-571	40	-221	401	114	4,224	1	3	791	-80	513	-5,944
20%	-442	-9	-62	2,200	2,812	1	-5	-8	645	-84	116	-6,520
30%	-587	-4	-75	400	2,266	2,115	-3	1,081	1,198	-62	47	-5,575
40%	11	-30	-127	86	2,175	572	0	666	847	-201	-46	-4,272
50%	82	19	189	20	18	714	-10	641	1,014	-565	-1,178	-2,372
60%	-25	14	79	-1	3	85	1	778	1,370	-1,209	-456	-390
70%	6	-3	63	0	79	41	3	457	1,300	-1,272	157	-82
80%	-1	-33	0	134	-3	185	-41	177	919	-430	181	-34
90%	-28	0	0	-29	-18	266	0	503	1,034	15	30	-6
Long Term												
Full Simulation Period ^d	-176	44	371	562	601	430	3	398	873	-373	-32	-2,813
Water Year Types ^{b,c}												
Wet (32%)	-687	-16	539	1,627	642	287	1	363	674	-924	270	-6,245
Above Normal (16%)	99	242	805	159	1,218	1,656	-7	539	934	-754	-401	-4,705
Below Normal (13%)	160	-18	2	99	1,465	414	9	757	1,409	-34	262	-502
Dry (24%)	13	47	296	52	33	74	15	378	1,084	264	-300	-70
Critical (15%)	8	10	1	-34	0	17	-11	29	397	-141	-111	-17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-3. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,841	4,662	10,528	23,578	33,695	31,621	20,963	15,602	9,008	9,734	8,637	11,410
20%	4,467	3,131	6,550	16,882	24,493	21,216	11,923	10,226	6,218	9,416	8,382	11,009
30%	3,945	2,929	5,010	10,855	16,466	13,587	8,210	6,585	5,121	8,943	8,018	9,899
40%	3,420	2,571	3,865	8,535	11,070	11,523	6,523	4,917	4,579	8,673	7,243	8,954
50%	2,579	2,404	3,243	5,369	6,813	8,214	5,721	4,421	3,943	8,083	5,551	6,158
60%	2,232	2,222	2,808	4,544	5,321	5,661	4,104	4,048	3,678	7,177	3,158	3,107
70%	1,977	1,875	2,017	3,714	4,239	4,149	3,602	3,650	3,388	5,082	2,544	2,832
80%	1,730	1,587	1,717	2,904	2,682	3,230	3,027	3,061	3,133	3,183	2,418	2,609
90%	1,571	1,365	1,206	2,272	1,863	2,301	2,800	2,800	2,672	2,666	2,128	2,531
Long Term												
Full Simulation Period ^d	3,055	2,968	5,637	11,560	13,509	13,327	8,700	7,307	5,337	6,882	5,361	6,517
Water Year Types ^{b,c}												
Wet (32%)	4,179	3,815	8,315	23,745	27,631	25,039	16,022	13,871	8,218	7,862	6,919	10,813
Above Normal (16%)	3,873	3,141	4,196	11,530	13,471	18,282	9,162	5,610	3,693	8,761	8,442	9,306
Below Normal (13%)	3,114	2,600	4,245	4,186	6,827	5,784	4,598	4,474	3,624	8,723	6,289	4,261
Dry (24%)	1,896	2,928	6,172	4,373	4,915	5,508	4,578	4,086	4,637	5,775	2,556	3,092
Critical (15%)	1,612	1,349	1,783	3,927	3,398	2,530	2,965	2,887	3,615	2,883	2,475	1,968

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,865	4,077	13,885	28,912	36,345	32,935	20,705	10,643	6,826	9,859	8,700	11,404
20%	4,179	3,056	5,957	20,670	27,796	25,368	12,646	7,502	5,558	9,566	8,481	10,986
30%	3,807	2,881	4,921	12,858	16,607	17,955	9,242	4,861	4,672	9,206	8,200	9,396
40%	2,745	2,658	4,578	8,825	12,505	14,251	6,471	4,438	4,406	8,982	7,677	7,677
50%	2,407	2,298	3,287	6,111	8,443	8,978	5,362	3,709	4,005	8,718	6,903	5,447
60%	2,208	2,134	2,407	5,076	6,425	6,842	4,227	3,202	3,527	8,191	4,224	3,229
70%	1,909	1,982	1,958	3,909	4,749	5,119	3,649	2,914	3,187	6,342	2,843	2,810
80%	1,778	1,700	1,701	3,195	3,218	3,955	3,290	2,800	2,958	3,956	2,267	2,613
90%	1,460	1,412	1,069	2,526	2,102	2,401	2,800	2,267	2,378	2,863	1,957	2,482
Long Term												
Full Simulation Period ^d	2,906	2,911	5,847	12,975	15,412	15,479	9,039	5,622	4,497	7,351	5,647	6,250
Water Year Types ^{b,c}												
Wet (32%)	4,185	3,858	8,772	26,423	31,082	28,655	16,583	9,855	5,712	8,137	7,240	10,180
Above Normal (16%)	3,164	2,963	4,285	13,283	16,160	21,828	9,221	3,868	3,278	9,226	8,372	8,846
Below Normal (13%)	2,939	2,422	4,406	5,188	8,208	6,940	4,915	4,181	3,681	8,932	6,172	4,269
Dry (24%)	1,957	2,831	6,293	4,838	5,653	6,533	4,908	3,742	4,447	6,520	3,470	3,122
Critical (15%)	1,406	1,382	1,780	4,200	3,516	2,790	3,159	2,802	4,017	3,550	2,394	1,957

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	24	-586	3,357	5,334	2,649	1,314	-258	-4,959	-2,182	125	64	-6
20%	-288	-76	-593	3,789	3,303	4,151	723	-2,724	-660	150	99	-24
30%	-138	-48	-89	2,003	142	4,368	1,031	-1,724	-449	263	182	-503
40%	-676	87	712	290	1,435	2,728	-52	-479	-173	309	433	-1,276
50%	-171	-106	44	742	1,630	765	-360	-712	62	635	1,351	-711
60%	-24	-88	-401	532	1,104	1,181	124	-846	-151	1,014	1,067	121
70%	-69	107	-59	195	510	969	47	-737	-200	1,260	300	-22
80%	48	113	-16	290	536	725	263	-261	-175	772	-151	4
90%	-111	47	-137	253	239	100	0	-533	-294	197	-171	-48
Long Term												
Full Simulation Period ^d	-149	-57	210	1,415	1,903	2,152	339	-1,685	-840	468	286	-267
Water Year Types ^{b,c}												
Wet (32%)	7	44	457	2,678	3,451	3,616	561	-4,016	-2,506	275	321	-633
Above Normal (16%)	-708	-178	90	1,753	2,689	3,546	59	-1,742	-416	465	-70	-460
Below Normal (13%)	-176	-179	161	1,002	1,381	1,156	318	-292	56	209	-117	8
Dry (24%)	61	-97	121	466	737	1,025	330	-343	-190	746	914	29
Critical (15%)	-205	33	-3	273	118	260	194	-85	402	667	-81	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-4. Feather River at Sacramento River Confluence Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,295	4,667	13,075	23,855	34,046	32,487	20,965	15,604	9,459	9,866	9,050	5,757
20%	3,747	3,055	6,412	19,753	25,546	21,204	12,528	10,222	7,056	9,545	8,684	4,464
30%	3,094	2,885	5,074	11,475	17,165	16,317	8,375	6,916	5,836	9,165	8,341	3,756
40%	2,669	2,573	3,972	8,551	11,635	12,859	6,523	5,379	5,168	8,719	8,080	3,160
50%	2,410	2,405	3,353	5,372	7,517	8,334	5,724	4,917	4,899	8,161	6,598	2,987
60%	2,072	2,199	2,861	4,564	5,369	5,708	4,110	4,416	4,637	7,475	3,304	2,778
70%	1,883	1,851	1,955	3,851	4,263	4,284	3,609	3,914	4,275	5,472	2,588	2,591
80%	1,720	1,606	1,723	2,940	2,655	3,227	3,083	3,634	3,706	3,809	2,276	2,561
90%	1,595	1,323	1,207	2,435	1,985	2,298	2,800	2,823	3,090	2,859	1,976	2,355
Long Term												
Full Simulation Period ^d	2,725	2,966	6,101	12,048	14,038	13,835	8,730	7,541	5,948	7,021	5,656	3,417
Water Year Types ^{b,c}												
Wet (32%)	3,357	3,724	9,237	25,106	28,552	25,667	16,022	13,923	8,473	7,644	7,635	3,657
Above Normal (16%)	3,317	3,300	4,967	11,545	14,234	19,875	9,341	5,916	4,265	8,513	8,330	4,142
Below Normal (13%)	3,135	2,591	4,249	4,252	7,705	6,037	4,599	4,873	4,714	9,035	7,184	4,254
Dry (24%)	1,924	2,946	6,362	4,461	4,982	5,577	4,590	4,596	5,695	2,472	3,068	
Critical (15%)	1,677	1,340	1,796	4,088	3,278	2,570	2,954	2,830	3,851	2,977	2,379	1,927

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,294	4,117	13,664	29,313	36,459	37,159	20,706	10,646	7,617	9,779	9,214	5,460
20%	3,738	3,046	5,894	22,870	30,608	25,368	12,641	7,494	6,202	9,483	8,597	4,466
30%	3,220	2,877	4,846	13,258	18,874	20,070	9,239	5,942	5,869	9,143	8,247	3,821
40%	2,756	2,628	4,450	8,911	14,679	14,823	6,471	5,103	5,253	8,780	7,631	3,405
50%	2,489	2,317	3,475	6,131	8,461	9,692	5,352	4,350	5,020	8,153	5,724	3,075
60%	2,183	2,148	2,486	5,075	6,428	6,928	4,228	3,980	4,896	6,982	3,768	2,838
70%	1,915	1,979	2,021	3,909	4,829	5,159	3,652	3,371	4,487	5,070	3,001	2,727
80%	1,777	1,667	1,702	3,329	3,216	4,139	3,249	2,977	3,877	3,525	2,448	2,579
90%	1,432	1,412	1,070	2,497	2,084	2,667	2,800	2,770	3,412	2,878	1,988	2,476
Long Term												
Full Simulation Period ^d	2,730	2,954	6,218	13,537	16,013	15,909	9,041	6,020	5,370	6,978	5,615	3,438
Water Year Types ^{b,c}												
Wet (32%)	3,498	3,842	9,311	28,050	31,724	28,942	16,584	10,218	6,386	7,213	7,509	3,935
Above Normal (16%)	3,263	3,205	5,090	13,442	17,378	23,484	9,214	4,407	4,211	8,472	7,972	4,140
Below Normal (13%)	3,099	2,404	4,408	5,287	9,673	7,355	4,924	4,939	5,089	8,898	6,433	3,767
Dry (24%)	1,970	2,878	6,589	4,891	5,685	6,607	4,923	4,120	5,531	6,784	3,170	3,052
Critical (15%)	1,415	1,392	1,781	4,166	3,516	2,807	3,148	2,831	4,414	3,409	2,283	1,940

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-550	589	5,458	2,413	4,672	-259	-4,958	-1,842	-88	164	-297
20%	-9	-9	-517	3,117	5,062	4,164	113	-2,728	-853	-62	-87	2
30%	126	-8	-228	1,783	1,709	3,754	864	-974	34	-22	-94	64
40%	87	55	479	360	3,044	1,964	-52	-276	85	61	-449	245
50%	79	-88	123	760	944	1,358	-372	-567	120	-8	-874	88
60%	111	-51	-375	510	1,059	1,220	118	-436	260	-494	465	60
70%	32	128	66	58	565	875	43	-543	212	-402	413	136
80%	58	61	-21	388	561	912	166	-657	171	-284	172	19
90%	-163	89	-137	62	99	368	0	-53	322	18	12	121
Long Term												
Full Simulation Period ^d	4	-12	117	1,489	1,975	2,073	312	-1,521	-577	-43	-41	20
Water Year Types ^{b,c}												
Wet (32%)	142	118	73	2,944	3,172	3,275	563	-3,705	-2,087	-431	-125	278
Above Normal (16%)	-54	-95	123	1,897	3,144	3,609	-128	-1,509	-54	-41	-358	-1
Below Normal (13%)	-36	-187	159	1,035	1,968	1,318	326	66	375	-137	-751	-487
Dry (24%)	46	-68	227	430	703	1,030	334	-476	-163	225	697	-17
Critical (15%)	-262	51	-15	77	238	238	193	2	564	432	-96	13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

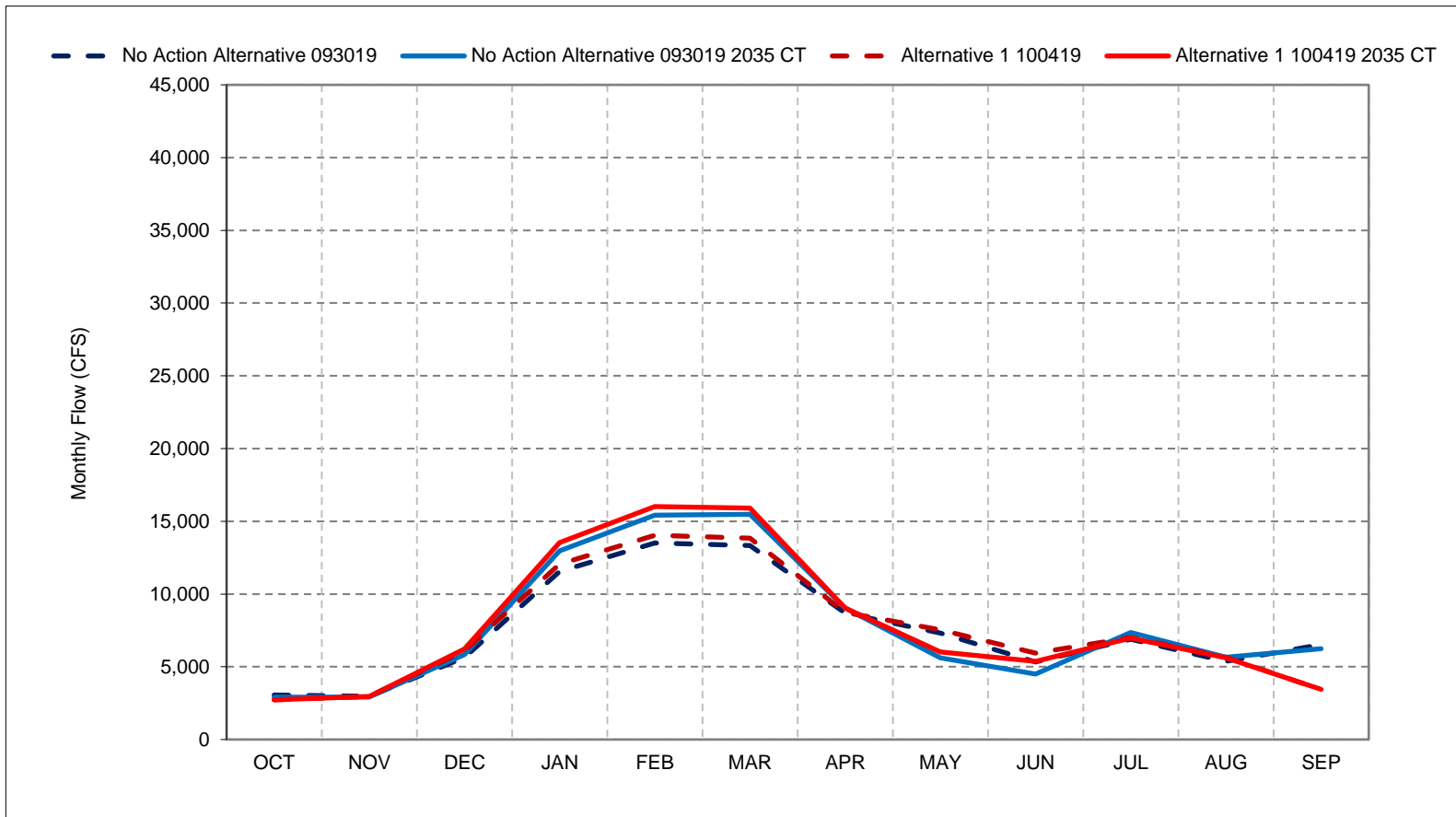
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 22-1. Feather River at Sacramento River Confluence Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

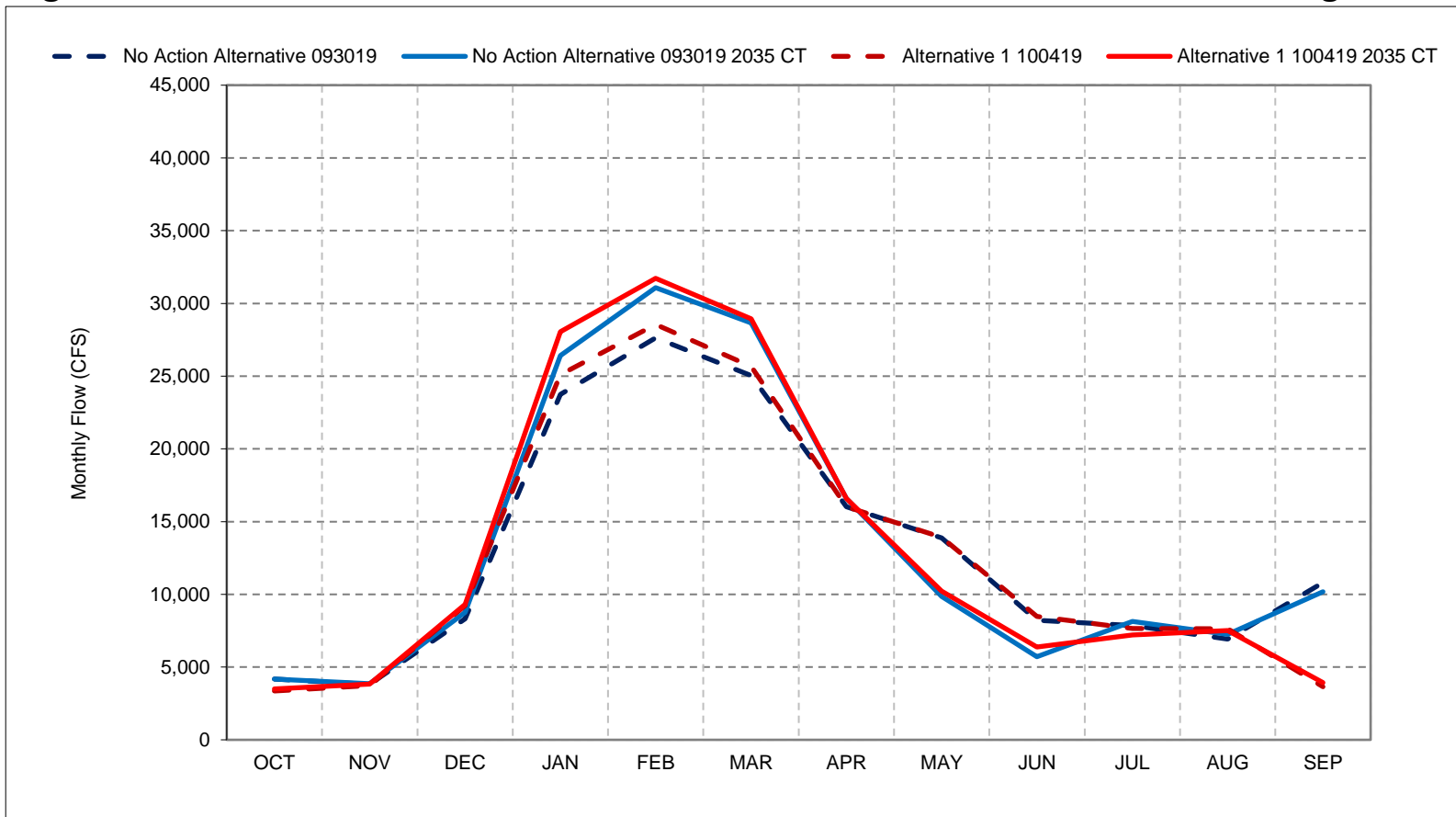
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-2. Feather River at Sacramento River Confluence Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

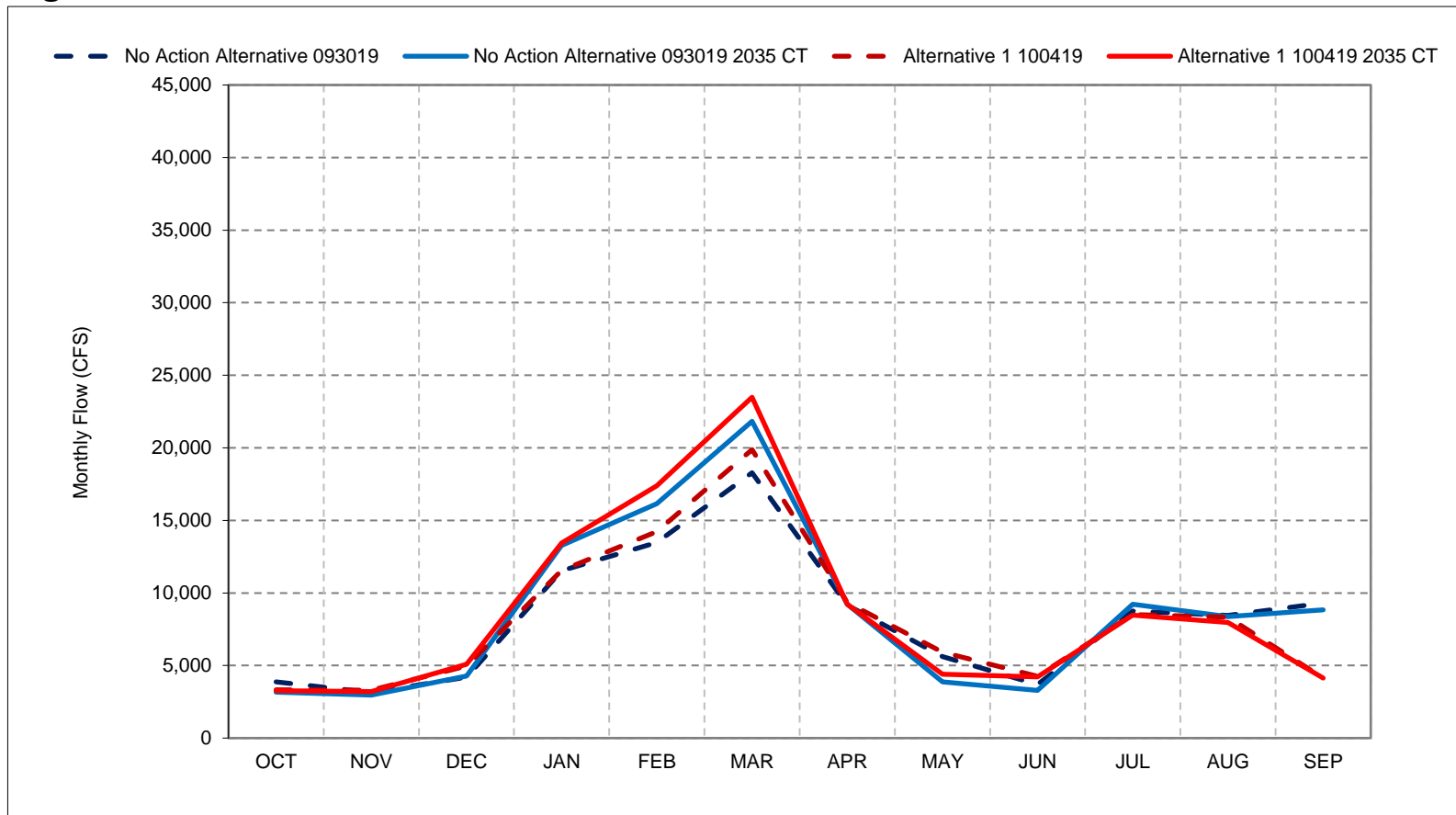
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-3. Feather River at Sacramento River Confluence Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

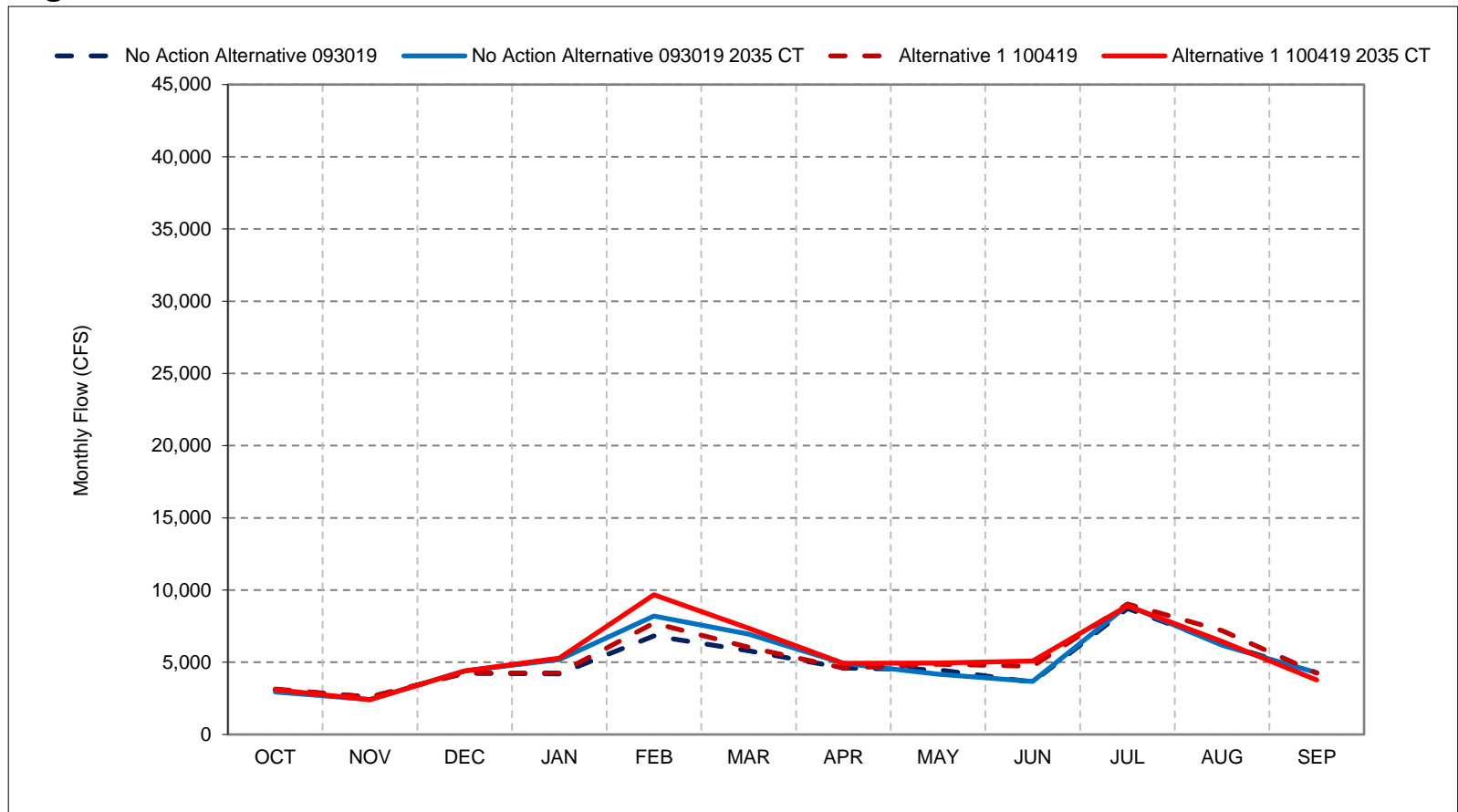
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-4. Feather River at Sacramento River Confluence Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

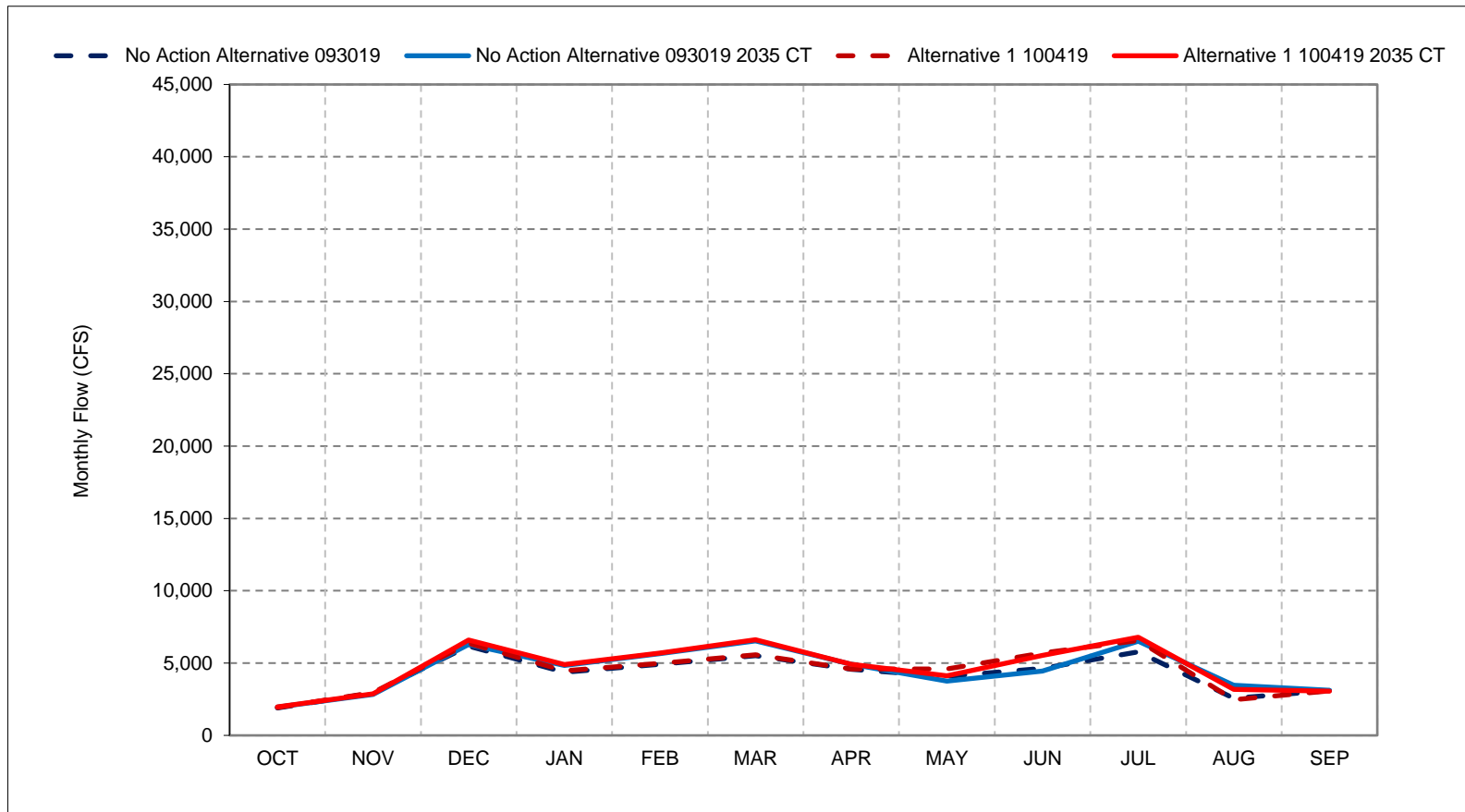
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-5. Feather River at Sacramento River Confluence Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

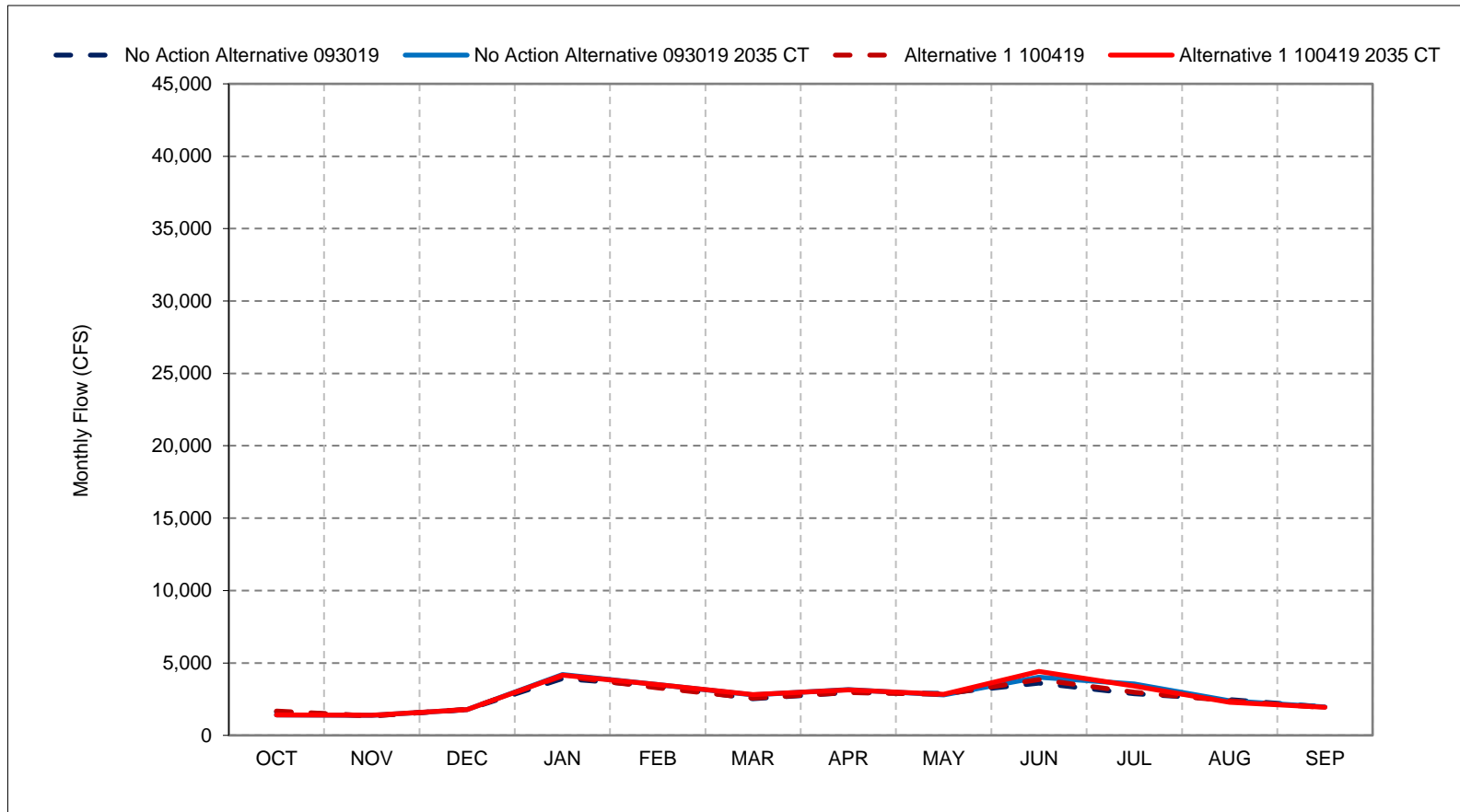
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-6. Feather River at Sacramento River Confluence Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

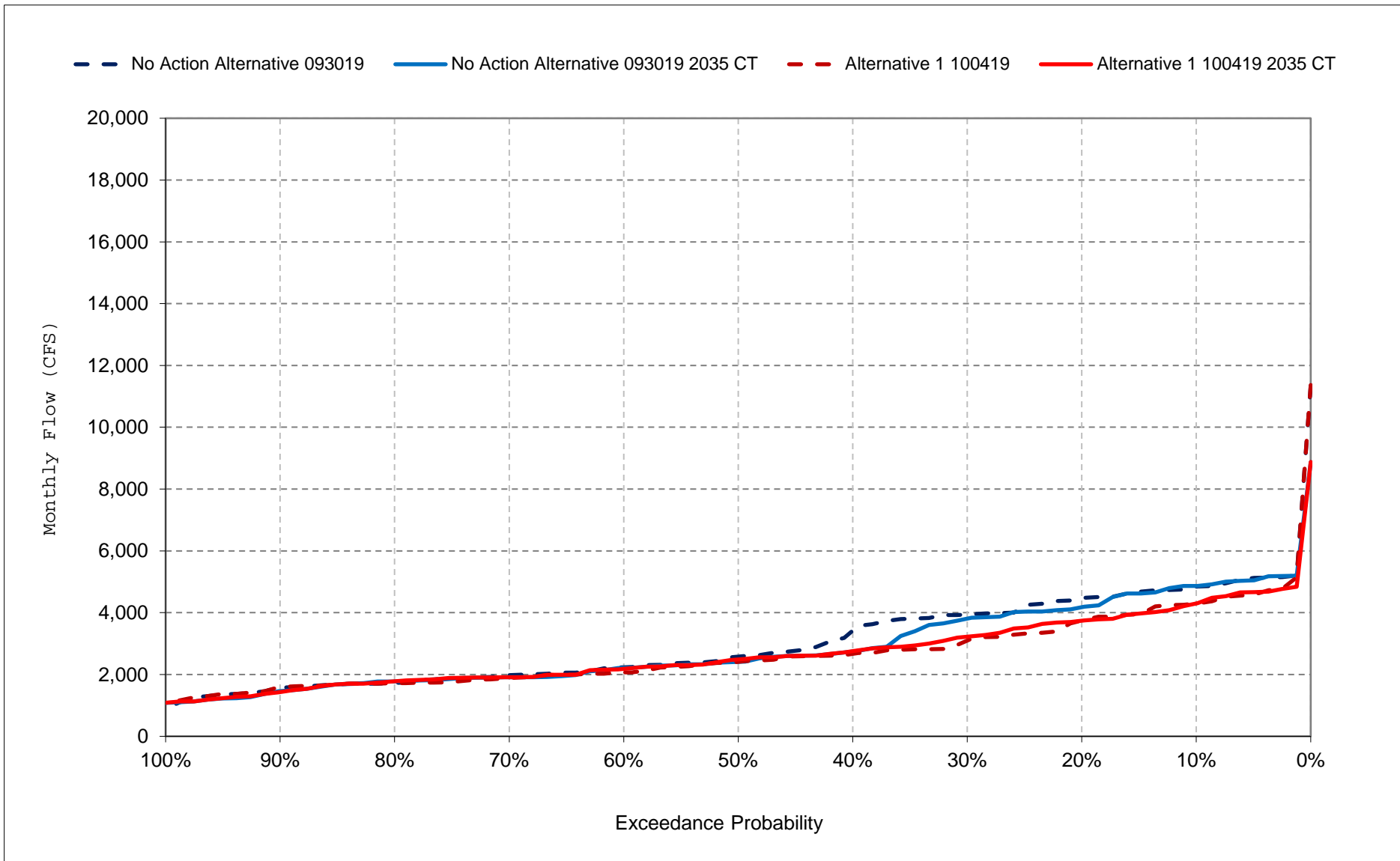
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

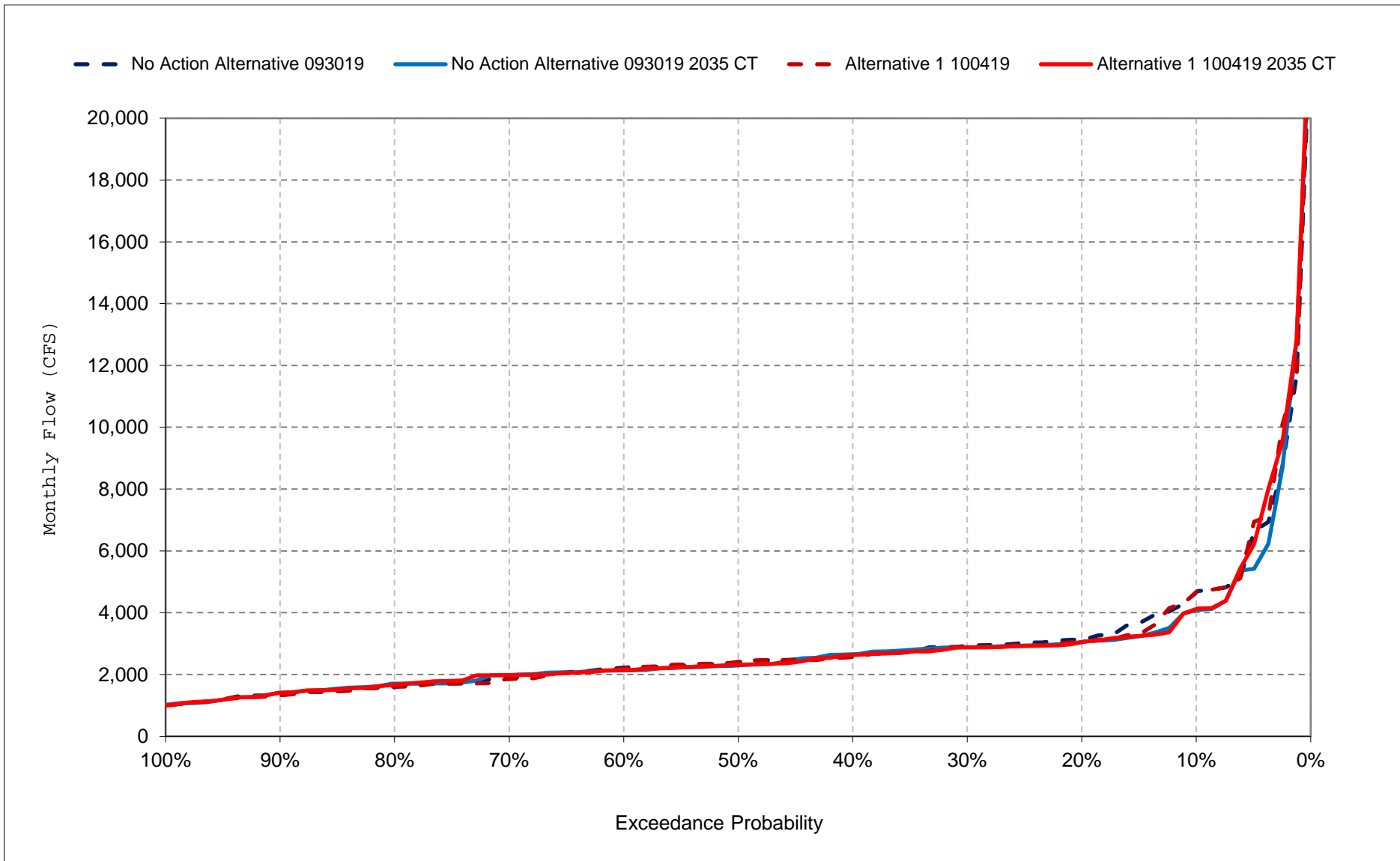
Figure 22-7. Feather River at Sacramento River Confluence Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

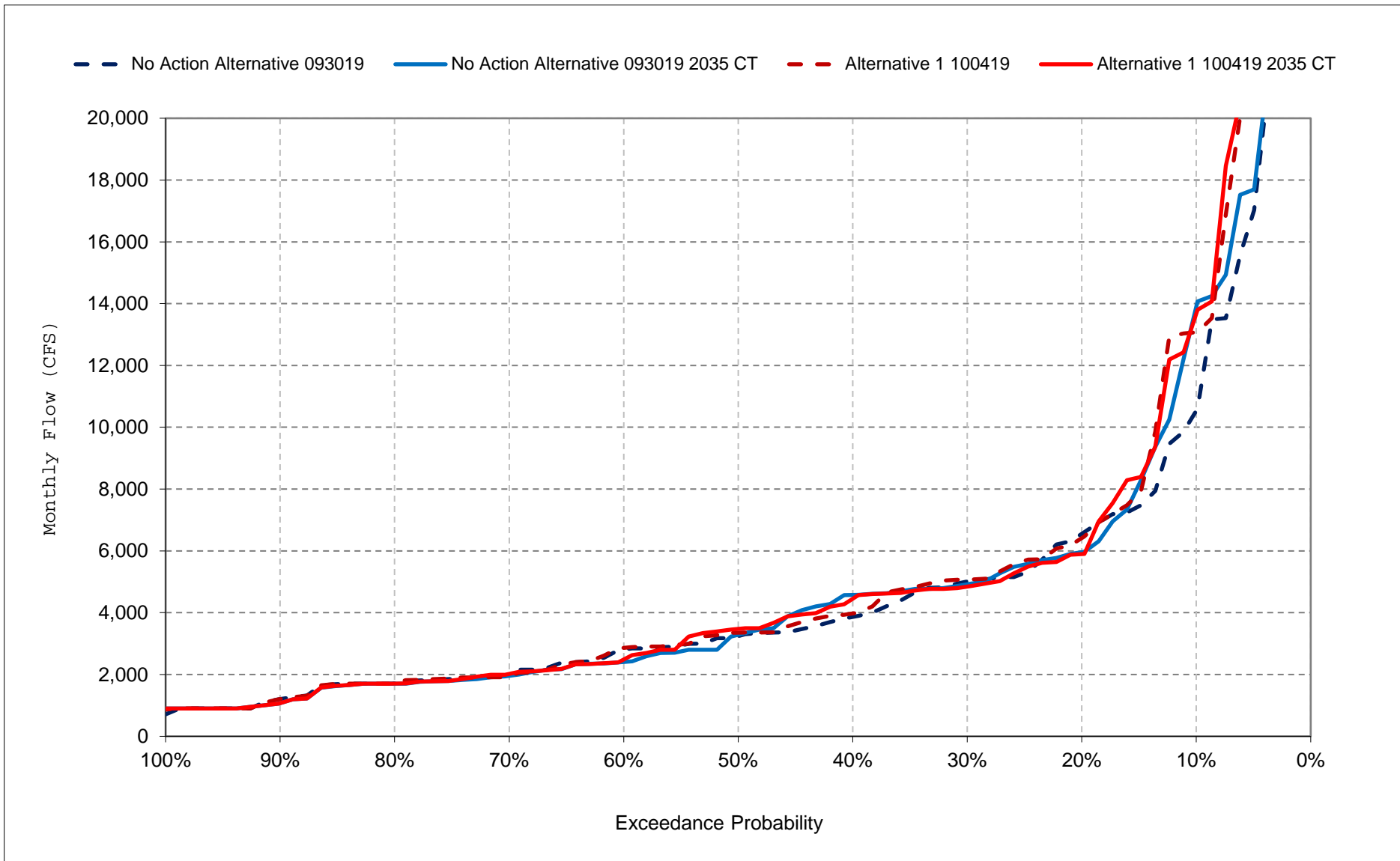
Figure 22-8. Feather River at Sacramento River Confluence Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

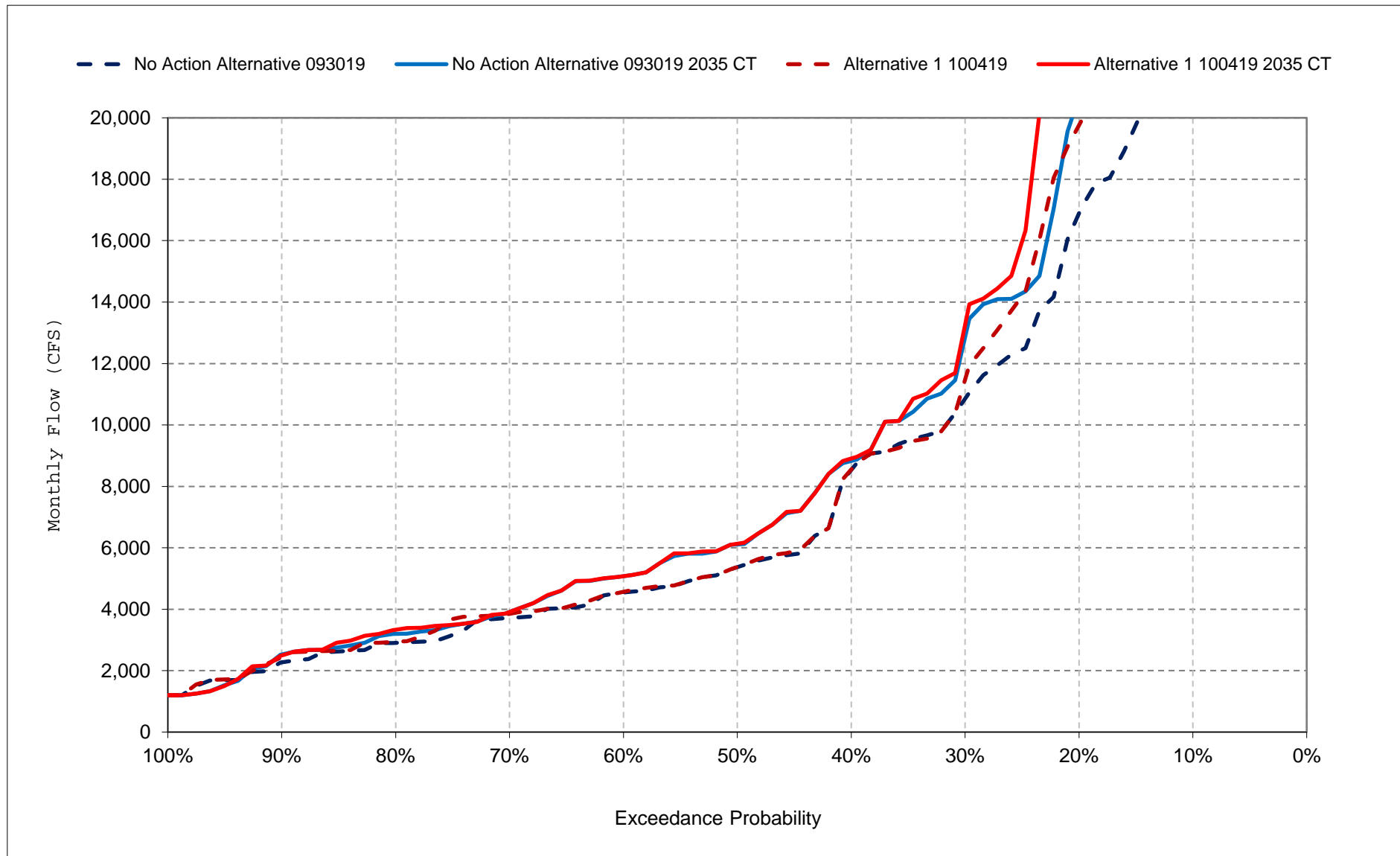
Figure 22-9. Feather River at Sacramento River Confluence Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

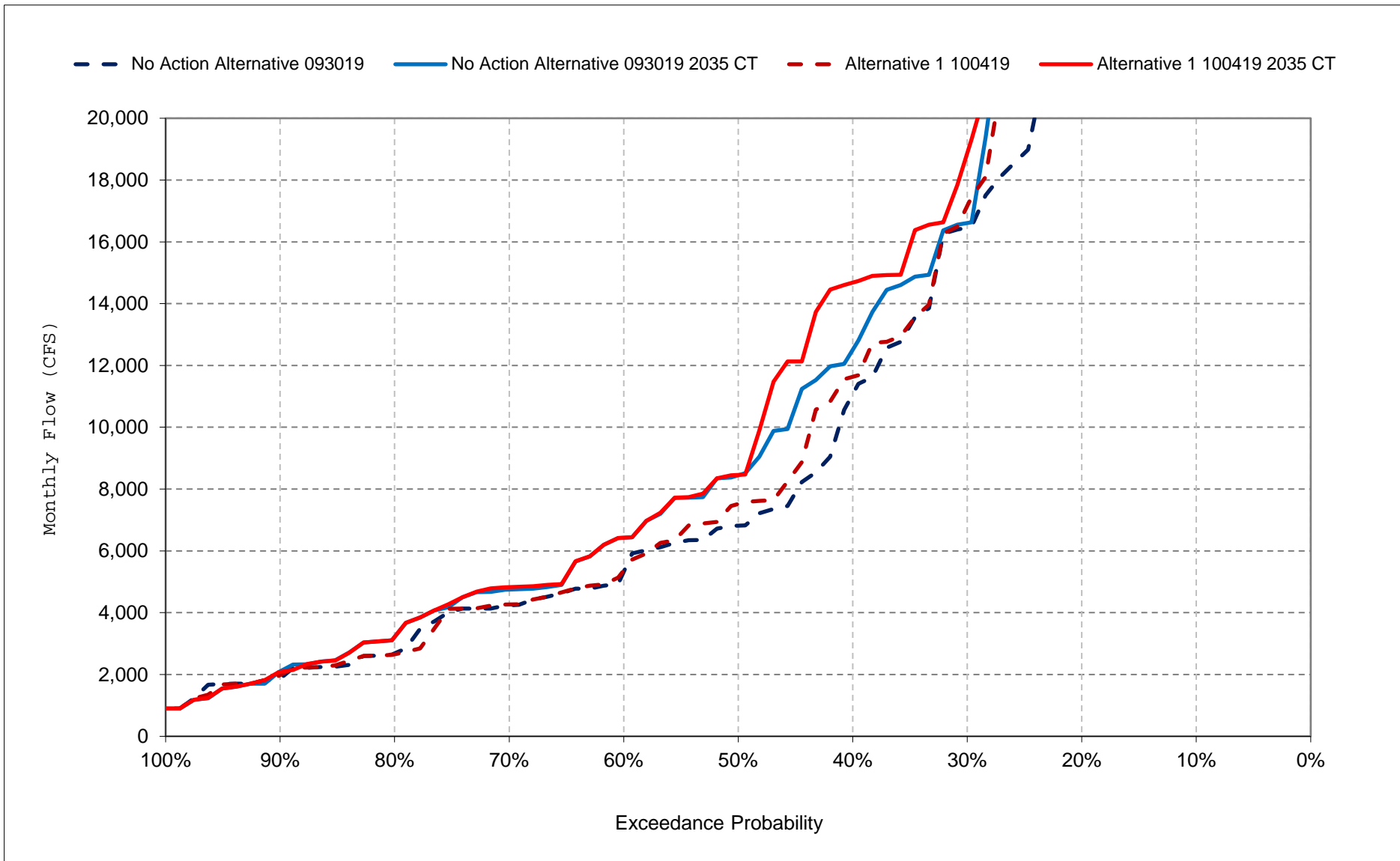
Figure 22-10. Feather River at Sacramento River Confluence Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

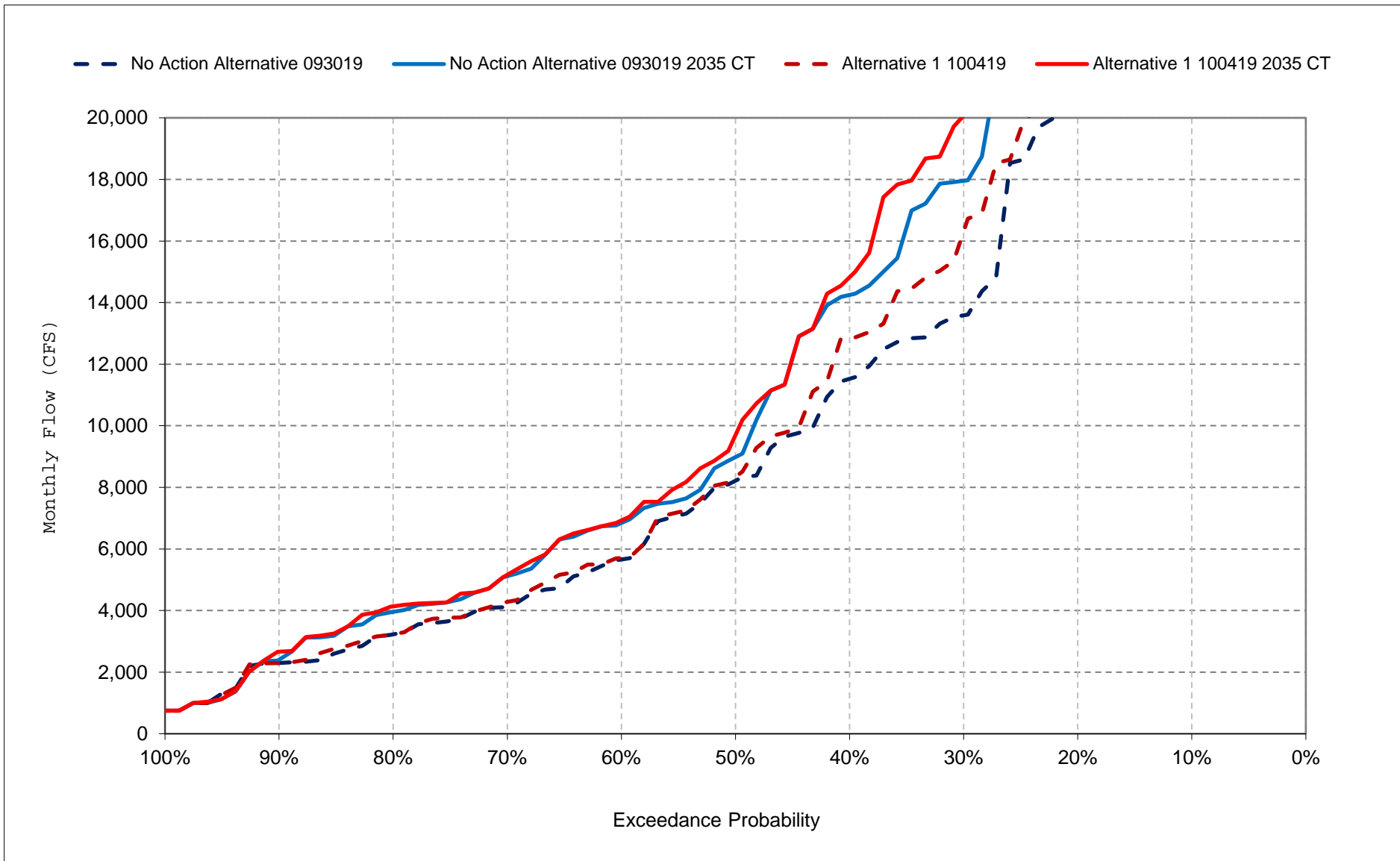
Figure 22-11. Feather River at Sacramento River Confluence Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

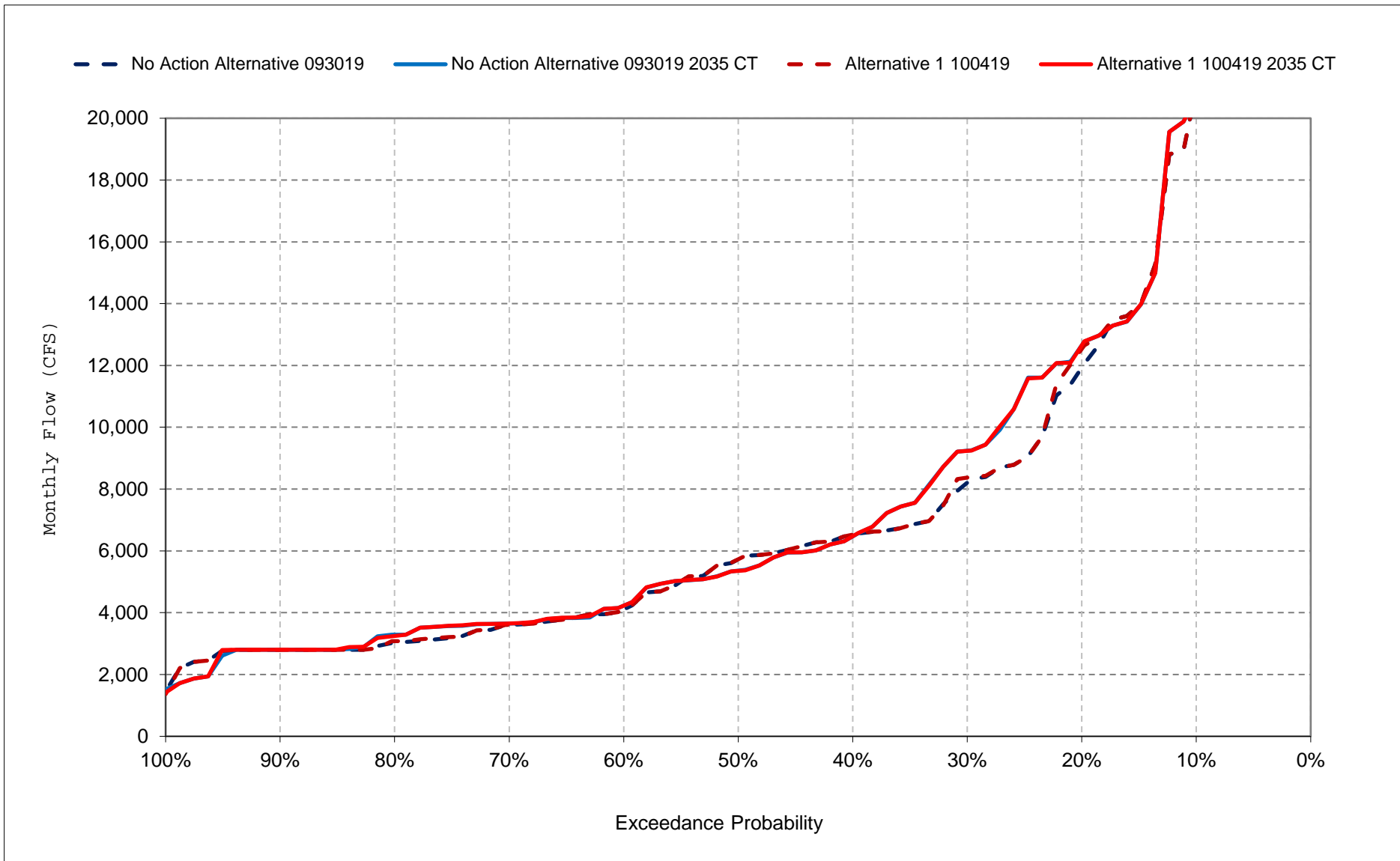
Figure 22-12. Feather River at Sacramento River Confluence Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

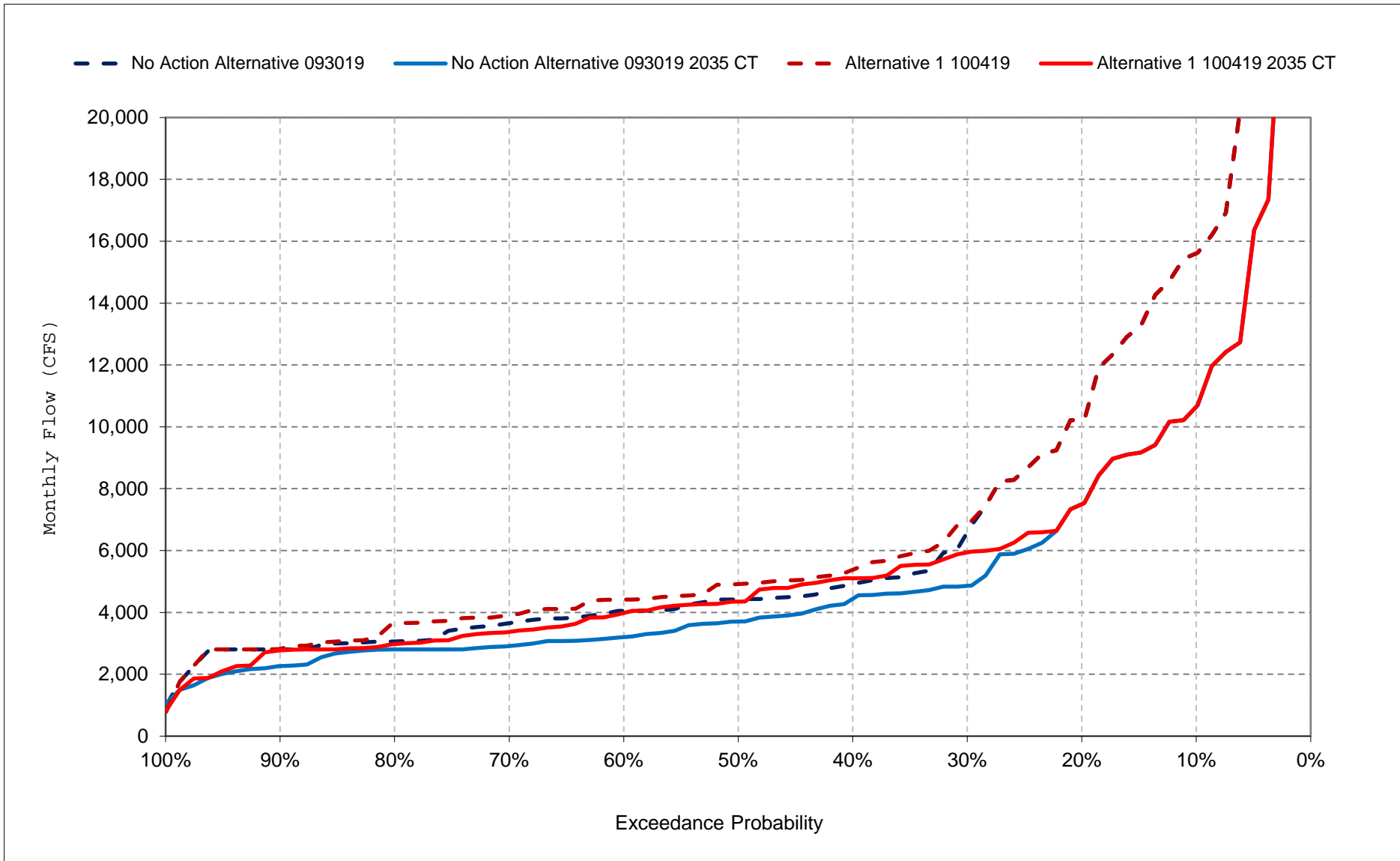
Figure 22-13. Feather River at Sacramento River Confluence Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

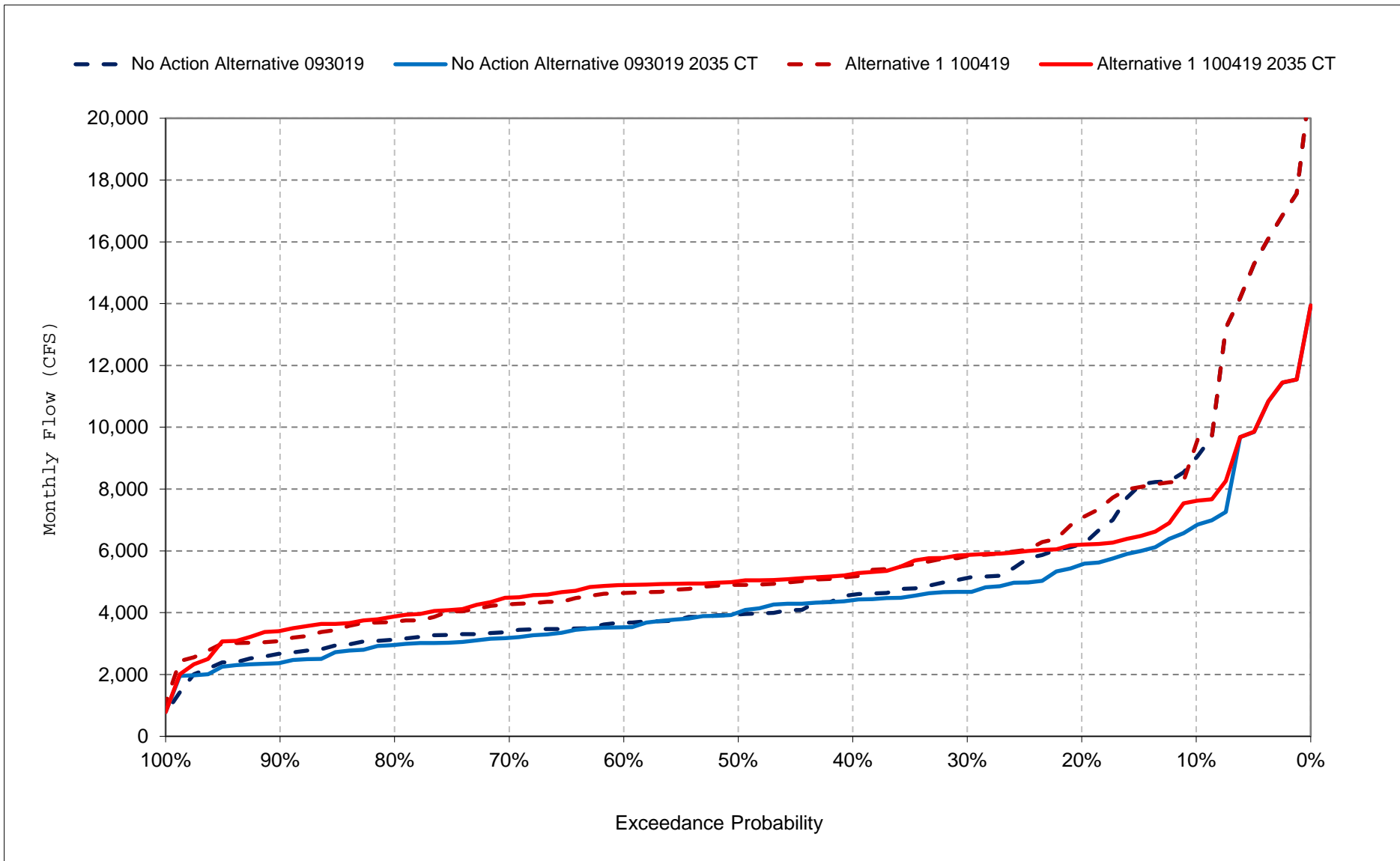
Figure 22-14. Feather River at Sacramento River Confluence Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

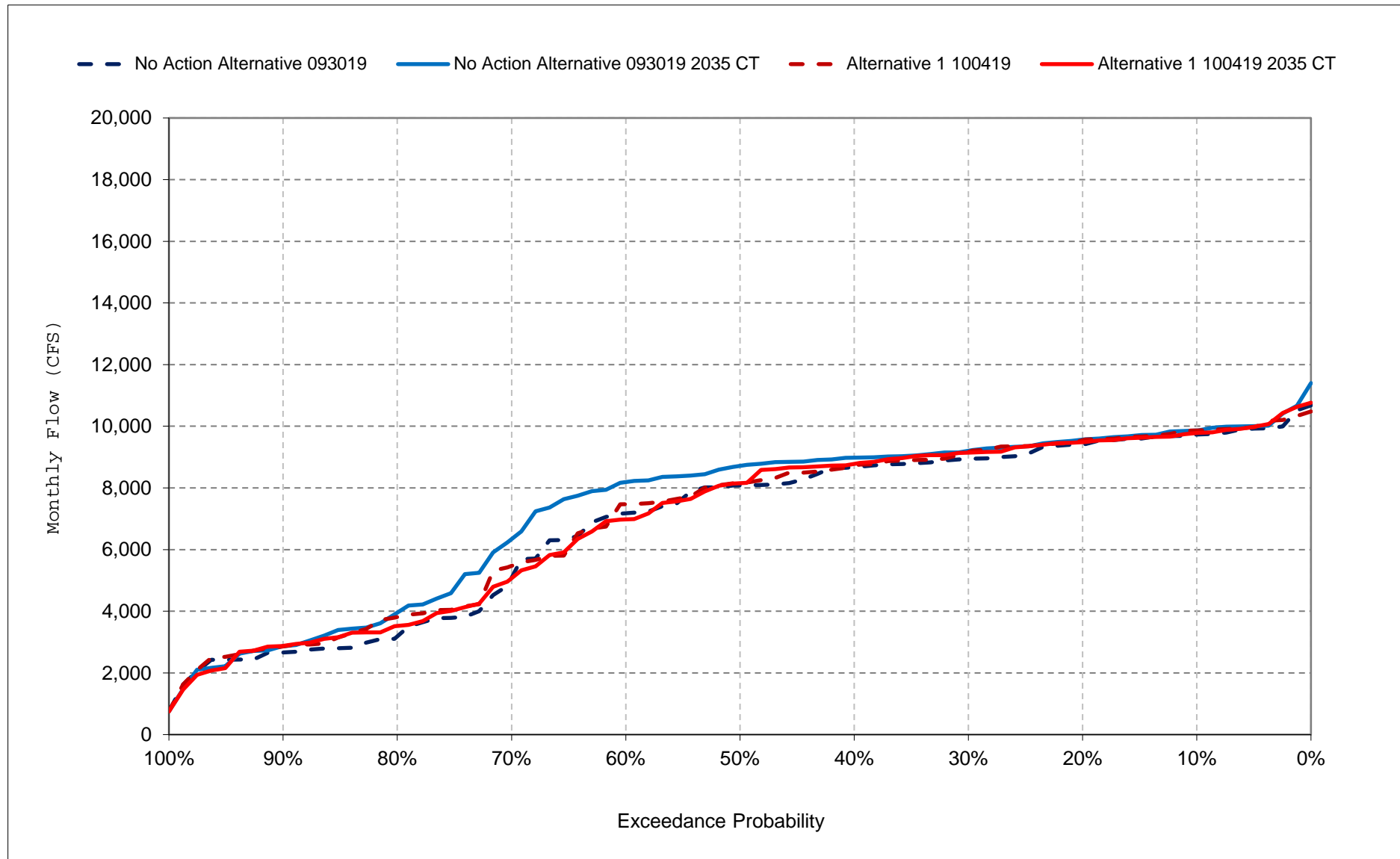
Figure 22-15. Feather River at Sacramento River Confluence Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

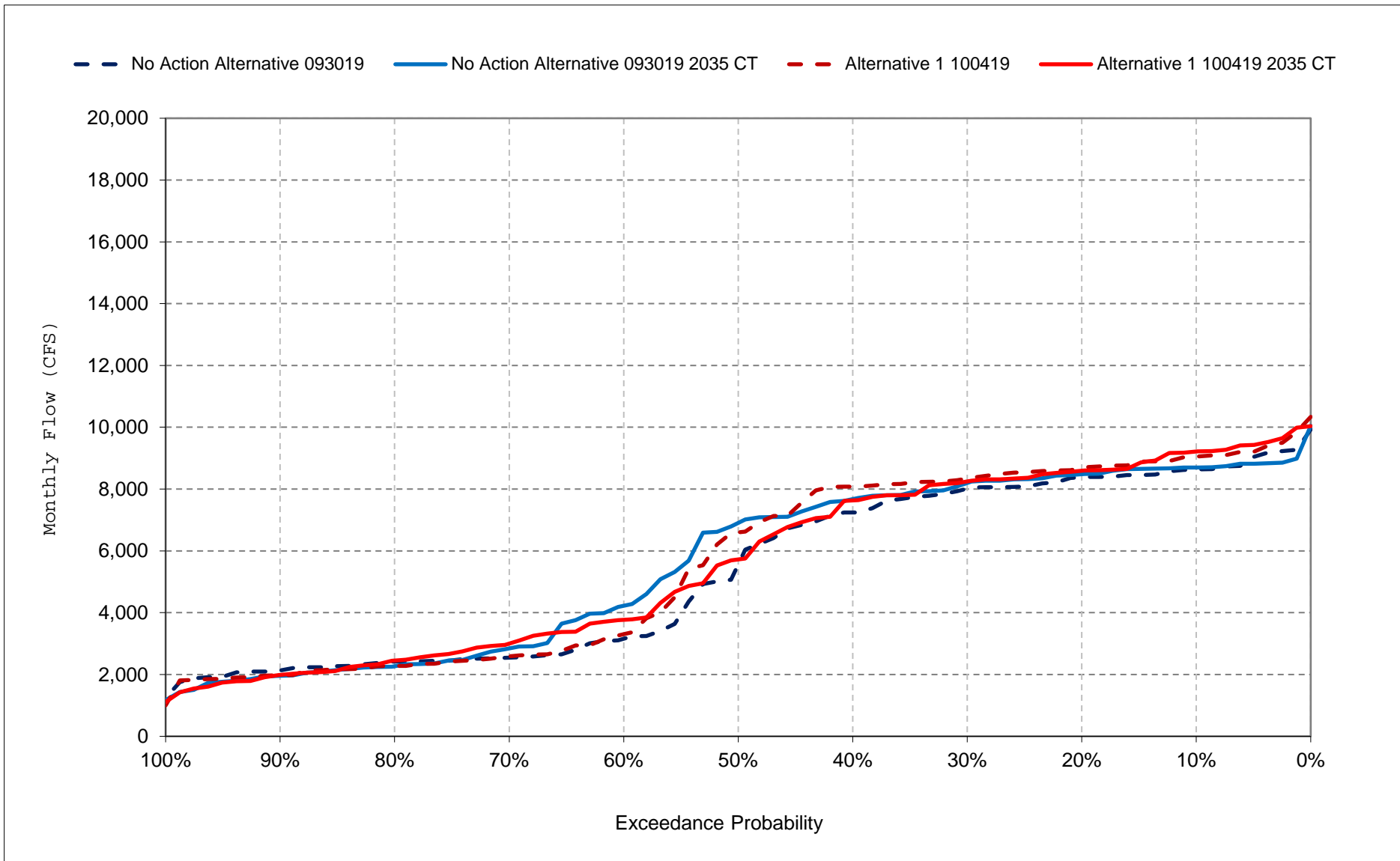
Figure 22-16. Feather River at Sacramento River Confluence Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

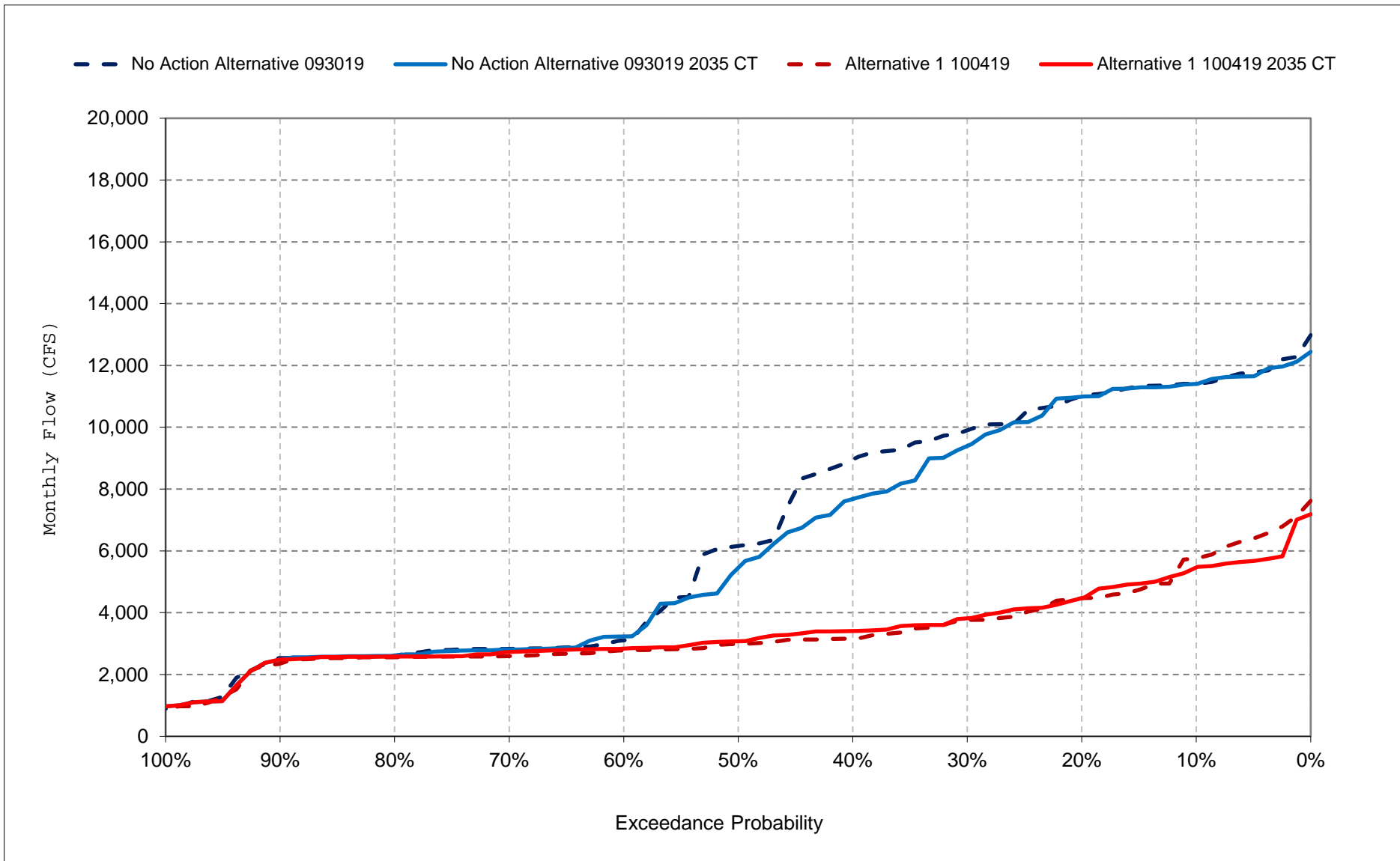
Figure 22-17. Feather River at Sacramento River Confluence Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 22-18. Feather River at Sacramento River Confluence Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-1. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	303	7,185	24,208	44,207	14,379	1,902	0	0	0	0	0
20%	0	75	2,176	9,897	14,185	4,429	0	0	0	0	0	0
30%	0	51	454	4,190	5,961	2,120	0	0	0	0	0	0
40%	0	22	139	907	3,793	934	0	0	0	0	0	0
50%	0	10	89	485	2,219	296	0	0	0	0	0	0
60%	0	0	21	202	889	139	0	0	0	0	0	0
70%	0	0	10	37	333	82	0	0	0	0	0	0
80%	0	0	0	17	103	15	0	0	0	0	0	0
90%	0	0	0	4	34	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	361	2,985	8,740	11,929	6,607	1,213	51	7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	479	4,298	24,449	28,532	17,554	3,706	161	22	0	0	0
Above Normal (16%)	0	776	1,010	5,088	13,111	5,640	184	1	0	0	0	0
Below Normal (13%)	120	21	2,229	355	2,932	239	0	0	0	0	0	0
Dry (24%)	0	339	4,730	456	1,496	447	38	0	0	0	0	0
Critical (15%)	0	2	66	150	313	42	0	0	0	0	0	0

Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	379	9,979	27,926	45,922	15,957	1,904	0	0	0	0	0
20%	0	30	2,449	9,911	13,660	4,857	0	0	0	0	0	0
30%	0	15	612	4,205	7,579	2,583	0	0	0	0	0	0
40%	0	0	160	1,144	4,424	977	0	0	0	0	0	0
50%	0	0	88	661	2,331	351	0	0	0	0	0	0
60%	0	0	21	236	986	172	0	0	0	0	0	0
70%	0	0	12	66	327	83	0	0	0	0	0	0
80%	0	0	2	21	91	15	0	0	0	0	0	0
90%	0	0	0	6	33	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	397	3,473	9,117	12,562	6,883	1,203	51	7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	466	5,519	25,509	29,558	17,953	3,675	162	22	0	0	0
Above Normal (16%)	0	908	1,287	5,222	14,491	6,474	180	1	0	0	0	0
Below Normal (13%)	120	21	2,255	474	3,606	311	0	0	0	0	0	0
Dry (24%)	0	419	4,950	460	1,501	477	38	0	0	0	0	0
Critical (15%)	0	1	66	174	294	43	0	0	0	0	0	0

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	77	2,793	3,719	1,715	1,578	3	0	0	0	0	0
20%	0	-45	272	14	-524	428	0	0	0	0	0	0
30%	0	-36	157	15	1,617	464	0	0	0	0	0	0
40%	0	-22	21	237	632	44	0	0	0	0	0	0
50%	0	-10	-1	175	112	54	0	0	0	0	0	0
60%	0	0	0	33	97	33	0	0	0	0	0	0
70%	0	0	3	30	-6	0	0	0	0	0	0	0
80%	0	0	1	5	-12	0	0	0	0	0	0	0
90%	0	0	0	2	-1	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	36	488	378	633	276	-10	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	-13	1,221	1,060	1,026	399	-31	1	0	0	0	0
Above Normal (16%)	0	132	277	134	1,380	834	-4	0	0	0	0	0
Below Normal (13%)	0	0	26	119	674	71	0	0	0	0	0	0
Dry (24%)	0	80	219	4	5	30	0	0	0	0	0	0
Critical (15%)	0	-1	0	24	-20	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 24-2. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	282	8,174	23,395	46,830	17,659	1,531	0	0	0	0	0
20%	0	76	2,289	13,263	17,570	8,077	0	0	0	0	0	0
30%	0	36	627	4,591	8,784	3,332	0	0	0	0	0	0
40%	0	16	186	1,527	4,862	1,181	0	0	0	0	0	0
50%	0	4	122	735	2,748	400	0	0	0	0	0	0
60%	0	1	29	465	1,074	209	0	0	0	0	0	0
70%	0	0	10	78	435	96	0	0	0	0	0	0
80%	0	0	1	28	105	28	0	0	0	0	0	0
90%	0	0	0	11	58	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	3	295	2,999	10,226	13,180	7,987	1,476	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	483	4,310	28,143	30,878	20,864	4,522	61	0	0	0	0
Above Normal (16%)	0	422	1,075	6,617	15,087	7,145	172	0	0	0	0	0
Below Normal (13%)	23	20	2,027	595	3,798	338	0	0	0	0	0	0
Dry (24%)	0	295	4,827	555	1,796	762	59	0	0	0	0	0
Critical (15%)	0	3	86	263	342	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	346	9,560	31,997	47,038	23,310	1,534	0	0	0	0	0
20%	0	24	2,869	14,450	18,371	7,945	0	0	0	0	0	0
30%	0	9	805	5,021	11,437	3,846	0	0	0	0	0	0
40%	0	0	185	1,723	5,201	1,594	0	0	0	0	0	0
50%	0	0	122	819	2,840	451	0	0	0	0	0	0
60%	0	0	29	463	1,179	222	0	0	0	0	0	0
70%	0	0	15	78	461	105	0	0	0	0	0	0
80%	0	0	1	28	110	30	0	0	0	0	0	0
90%	0	0	0	11	55	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	4	296	3,523	10,785	13,815	8,364	1,466	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	467	5,292	29,647	31,663	21,283	4,493	61	0	0	0	0
Above Normal (16%)	0	443	1,470	6,911	16,700	8,401	167	0	0	0	0	0
Below Normal (13%)	31	25	2,056	798	4,733	483	0	0	0	0	0	0
Dry (24%)	0	303	5,427	588	1,814	867	60	0	0	0	0	0
Critical (15%)	0	2	86	263	346	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	64	1,387	8,601	207	5,650	3	0	0	0	0	0
20%	0	-52	580	1,187	801	-132	0	0	0	0	0	0
30%	0	-27	177	430	2,653	514	0	0	0	0	0	0
40%	0	-16	-1	196	339	412	0	0	0	0	0	0
50%	0	-4	0	85	92	51	0	0	0	0	0	0
60%	0	-1	1	-2	105	14	0	0	0	0	0	0
70%	0	0	4	0	25	9	0	0	0	0	0	0
80%	0	0	0	0	5	2	0	0	0	0	0	0
90%	0	0	0	0	-3	2	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	1	1	524	559	635	377	-10	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	-16	982	1,504	786	419	-29	0	0	0	0	0
Above Normal (16%)	0	21	395	294	1,612	1,255	-4	0	0	0	0	0
Below Normal (13%)	8	5	29	204	935	146	0	0	0	0	0	0
Dry (24%)	0	8	600	32	17	105	1	0	0	0	0	0
Critical (15%)	0	-1	0	0	4	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-3. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	303	7,185	24,208	44,207	14,379	1,902	0	0	0	0	0
20%	0	75	2,176	9,897	14,185	4,429	0	0	0	0	0	0
30%	0	51	454	4,190	5,961	2,120	0	0	0	0	0	0
40%	0	22	139	907	3,793	934	0	0	0	0	0	0
50%	0	10	89	485	2,219	296	0	0	0	0	0	0
60%	0	0	21	202	889	139	0	0	0	0	0	0
70%	0	0	10	37	333	82	0	0	0	0	0	0
80%	0	0	0	17	103	15	0	0	0	0	0	0
90%	0	0	0	4	34	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	361	2,985	8,740	11,929	6,607	1,213	51	7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	479	4,298	24,449	28,532	17,554	3,706	161	22	0	0	0
Above Normal (16%)	0	776	1,010	5,088	13,111	5,640	184	1	0	0	0	0
Below Normal (13%)	120	21	2,229	355	2,932	239	0	0	0	0	0	0
Dry (24%)	0	339	4,730	456	1,496	447	38	0	0	0	0	0
Critical (15%)	0	2	66	150	313	42	0	0	0	0	0	0

No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	282	8,174	23,395	46,830	17,659	1,531	0	0	0	0	0
20%	0	76	2,289	13,263	17,570	8,077	0	0	0	0	0	0
30%	0	36	627	4,591	8,784	3,332	0	0	0	0	0	0
40%	0	16	186	1,527	4,862	1,181	0	0	0	0	0	0
50%	0	4	122	735	2,748	400	0	0	0	0	0	0
60%	0	1	29	465	1,074	209	0	0	0	0	0	0
70%	0	0	10	78	435	96	0	0	0	0	0	0
80%	0	0	1	28	105	28	0	0	0	0	0	0
90%	0	0	0	11	58	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	3	295	2,999	10,226	13,180	7,987	1,476	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	483	4,310	28,143	30,878	20,864	4,522	61	0	0	0	0
Above Normal (16%)	0	422	1,075	6,617	15,087	7,145	172	0	0	0	0	0
Below Normal (13%)	23	20	2,027	595	3,798	338	0	0	0	0	0	0
Dry (24%)	0	295	4,827	555	1,796	762	59	0	0	0	0	0
Critical (15%)	0	3	86	263	342	52	0	0	0	0	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-20	988	-812	2,623	3,281	-371	0	0	0	0	0
20%	0	2	113	3,366	3,385	3,648	0	0	0	0	0	0
30%	0	-15	173	402	2,823	1,212	0	0	0	0	0	0
40%	0	-6	47	620	1,070	248	0	0	0	0	0	0
50%	0	-6	33	249	529	104	0	0	0	0	0	0
60%	0	0	8	262	185	70	0	0	0	0	0	0
70%	0	0	1	41	102	14	0	0	0	0	0	0
80%	0	0	0	12	2	13	0	0	0	0	0	0
90%	0	0	0	7	24	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-13	-66	13	1,486	1,251	1,379	262	-32	-7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	5	11	3,693	2,346	3,310	816	-100	-22	0	0	0
Above Normal (16%)	0	-354	66	1,529	1,976	1,505	-12	-1	0	0	0	0
Below Normal (13%)	-97	-1	-202	240	866	98	0	0	0	0	0	0
Dry (24%)	0	-45	97	99	301	315	22	0	0	0	0	0
Critical (15%)	0	1	20	113	29	9	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-4. Fremont Weir Spills, Monthly Spills

Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	379	9,979	27,926	45,922	15,957	1,904	0	0	0	0	0
20%	0	30	2,449	9,911	13,660	4,857	0	0	0	0	0	0
30%	0	15	612	4,205	7,579	2,583	0	0	0	0	0	0
40%	0	0	160	1,144	4,424	977	0	0	0	0	0	0
50%	0	0	88	661	2,331	351	0	0	0	0	0	0
60%	0	0	21	236	986	172	0	0	0	0	0	0
70%	0	0	12	66	327	83	0	0	0	0	0	0
80%	0	0	2	21	91	15	0	0	0	0	0	0
90%	0	0	0	6	33	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	397	3,473	9,117	12,562	6,883	1,203	51	7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	466	5,519	25,509	29,558	17,953	3,675	162	22	0	0	0
Above Normal (16%)	0	908	1,287	5,222	14,491	6,474	180	1	0	0	0	0
Below Normal (13%)	120	21	2,255	474	3,606	311	0	0	0	0	0	0
Dry (24%)	0	419	4,950	460	1,501	477	38	0	0	0	0	0
Critical (15%)	0	1	66	174	294	43	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	346	9,560	31,997	47,038	23,310	1,534	0	0	0	0	0
20%	0	24	2,869	14,450	18,371	7,945	0	0	0	0	0	0
30%	0	9	805	5,021	11,437	3,846	0	0	0	0	0	0
40%	0	0	185	1,723	5,201	1,594	0	0	0	0	0	0
50%	0	0	122	819	2,840	451	0	0	0	0	0	0
60%	0	0	29	463	1,179	222	0	0	0	0	0	0
70%	0	0	15	78	461	105	0	0	0	0	0	0
80%	0	0	1	28	110	30	0	0	0	0	0	0
90%	0	0	0	11	55	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	4	296	3,523	10,785	13,815	8,364	1,466	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	467	5,292	29,647	31,663	21,283	4,493	61	0	0	0	0
Above Normal (16%)	0	443	1,470	6,911	16,700	8,401	167	0	0	0	0	0
Below Normal (13%)	31	25	2,056	798	4,733	483	0	0	0	0	0	0
Dry (24%)	0	303	5,427	588	1,814	867	60	0	0	0	0	0
Critical (15%)	0	2	86	263	346	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-33	-418	4,070	1,115	7,353	-371	0	0	0	0	0
20%	0	-6	421	4,538	4,711	3,088	0	0	0	0	0	0
30%	0	-6	193	816	3,858	1,262	0	0	0	0	0	0
40%	0	0	25	579	776	616	0	0	0	0	0	0
50%	0	0	34	159	509	100	0	0	0	0	0	0
60%	0	0	9	227	193	50	0	0	0	0	0	0
70%	0	0	3	11	133	22	0	0	0	0	0	0
80%	0	0	-1	7	19	15	0	0	0	0	0	0
90%	0	0	0	5	22	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-12	-101	50	1,667	1,253	1,481	263	-32	-7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	2	-227	4,138	2,105	3,330	818	-101	-22	0	0	0
Above Normal (16%)	0	-465	183	1,689	2,209	1,927	-13	-1	0	0	0	0
Below Normal (13%)	-89	4	-199	325	1,128	173	0	0	0	0	0	0
Dry (24%)	0	-117	477	128	313	391	22	0	0	0	0	0
Critical (15%)	0	1	20	89	52	9	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

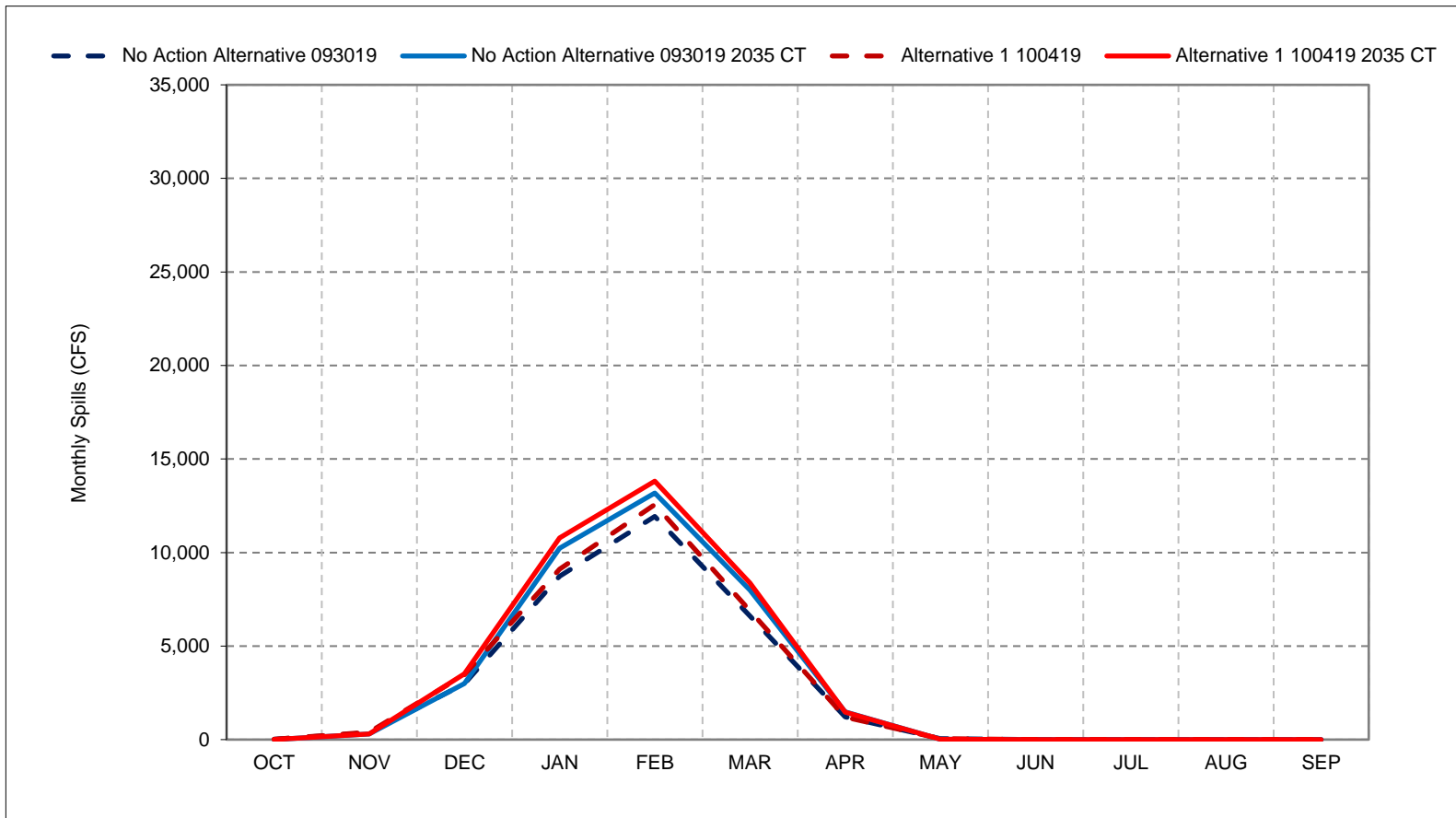
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 24-1. Fremont Weir Spills, Long-Term Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

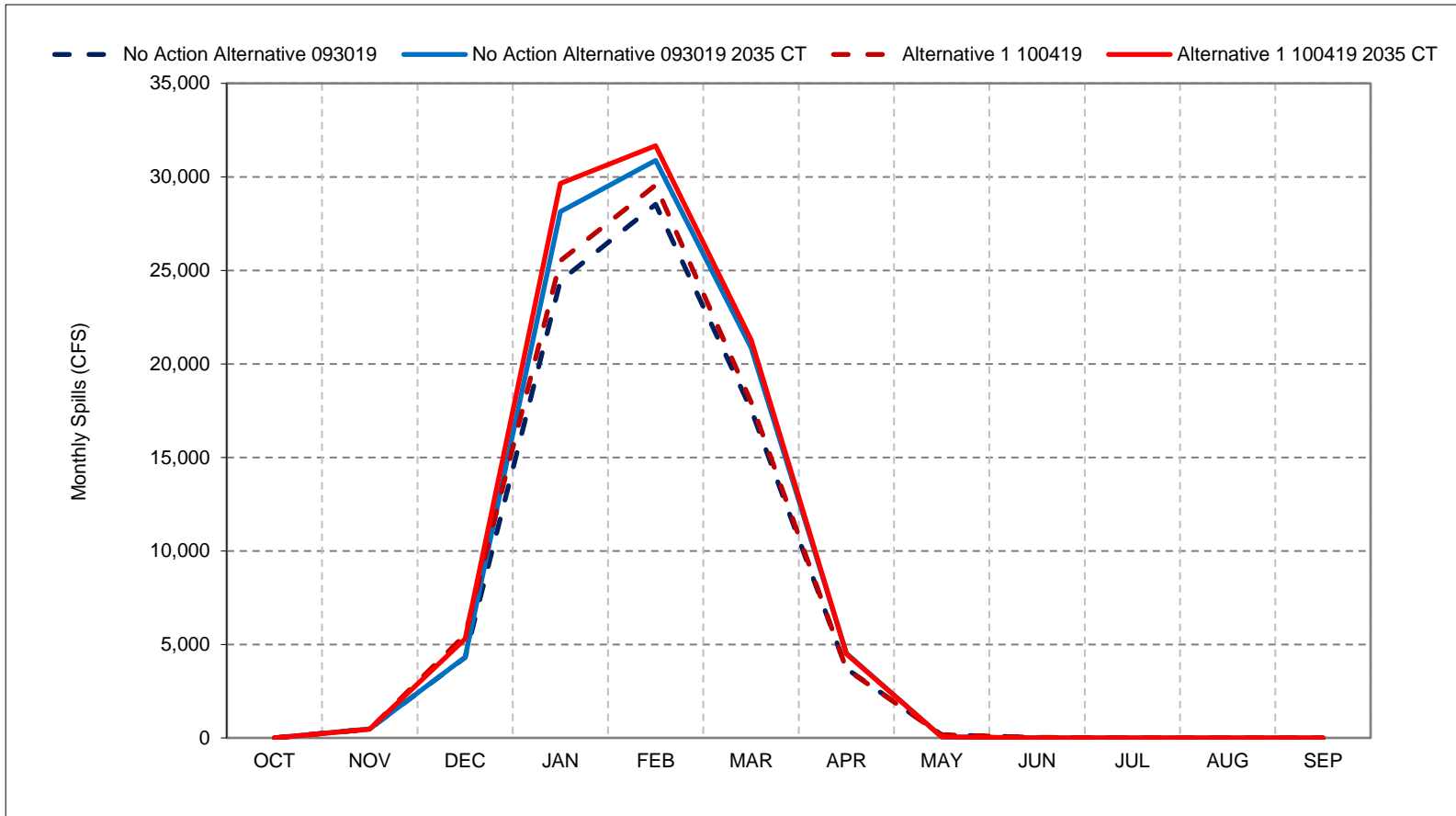
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-2. Fremont Weir Spills, Wet Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

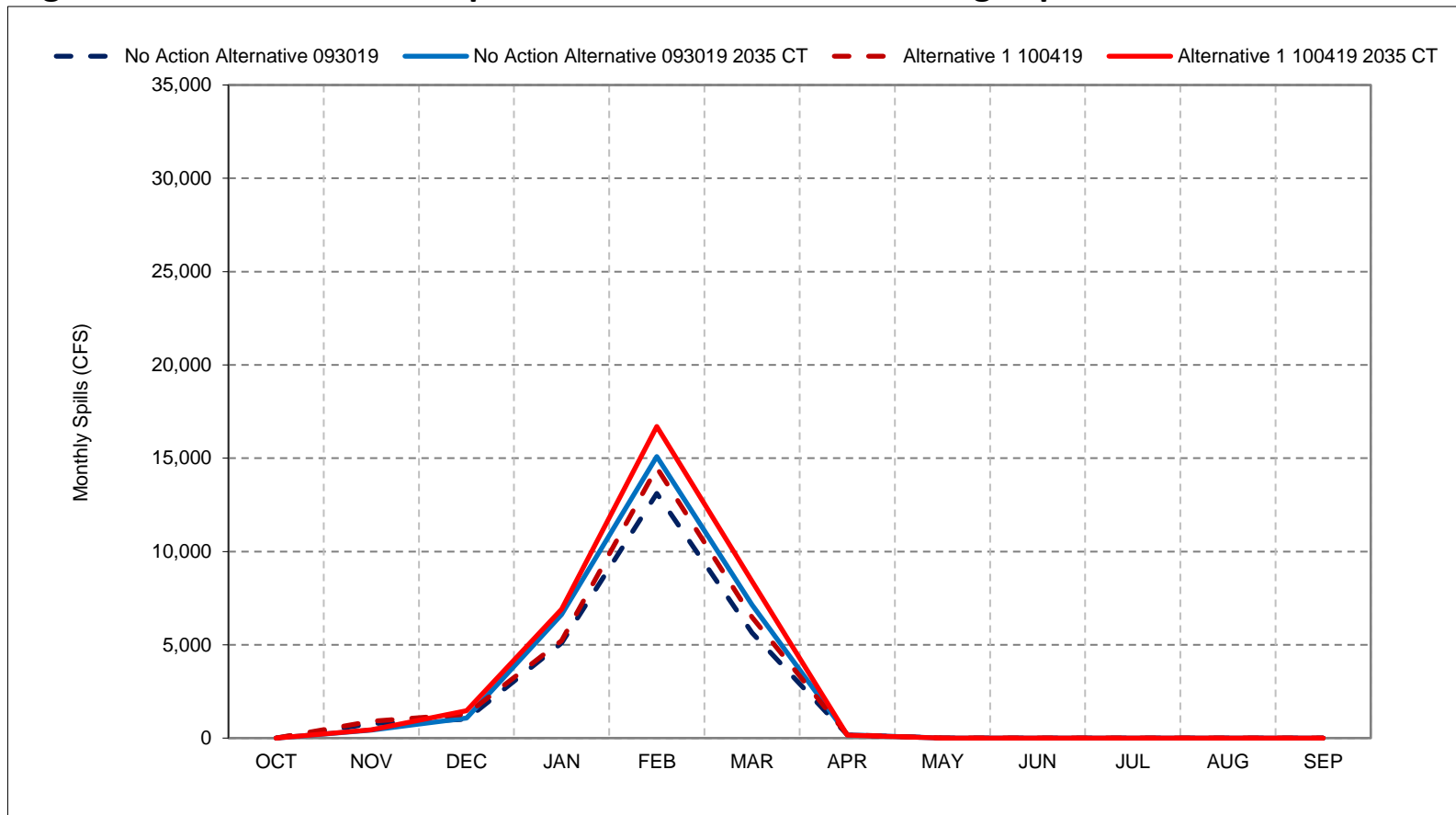
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-3. Fremont Weir Spills, Above Normal Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

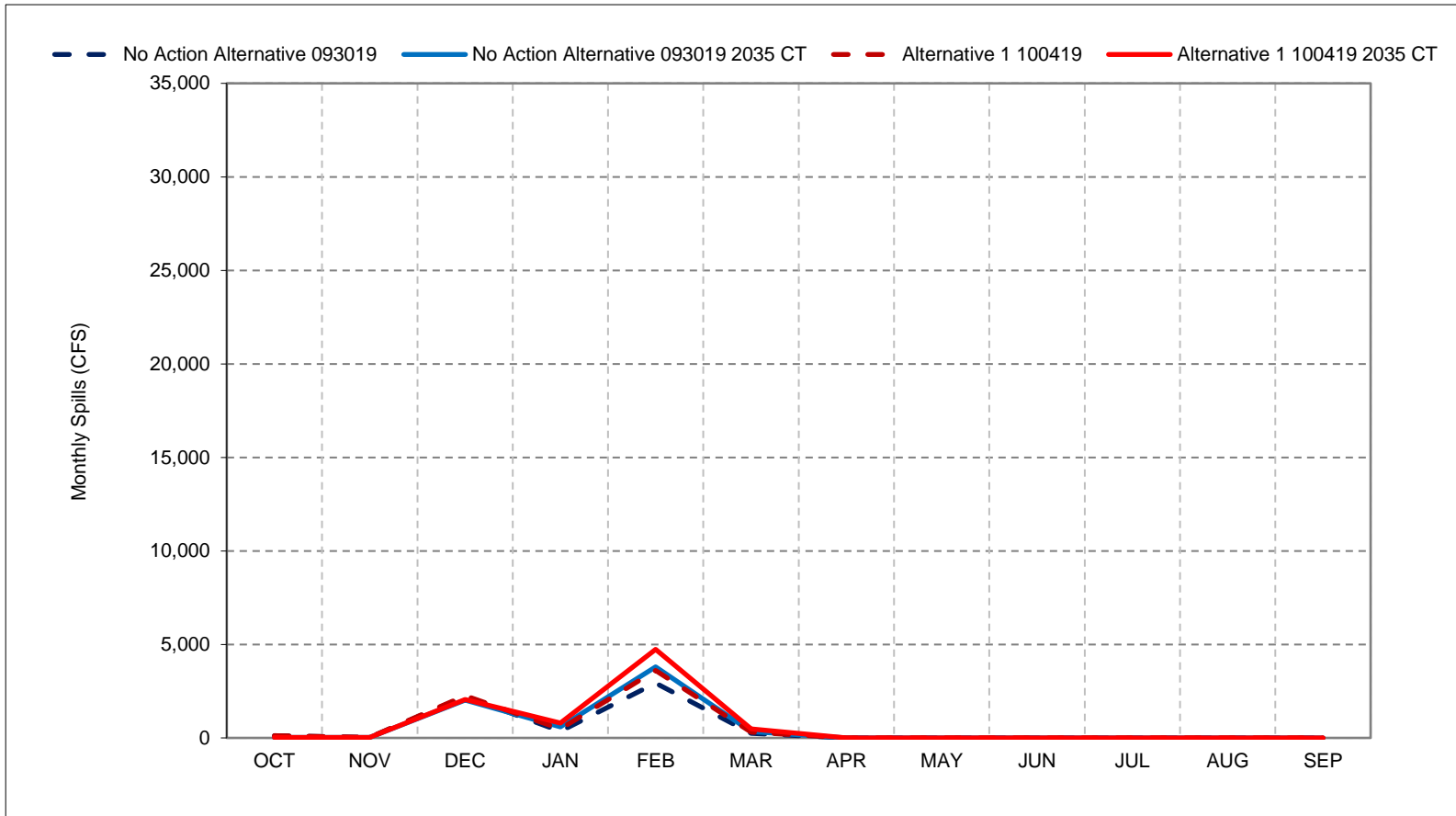
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-4. Fremont Weir Spills, Below Normal Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

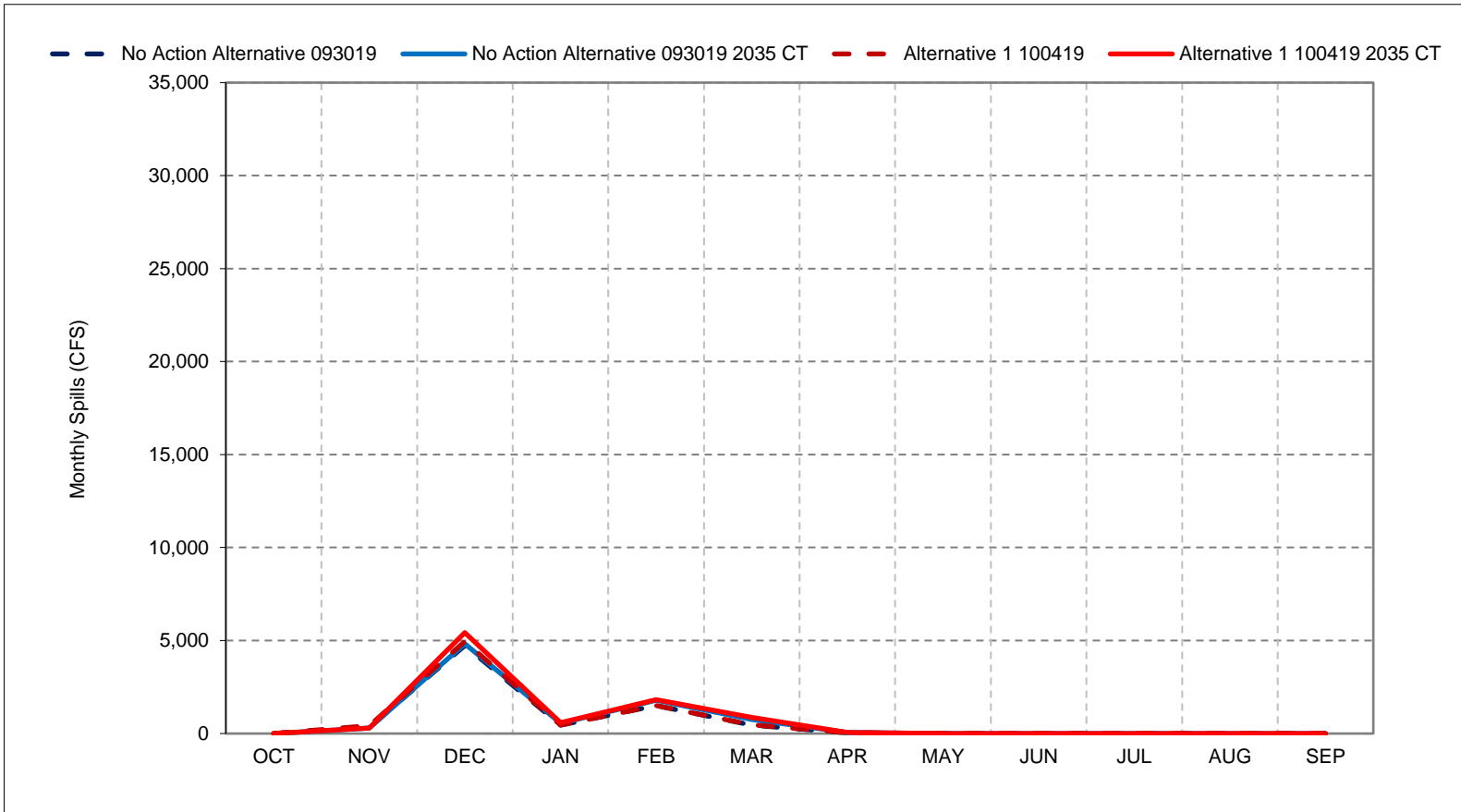
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-5. Fremont Weir Spills, Dry Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

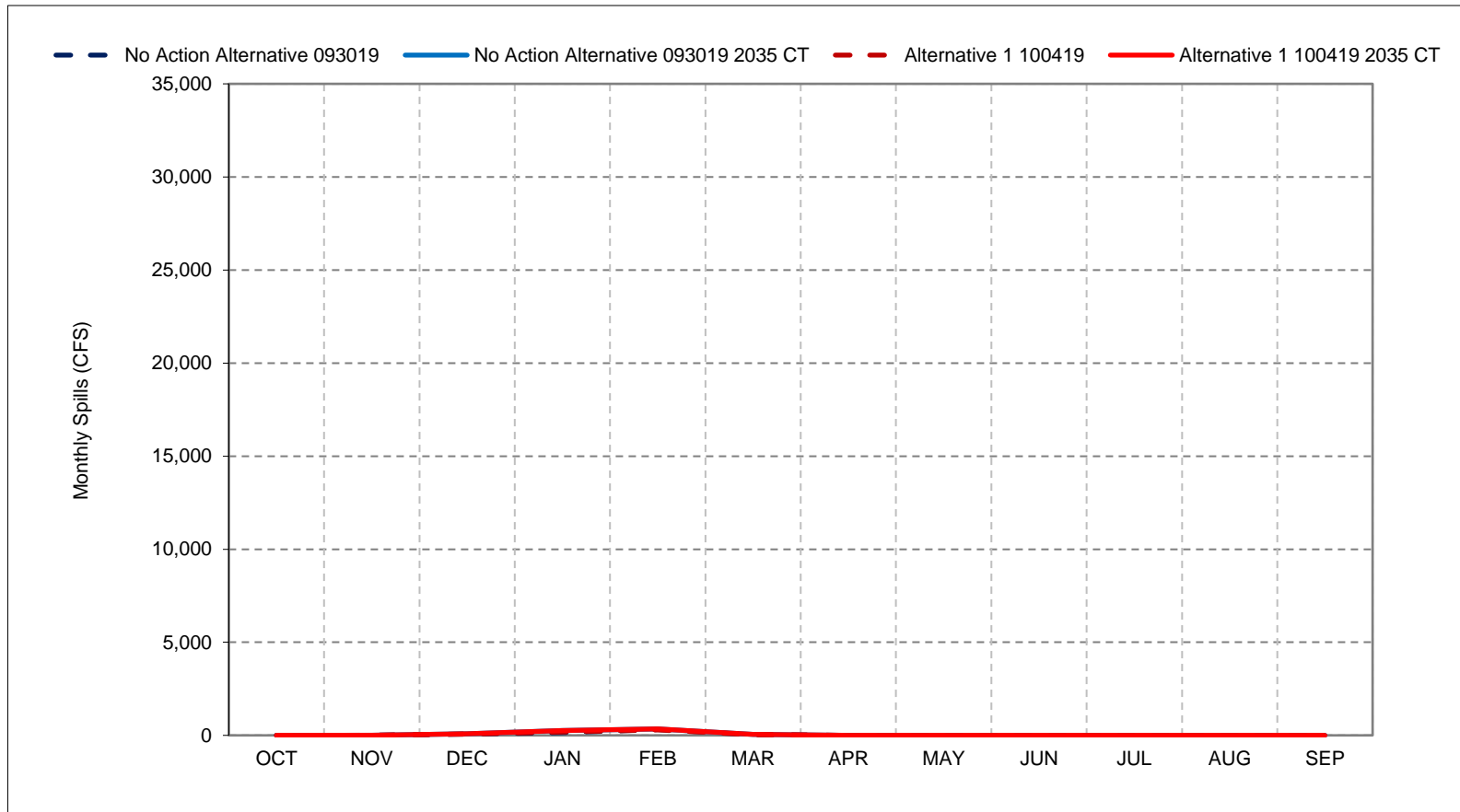
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-6. Fremont Weir Spills, Critical Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

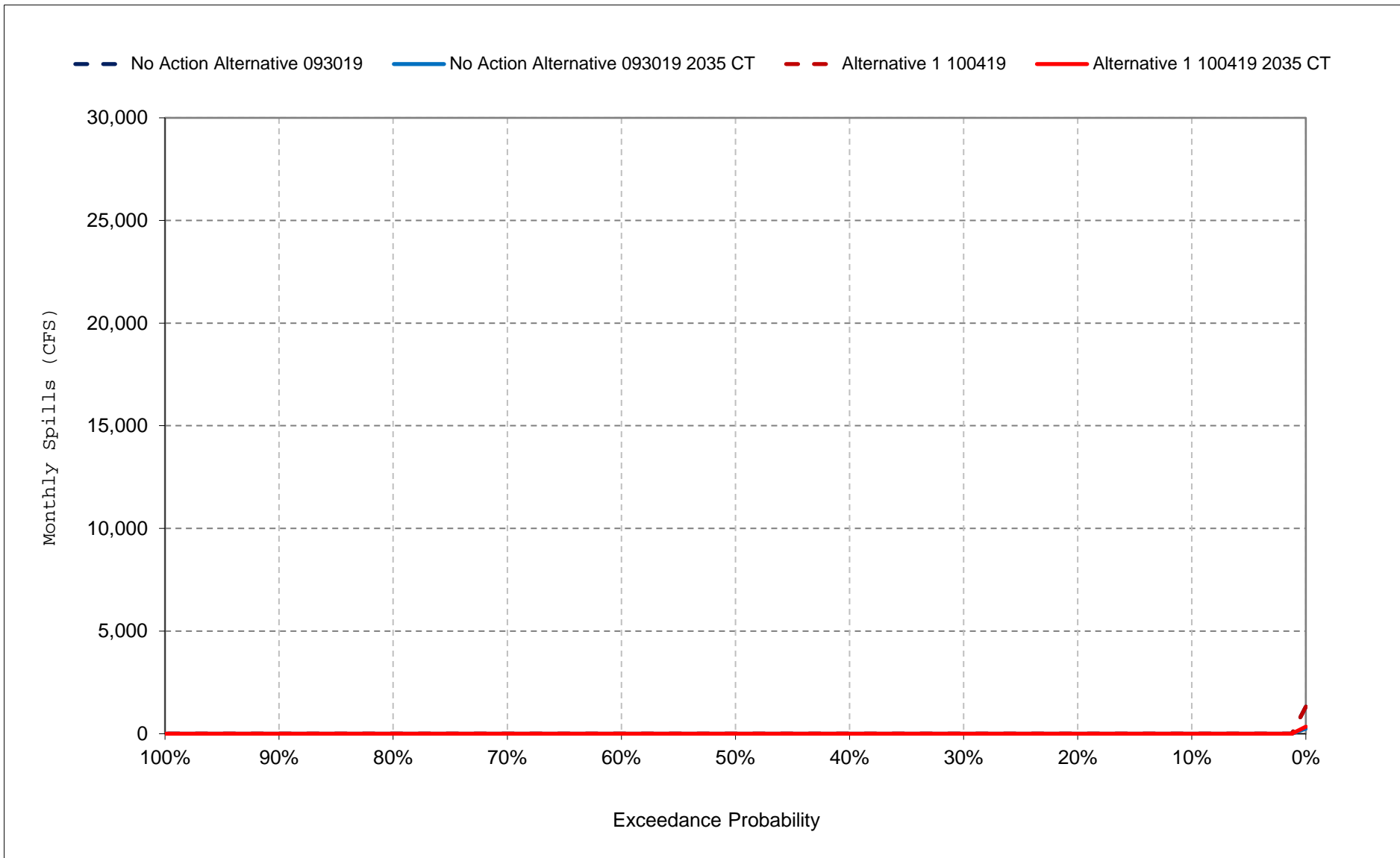
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

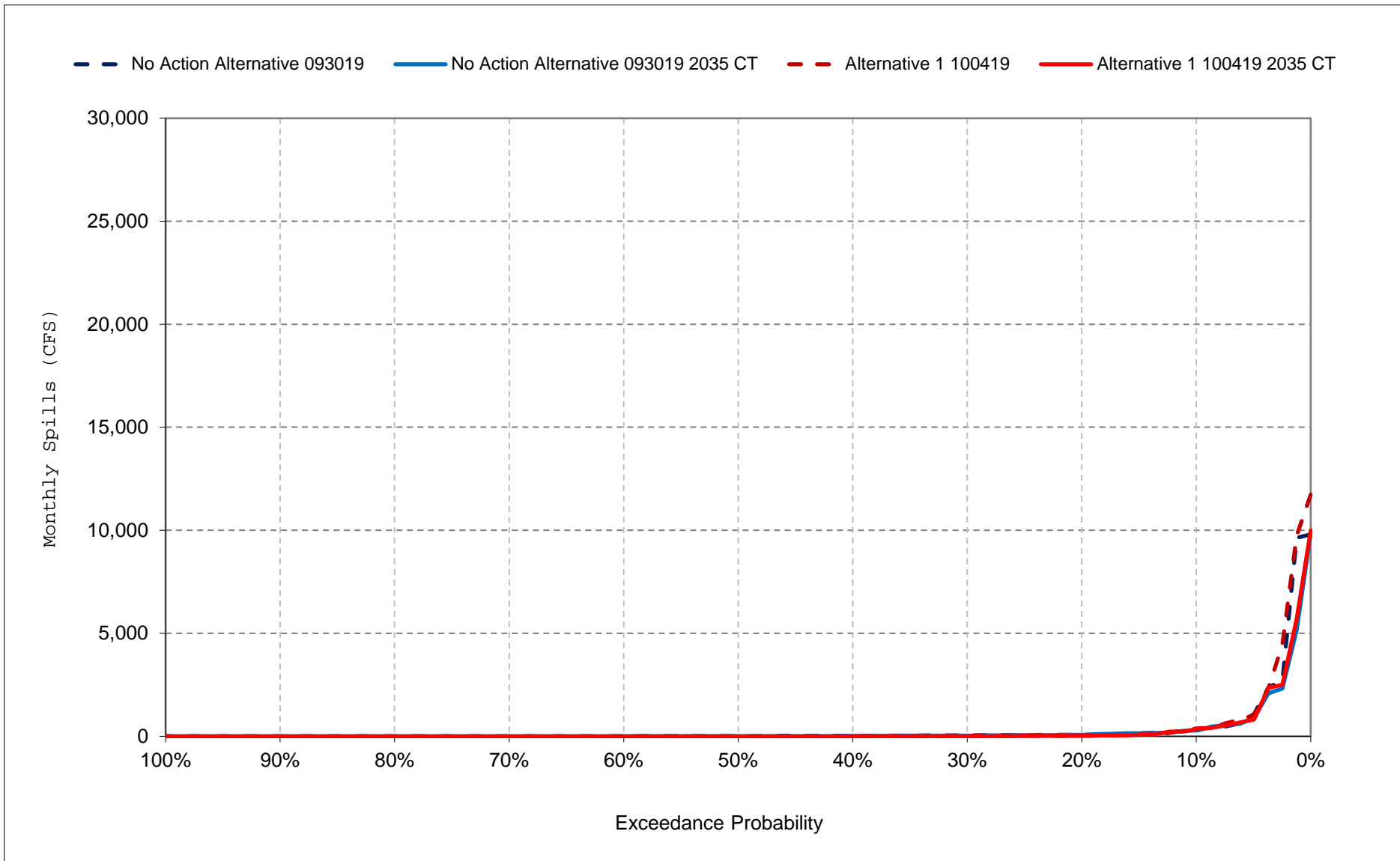
Figure 24-7. Fremont Weir Spills, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

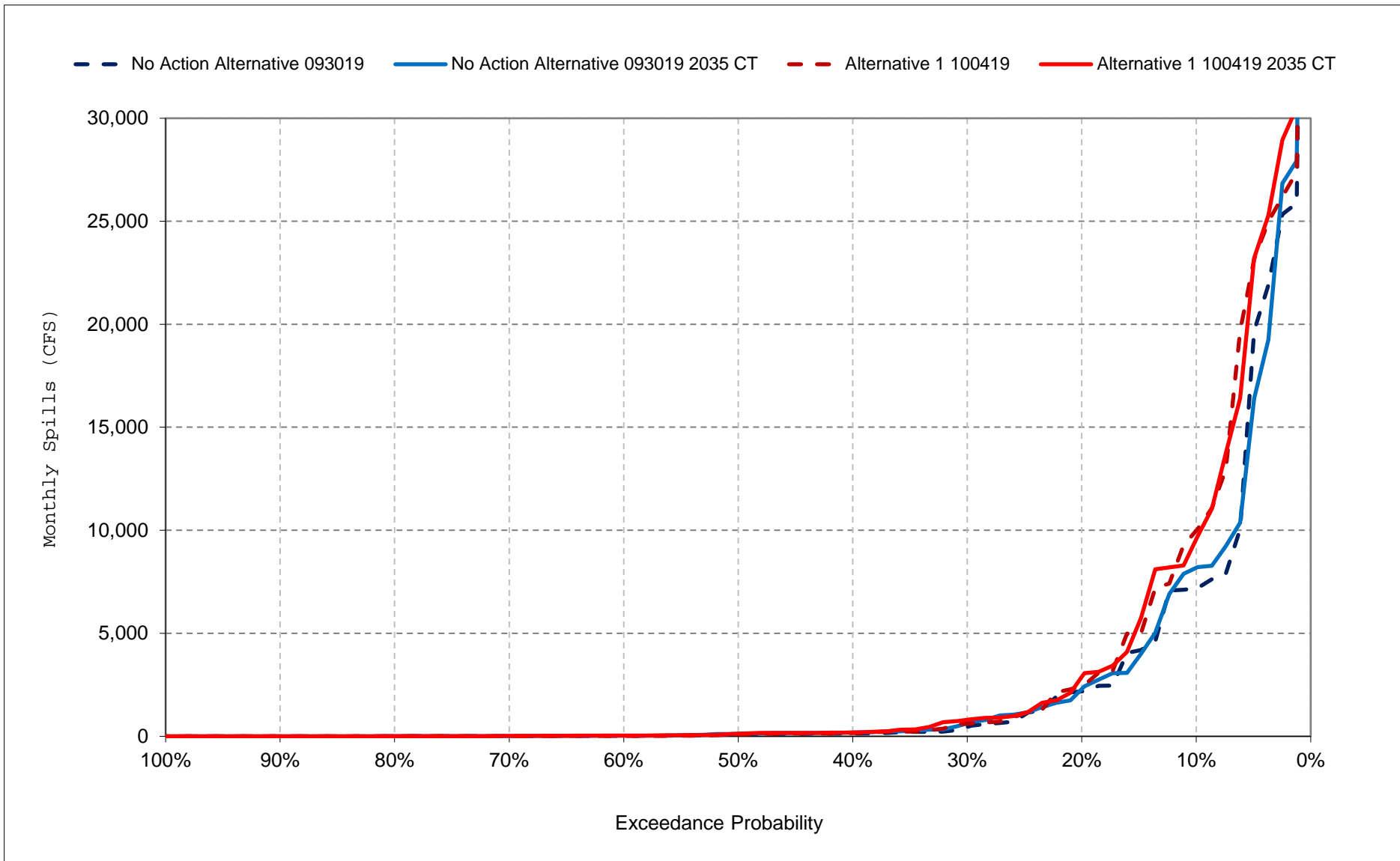
Figure 24-8. Fremont Weir Spills, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

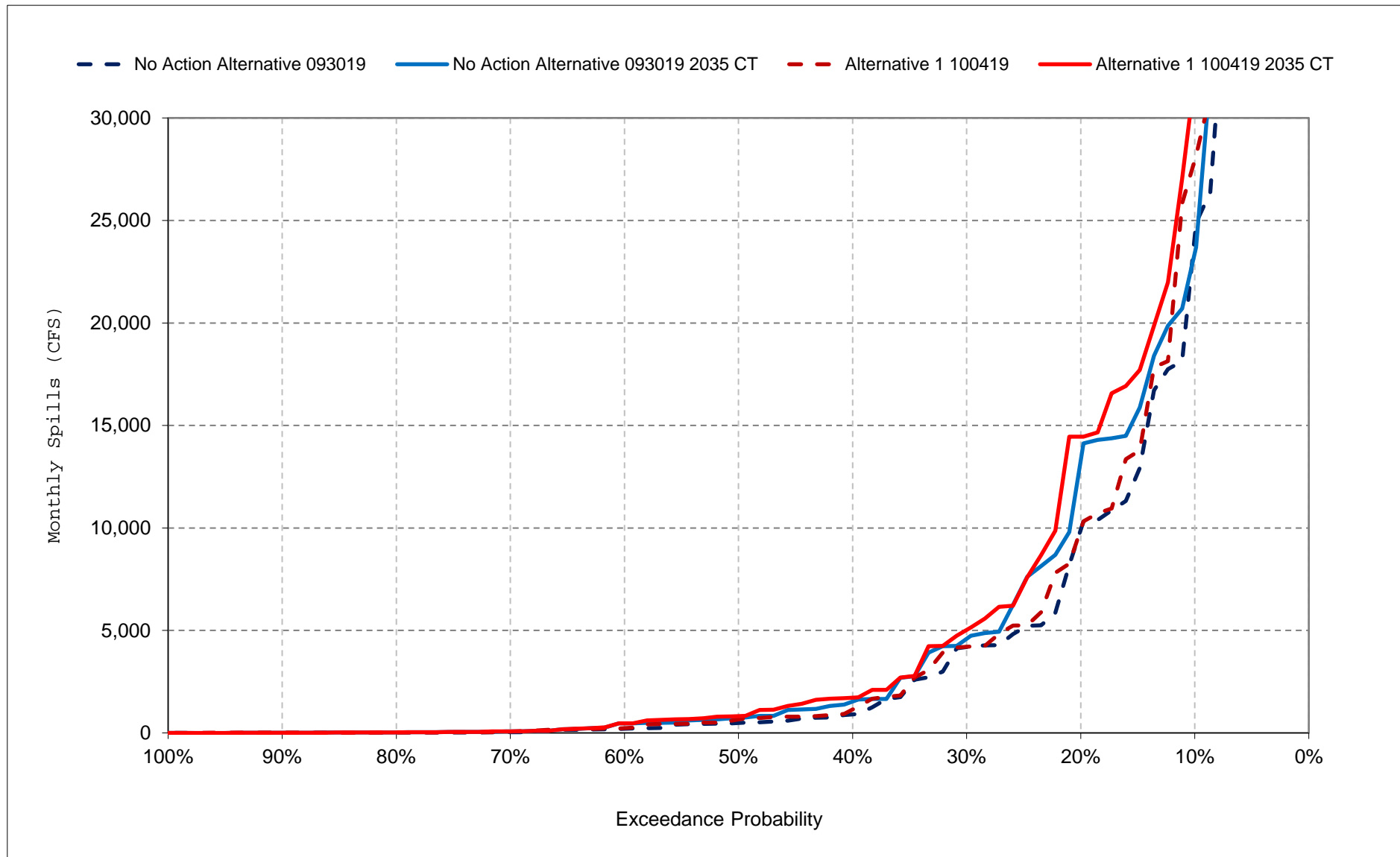
Figure 24-9. Fremont Weir Spills, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

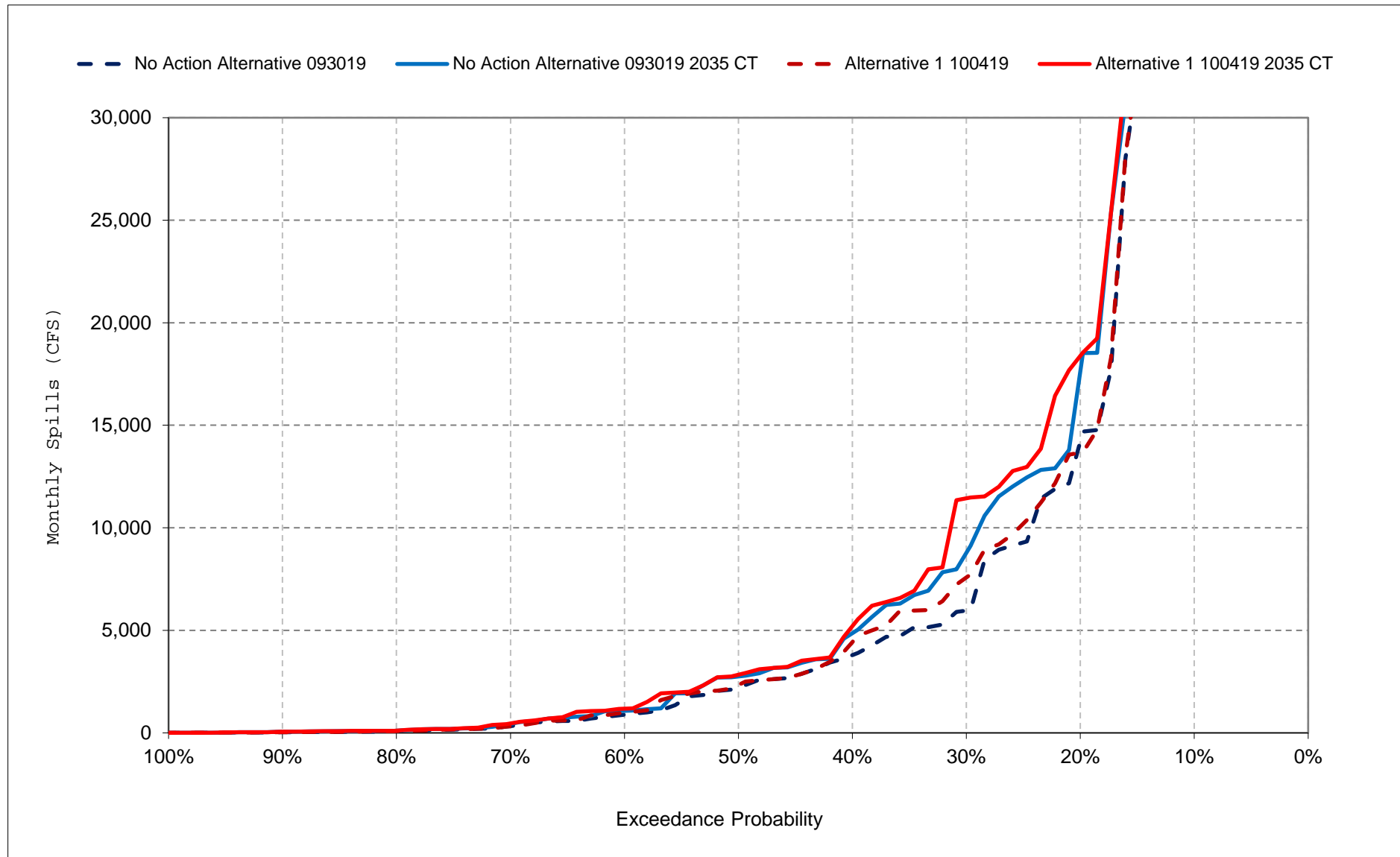
Figure 24-10. Fremont Weir Spills, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

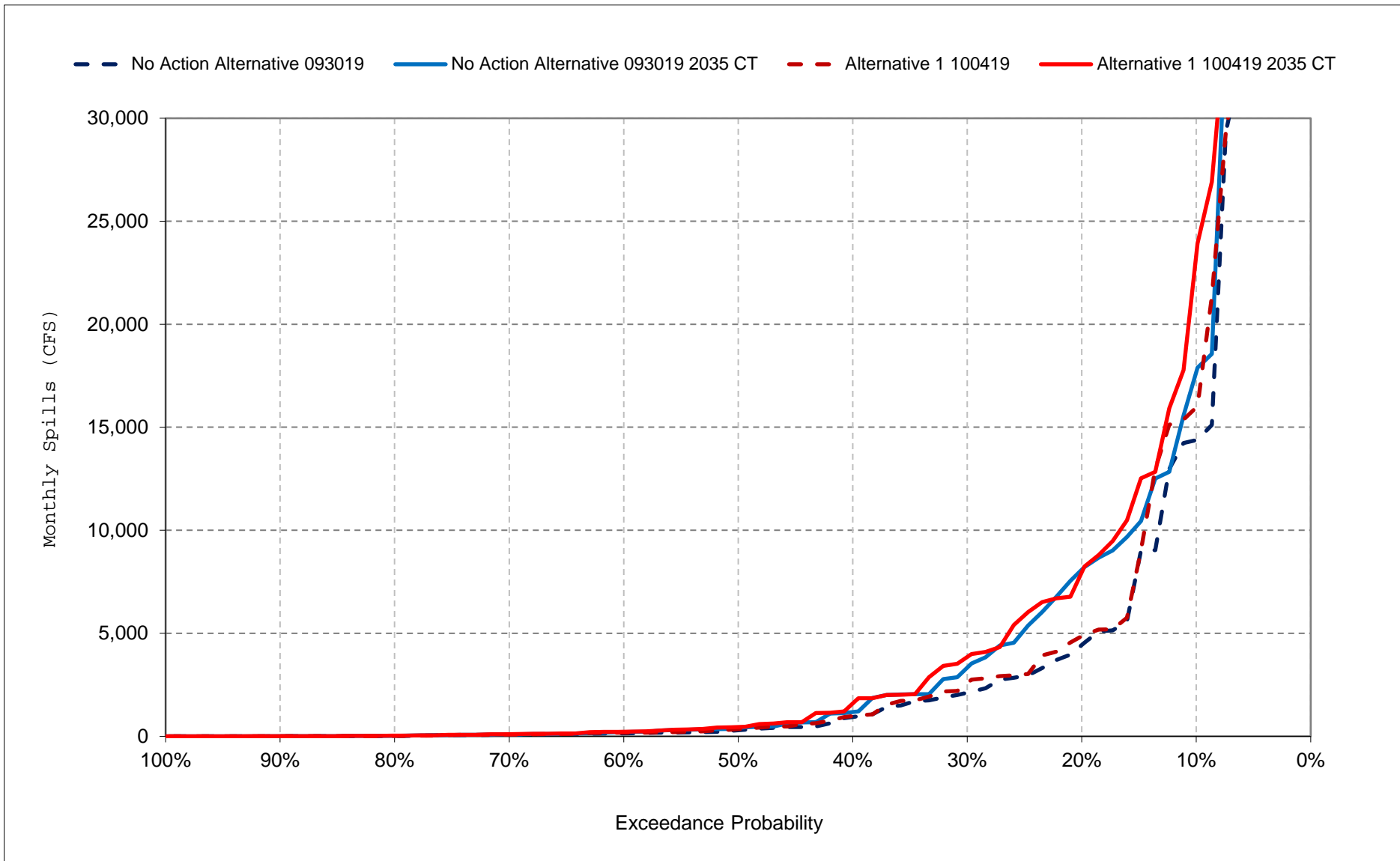
Figure 24-11. Fremont Weir Spills, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

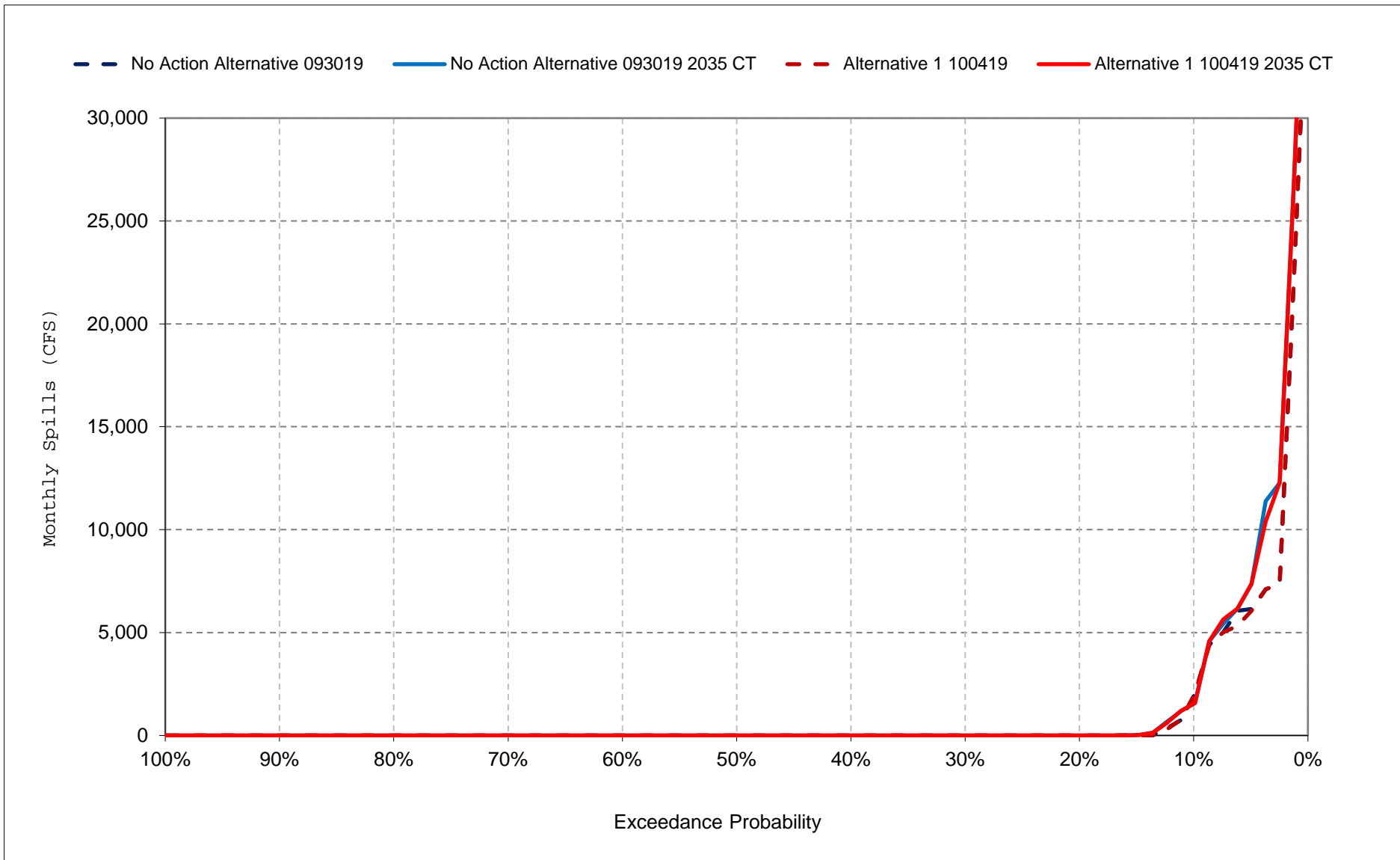
Figure 24-12. Fremont Weir Spills, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

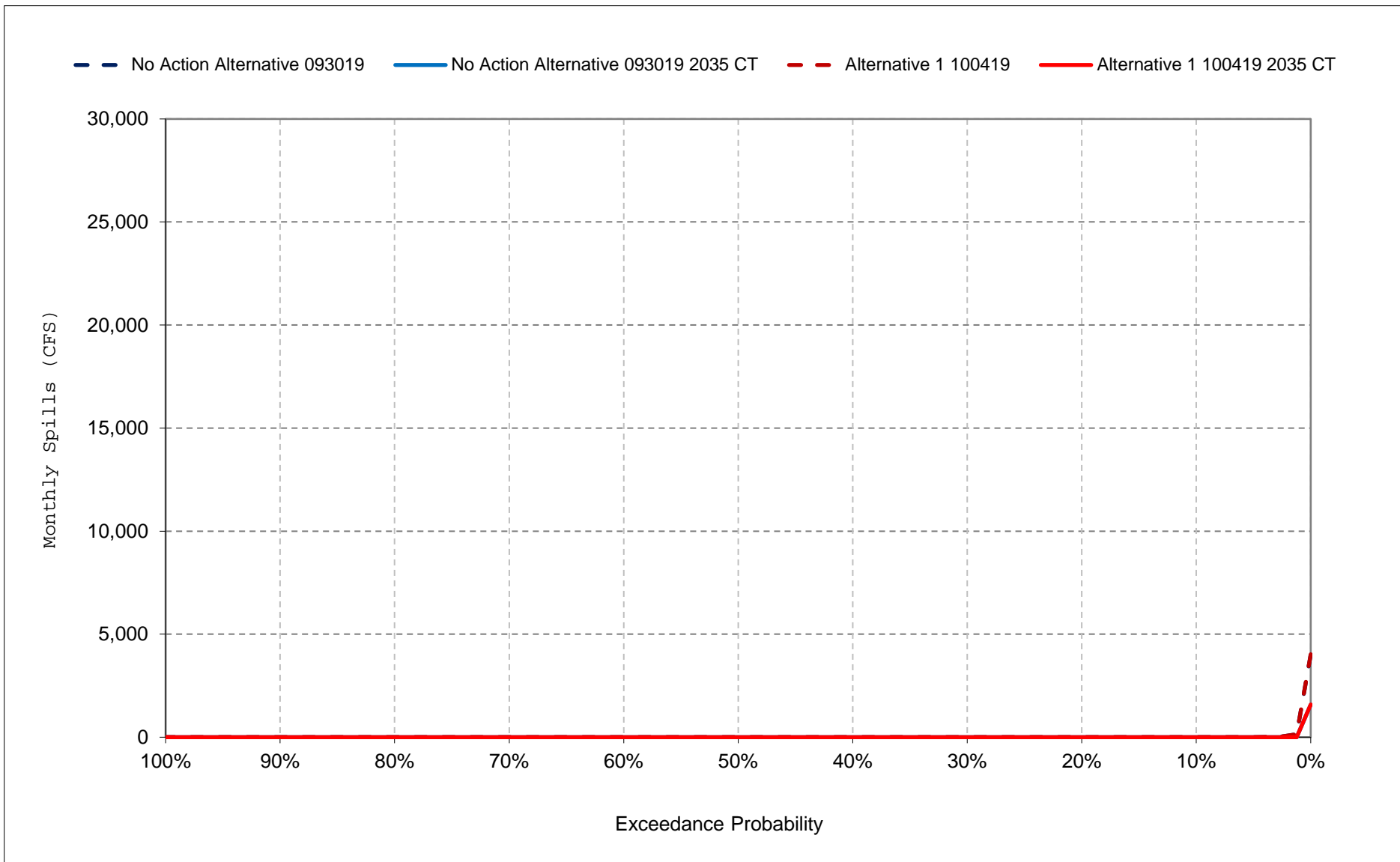
Figure 24-13. Fremont Weir Spills, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

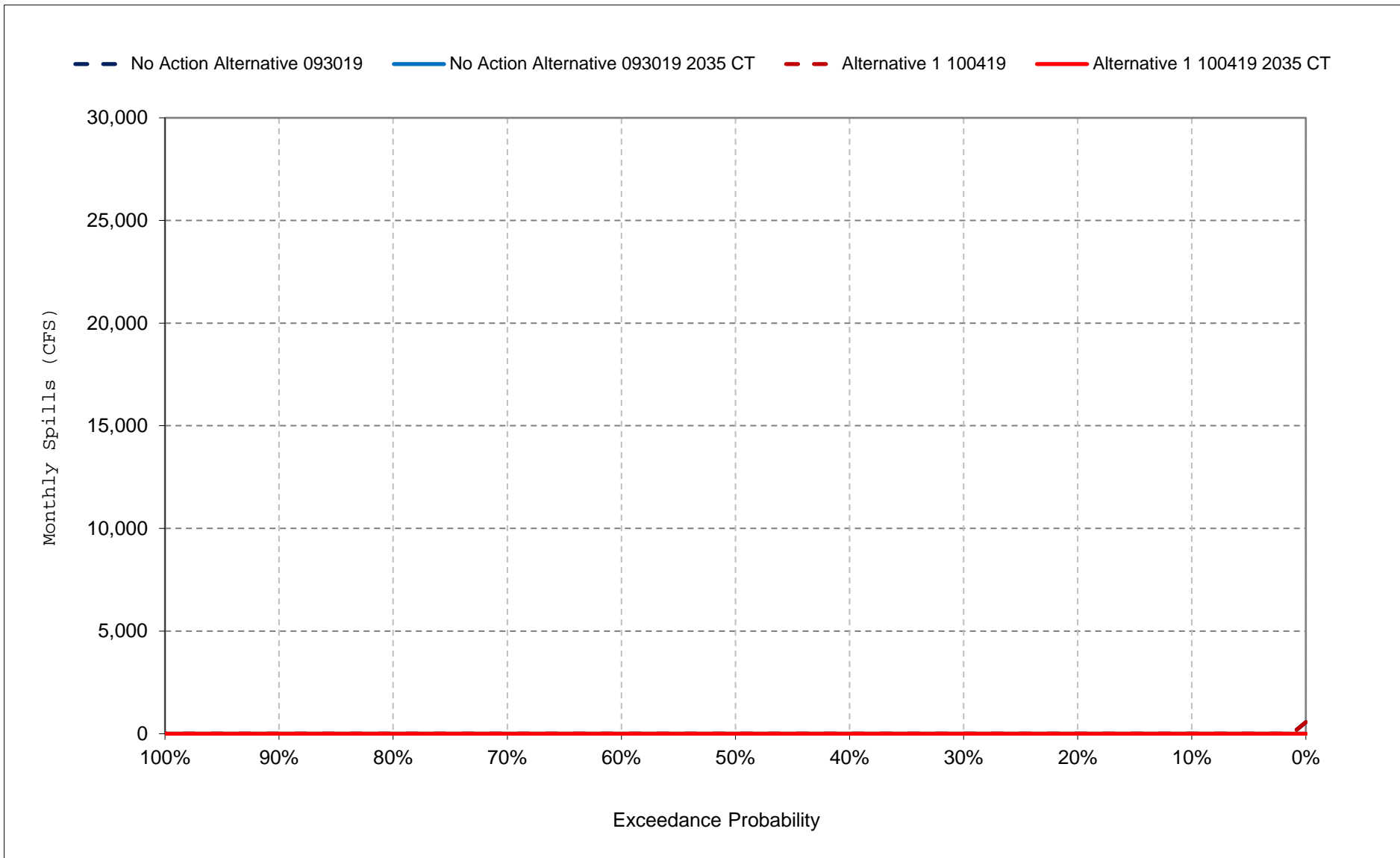
Figure 24-14. Fremont Weir Spills, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

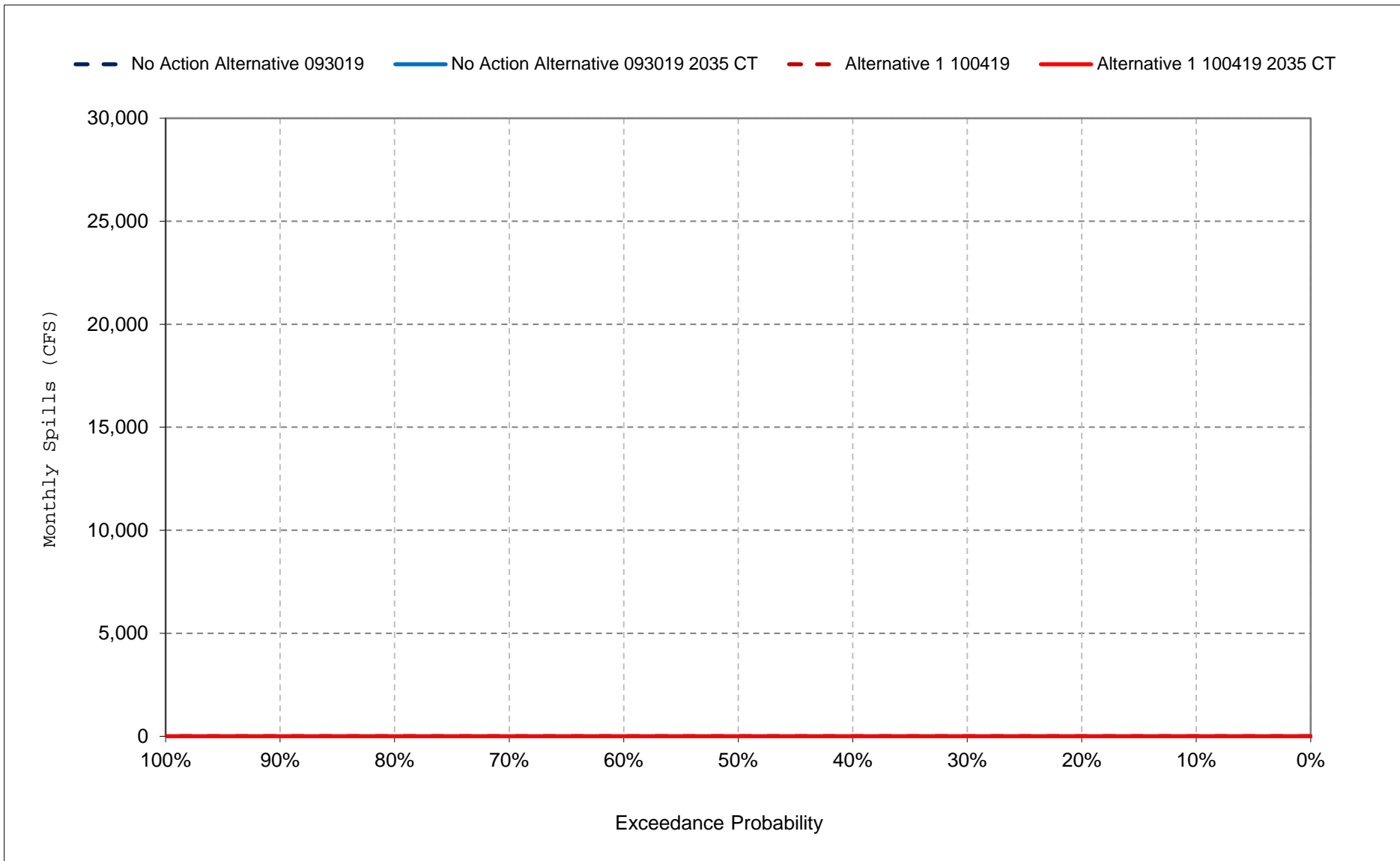
Figure 24-15. Fremont Weir Spills, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

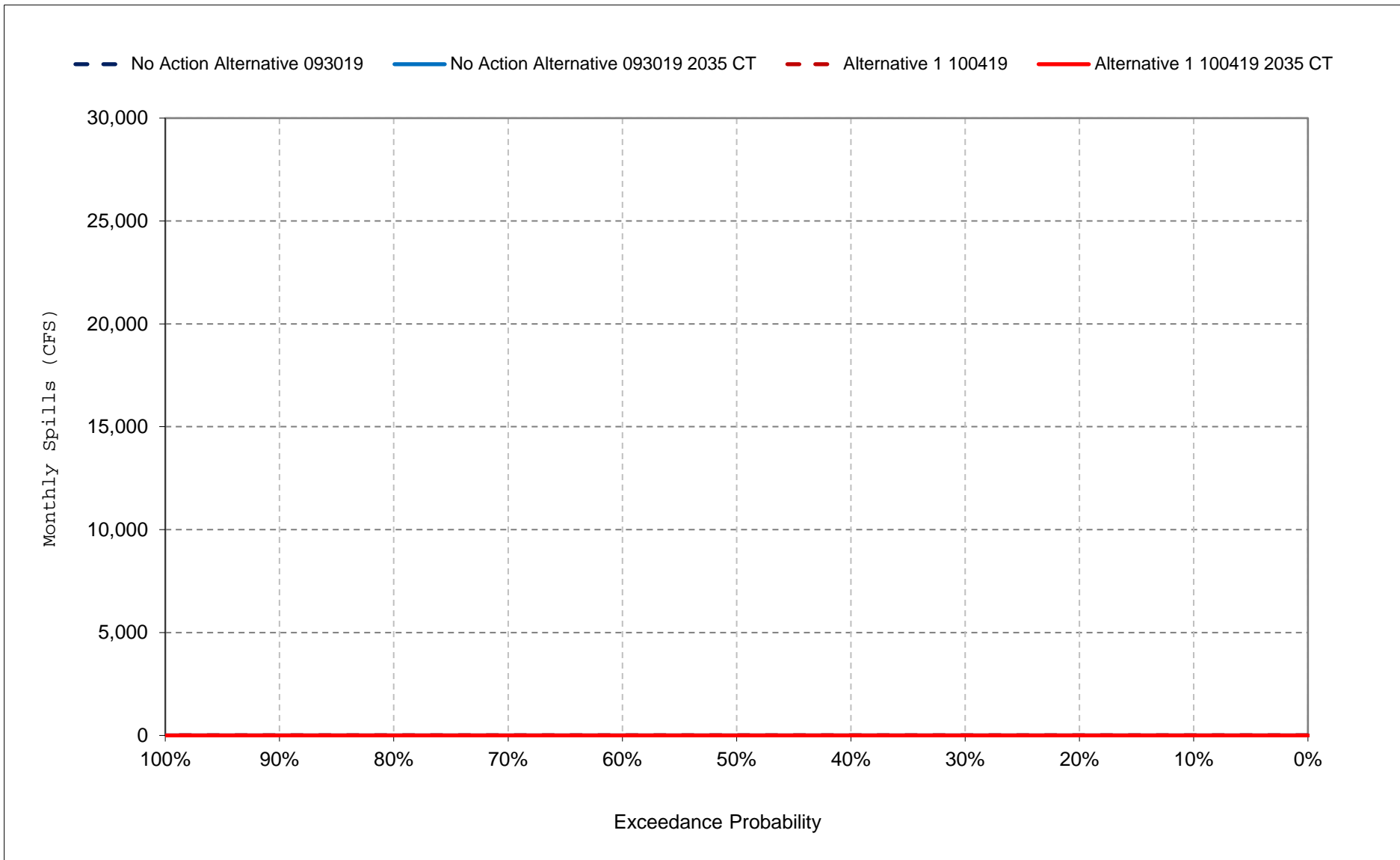
Figure 24-16. Fremont Weir Spills, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

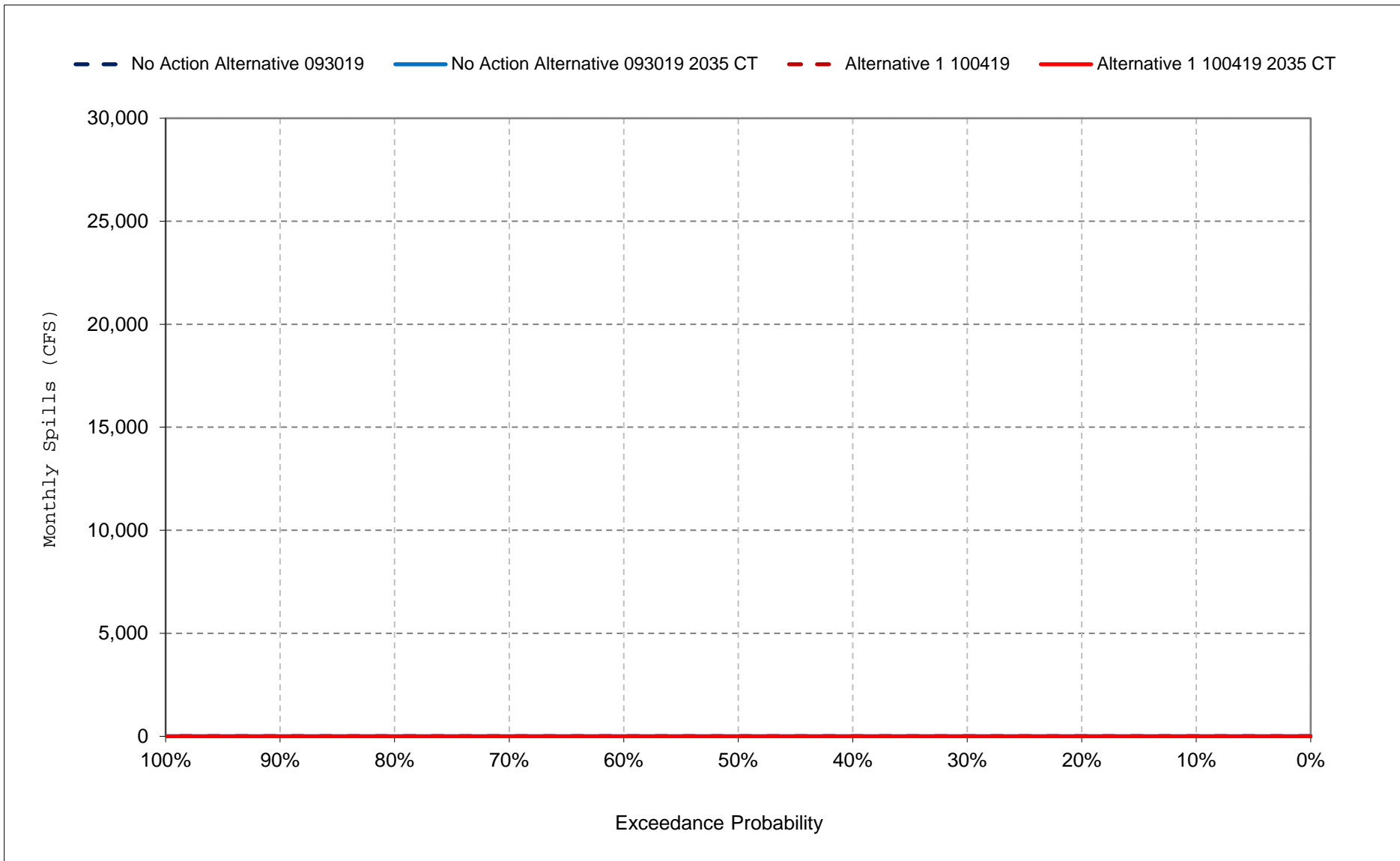
Figure 24-17. Fremont Weir Spills, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 24-18. Fremont Weir Spills, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-1. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	807	11,074	34,905	52,512	18,729	7,044	243	68	48	183	247
20%	61	180	4,879	14,950	20,714	8,858	3,162	78	68	48	55	125
30%	58	82	1,495	7,020	11,107	4,888	1,068	73	68	48	55	59
40%	53	59	462	3,091	6,866	2,861	229	70	68	48	55	59
50%	45	33	271	900	4,160	1,136	135	68	67	48	55	59
60%	39	14	138	490	1,520	437	111	65	67	48	55	59
70%	27	10	52	273	581	187	88	63	66	48	55	58
80%	14	5	20	68	210	90	78	59	64	48	55	56
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	121	537	4,367	11,804	15,744	9,246	2,650	210	88	48	101	115
Water Year Types ^{b,c}												
Wet (32%)	86	746	5,579	31,618	36,367	23,469	6,899	453	135	48	147	209
Above Normal (16%)	38	895	1,881	8,321	17,536	8,646	1,822	185	66	48	92	65
Below Normal (13%)	538	115	3,563	928	4,721	656	234	69	66	48	130	92
Dry (24%)	36	571	7,239	1,094	2,868	1,228	522	75	67	48	61	70
Critical (15%)	48	27	385	467	684	320	105	67	65	48	55	61

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	803	13,705	38,091	52,656	24,848	7,045	243	68	48	183	127
20%	61	159	5,197	15,725	21,991	8,913	3,162	78	68	48	55	59
30%	57	51	1,584	7,125	11,501	5,386	1,068	73	68	48	55	59
40%	53	28	462	3,249	9,166	3,026	229	70	68	48	55	59
50%	45	11	272	1,144	4,188	1,261	135	68	67	48	55	59
60%	39	8	146	525	2,188	465	111	65	67	48	55	59
70%	27	5	56	282	587	214	88	63	66	48	55	58
80%	14	1	19	95	210	90	78	59	64	48	55	55
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	120	588	4,907	12,219	16,420	9,543	2,664	211	88	50	101	72
Water Year Types ^{b,c}												
Wet (32%)	86	776	6,876	32,731	37,427	23,879	6,946	454	135	55	147	73
Above Normal (16%)	38	1,027	2,165	8,489	19,015	9,520	1,818	185	66	48	92	65
Below Normal (13%)	538	115	3,588	1,154	5,578	809	234	69	66	48	130	92
Dry (24%)	36	655	7,568	1,103	2,844	1,260	521	75	67	48	61	70
Critical (15%)	42	26	384	488	660	322	105	67	65	48	55	61

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-4	2,631	3,186	144	6,119	1	0	0	0	0	-120
20%	0	-21	318	774	1,277	55	0	0	0	0	0	-66
30%	-1	-31	89	104	393	498	0	0	0	0	0	0
40%	0	-30	0	158	2,300	165	0	0	0	0	0	0
50%	0	-22	1	244	27	126	0	0	0	0	0	0
60%	0	-5	8	34	668	29	0	0	0	0	0	0
70%	0	-4	4	9	6	27	0	0	0	0	0	-1
80%	0	-4	-1	27	0	0	0	0	0	0	0	-1
90%	0	0	0	-1	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-1	51	540	415	676	297	14	0	0	2	0	-43
Water Year Types ^{b,c}												
Wet (32%)	0	30	1,297	1,113	1,059	410	47	1	0	8	0	-137
Above Normal (16%)	0	132	285	168	1,479	874	-4	0	0	0	0	0
Below Normal (13%)	-1	0	24	226	857	153	0	0	0	0	0	0
Dry (24%)	0	84	330	8	-24	32	-1	0	0	0	0	0
Critical (15%)	-7	-1	-1	22	-24	2	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 25-2. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	719	11,670	36,216	55,495	23,061	7,044	82	68	48	183	271
20%	61	182	5,300	19,007	26,804	11,560	3,162	77	68	48	55	133
30%	57	71	1,700	7,693	12,667	7,061	1,068	72	68	48	55	60
40%	53	50	475	3,693	9,810	3,333	229	69	68	48	55	59
50%	45	29	293	1,228	5,310	1,285	135	67	67	48	55	59
60%	39	10	148	584	1,734	517	111	64	67	48	55	59
70%	27	7	55	292	641	210	88	62	66	48	55	58
80%	14	3	20	103	221	104	78	58	64	48	55	56
90%	4	0	0	38	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	72	471	4,447	13,494	17,209	10,886	2,934	142	81	48	101	129
Water Year Types ^{b,c}												
Wet (32%)	86	768	5,646	35,756	39,045	27,425	7,776	236	113	48	147	218
Above Normal (16%)	38	534	1,952	10,195	19,744	10,335	1,818	184	66	48	92	138
Below Normal (13%)	180	114	3,449	1,208	5,782	754	234	69	66	48	130	92
Dry (24%)	36	506	7,415	1,201	3,360	1,651	546	75	67	48	61	70
Critical (15%)	42	28	519	581	710	329	105	67	65	48	55	58

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	869	13,190	39,763	55,503	29,719	7,044	82	68	48	183	127
20%	61	159	5,688	21,327	27,345	11,567	3,162	77	68	48	55	59
30%	57	51	1,914	9,127	14,566	7,819	1,068	72	68	48	55	59
40%	53	23	574	4,008	9,794	3,465	229	69	68	48	55	59
50%	45	10	304	1,518	5,484	1,364	125	67	67	48	55	59
60%	39	7	169	652	2,125	566	111	64	67	48	55	59
70%	27	4	55	292	649	235	88	62	66	48	55	57
80%	14	0	22	75	242	112	78	58	64	48	55	55
90%	4	0	0	25	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	74	475	5,034	14,085	17,872	11,291	2,922	142	81	48	101	71
Water Year Types ^{b,c}												
Wet (32%)	86	750	6,676	37,312	39,866	27,852	7,746	237	113	48	147	73
Above Normal (16%)	38	553	2,361	10,513	21,453	11,669	1,807	184	66	48	92	65
Below Normal (13%)	189	119	3,464	1,516	6,770	981	234	69	66	48	130	92
Dry (24%)	36	531	8,207	1,233	3,357	1,764	545	75	67	48	61	70
Critical (15%)	42	27	523	575	709	331	105	67	65	48	55	58

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	150	1,520	3,548	7	6,658	0	0	0	0	0	-145
20%	0	-23	388	2,320	541	7	0	0	0	0	0	-74
30%	0	-20	215	1,434	1,899	758	0	0	0	0	0	0
40%	0	-27	99	315	-17	132	0	0	0	0	0	0
50%	0	-19	11	290	174	79	-10	0	0	0	0	0
60%	0	-3	21	69	391	49	-1	0	0	0	0	-1
70%	0	-2	0	0	7	25	0	0	0	0	0	-1
80%	0	-3	2	-29	22	9	0	0	0	0	0	-1
90%	0	0	0	-14	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	1	4	587	592	663	405	-12	0	0	0	0	-58
Water Year Types ^{b,c}												
Wet (32%)	0	-18	1,031	1,555	821	428	-30	0	0	0	0	-145
Above Normal (16%)	0	19	410	317	1,709	1,334	-11	0	0	0	0	-74
Below Normal (13%)	9	5	15	308	988	227	0	0	0	0	0	0
Dry (24%)	0	24	792	32	-3	113	-1	0	0	0	0	0
Critical (15%)	0	-1	4	-6	-1	2	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-3. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	807	11,074	34,905	52,512	18,729	7,044	243	68	48	183	247
20%	61	180	4,879	14,950	20,714	8,858	3,162	78	68	48	55	125
30%	58	82	1,495	7,020	11,107	4,888	1,068	73	68	48	55	59
40%	53	59	462	3,091	6,866	2,861	229	70	68	48	55	59
50%	45	33	271	900	4,160	1,136	135	68	67	48	55	59
60%	39	14	138	490	1,520	437	111	65	67	48	55	59
70%	27	10	52	273	581	187	88	63	66	48	55	58
80%	14	5	20	68	210	90	78	59	64	48	55	56
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	121	537	4,367	11,804	15,744	9,246	2,650	210	88	48	101	115
Water Year Types ^{b,c}												
Wet (32%)	86	746	5,579	31,618	36,367	23,469	6,899	453	135	48	147	209
Above Normal (16%)	38	895	1,881	8,321	17,536	8,646	1,822	185	66	48	92	65
Below Normal (13%)	538	115	3,563	928	4,721	656	234	69	66	48	130	92
Dry (24%)	36	571	7,239	1,094	2,868	1,228	522	75	67	48	61	70
Critical (15%)	48	27	385	467	684	320	105	67	65	48	55	61

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	719	11,670	36,216	55,495	23,061	7,044	82	68	48	183	271
20%	61	182	5,300	19,007	26,804	11,560	3,162	77	68	48	55	133
30%	57	71	1,700	7,693	12,667	7,061	1,068	72	68	48	55	60
40%	53	50	475	3,693	9,810	3,333	229	69	68	48	55	59
50%	45	29	293	1,228	5,310	1,285	135	67	67	48	55	59
60%	39	10	148	584	1,734	517	111	64	67	48	55	59
70%	27	7	55	292	641	210	88	62	66	48	55	58
80%	14	3	20	103	221	104	78	58	64	48	55	56
90%	4	0	0	38	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	72	471	4,447	13,494	17,209	10,886	2,934	142	81	48	101	129
Water Year Types ^{b,c}												
Wet (32%)	86	768	5,646	35,756	39,045	27,425	7,776	236	113	48	147	218
Above Normal (16%)	38	534	1,952	10,195	19,744	10,335	1,818	184	66	48	92	138
Below Normal (13%)	180	114	3,449	1,208	5,782	754	234	69	66	48	130	92
Dry (24%)	36	506	7,415	1,201	3,360	1,651	546	75	67	48	61	70
Critical (15%)	42	28	519	581	710	329	105	67	65	48	55	58

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-88	596	1,311	2,983	4,332	0	-161	0	0	0	24
20%	0	2	421	4,057	6,090	2,702	0	-1	0	0	0	8
30%	-1	-11	204	673	1,560	2,173	0	-1	0	0	0	0
40%	0	-8	13	602	2,944	473	0	-1	0	0	0	0
50%	0	-4	21	328	1,150	149	0	-1	0	0	0	0
60%	0	-4	11	93	213	80	0	0	0	0	0	0
70%	0	-3	3	19	61	22	0	0	0	0	0	0
80%	0	-2	0	35	11	14	0	-1	0	0	0	0
90%	0	0	0	3	22	8	0	-1	0	0	0	0
Long Term												
Full Simulation Period ^d	-49	-66	80	1,690	1,465	1,640	283	-69	-7	0	0	14
Water Year Types ^{b,c}												
Wet (32%)	0	22	66	4,138	2,678	3,956	877	-217	-22	0	0	8
Above Normal (16%)	0	-361	71	1,874	2,208	1,690	-4	-1	0	0	0	74
Below Normal (13%)	-358	-1	-115	280	1,061	98	0	0	0	0	0	0
Dry (24%)	0	-65	177	107	492	423	24	0	0	0	0	0
Critical (15%)	-7	1	135	114	27	9	0	0	0	0	0	-4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-4. Yolo Bypass Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	803	13,705	38,091	52,656	24,848	7,045	243	68	48	183	127
20%	61	159	5,197	15,725	21,991	8,913	3,162	78	68	48	55	59
30%	57	51	1,584	7,125	11,501	5,386	1,068	73	68	48	55	59
40%	53	28	462	3,249	9,166	3,026	229	70	68	48	55	59
50%	45	11	272	1,144	4,188	1,261	135	68	67	48	55	59
60%	39	8	146	525	2,188	465	111	65	67	48	55	59
70%	27	5	56	282	587	214	88	63	66	48	55	58
80%	14	1	19	95	210	90	78	59	64	48	55	55
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	120	588	4,907	12,219	16,420	9,543	2,664	211	88	50	101	72
Water Year Types ^{b,c}												
Wet (32%)	86	776	6,876	32,731	37,427	23,879	6,946	454	135	55	147	73
Above Normal (16%)	38	1,027	2,165	8,489	19,015	9,520	1,818	185	66	48	92	65
Below Normal (13%)	538	115	3,588	1,154	5,578	809	234	69	66	48	130	92
Dry (24%)	36	655	7,568	1,103	2,844	1,260	521	75	67	48	61	70
Critical (15%)	42	26	384	488	660	322	105	67	65	48	55	61

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	869	13,190	39,763	55,503	29,719	7,044	82	68	48	183	127
20%	61	159	5,688	21,327	27,345	11,567	3,162	77	68	48	55	59
30%	57	51	1,914	9,127	14,566	7,819	1,068	72	68	48	55	59
40%	53	23	574	4,008	9,794	3,465	229	69	68	48	55	59
50%	45	10	304	1,518	5,484	1,364	125	67	67	48	55	59
60%	39	7	169	652	2,125	566	111	64	67	48	55	59
70%	27	4	55	292	649	235	88	62	66	48	55	57
80%	14	0	22	75	242	112	78	58	64	48	55	55
90%	4	0	0	25	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	74	475	5,034	14,085	17,872	11,291	2,922	142	81	48	101	71
Water Year Types ^{b,c}												
Wet (32%)	86	750	6,676	37,312	39,866	27,852	7,746	237	113	48	147	73
Above Normal (16%)	38	553	2,361	10,513	21,453	11,669	1,807	184	66	48	92	65
Below Normal (13%)	189	119	3,464	1,516	6,770	981	234	69	66	48	130	92
Dry (24%)	36	531	8,207	1,233	3,357	1,764	545	75	67	48	61	70
Critical (15%)	42	27	523	575	709	331	105	67	65	48	55	58

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	65	-515	1,672	2,847	4,871	-1	-161	0	0	0	0
20%	0	0	490	5,602	5,355	2,654	0	-1	0	0	0	0
30%	0	0	330	2,003	3,066	2,433	0	-1	0	0	0	0
40%	0	-5	113	759	628	440	0	-1	0	0	0	0
50%	0	-1	32	374	1,297	103	-10	-1	0	0	0	0
60%	0	-1	24	128	-63	101	-1	0	0	0	0	0
70%	0	-1	-1	10	62	21	0	0	0	0	0	0
80%	0	0	3	-21	32	22	0	-1	0	0	0	0
90%	0	0	0	-10	21	8	0	-1	0	0	0	0
Long Term												
Full Simulation Period ^d	-47	-113	127	1,866	1,452	1,748	258	-69	-7	-2	0	-1
Water Year Types ^{b,c}												
Wet (32%)	0	-25	-200	4,581	2,439	3,974	800	-217	-22	-8	0	0
Above Normal (16%)	0	-473	196	2,023	2,437	2,149	-12	-1	0	0	0	0
Below Normal (13%)	-348	4	-124	362	1,192	173	0	0	0	0	0	0
Dry (24%)	0	-124	639	131	513	504	24	0	0	0	0	0
Critical (15%)	0	1	140	86	50	9	0	0	0	0	0	-4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

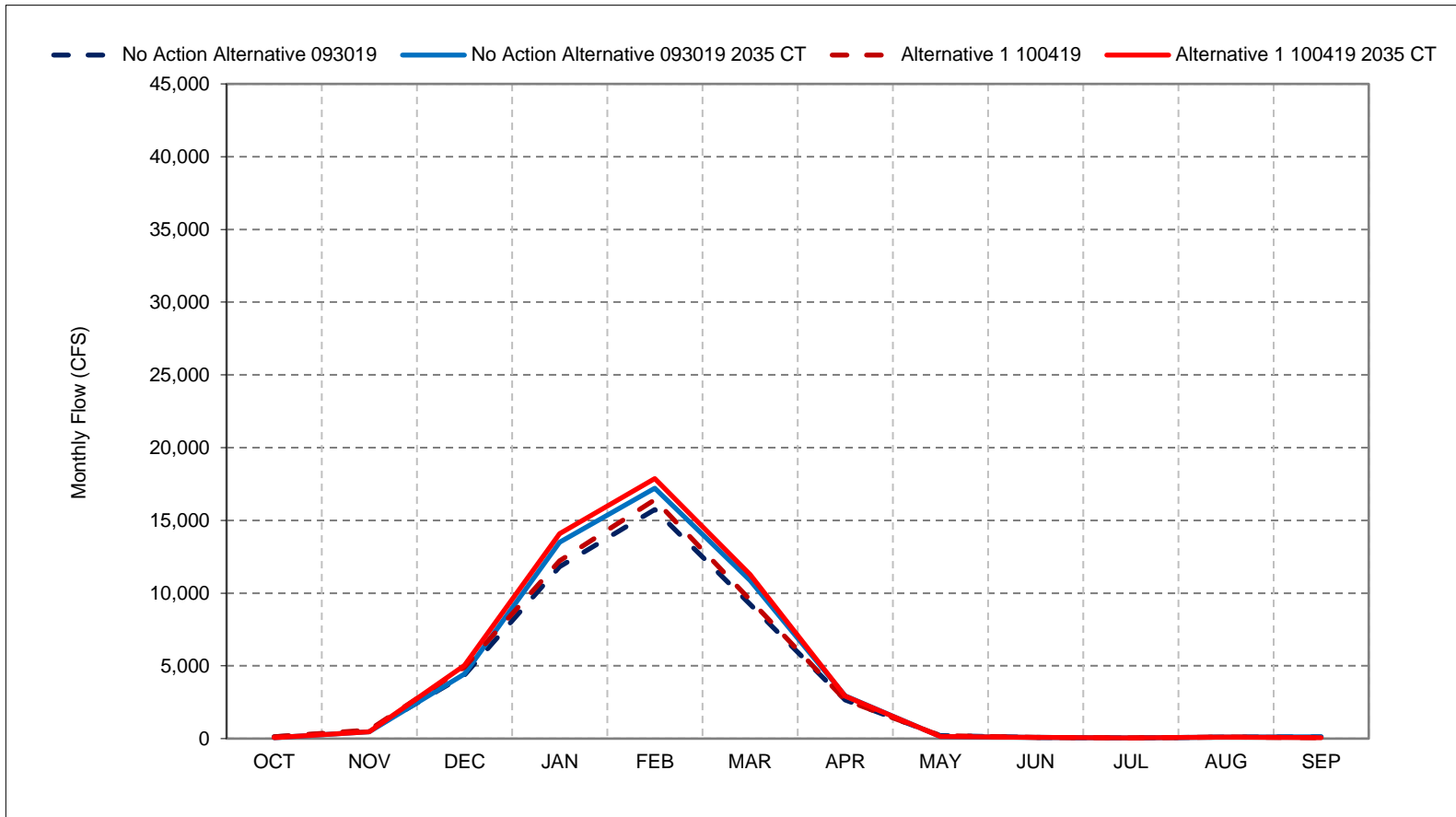
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 25-1. Yolo Bypass Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

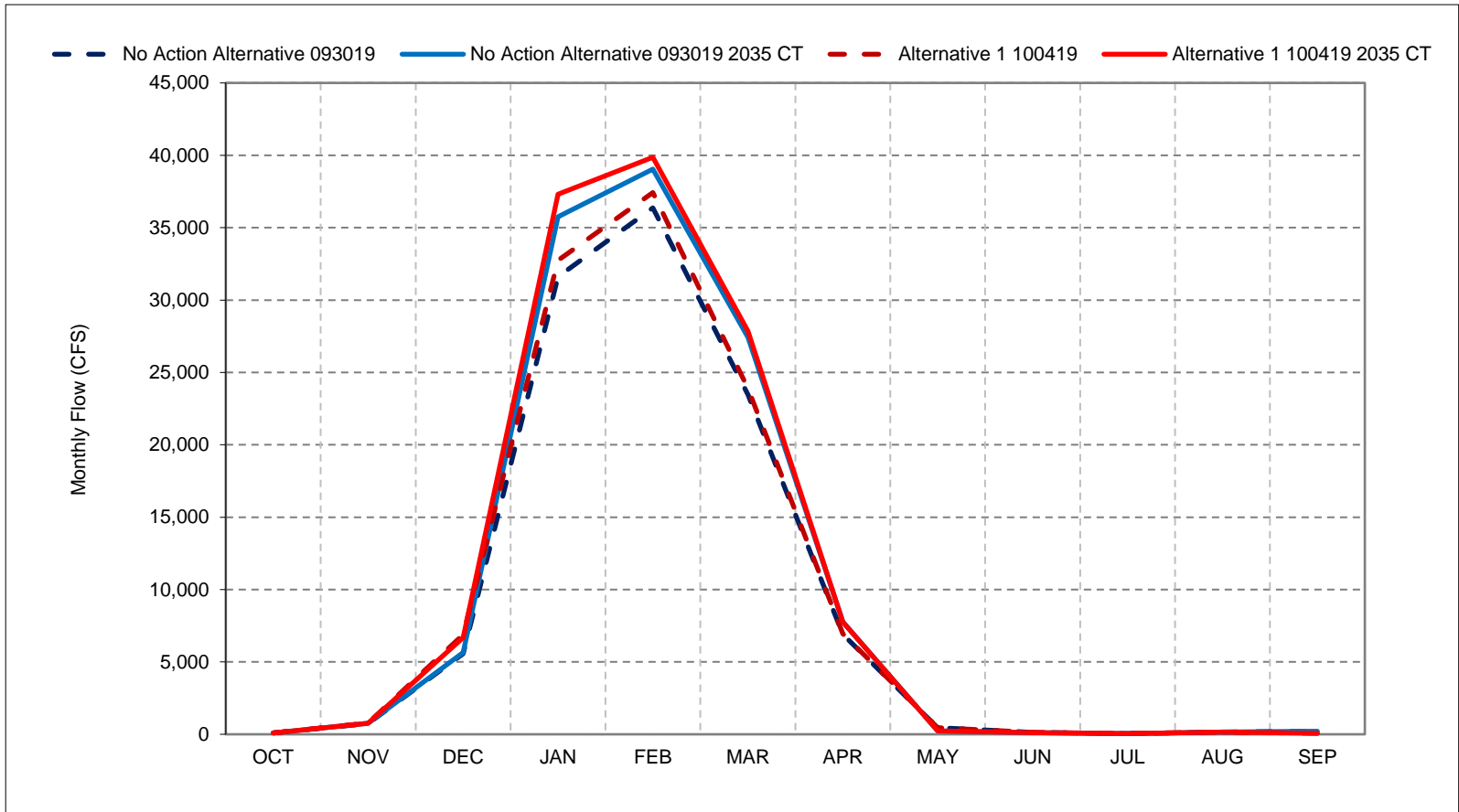
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-2. Yolo Bypass Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

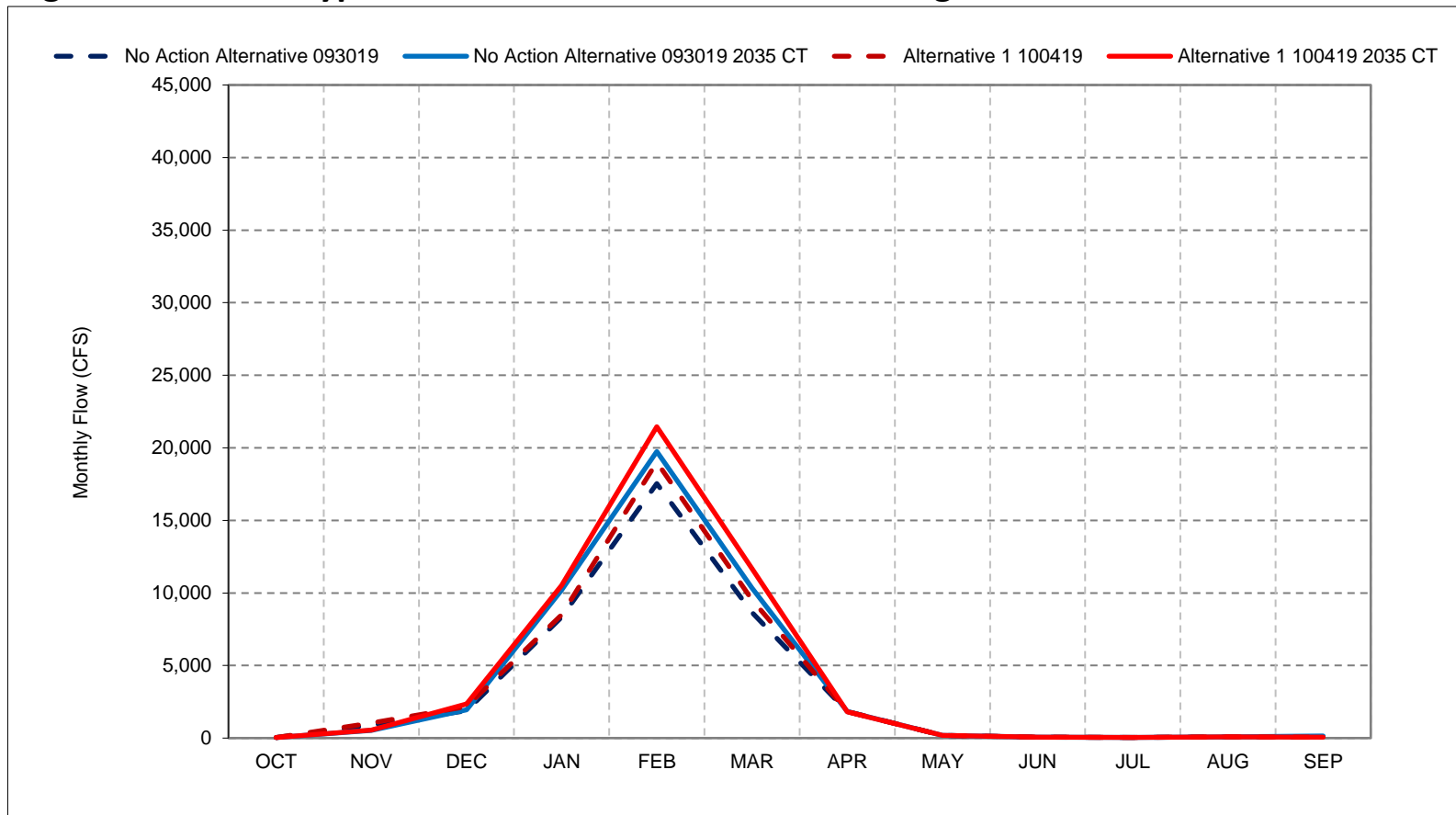
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-3. Yolo Bypass Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

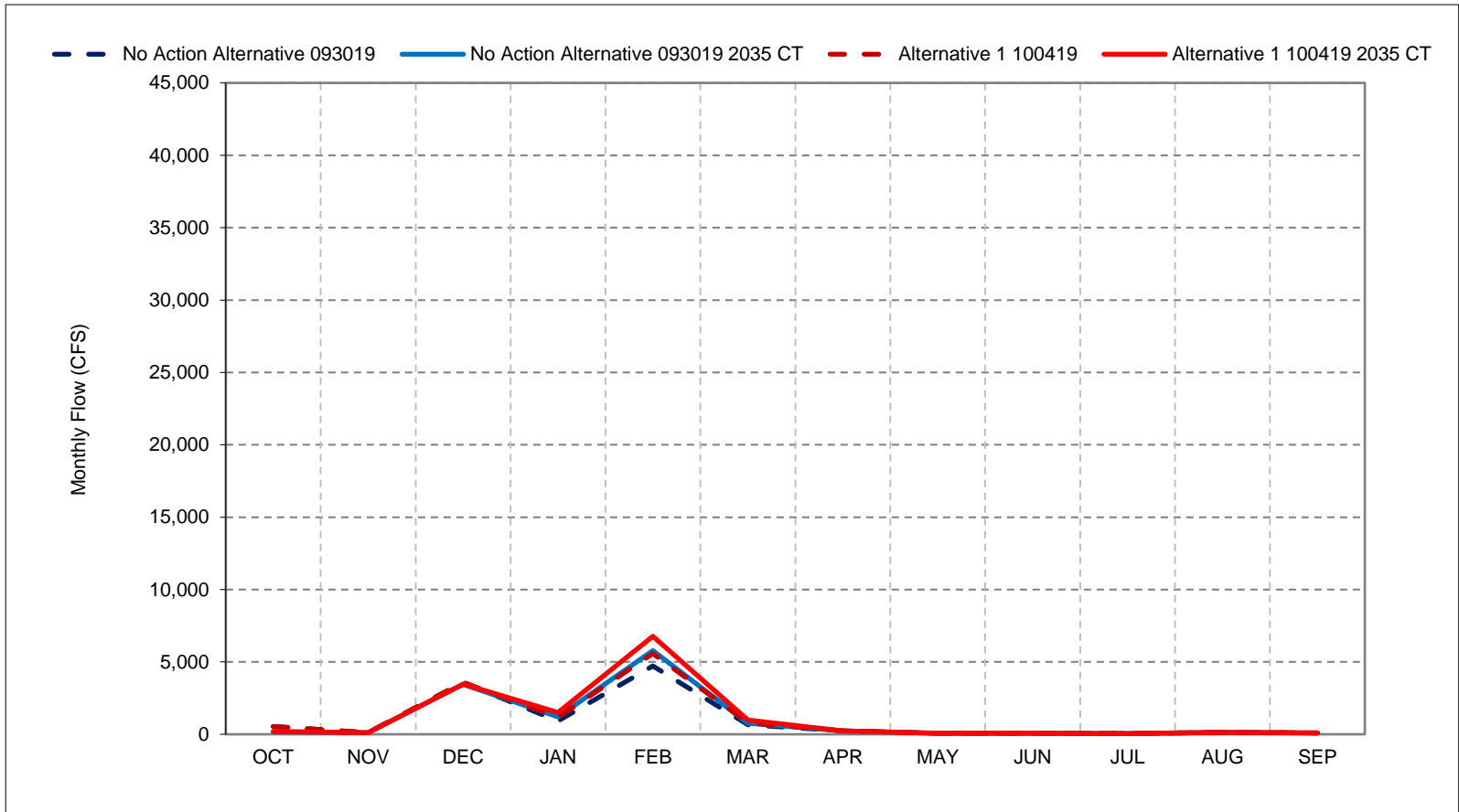
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-4. Yolo Bypass Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

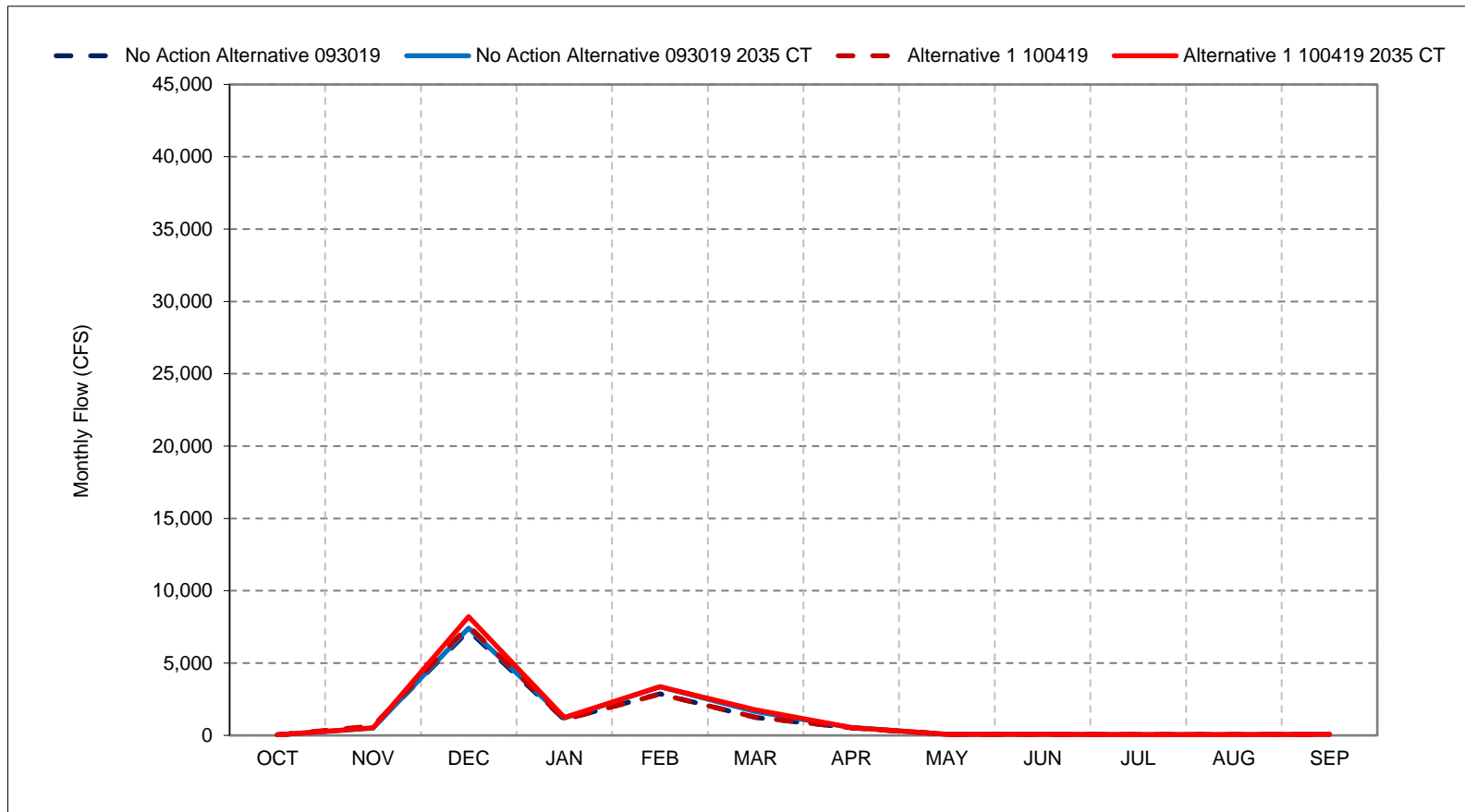
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-5. Yolo Bypass Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

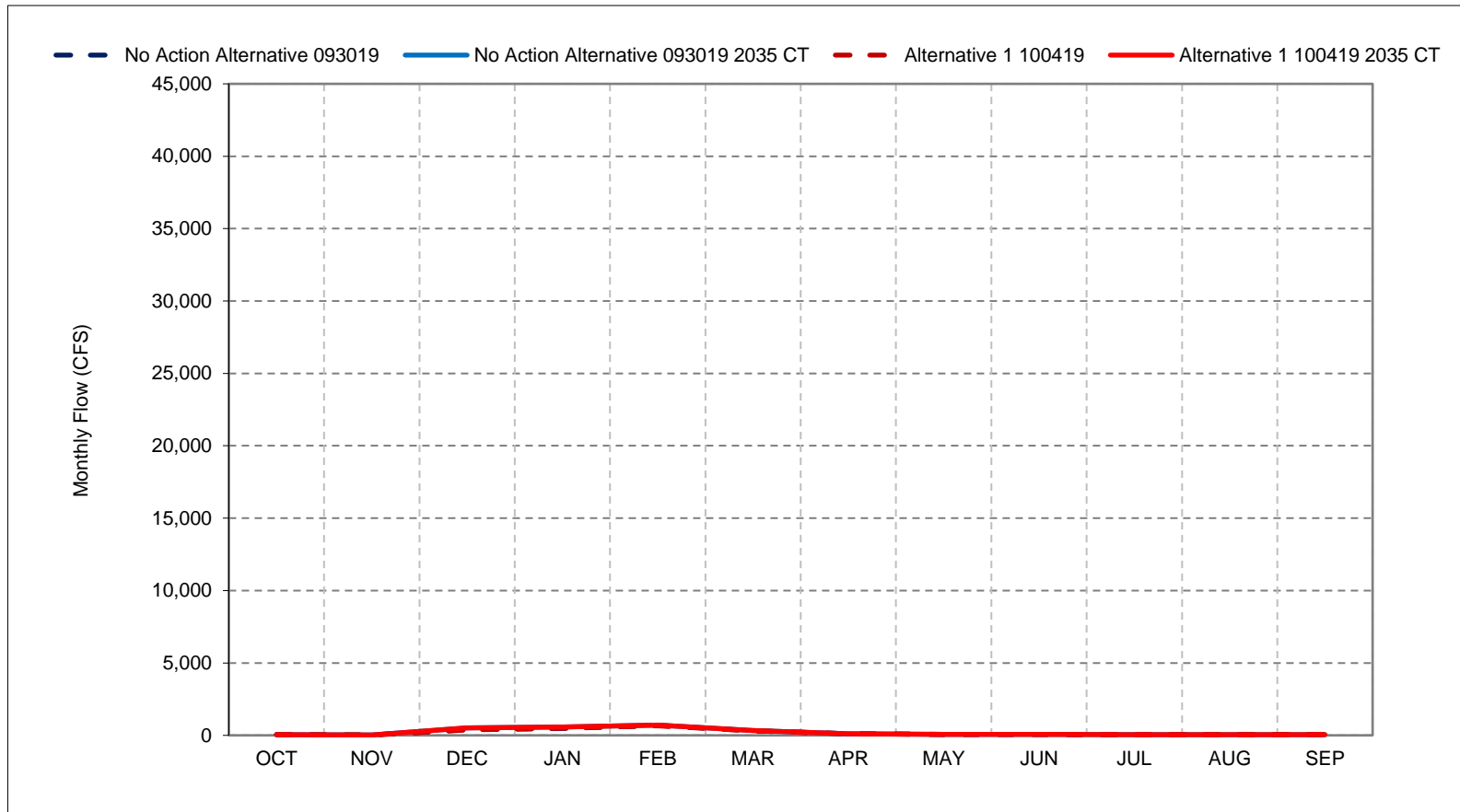
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-6. Yolo Bypass Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

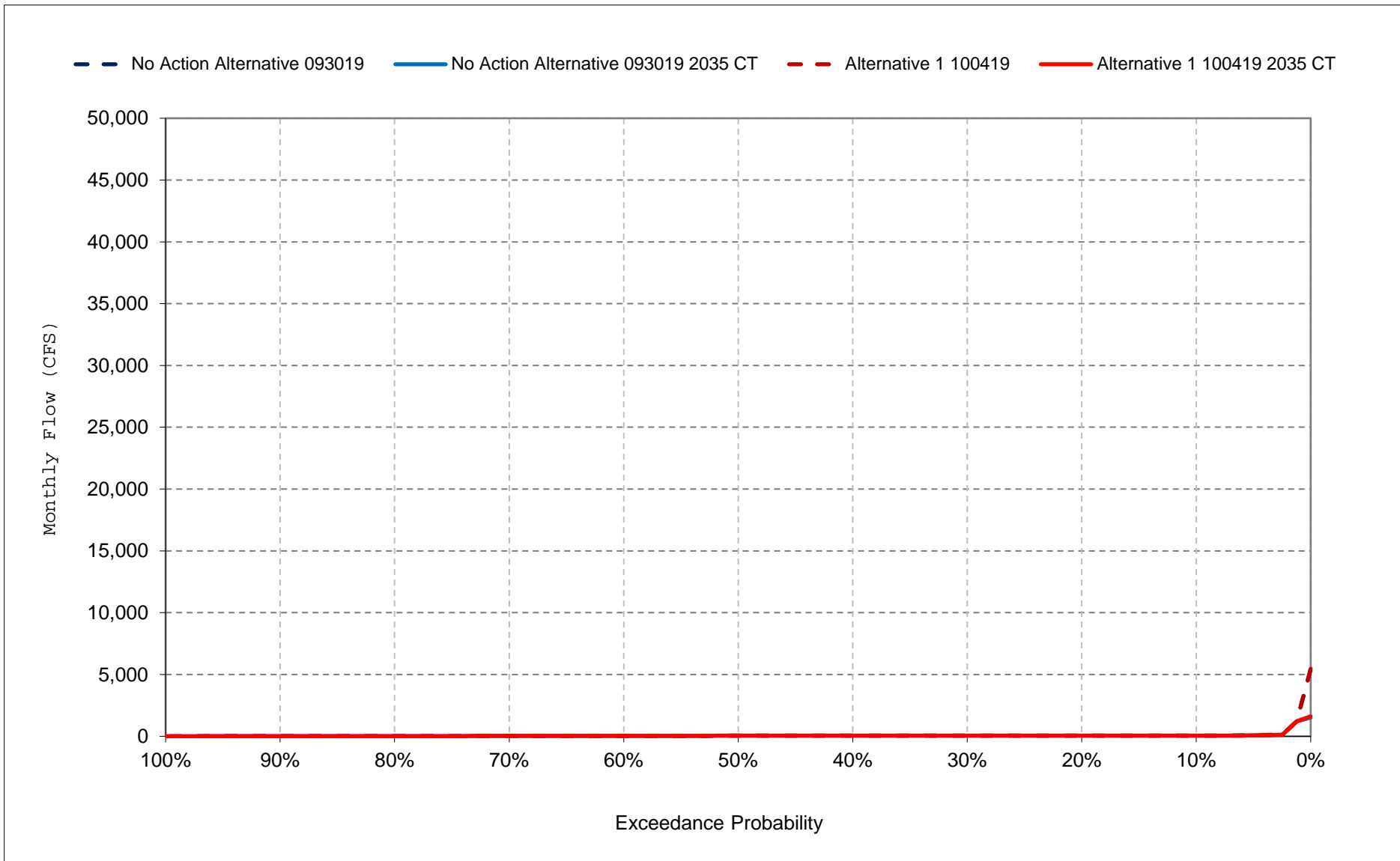
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

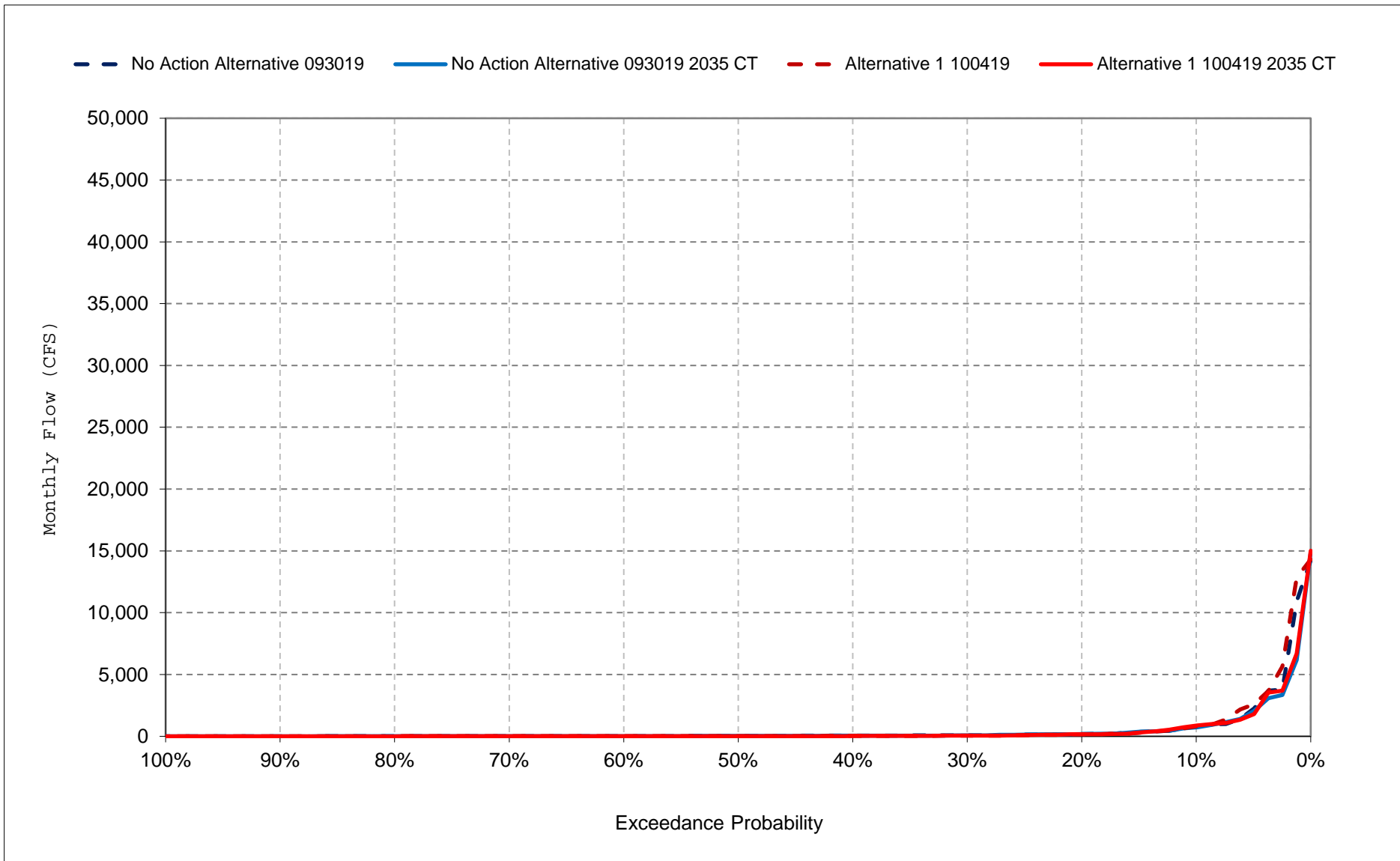
Figure 25-7. Yolo Bypass Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

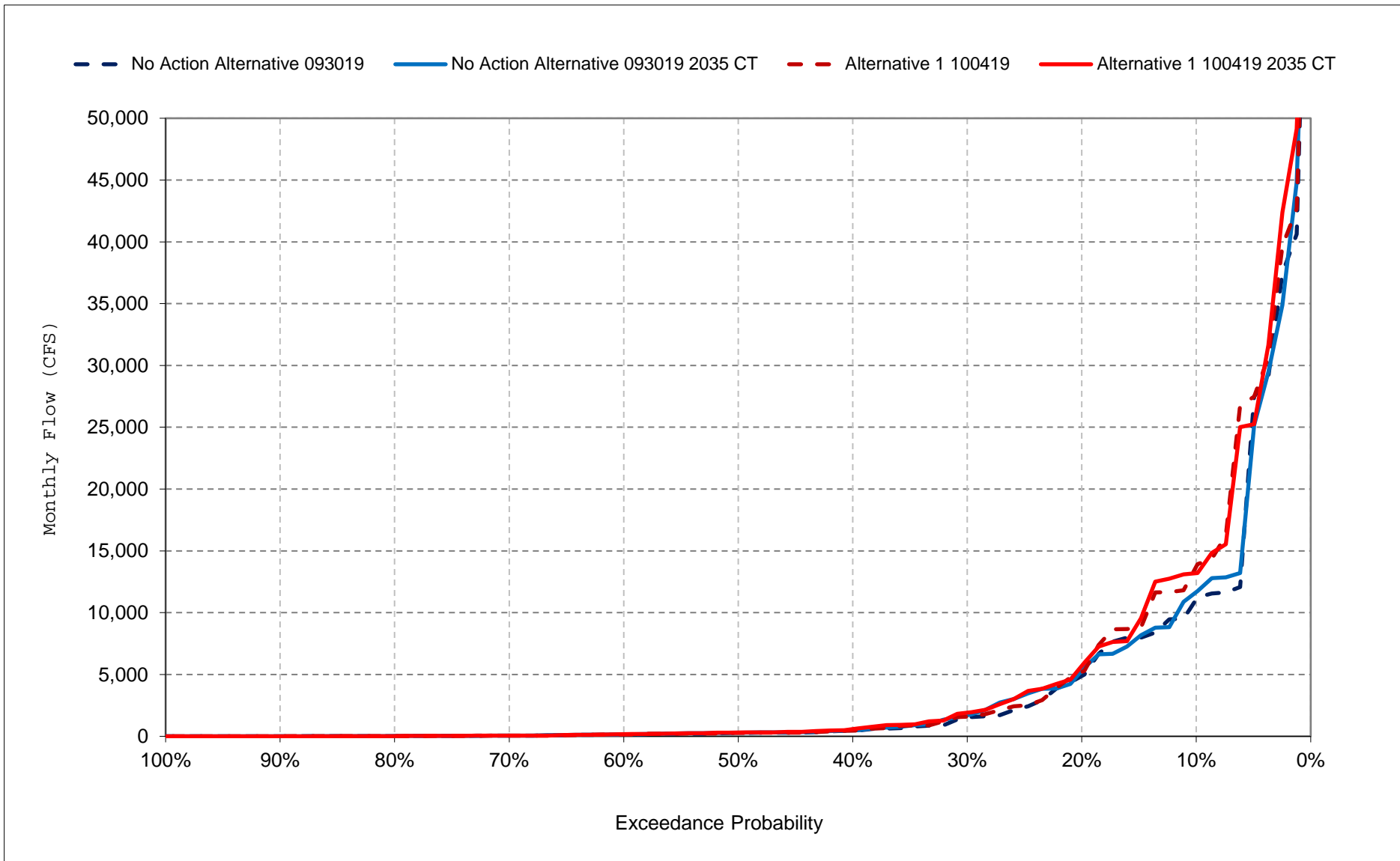
Figure 25-8. Yolo Bypass Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

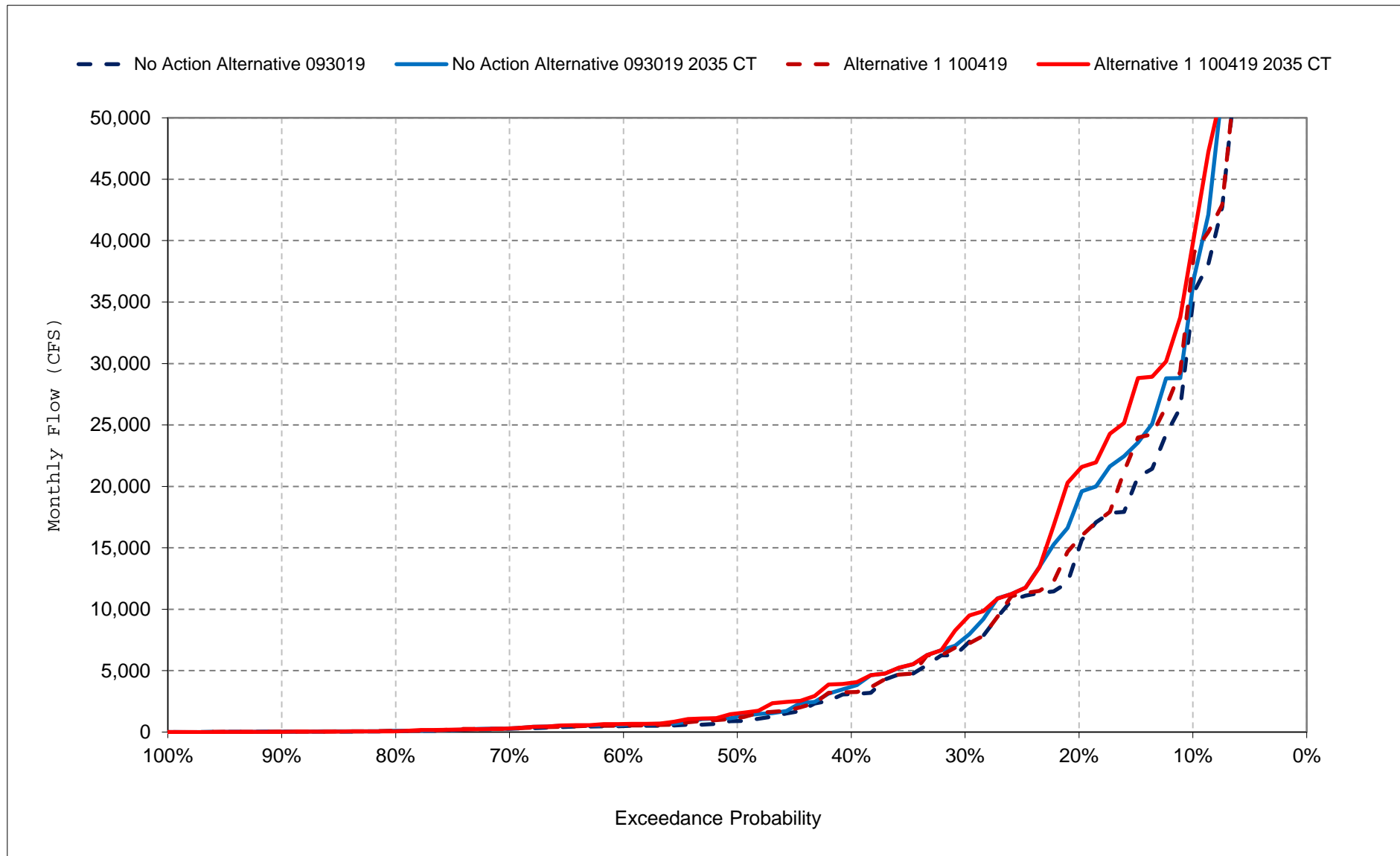
Figure 25-9. Yolo Bypass Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

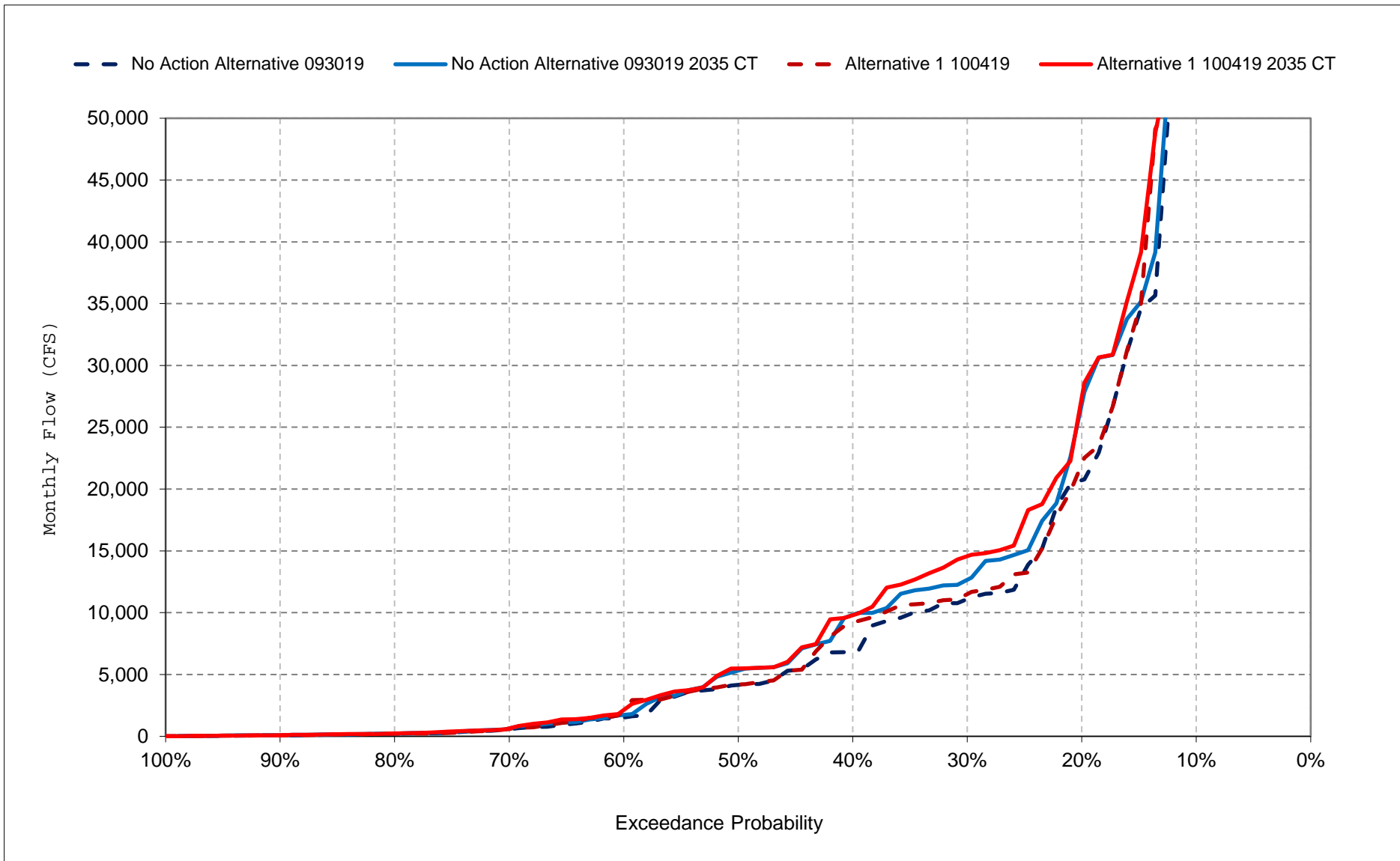
Figure 25-10. Yolo Bypass Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

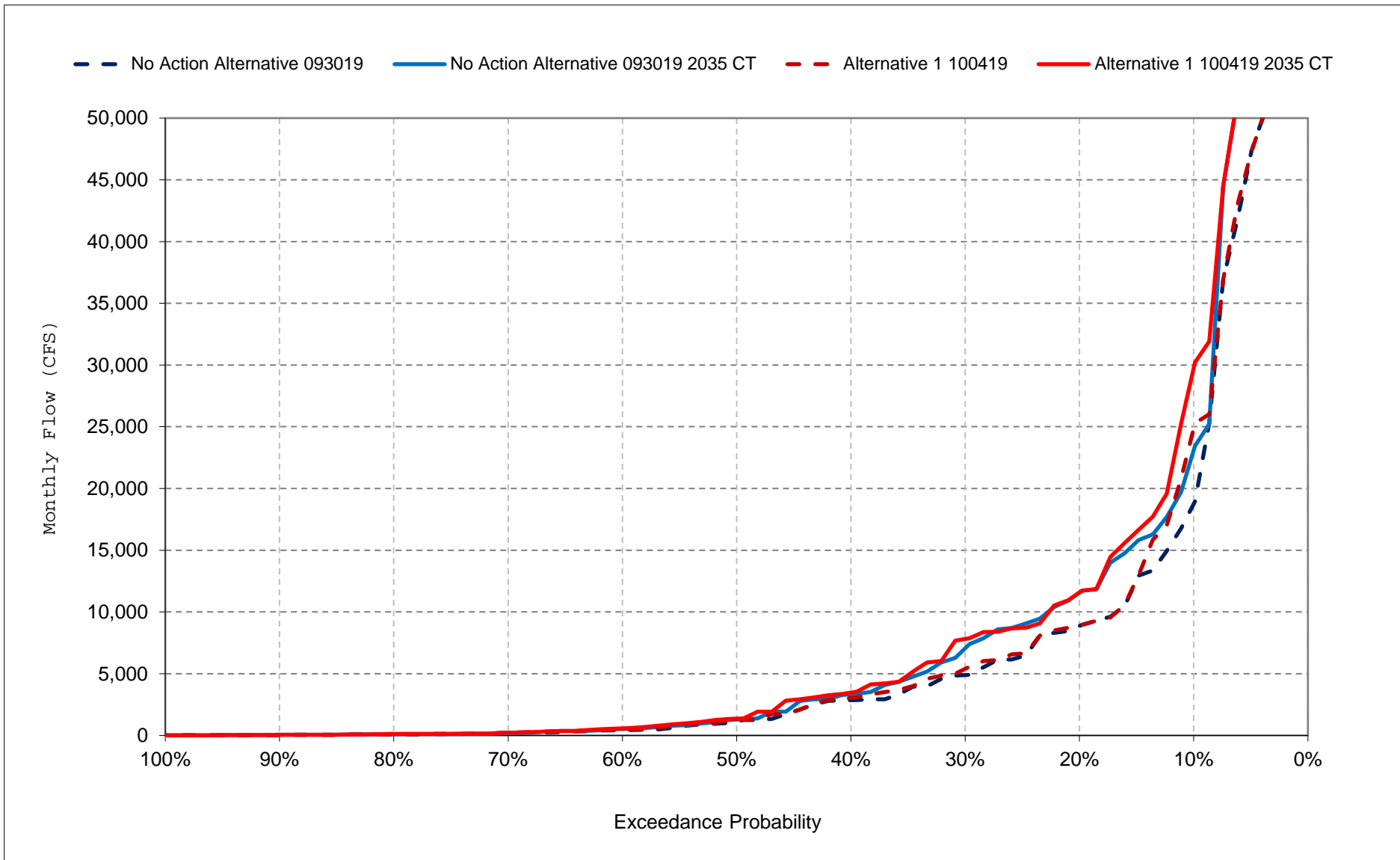
Figure 25-11. Yolo Bypass Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

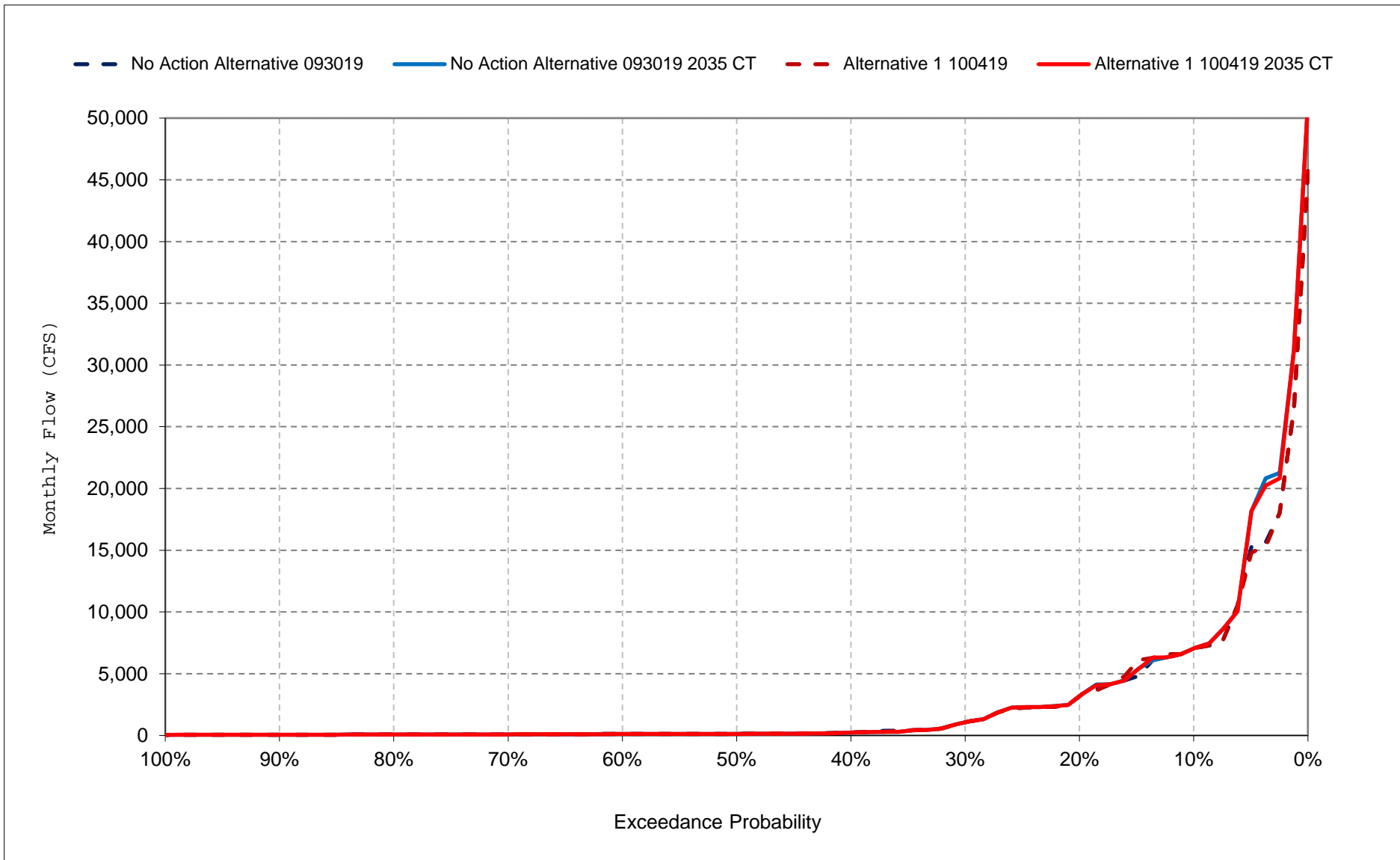
Figure 25-12. Yolo Bypass Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

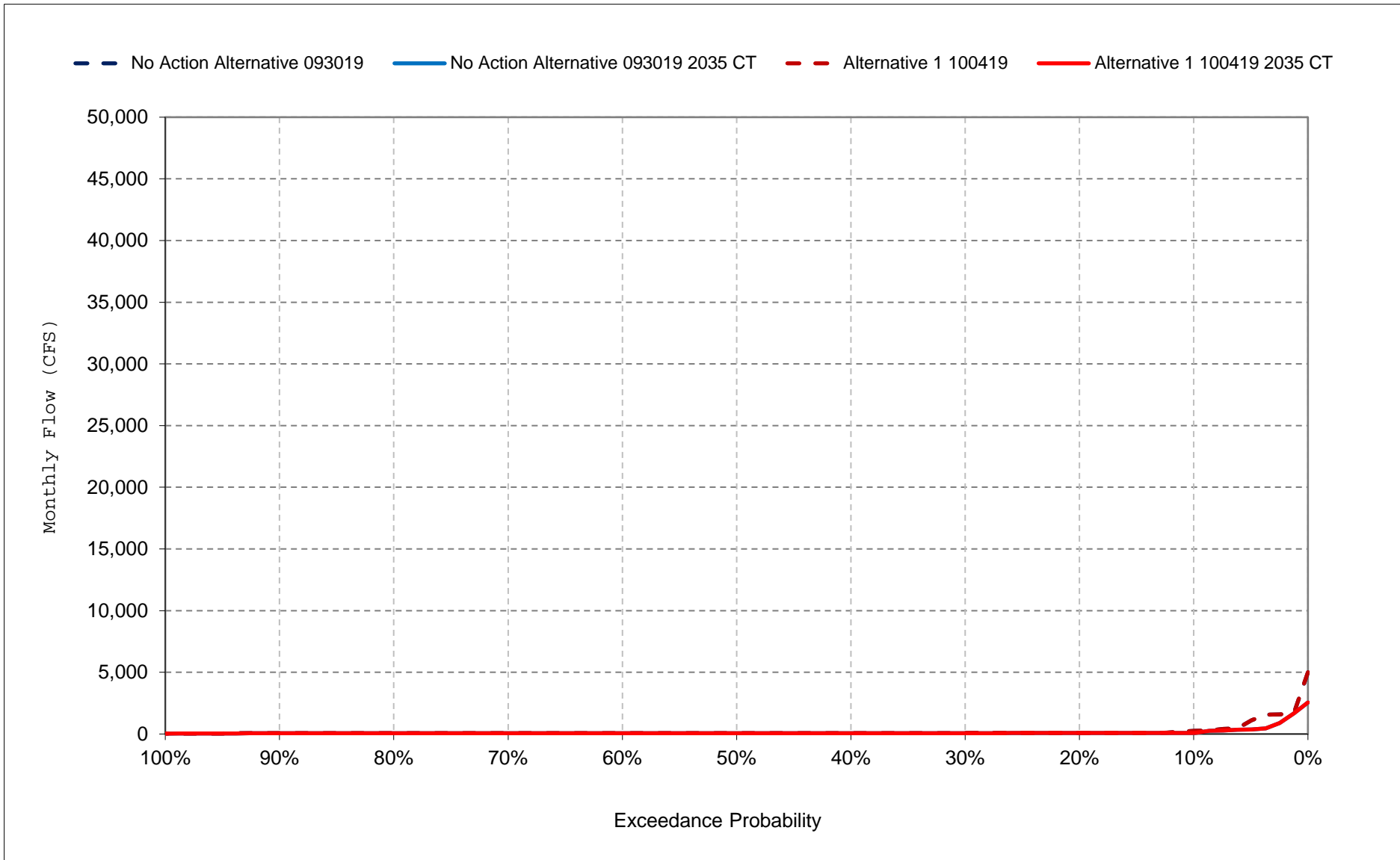
Figure 25-13. Yolo Bypass Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

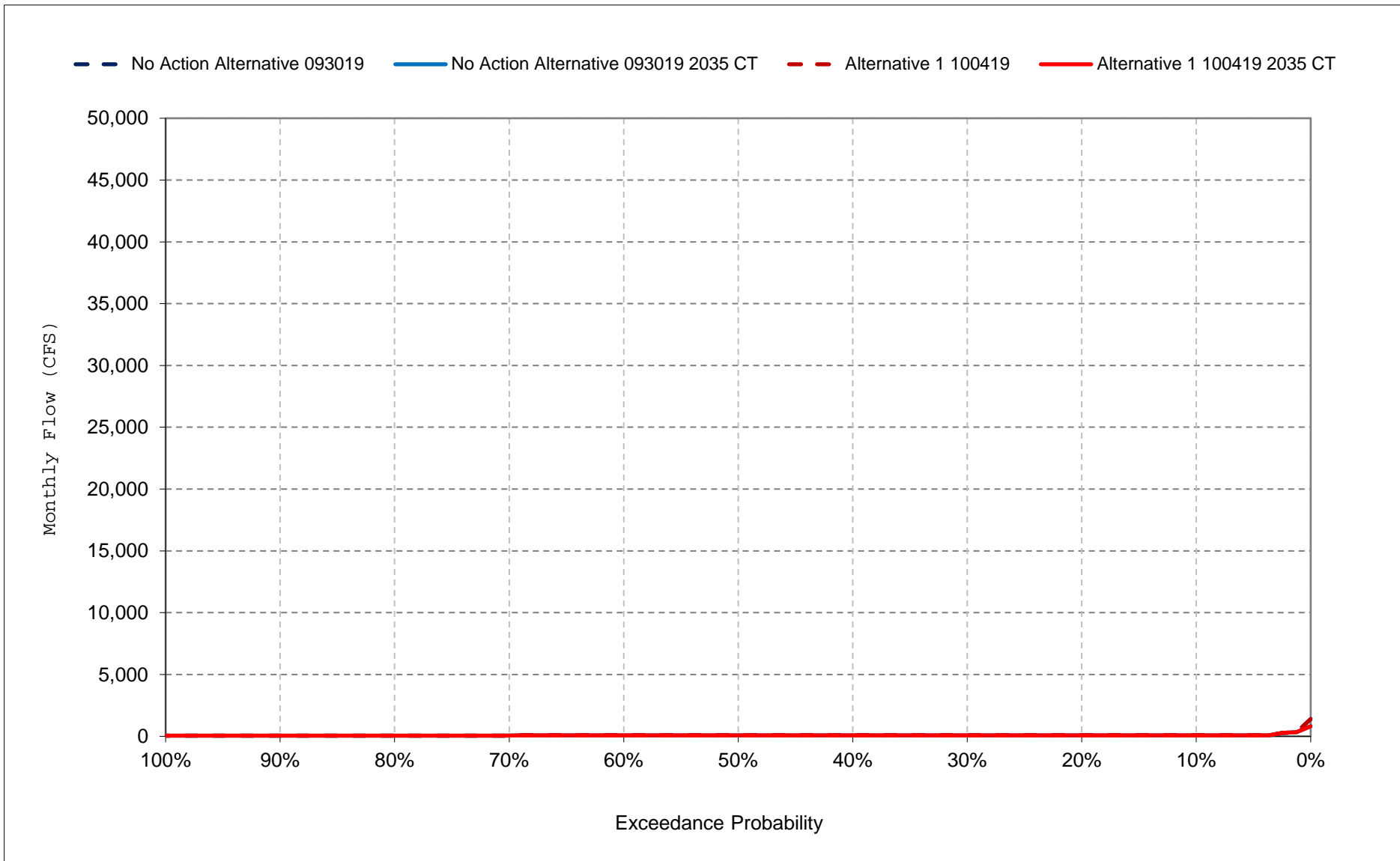
Figure 25-14. Yolo Bypass Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

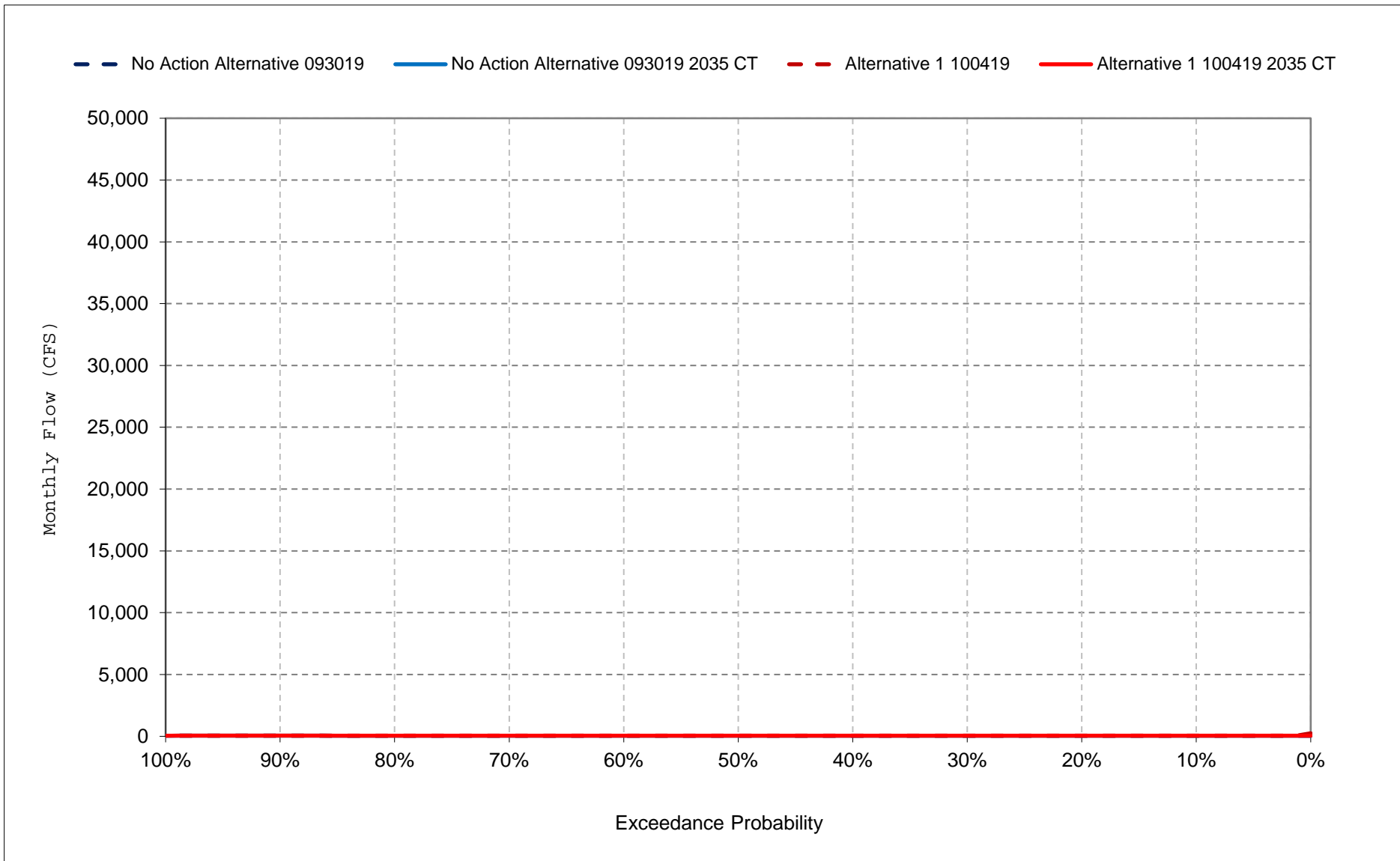
Figure 25-15. Yolo Bypass Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

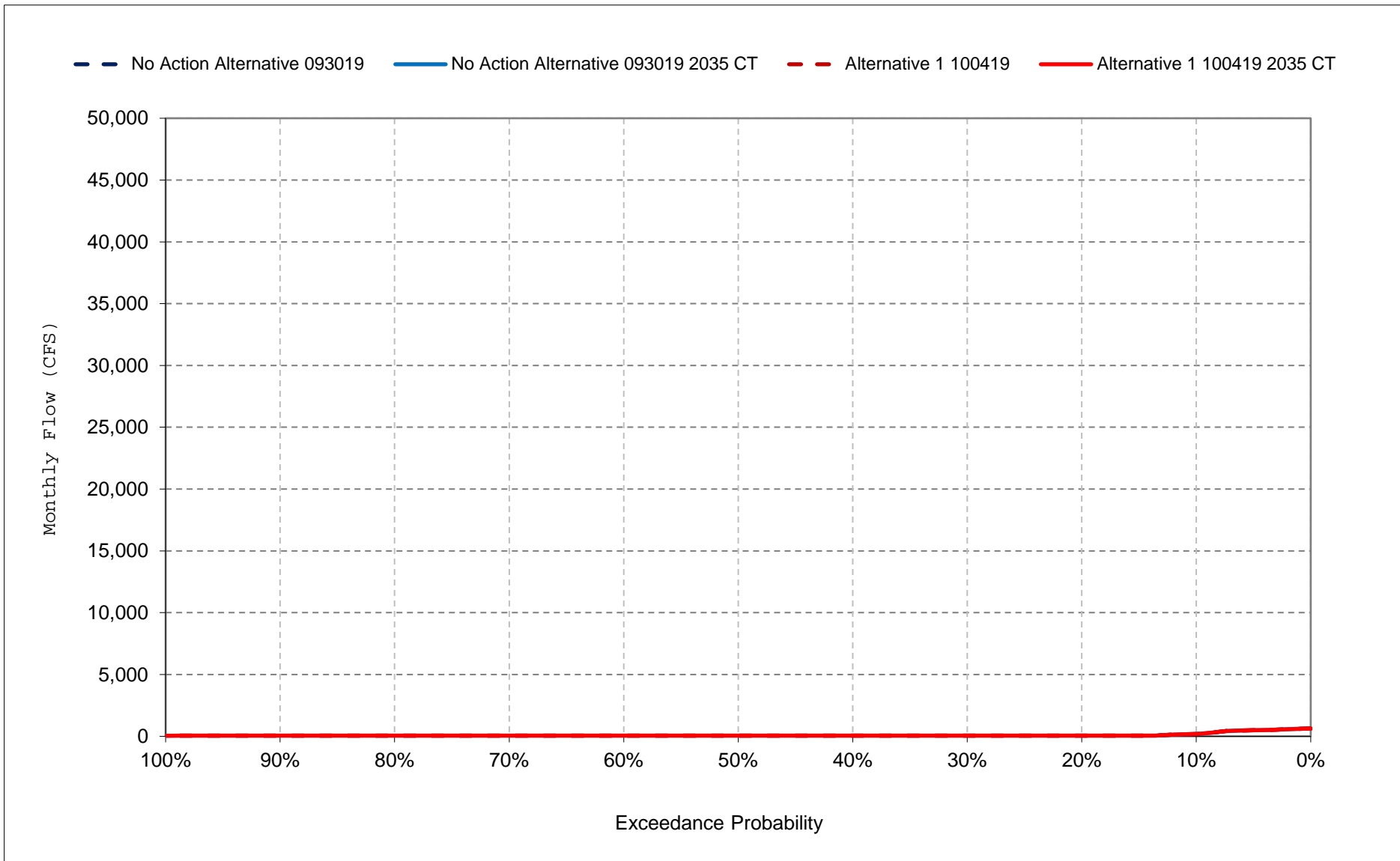
Figure 25-16. Yolo Bypass Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

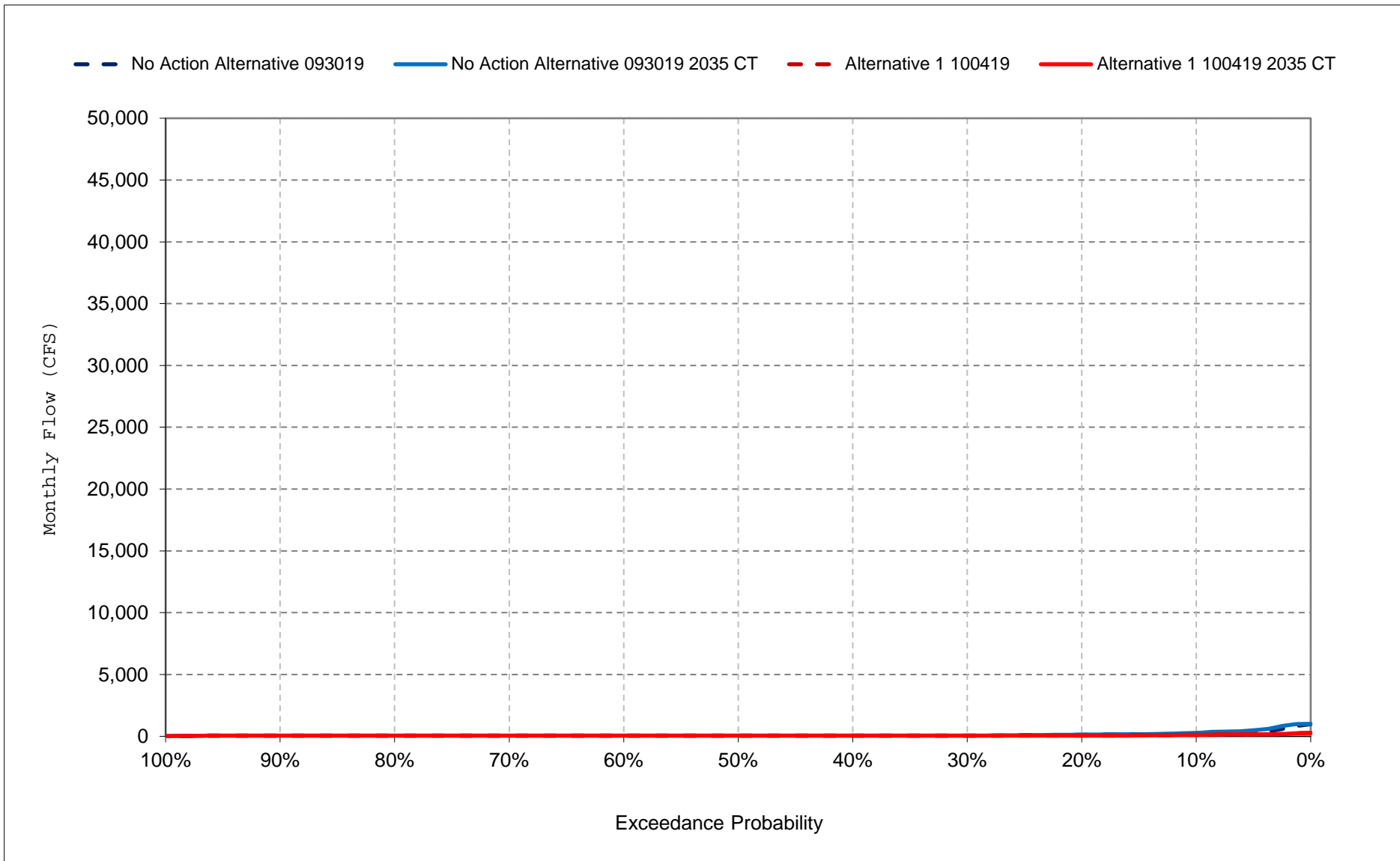
Figure 25-17. Yolo Bypass Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 25-18. Yolo Bypass Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-1. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,892	3,756	8,397	12,142	14,637	9,735	6,685	7,387	4,577	5,500	2,905	3,291
20%	2,206	3,252	3,810	7,661	10,862	6,799	5,026	4,409	3,718	4,869	2,356	2,855
30%	1,758	2,699	2,257	5,529	7,077	5,020	4,432	3,523	3,161	3,964	1,993	2,354
40%	1,500	2,248	2,000	3,516	5,728	4,151	3,390	2,648	2,675	3,359	1,750	1,953
50%	1,500	1,901	2,000	1,750	2,906	2,972	2,486	2,002	2,220	2,819	1,750	1,688
60%	1,500	1,683	1,970	1,700	1,771	1,996	2,045	1,750	1,804	2,461	1,750	1,533
70%	1,500	1,525	1,731	1,670	1,445	1,750	1,747	1,664	1,750	1,996	1,609	1,518
80%	1,036	1,103	1,172	1,469	1,264	843	891	1,071	1,087	1,750	1,000	808
90%	800	800	812	858	895	800	800	800	800	810	800	800
Long Term												
Full Simulation Period ^d	1,714	2,507	3,656	5,038	5,820	4,222	3,343	3,046	2,681	3,029	1,789	1,930
Water Year Types ^{b,c}												
Wet (32%)	2,347	3,656	4,380	10,456	10,454	7,190	5,483	5,489	4,153	3,490	2,371	2,971
Above Normal (16%)	1,654	2,194	2,818	5,589	7,611	5,910	3,524	2,486	2,496	4,680	1,845	1,977
Below Normal (13%)	1,574	1,957	2,933	2,220	4,840	2,152	2,392	1,971	2,101	3,871	1,550	1,397
Dry (24%)	1,426	2,412	5,300	1,538	2,147	2,395	2,162	1,874	2,063	2,142	1,592	1,292
Critical (15%)	1,014	1,017	916	1,116	859	905	1,353	1,294	1,254	950	1,015	1,173

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,939	4,469	10,055	12,142	14,637	9,735	6,685	7,387	4,560	4,707	3,058	2,200
20%	1,635	3,454	4,450	7,854	10,946	6,796	5,026	4,409	3,695	3,498	2,622	1,841
30%	1,500	2,309	2,922	5,529	7,486	5,020	4,397	3,523	3,608	3,232	2,312	1,750
40%	1,500	2,000	2,091	3,728	5,725	4,151	3,277	2,637	2,911	2,773	2,000	1,750
50%	1,500	2,000	2,000	1,972	3,654	3,022	2,508	1,916	2,656	2,444	1,829	1,750
60%	1,500	1,937	2,000	1,491	2,696	2,237	2,252	1,542	2,113	2,007	1,750	1,750
70%	1,308	1,159	1,830	1,400	1,750	1,750	1,426	1,428	1,786	1,789	1,669	1,669
80%	749	749	1,124	1,400	1,400	1,421	1,002	1,205	1,237	1,544	1,511	1,545
90%	607	599	633	666	1,389	953	953	953	877	990	820	906
Long Term												
Full Simulation Period ^d	1,387	2,464	3,938	5,062	6,093	4,356	3,337	3,031	2,837	2,588	1,948	1,681
Water Year Types ^{b,c}												
Wet (32%)	1,718	3,867	5,114	10,522	10,608	7,190	5,453	5,456	4,357	3,070	2,489	1,948
Above Normal (16%)	1,543	2,223	2,893	5,774	7,966	6,116	3,479	2,465	2,779	3,874	2,163	1,835
Below Normal (13%)	1,317	1,741	3,072	2,205	5,579	2,322	2,407	2,061	2,281	2,999	1,913	1,663
Dry (24%)	1,186	2,186	5,404	1,499	2,163	2,555	2,168	1,869	2,119	1,805	1,663	1,526
Critical (15%)	901	811	873	1,017	1,300	1,173	1,399	1,215	1,309	1,076	1,049	1,210

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-954	713	1,658	0	0	0	0	0	-17	-793	152	-1,091
20%	-571	202	641	193	84	-3	0	0	-24	-1,371	267	-1,013
30%	-258	-390	665	0	409	0	-35	0	447	-731	319	-604
40%	0	-248	91	212	-3	0	-114	-11	236	-586	250	-203
50%	0	99	0	222	748	51	22	-86	435	-376	79	62
60%	0	254	30	-209	924	241	207	-208	309	-454	0	217
70%	-192	-366	99	-270	305	0	-321	-235	36	-208	60	151
80%	-288	-354	-48	-69	136	578	111	134	150	-206	511	737
90%	-193	-201	-180	-192	494	153	153	153	77	180	20	106
Long Term												
Full Simulation Period ^d	-327	-43	282	24	273	134	-6	-15	156	-442	159	-249
Water Year Types ^{b,c}												
Wet (32%)	-628	211	734	66	154	0	-30	-33	204	-420	119	-1,023
Above Normal (16%)	-111	29	75	185	355	206	-45	-21	284	-806	319	-143
Below Normal (13%)	-257	-216	139	-14	739	170	15	91	180	-872	362	266
Dry (24%)	-240	-226	104	-39	16	160	6	-5	56	-337	71	234
Critical (15%)	-113	-206	-43	-99	441	268	46	-79	56	126	34	38

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 27-2. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,798	3,956	9,676	15,003	15,548	11,953	7,695	4,934	3,153	4,914	2,688	3,620
20%	2,067	3,313	4,787	10,332	12,160	7,873	6,476	3,445	2,380	4,236	2,000	3,008
30%	1,598	2,601	2,474	7,189	8,752	6,030	4,520	1,874	1,750	3,601	1,799	2,513
40%	1,500	1,925	2,000	4,993	6,567	5,410	4,081	1,750	1,750	3,135	1,750	1,885
50%	1,500	1,724	2,000	3,226	4,362	4,290	2,914	1,750	1,750	2,630	1,750	1,533
60%	1,500	1,631	1,781	1,700	3,187	3,105	1,750	1,643	1,668	2,373	1,590	1,478
70%	1,500	1,445	1,600	1,700	2,350	2,059	1,460	1,381	1,333	1,843	1,379	1,159
80%	1,067	1,015	1,279	1,488	1,445	1,310	859	998	1,111	1,750	930	800
90%	800	800	820	910	1,134	800	800	800	800	1,026	800	800
Long Term												
Full Simulation Period ^d	1,652	2,476	3,916	6,119	6,755	5,261	3,795	2,335	1,782	2,820	1,672	1,912
Water Year Types ^{b,c}												
Wet (32%)	2,148	3,665	4,778	12,261	11,477	8,644	6,140	4,063	2,109	3,112	2,123	3,182
Above Normal (16%)	1,613	1,963	2,687	7,480	8,477	7,376	3,989	1,700	1,545	4,185	1,751	1,888
Below Normal (13%)	1,421	1,875	3,449	2,920	5,771	2,719	2,768	1,534	1,507	3,293	1,625	1,155
Dry (24%)	1,391	2,390	5,569	1,966	2,969	3,352	2,617	1,609	1,940	2,352	1,551	1,306
Critical (15%)	1,263	1,151	1,050	1,187	1,872	1,149	1,410	1,220	1,318	1,052	857	889

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,654	4,579	10,238	15,002	15,548	11,953	7,695	4,934	2,976	3,585	2,915	2,197
20%	1,500	2,917	5,005	11,288	11,986	7,872	6,446	3,445	2,128	3,262	2,375	1,952
30%	1,500	2,300	3,214	7,190	8,748	6,030	4,520	2,061	1,882	2,899	2,001	1,780
40%	1,500	2,000	2,337	5,396	6,644	5,409	4,081	1,603	1,527	2,474	1,834	1,750
50%	1,500	2,000	2,000	3,985	5,367	4,290	2,964	1,500	1,500	2,000	1,750	1,750
60%	1,500	1,849	2,000	2,472	3,396	3,135	1,703	1,500	1,500	1,762	1,750	1,750
70%	1,279	1,279	1,990	1,419	2,684	2,092	1,458	1,432	1,458	1,750	1,686	1,685
80%	715	749	1,461	1,400	1,400	1,597	1,104	1,224	1,261	1,685	1,530	1,534
90%	574	583	656	766	1,400	953	953	953	815	948	761	761
Long Term												
Full Simulation Period ^d	1,344	2,476	4,242	6,296	6,909	5,330	3,815	2,349	1,746	2,351	1,859	1,693
Water Year Types ^{b,c}												
Wet (32%)	1,696	3,905	5,581	12,280	11,595	8,664	6,154	4,081	2,120	2,661	2,385	2,069
Above Normal (16%)	1,555	2,259	3,126	8,035	8,755	7,374	3,969	1,649	1,534	2,996	1,944	1,821
Below Normal (13%)	1,199	1,643	3,459	3,196	6,145	2,829	2,971	1,535	1,538	2,476	1,890	1,650
Dry (24%)	1,111	2,184	5,610	2,003	3,016	3,447	2,575	1,657	1,734	2,140	1,604	1,522
Critical (15%)	874	863	986	1,443	1,946	1,326	1,424	1,252	1,375	1,218	1,021	1,066

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,144	622	561	-1	0	0	0	0	-177	-1,329	228	-1,422
20%	-567	-396	218	956	-173	-1	-29	0	-251	-974	375	-1,056
30%	-98	-301	741	0	-3	0	0	187	132	-702	203	-733
40%	0	75	337	403	77	-1	0	-147	-223	-661	84	-135
50%	0	276	0	759	1,005	0	50	-250	-250	-630	0	217
60%	0	217	219	772	210	29	-47	-143	-168	-611	160	272
70%	-221	-166	390	-281	334	33	-2	51	125	-93	307	526
80%	-352	-266	182	-88	-45	287	245	226	149	-65	599	734
90%	-226	-217	-164	-143	266	153	153	153	15	-78	-39	-39
Long Term												
Full Simulation Period ^d	-308	0	326	177	154	70	20	14	-36	-469	186	-219
Water Year Types ^{b,c}												
Wet (32%)	-452	240	803	18	117	19	14	18	11	-451	263	-1,113
Above Normal (16%)	-58	296	438	555	278	-2	-20	-51	-11	-1,190	193	-68
Below Normal (13%)	-222	-233	10	276	374	110	202	0	31	-817	264	494
Dry (24%)	-281	-205	42	38	46	95	-42	48	-206	-212	53	216
Critical (15%)	-390	-287	-64	255	74	177	13	32	57	166	165	177

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-3. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,892	3,756	8,397	12,142	14,637	9,735	6,685	7,387	4,577	5,500	2,905	3,291
20%	2,206	3,252	3,810	7,661	10,862	6,799	5,026	4,409	3,718	4,869	2,356	2,855
30%	1,758	2,699	2,257	5,529	7,077	5,020	4,432	3,523	3,161	3,964	1,993	2,354
40%	1,500	2,248	2,000	3,516	5,728	4,151	3,390	2,648	2,675	3,359	1,750	1,953
50%	1,500	1,901	2,000	1,750	2,906	2,972	2,486	2,002	2,220	2,819	1,750	1,688
60%	1,500	1,683	1,970	1,700	1,771	1,996	2,045	1,750	1,804	2,461	1,750	1,533
70%	1,500	1,525	1,731	1,670	1,445	1,750	1,747	1,664	1,750	1,996	1,609	1,518
80%	1,036	1,103	1,172	1,469	1,264	843	891	1,071	1,087	1,750	1,000	808
90%	800	800	812	858	895	800	800	800	800	810	800	800
Long Term												
Full Simulation Period ^d	1,714	2,507	3,656	5,038	5,820	4,222	3,343	3,046	2,681	3,029	1,789	1,930
Water Year Types ^{b,c}												
Wet (32%)	2,347	3,656	4,380	10,456	10,454	7,190	5,483	5,489	4,153	3,490	2,371	2,971
Above Normal (16%)	1,654	2,194	2,818	5,589	7,611	5,910	3,524	2,486	2,496	4,680	1,845	1,977
Below Normal (13%)	1,574	1,957	2,933	2,220	4,840	2,152	2,392	1,971	2,101	3,871	1,550	1,397
Dry (24%)	1,426	2,412	5,300	1,538	2,147	2,395	2,162	1,874	2,063	2,142	1,592	1,292
Critical (15%)	1,014	1,017	916	1,116	859	905	1,353	1,294	1,254	950	1,015	1,173

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,798	3,956	9,676	15,003	15,548	11,953	7,695	4,934	3,153	4,914	2,688	3,620
20%	2,067	3,313	4,787	10,332	12,160	7,873	6,476	3,445	2,380	4,236	2,000	3,008
30%	1,598	2,601	2,474	7,189	8,752	6,030	4,520	1,874	1,750	3,601	1,799	2,513
40%	1,500	1,925	2,000	4,993	6,567	5,410	4,081	1,750	1,750	3,135	1,750	1,885
50%	1,500	1,724	2,000	3,226	4,362	4,290	2,914	1,750	1,750	2,630	1,750	1,533
60%	1,500	1,631	1,781	1,700	3,187	3,105	1,750	1,643	1,668	2,373	1,590	1,478
70%	1,500	1,445	1,600	1,700	2,350	2,059	1,460	1,381	1,333	1,843	1,379	1,159
80%	1,067	1,015	1,279	1,488	1,445	1,310	859	998	1,111	1,750	930	800
90%	800	800	820	910	1,134	800	800	800	800	1,026	800	800
Long Term												
Full Simulation Period ^d	1,652	2,476	3,916	6,119	6,755	5,261	3,795	2,335	1,782	2,820	1,672	1,912
Water Year Types ^{b,c}												
Wet (32%)	2,148	3,665	4,778	12,261	11,477	8,644	6,140	4,063	2,109	3,112	2,123	3,182
Above Normal (16%)	1,613	1,963	2,687	7,480	8,477	7,376	3,989	1,700	1,545	4,185	1,751	1,888
Below Normal (13%)	1,421	1,875	3,449	2,920	5,771	2,719	2,768	1,534	1,507	3,293	1,625	1,155
Dry (24%)	1,391	2,390	5,569	1,966	2,969	3,352	2,617	1,609	1,940	2,352	1,551	1,306
Critical (15%)	1,263	1,151	1,050	1,187	1,872	1,149	1,410	1,220	1,318	1,052	857	889

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-94	200	1,280	2,861	911	2,218	1,010	-2,453	-1,424	-586	-218	329
20%	-139	61	977	2,670	1,298	1,074	1,450	-965	-1,339	-633	-356	153
30%	-160	-98	217	1,661	1,675	1,010	89	-1,649	-1,411	-363	-194	159
40%	0	-323	0	1,477	839	1,258	690	-898	-925	-224	0	-68
50%	0	-177	0	1,476	1,456	1,319	428	-252	-470	-190	0	-155
60%	0	-52	-188	0	1,415	1,109	-295	-107	-135	-88	-160	-55
70%	0	-80	-131	30	905	309	-286	-283	-417	-154	-230	-358
80%	31	-88	107	18	181	468	-32	-73	24	0	-70	-8
90%	0	0	8	51	239	0	0	0	0	215	0	0
Long Term												
Full Simulation Period ^d	-62	-31	260	1,081	935	1,039	452	-711	-899	-210	-117	-18
Water Year Types ^{b,c}												
Wet (32%)	-199	9	398	1,805	1,023	1,454	657	-1,426	-2,044	-378	-248	210
Above Normal (16%)	-41	-231	-131	1,891	866	1,466	465	-786	-951	-495	-94	-89
Below Normal (13%)	-153	-82	516	700	931	566	376	-436	-594	-578	75	-241
Dry (24%)	-35	-23	269	428	822	957	455	-265	-123	210	-42	14
Critical (15%)	249	134	134	71	1,013	244	57	-74	64	102	-158	-284

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-4. American River below Nimbus Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,939	4,469	10,055	12,142	14,637	9,735	6,685	7,387	4,560	4,707	3,058	2,200
20%	1,635	3,454	4,450	7,854	10,946	6,796	5,026	4,409	3,695	3,498	2,622	1,841
30%	1,500	2,309	2,922	5,529	7,486	5,020	4,397	3,523	3,608	3,232	2,312	1,750
40%	1,500	2,000	2,091	3,728	5,725	4,151	3,277	2,637	2,911	2,773	2,000	1,750
50%	1,500	2,000	2,000	1,972	3,654	3,022	2,508	1,916	2,656	2,444	1,829	1,750
60%	1,500	1,937	2,000	1,491	2,696	2,237	2,252	1,542	2,113	2,007	1,750	1,750
70%	1,308	1,159	1,830	1,400	1,750	1,750	1,426	1,428	1,786	1,789	1,669	1,669
80%	749	749	1,124	1,400	1,400	1,421	1,002	1,205	1,237	1,544	1,511	1,545
90%	607	599	633	666	1,389	953	953	953	877	990	820	906
Long Term												
Full Simulation Period ^d	1,387	2,464	3,938	5,062	6,093	4,356	3,337	3,031	2,837	2,588	1,948	1,681
Water Year Types ^{b,c}												
Wet (32%)	1,718	3,867	5,114	10,522	10,608	7,190	5,453	5,456	4,357	3,070	2,489	1,948
Above Normal (16%)	1,543	2,223	2,893	5,774	7,966	6,116	3,479	2,465	2,779	3,874	2,163	1,835
Below Normal (13%)	1,317	1,741	3,072	2,205	5,579	2,322	2,407	2,061	2,281	2,999	1,913	1,663
Dry (24%)	1,186	2,186	5,404	1,499	2,163	2,555	2,168	1,869	2,119	1,805	1,663	1,526
Critical (15%)	901	811	873	1,017	1,300	1,173	1,399	1,215	1,309	1,076	1,049	1,210

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,654	4,579	10,238	15,002	15,548	11,953	7,695	4,934	2,976	3,585	2,915	2,197
20%	1,500	2,917	5,005	11,288	11,986	7,872	6,446	3,445	2,128	3,262	2,375	1,952
30%	1,500	2,300	3,214	7,190	8,748	6,030	4,520	2,061	1,882	2,899	2,001	1,780
40%	1,500	2,000	2,337	5,396	6,644	5,409	4,081	1,603	1,527	2,474	1,834	1,750
50%	1,500	2,000	2,000	3,985	5,367	4,290	2,964	1,500	1,500	2,000	1,750	1,750
60%	1,500	1,849	2,000	2,472	3,396	3,135	1,703	1,500	1,500	1,762	1,750	1,750
70%	1,279	1,279	1,990	1,419	2,684	2,092	1,458	1,432	1,458	1,750	1,686	1,685
80%	715	749	1,461	1,400	1,400	1,597	1,104	1,224	1,261	1,685	1,530	1,534
90%	574	583	656	766	1,400	953	953	953	815	948	761	761
Long Term												
Full Simulation Period ^d	1,344	2,476	4,242	6,296	6,909	5,330	3,815	2,349	1,746	2,351	1,859	1,693
Water Year Types ^{b,c}												
Wet (32%)	1,696	3,905	5,581	12,280	11,595	8,664	6,154	4,081	2,120	2,661	2,385	2,069
Above Normal (16%)	1,555	2,259	3,126	8,035	8,755	7,374	3,969	1,649	1,534	2,996	1,944	1,821
Below Normal (13%)	1,199	1,643	3,459	3,196	6,145	2,829	2,971	1,535	1,538	2,476	1,890	1,650
Dry (24%)	1,111	2,184	5,610	2,003	3,016	3,447	2,575	1,657	1,734	2,140	1,604	1,522
Critical (15%)	874	863	986	1,443	1,946	1,326	1,424	1,252	1,375	1,218	1,021	1,066

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-285	110	183	2,861	911	2,218	1,010	-2,453	-1,583	-1,122	-142	-3
20%	-135	-537	555	3,434	1,041	1,076	1,420	-965	-1,566	-236	-247	111
30%	0	-9	293	1,661	1,263	1,010	123	-1,461	-1,726	-334	-311	30
40%	0	0	246	1,668	919	1,258	805	-1,034	-1,383	-299	-166	0
50%	0	0	0	2,013	1,713	1,268	456	-416	-1,156	-444	-79	0
60%	0	-89	0	981	701	898	-549	-42	-613	-245	0	0
70%	-29	120	161	19	934	342	32	4	-328	-39	17	16
80%	-33	1	337	0	0	177	103	18	24	140	18	-11
90%	-32	-16	23	100	11	0	0	0	-62	-43	-60	-145
Long Term												
Full Simulation Period ^d	-43	12	304	1,234	816	975	478	-682	-1,091	-237	-89	12
Water Year Types ^{b,c}												
Wet (32%)	-22	38	467	1,758	986	1,474	702	-1,376	-2,238	-409	-104	120
Above Normal (16%)	11	36	232	2,261	789	1,258	490	-816	-1,245	-879	-219	-14
Below Normal (13%)	-118	-99	387	991	566	507	563	-527	-743	-523	-23	-13
Dry (24%)	-75	-2	207	504	853	892	406	-212	-385	335	-59	-4
Critical (15%)	-27	52	113	426	646	153	24	37	65	142	-27	-145

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

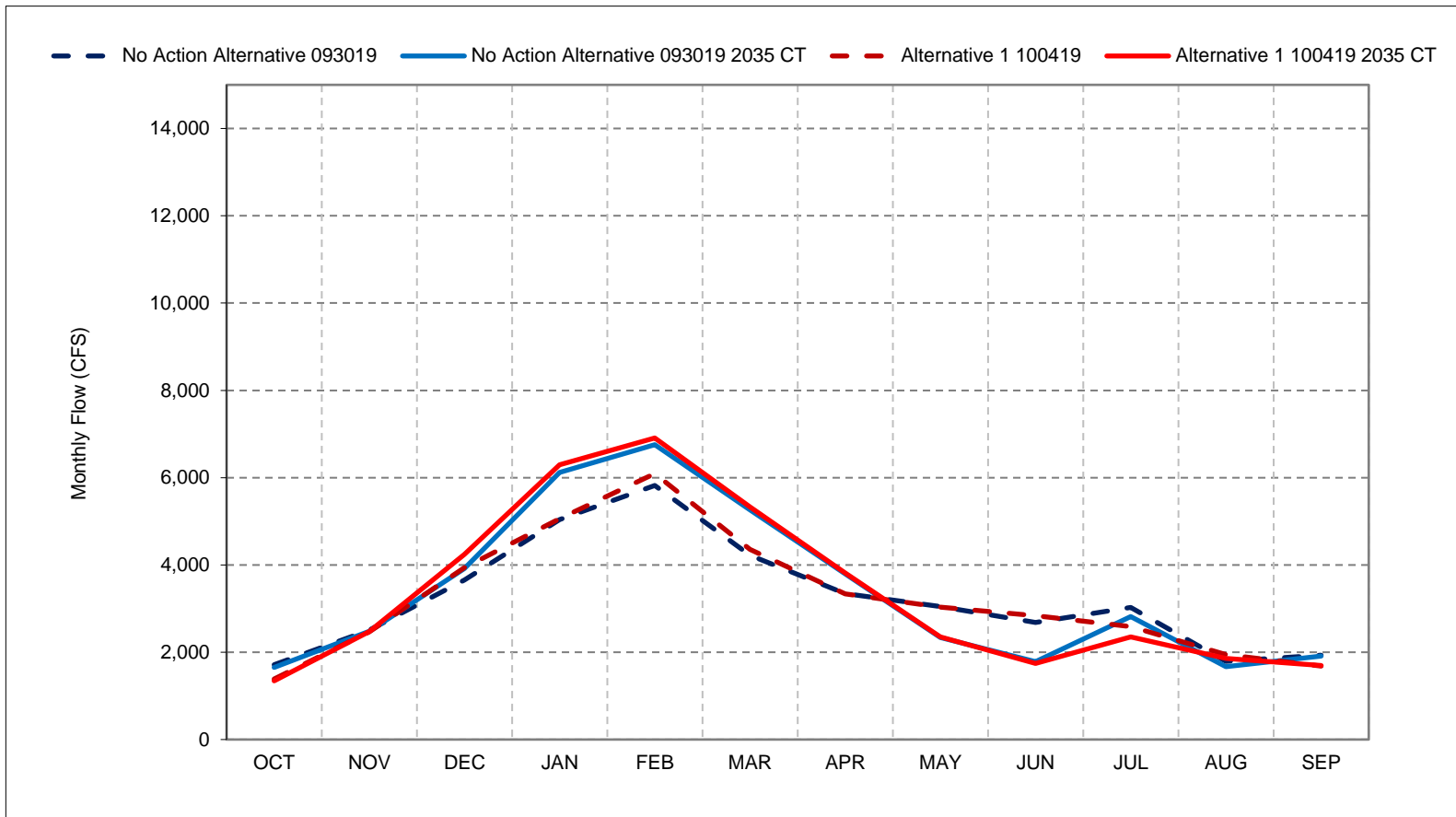
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 27-1. American River below Nimbus Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

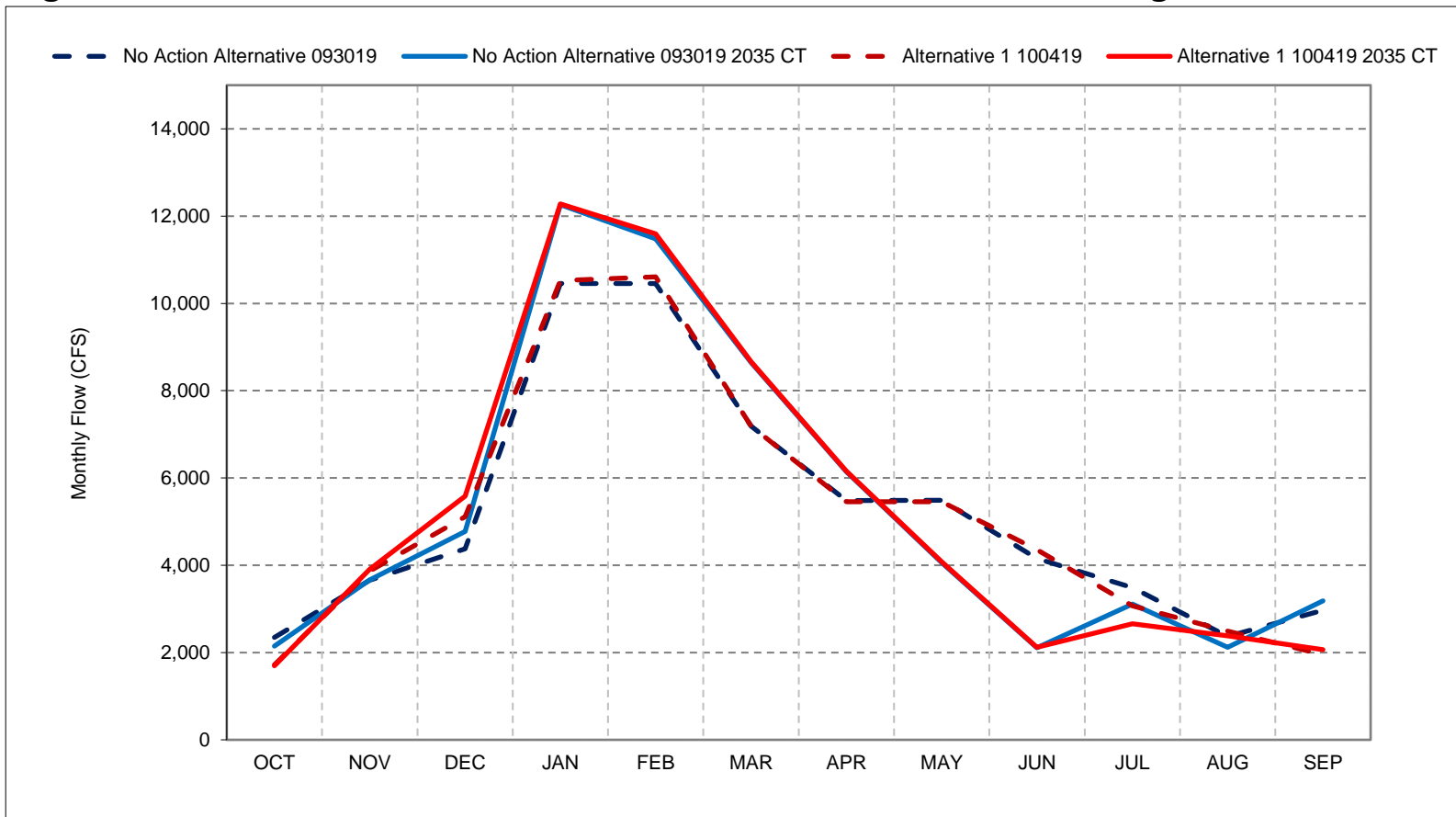
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-2. American River below Nimbus Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

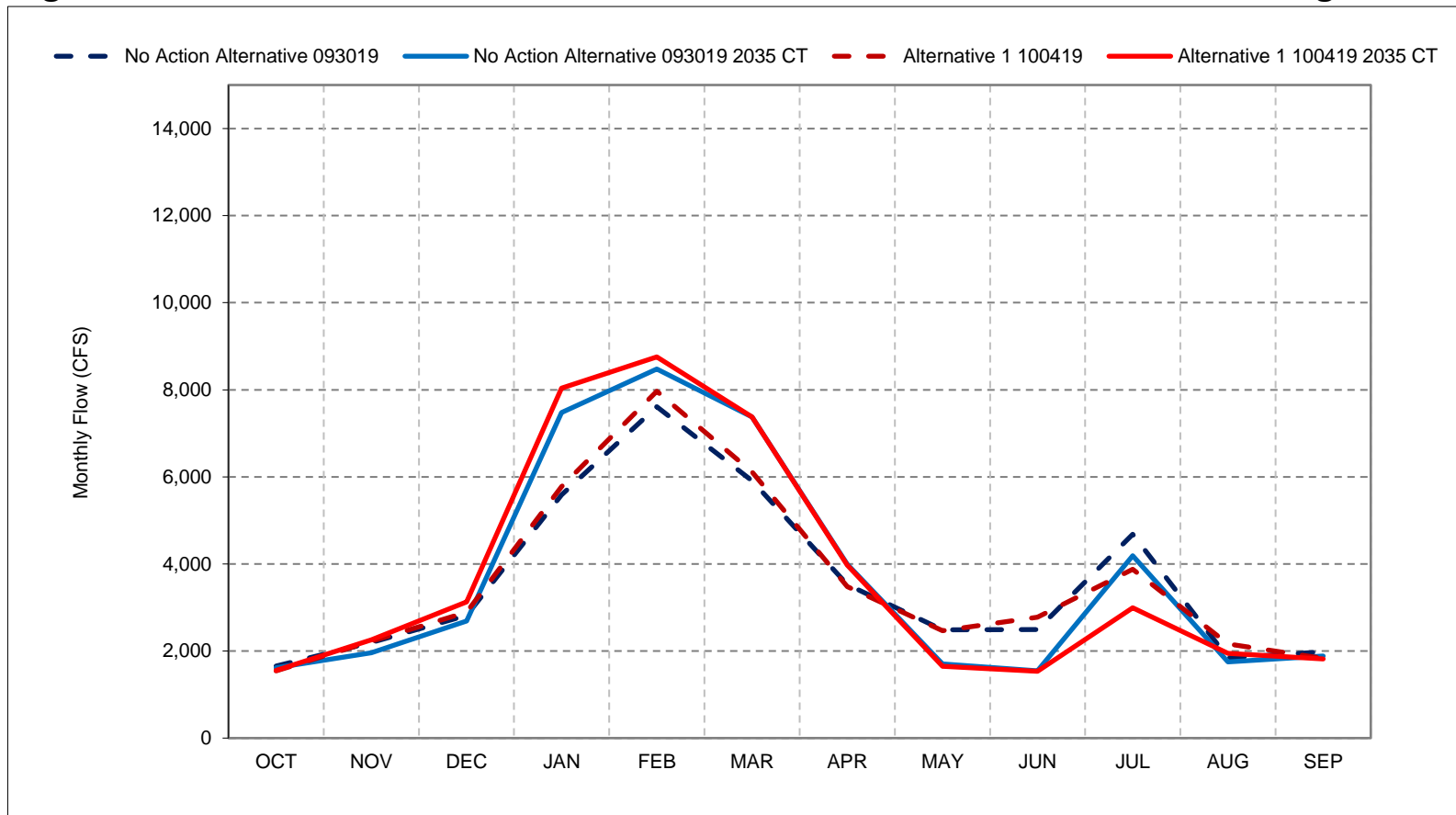
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-3. American River below Nimbus Dam Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

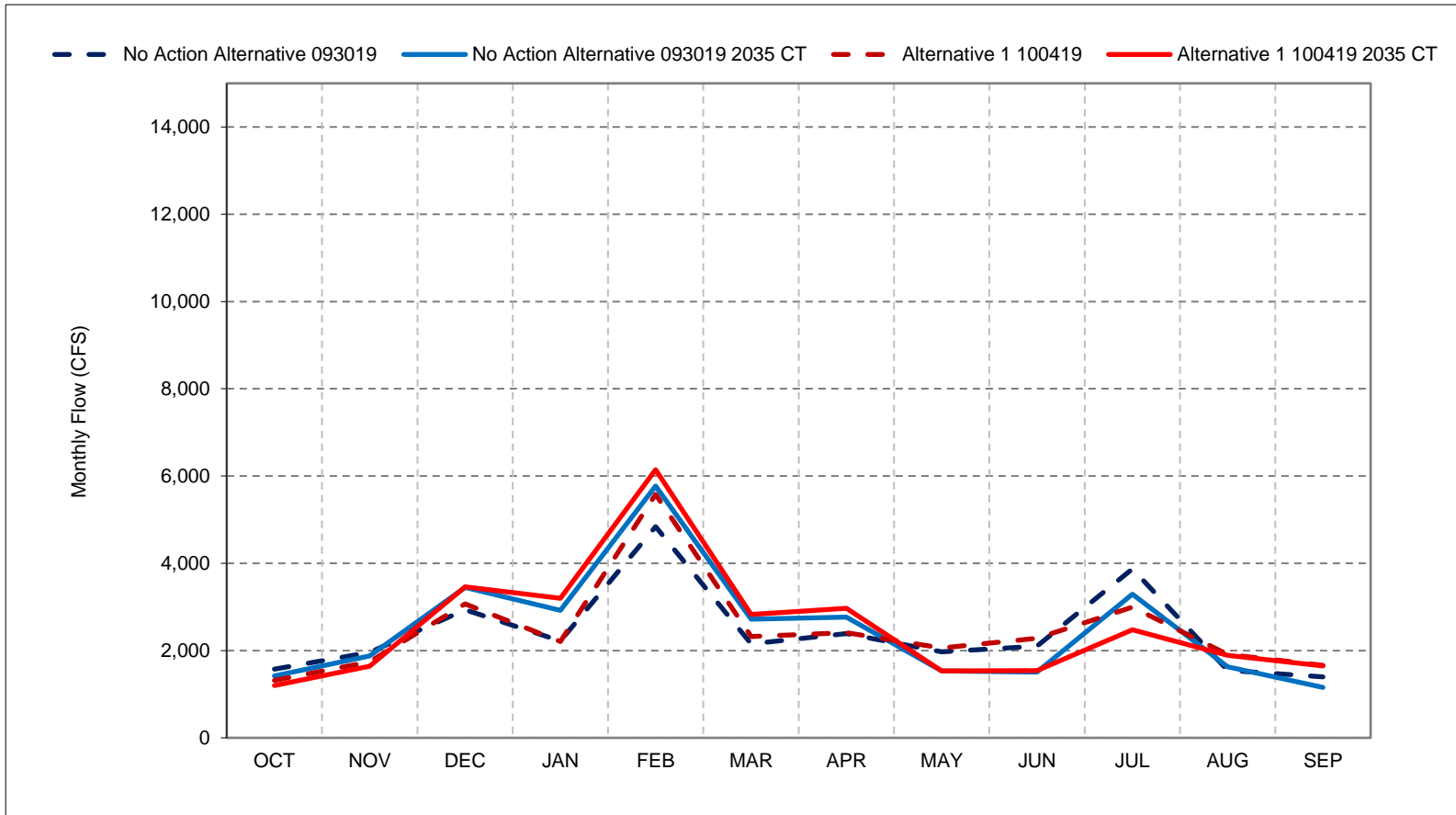
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-4. American River below Nimbus Dam Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

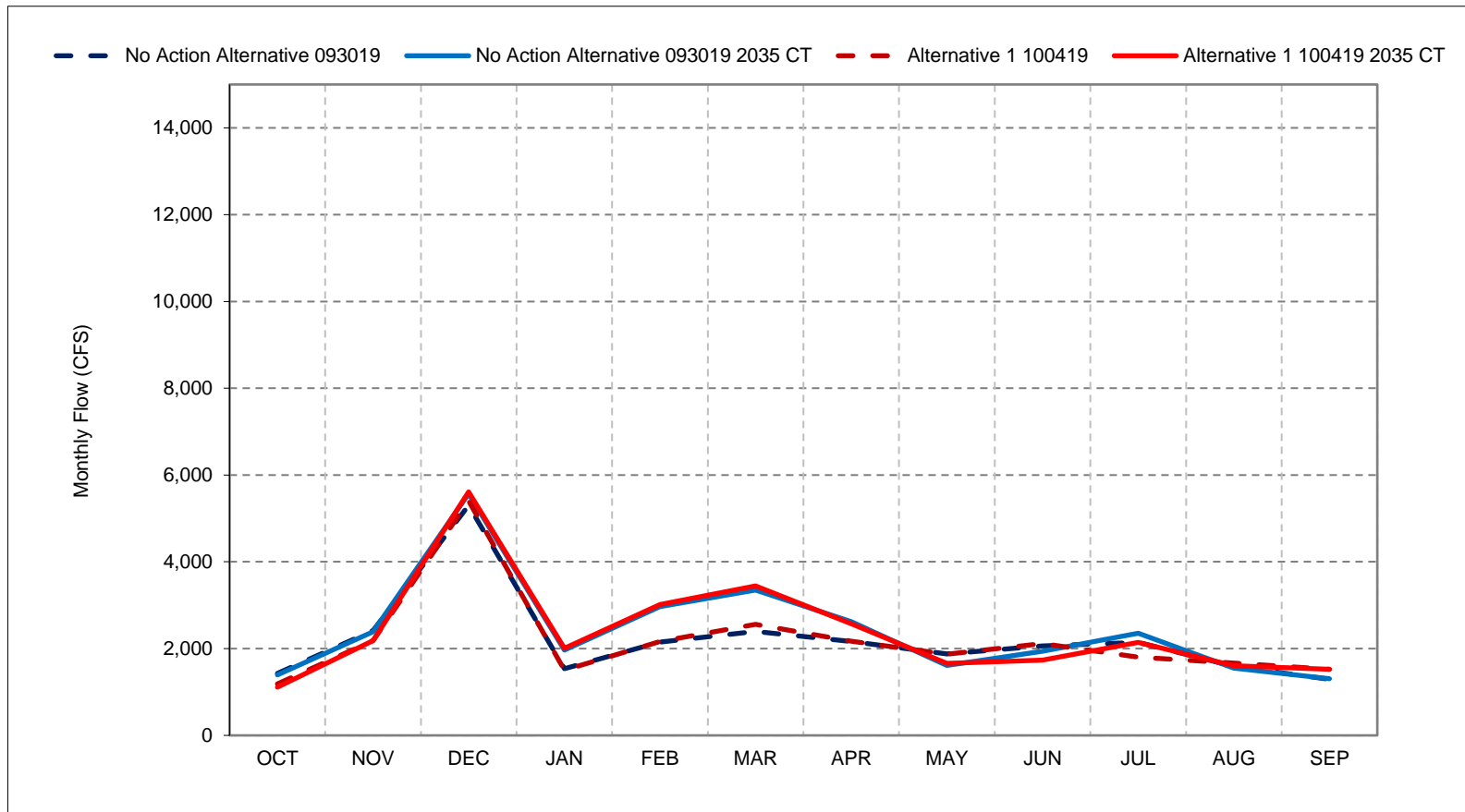
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-5. American River below Nimbus Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

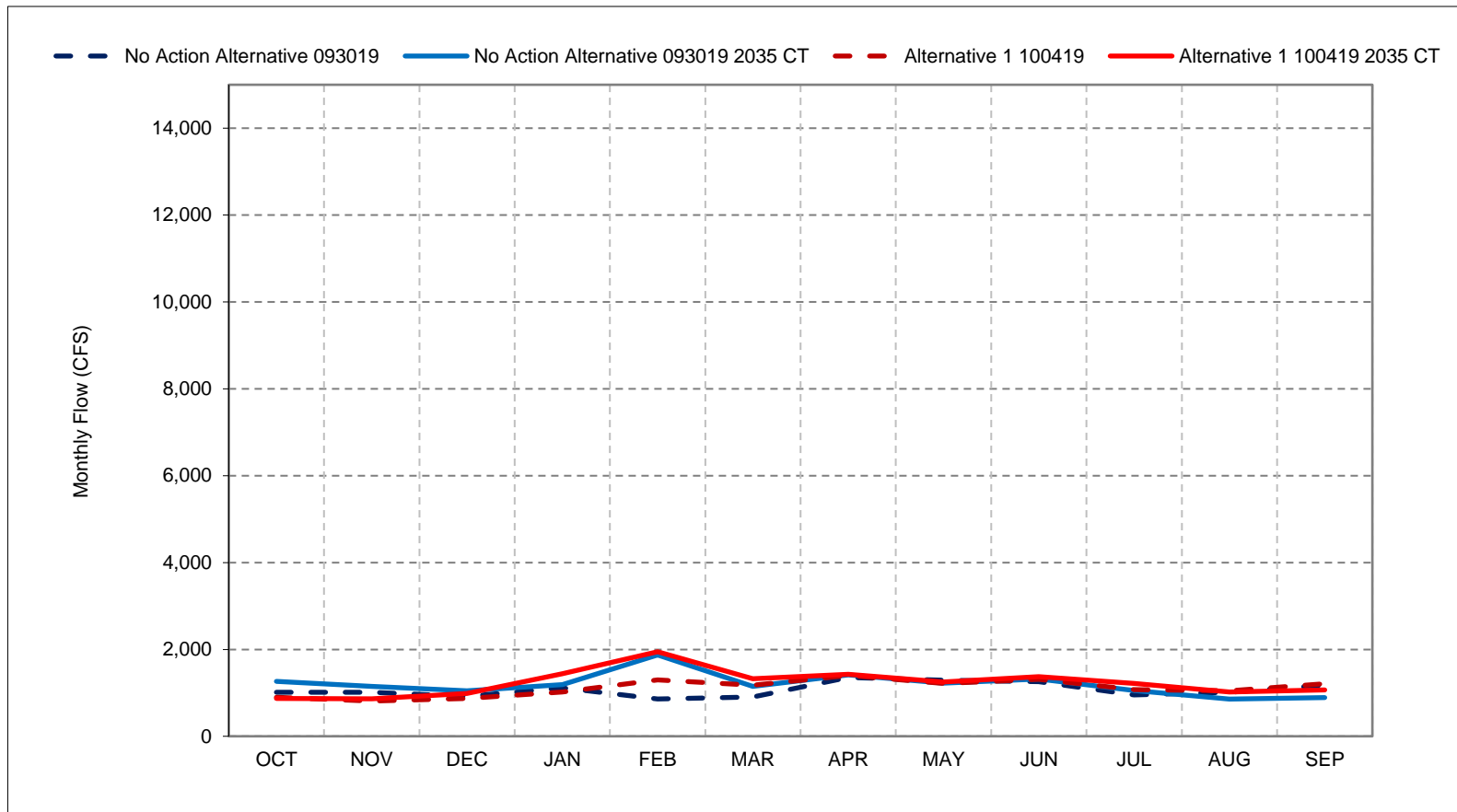
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-6. American River below Nimbus Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

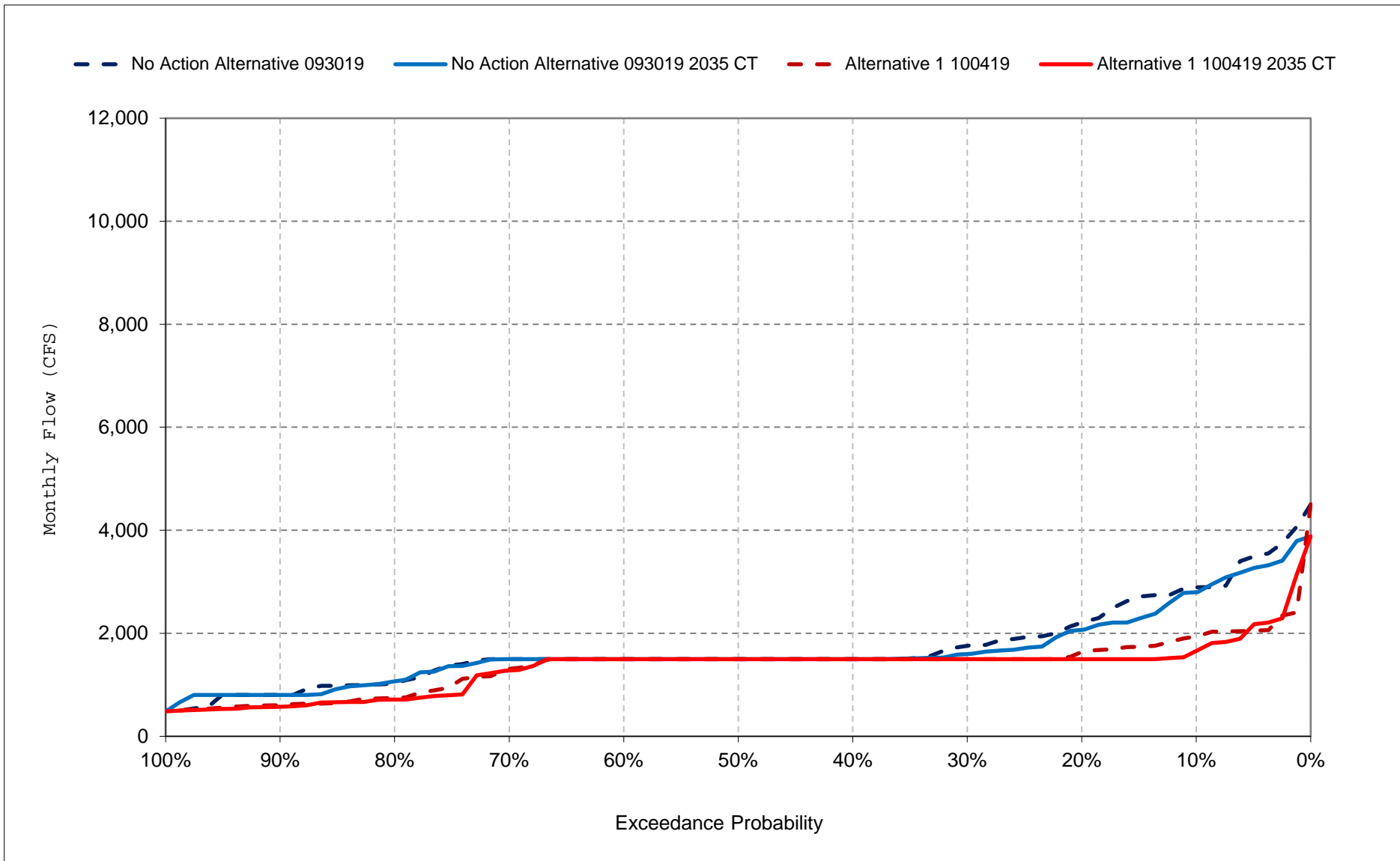
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

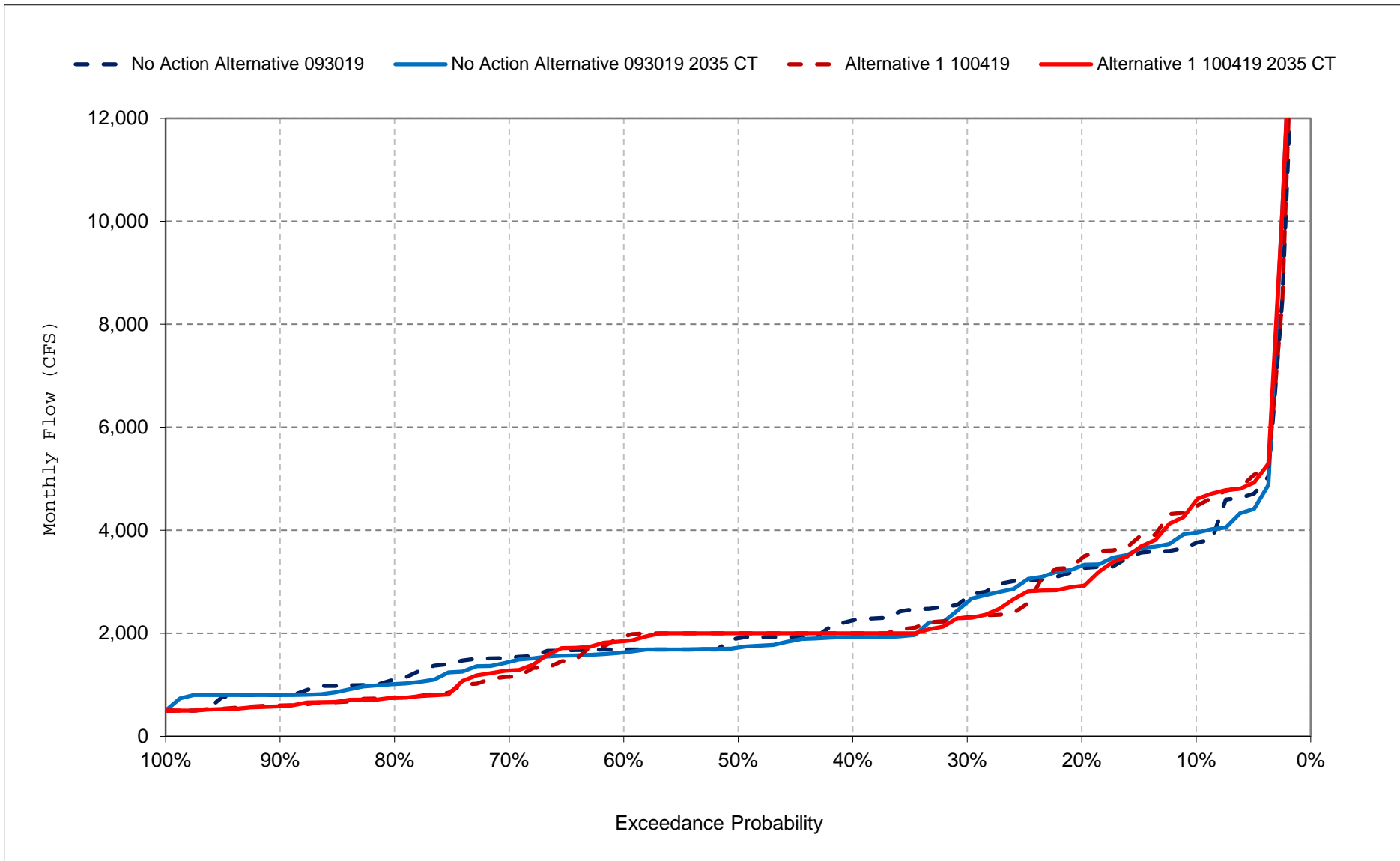
Figure 27-7. American River below Nimbus Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

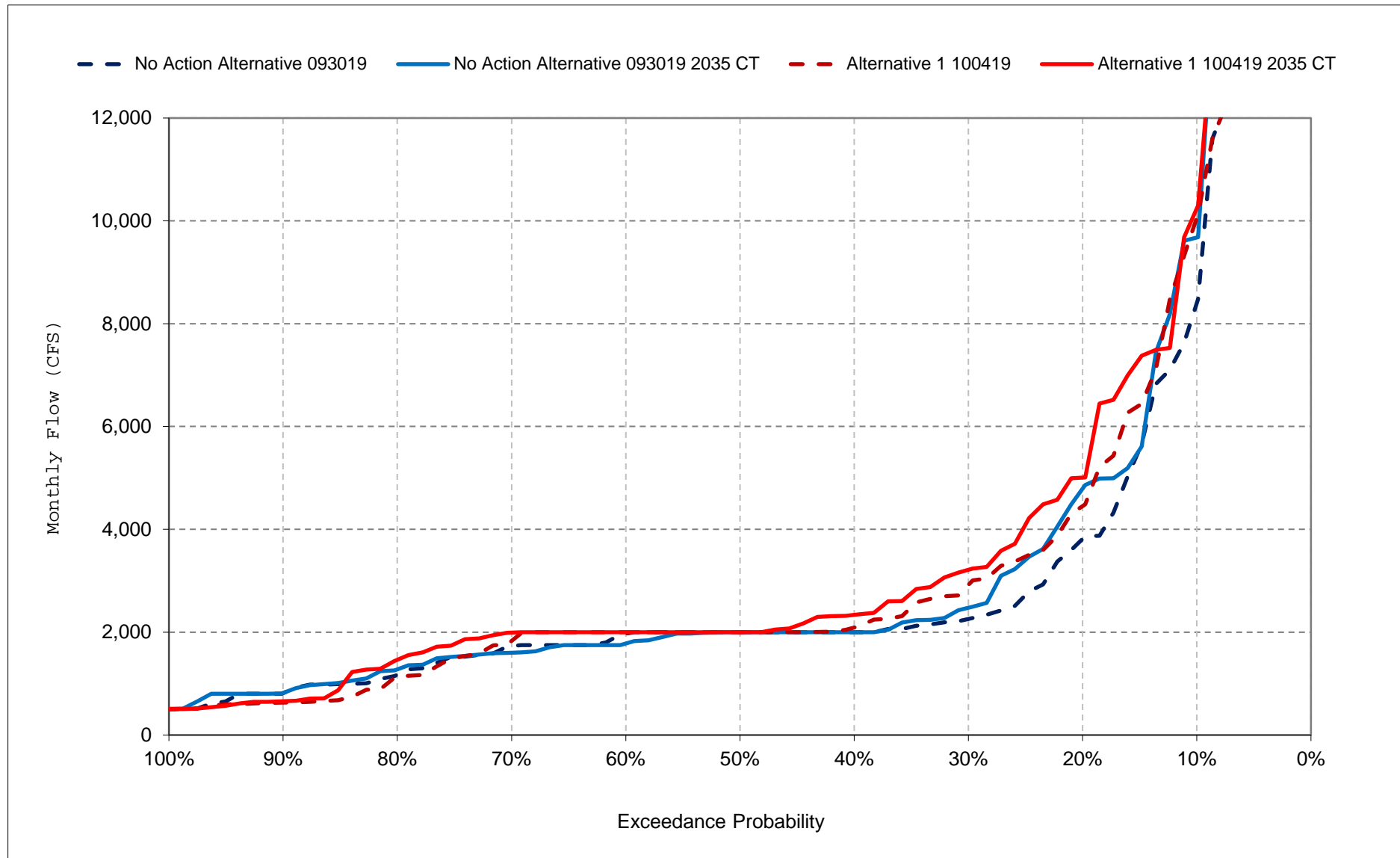
Figure 27-8. American River below Nimbus Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

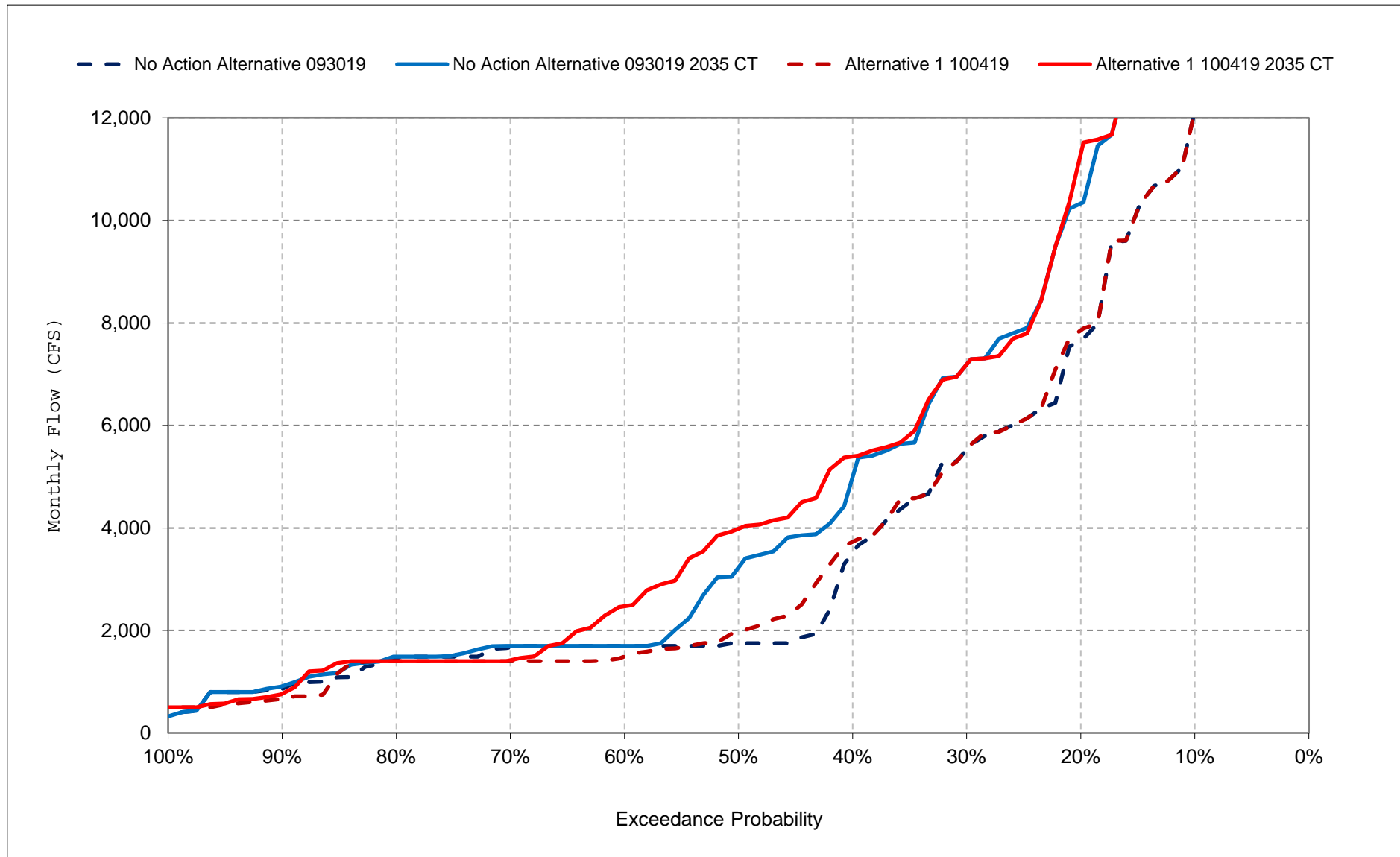
Figure 27-9. American River below Nimbus Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

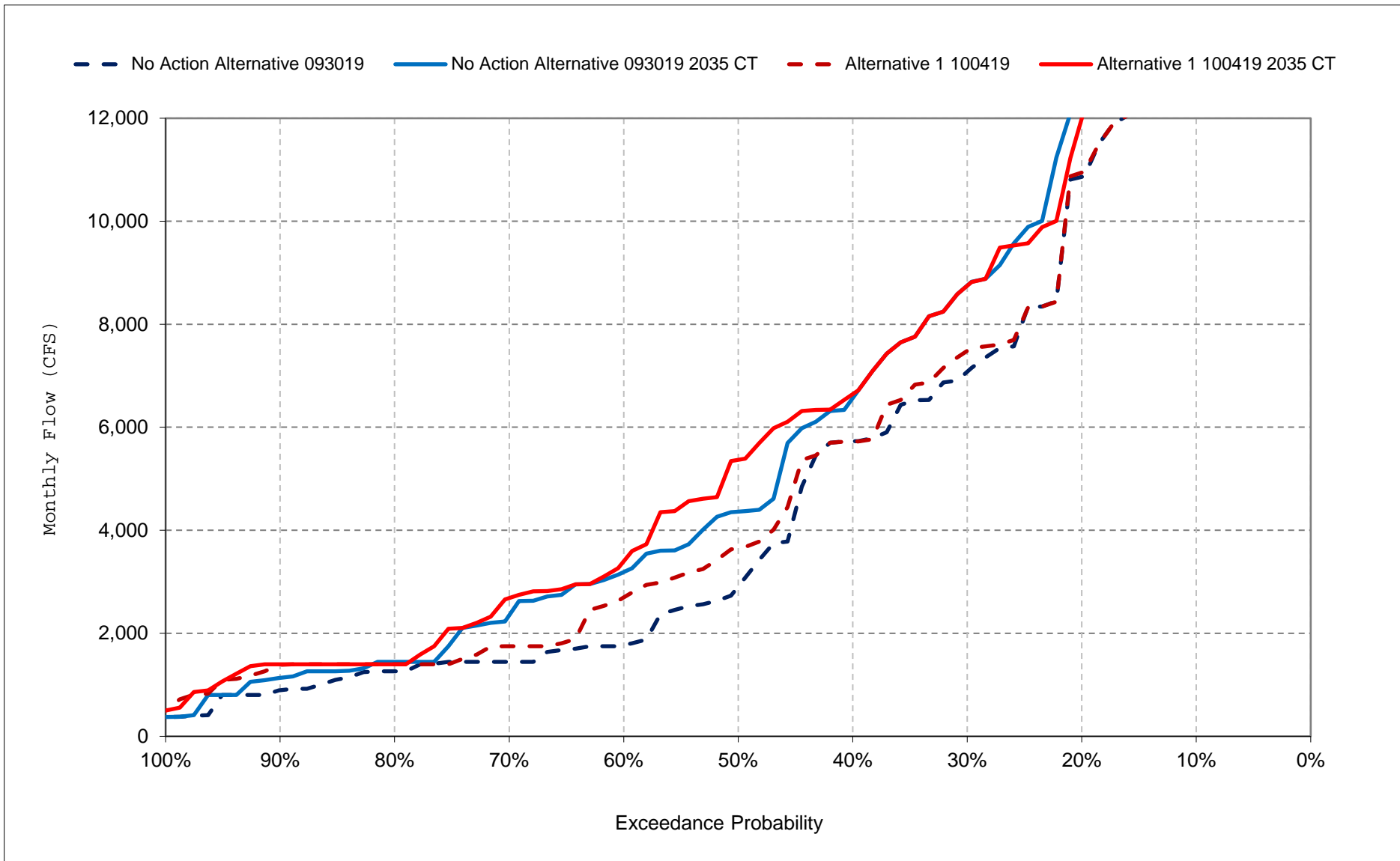
Figure 27-10. American River below Nimbus Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

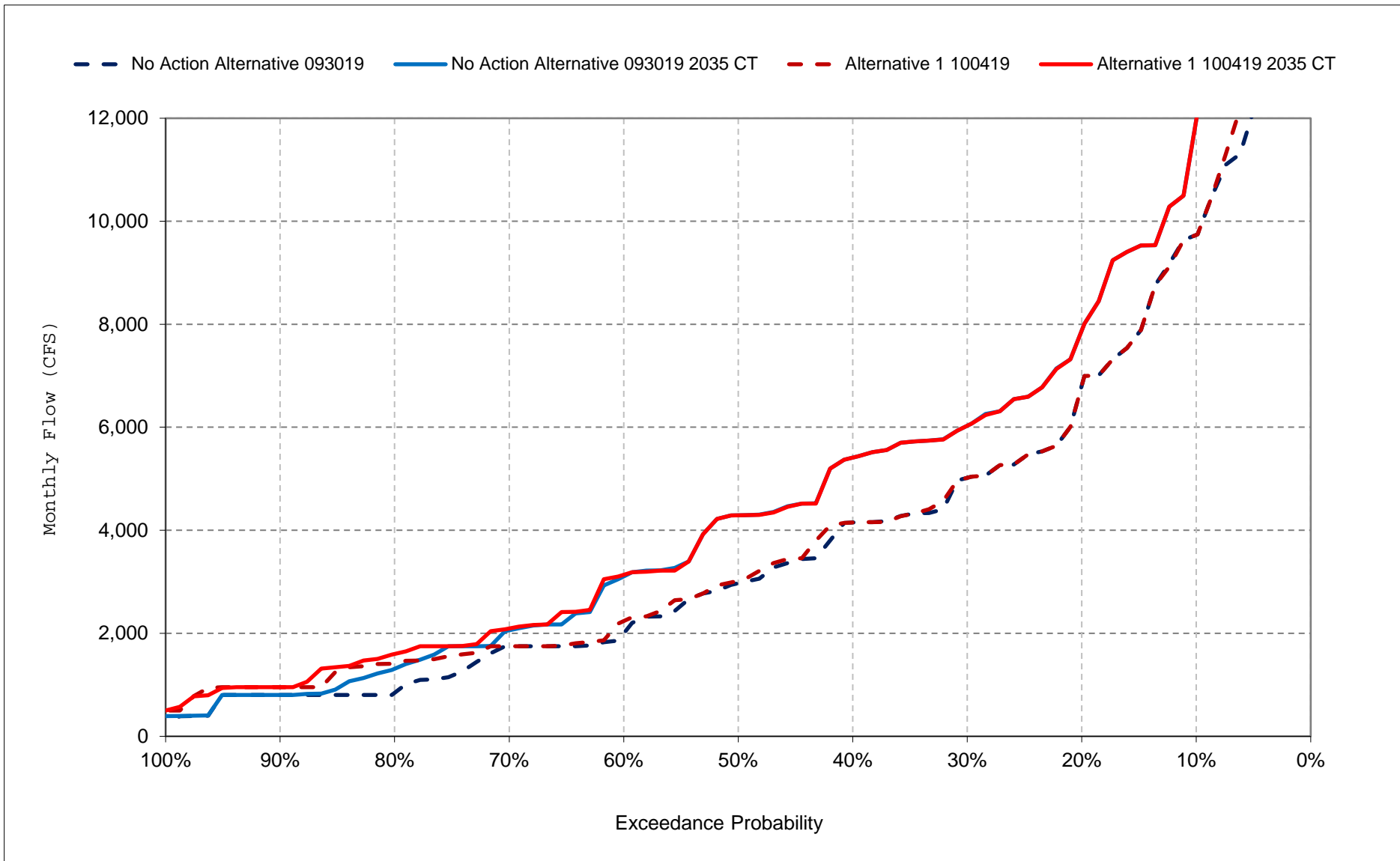
Figure 27-11. American River below Nimbus Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

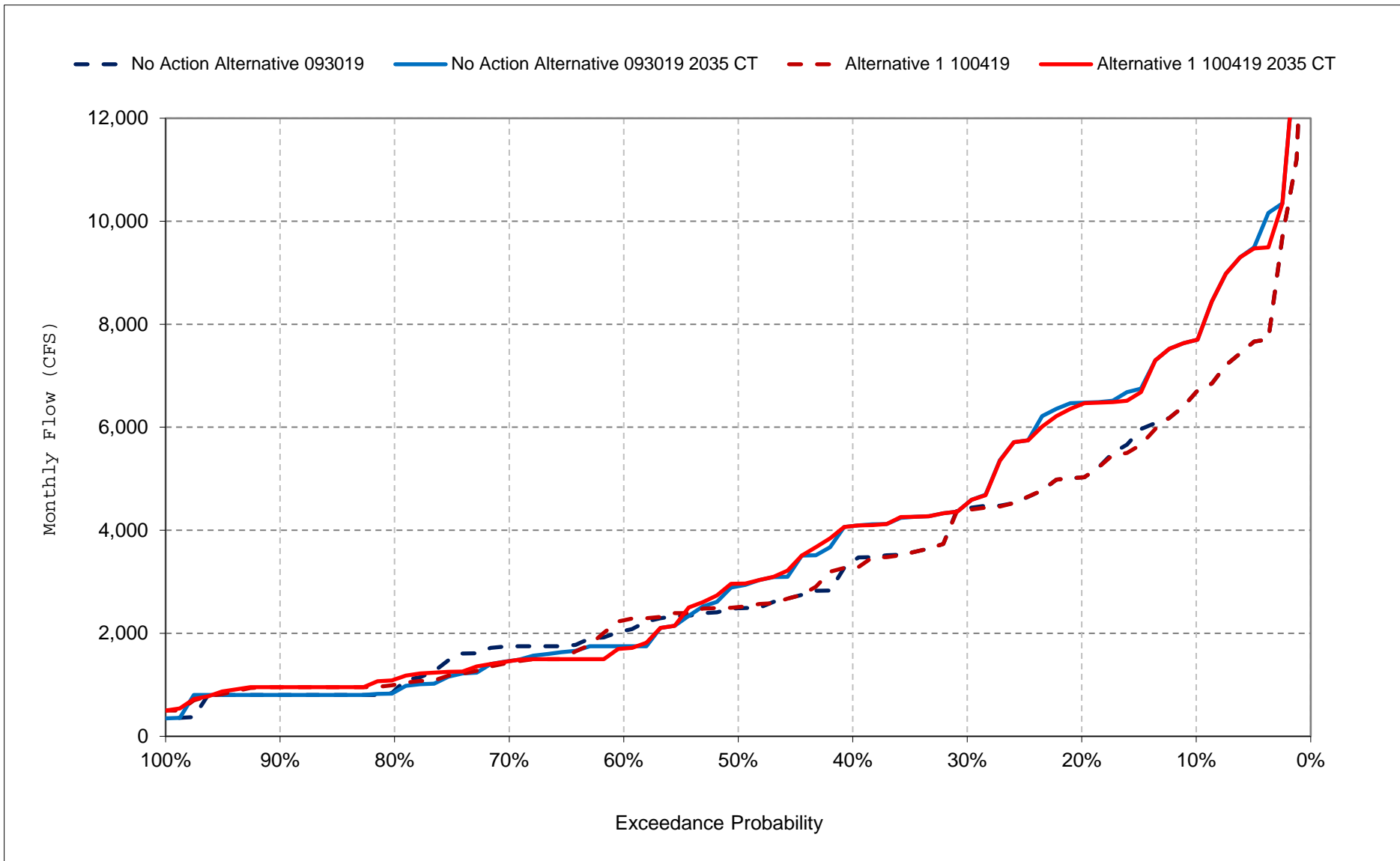
Figure 27-12. American River below Nimbus Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

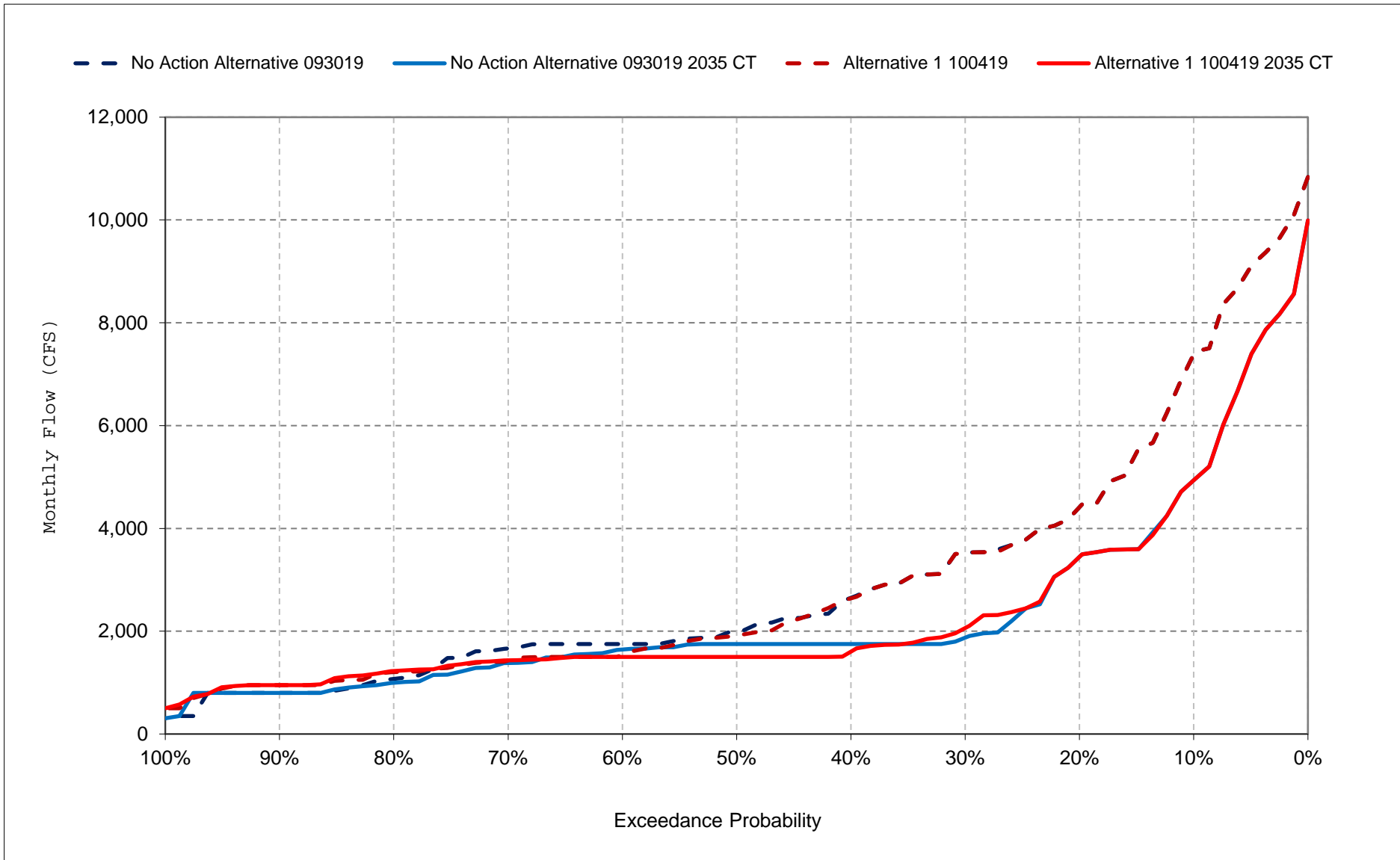
Figure 27-13. American River below Nimbus Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

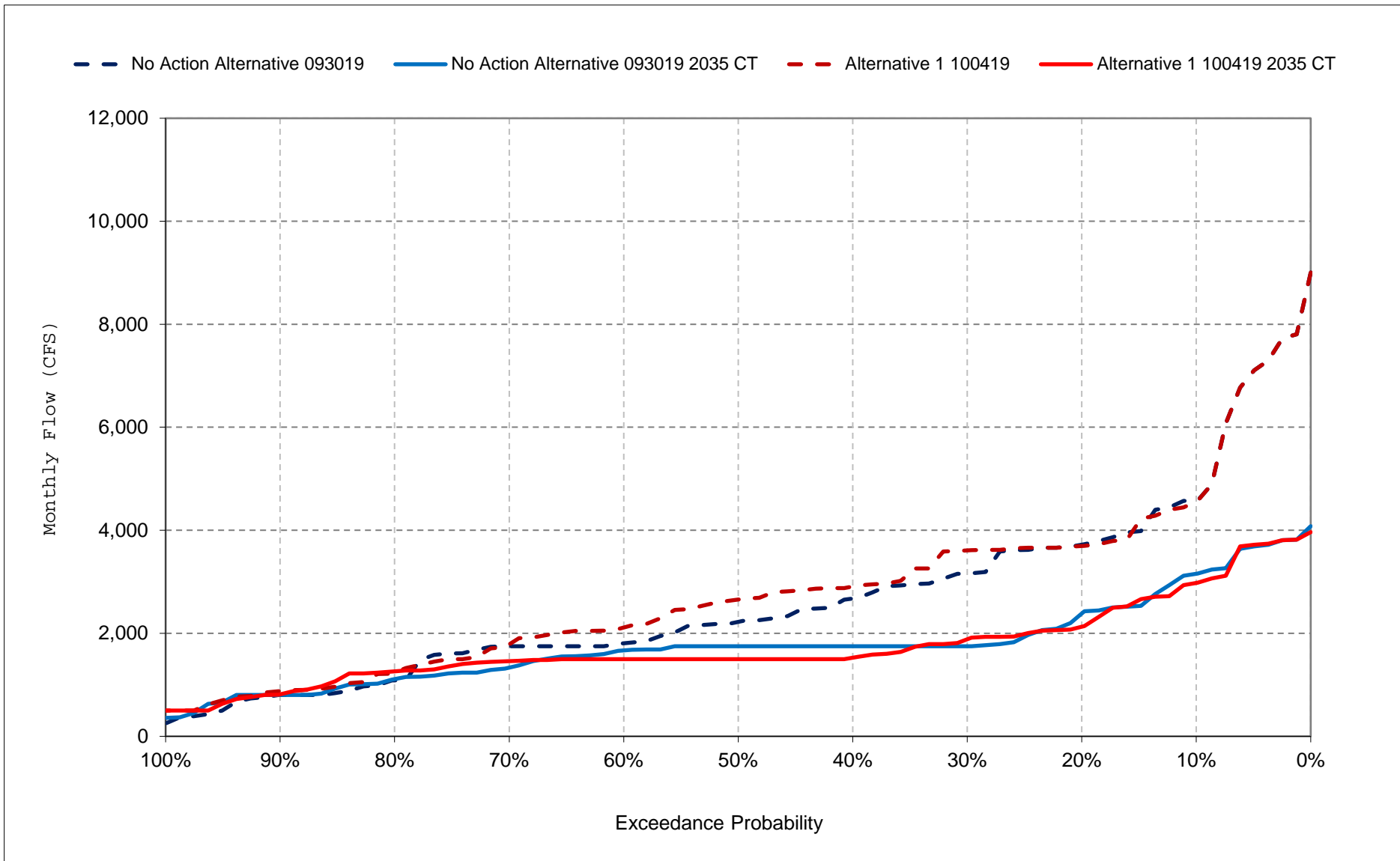
Figure 27-14. American River below Nimbus Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

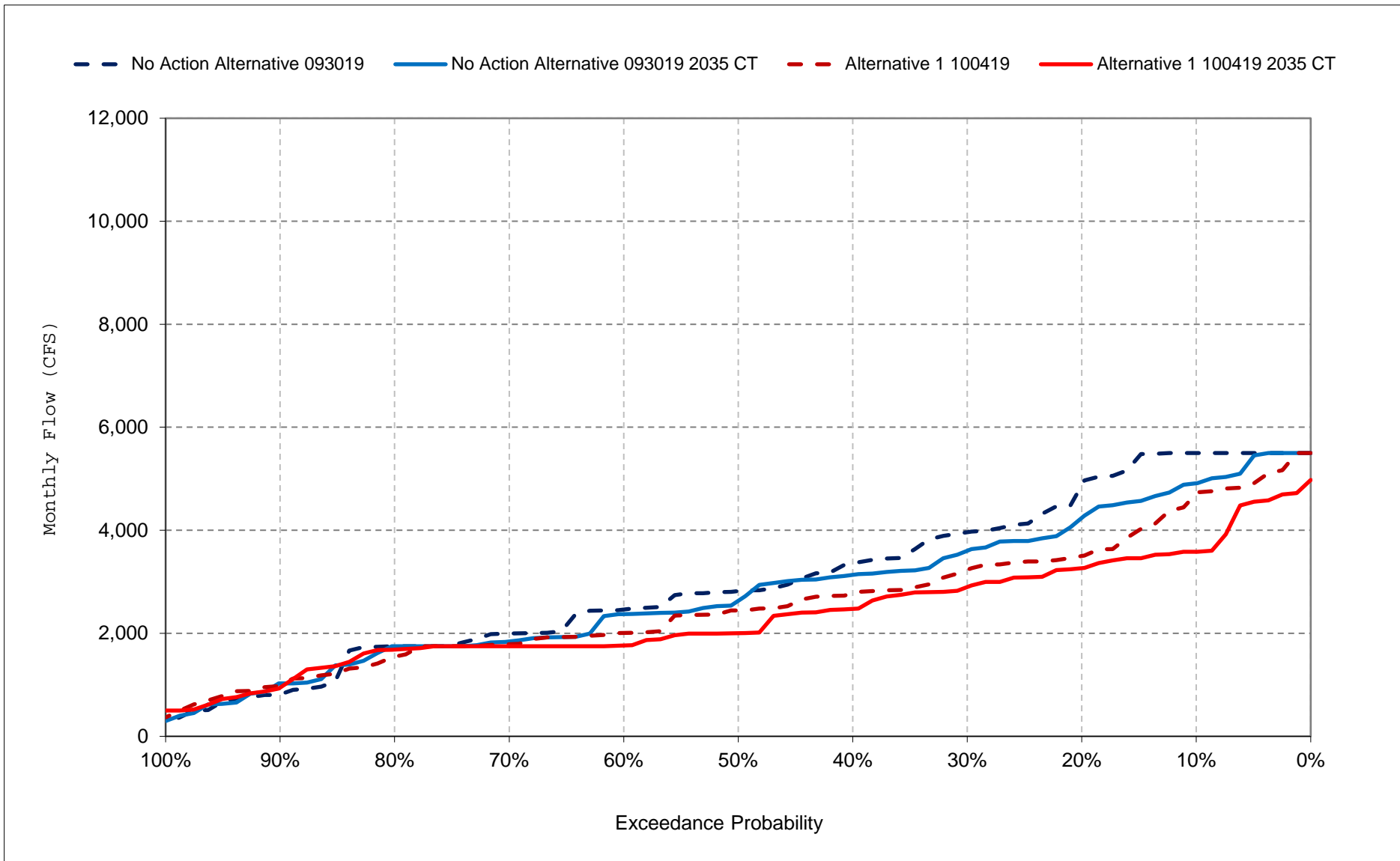
Figure 27-15. American River below Nimbus Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

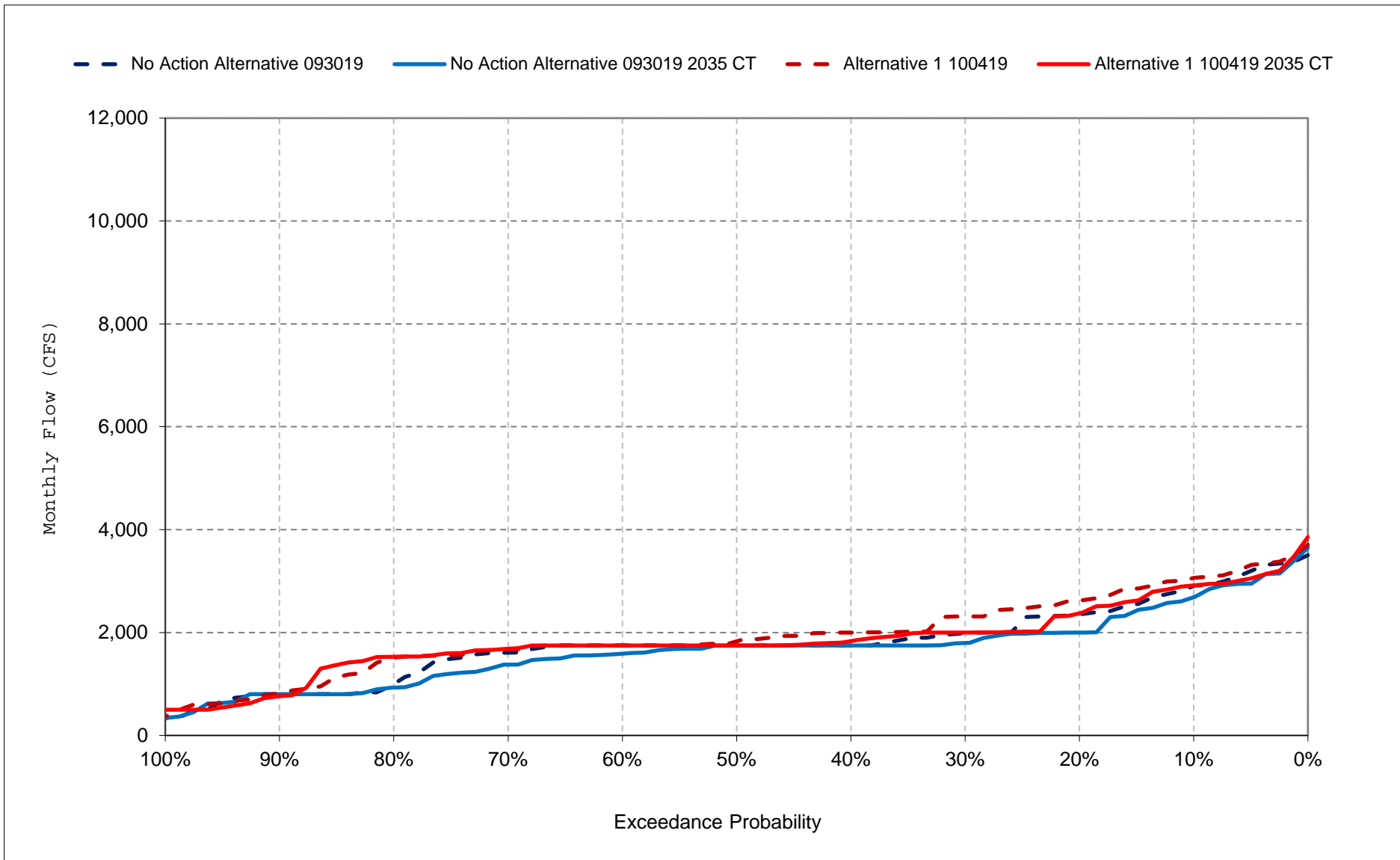
Figure 27-16. American River below Nimbus Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

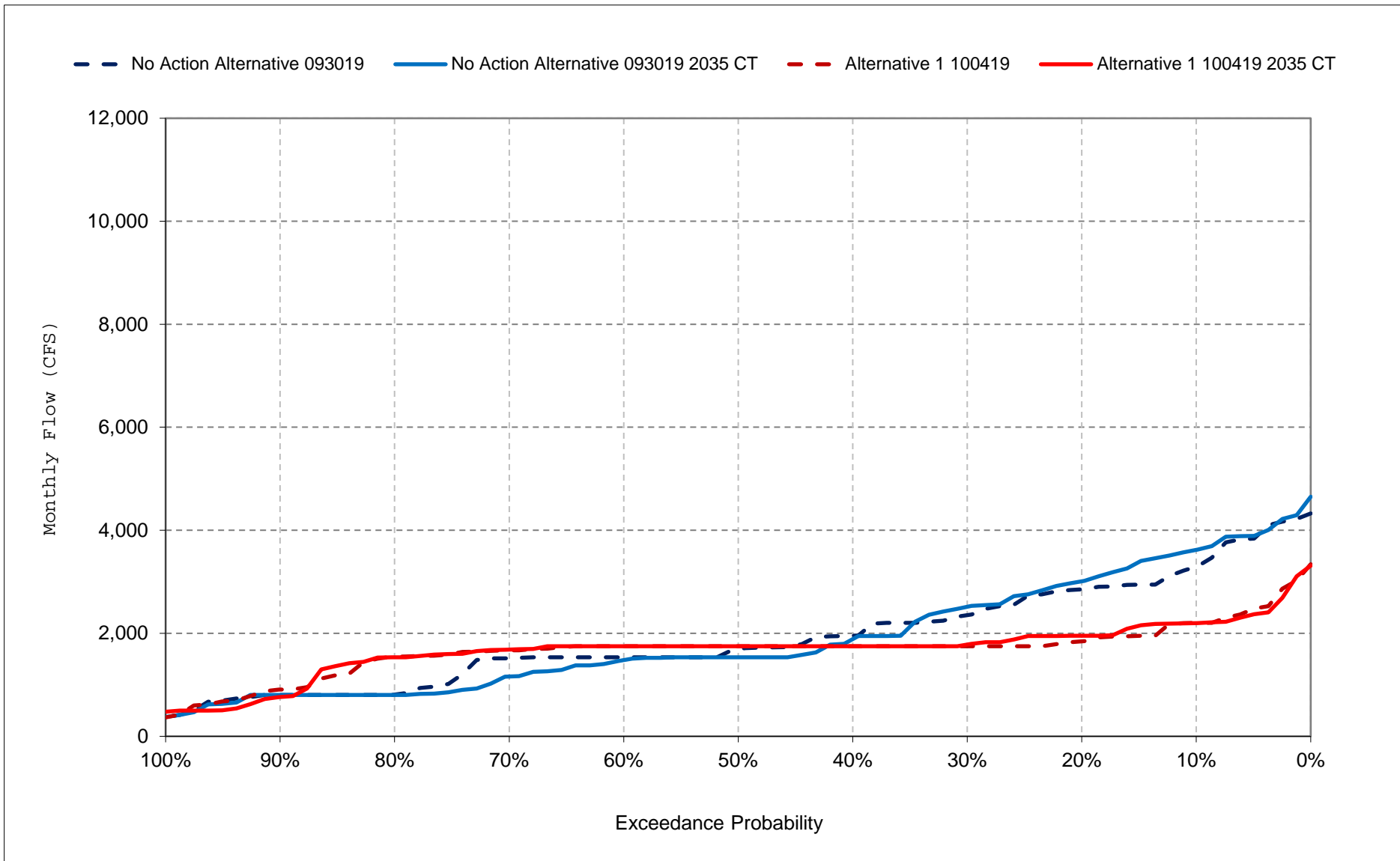
Figure 27-17. American River below Nimbus Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 27-18. American River below Nimbus Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-1. American River at H Street, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,585	3,530	8,214	11,989	14,510	9,476	6,247	6,818	3,949	4,871	2,323	2,845
20%	1,954	3,051	3,590	7,341	10,626	6,579	4,612	3,824	3,096	4,286	1,800	2,427
30%	1,568	2,441	2,041	5,320	6,812	4,829	3,949	3,000	2,908	3,323	1,735	1,945
40%	1,364	2,027	1,914	3,416	5,507	3,858	3,000	2,437	2,426	2,707	1,503	1,750
50%	1,339	1,733	1,859	1,598	2,649	2,822	2,275	1,806	1,973	2,179	1,486	1,485
60%	1,326	1,539	1,816	1,555	1,612	1,807	1,845	1,554	1,562	1,757	1,476	1,330
70%	1,313	1,407	1,566	1,514	1,318	1,571	1,527	1,476	1,492	1,750	1,360	1,323
80%	879	1,007	1,043	1,308	1,137	725	738	874	848	1,485	767	648
90%	657	703	764	732	759	622	619	612	563	583	537	601
Long Term												
Full Simulation Period ^d	1,531	2,344	3,517	4,880	5,627	4,021	3,062	2,742	2,323	2,536	1,456	1,644
Water Year Types ^{b,c}												
Wet (32%)	2,114	3,458	4,217	10,270	10,185	6,940	5,145	5,068	3,668	2,932	1,950	2,564
Above Normal (16%)	1,477	2,032	2,689	5,442	7,426	5,684	3,174	2,204	2,162	4,052	1,530	1,688
Below Normal (13%)	1,412	1,806	2,784	2,055	4,675	1,952	2,141	1,690	1,755	3,253	1,262	1,188
Dry (24%)	1,268	2,273	5,154	1,404	1,997	2,242	1,936	1,638	1,780	1,725	1,285	1,083
Critical (15%)	872	881	838	971	724	759	1,151	1,091	1,010	730	771	953

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,766	4,186	9,959	11,969	14,510	9,476	6,247	6,818	3,852	4,075	2,514	1,750
20%	1,472	3,242	4,297	7,618	10,744	6,579	4,613	3,829	3,077	2,868	2,066	1,634
30%	1,361	2,063	2,715	5,267	7,106	4,825	3,947	3,000	3,000	2,628	1,750	1,553
40%	1,343	1,901	1,973	3,675	5,489	3,884	3,000	2,429	2,663	2,116	1,750	1,547
50%	1,329	1,858	1,869	1,827	3,492	2,863	2,338	1,718	2,411	1,752	1,572	1,541
60%	1,324	1,799	1,842	1,356	2,438	2,040	2,034	1,354	1,870	1,743	1,495	1,537
70%	1,144	1,064	1,684	1,255	1,588	1,583	1,231	1,232	1,547	1,532	1,427	1,469
80%	612	659	1,001	1,239	1,273	1,333	804	1,012	999	1,301	1,258	1,345
90%	461	465	544	564	1,221	802	760	758	638	753	583	713
Long Term												
Full Simulation Period ^d	1,230	2,311	3,796	4,899	5,895	4,152	3,057	2,728	2,459	2,125	1,595	1,452
Water Year Types ^{b,c}												
Wet (32%)	1,553	3,681	4,941	10,331	10,338	6,938	5,115	5,036	3,846	2,524	2,036	1,681
Above Normal (16%)	1,386	2,076	2,764	5,622	7,769	5,883	3,147	2,183	2,418	3,244	1,807	1,613
Below Normal (13%)	1,165	1,590	2,926	2,034	5,402	2,116	2,154	1,780	1,933	2,485	1,570	1,448
Dry (24%)	1,033	2,058	5,258	1,360	2,013	2,402	1,940	1,632	1,816	1,448	1,373	1,317
Critical (15%)	748	678	792	874	1,161	1,020	1,192	1,010	1,055	845	801	1,008

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-819	657	1,745	-20	0	0	0	0	-97	-795	190	-1,095
20%	-482	191	707	277	118	0	1	4	-19	-1,419	266	-793
30%	-208	-378	674	-53	294	-4	-2	0	92	-696	15	-392
40%	-22	-126	60	259	-18	26	0	-8	237	-591	247	-203
50%	-10	125	10	230	842	42	62	-88	438	-427	86	56
60%	-1	260	26	-199	826	234	189	-200	308	-13	19	207
70%	-170	-343	118	-260	271	12	-295	-244	55	-218	66	146
80%	-267	-347	-42	-69	135	608	66	138	151	-184	491	697
90%	-196	-238	-220	-168	462	180	140	146	75	169	46	112
Long Term												
Full Simulation Period ^d	-301	-33	279	20	268	130	-5	-15	136	-411	139	-192
Water Year Types ^{b,c}												
Wet (32%)	-562	223	724	60	153	-2	-30	-33	178	-409	87	-882
Above Normal (16%)	-91	44	75	180	342	199	-27	-21	256	-808	278	-75
Below Normal (13%)	-247	-216	141	-21	728	163	13	91	178	-768	308	260
Dry (24%)	-236	-215	103	-44	16	160	4	-6	36	-277	87	233
Critical (15%)	-124	-203	-45	-97	437	261	40	-81	45	115	30	55

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 28-2. American River at H Street, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,493	3,696	9,514	14,852	15,317	11,753	7,256	4,323	2,909	4,286	2,073	3,185
20%	1,878	3,066	4,587	10,226	12,021	7,763	6,065	2,991	2,133	3,630	1,750	2,628
30%	1,456	2,376	2,280	6,992	8,439	5,793	4,062	1,673	1,515	2,972	1,552	2,083
40%	1,370	1,770	1,876	4,816	6,390	5,238	3,567	1,541	1,503	2,495	1,494	1,683
50%	1,350	1,613	1,835	3,022	4,094	4,021	2,750	1,511	1,488	2,021	1,482	1,330
60%	1,334	1,508	1,668	1,581	2,932	2,870	1,546	1,449	1,430	1,750	1,342	1,279
70%	1,322	1,343	1,460	1,521	2,125	1,861	1,252	1,180	1,094	1,584	1,129	964
80%	941	879	1,152	1,308	1,270	1,136	703	778	879	1,486	672	620
90%	648	709	798	765	983	664	620	613	565	782	561	608
Long Term												
Full Simulation Period ^d	1,471	2,320	3,774	5,952	6,543	5,048	3,493	2,061	1,508	2,343	1,364	1,634
Water Year Types ^{b,c}												
Wet (32%)	1,918	3,473	4,613	12,070	11,191	8,386	5,771	3,671	1,787	2,615	1,768	2,766
Above Normal (16%)	1,432	1,809	2,560	7,326	8,259	7,135	3,615	1,462	1,301	3,595	1,440	1,617
Below Normal (13%)	1,281	1,732	3,294	2,735	5,574	2,500	2,484	1,332	1,267	2,785	1,286	964
Dry (24%)	1,240	2,262	5,423	1,821	2,812	3,184	2,367	1,387	1,678	1,860	1,271	1,098
Critical (15%)	1,100	1,012	964	1,041	1,719	993	1,229	1,016	1,065	798	635	708

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,510	4,351	10,133	14,829	15,316	11,753	7,256	4,323	2,698	2,982	2,339	1,757
20%	1,363	2,719	4,822	11,151	11,682	7,762	6,034	2,992	1,877	2,649	1,821	1,750
30%	1,346	2,086	3,063	6,991	8,439	5,793	4,057	1,827	1,645	2,280	1,750	1,592
40%	1,339	1,886	2,131	5,198	6,553	5,234	3,579	1,399	1,275	1,849	1,580	1,549
50%	1,329	1,845	1,885	3,810	5,179	4,021	2,764	1,297	1,257	1,750	1,508	1,547
60%	1,324	1,726	1,860	2,271	3,172	2,922	1,512	1,275	1,244	1,521	1,500	1,541
70%	1,114	1,150	1,827	1,291	2,415	1,913	1,202	1,228	1,216	1,505	1,446	1,484
80%	571	640	1,337	1,241	1,342	1,434	904	1,032	1,024	1,444	1,286	1,340
90%	438	468	553	601	1,222	805	758	766	577	706	530	574
Long Term												
Full Simulation Period ^d	1,183	2,325	4,095	6,123	6,694	5,117	3,515	2,075	1,471	1,928	1,539	1,456
Water Year Types ^{b,c}												
Wet (32%)	1,524	3,720	5,402	12,081	11,308	8,404	5,785	3,688	1,798	2,193	1,986	1,766
Above Normal (16%)	1,386	2,111	2,985	7,874	8,531	7,131	3,595	1,411	1,290	2,494	1,644	1,601
Below Normal (13%)	1,054	1,503	3,307	3,002	5,946	2,617	2,701	1,330	1,297	2,065	1,525	1,435
Dry (24%)	958	2,061	5,461	1,855	2,854	3,279	2,323	1,435	1,469	1,724	1,344	1,313
Critical (15%)	720	731	911	1,290	1,791	1,168	1,239	1,047	1,119	957	796	882

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-983	655	619	-23	-1	0	0	0	-212	-1,304	266	-1,428
20%	-515	-347	235	925	-339	-1	-30	1	-256	-981	71	-878
30%	-110	-290	783	-1	0	-1	-6	154	130	-692	198	-491
40%	-31	117	255	382	163	-4	12	-142	-228	-646	86	-134
50%	-21	232	51	788	1,085	0	14	-214	-231	-271	27	216
60%	-10	218	192	690	239	52	-34	-174	-186	-229	158	262
70%	-209	-194	367	-230	290	53	-50	49	123	-80	317	520
80%	-370	-239	184	-67	72	298	202	253	145	-41	613	720
90%	-210	-241	-246	-164	238	141	138	153	12	-76	-31	-34
Long Term												
Full Simulation Period ^d	-288	5	321	171	151	69	21	13	-37	-415	175	-178
Water Year Types ^{b,c}												
Wet (32%)	-395	247	790	11	117	18	14	18	11	-423	217	-1,000
Above Normal (16%)	-46	302	424	548	272	-5	-20	-51	-11	-1,101	203	-16
Below Normal (13%)	-227	-230	13	266	372	117	217	-2	30	-720	240	471
Dry (24%)	-283	-201	37	34	42	95	-43	48	-209	-136	73	215
Critical (15%)	-380	-281	-53	250	72	175	10	30	55	160	161	174

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-3. American River at H Street, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,585	3,530	8,214	11,989	14,510	9,476	6,247	6,818	3,949	4,871	2,323	2,845
20%	1,954	3,051	3,590	7,341	10,626	6,579	4,612	3,824	3,096	4,286	1,800	2,427
30%	1,568	2,441	2,041	5,320	6,812	4,829	3,949	3,000	2,908	3,323	1,735	1,945
40%	1,364	2,027	1,914	3,416	5,507	3,858	3,000	2,437	2,426	2,707	1,503	1,750
50%	1,339	1,733	1,859	1,598	2,649	2,822	2,275	1,806	1,973	2,179	1,486	1,485
60%	1,326	1,539	1,816	1,555	1,612	1,807	1,845	1,554	1,562	1,757	1,476	1,330
70%	1,313	1,407	1,566	1,514	1,318	1,571	1,527	1,476	1,492	1,750	1,360	1,323
80%	879	1,007	1,043	1,308	1,137	725	738	874	848	1,485	767	648
90%	657	703	764	732	759	622	619	612	563	583	537	601
Long Term												
Full Simulation Period ^d	1,531	2,344	3,517	4,880	5,627	4,021	3,062	2,742	2,323	2,536	1,456	1,644
Water Year Types ^{b,c}												
Wet (32%)	2,114	3,458	4,217	10,270	10,185	6,940	5,145	5,068	3,668	2,932	1,950	2,564
Above Normal (16%)	1,477	2,032	2,689	5,442	7,426	5,684	3,174	2,204	2,162	4,052	1,530	1,688
Below Normal (13%)	1,412	1,806	2,784	2,055	4,675	1,952	2,141	1,690	1,755	3,253	1,262	1,188
Dry (24%)	1,268	2,273	5,154	1,404	1,997	2,242	1,936	1,638	1,780	1,725	1,285	1,083
Critical (15%)	872	881	838	971	724	759	1,151	1,091	1,010	730	771	953

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,493	3,696	9,514	14,852	15,317	11,753	7,256	4,323	2,909	4,286	2,073	3,185
20%	1,878	3,066	4,587	10,226	12,021	7,763	6,065	2,991	2,133	3,630	1,750	2,628
30%	1,456	2,376	2,280	6,992	8,439	5,793	4,062	1,673	1,515	2,972	1,552	2,083
40%	1,370	1,770	1,876	4,816	6,390	5,238	3,567	1,541	1,503	2,495	1,494	1,683
50%	1,350	1,613	1,835	3,022	4,094	4,021	2,750	1,511	1,488	2,021	1,482	1,330
60%	1,334	1,508	1,668	1,581	2,932	2,870	1,546	1,449	1,430	1,750	1,342	1,279
70%	1,322	1,343	1,460	1,521	2,125	1,861	1,252	1,180	1,094	1,584	1,129	964
80%	941	879	1,152	1,308	1,270	1,136	703	778	879	1,486	672	620
90%	648	709	798	765	983	664	620	613	565	782	561	608
Long Term												
Full Simulation Period ^d	1,471	2,320	3,774	5,952	6,543	5,048	3,493	2,061	1,508	2,343	1,364	1,634
Water Year Types ^{b,c}												
Wet (32%)	1,918	3,473	4,613	12,070	11,191	8,386	5,771	3,671	1,787	2,615	1,768	2,766
Above Normal (16%)	1,432	1,809	2,560	7,326	8,259	7,135	3,615	1,462	1,301	3,595	1,440	1,617
Below Normal (13%)	1,281	1,732	3,294	2,735	5,574	2,500	2,484	1,332	1,267	2,785	1,286	964
Dry (24%)	1,240	2,262	5,423	1,821	2,812	3,184	2,367	1,387	1,678	1,860	1,271	1,098
Critical (15%)	1,100	1,012	964	1,041	1,719	993	1,229	1,016	1,065	798	635	708

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-92	167	1,300	2,863	807	2,278	1,009	-2,495	-1,040	-585	-250	340
20%	-77	16	997	2,885	1,395	1,185	1,453	-833	-963	-657	-50	201
30%	-112	-65	239	1,672	1,627	965	114	-1,327	-1,393	-352	-183	138
40%	6	-257	-38	1,400	884	1,380	567	-896	-924	-212	-9	-67
50%	11	-120	-24	1,424	1,445	1,200	475	-295	-485	-159	-4	-155
60%	8	-31	-148	26	1,321	1,064	-299	-105	-132	-7	-134	-52
70%	9	-63	-105	7	808	290	-275	-296	-398	-166	-232	-358
80%	62	-127	109	0	132	411	-35	-95	31	0	-95	-28
90%	-9	6	34	33	225	41	1	1	2	199	24	7
Long Term												
Full Simulation Period ^d	-60	-24	257	1,072	916	1,026	431	-681	-815	-193	-92	-10
Water Year Types ^{b,c}												
Wet (32%)	-196	14	396	1,800	1,005	1,446	626	-1,398	-1,880	-317	-181	202
Above Normal (16%)	-45	-223	-129	1,883	832	1,451	441	-742	-861	-457	-89	-71
Below Normal (13%)	-131	-74	510	680	899	548	343	-357	-489	-467	24	-224
Dry (24%)	-28	-11	269	416	815	942	431	-251	-102	135	-14	14
Critical (15%)	228	131	126	70	995	234	77	-75	55	67	-136	-245

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-4. American River at H Street, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,766	4,186	9,959	11,969	14,510	9,476	6,247	6,818	3,852	4,075	2,514	1,750
20%	1,472	3,242	4,297	7,618	10,744	6,579	4,613	3,829	3,077	2,868	2,066	1,634
30%	1,361	2,063	2,715	5,267	7,106	4,825	3,947	3,000	3,000	2,628	1,750	1,553
40%	1,343	1,901	1,973	3,675	5,489	3,884	3,000	2,429	2,663	2,116	1,750	1,547
50%	1,329	1,858	1,869	1,827	3,492	2,863	2,338	1,718	2,411	1,752	1,572	1,541
60%	1,324	1,799	1,842	1,356	2,438	2,040	2,034	1,354	1,870	1,743	1,495	1,537
70%	1,144	1,064	1,684	1,255	1,588	1,583	1,231	1,232	1,547	1,532	1,427	1,469
80%	612	659	1,001	1,239	1,273	1,333	804	1,012	999	1,301	1,258	1,345
90%	461	465	544	564	1,221	802	760	758	638	753	583	713
Long Term												
Full Simulation Period ^d	1,230	2,311	3,796	4,899	5,895	4,152	3,057	2,728	2,459	2,125	1,595	1,452
Water Year Types ^{b,c}												
Wet (32%)	1,553	3,681	4,941	10,331	10,338	6,938	5,115	5,036	3,846	2,524	2,036	1,681
Above Normal (16%)	1,386	2,076	2,764	5,622	7,769	5,883	3,147	2,183	2,418	3,244	1,807	1,613
Below Normal (13%)	1,165	1,590	2,926	2,034	5,402	2,116	2,154	1,780	1,933	2,485	1,570	1,448
Dry (24%)	1,033	2,058	5,258	1,360	2,013	2,402	1,940	1,632	1,816	1,448	1,373	1,317
Critical (15%)	748	678	792	874	1,161	1,020	1,192	1,010	1,055	845	801	1,008

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,510	4,351	10,133	14,829	15,316	11,753	7,256	4,323	2,698	2,982	2,339	1,757
20%	1,363	2,719	4,822	11,151	11,682	7,762	6,034	2,992	1,877	2,649	1,821	1,750
30%	1,346	2,086	3,063	6,991	8,439	5,793	4,057	1,827	1,645	2,280	1,750	1,592
40%	1,339	1,886	2,131	5,198	6,553	5,234	3,579	1,399	1,275	1,849	1,580	1,549
50%	1,329	1,845	1,885	3,810	5,179	4,021	2,764	1,297	1,257	1,750	1,508	1,547
60%	1,324	1,726	1,860	2,271	3,172	2,922	1,512	1,275	1,244	1,521	1,500	1,541
70%	1,114	1,150	1,827	1,291	2,415	1,913	1,202	1,228	1,216	1,505	1,446	1,484
80%	571	640	1,337	1,241	1,342	1,434	904	1,032	1,024	1,444	1,286	1,340
90%	438	468	553	601	1,222	805	758	766	577	706	530	574
Long Term												
Full Simulation Period ^d	1,183	2,325	4,095	6,123	6,694	5,117	3,515	2,075	1,471	1,928	1,539	1,456
Water Year Types ^{b,c}												
Wet (32%)	1,524	3,720	5,402	12,081	11,308	8,404	5,785	3,688	1,798	2,193	1,986	1,766
Above Normal (16%)	1,386	2,111	2,985	7,874	8,531	7,131	3,595	1,411	1,290	2,494	1,644	1,601
Below Normal (13%)	1,054	1,503	3,307	3,002	5,946	2,617	2,701	1,330	1,297	2,065	1,525	1,435
Dry (24%)	958	2,061	5,461	1,855	2,854	3,279	2,323	1,435	1,469	1,724	1,344	1,313
Critical (15%)	720	731	911	1,290	1,791	1,168	1,239	1,047	1,119	957	796	882

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-256	165	174	2,860	806	2,278	1,009	-2,495	-1,154	-1,093	-175	7
20%	-110	-522	525	3,534	938	1,183	1,421	-836	-1,200	-219	-245	116
30%	-15	23	348	1,724	1,332	968	110	-1,173	-1,355	-348	0	39
40%	-3	-14	158	1,524	1,064	1,350	579	-1,031	-1,389	-267	-170	2
50%	-1	-13	16	1,982	1,687	1,158	426	-421	-1,154	-2	-63	5
60%	0	-74	18	915	734	882	-522	-79	-626	-222	6	3
70%	-30	86	143	36	827	330	-29	-3	-331	-27	19	16
80%	-41	-19	335	3	69	102	100	20	24	143	28	-5
90%	-23	3	9	37	1	3	-2	9	-61	-47	-53	-139
Long Term												
Full Simulation Period ^d	-47	15	299	1,223	798	965	457	-653	-988	-196	-56	4
Water Year Types ^{b,c}												
Wet (32%)	-29	39	461	1,750	969	1,466	670	-1,347	-2,048	-331	-51	85
Above Normal (16%)	0	36	221	2,252	762	1,248	448	-772	-1,127	-750	-164	-12
Below Normal (13%)	-111	-87	381	967	544	501	547	-450	-637	-419	-45	-13
Dry (24%)	-75	3	203	495	841	876	383	-197	-347	277	-28	-4
Critical (15%)	-29	53	118	417	630	147	47	37	65	112	-5	-126

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

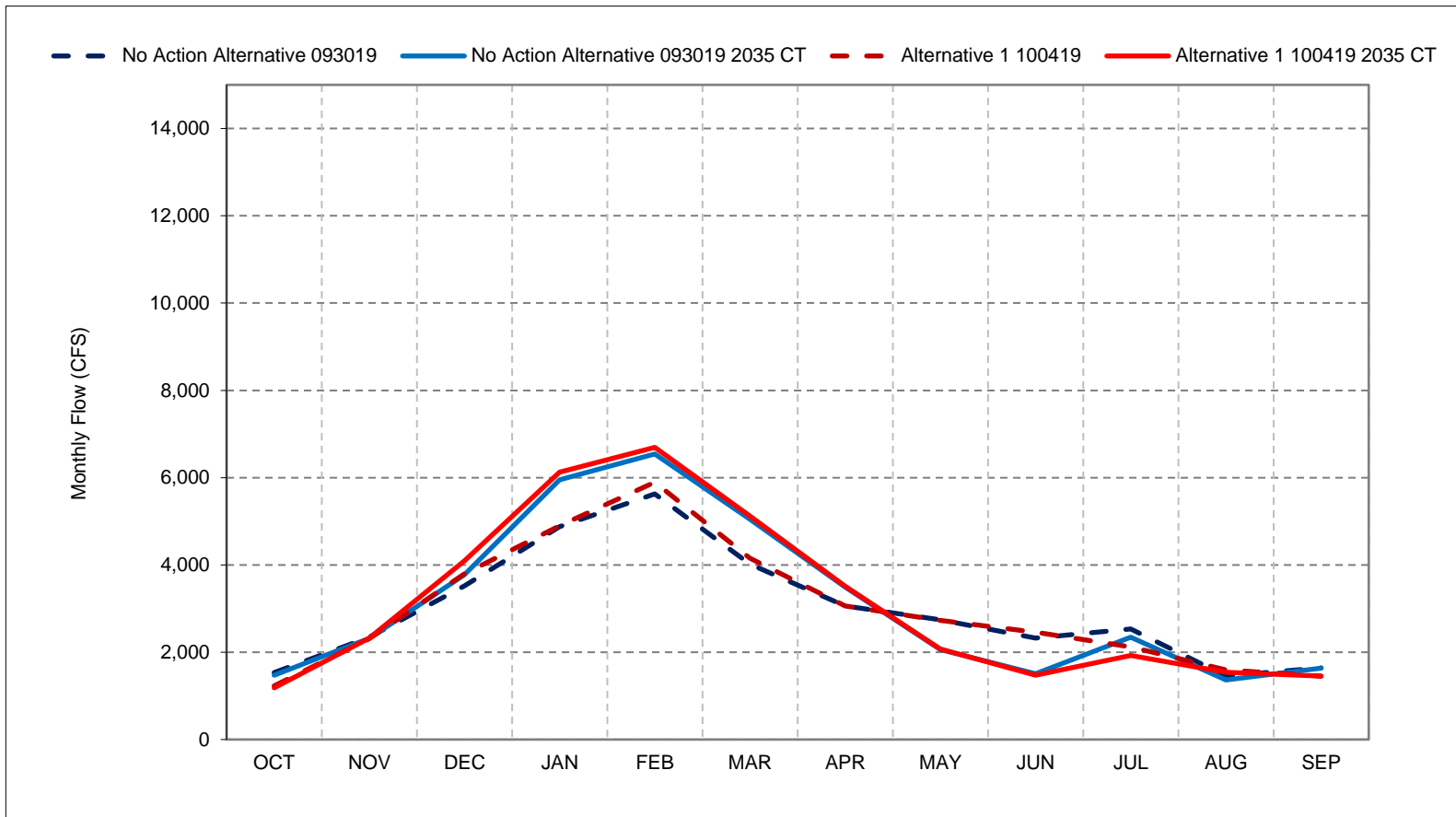
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 28-1. American River at H Street, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

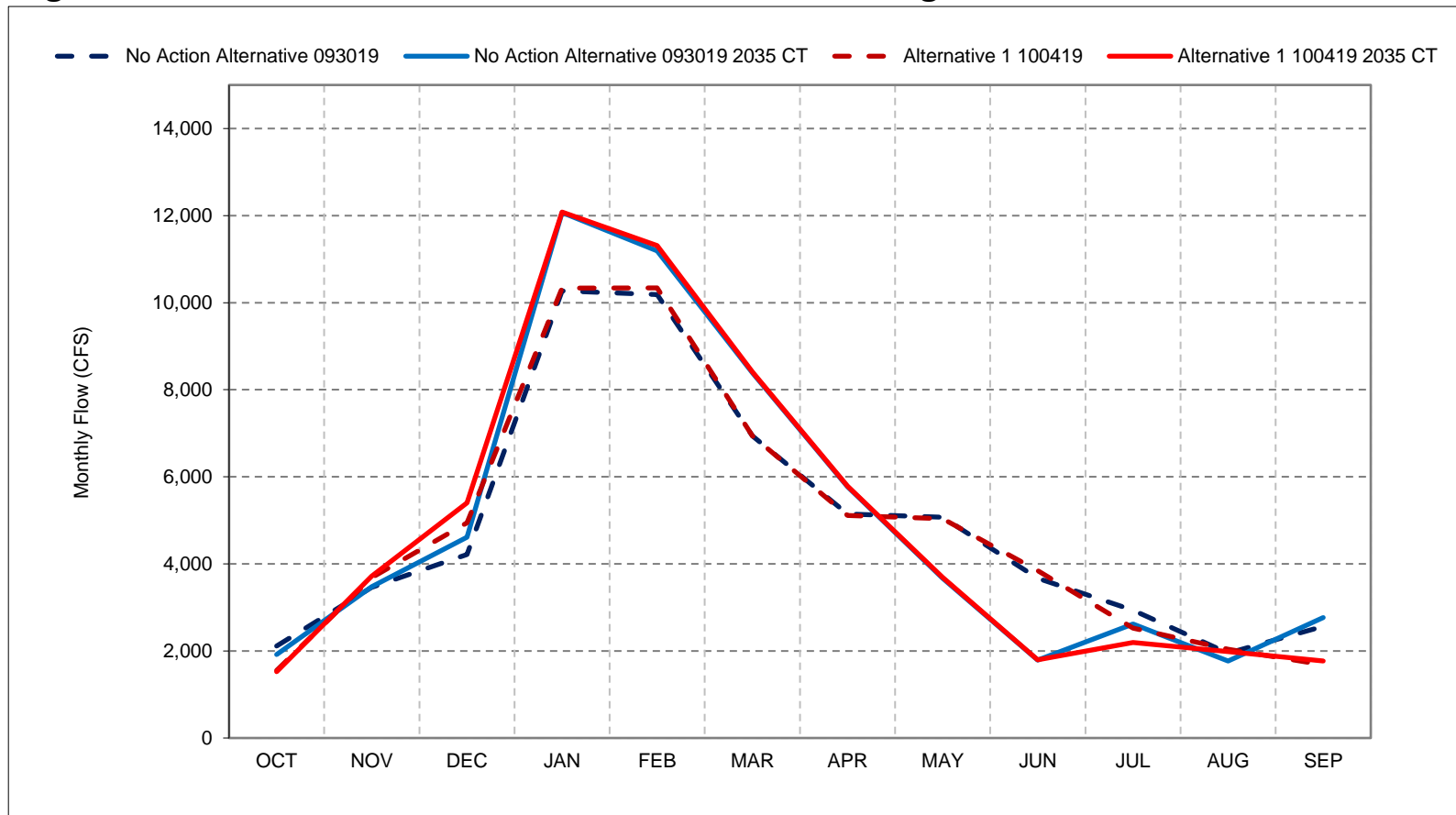
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-2. American River at H Street, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

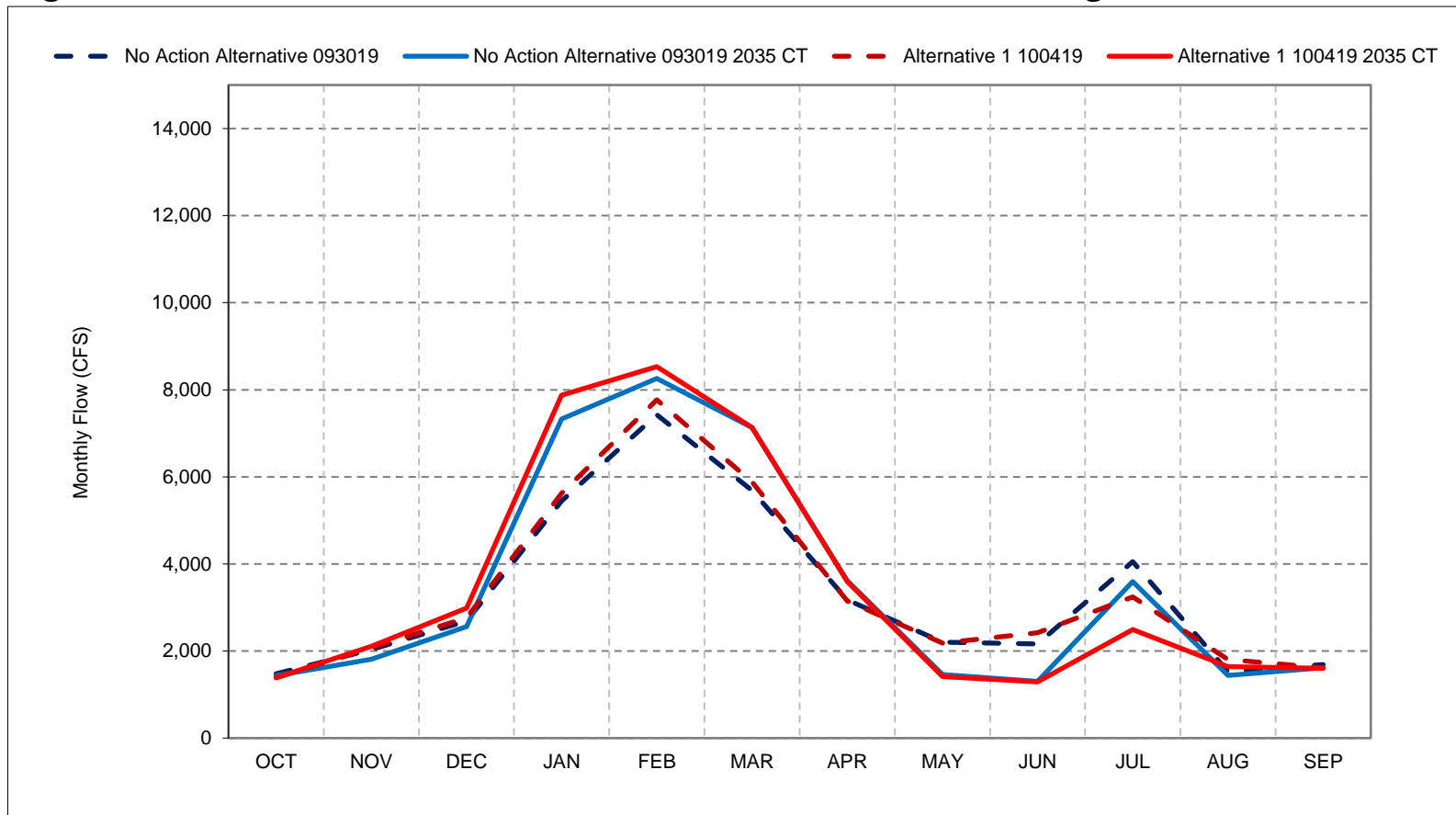
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-3. American River at H Street, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

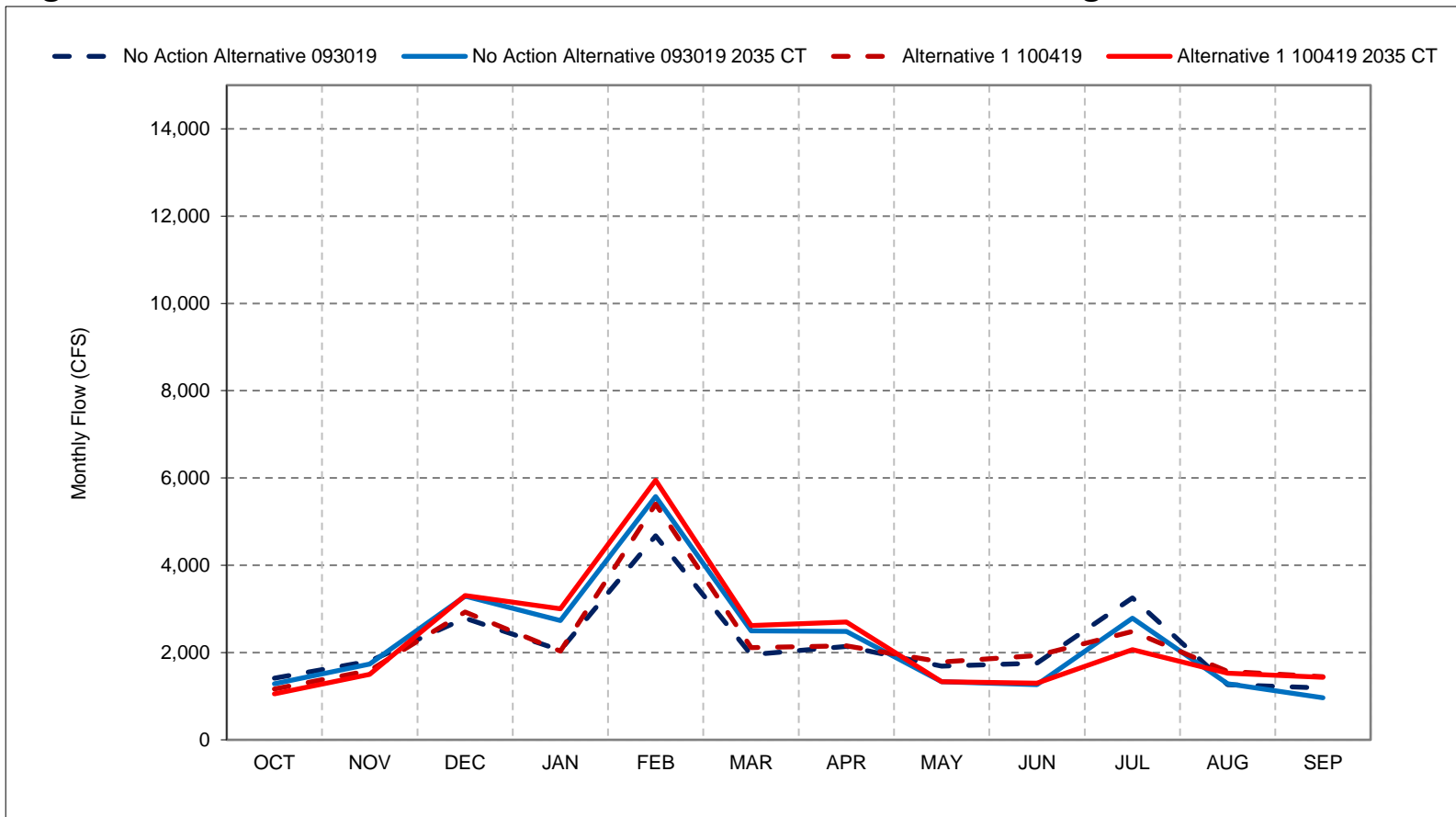
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-4. American River at H Street, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

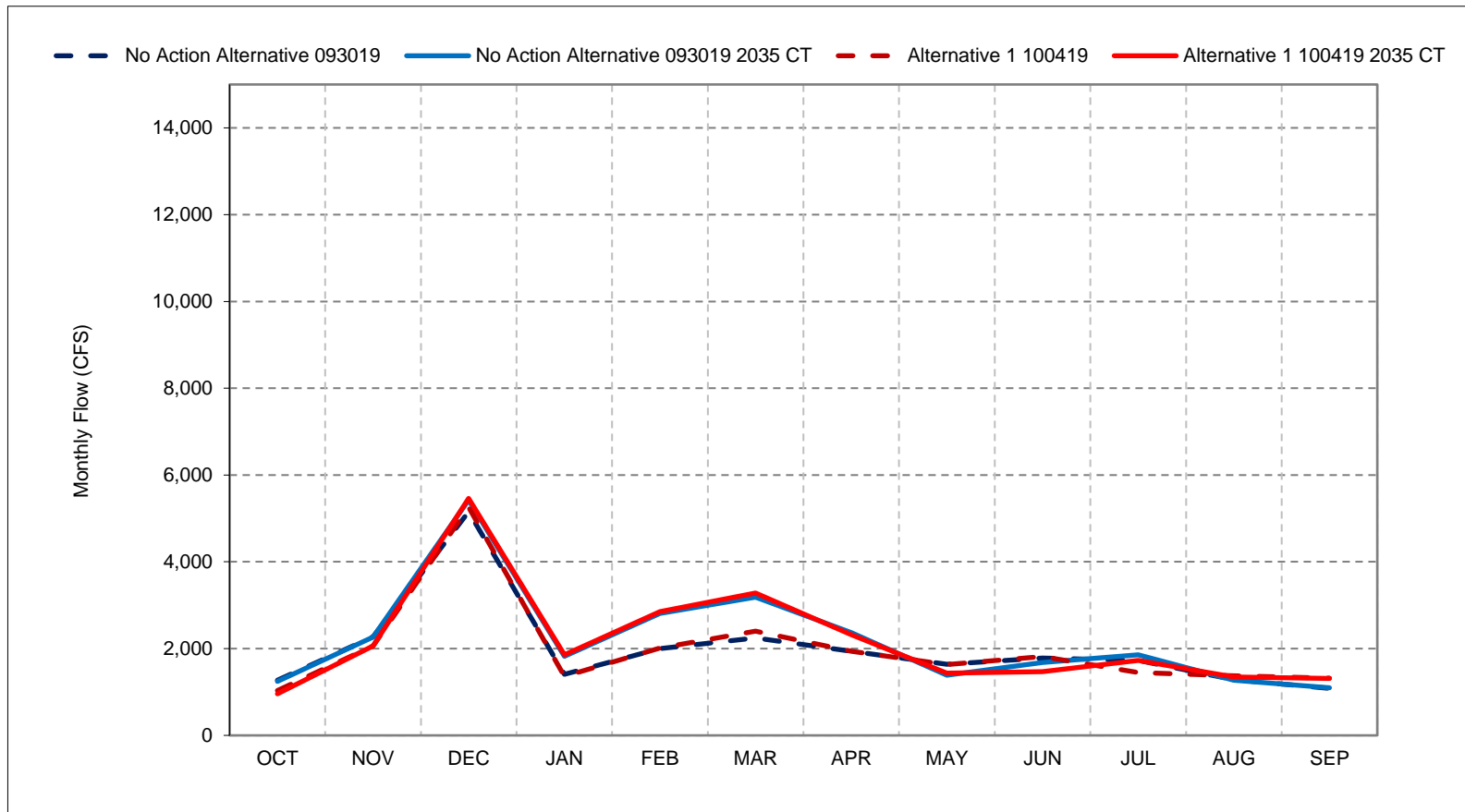
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-5. American River at H Street, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

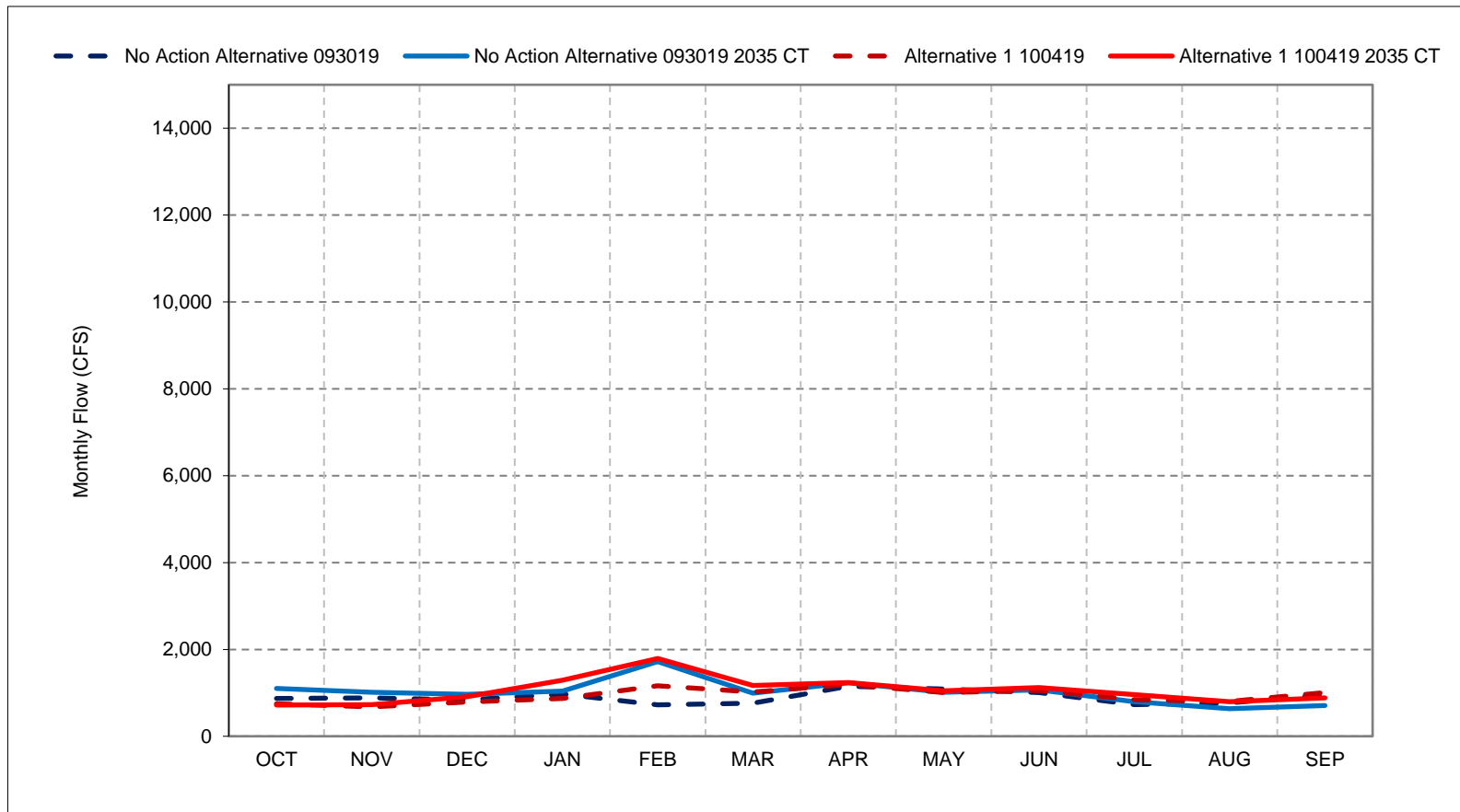
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-6. American River at H Street, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

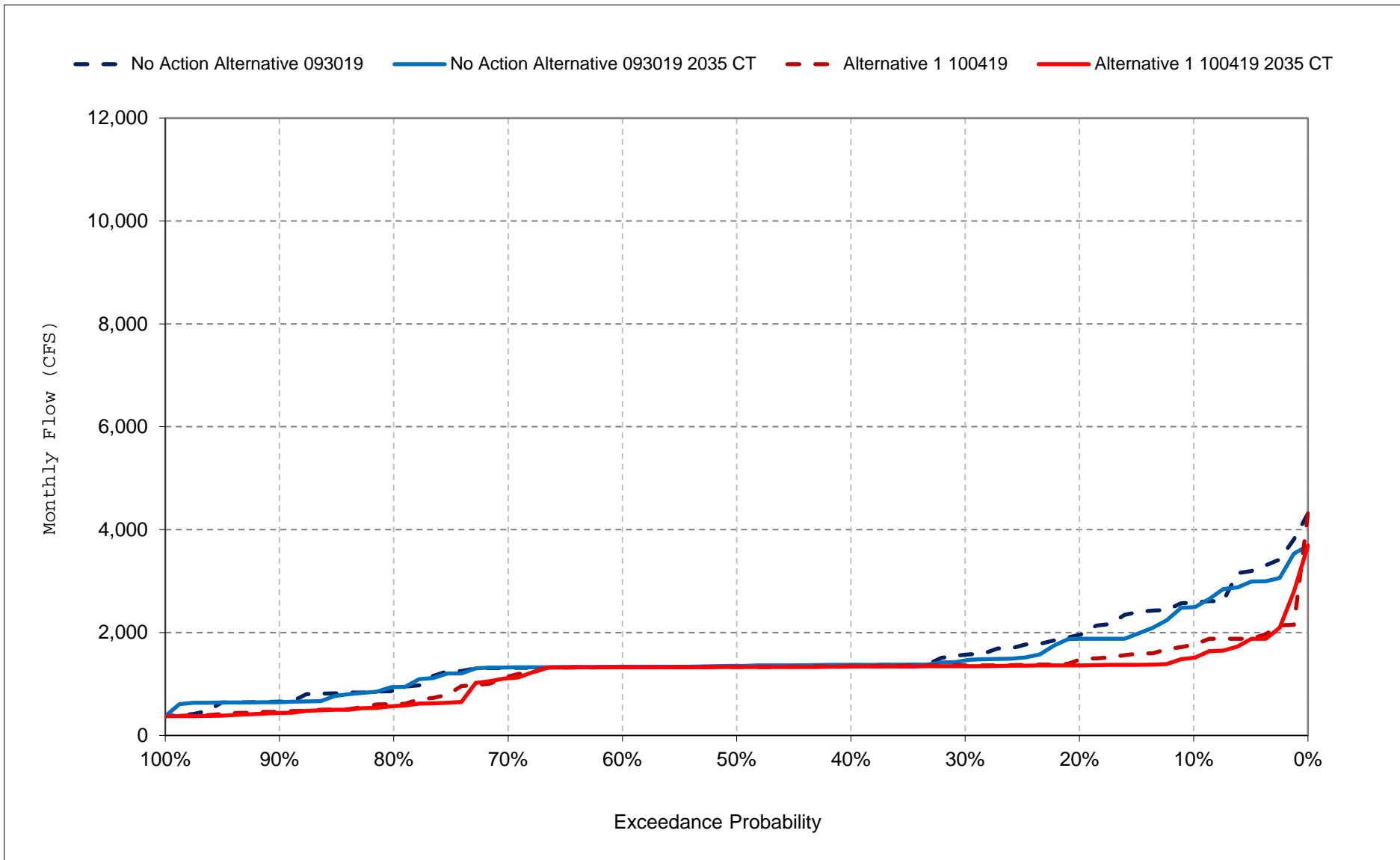
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

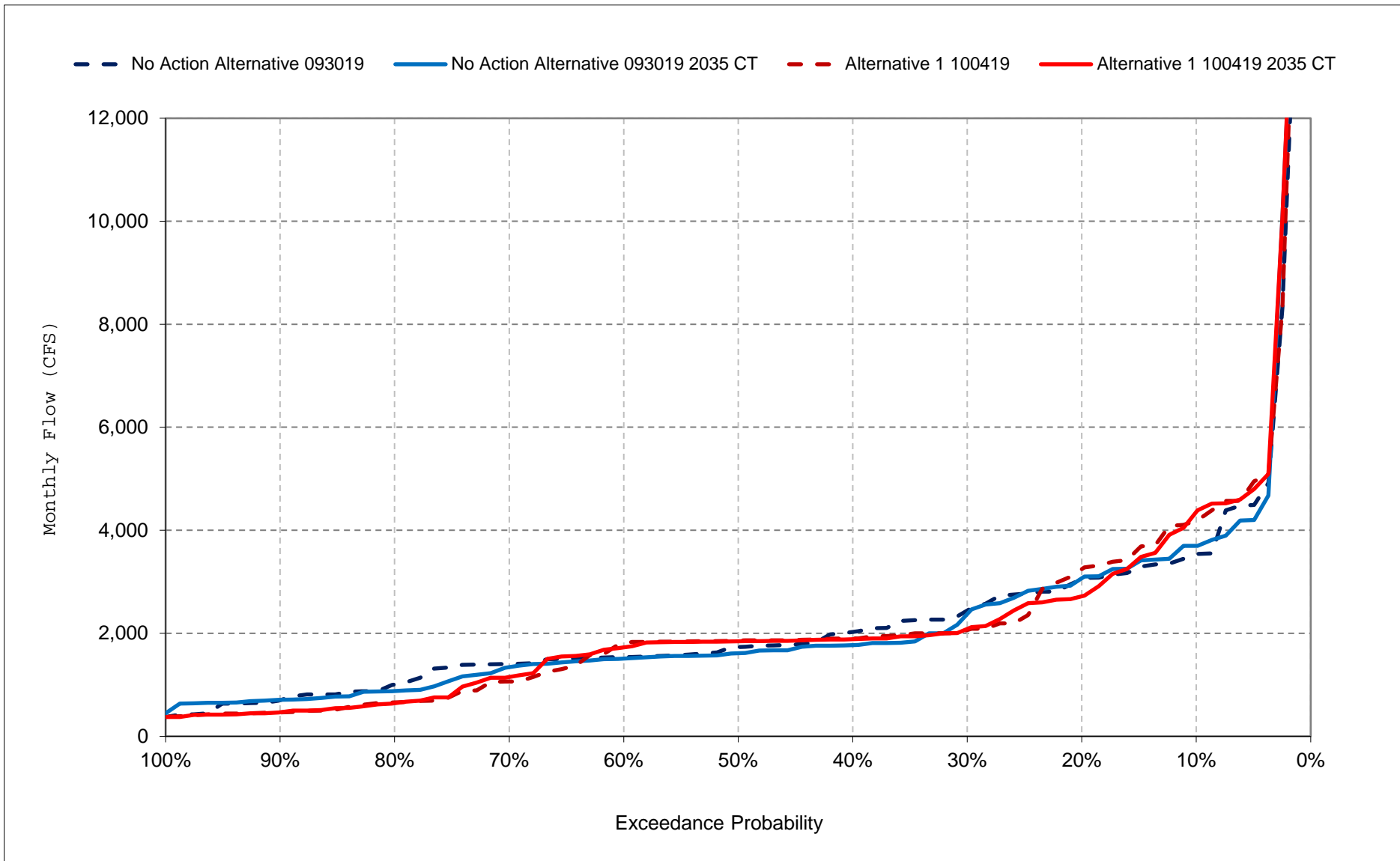
Figure 28-7. American River at H Street, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

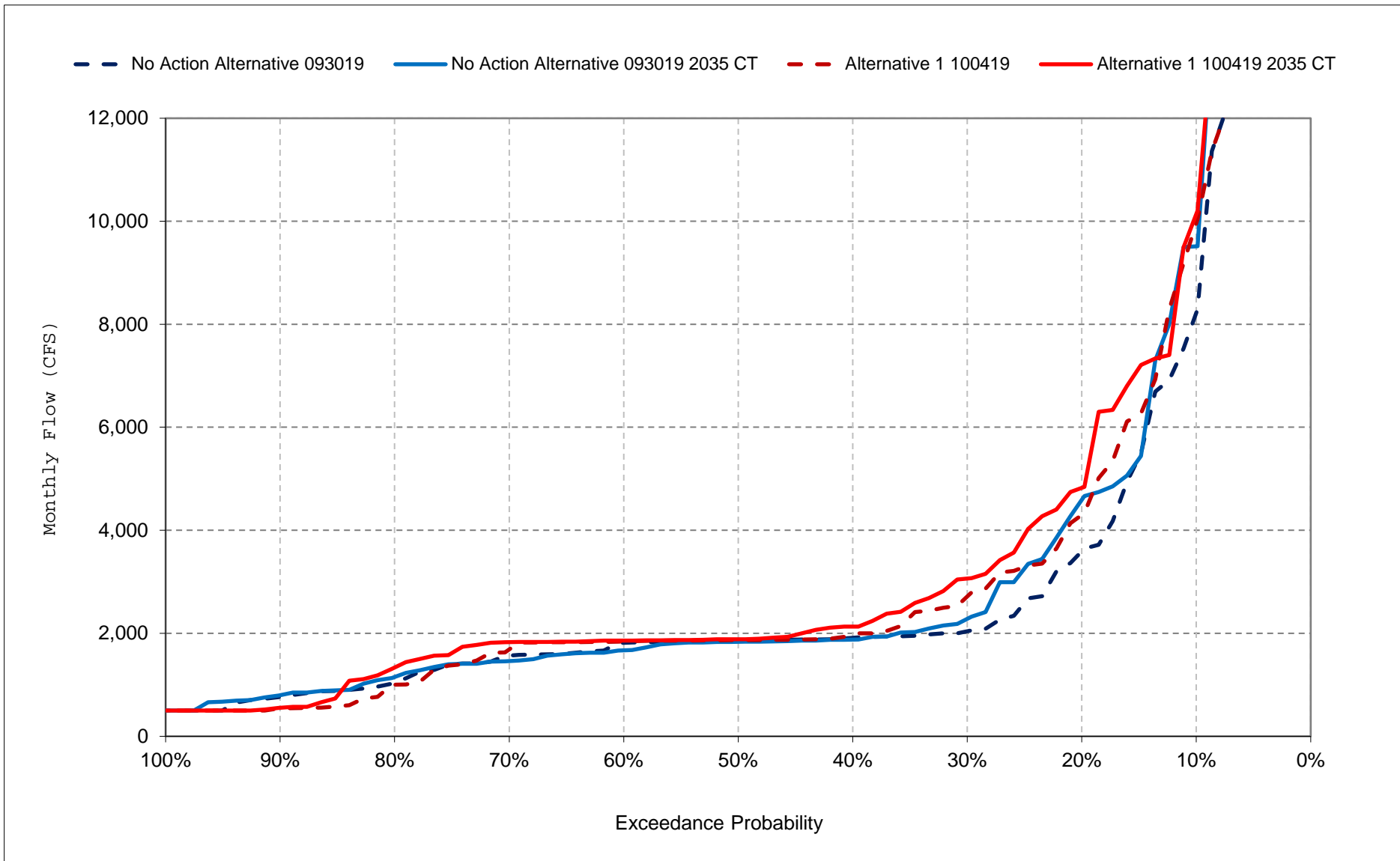
Figure 28-8. American River at H Street, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

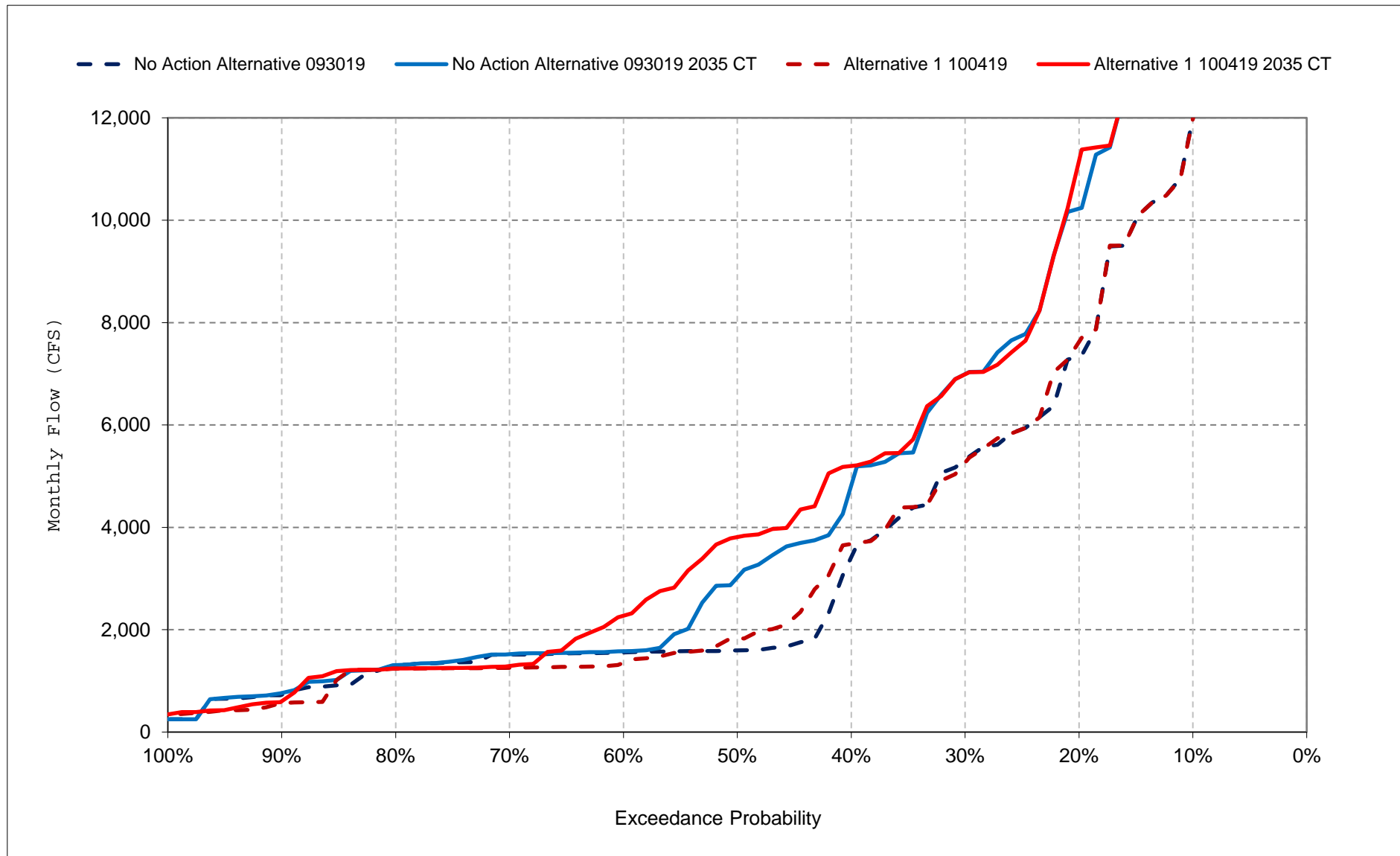
Figure 28-9. American River at H Street, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

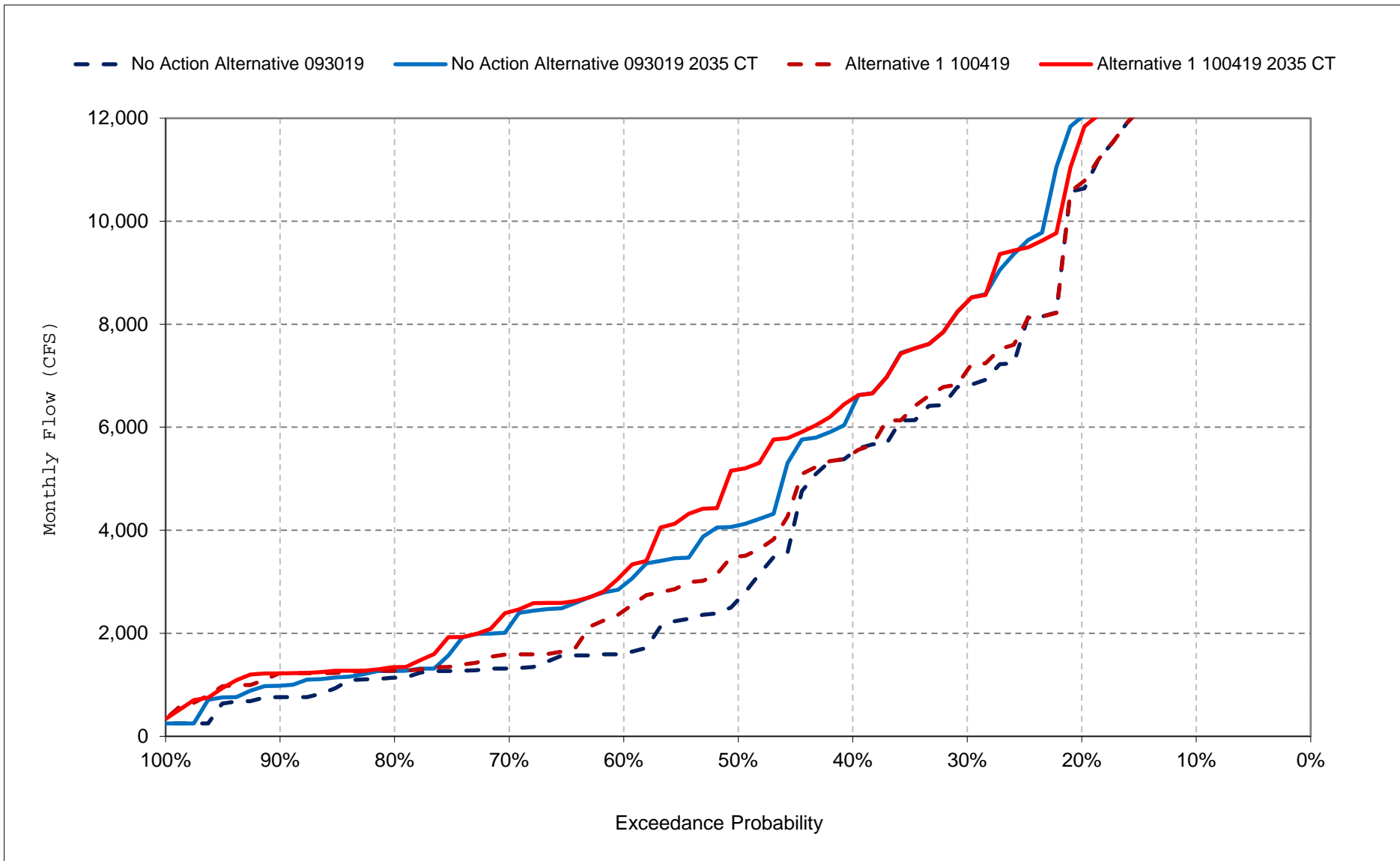
Figure 28-10. American River at H Street, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

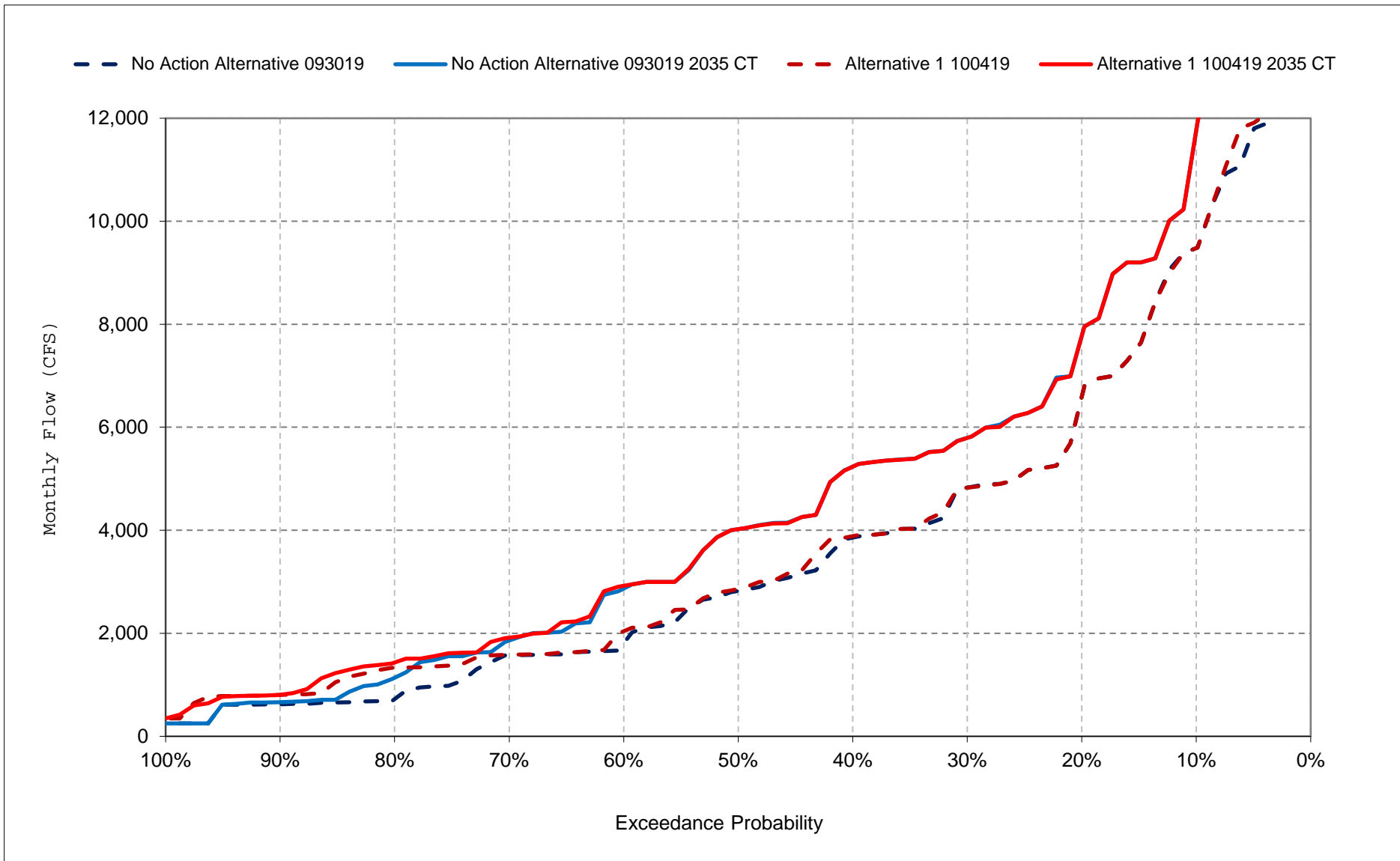
Figure 28-11. American River at H Street, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

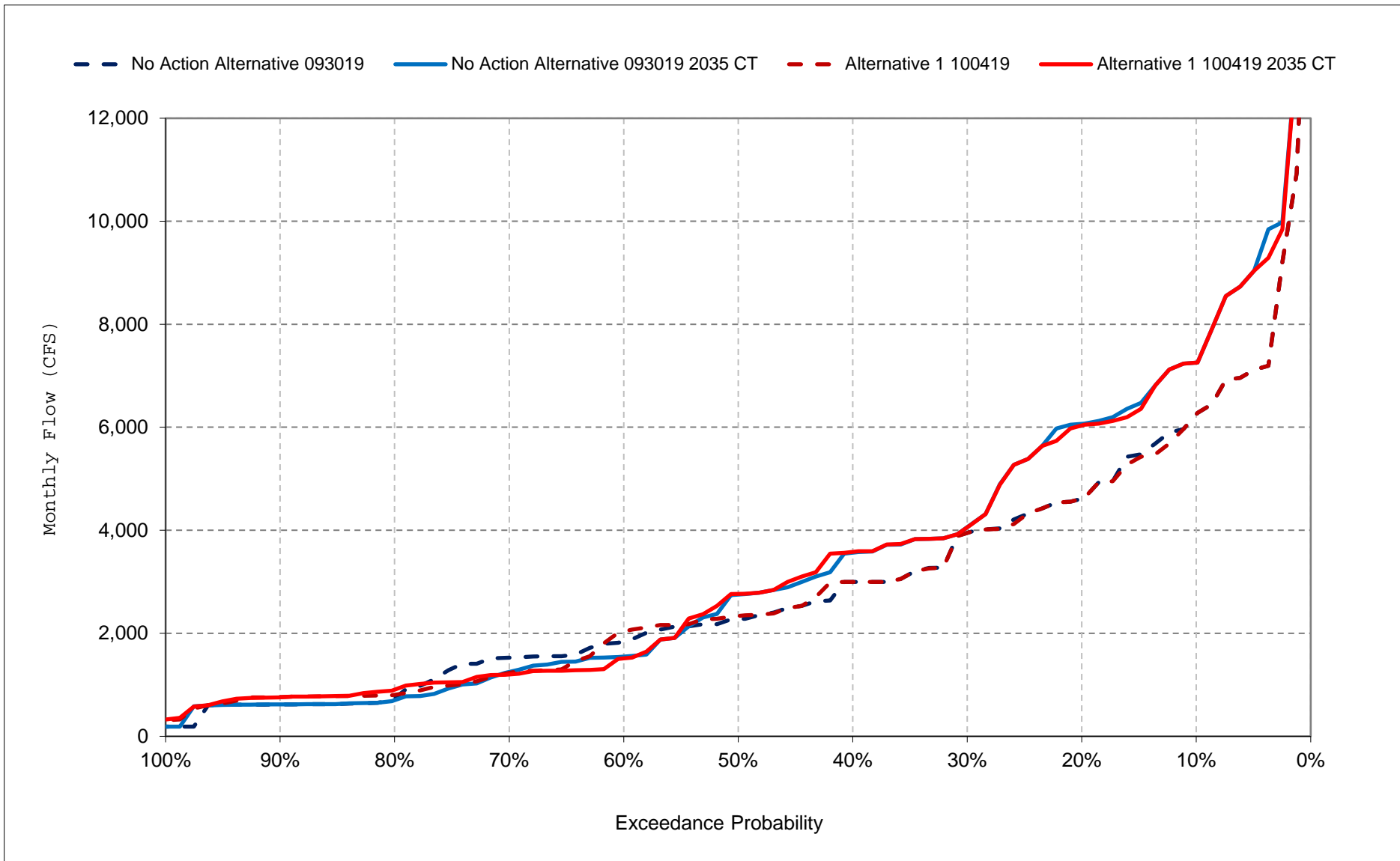
Figure 28-12. American River at H Street, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

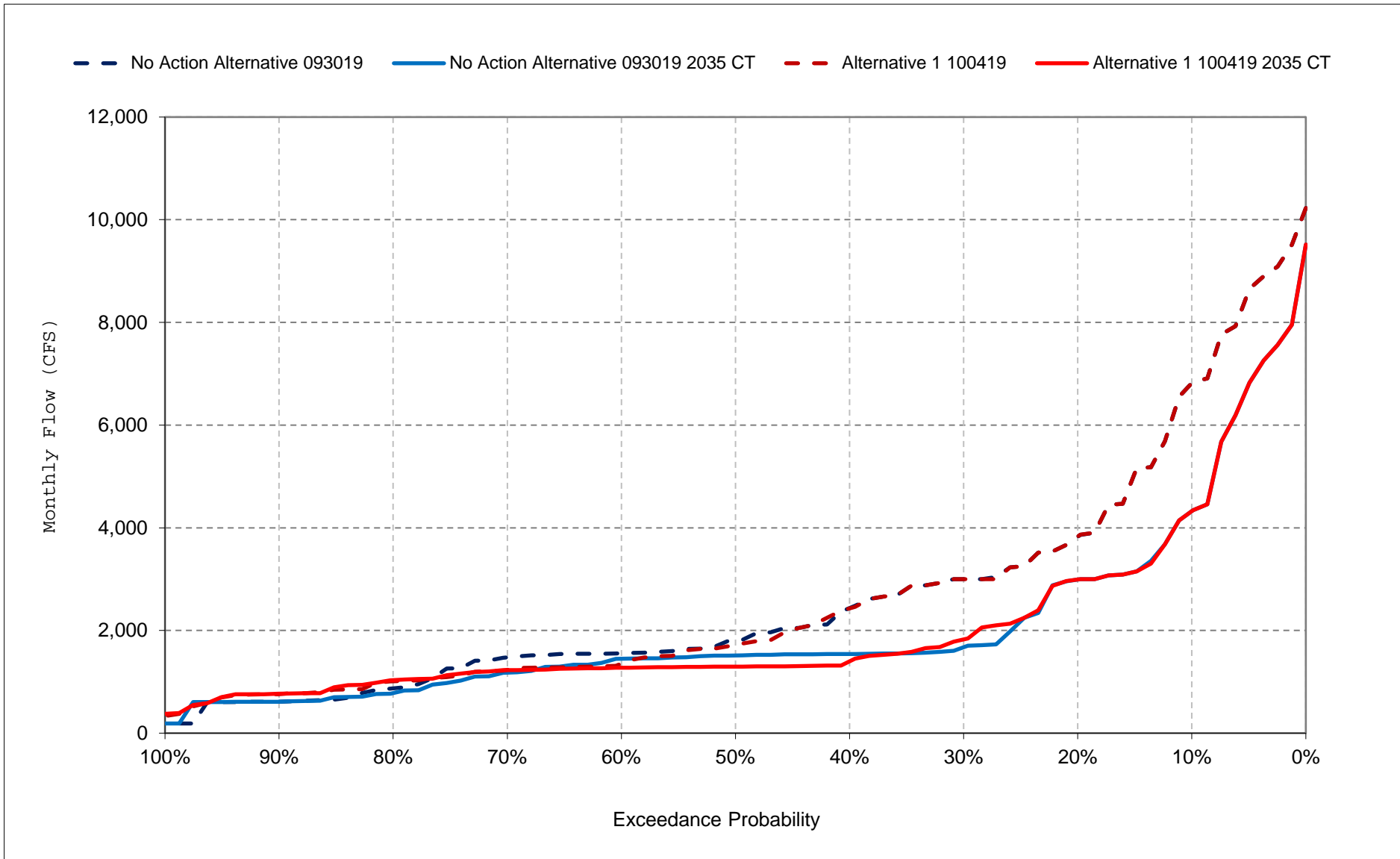
Figure 28-13. American River at H Street, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

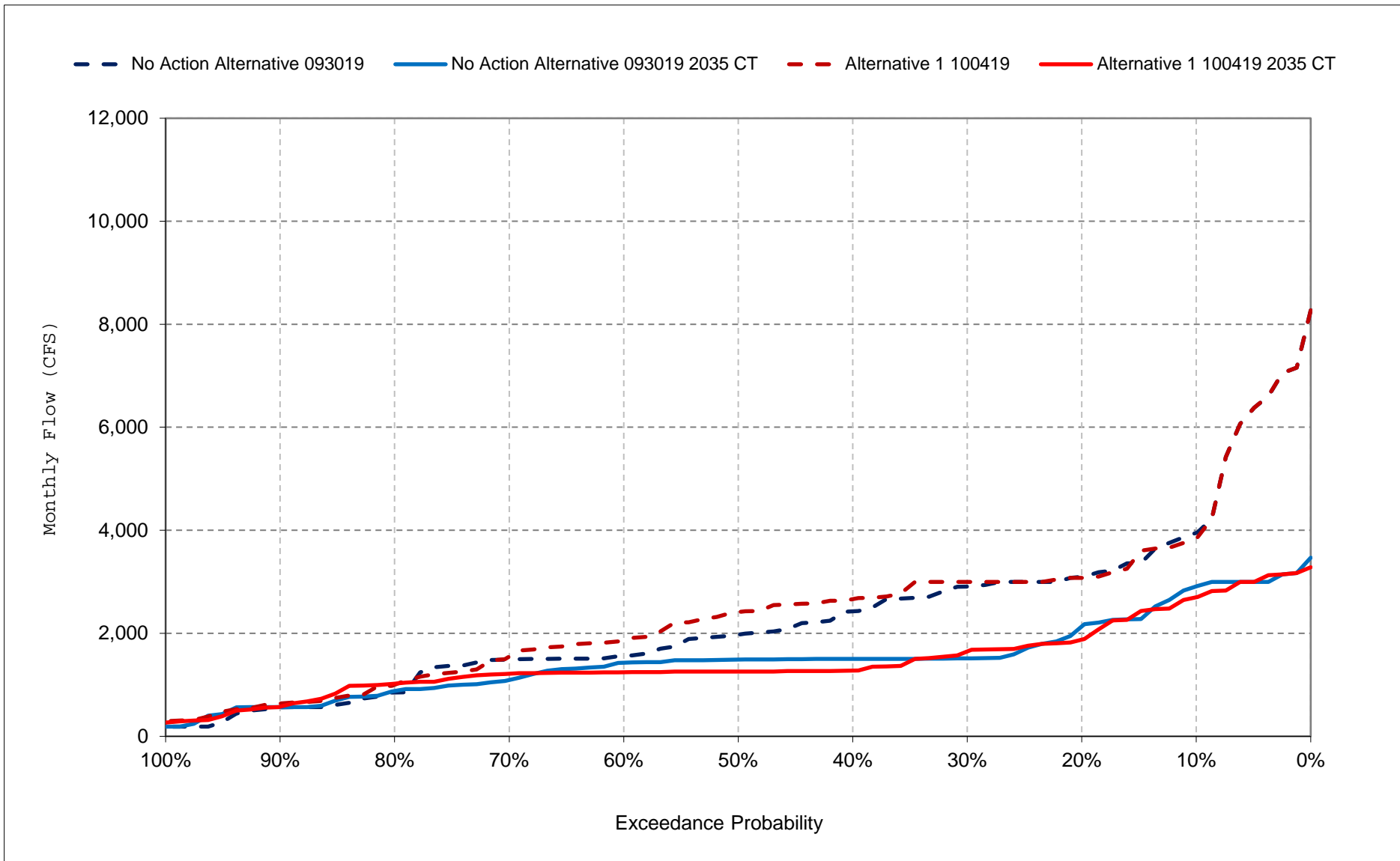
Figure 28-14. American River at H Street, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

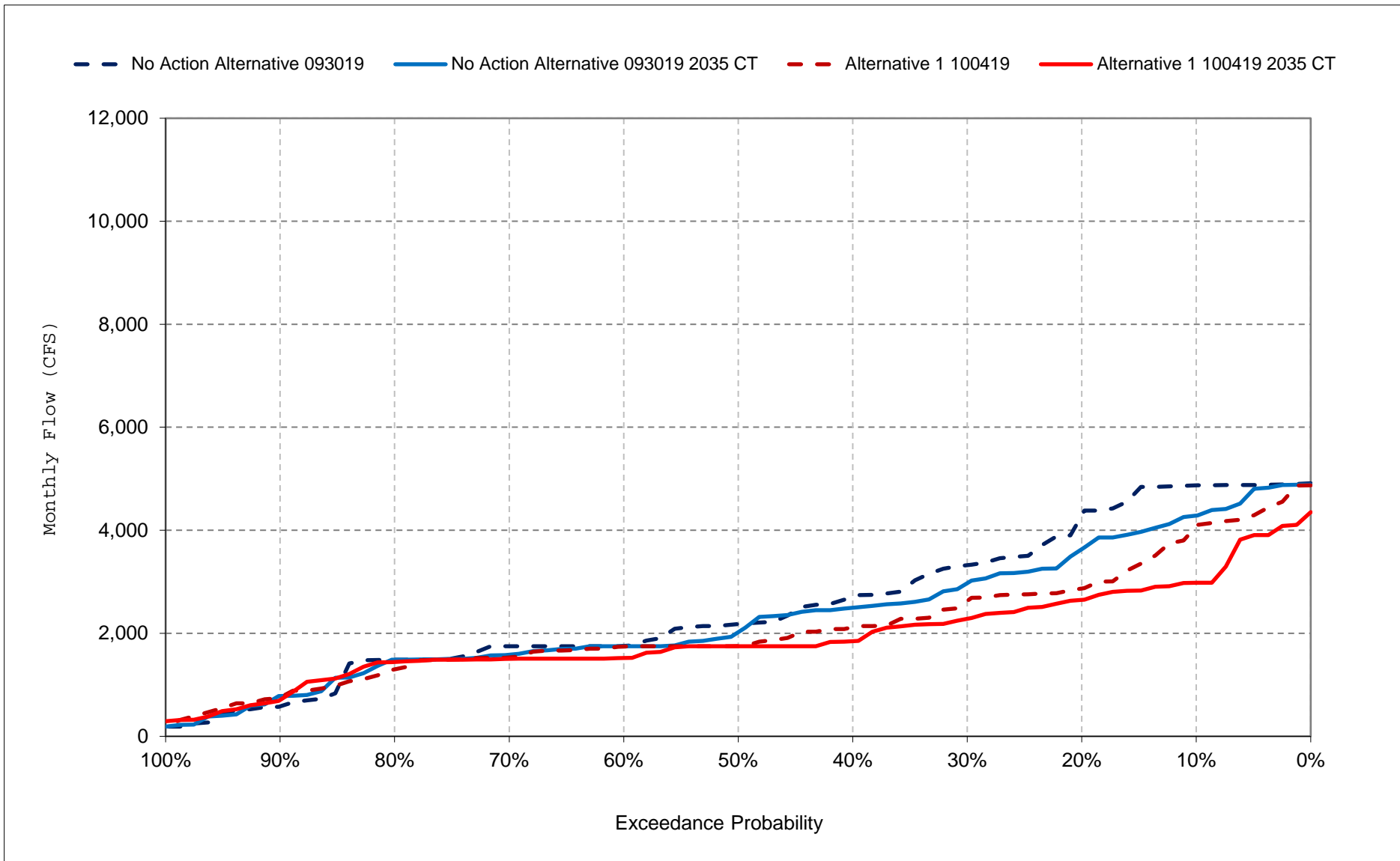
Figure 28-15. American River at H Street, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

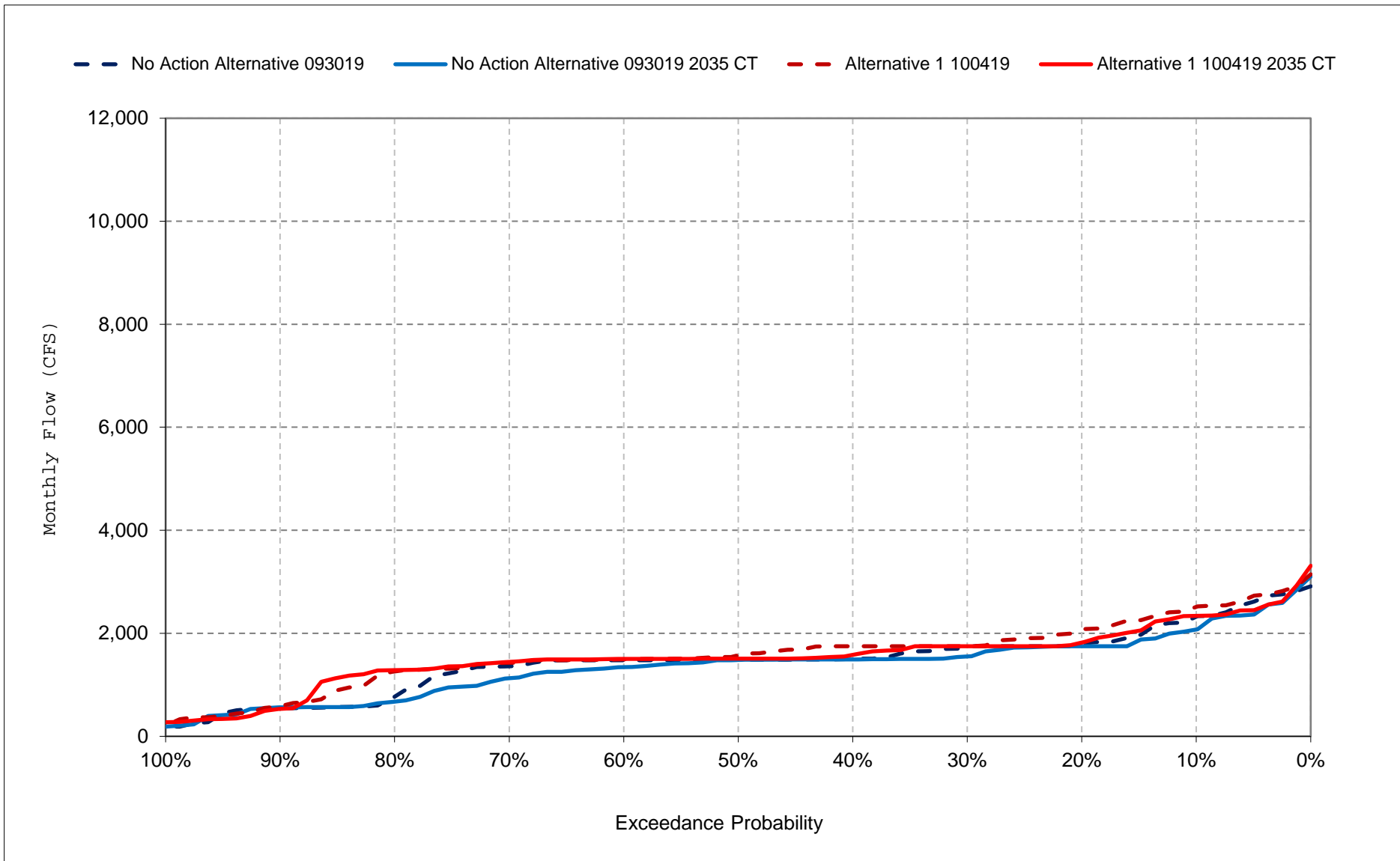
Figure 28-16. American River at H Street, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

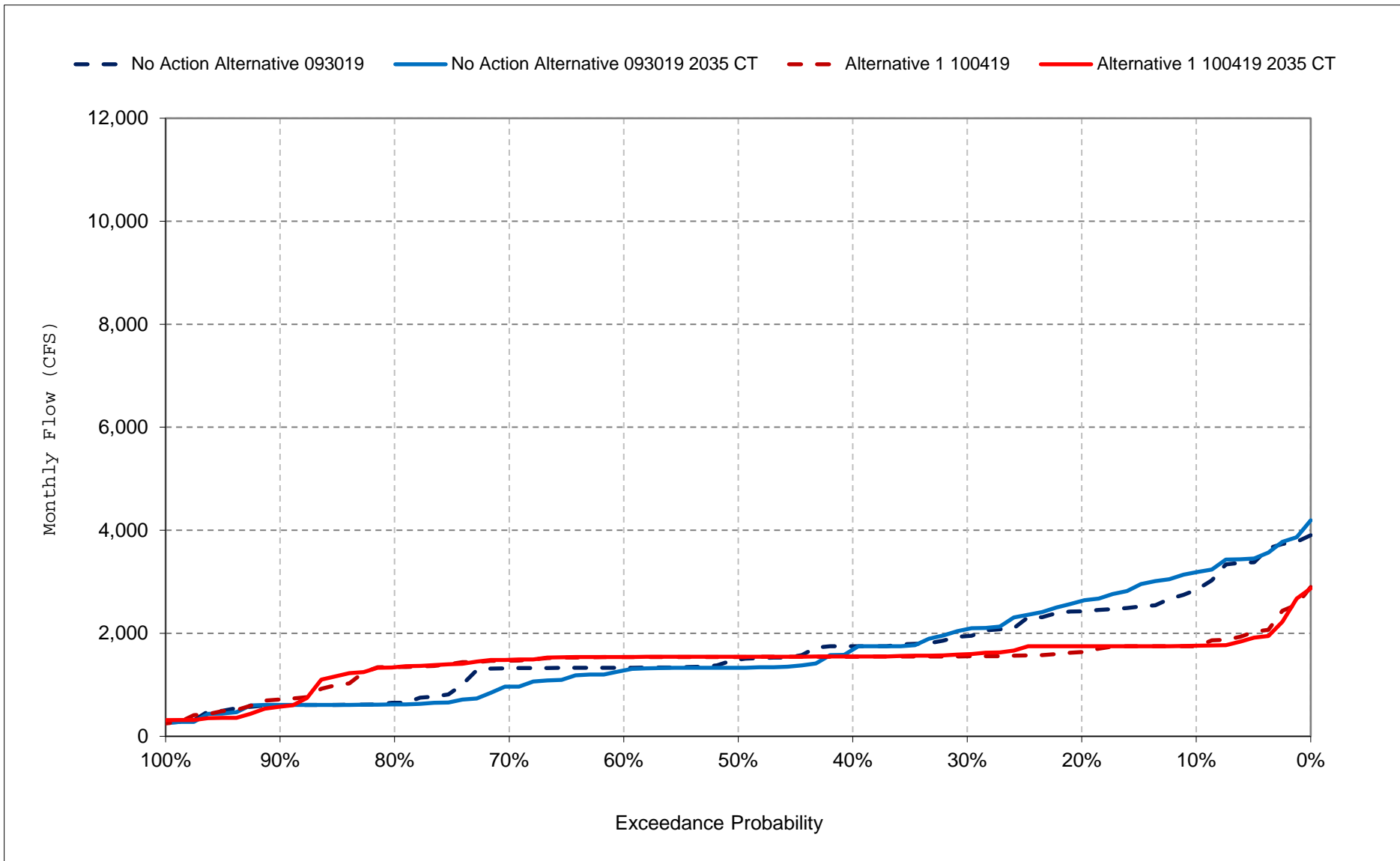
Figure 28-17. American River at H Street, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 28-18. American River at H Street, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-1. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,471	21,520	50,148	65,044	69,734	64,827	52,538	38,630	20,649	24,535	16,949	29,446
20%	14,419	19,264	33,826	53,961	62,354	53,989	38,731	28,049	16,178	24,386	16,584	28,640
30%	13,478	18,440	21,271	38,470	50,842	41,539	25,303	16,030	14,192	22,848	16,052	22,482
40%	12,610	17,030	18,052	25,993	43,713	31,090	22,498	13,503	13,462	19,647	15,775	21,527
50%	10,576	15,415	15,548	20,242	33,071	25,543	17,536	12,278	13,083	18,487	15,154	14,313
60%	9,264	13,162	14,780	18,089	25,378	20,354	14,903	11,668	12,650	17,038	13,114	10,778
70%	8,621	10,546	13,476	14,854	20,010	19,020	12,839	10,977	11,981	15,156	9,460	9,856
80%	8,512	9,649	10,973	13,039	16,732	15,252	11,446	10,183	11,262	13,608	8,677	9,157
90%	7,069	7,451	9,531	11,909	13,927	11,409	10,251	9,040	10,208	10,491	8,053	7,826
Long Term												
Full Simulation Period ^d	11,413	16,007	22,816	30,923	38,024	32,516	24,585	18,247	15,065	18,203	13,218	17,475
Water Year Types ^{b,c}												
Wet (32%)	14,589	20,859	25,502	50,060	56,961	49,903	39,423	30,324	20,383	20,296	16,036	28,223
Above Normal (16%)	12,970	18,552	21,872	39,071	47,089	42,836	27,210	17,155	13,493	22,967	16,776	21,758
Below Normal (13%)	11,392	12,386	21,131	18,527	31,041	18,867	15,286	13,200	12,993	21,623	14,732	11,752
Dry (24%)	9,017	14,972	26,890	17,320	24,129	22,495	16,841	11,727	13,147	15,525	9,571	9,734
Critical (15%)	6,859	7,780	12,775	14,666	16,730	12,880	11,024	8,761	10,341	9,834	7,949	7,694

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,128	22,221	50,316	65,935	70,126	64,885	51,980	38,639	20,656	23,879	17,562	15,344
20%	12,840	14,806	35,947	56,764	62,807	54,087	38,731	28,038	16,637	22,649	17,363	14,227
30%	12,339	13,957	23,631	41,810	52,713	43,179	25,336	16,080	15,676	21,138	16,911	13,815
40%	11,928	13,708	18,569	27,712	45,648	31,460	22,520	14,876	15,440	18,725	16,323	13,193
50%	11,010	13,169	15,603	22,755	33,716	26,313	17,396	13,599	14,995	18,004	15,477	12,202
60%	9,731	12,156	15,117	19,533	25,478	21,832	15,088	12,629	14,676	16,726	13,501	10,317
70%	8,960	9,996	14,260	15,362	21,078	19,047	13,028	11,674	13,937	15,460	9,630	9,577
80%	8,539	8,866	12,937	13,139	17,389	14,989	11,782	11,158	12,573	12,093	8,825	9,030
90%	7,069	7,194	9,737	12,082	14,555	11,857	10,751	9,905	11,360	9,572	7,723	7,875
Long Term												
Full Simulation Period ^d	11,114	14,377	23,918	31,659	38,696	33,248	24,751	18,766	16,317	17,486	13,634	11,821
Water Year Types ^{b,c}												
Wet (32%)	13,503	17,350	27,955	50,989	57,481	50,329	39,529	30,260	21,099	19,712	17,057	14,460
Above Normal (16%)	12,402	16,216	23,324	40,196	48,122	44,816	27,506	17,804	14,939	21,822	17,068	13,775
Below Normal (13%)	11,630	11,993	21,409	19,471	33,060	19,952	15,660	14,296	15,513	20,343	15,206	11,664
Dry (24%)	9,317	14,688	27,055	17,515	24,358	22,746	16,970	12,914	14,778	15,080	9,655	9,752
Critical (15%)	7,065	7,610	12,888	15,275	16,845	13,396	11,046	8,755	10,748	9,359	7,692	7,577

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,343	701	169	891	392	58	-558	9	7	-656	613	-14,101
20%	-1,579	-4,459	2,121	2,804	453	98	0	-11	459	-1,737	779	-14,413
30%	-1,139	-4,483	2,361	3,340	1,871	1,640	33	50	1,484	-1,710	858	-8,668
40%	-683	-3,322	517	1,720	1,935	371	22	1,374	1,979	-922	548	-8,334
50%	434	-2,245	56	2,513	645	770	-140	1,321	1,911	-483	322	-2,111
60%	466	-1,005	337	1,444	100	1,478	185	961	2,026	-312	388	-461
70%	339	-550	784	508	1,068	28	189	697	1,955	305	170	-280
80%	27	-783	1,964	100	657	-263	336	974	1,311	-1,515	148	-127
90%	0	-258	206	173	628	448	500	865	1,153	-920	-329	49
Long Term												
Full Simulation Period ^d	-299	-1,630	1,102	736	672	731	165	519	1,252	-716	416	-5,654
Water Year Types ^{b,c}												
Wet (32%)	-1,086	-3,509	2,453	929	520	426	106	-64	716	-583	1,021	-13,763
Above Normal (16%)	-568	-2,336	1,452	1,125	1,033	1,980	296	649	1,446	-1,144	292	-7,984
Below Normal (13%)	238	-394	279	944	2,018	1,085	374	1,096	2,520	-1,280	474	-88
Dry (24%)	300	-284	166	195	229	251	130	1,188	1,631	-445	84	18
Critical (15%)	207	-170	112	609	115	516	22	-6	407	-476	-257	-118

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 29-2. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,064	21,141	51,516	68,263	70,745	66,361	54,646	29,266	15,822	24,525	16,845	30,183
20%	14,247	18,863	33,063	60,831	64,954	59,103	38,026	19,412	14,458	24,025	16,369	28,463
30%	12,973	18,231	23,717	44,636	53,939	48,201	28,339	14,176	13,613	23,597	15,982	23,119
40%	11,419	16,039	19,009	29,310	47,068	34,818	22,807	11,954	13,062	20,603	15,634	21,297
50%	10,296	14,062	16,525	24,467	35,479	28,429	16,051	11,069	12,596	19,671	15,131	14,084
60%	9,295	12,135	15,004	21,187	26,756	22,852	14,509	10,560	12,096	18,634	13,552	10,625
70%	8,584	10,713	14,013	15,713	22,859	20,686	12,236	9,977	11,724	16,249	9,931	9,693
80%	8,495	9,447	10,694	14,011	18,824	15,633	11,551	9,605	10,943	13,896	9,074	9,101
90%	7,084	8,103	9,685	12,485	15,693	12,018	10,303	8,323	9,533	9,936	8,001	7,763
Long Term												
Full Simulation Period ^d	11,091	15,531	23,466	33,369	40,080	34,990	25,144	15,194	13,160	18,758	13,273	17,294
Water Year Types ^{b,c}												
Wet (32%)	13,913	20,378	26,431	53,228	58,943	52,527	40,175	23,207	15,037	20,380	15,867	27,753
Above Normal (16%)	12,414	17,293	21,881	42,693	48,945	46,476	27,786	13,970	12,241	23,406	16,583	21,746
Below Normal (13%)	11,041	11,947	22,163	20,837	34,171	21,055	16,288	12,581	12,382	21,675	14,220	11,499
Dry (24%)	8,937	14,551	27,394	18,825	26,308	25,090	17,232	10,856	13,079	17,096	10,542	9,830
Critical (15%)	7,178	8,035	13,408	15,965	17,974	13,820	11,016	8,780	10,941	10,303	7,748	7,559

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,046	20,669	55,349	68,486	70,740	66,346	54,671	29,272	17,392	22,989	17,583	14,301
20%	12,441	14,676	37,846	61,075	65,815	59,994	38,022	18,612	16,363	21,834	17,102	13,925
30%	12,115	13,744	25,608	44,623	54,319	49,170	28,129	15,998	15,296	20,838	16,650	13,289
40%	11,758	13,244	19,643	32,486	49,820	34,734	22,773	14,253	14,982	19,543	15,389	12,485
50%	10,531	12,684	17,266	26,743	35,853	29,536	16,018	12,796	14,507	18,074	14,849	11,105
60%	9,363	11,659	15,215	20,801	27,013	23,420	14,689	11,804	13,833	17,121	13,931	10,177
70%	8,897	10,038	13,948	16,296	23,359	21,126	12,369	10,980	13,216	14,988	9,844	9,462
80%	8,538	8,927	12,197	13,727	18,900	15,151	11,856	10,158	12,188	12,897	8,706	8,663
90%	7,084	7,764	10,265	12,560	15,981	12,663	10,906	9,128	11,001	10,019	7,929	7,519
Long Term												
Full Simulation Period ^d	10,763	14,110	24,639	34,134	40,699	35,691	25,309	16,044	14,573	17,449	13,412	11,411
Water Year Types ^{b,c}												
Wet (32%)	12,856	17,134	28,968	54,011	59,444	52,853	40,312	23,790	16,114	18,980	16,621	13,838
Above Normal (16%)	12,002	15,551	23,219	44,246	49,895	48,259	27,942	14,944	14,054	21,503	16,649	13,224
Below Normal (13%)	11,340	11,631	22,395	22,751	35,601	22,305	16,457	13,962	14,850	19,964	13,982	10,989
Dry (24%)	9,057	14,374	27,874	18,971	26,509	25,331	17,439	12,031	14,539	16,034	10,269	9,644
Critical (15%)	7,198	7,829	13,467	15,817	18,448	14,426	11,179	9,052	11,603	9,788	7,668	7,519

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,018	-471	3,833	223	-5	-15	25	7	1,569	-1,536	739	-15,882
20%	-1,806	-4,187	4,782	244	861	891	-4	-800	1,905	-2,192	733	-14,538
30%	-858	-4,488	1,891	-13	380	969	-210	1,823	1,684	-2,759	668	-9,830
40%	339	-2,795	634	3,176	2,752	-83	-35	2,299	1,920	-1,060	-245	-8,813
50%	234	-1,378	741	2,276	374	1,107	-32	1,728	1,911	-1,597	-282	-2,979
60%	68	-476	211	-386	257	569	180	1,244	1,738	-1,513	379	-448
70%	313	-675	-64	582	500	440	133	1,002	1,492	-1,261	-87	-231
80%	44	-520	1,504	-284	75	-483	305	554	1,245	-999	-368	-439
90%	0	-339	580	75	287	645	604	804	1,469	83	-72	-244
Long Term												
Full Simulation Period ^d	-328	-1,421	1,173	765	620	701	165	851	1,413	-1,309	139	-5,883
Water Year Types ^{b,c}												
Wet (32%)	-1,057	-3,245	2,537	783	501	326	137	583	1,077	-1,400	754	-13,915
Above Normal (16%)	-412	-1,742	1,338	1,553	950	1,783	156	974	1,812	-1,902	66	-8,522
Below Normal (13%)	299	-316	232	1,914	1,430	1,250	169	1,380	2,468	-1,711	-238	-510
Dry (24%)	120	-177	480	146	201	240	207	1,175	1,460	-1,062	-273	-187
Critical (15%)	20	-206	59	-149	474	607	163	272	662	-515	-81	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-3. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,471	21,520	50,148	65,044	69,734	64,827	52,538	38,630	20,649	24,535	16,949	29,446
20%	14,419	19,264	33,826	53,961	62,354	53,989	38,731	28,049	16,178	24,386	16,584	28,640
30%	13,478	18,440	21,271	38,470	50,842	41,539	25,303	16,030	14,192	22,848	16,052	22,482
40%	12,610	17,030	18,052	25,993	43,713	31,090	22,498	13,503	13,462	19,647	15,775	21,527
50%	10,576	15,415	15,548	20,242	33,071	25,543	17,536	12,278	13,083	18,487	15,154	14,313
60%	9,264	13,162	14,780	18,089	25,378	20,354	14,903	11,668	12,650	17,038	13,114	10,778
70%	8,621	10,546	13,476	14,854	20,010	19,020	12,839	10,977	11,981	15,156	9,460	9,856
80%	8,512	9,649	10,973	13,039	16,732	15,252	11,446	10,183	11,262	13,608	8,677	9,157
90%	7,069	7,451	9,531	11,909	13,927	11,409	10,251	9,040	10,208	10,491	8,053	7,826
Long Term												
Full Simulation Period ^d	11,413	16,007	22,816	30,923	38,024	32,516	24,585	18,247	15,065	18,203	13,218	17,475
Water Year Types ^{b,c}												
Wet (32%)	14,589	20,859	25,502	50,060	56,961	49,903	39,423	30,324	20,383	20,296	16,036	28,223
Above Normal (16%)	12,970	18,552	21,872	39,071	47,089	42,836	27,210	17,155	13,493	22,967	16,776	21,758
Below Normal (13%)	11,392	12,386	21,131	18,527	31,041	18,867	15,286	13,200	12,993	21,623	14,732	11,752
Dry (24%)	9,017	14,972	26,890	17,320	24,129	22,495	16,841	11,727	13,147	15,525	9,571	9,734
Critical (15%)	6,859	7,780	12,775	14,666	16,730	12,880	11,024	8,761	10,341	9,834	7,949	7,694

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,064	21,141	51,516	68,263	70,745	66,361	54,646	29,266	15,822	24,525	16,845	30,183
20%	14,247	18,863	33,063	60,831	64,954	59,103	38,026	19,412	14,458	24,025	16,369	28,463
30%	12,973	18,231	23,717	44,636	53,939	48,201	28,339	14,176	13,613	23,597	15,982	23,119
40%	11,419	16,039	19,009	29,310	47,068	34,818	22,807	11,954	13,062	20,603	15,634	21,297
50%	10,296	14,062	16,525	24,467	35,479	28,429	16,051	11,069	12,596	19,671	15,131	14,084
60%	9,295	12,135	15,004	21,187	26,756	22,852	14,509	10,560	12,096	18,634	13,552	10,625
70%	8,584	10,713	14,013	15,713	22,859	20,686	12,236	9,977	11,724	16,249	9,931	9,693
80%	8,495	9,447	10,694	14,011	18,824	15,633	11,551	9,605	10,943	13,896	9,074	9,101
90%	7,084	8,103	9,685	12,485	15,693	12,018	10,303	8,323	9,533	9,936	8,001	7,763
Long Term												
Full Simulation Period ^d	11,091	15,531	23,466	33,369	40,080	34,990	25,144	15,194	13,160	18,758	13,273	17,294
Water Year Types ^{b,c}												
Wet (32%)	13,913	20,378	26,431	53,228	58,943	52,527	40,175	23,207	15,037	20,380	15,867	27,753
Above Normal (16%)	12,414	17,293	21,881	42,693	48,945	46,476	27,786	13,970	12,241	23,406	16,583	21,746
Below Normal (13%)	11,041	11,947	22,163	20,837	34,171	21,055	16,288	12,581	12,382	21,675	14,220	11,499
Dry (24%)	8,937	14,551	27,394	18,825	26,308	25,090	17,232	10,856	13,079	17,096	10,542	9,830
Critical (15%)	7,178	8,035	13,408	15,965	17,974	13,820	11,016	8,780	10,941	10,303	7,748	7,559

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-408	-379	1,368	3,219	1,011	1,534	2,108	-9,364	-4,827	-10	-104	738
20%	-172	-401	-762	6,871	2,600	5,114	-705	-8,637	-1,720	-361	-215	-177
30%	-505	-209	2,446	6,166	3,097	6,662	3,036	-1,854	-579	748	-71	636
40%	-1,191	-991	957	3,317	3,356	3,728	309	-1,549	-400	956	-141	-229
50%	-280	-1,353	977	4,225	2,408	2,886	-1,485	-1,209	-487	1,184	-23	-229
60%	30	-1,026	224	3,098	1,378	2,498	-394	-1,108	-554	1,596	439	-153
70%	-37	167	537	859	2,849	1,666	-603	-1,000	-258	1,093	471	-164
80%	-17	-202	-280	972	2,093	381	106	-578	-319	287	397	-55
90%	15	652	154	576	1,766	609	52	-716	-675	-555	-51	-63
Long Term												
Full Simulation Period ^d	-322	-476	650	2,446	2,056	2,473	558	-3,054	-1,904	555	55	-181
Water Year Types ^{b,c}												
Wet (32%)	-676	-481	929	3,168	1,982	2,624	752	-7,117	-5,346	85	-168	-470
Above Normal (16%)	-556	-1,258	8	3,622	1,856	3,640	575	-3,185	-1,251	439	-193	-12
Below Normal (13%)	-351	-440	1,032	2,310	3,129	2,188	1,002	-619	-611	52	-512	-253
Dry (24%)	-80	-422	504	1,505	2,179	2,595	391	-870	-68	1,571	971	96
Critical (15%)	319	255	633	1,299	1,244	939	-8	19	600	469	-201	-135

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-4. Sacramento River Flow at Freeport, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,128	22,221	50,316	65,935	70,126	64,885	51,980	38,639	20,656	23,879	17,562	15,344
20%	12,840	14,806	35,947	56,764	62,807	54,087	38,731	28,038	16,637	22,649	17,363	14,227
30%	12,339	13,957	23,631	41,810	52,713	43,179	25,336	16,080	15,676	21,138	16,911	13,815
40%	11,928	13,708	18,569	27,712	45,648	31,460	22,520	14,876	15,440	18,725	16,323	13,193
50%	11,010	13,169	15,603	22,755	33,716	26,313	17,396	13,599	14,995	18,004	15,477	12,202
60%	9,731	12,156	15,117	19,533	25,478	21,832	15,088	12,629	14,676	16,726	13,501	10,317
70%	8,960	9,996	14,260	15,362	21,078	19,047	13,028	11,674	13,937	15,460	9,630	9,577
80%	8,539	8,866	12,937	13,139	17,389	14,989	11,782	11,158	12,573	12,093	8,825	9,030
90%	7,069	7,194	9,737	12,082	14,555	11,857	10,751	9,905	11,360	9,572	7,723	7,875
Long Term												
Full Simulation Period ^d	11,114	14,377	23,918	31,659	38,696	33,248	24,751	18,766	16,317	17,486	13,634	11,821
Water Year Types ^{b,c}												
Wet (32%)	13,503	17,350	27,955	50,989	57,481	50,329	39,529	30,260	21,099	19,712	17,057	14,460
Above Normal (16%)	12,402	16,216	23,324	40,196	48,122	44,816	27,506	17,804	14,939	21,822	17,068	13,775
Below Normal (13%)	11,630	11,993	21,409	19,471	33,060	19,952	15,660	14,296	15,513	20,343	15,206	11,664
Dry (24%)	9,317	14,688	27,055	17,515	24,358	22,746	16,970	12,914	14,778	15,080	9,655	9,752
Critical (15%)	7,065	7,610	12,888	15,275	16,845	13,396	11,046	8,755	10,748	9,359	7,692	7,577

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,046	20,669	55,349	68,486	70,740	66,346	54,671	29,272	17,392	22,989	17,583	14,301
20%	12,441	14,676	37,846	61,075	65,815	59,994	38,022	18,612	16,363	21,834	17,102	13,925
30%	12,115	13,744	25,608	44,623	54,319	49,170	28,129	15,998	15,296	20,838	16,650	13,289
40%	11,758	13,244	19,643	32,486	49,820	34,734	22,773	14,253	14,982	19,543	15,389	12,485
50%	10,531	12,684	17,266	26,743	35,853	29,536	16,018	12,796	14,507	18,074	14,849	11,105
60%	9,363	11,659	15,215	20,801	27,013	23,420	14,689	11,804	13,833	17,121	13,931	10,177
70%	8,897	10,038	13,948	16,296	23,359	21,126	12,369	10,980	13,216	14,988	9,844	9,462
80%	8,538	8,927	12,197	13,727	18,900	15,151	11,856	10,158	12,188	12,897	8,706	8,663
90%	7,084	7,764	10,265	12,560	15,981	12,663	10,906	9,128	11,001	10,019	7,929	7,519
Long Term												
Full Simulation Period ^d	10,763	14,110	24,639	34,134	40,699	35,691	25,309	16,044	14,573	17,449	13,412	11,411
Water Year Types ^{b,c}												
Wet (32%)	12,856	17,134	28,968	54,011	59,444	52,853	40,312	23,790	16,114	18,980	16,621	13,838
Above Normal (16%)	12,002	15,551	23,219	44,246	49,895	48,259	27,942	14,944	14,054	21,503	16,649	13,224
Below Normal (13%)	11,340	11,631	22,395	22,751	35,601	22,305	16,457	13,962	14,850	19,964	13,982	10,989
Dry (24%)	9,057	14,374	27,874	18,971	26,509	25,331	17,439	12,031	14,539	16,034	10,269	9,644
Critical (15%)	7,198	7,829	13,467	15,817	18,448	14,426	11,179	9,052	11,603	9,788	7,668	7,519

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-82	-1,552	5,032	2,551	614	1,461	2,691	-9,367	-3,265	-891	22	-1,043
20%	-399	-130	1,899	4,310	3,008	5,907	-709	-9,426	-274	-816	-261	-302
30%	-224	-213	1,976	2,814	1,606	5,990	2,793	-81	-379	-300	-261	-526
40%	-170	-463	1,074	4,774	4,172	3,274	253	-624	-458	818	-934	-708
50%	-479	-486	1,663	3,987	2,137	3,223	-1,377	-803	-487	70	-628	-1,097
60%	-368	-497	98	1,268	1,534	1,588	-399	-825	-842	395	430	-140
70%	-63	42	-311	934	2,281	2,079	-659	-694	-721	-473	214	-115
80%	-1	61	-740	587	1,511	162	74	-999	-386	804	-119	-367
90%	15	570	528	478	1,426	807	156	-777	-359	447	206	-356
Long Term												
Full Simulation Period ^d	-351	-267	721	2,475	2,003	2,443	558	-2,722	-1,743	-38	-223	-410
Water Year Types ^{b,c}												
Wet (32%)	-648	-216	1,013	3,023	1,963	2,524	783	-6,470	-4,985	-732	-436	-622
Above Normal (16%)	-399	-665	-105	4,050	1,773	3,443	436	-2,859	-885	-319	-419	-551
Below Normal (13%)	-290	-362	985	3,280	2,541	2,354	797	-334	-663	-379	-1,224	-675
Dry (24%)	-259	-315	819	1,456	2,151	2,585	469	-884	-240	954	614	-109
Critical (15%)	132	219	580	541	1,603	1,030	132	297	855	429	-24	-57

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

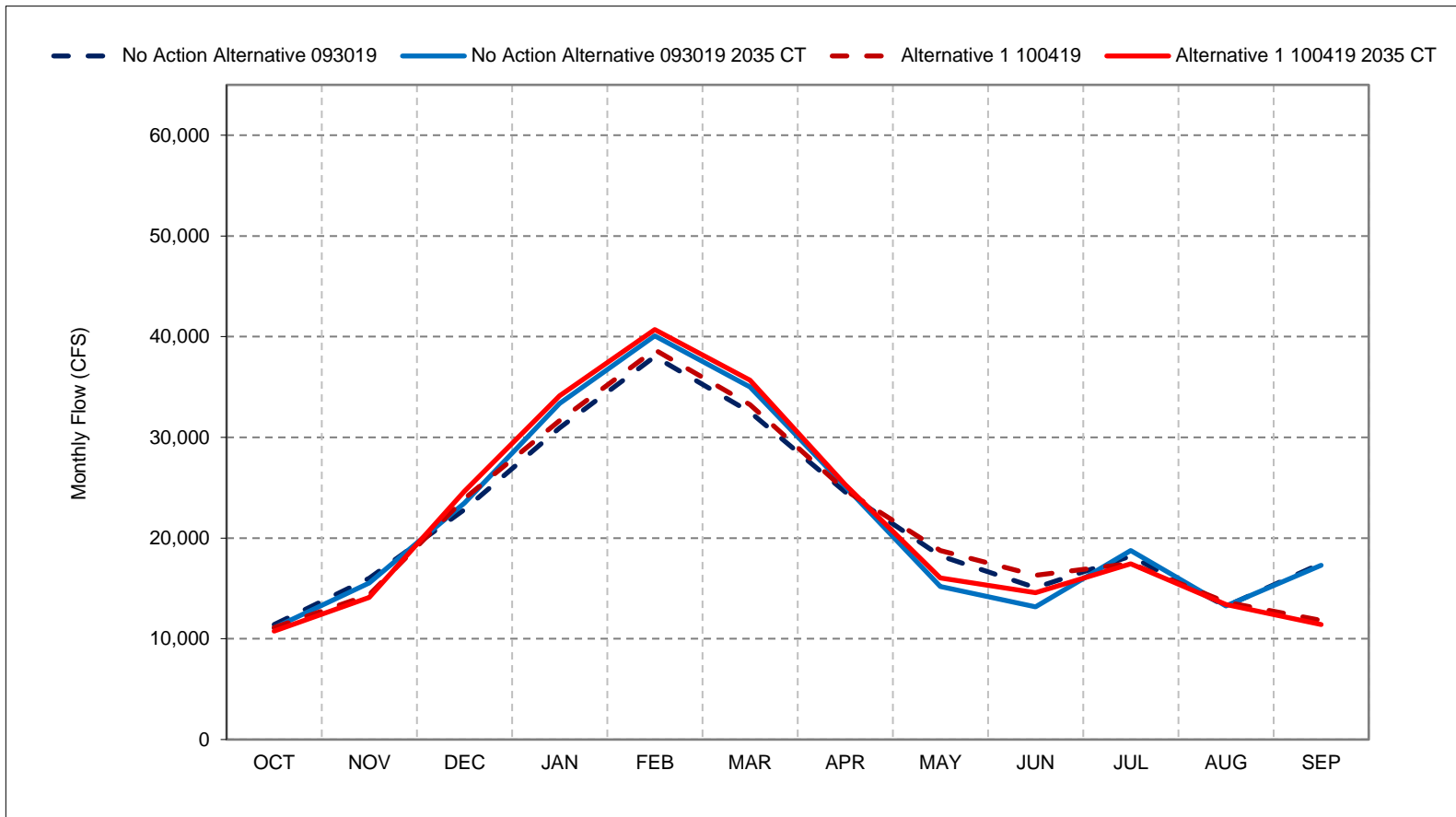
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 29-1. Sacramento River Flow at Freeport, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

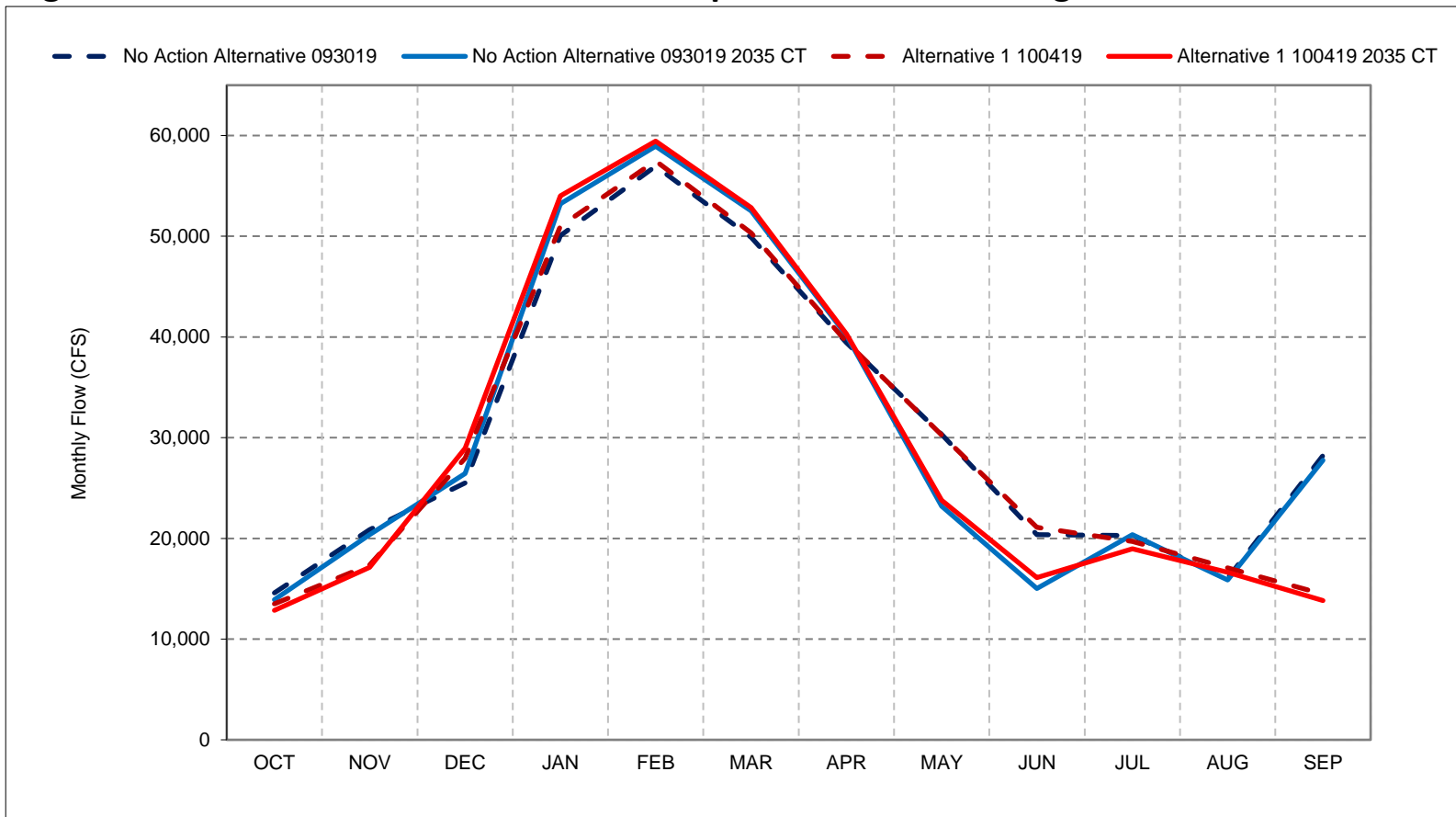
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-2. Sacramento River Flow at Freeport, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

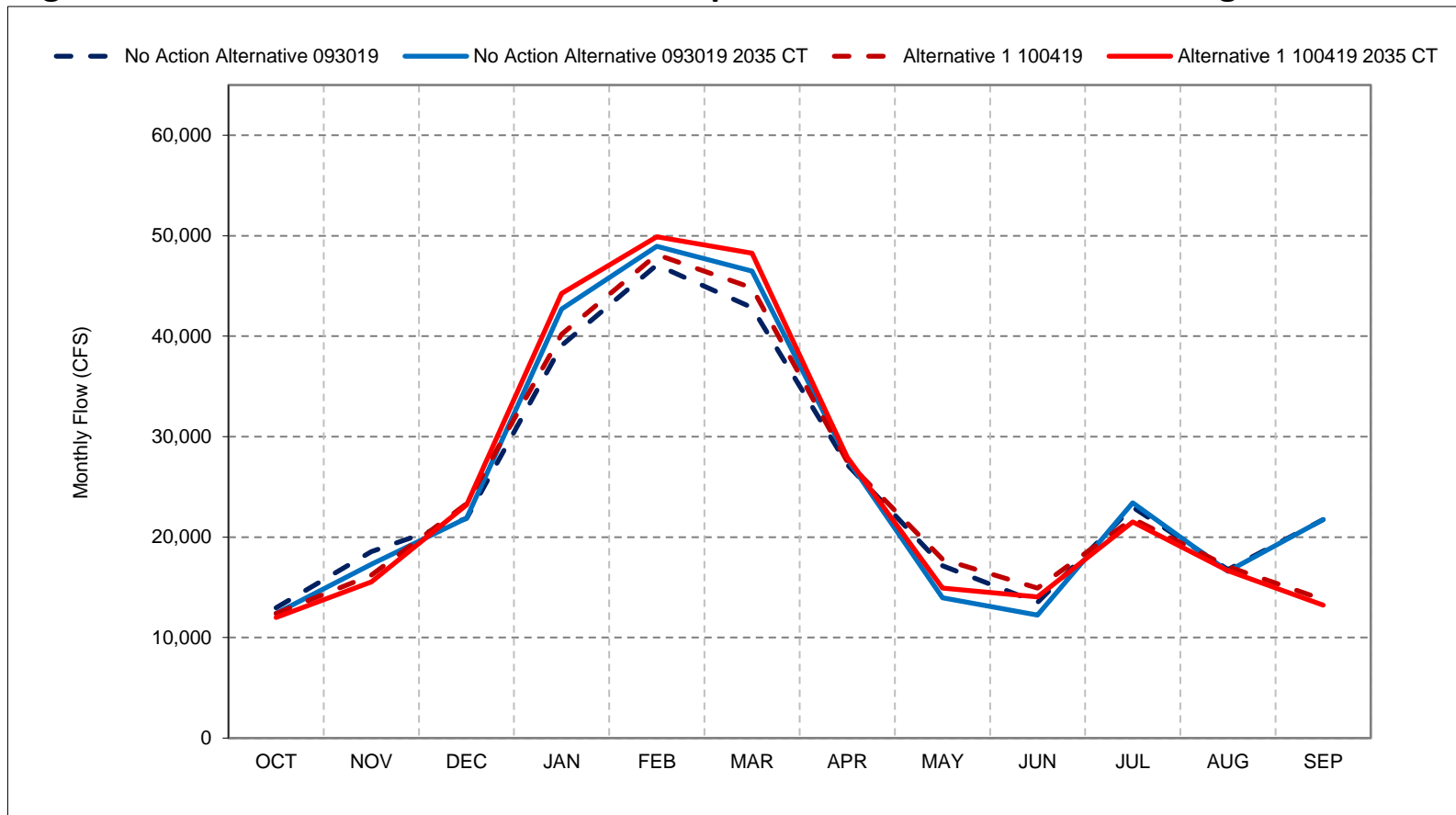
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-3. Sacramento River Flow at Freeport, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

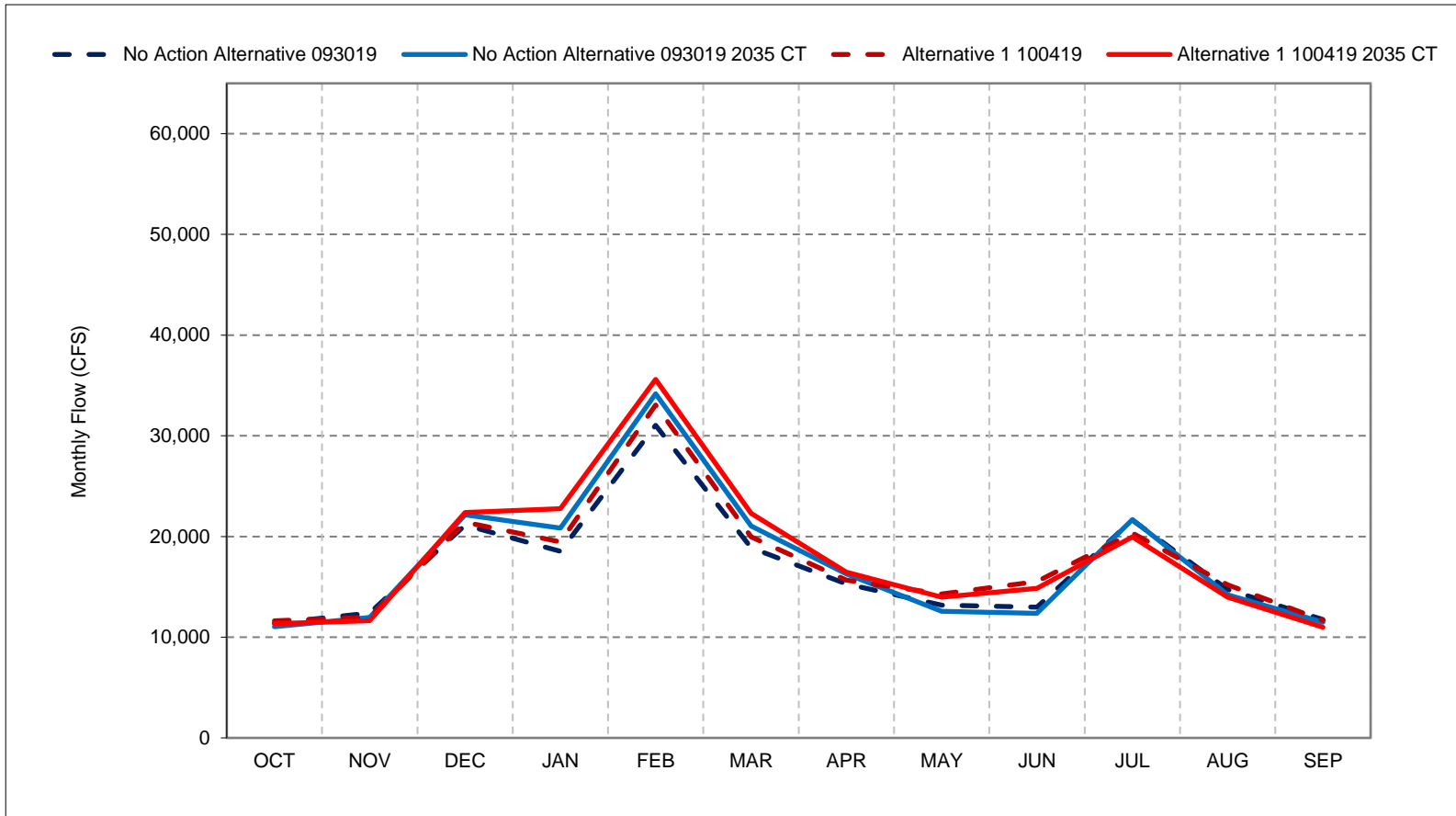
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-4. Sacramento River Flow at Freeport, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

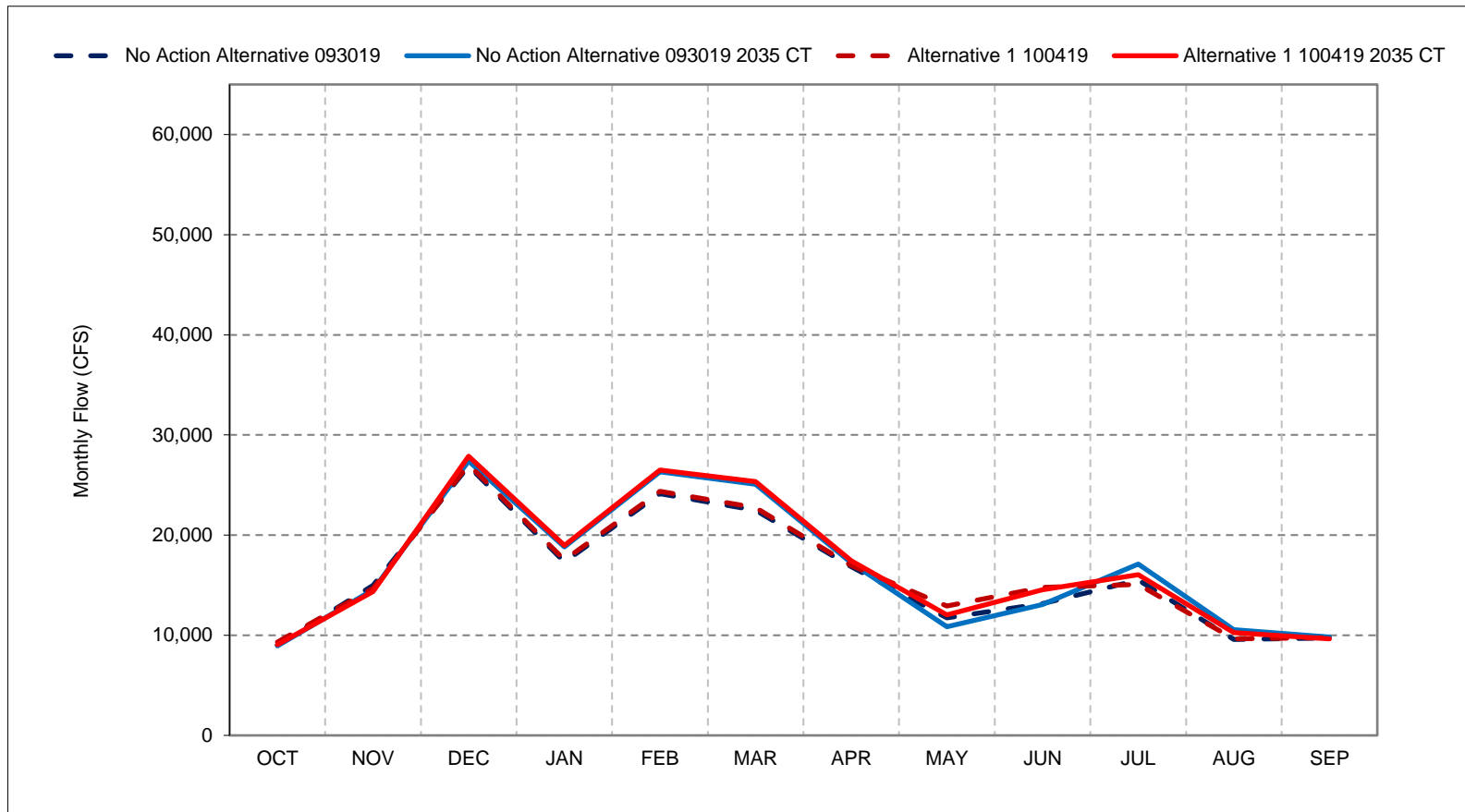
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-5. Sacramento River Flow at Freeport, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

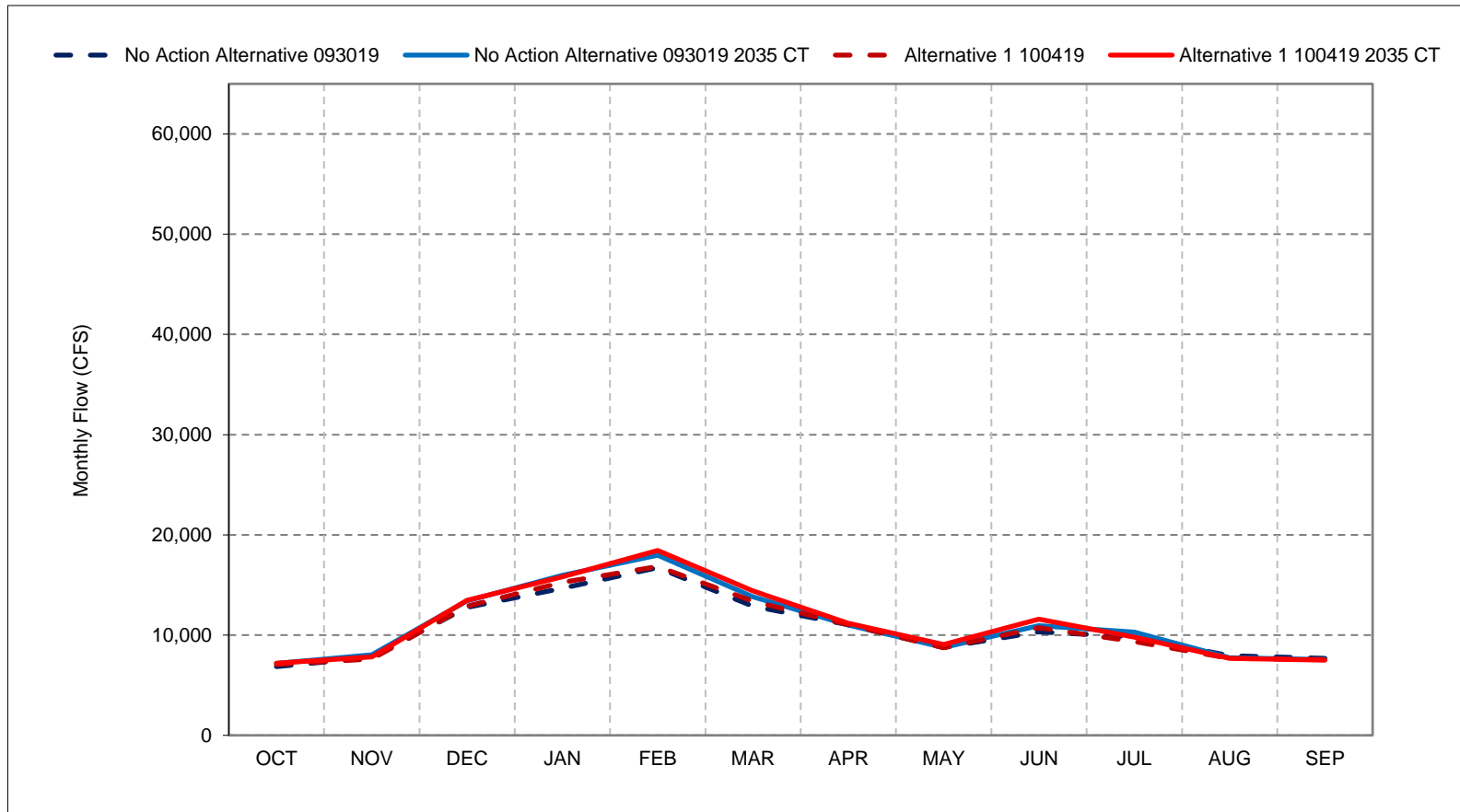
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-6. Sacramento River Flow at Freeport, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

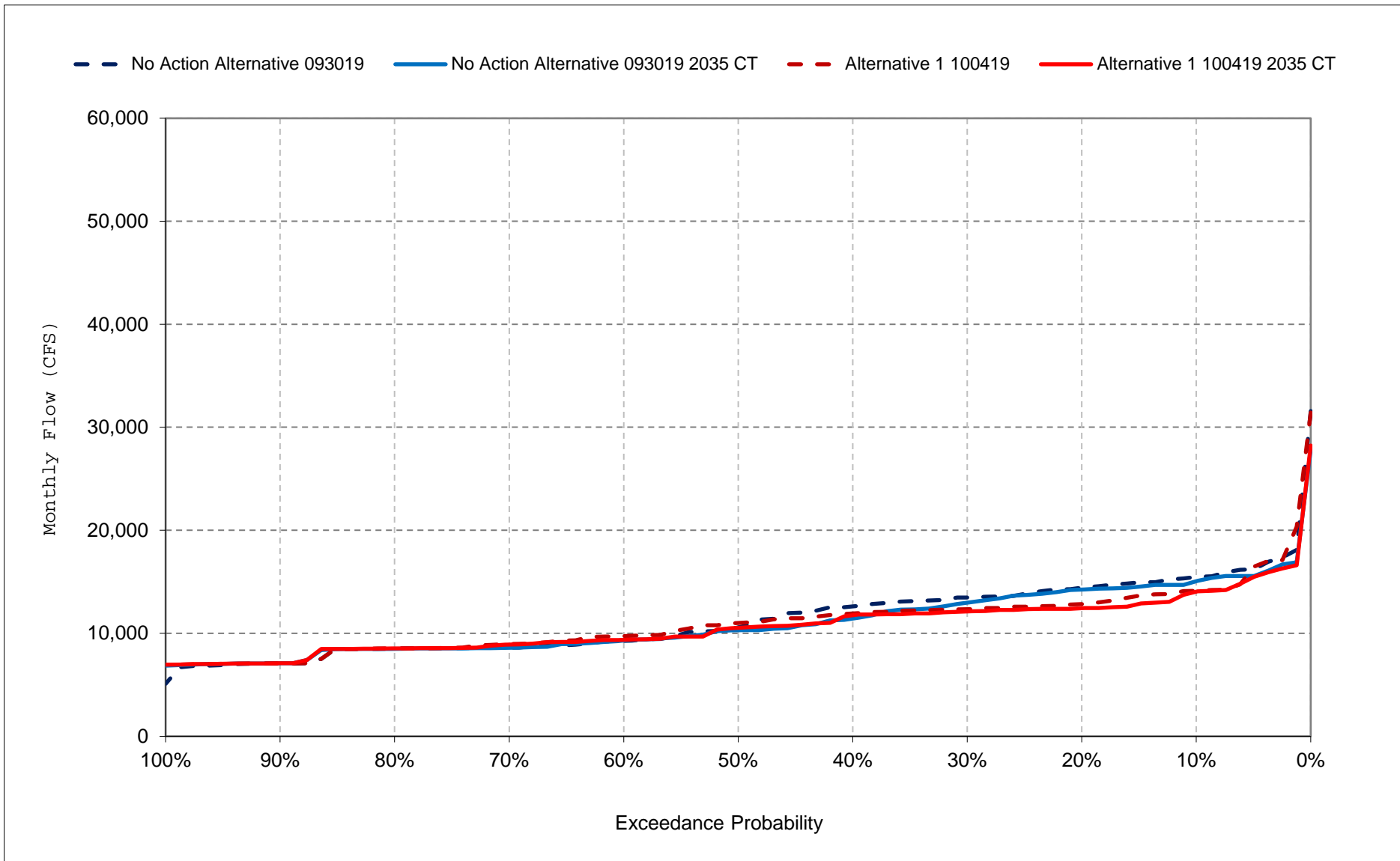
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

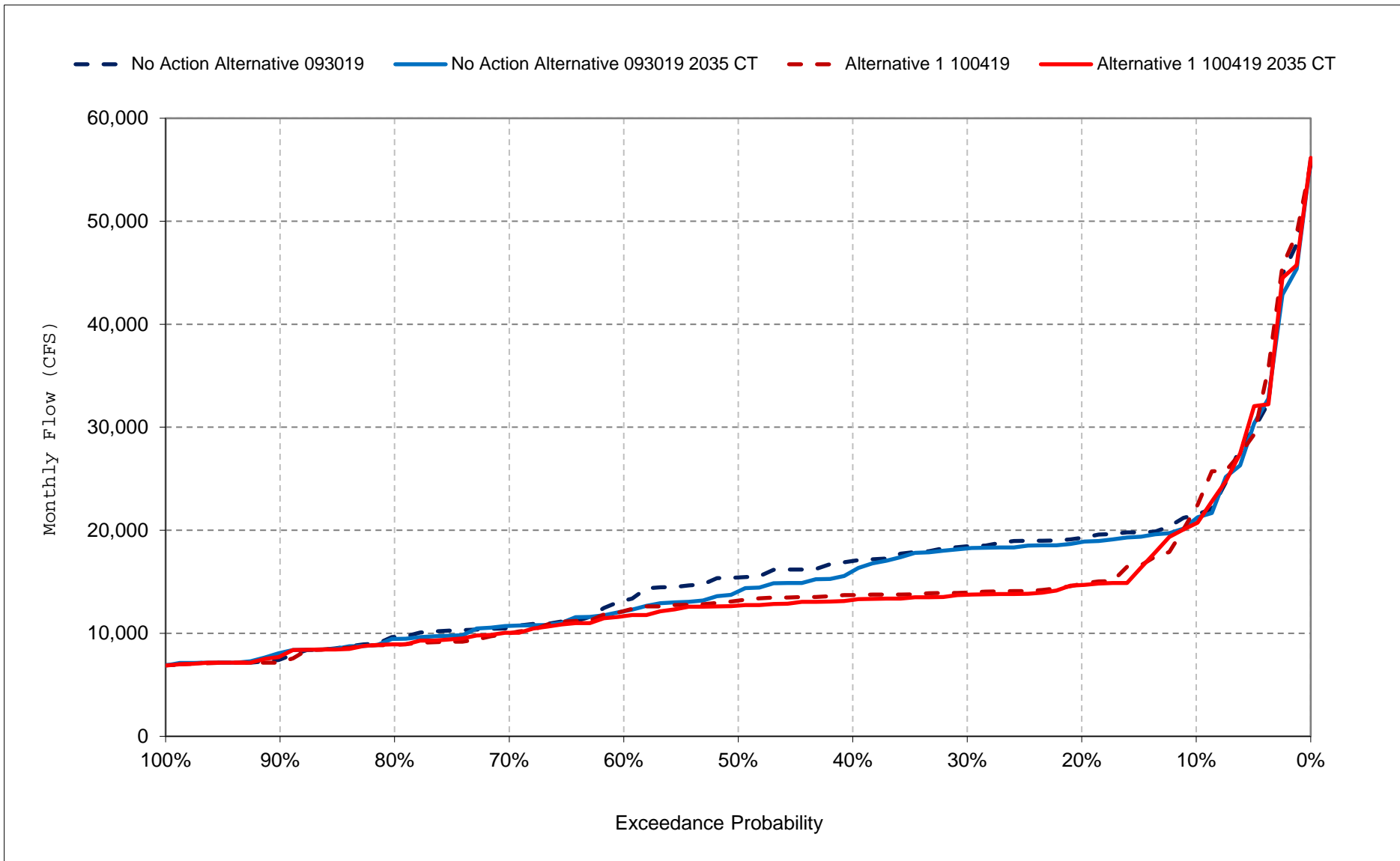
Figure 29-7. Sacramento River Flow at Freeport, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

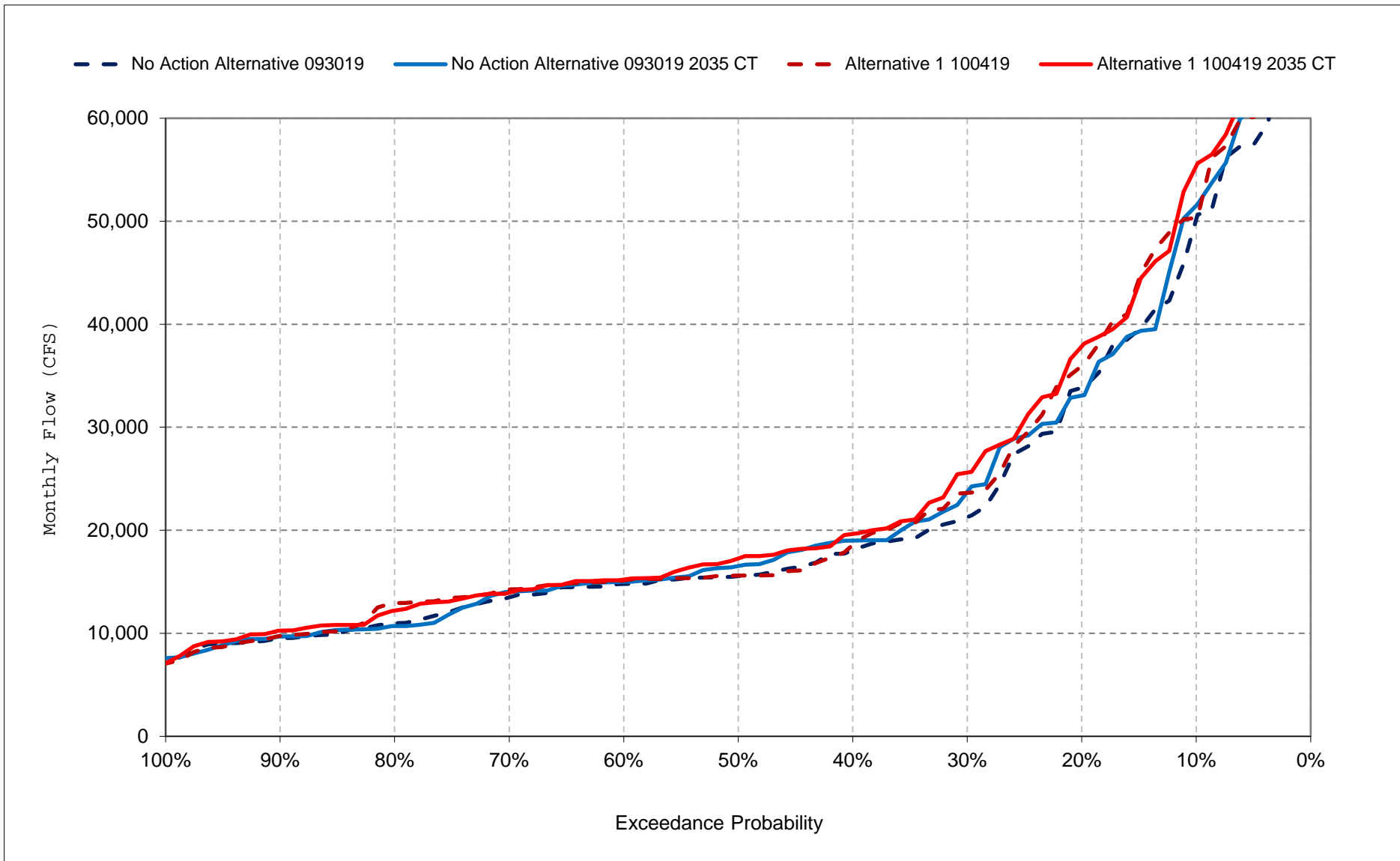
Figure 29-8. Sacramento River Flow at Freeport, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

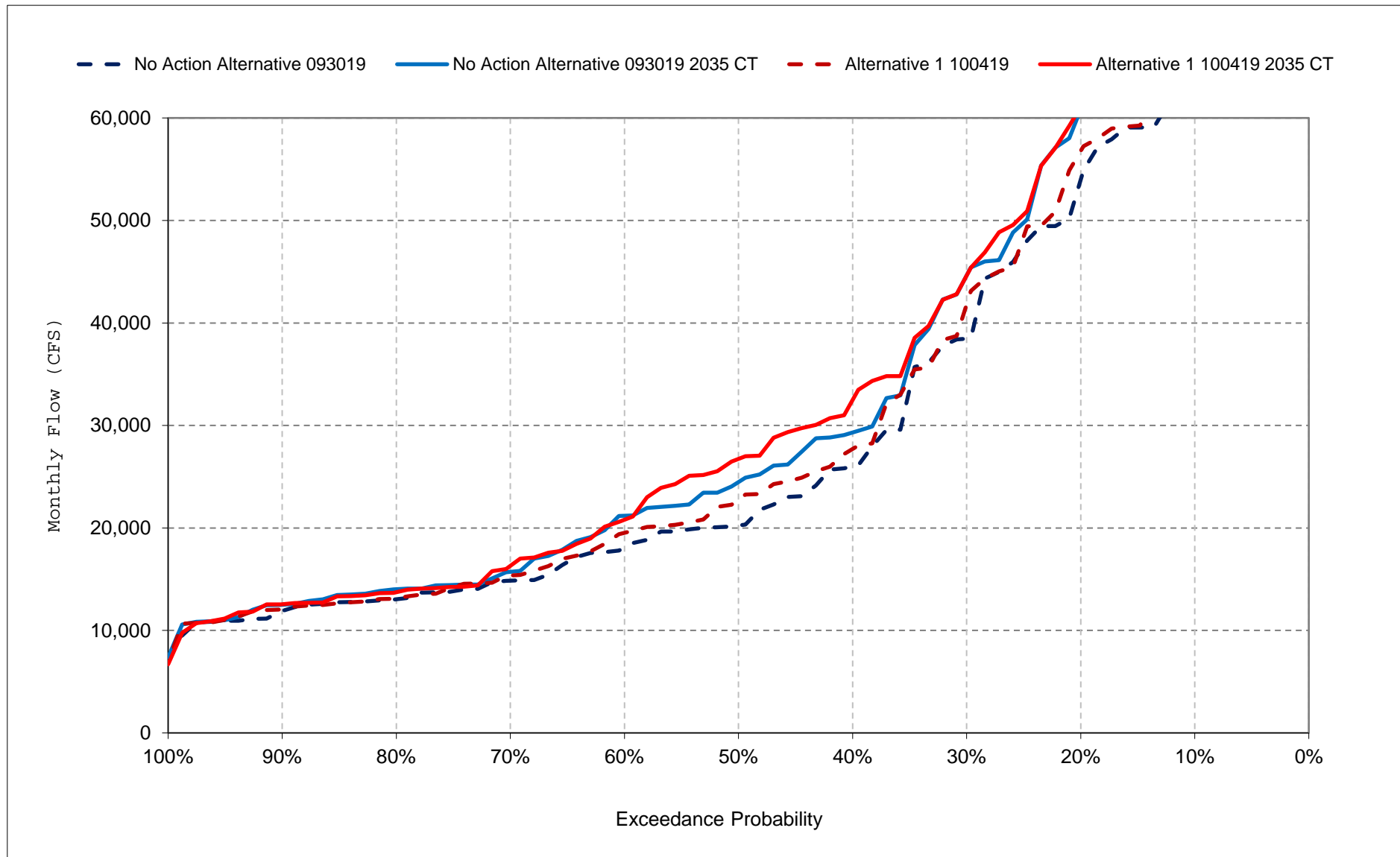
Figure 29-9. Sacramento River Flow at Freeport, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

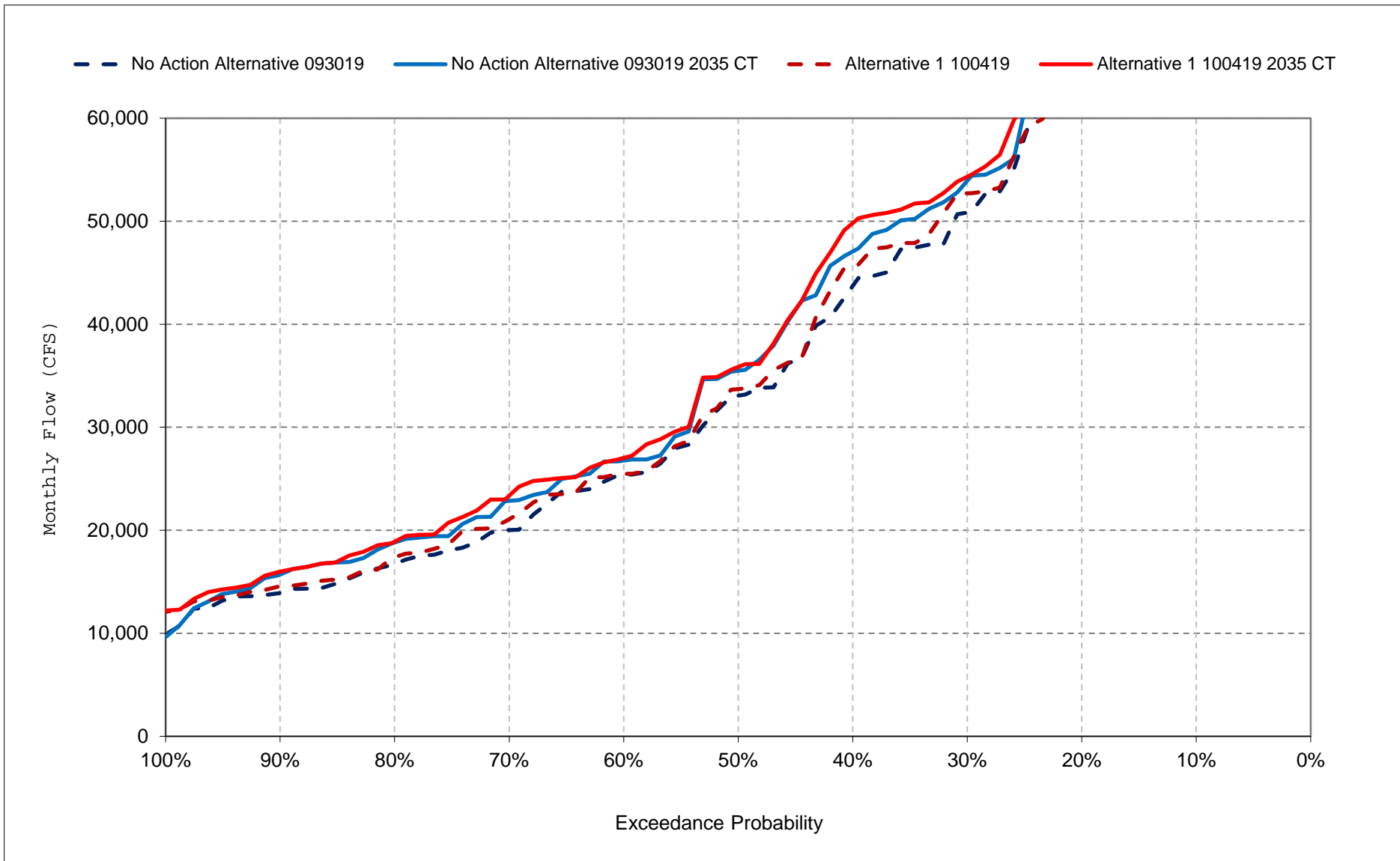
Figure 29-10. Sacramento River Flow at Freeport, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

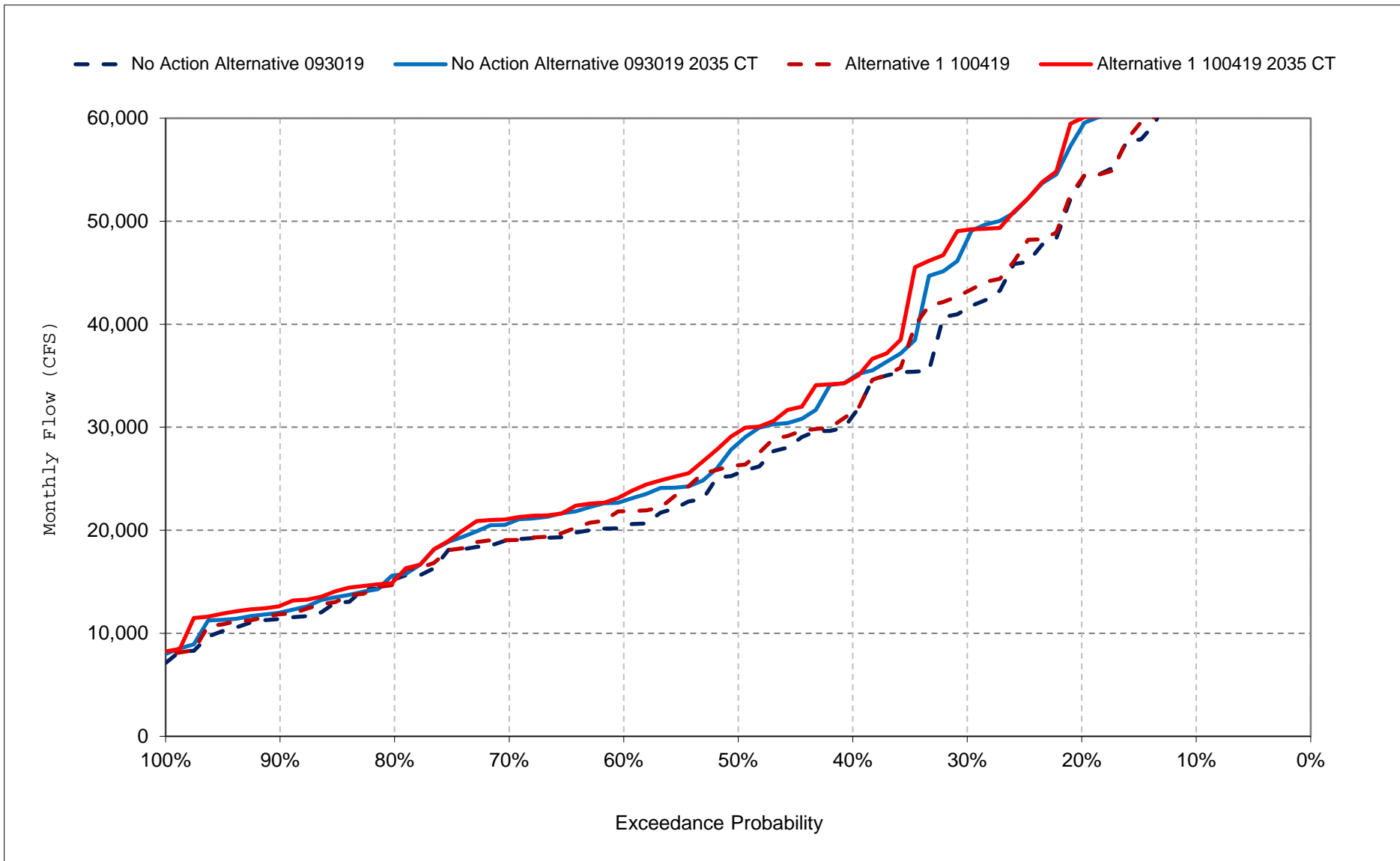
Figure 29-11. Sacramento River Flow at Freeport, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

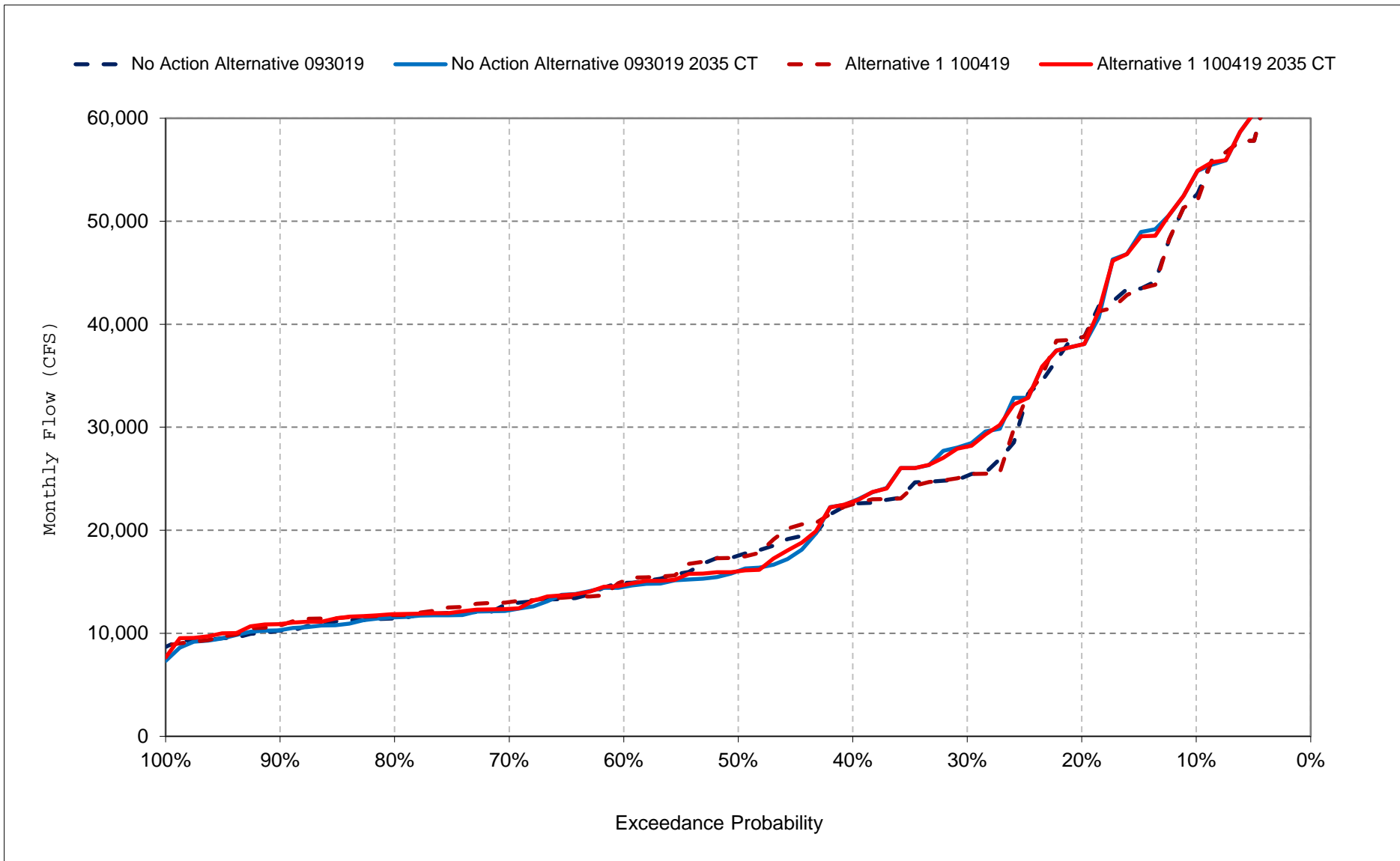
Figure 29-12. Sacramento River Flow at Freeport, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

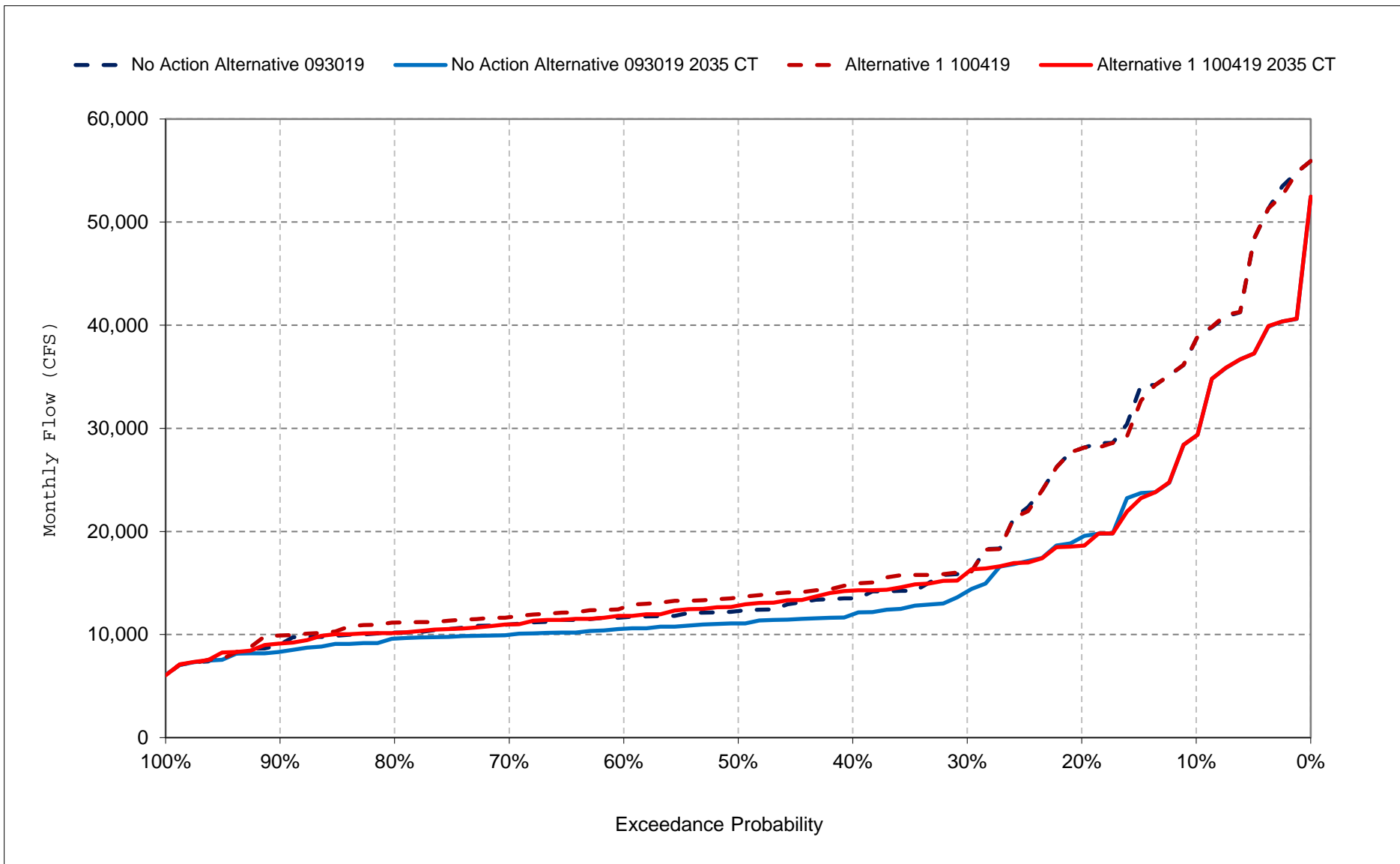
Figure 29-13. Sacramento River Flow at Freeport, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

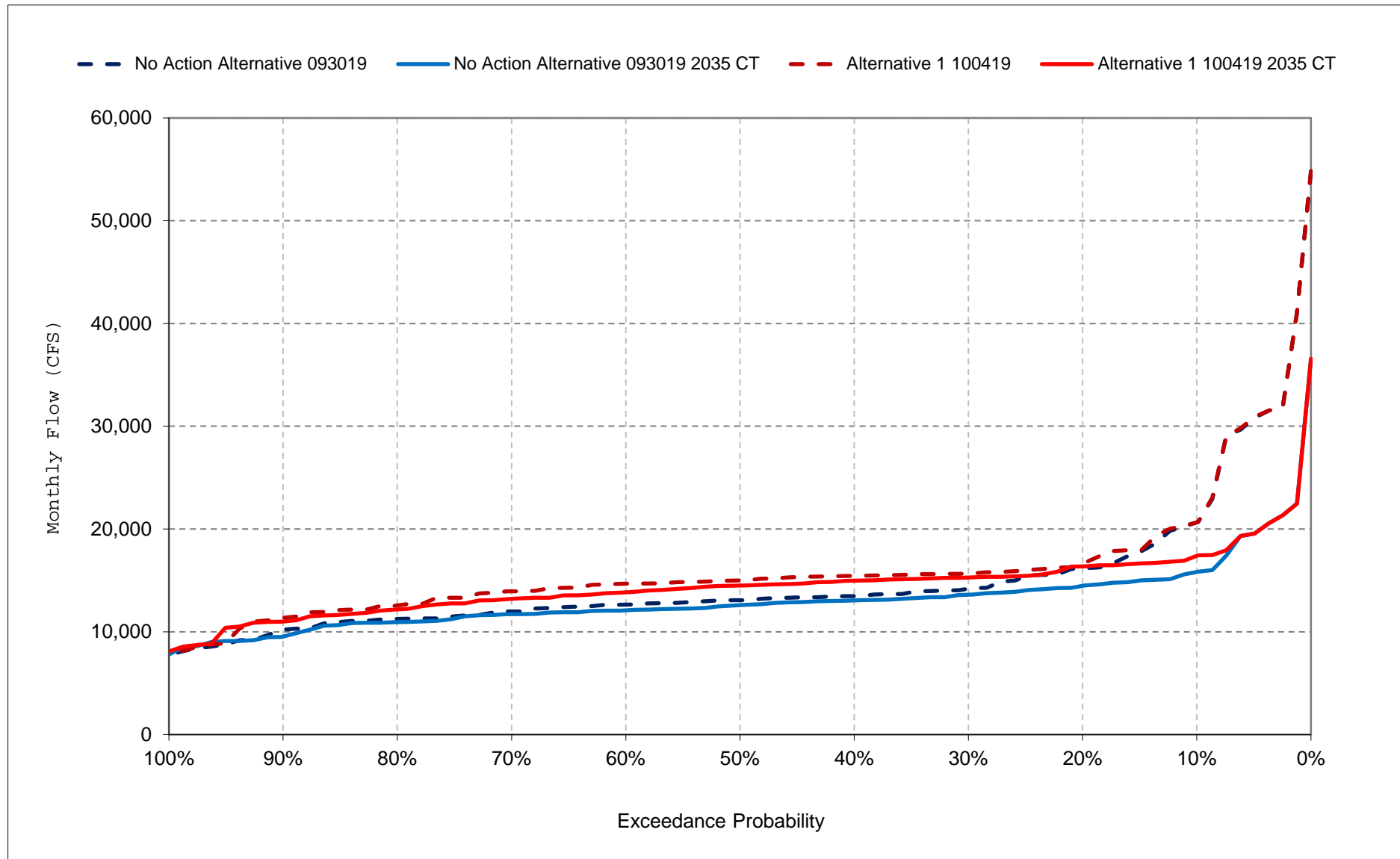
Figure 29-14. Sacramento River Flow at Freeport, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

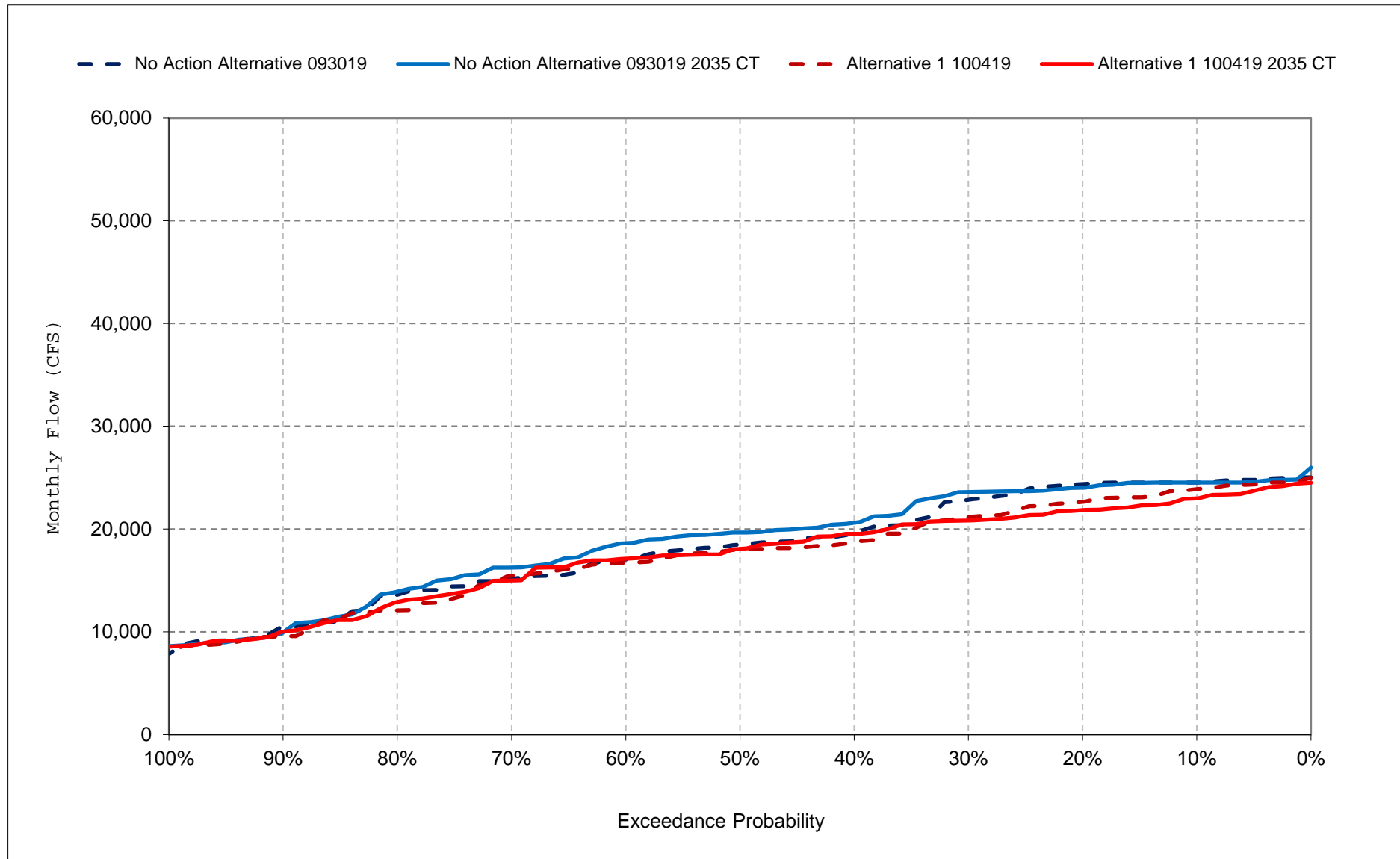
Figure 29-15. Sacramento River Flow at Freeport, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

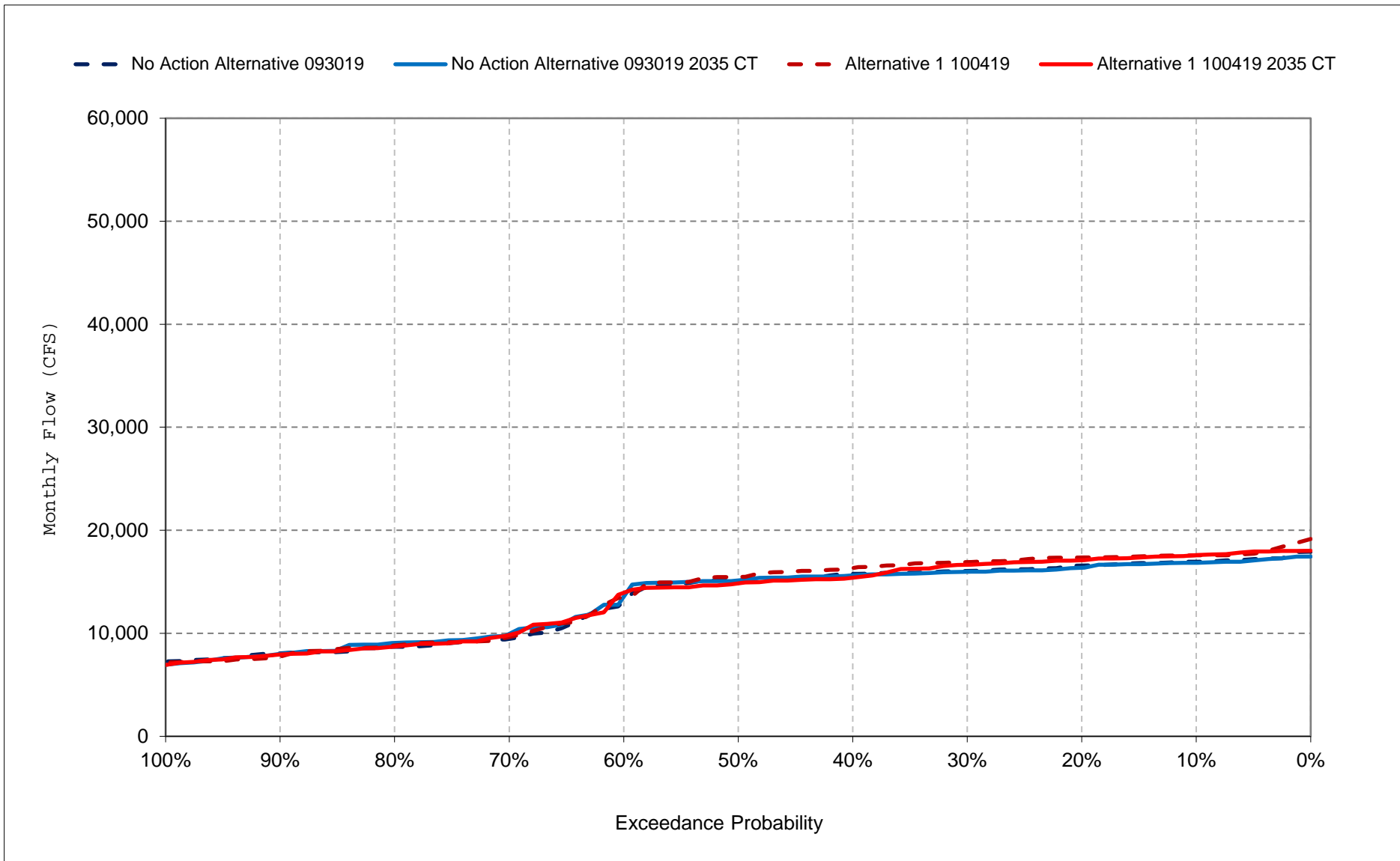
Figure 29-16. Sacramento River Flow at Freeport, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

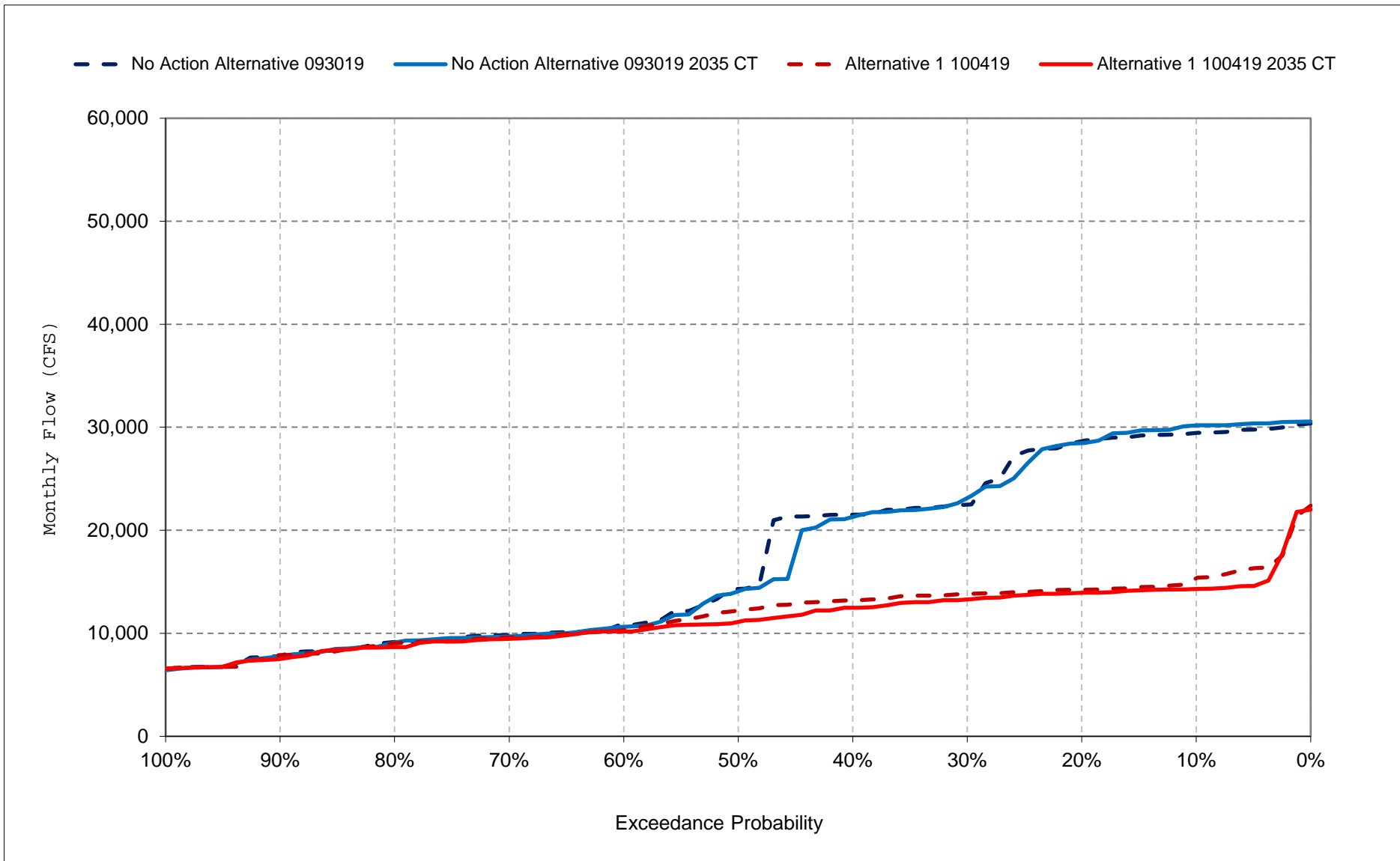
Figure 29-17. Sacramento River Flow at Freeport, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 29-18. Sacramento River Flow at Freeport, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-1. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,849	18,526	59,783	90,859	115,629	71,537	54,378	32,151	12,572	14,390	9,716	24,135
20%	9,813	15,400	32,940	59,690	74,834	54,948	36,577	22,544	9,094	14,231	9,407	23,512
30%	8,220	14,565	17,912	43,533	54,988	39,268	21,124	12,100	7,783	13,196	9,022	13,703
40%	7,468	12,850	14,830	26,554	43,909	28,818	18,466	9,824	7,257	11,058	8,852	13,020
50%	5,942	11,535	12,026	18,543	31,842	22,098	13,804	8,905	7,083	10,270	8,438	8,100
60%	4,986	8,504	10,684	15,100	22,638	16,751	11,379	8,293	6,693	9,261	7,235	5,791
70%	4,496	6,775	9,658	12,112	16,605	15,397	9,551	7,643	6,279	8,038	4,562	5,142
80%	4,341	6,006	7,232	10,483	13,483	12,079	8,418	7,012	5,692	6,951	3,951	4,633
90%	3,341	4,222	6,005	9,373	11,206	8,470	7,396	6,194	4,999	4,764	3,603	3,785
Long Term												
Full Simulation Period ^d	7,007	12,429	22,548	38,074	48,035	36,312	22,473	14,218	8,927	10,059	7,139	11,789
Water Year Types^{b,c}												
Wet (32%)	9,721	17,261	25,988	74,970	85,291	65,800	39,722	24,975	13,812	11,481	9,093	22,314
Above Normal (16%)	8,113	15,008	19,189	41,908	57,916	44,653	23,907	13,273	7,293	13,292	9,560	13,178
Below Normal (13%)	7,378	8,451	20,209	16,033	30,870	15,688	11,854	9,615	6,915	12,364	8,209	6,422
Dry (24%)	4,828	11,438	29,212	15,260	22,941	19,561	13,616	8,402	7,027	8,253	4,609	5,038
Critical (15%)	3,221	4,461	9,774	12,205	14,170	10,206	8,039	5,849	5,122	4,373	3,518	3,650

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,414	18,468	64,178	93,058	115,874	79,154	54,328	32,159	12,577	13,893	10,059	8,810
20%	8,242	11,033	36,722	60,978	75,463	55,156	36,478	22,548	9,439	13,109	9,926	8,065
30%	7,491	9,282	20,239	44,714	56,098	41,414	21,251	12,134	8,820	12,096	9,701	7,735
40%	7,059	8,931	15,406	27,126	47,537	29,298	18,546	11,077	8,643	10,428	9,201	7,338
50%	6,462	8,589	11,924	20,007	32,053	23,066	13,777	9,883	8,392	9,872	8,928	6,673
60%	5,254	7,935	10,899	16,562	23,345	17,736	11,475	9,142	8,144	9,066	7,338	5,513
70%	4,787	6,032	10,230	12,559	17,489	15,555	9,757	8,423	7,590	8,187	4,645	4,887
80%	4,341	5,439	8,967	10,479	14,146	11,698	8,716	7,780	6,739	5,902	4,071	4,559
90%	3,341	3,908	6,171	9,529	11,598	8,917	7,740	6,816	5,909	4,213	3,393	3,755
Long Term												
Full Simulation Period ^d	6,838	10,681	24,031	39,128	49,295	37,245	22,633	14,671	9,811	9,573	7,424	6,439
Water Year Types^{b,c}												
Wet (32%)	9,023	13,338	29,420	76,890	86,802	66,580	39,861	24,920	14,320	11,091	9,790	8,214
Above Normal (16%)	7,672	12,537	20,681	43,053	60,292	47,247	24,160	13,837	8,313	12,513	9,761	7,739
Below Normal (13%)	7,588	8,100	20,465	17,082	33,479	16,783	12,189	10,567	8,691	11,492	8,532	6,362
Dry (24%)	5,136	11,251	29,669	15,438	23,112	19,811	13,729	9,441	8,181	7,947	4,668	5,048
Critical (15%)	3,348	4,328	9,858	12,749	14,253	10,662	8,065	5,844	5,409	4,052	3,342	3,573

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,435	-58	4,394	2,199	245	7,618	-49	8	5	-497	343	-15,326
20%	-1,572	-4,367	3,782	1,288	629	208	-100	4	345	-1,122	519	-15,447
30%	-729	-5,283	2,327	1,181	1,110	2,146	127	34	1,036	-1,100	679	-5,969
40%	-409	-3,919	576	573	3,627	480	79	1,253	1,386	-631	349	-5,682
50%	520	-2,946	-102	1,464	211	968	-28	978	1,309	-398	490	-1,427
60%	267	-569	215	1,463	706	985	96	849	1,451	-194	103	-278
70%	291	-743	572	447	884	158	206	780	1,312	149	84	-256
80%	0	-567	1,735	-3	663	-381	299	769	1,047	-1,048	120	-74
90%	0	-314	166	156	392	447	344	622	910	-551	-209	-30
Long Term												
Full Simulation Period ^d	-169	-1,748	1,483	1,054	1,260	933	160	453	884	-486	285	-5,350
Water Year Types^{b,c}												
Wet (32%)	-698	-3,923	3,432	1,920	1,511	780	139	-55	508	-390	698	-14,100
Above Normal (16%)	-441	-2,472	1,491	1,145	2,376	2,594	253	564	1,019	-780	201	-5,439
Below Normal (13%)	210	-351	257	1,049	2,610	1,095	335	952	1,776	-872	323	-60
Dry (24%)	308	-188	457	178	171	249	113	1,040	1,153	-305	59	10
Critical (15%)	127	-133	84	545	83	456	26	-5	287	-321	-175	-77

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 32-2. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,554	17,885	63,220	92,609	120,179	75,970	52,726	23,850	8,929	14,335	9,724	24,651
20%	9,568	15,138	33,007	68,930	83,892	60,480	33,935	15,168	7,961	13,986	9,437	23,111
30%	7,699	14,147	20,865	47,373	58,571	49,293	23,879	10,601	7,263	13,703	9,041	14,096
40%	6,464	12,056	15,400	29,549	48,748	31,667	19,035	8,515	7,054	11,704	8,813	12,913
50%	5,564	9,770	13,215	21,330	35,392	24,663	12,353	7,818	6,609	11,105	8,558	7,955
60%	4,936	8,139	10,853	18,638	23,446	19,233	11,122	7,368	6,283	10,360	7,280	5,749
70%	4,457	6,671	9,984	12,877	19,311	17,140	9,246	6,897	6,015	8,713	4,881	4,966
80%	4,341	5,823	7,114	11,077	15,602	12,291	8,437	6,540	5,531	7,129	4,261	4,652
90%	3,349	4,633	6,212	9,791	12,592	8,974	7,417	5,422	4,629	4,491	3,541	3,744
Long Term												
Full Simulation Period ^d	6,652	11,890	23,219	41,887	51,286	40,100	23,242	11,499	7,158	10,493	7,176	11,636
Water Year Types ^{b,c}												
Wet (32%)	9,035	16,780	26,881	81,860	89,690	72,035	41,252	18,578	8,699	11,720	8,980	21,426
Above Normal (16%)	7,809	13,463	19,325	46,924	61,736	49,504	24,403	10,507	6,409	13,589	9,432	14,099
Below Normal (13%)	6,710	8,037	21,013	18,323	34,648	17,700	12,739	9,086	6,489	12,399	7,856	6,258
Dry (24%)	4,702	10,962	29,822	16,674	25,318	22,236	13,975	7,651	6,979	9,319	5,276	5,101
Critical (15%)	3,428	4,671	10,521	13,445	15,286	11,025	8,032	5,862	5,539	4,686	3,371	3,578

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,188	17,841	67,447	96,826	120,210	85,685	53,120	23,856	9,985	13,284	10,139	8,096
20%	7,576	10,237	37,231	70,569	83,889	61,229	33,940	14,531	9,292	12,526	9,858	7,821
30%	7,340	8,856	22,777	50,600	60,979	49,052	23,809	12,133	8,491	11,859	9,434	7,472
40%	6,633	8,521	15,643	32,211	53,760	32,003	19,121	10,578	8,364	10,897	8,753	6,848
50%	5,900	8,173	13,686	23,320	35,324	25,162	12,416	9,211	7,993	9,903	8,170	6,024
60%	5,104	7,401	11,209	18,818	24,247	20,140	11,378	8,519	7,609	9,349	7,610	5,342
70%	4,632	6,161	9,910	13,630	20,009	17,327	9,281	7,775	7,095	7,854	4,794	4,774
80%	4,341	5,412	8,291	11,017	15,758	11,913	8,705	7,024	6,360	6,416	3,998	4,354
90%	3,349	4,381	6,612	9,936	12,706	9,617	7,944	6,296	5,628	4,406	3,544	3,587
Long Term												
Full Simulation Period ^d	6,368	10,300	24,831	43,142	52,487	41,115	23,376	12,243	8,156	9,542	7,272	6,161
Water Year Types ^{b,c}												
Wet (32%)	8,166	13,125	30,159	84,095	90,946	72,746	41,341	19,085	9,460	10,582	9,493	7,790
Above Normal (16%)	7,308	11,437	20,865	48,590	64,269	52,386	24,527	11,354	7,687	12,293	9,476	7,364
Below Normal (13%)	6,968	7,776	21,224	20,289	36,877	19,013	12,885	10,289	8,232	11,234	7,696	5,909
Dry (24%)	4,843	10,764	31,025	16,834	25,489	22,557	14,159	8,682	8,015	8,594	5,091	4,974
Critical (15%)	3,445	4,485	10,565	13,302	15,704	11,566	8,183	6,111	6,007	4,338	3,316	3,537

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,367	-44	4,227	4,217	31	9,715	394	6	1,055	-1,050	414	-16,555
20%	-1,992	-4,901	4,223	1,639	-3	748	5	-636	1,330	-1,460	421	-15,289
30%	-359	-5,291	1,912	3,226	2,409	-241	-70	1,532	1,228	-1,844	393	-6,624
40%	170	-3,535	242	2,662	5,012	336	86	2,063	1,310	-807	-60	-6,065
50%	336	-1,597	471	1,990	-68	499	63	1,393	1,384	-1,202	-388	-1,931
60%	167	-739	356	180	801	907	256	1,151	1,326	-1,011	329	-406
70%	175	-510	-74	754	698	186	35	878	1,080	-860	-87	-192
80%	0	-411	1,176	-60	156	-377	268	484	829	-713	-262	-298
90%	0	-252	399	145	114	643	527	873	998	-86	2	-157
Long Term												
Full Simulation Period ^d	-284	-1,591	1,612	1,255	1,202	1,016	134	744	999	-951	96	-5,475
Water Year Types ^{b,c}												
Wet (32%)	-869	-3,656	3,278	2,235	1,256	711	89	506	761	-1,139	514	-13,636
Above Normal (16%)	-501	-2,025	1,541	1,666	2,533	2,882	124	847	1,278	-1,296	45	-6,735
Below Normal (13%)	258	-261	212	1,967	2,230	1,313	147	1,203	1,742	-1,166	-160	-349
Dry (24%)	141	-198	1,204	160	172	321	183	1,031	1,036	-725	-184	-127
Critical (15%)	17	-187	44	-143	417	541	151	249	468	-348	-55	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-3. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,849	18,526	59,783	90,859	115,629	71,537	54,378	32,151	12,572	14,390	9,716	24,135
20%	9,813	15,400	32,940	59,690	74,834	54,948	36,577	22,544	9,094	14,231	9,407	23,512
30%	8,220	14,565	17,912	43,533	54,988	39,268	21,124	12,100	7,783	13,196	9,022	13,703
40%	7,468	12,850	14,830	26,554	43,909	28,818	18,466	9,824	7,257	11,058	8,852	13,020
50%	5,942	11,535	12,026	18,543	31,842	22,098	13,804	8,905	7,083	10,270	8,438	8,100
60%	4,986	8,504	10,684	15,100	22,638	16,751	11,379	8,293	6,693	9,261	7,235	5,791
70%	4,496	6,775	9,658	12,112	16,605	15,397	9,551	7,643	6,279	8,038	4,562	5,142
80%	4,341	6,006	7,232	10,483	13,483	12,079	8,418	7,012	5,692	6,951	3,951	4,633
90%	3,341	4,222	6,005	9,373	11,206	8,470	7,396	6,194	4,999	4,764	3,603	3,785
Long Term												
Full Simulation Period ^d	7,007	12,429	22,548	38,074	48,035	36,312	22,473	14,218	8,927	10,059	7,139	11,789
Water Year Types ^{b,c}												
Wet (32%)	9,721	17,261	25,988	74,970	85,291	65,800	39,722	24,975	13,812	11,481	9,093	22,314
Above Normal (16%)	8,113	15,008	19,189	41,908	57,916	44,653	23,907	13,273	7,293	13,292	9,560	13,178
Below Normal (13%)	7,378	8,451	20,209	16,033	30,870	15,688	11,854	9,615	6,915	12,364	8,209	6,422
Dry (24%)	4,828	11,438	29,212	15,260	22,941	19,561	13,616	8,402	7,027	8,253	4,609	5,038
Critical (15%)	3,221	4,461	9,774	12,205	14,170	10,206	8,039	5,849	5,122	4,373	3,518	3,650

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,554	17,885	63,220	92,609	120,179	75,970	52,726	23,850	8,929	14,335	9,724	24,651
20%	9,568	15,138	33,007	68,930	83,892	60,480	33,935	15,168	7,961	13,986	9,437	23,111
30%	7,699	14,147	20,865	47,373	58,571	49,293	23,879	10,601	7,263	13,703	9,041	14,096
40%	6,464	12,056	15,400	29,549	48,748	31,667	19,035	8,515	7,054	11,704	8,813	12,913
50%	5,564	9,770	13,215	21,330	35,392	24,663	12,353	7,818	6,609	11,105	8,558	7,955
60%	4,936	8,139	10,853	18,638	23,446	19,233	11,122	7,368	6,283	10,360	7,280	5,749
70%	4,457	6,671	9,984	12,877	19,311	17,140	9,246	6,897	6,015	8,713	4,881	4,966
80%	4,341	5,823	7,114	11,077	15,602	12,291	8,437	6,540	5,531	7,129	4,261	4,652
90%	3,349	4,633	6,212	9,791	12,592	8,974	7,417	5,422	4,629	4,491	3,541	3,744
Long Term												
Full Simulation Period ^d	6,652	11,890	23,219	41,887	51,286	40,100	23,242	11,499	7,158	10,493	7,176	11,636
Water Year Types ^{b,c}												
Wet (32%)	9,035	16,780	26,881	81,860	89,690	72,035	41,252	18,578	8,699	11,720	8,980	21,426
Above Normal (16%)	7,809	13,463	19,325	46,924	61,736	49,504	24,403	10,507	6,409	13,589	9,432	14,099
Below Normal (13%)	6,710	8,037	21,013	18,323	34,648	17,700	12,739	9,086	6,489	12,399	7,856	6,258
Dry (24%)	4,702	10,962	29,822	16,674	25,318	22,236	13,975	7,651	6,979	9,319	5,276	5,101
Critical (15%)	3,428	4,671	10,521	13,445	15,286	11,025	8,032	5,862	5,539	4,686	3,371	3,578

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-295	-641	3,437	1,750	4,550	4,433	-1,652	-8,301	-3,642	-56	9	516
20%	-246	-262	67	9,240	9,058	5,532	-2,642	-7,377	-1,133	-245	30	-401
30%	-522	-418	2,952	3,840	3,582	10,025	2,755	-1,499	-520	506	19	392
40%	-1,004	-795	570	2,995	4,839	2,849	569	-1,309	-203	645	-39	-107
50%	-379	-1,764	1,189	2,787	3,550	2,565	-1,452	-1,087	-474	835	120	-145
60%	-50	-365	169	3,539	807	2,482	-256	-925	-410	1,099	45	-43
70%	-39	-104	327	765	2,706	1,743	-305	-746	-264	675	319	-176
80%	0	-183	-117	594	2,118	211	19	-472	-161	178	310	19
90%	8	411	207	418	1,385	504	21	-772	-369	-273	-62	-41
Long Term												
Full Simulation Period ^d	-356	-538	670	3,813	3,250	3,788	769	-2,719	-1,769	434	38	-153
Water Year Types ^{b,c}												
Wet (32%)	-686	-481	893	6,890	4,399	6,235	1,530	-6,397	-5,113	240	-113	-888
Above Normal (16%)	-304	-1,545	136	5,016	3,820	4,851	496	-2,765	-884	297	-128	921
Below Normal (13%)	-668	-414	804	2,290	3,778	2,011	885	-529	-426	35	-353	-164
Dry (24%)	-126	-476	609	1,414	2,377	2,674	360	-751	-48	1,066	666	63
Critical (15%)	207	210	747	1,240	1,117	820	-7	13	417	313	-146	-73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-4. Sacramento River Flow at Rio Vista, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,414	18,468	64,178	93,058	115,874	79,154	54,328	32,159	12,577	13,893	10,059	8,810
20%	8,242	11,033	36,722	60,978	75,463	55,156	36,478	22,548	9,439	13,109	9,926	8,065
30%	7,491	9,282	20,239	44,714	56,098	41,414	21,251	12,134	8,820	12,096	9,701	7,735
40%	7,059	8,931	15,406	27,126	47,537	29,298	18,546	11,077	8,643	10,428	9,201	7,338
50%	6,462	8,589	11,924	20,007	32,053	23,066	13,777	9,883	8,392	9,872	8,928	6,673
60%	5,254	7,935	10,899	16,562	23,345	17,736	11,475	9,142	8,144	9,066	7,338	5,513
70%	4,787	6,032	10,230	12,559	17,489	15,555	9,757	8,423	7,590	8,187	4,645	4,887
80%	4,341	5,439	8,967	10,479	14,146	11,698	8,716	7,780	6,739	5,902	4,071	4,559
90%	3,341	3,908	6,171	9,529	11,598	8,917	7,740	6,816	5,909	4,213	3,393	3,755
Long Term												
Full Simulation Period ^d	6,838	10,681	24,031	39,128	49,295	37,245	22,633	14,671	9,811	9,573	7,424	6,439
Water Year Types ^{b,c}												
Wet (32%)	9,023	13,338	29,420	76,890	86,802	66,580	39,861	24,920	14,320	11,091	9,790	8,214
Above Normal (16%)	7,672	12,537	20,681	43,053	60,292	47,247	24,160	13,837	8,313	12,513	9,761	7,739
Below Normal (13%)	7,588	8,100	20,465	17,082	33,479	16,783	12,189	10,567	8,691	11,492	8,532	6,362
Dry (24%)	5,136	11,251	29,669	15,438	23,112	19,811	13,729	9,441	8,181	7,947	4,668	5,048
Critical (15%)	3,348	4,328	9,858	12,749	14,253	10,662	8,065	5,844	5,409	4,052	3,342	3,573

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,188	17,841	67,447	96,826	120,210	85,685	53,120	23,856	9,985	13,284	10,139	8,096
20%	7,576	10,237	37,231	70,569	83,889	61,229	33,940	14,531	9,292	12,526	9,858	7,821
30%	7,340	8,856	22,777	50,600	60,979	49,052	23,809	12,133	8,491	11,859	9,434	7,472
40%	6,633	8,521	15,643	32,211	53,760	32,003	19,121	10,578	8,364	10,897	8,753	6,848
50%	5,900	8,173	13,686	23,320	35,324	25,162	12,416	9,211	7,993	9,903	8,170	6,024
60%	5,104	7,401	11,209	18,818	24,247	20,140	11,378	8,519	7,609	9,349	7,610	5,342
70%	4,632	6,161	9,910	13,630	20,009	17,327	9,281	7,775	7,095	7,854	4,794	4,774
80%	4,341	5,412	8,291	11,017	15,758	11,913	8,705	7,024	6,360	6,416	3,998	4,354
90%	3,349	4,381	6,612	9,936	12,706	9,617	7,944	6,296	5,628	4,406	3,544	3,587
Long Term												
Full Simulation Period ^d	6,368	10,300	24,831	43,142	52,487	41,115	23,376	12,243	8,156	9,542	7,272	6,161
Water Year Types ^{b,c}												
Wet (32%)	8,166	13,125	30,159	84,095	90,946	72,746	41,341	19,085	9,460	10,582	9,493	7,790
Above Normal (16%)	7,308	11,437	20,865	48,590	64,269	52,386	24,527	11,354	7,687	12,293	9,476	7,364
Below Normal (13%)	6,968	7,776	21,224	20,289	36,877	19,013	12,885	10,289	8,232	11,234	7,696	5,909
Dry (24%)	4,843	10,764	31,025	16,834	25,489	22,557	14,159	8,682	8,015	8,594	5,091	4,974
Critical (15%)	3,445	4,485	10,565	13,302	15,704	11,566	8,183	6,111	6,007	4,338	3,316	3,537

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-226	-627	3,269	3,768	4,336	6,530	-1,208	-8,304	-2,592	-609	80	-713
20%	-666	-796	509	9,591	8,426	6,073	-2,538	-8,017	-147	-583	-68	-243
30%	-151	-426	2,537	5,886	4,881	7,638	2,558	-1	-329	-237	-268	-263
40%	-426	-410	237	5,085	6,224	2,705	575	-499	-279	470	-447	-491
50%	-562	-415	1,762	3,313	3,271	2,096	-1,361	-672	-399	30	-758	-649
60%	-150	-534	311	2,256	902	2,404	-97	-623	-535	282	271	-171
70%	-155	129	-320	1,071	2,520	1,772	-476	-648	-496	-333	149	-112
80%	0	-27	-676	538	1,612	215	-12	-756	-379	514	-72	-205
90%	8	473	441	406	1,108	700	204	-521	-281	192	150	-168
Long Term												
Full Simulation Period ^d	-470	-381	800	4,014	3,192	3,871	743	-2,427	-1,655	-31	-152	-278
Water Year Types ^{b,c}												
Wet (32%)	-857	-213	740	7,205	4,144	6,165	1,480	-5,836	-4,860	-509	-297	-424
Above Normal (16%)	-364	-1,099	185	5,537	3,977	5,139	367	-2,483	-626	-220	-284	-375
Below Normal (13%)	-620	-324	759	3,207	3,398	2,229	697	-278	-459	-259	-836	-453
Dry (24%)	-293	-486	1,356	1,396	2,377	2,746	430	-760	-165	647	423	-74
Critical (15%)	97	157	707	553	1,451	904	118	267	597	286	-26	-36

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

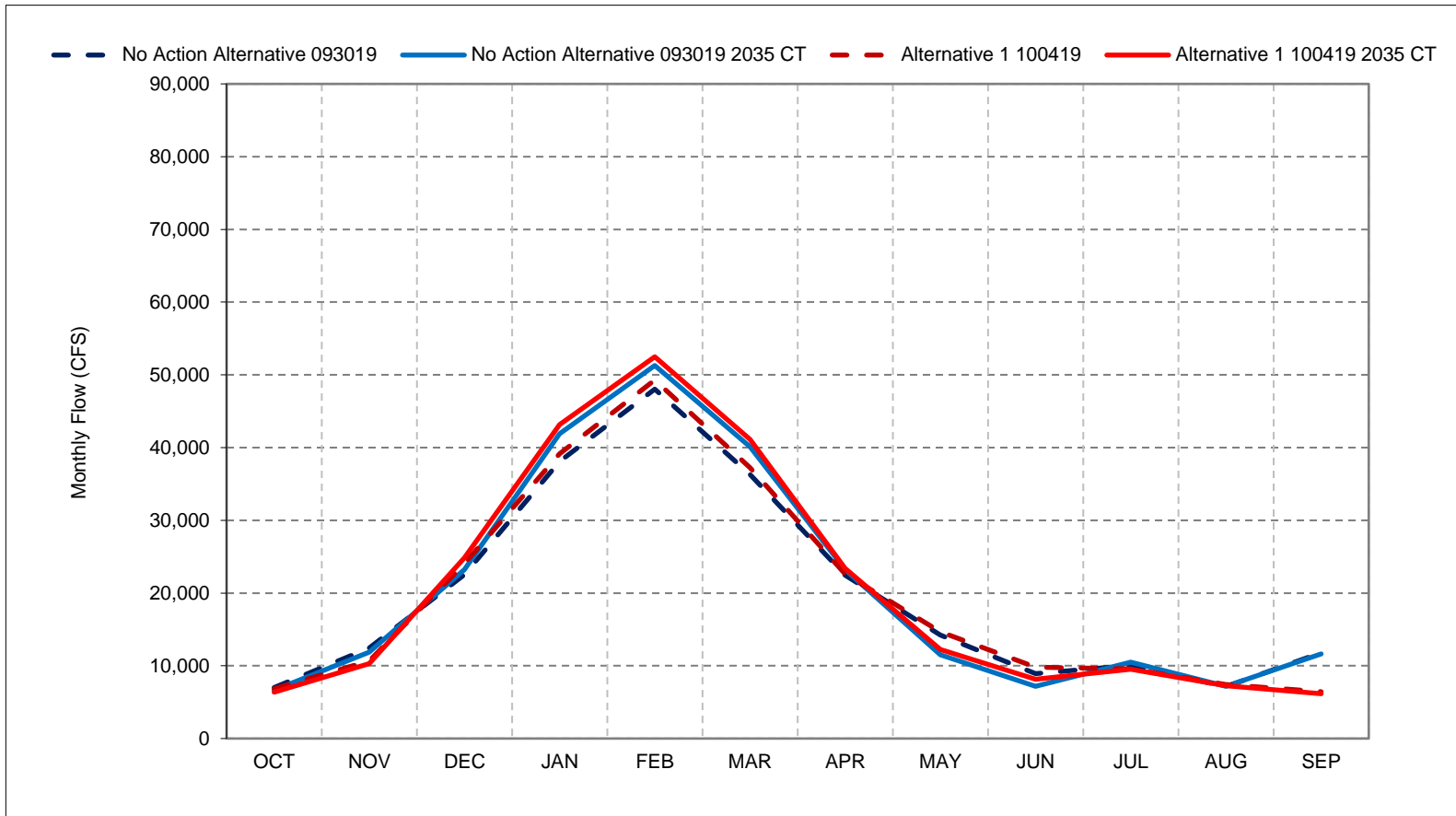
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 32-1. Sacramento River Flow at Rio Vista, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

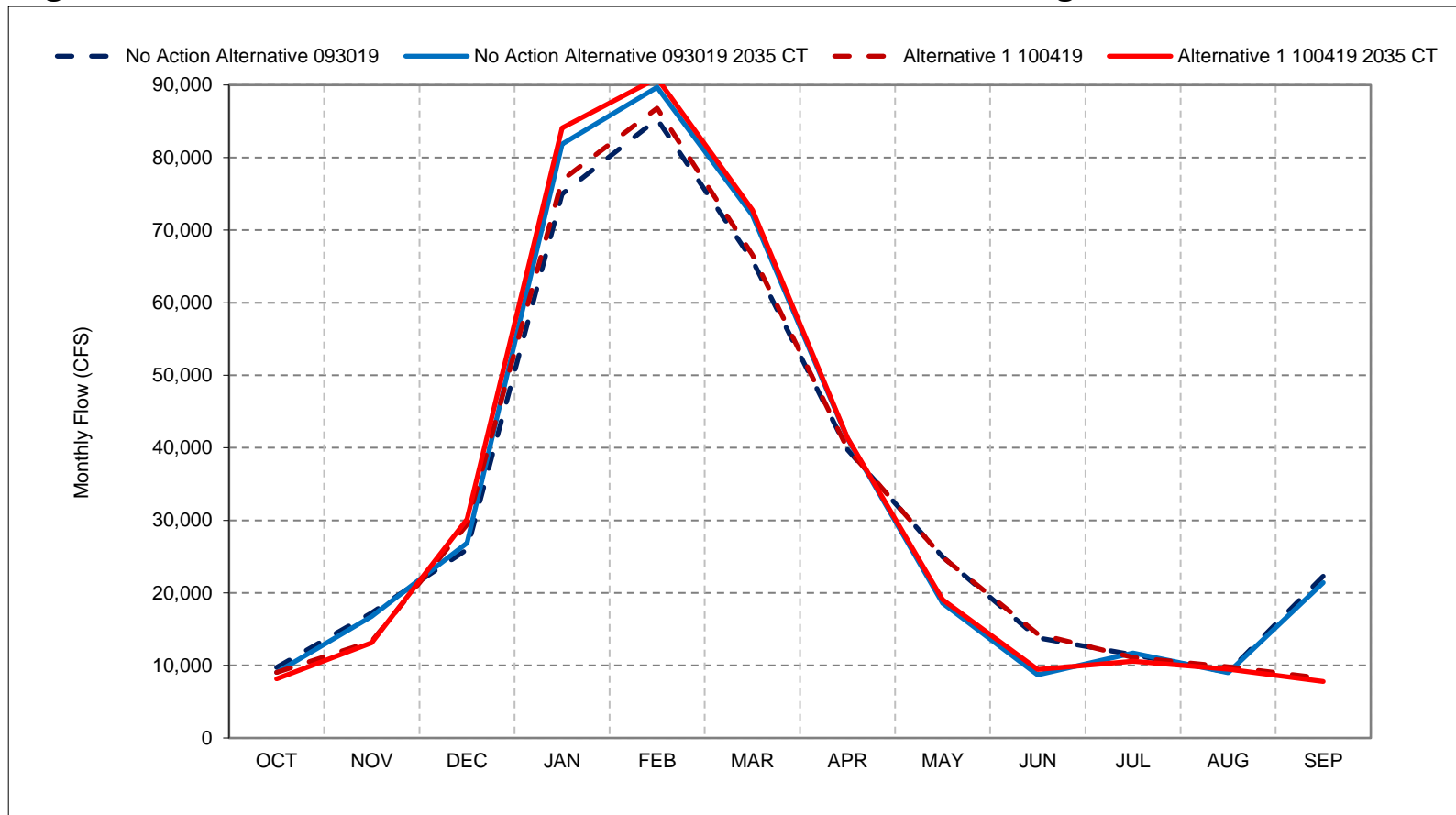
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-2. Sacramento River Flow at Rio Vista, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

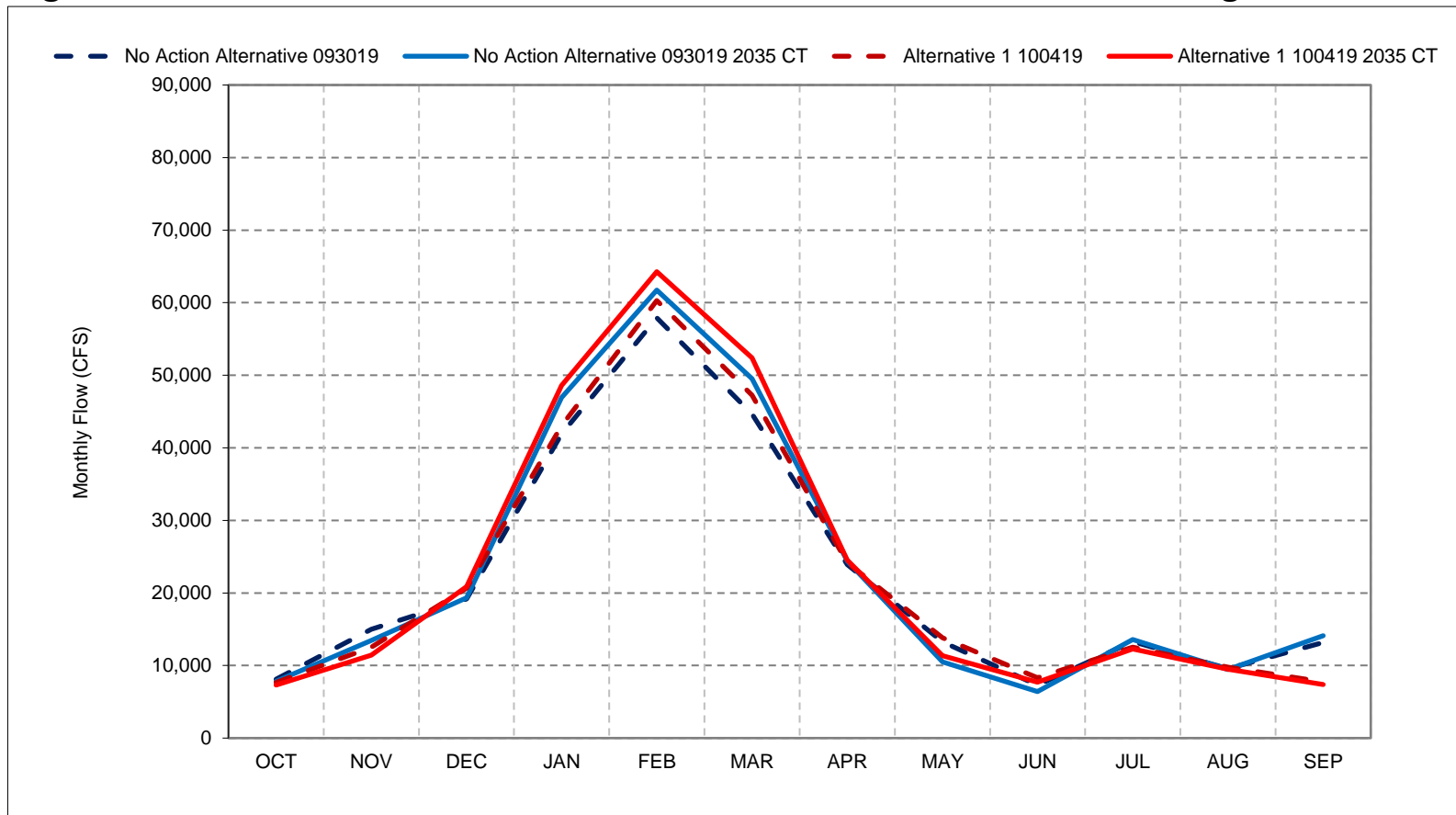
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-3. Sacramento River Flow at Rio Vista, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

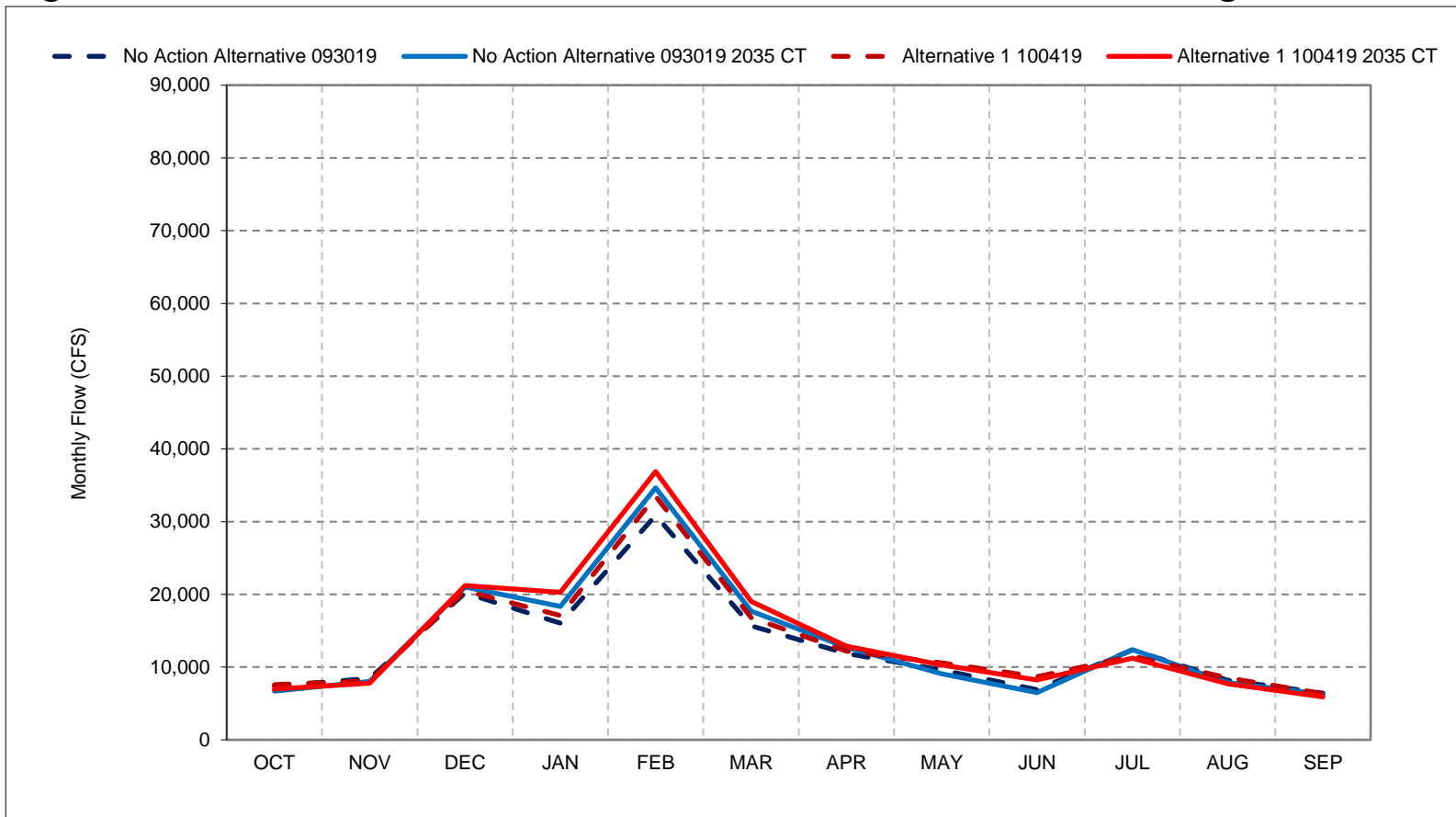
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-4. Sacramento River Flow at Rio Vista, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

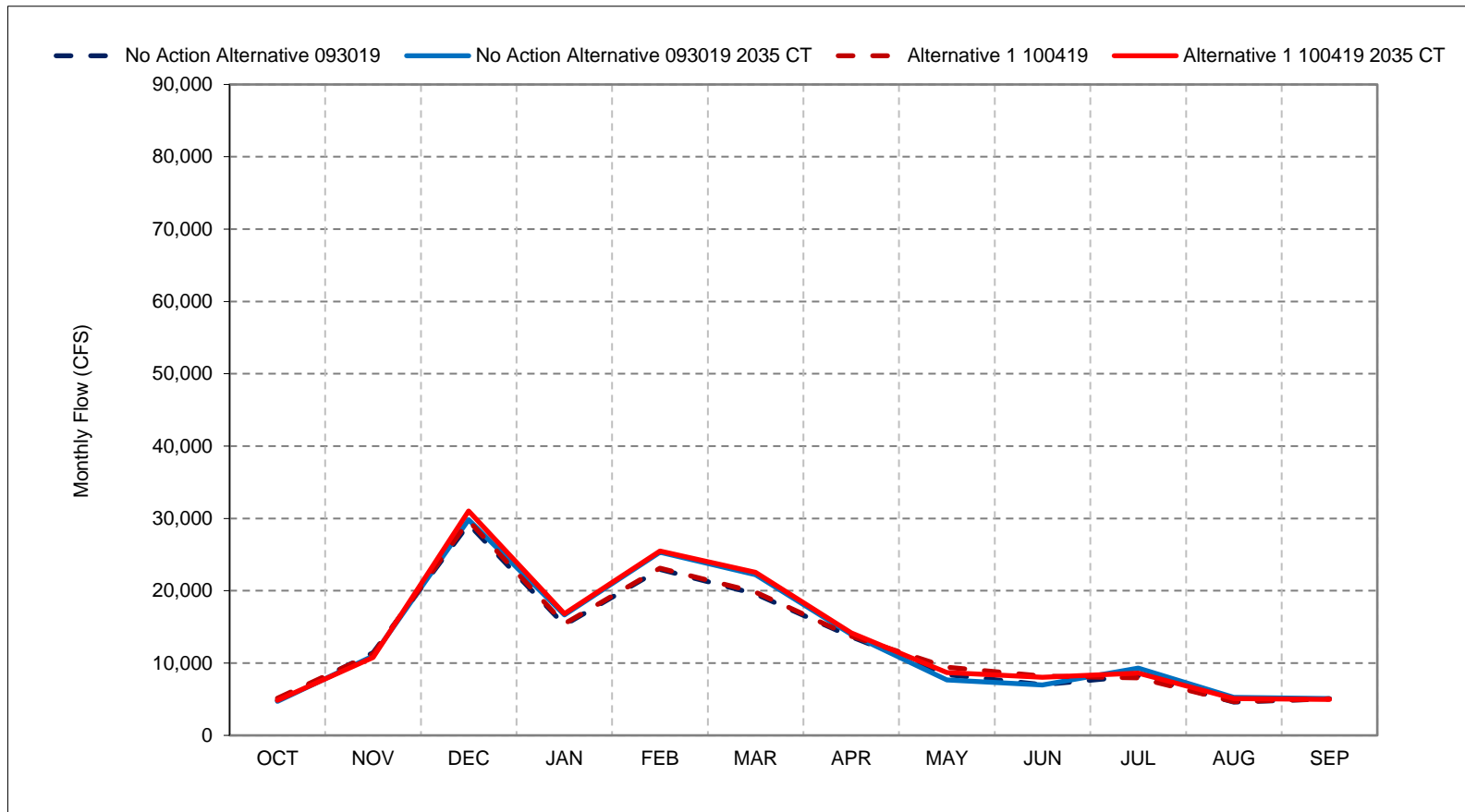
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-5. Sacramento River Flow at Rio Vista, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

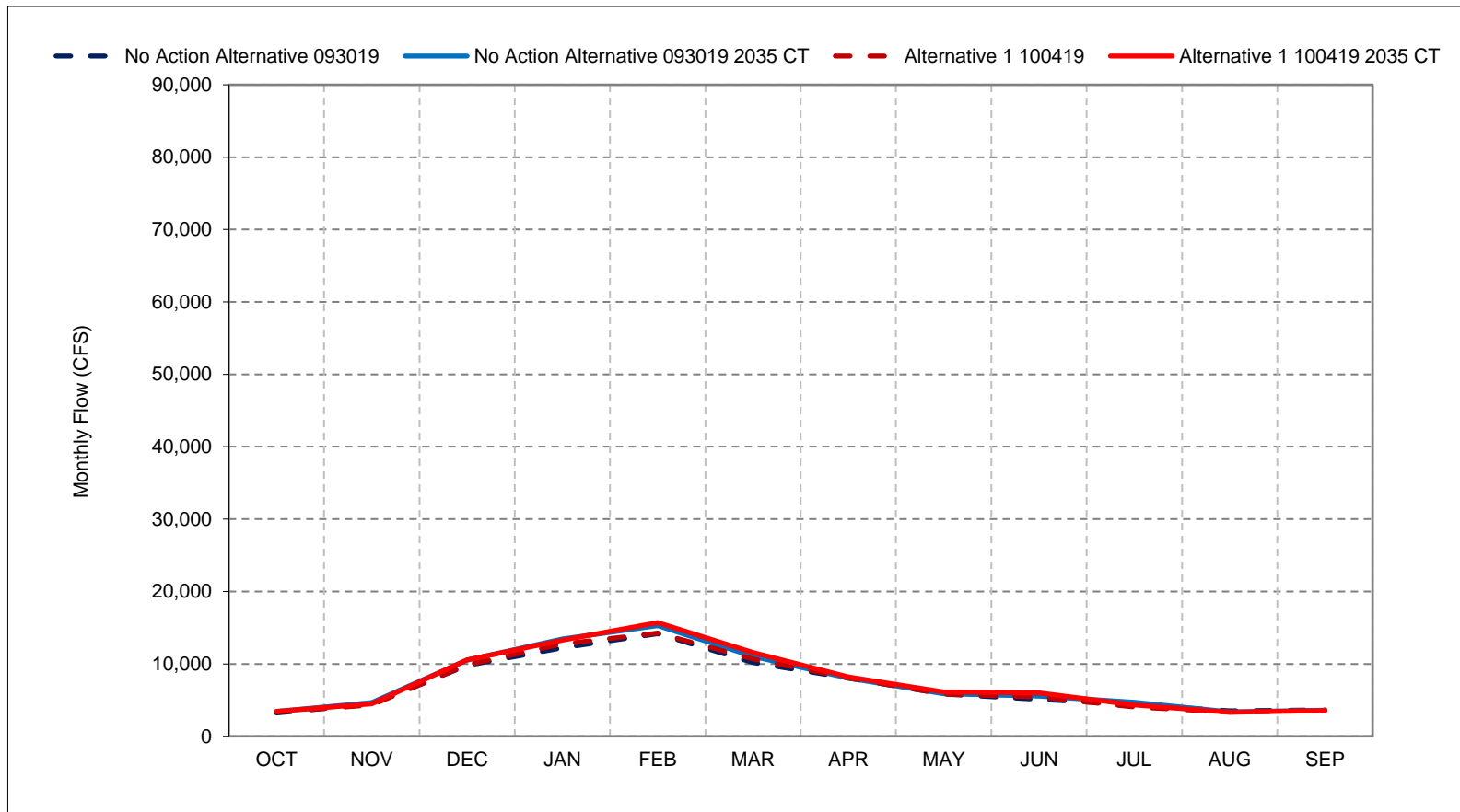
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-6. Sacramento River Flow at Rio Vista, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

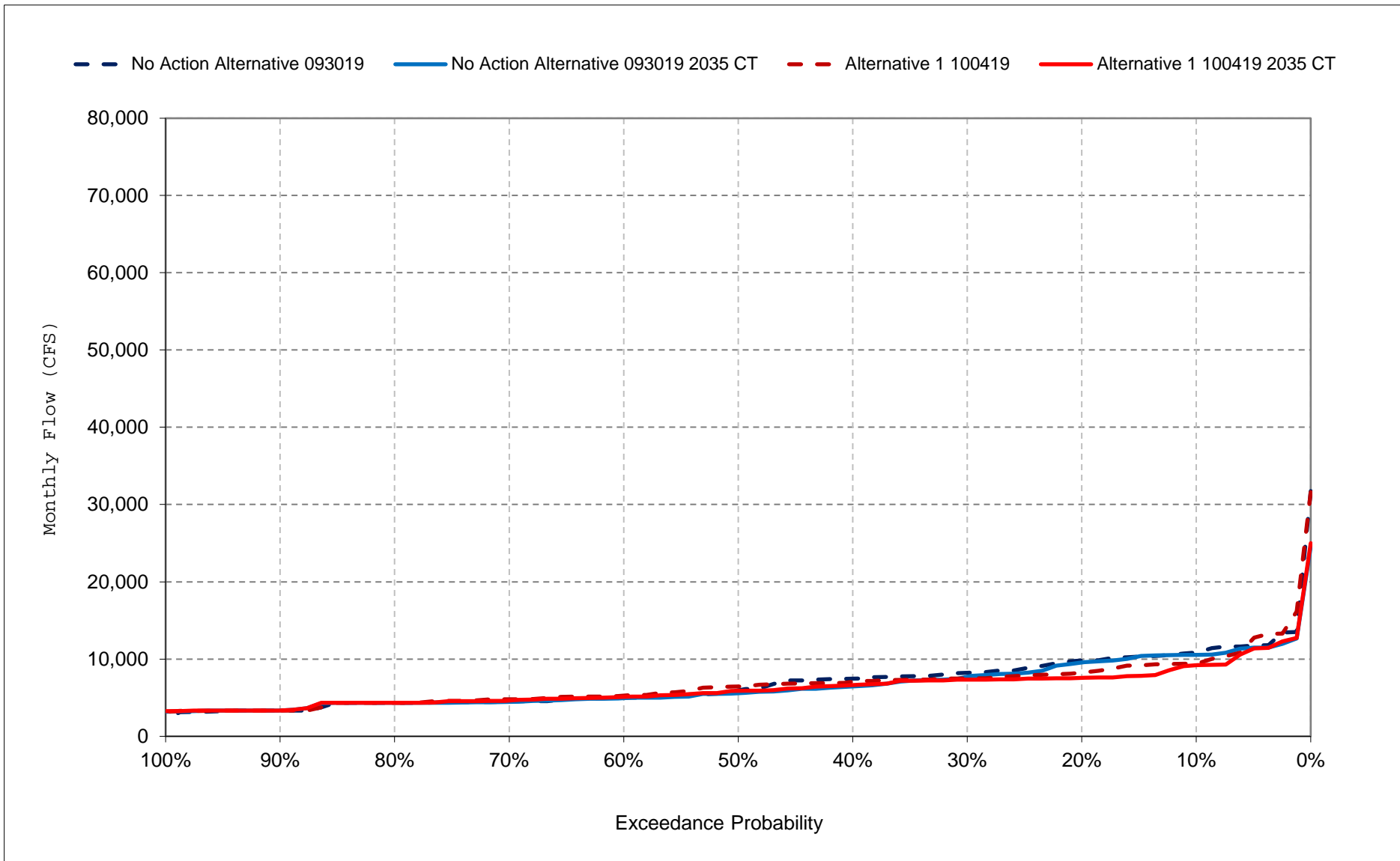
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

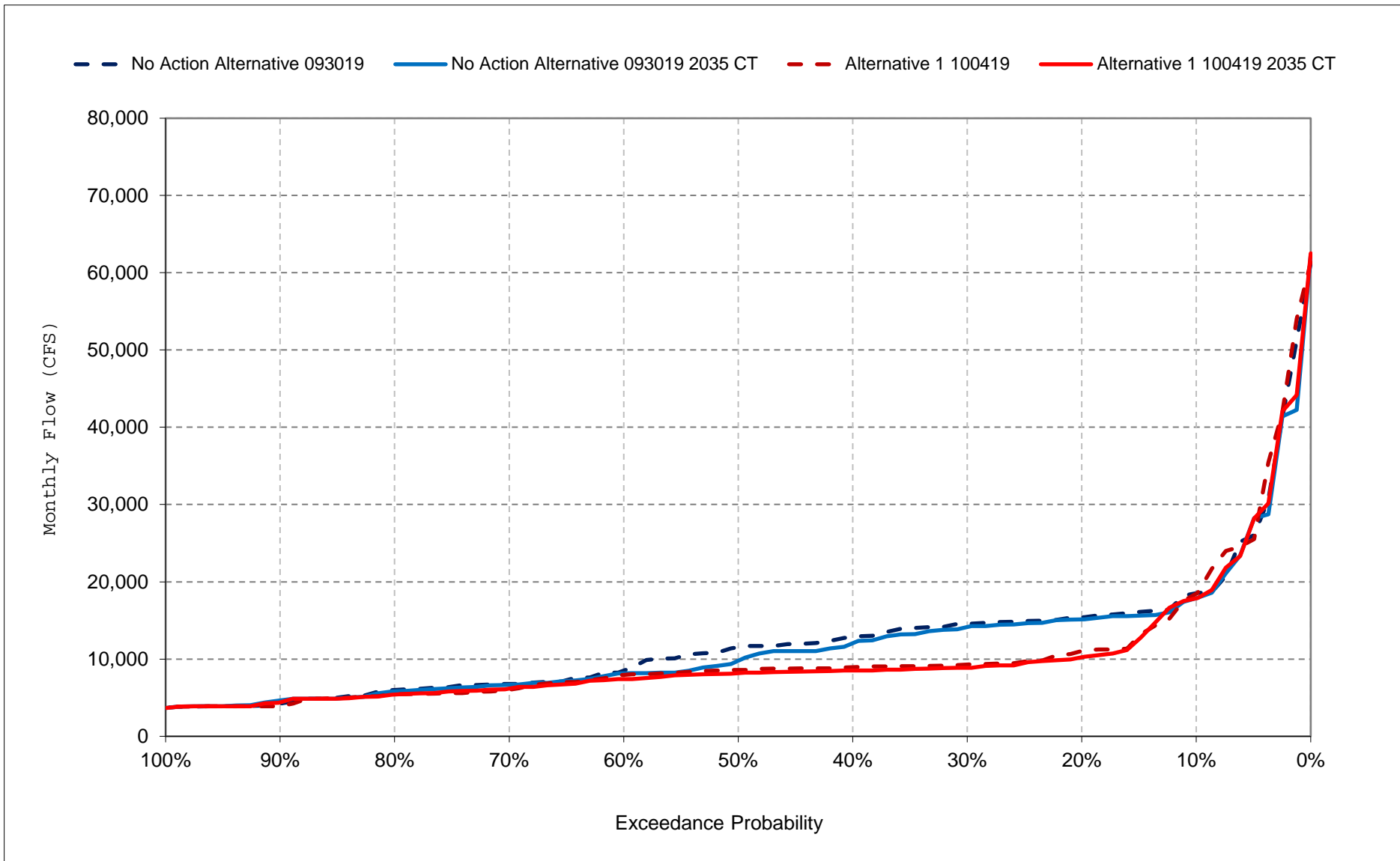
Figure 32-7. Sacramento River Flow at Rio Vista, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

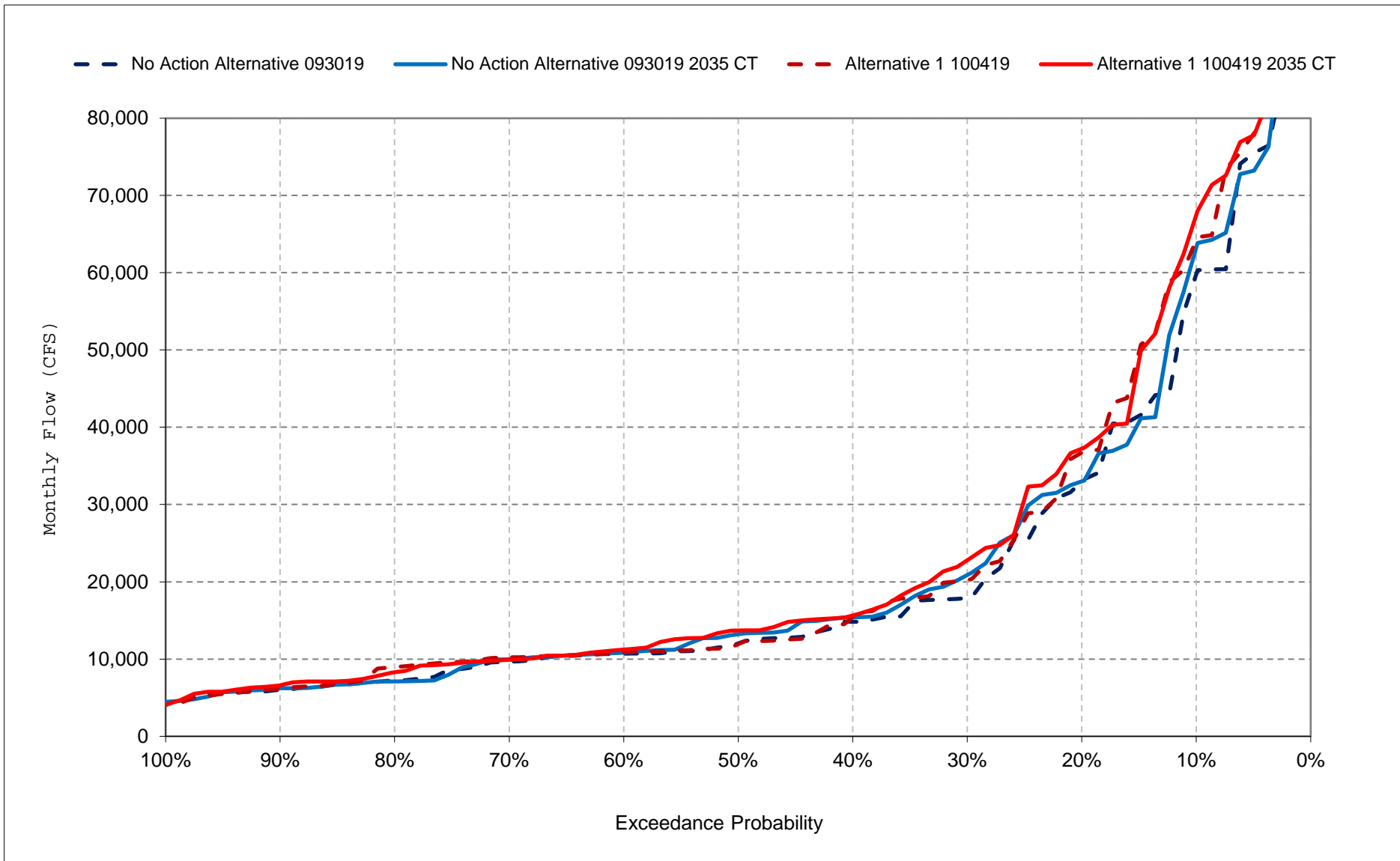
Figure 32-8. Sacramento River Flow at Rio Vista, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

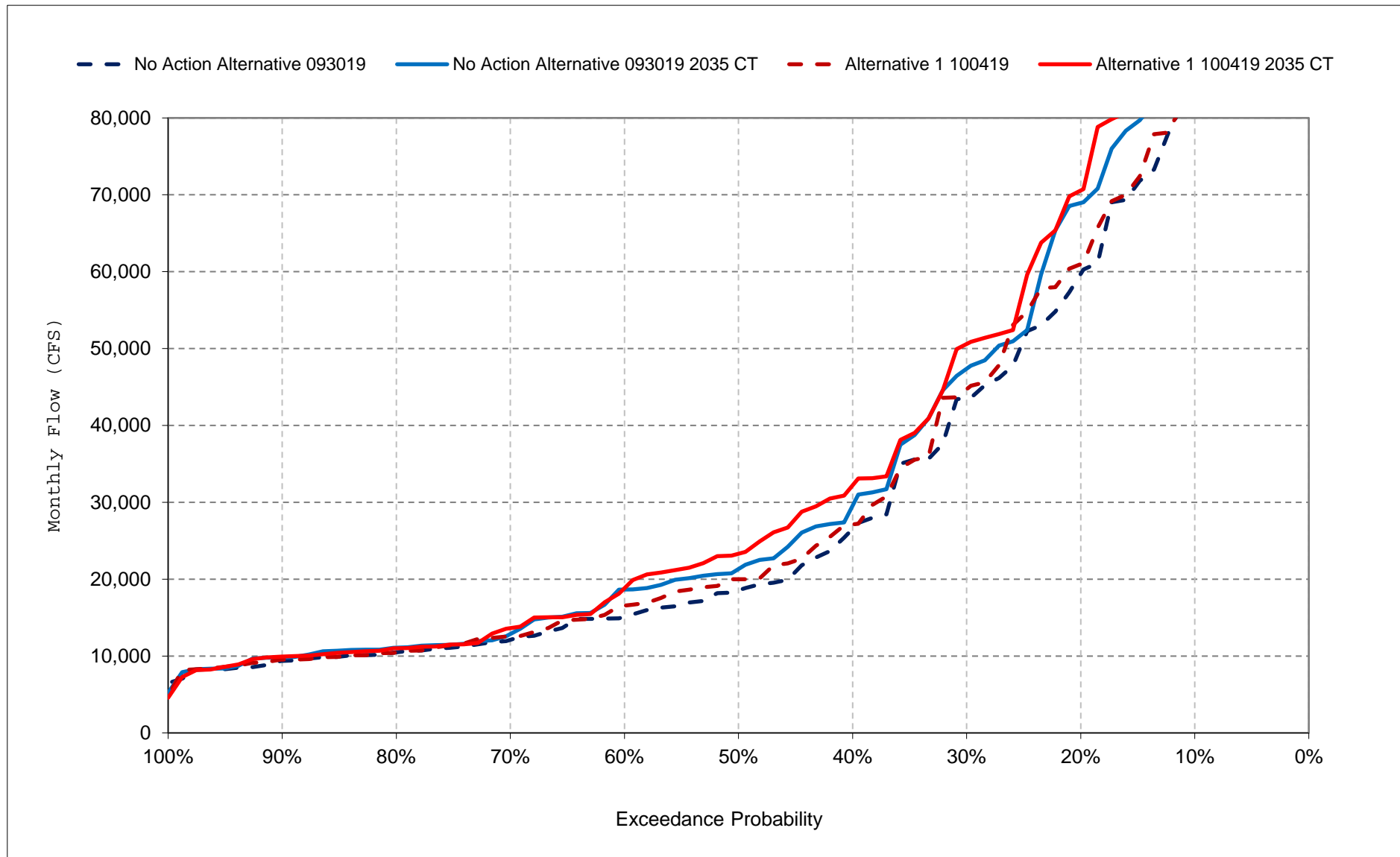
Figure 32-9. Sacramento River Flow at Rio Vista, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

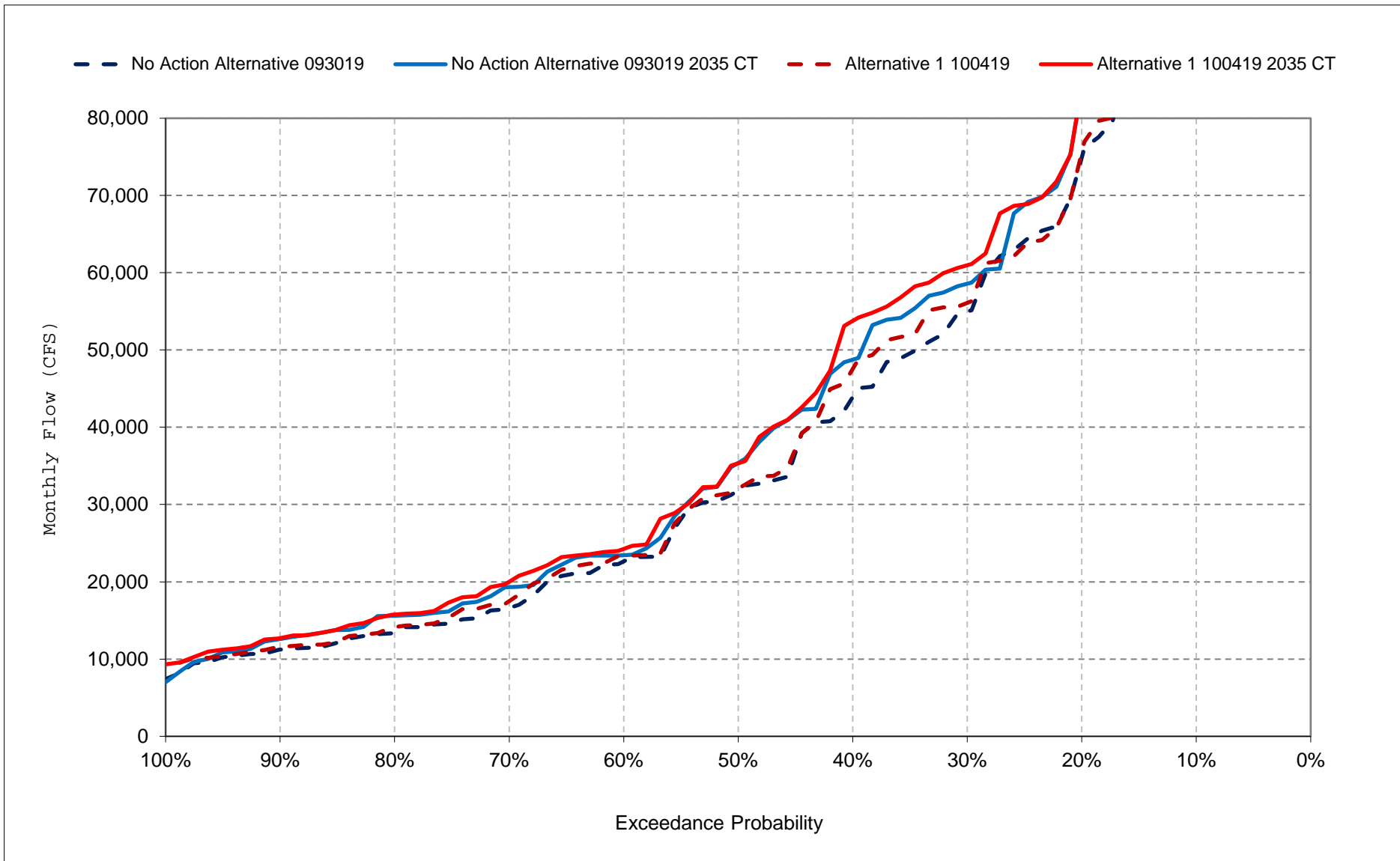
Figure 32-10. Sacramento River Flow at Rio Vista, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

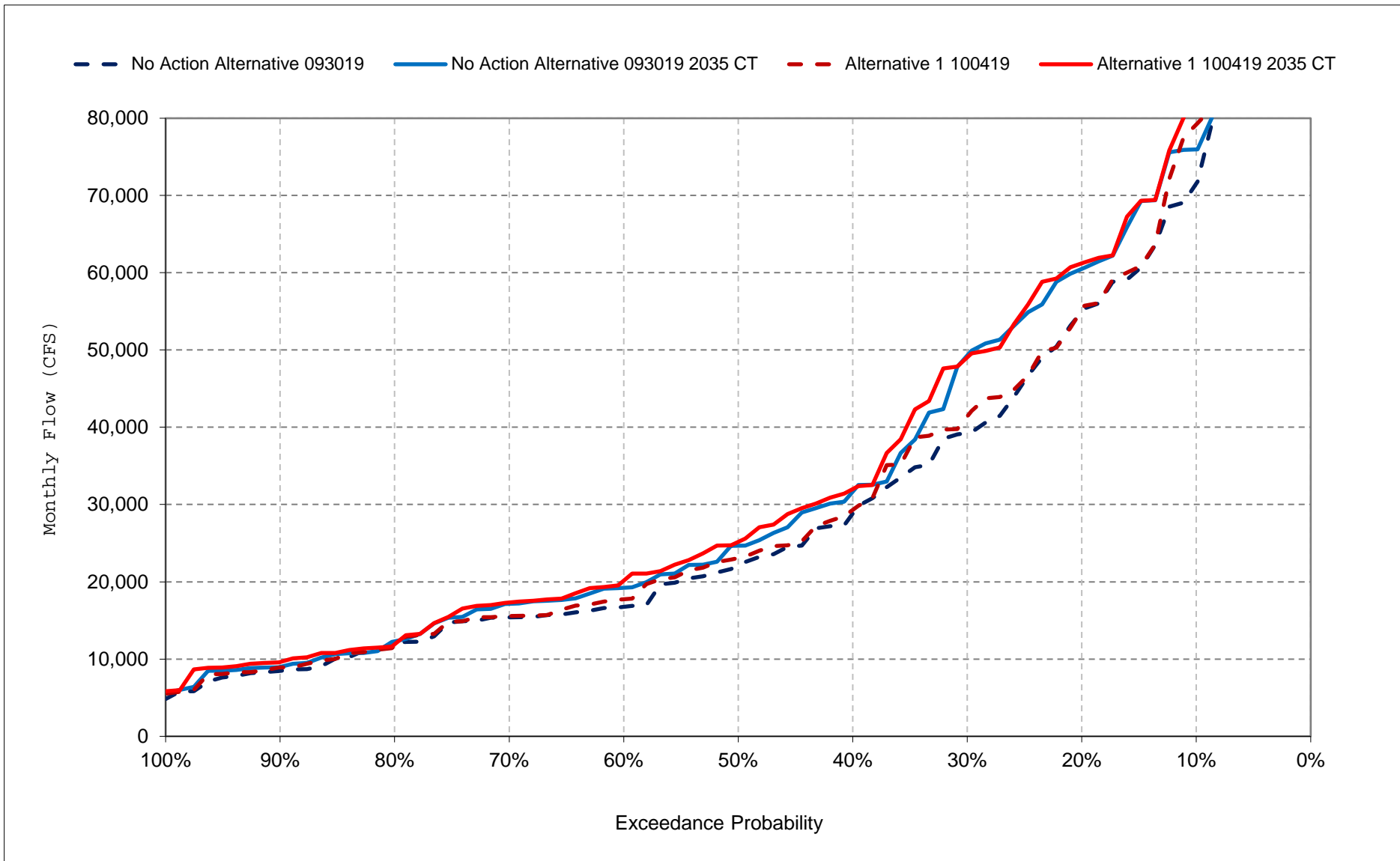
Figure 32-11. Sacramento River Flow at Rio Vista, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

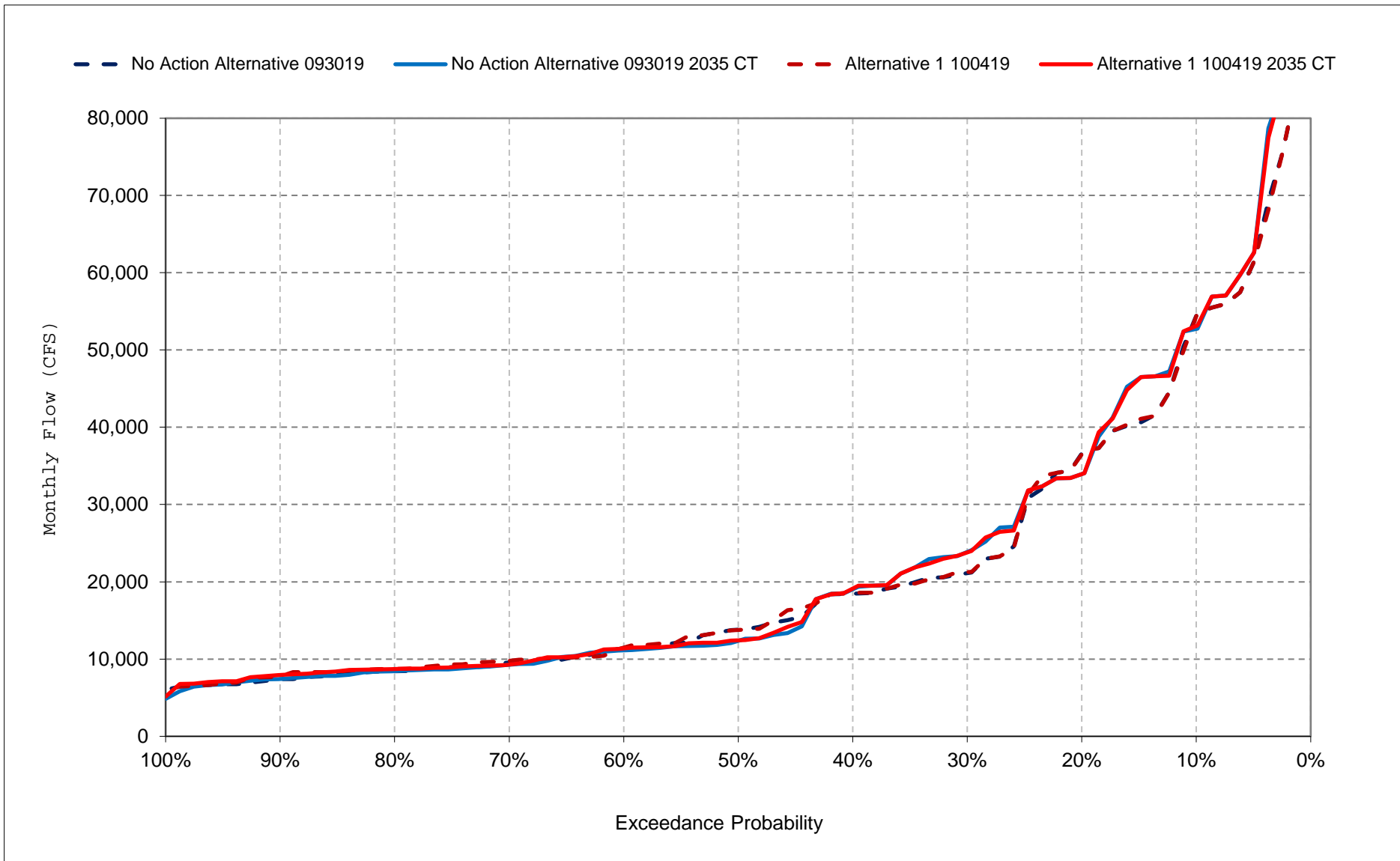
Figure 32-12. Sacramento River Flow at Rio Vista, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

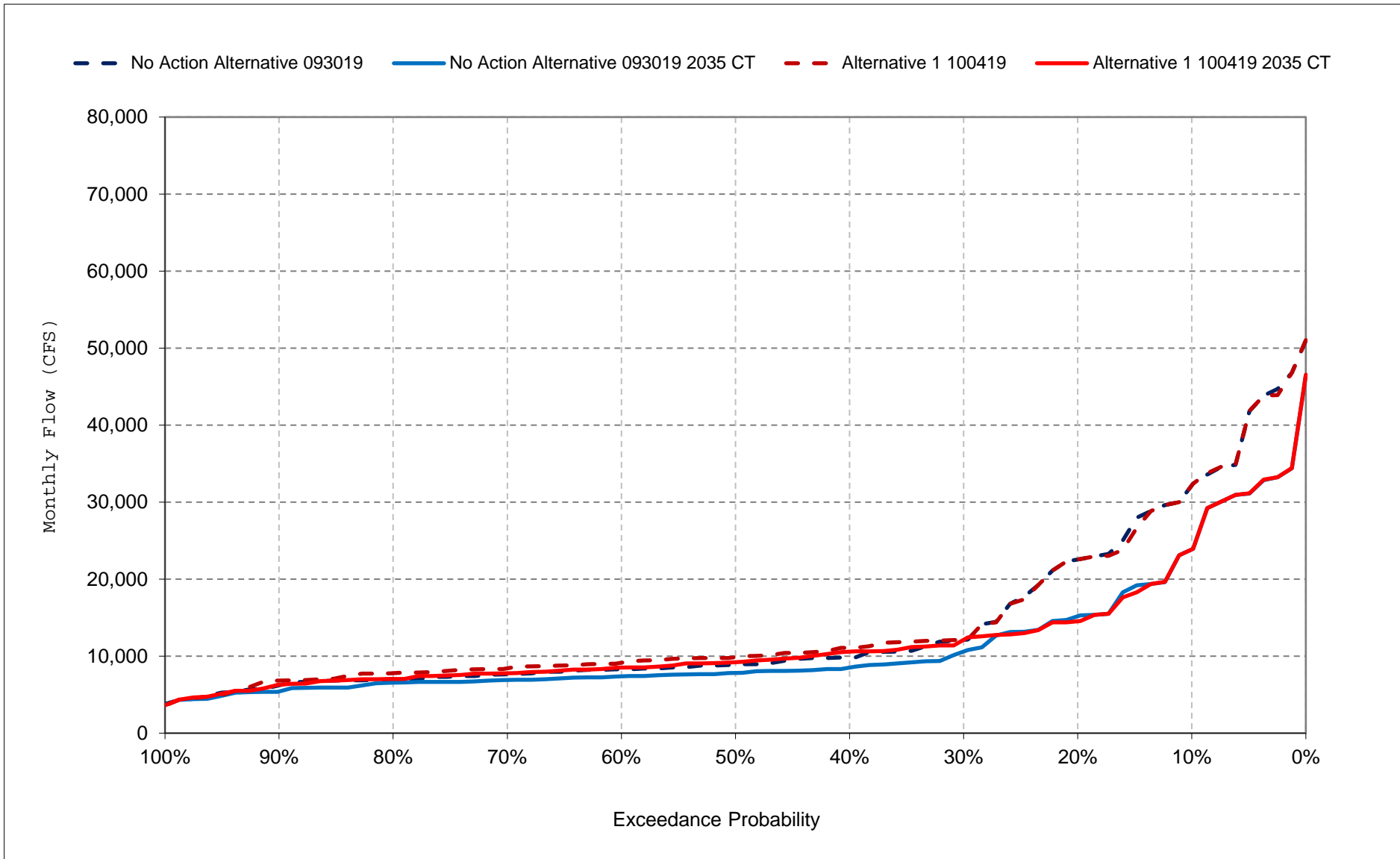
Figure 32-13. Sacramento River Flow at Rio Vista, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

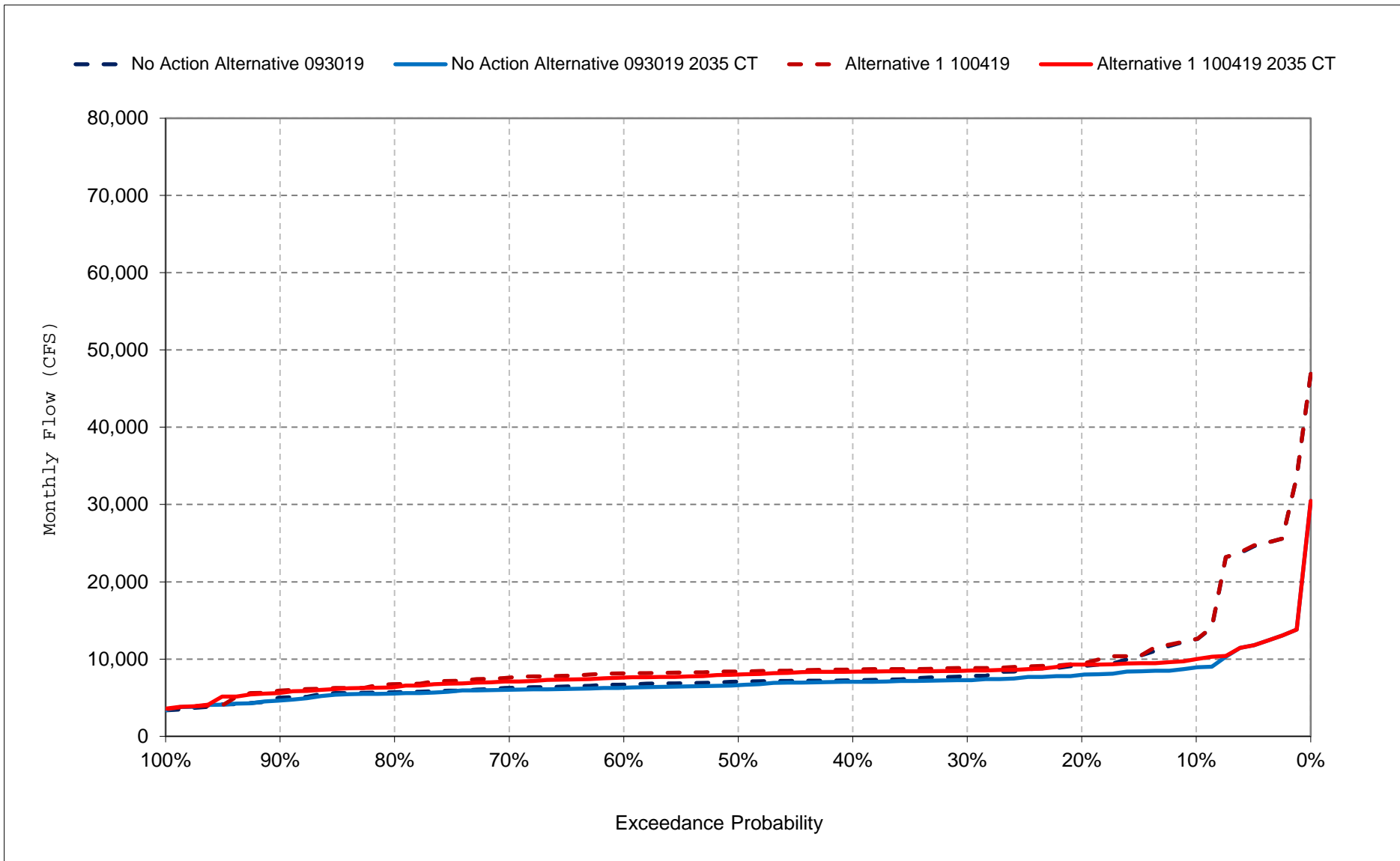
Figure 32-14. Sacramento River Flow at Rio Vista, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

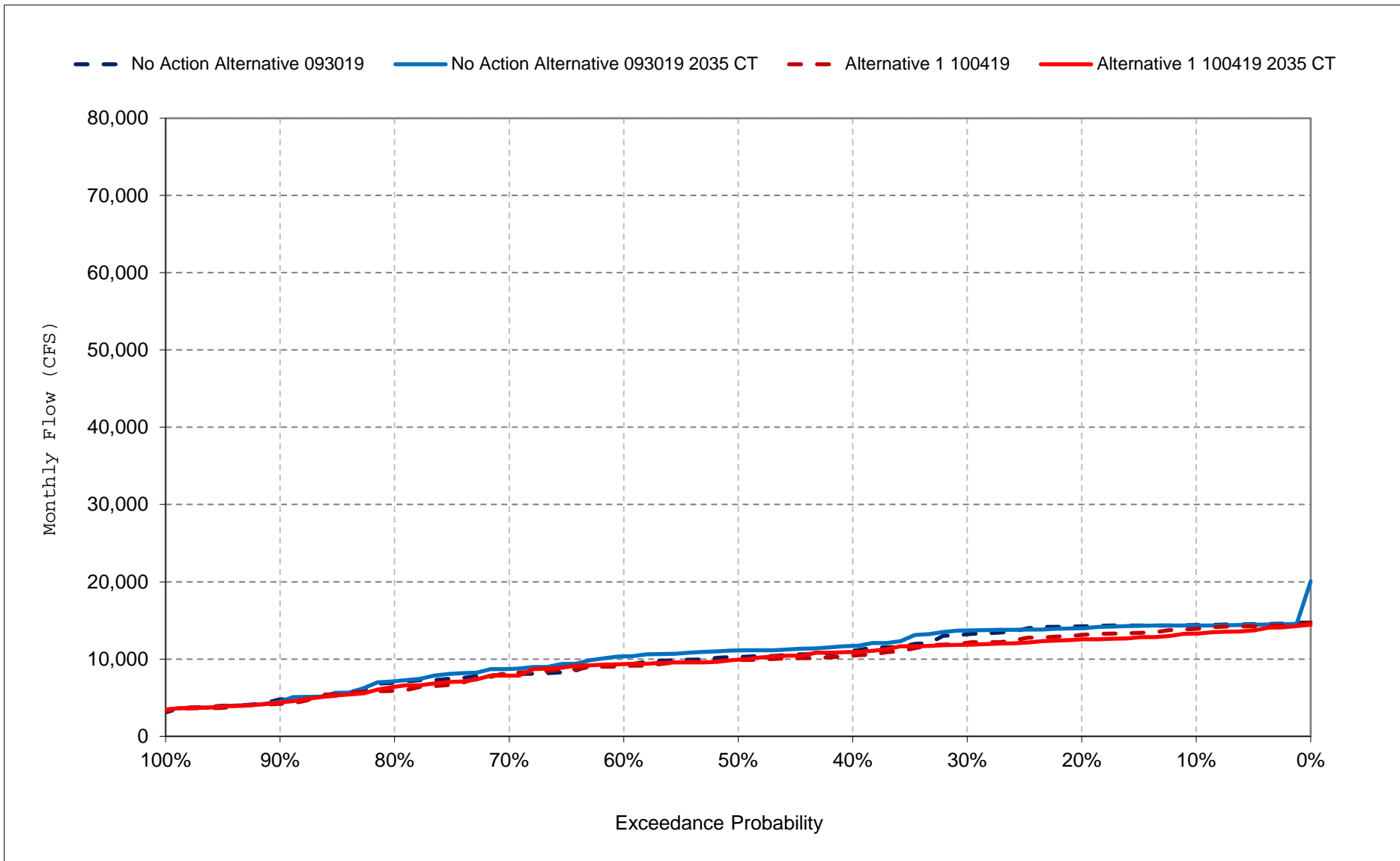
Figure 32-15. Sacramento River Flow at Rio Vista, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

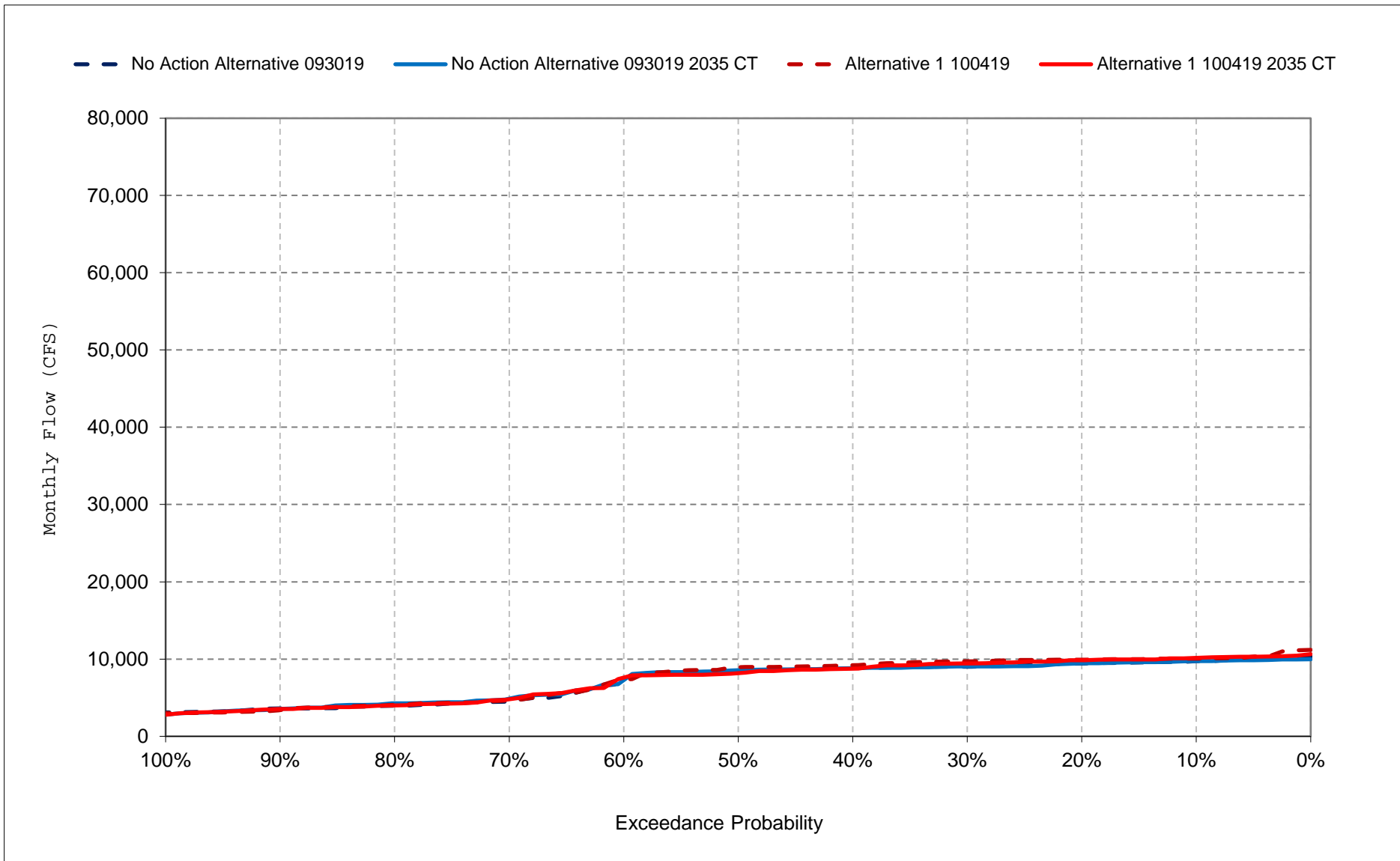
Figure 32-16. Sacramento River Flow at Rio Vista, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

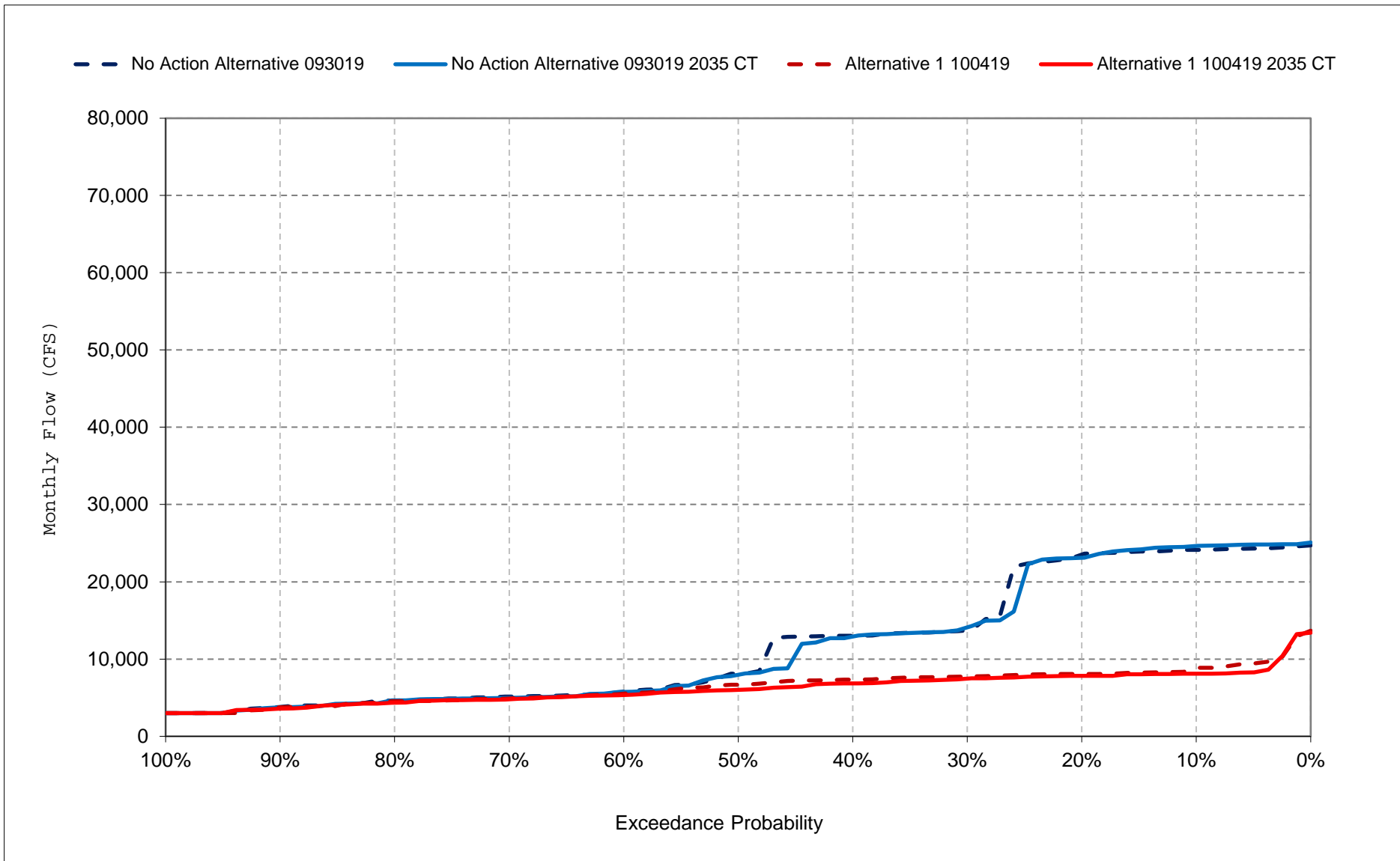
Figure 32-17. Sacramento River Flow at Rio Vista, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 32-18. Sacramento River Flow at Rio Vista, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-1. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 33-2. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,444	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,447	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	3	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-3. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,444	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,177	729	726	346	1,156	-412	0	0	0
20%	0	0	0	642	1,199	432	0	521	-60	0	0	0
30%	0	0	0	44	1,086	85	0	193	-70	0	0	0
40%	0	0	0	0	389	0	0	85	0	0	0	0
50%	0	0	0	0	60	0	0	0	0	0	0	0
60%	0	0	0	0	3	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	8	69	281	460	145	83	233	-36	-123	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	34	155	789	971	478	335	603	-67	-532	0	0
Above Normal (24%)	0	0	12	361	889	131	23	383	-85	0	0	0
Below Normal (10%)	0	0	0	95	173	0	0	0	0	0	0	0
Dry (16%)	0	0	79	4	6	0	0	0	0	0	0	0
Critical (27%)	0	0	67	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-4. San Joaquin River Flow at Gravelly Ford, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,447	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,177	729	726	349	1,156	-412	0	0	0
20%	0	0	0	642	1,199	432	0	521	-60	0	0	0
30%	0	0	0	44	1,086	85	0	193	-70	0	0	0
40%	0	0	0	0	389	0	0	85	0	0	0	0
50%	0	0	0	0	60	0	0	0	0	0	0	0
60%	0	0	0	0	3	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	8	69	281	460	145	83	233	-36	-123	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	34	155	789	971	478	335	603	-67	-532	0	0
Above Normal (24%)	0	0	12	361	889	131	23	383	-85	0	0	0
Below Normal (10%)	0	0	0	95	173	0	0	0	0	0	0	0
Dry (16%)	0	0	79	4	6	0	0	0	0	0	0	0
Critical (27%)	0	0	67	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

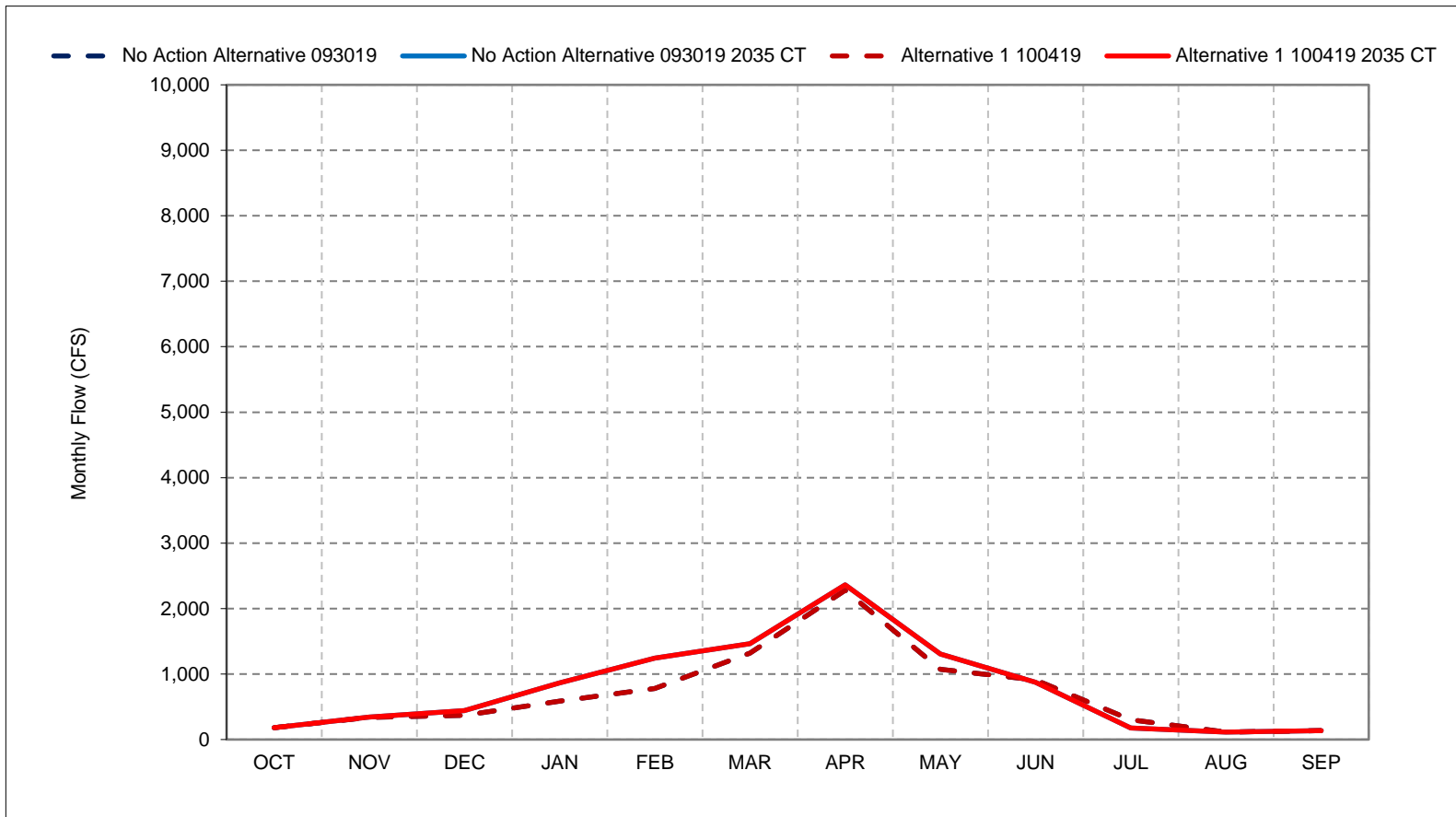
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 33-1. San Joaquin River Flow at Gravelly Ford, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

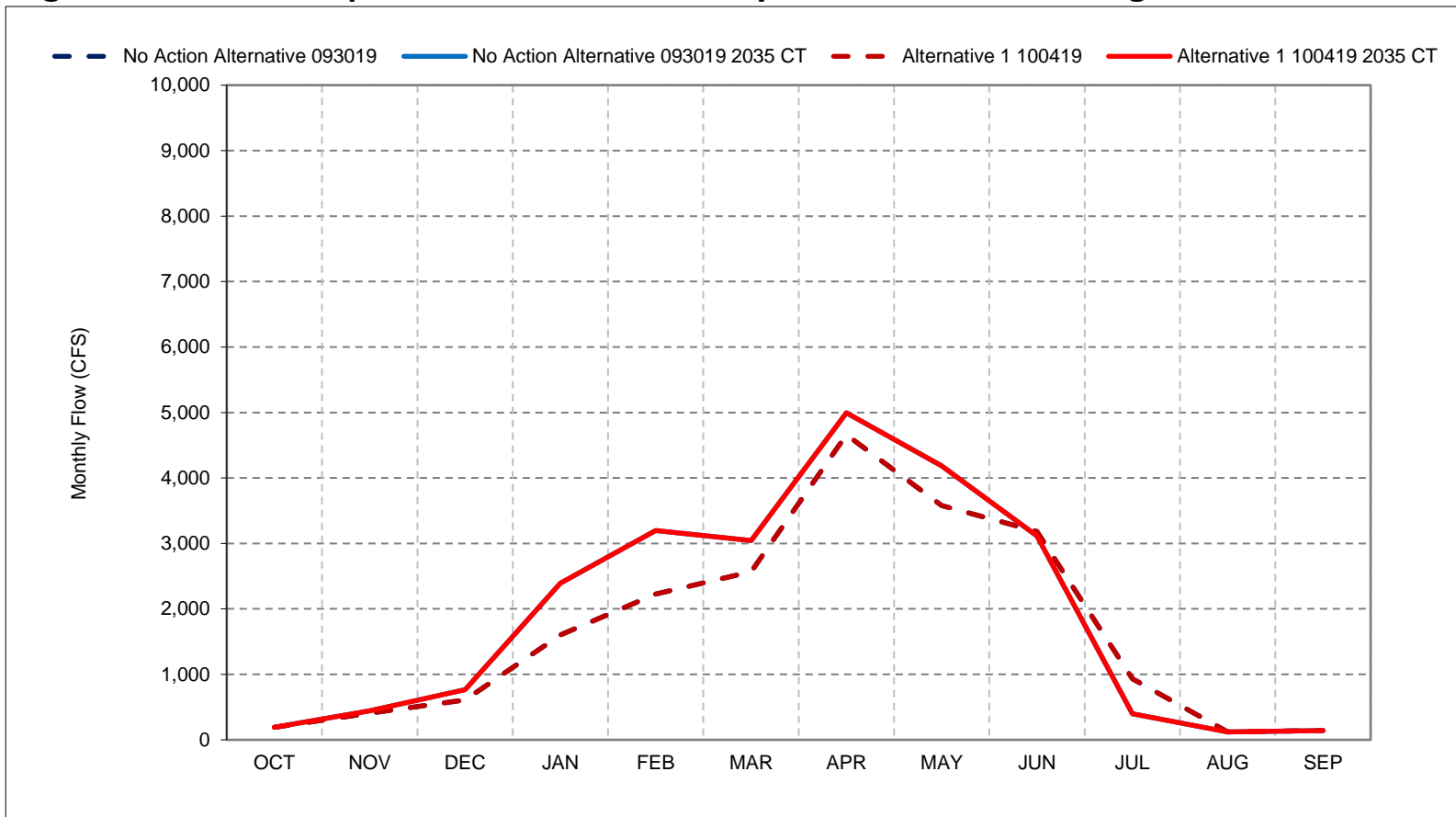
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-2. San Joaquin River Flow at Gravelly Ford, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

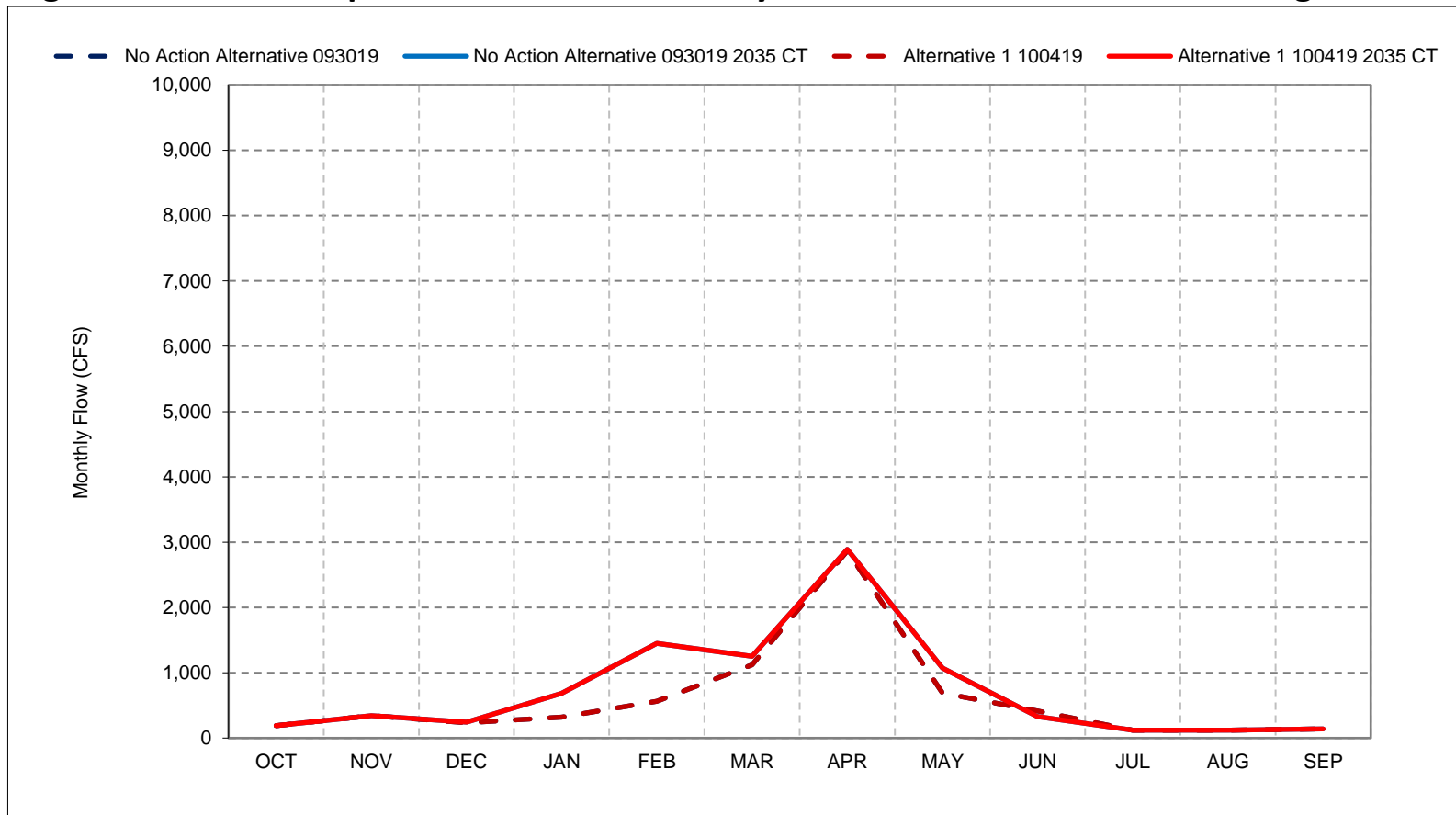
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-3. San Joaquin River Flow at Gravelly Ford, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

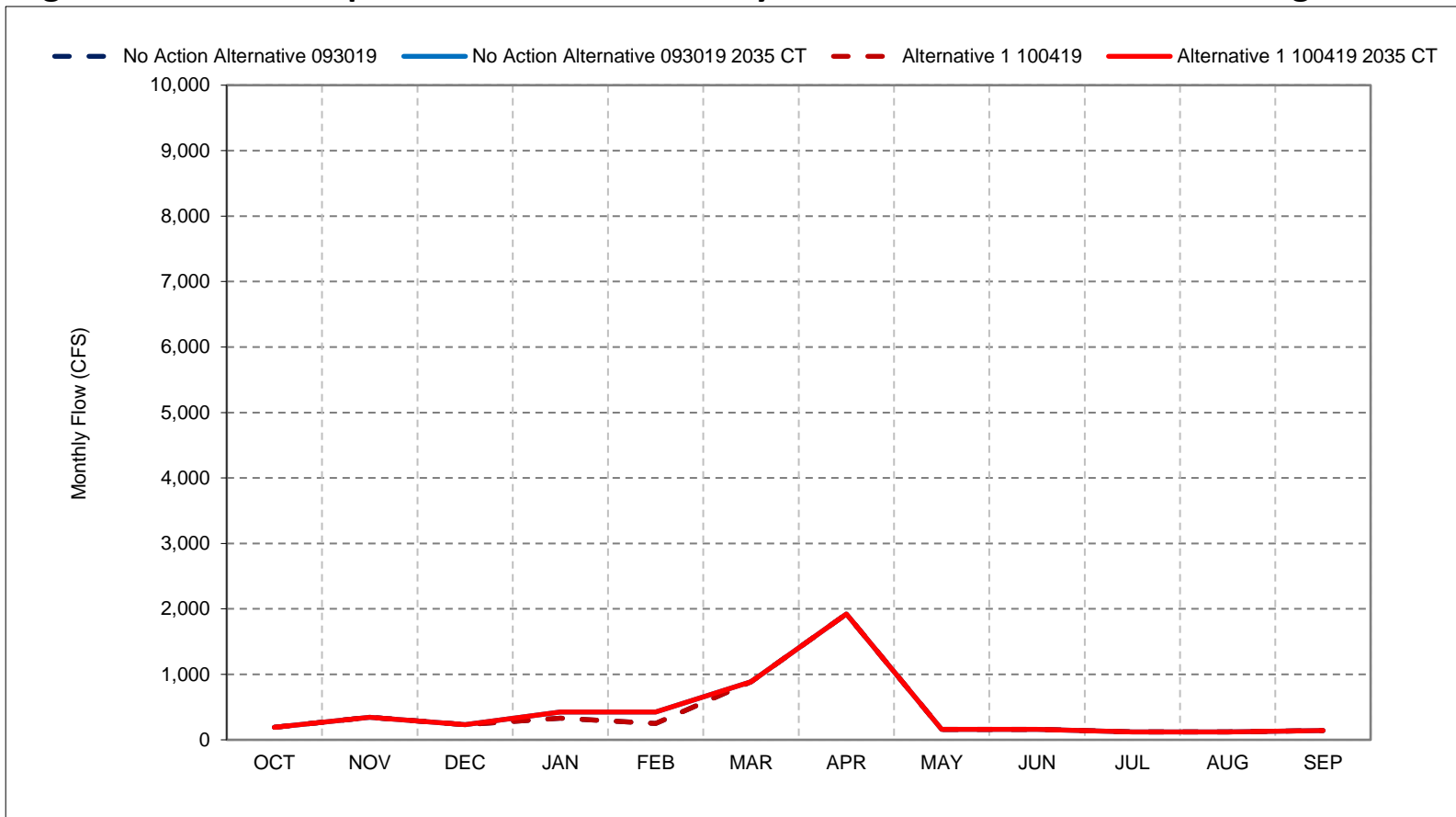
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-4. San Joaquin River Flow at Gravelly Ford, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

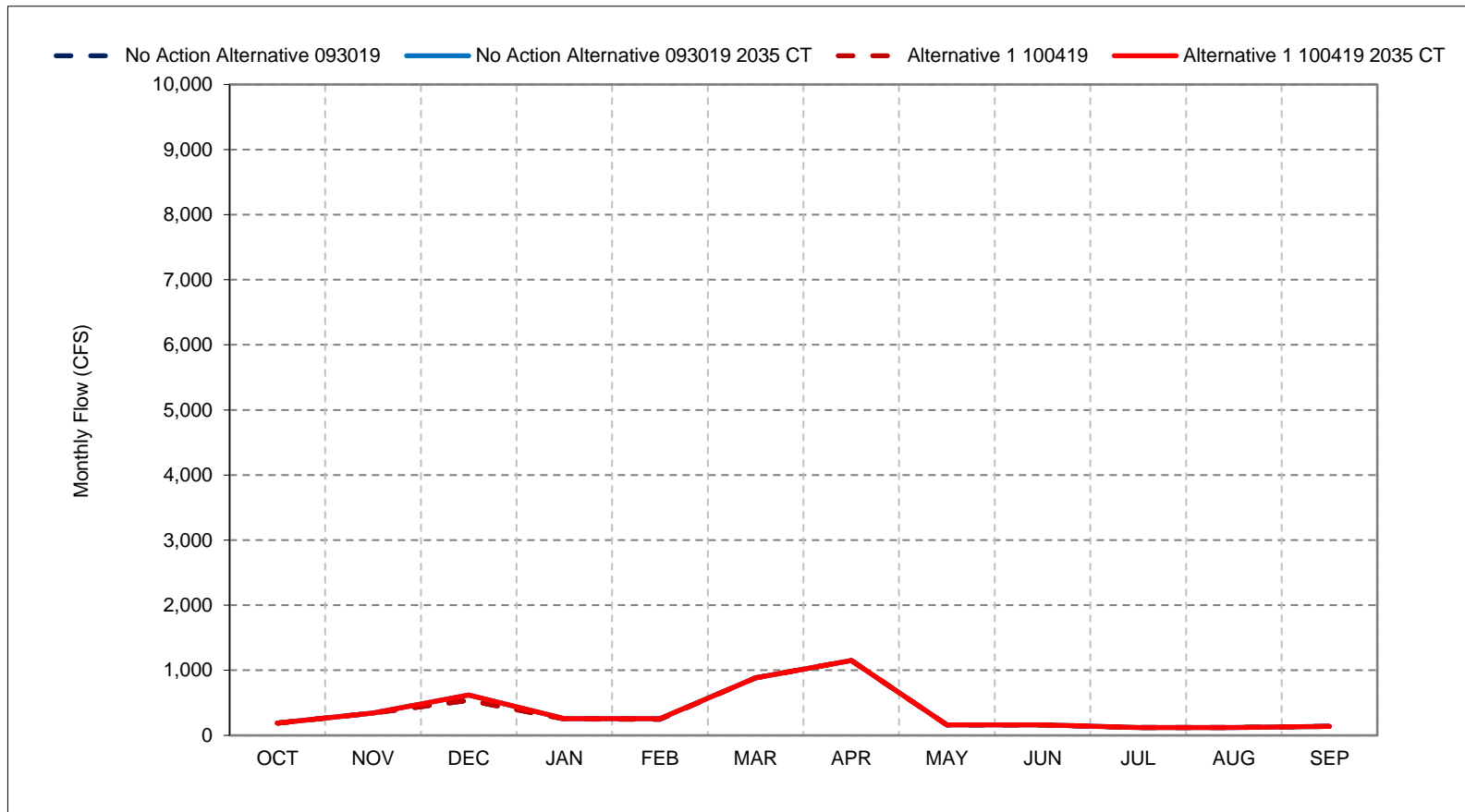
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-5. San Joaquin River Flow at Gravelly Ford, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

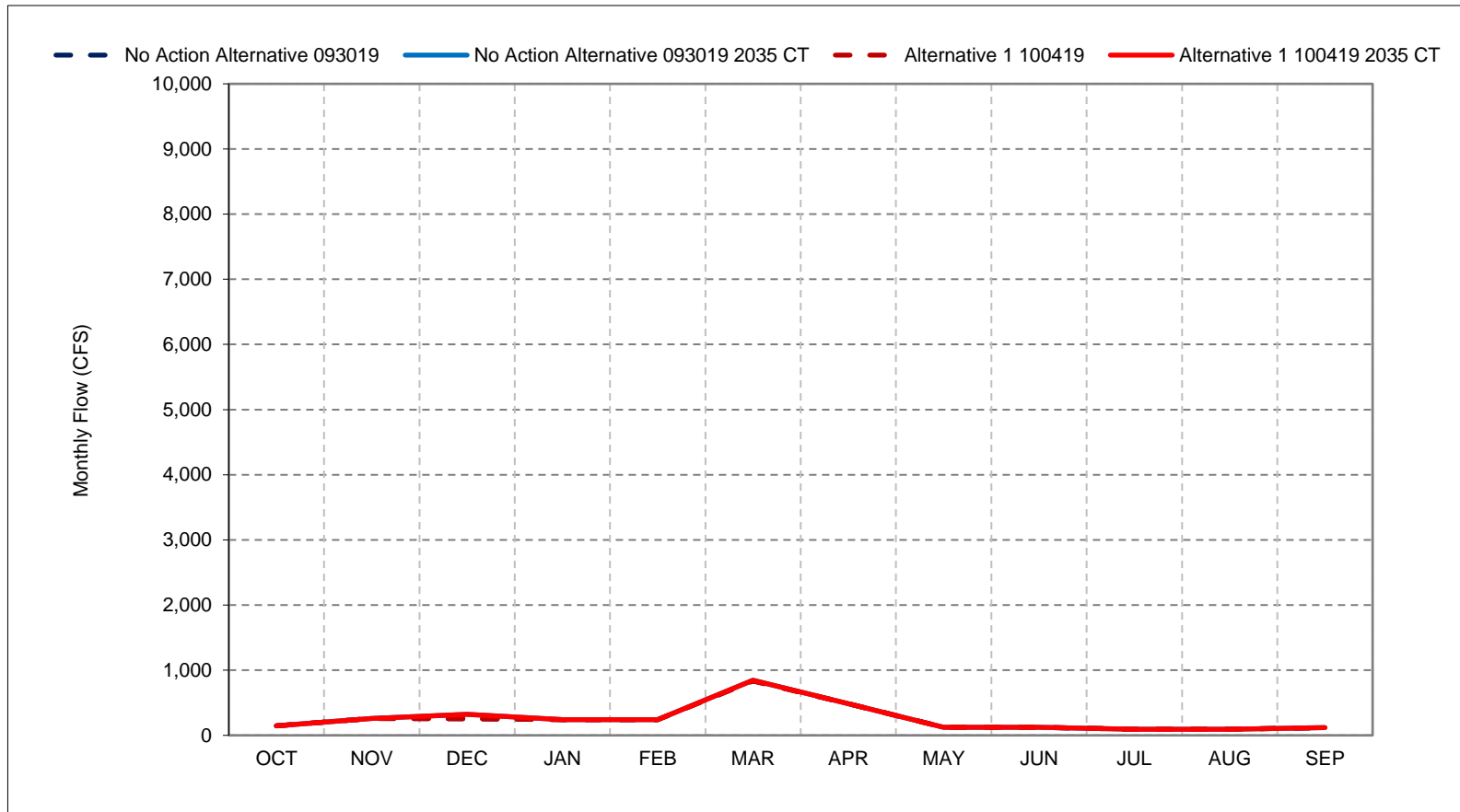
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-6. San Joaquin River Flow at Gravelly Ford, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

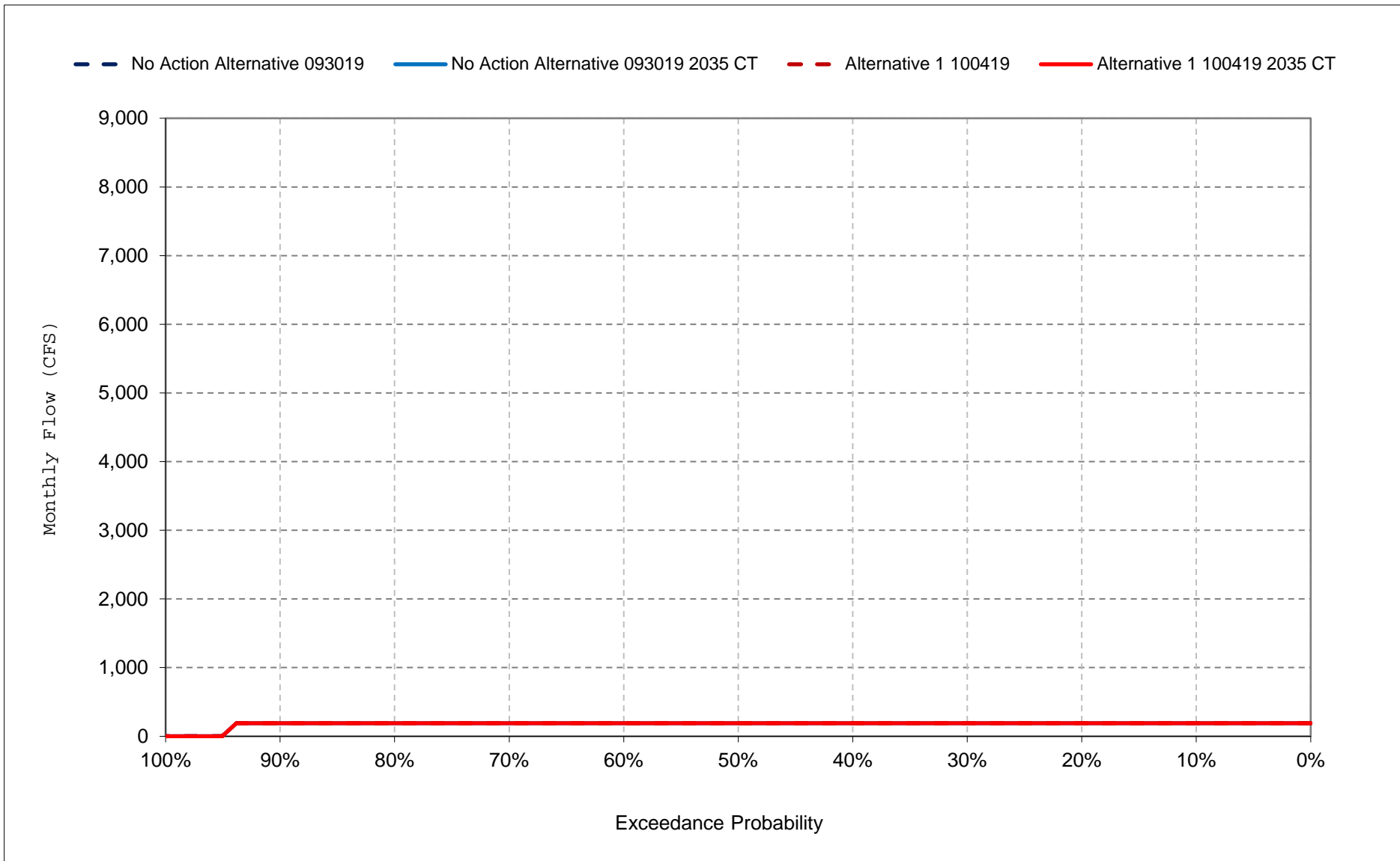
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

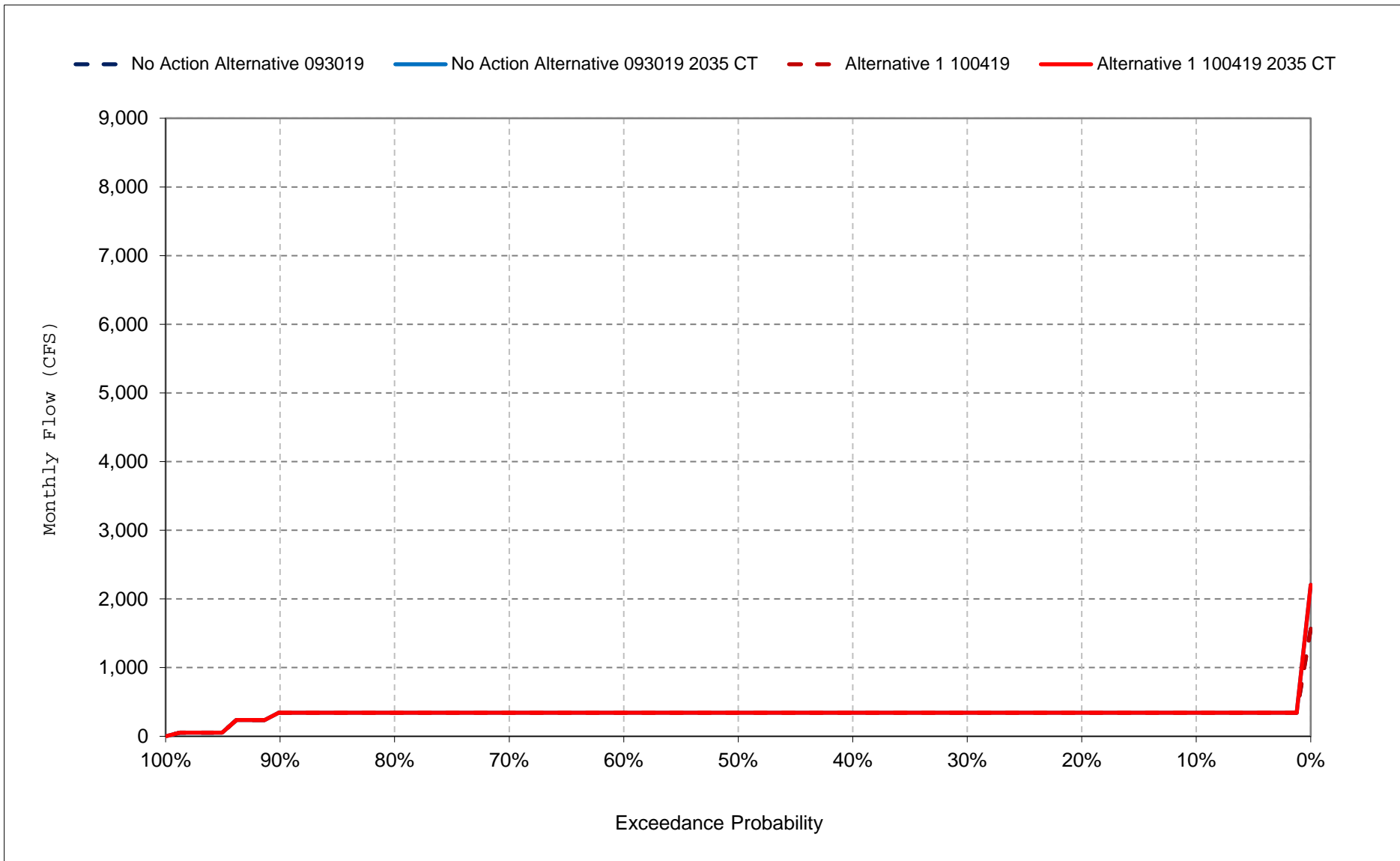
Figure 33-7. San Joaquin River Flow at Gravelly Ford, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

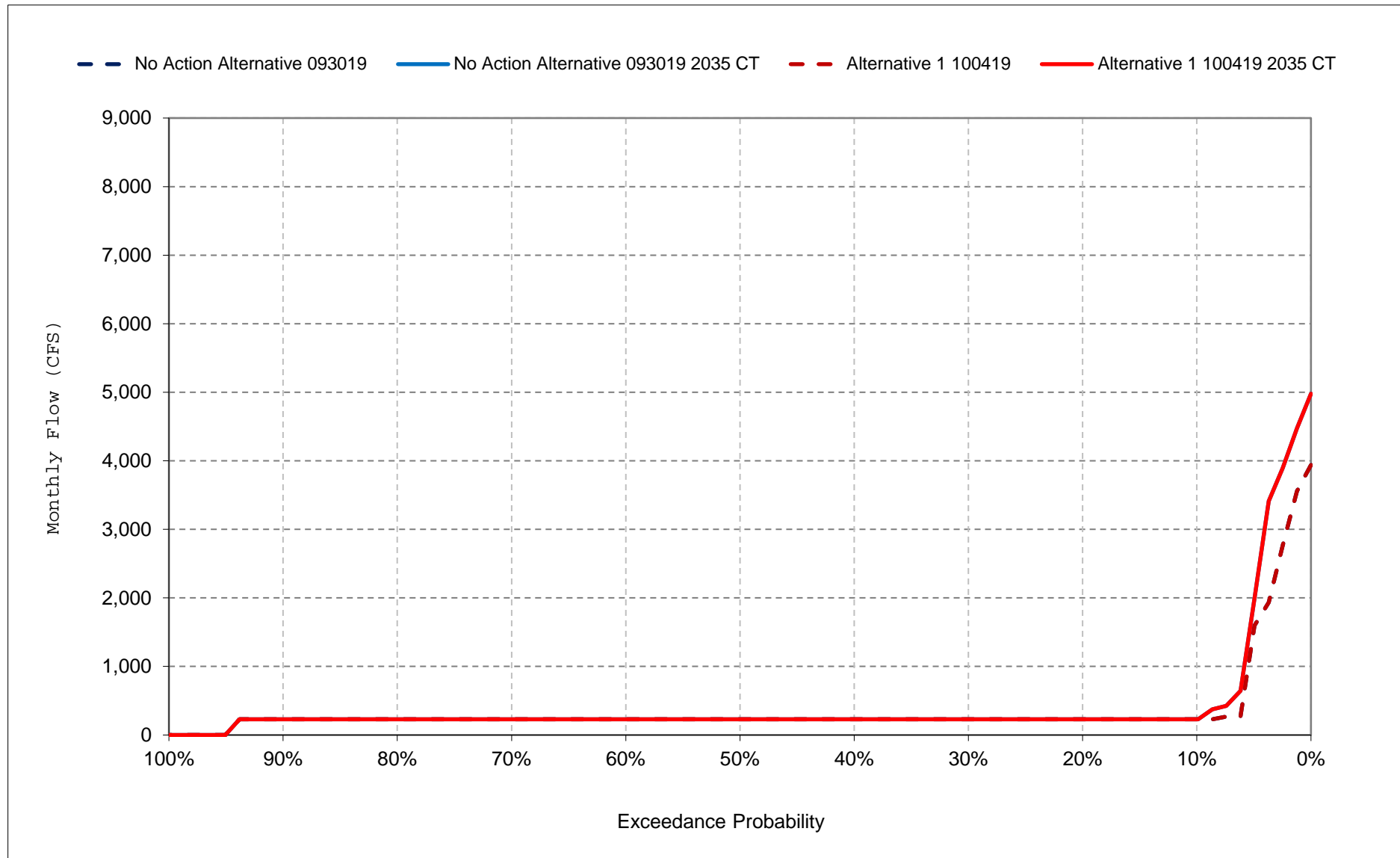
Figure 33-8. San Joaquin River Flow at Gravelly Ford, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

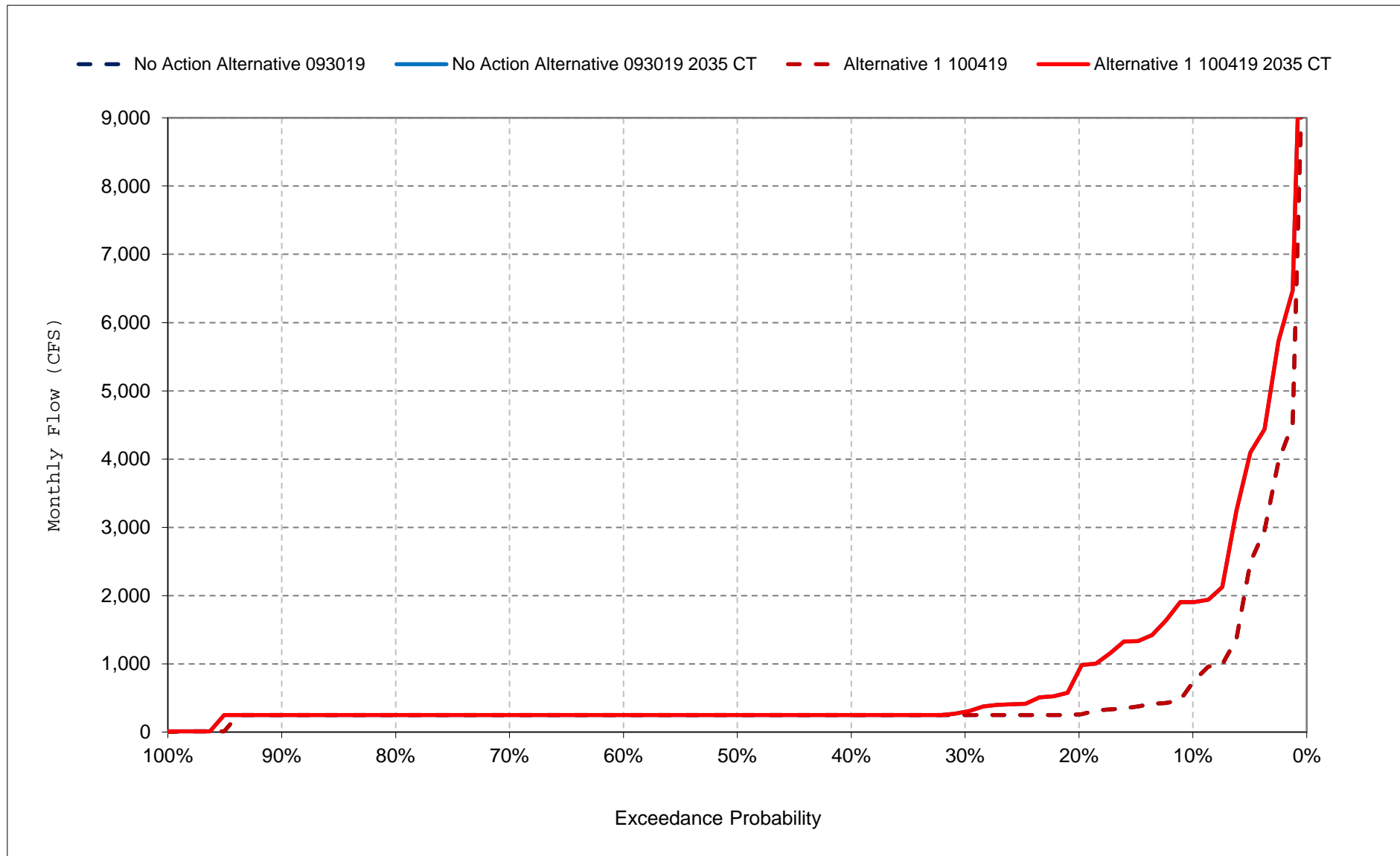
Figure 33-9. San Joaquin River Flow at Gravelly Ford, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

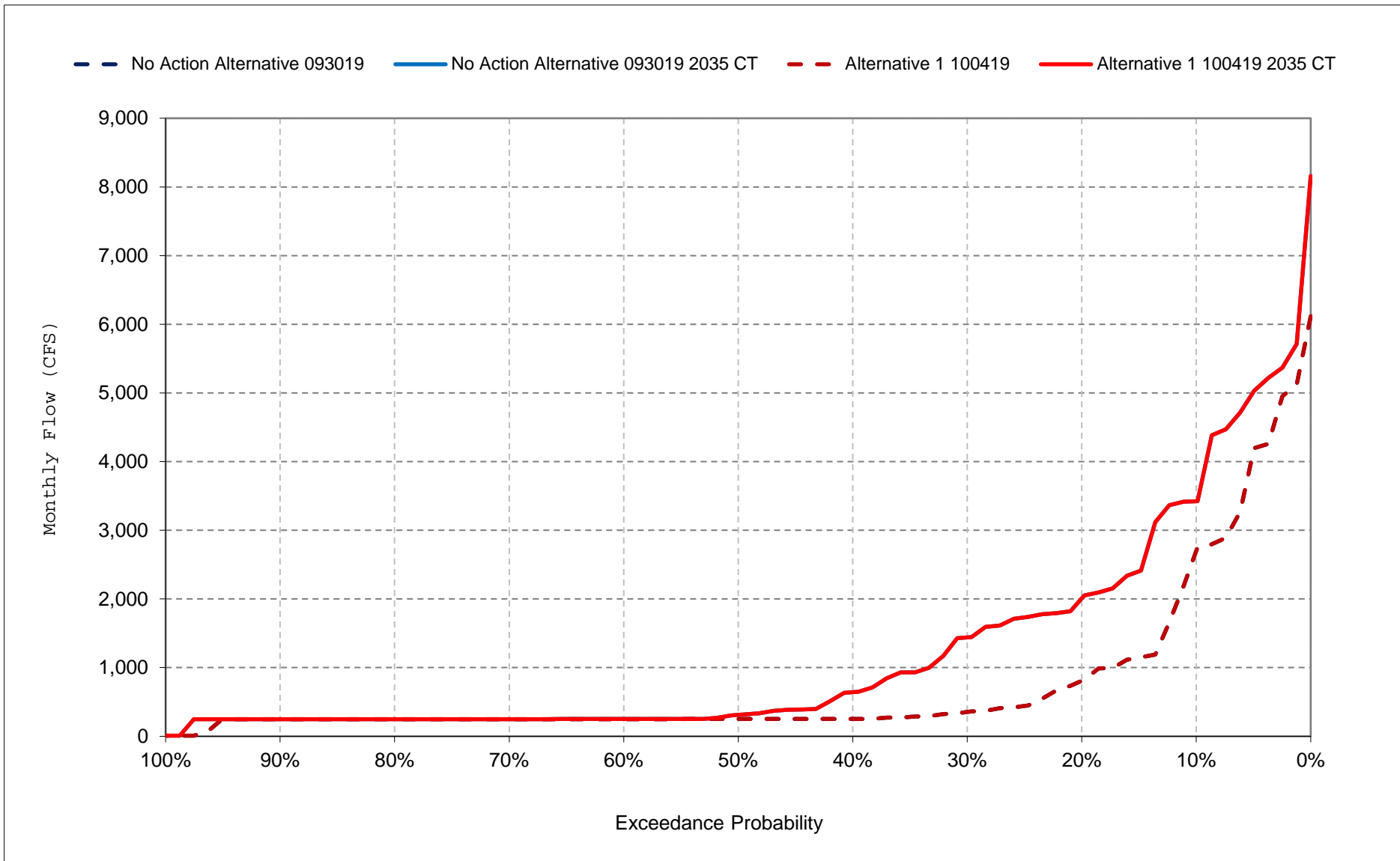
Figure 33-10. San Joaquin River Flow at Gravelly Ford, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

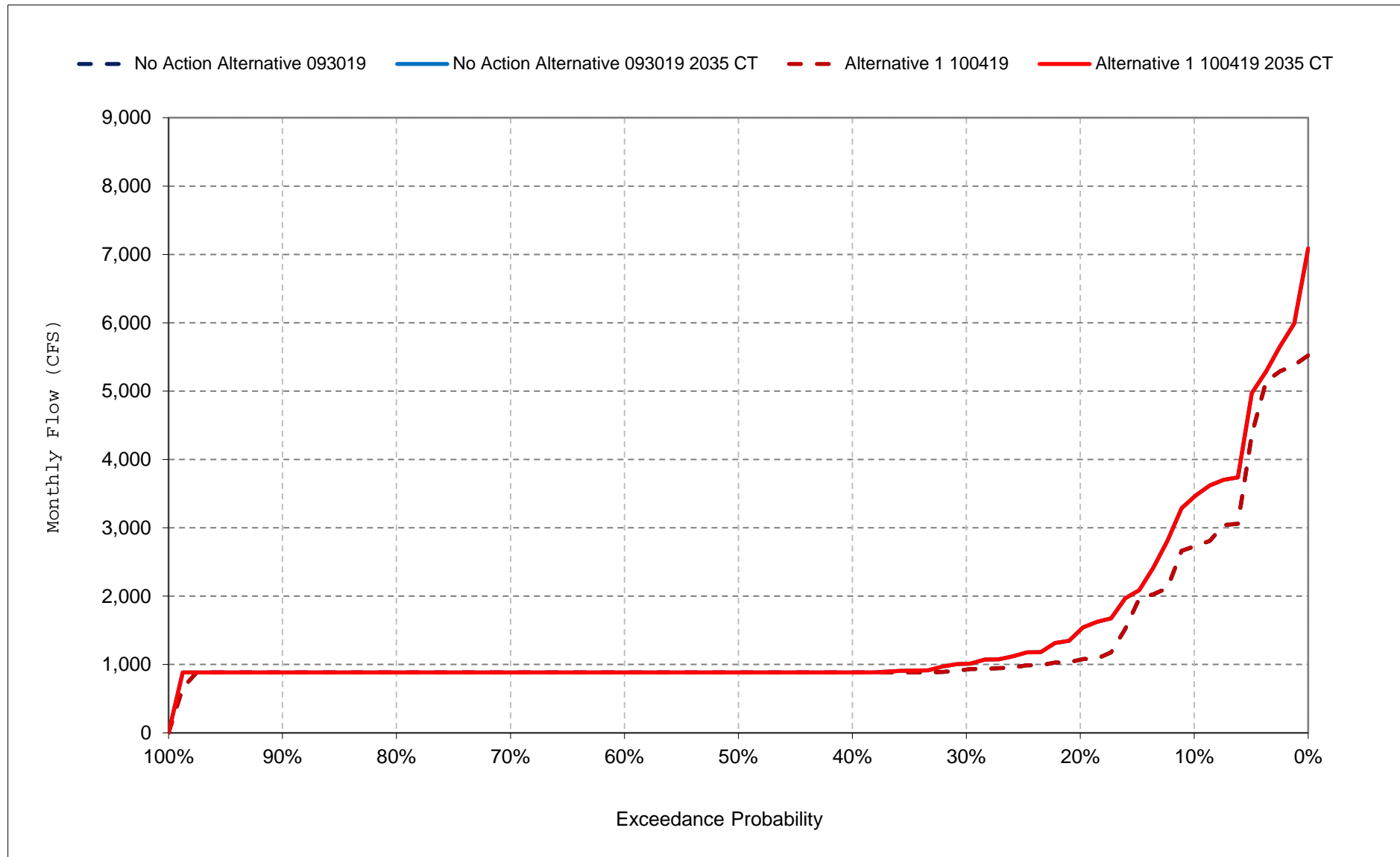
Figure 33-11. San Joaquin River Flow at Gravelly Ford, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

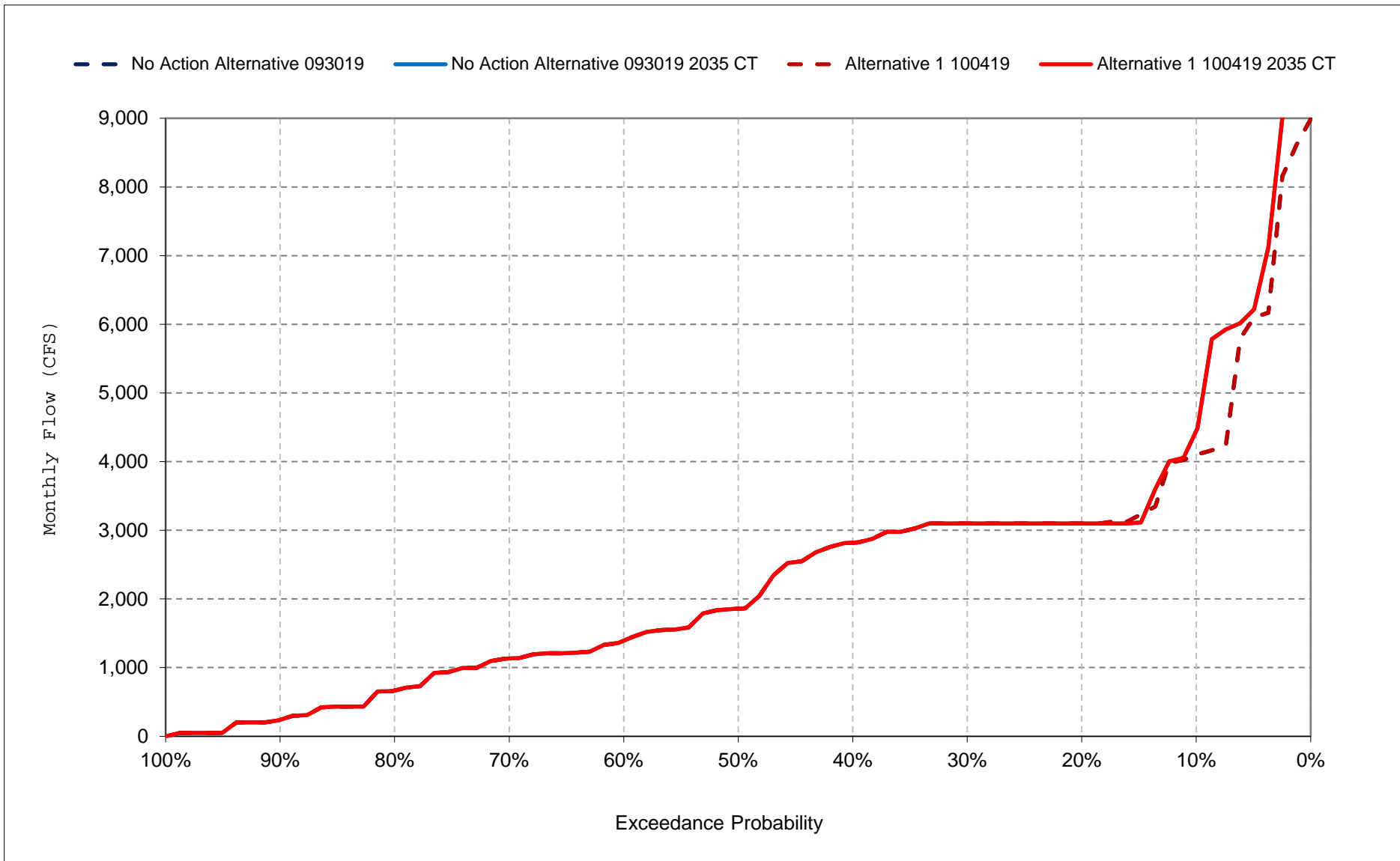
Figure 33-12. San Joaquin River Flow at Gravelly Ford, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

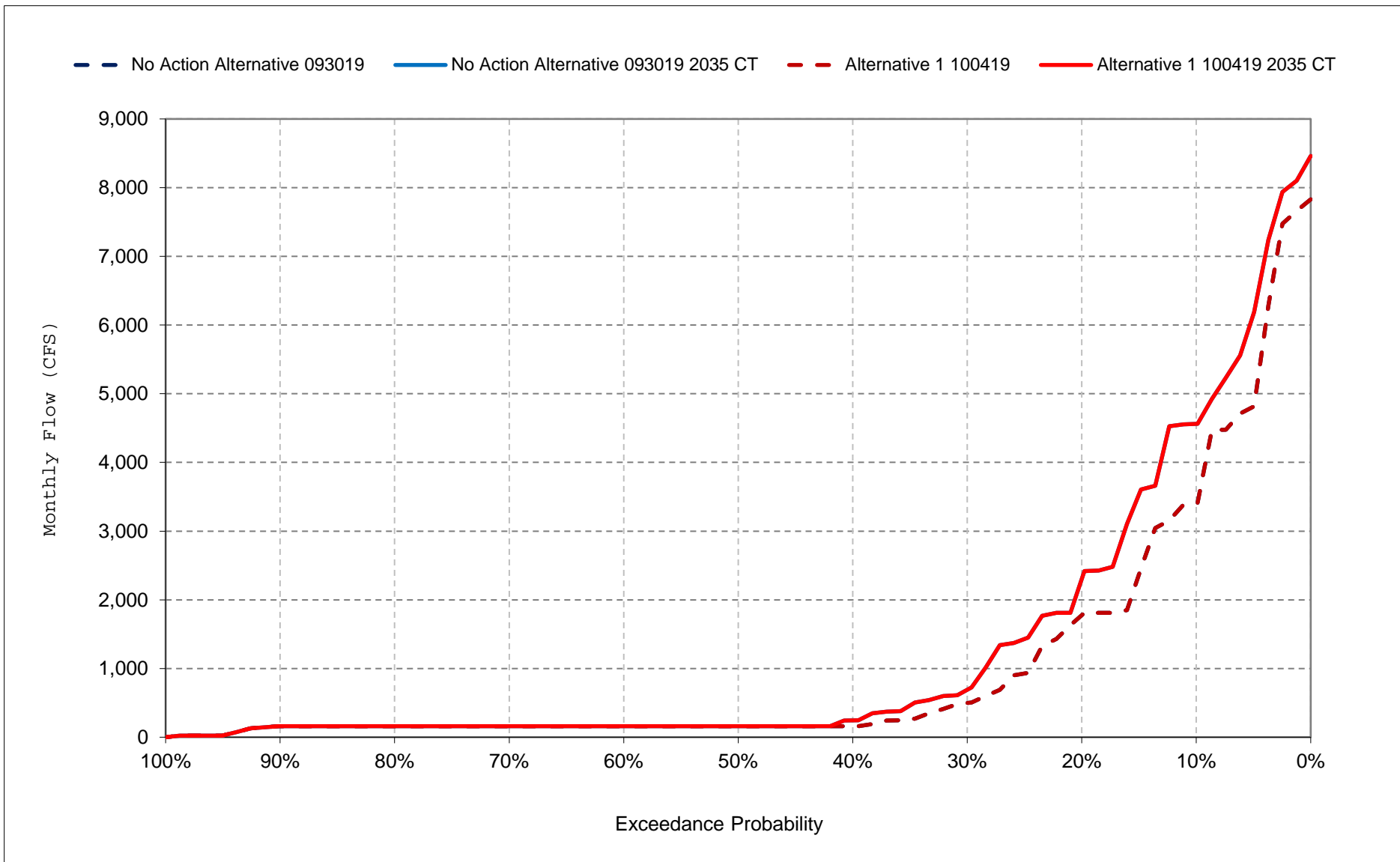
Figure 33-13. San Joaquin River Flow at Gravelly Ford, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

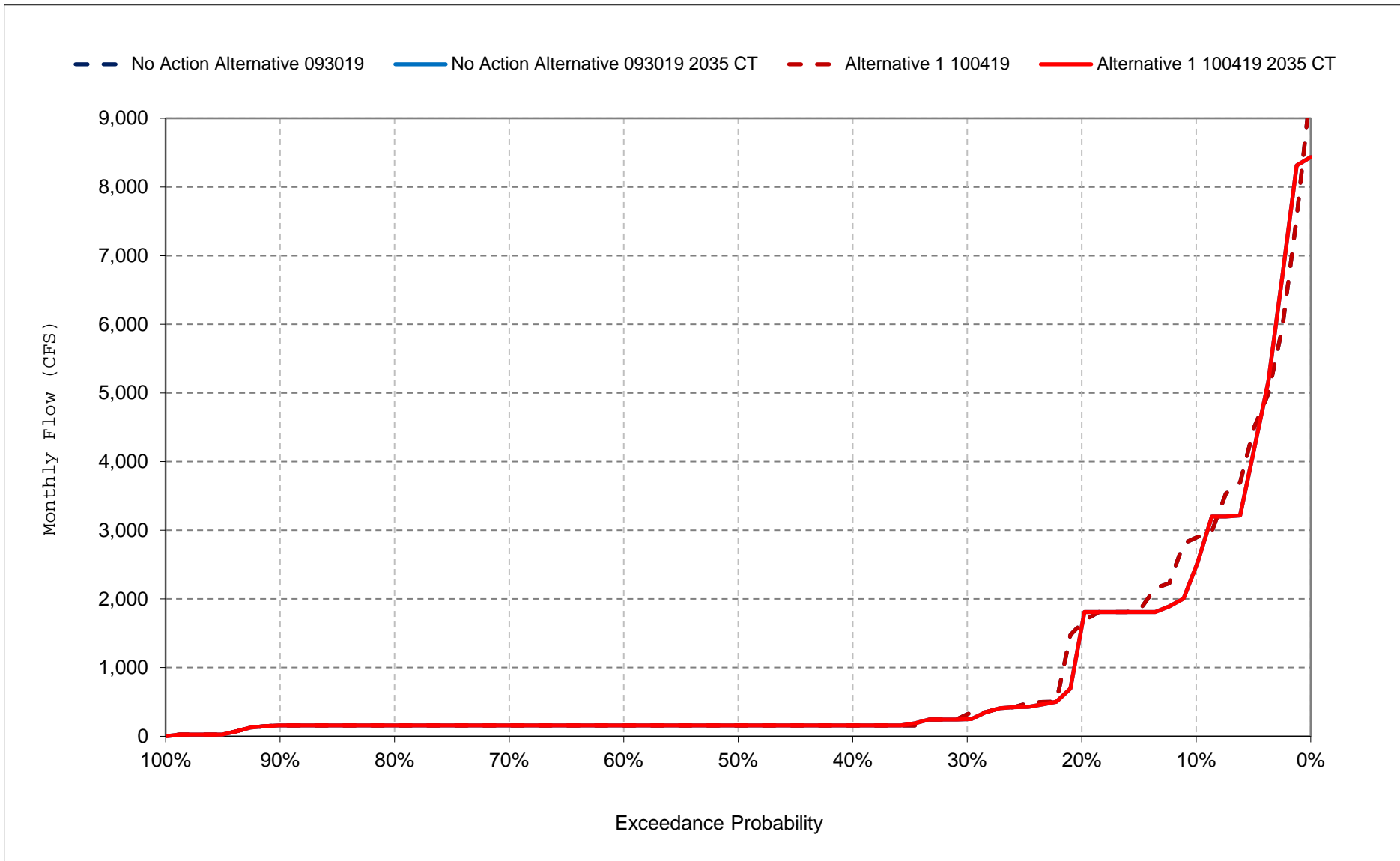
Figure 33-14. San Joaquin River Flow at Gravelly Ford, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

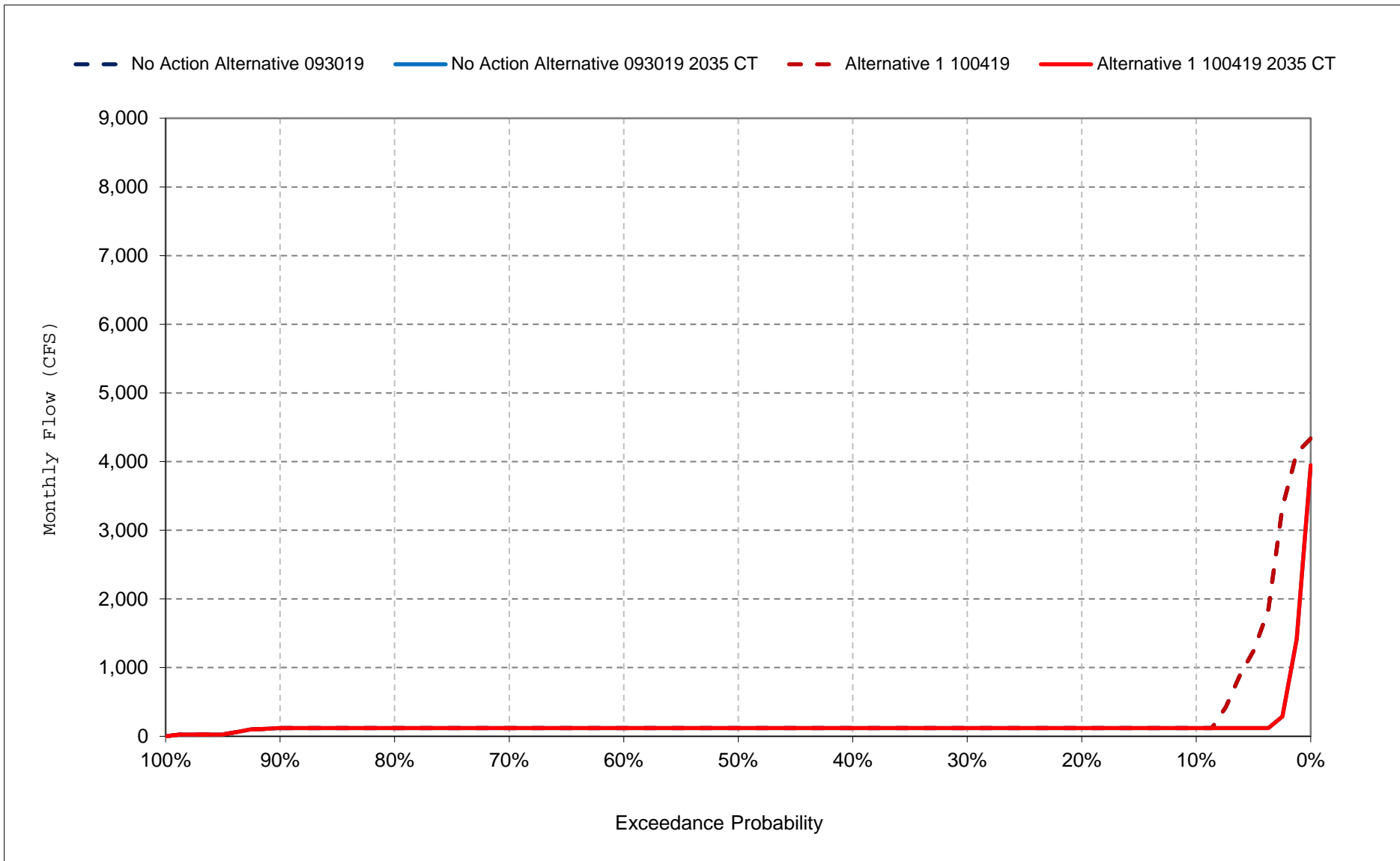
Figure 33-15. San Joaquin River Flow at Gravelly Ford, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

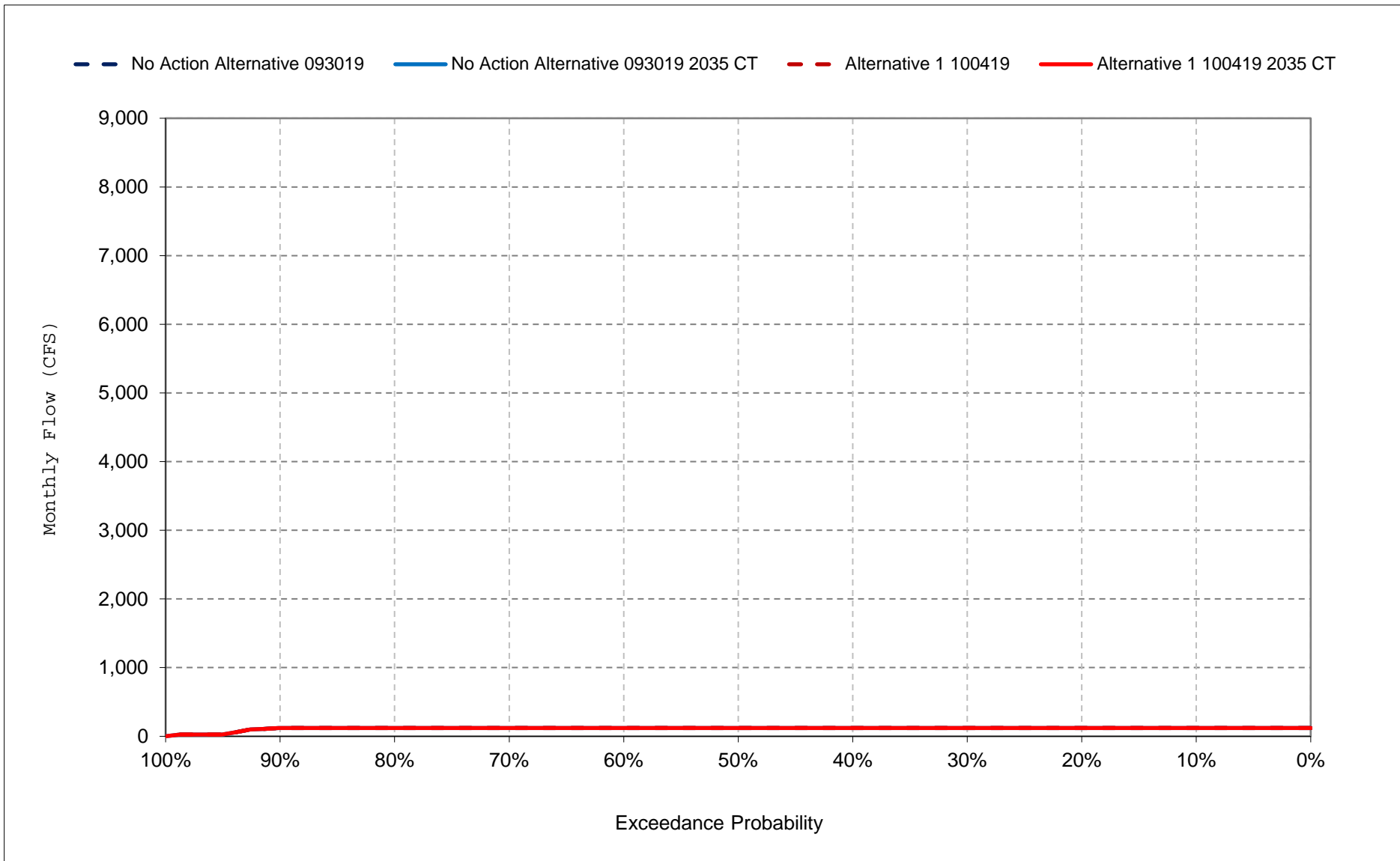
Figure 33-16. San Joaquin River Flow at Gravelly Ford, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

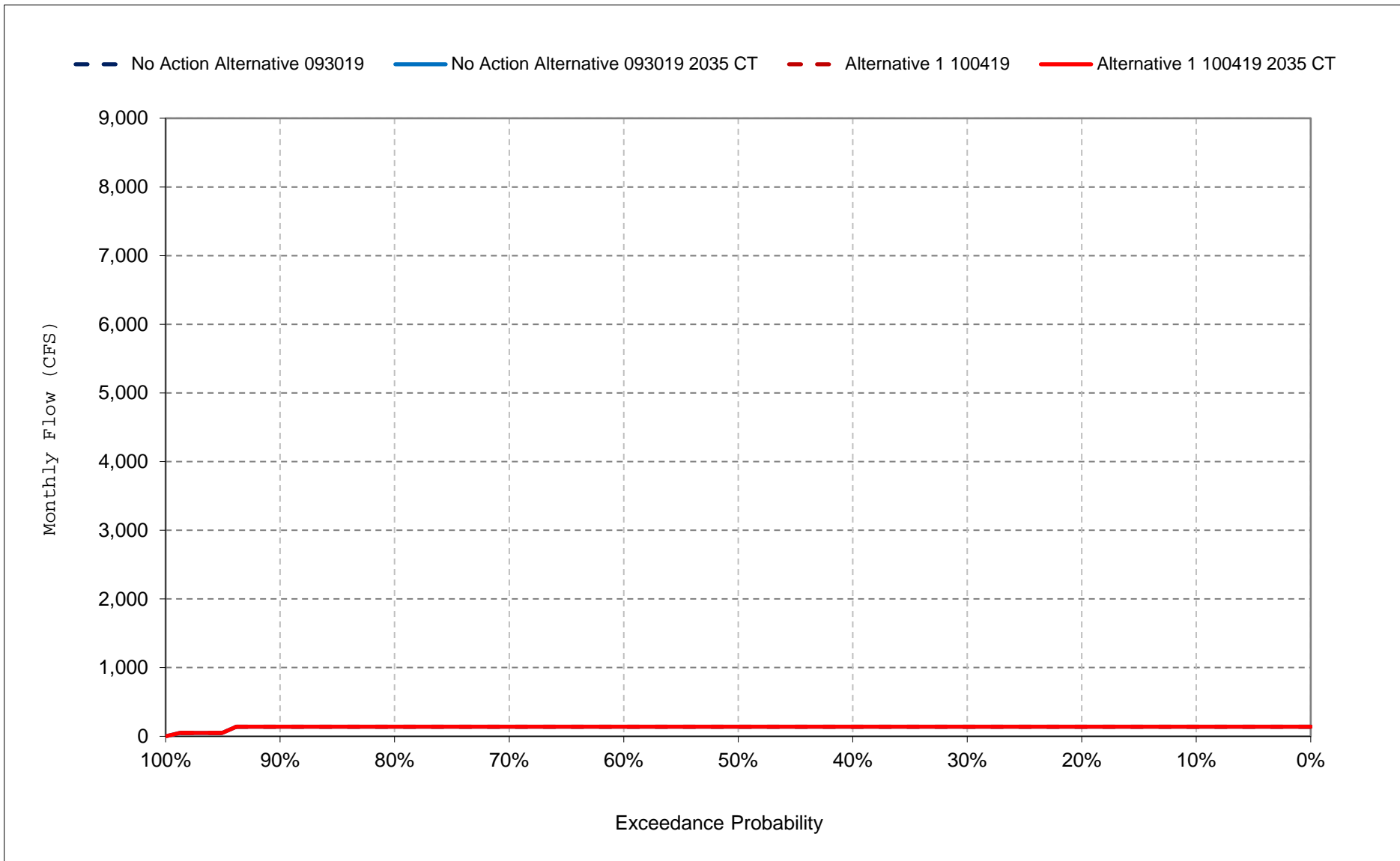
Figure 33-17. San Joaquin River Flow at Gravelly Ford, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 33-18. San Joaquin River Flow at Gravelly Ford, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-1. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,034	1,171	1,492	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	378	747	2,850	1,432	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	456	493	1,041	2,074	806	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,262	1,519	1,987	4,330	3,075	2,204	231	20	38
Above Normal (24%)	86	232	167	302	293	826	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,033	1,188	1,489	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	377	747	2,850	1,430	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	455	493	1,041	2,073	805	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,261	1,517	1,985	4,328	3,073	2,203	230	20	38
Above Normal (24%)	86	232	167	302	293	825	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	17	-3	0	-1	0	0	0	0
20%	0	0	0	0	-1	0	0	-2	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	-1	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	-1	-1	-2	-2	-2	-1	-1	0	0
Above Normal (24%)	0	0	0	0	-1	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 34-2. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,806	1,352	1,560	3,772	4,035	1,625	20	20	38
20%	86	232	123	717	1,002	747	2,850	1,521	457	20	20	38
30%	86	232	123	143	927	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	649	1,066	2,080	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,598	1,752	2,080	4,348	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	527	690	826	2,639	304	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	271	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,802	1,353	1,554	3,769	4,034	1,625	20	20	38
20%	86	232	123	714	1,001	747	2,850	1,520	457	20	20	38
30%	86	232	123	143	932	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	648	1,065	2,079	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,597	1,751	2,078	4,346	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	526	686	825	2,638	303	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	272	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-3	1	-6	-3	-1	0	0	0	0
20%	0	0	0	-3	-1	0	0	-1	0	0	0	0
30%	0	0	0	0	5	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	-1	-1	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	-1	-2	-2	-1	0	0	0	0
Above Normal (24%)	0	0	0	0	-4	0	0	-1	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-3. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,034	1,171	1,492	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	378	747	2,850	1,432	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	456	493	1,041	2,074	806	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,262	1,519	1,987	4,330	3,075	2,204	231	20	38
Above Normal (24%)	86	232	167	302	293	826	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,806	1,352	1,560	3,772	4,035	1,625	20	20	38
20%	86	232	123	717	1,002	747	2,850	1,521	457	20	20	38
30%	86	232	123	143	927	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	649	1,066	2,080	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,598	1,752	2,080	4,348	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	527	690	826	2,639	304	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	271	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	772	181	69	-31	79	-81	0	0	0
20%	0	0	0	574	624	0	0	89	0	0	0	0
30%	0	0	0	0	782	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	3	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	3	4	137	156	24	6	22	-3	-25	0	0
Water Year Types^{b,c}												
Wet (23%)	0	13	5	336	234	93	18	71	-11	-109	0	0
Above Normal (24%)	0	0	5	225	397	0	8	24	0	0	0	0
Below Normal (10%)	0	0	0	42	52	0	0	0	0	0	0	0
Dry (16%)	0	0	12	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-4. San Joaquin River Flow below Sack Dam, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,033	1,188	1,489	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	377	747	2,850	1,430	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	455	493	1,041	2,073	805	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,261	1,517	1,985	4,328	3,073	2,203	230	20	38
Above Normal (24%)	86	232	167	302	293	825	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,802	1,353	1,554	3,769	4,034	1,625	20	20	38
20%	86	232	123	714	1,001	747	2,850	1,520	457	20	20	38
30%	86	232	123	143	932	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	648	1,065	2,079	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,597	1,751	2,078	4,346	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	526	686	825	2,638	303	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	272	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	769	164	66	-34	80	-81	0	0	0
20%	0	0	0	571	624	0	0	90	0	0	0	0
30%	0	0	0	0	787	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	3	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	3	4	137	155	24	6	22	-2	-25	0	0
Water Year Types^{b,c}												
Wet (23%)	0	13	5	336	234	93	18	72	-10	-108	0	0
Above Normal (24%)	0	0	5	225	393	0	8	24	0	0	0	0
Below Normal (10%)	0	0	0	42	52	0	0	0	0	0	0	0
Dry (16%)	0	0	12	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

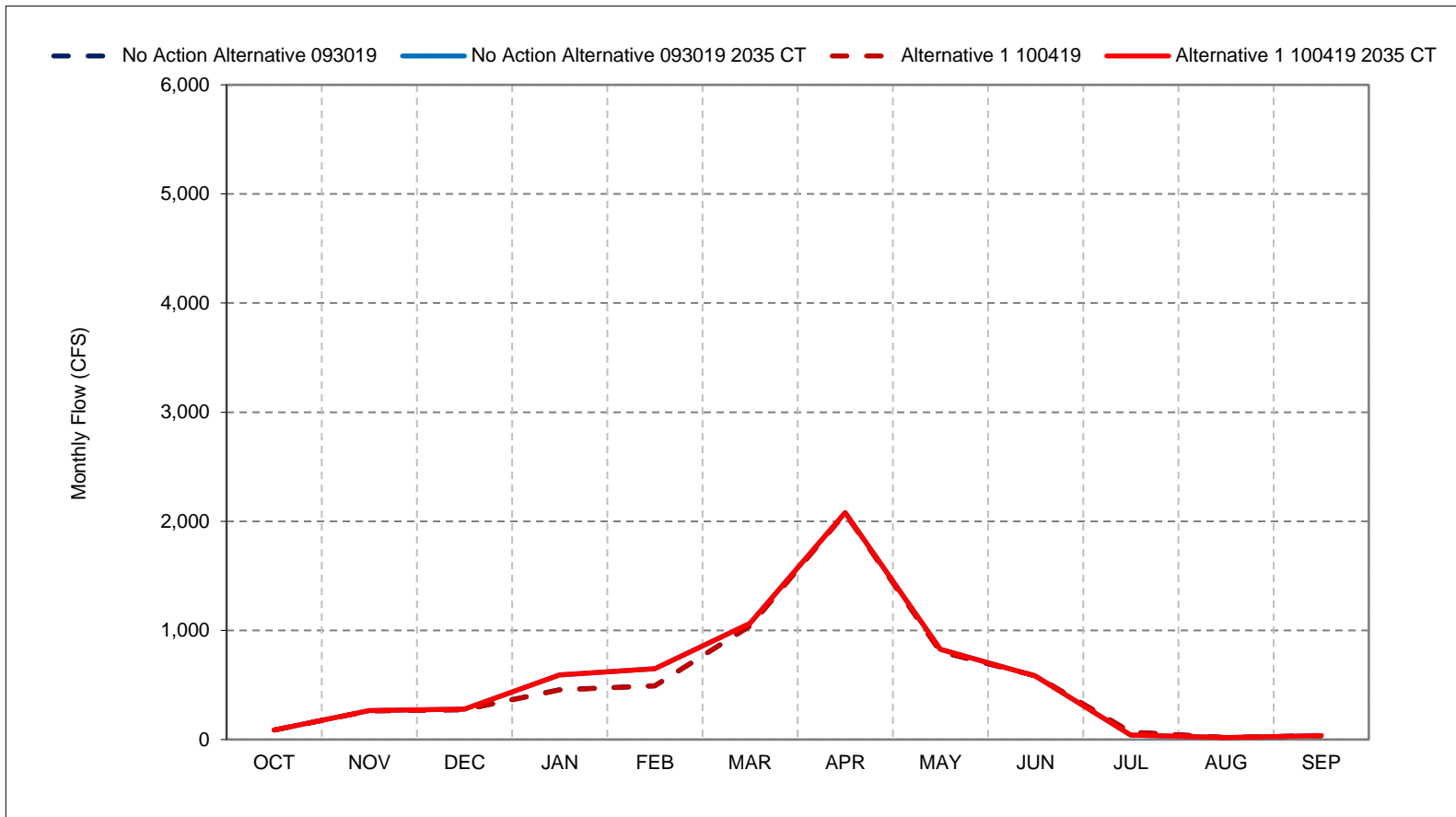
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 34-1. San Joaquin River Flow below Sack Dam, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

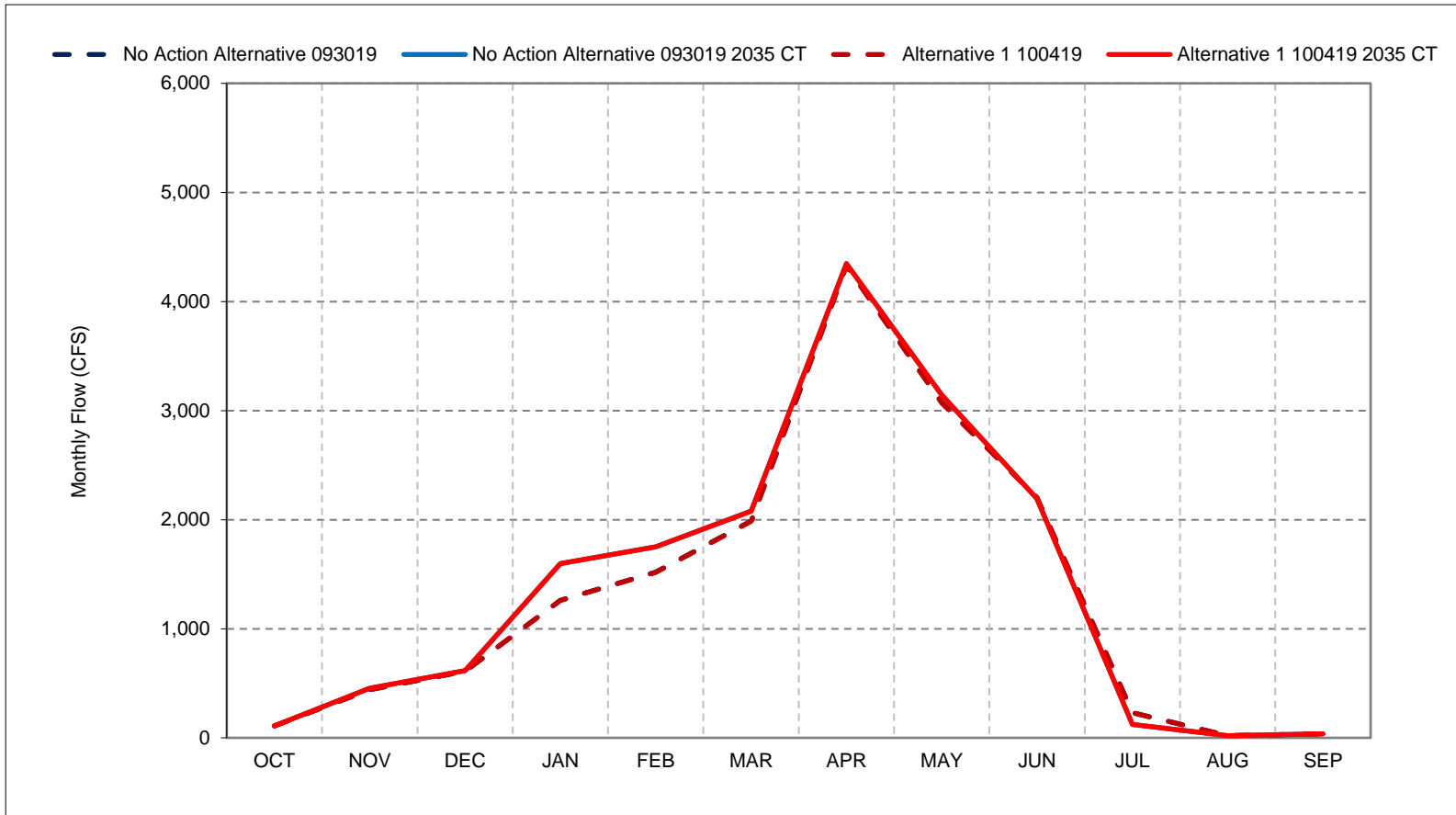
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-2. San Joaquin River Flow below Sack Dam, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

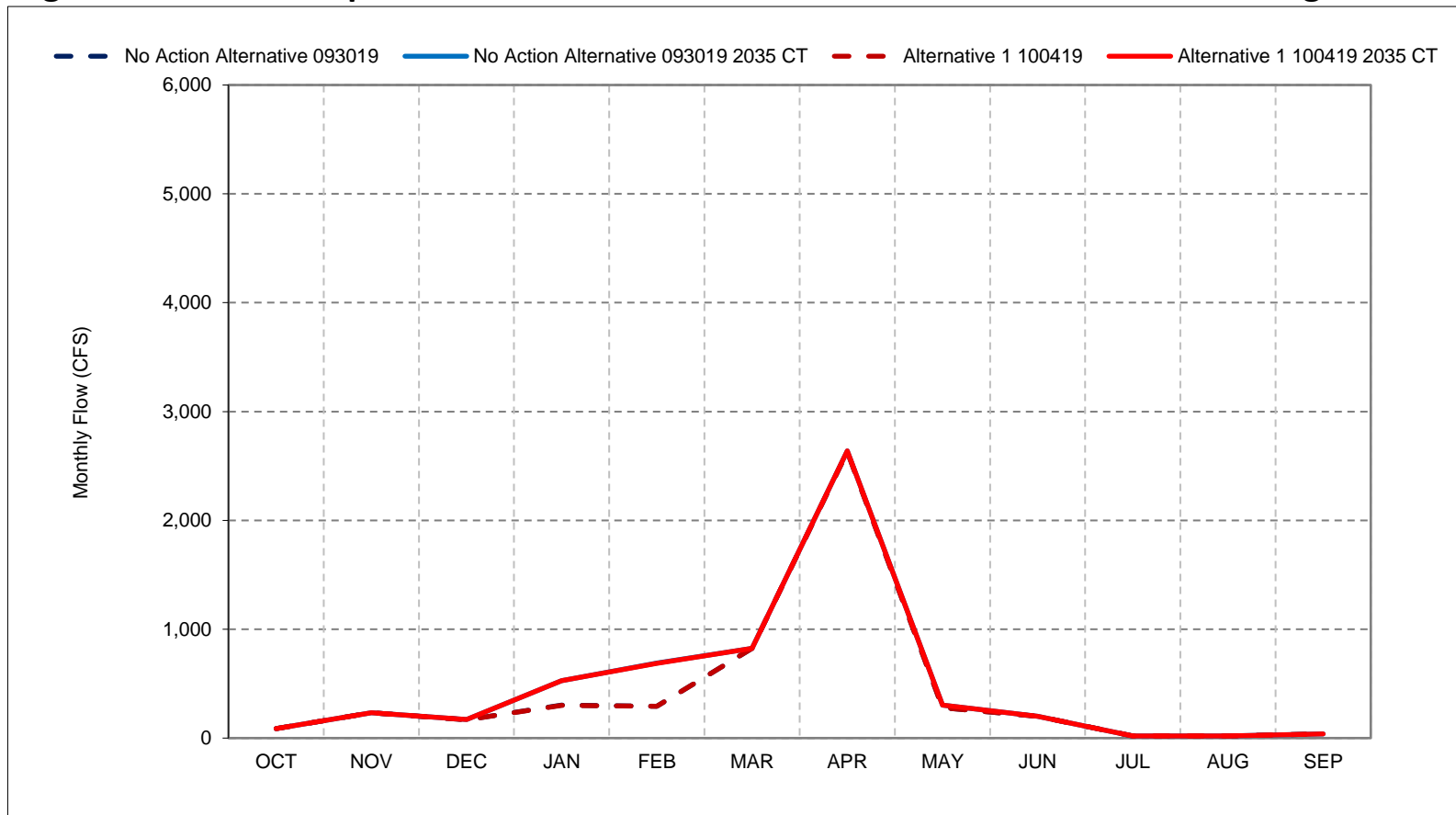
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-3. San Joaquin River Flow below Sack Dam, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

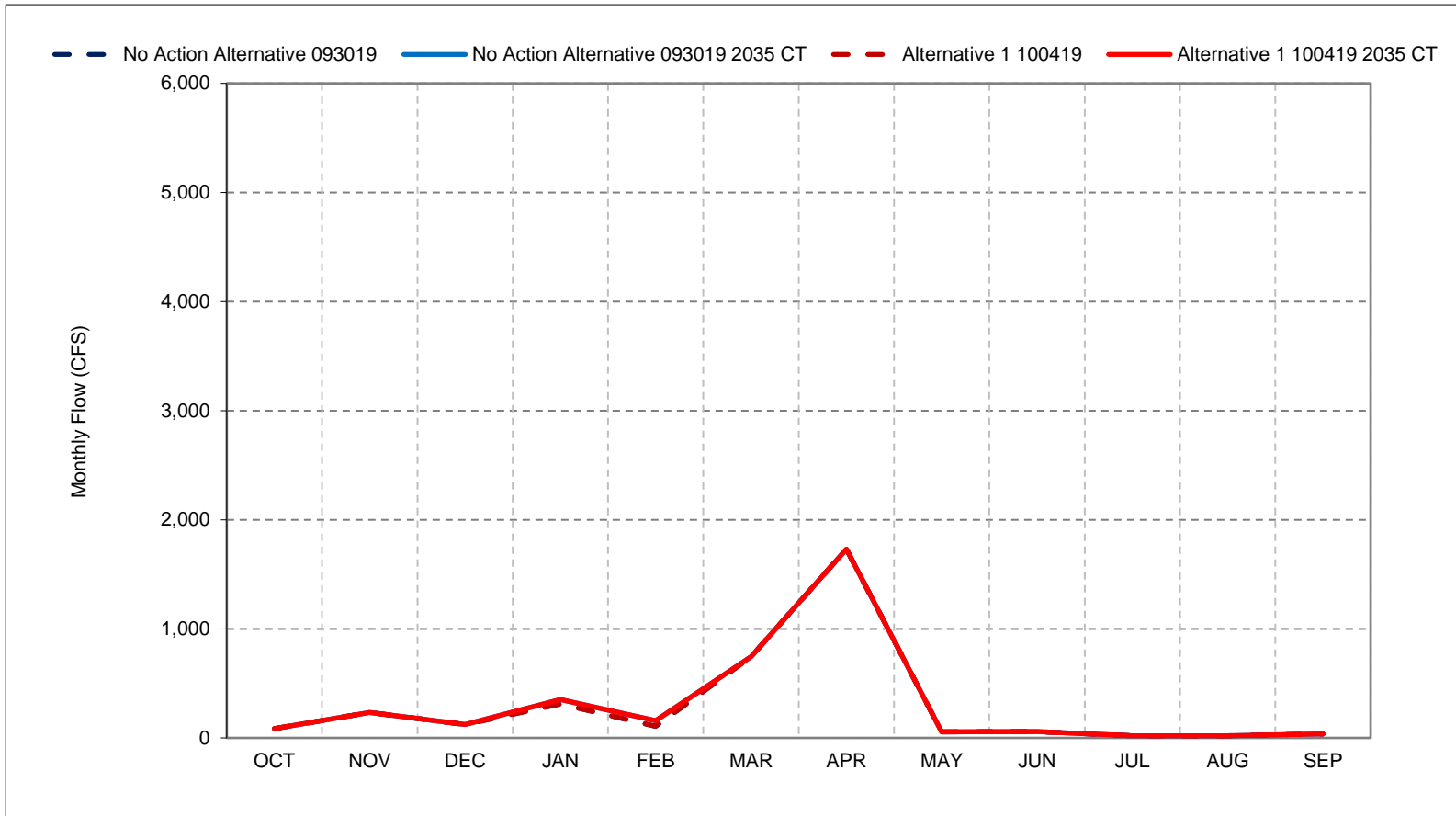
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-4. San Joaquin River Flow below Sack Dam, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

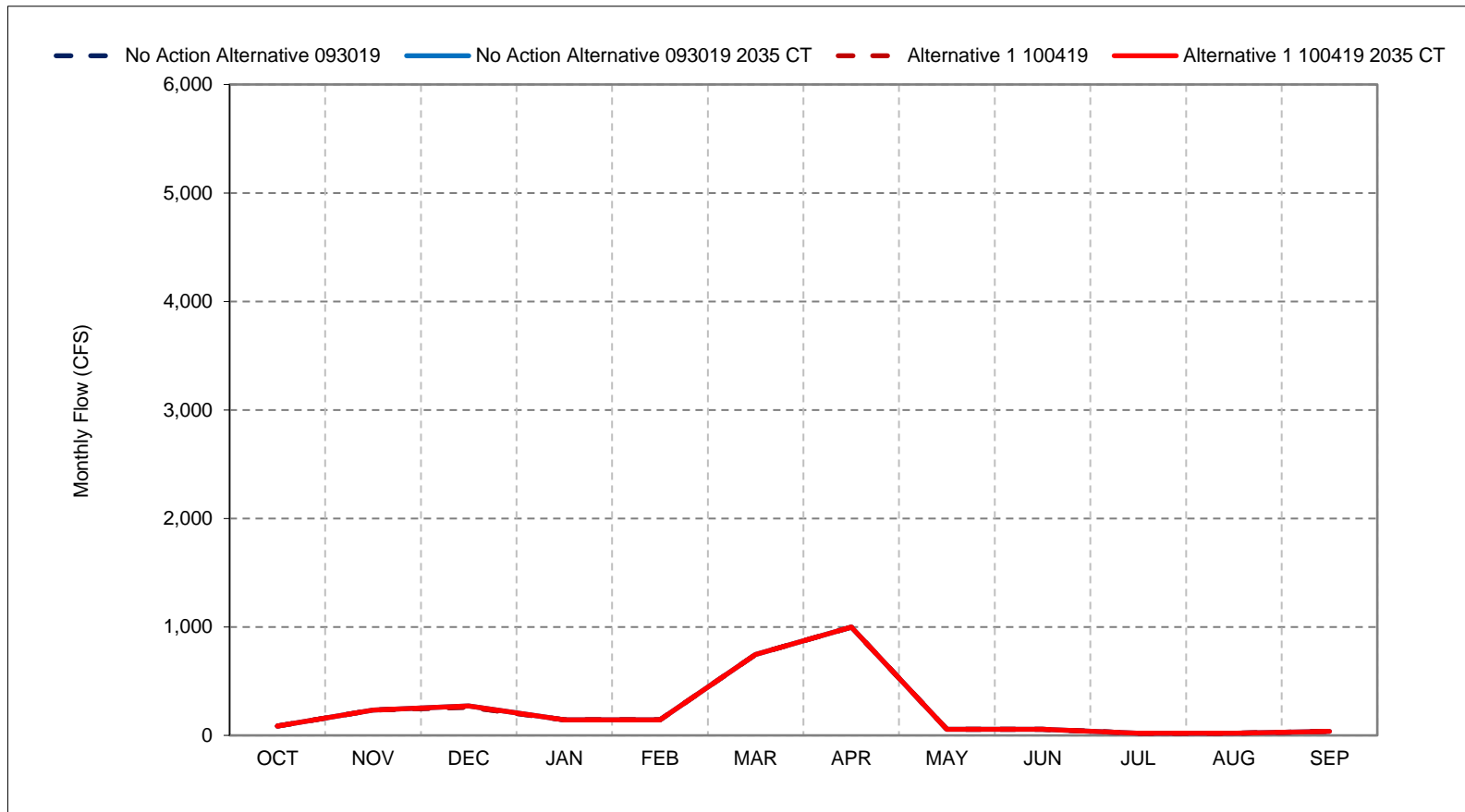
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-5. San Joaquin River Flow below Sack Dam, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

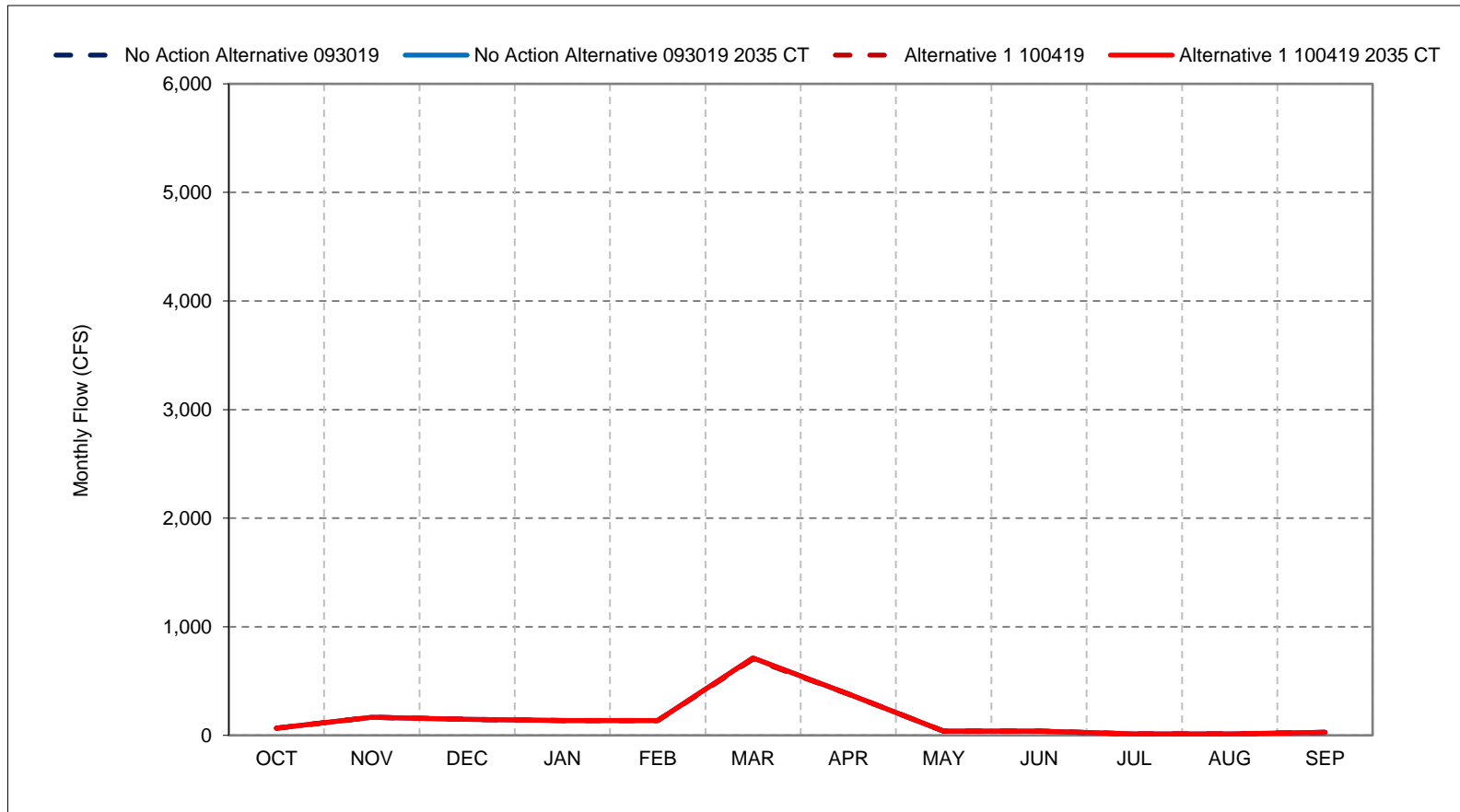
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-6. San Joaquin River Flow below Sack Dam, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

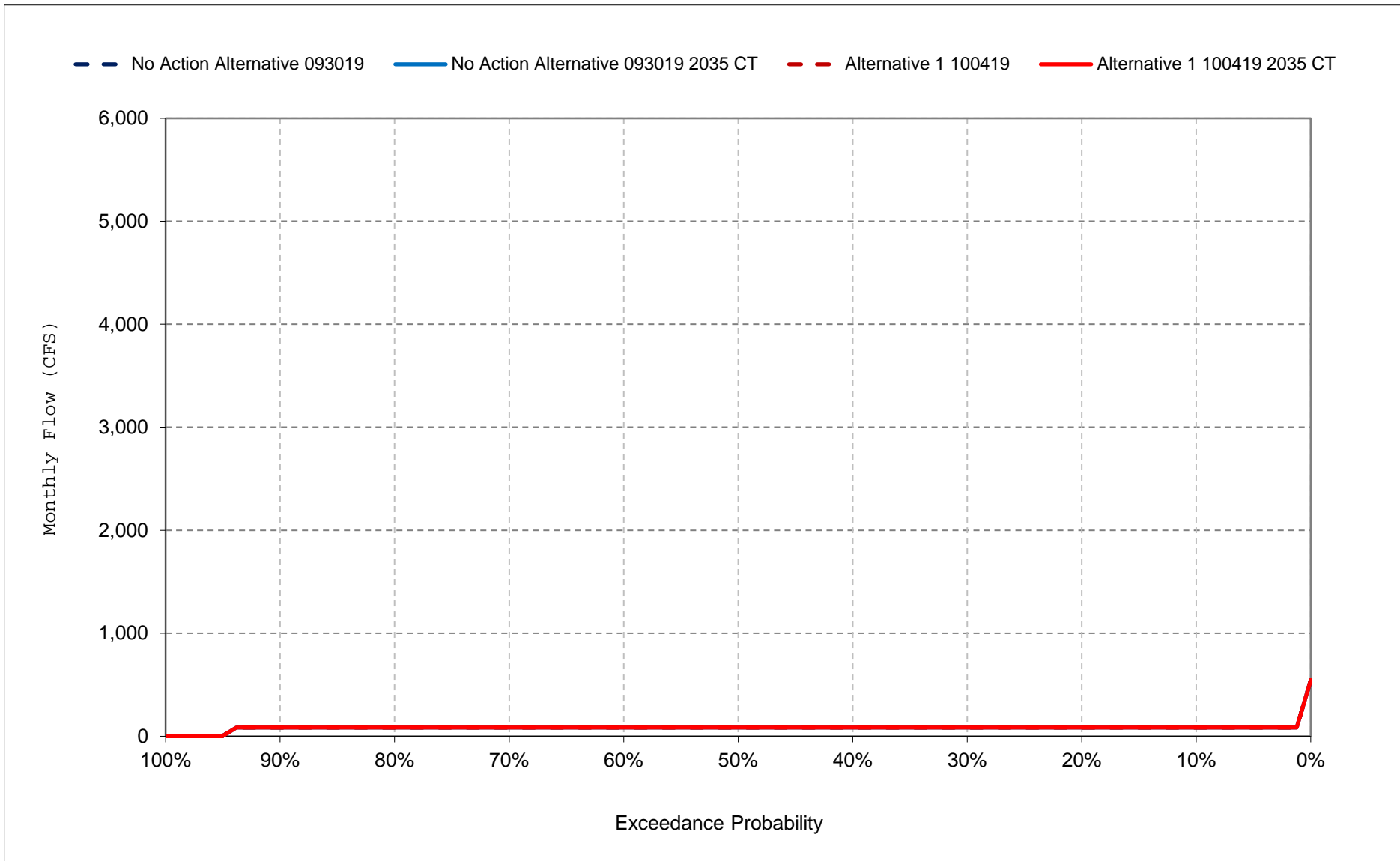
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

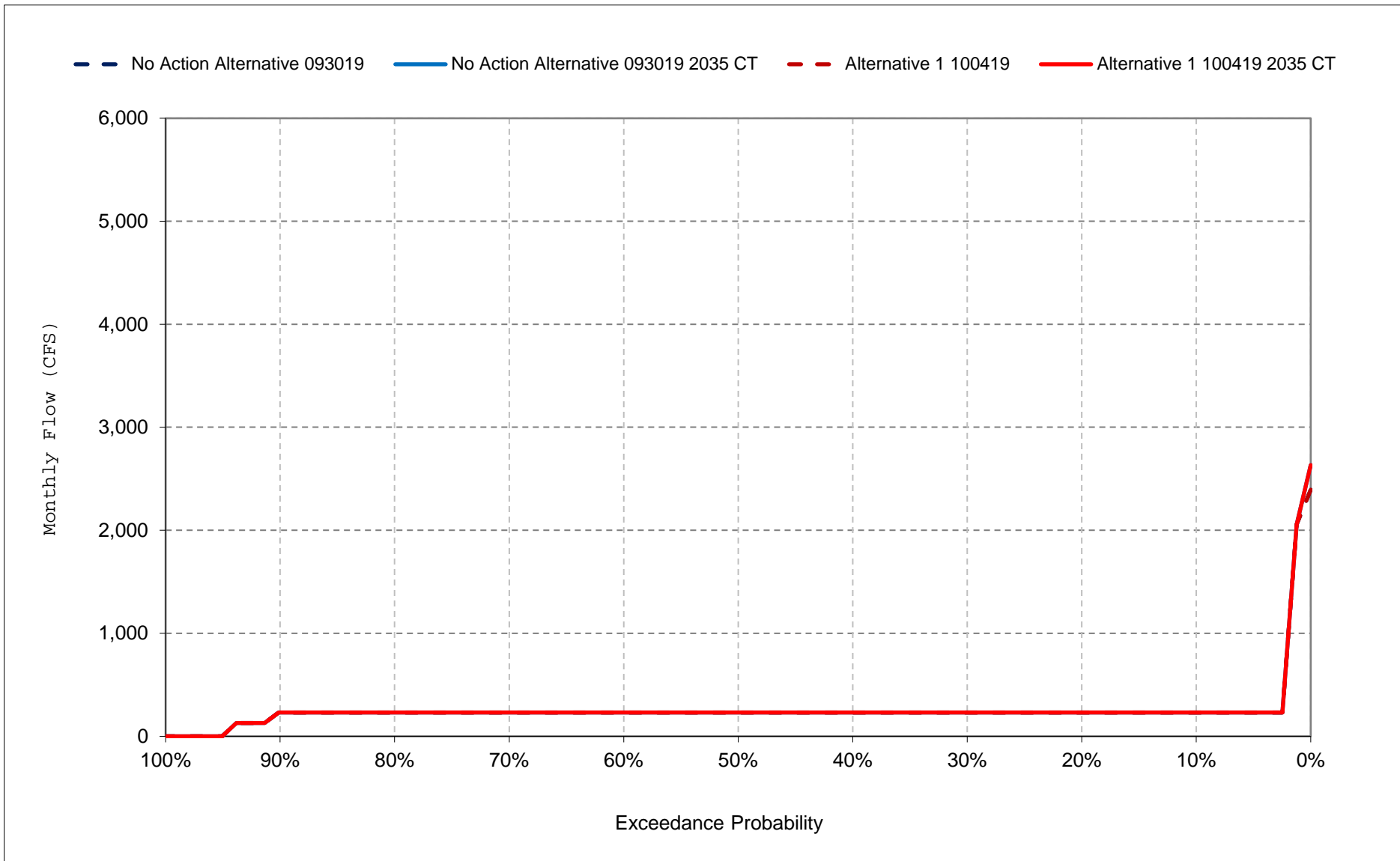
Figure 34-7. San Joaquin River Flow below Sack Dam, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

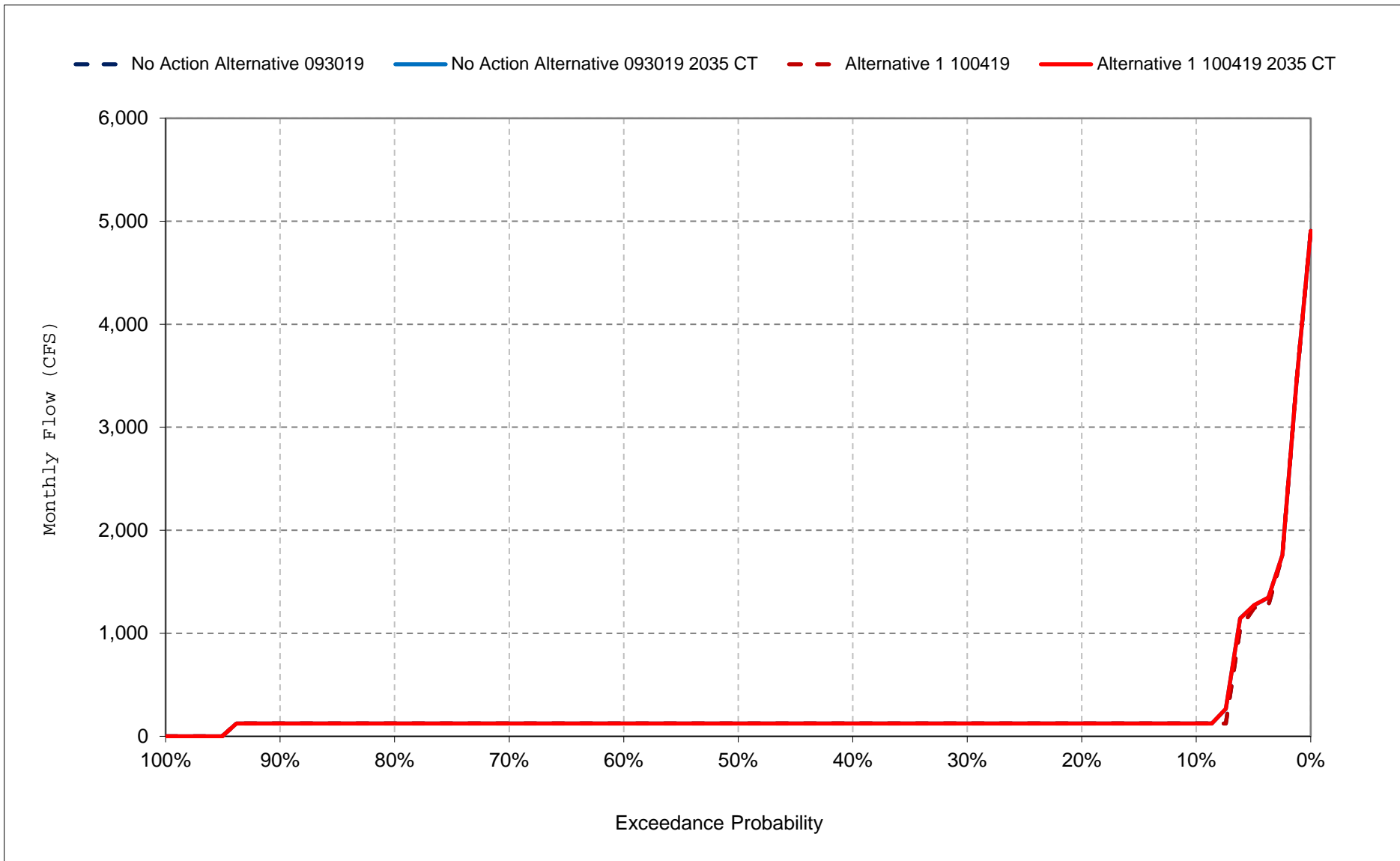
Figure 34-8. San Joaquin River Flow below Sack Dam, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

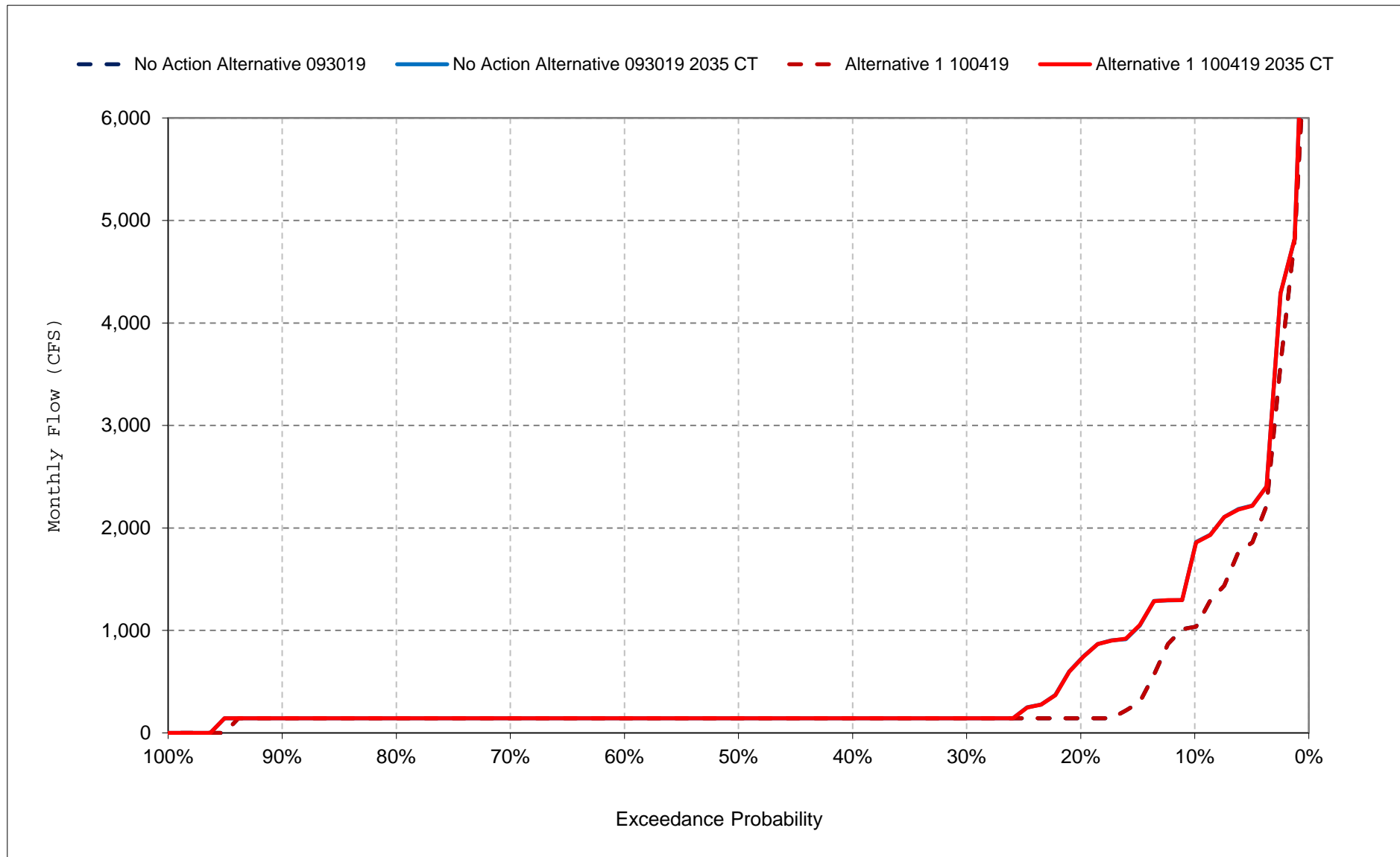
Figure 34-9. San Joaquin River Flow below Sack Dam, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

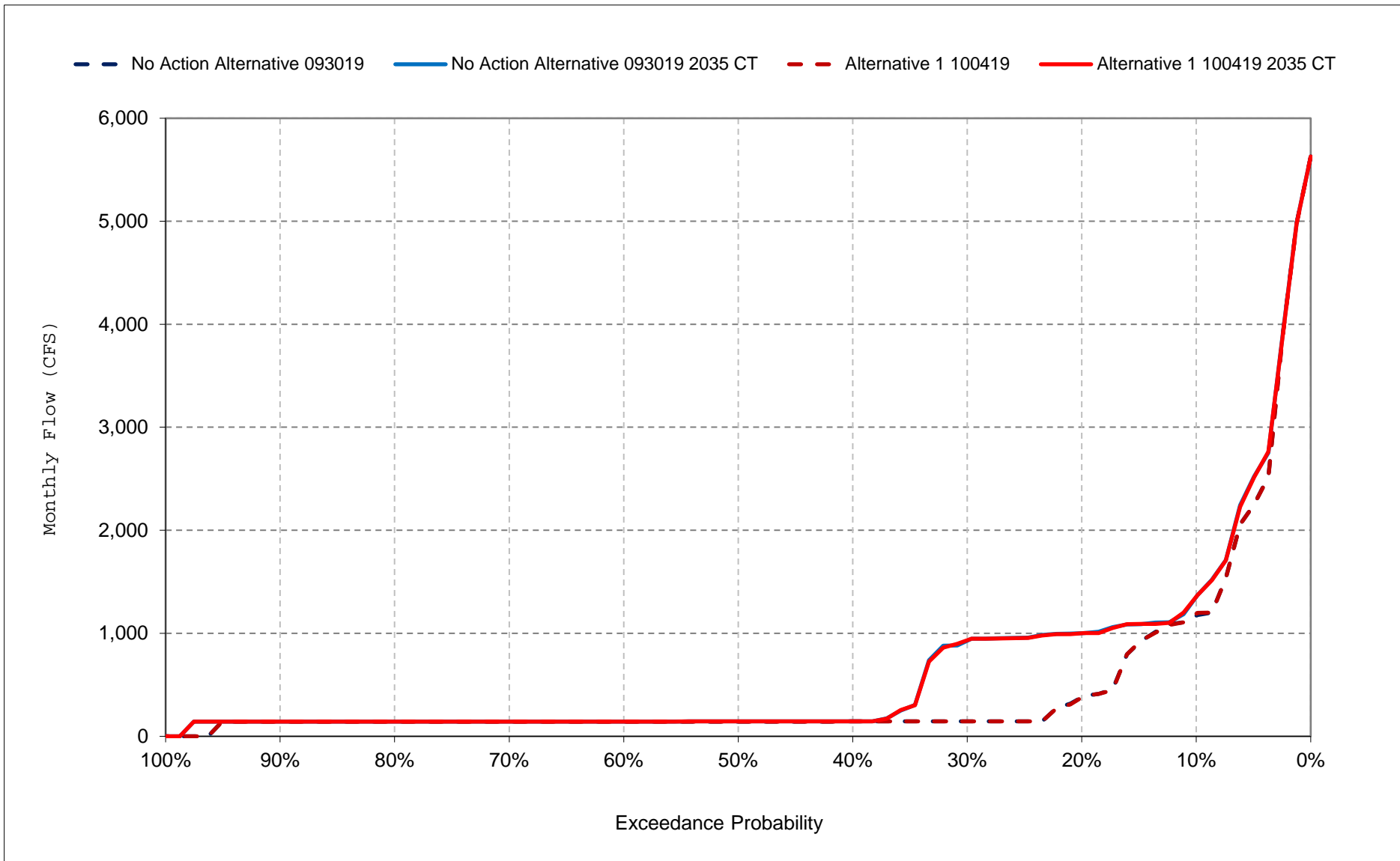
Figure 34-10. San Joaquin River Flow below Sack Dam, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

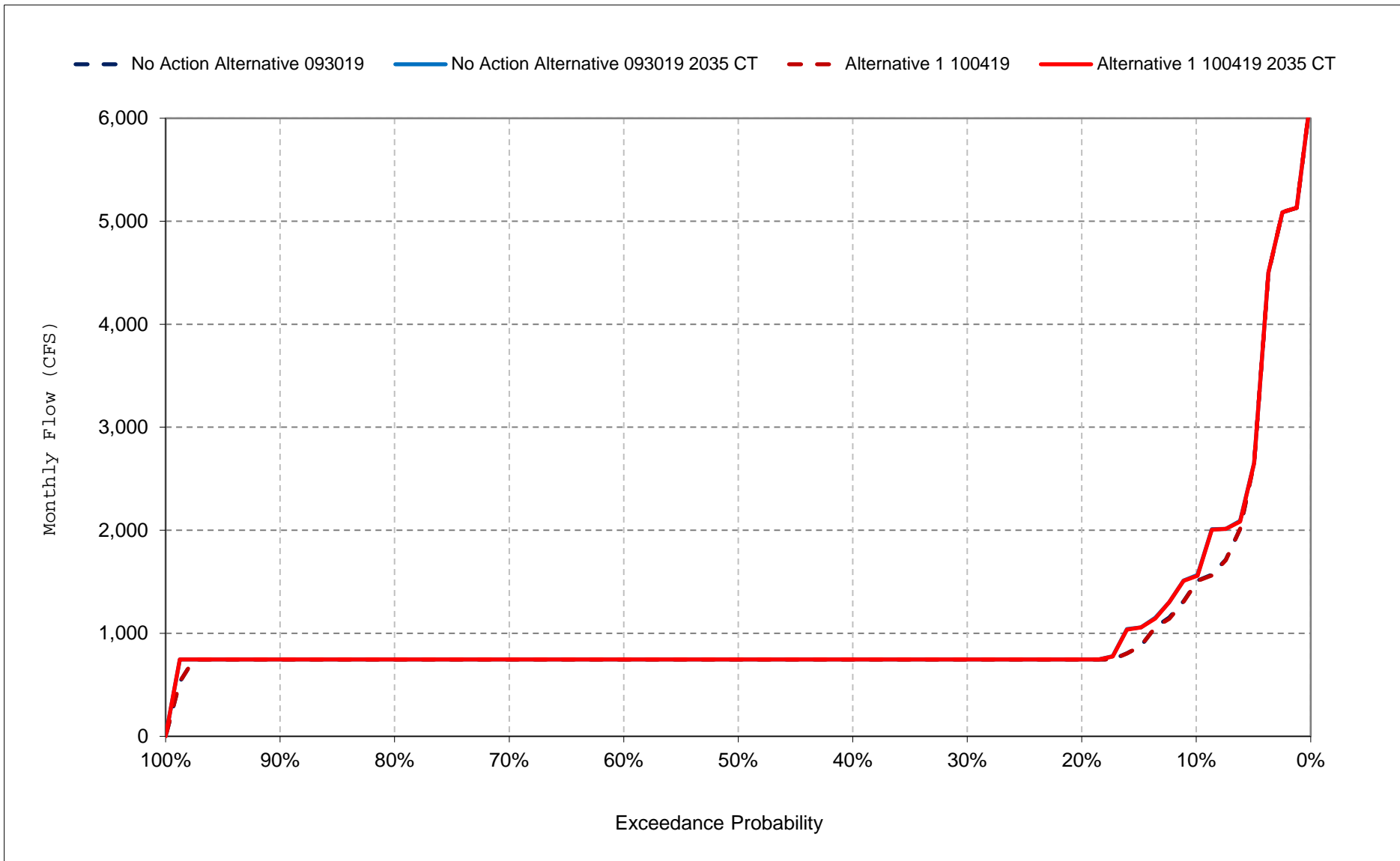
Figure 34-11. San Joaquin River Flow below Sack Dam, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

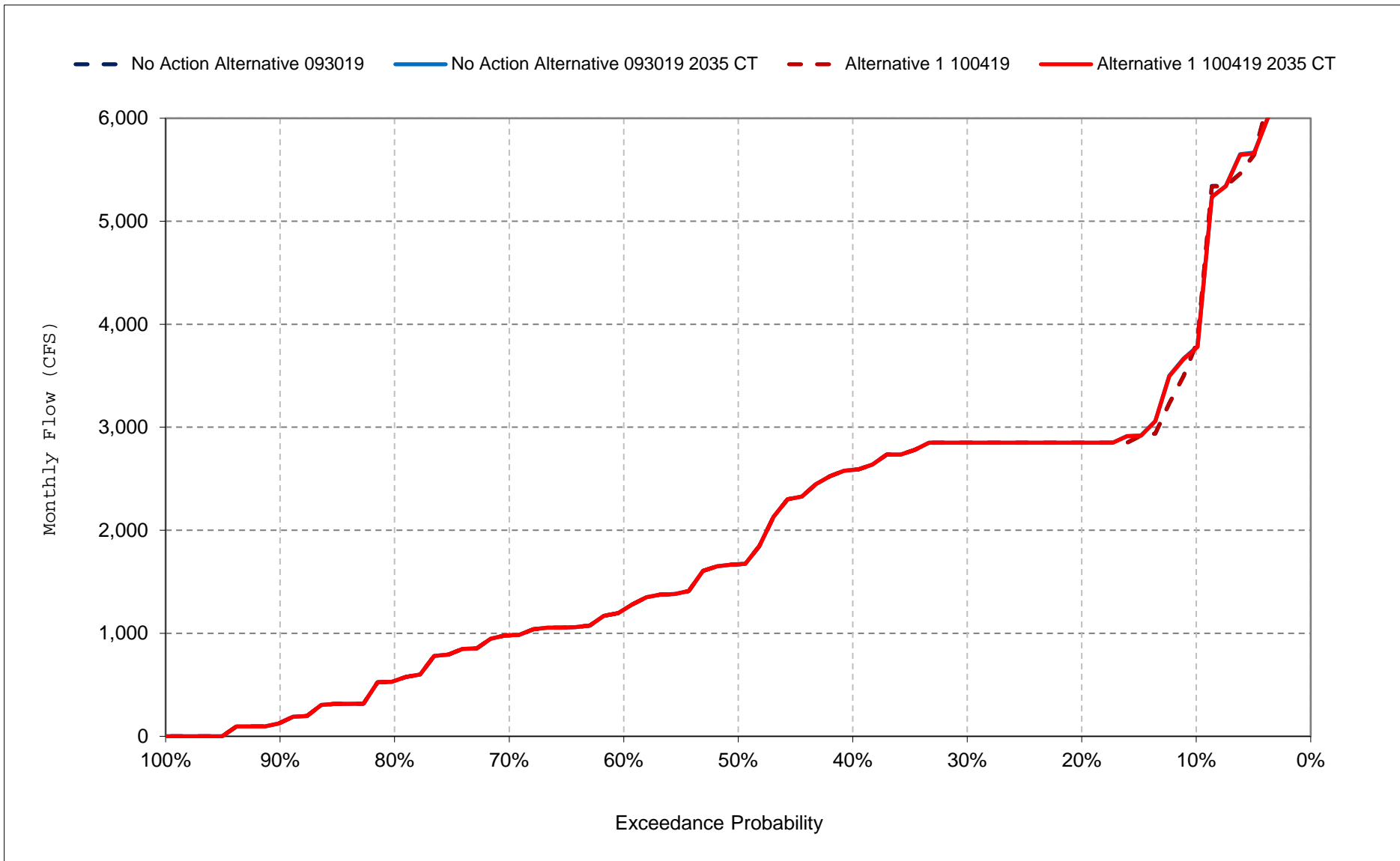
Figure 34-12. San Joaquin River Flow below Sack Dam, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

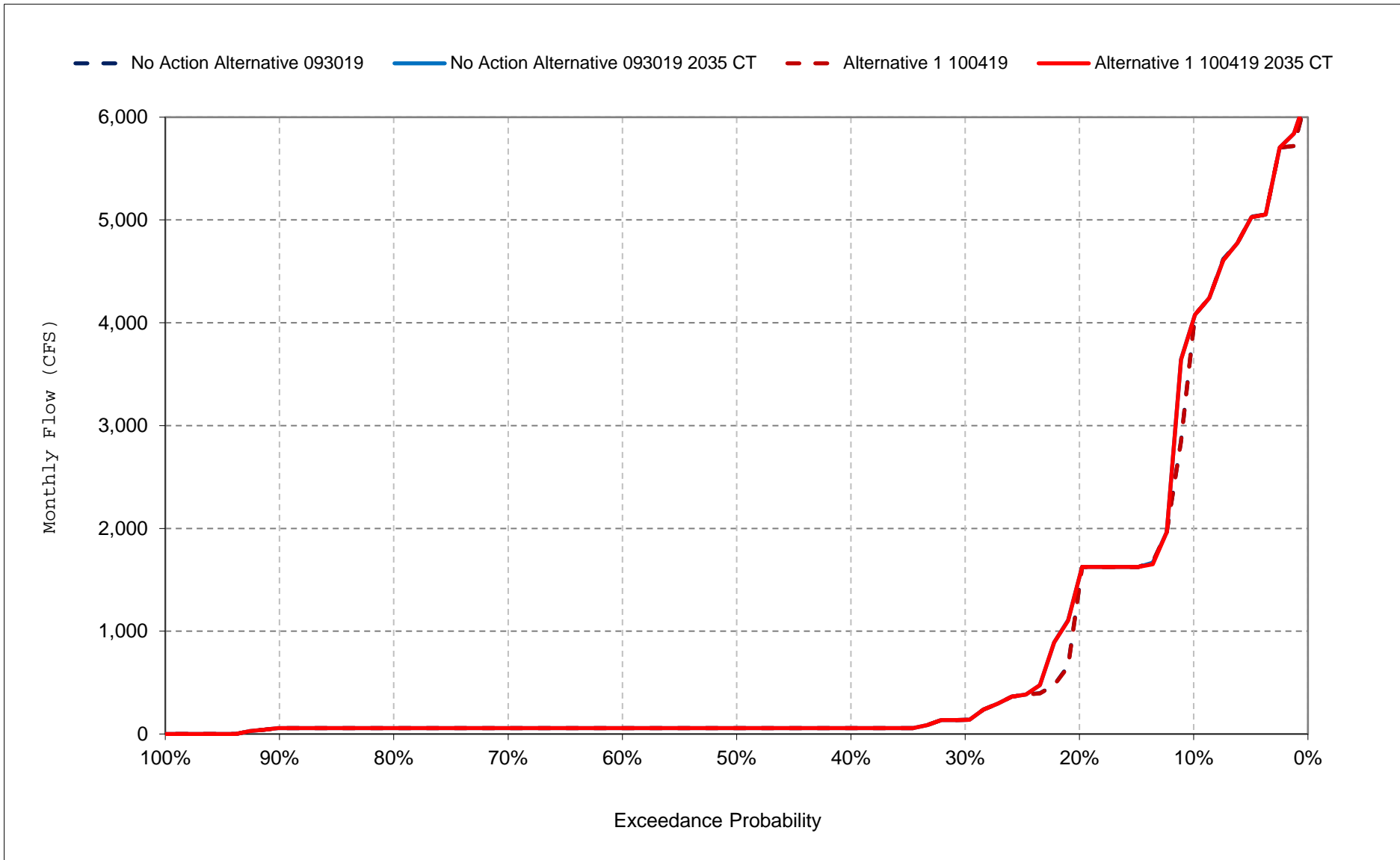
Figure 34-13. San Joaquin River Flow below Sack Dam, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

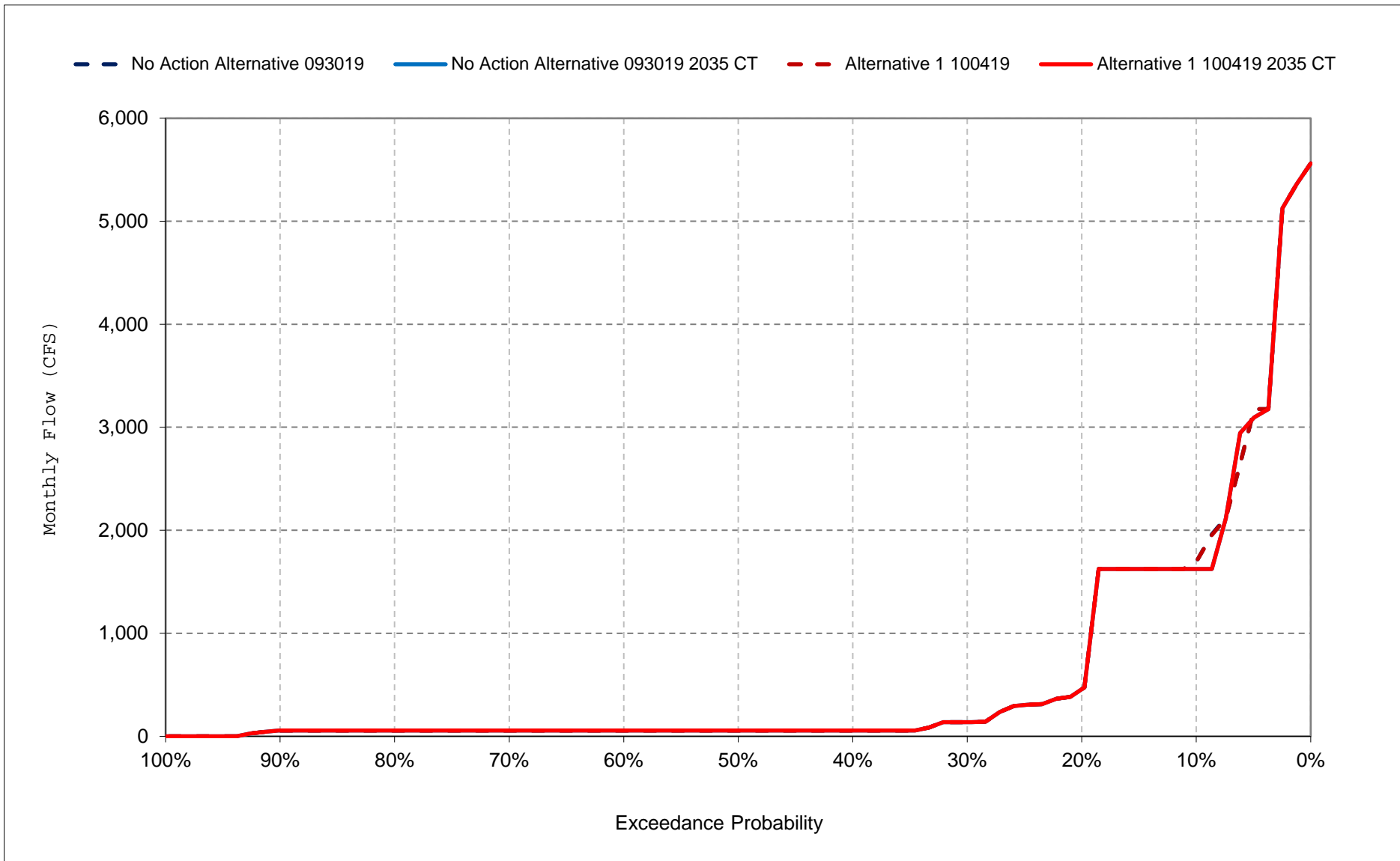
Figure 34-14. San Joaquin River Flow below Sack Dam, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

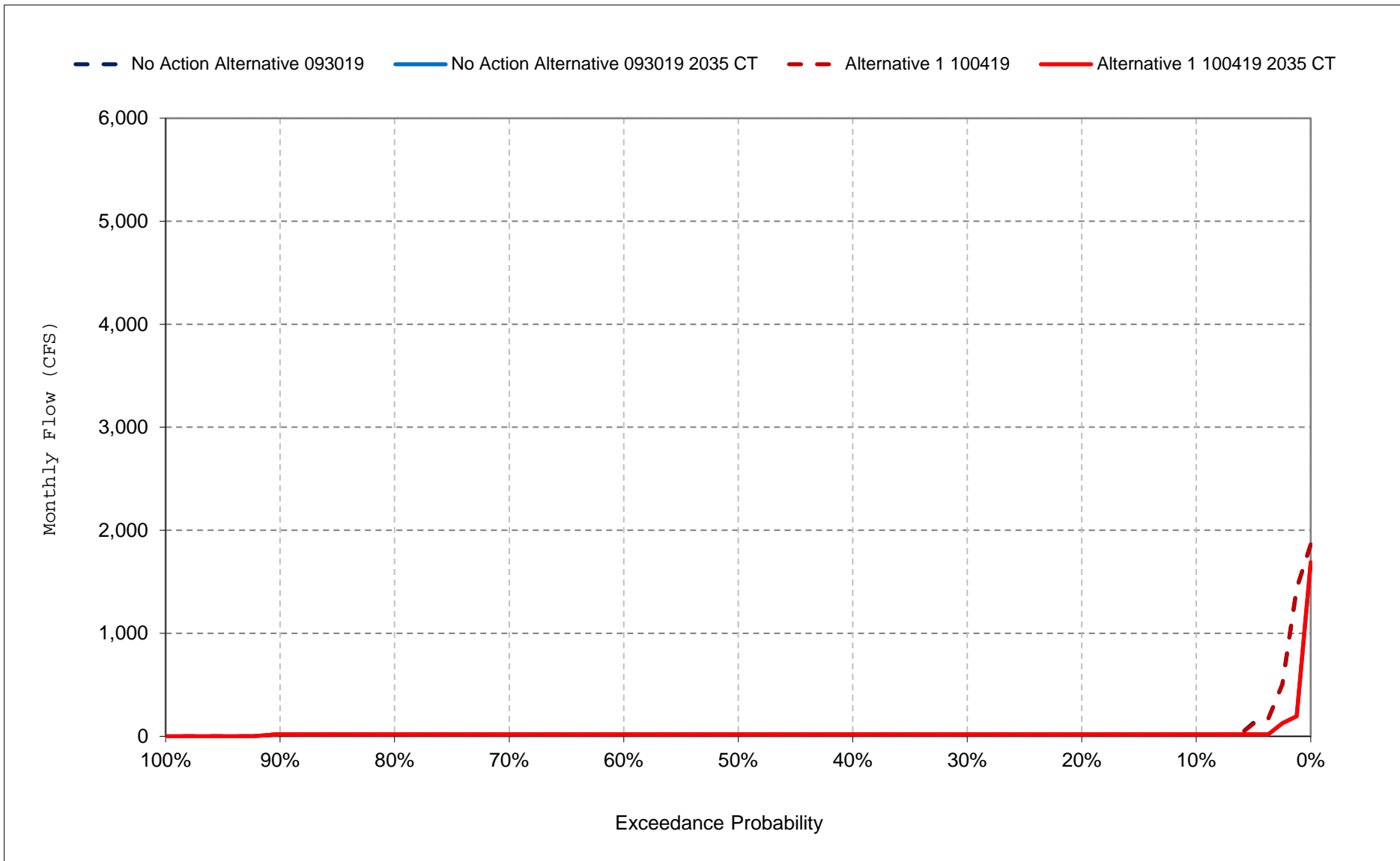
Figure 34-15. San Joaquin River Flow below Sack Dam, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

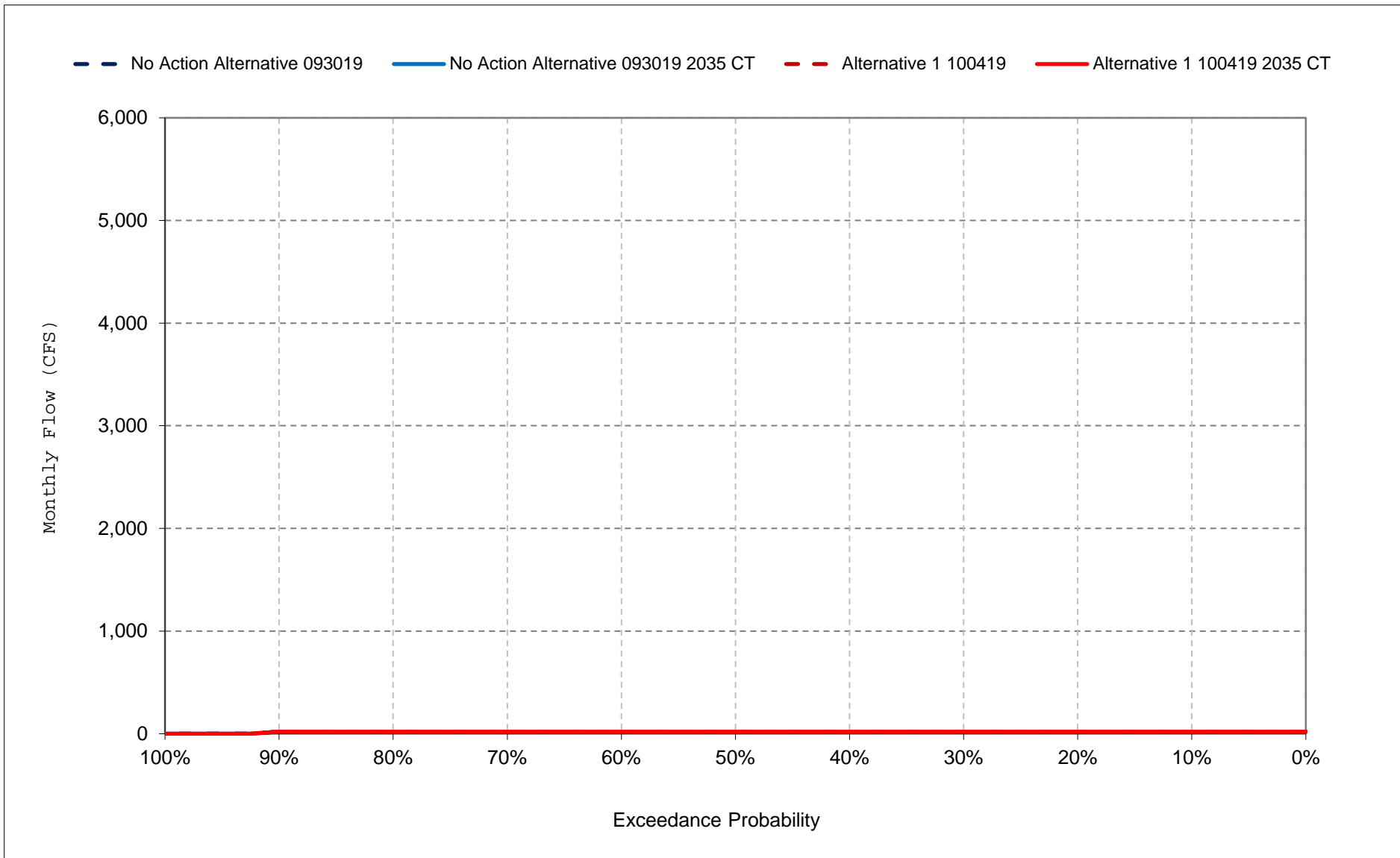
Figure 34-16. San Joaquin River Flow below Sack Dam, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

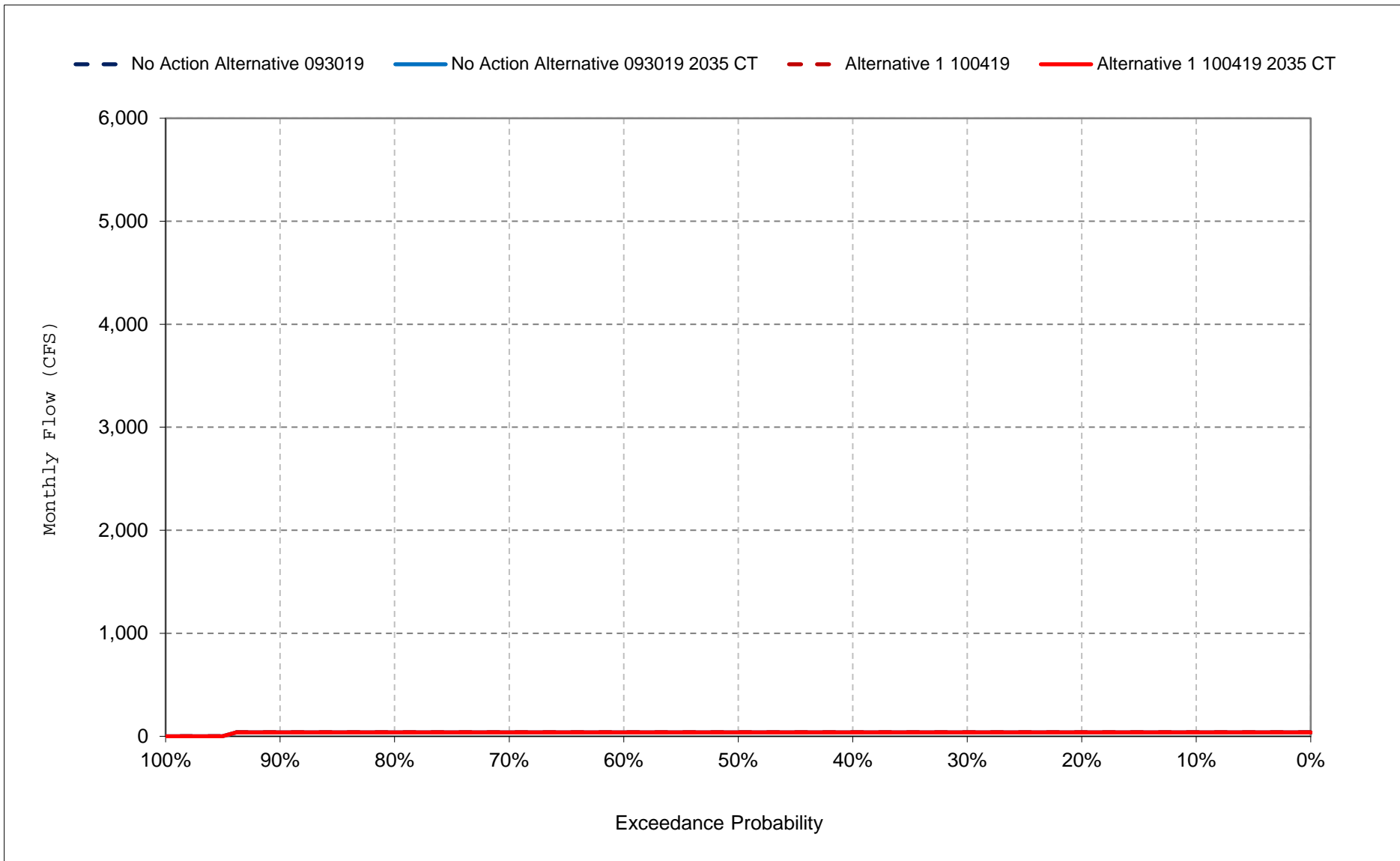
Figure 34-17. San Joaquin River Flow below Sack Dam, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 34-18. San Joaquin River Flow below Sack Dam, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-1. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,426	9,524	6,041	7,446	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	825	906	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,739	1,705	670	269	306	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	786	495	217	208	605
50%	587	1,087	935	1,002	1,583	1,813	2,337	577	425	161	151	555
60%	559	1,064	902	926	1,421	1,608	1,761	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	297	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	34	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	10	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,463	3,542	3,231	3,316	2,314	1,701	656	379	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,113	8,349	7,546	7,760	7,497	5,902	2,282	936	1,095
Above Normal (24%)	774	1,233	1,481	2,160	3,818	2,934	3,713	1,572	799	329	453	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	473	177	157	532
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,425	9,515	6,040	7,441	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	826	907	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,740	1,705	670	270	307	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	787	495	216	208	605
50%	588	1,087	935	1,002	1,584	1,813	2,337	578	425	161	152	554
60%	559	1,064	902	926	1,421	1,608	1,762	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	296	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	35	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	9	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,462	3,541	3,231	3,315	2,314	1,701	656	380	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,112	8,348	7,544	7,759	7,495	5,902	2,282	936	1,096
Above Normal (24%)	774	1,233	1,481	2,159	3,817	2,934	3,713	1,572	799	329	454	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	474	178	158	533
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-1	-9	0	-5	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	1	0	0
30%	0	0	0	0	0	0	0	0	0	1	0	0
40%	0	0	0	0	0	0	0	1	1	0	0	0
50%	0	0	0	0	0	0	0	0	0	1	1	0
60%	0	0	0	0	0	0	0	0	1	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	1	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	1	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	-1	-1	-2	-2	-2	-1	0	0	0
Above Normal (24%)	0	0	0	0	-1	0	0	0	0	1	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	1	1	1	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 35-2. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,948	7,025	8,898	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,385	6,347	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,128	3,532	3,236	3,782	1,626	670	243	233	680
40%	643	1,110	983	1,248	2,962	2,159	3,347	769	495	205	191	596
50%	578	1,084	945	1,033	1,758	1,803	2,337	567	420	161	149	549
60%	559	1,064	911	930	1,463	1,608	1,761	458	371	148	131	536
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	114	526
80%	486	1,004	872	821	1,131	1,383	857	321	226	50	72	501
90%	447	899	807	748	1,018	1,273	323	243	139	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,148	3,551	3,482	2,524	1,627	485	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,252	9,589	8,626	8,341	8,086	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,998	3,179	3,836	1,863	790	285	365	740
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	473	177	157	532
Dry (16%)	536	1,138	1,744	980	1,342	1,576	1,416	424	316	127	136	544
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	169	41	66	454

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,943	7,016	8,897	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,384	6,346	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,131	3,528	3,236	3,782	1,627	670	244	232	680
40%	643	1,110	983	1,248	2,973	2,159	3,347	769	495	204	191	596
50%	579	1,085	945	1,033	1,758	1,803	2,337	568	421	161	150	549
60%	559	1,064	911	930	1,463	1,608	1,762	459	371	149	130	537
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	115	526
80%	486	1,004	872	821	1,131	1,383	857	322	227	51	72	501
90%	447	899	807	748	1,018	1,273	323	243	138	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,147	3,551	3,481	2,524	1,628	486	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,251	9,588	8,623	8,339	8,085	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,994	3,179	3,836	1,862	791	285	365	741
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	474	178	158	533
Dry (16%)	536	1,138	1,745	980	1,342	1,577	1,416	424	316	127	136	543
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	170	41	66	454

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	-5	-9	0	0	0	0	0	0
20%	0	0	0	-1	-1	0	0	-1	0	0	0	0
30%	0	0	0	3	-4	0	0	1	0	1	0	0
40%	0	0	0	0	11	0	0	0	1	-1	1	0
50%	0	0	0	0	0	0	0	1	0	1	1	0
60%	0	0	0	0	0	0	0	0	0	0	0	1
70%	0	0	0	0	0	0	0	0	0	0	1	0
80%	0	0	0	0	0	0	0	0	0	1	0	0
90%	0	0	0	0	0	0	0	0	-1	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	-1	-1	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	0	-1	-2	-2	-1	0	0	0	0
Above Normal (24%)	0	0	0	0	-4	0	0	-1	0	0	0	1
Below Normal (10%)	0	0	0	0	0	0	0	0	1	1	1	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-3. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,426	9,524	6,041	7,446	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	825	906	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,739	1,705	670	269	306	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	786	495	217	208	605
50%	587	1,087	935	1,002	1,583	1,813	2,337	577	425	161	151	555
60%	559	1,064	902	926	1,421	1,608	1,761	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	297	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	34	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	10	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,463	3,542	3,231	3,316	2,314	1,701	656	379	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,113	8,349	7,546	7,760	7,497	5,902	2,282	936	1,095
Above Normal (24%)	774	1,233	1,481	2,160	3,818	2,934	3,713	1,572	799	329	453	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	473	177	157	532
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,948	7,025	8,898	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,385	6,347	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,128	3,532	3,236	3,782	1,626	670	243	233	680
40%	643	1,110	983	1,248	2,962	2,159	3,347	769	495	205	191	596
50%	578	1,084	945	1,033	1,758	1,803	2,337	567	420	161	149	549
60%	559	1,064	911	930	1,463	1,608	1,761	458	371	148	131	536
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	114	526
80%	486	1,004	872	821	1,131	1,383	857	321	226	50	72	501
90%	447	899	807	748	1,018	1,273	323	243	139	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,148	3,551	3,482	2,524	1,627	485	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,252	9,589	8,626	8,341	8,086	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,998	3,179	3,836	1,863	790	285	365	740
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	473	177	157	532
Dry (16%)	536	1,138	1,744	980	1,342	1,576	1,416	424	316	127	136	544
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	169	41	66	454

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-31	-441	1,980	2,423	984	1,452	1,524	-337	-395	-22	-8
20%	-11	-30	88	619	2,044	255	353	1,121	-377	-80	-44	-17
30%	-9	-1	5	283	475	420	42	-79	0	-26	-73	-211
40%	-17	-4	12	29	647	71	18	-17	0	-12	-17	-9
50%	-9	-3	10	31	174	-10	0	-11	-5	0	-2	-6
60%	0	1	9	4	42	0	0	0	0	1	-3	1
70%	-1	1	2	12	16	0	11	9	0	0	-3	5
80%	0	0	2	2	14	5	-1	0	7	15	-2	6
90%	10	4	-3	0	0	0	-3	14	8	0	14	5
Long Term												
Full Simulation Period ^d	-10	-6	75	427	606	320	166	210	-74	-171	-30	-10
Water Year Types ^{b,c}												
Wet (23%)	-36	1	126	1,139	1,240	1,080	581	589	-322	-696	-47	-18
Above Normal (24%)	-12	-36	-16	587	1,181	245	123	291	-9	-44	-89	-41
Below Normal (10%)	0	0	0	164	136	56	0	0	0	0	0	0
Dry (16%)	7	17	107	-20	72	11	2	8	9	6	7	21
Critical (27%)	1	0	128	24	24	10	4	5	6	1	5	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-4. San Joaquin River Flow below confluence with Merced , Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,425	9,515	6,040	7,441	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	826	907	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,740	1,705	670	270	307	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	787	495	216	208	605
50%	588	1,087	935	1,002	1,584	1,813	2,337	578	425	161	152	554
60%	559	1,064	902	926	1,421	1,608	1,762	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	296	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	35	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	9	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,462	3,541	3,231	3,315	2,314	1,701	656	380	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,112	8,348	7,544	7,759	7,495	5,902	2,282	936	1,096
Above Normal (24%)	774	1,233	1,481	2,159	3,817	2,934	3,713	1,572	799	329	454	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	474	178	158	533
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,943	7,016	8,897	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,384	6,346	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,131	3,528	3,236	3,782	1,627	670	244	232	680
40%	643	1,110	983	1,248	2,973	2,159	3,347	769	495	204	191	596
50%	579	1,085	945	1,033	1,758	1,803	2,337	568	421	161	150	549
60%	559	1,064	911	930	1,463	1,608	1,762	459	371	149	130	537
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	115	526
80%	486	1,004	872	821	1,131	1,383	857	322	227	51	72	501
90%	447	899	807	748	1,018	1,273	323	243	138	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,147	3,551	3,481	2,524	1,628	486	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,251	9,588	8,623	8,339	8,085	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,994	3,179	3,836	1,862	791	285	365	741
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	474	178	158	533
Dry (16%)	536	1,138	1,745	980	1,342	1,577	1,416	424	316	127	136	543
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	170	41	66	454

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-31	-441	1,981	2,428	976	1,456	1,524	-337	-395	-21	-8
20%	-11	-31	88	618	2,043	255	353	1,120	-377	-80	-45	-17
30%	-9	-1	5	287	471	420	42	-78	0	-26	-74	-211
40%	-17	-4	12	29	658	71	17	-18	0	-12	-16	-9
50%	-9	-3	10	31	174	-10	0	-10	-5	0	-2	-5
60%	0	0	9	4	42	0	0	0	0	1	-4	2
70%	-1	1	2	12	16	0	11	9	0	0	-3	5
80%	0	0	2	2	14	5	0	0	7	16	-2	5
90%	10	4	-3	0	0	0	-3	14	7	0	15	5
Long Term												
Full Simulation Period ^d	-10	-6	75	427	606	320	166	210	-74	-171	-30	-10
Water Year Types ^{b,c}												
Wet (23%)	-36	1	126	1,139	1,241	1,080	581	590	-322	-696	-47	-18
Above Normal (24%)	-12	-36	-16	587	1,177	245	123	290	-9	-44	-89	-40
Below Normal (10%)	0	0	0	164	136	56	0	0	0	0	0	0
Dry (16%)	7	17	107	-20	72	11	2	8	9	6	7	21
Critical (27%)	1	0	128	24	24	10	4	5	6	1	5	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

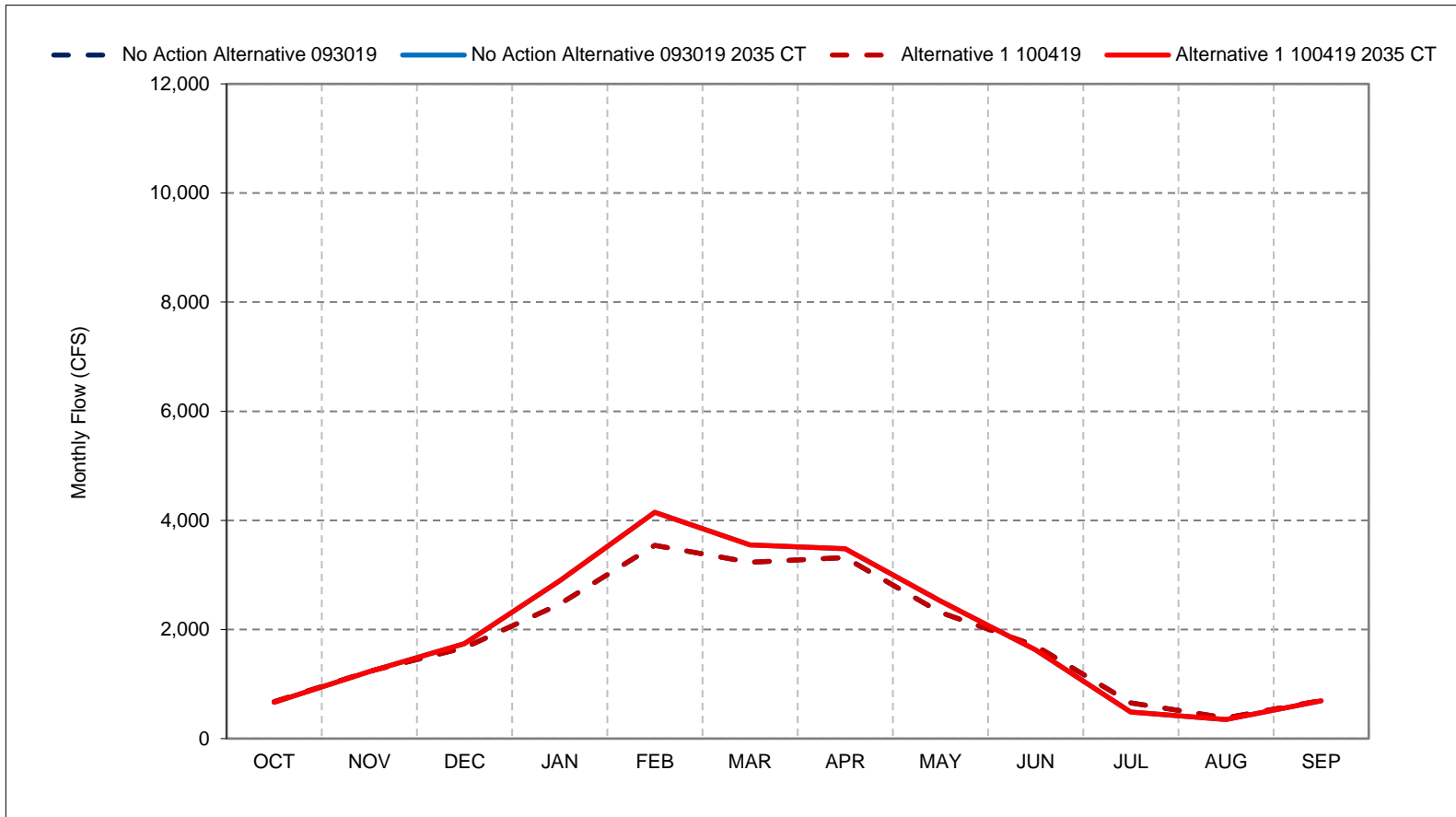
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 35-1. San Joaquin River Flow below confluence with Merced , Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

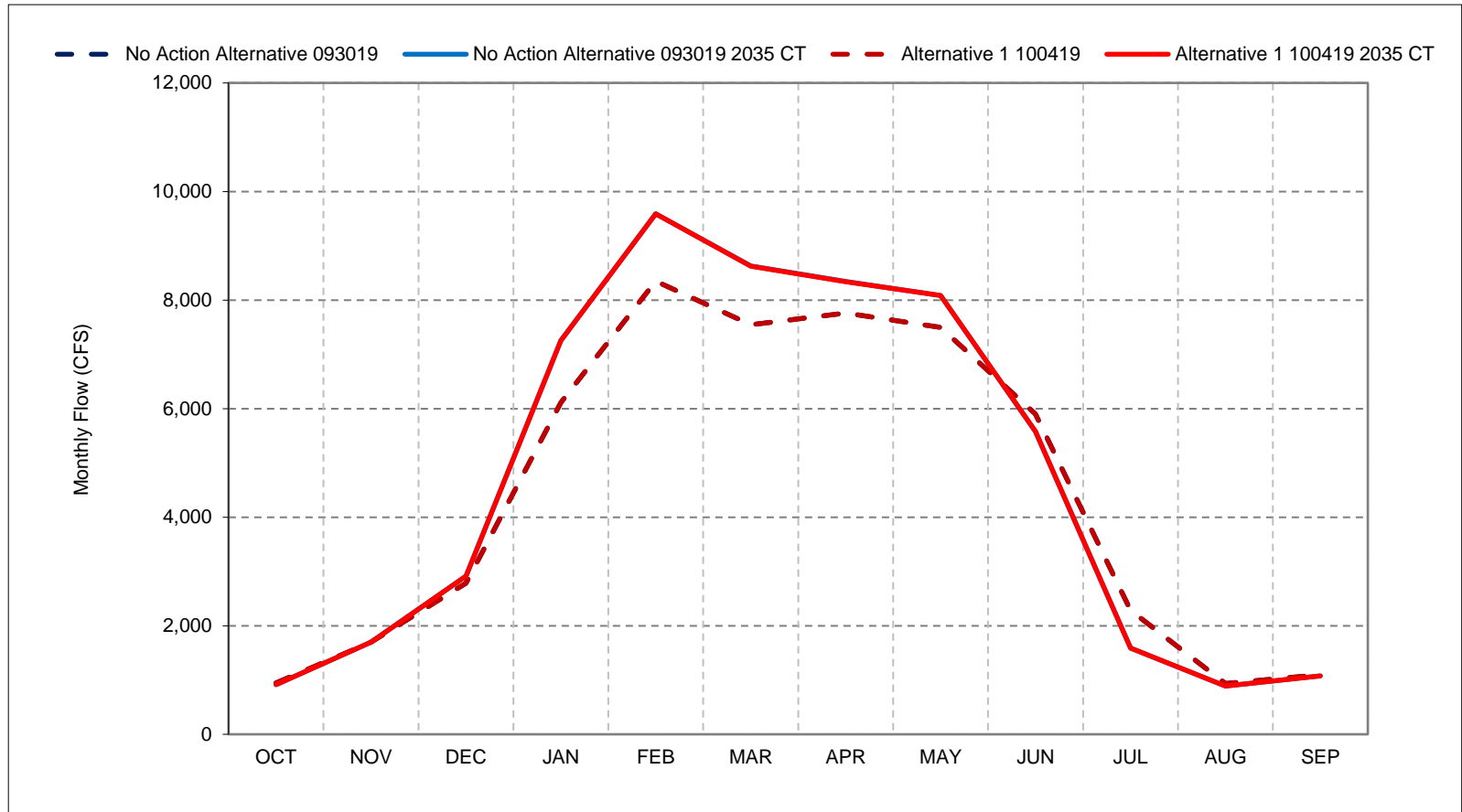
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-2. San Joaquin River Flow below confluence with Merced , Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

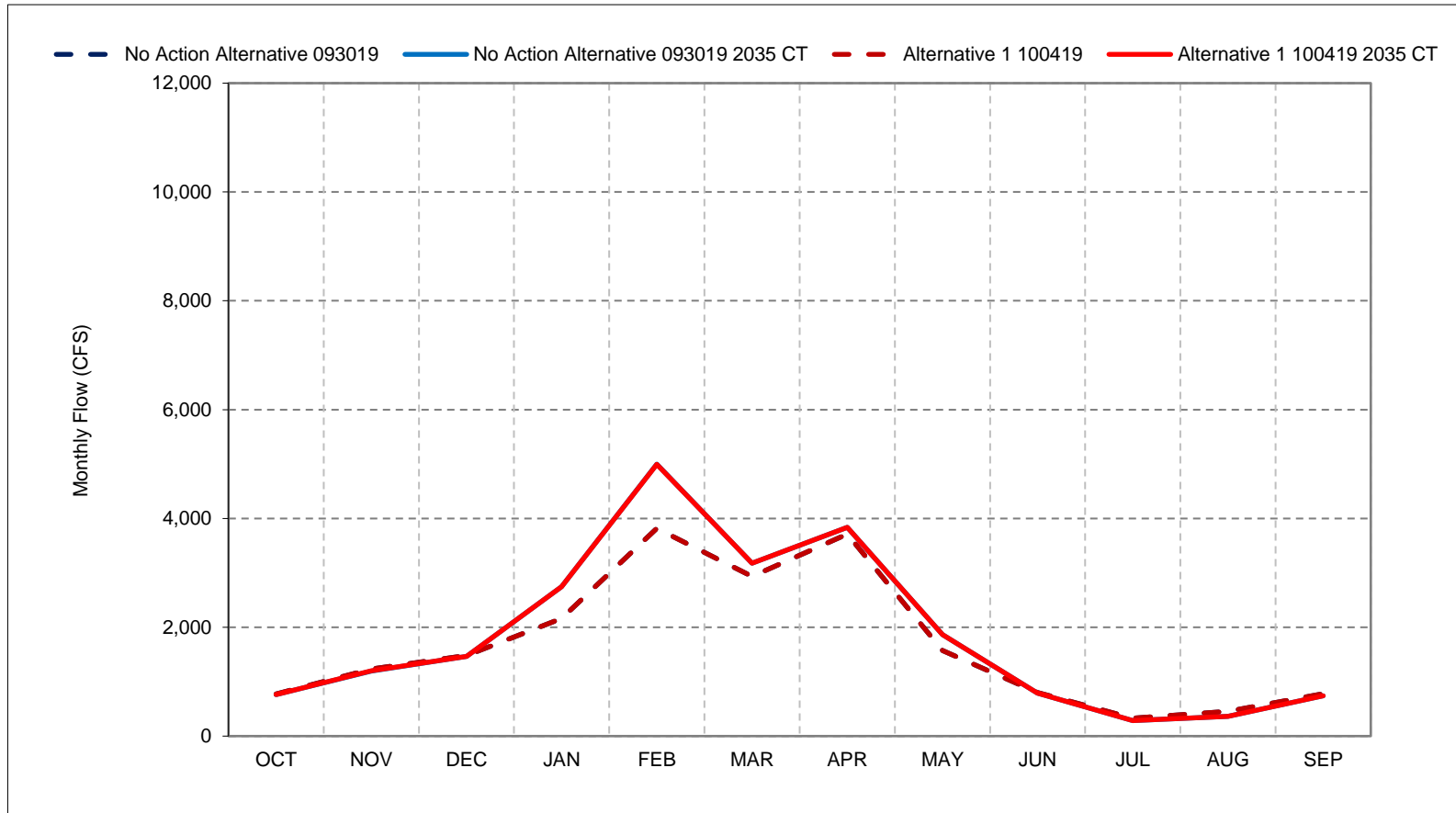
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-3. San Joaquin River Flow below confluence with Merced , Above Normal Year Average |



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

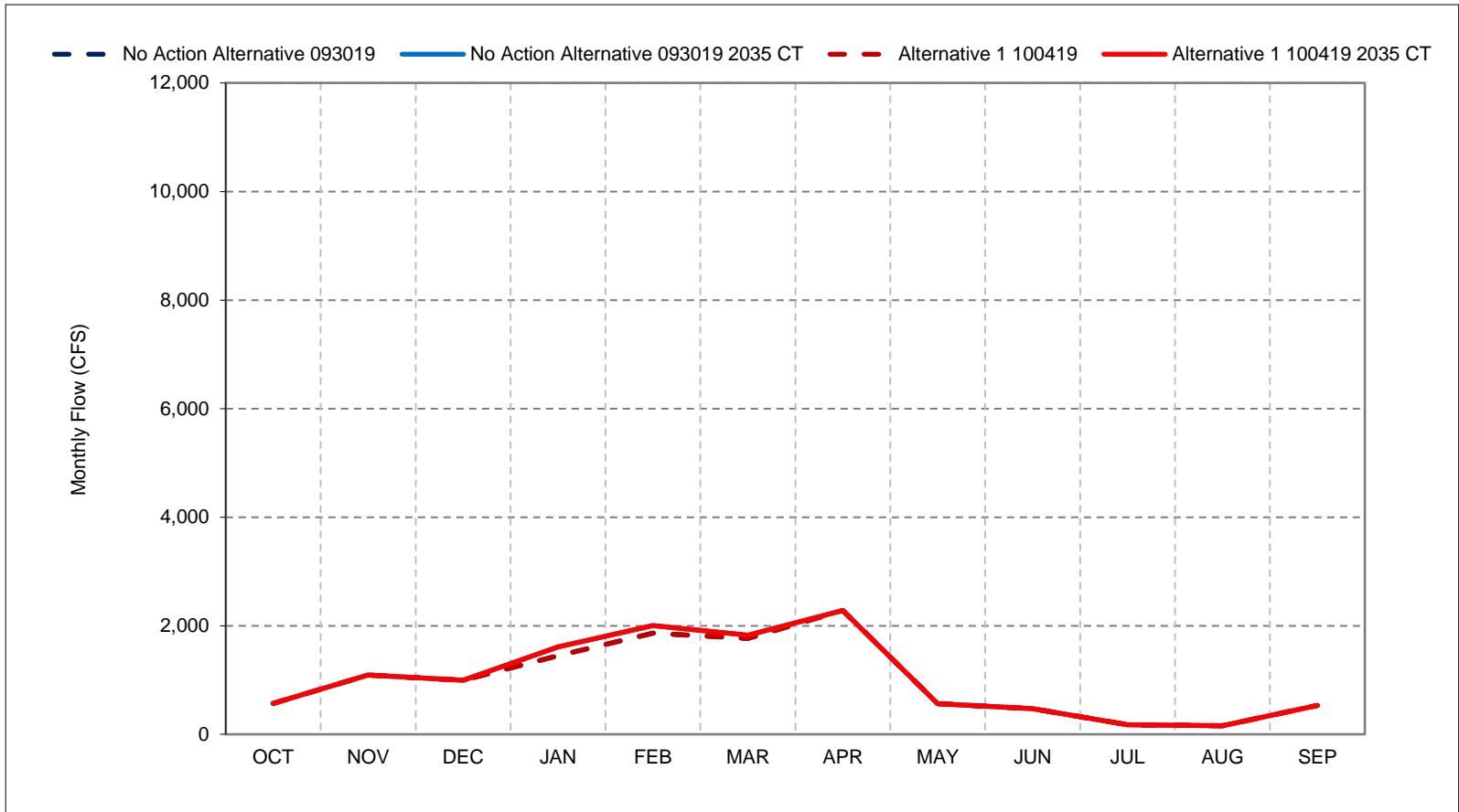
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-4. San Joaquin River Flow below confluence with Merced , Below Normal Year Average I



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

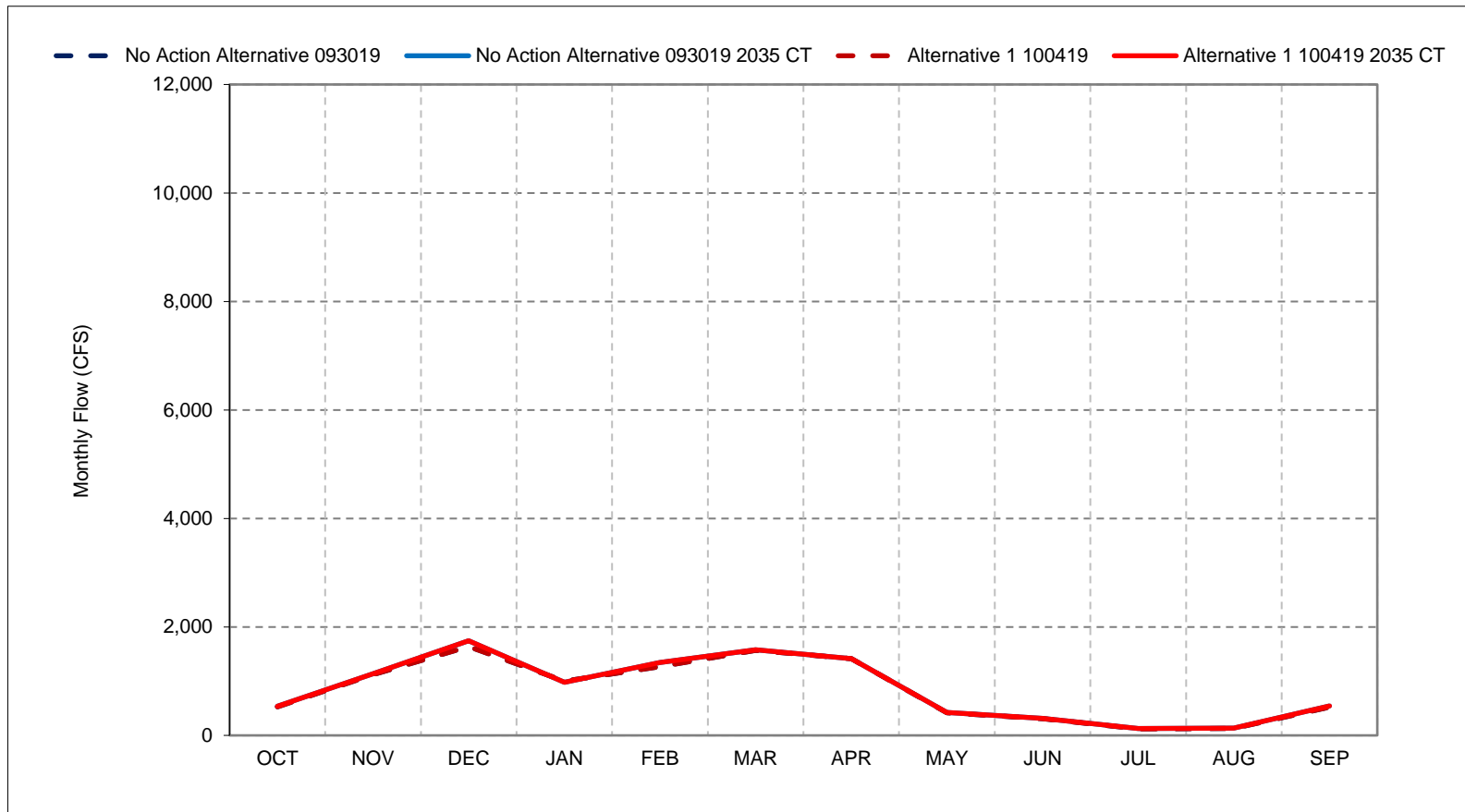
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-5. San Joaquin River Flow below confluence with Merced , Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

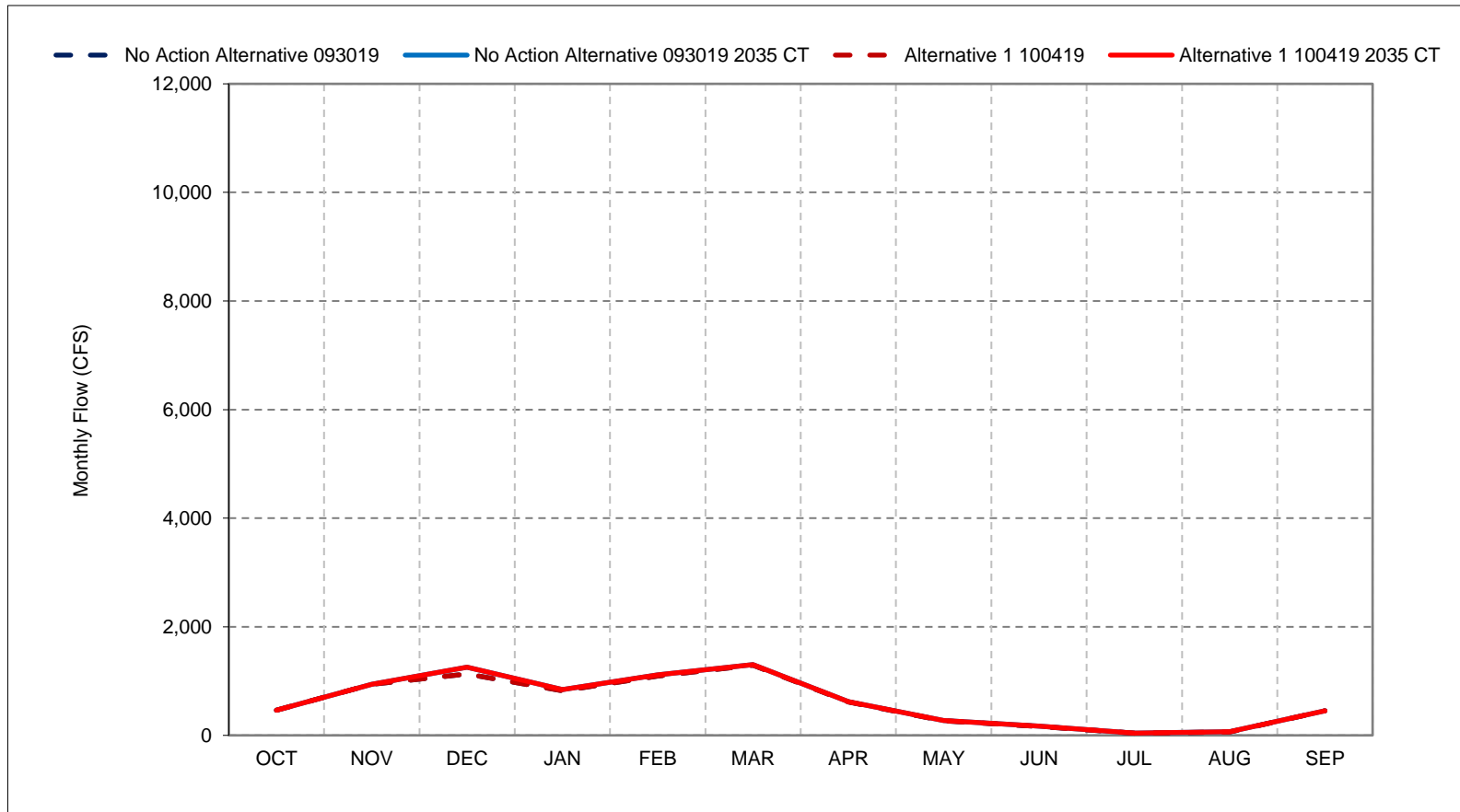
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-6. San Joaquin River Flow below confluence with Merced , Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

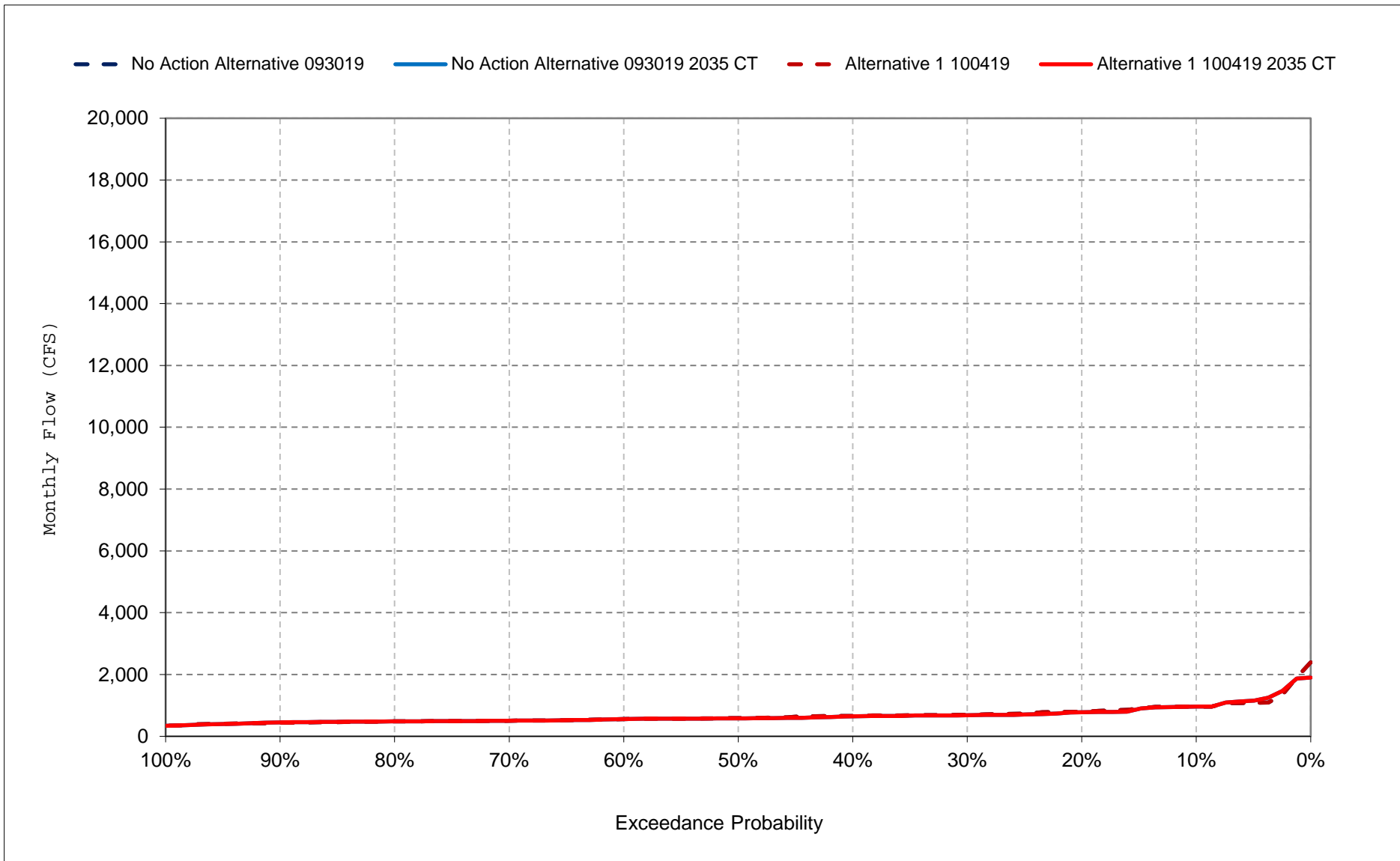
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

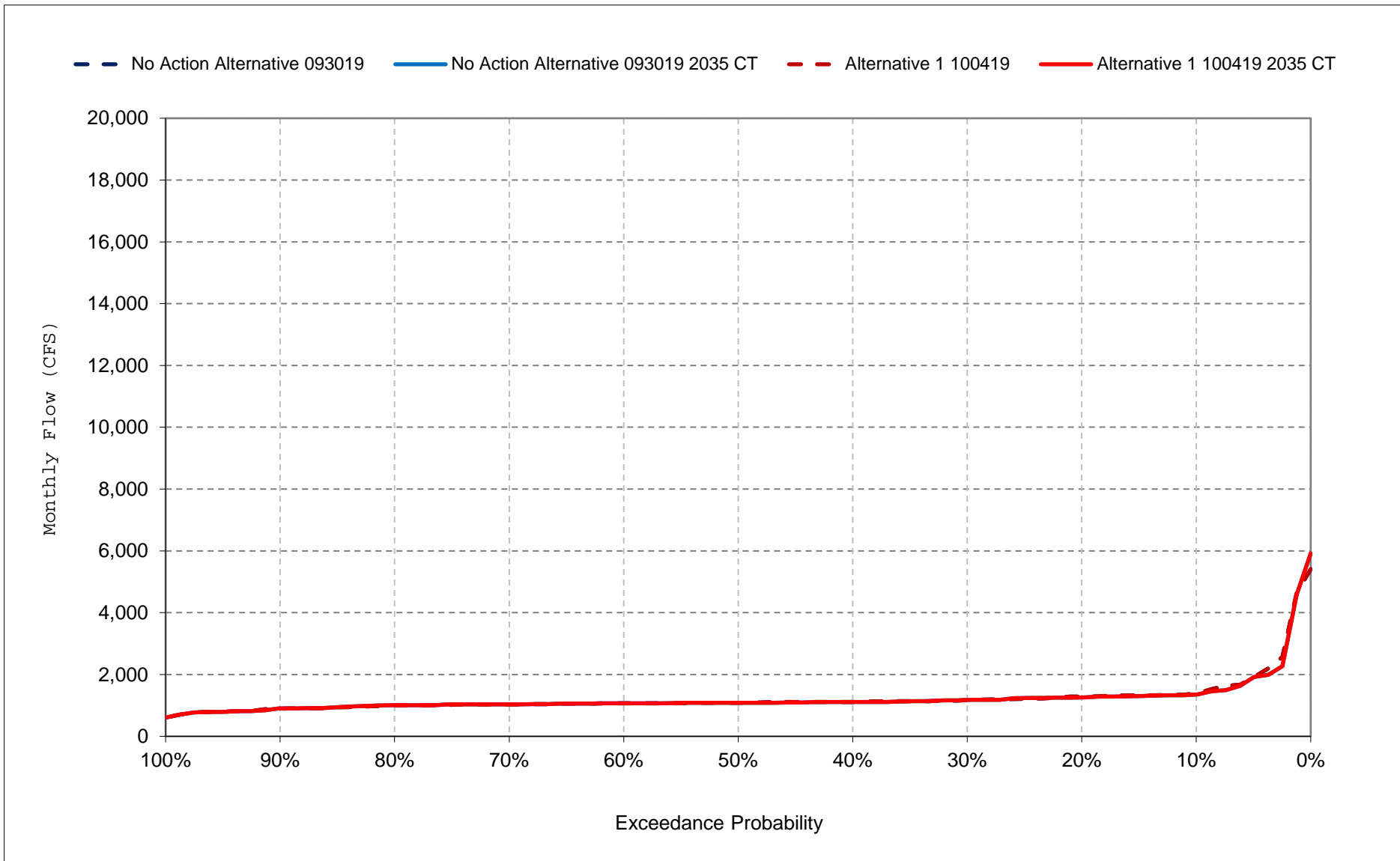
Figure 35-7. San Joaquin River Flow below confluence with Merced , October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

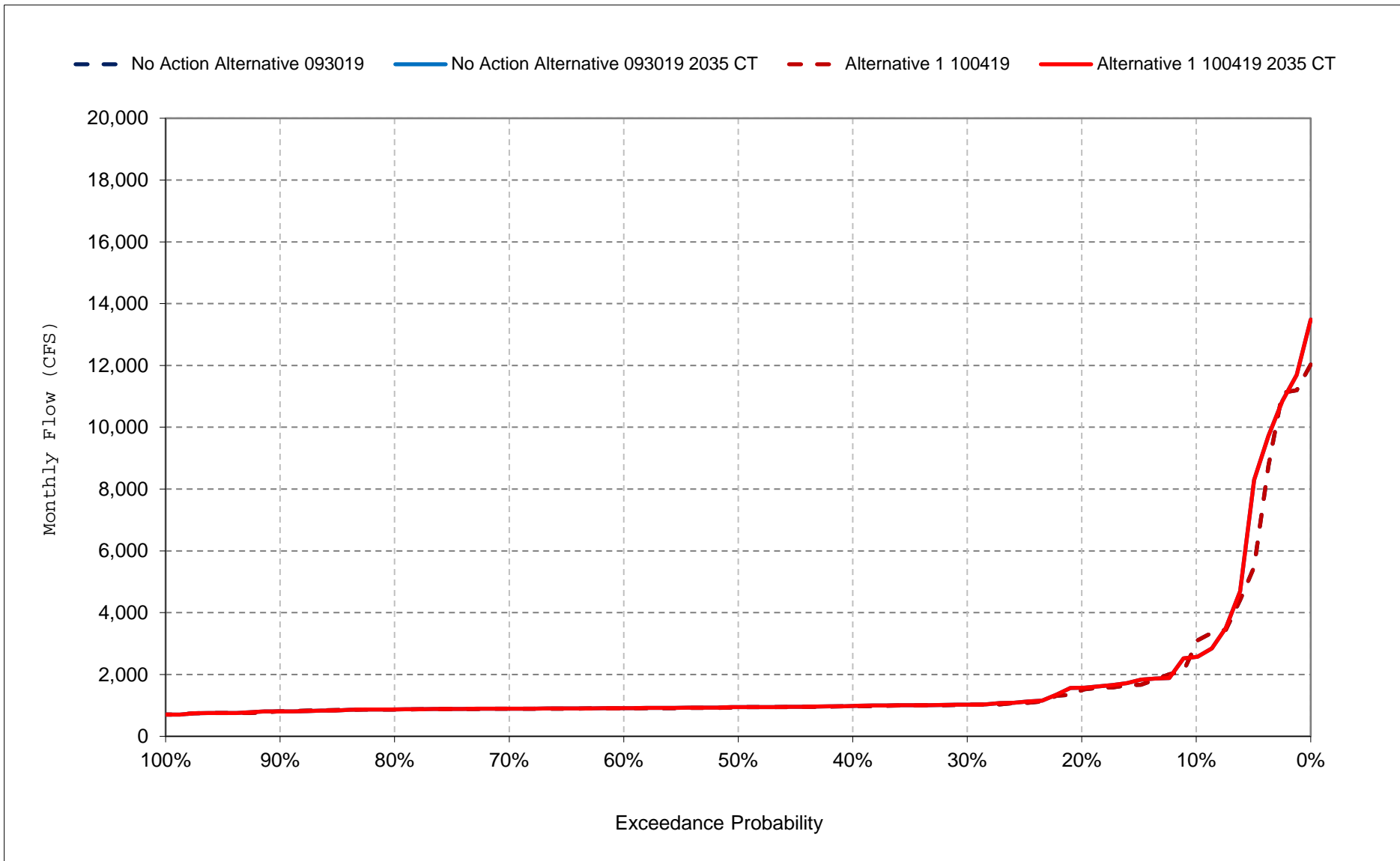
Figure 35-8. San Joaquin River Flow below confluence with Merced , November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

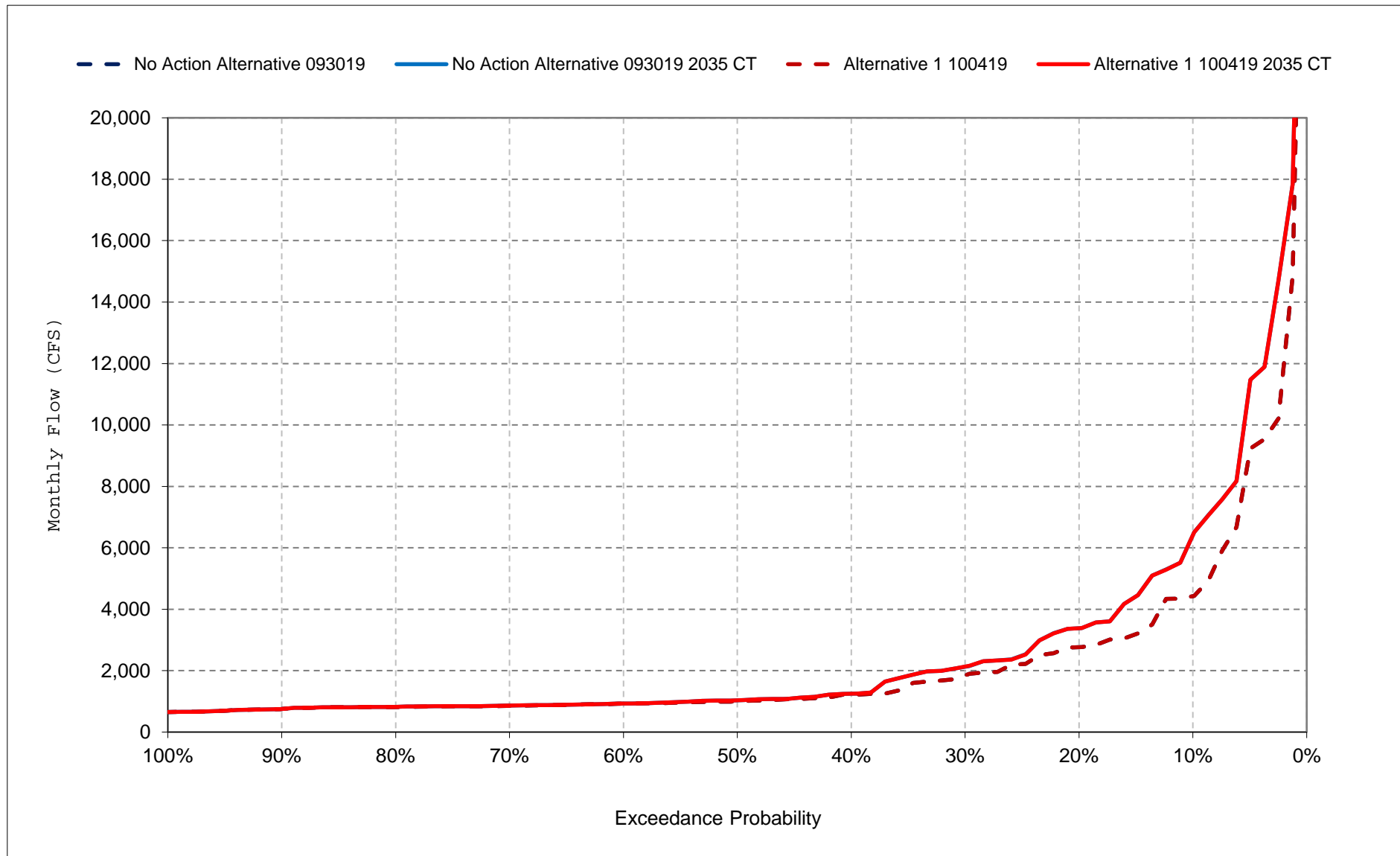
Figure 35-9. San Joaquin River Flow below confluence with Merced , December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

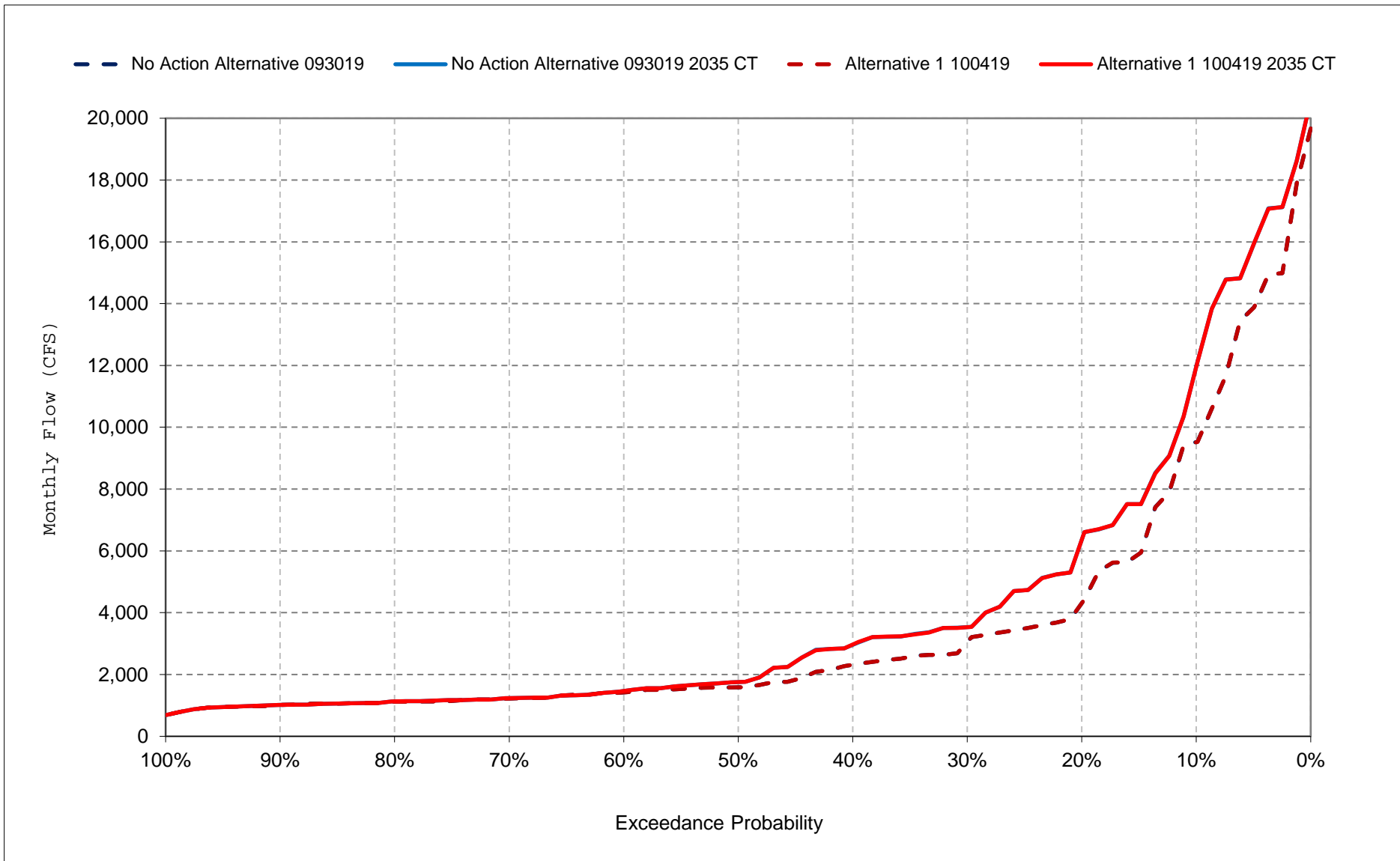
Figure 35-10. San Joaquin River Flow below confluence with Merced , January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

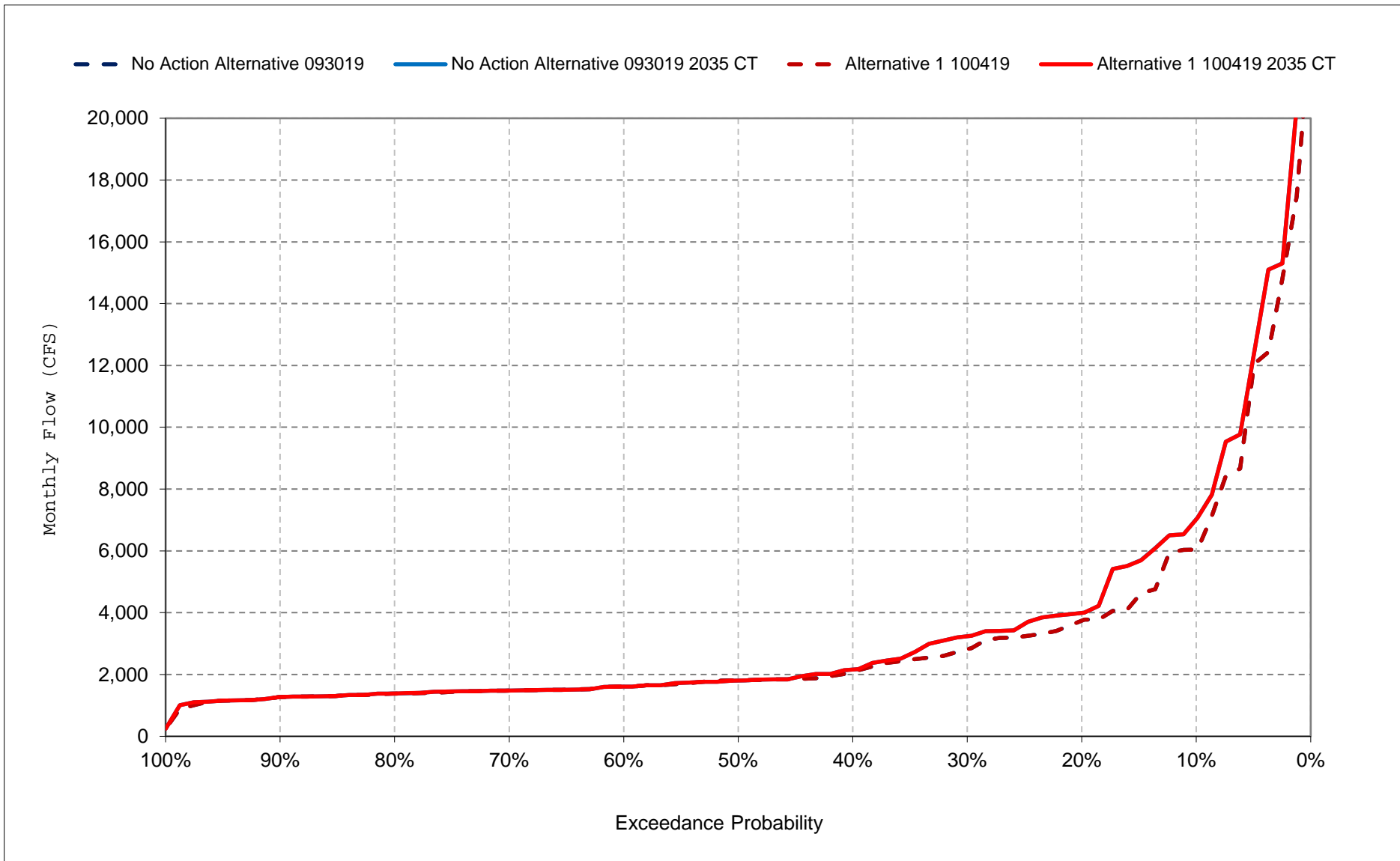
Figure 35-11. San Joaquin River Flow below confluence with Merced , February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

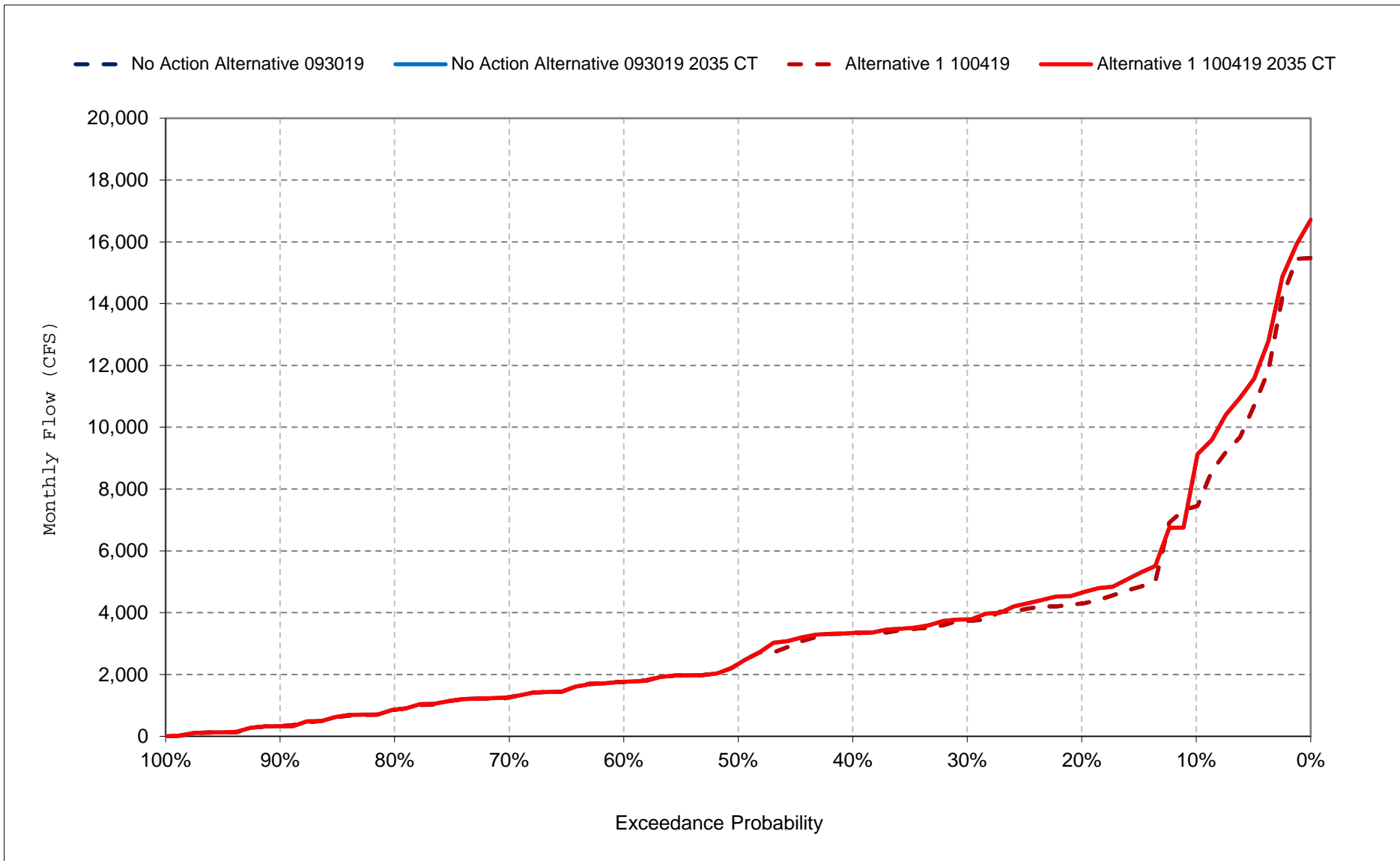
Figure 35-12. San Joaquin River Flow below confluence with Merced , March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

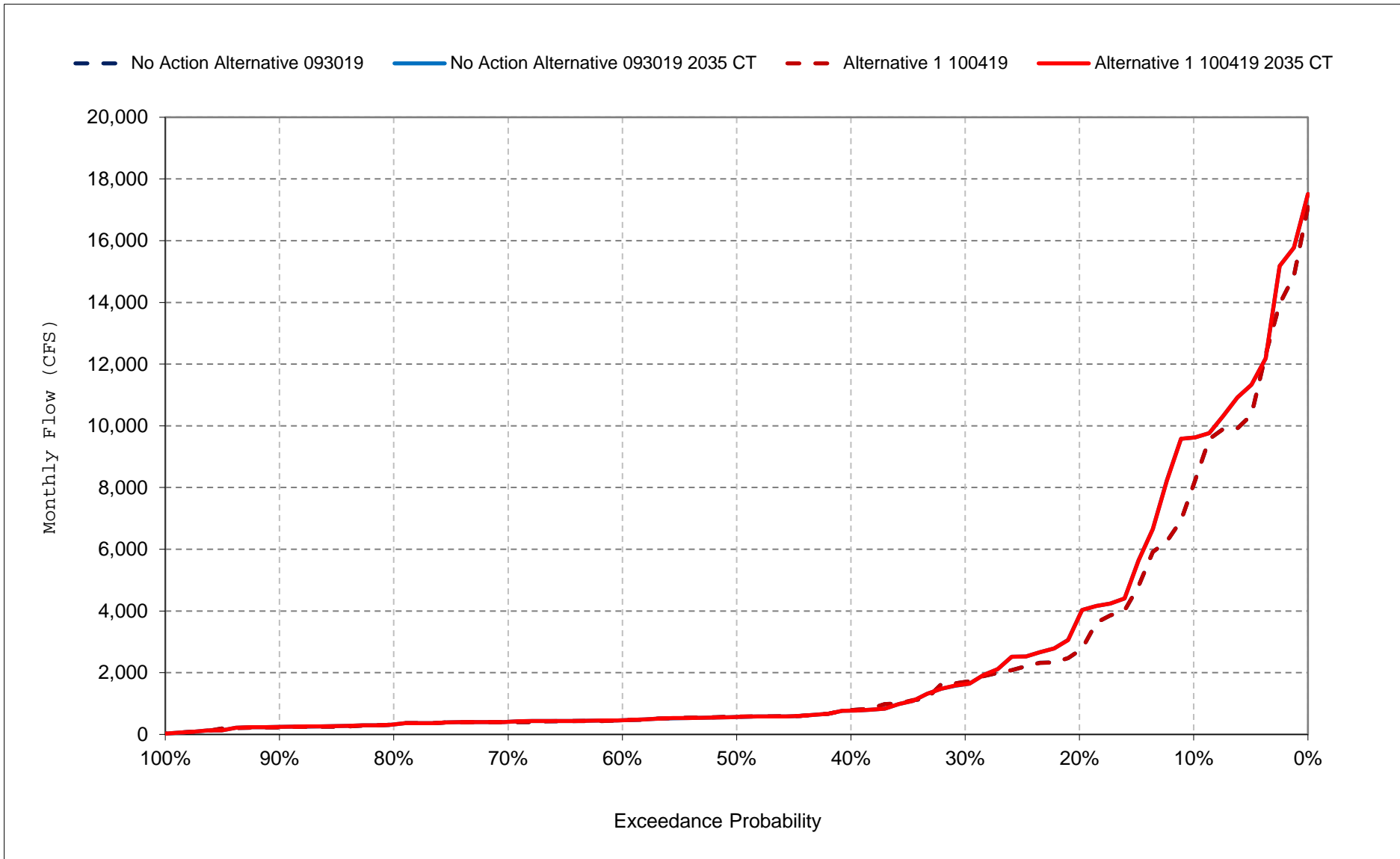
Figure 35-13. San Joaquin River Flow below confluence with Merced , April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

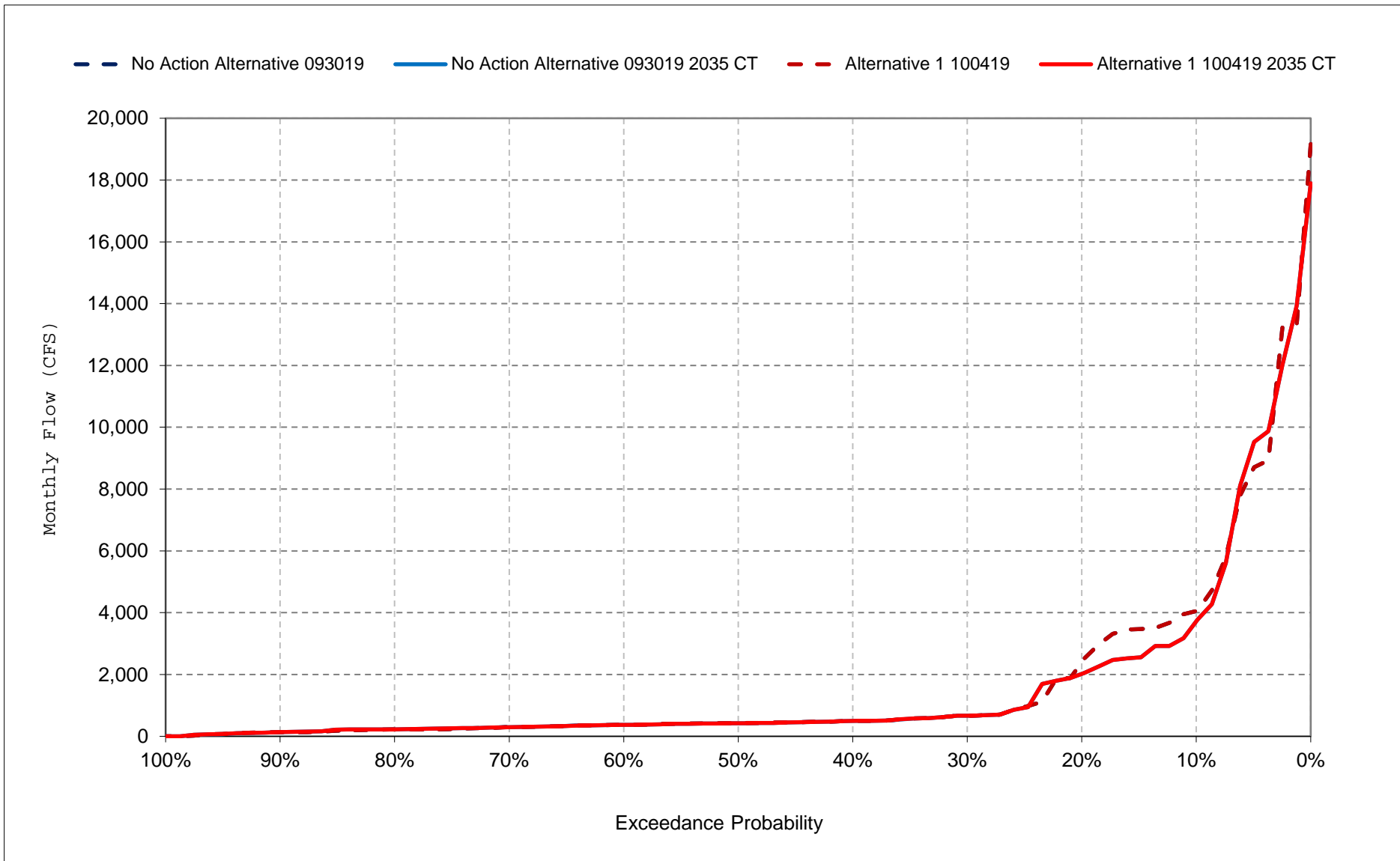
Figure 35-14. San Joaquin River Flow below confluence with Merced , May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

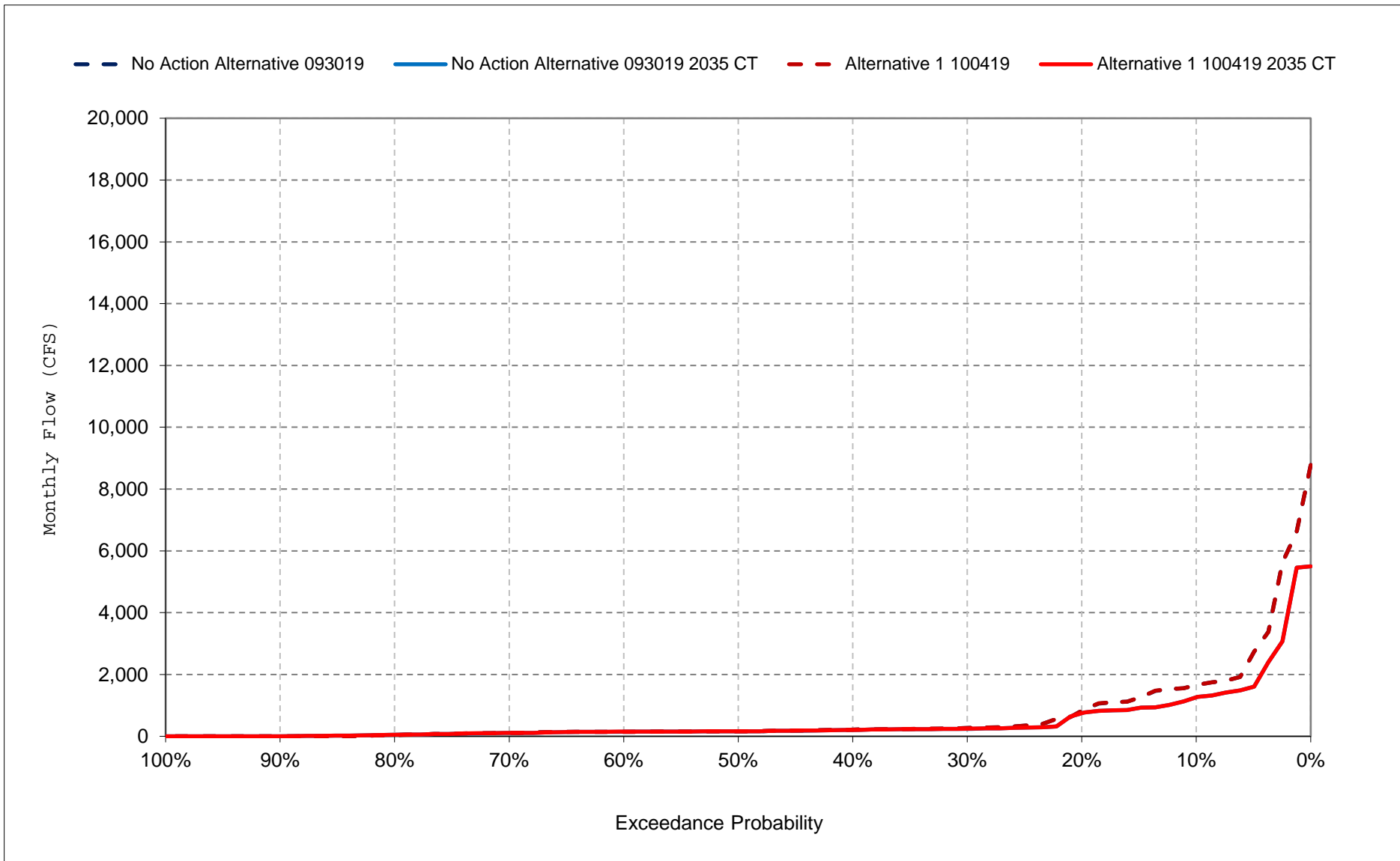
Figure 35-15. San Joaquin River Flow below confluence with Merced , June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

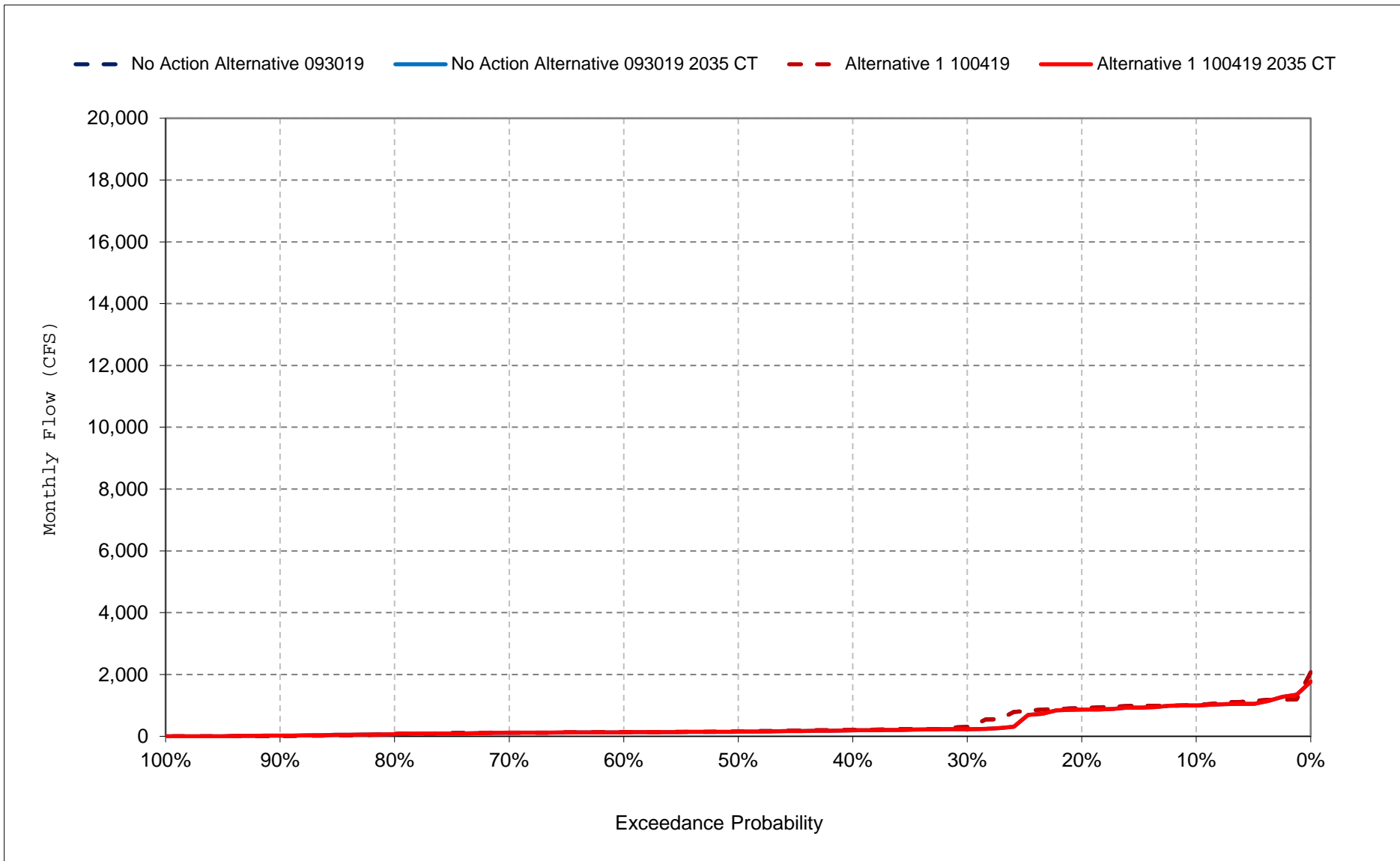
Figure 35-16. San Joaquin River Flow below confluence with Merced , July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

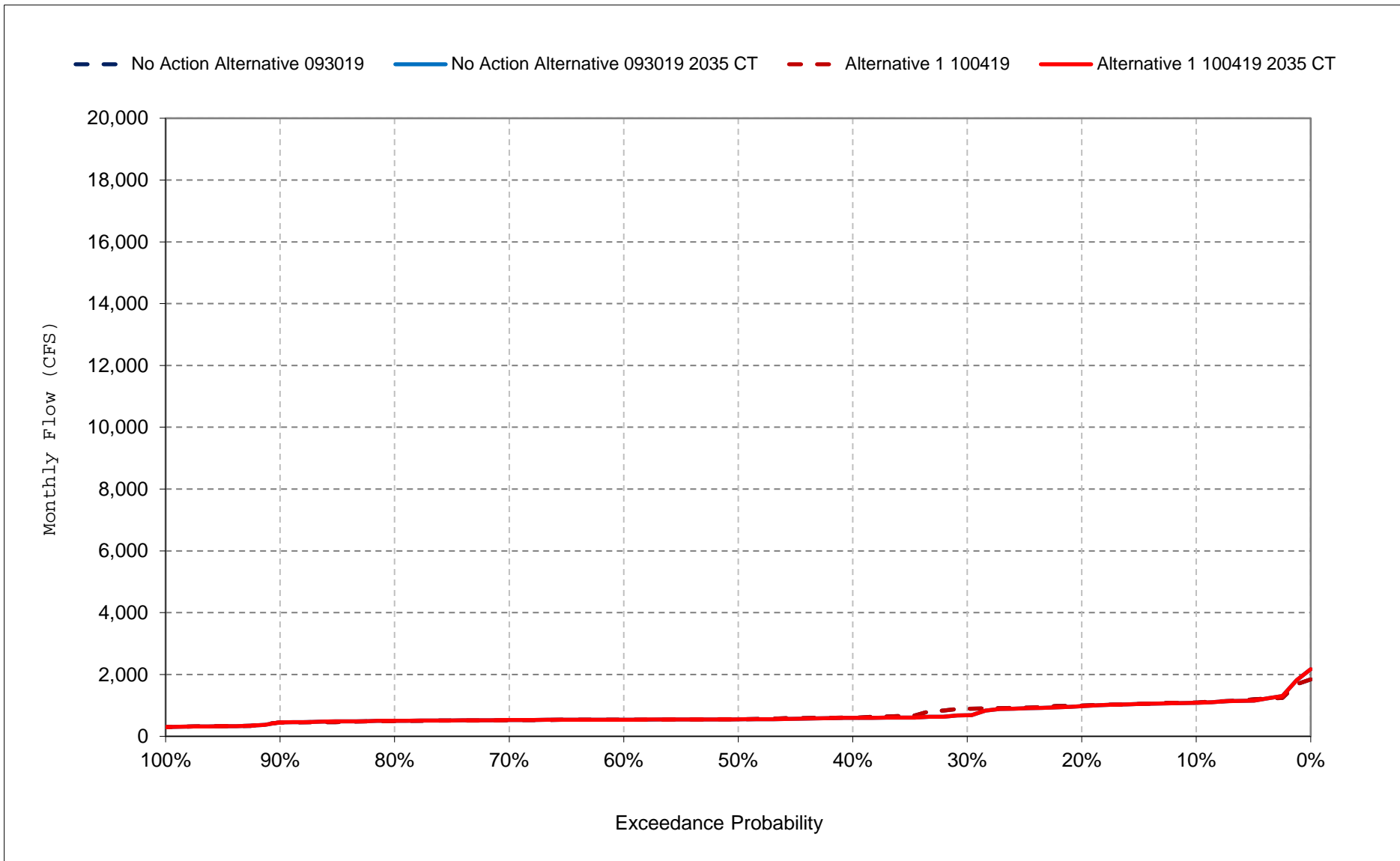
Figure 35-17. San Joaquin River Flow below confluence with Merced , August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 35-18. San Joaquin River Flow below confluence with Merced , September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 37-1. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	837	290	306	358	897	1,648	1,633	1,929	1,100	429	392	390
20%	797	200	218	232	405	1,521	1,553	1,555	1,089	318	300	300
30%	774	200	200	232	282	440	1,553	1,294	940	300	284	250
40%	774	200	200	226	236	200	1,400	1,242	853	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	363	277	283	250
60%	636	200	200	219	229	200	812	918	363	265	283	249
70%	636	200	200	219	229	200	767	705	294	265	283	249
80%	578	200	200	214	221	200	767	631	262	265	283	249
90%	577	200	200	213	215	200	504	547	255	265	283	249
Long Term												
Full Simulation Period ^d	723	278	367	519	593	754	1,159	1,124	679	395	362	351
Water Year Types ^{b,c}												
Wet (23%)	859	532	863	999	1,193	2,014	1,536	1,691	1,140	716	639	692
Above Normal (24%)	728	205	212	664	676	645	1,224	1,145	959	353	292	267
Below Normal (10%)	752	200	202	282	346	365	1,454	1,201	475	269	285	256
Dry (16%)	677	200	200	234	313	200	1,030	930	375	276	277	245
Critical (27%)	614	200	236	227	255	234	743	700	282	272	264	231

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	552	2,259	1,528	1,572	1,555	940	300	300	300
20%	797	200	200	232	294	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	230	236	675	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	636	200	200	226	229	200	972	819	255	265	283	249
70%	636	200	200	219	221	200	767	631	255	265	283	249
80%	577	200	200	213	214	200	466	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	718	272	341	549	722	762	1,147	1,036	566	378	338	339
Water Year Types ^{b,c}												
Wet (23%)	854	508	735	1,003	1,750	2,189	1,475	1,665	1,499	834	625	691
Above Normal (24%)	774	202	223	694	695	577	1,571	1,255	363	265	283	258
Below Normal (10%)	774	200	202	546	528	247	1,610	1,242	363	265	283	250
Dry (16%)	626	200	209	224	228	200	825	655	256	255	270	241
Critical (27%)	578	200	236	220	222	218	501	445	200	200	200	198

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-41	-90	0	194	1,362	-121	-62	-375	-160	-129	-92	-90
20%	0	0	-18	0	-111	0	0	0	-149	-18	0	0
30%	0	0	0	-2	-46	236	0	-52	-577	-35	-1	0
40%	0	0	0	0	-7	0	0	0	-490	-35	0	0
50%	0	0	0	0	-7	0	0	0	0	-12	0	0
60%	0	0	0	6	0	0	160	-99	-108	0	0	0
70%	0	0	0	0	-7	0	0	-75	-38	0	0	0
80%	-1	0	0	-1	-7	0	-300	-231	-62	-65	-83	-49
90%	0	0	0	0	-1	0	-44	-147	-55	-65	-83	-49
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-12	-87	-114	-17	-24	-13
Water Year Types ^{b,c}												
Wet (23%)	-5	-24	-128	4	557	175	-61	-26	359	118	-14	-1
Above Normal (24%)	46	-3	11	31	20	-68	347	109	-596	-88	-9	-9
Below Normal (10%)	22	0	0	264	183	-118	156	41	-111	-4	-2	-6
Dry (16%)	-51	0	9	-10	-86	0	-205	-275	-119	-21	-6	-4
Critical (27%)	-36	0	0	-7	-33	-15	-242	-255	-82	-72	-64	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 37-2. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	362	1,485	1,648	1,633	1,662	1,106	792	319	300
20%	797	200	218	232	610	1,521	1,553	1,555	940	359	300	300
30%	797	200	200	232	364	1,521	1,553	1,555	940	300	300	300
40%	774	200	200	230	253	304	1,400	1,242	940	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	375	294	283	250
60%	636	200	200	219	229	200	885	917	363	277	283	249
70%	636	200	200	219	229	200	767	732	329	265	283	249
80%	636	200	200	219	221	200	767	660	264	265	283	249
90%	577	200	200	213	215	200	580	566	255	265	283	249
Long Term												
Full Simulation Period ^d	734	293	393	610	699	906	1,175	1,158	678	403	353	369
Water Year Types ^{b,c}												
Wet (23%)	887	598	982	1,032	1,457	2,256	1,553	1,689	1,183	702	581	748
Above Normal (24%)	733	205	212	955	811	974	1,199	1,208	864	381	296	277
Below Normal (10%)	755	200	202	425	382	530	1,435	1,240	497	274	287	262
Dry (16%)	688	200	200	235	358	200	1,092	972	394	281	283	249
Critical (27%)	622	200	232	222	260	232	783	735	308	285	274	233

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	528	2,440	2,618	1,660	1,572	1,555	940	300	300	300
20%	797	200	200	433	1,423	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	232	380	1,490	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	266	1,408	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	691	200	200	226	229	200	882	819	255	265	283	249
70%	636	200	200	219	221	200	768	631	255	265	283	249
80%	577	200	200	213	214	200	461	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	727	291	397	746	1,009	903	1,156	1,045	517	302	332	374
Water Year Types ^{b,c}												
Wet (23%)	882	594	981	1,408	2,515	2,300	1,521	1,669	1,229	503	596	842
Above Normal (24%)	776	200	207	1,021	955	997	1,561	1,286	421	269	285	255
Below Normal (10%)	774	200	202	720	591	296	1,610	1,242	363	265	283	250
Dry (16%)	628	200	229	263	480	251	779	620	247	245	257	234
Critical (27%)	583	200	236	220	222	218	529	466	205	206	208	204

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	222	2,078	1,132	12	-61	-107	-166	-492	-19	0
20%	0	0	-18	201	813	0	0	0	-59	0	0	0
30%	-23	0	0	0	15	-31	0	-313	-577	-35	-17	-50
40%	0	0	0	-4	-25	-38	8	0	-577	-35	0	0
50%	0	0	0	0	-7	0	0	0	-11	-29	0	0
60%	55	0	0	6	0	0	-3	-98	-108	-11	0	0
70%	0	0	0	0	-7	0	2	-101	-73	0	0	0
80%	-58	0	0	-7	-7	0	-305	-260	-64	-65	-83	-49
90%	0	0	0	0	-1	0	-120	-166	-55	-65	-83	-49
Long Term												
Full Simulation Period ^d	-7	-2	4	136	310	-2	-20	-113	-161	-101	-22	5
Water Year Types ^{b,c}												
Wet (23%)	-5	-5	0	376	1,057	45	-32	-20	46	-200	15	93
Above Normal (24%)	44	-5	-5	66	144	24	363	78	-443	-112	-11	-22
Below Normal (10%)	19	0	0	295	208	-235	175	2	-134	-9	-4	-12
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-254	-269	-103	-79	-66	-29

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 37-3. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	837	290	306	358	897	1,648	1,633	1,929	1,100	429	392	390
20%	797	200	218	232	405	1,521	1,553	1,555	1,089	318	300	300
30%	774	200	200	232	282	440	1,553	1,294	940	300	284	250
40%	774	200	200	226	236	200	1,400	1,242	853	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	363	277	283	250
60%	636	200	200	219	229	200	812	918	363	265	283	249
70%	636	200	200	219	229	200	767	705	294	265	283	249
80%	578	200	200	214	221	200	767	631	262	265	283	249
90%	577	200	200	213	215	200	504	547	255	265	283	249
Long Term												
Full Simulation Period ^d	723	278	367	519	593	754	1,159	1,124	679	395	362	351
Water Year Types ^{b,c}												
Wet (23%)	859	532	863	999	1,193	2,014	1,536	1,691	1,140	716	639	692
Above Normal (24%)	728	205	212	664	676	645	1,224	1,145	959	353	292	267
Below Normal (10%)	752	200	202	282	346	365	1,454	1,201	475	269	285	256
Dry (16%)	677	200	200	234	313	200	1,030	930	375	276	277	245
Critical (27%)	614	200	236	227	255	234	743	700	282	272	264	231

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	362	1,485	1,648	1,633	1,662	1,106	792	319	300
20%	797	200	218	232	610	1,521	1,553	1,555	940	359	300	300
30%	797	200	200	232	364	1,521	1,553	1,555	940	300	300	300
40%	774	200	200	230	253	304	1,400	1,242	940	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	375	294	283	250
60%	636	200	200	219	229	200	885	917	363	277	283	249
70%	636	200	200	219	229	200	767	732	329	265	283	249
80%	636	200	200	219	221	200	767	660	264	265	283	249
90%	577	200	200	213	215	200	580	566	255	265	283	249
Long Term												
Full Simulation Period ^d	734	293	393	610	699	906	1,175	1,158	678	403	353	369
Water Year Types ^{b,c}												
Wet (23%)	887	598	982	1,032	1,457	2,256	1,553	1,689	1,183	702	581	748
Above Normal (24%)	733	205	212	955	811	974	1,199	1,208	864	381	296	277
Below Normal (10%)	755	200	202	425	382	530	1,435	1,240	497	274	287	262
Dry (16%)	688	200	200	235	358	200	1,092	972	394	281	283	249
Critical (27%)	622	200	232	222	260	232	783	735	308	285	274	233

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-41	-90	0	4	588	0	0	-268	6	363	-73	-90
20%	0	0	0	0	205	0	0	0	-149	40	0	0
30%	23	0	0	0	82	1,081	0	261	0	0	16	50
40%	0	0	0	4	17	104	0	0	87	0	0	0
50%	0	0	0	0	0	0	0	0	11	17	0	0
60%	0	0	0	0	0	0	73	-1	0	11	0	0
70%	0	0	0	0	0	0	0	27	35	0	0	0
80%	57	0	0	5	0	0	0	29	2	0	0	0
90%	0	0	0	0	0	0	75	19	0	0	0	0
Long Term												
Full Simulation Period ^d	12	15	26	92	106	152	17	35	-1	8	-9	17
Water Year Types ^{b,c}												
Wet (23%)	28	66	118	34	264	241	17	-2	43	-14	-57	56
Above Normal (24%)	4	0	0	291	135	329	-26	63	-95	28	3	10
Below Normal (10%)	3	0	0	143	37	165	-19	39	22	4	2	6
Dry (16%)	12	0	0	0	44	0	62	42	19	4	6	4
Critical (27%)	8	0	-4	-5	5	-1	40	35	26	13	10	2

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Table 37-4. Stanislaus River Flow below Goodwin, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	552	2,259	1,528	1,572	1,555	940	300	300	300
20%	797	200	200	232	294	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	230	236	675	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	636	200	200	226	229	200	972	819	255	265	283	249
70%	636	200	200	219	221	200	767	631	255	265	283	249
80%	577	200	200	213	214	200	466	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	718	272	341	549	722	762	1,147	1,036	566	378	338	339
Water Year Types ^{b,c}												
Wet (23%)	854	508	735	1,003	1,750	2,189	1,475	1,665	1,499	834	625	691
Above Normal (24%)	774	202	223	694	695	577	1,571	1,255	363	265	283	258
Below Normal (10%)	774	200	202	546	528	247	1,610	1,242	363	265	283	250
Dry (16%)	626	200	209	224	228	200	825	655	256	255	270	241
Critical (27%)	578	200	236	220	222	218	501	445	200	200	200	198

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	528	2,440	2,618	1,660	1,572	1,555	940	300	300	300
20%	797	200	200	433	1,423	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	232	380	1,490	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	266	1,408	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	691	200	200	226	229	200	882	819	255	265	283	249
70%	636	200	200	219	221	200	768	631	255	265	283	249
80%	577	200	200	213	214	200	461	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	727	291	397	746	1,009	903	1,156	1,045	517	302	332	374
Water Year Types ^{b,c}												
Wet (23%)	882	594	981	1,408	2,515	2,300	1,521	1,669	1,229	503	596	842
Above Normal (24%)	776	200	207	1,021	955	997	1,561	1,286	421	269	285	255
Below Normal (10%)	774	200	202	720	591	296	1,610	1,242	363	265	283	250
Dry (16%)	628	200	229	263	480	251	779	620	247	245	257	234
Critical (27%)	583	200	236	220	222	218	529	466	205	206	208	204

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	222	1,888	359	132	1	0	0	0	0	0
20%	0	0	0	201	1,129	0	0	0	0	0	0	0
30%	0	0	0	2	144	815	0	0	0	0	0	0
40%	0	0	0	0	0	66	8	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	55	0	0	0	0	0	-90	0	0	0	0	0
70%	0	0	0	0	0	0	2	0	0	0	0	0
80%	0	0	0	0	0	0	-5	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	9	19	56	197	287	141	8	8	-49	-76	-6	35
Water Year Types ^{b,c}												
Wet (23%)	28	86	246	405	765	111	46	4	-270	-331	-29	151
Above Normal (24%)	2	-2	-15	327	260	420	-10	31	58	3	2	-3
Below Normal (10%)	0	0	0	174	62	49	0	0	0	0	0	0
Dry (16%)	2	0	20	39	253	51	-45	-35	-9	-10	-13	-7
Critical (27%)	5	0	0	1	1	0	28	21	5	6	8	7

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

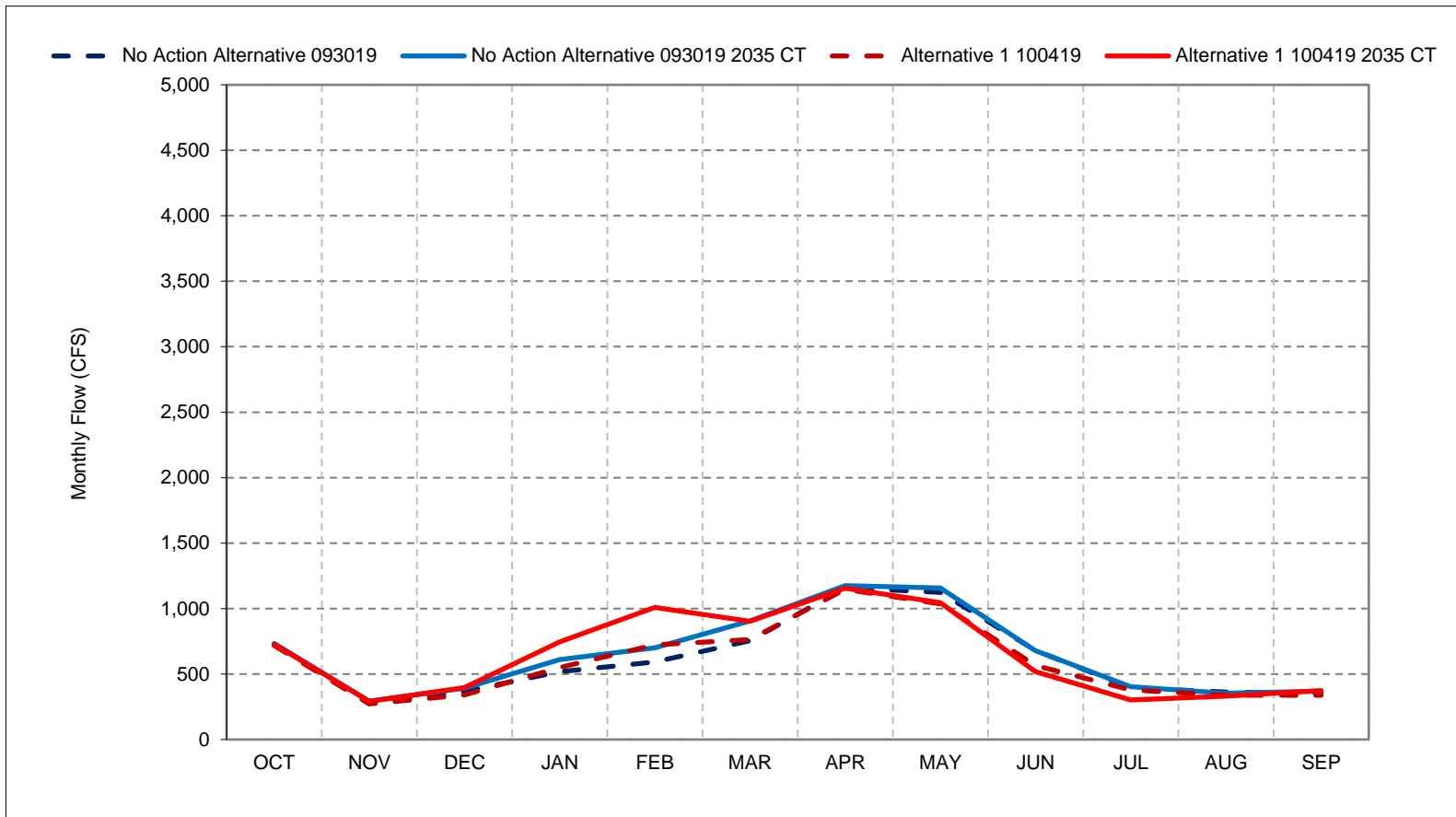
d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Figure 37-1. Stanislaus River Flow below Goodwin, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

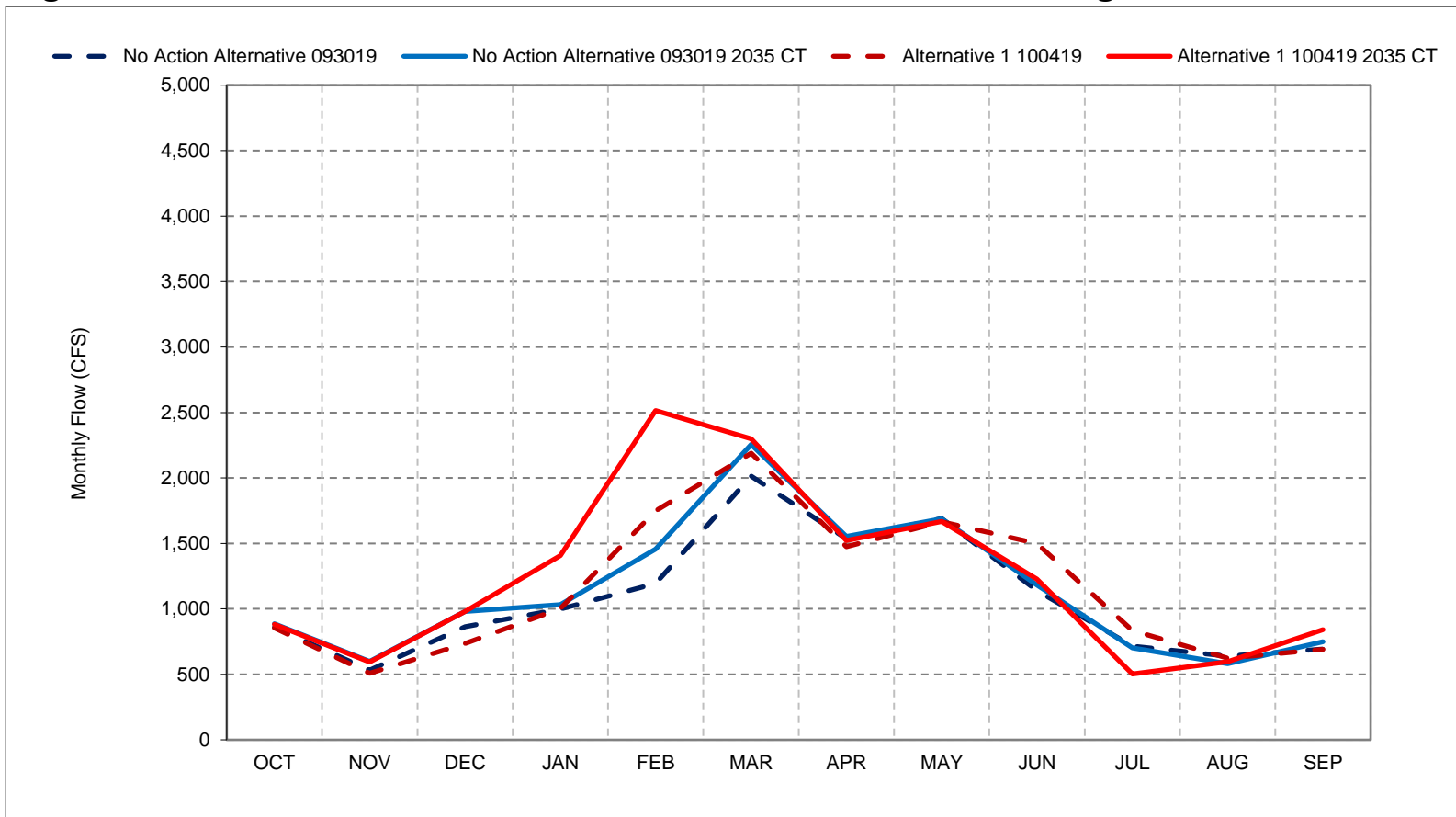
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-2. Stanislaus River Flow below Goodwin, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

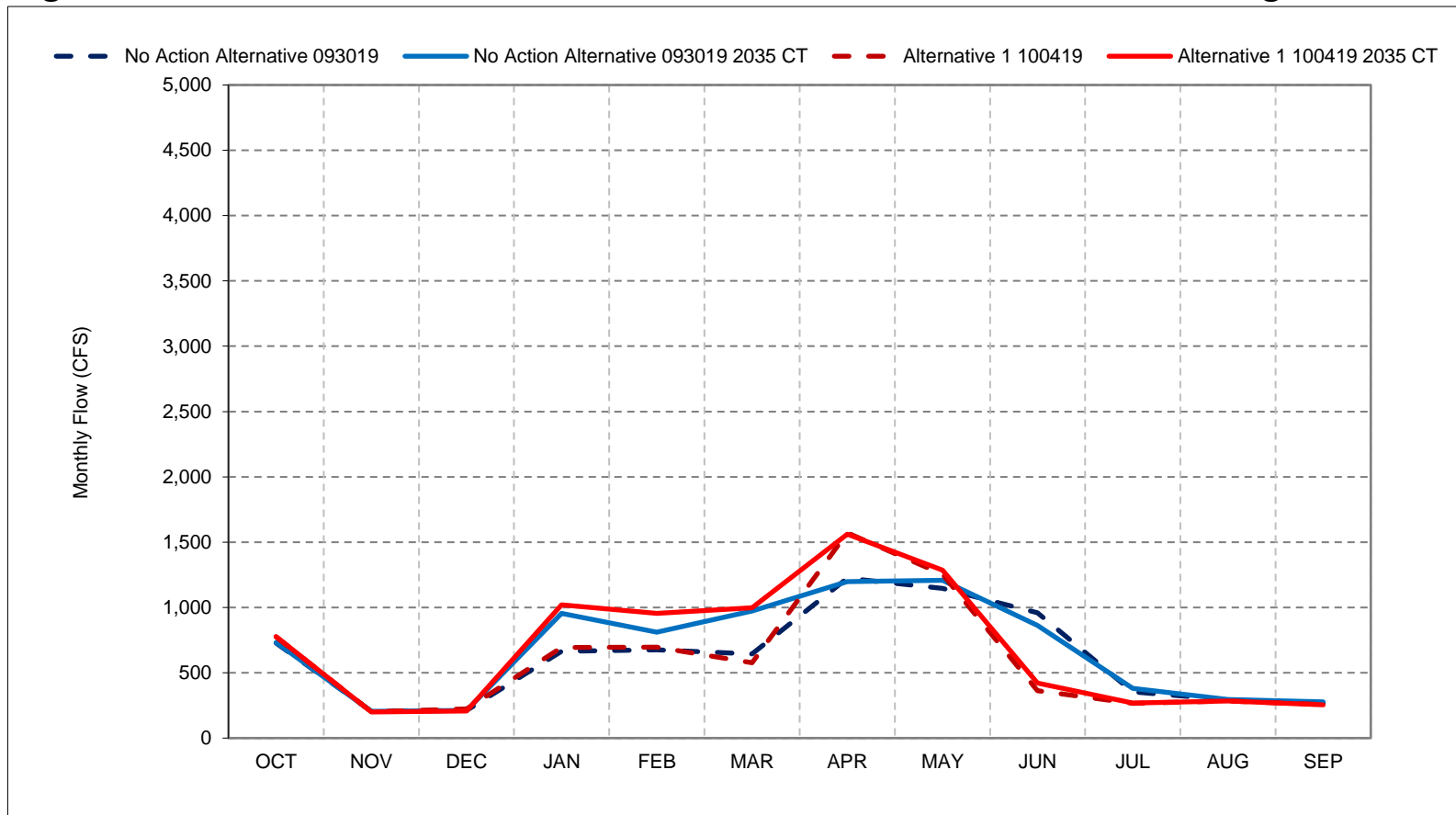
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-3. Stanislaus River Flow below Goodwin, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

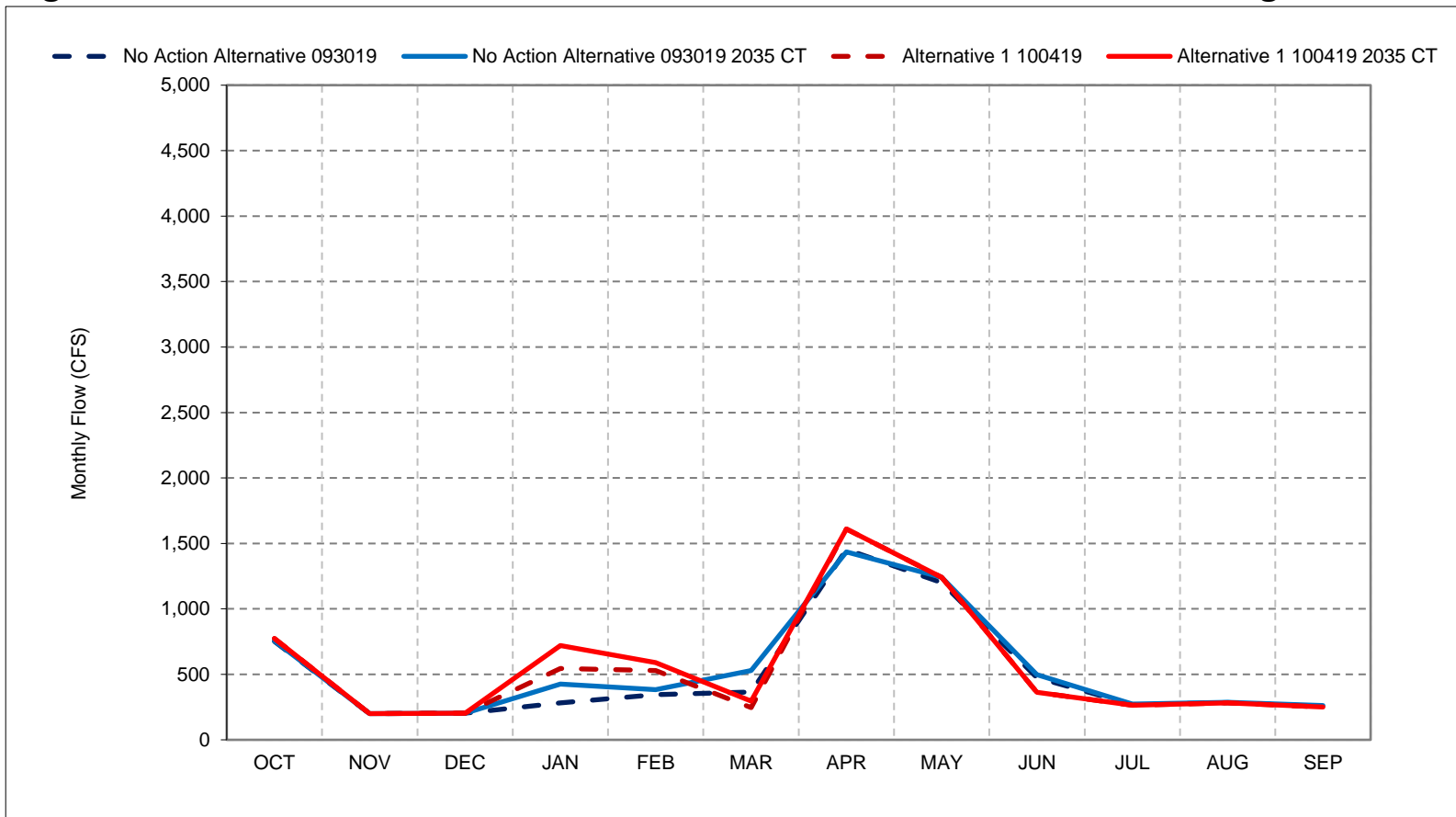
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-4. Stanislaus River Flow below Goodwin, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

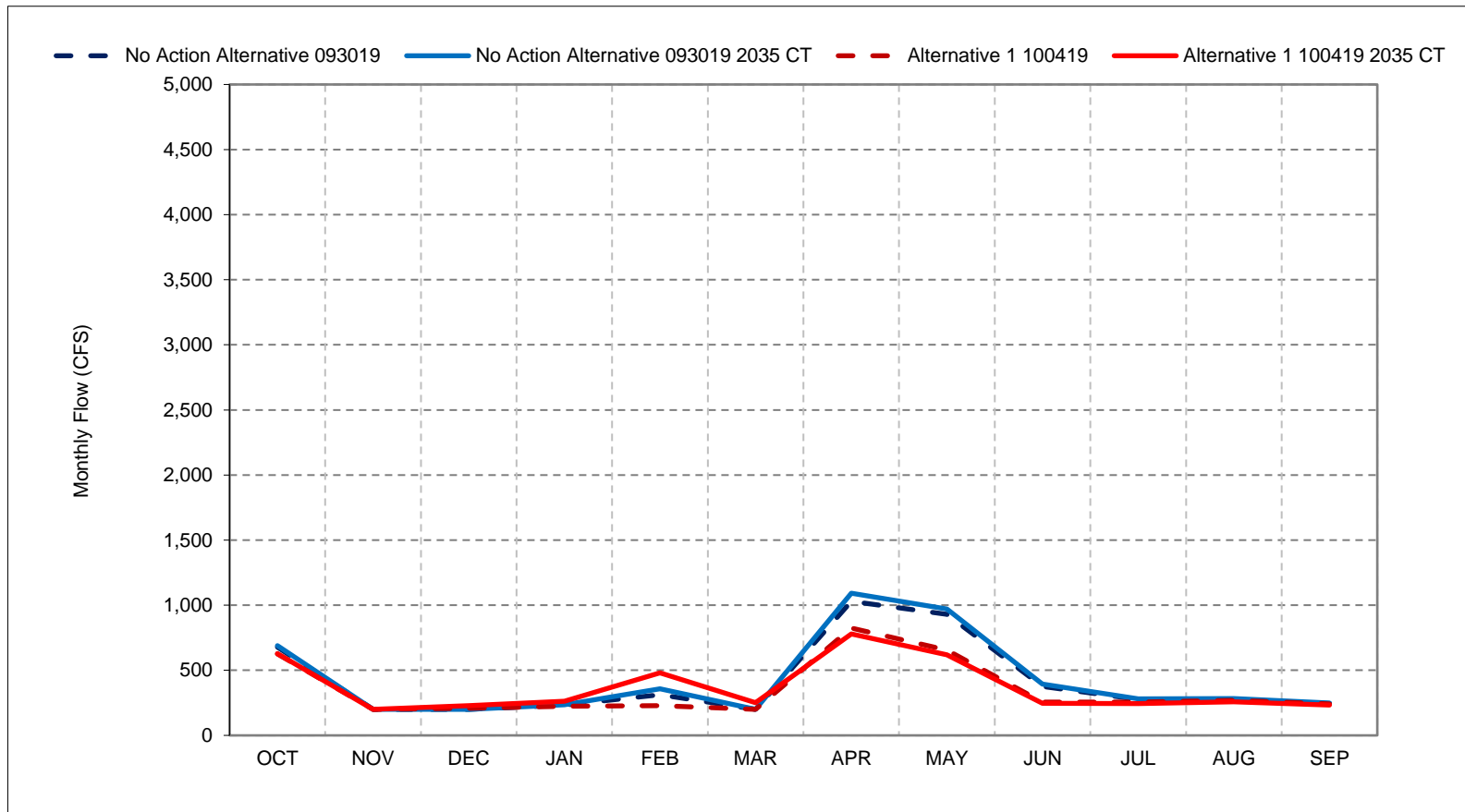
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-5. Stanislaus River Flow below Goodwin, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

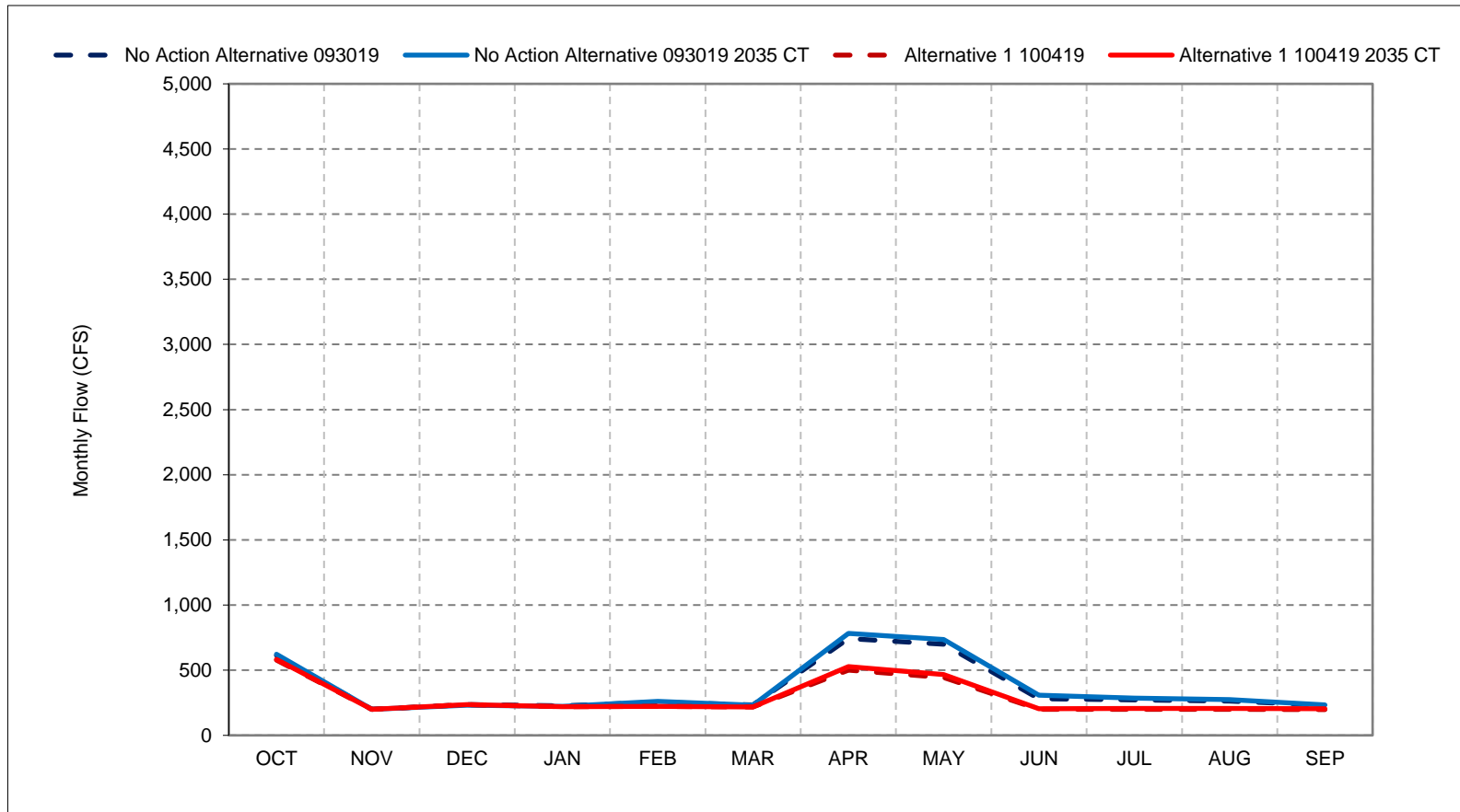
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-6. Stanislaus River Flow below Goodwin, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

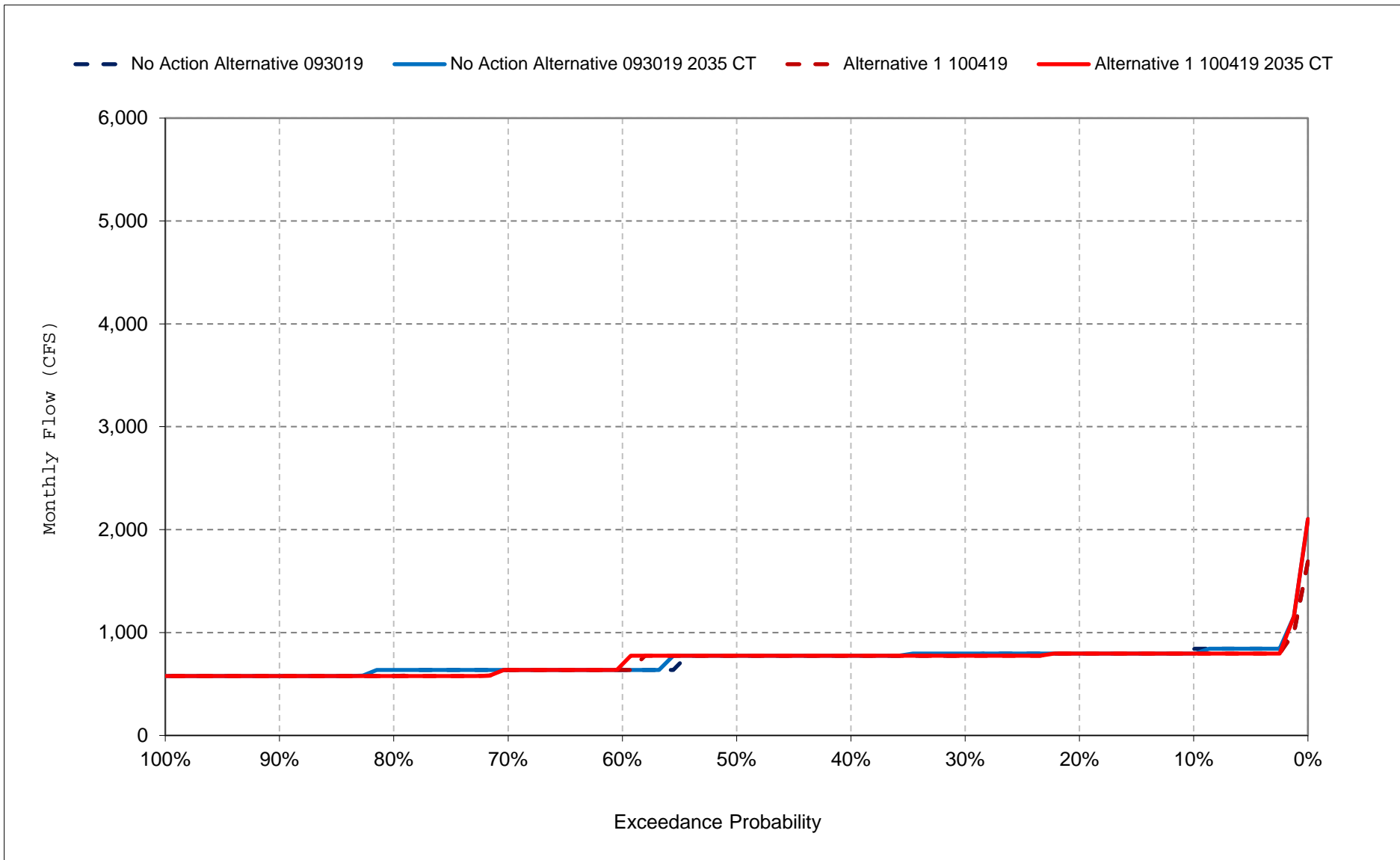
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

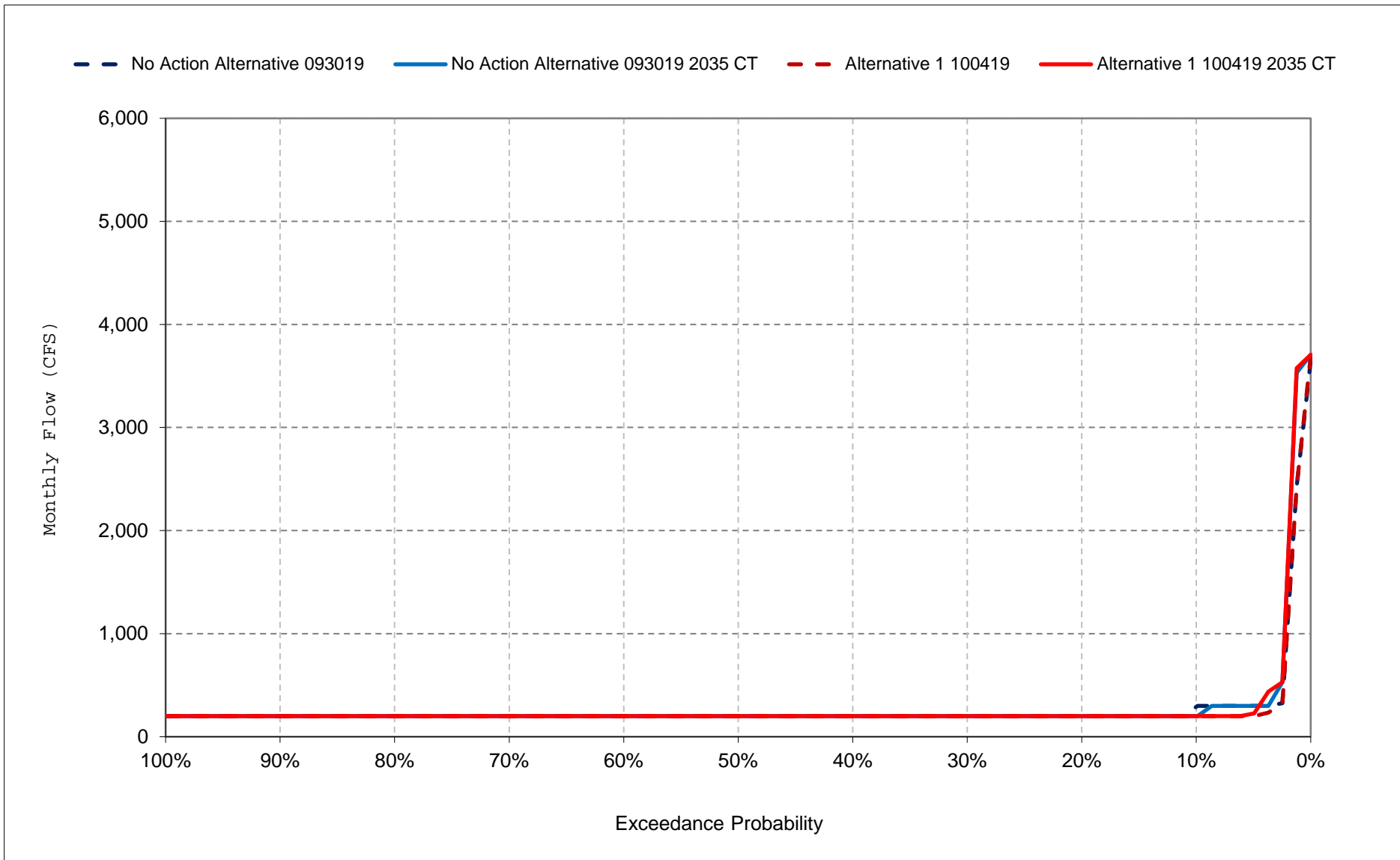
Figure 37-7. Stanislaus River Flow below Goodwin, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

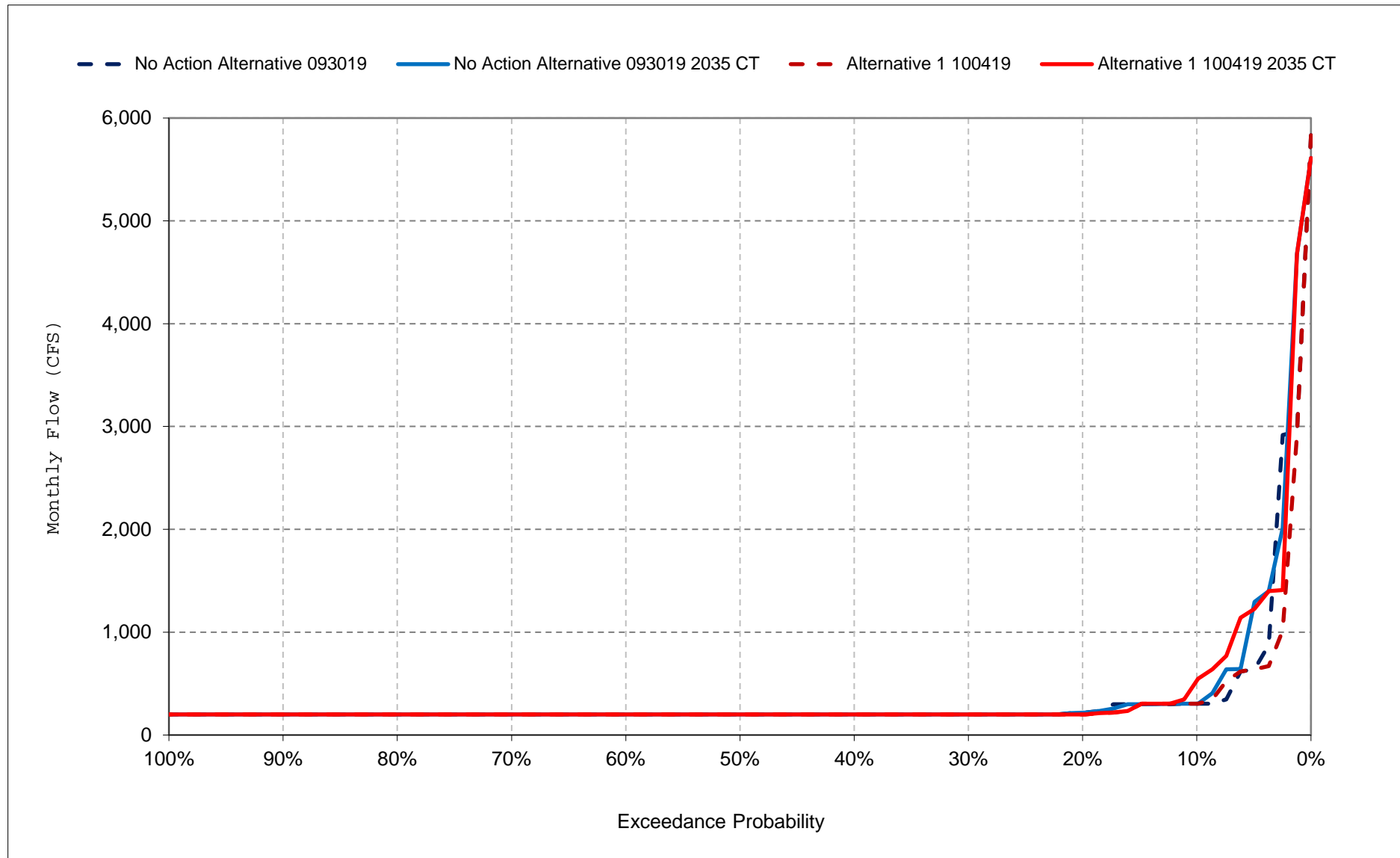
Figure 37-8. Stanislaus River Flow below Goodwin, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

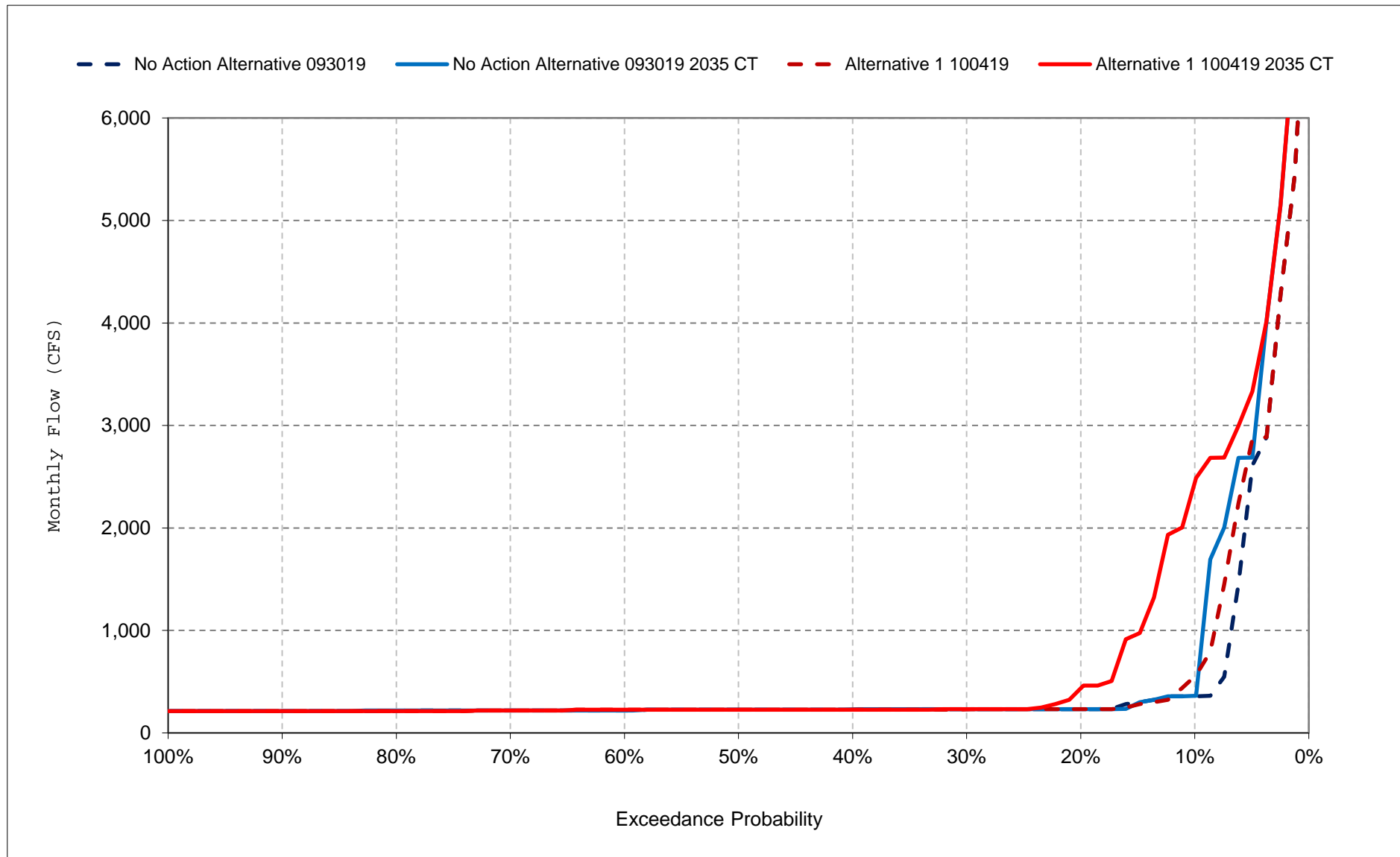
Figure 37-9. Stanislaus River Flow below Goodwin, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

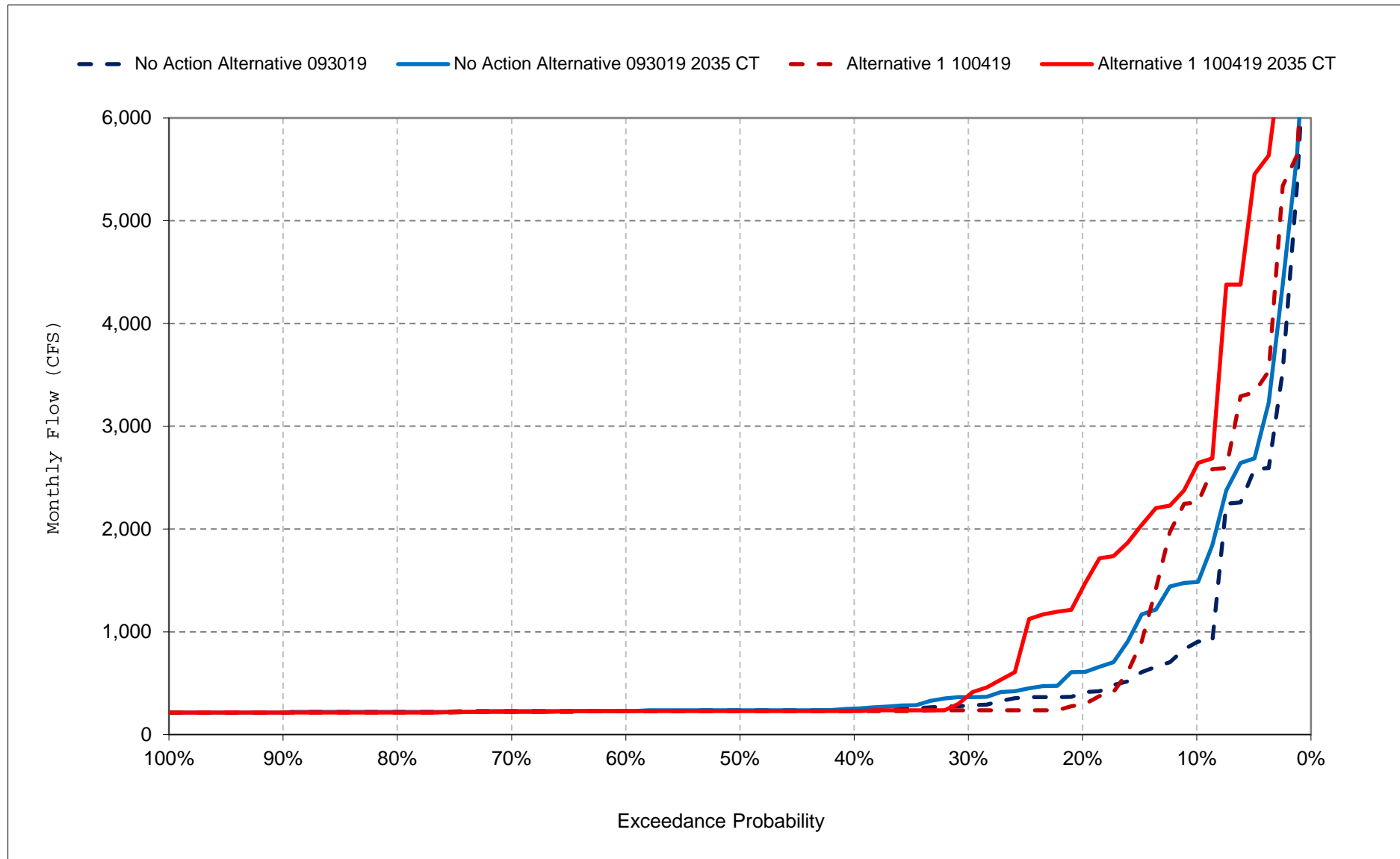
Figure 37-10. Stanislaus River Flow below Goodwin, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

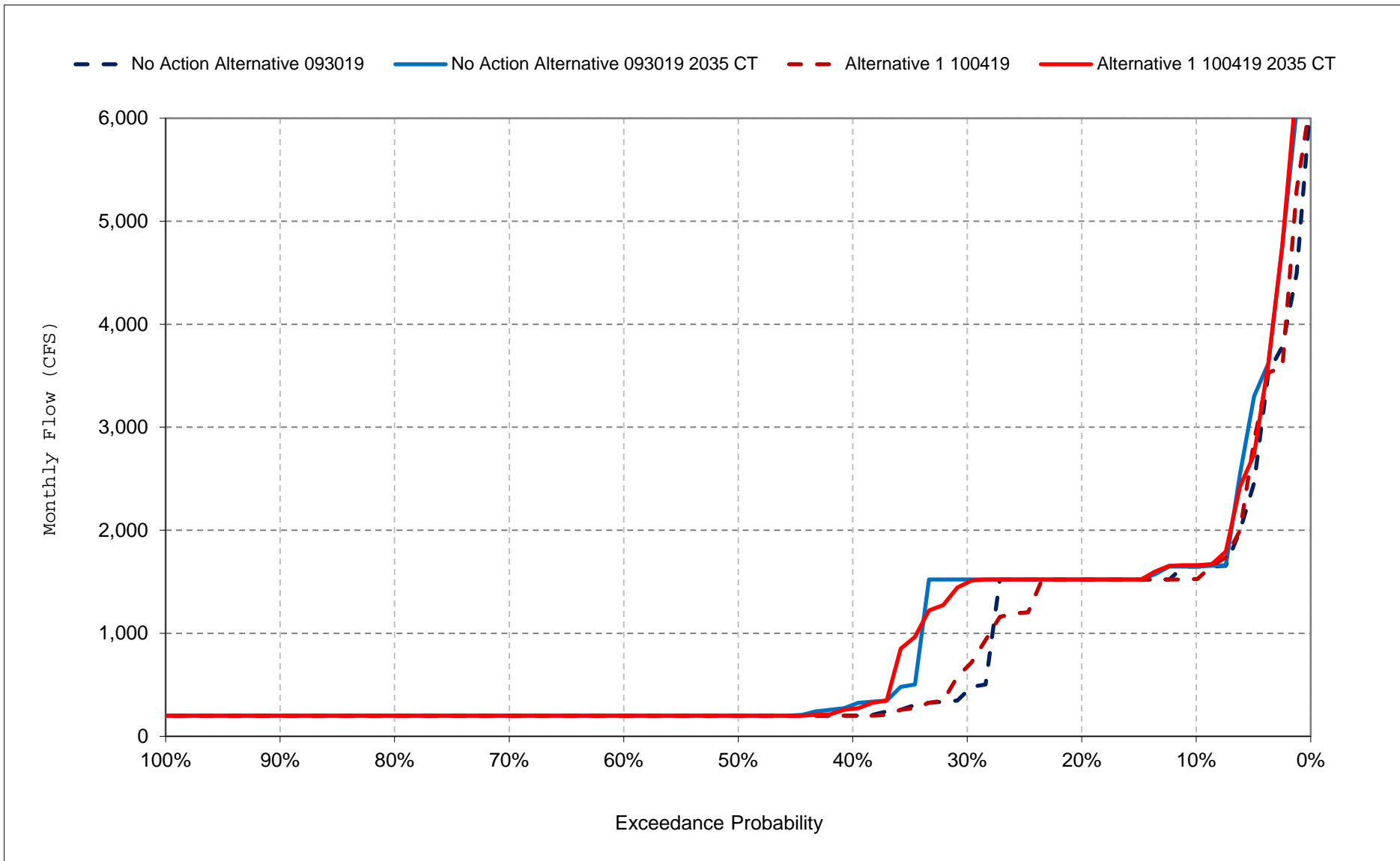
Figure 37-11. Stanislaus River Flow below Goodwin, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

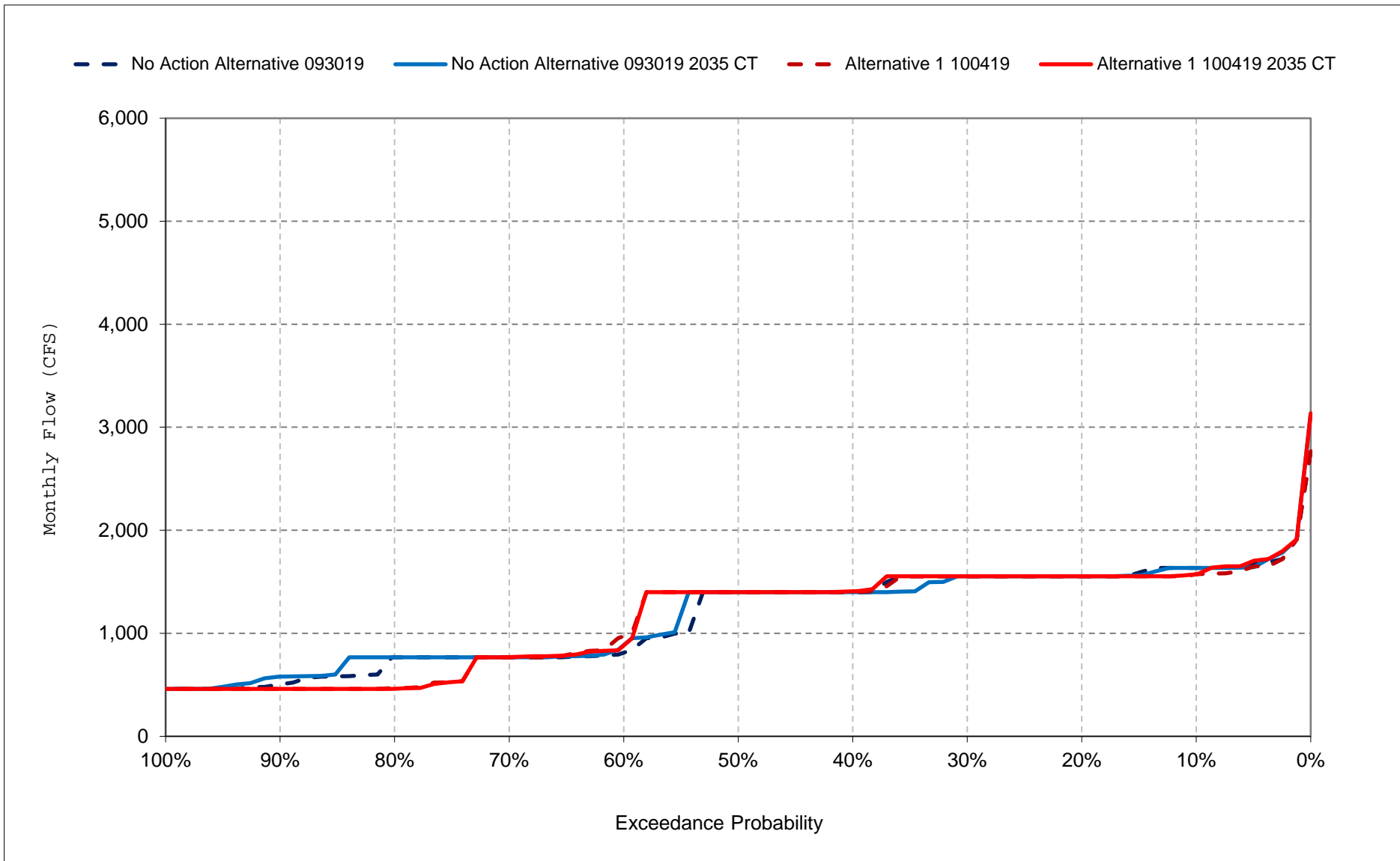
Figure 37-12. Stanislaus River Flow below Goodwin, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

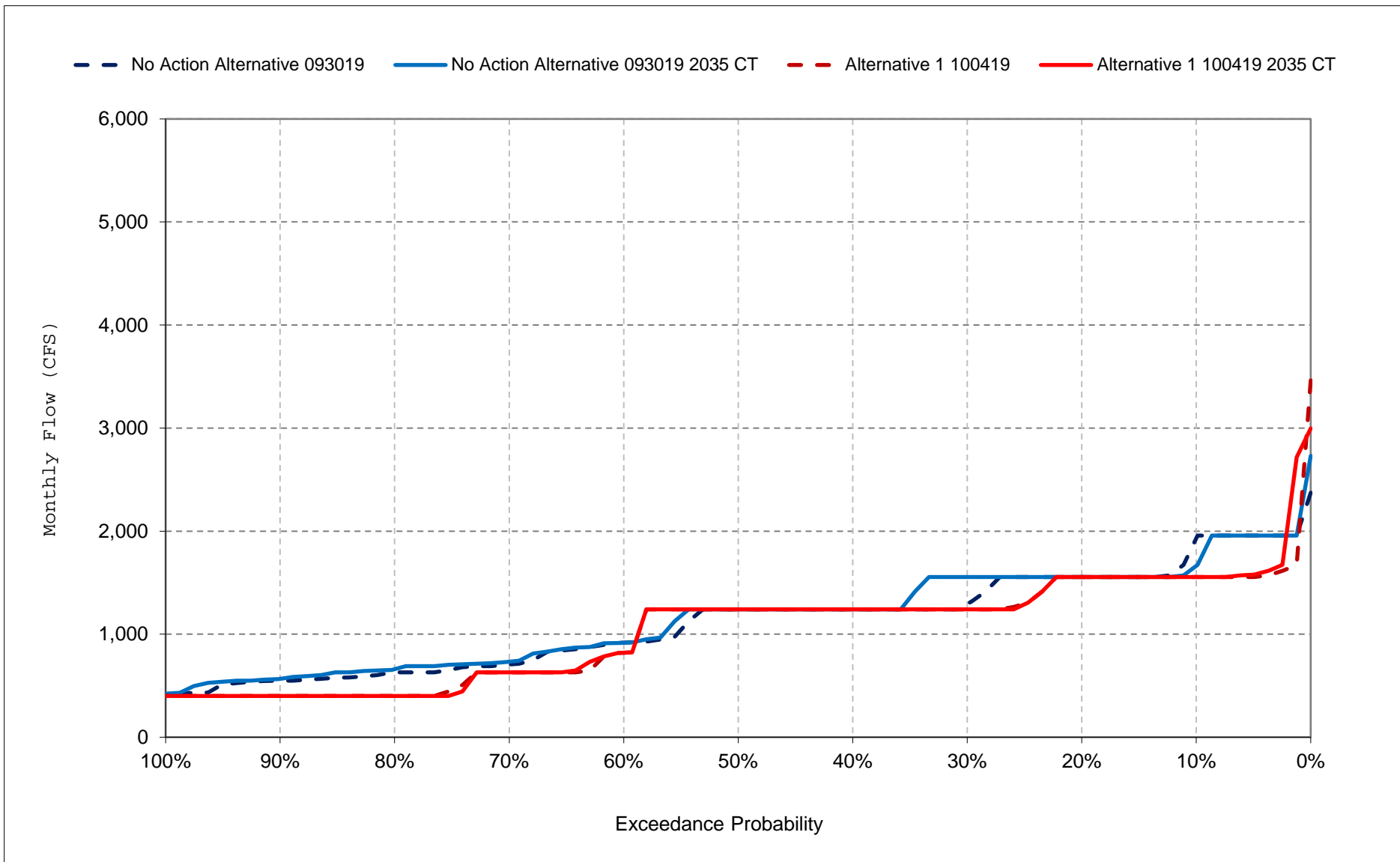
Figure 37-13. Stanislaus River Flow below Goodwin, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

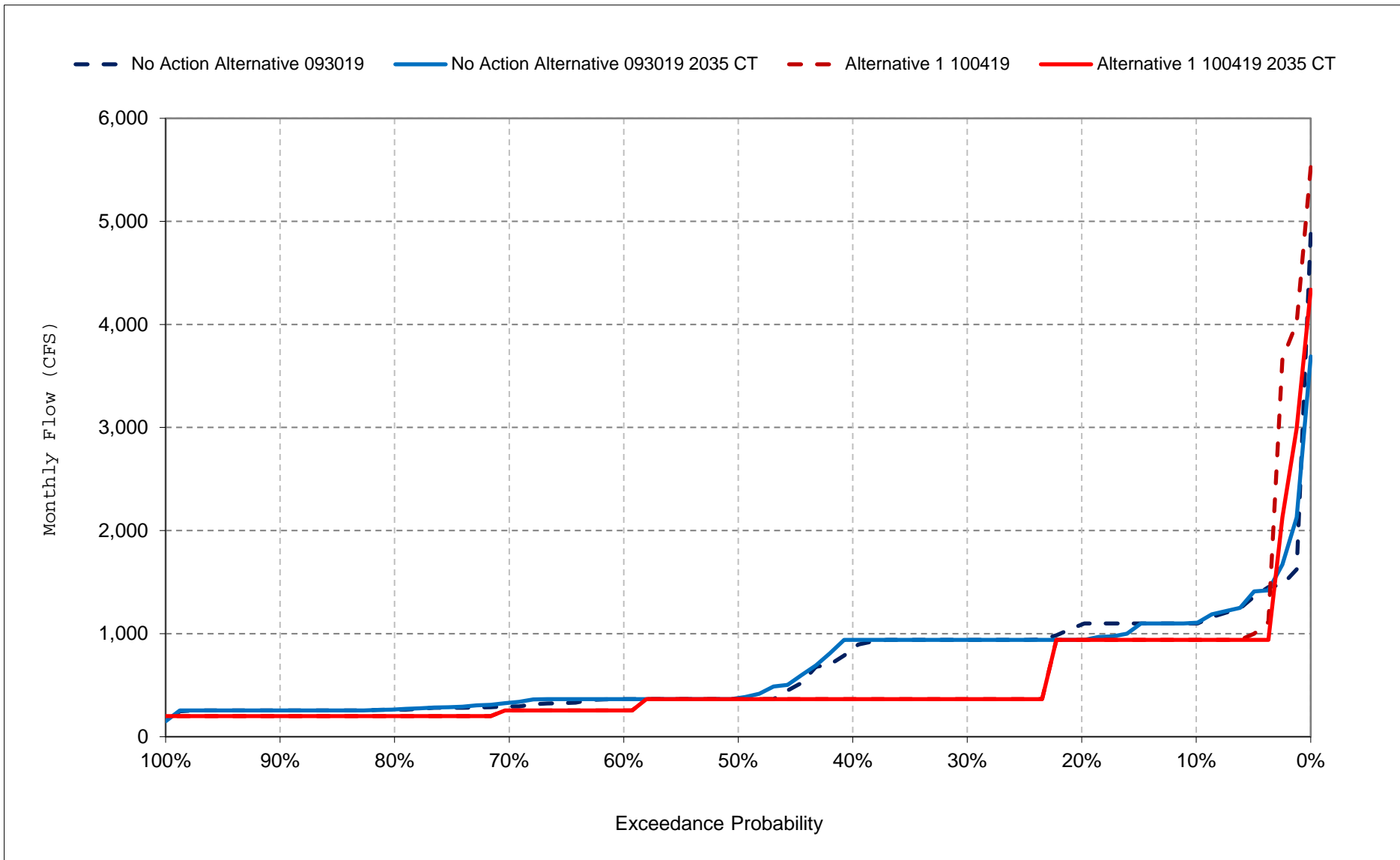
Figure 37-14. Stanislaus River Flow below Goodwin, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

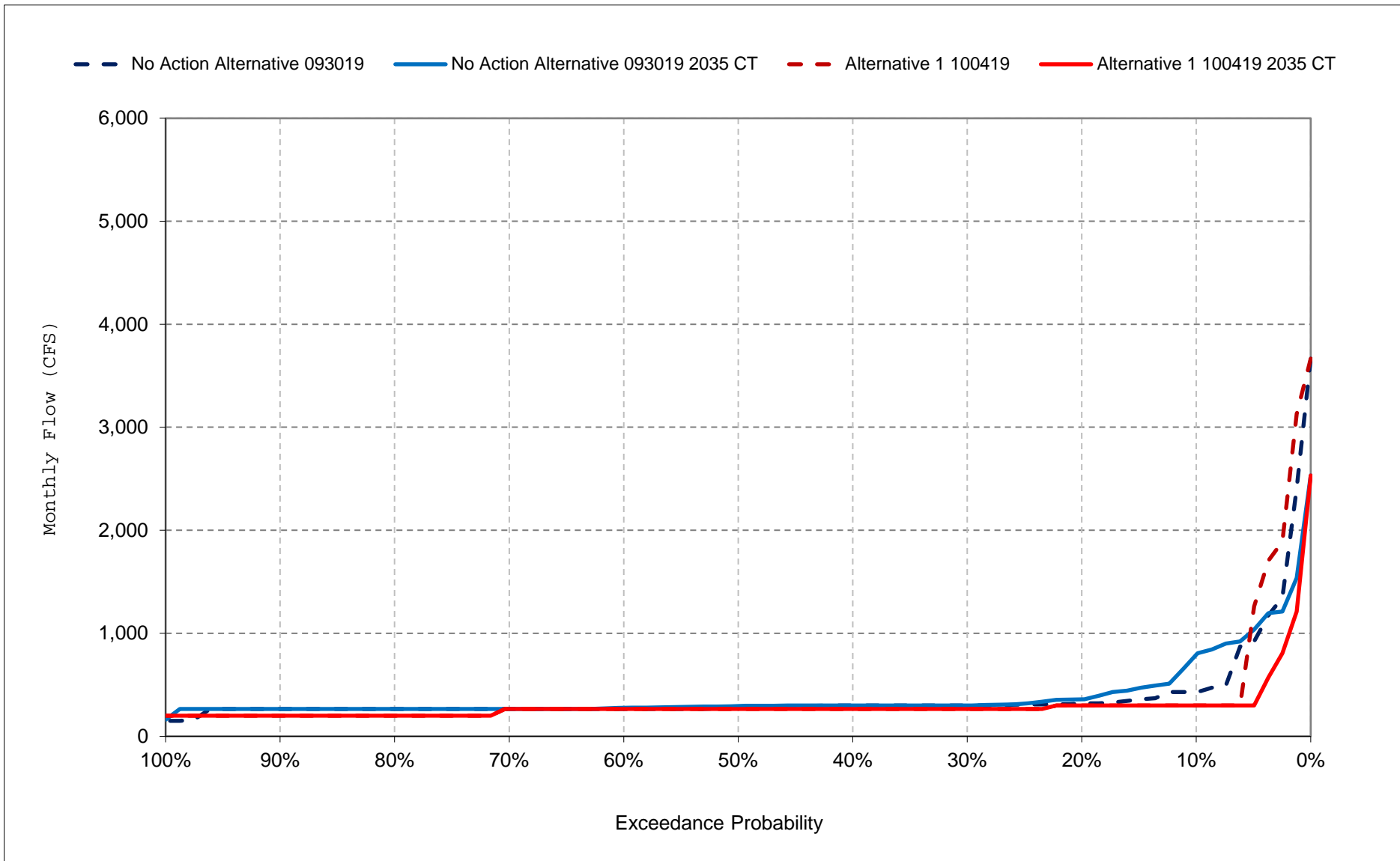
Figure 37-15. Stanislaus River Flow below Goodwin, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

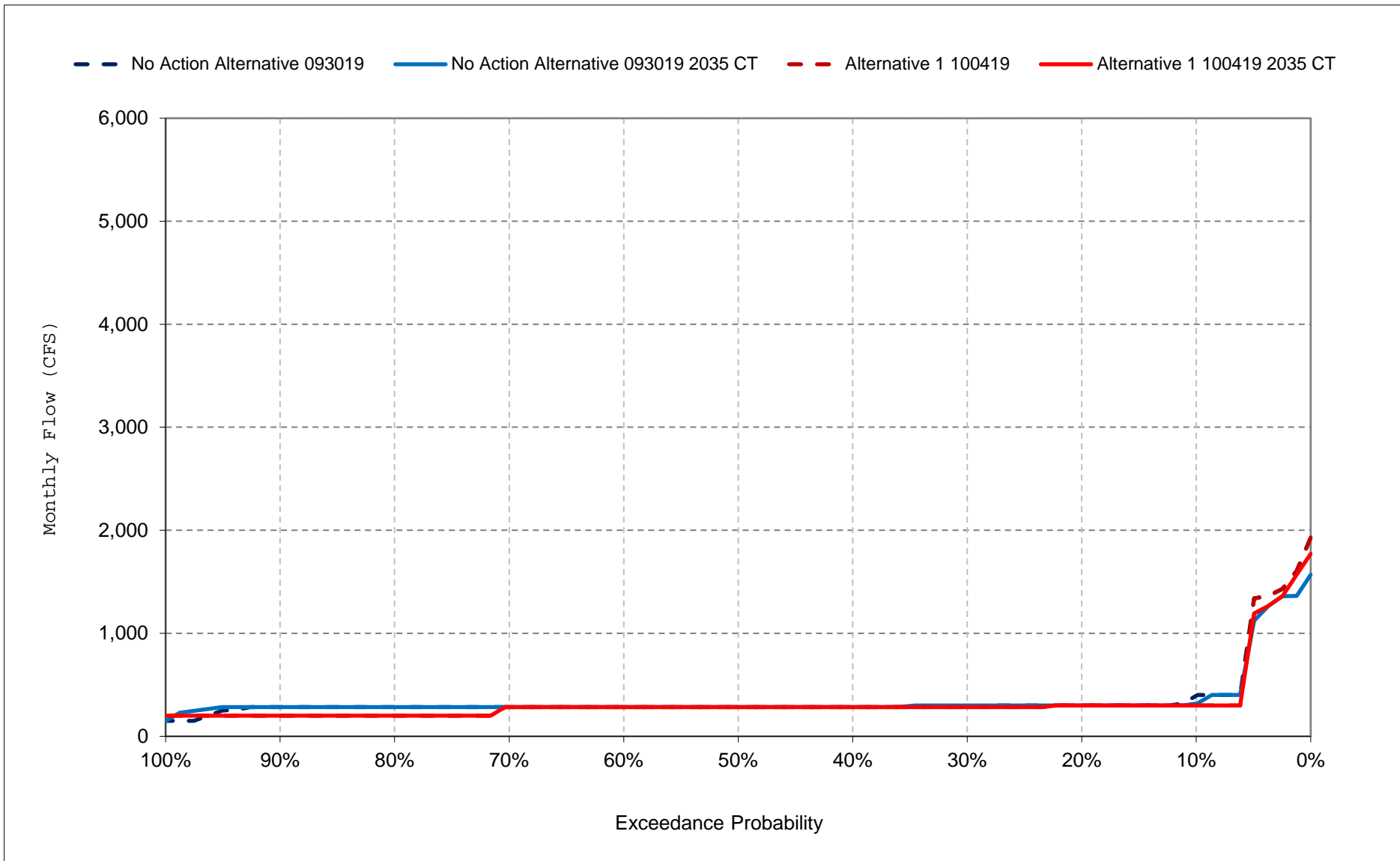
Figure 37-16. Stanislaus River Flow below Goodwin, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

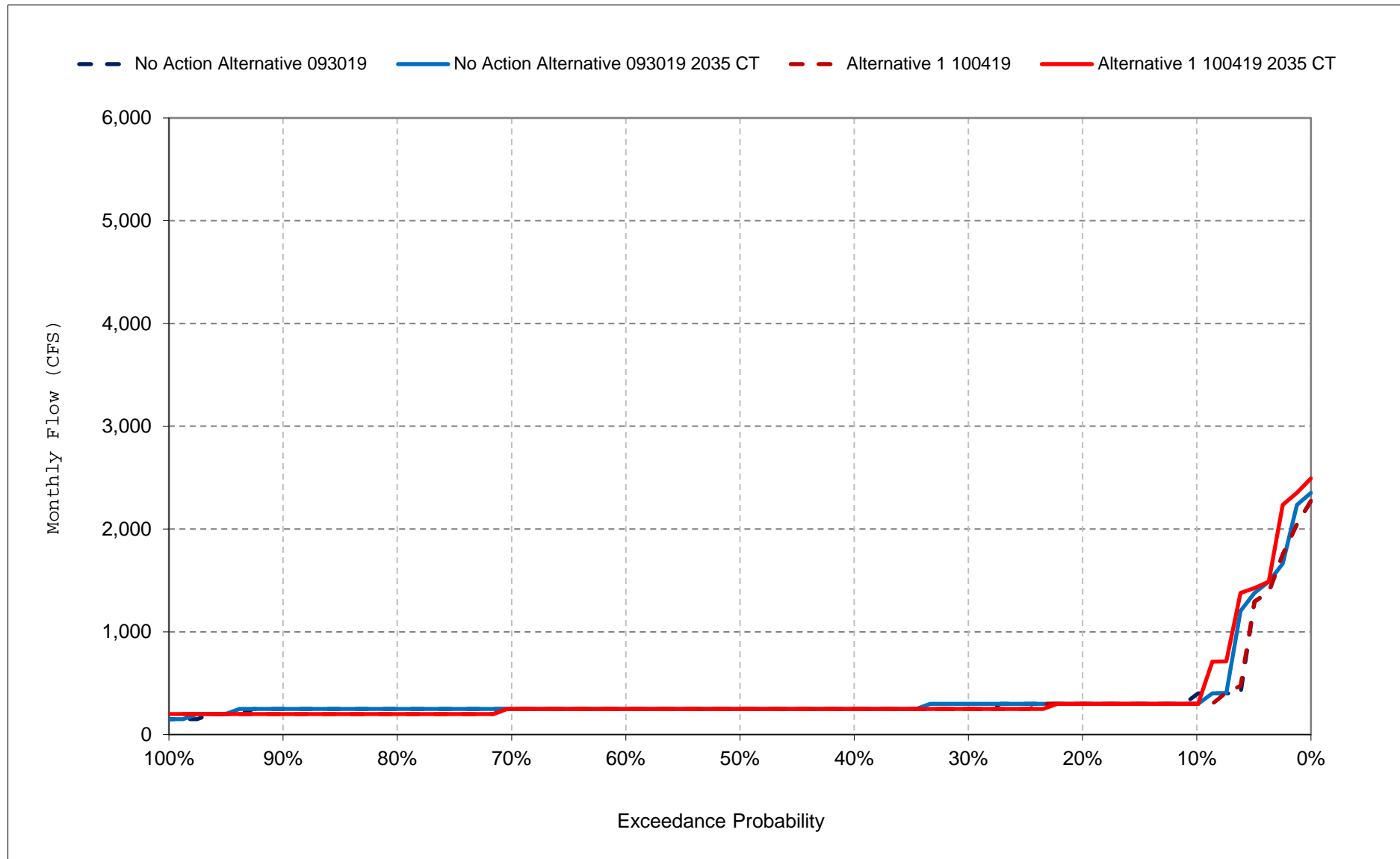
Figure 37-17. Stanislaus River Flow below Goodwin, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 37-18. Stanislaus River Flow below Goodwin, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 38-1. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	442	576	1,083	1,969	1,886	1,989	1,535	752	587	646
20%	1,029	384	368	427	643	1,708	1,769	1,647	1,329	606	488	507
30%	982	348	319	368	469	521	1,696	1,536	1,220	502	462	473
40%	958	337	304	347	399	433	1,610	1,362	1,053	443	445	443
50%	879	319	290	337	368	367	1,485	1,289	634	415	445	439
60%	826	292	281	326	331	336	936	870	510	384	416	428
70%	772	267	262	312	279	314	806	755	406	374	395	389
80%	755	260	241	295	253	241	693	647	361	343	371	360
90%	676	248	224	273	230	207	579	577	317	311	331	318
Long Term												
Full Simulation Period ^d	903	398	449	630	717	902	1,279	1,207	883	547	506	533
Water Year Types ^{b,c}												
Wet (23%)	1,120	701	994	1,115	1,404	2,256	1,779	1,828	1,456	977	831	946
Above Normal (24%)	918	316	288	777	786	801	1,410	1,244	1,254	534	467	480
Below Normal (10%)	950	315	291	430	517	539	1,556	1,378	668	449	440	429
Dry (16%)	832	309	311	349	405	345	1,064	1,002	531	377	397	399
Critical (27%)	722	294	266	317	319	286	755	696	336	323	347	342

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	401	403	765	2,628	1,947	1,886	1,726	1,352	633	569	673
20%	1,036	376	338	425	541	1,638	1,817	1,610	1,061	536	482	493
30%	975	347	314	364	449	1,054	1,705	1,443	800	479	458	462
40%	966	335	304	350	388	415	1,553	1,335	615	427	445	441
50%	901	318	288	336	340	362	1,525	1,294	531	398	435	437
60%	821	292	280	325	293	334	976	841	408	376	402	400
70%	766	267	262	308	257	312	767	631	341	309	360	382
80%	751	260	239	294	237	241	545	459	287	282	318	337
90%	659	248	223	273	227	207	460	419	243	231	274	282
Long Term												
Full Simulation Period ^d	898	392	424	661	846	911	1,268	1,120	769	530	482	520
Water Year Types ^{b,c}												
Wet (23%)	1,115	677	866	1,120	1,961	2,431	1,718	1,802	1,816	1,095	817	945
Above Normal (24%)	964	313	299	808	806	733	1,758	1,353	658	446	457	471
Below Normal (10%)	972	315	291	694	700	421	1,712	1,419	557	445	438	423
Dry (16%)	780	309	320	339	320	345	859	727	412	355	391	395
Critical (27%)	686	294	266	310	286	271	514	441	254	252	284	309

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-29	-62	-40	188	1,545	-22	0	-264	-183	-119	-18	28
20%	7	-8	-29	-2	-102	-70	48	-37	-268	-70	-7	-14
30%	-7	-1	-4	-4	-20	532	8	-94	-420	-23	-4	-11
40%	7	-2	-1	2	-11	-18	-56	-27	-438	-16	0	-3
50%	23	-1	-1	-1	-28	-5	41	5	-103	-17	-10	-2
60%	-5	0	0	0	-38	-2	40	-29	-103	-7	-14	-27
70%	-6	0	0	-4	-22	-2	-39	-124	-66	-66	-34	-7
80%	-4	0	-2	-1	-16	0	-149	-188	-74	-61	-52	-24
90%	-17	0	-1	0	-2	0	-119	-158	-74	-80	-56	-36
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-12	-87	-114	-17	-24	-13
Water Year Types ^{b,c}												
Wet (23%)	-5	-24	-128	4	557	175	-61	-26	359	118	-14	-1
Above Normal (24%)	46	-3	11	31	20	-68	347	109	-596	-88	-9	-9
Below Normal (10%)	22	0	0	264	183	-118	156	41	-111	-4	-2	-6
Dry (16%)	-51	0	9	-10	-86	0	-205	-275	-119	-21	-6	-4
Critical (27%)	-36	0	0	-7	-33	-15	-242	-255	-82	-72	-64	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 38-2. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	472	699	1,754	2,064	1,855	1,989	1,522	1,094	592	661
20%	1,029	382	378	431	717	1,769	1,761	1,719	1,355	555	489	502
30%	982	348	319	370	486	1,646	1,698	1,608	1,194	506	462	482
40%	958	336	304	349	443	478	1,573	1,414	1,019	453	445	445
50%	889	318	290	337	395	372	1,475	1,296	669	415	443	439
60%	826	292	280	326	355	339	949	946	532	386	419	431
70%	773	267	262	315	316	314	851	766	445	378	392	401
80%	759	260	239	295	265	241	767	708	373	349	375	363
90%	692	248	223	273	239	203	585	606	318	326	347	320
Long Term												
Full Simulation Period ^d	914	413	476	722	824	1,054	1,296	1,242	882	555	497	550
Water Year Types ^{b,c}												
Wet (23%)	1,148	767	1,112	1,149	1,668	2,498	1,796	1,826	1,500	964	774	1,002
Above Normal (24%)	923	316	288	1,068	922	1,130	1,385	1,307	1,159	562	470	490
Below Normal (10%)	953	315	291	573	554	704	1,537	1,417	690	454	442	436
Dry (16%)	842	309	311	349	449	344	1,125	1,043	549	380	403	402
Critical (27%)	731	294	262	313	324	285	796	731	362	337	358	344

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	450	441	2,452	2,882	1,956	1,907	1,726	1,355	593	550	667
20%	1,036	376	345	604	1,655	1,750	1,830	1,580	1,060	535	482	493
30%	979	347	316	395	469	1,613	1,687	1,468	811	479	461	473
40%	966	335	304	357	415	476	1,584	1,345	615	424	445	441
50%	906	318	288	343	361	367	1,528	1,307	531	398	433	435
60%	820	292	280	328	308	337	949	789	397	376	395	398
70%	764	267	262	315	264	314	767	631	324	309	357	382
80%	750	260	241	296	239	241	550	466	280	288	323	350
90%	662	248	224	274	227	207	480	423	244	232	276	288
Long Term												
Full Simulation Period ^d	907	411	480	858	1,133	1,052	1,276	1,128	720	454	475	555
Water Year Types ^{b,c}												
Wet (23%)	1,143	763	1,112	1,524	2,726	2,542	1,764	1,806	1,545	764	788	1,096
Above Normal (24%)	966	311	284	1,135	1,066	1,154	1,747	1,385	716	450	459	468
Below Normal (10%)	972	315	291	868	762	469	1,712	1,419	557	445	438	423
Dry (16%)	781	309	340	378	572	395	813	691	402	344	377	386
Critical (27%)	692	294	266	311	286	271	542	462	259	258	292	316

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-29	-13	-31	1,753	1,128	-108	52	-264	-167	-500	-42	7
20%	7	-6	-32	173	938	-19	69	-139	-295	-21	-8	-9
30%	-3	-1	-3	25	-17	-33	-11	-139	-383	-28	-1	-10
40%	9	-1	-1	8	-28	-2	11	-69	-404	-29	0	-4
50%	17	0	-1	5	-34	-5	52	10	-138	-17	-9	-5
60%	-7	0	0	2	-47	-2	0	-156	-134	-10	-25	-32
70%	-9	0	0	0	-52	0	-85	-136	-121	-69	-35	-19
80%	-9	0	2	1	-26	0	-217	-242	-93	-61	-52	-13
90%	-30	0	1	1	-12	4	-105	-184	-75	-94	-71	-32
Long Term												
Full Simulation Period ^d	-7	-2	4	136	310	-2	-20	-113	-161	-101	-22	5
Water Year Types ^{b,c}												
Wet (23%)	-5	-5	0	376	1,057	45	-32	-20	46	-200	15	93
Above Normal (24%)	44	-5	-5	66	144	24	363	78	-443	-112	-11	-22
Below Normal (10%)	19	0	0	295	208	-235	175	2	-134	-9	-4	-12
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-254	-269	-103	-79	-66	-29

a Based on the 82-year simulation period.
 b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
 c These results are displayed with calendar year - year type sorting.
 d All year type sorting uses ELT 05 climate scenario indices.
 e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.
 f New Melones forecasts are used as the basis of water operations.

Table 38-3. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	442	576	1,083	1,969	1,886	1,989	1,535	752	587	646
20%	1,029	384	368	427	643	1,708	1,769	1,647	1,329	606	488	507
30%	982	348	319	368	469	521	1,696	1,536	1,220	502	462	473
40%	958	337	304	347	399	433	1,610	1,362	1,053	443	445	443
50%	879	319	290	337	368	367	1,485	1,289	634	415	445	439
60%	826	292	281	326	331	336	936	870	510	384	416	428
70%	772	267	262	312	279	314	806	755	406	374	395	389
80%	755	260	241	295	253	241	693	647	361	343	371	360
90%	676	248	224	273	230	207	579	577	317	311	331	318
Long Term												
Full Simulation Period ^d	903	398	449	630	717	902	1,279	1,207	883	547	506	533
Water Year Types ^{b,c}												
Wet (23%)	1,120	701	994	1,115	1,404	2,256	1,779	1,828	1,456	977	831	946
Above Normal (24%)	918	316	288	777	786	801	1,410	1,244	1,254	534	467	480
Below Normal (10%)	950	315	291	430	517	539	1,556	1,378	668	449	440	429
Dry (16%)	832	309	311	349	405	345	1,064	1,002	531	377	397	399
Critical (27%)	722	294	266	317	319	286	755	696	336	323	347	342

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	472	699	1,754	2,064	1,855	1,989	1,522	1,094	592	661
20%	1,029	382	378	431	717	1,769	1,761	1,719	1,355	555	489	502
30%	982	348	319	370	486	1,646	1,698	1,608	1,194	506	462	482
40%	958	336	304	349	443	478	1,573	1,414	1,019	453	445	445
50%	889	318	290	337	395	372	1,475	1,296	669	415	443	439
60%	826	292	280	326	355	339	949	946	532	386	419	431
70%	773	267	262	315	316	314	851	766	445	378	392	401
80%	759	260	239	295	265	241	767	708	373	349	375	363
90%	692	248	223	273	239	203	585	606	318	326	347	320
Long Term												
Full Simulation Period ^d	914	413	476	722	824	1,054	1,296	1,242	882	555	497	550
Water Year Types ^{b,c}												
Wet (23%)	1,148	767	1,112	1,149	1,668	2,498	1,796	1,826	1,500	964	774	1,002
Above Normal (24%)	923	316	288	1,068	922	1,130	1,385	1,307	1,159	562	470	490
Below Normal (10%)	953	315	291	573	554	704	1,537	1,417	690	454	442	436
Dry (16%)	842	309	311	349	449	344	1,125	1,043	549	380	403	402
Critical (27%)	731	294	262	313	324	285	796	731	362	337	358	344

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	30	122	670	94	-31	0	-13	341	5	15
20%	0	-2	10	5	74	61	-7	72	25	-51	1	-5
30%	0	0	0	1	17	1,125	1	71	-26	5	0	10
40%	-1	-1	0	2	44	44	-37	52	-34	10	0	2
50%	11	-1	0	0	26	5	-9	8	35	-1	-2	0
60%	0	0	0	0	24	3	13	76	21	3	4	3
70%	1	0	0	3	36	0	45	12	38	3	-2	12
80%	4	0	-2	-1	12	0	73	60	12	7	5	2
90%	16	0	-1	0	10	-4	6	29	1	16	16	2
Long Term												
Full Simulation Period ^d	12	15	26	92	106	152	17	35	-1	8	-9	17
Water Year Types ^{b,c}												
Wet (23%)	28	66	118	34	264	241	17	-2	43	-14	-57	56
Above Normal (24%)	4	0	0	291	135	329	-26	63	-95	28	3	10
Below Normal (10%)	3	0	0	143	37	165	-19	39	22	4	2	6
Dry (16%)	10	0	0	0	44	-1	61	41	18	3	6	3
Critical (27%)	9	0	-4	-5	5	-1	41	35	26	14	10	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Table 38-4. Stanislaus River Flow at Mouth, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	401	403	765	2,628	1,947	1,886	1,726	1,352	633	569	673
20%	1,036	376	338	425	541	1,638	1,817	1,610	1,061	536	482	493
30%	975	347	314	364	449	1,054	1,705	1,443	800	479	458	462
40%	966	335	304	350	388	415	1,553	1,335	615	427	445	441
50%	901	318	288	336	340	362	1,525	1,294	531	398	435	437
60%	821	292	280	325	293	334	976	841	408	376	402	400
70%	766	267	262	308	257	312	767	631	341	309	360	382
80%	751	260	239	294	237	241	545	459	287	282	318	337
90%	659	248	223	273	227	207	460	419	243	231	274	282
Long Term												
Full Simulation Period ^d	898	392	424	661	846	911	1,268	1,120	769	530	482	520
Water Year Types ^{b,c}												
Wet (23%)	1,115	677	866	1,120	1,961	2,431	1,718	1,802	1,816	1,095	817	945
Above Normal (24%)	964	313	299	808	806	733	1,758	1,353	658	446	457	471
Below Normal (10%)	972	315	291	694	700	421	1,712	1,419	557	445	438	423
Dry (16%)	780	309	320	339	320	345	859	727	412	355	391	395
Critical (27%)	686	294	266	310	286	271	514	441	254	252	284	309

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	450	441	2,452	2,882	1,956	1,907	1,726	1,355	593	550	667
20%	1,036	376	345	604	1,655	1,750	1,830	1,580	1,060	535	482	493
30%	979	347	316	395	469	1,613	1,687	1,468	811	479	461	473
40%	966	335	304	357	415	476	1,584	1,345	615	424	445	441
50%	906	318	288	343	361	367	1,528	1,307	531	398	433	435
60%	820	292	280	328	308	337	949	789	397	376	395	398
70%	764	267	262	315	264	314	767	631	324	309	357	382
80%	750	260	241	296	239	241	550	466	280	288	323	350
90%	662	248	224	274	227	207	480	423	244	232	276	288
Long Term												
Full Simulation Period ^d	907	411	480	858	1,133	1,052	1,276	1,128	720	454	475	555
Water Year Types ^{b,c}												
Wet (23%)	1,143	763	1,112	1,524	2,726	2,542	1,764	1,806	1,545	764	788	1,096
Above Normal (24%)	966	311	284	1,135	1,066	1,154	1,747	1,385	716	450	459	468
Below Normal (10%)	972	315	291	868	762	469	1,712	1,419	557	445	438	423
Dry (16%)	781	309	340	378	572	395	813	691	402	344	377	386
Critical (27%)	692	294	266	311	286	271	542	462	259	258	292	316

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	49	38	1,687	254	9	21	0	3	-40	-19	-6
20%	0	0	7	179	1,114	112	13	-30	-1	-2	0	0
30%	4	-1	2	31	19	560	-18	26	10	0	3	11
40%	0	-1	0	7	27	60	30	10	0	-3	0	0
50%	5	0	0	7	21	5	2	13	0	0	-1	-3
60%	-1	0	0	2	15	3	-28	-51	-10	0	-7	-2
70%	-2	0	0	7	6	2	0	0	-17	0	-3	0
80%	0	0	2	1	2	0	5	7	-7	6	4	13
90%	3	0	1	1	0	0	19	3	1	1	2	6
Long Term												
Full Simulation Period ^d	9	19	56	197	287	141	8	8	-49	-76	-6	35
Water Year Types ^{b,c}												
Wet (23%)	28	86	246	405	765	111	46	4	-270	-331	-29	151
Above Normal (24%)	2	-2	-15	327	260	420	-10	31	58	3	2	-3
Below Normal (10%)	0	0	0	174	62	49	0	0	0	0	0	0
Dry (16%)	0	0	20	39	253	50	-46	-36	-10	-11	-13	-8
Critical (27%)	6	0	0	1	1	0	28	21	6	6	8	7

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

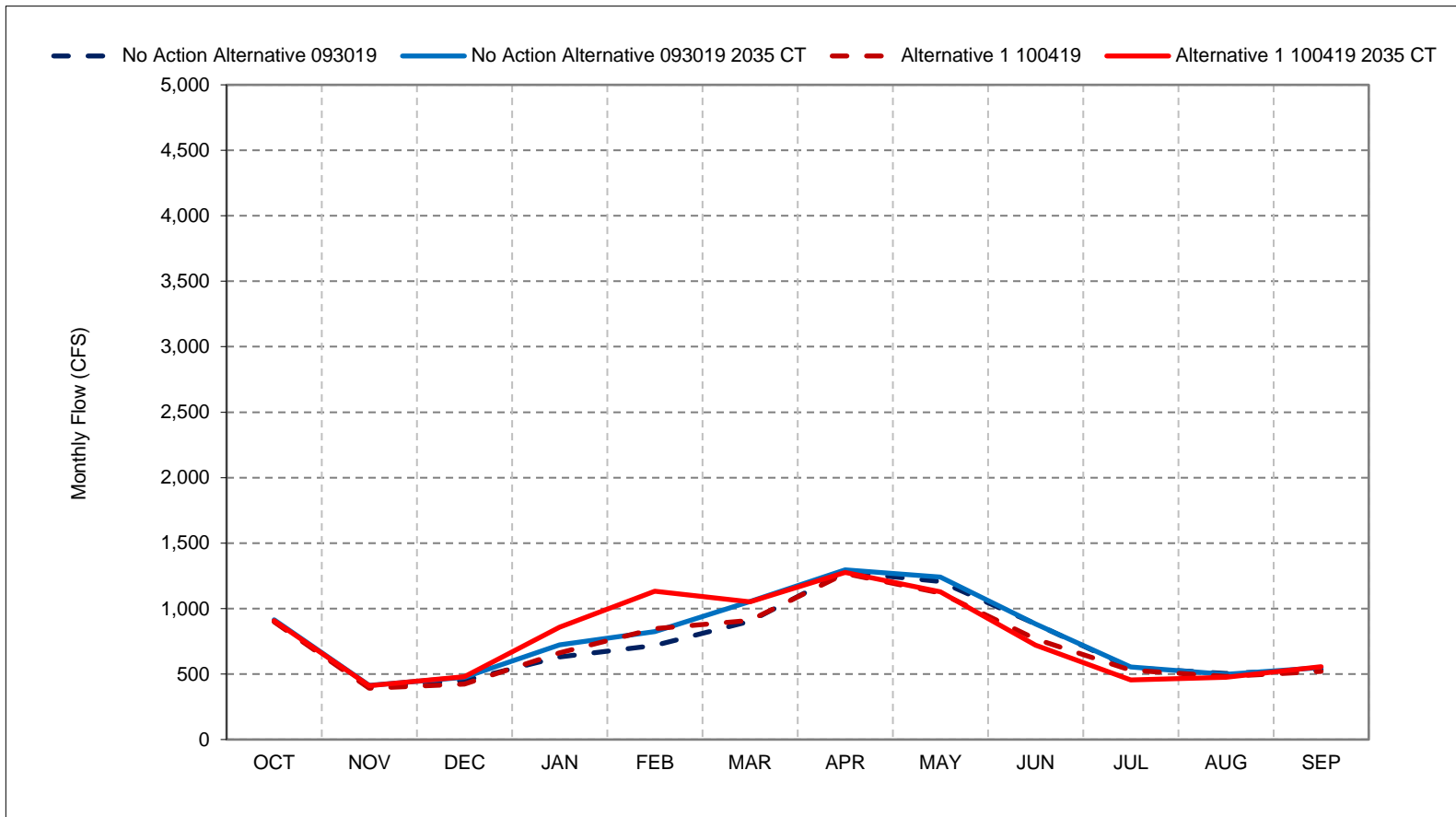
d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Figure 38-1. Stanislaus River Flow at Mouth, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

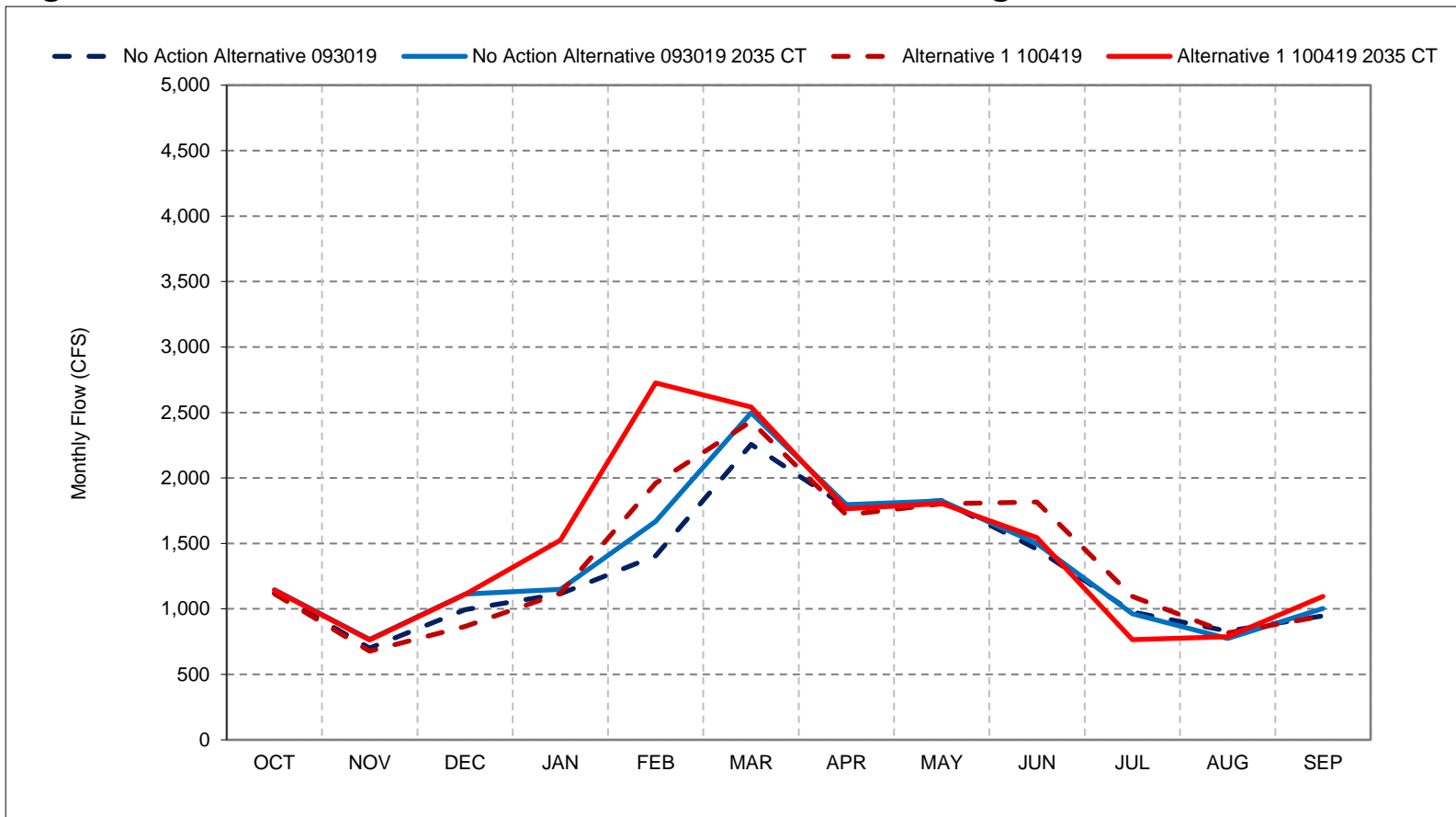
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-2. Stanislaus River Flow at Mouth, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

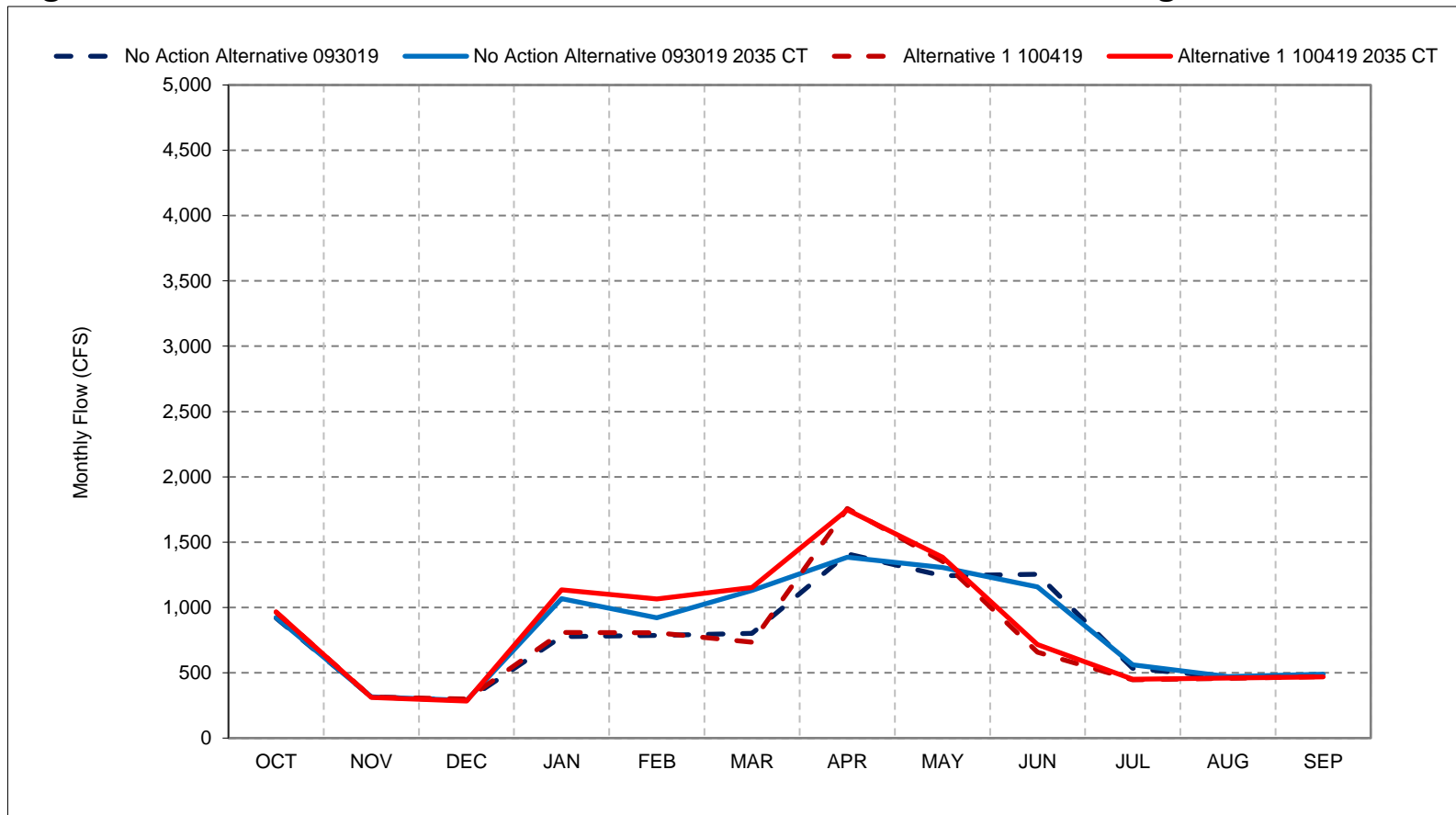
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-3. Stanislaus River Flow at Mouth, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

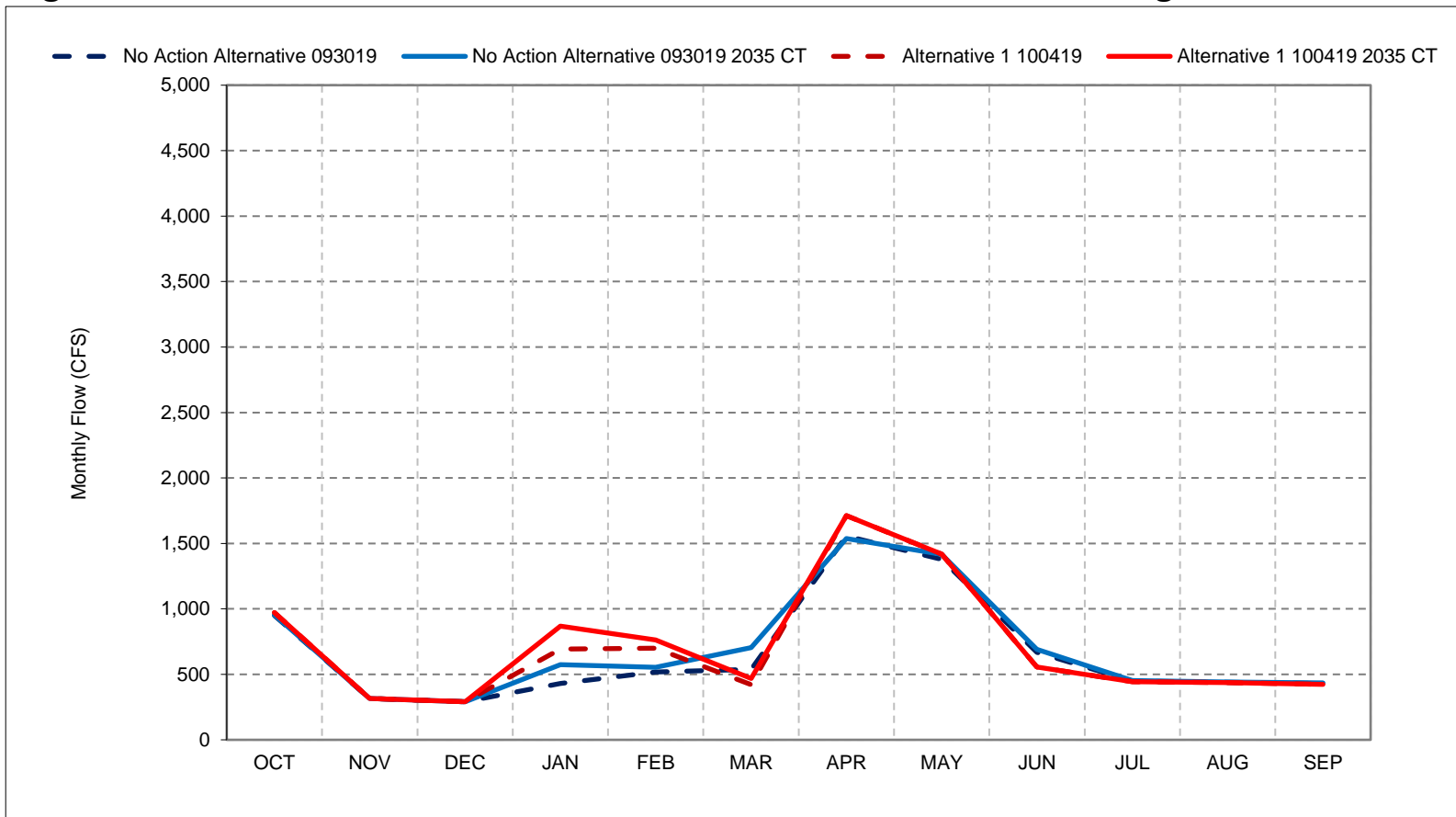
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-4. Stanislaus River Flow at Mouth, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

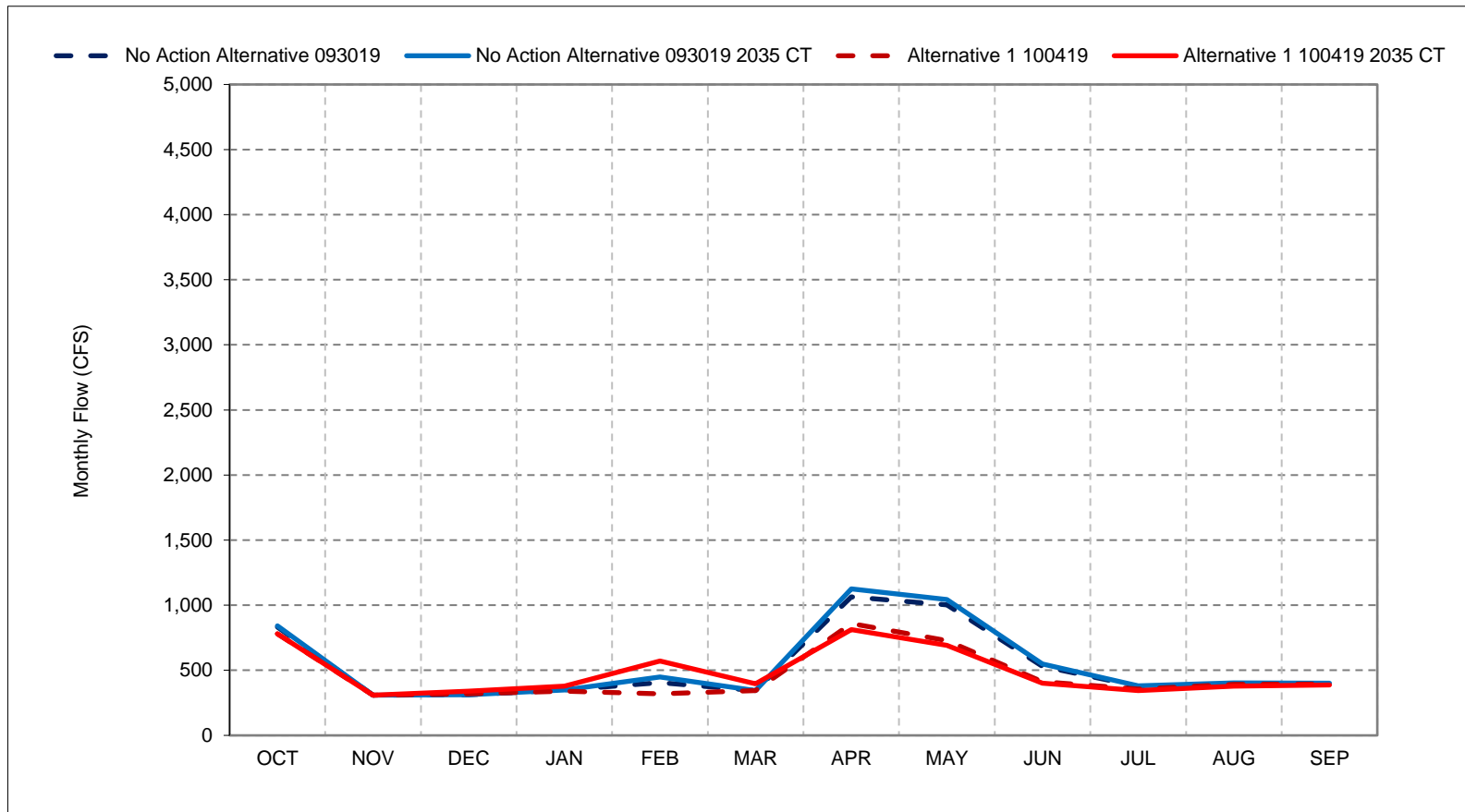
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-5. Stanislaus River Flow at Mouth, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

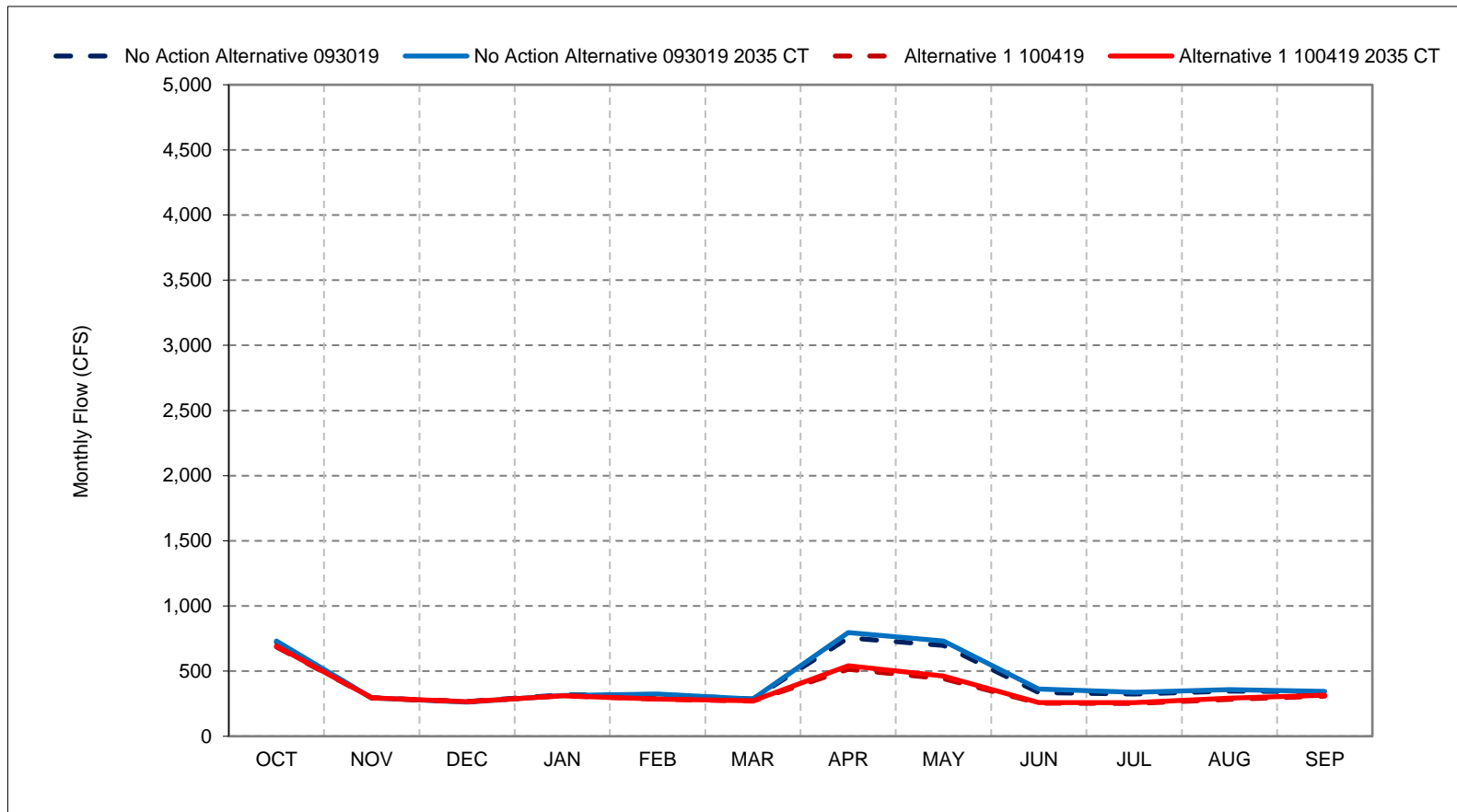
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-6. Stanislaus River Flow at Mouth, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

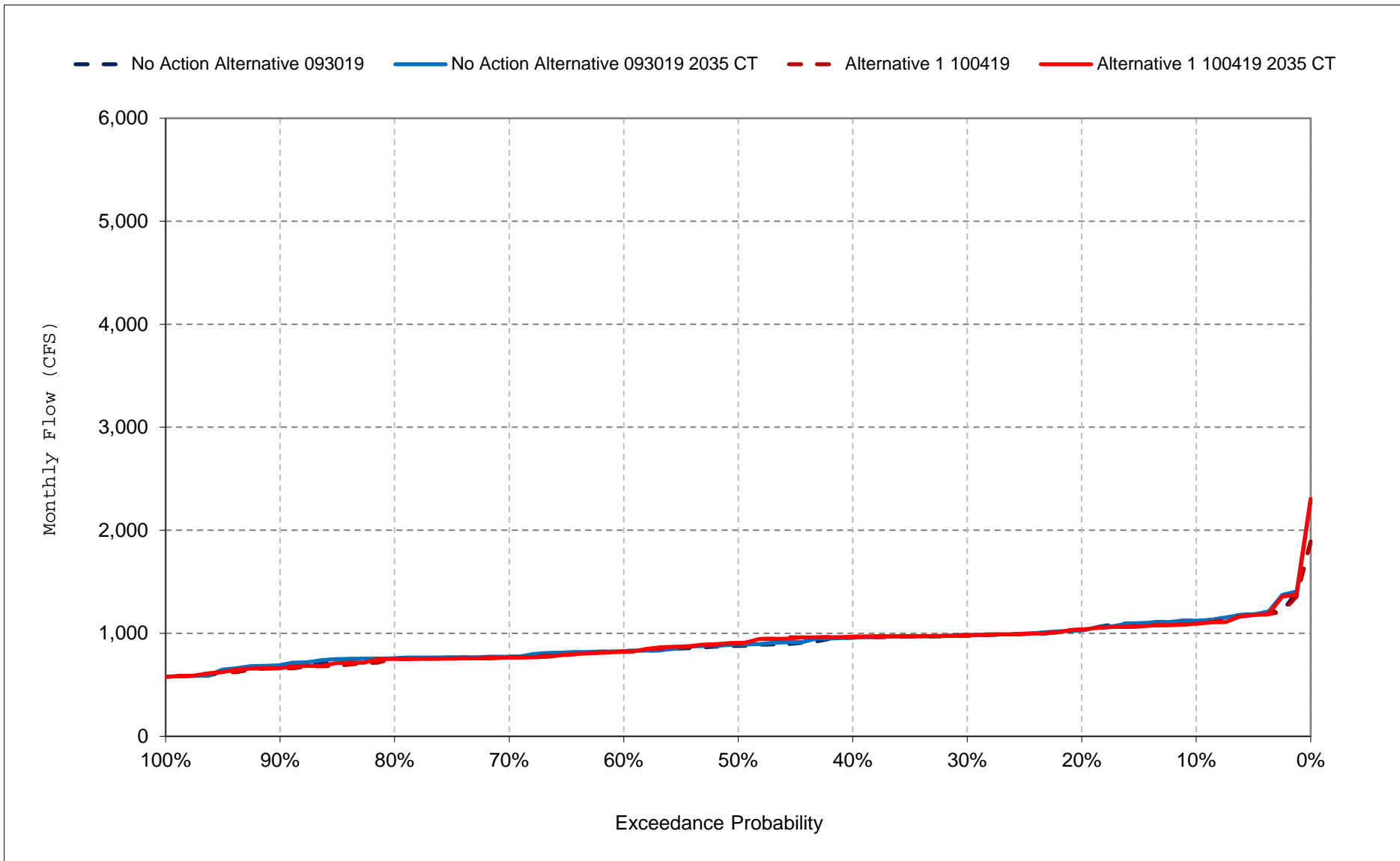
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

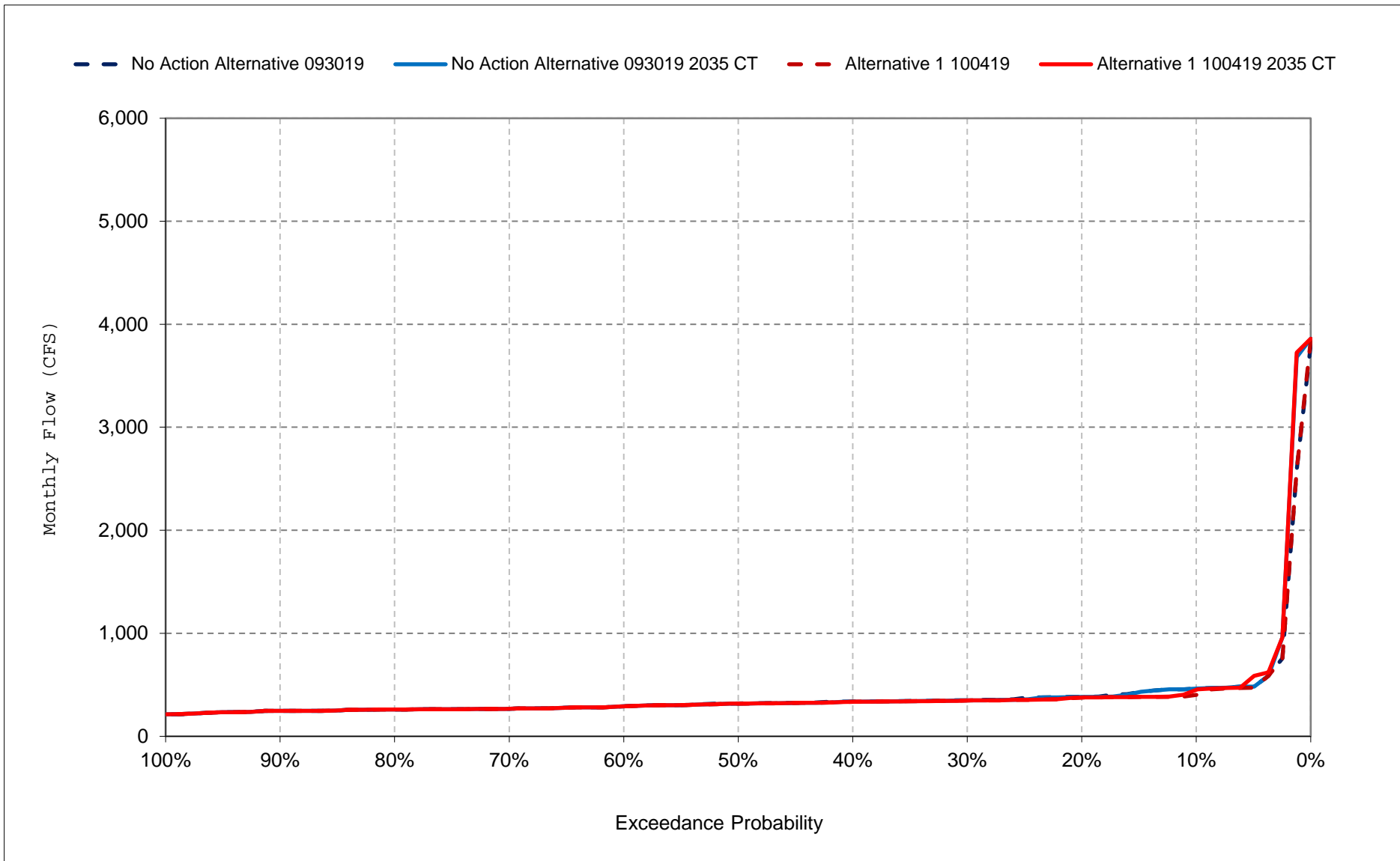
Figure 38-7. Stanislaus River Flow at Mouth, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

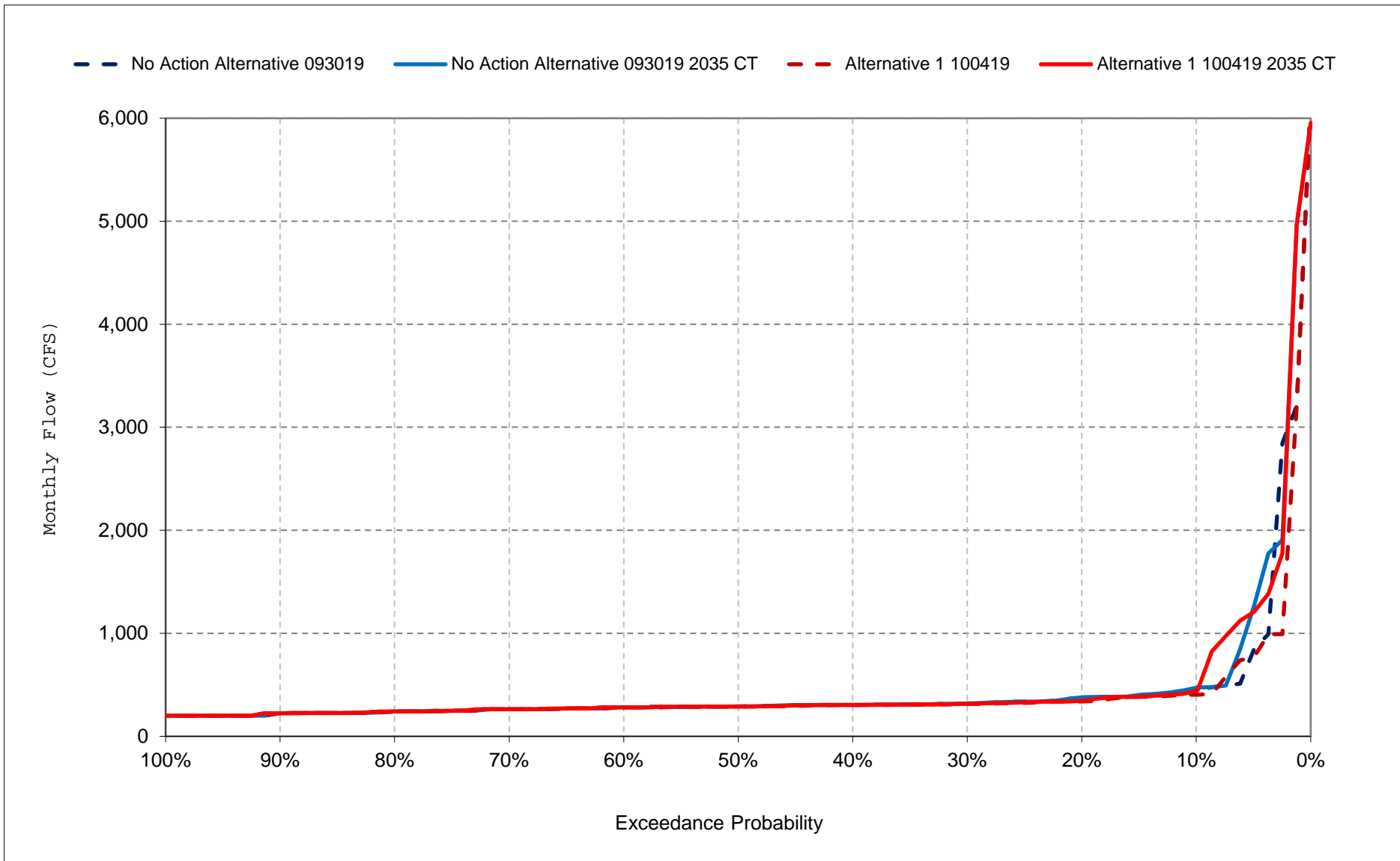
Figure 38-8. Stanislaus River Flow at Mouth, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

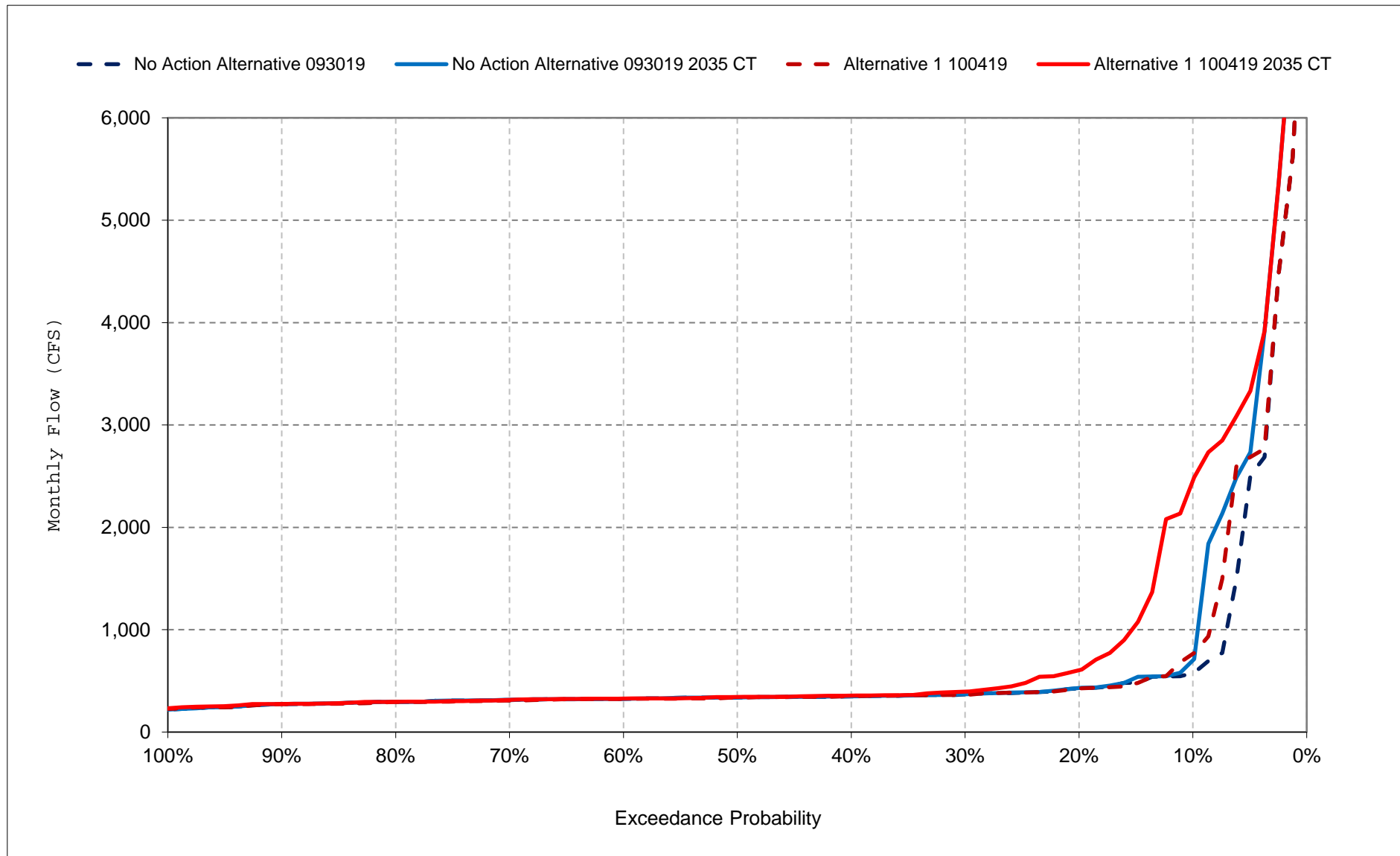
Figure 38-9. Stanislaus River Flow at Mouth, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

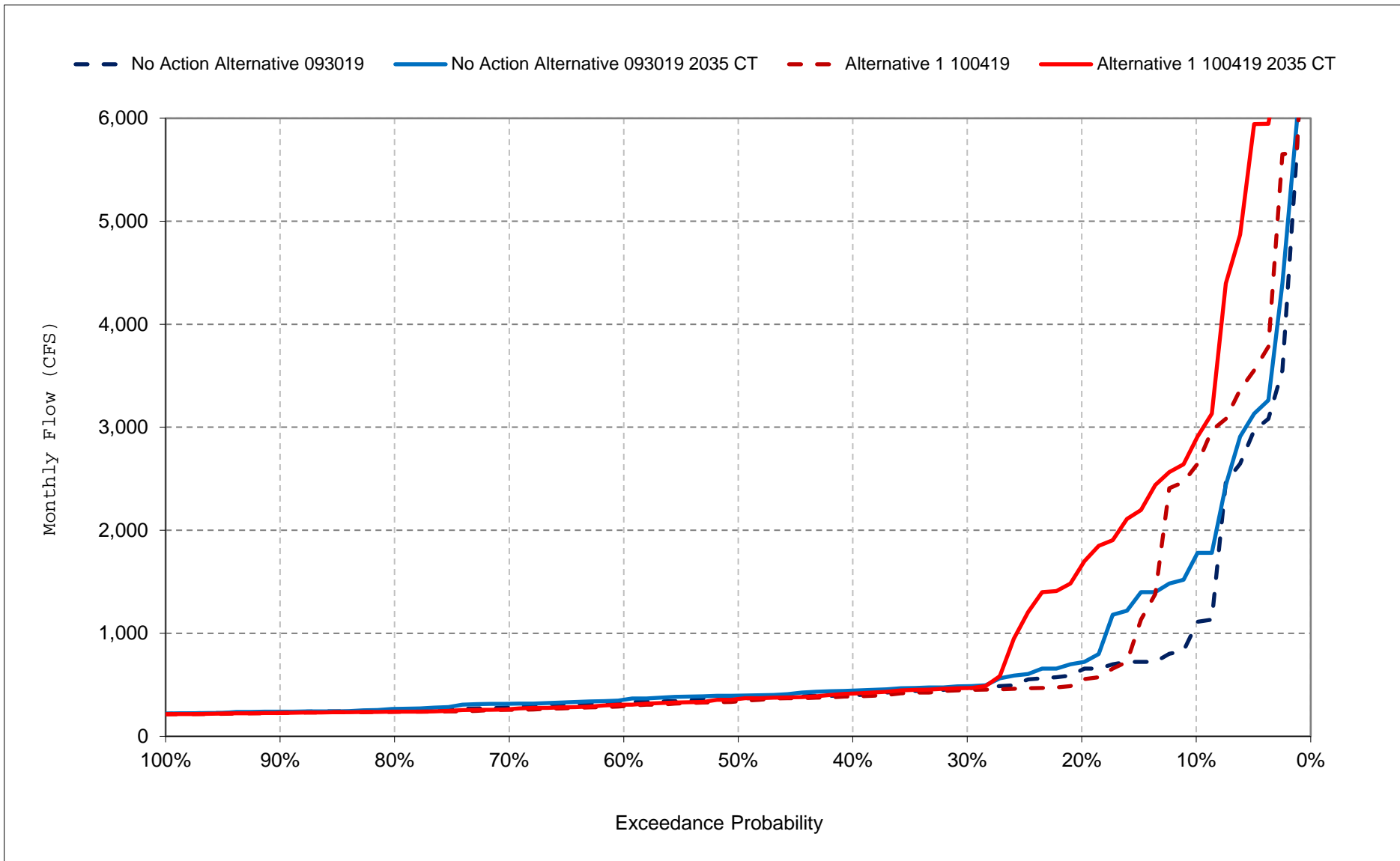
Figure 38-10. Stanislaus River Flow at Mouth, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

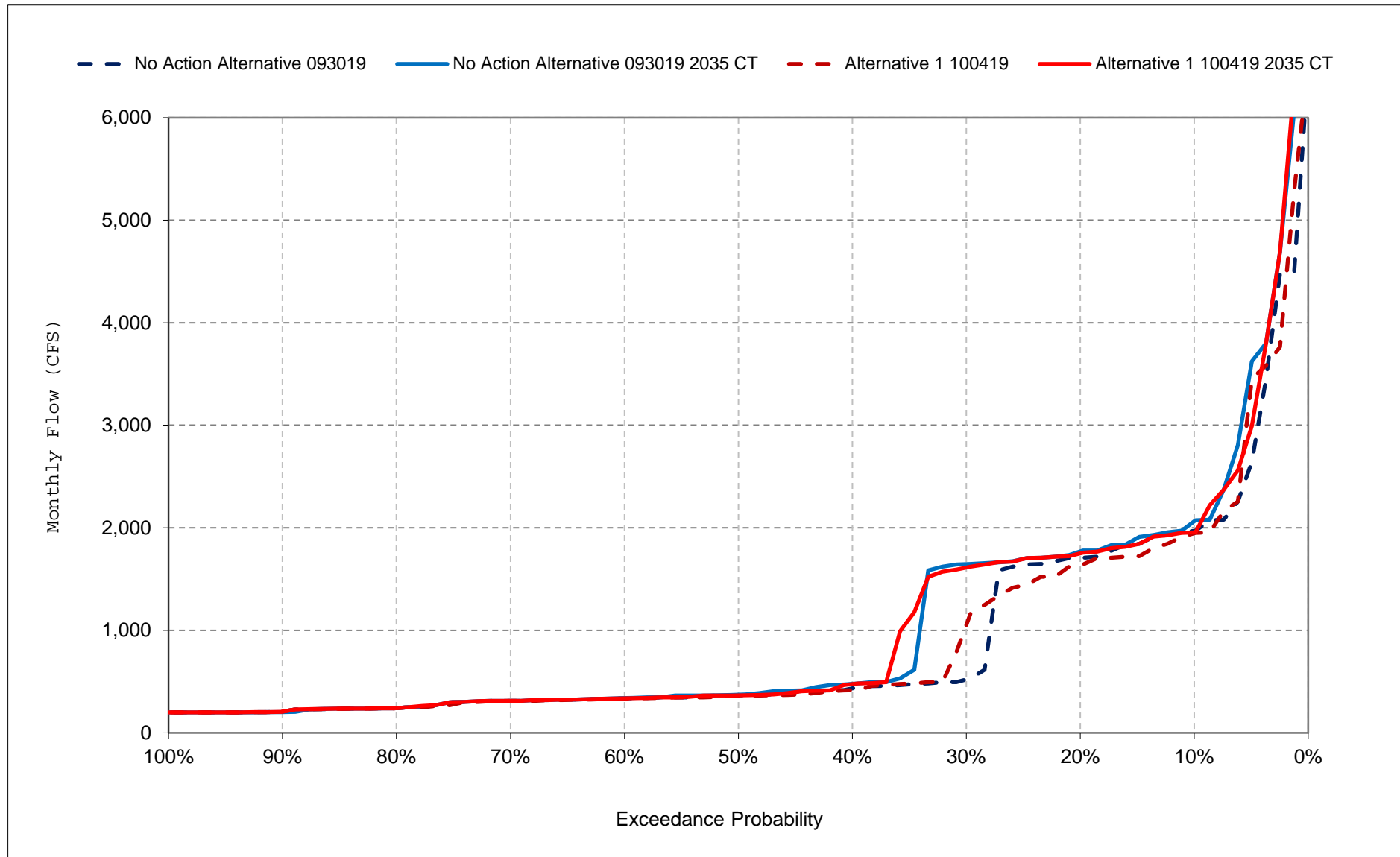
Figure 38-11. Stanislaus River Flow at Mouth, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

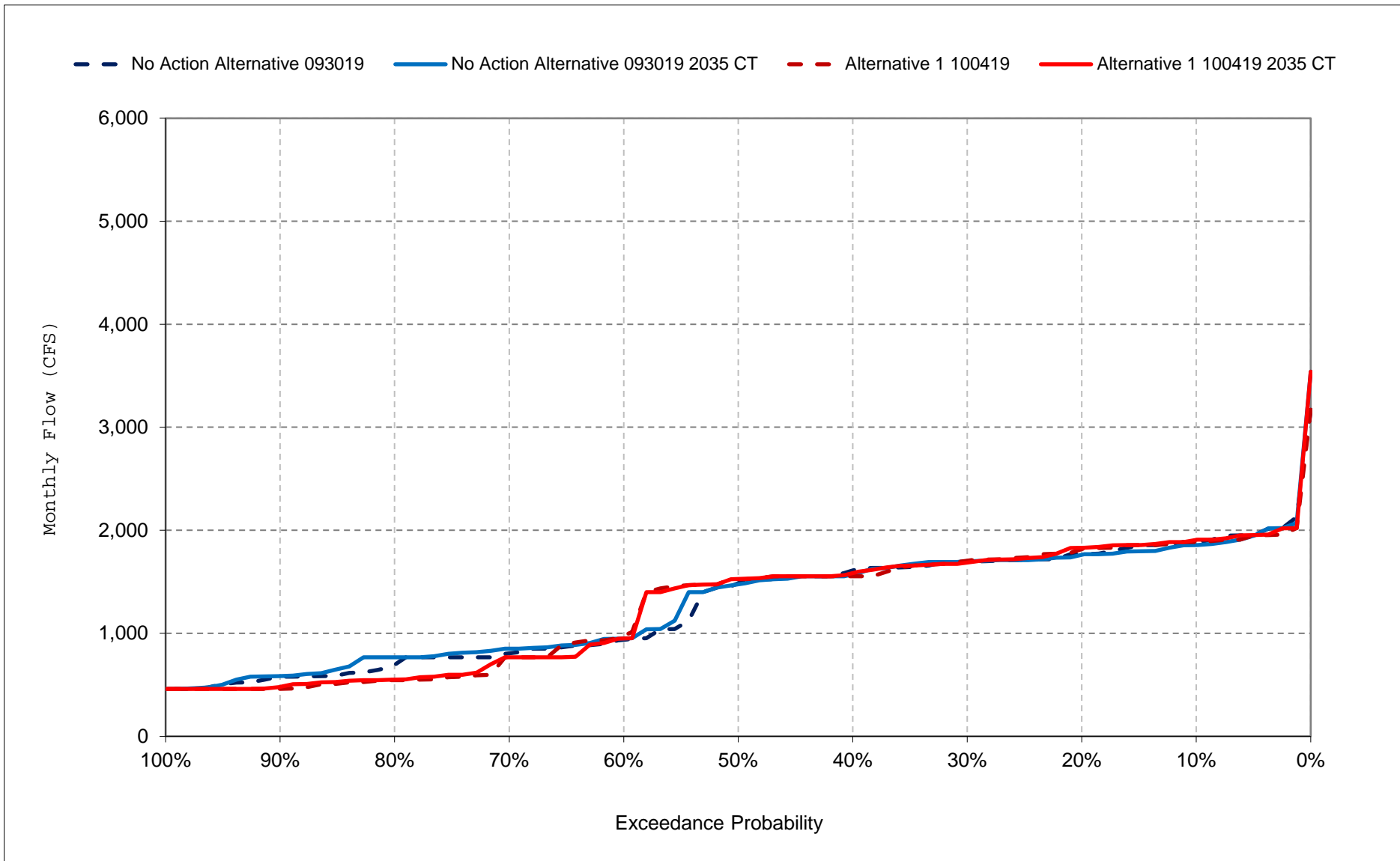
Figure 38-12. Stanislaus River Flow at Mouth, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

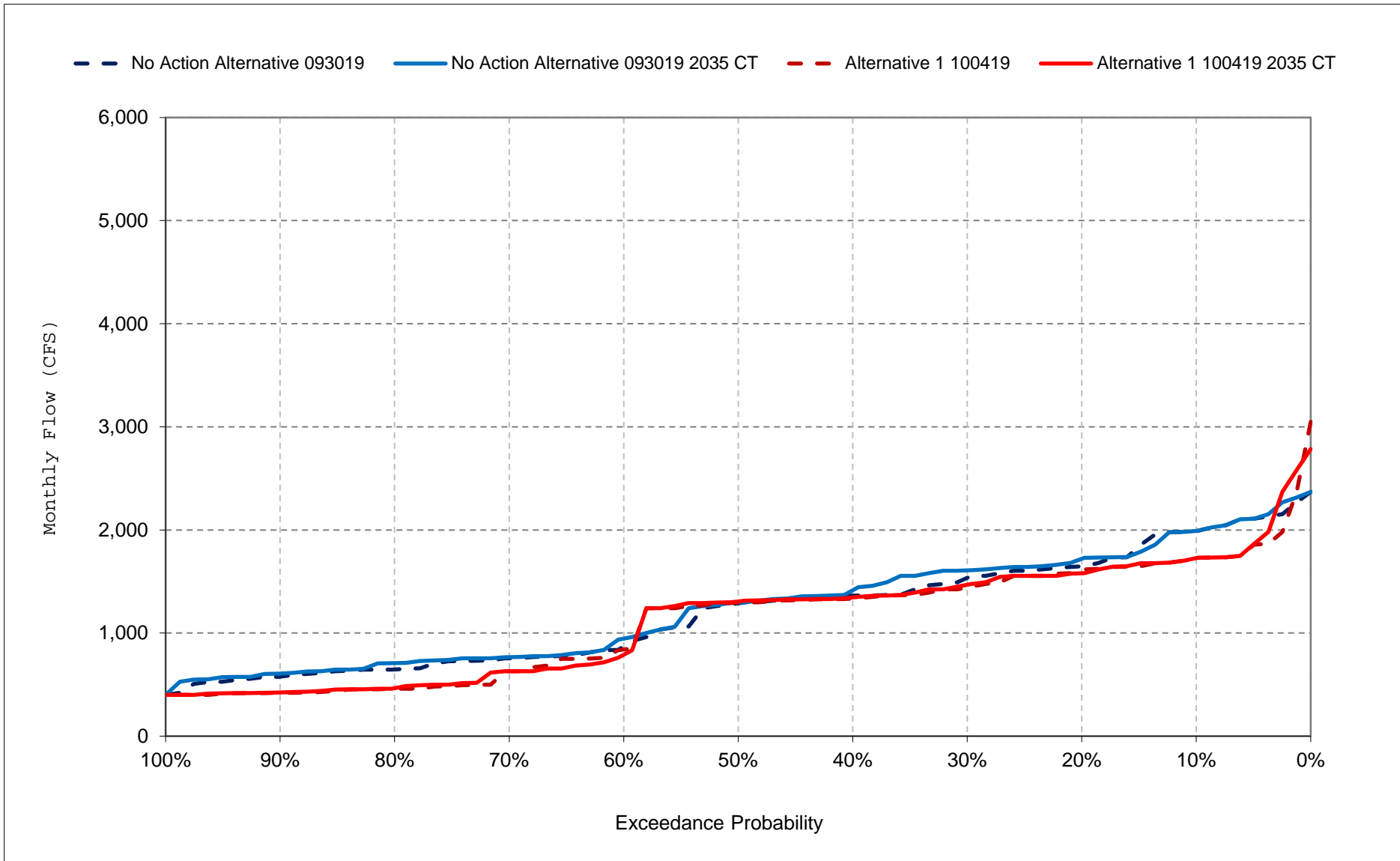
Figure 38-13. Stanislaus River Flow at Mouth, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

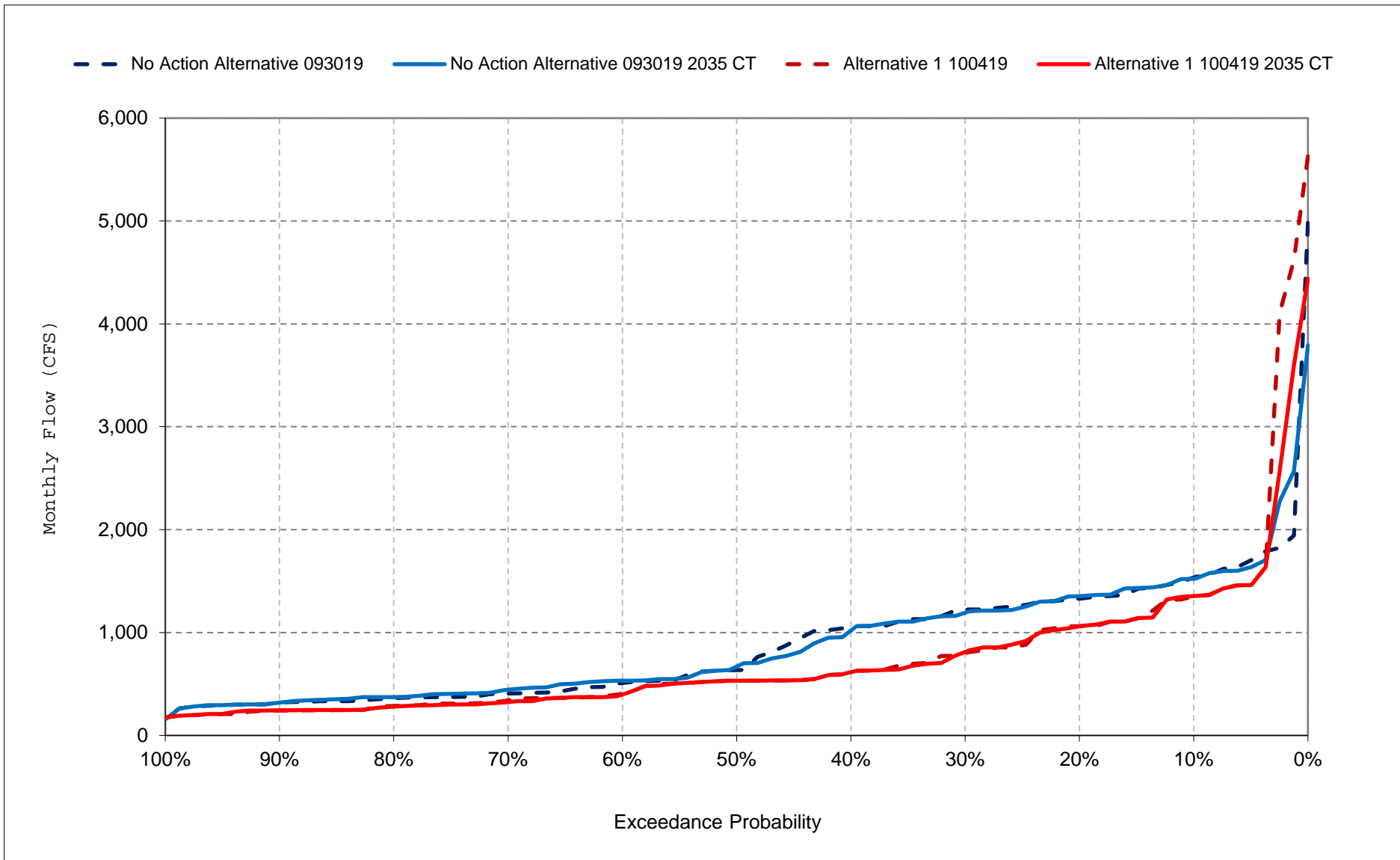
Figure 38-14. Stanislaus River Flow at Mouth, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

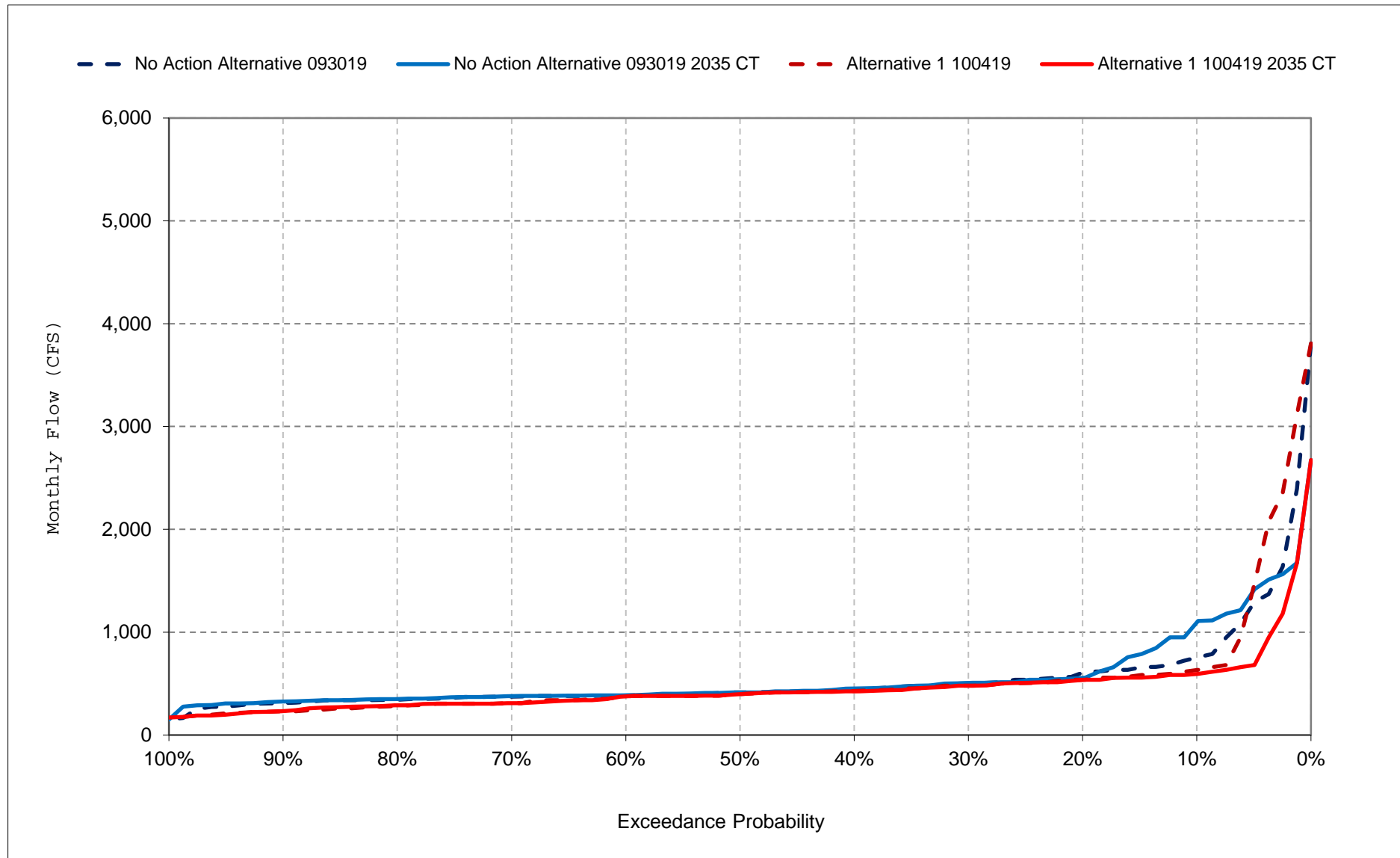
Figure 38-15. Stanislaus River Flow at Mouth, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

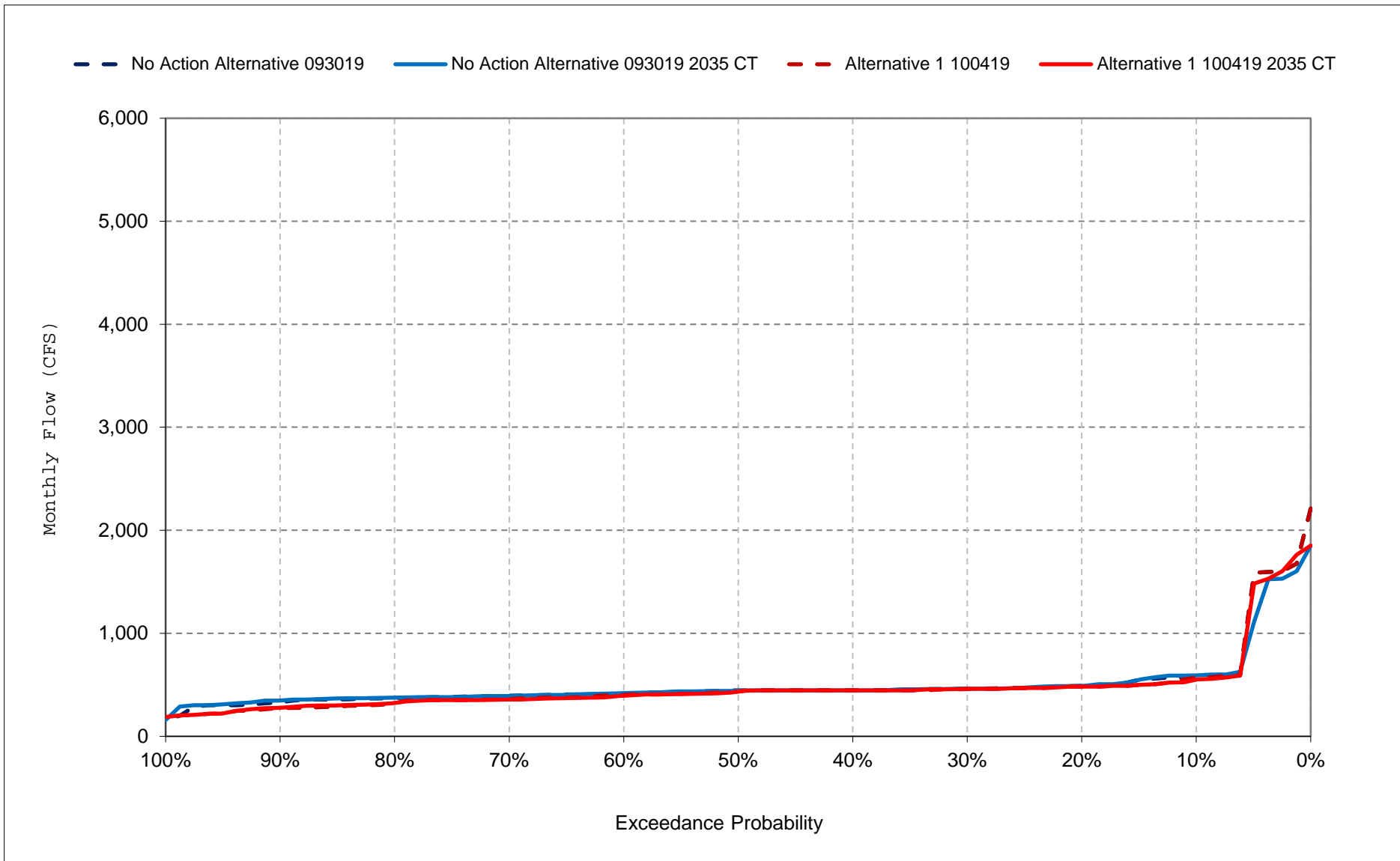
Figure 38-16. Stanislaus River Flow at Mouth, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

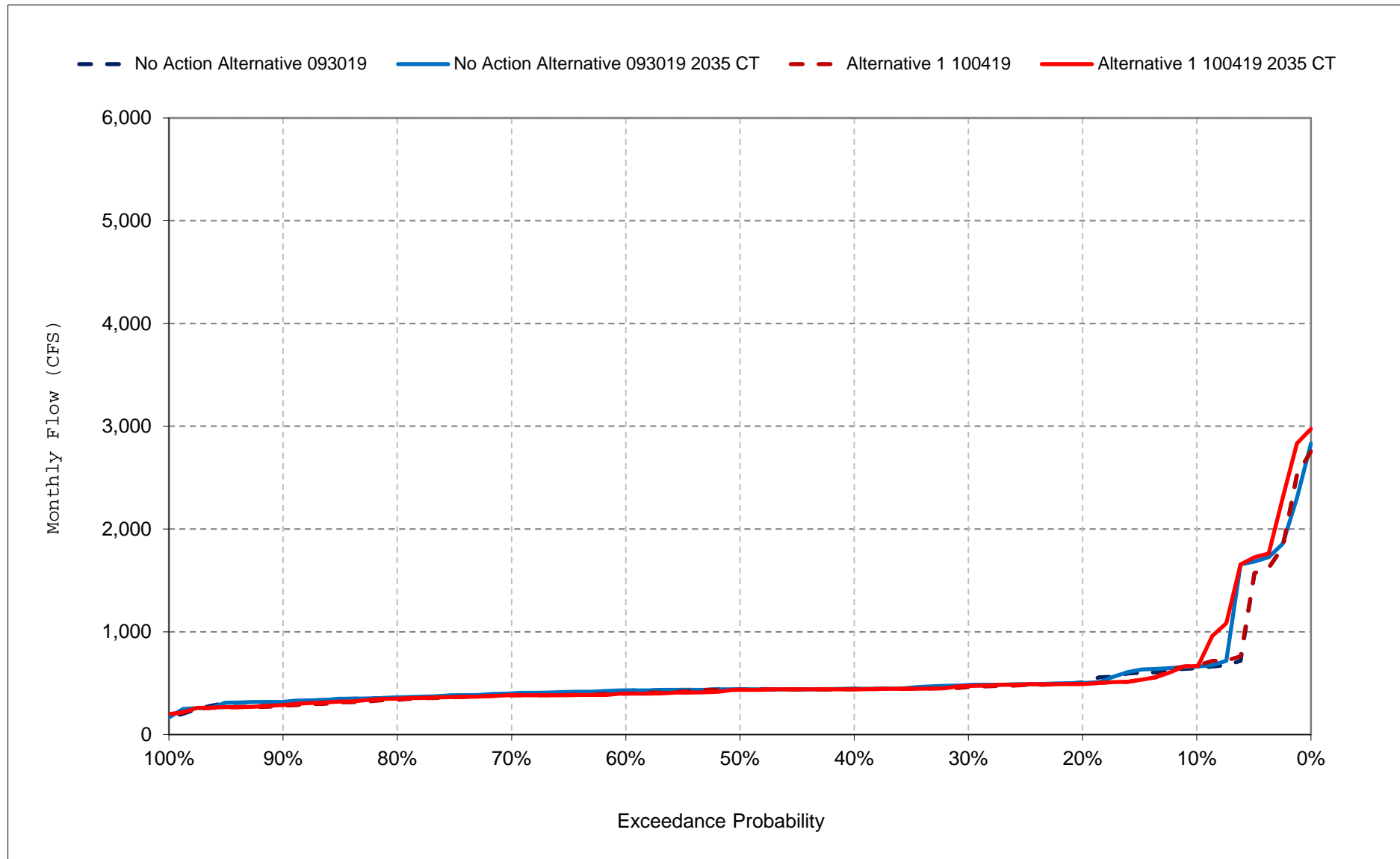
Figure 38-17. Stanislaus River Flow at Mouth, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 38-18. Stanislaus River Flow at Mouth, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-1. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (32%)	3,440	3,630	5,116	10,106	12,569	14,034	13,210	11,444	8,798	5,276	2,791	3,062
Above Normal (16%)	2,750	2,461	2,591	4,383	6,149	6,704	7,697	5,516	3,483	2,020	1,768	2,215
Below Normal (13%)	2,558	2,191	2,461	2,701	4,599	4,249	5,598	3,700	2,031	1,495	1,579	1,999
Dry (24%)	2,201	2,118	3,166	2,295	3,124	3,599	4,307	3,260	1,733	1,228	1,348	1,764
Critical (15%)	1,815	1,786	1,764	1,757	2,224	2,199	2,133	1,855	1,192	941	990	1,396

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (32%)	3,431	3,610	5,031	10,142	13,009	14,070	13,186	11,331	8,821	5,339	2,776	3,055
Above Normal (16%)	2,785	2,462	2,591	4,535	6,245	6,809	7,961	5,682	3,214	1,939	1,770	2,216
Below Normal (13%)	2,519	2,191	2,461	2,690	4,546	4,130	5,399	3,449	1,875	1,482	1,572	1,990
Dry (24%)	2,188	2,118	3,172	2,282	3,075	3,599	4,230	3,126	1,587	1,175	1,299	1,735
Critical (15%)	1,827	1,786	1,764	1,757	2,177	2,171	2,131	1,784	1,052	889	957	1,385

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	22	0	1,162	2,506	-95	247	825	0	-111	-53	0
20%	-14	0	47	26	-7	128	0	3	82	-133	4	-21
30%	15	-45	-79	2	694	-28	342	232	-663	-39	-23	-7
40%	39	0	-11	52	0	-264	355	39	-577	-9	4	1
50%	26	0	0	-30	-349	0	414	201	-182	2	6	-2
60%	0	0	0	-3	-70	-20	-50	-156	-115	-21	-7	-12
70%	-111	0	0	-31	0	0	-567	-404	-102	-17	2	-1
80%	-18	0	0	-1	-23	0	-295	-302	-83	-102	-72	-39
90%	-42	0	0	-1	-57	0	-135	-208	-113	-21	-40	-24
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-11	-86	-112	-15	-22	-12
Water Year Types ^{b,c}												
Wet (32%)	-9	-20	-85	35	440	37	-24	-113	23	63	-15	-7
Above Normal (16%)	35	0	0	152	96	105	264	166	-269	-80	2	1
Below Normal (13%)	-39	0	0	-11	-53	-120	-200	-251	-155	-13	-7	-8
Dry (24%)	-13	0	5	-13	-50	0	-76	-134	-146	-52	-49	-29
Critical (15%)	12	0	0	0	-47	-28	-2	-71	-140	-52	-33	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 39-2. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (32%)	3,479	3,691	5,432	11,917	13,953	15,749	13,816	11,912	8,544	4,239	2,654	3,124
Above Normal (16%)	2,737	2,432	2,541	4,885	6,805	7,917	8,163	5,631	3,506	1,959	1,802	2,232
Below Normal (13%)	2,525	2,205	2,533	3,055	5,738	4,776	5,939	3,651	1,937	1,465	1,442	1,957
Dry (24%)	2,218	2,126	3,424	2,427	3,623	3,734	4,453	3,461	1,749	1,224	1,328	1,776
Critical (15%)	1,851	1,790	1,764	1,759	2,397	2,220	2,196	1,925	1,249	980	1,034	1,423

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (32%)	3,468	3,684	5,428	12,226	14,670	15,687	13,825	11,782	8,387	4,079	2,657	3,176
Above Normal (16%)	2,769	2,432	2,541	5,107	7,319	7,994	8,391	5,702	3,243	1,817	1,802	2,226
Below Normal (13%)	2,464	2,205	2,533	3,090	5,976	4,717	5,628	3,319	1,826	1,418	1,404	1,931
Dry (24%)	2,209	2,126	3,445	2,418	3,529	3,800	4,386	3,357	1,630	1,183	1,288	1,754
Critical (15%)	1,863	1,790	1,764	1,762	2,335	2,195	2,198	1,840	1,083	915	991	1,417

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	0	12	2,289	329	-61	290	92	0	-571	-94	201
20%	0	0	0	159	150	68	630	1	-117	-356	2	16
30%	-9	-51	-80	1	969	-247	65	-250	-445	-98	-17	-39
40%	84	0	0	37	245	-528	249	41	-467	-28	2	-43
50%	34	0	0	62	35	80	492	199	-242	6	-9	-15
60%	10	0	0	1	-44	0	-53	-284	-49	-14	-13	-13
70%	-68	0	0	3	-7	0	-737	-498	-129	-39	-58	-3
80%	-115	0	0	-1	-152	0	-208	-324	-174	-72	-75	-33
90%	0	0	0	0	-135	0	-302	-210	-147	-69	-77	-12
Long Term												
Full Simulation Period ^d	-7	-2	4	136	309	-3	-19	-112	-160	-99	-20	6
Water Year Types ^{b,c}												
Wet (32%)	-11	-7	-4	309	717	-61	8	-130	-157	-160	4	52
Above Normal (16%)	32	0	0	223	515	77	228	70	-262	-142	0	-6
Below Normal (13%)	-61	0	0	34	238	-60	-312	-332	-111	-47	-38	-27
Dry (24%)	-9	0	22	-9	-94	66	-68	-104	-119	-41	-39	-21
Critical (15%)	12	0	0	2	-62	-25	2	-85	-167	-65	-44	-7

a Based on the 82-year simulation period.
 b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
 c These results are displayed with calendar year - year type sorting.
 d All year type sorting uses ELT 05 climate scenario indices.
 e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-3. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (32%)	3,440	3,630	5,116	10,106	12,569	14,034	13,210	11,444	8,798	5,276	2,791	3,062
Above Normal (16%)	2,750	2,461	2,591	4,383	6,149	6,704	7,697	5,516	3,483	2,020	1,768	2,215
Below Normal (13%)	2,558	2,191	2,461	2,701	4,599	4,249	5,598	3,700	2,031	1,495	1,579	1,999
Dry (24%)	2,201	2,118	3,166	2,295	3,124	3,599	4,307	3,260	1,733	1,228	1,348	1,764
Critical (15%)	1,815	1,786	1,764	1,757	2,224	2,199	2,133	1,855	1,192	941	990	1,396

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (32%)	3,479	3,691	5,432	11,917	13,953	15,749	13,816	11,912	8,544	4,239	2,654	3,124
Above Normal (16%)	2,737	2,432	2,541	4,885	6,805	7,917	8,163	5,631	3,506	1,959	1,802	2,232
Below Normal (13%)	2,525	2,205	2,533	3,055	5,738	4,776	5,939	3,651	1,937	1,465	1,442	1,957
Dry (24%)	2,218	2,126	3,424	2,427	3,623	3,734	4,453	3,461	1,749	1,224	1,328	1,776
Critical (15%)	1,851	1,790	1,764	1,759	2,397	2,220	2,196	1,925	1,249	980	1,034	1,423

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	87	0	510	1,709	3,894	1,682	817	1,003	353	-1,583	42	79
20%	-13	-120	77	2,269	1,639	1,550	640	44	231	-64	-210	-115
30%	-68	1	0	818	1,985	957	430	436	-69	-42	-58	-32
40%	-50	-30	-11	5	625	1,657	364	-40	-61	14	-21	3
50%	-8	17	10	42	640	631	185	46	59	-1	-1	-17
60%	-10	-5	2	0	-11	34	49	101	-60	-17	6	-1
70%	-73	24	-30	-40	63	-53	174	117	11	0	2	12
80%	98	0	8	0	102	26	19	49	88	-15	17	58
90%	0	0	7	0	79	0	167	114	37	58	33	0
Long Term												
Full Simulation Period ^d	15	19	165	734	843	843	357	219	-77	-337	-55	24
Water Year Types ^{b,c}												
Wet (32%)	39	61	316	1,811	1,384	1,715	606	468	-254	-1,037	-138	62
Above Normal (16%)	-13	-30	-50	502	656	1,213	466	115	22	-60	34	17
Below Normal (13%)	-34	15	72	354	1,139	527	341	-50	-93	-30	-136	-41
Dry (24%)	16	8	257	132	498	135	147	201	17	-3	-20	11
Critical (15%)	36	4	0	2	173	21	63	70	57	38	45	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-4. San Joaquin River at Vernalis, Monthly Flow

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (32%)	3,431	3,610	5,031	10,142	13,009	14,070	13,186	11,331	8,821	5,339	2,776	3,055
Above Normal (16%)	2,785	2,462	2,591	4,535	6,245	6,809	7,961	5,682	3,214	1,939	1,770	2,216
Below Normal (13%)	2,519	2,191	2,461	2,690	4,546	4,130	5,399	3,449	1,875	1,482	1,572	1,990
Dry (24%)	2,188	2,118	3,172	2,282	3,075	3,599	4,230	3,126	1,587	1,175	1,299	1,735
Critical (15%)	1,827	1,786	1,764	1,757	2,177	2,171	2,131	1,784	1,052	889	957	1,385

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (32%)	3,468	3,684	5,428	12,226	14,670	15,687	13,825	11,782	8,387	4,079	2,657	3,176
Above Normal (16%)	2,769	2,432	2,541	5,107	7,319	7,994	8,391	5,702	3,243	1,817	1,802	2,226
Below Normal (13%)	2,464	2,205	2,533	3,090	5,976	4,717	5,628	3,319	1,826	1,418	1,404	1,931
Dry (24%)	2,209	2,126	3,445	2,418	3,529	3,800	4,386	3,357	1,630	1,183	1,288	1,754
Critical (15%)	1,863	1,790	1,764	1,762	2,335	2,195	2,198	1,840	1,083	915	991	1,417

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	66	-22	522	2,836	1,718	1,716	860	270	353	-2,043	1	280
20%	1	-120	30	2,402	1,797	1,490	1,270	43	32	-287	-212	-78
30%	-93	-6	0	816	2,260	738	154	-45	149	-100	-51	-63
40%	-4	-30	0	-10	870	1,393	258	-38	49	-4	-23	-41
50%	0	17	10	134	1,024	711	263	44	-1	3	-15	-30
60%	1	-5	2	4	15	54	46	-27	6	-10	0	-2
70%	-31	24	-30	-6	56	-53	4	22	-16	-22	-57	9
80%	0	0	8	0	-26	26	107	27	-3	15	15	63
90%	41	0	7	0	0	0	1	112	4	11	-3	12
Long Term												
Full Simulation Period ^d	12	23	194	839	1,023	832	349	193	-124	-421	-53	41
Water Year Types ^{b,c}												
Wet (32%)	37	74	397	2,084	1,661	1,617	638	452	-434	-1,259	-118	121
Above Normal (16%)	-16	-30	-50	572	1,074	1,185	430	20	29	-122	32	9
Below Normal (13%)	-55	15	72	399	1,430	587	229	-130	-49	-64	-168	-60
Dry (24%)	21	8	274	136	454	202	155	231	44	8	-10	19
Critical (15%)	36	4	0	4	158	24	67	56	31	26	34	32

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

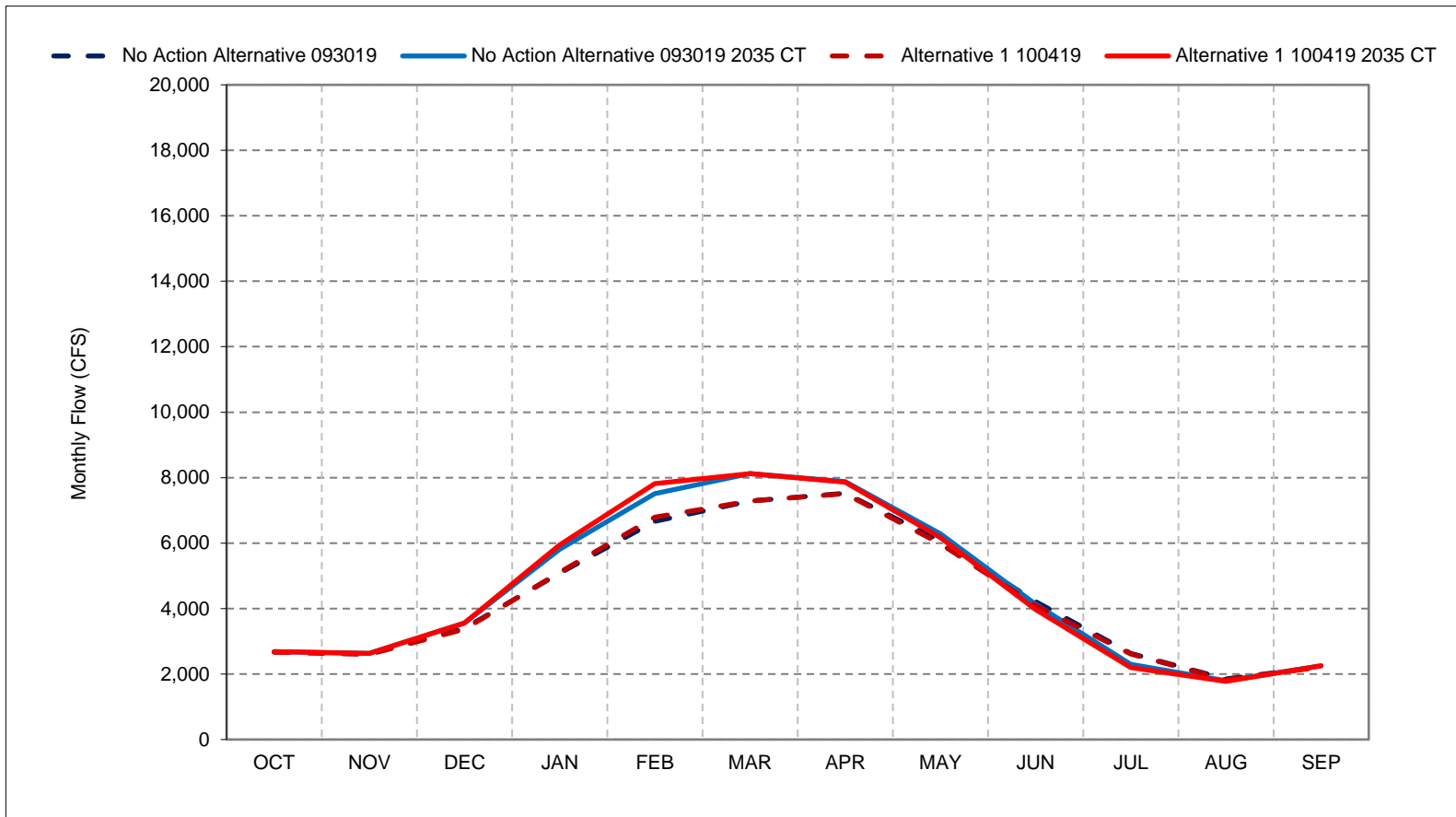
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39-1. San Joaquin River at Vernalis, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

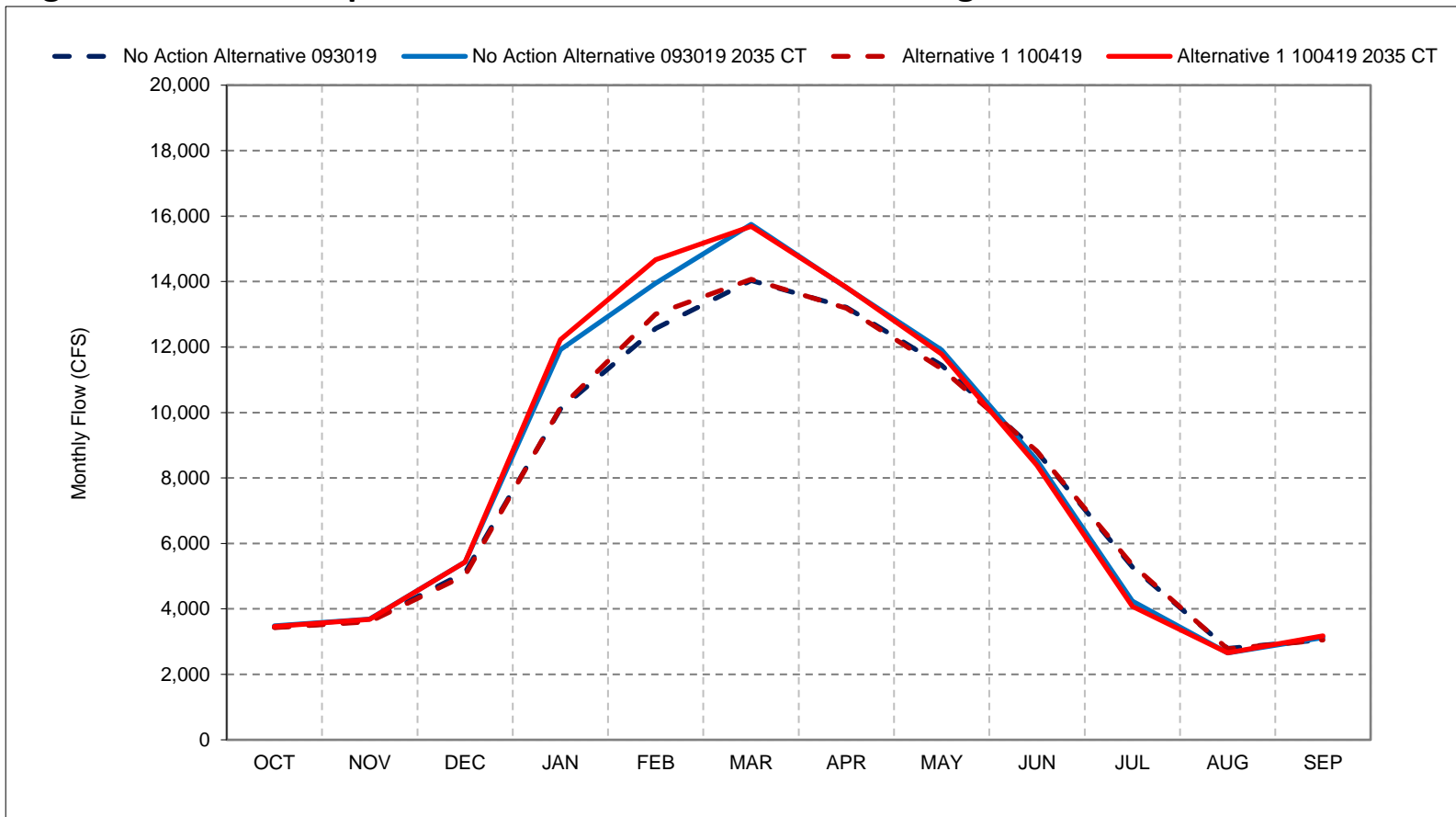
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-2. San Joaquin River at Vernalis, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

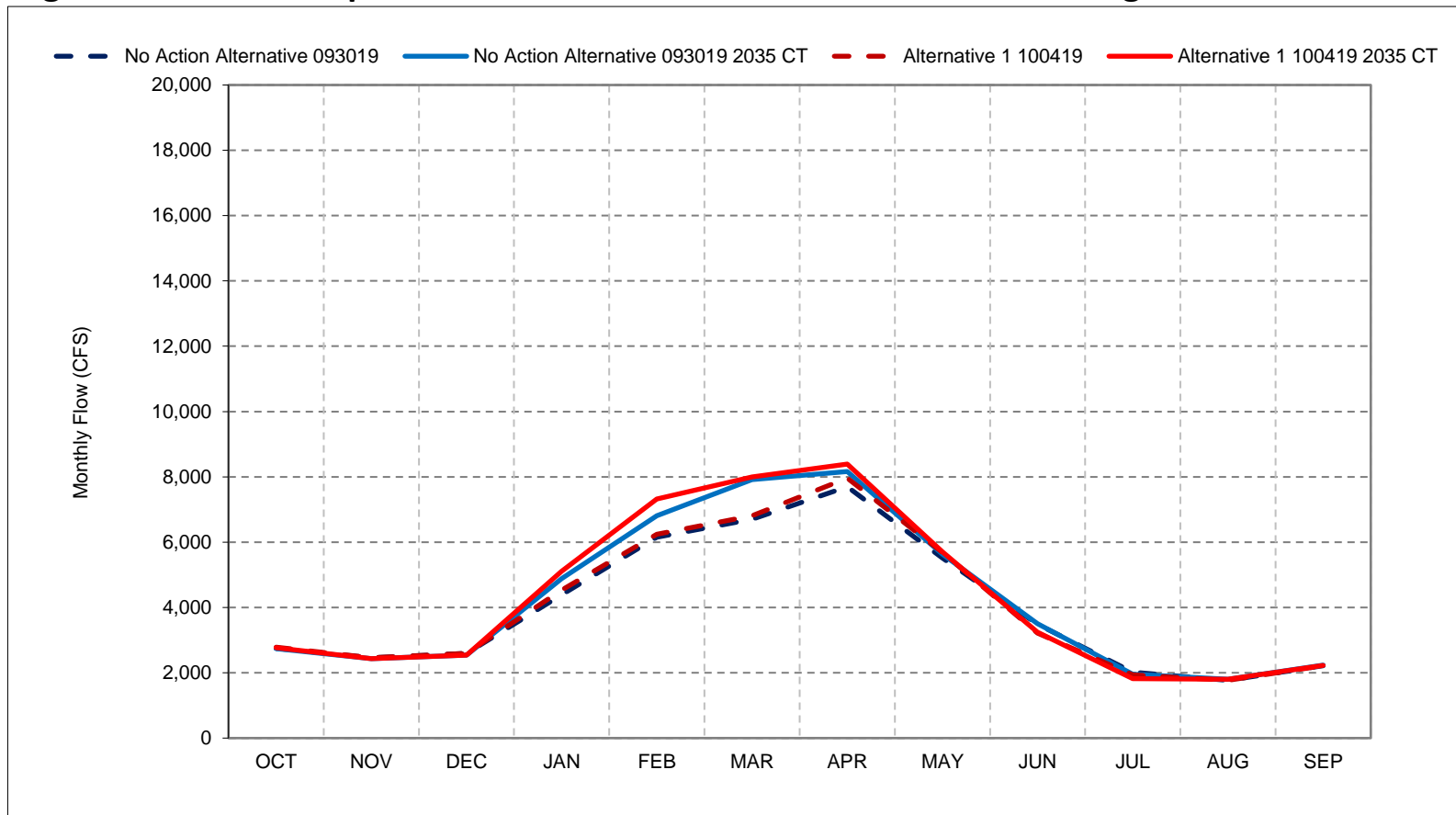
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-3. San Joaquin River at Vernalis, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

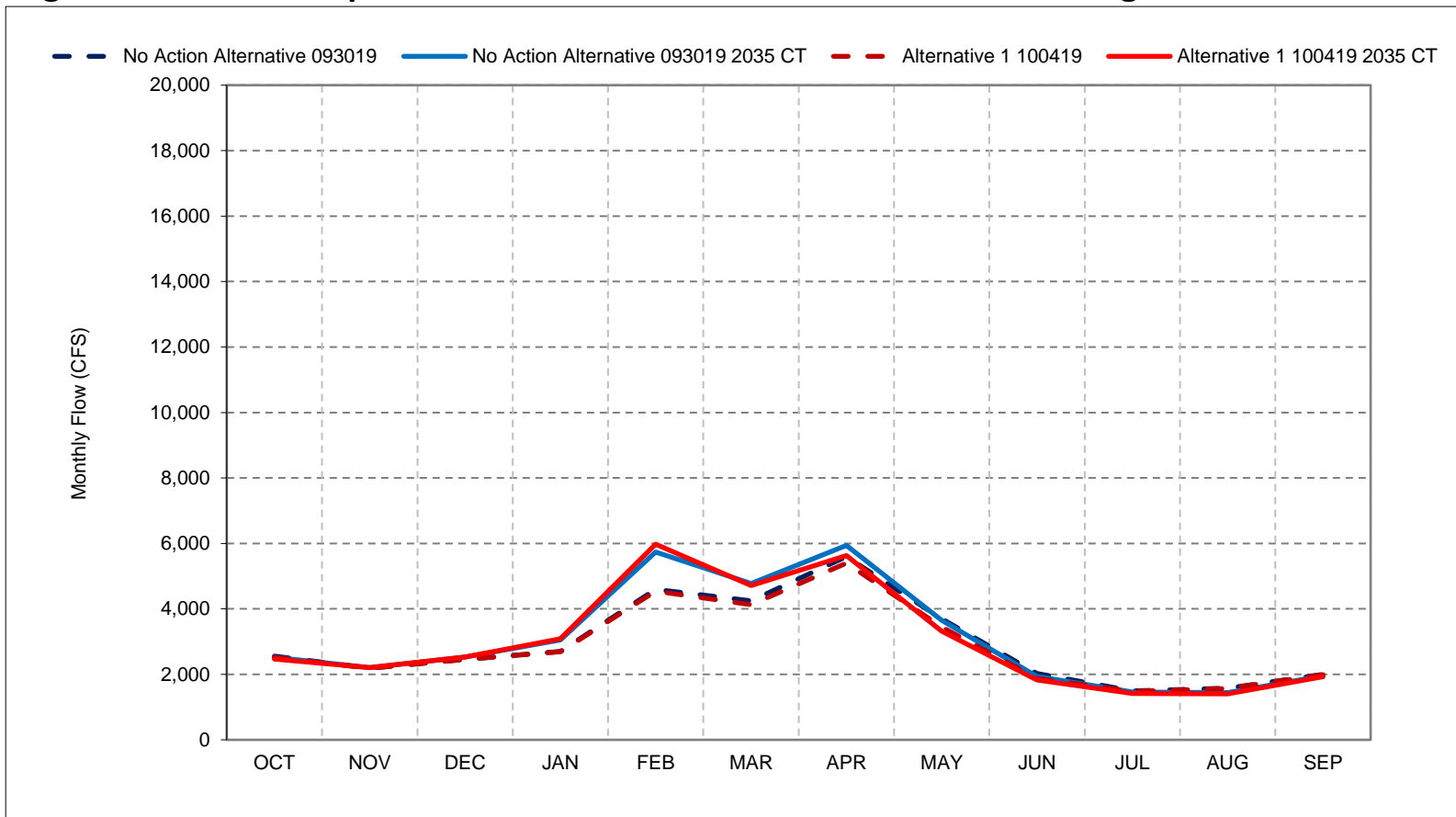
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-4. San Joaquin River at Vernalis, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

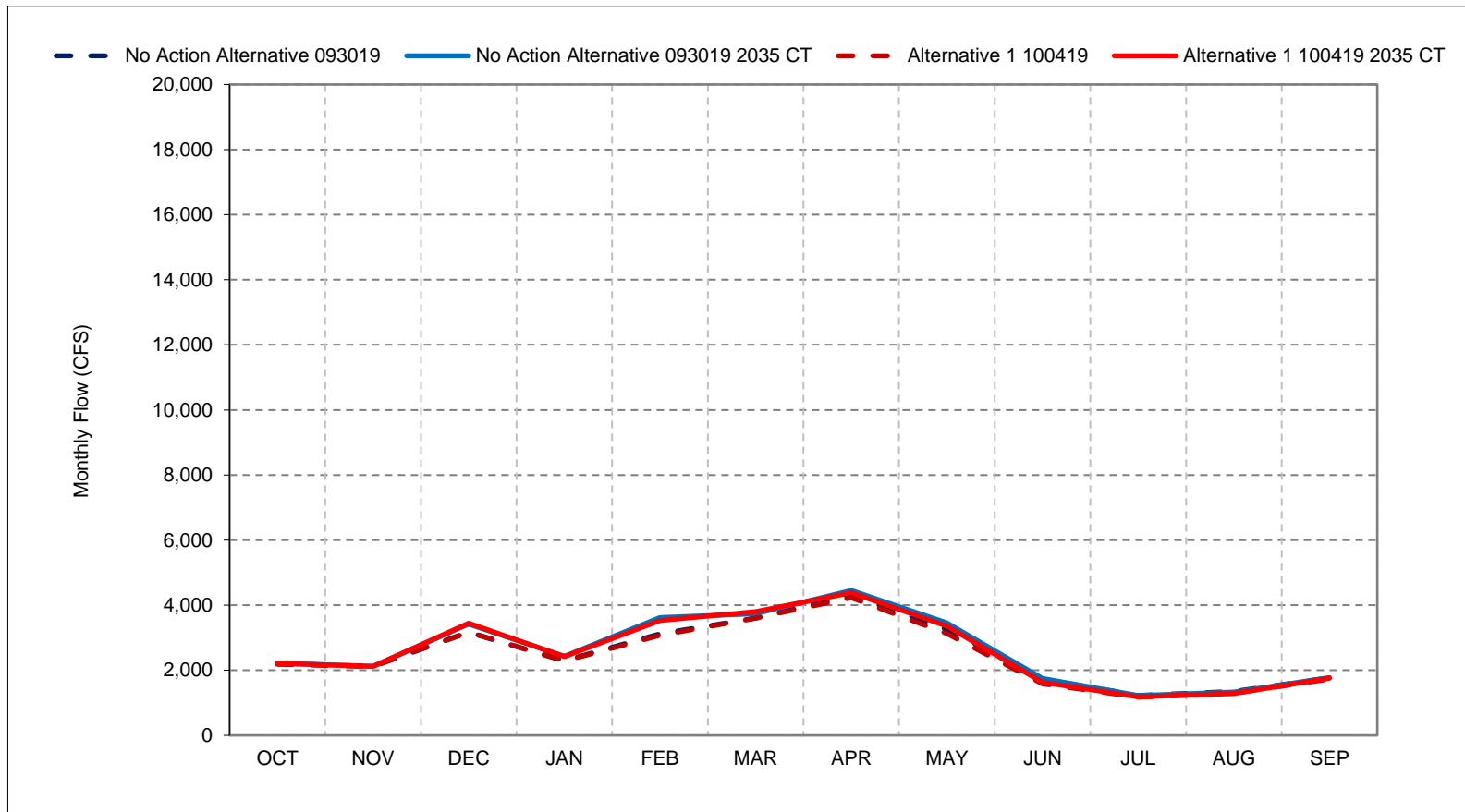
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-5. San Joaquin River at Vernalis, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

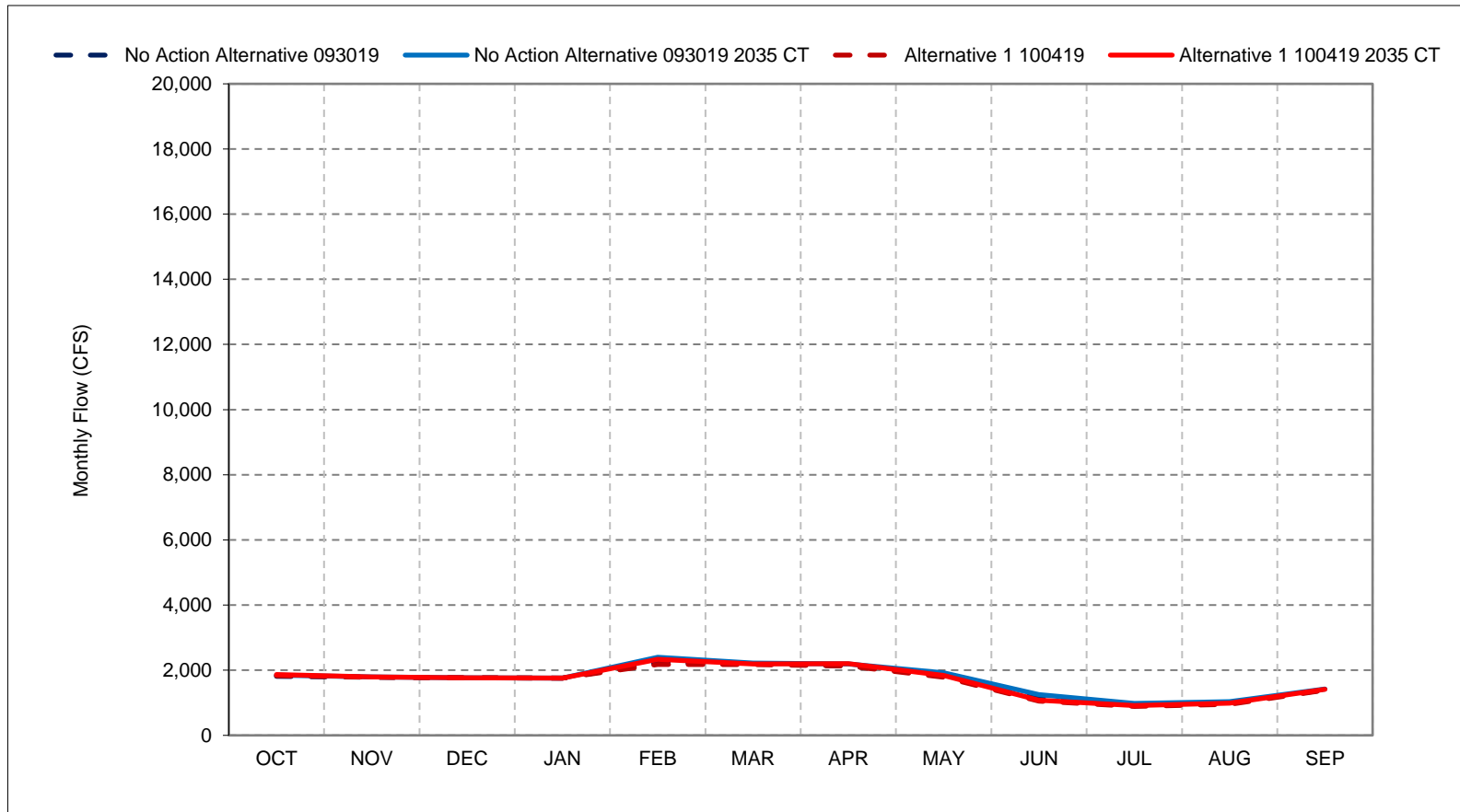
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-6. San Joaquin River at Vernalis, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

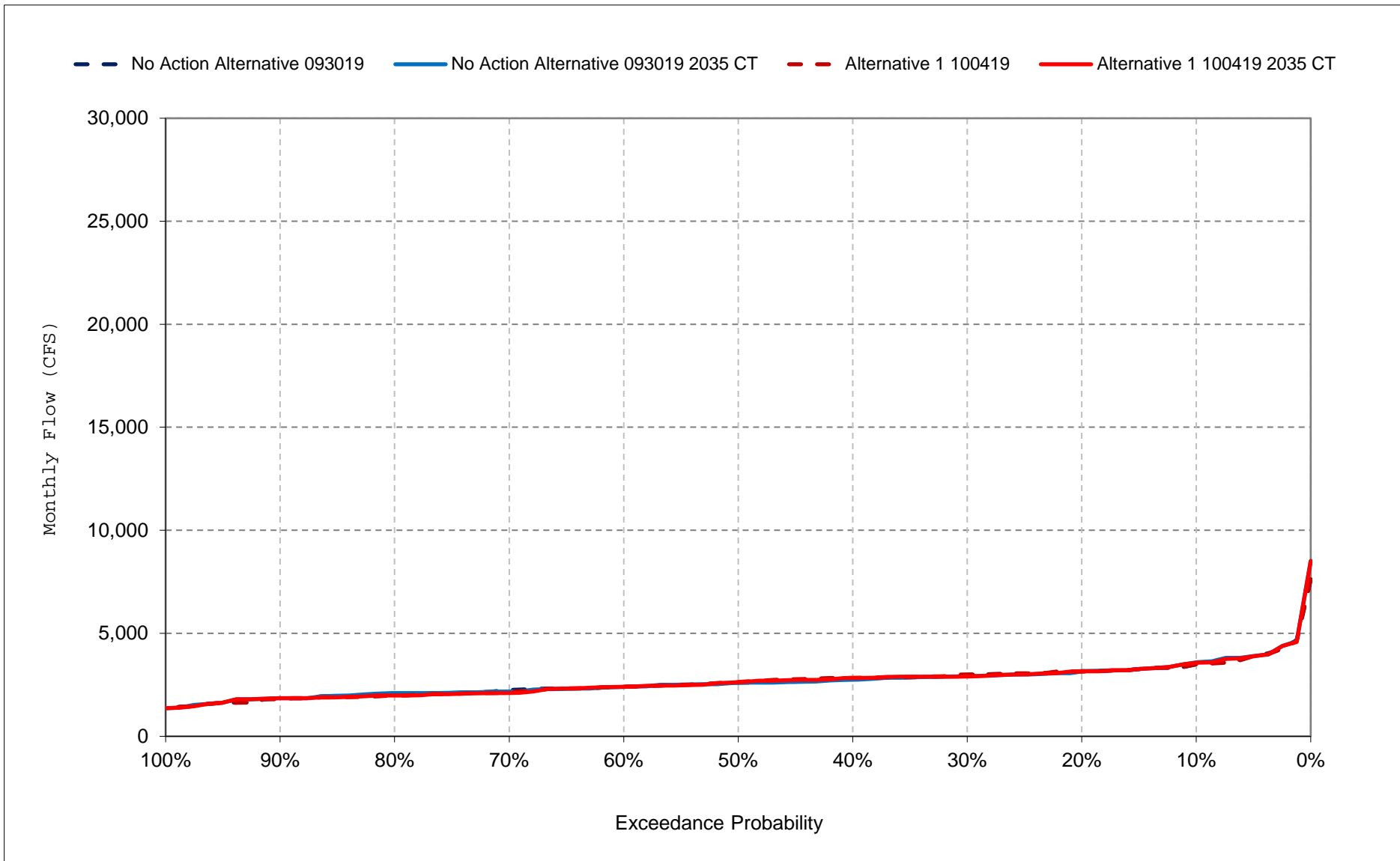
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

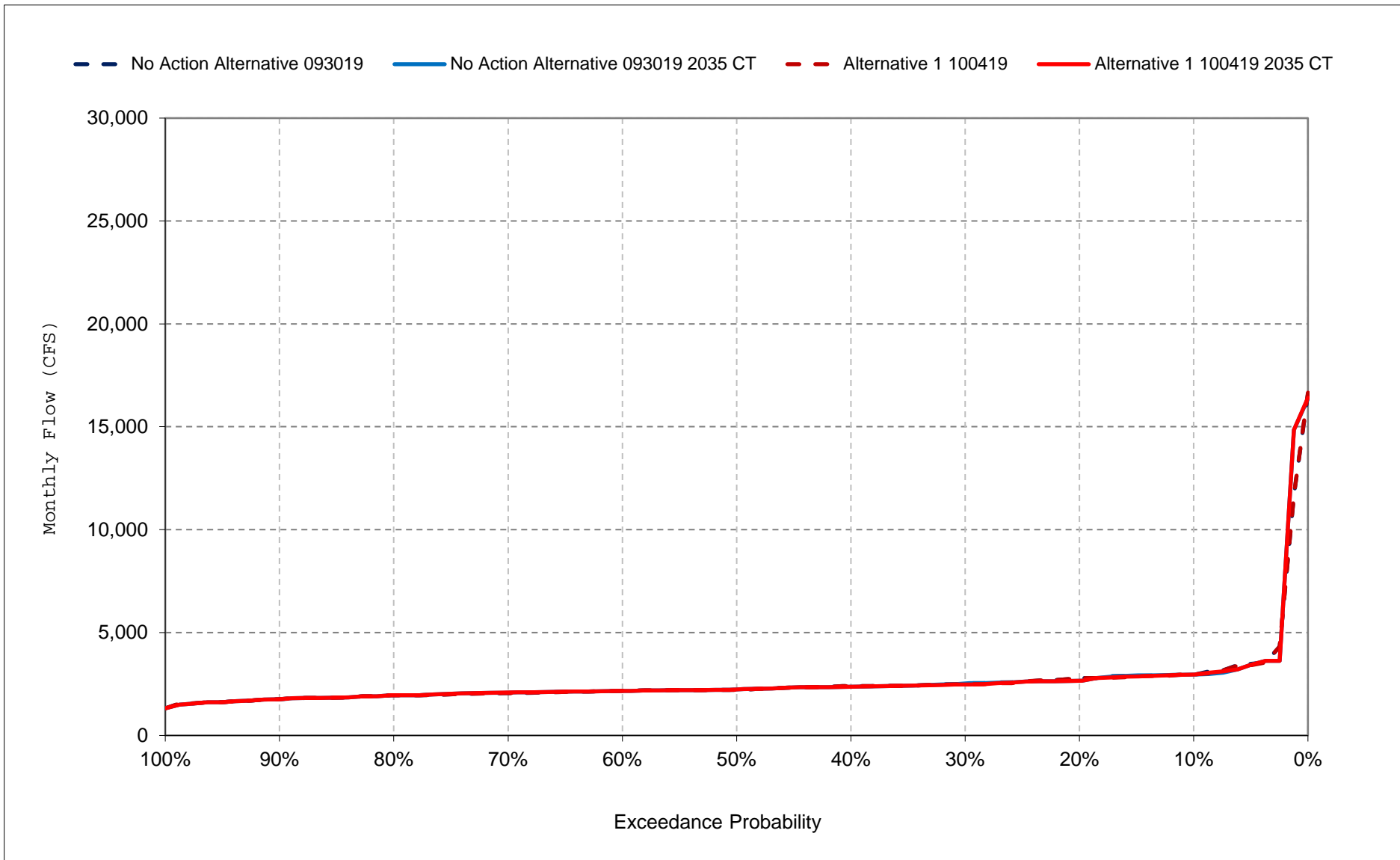
Figure 39-7. San Joaquin River at Vernalis, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

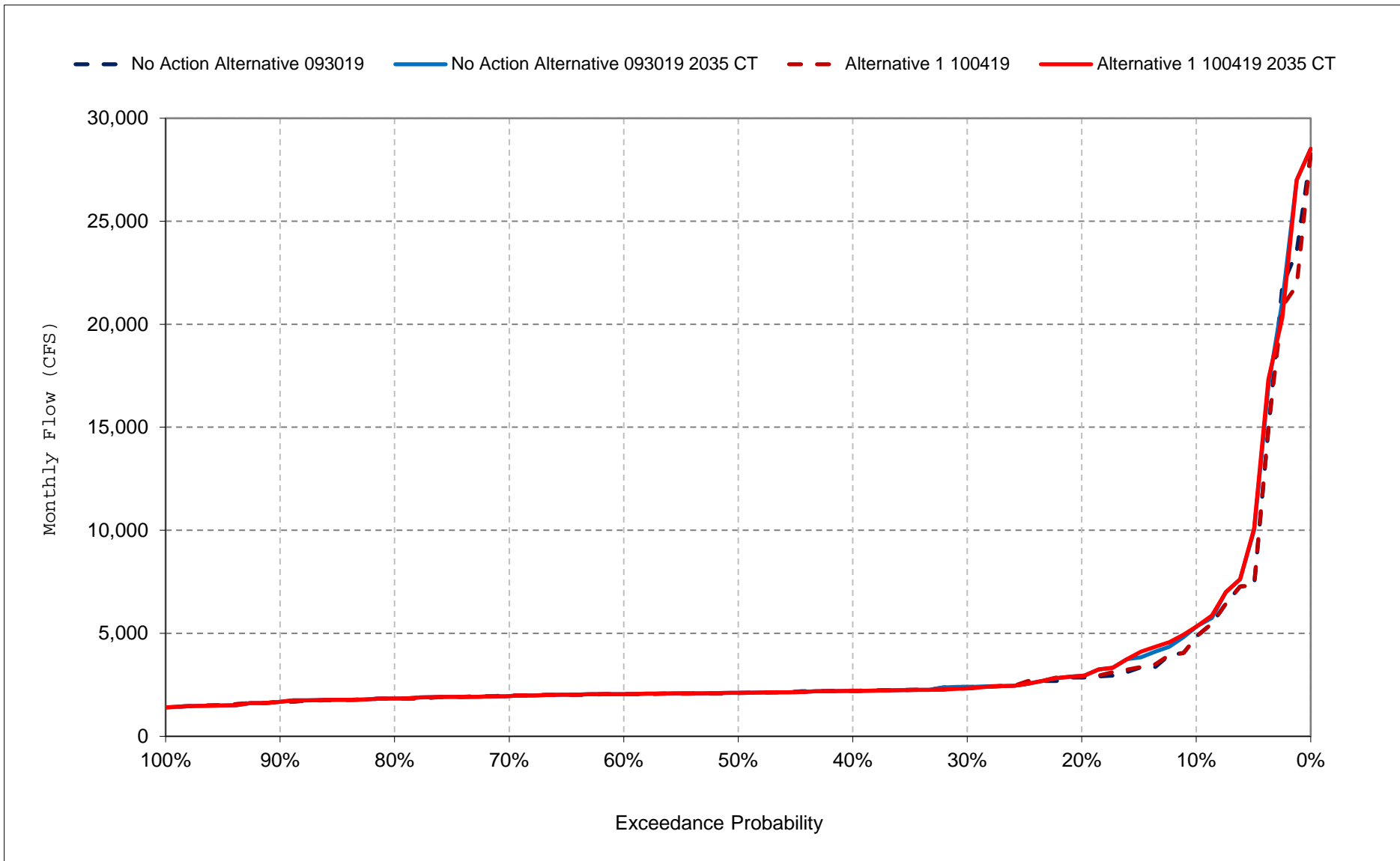
Figure 39-8. San Joaquin River at Vernalis, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

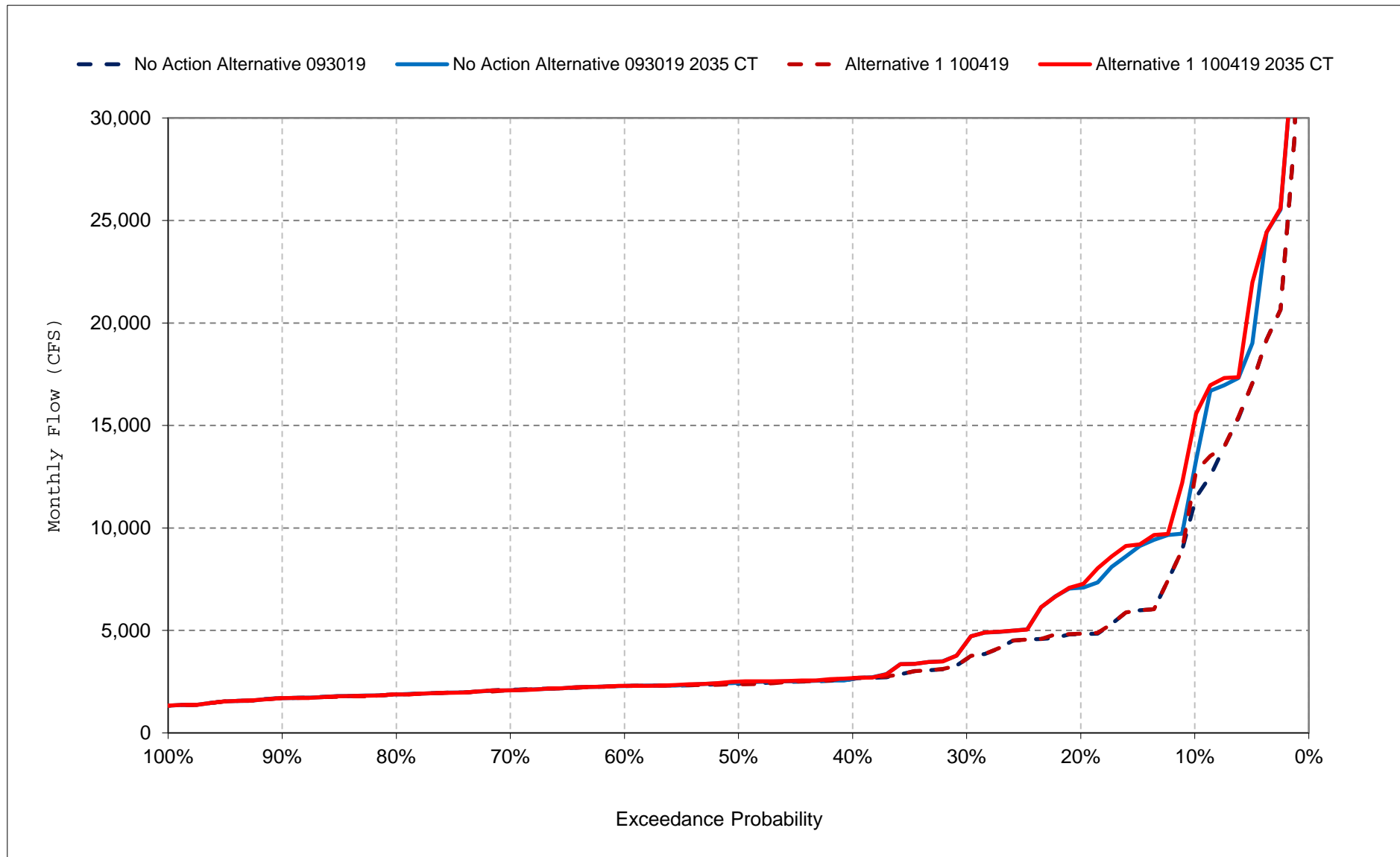
Figure 39-9. San Joaquin River at Vernalis, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

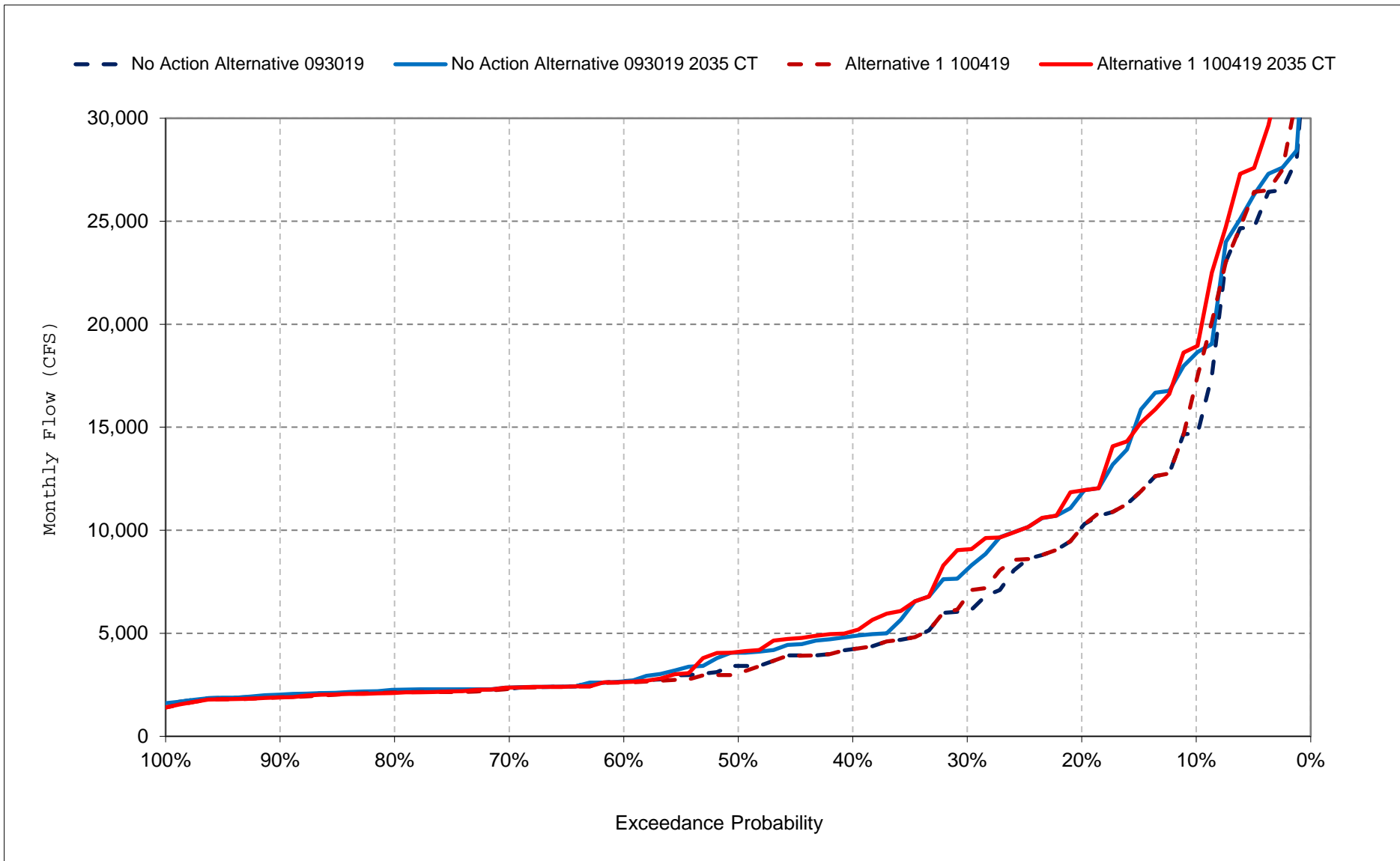
Figure 39-10. San Joaquin River at Vernalis, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

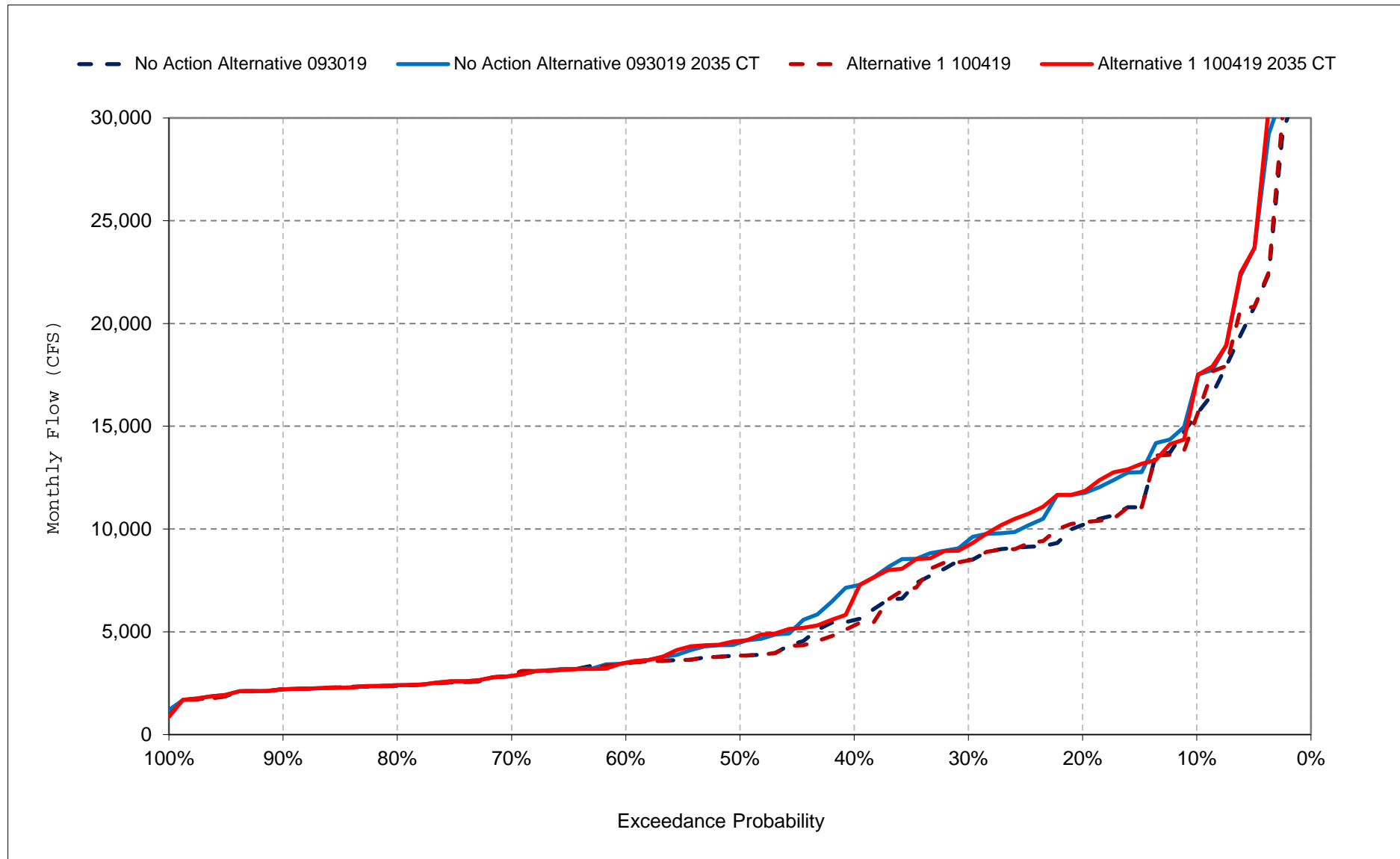
Figure 39-11. San Joaquin River at Vernalis, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

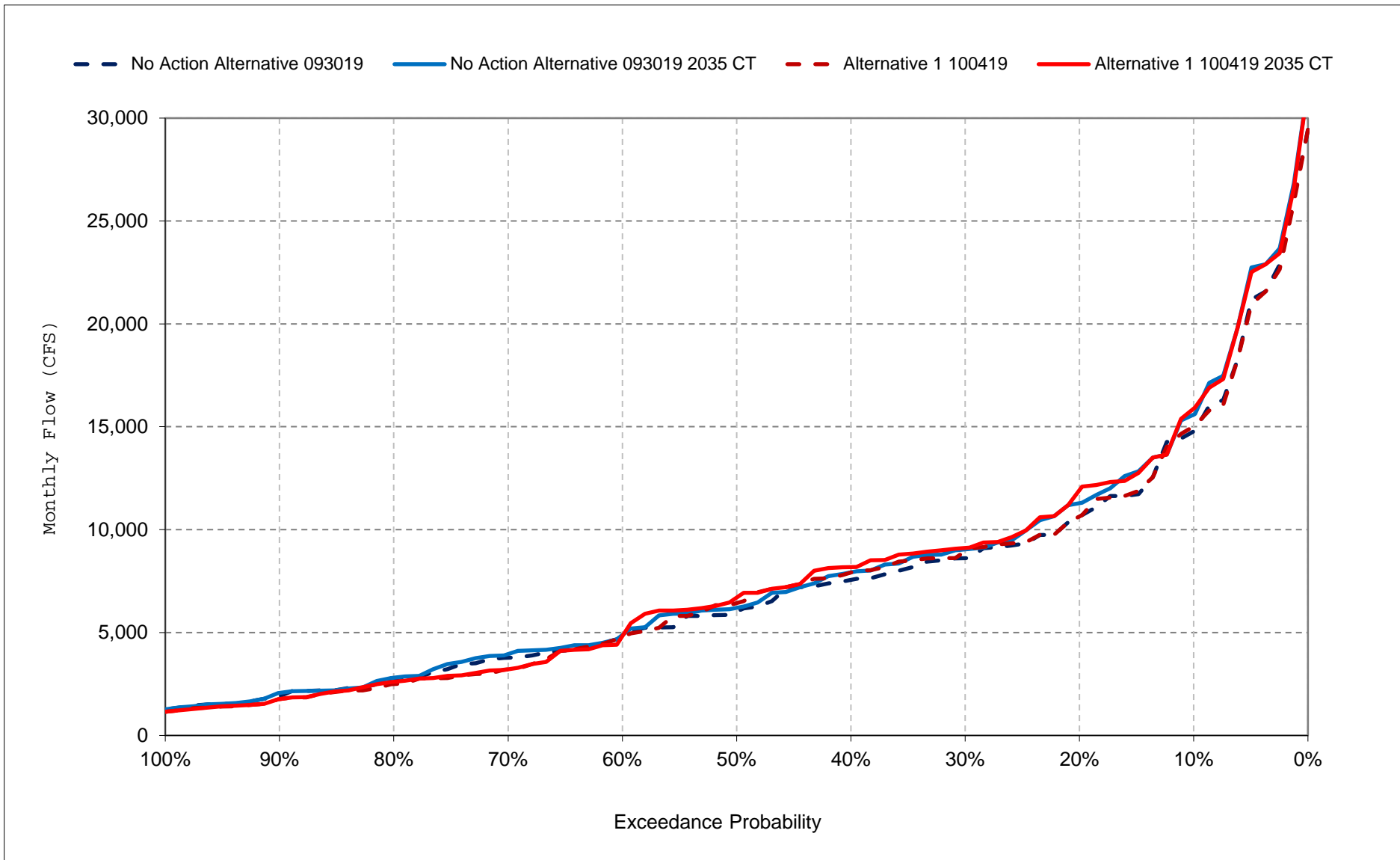
Figure 39-12. San Joaquin River at Vernalis, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

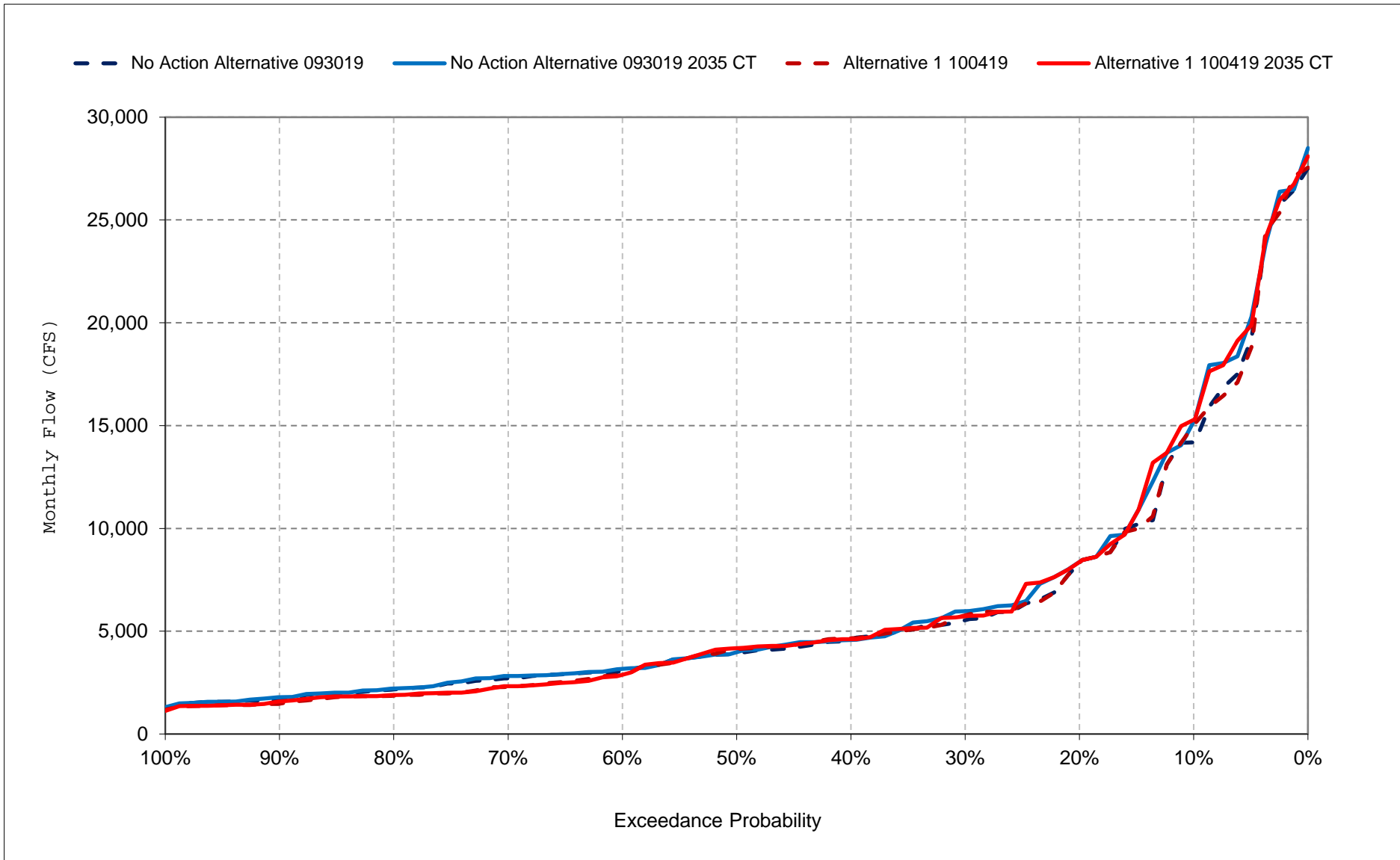
Figure 39-13. San Joaquin River at Vernalis, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

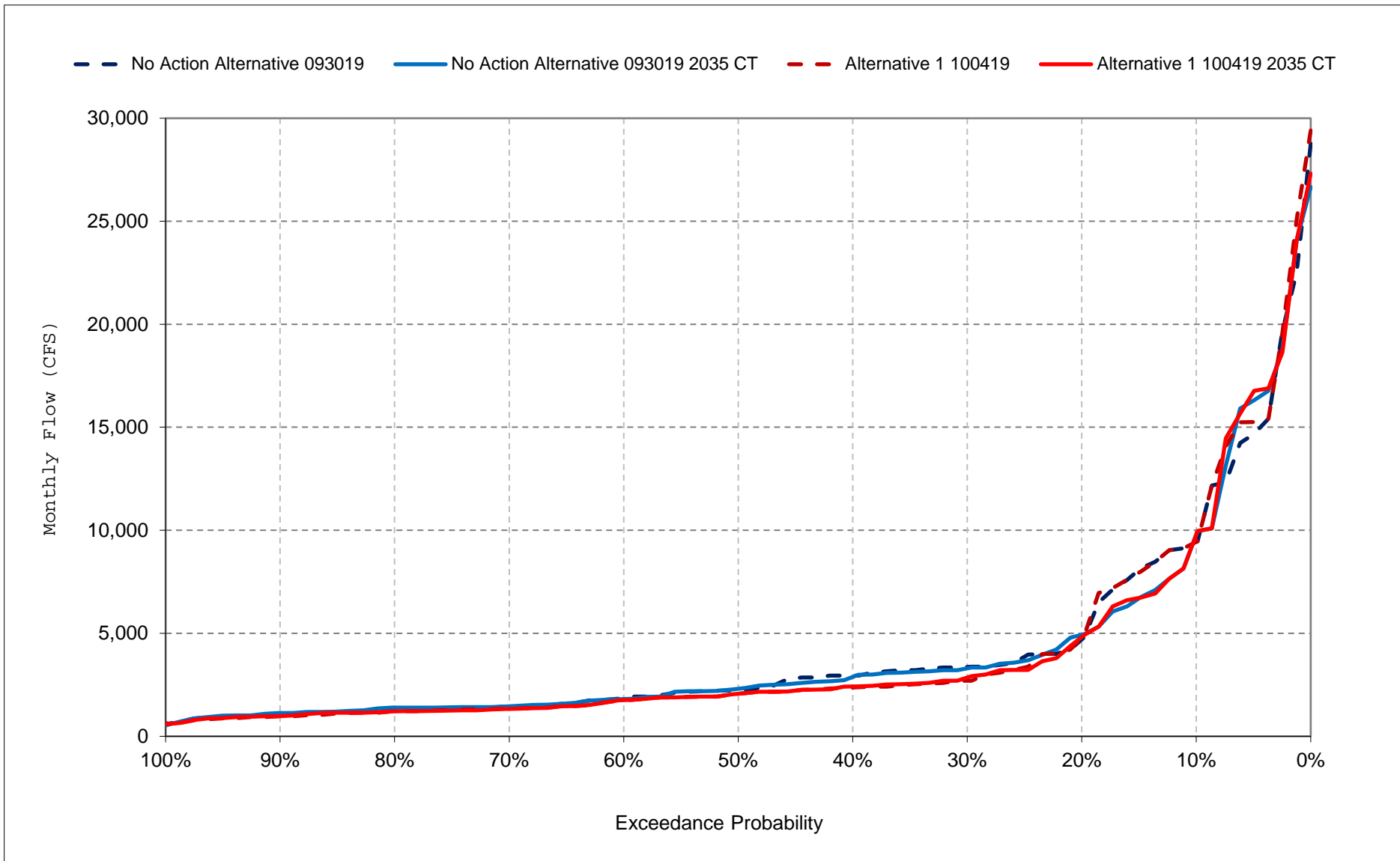
Figure 39-14. San Joaquin River at Vernalis, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

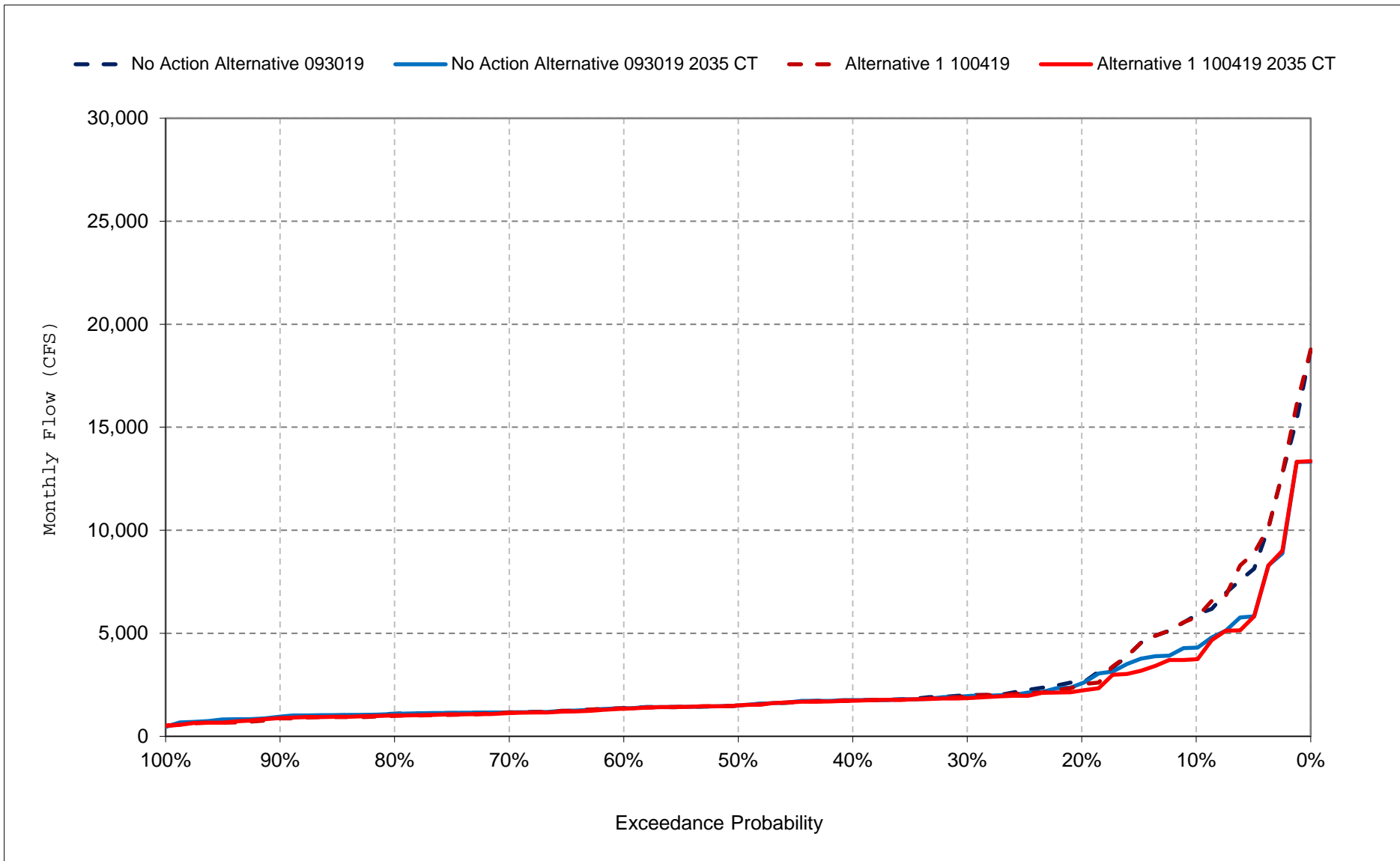
Figure 39-15. San Joaquin River at Vernalis, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

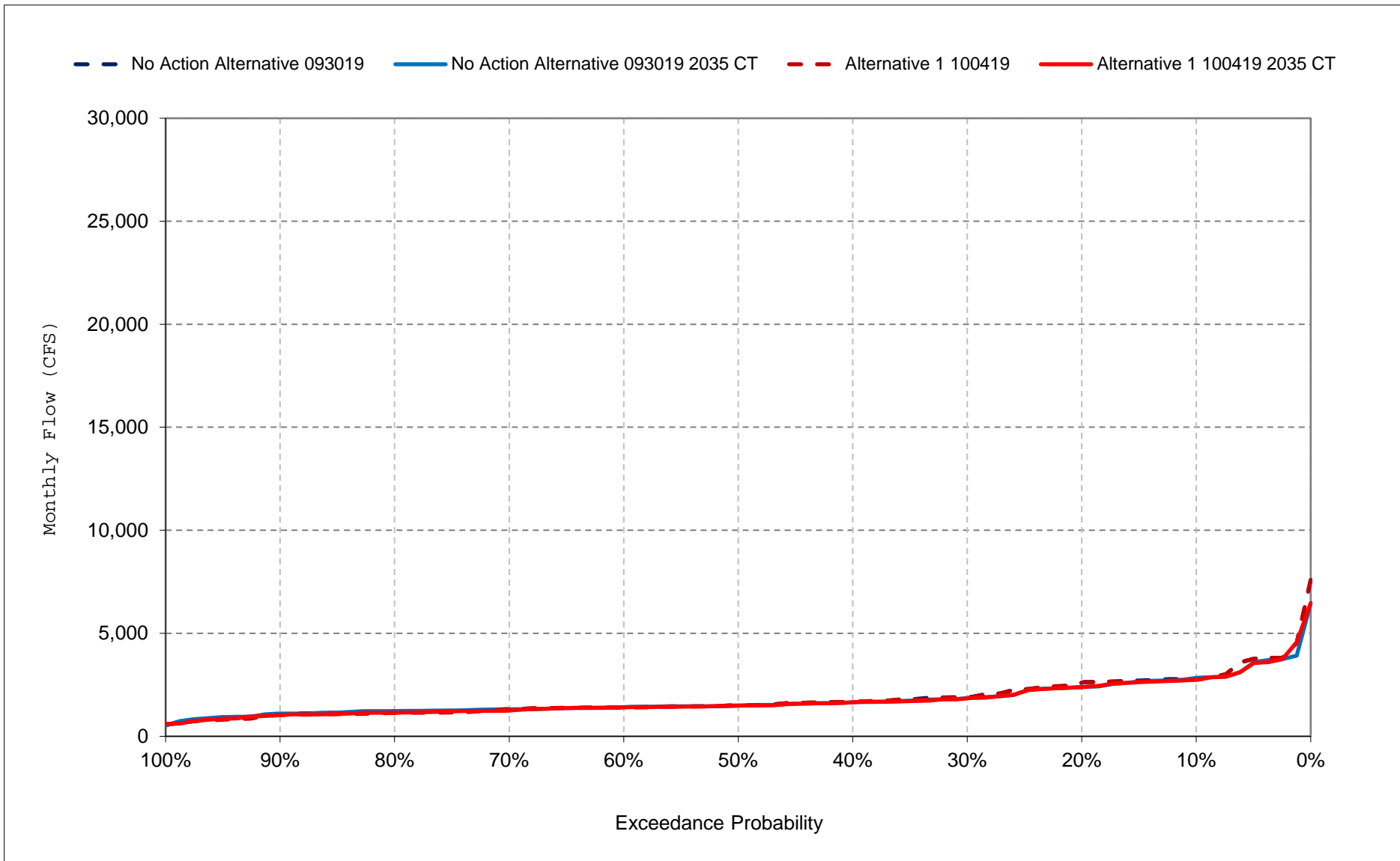
Figure 39-16. San Joaquin River at Vernalis, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

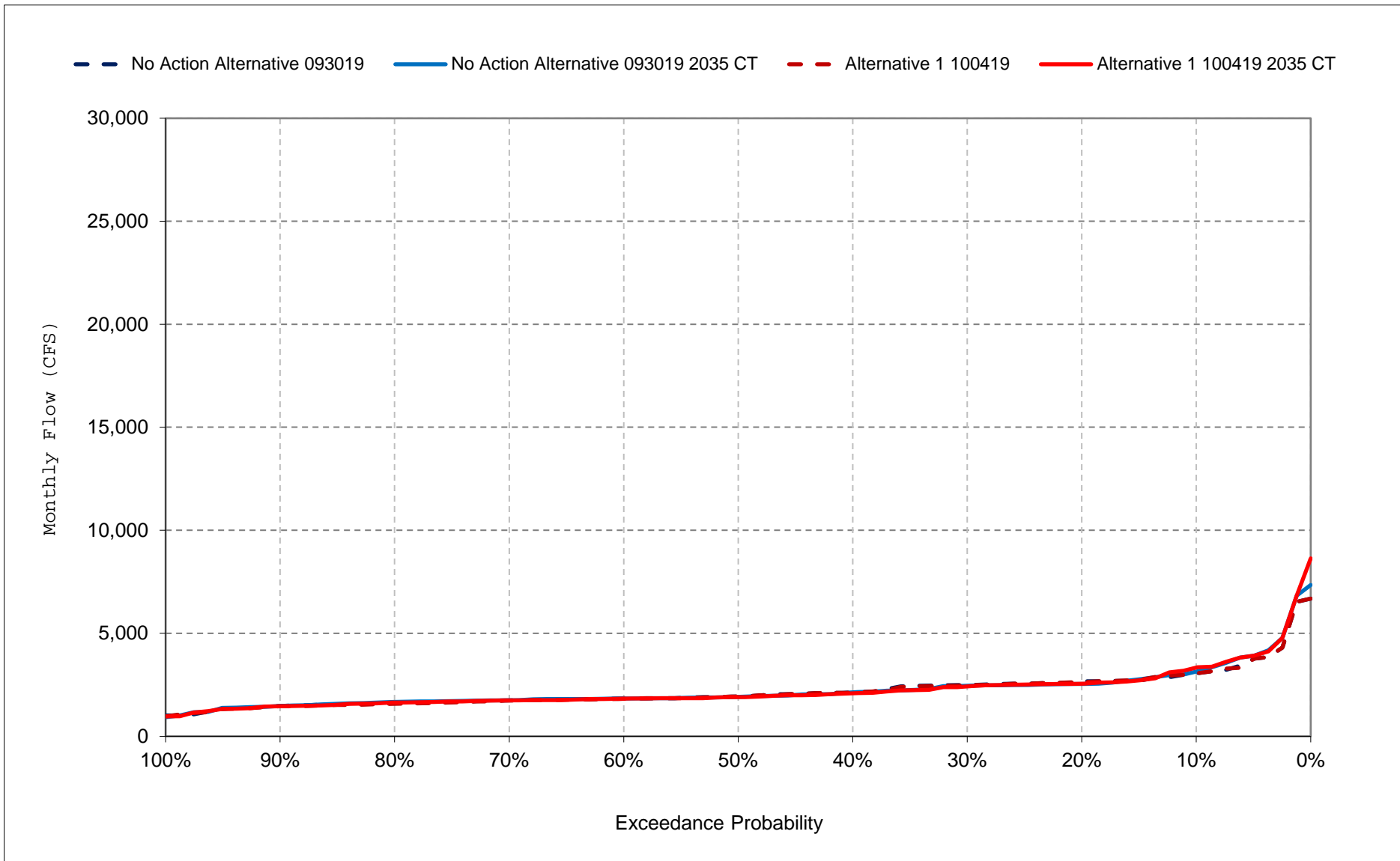
Figure 39-17. San Joaquin River at Vernalis, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39-18. San Joaquin River at Vernalis, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-1. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (23%)	3,611	4,025	6,134	11,463	15,794	16,881	15,400	14,703	11,398	6,693	3,136	3,417
Above Normal (24%)	2,947	2,582	2,953	4,898	6,903	7,536	8,537	5,295	3,282	1,996	1,980	2,347
Below Normal (10%)	2,518	2,133	2,067	3,520	3,651	4,149	6,338	4,142	2,078	1,467	1,449	1,839
Dry (16%)	2,289	2,153	3,123	2,402	2,549	3,241	3,998	2,808	1,685	1,260	1,351	1,778
Critical (27%)	1,864	1,849	2,077	1,878	2,091	2,288	2,310	1,932	1,119	932	1,064	1,489

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (23%)	3,606	4,001	6,006	11,467	16,349	17,054	15,338	14,677	11,758	6,813	3,124	3,416
Above Normal (24%)	2,994	2,579	2,964	4,928	6,922	7,468	8,885	5,407	2,689	1,912	1,973	2,339
Below Normal (10%)	2,541	2,133	2,067	3,784	3,834	4,032	6,495	4,186	1,970	1,468	1,451	1,834
Dry (16%)	2,238	2,153	3,131	2,392	2,464	3,241	3,792	2,533	1,565	1,238	1,344	1,774
Critical (27%)	1,828	1,849	2,077	1,871	2,058	2,273	2,069	1,678	1,038	862	1,001	1,456

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	22	0	1,162	2,506	-95	247	825	0	-111	-53	0
20%	-14	0	47	26	-7	128	0	3	82	-133	4	-21
30%	15	-45	-79	2	694	-28	342	232	-663	-39	-23	-7
40%	39	0	-11	52	0	-264	355	39	-577	-9	4	1
50%	26	0	0	-30	-349	0	414	201	-182	2	6	-2
60%	0	0	0	-3	-70	-20	-50	-156	-115	-21	-7	-12
70%	-111	0	0	-31	0	0	-567	-404	-102	-17	2	-1
80%	-18	0	0	-1	-23	0	-295	-302	-83	-102	-72	-39
90%	-42	0	0	-1	-57	0	-135	-208	-113	-21	-40	-24
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-11	-86	-112	-15	-22	-12
Water Year Types ^{b,c}												
Wet (23%)	-4	-24	-128	4	555	173	-61	-26	360	120	-12	0
Above Normal (24%)	46	-3	11	31	19	-68	348	111	-593	-85	-7	-8
Below Normal (10%)	23	0	0	264	183	-118	157	44	-107	1	2	-4
Dry (16%)	-51	0	9	-10	-85	0	-205	-275	-120	-22	-7	-4
Critical (27%)	-36	0	0	-7	-33	-15	-241	-254	-81	-70	-63	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 39b-2. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (23%)	3,653	4,161	6,574	13,037	17,252	18,890	16,135	15,177	11,057	5,249	2,974	3,534
Above Normal (24%)	2,947	2,521	2,953	6,177	8,687	8,533	9,030	5,654	3,229	1,962	1,884	2,310
Below Normal (10%)	2,521	2,133	2,067	4,045	3,890	4,530	6,533	4,181	2,100	1,471	1,451	1,845
Dry (16%)	2,284	2,170	3,324	2,405	2,791	3,835	4,212	2,846	1,698	1,256	1,349	1,787
Critical (27%)	1,886	1,851	2,201	1,897	2,120	2,300	2,360	1,978	1,158	954	1,087	1,502

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (23%)	3,648	4,157	6,574	13,412	18,309	18,932	16,102	15,157	11,103	5,051	2,990	3,628
Above Normal (24%)	2,992	2,516	2,949	6,243	8,827	8,556	9,393	5,733	2,789	1,853	1,875	2,289
Below Normal (10%)	2,541	2,133	2,067	4,340	4,099	4,295	6,709	4,186	1,970	1,467	1,450	1,834
Dry (16%)	2,223	2,170	3,353	2,434	2,914	3,886	3,899	2,494	1,550	1,220	1,324	1,772
Critical (27%)	1,848	1,851	2,205	1,896	2,082	2,286	2,108	1,711	1,057	877	1,022	1,474

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	0	12	2,289	329	-61	290	92	0	-571	-94	201
20%	0	0	0	159	150	68	630	1	-117	-356	2	16
30%	-9	-51	-80	1	969	-247	65	-250	-445	-98	-17	-39
40%	84	0	0	37	245	-528	249	41	-467	-28	2	-43
50%	34	0	0	62	35	80	492	199	-242	6	-9	-15
60%	10	0	0	1	-44	0	-53	-284	-49	-14	-13	-13
70%	-68	0	0	3	-7	0	-737	-498	-129	-39	-58	-3
80%	-115	0	0	-1	-152	0	-208	-324	-174	-72	-75	-33
90%	0	0	0	0	-135	0	-302	-210	-147	-69	-77	-12
Long Term												
Full Simulation Period ^d	-7	-2	4	136	309	-3	-19	-112	-160	-99	-20	6
Water Year Types ^{b,c}												
Wet (23%)	-4	-5	0	375	1,057	42	-33	-20	47	-198	16	94
Above Normal (24%)	44	-5	-5	66	140	24	363	79	-440	-109	-9	-21
Below Normal (10%)	20	0	0	295	208	-234	176	5	-130	-3	0	-10
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-253	-268	-101	-76	-65	-28

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-3. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (23%)	3,611	4,025	6,134	11,463	15,794	16,881	15,400	14,703	11,398	6,693	3,136	3,417
Above Normal (24%)	2,947	2,582	2,953	4,898	6,903	7,536	8,537	5,295	3,282	1,996	1,980	2,347
Below Normal (10%)	2,518	2,133	2,067	3,520	3,651	4,149	6,338	4,142	2,078	1,467	1,449	1,839
Dry (16%)	2,289	2,153	3,123	2,402	2,549	3,241	3,998	2,808	1,685	1,260	1,351	1,778
Critical (27%)	1,864	1,849	2,077	1,878	2,091	2,288	2,310	1,932	1,119	932	1,064	1,489

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (23%)	3,653	4,161	6,574	13,037	17,252	18,890	16,135	15,177	11,057	5,249	2,974	3,534
Above Normal (24%)	2,947	2,521	2,953	6,177	8,687	8,533	9,030	5,654	3,229	1,962	1,884	2,310
Below Normal (10%)	2,521	2,133	2,067	4,045	3,890	4,530	6,533	4,181	2,100	1,471	1,451	1,845
Dry (16%)	2,284	2,170	3,324	2,405	2,791	3,835	4,212	2,846	1,698	1,256	1,349	1,787
Critical (27%)	1,886	1,851	2,201	1,897	2,120	2,300	2,360	1,978	1,158	954	1,087	1,502

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	87	0	510	1,709	3,894	1,682	817	1,003	353	-1,583	42	79
20%	-13	-120	77	2,269	1,639	1,550	640	44	231	-64	-210	-115
30%	-68	1	0	818	1,985	957	430	436	-69	-42	-58	-32
40%	-50	-30	-11	5	625	1,657	364	-40	-61	14	-21	3
50%	-8	17	10	42	640	631	185	46	59	-1	-1	-17
60%	-10	-5	2	0	-11	34	49	101	-60	-17	6	-1
70%	-73	24	-30	-40	63	-53	174	117	11	0	2	12
80%	98	0	8	0	102	26	19	49	88	-15	17	58
90%	0	0	7	0	79	0	167	114	37	58	33	0
Long Term												
Full Simulation Period ^d	15	19	165	734	843	843	357	219	-77	-337	-55	24
Water Year Types ^{b,c}												
Wet (23%)	42	137	440	1,574	1,459	2,009	735	474	-341	-1,444	-162	117
Above Normal (24%)	0	-61	0	1,279	1,784	997	493	358	-53	-34	-96	-38
Below Normal (10%)	3	0	0	526	239	380	195	39	22	4	2	6
Dry (16%)	-5	17	201	3	242	594	215	38	13	-4	-1	9
Critical (27%)	22	2	124	20	29	11	50	46	39	22	23	14

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-4. San Joaquin River at Vernalis (60-20-20), Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (23%)	3,606	4,001	6,006	11,467	16,349	17,054	15,338	14,677	11,758	6,813	3,124	3,416
Above Normal (24%)	2,994	2,579	2,964	4,928	6,922	7,468	8,885	5,407	2,689	1,912	1,973	2,339
Below Normal (10%)	2,541	2,133	2,067	3,784	3,834	4,032	6,495	4,186	1,970	1,468	1,451	1,834
Dry (16%)	2,238	2,153	3,131	2,392	2,464	3,241	3,792	2,533	1,565	1,238	1,344	1,774
Critical (27%)	1,828	1,849	2,077	1,871	2,058	2,273	2,069	1,678	1,038	862	1,001	1,456

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (23%)	3,648	4,157	6,574	13,412	18,309	18,932	16,102	15,157	11,103	5,051	2,990	3,628
Above Normal (24%)	2,992	2,516	2,949	6,243	8,827	8,556	9,393	5,733	2,789	1,853	1,875	2,289
Below Normal (10%)	2,541	2,133	2,067	4,340	4,099	4,295	6,709	4,186	1,970	1,467	1,450	1,834
Dry (16%)	2,223	2,170	3,353	2,434	2,914	3,886	3,899	2,494	1,550	1,220	1,324	1,772
Critical (27%)	1,848	1,851	2,205	1,896	2,082	2,286	2,108	1,711	1,057	877	1,022	1,474

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	66	-22	522	2,836	1,718	1,716	860	270	353	-2,043	1	280
20%	1	-120	30	2,402	1,797	1,490	1,270	43	32	-287	-212	-78
30%	-93	-6	0	816	2,260	738	154	-45	149	-100	-51	-63
40%	-4	-30	0	-10	870	1,393	258	-38	49	-4	-23	-41
50%	0	17	10	134	1,024	711	263	44	-1	3	-15	-30
60%	1	-5	2	4	15	54	46	-27	6	-10	0	-2
70%	-31	24	-30	-6	56	-53	4	22	-16	-22	-57	9
80%	0	0	8	0	-26	26	107	27	-3	15	15	63
90%	41	0	7	0	0	0	1	112	4	11	-3	12
Long Term												
Full Simulation Period ^d	12	23	194	839	1,023	832	349	193	-124	-421	-53	41
Water Year Types ^{b,c}												
Wet (23%)	42	156	567	1,946	1,960	1,878	763	480	-655	-1,763	-134	212
Above Normal (24%)	-2	-63	-16	1,314	1,905	1,088	508	326	100	-58	-98	-51
Below Normal (10%)	0	0	0	557	265	264	214	0	0	0	0	0
Dry (16%)	-15	17	222	42	450	645	107	-40	-15	-18	-20	-2
Critical (27%)	20	2	128	25	24	13	38	33	19	16	21	19

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

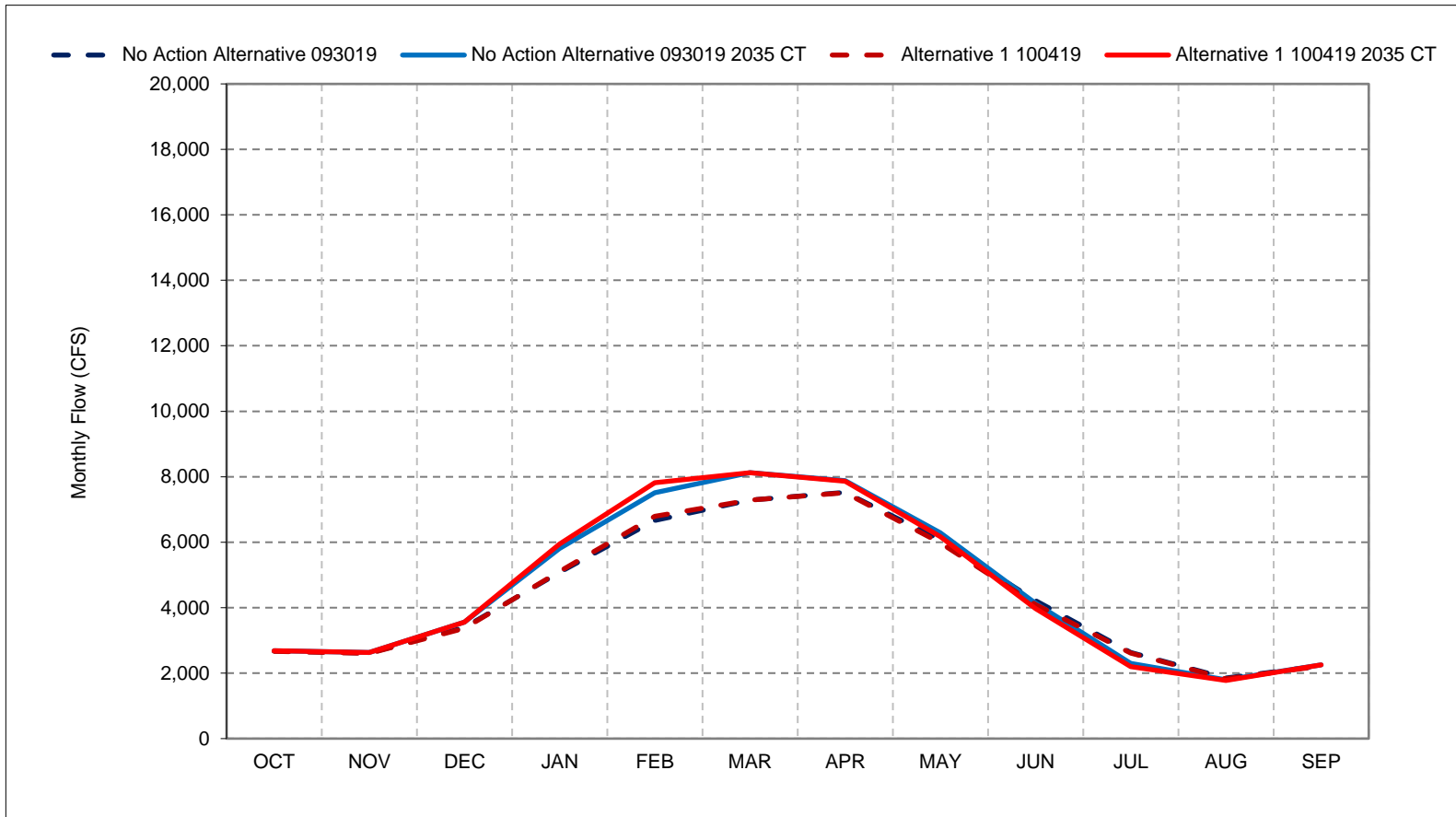
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39b-1. San Joaquin River at Vernalis (60-20-20), Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

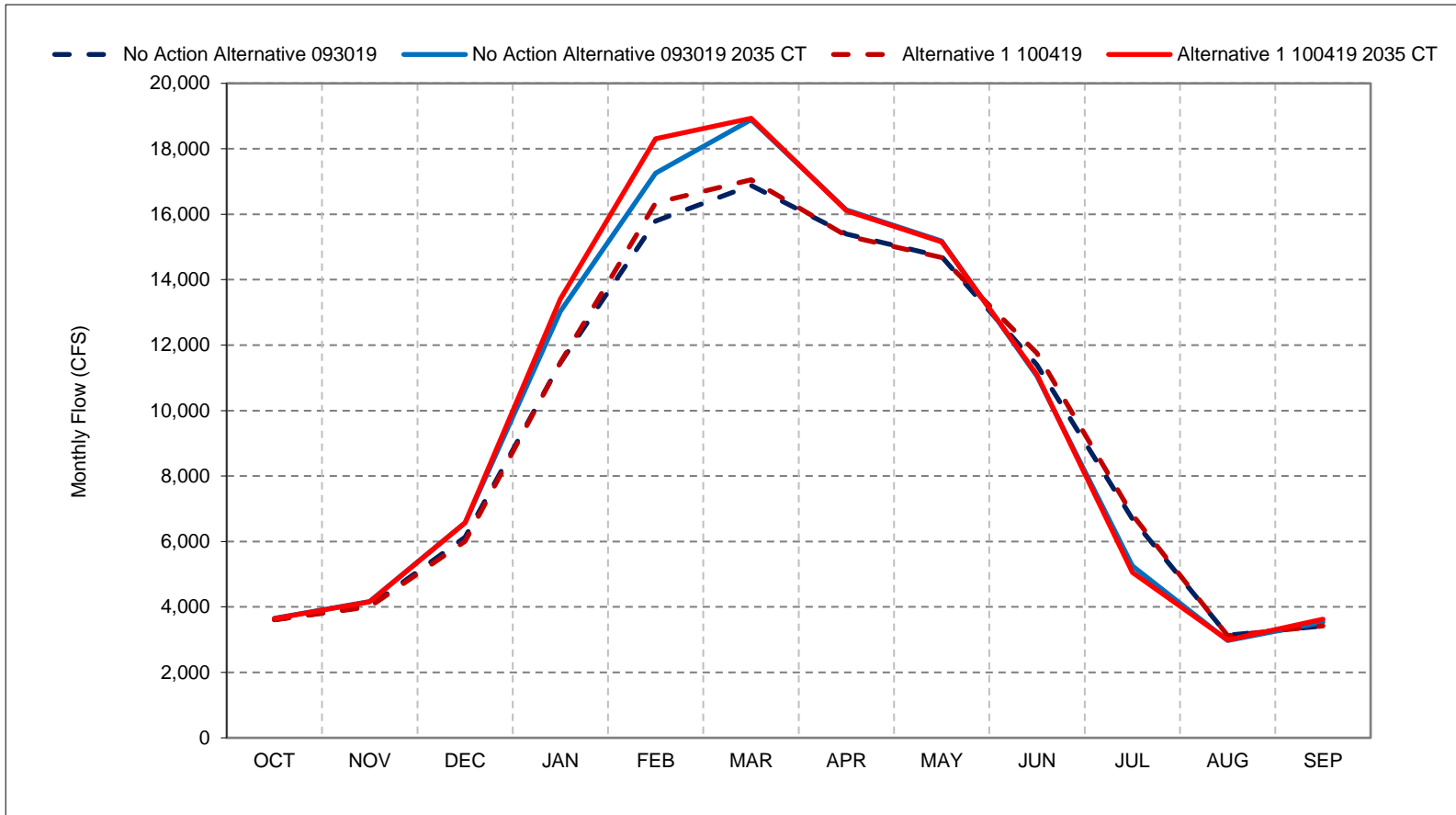
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-2. San Joaquin River at Vernalis (60-20-20), Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

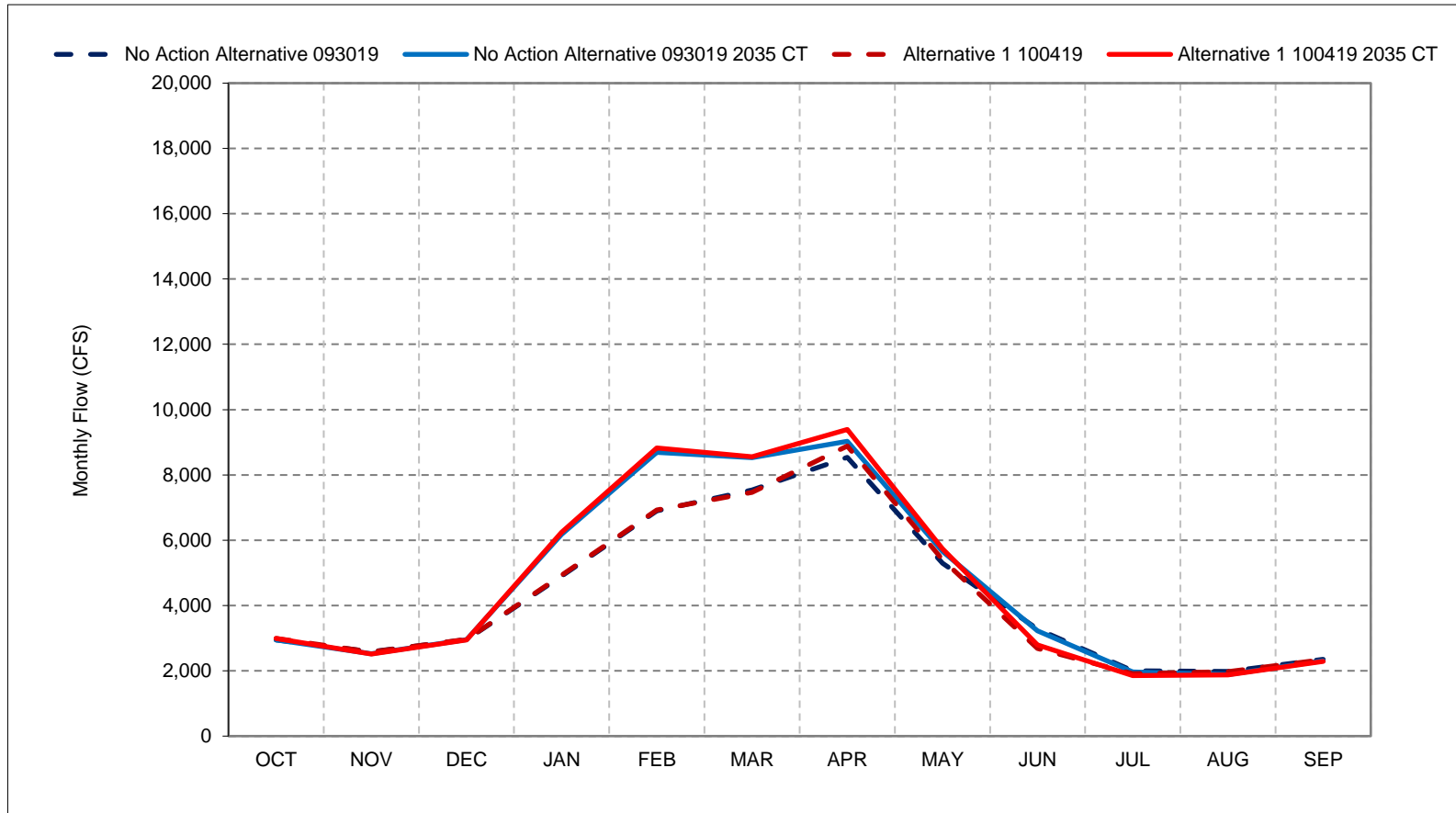
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-3. San Joaquin River at Vernalis (60-20-20), Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

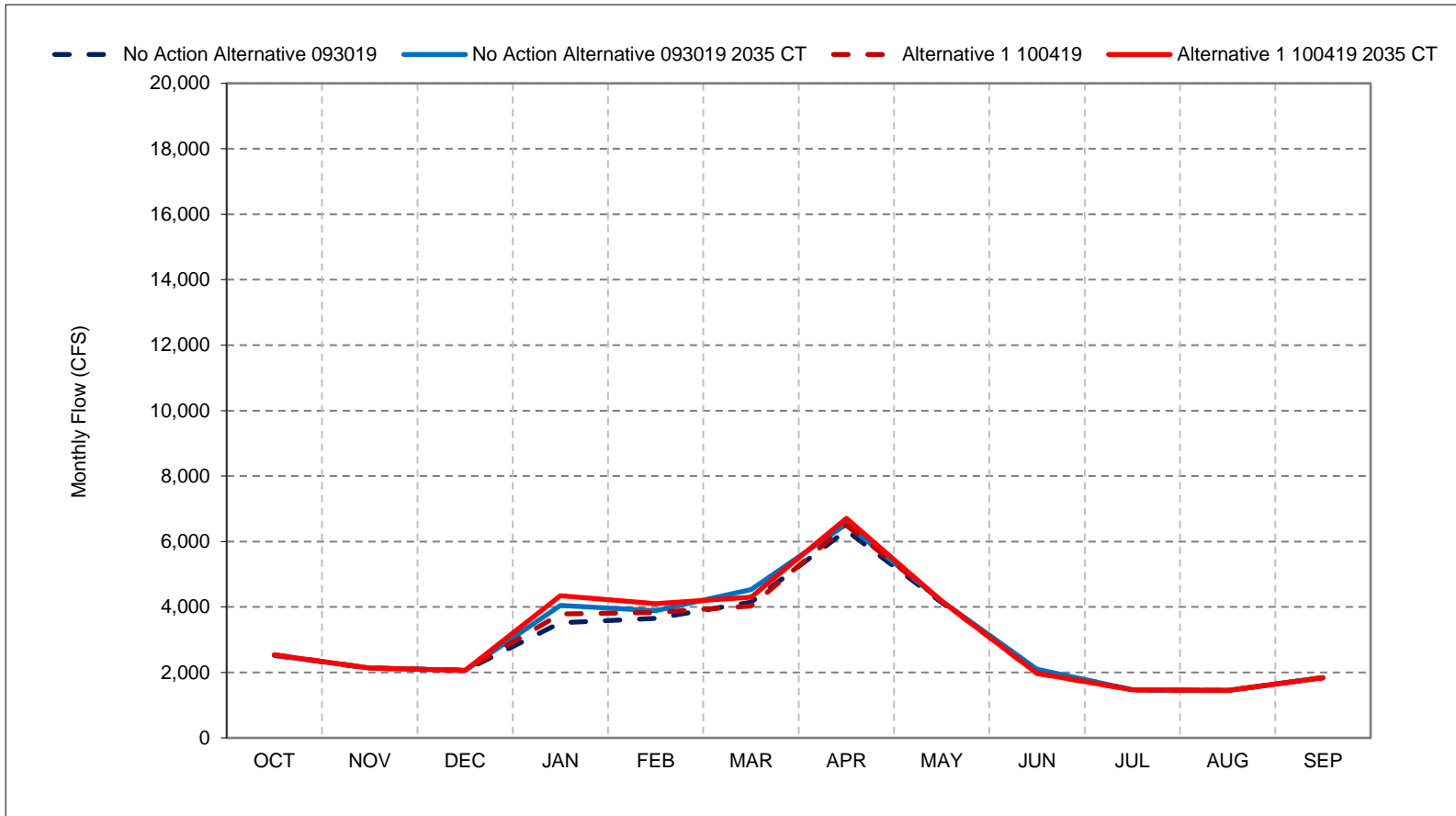
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-4. San Joaquin River at Vernalis (60-20-20), Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

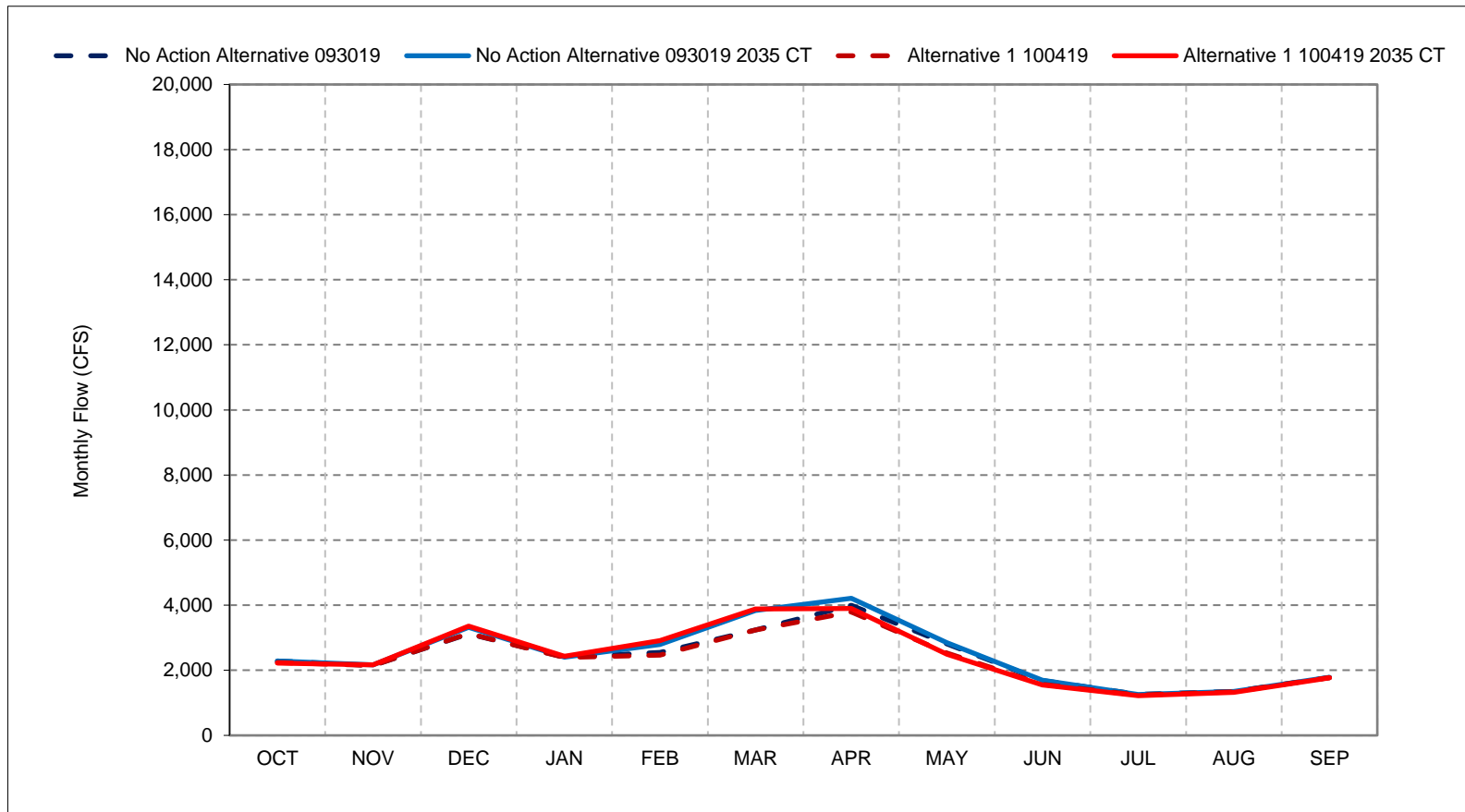
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-5. San Joaquin River at Vernalis (60-20-20), Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

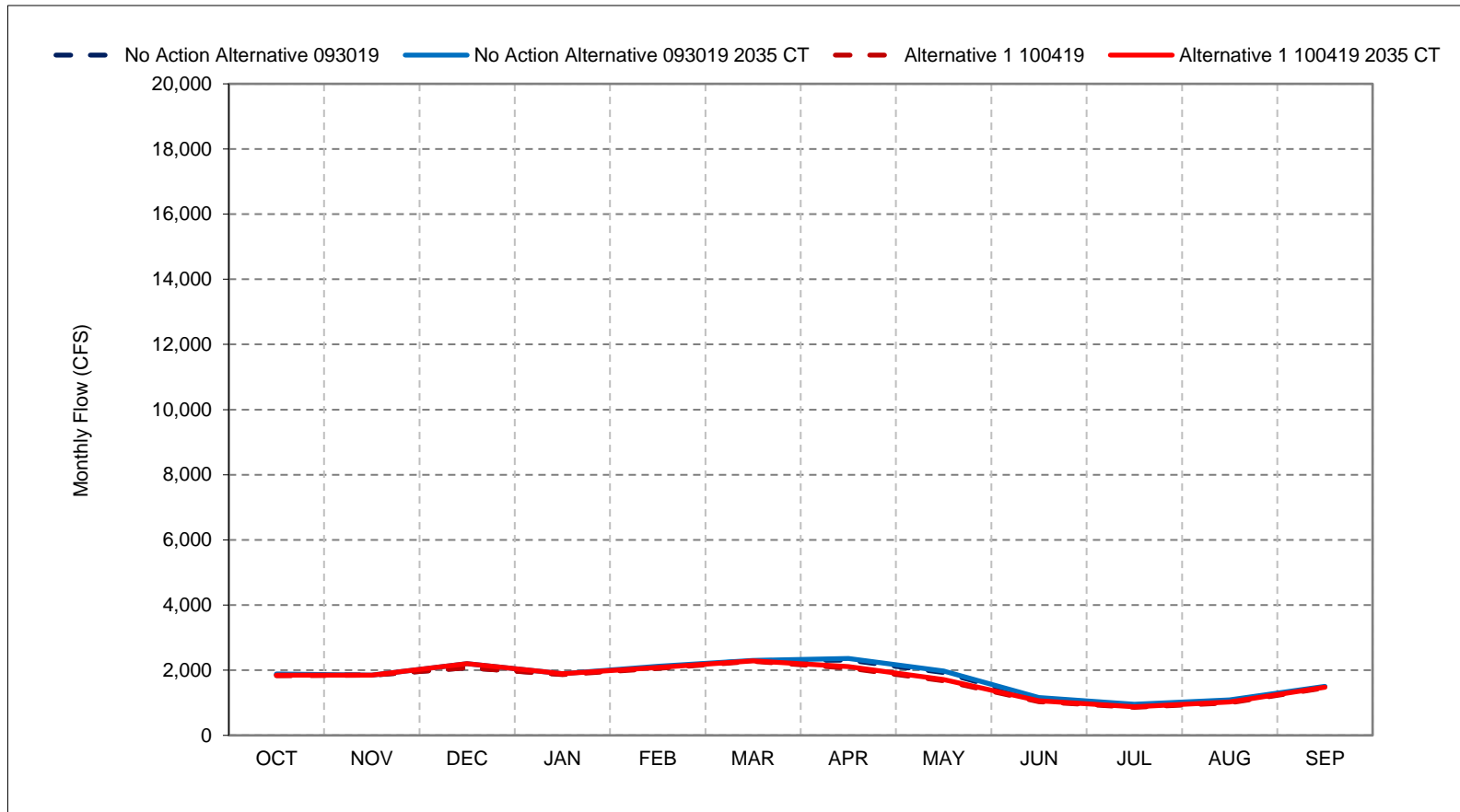
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-6. San Joaquin River at Vernalis (60-20-20), Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Table 40-1. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,837	-4,016	-3,354	-2,823	-1,324	-1,150	3,172	2,675	-1,949	-2,924	-2,643	-4,274
20%	-4,194	-4,901	-4,061	-2,823	-2,053	-1,444	2,207	1,315	-2,324	-5,485	-3,241	-5,608
30%	-4,586	-5,452	-4,939	-3,355	-2,825	-3,060	1,603	614	-3,500	-6,424	-4,517	-6,190
40%	-4,871	-5,838	-5,871	-4,201	-3,500	-3,500	1,275	205	-3,500	-7,575	-7,573	-7,014
50%	-5,159	-6,241	-5,871	-4,710	-4,106	-4,068	612	-34	-3,500	-8,781	-9,624	-8,554
60%	-5,421	-6,575	-5,871	-5,000	-5,000	-4,841	-223	-490	-4,323	-9,267	-10,281	-9,571
70%	-5,912	-7,046	-6,578	-5,000	-5,000	-5,000	-652	-800	-5,000	-9,661	-10,684	-9,913
80%	-6,391	-8,001	-9,125	-5,000	-5,000	-5,000	-1,125	-1,141	-5,000	-10,042	-10,771	-10,029
90%	-6,954	-9,846	-9,680	-5,000	-5,000	-5,000	-1,387	-1,422	-5,000	-10,943	-11,007	-10,128
Long Term												
Full Simulation Period ^d	-5,348	-6,448	-5,941	-3,613	-3,155	-2,902	865	272	-3,699	-7,771	-7,632	-7,771
Water Year Types ^{b,c}												
Wet (32%)	-5,855	-6,543	-6,758	-2,059	-2,155	-1,796	3,081	1,959	-4,304	-8,752	-10,560	-9,575
Above Normal (16%)	-5,837	-7,712	-7,688	-3,716	-3,869	-4,115	1,194	429	-4,479	-8,818	-10,816	-10,029
Below Normal (13%)	-6,108	-6,447	-5,770	-4,380	-3,655	-4,055	161	-305	-3,561	-10,030	-8,793	-7,925
Dry (24%)	-4,913	-6,833	-5,108	-4,696	-3,613	-3,587	-817	-938	-3,450	-7,418	-4,111	-6,131
Critical (15%)	-3,748	-4,234	-3,824	-4,359	-3,325	-1,785	-847	-1,007	-2,083	-3,028	-2,641	-4,010

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,961	-3,320	-3,454	-3,492	-2,542	-1,126	-941	-1,414	-2,141	-2,804	-2,559	-2,414
20%	-3,292	-3,859	-4,175	-3,645	-4,464	-3,258	-1,807	-1,935	-3,927	-4,146	-3,313	-2,820
30%	-3,630	-4,712	-4,981	-3,821	-4,464	-3,258	-2,041	-2,694	-4,922	-5,875	-4,408	-2,992
40%	-3,825	-5,844	-5,290	-4,516	-4,464	-3,258	-2,262	-2,888	-5,000	-7,482	-7,676	-3,442
50%	-4,030	-7,808	-5,290	-4,516	-4,464	-3,258	-2,474	-3,029	-5,000	-8,083	-9,369	-4,125
60%	-4,231	-8,812	-5,290	-4,593	-4,483	-3,258	-3,075	-3,301	-5,000	-8,596	-9,573	-5,059
70%	-4,829	-9,049	-7,391	-5,188	-4,897	-3,258	-3,500	-3,500	-5,000	-9,172	-9,902	-5,655
80%	-5,166	-9,174	-9,426	-5,226	-5,000	-3,258	-3,500	-3,500	-5,000	-9,558	-10,352	-6,157
90%	-6,143	-9,328	-9,668	-5,226	-5,250	-3,500	-3,500	-3,500	-5,000	-9,960	-10,814	-7,415
Long Term												
Full Simulation Period ^d	-4,368	-6,769	-5,926	-3,763	-3,638	-2,374	-2,146	-2,508	-4,341	-7,217	-7,403	-4,541
Water Year Types ^{b,c}												
Wet (32%)	-4,804	-8,442	-6,953	-2,171	-1,938	-805	-1,440	-1,928	-4,405	-8,363	-10,148	-3,712
Above Normal (16%)	-3,547	-8,669	-7,825	-4,284	-3,640	-2,711	-3,051	-3,251	-4,862	-8,171	-9,883	-2,778
Below Normal (13%)	-5,437	-5,932	-5,231	-4,747	-4,663	-3,311	-2,745	-3,125	-4,951	-8,984	-9,155	-7,360
Dry (24%)	-4,416	-5,794	-4,982	-4,617	-4,807	-3,287	-2,414	-2,892	-4,740	-6,938	-4,262	-5,757
Critical (15%)	-3,254	-3,478	-3,854	-4,324	-4,432	-3,030	-1,698	-1,752	-2,412	-2,546	-2,400	-3,636

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	876	696	-100	-669	-1,218	25	-4,113	-4,089	-192	119	83	1,860
20%	902	1,042	-114	-823	-2,412	-1,815	-4,014	-3,250	-1,604	1,340	-72	2,788
30%	956	740	-42	-466	-1,640	-198	-3,644	-3,308	-1,422	548	109	3,198
40%	1,047	-6	581	-315	-964	242	-3,537	-3,093	-1,500	93	-103	3,572
50%	1,129	-1,566	581	194	-358	810	-3,086	-2,994	-1,500	699	255	4,429
60%	1,189	-2,237	581	407	517	1,583	-2,852	-2,811	-677	671	708	4,512
70%	1,083	-2,003	-813	-188	103	1,742	-2,848	-2,700	0	490	782	4,258
80%	1,225	-1,173	-302	-226	0	1,742	-2,375	-2,359	0	484	420	3,873
90%	811	517	12	-226	-250	1,500	-2,113	-2,078	0	983	193	2,713
Long Term												
Full Simulation Period ^d	980	-321	15	-151	-484	528	-3,011	-2,780	-642	554	229	3,230
Water Year Types ^{b,c}												
Wet (32%)	1,051	-1,899	-194	-112	217	991	-4,521	-3,887	-101	389	412	5,863
Above Normal (16%)	2,291	-957	-137	-568	229	1,404	-4,245	-3,680	-382	647	933	7,251
Below Normal (13%)	671	515	539	-367	-1,008	744	-2,906	-2,820	-1,389	1,046	-362	564
Dry (24%)	497	1,039	126	79	-1,194	300	-1,597	-1,954	-1,291	480	-151	373
Critical (15%)	493	756	-30	35	-1,107	-1,245	-851	-745	-330	482	241	374

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 40-2. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,591	-3,910	-3,941	-2,823	-389	-1,094	3,334	2,719	-1,865	-3,139	-2,700	-3,777
20%	-4,086	-4,511	-4,399	-2,823	-1,855	-1,437	2,306	1,358	-2,148	-5,879	-3,435	-5,217
30%	-4,525	-4,951	-5,051	-2,843	-2,750	-3,469	1,725	747	-3,500	-7,344	-4,527	-5,925
40%	-4,733	-5,429	-5,871	-3,355	-3,404	-3,500	1,466	211	-3,500	-7,939	-7,990	-6,544
50%	-5,080	-5,765	-5,871	-3,832	-3,500	-3,817	638	35	-3,500	-8,534	-9,472	-8,005
60%	-5,358	-6,428	-5,871	-4,710	-3,827	-5,000	-17	-359	-4,056	-9,107	-10,013	-9,029
70%	-5,938	-7,036	-5,933	-4,803	-5,000	-5,000	-495	-721	-4,602	-9,519	-10,329	-9,694
80%	-6,348	-7,725	-8,454	-5,000	-5,000	-5,000	-1,135	-1,150	-5,000	-10,111	-10,537	-9,953
90%	-6,727	-9,344	-9,640	-5,000	-5,000	-5,000	-1,389	-1,437	-5,000	-10,884	-10,847	-10,218
Long Term												
Full Simulation Period ^d	-5,229	-6,177	-5,827	-3,252	-2,854	-2,707	913	370	-3,629	-7,902	-7,600	-7,519
Water Year Types ^{b,c}												
Wet (32%)	-5,680	-6,122	-6,296	-1,767	-1,961	-1,036	3,051	2,172	-4,076	-8,308	-10,196	-8,948
Above Normal (16%)	-4,716	-7,009	-7,481	-3,675	-3,616	-4,061	1,184	456	-4,155	-8,730	-10,588	-9,905
Below Normal (13%)	-6,162	-6,613	-5,502	-3,670	-3,872	-4,078	-289	-593	-3,508	-10,026	-8,319	-7,673
Dry (24%)	-5,190	-6,628	-5,247	-4,291	-2,815	-3,585	-344	-694	-3,658	-8,366	-4,993	-6,171
Critical (15%)	-4,018	-4,243	-4,284	-3,893	-3,096	-2,138	-819	-975	-2,157	-3,406	-2,424	-3,945

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,850	-3,134	-3,839	-3,179	-251	-1,152	-760	-1,078	-2,169	-2,583	-2,683	-1,323
20%	-3,331	-3,821	-4,333	-3,645	-3,649	-2,934	-1,787	-1,754	-3,474	-4,175	-3,293	-2,562
30%	-3,606	-4,921	-5,290	-3,645	-4,464	-3,258	-2,002	-2,428	-4,612	-5,815	-4,489	-2,918
40%	-3,831	-5,979	-5,290	-4,263	-4,464	-3,258	-2,189	-2,743	-5,000	-7,077	-7,063	-3,161
50%	-4,052	-7,266	-5,290	-4,516	-4,464	-3,258	-2,434	-2,915	-5,000	-7,739	-8,315	-3,714
60%	-4,195	-8,435	-5,290	-4,516	-4,464	-3,258	-3,046	-3,069	-5,000	-8,396	-9,251	-4,775
70%	-4,604	-8,905	-6,306	-4,516	-4,477	-3,258	-3,446	-3,228	-5,000	-8,914	-9,572	-5,594
80%	-5,010	-9,153	-8,449	-5,000	-4,483	-3,258	-3,500	-3,437	-5,000	-9,213	-10,181	-6,263
90%	-6,009	-9,361	-9,678	-5,226	-5,000	-3,500	-3,500	-3,500	-5,000	-9,531	-10,676	-7,487
Long Term												
Full Simulation Period ^d	-4,215	-6,694	-5,756	-3,499	-3,221	-2,102	-2,015	-2,344	-4,338	-6,927	-7,177	-4,307
Water Year Types ^{b,c}												
Wet (32%)	-4,433	-8,202	-6,376	-1,808	-1,366	82	-1,016	-1,541	-4,412	-7,390	-9,528	-3,013
Above Normal (16%)	-2,952	-8,420	-7,357	-4,200	-3,111	-2,654	-3,070	-3,165	-4,735	-7,553	-9,893	-3,227
Below Normal (13%)	-5,497	-6,092	-5,297	-4,225	-4,569	-3,302	-2,714	-3,064	-4,847	-8,929	-8,060	-6,879
Dry (24%)	-4,546	-5,796	-5,212	-4,409	-4,300	-3,269	-2,420	-2,780	-4,681	-7,234	-4,743	-5,685
Critical (15%)	-3,387	-3,604	-4,004	-4,223	-4,326	-3,192	-1,724	-1,805	-2,709	-2,899	-2,386	-3,628

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	740	776	102	-356	137	-59	-4,094	-3,796	-304	556	17	2,454
20%	755	690	67	-823	-1,794	-1,498	-4,093	-3,112	-1,326	1,704	142	2,655
30%	919	29	-239	-802	-1,714	211	-3,727	-3,175	-1,112	1,529	38	3,007
40%	902	-550	581	-909	-1,061	242	-3,655	-2,954	-1,500	861	927	3,382
50%	1,027	-1,501	581	-684	-964	559	-3,072	-2,950	-1,500	795	1,157	4,290
60%	1,162	-2,007	581	194	-638	1,742	-3,029	-2,710	-944	711	762	4,254
70%	1,334	-1,869	-373	287	523	1,742	-2,951	-2,507	-398	605	757	4,101
80%	1,338	-1,427	5	0	517	1,742	-2,365	-2,286	0	898	356	3,689
90%	718	-16	-39	-226	0	1,500	-2,111	-2,063	0	1,353	171	2,730
Long Term												
Full Simulation Period ^d	1,014	-517	71	-248	-367	604	-2,928	-2,713	-709	975	423	3,212
Water Year Types ^{b,c}												
Wet (32%)	1,247	-2,079	-80	-41	595	1,118	-4,067	-3,712	-336	918	668	5,935
Above Normal (16%)	1,764	-1,410	124	-525	505	1,407	-4,254	-3,621	-581	1,177	694	6,678
Below Normal (13%)	665	521	205	-554	-697	776	-2,424	-2,472	-1,339	1,097	259	794
Dry (24%)	644	832	36	-118	-1,485	316	-2,076	-2,086	-1,023	1,132	250	486
Critical (15%)	632	639	280	-330	-1,230	-1,054	-904	-830	-553	507	39	317

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 40-3. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,837	-4,016	-3,354	-2,823	-1,324	-1,150	3,172	2,675	-1,949	-2,924	-2,643	-4,274
20%	-4,194	-4,901	-4,061	-2,823	-2,053	-1,444	2,207	1,315	-2,324	-5,485	-3,241	-5,608
30%	-4,586	-5,452	-4,939	-3,355	-2,825	-3,060	1,603	614	-3,500	-6,424	-4,517	-6,190
40%	-4,871	-5,838	-5,871	-4,201	-3,500	-3,500	1,275	205	-3,500	-7,575	-7,573	-7,014
50%	-5,159	-6,241	-5,871	-4,710	-4,106	-4,068	612	-34	-3,500	-8,781	-9,624	-8,554
60%	-5,421	-6,575	-5,871	-5,000	-5,000	-4,841	-223	-490	-4,323	-9,267	-10,281	-9,571
70%	-5,912	-7,046	-6,578	-5,000	-5,000	-5,000	-652	-800	-5,000	-9,661	-10,684	-9,913
80%	-6,391	-8,001	-9,125	-5,000	-5,000	-5,000	-1,125	-1,141	-5,000	-10,042	-10,771	-10,029
90%	-6,954	-9,846	-9,680	-5,000	-5,000	-5,000	-1,387	-1,422	-5,000	-10,943	-11,007	-10,128
Long Term												
Full Simulation Period ^d	-5,348	-6,448	-5,941	-3,613	-3,155	-2,902	865	272	-3,699	-7,771	-7,632	-7,771
Water Year Types ^{b,c}												
Wet (32%)	-5,855	-6,543	-6,758	-2,059	-2,155	-1,796	3,081	1,959	-4,304	-8,752	-10,560	-9,575
Above Normal (16%)	-5,837	-7,712	-7,688	-3,716	-3,869	-4,115	1,194	429	-4,479	-8,818	-10,816	-10,029
Below Normal (13%)	-6,108	-6,447	-5,770	-4,380	-3,655	-4,055	161	-305	-3,561	-10,030	-8,793	-7,925
Dry (24%)	-4,913	-6,833	-5,108	-4,696	-3,613	-3,587	-817	-938	-3,450	-7,418	-4,111	-6,131
Critical (15%)	-3,748	-4,234	-3,824	-4,359	-3,325	-1,785	-847	-1,007	-2,083	-3,028	-2,641	-4,010

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,591	-3,910	-3,941	-2,823	-389	-1,094	3,334	2,719	-1,865	-3,139	-2,700	-3,777
20%	-4,086	-4,511	-4,399	-2,823	-1,855	-1,437	2,306	1,358	-2,148	-5,879	-3,435	-5,217
30%	-4,525	-4,951	-5,051	-2,843	-2,750	-3,469	1,725	747	-3,500	-7,344	-4,527	-5,925
40%	-4,733	-5,429	-5,871	-3,355	-3,404	-3,500	1,466	211	-3,500	-7,939	-7,990	-6,544
50%	-5,080	-5,765	-5,871	-3,832	-3,500	-3,817	638	35	-3,500	-8,534	-9,472	-8,005
60%	-5,358	-6,428	-5,871	-4,710	-3,827	-5,000	-17	-359	-4,056	-9,107	-10,013	-9,029
70%	-5,938	-7,036	-5,933	-4,803	-5,000	-5,000	-495	-721	-4,602	-9,519	-10,329	-9,694
80%	-6,348	-7,725	-8,454	-5,000	-5,000	-5,000	-1,135	-1,150	-5,000	-10,111	-10,537	-9,953
90%	-6,727	-9,344	-9,640	-5,000	-5,000	-5,000	-1,389	-1,437	-5,000	-10,884	-10,847	-10,218
Long Term												
Full Simulation Period ^d	-5,229	-6,177	-5,827	-3,252	-2,854	-2,707	913	370	-3,629	-7,902	-7,600	-7,519
Water Year Types ^{b,c}												
Wet (32%)	-5,680	-6,122	-6,296	-1,767	-1,961	-1,036	3,051	2,172	-4,076	-8,308	-10,196	-8,948
Above Normal (16%)	-4,716	-7,009	-7,481	-3,675	-3,616	-4,061	1,184	456	-4,155	-8,730	-10,588	-9,905
Below Normal (13%)	-6,162	-6,613	-5,502	-3,670	-3,872	-4,078	-289	-593	-3,508	-10,026	-8,319	-7,673
Dry (24%)	-5,190	-6,628	-5,247	-4,291	-2,815	-3,585	-344	-694	-3,658	-8,366	-4,993	-6,171
Critical (15%)	-4,018	-4,243	-4,284	-3,893	-3,096	-2,138	-819	-975	-2,157	-3,406	-2,424	-3,945

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	247	105	-587	0	935	57	162	43	85	-215	-58	497
20%	108	390	-338	0	197	7	99	43	176	-394	-194	391
30%	61	502	-112	511	75	-410	122	133	0	-920	-9	265
40%	138	410	0	847	96	0	191	6	0	-364	-417	470
50%	79	477	0	878	606	251	26	70	0	247	151	549
60%	63	147	0	290	1,173	-159	206	132	267	159	269	541
70%	-26	10	645	197	0	0	157	78	398	142	355	219
80%	43	275	670	0	0	0	-11	-10	0	-69	234	77
90%	226	501	40	0	0	0	-2	-15	0	59	160	-90
Long Term												
Full Simulation Period ^d	119	271	114	361	301	195	48	97	69	-131	32	252
Water Year Types ^{b,c}												
Wet (32%)	175	421	462	291	194	760	-30	213	228	444	364	628
Above Normal (16%)	1,121	703	207	41	252	54	-10	28	325	88	228	124
Below Normal (13%)	-55	-166	269	709	-217	-23	-450	-288	54	3	474	252
Dry (24%)	-277	206	-140	405	798	2	473	244	-208	-948	-882	-40
Critical (15%)	-271	-9	-460	466	229	-354	28	32	-74	-378	217	64

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 40-4. Old and Middle River Flow, Monthly Flow (combined flows)

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,961	-3,320	-3,454	-3,492	-2,542	-1,126	-941	-1,414	-2,141	-2,804	-2,559	-2,414
20%	-3,292	-3,859	-4,175	-3,645	-4,464	-3,258	-1,807	-1,935	-3,927	-4,146	-3,313	-2,820
30%	-3,630	-4,712	-4,981	-3,821	-4,464	-3,258	-2,041	-2,694	-4,922	-5,875	-4,408	-2,992
40%	-3,825	-5,844	-5,290	-4,516	-4,464	-3,258	-2,262	-2,888	-5,000	-7,482	-7,676	-3,442
50%	-4,030	-7,808	-5,290	-4,516	-4,464	-3,258	-2,474	-3,029	-5,000	-8,083	-9,369	-4,125
60%	-4,231	-8,812	-5,290	-4,593	-4,483	-3,258	-3,075	-3,301	-5,000	-8,596	-9,573	-5,059
70%	-4,829	-9,049	-7,391	-5,188	-4,897	-3,258	-3,500	-3,500	-5,000	-9,172	-9,902	-5,655
80%	-5,166	-9,174	-9,426	-5,226	-5,000	-3,258	-3,500	-3,500	-5,000	-9,558	-10,352	-6,157
90%	-6,143	-9,328	-9,668	-5,226	-5,250	-3,500	-3,500	-3,500	-5,000	-9,960	-10,814	-7,415
Long Term												
Full Simulation Period ^d	-4,368	-6,769	-5,926	-3,763	-3,638	-2,374	-2,146	-2,508	-4,341	-7,217	-7,403	-4,541
Water Year Types ^{b,c}												
Wet (32%)	-4,804	-8,442	-6,953	-2,171	-1,938	-805	-1,440	-1,928	-4,405	-8,363	-10,148	-3,712
Above Normal (16%)	-3,547	-8,669	-7,825	-4,284	-3,640	-2,711	-3,051	-3,251	-4,862	-8,171	-9,883	-2,778
Below Normal (13%)	-5,437	-5,932	-5,231	-4,747	-4,663	-3,311	-2,745	-3,125	-4,951	-8,984	-9,155	-7,360
Dry (24%)	-4,416	-5,794	-4,982	-4,617	-4,807	-3,287	-2,414	-2,892	-4,740	-6,938	-4,262	-5,757
Critical (15%)	-3,254	-3,478	-3,854	-4,324	-4,432	-3,030	-1,698	-1,752	-2,412	-2,546	-2,400	-3,636

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,850	-3,134	-3,839	-3,179	-251	-1,152	-760	-1,078	-2,169	-2,583	-2,683	-1,323
20%	-3,331	-3,821	-4,333	-3,645	-3,649	-2,934	-1,787	-1,754	-3,474	-4,175	-3,293	-2,562
30%	-3,606	-4,921	-5,290	-3,645	-4,464	-3,258	-2,002	-2,428	-4,612	-5,815	-4,489	-2,918
40%	-3,831	-5,979	-5,290	-4,263	-4,464	-3,258	-2,189	-2,743	-5,000	-7,077	-7,063	-3,161
50%	-4,052	-7,266	-5,290	-4,516	-4,464	-3,258	-2,434	-2,915	-5,000	-7,739	-8,315	-3,714
60%	-4,195	-8,435	-5,290	-4,516	-4,464	-3,258	-3,046	-3,069	-5,000	-8,396	-9,251	-4,775
70%	-4,604	-8,905	-6,306	-4,516	-4,477	-3,258	-3,446	-3,228	-5,000	-8,914	-9,572	-5,594
80%	-5,010	-9,153	-8,449	-5,000	-4,483	-3,258	-3,500	-3,437	-5,000	-9,213	-10,181	-6,263
90%	-6,009	-9,361	-9,678	-5,226	-5,000	-3,500	-3,500	-3,500	-5,000	-9,531	-10,676	-7,487
Long Term												
Full Simulation Period ^d	-4,215	-6,694	-5,756	-3,499	-3,221	-2,102	-2,015	-2,344	-4,338	-6,927	-7,177	-4,307
Water Year Types ^{b,c}												
Wet (32%)	-4,433	-8,202	-6,376	-1,808	-1,366	82	-1,016	-1,541	-4,412	-7,390	-9,528	-3,013
Above Normal (16%)	-2,952	-8,420	-7,357	-4,200	-3,111	-2,654	-3,070	-3,165	-4,735	-7,553	-9,893	-3,227
Below Normal (13%)	-5,497	-6,092	-5,297	-4,225	-4,569	-3,302	-2,714	-3,064	-4,847	-8,929	-8,060	-6,879
Dry (24%)	-4,546	-5,796	-5,212	-4,409	-4,300	-3,269	-2,420	-2,780	-4,681	-7,234	-4,743	-5,685
Critical (15%)	-3,387	-3,604	-4,004	-4,223	-4,326	-3,192	-1,724	-1,805	-2,709	-2,899	-2,386	-3,628

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	111	186	-385	313	2,291	-26	181	336	-28	221	-124	1,091
20%	-39	38	-157	0	815	324	20	181	453	-29	19	258
30%	24	-209	-309	175	0	0	39	266	310	61	-81	74
40%	-7	-135	0	253	0	0	73	145	0	405	613	280
50%	-22	542	0	0	0	0	40	114	0	343	1,054	410
60%	36	378	0	77	18	0	29	232	0	200	323	283
70%	225	144	1,085	672	420	0	54	272	0	258	330	61
80%	155	21	977	226	517	0	0	63	0	345	171	-107
90%	134	-32	-10	0	250	0	0	0	0	429	138	-73
Long Term												
Full Simulation Period ^d	153	75	170	264	417	272	131	164	3	290	226	234
Water Year Types ^{b,c}												
Wet (32%)	371	240	576	363	573	886	424	387	-7	973	620	699
Above Normal (16%)	594	250	468	84	529	57	-19	87	127	618	-10	-449
Below Normal (13%)	-61	-160	-66	522	94	9	32	61	104	55	1,095	482
Dry (24%)	-130	-2	-230	208	507	18	-6	112	60	-296	-481	73
Critical (15%)	-132	-126	-150	101	106	-162	-25	-53	-297	-352	15	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

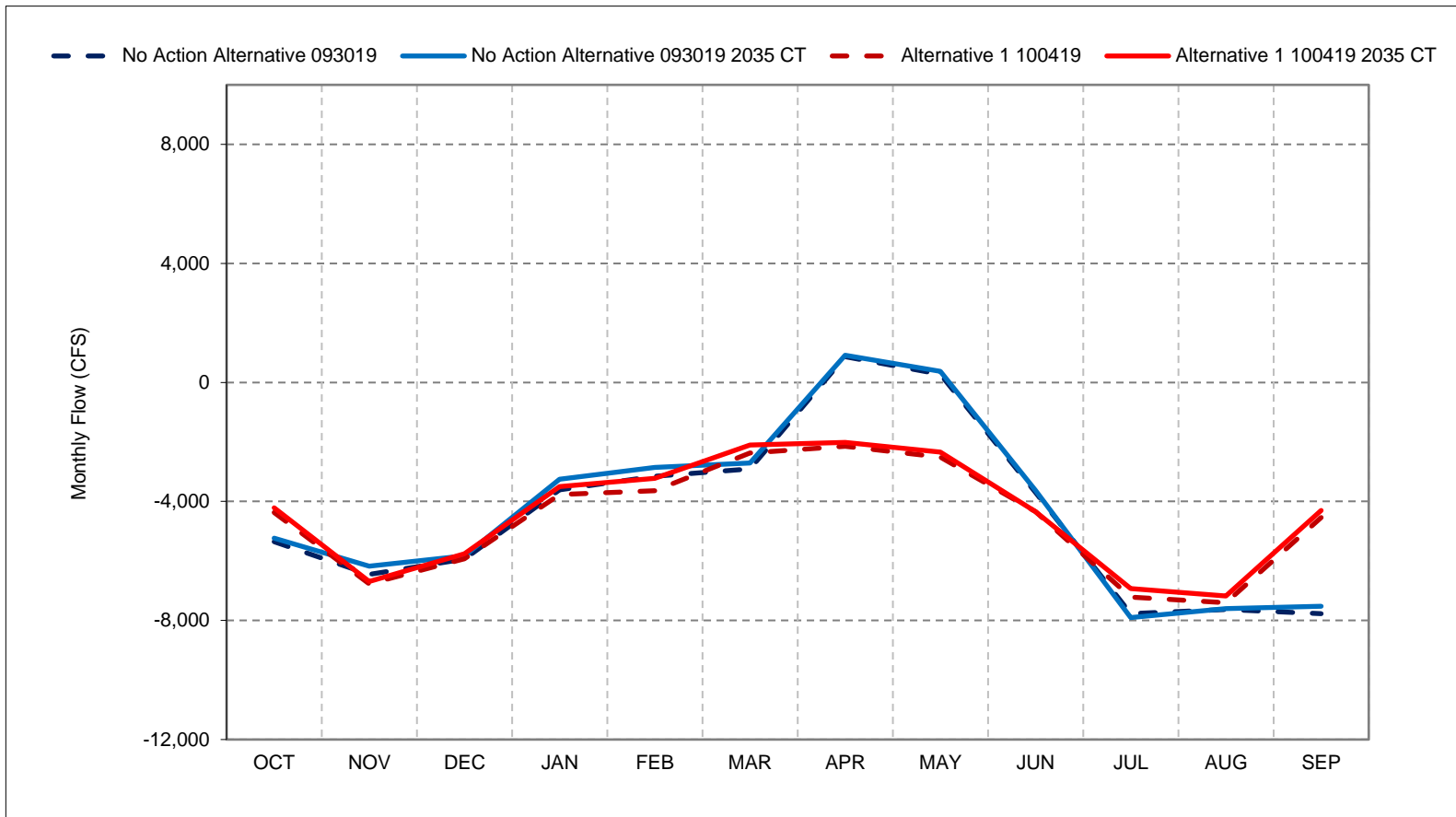
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 40-1. Old and Middle River Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

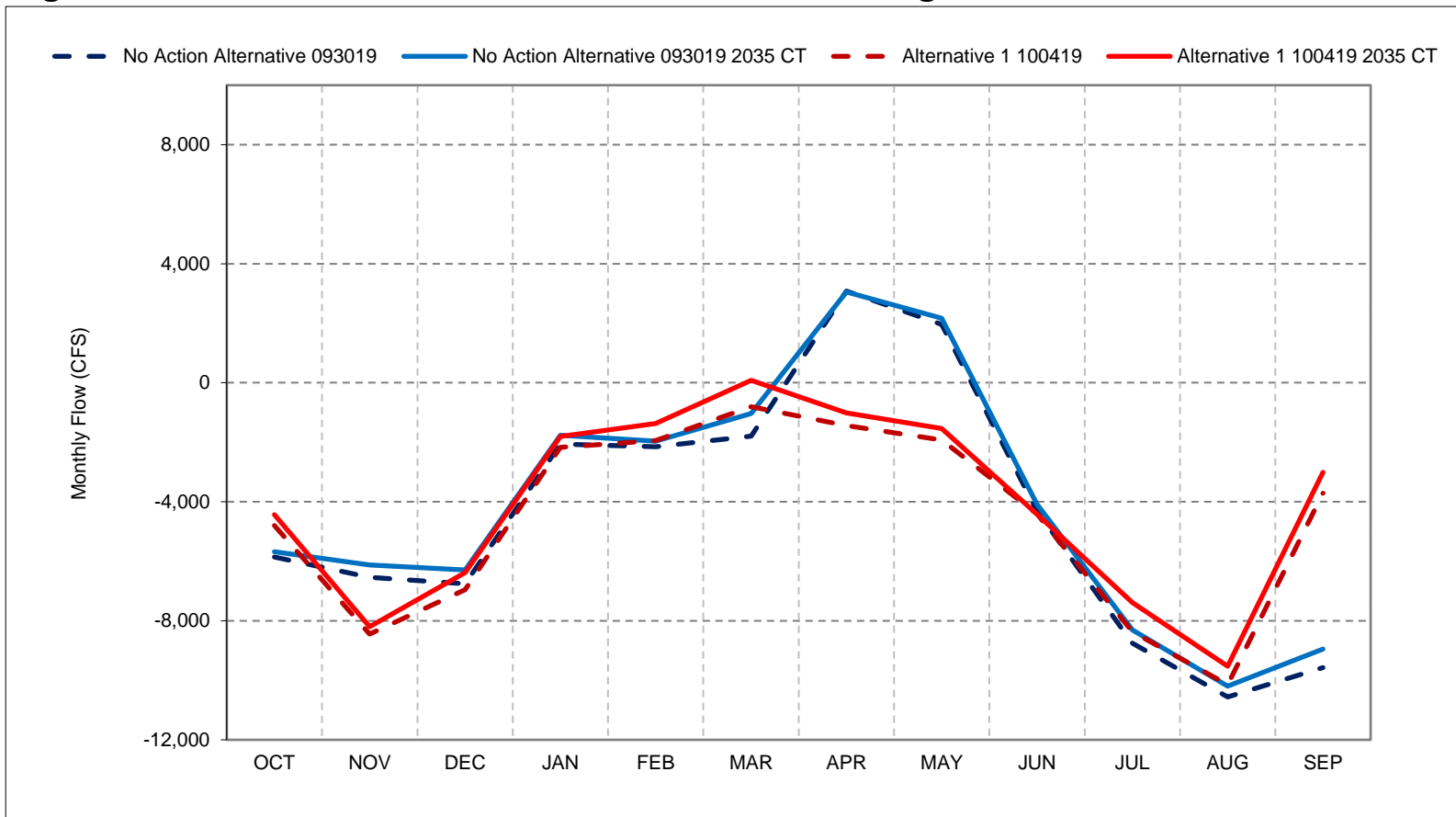
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-2. Old and Middle River Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

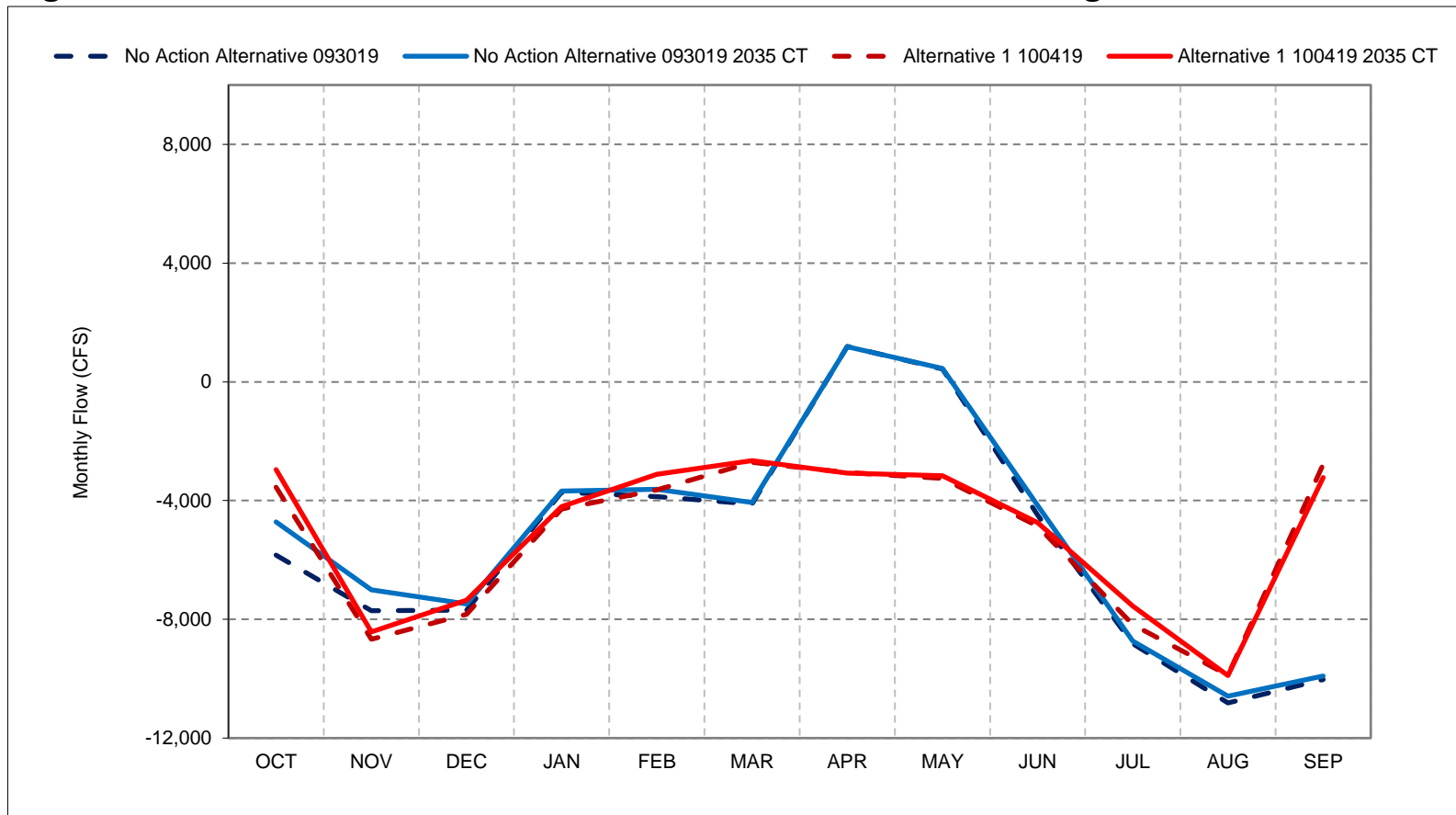
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-3. Old and Middle River Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

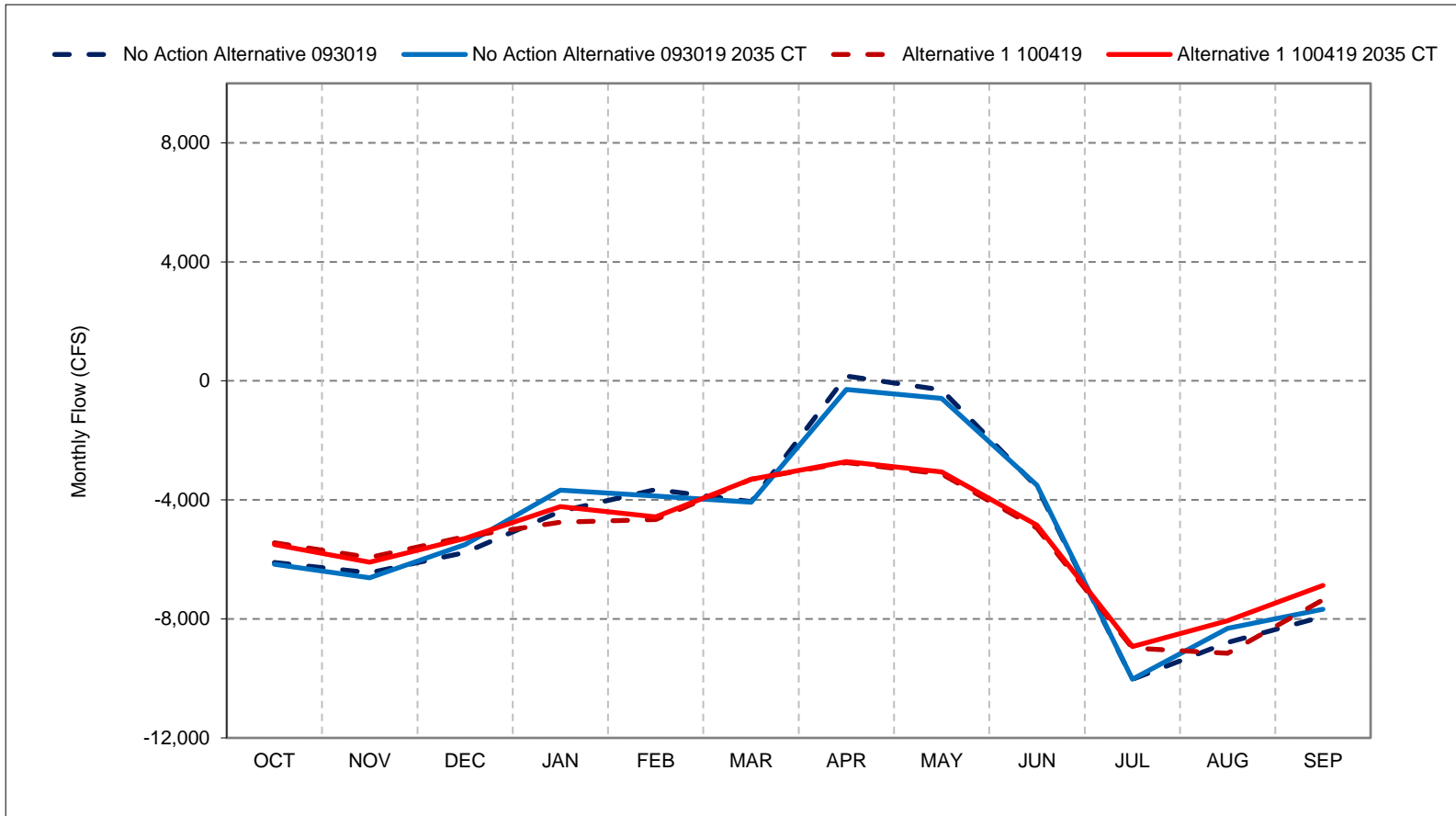
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-4. Old and Middle River Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

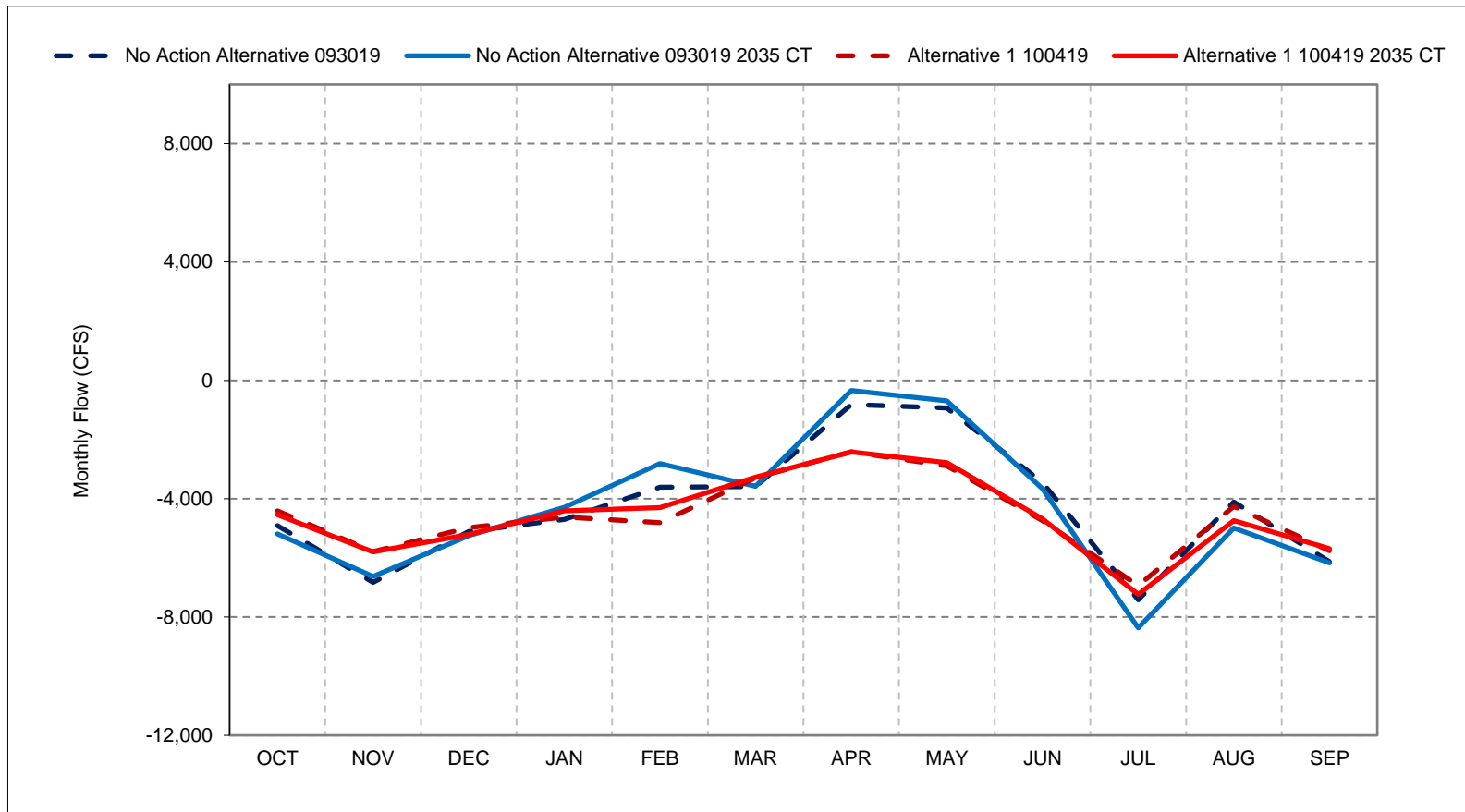
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-5. Old and Middle River Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

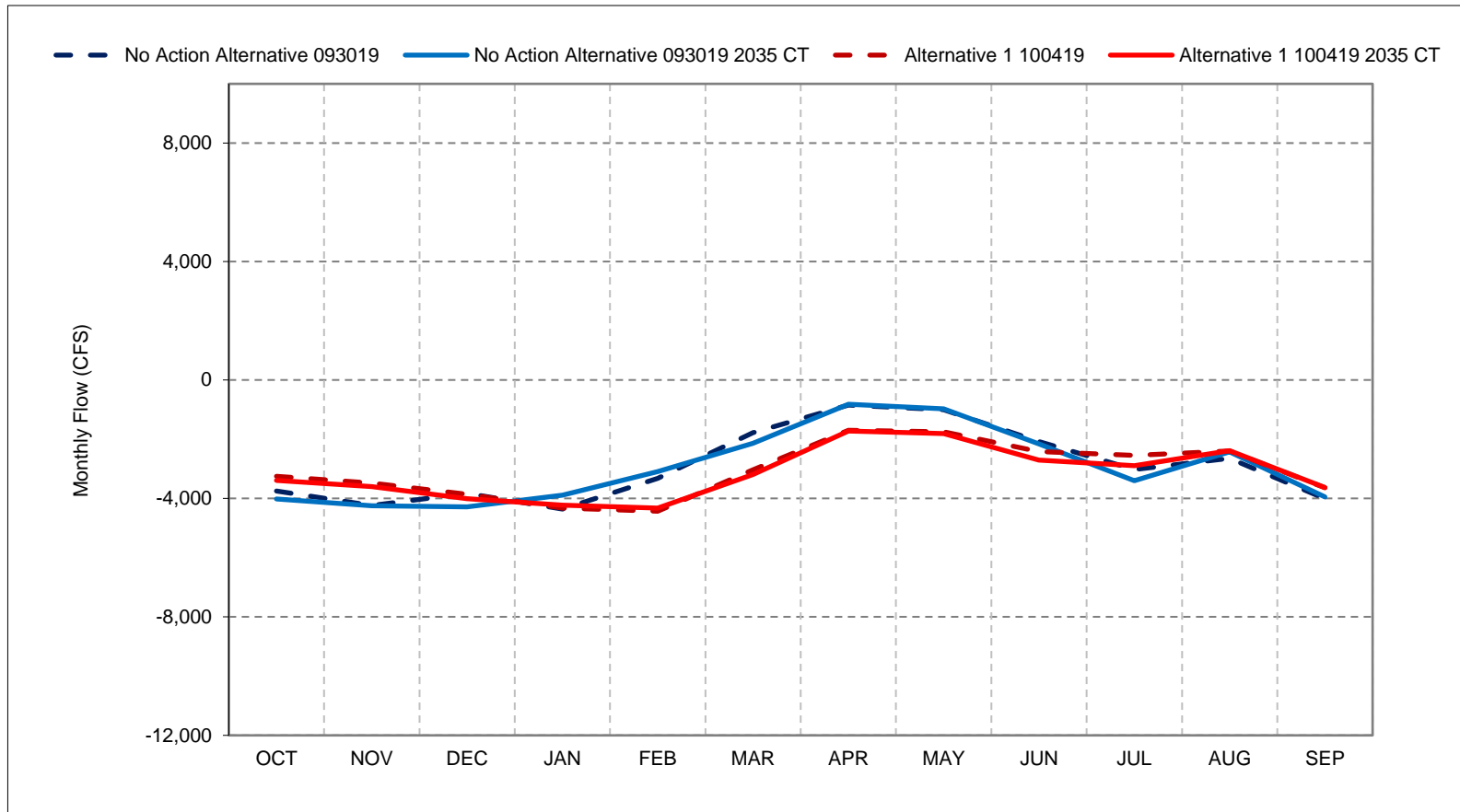
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-6. Old and Middle River Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

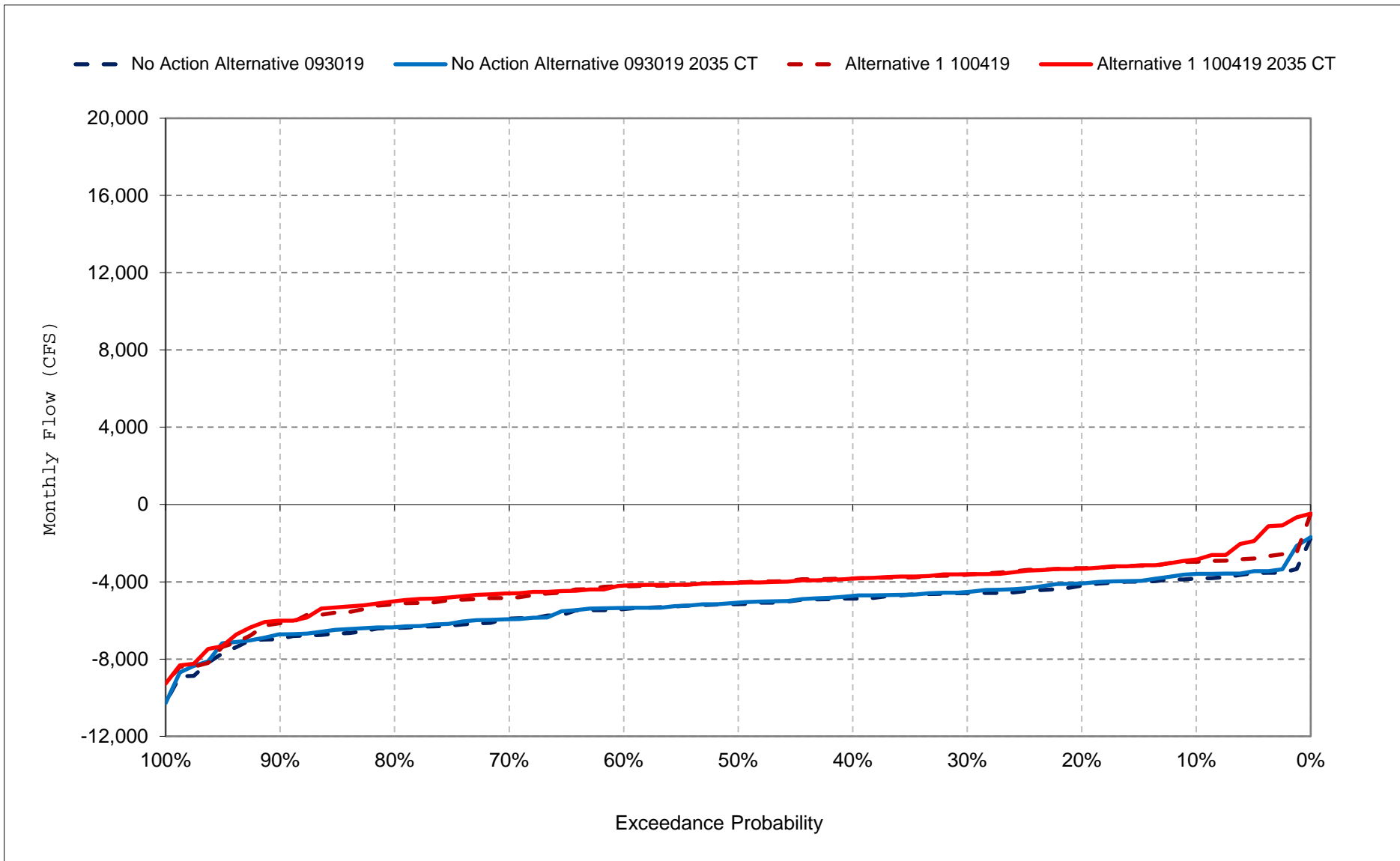
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

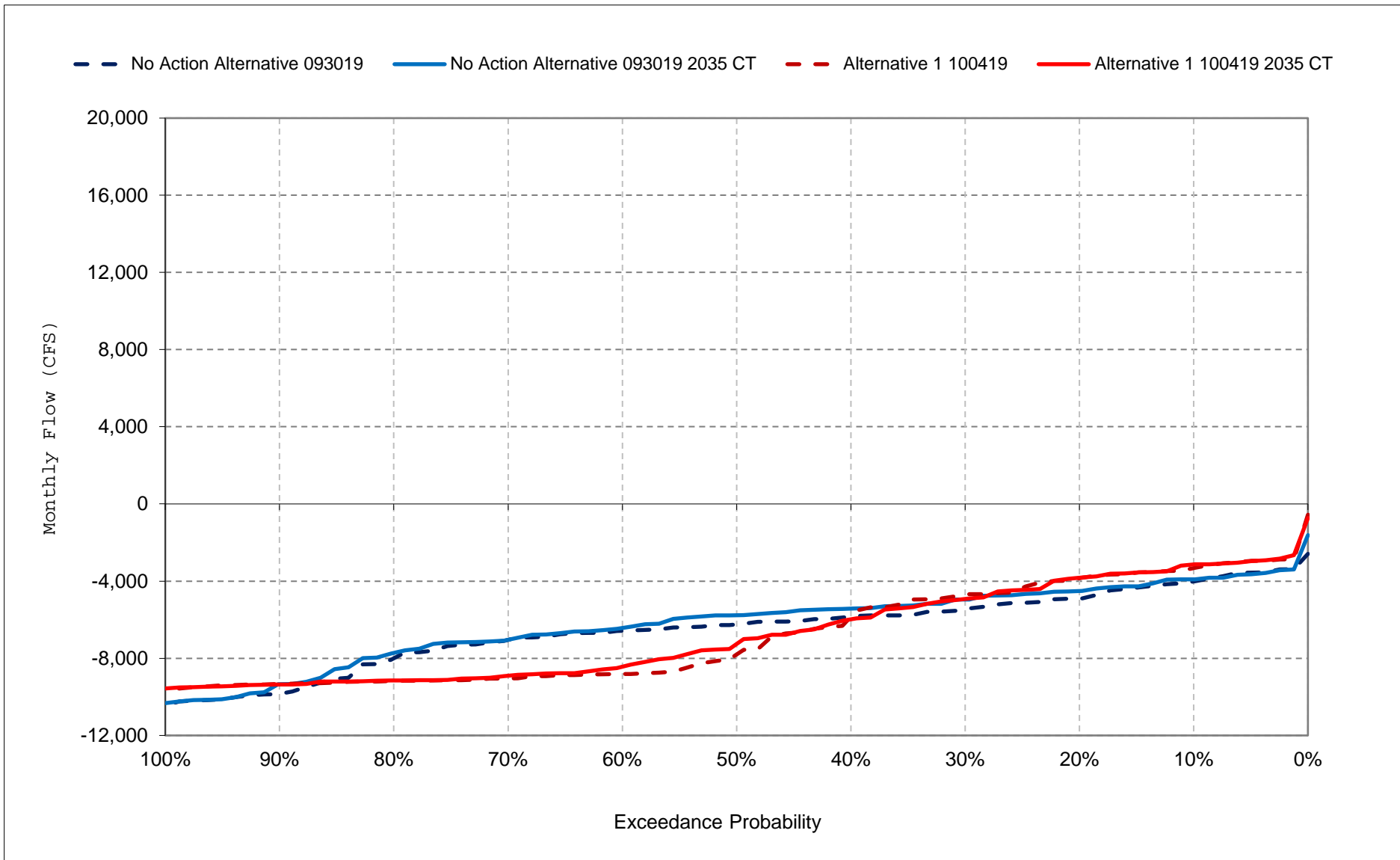
Figure 40-7. Old and Middle River Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

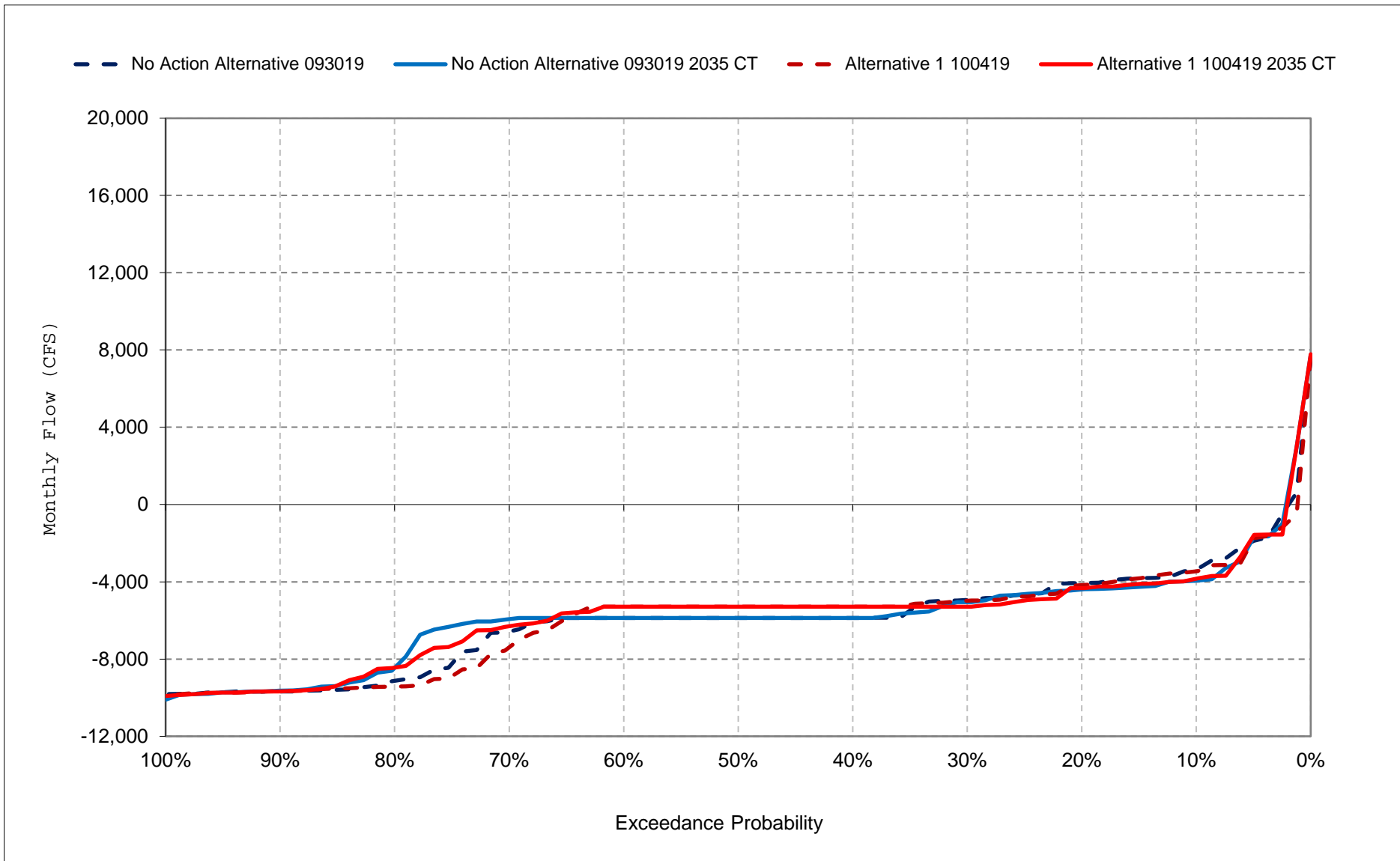
Figure 40-8. Old and Middle River Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

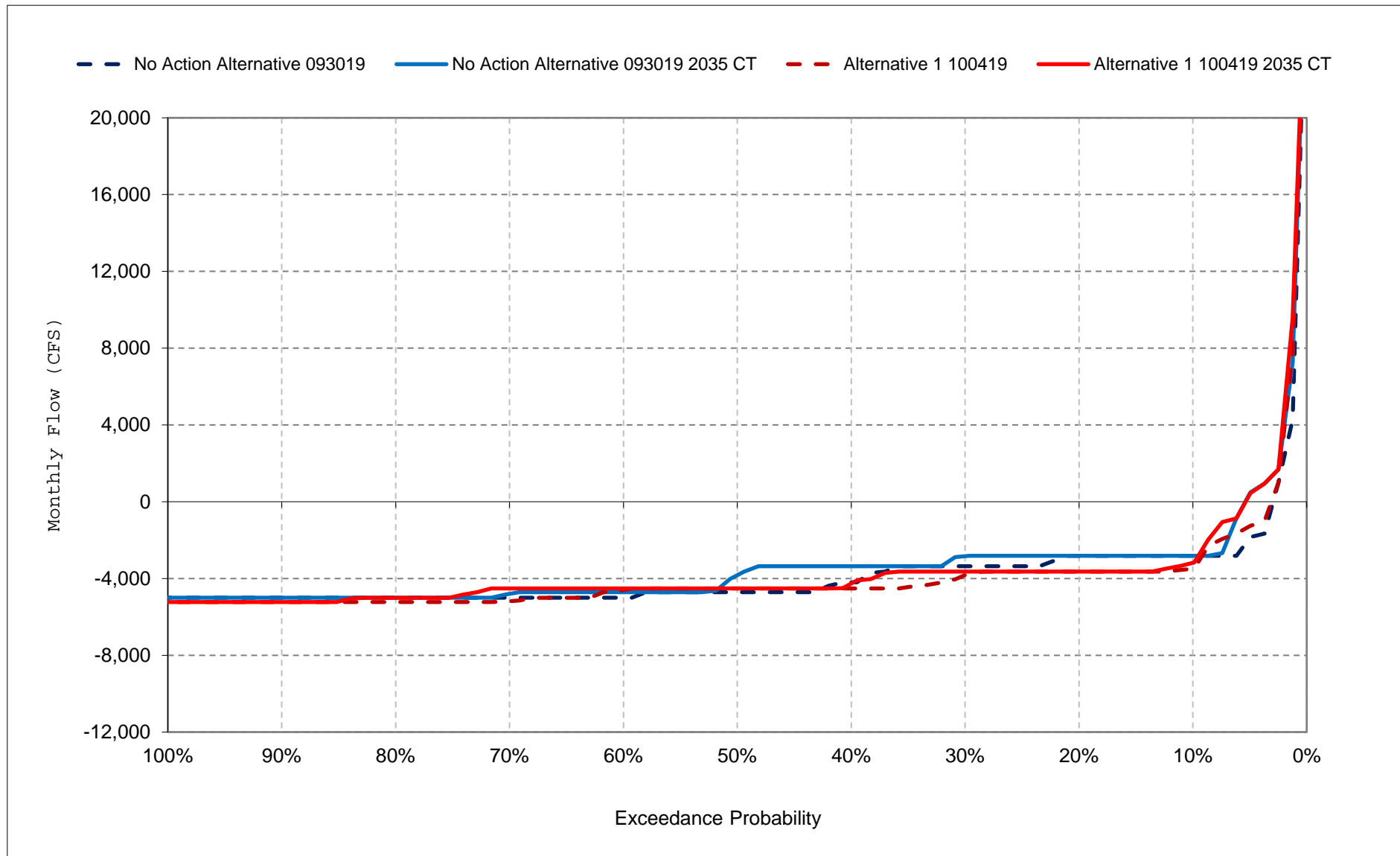
Figure 40-9. Old and Middle River Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

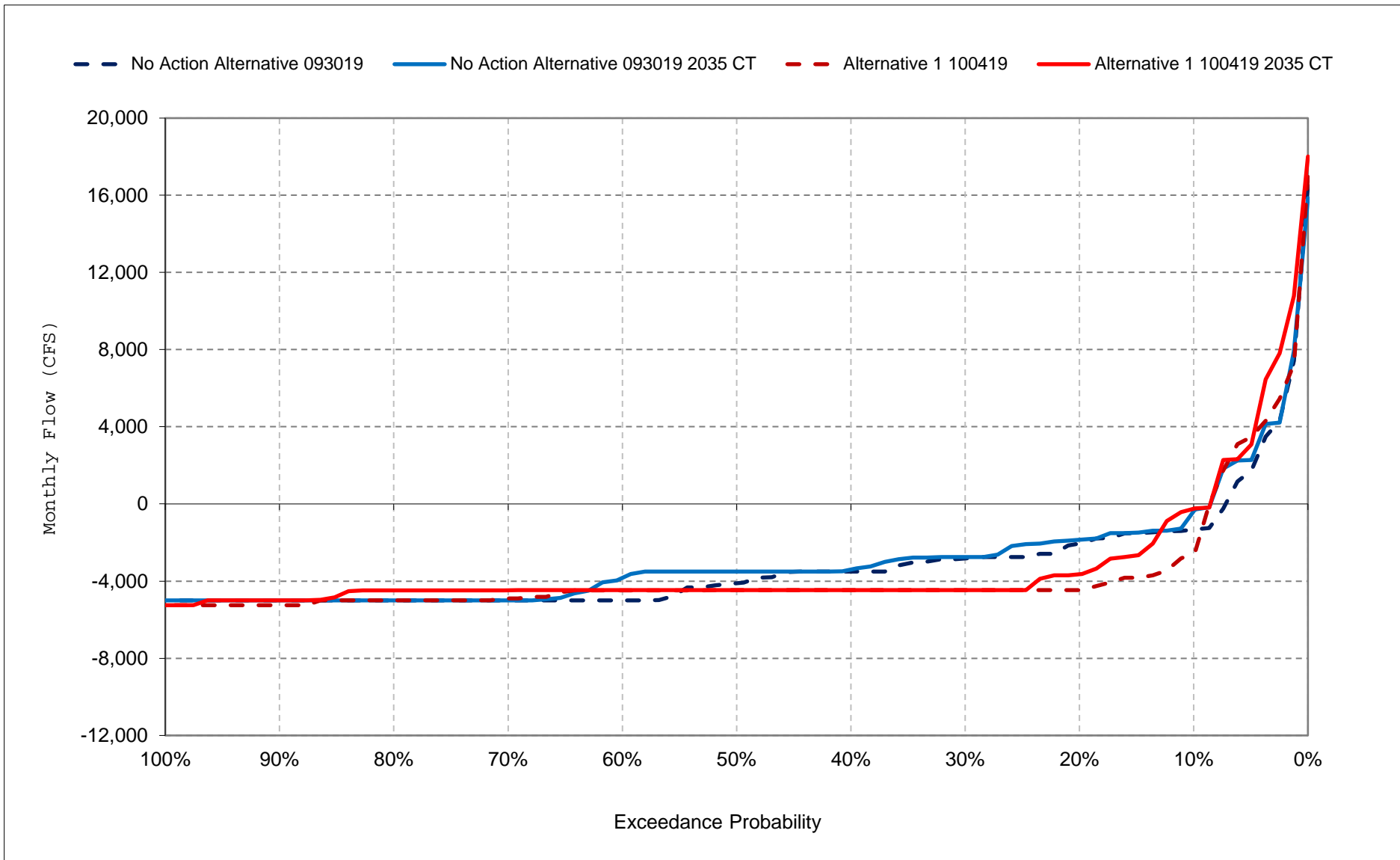
Figure 40-10. Old and Middle River Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

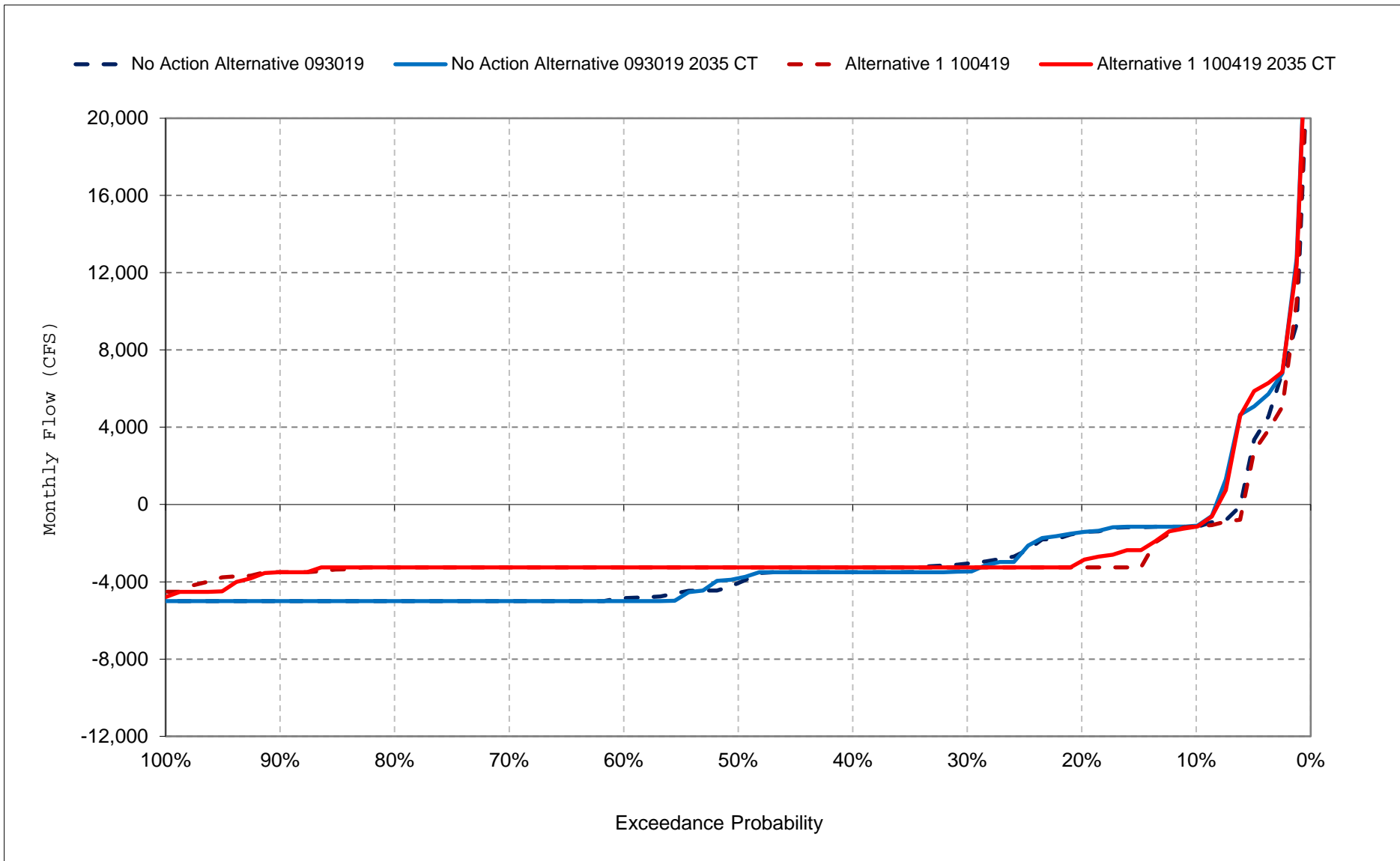
Figure 40-11. Old and Middle River Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

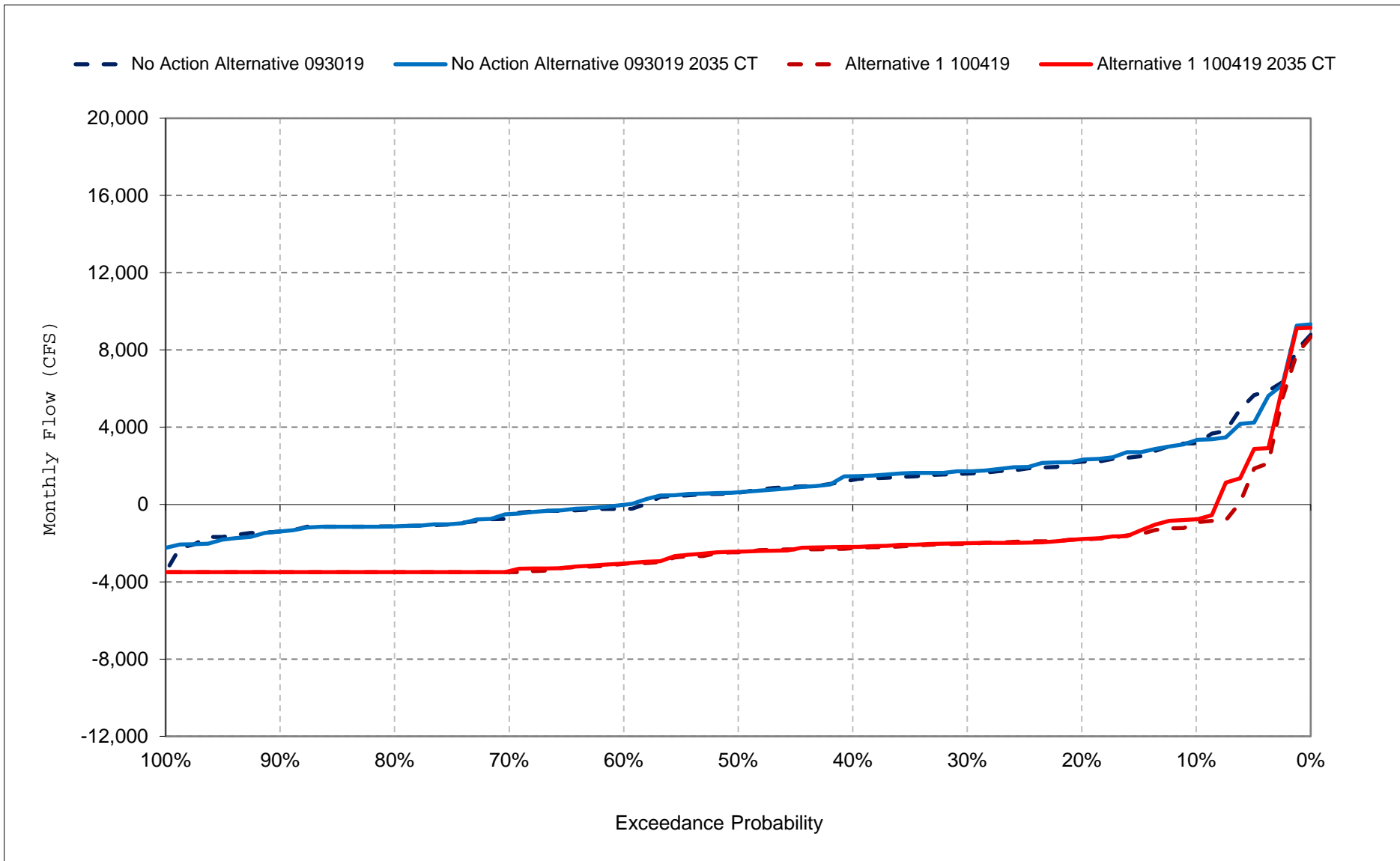
Figure 40-12. Old and Middle River Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

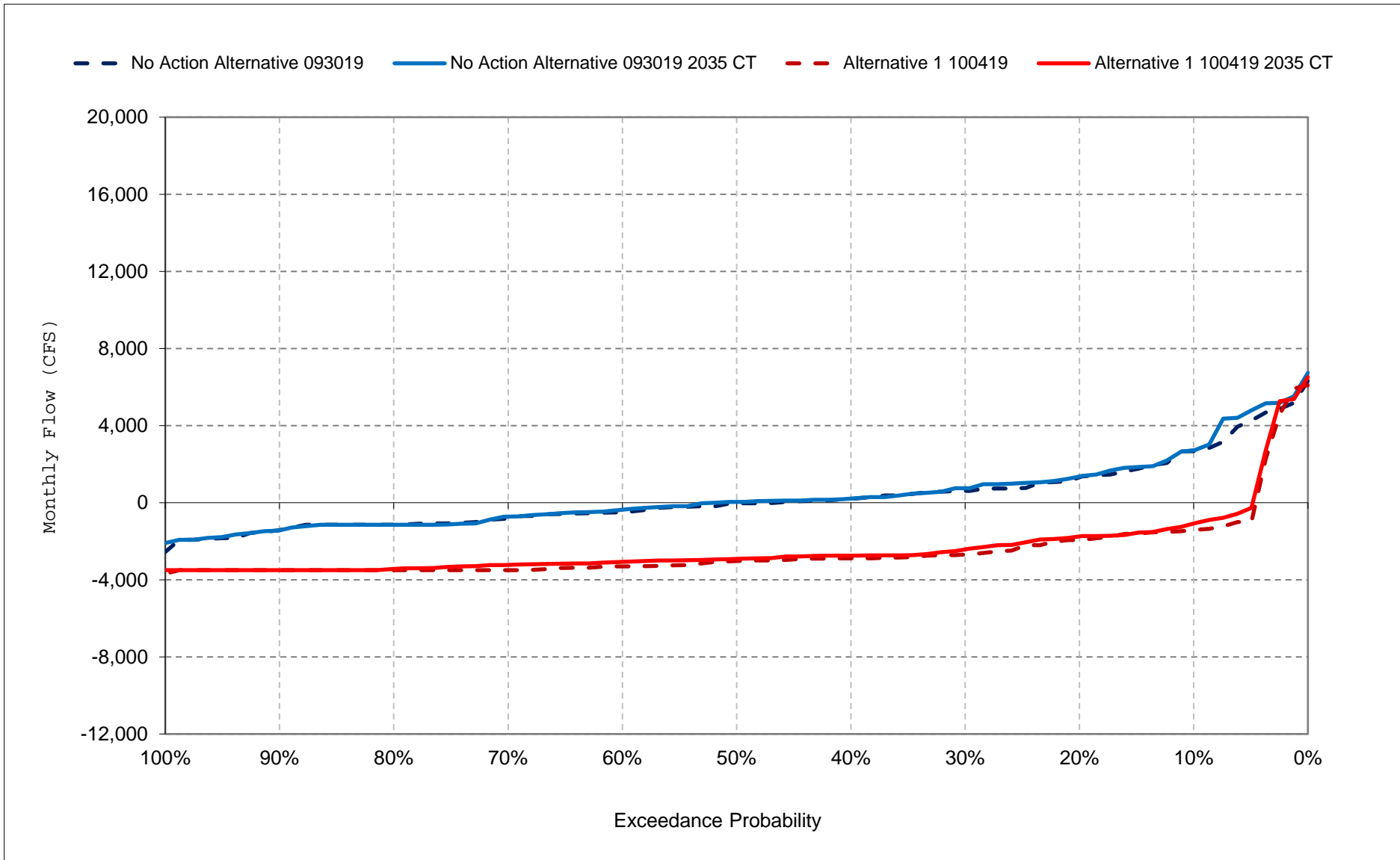
Figure 40-13. Old and Middle River Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

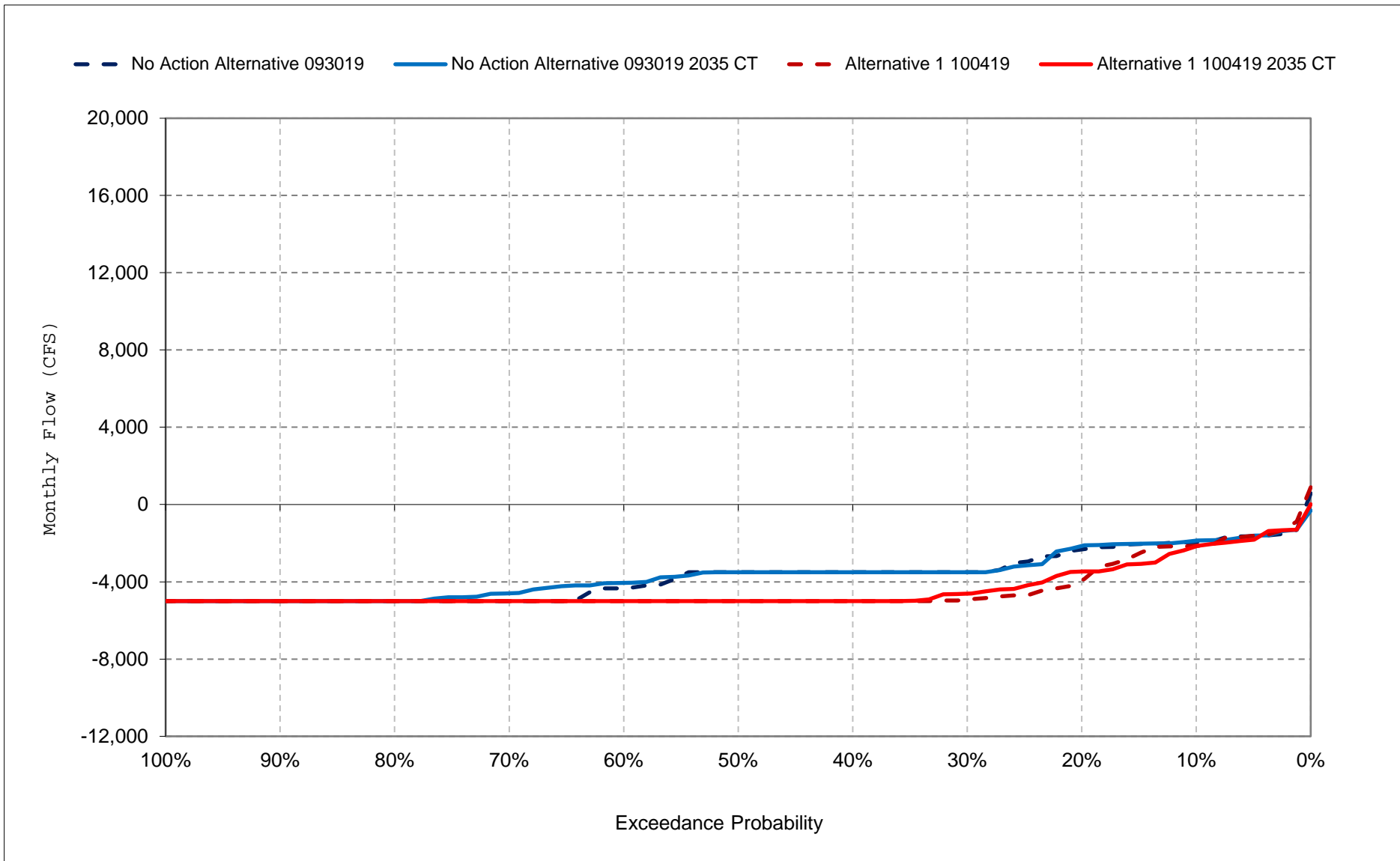
Figure 40-14. Old and Middle River Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

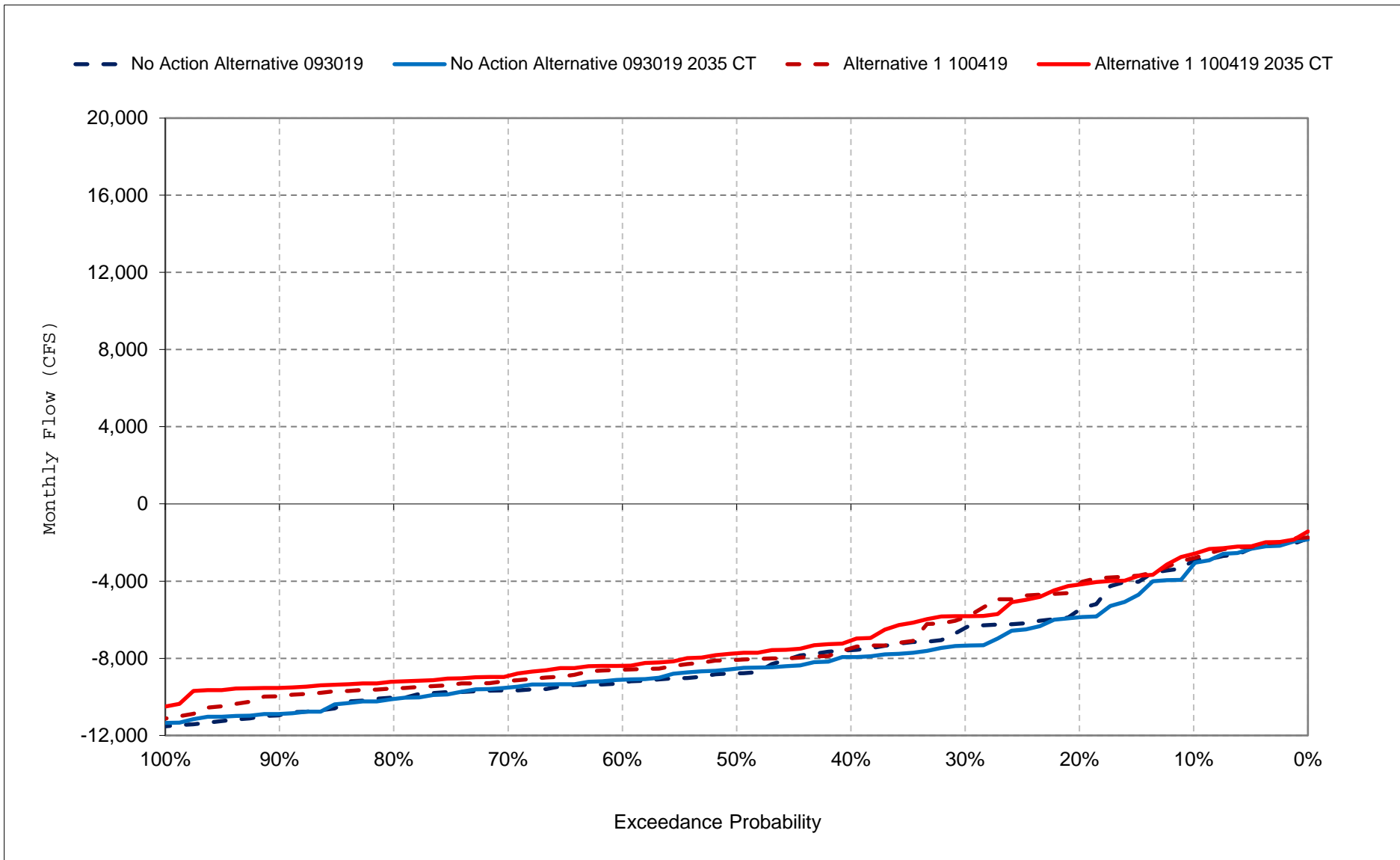
Figure 40-15. Old and Middle River Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

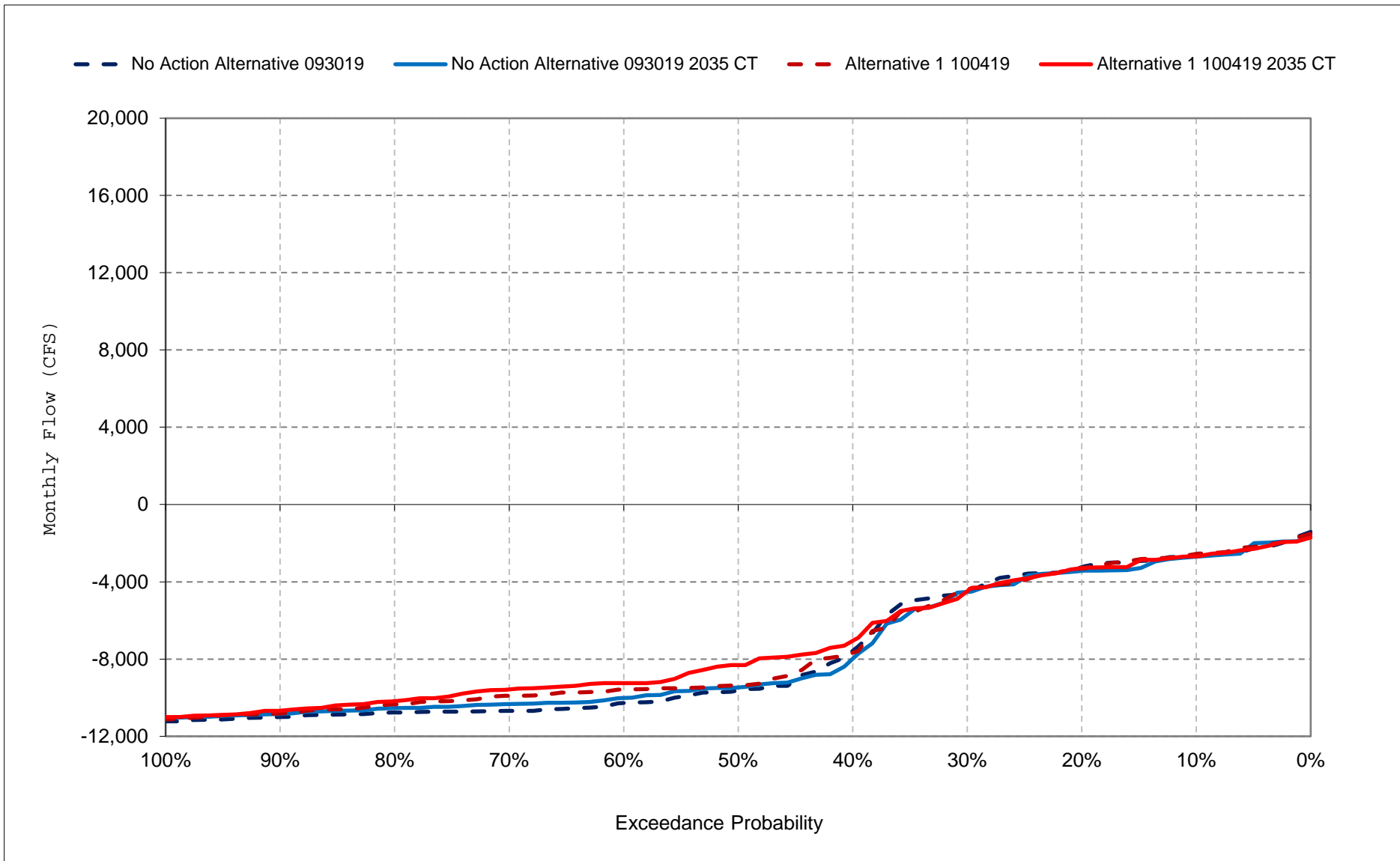
Figure 40-16. Old and Middle River Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

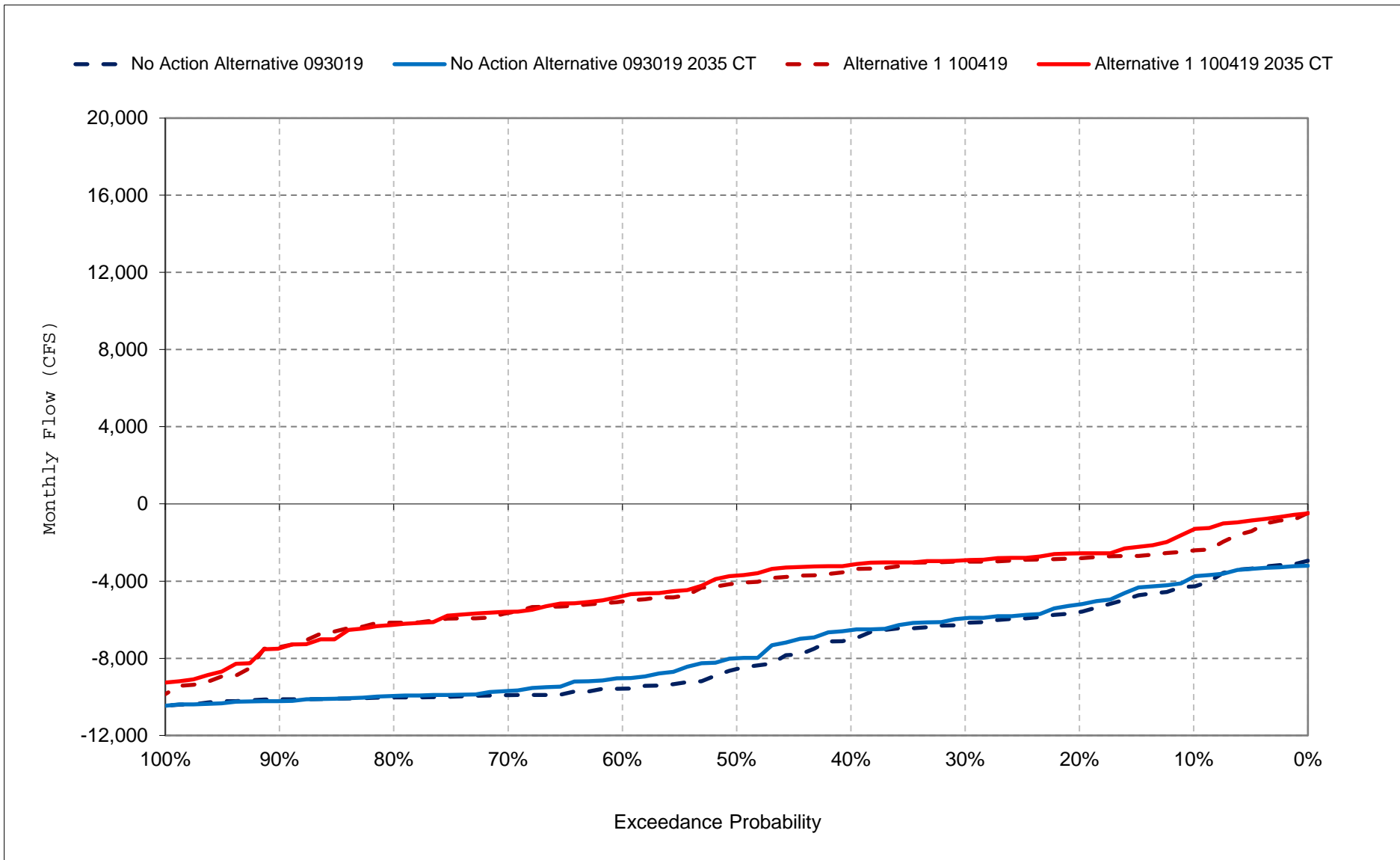
Figure 40-17. Old and Middle River Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 40-18. Old and Middle River Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-1. Delta Outflow, Monthly Outflow

No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,133	15,760	68,054	104,330	137,953	88,095	72,949	46,569	21,258	12,505	4,445	19,516
20%	9,656	14,688	34,125	70,458	87,865	67,691	50,835	30,360	10,131	11,572	4,113	19,313
30%	9,375	13,956	16,450	51,332	68,295	46,265	32,891	19,349	8,975	9,455	4,000	15,354
40%	7,469	11,757	12,532	29,119	51,291	35,091	26,989	16,139	7,676	8,000	4,000	10,938
50%	5,732	9,953	10,088	20,018	36,848	26,813	22,263	13,853	7,243	8,000	4,000	3,770
60%	4,500	6,045	6,366	16,371	24,990	19,799	16,534	11,668	7,100	6,500	4,000	3,000
70%	4,500	5,000	5,268	12,483	18,562	16,619	13,760	9,783	6,775	5,000	4,000	3,000
80%	4,500	5,000	5,000	9,229	14,864	12,429	10,854	8,556	6,044	5,000	3,892	3,000
90%	3,500	4,000	5,000	7,945	10,851	10,761	9,673	7,295	5,391	4,000	3,535	3,000
Long Term												
Full Simulation Period ^d	6,947	11,771	23,344	44,231	56,747	43,793	32,011	21,014	10,915	8,080	4,111	9,430
Water Year Types ^{b,c}												
Wet (32%)	9,942	17,964	27,364	90,233	102,483	81,643	57,636	39,191	19,063	10,717	4,468	19,039
Above Normal (16%)	7,832	12,999	17,266	49,302	67,372	52,328	34,332	19,805	7,958	11,132	4,035	11,118
Below Normal (13%)	6,658	7,067	20,085	17,038	36,772	17,576	17,971	13,328	7,343	8,171	4,096	3,342
Dry (24%)	4,706	10,054	31,865	15,520	26,067	22,423	18,157	10,887	7,272	5,064	3,942	3,049
Critical (15%)	3,500	4,201	10,002	11,845	15,590	12,186	9,940	6,863	5,809	4,000	3,714	3,000

Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,938	15,144	72,539	107,663	139,836	93,758	66,017	39,592	21,377	11,856	6,174	11,121
20%	8,625	7,074	37,911	72,594	89,133	69,130	45,588	26,980	10,857	11,083	6,174	10,740
30%	8,469	5,116	20,645	51,097	67,870	48,025	27,606	15,581	9,395	9,256	5,275	10,485
40%	8,313	5,000	12,598	29,248	55,354	35,423	23,827	12,303	8,691	8,500	4,840	9,980
50%	5,667	5,000	10,644	21,650	37,404	28,110	17,364	10,930	8,190	8,000	4,305	4,035
60%	4,500	5,000	6,783	16,963	24,358	22,798	13,798	10,424	7,590	7,000	4,000	3,000
70%	4,500	5,000	5,315	12,557	17,910	17,477	11,354	9,047	7,100	5,000	3,973	3,000
80%	4,500	5,000	5,000	9,766	14,158	13,025	9,798	7,730	6,957	5,000	3,850	3,000
90%	3,500	4,000	5,000	8,236	10,942	9,267	8,824	6,655	5,700	4,000	3,553	3,000
Long Term												
Full Simulation Period ^d	6,747	8,920	25,033	45,224	57,590	45,403	28,838	18,412	11,414	7,966	4,734	6,789
Water Year Types ^{b,c}												
Wet (32%)	8,828	11,297	30,964	92,137	104,423	83,568	52,760	34,757	19,683	10,597	5,868	10,936
Above Normal (16%)	8,775	8,899	18,922	49,993	70,112	56,774	30,005	16,440	8,842	10,662	5,342	10,527
Below Normal (13%)	6,663	6,398	20,976	17,834	38,533	19,574	15,019	11,197	8,271	8,046	4,170	3,430
Dry (24%)	4,719	10,098	32,492	15,829	24,938	23,047	16,475	9,859	7,428	5,129	3,795	3,090
Critical (15%)	3,500	4,144	10,092	12,511	14,440	11,333	9,014	6,005	5,809	4,001	3,698	3,000

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,195	-616	4,485	3,333	1,883	5,663	-6,932	-6,976	119	-649	1,729	-8,394
20%	-1,031	-7,614	3,786	2,136	1,268	1,440	-5,247	-3,380	727	-489	2,061	-8,573
30%	-906	-8,841	4,195	-235	-424	1,760	-5,285	-3,767	420	-199	1,275	-4,869
40%	844	-6,757	66	129	4,063	332	-3,161	-3,836	1,015	500	840	-958
50%	-65	-4,953	556	1,632	556	1,297	-4,899	-2,923	946	0	305	265
60%	0	-1,045	417	592	-632	2,999	-2,736	-1,244	490	500	0	0
70%	0	0	47	75	-651	857	-2,406	-737	325	0	-27	0
80%	0	0	0	536	-707	595	-1,056	-826	914	0	-42	0
90%	0	0	0	291	91	-1,494	-849	-640	309	0	17	0
Long Term												
Full Simulation Period ^d	-200	-2,851	1,690	993	842	1,610	-3,174	-2,602	499	-113	623	-2,641
Water Year Types ^{b,c}												
Wet (32%)	-1,114	-6,667	3,600	1,903	1,940	1,924	-4,876	-4,434	620	-120	1,400	-8,103
Above Normal (16%)	943	-4,100	1,656	690	2,740	4,446	-4,327	-3,365	883	-470	1,307	-591
Below Normal (13%)	4	-669	891	796	1,761	1,998	-2,952	-2,131	928	-125	74	88
Dry (24%)	14	44	626	309	-1,129	624	-1,682	-1,028	156	64	-147	41
Critical (15%)	0	-57	91	666	-1,150	-853	-925	-858	0	1	-16	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 41-2. Delta Outflow, Monthly Outflow

No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,984	15,000	72,754	114,098	147,486	95,656	77,109	37,746	12,294	13,198	4,056	19,531
20%	9,531	14,688	36,513	83,364	99,135	75,987	56,021	23,737	8,437	11,678	4,000	19,375
30%	9,375	14,209	20,554	55,843	71,006	58,639	35,127	17,769	7,477	9,803	4,000	18,219
40%	7,563	11,621	13,617	35,310	59,658	38,112	27,852	13,560	7,100	8,728	4,000	10,938
50%	4,500	9,797	11,701	25,723	44,031	29,491	21,360	11,909	7,100	8,000	4,000	3,762
60%	4,500	5,923	6,690	21,548	27,126	21,765	16,217	10,670	6,906	7,441	4,000	3,000
70%	4,500	5,000	5,155	13,108	21,971	19,000	13,417	9,582	6,585	5,000	4,000	3,000
80%	4,500	5,000	5,000	10,134	17,246	13,579	10,971	7,681	5,945	5,000	3,859	3,000
90%	3,500	4,050	5,000	9,049	13,060	11,183	9,280	7,061	5,066	4,000	3,667	3,000
Long Term												
Full Simulation Period ^d	6,838	11,607	24,394	49,579	61,288	49,128	33,401	17,905	8,743	8,208	4,037	9,449
Water Year Types ^{b,c}												
Wet (32%)	9,679	18,130	29,259	99,400	108,346	90,892	60,048	31,807	13,152	10,474	4,301	19,016
Above Normal (16%)	8,549	12,218	17,673	55,849	72,394	59,151	35,704	16,384	6,768	11,536	4,000	11,234
Below Normal (13%)	5,967	6,521	21,569	20,988	41,481	20,478	18,861	12,402	6,567	8,222	3,972	3,312
Dry (24%)	4,466	9,812	32,448	17,896	30,153	25,828	19,277	10,412	6,941	5,556	3,918	3,095
Critical (15%)	3,583	4,469	10,300	13,855	17,346	12,879	10,042	6,963	6,326	4,097	3,764	3,000

Alternative 1 100419 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,245	14,468	79,965	119,800	149,738	101,374	70,478	34,301	12,262	11,918	6,174	11,126
20%	8,625	7,626	41,294	85,540	99,960	77,497	49,630	18,065	9,419	10,424	5,400	10,786
30%	8,469	5,114	23,088	57,501	71,271	59,089	30,642	14,517	8,329	9,421	5,022	10,395
40%	8,250	5,000	14,394	35,953	63,492	40,523	23,314	11,232	7,797	8,588	4,500	9,551
50%	4,500	5,000	12,200	27,335	43,617	31,937	16,117	10,375	7,213	8,010	4,029	3,468
60%	4,500	5,000	9,492	21,242	27,306	24,204	13,475	9,174	7,100	7,382	4,000	3,000
70%	4,500	5,000	5,412	13,471	22,503	20,173	10,995	8,247	7,100	5,000	3,888	3,000
80%	4,500	5,000	5,000	10,154	17,123	13,853	10,216	7,184	6,568	5,000	3,736	3,000
90%	3,500	4,016	5,000	9,049	11,998	10,708	8,504	6,613	5,973	4,000	3,617	3,000
Long Term												
Full Simulation Period ^d	6,652	8,708	26,262	50,709	62,249	50,899	30,284	15,699	9,306	7,908	4,593	6,547
Water Year Types ^{b,c}												
Wet (32%)	8,802	11,482	32,829	101,790	110,536	92,833	55,624	28,205	13,780	9,980	5,726	10,859
Above Normal (16%)	9,098	8,051	19,637	57,182	75,727	63,844	31,200	13,362	7,807	10,842	4,806	9,393
Below Normal (13%)	6,032	5,940	22,004	22,628	43,248	22,780	16,168	10,903	7,525	7,706	3,982	3,226
Dry (24%)	4,450	9,722	33,720	17,967	28,656	26,574	17,156	9,243	7,234	5,714	3,839	3,045
Critical (15%)	3,583	4,255	10,685	13,334	16,435	12,334	9,204	6,295	6,326	4,083	3,725	3,000

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-739	-532	7,212	5,702	2,252	5,718	-6,631	-3,445	-32	-1,280	2,118	-8,405
20%	-906	-7,061	4,782	2,176	825	1,509	-6,391	-5,672	982	-1,254	1,400	-8,589
30%	-906	-9,095	2,534	1,658	265	451	-4,485	-3,252	852	-383	1,022	-7,824
40%	688	-6,621	777	643	3,834	2,411	-4,538	-2,328	697	-140	500	-1,386
50%	0	-4,797	499	1,611	-415	2,446	-5,243	-1,534	113	10	29	-294
60%	0	-923	2,802	-306	180	2,439	-2,743	-1,496	194	-59	0	0
70%	0	0	257	363	532	1,173	-2,422	-1,336	515	0	-112	0
80%	0	0	0	20	-122	275	-755	-496	623	0	-122	0
90%	0	-34	0	0	-1,063	-475	-776	-448	907	0	-50	0
Long Term												
Full Simulation Period ^d	-186	-2,900	1,868	1,130	961	1,771	-3,118	-2,205	564	-299	556	-2,902
Water Year Types ^{b,c}												
Wet (32%)	-877	-6,648	3,569	2,390	2,190	1,942	-4,424	-3,603	628	-494	1,425	-8,157
Above Normal (16%)	550	-4,166	1,965	1,333	3,332	4,693	-4,504	-3,021	1,039	-694	806	-1,841
Below Normal (13%)	65	-580	435	1,640	1,767	2,302	-2,693	-1,499	958	-516	10	-86
Dry (24%)	-16	-90	1,272	71	-1,497	746	-2,121	-1,169	293	158	-79	-50
Critical (15%)	0	-214	385	-521	-911	-544	-838	-668	0	-13	-39	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-3. Delta Outflow, Monthly Outflow

No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,133	15,760	68,054	104,330	137,953	88,095	72,949	46,569	21,258	12,505	4,445	19,516
20%	9,656	14,688	34,125	70,458	87,865	67,691	50,835	30,360	10,131	11,572	4,113	19,313
30%	9,375	13,956	16,450	51,332	68,295	46,265	32,891	19,349	8,975	9,455	4,000	15,354
40%	7,469	11,757	12,532	29,119	51,291	35,091	26,989	16,139	7,676	8,000	4,000	10,938
50%	5,732	9,953	10,088	20,018	36,848	26,813	22,263	13,853	7,243	8,000	4,000	3,770
60%	4,500	6,045	6,366	16,371	24,990	19,799	16,534	11,668	7,100	6,500	4,000	3,000
70%	4,500	5,000	5,268	12,483	18,562	16,619	13,760	9,783	6,775	5,000	4,000	3,000
80%	4,500	5,000	5,000	9,229	14,864	12,429	10,854	8,556	6,044	5,000	3,892	3,000
90%	3,500	4,000	5,000	7,945	10,851	10,761	9,673	7,295	5,391	4,000	3,535	3,000
Long Term												
Full Simulation Period ^d	6,947	11,771	23,344	44,231	56,747	43,793	32,011	21,014	10,915	8,080	4,111	9,430
Water Year Types ^{b,c}												
Wet (32%)	9,942	17,964	27,364	90,233	102,483	81,643	57,636	39,191	19,063	10,717	4,468	19,039
Above Normal (16%)	7,832	12,999	17,266	49,302	67,372	52,328	34,332	19,805	7,958	11,132	4,035	11,118
Below Normal (13%)	6,658	7,067	20,085	17,038	36,772	17,576	17,971	13,328	7,343	8,171	4,096	3,342
Dry (24%)	4,706	10,054	31,865	15,520	26,067	22,423	18,157	10,887	7,272	5,064	3,942	3,049
Critical (15%)	3,500	4,201	10,002	11,845	15,590	12,186	9,940	6,863	5,809	4,000	3,714	3,000

No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,984	15,000	72,754	114,098	147,486	95,656	77,109	37,746	12,294	13,198	4,056	19,531
20%	9,531	14,688	36,513	83,364	99,135	75,987	56,021	23,737	8,437	11,678	4,000	19,375
30%	9,375	14,209	20,554	55,843	71,006	58,639	35,127	17,769	7,477	9,803	4,000	18,219
40%	7,563	11,621	13,617	35,310	59,658	38,112	27,852	13,560	7,100	8,728	4,000	10,938
50%	4,500	9,797	11,701	25,723	44,031	29,491	21,360	11,909	7,100	8,000	4,000	3,762
60%	4,500	5,923	6,690	21,548	27,126	21,765	16,217	10,670	6,906	7,441	4,000	3,000
70%	4,500	5,000	5,155	13,108	21,971	19,000	13,417	9,582	6,585	5,000	4,000	3,000
80%	4,500	5,000	5,000	10,134	17,246	13,579	10,971	7,681	5,945	5,000	3,859	3,000
90%	3,500	4,050	5,000	9,049	13,060	11,183	9,280	7,061	5,066	4,000	3,667	3,000
Long Term												
Full Simulation Period ^d	6,838	11,607	24,394	49,579	61,288	49,128	33,401	17,905	8,743	8,208	4,037	9,449
Water Year Types ^{b,c}												
Wet (32%)	9,679	18,130	29,259	99,400	108,346	90,892	60,048	31,807	13,152	10,474	4,301	19,016
Above Normal (16%)	8,549	12,218	17,673	55,849	72,394	59,151	35,704	16,384	6,768	11,536	4,000	11,234
Below Normal (13%)	5,967	6,521	21,569	20,988	41,481	20,478	18,861	12,402	6,567	8,222	3,972	3,312
Dry (24%)	4,466	9,812	32,448	17,896	30,153	25,828	19,277	10,412	6,941	5,556	3,918	3,095
Critical (15%)	3,583	4,469	10,300	13,855	17,346	12,879	10,042	6,963	6,326	4,097	3,764	3,000

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-148	-760	4,700	9,767	9,533	7,561	4,160	-8,823	-8,964	693	-389	16
20%	-125	0	2,388	12,906	11,271	8,296	5,186	-6,624	-1,694	105	-113	63
30%	0	253	4,104	4,510	2,712	12,373	2,236	-1,580	-1,499	348	0	2,865
40%	94	-136	1,085	6,190	8,367	3,021	864	-2,580	-576	728	0	0
50%	-1,232	-156	1,613	5,705	7,183	2,679	-903	-1,944	-143	0	0	-8
60%	0	-122	324	5,177	2,136	1,966	-316	-998	-194	941	0	0
70%	0	0	-114	625	3,409	2,381	-343	-201	-190	0	0	0
80%	0	0	0	905	2,382	1,150	117	-875	-99	0	-34	0
90%	0	50	0	1,105	2,209	422	-393	-235	-325	0	131	0
Long Term												
Full Simulation Period ^d	-109	-164	1,050	5,348	4,541	5,335	1,390	-3,109	-2,172	128	-74	18
Water Year Types ^{b,c}												
Wet (32%)	-263	166	1,896	9,167	5,863	9,248	2,412	-7,383	-5,911	-242	-167	-23
Above Normal (16%)	717	-781	406	6,546	5,023	6,823	1,372	-3,421	-1,190	405	-35	116
Below Normal (13%)	-691	-546	1,483	3,950	4,709	2,901	890	-926	-776	50	-124	-29
Dry (24%)	-239	-241	583	2,376	4,086	3,405	1,120	-476	-331	492	-24	46
Critical (15%)	83	268	298	2,011	1,756	693	102	100	517	97	50	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-4. Delta Outflow, Monthly Outflow

Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,938	15,144	72,539	107,663	139,836	93,758	66,017	39,592	21,377	11,856	6,174	11,121
20%	8,625	7,074	37,911	72,594	89,133	69,130	45,588	26,980	10,857	11,083	6,174	10,740
30%	8,469	5,116	20,645	51,097	67,870	48,025	27,606	15,581	9,395	9,256	5,275	10,485
40%	8,313	5,000	12,598	29,248	55,354	35,423	23,827	12,303	8,691	8,500	4,840	9,980
50%	5,667	5,000	10,644	21,650	37,404	28,110	17,364	10,930	8,190	8,000	4,305	4,035
60%	4,500	5,000	6,783	16,963	24,358	22,798	13,798	10,424	7,590	7,000	4,000	3,000
70%	4,500	5,000	5,315	12,557	17,910	17,477	11,354	9,047	7,100	5,000	3,973	3,000
80%	4,500	5,000	5,000	9,766	14,158	13,025	9,798	7,730	6,957	5,000	3,850	3,000
90%	3,500	4,000	5,000	8,236	10,942	9,267	8,824	6,655	5,700	4,000	3,553	3,000
Long Term												
Full Simulation Period ^d	6,747	8,920	25,033	45,224	57,590	45,403	28,838	18,412	11,414	7,966	4,734	6,789
Water Year Types ^{b,c}												
Wet (32%)	8,828	11,297	30,964	92,137	104,423	83,568	52,760	34,757	19,683	10,597	5,868	10,936
Above Normal (16%)	8,775	8,899	18,922	49,993	70,112	56,774	30,005	16,440	8,842	10,662	5,342	10,527
Below Normal (13%)	6,663	6,398	20,976	17,834	38,533	19,574	15,019	11,197	8,271	8,046	4,170	3,430
Dry (24%)	4,719	10,098	32,492	15,829	24,938	23,047	16,475	9,859	7,428	5,129	3,795	3,090
Critical (15%)	3,500	4,144	10,092	12,511	14,440	11,333	9,014	6,005	5,809	4,001	3,698	3,000

Alternative 1 100419 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,245	14,468	79,965	119,800	149,738	101,374	70,478	34,301	12,262	11,918	6,174	11,126
20%	8,625	7,626	41,294	85,540	99,960	77,497	49,630	18,065	9,419	10,424	5,400	10,786
30%	8,469	5,114	23,088	57,501	71,271	59,089	30,642	14,517	8,329	9,421	5,022	10,395
40%	8,250	5,000	14,394	35,953	63,492	40,523	23,314	11,232	7,797	8,588	4,500	9,551
50%	4,500	5,000	12,200	27,335	43,617	31,937	16,117	10,375	7,213	8,010	4,029	3,468
60%	4,500	5,000	9,492	21,242	27,306	24,204	13,475	9,174	7,100	7,382	4,000	3,000
70%	4,500	5,000	5,412	13,471	22,503	20,173	10,995	8,247	7,100	5,000	3,888	3,000
80%	4,500	5,000	5,000	10,154	17,123	13,853	10,216	7,184	6,568	5,000	3,736	3,000
90%	3,500	4,016	5,000	9,049	11,998	10,708	8,504	6,613	5,973	4,000	3,617	3,000
Long Term												
Full Simulation Period ^d	6,652	8,708	26,262	50,709	62,249	50,899	30,284	15,699	9,306	7,908	4,593	6,547
Water Year Types ^{b,c}												
Wet (32%)	8,802	11,482	32,829	101,790	110,536	92,833	55,624	28,205	13,780	9,980	5,726	10,859
Above Normal (16%)	9,098	8,051	19,637	57,182	75,727	63,844	31,200	13,362	7,807	10,842	4,806	9,393
Below Normal (13%)	6,032	5,940	22,004	22,628	43,248	22,780	16,168	10,903	7,525	7,706	3,982	3,226
Dry (24%)	4,450	9,722	33,720	17,967	28,656	26,574	17,156	9,243	7,234	5,714	3,839	3,045
Critical (15%)	3,583	4,255	10,685	13,334	16,435	12,334	9,204	6,295	6,326	4,083	3,725	3,000

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	307	-676	7,426	12,137	9,903	7,616	4,461	-5,292	-9,115	62	0	5
20%	0	553	3,383	12,947	10,827	8,366	4,042	-8,916	-1,438	-660	-774	46
30%	0	-2	2,443	6,403	3,400	11,064	3,037	-1,065	-1,066	164	-253	-90
40%	-63	0	1,795	6,705	8,139	5,100	-513	-1,072	-894	88	-340	-429
50%	-1,167	0	1,557	5,684	6,212	3,828	-1,247	-555	-977	10	-276	-567
60%	0	0	2,709	4,279	2,948	1,406	-323	-1,250	-490	382	0	0
70%	0	0	96	913	4,592	2,696	-359	-800	0	0	-85	0
80%	0	0	0	388	2,966	829	418	-546	-389	0	-114	0
90%	0	16	0	814	1,055	1,441	-320	-42	273	0	64	0
Long Term												
Full Simulation Period ^d	-95	-212	1,229	5,486	4,660	5,495	1,446	-2,713	-2,107	-58	-140	-243
Water Year Types ^{b,c}												
Wet (32%)	-26	185	1,865	9,653	6,113	9,266	2,864	-6,552	-5,903	-616	-142	-77
Above Normal (16%)	323	-848	715	7,189	5,615	7,070	1,195	-3,077	-1,034	180	-536	-1,134
Below Normal (13%)	-630	-458	1,027	4,794	4,715	3,205	1,150	-294	-746	-340	-188	-203
Dry (24%)	-269	-375	1,229	2,138	3,718	3,527	681	-616	-194	585	44	-45
Critical (15%)	83	111	592	823	1,995	1,001	190	290	517	82	28	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

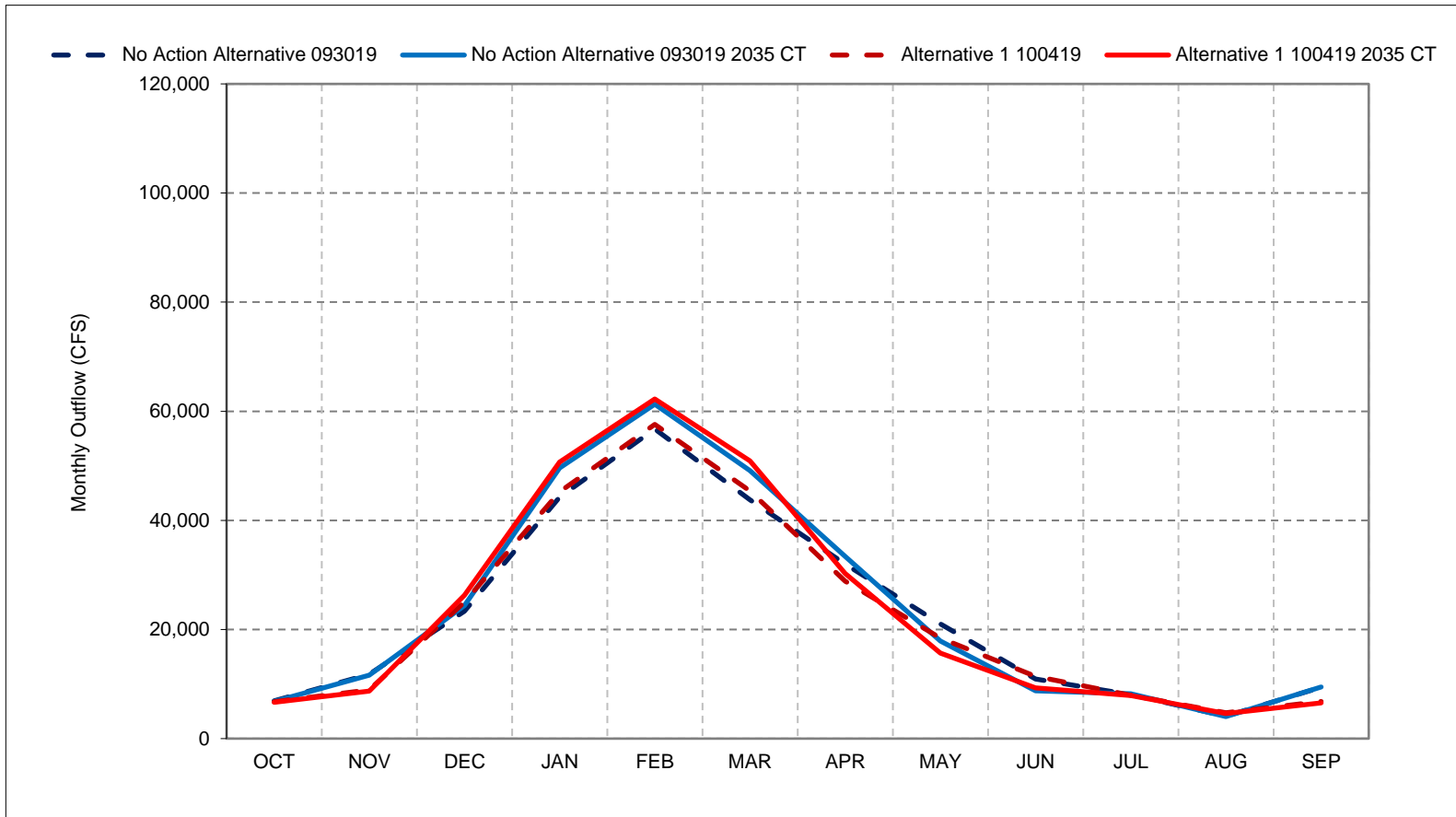
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 41-1. Delta Outflow, Long-Term Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

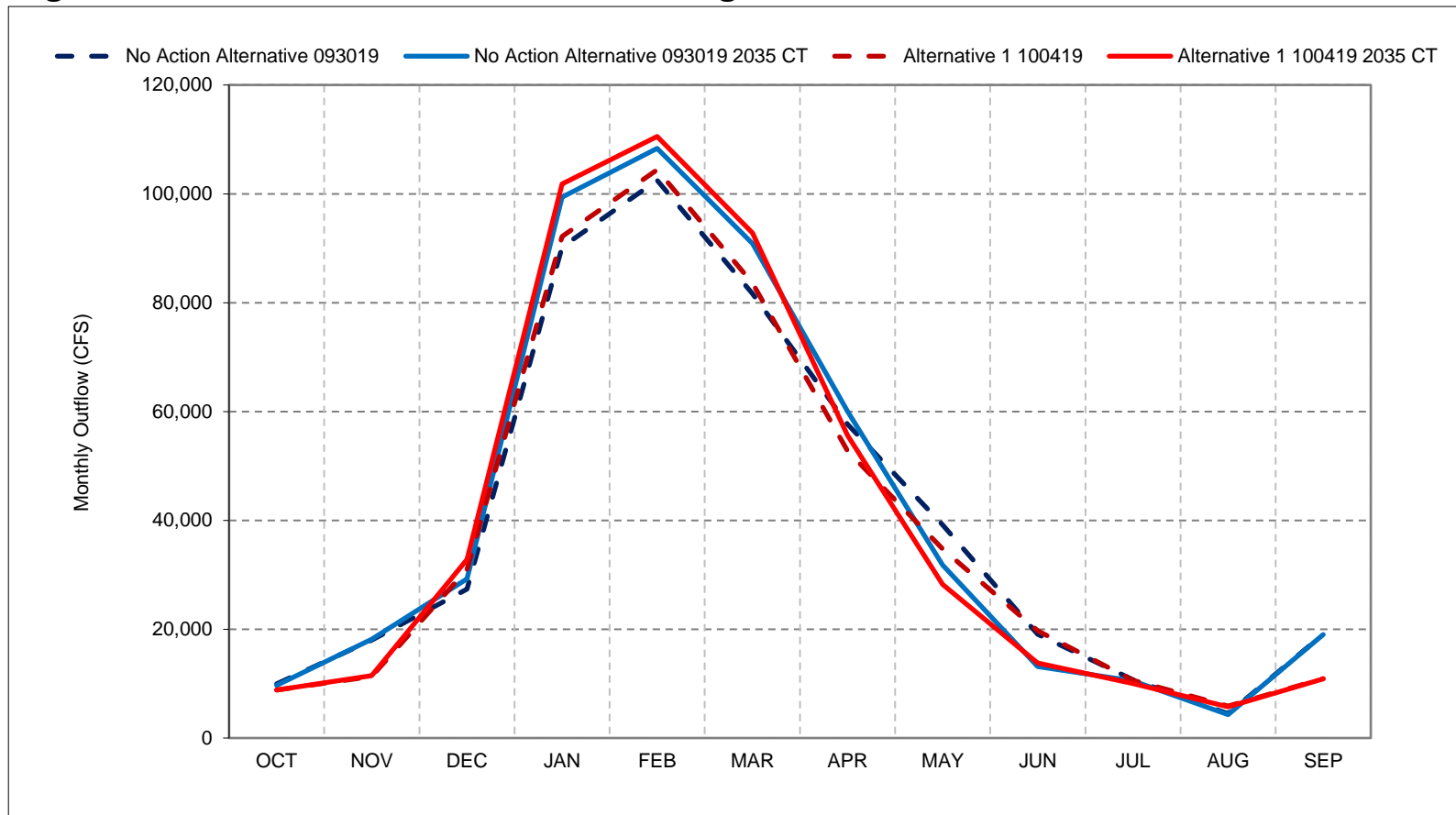
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-2. Delta Outflow, Wet Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

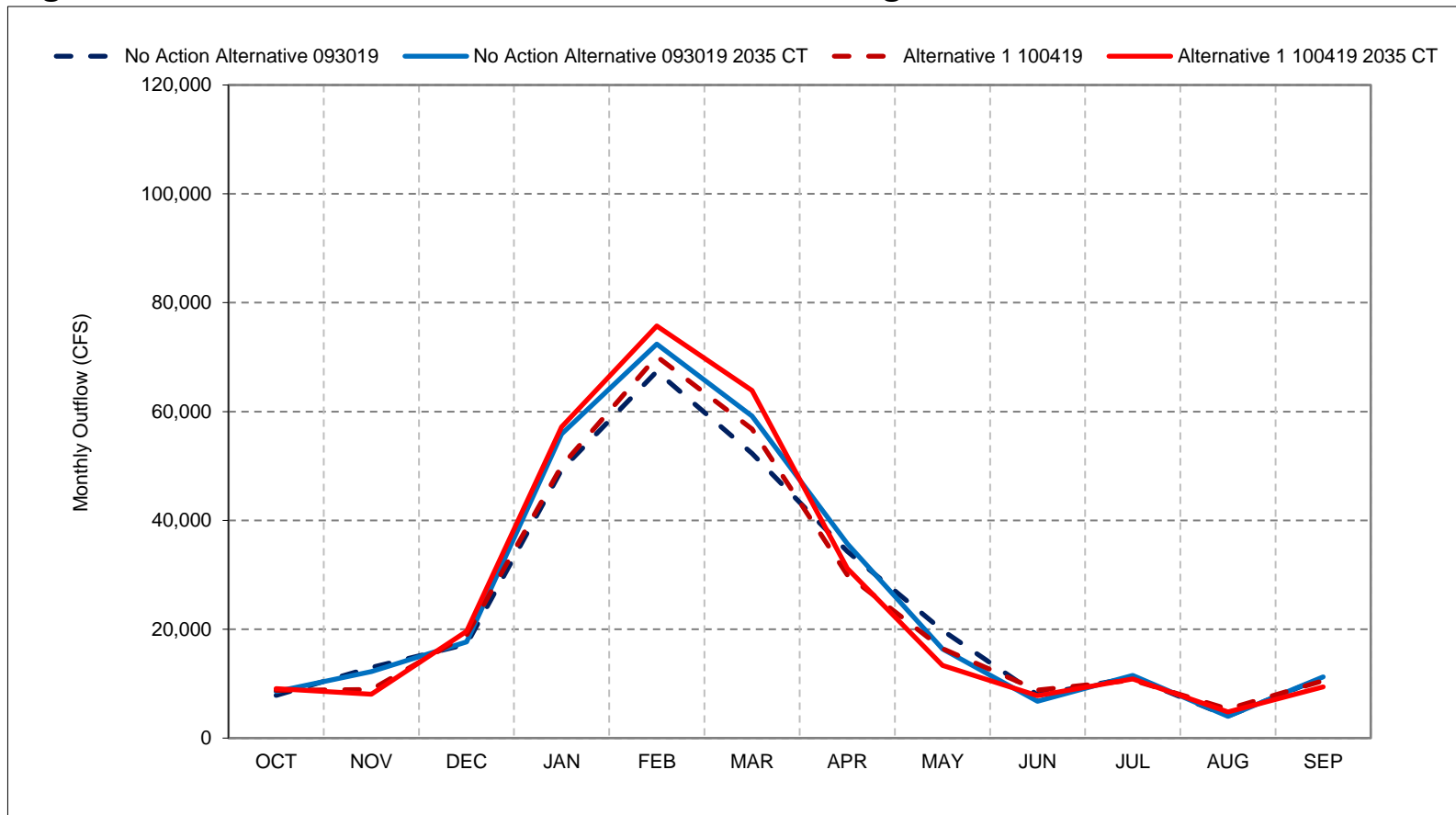
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-3. Delta Outflow, Above Normal Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

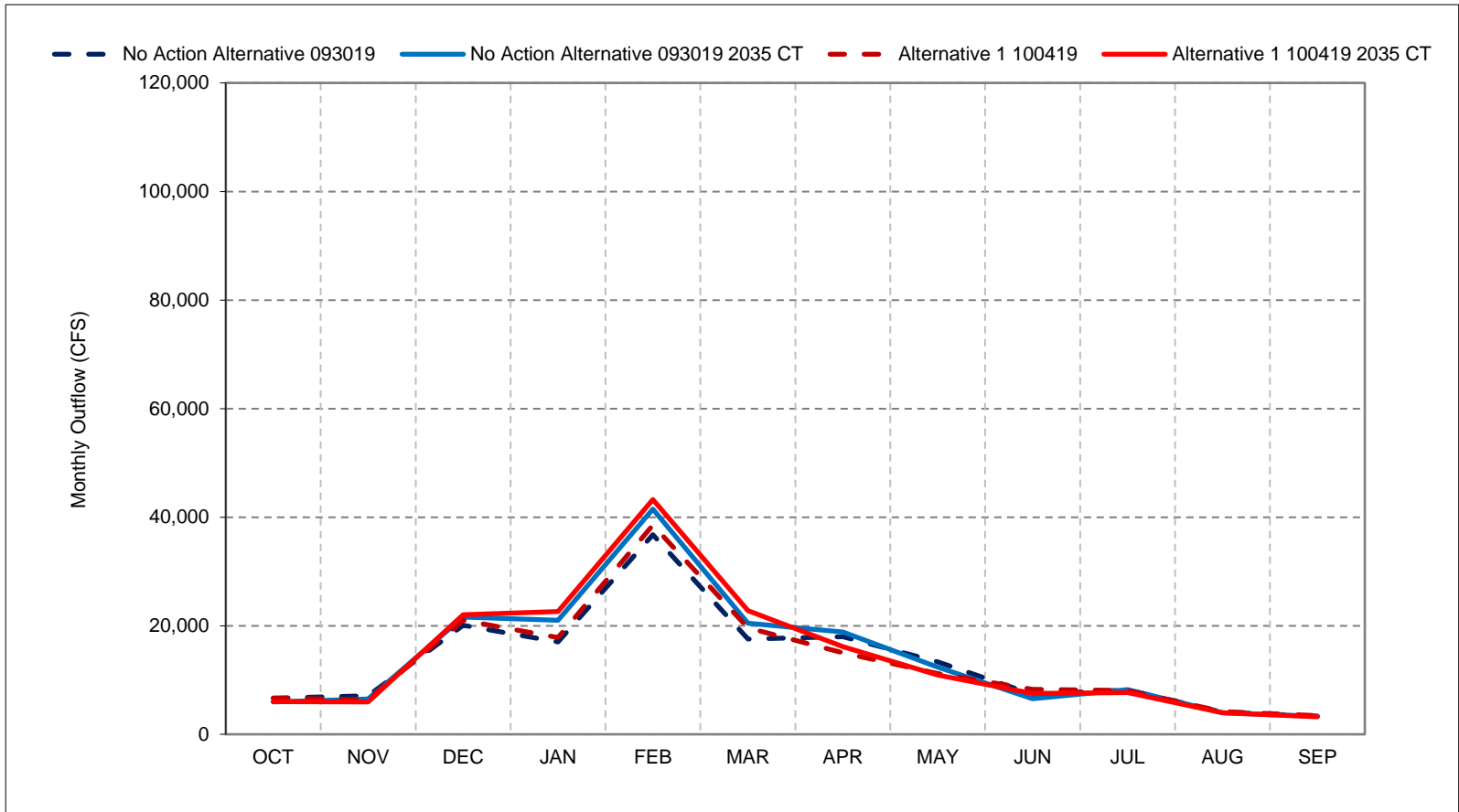
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-4. Delta Outflow, Below Normal Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

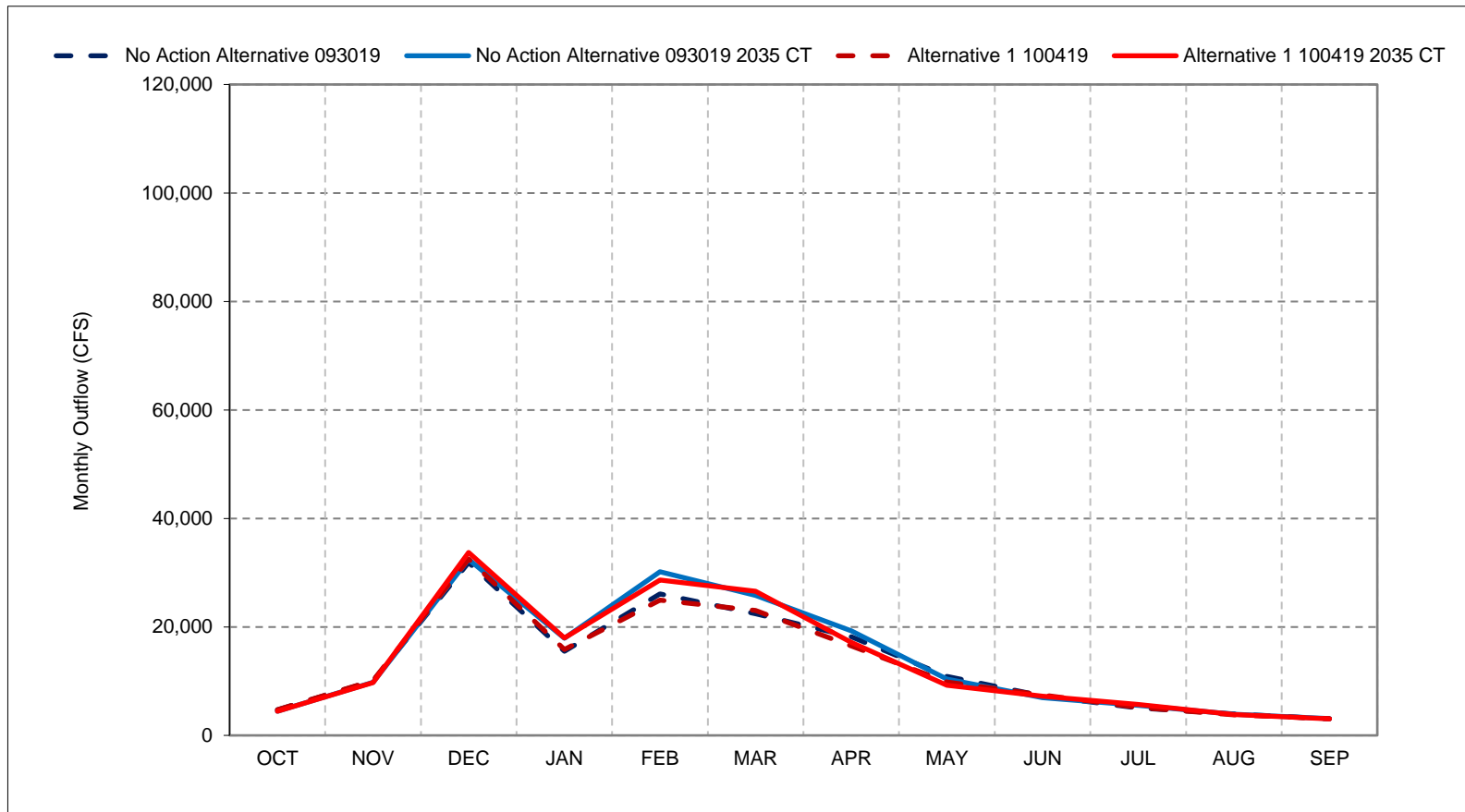
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-5. Delta Outflow, Dry Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

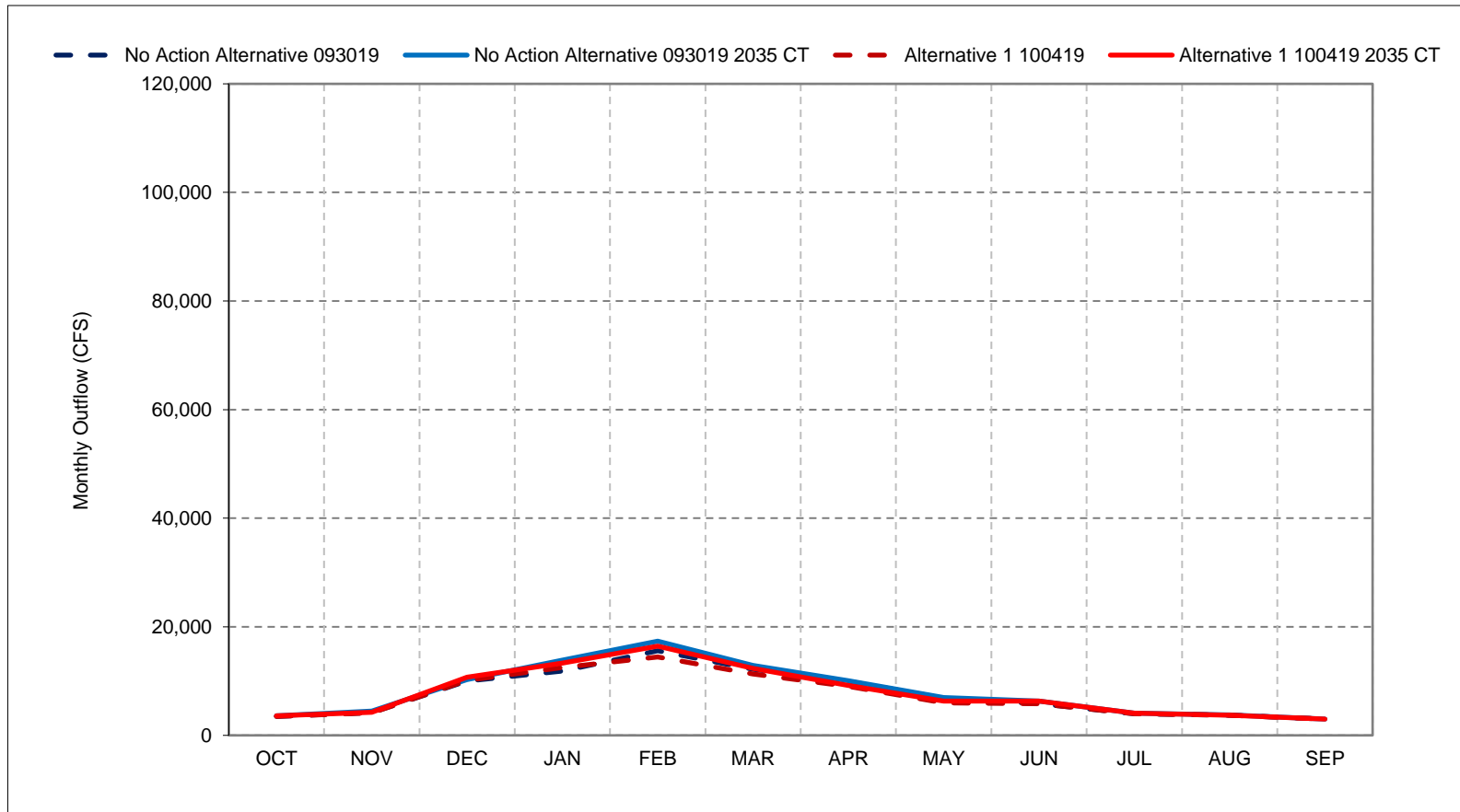
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-6. Delta Outflow, Critical Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

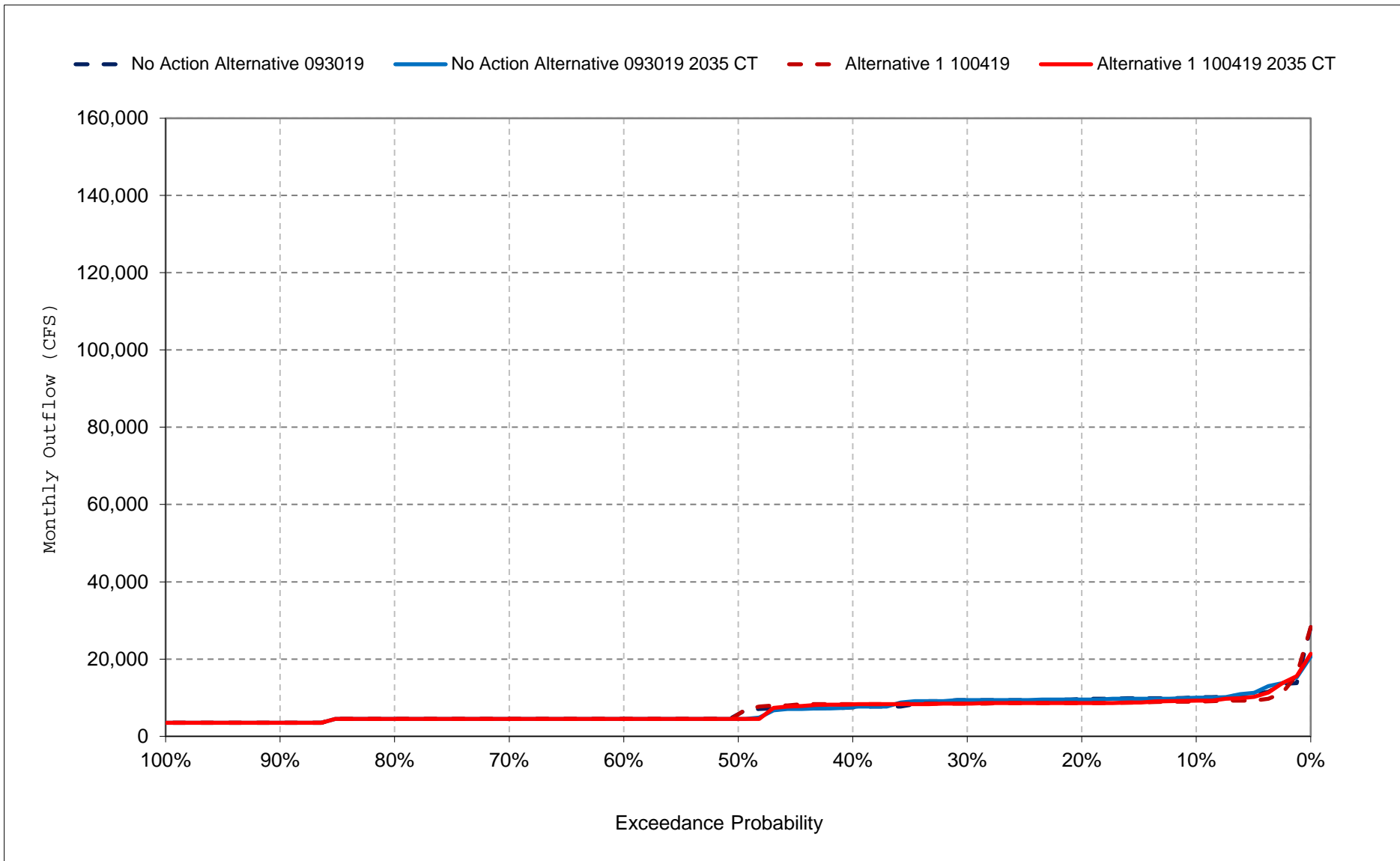
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

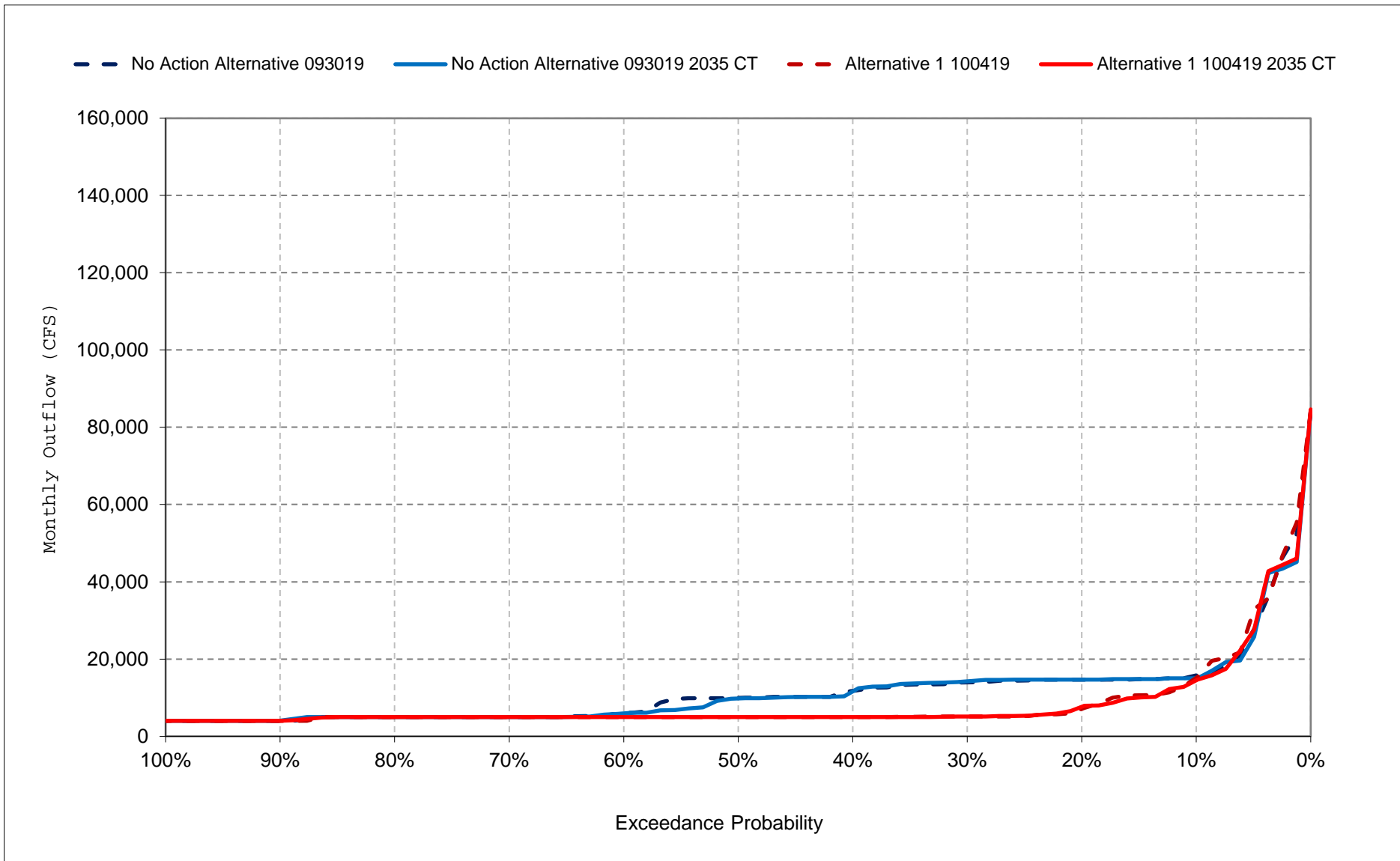
Figure 41-7. Delta Outflow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

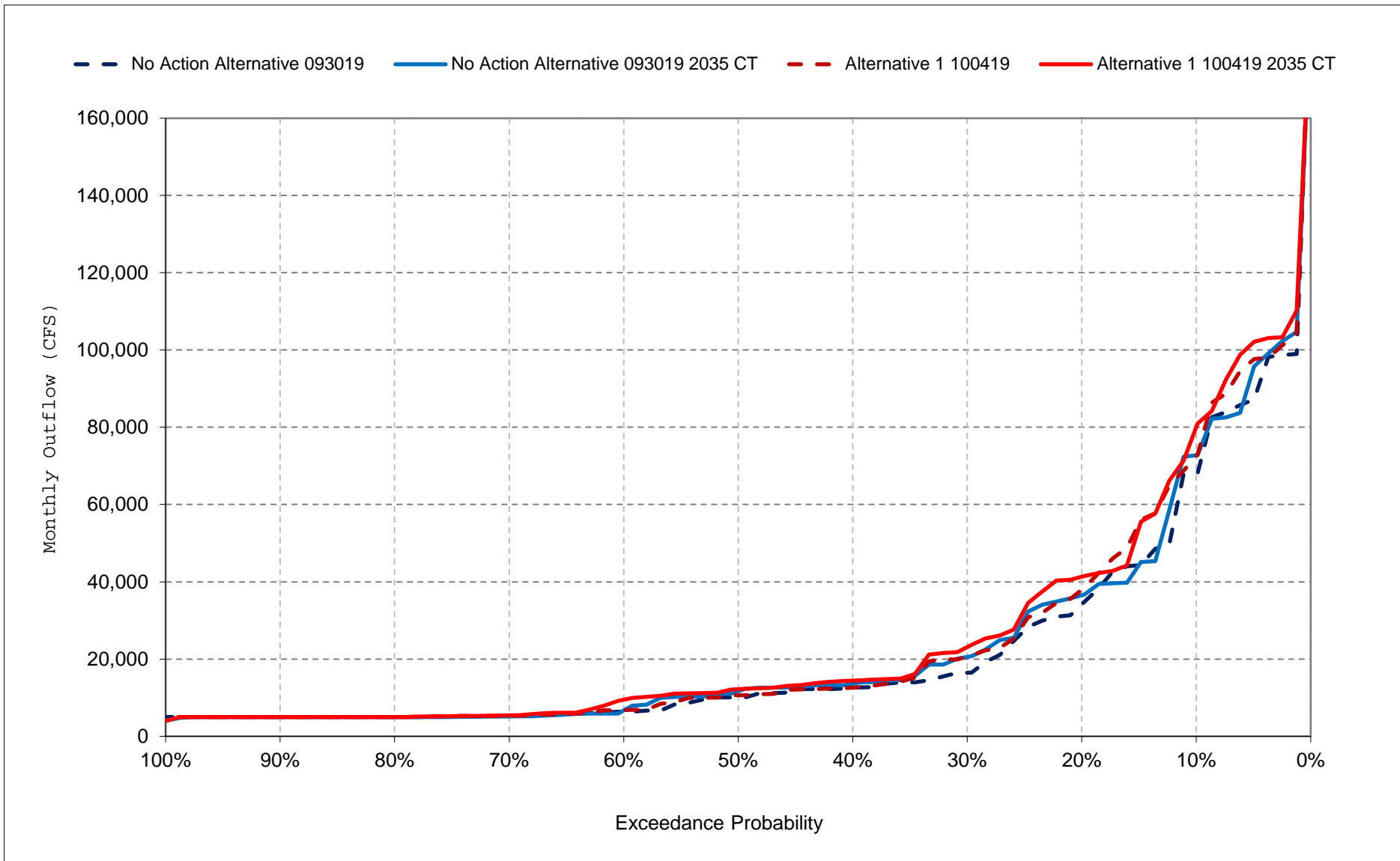
Figure 41-8. Delta Outflow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

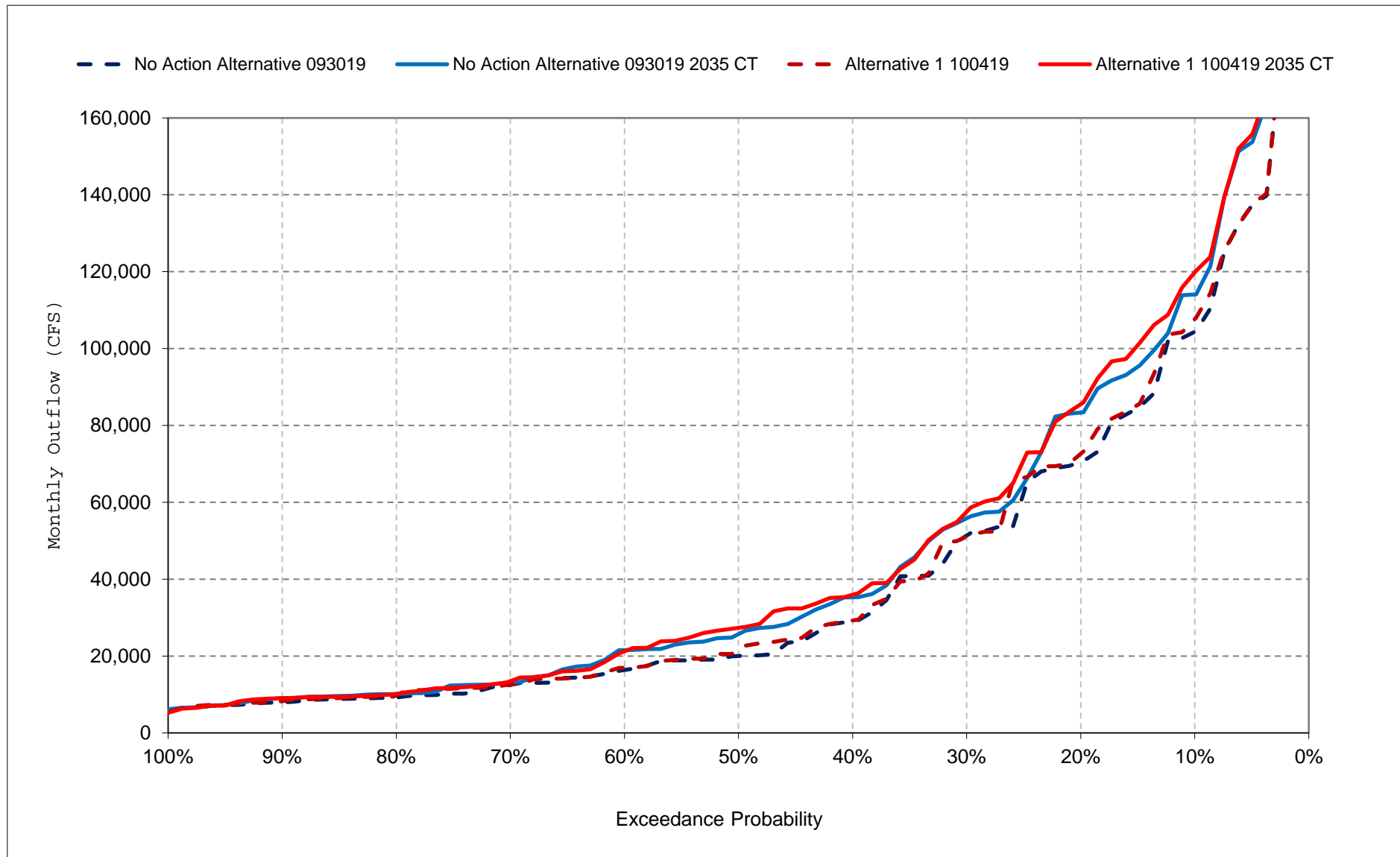
Figure 41-9. Delta Outflow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

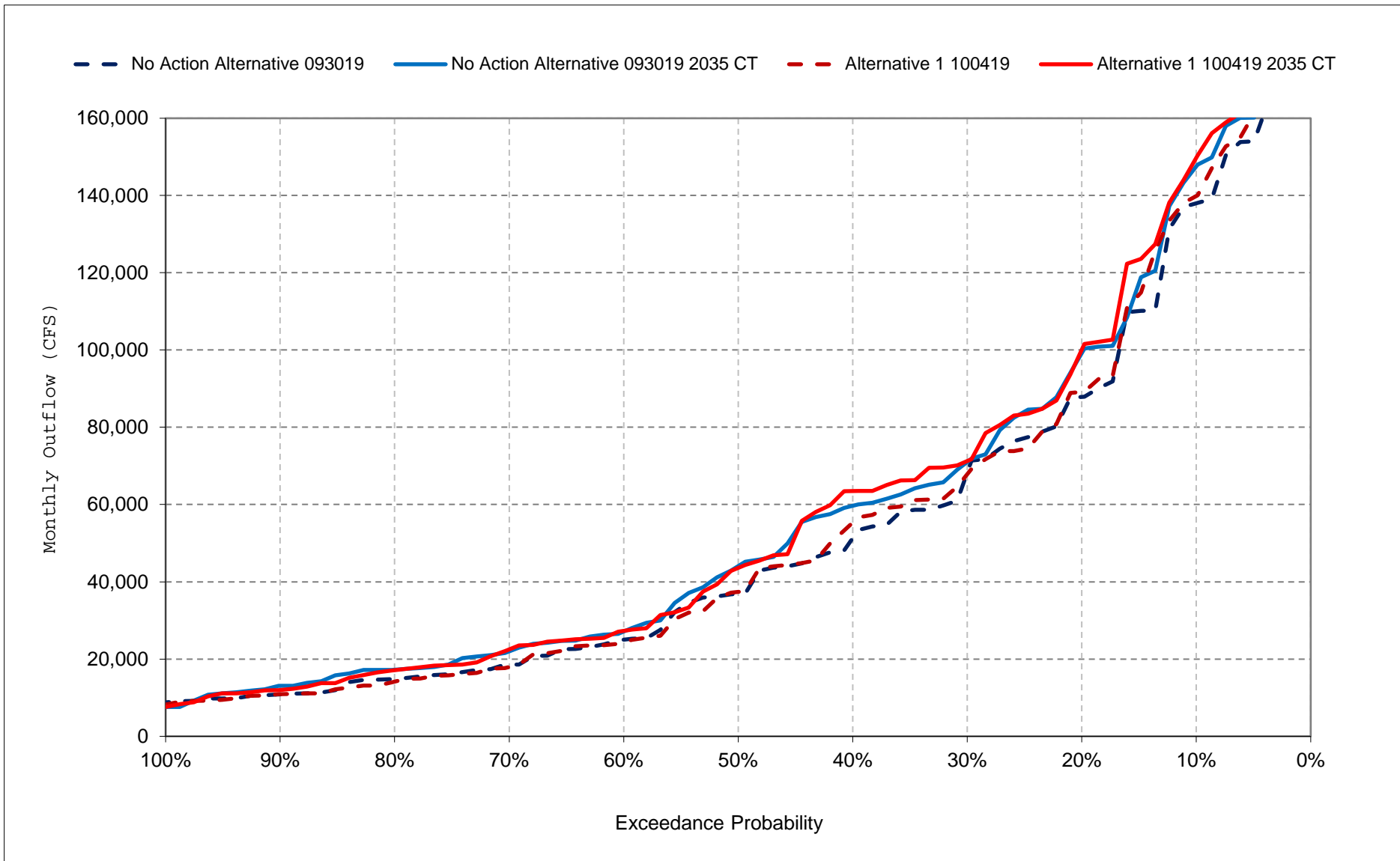
Figure 41-10. Delta Outflow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

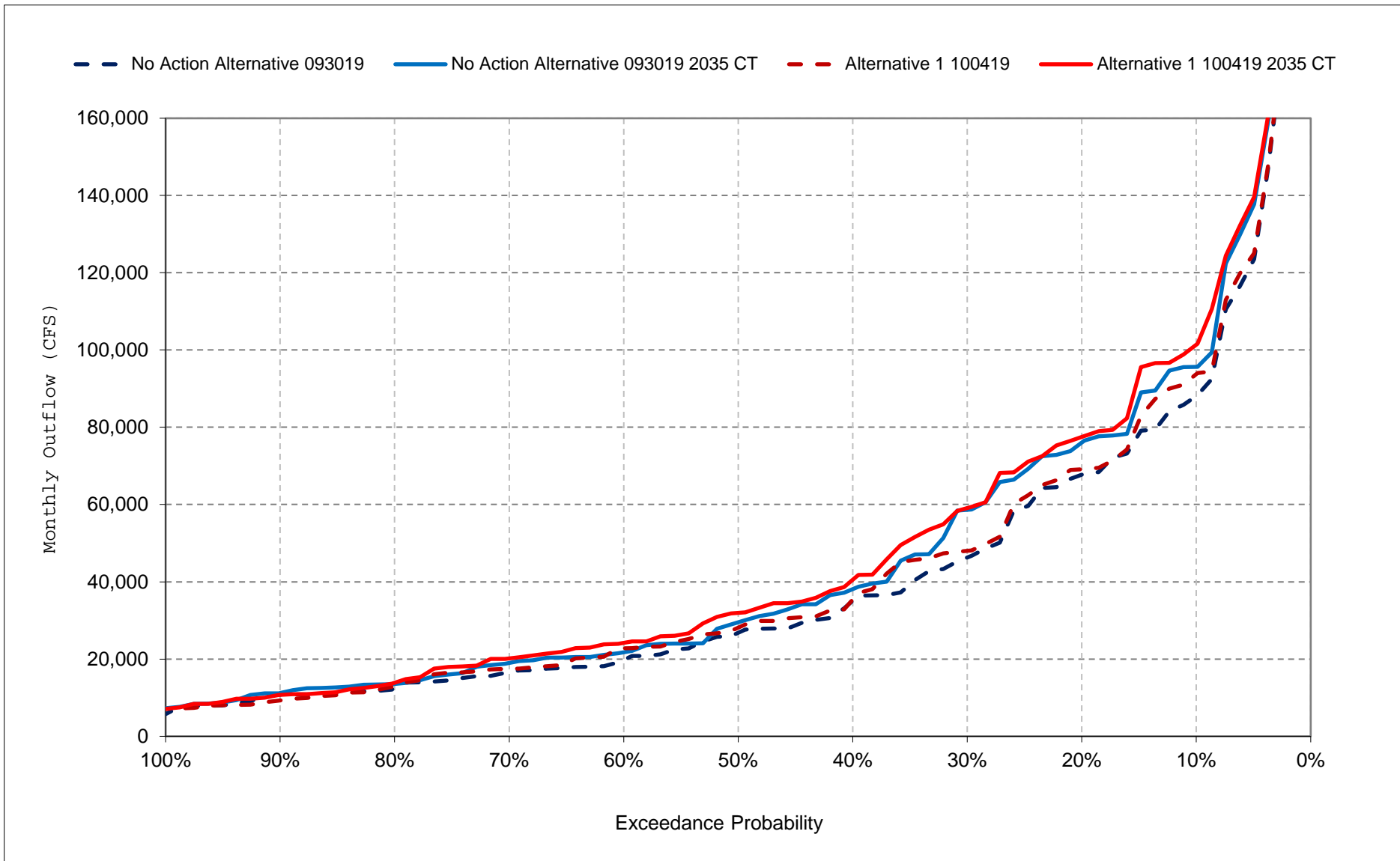
Figure 41-11. Delta Outflow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

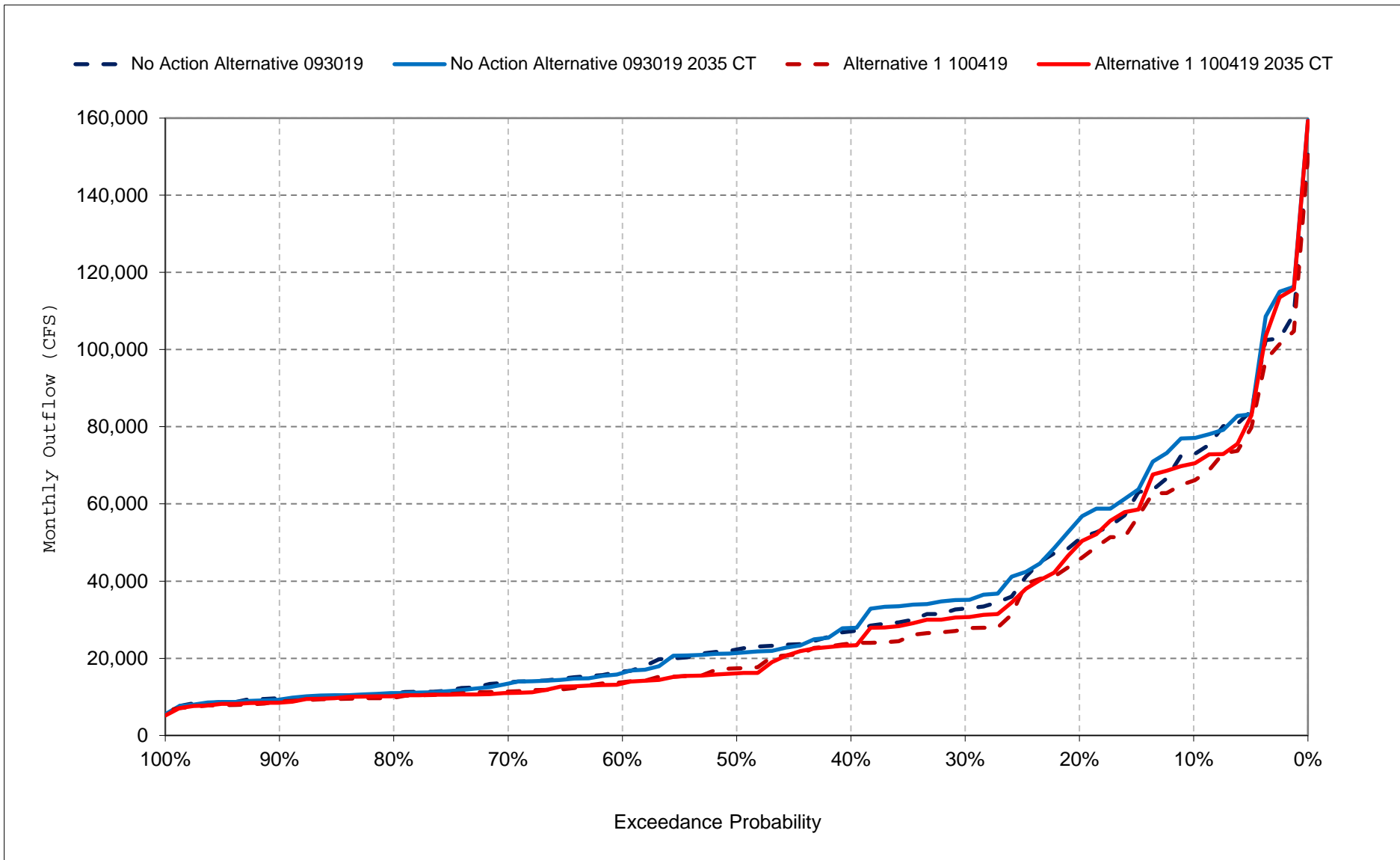
Figure 41-12. Delta Outflow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

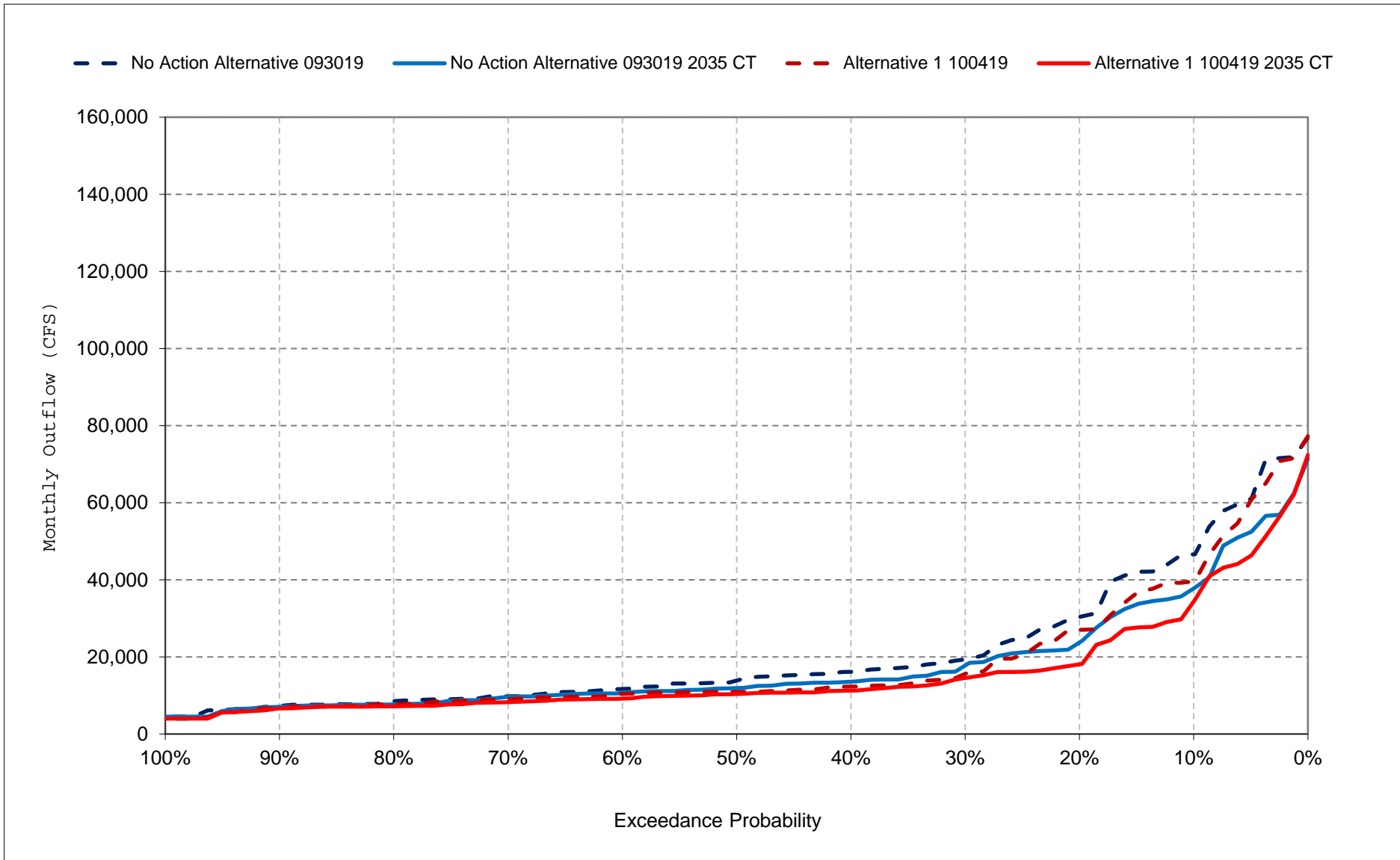
Figure 41-13. Delta Outflow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

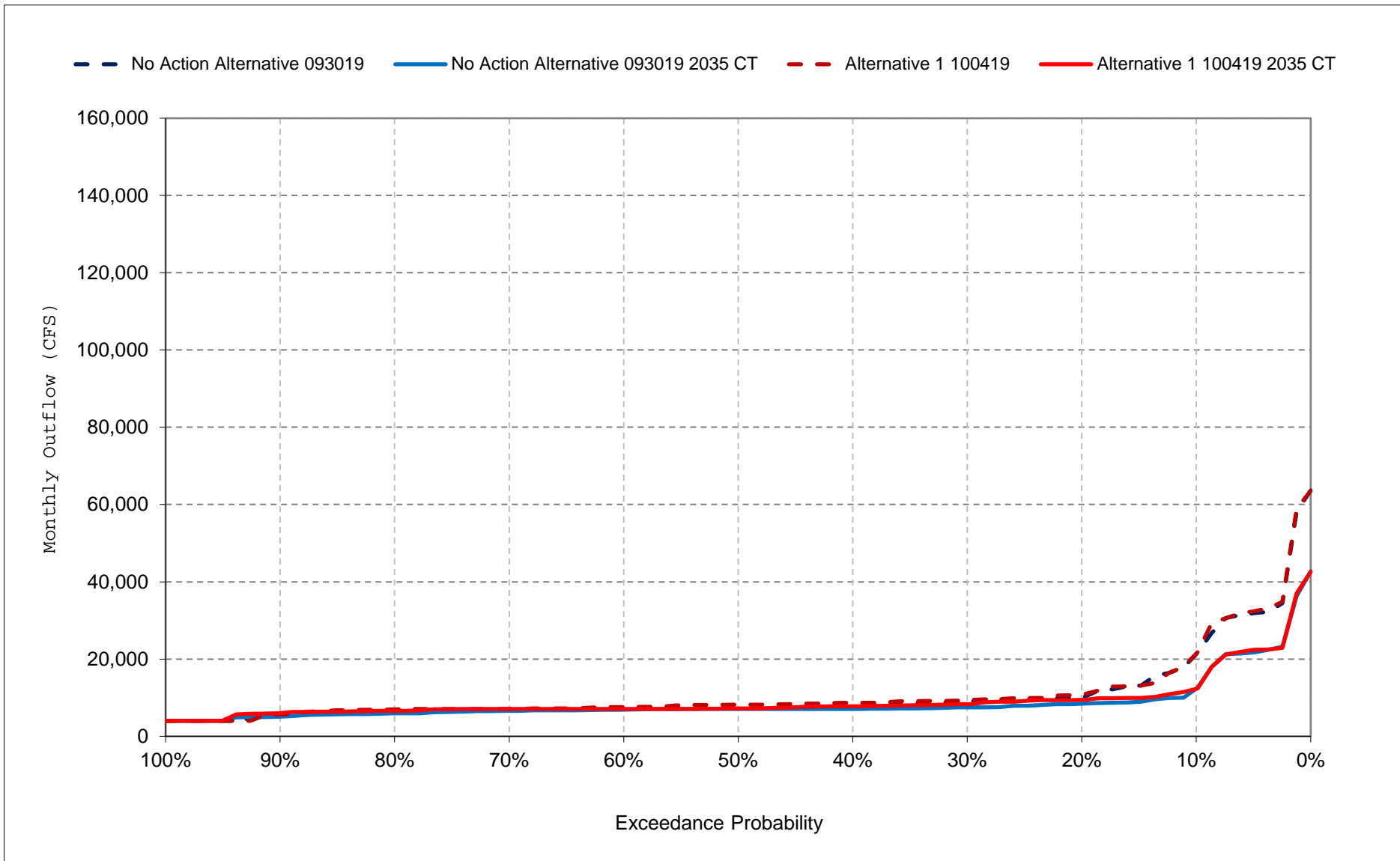
Figure 41-14. Delta Outflow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

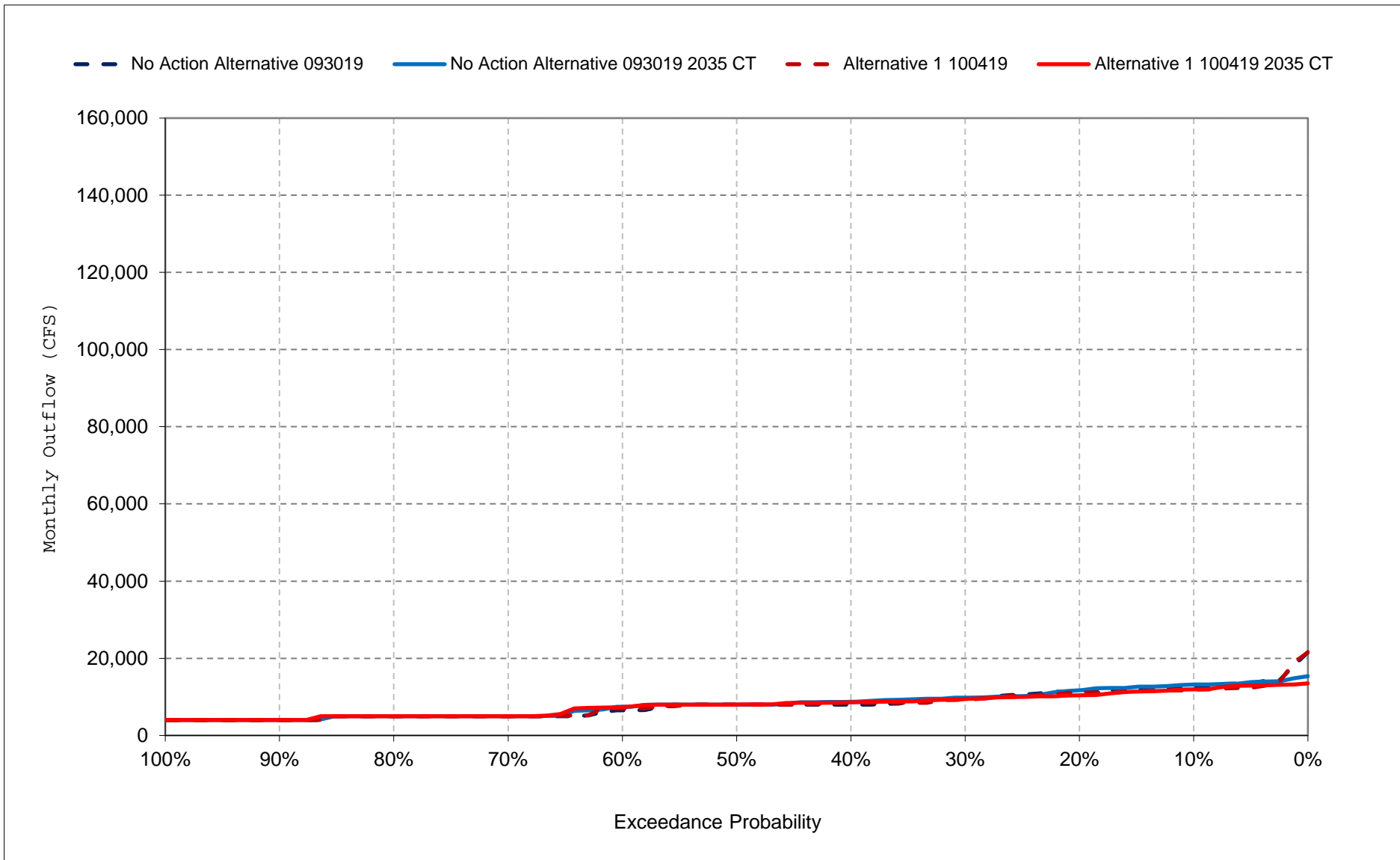
Figure 41-15. Delta Outflow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

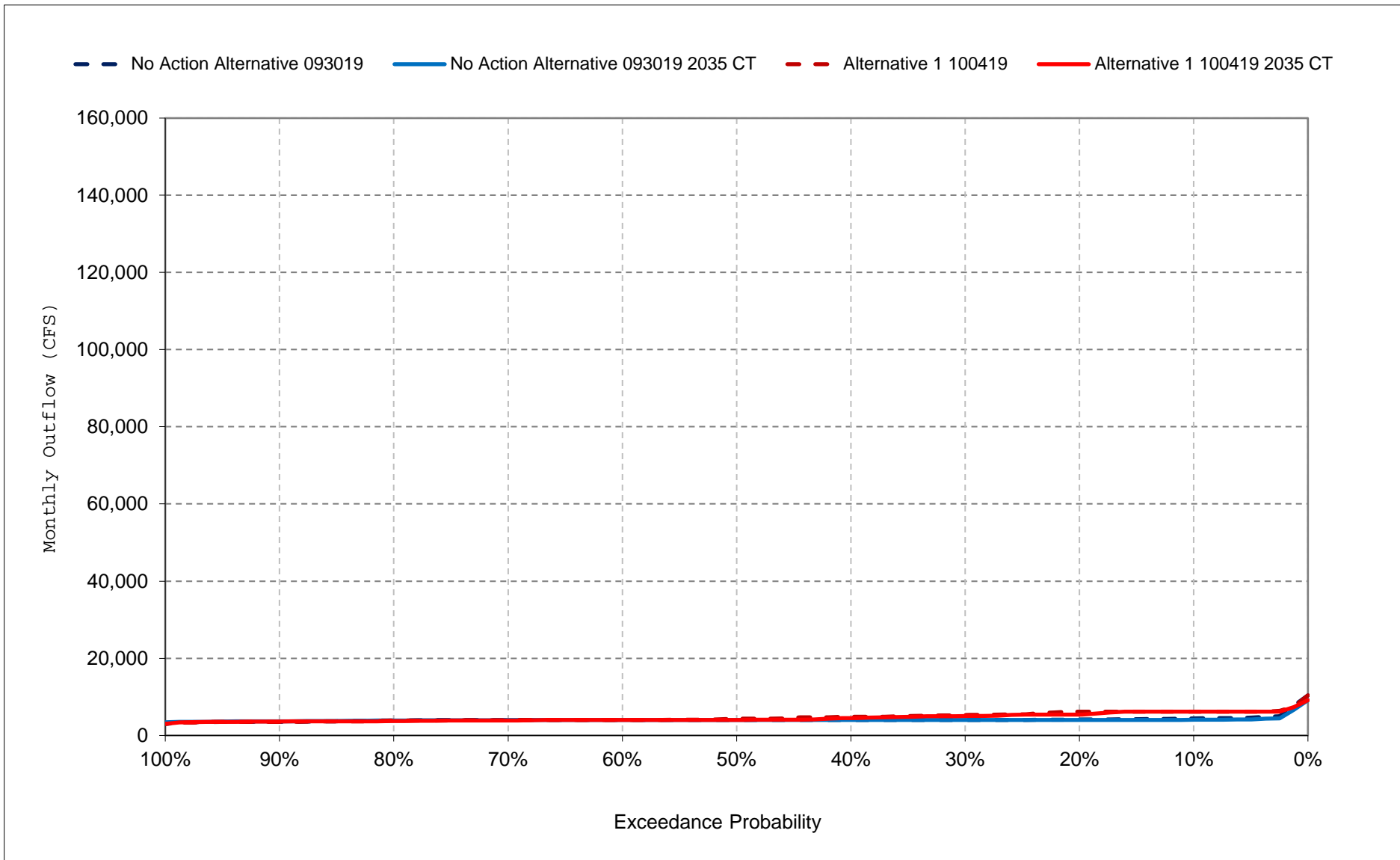
Figure 41-16. Delta Outflow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

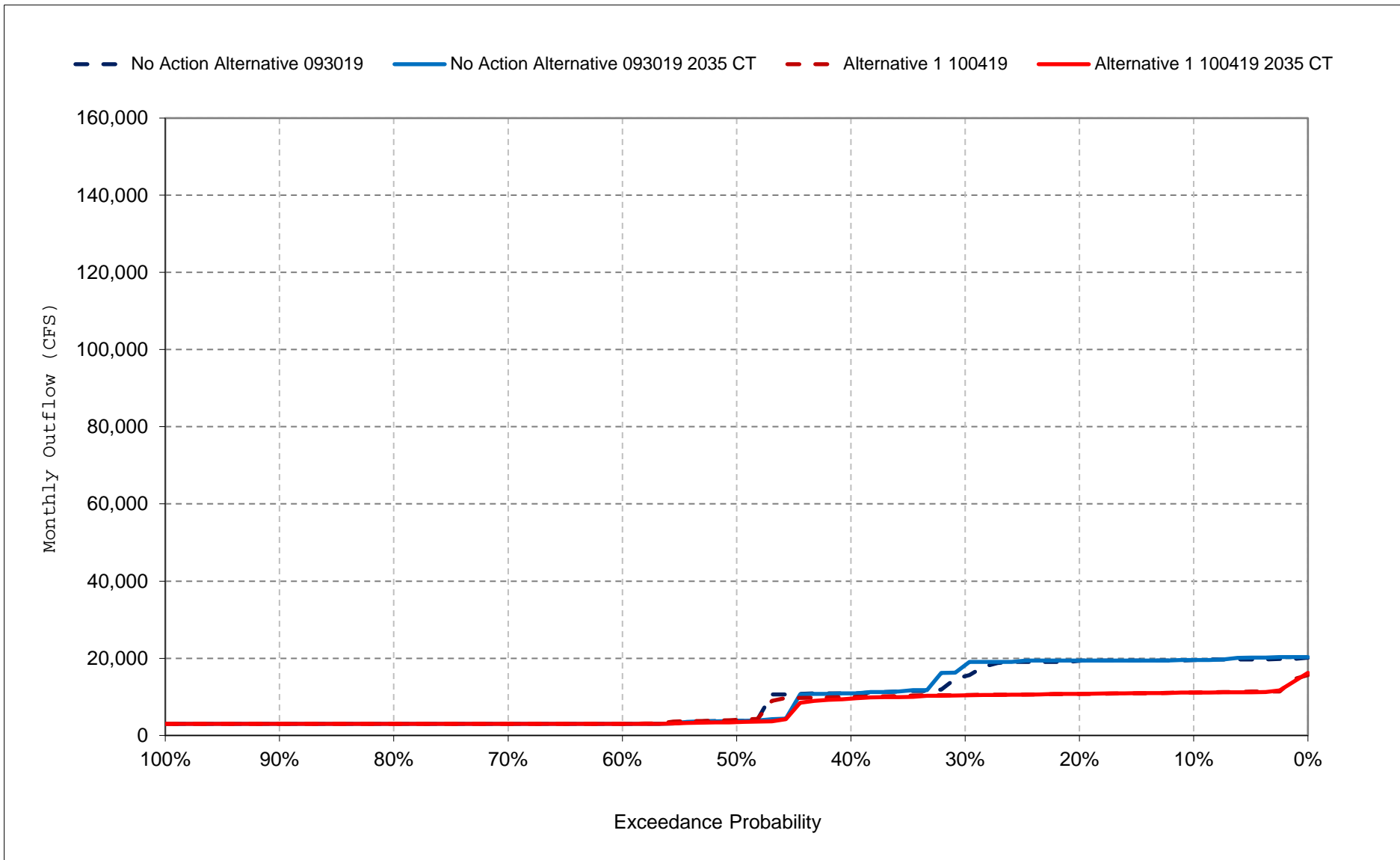
Figure 41-17. Delta Outflow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 41-18. Delta Outflow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.3 – Diversion Results (CalSim II)

The following results of the CalSim II model are included for diversions at key project locations for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity Import - Clear Creek Tunnel	D100	46-1 to 46-4	46-1 to 46-18
Red Bluff Diversion - Tehama Colusa Canal	D112	47-1 to 47-4	47-1 to 47-18
Hamilton City Diversion - Glenn Colusa Canal	D114	48-1 to 48-4	48-1 to 48-18
Folsom South Canal Diversion	D9	49-1 to 49-4	49-1 to 49-18
Friant-Kern Canal Diversion	D18A	50-1 to 50-4	50-1 to 50-18
Madera Canal Diversion	D18B	51-1 to 51-4	51-1 to 51-18
DCC Flow (Alternative 3 revised DXC equation)	C401B_DXC	52-1 to 52-4	52-1 to 52-18
Total Delta Exports	TOTAL_EXP	53-1 to 53-4	53-1 to 53-18
Jones PP Exports	D418	54-1 to 54-4	54-1 to 54-18
CVP Banks PP Exports	D419_CVP	55-1 to 55-4	55-1 to 55-18
SWP Banks PP Exports	D419_SWP	56-1 to 56-4	56-1 to 56-18
DMC - CA Intertie Flow	C700A	57-1 to 57-4	57-1 to 57-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 46-1. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,771	1,272	519	1,673	200	639	626	250	1,250	2,989	2,500	2,572
20%	1,250	501	250	510	100	237	408	197	783	2,111	2,000	2,305
30%	1,250	500	218	206	100	190	332	93	625	1,950	2,000	2,000
40%	750	450	180	116	70	100	261	0	263	1,500	1,773	1,800
50%	700	151	88	100	33	100	200	0	200	1,500	1,500	1,300
60%	625	75	50	50	0	50	162	0	156	1,404	1,500	1,300
70%	200	50	0	0	0	0	100	0	40	1,125	1,500	991
80%	200	0	0	0	0	0	0	0	0	622	1,125	750
90%	11	0	0	0	0	0	0	0	0	69	950	550
Long Term												
Full Simulation Period ^d	840	487	234	427	91	230	318	161	496	1,495	1,653	1,522
Water Year Types ^{b,c}												
Wet (32%)	1,390	882	517	516	101	354	369	205	284	1,262	1,583	2,179
Above Normal (16%)	1,265	811	250	144	48	327	358	0	206	1,249	2,025	1,774
Below Normal (13%)	552	226	68	267	94	179	219	262	842	1,807	2,012	1,619
Dry (24%)	324	144	50	527	107	88	195	181	845	1,901	1,461	1,004
Critical (15%)	316	94	63	525	84	142	457	112	373	1,304	1,393	597

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,872	610	390	2,173	200	701	502	250	1,330	3,070	2,500	2,500
20%	1,642	450	225	588	114	347	404	206	750	2,141	2,138	2,000
30%	750	450	186	200	100	200	332	100	750	2,000	2,000	2,000
40%	700	124	103	100	75	107	258	0	401	1,500	1,950	1,300
50%	700	75	75	96	0	100	204	0	302	1,500	1,638	1,300
60%	627	50	50	50	0	33	151	0	235	1,388	1,500	1,250
70%	343	0	0	0	0	0	99	0	129	1,125	1,500	750
80%	200	0	0	0	0	0	0	0	71	955	1,150	750
90%	37	0	0	0	0	0	0	0	0	203	955	282
Long Term												
Full Simulation Period ^d	823	283	193	489	90	280	302	174	552	1,539	1,721	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,361	316	362	514	77	372	353	212	351	1,280	1,660	1,728
Above Normal (16%)	917	320	290	280	82	373	351	0	405	1,398	2,061	1,812
Below Normal (13%)	681	378	77	440	80	477	210	291	879	1,995	2,031	1,277
Dry (24%)	419	164	59	436	126	81	212	201	801	1,830	1,658	1,023
Critical (15%)	361	281	50	793	73	130	371	130	428	1,345	1,309	575

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	101	-662	-129	500	0	62	-125	0	81	81	0	-72
20%	392	-51	-25	77	14	110	-4	9	-33	30	138	-305
30%	-500	-50	-32	-6	0	10	0	7	125	50	0	0
40%	-50	-326	-77	-16	5	7	-2	0	138	0	177	-500
50%	0	-76	-13	-4	-33	0	4	0	102	0	138	0
60%	2	-25	0	0	0	-17	-11	0	79	-16	0	-50
70%	143	-50	0	0	0	0	-1	0	89	0	0	-241
80%	0	0	0	0	0	0	0	0	71	333	25	0
90%	25	0	0	0	0	0	0	0	0	134	5	-268
Long Term												
Full Simulation Period ^d	-17	-205	-41	61	-1	50	-16	13	55	43	68	-182
Water Year Types ^{b,c}												
Wet (32%)	-29	-566	-155	-2	-24	18	-16	7	66	18	77	-451
Above Normal (16%)	-348	-491	40	137	34	46	-7	0	199	149	36	37
Below Normal (13%)	129	152	9	172	-14	298	-9	29	37	188	19	-342
Dry (24%)	95	21	9	-91	20	-7	17	20	-44	-70	198	19
Critical (15%)	46	188	-13	268	-11	-12	-86	18	56	41	-84	-22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 46-2. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,744	1,383	905	2,061	200	1,116	789	213	750	2,000	2,338	2,408
20%	1,250	500	250	888	147	562	414	181	625	2,000	2,000	2,000
30%	1,035	493	218	243	100	208	373	86	306	1,949	2,000	1,993
40%	700	450	200	200	100	192	308	0	233	1,500	1,950	1,527
50%	700	194	93	100	50	100	213	0	200	1,500	1,500	1,300
60%	625	75	75	75	0	88	177	0	164	1,125	1,500	1,270
70%	200	50	10	50	0	6	100	0	65	1,125	1,500	788
80%	200	1	0	0	0	0	29	0	35	709	1,125	750
90%	184	0	0	0	0	0	0	0	0	38	950	550
Long Term												
Full Simulation Period ^d	821	510	272	515	118	362	329	75	352	1,366	1,639	1,430
Water Year Types ^{b,c}												
Wet (32%)	1,343	914	613	635	146	511	412	50	100	958	1,648	1,967
Above Normal (16%)	1,213	887	300	62	52	400	378	0	90	1,043	1,786	1,973
Below Normal (13%)	461	261	56	404	50	695	215	79	613	1,875	1,884	1,233
Dry (24%)	428	161	76	630	136	103	196	128	684	1,788	1,616	1,045
Critical (15%)	250	35	29	658	164	127	418	116	388	1,429	1,271	500

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,276	500	801	1,869	249	1,122	735	218	750	2,599	2,500	2,000
20%	750	450	200	658	111	706	414	196	700	2,000	2,000	1,946
30%	700	450	200	200	100	217	354	76	625	1,950	2,000	1,300
40%	700	295	103	100	96	167	288	0	431	1,500	1,950	1,300
50%	700	75	75	100	50	100	206	0	326	1,500	1,950	1,250
60%	625	67	50	60	0	90	168	0	278	1,500	1,500	1,250
70%	200	15	0	2	0	50	100	0	198	1,125	1,500	750
80%	200	0	0	0	0	0	53	0	135	1,082	1,200	750
90%	3	0	0	0	0	0	0	0	0	212	968	267
Long Term												
Full Simulation Period ^d	627	279	224	488	109	384	337	97	456	1,504	1,713	1,197
Water Year Types ^{b,c}												
Wet (32%)	938	322	426	649	154	563	458	50	169	1,064	1,696	1,453
Above Normal (16%)	845	398	241	78	29	423	394	0	294	1,675	2,031	1,439
Below Normal (13%)	503	327	75	458	50	703	220	249	735	1,776	1,990	1,233
Dry (24%)	409	244	134	479	147	91	191	117	725	1,808	1,615	1,038
Critical (15%)	192	72	55	628	89	148	365	131	553	1,518	1,319	614

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-468	-883	-104	-193	49	6	-54	5	0	599	162	-408
20%	-500	-50	-50	-229	-35	143	0	15	75	0	0	-54
30%	-335	-42	-17	-42	0	9	-19	-10	319	1	0	-693
40%	0	-155	-97	-100	-4	-25	-20	0	198	0	0	-227
50%	0	-119	-18	0	0	0	-7	0	126	0	450	-50
60%	0	-8	-25	-15	0	1	-9	0	114	375	0	-20
70%	0	-35	-10	-48	0	44	0	0	133	0	0	-38
80%	0	-1	0	0	0	0	24	0	100	373	75	0
90%	-181	0	0	0	0	0	0	0	0	174	17	-283
Long Term												
Full Simulation Period ^d	-194	-231	-48	-27	-9	22	8	22	105	139	75	-233
Water Year Types ^{b,c}												
Wet (32%)	-405	-592	-187	14	8	53	46	0	69	106	48	-514
Above Normal (16%)	-367	-490	-60	16	-23	23	15	0	204	633	244	-534
Below Normal (13%)	42	66	19	54	0	8	5	170	122	-99	106	-1
Dry (24%)	-19	82	58	-152	11	-12	-6	-11	41	20	-1	-8
Critical (15%)	-58	36	26	-31	-75	21	-53	14	165	89	48	114

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 46-3. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,771	1,272	519	1,673	200	639	626	250	1,250	2,989	2,500	2,572
20%	1,250	501	250	510	100	237	408	197	783	2,111	2,000	2,305
30%	1,250	500	218	206	100	190	332	93	625	1,950	2,000	2,000
40%	750	450	180	116	70	100	261	0	263	1,500	1,773	1,800
50%	700	151	88	100	33	100	200	0	200	1,500	1,500	1,300
60%	625	75	50	50	0	50	162	0	156	1,404	1,500	1,300
70%	200	50	0	0	0	0	100	0	40	1,125	1,500	991
80%	200	0	0	0	0	0	0	0	0	622	1,125	750
90%	11	0	0	0	0	0	0	0	0	69	950	550
Long Term												
Full Simulation Period ^d	840	487	234	427	91	230	318	161	496	1,495	1,653	1,522
Water Year Types ^{b,c}												
Wet (32%)	1,390	882	517	516	101	354	369	205	284	1,262	1,583	2,179
Above Normal (16%)	1,265	811	250	144	48	327	358	0	206	1,249	2,025	1,774
Below Normal (13%)	552	226	68	267	94	179	219	262	842	1,807	2,012	1,619
Dry (24%)	324	144	50	527	107	88	195	181	845	1,901	1,461	1,004
Critical (15%)	316	94	63	525	84	142	457	112	373	1,304	1,393	597

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,744	1,383	905	2,061	200	1,116	789	213	750	2,000	2,338	2,408
20%	1,250	500	250	888	147	562	414	181	625	2,000	2,000	2,000
30%	1,035	493	218	243	100	208	373	86	306	1,949	2,000	1,993
40%	700	450	200	200	100	192	308	0	233	1,500	1,950	1,527
50%	700	194	93	100	50	100	213	0	200	1,500	1,500	1,300
60%	625	75	75	75	0	88	177	0	164	1,125	1,500	1,270
70%	200	50	10	50	0	6	100	0	65	1,125	1,500	788
80%	200	1	0	0	0	0	29	0	35	709	1,125	750
90%	184	0	0	0	0	0	0	0	0	38	950	550
Long Term												
Full Simulation Period ^d	821	510	272	515	118	362	329	75	352	1,366	1,639	1,430
Water Year Types ^{b,c}												
Wet (32%)	1,343	914	613	635	146	511	412	50	100	958	1,648	1,967
Above Normal (16%)	1,213	887	300	62	52	400	378	0	90	1,043	1,786	1,973
Below Normal (13%)	461	261	56	404	50	695	215	79	613	1,875	1,884	1,233
Dry (24%)	428	161	76	630	136	103	196	128	684	1,788	1,616	1,045
Critical (15%)	250	35	29	658	164	127	418	116	388	1,429	1,271	500

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-27	111	386	388	0	476	162	-37	-500	-989	-163	-164
20%	0	-1	0	377	47	326	6	-16	-158	-111	0	-305
30%	-215	-8	0	36	0	18	41	-7	-319	-1	0	-7
40%	-50	0	20	84	30	92	47	0	-30	0	177	-273
50%	0	43	5	0	17	0	13	0	0	0	0	0
60%	0	0	25	25	0	38	15	0	7	-279	0	-30
70%	0	0	10	50	0	6	0	0	25	0	0	-204
80%	0	1	0	0	0	0	29	0	35	87	0	0
90%	173	0	0	0	0	0	0	0	0	-31	0	0
Long Term												
Full Simulation Period ^d	-20	23	38	88	28	132	11	-86	-145	-129	-14	-91
Water Year Types ^{b,c}												
Wet (32%)	-48	32	95	119	45	157	44	-154	-184	-305	65	-211
Above Normal (16%)	-52	76	50	-82	4	72	20	0	-116	-206	-239	199
Below Normal (13%)	-91	35	-12	137	-44	516	-4	-184	-229	67	-129	-386
Dry (24%)	104	17	26	103	29	16	1	-53	-162	-112	156	41
Critical (15%)	-66	-58	-34	133	80	-15	-39	4	15	125	-122	-97

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 46-4. Trinity Import - Clear Creek Tunnel, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,872	610	390	2,173	200	701	502	250	1,330	3,070	2,500	2,500
20%	1,642	450	225	588	114	347	404	206	750	2,141	2,138	2,000
30%	750	450	186	200	100	200	332	100	750	2,000	2,000	2,000
40%	700	124	103	100	75	107	258	0	401	1,500	1,950	1,300
50%	700	75	75	96	0	100	204	0	302	1,500	1,638	1,300
60%	627	50	50	50	0	33	151	0	235	1,388	1,500	1,250
70%	343	0	0	0	0	0	99	0	129	1,125	1,500	750
80%	200	0	0	0	0	0	0	0	71	955	1,150	750
90%	37	0	0	0	0	0	0	0	0	203	955	282
Long Term												
Full Simulation Period ^d	823	283	193	489	90	280	302	174	552	1,539	1,721	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,361	316	362	514	77	372	353	212	351	1,280	1,660	1,728
Above Normal (16%)	917	320	290	280	82	373	351	0	405	1,398	2,061	1,812
Below Normal (13%)	681	378	77	440	80	477	210	291	879	1,995	2,031	1,277
Dry (24%)	419	164	59	436	126	81	212	201	801	1,830	1,658	1,023
Critical (15%)	361	281	50	793	73	130	371	130	428	1,345	1,309	575

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,276	500	801	1,869	249	1,122	735	218	750	2,599	2,500	2,000
20%	750	450	200	658	111	706	414	196	700	2,000	2,000	1,946
30%	700	450	200	200	100	217	354	76	625	1,950	2,000	1,300
40%	700	295	103	100	96	167	288	0	431	1,500	1,950	1,300
50%	700	75	75	100	50	100	206	0	326	1,500	1,950	1,250
60%	625	67	50	60	0	90	168	0	278	1,500	1,500	1,250
70%	200	15	0	2	0	50	100	0	198	1,125	1,500	750
80%	200	0	0	0	0	0	53	0	135	1,082	1,200	750
90%	3	0	0	0	0	0	0	0	0	212	968	267
Long Term												
Full Simulation Period ^d	627	279	224	488	109	384	337	97	456	1,504	1,713	1,197
Water Year Types ^{b,c}												
Wet (32%)	938	322	426	649	154	563	458	50	169	1,064	1,696	1,453
Above Normal (16%)	845	398	241	78	29	423	394	0	294	1,675	2,031	1,439
Below Normal (13%)	503	327	75	458	50	703	220	249	735	1,776	1,990	1,233
Dry (24%)	409	244	134	479	147	91	191	117	725	1,808	1,615	1,038
Critical (15%)	192	72	55	628	89	148	365	131	553	1,518	1,319	614

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-596	-110	411	-304	49	420	233	-32	-580	-471	0	-500
20%	-892	0	-25	71	-2	359	11	-9	-50	-141	-138	-54
30%	-50	0	14	0	0	17	22	-24	-125	-50	0	-700
40%	0	171	0	0	21	60	29	0	30	0	0	0
50%	0	0	0	4	50	0	2	0	24	0	312	-50
60%	-2	17	0	10	0	57	17	0	43	112	0	0
70%	-143	15	0	2	0	50	1	0	69	0	0	0
80%	0	0	0	0	0	0	53	0	64	127	50	0
90%	-33	0	0	0	0	0	0	0	0	9	12	-15
Long Term												
Full Simulation Period ^d	-197	-4	31	0	19	104	35	-77	-95	-34	-8	-143
Water Year Types ^{b,c}												
Wet (32%)	-424	6	63	135	77	192	105	-161	-182	-216	36	-275
Above Normal (16%)	-72	78	-50	-202	-53	50	42	0	-111	277	-30	-372
Below Normal (13%)	-178	-51	-2	19	-30	226	10	-42	-144	-219	-42	-44
Dry (24%)	-10	79	75	43	21	10	-21	-84	-76	-23	-43	15
Critical (15%)	-169	-210	5	-165	15	18	-6	1	124	173	10	38

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

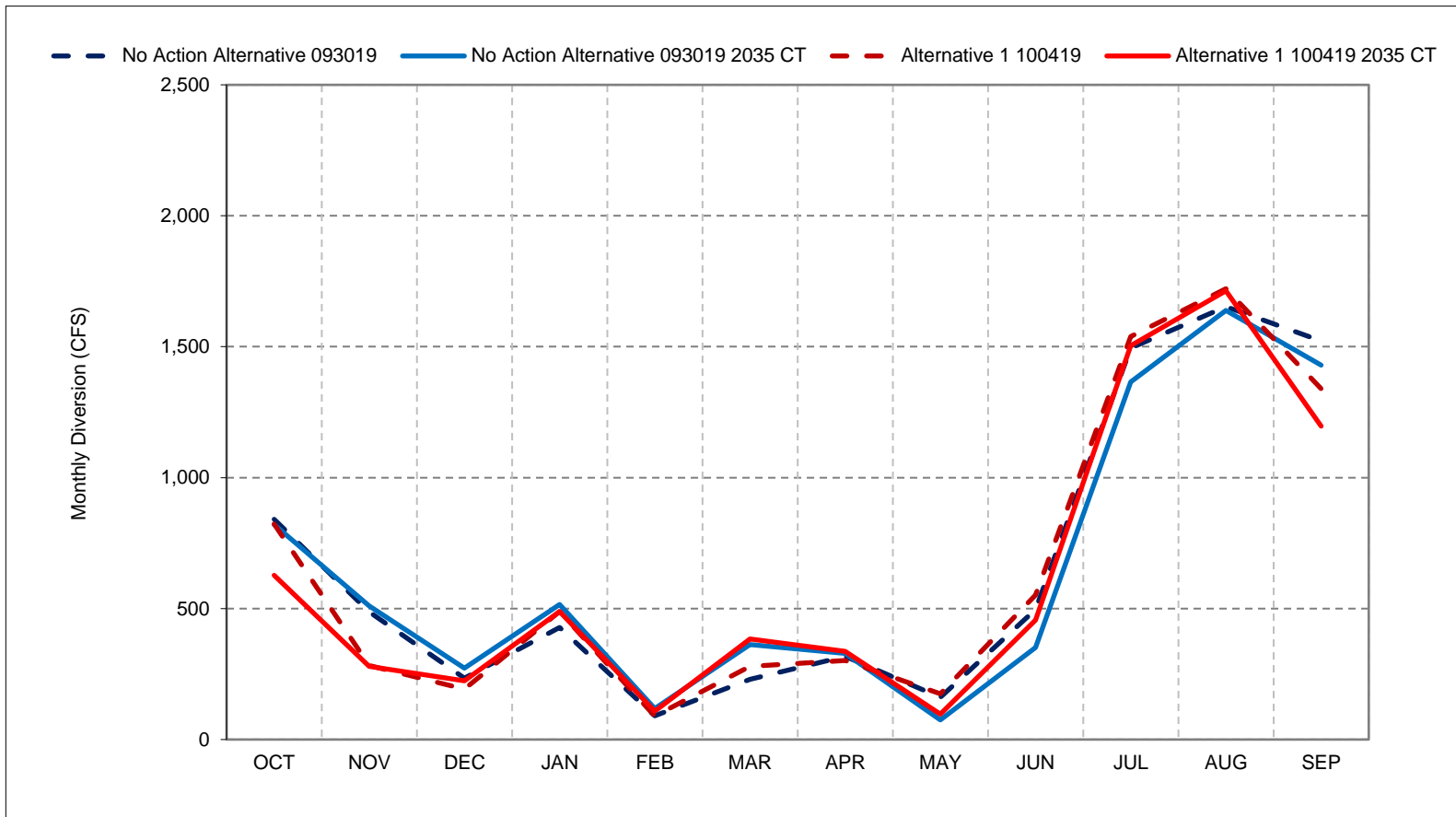
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 46-1. Trinity Import - Clear Creek Tunnel, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

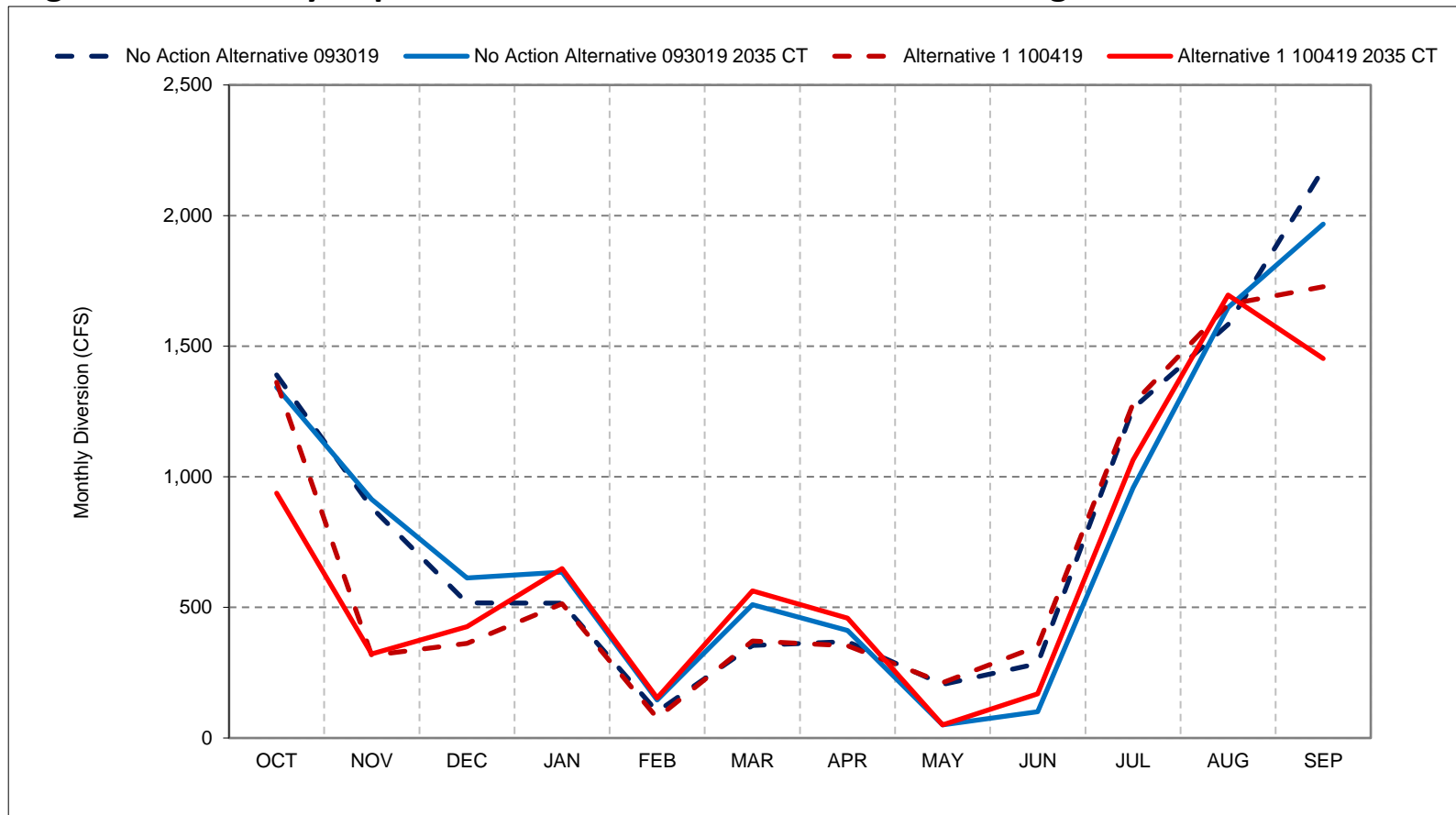
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-2. Trinity Import - Clear Creek Tunnel, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

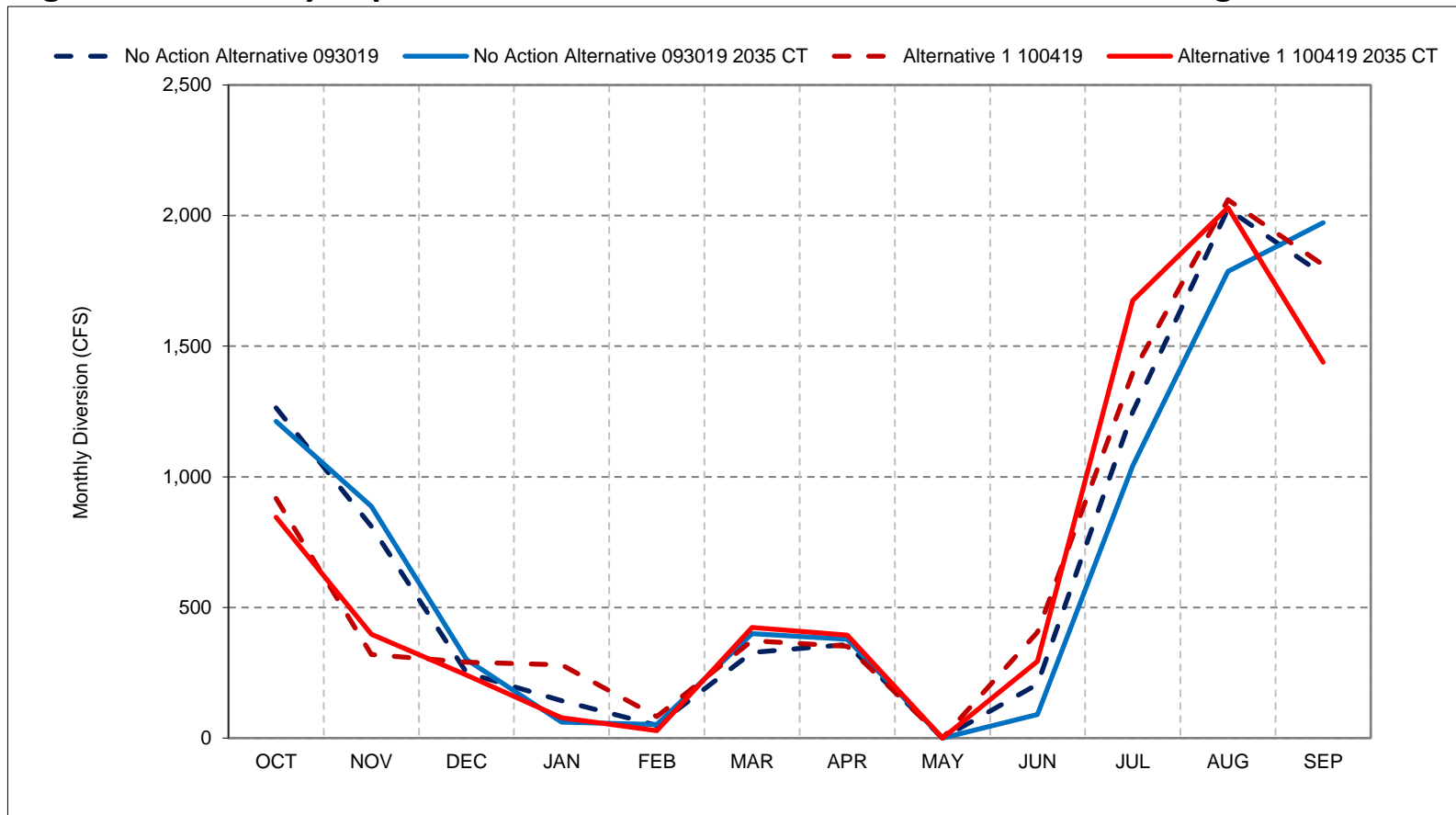
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-3. Trinity Import - Clear Creek Tunnel, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

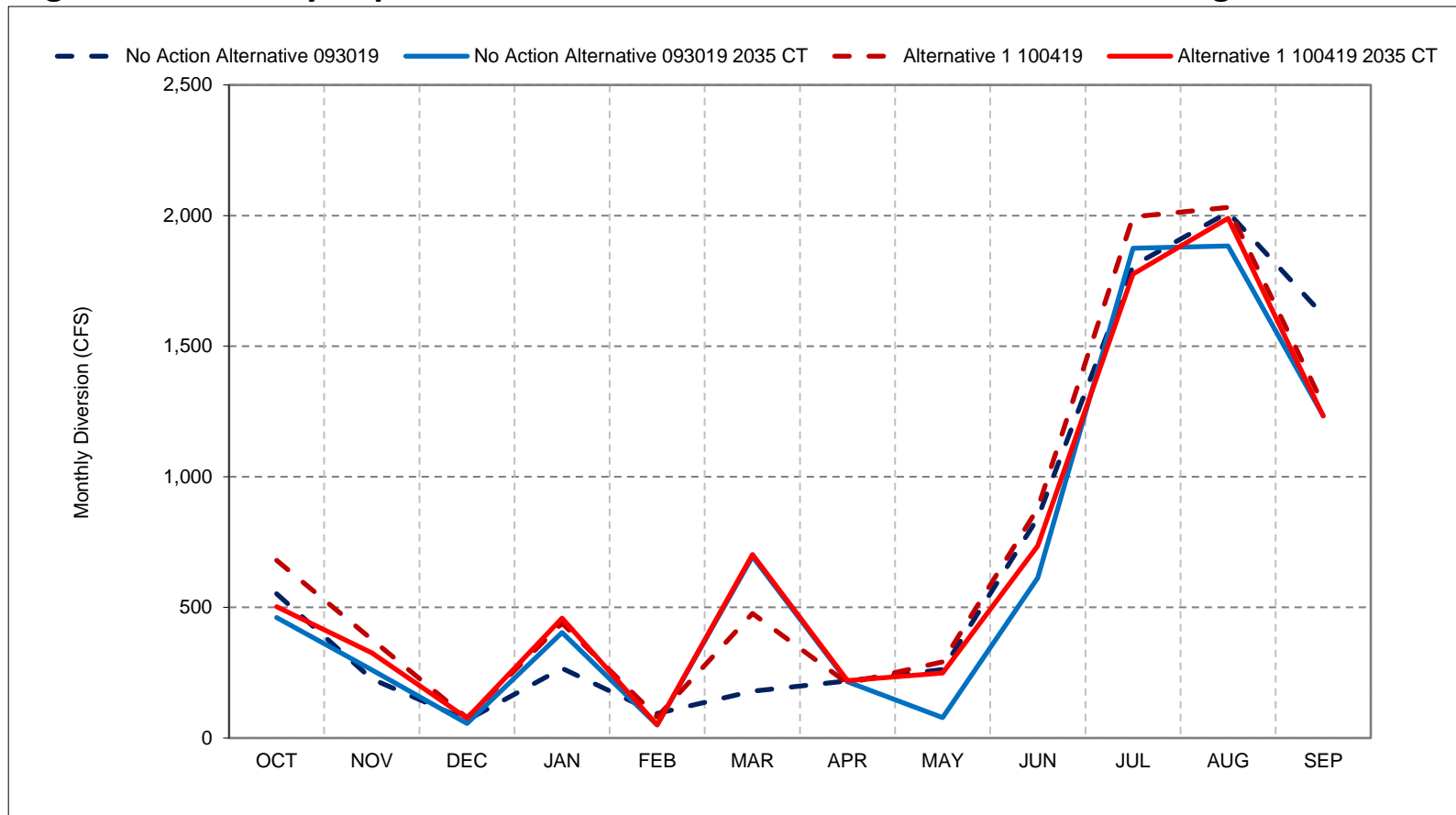
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-4. Trinity Import - Clear Creek Tunnel, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

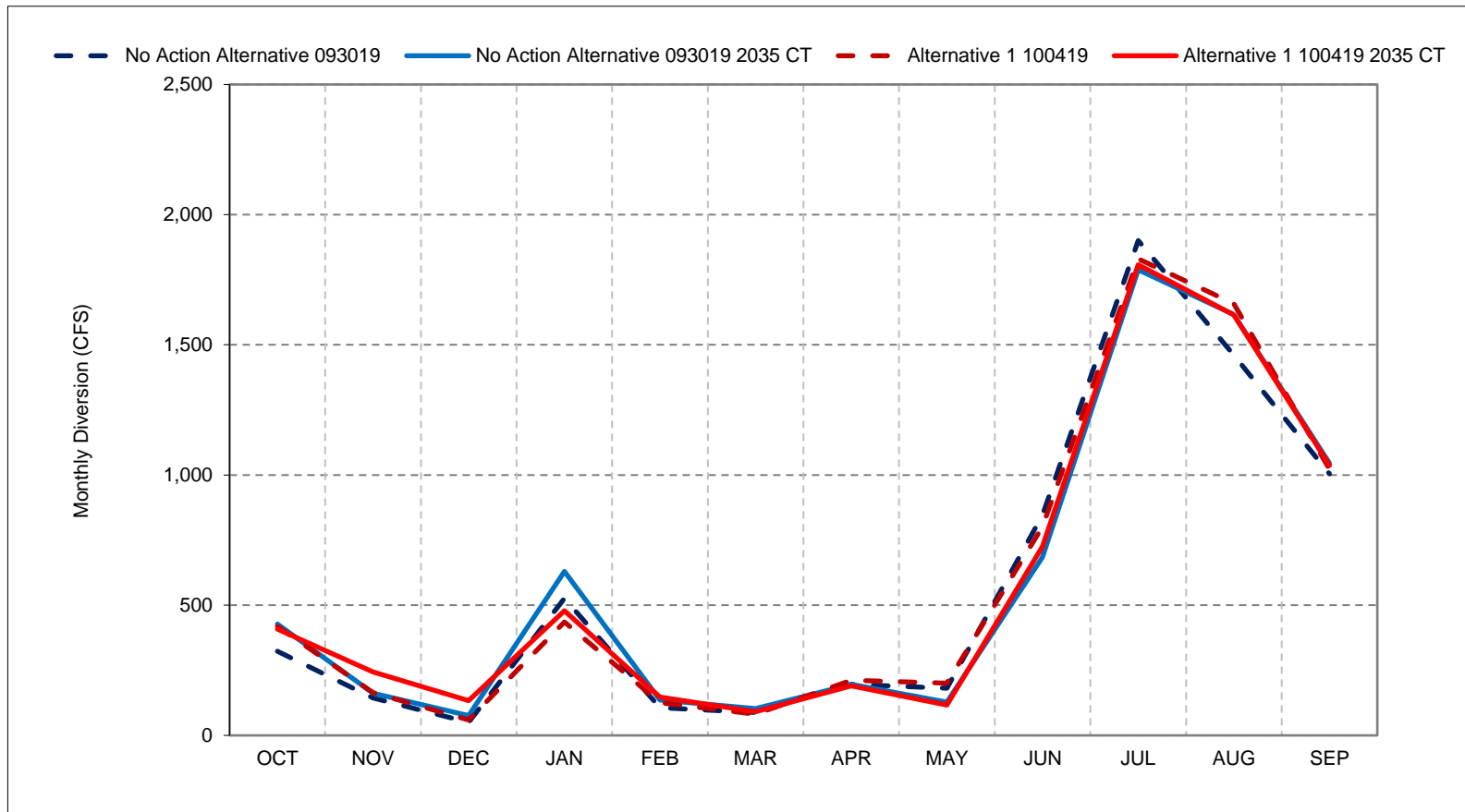
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-5. Trinity Import - Clear Creek Tunnel, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

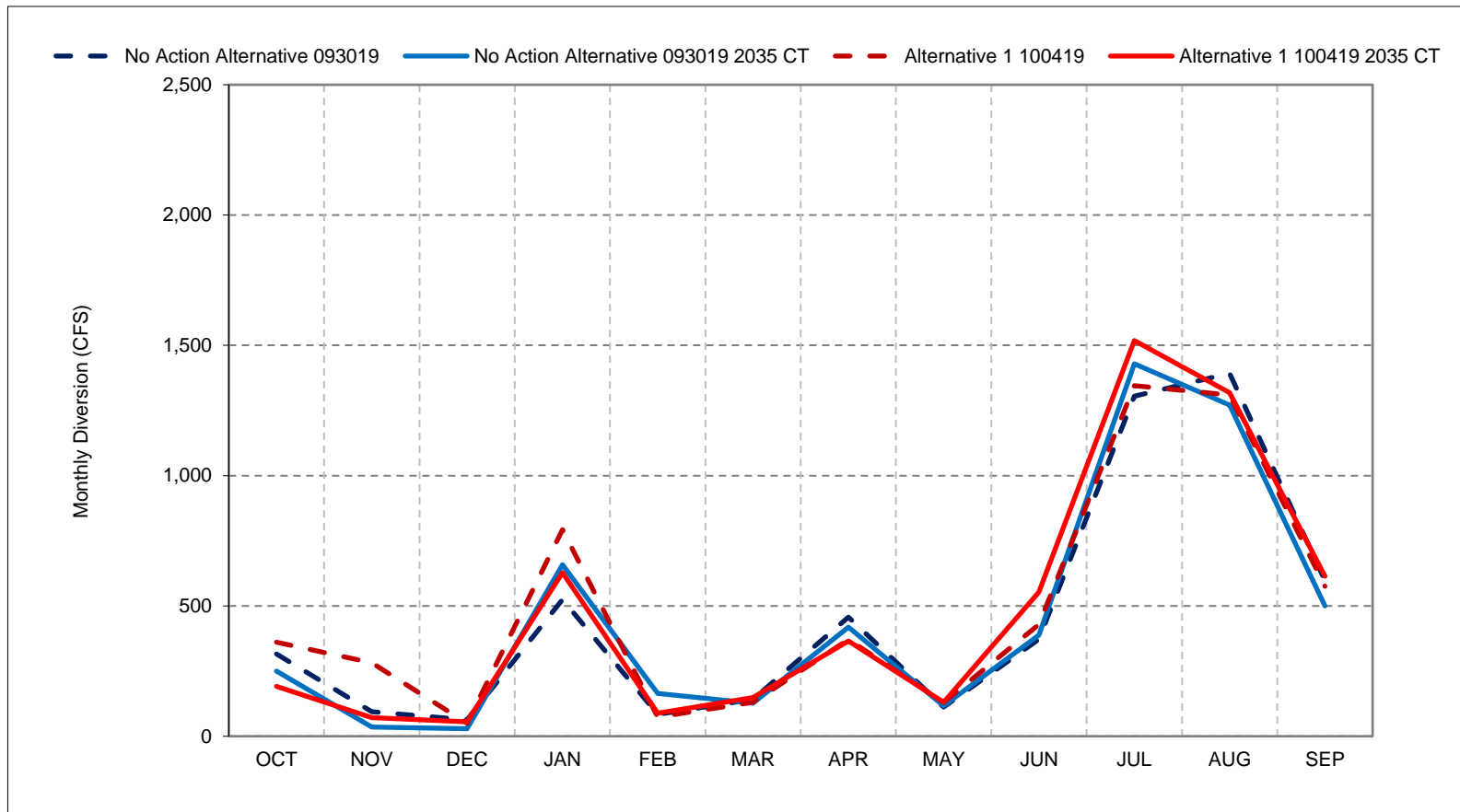
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-6. Trinity Import - Clear Creek Tunnel, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

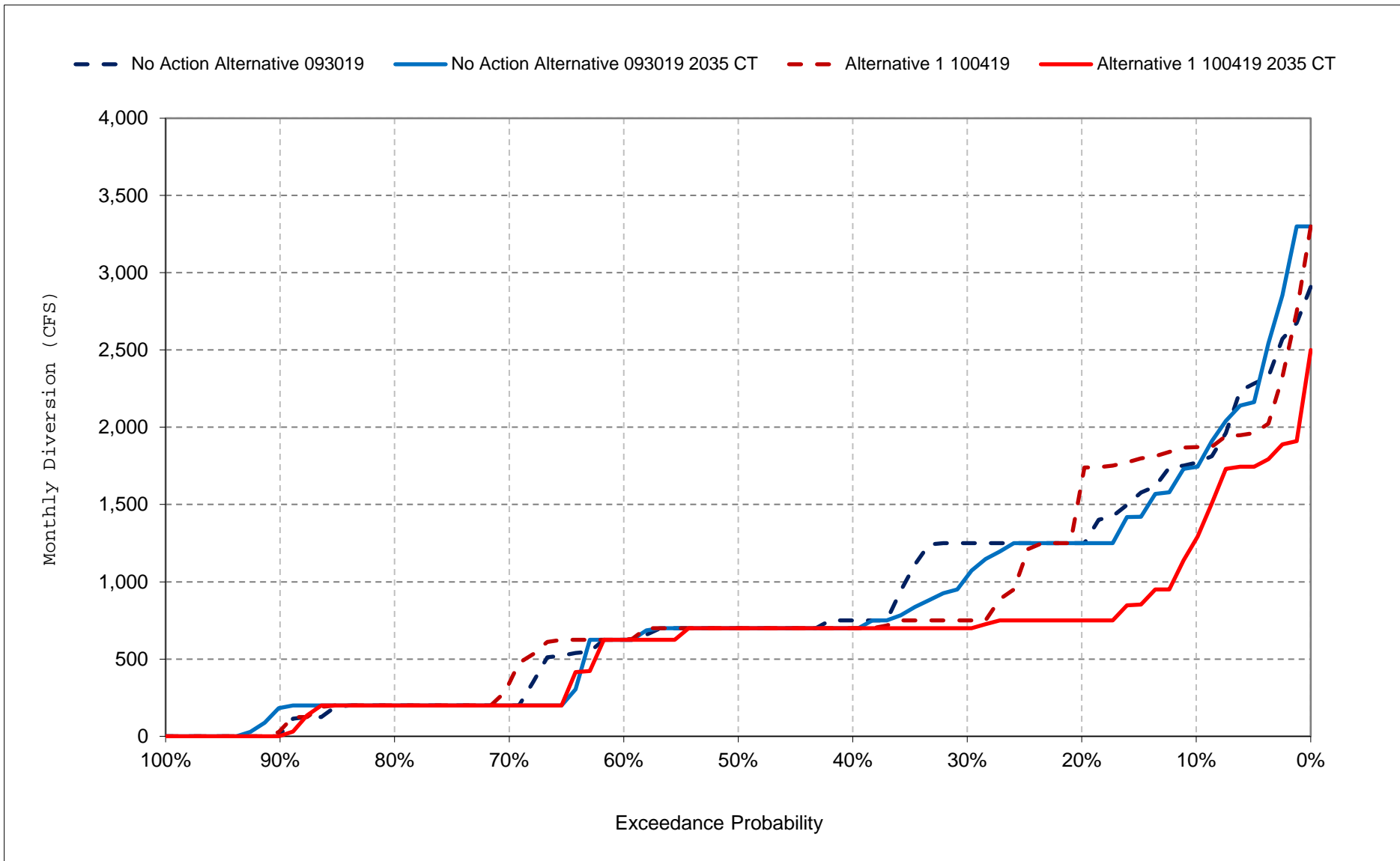
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

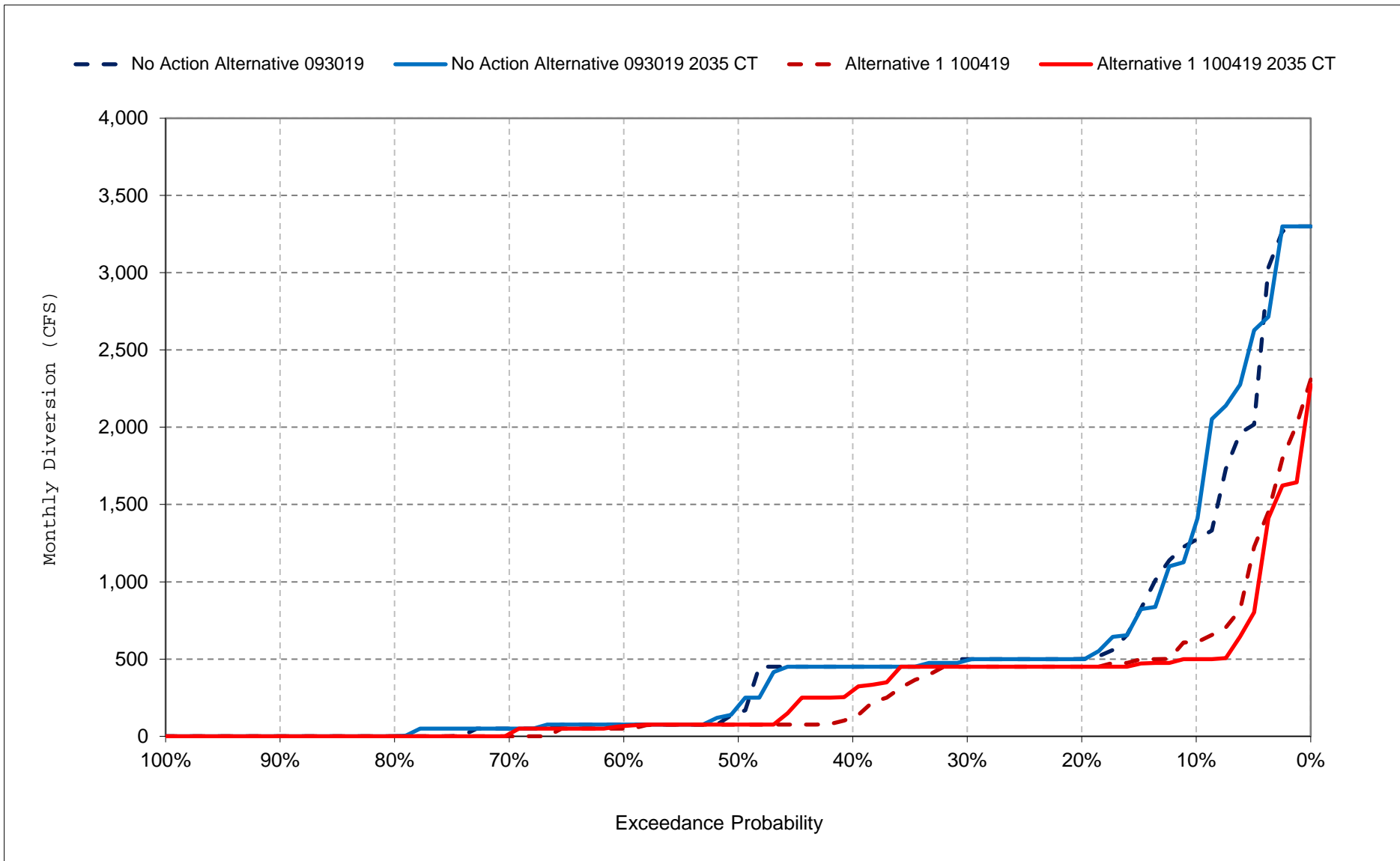
Figure 46-7. Trinity Import - Clear Creek Tunnel, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

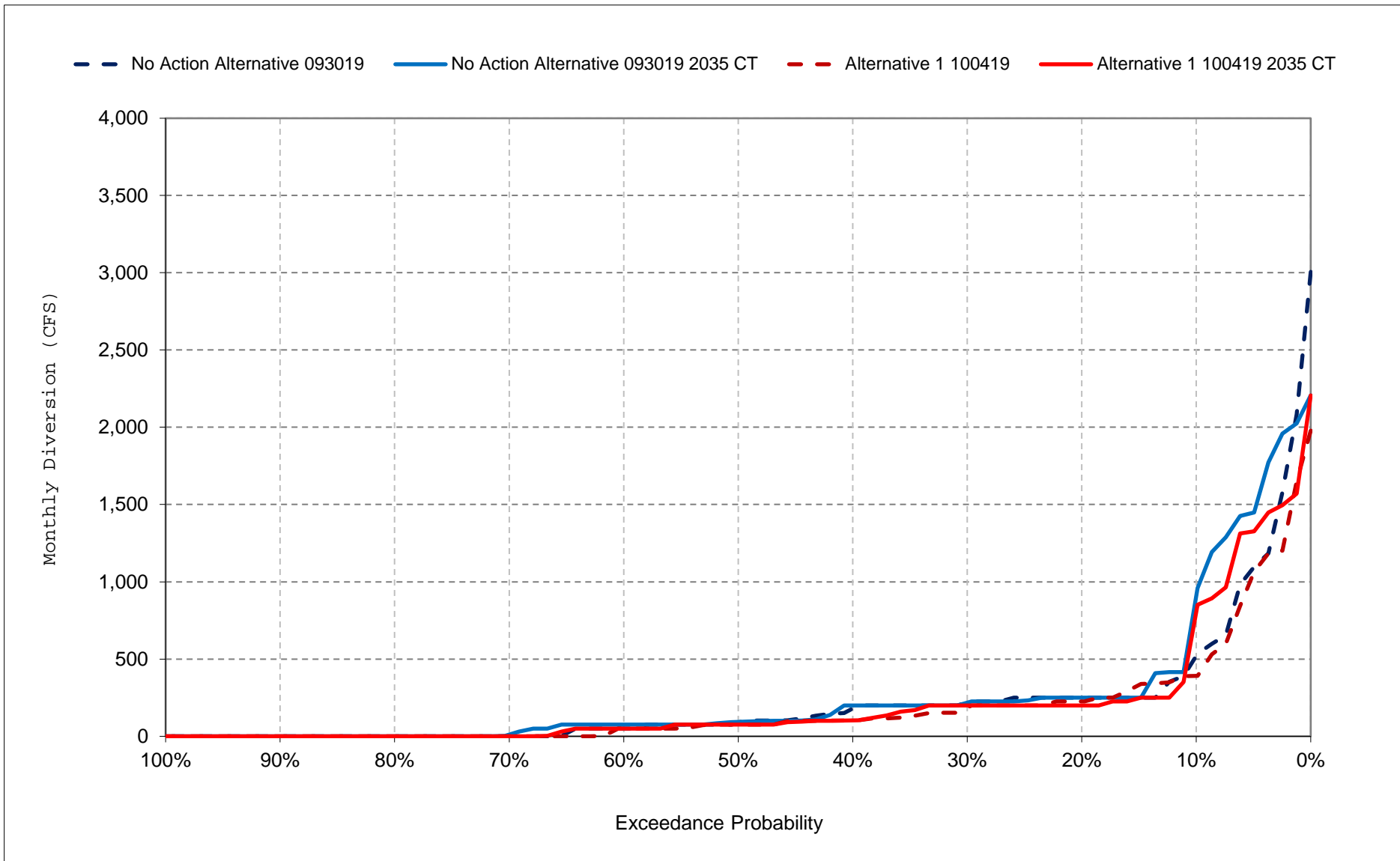
Figure 46-8. Trinity Import - Clear Creek Tunnel, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

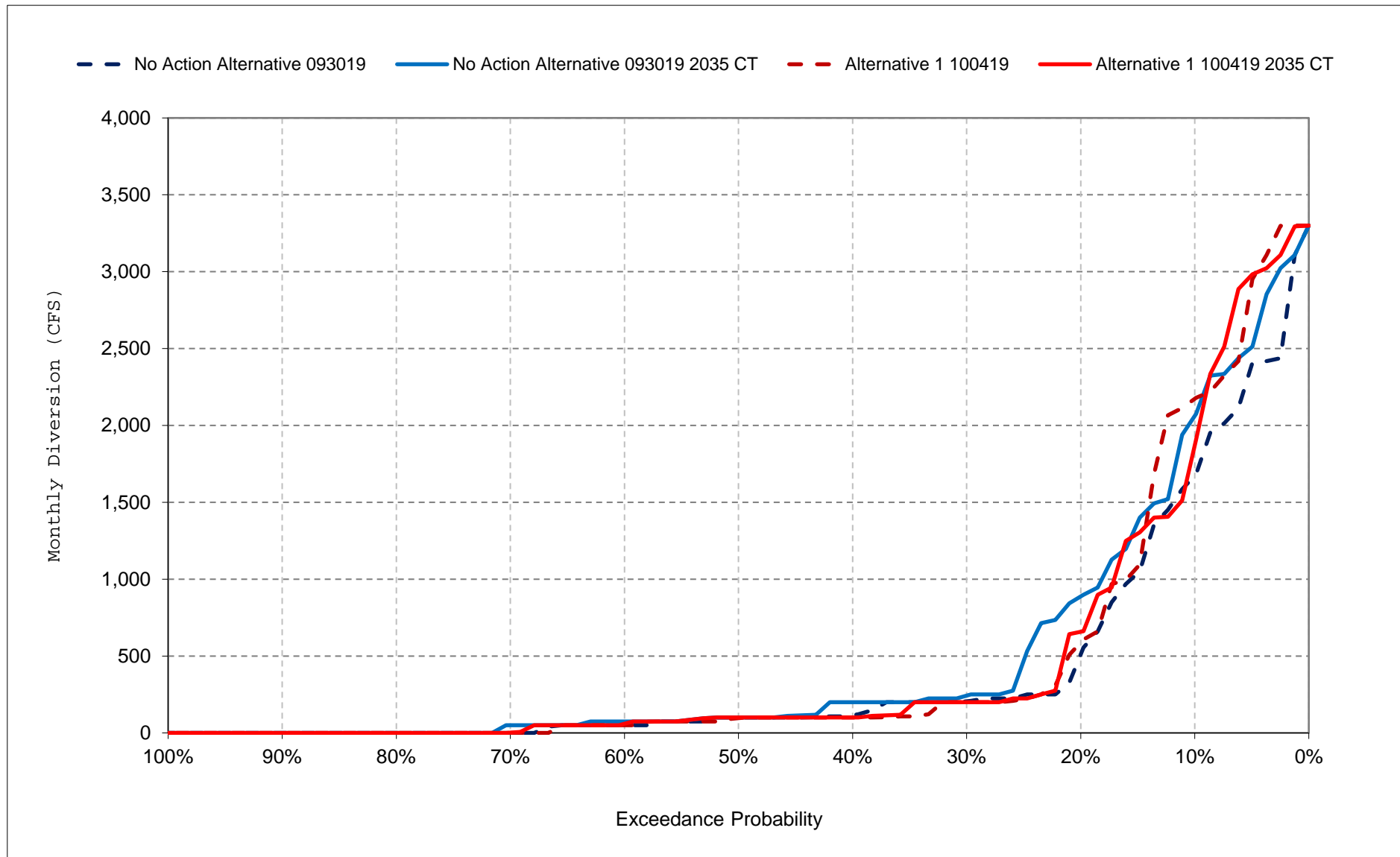
Figure 46-9. Trinity Import - Clear Creek Tunnel, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

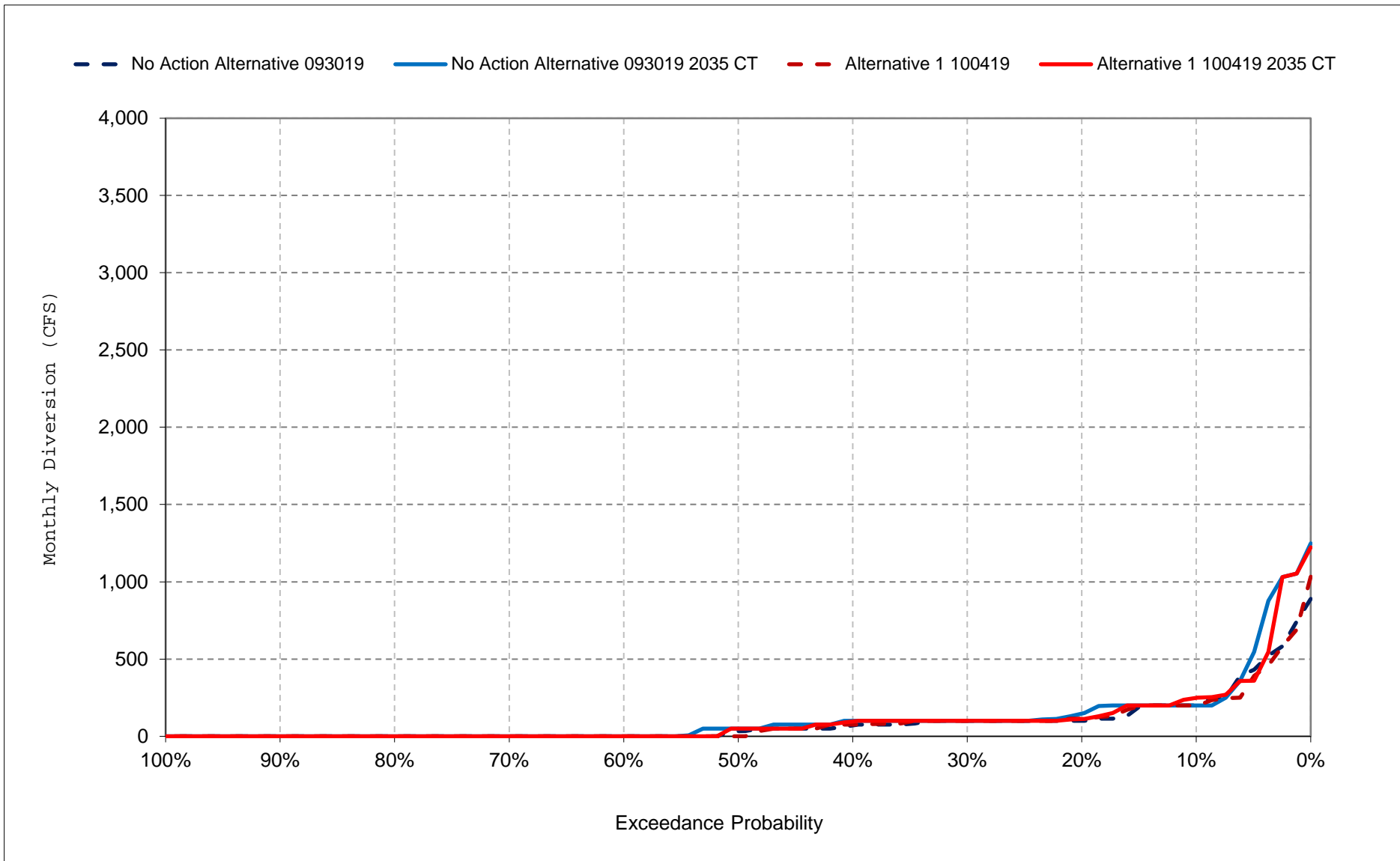
Figure 46-10. Trinity Import - Clear Creek Tunnel, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

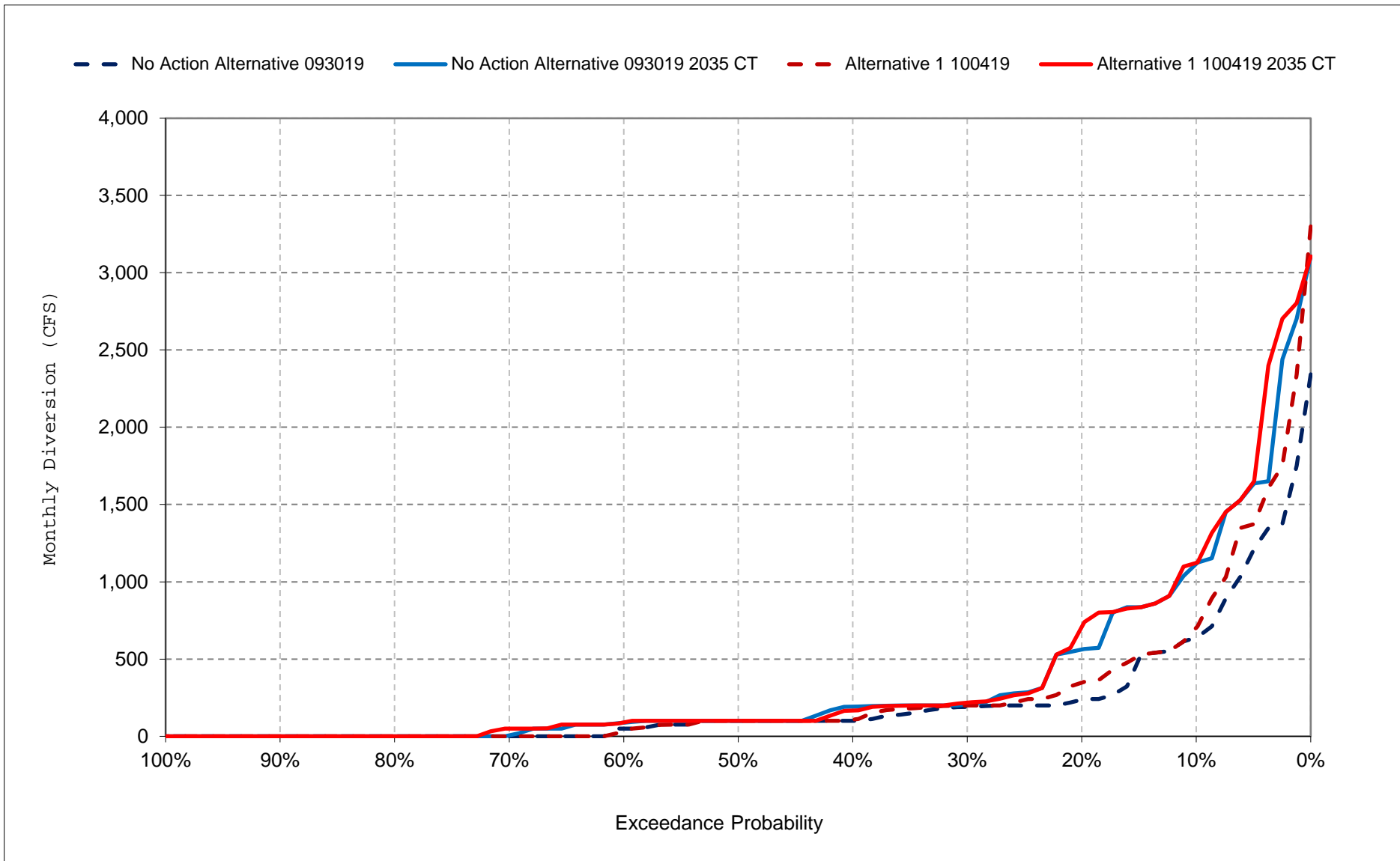
Figure 46-11. Trinity Import - Clear Creek Tunnel, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

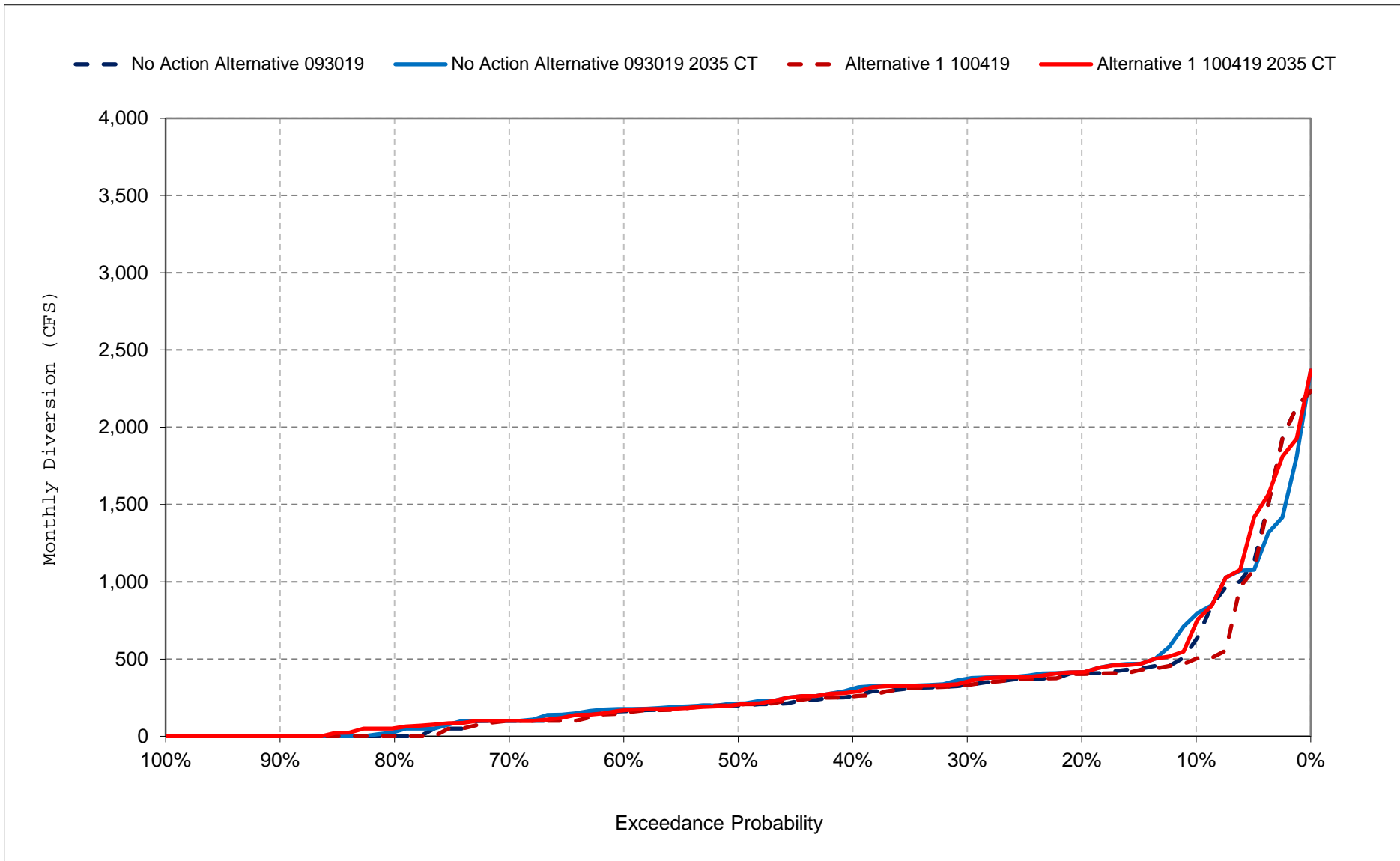
Figure 46-12. Trinity Import - Clear Creek Tunnel, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

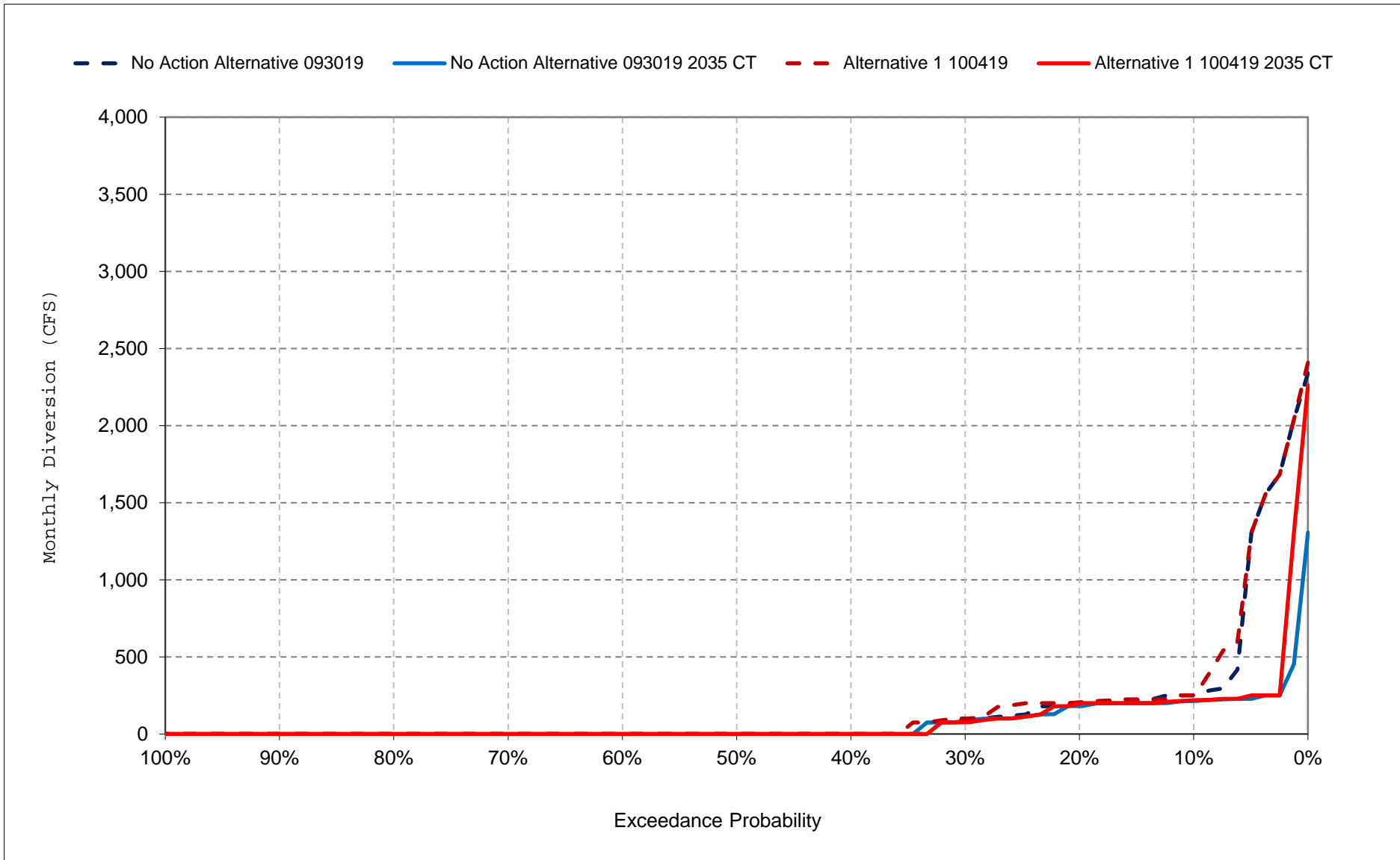
Figure 46-13. Trinity Import - Clear Creek Tunnel, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

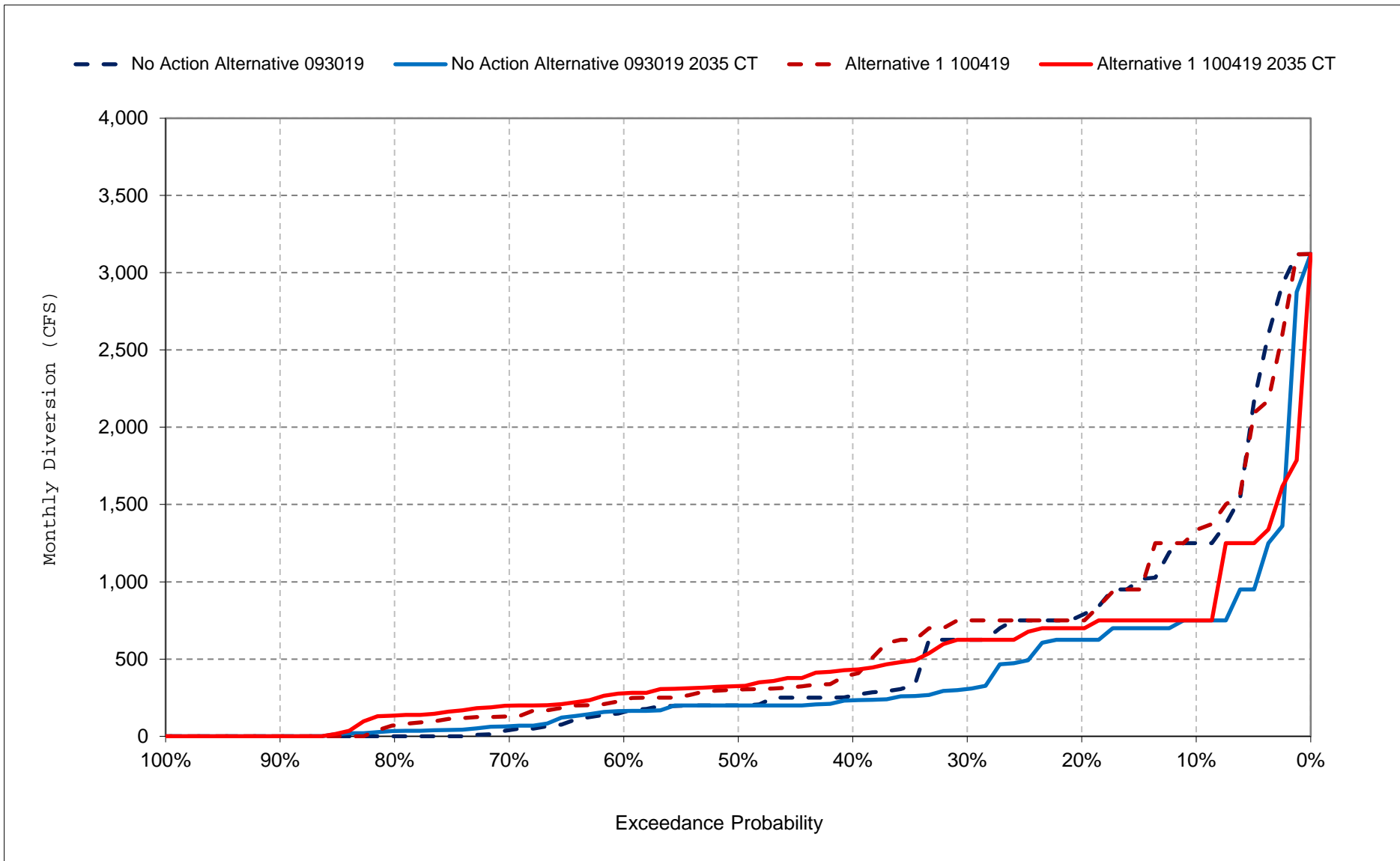
Figure 46-14. Trinity Import - Clear Creek Tunnel, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

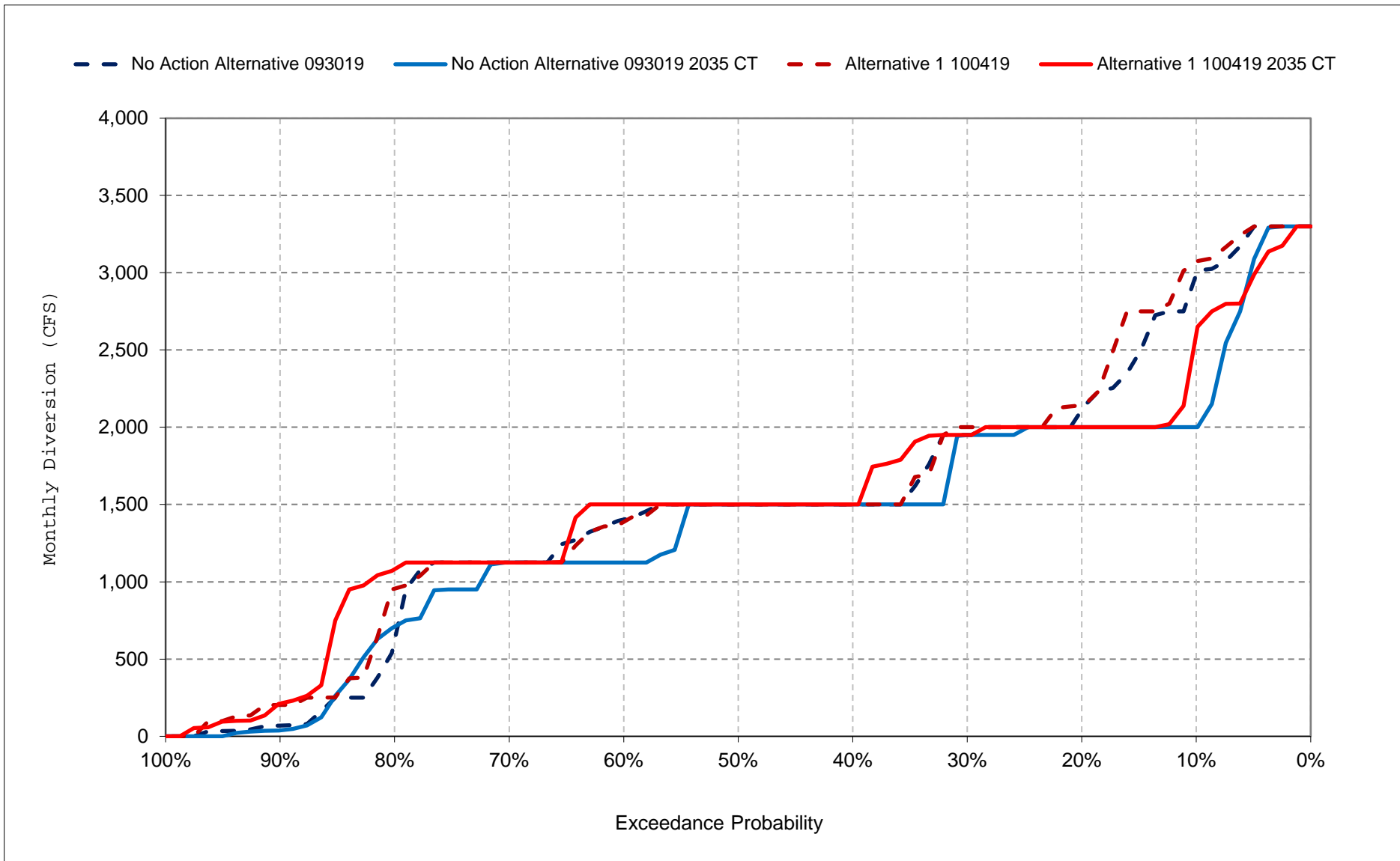
Figure 46-15. Trinity Import - Clear Creek Tunnel, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

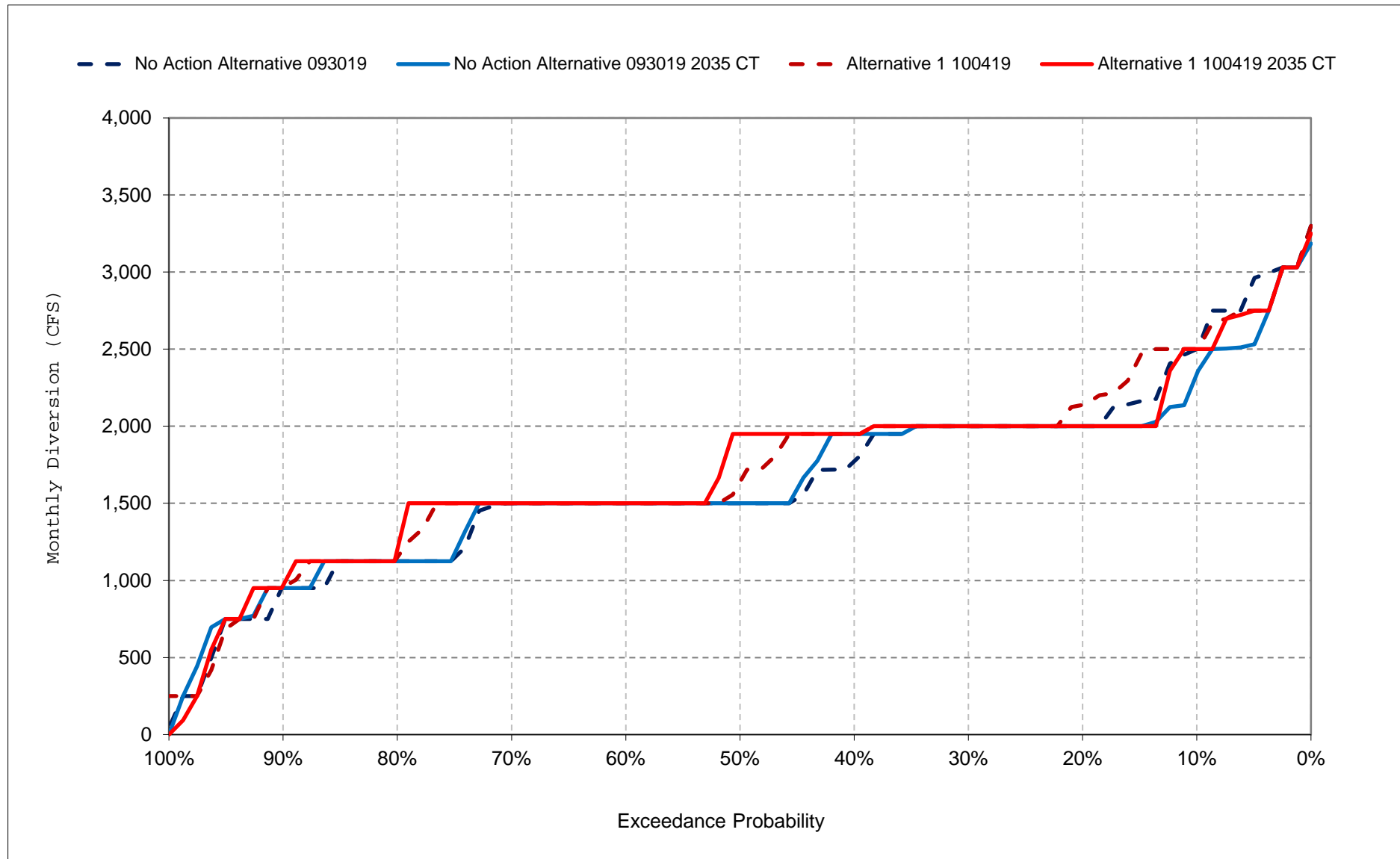
Figure 46-16. Trinity Import - Clear Creek Tunnel, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

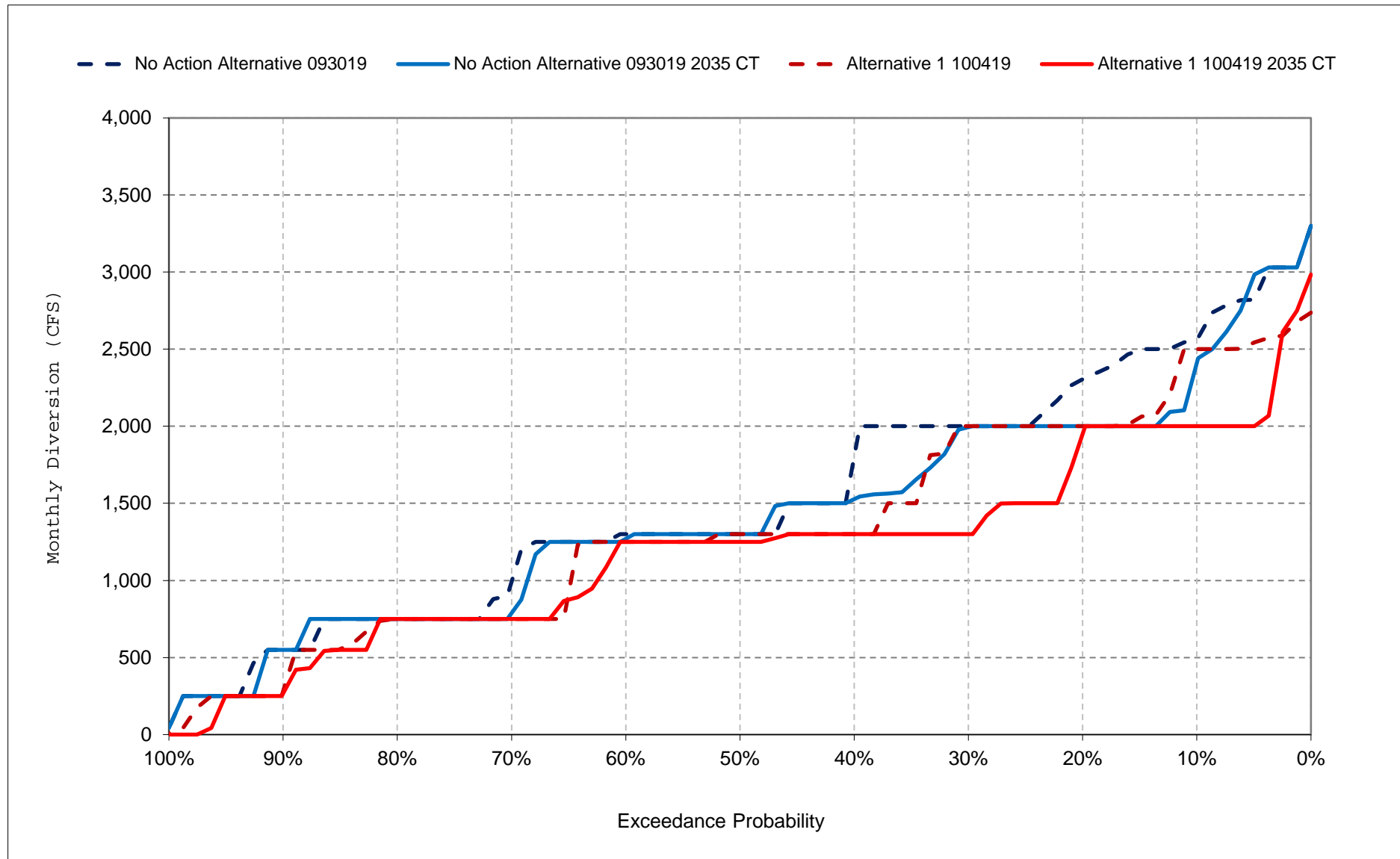
Figure 46-17. Trinity Import - Clear Creek Tunnel, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 46-18. Trinity Import - Clear Creek Tunnel, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-1. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	207	19	0	0	0	46	454	778	1,191	1,375	1,092	299
20%	186	17	0	0	0	30	341	722	1,107	1,283	1,027	274
30%	141	17	0	0	0	16	271	638	1,064	1,251	967	243
40%	126	3	0	0	0	3	220	529	1,015	1,153	910	211
50%	104	0	0	0	0	0	188	473	900	1,022	779	178
60%	83	0	0	0	0	0	153	350	655	720	575	137
70%	76	0	0	0	0	0	80	297	505	592	474	94
80%	66	0	0	0	0	0	40	219	335	394	324	69
90%	56	0	0	0	0	0	22	110	223	246	221	20
Long Term												
Full Simulation Period ^d	118	7	0	0	2	17	209	458	764	879	698	169
Water Year Types ^{b,c}												
Wet (32%)	150	7	0	0	0	10	179	631	1,083	1,248	988	241
Above Normal (16%)	127	4	0	0	0	8	283	664	1,085	1,240	972	244
Below Normal (13%)	119	8	0	0	8	49	293	463	718	849	665	156
Dry (24%)	95	4	0	0	4	12	180	257	471	534	423	77
Critical (15%)	76	15	0	0	1	21	168	190	255	295	264	97

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	214	20	0	0	0	52	455	786	1,191	1,378	1,095	299
20%	189	17	0	0	0	33	370	752	1,131	1,338	1,057	275
30%	150	17	0	0	0	19	315	674	1,094	1,277	1,010	261
40%	130	5	0	0	0	4	253	593	1,061	1,233	947	228
50%	105	1	0	0	0	1	201	479	1,028	1,146	905	209
60%	87	0	0	0	0	0	180	425	812	916	719	162
70%	80	0	0	0	0	0	112	347	527	633	522	111
80%	68	0	0	0	0	0	49	233	398	463	369	85
90%	57	0	0	0	0	0	24	123	291	325	269	19
Long Term												
Full Simulation Period ^d	122	8	0	0	2	21	230	489	817	940	746	182
Water Year Types ^{b,c}												
Wet (32%)	151	7	0	0	0	11	170	635	1,088	1,253	992	242
Above Normal (16%)	127	5	0	0	0	10	299	661	1,097	1,252	982	244
Below Normal (13%)	134	8	0	0	8	66	357	610	902	1,065	834	186
Dry (24%)	100	4	0	0	4	14	213	287	547	619	491	103
Critical (15%)	80	17	0	0	1	25	196	213	297	345	304	115

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7	1	0	0	0	7	0	9	0	3	3	0
20%	3	0	0	0	0	3	30	29	24	56	29	1
30%	9	0	0	0	0	3	45	36	29	25	44	18
40%	4	2	0	0	0	1	33	64	46	80	37	17
50%	0	1	0	0	0	0	13	7	129	124	127	31
60%	4	0	0	0	0	0	27	76	157	196	144	25
70%	4	0	0	0	0	0	32	50	21	41	48	17
80%	2	0	0	0	0	0	9	14	62	68	45	16
90%	1	0	0	0	0	0	2	14	68	79	48	0
Long Term												
Full Simulation Period ^d	4	1	0	0	0	4	20	31	53	61	48	13
Water Year Types ^{b,c}												
Wet (32%)	1	0	0	0	0	1	-9	4	5	6	4	1
Above Normal (16%)	0	1	0	0	0	2	16	-3	12	13	10	1
Below Normal (13%)	15	1	0	0	0	16	64	147	184	216	169	30
Dry (24%)	6	0	0	0	0	2	33	30	76	86	68	27
Critical (15%)	4	2	0	0	0	4	27	23	41	50	40	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 47-2. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	208	19	0	0	0	47	413	767	1,191	1,377	1,094	301
20%	181	17	0	0	0	29	326	700	1,107	1,320	1,033	275
30%	141	17	0	0	0	15	272	634	1,071	1,257	999	259
40%	124	3	0	0	0	2	241	521	980	1,142	902	208
50%	102	0	0	0	0	0	207	474	905	998	786	165
60%	88	0	0	0	0	0	165	377	597	698	551	115
70%	79	0	0	0	0	0	128	289	468	543	430	97
80%	65	0	0	0	0	0	48	219	365	411	329	63
90%	56	0	0	0	0	0	29	139	250	285	227	23
Long Term												
Full Simulation Period ^d	119	7	0	0	2	16	208	459	766	882	697	168
Water Year Types ^{b,c}												
Wet (32%)	146	7	0	0	0	10	170	612	1,044	1,204	954	232
Above Normal (16%)	126	4	0	0	0	7	299	633	1,075	1,228	962	241
Below Normal (13%)	123	6	0	0	9	39	273	493	745	883	693	146
Dry (24%)	96	4	0	0	4	12	187	278	490	554	440	92
Critical (15%)	86	15	0	0	1	23	168	209	308	354	282	97

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	209	19	0	0	0	53	459	825	1,191	1,377	1,094	301
20%	188	17	0	0	0	32	347	738	1,109	1,322	1,034	275
30%	153	17	0	0	0	17	319	674	1,085	1,270	1,005	259
40%	131	5	0	0	0	3	288	550	1,056	1,183	943	228
50%	103	1	0	0	0	1	225	500	944	1,141	877	206
60%	93	0	0	0	0	0	186	456	827	926	730	165
70%	86	0	0	0	0	0	142	379	546	639	506	110
80%	69	0	0	0	0	0	48	251	465	530	422	80
90%	57	0	0	0	0	0	29	140	332	384	306	21
Long Term												
Full Simulation Period ^d	123	7	0	0	2	19	232	502	822	946	748	182
Water Year Types ^{b,c}												
Wet (32%)	147	7	0	0	0	11	187	618	1,052	1,212	961	235
Above Normal (16%)	129	5	0	0	0	9	321	681	1,109	1,266	993	249
Below Normal (13%)	131	7	0	0	9	52	344	611	877	1,036	813	162
Dry (24%)	104	4	0	0	4	15	214	338	599	679	538	117
Critical (15%)	89	16	0	0	1	25	163	232	336	388	309	123

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2	0	0	0	0	6	46	59	0	0	0	0
20%	7	0	0	0	0	3	21	38	2	2	1	0
30%	11	0	0	0	0	2	47	40	13	13	7	0
40%	8	1	0	0	0	2	46	29	77	41	41	20
50%	0	1	0	0	0	1	18	27	39	143	91	41
60%	5	0	0	0	0	0	21	79	230	228	179	50
70%	7	0	0	0	0	0	14	90	78	97	77	13
80%	4	0	0	0	0	0	0	32	101	119	94	17
90%	1	0	0	0	0	0	0	1	82	99	79	-2
Long Term												
Full Simulation Period ^d	4	1	0	0	0	3	24	43	56	65	51	14
Water Year Types ^{b,c}												
Wet (32%)	1	0	0	0	0	1	16	6	8	9	7	3
Above Normal (16%)	3	1	0	0	0	2	22	48	34	38	30	8
Below Normal (13%)	8	0	0	0	0	13	71	119	132	153	120	16
Dry (24%)	8	0	0	0	0	3	28	60	108	125	99	25
Critical (15%)	3	2	0	0	0	2	-5	23	28	34	27	26

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-3. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	207	19	0	0	0	46	454	778	1,191	1,375	1,092	299
20%	186	17	0	0	0	30	341	722	1,107	1,283	1,027	274
30%	141	17	0	0	0	16	271	638	1,064	1,251	967	243
40%	126	3	0	0	0	3	220	529	1,015	1,153	910	211
50%	104	0	0	0	0	0	188	473	900	1,022	779	178
60%	83	0	0	0	0	0	153	350	655	720	575	137
70%	76	0	0	0	0	0	80	297	505	592	474	94
80%	66	0	0	0	0	0	40	219	335	394	324	69
90%	56	0	0	0	0	0	22	110	223	246	221	20
Long Term												
Full Simulation Period ^d	118	7	0	0	2	17	209	458	764	879	698	169
Water Year Types ^{b,c}												
Wet (32%)	150	7	0	0	0	10	179	631	1,083	1,248	988	241
Above Normal (16%)	127	4	0	0	0	8	283	664	1,085	1,240	972	244
Below Normal (13%)	119	8	0	0	8	49	293	463	718	849	665	156
Dry (24%)	95	4	0	0	4	12	180	257	471	534	423	77
Critical (15%)	76	15	0	0	1	21	168	190	255	295	264	97

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	208	19	0	0	0	47	413	767	1,191	1,377	1,094	301
20%	181	17	0	0	0	29	326	700	1,107	1,320	1,033	275
30%	141	17	0	0	0	15	272	634	1,071	1,257	999	259
40%	124	3	0	0	0	2	241	521	980	1,142	902	208
50%	102	0	0	0	0	0	207	474	905	998	786	165
60%	88	0	0	0	0	0	165	377	597	698	551	115
70%	79	0	0	0	0	0	128	289	468	543	430	97
80%	65	0	0	0	0	0	48	219	365	411	329	63
90%	56	0	0	0	0	0	29	139	250	285	227	23
Long Term												
Full Simulation Period ^d	119	7	0	0	2	16	208	459	766	882	697	168
Water Year Types ^{b,c}												
Wet (32%)	146	7	0	0	0	10	170	612	1,044	1,204	954	232
Above Normal (16%)	126	4	0	0	0	7	299	633	1,075	1,228	962	241
Below Normal (13%)	123	6	0	0	9	39	273	493	745	883	693	146
Dry (24%)	96	4	0	0	4	12	187	278	490	554	440	92
Critical (15%)	86	15	0	0	1	23	168	209	308	354	282	97

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	0	0	0	0	2	-42	-11	0	2	3	2
20%	-5	0	0	0	0	-2	-15	-22	0	38	6	1
30%	0	0	0	0	0	-1	2	-5	7	6	32	16
40%	-2	0	0	0	0	-1	21	-8	-35	-11	-8	-3
50%	-2	0	0	0	0	0	18	1	6	-24	8	-12
60%	5	0	0	0	0	0	12	28	-58	-22	-23	-22
70%	3	0	0	0	0	0	48	-8	-37	-49	-44	2
80%	-1	0	0	0	0	0	8	0	29	17	4	-6
90%	0	0	0	0	0	0	7	30	27	39	6	3
Long Term												
Full Simulation Period ^d	1	0	0	0	0	-1	-1	1	2	2	-2	-1
Water Year Types ^{b,c}												
Wet (32%)	-5	0	0	0	0	-1	-9	-19	-39	-44	-34	-9
Above Normal (16%)	-1	0	0	0	0	-1	16	-31	-11	-12	-9	-2
Below Normal (13%)	4	-1	0	0	0	-10	-19	30	26	34	27	-10
Dry (24%)	1	0	0	0	0	0	7	21	19	20	16	15
Critical (15%)	10	0	0	0	0	2	0	19	52	59	18	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-4. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	214	20	0	0	0	52	455	786	1,191	1,378	1,095	299
20%	189	17	0	0	0	33	370	752	1,131	1,338	1,057	275
30%	150	17	0	0	0	19	315	674	1,094	1,277	1,010	261
40%	130	5	0	0	0	4	253	593	1,061	1,233	947	228
50%	105	1	0	0	0	1	201	479	1,028	1,146	905	209
60%	87	0	0	0	0	0	180	425	812	916	719	162
70%	80	0	0	0	0	0	112	347	527	633	522	111
80%	68	0	0	0	0	0	49	233	398	463	369	85
90%	57	0	0	0	0	0	24	123	291	325	269	19
Long Term												
Full Simulation Period ^d	122	8	0	0	2	21	230	489	817	940	746	182
Water Year Types ^{b,c}												
Wet (32%)	151	7	0	0	0	11	170	635	1,088	1,253	992	242
Above Normal (16%)	127	5	0	0	0	10	299	661	1,097	1,252	982	244
Below Normal (13%)	134	8	0	0	8	66	357	610	902	1,065	834	186
Dry (24%)	100	4	0	0	4	14	213	287	547	619	491	103
Critical (15%)	80	17	0	0	1	25	196	213	297	345	304	115

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	209	19	0	0	0	53	459	825	1,191	1,377	1,094	301
20%	188	17	0	0	0	32	347	738	1,109	1,322	1,034	275
30%	153	17	0	0	0	17	319	674	1,085	1,270	1,005	259
40%	131	5	0	0	0	3	288	550	1,056	1,183	943	228
50%	103	1	0	0	0	1	225	500	944	1,141	877	206
60%	93	0	0	0	0	0	186	456	827	926	730	165
70%	86	0	0	0	0	0	142	379	546	639	506	110
80%	69	0	0	0	0	0	48	251	465	530	422	80
90%	57	0	0	0	0	0	29	140	332	384	306	21
Long Term												
Full Simulation Period ^d	123	7	0	0	2	19	232	502	822	946	748	182
Water Year Types ^{b,c}												
Wet (32%)	147	7	0	0	0	11	187	618	1,052	1,212	961	235
Above Normal (16%)	129	5	0	0	0	9	321	681	1,109	1,266	993	249
Below Normal (13%)	131	7	0	0	9	52	344	611	877	1,036	813	162
Dry (24%)	104	4	0	0	4	15	214	338	599	679	538	117
Critical (15%)	89	16	0	0	1	25	163	232	336	388	309	123

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-1	0	0	0	1	4	39	0	-1	-1	2
20%	-1	0	0	0	0	-1	-23	-13	-22	-16	-23	0
30%	3	0	0	0	0	-2	4	0	-9	-6	-5	-2
40%	2	0	0	0	0	0	34	-43	-5	-50	-4	0
50%	-2	0	0	0	0	0	23	21	-84	-4	-28	-2
60%	6	0	0	0	0	0	7	31	15	10	11	3
70%	6	0	0	0	0	0	30	32	19	7	-15	-1
80%	1	0	0	0	0	0	-1	18	67	68	53	-5
90%	0	0	0	0	0	0	5	17	42	59	37	2
Long Term												
Full Simulation Period ^d	1	0	0	0	0	-2	3	13	5	6	1	0
Water Year Types ^{b,c}												
Wet (32%)	-4	0	0	0	0	-1	16	-18	-36	-41	-31	-7
Above Normal (16%)	2	0	0	0	0	-1	22	20	12	14	11	5
Below Normal (13%)	-3	-2	0	0	0	-14	-13	1	-25	-29	-22	-24
Dry (24%)	4	0	0	0	0	1	2	51	52	59	47	14
Critical (15%)	9	0	0	0	0	0	-32	19	39	43	5	9

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

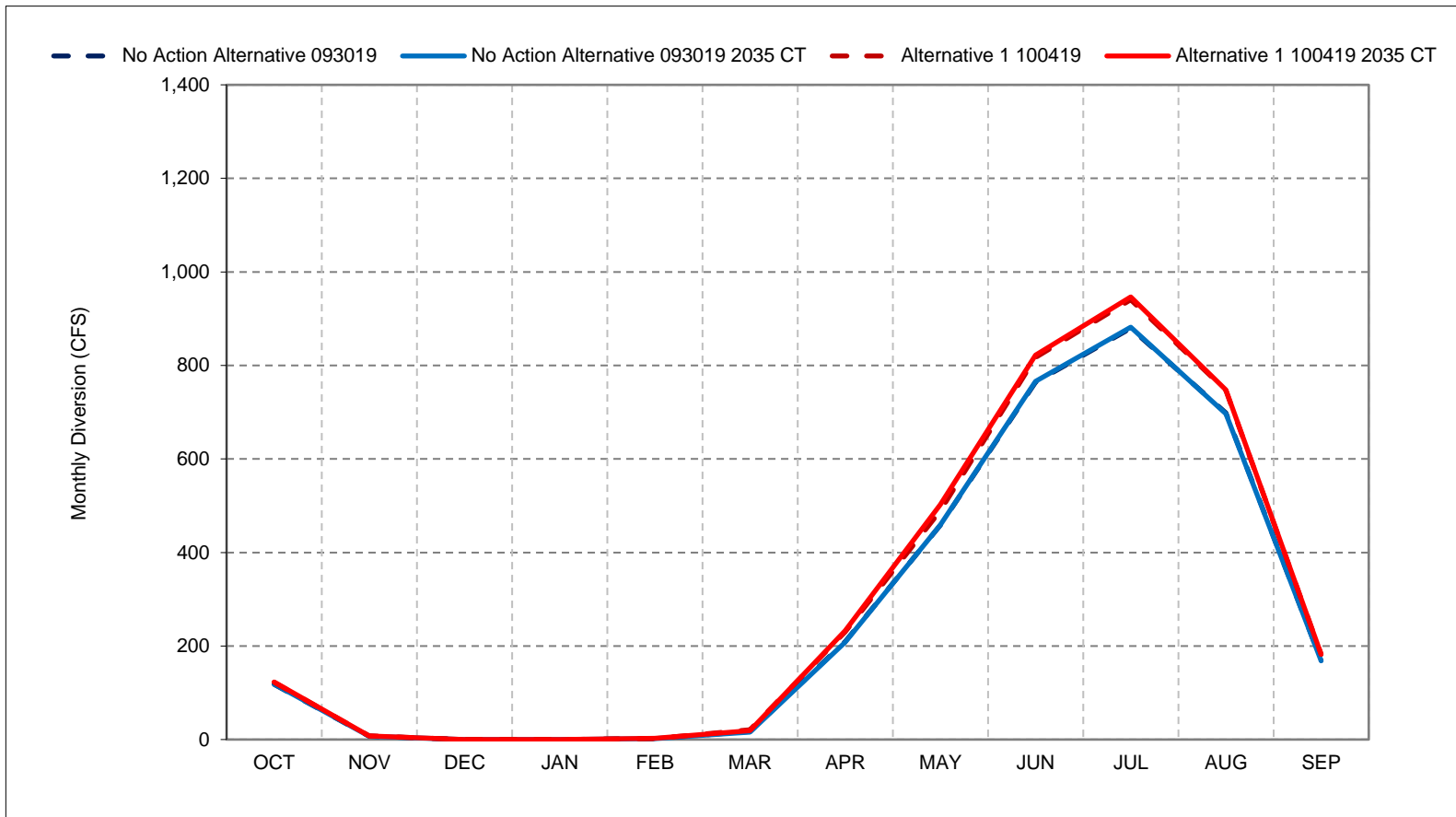
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 47-1. Red Bluff Diversion - Tehama Colusa Canal, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

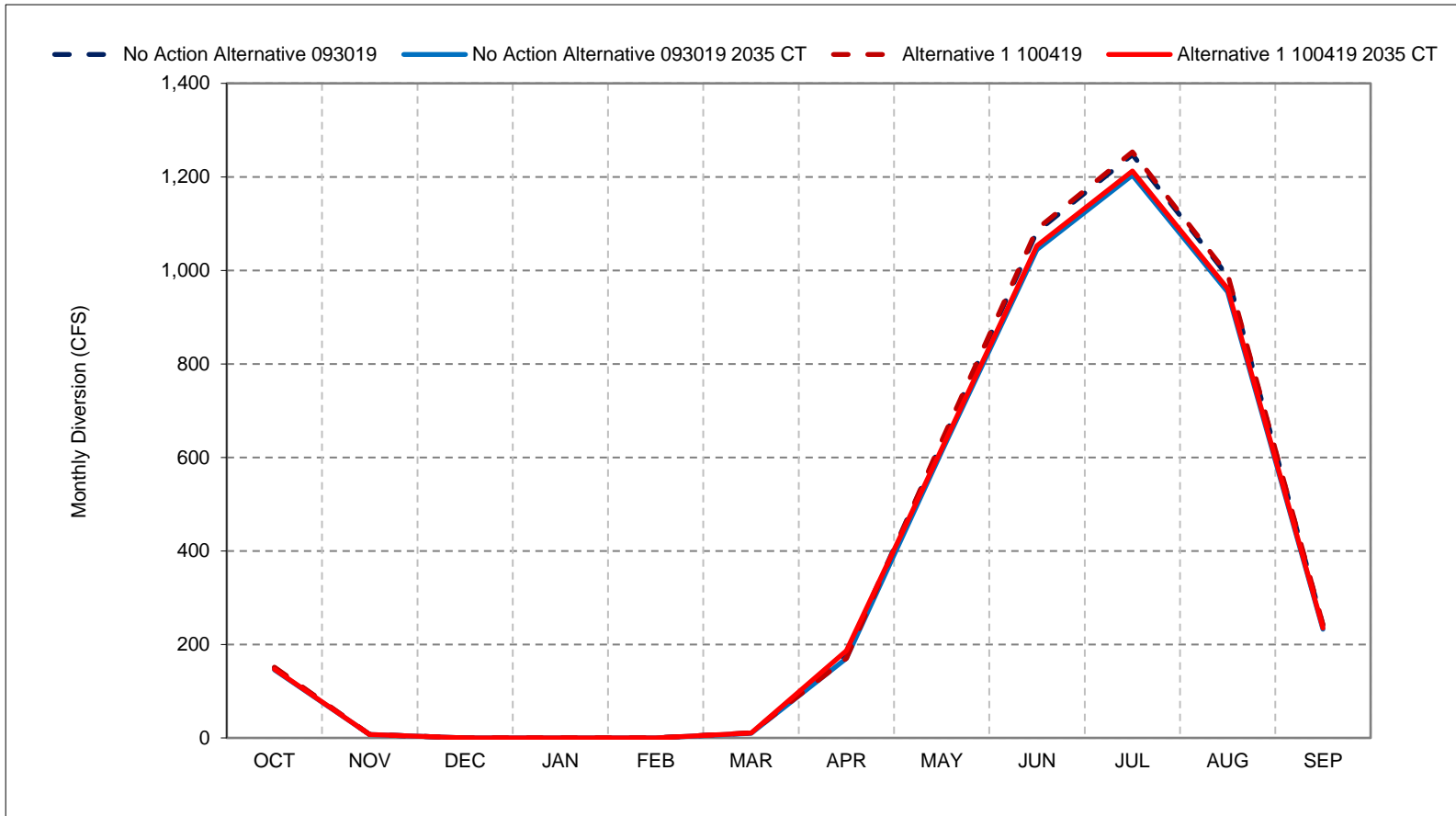
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-2. Red Bluff Diversion - Tehama Colusa Canal, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

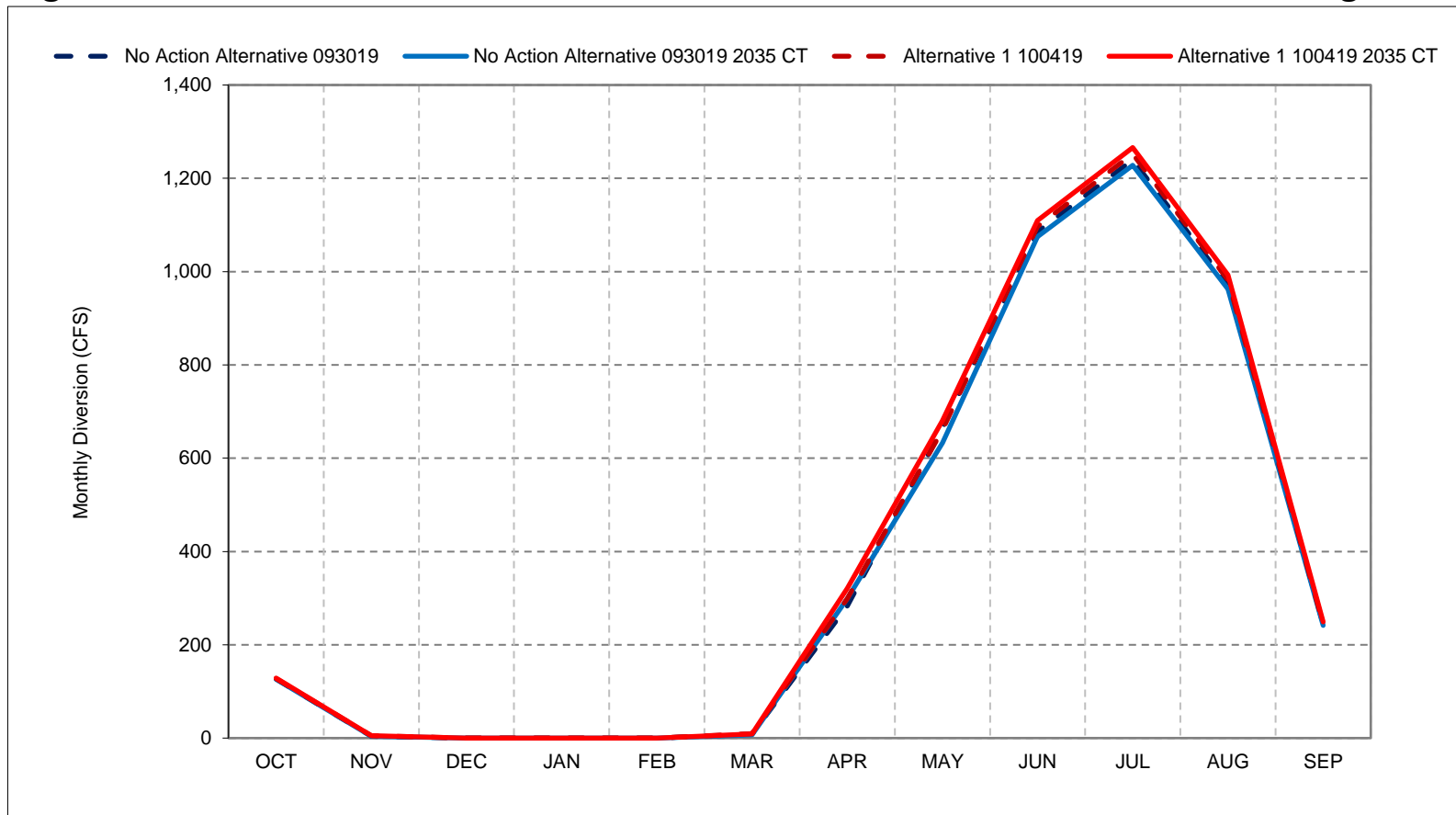
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-3. Red Bluff Diversion - Tehama Colusa Canal, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

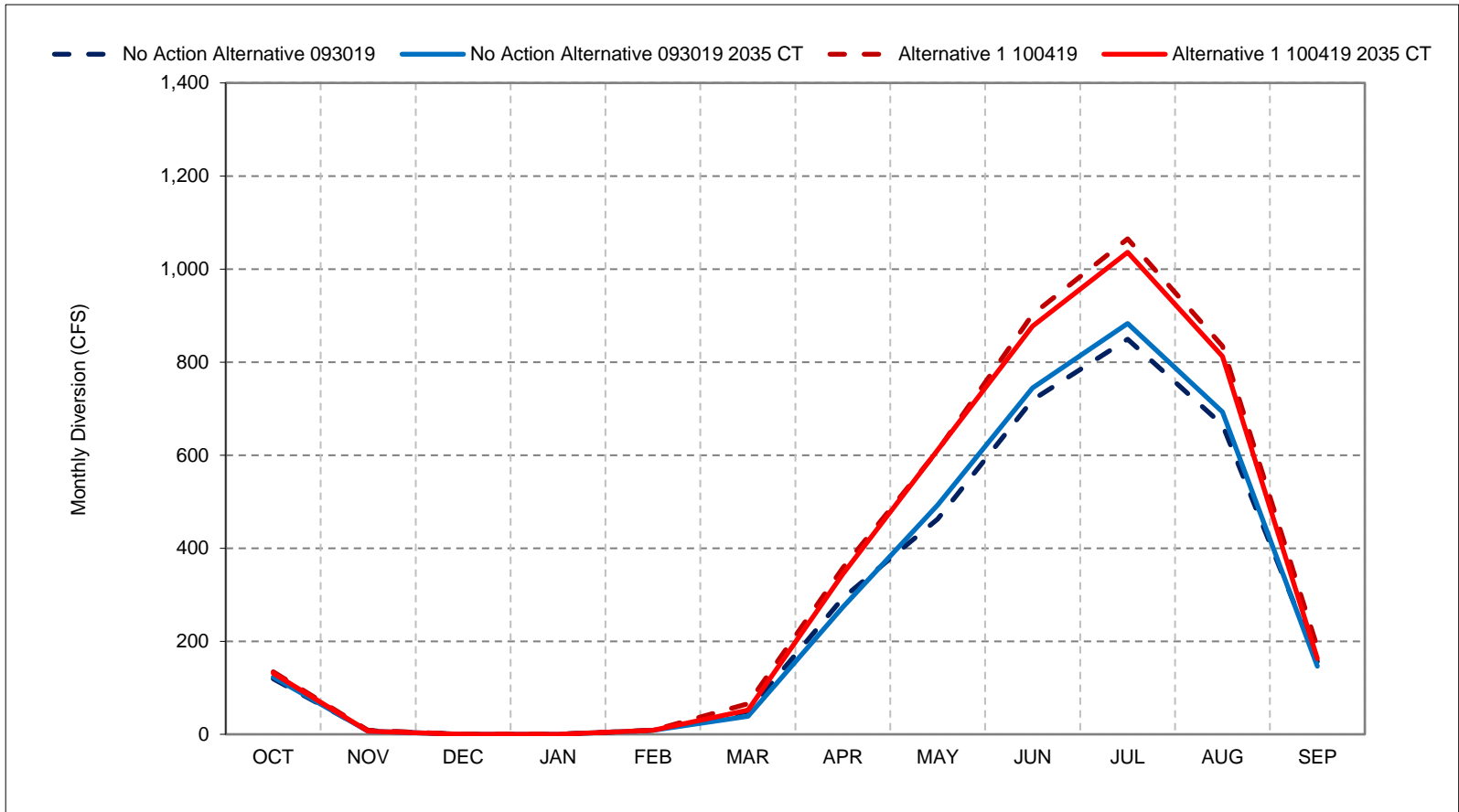
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-4. Red Bluff Diversion - Tehama Colusa Canal, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

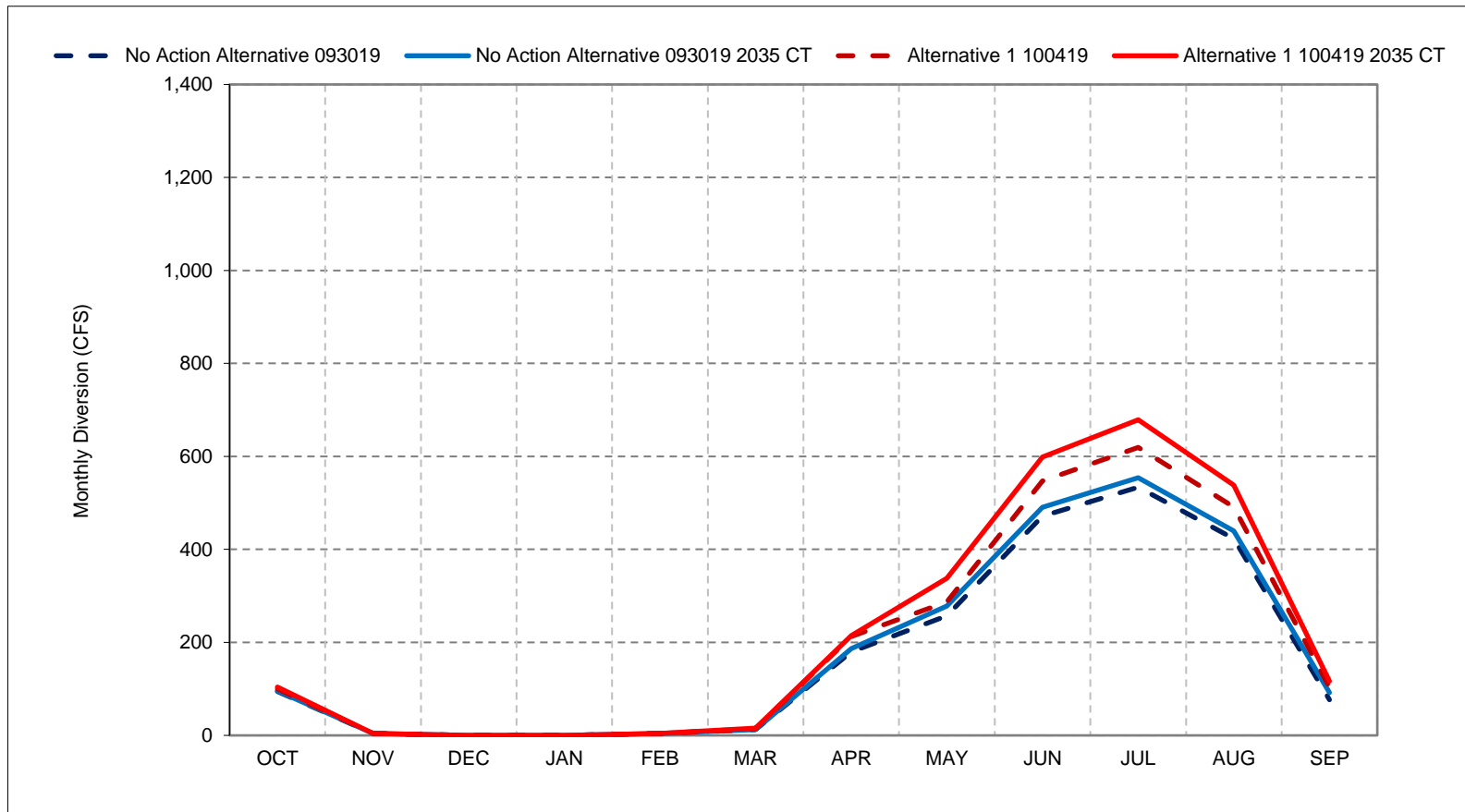
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-5. Red Bluff Diversion - Tehama Colusa Canal, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

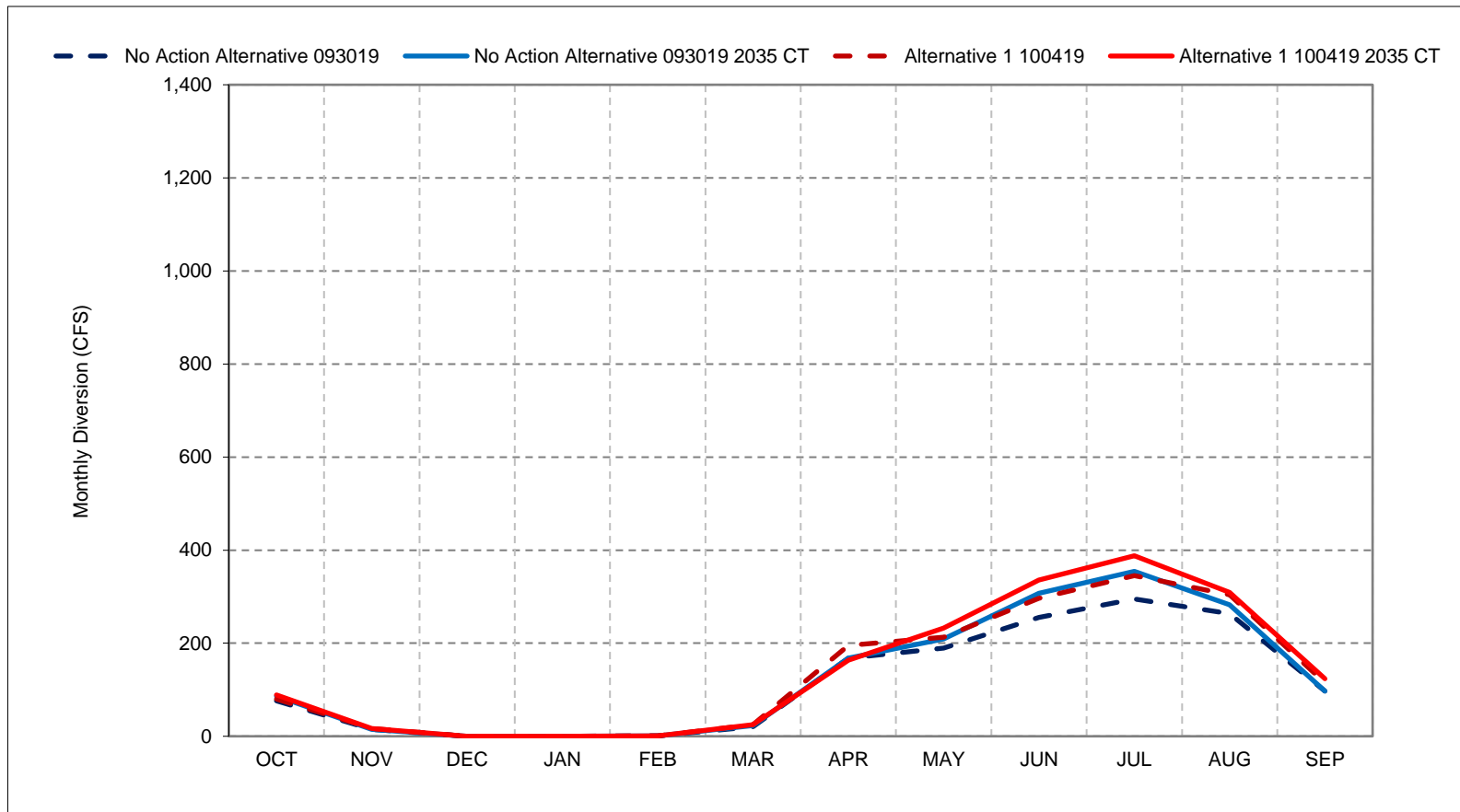
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-6. Red Bluff Diversion - Tehama Colusa Canal, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

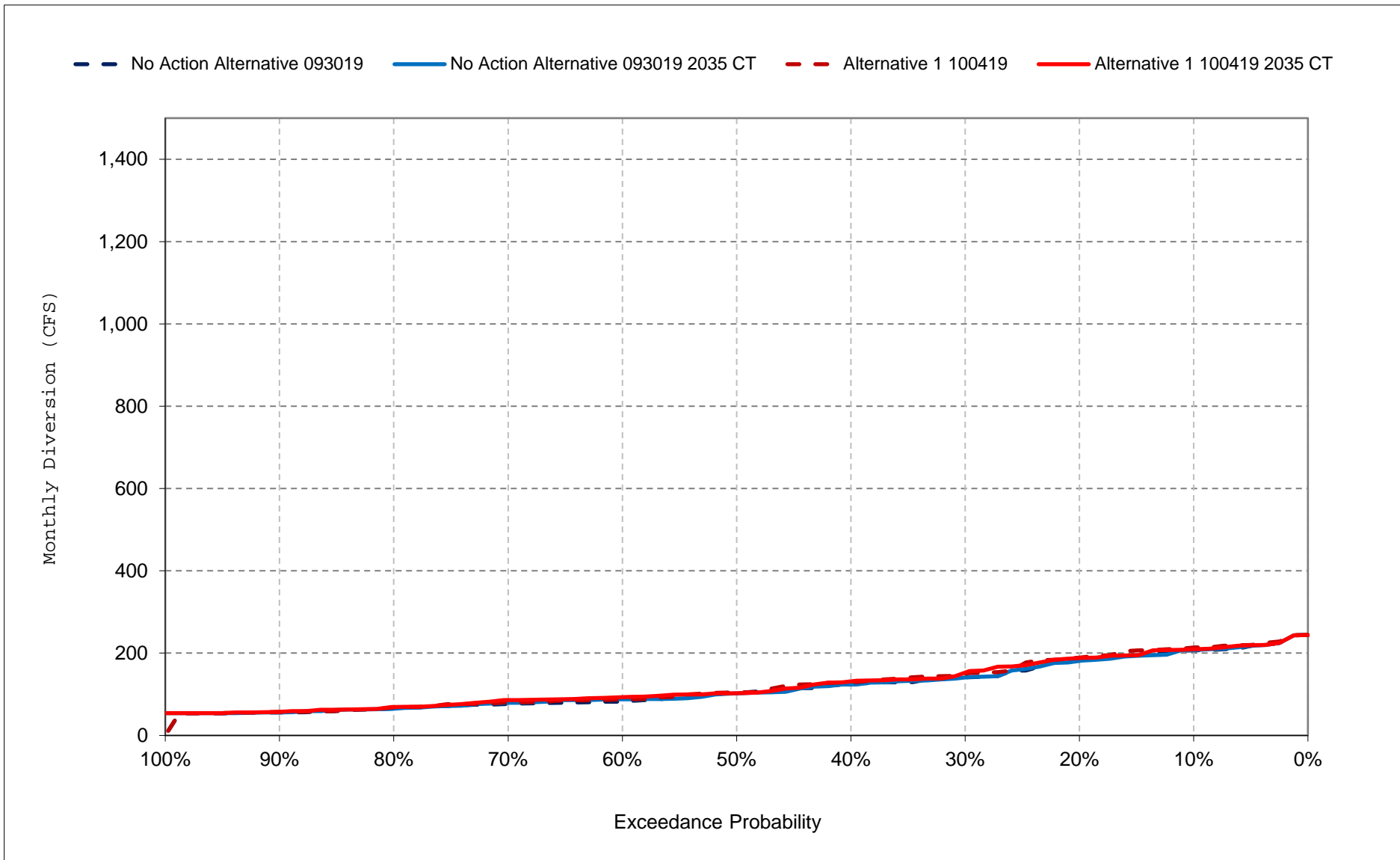
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

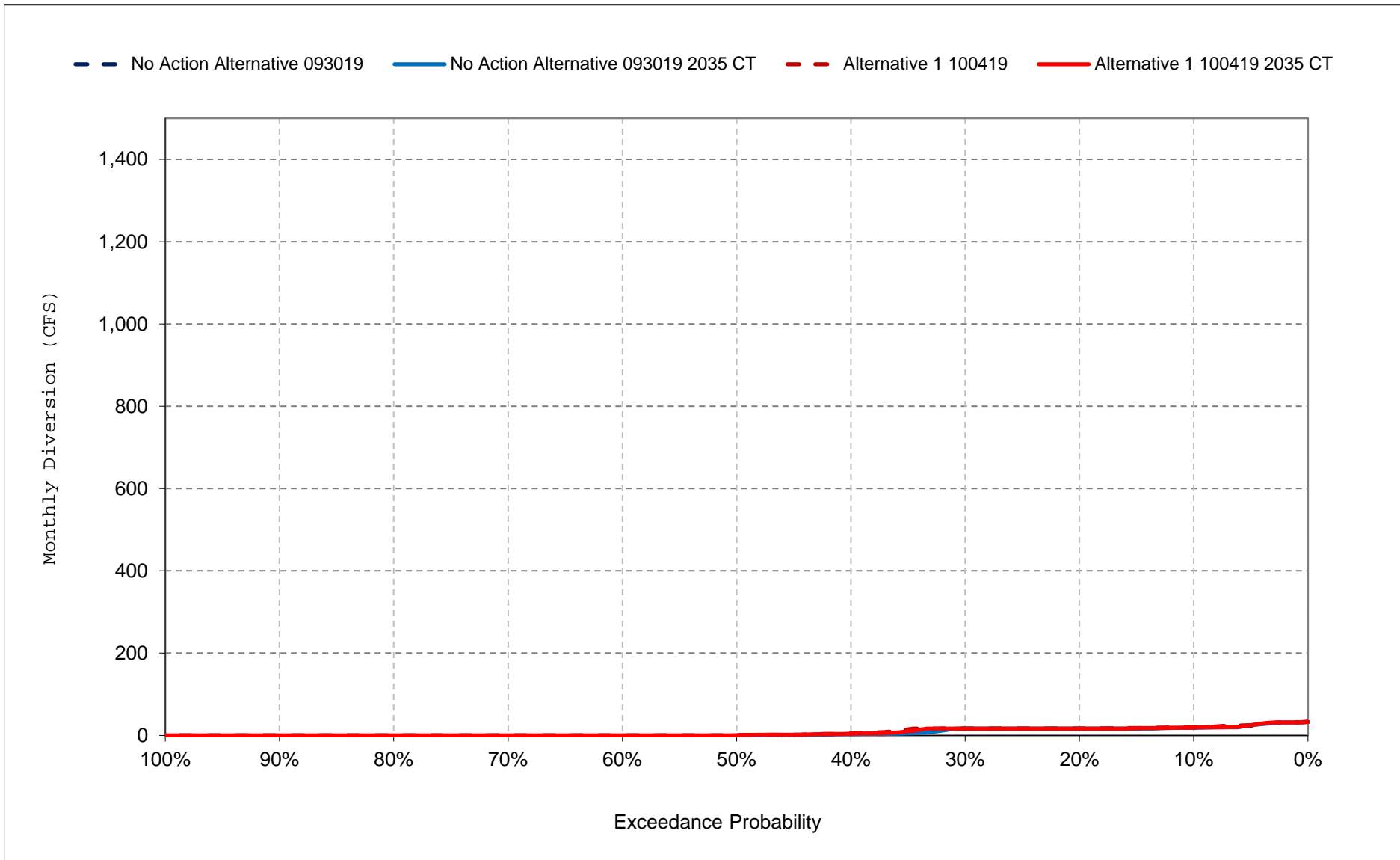
Figure 47-7. Red Bluff Diversion - Tehama Colusa Canal, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

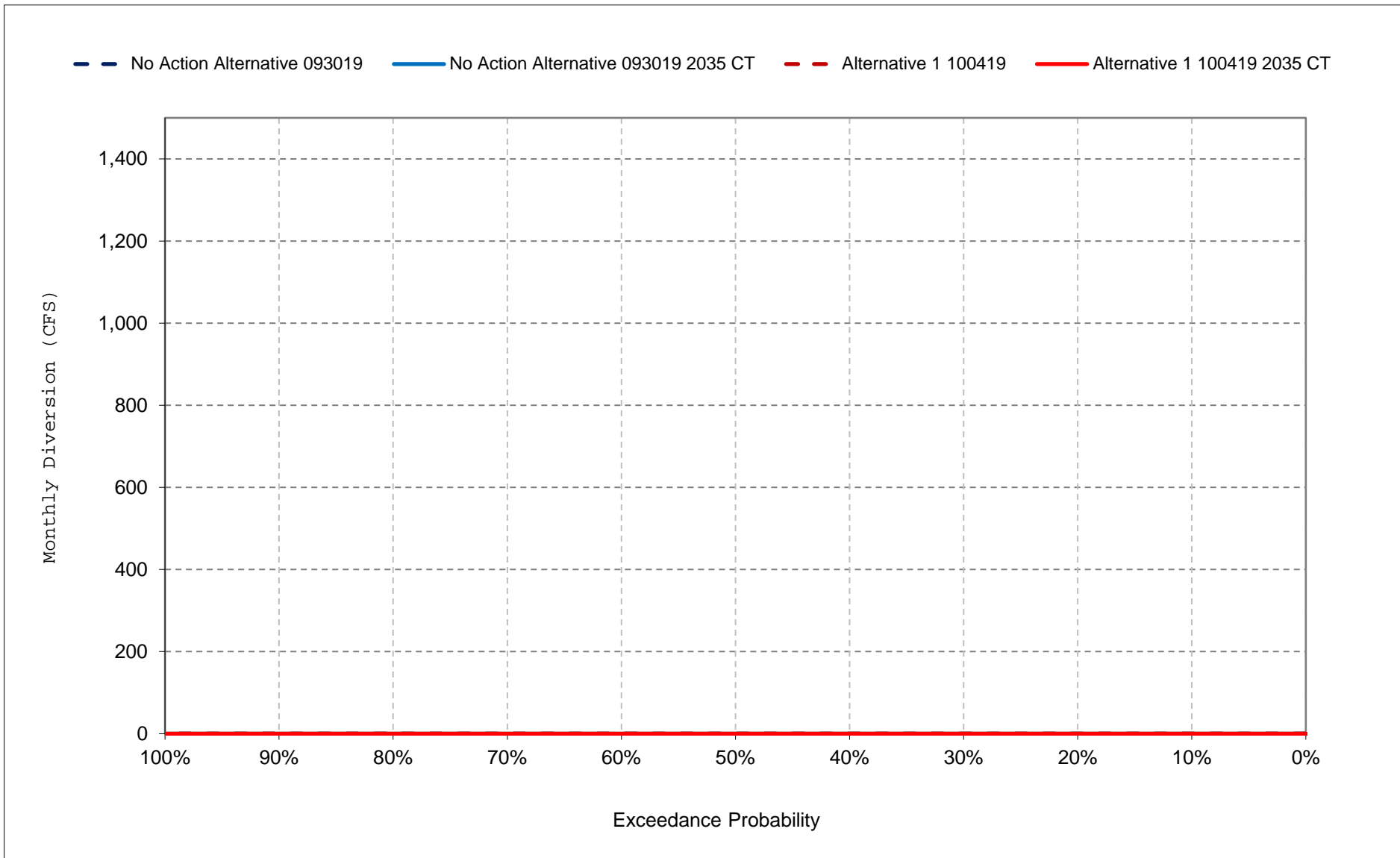
Figure 47-8. Red Bluff Diversion - Tehama Colusa Canal, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

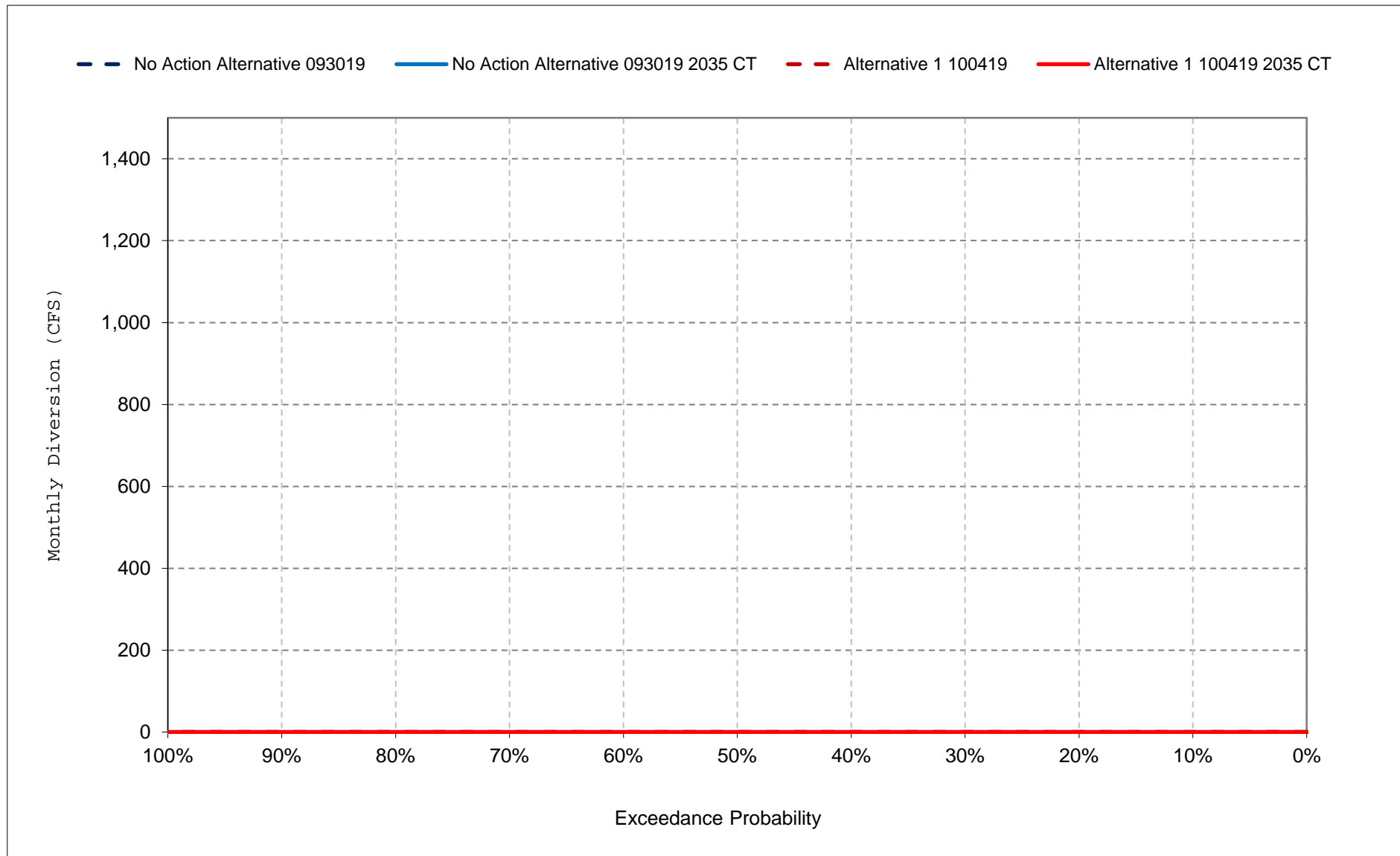
Figure 47-9. Red Bluff Diversion - Tehama Colusa Canal, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

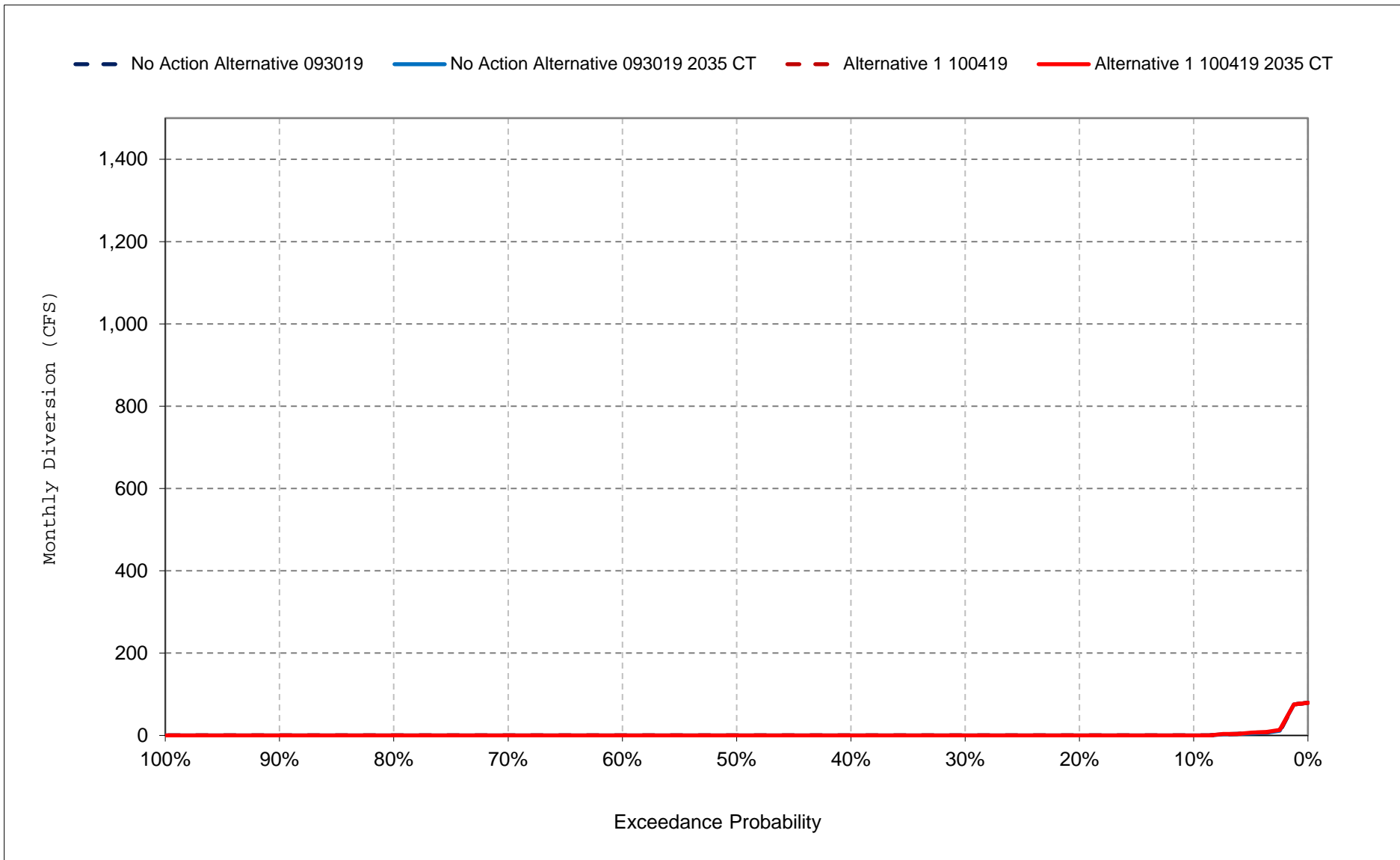
Figure 47-10. Red Bluff Diversion - Tehama Colusa Canal, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

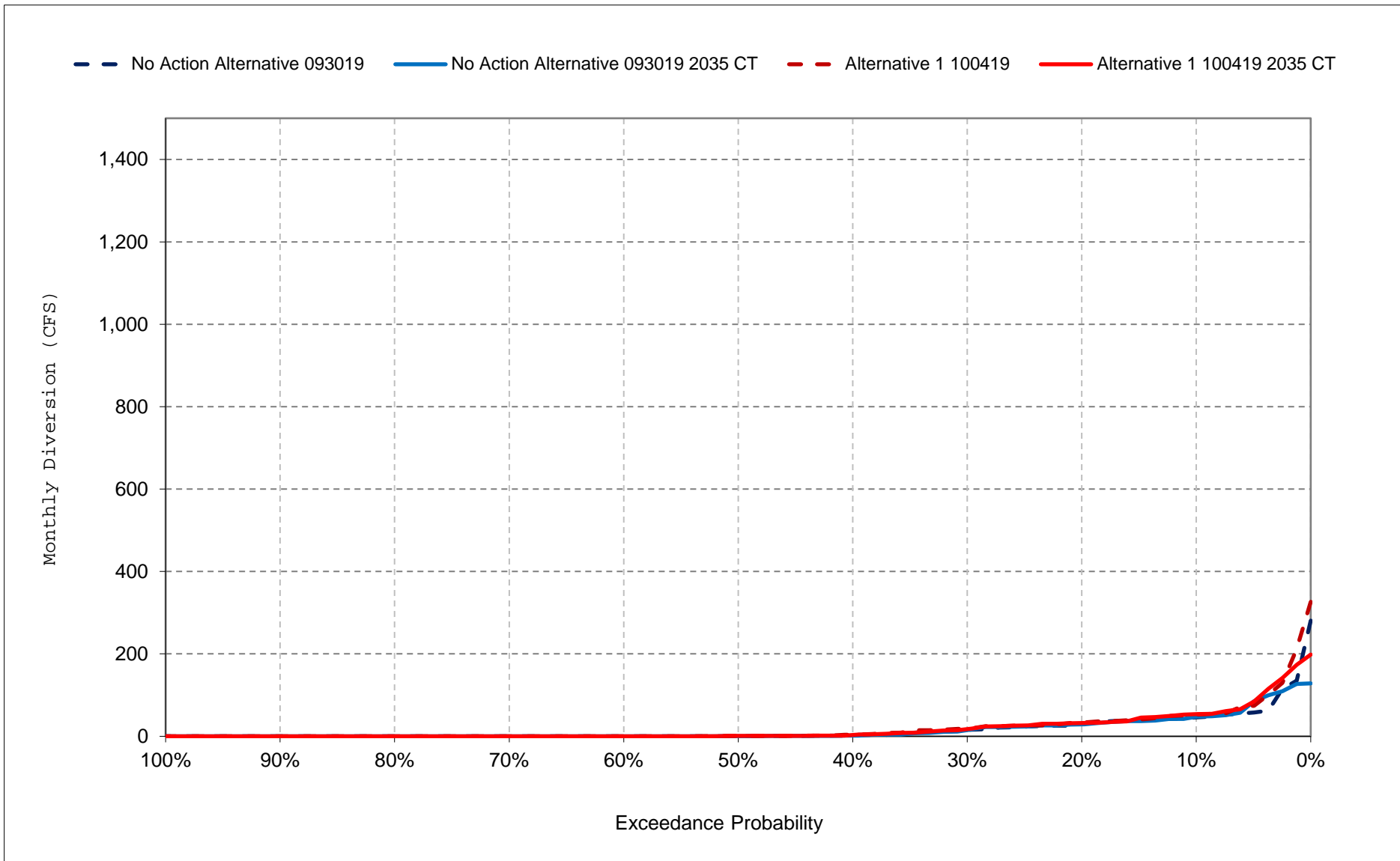
Figure 47-11. Red Bluff Diversion - Tehama Colusa Canal, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

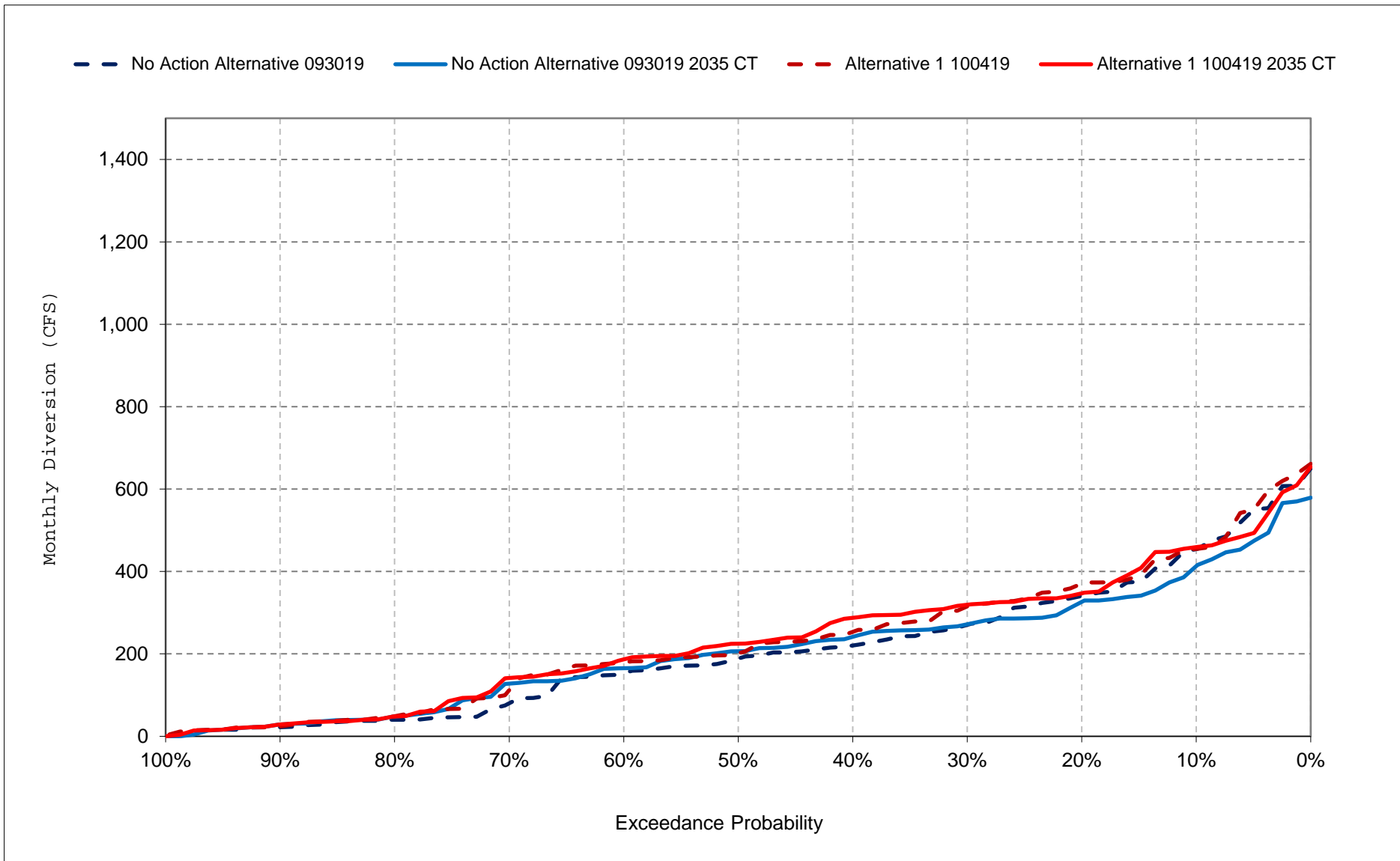
Figure 47-12. Red Bluff Diversion - Tehama Colusa Canal, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

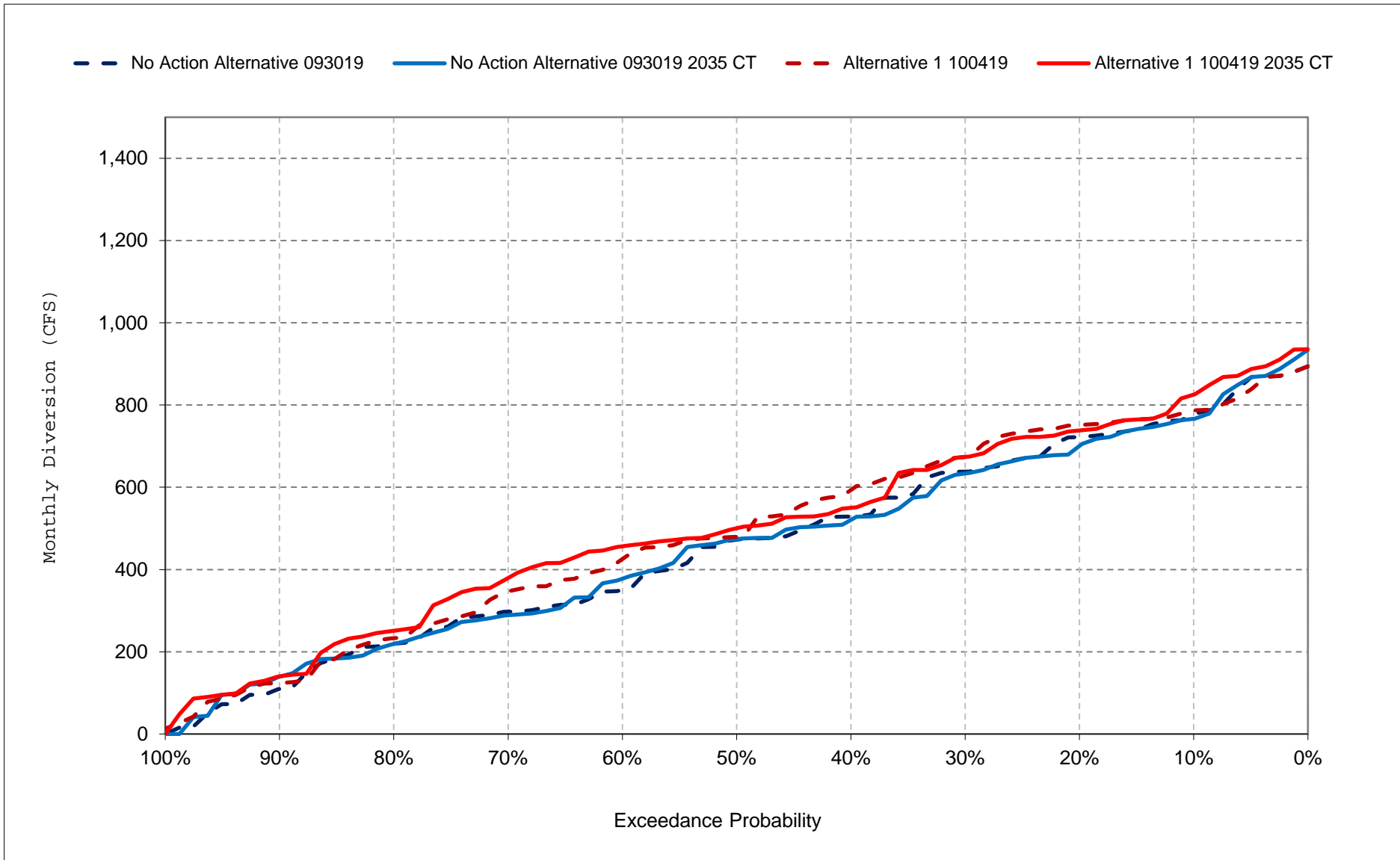
Figure 47-13. Red Bluff Diversion - Tehama Colusa Canal, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

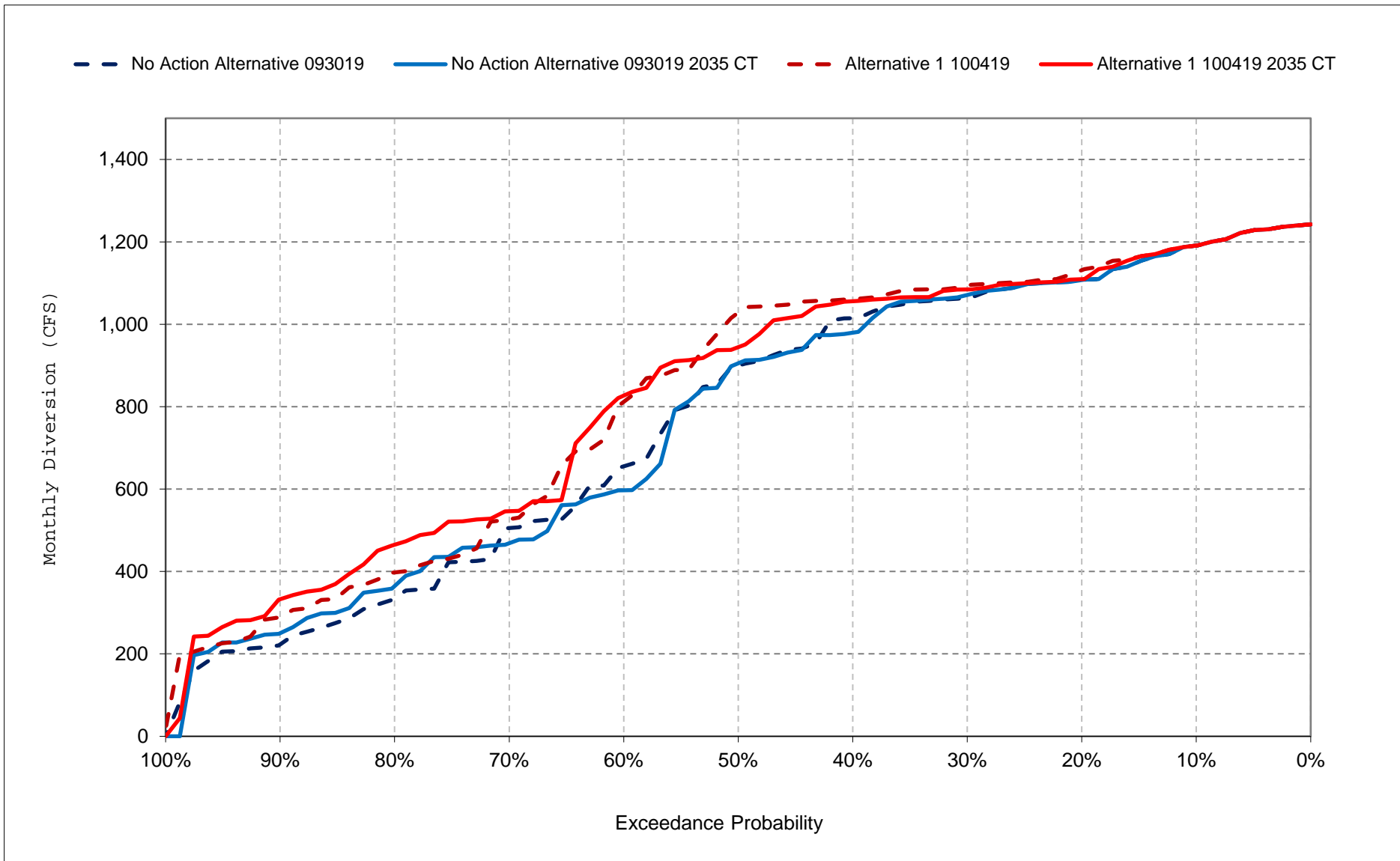
Figure 47-14. Red Bluff Diversion - Tehama Colusa Canal, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

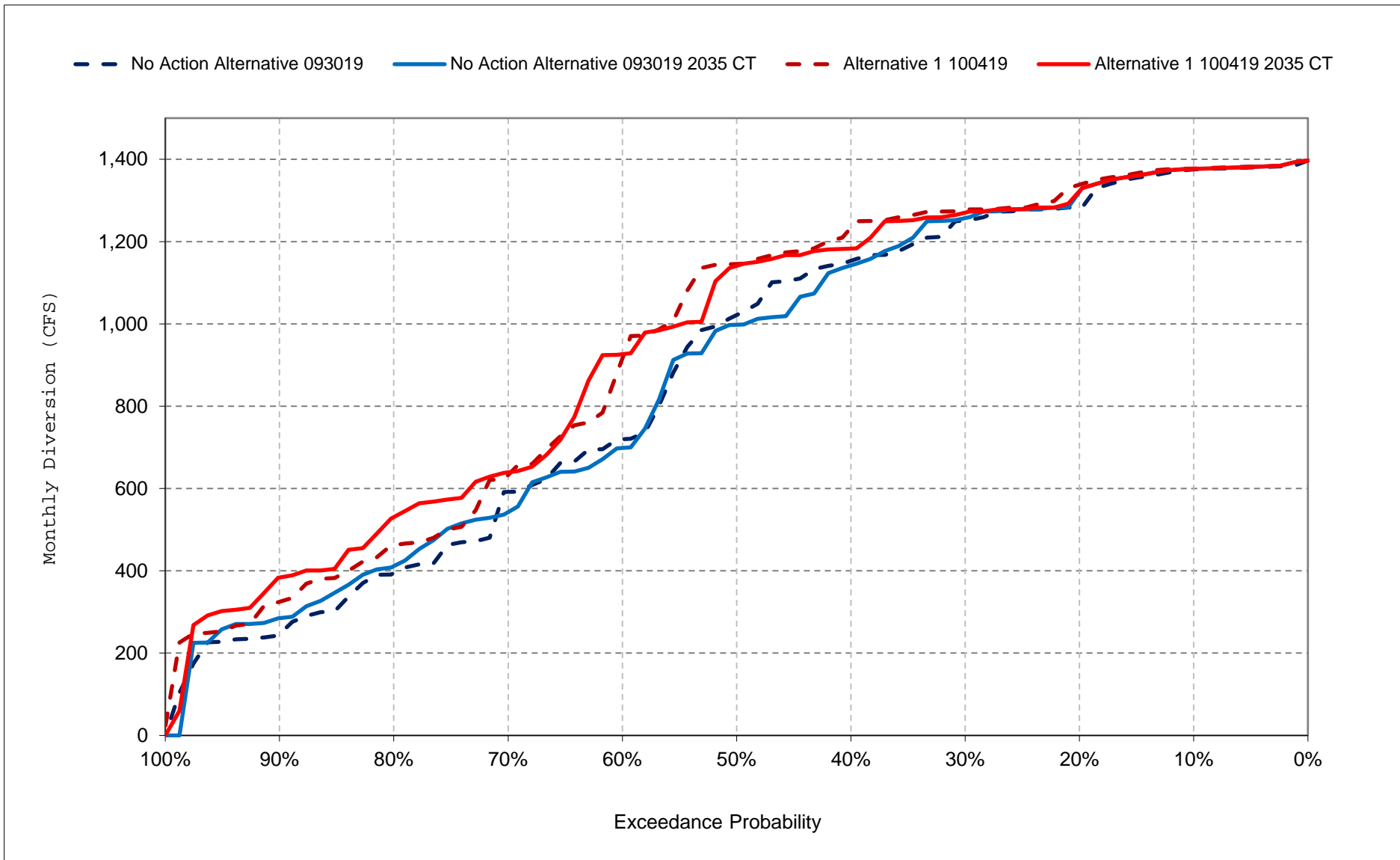
Figure 47-15. Red Bluff Diversion - Tehama Colusa Canal, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

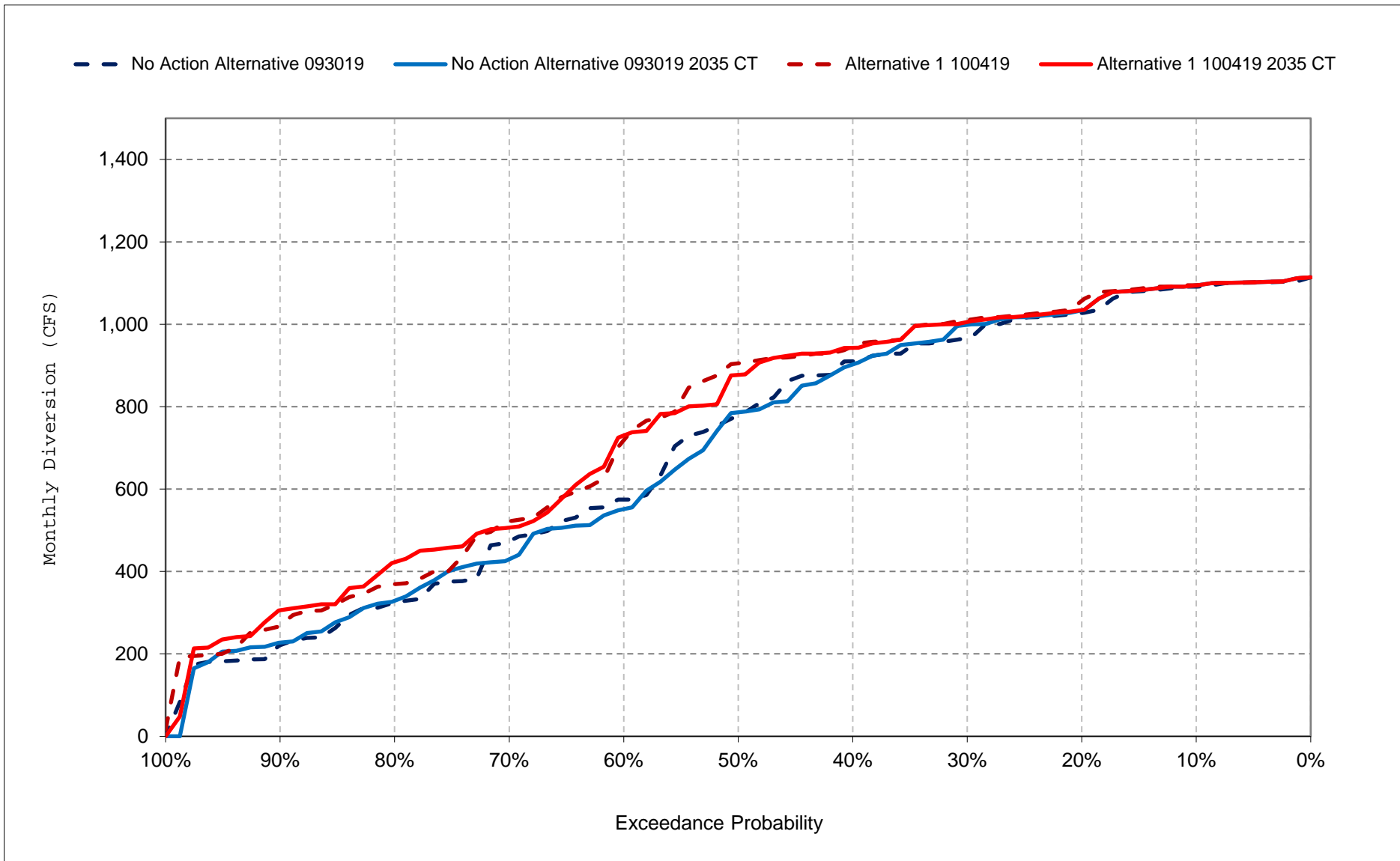
Figure 47-16. Red Bluff Diversion - Tehama Colusa Canal, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

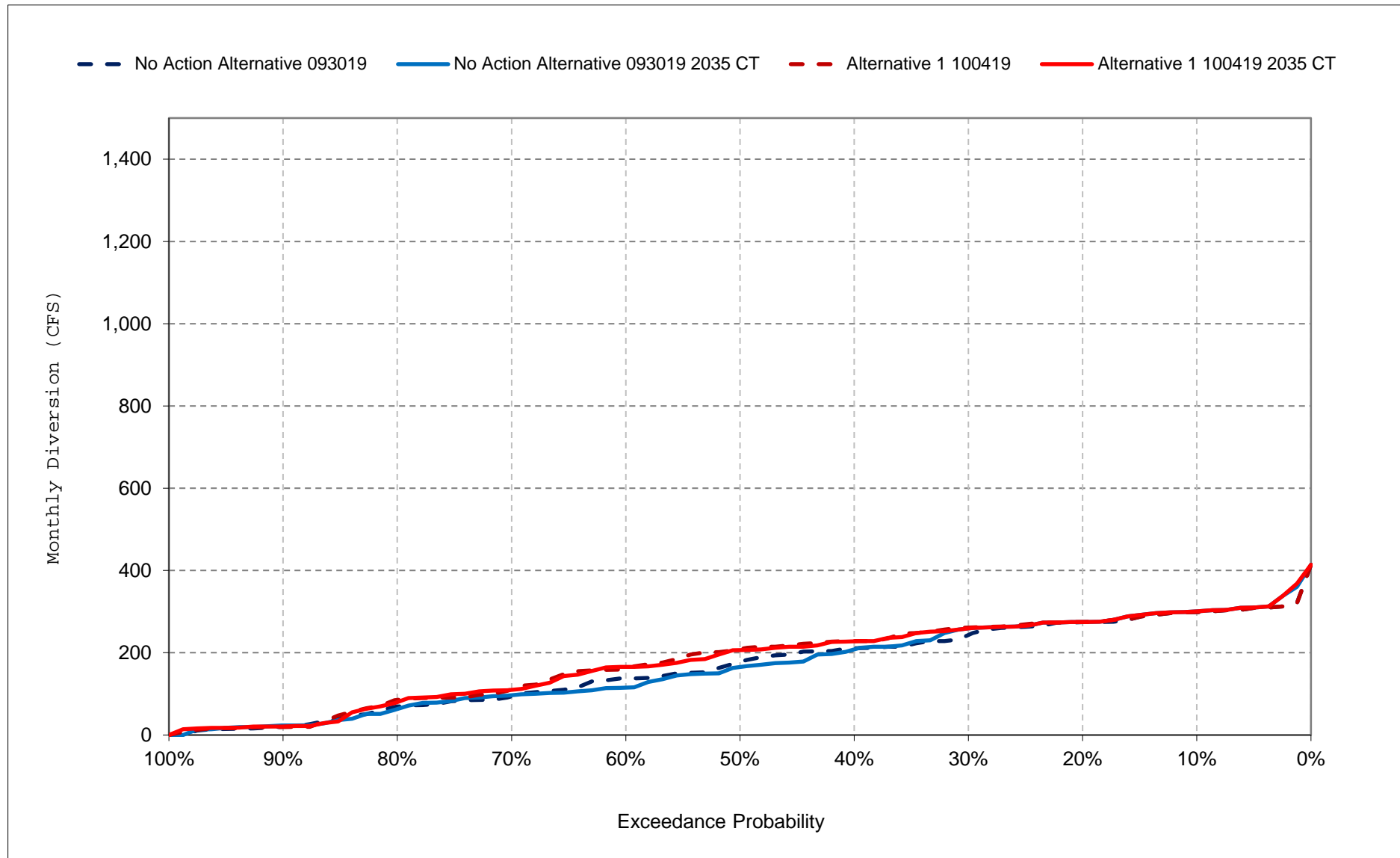
Figure 47-17. Red Bluff Diversion - Tehama Colusa Canal, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 47-18. Red Bluff Diversion - Tehama Colusa Canal, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-1. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	564	292	127	68	84	552	2,331	2,705	2,617	2,241	633
20%	845	546	268	86	68	65	527	2,297	2,620	2,611	2,130	633
30%	837	515	239	75	68	50	493	2,260	2,556	2,563	2,090	633
40%	823	478	222	75	68	35	467	2,245	2,483	2,538	2,040	630
50%	808	441	202	75	68	21	451	2,216	2,416	2,538	1,981	628
60%	790	420	181	75	68	20	427	2,153	2,339	2,535	1,928	612
70%	771	390	161	75	67	20	411	2,079	2,312	2,521	1,919	602
80%	745	354	158	75	66	20	391	2,007	2,271	2,443	1,874	569
90%	636	323	158	75	53	20	306	1,858	2,226	2,285	1,795	504
Long Term												
Full Simulation Period ^d	773	448	210	84	67	43	443	2,139	2,432	2,510	1,991	591
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	32	402	2,119	2,258	2,565	2,141	614
Above Normal (16%)	796	461	207	76	65	28	432	2,098	2,359	2,537	2,023	616
Below Normal (13%)	781	466	212	98	73	63	472	2,170	2,559	2,534	1,995	583
Dry (24%)	807	435	215	85	66	43	447	2,200	2,645	2,532	1,916	605
Critical (15%)	600	414	166	84	66	65	512	2,098	2,418	2,305	1,755	500

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	801	292	127	68	84	552	2,340	2,705	2,617	2,241	633
20%	605	788	270	86	68	65	527	2,313	2,621	2,615	2,135	633
30%	598	758	240	75	68	50	493	2,274	2,571	2,563	2,093	633
40%	586	724	224	75	68	35	467	2,250	2,483	2,538	2,065	630
50%	572	685	202	75	68	21	451	2,225	2,416	2,538	1,982	628
60%	555	658	181	75	68	20	427	2,154	2,340	2,524	1,924	613
70%	539	619	161	75	67	20	411	2,086	2,327	2,518	1,911	603
80%	516	586	158	75	66	20	391	2,007	2,277	2,443	1,855	554
90%	453	556	158	75	53	20	306	1,853	2,226	2,318	1,795	504
Long Term												
Full Simulation Period ^d	551	684	211	84	67	43	443	2,145	2,434	2,509	2,001	590
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,122	2,264	2,565	2,169	618
Above Normal (16%)	562	702	207	76	65	28	432	2,098	2,359	2,537	2,054	616
Below Normal (13%)	553	702	212	98	73	63	472	2,181	2,564	2,543	1,984	574
Dry (24%)	572	678	218	85	66	43	447	2,215	2,643	2,527	1,901	601
Critical (15%)	447	617	166	84	66	65	512	2,095	2,418	2,297	1,762	500

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-241	238	0	0	0	0	0	10	0	0	0	0
20%	-239	242	1	0	0	0	0	16	1	4	5	0
30%	-239	242	2	0	0	0	0	15	15	0	3	0
40%	-237	247	2	0	0	0	0	5	0	0	25	0
50%	-236	244	0	0	0	0	0	9	0	0	1	0
60%	-234	237	0	0	0	0	0	2	1	-12	-4	1
70%	-232	229	0	0	0	0	0	7	15	-3	-8	1
80%	-229	232	0	0	0	0	0	0	7	0	-20	-16
90%	-183	233	0	0	0	0	0	-5	0	33	0	0
Long Term												
Full Simulation Period ^d	-222	236	1	0	0	0	0	6	2	-1	10	-1
Water Year Types ^{b,c}												
Wet (32%)	-236	244	0	0	0	-1	0	3	6	0	28	4
Above Normal (16%)	-234	241	0	0	0	0	0	0	0	0	31	0
Below Normal (13%)	-228	236	0	0	0	0	0	11	5	9	-11	-9
Dry (24%)	-234	244	3	0	0	0	0	14	-2	-4	-14	-4
Critical (15%)	-153	203	0	0	0	0	0	-3	0	-7	7	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 48-2. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	573	292	127	68	87	552	2,338	2,710	2,617	2,186	633
20%	845	550	270	86	68	61	525	2,296	2,647	2,599	2,130	633
30%	837	521	249	75	68	50	493	2,257	2,580	2,583	2,093	633
40%	824	480	224	75	68	35	467	2,242	2,485	2,549	2,067	630
50%	811	447	199	75	68	21	451	2,209	2,414	2,538	2,027	626
60%	794	420	181	75	68	20	427	2,153	2,336	2,537	1,924	612
70%	775	390	161	75	68	20	411	2,069	2,296	2,527	1,912	602
80%	745	354	158	75	66	20	391	2,007	2,260	2,477	1,857	543
90%	697	323	158	75	66	20	306	1,841	2,203	2,327	1,796	507
Long Term												
Full Simulation Period ^d	787	450	212	84	68	43	443	2,135	2,431	2,517	2,003	596
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	31	402	2,114	2,243	2,578	2,136	611
Above Normal (16%)	796	461	207	76	65	28	431	2,085	2,362	2,535	2,037	602
Below Normal (13%)	801	481	219	98	73	64	473	2,172	2,566	2,556	2,026	596
Dry (24%)	807	435	218	86	69	43	447	2,202	2,651	2,529	1,911	605
Critical (15%)	682	415	164	85	66	65	512	2,090	2,421	2,313	1,808	542

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	818	286	127	68	87	552	2,340	2,710	2,617	2,241	633
20%	605	792	270	86	68	61	525	2,304	2,647	2,607	2,130	633
30%	598	761	249	75	68	50	493	2,278	2,591	2,574	2,093	633
40%	587	728	224	75	68	35	467	2,247	2,485	2,560	2,065	630
50%	575	692	199	75	68	21	451	2,224	2,416	2,538	2,012	628
60%	559	661	181	75	68	20	427	2,190	2,351	2,538	1,924	617
70%	543	621	161	75	67	20	411	2,079	2,312	2,524	1,914	603
80%	517	583	158	75	66	20	391	1,995	2,272	2,470	1,856	587
90%	487	556	158	75	62	20	306	1,853	2,223	2,327	1,796	507
Long Term												
Full Simulation Period ^d	558	687	211	84	68	43	443	2,147	2,439	2,517	2,005	600
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,120	2,255	2,572	2,148	621
Above Normal (16%)	562	702	207	76	65	28	432	2,104	2,376	2,547	2,046	616
Below Normal (13%)	567	722	219	98	73	64	473	2,186	2,577	2,571	2,009	594
Dry (24%)	572	678	218	86	67	43	447	2,215	2,651	2,530	1,905	601
Critical (15%)	484	618	164	85	66	65	512	2,102	2,424	2,295	1,815	542

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-241	245	-6	0	0	0	0	3	0	0	55	0
20%	-239	241	0	0	0	0	0	7	0	9	0	0
30%	-239	240	0	0	0	0	0	21	11	-8	0	0
40%	-237	248	0	0	0	0	0	5	0	12	-2	0
50%	-236	245	0	0	0	0	0	15	2	0	-15	1
60%	-235	241	0	0	0	0	0	37	15	1	0	5
70%	-233	231	0	0	-2	0	0	10	16	-3	3	1
80%	-229	229	0	0	0	0	0	-13	12	-7	-1	44
90%	-210	233	0	0	-4	0	0	12	20	0	0	0
Long Term												
Full Simulation Period ^d	-229	237	0	0	-1	0	0	12	8	0	2	4
Water Year Types ^{b,c}												
Wet (32%)	-236	244	0	0	0	-1	0	6	12	-6	11	10
Above Normal (16%)	-234	241	-1	0	0	0	1	19	14	11	9	14
Below Normal (13%)	-234	242	0	0	0	0	0	15	12	15	-16	-2
Dry (24%)	-234	244	0	0	-2	0	0	13	0	1	-6	-4
Critical (15%)	-198	203	0	0	0	0	0	12	3	-18	7	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-3. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	564	292	127	68	84	552	2,331	2,705	2,617	2,241	633
20%	845	546	268	86	68	65	527	2,297	2,620	2,611	2,130	633
30%	837	515	239	75	68	50	493	2,260	2,556	2,563	2,090	633
40%	823	478	222	75	68	35	467	2,245	2,483	2,538	2,040	630
50%	808	441	202	75	68	21	451	2,216	2,416	2,538	1,981	628
60%	790	420	181	75	68	20	427	2,153	2,339	2,535	1,928	612
70%	771	390	161	75	67	20	411	2,079	2,312	2,521	1,919	602
80%	745	354	158	75	66	20	391	2,007	2,271	2,443	1,874	569
90%	636	323	158	75	53	20	306	1,858	2,226	2,285	1,795	504
Long Term												
Full Simulation Period ^d	773	448	210	84	67	43	443	2,139	2,432	2,510	1,991	591
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	32	402	2,119	2,258	2,565	2,141	614
Above Normal (16%)	796	461	207	76	65	28	432	2,098	2,359	2,537	2,023	616
Below Normal (13%)	781	466	212	98	73	63	472	2,170	2,559	2,534	1,995	583
Dry (24%)	807	435	215	85	66	43	447	2,200	2,645	2,532	1,916	605
Critical (15%)	600	414	166	84	66	65	512	2,098	2,418	2,305	1,755	500

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	573	292	127	68	87	552	2,338	2,710	2,617	2,186	633
20%	845	550	270	86	68	61	525	2,296	2,647	2,599	2,130	633
30%	837	521	249	75	68	50	493	2,257	2,580	2,583	2,093	633
40%	824	480	224	75	68	35	467	2,242	2,485	2,549	2,067	630
50%	811	447	199	75	68	21	451	2,209	2,414	2,538	2,027	626
60%	794	420	181	75	68	20	427	2,153	2,336	2,537	1,924	612
70%	775	390	161	75	68	20	411	2,069	2,296	2,527	1,912	602
80%	745	354	158	75	66	20	391	2,007	2,260	2,477	1,857	543
90%	697	323	158	75	66	20	306	1,841	2,203	2,327	1,796	507
Long Term												
Full Simulation Period ^d	787	450	212	84	68	43	443	2,135	2,431	2,517	2,003	596
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	31	402	2,114	2,243	2,578	2,136	611
Above Normal (16%)	796	461	207	76	65	28	431	2,085	2,362	2,535	2,037	602
Below Normal (13%)	801	481	219	98	73	64	473	2,172	2,566	2,556	2,026	596
Dry (24%)	807	435	218	86	69	43	447	2,202	2,651	2,529	1,911	605
Critical (15%)	682	415	164	85	66	65	512	2,090	2,421	2,313	1,808	542

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	9	0	0	0	3	0	7	5	0	-55	0
20%	0	4	1	0	0	-4	-2	-1	27	-12	0	0
30%	0	6	10	0	0	0	0	-3	24	20	3	0
40%	1	2	2	0	0	0	0	-3	2	11	27	0
50%	3	6	-3	0	0	0	0	-8	-2	0	46	-1
60%	4	0	-1	0	0	0	0	0	-3	2	-4	0
70%	5	0	0	0	2	0	0	-10	-16	5	-7	0
80%	0	0	0	0	0	0	0	0	-11	34	-17	-26
90%	62	0	0	0	13	0	0	-17	-23	42	1	3
Long Term												
Full Simulation Period ^d	15	2	1	0	1	0	0	-4	-1	7	12	5
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	0	-5	-14	13	-4	-3
Above Normal (16%)	0	0	0	0	0	0	-1	-13	3	-1	14	-14
Below Normal (13%)	20	14	6	0	0	1	1	2	7	22	31	13
Dry (24%)	0	0	3	1	3	0	0	2	6	-3	-5	0
Critical (15%)	82	1	-1	1	0	0	0	-8	3	8	53	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-4. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	801	292	127	68	84	552	2,340	2,705	2,617	2,241	633
20%	605	788	270	86	68	65	527	2,313	2,621	2,615	2,135	633
30%	598	758	240	75	68	50	493	2,274	2,571	2,563	2,093	633
40%	586	724	224	75	68	35	467	2,250	2,483	2,538	2,065	630
50%	572	685	202	75	68	21	451	2,225	2,416	2,538	1,982	628
60%	555	658	181	75	68	20	427	2,154	2,340	2,524	1,924	613
70%	539	619	161	75	67	20	411	2,086	2,327	2,518	1,911	603
80%	516	586	158	75	66	20	391	2,007	2,277	2,443	1,855	554
90%	453	556	158	75	53	20	306	1,853	2,226	2,318	1,795	504
Long Term												
Full Simulation Period ^d	551	684	211	84	67	43	443	2,145	2,434	2,509	2,001	590
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,122	2,264	2,565	2,169	618
Above Normal (16%)	562	702	207	76	65	28	432	2,098	2,359	2,537	2,054	616
Below Normal (13%)	553	702	212	98	73	63	472	2,181	2,564	2,543	1,984	574
Dry (24%)	572	678	218	85	66	43	447	2,215	2,643	2,527	1,901	601
Critical (15%)	447	617	166	84	66	65	512	2,095	2,418	2,297	1,762	500

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	818	286	127	68	87	552	2,340	2,710	2,617	2,241	633
20%	605	792	270	86	68	61	525	2,304	2,647	2,607	2,130	633
30%	598	761	249	75	68	50	493	2,278	2,591	2,574	2,093	633
40%	587	728	224	75	68	35	467	2,247	2,485	2,560	2,065	630
50%	575	692	199	75	68	21	451	2,224	2,416	2,538	2,012	628
60%	559	661	181	75	68	20	427	2,190	2,351	2,538	1,924	617
70%	543	621	161	75	67	20	411	2,079	2,312	2,524	1,914	603
80%	517	583	158	75	66	20	391	1,995	2,272	2,470	1,856	587
90%	487	556	158	75	62	20	306	1,853	2,223	2,327	1,796	507
Long Term												
Full Simulation Period ^d	558	687	211	84	68	43	443	2,147	2,439	2,517	2,005	600
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,120	2,255	2,572	2,148	621
Above Normal (16%)	562	702	207	76	65	28	432	2,104	2,376	2,547	2,046	616
Below Normal (13%)	567	722	219	98	73	64	473	2,186	2,577	2,571	2,009	594
Dry (24%)	572	678	218	86	67	43	447	2,215	2,651	2,530	1,905	601
Critical (15%)	484	618	164	85	66	65	512	2,102	2,424	2,295	1,815	542

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	17	-6	0	0	3	0	0	5	0	0	0
20%	0	4	0	0	0	-4	-2	-9	26	-7	-5	0
30%	0	3	8	0	0	0	0	4	20	11	0	0
40%	1	4	0	0	0	0	0	-3	2	22	0	0
50%	3	6	-3	0	0	0	0	-1	0	0	30	0
60%	4	4	-1	0	0	0	0	35	11	14	0	3
70%	4	2	0	0	0	0	0	-7	-15	6	4	0
80%	0	-4	0	0	0	0	0	-13	-6	27	2	34
90%	34	0	0	0	9	0	0	0	-3	9	1	3
Long Term												
Full Simulation Period ^d	7	3	1	0	0	0	0	2	5	8	4	10
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	0	-2	-9	6	-21	3
Above Normal (16%)	0	0	-1	0	0	0	0	6	17	10	-8	0
Below Normal (13%)	14	20	6	0	0	1	1	6	14	28	25	20
Dry (24%)	0	0	0	1	1	0	0	1	8	3	3	0
Critical (15%)	37	2	-1	1	0	0	0	7	6	-3	53	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

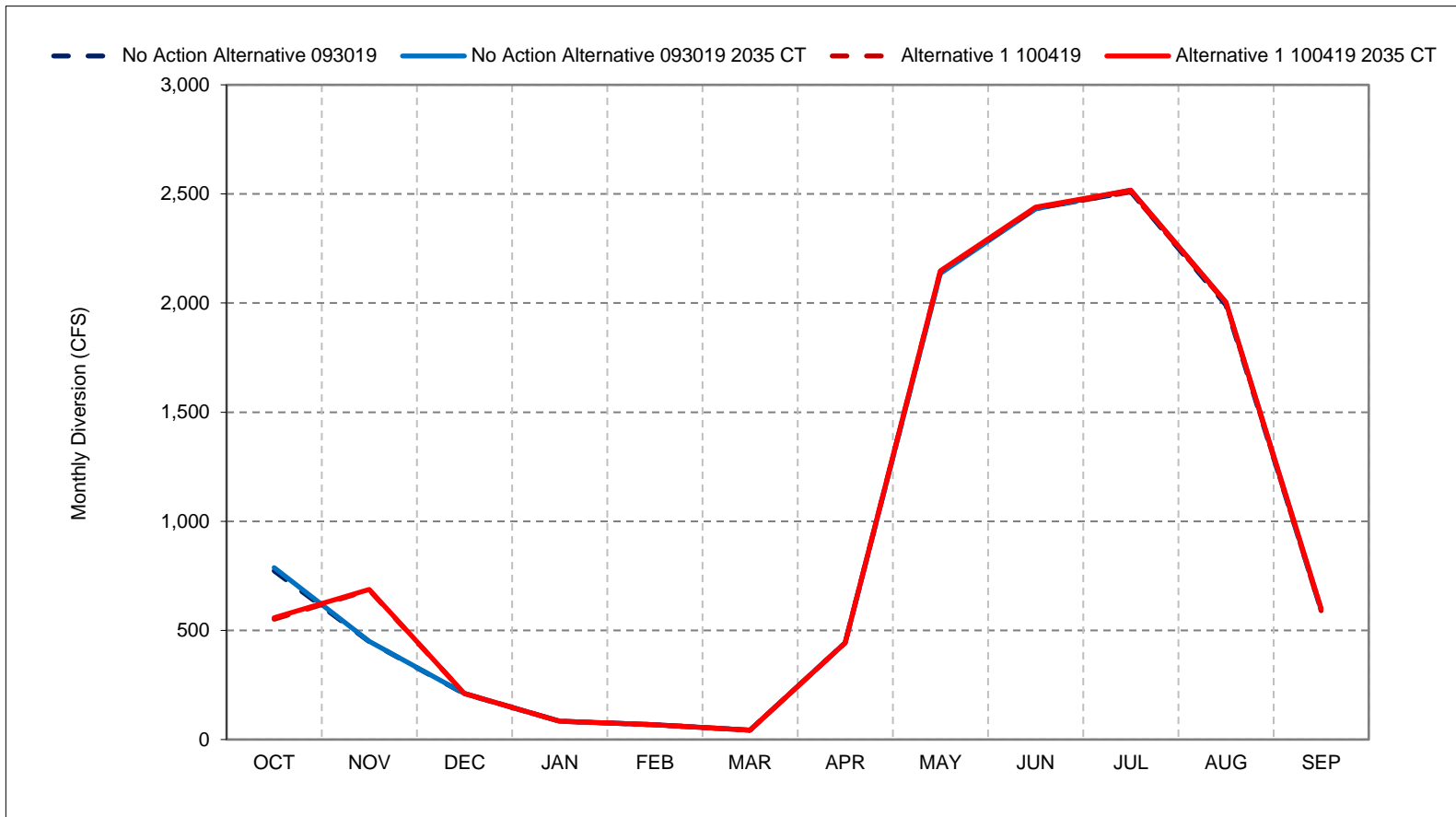
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 48-1. Hamilton City Diversion - Glenn Colusa Canal, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

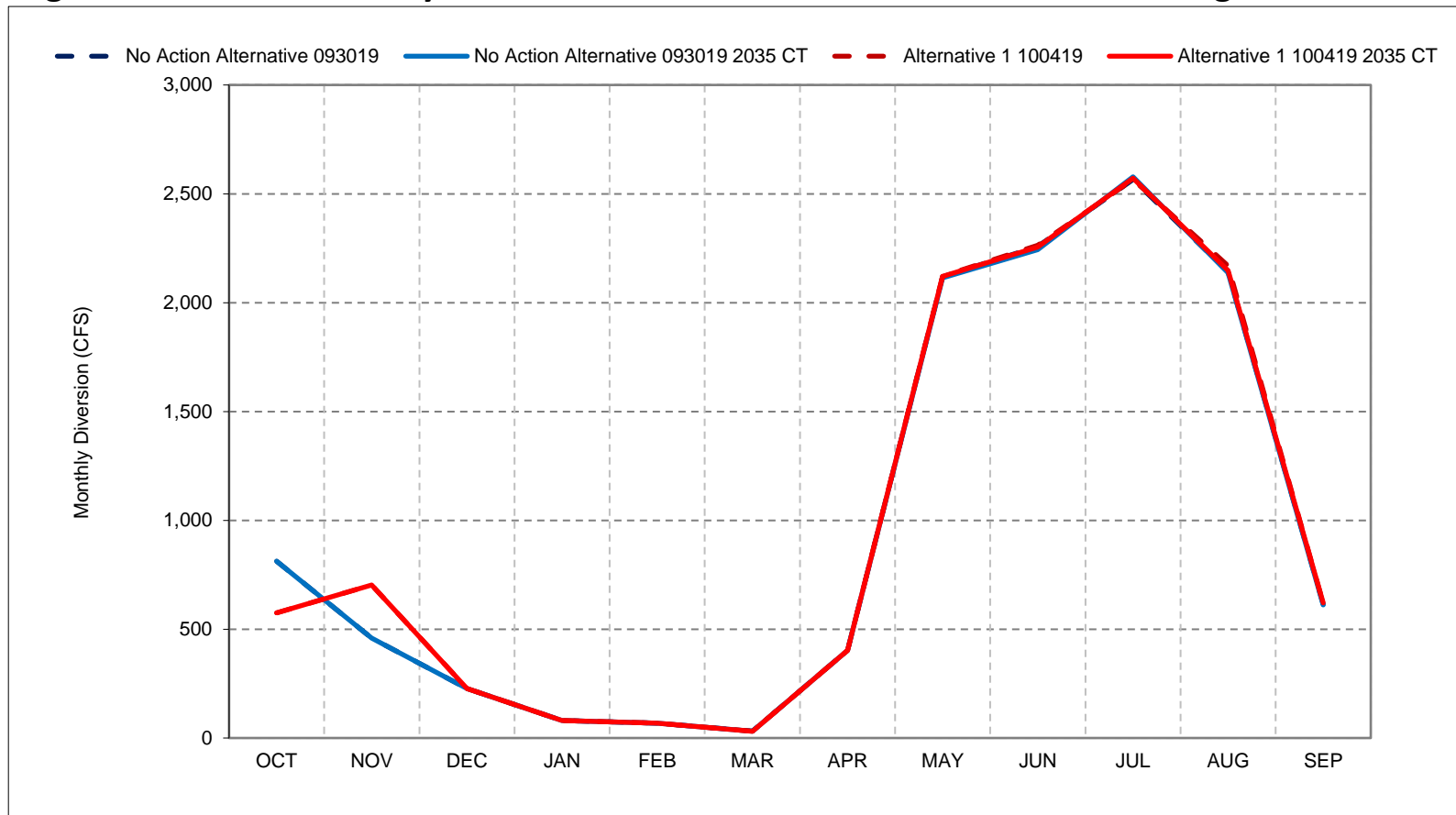
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-2. Hamilton City Diversion - Glenn Colusa Canal, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

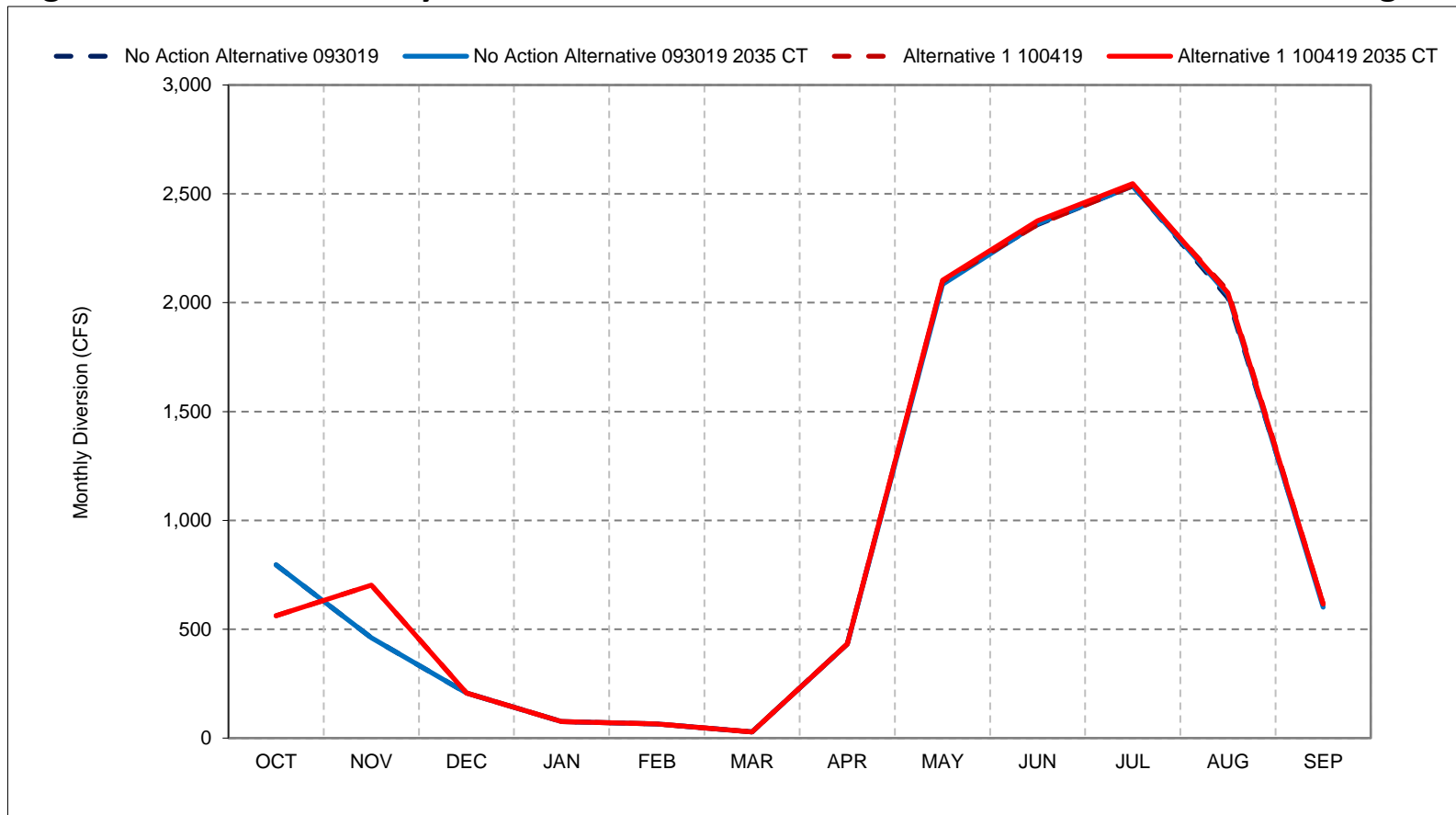
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-3. Hamilton City Diversion - Glenn Colusa Canal, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

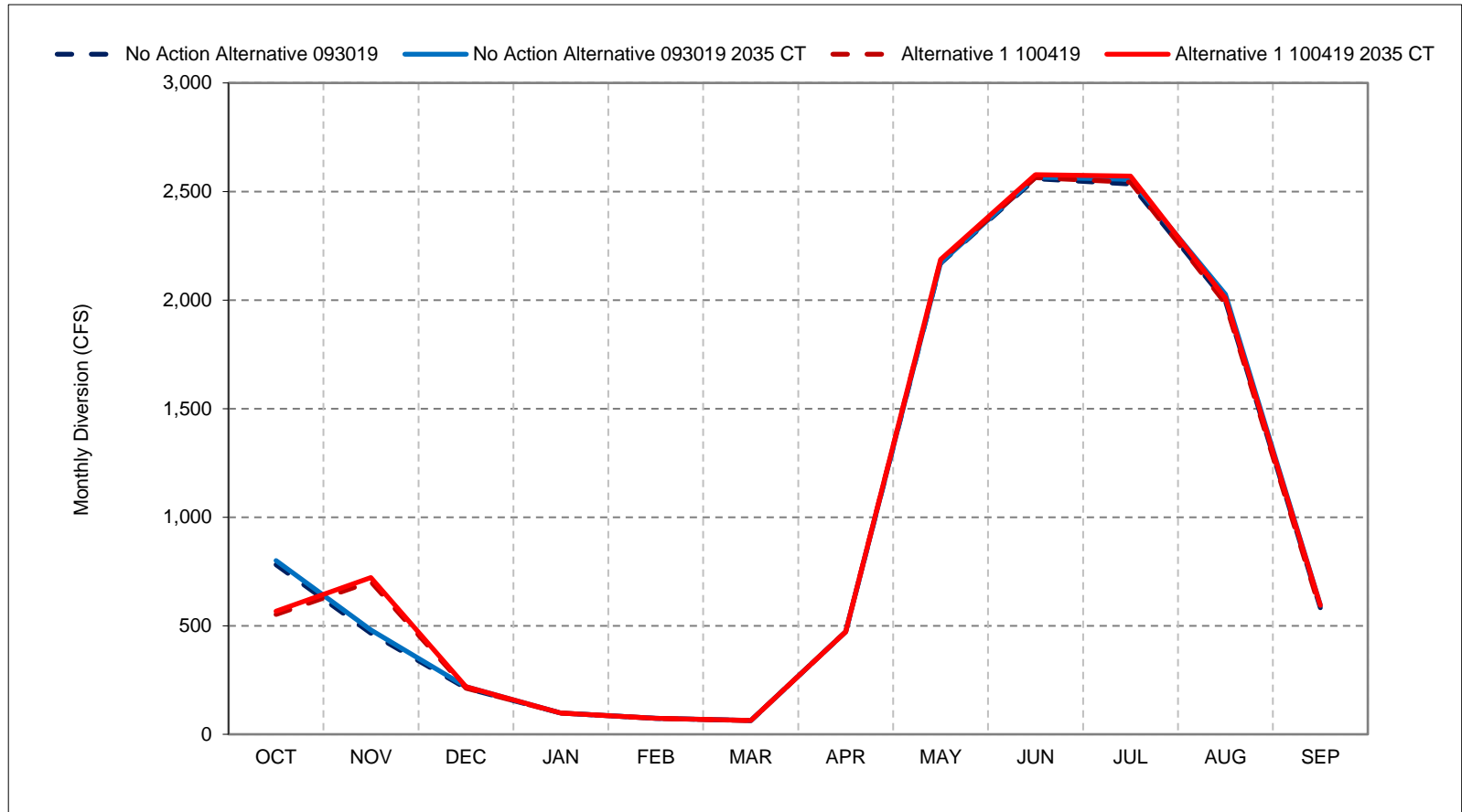
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-4. Hamilton City Diversion - Glenn Colusa Canal, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

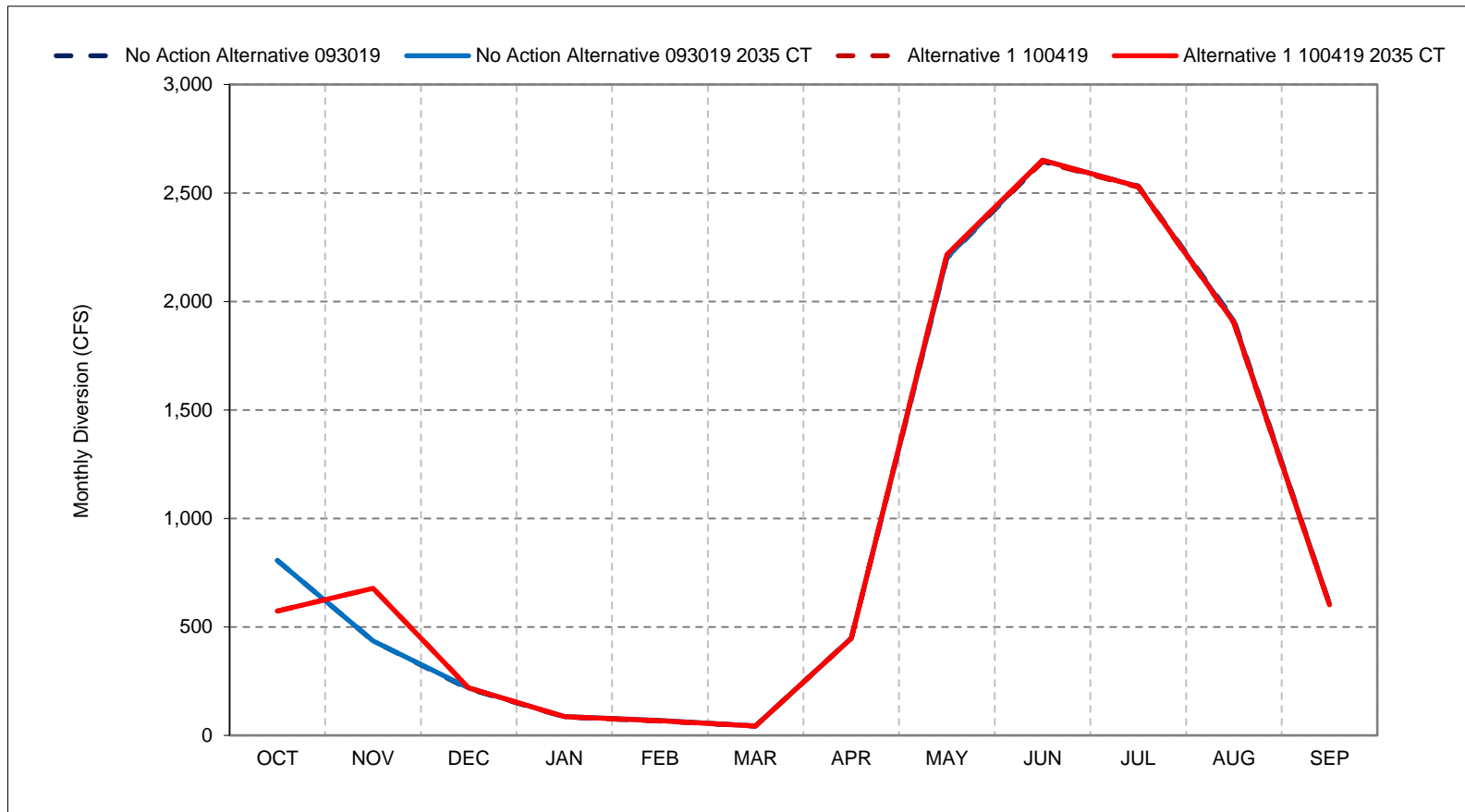
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-5. Hamilton City Diversion - Glenn Colusa Canal, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

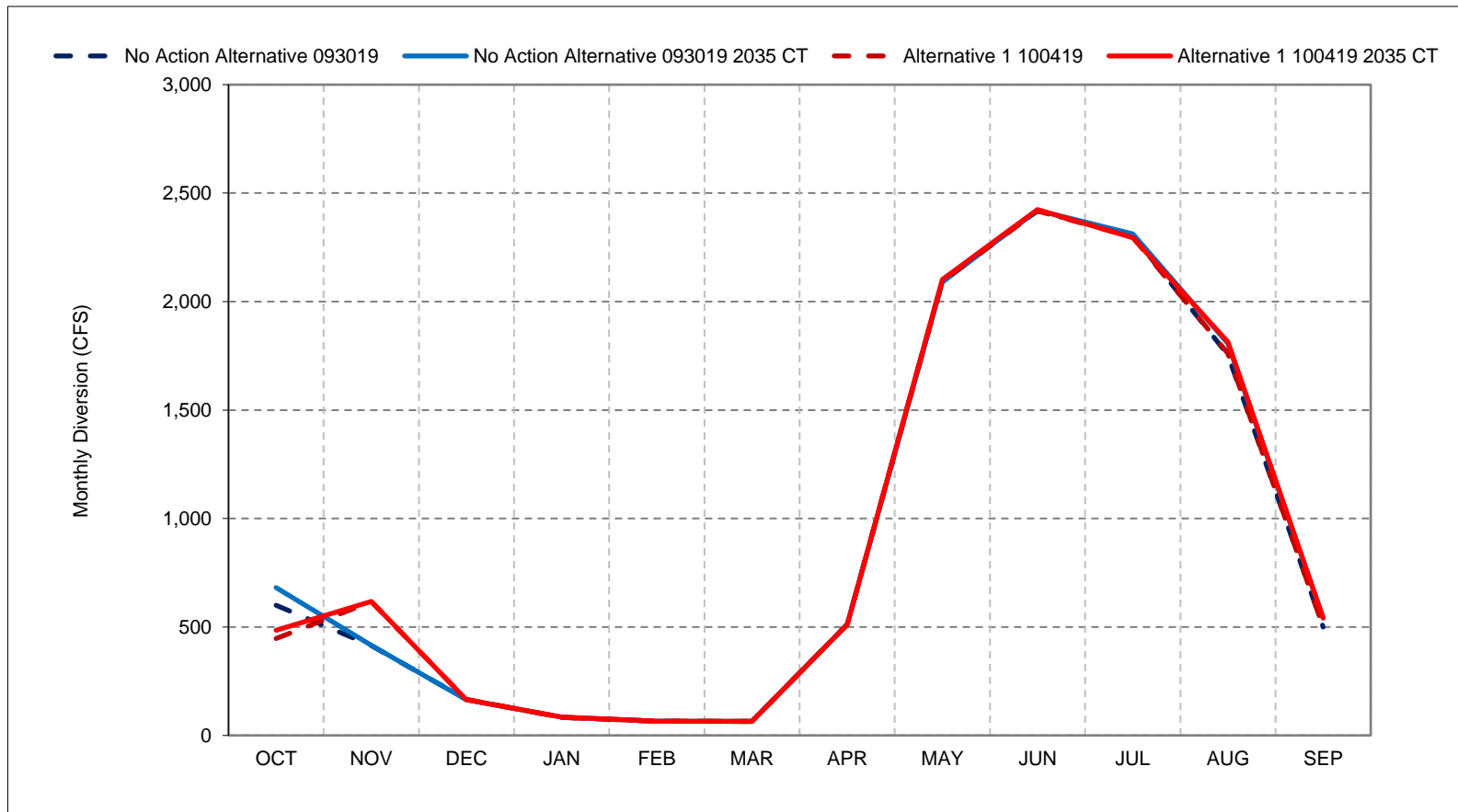
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-6. Hamilton City Diversion - Glenn Colusa Canal, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

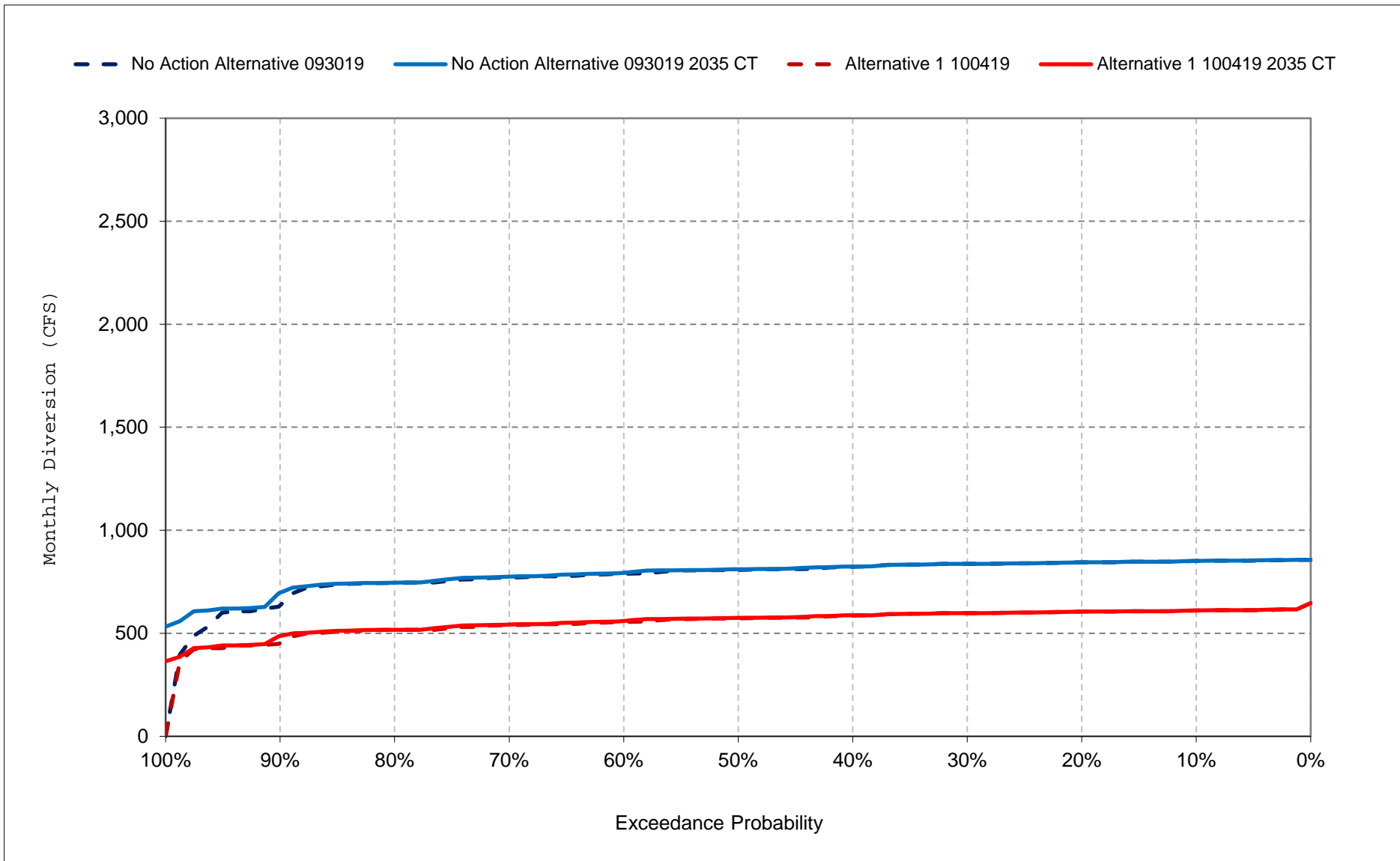
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

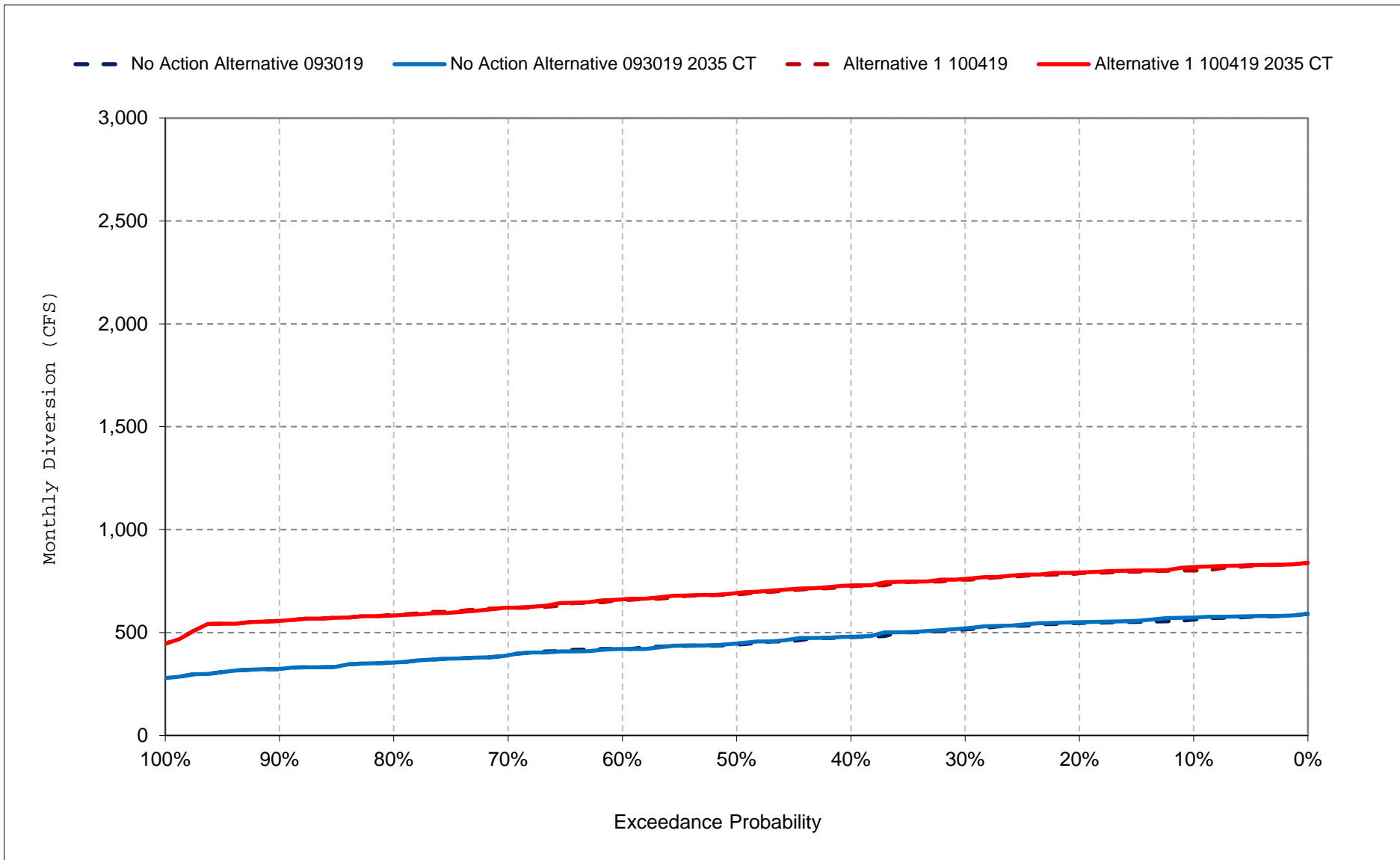
Figure 48-7. Hamilton City Diversion - Glenn Colusa Canal, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

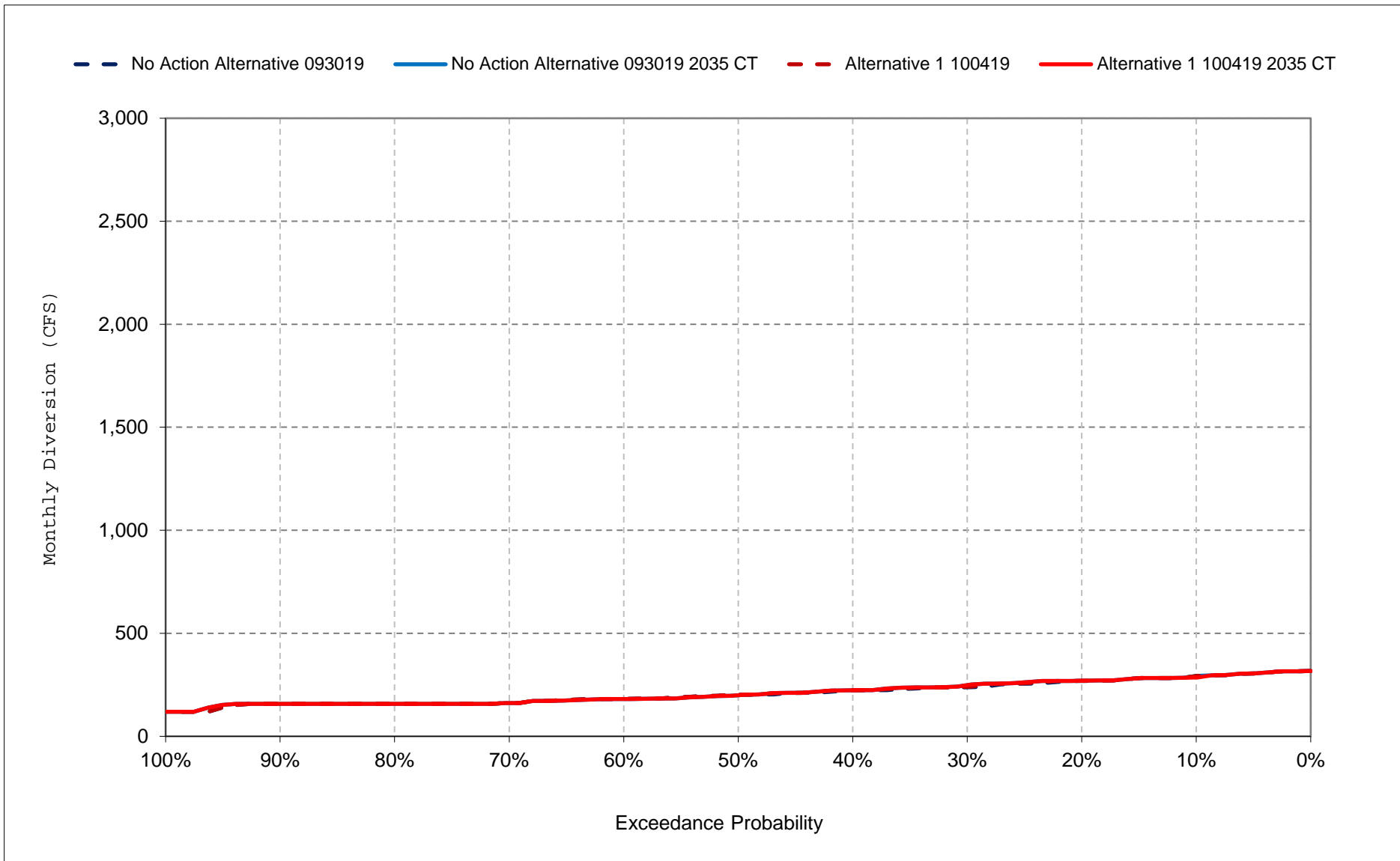
Figure 48-8. Hamilton City Diversion - Glenn Colusa Canal, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

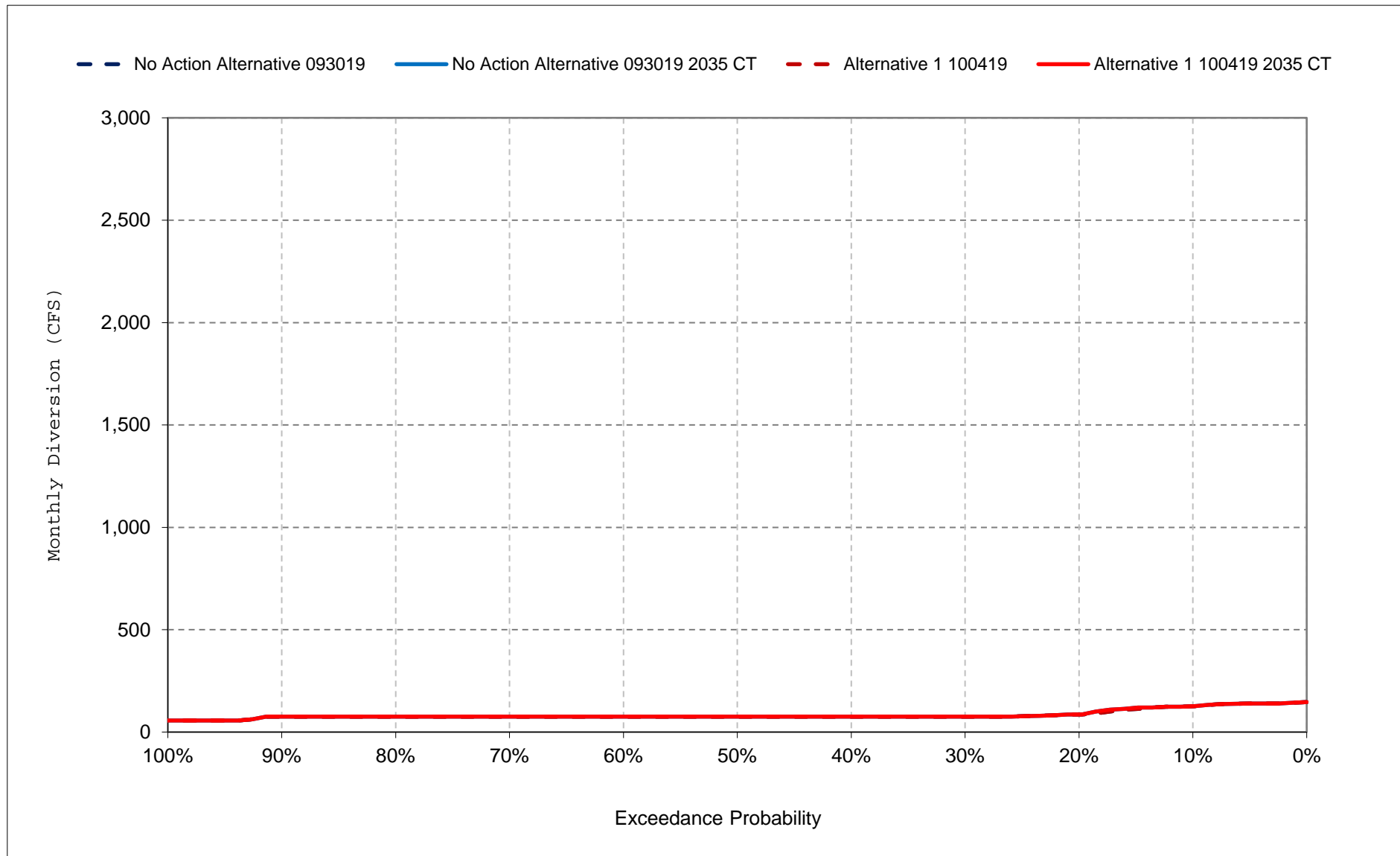
Figure 48-9. Hamilton City Diversion - Glenn Colusa Canal, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

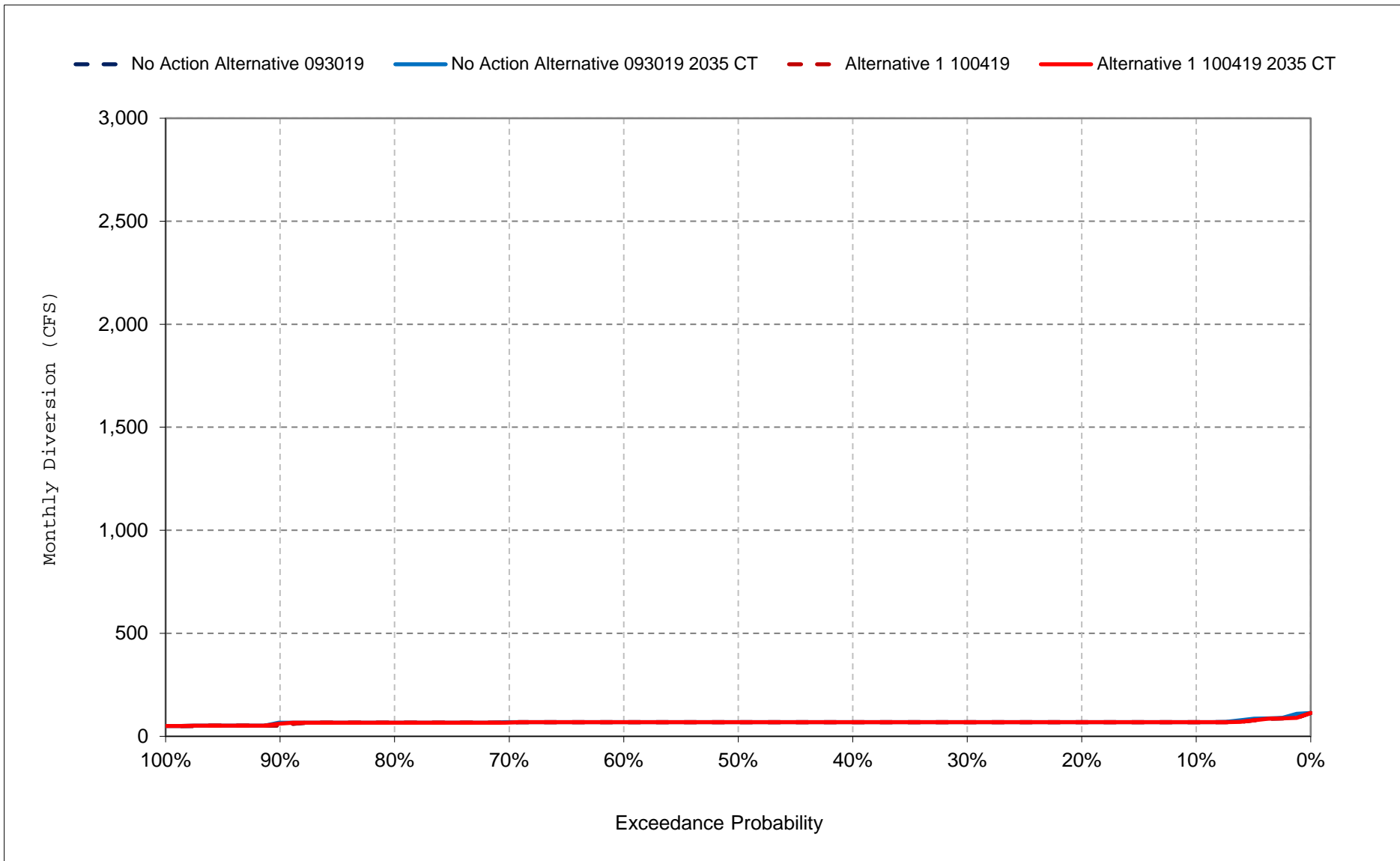
Figure 48-10. Hamilton City Diversion - Glenn Colusa Canal, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

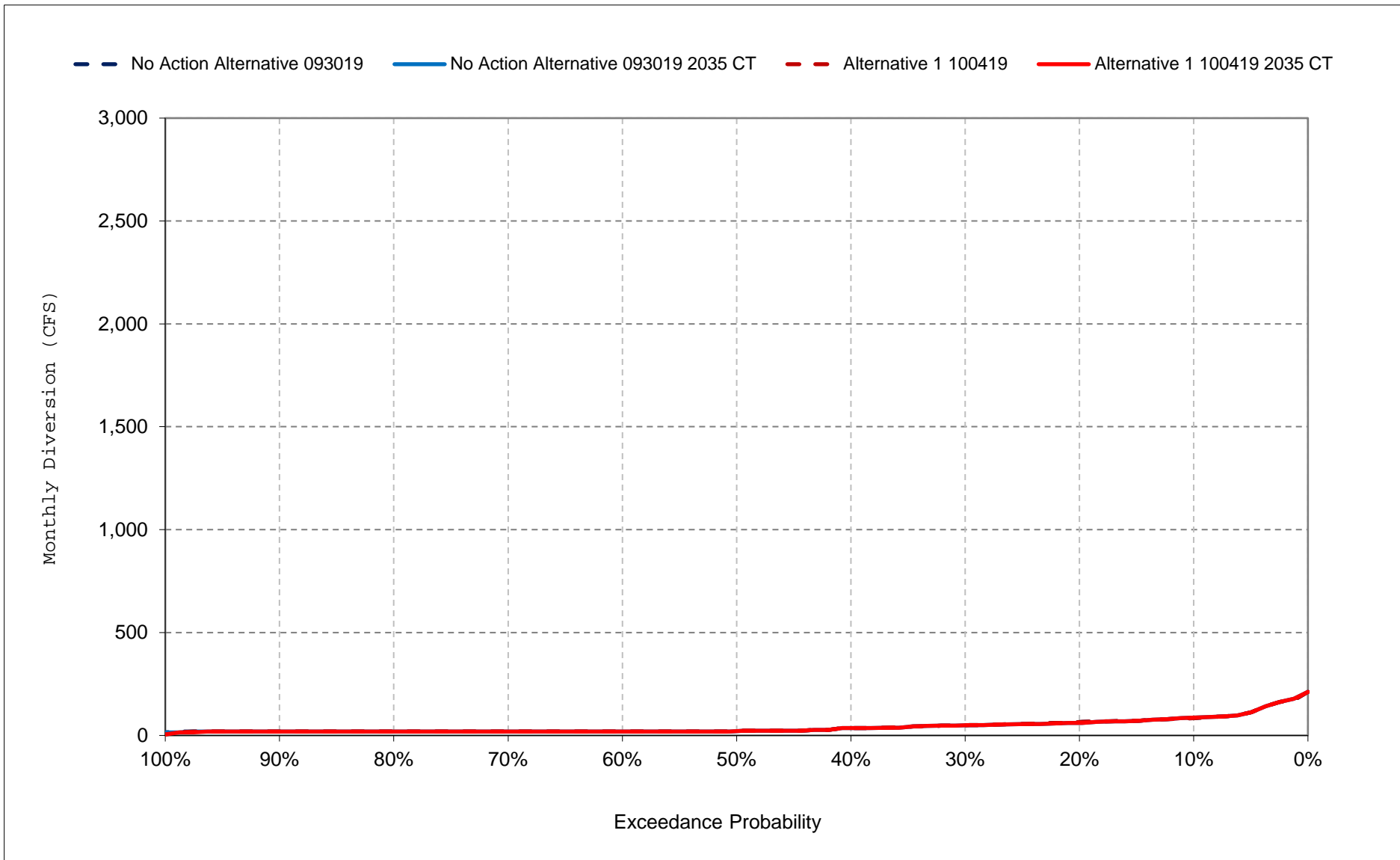
Figure 48-11. Hamilton City Diversion - Glenn Colusa Canal, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

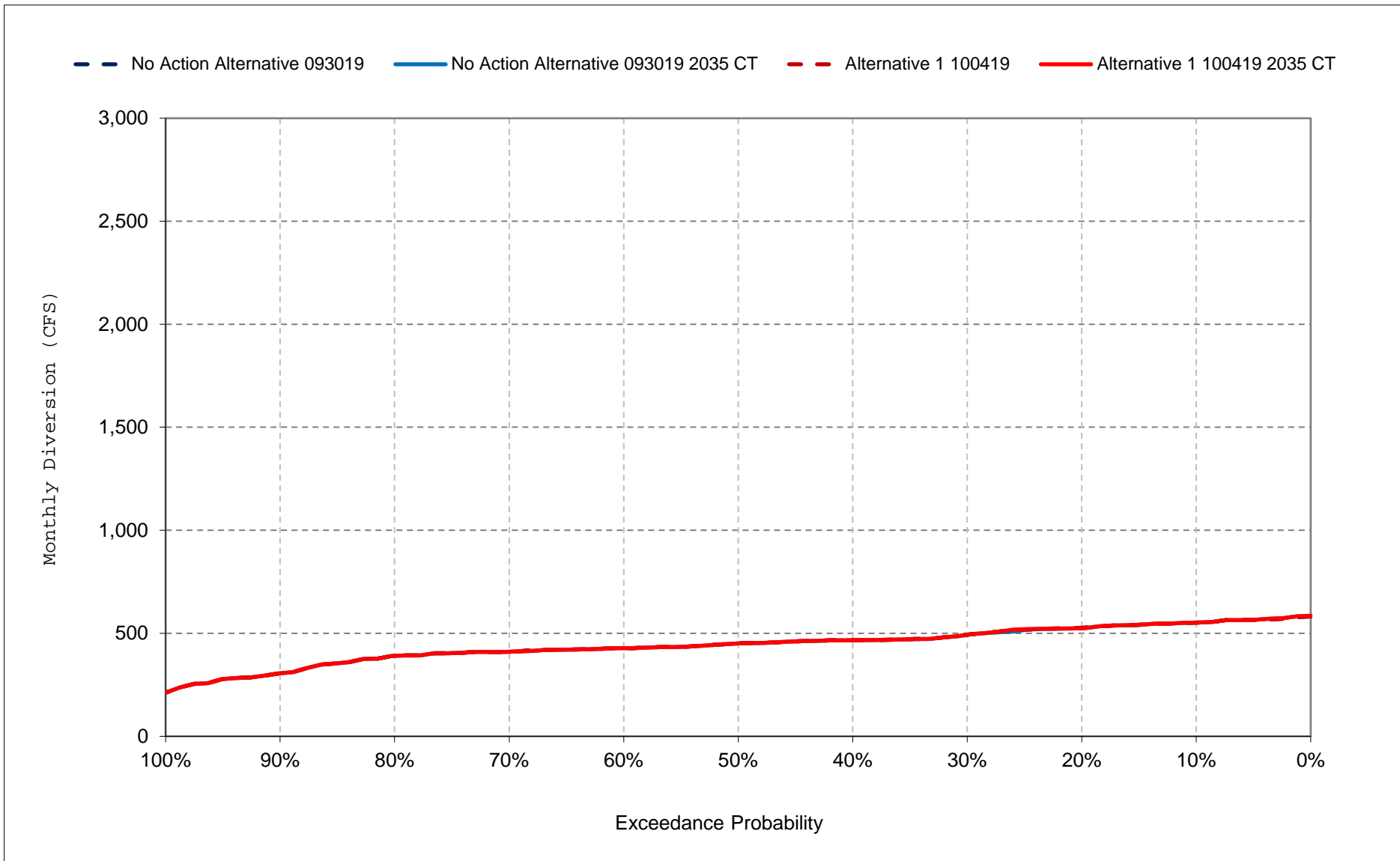
Figure 48-12. Hamilton City Diversion - Glenn Colusa Canal, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

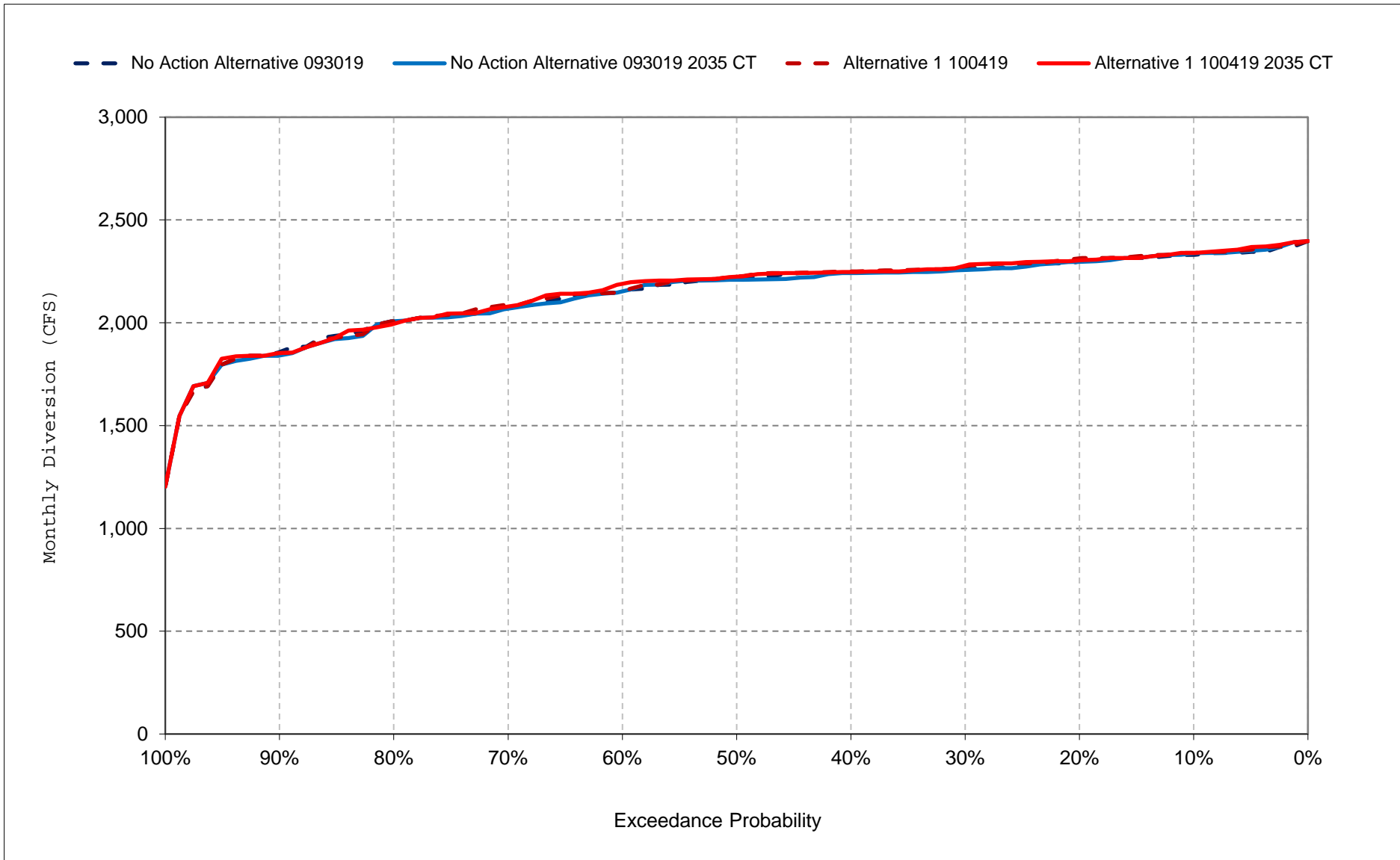
Figure 48-13. Hamilton City Diversion - Glenn Colusa Canal, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

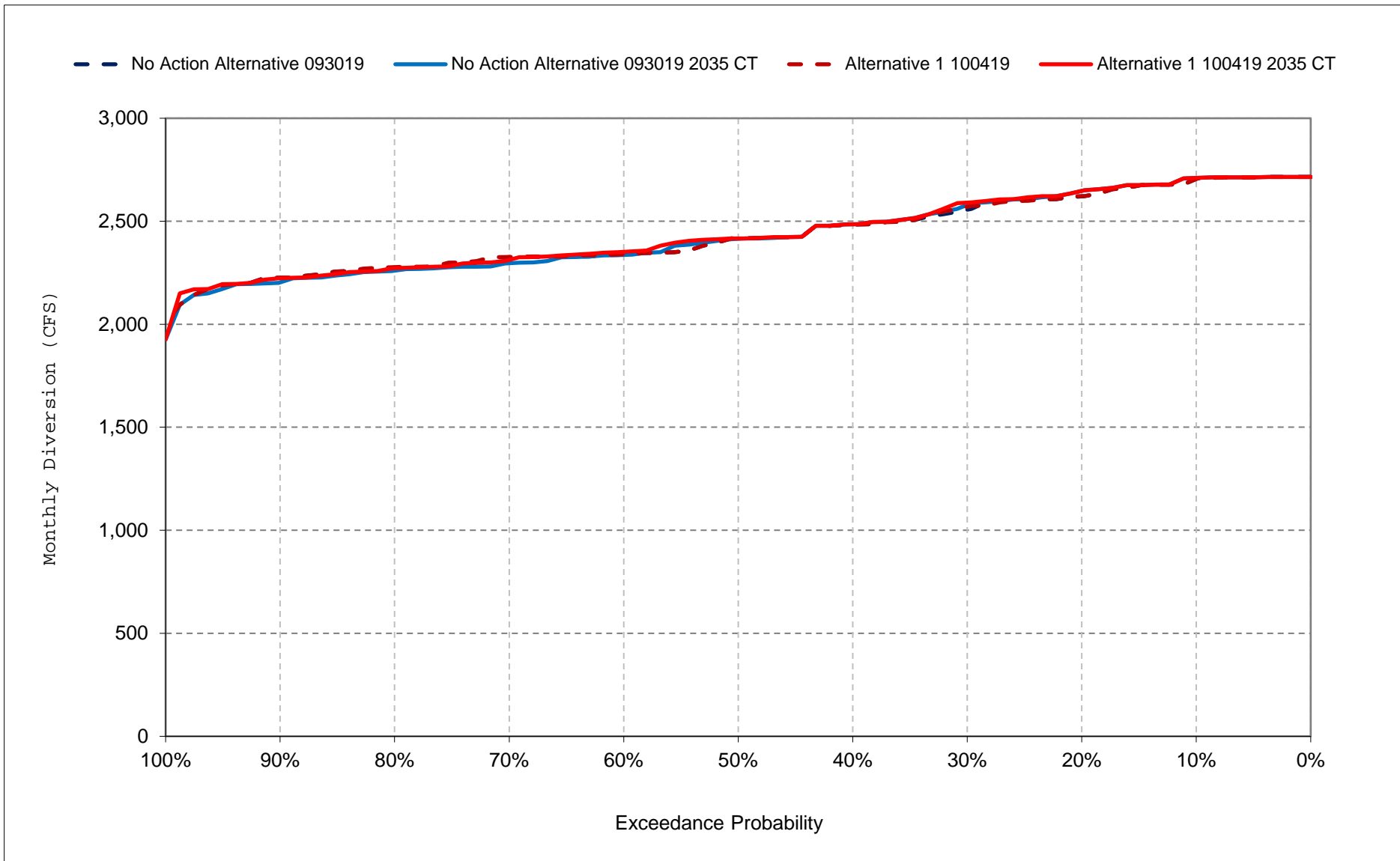
Figure 48-14. Hamilton City Diversion - Glenn Colusa Canal, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

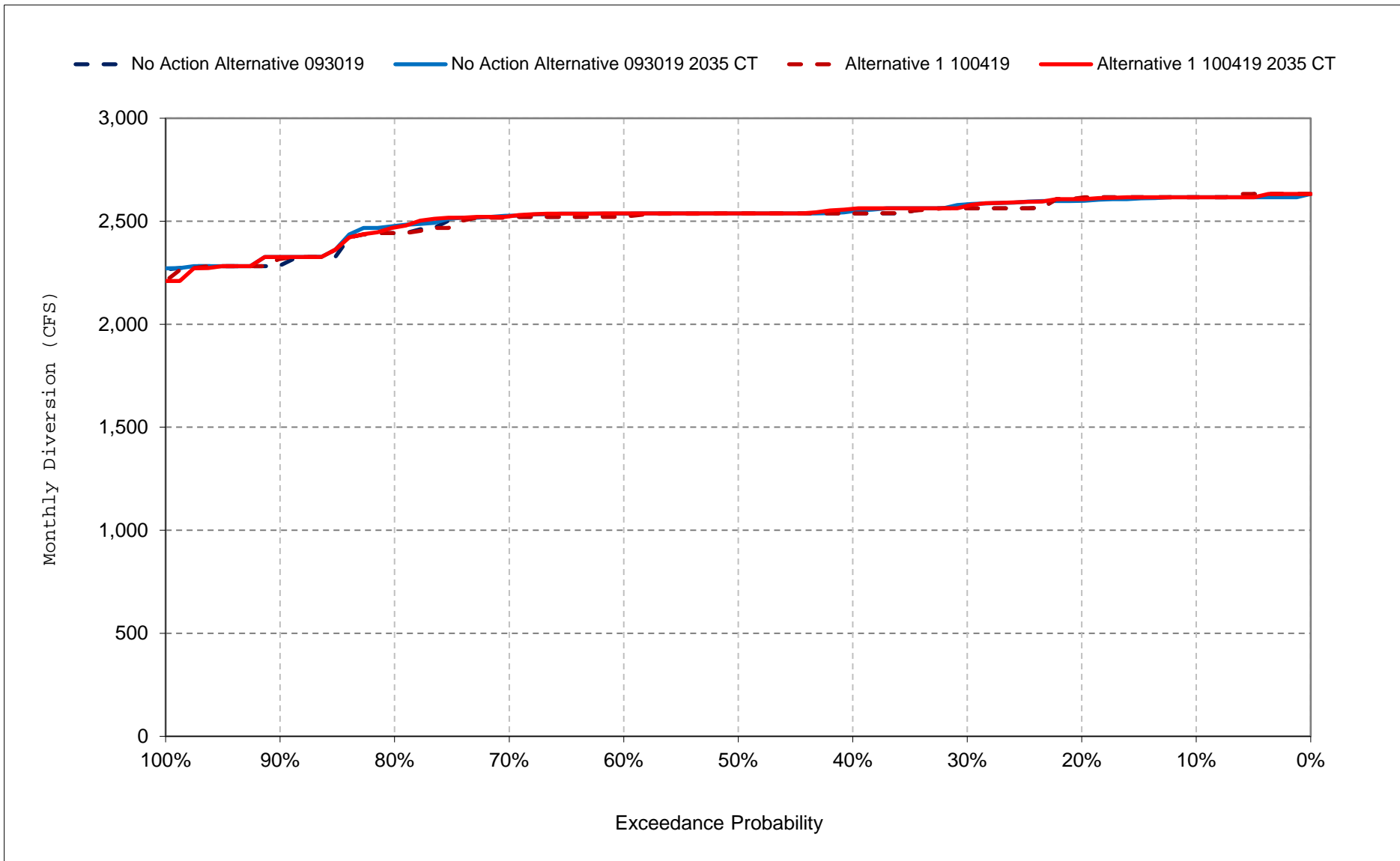
Figure 48-15. Hamilton City Diversion - Glenn Colusa Canal, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

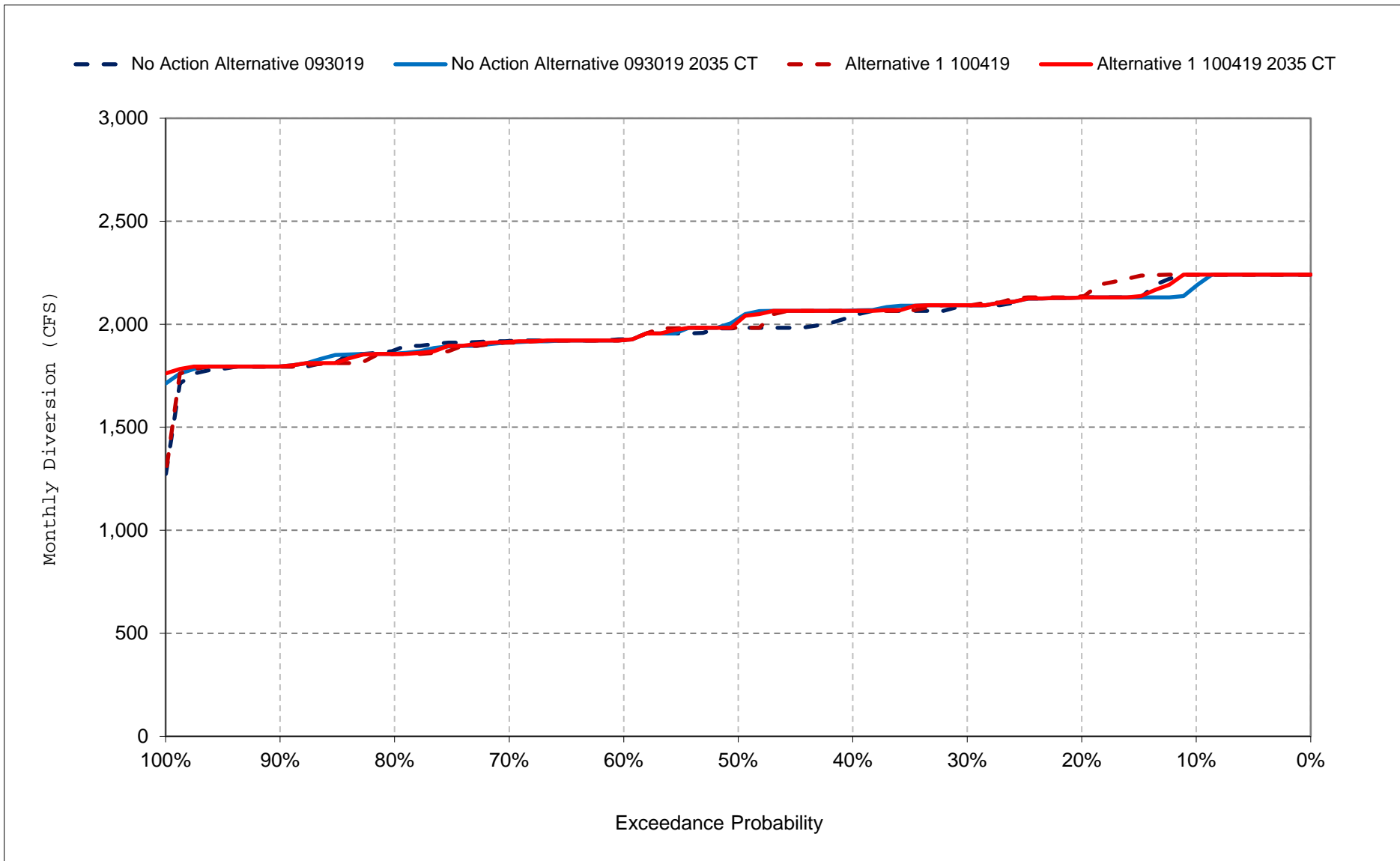
Figure 48-16. Hamilton City Diversion - Glenn Colusa Canal, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

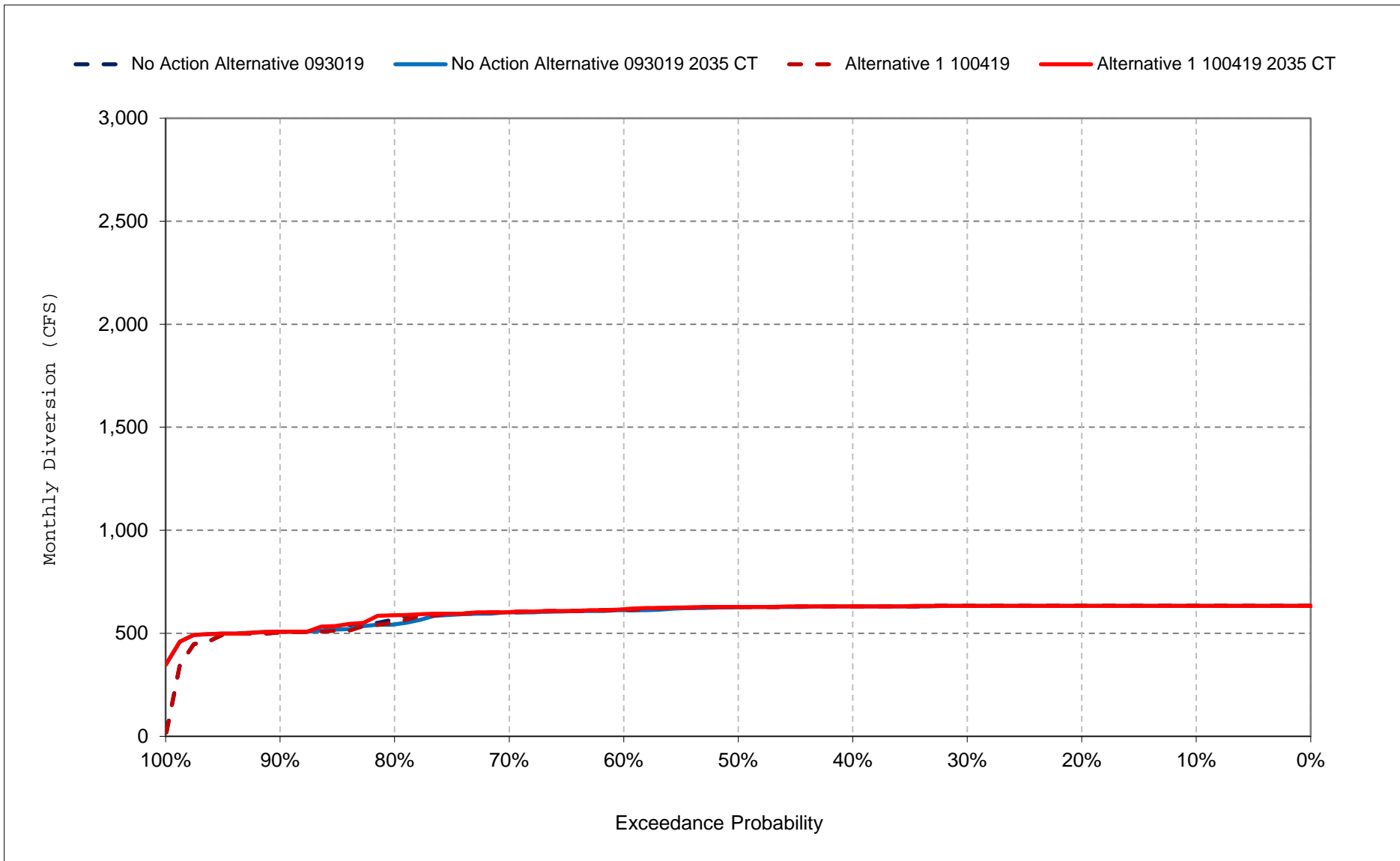
Figure 48-17. Hamilton City Diversion - Glenn Colusa Canal, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 48-18. Hamilton City Diversion - Glenn Colusa Canal, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-1. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	61	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	66	64	51	51	56	61	77	85	100	112	105	97
40%	66	64	51	51	56	58	75	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	104	96
60%	60	56	45	45	50	53	68	75	89	100	93	86
70%	56	54	43	43	48	52	66	72	85	95	89	82
80%	55	54	43	43	47	52	66	72	84	95	88	81
90%	54	53	42	42	46	49	64	70	82	92	86	79
Long Term												
Full Simulation Period ^d	62	59	47	47	52	56	71	79	93	104	98	90
Water Year Types^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	46	50	59	77	84	99	112	104	96
Below Normal (13%)	62	60	48	48	52	54	71	79	94	105	98	90
Dry (24%)	57	55	44	48	52	51	66	74	87	97	91	83
Critical (15%)	54	52	42	43	47	50	65	69	82	88	86	79

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	76	84	100	112	105	97
50%	65	64	51	51	55	57	74	84	100	112	105	96
60%	64	64	51	51	55	53	70	81	99	111	104	95
70%	57	54	43	43	48	52	67	72	85	96	89	82
80%	56	54	43	43	48	52	66	72	84	95	89	81
90%	55	54	43	43	46	51	65	71	83	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	57	72	80	94	106	99	91
Water Year Types^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	47	52	60	77	84	99	112	104	96
Below Normal (13%)	65	62	50	48	53	57	74	83	98	110	103	94
Dry (24%)	58	56	45	48	53	52	67	75	88	99	92	85
Critical (15%)	55	53	42	44	48	51	66	70	83	92	87	80

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	1	0	0	0	0	0
20%	0	0	0	0	0	0	1	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	3	1	0	0	0	0	0
50%	0	0	0	0	0	2	1	1	0	0	0	0
60%	5	7	6	6	4	0	2	6	10	12	11	9
70%	0	1	0	0	0	0	1	0	0	0	0	0
80%	1	0	0	0	0	0	1	0	0	0	0	0
90%	1	1	1	1	0	2	2	1	1	2	2	2
Long Term												
Full Simulation Period ^d	1	1	1	1	1	1	1	1	1	2	1	1
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	2	2	1	0	0	0	0	0	0
Below Normal (13%)	3	3	2	0	0	3	3	4	4	5	5	4
Dry (24%)	1	1	1	0	0	1	1	1	1	1	1	1
Critical (15%)	1	1	1	1	1	1	1	1	1	4	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 49-2. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	67	64	51	51	56	61	76	85	100	112	105	97
40%	66	64	51	51	56	59	74	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	105	96
60%	58	55	45	45	49	53	68	74	87	98	92	84
70%	56	54	43	43	48	52	67	72	85	95	89	82
80%	56	54	43	43	47	52	66	72	84	95	89	81
90%	55	53	43	43	46	51	64	71	83	94	88	80
Long Term												
Full Simulation Period ^d	61	59	47	47	52	56	71	79	93	104	98	90
Water Year Types^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	65	63	50	46	50	58	76	84	99	111	104	96
Below Normal (13%)	62	59	47	48	53	55	71	79	93	105	98	90
Dry (24%)	57	55	44	47	52	51	67	74	87	98	91	84
Critical (15%)	55	53	42	44	48	52	66	70	82	93	87	80

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	75	84	100	112	105	97
50%	66	64	51	51	55	55	73	84	100	112	105	96
60%	64	64	51	51	55	53	70	83	99	112	104	96
70%	57	55	44	44	48	52	68	73	86	97	90	83
80%	56	54	43	43	48	52	66	72	85	95	89	82
90%	55	54	43	43	47	52	65	71	84	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	56	72	80	94	106	99	91
Water Year Types^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	66	64	51	47	52	59	77	85	100	113	105	97
Below Normal (13%)	64	61	49	49	53	56	74	82	96	108	101	93
Dry (24%)	59	57	46	47	52	52	68	76	90	101	94	86
Critical (15%)	55	53	43	44	49	52	66	70	83	94	87	81

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	1	0	0	0	0	0
30%	0	0	0	0	0	0	1	0	0	0	0	0
40%	0	0	0	0	0	2	1	0	0	0	0	0
50%	1	0	0	0	0	2	0	0	0	0	0	0
60%	7	8	6	6	5	0	2	9	12	14	13	12
70%	1	1	1	1	0	0	1	1	1	2	2	1
80%	1	0	0	0	0	0	1	1	0	0	0	0
90%	1	0	0	0	1	0	1	0	0	1	1	1
Long Term												
Full Simulation Period ^d	1	1	1	1	1	1	1	1	1	2	1	1
Water Year Types^{b,c}												
Wet (32%)	0	0	0	1	1	0	0	0	0	0	0	0
Above Normal (16%)	1	1	1	1	1	1	0	1	1	1	1	1
Below Normal (13%)	2	2	2	1	1	1	3	3	3	4	3	3
Dry (24%)	2	2	1	0	0	1	1	2	3	3	3	3
Critical (15%)	1	1	0	1	1	0	1	1	1	1	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-3. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	61	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	66	64	51	51	56	61	77	85	100	112	105	97
40%	66	64	51	51	56	58	75	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	104	96
60%	60	56	45	45	50	53	68	75	89	100	93	86
70%	56	54	43	43	48	52	66	72	85	95	89	82
80%	55	54	43	43	47	52	66	72	84	95	88	81
90%	54	53	42	42	46	49	64	70	82	92	86	79
Long Term												
Full Simulation Period ^d	62	59	47	47	52	56	71	79	93	104	98	90
Water Year Types ^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	46	50	59	77	84	99	112	104	96
Below Normal (13%)	62	60	48	48	52	54	71	79	94	105	98	90
Dry (24%)	57	55	44	48	52	51	66	74	87	97	91	83
Critical (15%)	54	52	42	43	47	50	65	69	82	88	86	79

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	67	64	51	51	56	61	76	85	100	112	105	97
40%	66	64	51	51	56	59	74	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	105	96
60%	58	55	45	45	49	53	68	74	87	98	92	84
70%	56	54	43	43	48	52	67	72	85	95	89	82
80%	56	54	43	43	47	52	66	72	84	95	89	81
90%	55	53	43	43	46	51	64	71	83	94	88	80
Long Term												
Full Simulation Period ^d	61	59	47	47	52	56	71	79	93	104	98	90
Water Year Types ^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	65	63	50	46	50	58	76	84	99	111	104	96
Below Normal (13%)	62	59	47	48	53	55	71	79	93	105	98	90
Dry (24%)	57	55	44	47	52	51	67	74	87	98	91	84
Critical (15%)	55	53	42	44	48	52	66	70	82	93	87	80

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	-1	0	0	0	0	0
50%	0	0	0	0	0	-1	0	0	0	0	0	0
60%	-2	-1	-1	-1	-1	0	0	-1	-2	-2	-2	-2
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	2	0	0	1	2	2	1
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	-1	0	0	-1	-1	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	1	0	0	0	-1	-1	0
Dry (24%)	0	0	0	-1	-1	0	1	0	0	0	0	0
Critical (15%)	0	0	0	1	1	1	1	1	1	4	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-4. Folsom South Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	76	84	100	112	105	97
50%	65	64	51	51	55	57	74	84	100	112	105	96
60%	64	64	51	51	55	53	70	81	99	111	104	95
70%	57	54	43	43	48	52	67	72	85	96	89	82
80%	56	54	43	43	48	52	66	72	84	95	89	81
90%	55	54	43	43	46	51	65	71	83	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	57	72	80	94	106	99	91
Water Year Types ^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	47	52	60	77	84	99	112	104	96
Below Normal (13%)	65	62	50	48	53	57	74	83	98	110	103	94
Dry (24%)	58	56	45	48	53	52	67	75	88	99	92	85
Critical (15%)	55	53	42	44	48	51	66	70	83	92	87	80

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	75	84	100	112	105	97
50%	66	64	51	51	55	55	73	84	100	112	105	96
60%	64	64	51	51	55	53	70	83	99	112	104	96
70%	57	55	44	44	48	52	68	73	86	97	90	83
80%	56	54	43	43	48	52	66	72	85	95	89	82
90%	55	54	43	43	47	52	65	71	84	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	56	72	80	94	106	99	91
Water Year Types ^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	66	64	51	47	52	59	77	85	100	113	105	97
Below Normal (13%)	64	61	49	49	53	56	74	82	96	108	101	93
Dry (24%)	59	57	46	47	52	52	68	76	90	101	94	86
Critical (15%)	55	53	43	44	49	52	66	70	83	94	87	81

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	-1	-1	0	0	0	0	0
50%	0	0	0	0	0	-2	-1	0	0	0	0	0
60%	0	0	0	0	0	0	0	1	0	0	0	1
70%	0	1	1	1	0	0	0	0	1	1	1	1
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	1	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1
Above Normal (16%)	1	1	0	0	0	0	0	1	1	1	1	1
Below Normal (13%)	-1	-1	-1	1	1	-1	-1	-1	-1	-2	-2	-1
Dry (24%)	1	1	1	0	-1	0	1	1	2	2	2	2
Critical (15%)	0	0	0	1	1	1	0	0	0	2	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

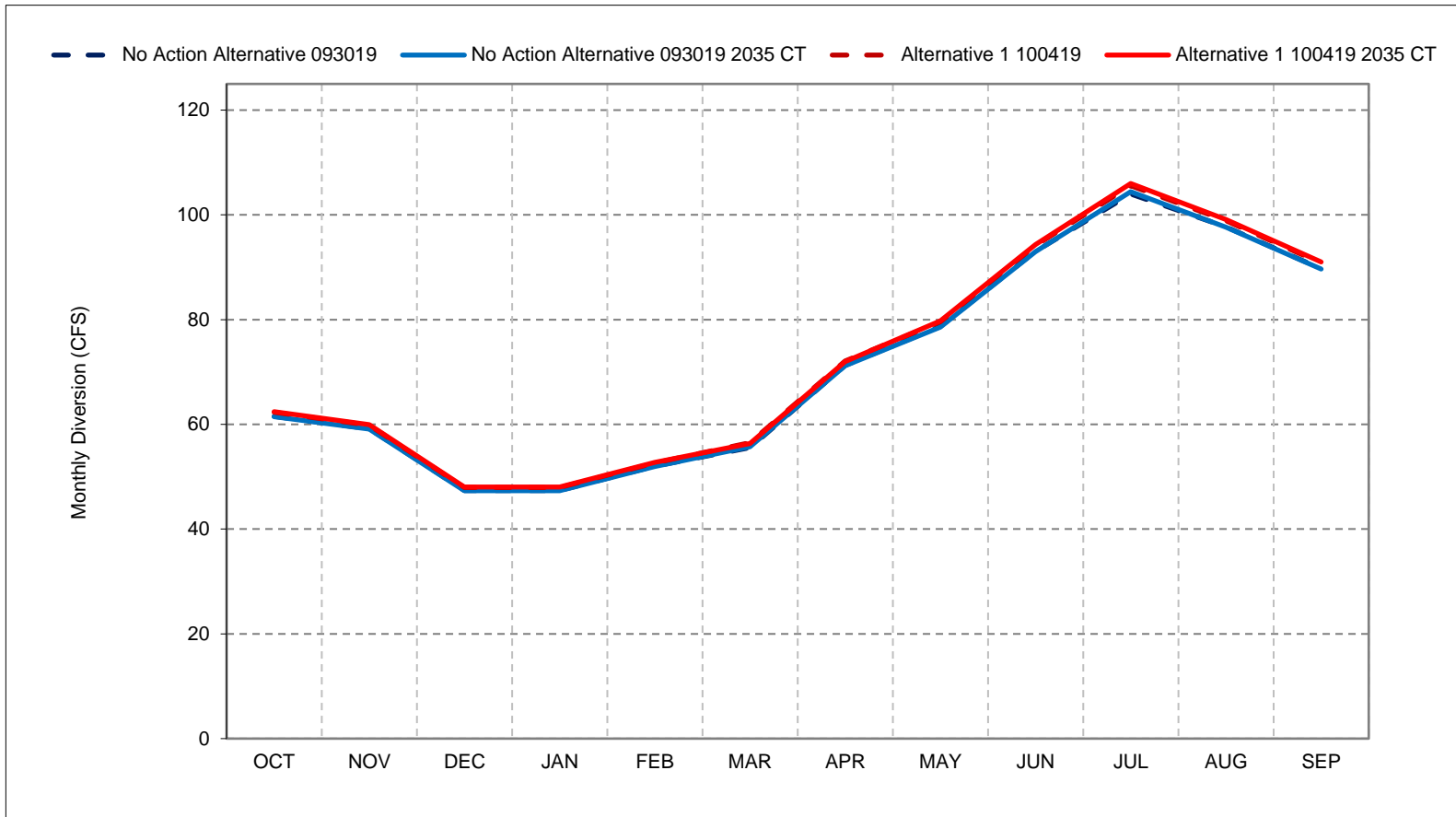
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 49-1. Folsom South Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

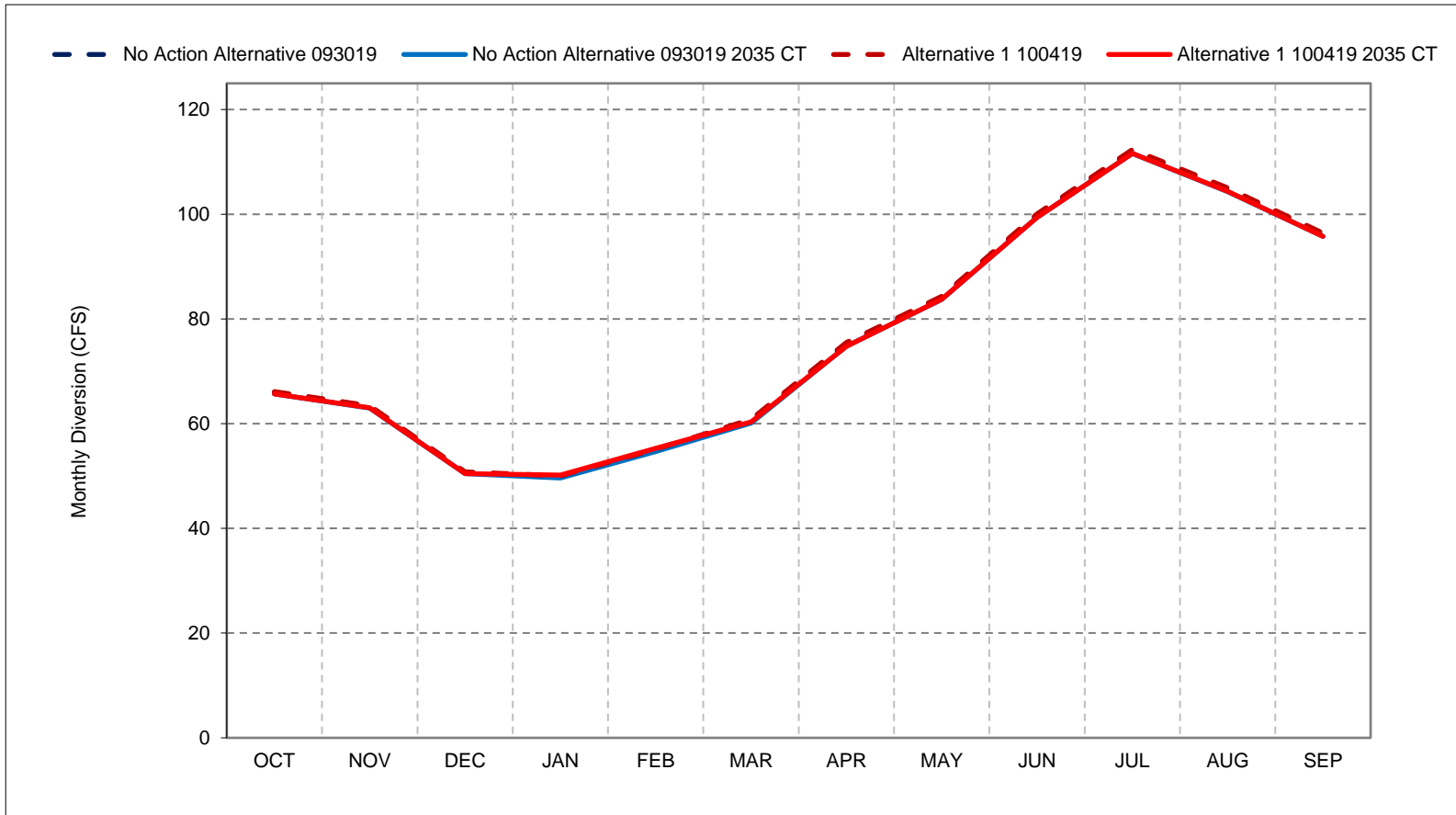
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-2. Folsom South Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

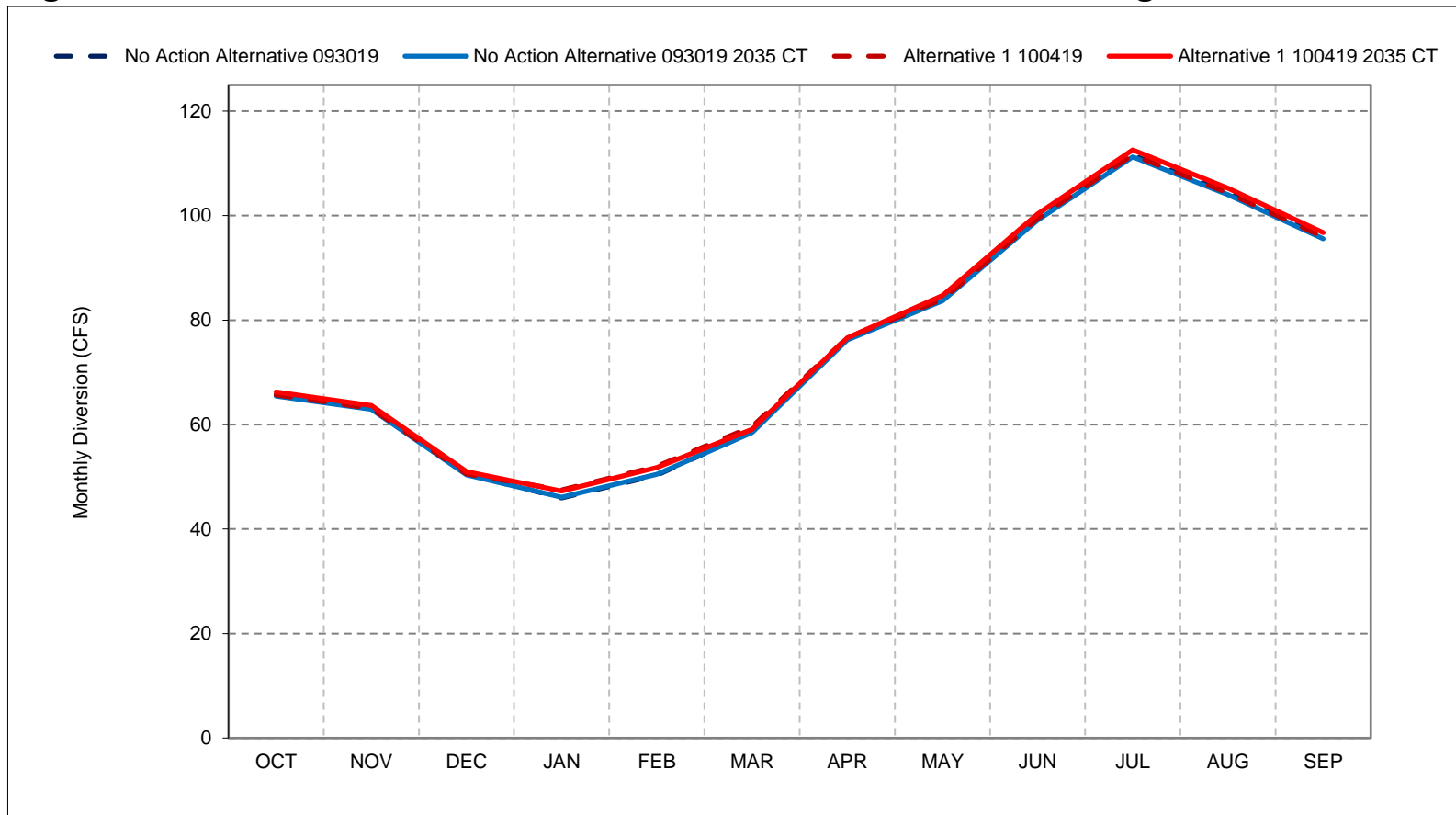
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-3. Folsom South Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

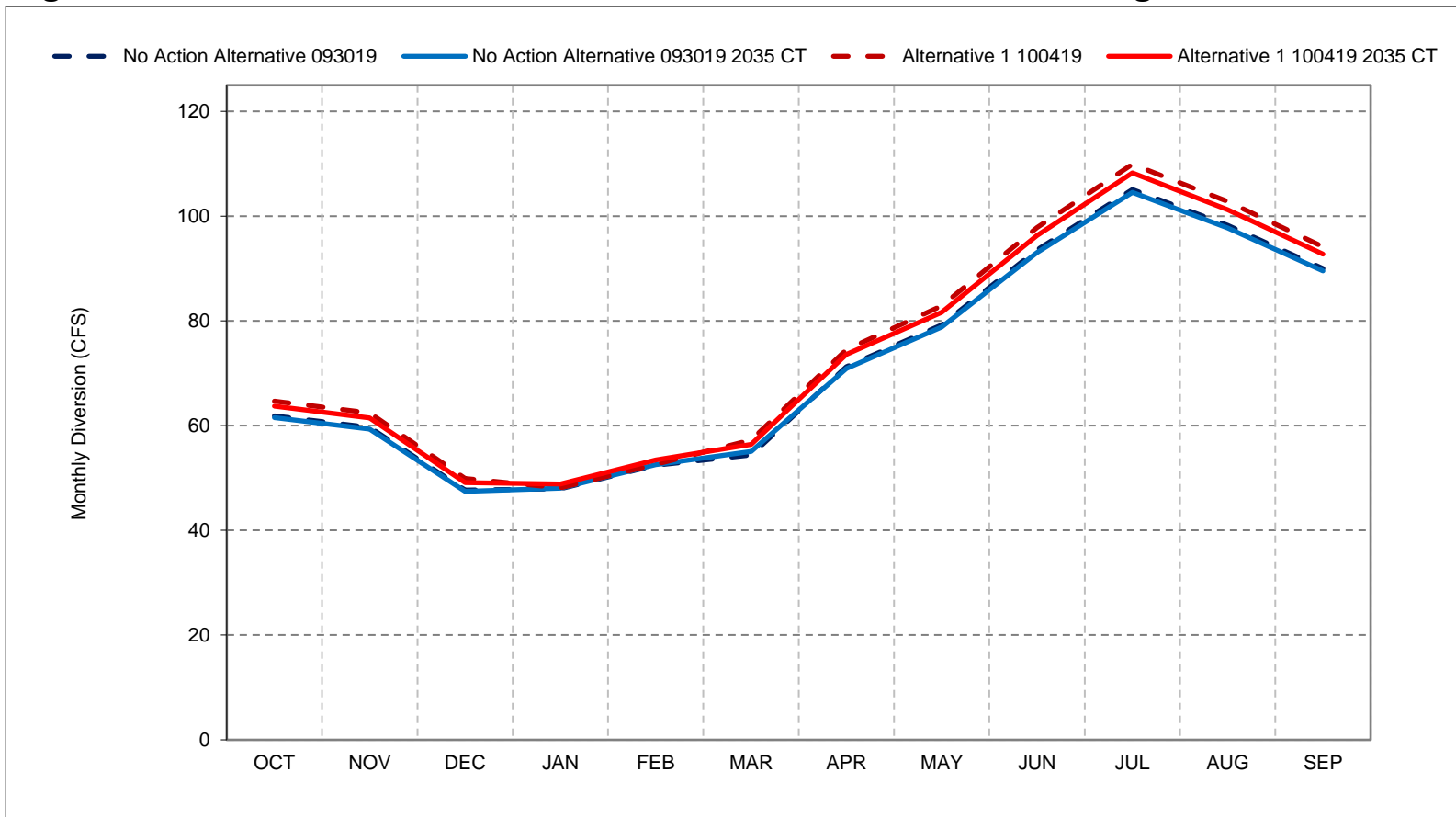
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-4. Folsom South Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

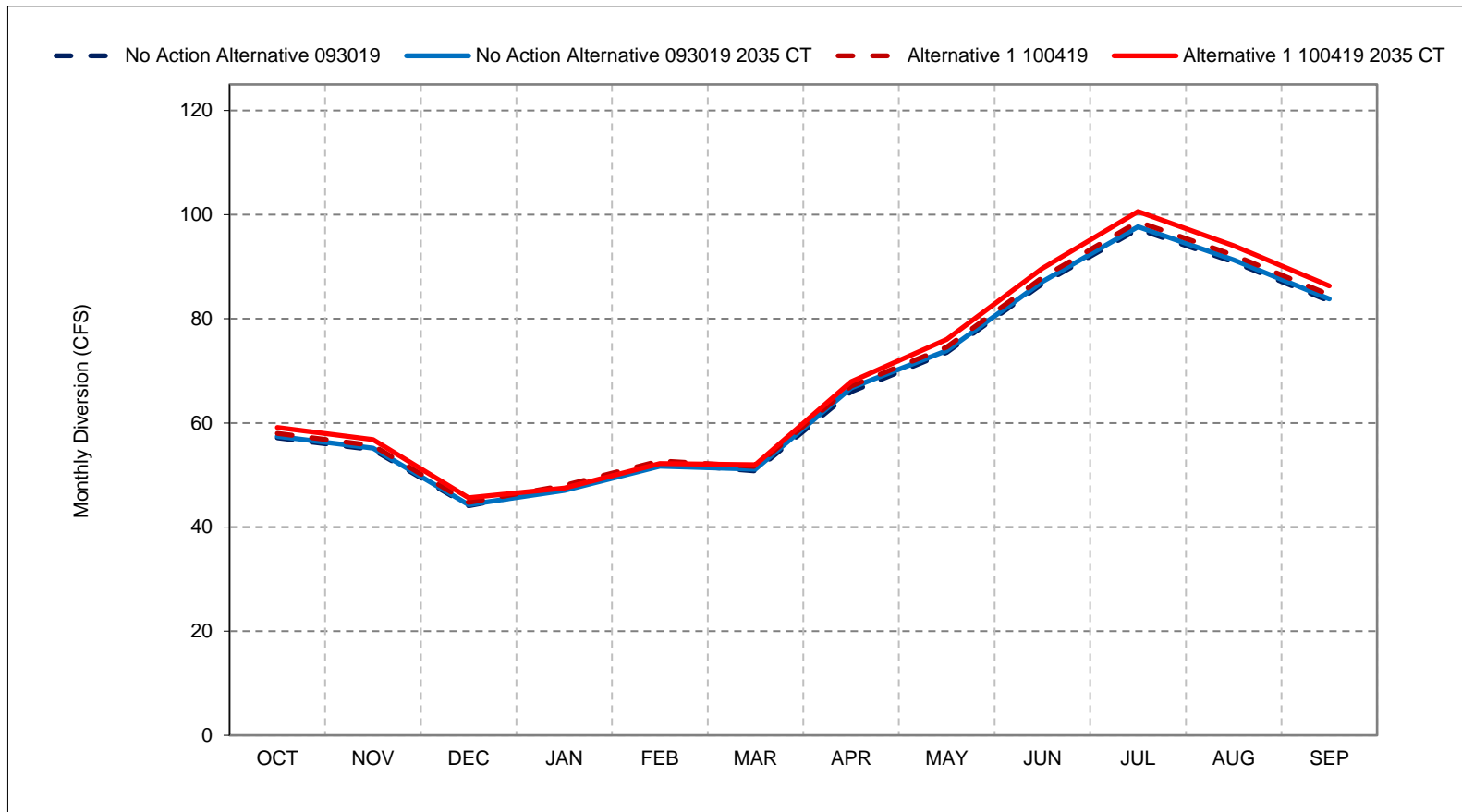
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-5. Folsom South Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

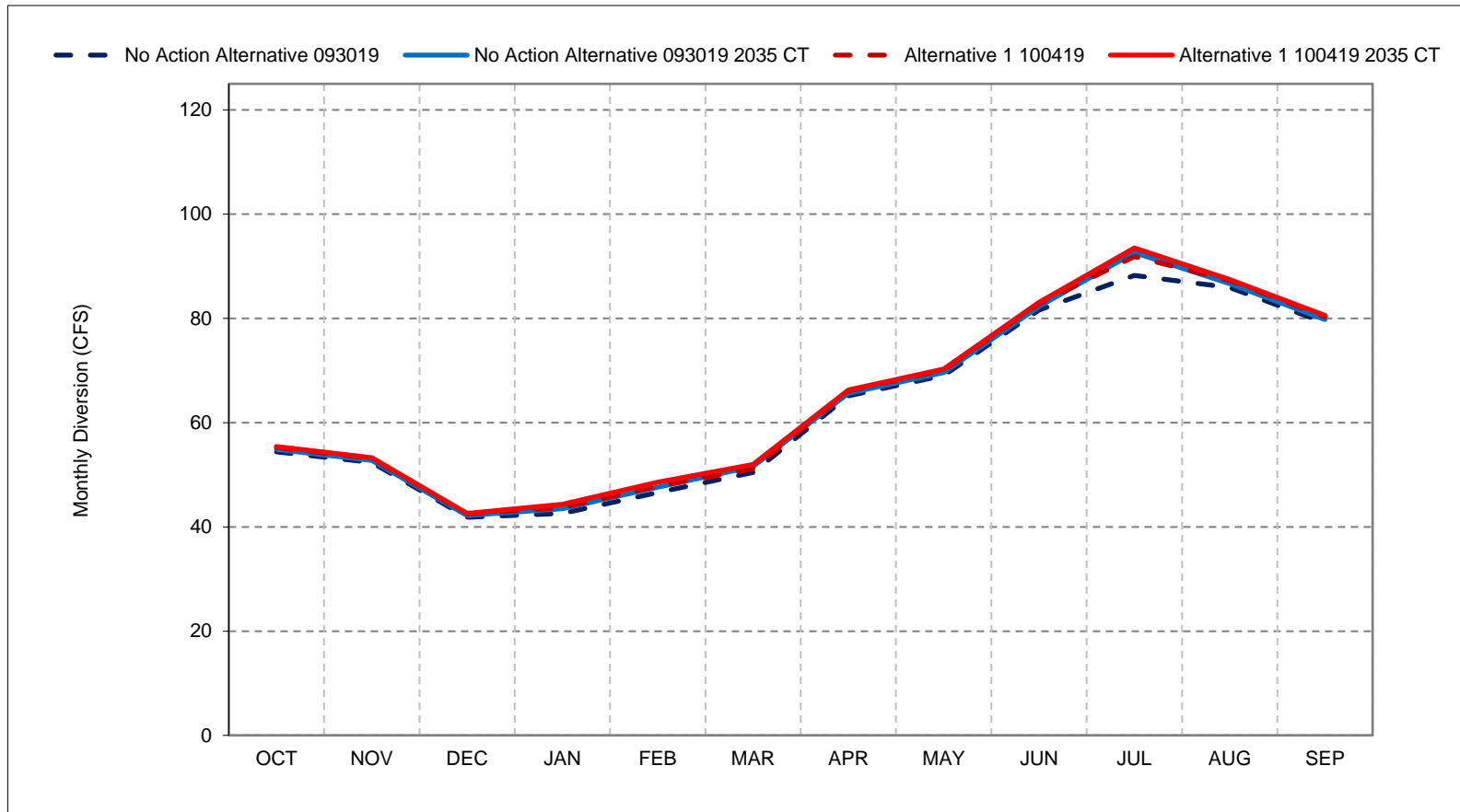
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-6. Folsom South Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

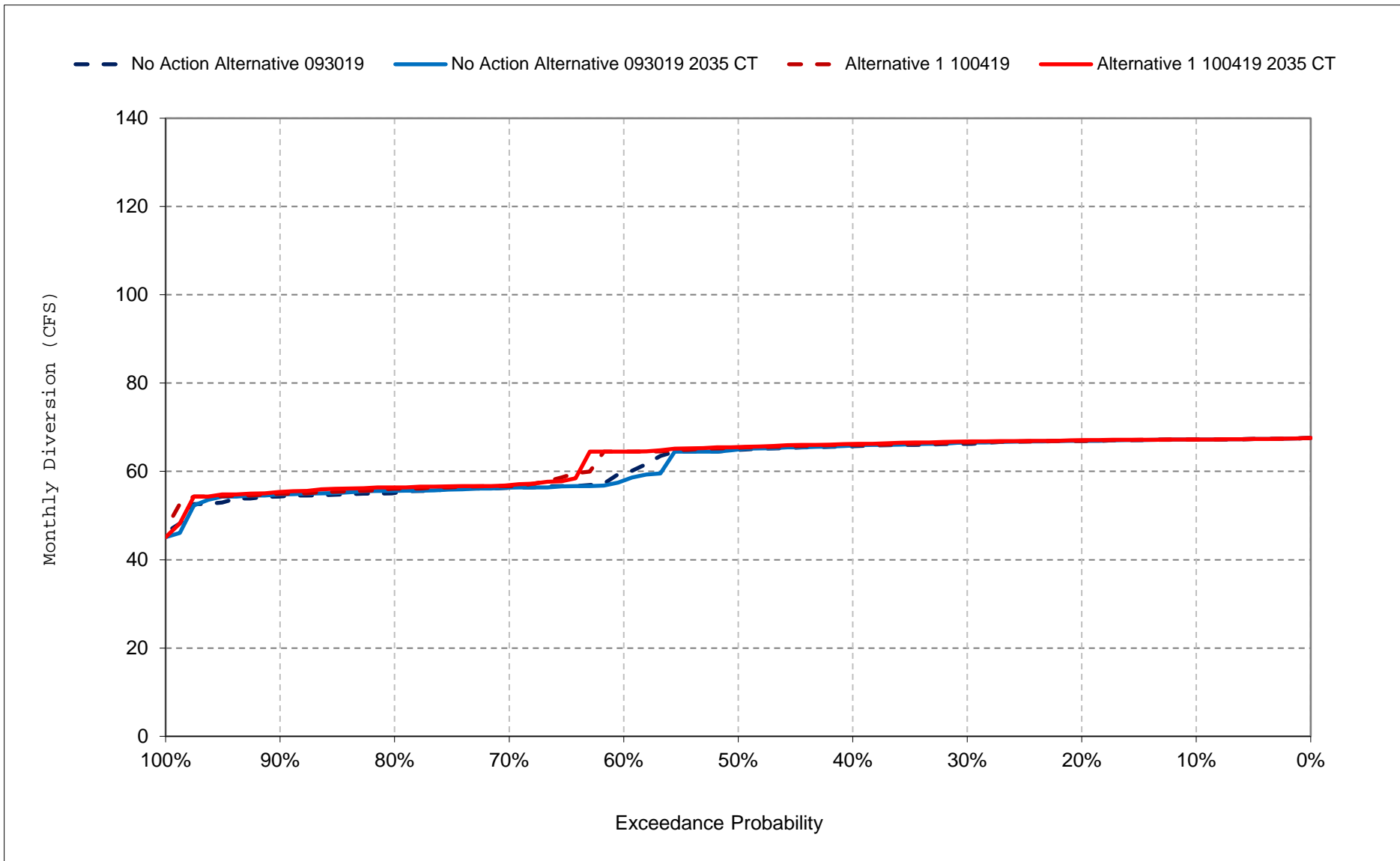
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

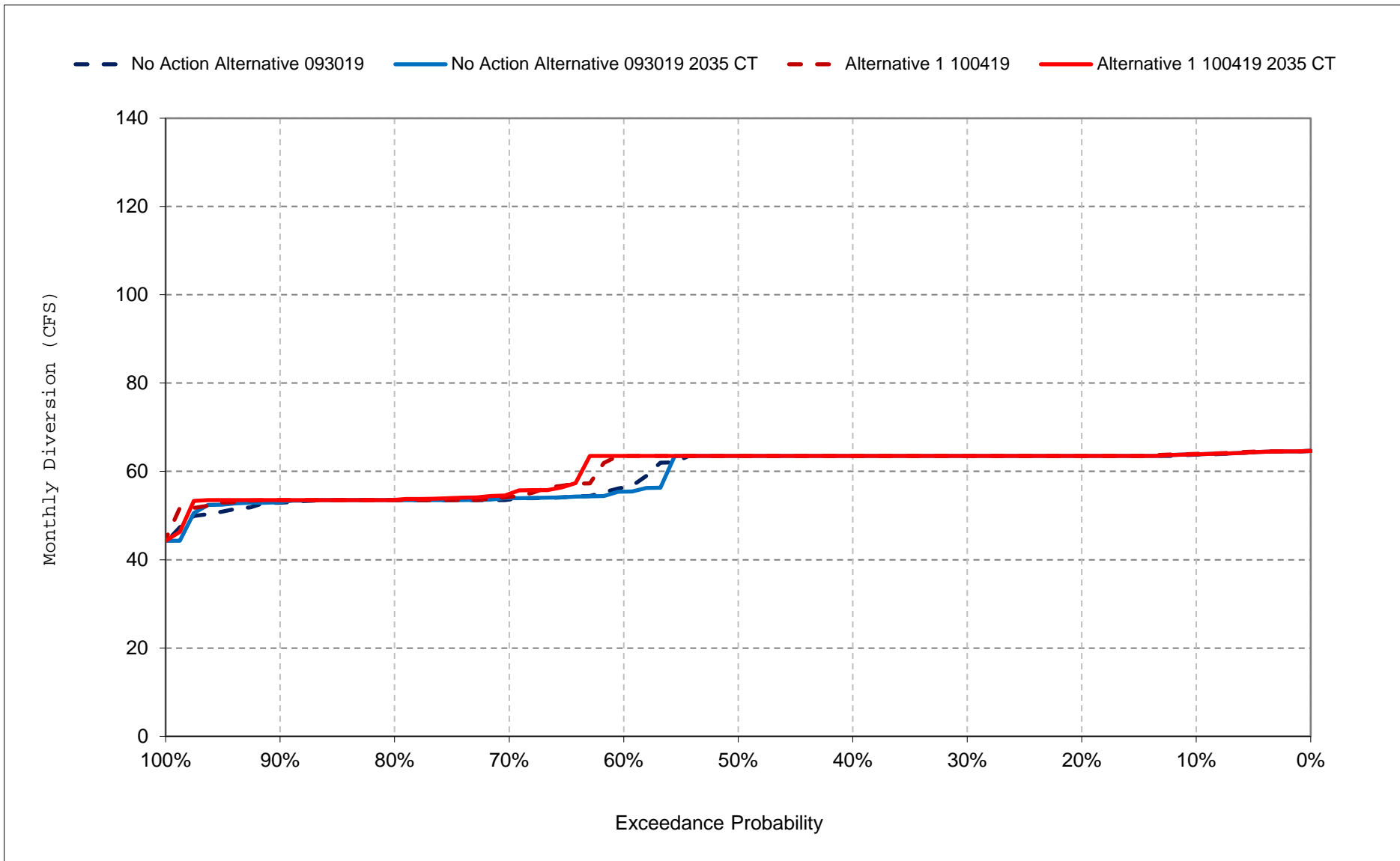
Figure 49-7. Folsom South Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

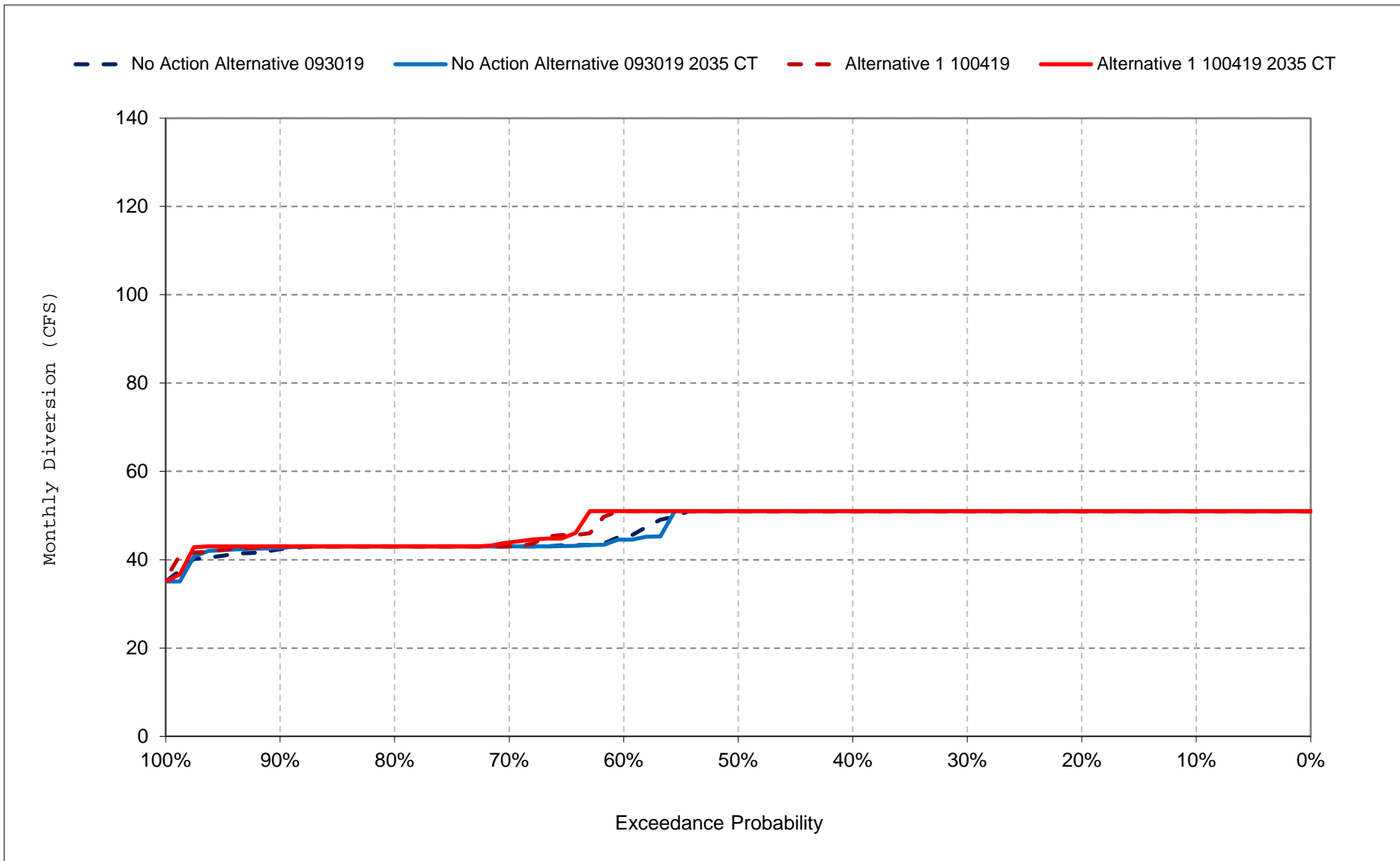
Figure 49-8. Folsom South Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

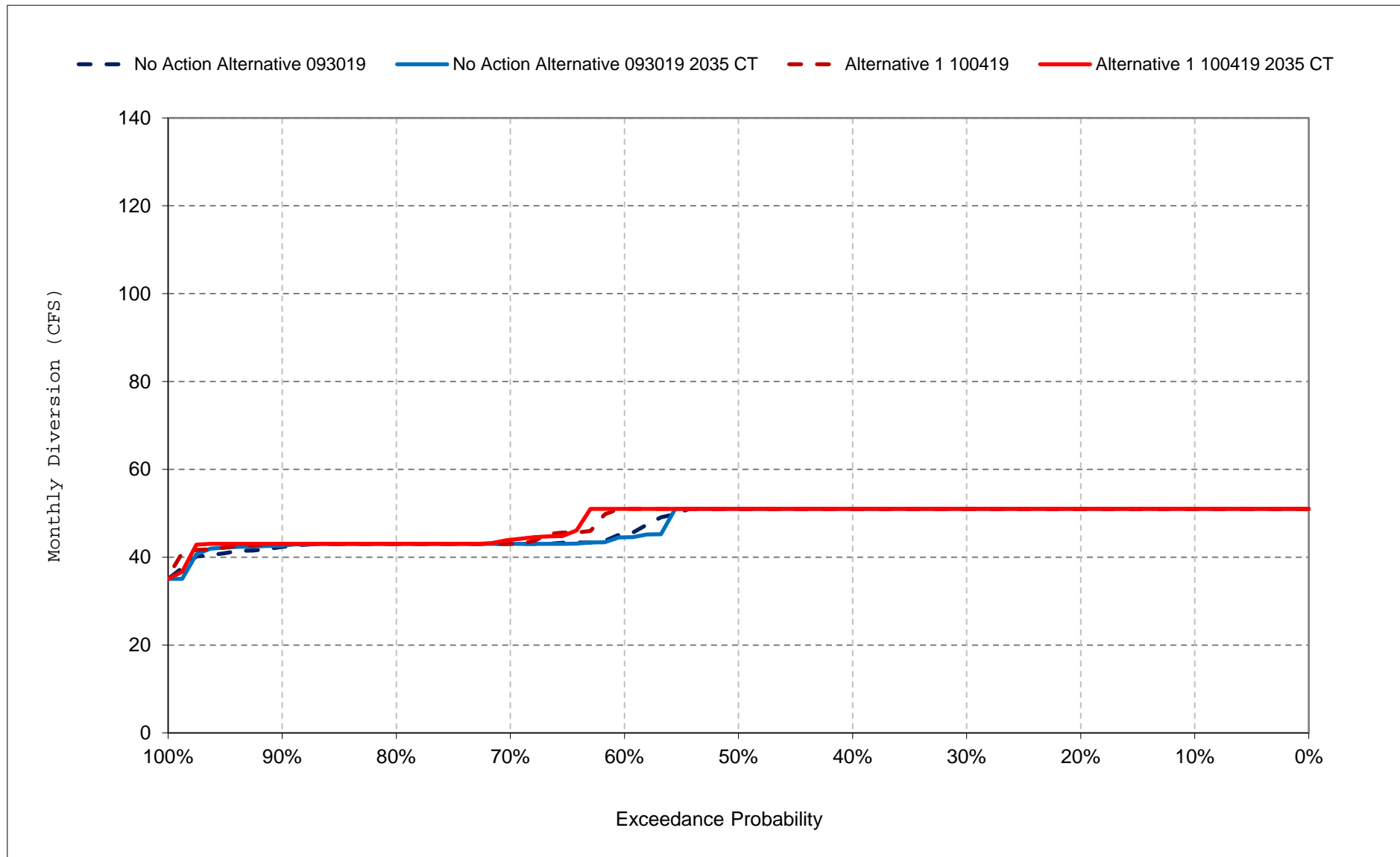
Figure 49-9. Folsom South Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

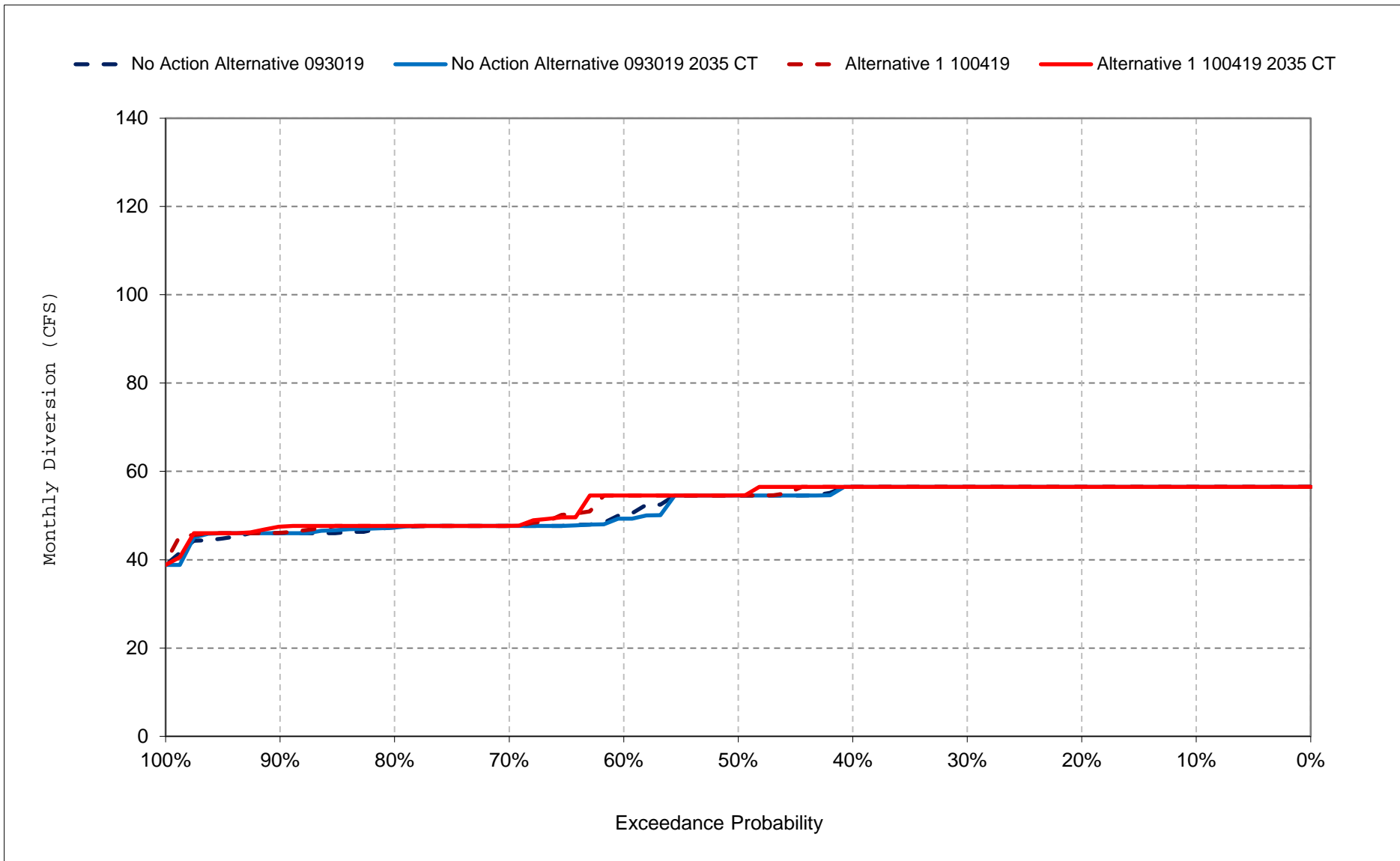
Figure 49-10. Folsom South Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

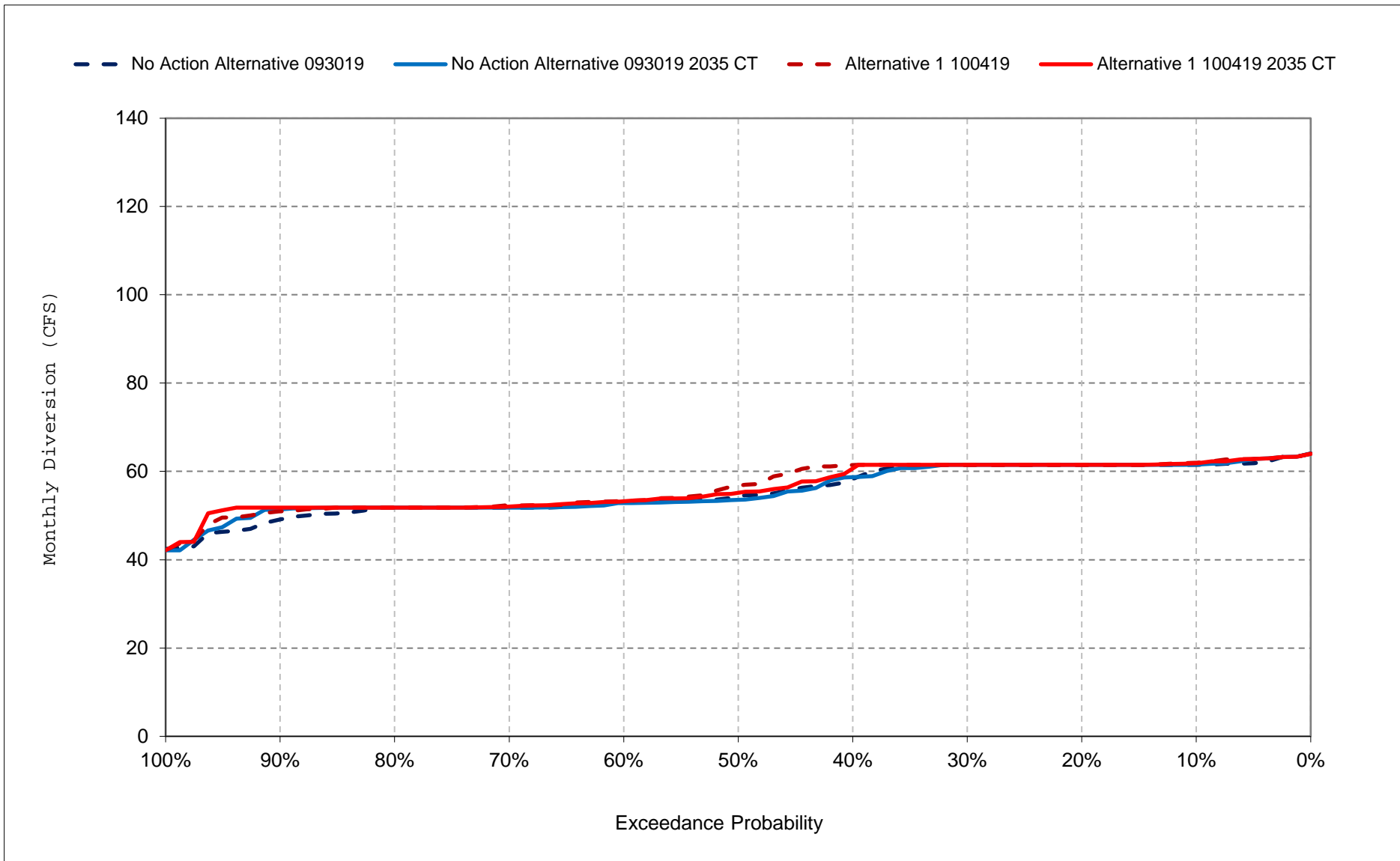
Figure 49-11. Folsom South Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

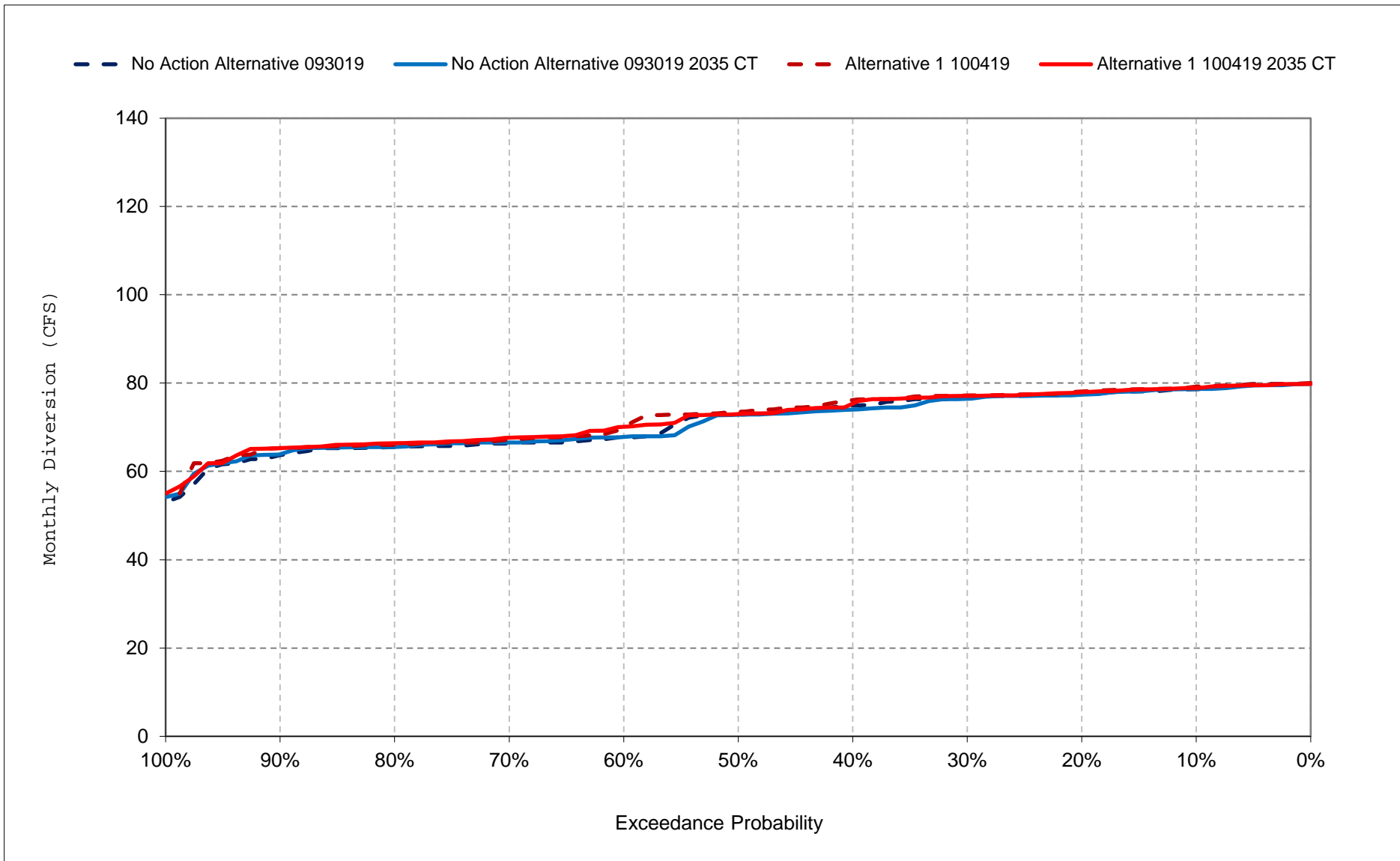
Figure 49-12. Folsom South Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

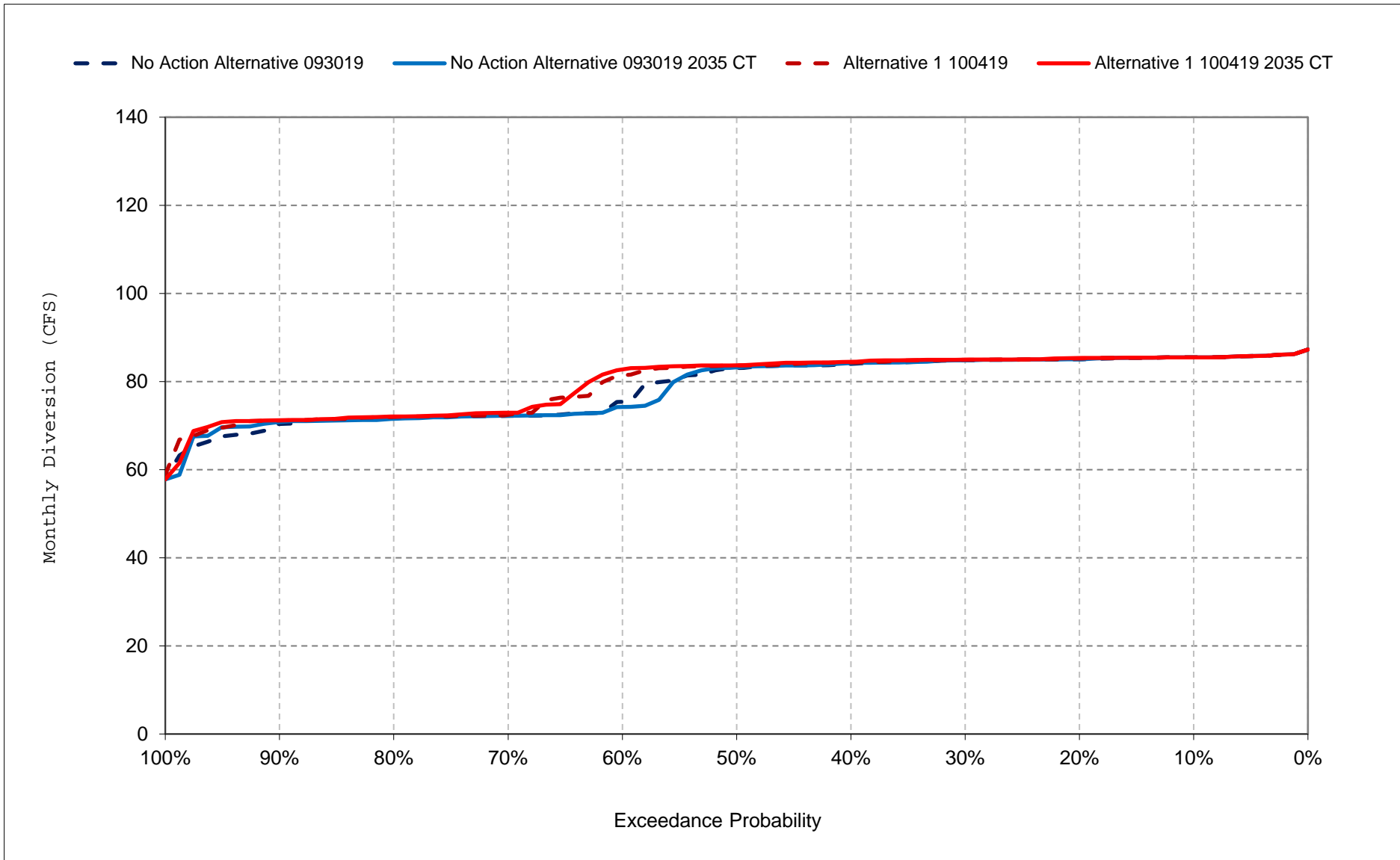
Figure 49-13. Folsom South Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

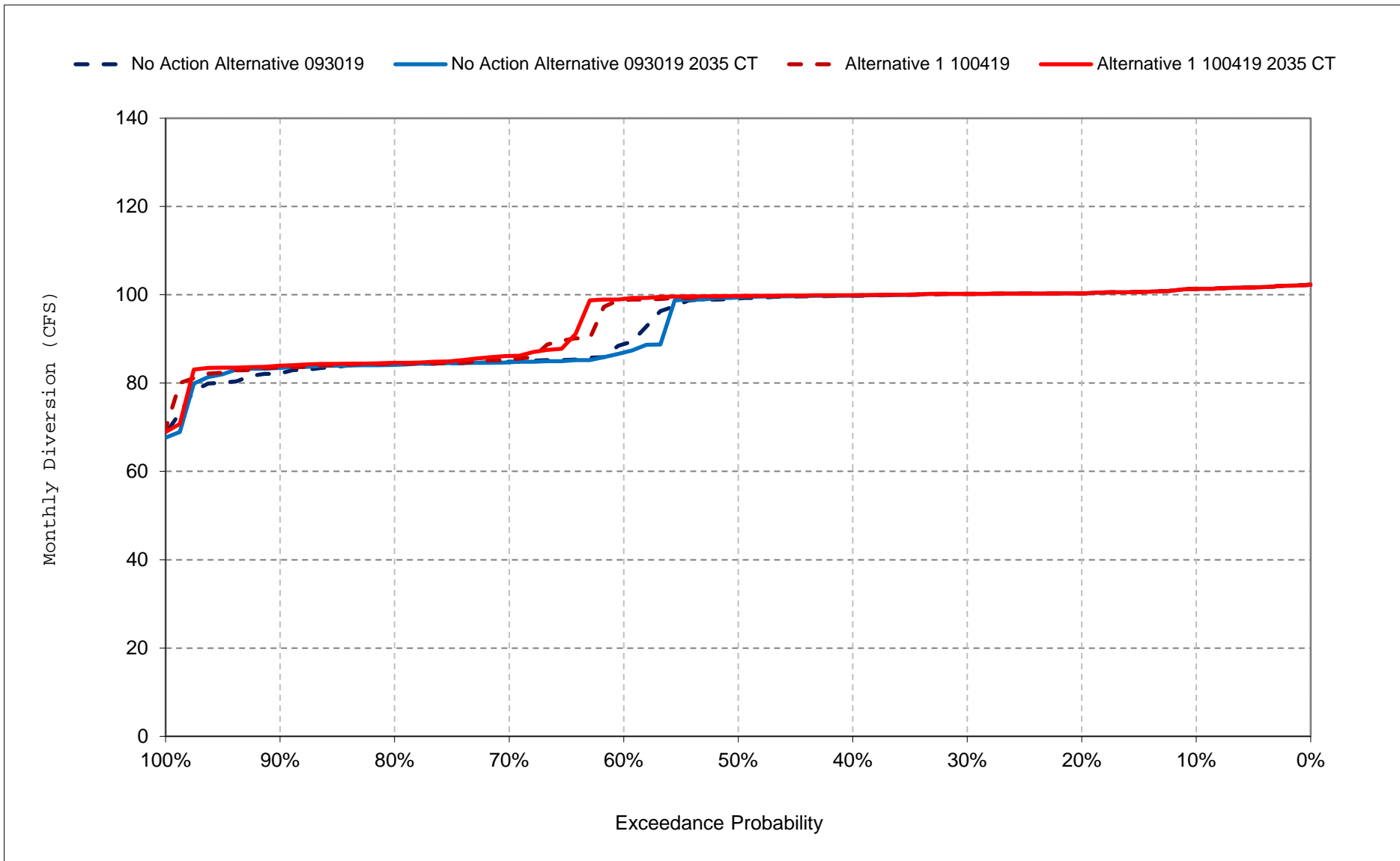
Figure 49-14. Folsom South Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

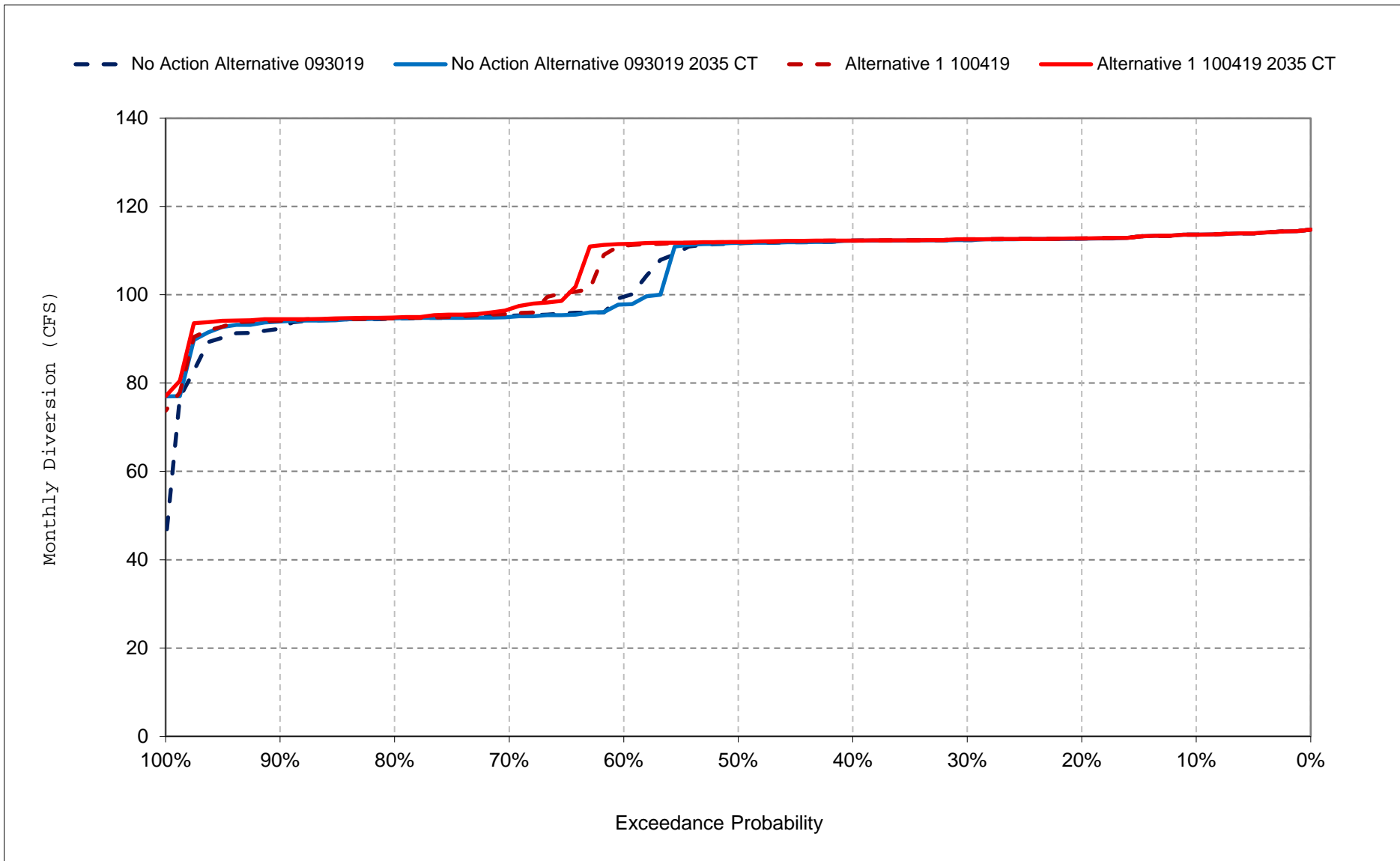
Figure 49-15. Folsom South Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

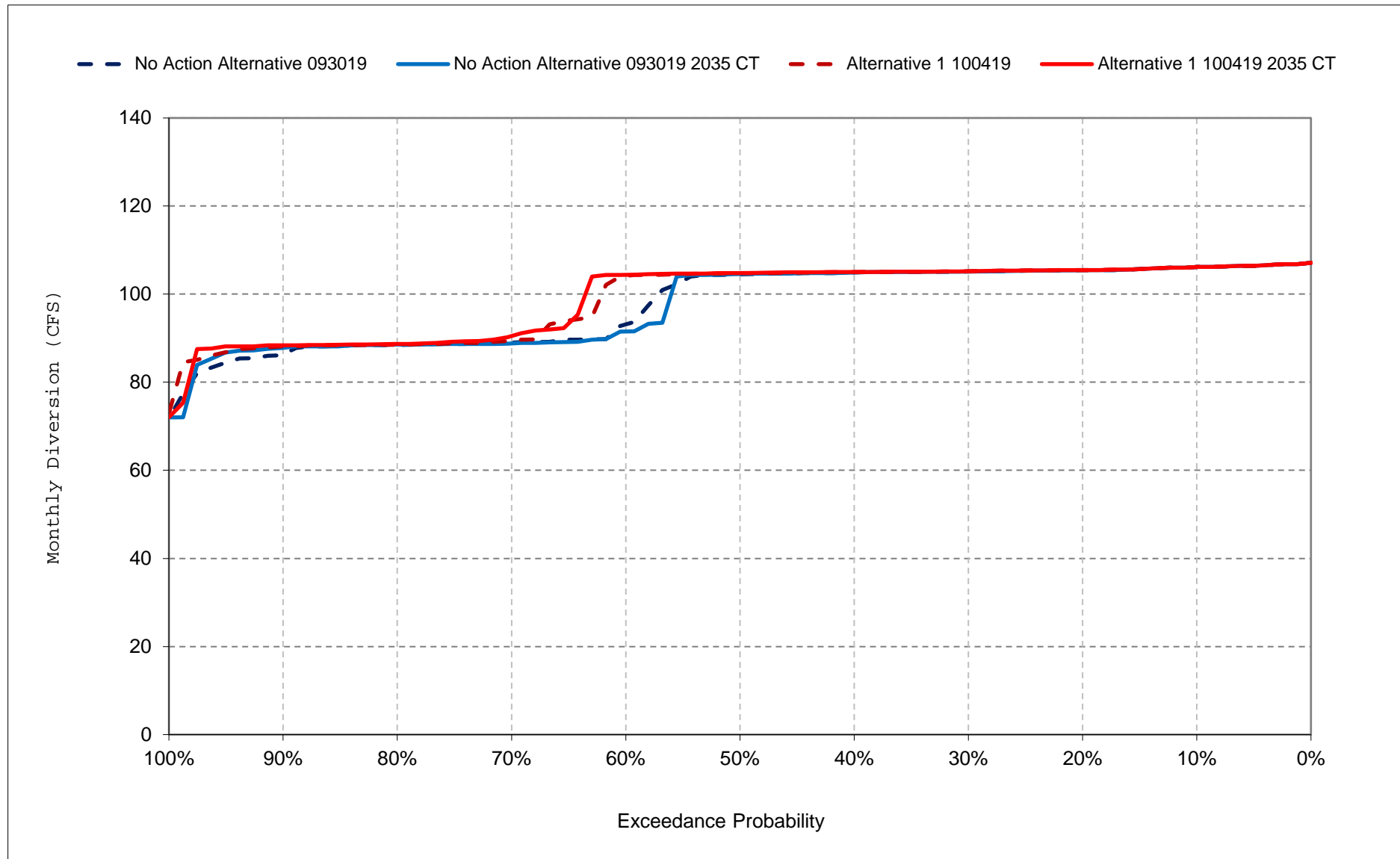
Figure 49-16. Folsom South Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

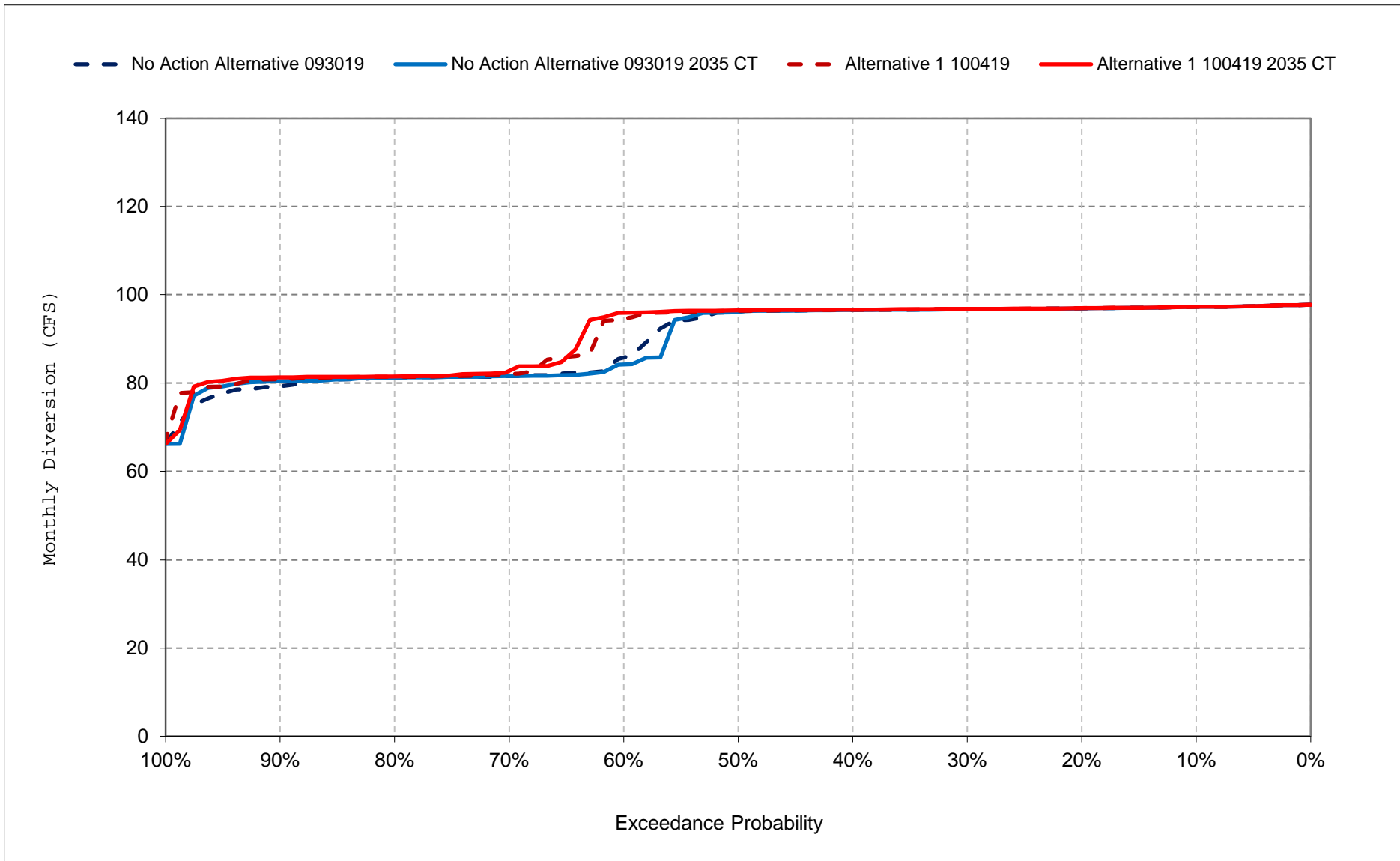
Figure 49-17. Folsom South Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 49-18. Folsom South Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-1. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 50-2. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-3. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-57	-7	-111	591	163	406	12	-52	-343	-649	-543	-297
20%	-47	-18	-9	874	332	291	-51	620	-546	-286	-249	-136
30%	-40	-20	-5	0	551	119	-42	243	-347	-163	-141	-88
40%	-36	-10	-7	-2	61	127	-137	172	-256	-215	-156	-123
50%	-31	-6	-2	-4	38	74	43	147	-18	-20	-17	-9
60%	-20	-5	-2	3	3	19	37	110	-13	-13	-53	-6
70%	4	-7	31	2	24	36	110	26	-10	-94	196	9
80%	0	1	0	0	26	-22	0	-38	-88	-59	-119	-35
90%	-6	-2	0	0	27	30	17	26	61	77	44	24
Long Term												
Full Simulation Period ^d	-61	-18	6	130	135	100	-10	107	-164	-158	-111	-80
Water Year Types ^{b,c}												
Wet (32%)	-164	-47	-39	237	182	88	-105	-21	-247	-366	-282	-210
Above Normal (16%)	-38	-7	-7	167	309	131	-6	90	-306	-291	-212	-124
Below Normal (13%)	-16	-3	75	118	177	210	34	141	-255	-95	-117	-46
Dry (24%)	-4	-5	38	51	-22	71	51	242	-59	22	63	27
Critical (15%)	4	-1	4	3	71	42	53	149	77	77	87	44

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-4. Friant-Kern Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-57	-7	-111	591	163	406	12	-52	-343	-649	-543	-297
20%	-47	-18	-9	874	332	291	-51	620	-546	-286	-249	-136
30%	-40	-20	-5	0	551	119	-42	243	-347	-163	-141	-88
40%	-36	-10	-7	-2	61	127	-137	172	-256	-215	-156	-123
50%	-31	-6	-2	-4	38	74	43	147	-18	-20	-17	-9
60%	-20	-5	-2	3	3	19	37	110	-13	-13	-53	-6
70%	4	-7	31	2	24	36	110	26	-10	-94	196	9
80%	0	1	0	0	26	-22	0	-38	-88	-59	-119	-35
90%	-6	-2	0	0	27	30	17	26	61	77	44	24
Long Term												
Full Simulation Period ^d	-61	-18	6	130	135	100	-10	107	-164	-158	-111	-80
Water Year Types ^{b,c}												
Wet (32%)	-164	-47	-39	237	182	88	-105	-21	-247	-366	-282	-210
Above Normal (16%)	-38	-7	-7	167	309	131	-6	90	-306	-291	-212	-124
Below Normal (13%)	-16	-3	75	118	177	210	34	141	-255	-95	-117	-46
Dry (24%)	-4	-5	38	51	-22	71	51	242	-59	22	63	27
Critical (15%)	4	-1	4	3	71	42	53	149	77	77	87	44

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

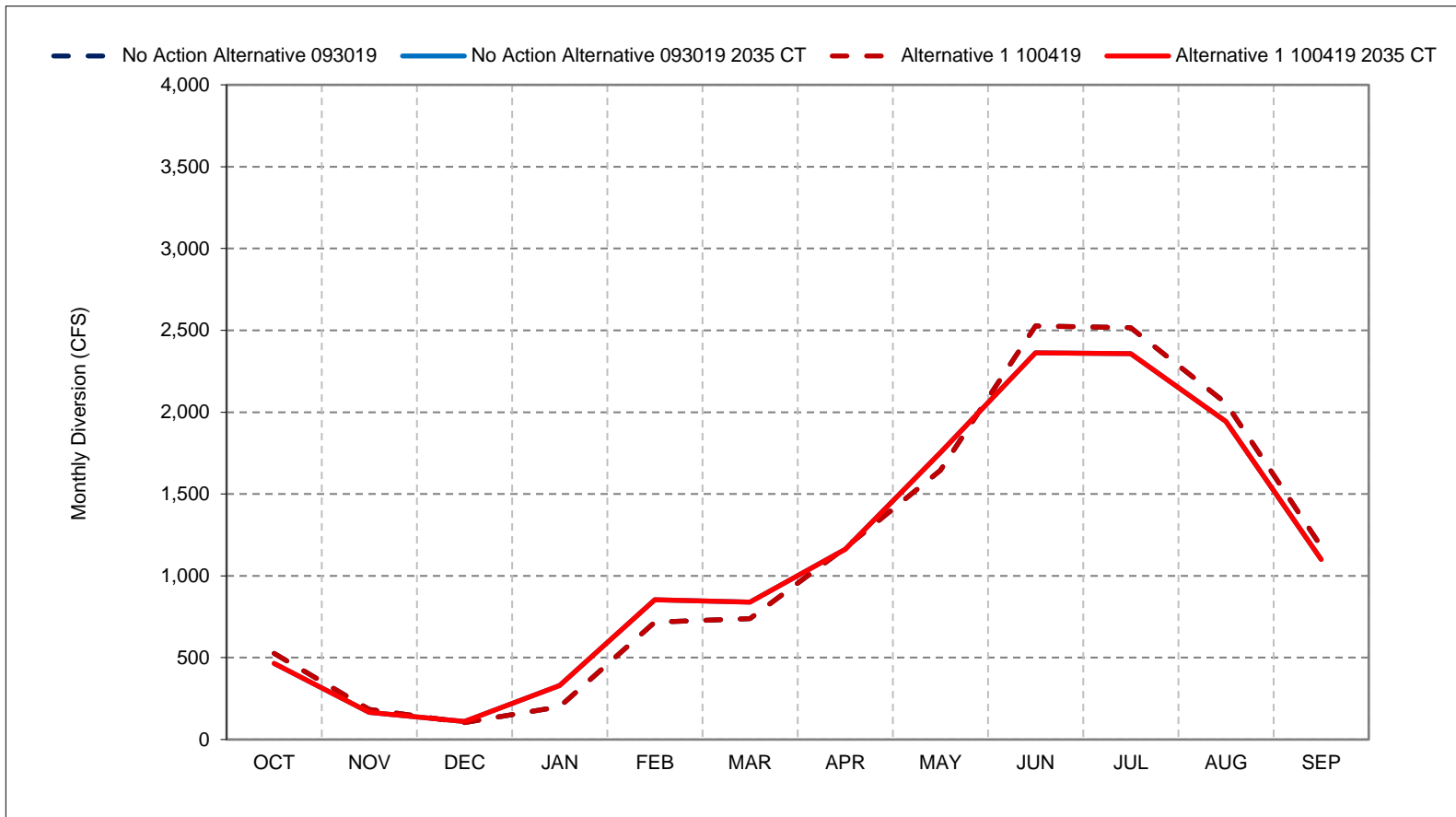
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 50-1. Friant-Kern Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

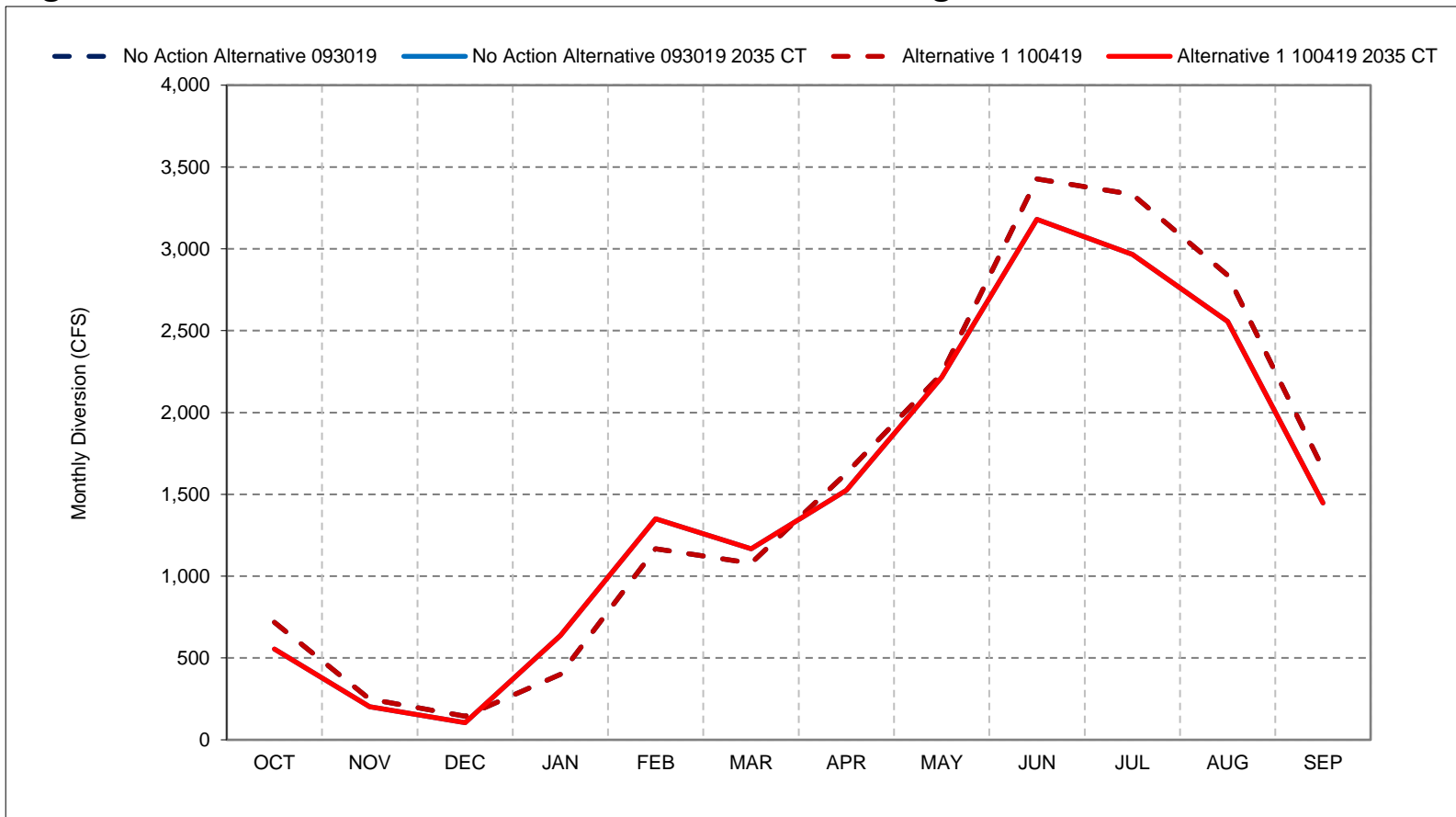
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-2. Friant-Kern Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

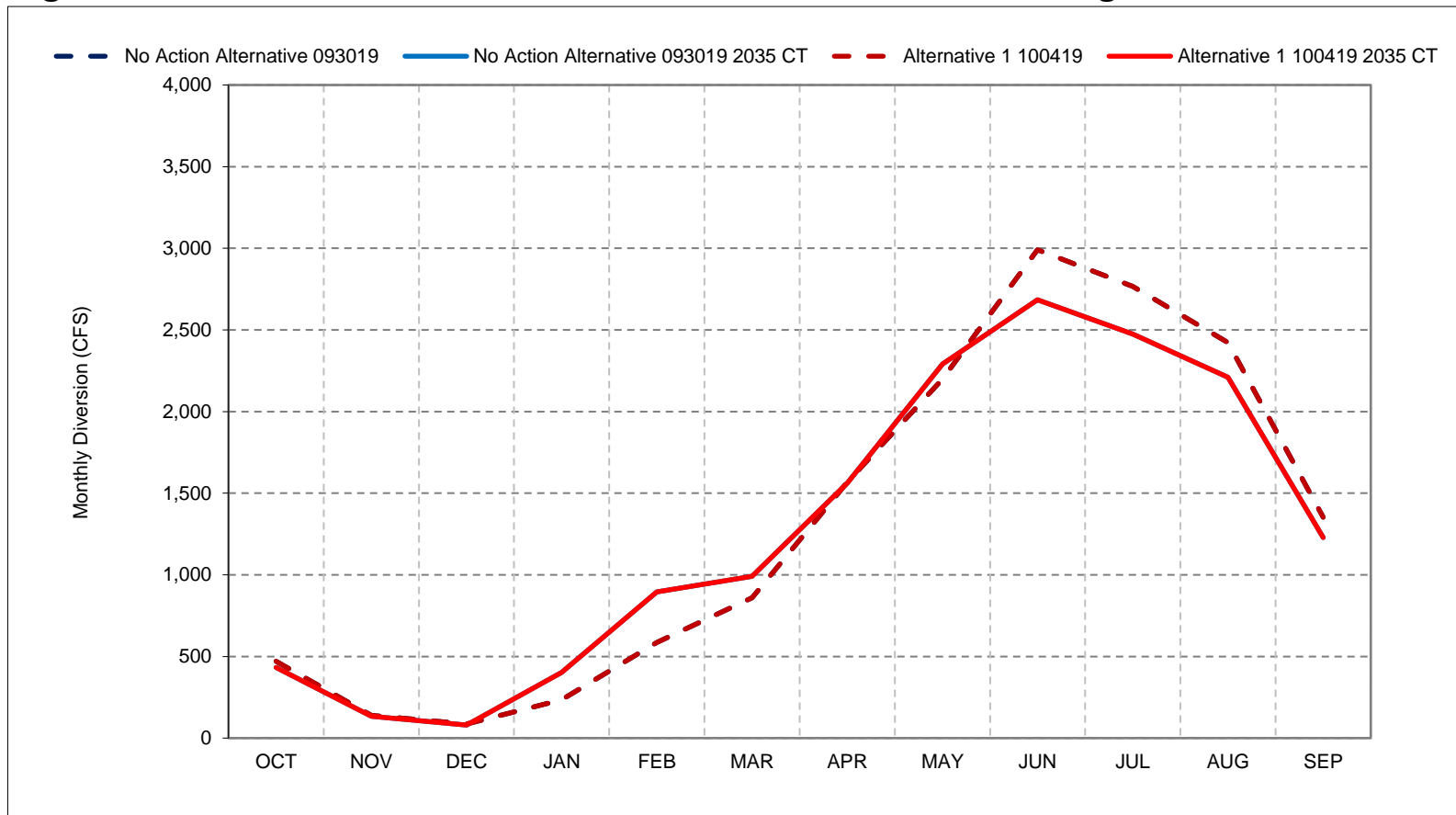
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-3. Friant-Kern Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

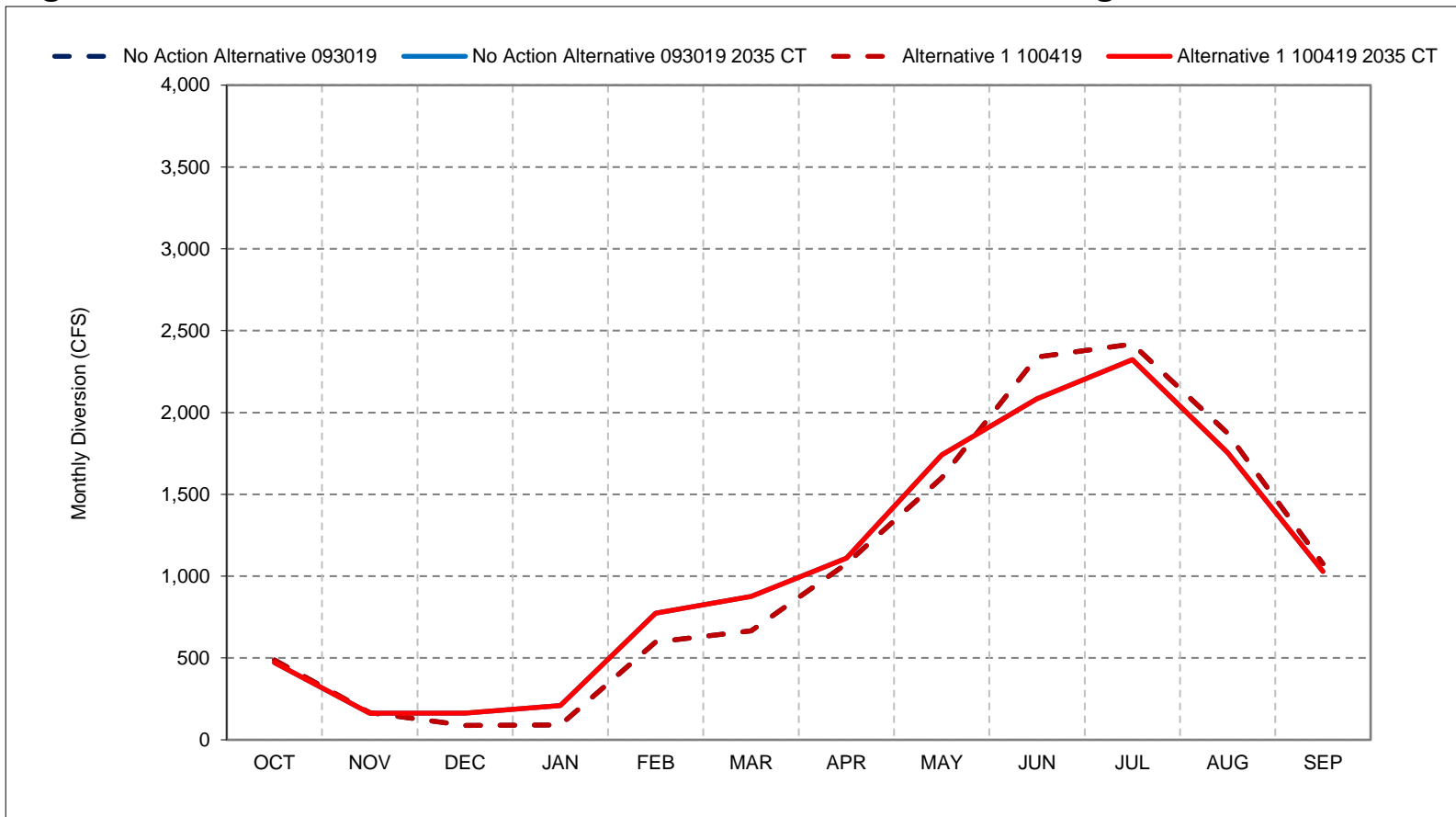
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-4. Friant-Kern Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

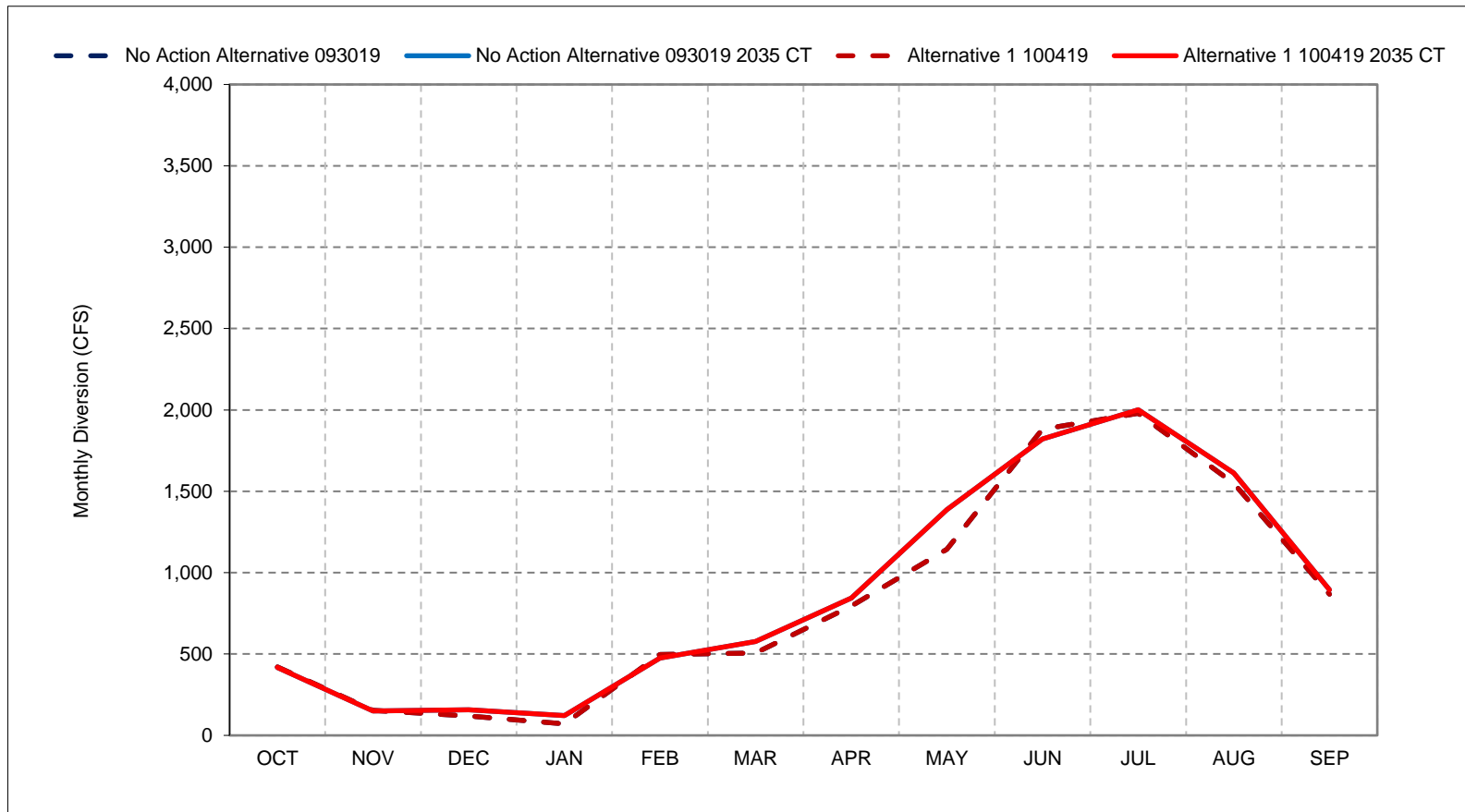
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-5. Friant-Kern Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

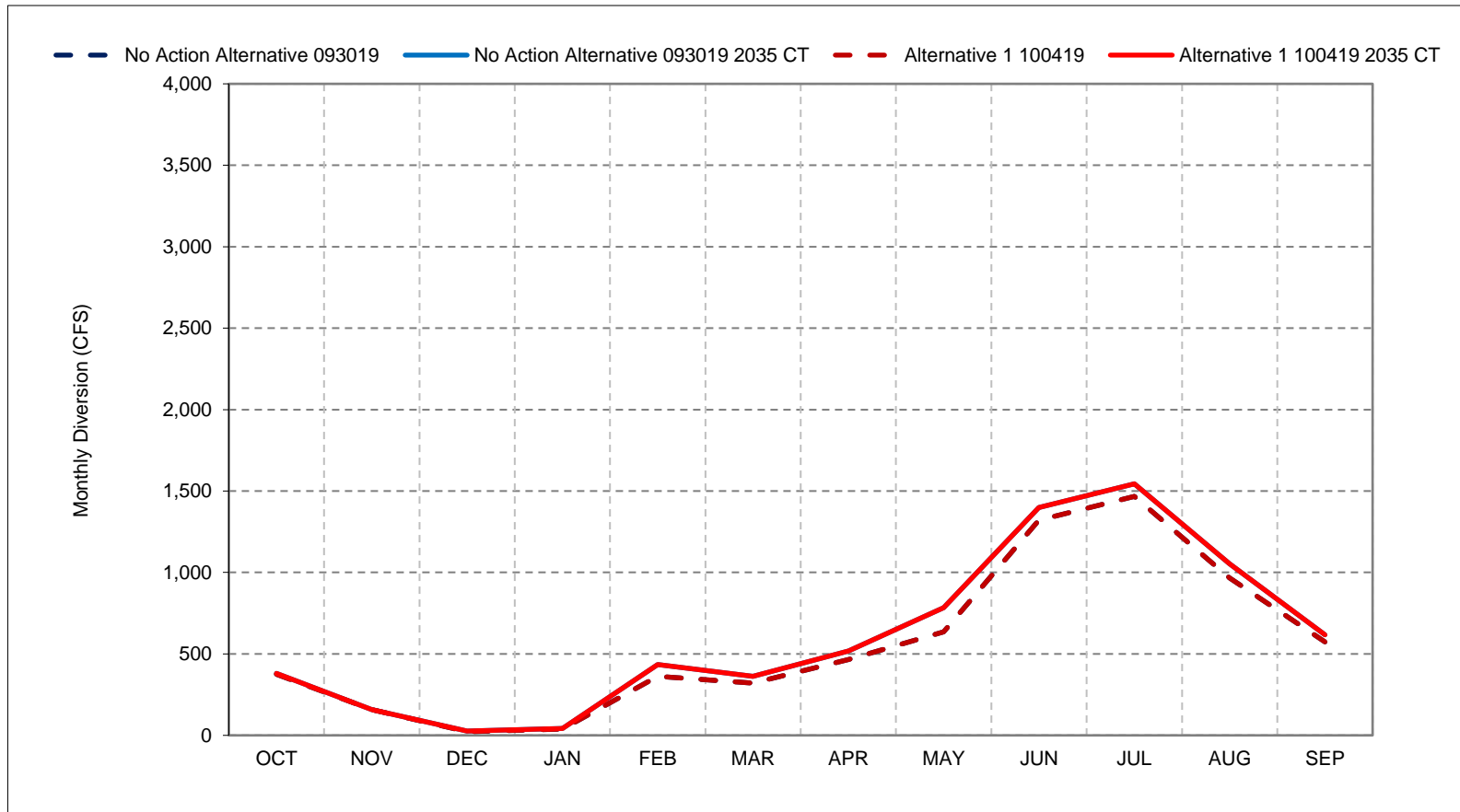
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-6. Friant-Kern Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

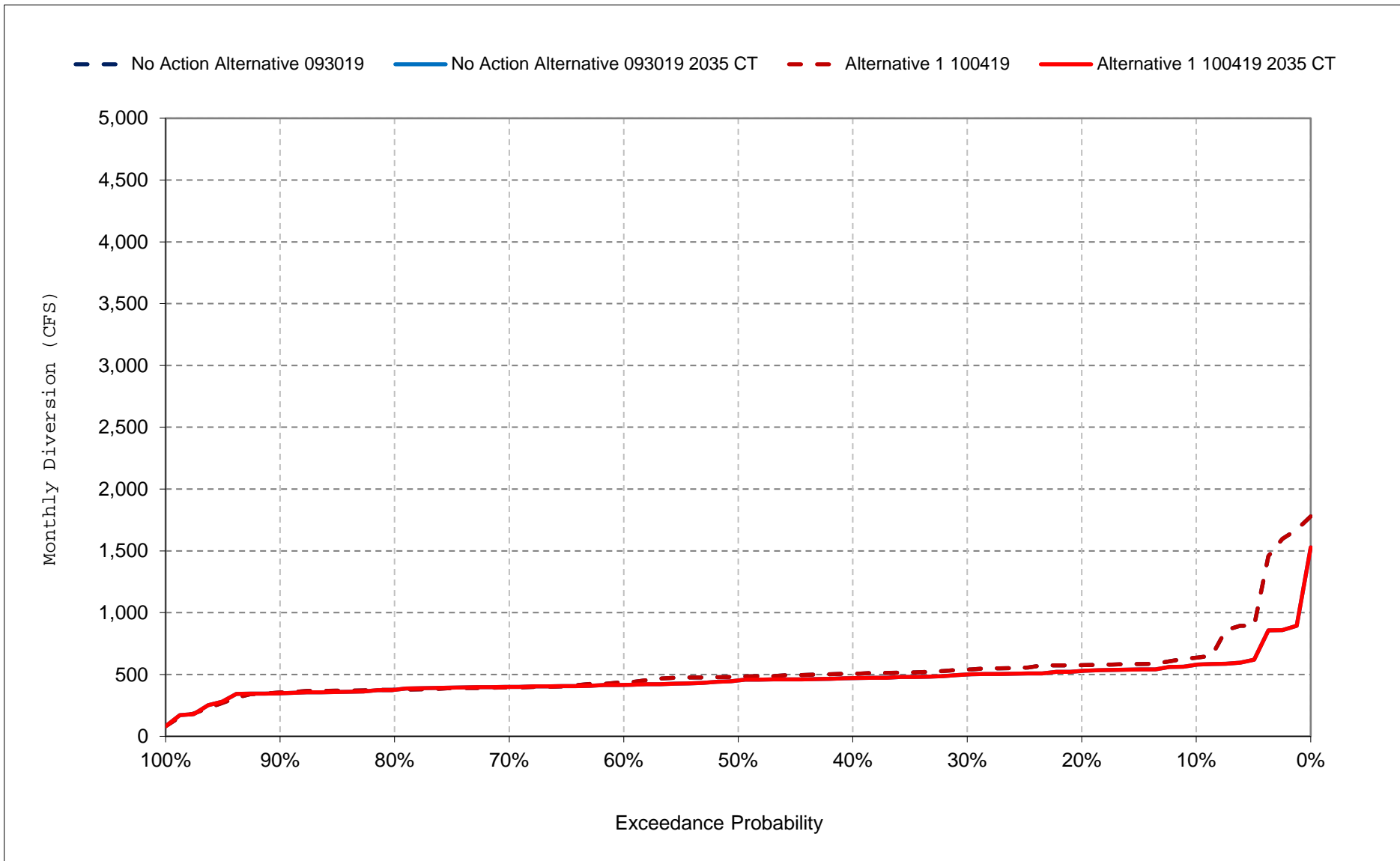
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

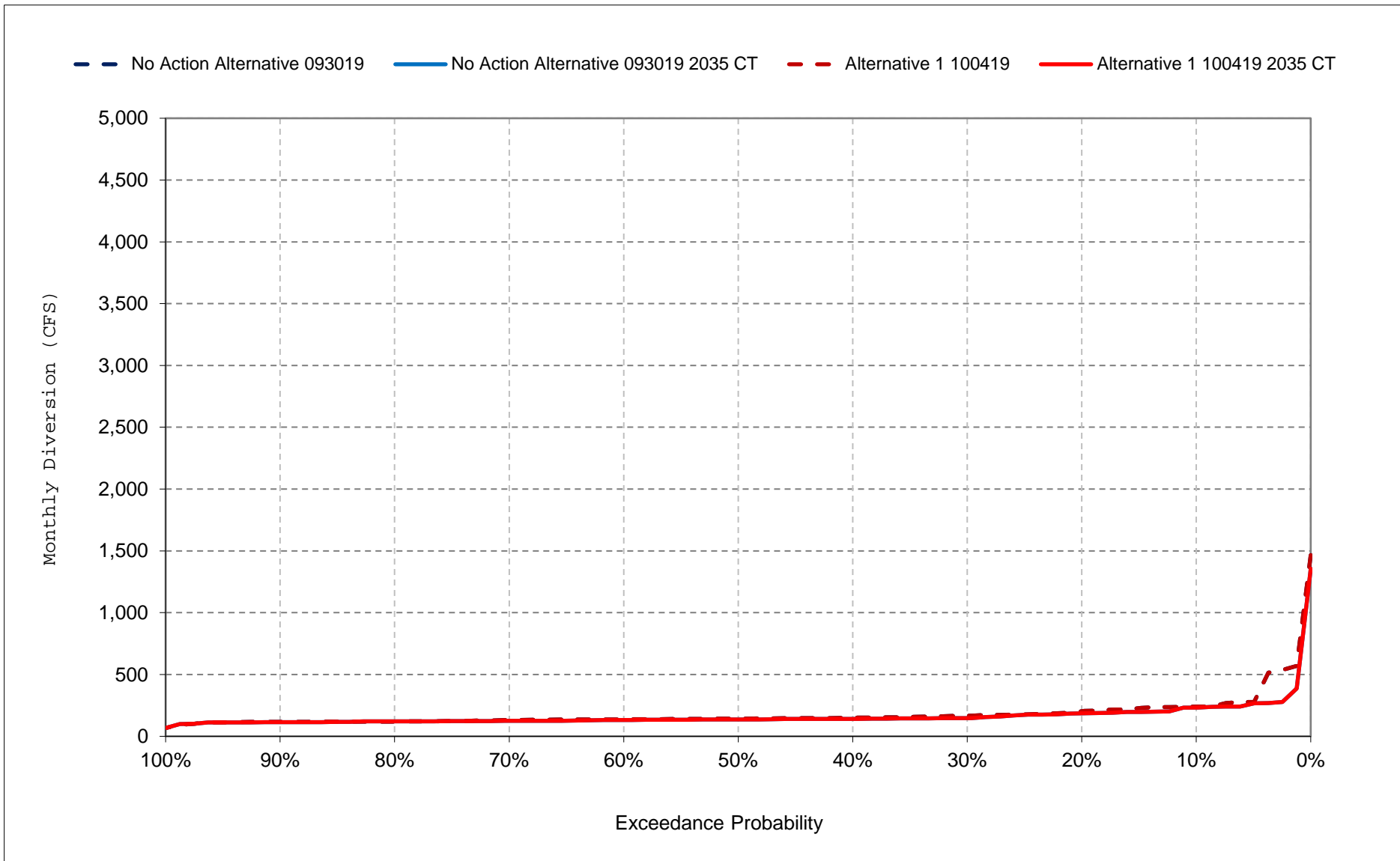
Figure 50-7. Friant-Kern Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

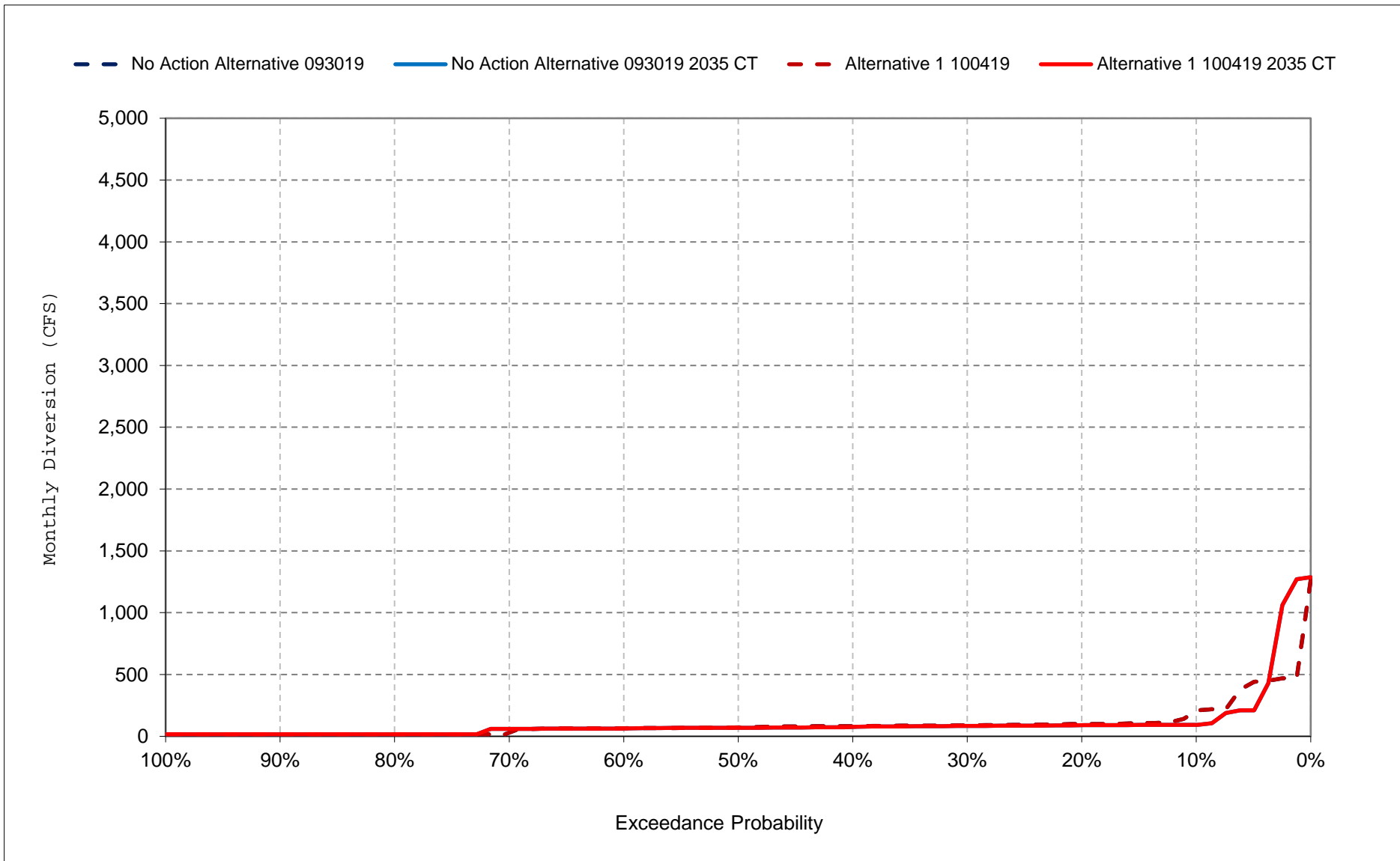
Figure 50-8. Friant-Kern Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

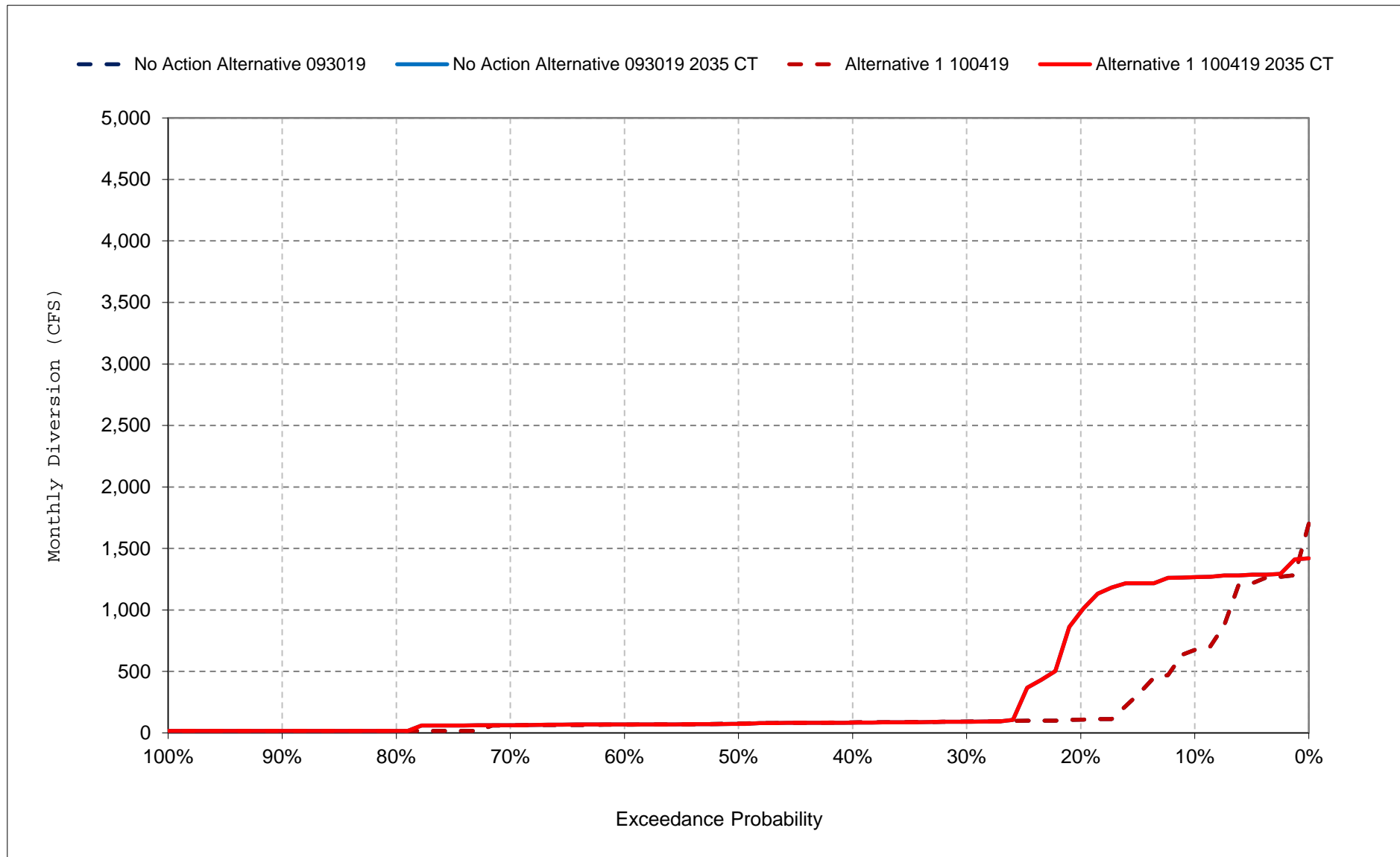
Figure 50-9. Friant-Kern Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

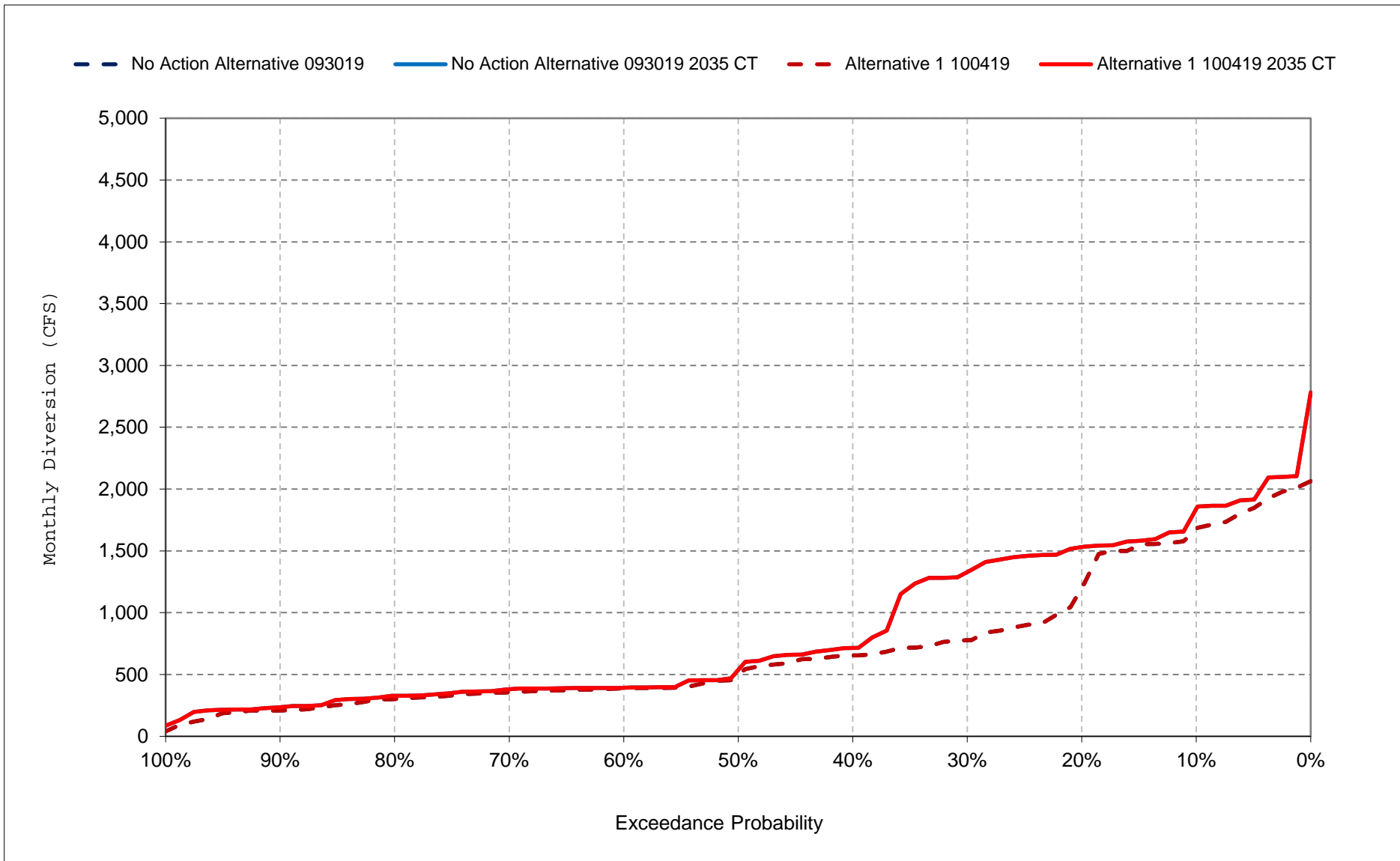
Figure 50-10. Friant-Kern Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

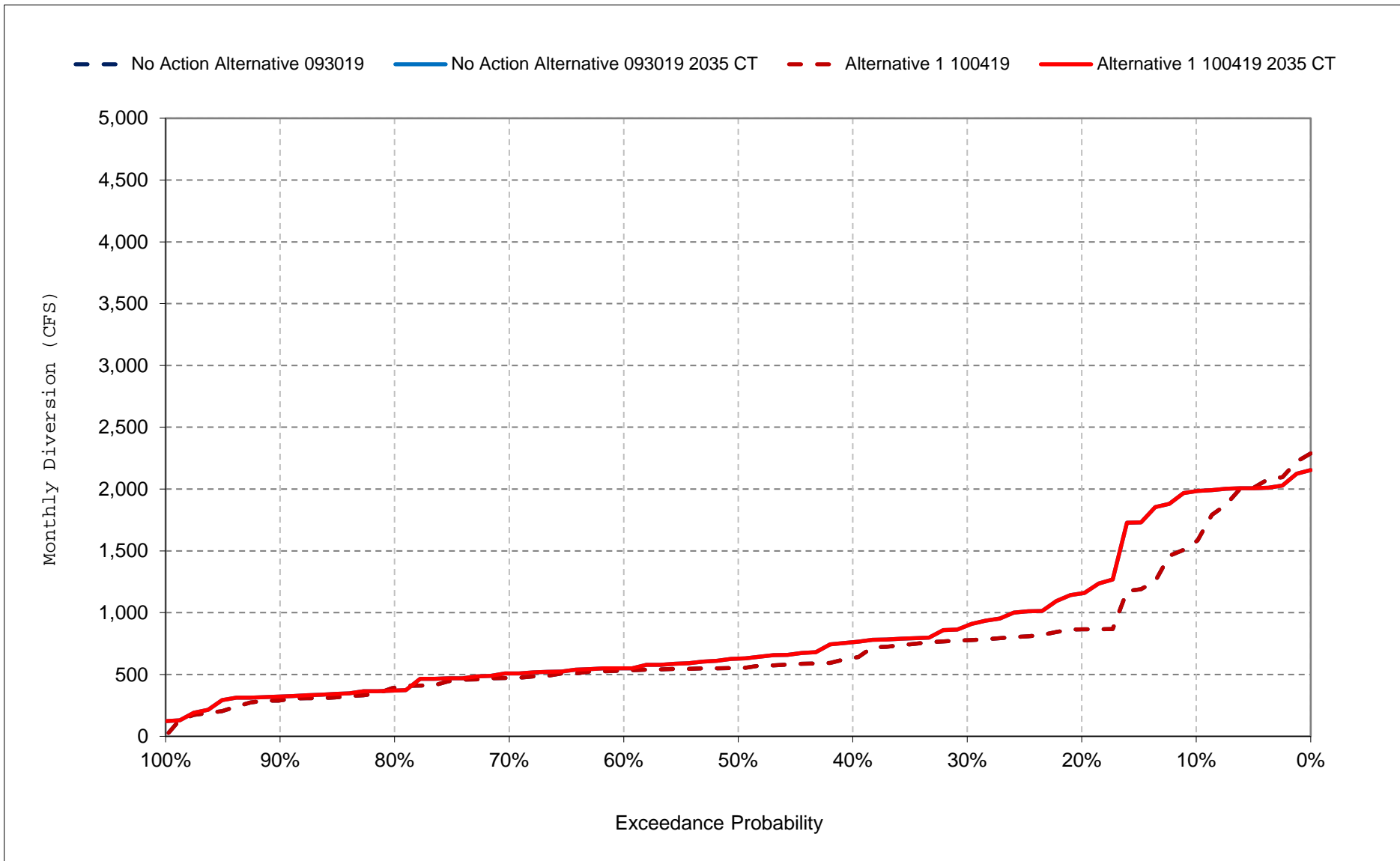
Figure 50-11. Friant-Kern Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

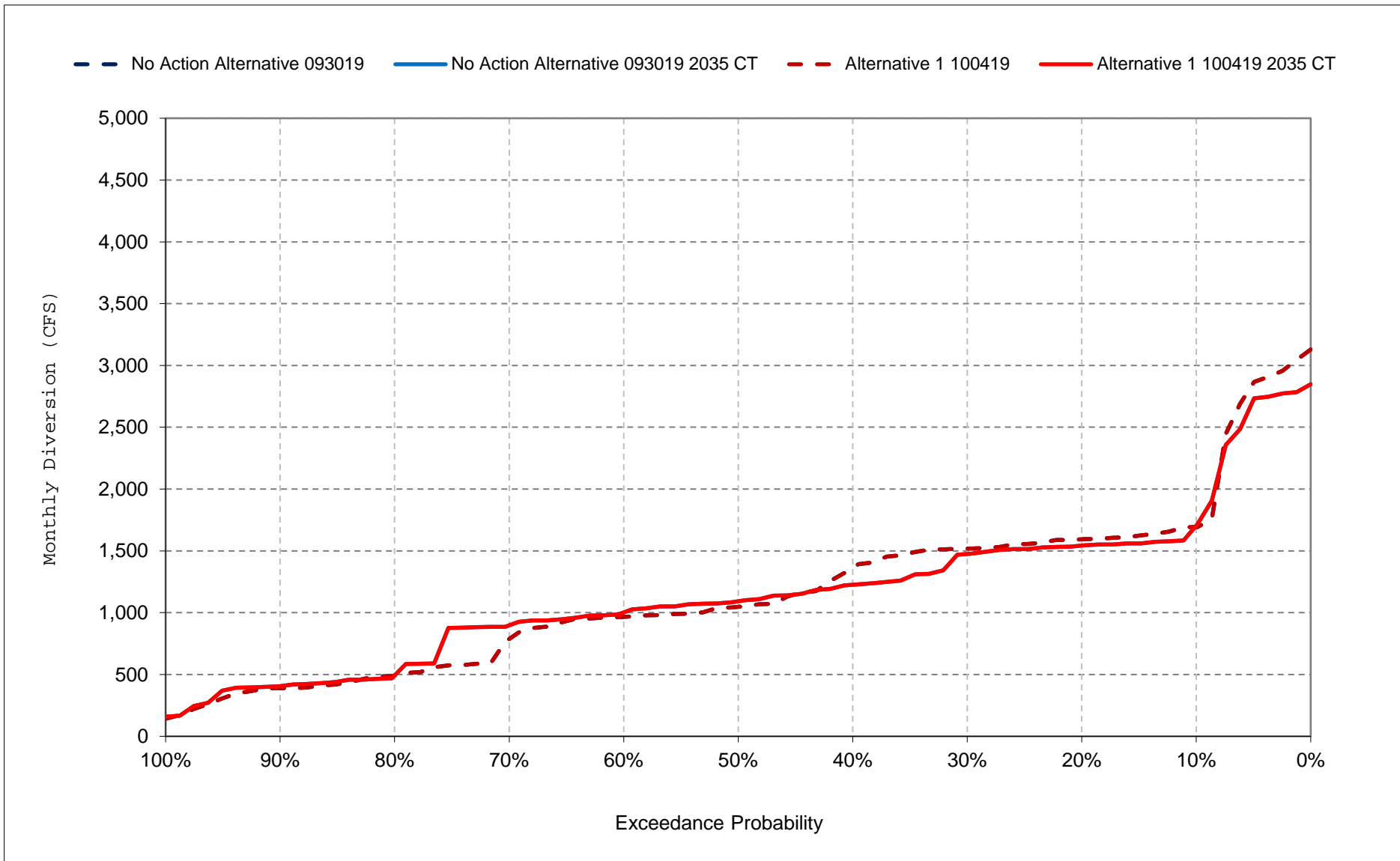
Figure 50-12. Friant-Kern Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

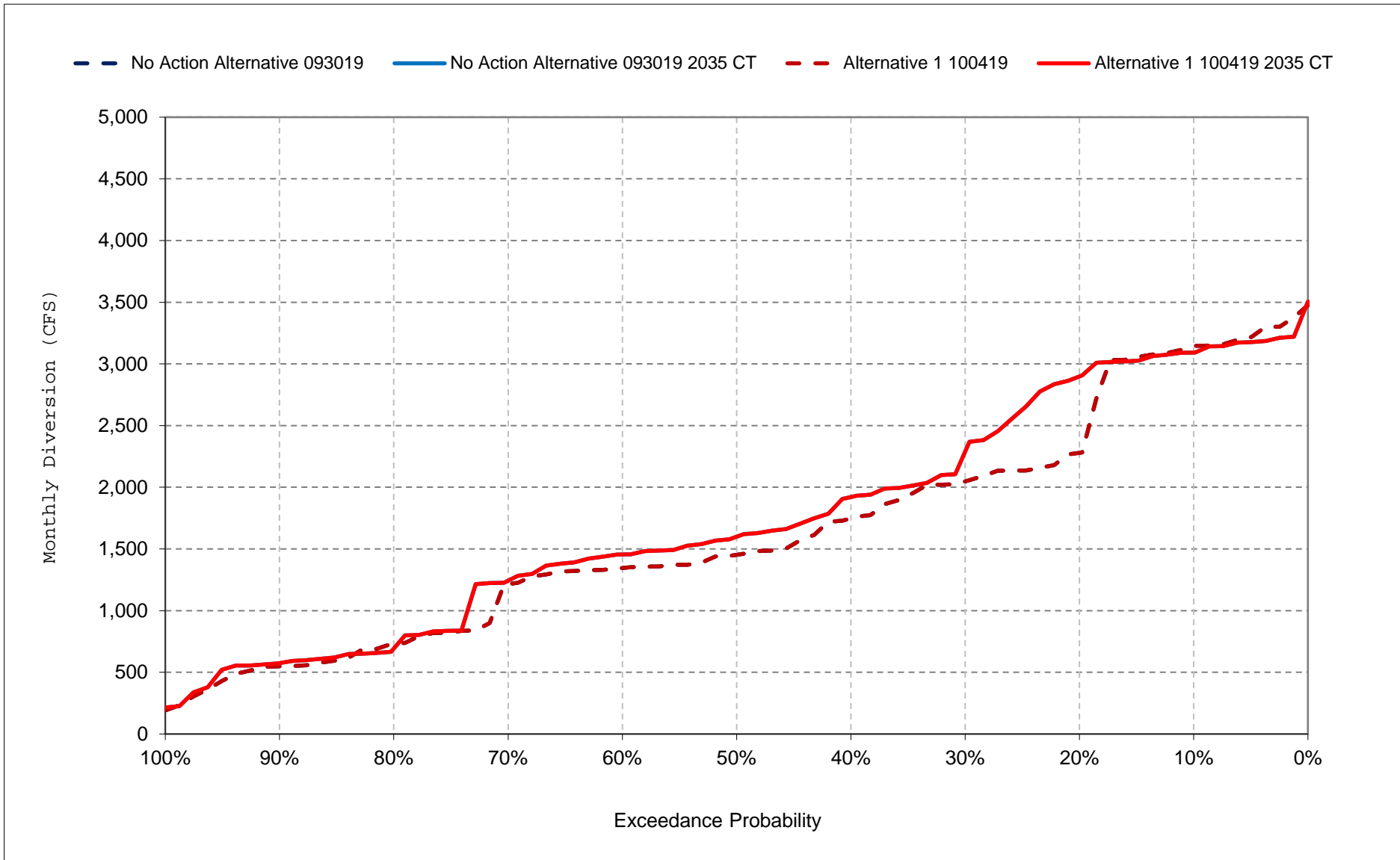
Figure 50-13. Friant-Kern Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

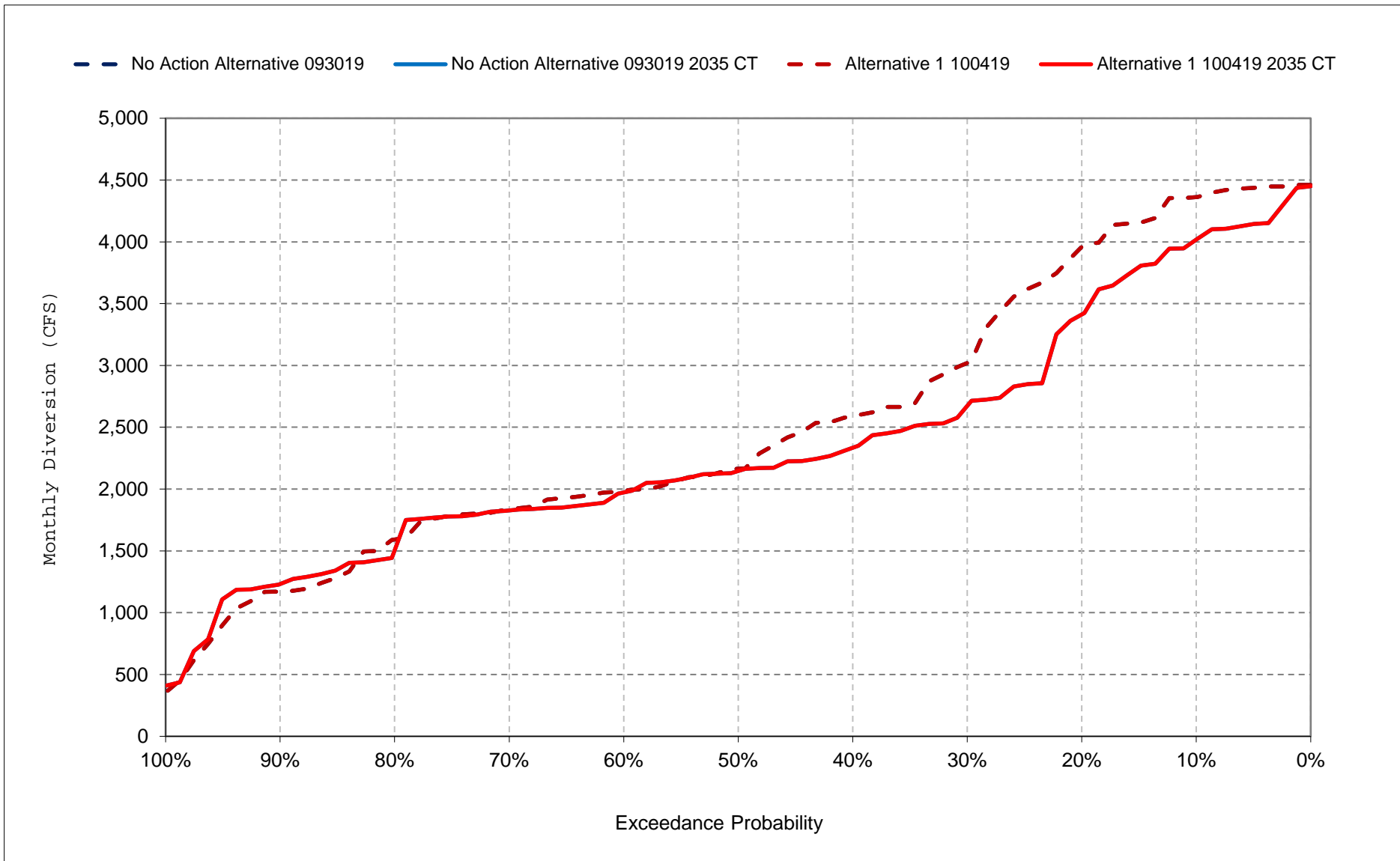
Figure 50-14. Friant-Kern Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

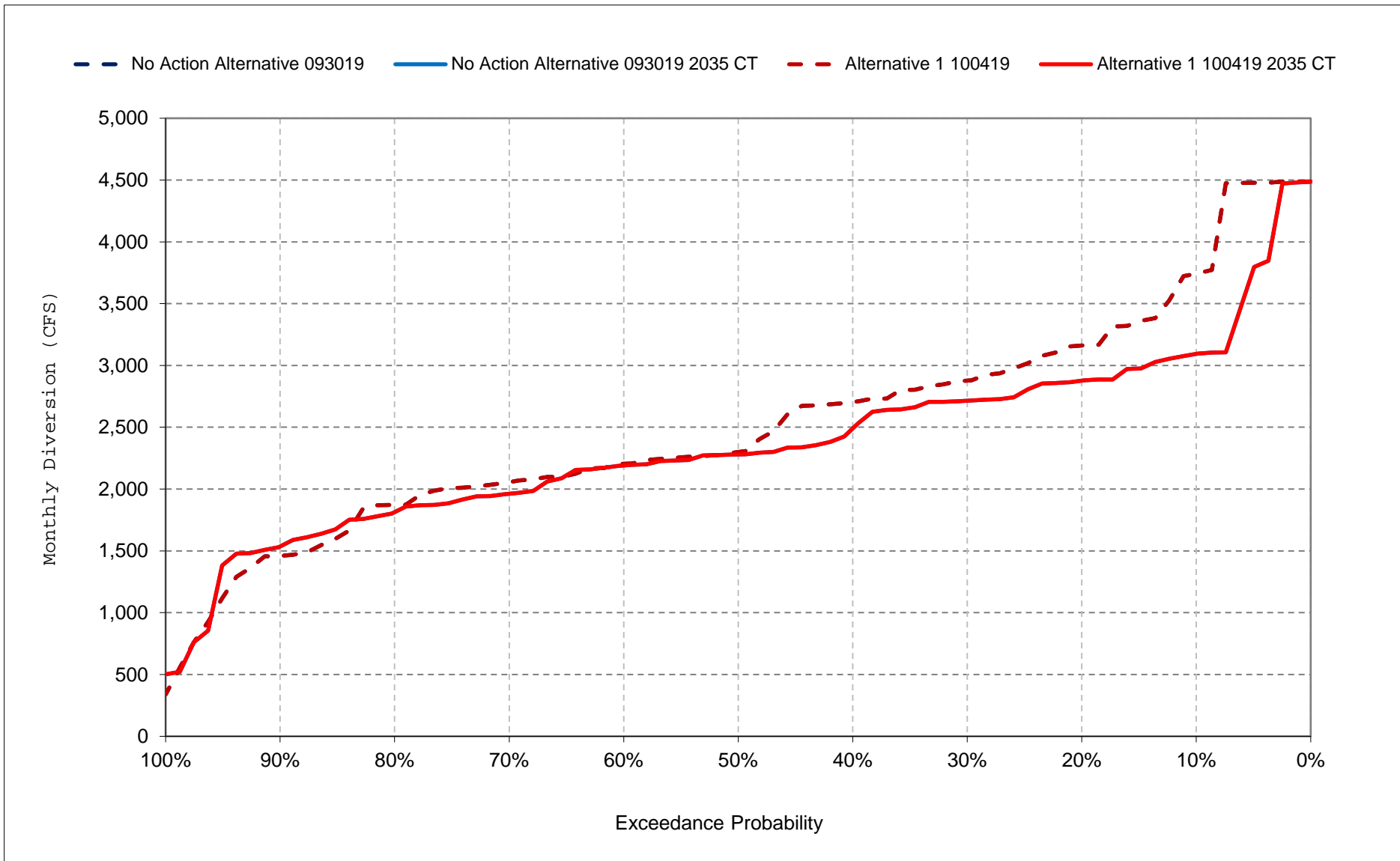
Figure 50-15. Friant-Kern Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

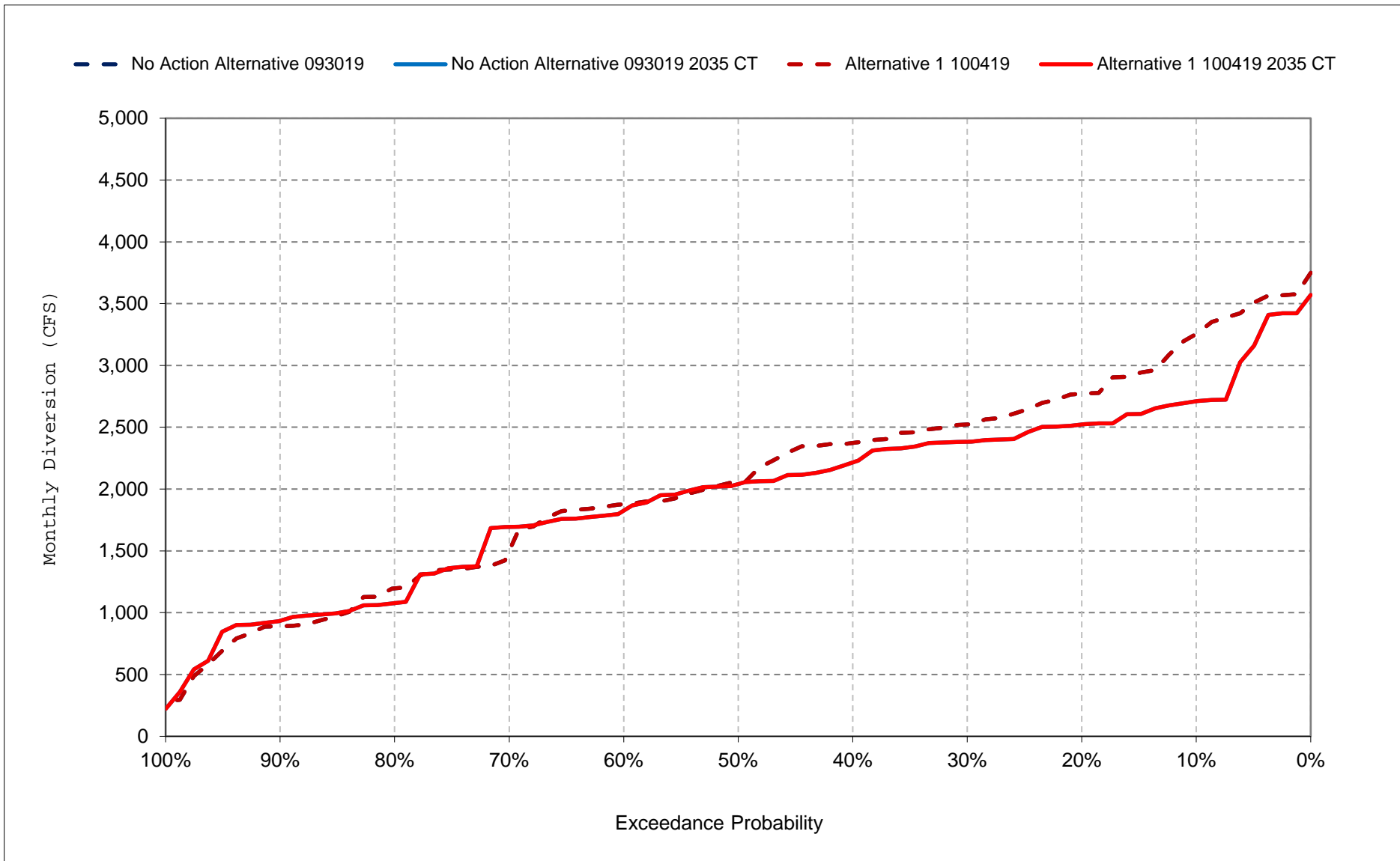
Figure 50-16. Friant-Kern Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

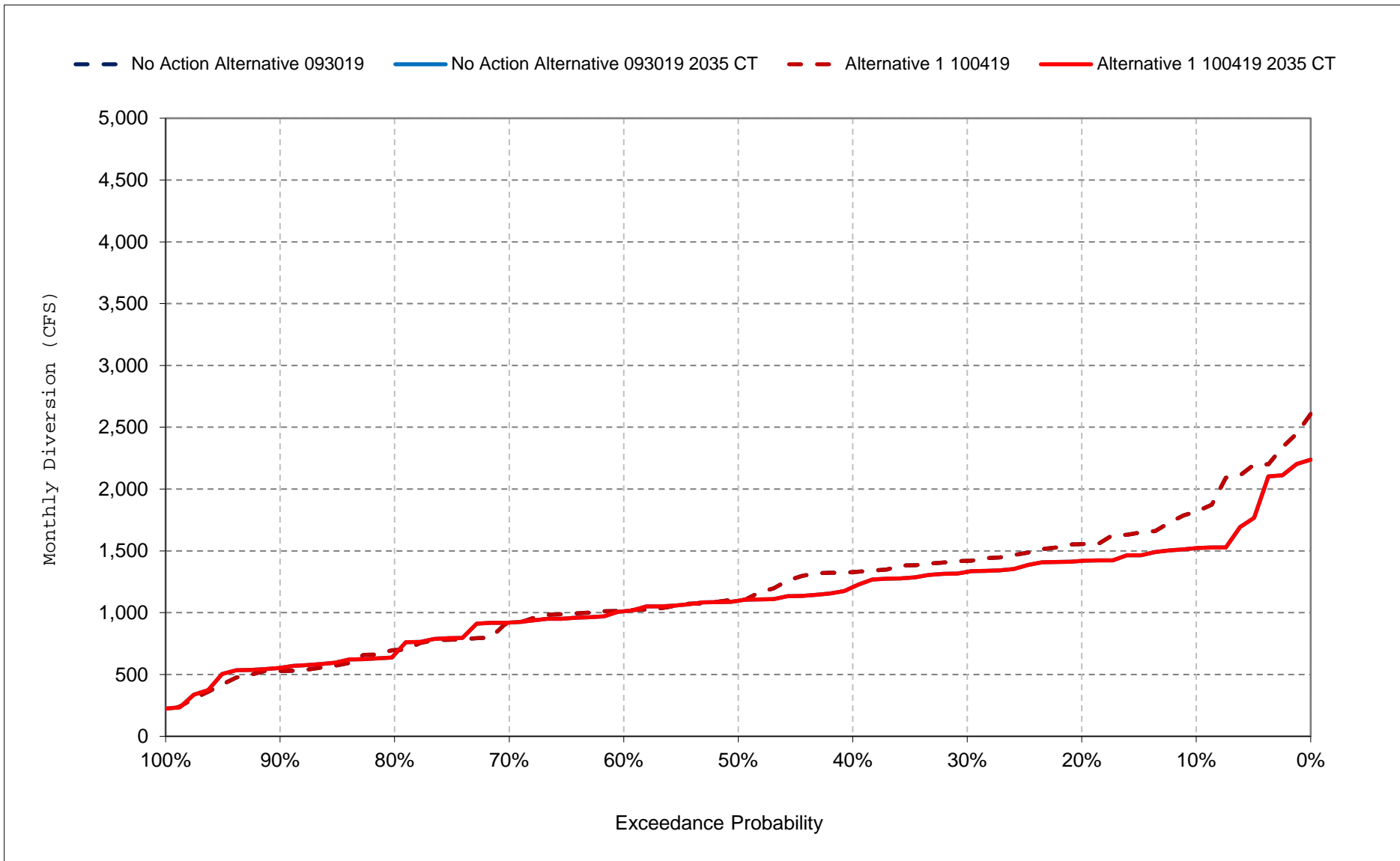
Figure 50-17. Friant-Kern Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 50-18. Friant-Kern Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-1. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 51-2. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types^{b,c}												
Wet (32%)	24	6	27	118	105	110	140	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types^{b,c}												
Wet (32%)	24	6	27	118	105	110	139	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-3. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types ^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	140	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-5	-9	1	82	87	20	-32	-109	-27	0	-192	-48
20%	-38	-1	0	48	70	20	-106	-61	-57	-69	-85	-27
30%	0	0	0	3	63	48	-15	-11	-75	-75	-66	-116
40%	0	0	0	0	33	49	0	-60	-139	-49	-134	-5
50%	0	0	0	0	11	26	0	57	-8	-9	-13	-7
60%	0	0	0	0	0	0	0	17	-4	-5	-17	4
70%	0	0	0	0	0	0	0	2	6	8	0	-3
80%	0	0	0	0	0	0	0	-8	-27	-33	-27	1
90%	0	0	0	0	0	0	0	6	19	23	-13	7
Long Term												
Full Simulation Period ^d	-9	-1	4	20	28	16	-26	-22	-25	-17	-58	-25
Water Year Types ^{b,c}												
Wet (32%)	-22	-3	7	50	43	22	-62	-102	-48	-53	-131	-88
Above Normal (16%)	-3	-1	0	20	33	20	-18	-13	-90	-83	-78	-34
Below Normal (13%)	-7	0	4	1	33	26	6	0	-12	21	-65	20
Dry (24%)	0	0	7	1	12	10	-15	49	-4	4	-1	28
Critical (15%)	-3	0	0	0	14	0	-3	0	50	61	31	-10

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-4. Madera Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types ^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	139	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-5	-9	1	82	87	20	-32	-109	-27	0	-192	-48
20%	-38	-1	0	48	70	20	-106	-61	-57	-69	-85	-27
30%	0	0	0	3	63	48	-15	-11	-75	-75	-66	-116
40%	0	0	0	0	33	49	0	-60	-139	-49	-134	-5
50%	0	0	0	0	11	26	0	57	-8	-9	-13	-7
60%	0	0	0	0	0	0	0	17	-4	-5	-17	4
70%	0	0	0	0	0	0	0	2	6	8	0	-3
80%	0	0	0	0	0	0	0	-8	-27	-33	-27	1
90%	0	0	0	0	0	0	0	6	19	23	-13	7
Long Term												
Full Simulation Period ^d	-9	-1	4	20	28	16	-26	-22	-25	-17	-58	-25
Water Year Types ^{b,c}												
Wet (32%)	-22	-3	7	50	43	22	-62	-102	-48	-53	-131	-88
Above Normal (16%)	-3	-1	0	20	33	20	-18	-13	-90	-83	-78	-34
Below Normal (13%)	-7	0	4	1	33	26	6	0	-12	21	-65	20
Dry (24%)	0	0	7	1	12	10	-15	49	-4	4	-1	28
Critical (15%)	-3	0	0	0	14	0	-3	0	50	61	31	-10

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

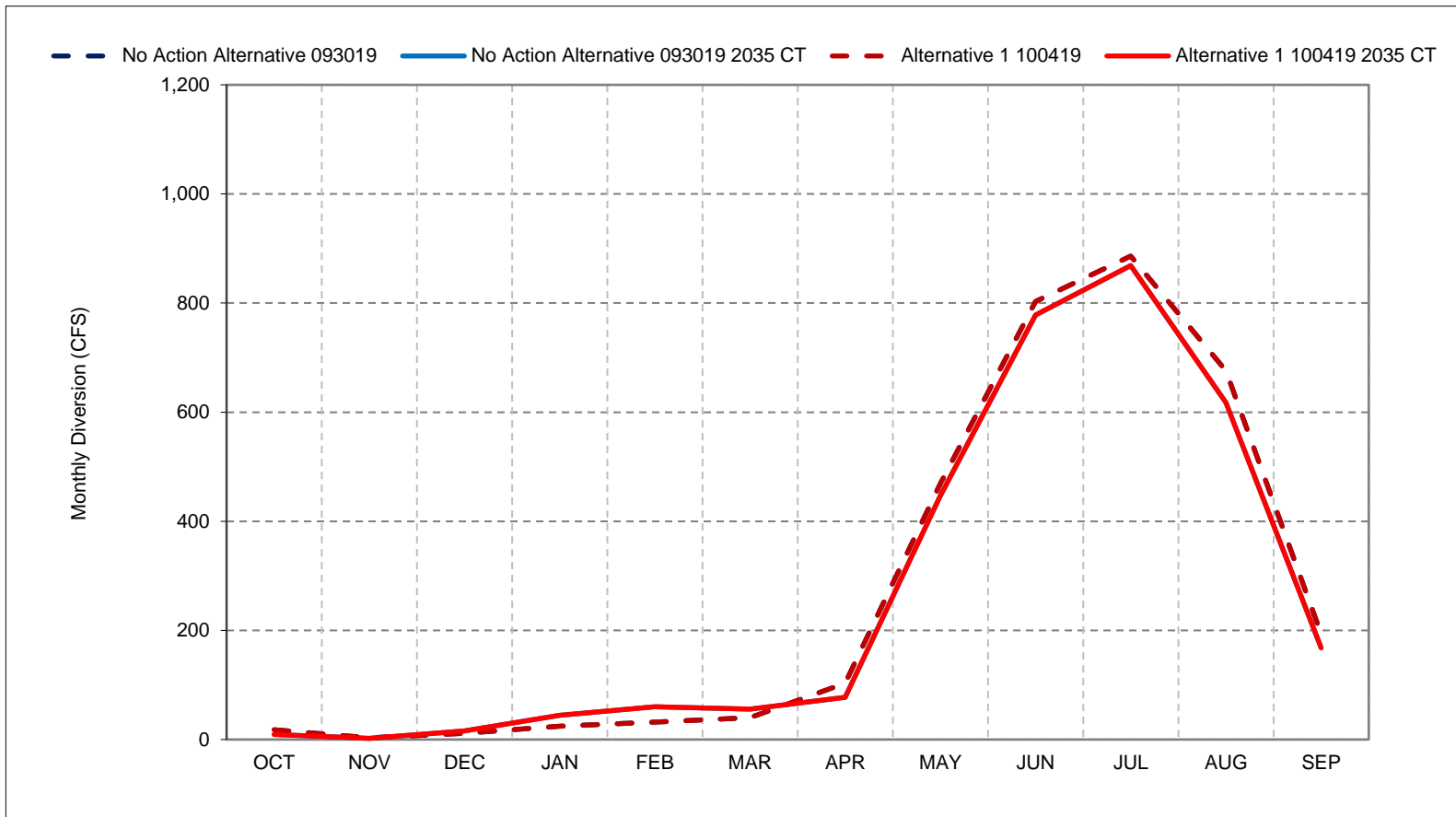
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 51-1. Madera Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

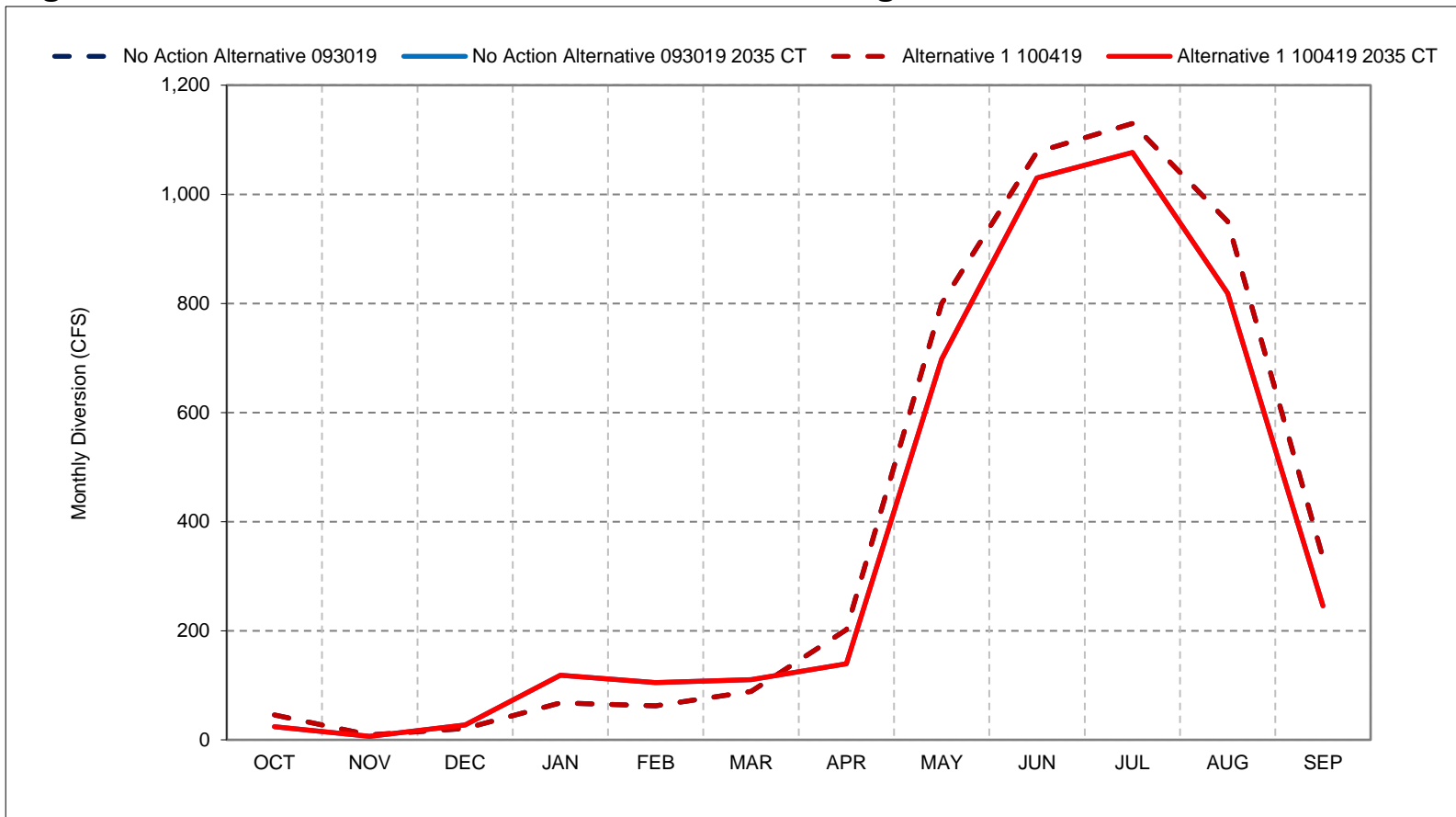
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-2. Madera Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

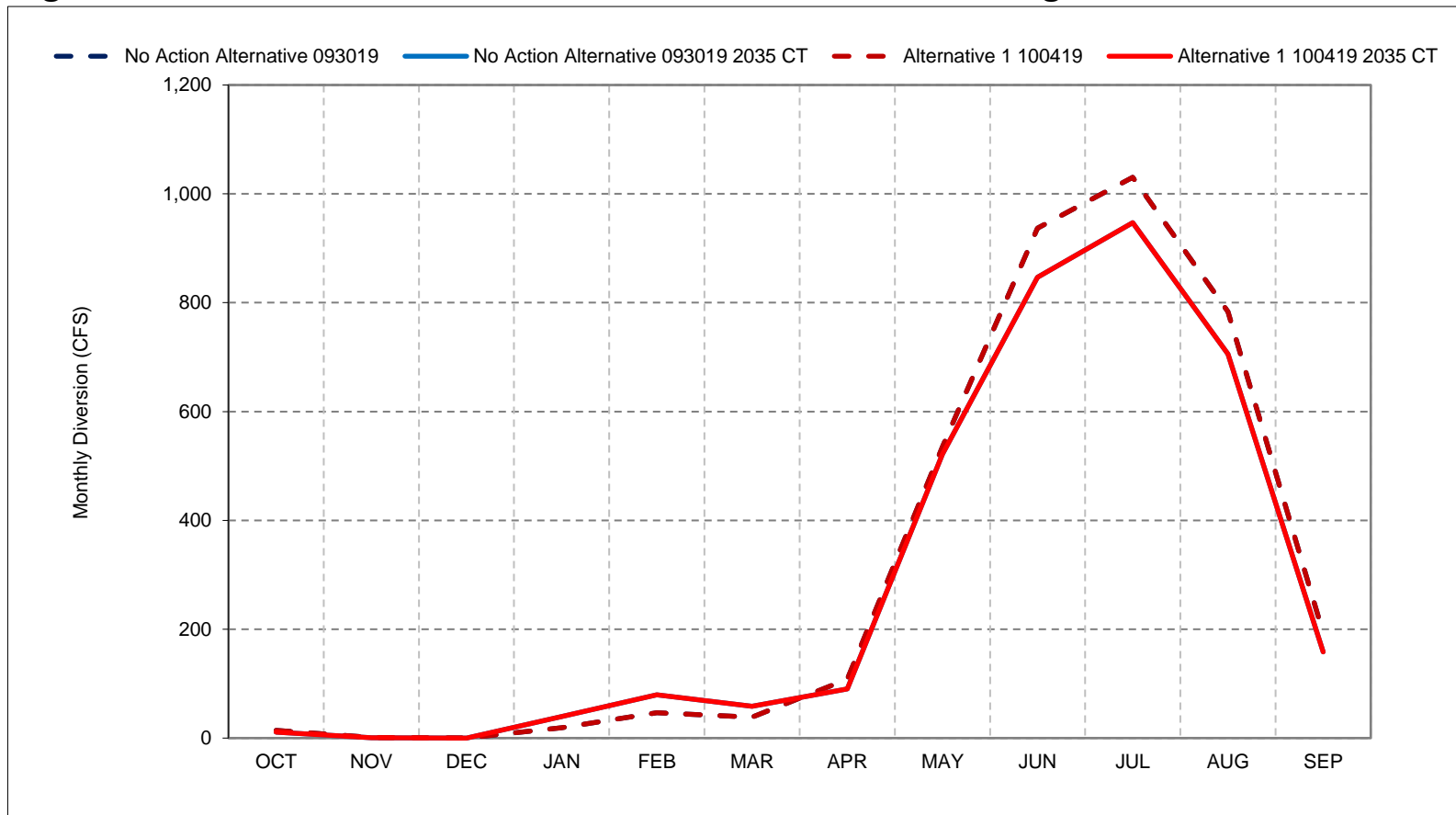
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-3. Madera Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

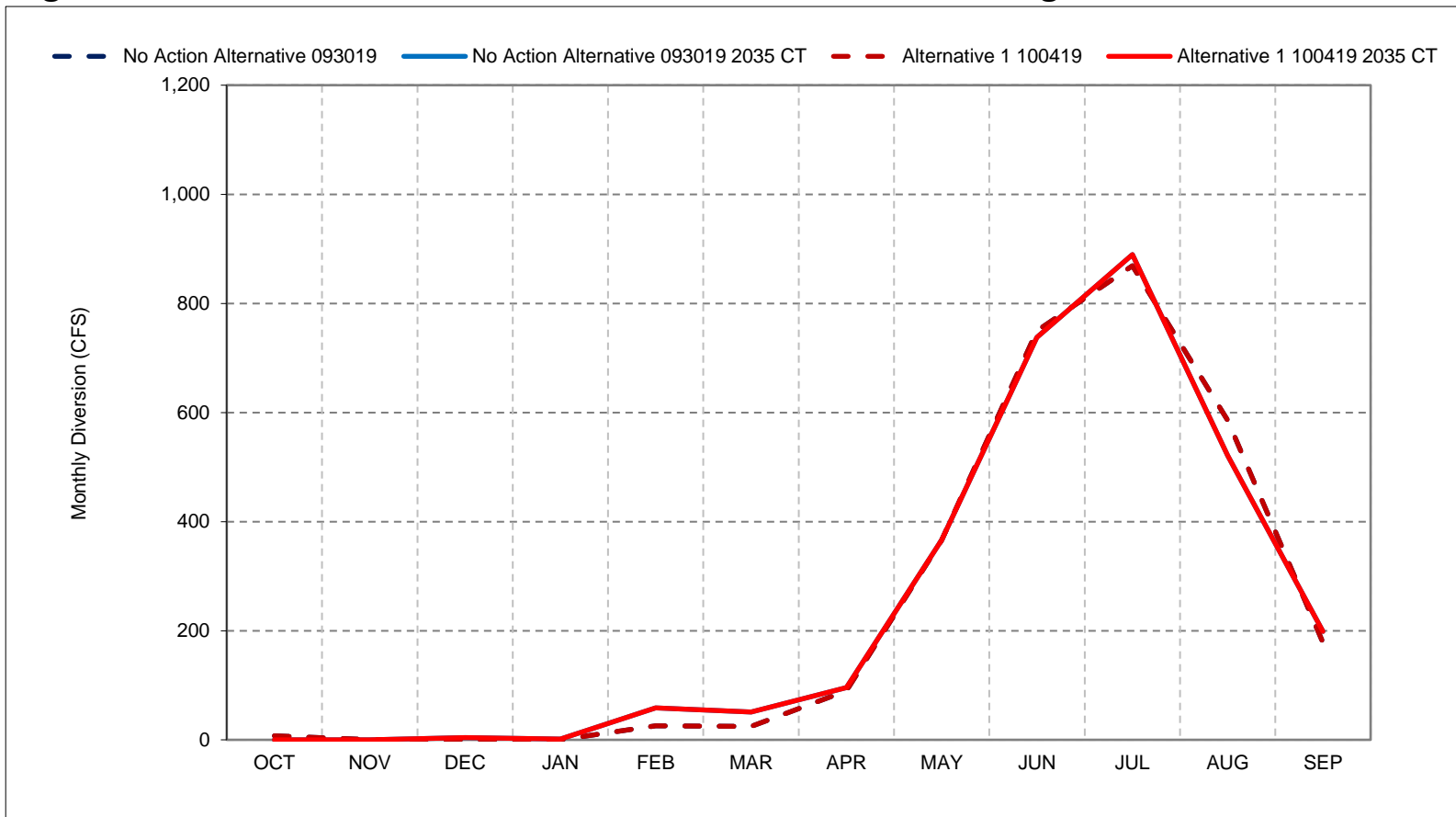
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-4. Madera Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

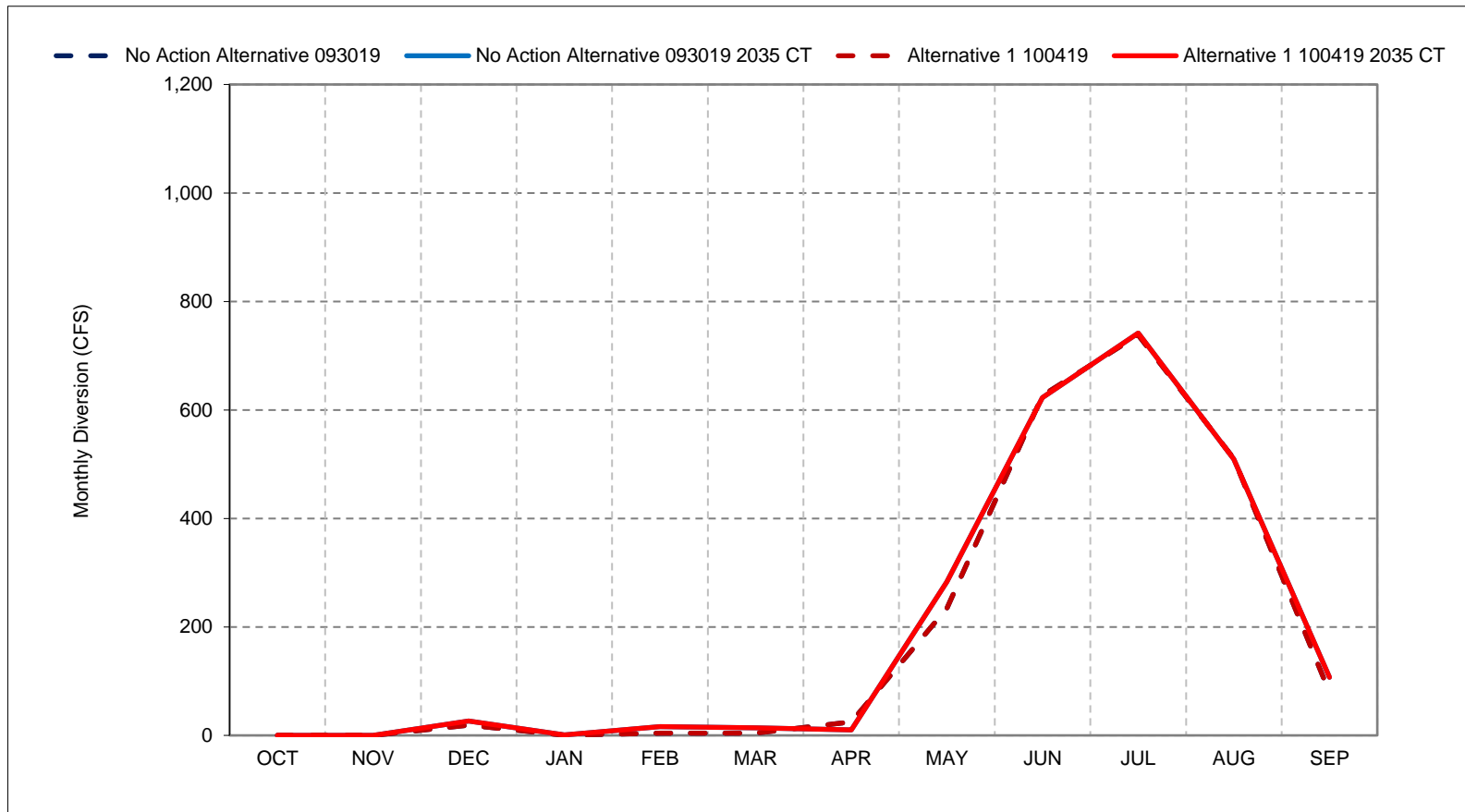
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-5. Madera Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

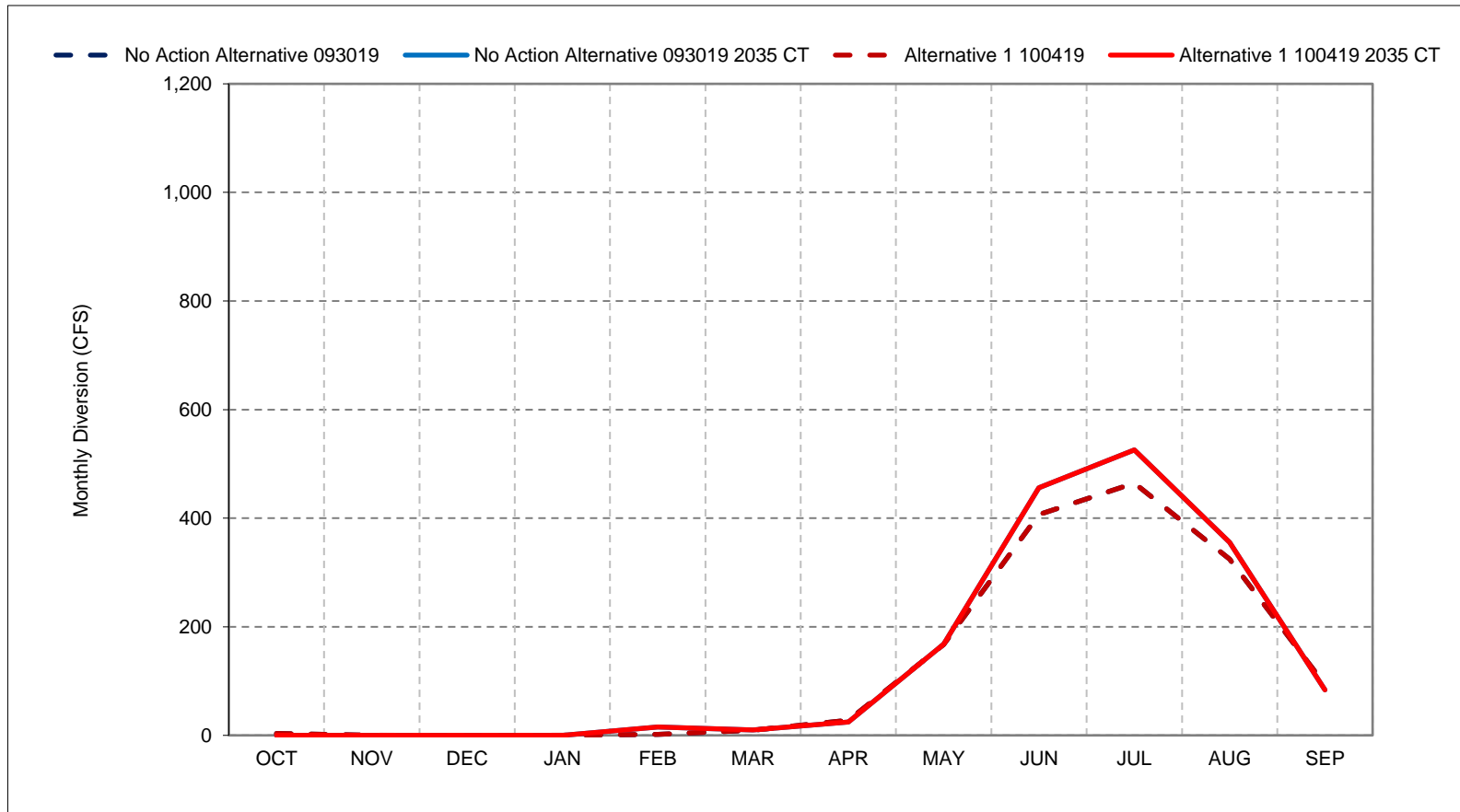
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-6. Madera Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

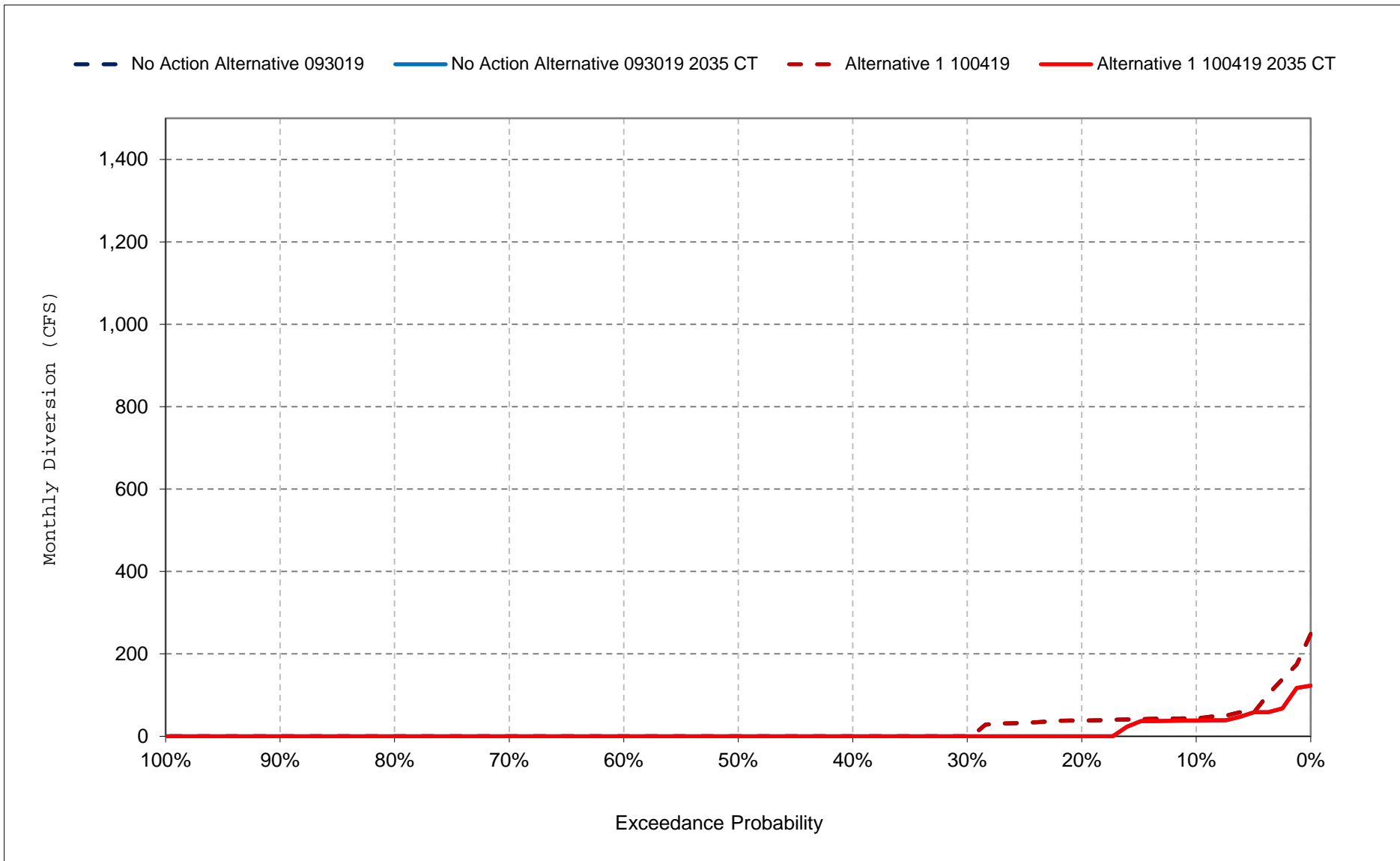
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

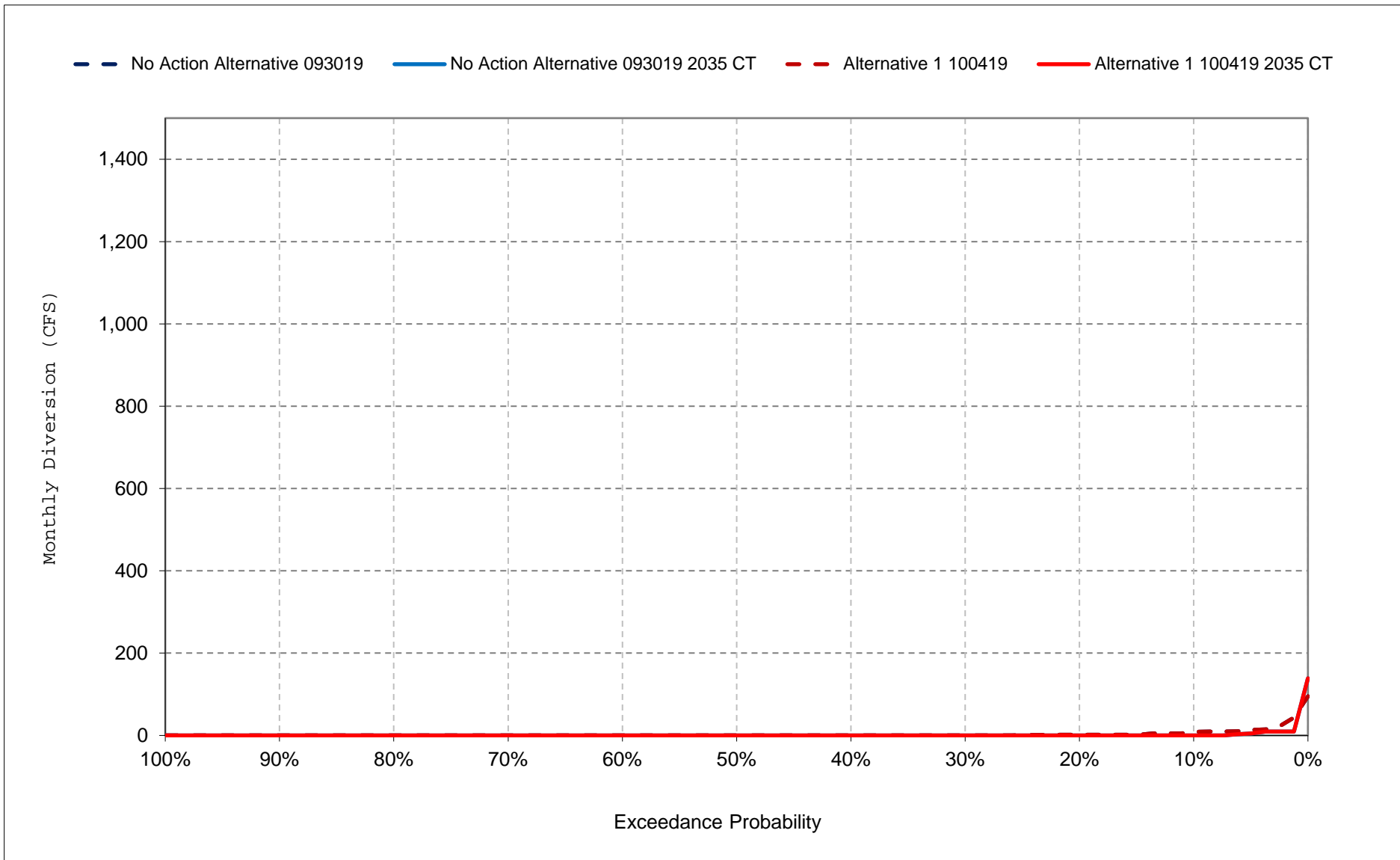
Figure 51-7. Madera Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

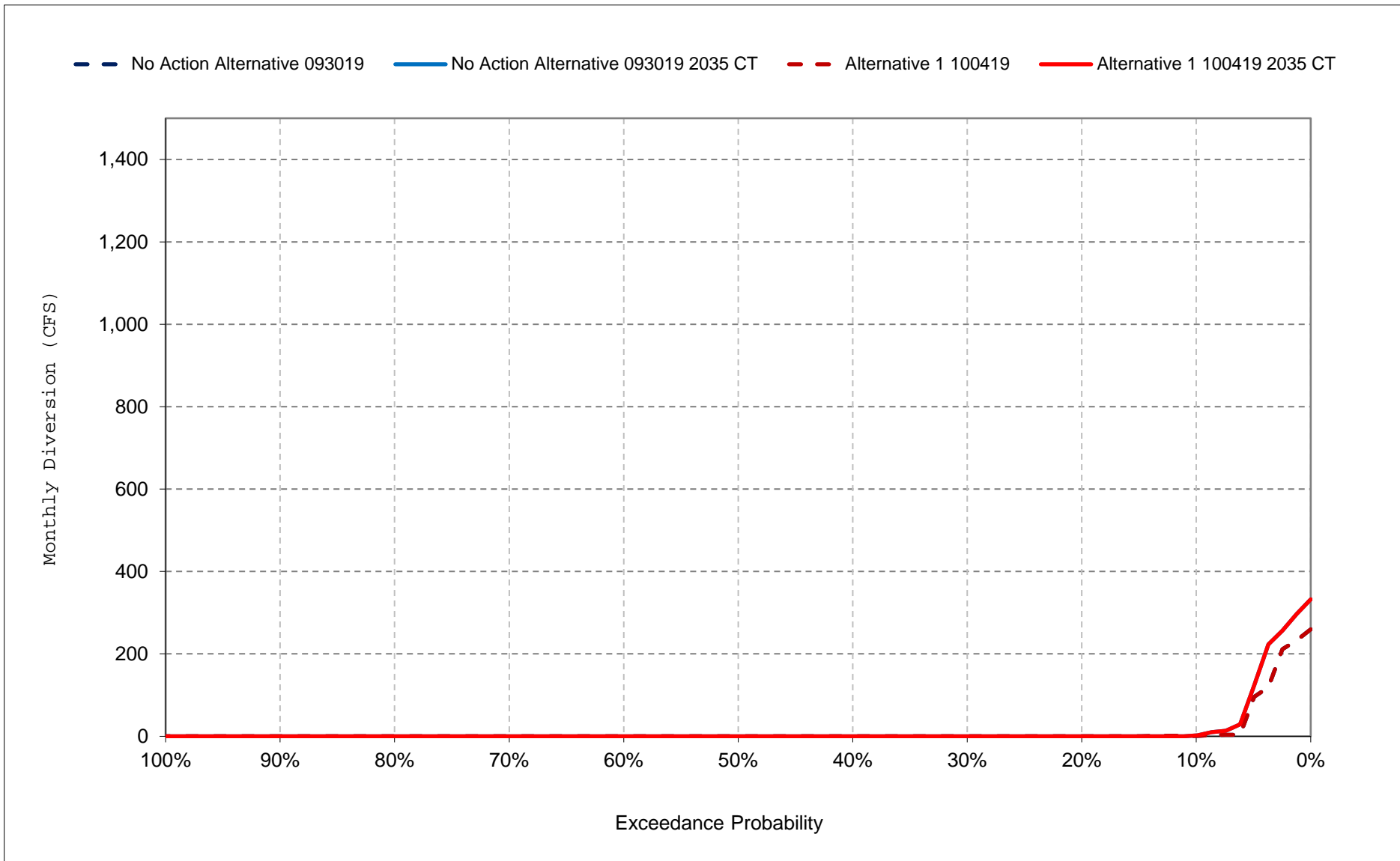
Figure 51-8. Madera Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

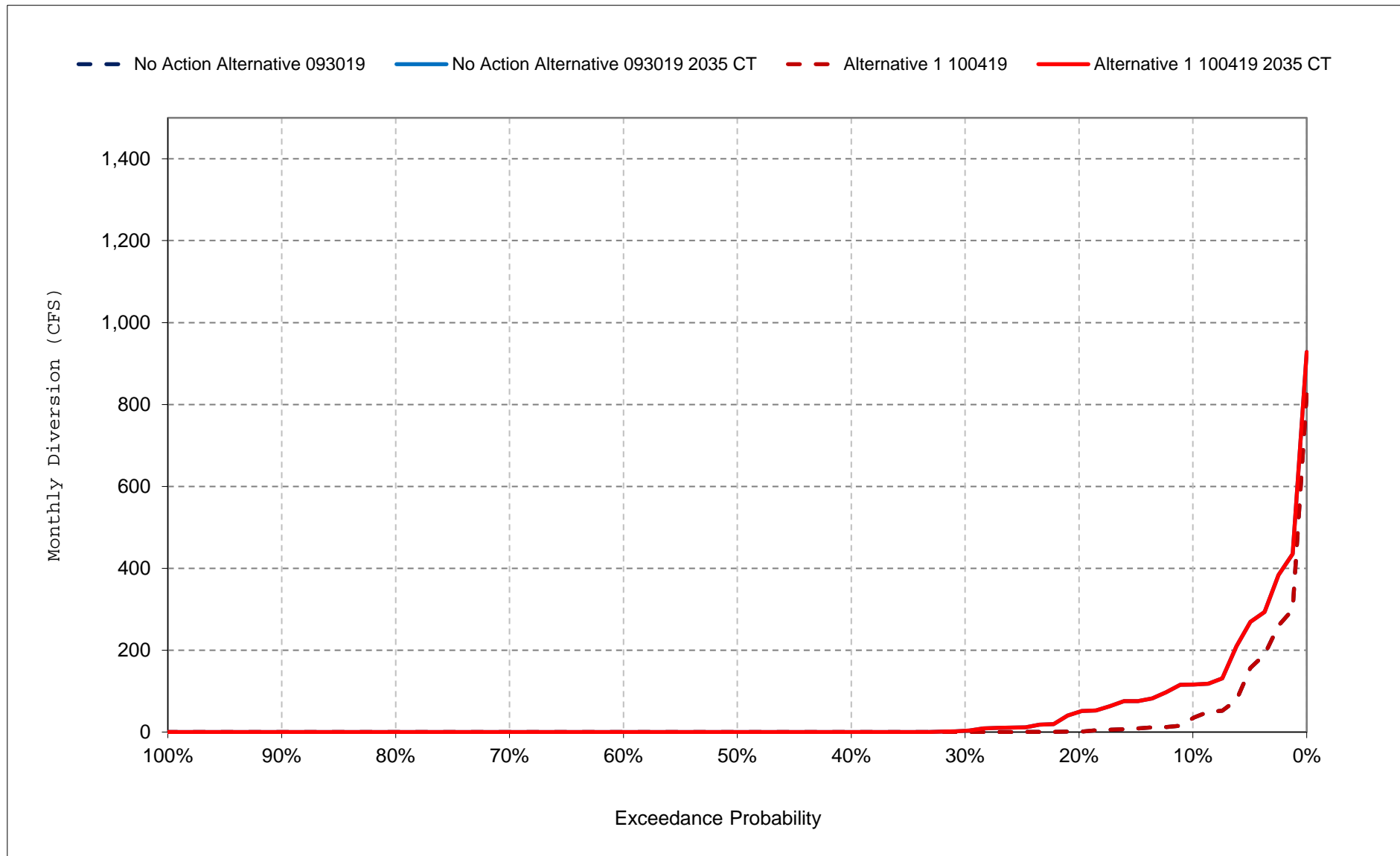
Figure 51-9. Madera Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

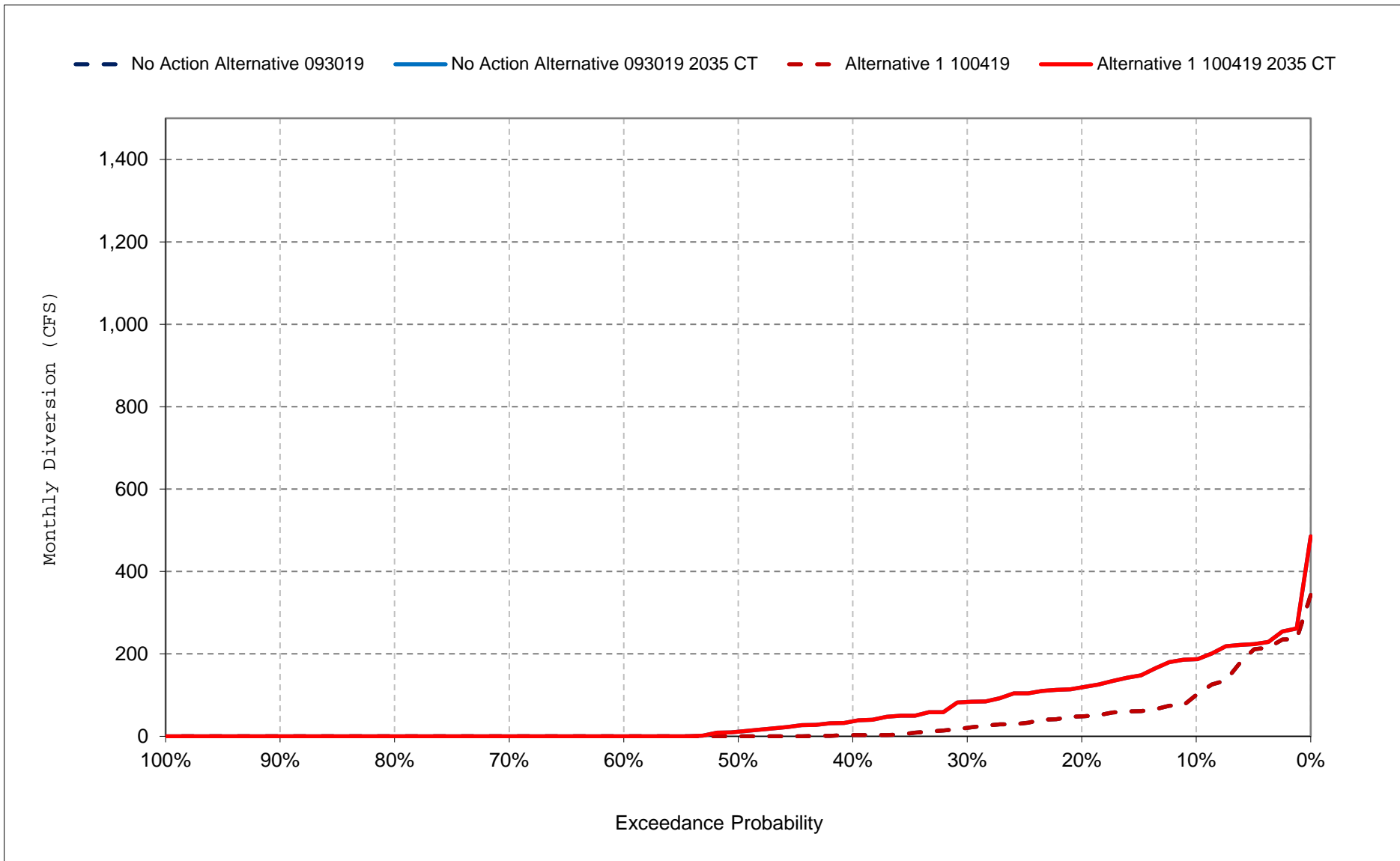
Figure 51-10. Madera Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

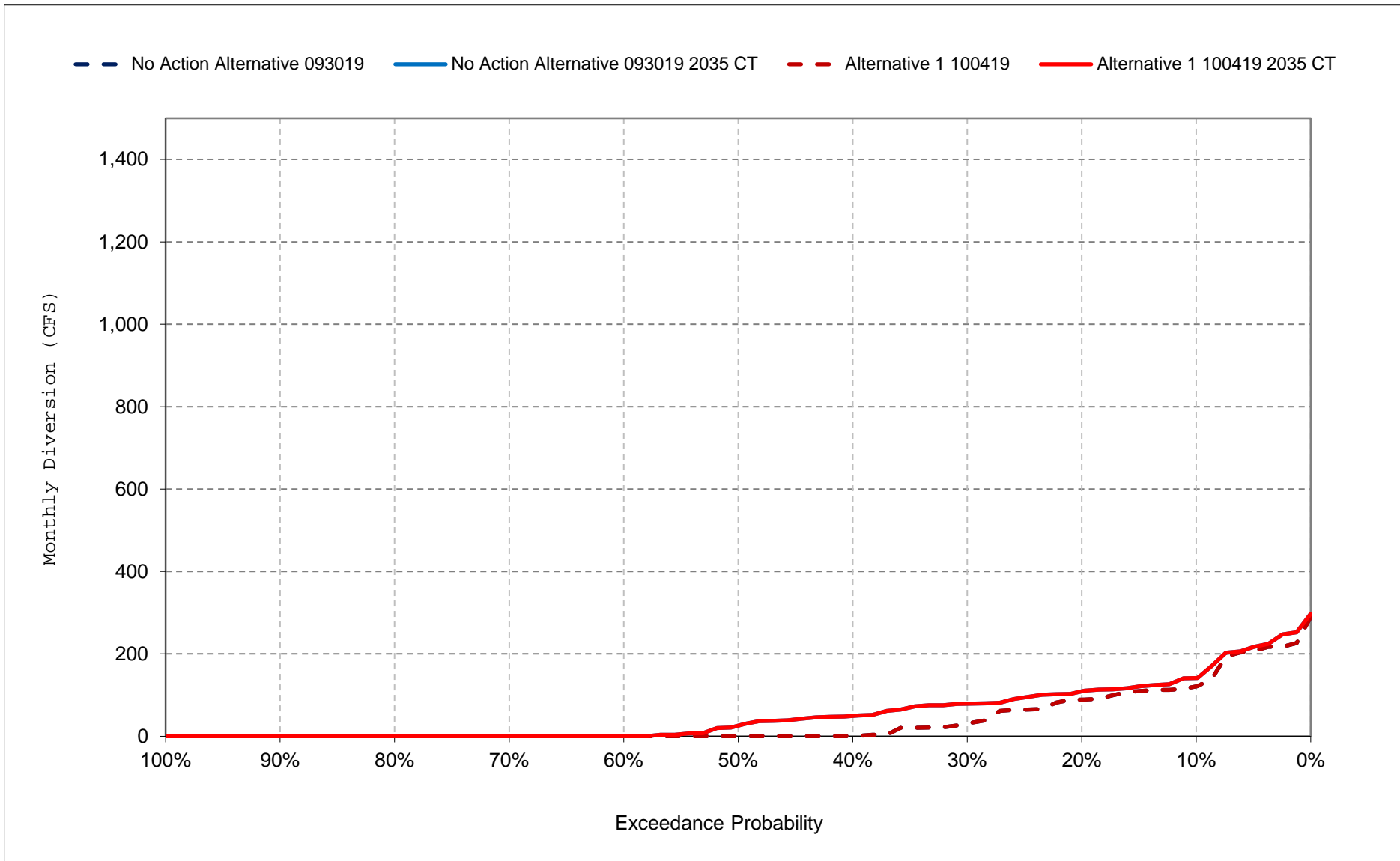
Figure 51-11. Madera Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

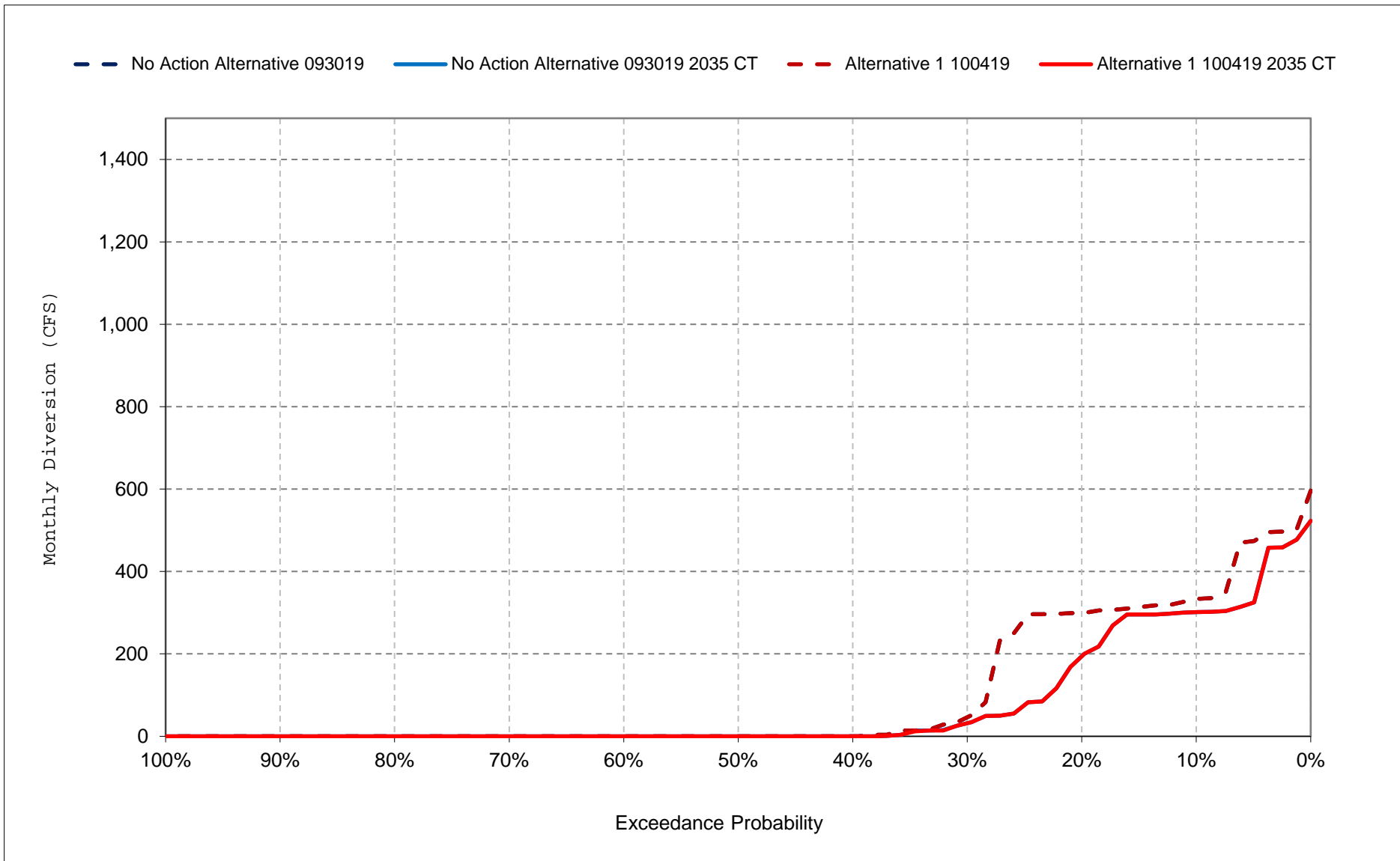
Figure 51-12. Madera Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

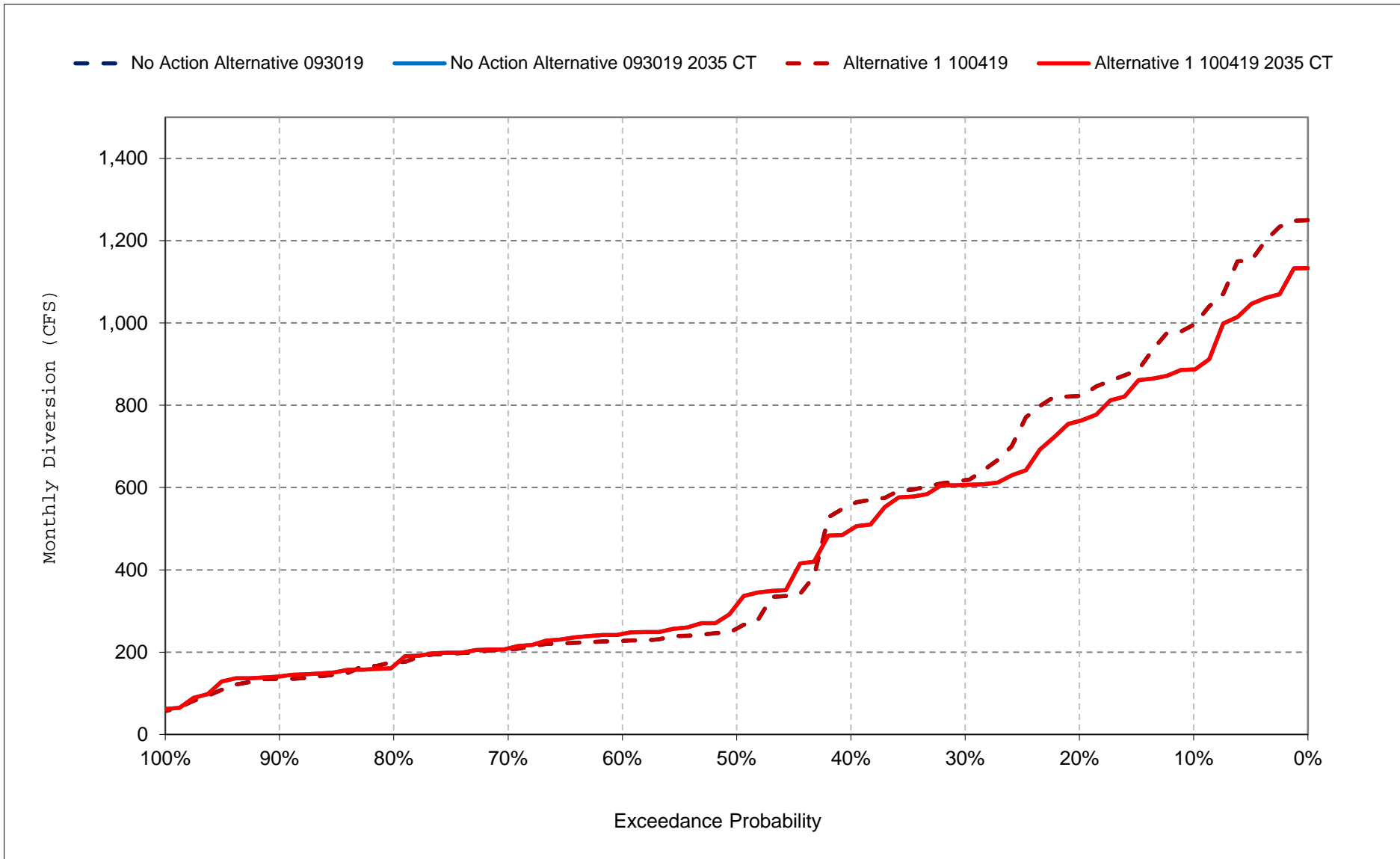
Figure 51-13. Madera Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

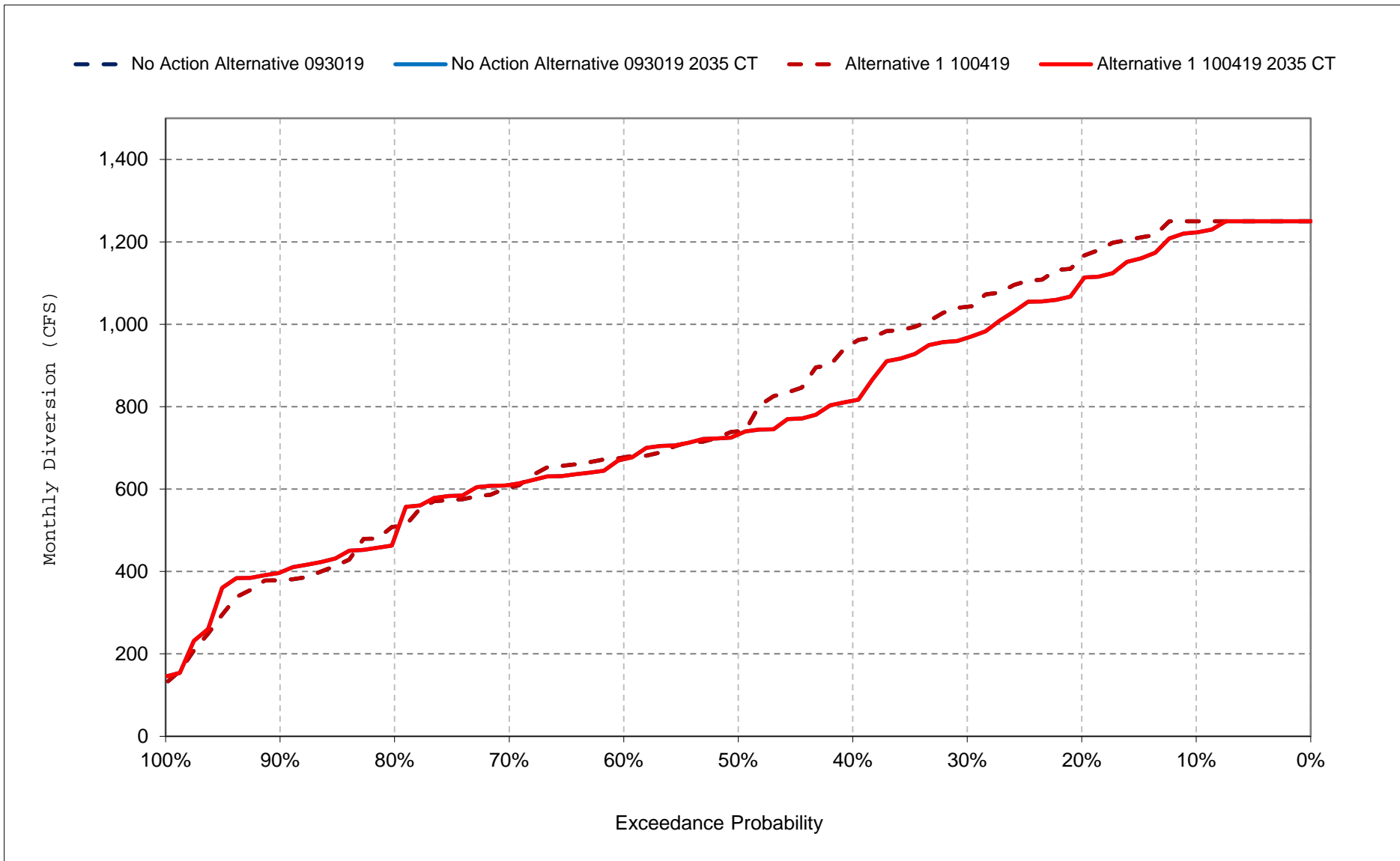
Figure 51-14. Madera Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

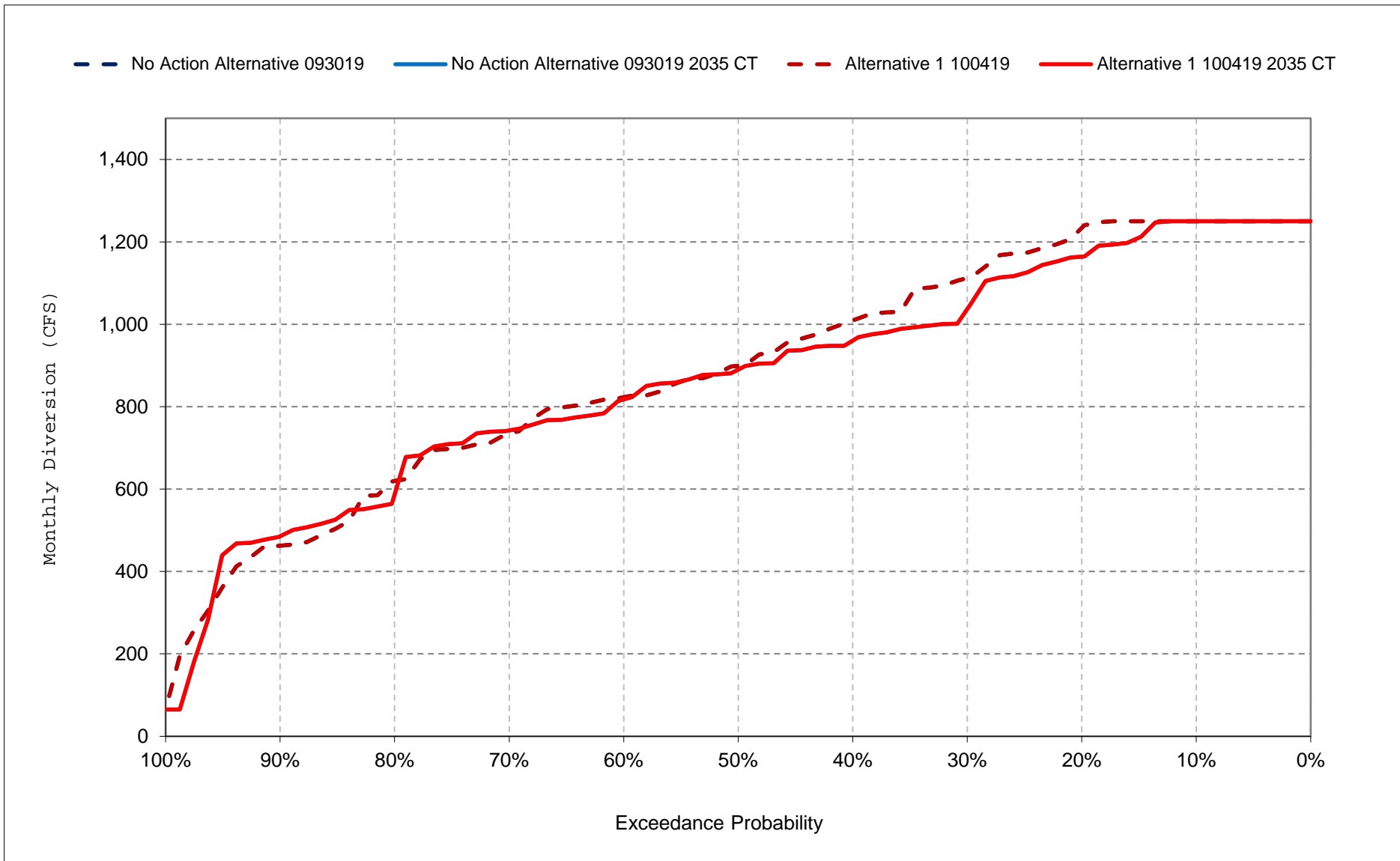
Figure 51-15. Madera Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

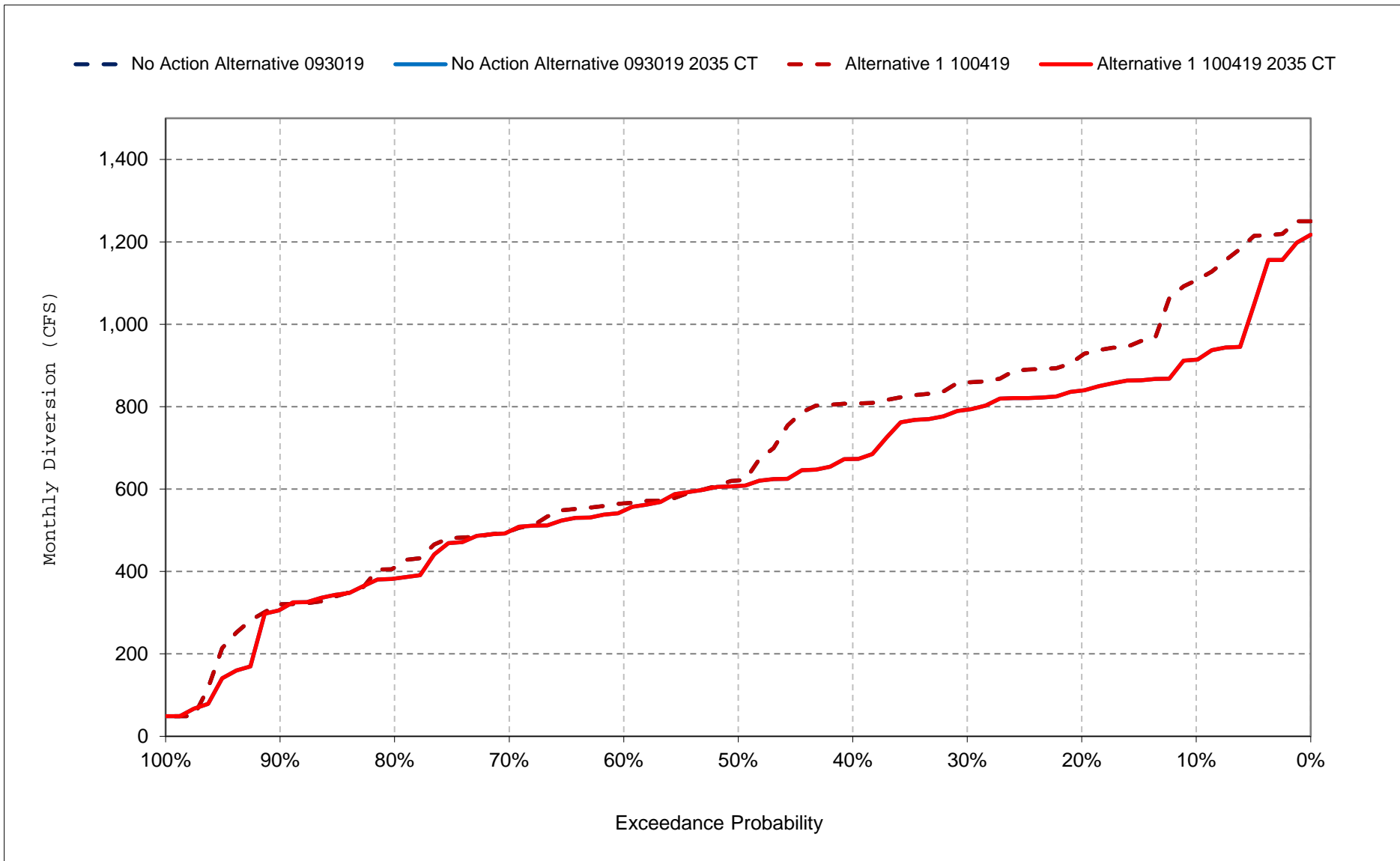
Figure 51-16. Madera Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

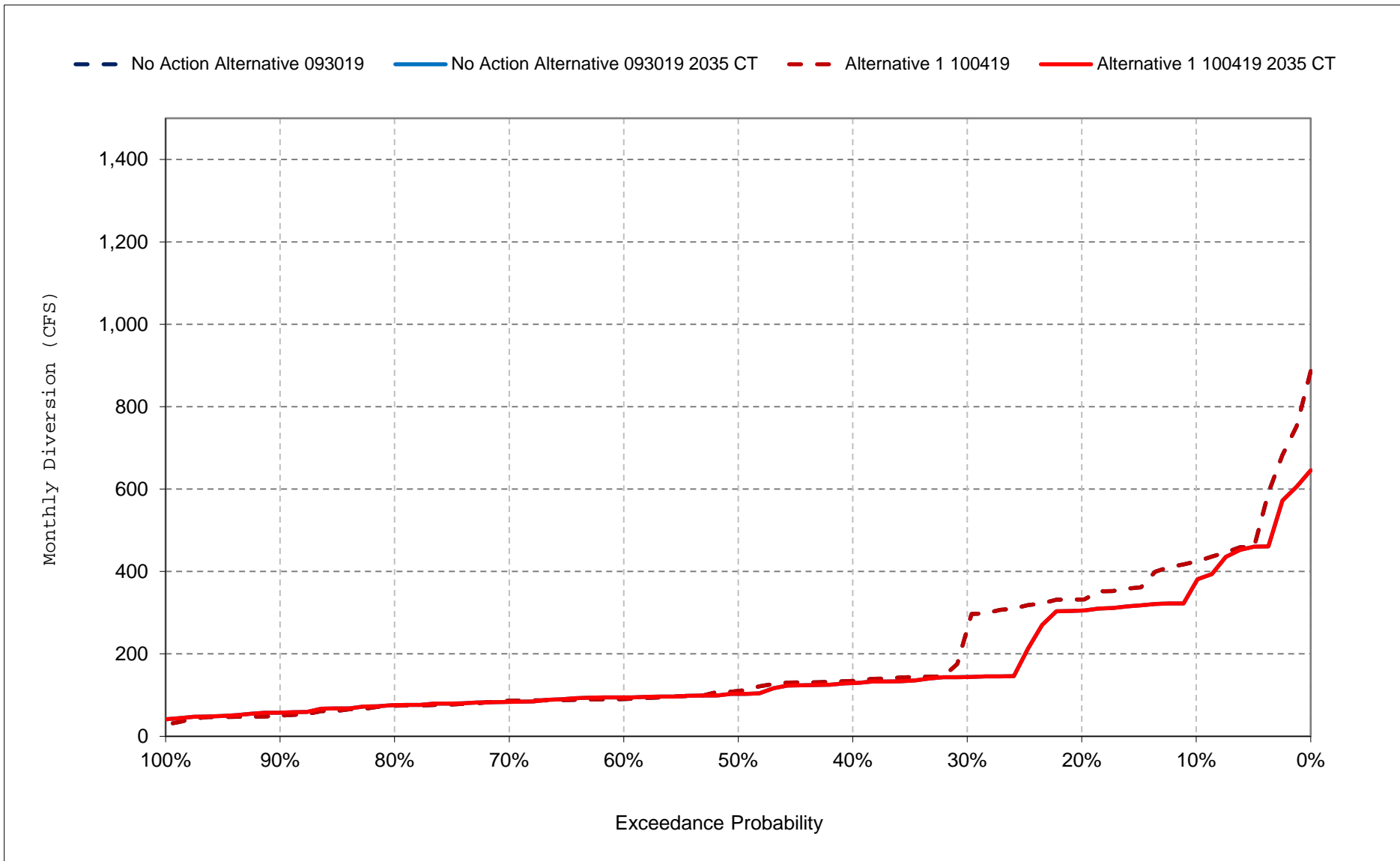
Figure 51-17. Madera Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 51-18. Madera Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-1. DCC Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,116	1,256	938	0	0	0	0	0	2,597	4,540	3,136	4,078
20%	1,869	1,094	832	0	0	0	0	0	2,273	4,513	3,067	3,662
30%	1,707	936	773	0	0	0	0	0	2,159	4,226	2,968	2,074
40%	1,614	866	698	0	0	0	0	0	2,095	3,628	2,915	1,849
50%	1,567	621	412	0	0	0	0	0	2,019	3,410	2,801	1,714
60%	1,390	335	0	0	0	0	0	0	1,920	3,140	2,419	1,517
70%	1,296	129	0	0	0	0	0	0	1,789	2,788	1,736	1,235
80%	1,133	0	0	0	0	0	0	0	1,632	2,494	1,586	0
90%	819	0	0	0	0	0	0	0	1,277	1,911	1,474	0
Long Term												
Full Simulation Period ^d	1,466	599	433	0	0	0	0	0	1,912	3,356	2,438	1,790
Water Year Types ^{b,c}												
Wet (32%)	1,433	198	510	0	0	0	0	0	1,724	3,749	2,965	669
Above Normal (16%)	1,600	569	465	0	0	0	0	0	2,147	4,249	3,104	4,046
Below Normal (13%)	1,519	1,016	449	0	0	0	0	0	2,065	3,996	2,721	2,175
Dry (24%)	1,516	739	272	0	0	0	0	0	2,089	2,855	1,756	1,796
Critical (15%)	1,260	887	483	0	0	0	0	0	1,631	1,785	1,452	1,414

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,888	1,667	1,046	0	0	0	0	0	2,761	4,419	3,251	2,846
20%	1,726	1,546	912	0	0	0	0	0	2,514	4,191	3,213	2,638
30%	1,638	1,354	775	0	0	0	0	0	2,468	3,908	3,131	2,559
40%	1,579	1,152	668	0	0	0	0	0	2,410	3,455	3,018	2,443
50%	1,533	1,059	445	0	0	0	0	0	2,346	3,318	2,859	2,256
60%	1,363	877	0	0	0	0	0	0	2,226	3,081	2,492	1,909
70%	1,297	859	0	0	0	0	0	0	2,022	2,845	1,767	1,767
80%	1,133	386	0	0	0	0	0	0	1,834	2,214	1,615	1,665
90%	519	0	0	0	0	0	0	0	1,284	1,732	1,410	1,450
Long Term												
Full Simulation Period ^d	1,374	977	441	0	0	0	0	0	2,115	3,222	2,516	2,187
Water Year Types ^{b,c}												
Wet (32%)	1,186	1,089	499	0	0	0	0	0	1,838	3,640	3,156	2,680
Above Normal (16%)	1,547	1,130	491	0	0	0	0	0	2,381	4,035	3,159	2,552
Below Normal (13%)	1,515	1,027	462	0	0	0	0	0	2,473	3,757	2,810	2,158
Dry (24%)	1,474	767	287	0	0	0	0	0	2,354	2,772	1,772	1,800
Critical (15%)	1,298	874	498	0	0	0	0	0	1,697	1,696	1,404	1,392

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-228	411	108	0	0	0	0	0	164	-121	116	-1,232
20%	-144	451	81	0	0	0	0	0	240	-321	146	-1,023
30%	-69	418	2	0	0	0	0	0	309	-317	163	484
40%	-35	286	-30	0	0	0	0	0	315	-173	102	594
50%	-34	438	32	0	0	0	0	0	326	-92	57	542
60%	-27	543	0	0	0	0	0	0	307	-58	73	392
70%	1	730	0	0	0	0	0	0	233	57	31	533
80%	0	386	0	0	0	0	0	0	201	-280	28	1,665
90%	-299	0	0	0	0	0	0	0	7	-179	-65	1,450
Long Term												
Full Simulation Period ^d	-92	378	8	0	0	0	0	0	202	-134	78	396
Water Year Types ^{b,c}												
Wet (32%)	-247	891	-11	0	0	0	0	0	115	-109	191	2,011
Above Normal (16%)	-54	562	27	0	0	0	0	0	235	-214	55	-1,494
Below Normal (13%)	-4	11	13	0	0	0	0	0	409	-240	89	-17
Dry (24%)	-42	29	16	0	0	0	0	0	265	-83	16	3
Critical (15%)	39	-13	14	0	0	0	0	0	66	-89	-48	-22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 52-2. DCC Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,123	1,287	907	0	0	0	0	0	2,477	4,540	3,118	4,074
20%	1,890	1,103	843	0	0	0	0	0	2,272	4,436	3,029	2,834
30%	1,735	1,033	749	0	0	0	0	0	2,144	4,342	2,955	2,143
40%	1,601	938	631	0	0	0	0	0	2,072	3,781	2,889	1,839
50%	1,566	858	316	0	0	0	0	0	1,985	3,621	2,798	1,746
60%	1,454	495	0	0	0	0	0	0	1,913	3,395	2,498	1,529
70%	1,290	134	0	0	0	0	0	0	1,849	2,988	1,824	1,231
80%	1,155	0	0	0	0	0	0	0	1,725	2,503	1,664	0
90%	814	0	0	0	0	0	0	0	1,498	1,734	1,461	0
Long Term												
Full Simulation Period ^d	1,492	657	406	0	0	0	0	0	2,020	3,401	2,448	1,803
Water Year Types ^{b,c}												
Wet (32%)	1,532	286	493	0	0	0	0	0	2,172	3,580	2,934	1,157
Above Normal (16%)	1,421	656	397	0	0	0	0	0	1,944	4,331	3,068	3,188
Below Normal (13%)	1,535	1,055	437	0	0	0	0	0	1,966	4,006	2,626	2,127
Dry (24%)	1,570	775	269	0	0	0	0	0	2,078	3,149	1,938	1,814
Critical (15%)	1,312	902	430	0	0	0	0	0	1,728	1,873	1,414	1,389

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,936	1,613	981	0	0	0	0	0	2,698	4,251	3,256	2,650
20%	1,790	1,506	833	0	0	0	0	0	2,592	4,038	3,164	2,579
30%	1,693	1,359	707	0	0	0	0	0	2,429	3,849	3,079	2,461
40%	1,619	1,225	605	0	0	0	0	0	2,379	3,606	2,844	2,310
50%	1,568	1,086	276	0	0	0	0	0	2,306	3,328	2,742	2,054
60%	1,534	1,007	0	0	0	0	0	0	2,194	3,151	2,571	1,879
70%	1,323	878	0	0	0	0	0	0	2,085	2,755	1,807	1,744
80%	1,282	649	0	0	0	0	0	0	1,915	2,363	1,594	1,596
90%	1,035	0	0	0	0	0	0	0	1,731	1,815	1,455	1,380
Long Term												
Full Simulation Period ^d	1,492	1,014	399	0	0	0	0	0	2,249	3,215	2,474	2,110
Water Year Types ^{b,c}												
Wet (32%)	1,482	1,091	443	0	0	0	0	0	2,347	3,503	3,075	2,564
Above Normal (16%)	1,563	1,180	419	0	0	0	0	0	2,238	3,975	3,080	2,449
Below Normal (13%)	1,546	1,053	448	0	0	0	0	0	2,366	3,686	2,581	2,032
Dry (24%)	1,536	847	274	0	0	0	0	0	2,315	2,951	1,887	1,779
Critical (15%)	1,316	909	444	0	0	0	0	0	1,836	1,776	1,399	1,382

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-187	327	74	0	0	0	0	0	221	-290	138	-1,424
20%	-100	403	-10	0	0	0	0	0	320	-398	135	-255
30%	-42	326	-42	0	0	0	0	0	285	-493	123	317
40%	18	287	-26	0	0	0	0	0	307	-175	-45	471
50%	2	228	-40	0	0	0	0	0	321	-293	-56	309
60%	80	512	0	0	0	0	0	0	281	-244	73	351
70%	33	744	0	0	0	0	0	0	235	-232	-17	512
80%	126	649	0	0	0	0	0	0	190	-140	-70	1,596
90%	220	0	0	0	0	0	0	0	233	81	-6	1,380
Long Term												
Full Simulation Period ^d	0	357	-7	0	0	0	0	0	229	-186	26	307
Water Year Types ^{b,c}												
Wet (32%)	-50	805	-49	0	0	0	0	0	175	-77	141	1,407
Above Normal (16%)	141	524	22	0	0	0	0	0	294	-356	12	-739
Below Normal (13%)	11	-2	12	0	0	0	0	0	400	-320	-45	-95
Dry (24%)	-34	72	5	0	0	0	0	0	237	-199	-51	-35
Critical (15%)	4	7	15	0	0	0	0	0	107	-96	-15	-7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-3. DCC Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,116	1,256	938	0	0	0	0	0	2,597	4,540	3,136	4,078
20%	1,869	1,094	832	0	0	0	0	0	2,273	4,513	3,067	3,662
30%	1,707	936	773	0	0	0	0	0	2,159	4,226	2,968	2,074
40%	1,614	866	698	0	0	0	0	0	2,095	3,628	2,915	1,849
50%	1,567	621	412	0	0	0	0	0	2,019	3,410	2,801	1,714
60%	1,390	335	0	0	0	0	0	0	1,920	3,140	2,419	1,517
70%	1,296	129	0	0	0	0	0	0	1,789	2,788	1,736	1,235
80%	1,133	0	0	0	0	0	0	0	1,632	2,494	1,586	0
90%	819	0	0	0	0	0	0	0	1,277	1,911	1,474	0
Long Term												
Full Simulation Period ^d	1,466	599	433	0	0	0	0	0	1,912	3,356	2,438	1,790
Water Year Types ^{b,c}												
Wet (32%)	1,433	198	510	0	0	0	0	0	1,724	3,749	2,965	669
Above Normal (16%)	1,600	569	465	0	0	0	0	0	2,147	4,249	3,104	4,046
Below Normal (13%)	1,519	1,016	449	0	0	0	0	0	2,065	3,996	2,721	2,175
Dry (24%)	1,516	739	272	0	0	0	0	0	2,089	2,855	1,756	1,796
Critical (15%)	1,260	887	483	0	0	0	0	0	1,631	1,785	1,452	1,414

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,123	1,287	907	0	0	0	0	0	2,477	4,540	3,118	4,074
20%	1,890	1,103	843	0	0	0	0	0	2,272	4,436	3,029	2,834
30%	1,735	1,033	749	0	0	0	0	0	2,144	4,342	2,955	2,143
40%	1,601	938	631	0	0	0	0	0	2,072	3,781	2,889	1,839
50%	1,566	858	316	0	0	0	0	0	1,985	3,621	2,798	1,746
60%	1,454	495	0	0	0	0	0	0	1,913	3,395	2,498	1,529
70%	1,290	134	0	0	0	0	0	0	1,849	2,988	1,824	1,231
80%	1,155	0	0	0	0	0	0	0	1,725	2,503	1,664	0
90%	814	0	0	0	0	0	0	0	1,498	1,734	1,461	0
Long Term												
Full Simulation Period ^d	1,492	657	406	0	0	0	0	0	2,020	3,401	2,448	1,803
Water Year Types ^{b,c}												
Wet (32%)	1,532	286	493	0	0	0	0	0	2,172	3,580	2,934	1,157
Above Normal (16%)	1,421	656	397	0	0	0	0	0	1,944	4,331	3,068	3,188
Below Normal (13%)	1,535	1,055	437	0	0	0	0	0	1,966	4,006	2,626	2,127
Dry (24%)	1,570	775	269	0	0	0	0	0	2,078	3,149	1,938	1,814
Critical (15%)	1,312	902	430	0	0	0	0	0	1,728	1,873	1,414	1,389

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7	31	-31	0	0	0	0	0	-120	0	-18	-4
20%	21	9	11	0	0	0	0	0	-1	-77	-38	-828
30%	28	97	-24	0	0	0	0	0	-15	116	-13	69
40%	-13	72	-67	0	0	0	0	0	-23	153	-26	-10
50%	-1	237	-96	0	0	0	0	0	-34	211	-4	32
60%	63	160	0	0	0	0	0	0	-7	256	79	11
70%	-5	5	0	0	0	0	0	0	60	200	88	-3
80%	22	0	0	0	0	0	0	0	93	9	77	0
90%	-4	0	0	0	0	0	0	0	221	-177	-13	0
Long Term												
Full Simulation Period ^d	26	58	-27	0	0	0	0	0	108	45	10	13
Water Year Types ^{b,c}												
Wet (32%)	99	88	-18	0	0	0	0	0	448	-169	-32	488
Above Normal (16%)	-179	87	-68	0	0	0	0	0	-203	82	-36	-858
Below Normal (13%)	16	40	-12	0	0	0	0	0	-99	10	-96	-47
Dry (24%)	54	37	-2	0	0	0	0	0	-11	294	182	18
Critical (15%)	53	15	-54	0	0	0	0	0	97	88	-38	-25

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-4. DCC Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,888	1,667	1,046	0	0	0	0	0	2,761	4,419	3,251	2,846
20%	1,726	1,546	912	0	0	0	0	0	2,514	4,191	3,213	2,638
30%	1,638	1,354	775	0	0	0	0	0	2,468	3,908	3,131	2,559
40%	1,579	1,152	668	0	0	0	0	0	2,410	3,455	3,018	2,443
50%	1,533	1,059	445	0	0	0	0	0	2,346	3,318	2,859	2,256
60%	1,363	877	0	0	0	0	0	0	2,226	3,081	2,492	1,909
70%	1,297	859	0	0	0	0	0	0	2,022	2,845	1,767	1,767
80%	1,133	386	0	0	0	0	0	0	1,834	2,214	1,615	1,665
90%	519	0	0	0	0	0	0	0	1,284	1,732	1,410	1,450
Long Term												
Full Simulation Period ^d	1,374	977	441	0	0	0	0	0	2,115	3,222	2,516	2,187
Water Year Types ^{b,c}												
Wet (32%)	1,186	1,089	499	0	0	0	0	0	1,838	3,640	3,156	2,680
Above Normal (16%)	1,547	1,130	491	0	0	0	0	0	2,381	4,035	3,159	2,552
Below Normal (13%)	1,515	1,027	462	0	0	0	0	0	2,473	3,757	2,810	2,158
Dry (24%)	1,474	767	287	0	0	0	0	0	2,354	2,772	1,772	1,800
Critical (15%)	1,298	874	498	0	0	0	0	0	1,697	1,696	1,404	1,392

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,936	1,613	981	0	0	0	0	0	2,698	4,251	3,256	2,650
20%	1,790	1,506	833	0	0	0	0	0	2,592	4,038	3,164	2,579
30%	1,693	1,359	707	0	0	0	0	0	2,429	3,849	3,079	2,461
40%	1,619	1,225	605	0	0	0	0	0	2,379	3,606	2,844	2,310
50%	1,568	1,086	276	0	0	0	0	0	2,306	3,328	2,742	2,054
60%	1,534	1,007	0	0	0	0	0	0	2,194	3,151	2,571	1,879
70%	1,323	878	0	0	0	0	0	0	2,085	2,755	1,807	1,744
80%	1,282	649	0	0	0	0	0	0	1,915	2,363	1,594	1,596
90%	1,035	0	0	0	0	0	0	0	1,731	1,815	1,455	1,380
Long Term												
Full Simulation Period ^d	1,492	1,014	399	0	0	0	0	0	2,249	3,215	2,474	2,110
Water Year Types ^{b,c}												
Wet (32%)	1,482	1,091	443	0	0	0	0	0	2,347	3,503	3,075	2,564
Above Normal (16%)	1,563	1,180	419	0	0	0	0	0	2,238	3,975	3,080	2,449
Below Normal (13%)	1,546	1,053	448	0	0	0	0	0	2,366	3,686	2,581	2,032
Dry (24%)	1,536	847	274	0	0	0	0	0	2,315	2,951	1,887	1,779
Critical (15%)	1,316	909	444	0	0	0	0	0	1,836	1,776	1,399	1,382

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	48	-53	-65	0	0	0	0	0	-63	-169	4	-196
20%	65	-40	-79	0	0	0	0	0	79	-153	-49	-59
30%	55	5	-69	0	0	0	0	0	-39	-59	-52	-98
40%	40	73	-63	0	0	0	0	0	-31	151	-174	-133
50%	35	27	-169	0	0	0	0	0	-40	10	-117	-202
60%	171	130	0	0	0	0	0	0	-32	70	79	-30
70%	26	19	0	0	0	0	0	0	63	-90	40	-24
80%	149	263	0	0	0	0	0	0	81	149	-21	-69
90%	515	0	0	0	0	0	0	0	447	83	45	-70
Long Term												
Full Simulation Period ^d	118	37	-42	0	0	0	0	0	135	-7	-42	-77
Water Year Types ^{b,c}												
Wet (32%)	295	2	-56	0	0	0	0	0	508	-137	-82	-116
Above Normal (16%)	16	50	-72	0	0	0	0	0	-144	-60	-78	-103
Below Normal (13%)	31	26	-13	0	0	0	0	0	-108	-71	-229	-126
Dry (24%)	61	80	-13	0	0	0	0	0	-39	179	115	-20
Critical (15%)	18	35	-53	0	0	0	0	0	139	80	-5	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

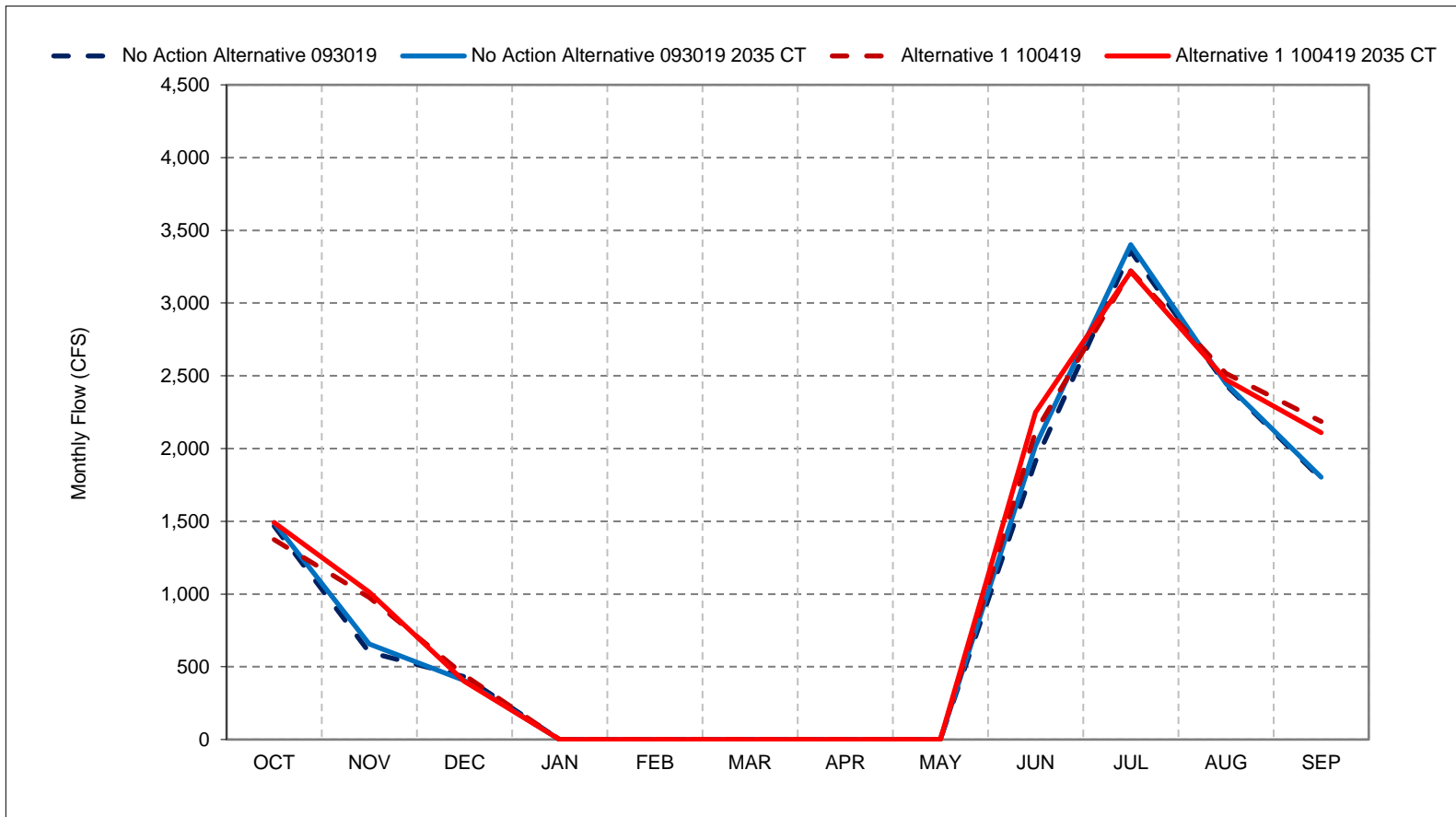
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 52-1. DCC Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

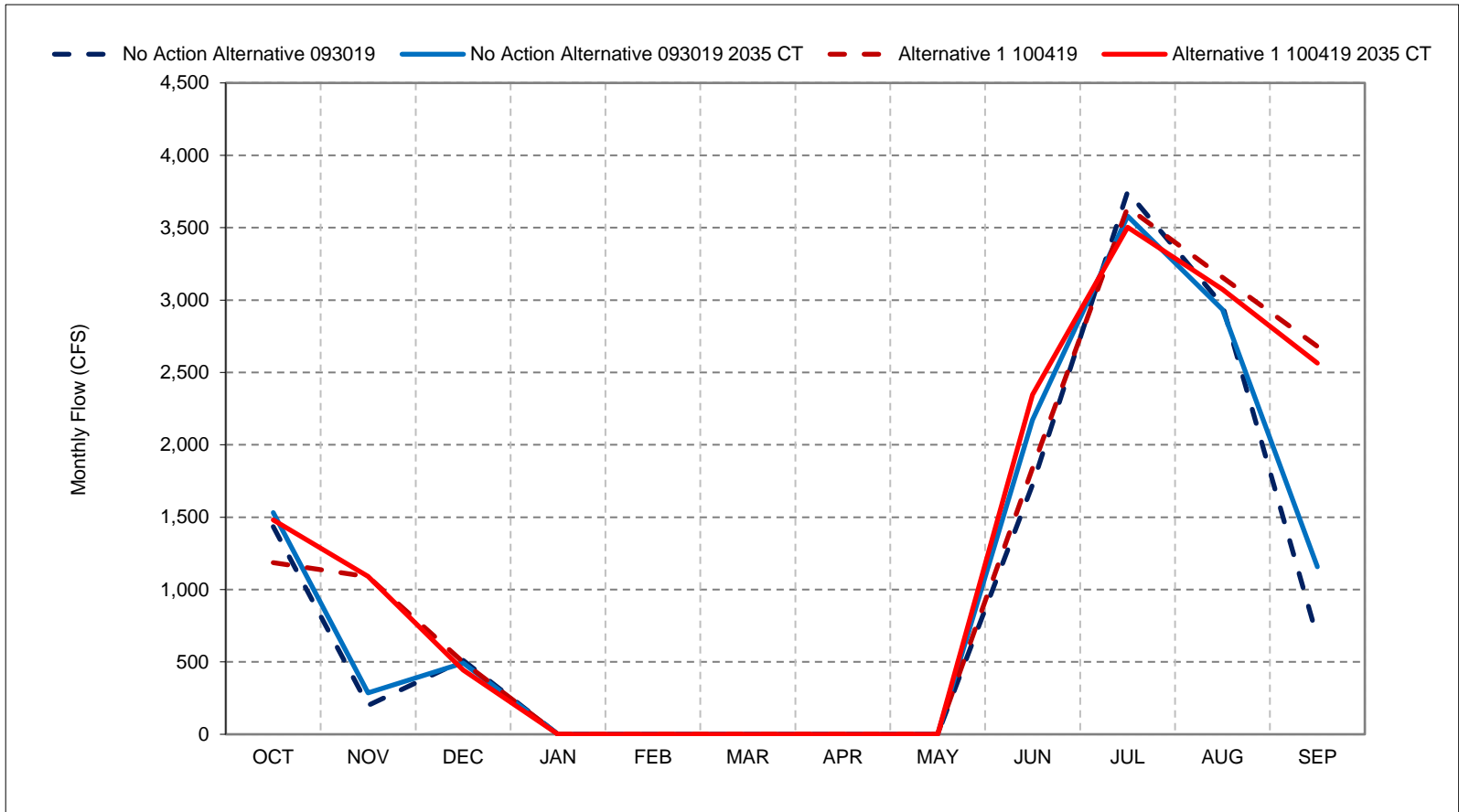
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-2. DCC Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

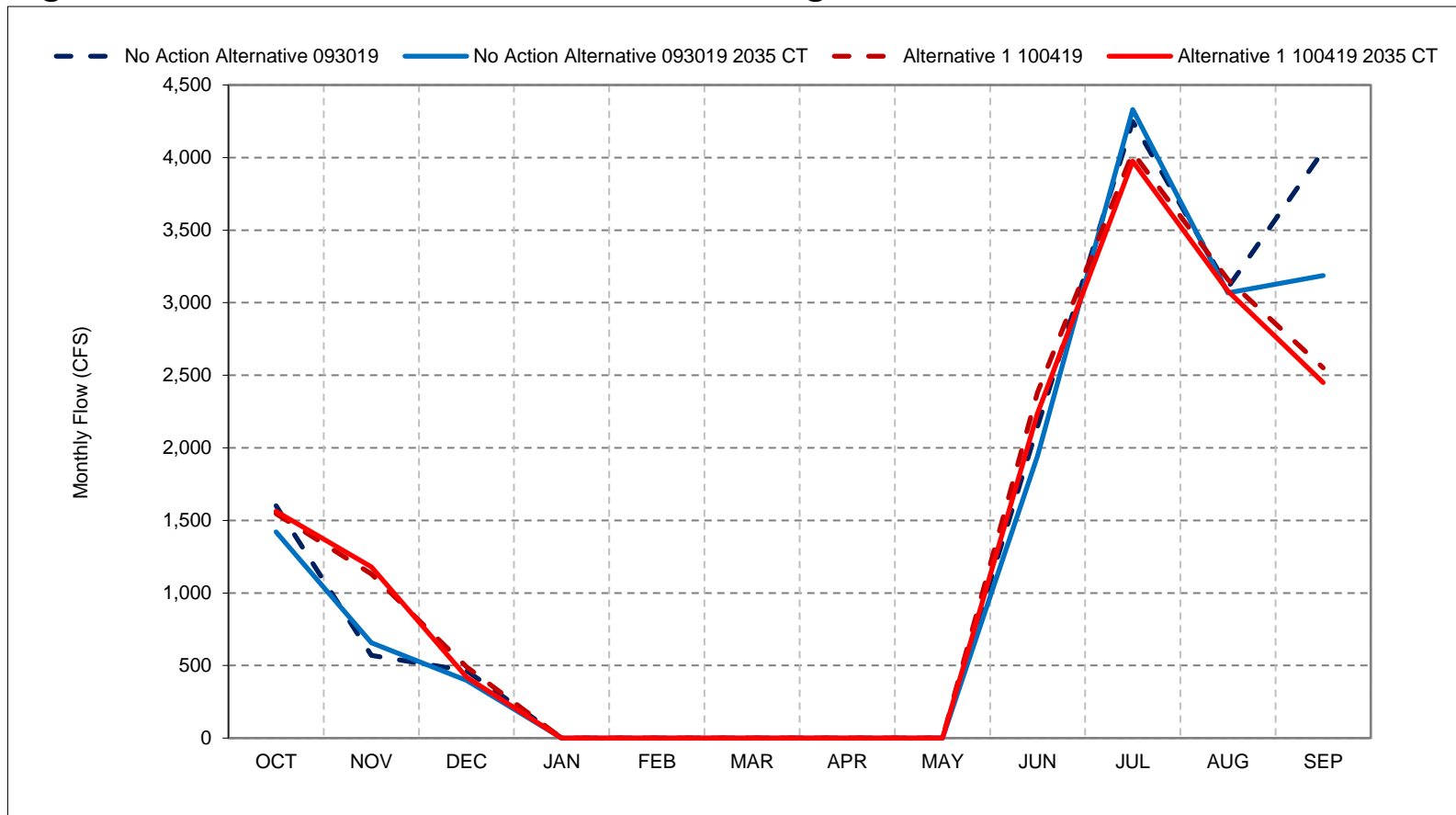
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-3. DCC Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

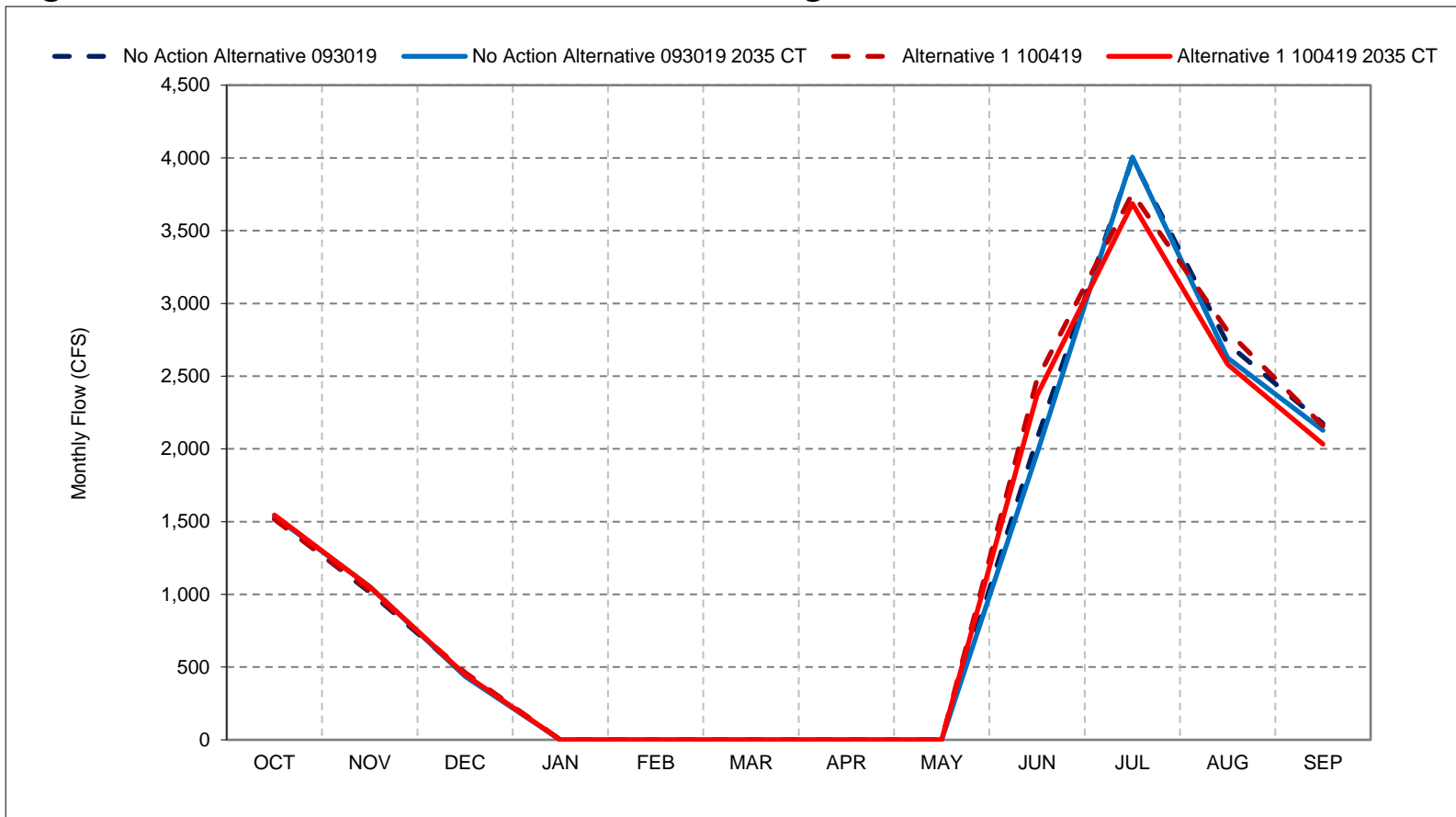
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-4. DCC Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

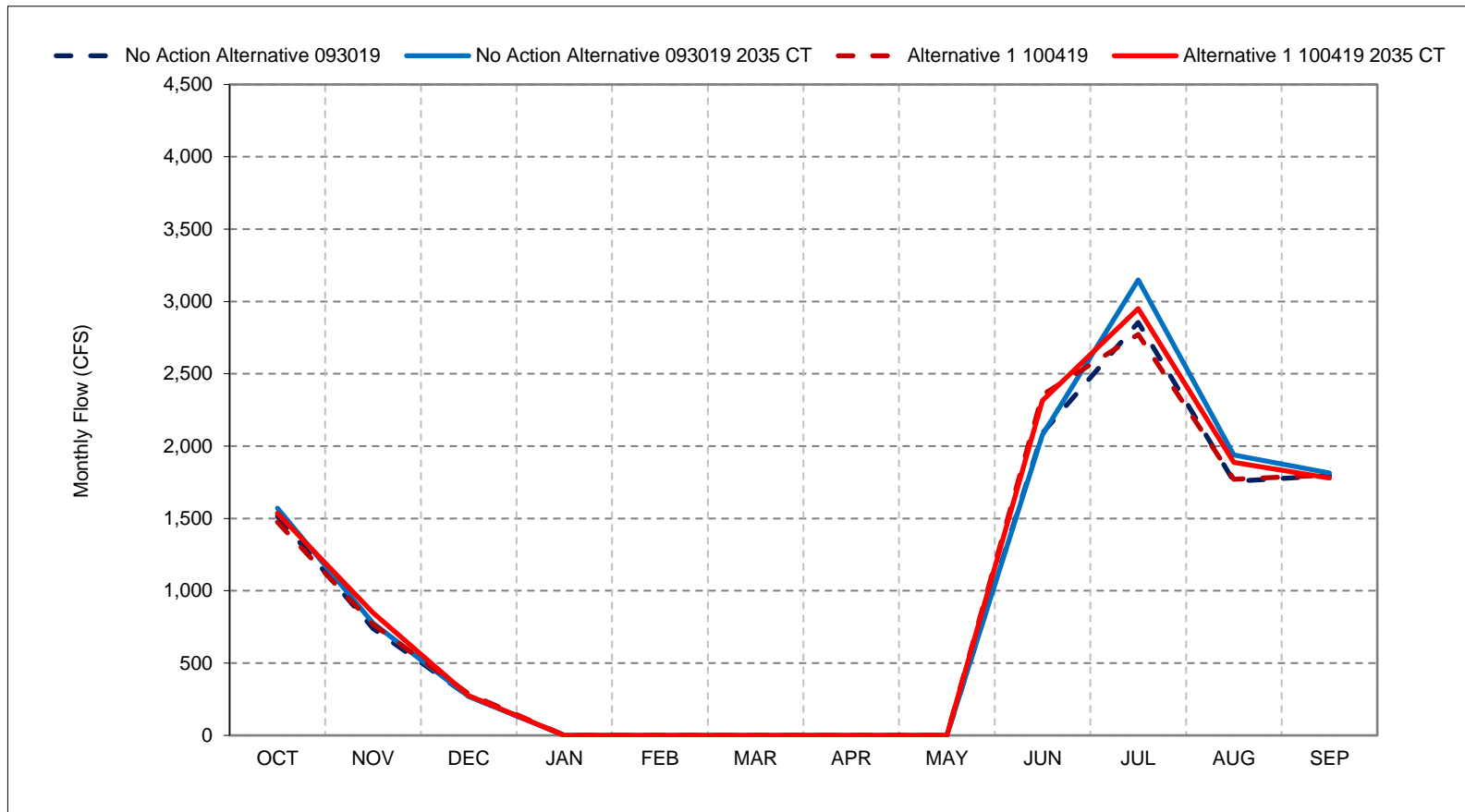
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-5. DCC Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

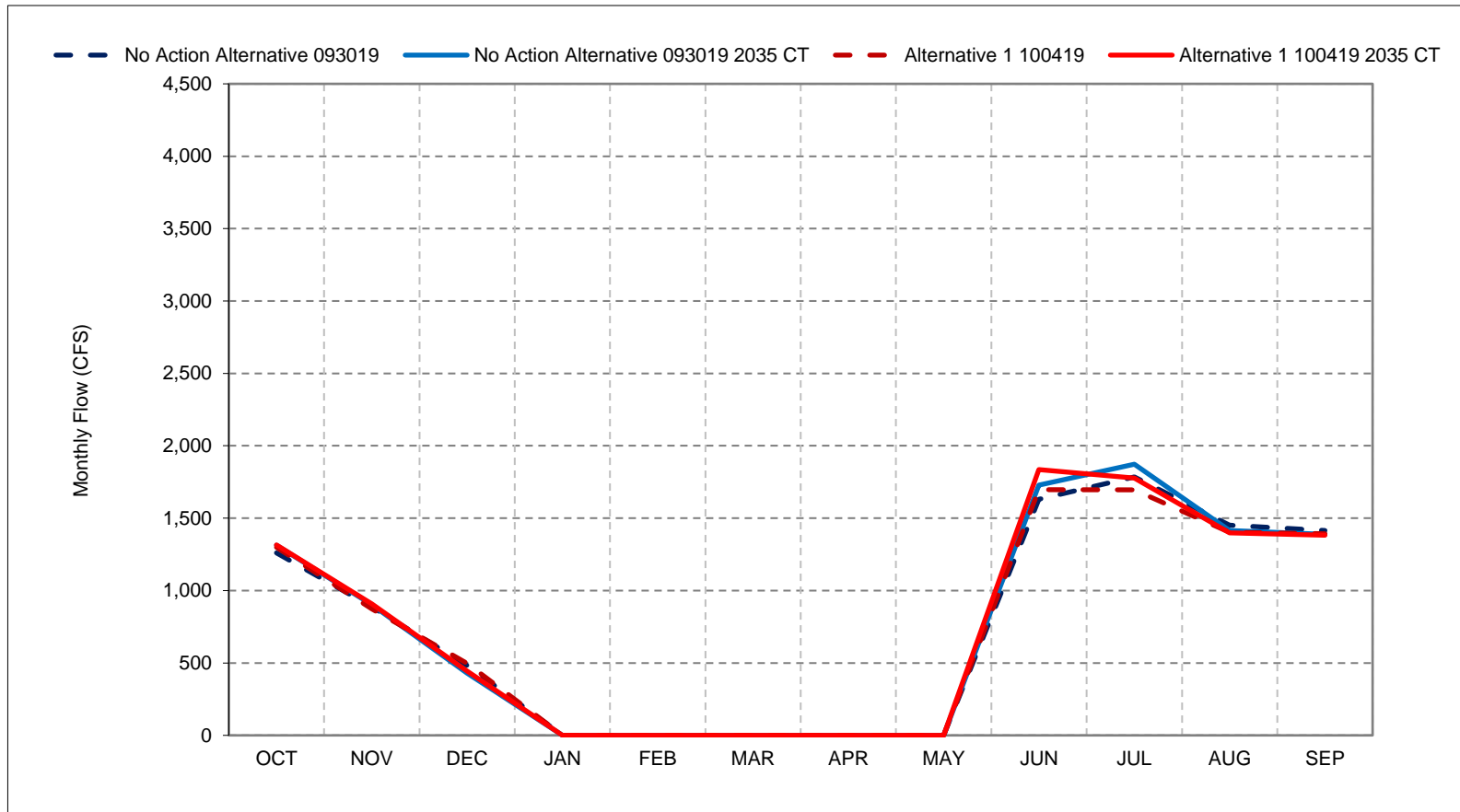
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-6. DCC Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

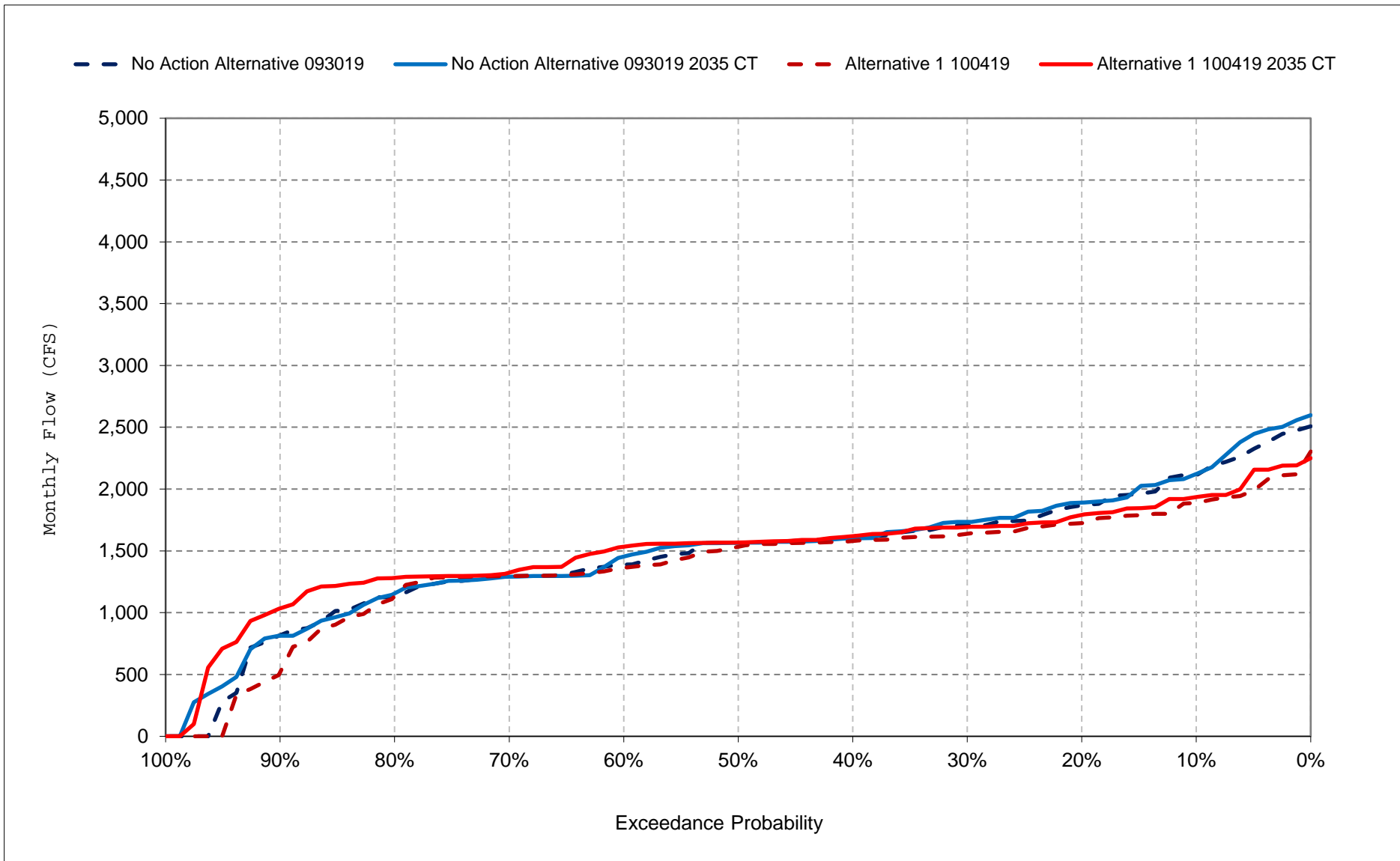
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

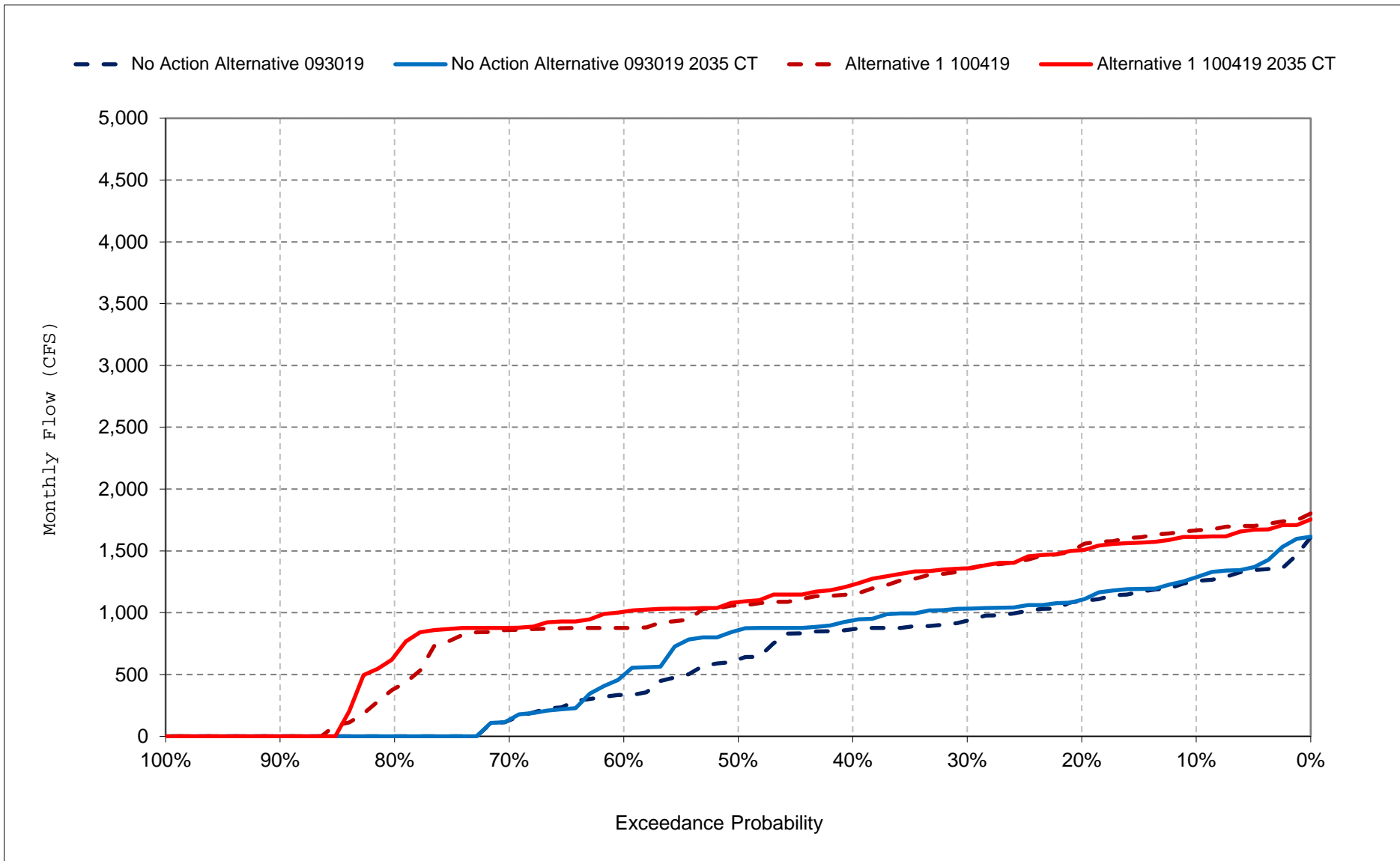
Figure 52-7. DCC Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

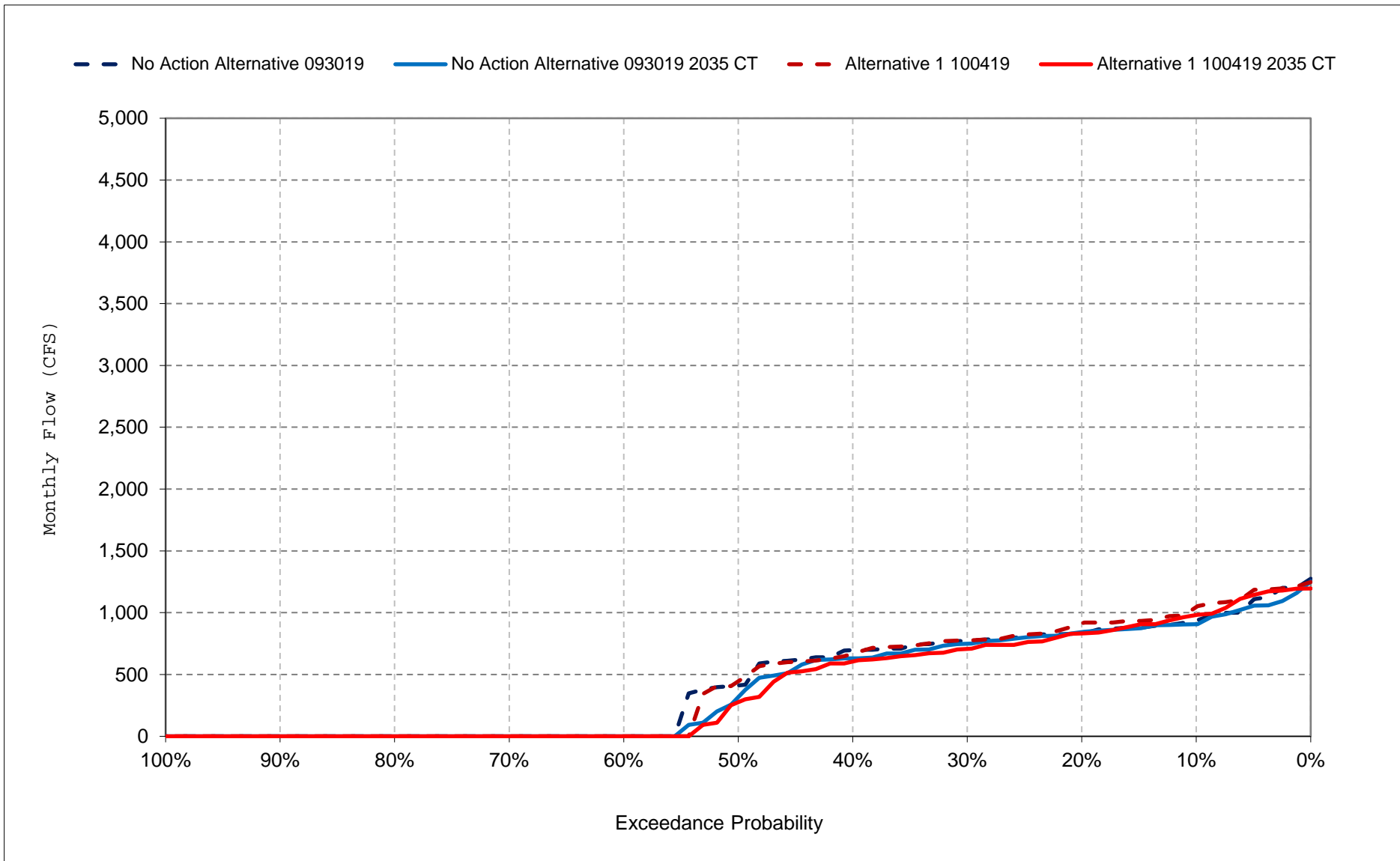
Figure 52-8. DCC Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

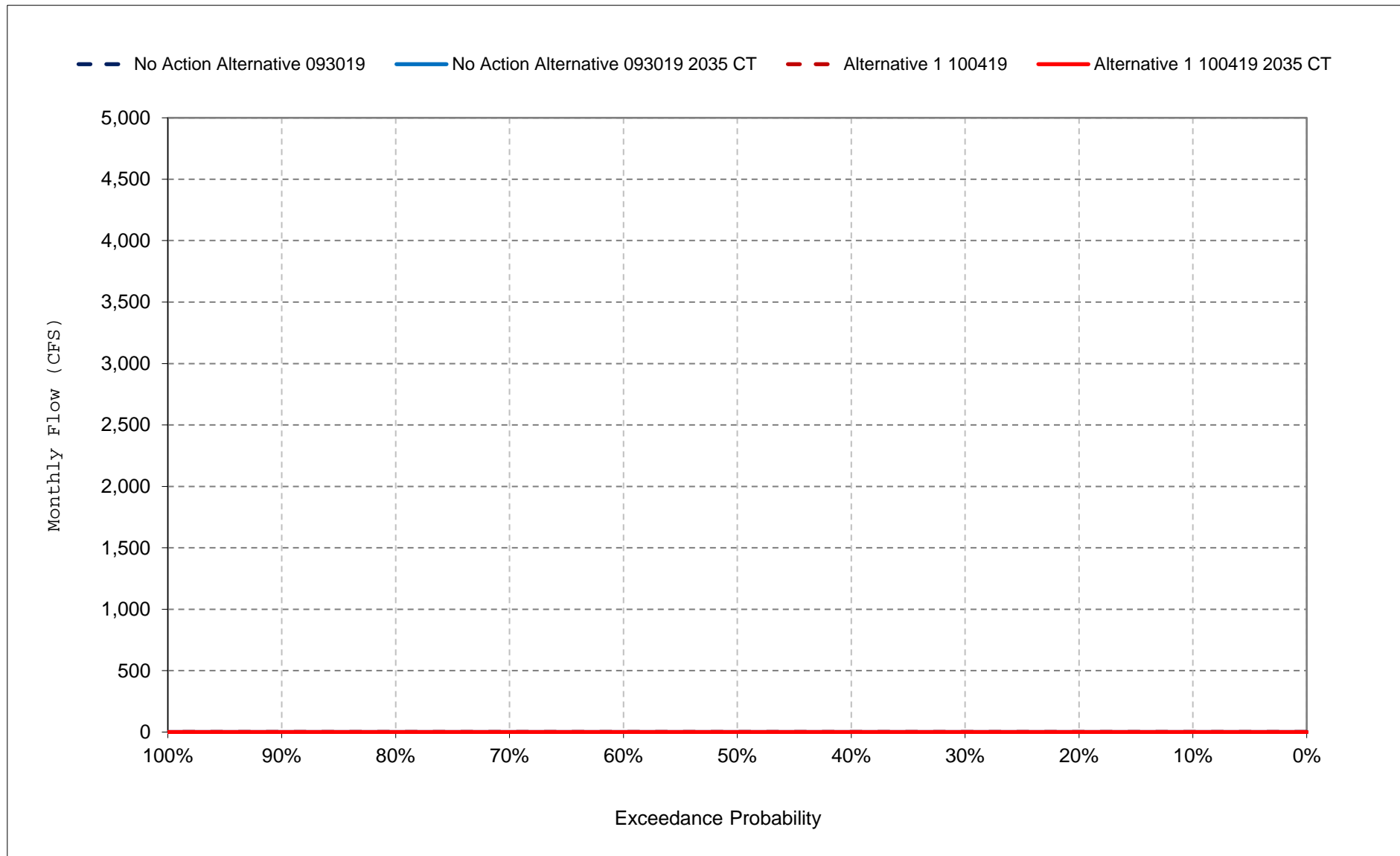
Figure 52-9. DCC Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

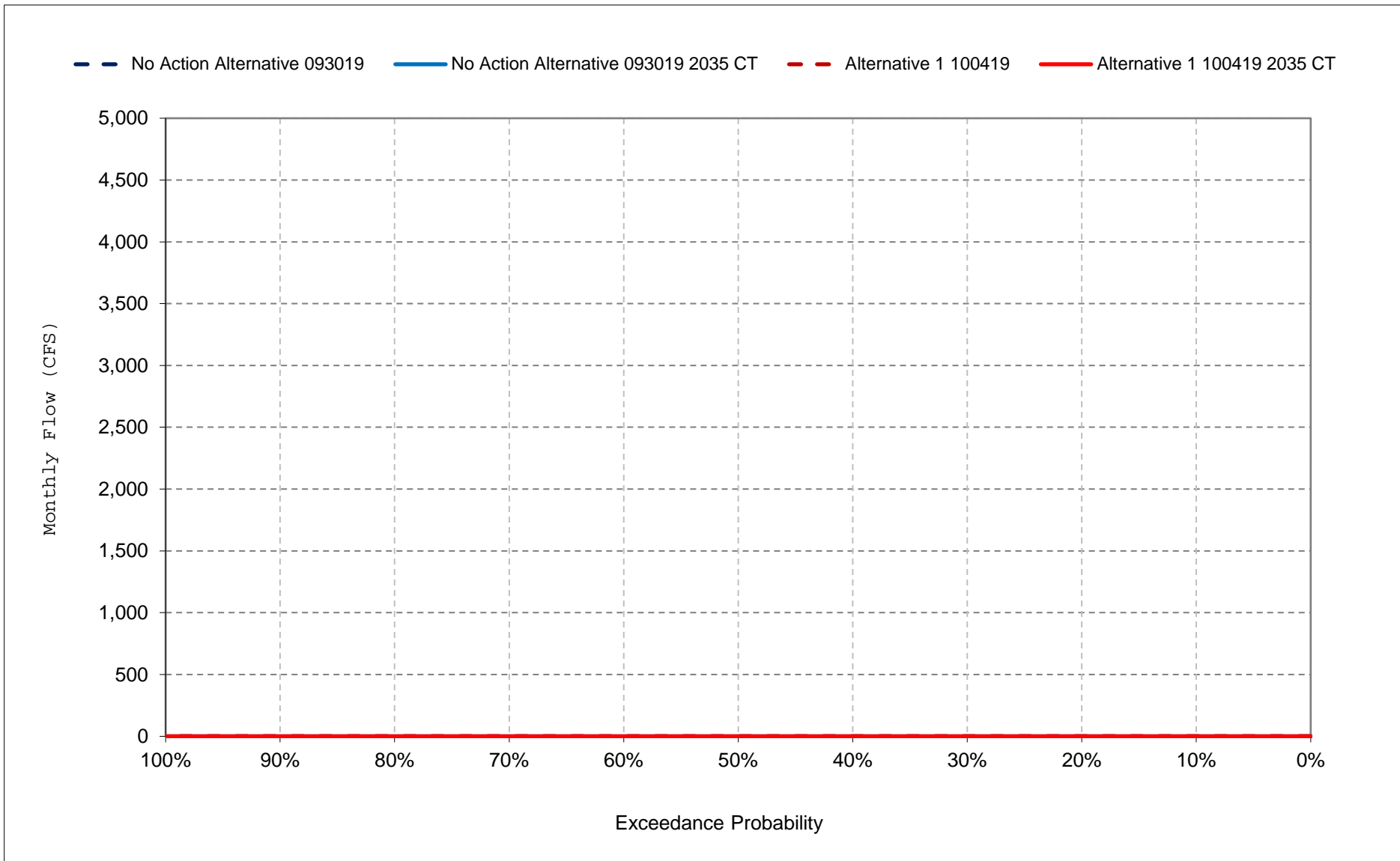
Figure 52-10. DCC Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

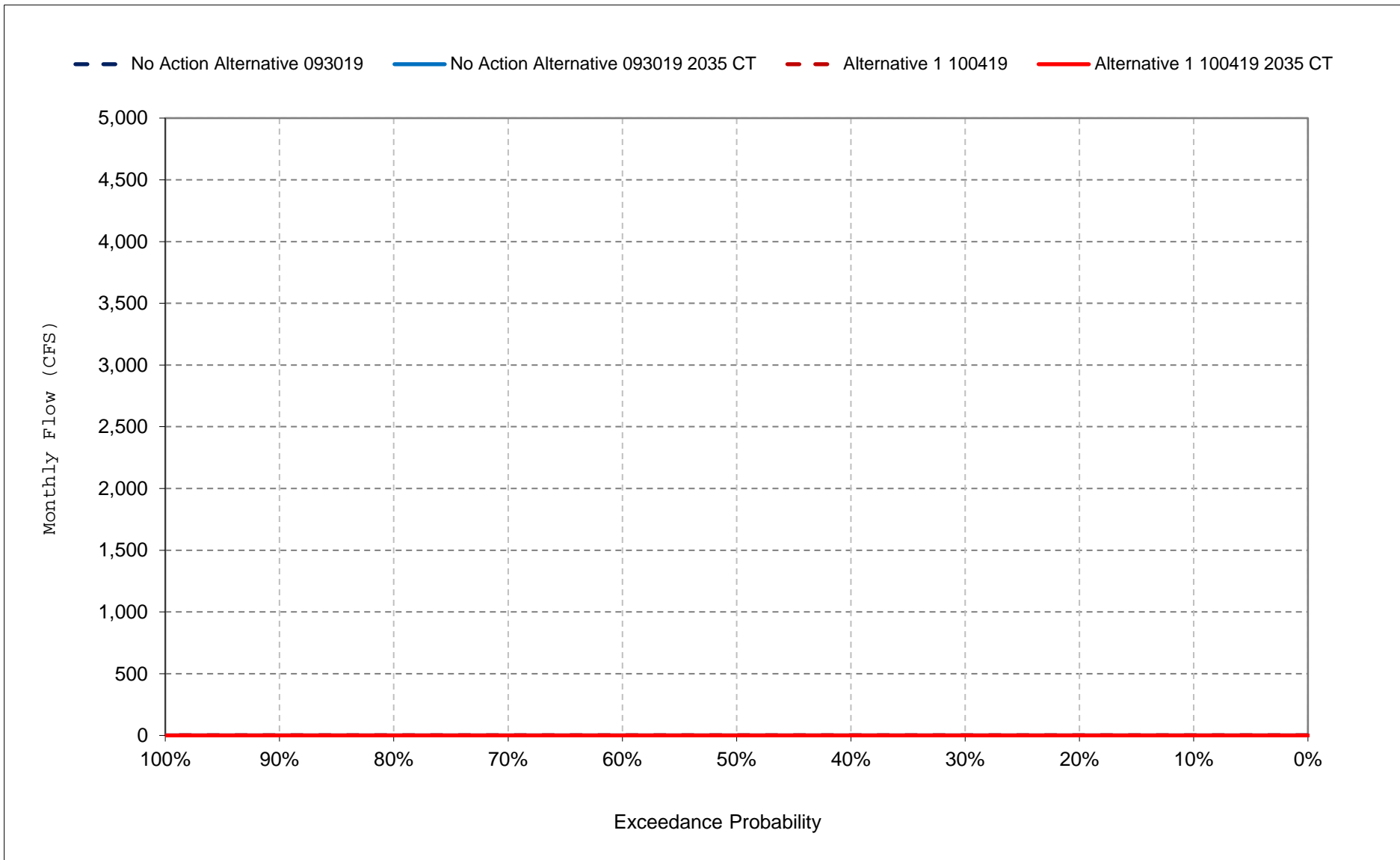
Figure 52-11. DCC Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

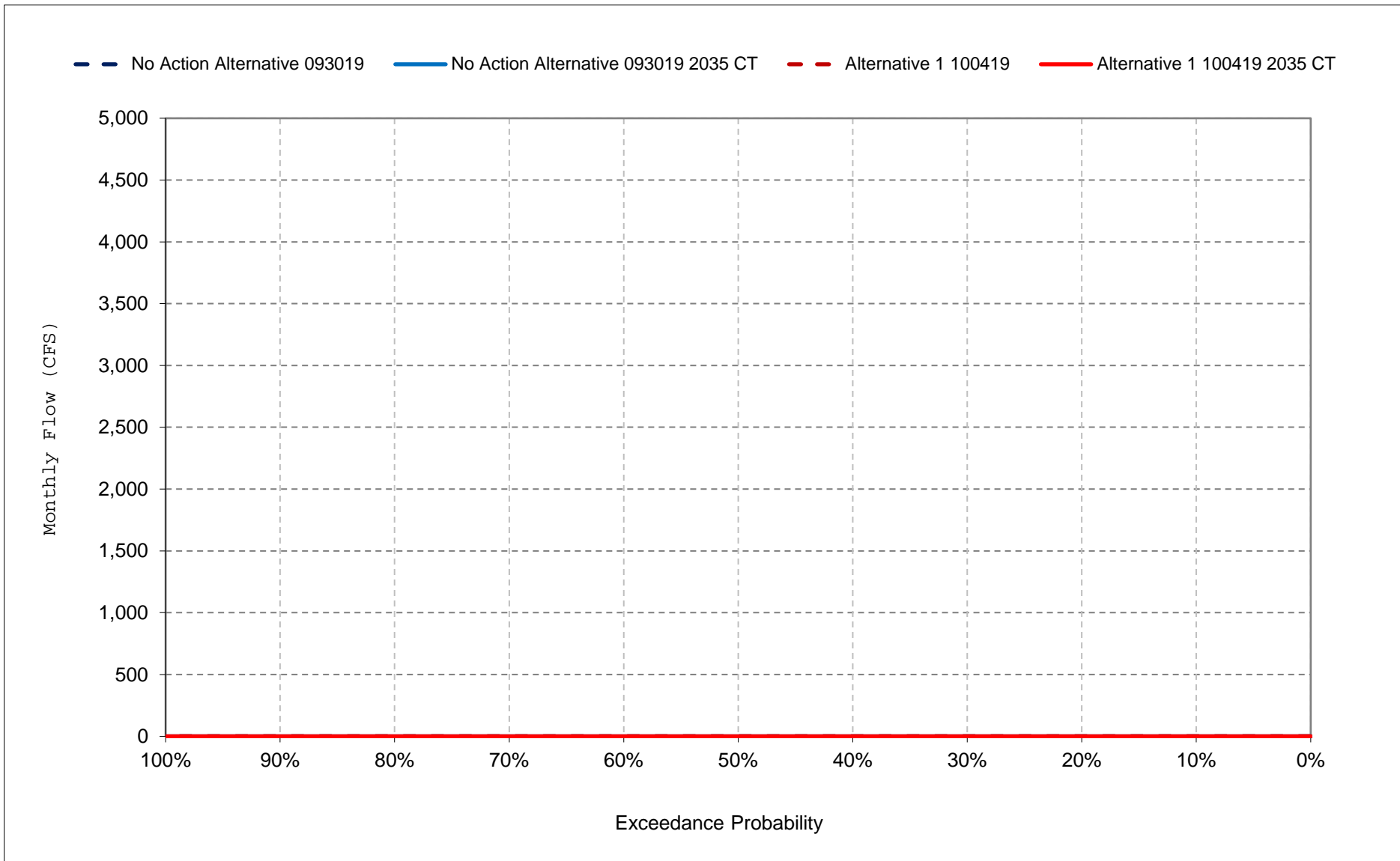
Figure 52-12. DCC Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

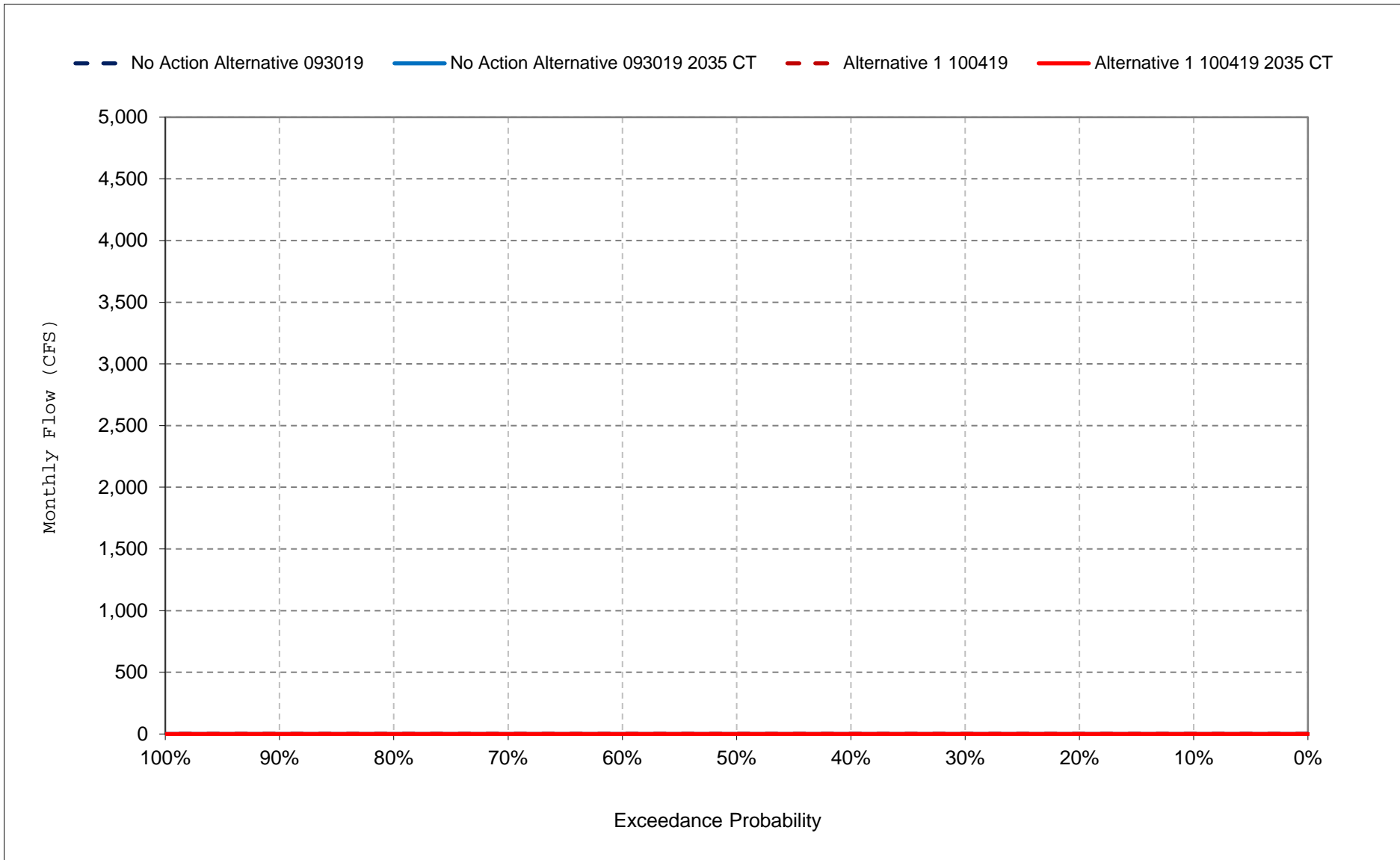
Figure 52-13. DCC Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

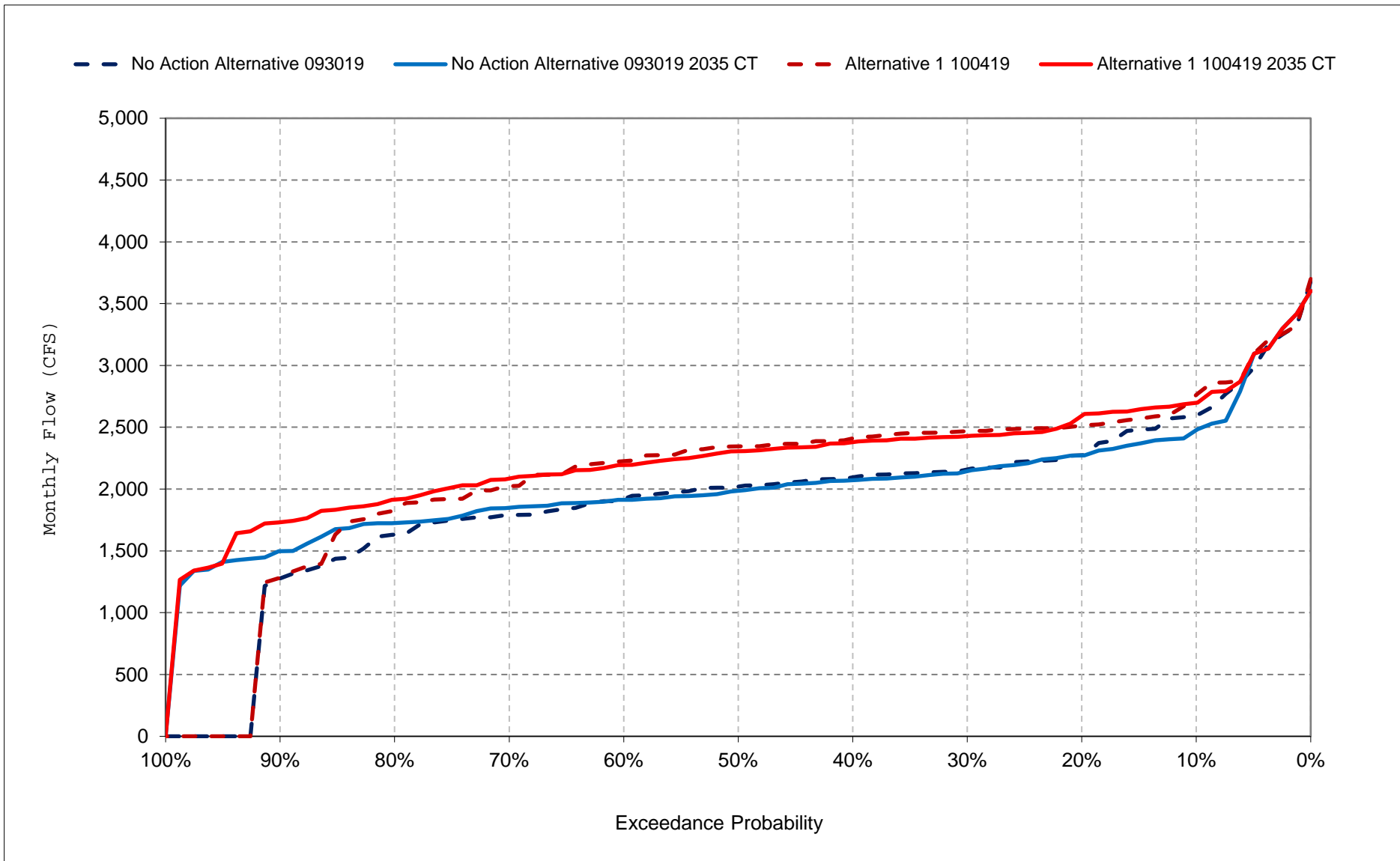
Figure 52-14. DCC Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

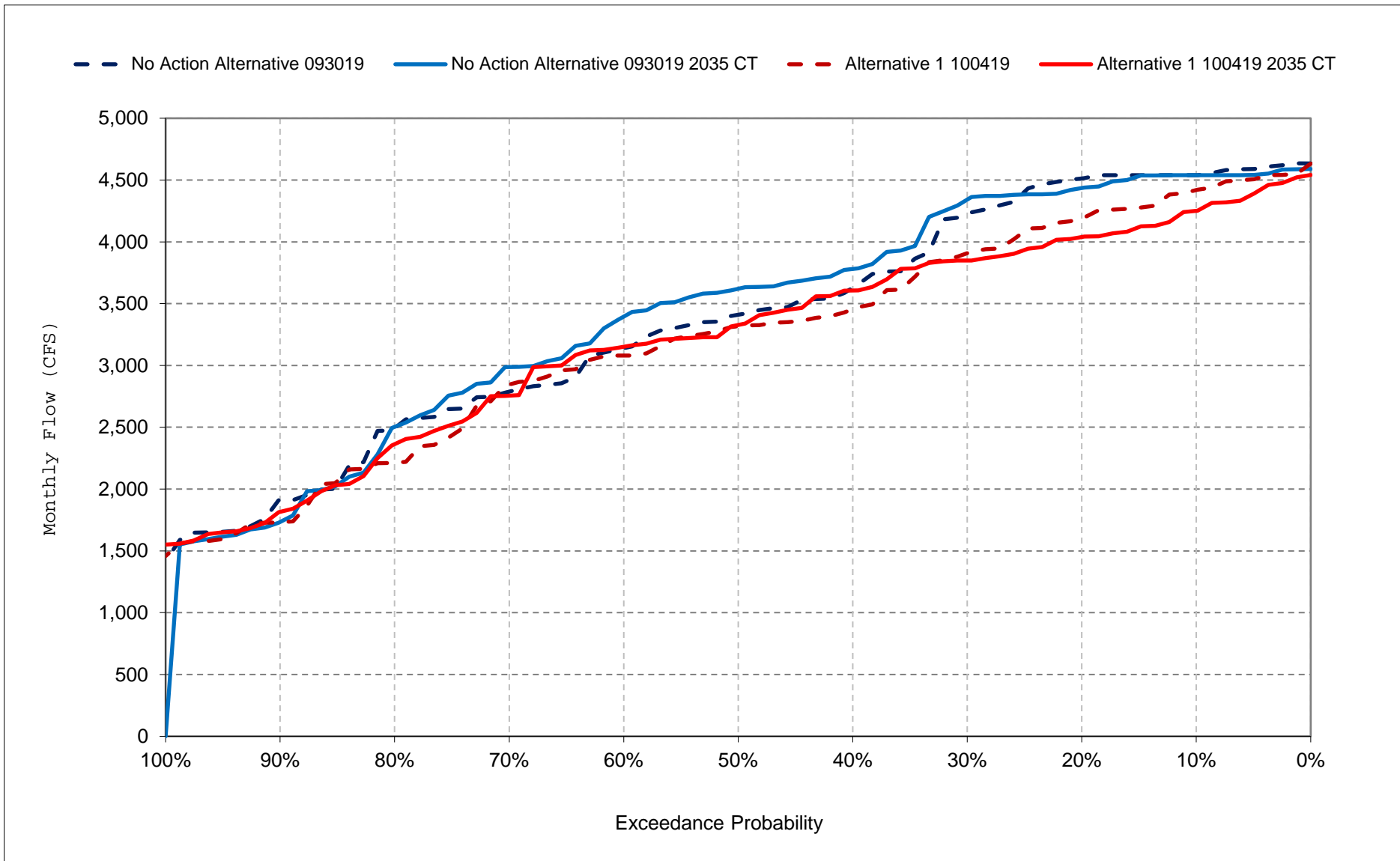
Figure 52-15. DCC Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

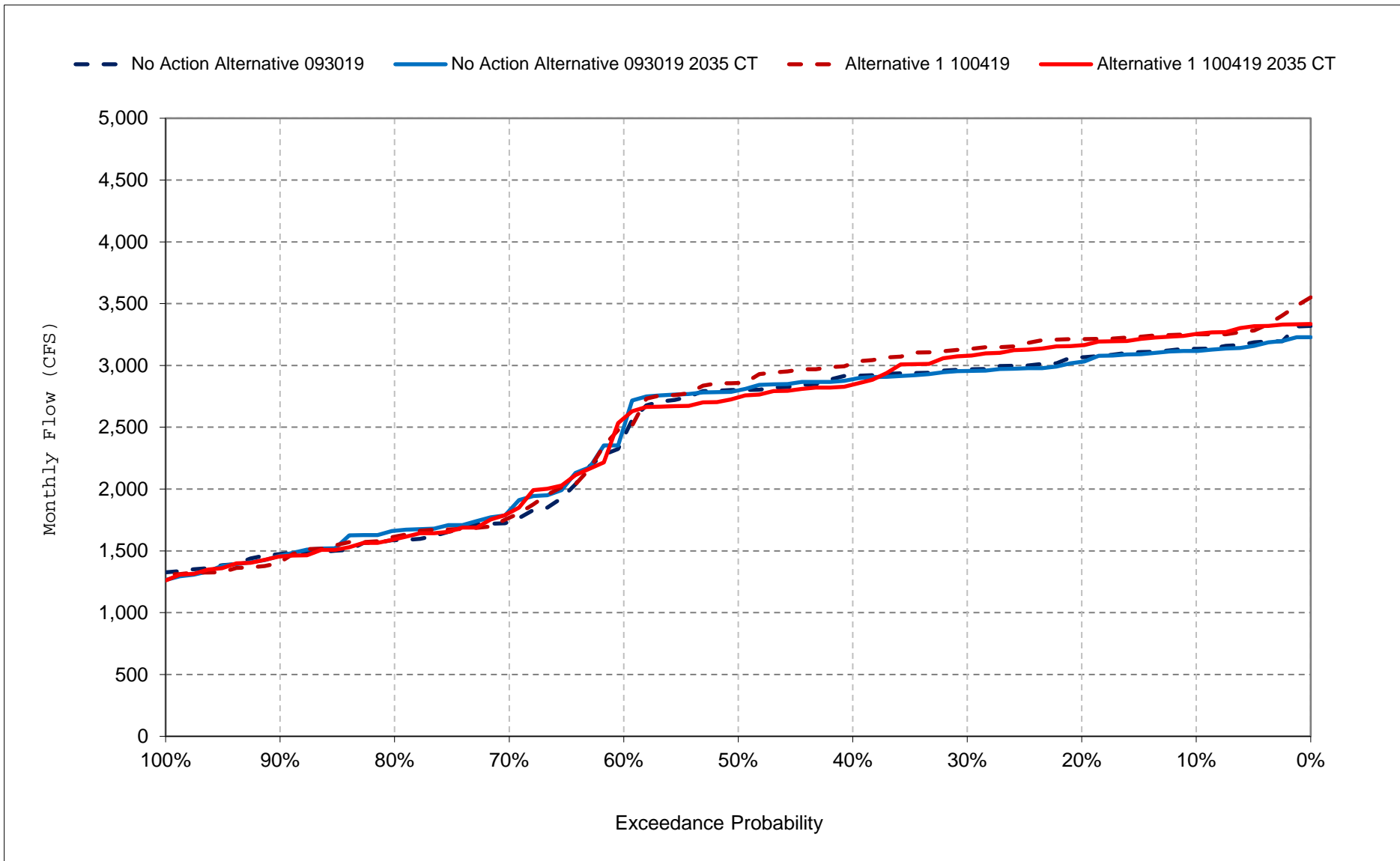
Figure 52-16. DCC Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

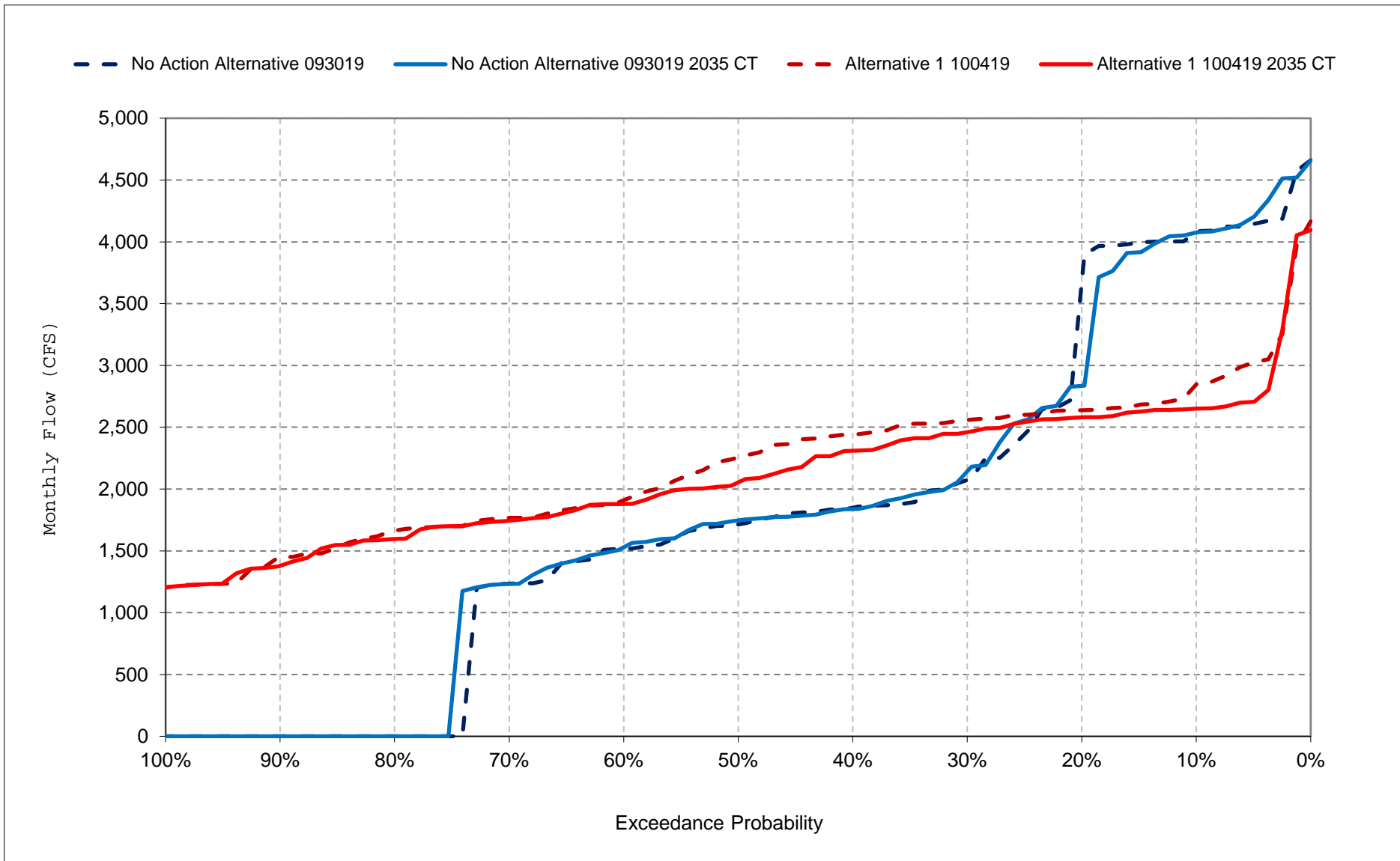
Figure 52-17. DCC Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 52-18. DCC Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-1. Total Delta Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,752	11,250	11,710	9,868	12,026	10,933	4,070	3,934	8,587	11,513	11,780	11,280
20%	7,260	9,216	11,647	7,990	9,937	10,077	2,958	2,488	6,033	11,280	11,780	11,280
30%	6,643	7,925	9,991	6,909	8,446	8,966	2,654	2,116	5,707	10,903	11,630	11,280
40%	6,220	7,618	8,511	6,794	7,372	7,598	2,336	1,720	5,344	10,168	11,280	11,122
50%	5,670	7,030	7,877	6,615	6,717	6,893	2,168	1,576	4,420	9,704	10,255	10,058
60%	5,434	6,676	7,536	6,519	6,376	6,262	2,099	1,500	3,562	8,359	8,007	7,819
70%	5,109	6,308	6,845	6,178	5,829	5,210	1,936	1,500	3,257	7,013	4,543	6,918
80%	4,744	5,507	5,826	5,476	4,643	4,679	1,849	1,500	2,125	5,518	3,007	6,099
90%	4,120	4,593	4,759	4,670	3,249	2,611	1,531	1,500	1,600	2,500	2,313	4,592
Long Term												
Full Simulation Period ^d	6,029	7,306	8,257	7,024	7,328	7,121	2,641	2,345	4,777	8,320	8,071	8,705
Water Year Types ^{b,c}												
Wet (32%)	6,791	7,739	10,275	8,526	9,806	9,928	3,433	3,518	7,533	10,677	11,674	10,990
Above Normal (16%)	6,581	8,594	9,635	6,630	7,892	8,004	2,193	1,713	5,248	9,227	11,463	11,063
Below Normal (13%)	6,828	7,171	7,468	6,310	6,516	6,552	2,271	1,633	3,635	10,177	9,202	8,814
Dry (24%)	5,464	7,598	7,177	6,483	5,679	5,732	2,713	2,069	3,375	7,223	4,037	6,773
Critical (15%)	3,990	4,607	4,912	5,756	4,843	2,921	1,626	1,604	1,682	2,357	2,276	4,318

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,953	11,280	11,700	9,655	11,557	9,968	9,430	9,366	8,587	11,280	11,554	10,038
20%	7,097	11,280	11,596	7,793	9,454	8,537	8,392	7,475	6,209	10,635	11,280	7,413
30%	6,262	11,280	10,365	7,260	8,461	7,718	7,809	6,108	5,422	9,896	11,100	6,783
40%	5,899	10,801	8,693	7,086	7,671	6,038	7,298	5,641	5,271	9,586	10,338	6,080
50%	5,498	9,939	7,457	6,874	7,048	5,696	6,267	5,301	5,088	8,761	9,908	4,930
60%	5,229	8,047	7,075	6,726	6,648	5,406	5,115	4,247	4,935	7,955	8,311	4,318
70%	5,050	6,274	6,665	6,448	6,536	5,133	3,500	3,719	4,809	6,488	4,363	3,878
80%	4,501	5,241	5,886	5,884	6,257	4,909	3,168	3,125	4,520	4,172	2,981	3,575
90%	4,099	4,629	4,732	5,317	5,994	4,687	2,606	2,319	1,869	1,914	2,166	3,208
Long Term												
Full Simulation Period ^d	5,943	8,588	8,214	7,214	7,952	6,552	5,948	5,346	5,416	7,705	7,831	5,612
Water Year Types ^{b,c}												
Wet (32%)	6,869	10,943	10,374	8,672	9,868	8,876	8,434	7,766	7,653	10,282	11,277	5,110
Above Normal (16%)	5,115	10,559	9,827	7,339	7,724	6,519	7,047	5,837	5,540	8,471	10,463	3,634
Below Normal (13%)	7,016	7,471	6,884	6,722	7,596	5,673	5,325	4,551	5,069	9,025	9,590	8,637
Dry (24%)	5,732	7,308	7,043	6,398	6,960	5,403	4,407	4,113	4,705	6,656	4,173	6,724
Critical (15%)	4,198	4,506	4,957	5,728	6,029	4,273	2,510	2,358	1,938	1,833	1,999	4,215

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	201	30	-11	-213	-470	-965	5,361	5,431	0	-233	-226	-1,242
20%	-163	2,064	-51	-197	-483	-1,540	5,434	4,988	176	-645	-500	-3,867
30%	-381	3,355	374	351	15	-1,247	5,154	3,992	-285	-1,007	-530	-4,497
40%	-321	3,183	182	292	299	-1,559	4,963	3,921	-73	-581	-942	-5,042
50%	-171	2,909	-420	260	330	-1,198	4,099	3,726	668	-943	-347	-5,128
60%	-205	1,371	-460	207	272	-856	3,016	2,747	1,372	-404	304	-3,501
70%	-59	-33	-181	271	707	-77	1,564	2,219	1,551	-524	-180	-3,040
80%	-244	-265	60	407	1,614	230	1,318	1,625	2,395	-1,346	-26	-2,524
90%	-21	36	-27	647	2,745	2,076	1,074	819	270	-586	-147	-1,384
Long Term												
Full Simulation Period ^d	-86	1,282	-43	189	624	-569	3,308	3,001	639	-615	-240	-3,093
Water Year Types ^{b,c}												
Wet (32%)	78	3,203	99	146	62	-1,052	5,001	4,248	120	-394	-398	-5,880
Above Normal (16%)	-1,465	1,965	192	708	-168	-1,486	4,854	4,125	292	-756	-999	-7,429
Below Normal (13%)	188	301	-584	411	1,079	-878	3,054	2,918	1,433	-1,153	388	-177
Dry (24%)	268	-290	-134	-85	1,282	-329	1,694	2,044	1,331	-567	135	-50
Critical (15%)	208	-101	45	-27	1,187	1,353	884	754	256	-524	-277	-103

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 53-2. Total Delta Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,795	10,906	11,710	10,556	13,305	11,965	4,271	3,796	7,929	11,280	11,451	11,280
20%	7,196	8,860	11,292	8,959	10,665	10,484	3,405	2,651	5,851	11,011	11,391	11,280
30%	6,728	8,000	9,480	7,005	8,798	9,183	2,893	2,112	5,502	10,623	11,322	11,161
40%	6,071	7,353	8,225	6,708	7,870	8,216	2,456	1,834	5,057	10,048	11,169	10,469
50%	5,666	6,507	7,823	6,567	6,873	7,056	2,258	1,594	4,480	9,307	9,920	9,012
60%	5,350	6,128	7,434	6,270	6,440	6,483	2,171	1,510	3,732	8,533	8,916	7,301
70%	5,020	5,816	7,145	5,370	5,076	5,442	2,039	1,500	3,290	7,695	4,527	6,520
80%	4,536	5,063	5,840	4,748	4,573	4,771	1,799	1,500	1,976	5,595	3,274	5,803
90%	4,073	4,365	5,426	4,406	3,172	3,080	1,500	1,500	1,500	2,830	2,399	4,545
Long Term												
Full Simulation Period ^d	5,904	7,019	8,228	7,058	7,467	7,414	2,796	2,372	4,668	8,309	8,011	8,439
Water Year Types ^{b,c}												
Wet (32%)	6,617	7,302	9,957	9,295	10,370	10,196	3,856	3,589	7,171	9,726	11,218	10,333
Above Normal (16%)	5,374	7,833	9,397	6,849	8,003	8,592	2,444	1,740	4,907	9,104	11,231	10,936
Below Normal (13%)	6,876	7,359	7,219	5,712	7,345	6,850	2,937	1,928	3,535	10,160	8,627	8,525
Dry (24%)	5,756	7,374	7,462	6,114	5,084	5,800	2,270	1,905	3,608	8,248	4,982	6,816
Critical (15%)	4,291	4,618	5,419	5,245	4,681	3,320	1,630	1,605	1,789	2,782	2,056	4,259

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,941	11,280	11,667	11,623	13,177	10,746	9,413	9,694	8,004	10,383	11,391	9,592
20%	6,838	11,280	11,340	8,810	10,450	8,987	8,557	7,057	6,014	9,579	11,270	7,432
30%	6,156	11,280	9,307	7,435	8,649	8,001	7,972	5,818	5,482	9,281	10,658	6,761
40%	5,786	10,344	8,253	7,136	7,630	6,385	7,344	5,499	5,300	8,976	9,803	5,750
50%	5,562	9,223	7,540	6,762	7,179	5,894	6,300	5,216	5,088	8,374	8,758	4,491
60%	5,221	8,166	7,021	6,431	6,651	5,544	5,027	4,233	4,957	7,523	7,703	4,279
70%	4,974	6,508	6,793	6,097	6,391	5,134	3,524	3,526	4,817	5,919	4,483	3,732
80%	4,496	5,213	6,222	5,506	6,130	4,876	3,170	3,131	4,522	3,871	3,075	3,304
90%	4,025	4,648	5,248	5,288	5,919	4,496	2,586	2,569	2,001	1,862	2,316	2,202
Long Term												
Full Simulation Period ^d	5,783	8,516	8,143	7,415	8,080	6,752	6,010	5,283	5,357	7,201	7,562	5,380
Water Year Types ^{b,c}												
Wet (32%)	6,482	10,714	9,988	9,525	10,206	8,946	8,390	7,633	7,464	8,659	10,551	4,412
Above Normal (16%)	4,454	10,269	9,289	7,557	7,809	7,087	7,289	5,751	5,417	7,750	10,489	4,135
Below Normal (13%)	7,056	7,656	6,999	6,344	8,232	5,966	5,398	4,422	4,934	8,936	8,329	8,078
Dry (24%)	5,887	7,312	7,441	6,246	6,661	5,487	4,491	4,102	4,661	6,980	4,689	6,655
Critical (15%)	4,365	4,648	5,125	5,620	5,994	4,463	2,561	2,444	2,274	2,226	2,000	4,224

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	146	374	-44	1,066	-128	-1,219	5,142	5,898	75	-897	-60	-1,688
20%	-358	2,420	48	-150	-216	-1,497	5,152	4,407	163	-1,432	-121	-3,848
30%	-573	3,280	-173	430	-149	-1,182	5,079	3,706	-20	-1,343	-664	-4,400
40%	-284	2,991	28	428	-240	-1,830	4,888	3,666	243	-1,072	-1,366	-4,718
50%	-104	2,717	-283	195	306	-1,161	4,042	3,623	607	-934	-1,162	-4,521
60%	-129	2,038	-413	161	211	-939	2,856	2,724	1,225	-1,009	-1,213	-3,021
70%	-46	692	-353	727	1,316	-308	1,485	2,026	1,527	-1,775	-44	-2,787
80%	-40	150	382	758	1,557	104	1,371	1,631	2,546	-1,724	-199	-2,499
90%	-47	283	-178	883	2,747	1,416	1,086	1,069	501	-969	-83	-2,343
Long Term												
Full Simulation Period ^d	-122	1,497	-85	357	613	-662	3,214	2,911	689	-1,108	-449	-3,060
Water Year Types ^{b,c}												
Wet (32%)	-135	3,412	31	230	-164	-1,250	4,534	4,043	292	-1,067	-668	-5,920
Above Normal (16%)	-919	2,436	-107	708	-194	-1,505	4,845	4,011	510	-1,355	-742	-6,801
Below Normal (13%)	180	296	-220	632	887	-883	2,461	2,494	1,399	-1,224	-297	-446
Dry (24%)	131	-63	-21	133	1,577	-313	2,221	2,197	1,053	-1,268	-293	-161
Critical (15%)	75	31	-294	375	1,313	1,144	932	839	485	-556	-57	-35

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-3. Total Delta Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,752	11,250	11,710	9,868	12,026	10,933	4,070	3,934	8,587	11,513	11,780	11,280
20%	7,260	9,216	11,647	7,990	9,937	10,077	2,958	2,488	6,033	11,280	11,780	11,280
30%	6,643	7,925	9,991	6,909	8,446	8,966	2,654	2,116	5,707	10,903	11,630	11,280
40%	6,220	7,618	8,511	6,794	7,372	7,598	2,336	1,720	5,344	10,168	11,280	11,122
50%	5,670	7,030	7,877	6,615	6,717	6,893	2,168	1,576	4,420	9,704	10,255	10,058
60%	5,434	6,676	7,536	6,519	6,376	6,262	2,099	1,500	3,562	8,359	8,007	7,819
70%	5,109	6,308	6,845	6,178	5,829	5,210	1,936	1,500	3,257	7,013	4,543	6,918
80%	4,744	5,507	5,826	5,476	4,643	4,679	1,849	1,500	2,125	5,518	3,007	6,099
90%	4,120	4,593	4,759	4,670	3,249	2,611	1,531	1,500	1,600	2,500	2,313	4,592
Long Term												
Full Simulation Period ^d	6,029	7,306	8,257	7,024	7,328	7,121	2,641	2,345	4,777	8,320	8,071	8,705
Water Year Types ^{b,c}												
Wet (32%)	6,791	7,739	10,275	8,526	9,806	9,928	3,433	3,518	7,533	10,677	11,674	10,990
Above Normal (16%)	6,581	8,594	9,635	6,630	7,892	8,004	2,193	1,713	5,248	9,227	11,463	11,063
Below Normal (13%)	6,828	7,171	7,468	6,310	6,516	6,552	2,271	1,633	3,635	10,177	9,202	8,814
Dry (24%)	5,464	7,598	7,177	6,483	5,679	5,732	2,713	2,069	3,375	7,223	4,037	6,773
Critical (15%)	3,990	4,607	4,912	5,756	4,843	2,921	1,626	1,604	1,682	2,357	2,276	4,318

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,795	10,906	11,710	10,556	13,305	11,965	4,271	3,796	7,929	11,280	11,451	11,280
20%	7,196	8,860	11,292	8,959	10,665	10,484	3,405	2,651	5,851	11,011	11,391	11,280
30%	6,728	8,000	9,480	7,005	8,798	9,183	2,893	2,112	5,502	10,623	11,322	11,161
40%	6,071	7,353	8,225	6,708	7,870	8,216	2,456	1,834	5,057	10,048	11,169	10,469
50%	5,666	6,507	7,823	6,567	6,873	7,056	2,258	1,594	4,480	9,307	9,920	9,012
60%	5,350	6,128	7,434	6,270	6,440	6,483	2,171	1,510	3,732	8,533	8,916	7,301
70%	5,020	5,816	7,145	5,370	5,076	5,442	2,039	1,500	3,290	7,695	4,527	6,520
80%	4,536	5,063	5,840	4,748	4,573	4,771	1,799	1,500	1,976	5,595	3,274	5,803
90%	4,073	4,365	5,426	4,406	3,172	3,080	1,500	1,500	1,500	2,830	2,399	4,545
Long Term												
Full Simulation Period ^d	5,904	7,019	8,228	7,058	7,467	7,414	2,796	2,372	4,668	8,309	8,011	8,439
Water Year Types ^{b,c}												
Wet (32%)	6,617	7,302	9,957	9,295	10,370	10,196	3,856	3,589	7,171	9,726	11,218	10,333
Above Normal (16%)	5,374	7,833	9,397	6,849	8,003	8,592	2,444	1,740	4,907	9,104	11,231	10,936
Below Normal (13%)	6,876	7,359	7,219	5,712	7,345	6,850	2,937	1,928	3,535	10,160	8,627	8,525
Dry (24%)	5,756	7,374	7,462	6,114	5,084	5,800	2,270	1,905	3,608	8,248	4,982	6,816
Critical (15%)	4,291	4,618	5,419	5,245	4,681	3,320	1,630	1,605	1,789	2,782	2,056	4,259

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	43	-344	0	688	1,279	1,032	201	-138	-657	-233	-329	0
20%	-64	-356	-355	969	729	407	447	163	-182	-269	-389	0
30%	85	75	-510	96	352	217	239	-4	-205	-280	-308	-119
40%	-149	-265	-287	-86	498	618	120	114	-287	-119	-111	-653
50%	-3	-523	-54	-48	156	162	90	18	61	-397	-334	-1,046
60%	-84	-548	-102	-249	63	221	73	10	169	174	908	-518
70%	-89	-491	300	-808	-753	232	103	0	33	682	-16	-398
80%	-208	-444	13	-728	-70	93	-50	0	-149	76	267	-296
90%	-47	-228	668	-264	-77	469	-31	0	-100	330	86	-47
Long Term												
Full Simulation Period ^d	-125	-287	-28	33	139	293	156	27	-110	-11	-60	-266
Water Year Types ^{b,c}												
Wet (32%)	-174	-437	-318	769	564	268	423	72	-362	-951	-456	-657
Above Normal (16%)	-1,207	-762	-238	218	111	588	250	27	-342	-123	-231	-127
Below Normal (13%)	48	189	-248	-598	828	298	666	295	-100	-17	-575	-289
Dry (24%)	292	-224	285	-370	-594	68	-443	-164	233	1,024	945	43
Critical (15%)	301	11	507	-511	-162	399	4	1	107	425	-220	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-4. Total Delta Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,953	11,280	11,700	9,655	11,557	9,968	9,430	9,366	8,587	11,280	11,554	10,038
20%	7,097	11,280	11,596	7,793	9,454	8,537	8,392	7,475	6,209	10,635	11,280	7,413
30%	6,262	11,280	10,365	7,260	8,461	7,718	7,809	6,108	5,422	9,896	11,100	6,783
40%	5,899	10,801	8,693	7,086	7,671	6,038	7,298	5,641	5,271	9,586	10,338	6,080
50%	5,498	9,939	7,457	6,874	7,048	5,696	6,267	5,301	5,088	8,761	9,908	4,930
60%	5,229	8,047	7,075	6,726	6,648	5,406	5,115	4,247	4,935	7,955	8,311	4,318
70%	5,050	6,274	6,665	6,448	6,536	5,133	3,500	3,719	4,809	6,488	4,363	3,878
80%	4,501	5,241	5,886	5,884	6,257	4,909	3,168	3,125	4,520	4,172	2,981	3,575
90%	4,099	4,629	4,732	5,317	5,994	4,687	2,606	2,319	1,869	1,914	2,166	3,208
Long Term												
Full Simulation Period ^d	5,943	8,588	8,214	7,214	7,952	6,552	5,948	5,346	5,416	7,705	7,831	5,612
Water Year Types ^{b,c}												
Wet (32%)	6,869	10,943	10,374	8,672	9,868	8,876	8,434	7,766	7,653	10,282	11,277	5,110
Above Normal (16%)	5,115	10,559	9,827	7,339	7,724	6,519	7,047	5,837	5,540	8,471	10,463	3,634
Below Normal (13%)	7,016	7,471	6,884	6,722	7,596	5,673	5,325	4,551	5,069	9,025	9,590	8,637
Dry (24%)	5,732	7,308	7,043	6,398	6,960	5,403	4,407	4,113	4,705	6,656	4,173	6,724
Critical (15%)	4,198	4,506	4,957	5,728	6,029	4,273	2,510	2,358	1,938	1,833	1,999	4,215

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,941	11,280	11,667	11,623	13,177	10,746	9,413	9,694	8,004	10,383	11,391	9,592
20%	6,838	11,280	11,340	8,810	10,450	8,987	8,557	7,057	6,014	9,579	11,270	7,432
30%	6,156	11,280	9,307	7,435	8,649	8,001	7,972	5,818	5,482	9,281	10,658	6,761
40%	5,786	10,344	8,253	7,136	7,630	6,385	7,344	5,499	5,300	8,976	9,803	5,750
50%	5,562	9,223	7,540	6,762	7,179	5,894	6,300	5,216	5,088	8,374	8,758	4,491
60%	5,221	8,166	7,021	6,431	6,651	5,544	5,027	4,233	4,957	7,523	7,703	4,279
70%	4,974	6,508	6,793	6,097	6,391	5,134	3,524	3,526	4,817	5,919	4,483	3,732
80%	4,496	5,213	6,222	5,506	6,130	4,876	3,170	3,131	4,522	3,871	3,075	3,304
90%	4,025	4,648	5,248	5,288	5,919	4,496	2,586	2,569	2,001	1,862	2,316	2,202
Long Term												
Full Simulation Period ^d	5,783	8,516	8,143	7,415	8,080	6,752	6,010	5,283	5,357	7,201	7,562	5,380
Water Year Types ^{b,c}												
Wet (32%)	6,482	10,714	9,988	9,525	10,206	8,946	8,390	7,633	7,464	8,659	10,551	4,412
Above Normal (16%)	4,454	10,269	9,289	7,557	7,809	7,087	7,289	5,751	5,417	7,750	10,489	4,135
Below Normal (13%)	7,056	7,656	6,999	6,344	8,232	5,966	5,398	4,422	4,934	8,936	8,329	8,078
Dry (24%)	5,887	7,312	7,441	6,246	6,661	5,487	4,491	4,102	4,661	6,980	4,689	6,655
Critical (15%)	4,365	4,648	5,125	5,620	5,994	4,463	2,561	2,444	2,274	2,226	2,000	4,224

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-12	0	-33	1,968	1,621	778	-17	329	-583	-897	-163	-446
20%	-259	0	-256	1,017	996	450	165	-418	-195	-1,055	-10	19
30%	-106	0	-1,057	175	188	283	163	-290	60	-615	-441	-22
40%	-112	-458	-440	50	-41	347	46	-142	29	-610	-535	-330
50%	63	-715	83	-113	131	199	33	-85	0	-388	-1,150	-439
60%	-8	119	-54	-295	3	138	-88	-14	22	-432	-609	-38
70%	-76	234	128	-352	-145	1	24	-193	8	-569	120	-146
80%	-5	-28	336	-378	-127	-33	3	6	2	-302	94	-271
90%	-74	19	517	-29	-75	-191	-19	250	132	-53	150	-1,006
Long Term												
Full Simulation Period ^d	-160	-72	-71	202	128	200	62	-63	-59	-504	-269	-232
Water Year Types ^{b,c}												
Wet (32%)	-387	-229	-386	853	339	70	-45	-133	-189	-1,623	-726	-698
Above Normal (16%)	-661	-290	-538	218	84	569	242	-87	-124	-721	26	501
Below Normal (13%)	40	184	115	-377	636	293	73	-129	-135	-88	-1,261	-559
Dry (24%)	155	3	398	-152	-299	84	83	-11	-45	324	516	-68
Critical (15%)	167	142	167	-108	-35	190	52	86	336	393	1	9

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

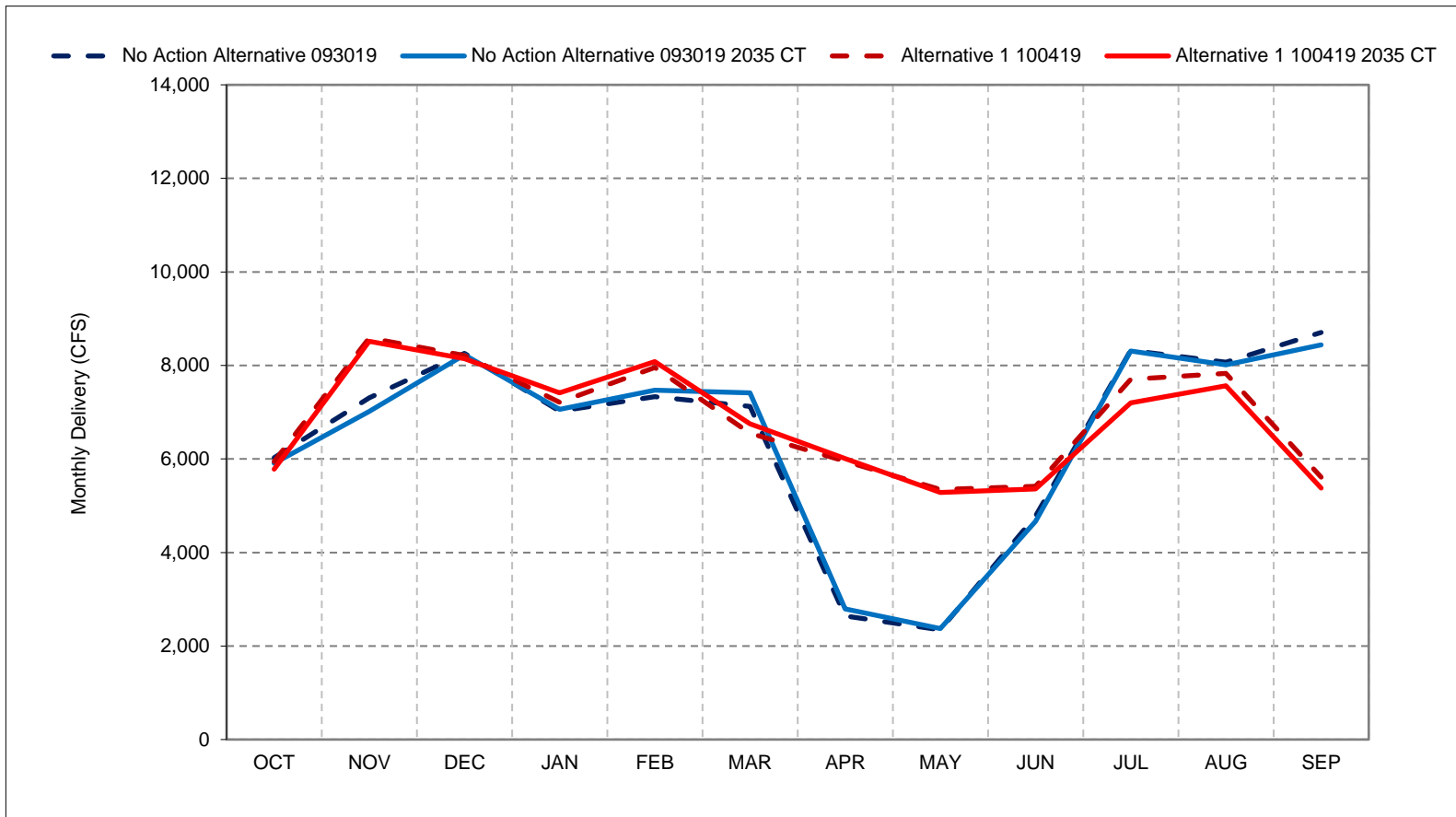
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 53-1. Total Delta Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

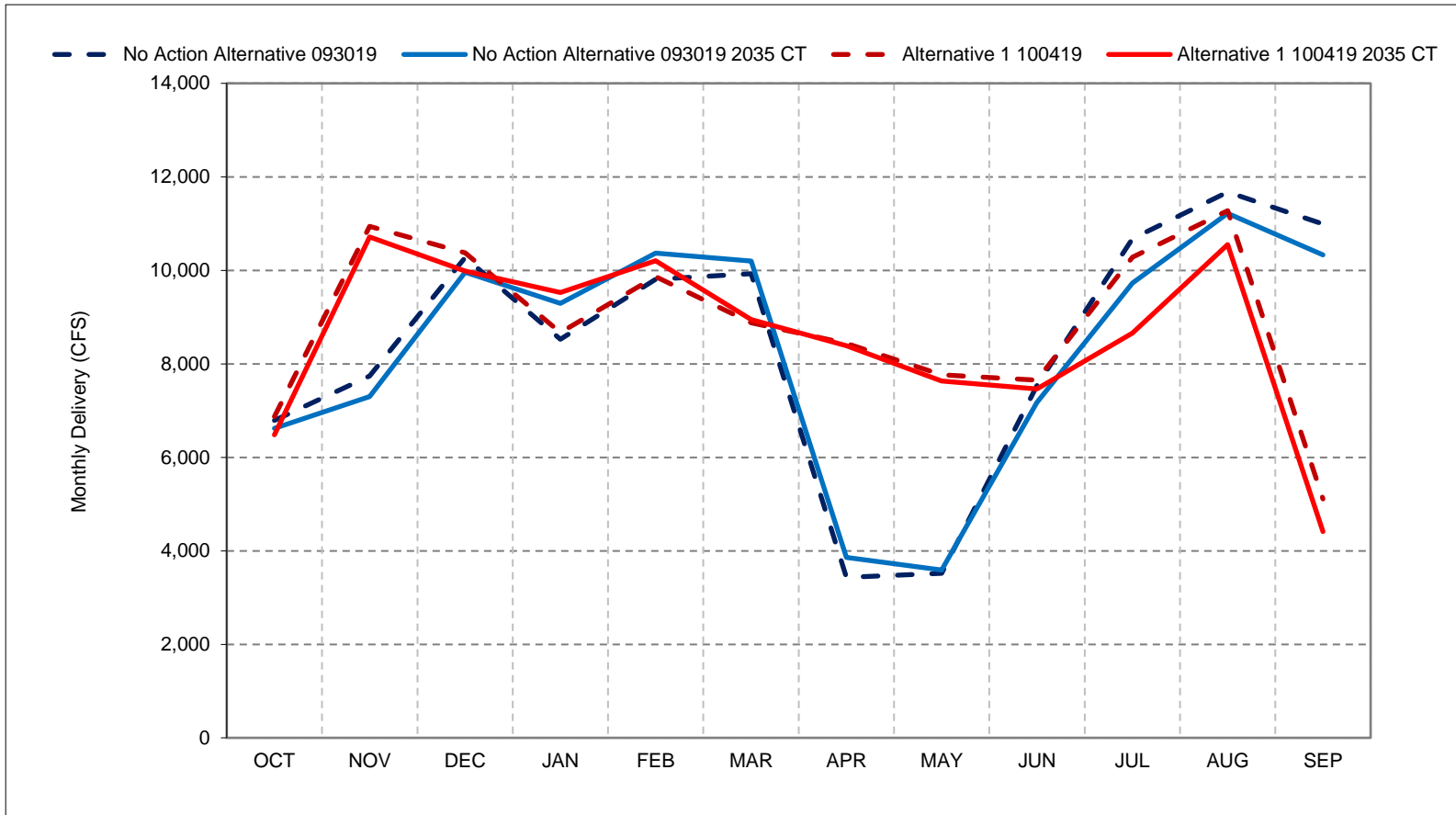
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-2. Total Delta Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

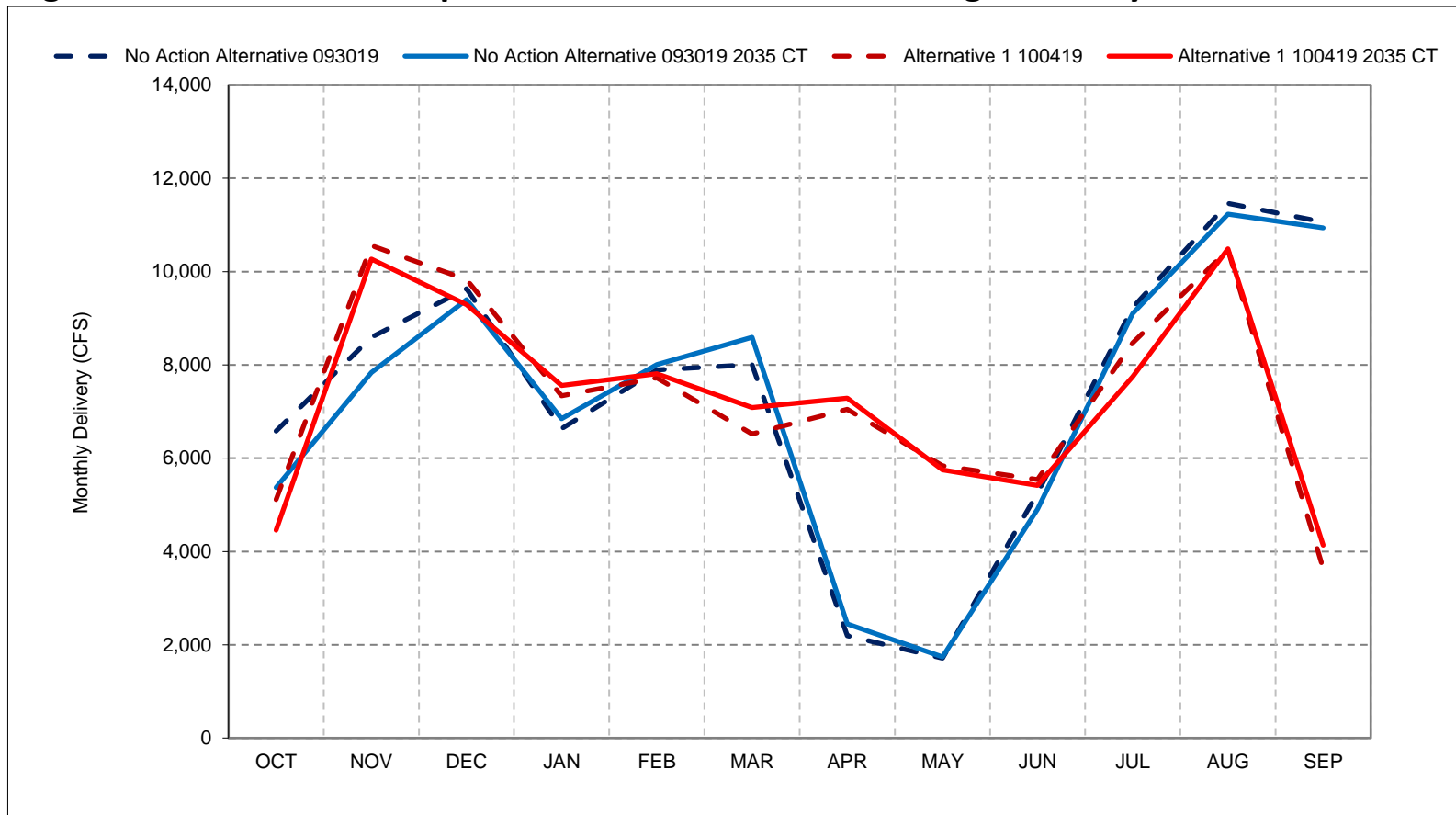
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-3. Total Delta Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

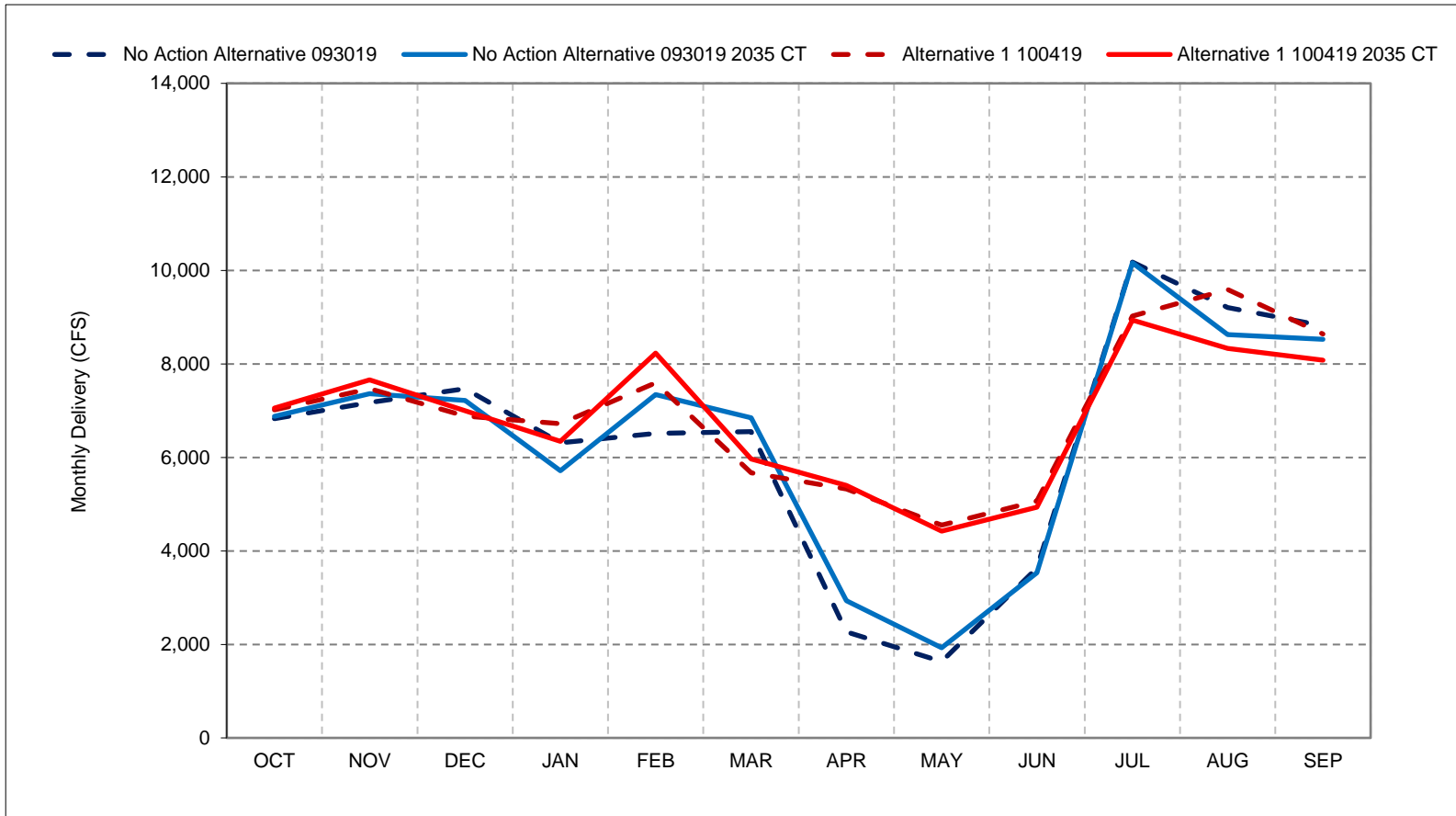
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-4. Total Delta Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

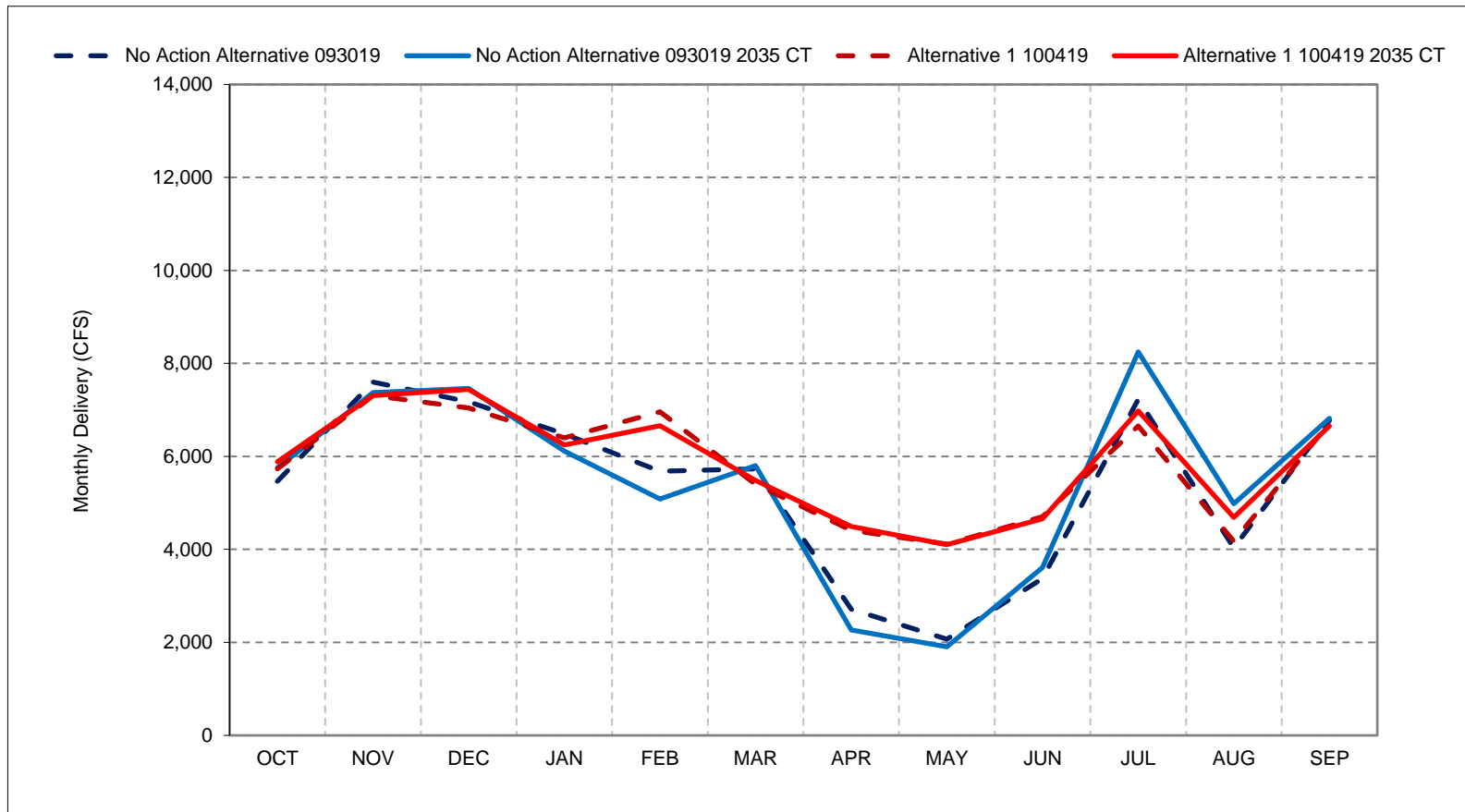
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-5. Total Delta Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

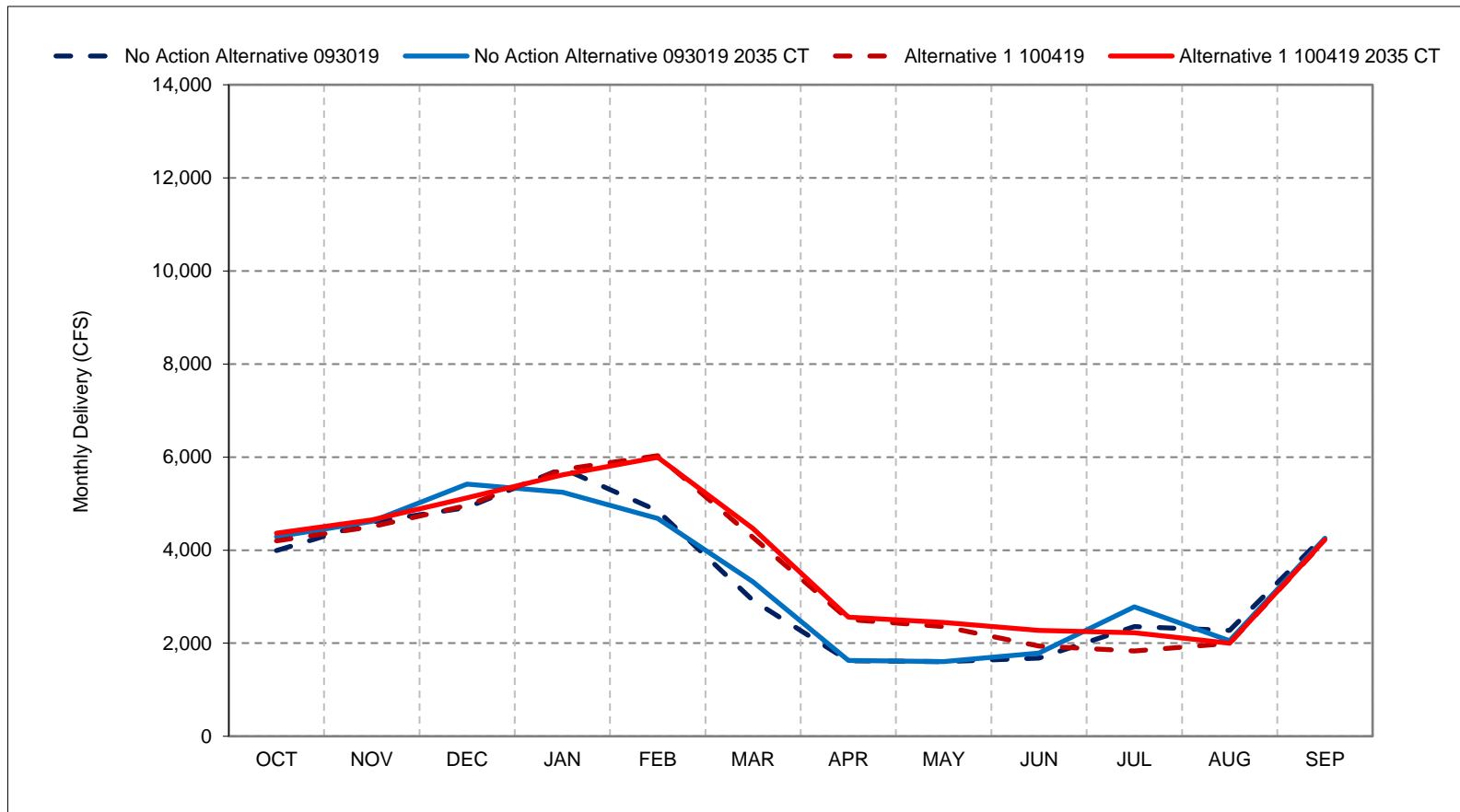
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-6. Total Delta Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

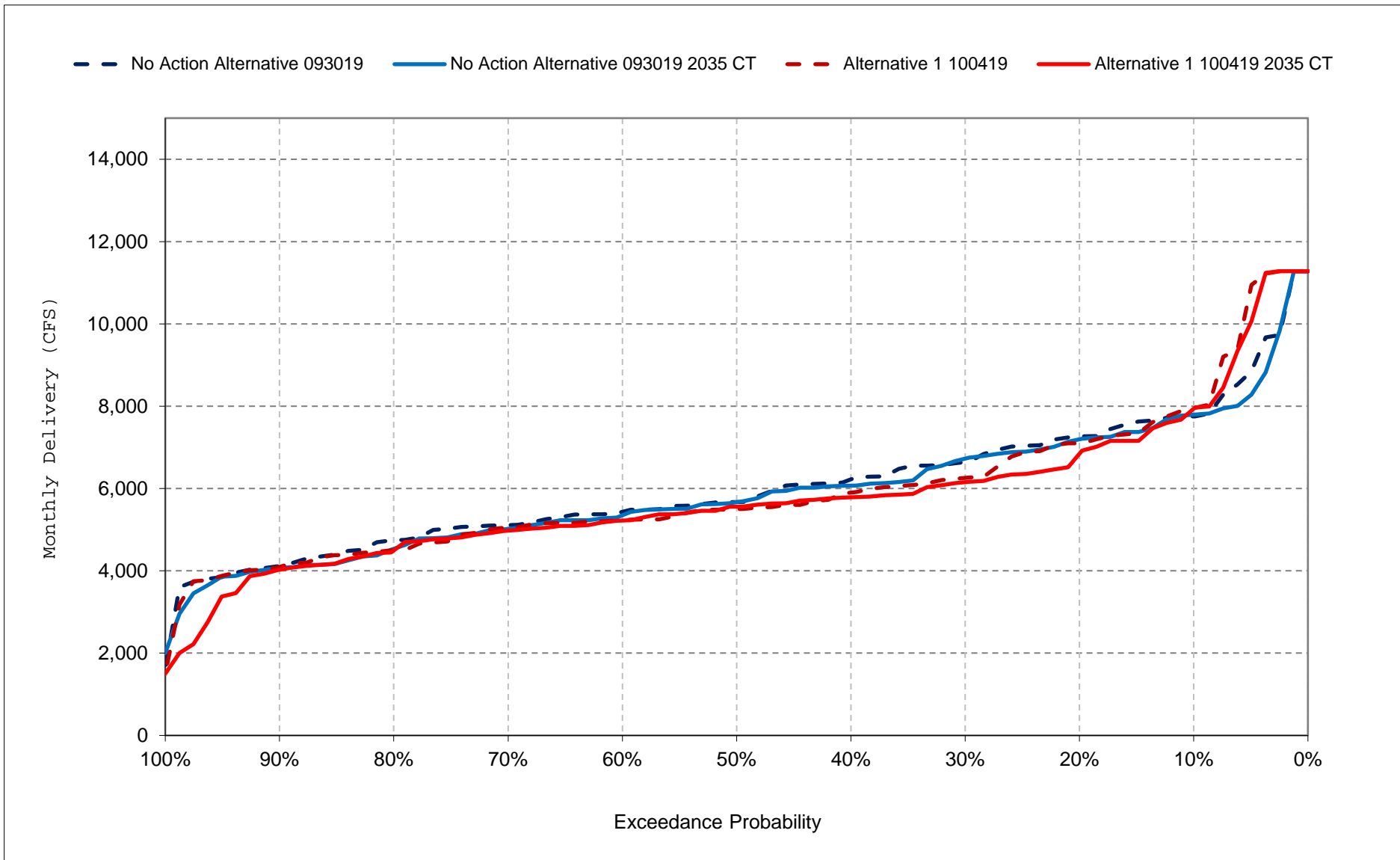
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

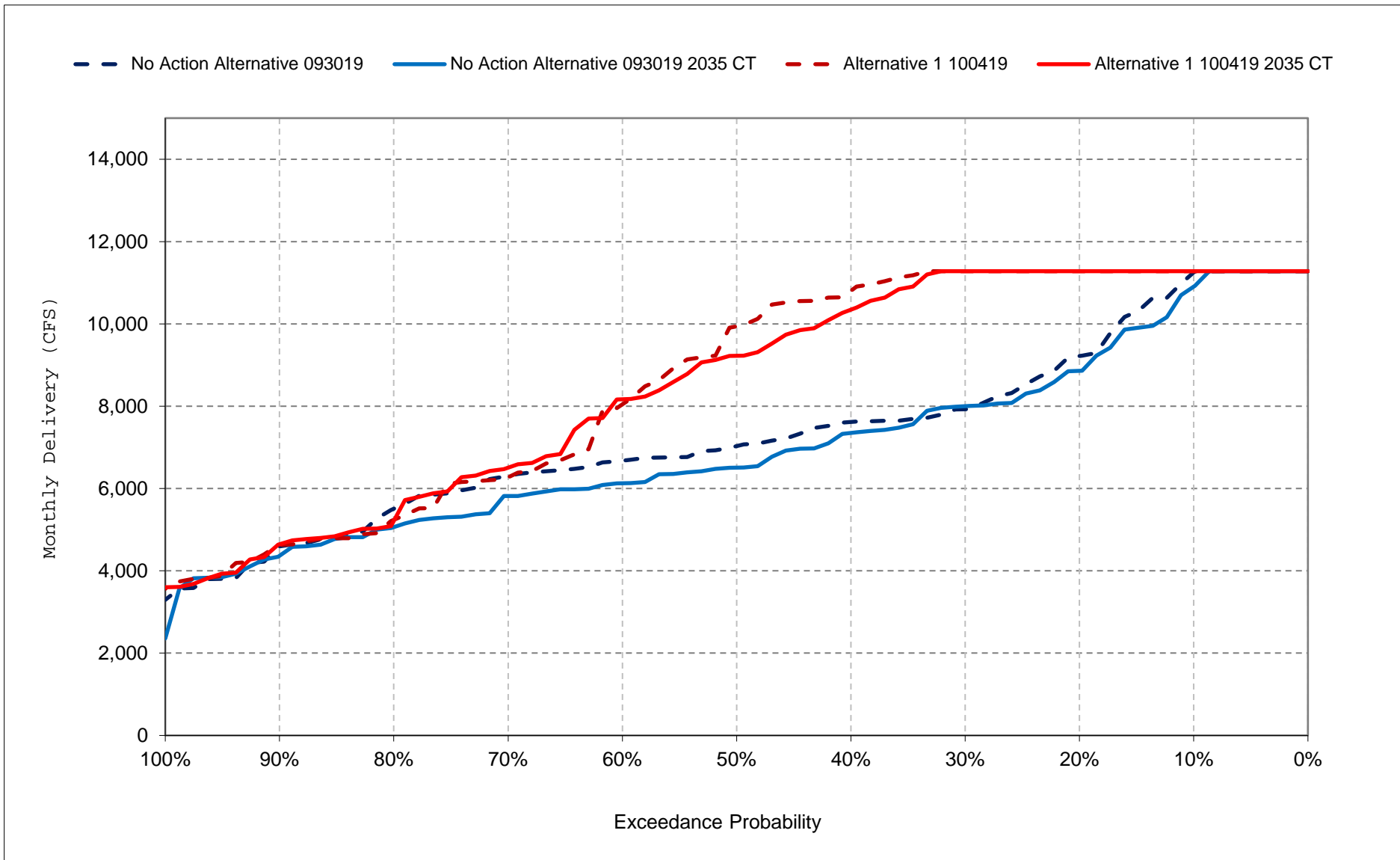
Figure 53-7. Total Delta Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

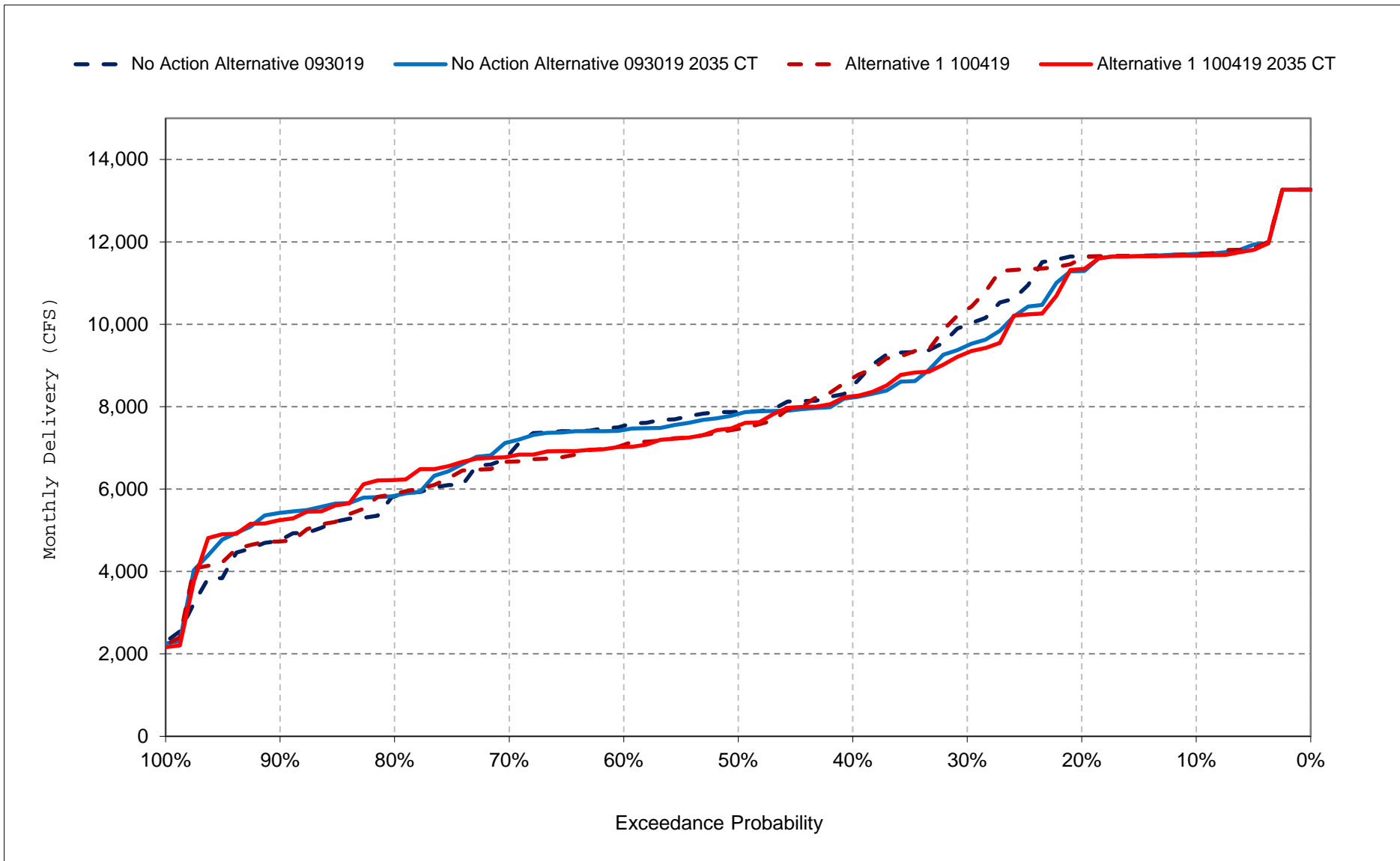
Figure 53-8. Total Delta Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

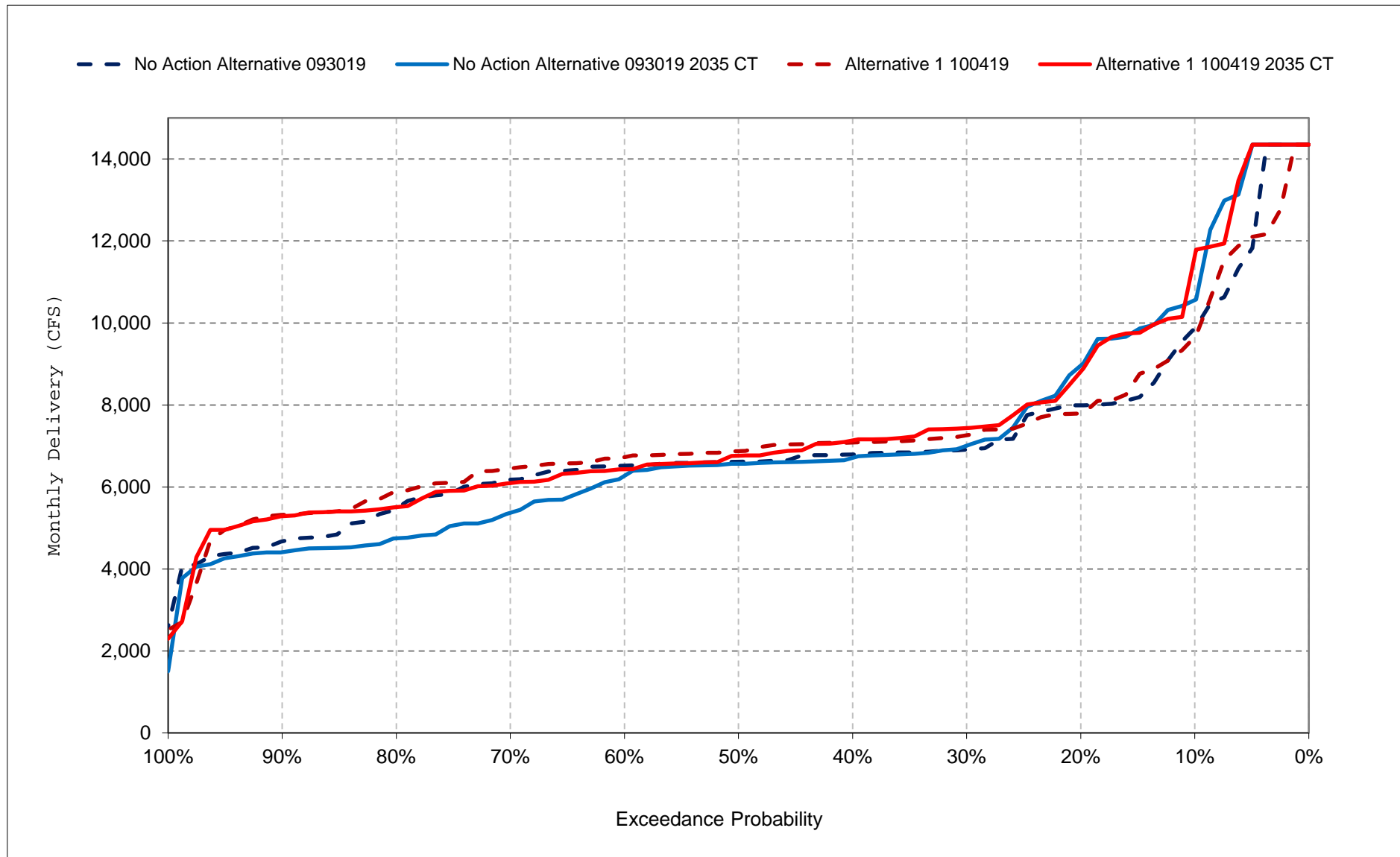
Figure 53-9. Total Delta Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

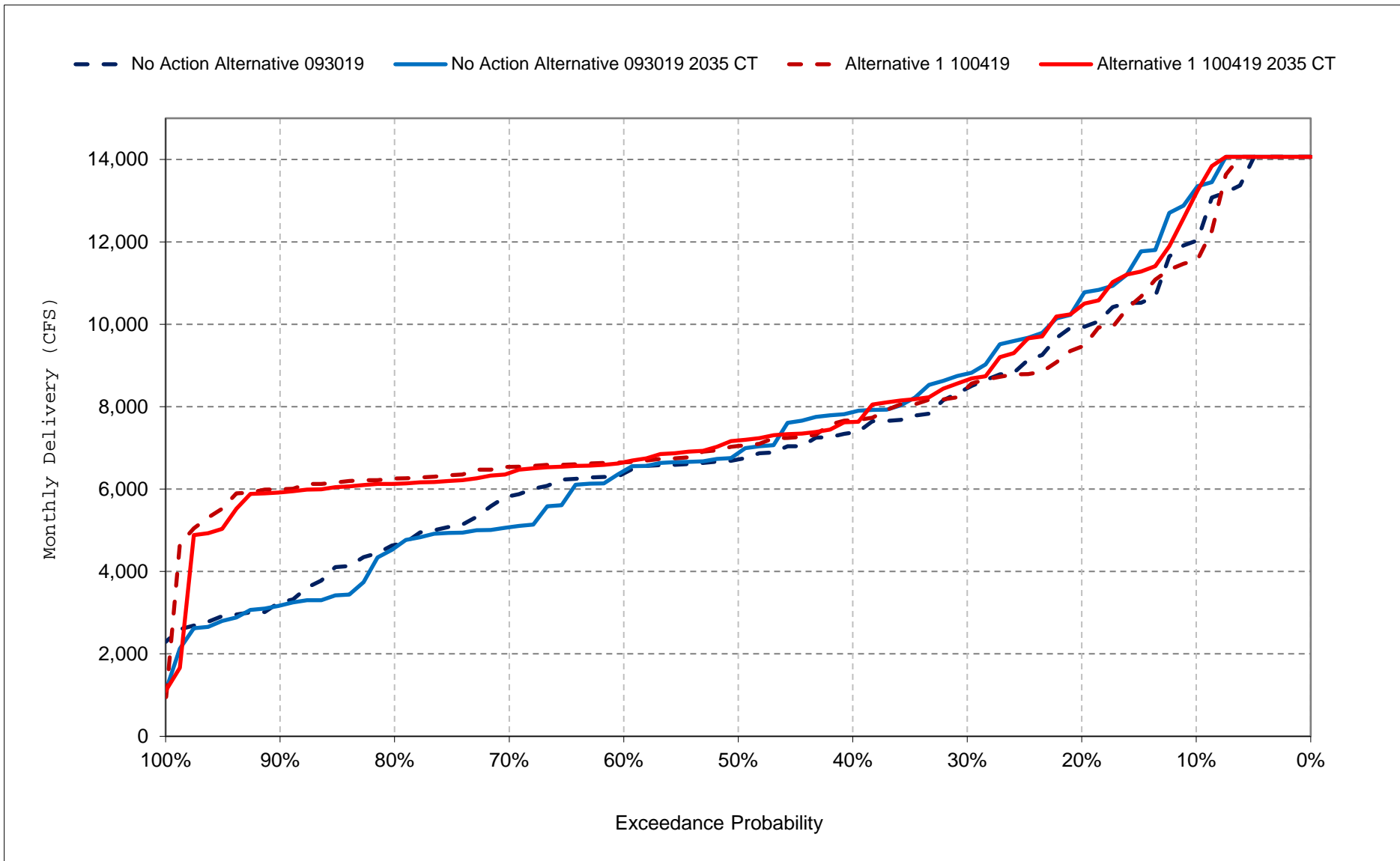
Figure 53-10. Total Delta Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

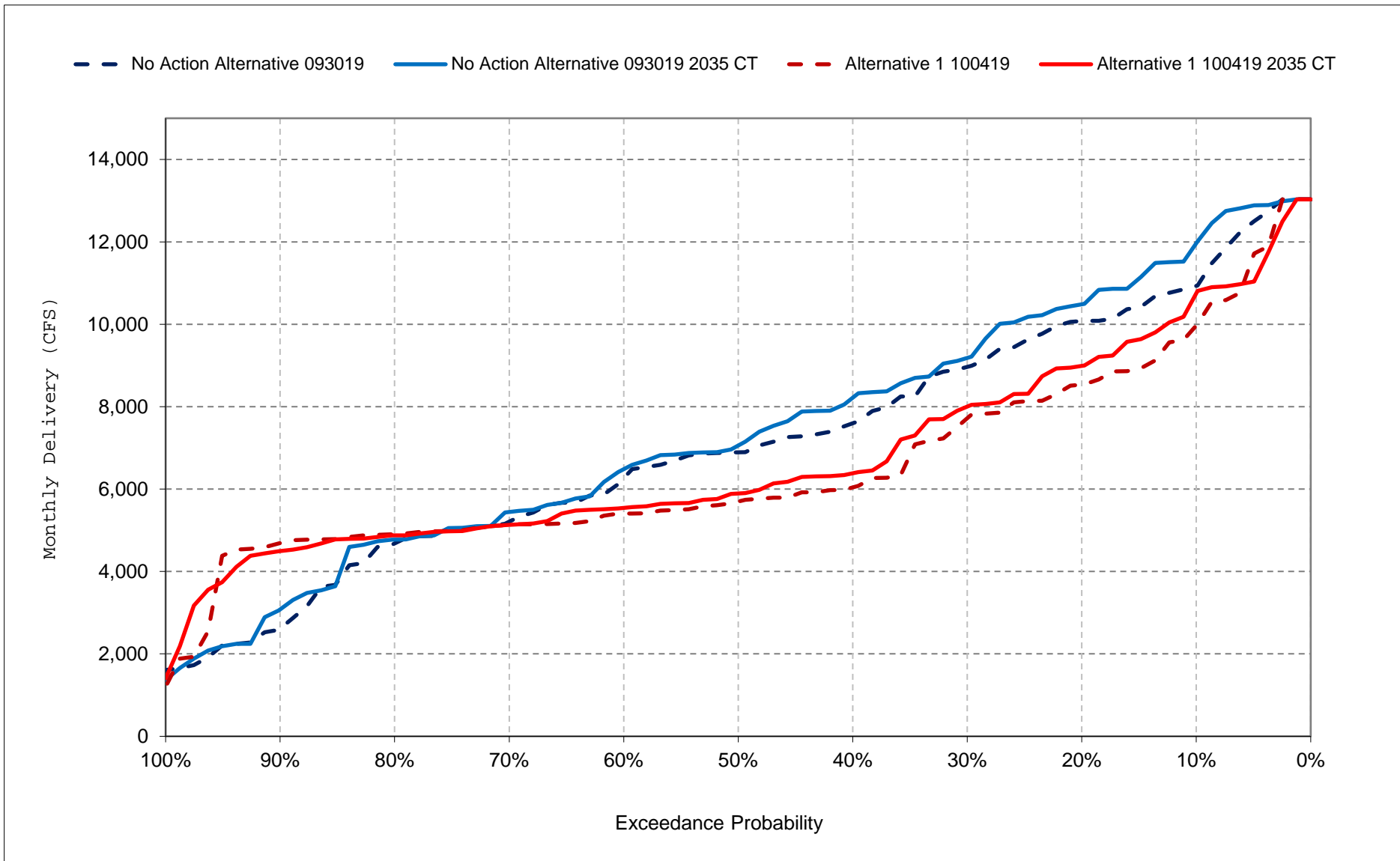
Figure 53-11. Total Delta Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

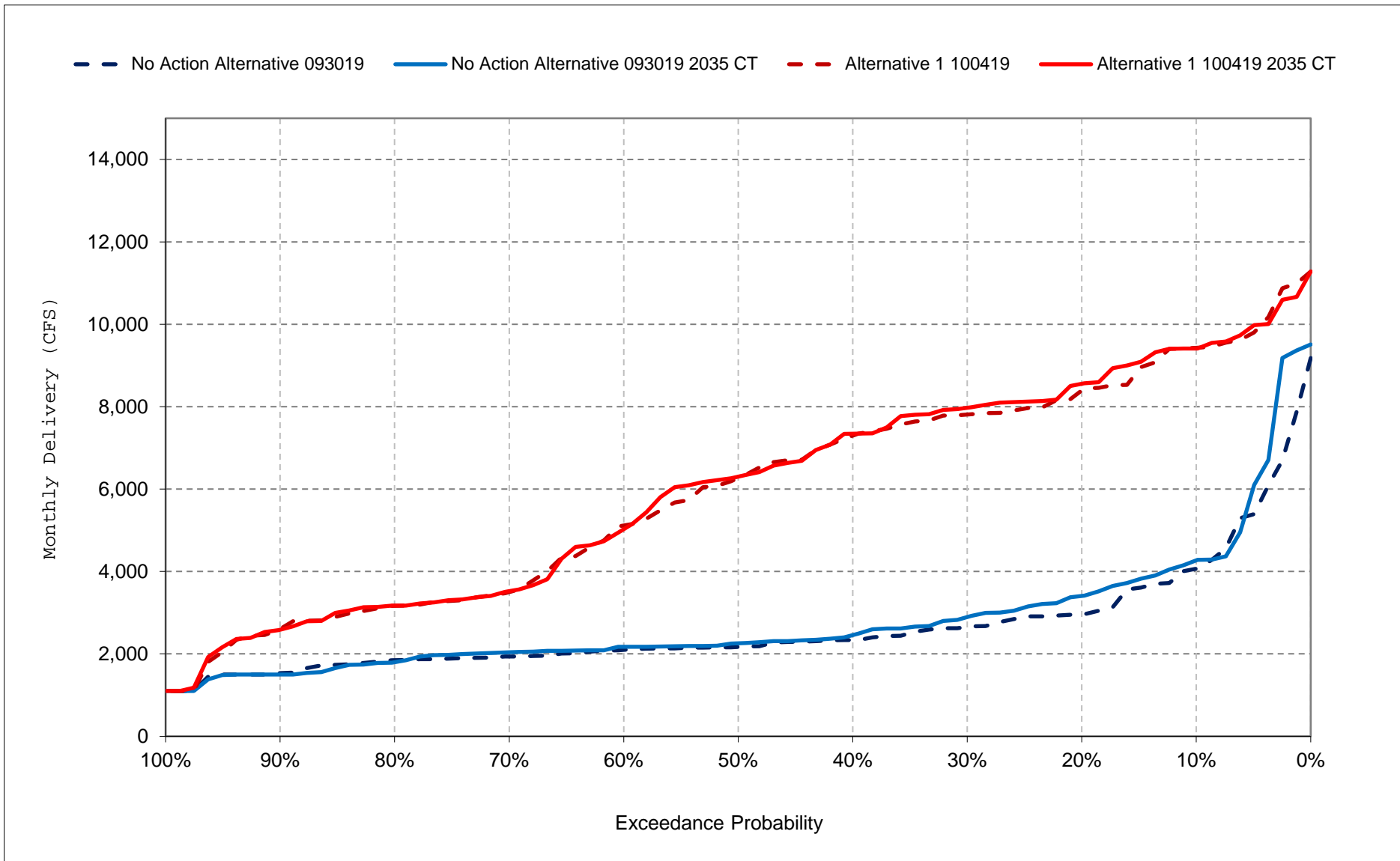
Figure 53-12. Total Delta Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

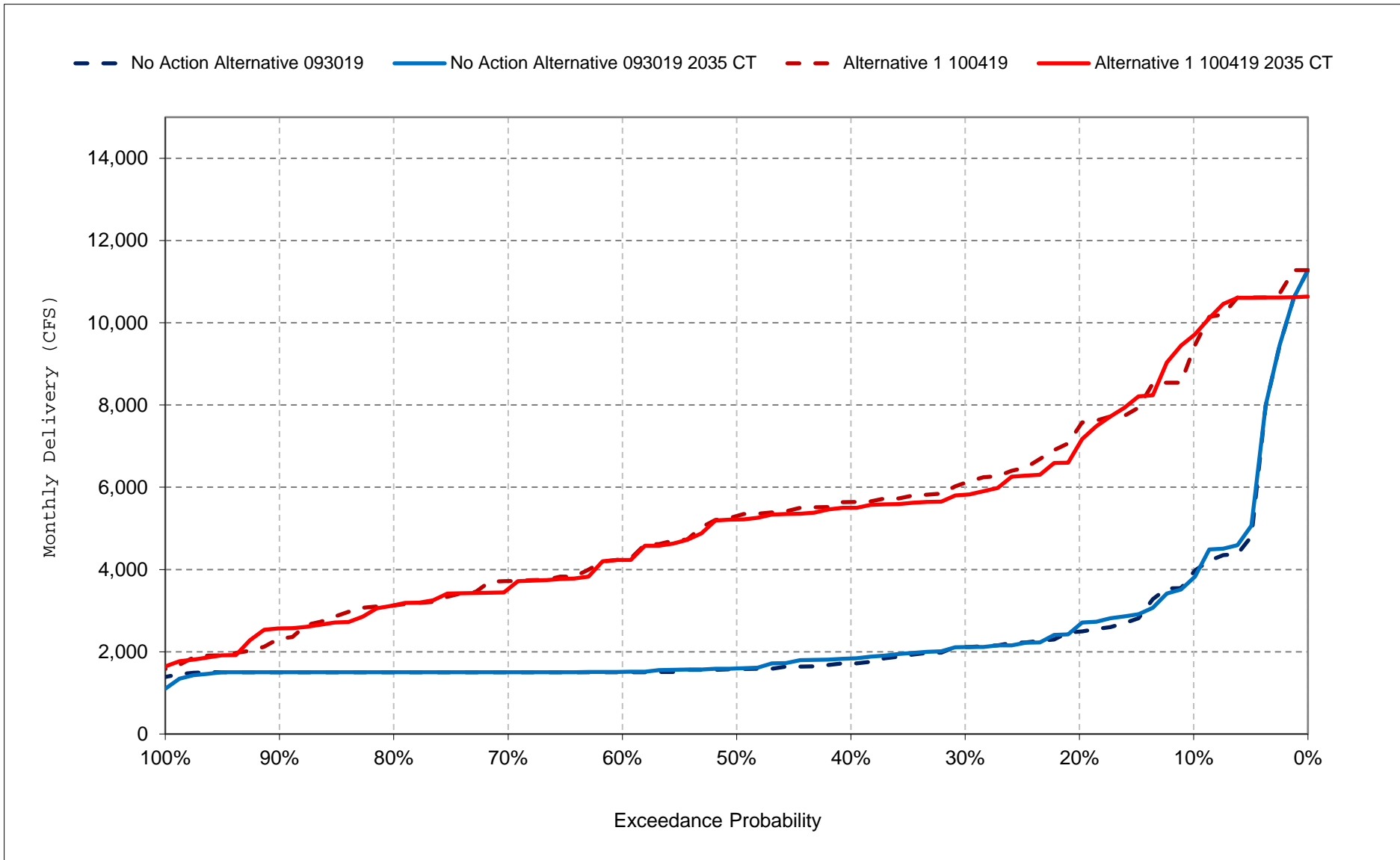
Figure 53-13. Total Delta Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

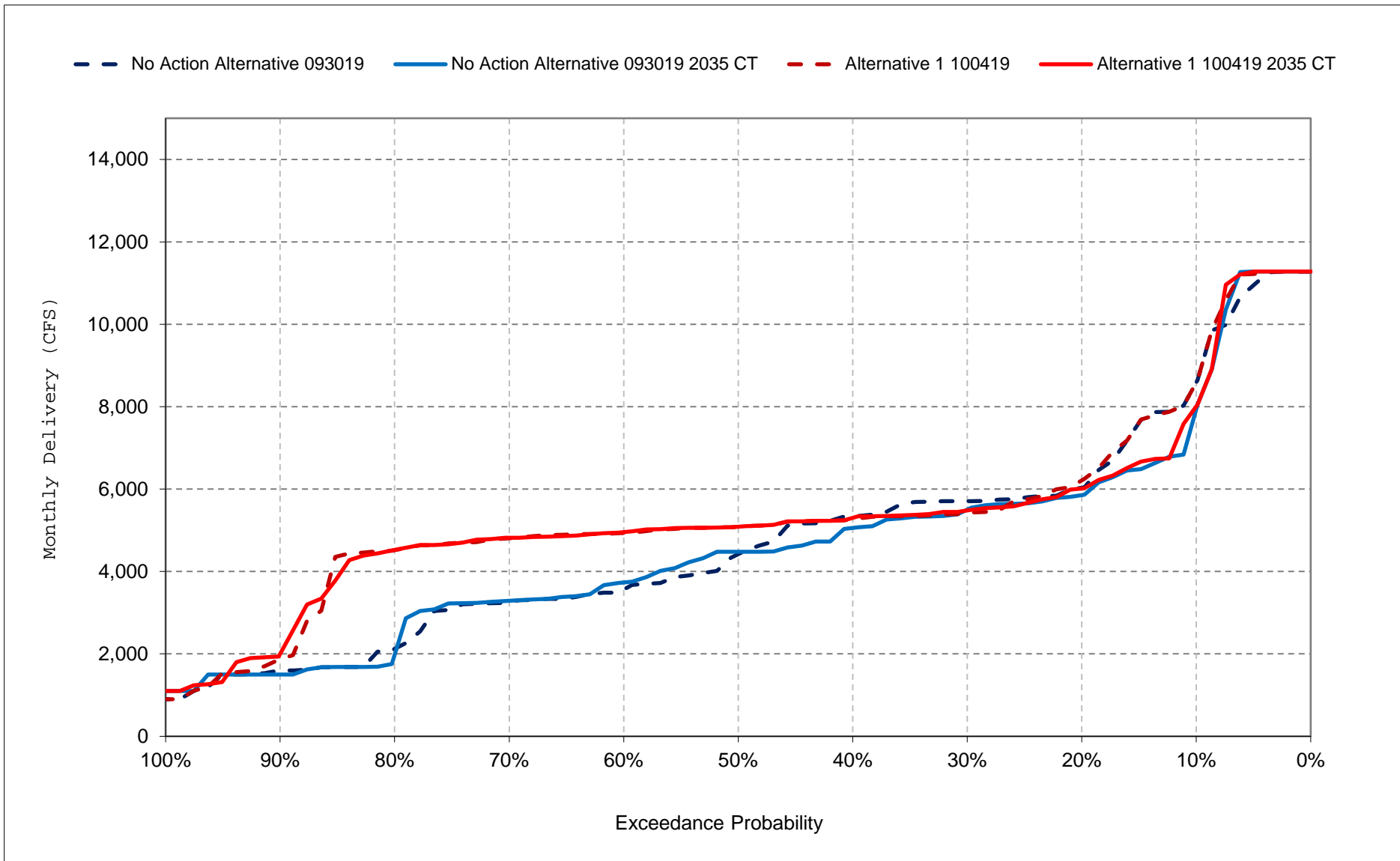
Figure 53-14. Total Delta Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

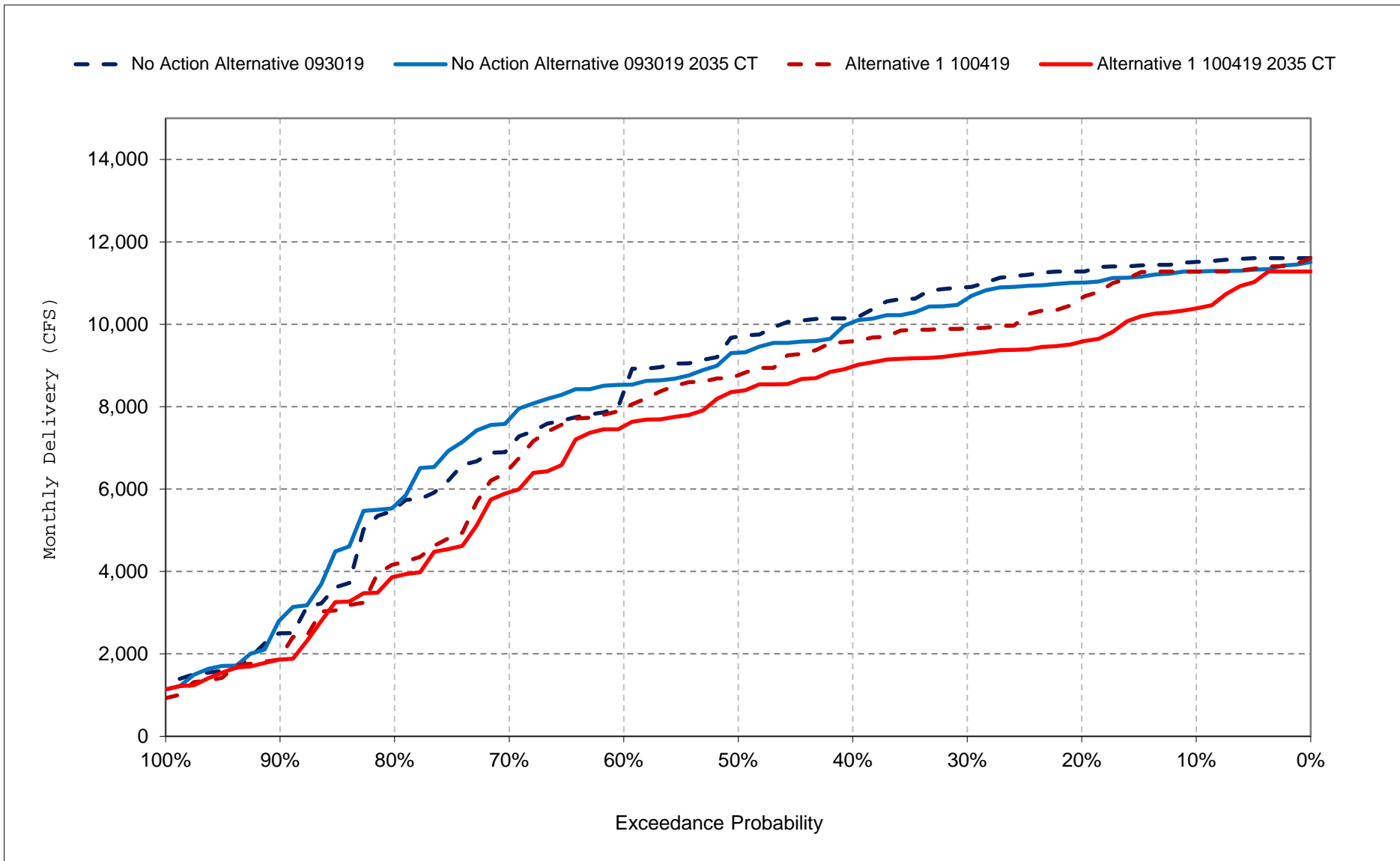
Figure 53-15. Total Delta Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

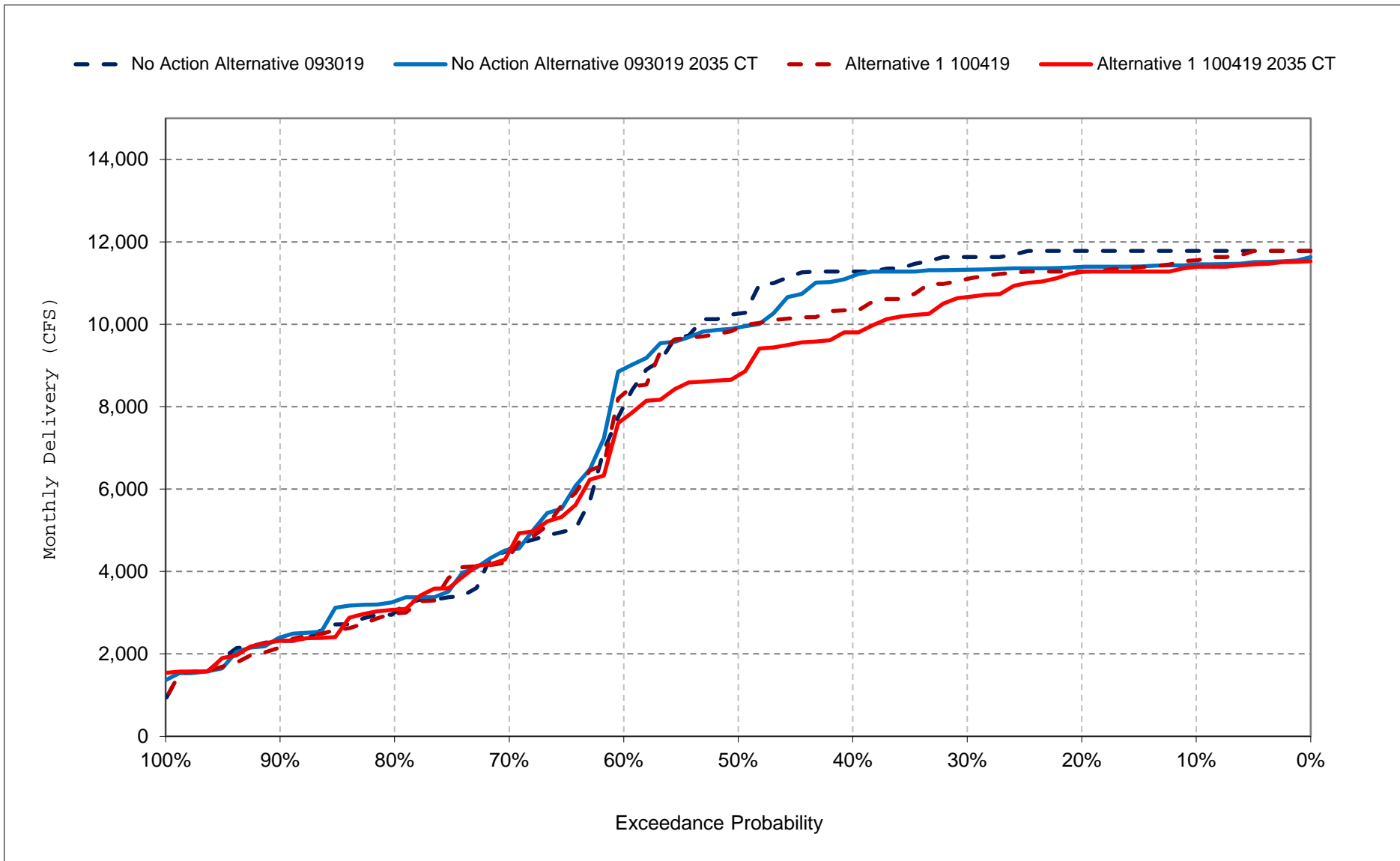
Figure 53-16. Total Delta Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

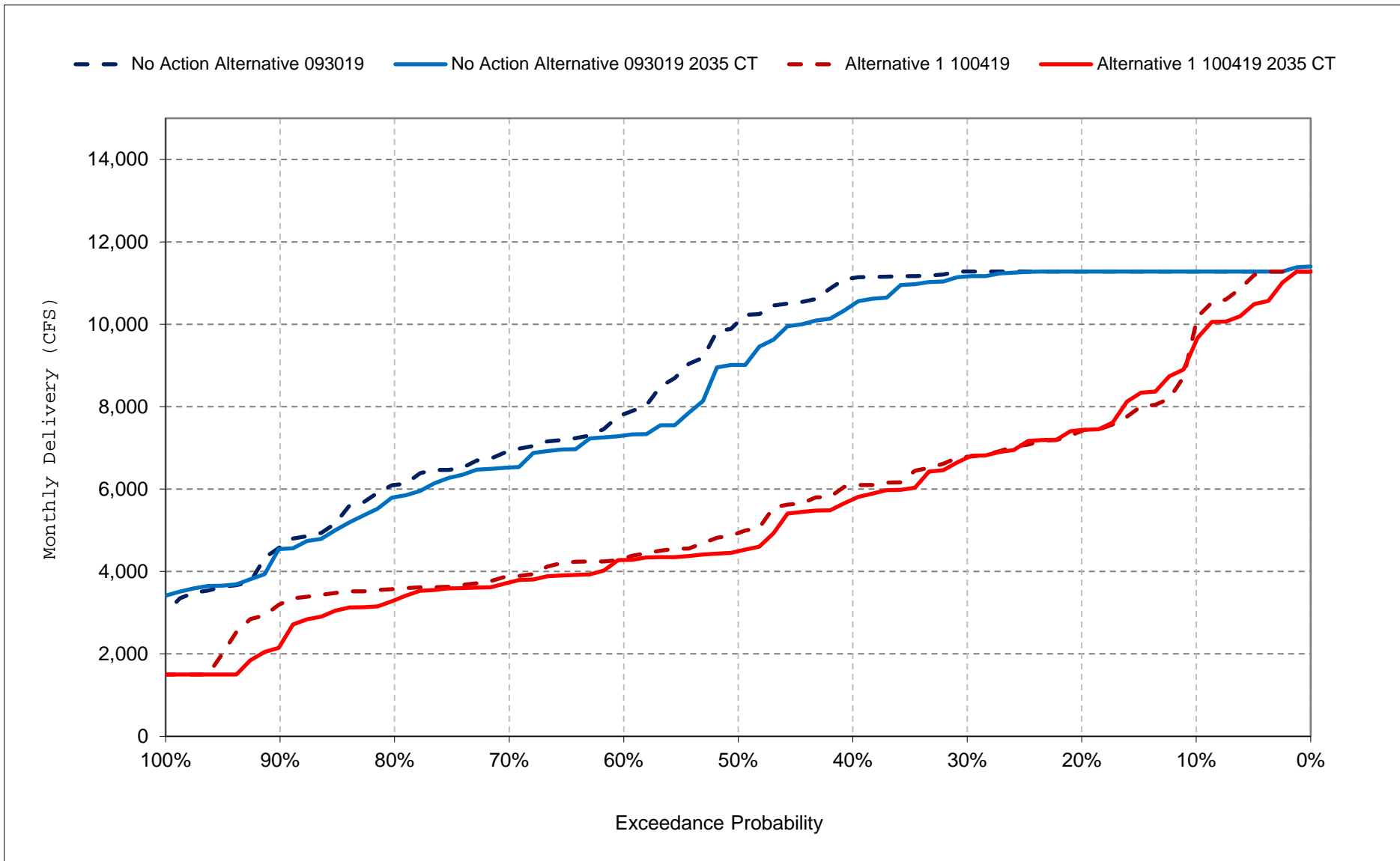
Figure 53-17. Total Delta Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 53-18. Total Delta Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-1. Jones PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	2,442	2,361	4,600	4,600	4,600	4,600
20%	4,265	4,600	4,600	4,600	4,600	4,470	1,831	1,493	3,976	4,600	4,600	4,600
30%	3,553	4,405	4,600	4,134	4,600	4,212	1,572	1,291	3,709	4,524	4,600	4,600
40%	3,409	3,953	4,600	4,077	4,299	4,002	1,401	1,176	3,336	4,171	4,591	4,600
50%	3,309	3,522	4,442	3,965	3,974	3,421	1,301	1,047	2,557	3,826	4,138	4,490
60%	3,005	3,039	3,917	3,859	3,742	3,095	1,241	962	2,206	3,150	3,727	4,230
70%	2,898	2,562	3,398	3,556	3,193	2,666	1,129	900	2,087	2,187	2,931	3,770
80%	2,641	2,134	2,716	3,070	2,620	2,220	973	900	1,427	1,796	2,381	3,281
90%	2,225	1,770	1,466	2,694	1,807	1,551	805	900	900	1,191	1,726	2,922
Long Term												
Full Simulation Period ^d	3,272	3,348	3,690	3,787	3,617	3,319	1,469	1,357	2,760	3,262	3,604	4,018
Water Year Types ^{b,c}												
Wet (32%)	3,725	3,770	4,333	4,012	4,186	3,716	1,822	1,834	4,028	4,153	4,573	4,432
Above Normal (16%)	3,293	3,714	4,468	3,656	3,917	3,958	1,316	1,039	3,462	2,855	4,459	4,509
Below Normal (13%)	3,236	3,088	3,327	3,748	3,604	3,655	1,239	1,001	2,290	3,814	3,560	4,193
Dry (24%)	3,120	3,285	3,424	3,890	3,198	3,234	1,559	1,269	1,892	3,018	2,871	3,762
Critical (15%)	2,556	2,377	2,228	3,304	2,767	1,600	932	1,138	1,127	1,674	1,844	2,855

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	4,436	4,081	4,600	4,583	4,600	4,600
20%	3,752	4,600	4,600	4,586	4,600	4,581	3,913	3,881	3,904	3,964	4,600	4,557
30%	3,475	4,600	4,600	4,277	4,600	3,579	3,481	3,377	3,474	3,098	4,250	4,160
40%	3,257	4,600	4,396	4,216	4,279	3,301	3,253	3,217	3,205	2,893	3,823	3,620
50%	3,092	4,091	4,234	4,062	4,045	3,171	2,753	2,857	3,104	2,409	3,314	3,185
60%	2,980	3,327	4,015	3,938	3,943	3,009	2,354	2,568	2,885	2,003	3,029	3,018
70%	2,802	2,888	3,349	3,659	3,759	2,860	2,062	2,177	2,423	1,658	2,622	2,721
80%	2,491	2,499	2,780	3,206	3,597	2,580	1,487	1,887	2,006	1,181	2,294	2,170
90%	2,051	2,186	1,604	2,378	2,805	1,914	800	1,627	1,166	800	1,744	1,705
Long Term												
Full Simulation Period ^d	3,138	3,620	3,683	3,781	3,908	3,219	2,744	2,861	2,957	2,541	3,304	3,237
Water Year Types ^{b,c}												
Wet (32%)	3,656	4,496	4,355	3,971	3,915	3,630	3,632	3,741	4,021	3,903	4,315	3,298
Above Normal (16%)	2,550	4,349	4,394	3,980	3,976	3,399	3,649	3,341	3,455	2,145	3,657	2,087
Below Normal (13%)	3,274	3,000	3,200	3,700	4,057	3,215	2,266	2,647	3,005	2,400	3,187	3,943
Dry (24%)	3,135	3,084	3,454	3,764	4,022	3,046	2,218	2,278	2,252	1,996	2,825	3,781
Critical (15%)	2,535	2,390	2,280	3,256	3,490	2,424	1,158	1,604	1,241	1,060	1,637	2,796

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	1,995	1,721	0	-17	0	0
20%	-513	0	0	-14	0	111	2,082	2,388	-72	-636	0	-43
30%	-78	195	0	143	0	-634	1,909	2,086	-235	-1,426	-350	-440
40%	-152	647	-204	139	-20	-701	1,852	2,041	-131	-1,278	-768	-980
50%	-217	569	-208	97	70	-250	1,453	1,810	548	-1,417	-824	-1,306
60%	-25	288	98	80	201	-86	1,112	1,607	679	-1,147	-698	-1,212
70%	-95	326	-50	103	566	195	934	1,277	337	-529	-309	-1,049
80%	-150	366	64	136	978	360	513	987	579	-615	-87	-1,110
90%	-174	415	139	-317	997	363	-5	727	266	-391	18	-1,217
Long Term												
Full Simulation Period ^d	-134	272	-7	-6	291	-100	1,275	1,505	197	-721	-300	-781
Water Year Types ^{b,c}												
Wet (32%)	-69	726	22	-41	-271	-86	1,810	1,907	-7	-250	-258	-1,134
Above Normal (16%)	-743	636	-74	325	59	-559	2,333	2,302	-6	-710	-802	-2,422
Below Normal (13%)	37	-88	-128	-48	454	-441	1,027	1,646	715	-1,414	-373	-250
Dry (24%)	15	-201	31	-126	824	-188	658	1,009	360	-1,023	-46	19
Critical (15%)	-21	12	52	-48	722	824	226	466	113	-614	-207	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

Table 54-2. Jones PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,599	4,600	4,600	4,600	4,600	4,600	2,564	2,278	4,597	4,600	4,600	4,600
20%	4,236	4,364	4,600	4,600	4,600	4,600	1,937	1,632	3,900	4,595	4,600	4,600
30%	3,689	4,116	4,600	4,126	4,600	4,331	1,602	1,293	3,616	4,311	4,600	4,600
40%	3,482	3,856	4,600	3,979	4,469	4,078	1,434	1,164	3,279	3,973	4,480	4,575
50%	3,325	3,325	4,359	3,918	4,010	3,763	1,334	1,090	2,898	3,378	3,934	4,365
60%	3,196	2,988	4,112	3,484	3,520	3,167	1,247	975	2,397	2,877	3,110	3,877
70%	3,070	2,568	3,320	3,064	3,016	2,810	1,183	915	2,126	2,507	2,901	3,633
80%	2,920	2,278	2,822	2,820	2,389	2,140	1,041	900	1,484	1,773	2,389	3,307
90%	2,610	1,804	1,982	2,643	1,870	1,488	800	900	992	1,159	1,893	2,998
Long Term												
Full Simulation Period ^d	3,391	3,244	3,730	3,651	3,595	3,365	1,494	1,376	2,793	3,162	3,525	3,987
Water Year Types ^{b,c}												
Wet (32%)	3,582	3,466	4,214	4,112	4,289	3,715	1,889	1,885	3,952	3,572	4,527	4,473
Above Normal (16%)	3,257	3,245	4,404	3,603	3,966	3,949	1,466	1,050	3,274	2,714	4,373	4,465
Below Normal (13%)	3,371	3,464	3,355	3,293	3,877	3,786	1,466	1,202	2,283	3,916	3,392	4,067
Dry (24%)	3,373	3,279	3,607	3,590	2,771	3,223	1,312	1,161	2,249	3,408	2,876	3,749
Critical (15%)	3,167	2,500	2,498	3,133	2,806	1,828	999	1,146	1,138	1,660	1,641	2,736

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,303	4,600	4,600	4,600	4,600	4,600	4,419	3,935	4,577	4,069	4,600	4,448
20%	3,744	4,600	4,600	4,600	4,600	4,537	3,913	3,616	3,623	3,451	4,600	3,938
30%	3,409	4,600	4,600	4,445	4,600	3,829	3,346	3,337	3,380	3,062	4,202	3,695
40%	3,206	4,600	4,429	4,191	4,395	3,514	3,032	3,116	3,246	2,708	3,613	3,365
50%	3,077	3,871	4,219	3,981	4,086	3,296	2,747	2,756	2,900	2,287	3,167	3,102
60%	3,013	3,462	4,058	3,821	3,908	3,040	2,577	2,472	2,526	2,093	2,947	2,925
70%	2,868	3,100	3,646	3,612	3,707	2,875	1,905	2,242	2,350	1,618	2,606	2,709
80%	2,737	2,603	2,909	3,241	3,621	2,607	1,492	1,984	1,843	1,164	2,146	1,798
90%	2,358	2,208	1,708	2,973	3,252	1,990	800	1,621	1,527	800	1,767	1,109
Long Term												
Full Simulation Period ^d	3,181	3,676	3,759	3,849	3,943	3,287	2,703	2,787	2,855	2,412	3,261	2,965
Water Year Types ^{b,c}												
Wet (32%)	3,436	4,486	4,360	4,166	4,180	3,578	3,441	3,554	3,836	3,304	4,256	2,662
Above Normal (16%)	2,476	4,200	4,298	4,022	3,895	3,518	3,574	3,194	3,158	2,045	3,891	2,057
Below Normal (13%)	3,344	3,354	3,203	3,802	4,183	3,344	2,443	2,479	2,714	2,623	2,917	3,806
Dry (24%)	3,303	3,169	3,747	3,726	3,755	3,143	2,205	2,363	2,387	2,161	2,718	3,629
Critical (15%)	3,043	2,494	2,401	3,220	3,575	2,596	1,228	1,676	1,313	1,100	1,641	2,725

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-296	0	0	0	0	0	1,855	1,658	-19	-531	0	-152
20%	-493	236	0	0	0	-63	1,976	1,984	-276	-1,144	0	-662
30%	-280	484	0	319	0	-502	1,744	2,044	-236	-1,248	-398	-905
40%	-276	744	-171	212	-74	-564	1,598	1,952	-33	-1,265	-867	-1,210
50%	-248	547	-140	63	75	-467	1,413	1,666	2	-1,091	-768	-1,264
60%	-184	474	-54	336	388	-127	1,330	1,497	129	-784	-163	-952
70%	-202	532	326	548	692	65	722	1,327	224	-888	-294	-924
80%	-183	325	87	421	1,231	468	451	1,084	359	-609	-243	-1,509
90%	-252	405	-275	329	1,382	502	0	721	535	-359	-126	-1,889
Long Term												
Full Simulation Period ^d	-209	432	29	198	347	-78	1,209	1,411	62	-751	-265	-1,022
Water Year Types ^{b,c}												
Wet (32%)	-147	1,020	146	54	-110	-137	1,552	1,668	-115	-268	-271	-1,810
Above Normal (16%)	-781	955	-106	419	-71	-430	2,107	2,144	-116	-669	-482	-2,408
Below Normal (13%)	-27	-110	-153	509	306	-442	977	1,277	430	-1,294	-474	-261
Dry (24%)	-70	-111	140	136	984	-81	893	1,201	137	-1,246	-158	-120
Critical (15%)	-124	-5	-96	86	770	767	229	530	175	-560	0	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-3. Jones PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	2,442	2,361	4,600	4,600	4,600	4,600
20%	4,265	4,600	4,600	4,600	4,600	4,470	1,831	1,493	3,976	4,600	4,600	4,600
30%	3,553	4,405	4,600	4,134	4,600	4,212	1,572	1,291	3,709	4,524	4,600	4,600
40%	3,409	3,953	4,600	4,077	4,299	4,002	1,401	1,176	3,336	4,171	4,591	4,600
50%	3,309	3,522	4,442	3,965	3,974	3,421	1,301	1,047	2,557	3,826	4,138	4,490
60%	3,005	3,039	3,917	3,859	3,742	3,095	1,241	962	2,206	3,150	3,727	4,230
70%	2,898	2,562	3,398	3,556	3,193	2,666	1,129	900	2,087	2,187	2,931	3,770
80%	2,641	2,134	2,716	3,070	2,620	2,220	973	900	1,427	1,796	2,381	3,281
90%	2,225	1,770	1,466	2,694	1,807	1,551	805	900	900	1,191	1,726	2,922
Long Term												
Full Simulation Period ^d	3,272	3,348	3,690	3,787	3,617	3,319	1,469	1,357	2,760	3,262	3,604	4,018
Water Year Types^{b,c}												
Wet (32%)	3,725	3,770	4,333	4,012	4,186	3,716	1,822	1,834	4,028	4,153	4,573	4,432
Above Normal (16%)	3,293	3,714	4,468	3,656	3,917	3,958	1,316	1,039	3,462	2,855	4,459	4,509
Below Normal (13%)	3,236	3,088	3,327	3,748	3,604	3,655	1,239	1,001	2,290	3,814	3,560	4,193
Dry (24%)	3,120	3,285	3,424	3,890	3,198	3,234	1,559	1,269	1,892	3,018	2,871	3,762
Critical (15%)	2,556	2,377	2,228	3,304	2,767	1,600	932	1,138	1,127	1,674	1,844	2,855

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,599	4,600	4,600	4,600	4,600	4,600	2,564	2,278	4,597	4,600	4,600	4,600
20%	4,236	4,364	4,600	4,600	4,600	4,600	1,937	1,632	3,900	4,595	4,600	4,600
30%	3,689	4,116	4,600	4,126	4,600	4,331	1,602	1,293	3,616	4,311	4,600	4,600
40%	3,482	3,856	4,600	3,979	4,469	4,078	1,434	1,164	3,279	3,973	4,480	4,575
50%	3,325	3,325	4,359	3,918	4,010	3,763	1,334	1,090	2,898	3,378	3,934	4,365
60%	3,196	2,988	4,112	3,484	3,520	3,167	1,247	975	2,397	2,877	3,110	3,877
70%	3,070	2,568	3,320	3,064	3,016	2,810	1,183	915	2,126	2,507	2,901	3,633
80%	2,920	2,278	2,822	2,820	2,389	2,140	1,041	900	1,484	1,773	2,389	3,307
90%	2,610	1,804	1,982	2,643	1,870	1,488	800	900	992	1,159	1,893	2,998
Long Term												
Full Simulation Period ^d	3,391	3,244	3,730	3,651	3,595	3,365	1,494	1,376	2,793	3,162	3,525	3,987
Water Year Types^{b,c}												
Wet (32%)	3,582	3,466	4,214	4,112	4,289	3,715	1,889	1,885	3,952	3,572	4,527	4,473
Above Normal (16%)	3,257	3,245	4,404	3,603	3,966	3,949	1,466	1,050	3,274	2,714	4,373	4,465
Below Normal (13%)	3,371	3,464	3,355	3,293	3,877	3,786	1,466	1,202	2,283	3,916	3,392	4,067
Dry (24%)	3,373	3,279	3,607	3,590	2,771	3,223	1,312	1,161	2,249	3,408	2,876	3,749
Critical (15%)	3,167	2,500	2,498	3,133	2,806	1,828	999	1,146	1,138	1,660	1,641	2,736

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	0	0	0	0	0	122	-83	-3	0	0	0
20%	-29	-236	0	0	0	130	106	139	-77	-5	0	0
30%	136	-289	0	-8	0	119	30	2	-93	-214	0	0
40%	73	-97	0	-98	170	76	33	-12	-58	-198	-112	-25
50%	16	-197	-84	-47	36	342	33	42	341	-449	-203	-125
60%	191	-51	195	-374	-222	72	6	13	191	-274	-617	-353
70%	172	7	-78	-492	-178	144	54	15	39	320	-31	-137
80%	280	145	106	-250	-230	-80	68	0	57	-23	8	26
90%	385	33	516	-51	63	-63	-5	0	92	-32	167	76
Long Term												
Full Simulation Period ^d	118	-104	40	-136	-21	46	25	20	34	-100	-79	-32
Water Year Types^{b,c}												
Wet (32%)	-142	-305	-119	100	103	-1	67	51	-77	-581	-45	40
Above Normal (16%)	-36	-469	-64	-53	50	-10	150	11	-188	-140	-86	-44
Below Normal (13%)	135	377	28	-455	274	131	228	201	-7	102	-168	-126
Dry (24%)	253	-6	183	-300	-427	-11	-248	-107	357	389	5	-13
Critical (15%)	611	122	270	-170	38	229	67	8	11	-14	-203	-119

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-4. Jones PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	4,436	4,081	4,600	4,583	4,600	4,600
20%	3,752	4,600	4,600	4,586	4,600	4,581	3,913	3,881	3,904	3,964	4,600	4,557
30%	3,475	4,600	4,600	4,277	4,600	3,579	3,481	3,377	3,474	3,098	4,250	4,160
40%	3,257	4,600	4,396	4,216	4,279	3,301	3,253	3,217	3,205	2,893	3,823	3,620
50%	3,092	4,091	4,234	4,062	4,045	3,171	2,753	2,857	3,104	2,409	3,314	3,185
60%	2,980	3,327	4,015	3,938	3,943	3,009	2,354	2,568	2,885	2,003	3,029	3,018
70%	2,802	2,888	3,349	3,659	3,759	2,860	2,062	2,177	2,423	1,658	2,622	2,721
80%	2,491	2,499	2,780	3,206	3,597	2,580	1,487	1,887	2,006	1,181	2,294	2,170
90%	2,051	2,186	1,604	2,378	2,805	1,914	800	1,627	1,166	800	1,744	1,705
Long Term												
Full Simulation Period ^d	3,138	3,620	3,683	3,781	3,908	3,219	2,744	2,861	2,957	2,541	3,304	3,237
Water Year Types ^{b,c}												
Wet (32%)	3,656	4,496	4,355	3,971	3,915	3,630	3,632	3,741	4,021	3,903	4,315	3,298
Above Normal (16%)	2,550	4,349	4,394	3,980	3,976	3,399	3,649	3,341	3,455	2,145	3,657	2,087
Below Normal (13%)	3,274	3,000	3,200	3,700	4,057	3,215	2,266	2,647	3,005	2,400	3,187	3,943
Dry (24%)	3,135	3,084	3,454	3,764	4,022	3,046	2,218	2,278	2,252	1,996	2,825	3,781
Critical (15%)	2,535	2,390	2,280	3,256	3,490	2,424	1,158	1,604	1,241	1,060	1,637	2,796

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,303	4,600	4,600	4,600	4,600	4,600	4,419	3,935	4,577	4,069	4,600	4,448
20%	3,744	4,600	4,600	4,600	4,600	4,537	3,913	3,616	3,623	3,451	4,600	3,938
30%	3,409	4,600	4,600	4,445	4,600	3,829	3,346	3,337	3,380	3,062	4,202	3,695
40%	3,206	4,600	4,429	4,191	4,395	3,514	3,032	3,116	3,246	2,708	3,613	3,365
50%	3,077	3,871	4,219	3,981	4,086	3,296	2,747	2,756	2,900	2,287	3,167	3,102
60%	3,013	3,462	4,058	3,821	3,908	3,040	2,577	2,472	2,526	2,093	2,947	2,925
70%	2,868	3,100	3,646	3,612	3,707	2,875	1,905	2,242	2,350	1,618	2,606	2,709
80%	2,737	2,603	2,909	3,241	3,621	2,607	1,492	1,984	1,843	1,164	2,146	1,798
90%	2,358	2,208	1,708	2,973	3,252	1,990	800	1,621	1,527	800	1,767	1,109
Long Term												
Full Simulation Period ^d	3,181	3,676	3,759	3,849	3,943	3,287	2,703	2,787	2,855	2,412	3,261	2,965
Water Year Types ^{b,c}												
Wet (32%)	3,436	4,486	4,360	4,166	4,180	3,578	3,441	3,554	3,836	3,304	4,256	2,662
Above Normal (16%)	2,476	4,200	4,298	4,022	3,895	3,518	3,574	3,194	3,158	2,045	3,891	2,057
Below Normal (13%)	3,344	3,354	3,203	3,802	4,183	3,344	2,443	2,479	2,714	2,623	2,917	3,806
Dry (24%)	3,303	3,169	3,747	3,726	3,755	3,143	2,205	2,363	2,387	2,161	2,718	3,629
Critical (15%)	3,043	2,494	2,401	3,220	3,575	2,596	1,228	1,676	1,313	1,100	1,641	2,725

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-297	0	0	0	0	0	-18	-146	-23	-514	0	-152
20%	-8	0	0	14	0	-44	0	-265	-281	-514	0	-619
30%	-66	0	0	168	0	250	-135	-40	-93	-36	-48	-465
40%	-50	0	32	-25	116	213	-222	-101	40	-184	-210	-256
50%	-15	-219	-15	-81	41	125	-6	-102	-205	-123	-147	-83
60%	33	135	43	-118	-35	31	224	-96	-359	90	-82	-93
70%	66	213	297	-47	-52	14	-157	65	-73	-39	-16	-13
80%	246	104	129	35	23	27	6	98	-163	-17	-149	-372
90%	307	23	103	595	447	76	0	-6	361	0	23	-596
Long Term												
Full Simulation Period ^d	43	56	76	68	35	68	-42	-74	-102	-130	-43	-272
Water Year Types ^{b,c}												
Wet (32%)	-220	-11	5	195	264	-53	-191	-188	-185	-599	-59	-636
Above Normal (16%)	-74	-150	-96	42	-81	119	-76	-147	-298	-100	234	-30
Below Normal (13%)	71	354	3	102	126	130	177	-168	-292	223	-269	-137
Dry (24%)	168	85	292	-37	-267	97	-13	85	134	166	-107	-152
Critical (15%)	507	104	122	-36	86	172	70	72	72	40	4	-71

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

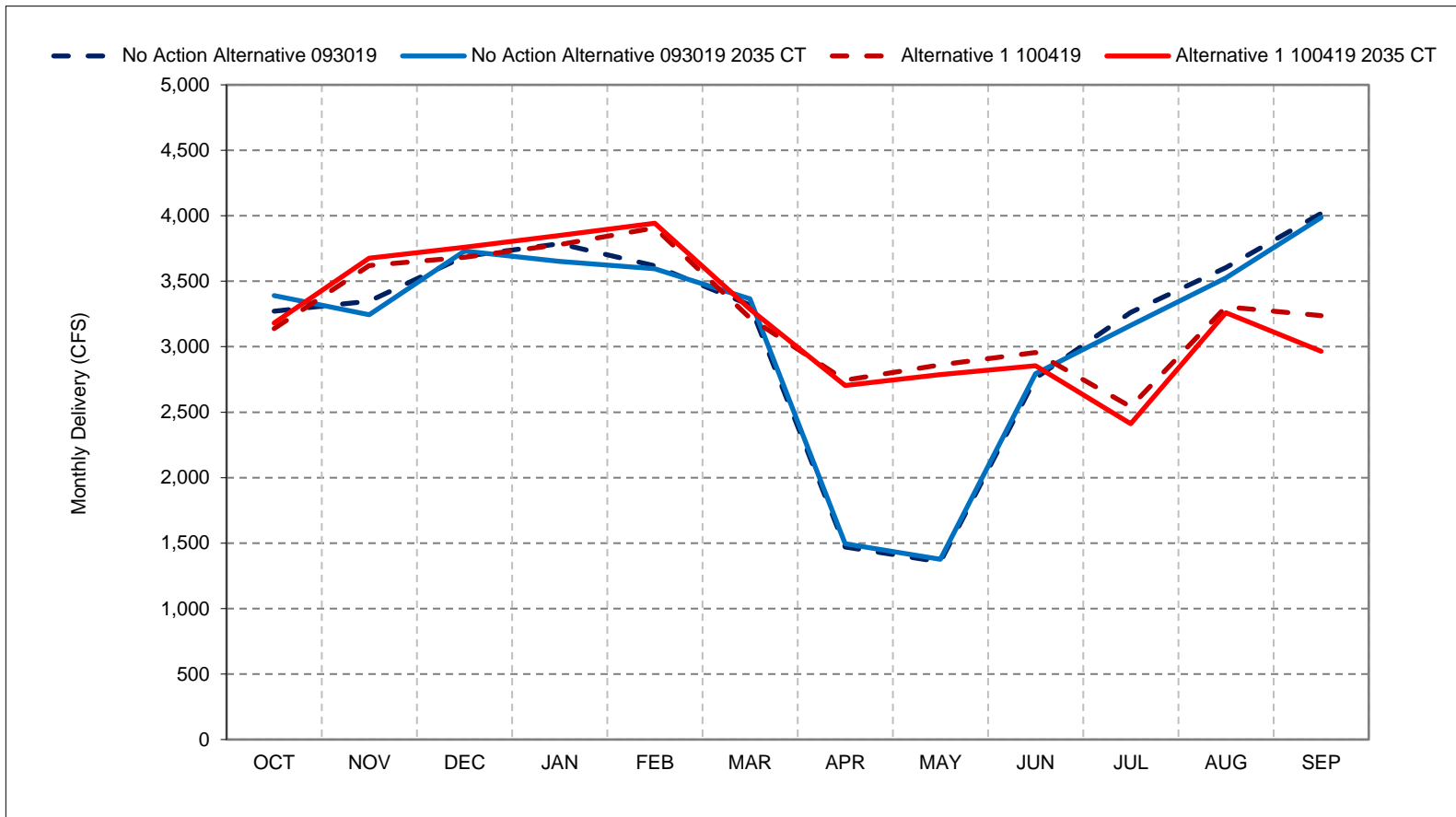
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 54-1. Jones PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

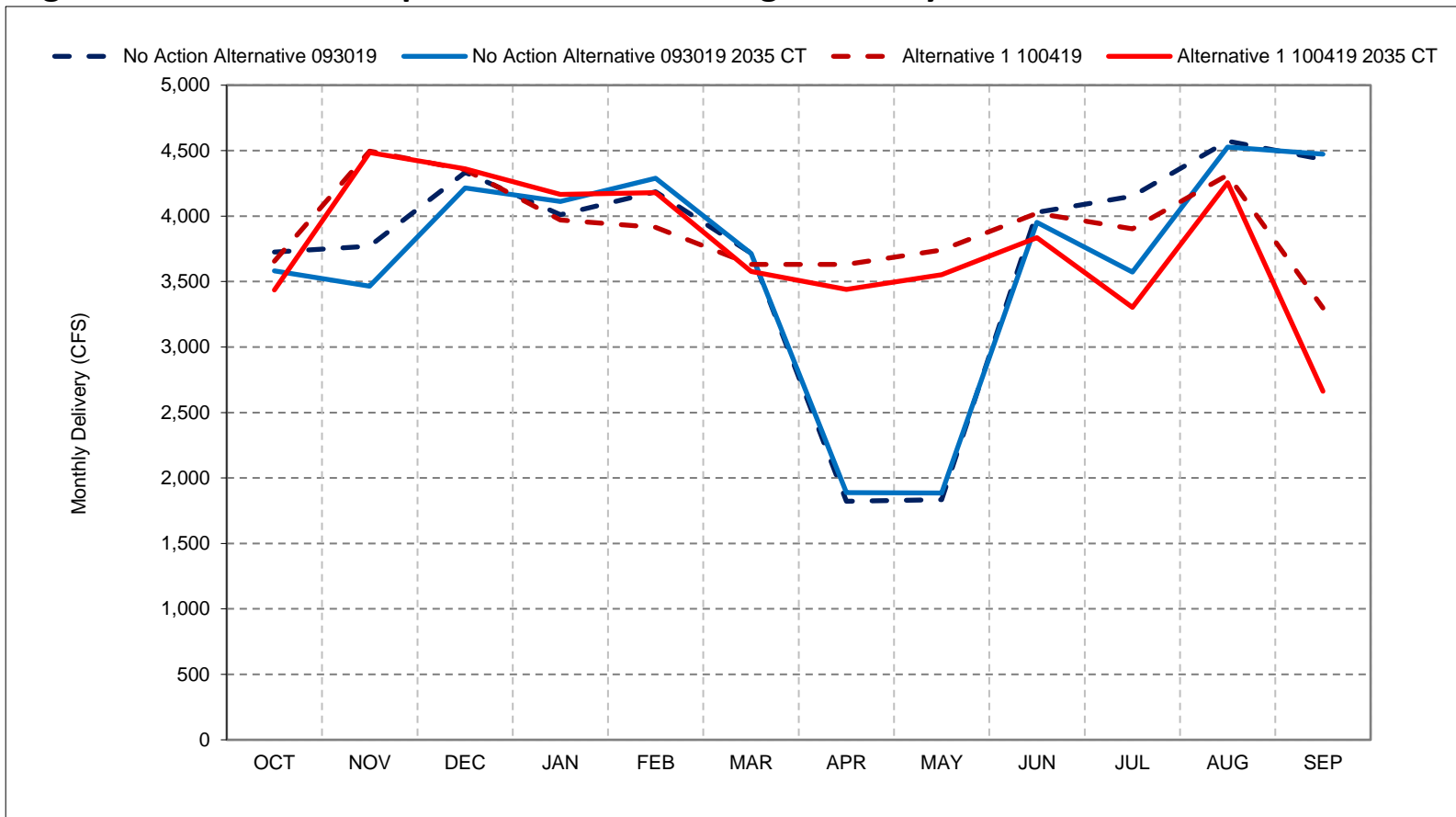
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-2. Jones PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

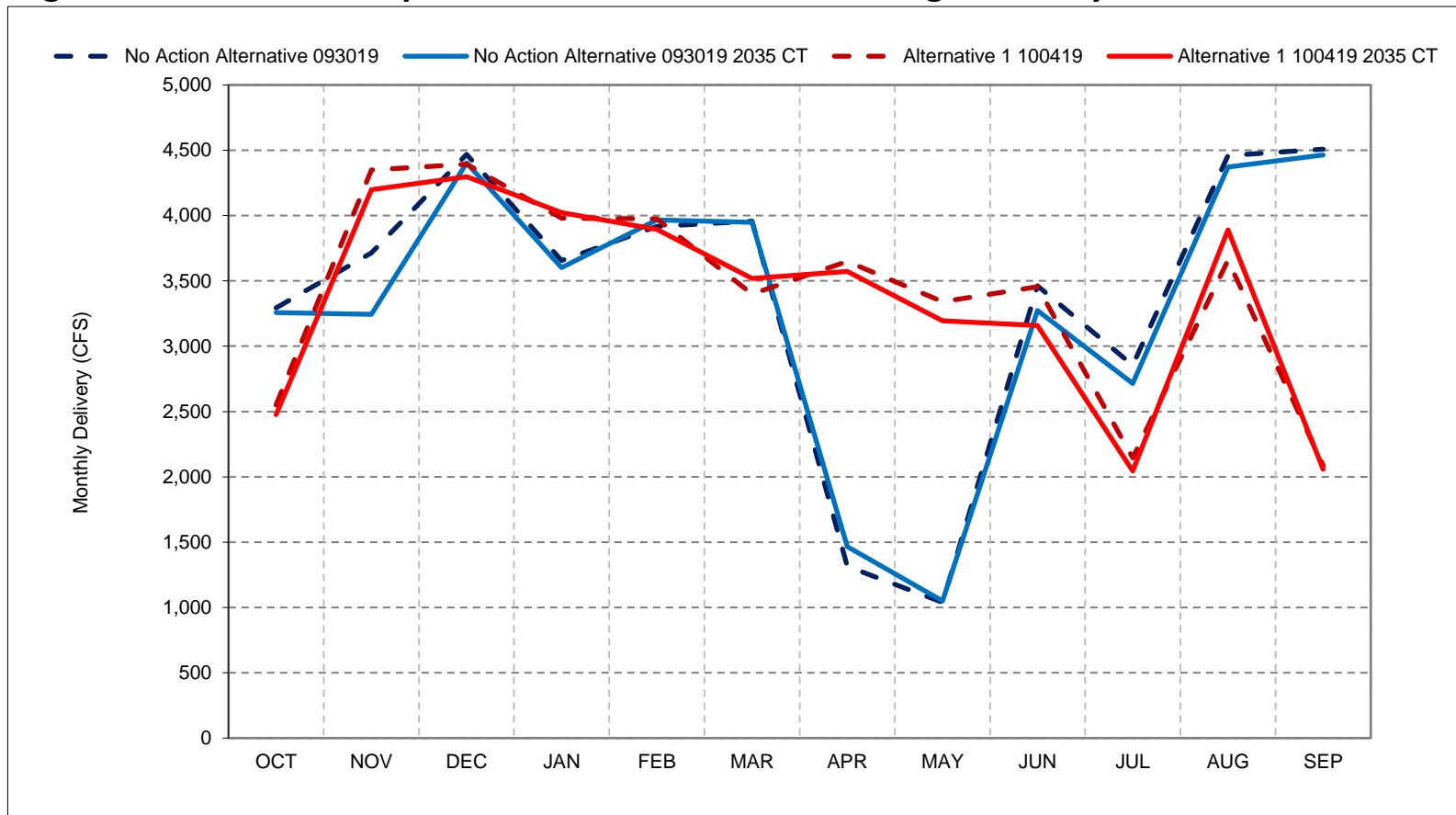
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-3. Jones PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

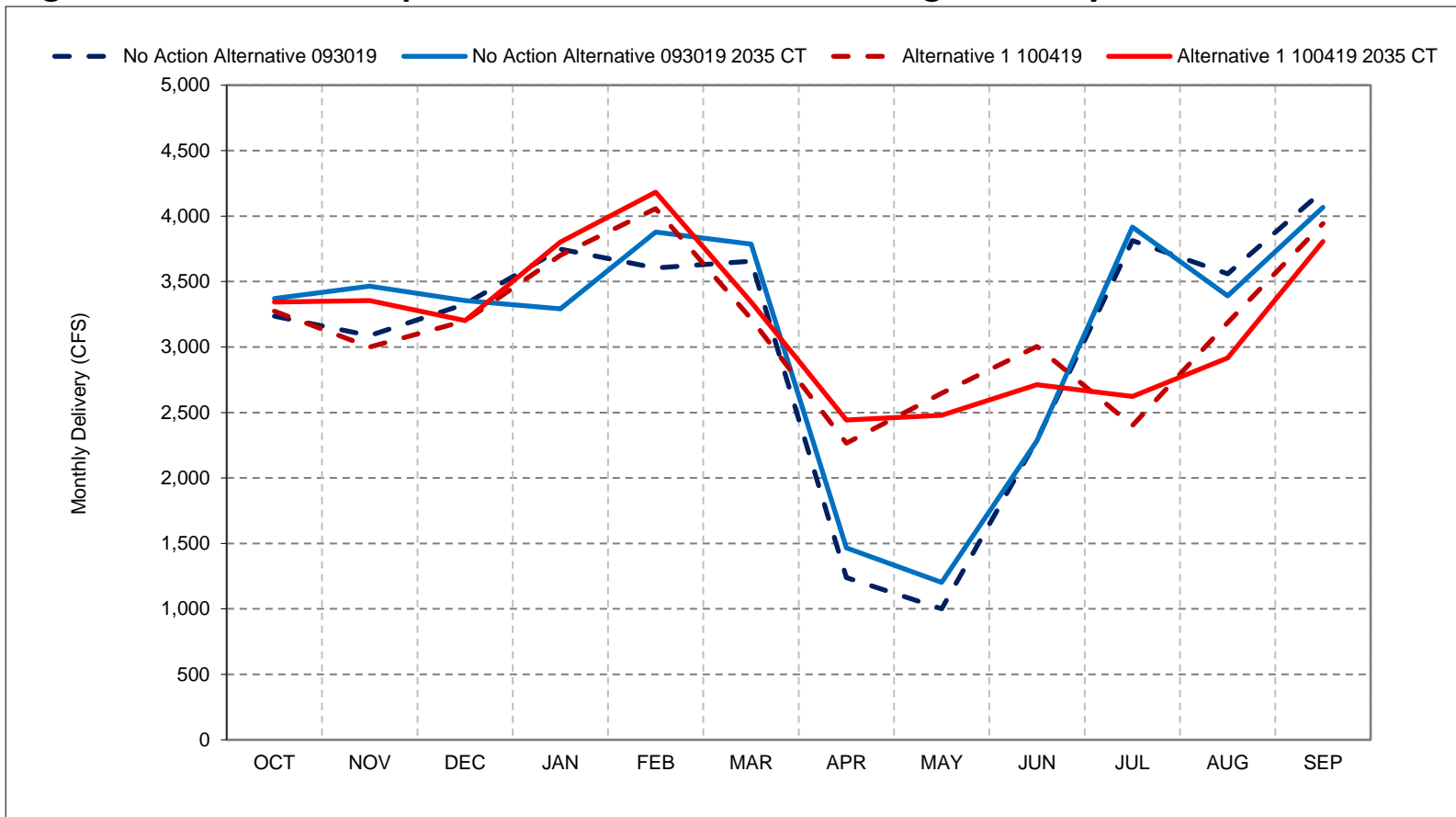
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-4. Jones PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

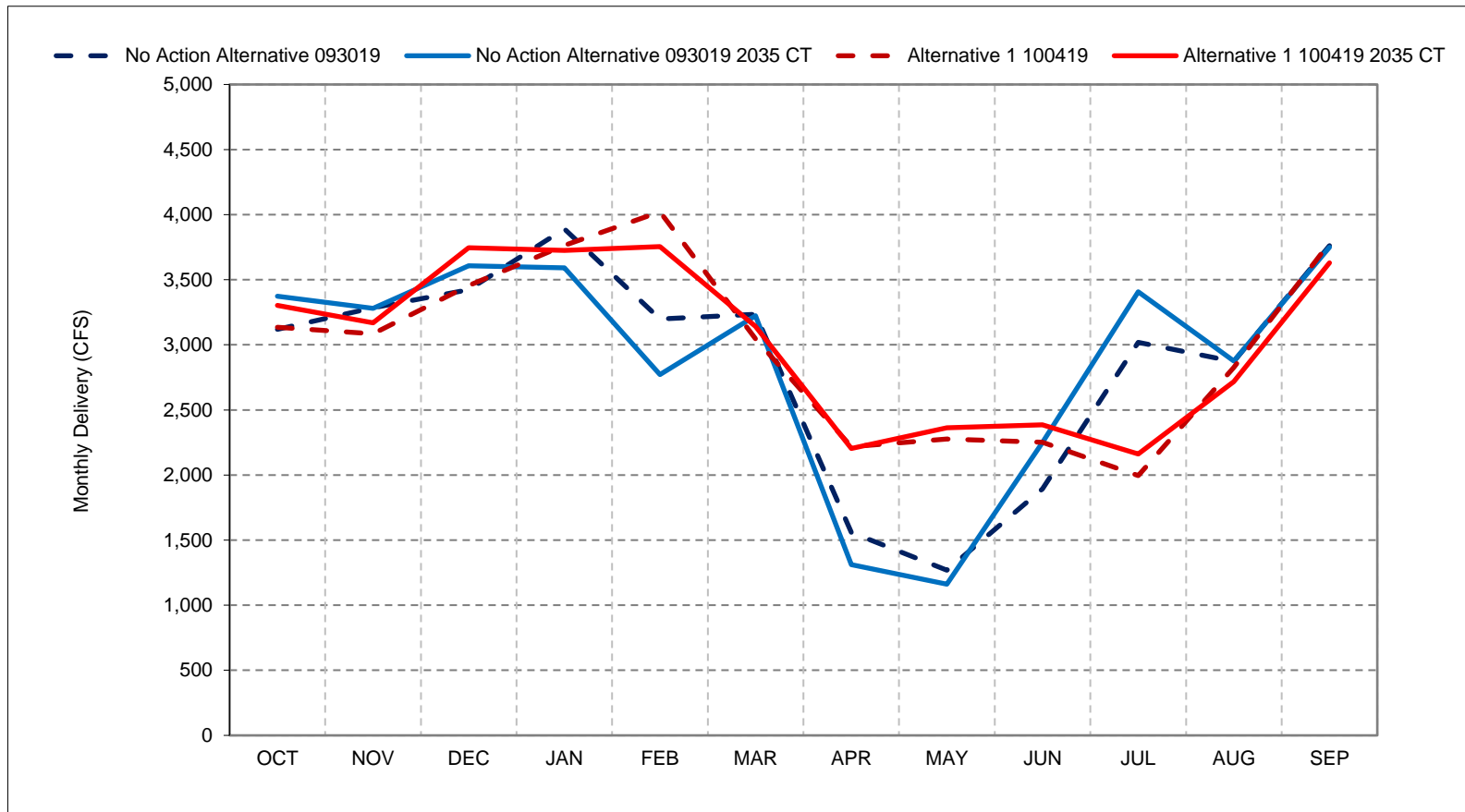
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-5. Jones PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

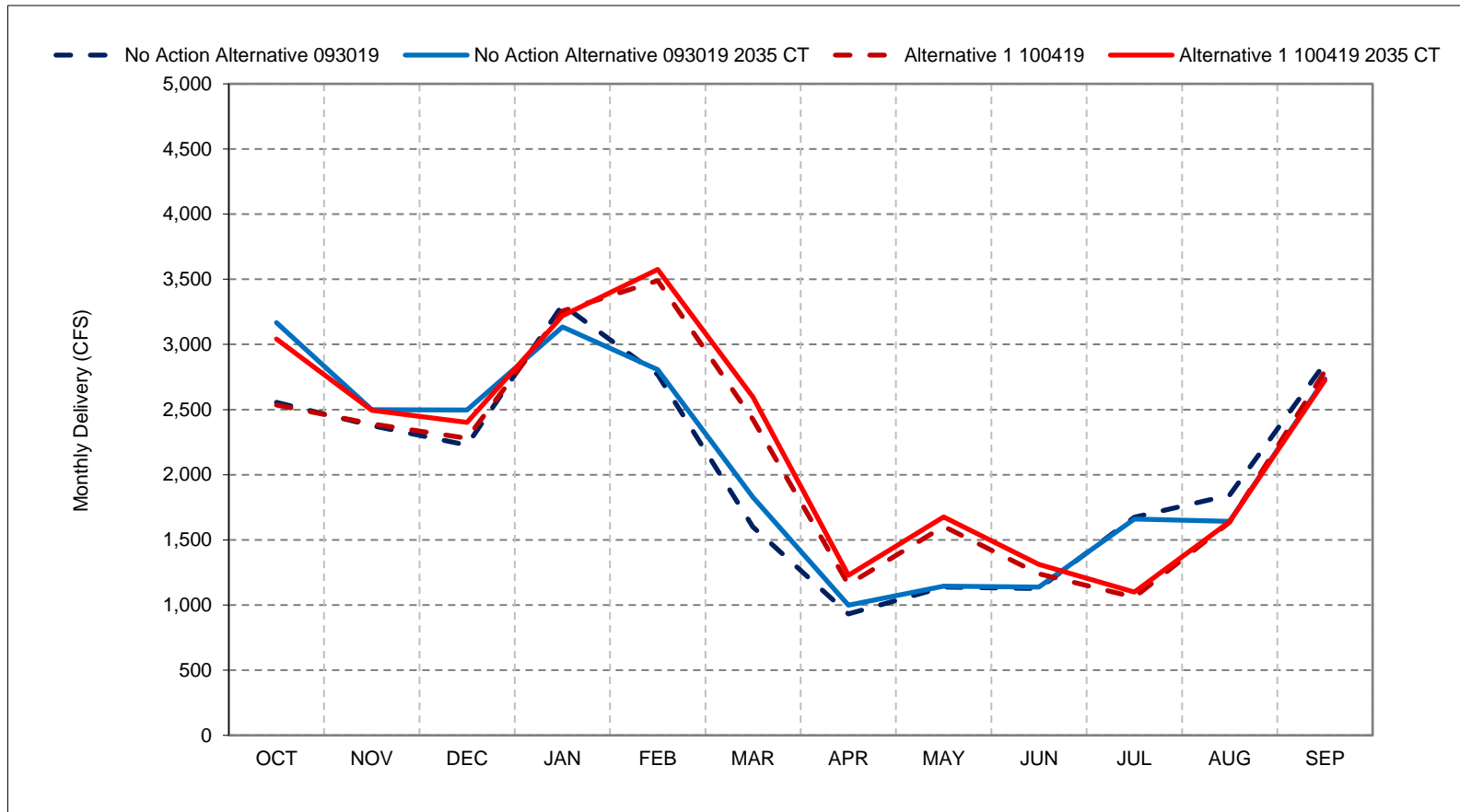
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-6. Jones PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

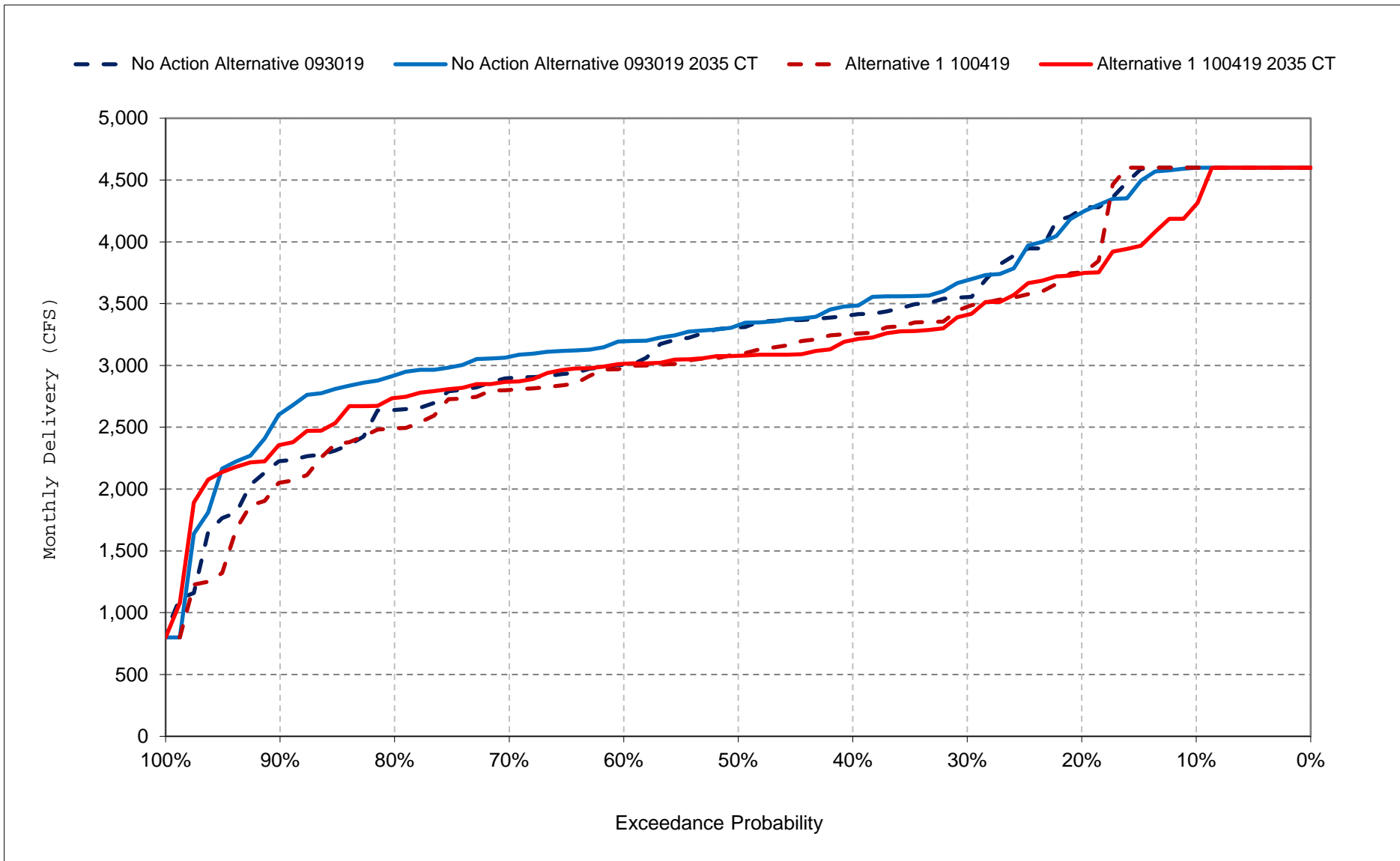
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

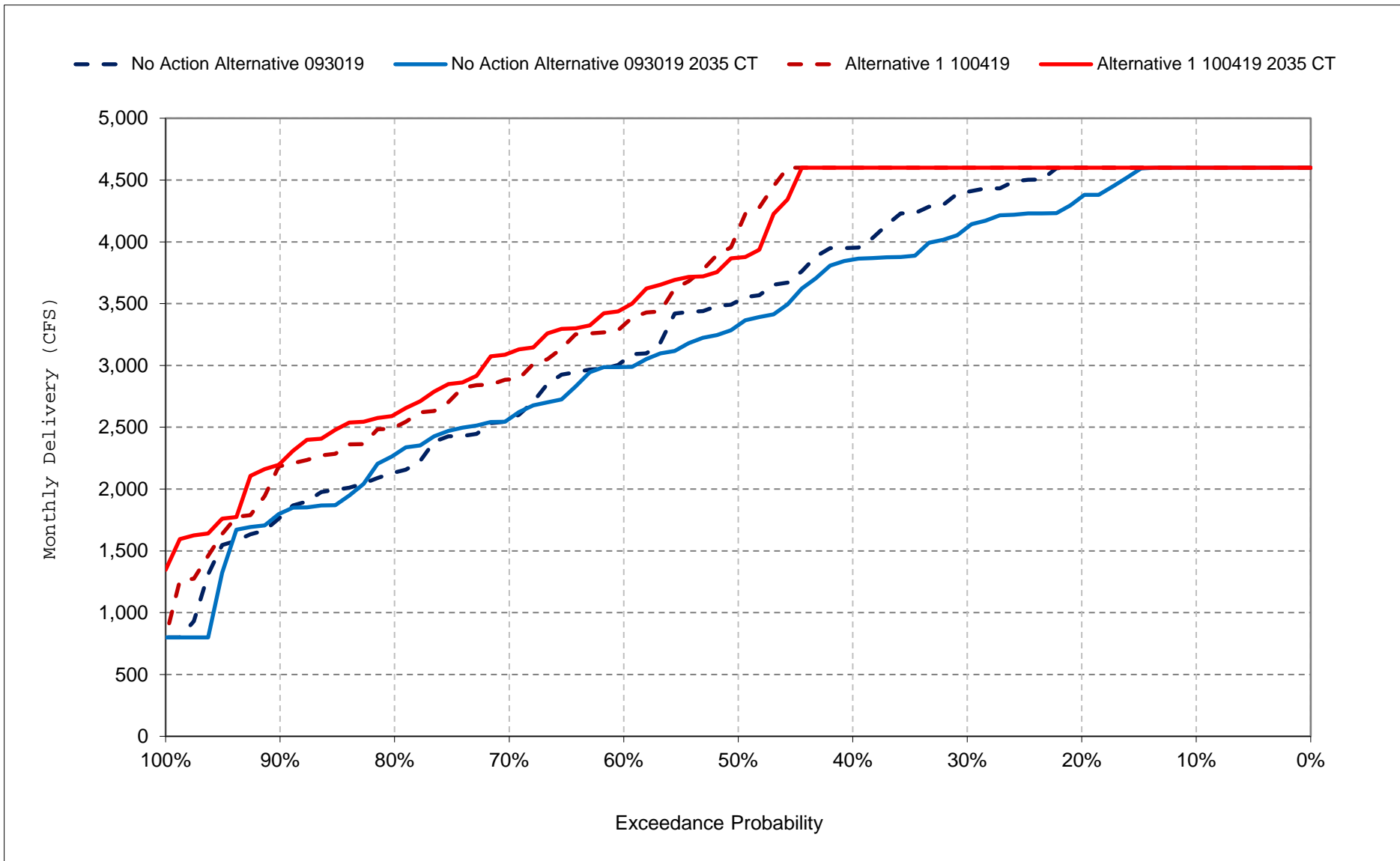
Figure 54-7. Jones PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

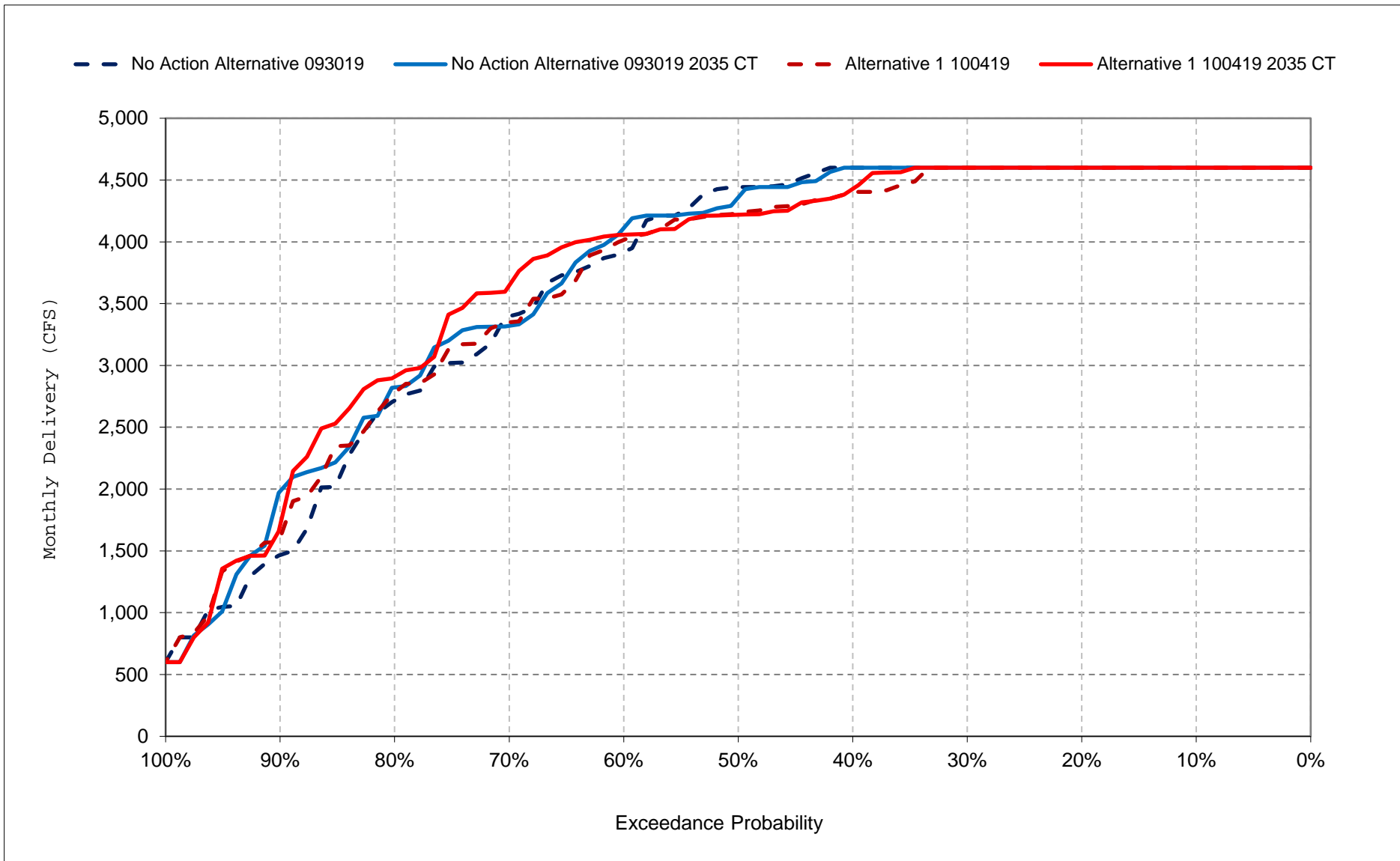
Figure 54-8. Jones PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

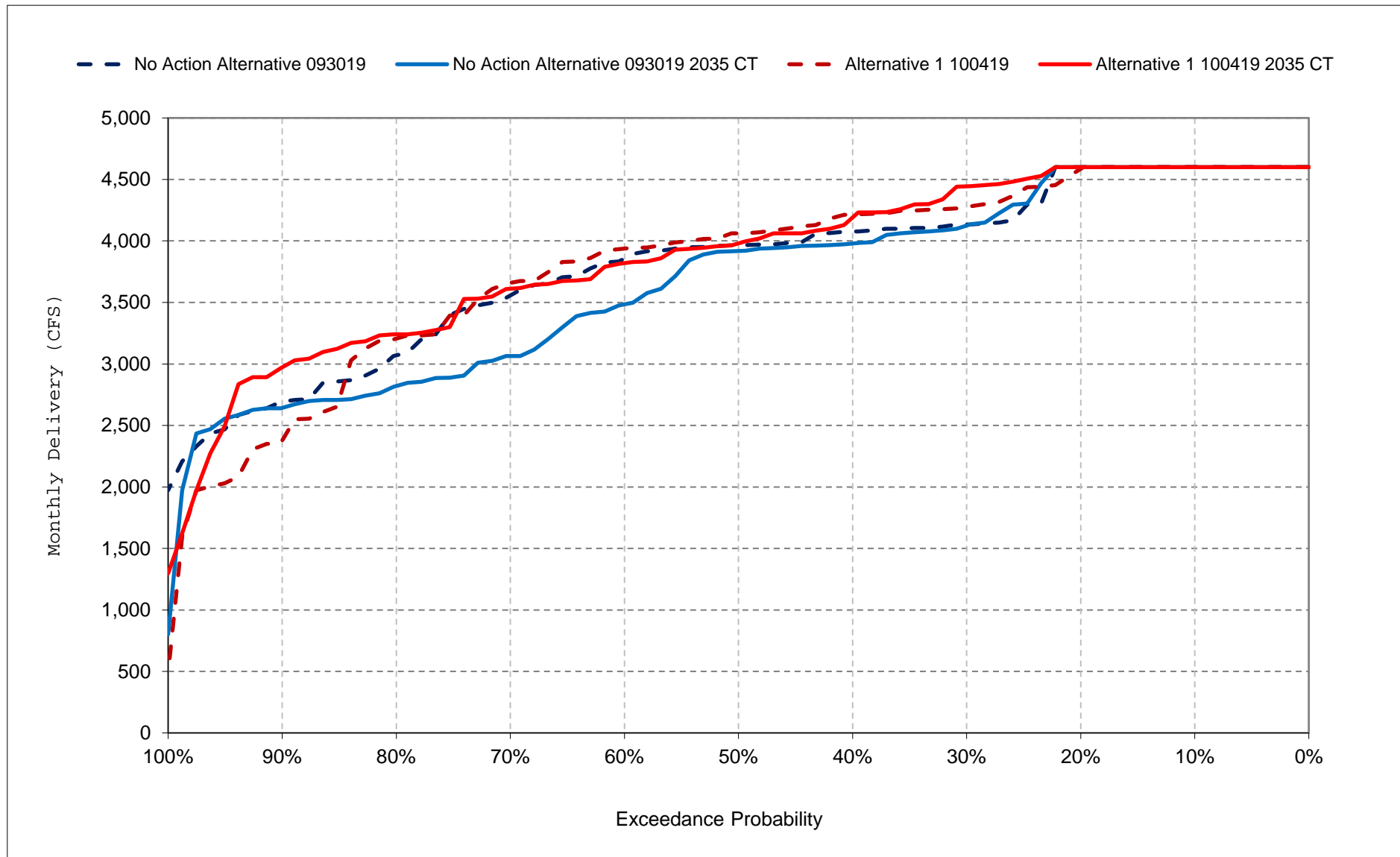
Figure 54-9. Jones PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

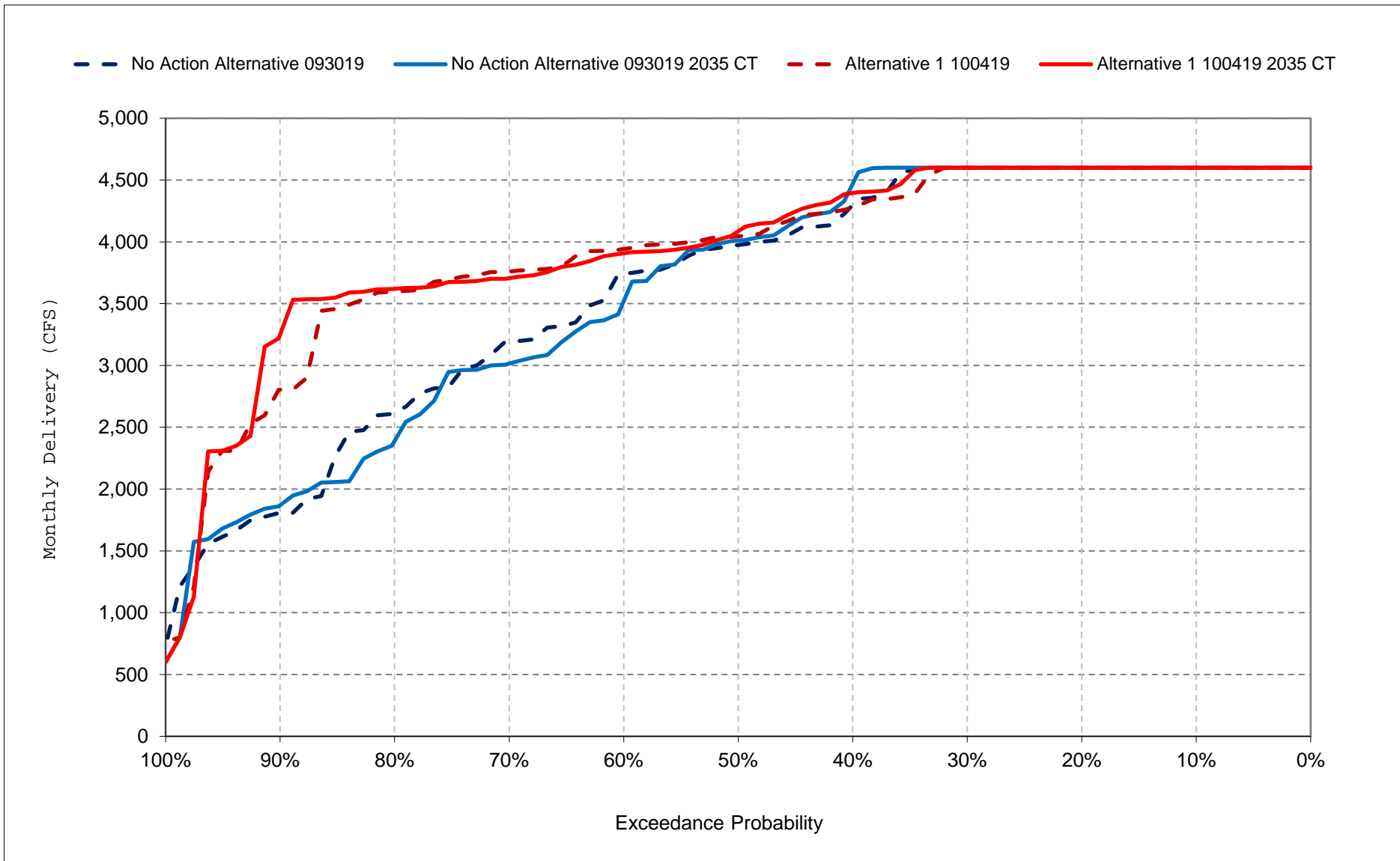
Figure 54-10. Jones PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

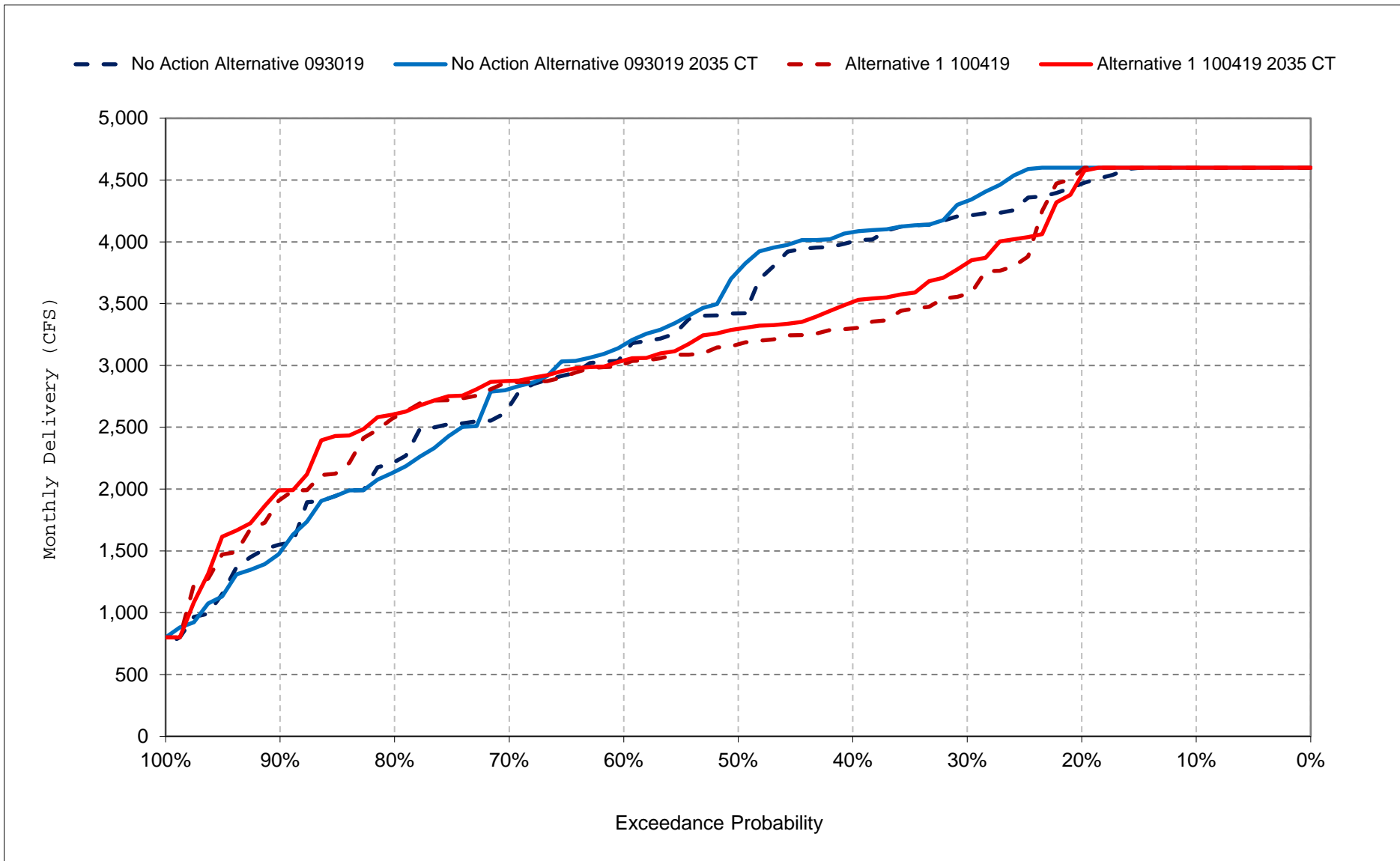
Figure 54-11. Jones PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

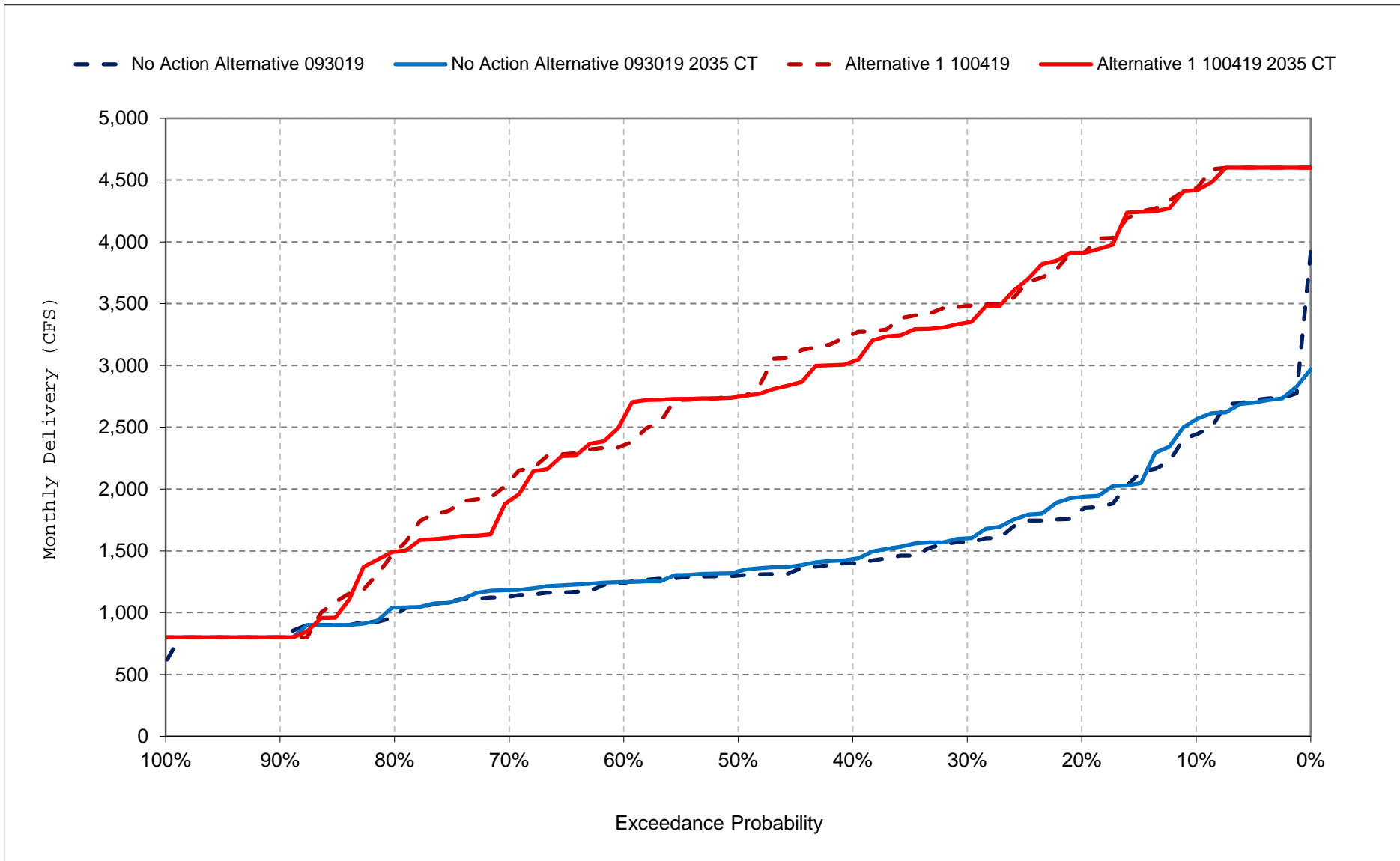
Figure 54-12. Jones PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

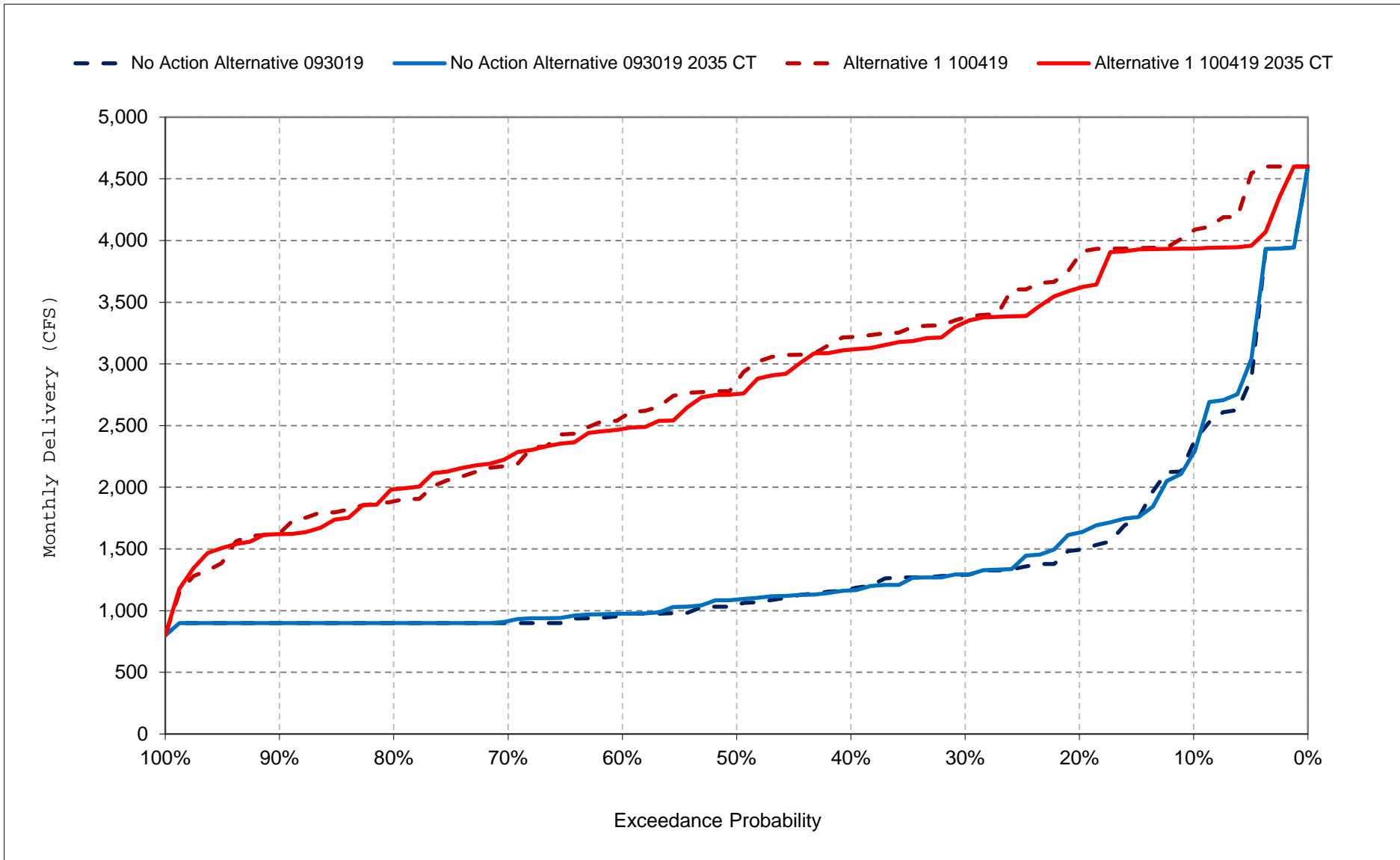
Figure 54-13. Jones PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

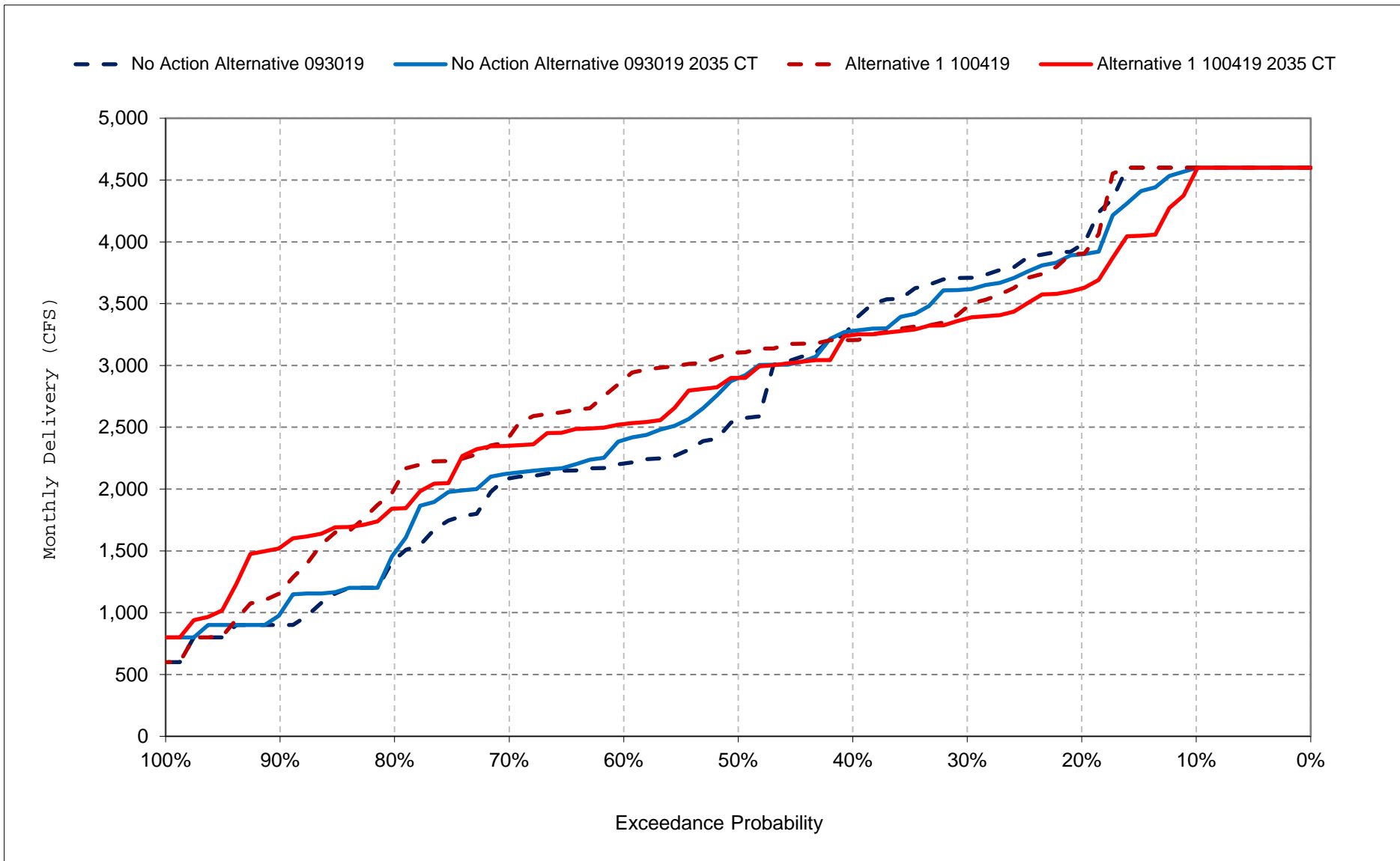
Figure 54-14. Jones PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

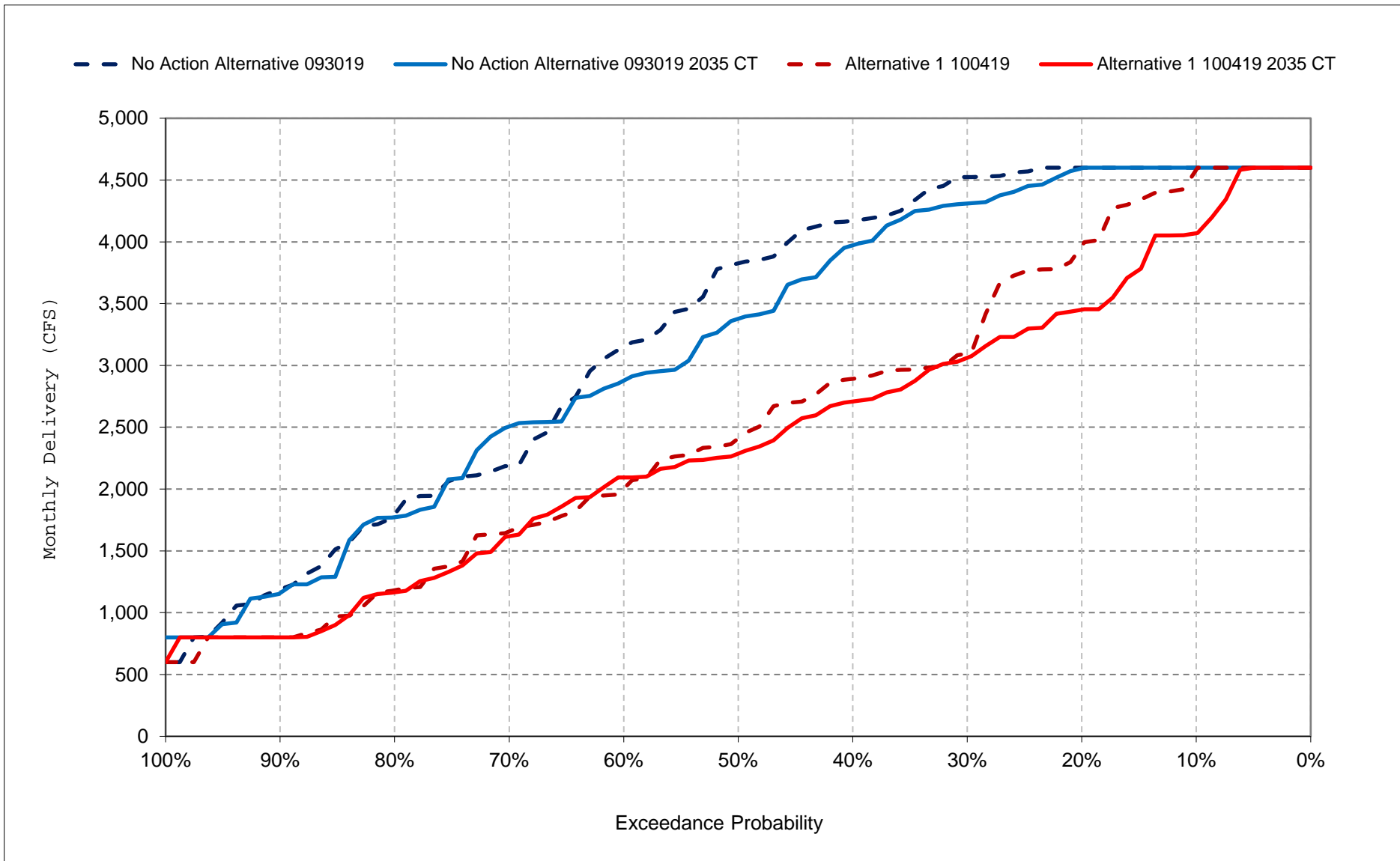
Figure 54-15. Jones PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

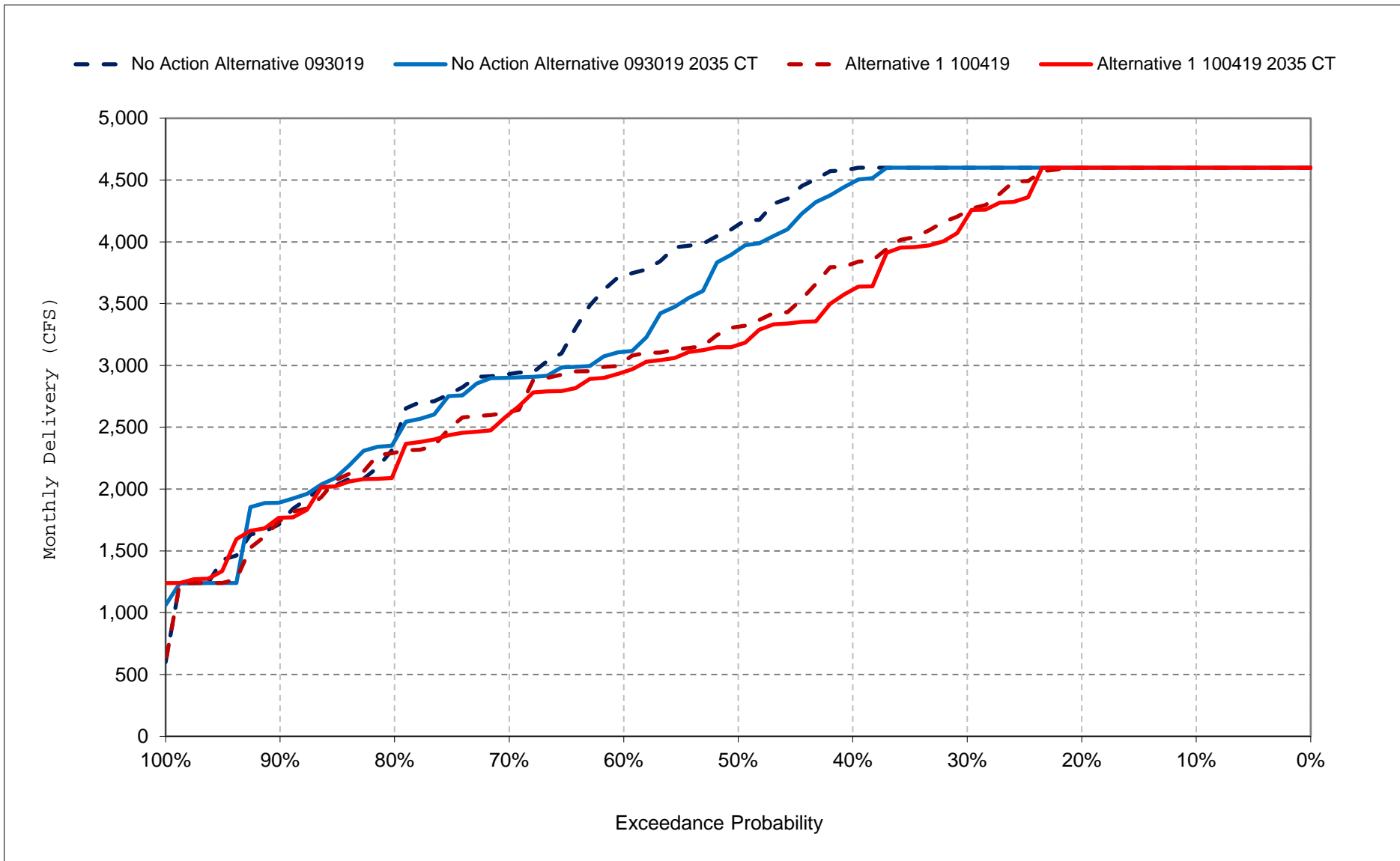
Figure 54-16. Jones PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

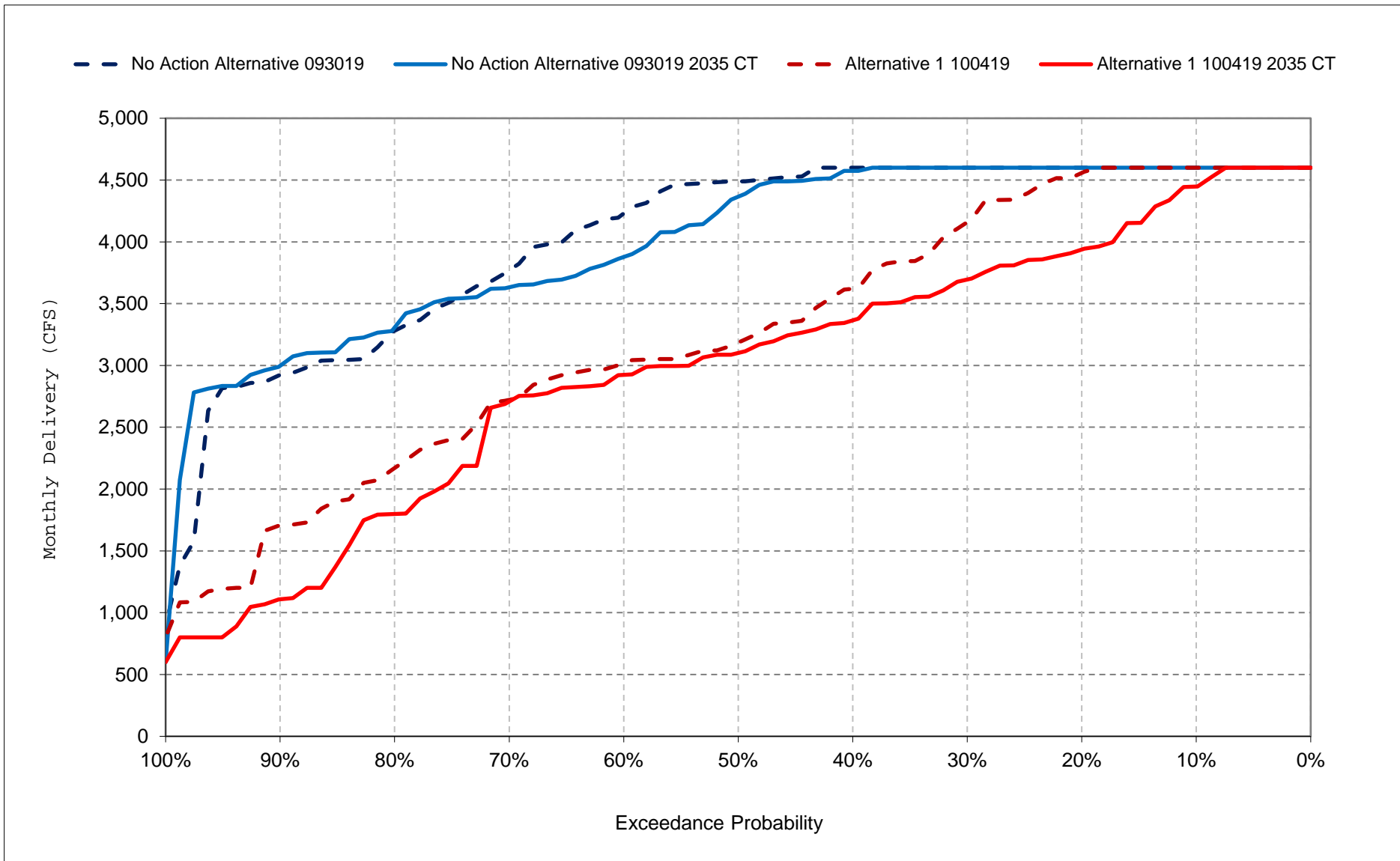
Figure 54-17. Jones PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 54-18. Jones PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-1. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,885	0	0	0	0	0	0	0	743	512	0
20%	0	1,716	0	0	0	0	0	0	0	444	0	0
30%	0	1,243	0	0	0	0	0	0	0	154	0	0
40%	0	541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	655	15	13	38	13	0	0	19	237	107	43
Water Year Types ^{b,c}												
Wet (32%)	0	1,426	39	40	119	4	0	0	60	50	0	0
Above Normal (16%)	0	1,268	18	0	0	0	0	0	0	0	0	0
Below Normal (13%)	161	0	0	0	0	0	0	0	0	27	549	324
Dry (24%)	0	7	0	0	0	49	0	0	0	737	138	0
Critical (15%)	0	0	0	0	0	0	0	0	0	258	0	0

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,805	0	0	0	0	0	0	0	836	789	0
20%	0	747	0	0	0	0	0	0	0	479	491	0
30%	0	0	0	0	0	0	0	0	0	102	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	21	405	105	10	9	46	0	0	19	211	217	57
Water Year Types ^{b,c}												
Wet (32%)	0	768	277	31	26	146	0	0	60	52	177	0
Above Normal (16%)	0	1,016	108	0	0	0	0	0	0	94	188	0
Below Normal (13%)	155	0	0	0	0	0	0	0	0	80	442	422
Dry (24%)	0	0	0	0	0	0	0	0	0	484	294	0
Critical (15%)	0	0	0	0	6	0	0	0	0	344	0	0

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-80	0	0	0	0	0	0	0	93	277	0
20%	0	-969	0	0	0	0	0	0	0	35	491	0
30%	0	-1,243	0	0	0	0	0	0	0	-52	0	0
40%	0	-541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-1	-250	90	-3	-29	33	0	0	0	-26	109	13
Water Year Types ^{b,c}												
Wet (32%)	0	-658	238	-9	-93	142	0	0	0	1	177	0
Above Normal (16%)	0	-252	90	0	0	0	0	0	0	94	188	0
Below Normal (13%)	-6	0	0	0	0	0	0	0	0	53	-107	99
Dry (24%)	0	-7	0	0	0	-49	0	0	0	-253	156	0
Critical (15%)	0	0	0	0	6	0	0	0	0	87	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 55-2. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,845	0	0	0	0	0	0	0	905	487	67
20%	0	1,552	0	0	0	0	0	0	0	462	0	0
30%	0	1,021	0	0	0	0	0	0	0	157	0	0
40%	0	0	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	51	570	15	0	39	47	0	0	19	252	118	44
Water Year Types ^{b,c}												
Wet (32%)	0	1,235	46	0	113	148	0	0	60	88	74	0
Above Normal (16%)	106	1,127	0	0	21	0	0	0	0	0	33	20
Below Normal (13%)	212	0	0	0	0	0	0	0	0	128	443	214
Dry (24%)	24	0	0	0	0	0	0	0	0	690	120	51
Critical (15%)	0	0	0	0	0	0	0	0	0	265	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,687	0	0	0	0	0	0	0	830	989	60
20%	0	766	0	0	0	0	0	0	0	597	602	0
30%	0	0	0	0	0	0	0	0	0	334	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	17	388	68	47	39	30	0	0	19	260	265	72
Water Year Types ^{b,c}												
Wet (32%)	0	722	145	121	122	96	0	0	60	131	337	0
Above Normal (16%)	0	1,007	98	52	0	0	0	0	0	40	257	145
Below Normal (13%)	128	0	0	0	0	0	0	0	0	191	392	299
Dry (24%)	0	0	27	0	0	0	0	0	0	520	267	37
Critical (15%)	0	0	0	0	0	0	0	0	0	408	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-158	0	0	0	0	0	0	0	-75	502	-7
20%	0	-786	0	0	0	0	0	0	0	135	602	0
30%	0	-1,021	0	0	0	0	0	0	0	177	0	0
40%	0	0	0	0	0	0	0	0	0	11	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-34	-182	53	47	-1	-16	0	0	0	8	148	28
Water Year Types ^{b,c}												
Wet (32%)	0	-513	99	121	9	-52	0	0	0	44	262	0
Above Normal (16%)	-106	-120	98	52	-21	0	0	0	0	40	224	125
Below Normal (13%)	-84	0	0	0	0	0	0	0	0	63	-51	86
Dry (24%)	-24	0	27	0	0	0	0	0	0	-170	146	-13
Critical (15%)	0	0	0	0	0	0	0	0	0	143	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-3. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,885	0	0	0	0	0	0	0	743	512	0
20%	0	1,716	0	0	0	0	0	0	0	444	0	0
30%	0	1,243	0	0	0	0	0	0	0	154	0	0
40%	0	541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	655	15	13	38	13	0	0	19	237	107	43
Water Year Types ^{b,c}												
Wet (32%)	0	1,426	39	40	119	4	0	0	60	50	0	0
Above Normal (16%)	0	1,268	18	0	0	0	0	0	0	0	0	0
Below Normal (13%)	161	0	0	0	0	0	0	0	0	27	549	324
Dry (24%)	0	7	0	0	0	49	0	0	0	737	138	0
Critical (15%)	0	0	0	0	0	0	0	0	0	258	0	0

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,845	0	0	0	0	0	0	0	905	487	67
20%	0	1,552	0	0	0	0	0	0	0	462	0	0
30%	0	1,021	0	0	0	0	0	0	0	157	0	0
40%	0	0	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	51	570	15	0	39	47	0	0	19	252	118	44
Water Year Types ^{b,c}												
Wet (32%)	0	1,235	46	0	113	148	0	0	60	88	74	0
Above Normal (16%)	106	1,127	0	0	21	0	0	0	0	0	33	20
Below Normal (13%)	212	0	0	0	0	0	0	0	0	128	443	214
Dry (24%)	24	0	0	0	0	0	0	0	0	690	120	51
Critical (15%)	0	0	0	0	0	0	0	0	0	265	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-40	0	0	0	0	0	0	0	162	-25	67
20%	0	-164	0	0	0	0	0	0	0	18	0	0
30%	0	-222	0	0	0	0	0	0	0	4	0	0
40%	0	-541	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	30	-85	0	-13	1	34	0	0	0	15	10	1
Water Year Types ^{b,c}												
Wet (32%)	0	-191	7	-40	-6	143	0	0	0	37	74	0
Above Normal (16%)	106	-141	-18	0	21	0	0	0	0	0	33	20
Below Normal (13%)	51	0	0	0	0	0	0	0	0	101	-106	-110
Dry (24%)	24	-7	0	0	0	-49	0	0	0	-47	-18	51
Critical (15%)	0	0	0	0	0	0	0	0	0	7	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-4. CVP Banks PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,805	0	0	0	0	0	0	0	836	789	0
20%	0	747	0	0	0	0	0	0	0	479	491	0
30%	0	0	0	0	0	0	0	0	0	102	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	21	405	105	10	9	46	0	0	19	211	217	57
Water Year Types ^{b,c}												
Wet (32%)	0	768	277	31	26	146	0	0	60	52	177	0
Above Normal (16%)	0	1,016	108	0	0	0	0	0	0	94	188	0
Below Normal (13%)	155	0	0	0	0	0	0	0	0	80	442	422
Dry (24%)	0	0	0	0	0	0	0	0	0	484	294	0
Critical (15%)	0	0	0	0	6	0	0	0	0	344	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,687	0	0	0	0	0	0	0	830	989	60
20%	0	766	0	0	0	0	0	0	0	597	602	0
30%	0	0	0	0	0	0	0	0	0	334	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	17	388	68	47	39	30	0	0	19	260	265	72
Water Year Types ^{b,c}												
Wet (32%)	0	722	145	121	122	96	0	0	60	131	337	0
Above Normal (16%)	0	1,007	98	52	0	0	0	0	0	40	257	145
Below Normal (13%)	128	0	0	0	0	0	0	0	0	191	392	299
Dry (24%)	0	0	27	0	0	0	0	0	0	520	267	37
Critical (15%)	0	0	0	0	0	0	0	0	0	408	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-118	0	0	0	0	0	0	0	-6	201	60
20%	0	19	0	0	0	0	0	0	0	118	110	0
30%	0	0	0	0	0	0	0	0	0	232	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-4	-16	-37	37	30	-16	0	0	0	50	49	16
Water Year Types ^{b,c}												
Wet (32%)	0	-46	-132	91	96	-50	0	0	0	80	160	0
Above Normal (16%)	0	-9	-10	52	0	0	0	0	0	-54	69	145
Below Normal (13%)	-26	0	0	0	0	0	0	0	0	111	-49	-123
Dry (24%)	0	0	27	0	0	0	0	0	0	36	-27	37
Critical (15%)	0	0	0	0	-6	0	0	0	0	64	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

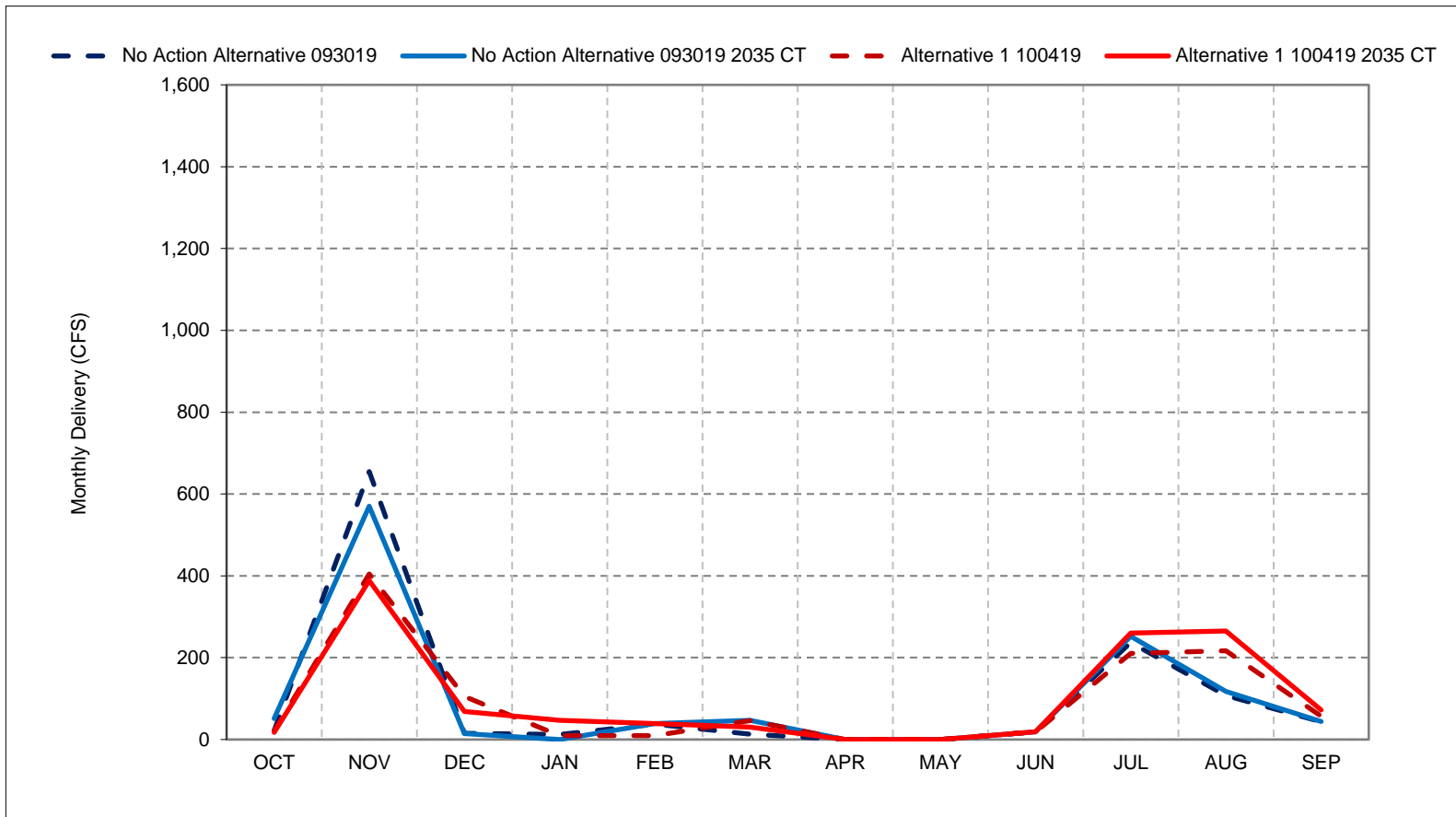
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 55-1. CVP Banks PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

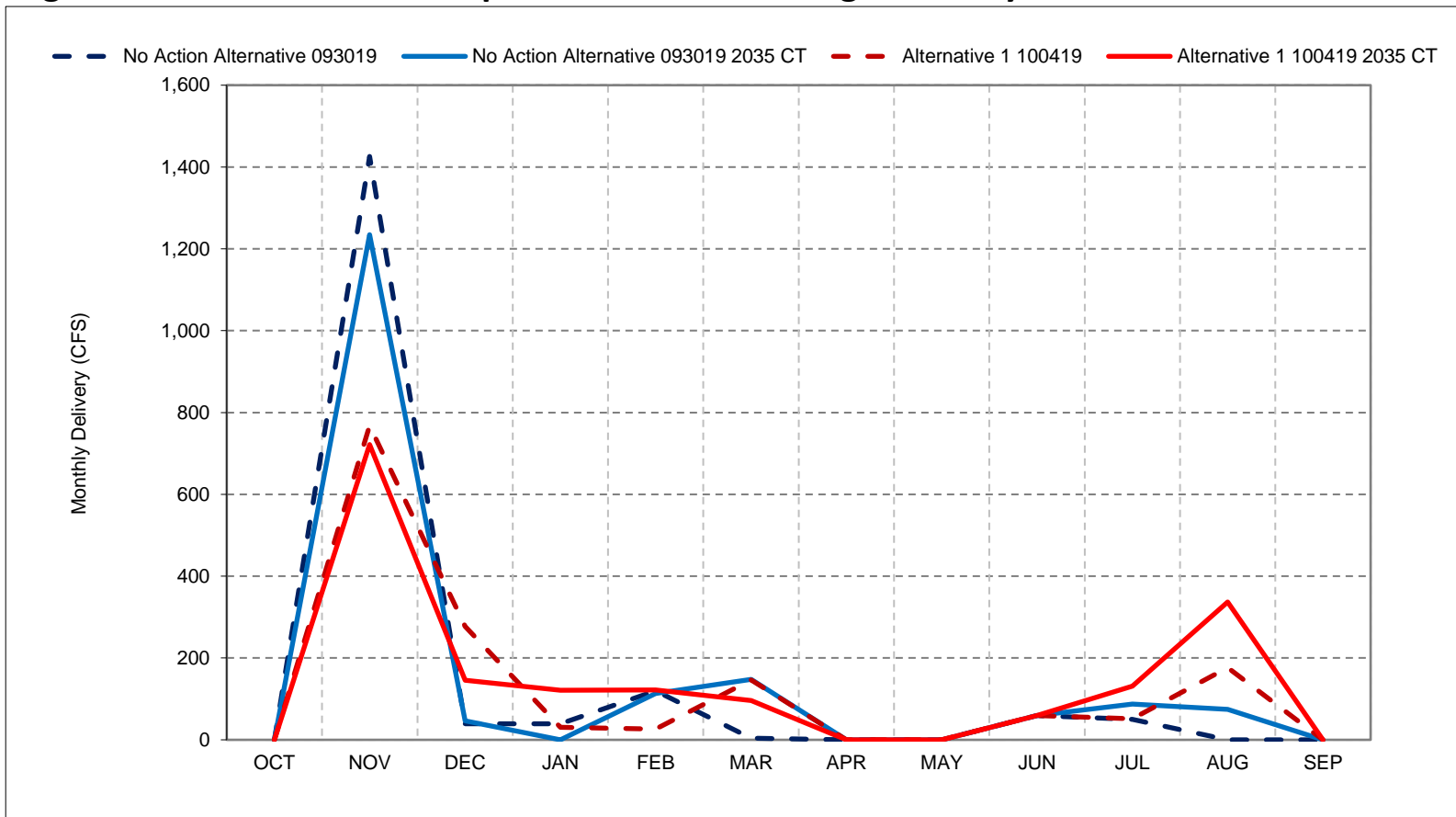
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-2. CVP Banks PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

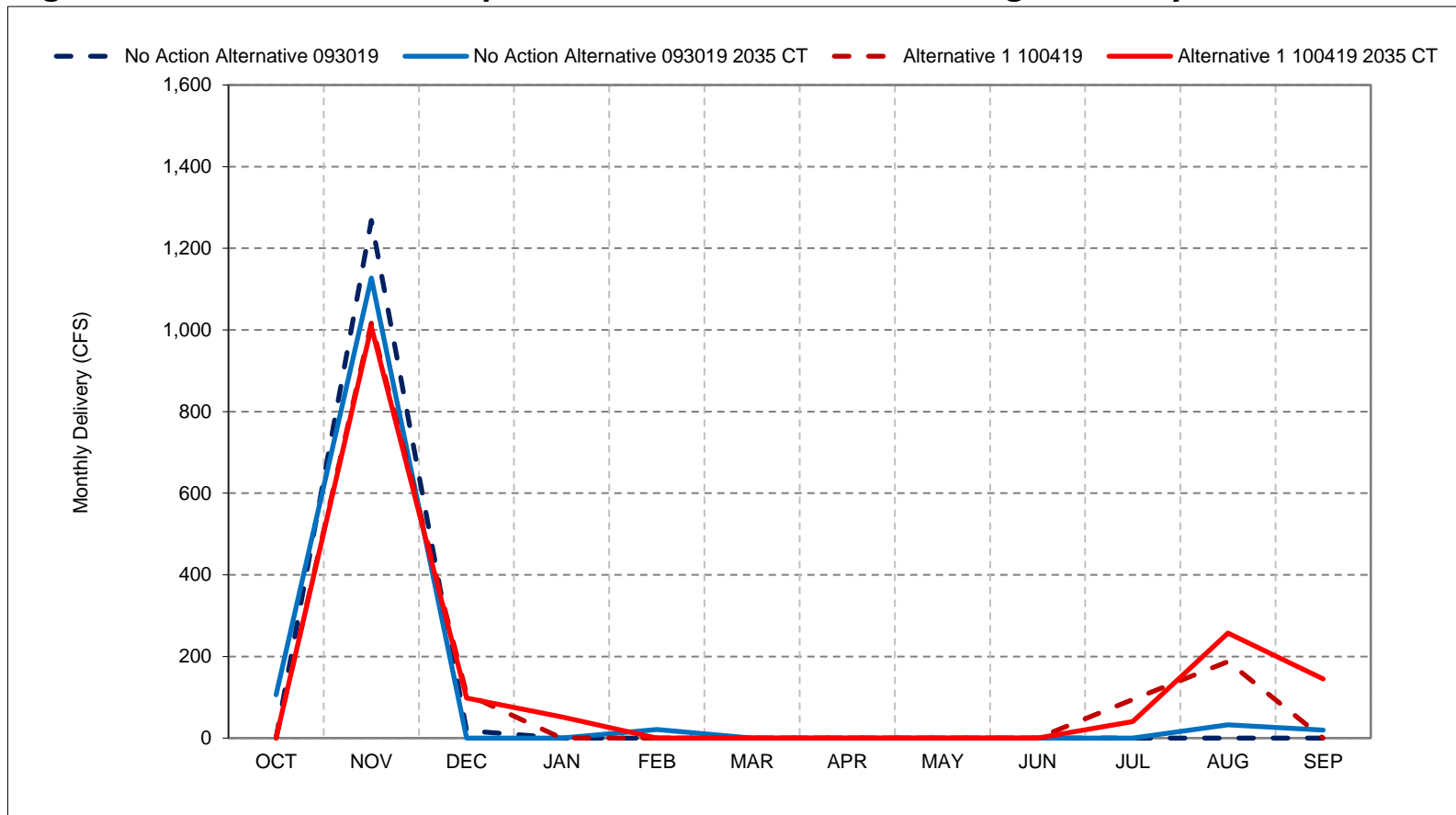
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-3. CVP Banks PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

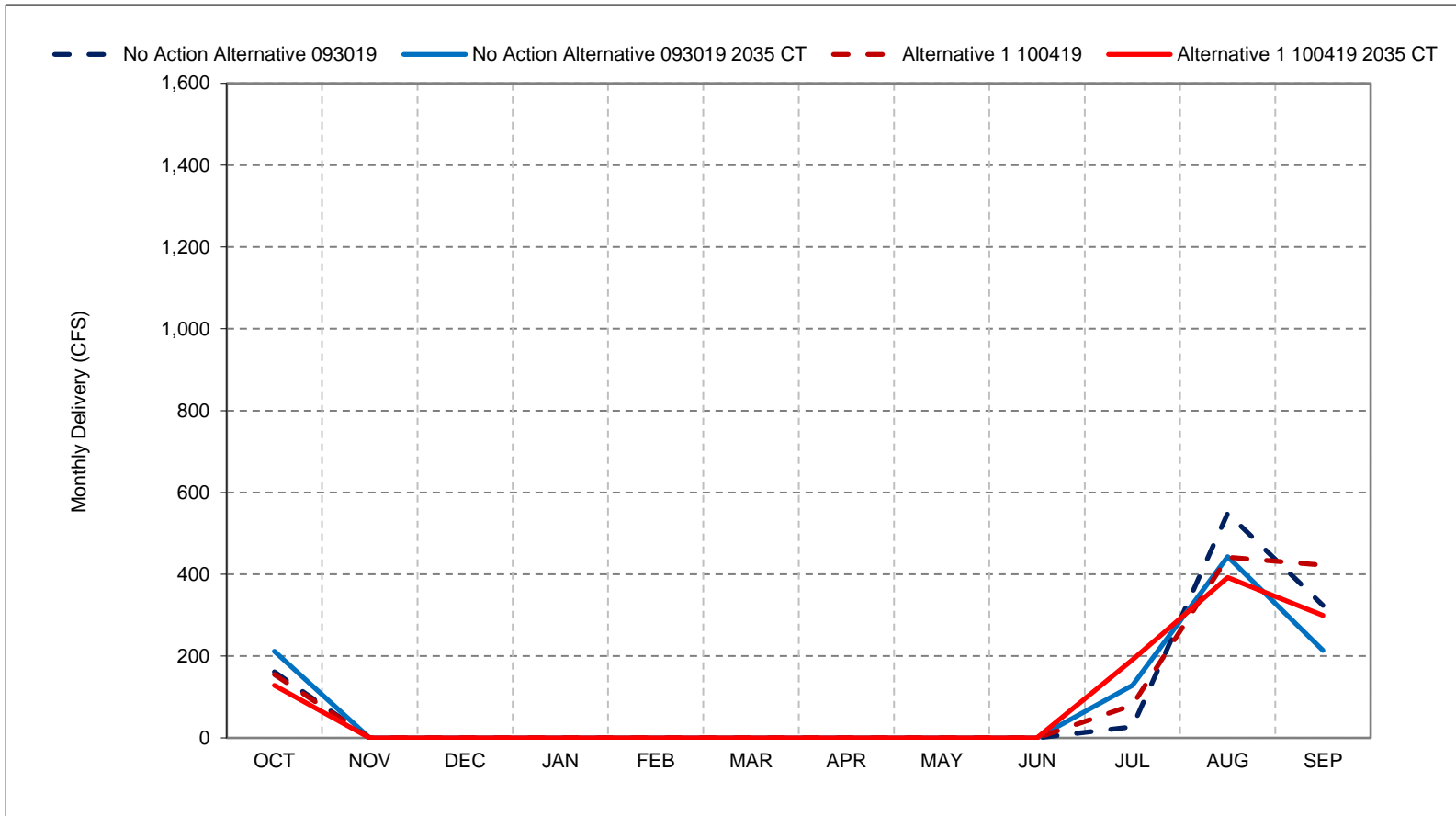
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-4. CVP Banks PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

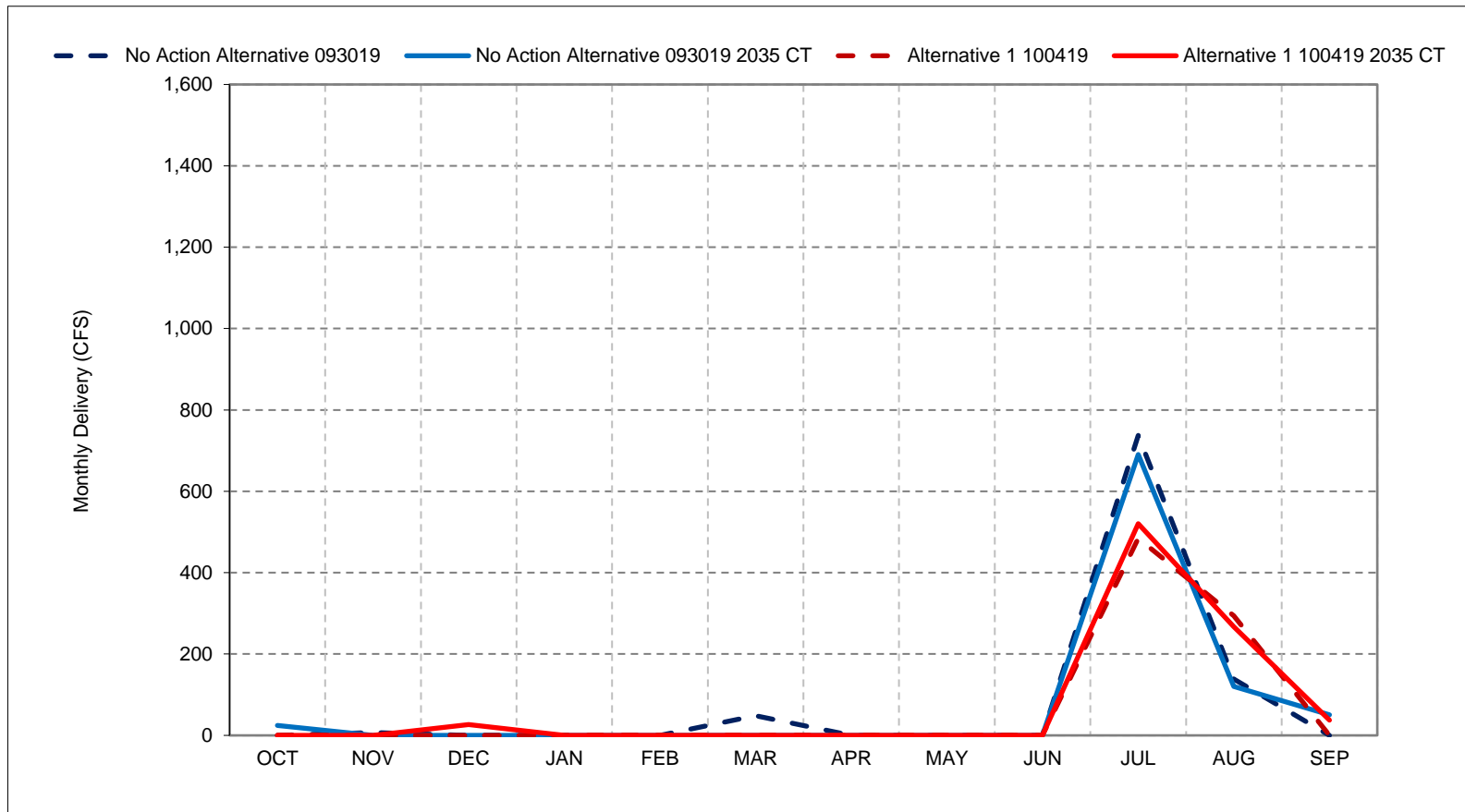
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-5. CVP Banks PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

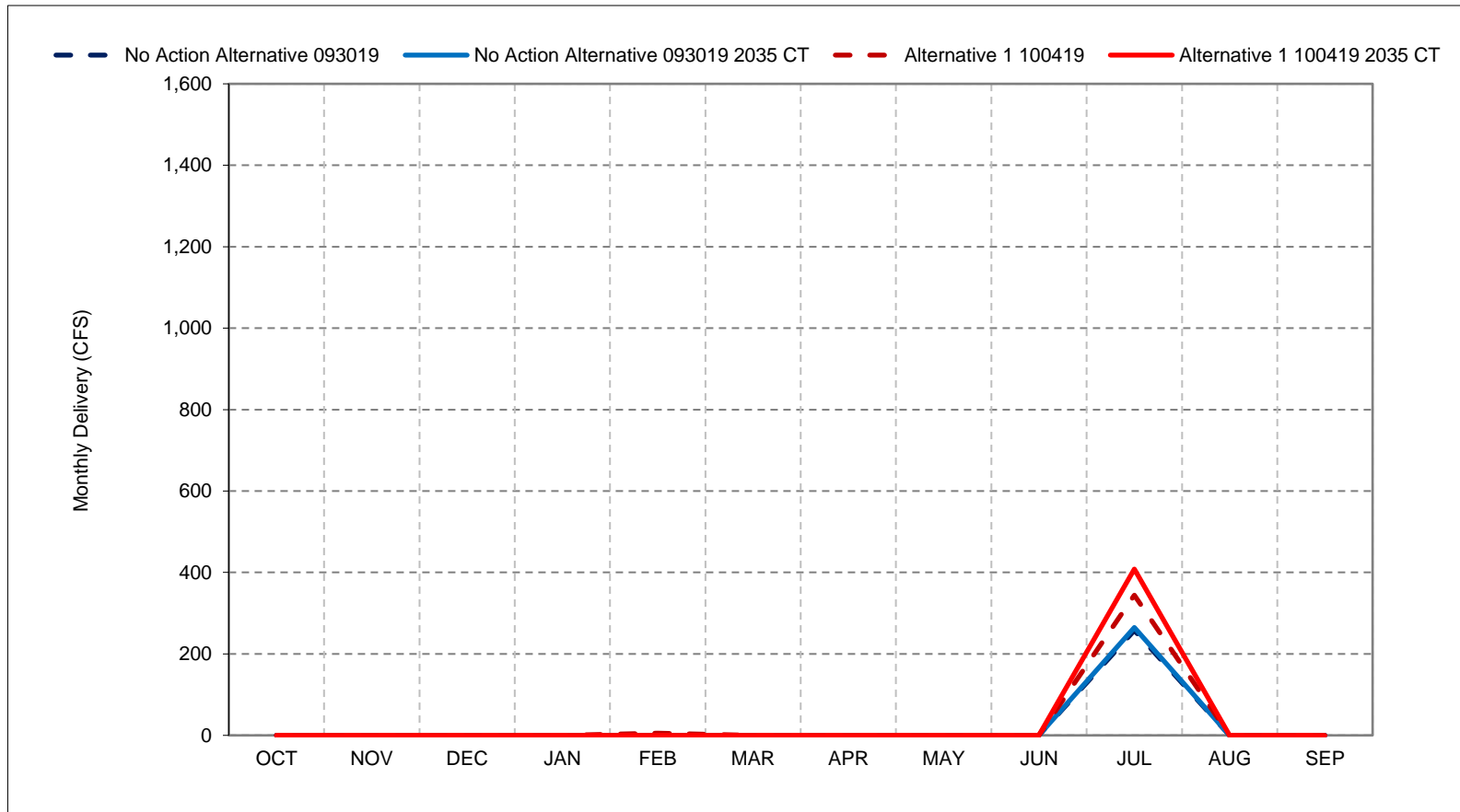
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-6. CVP Banks PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

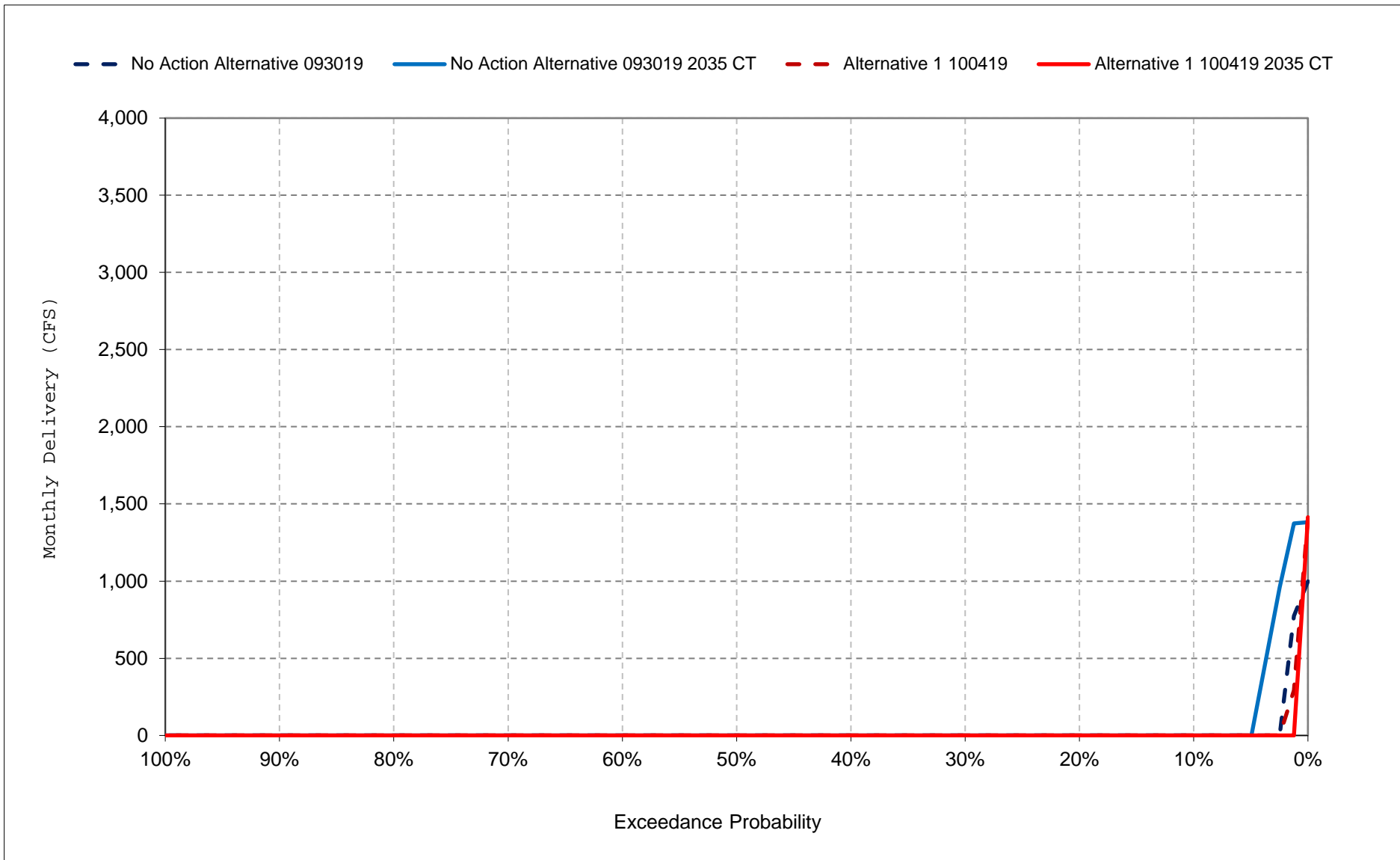
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

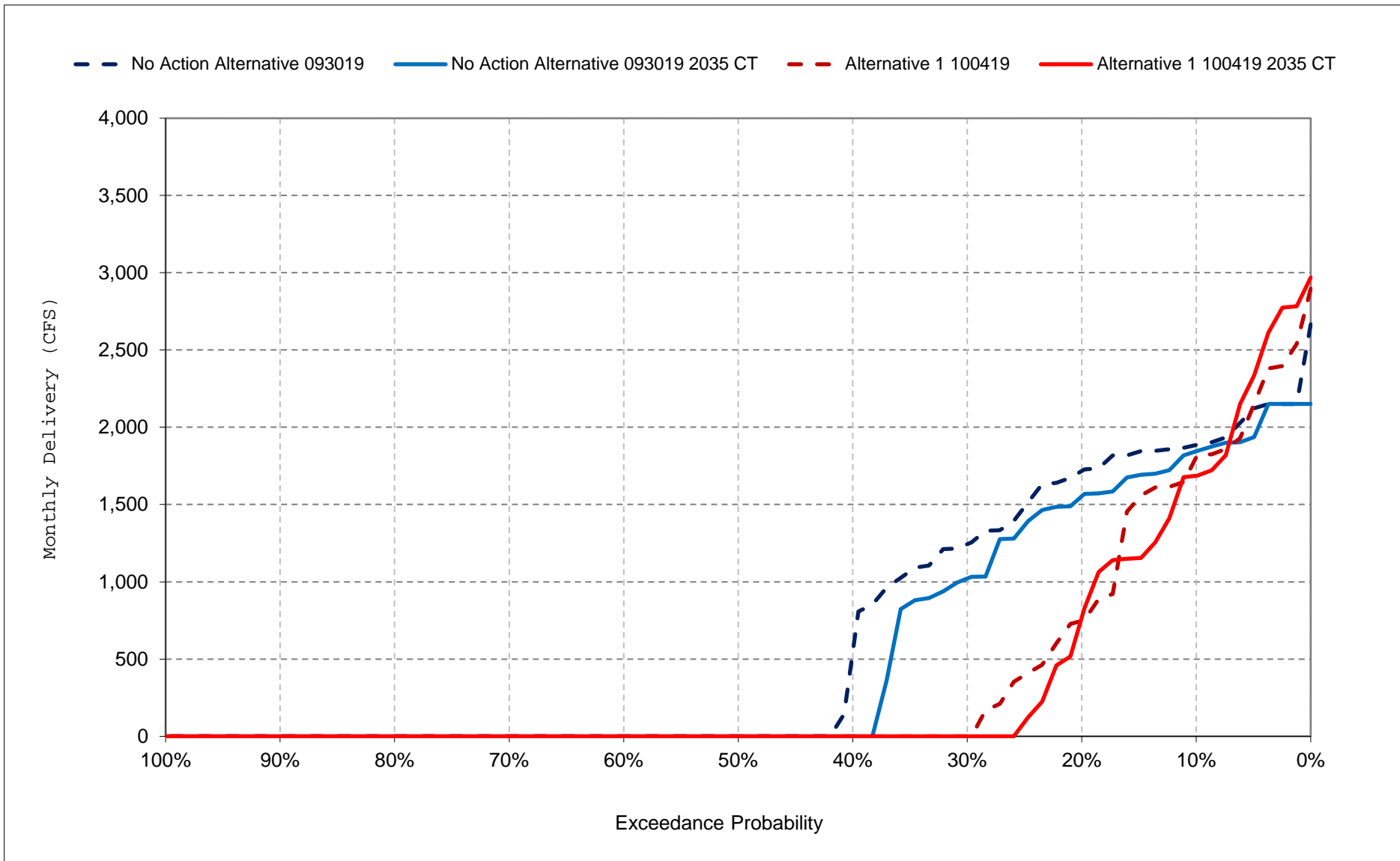
Figure 55-7. CVP Banks PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

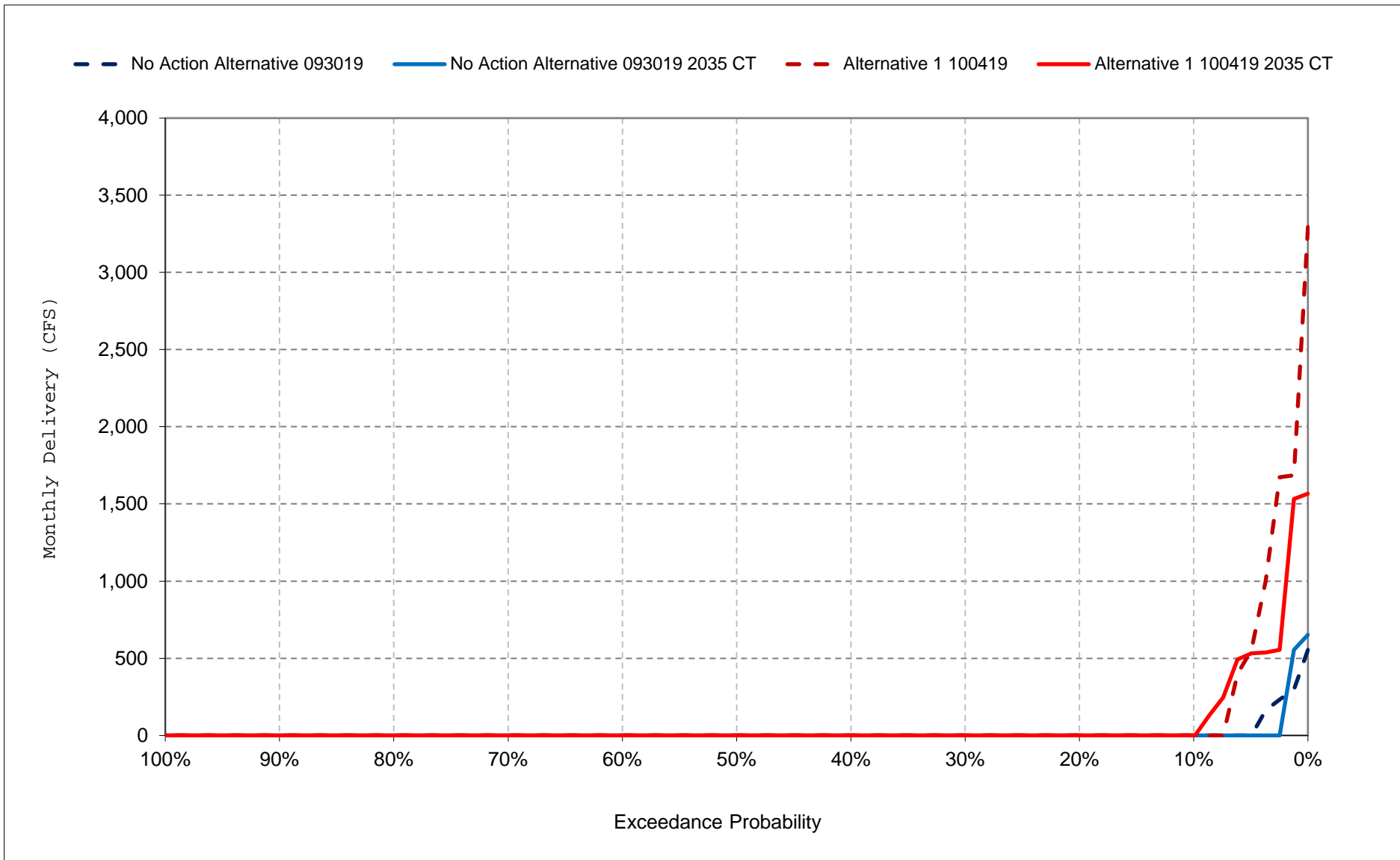
Figure 55-8. CVP Banks PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

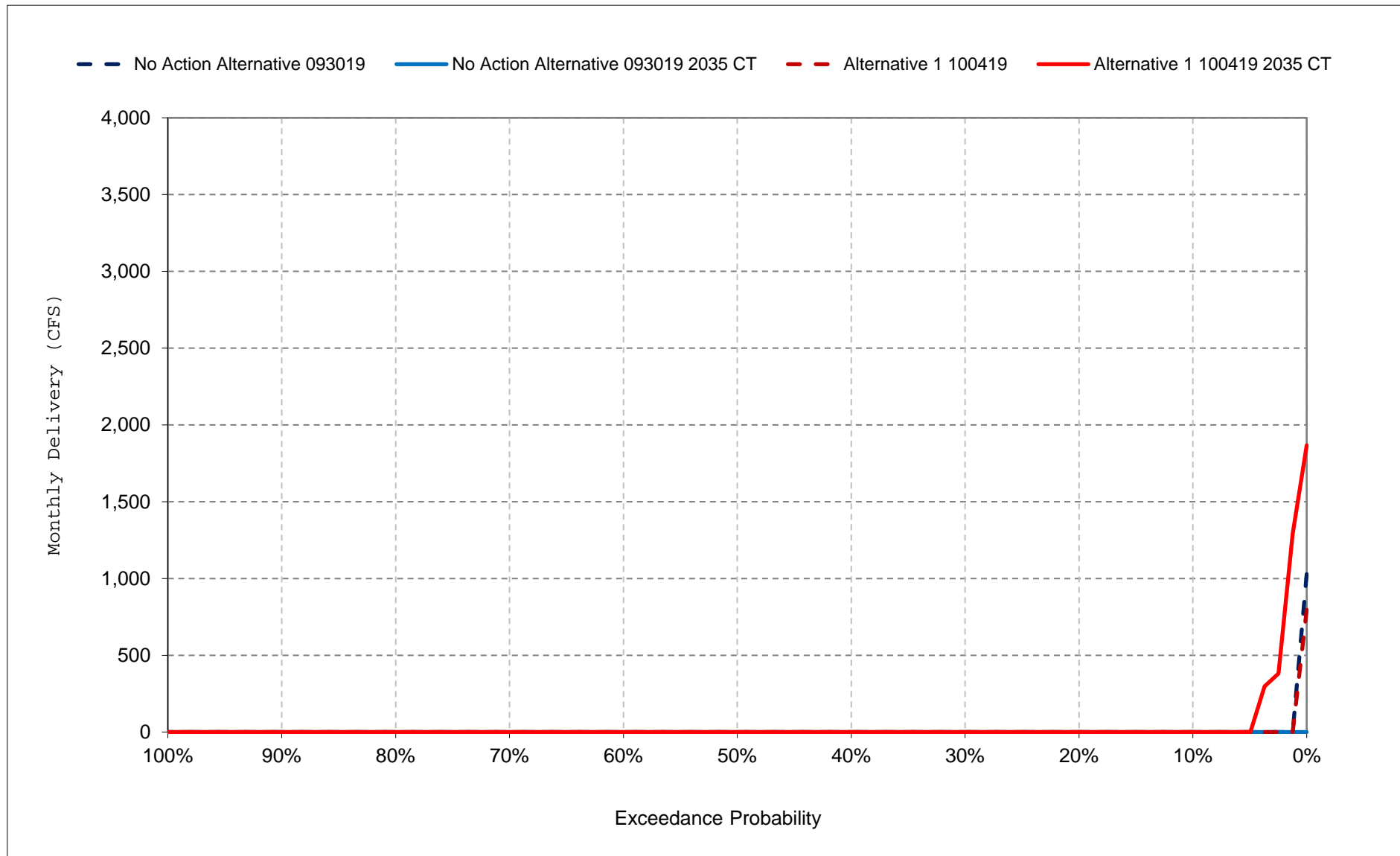
Figure 55-9. CVP Banks PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

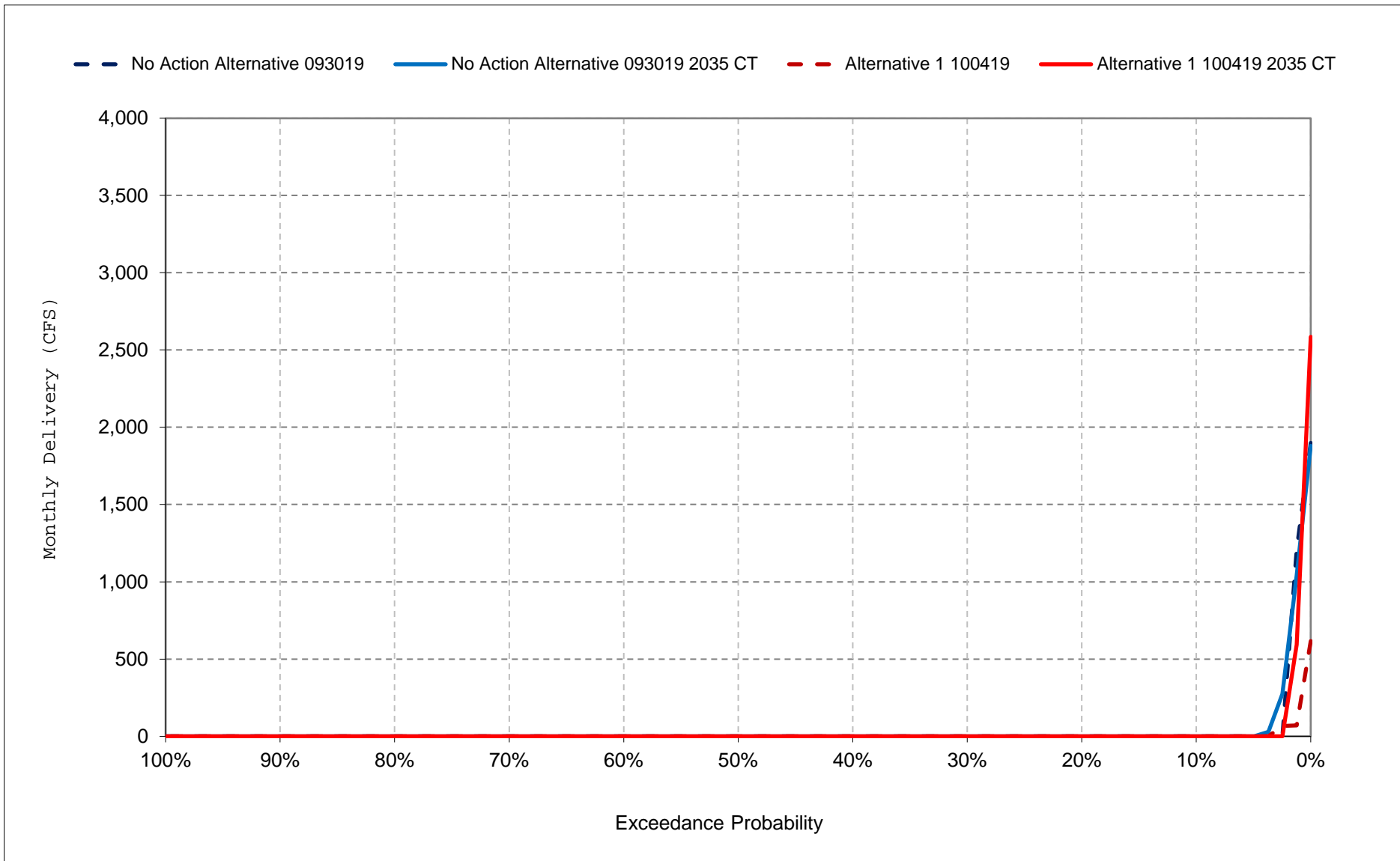
Figure 55-10. CVP Banks PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

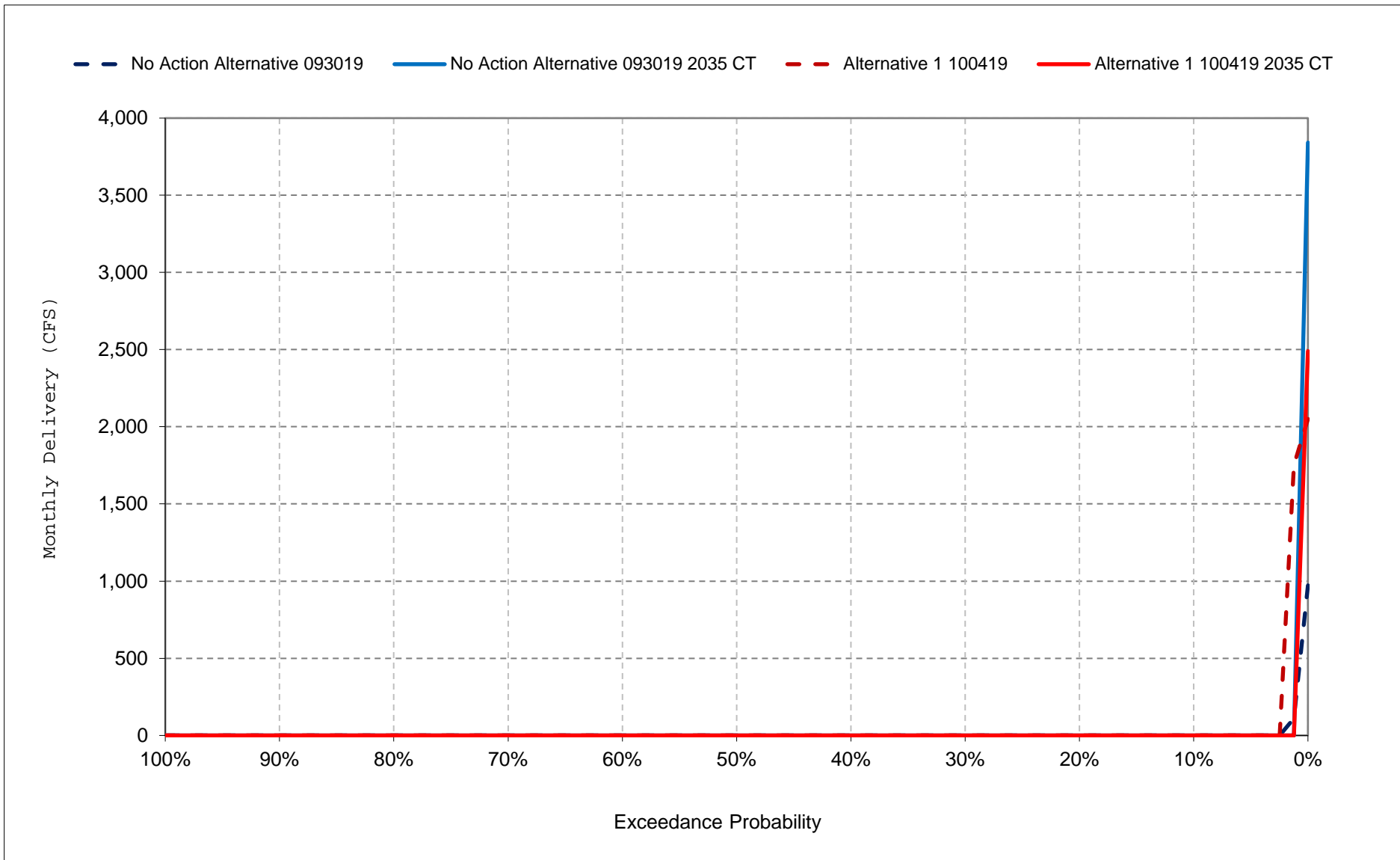
Figure 55-11. CVP Banks PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

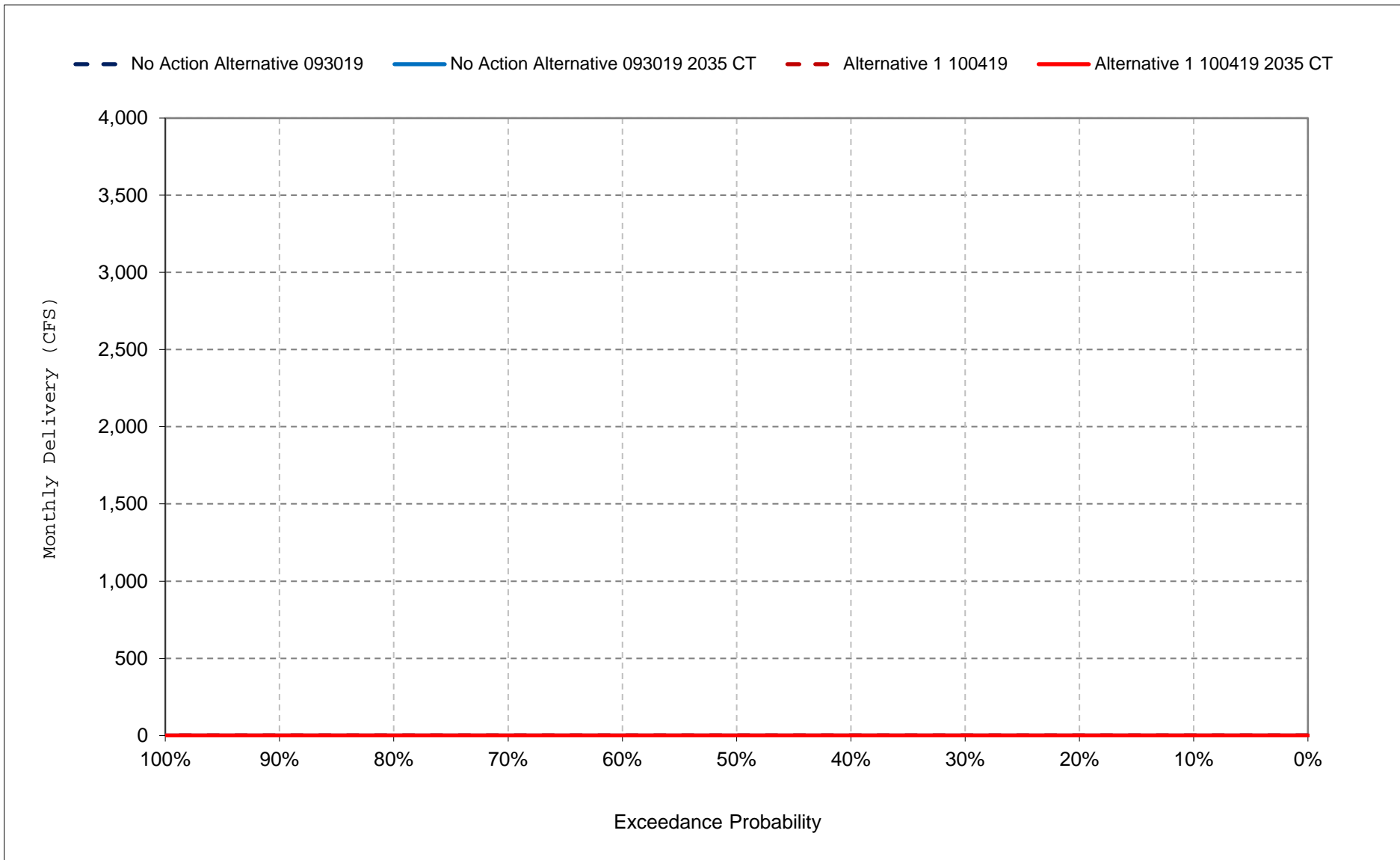
Figure 55-12. CVP Banks PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

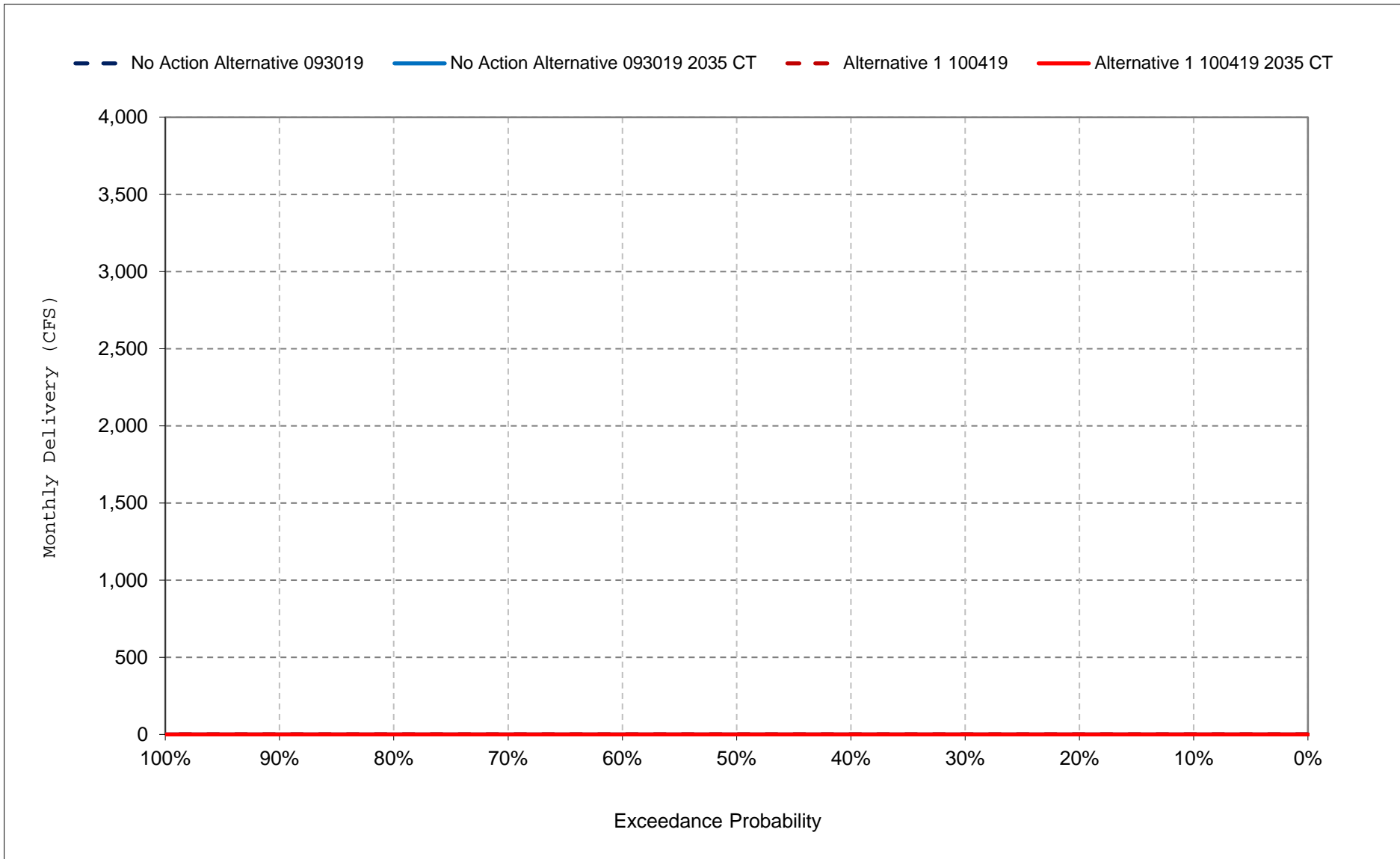
Figure 55-13. CVP Banks PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

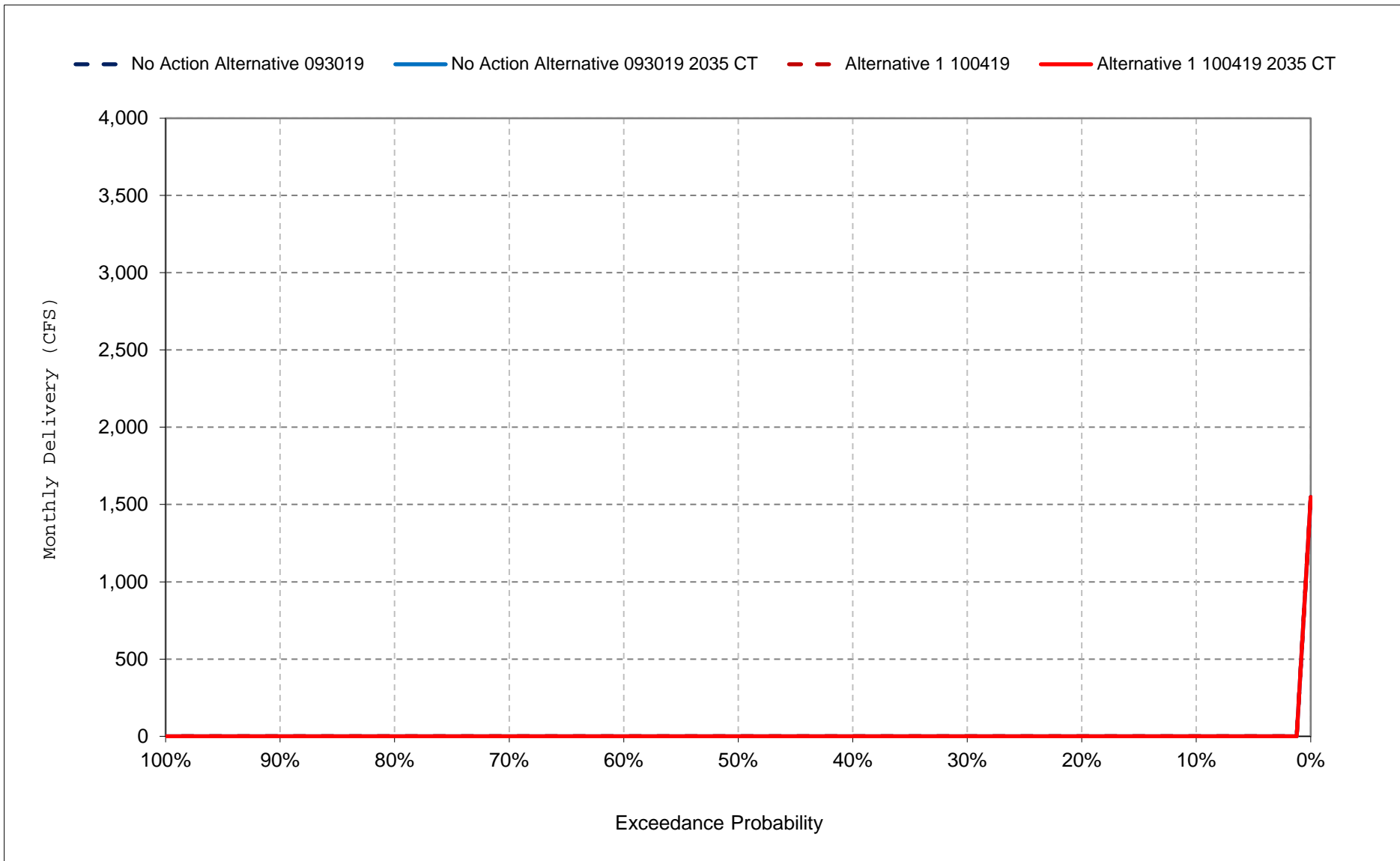
Figure 55-14. CVP Banks PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

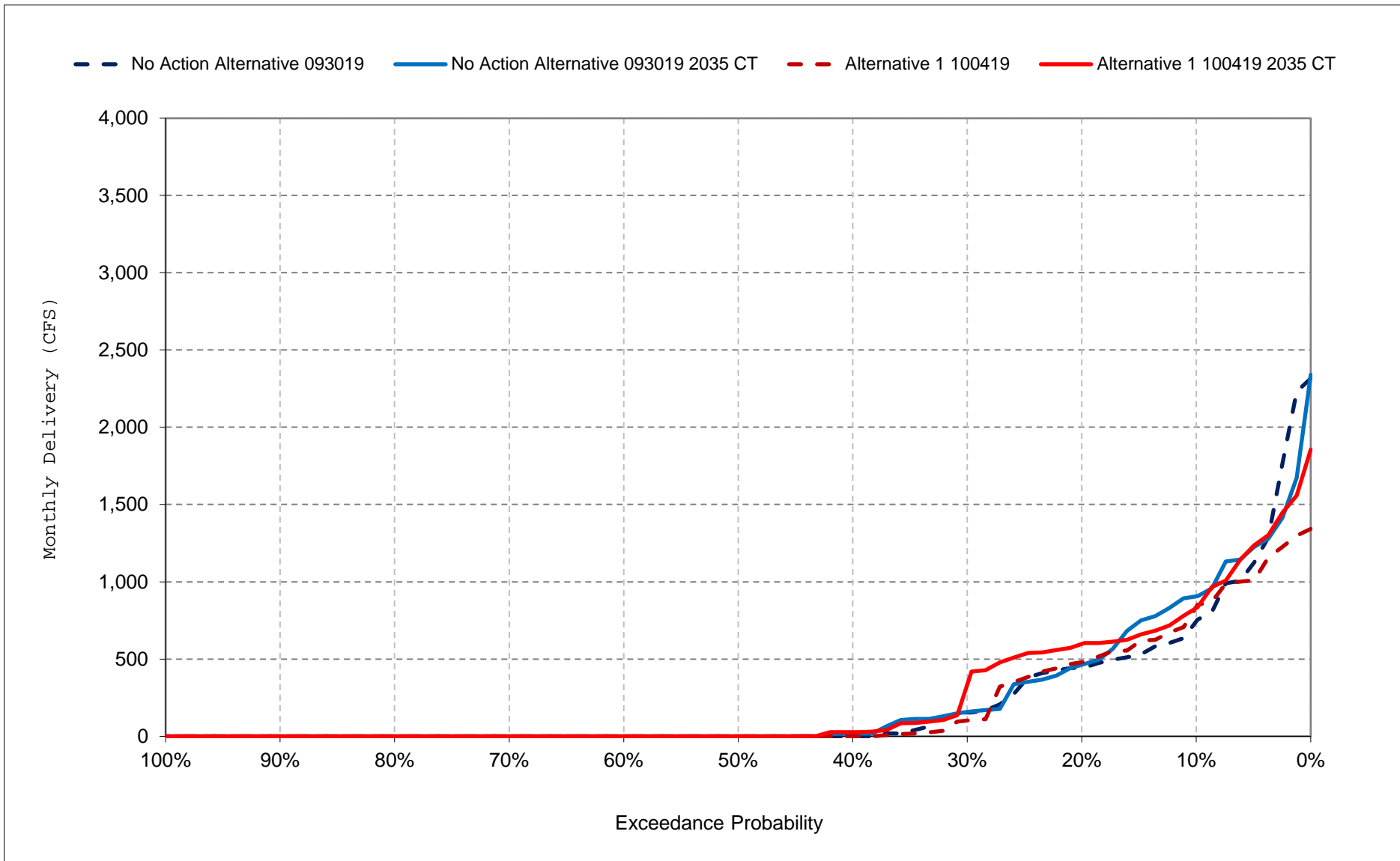
Figure 55-15. CVP Banks PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

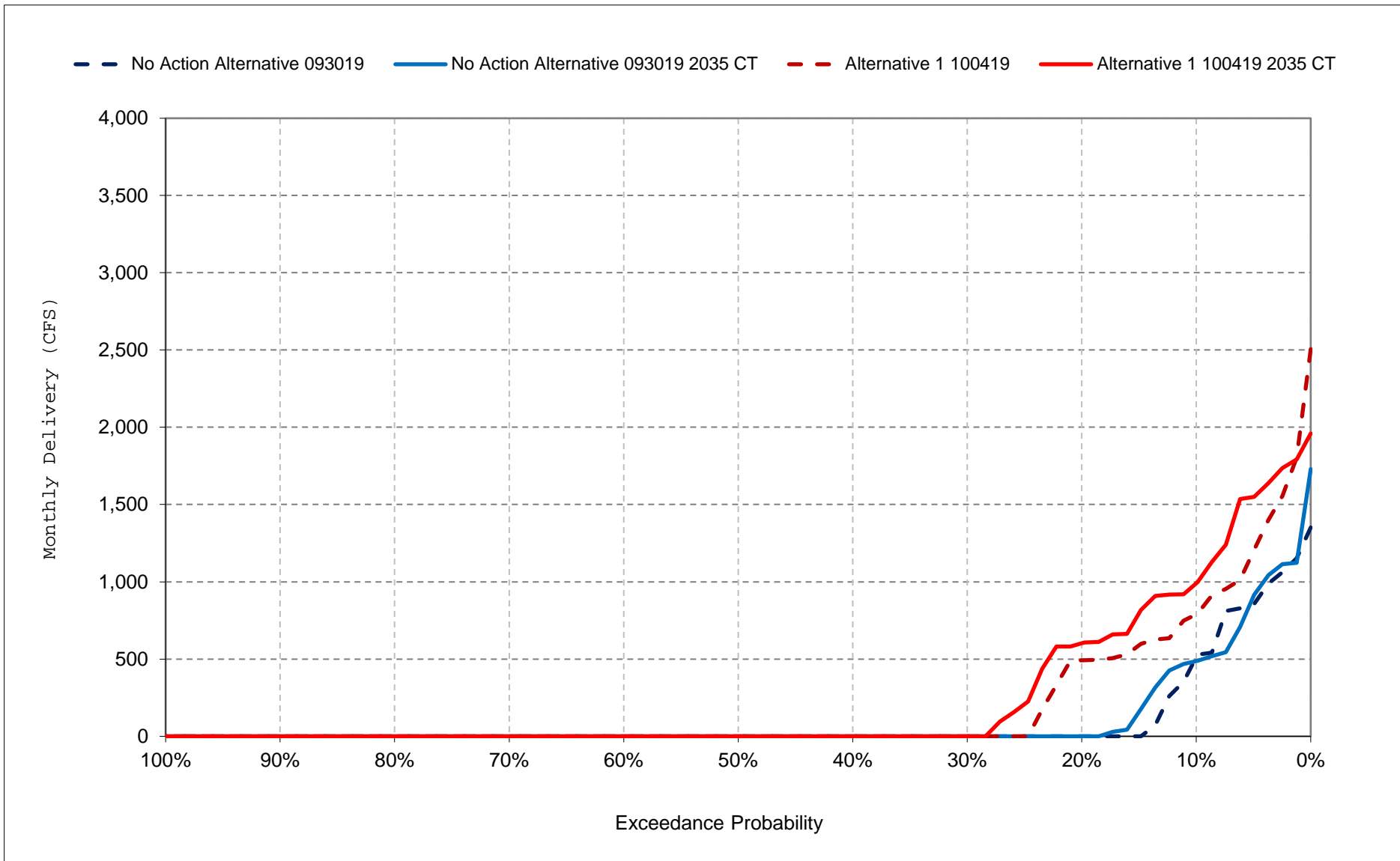
Figure 55-16. CVP Banks PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

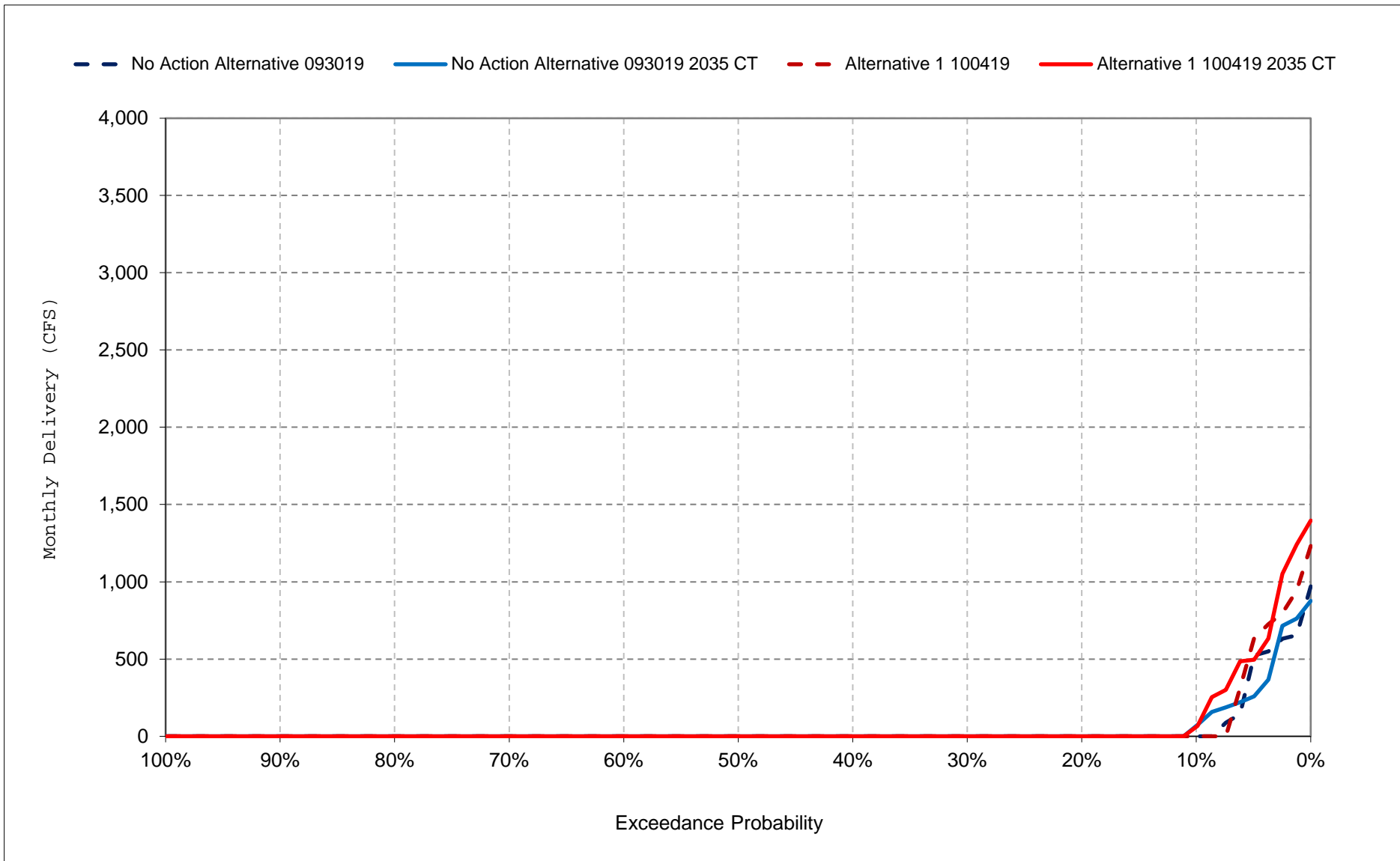
Figure 55-17. CVP Banks PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 55-18. CVP Banks PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-1. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,199	6,680	7,112	5,812	8,363	7,459	1,812	1,574	4,948	6,680	6,680	6,680
20%	3,284	5,514	7,058	3,400	5,869	6,297	1,408	995	2,583	6,680	6,680	6,680
30%	3,054	4,446	5,870	2,838	3,846	5,461	1,136	851	2,062	6,680	6,680	6,680
40%	2,940	3,409	4,618	2,735	3,116	3,608	969	654	1,903	6,662	6,680	6,680
50%	2,647	2,779	3,875	2,658	2,775	2,921	891	600	1,532	6,134	6,654	5,725
60%	2,543	2,199	3,539	2,629	2,605	2,652	847	600	1,226	5,396	2,200	3,241
70%	2,240	1,771	3,269	2,446	2,202	2,137	764	600	1,140	4,005	310	2,638
80%	1,847	1,279	2,962	2,270	1,792	1,675	715	600	600	326	300	2,396
90%	1,152	701	2,337	1,899	1,215	1,056	600	525	300	300	300	1,620
Long Term												
Full Simulation Period ^d	2,734	3,230	4,548	3,225	3,673	3,789	1,171	989	1,984	4,607	3,994	4,565
Water Year Types ^{b,c}												
Wet (32%)	3,067	2,466	5,898	4,474	5,500	6,207	1,611	1,684	3,437	6,287	6,678	6,558
Above Normal (16%)	3,288	3,306	5,138	2,975	3,975	4,046	877	673	1,777	6,239	6,679	6,554
Below Normal (13%)	3,424	4,083	4,140	2,562	2,906	2,896	1,032	632	1,345	6,059	4,595	4,203
Dry (24%)	2,344	4,306	3,754	2,593	2,481	2,449	1,153	800	1,466	3,147	644	2,813
Critical (15%)	1,434	2,230	2,684	2,452	2,075	1,321	694	466	510	300	300	1,343

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,512	6,680	7,123	6,280	8,970	5,985	6,339	6,148	4,393	6,680	6,680	4,839
20%	3,437	6,680	7,054	4,153	5,851	4,529	4,802	3,431	3,064	6,680	6,680	2,845
30%	3,176	6,254	5,441	3,096	4,098	3,928	4,300	2,727	2,633	6,680	6,680	2,578
40%	2,808	5,101	4,459	2,898	3,320	3,125	3,378	2,230	2,234	6,674	6,680	2,389
50%	2,682	4,854	3,899	2,831	2,917	2,381	2,904	2,114	2,118	6,441	6,088	2,020
60%	2,472	3,795	3,306	2,728	2,703	2,175	2,510	1,672	2,002	5,514	2,589	1,622
70%	2,188	3,432	2,929	2,625	2,627	2,044	2,020	1,422	1,845	4,337	436	1,304
80%	1,904	2,786	2,720	2,386	2,489	1,912	1,522	1,185	1,710	701	300	800
90%	1,186	1,868	2,593	2,127	2,316	1,725	973	868	300	300	300	421
Long Term												
Full Simulation Period ^d	2,783	4,537	4,423	3,423	4,035	3,287	3,204	2,485	2,430	4,750	4,025	2,263
Water Year Types ^{b,c}												
Wet (32%)	3,213	5,658	5,735	4,671	5,926	5,099	4,802	4,024	3,572	6,184	6,487	1,812
Above Normal (16%)	2,565	5,065	5,319	3,359	3,748	3,119	3,398	2,496	2,075	6,100	6,371	1,547
Below Normal (13%)	3,581	4,471	3,684	3,021	3,538	2,459	3,059	1,904	2,057	6,255	5,539	4,126
Dry (24%)	2,597	4,224	3,589	2,634	2,938	2,357	2,190	1,836	2,441	3,849	702	2,859
Critical (15%)	1,663	2,116	2,678	2,473	2,534	1,850	1,352	754	666	304	300	1,312

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	313	0	11	468	607	-1,474	4,527	4,575	-555	0	0	-1,841
20%	153	1,166	-3	753	-18	-1,768	3,394	2,436	481	0	0	-3,835
30%	122	1,808	-428	259	252	-1,533	3,165	1,876	571	0	0	-4,102
40%	-132	1,692	-160	163	204	-483	2,409	1,576	332	12	0	-4,291
50%	36	2,075	23	173	142	-539	2,012	1,514	585	307	-566	-3,705
60%	-71	1,597	-233	99	98	-478	1,663	1,072	775	118	389	-1,619
70%	-52	1,661	-340	179	426	-93	1,256	822	705	332	127	-1,334
80%	57	1,507	-243	116	697	237	807	585	1,110	375	0	-1,596
90%	34	1,167	256	228	1,101	670	373	343	0	0	0	-1,198
Long Term												
Full Simulation Period ^d	48	1,306	-125	198	363	-502	2,032	1,496	446	144	32	-2,302
Water Year Types ^{b,c}												
Wet (32%)	147	3,192	-163	196	426	-1,108	3,191	2,341	135	-103	-191	-4,746
Above Normal (16%)	-722	1,759	181	384	-227	-927	2,520	1,823	299	-139	-307	-5,007
Below Normal (13%)	157	388	-456	459	633	-438	2,027	1,272	712	196	944	-77
Dry (24%)	253	-82	-165	41	458	-92	1,036	1,035	976	702	59	46
Critical (15%)	229	-113	-6	21	459	529	658	288	156	4	0	-31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 56-2. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,605	6,680	7,117	6,319	9,376	8,162	2,085	1,519	3,897	6,680	6,680	6,680
20%	3,167	5,425	7,052	4,892	6,152	6,512	1,485	968	2,313	6,680	6,680	6,680
30%	2,941	4,533	5,379	2,947	4,198	5,928	1,208	833	1,940	6,664	6,680	6,680
40%	2,667	3,377	4,267	2,722	3,316	3,893	1,046	723	1,754	6,553	6,680	6,402
50%	2,482	2,628	3,823	2,643	2,807	3,099	919	613	1,391	5,869	6,666	4,571
60%	2,186	2,069	3,390	2,599	2,576	2,740	849	600	1,194	5,538	3,698	2,910
70%	1,972	1,561	3,266	2,095	2,047	2,316	811	600	1,135	4,667	461	2,559
80%	1,266	1,167	2,968	1,899	1,752	1,924	707	600	600	1,407	300	2,306
90%	856	615	2,495	1,762	1,301	1,184	600	525	310	300	300	1,487
Long Term												
Full Simulation Period ^d	2,461	3,149	4,481	3,407	3,832	4,000	1,302	996	1,854	4,784	4,222	4,332
Water Year Types ^{b,c}												
Wet (32%)	3,034	2,535	5,689	5,183	5,967	6,333	1,967	1,704	3,160	6,036	6,512	5,860
Above Normal (16%)	2,011	3,244	4,993	3,246	4,016	4,644	977	690	1,633	6,327	6,647	6,436
Below Normal (13%)	3,284	3,895	3,864	2,419	3,467	3,046	1,471	726	1,241	5,983	4,614	4,121
Dry (24%)	2,359	4,095	3,855	2,523	2,313	2,577	958	744	1,358	3,930	1,808	2,849
Critical (15%)	1,123	2,118	2,921	2,112	1,875	1,491	631	459	651	724	300	1,411

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,792	6,680	7,092	6,952	9,183	6,321	6,245	6,130	3,991	6,680	6,680	4,933
20%	3,241	6,680	6,944	4,763	6,164	5,086	4,935	3,627	3,043	6,680	6,680	3,224
30%	2,940	5,623	5,010	3,134	4,951	4,269	4,264	2,831	2,661	6,653	6,680	2,804
40%	2,723	5,049	4,209	2,933	3,530	3,138	3,598	2,290	2,419	6,351	6,680	2,492
50%	2,482	4,569	3,568	2,787	2,901	2,549	3,116	2,108	2,229	5,678	4,561	2,052
60%	2,202	3,822	3,237	2,621	2,660	2,275	2,581	1,712	2,096	4,493	2,344	1,602
70%	2,082	3,395	2,856	2,439	2,535	2,072	2,097	1,413	1,929	3,129	1,114	1,248
80%	1,524	2,726	2,711	2,172	2,450	1,942	1,692	1,003	1,796	449	300	797
90%	922	1,839	2,510	2,067	2,354	1,811	965	572	300	300	300	396
Long Term												
Full Simulation Period ^d	2,582	4,434	4,314	3,520	4,098	3,426	3,307	2,496	2,482	4,433	3,908	2,279
Water Year Types ^{b,c}												
Wet (32%)	3,046	5,497	5,476	5,237	5,904	5,273	4,949	4,079	3,568	5,184	5,874	1,750
Above Normal (16%)	1,978	4,971	4,894	3,482	3,913	3,569	3,715	2,557	2,259	5,620	6,189	1,913
Below Normal (13%)	3,572	4,302	3,797	2,542	4,049	2,622	2,955	1,943	2,220	5,983	4,851	3,842
Dry (24%)	2,584	4,143	3,667	2,520	2,906	2,310	2,286	1,740	2,271	4,139	1,518	2,869
Critical (15%)	1,322	2,154	2,724	2,401	2,418	1,868	1,334	768	961	589	300	1,405

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	187	0	-25	632	-193	-1,842	4,160	4,611	94	0	0	-1,747
20%	73	1,255	-109	-129	13	-1,427	3,450	2,659	730	0	0	-3,456
30%	-2	1,091	-369	187	753	-1,660	3,056	1,997	720	-11	0	-3,876
40%	56	1,671	-58	212	215	-755	2,552	1,567	665	-202	0	-3,910
50%	1	1,941	-255	144	94	-550	2,197	1,495	838	-191	-2,105	-2,519
60%	16	1,753	-153	22	85	-465	1,732	1,112	902	-1,045	-1,354	-1,308
70%	111	1,834	-410	344	488	-244	1,286	813	795	-1,537	653	-1,311
80%	258	1,559	-257	273	698	18	985	403	1,196	-959	0	-1,509
90%	67	1,224	15	305	1,053	628	365	47	-10	0	0	-1,091
Long Term												
Full Simulation Period ^d	121	1,284	-167	113	266	-574	2,005	1,500	628	-351	-314	-2,053
Water Year Types ^{b,c}												
Wet (32%)	12	2,961	-213	55	-63	-1,061	2,981	2,375	408	-852	-638	-4,110
Above Normal (16%)	-32	1,728	-99	236	-102	-1,075	2,738	1,866	626	-708	-458	-4,523
Below Normal (13%)	288	406	-68	123	582	-424	1,484	1,217	980	0	236	-278
Dry (24%)	225	48	-188	-3	593	-266	1,328	996	912	209	-290	21
Critical (15%)	199	36	-197	289	543	376	703	308	310	-135	0	-6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-3. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,199	6,680	7,112	5,812	8,363	7,459	1,812	1,574	4,948	6,680	6,680	6,680
20%	3,284	5,514	7,058	3,400	5,869	6,297	1,408	995	2,583	6,680	6,680	6,680
30%	3,054	4,446	5,870	2,838	3,846	5,461	1,136	851	2,062	6,680	6,680	6,680
40%	2,940	3,409	4,618	2,735	3,116	3,608	969	654	1,903	6,662	6,680	6,680
50%	2,647	2,779	3,875	2,658	2,775	2,921	891	600	1,532	6,134	6,654	5,725
60%	2,543	2,199	3,539	2,629	2,605	2,652	847	600	1,226	5,396	2,200	3,241
70%	2,240	1,771	3,269	2,446	2,202	2,137	764	600	1,140	4,005	310	2,638
80%	1,847	1,279	2,962	2,270	1,792	1,675	715	600	600	326	300	2,396
90%	1,152	701	2,337	1,899	1,215	1,056	600	525	300	300	300	1,620
Long Term												
Full Simulation Period ^d	2,734	3,230	4,548	3,225	3,673	3,789	1,171	989	1,984	4,607	3,994	4,565
Water Year Types ^{b,c}												
Wet (32%)	3,067	2,466	5,898	4,474	5,500	6,207	1,611	1,684	3,437	6,287	6,678	6,558
Above Normal (16%)	3,288	3,306	5,138	2,975	3,975	4,046	877	673	1,777	6,239	6,679	6,554
Below Normal (13%)	3,424	4,083	4,140	2,562	2,906	2,896	1,032	632	1,345	6,059	4,595	4,203
Dry (24%)	2,344	4,306	3,754	2,593	2,481	2,449	1,153	800	1,466	3,147	644	2,813
Critical (15%)	1,434	2,230	2,684	2,452	2,075	1,321	694	466	510	300	300	1,343

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,605	6,680	7,117	6,319	9,376	8,162	2,085	1,519	3,897	6,680	6,680	6,680
20%	3,167	5,425	7,052	4,892	6,152	6,512	1,485	968	2,313	6,680	6,680	6,680
30%	2,941	4,533	5,379	2,947	4,198	5,928	1,208	833	1,940	6,664	6,680	6,680
40%	2,667	3,377	4,267	2,722	3,316	3,893	1,046	723	1,754	6,553	6,680	6,402
50%	2,482	2,628	3,823	2,643	2,807	3,099	919	613	1,391	5,869	6,666	4,571
60%	2,186	2,069	3,390	2,599	2,576	2,740	849	600	1,194	5,538	3,698	2,910
70%	1,972	1,561	3,266	2,095	2,047	2,316	811	600	1,135	4,667	461	2,559
80%	1,266	1,167	2,968	1,899	1,752	1,924	707	600	600	1,407	300	2,306
90%	856	615	2,495	1,762	1,301	1,184	600	525	310	300	300	1,487
Long Term												
Full Simulation Period ^d	2,461	3,149	4,481	3,407	3,832	4,000	1,302	996	1,854	4,784	4,222	4,332
Water Year Types ^{b,c}												
Wet (32%)	3,034	2,535	5,689	5,183	5,967	6,333	1,967	1,704	3,160	6,036	6,512	5,860
Above Normal (16%)	2,011	3,244	4,993	3,246	4,016	4,644	977	690	1,633	6,327	6,647	6,436
Below Normal (13%)	3,284	3,895	3,864	2,419	3,467	3,046	1,471	726	1,241	5,983	4,614	4,121
Dry (24%)	2,359	4,095	3,855	2,523	2,313	2,577	958	744	1,358	3,930	1,808	2,849
Critical (15%)	1,123	2,118	2,921	2,112	1,875	1,491	631	459	651	724	300	1,411

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-594	0	5	507	1,013	703	273	-55	-1,051	0	0	0
20%	-117	-89	-5	1,493	283	215	77	-27	-270	0	0	0
30%	-113	86	-491	109	352	467	72	-18	-121	-16	0	0
40%	-273	-31	-351	-14	200	285	77	68	-149	-110	0	-278
50%	-165	-151	-53	-15	32	179	27	13	-142	-264	12	-1,154
60%	-357	-129	-149	-30	-29	88	2	0	-32	143	1,498	-331
70%	-268	-210	-3	-351	-155	179	47	0	-6	662	152	-79
80%	-581	-112	6	-371	-40	248	-8	0	0	1,081	0	-91
90%	-297	-86	158	-136	86	128	0	0	10	0	0	-133
Long Term												
Full Simulation Period ^d	-273	-81	-67	182	160	211	131	7	-130	177	229	-233
Water Year Types ^{b,c}												
Wet (32%)	-32	69	-209	708	467	126	356	21	-277	-251	-166	-698
Above Normal (16%)	-1,277	-62	-145	271	40	598	100	17	-144	89	-31	-118
Below Normal (13%)	-140	-188	-276	-143	562	150	439	94	-104	-77	19	-82
Dry (24%)	15	-211	102	-70	-168	127	-195	-56	-107	783	1,164	35
Critical (15%)	-310	-112	237	-340	-200	170	-63	-6	141	424	0	68

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-4. SWP Banks PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,512	6,680	7,123	6,280	8,970	5,985	6,339	6,148	4,393	6,680	6,680	4,839
20%	3,437	6,680	7,054	4,153	5,851	4,529	4,802	3,431	3,064	6,680	6,680	2,845
30%	3,176	6,254	5,441	3,096	4,098	3,928	4,300	2,727	2,633	6,680	6,680	2,578
40%	2,808	5,101	4,459	2,898	3,320	3,125	3,378	2,230	2,234	6,674	6,680	2,389
50%	2,682	4,854	3,899	2,831	2,917	2,381	2,904	2,114	2,118	6,441	6,088	2,020
60%	2,472	3,795	3,306	2,728	2,703	2,175	2,510	1,672	2,002	5,514	2,589	1,622
70%	2,188	3,432	2,929	2,625	2,627	2,044	2,020	1,422	1,845	4,337	436	1,304
80%	1,904	2,786	2,720	2,386	2,489	1,912	1,522	1,185	1,710	701	300	800
90%	1,186	1,868	2,593	2,127	2,316	1,725	973	868	300	300	300	421
Long Term												
Full Simulation Period ^d	2,783	4,537	4,423	3,423	4,035	3,287	3,204	2,485	2,430	4,750	4,025	2,263
Water Year Types ^{b,c}												
Wet (32%)	3,213	5,658	5,735	4,671	5,926	5,099	4,802	4,024	3,572	6,184	6,487	1,812
Above Normal (16%)	2,565	5,065	5,319	3,359	3,748	3,119	3,398	2,496	2,075	6,100	6,371	1,547
Below Normal (13%)	3,581	4,471	3,684	3,021	3,538	2,459	3,059	1,904	2,057	6,255	5,539	4,126
Dry (24%)	2,597	4,224	3,589	2,634	2,938	2,357	2,190	1,836	2,441	3,849	702	2,859
Critical (15%)	1,663	2,116	2,678	2,473	2,534	1,850	1,352	754	666	304	300	1,312

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,792	6,680	7,092	6,952	9,183	6,321	6,245	6,130	3,991	6,680	6,680	4,933
20%	3,241	6,680	6,944	4,763	6,164	5,086	4,935	3,627	3,043	6,680	6,680	3,224
30%	2,940	5,623	5,010	3,134	4,951	4,269	4,264	2,831	2,661	6,653	6,680	2,804
40%	2,723	5,049	4,209	2,933	3,530	3,138	3,598	2,290	2,419	6,351	6,680	2,492
50%	2,482	4,569	3,568	2,787	2,901	2,549	3,116	2,108	2,229	5,678	4,561	2,052
60%	2,202	3,822	3,237	2,621	2,660	2,275	2,581	1,712	2,096	4,493	2,344	1,602
70%	2,082	3,395	2,856	2,439	2,535	2,072	2,097	1,413	1,929	3,129	1,114	1,248
80%	1,524	2,726	2,711	2,172	2,450	1,942	1,692	1,003	1,796	449	300	797
90%	922	1,839	2,510	2,067	2,354	1,811	965	572	300	300	300	396
Long Term												
Full Simulation Period ^d	2,582	4,434	4,314	3,520	4,098	3,426	3,307	2,496	2,482	4,433	3,908	2,279
Water Year Types ^{b,c}												
Wet (32%)	3,046	5,497	5,476	5,237	5,904	5,273	4,949	4,079	3,568	5,184	5,874	1,750
Above Normal (16%)	1,978	4,971	4,894	3,482	3,913	3,569	3,715	2,557	2,259	5,620	6,189	1,913
Below Normal (13%)	3,572	4,302	3,797	2,542	4,049	2,622	2,955	1,943	2,220	5,983	4,851	3,842
Dry (24%)	2,584	4,143	3,667	2,520	2,906	2,310	2,286	1,740	2,271	4,139	1,518	2,869
Critical (15%)	1,322	2,154	2,724	2,401	2,418	1,868	1,334	768	961	589	300	1,405

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-720	0	-31	671	213	335	-94	-18	-402	0	0	95
20%	-196	0	-111	610	314	556	133	196	-21	0	0	379
30%	-236	-631	-432	37	853	340	-37	103	27	-27	0	225
40%	-85	-52	-250	35	210	13	220	60	184	-323	0	103
50%	-200	-285	-331	-44	-16	168	212	-5	111	-763	-1,528	32
60%	-270	27	-69	-108	-43	101	71	40	95	-1,021	-245	-19
70%	-105	-37	-73	-186	-93	28	76	-10	84	-1,208	678	-56
80%	-380	-60	-8	-214	-39	29	171	-182	86	-253	0	-3
90%	-264	-28	-83	-60	38	86	-7	-297	0	0	0	-26
Long Term												
Full Simulation Period ^d	-200	-103	-109	97	63	139	104	11	51	-317	-117	16
Water Year Types ^{b,c}												
Wet (32%)	-167	-161	-259	567	-22	173	146	55	-4	-999	-613	-62
Above Normal (16%)	-587	-93	-425	124	165	450	317	60	184	-480	-182	365
Below Normal (13%)	-9	-170	113	-479	511	164	-104	39	164	-273	-689	-284
Dry (24%)	-13	-81	78	-114	-32	-47	96	-96	-170	290	816	10
Critical (15%)	-340	38	46	-72	-115	18	-19	14	295	285	0	93

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

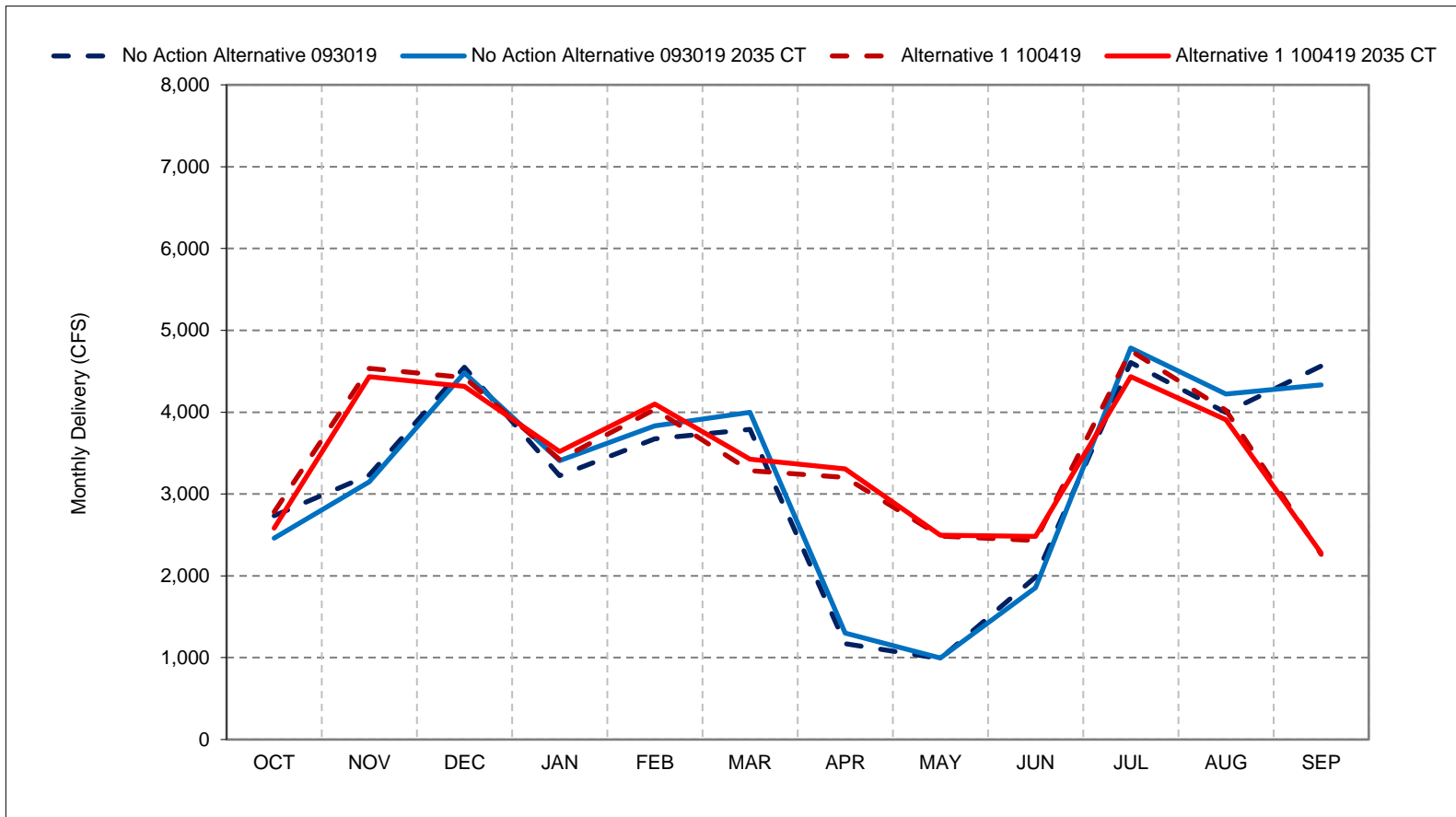
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 56-1. SWP Banks PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

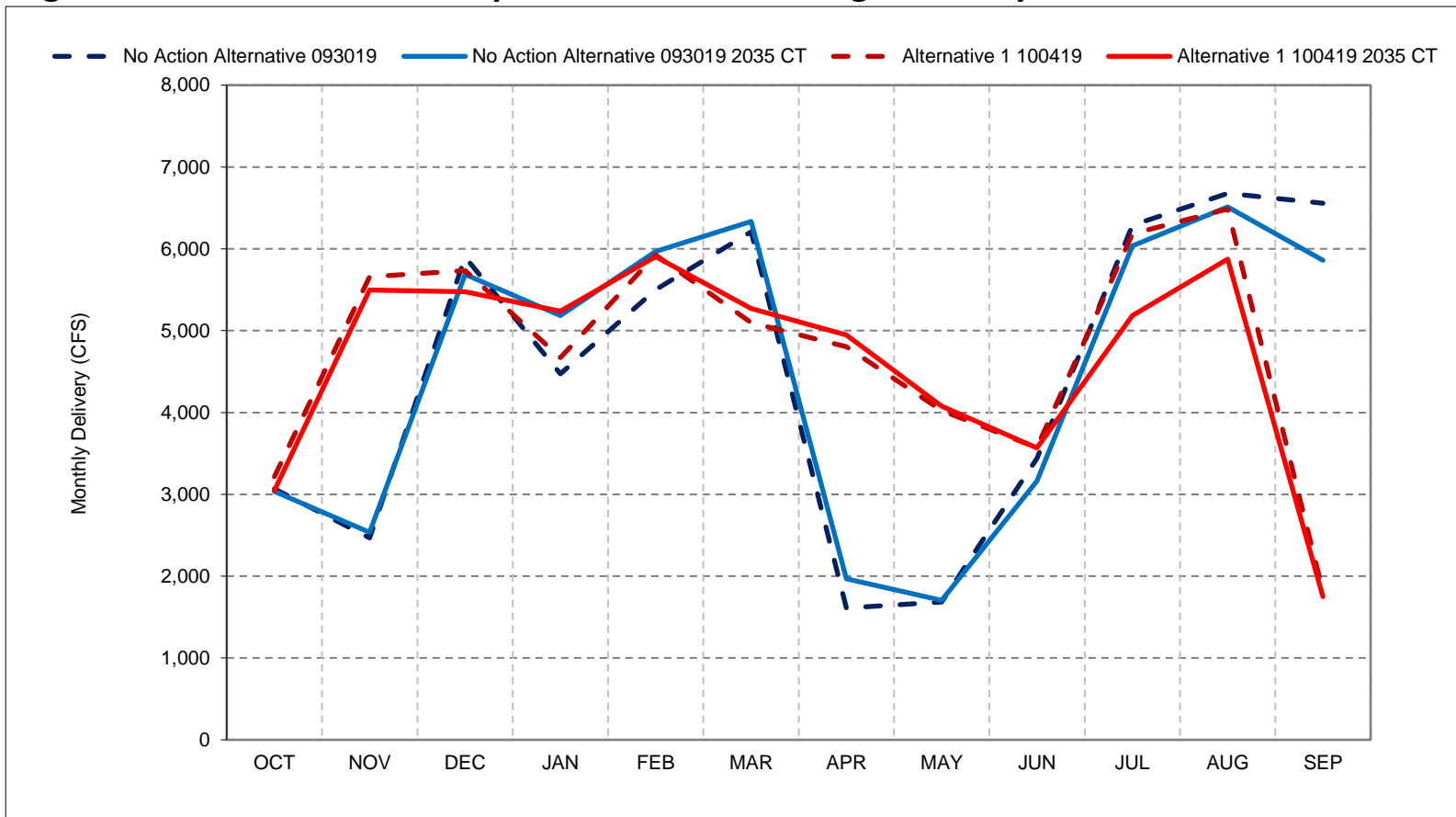
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-2. SWP Banks PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

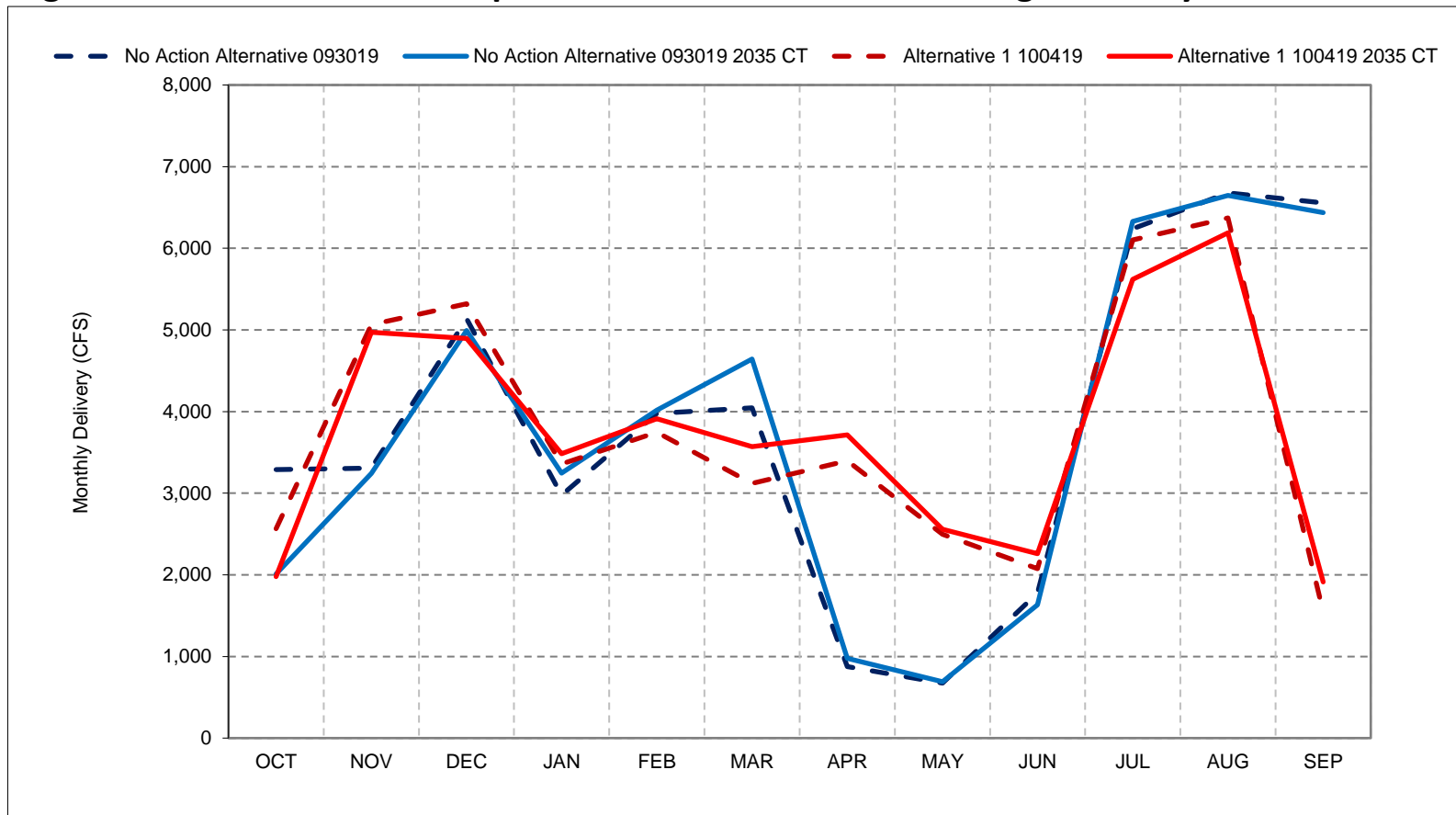
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-3. SWP Banks PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

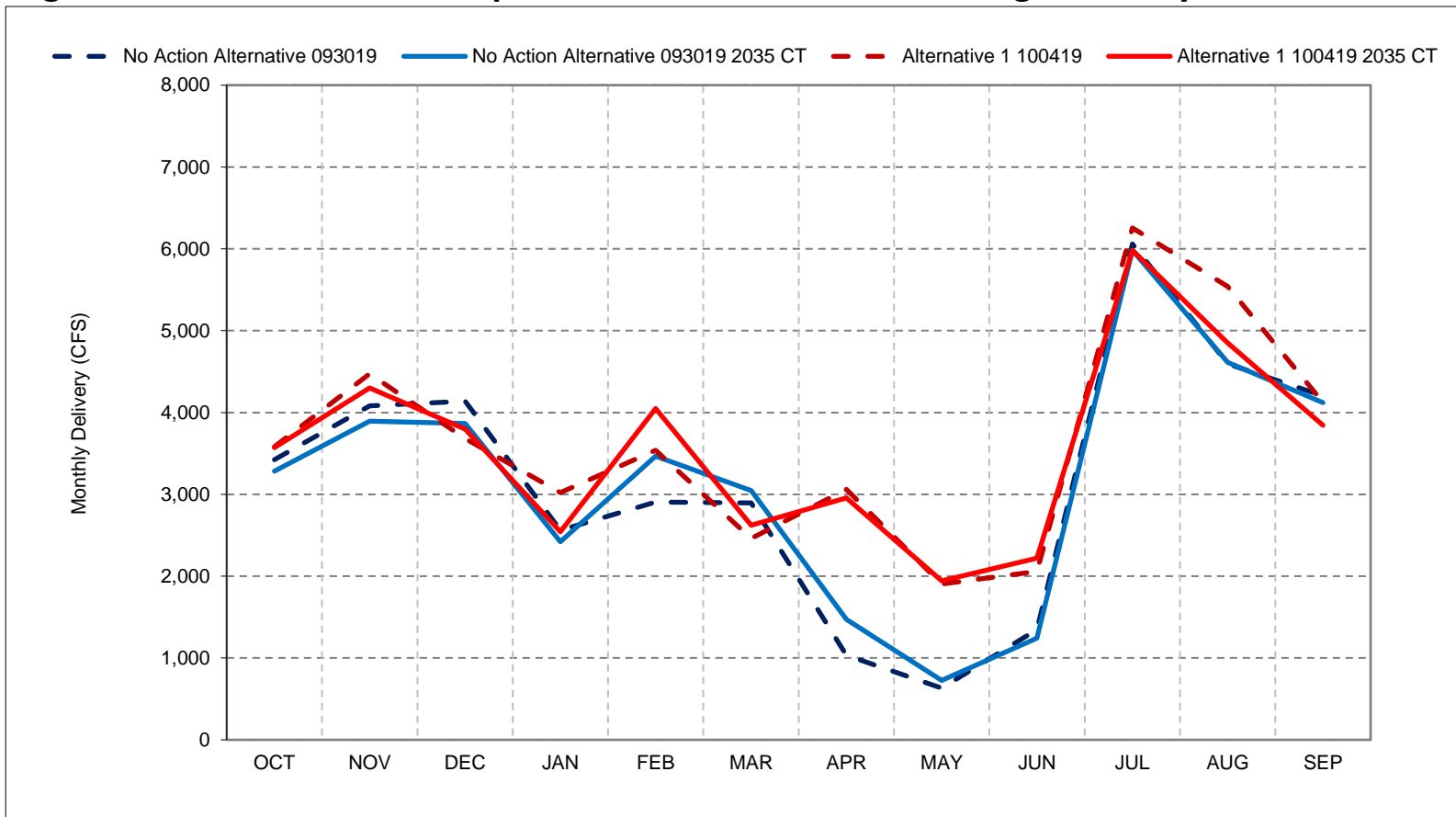
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-4. SWP Banks PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

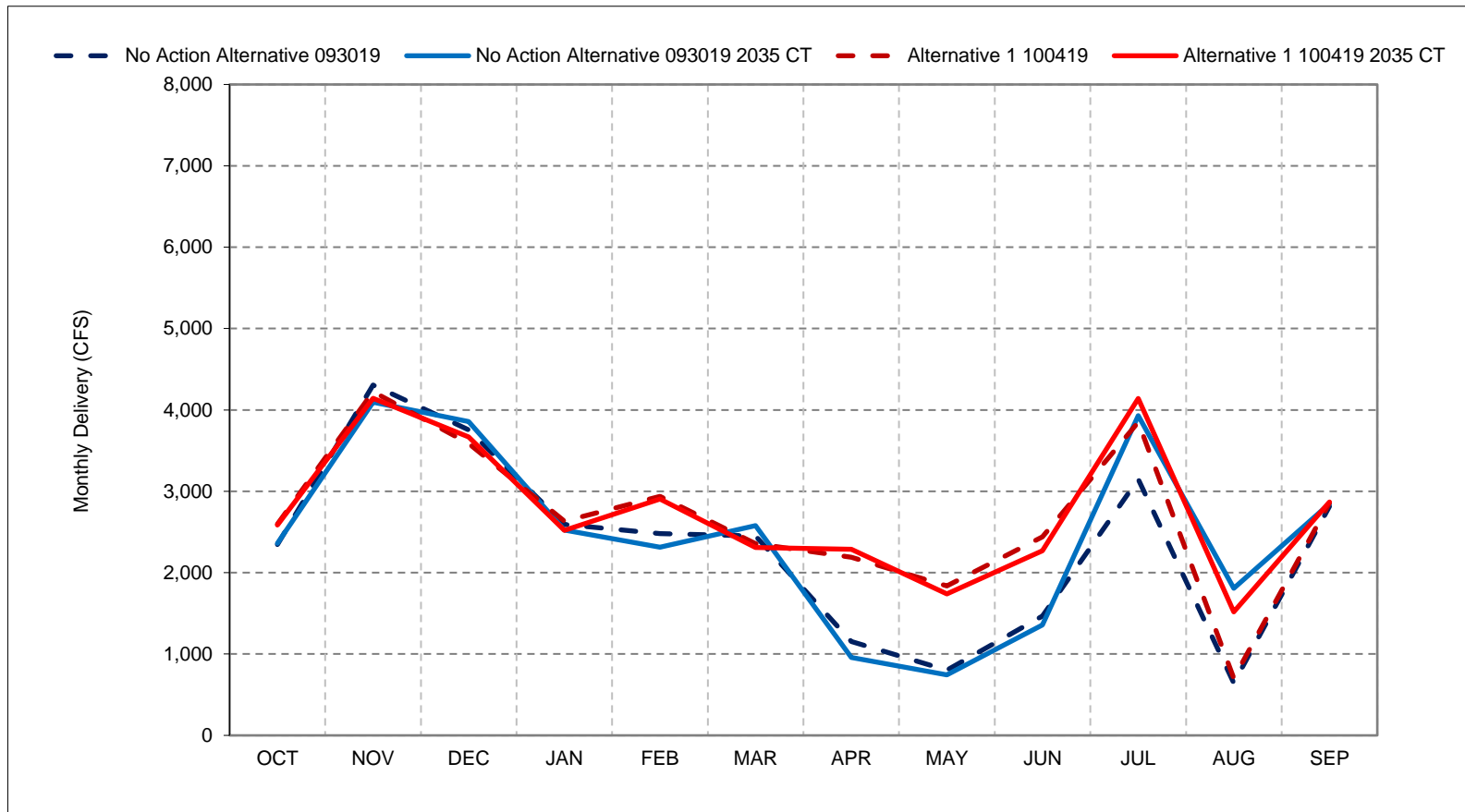
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-5. SWP Banks PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

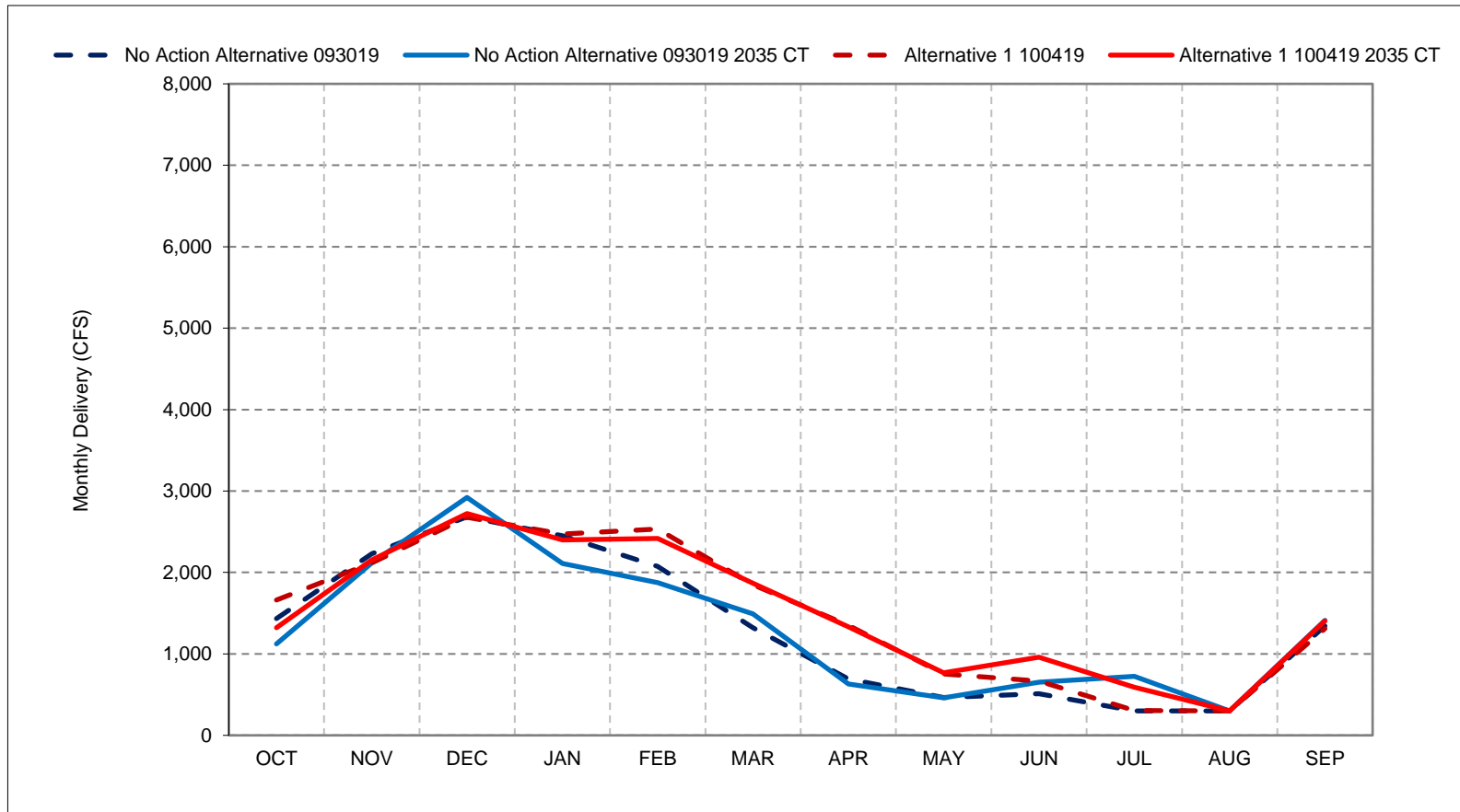
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-6. SWP Banks PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

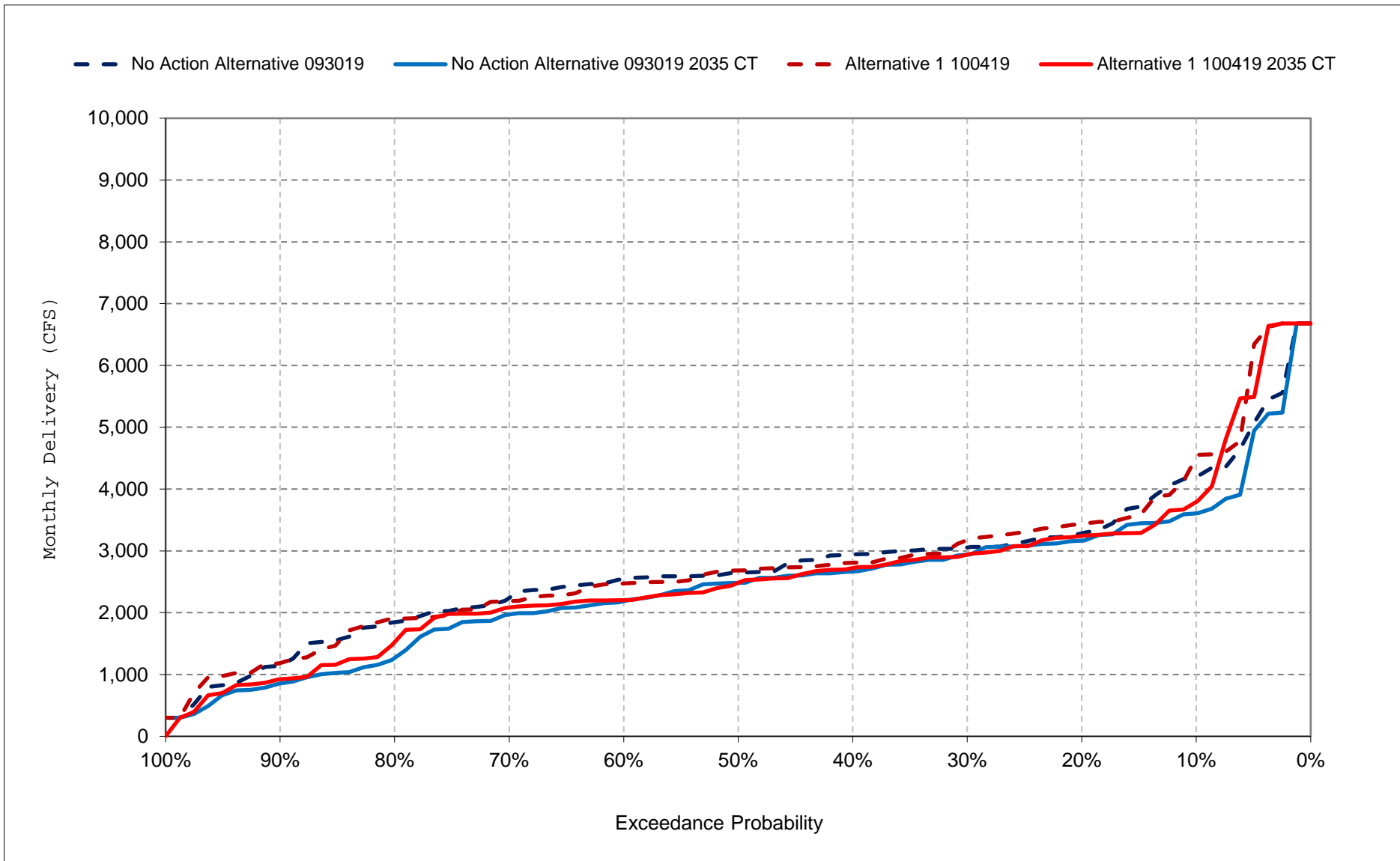
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

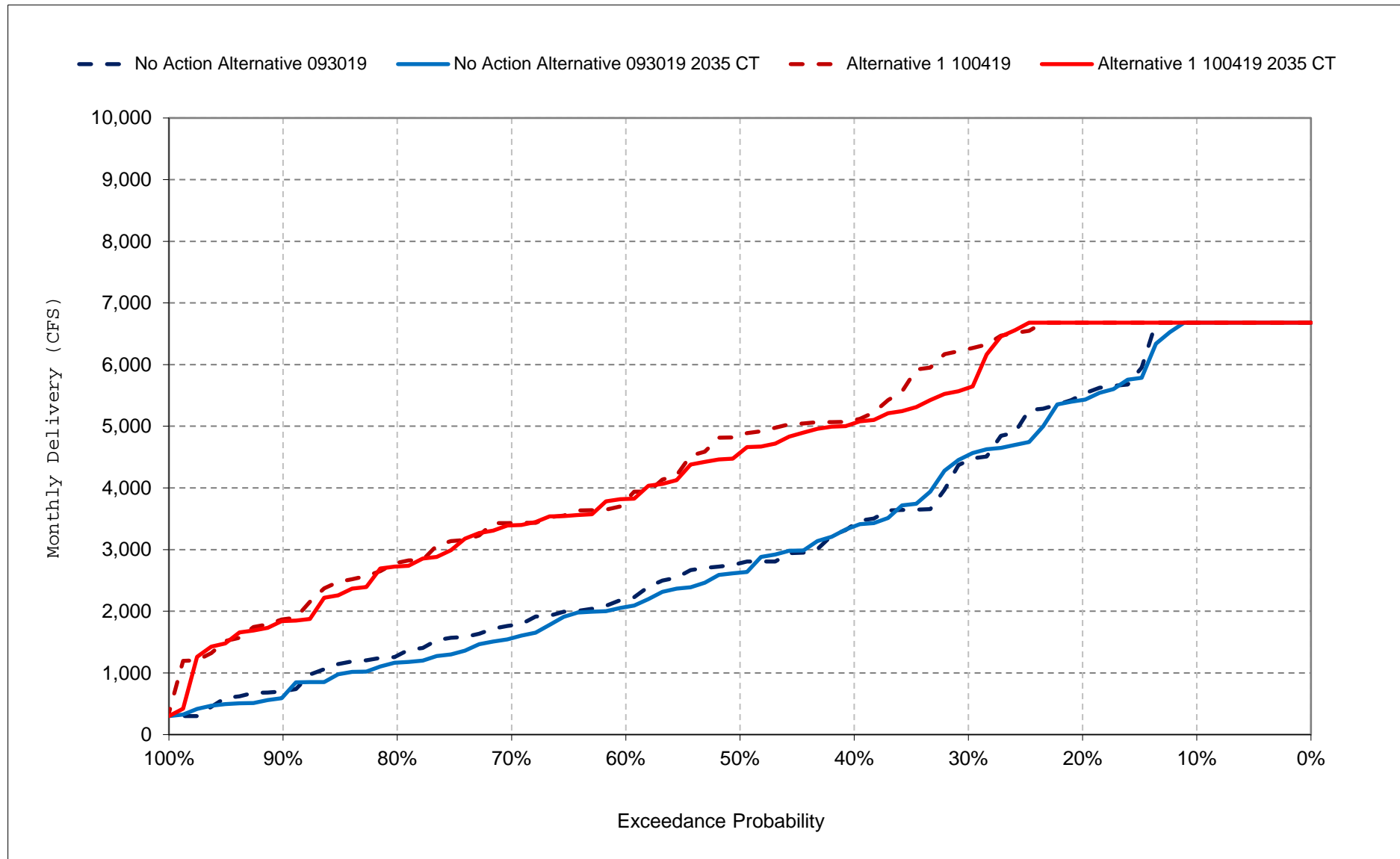
Figure 56-7. SWP Banks PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

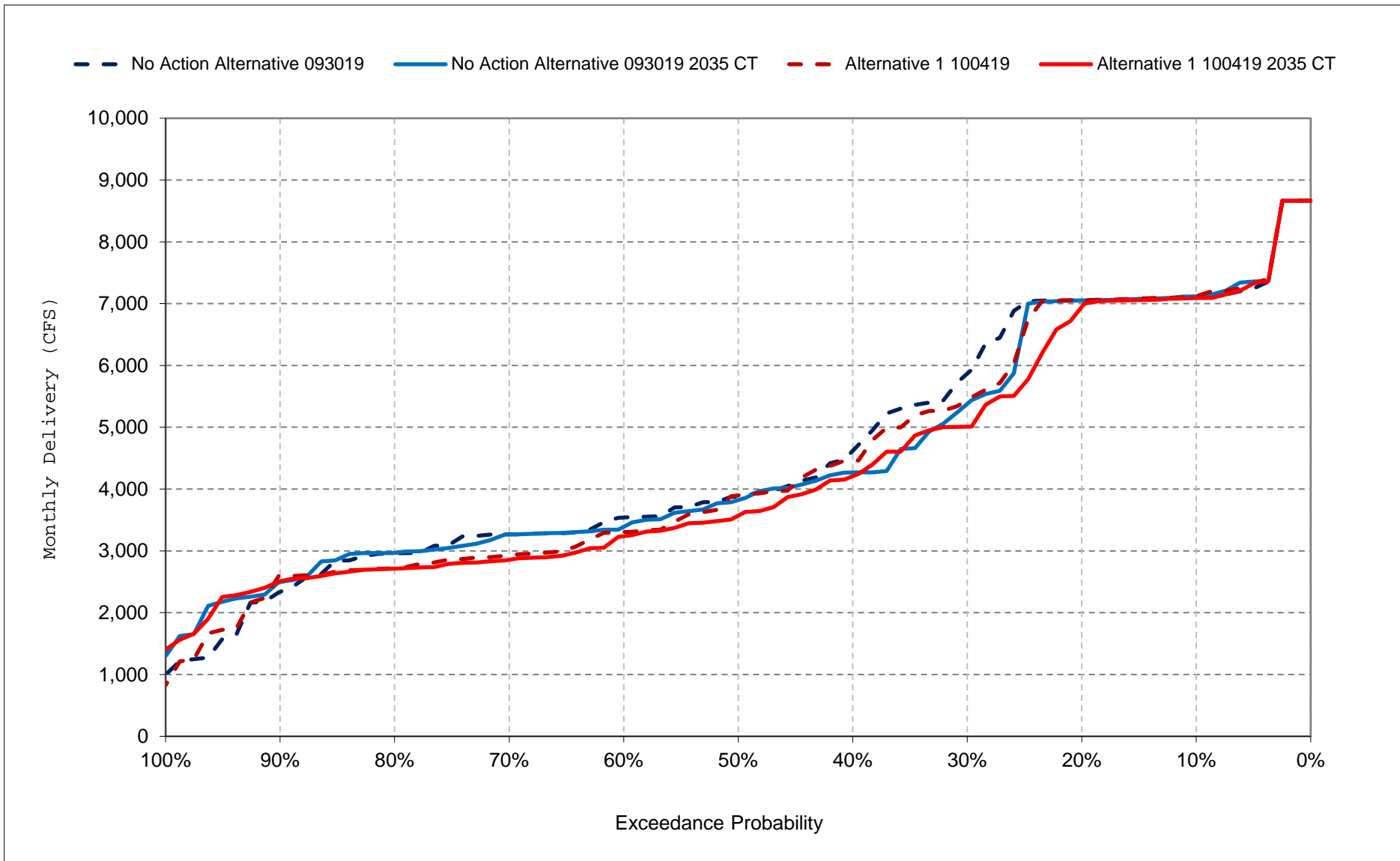
Figure 56-8. SWP Banks PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

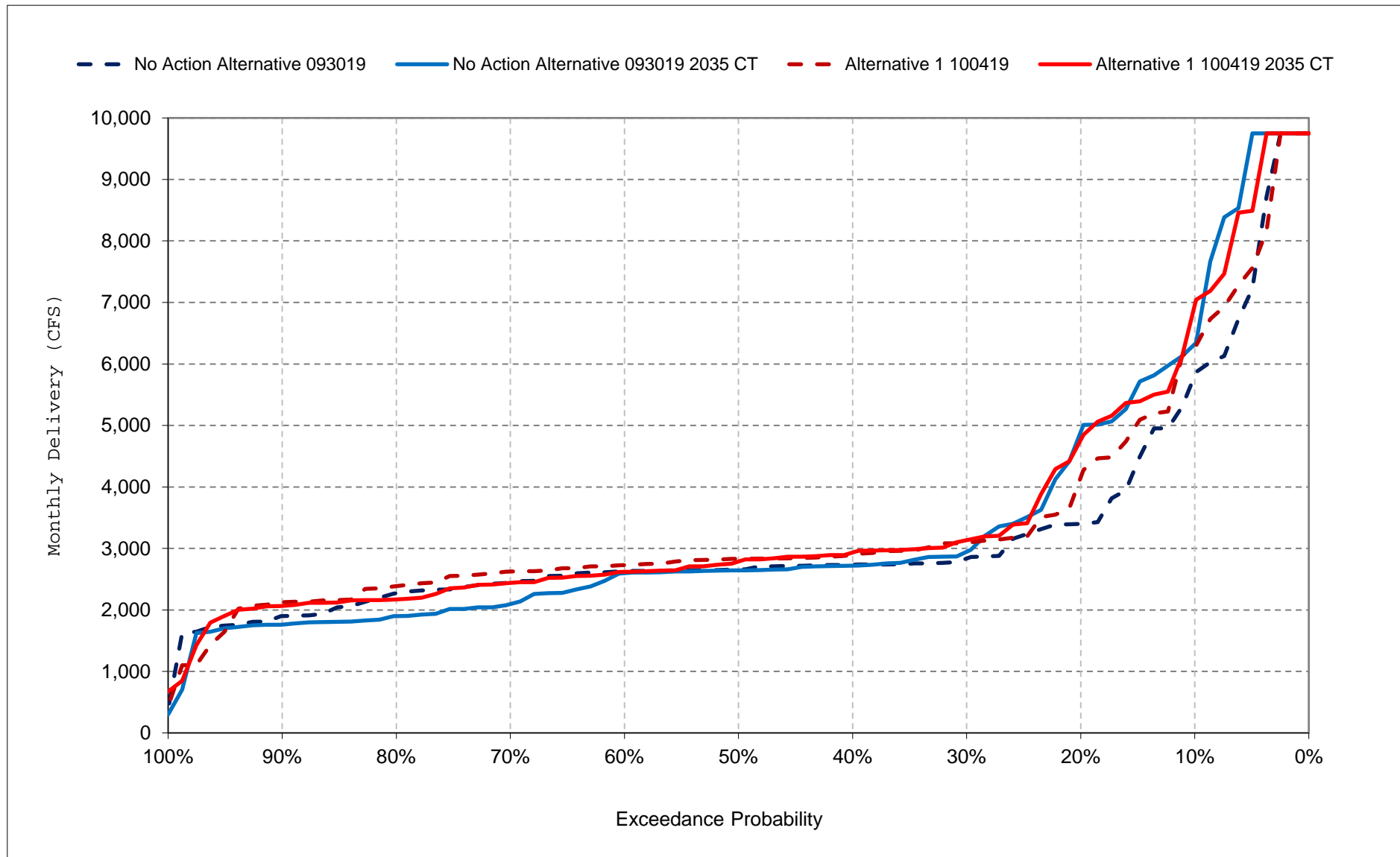
Figure 56-9. SWP Banks PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

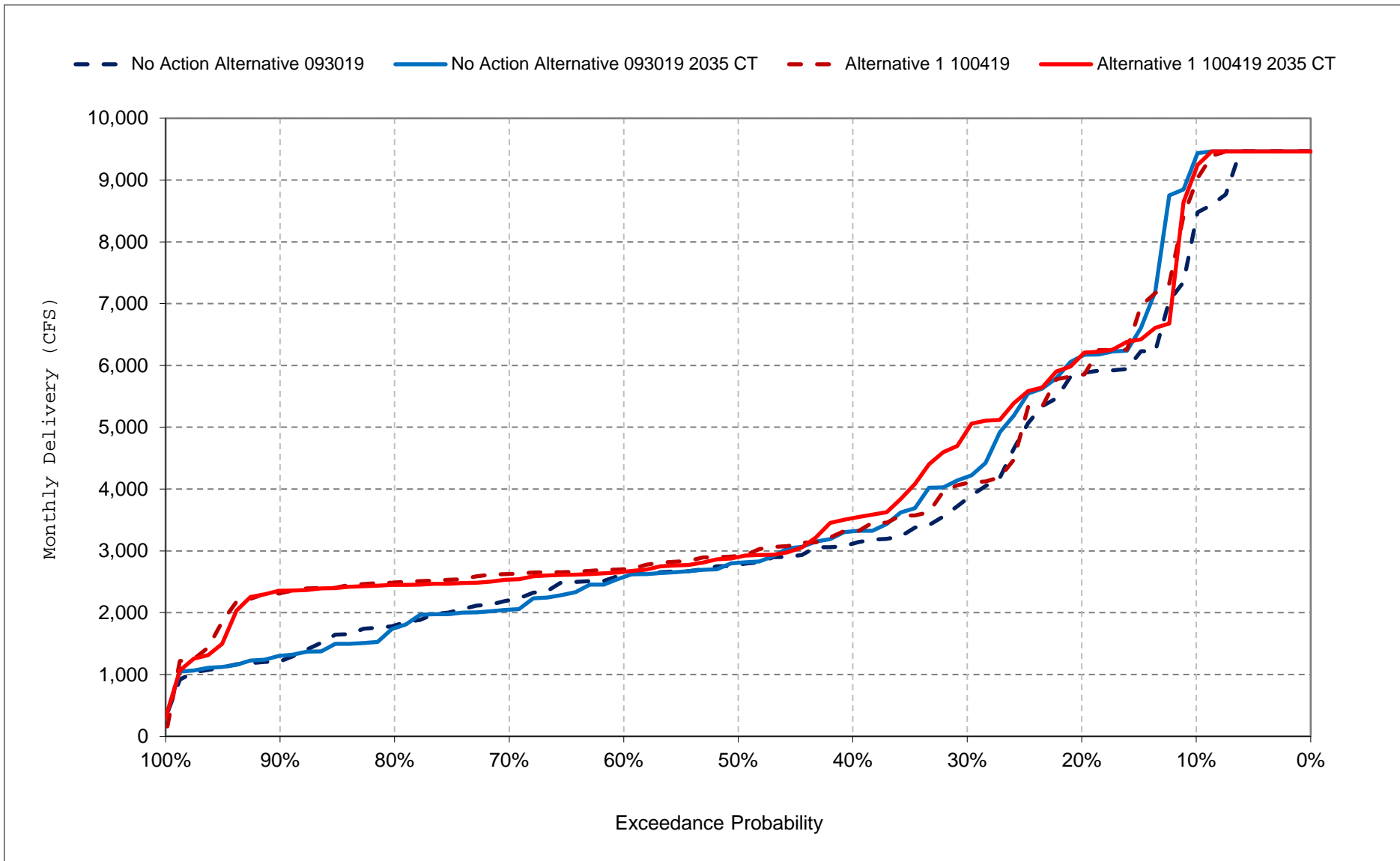
Figure 56-10. SWP Banks PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

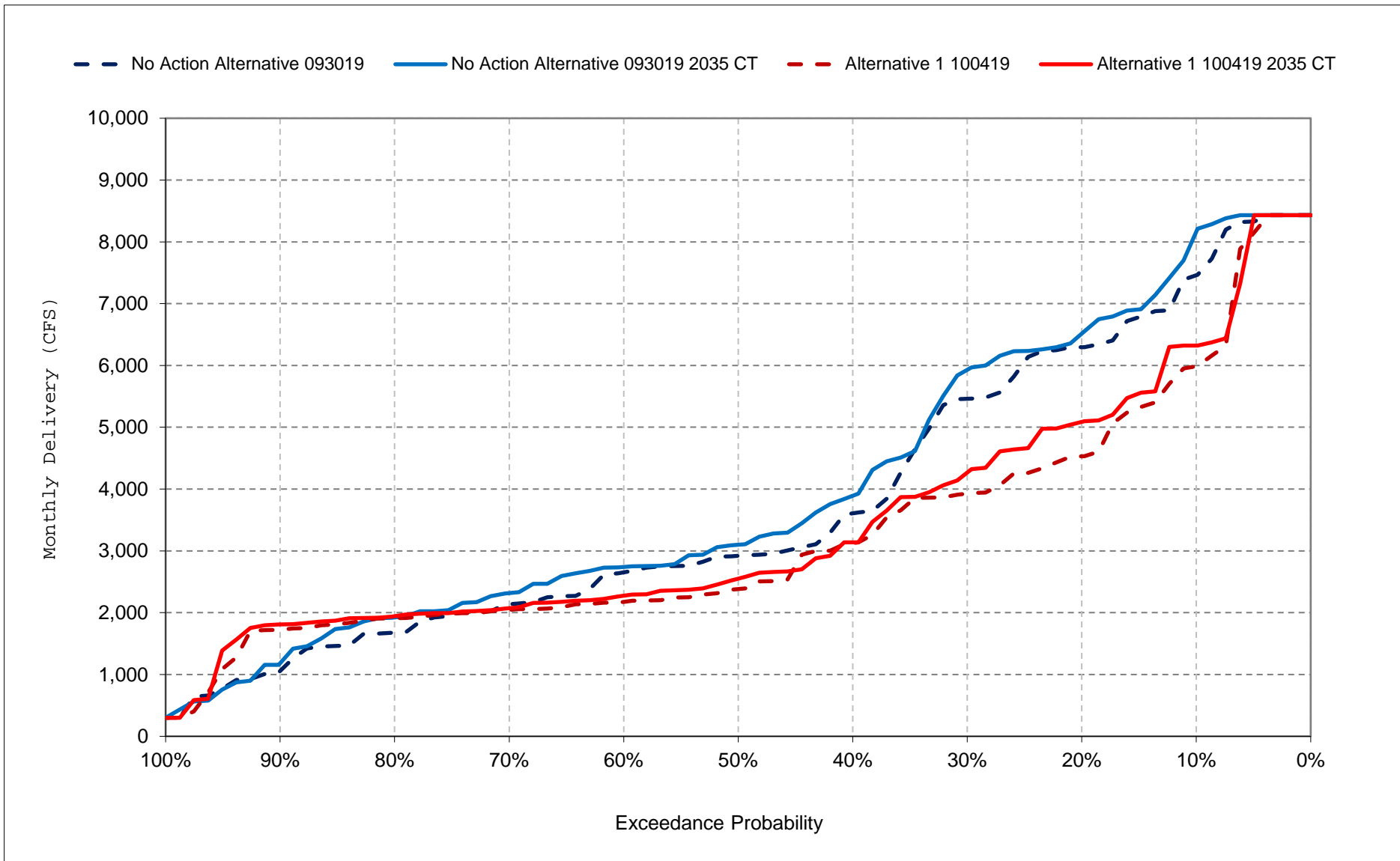
Figure 56-11. SWP Banks PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

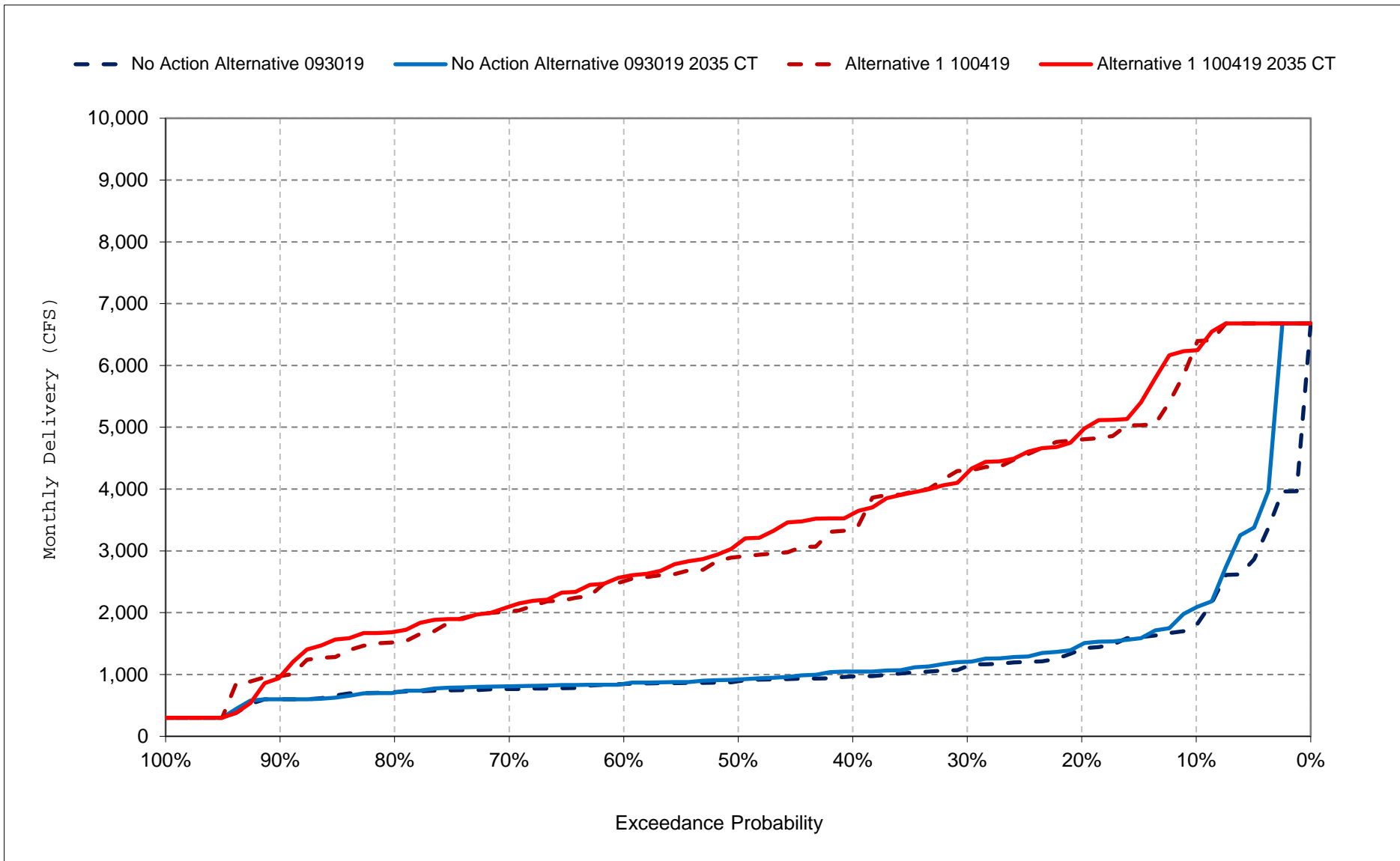
Figure 56-12. SWP Banks PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

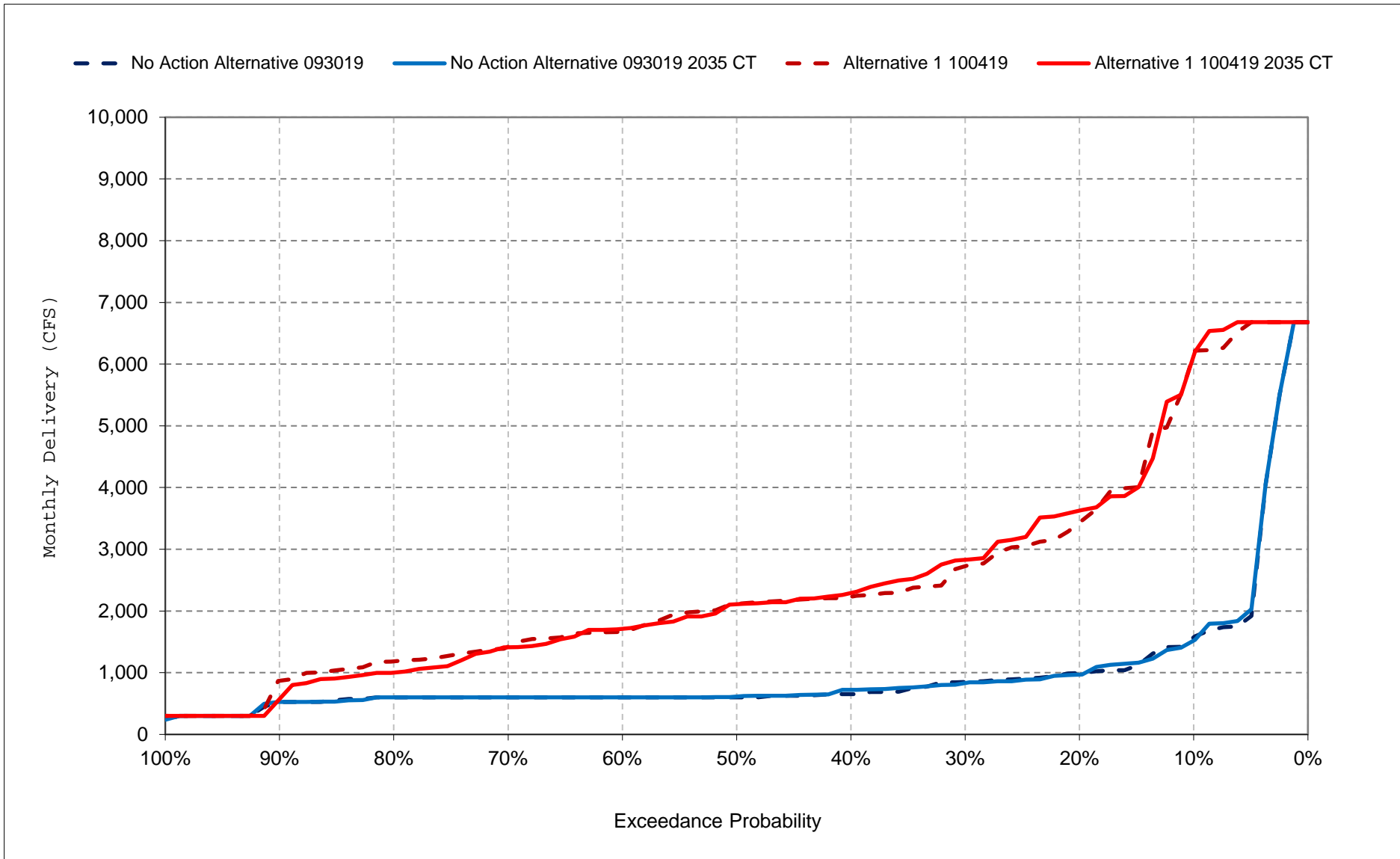
Figure 56-13. SWP Banks PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

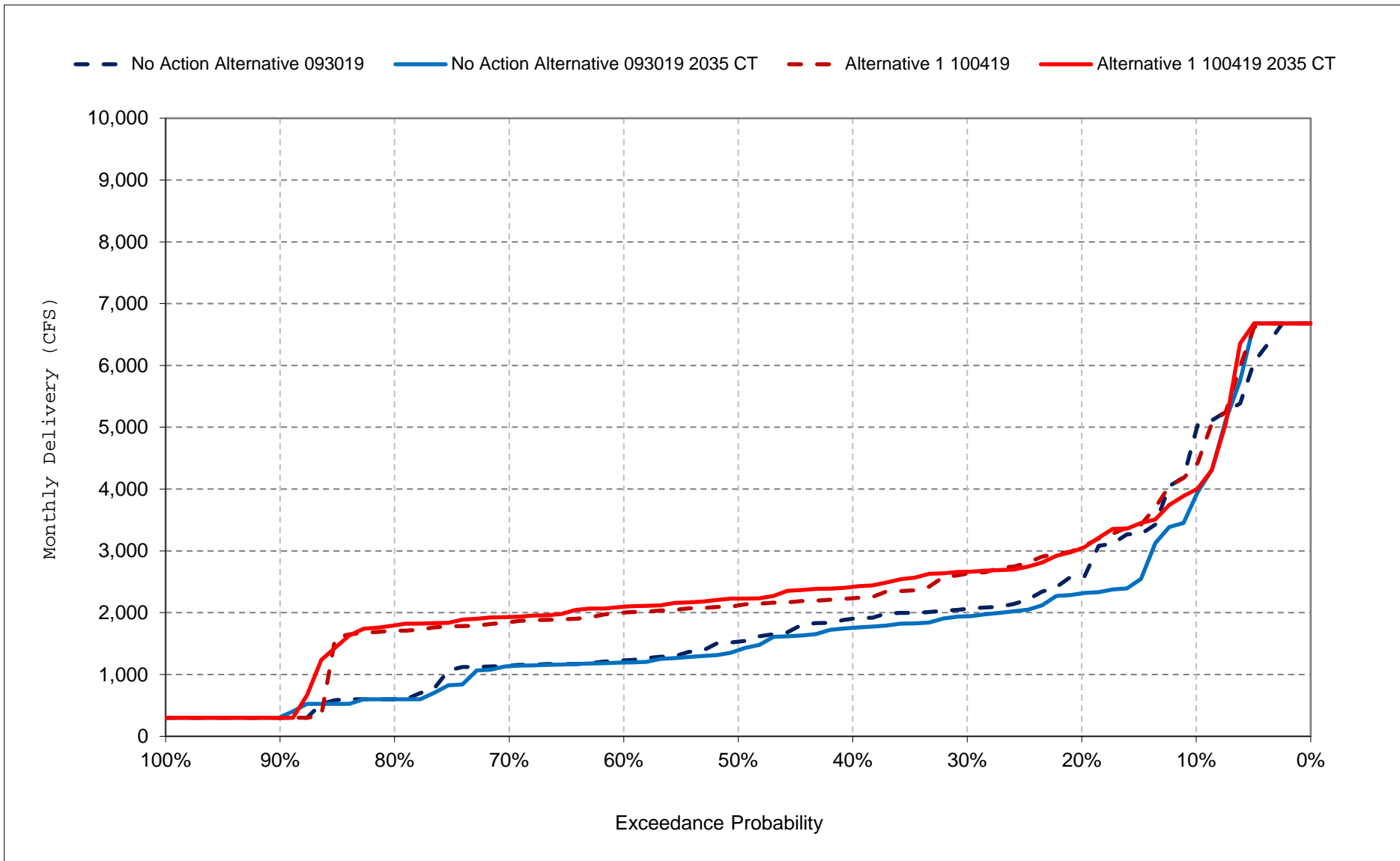
Figure 56-14. SWP Banks PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

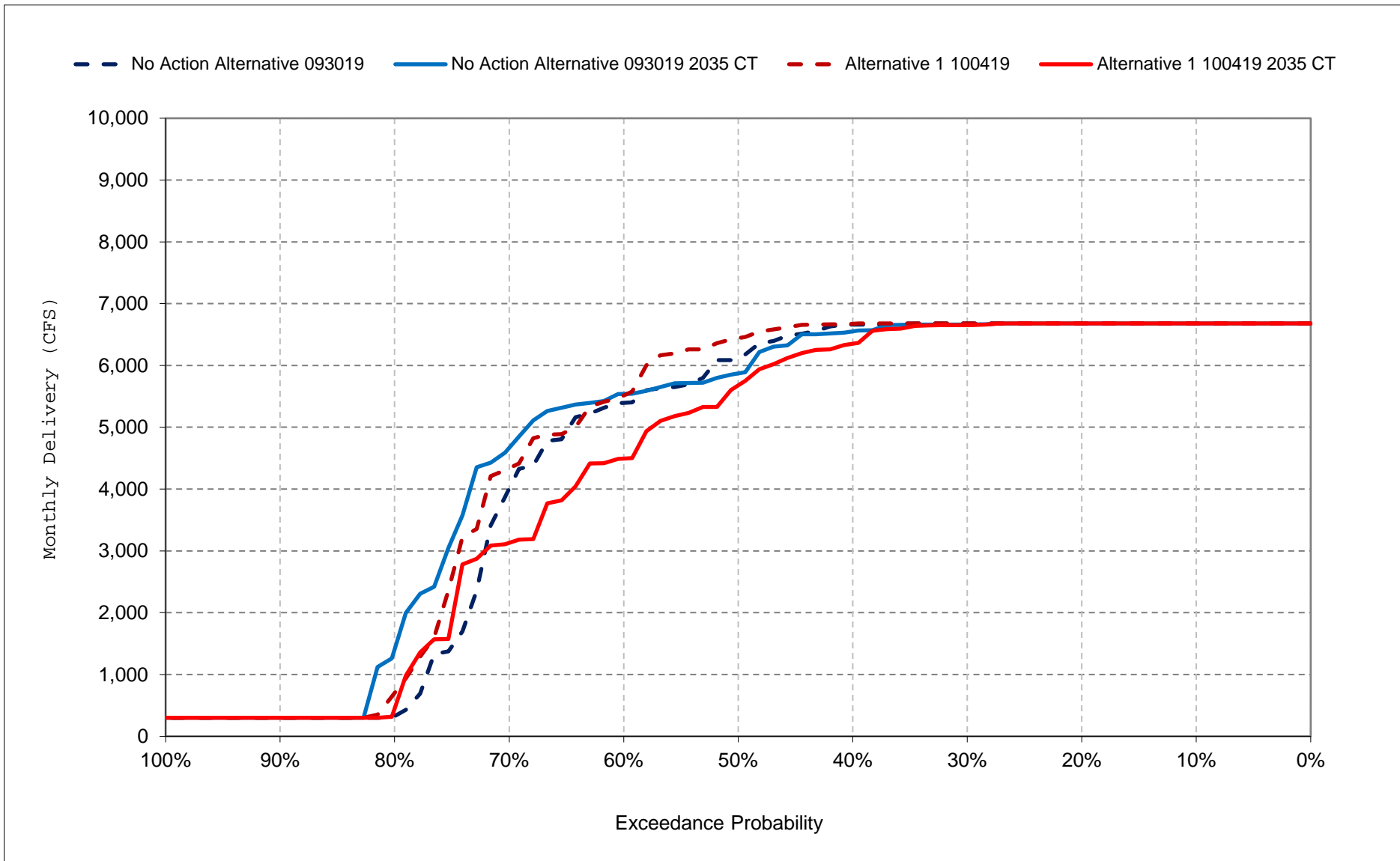
Figure 56-15. SWP Banks PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

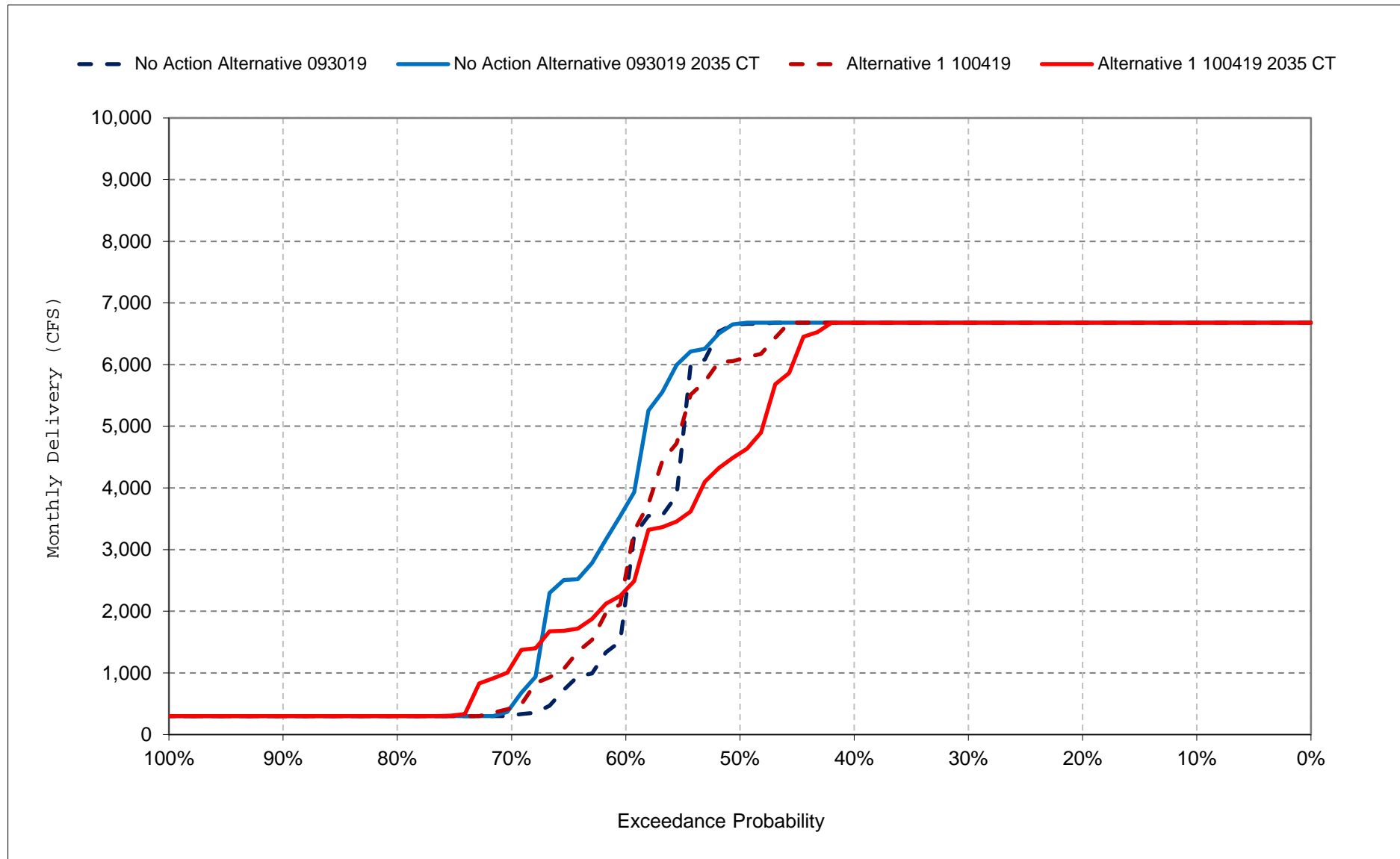
Figure 56-16. SWP Banks PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

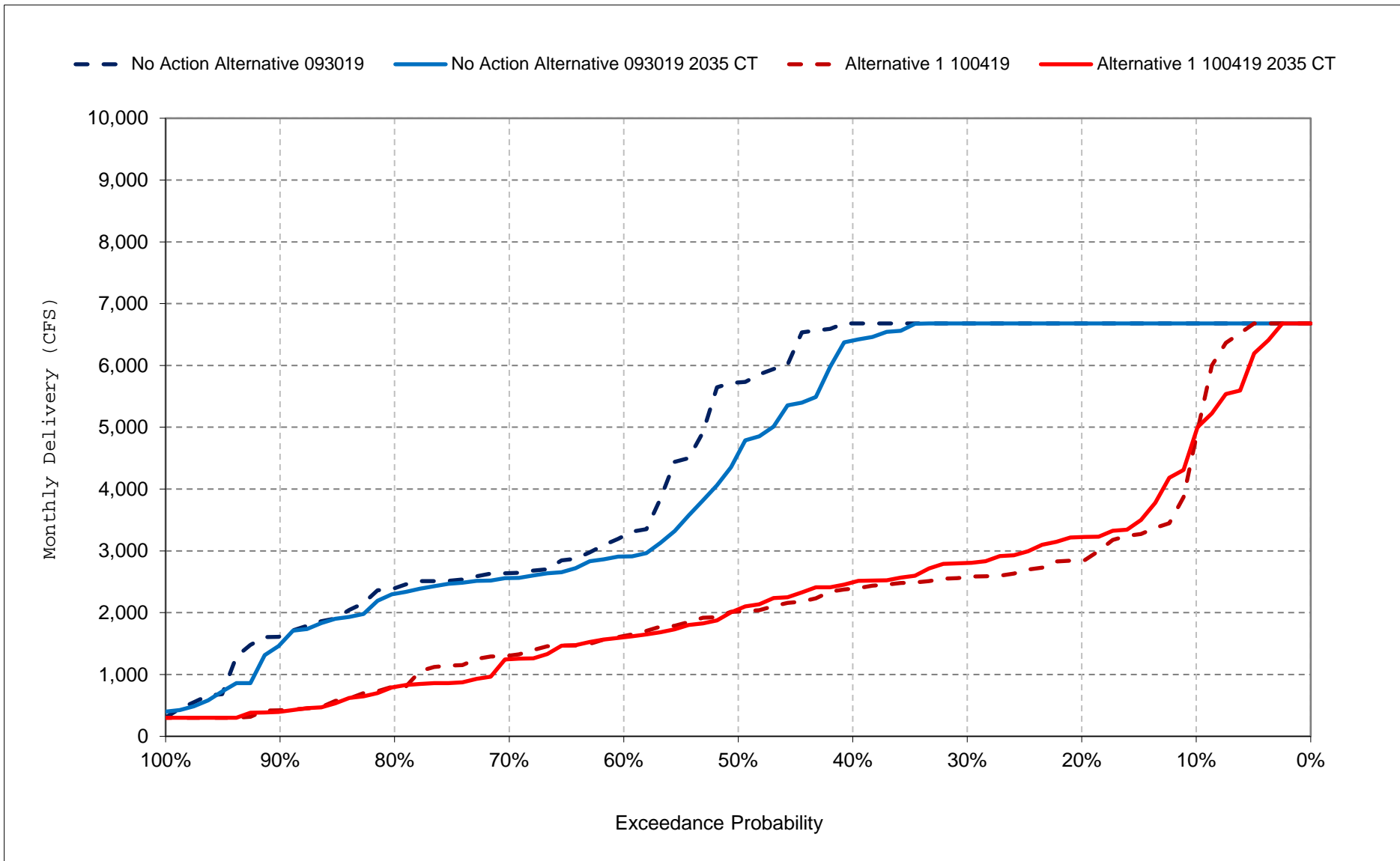
Figure 56-17. SWP Banks PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 56-18. SWP Banks PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-1. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	233	354	382	375	369	333	0	0	36	48	83	162
20%	0	339	379	369	360	219	0	0	0	2	65	138
30%	0	157	376	0	350	0	0	0	0	0	48	128
40%	0	0	374	0	64	0	0	0	0	0	29	110
50%	0	0	219	0	0	0	0	0	0	0	0	31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	41	101	188	89	137	73	0	1	8	11	28	74
Water Year Types ^{b,c}												
Wet (32%)	106	153	280	190	241	110	0	3	23	10	48	95
Above Normal (16%)	19	126	296	88	199	126	0	0	5	3	59	119
Below Normal (13%)	31	58	130	68	99	76	0	0	0	28	15	93
Dry (24%)	1	103	145	23	44	32	0	0	0	17	6	35
Critical (15%)	0	0	0	0	32	0	0	0	0	0	0	32

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	213	359	379	374	368	323	37	0	36	0	50	123
20%	0	347	376	356	353	279	0	0	0	0	29	105
30%	0	342	374	61	347	0	0	0	0	0	0	0
40%	0	336	172	0	36	0	0	0	0	0	0	0
50%	0	0	12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	43	164	150	96	129	72	15	4	7	0	12	36
Water Year Types ^{b,c}												
Wet (32%)	88	316	246	170	190	153	25	12	20	0	22	43
Above Normal (16%)	22	234	269	113	177	79	39	0	5	0	11	0
Below Normal (13%)	59	67	41	74	145	31	0	0	0	0	5	44
Dry (24%)	14	74	99	38	49	18	2	0	0	0	12	50
Critical (15%)	0	0	0	34	63	20	0	0	0	0	0	31

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	6	-3	-1	0	-11	37	0	0	-48	-33	-38
20%	0	7	-2	-12	-7	60	0	0	0	-2	-37	-33
30%	0	184	-2	61	-4	0	0	0	0	0	-48	-128
40%	0	336	-201	0	-29	0	0	0	0	0	-29	-110
50%	0	0	-207	0	0	0	0	0	0	0	0	-31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	2	63	-38	7	-7	0	15	3	-1	-11	-16	-38
Water Year Types ^{b,c}												
Wet (32%)	-18	163	-34	-20	-51	43	25	9	-3	-9	-26	-51
Above Normal (16%)	3	108	-27	26	-22	-47	39	0	0	-3	-48	-119
Below Normal (13%)	28	9	-89	6	46	-45	0	0	0	-28	-9	-49
Dry (24%)	13	-29	-46	15	5	-14	2	0	0	-17	6	15
Critical (15%)	0	0	0	34	31	20	0	0	0	0	0	-1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 57-2. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	228	353	382	377	368	346	0	0	36	50	75	161
20%	0	124	378	369	363	321	0	0	0	0	64	134
30%	0	0	376	0	354	91	0	0	0	0	29	124
40%	0	0	374	0	233	0	0	0	0	0	0	110
50%	0	0	145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	39	66	181	92	146	95	0	1	5	10	25	62
Water Year Types ^{b,c}												
Wet (32%)	88	73	251	219	261	147	0	3	16	3	49	103
Above Normal (16%)	38	109	277	88	199	134	0	0	0	4	58	110
Below Normal (13%)	30	48	120	34	133	160	0	0	0	14	0	44
Dry (24%)	3	81	149	17	41	24	0	0	0	29	0	26
Critical (15%)	0	0	33	0	32	0	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	360	379	375	370	324	23	0	33	0	64	32
20%	0	348	377	369	356	258	0	0	0	0	29	0
30%	0	342	374	215	347	0	0	0	0	0	0	0
40%	0	336	213	3	159	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	159	156	112	140	70	15	2	4	0	14	16
Water Year Types ^{b,c}												
Wet (32%)	59	308	264	235	251	147	20	6	14	0	27	18
Above Normal (16%)	0	217	238	126	166	88	16	0	0	0	32	0
Below Normal (13%)	27	67	45	68	170	6	15	0	0	0	0	24
Dry (24%)	0	73	115	35	46	17	16	0	0	0	0	29
Critical (15%)	0	0	3	1	0	28	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-228	7	-3	-2	2	-22	23	0	-4	-50	-11	-128
20%	0	224	-2	0	-8	-63	0	0	0	0	-35	-134
30%	0	342	-2	215	-6	-91	0	0	0	0	-29	-124
40%	0	336	-161	3	-74	0	0	0	0	0	0	-110
50%	0	0	-145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-16	92	-25	21	-7	-26	15	1	-1	-10	-11	-46
Water Year Types ^{b,c}												
Wet (32%)	-29	235	14	16	-9	-1	20	3	-2	-3	-22	-85
Above Normal (16%)	-38	108	-39	38	-33	-45	16	0	0	-4	-26	-110
Below Normal (13%)	-4	19	-75	34	37	-154	15	0	0	-14	0	-20
Dry (24%)	-3	-8	-34	18	5	-7	16	0	0	-29	0	3
Critical (15%)	0	0	-29	1	-32	28	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-3. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	233	354	382	375	369	333	0	0	36	48	83	162
20%	0	339	379	369	360	219	0	0	0	2	65	138
30%	0	157	376	0	350	0	0	0	0	0	48	128
40%	0	0	374	0	64	0	0	0	0	0	29	110
50%	0	0	219	0	0	0	0	0	0	0	0	31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	41	101	188	89	137	73	0	1	8	11	28	74
Water Year Types ^{b,c}												
Wet (32%)	106	153	280	190	241	110	0	3	23	10	48	95
Above Normal (16%)	19	126	296	88	199	126	0	0	5	3	59	119
Below Normal (13%)	31	58	130	68	99	76	0	0	0	28	15	93
Dry (24%)	1	103	145	23	44	32	0	0	0	17	6	35
Critical (15%)	0	0	0	0	32	0	0	0	0	0	0	32

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	228	353	382	377	368	346	0	0	36	50	75	161
20%	0	124	378	369	363	321	0	0	0	0	64	134
30%	0	0	376	0	354	91	0	0	0	0	29	124
40%	0	0	374	0	233	0	0	0	0	0	0	110
50%	0	0	145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	39	66	181	92	146	95	0	1	5	10	25	62
Water Year Types ^{b,c}												
Wet (32%)	88	73	251	219	261	147	0	3	16	3	49	103
Above Normal (16%)	38	109	277	88	199	134	0	0	0	4	58	110
Below Normal (13%)	30	48	120	34	133	160	0	0	0	14	0	44
Dry (24%)	3	81	149	17	41	24	0	0	0	29	0	26
Critical (15%)	0	0	33	0	32	0	0	0	0	0	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-1	-1	2	-1	12	0	0	0	2	-7	-1
20%	0	-215	0	0	3	102	0	0	0	-2	-1	-4
30%	0	-157	0	0	3	91	0	0	0	0	-19	-4
40%	0	0	0	0	169	0	0	0	0	0	-29	-1
50%	0	0	-75	0	0	0	0	0	0	0	0	-31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-2	-35	-8	3	10	22	0	0	-3	-1	-3	-12
Water Year Types ^{b,c}												
Wet (32%)	-18	-80	-29	29	20	37	0	0	-8	-7	0	8
Above Normal (16%)	18	-17	-19	0	0	8	0	0	-5	1	-1	-9
Below Normal (13%)	0	-10	-10	-34	33	84	0	0	0	-13	-15	-49
Dry (24%)	1	-22	4	-6	-3	-8	0	0	0	12	-6	-9
Critical (15%)	0	0	33	0	0	0	0	0	0	0	0	-32

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-4. DMC - CA Intertie Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	213	359	379	374	368	323	37	0	36	0	50	123
20%	0	347	376	356	353	279	0	0	0	0	29	105
30%	0	342	374	61	347	0	0	0	0	0	0	0
40%	0	336	172	0	36	0	0	0	0	0	0	0
50%	0	0	12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	43	164	150	96	129	72	15	4	7	0	12	36
Water Year Types^{b,c}												
Wet (32%)	88	316	246	170	190	153	25	12	20	0	22	43
Above Normal (16%)	22	234	269	113	177	79	39	0	5	0	11	0
Below Normal (13%)	59	67	41	74	145	31	0	0	0	0	5	44
Dry (24%)	14	74	99	38	49	18	2	0	0	0	12	50
Critical (15%)	0	0	0	34	63	20	0	0	0	0	0	31

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	360	379	375	370	324	23	0	33	0	64	32
20%	0	348	377	369	356	258	0	0	0	0	29	0
30%	0	342	374	215	347	0	0	0	0	0	0	0
40%	0	336	213	3	159	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	159	156	112	140	70	15	2	4	0	14	16
Water Year Types^{b,c}												
Wet (32%)	59	308	264	235	251	147	20	6	14	0	27	18
Above Normal (16%)	0	217	238	126	166	88	16	0	0	0	32	0
Below Normal (13%)	27	67	45	68	170	6	15	0	0	0	0	24
Dry (24%)	0	73	115	35	46	17	16	0	0	0	0	29
Critical (15%)	0	0	3	1	0	28	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-213	1	-1	1	2	1	-14	0	-4	0	14	-91
20%	0	1	0	12	2	-21	0	0	0	0	0	-105
30%	0	1	0	154	1	0	0	0	0	0	0	0
40%	0	0	40	3	123	0	0	0	0	0	0	0
50%	0	0	-12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-20	-5	6	16	11	-3	0	-2	-3	0	1	-20
Water Year Types^{b,c}												
Wet (32%)	-29	-8	18	65	61	-6	-5	-6	-7	0	5	-25
Above Normal (16%)	-22	-17	-31	13	-12	10	-23	0	-5	0	21	0
Below Normal (13%)	-32	0	4	-6	24	-25	15	0	0	0	-5	-20
Dry (24%)	-14	-1	16	-3	-3	0	14	0	0	0	-12	-21
Critical (15%)	0	0	3	-33	-63	9	0	0	0	0	0	-31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

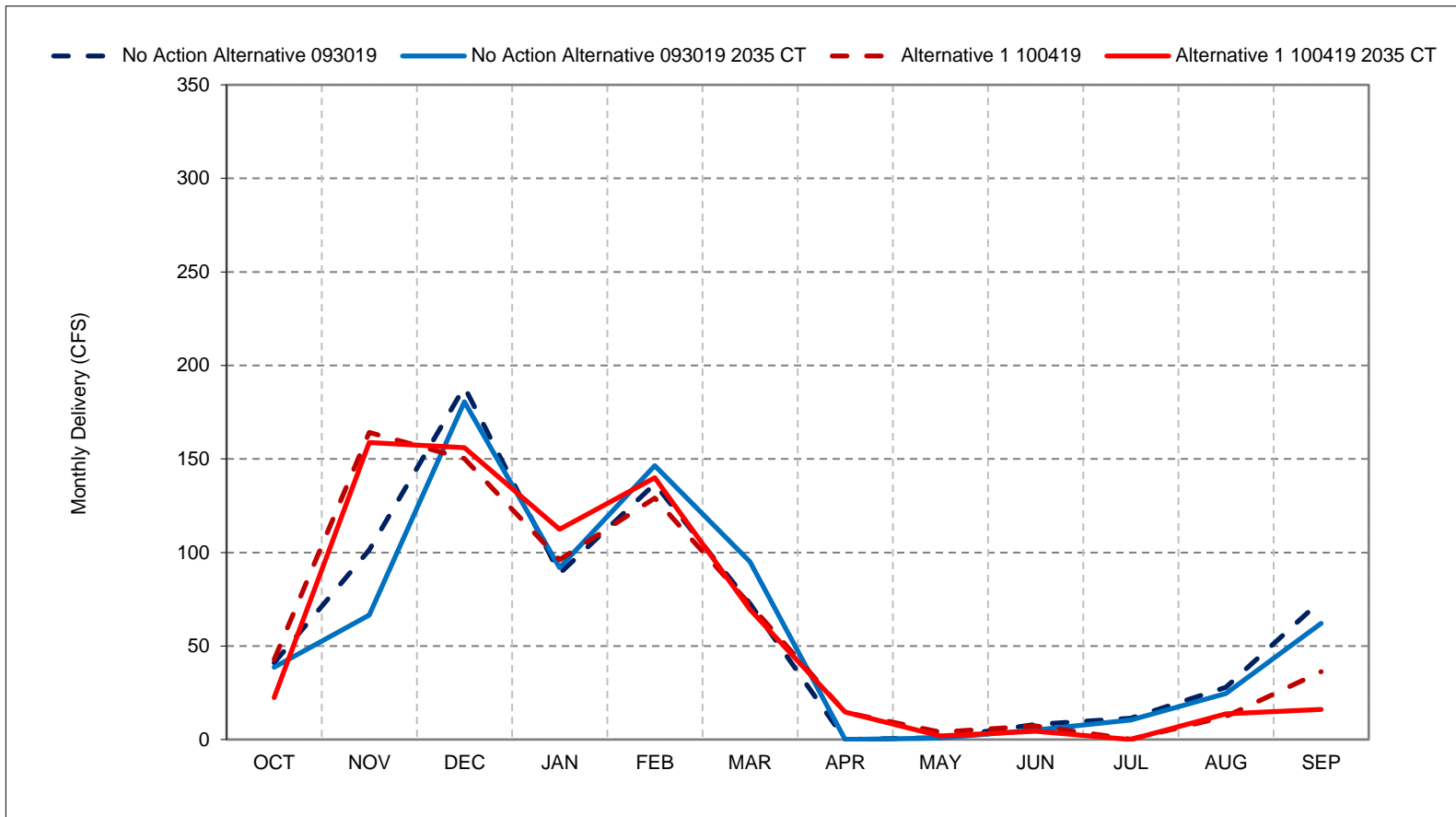
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 57-1. DMC - CA Intertie Flow, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

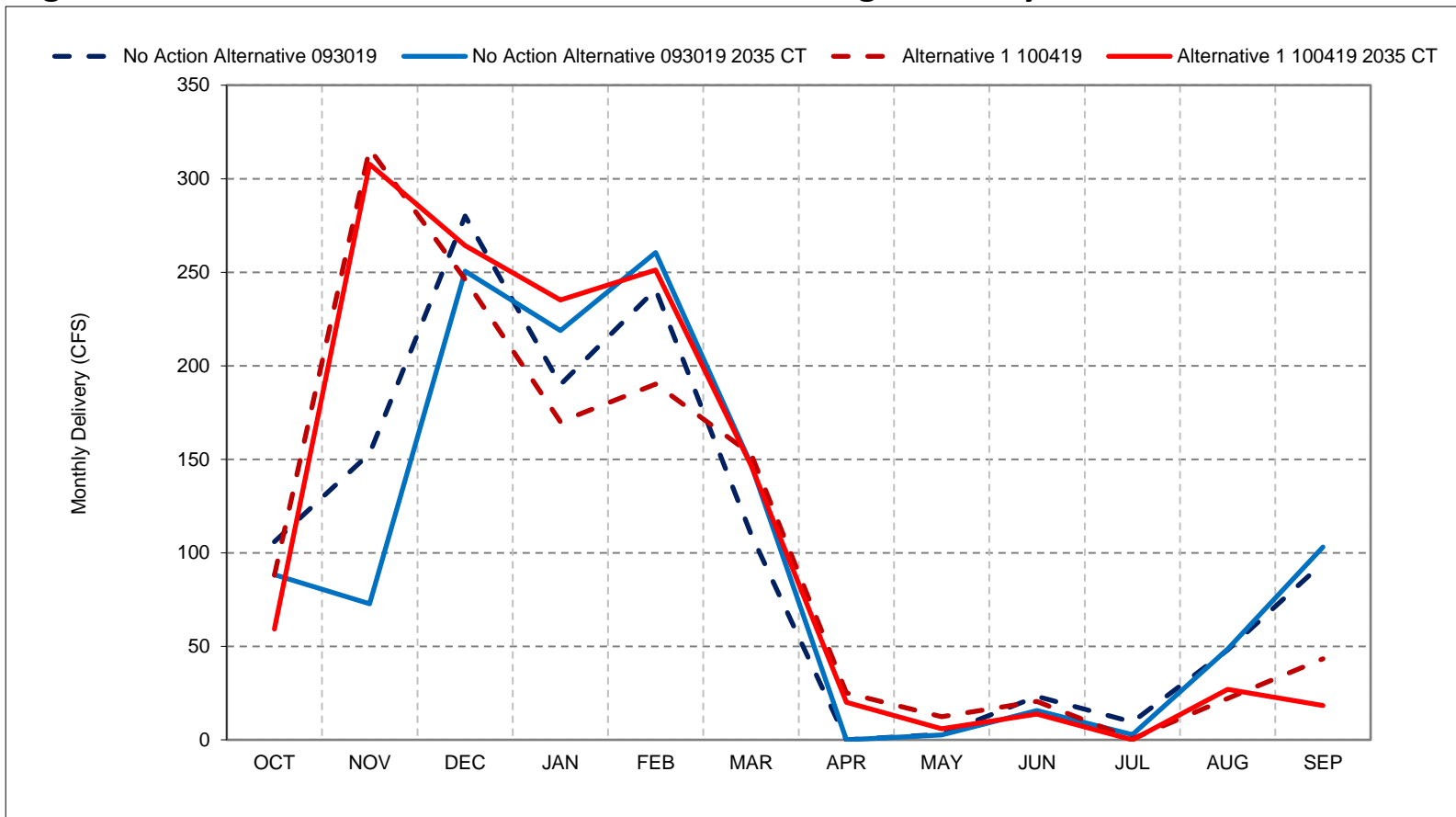
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-2. DMC - CA Intertie Flow, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

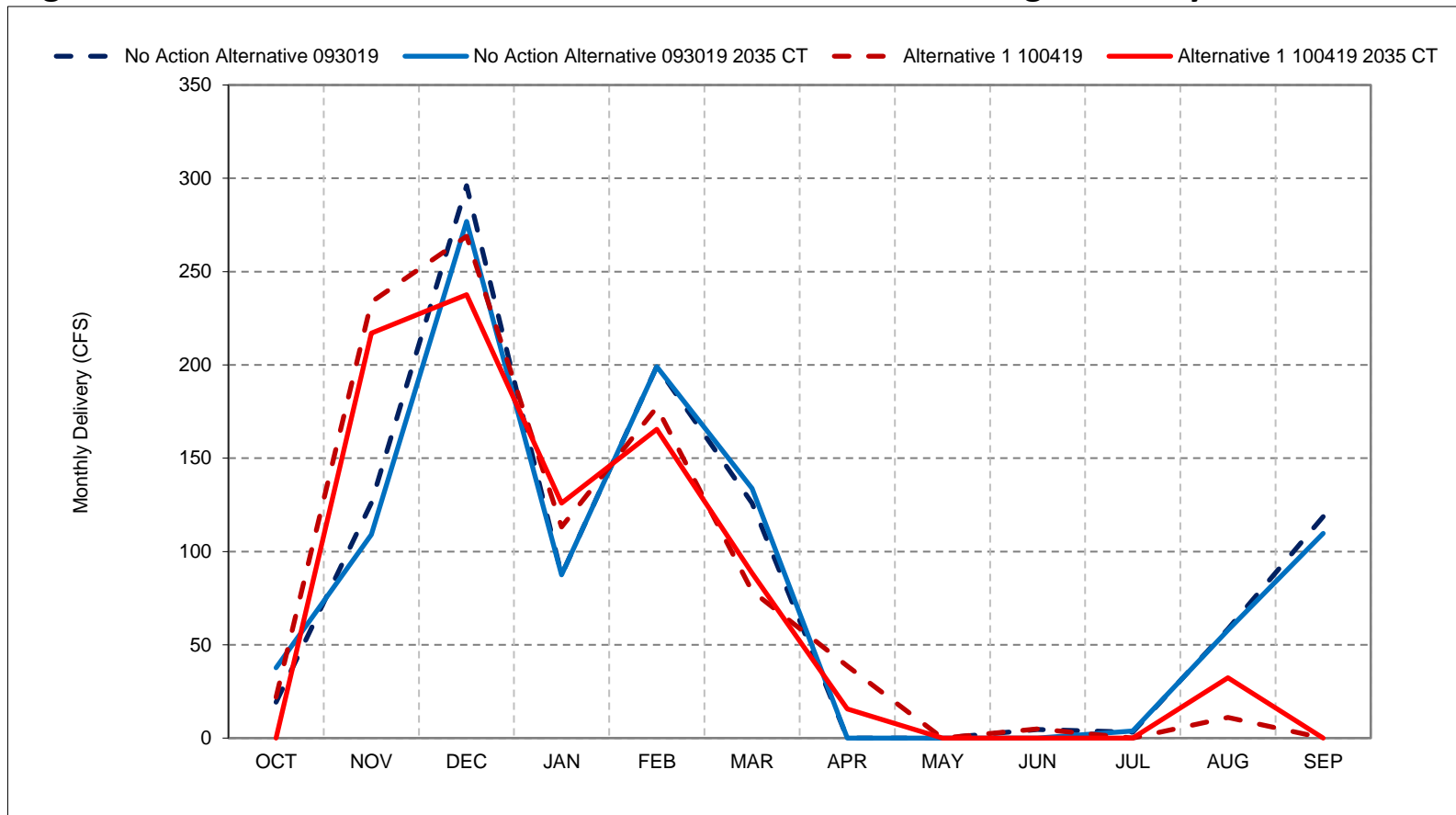
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-3. DMC - CA Intertie Flow, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

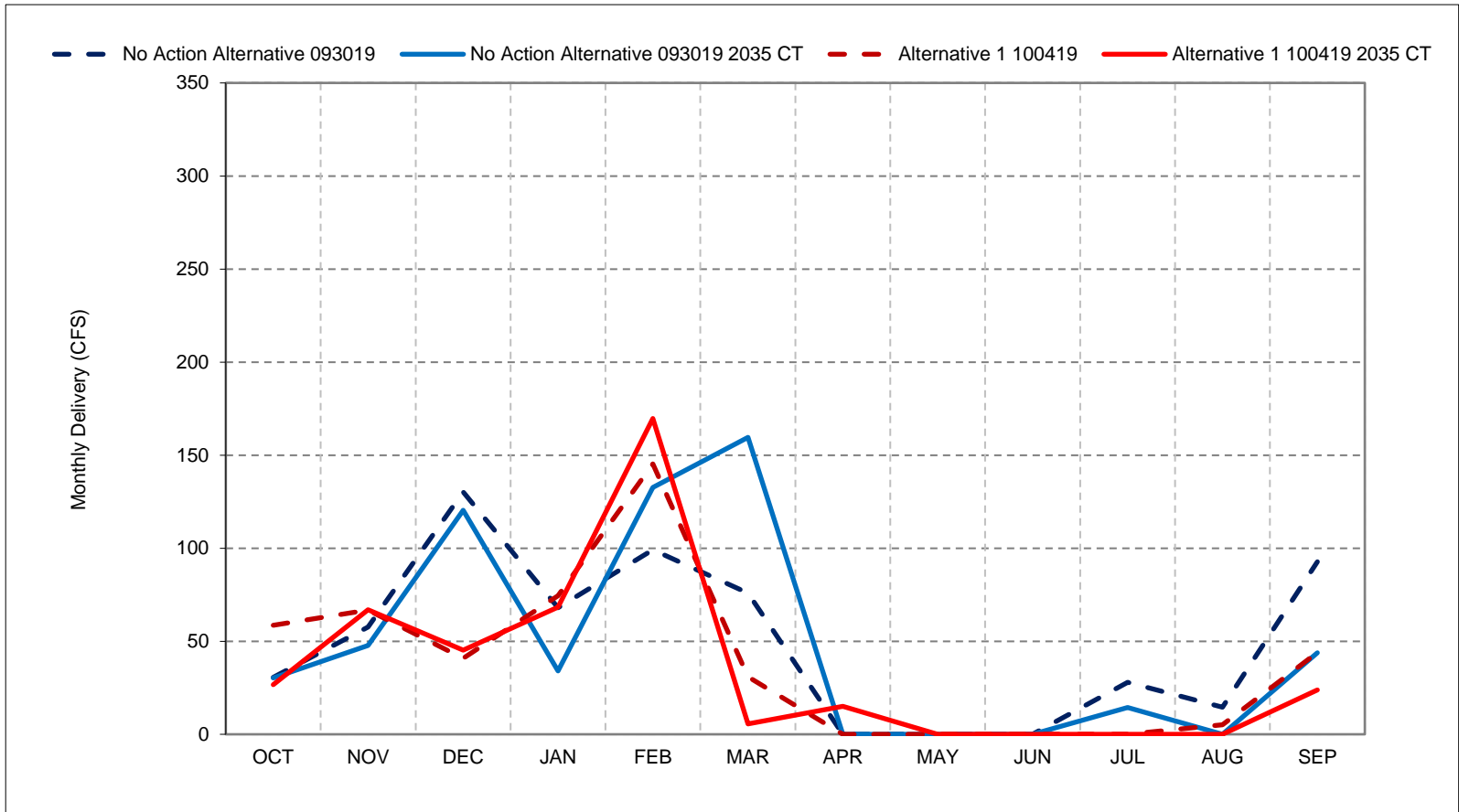
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-4. DMC - CA Intertie Flow, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

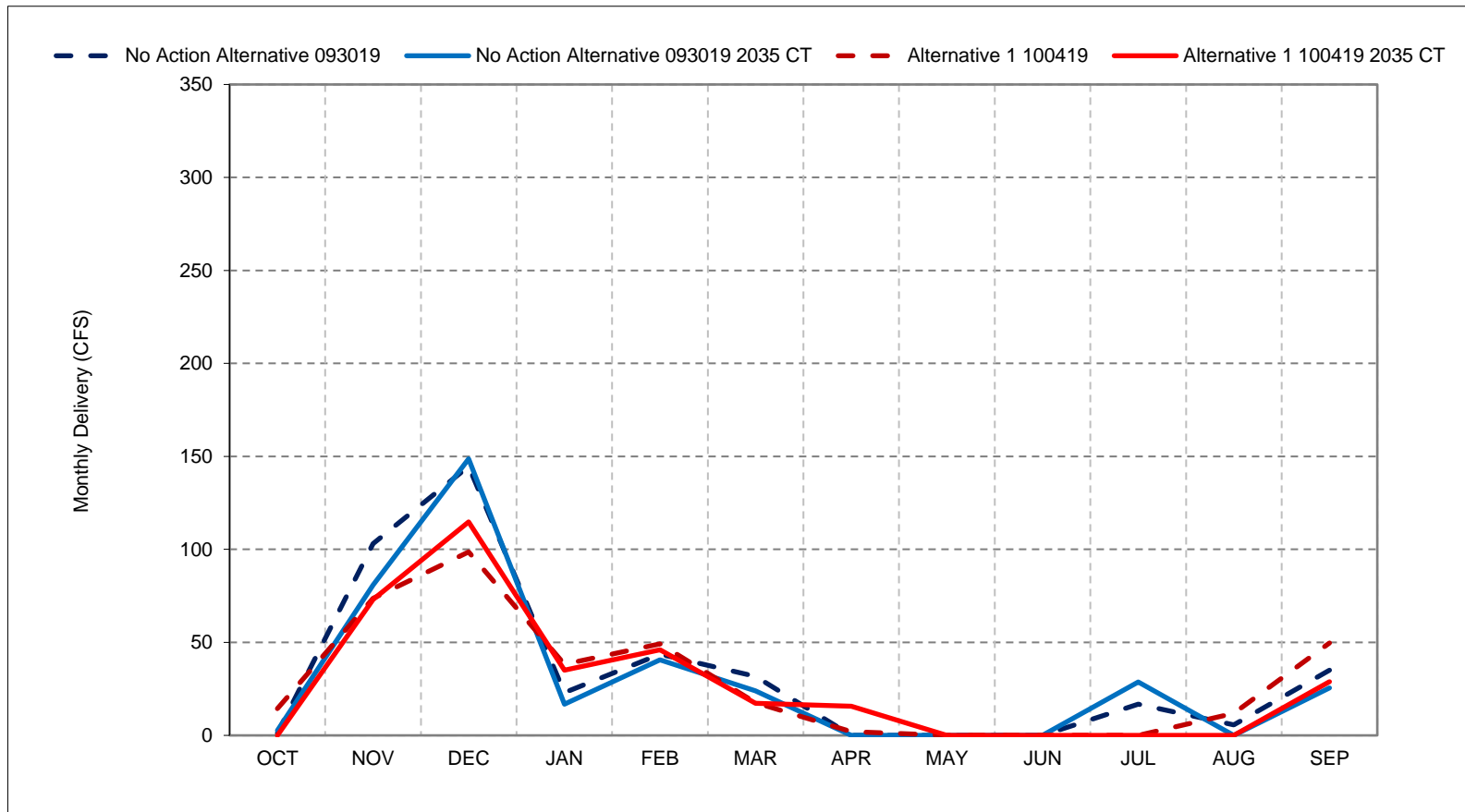
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-5. DMC - CA Intertie Flow, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

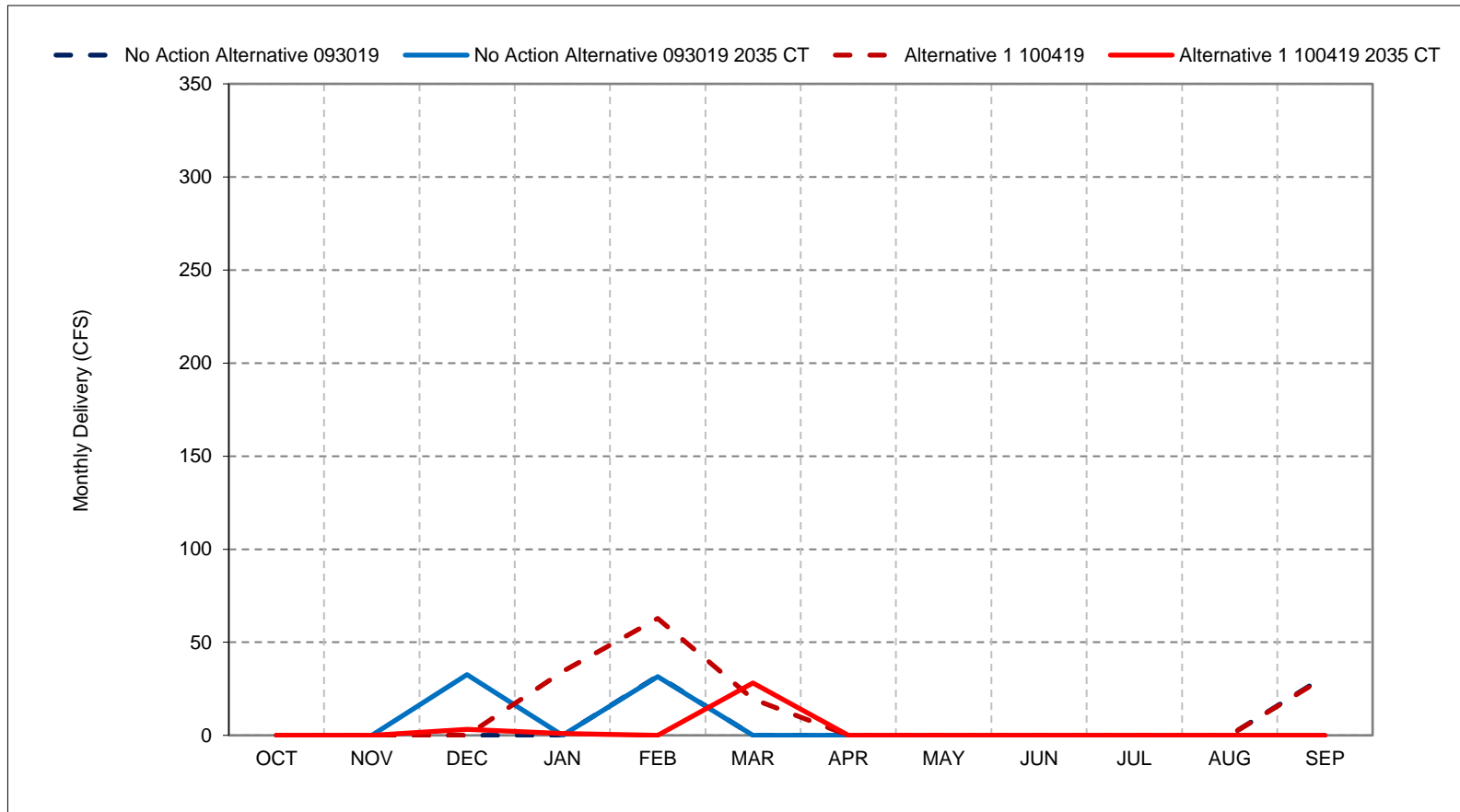
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-6. DMC - CA Intertie Flow, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

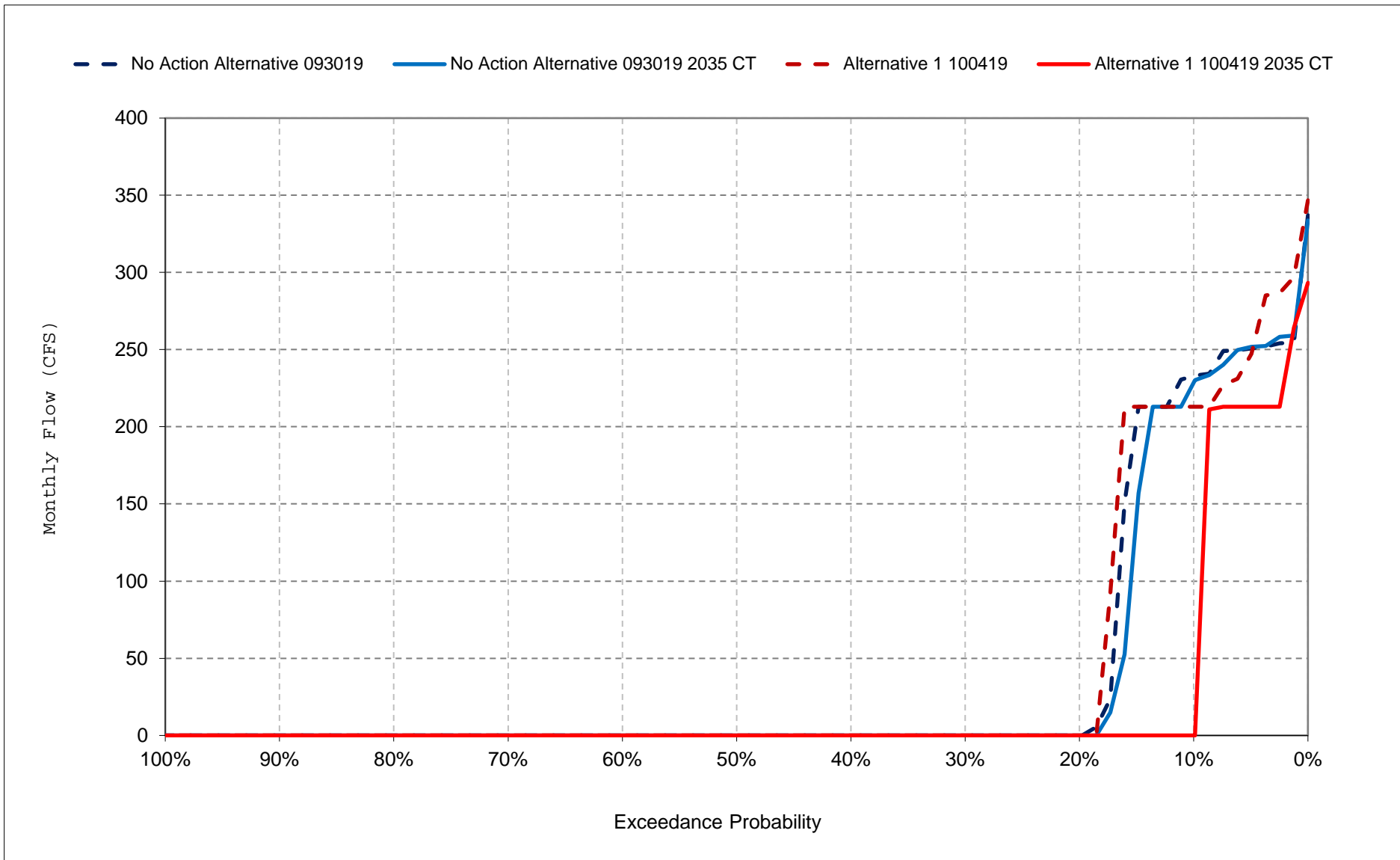
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

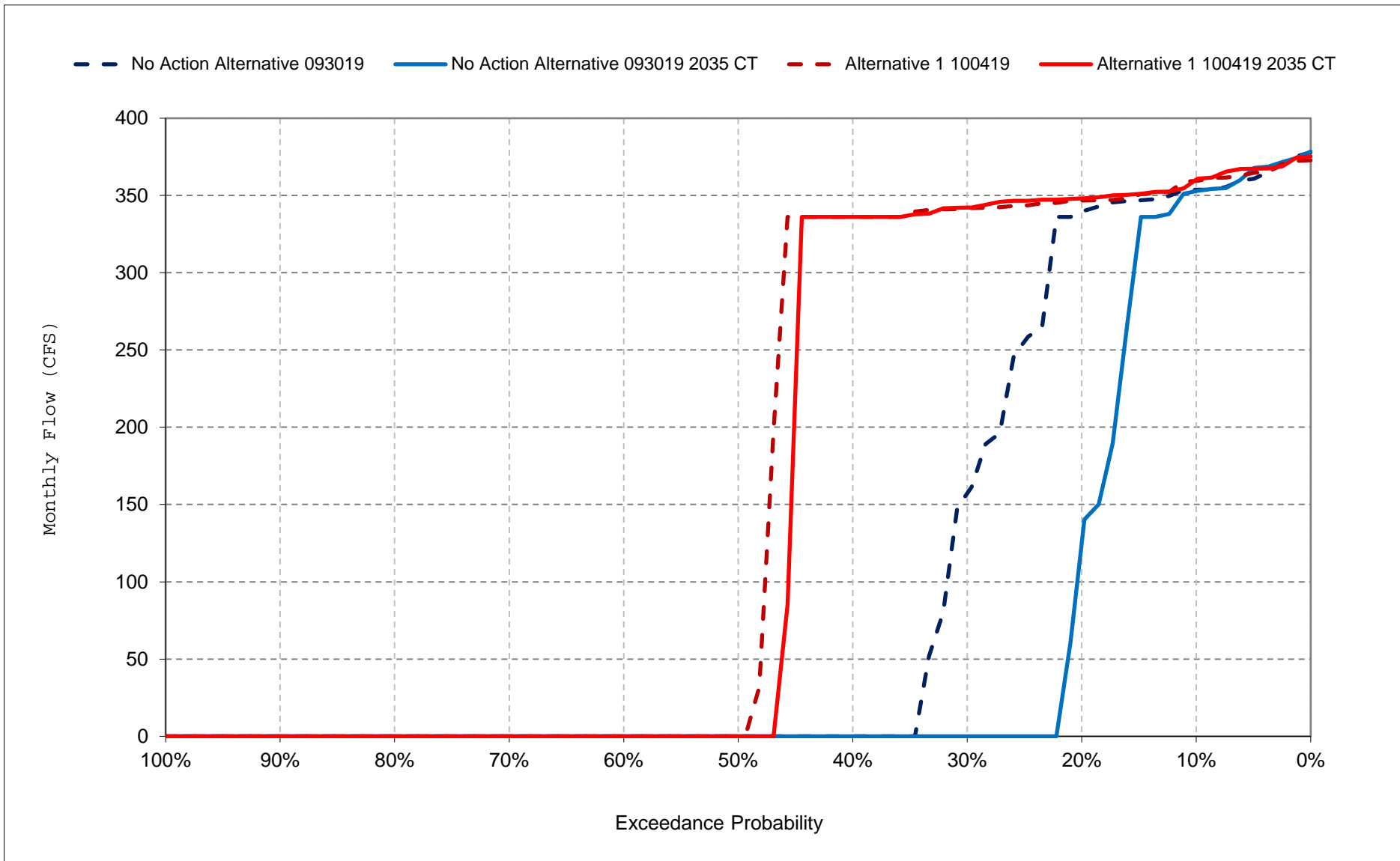
Figure 57-7. DMC - CA Intertie Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

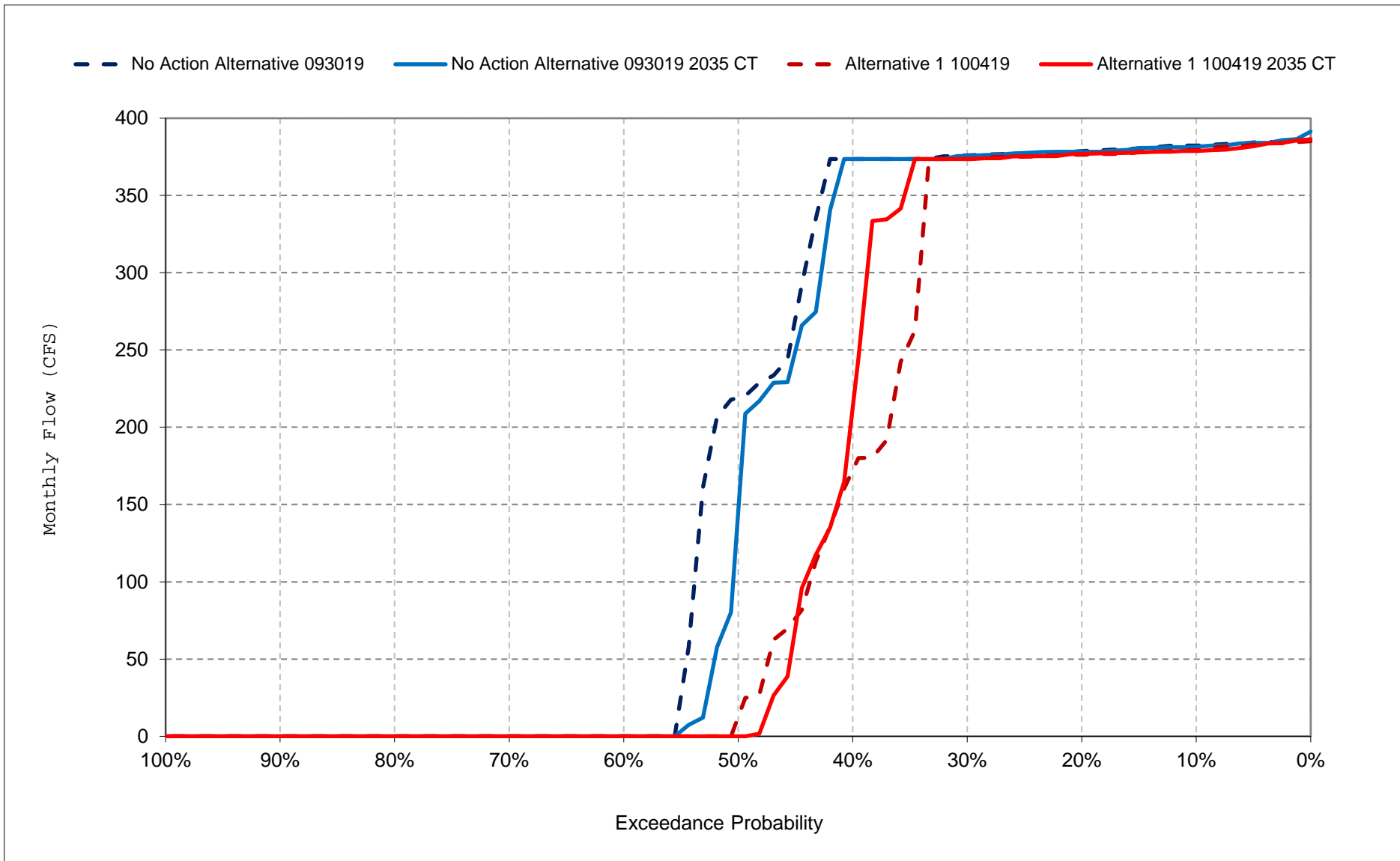
Figure 57-8. DMC - CA Intertie Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

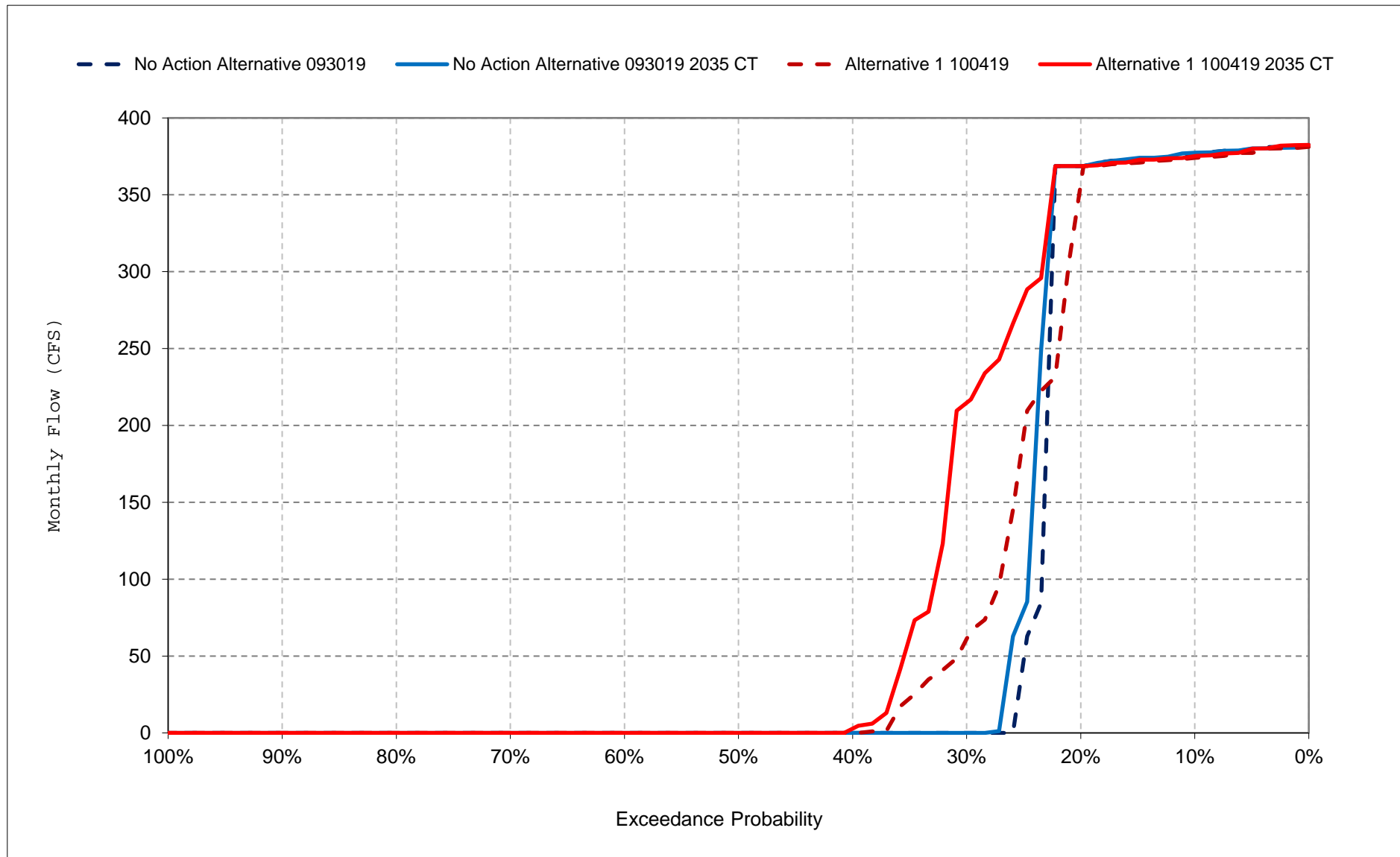
Figure 57-9. DMC - CA Intertie Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

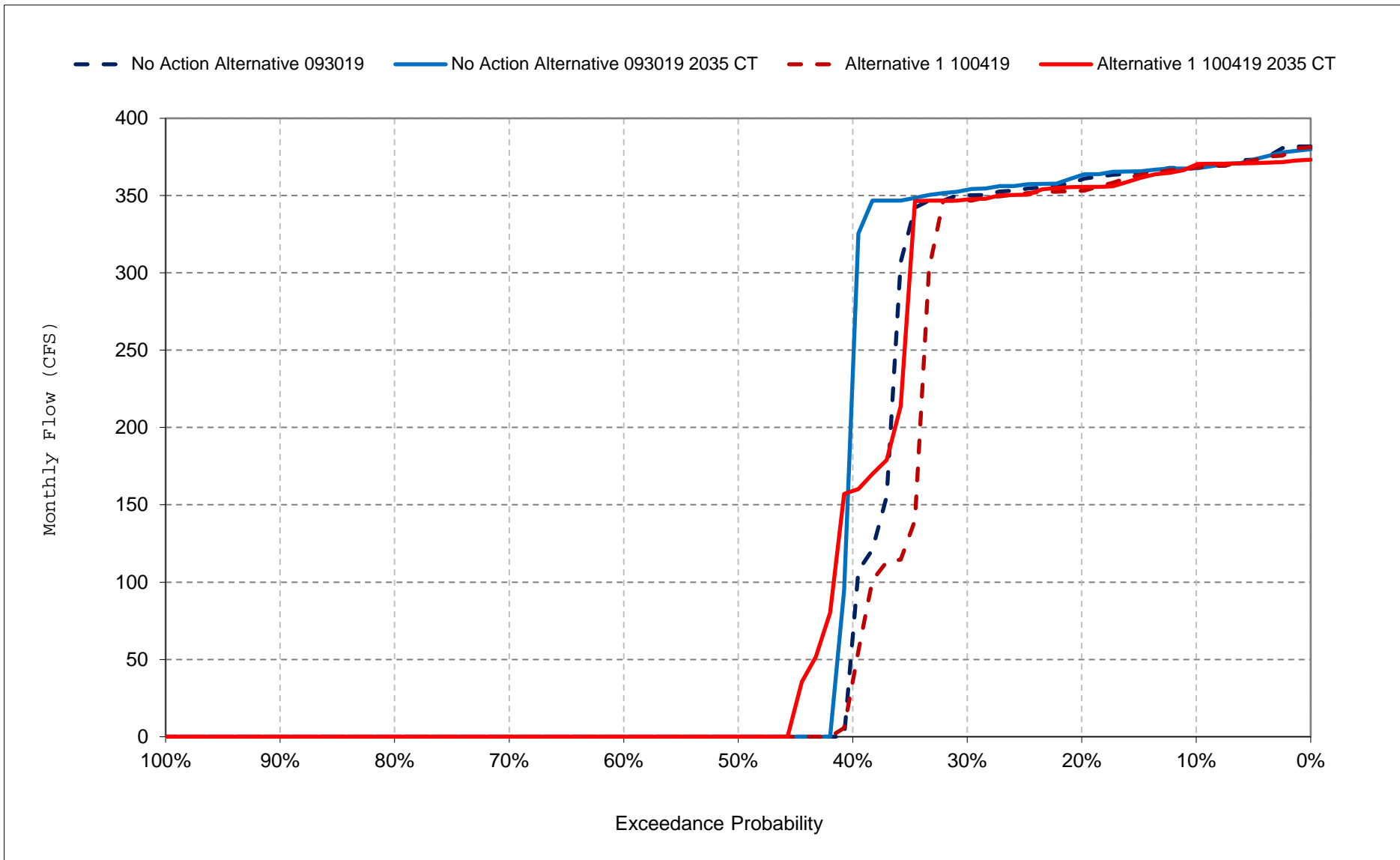
Figure 57-10. DMC - CA Intertie Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

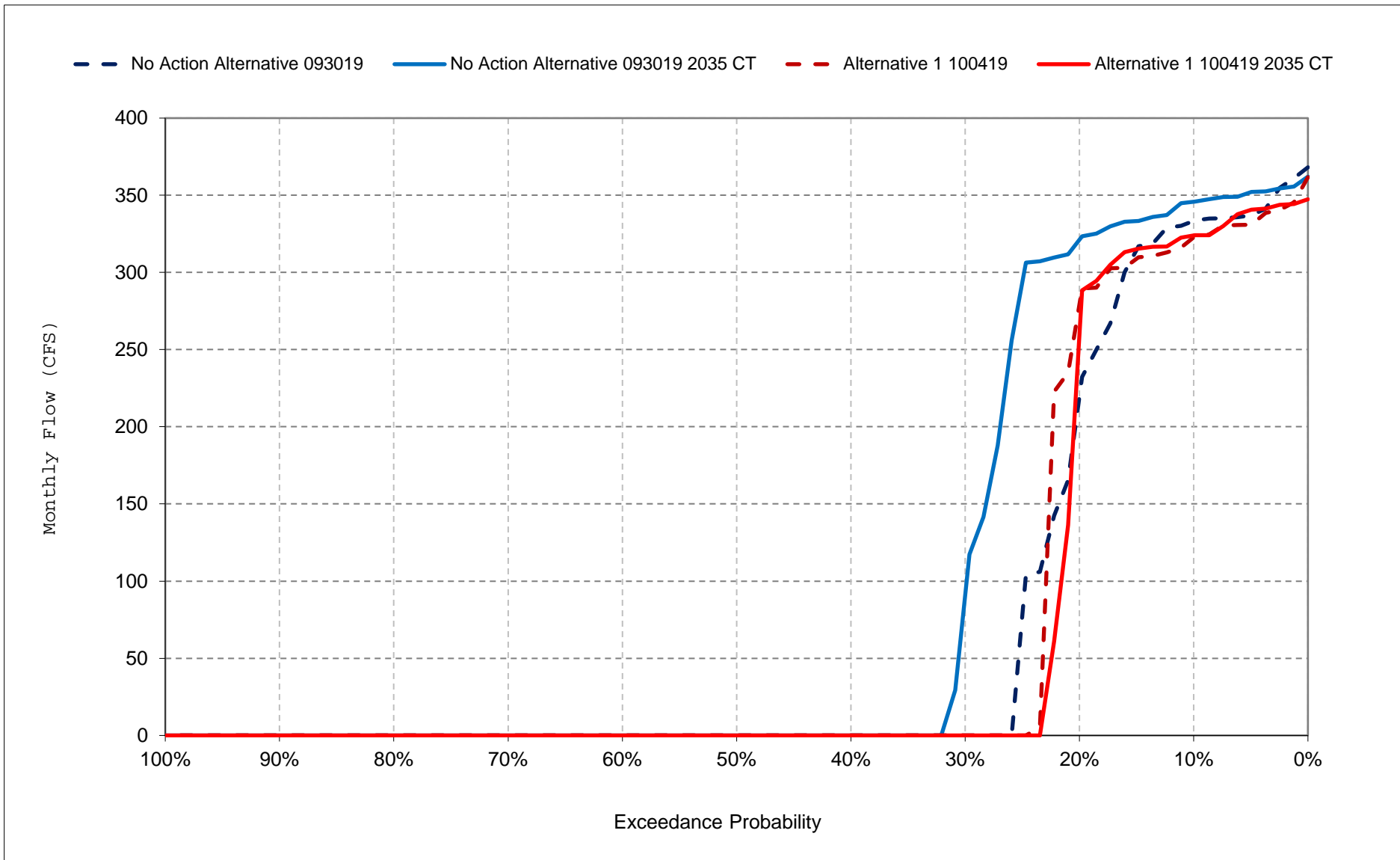
Figure 57-11. DMC - CA Intertie Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

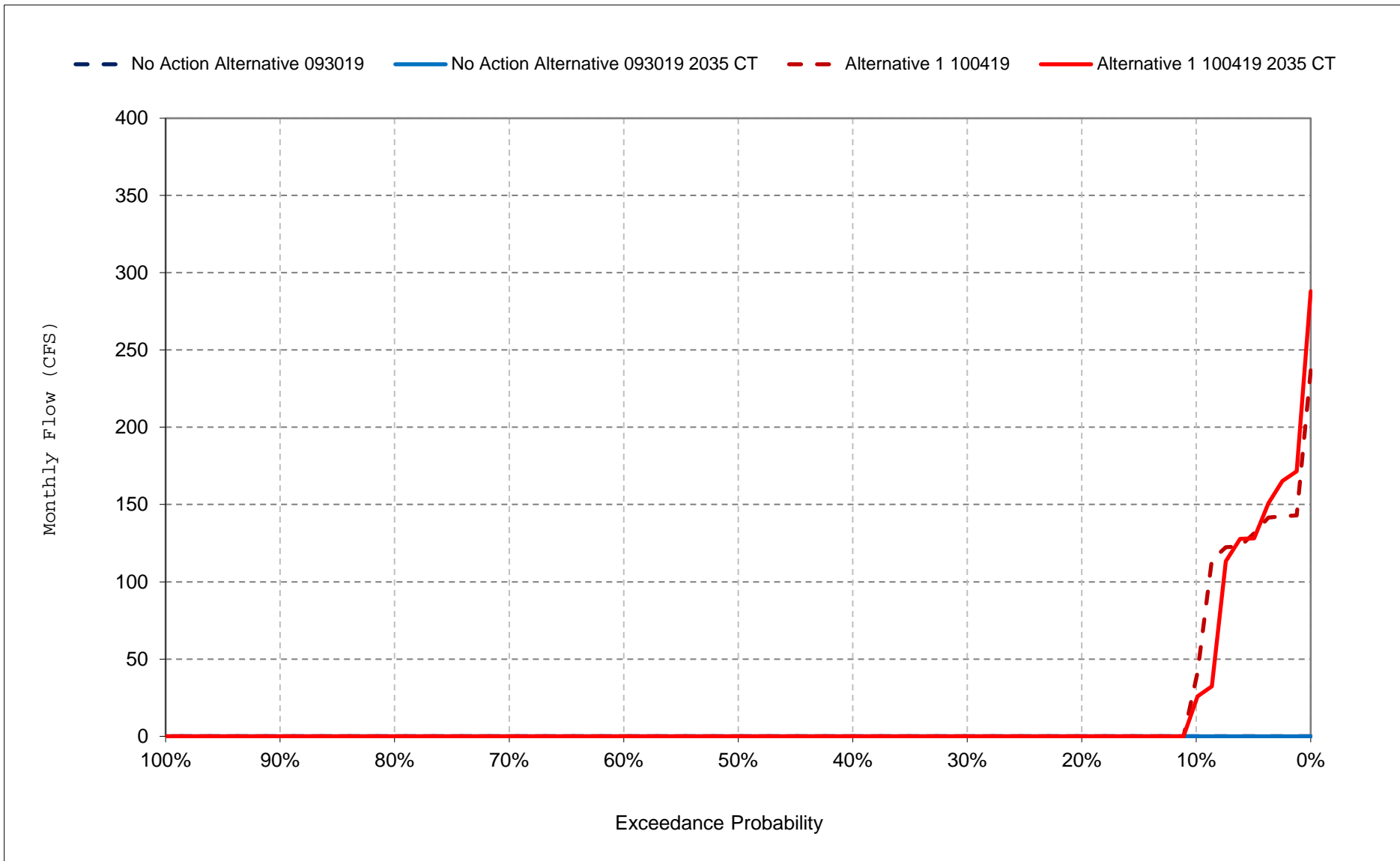
Figure 57-12. DMC - CA Intertie Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

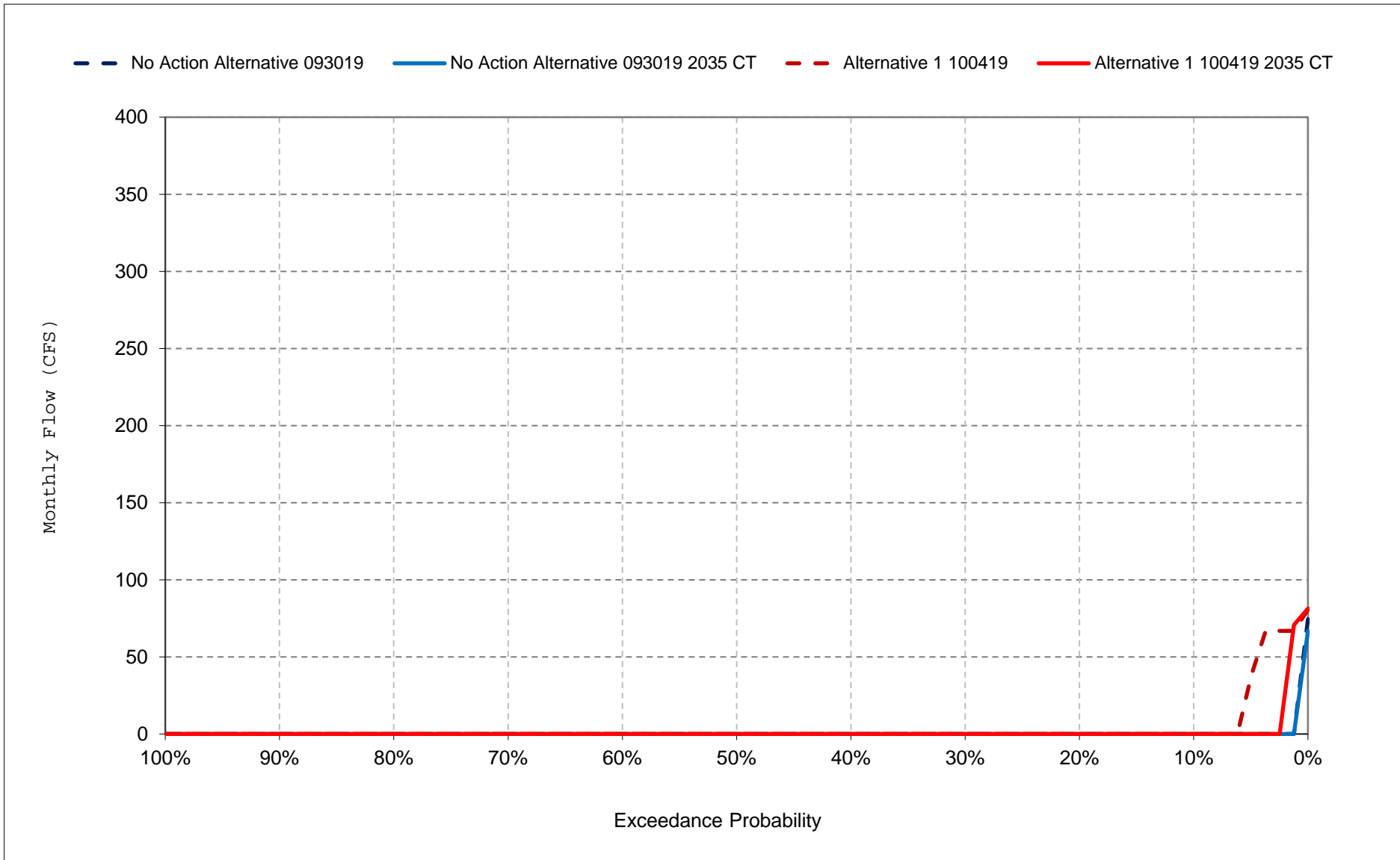
Figure 57-13. DMC - CA Intertie Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

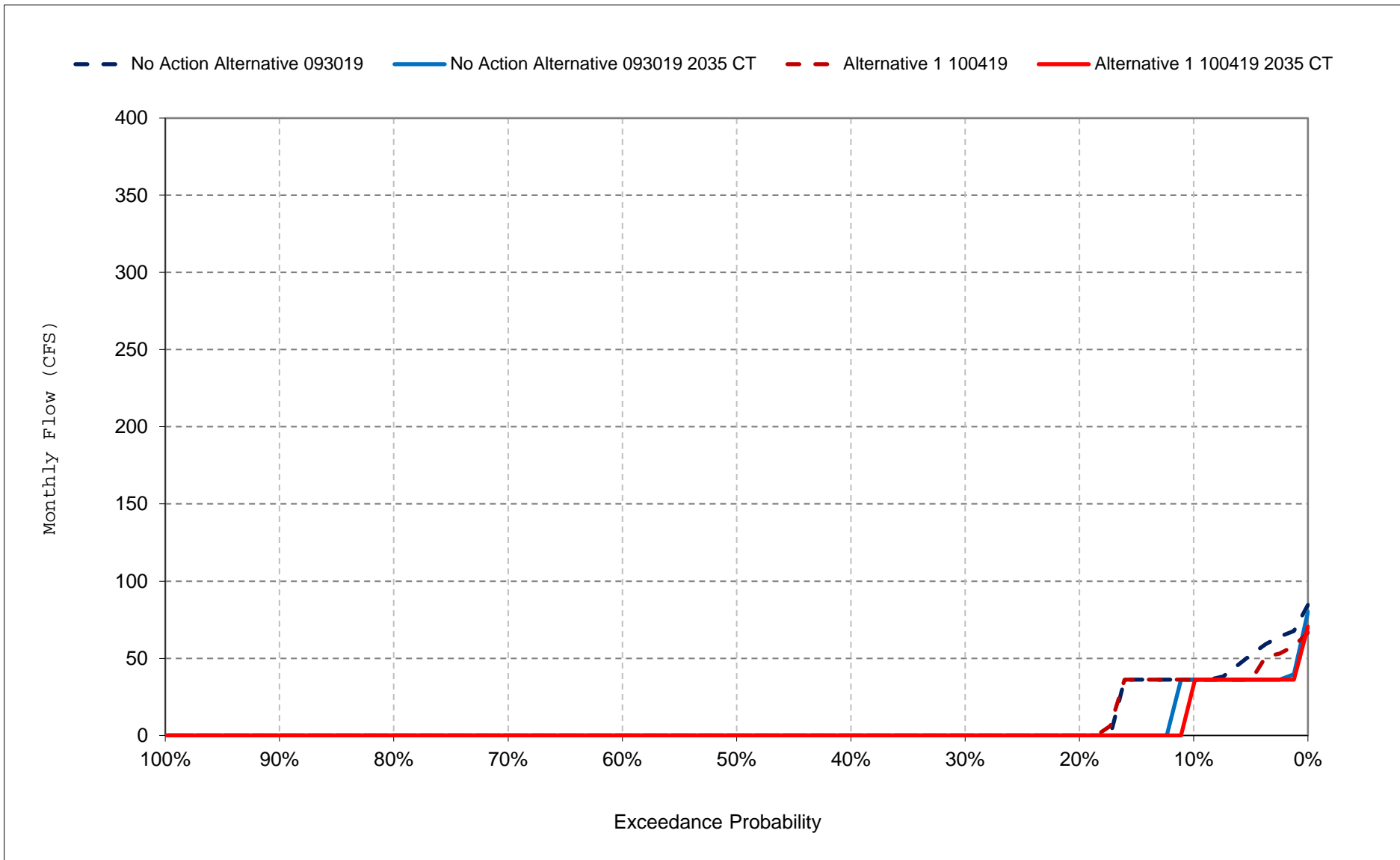
Figure 57-14. DMC - CA Intertie Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

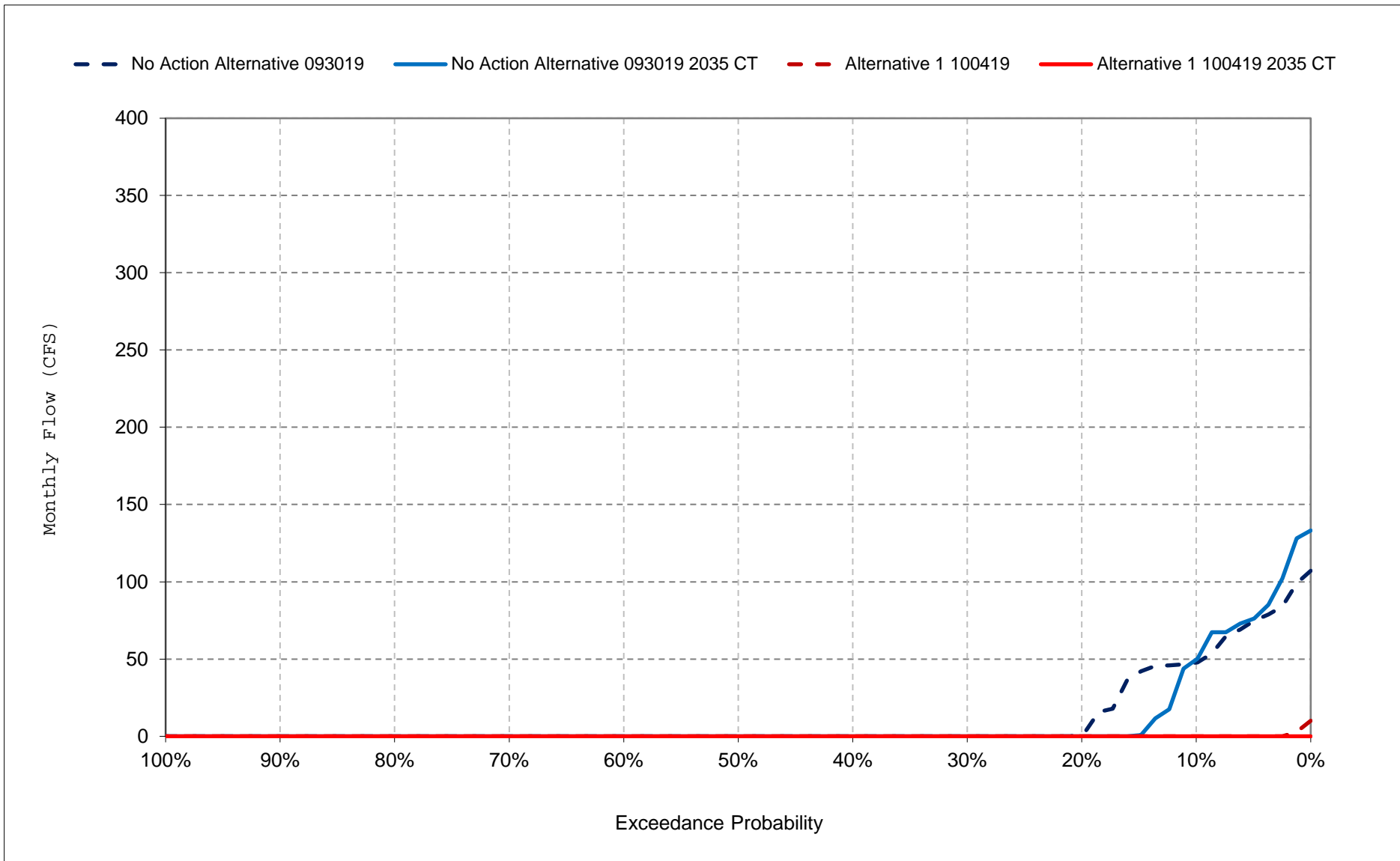
Figure 57-15. DMC - CA Intertie Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

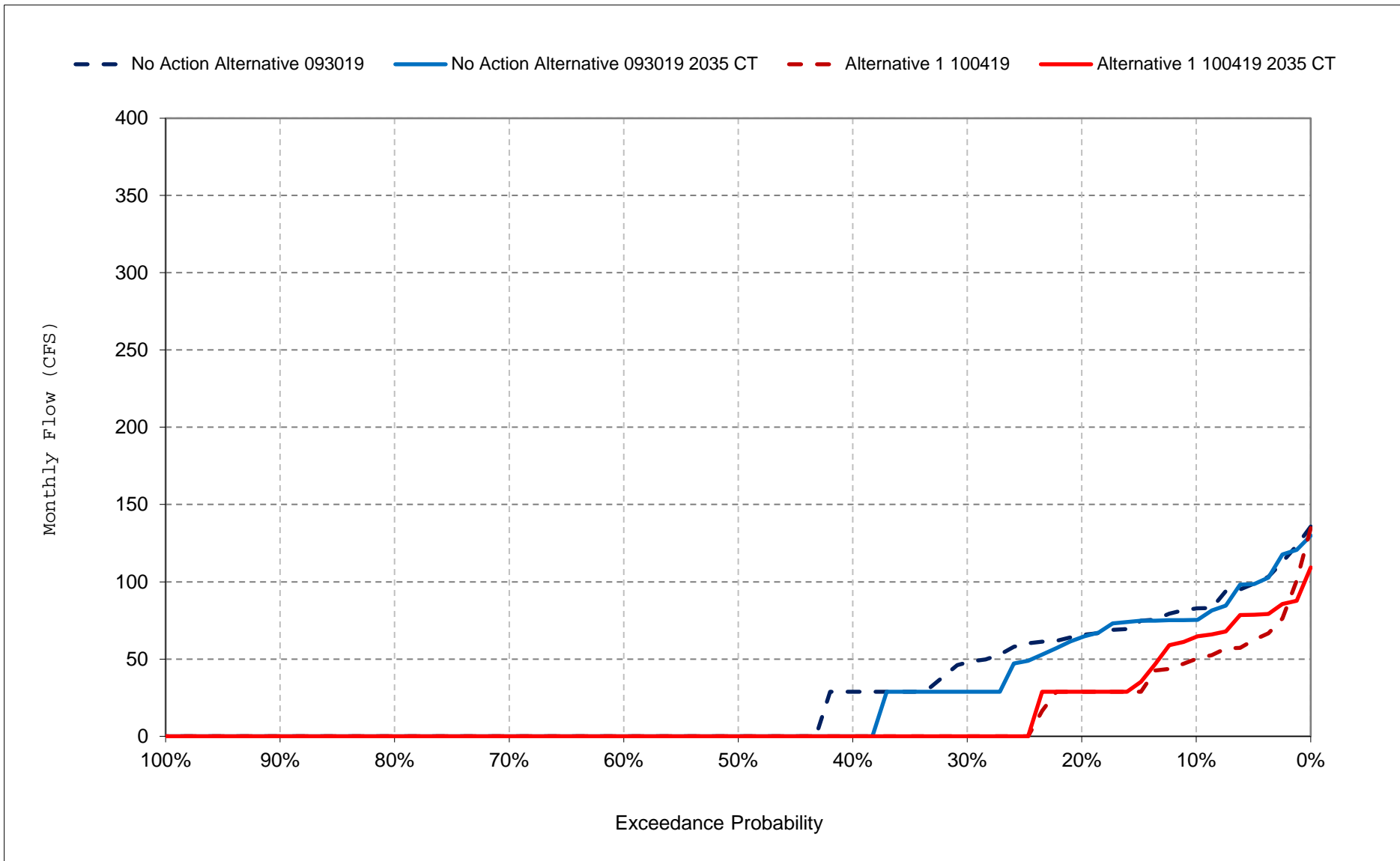
Figure 57-16. DMC - CA Intertie Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

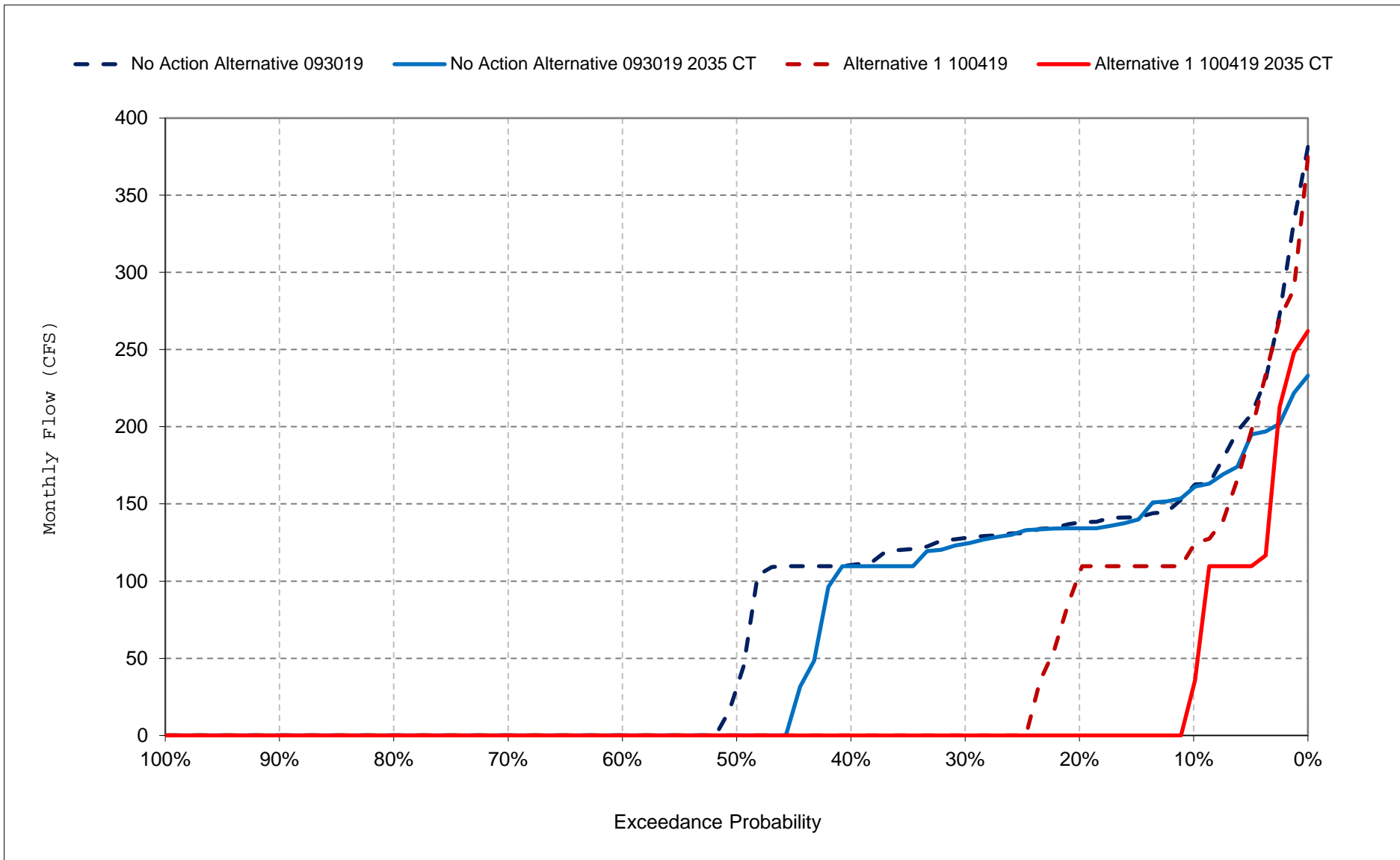
Figure 57-17. DMC - CA Intertie Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 57-18. DMC - CA Intertie Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.4 – Water Supply Results (CalSim II)

The following results of the CalSim II model are included for diversions at key project locations for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
CalSim II Water Supply Summary Report	NA	1-1 to 1-8	1-1 to 1-9
Total Delta Exports	TOTAL_EXP		2-1

Report formats

- Tables comparing water supply of two scenarios (water supply by region and type, and water supply by type)
- Annual exceedance charts including all scenarios

Table 1-1. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 011519	No Action Alternative 011319	Alternative 1 011519 minus No Action Alternative 011319
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,608 1,589	1,608 1,587	0 1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 144	156 140	4 3
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	222 192	218 189	4 3
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	256 146	239 126	17 20
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	937 873	936 870	1 3
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 20	29 19	1 1
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 825	852 825	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	256 252	260 250	-4 2
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	16 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	343 176	315 160	28 16
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 301	281 299	2 3
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	42 22	39 20	3 2
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	207 128	197 121	10 7
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	42 24	39 22	3 2
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	696 370	641 336	55 34
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	80 45	75 42	6 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	623 353	568 308	55 45
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	270 162	251 146	19 15
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,282 794	1,196 715	87 78
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	7 4	1 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,230 6,446	7,938 6,207	292 239

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 1-2. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 011519	No Action Alternative 011319	Alternative 1 011519 minus No Action Alternative 011319
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	256 146	239 126	17 20
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 403	397 400	4 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 67	99 67	1 1
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	657 549	635 526	21 23
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 67	99 67	1 1
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	757 616	734 592	22 24
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,081 568	995 516	86 52
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	122 105	119 102	3 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	634 359	579 314	55 45
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,811 1,105	1,687 999	124 106
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,203 673	1,114 618	88 55
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,445 1,464	2,265 1,313	180 151
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,648 2,136	3,379 1,931	268 206

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 1-3. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	No Action Alternative 093019 2035 CT	Alternative 1 100419 2035 CT minus No Action Alternative
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,611 1,592	1,612 1,592	-1 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 145	157 141	4 4
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	223 197	218 192	5 5
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	257 161	239 135	19 25
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	938 875	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	29 20	1 2
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	854 824	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	257 251	261 251	-5 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 15	16 14	0 1
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	340 191	314 162	26 29
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 302	280 297	3 5
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 24	38 20	3 4
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	206 134	198 125	8 9
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	39 22	2 3
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 12	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	694 401	639 339	54 62
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 48	74 42	5 7
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	618 367	576 315	43 52
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	265 169	250 149	16 19
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,256 817	1,186 726	69 91
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 5	7 4	1 1
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,194 6,577	7,942 6,259	252 318

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	No Action Alternative 093019 2035 CT	Alternative 1 100419 2035 CT minus No Action Alternative
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	257 161	239 135	19 25
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 406	396 401	5 5
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 70	1 0
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	658 567	635 537	23 30
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 70	1 0
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	759 637	735 607	24 30
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,075 616	992 521	83 95
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	121 107	119 102	3 6
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	630 373	586 320	43 53
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,777 1,144	1,676 1,013	101 131
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,197 724	1,110 623	86 101
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,406 1,517	2,262 1,334	144 183
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,603 2,241	3,373 1,957	230 284

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-5. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				No Action Alternative 093019 2035 CT	No Action Alternative 011319	No Action Alternative 093019 2035 CT minus No Action
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,612 1,592	1,608 1,587	4 5
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	157 141	156 140	1 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	218 192	218 189	0 3
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	239 135	239 126	0 10
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	936 870	2 5
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	29 20	29 19	0 0
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	852 825	2 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	261 251	260 250	1 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	16 14	16 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	314 162	315 160	-1 2
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	280 297	281 299	-1 -2
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	38 20	39 20	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	198 125	197 121	1 4
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	39 22	39 22	-1 0
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	639 339	641 336	-2 3
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	74 42	75 42	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	576 315	568 308	8 7
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	250 149	251 146	-1 3
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,186 726	1,196 715	-9 11
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	7 4	7 4	0 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	7,942 6,259	7,938 6,207	4 52

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. NAA 011319 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-6. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				No Action Alternative 093019 2035 CT	No Action Alternative 011319	No Action Alternative 093019 2035 CT minus No Action
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	239 135	239 126	0 10
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	396 401	397 400	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 70	99 67	1 4
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	635 537	635 526	0 11
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 70	99 67	1 4
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	735 607	734 592	1 15
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	992 521	995 516	-3 5
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	119 102	119 102	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	586 320	579 314	8 7
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,676 1,013	1,687 999	-11 14
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,110 623	1,114 618	-4 5
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,262 1,334	2,265 1,313	-3 21
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,373 1,957	3,379 1,931	-7 26

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. NAA 011319 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-7. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	Alternative 1 011519	Alternative 1 100419 2035 CT minus Alternative 1 011519
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,611 1,592	1,608 1,589	3 3
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 145	161 144	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	223 197	222 192	0 4
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	257 161	256 146	1 15
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	937 873	1 2
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	30 20	0 1
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	852 825	2 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	257 251	256 252	0 -1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 15	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	340 191	343 176	-3 15
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 302	283 301	0 1
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 24	42 22	0 2
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	206 134	207 128	-1 6
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	42 24	-1 2
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 12	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	694 401	696 370	-2 32
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 48	80 45	-1 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	618 367	623 353	-4 14
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	265 169	270 162	-4 7
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,256 817	1,282 794	-27 23
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 5	8 4	0 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,194 6,577	8,230 6,446	-36 131

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. ALT1 011519 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-8. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	Alternative 1 011519	Alternative 1 100419 2035 CT minus Alternative 1 011519
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	257 161	256 146	1 15
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 406	401 403	0 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 67	1 3
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	658 567	657 549	2 18
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 67	1 3
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	759 637	757 616	2 21
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,075 616	1,081 568	-6 49
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	121 107	122 105	0 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	630 373	634 359	-5 14
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,777 1,144	1,811 1,105	-34 39
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,197 724	1,203 673	-6 51
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,406 1,517	2,445 1,464	-39 54
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,603 2,241	3,648 2,136	-45 105

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. ALT1 011519 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. CVP North of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)

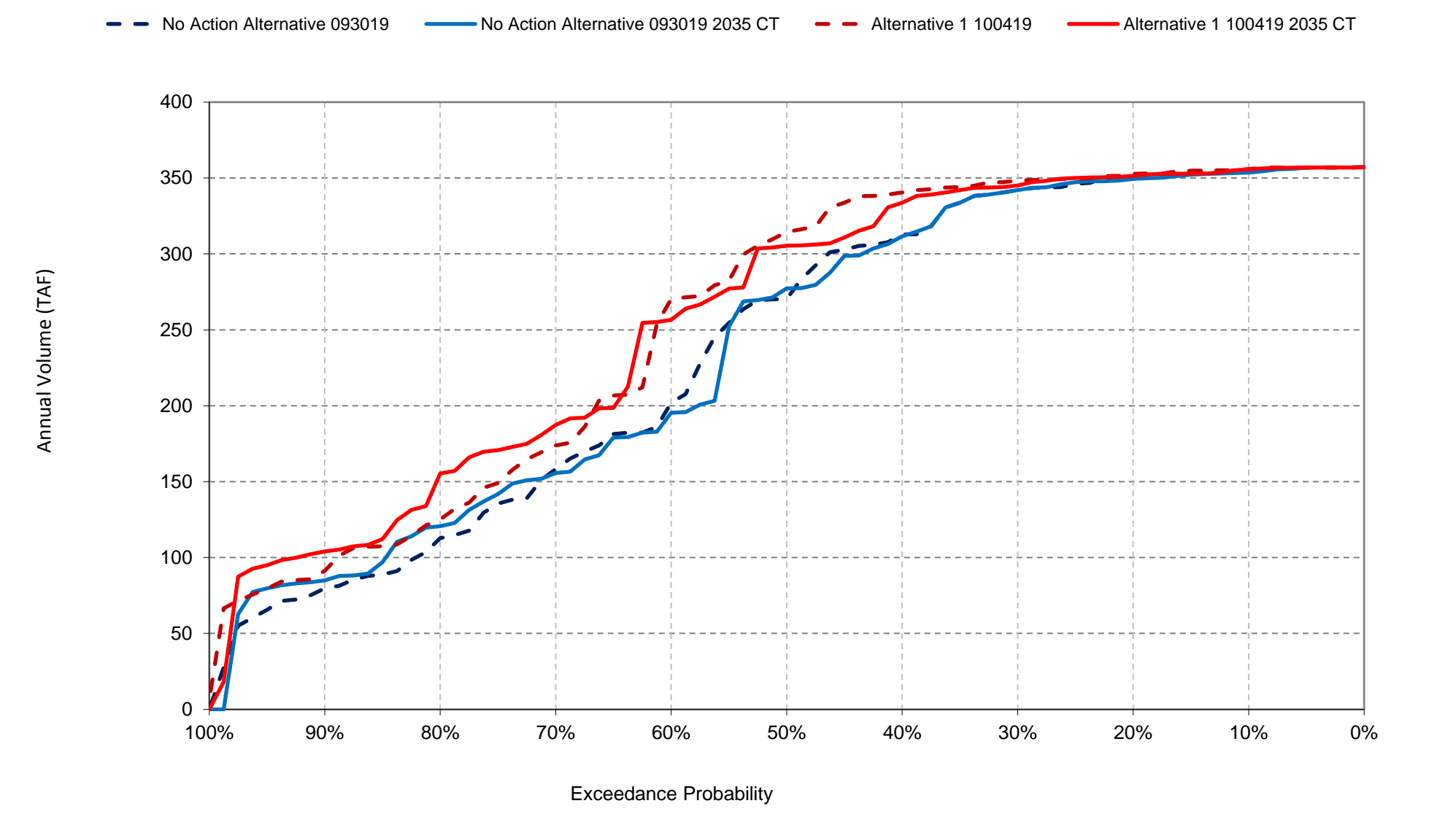


Figure 1-2. CVP South of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)

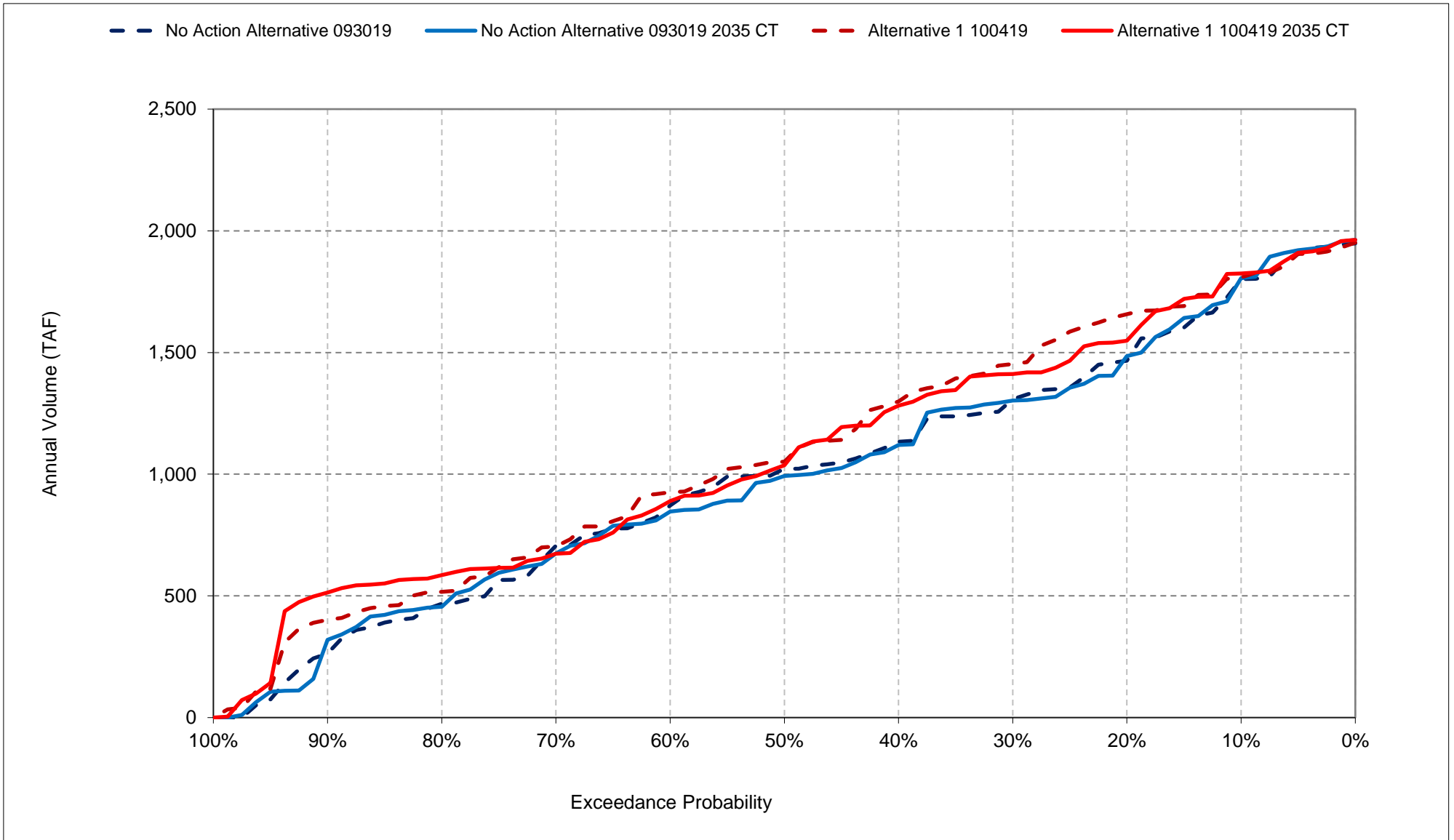


Figure 1-3. CVP North of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)

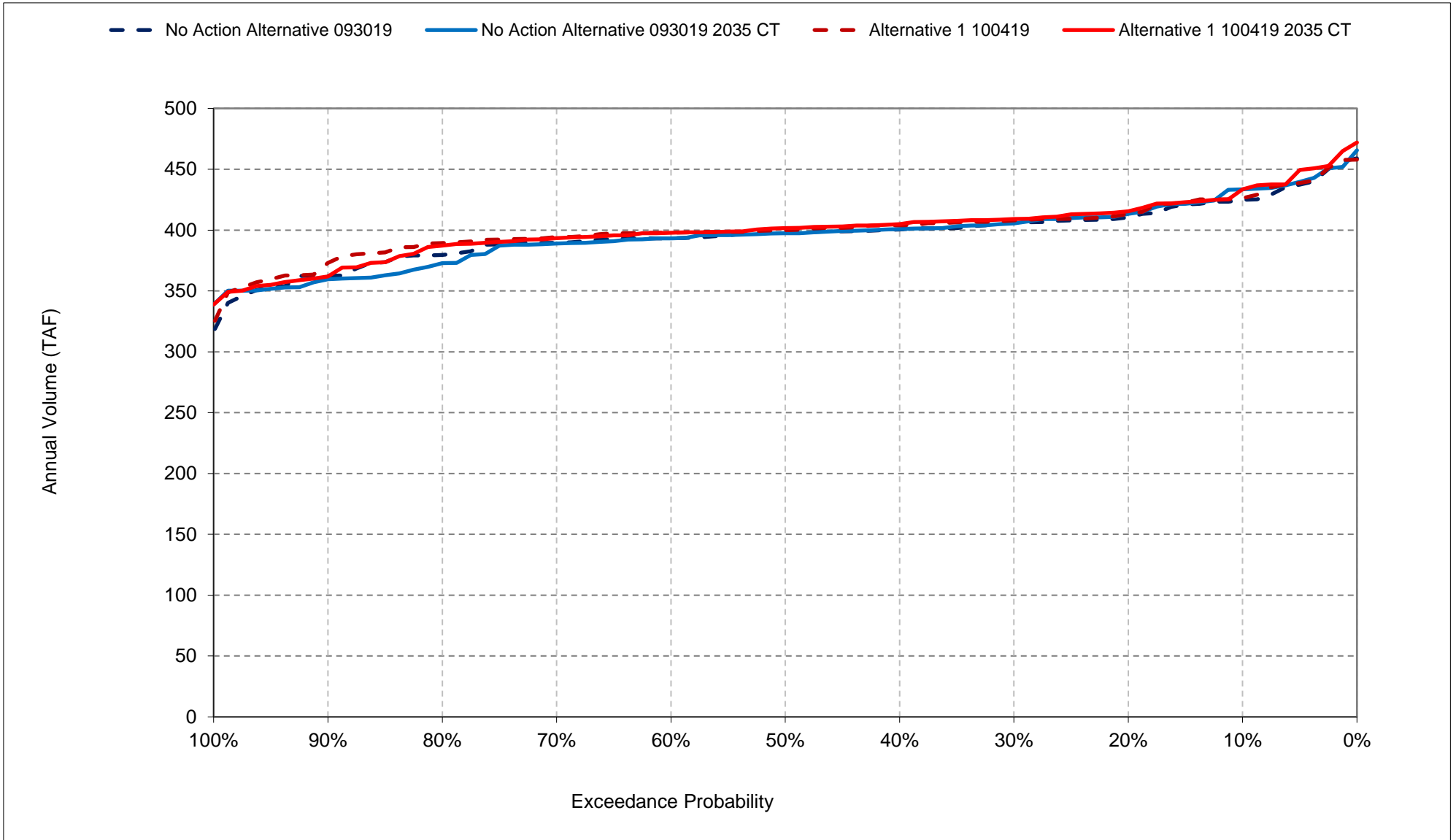


Figure 1-4. CVP South of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)

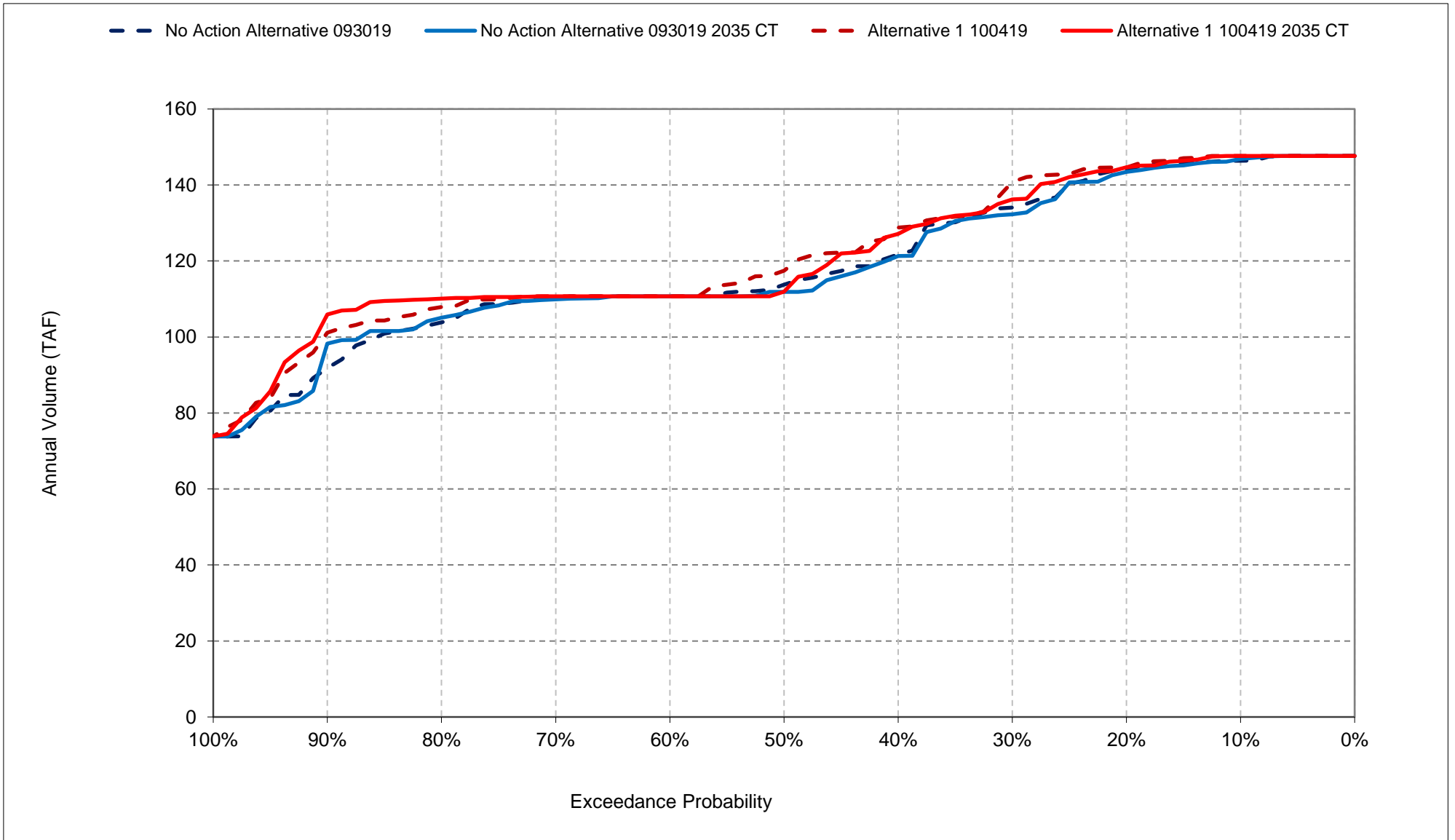


Figure 1-5. Total SWP Deliveries, Annual (Jan-Dec)

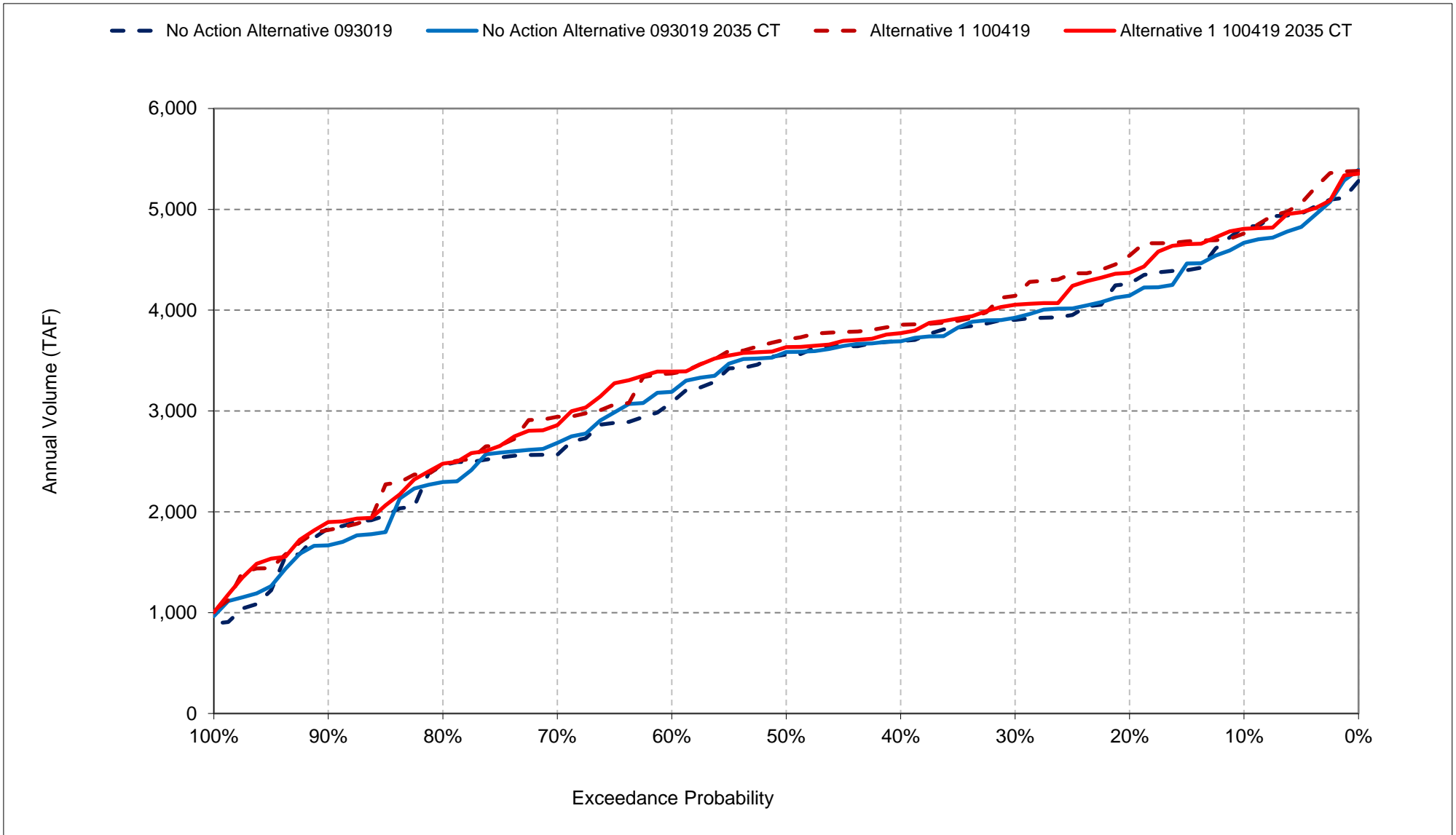


Figure 1-6. Total SWP South of Delta Deliveries including Article 21 and 56, Annual (Jan-Dec)

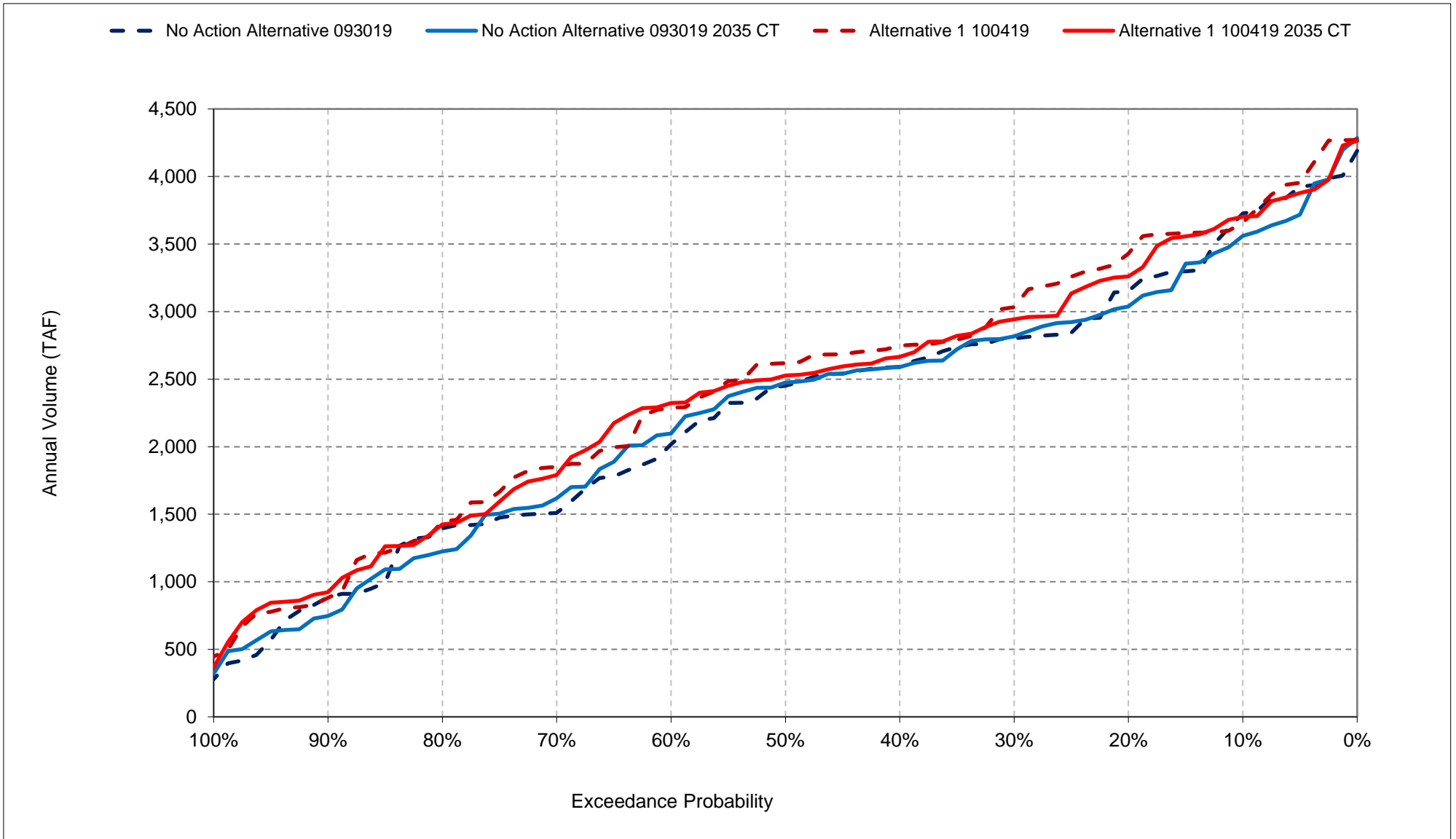


Figure 1-7. SWP Table A Deliveries with Article 56, Annual (Jan-Dec)

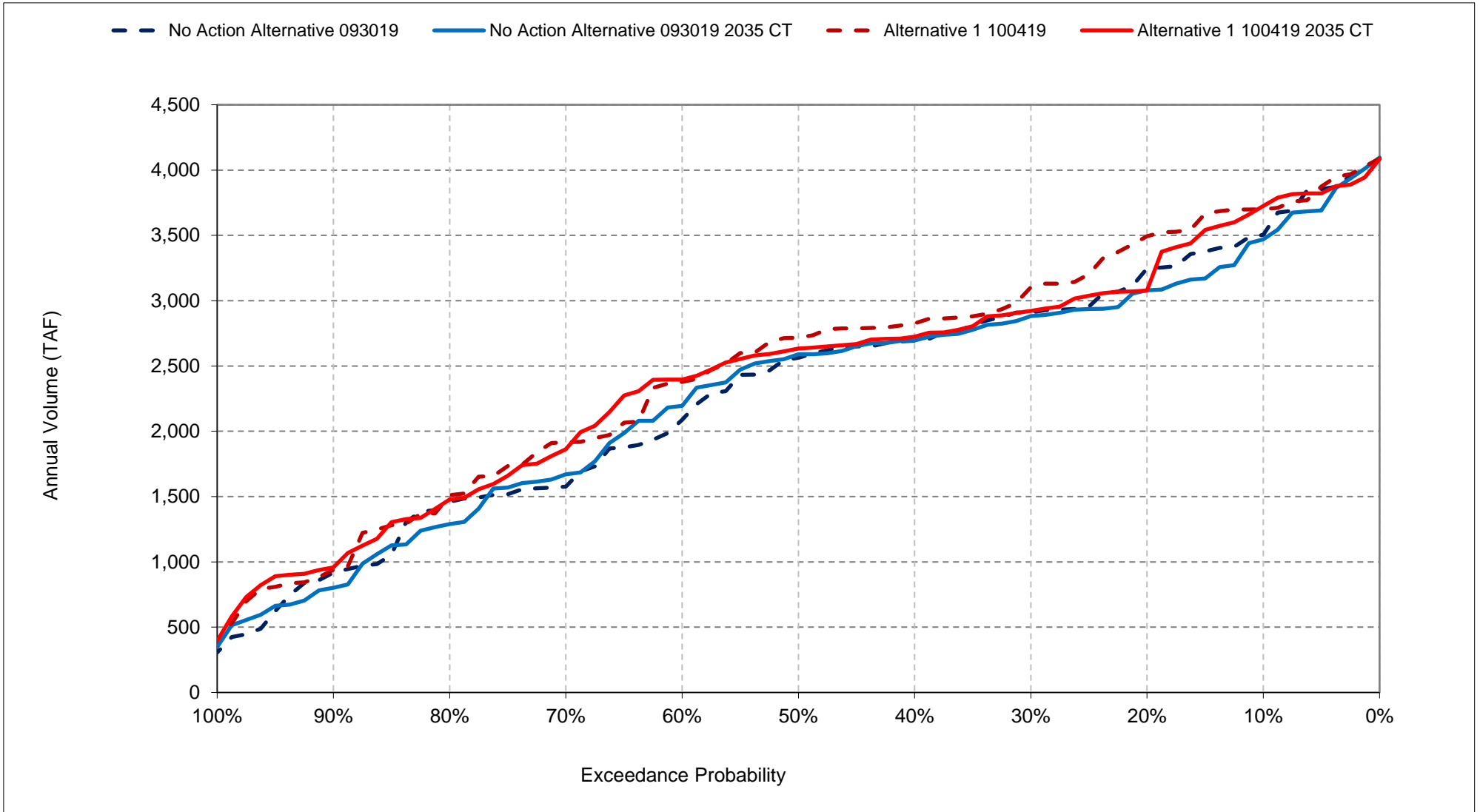


Figure 1-8. SWP South of Delta Table A Deliveries with Article 56, Annual (Jan-Dec)

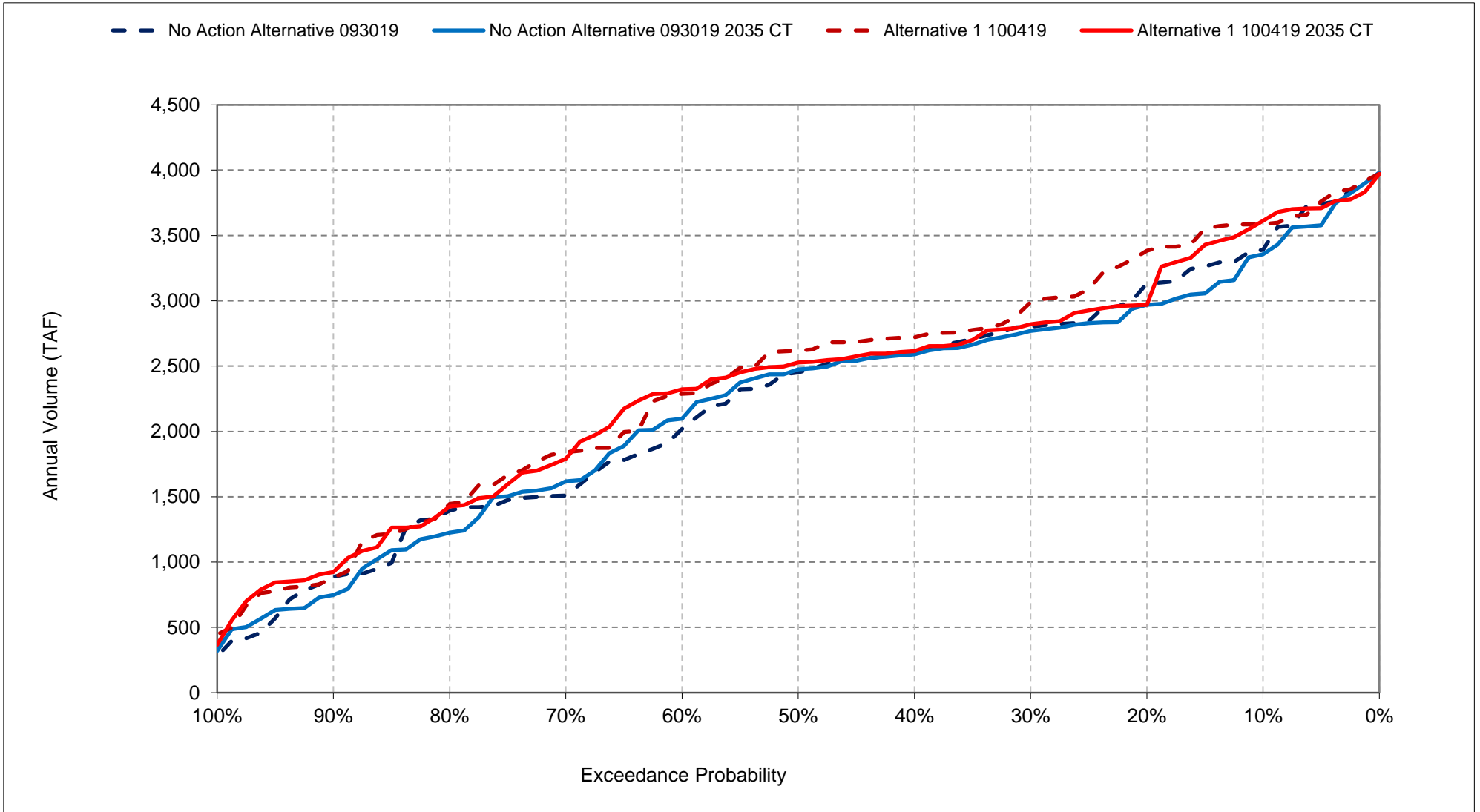


Figure 1-9. SWP Article 21 Deliveries, Annual (Jan-Dec)

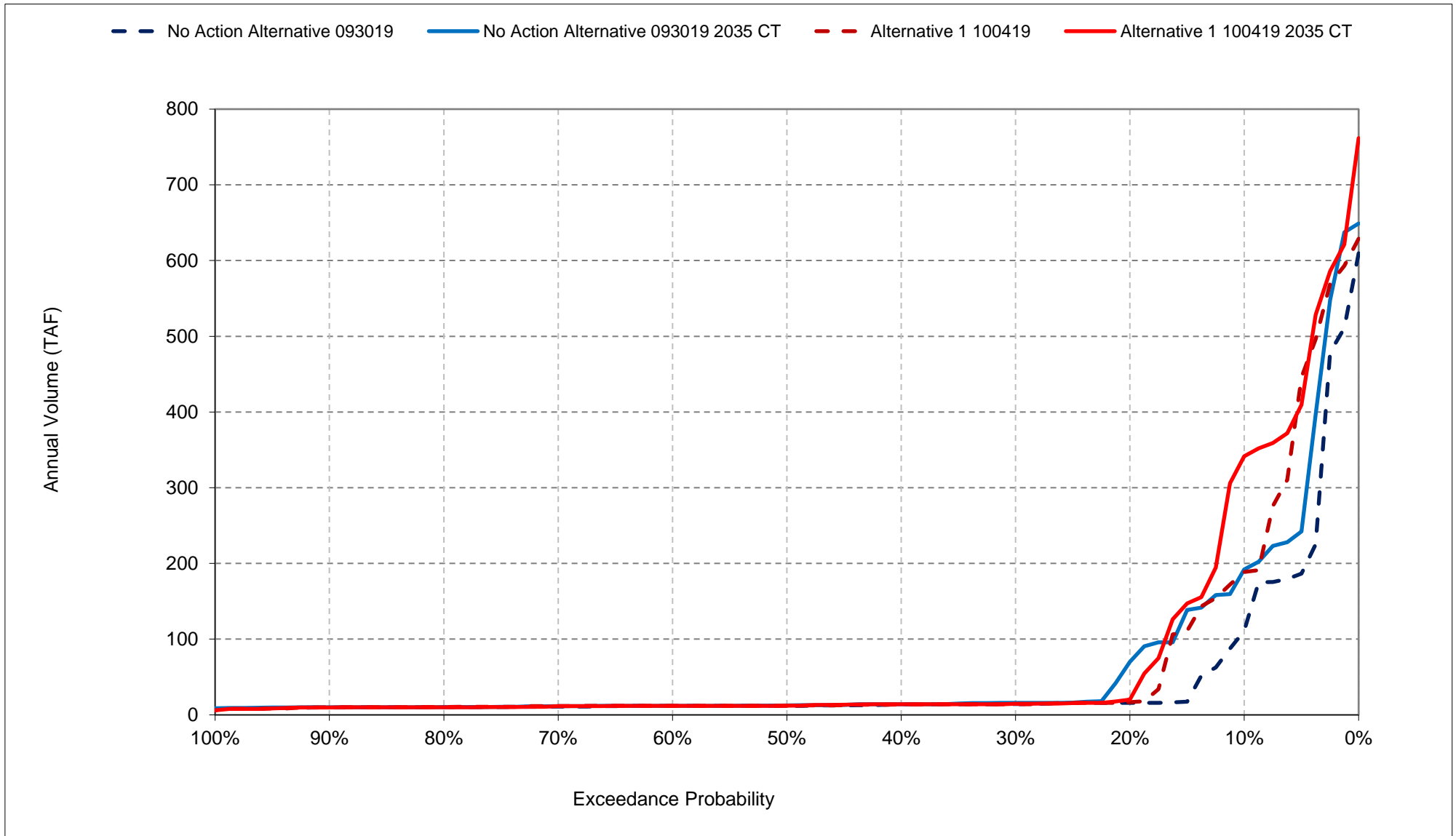
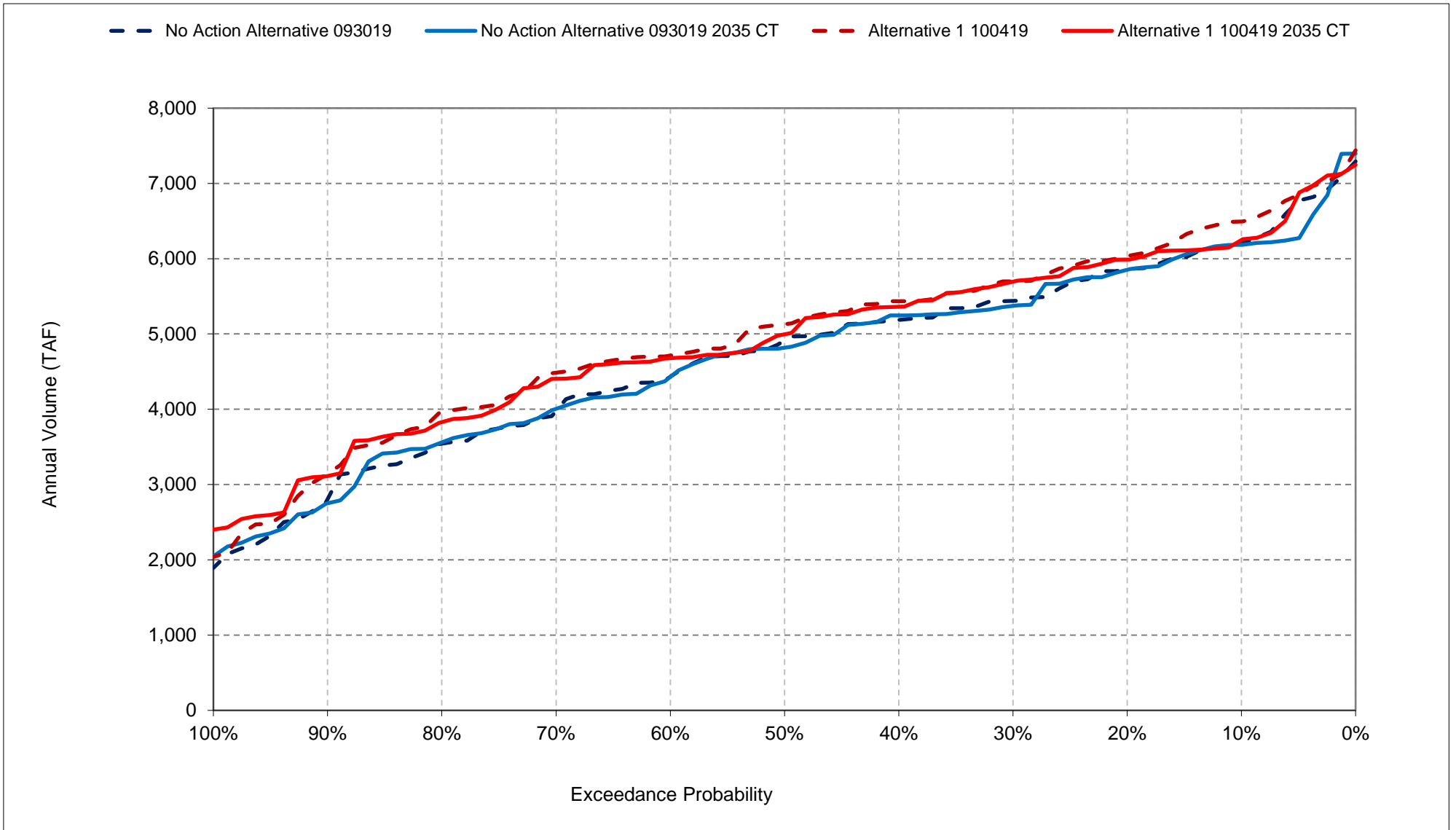


Figure 2-1. Total Delta Exports, Annual (Oct-Sep)



Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.5 – X2 Position Results (CalSim II)

X2 position results of the CalSim II model are included for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
X2 Position	X2_PRV_MOD	1-1 to 1-4	1-1 to 1-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 1-1. X2 Position, Monthly Position

No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	85	78	76	78	81	83	87	90	92
20%	92	92	88	83	73	73	72	79	82	85	88	91
30%	92	91	85	80	68	66	70	77	81	84	88	91
40%	91	89	83	75	64	64	67	72	80	82	86	90
50%	88	81	81	72	59	60	64	69	78	80	85	89
60%	81	81	79	65	55	58	60	66	77	78	85	81
70%	74	75	73	55	52	54	57	64	74	77	84	74
80%	74	74	62	51	49	51	54	58	69	77	83	74
90%	74	74	52	49	48	49	50	53	63	74	82	74
Long Term												
Full Simulation Period ^d	84	82	77	68	61	61	64	69	76	80	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	71	55	51	53	55	58	67	75	83	74
Above Normal (16%)	81	80	77	61	55	55	59	65	75	78	83	75
Below Normal (13%)	89	88	79	75	65	67	69	72	79	81	85	90
Dry (24%)	92	87	75	78	68	66	68	74	80	85	88	91
Critical (15%)	94	94	87	82	75	74	77	82	85	88	90	92

Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	94	94	91	86	79	77	79	82	83	87	90	92
20%	92	92	89	83	73	72	75	80	82	85	88	91
30%	92	91	88	80	67	65	70	79	81	84	88	91
40%	92	90	87	75	65	64	68	75	80	82	87	91
50%	88	86	85	72	59	60	66	71	79	81	85	89
60%	80	85	81	65	55	57	62	70	78	79	83	81
70%	80	85	73	54	52	54	59	67	75	78	83	81
80%	80	85	62	51	49	50	54	60	71	77	82	81
90%	80	76	52	49	48	49	50	55	63	74	82	80
Long Term												
Full Simulation Period ^d	86	86	78	68	61	61	65	70	76	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	75	55	51	53	56	60	68	75	82	80
Above Normal (16%)	80	83	79	61	55	54	60	68	76	78	82	75
Below Normal (13%)	89	88	79	75	64	66	70	75	80	82	86	90
Dry (24%)	92	87	75	78	68	65	69	75	81	84	88	91
Critical (15%)	94	94	87	82	76	76	78	83	86	88	91	92

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	1	1	1	0	0	0	0	0
20%	0	0	0	0	0	0	2	0	0	0	0	0
30%	0	0	4	0	0	-1	0	1	0	0	0	0
40%	0	0	4	0	1	0	2	4	0	0	0	0
50%	-1	4	3	0	0	0	2	2	1	0	0	0
60%	-1	4	2	0	0	-1	2	4	1	0	-2	0
70%	6	10	0	0	0	-1	1	3	1	1	-2	7
80%	6	11	0	0	0	0	1	2	2	1	0	7
90%	6	2	0	0	0	0	1	2	0	0	0	6
Long Term												
Full Simulation Period ^d	2	3	1	0	0	0	1	2	0	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	6	8	3	0	0	0	1	2	1	0	-1	6
Above Normal (16%)	-1	4	2	0	0	-1	1	3	1	1	0	0
Below Normal (13%)	0	1	0	0	0	-1	1	3	1	0	0	0
Dry (24%)	0	0	0	0	0	0	1	1	0	0	0	0
Critical (15%)	0	0	0	0	1	1	1	1	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1-2: X2 Position, Monthly Position

No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	74	76	81	83	86	90	92
20%	92	92	88	83	69	68	71	79	82	85	88	91
30%	92	91	84	80	65	65	70	77	81	85	88	91
40%	91	90	82	71	62	63	66	73	81	81	85	90
50%	90	81	81	67	56	59	63	70	79	81	85	89
60%	81	80	77	62	54	56	60	68	79	79	84	81
70%	74	75	71	54	51	53	56	65	76	78	84	74
80%	74	74	62	50	49	50	53	60	73	77	82	74
90%	74	74	53	49	48	49	50	56	68	75	82	74
Long Term												
Full Simulation Period ^d	84	83	76	67	60	60	63	70	78	81	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	70	54	51	52	55	60	71	76	83	74
Above Normal (16%)	81	79	76	60	54	54	58	67	77	78	83	75
Below Normal (13%)	90	89	78	72	62	65	68	73	80	82	85	90
Dry (24%)	92	87	75	77	65	64	67	75	81	84	88	91
Critical (15%)	93	93	87	80	73	73	77	82	85	87	90	92

Alternative 1 100419 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	75	78	81	83	86	90	92
20%	92	92	89	83	70	68	74	80	83	85	89	92
30%	92	91	88	79	66	64	70	79	81	85	88	91
40%	92	91	86	71	62	62	68	76	81	82	86	90
50%	91	86	83	67	57	59	65	73	80	81	85	90
60%	80	86	80	61	54	55	61	70	79	80	83	82
70%	80	85	72	53	51	52	57	67	78	78	83	81
80%	80	85	62	50	49	50	54	62	74	78	82	81
90%	80	79	53	49	48	49	50	58	69	76	82	80
Long Term												
Full Simulation Period ^d	86	86	77	67	60	60	64	71	78	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	74	54	51	52	55	62	71	77	82	80
Above Normal (16%)	81	84	78	60	54	53	59	69	78	79	83	76
Below Normal (13%)	90	89	78	71	62	64	69	75	80	82	86	90
Dry (24%)	92	87	75	77	66	63	68	76	81	84	88	91
Critical (15%)	94	94	87	81	74	74	78	83	85	87	90	92

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	1	2	0	0	0	0	0
20%	0	0	1	0	1	0	2	0	0	0	0	0
30%	0	0	4	-1	1	-1	0	2	0	0	0	0
40%	0	0	5	-1	0	0	2	3	0	0	1	0
50%	1	4	2	0	0	0	2	3	0	1	0	1
60%	-1	6	2	-1	0	-1	1	2	0	1	-1	1
70%	6	11	1	0	0	-1	1	2	2	1	-1	7
80%	6	11	0	0	0	0	1	2	0	1	0	7
90%	6	5	0	0	0	0	0	2	1	0	0	6
Long Term												
Full Simulation Period ^d	2	3	1	0	0	0	1	2	0	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	6	8	3	0	0	0	1	2	0	1	-1	6
Above Normal (16%)	1	4	2	0	0	-1	1	3	1	1	0	1
Below Normal (13%)	0	1	0	-1	0	-1	1	2	0	1	1	0
Dry (24%)	0	0	0	0	1	0	1	1	0	0	0	0
Critical (15%)	0	0	0	1	1	1	1	1	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-3. X2 Position, Monthly Position

No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	85	78	76	78	81	83	87	90	92
20%	92	92	88	83	73	73	72	79	82	85	88	91
30%	92	91	85	80	68	66	70	77	81	84	88	91
40%	91	89	83	75	64	64	67	72	80	82	86	90
50%	88	81	81	72	59	60	64	69	78	80	85	89
60%	81	81	79	65	55	58	60	66	77	78	85	81
70%	74	75	73	55	52	54	57	64	74	77	84	74
80%	74	74	62	51	49	51	54	58	69	77	83	74
90%	74	74	52	49	48	49	50	53	63	74	82	74
Long Term												
Full Simulation Period ^d	84	82	77	68	61	61	64	69	76	80	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	71	55	51	53	55	58	67	75	83	74
Above Normal (16%)	81	80	77	61	55	55	59	65	75	78	83	75
Below Normal (13%)	89	88	79	75	65	67	69	72	79	81	85	90
Dry (24%)	92	87	75	78	68	66	68	74	80	85	88	91
Critical (15%)	94	94	87	82	75	74	77	82	85	88	90	92

No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	74	76	81	83	86	90	92
20%	92	92	88	83	69	68	71	79	82	85	88	91
30%	92	91	84	80	65	65	70	77	81	85	88	91
40%	91	90	82	71	62	63	66	73	81	81	85	90
50%	90	81	81	67	56	59	63	70	79	81	85	89
60%	81	80	77	62	54	56	60	68	79	79	84	81
70%	74	75	71	54	51	53	56	65	76	78	84	74
80%	74	74	62	50	49	50	53	60	73	77	82	74
90%	74	74	53	49	48	49	50	56	68	75	82	74
Long Term												
Full Simulation Period ^d	84	83	76	67	60	60	63	70	78	81	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	70	54	51	52	55	60	71	76	83	74
Above Normal (16%)	81	79	76	60	54	54	58	67	77	78	83	75
Below Normal (13%)	90	89	78	72	62	65	68	73	80	82	85	90
Dry (24%)	92	87	75	77	65	64	67	75	81	84	88	91
Critical (15%)	93	93	87	80	73	73	77	82	85	87	90	92

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-1	-1	-2	-2	0	0	0	0	0
20%	0	0	-1	0	-4	-4	-1	0	1	0	0	0
30%	0	0	0	0	-3	-1	0	0	0	0	0	0
40%	0	1	-1	-4	-1	-2	0	1	1	-1	-1	0
50%	2	0	0	-5	-3	-1	-1	1	2	0	0	0
60%	0	-1	-2	-3	-1	-2	0	1	2	1	0	0
70%	0	0	-2	-1	-1	-2	-1	2	2	0	0	0
80%	0	0	0	-1	0	-1	-1	2	4	0	0	0
90%	0	0	0	0	0	0	0	3	6	1	0	0
Long Term												
Full Simulation Period ^d	0	0	-1	-2	-1	-1	-1	1	2	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	-1	-1	-1	-1	0	2	4	1	0	0
Above Normal (16%)	0	0	0	-2	-1	-1	-1	2	2	0	0	0
Below Normal (13%)	1	1	-1	-3	-2	-2	-1	1	1	0	0	0
Dry (24%)	0	0	0	-2	-2	-2	-1	0	1	0	0	0
Critical (15%)	0	0	-1	-2	-2	-1	-1	0	-1	-1	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. X2 Position, Monthly Position

Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	94	94	91	86	79	77	79	82	83	87	90	92
20%	92	92	89	83	73	72	75	80	82	85	88	91
30%	92	91	88	80	67	65	70	79	81	84	88	91
40%	92	90	87	75	65	64	68	75	80	82	87	91
50%	88	86	85	72	59	60	66	71	79	81	85	89
60%	80	85	81	65	55	57	62	70	78	79	83	81
70%	80	85	73	54	52	54	59	67	75	78	83	81
80%	80	85	62	51	49	50	54	60	71	77	82	81
90%	80	76	52	49	48	49	50	55	63	74	82	80
Long Term												
Full Simulation Period ^d	86	86	78	68	61	61	65	70	76	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	75	55	51	53	56	60	68	75	82	80
Above Normal (16%)	80	83	79	61	55	54	60	68	76	78	82	75
Below Normal (13%)	89	88	79	75	64	66	70	75	80	82	86	90
Dry (24%)	92	87	75	78	68	65	69	75	81	84	88	91
Critical (15%)	94	94	87	82	76	76	78	83	86	88	91	92

Alternative 1 100419 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	75	78	81	83	86	90	92
20%	92	92	89	83	70	68	74	80	83	85	89	92
30%	92	91	88	79	66	64	70	79	81	85	88	91
40%	92	91	86	71	62	62	68	76	81	82	86	90
50%	91	86	83	67	57	59	65	73	80	81	85	90
60%	80	86	80	61	54	55	61	70	79	80	83	82
70%	80	85	72	53	51	52	57	67	78	78	83	81
80%	80	85	62	50	49	50	54	62	74	78	82	81
90%	80	79	53	49	48	49	50	58	69	76	82	80
Long Term												
Full Simulation Period ^d	86	86	77	67	60	60	64	71	78	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	74	54	51	52	55	62	71	77	82	80
Above Normal (16%)	81	84	78	60	54	53	59	69	78	79	83	76
Below Normal (13%)	90	89	78	71	62	64	69	75	80	82	86	90
Dry (24%)	92	87	75	77	66	63	68	76	81	84	88	91
Critical (15%)	94	94	87	81	74	74	78	83	85	87	90	92

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-2	-2	-2	-1	0	0	0	0	0
20%	0	0	0	0	-3	-4	-1	0	0	0	0	0
30%	0	0	0	-2	-1	-1	0	0	0	0	0	0
40%	0	1	-1	-4	-2	-2	0	1	0	0	-1	0
50%	3	0	-1	-5	-2	-1	-1	2	1	0	0	1
60%	0	0	-2	-4	-1	-2	-1	0	2	1	0	1
70%	0	0	-1	-1	-1	-1	-1	0	3	1	0	0
80%	0	0	0	-1	0	-1	0	3	3	0	0	0
90%	0	3	0	0	0	0	0	3	6	1	0	0
Long Term												
Full Simulation Period ^d	0	0	-1	-2	-1	-1	-1	1	2	1	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	-1	-1	-1	-1	0	2	4	2	0	0
Above Normal (16%)	1	0	-1	-2	-1	-1	-1	2	2	0	0	1
Below Normal (13%)	1	1	-1	-4	-2	-2	-1	0	1	1	0	0
Dry (24%)	0	0	0	-2	-2	-2	-1	0	1	0	0	0
Critical (15%)	0	0	-1	0	-1	-2	-1	-1	-1	-1	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

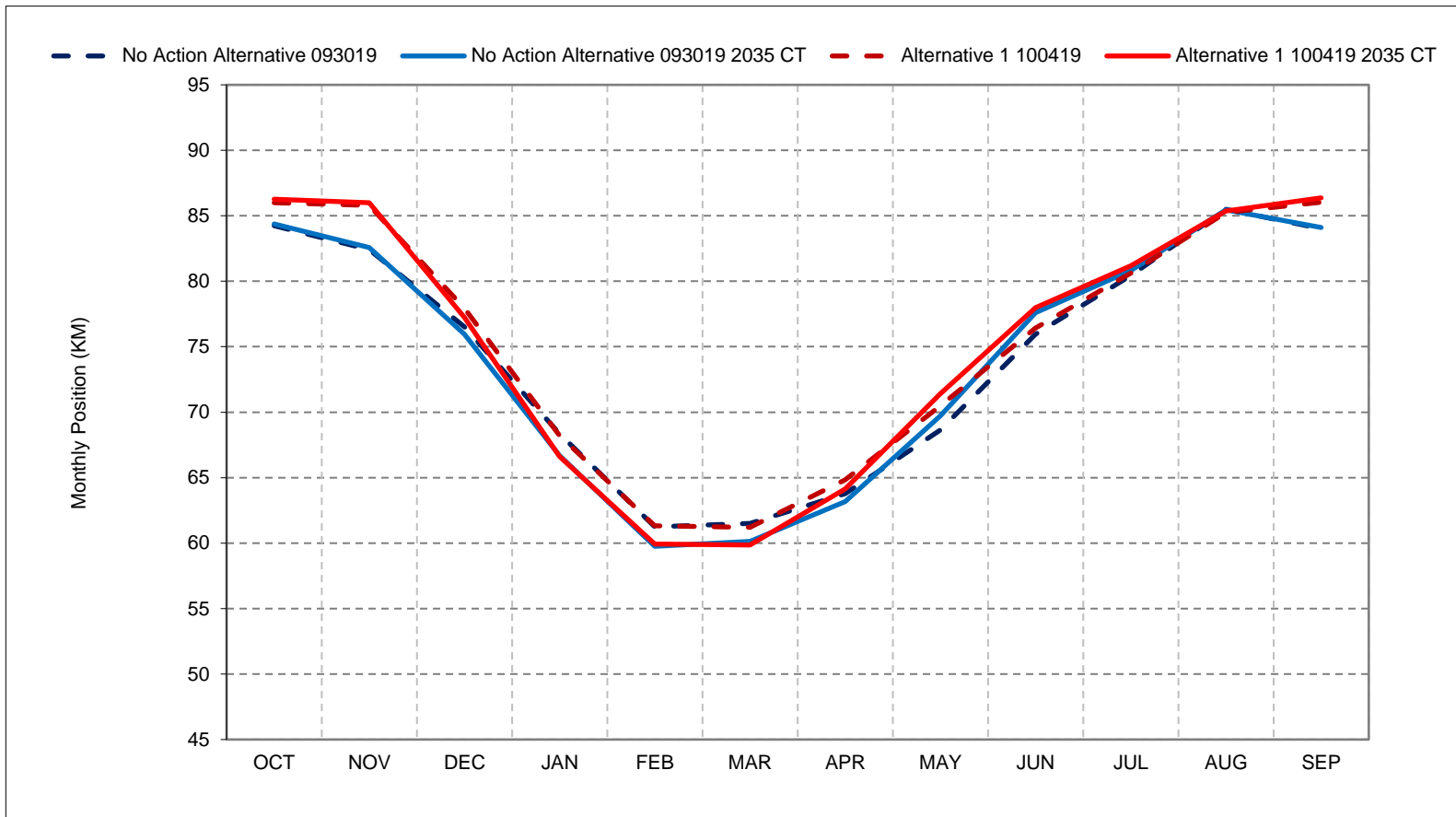
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. X2 Position, Long-Term Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

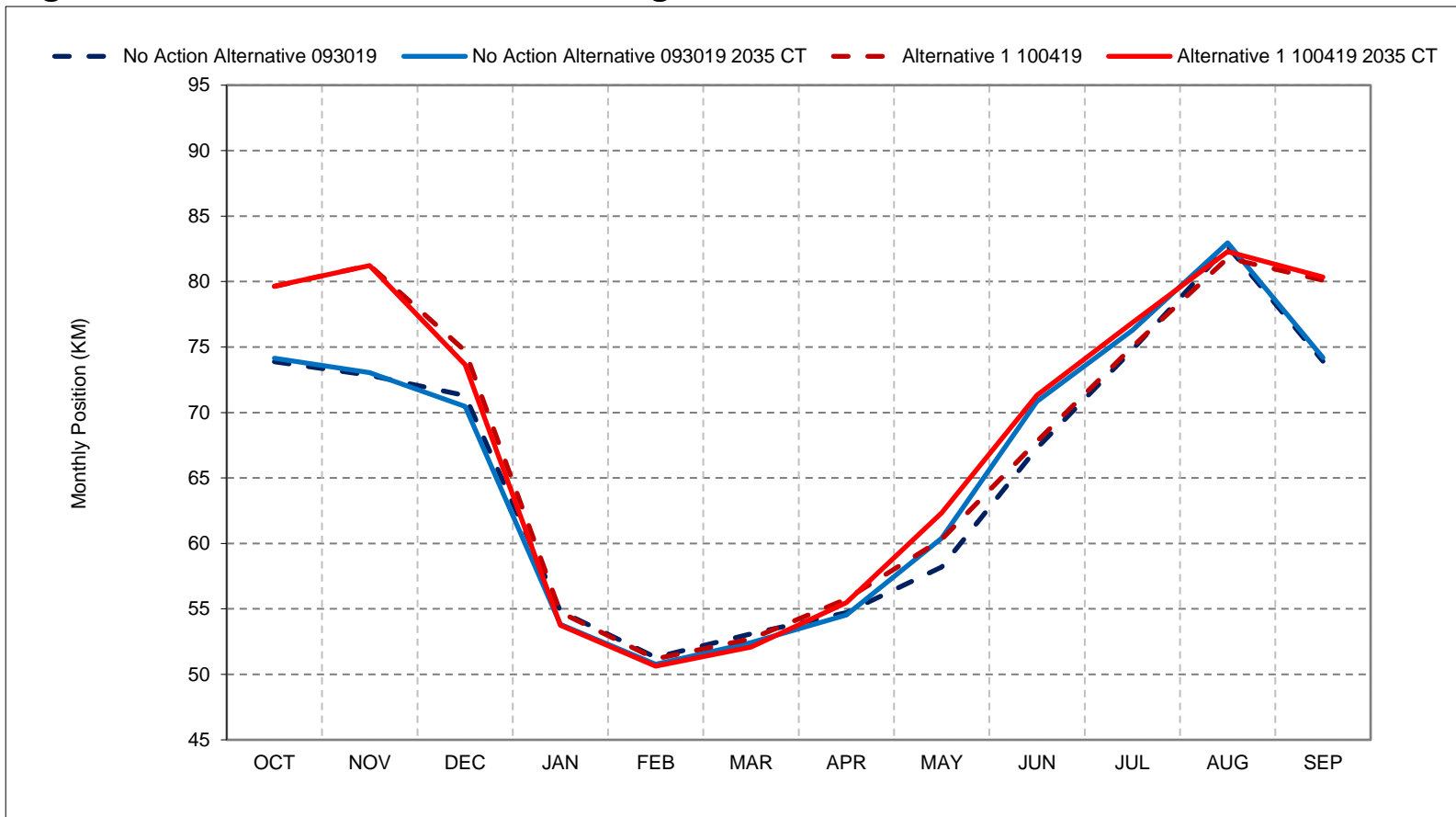
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-2. X2 Position, Wet Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

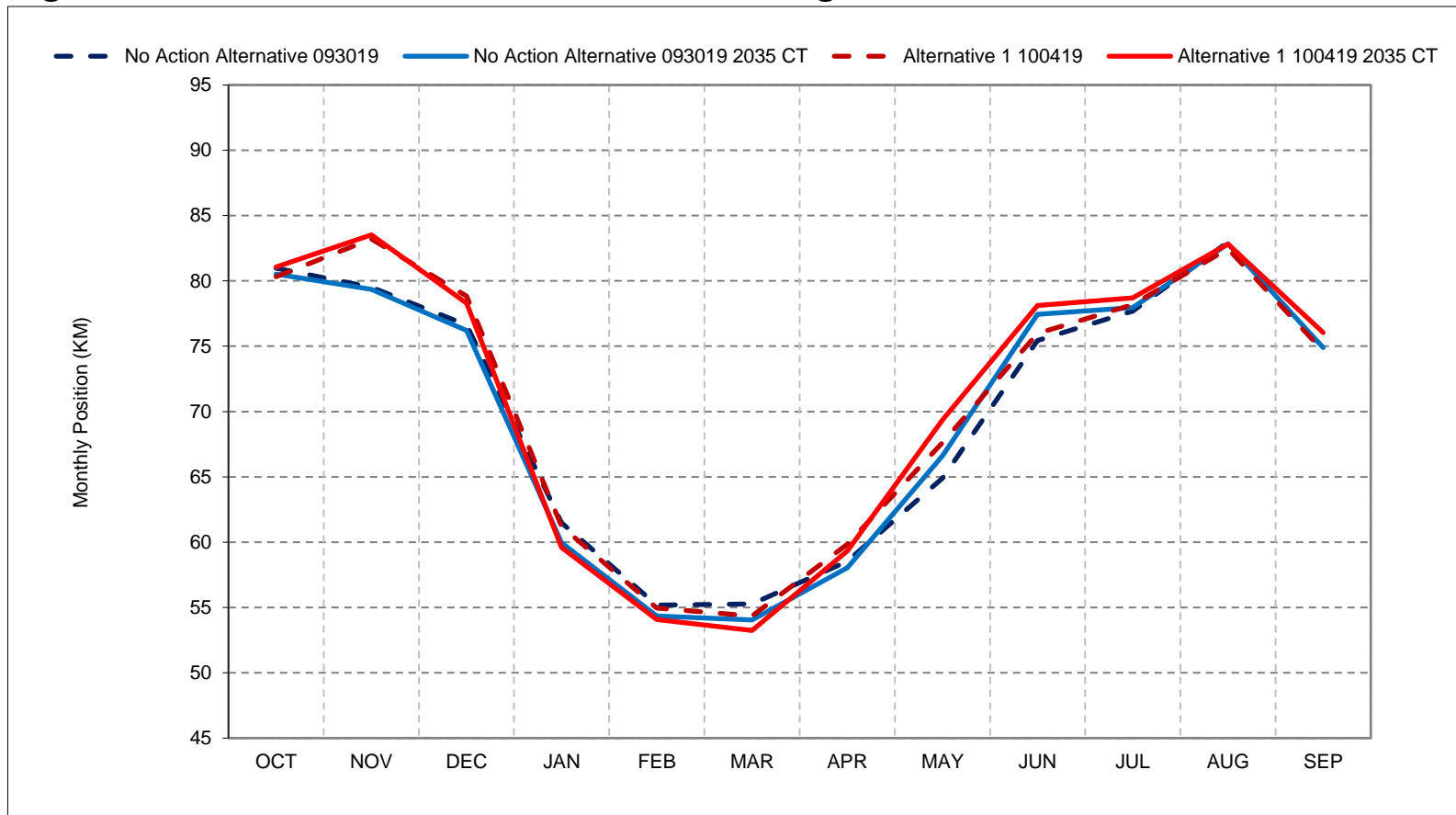
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-3. X2 Position, Above Normal Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

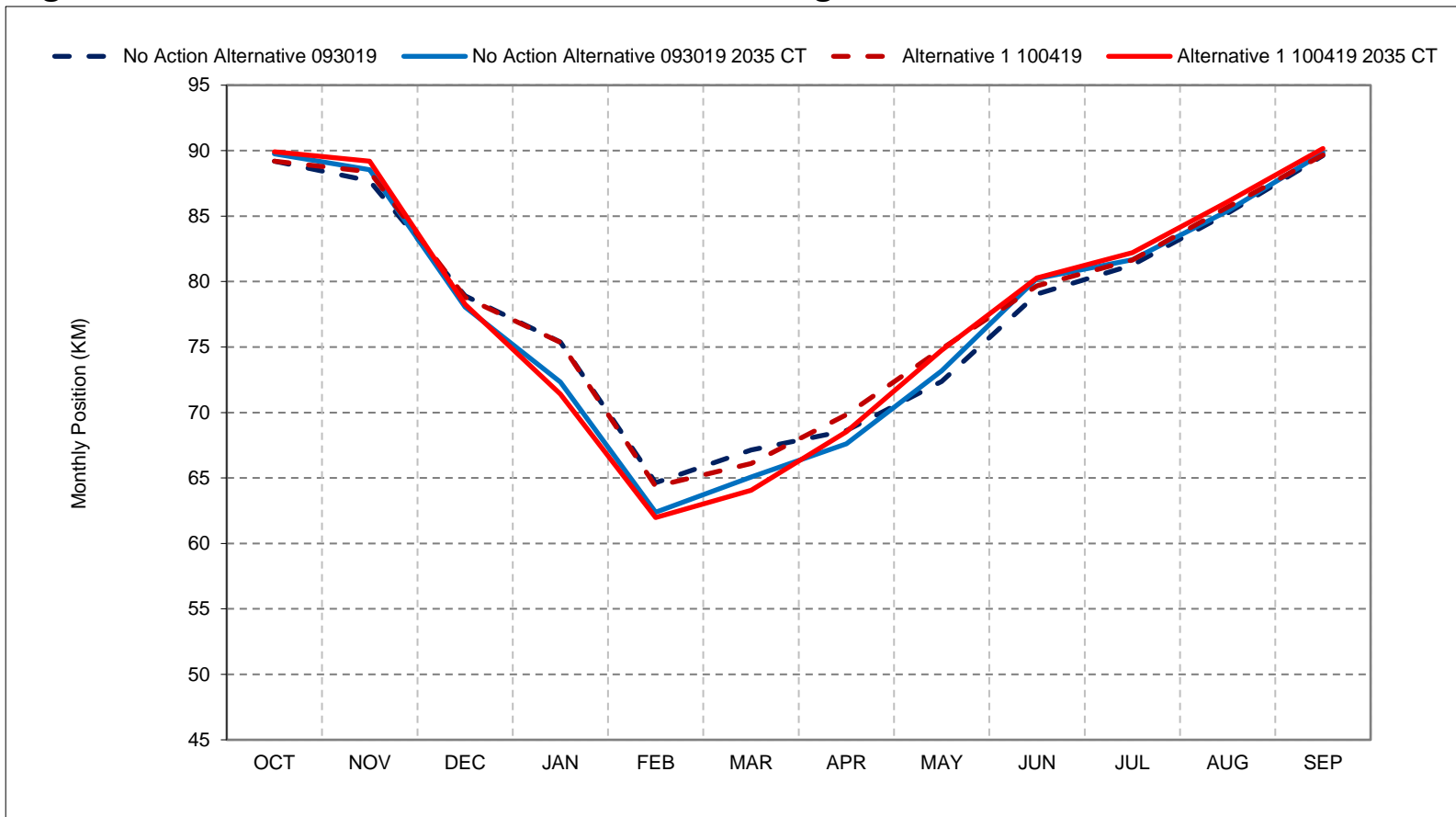
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-4. X2 Position, Below Normal Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

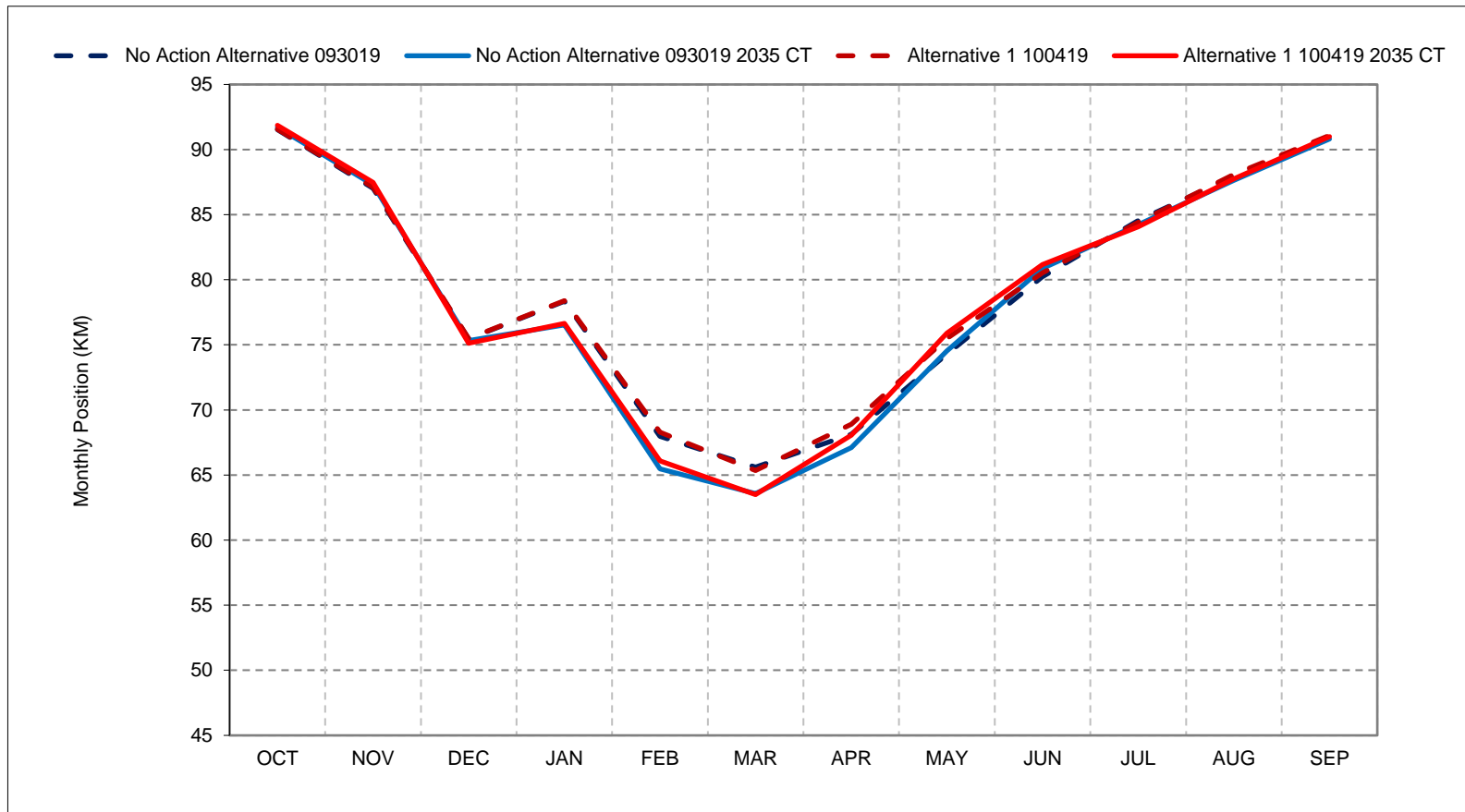
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-5. X2 Position, Dry Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

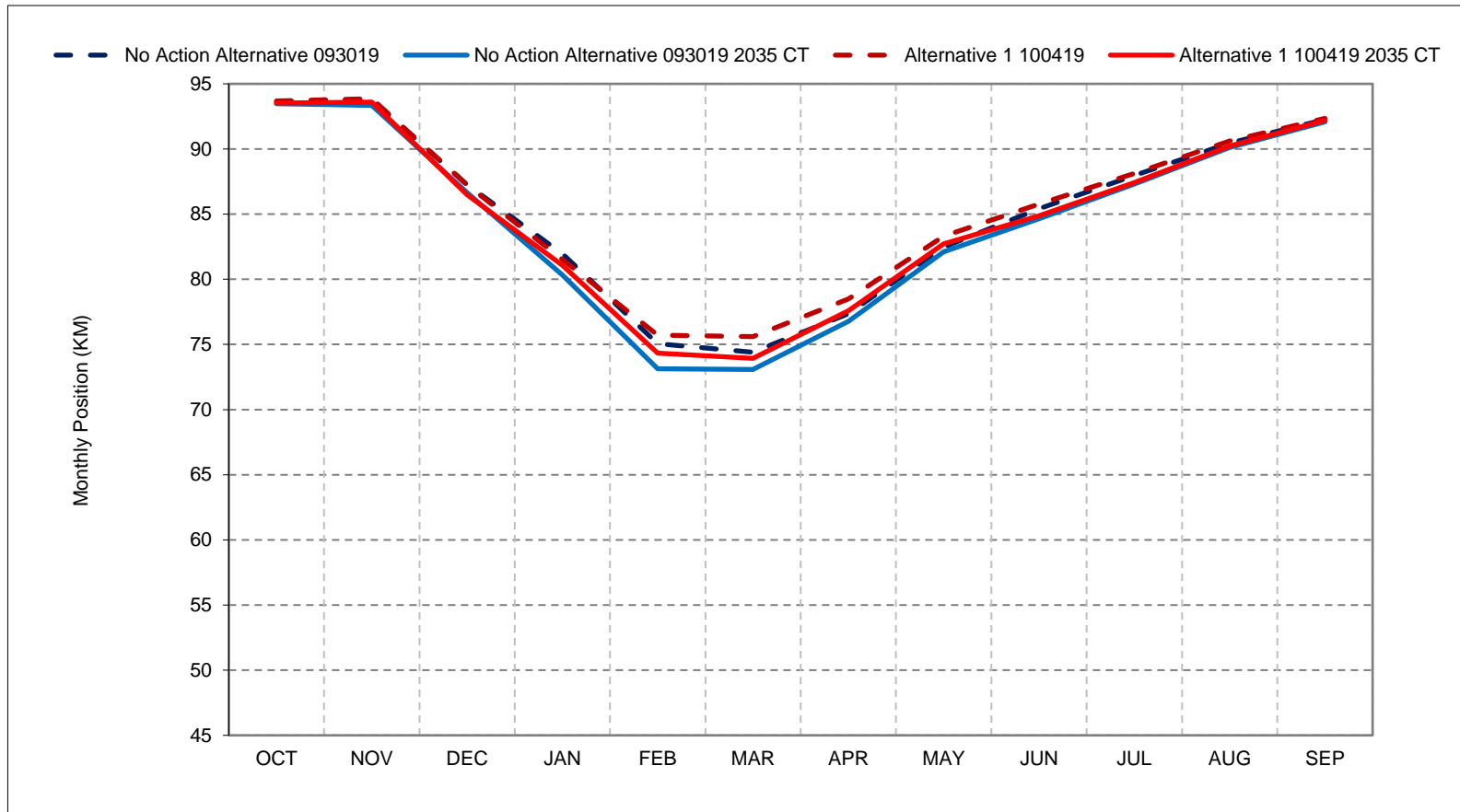
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-6. X2 Position, Critical Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

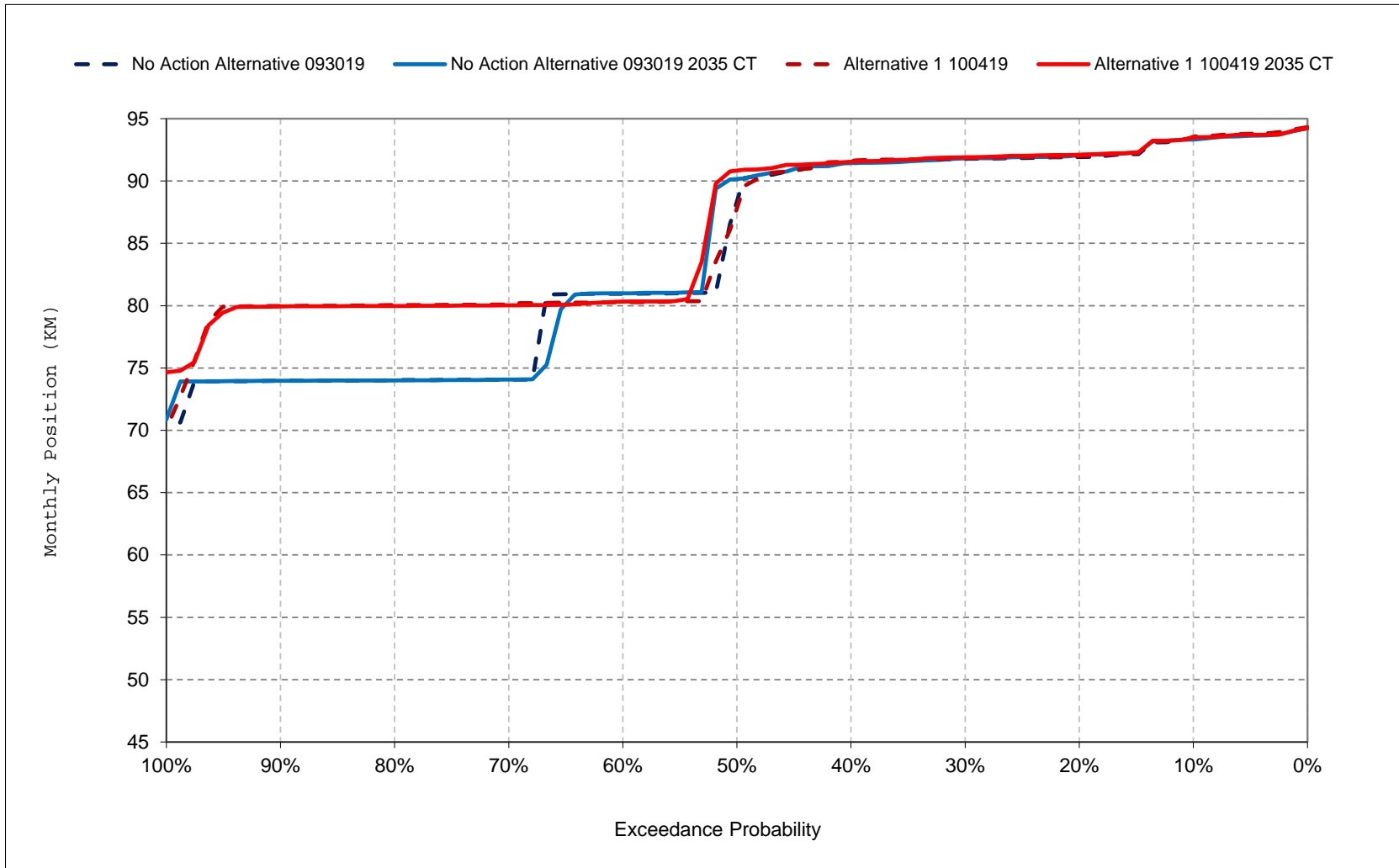
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

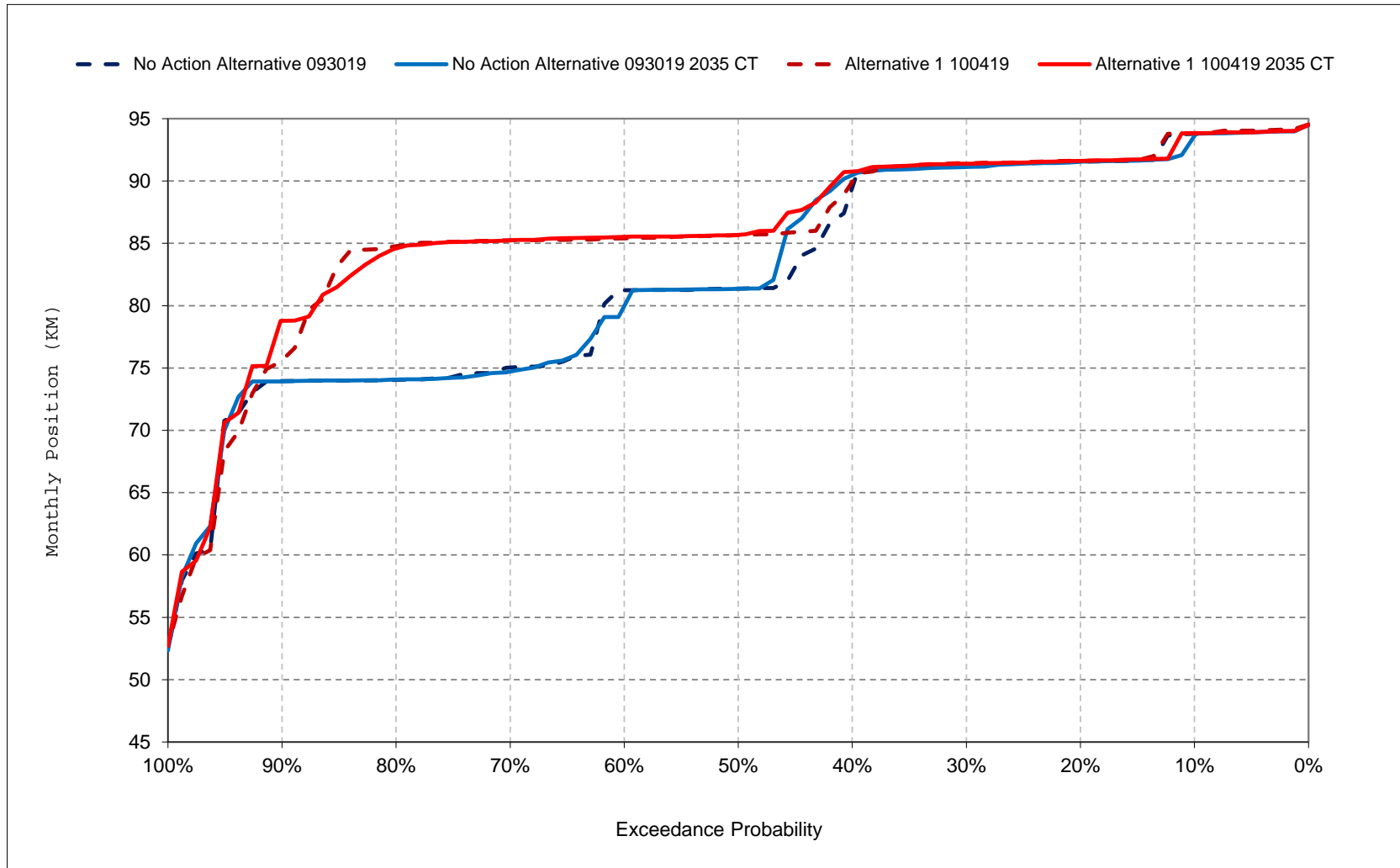
Figure 1-7. X2 Position, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

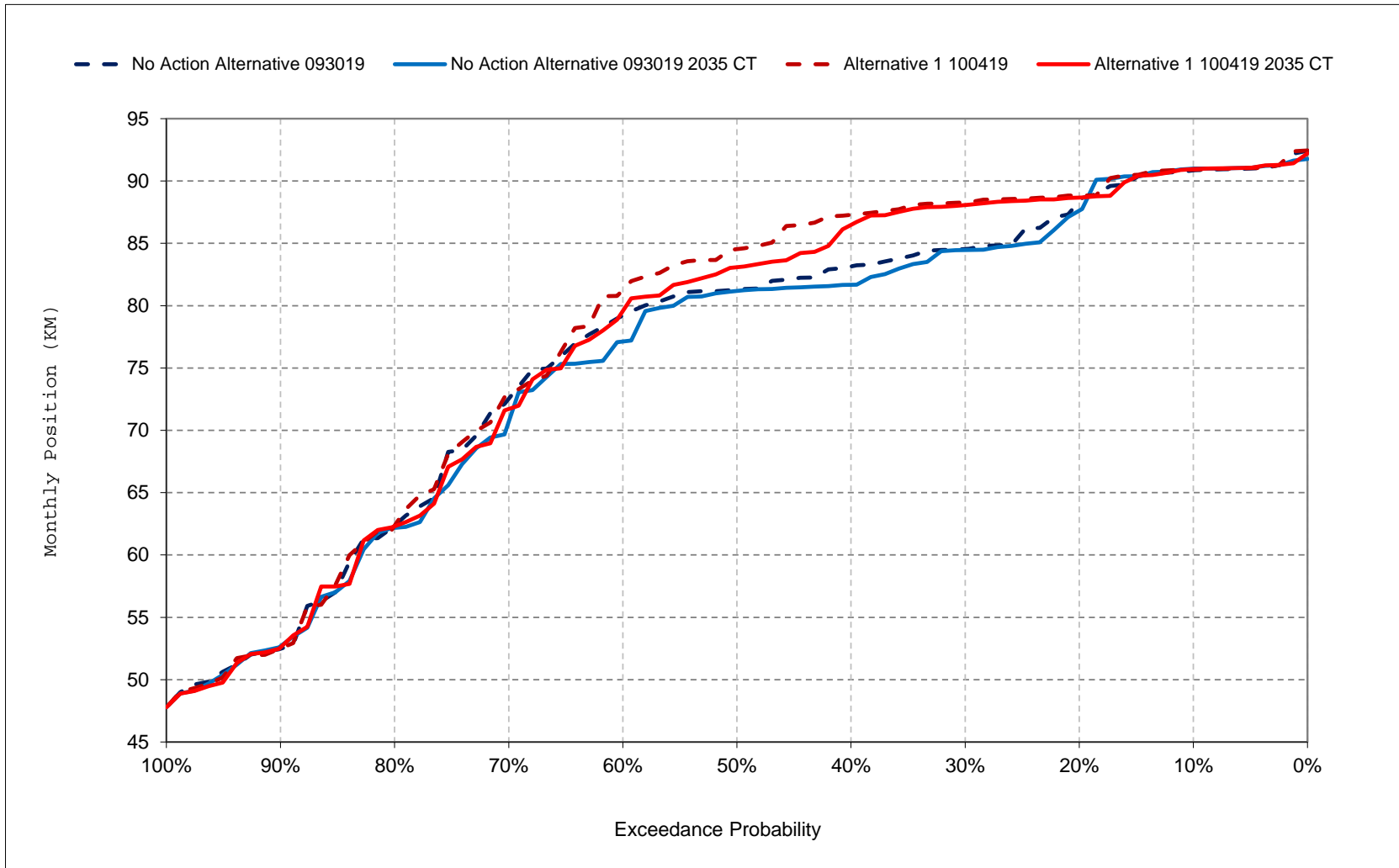
Figure 1-8. X2 Position, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

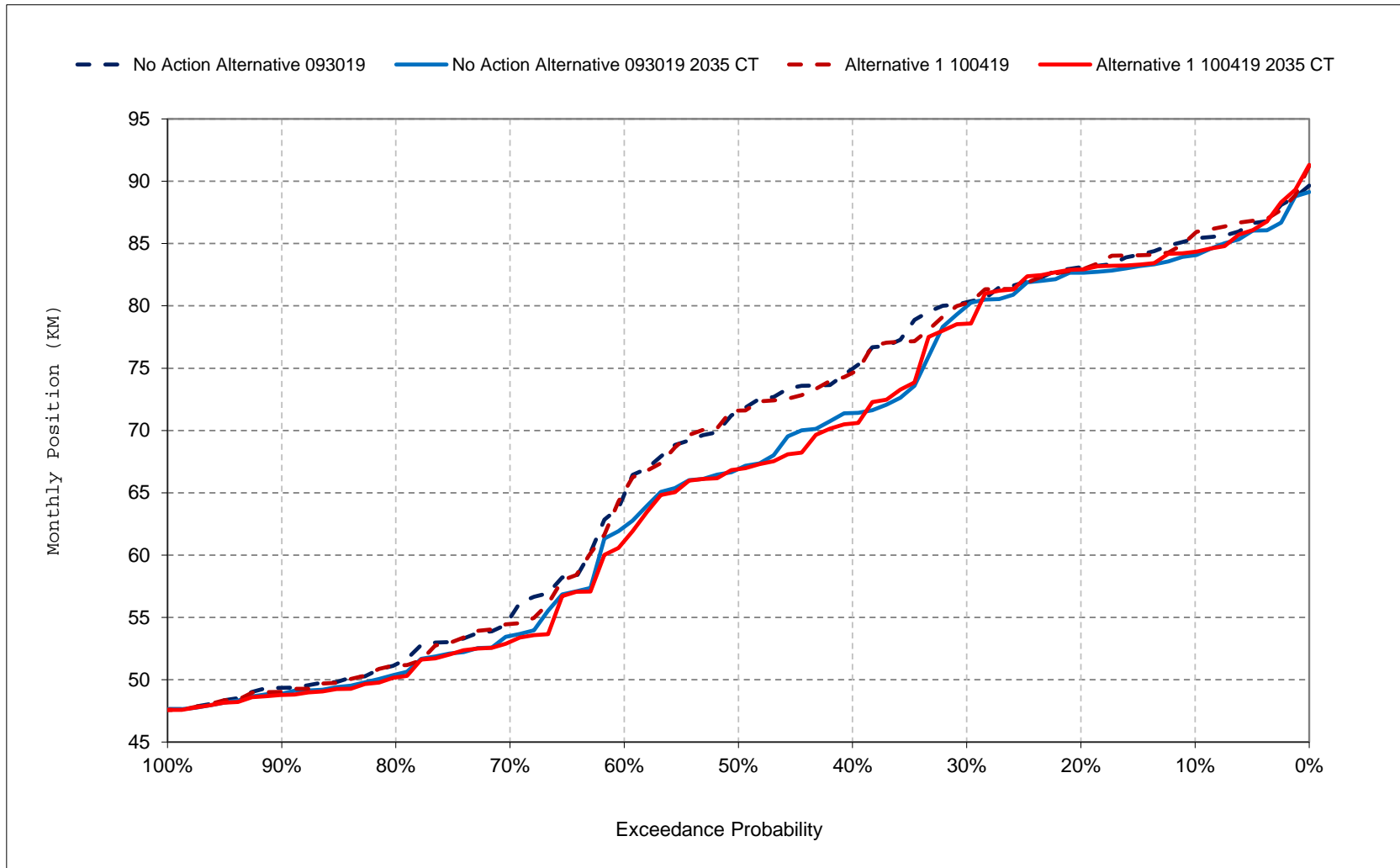
Figure 1-9. X2 Position, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

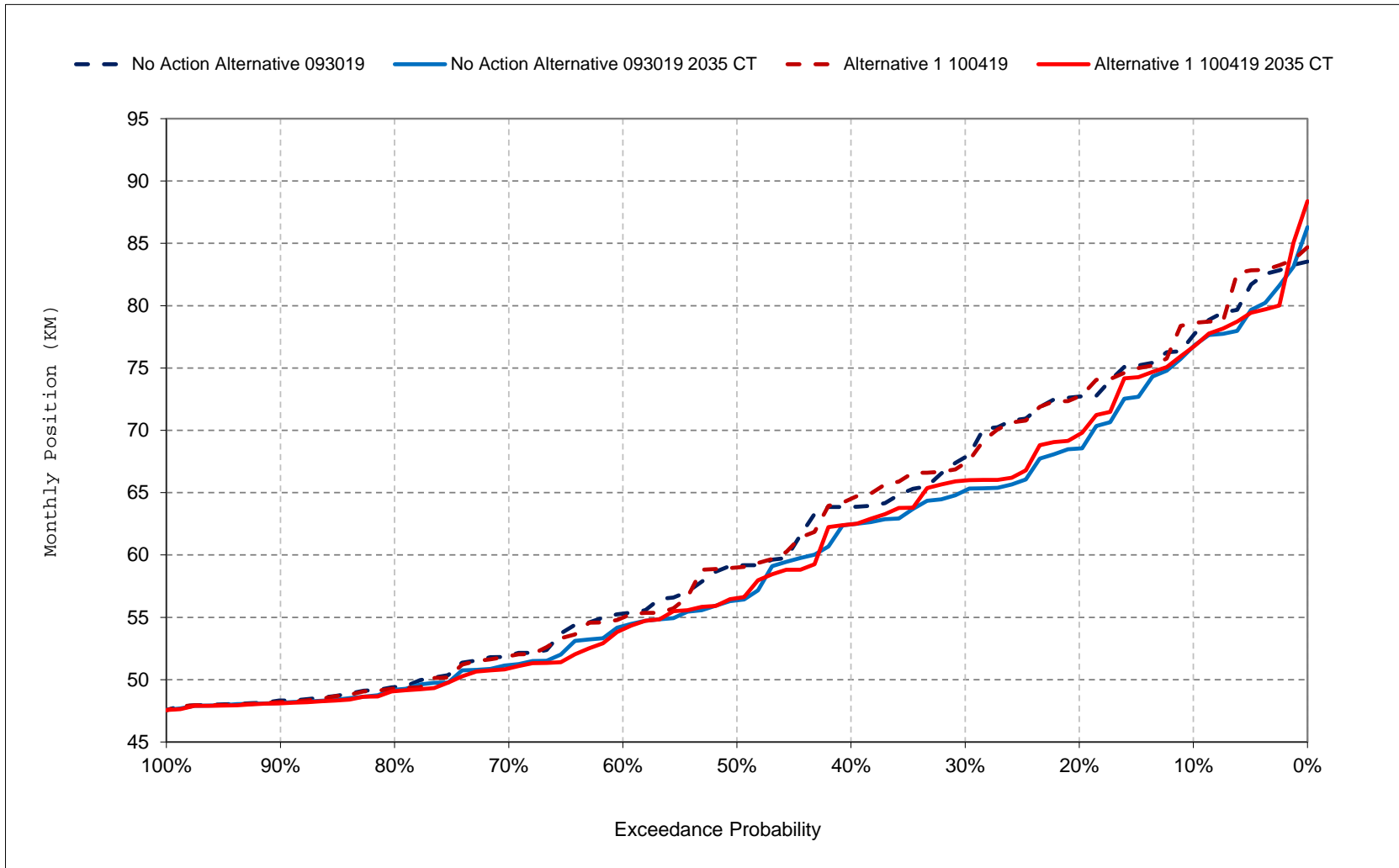
Figure 1-10. X2 Position, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

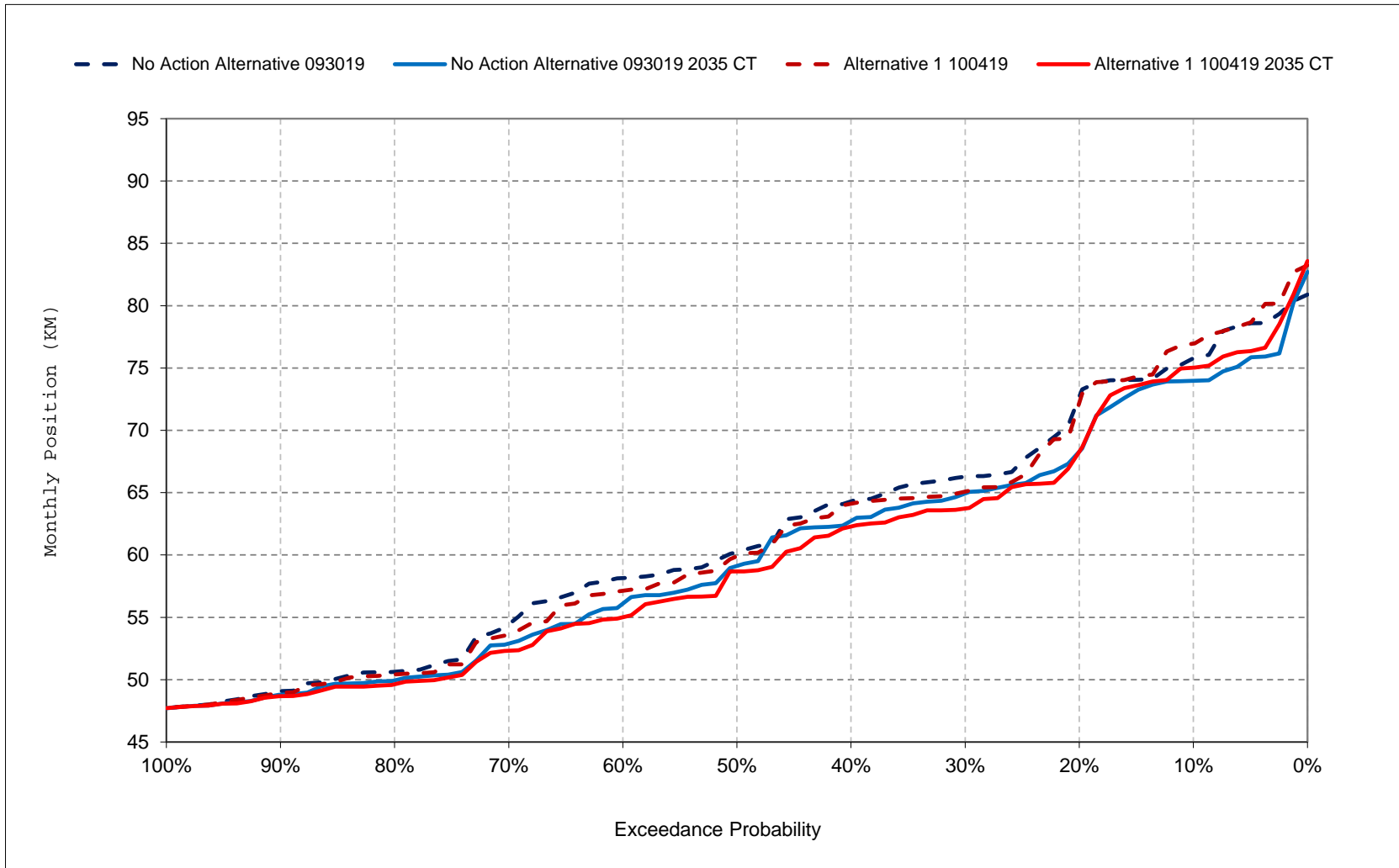
Figure 1-11. X2 Position, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

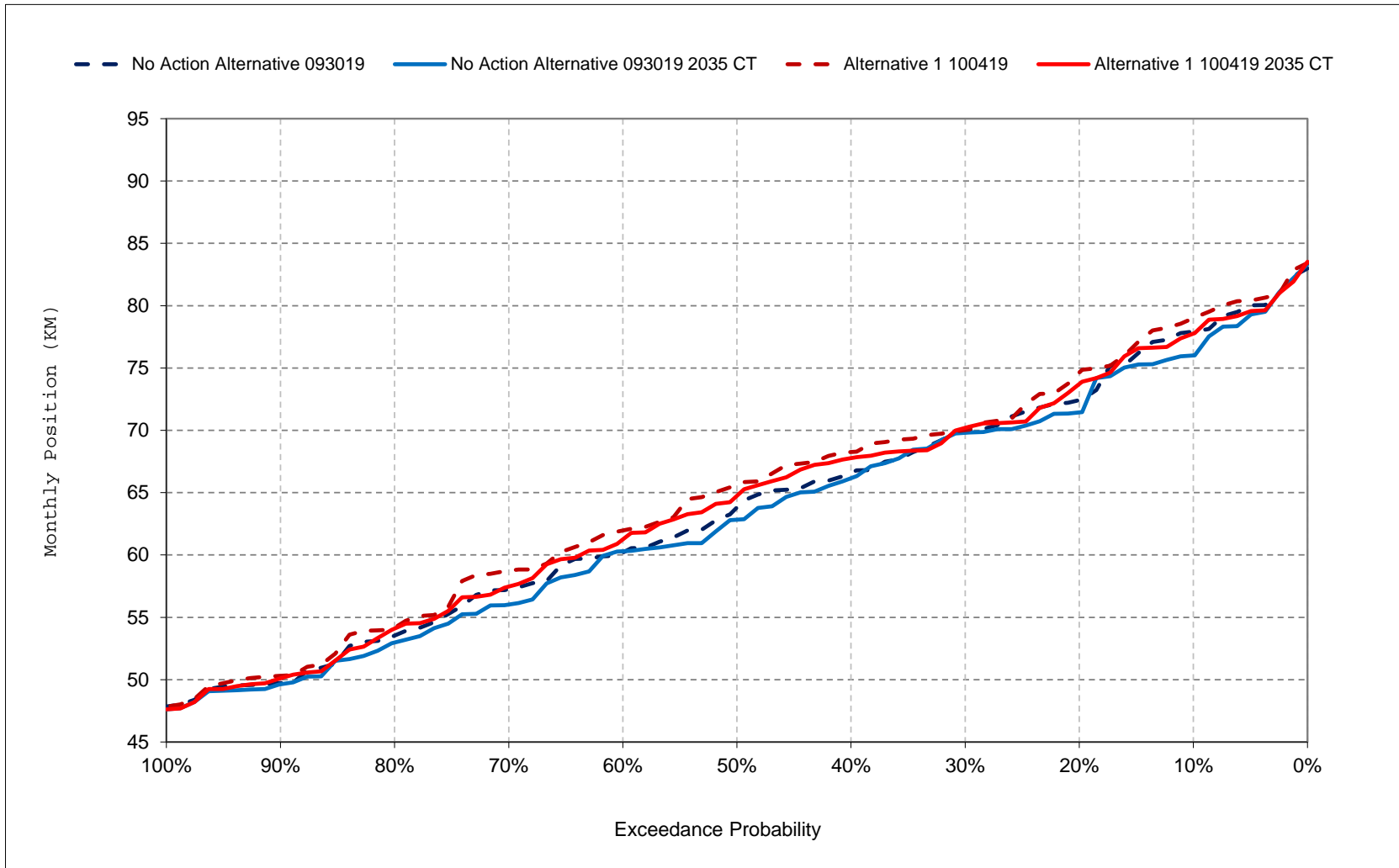
Figure 1-12. X2 Position, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

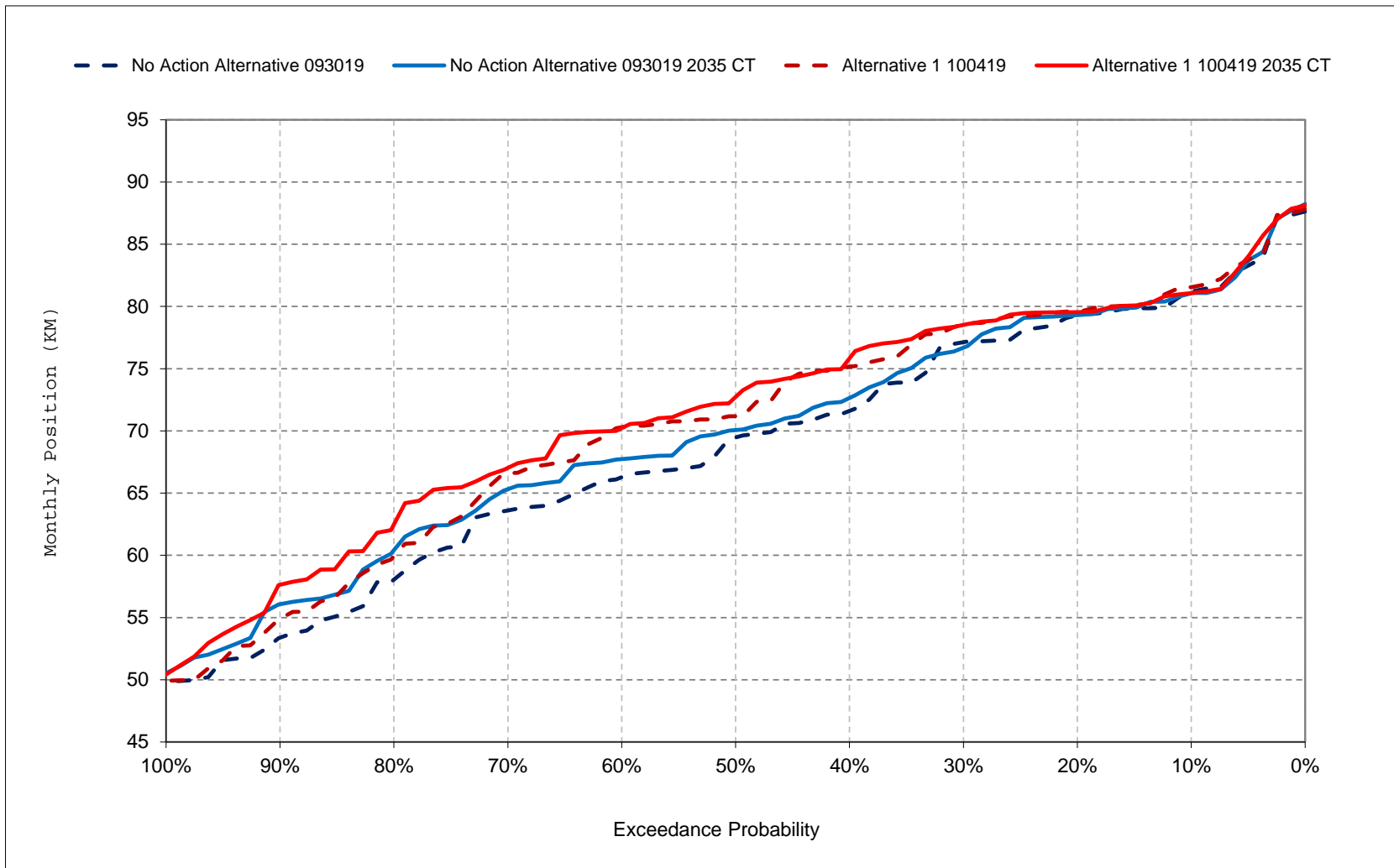
Figure 1-13. X2 Position, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

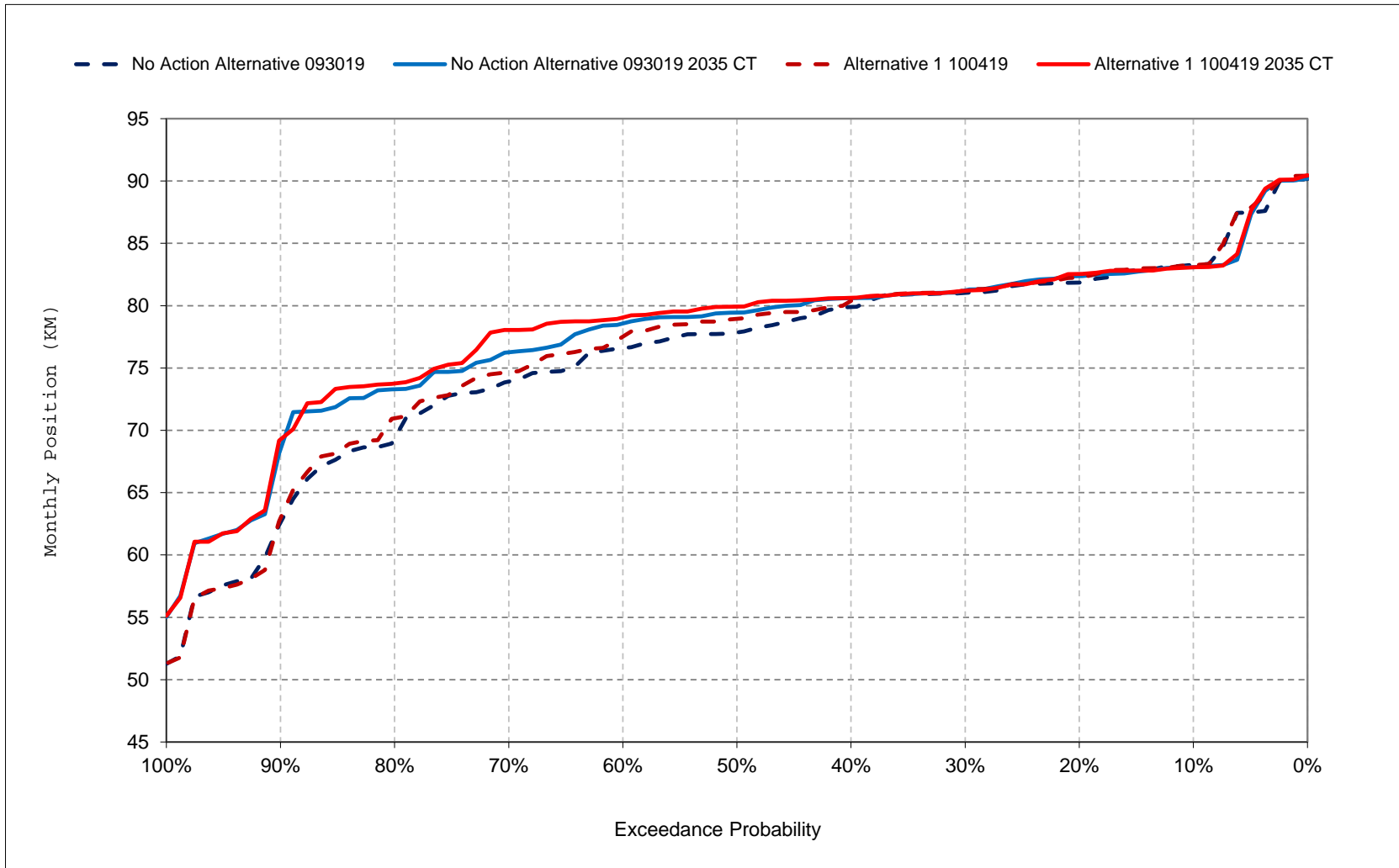
Figure 1-14. X2 Position, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

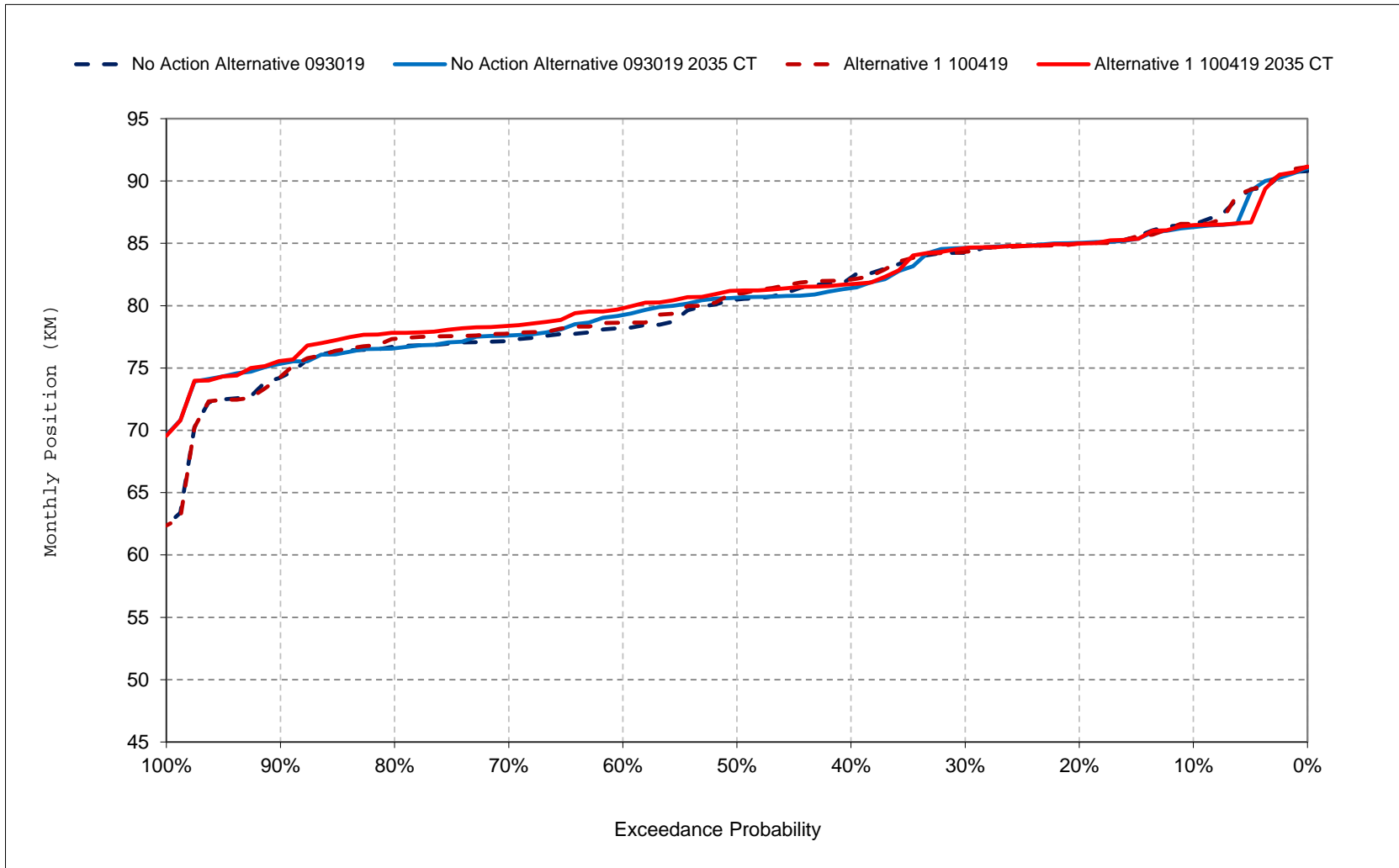
Figure 1-15. X2 Position, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

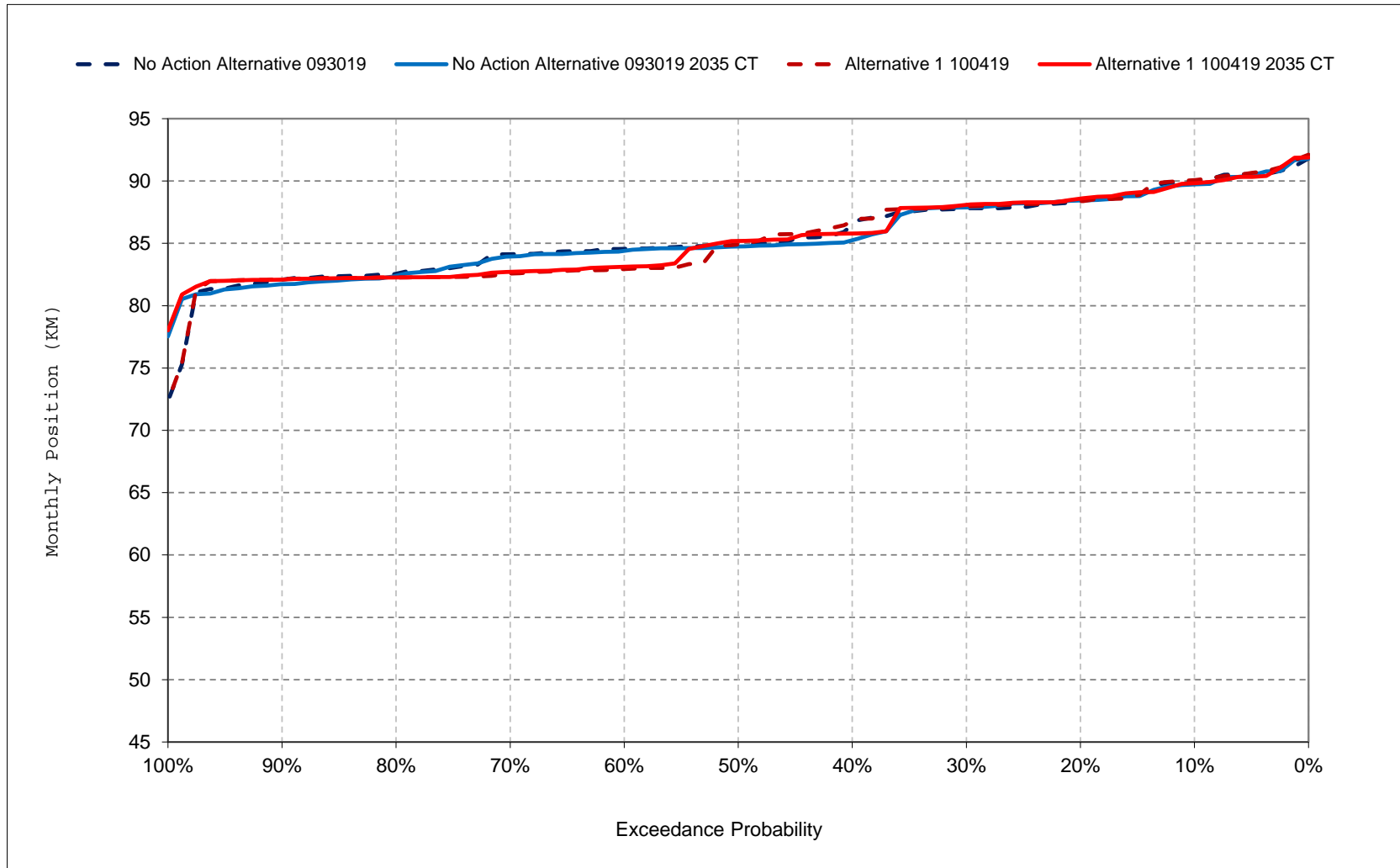
Figure 1-16. X2 Position, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

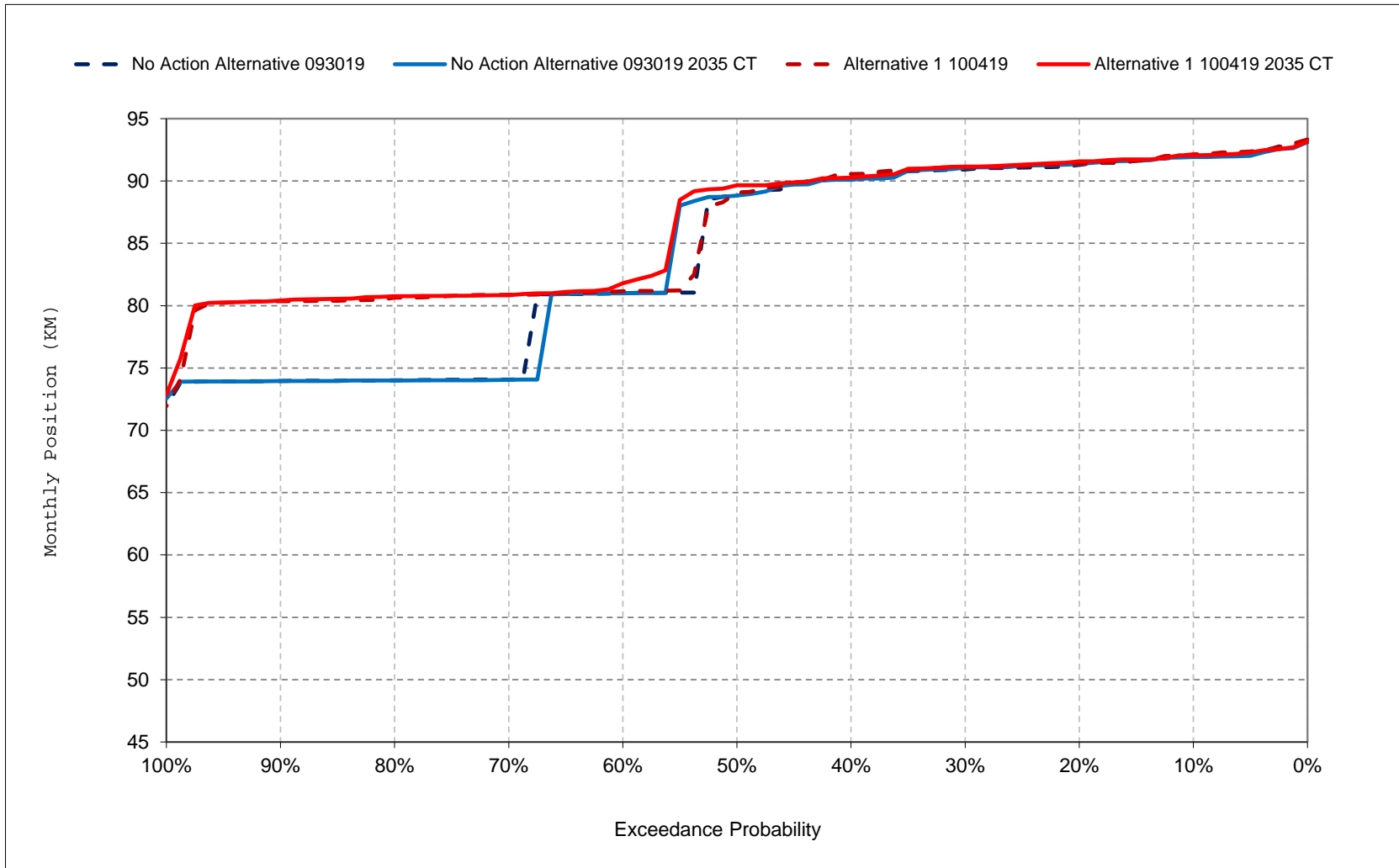
Figure 1-17. X2 Position, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-18. X2 Position, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.1 – Storage and Elevation Results (CalSim II)

The following results of the CalSim II model are included for reservoir storage conditions for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity Lake Storage	S1	1-1 to 1-4	1-1 to 1-18
Trinity Lake Elevation	Post-processed	1a-1 to 1a-4	1a-1 to 1a-18
Shasta Lake Storage	S4	3-1 to 3-4	3-1 to 3-18
Shasta Lake Elevation	Post-processed	3a-1 to 3a-4	3a-1 to 3a-18
Lake Oroville Storage	S6	4-1 to 4-4	4-1 to 4-18
Lake Oroville Elevation	Post-processed	4a-1 to 4a-4	4a-1 to 4a-18
Folsom Lake Storage	S8	5-1 to 5-4	5-1 to 5-18
Folsom Lake Elevation	Post-processed	5a-1 to 5a-4	5a-1 to 5a-18
San Luis Reservoir Storage	S11+S12	6-1 to 6-4	6-1 to 6-18
San Luis Reservoir Elevation	Post-processed	6a-1 to 6a-4	6a-1 to 6a-18
CVP San Luis Reservoir Storage	S11	6b-1 to 6b-4	6b-1 to 6b-18
SWP San Luis Reservoir Storage	S12	6c-1 to 6c-4	6c-1 to 6c-18
New Melones Reservoir Storage	S10	7-1 to 7-4	7-1 to 7-18
New Melones Reservoir Elevation	Post-processed	7a-1 to 7a-4	7a-1 to 7a-18
Millerton Lake Storage	S18	8-1 to 8-4	8-1 to 8-18
Millerton Lake Elevation	Post-processed	8a-1 to 8a-4	8a-1 to 8a-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 1-1. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,833	1,850	1,900	2,000	2,100	2,300	2,354	2,299	2,248	2,127	1,920
20%	1,775	1,749	1,805	1,871	2,000	2,100	2,270	2,281	2,212	2,093	1,958	1,854
30%	1,506	1,545	1,653	1,749	1,945	2,092	2,222	2,163	2,059	1,914	1,759	1,597
40%	1,410	1,407	1,529	1,668	1,764	1,998	2,141	2,070	1,944	1,796	1,580	1,422
50%	1,254	1,262	1,380	1,512	1,674	1,781	1,910	1,859	1,775	1,642	1,469	1,338
60%	1,171	1,182	1,264	1,322	1,520	1,663	1,796	1,718	1,650	1,498	1,323	1,203
70%	1,053	1,063	1,148	1,193	1,277	1,417	1,559	1,591	1,488	1,390	1,236	1,098
80%	880	921	982	1,002	1,123	1,254	1,405	1,365	1,284	1,125	1,008	911
90%	654	652	657	687	830	925	1,005	977	925	853	754	672
Long Term												
Full Simulation Period ^d	1,257	1,263	1,325	1,406	1,534	1,663	1,807	1,784	1,720	1,591	1,443	1,310
Water Year Types^{b,c}												
Wet (32%)	1,690	1,675	1,691	1,761	1,931	2,059	2,229	2,254	2,200	2,087	1,954	1,787
Above Normal (16%)	1,465	1,452	1,494	1,501	1,712	1,898	2,084	2,058	1,971	1,842	1,673	1,527
Below Normal (13%)	1,159	1,173	1,250	1,485	1,573	1,680	1,837	1,762	1,668	1,508	1,333	1,189
Dry (24%)	1,024	1,065	1,208	1,195	1,289	1,421	1,559	1,511	1,442	1,292	1,151	1,043
Critical (15%)	568	576	616	812	854	934	978	944	918	817	679	600

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,850	1,850	1,900	2,000	2,100	2,300	2,351	2,314	2,243	2,130	1,975
20%	1,816	1,843	1,850	1,900	2,000	2,100	2,270	2,281	2,205	2,094	1,995	1,870
30%	1,572	1,610	1,707	1,789	1,989	2,096	2,232	2,189	2,086	1,957	1,784	1,617
40%	1,421	1,455	1,595	1,717	1,854	2,032	2,167	2,097	2,003	1,791	1,602	1,454
50%	1,298	1,309	1,436	1,595	1,704	1,823	1,985	1,891	1,780	1,647	1,452	1,328
60%	1,196	1,223	1,300	1,315	1,521	1,707	1,814	1,811	1,679	1,503	1,351	1,247
70%	1,112	1,132	1,211	1,240	1,378	1,478	1,613	1,621	1,574	1,412	1,231	1,118
80%	939	978	989	1,046	1,154	1,315	1,487	1,461	1,365	1,216	1,054	959
90%	689	699	732	763	811	915	1,068	1,045	1,013	913	788	691
Long Term												
Full Simulation Period ^d	1,287	1,306	1,369	1,444	1,568	1,692	1,837	1,813	1,745	1,613	1,462	1,340
Water Year Types^{b,c}												
Wet (32%)	1,716	1,735	1,754	1,777	1,946	2,066	2,237	2,261	2,203	2,089	1,951	1,812
Above Normal (16%)	1,485	1,506	1,546	1,545	1,739	1,922	2,108	2,082	1,984	1,846	1,674	1,526
Below Normal (13%)	1,205	1,210	1,286	1,556	1,642	1,731	1,888	1,811	1,715	1,543	1,366	1,242
Dry (24%)	1,058	1,099	1,240	1,246	1,339	1,472	1,608	1,559	1,492	1,346	1,192	1,083
Critical (15%)	596	592	632	838	880	961	1,010	974	945	841	709	630

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	17	0	0	0	0	0	-3	15	-5	3	55
20%	40	94	45	29	0	0	0	0	26	43	37	16
30%	66	66	54	40	44	3	11	26	26	59	22	20
40%	11	48	66	50	90	34	27	27	59	-5	22	31
50%	44	47	56	83	29	42	75	32	5	5	-16	-10
60%	25	42	36	-7	1	43	18	93	29	5	28	44
70%	58	68	63	47	101	61	54	30	86	21	-5	20
80%	59	57	7	44	31	61	82	96	81	91	46	47
90%	35	47	74	76	-19	-10	63	68	88	60	34	19
Long Term												
Full Simulation Period ^d	30	43	43	38	34	29	30	29	26	23	18	29
Water Year Types^{b,c}												
Wet (32%)	26	60	63	16	15	7	8	7	4	2	-2	24
Above Normal (16%)	19	54	51	44	27	24	24	24	12	3	1	-1
Below Normal (13%)	46	37	36	71	69	51	51	49	47	35	34	54
Dry (24%)	35	33	33	51	50	50	49	48	50	54	42	41
Critical (15%)	28	15	16	26	26	27	32	31	27	25	30	31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1-2. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,747	1,758	1,850	1,900	2,000	2,100	2,300	2,289	2,192	2,107	1,975	1,819
20%	1,564	1,597	1,742	1,893	2,000	2,100	2,278	2,191	2,021	1,953	1,801	1,639
30%	1,460	1,478	1,628	1,780	1,968	2,100	2,231	2,056	1,960	1,821	1,689	1,529
40%	1,320	1,352	1,461	1,624	1,814	2,053	2,146	1,986	1,875	1,748	1,572	1,408
50%	1,247	1,255	1,380	1,546	1,687	1,838	1,993	1,862	1,751	1,582	1,410	1,302
60%	1,140	1,163	1,276	1,384	1,625	1,727	1,846	1,756	1,635	1,511	1,364	1,222
70%	999	1,039	1,118	1,242	1,352	1,561	1,730	1,611	1,529	1,310	1,126	1,024
80%	880	922	975	1,045	1,144	1,268	1,428	1,331	1,259	1,152	1,032	939
90%	694	687	765	891	981	1,048	1,114	1,064	1,030	939	816	722
Long Term												
Full Simulation Period ^d	1,227	1,240	1,334	1,443	1,589	1,725	1,861	1,773	1,679	1,556	1,411	1,283
Water Year Types ^{b,c}												
Wet (32%)	1,587	1,579	1,642	1,775	1,961	2,089	2,246	2,194	2,080	1,973	1,837	1,683
Above Normal (16%)	1,380	1,386	1,442	1,526	1,739	1,935	2,116	1,984	1,867	1,756	1,601	1,442
Below Normal (13%)	1,186	1,203	1,312	1,545	1,659	1,752	1,894	1,758	1,657	1,501	1,336	1,216
Dry (24%)	1,040	1,084	1,249	1,240	1,364	1,523	1,658	1,556	1,471	1,329	1,180	1,070
Critical (15%)	627	640	707	882	933	1,021	1,061	1,011	974	866	736	659

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,849	1,850	1,900	2,000	2,100	2,300	2,291	2,189	2,099	1,958	1,889
20%	1,606	1,704	1,825	1,900	2,000	2,100	2,277	2,191	2,041	1,950	1,783	1,648
30%	1,458	1,506	1,671	1,860	1,995	2,100	2,249	2,091	1,956	1,812	1,650	1,511
40%	1,356	1,413	1,560	1,716	1,904	2,079	2,190	2,012	1,867	1,707	1,527	1,403
50%	1,279	1,294	1,396	1,622	1,783	1,937	2,048	1,916	1,790	1,626	1,438	1,331
60%	1,212	1,223	1,333	1,435	1,620	1,748	1,910	1,803	1,690	1,530	1,384	1,262
70%	1,078	1,120	1,235	1,311	1,447	1,614	1,764	1,648	1,557	1,406	1,218	1,111
80%	970	1,005	1,006	1,105	1,193	1,389	1,585	1,473	1,413	1,280	1,108	1,000
90%	724	750	806	889	989	1,093	1,152	1,080	1,050	963	845	754
Long Term												
Full Simulation Period ^d	1,268	1,295	1,382	1,490	1,630	1,762	1,898	1,809	1,708	1,577	1,426	1,312
Water Year Types ^{b,c}												
Wet (32%)	1,637	1,663	1,707	1,802	1,982	2,099	2,254	2,201	2,083	1,970	1,831	1,707
Above Normal (16%)	1,406	1,442	1,501	1,585	1,776	1,971	2,151	2,019	1,890	1,740	1,570	1,443
Below Normal (13%)	1,222	1,235	1,343	1,604	1,718	1,810	1,951	1,805	1,696	1,546	1,374	1,254
Dry (24%)	1,091	1,130	1,292	1,294	1,417	1,577	1,712	1,611	1,522	1,380	1,230	1,121
Critical (15%)	659	670	734	931	986	1,073	1,116	1,064	1,018	904	771	687

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	103	91	0	0	0	0	0	3	-3	-8	-17	70
20%	42	107	83	7	0	0	-1	0	20	-3	-17	9
30%	-2	28	43	80	28	0	18	35	-4	-8	-39	-18
40%	36	61	99	92	91	26	44	26	-8	-41	-45	-5
50%	33	39	16	76	96	100	55	54	39	44	28	29
60%	72	60	56	51	-5	21	64	47	55	20	19	40
70%	79	82	117	70	94	53	34	36	28	96	92	86
80%	90	83	31	59	49	121	157	142	153	128	75	61
90%	30	63	40	-2	9	45	39	16	20	24	28	31
Long Term												
Full Simulation Period ^d	42	55	49	46	41	37	37	35	29	20	16	29
Water Year Types ^{b,c}												
Wet (32%)	49	84	65	27	21	10	7	7	3	-3	-6	24
Above Normal (16%)	26	55	59	59	38	36	35	35	23	-16	-31	1
Below Normal (13%)	36	32	31	58	58	58	57	47	39	45	38	38
Dry (24%)	51	47	43	54	53	54	54	54	52	50	50	50
Critical (15%)	31	29	28	49	53	52	55	54	44	38	35	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-3. Trinity Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,833	1,850	1,900	2,000	2,100	2,300	2,354	2,299	2,248	2,127	1,920
20%	1,775	1,749	1,805	1,871	2,000	2,100	2,270	2,281	2,212	2,093	1,958	1,854
30%	1,506	1,545	1,653	1,749	1,945	2,092	2,222	2,163	2,059	1,914	1,759	1,597
40%	1,410	1,407	1,529	1,668	1,764	1,998	2,141	2,070	1,944	1,796	1,580	1,422
50%	1,254	1,262	1,380	1,512	1,674	1,781	1,910	1,859	1,775	1,642	1,469	1,338
60%	1,171	1,182	1,264	1,322	1,520	1,663	1,796	1,718	1,650	1,498	1,323	1,203
70%	1,053	1,063	1,148	1,193	1,277	1,417	1,559	1,591	1,488	1,390	1,236	1,098
80%	880	921	982	1,002	1,123	1,254	1,405	1,365	1,284	1,125	1,008	911
90%	654	652	657	687	830	925	1,005	977	925	853	754	672
Long Term												
Full Simulation Period ^d	1,257	1,263	1,325	1,406	1,534	1,663	1,807	1,784	1,720	1,591	1,443	1,310
Water Year Types ^{b,c}												
Wet (32%)	1,690	1,675	1,691	1,761	1,931	2,059	2,229	2,254	2,200	2,087	1,954	1,787
Above Normal (16%)	1,465	1,452	1,494	1,501	1,712	1,898	2,084	2,058	1,971	1,842	1,673	1,527
Below Normal (13%)	1,159	1,173	1,250	1,485	1,573	1,680	1,837	1,762	1,668	1,508	1,333	1,189
Dry (24%)	1,024	1,065	1,208	1,195	1,289	1,421	1,559	1,511	1,442	1,292	1,151	1,043
Critical (15%)	568	576	616	812	854	934	978	944	918	817	679	600

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,747	1,758	1,850	1,900	2,000	2,100	2,300	2,289	2,192	2,107	1,975	1,819
20%	1,564	1,597	1,742	1,893	2,000	2,100	2,278	2,191	2,021	1,953	1,801	1,639
30%	1,460	1,478	1,628	1,780	1,968	2,100	2,231	2,056	1,960	1,821	1,689	1,529
40%	1,320	1,352	1,461	1,624	1,814	2,053	2,146	1,986	1,875	1,748	1,572	1,408
50%	1,247	1,255	1,380	1,546	1,687	1,838	1,993	1,862	1,751	1,582	1,410	1,302
60%	1,140	1,163	1,276	1,384	1,625	1,727	1,846	1,756	1,635	1,511	1,364	1,222
70%	999	1,039	1,118	1,242	1,352	1,561	1,730	1,611	1,529	1,310	1,126	1,024
80%	880	922	975	1,045	1,144	1,268	1,428	1,331	1,259	1,152	1,032	939
90%	694	687	765	891	981	1,048	1,114	1,064	1,030	939	816	722
Long Term												
Full Simulation Period ^d	1,227	1,240	1,334	1,443	1,589	1,725	1,861	1,773	1,679	1,556	1,411	1,283
Water Year Types ^{b,c}												
Wet (32%)	1,587	1,579	1,642	1,775	1,961	2,089	2,246	2,194	2,080	1,973	1,837	1,683
Above Normal (16%)	1,380	1,386	1,442	1,526	1,739	1,935	2,116	1,984	1,867	1,756	1,601	1,442
Below Normal (13%)	1,186	1,203	1,312	1,545	1,659	1,752	1,894	1,758	1,657	1,501	1,336	1,216
Dry (24%)	1,040	1,084	1,249	1,240	1,364	1,523	1,658	1,556	1,471	1,329	1,180	1,070
Critical (15%)	627	640	707	882	933	1,021	1,061	1,011	974	866	736	659

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-103	-76	0	0	0	0	0	-65	-107	-141	-152	-101
20%	-211	-153	-63	22	0	0	8	-90	-191	-140	-157	-214
30%	-45	-66	-25	31	23	8	9	-107	-99	-93	-70	-68
40%	-89	-55	-68	-43	49	55	6	-84	-70	-48	-8	-14
50%	-7	-7	-1	34	12	56	83	3	-24	-60	-59	-36
60%	-31	-19	12	62	105	63	51	38	-15	13	41	19
70%	-54	-25	-30	49	75	145	171	20	42	-80	-110	-74
80%	0	1	-7	43	21	14	22	-34	-25	27	24	27
90%	40	34	108	205	151	123	109	87	105	86	62	50
Long Term												
Full Simulation Period ^d	-30	-23	8	38	55	62	54	-10	-41	-34	-33	-28
Water Year Types ^{b,c}												
Wet (32%)	-103	-96	-48	14	30	30	17	-60	-120	-114	-117	-105
Above Normal (16%)	-85	-66	-52	25	27	37	32	-74	-104	-87	-72	-85
Below Normal (13%)	27	30	62	60	86	72	57	-4	-11	-7	3	27
Dry (24%)	16	18	42	45	75	102	99	45	29	38	29	27
Critical (15%)	59	64	90	69	79	87	83	67	56	49	57	59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. Trinity Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,850	1,850	1,900	2,000	2,100	2,300	2,351	2,314	2,243	2,130	1,975
20%	1,816	1,843	1,850	1,900	2,000	2,100	2,270	2,281	2,205	2,094	1,995	1,870
30%	1,572	1,610	1,707	1,789	1,989	2,096	2,232	2,189	2,086	1,957	1,784	1,617
40%	1,421	1,455	1,595	1,717	1,854	2,032	2,167	2,097	2,003	1,791	1,602	1,454
50%	1,298	1,309	1,436	1,595	1,704	1,823	1,985	1,891	1,780	1,647	1,452	1,328
60%	1,196	1,223	1,300	1,315	1,521	1,707	1,814	1,811	1,679	1,503	1,351	1,247
70%	1,112	1,132	1,211	1,240	1,378	1,478	1,613	1,621	1,574	1,412	1,231	1,118
80%	939	978	989	1,046	1,154	1,315	1,487	1,461	1,365	1,216	1,054	959
90%	689	699	732	763	811	915	1,068	1,045	1,013	913	788	691
Long Term												
Full Simulation Period ^d	1,287	1,306	1,369	1,444	1,568	1,692	1,837	1,813	1,745	1,613	1,462	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,716	1,735	1,754	1,777	1,946	2,066	2,237	2,261	2,203	2,089	1,951	1,812
Above Normal (16%)	1,485	1,506	1,546	1,545	1,739	1,922	2,108	2,082	1,984	1,846	1,674	1,526
Below Normal (13%)	1,205	1,210	1,286	1,556	1,642	1,731	1,888	1,811	1,715	1,543	1,366	1,242
Dry (24%)	1,058	1,099	1,240	1,246	1,339	1,472	1,608	1,559	1,492	1,346	1,192	1,083
Critical (15%)	596	592	632	838	880	961	1,010	974	945	841	709	630

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,850	1,849	1,850	1,900	2,000	2,100	2,300	2,291	2,189	2,099	1,958	1,889
20%	1,606	1,704	1,825	1,900	2,000	2,100	2,277	2,191	2,041	1,950	1,783	1,648
30%	1,458	1,506	1,671	1,860	1,995	2,100	2,249	2,091	1,956	1,812	1,650	1,511
40%	1,356	1,413	1,560	1,716	1,904	2,079	2,190	2,012	1,867	1,707	1,527	1,403
50%	1,279	1,294	1,396	1,622	1,783	1,937	2,048	1,916	1,790	1,626	1,438	1,331
60%	1,212	1,223	1,333	1,435	1,620	1,748	1,910	1,803	1,690	1,530	1,384	1,262
70%	1,078	1,120	1,235	1,311	1,447	1,614	1,764	1,648	1,557	1,406	1,218	1,111
80%	970	1,005	1,006	1,105	1,193	1,389	1,585	1,473	1,413	1,280	1,108	1,000
90%	724	750	806	889	989	1,093	1,152	1,080	1,050	963	845	754
Long Term												
Full Simulation Period ^d	1,268	1,295	1,382	1,490	1,630	1,762	1,898	1,809	1,708	1,577	1,426	1,312
Water Year Types ^{b,c}												
Wet (32%)	1,637	1,663	1,707	1,802	1,982	2,099	2,254	2,201	2,083	1,970	1,831	1,707
Above Normal (16%)	1,406	1,442	1,501	1,585	1,776	1,971	2,151	2,019	1,890	1,740	1,570	1,443
Below Normal (13%)	1,222	1,235	1,343	1,604	1,718	1,810	1,951	1,805	1,696	1,546	1,374	1,254
Dry (24%)	1,091	1,130	1,292	1,294	1,417	1,577	1,712	1,611	1,522	1,380	1,230	1,121
Critical (15%)	659	670	734	931	986	1,073	1,116	1,064	1,018	904	771	687

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-1	0	0	0	0	0	-60	-125	-144	-172	-86
20%	-209	-139	-25	0	0	0	7	-90	-165	-144	-212	-221
30%	-114	-104	-36	71	7	4	17	-98	-130	-145	-134	-107
40%	-65	-42	-34	-1	50	47	23	-85	-136	-84	-74	-50
50%	-18	-15	-41	27	79	115	63	24	10	-20	-15	3
60%	16	0	32	120	98	41	96	-8	11	27	32	15
70%	-33	-12	24	71	68	137	150	27	-17	-6	-13	-7
80%	31	27	17	58	39	74	98	12	47	64	53	41
90%	34	50	74	126	178	179	84	36	36	50	57	63
Long Term												
Full Simulation Period ^d	-18	-11	13	46	62	71	61	-4	-37	-37	-36	-27
Water Year Types ^{b,c}												
Wet (32%)	-80	-72	-46	25	36	33	17	-60	-120	-119	-120	-105
Above Normal (16%)	-78	-64	-44	40	37	49	43	-63	-93	-106	-104	-83
Below Normal (13%)	16	25	56	48	76	79	63	-6	-19	3	8	12
Dry (24%)	33	31	52	48	78	105	104	52	30	34	37	37
Critical (15%)	62	78	102	93	106	112	105	90	73	62	62	56

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

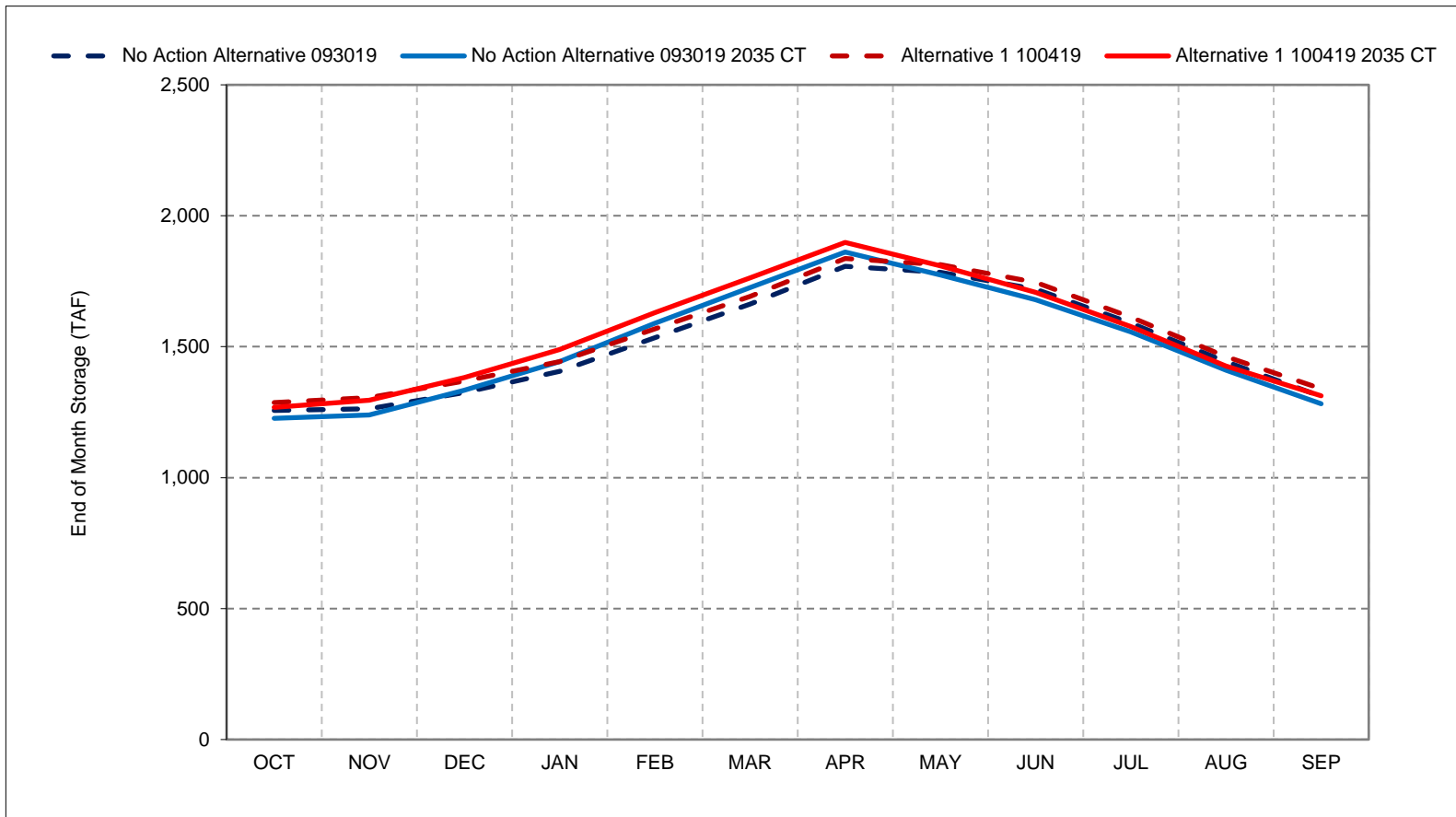
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. Trinity Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

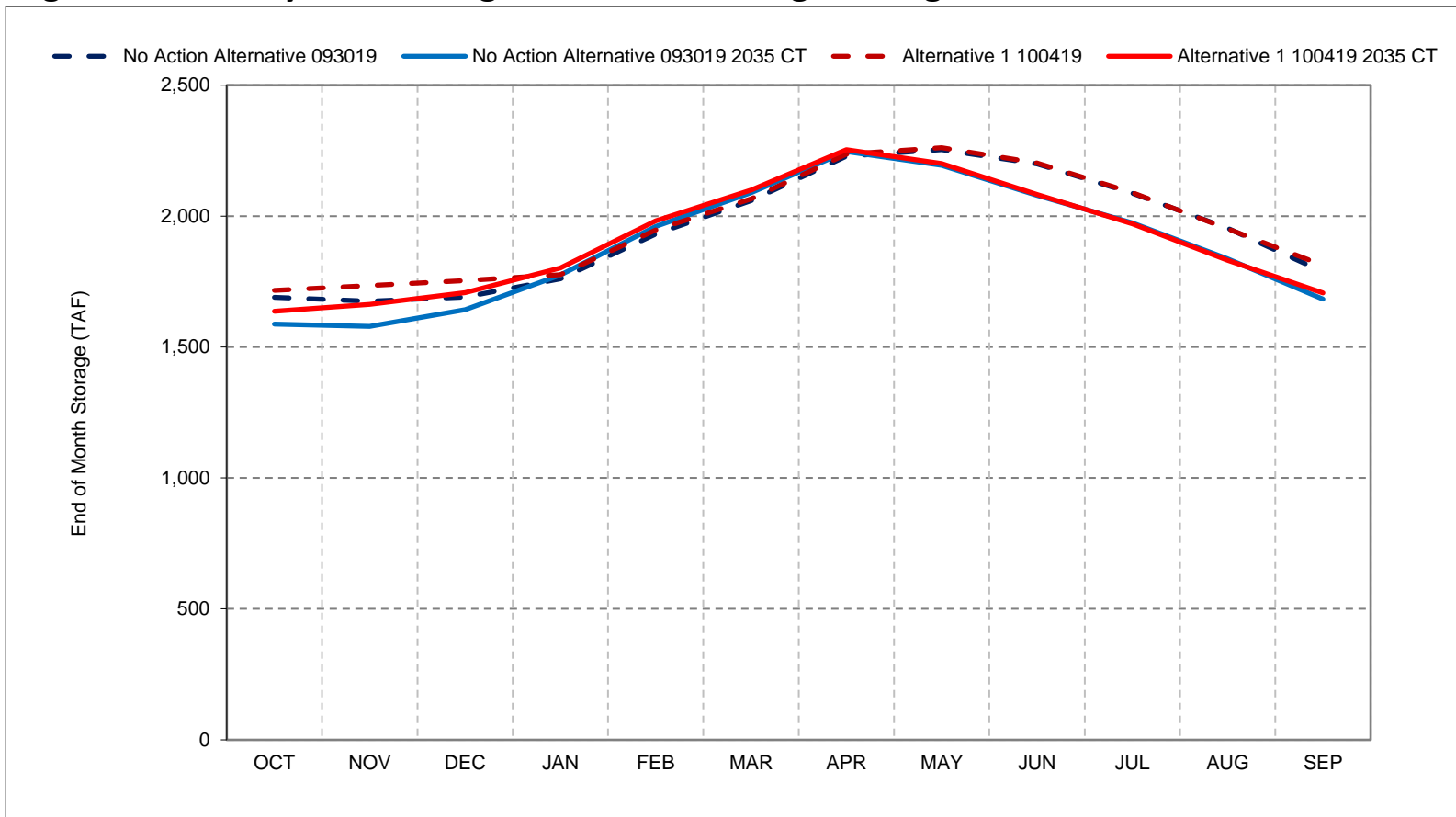
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-2. Trinity Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

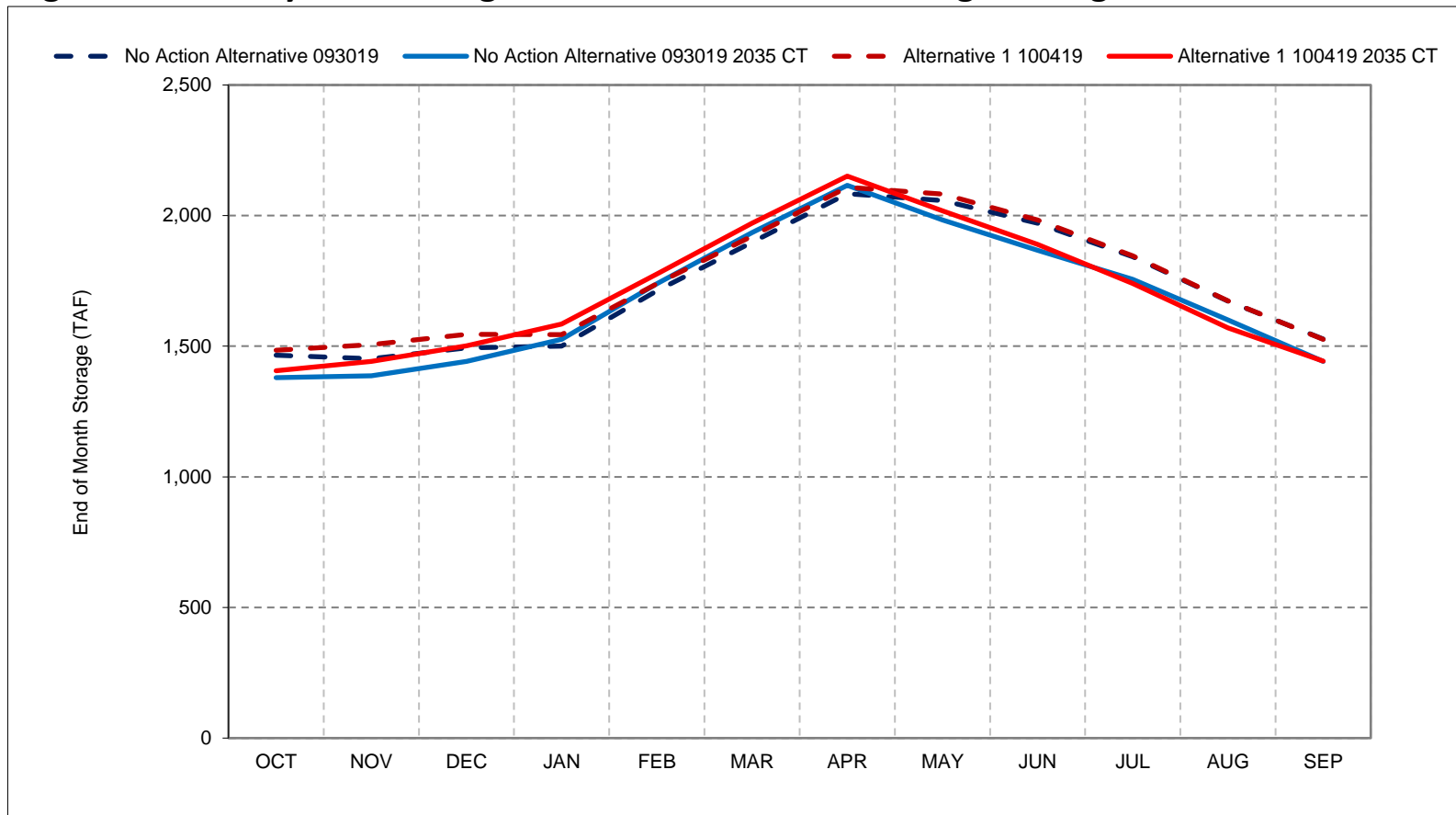
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-3. Trinity Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

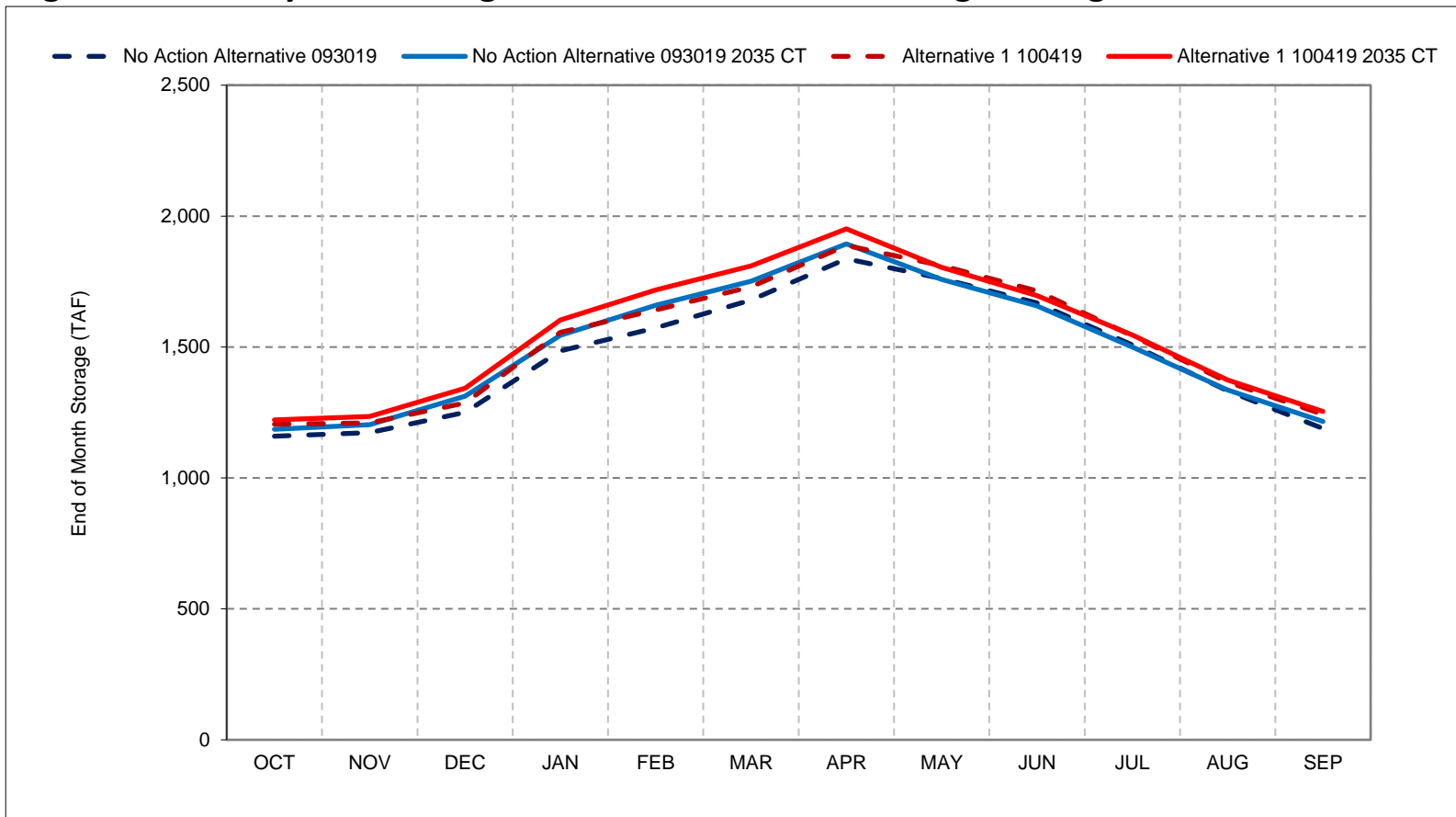
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-4. Trinity Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

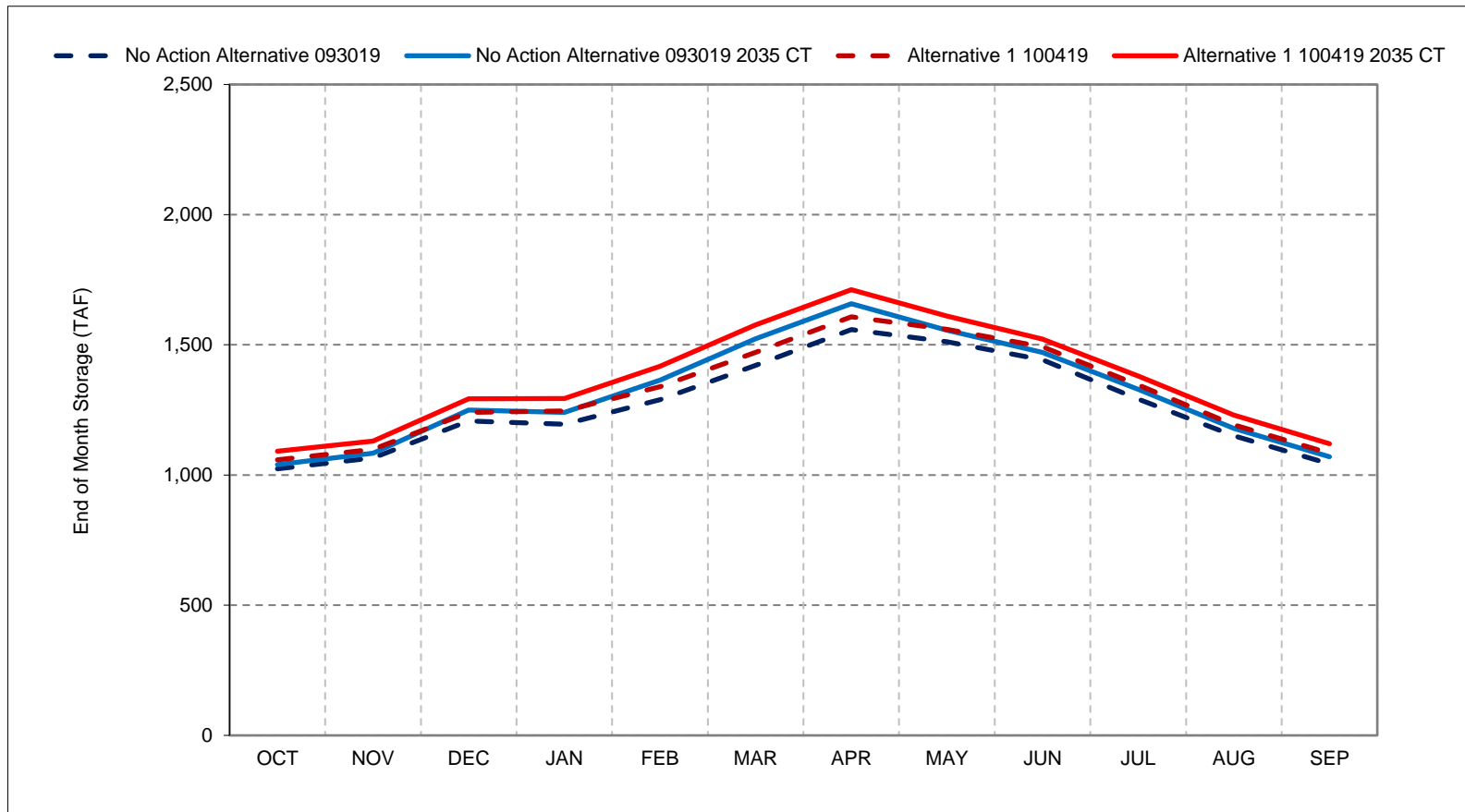
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-5. Trinity Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

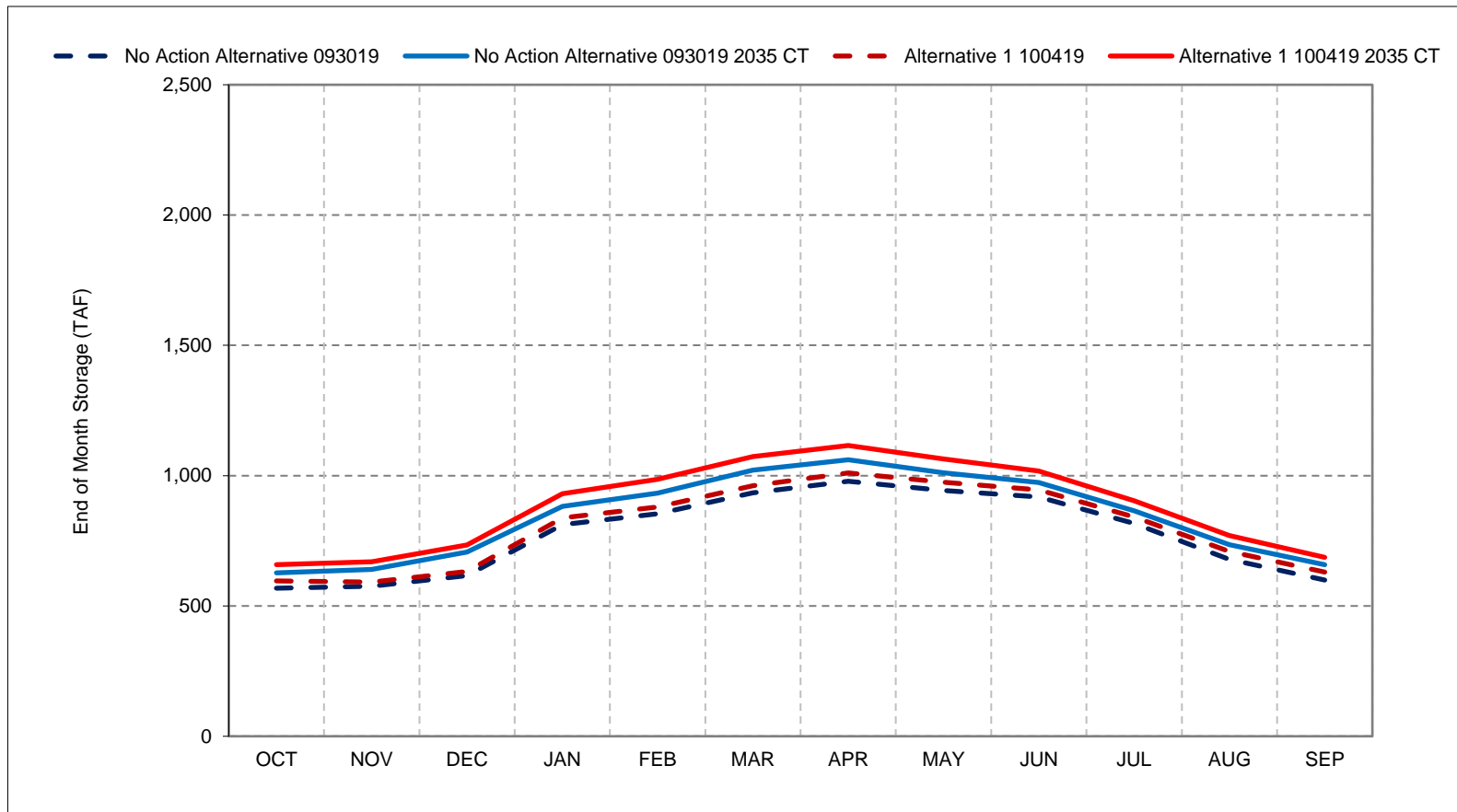
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-6. Trinity Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

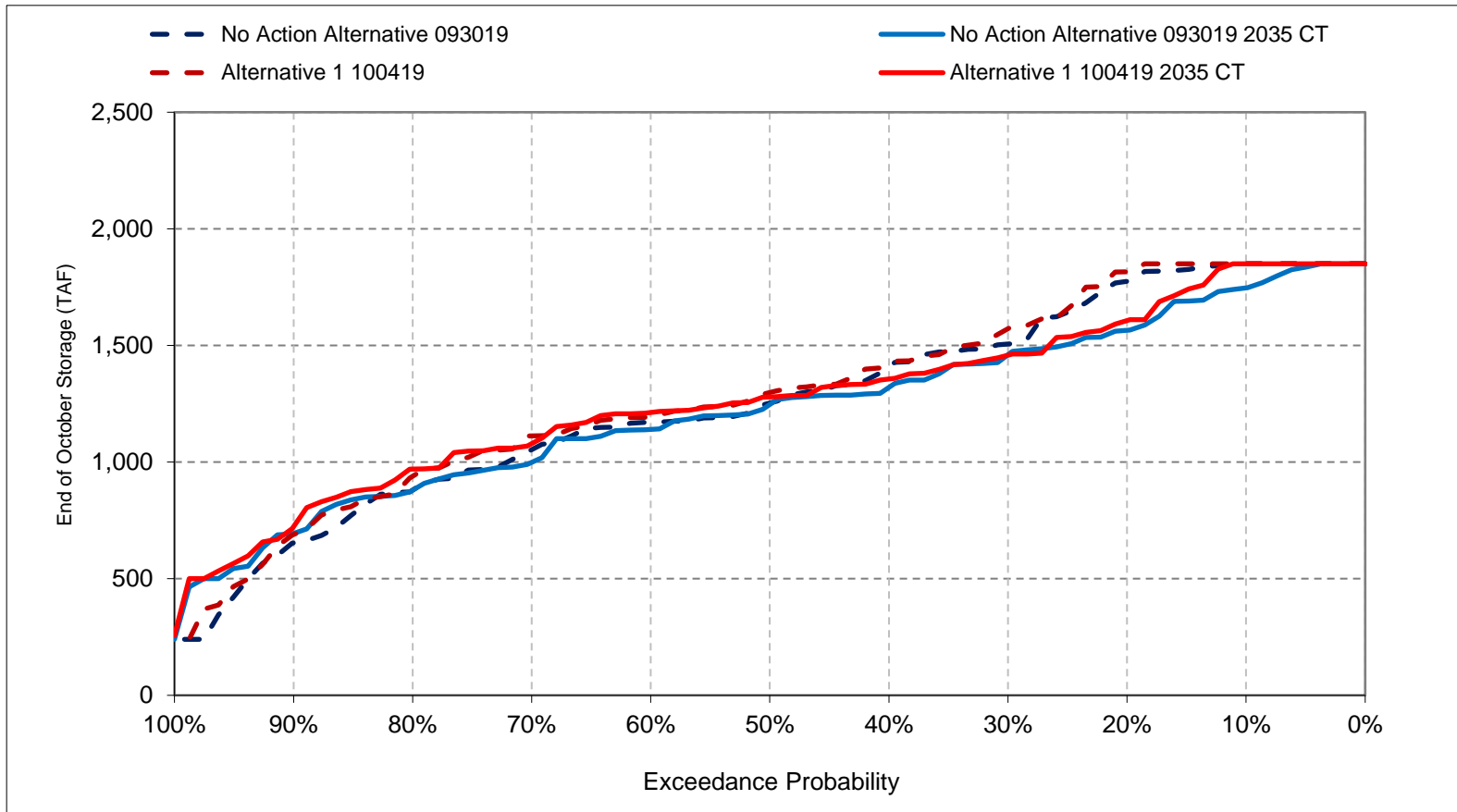
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

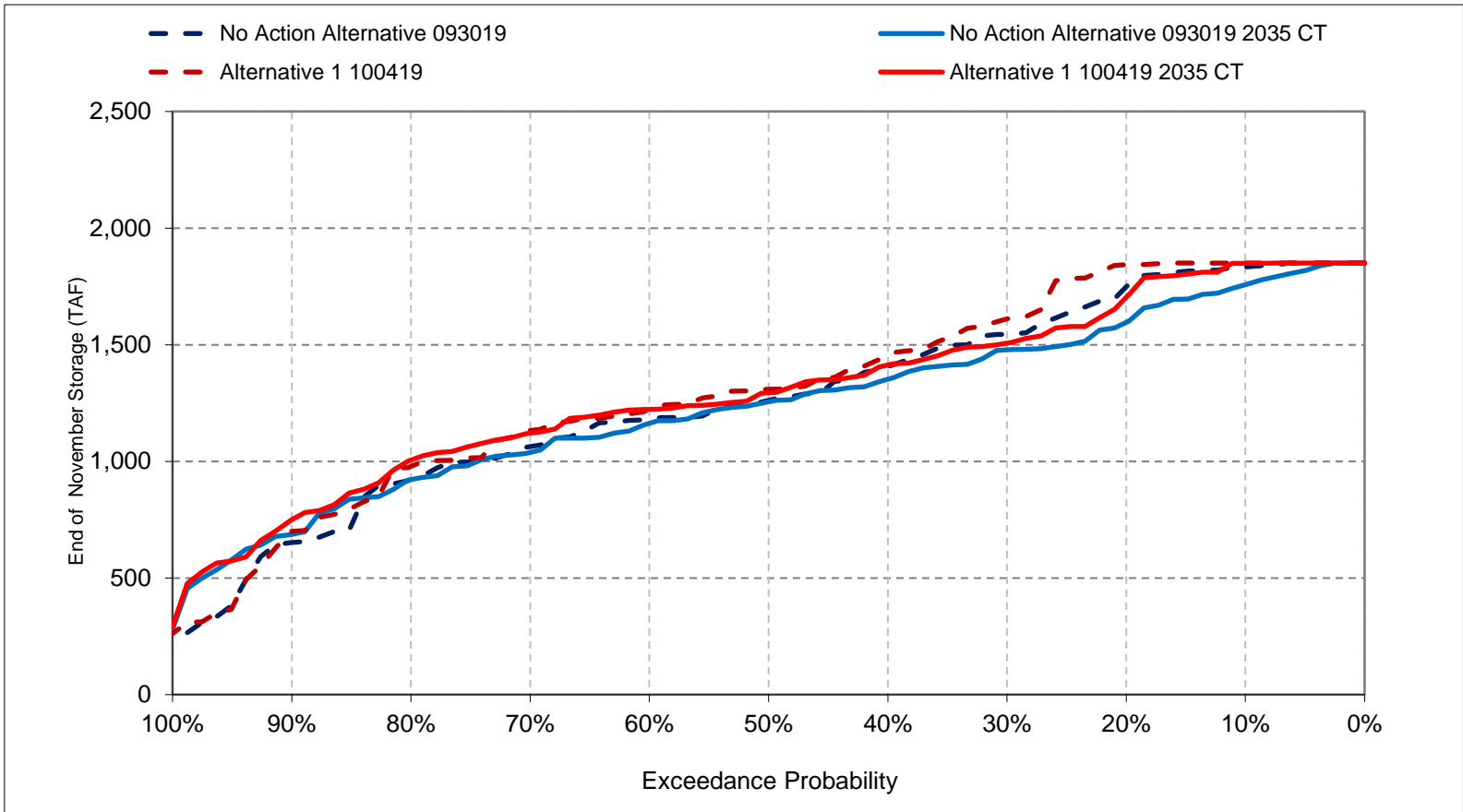
Figure 1-7. Trinity Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

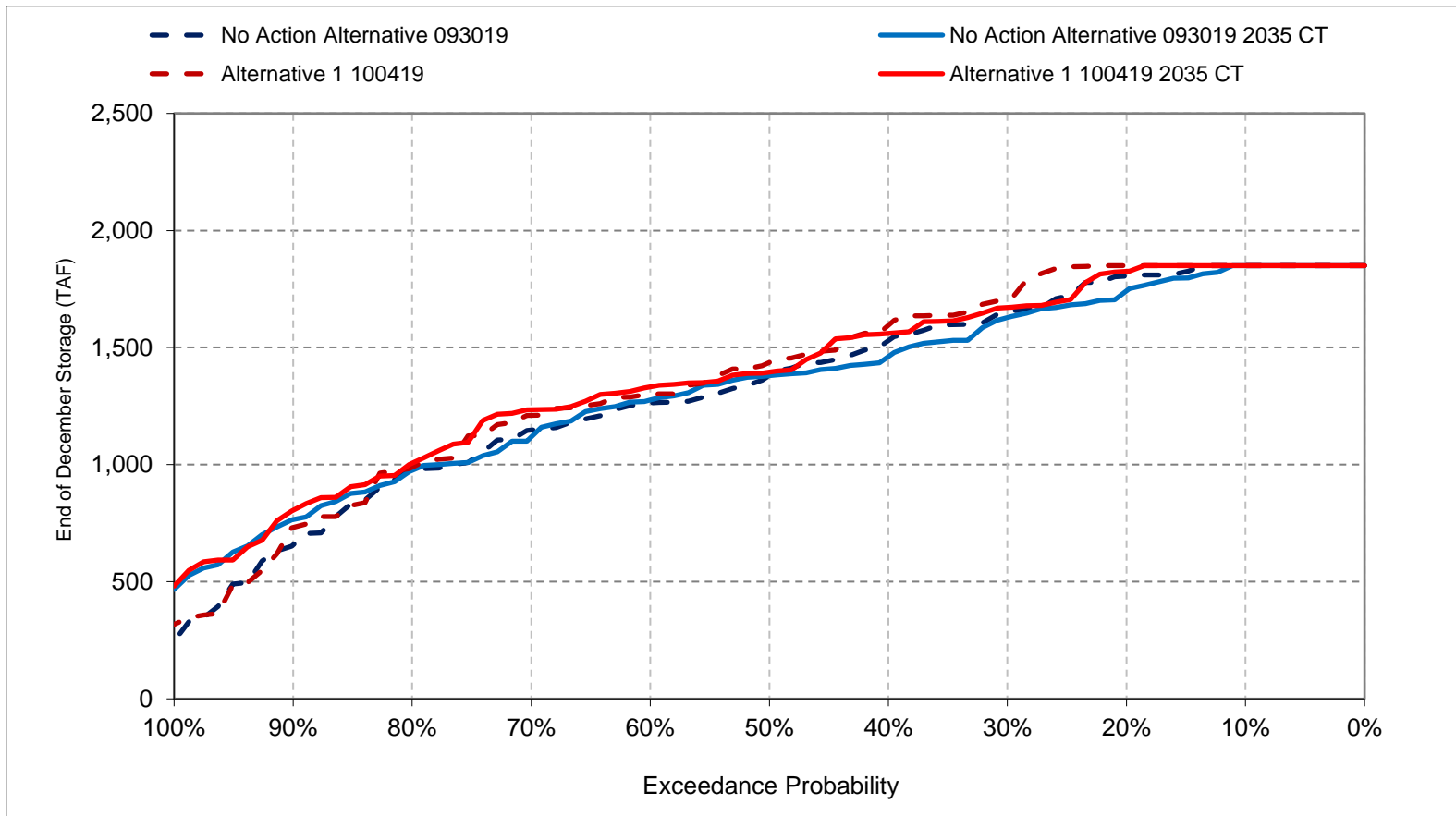
Figure 1-8. Trinity Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

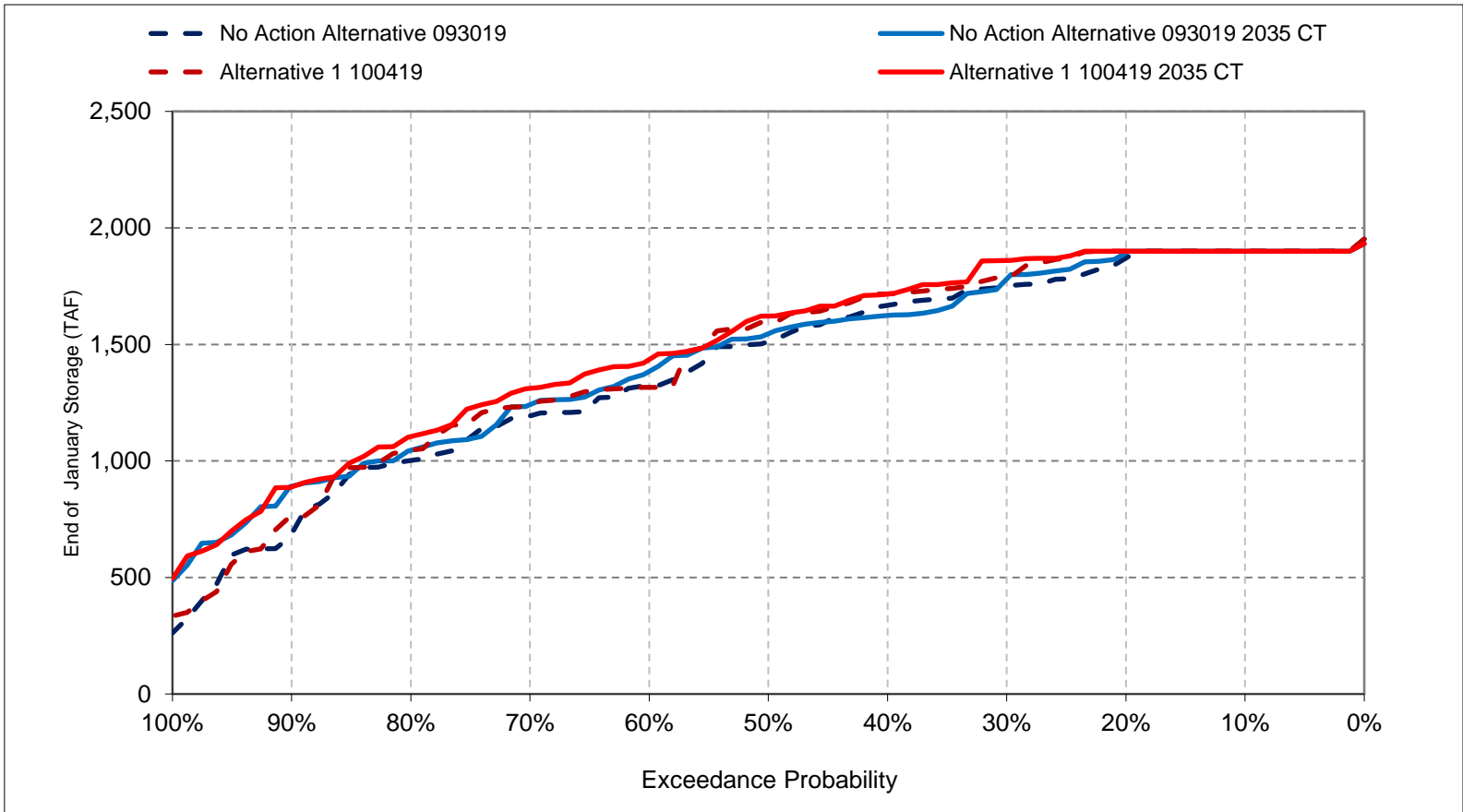
Figure 1-9. Trinity Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

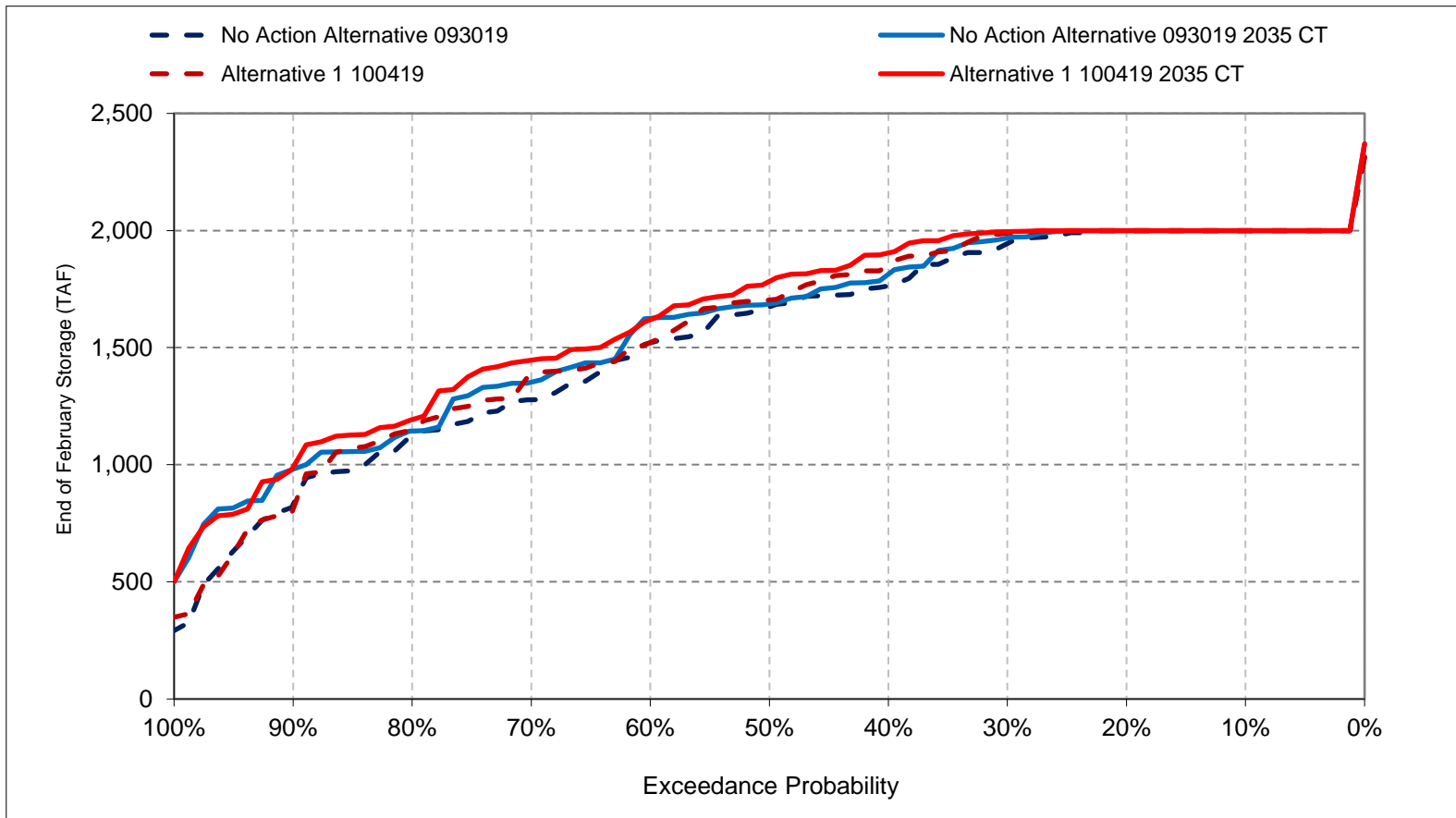
Figure 1-10. Trinity Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

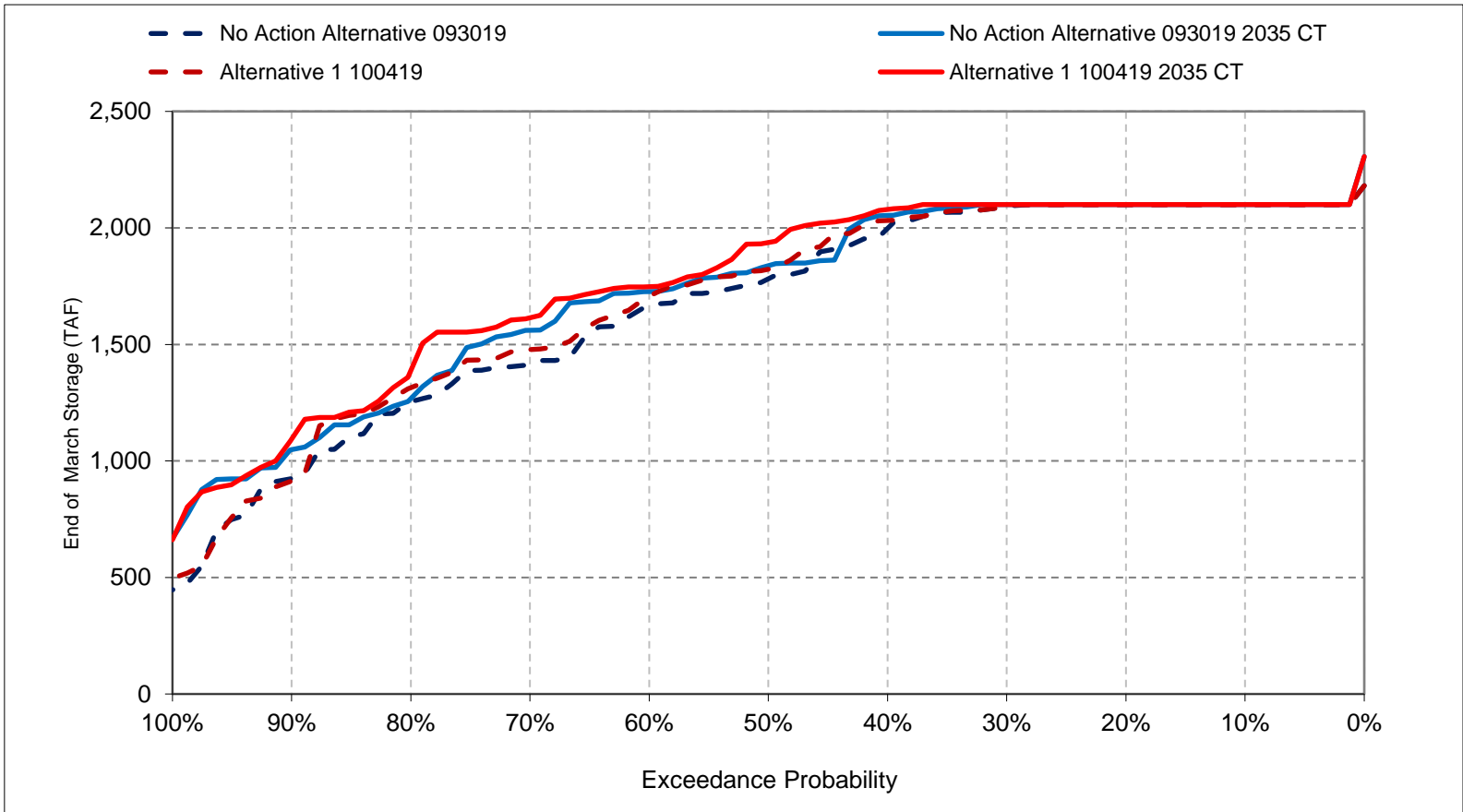
Figure 1-11. Trinity Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

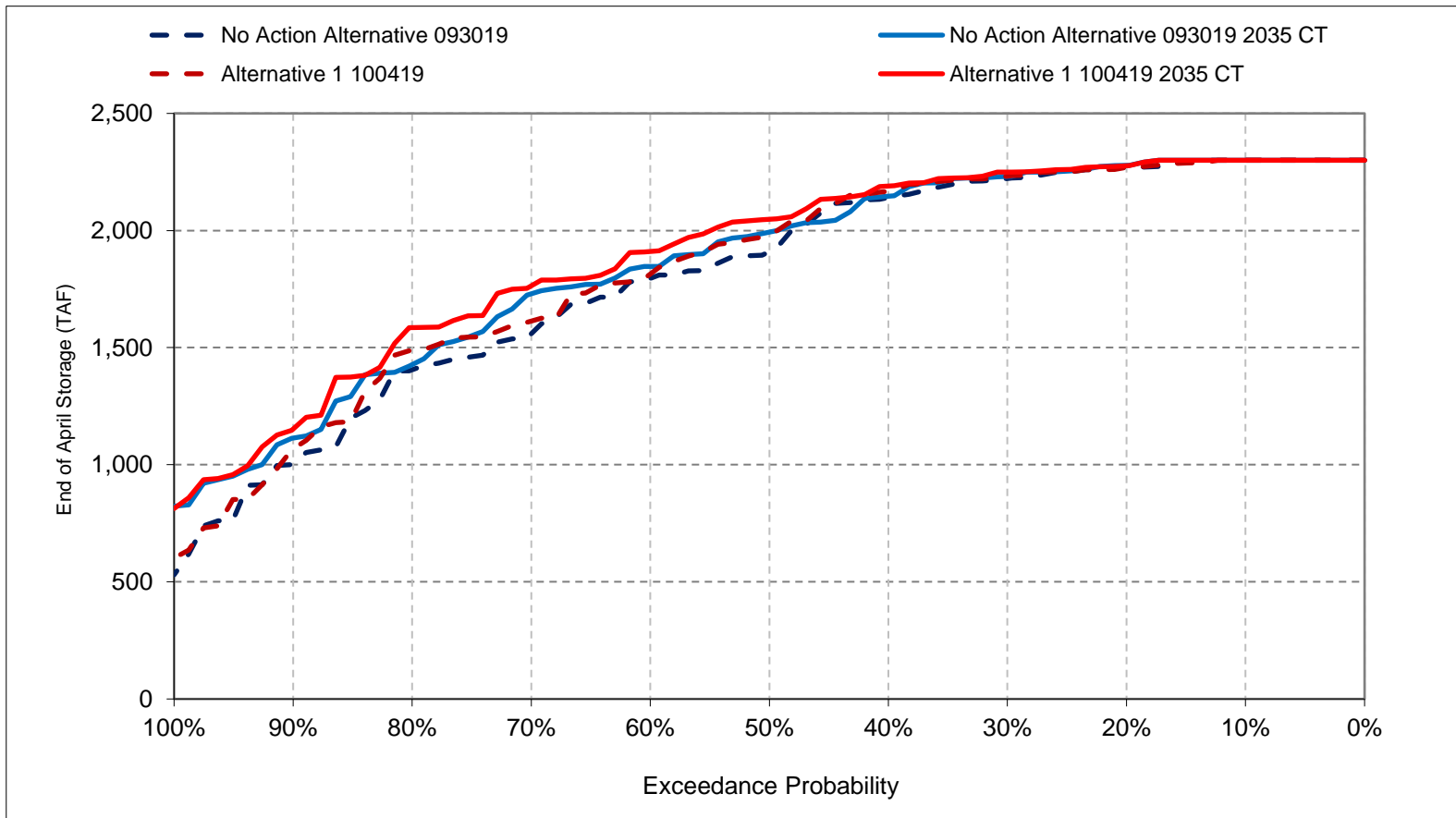
Figure 1-12. Trinity Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

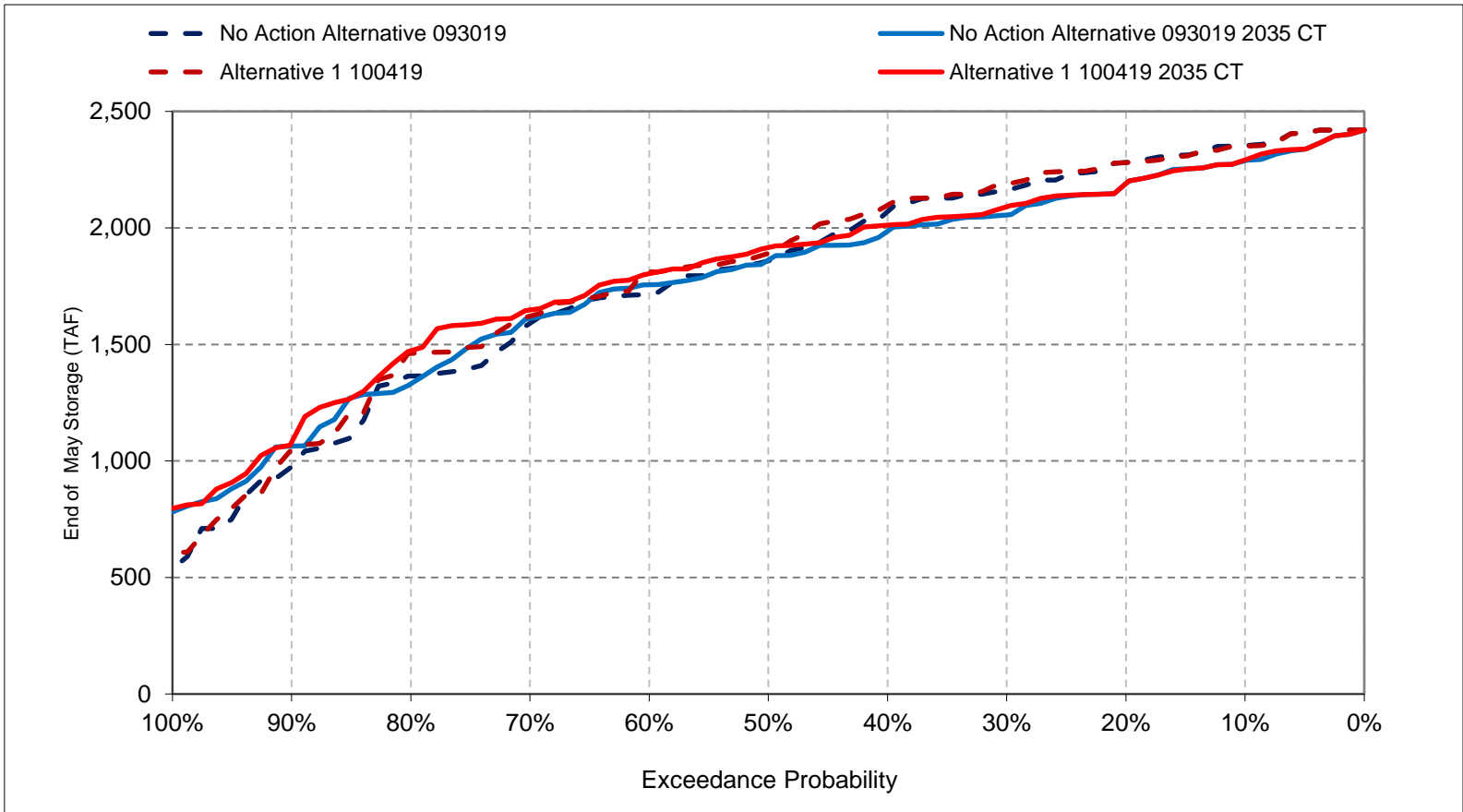
Figure 1-13. Trinity Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

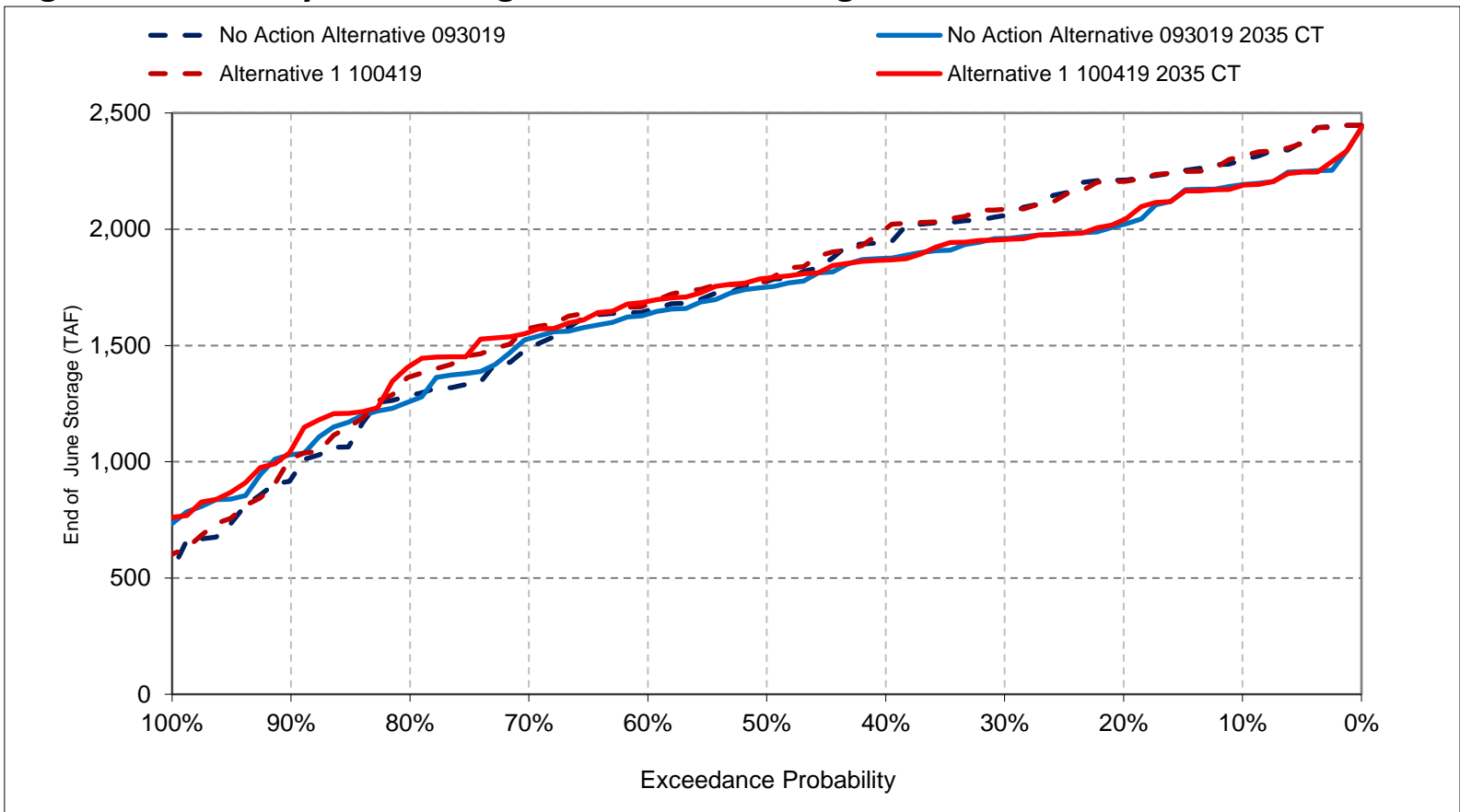
Figure 1-14. Trinity Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

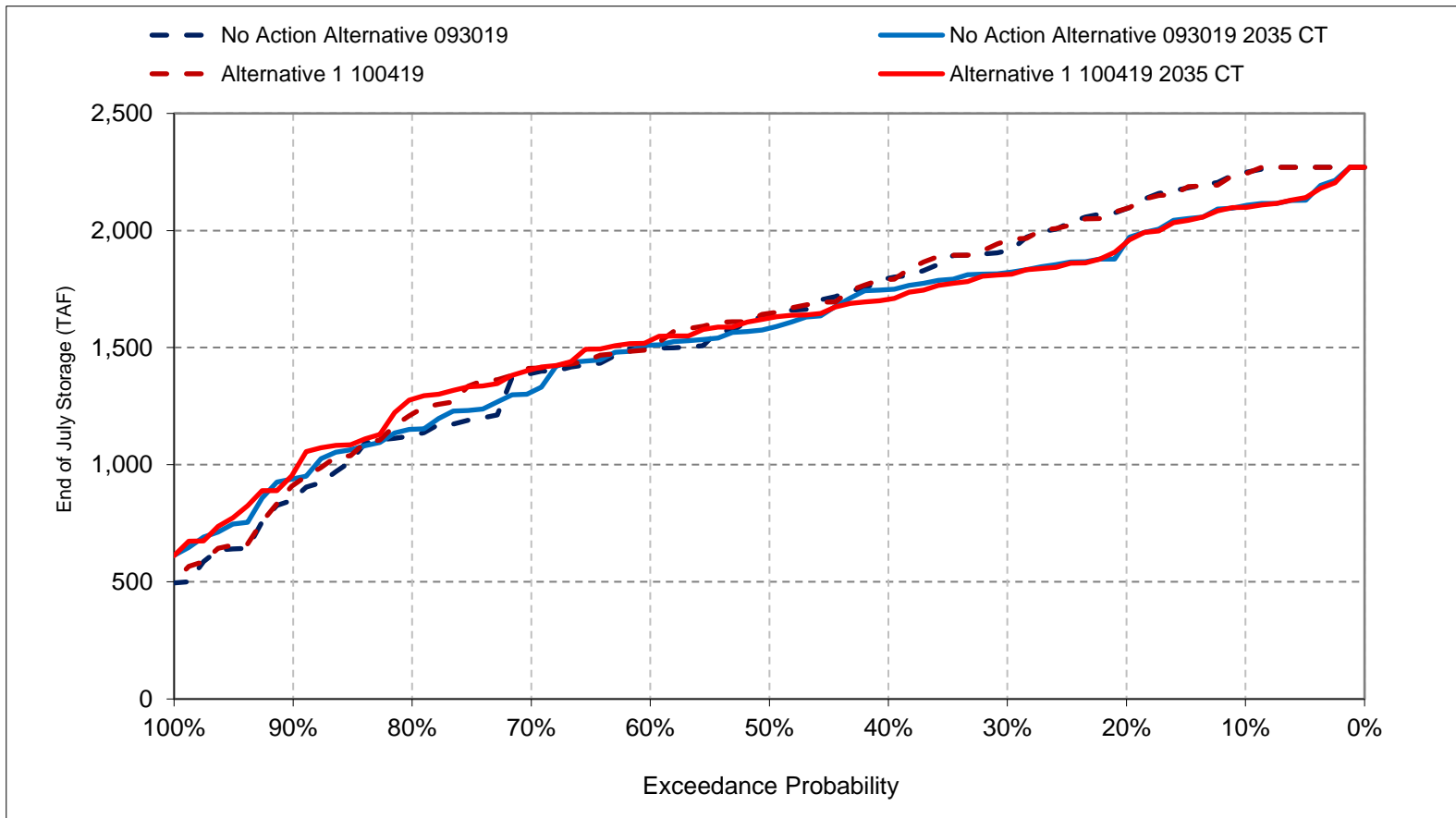
Figure 1-15. Trinity Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

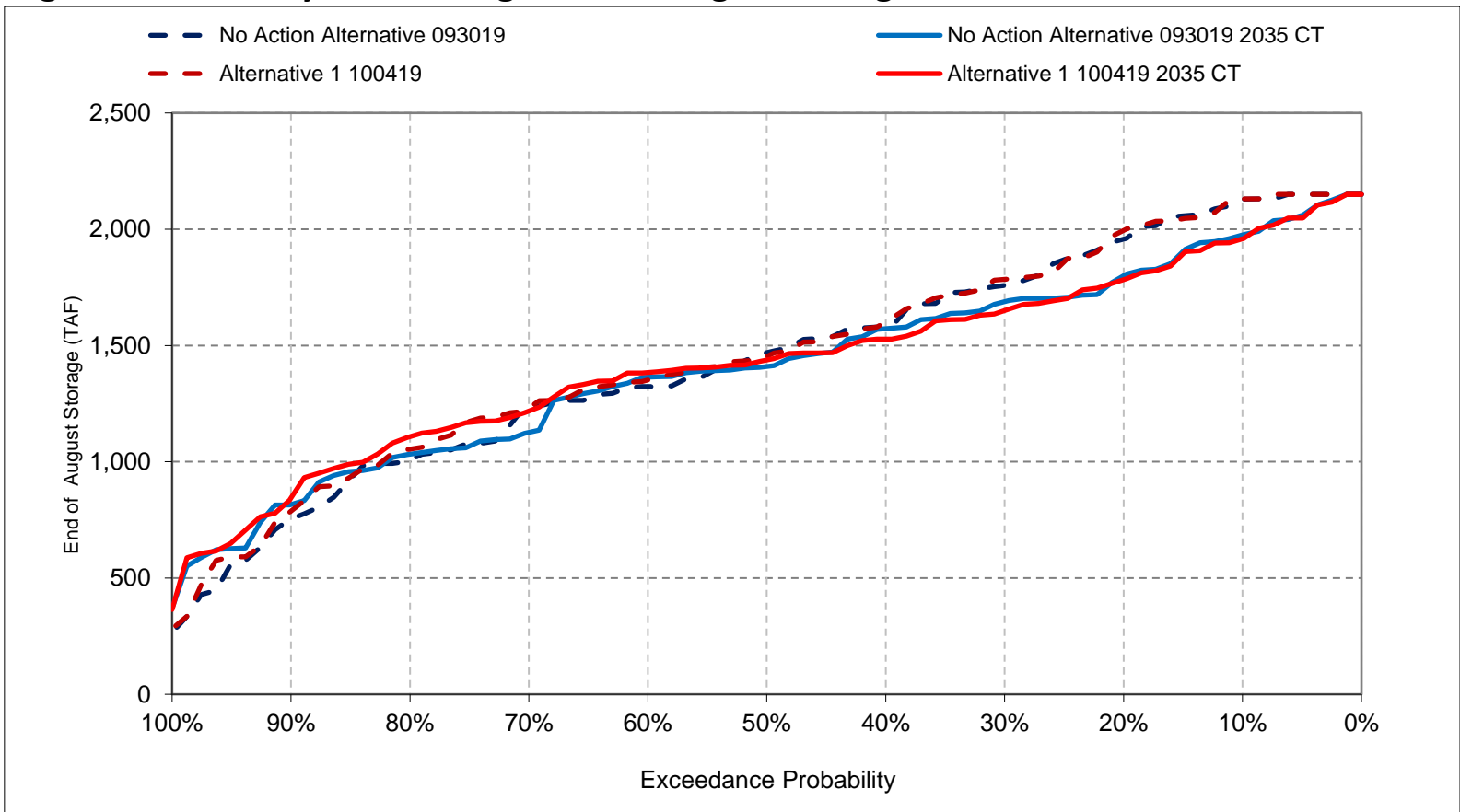
Figure 1-16. Trinity Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

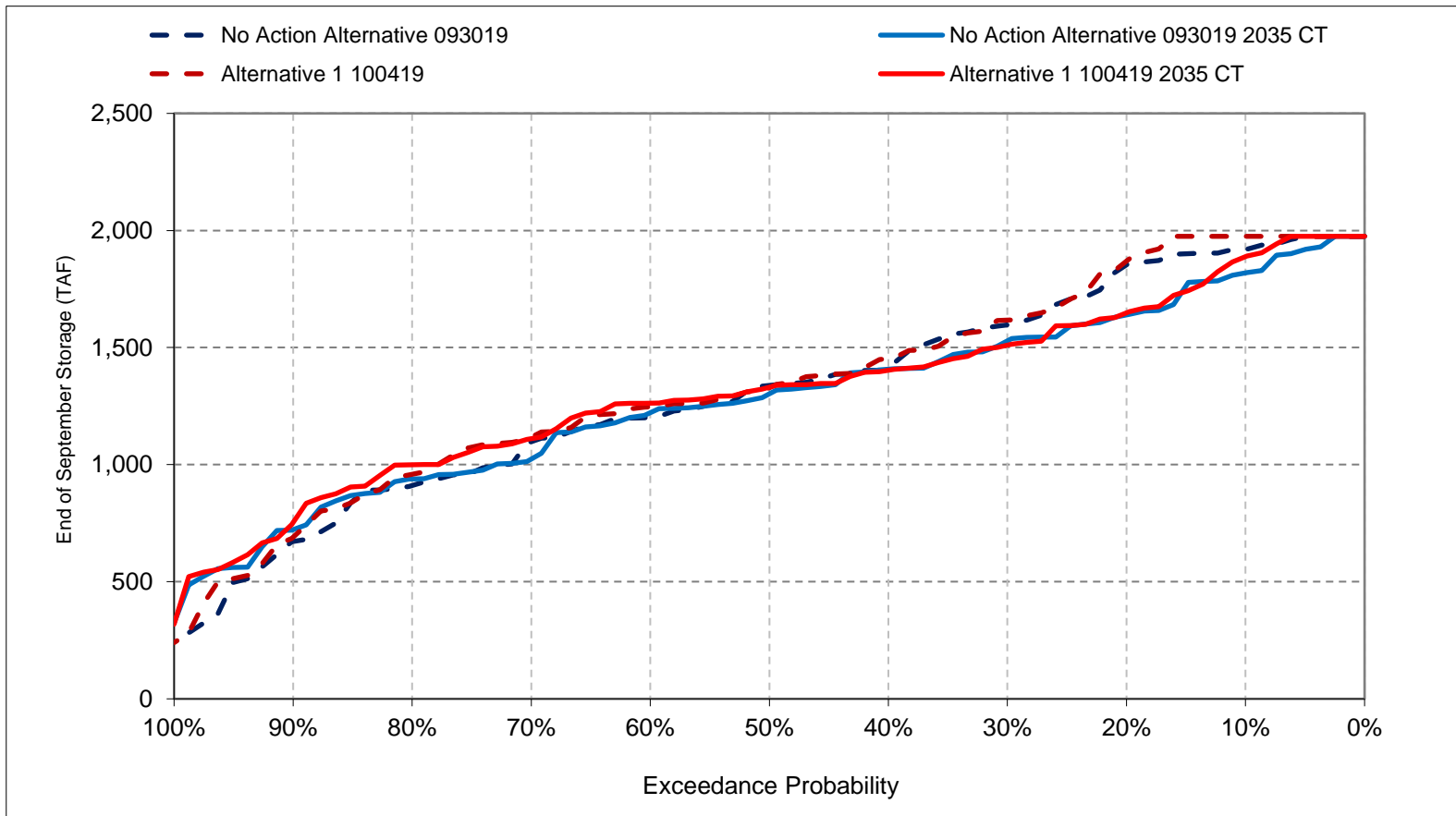
Figure 1-17. Trinity Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-18. Trinity Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-1. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,331	2,332	2,337	2,345	2,350	2,361	2,364	2,361	2,358	2,352	2,338
20%	2,326	2,324	2,328	2,334	2,345	2,350	2,359	2,360	2,356	2,350	2,341	2,333
30%	2,303	2,306	2,316	2,324	2,340	2,350	2,357	2,354	2,348	2,338	2,324	2,311
40%	2,295	2,295	2,305	2,317	2,325	2,344	2,353	2,349	2,340	2,328	2,309	2,296
50%	2,281	2,282	2,292	2,304	2,317	2,326	2,337	2,333	2,326	2,315	2,300	2,289
60%	2,273	2,274	2,282	2,288	2,304	2,316	2,328	2,321	2,315	2,302	2,288	2,276
70%	2,261	2,262	2,271	2,275	2,284	2,296	2,308	2,310	2,302	2,293	2,280	2,266
80%	2,241	2,246	2,253	2,255	2,268	2,281	2,295	2,291	2,284	2,269	2,256	2,245
90%	2,210	2,209	2,210	2,214	2,235	2,246	2,256	2,252	2,246	2,238	2,224	2,212
Long Term												
Full Simulation Period ^d	2,274	2,275	2,281	2,289	2,302	2,313	2,323	2,321	2,317	2,306	2,292	2,280
Water Year Types ^{b,c}												
Wet (32%)	2,319	2,317	2,319	2,325	2,339	2,347	2,357	2,359	2,355	2,348	2,339	2,327
Above Normal (16%)	2,299	2,298	2,302	2,301	2,320	2,335	2,347	2,346	2,340	2,331	2,317	2,305
Below Normal (13%)	2,269	2,270	2,277	2,299	2,307	2,316	2,328	2,323	2,316	2,302	2,286	2,273
Dry (24%)	2,256	2,260	2,273	2,271	2,281	2,293	2,306	2,302	2,296	2,283	2,269	2,258
Critical (15%)	2,183	2,188	2,196	2,223	2,230	2,242	2,249	2,245	2,242	2,229	2,206	2,192

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,364	2,362	2,358	2,352	2,343
20%	2,329	2,332	2,332	2,337	2,345	2,350	2,359	2,360	2,356	2,350	2,345	2,334
30%	2,309	2,312	2,320	2,327	2,344	2,350	2,357	2,355	2,350	2,341	2,327	2,312
40%	2,296	2,299	2,311	2,321	2,333	2,347	2,354	2,350	2,345	2,327	2,311	2,299
50%	2,286	2,286	2,297	2,311	2,320	2,330	2,344	2,336	2,326	2,315	2,299	2,288
60%	2,276	2,278	2,286	2,287	2,304	2,320	2,329	2,329	2,318	2,303	2,290	2,281
70%	2,267	2,269	2,277	2,280	2,292	2,301	2,312	2,313	2,309	2,295	2,279	2,268
80%	2,248	2,252	2,254	2,260	2,271	2,287	2,301	2,299	2,291	2,278	2,261	2,250
90%	2,215	2,216	2,221	2,225	2,232	2,245	2,263	2,260	2,257	2,245	2,229	2,215
Long Term												
Full Simulation Period ^d	2,277	2,279	2,286	2,293	2,305	2,315	2,326	2,324	2,319	2,308	2,294	2,283
Water Year Types ^{b,c}												
Wet (32%)	2,321	2,322	2,324	2,326	2,340	2,348	2,358	2,359	2,355	2,348	2,339	2,329
Above Normal (16%)	2,301	2,303	2,306	2,304	2,322	2,337	2,349	2,347	2,341	2,331	2,317	2,305
Below Normal (13%)	2,274	2,274	2,281	2,305	2,313	2,320	2,332	2,327	2,320	2,305	2,289	2,278
Dry (24%)	2,260	2,264	2,277	2,276	2,285	2,298	2,311	2,307	2,301	2,288	2,274	2,262
Critical (15%)	2,190	2,192	2,200	2,228	2,234	2,246	2,253	2,249	2,246	2,233	2,212	2,198

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1	0	0	0	0	0	0	1	0	0	5
20%	3	8	4	2	0	0	0	0	0	0	3	1
30%	6	6	5	3	4	0	1	1	1	4	2	2
40%	1	4	6	4	8	2	1	1	5	0	2	3
50%	4	4	5	7	2	4	6	3	0	0	-1	-1
60%	2	4	3	-1	0	4	2	8	2	0	2	4
70%	6	7	6	5	9	5	5	3	7	2	-1	2
80%	7	7	1	5	3	6	7	8	7	9	5	5
90%	5	7	11	11	-3	-1	7	8	10	7	5	3
Long Term												
Full Simulation Period ^d	4	4	4	4	3	3	3	3	2	2	2	3
Water Year Types ^{b,c}												
Wet (32%)	2	5	5	1	1	1	1	0	0	0	0	2
Above Normal (16%)	2	5	5	4	2	2	2	2	1	0	0	0
Below Normal (13%)	5	4	3	6	6	4	4	4	4	3	3	5
Dry (24%)	4	4	3	5	5	4	4	4	4	5	4	5
Critical (15%)	7	5	4	5	4	4	4	4	4	4	6	6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1a-2. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,323	2,324	2,332	2,337	2,345	2,350	2,361	2,360	2,355	2,351	2,343	2,330
20%	2,308	2,311	2,323	2,336	2,345	2,350	2,360	2,355	2,346	2,341	2,328	2,314
30%	2,299	2,301	2,313	2,326	2,342	2,350	2,357	2,348	2,342	2,330	2,319	2,305
40%	2,287	2,290	2,299	2,313	2,329	2,348	2,353	2,344	2,334	2,324	2,309	2,295
50%	2,281	2,282	2,292	2,306	2,318	2,331	2,344	2,333	2,324	2,309	2,295	2,286
60%	2,270	2,272	2,284	2,293	2,313	2,322	2,332	2,324	2,314	2,303	2,291	2,278
70%	2,255	2,259	2,268	2,280	2,290	2,308	2,322	2,312	2,305	2,287	2,269	2,258
80%	2,241	2,246	2,252	2,260	2,270	2,283	2,296	2,288	2,282	2,271	2,259	2,248
90%	2,215	2,214	2,225	2,243	2,253	2,261	2,267	2,262	2,258	2,248	2,233	2,219
Long Term												
Full Simulation Period ^d	2,273	2,275	2,284	2,295	2,308	2,319	2,329	2,322	2,315	2,305	2,291	2,279
Water Year Types ^{b,c}												
Wet (32%)	2,310	2,309	2,314	2,326	2,341	2,350	2,358	2,355	2,348	2,341	2,330	2,318
Above Normal (16%)	2,292	2,292	2,297	2,304	2,323	2,338	2,350	2,342	2,333	2,324	2,311	2,297
Below Normal (13%)	2,273	2,275	2,285	2,305	2,316	2,323	2,333	2,324	2,316	2,302	2,287	2,276
Dry (24%)	2,258	2,263	2,278	2,277	2,290	2,304	2,316	2,307	2,300	2,287	2,273	2,261
Critical (15%)	2,200	2,204	2,216	2,237	2,244	2,255	2,260	2,255	2,250	2,237	2,219	2,207

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,361	2,355	2,350	2,341	2,336
20%	2,312	2,320	2,330	2,337	2,345	2,350	2,360	2,355	2,347	2,341	2,327	2,315
30%	2,299	2,303	2,317	2,333	2,345	2,350	2,358	2,350	2,341	2,329	2,315	2,303
40%	2,290	2,295	2,308	2,321	2,337	2,349	2,355	2,346	2,334	2,320	2,305	2,294
50%	2,284	2,285	2,294	2,313	2,327	2,340	2,348	2,338	2,327	2,313	2,297	2,288
60%	2,277	2,278	2,288	2,297	2,313	2,324	2,337	2,328	2,319	2,305	2,293	2,282
70%	2,264	2,268	2,279	2,287	2,298	2,312	2,325	2,315	2,307	2,295	2,278	2,267
80%	2,252	2,256	2,256	2,266	2,275	2,293	2,310	2,300	2,295	2,284	2,267	2,255
90%	2,220	2,223	2,231	2,242	2,254	2,265	2,271	2,264	2,261	2,251	2,237	2,224
Long Term												
Full Simulation Period ^d	2,278	2,281	2,289	2,299	2,312	2,322	2,332	2,325	2,318	2,307	2,293	2,282
Water Year Types ^{b,c}												
Wet (32%)	2,314	2,316	2,320	2,328	2,343	2,350	2,359	2,356	2,348	2,340	2,330	2,320
Above Normal (16%)	2,294	2,297	2,303	2,309	2,326	2,341	2,352	2,345	2,335	2,323	2,308	2,298
Below Normal (13%)	2,277	2,278	2,287	2,311	2,321	2,328	2,338	2,328	2,319	2,306	2,291	2,280
Dry (24%)	2,264	2,268	2,282	2,282	2,294	2,308	2,320	2,312	2,304	2,291	2,278	2,267
Critical (15%)	2,205	2,209	2,219	2,242	2,249	2,260	2,266	2,260	2,255	2,241	2,223	2,212

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9	8	0	0	0	0	0	0	0	0	-1	6
20%	4	9	7	1	0	0	0	0	1	0	-1	1
30%	0	2	4	7	2	0	1	2	0	-1	-3	-2
40%	3	5	8	8	8	1	2	2	-1	-3	-4	0
50%	3	4	1	6	8	8	3	5	3	4	2	2
60%	7	6	5	4	0	2	5	4	5	2	2	4
70%	9	9	12	6	8	4	3	3	2	8	9	9
80%	10	9	3	6	5	10	13	12	13	13	8	7
90%	4	9	6	0	1	5	4	2	2	3	4	4
Long Term												
Full Simulation Period ^d	4	6	5	4	4	3	3	3	3	2	2	3
Water Year Types ^{b,c}												
Wet (32%)	4	7	6	2	2	1	0	0	0	0	0	2
Above Normal (16%)	3	5	5	5	3	3	2	3	2	-1	-3	0
Below Normal (13%)	4	3	3	5	5	5	5	4	3	4	4	4
Dry (24%)	6	5	4	5	5	5	4	5	4	5	5	5
Critical (15%)	6	5	4	5	5	5	5	5	4	4	4	4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-3. Trinity Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,331	2,332	2,337	2,345	2,350	2,361	2,364	2,361	2,358	2,352	2,338
20%	2,326	2,324	2,328	2,334	2,345	2,350	2,359	2,360	2,356	2,350	2,341	2,333
30%	2,303	2,306	2,316	2,324	2,340	2,350	2,357	2,354	2,348	2,338	2,324	2,311
40%	2,295	2,295	2,305	2,317	2,325	2,344	2,353	2,349	2,340	2,328	2,309	2,296
50%	2,281	2,282	2,292	2,304	2,317	2,326	2,337	2,333	2,326	2,315	2,300	2,289
60%	2,273	2,274	2,282	2,288	2,304	2,316	2,328	2,321	2,315	2,302	2,288	2,276
70%	2,261	2,262	2,271	2,275	2,284	2,296	2,308	2,310	2,302	2,293	2,280	2,266
80%	2,241	2,246	2,253	2,255	2,268	2,281	2,295	2,291	2,284	2,269	2,256	2,245
90%	2,210	2,209	2,210	2,214	2,235	2,246	2,256	2,252	2,246	2,238	2,224	2,212
Long Term												
Full Simulation Period ^d	2,274	2,275	2,281	2,289	2,302	2,313	2,323	2,321	2,317	2,306	2,292	2,280
Water Year Types ^{b,c}												
Wet (32%)	2,319	2,317	2,319	2,325	2,339	2,347	2,357	2,359	2,355	2,348	2,339	2,327
Above Normal (16%)	2,299	2,298	2,302	2,301	2,320	2,335	2,347	2,346	2,340	2,331	2,317	2,305
Below Normal (13%)	2,269	2,270	2,277	2,299	2,307	2,316	2,328	2,323	2,316	2,302	2,286	2,273
Dry (24%)	2,256	2,260	2,273	2,271	2,281	2,293	2,306	2,302	2,296	2,283	2,269	2,258
Critical (15%)	2,183	2,188	2,196	2,223	2,230	2,242	2,249	2,245	2,242	2,229	2,206	2,192

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,323	2,324	2,332	2,337	2,345	2,350	2,361	2,360	2,355	2,351	2,343	2,330
20%	2,308	2,311	2,323	2,336	2,345	2,350	2,360	2,355	2,346	2,341	2,328	2,314
30%	2,299	2,301	2,313	2,326	2,342	2,350	2,357	2,348	2,342	2,330	2,319	2,305
40%	2,287	2,290	2,299	2,313	2,329	2,348	2,353	2,344	2,334	2,324	2,309	2,295
50%	2,281	2,282	2,292	2,306	2,318	2,331	2,344	2,333	2,324	2,309	2,295	2,286
60%	2,270	2,272	2,284	2,293	2,313	2,322	2,332	2,324	2,314	2,303	2,291	2,278
70%	2,255	2,259	2,268	2,280	2,290	2,308	2,322	2,312	2,305	2,287	2,269	2,258
80%	2,241	2,246	2,252	2,260	2,270	2,283	2,296	2,288	2,282	2,271	2,259	2,248
90%	2,215	2,214	2,225	2,243	2,253	2,261	2,267	2,262	2,258	2,248	2,233	2,219
Long Term												
Full Simulation Period ^d	2,273	2,275	2,284	2,295	2,308	2,319	2,329	2,322	2,315	2,305	2,291	2,279
Water Year Types ^{b,c}												
Wet (32%)	2,310	2,309	2,314	2,326	2,341	2,350	2,358	2,355	2,348	2,341	2,330	2,318
Above Normal (16%)	2,292	2,292	2,297	2,304	2,323	2,338	2,350	2,342	2,333	2,324	2,311	2,297
Below Normal (13%)	2,273	2,275	2,285	2,305	2,316	2,323	2,333	2,324	2,316	2,302	2,287	2,276
Dry (24%)	2,258	2,263	2,278	2,277	2,290	2,304	2,316	2,307	2,300	2,287	2,273	2,261
Critical (15%)	2,200	2,204	2,216	2,237	2,244	2,255	2,260	2,255	2,250	2,237	2,219	2,207

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-9	-6	0	0	0	0	0	-4	-6	-8	-9	-9
20%	-18	-13	-5	2	0	0	0	-5	-10	-9	-13	-18
30%	-4	-6	-2	3	2	0	0	-6	-7	-8	-6	-6
40%	-8	-5	-6	-4	4	3	0	-5	-6	-4	-1	-1
50%	-1	-1	0	3	1	5	7	0	-2	-5	-5	-3
60%	-3	-2	1	5	9	5	4	3	-1	1	3	2
70%	-6	-3	-3	5	6	12	15	2	4	-7	-11	-8
80%	0	0	-1	5	2	1	2	-3	-2	3	3	3
90%	6	5	15	28	18	14	12	10	12	10	9	7
Long Term												
Full Simulation Period ^d	0	0	3	5	7	6	5	1	-1	-1	-1	0
Water Year Types ^{b,c}												
Wet (32%)	-9	-8	-4	1	2	2	1	-3	-7	-7	-9	-9
Above Normal (16%)	-8	-6	-4	3	3	3	3	-4	-7	-7	-6	-7
Below Normal (13%)	4	4	7	7	9	7	5	1	0	0	1	4
Dry (24%)	2	3	5	6	9	10	9	5	3	4	3	4
Critical (15%)	17	16	20	14	14	13	11	10	8	8	13	15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1a-4. Trinity Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,364	2,362	2,358	2,352	2,343
20%	2,329	2,332	2,332	2,337	2,345	2,350	2,359	2,360	2,356	2,350	2,345	2,334
30%	2,309	2,312	2,320	2,327	2,344	2,350	2,357	2,355	2,350	2,341	2,327	2,312
40%	2,296	2,299	2,311	2,321	2,333	2,347	2,354	2,350	2,345	2,327	2,311	2,299
50%	2,286	2,286	2,297	2,311	2,320	2,330	2,344	2,336	2,326	2,315	2,299	2,288
60%	2,276	2,278	2,286	2,287	2,304	2,320	2,329	2,329	2,318	2,303	2,290	2,281
70%	2,267	2,269	2,277	2,280	2,292	2,301	2,312	2,313	2,309	2,295	2,279	2,268
80%	2,248	2,252	2,254	2,260	2,271	2,287	2,301	2,299	2,291	2,278	2,261	2,250
90%	2,215	2,216	2,221	2,225	2,232	2,245	2,263	2,260	2,257	2,245	2,229	2,215
Long Term												
Full Simulation Period ^d	2,277	2,279	2,286	2,293	2,305	2,315	2,326	2,324	2,319	2,308	2,294	2,283
Water Year Types ^{b,c}												
Wet (32%)	2,321	2,322	2,324	2,326	2,340	2,348	2,358	2,359	2,355	2,348	2,339	2,329
Above Normal (16%)	2,301	2,303	2,306	2,304	2,322	2,337	2,349	2,347	2,341	2,331	2,317	2,305
Below Normal (13%)	2,274	2,274	2,281	2,305	2,313	2,320	2,332	2,327	2,320	2,305	2,289	2,278
Dry (24%)	2,260	2,264	2,277	2,276	2,285	2,298	2,311	2,307	2,301	2,288	2,274	2,262
Critical (15%)	2,190	2,192	2,200	2,228	2,234	2,246	2,253	2,249	2,246	2,233	2,212	2,198

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,332	2,332	2,332	2,337	2,345	2,350	2,361	2,361	2,355	2,350	2,341	2,336
20%	2,312	2,320	2,330	2,337	2,345	2,350	2,360	2,355	2,347	2,341	2,327	2,315
30%	2,299	2,303	2,317	2,333	2,345	2,350	2,358	2,350	2,341	2,329	2,315	2,303
40%	2,290	2,295	2,308	2,321	2,337	2,349	2,355	2,346	2,334	2,320	2,305	2,294
50%	2,284	2,285	2,294	2,313	2,327	2,340	2,348	2,338	2,327	2,313	2,297	2,288
60%	2,277	2,278	2,288	2,297	2,313	2,324	2,337	2,328	2,319	2,305	2,293	2,282
70%	2,264	2,268	2,279	2,287	2,298	2,312	2,325	2,315	2,307	2,295	2,278	2,267
80%	2,252	2,256	2,256	2,266	2,275	2,293	2,310	2,300	2,295	2,284	2,267	2,255
90%	2,220	2,223	2,231	2,242	2,254	2,265	2,271	2,264	2,261	2,251	2,237	2,224
Long Term												
Full Simulation Period ^d	2,278	2,281	2,289	2,299	2,312	2,322	2,332	2,325	2,318	2,307	2,293	2,282
Water Year Types ^{b,c}												
Wet (32%)	2,314	2,316	2,320	2,328	2,343	2,350	2,359	2,356	2,348	2,340	2,330	2,320
Above Normal (16%)	2,294	2,297	2,303	2,309	2,326	2,341	2,352	2,345	2,335	2,323	2,308	2,298
Below Normal (13%)	2,277	2,278	2,287	2,311	2,321	2,328	2,338	2,328	2,319	2,306	2,291	2,280
Dry (24%)	2,264	2,268	2,282	2,282	2,294	2,308	2,320	2,312	2,304	2,291	2,278	2,267
Critical (15%)	2,205	2,209	2,219	2,242	2,249	2,260	2,266	2,260	2,255	2,241	2,223	2,212

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	-4	-7	-8	-10	-7
20%	-18	-12	-2	0	0	0	0	-5	-9	-9	-18	-19
30%	-10	-9	-3	6	1	0	1	-5	-8	-12	-11	-9
40%	-5	-4	-3	0	4	3	1	-5	-11	-7	-6	-4
50%	-2	-1	-3	2	7	10	4	2	1	-2	-1	0
60%	2	0	3	10	8	4	8	-1	1	2	3	2
70%	-3	-1	2	7	6	12	13	2	-1	-1	-1	-1
80%	4	3	2	6	4	6	8	1	4	6	6	5
90%	5	7	11	17	22	20	8	4	4	6	8	9
Long Term												
Full Simulation Period ^d	0	1	3	6	7	7	6	1	-1	-1	-1	-1
Water Year Types ^{b,c}												
Wet (32%)	-7	-6	-4	2	3	2	1	-4	-7	-8	-9	-9
Above Normal (16%)	-7	-6	-4	4	4	4	3	-3	-6	-9	-9	-7
Below Normal (13%)	3	4	7	5	7	7	6	1	-1	1	2	2
Dry (24%)	4	4	6	6	9	11	10	5	3	4	4	5
Critical (15%)	15	16	19	15	15	14	13	11	9	9	11	14

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

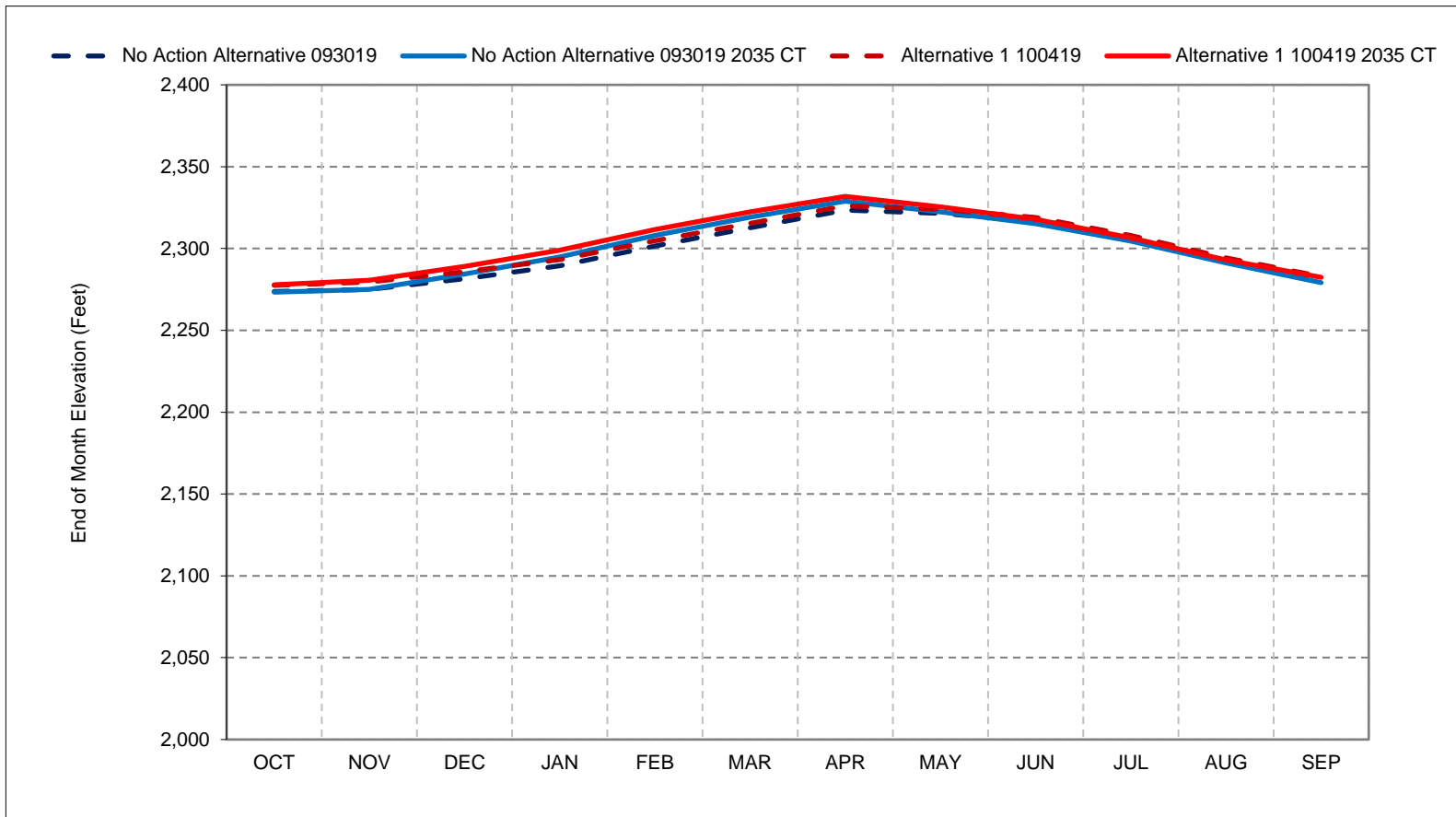
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1a-1. Trinity Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

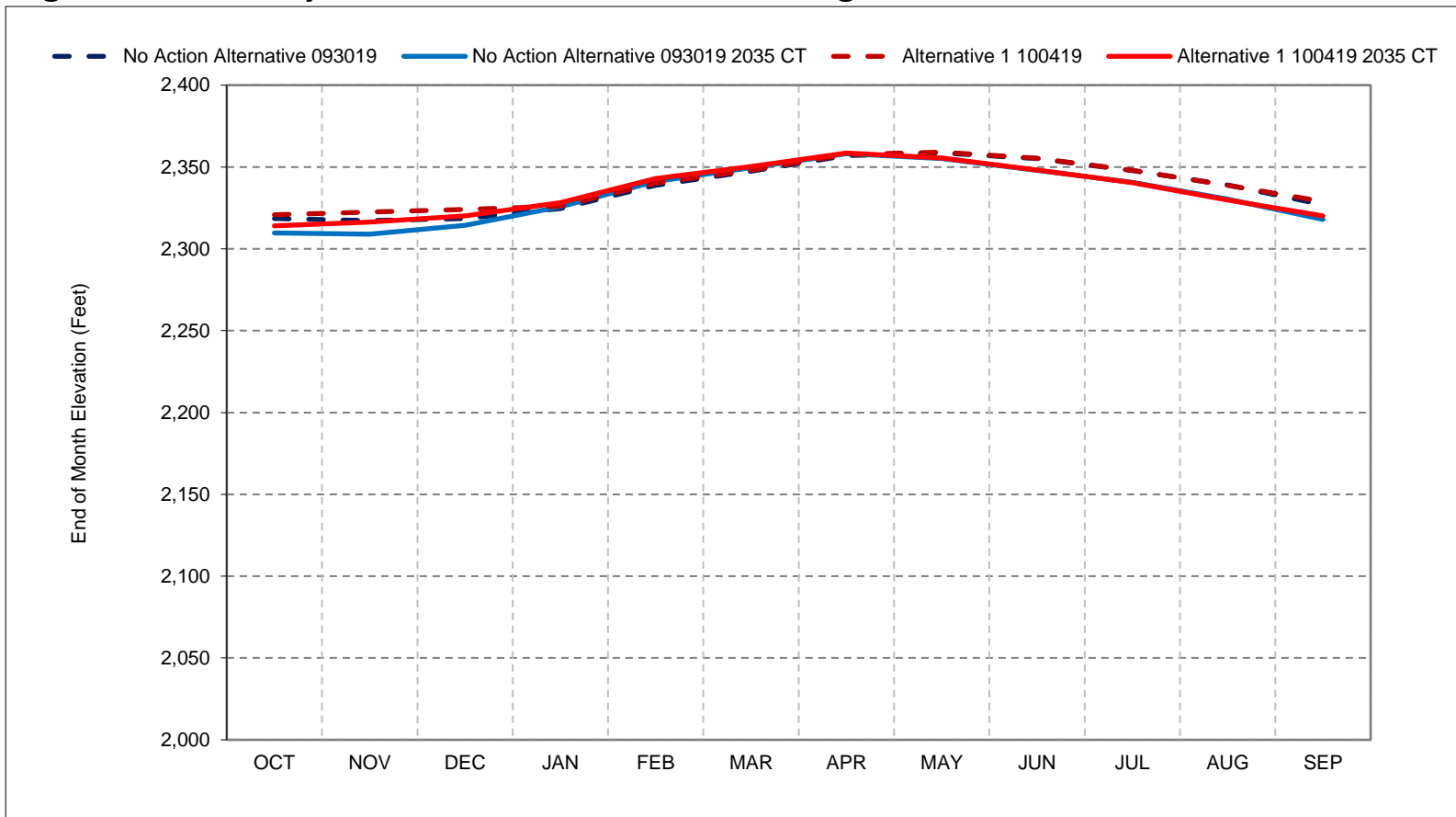
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-2. Trinity Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

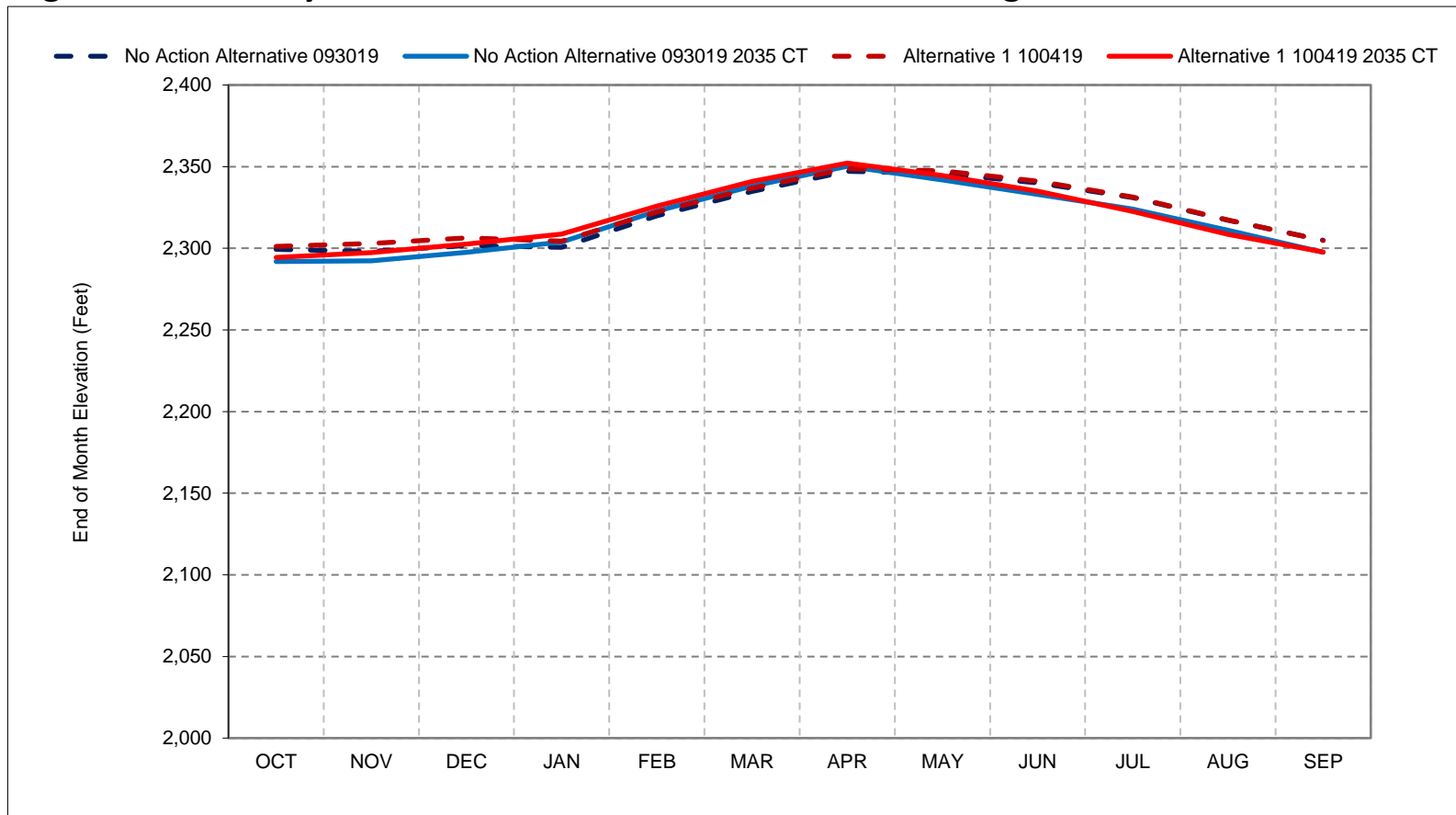
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-3. Trinity Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

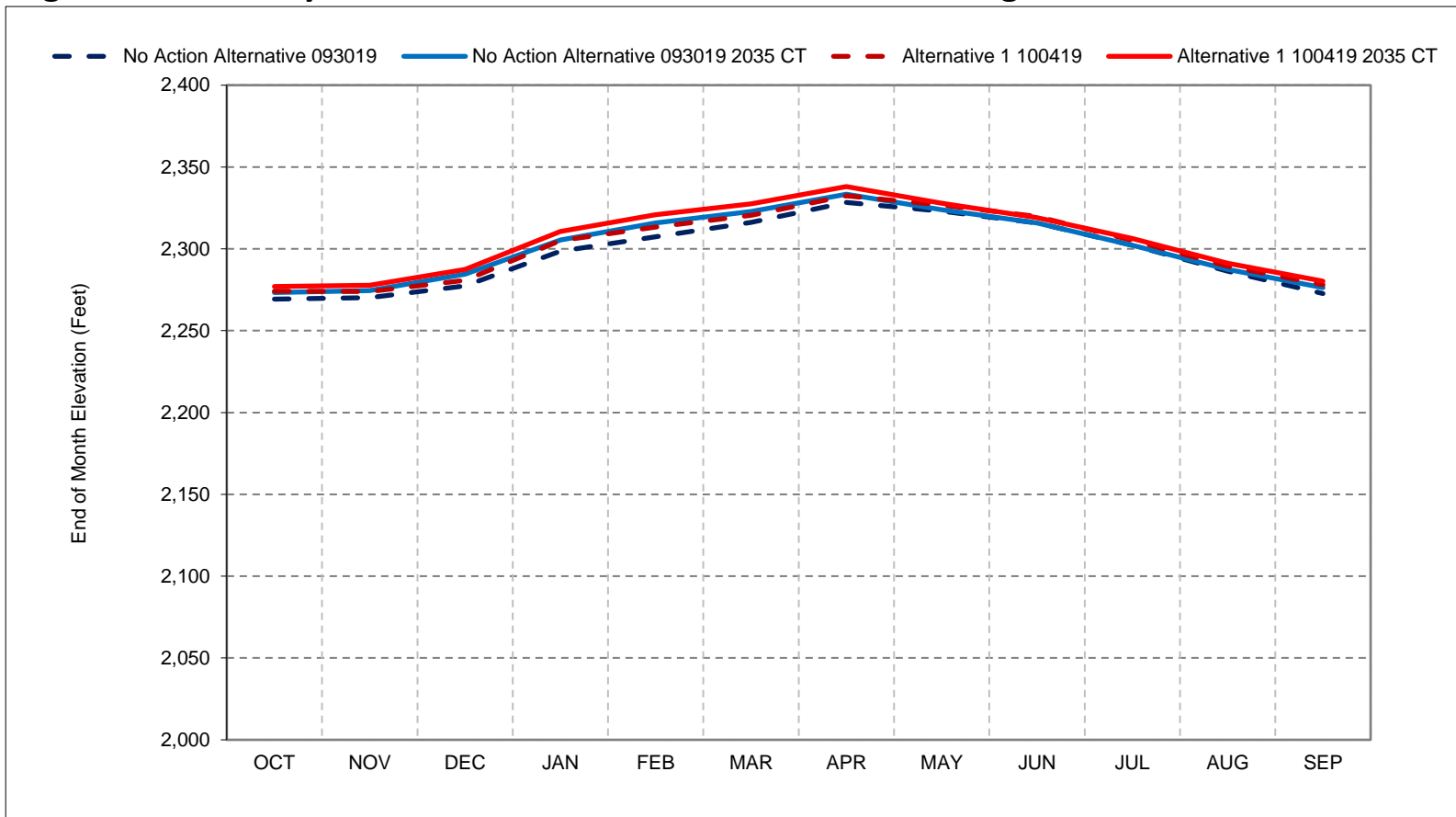
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-4. Trinity Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

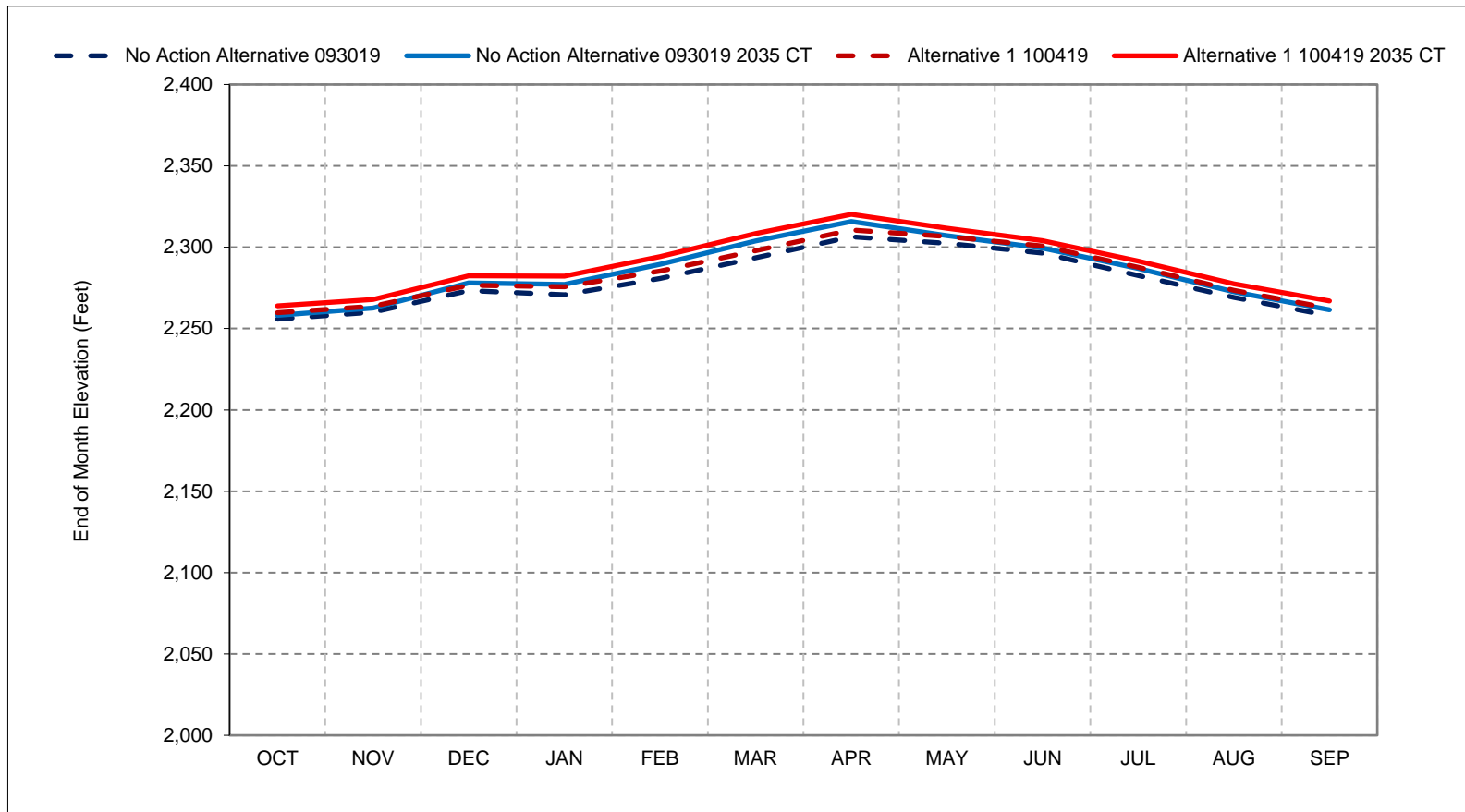
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-5. Trinity Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

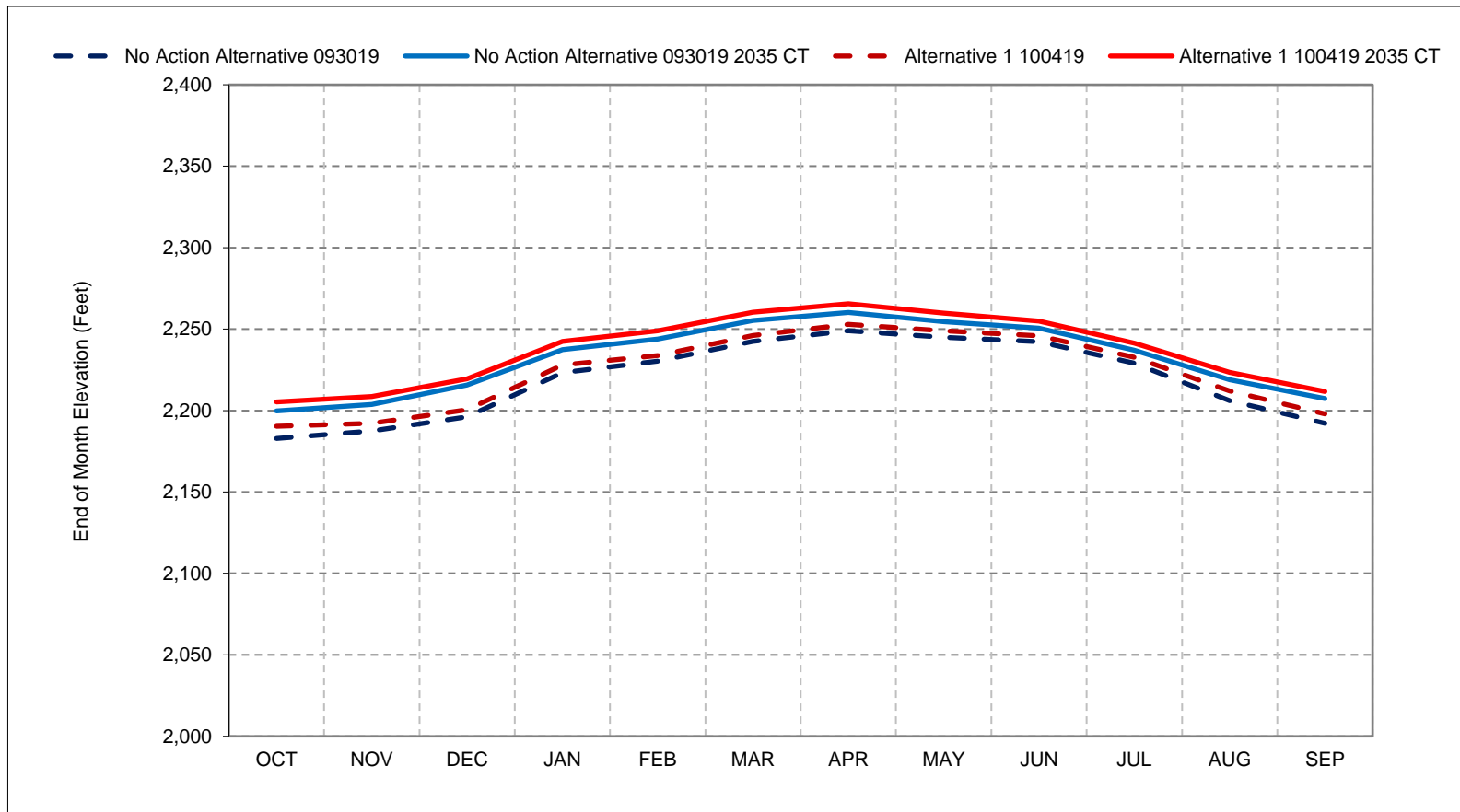
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1a-6. Trinity Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

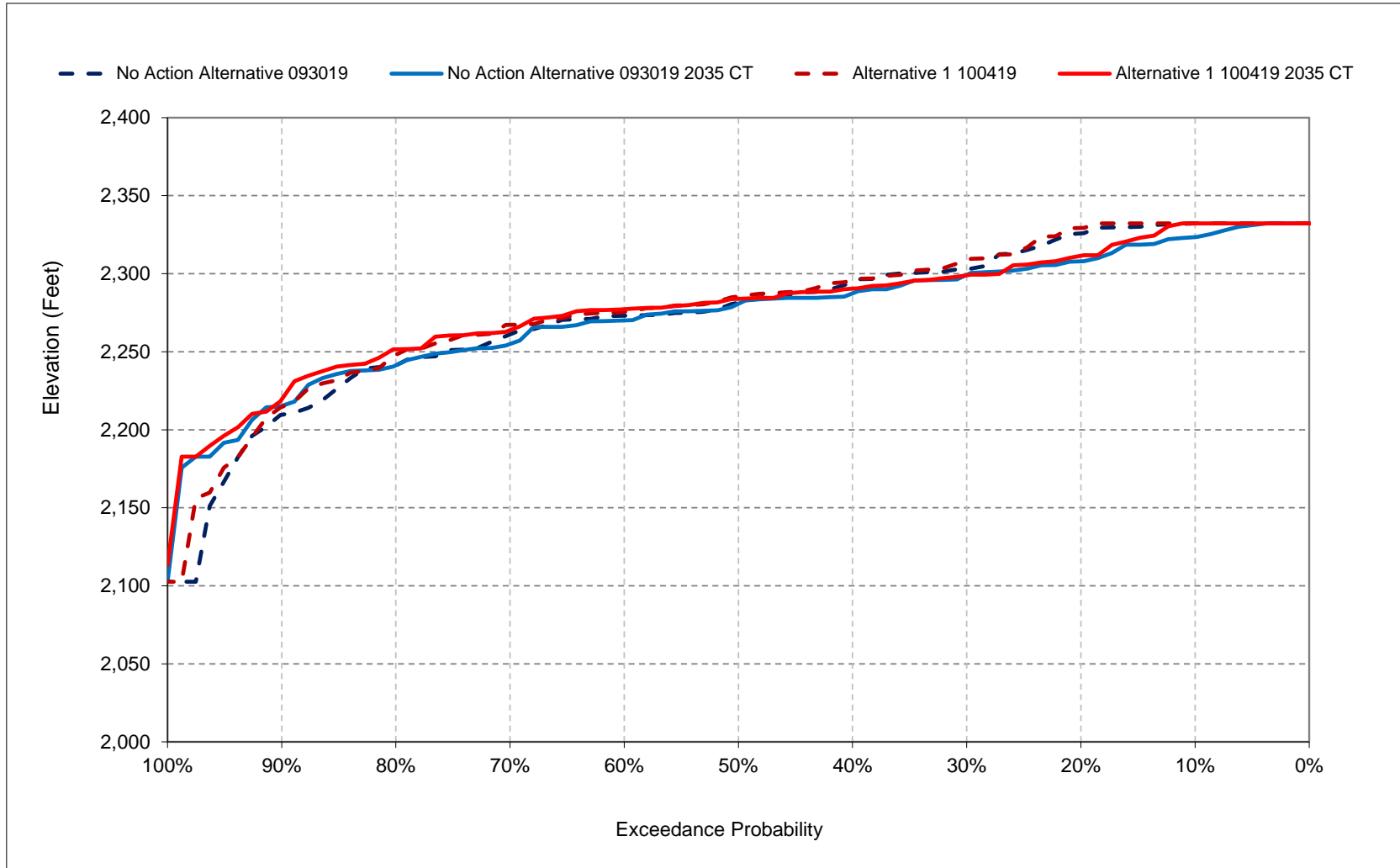
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

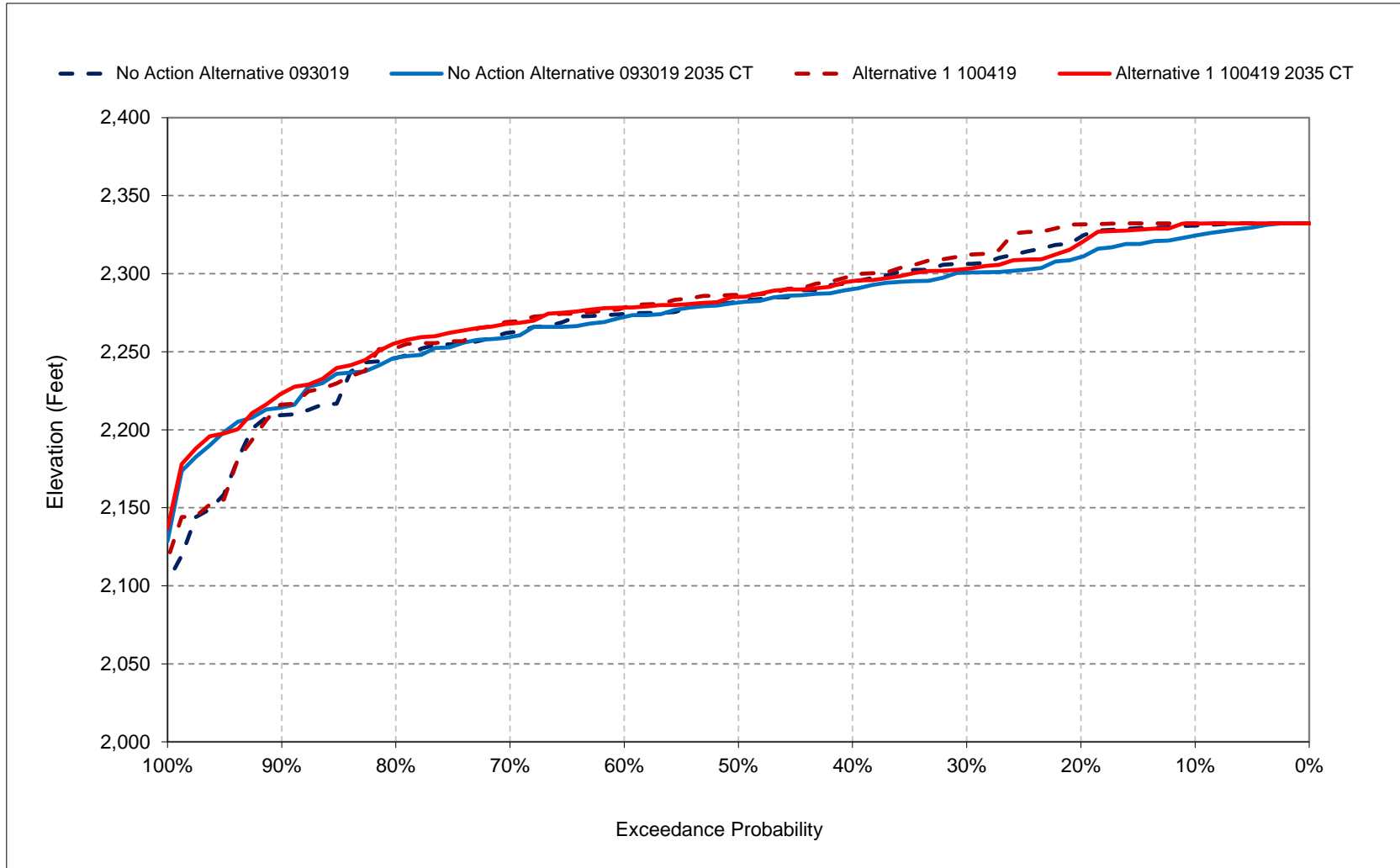
Figure 1a-7. Trinity Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

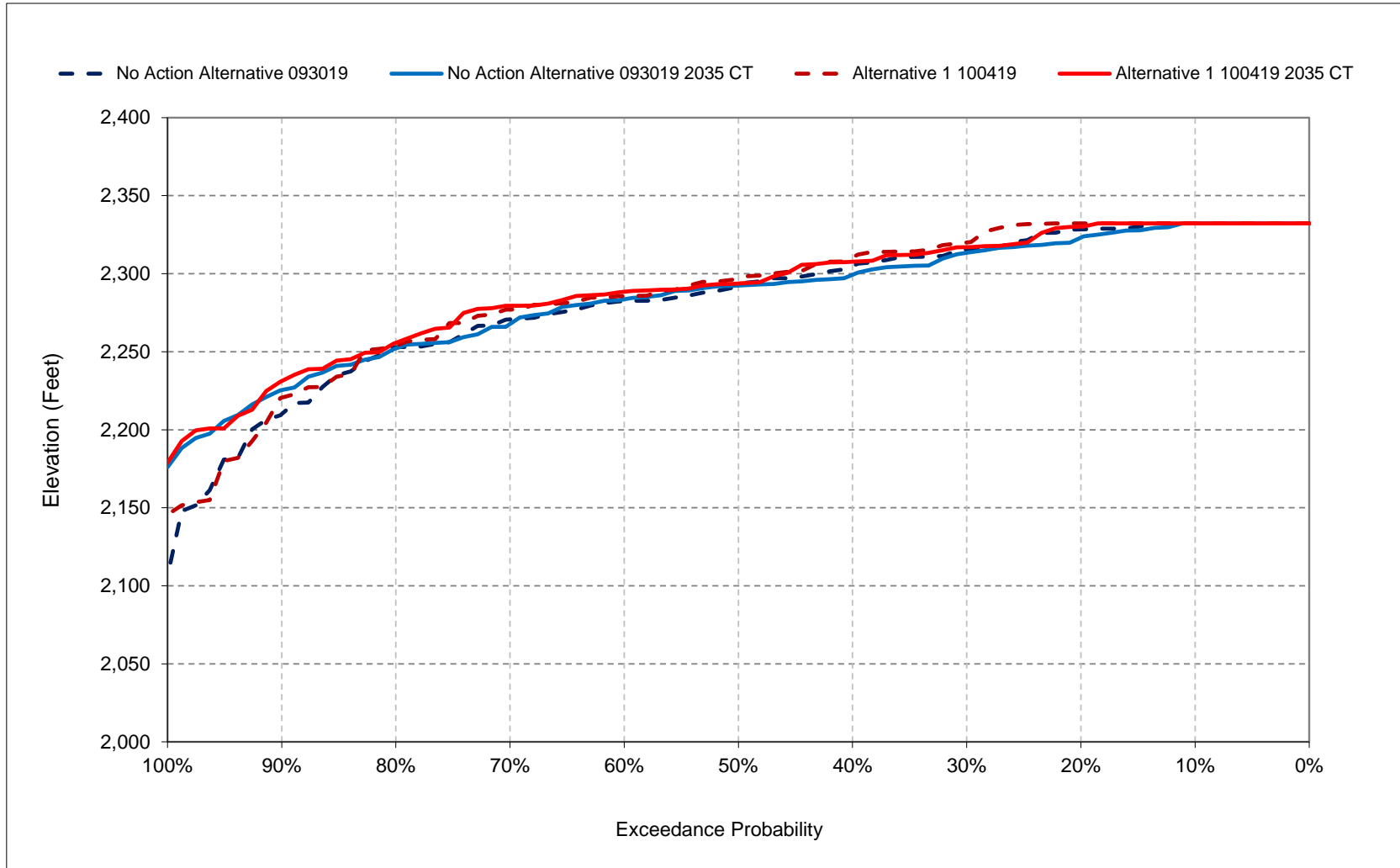
Figure 1a-8. Trinity Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

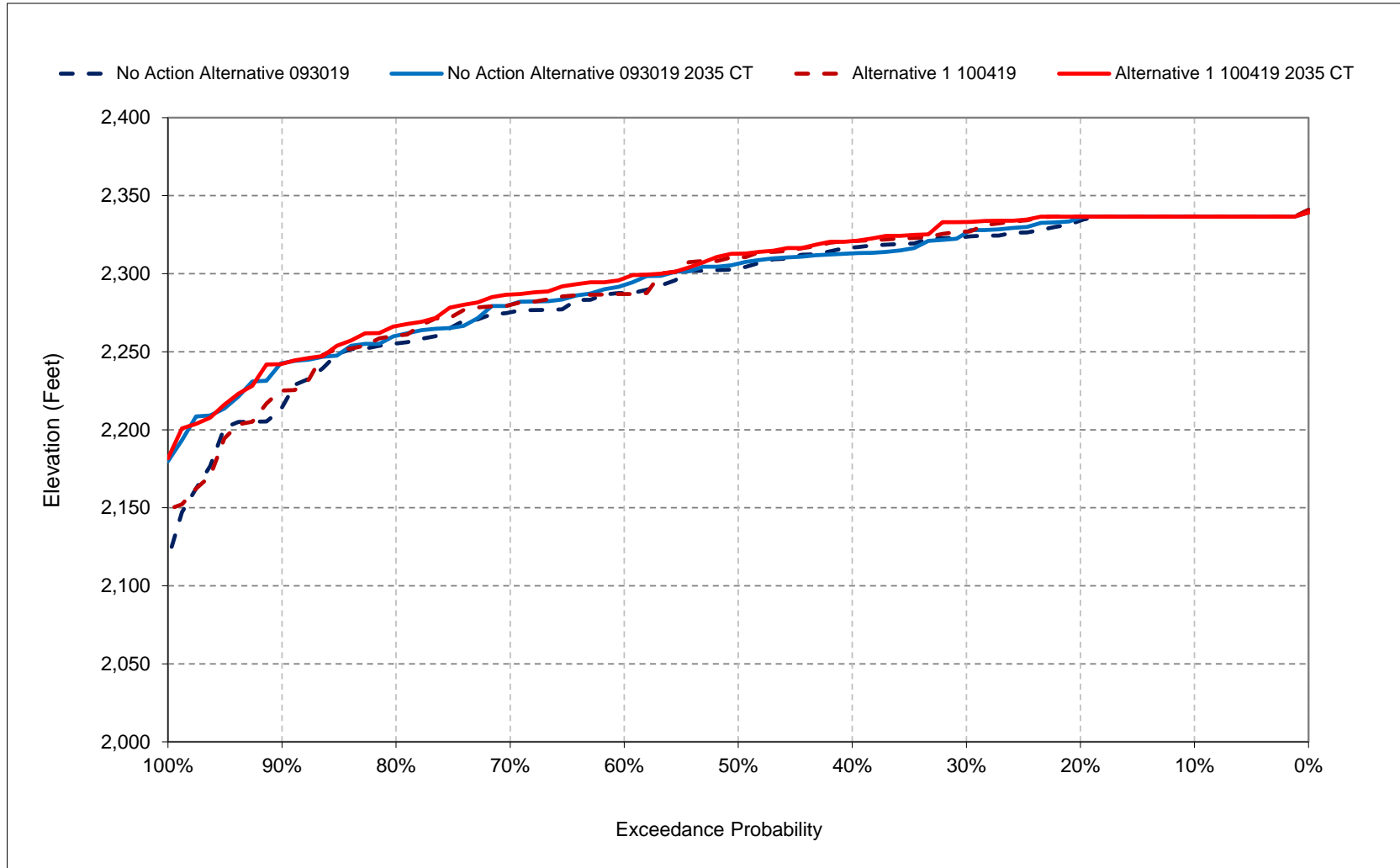
Figure 1a-9. Trinity Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

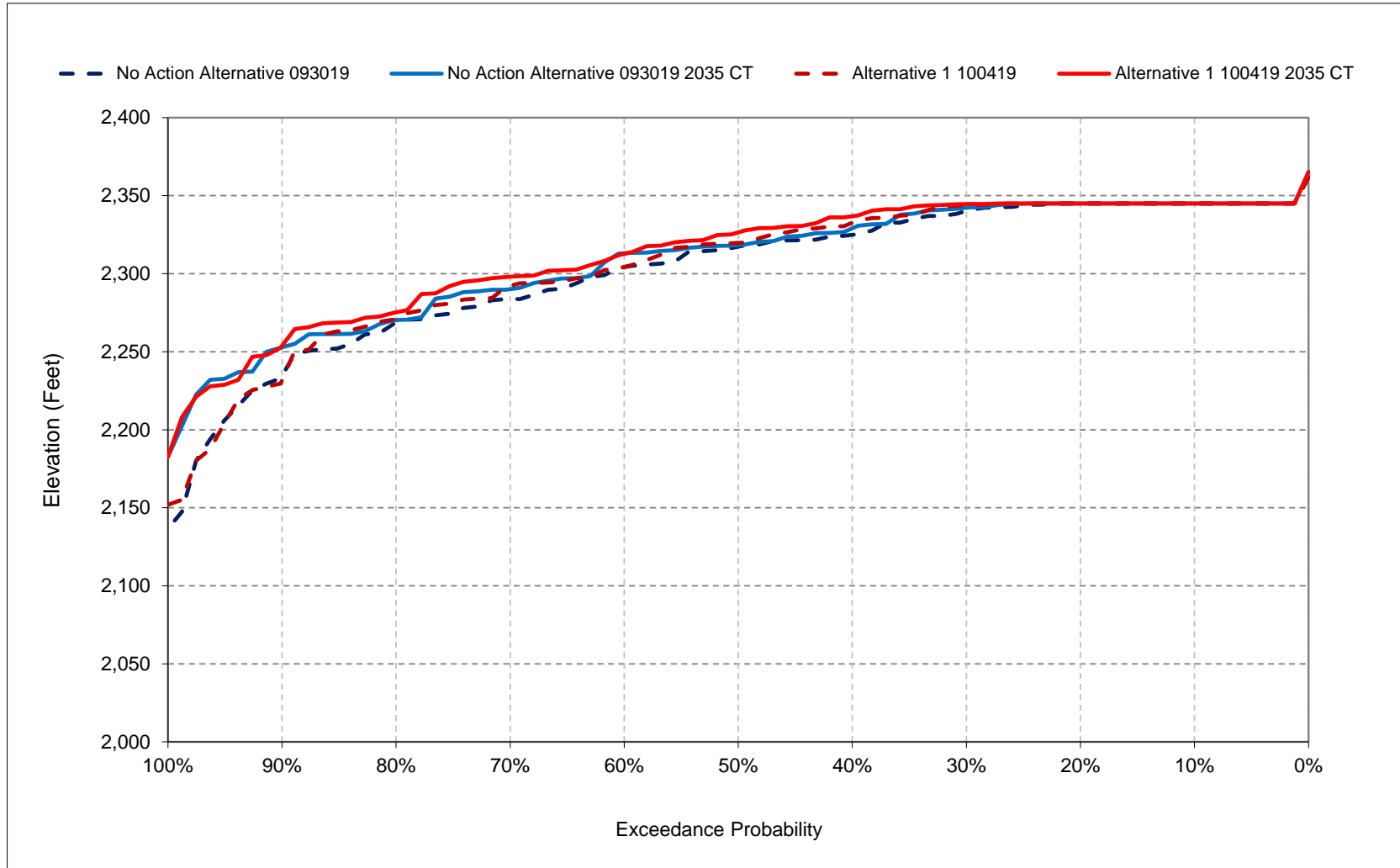
Figure 1a-10. Trinity Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

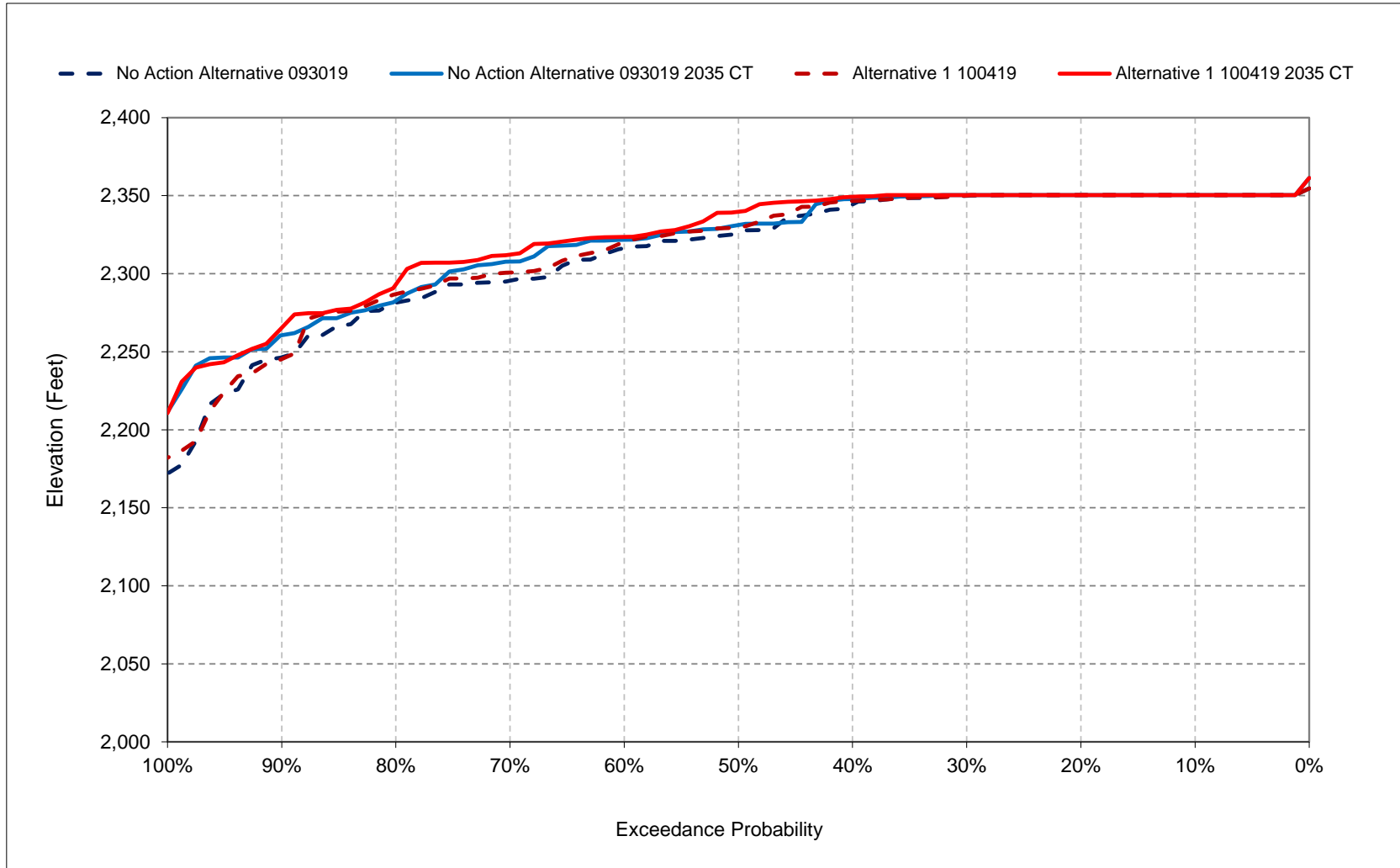
Figure 1a-11. Trinity Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

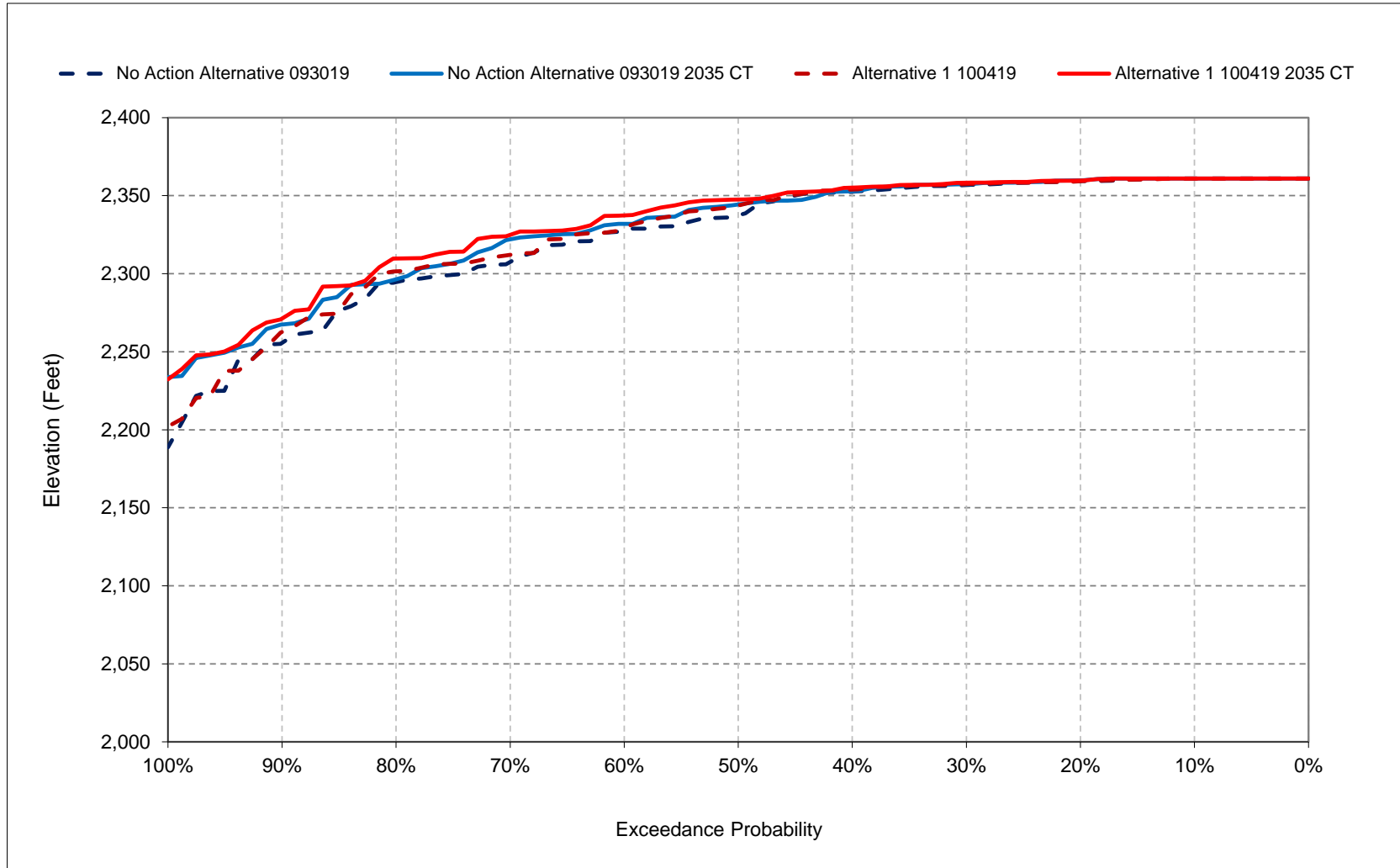
Figure 1a-12. Trinity Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

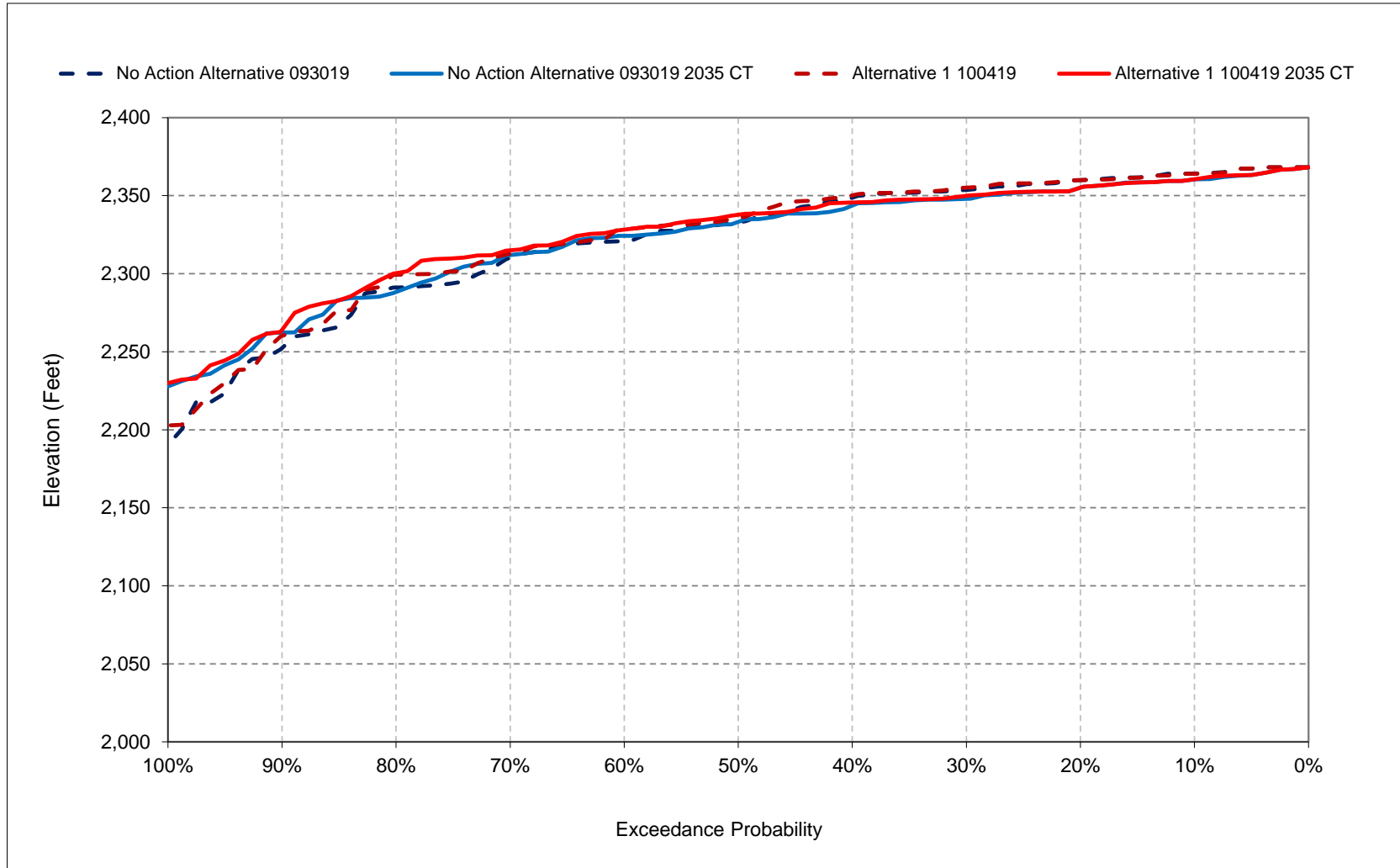
Figure 1a-13. Trinity Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

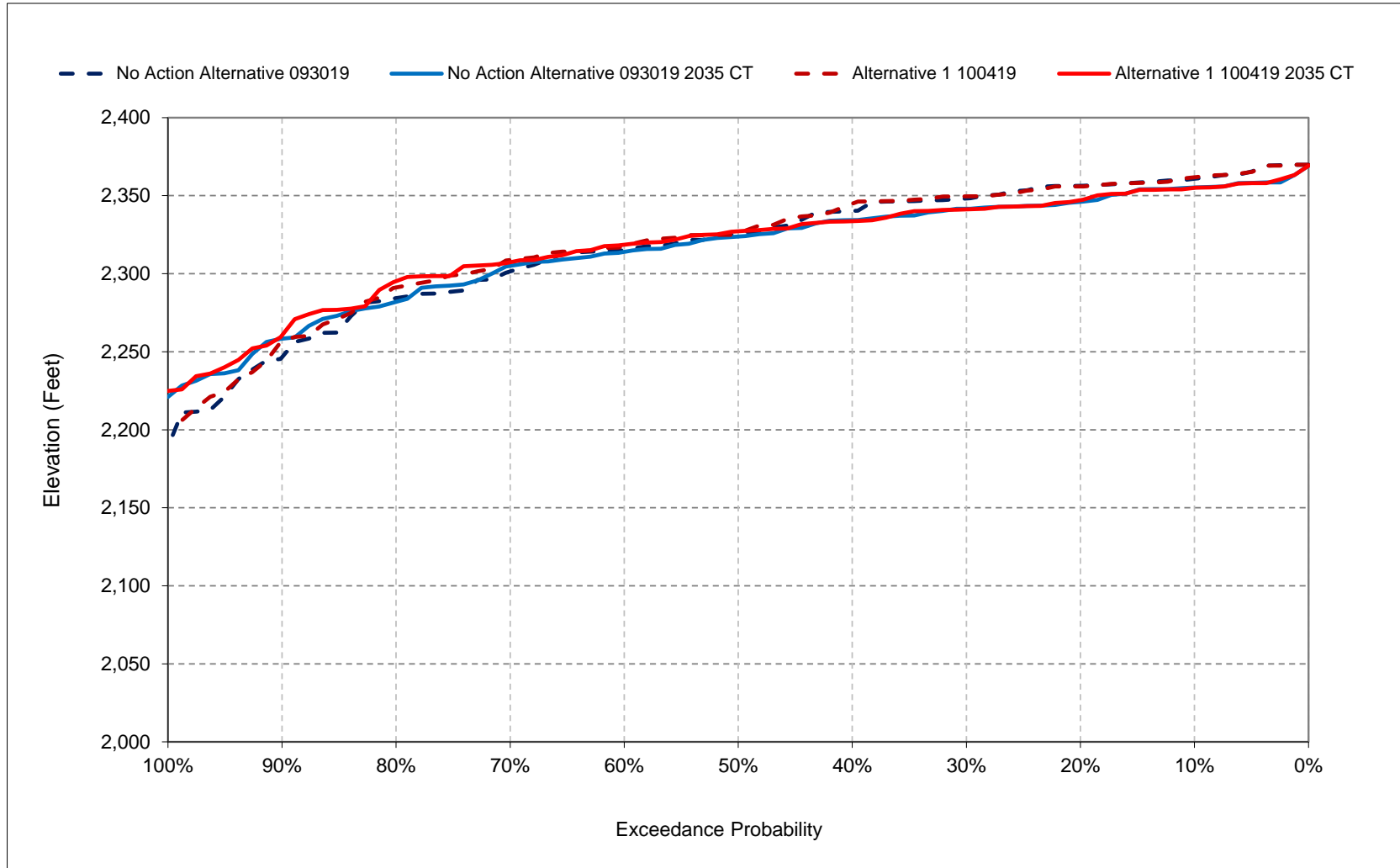
Figure 1a-14. Trinity Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

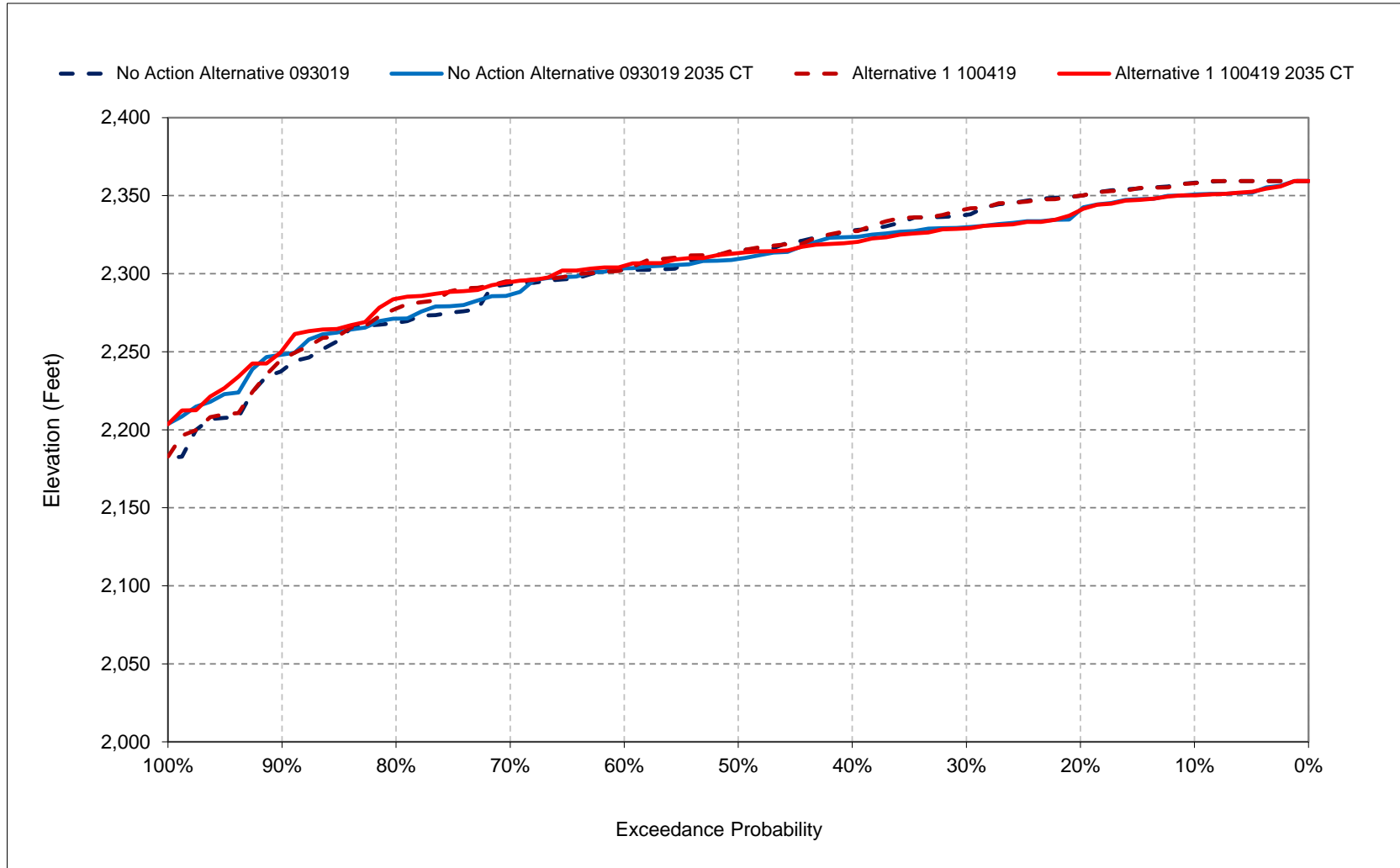
Figure 1a-15. Trinity Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

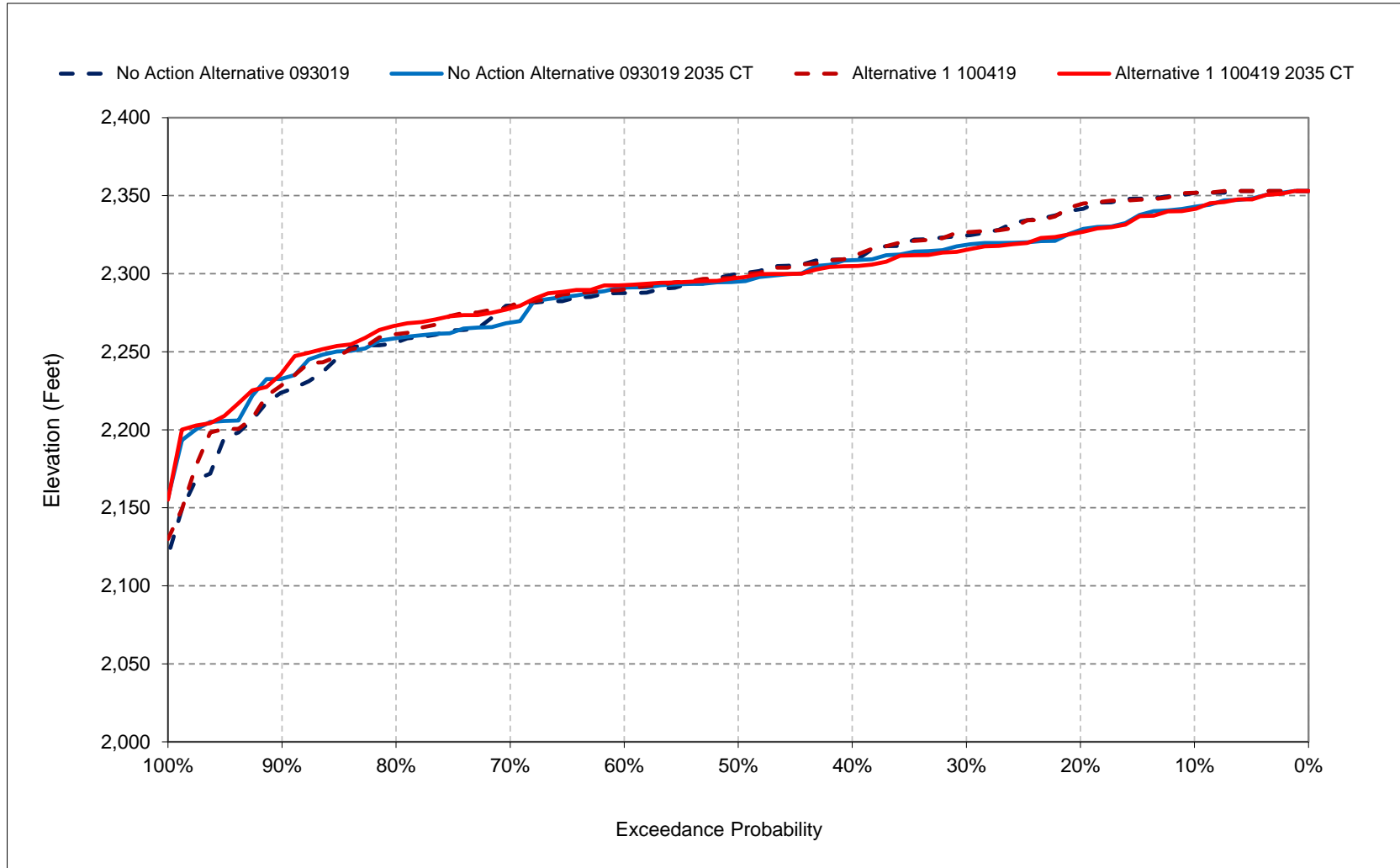
Figure 1a-16. Trinity Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

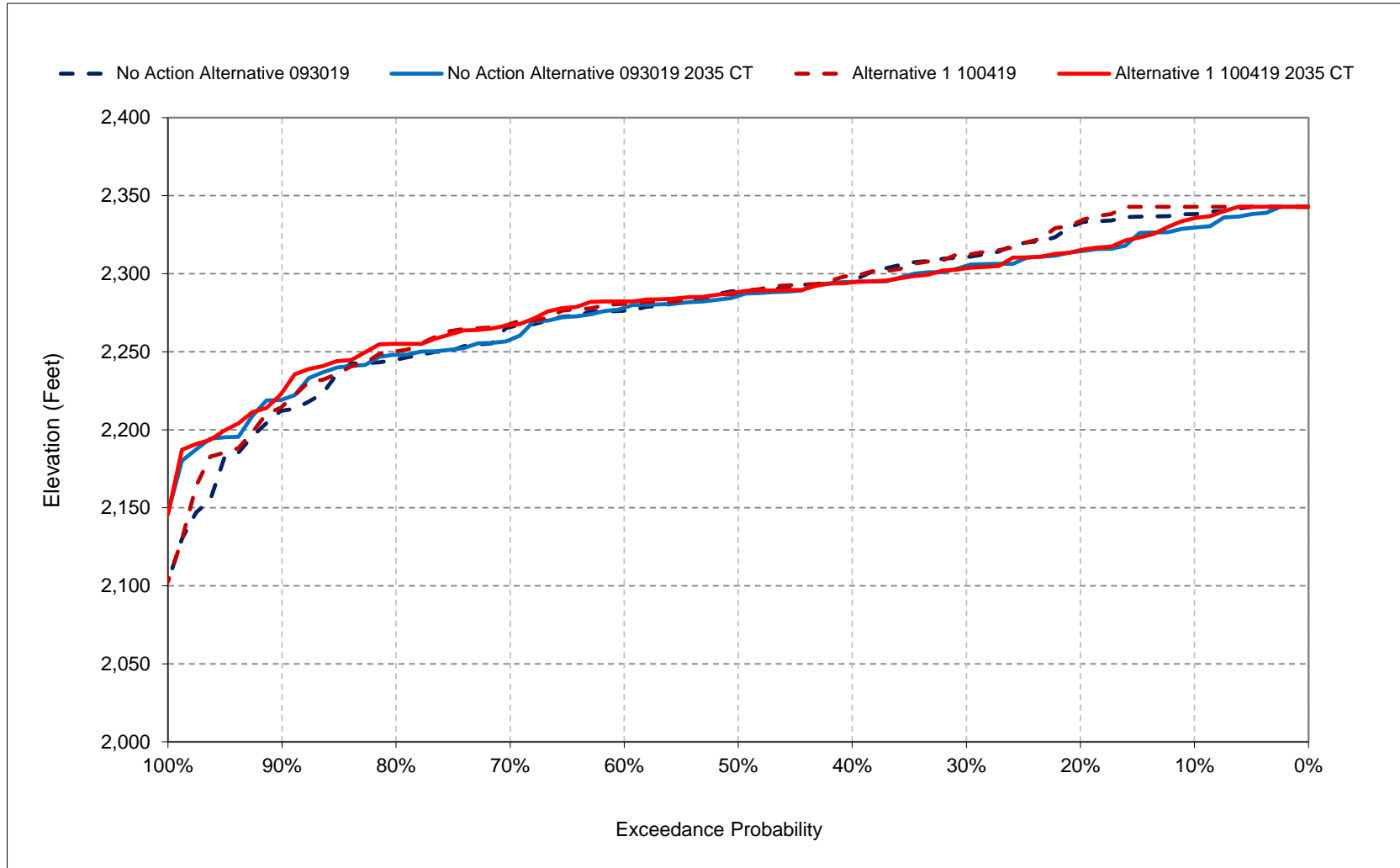
Figure 1a-17. Trinity Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1a-18. Trinity Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-1. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,222	3,252	3,335	3,602	3,875	4,229	4,552	4,552	4,500	4,002	3,670	3,200
20%	3,004	2,926	3,303	3,539	3,744	4,117	4,544	4,552	4,402	3,789	3,476	3,085
30%	2,874	2,799	3,260	3,388	3,635	4,032	4,475	4,548	4,279	3,614	3,277	2,989
40%	2,729	2,654	3,013	3,300	3,515	3,980	4,389	4,486	4,079	3,441	3,152	2,895
50%	2,629	2,554	2,756	3,231	3,453	3,863	4,232	4,347	3,886	3,326	3,015	2,789
60%	2,519	2,482	2,618	3,007	3,358	3,713	4,103	4,203	3,791	3,151	2,843	2,661
70%	2,247	2,278	2,394	2,737	3,252	3,426	3,960	3,951	3,406	2,891	2,655	2,446
80%	2,008	2,064	2,169	2,518	2,884	3,360	3,605	3,352	2,946	2,516	2,222	2,167
90%	1,399	1,236	1,702	1,934	2,302	2,591	2,710	2,569	2,239	1,805	1,592	1,539
Long Term												
Full Simulation Period ^d	2,456	2,421	2,641	2,951	3,251	3,609	3,951	3,936	3,640	3,109	2,799	2,561
Water Year Types ^{b,c}												
Wet (32%)	2,839	2,685	2,920	3,390	3,652	3,892	4,360	4,492	4,340	3,818	3,477	2,984
Above Normal (16%)	2,683	2,573	2,832	3,232	3,517	4,065	4,501	4,489	4,133	3,458	3,115	2,821
Below Normal (13%)	2,670	2,713	2,840	3,139	3,504	3,874	4,199	4,094	3,725	3,126	2,763	2,711
Dry (24%)	2,496	2,595	2,854	2,680	3,095	3,551	3,845	3,766	3,400	2,916	2,645	2,579
Critical (15%)	1,120	1,124	1,295	1,976	2,121	2,356	2,419	2,268	1,914	1,499	1,277	1,196

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,650	3,928	4,223	4,552	4,552	4,500	4,015	3,672	3,400
20%	3,250	3,252	3,321	3,604	3,793	4,123	4,518	4,552	4,408	3,806	3,464	3,377
30%	3,170	3,162	3,305	3,526	3,705	4,044	4,454	4,535	4,251	3,594	3,257	3,197
40%	3,008	3,029	3,268	3,383	3,615	3,998	4,369	4,440	4,019	3,444	3,120	3,023
50%	2,793	2,818	3,209	3,322	3,514	3,964	4,268	4,324	3,872	3,288	3,008	2,940
60%	2,721	2,702	2,920	3,226	3,434	3,831	4,139	4,173	3,681	3,164	2,798	2,735
70%	2,427	2,500	2,624	2,927	3,263	3,605	4,038	3,892	3,467	2,889	2,708	2,580
80%	2,241	2,321	2,311	2,601	2,989	3,405	3,792	3,520	3,087	2,681	2,430	2,357
90%	1,559	1,415	1,859	2,042	2,519	2,682	2,772	2,781	2,426	2,012	1,741	1,628
Long Term												
Full Simulation Period ^d	2,616	2,626	2,791	3,062	3,330	3,666	3,996	3,961	3,637	3,127	2,822	2,713
Water Year Types ^{b,c}												
Wet (32%)	3,133	3,120	3,224	3,422	3,655	3,880	4,336	4,474	4,312	3,783	3,436	3,260
Above Normal (16%)	2,781	2,750	2,960	3,353	3,561	4,046	4,471	4,437	4,059	3,399	3,054	2,922
Below Normal (13%)	2,732	2,762	2,879	3,381	3,670	4,005	4,304	4,153	3,699	3,139	2,818	2,767
Dry (24%)	2,608	2,675	2,921	2,828	3,239	3,691	3,977	3,854	3,448	3,008	2,743	2,687
Critical (15%)	1,229	1,213	1,374	2,063	2,218	2,441	2,497	2,338	1,977	1,601	1,379	1,296

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	28	0	14	47	53	-5	0	0	0	13	2	200
20%	246	326	18	65	49	7	-26	0	6	18	-13	293
30%	296	363	45	138	70	12	-21	-13	-27	-20	-20	208
40%	278	375	256	83	101	18	-21	-47	-59	3	-31	127
50%	164	264	453	91	60	102	36	-22	-15	-39	-7	152
60%	202	220	302	219	76	118	36	-30	-110	13	-45	74
70%	180	222	230	190	11	179	78	-59	62	-2	53	134
80%	233	257	141	84	106	44	187	167	140	165	208	190
90%	160	179	158	108	217	91	62	212	187	207	150	89
Long Term												
Full Simulation Period ^d	160	205	150	111	80	57	45	26	-3	19	23	152
Water Year Types ^{b,c}												
Wet (32%)	293	435	303	32	3	-12	-24	-18	-28	-35	-41	275
Above Normal (16%)	98	177	128	121	44	-19	-30	-52	-74	-59	-61	101
Below Normal (13%)	63	49	39	241	166	131	104	59	-26	13	55	55
Dry (24%)	112	80	68	148	144	139	132	88	48	91	98	108
Critical (15%)	109	90	79	87	97	85	78	70	63	102	102	100

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 3-2. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,137	3,250	3,334	3,621	3,879	4,249	4,552	4,552	4,419	3,869	3,500	3,155
20%	2,908	2,896	3,299	3,552	3,755	4,139	4,551	4,552	4,292	3,712	3,386	2,986
30%	2,781	2,703	3,252	3,388	3,612	4,066	4,482	4,498	4,176	3,510	3,170	2,893
40%	2,670	2,612	2,997	3,327	3,548	4,000	4,435	4,374	3,971	3,311	3,001	2,809
50%	2,514	2,510	2,738	3,186	3,427	3,918	4,290	4,281	3,843	3,187	2,885	2,749
60%	2,437	2,390	2,529	3,054	3,304	3,717	4,145	4,113	3,672	3,040	2,803	2,550
70%	2,187	2,218	2,385	2,786	3,247	3,490	3,922	3,903	3,424	2,960	2,581	2,323
80%	1,979	2,023	2,203	2,471	2,938	3,416	3,669	3,416	3,005	2,607	2,297	2,137
90%	1,501	1,379	1,844	2,118	2,413	2,564	2,851	2,625	2,308	1,943	1,695	1,657
Long Term												
Full Simulation Period ^d	2,409	2,405	2,650	2,984	3,283	3,673	4,016	3,956	3,620	3,071	2,775	2,534
Water Year Types ^{b,c}												
Wet (32%)	2,747	2,629	2,892	3,392	3,644	3,910	4,363	4,450	4,228	3,686	3,376	2,886
Above Normal (16%)	2,494	2,447	2,726	3,236	3,503	4,074	4,502	4,425	4,036	3,332	2,989	2,681
Below Normal (13%)	2,645	2,703	2,854	3,230	3,558	3,978	4,281	4,111	3,712	3,103	2,761	2,702
Dry (24%)	2,494	2,622	2,893	2,692	3,120	3,623	3,949	3,834	3,438	2,923	2,661	2,601
Critical (15%)	1,227	1,239	1,450	2,085	2,280	2,528	2,608	2,440	2,069	1,677	1,441	1,347

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,654	3,940	4,249	4,552	4,552	4,423	3,875	3,502	3,400
20%	3,208	3,218	3,327	3,599	3,815	4,158	4,547	4,552	4,256	3,722	3,396	3,277
30%	3,062	3,134	3,289	3,524	3,690	4,106	4,482	4,485	4,084	3,415	3,166	3,129
40%	2,822	2,980	3,255	3,396	3,639	4,012	4,438	4,339	3,851	3,302	3,006	2,953
50%	2,719	2,860	3,196	3,328	3,510	3,970	4,288	4,260	3,744	3,199	2,933	2,851
60%	2,632	2,648	2,867	3,251	3,442	3,854	4,173	4,125	3,630	3,080	2,801	2,723
70%	2,491	2,514	2,642	2,996	3,283	3,595	4,080	3,859	3,423	2,901	2,602	2,548
80%	2,205	2,311	2,398	2,665	3,064	3,420	3,829	3,591	3,130	2,726	2,481	2,382
90%	1,730	1,588	1,874	2,317	2,704	2,667	3,123	2,891	2,541	2,203	1,951	1,872
Long Term												
Full Simulation Period ^d	2,605	2,640	2,818	3,106	3,377	3,729	4,062	3,974	3,605	3,089	2,798	2,717
Water Year Types ^{b,c}												
Wet (32%)	3,081	3,096	3,216	3,432	3,658	3,897	4,344	4,420	4,179	3,643	3,323	3,205
Above Normal (16%)	2,662	2,688	2,936	3,381	3,580	4,060	4,476	4,367	3,935	3,267	2,923	2,813
Below Normal (13%)	2,743	2,775	2,913	3,400	3,690	4,051	4,351	4,146	3,683	3,110	2,819	2,791
Dry (24%)	2,627	2,727	2,942	2,870	3,296	3,785	4,095	3,928	3,490	3,035	2,772	2,729
Critical (15%)	1,347	1,328	1,532	2,223	2,396	2,618	2,683	2,502	2,127	1,768	1,546	1,470

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	113	2	15	33	60	0	0	0	4	7	2	245
20%	300	321	29	47	60	20	-4	0	-36	10	10	292
30%	281	431	37	136	78	40	0	-13	-92	-94	-4	236
40%	152	368	258	69	91	12	3	-34	-120	-10	5	144
50%	205	350	458	142	83	52	-2	-22	-99	11	48	103
60%	195	257	338	197	138	137	28	12	-42	40	-2	173
70%	304	297	257	210	37	104	158	-44	-1	-59	21	225
80%	226	288	195	194	126	4	160	175	125	119	183	246
90%	229	210	29	198	291	103	273	265	234	260	256	214
Long Term												
Full Simulation Period ^d	196	235	168	122	94	56	46	18	-15	18	23	183
Water Year Types ^{b,c}												
Wet (32%)	334	467	324	41	14	-14	-18	-31	-49	-43	-53	319
Above Normal (16%)	168	241	210	145	77	-14	-25	-58	-101	-65	-66	133
Below Normal (13%)	98	72	59	170	132	73	70	35	-30	7	58	89
Dry (24%)	133	105	49	178	176	162	146	94	52	112	111	128
Critical (15%)	120	89	83	138	115	90	76	62	57	91	105	123

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-3. Shasta Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,222	3,252	3,335	3,602	3,875	4,229	4,552	4,552	4,500	4,002	3,670	3,200
20%	3,004	2,926	3,303	3,539	3,744	4,117	4,544	4,552	4,402	3,789	3,476	3,085
30%	2,874	2,799	3,260	3,388	3,635	4,032	4,475	4,548	4,279	3,614	3,277	2,989
40%	2,729	2,654	3,013	3,300	3,515	3,980	4,389	4,486	4,079	3,441	3,152	2,895
50%	2,629	2,554	2,756	3,231	3,453	3,863	4,232	4,347	3,886	3,326	3,015	2,789
60%	2,519	2,482	2,618	3,007	3,358	3,713	4,103	4,203	3,791	3,151	2,843	2,661
70%	2,247	2,278	2,394	2,737	3,252	3,426	3,960	3,951	3,406	2,891	2,655	2,446
80%	2,008	2,064	2,169	2,518	2,884	3,360	3,605	3,352	2,946	2,516	2,222	2,167
90%	1,399	1,236	1,702	1,934	2,302	2,591	2,710	2,569	2,239	1,805	1,592	1,539
Long Term												
Full Simulation Period ^d	2,456	2,421	2,641	2,951	3,251	3,609	3,951	3,936	3,640	3,109	2,799	2,561
Water Year Types ^{b,c}												
Wet (32%)	2,839	2,685	2,920	3,390	3,652	3,892	4,360	4,492	4,340	3,818	3,477	2,984
Above Normal (16%)	2,683	2,573	2,832	3,232	3,517	4,065	4,501	4,489	4,133	3,458	3,115	2,821
Below Normal (13%)	2,670	2,713	2,840	3,139	3,504	3,874	4,199	4,094	3,725	3,126	2,763	2,711
Dry (24%)	2,496	2,595	2,854	2,680	3,095	3,551	3,845	3,766	3,400	2,916	2,645	2,579
Critical (15%)	1,120	1,124	1,295	1,976	2,121	2,356	2,419	2,268	1,914	1,499	1,277	1,196

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,137	3,250	3,334	3,621	3,879	4,249	4,552	4,552	4,419	3,869	3,500	3,155
20%	2,908	2,896	3,299	3,552	3,755	4,139	4,551	4,552	4,292	3,712	3,386	2,986
30%	2,781	2,703	3,252	3,388	3,612	4,066	4,482	4,498	4,176	3,510	3,170	2,893
40%	2,670	2,612	2,997	3,327	3,548	4,000	4,435	4,374	3,971	3,311	3,001	2,809
50%	2,514	2,510	2,738	3,186	3,427	3,918	4,290	4,281	3,843	3,187	2,885	2,749
60%	2,437	2,390	2,529	3,054	3,304	3,717	4,145	4,113	3,672	3,040	2,803	2,550
70%	2,187	2,218	2,385	2,786	3,247	3,490	3,922	3,903	3,424	2,960	2,581	2,323
80%	1,979	2,023	2,203	2,471	2,938	3,416	3,669	3,416	3,005	2,607	2,297	2,137
90%	1,501	1,379	1,844	2,118	2,413	2,564	2,851	2,625	2,308	1,943	1,695	1,657
Long Term												
Full Simulation Period ^d	2,409	2,405	2,650	2,984	3,283	3,673	4,016	3,956	3,620	3,071	2,775	2,534
Water Year Types ^{b,c}												
Wet (32%)	2,747	2,629	2,892	3,392	3,644	3,910	4,363	4,450	4,228	3,686	3,376	2,886
Above Normal (16%)	2,494	2,447	2,726	3,236	3,503	4,074	4,502	4,425	4,036	3,332	2,989	2,681
Below Normal (13%)	2,645	2,703	2,854	3,230	3,558	3,978	4,281	4,111	3,712	3,103	2,761	2,702
Dry (24%)	2,494	2,622	2,893	2,692	3,120	3,623	3,949	3,834	3,438	2,923	2,661	2,601
Critical (15%)	1,227	1,239	1,450	2,085	2,280	2,528	2,608	2,440	2,069	1,677	1,441	1,347

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-86	-2	-1	19	5	20	0	0	-81	-134	-170	-45
20%	-96	-30	-5	13	11	22	7	0	-110	-76	-90	-99
30%	-92	-96	-8	1	-24	34	7	-50	-103	-104	-107	-95
40%	-59	-43	-15	27	33	20	46	-113	-107	-129	-151	-86
50%	-115	-45	-18	-46	-26	56	57	-65	-43	-139	-130	-40
60%	-81	-91	-89	47	-54	4	42	-90	-119	-111	-40	-111
70%	-60	-61	-9	50	-5	64	-38	-48	18	69	-73	-123
80%	-29	-41	33	-47	54	56	64	64	59	91	76	-31
90%	103	143	143	184	111	-27	141	57	69	137	103	119
Long Term												
Full Simulation Period ^d	-47	-16	8	32	32	64	65	20	-21	-37	-24	-27
Water Year Types ^{b,c}												
Wet (32%)	-92	-56	-29	2	-8	18	3	-42	-112	-132	-101	-98
Above Normal (16%)	-189	-126	-106	5	-13	9	1	-64	-98	-125	-126	-140
Below Normal (13%)	-25	-11	14	91	54	104	82	16	-12	-23	-2	-9
Dry (24%)	-1	26	39	12	25	72	104	68	38	7	16	22
Critical (15%)	106	115	155	109	160	172	189	172	156	178	163	151

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3-4. Shasta Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,650	3,928	4,223	4,552	4,552	4,500	4,015	3,672	3,400
20%	3,250	3,252	3,321	3,604	3,793	4,123	4,518	4,552	4,408	3,806	3,464	3,377
30%	3,170	3,162	3,305	3,526	3,705	4,044	4,454	4,535	4,251	3,594	3,257	3,197
40%	3,008	3,029	3,268	3,383	3,615	3,998	4,369	4,440	4,019	3,444	3,120	3,023
50%	2,793	2,818	3,209	3,322	3,514	3,964	4,268	4,324	3,872	3,288	3,008	2,940
60%	2,721	2,702	2,920	3,226	3,434	3,831	4,139	4,173	3,681	3,164	2,798	2,735
70%	2,427	2,500	2,624	2,927	3,263	3,605	4,038	3,892	3,467	2,889	2,708	2,580
80%	2,241	2,321	2,311	2,601	2,989	3,405	3,792	3,520	3,087	2,681	2,430	2,357
90%	1,559	1,415	1,859	2,042	2,519	2,682	2,772	2,781	2,426	2,012	1,741	1,628
Long Term												
Full Simulation Period ^d	2,616	2,626	2,791	3,062	3,330	3,666	3,996	3,961	3,637	3,127	2,822	2,713
Water Year Types ^{b,c}												
Wet (32%)	3,133	3,120	3,224	3,422	3,655	3,880	4,336	4,474	4,312	3,783	3,436	3,260
Above Normal (16%)	2,781	2,750	2,960	3,353	3,561	4,046	4,471	4,437	4,059	3,399	3,054	2,922
Below Normal (13%)	2,732	2,762	2,879	3,381	3,670	4,005	4,304	4,153	3,699	3,139	2,818	2,767
Dry (24%)	2,608	2,675	2,921	2,828	3,239	3,691	3,977	3,854	3,448	3,008	2,743	2,687
Critical (15%)	1,229	1,213	1,374	2,063	2,218	2,441	2,497	2,338	1,977	1,601	1,379	1,296

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,250	3,252	3,349	3,654	3,940	4,249	4,552	4,552	4,423	3,875	3,502	3,400
20%	3,208	3,218	3,327	3,599	3,815	4,158	4,547	4,552	4,256	3,722	3,396	3,277
30%	3,062	3,134	3,289	3,524	3,690	4,106	4,482	4,485	4,084	3,415	3,166	3,129
40%	2,822	2,980	3,255	3,396	3,639	4,012	4,438	4,339	3,851	3,302	3,006	2,953
50%	2,719	2,860	3,196	3,328	3,510	3,970	4,288	4,260	3,744	3,199	2,933	2,851
60%	2,632	2,648	2,867	3,251	3,442	3,854	4,173	4,125	3,630	3,080	2,801	2,723
70%	2,491	2,514	2,642	2,996	3,283	3,595	4,080	3,859	3,423	2,901	2,602	2,548
80%	2,205	2,311	2,398	2,665	3,064	3,420	3,829	3,591	3,130	2,726	2,481	2,382
90%	1,730	1,588	1,874	2,317	2,704	2,667	3,123	2,891	2,541	2,203	1,951	1,872
Long Term												
Full Simulation Period ^d	2,605	2,640	2,818	3,106	3,377	3,729	4,062	3,974	3,605	3,089	2,798	2,717
Water Year Types ^{b,c}												
Wet (32%)	3,081	3,096	3,216	3,432	3,658	3,897	4,344	4,420	4,179	3,643	3,323	3,205
Above Normal (16%)	2,662	2,688	2,936	3,381	3,580	4,060	4,476	4,367	3,935	3,267	2,923	2,813
Below Normal (13%)	2,743	2,775	2,913	3,400	3,690	4,051	4,351	4,146	3,683	3,110	2,819	2,791
Dry (24%)	2,627	2,727	2,942	2,870	3,296	3,785	4,095	3,928	3,490	3,035	2,772	2,729
Critical (15%)	1,347	1,328	1,532	2,223	2,396	2,618	2,683	2,502	2,127	1,768	1,546	1,470

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	4	12	26	0	0	-77	-140	-170	0
20%	-42	-34	6	-5	22	35	29	0	-152	-84	-68	-100
30%	-108	-28	-16	-2	-15	62	28	-50	-168	-179	-91	-68
40%	-186	-49	-14	13	23	14	69	-100	-168	-142	-114	-70
50%	-73	42	-13	6	-4	6	20	-65	-128	-89	-75	-89
60%	-89	-54	-53	25	8	23	34	-48	-50	-84	3	-11
70%	64	14	18	69	21	-10	42	-33	-44	12	-106	-32
80%	-36	-10	87	63	75	16	37	71	43	45	50	26
90%	171	174	14	275	185	-15	351	110	115	190	210	244
Long Term												
Full Simulation Period ^d	-12	14	27	44	47	63	66	13	-32	-38	-25	5
Water Year Types ^{b,c}												
Wet (32%)	-52	-24	-8	10	3	17	8	-54	-133	-141	-112	-55
Above Normal (16%)	-119	-61	-24	29	19	14	6	-70	-124	-131	-131	-108
Below Normal (13%)	11	13	34	19	20	46	48	-8	-16	-28	2	24
Dry (24%)	20	52	21	42	57	95	118	73	42	27	29	42
Critical (15%)	118	115	158	160	178	177	187	164	150	167	167	174

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

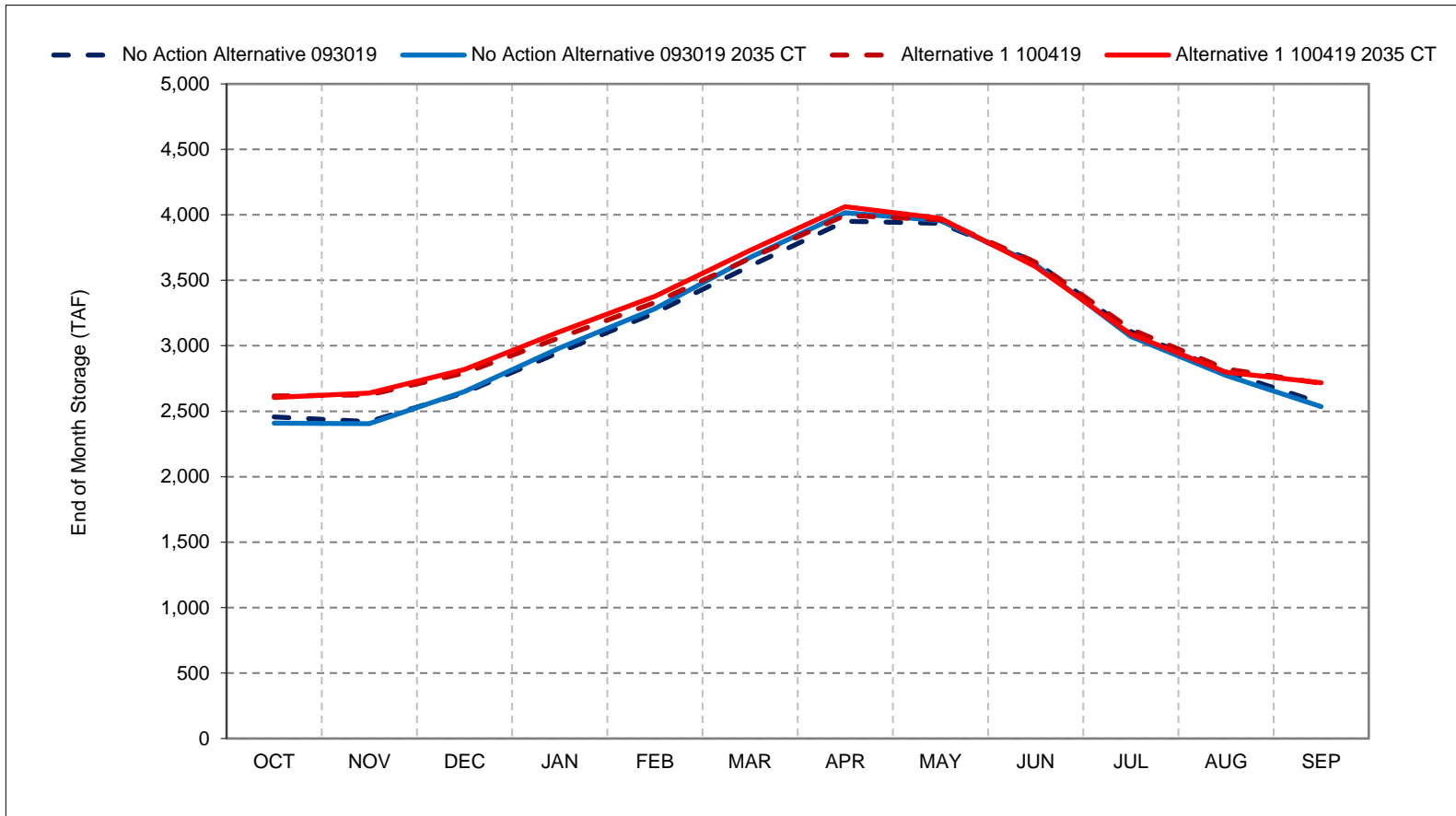
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3-1. Shasta Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

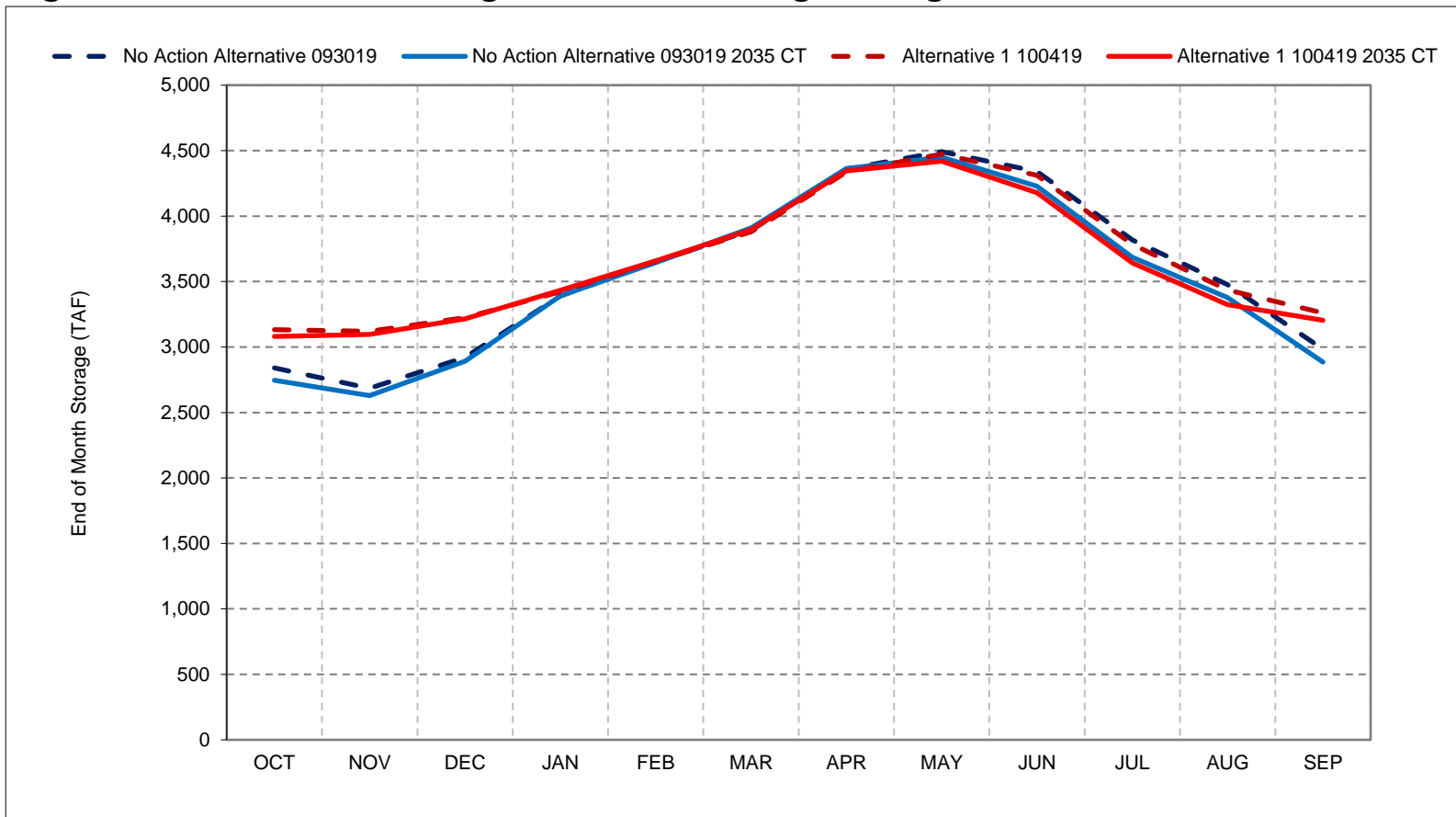
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-2. Shasta Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

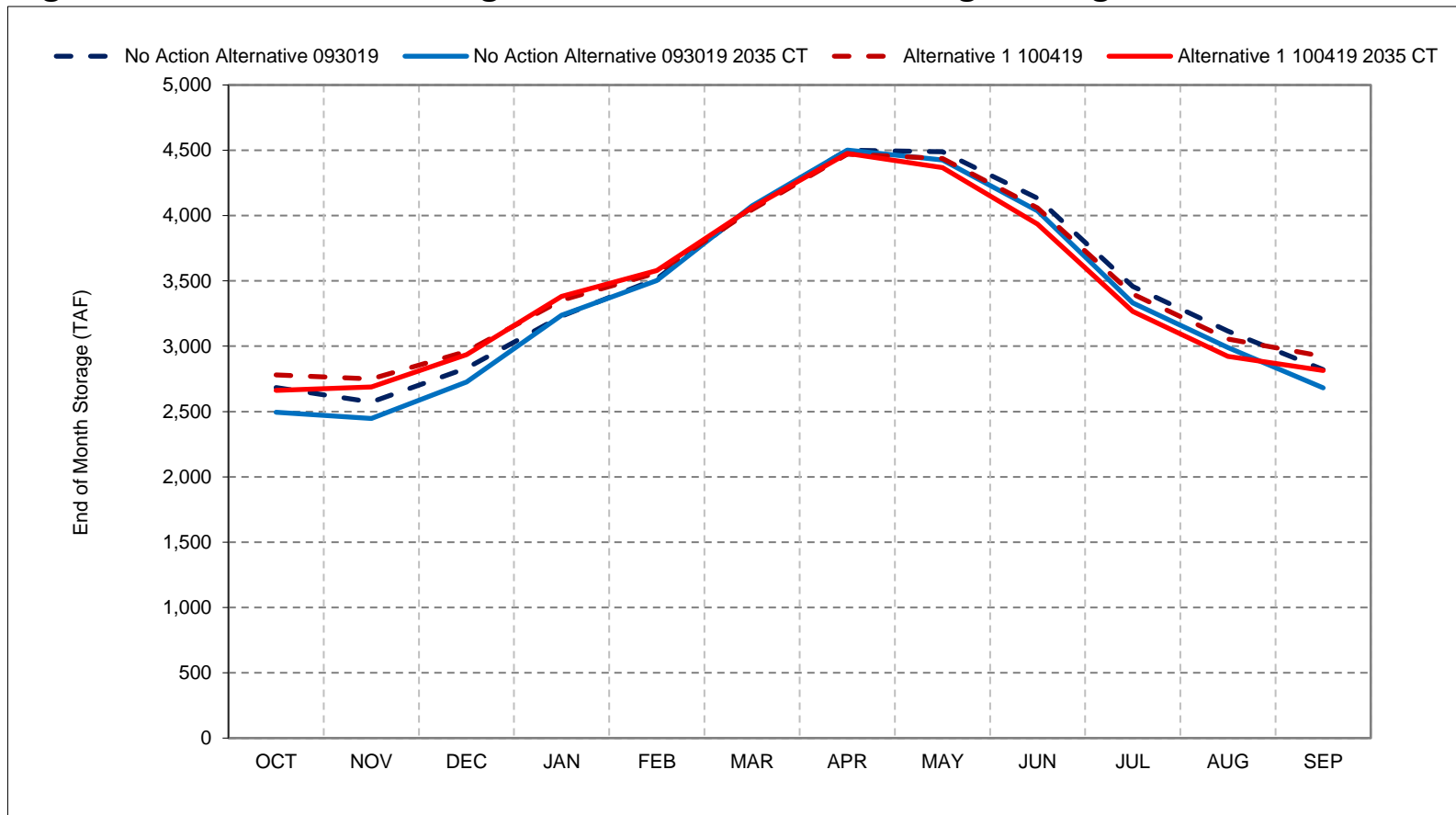
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-3. Shasta Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

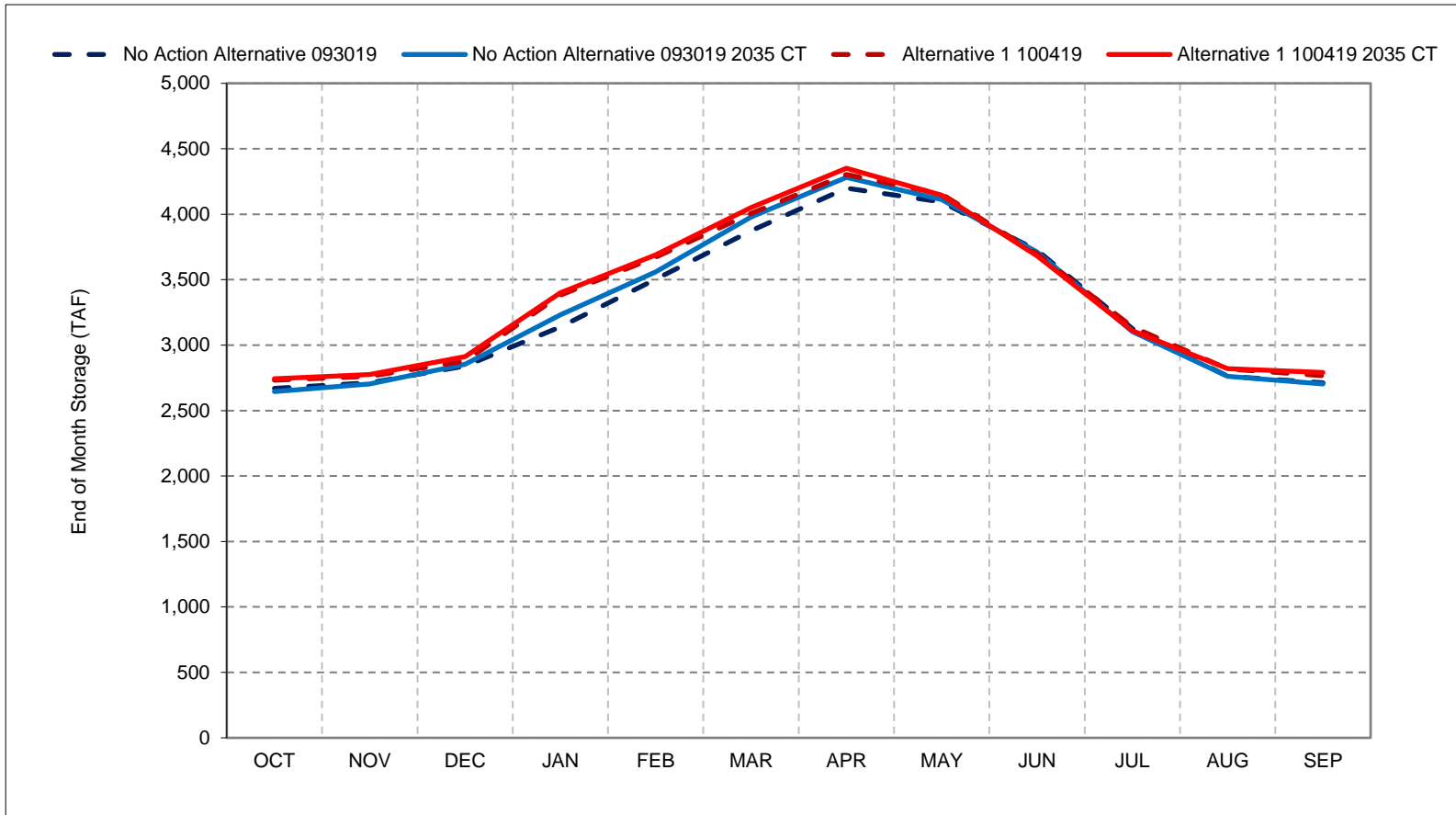
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-4. Shasta Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

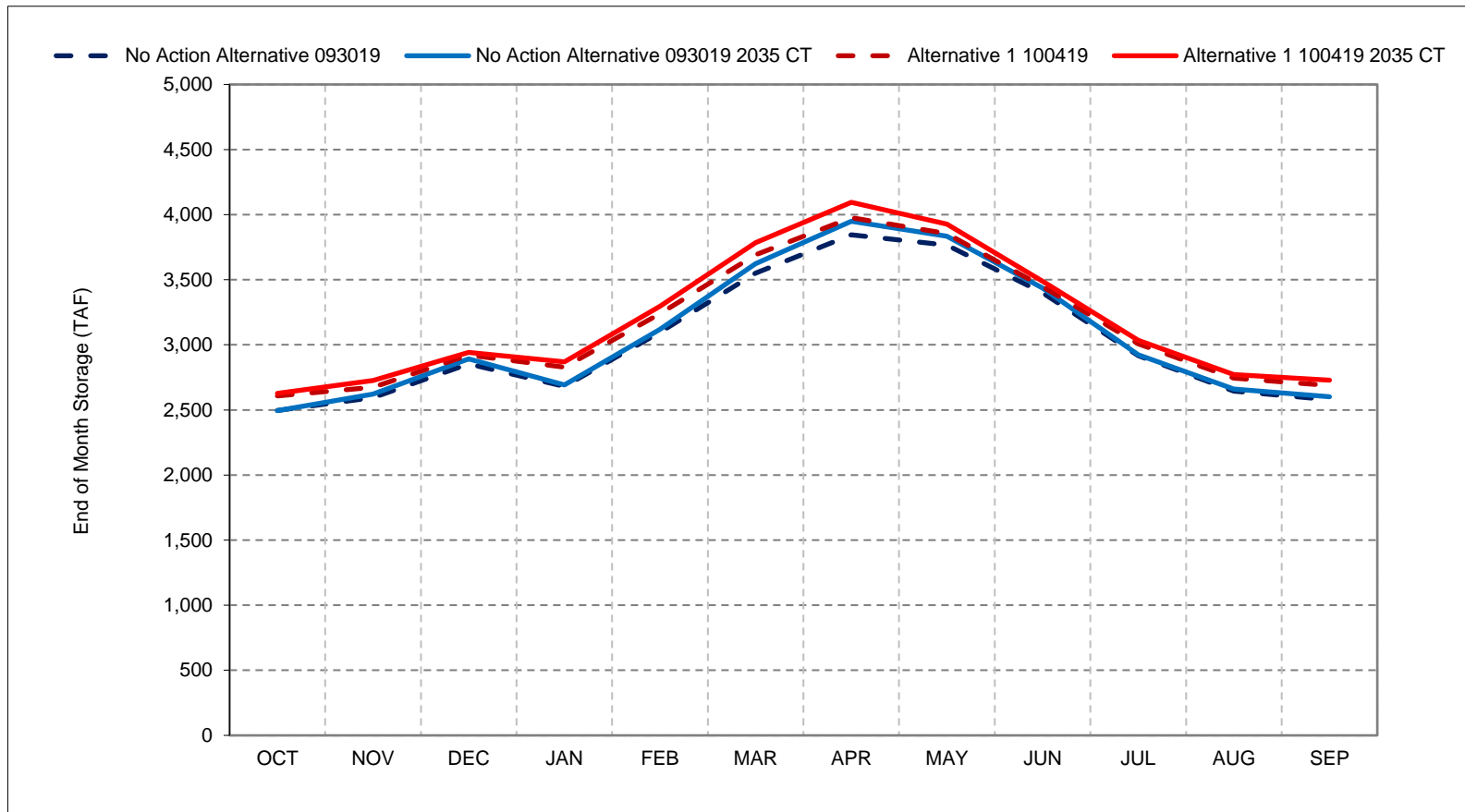
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-5. Shasta Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

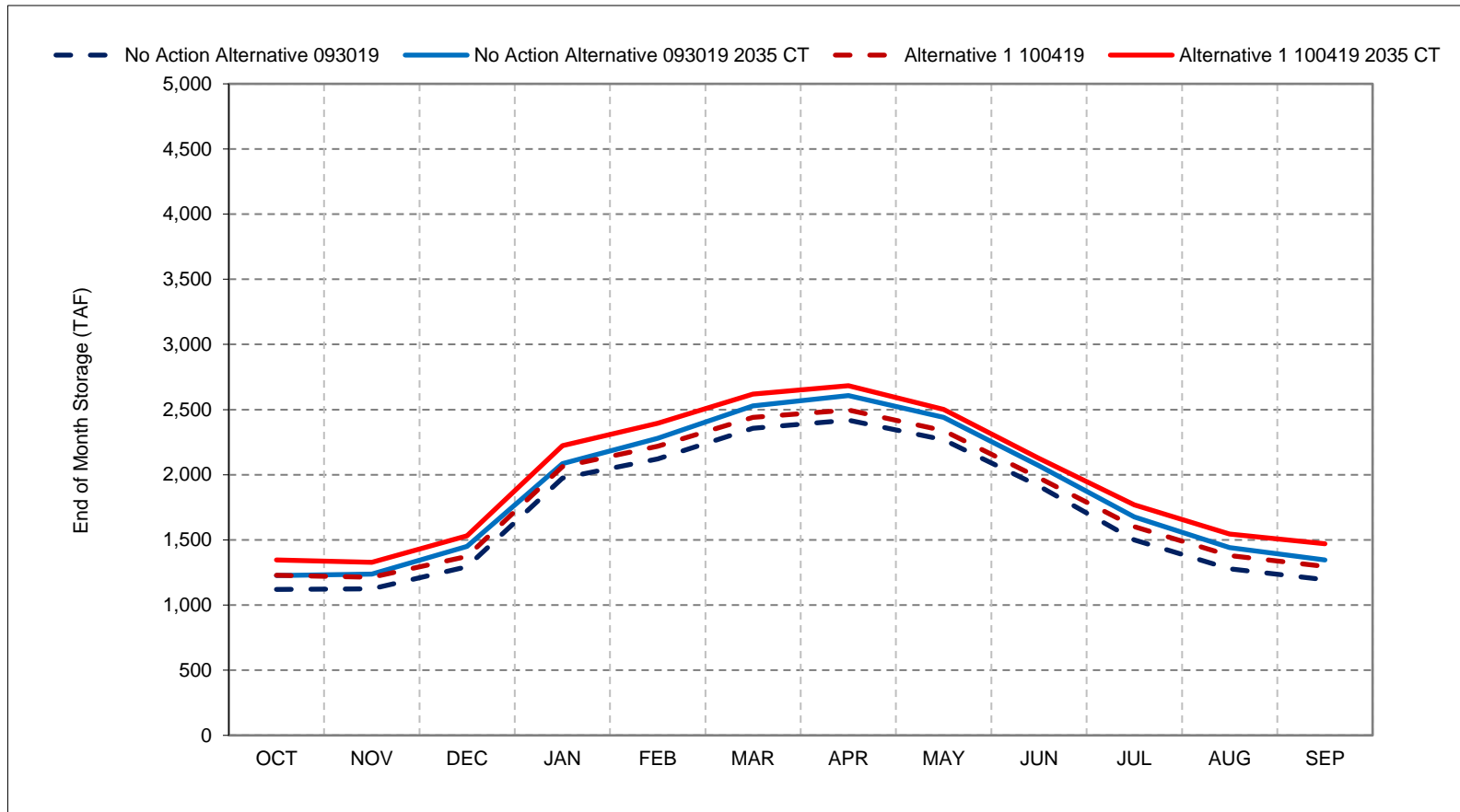
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3-6. Shasta Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

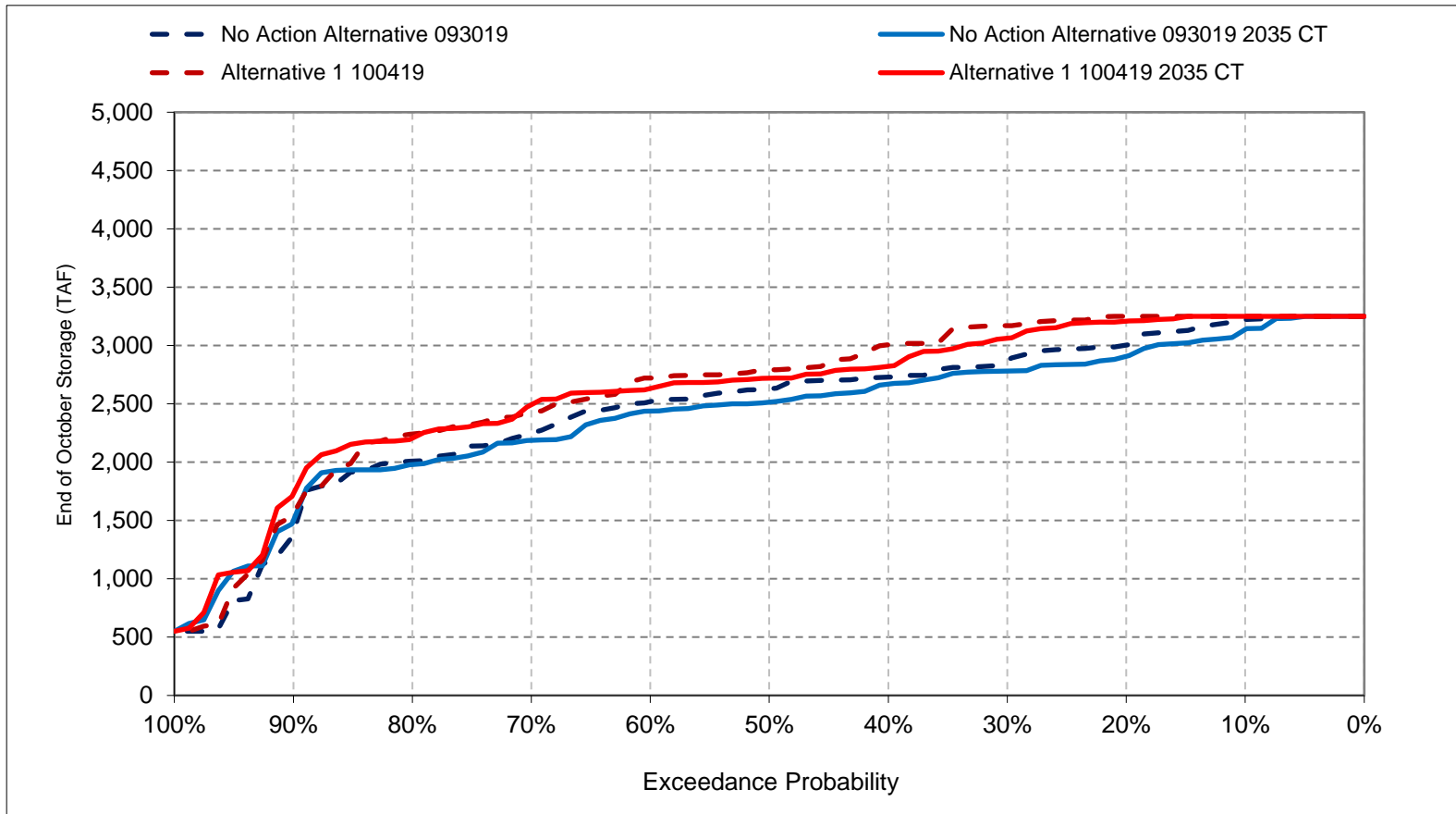
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

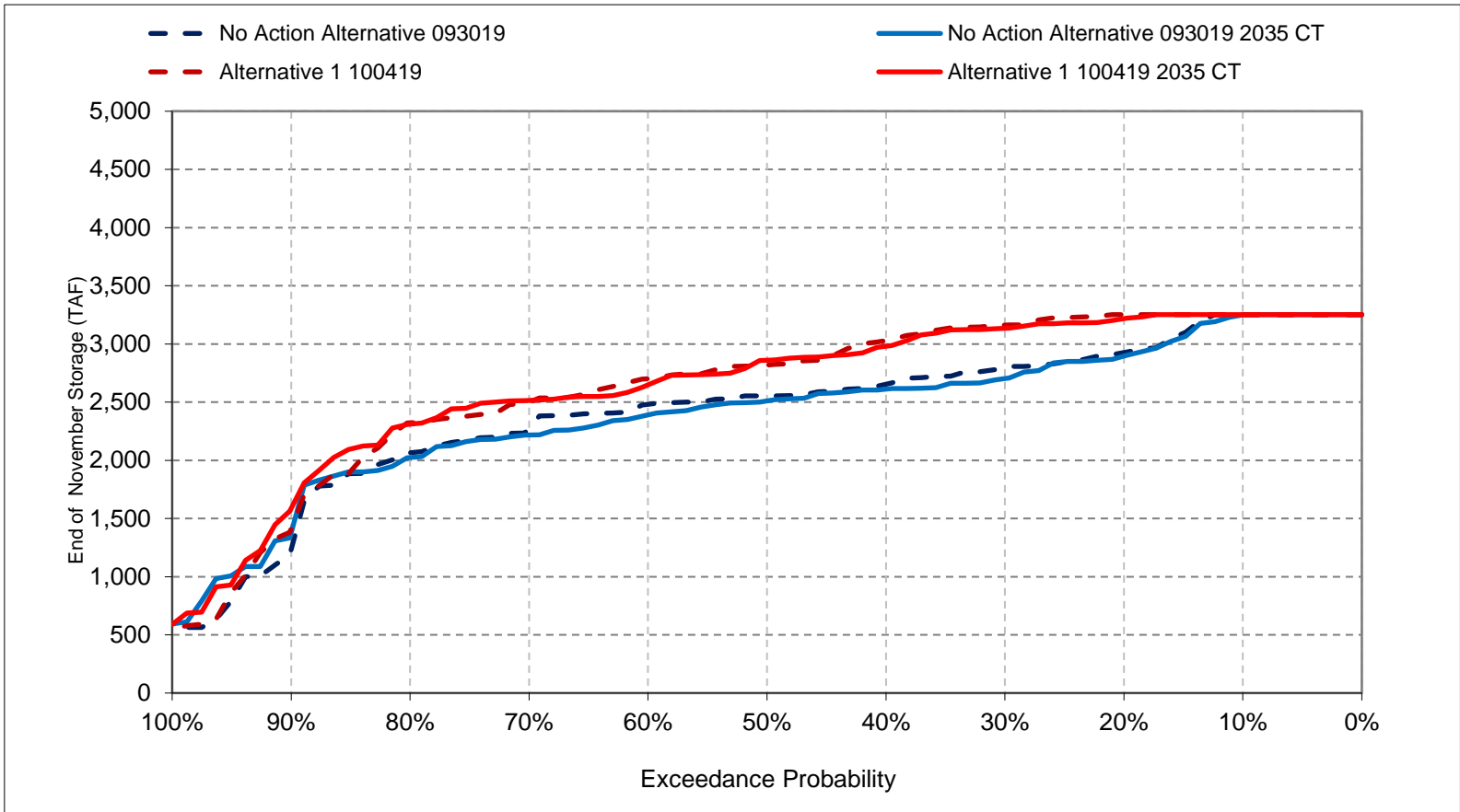
Figure 3-7. Shasta Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

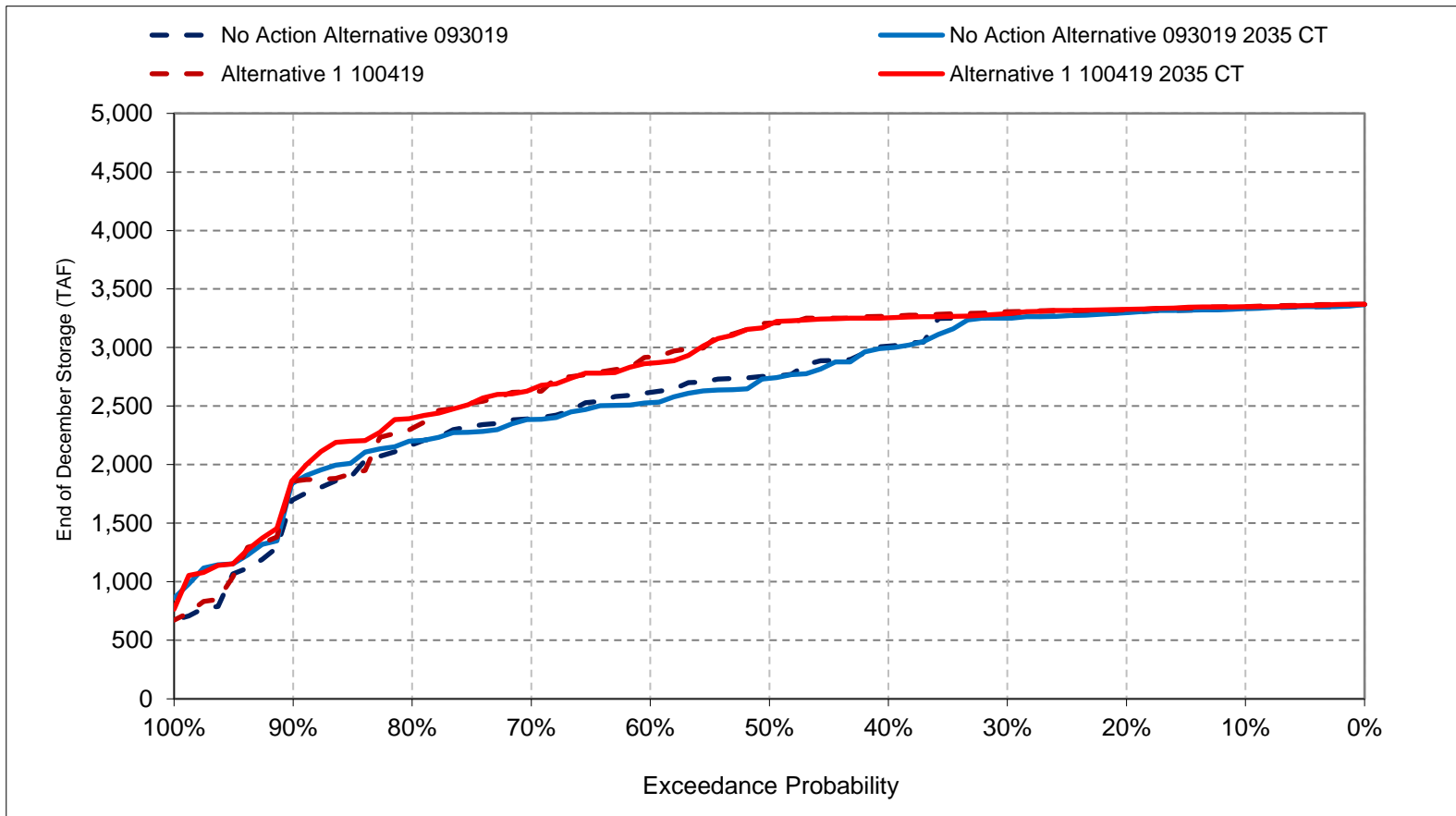
Figure 3-8. Shasta Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

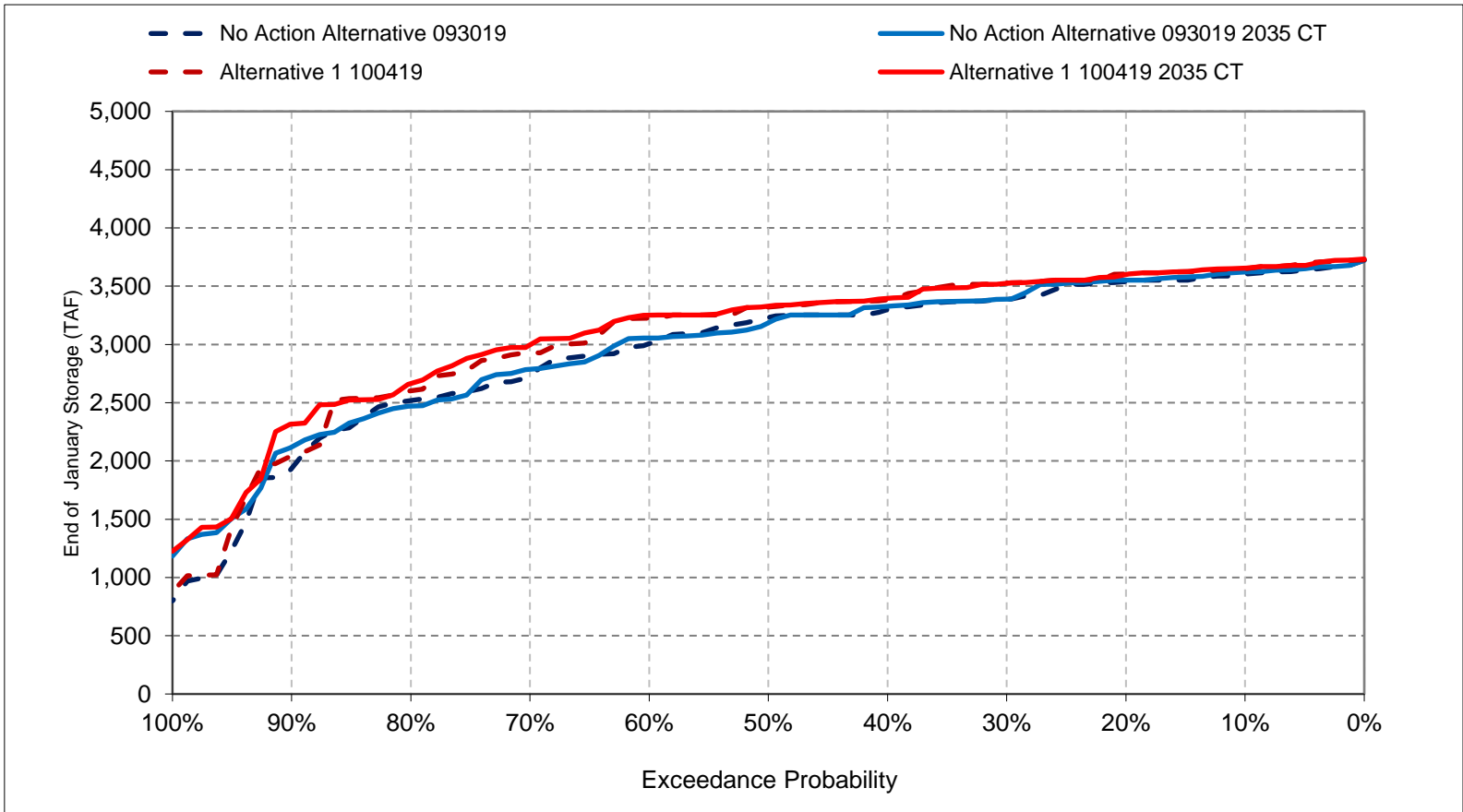
Figure 3-9. Shasta Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

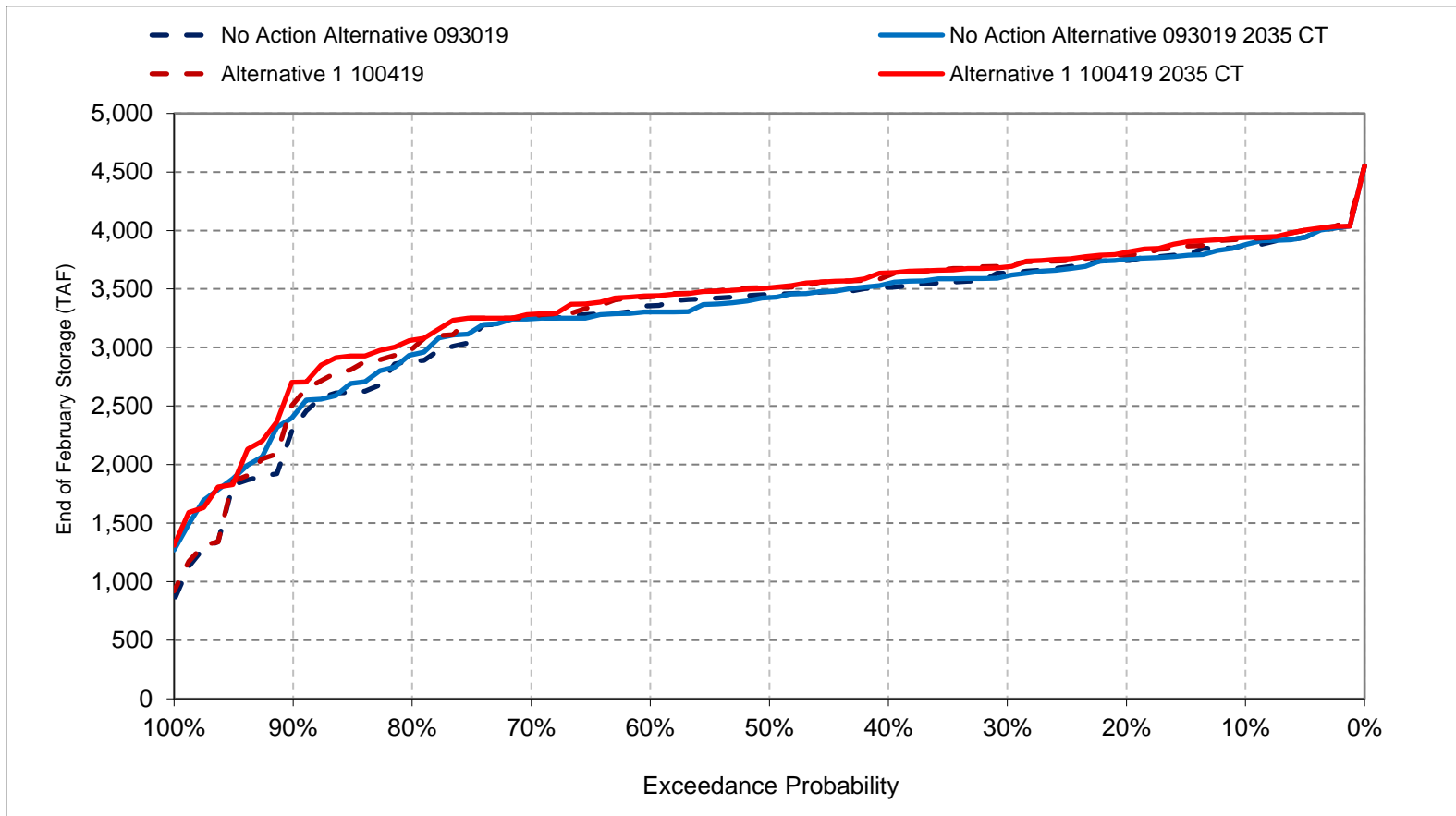
Figure 3-10. Shasta Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

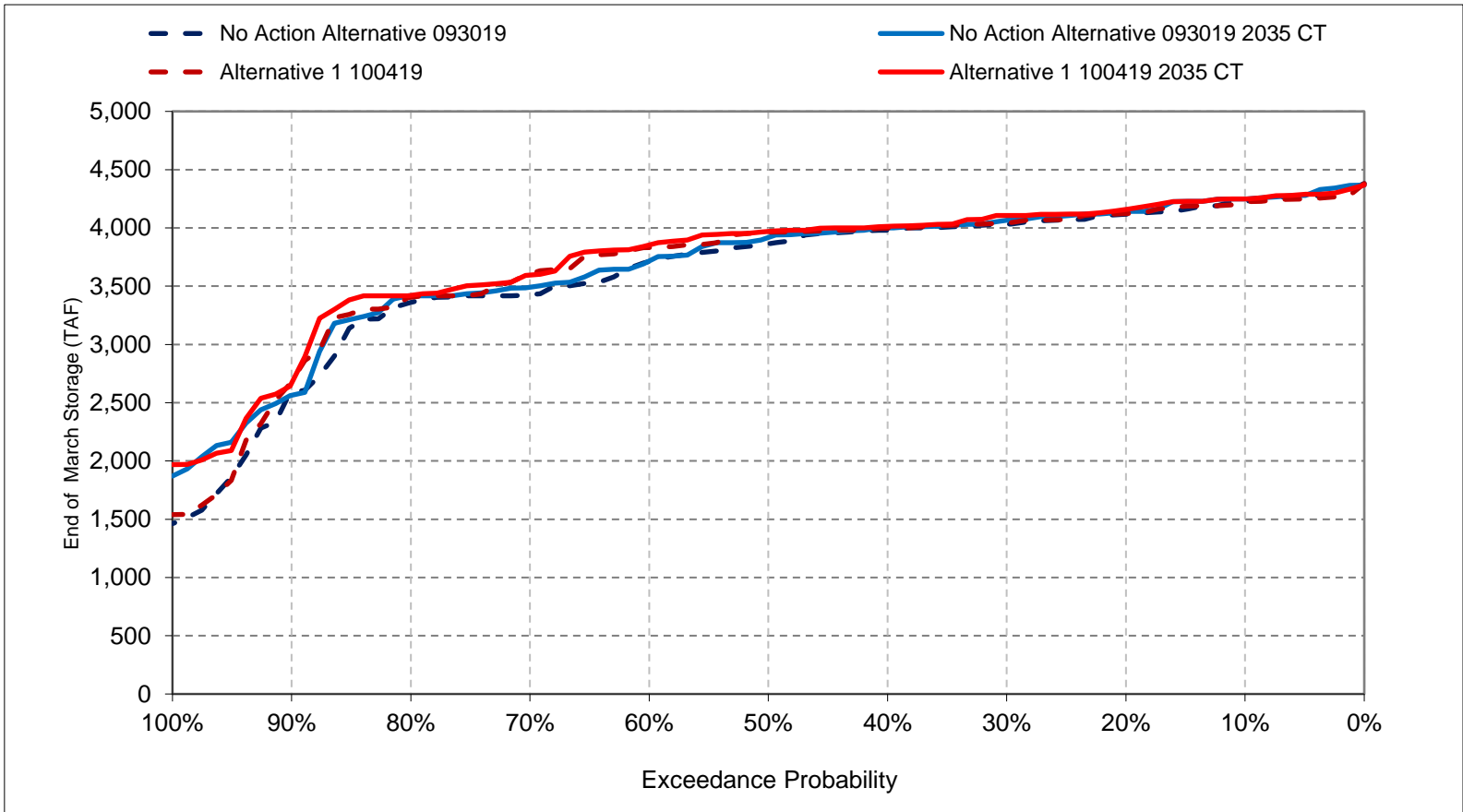
Figure 3-11. Shasta Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

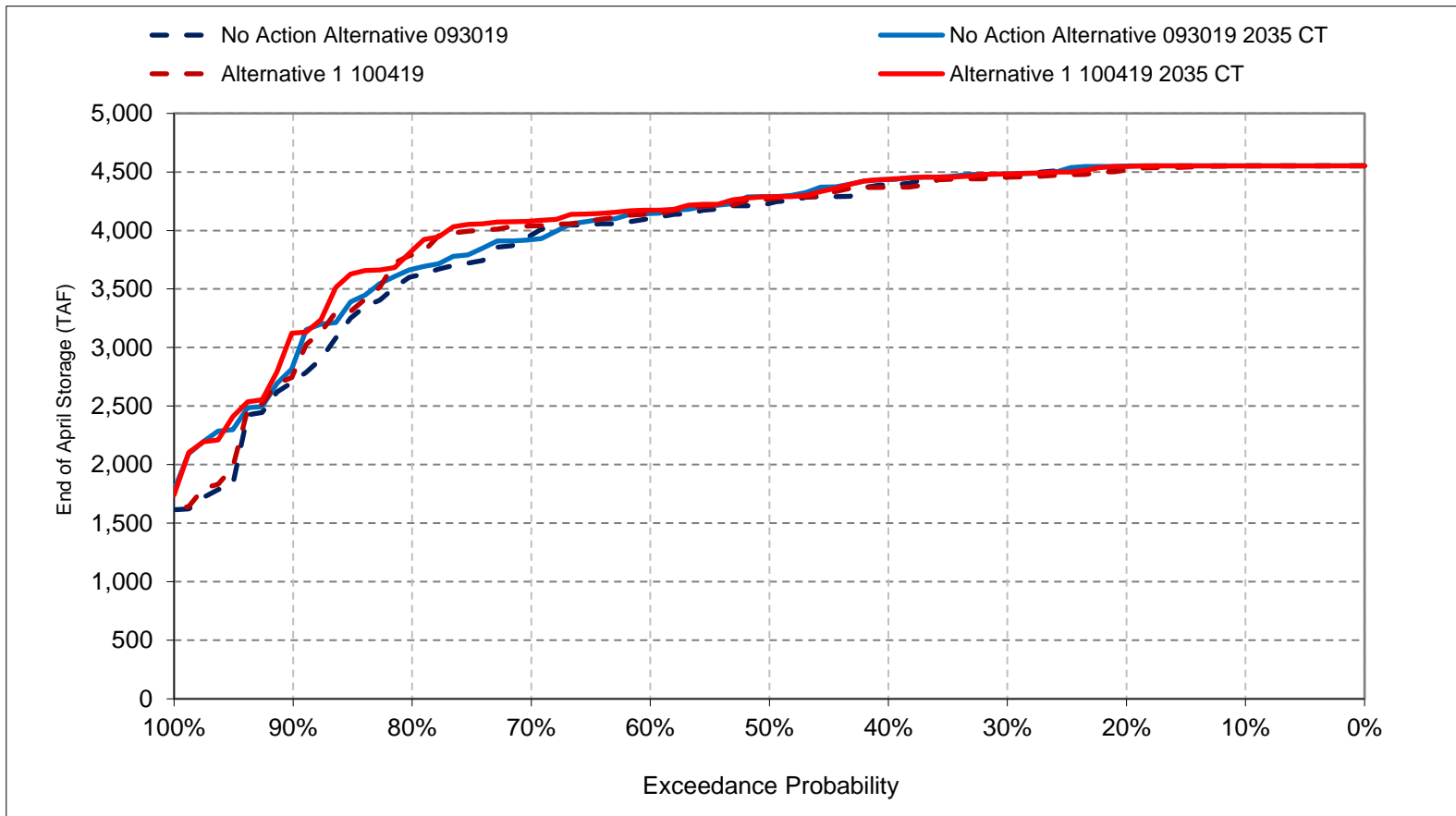
Figure 3-12. Shasta Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

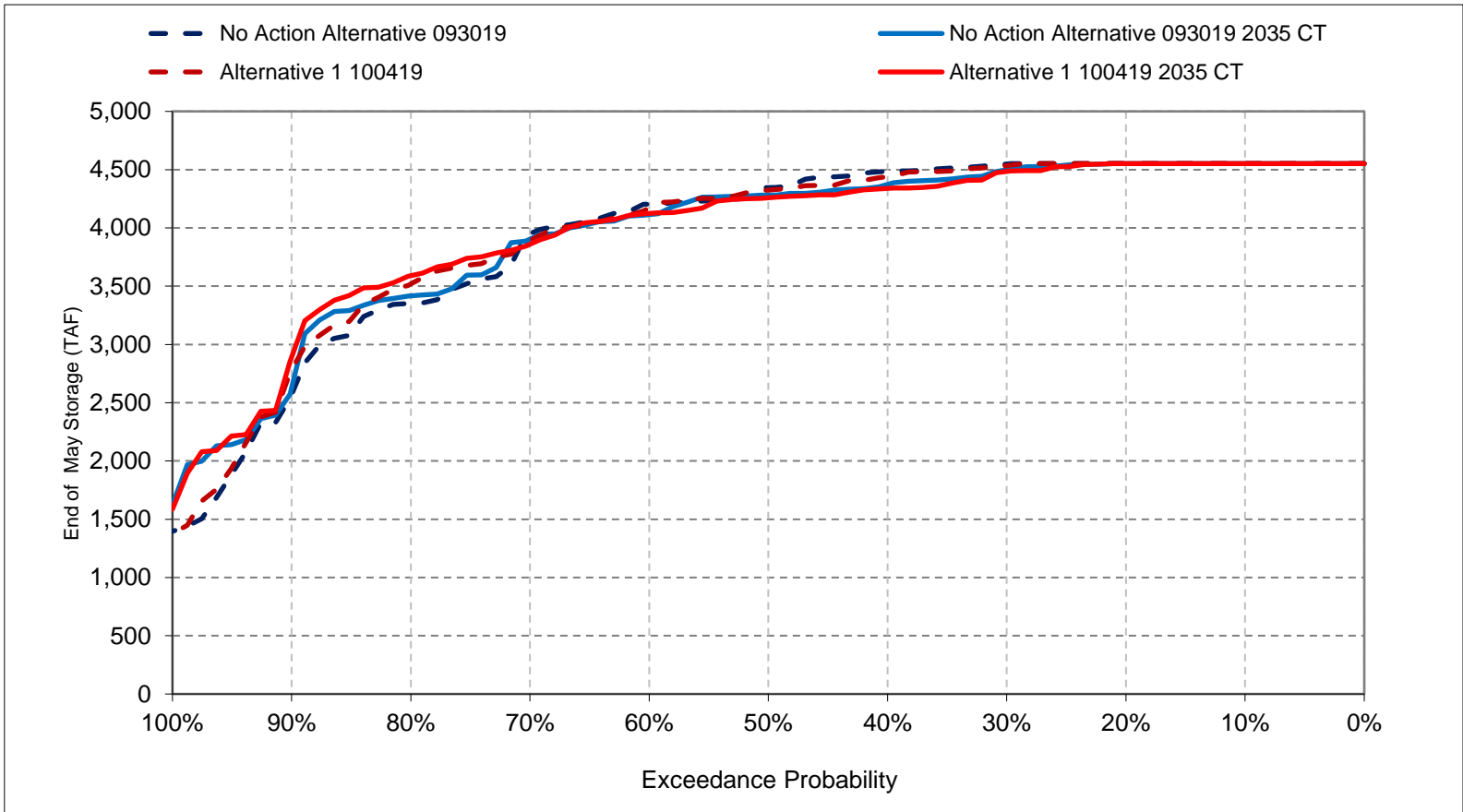
Figure 3-13. Shasta Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

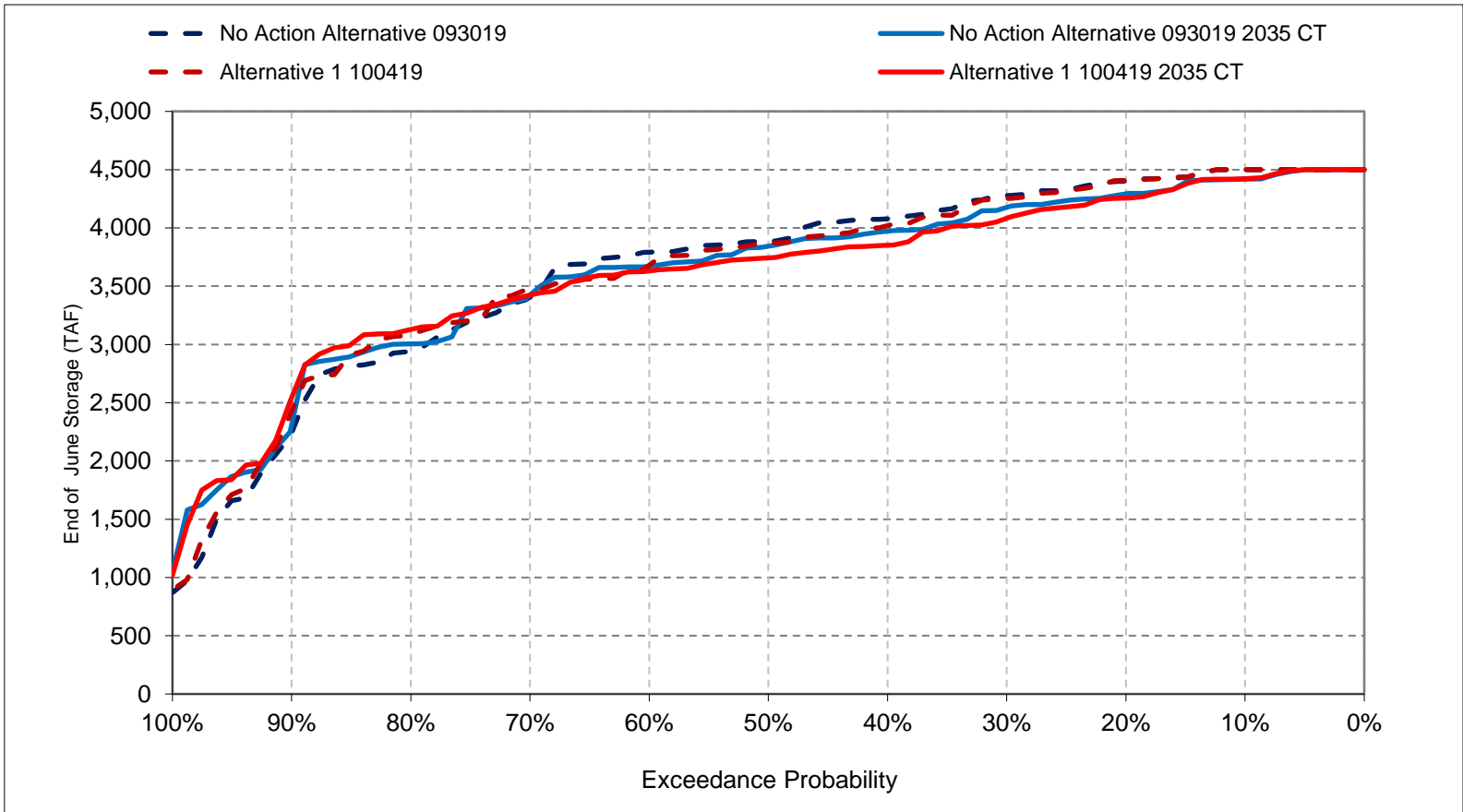
Figure 3-14. Shasta Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

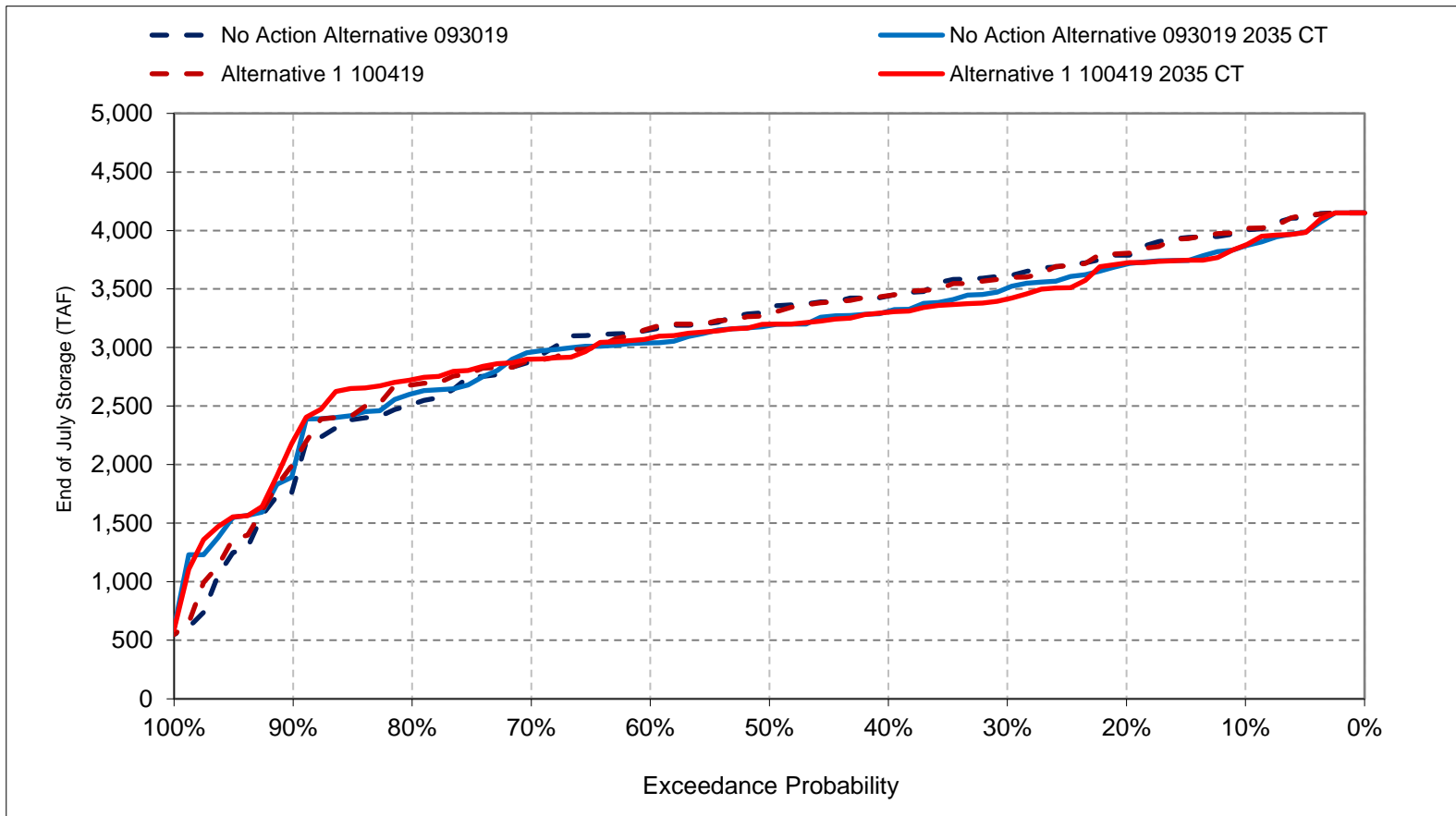
Figure 3-15. Shasta Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

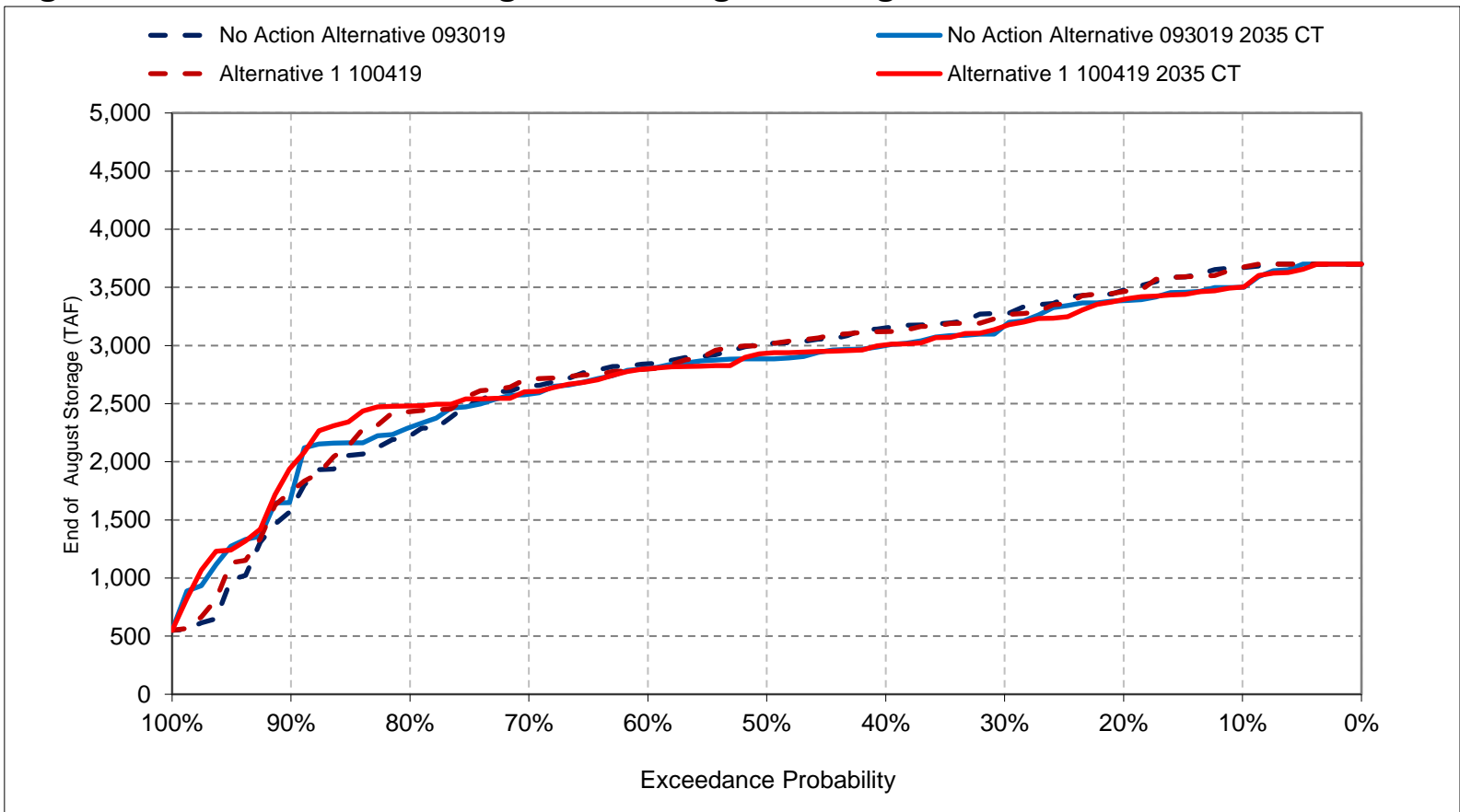
Figure 3-16. Shasta Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

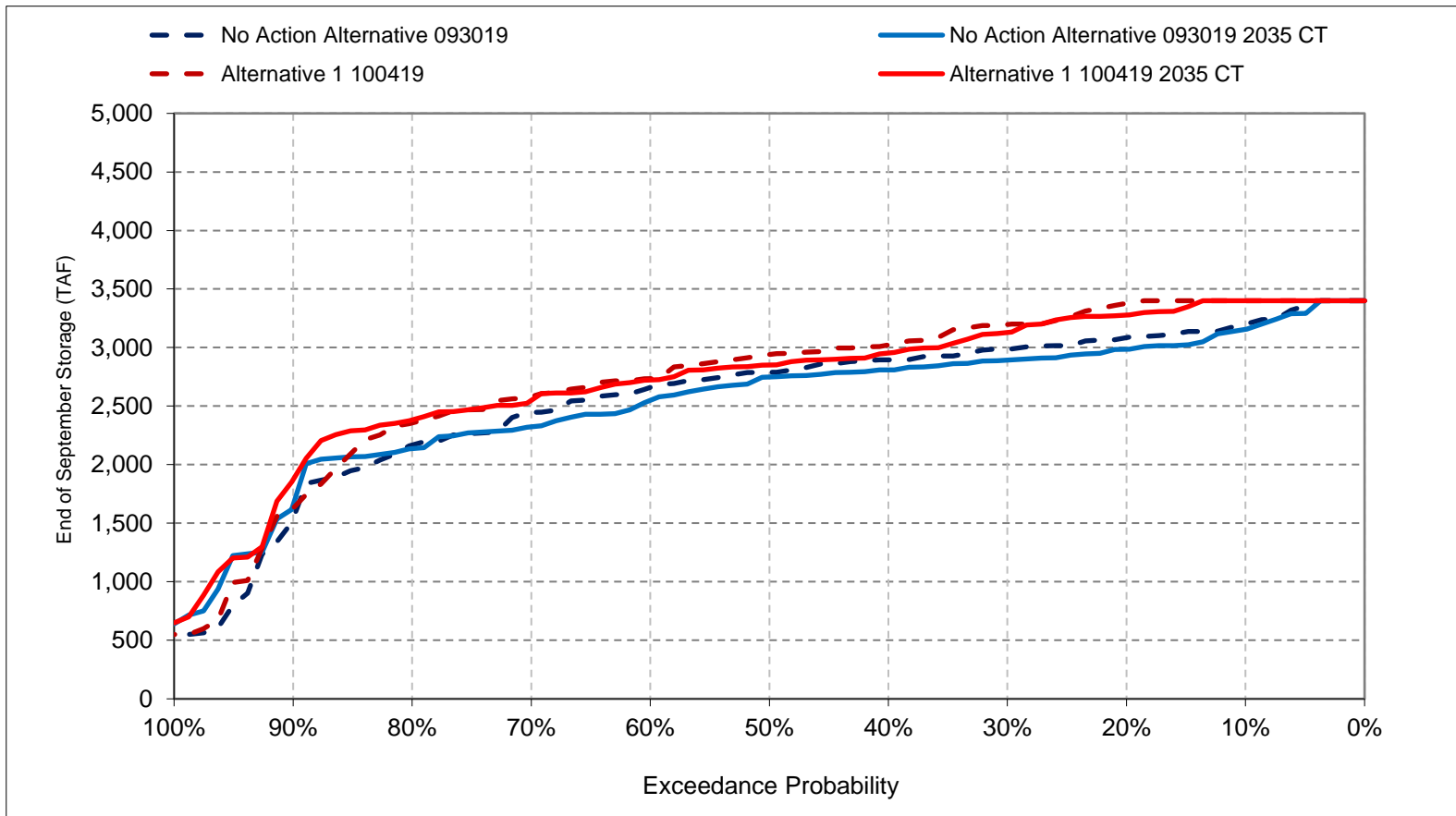
Figure 3-17. Shasta Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3-18. Shasta Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-1. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,016	1,017	1,021	1,032	1,043	1,055	1,067	1,067	1,065	1,047	1,035	1,015
20%	1,006	1,003	1,019	1,029	1,038	1,051	1,067	1,067	1,062	1,040	1,027	1,010
30%	1,001	997	1,017	1,023	1,034	1,048	1,064	1,067	1,057	1,033	1,018	1,006
40%	994	991	1,007	1,019	1,028	1,047	1,061	1,065	1,050	1,025	1,013	1,002
50%	990	987	995	1,016	1,026	1,042	1,056	1,060	1,043	1,020	1,007	997
60%	985	983	989	1,006	1,022	1,037	1,051	1,055	1,040	1,013	999	991
70%	970	972	978	995	1,017	1,025	1,046	1,046	1,024	1,001	991	981
80%	956	959	965	985	1,001	1,022	1,032	1,021	1,004	985	968	965
90%	917	905	939	952	973	988	993	987	969	945	931	927
Long Term												
Full Simulation Period ^d	976	974	985	1,001	1,015	1,030	1,043	1,042	1,029	1,007	992	981
Water Year Types ^{b,c}												
Wet (32%)	998	992	1,002	1,023	1,034	1,043	1,060	1,065	1,059	1,040	1,027	1,005
Above Normal (16%)	991	986	998	1,016	1,028	1,049	1,065	1,065	1,052	1,026	1,011	998
Below Normal (13%)	990	992	998	1,012	1,028	1,042	1,054	1,050	1,036	1,011	995	992
Dry (24%)	982	987	998	989	1,009	1,028	1,041	1,037	1,023	1,002	989	986
Critical (15%)	887	887	903	947	957	972	976	967	945	916	899	892

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,055	1,067	1,067	1,065	1,048	1,035	1,023
20%	1,017	1,017	1,020	1,032	1,040	1,052	1,066	1,067	1,062	1,040	1,026	1,022
30%	1,013	1,013	1,019	1,029	1,037	1,049	1,063	1,066	1,056	1,032	1,017	1,015
40%	1,006	1,007	1,018	1,023	1,033	1,047	1,060	1,063	1,048	1,025	1,011	1,007
50%	997	998	1,015	1,020	1,028	1,046	1,057	1,059	1,043	1,019	1,006	1,003
60%	994	993	1,003	1,016	1,025	1,041	1,052	1,053	1,036	1,013	997	995
70%	980	984	990	1,003	1,017	1,032	1,049	1,043	1,026	1,001	993	988
80%	969	974	973	989	1,006	1,024	1,040	1,029	1,010	992	980	976
90%	929	918	948	958	985	992	996	997	980	956	941	934
Long Term												
Full Simulation Period ^d	984	984	993	1,006	1,018	1,032	1,045	1,043	1,030	1,008	994	988
Water Year Types ^{b,c}												
Wet (32%)	1,012	1,011	1,016	1,024	1,034	1,043	1,059	1,064	1,058	1,039	1,025	1,017
Above Normal (16%)	996	994	1,004	1,021	1,030	1,049	1,064	1,063	1,049	1,023	1,008	1,003
Below Normal (13%)	993	994	1,000	1,023	1,035	1,047	1,058	1,053	1,035	1,012	997	995
Dry (24%)	987	991	1,002	996	1,015	1,034	1,046	1,041	1,025	1,006	994	991
Critical (15%)	895	894	908	952	962	977	980	971	949	923	907	900

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	0	1	2	2	0	0	0	0	0	0	9
20%	11	14	1	3	2	0	-1	0	0	1	-1	13
30%	13	16	2	6	3	0	-1	0	-1	-1	-1	9
40%	12	16	11	4	4	1	-1	-2	-2	0	-1	6
50%	7	11	20	4	3	4	1	-1	-1	-2	0	7
60%	9	10	13	9	3	4	1	-1	-4	1	-2	3
70%	10	12	12	8	0	8	3	-2	3	0	2	7
80%	13	15	8	4	5	2	8	7	6	7	12	11
90%	12	13	9	6	12	4	3	9	10	12	10	7
Long Term												
Full Simulation Period ^d	8	10	7	5	4	2	2	1	0	1	2	7
Water Year Types ^{b,c}												
Wet (32%)	13	20	14	1	0	0	-1	-1	-1	-2	-2	12
Above Normal (16%)	5	8	6	5	2	-1	-1	-2	-3	-3	-3	5
Below Normal (13%)	3	3	2	10	7	5	4	2	-1	1	3	3
Dry (24%)	6	4	3	7	6	6	5	4	2	4	5	6
Critical (15%)	9	7	6	5	5	4	4	4	4	7	8	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 3a-2. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,012	1,017	1,021	1,033	1,043	1,056	1,067	1,067	1,062	1,043	1,028	1,013
20%	1,002	1,002	1,019	1,030	1,038	1,052	1,067	1,067	1,058	1,037	1,023	1,005
30%	997	993	1,017	1,023	1,033	1,050	1,065	1,065	1,054	1,028	1,013	1,001
40%	992	989	1,006	1,020	1,030	1,047	1,063	1,061	1,046	1,020	1,006	998
50%	985	985	995	1,014	1,025	1,044	1,058	1,057	1,042	1,014	1,001	995
60%	981	978	986	1,008	1,019	1,037	1,052	1,051	1,035	1,008	998	987
70%	966	968	978	997	1,017	1,027	1,044	1,044	1,024	1,004	988	974
80%	955	957	967	983	1,003	1,024	1,035	1,024	1,006	989	973	964
90%	924	915	947	963	979	987	1,000	990	973	953	938	935
Long Term												
Full Simulation Period ^d	974	974	987	1,003	1,017	1,033	1,046	1,043	1,030	1,006	992	981
Water Year Types ^{b,c}												
Wet (32%)	994	989	1,001	1,023	1,033	1,044	1,060	1,063	1,055	1,035	1,022	1,001
Above Normal (16%)	982	979	993	1,016	1,028	1,050	1,065	1,062	1,048	1,020	1,006	991
Below Normal (13%)	989	991	998	1,016	1,030	1,046	1,057	1,051	1,036	1,010	995	992
Dry (24%)	982	988	1,001	990	1,011	1,032	1,045	1,040	1,025	1,003	990	987
Critical (15%)	898	899	917	957	969	983	987	978	957	932	915	907

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,056	1,067	1,067	1,062	1,043	1,028	1,023
20%	1,015	1,015	1,020	1,032	1,041	1,053	1,067	1,067	1,056	1,037	1,023	1,018
30%	1,009	1,012	1,019	1,029	1,036	1,051	1,065	1,065	1,050	1,024	1,013	1,012
40%	998	1,005	1,017	1,023	1,034	1,048	1,063	1,059	1,042	1,019	1,006	1,004
50%	994	1,000	1,015	1,020	1,028	1,046	1,058	1,057	1,038	1,015	1,003	1,000
60%	990	991	1,000	1,017	1,025	1,042	1,053	1,052	1,033	1,010	997	994
70%	984	985	991	1,006	1,018	1,032	1,050	1,042	1,024	1,002	989	986
80%	967	973	978	992	1,009	1,024	1,041	1,032	1,012	994	983	977
90%	940	931	949	974	993	992	1,011	1,001	986	967	953	949
Long Term												
Full Simulation Period ^d	984	986	995	1,009	1,021	1,035	1,048	1,044	1,029	1,007	994	990
Water Year Types ^{b,c}												
Wet (32%)	1,009	1,010	1,015	1,025	1,034	1,043	1,060	1,062	1,053	1,033	1,020	1,015
Above Normal (16%)	990	992	1,003	1,022	1,031	1,049	1,064	1,060	1,045	1,018	1,003	997
Below Normal (13%)	994	995	1,001	1,023	1,035	1,049	1,060	1,052	1,035	1,011	998	996
Dry (24%)	989	993	1,003	999	1,018	1,038	1,050	1,044	1,027	1,008	996	994
Critical (15%)	906	904	922	965	974	987	990	981	960	937	921	916

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	5	0	1	1	2	0	0	0	0	0	0	11
20%	13	14	1	2	2	1	0	0	-1	0	0	13
30%	12	19	2	6	3	1	0	0	-3	-4	0	10
40%	7	16	11	3	4	0	0	-1	-4	0	0	6
50%	9	15	20	6	4	2	0	-1	-4	0	2	4
60%	9	13	15	9	6	5	1	0	-2	2	0	8
70%	17	17	13	9	2	5	6	-2	0	-3	1	12
80%	13	16	11	9	5	0	6	8	5	5	10	14
90%	16	15	2	11	14	4	12	12	13	15	15	13
Long Term												
Full Simulation Period ^d	10	11	8	6	4	2	2	1	0	1	1	9
Water Year Types ^{b,c}												
Wet (32%)	15	21	15	2	1	0	-1	-1	-2	-2	-2	14
Above Normal (16%)	8	12	10	6	3	0	-1	-2	-4	-3	-3	6
Below Normal (13%)	5	4	3	7	5	3	2	1	-1	0	3	4
Dry (24%)	7	5	2	8	7	6	5	4	2	5	5	7
Critical (15%)	8	6	5	7	6	4	3	3	3	5	7	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-3. Shasta Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,016	1,017	1,021	1,032	1,043	1,055	1,067	1,067	1,065	1,047	1,035	1,015
20%	1,006	1,003	1,019	1,029	1,038	1,051	1,067	1,067	1,062	1,040	1,027	1,010
30%	1,001	997	1,017	1,023	1,034	1,048	1,064	1,067	1,057	1,033	1,018	1,006
40%	994	991	1,007	1,019	1,028	1,047	1,061	1,065	1,050	1,025	1,013	1,002
50%	990	987	995	1,016	1,026	1,042	1,056	1,060	1,043	1,020	1,007	997
60%	985	983	989	1,006	1,022	1,037	1,051	1,055	1,040	1,013	999	991
70%	970	972	978	995	1,017	1,025	1,046	1,046	1,024	1,001	991	981
80%	956	959	965	985	1,001	1,022	1,032	1,021	1,004	985	968	965
90%	917	905	939	952	973	988	993	987	969	945	931	927
Long Term												
Full Simulation Period ^d	976	974	985	1,001	1,015	1,030	1,043	1,042	1,029	1,007	992	981
Water Year Types ^{b,c}												
Wet (32%)	998	992	1,002	1,023	1,034	1,043	1,060	1,065	1,059	1,040	1,027	1,005
Above Normal (16%)	991	986	998	1,016	1,028	1,049	1,065	1,065	1,052	1,026	1,011	998
Below Normal (13%)	990	992	998	1,012	1,028	1,042	1,054	1,050	1,036	1,011	995	992
Dry (24%)	982	987	998	989	1,009	1,028	1,041	1,037	1,023	1,002	989	986
Critical (15%)	887	887	903	947	957	972	976	967	945	916	899	892

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,012	1,017	1,021	1,033	1,043	1,056	1,067	1,067	1,062	1,043	1,028	1,013
20%	1,002	1,002	1,019	1,030	1,038	1,052	1,067	1,067	1,058	1,037	1,023	1,005
30%	997	993	1,017	1,023	1,033	1,050	1,065	1,065	1,054	1,028	1,013	1,001
40%	992	989	1,006	1,020	1,030	1,047	1,063	1,061	1,046	1,020	1,006	998
50%	985	985	995	1,014	1,025	1,044	1,058	1,057	1,042	1,014	1,001	995
60%	981	978	986	1,008	1,019	1,037	1,052	1,051	1,035	1,008	998	987
70%	966	968	978	997	1,017	1,027	1,044	1,044	1,024	1,004	988	974
80%	955	957	967	983	1,003	1,024	1,035	1,024	1,006	989	973	964
90%	924	915	947	963	979	987	1,000	990	973	953	938	935
Long Term												
Full Simulation Period ^d	974	974	987	1,003	1,017	1,033	1,046	1,043	1,030	1,006	992	981
Water Year Types ^{b,c}												
Wet (32%)	994	989	1,001	1,023	1,033	1,044	1,060	1,063	1,055	1,035	1,022	1,001
Above Normal (16%)	982	979	993	1,016	1,028	1,050	1,065	1,062	1,048	1,020	1,006	991
Below Normal (13%)	989	991	998	1,016	1,030	1,046	1,057	1,051	1,036	1,010	995	992
Dry (24%)	982	988	1,001	990	1,011	1,032	1,045	1,040	1,025	1,003	990	987
Critical (15%)	898	899	917	957	969	983	987	978	957	932	915	907

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	0	0	1	0	1	0	0	-3	-5	-7	-2
20%	-4	-1	0	1	0	1	0	0	-4	-3	-4	-4
30%	-4	-4	0	0	-1	1	0	-2	-4	-5	-5	-4
40%	-3	-2	-1	1	1	1	2	-4	-4	-6	-7	-4
50%	-5	-2	-1	-2	-1	2	2	-2	-2	-6	-6	-2
60%	-5	-5	-4	2	-2	0	2	-3	-5	-5	-2	-5
70%	-3	-3	-1	2	0	3	-1	-2	1	3	-3	-7
80%	-2	-2	2	-3	2	2	3	3	3	4	4	-2
90%	7	10	8	10	6	-1	6	2	3	8	7	8
Long Term												
Full Simulation Period ^d	-1	0	2	2	2	3	3	2	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	-4	-3	-1	0	0	1	0	-2	-4	-5	-4	-5
Above Normal (16%)	-9	-7	-5	0	-1	0	0	-2	-4	-5	-5	-7
Below Normal (13%)	-1	0	1	4	2	4	3	1	0	-1	0	0
Dry (24%)	0	2	2	2	2	3	4	3	2	1	1	2
Critical (15%)	11	12	14	10	12	11	11	11	12	16	16	15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 3a-4. Shasta Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,055	1,067	1,067	1,065	1,048	1,035	1,023
20%	1,017	1,017	1,020	1,032	1,040	1,052	1,066	1,067	1,062	1,040	1,026	1,022
30%	1,013	1,013	1,019	1,029	1,037	1,049	1,063	1,066	1,056	1,032	1,017	1,015
40%	1,006	1,007	1,018	1,023	1,033	1,047	1,060	1,063	1,048	1,025	1,011	1,007
50%	997	998	1,015	1,020	1,028	1,046	1,057	1,059	1,043	1,019	1,006	1,003
60%	994	993	1,003	1,016	1,025	1,041	1,052	1,053	1,036	1,013	997	995
70%	980	984	990	1,003	1,017	1,032	1,049	1,043	1,026	1,001	993	988
80%	969	974	973	989	1,006	1,024	1,040	1,029	1,010	992	980	976
90%	929	918	948	958	985	992	996	997	980	956	941	934
Long Term												
Full Simulation Period ^d	984	984	993	1,006	1,018	1,032	1,045	1,043	1,030	1,008	994	988
Water Year Types ^{b,c}												
Wet (32%)	1,012	1,011	1,016	1,024	1,034	1,043	1,059	1,064	1,058	1,039	1,025	1,017
Above Normal (16%)	996	994	1,004	1,021	1,030	1,049	1,064	1,063	1,049	1,023	1,008	1,003
Below Normal (13%)	993	994	1,000	1,023	1,035	1,047	1,058	1,053	1,035	1,012	997	995
Dry (24%)	987	991	1,002	996	1,015	1,034	1,046	1,041	1,025	1,006	994	991
Critical (15%)	895	894	908	952	962	977	980	971	949	923	907	900

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,017	1,017	1,021	1,034	1,045	1,056	1,067	1,067	1,062	1,043	1,028	1,023
20%	1,015	1,015	1,020	1,032	1,041	1,053	1,067	1,067	1,056	1,037	1,023	1,018
30%	1,009	1,012	1,019	1,029	1,036	1,051	1,065	1,065	1,050	1,024	1,013	1,012
40%	998	1,005	1,017	1,023	1,034	1,048	1,063	1,059	1,042	1,019	1,006	1,004
50%	994	1,000	1,015	1,020	1,028	1,046	1,058	1,057	1,038	1,015	1,003	1,000
60%	990	991	1,000	1,017	1,025	1,042	1,053	1,052	1,033	1,010	997	994
70%	984	985	991	1,006	1,018	1,032	1,050	1,042	1,024	1,002	989	986
80%	967	973	978	992	1,009	1,024	1,041	1,032	1,012	994	983	977
90%	940	931	949	974	993	992	1,011	1,001	986	967	953	949
Long Term												
Full Simulation Period ^d	984	986	995	1,009	1,021	1,035	1,048	1,044	1,029	1,007	994	990
Water Year Types ^{b,c}												
Wet (32%)	1,009	1,010	1,015	1,025	1,034	1,043	1,060	1,062	1,053	1,033	1,020	1,015
Above Normal (16%)	990	992	1,003	1,022	1,031	1,049	1,064	1,060	1,045	1,018	1,003	997
Below Normal (13%)	994	995	1,001	1,023	1,035	1,049	1,060	1,052	1,035	1,011	998	996
Dry (24%)	989	993	1,003	999	1,018	1,038	1,050	1,044	1,027	1,008	996	994
Critical (15%)	906	904	922	965	974	987	990	981	960	937	921	916

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	1	0	0	-3	-5	-7	0
20%	-2	-1	0	0	1	1	0	0	-5	-3	-3	-4
30%	-5	-1	-1	0	-1	2	1	-2	-6	-8	-4	-3
40%	-8	-2	-1	1	1	1	2	-4	-6	-6	-5	-3
50%	-3	2	-1	0	0	0	1	-2	-5	-4	-3	-4
60%	-4	-2	-2	1	0	1	1	-2	-2	-4	0	0
70%	4	1	1	3	1	0	1	-1	-2	1	-5	-1
80%	-2	-1	5	3	3	1	1	3	2	2	3	1
90%	12	13	1	16	8	-1	15	5	6	11	12	15
Long Term												
Full Simulation Period ^d	0	1	2	3	3	3	3	1	0	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	-2	-1	0	0	0	1	0	-2	-5	-6	-5	-2
Above Normal (16%)	-6	-3	-1	1	1	1	0	-2	-5	-6	-6	-5
Below Normal (13%)	1	1	2	1	1	2	2	0	-1	-1	0	1
Dry (24%)	1	3	1	3	3	4	5	3	2	1	2	2
Critical (15%)	10	10	13	12	12	10	10	10	11	14	14	16

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

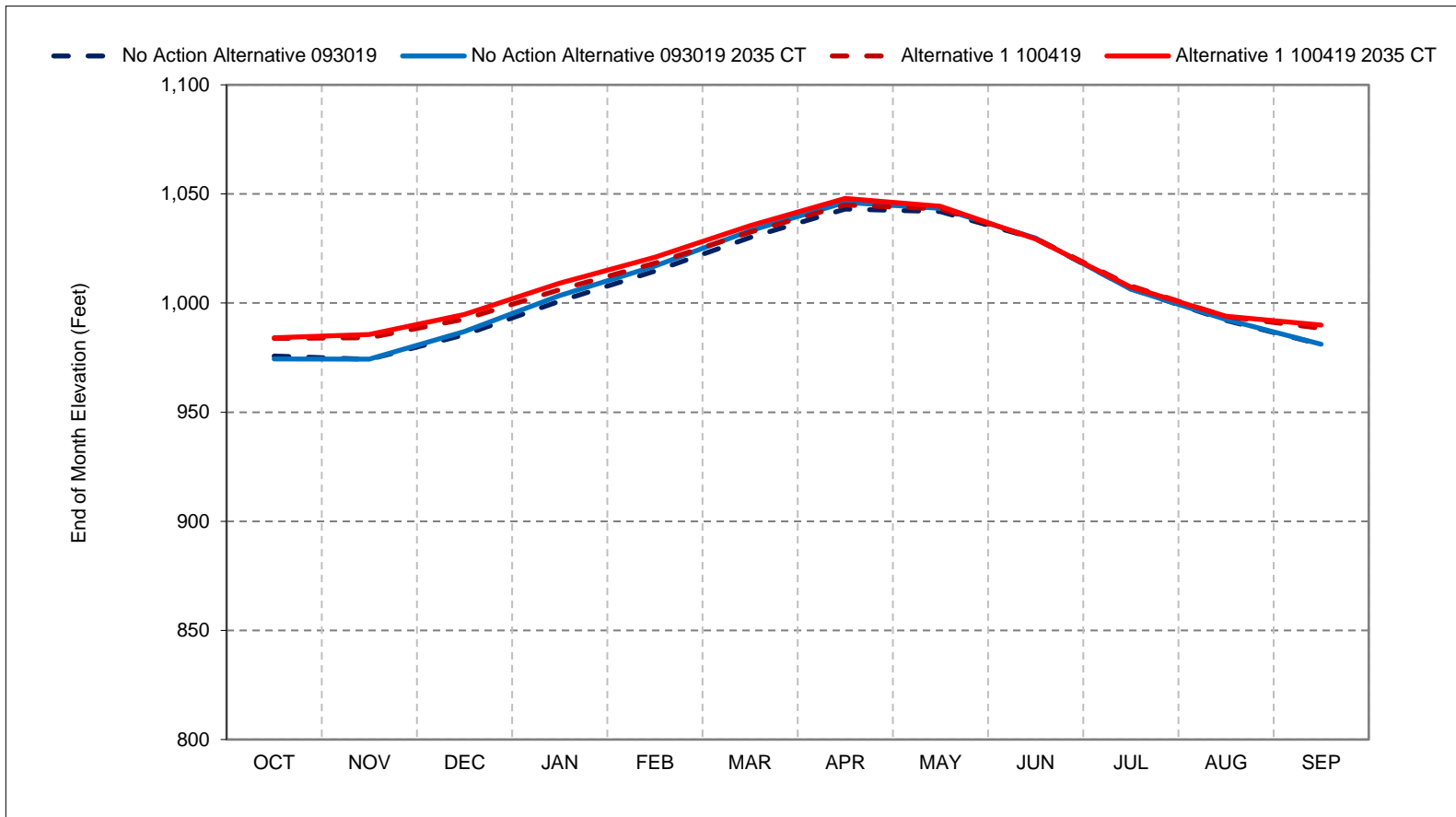
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3a-1. Shasta Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

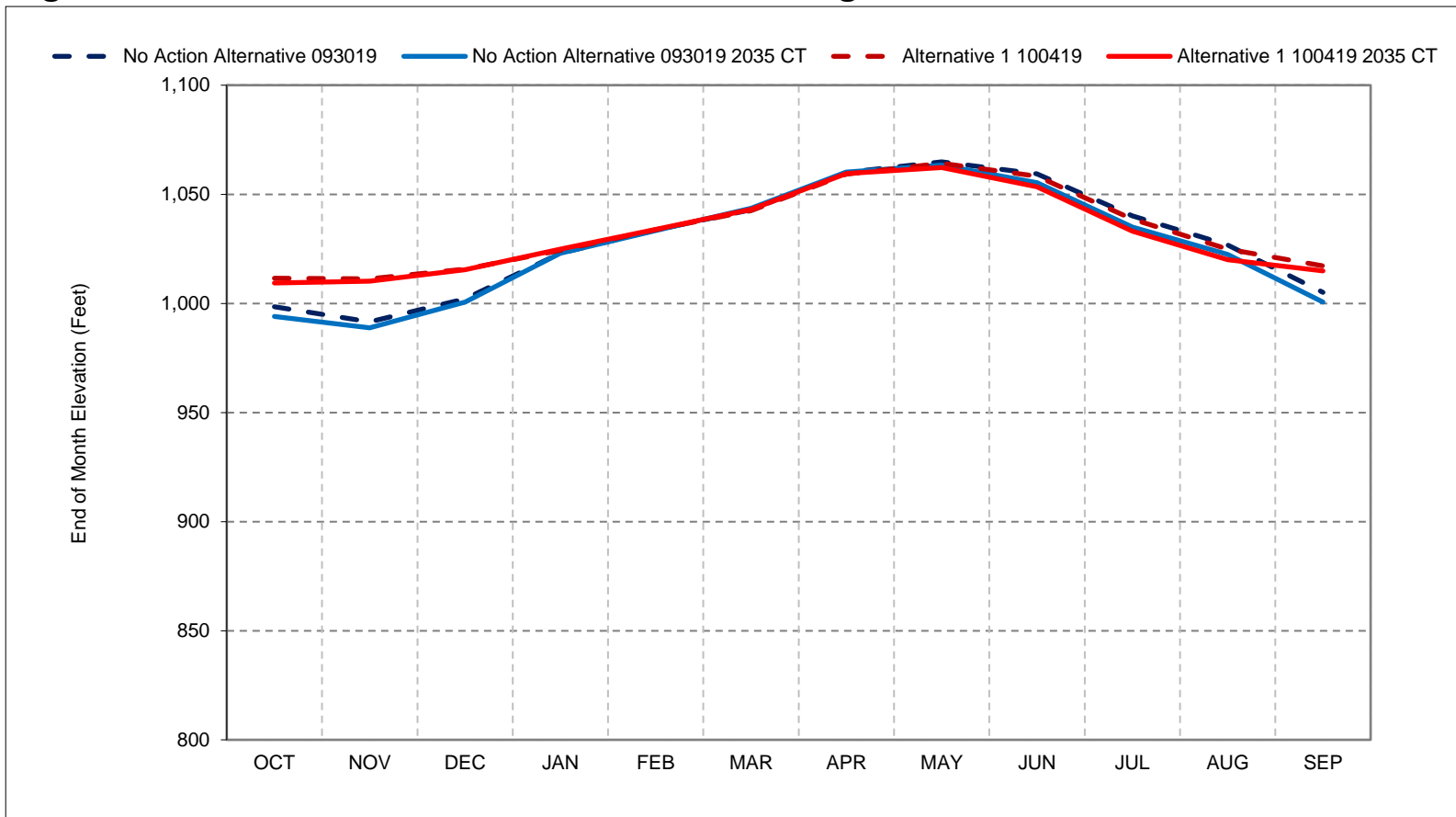
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-2. Shasta Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

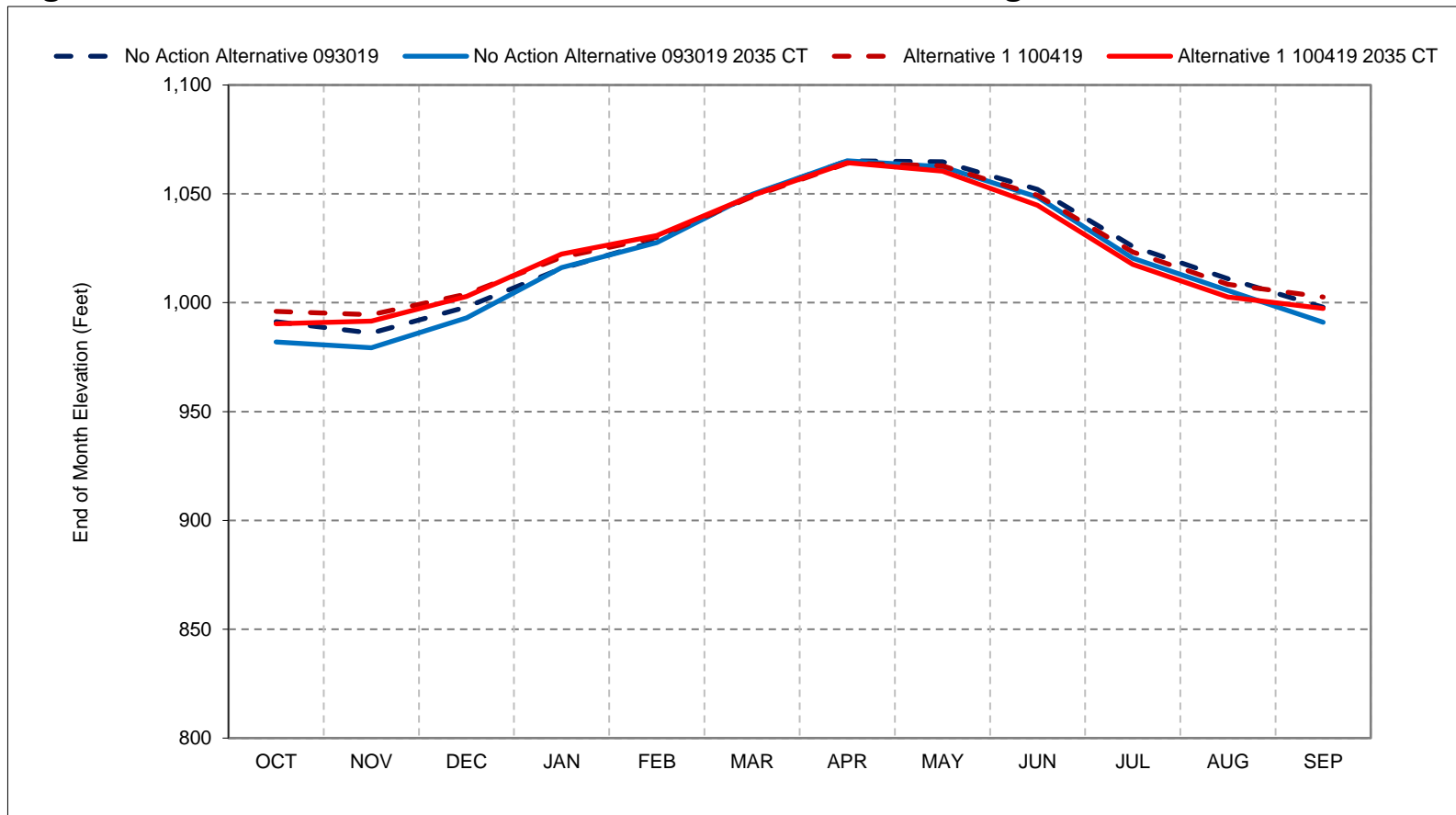
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-3. Shasta Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

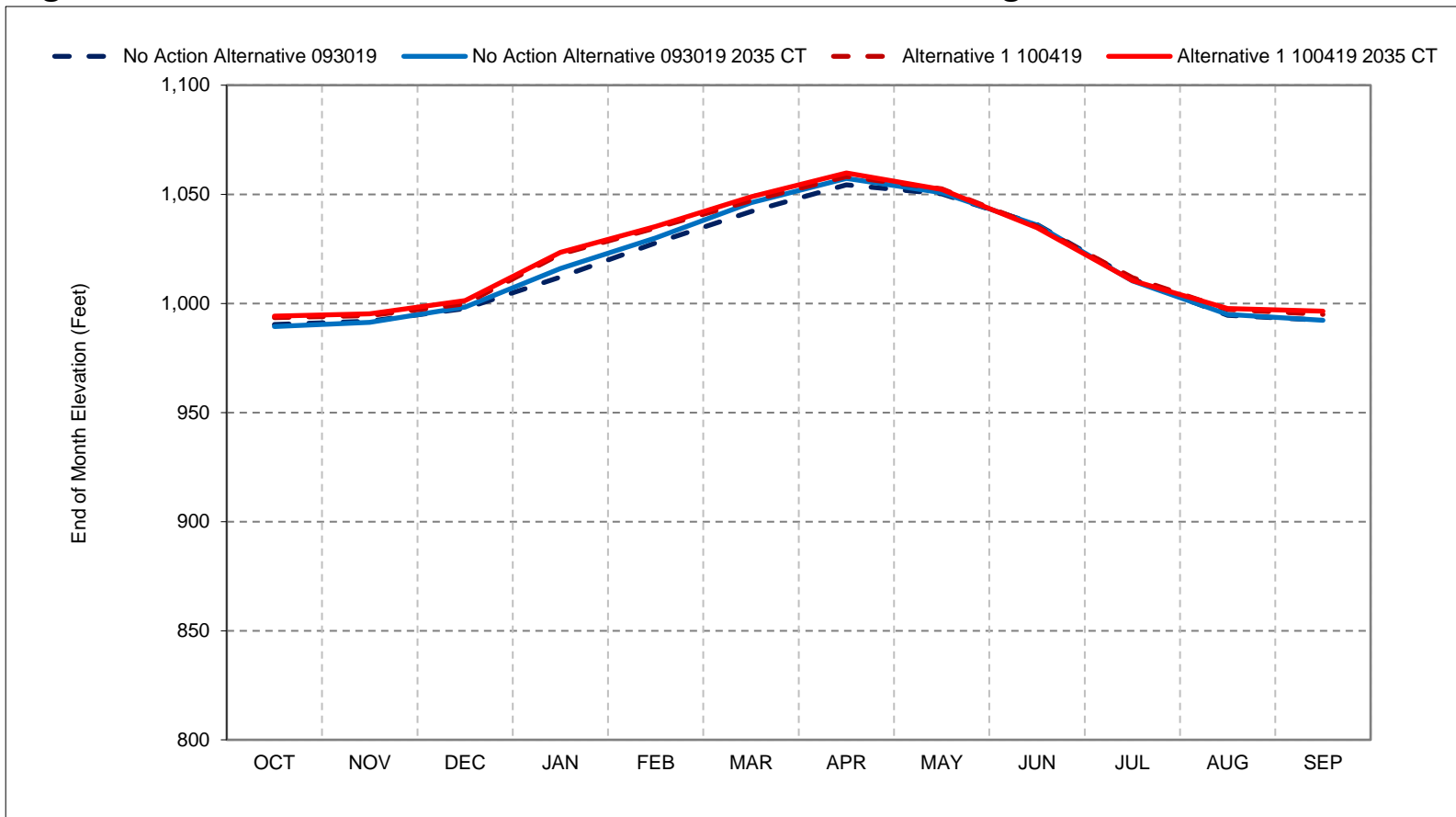
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-4. Shasta Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

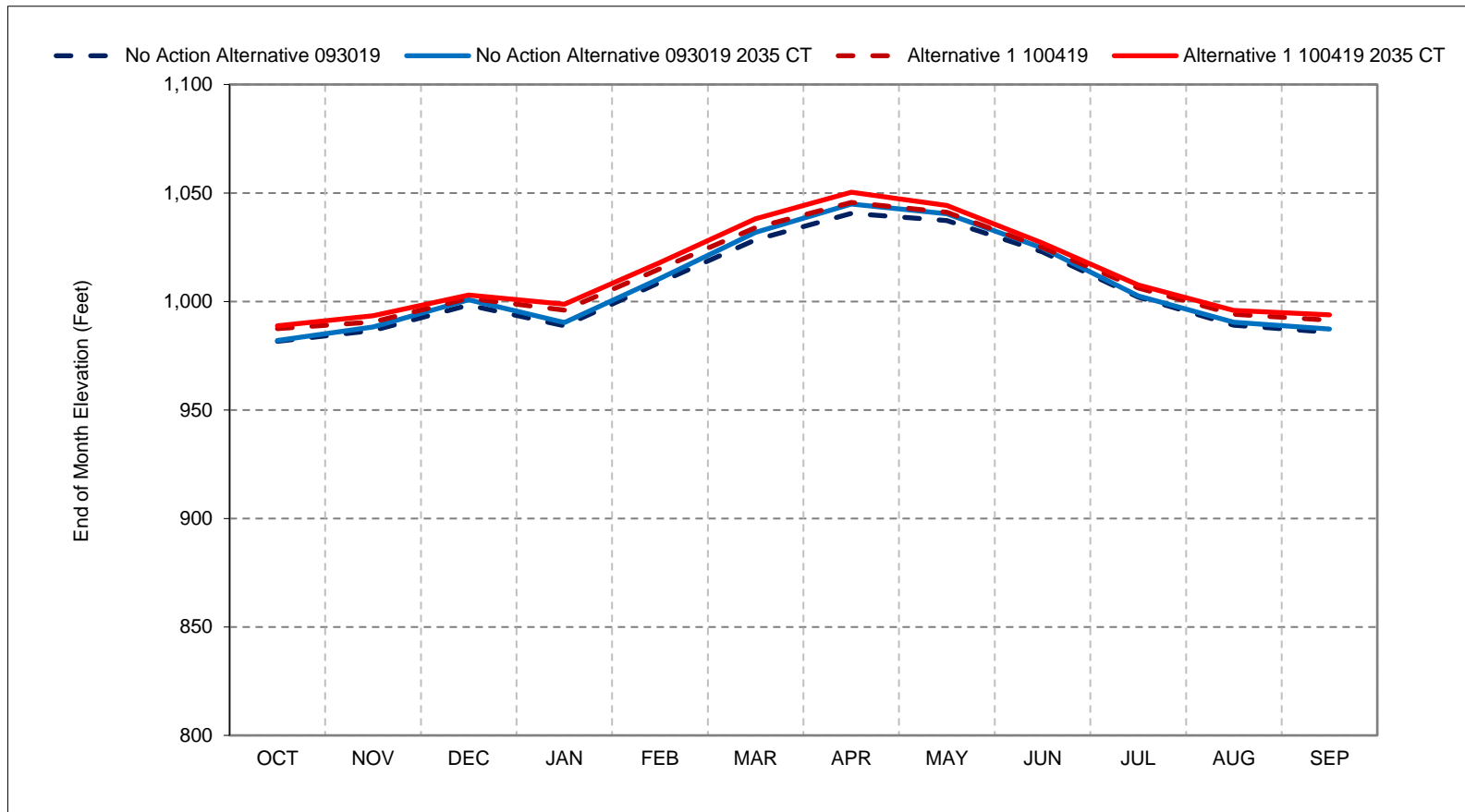
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-5. Shasta Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

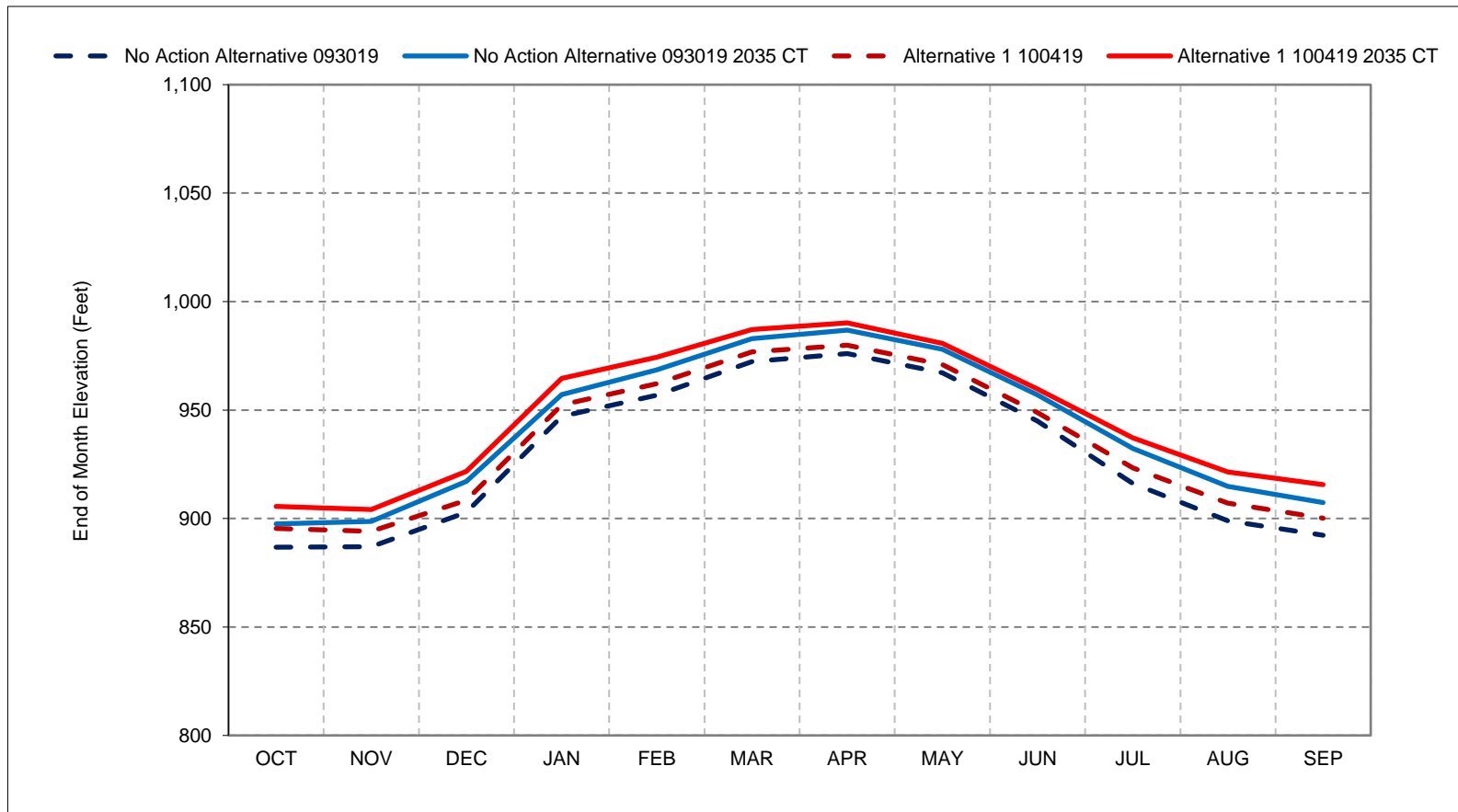
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 3a-6. Shasta Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

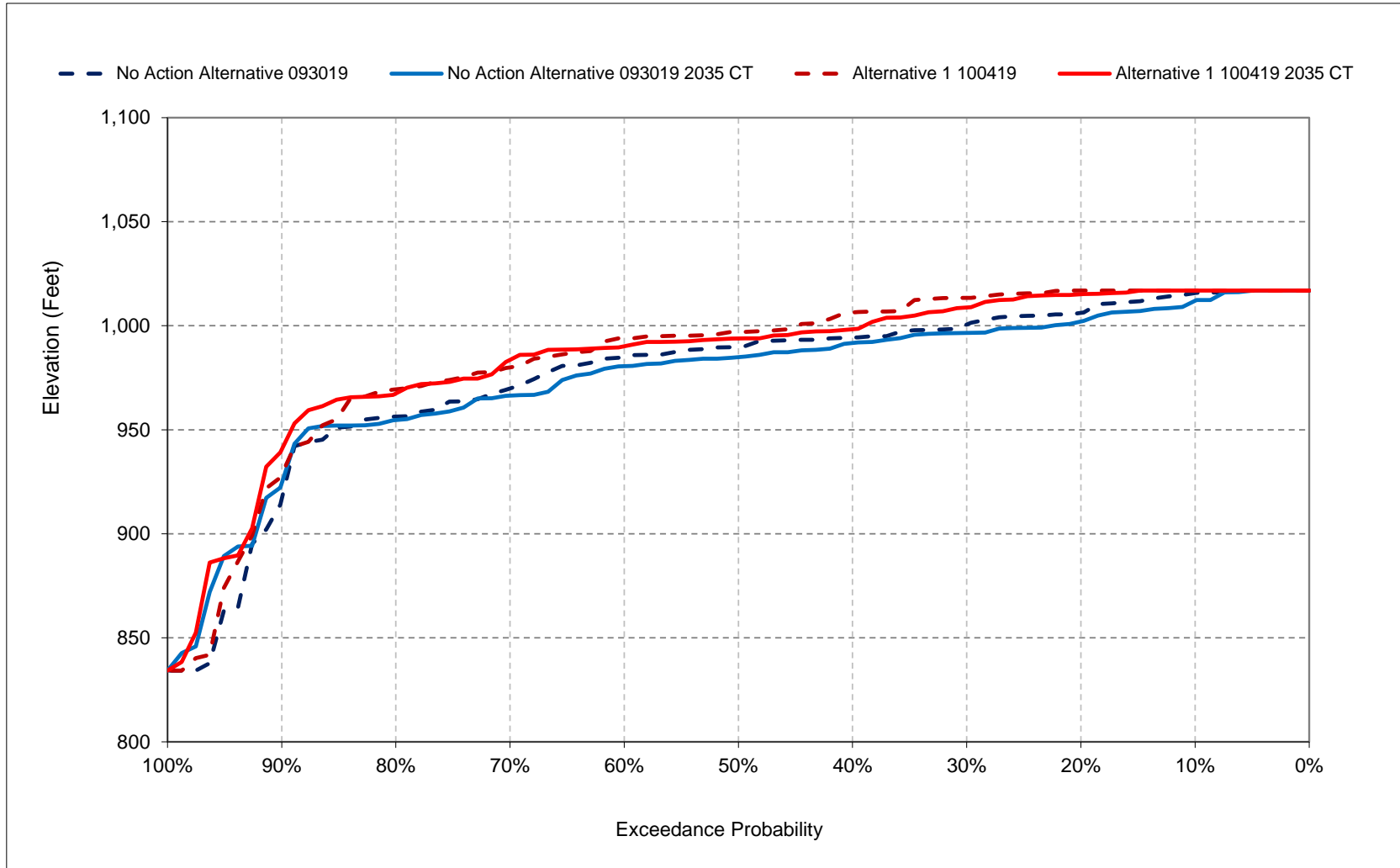
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

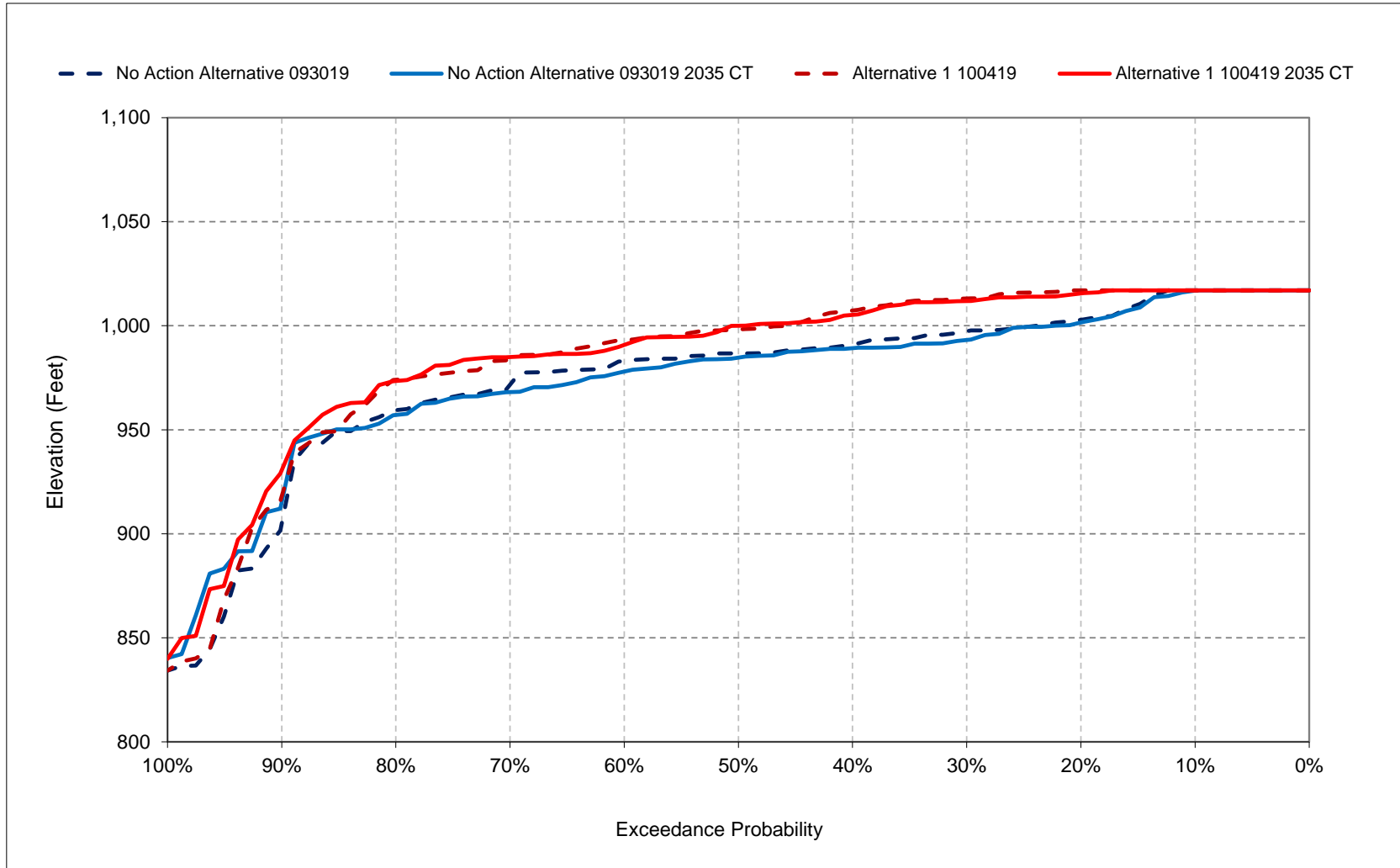
Figure 3a-7. Shasta Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

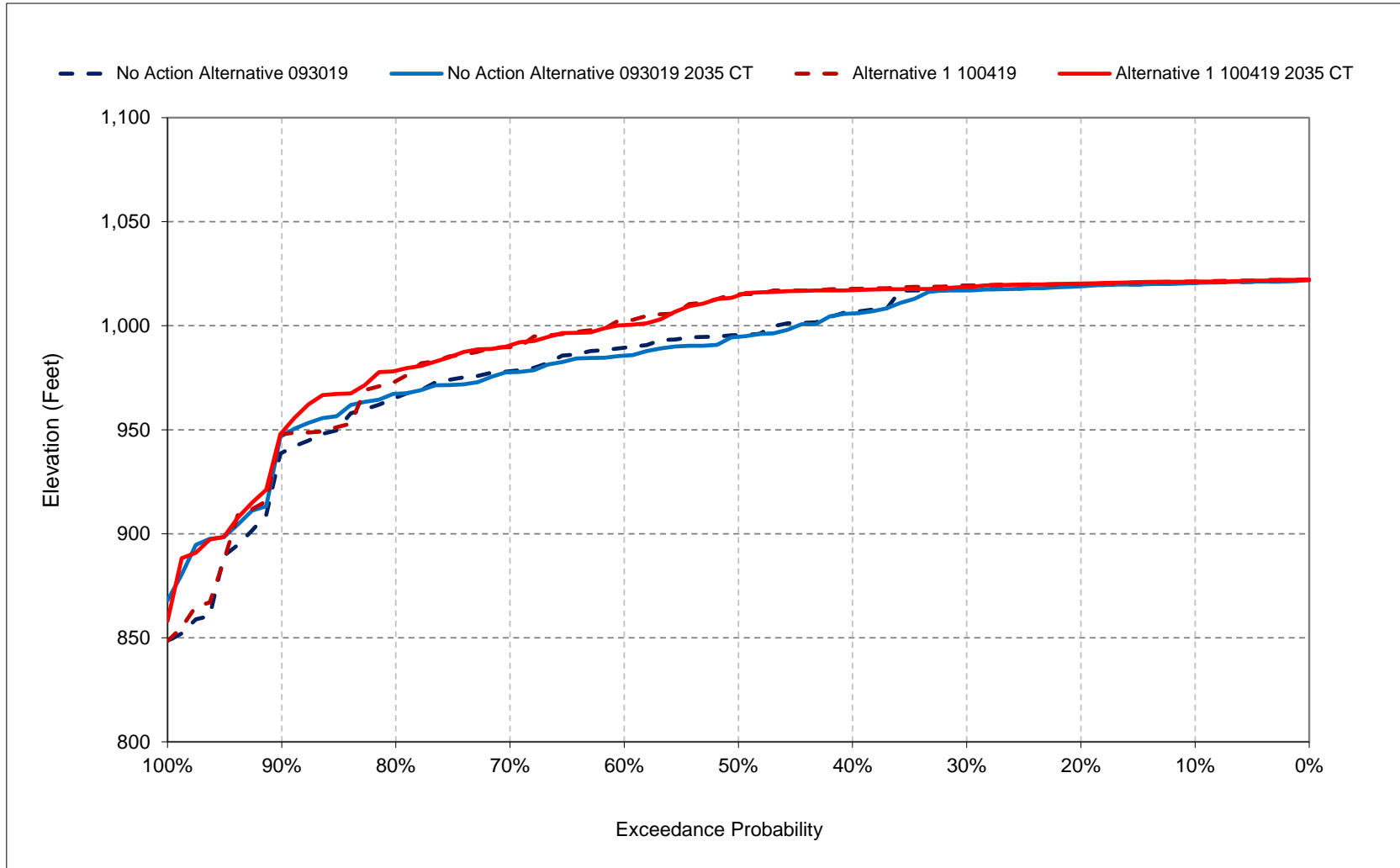
Figure 3a-8. Shasta Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

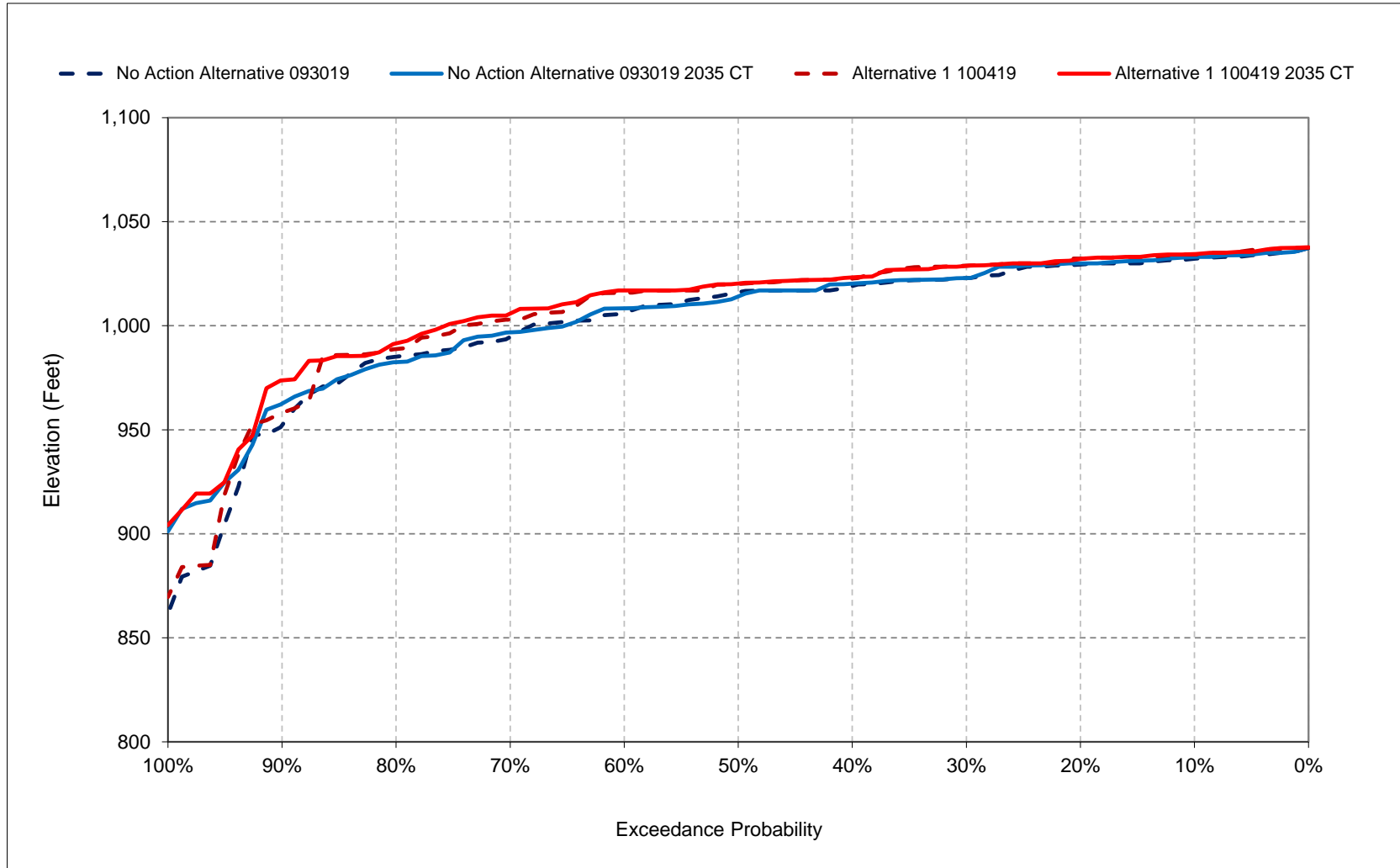
Figure 3a-9. Shasta Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

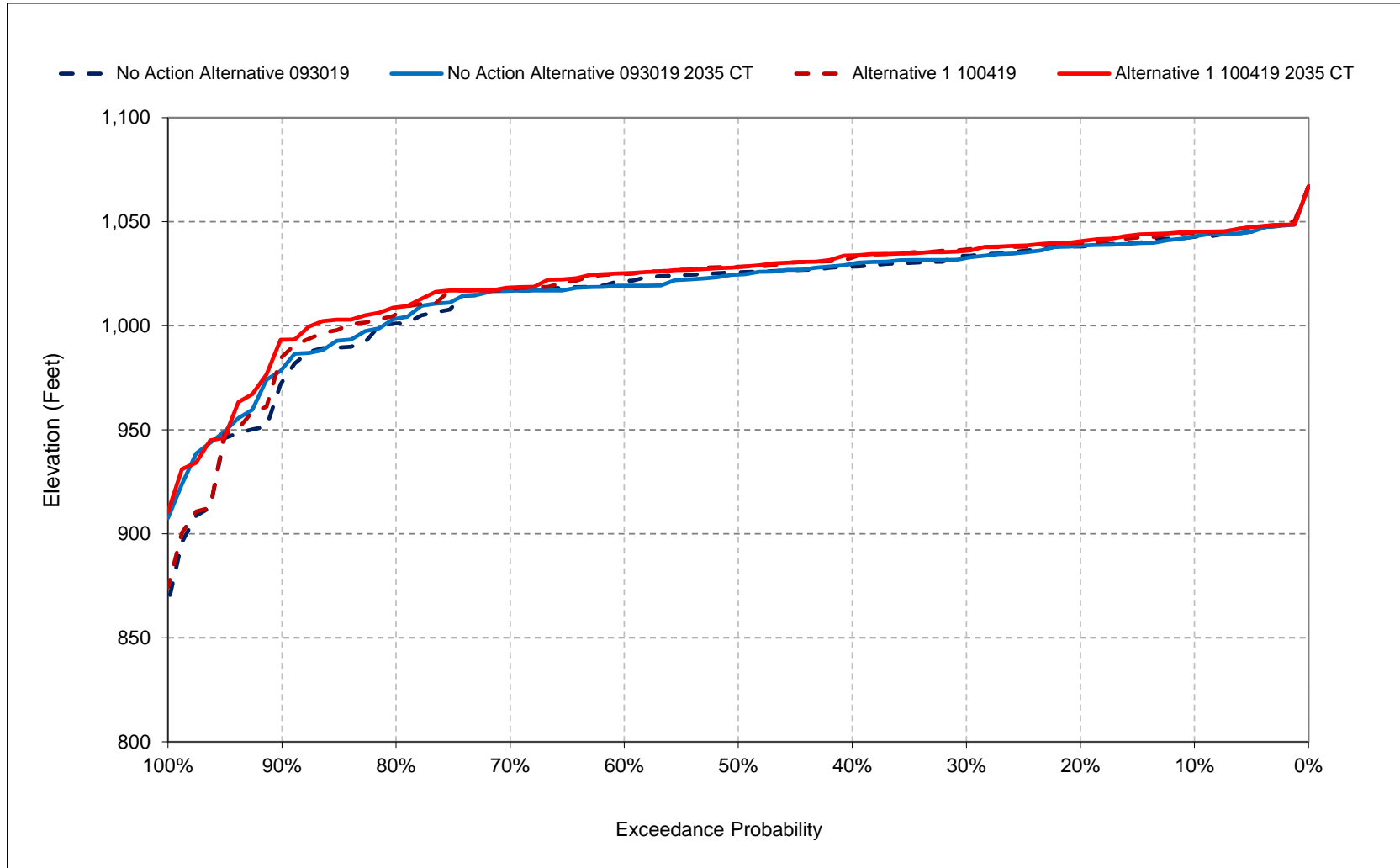
Figure 3a-10. Shasta Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

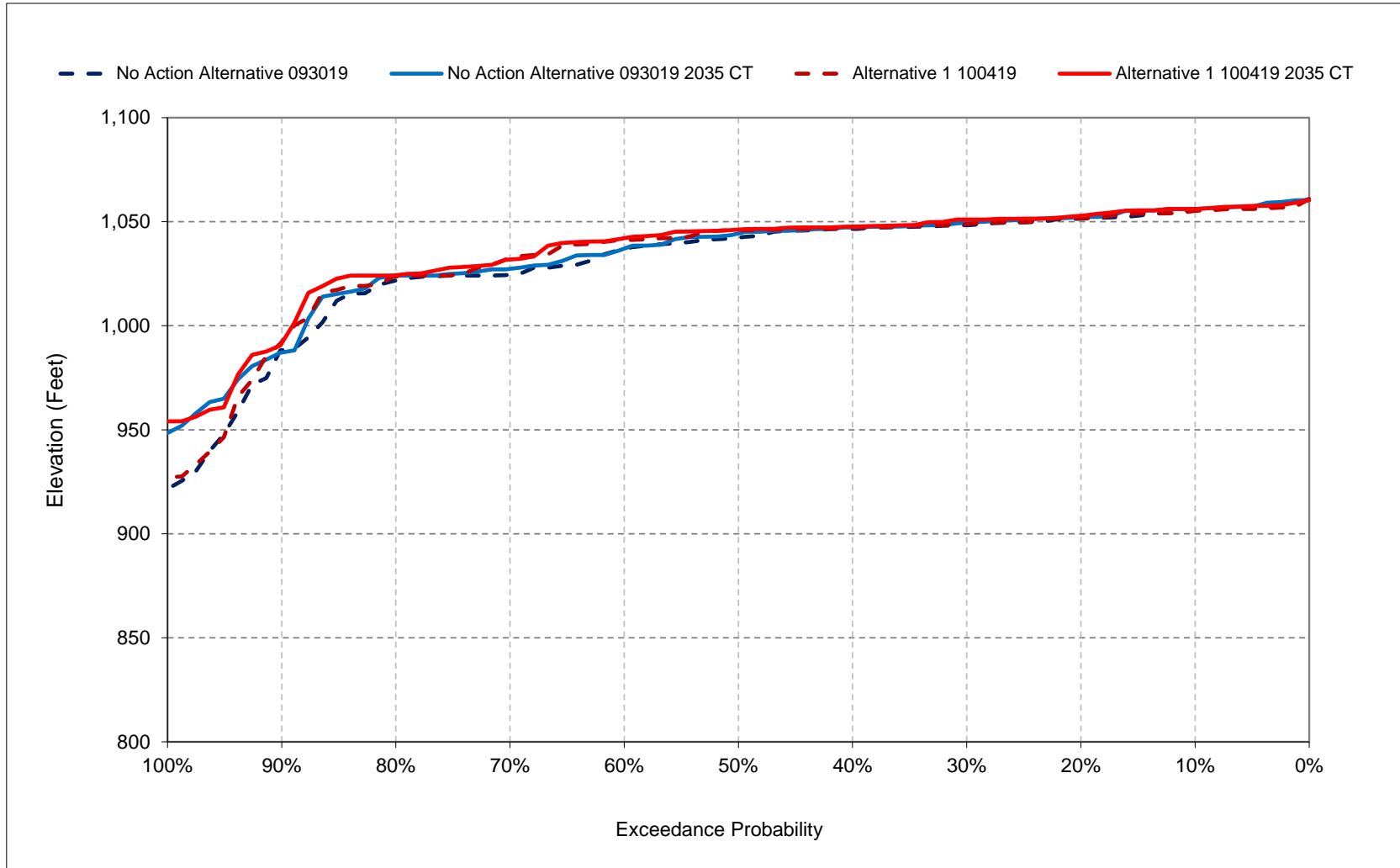
Figure 3a-11. Shasta Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

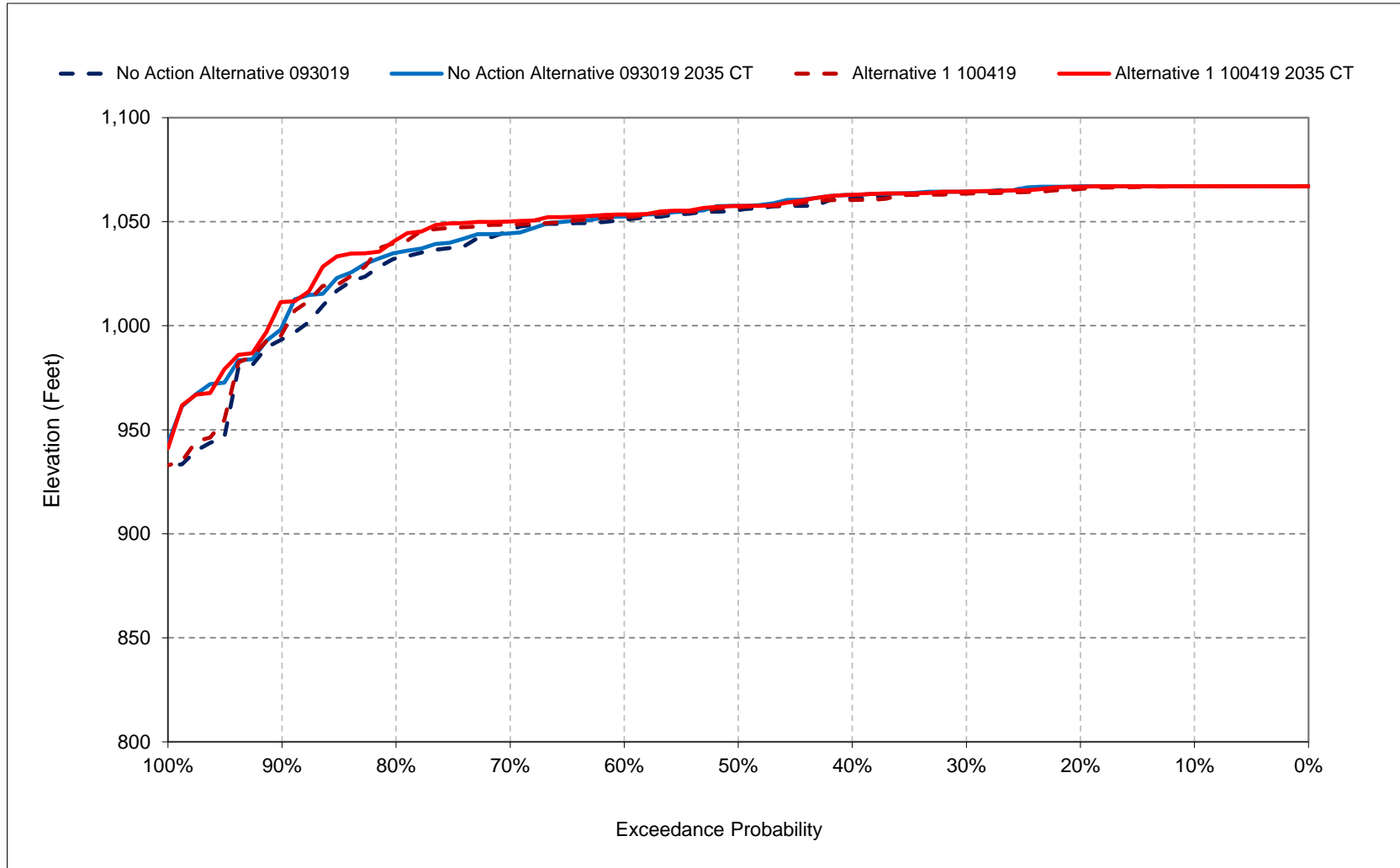
Figure 3a-12. Shasta Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

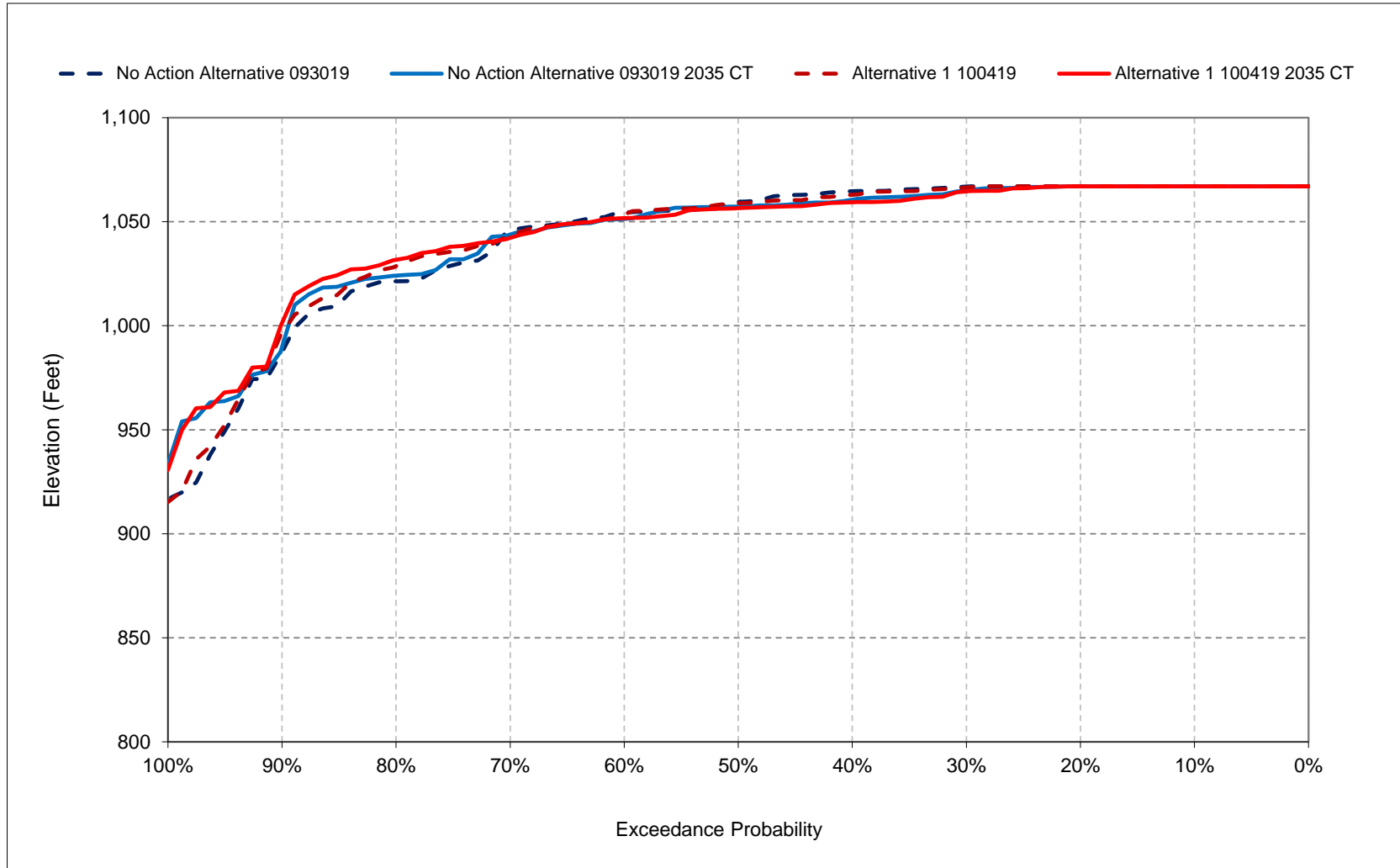
Figure 3a-13. Shasta Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

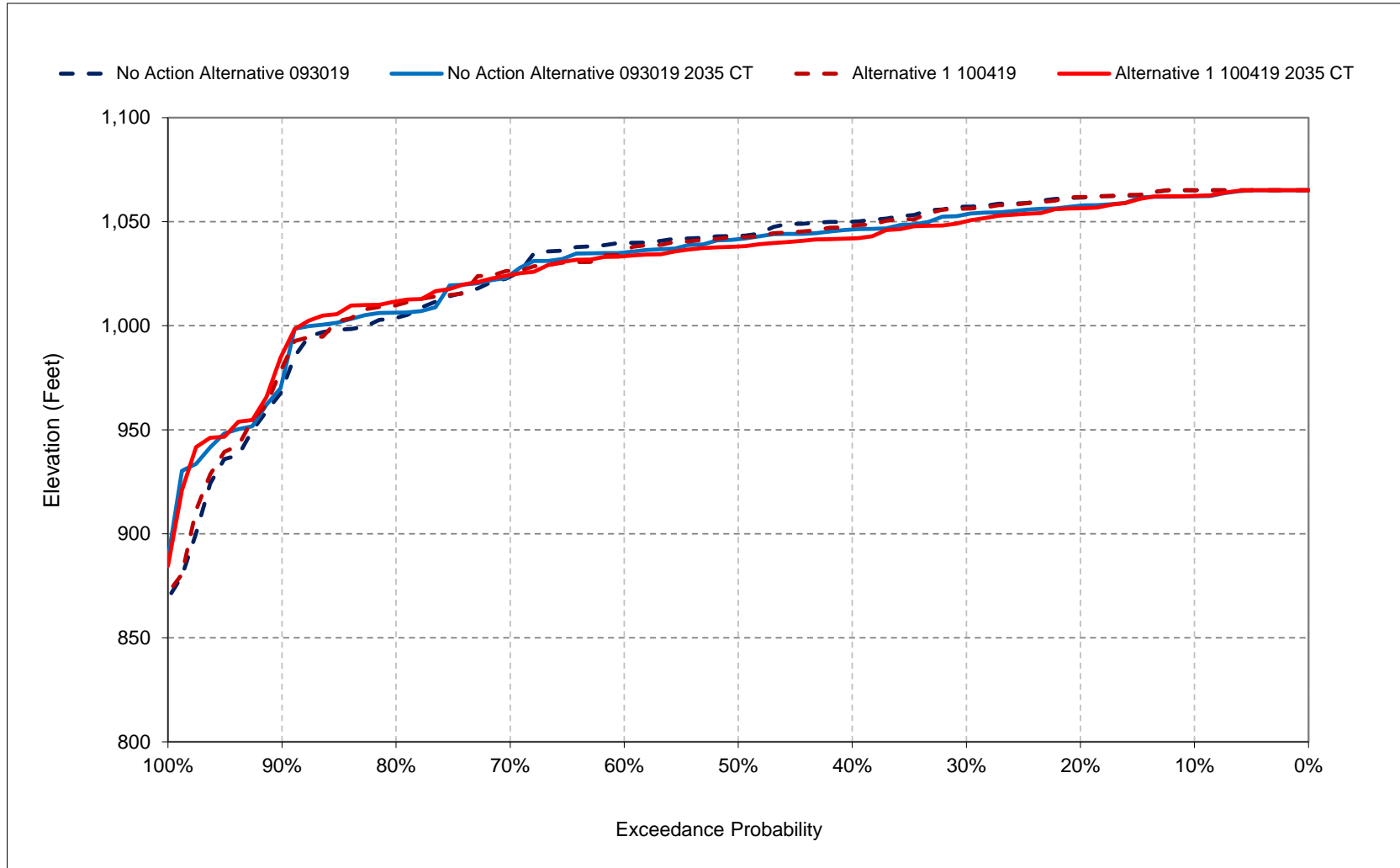
Figure 3a-14. Shasta Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

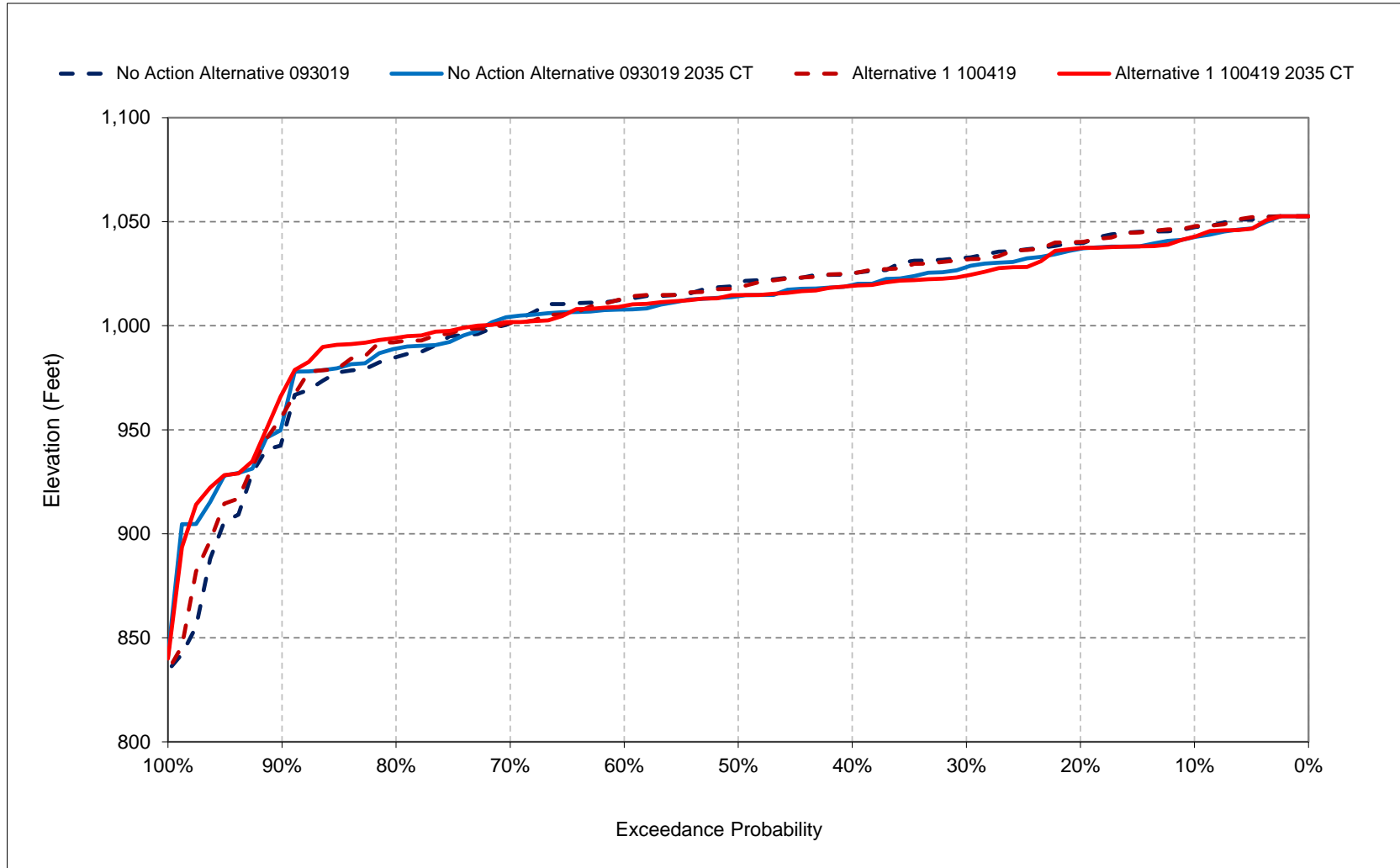
Figure 3a-15. Shasta Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

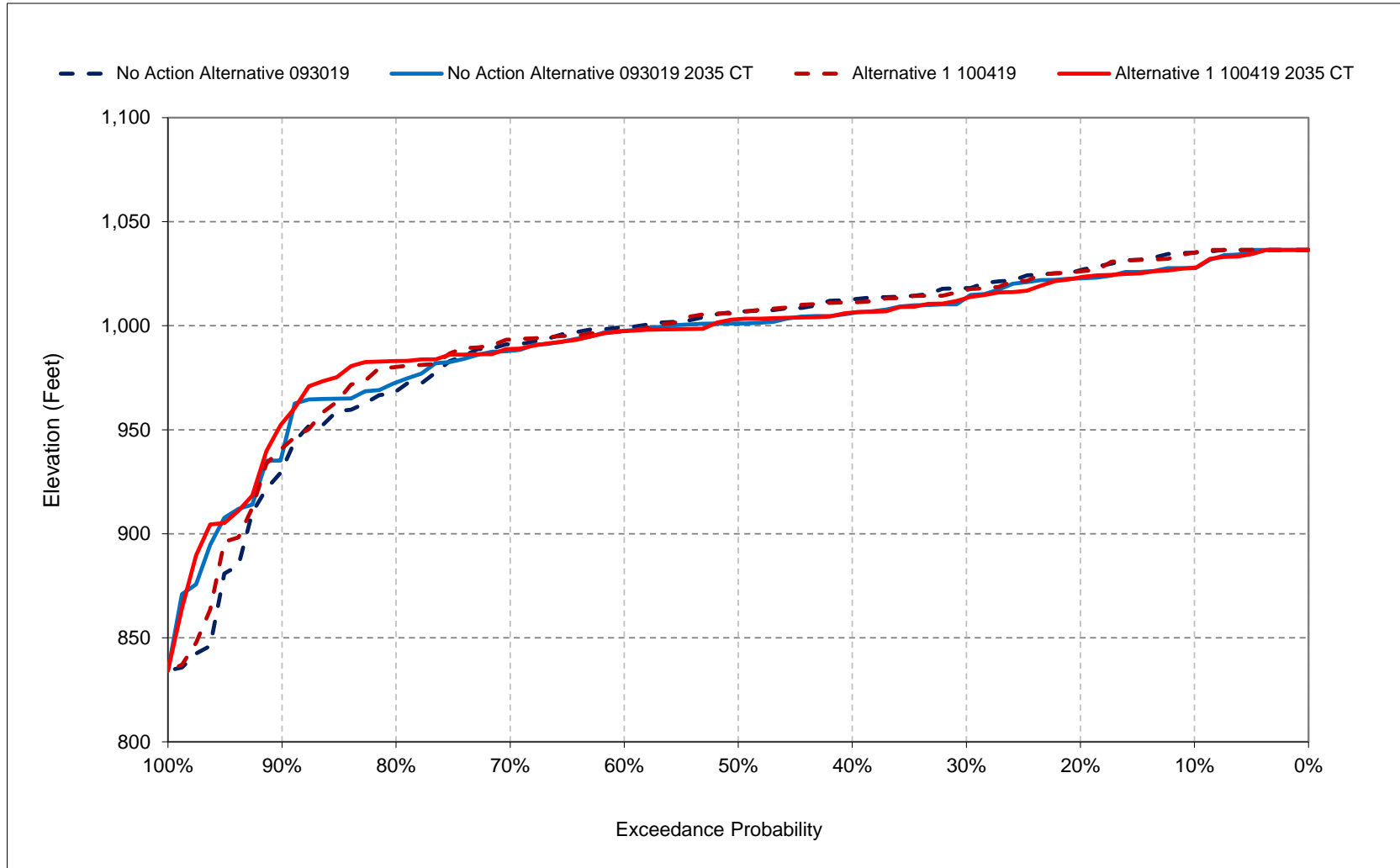
Figure 3a-16. Shasta Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

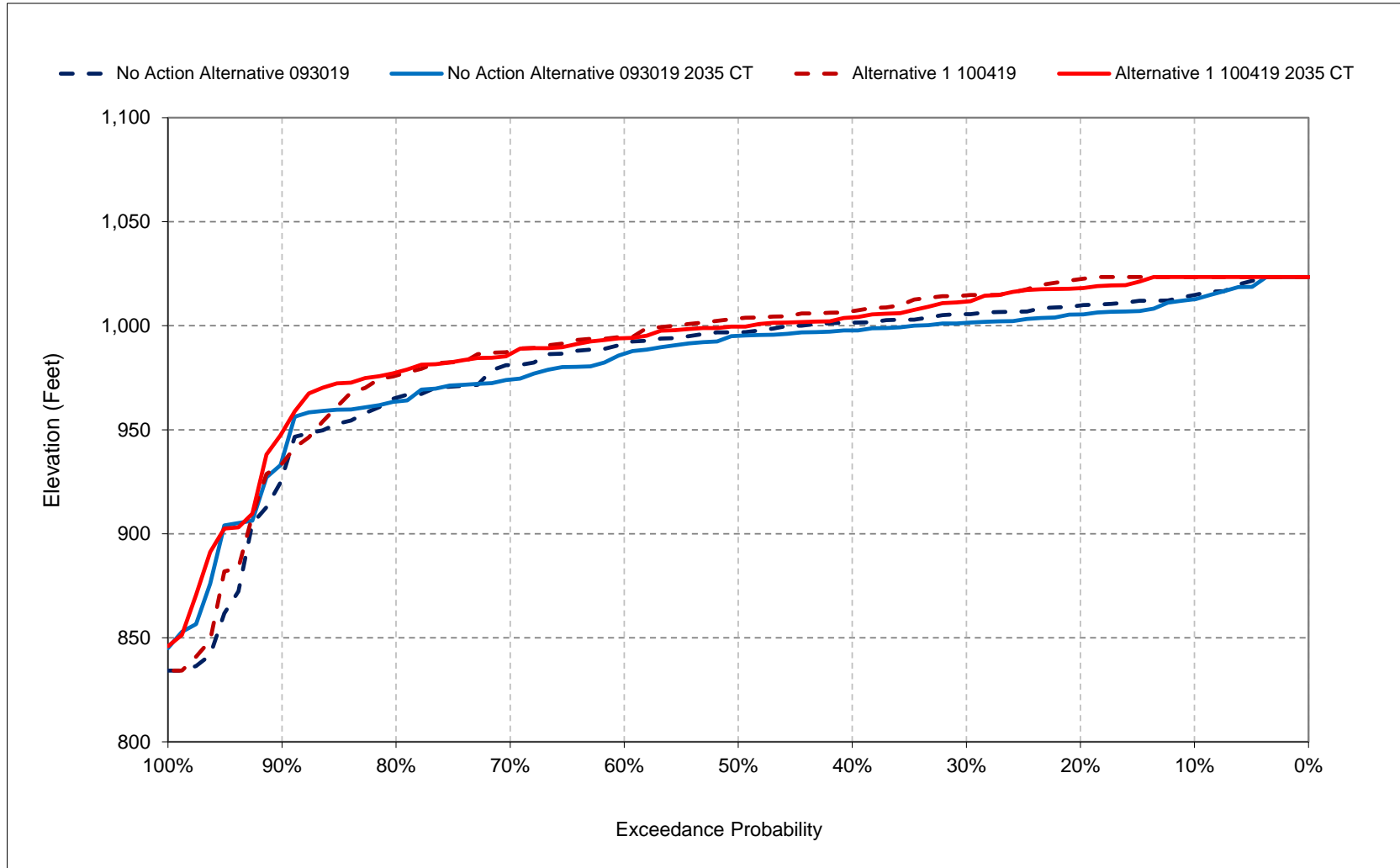
Figure 3a-17. Shasta Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 3a-18. Shasta Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-1. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,147	2,150	2,784	2,788	2,924	3,042	3,352	3,538	3,538	3,060	2,750	2,223
20%	1,832	1,854	2,100	2,753	2,788	2,964	3,302	3,538	3,534	2,977	2,546	2,008
30%	1,704	1,734	1,896	2,396	2,788	2,909	3,273	3,488	3,366	2,826	2,370	1,893
40%	1,548	1,550	1,721	1,966	2,673	2,788	3,209	3,356	3,191	2,598	2,127	1,686
50%	1,483	1,463	1,553	1,804	2,206	2,655	2,904	2,993	2,876	2,271	1,813	1,543
60%	1,357	1,259	1,407	1,554	2,009	2,365	2,653	2,699	2,449	1,812	1,541	1,481
70%	1,202	1,148	1,198	1,432	1,735	2,109	2,251	2,307	2,010	1,540	1,410	1,327
80%	1,123	1,016	1,031	1,218	1,550	1,835	1,998	1,991	1,772	1,527	1,365	1,259
90%	882	890	901	1,000	1,223	1,448	1,570	1,603	1,381	1,119	977	932
Long Term												
Full Simulation Period ^d	1,472	1,452	1,618	1,874	2,172	2,410	2,677	2,767	2,613	2,161	1,871	1,595
Water Year Types ^{b,c}												
Wet (32%)	2,004	1,965	2,080	2,613	2,858	2,942	3,300	3,487	3,446	3,005	2,671	2,184
Above Normal (16%)	1,654	1,636	1,754	1,980	2,502	2,916	3,264	3,413	3,297	2,708	2,228	1,794
Below Normal (13%)	1,410	1,330	1,447	1,777	2,179	2,452	2,708	2,755	2,585	1,995	1,630	1,482
Dry (24%)	1,210	1,245	1,564	1,354	1,630	1,978	2,224	2,253	1,977	1,556	1,409	1,312
Critical (15%)	612	601	714	1,112	1,224	1,392	1,418	1,373	1,153	903	739	676

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,551	2,548	2,788	2,788	2,961	3,058	3,352	3,538	3,538	3,059	2,611	2,579
20%	2,242	2,290	2,428	2,788	2,838	2,994	3,302	3,538	3,534	2,972	2,505	2,368
30%	2,116	2,127	2,271	2,603	2,788	2,941	3,276	3,474	3,312	2,791	2,356	2,246
40%	1,972	1,920	2,124	2,440	2,788	2,863	3,223	3,377	3,170	2,564	2,112	2,025
50%	1,551	1,585	1,774	2,255	2,697	2,788	3,143	3,136	2,925	2,365	1,892	1,608
60%	1,396	1,337	1,553	1,686	2,147	2,671	2,835	2,770	2,500	1,871	1,541	1,512
70%	1,276	1,202	1,219	1,527	1,923	2,272	2,543	2,491	2,136	1,568	1,453	1,409
80%	1,128	1,011	1,061	1,272	1,617	1,890	2,152	2,159	1,805	1,532	1,369	1,256
90%	953	899	904	1,068	1,307	1,530	1,641	1,637	1,460	1,239	1,112	1,057
Long Term												
Full Simulation Period ^d	1,672	1,651	1,788	2,019	2,293	2,504	2,768	2,844	2,653	2,189	1,875	1,779
Water Year Types ^{b,c}												
Wet (32%)	2,412	2,380	2,439	2,695	2,892	2,942	3,300	3,484	3,427	2,995	2,605	2,542
Above Normal (16%)	1,955	1,927	2,002	2,161	2,641	2,957	3,293	3,424	3,273	2,698	2,221	2,087
Below Normal (13%)	1,462	1,380	1,495	2,057	2,417	2,679	2,935	2,956	2,721	2,107	1,687	1,529
Dry (24%)	1,238	1,267	1,576	1,520	1,806	2,156	2,401	2,398	2,059	1,583	1,442	1,341
Critical (15%)	677	659	770	1,198	1,314	1,483	1,506	1,466	1,234	976	813	749

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	404	399	4	0	37	16	0	0	0	0	-139	355
20%	410	436	328	35	50	30	0	0	0	-5	-41	360
30%	412	393	376	207	0	32	3	-14	-54	-35	-14	353
40%	424	370	403	475	115	75	14	21	-21	-34	-15	339
50%	68	122	221	451	492	133	239	143	49	93	78	65
60%	39	78	146	132	138	306	182	71	52	59	0	31
70%	74	54	21	94	188	163	292	184	126	29	43	82
80%	5	-4	30	54	67	55	154	168	33	6	4	-3
90%	70	9	3	69	84	82	71	34	79	119	135	125
Long Term												
Full Simulation Period ^d	200	198	171	146	121	93	91	77	40	28	4	184
Water Year Types ^{b,c}												
Wet (32%)	408	415	359	82	35	0	0	-3	-19	-10	-66	358
Above Normal (16%)	301	290	248	182	139	41	29	11	-23	-10	-8	293
Below Normal (13%)	52	51	48	281	238	227	226	201	136	112	57	47
Dry (24%)	28	22	11	167	177	178	177	145	82	27	33	29
Critical (15%)	65	59	56	86	89	90	88	94	81	74	74	72

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 4-2. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,055	2,073	2,788	2,807	2,961	3,056	3,351	3,538	3,538	3,016	2,658	2,180
20%	1,806	1,853	2,299	2,788	2,812	2,964	3,292	3,538	3,443	2,903	2,489	1,980
30%	1,581	1,702	1,902	2,624	2,788	2,933	3,237	3,338	3,177	2,598	2,209	1,799
40%	1,547	1,537	1,695	2,076	2,689	2,817	3,189	3,221	3,017	2,460	1,981	1,595
50%	1,483	1,444	1,554	1,783	2,381	2,788	3,063	3,055	2,848	2,287	1,826	1,543
60%	1,381	1,314	1,401	1,701	2,027	2,560	2,782	2,797	2,542	1,889	1,546	1,530
70%	1,263	1,210	1,247	1,500	1,857	2,133	2,423	2,369	2,047	1,540	1,425	1,374
80%	1,177	1,084	1,121	1,346	1,591	2,014	2,125	2,056	1,859	1,539	1,390	1,300
90%	926	891	1,021	1,183	1,432	1,671	1,785	1,790	1,533	1,261	1,104	1,030
Long Term												
Full Simulation Period ^d	1,485	1,480	1,674	1,976	2,269	2,506	2,755	2,801	2,627	2,155	1,847	1,598
Water Year Types ^{b,c}												
Wet (32%)	1,965	1,944	2,087	2,681	2,875	2,942	3,280	3,446	3,378	2,918	2,578	2,141
Above Normal (16%)	1,584	1,590	1,751	2,100	2,590	2,935	3,229	3,283	3,130	2,532	2,058	1,664
Below Normal (13%)	1,414	1,349	1,512	1,893	2,304	2,576	2,809	2,783	2,587	1,998	1,631	1,483
Dry (24%)	1,251	1,294	1,636	1,449	1,766	2,163	2,404	2,384	2,117	1,658	1,445	1,361
Critical (15%)	794	782	904	1,271	1,419	1,607	1,636	1,591	1,339	1,065	905	850

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,464	2,485	2,788	2,843	2,985	3,074	3,352	3,538	3,538	3,043	2,602	2,543
20%	2,204	2,212	2,463	2,788	2,883	3,014	3,299	3,538	3,388	2,855	2,428	2,342
30%	2,059	2,084	2,329	2,784	2,788	2,953	3,254	3,319	3,128	2,731	2,330	2,158
40%	1,763	1,830	2,086	2,553	2,788	2,906	3,205	3,166	2,942	2,428	2,024	1,854
50%	1,547	1,538	1,869	2,233	2,635	2,788	3,107	3,046	2,743	2,169	1,733	1,570
60%	1,388	1,351	1,535	1,755	2,295	2,659	2,925	2,878	2,529	1,933	1,591	1,543
70%	1,334	1,239	1,278	1,596	2,008	2,439	2,648	2,651	2,299	1,665	1,537	1,469
80%	1,175	1,122	1,134	1,339	1,705	2,074	2,245	2,233	1,854	1,539	1,370	1,307
90%	1,004	912	956	1,217	1,440	1,643	1,892	1,768	1,543	1,299	1,144	1,074
Long Term												
Full Simulation Period ^d	1,667	1,658	1,829	2,101	2,362	2,576	2,823	2,844	2,618	2,164	1,859	1,775
Water Year Types ^{b,c}												
Wet (32%)	2,350	2,332	2,443	2,729	2,890	2,942	3,280	3,423	3,316	2,912	2,555	2,486
Above Normal (16%)	1,821	1,813	1,935	2,296	2,718	2,962	3,256	3,276	3,068	2,515	2,064	1,941
Below Normal (13%)	1,455	1,389	1,552	2,173	2,502	2,749	2,982	2,909	2,628	2,036	1,649	1,537
Dry (24%)	1,302	1,338	1,659	1,591	1,908	2,306	2,546	2,502	2,168	1,682	1,493	1,411
Critical (15%)	820	805	923	1,312	1,461	1,654	1,680	1,633	1,358	1,087	934	877

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	408	413	0	36	24	18	1	0	0	27	-55	364
20%	399	359	164	0	72	50	7	0	-55	-48	-61	362
30%	478	382	427	160	0	20	16	-19	-49	133	122	359
40%	217	293	391	477	99	89	16	-55	-75	-32	43	259
50%	63	94	316	450	254	0	44	-9	-105	-118	-93	27
60%	6	37	135	53	267	99	144	81	-13	45	45	13
70%	72	29	31	96	152	307	224	283	252	126	113	95
80%	-2	37	13	-7	114	60	120	177	-6	0	-20	7
90%	78	22	-65	34	8	-28	107	-22	11	38	40	44
Long Term												
Full Simulation Period ^d	181	178	156	125	93	69	68	44	-9	10	12	177
Water Year Types ^{b,c}												
Wet (32%)	385	388	355	48	15	0	0	-22	-62	-6	-24	346
Above Normal (16%)	237	223	184	197	128	26	26	-7	-62	-17	6	277
Below Normal (13%)	41	40	40	280	198	173	172	125	41	39	19	55
Dry (24%)	50	44	24	142	143	144	143	118	51	24	48	50
Critical (15%)	26	24	19	41	43	47	44	42	19	22	29	27

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-3. Lake Oroville Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,147	2,150	2,784	2,788	2,924	3,042	3,352	3,538	3,538	3,060	2,750	2,223
20%	1,832	1,854	2,100	2,753	2,788	2,964	3,302	3,538	3,534	2,977	2,546	2,008
30%	1,704	1,734	1,896	2,396	2,788	2,909	3,273	3,488	3,366	2,826	2,370	1,893
40%	1,548	1,550	1,721	1,966	2,673	2,788	3,209	3,356	3,191	2,598	2,127	1,686
50%	1,483	1,463	1,553	1,804	2,206	2,655	2,904	2,993	2,876	2,271	1,813	1,543
60%	1,357	1,259	1,407	1,554	2,009	2,365	2,653	2,699	2,449	1,812	1,541	1,481
70%	1,202	1,148	1,198	1,432	1,735	2,109	2,251	2,307	2,010	1,540	1,410	1,327
80%	1,123	1,016	1,031	1,218	1,550	1,835	1,998	1,991	1,772	1,527	1,365	1,259
90%	882	890	901	1,000	1,223	1,448	1,570	1,603	1,381	1,119	977	932
Long Term												
Full Simulation Period ^d	1,472	1,452	1,618	1,874	2,172	2,410	2,677	2,767	2,613	2,161	1,871	1,595
Water Year Types ^{b,c}												
Wet (32%)	2,004	1,965	2,080	2,613	2,858	2,942	3,300	3,487	3,446	3,005	2,671	2,184
Above Normal (16%)	1,654	1,636	1,754	1,980	2,502	2,916	3,264	3,413	3,297	2,708	2,228	1,794
Below Normal (13%)	1,410	1,330	1,447	1,777	2,179	2,452	2,708	2,755	2,585	1,995	1,630	1,482
Dry (24%)	1,210	1,245	1,564	1,354	1,630	1,978	2,224	2,253	1,977	1,556	1,409	1,312
Critical (15%)	612	601	714	1,112	1,224	1,392	1,418	1,373	1,153	903	739	676

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,055	2,073	2,788	2,807	2,961	3,056	3,351	3,538	3,538	3,016	2,658	2,180
20%	1,806	1,853	2,299	2,788	2,812	2,964	3,292	3,538	3,443	2,903	2,489	1,980
30%	1,581	1,702	1,902	2,624	2,788	2,933	3,237	3,338	3,177	2,598	2,209	1,799
40%	1,547	1,537	1,695	2,076	2,689	2,817	3,189	3,221	3,017	2,460	1,981	1,595
50%	1,483	1,444	1,554	1,783	2,381	2,788	3,063	3,055	2,848	2,287	1,826	1,543
60%	1,381	1,314	1,401	1,701	2,027	2,560	2,782	2,797	2,542	1,889	1,546	1,530
70%	1,263	1,210	1,247	1,500	1,857	2,133	2,423	2,369	2,047	1,540	1,425	1,374
80%	1,177	1,084	1,121	1,346	1,591	2,014	2,125	2,056	1,859	1,539	1,390	1,300
90%	926	891	1,021	1,183	1,432	1,671	1,785	1,790	1,533	1,261	1,104	1,030
Long Term												
Full Simulation Period ^d	1,485	1,480	1,674	1,976	2,269	2,506	2,755	2,801	2,627	2,155	1,847	1,598
Water Year Types ^{b,c}												
Wet (32%)	1,965	1,944	2,087	2,681	2,875	2,942	3,280	3,446	3,378	2,918	2,578	2,141
Above Normal (16%)	1,584	1,590	1,751	2,100	2,590	2,935	3,229	3,283	3,130	2,532	2,058	1,664
Below Normal (13%)	1,414	1,349	1,512	1,893	2,304	2,576	2,809	2,783	2,587	1,998	1,631	1,483
Dry (24%)	1,251	1,294	1,636	1,449	1,766	2,163	2,404	2,384	2,117	1,658	1,445	1,361
Critical (15%)	794	782	904	1,271	1,419	1,607	1,636	1,591	1,339	1,065	905	850

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-92	-77	4	19	37	14	-1	0	0	-44	-92	-44
20%	-27	-1	198	35	24	0	-10	0	-91	-74	-57	-28
30%	-123	-31	6	228	0	24	-36	-150	-189	-228	-162	-93
40%	-1	-12	-26	111	16	29	-20	-135	-173	-139	-145	-91
50%	0	-20	1	-21	175	133	159	62	-28	15	13	0
60%	24	55	-7	148	18	195	128	98	93	77	6	48
70%	61	62	49	68	122	24	172	62	36	0	15	47
80%	54	69	90	128	41	179	127	65	87	12	25	40
90%	44	1	120	184	209	223	216	188	152	142	127	98
Long Term												
Full Simulation Period ^d	14	27	56	103	98	96	78	34	14	-6	-23	3
Water Year Types ^{b,c}												
Wet (32%)	-39	-20	7	68	17	0	-20	-42	-68	-87	-92	-44
Above Normal (16%)	-70	-47	-3	120	88	19	-35	-131	-167	-176	-171	-131
Below Normal (13%)	4	20	65	117	125	124	101	29	2	3	1	1
Dry (24%)	41	49	72	95	136	185	180	131	140	102	36	49
Critical (15%)	182	181	190	158	194	215	218	219	186	162	166	173

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4-4. Lake Oroville Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,551	2,548	2,788	2,788	2,961	3,058	3,352	3,538	3,538	3,059	2,611	2,579
20%	2,242	2,290	2,428	2,788	2,838	2,994	3,302	3,538	3,534	2,972	2,505	2,368
30%	2,116	2,127	2,271	2,603	2,788	2,941	3,276	3,474	3,312	2,791	2,356	2,246
40%	1,972	1,920	2,124	2,440	2,788	2,863	3,223	3,377	3,170	2,564	2,112	2,025
50%	1,551	1,585	1,774	2,255	2,697	2,788	3,143	3,136	2,925	2,365	1,892	1,608
60%	1,396	1,337	1,553	1,686	2,147	2,671	2,835	2,770	2,500	1,871	1,541	1,512
70%	1,276	1,202	1,219	1,527	1,923	2,272	2,543	2,491	2,136	1,568	1,453	1,409
80%	1,128	1,011	1,061	1,272	1,617	1,890	2,152	2,159	1,805	1,532	1,369	1,256
90%	953	899	904	1,068	1,307	1,530	1,641	1,637	1,460	1,239	1,112	1,057
Long Term												
Full Simulation Period ^d	1,672	1,651	1,788	2,019	2,293	2,504	2,768	2,844	2,653	2,189	1,875	1,779
Water Year Types ^{b,c}												
Wet (32%)	2,412	2,380	2,439	2,695	2,892	2,942	3,300	3,484	3,427	2,995	2,605	2,542
Above Normal (16%)	1,955	1,927	2,002	2,161	2,641	2,957	3,293	3,424	3,273	2,698	2,221	2,087
Below Normal (13%)	1,462	1,380	1,495	2,057	2,417	2,679	2,935	2,956	2,721	2,107	1,687	1,529
Dry (24%)	1,238	1,267	1,576	1,520	1,806	2,156	2,401	2,398	2,059	1,583	1,442	1,341
Critical (15%)	677	659	770	1,198	1,314	1,483	1,506	1,466	1,234	976	813	749

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,464	2,485	2,788	2,843	2,985	3,074	3,352	3,538	3,538	3,043	2,602	2,543
20%	2,204	2,212	2,463	2,788	2,883	3,014	3,299	3,538	3,388	2,855	2,428	2,342
30%	2,059	2,084	2,329	2,784	2,788	2,953	3,254	3,319	3,128	2,731	2,330	2,158
40%	1,763	1,830	2,086	2,553	2,788	2,906	3,205	3,166	2,942	2,428	2,024	1,854
50%	1,547	1,538	1,869	2,233	2,635	2,788	3,107	3,046	2,743	2,169	1,733	1,570
60%	1,388	1,351	1,535	1,755	2,295	2,659	2,925	2,878	2,529	1,933	1,591	1,543
70%	1,334	1,239	1,278	1,596	2,008	2,439	2,648	2,651	2,299	1,665	1,537	1,469
80%	1,175	1,122	1,134	1,339	1,705	2,074	2,245	2,233	1,854	1,539	1,370	1,307
90%	1,004	912	956	1,217	1,440	1,643	1,892	1,768	1,543	1,299	1,144	1,074
Long Term												
Full Simulation Period ^d	1,667	1,658	1,829	2,101	2,362	2,576	2,823	2,844	2,618	2,164	1,859	1,775
Water Year Types ^{b,c}												
Wet (32%)	2,350	2,332	2,443	2,729	2,890	2,942	3,280	3,423	3,316	2,912	2,555	2,486
Above Normal (16%)	1,821	1,813	1,935	2,296	2,718	2,962	3,256	3,276	3,068	2,515	2,064	1,941
Below Normal (13%)	1,455	1,389	1,552	2,173	2,502	2,749	2,982	2,909	2,628	2,036	1,649	1,537
Dry (24%)	1,302	1,338	1,659	1,591	1,908	2,306	2,546	2,502	2,168	1,682	1,493	1,411
Critical (15%)	820	805	923	1,312	1,461	1,654	1,680	1,633	1,358	1,087	934	877

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-87	-63	0	55	24	17	0	0	0	-16	-9	-35
20%	-38	-78	35	0	46	20	-3	0	-146	-117	-77	-26
30%	-57	-42	58	181	0	12	-22	-155	-184	-60	-26	-87
40%	-209	-89	-38	113	0	43	-18	-211	-228	-137	-88	-171
50%	-5	-47	96	-22	-63	0	-36	-90	-182	-196	-159	-38
60%	-8	14	-17	69	148	-12	90	108	29	62	50	31
70%	58	37	58	69	86	167	104	160	162	97	84	60
80%	46	110	73	67	88	184	93	75	49	7	1	51
90%	51	13	53	149	133	113	251	132	84	60	32	17
Long Term												
Full Simulation Period ^d	-5	7	41	82	69	72	55	1	-35	-24	-16	-4
Water Year Types ^{b,c}												
Wet (32%)	-62	-47	4	35	-3	0	-20	-61	-111	-83	-50	-56
Above Normal (16%)	-135	-114	-67	135	77	5	-38	-148	-205	-183	-157	-146
Below Normal (13%)	-7	9	57	116	86	70	47	-47	-93	-70	-37	8
Dry (24%)	64	71	84	71	102	150	146	104	109	100	51	70
Critical (15%)	143	146	153	114	148	171	174	167	124	110	120	128

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

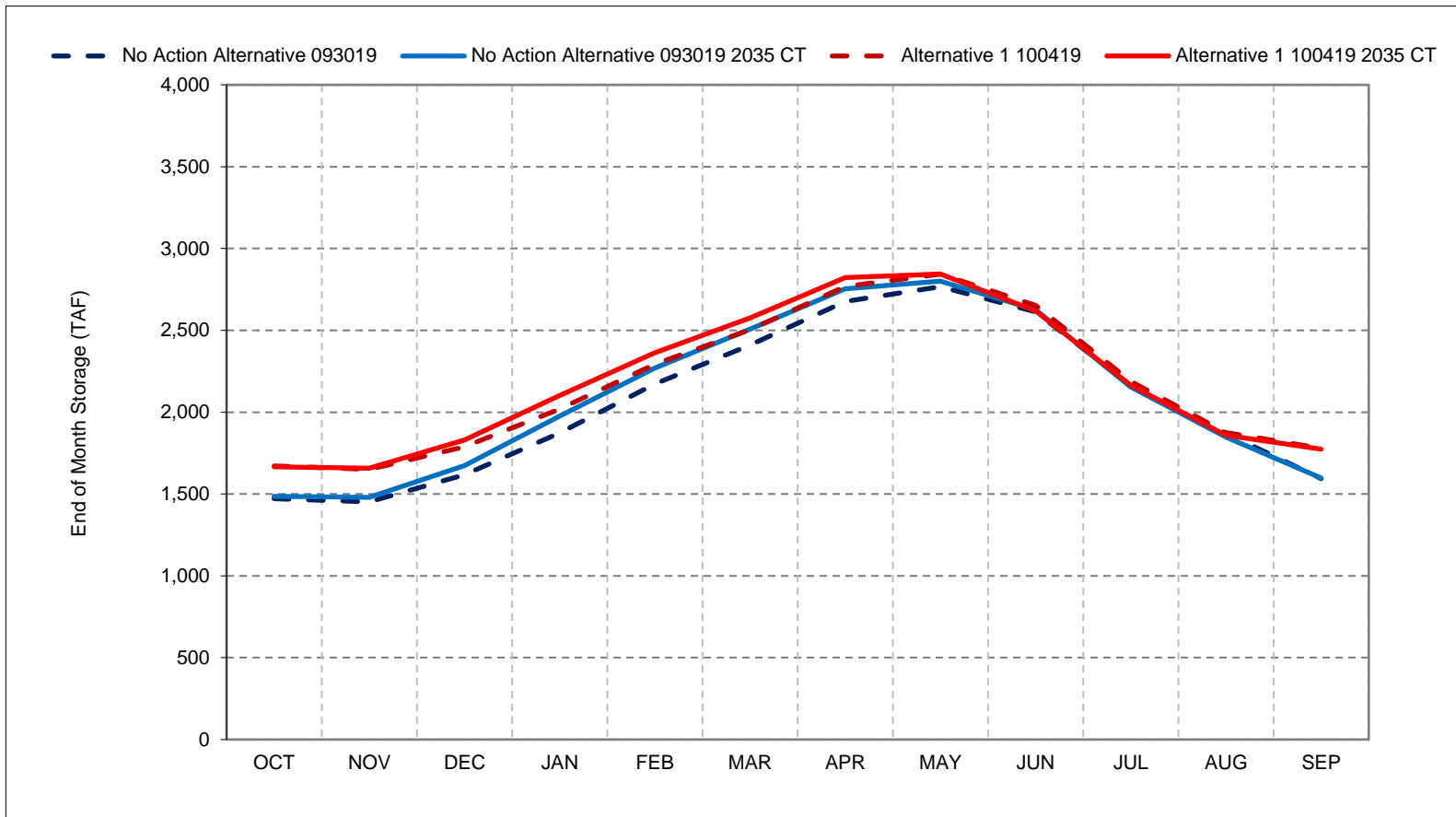
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4-1. Lake Oroville Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

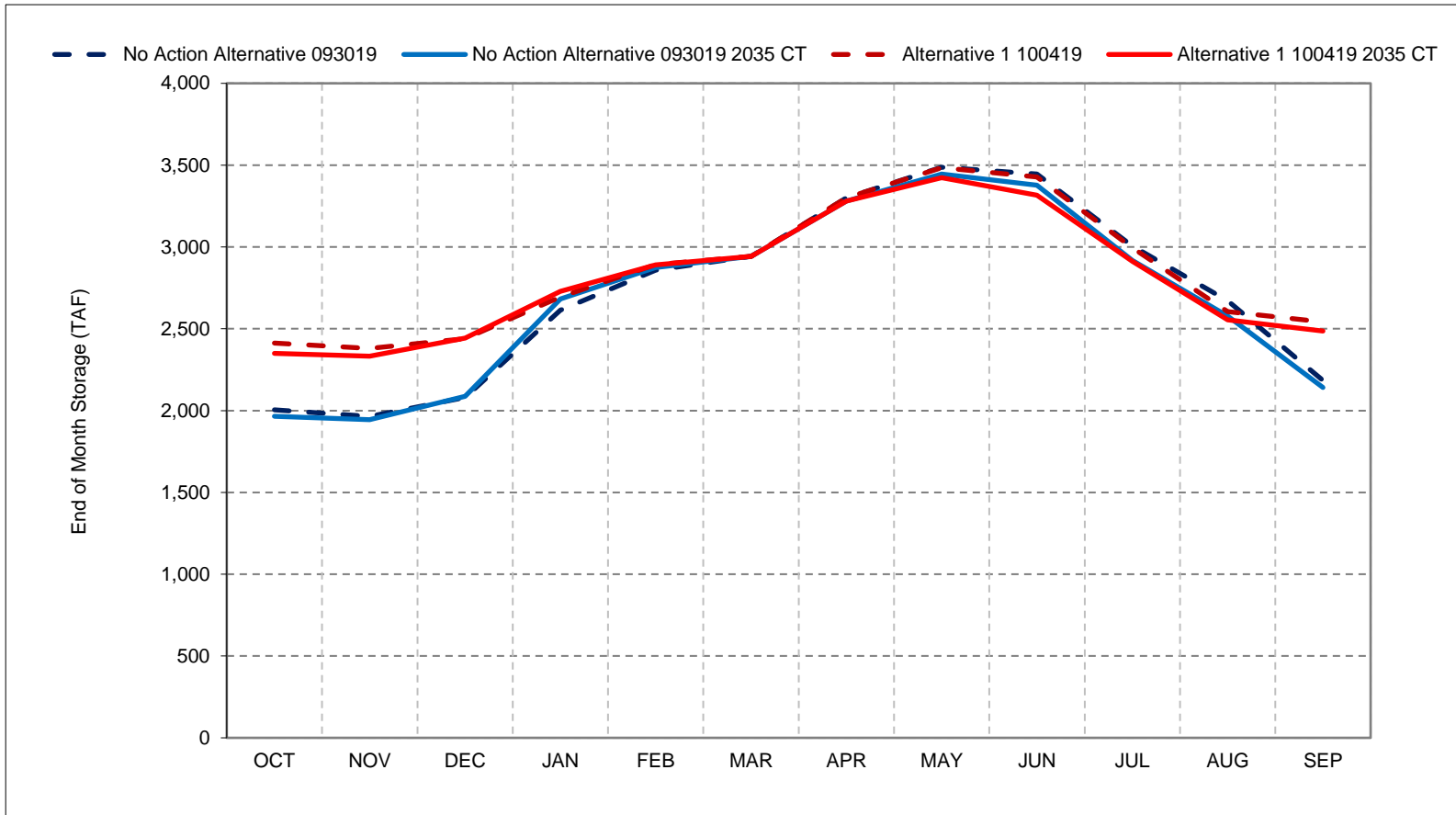
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-2. Lake Oroville Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

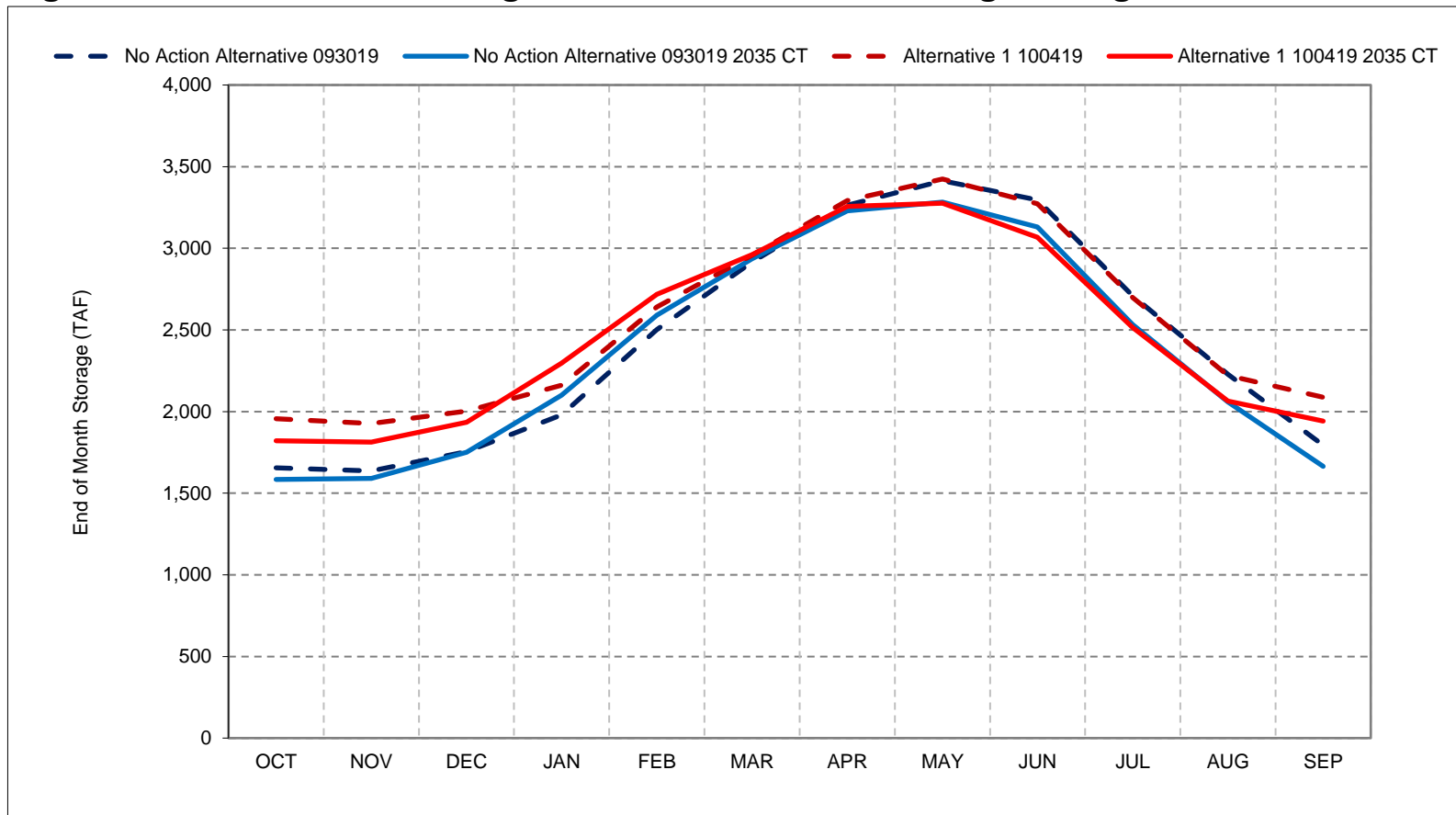
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-3. Lake Oroville Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

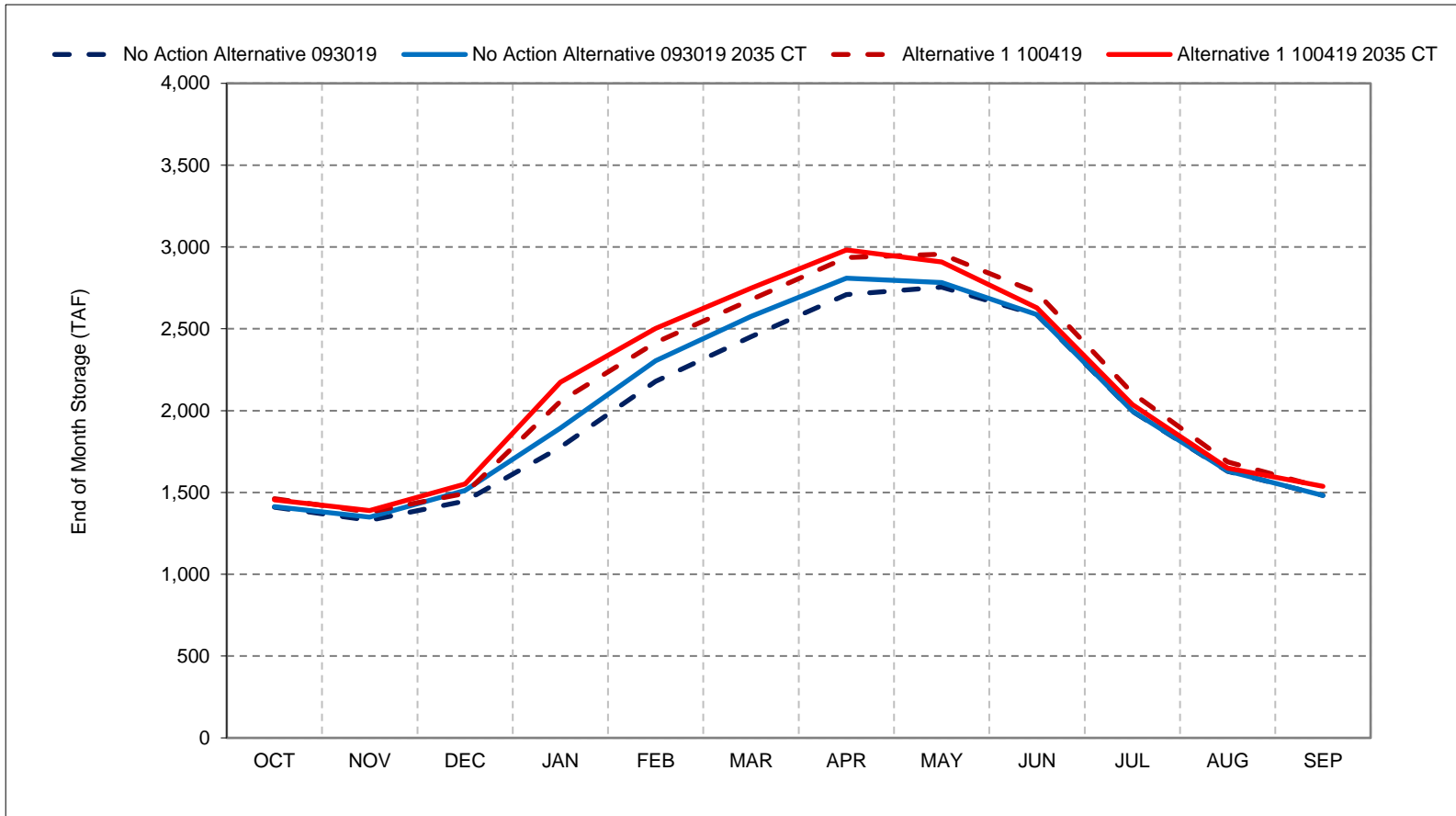
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-4. Lake Oroville Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

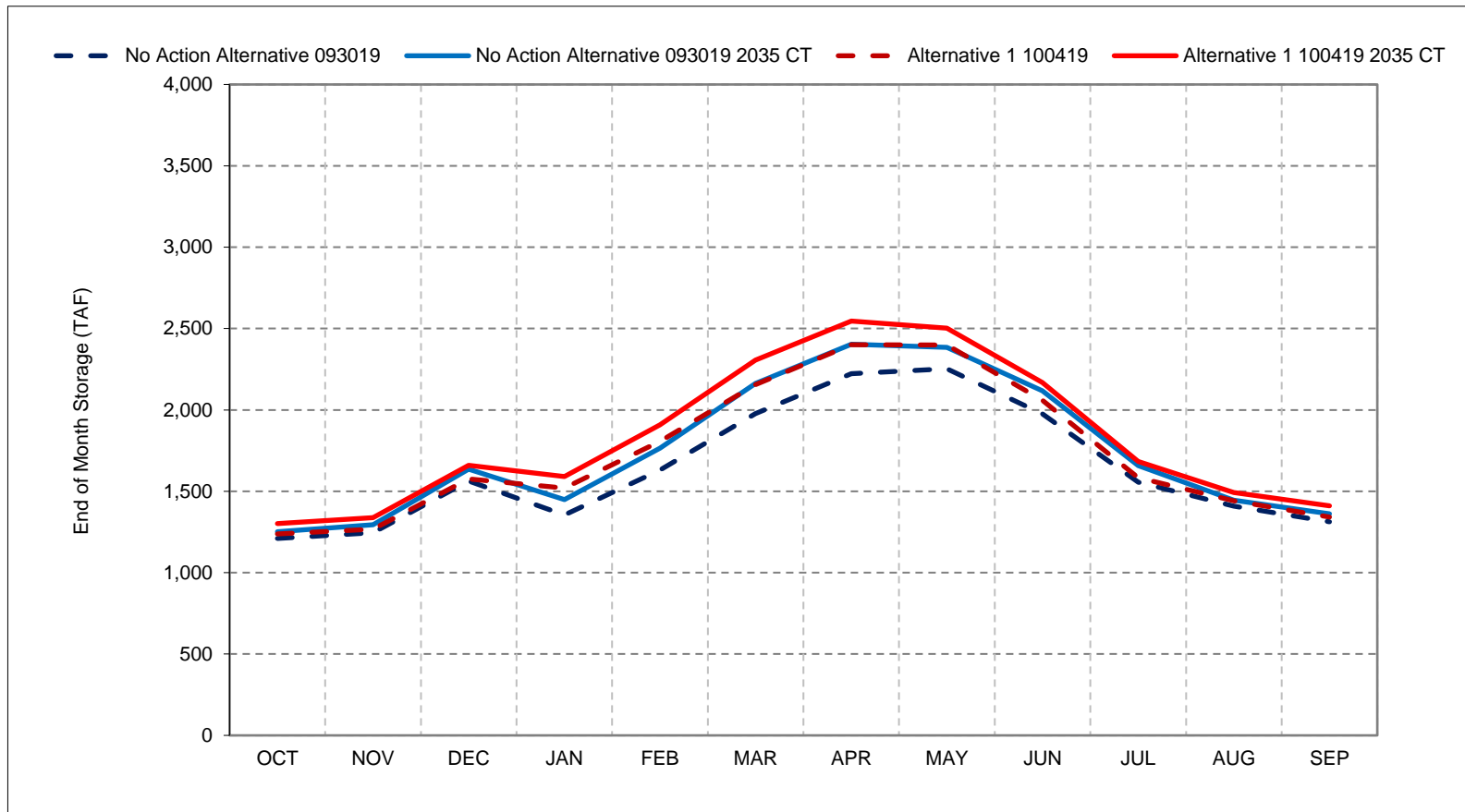
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-5. Lake Oroville Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

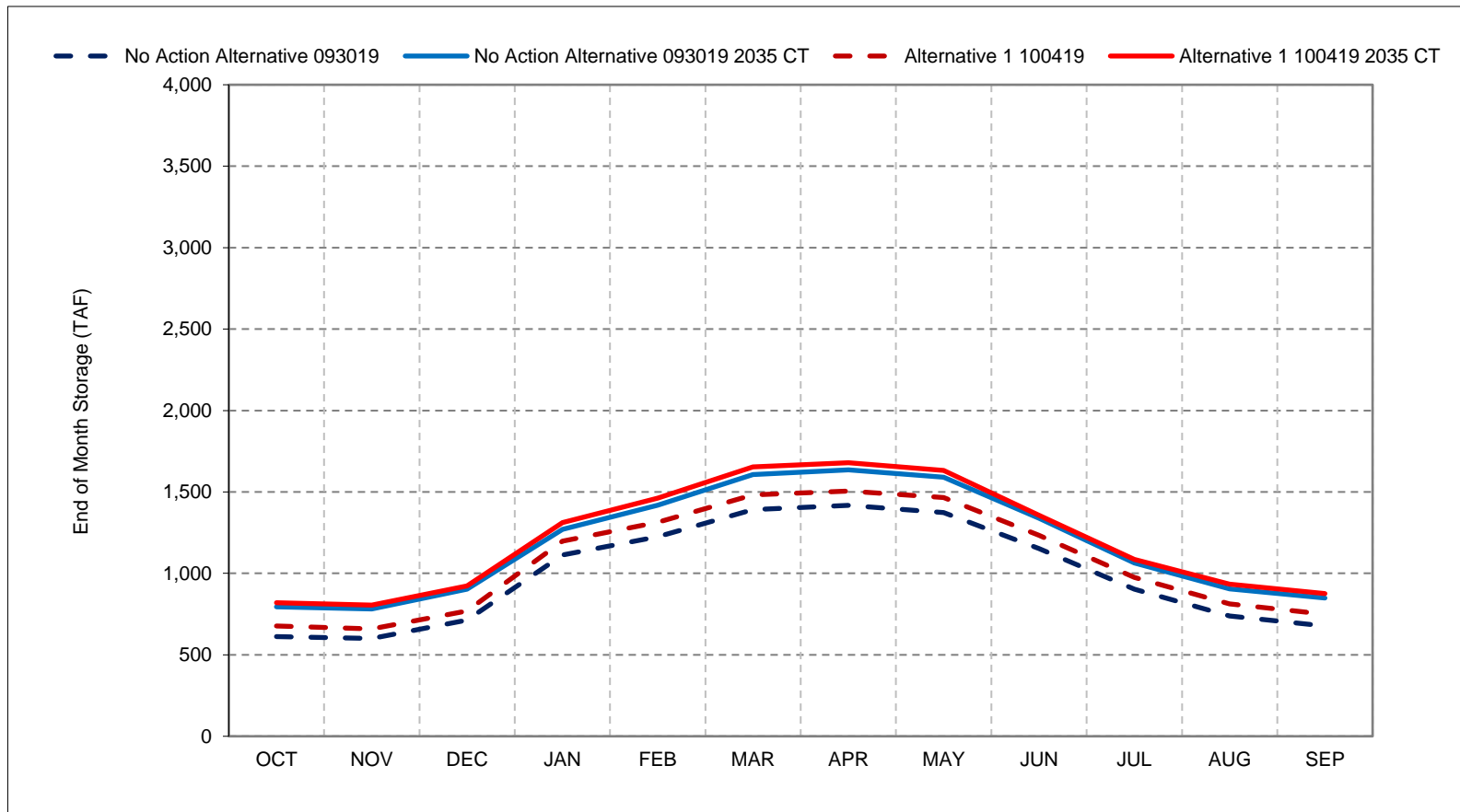
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4-6. Lake Oroville Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

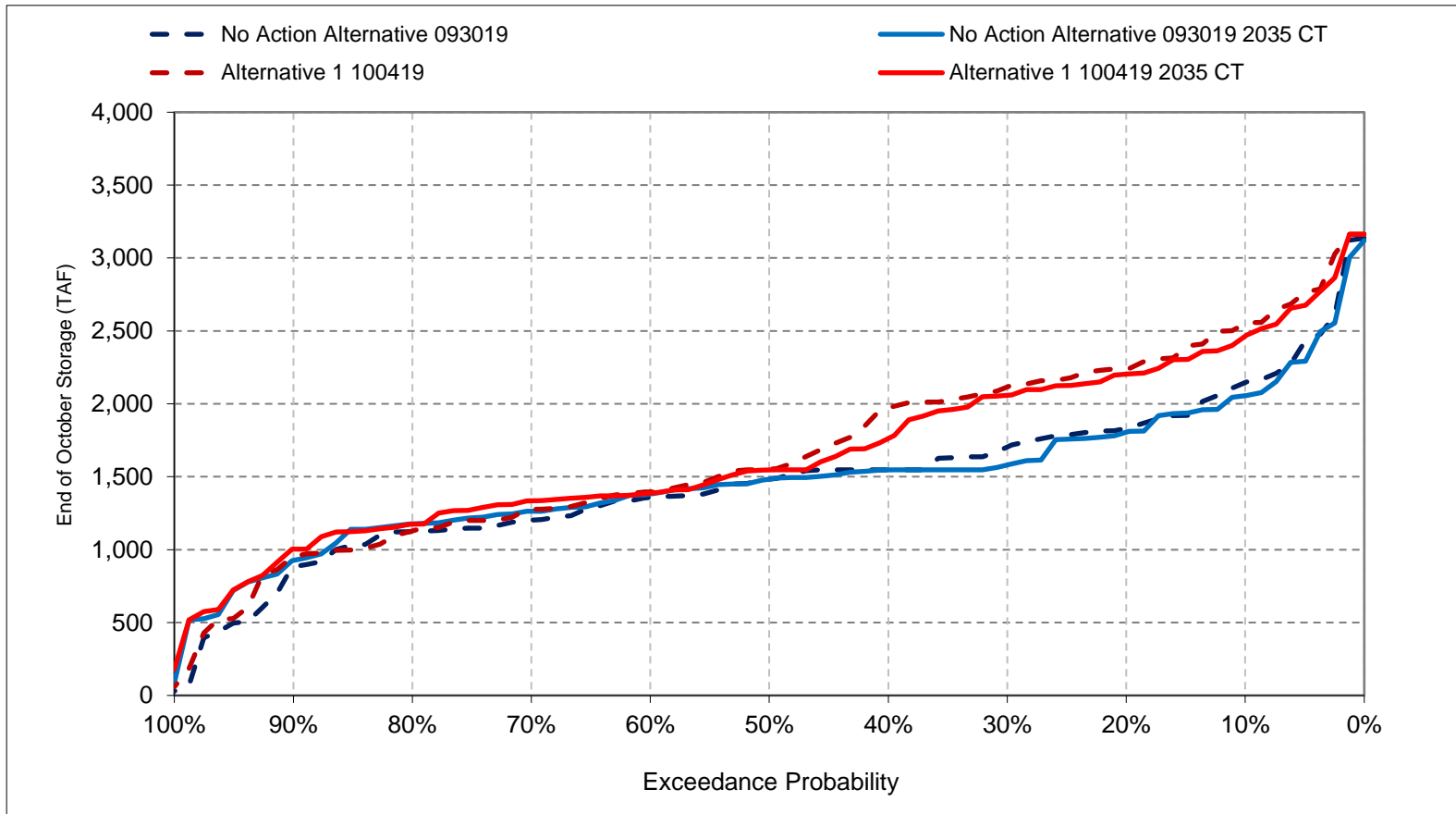
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

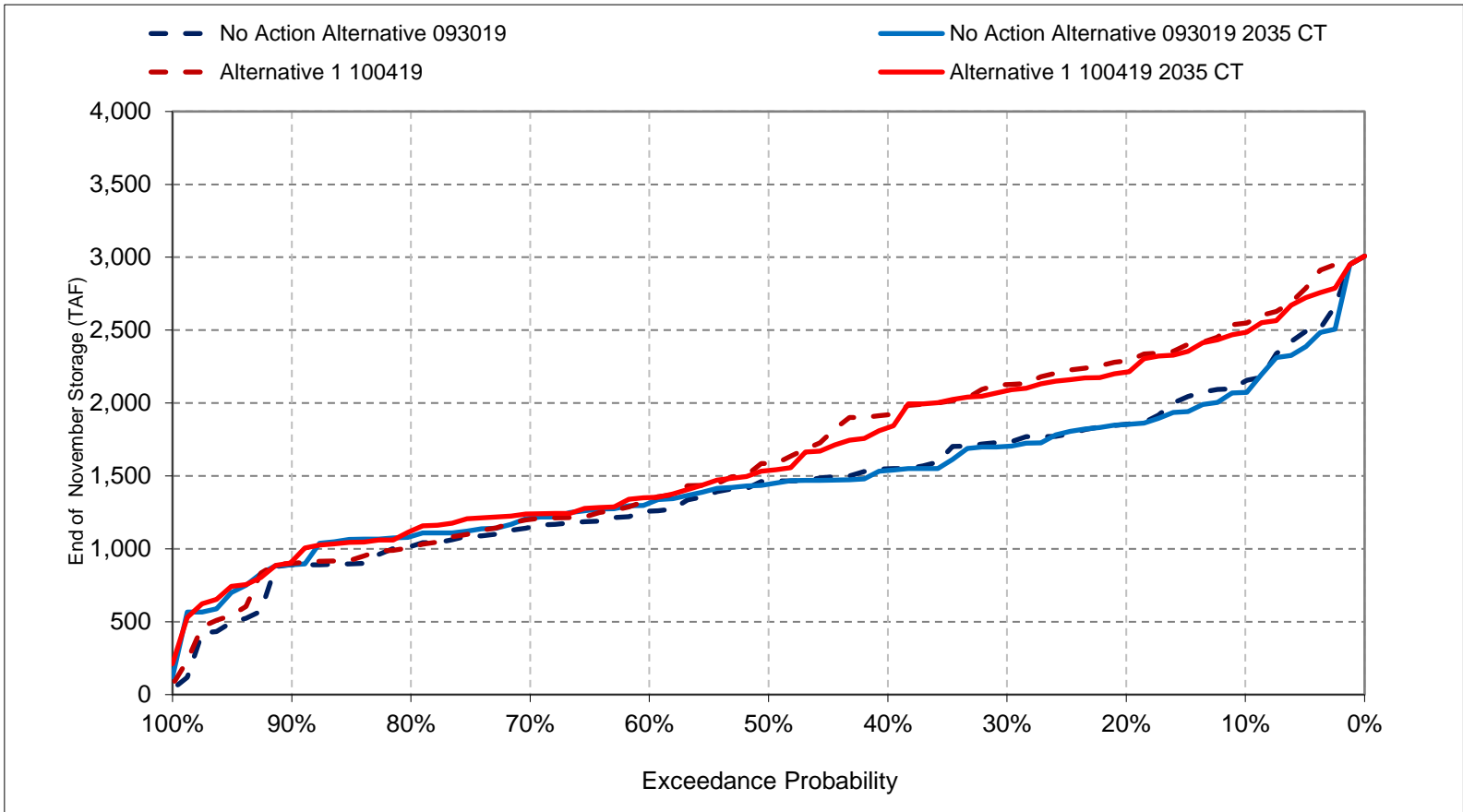
Figure 4-7. Lake Oroville Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

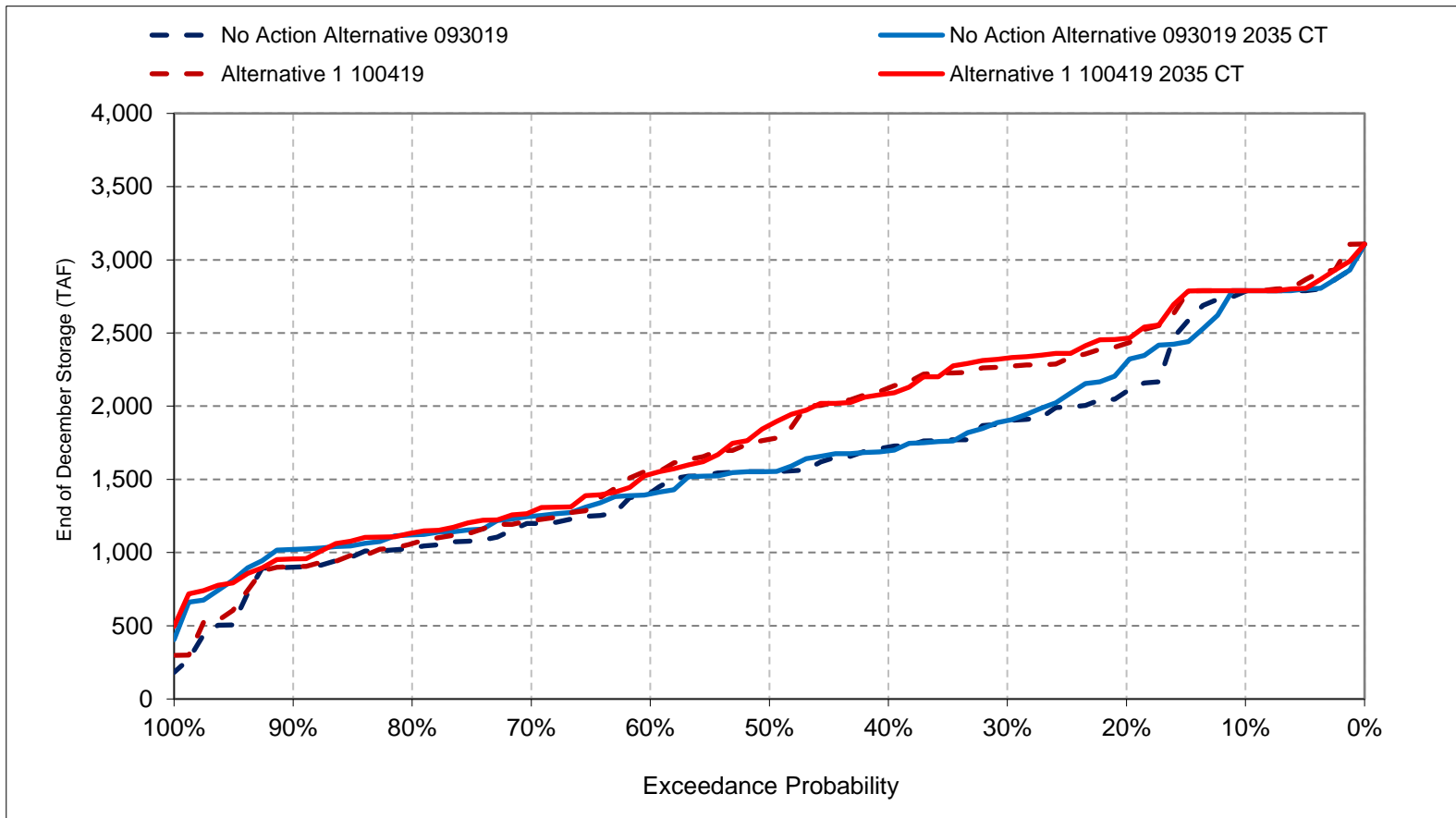
Figure 4-8. Lake Oroville Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

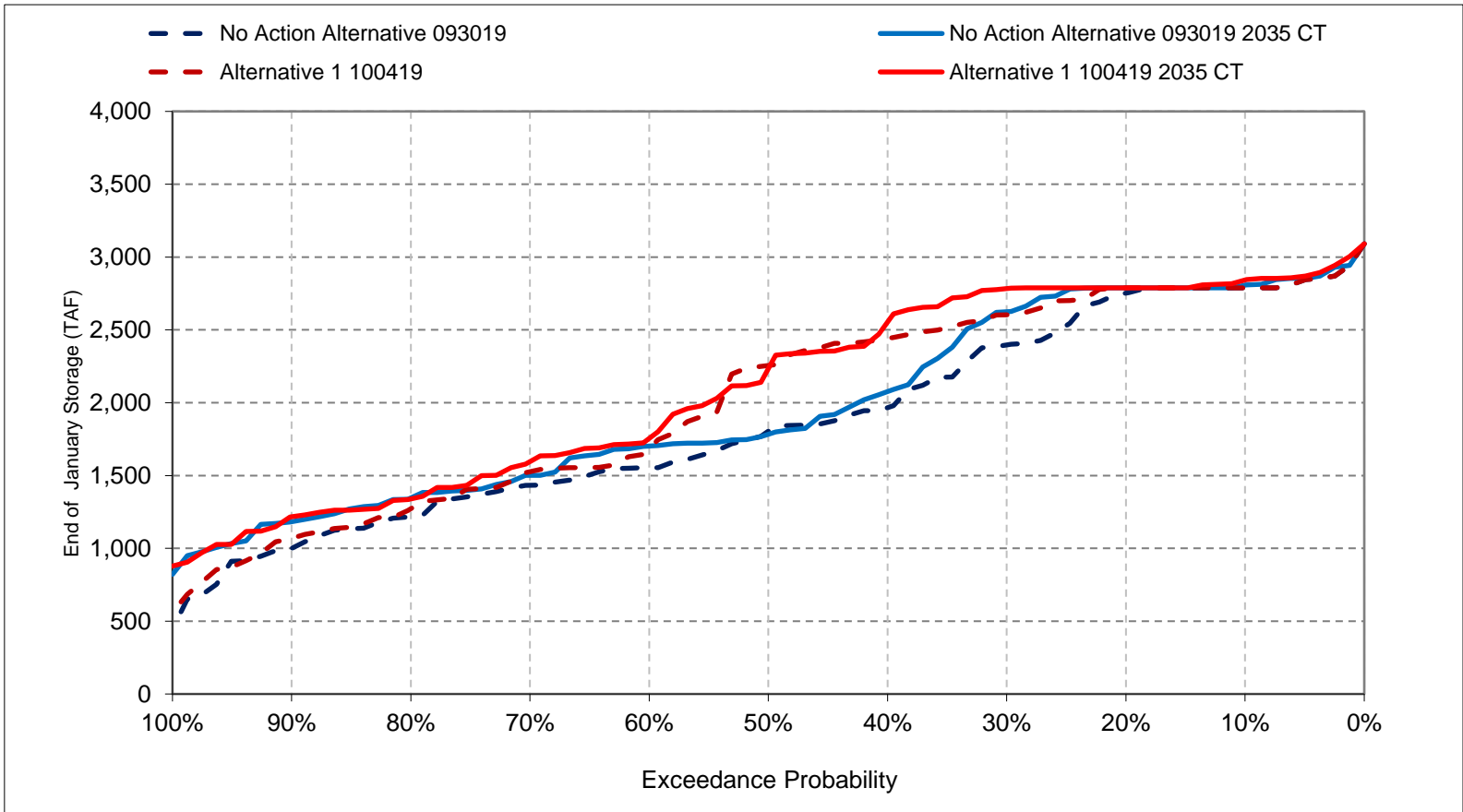
Figure 4-9. Lake Oroville Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

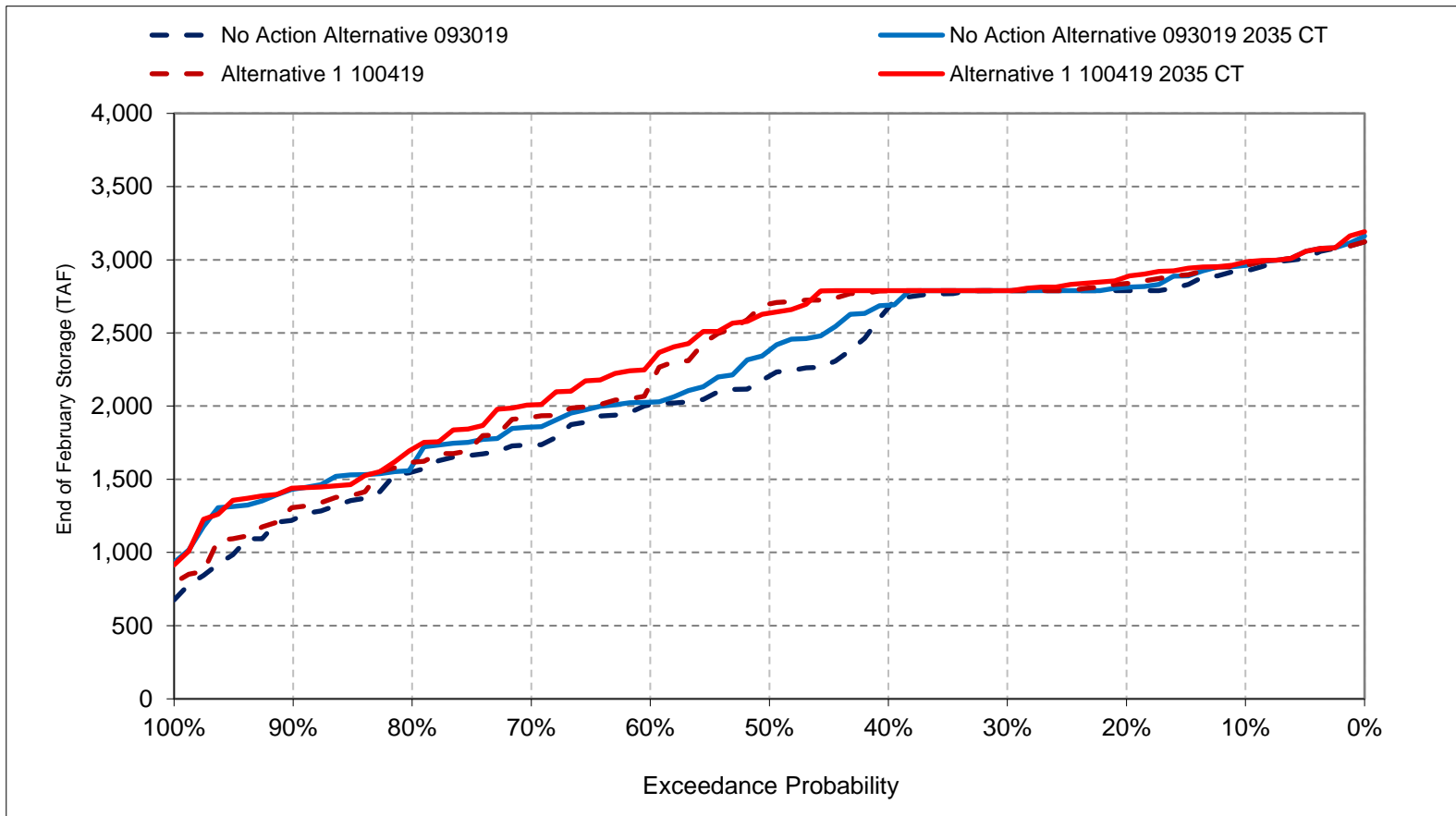
Figure 4-10. Lake Oroville Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

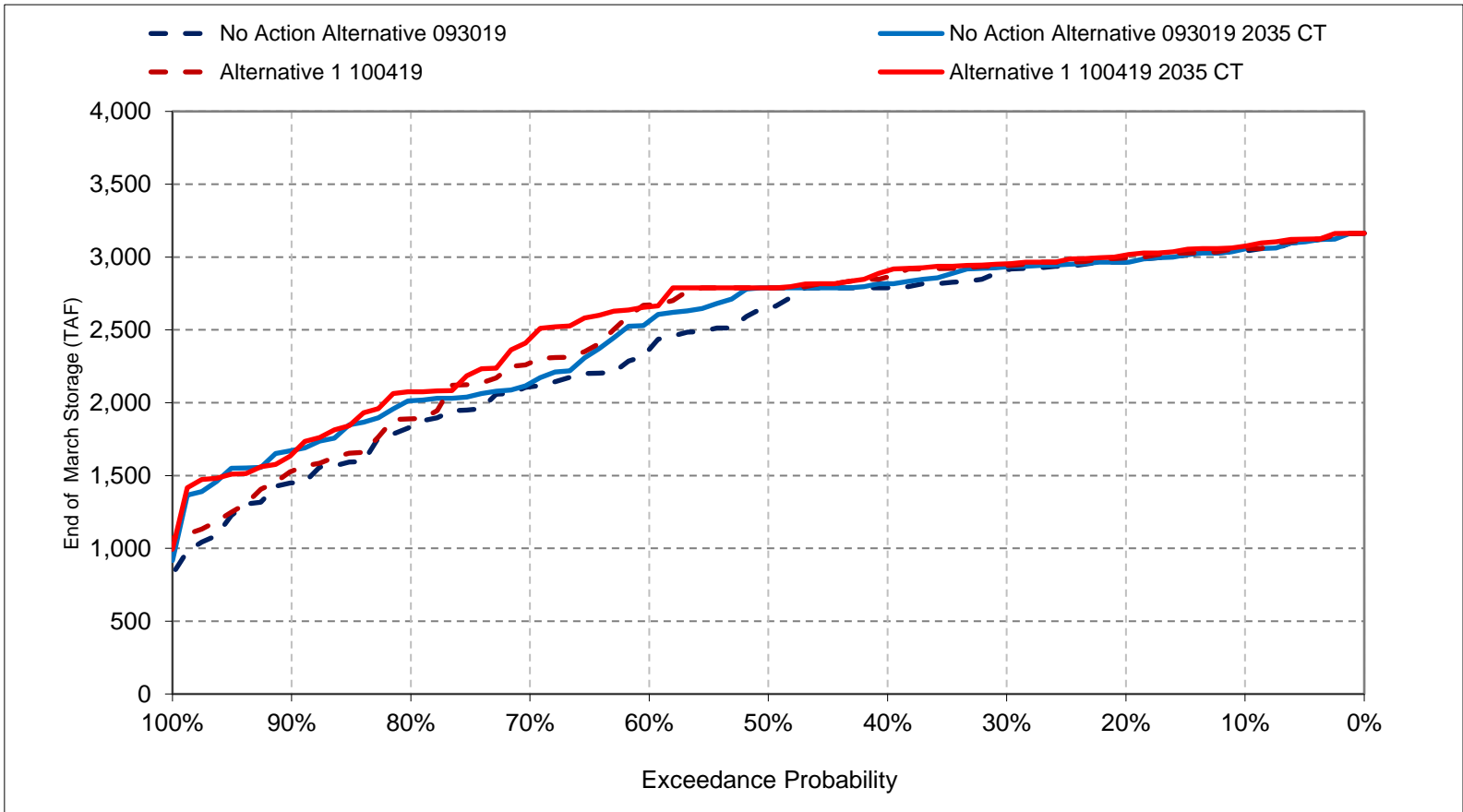
Figure 4-11. Lake Oroville Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

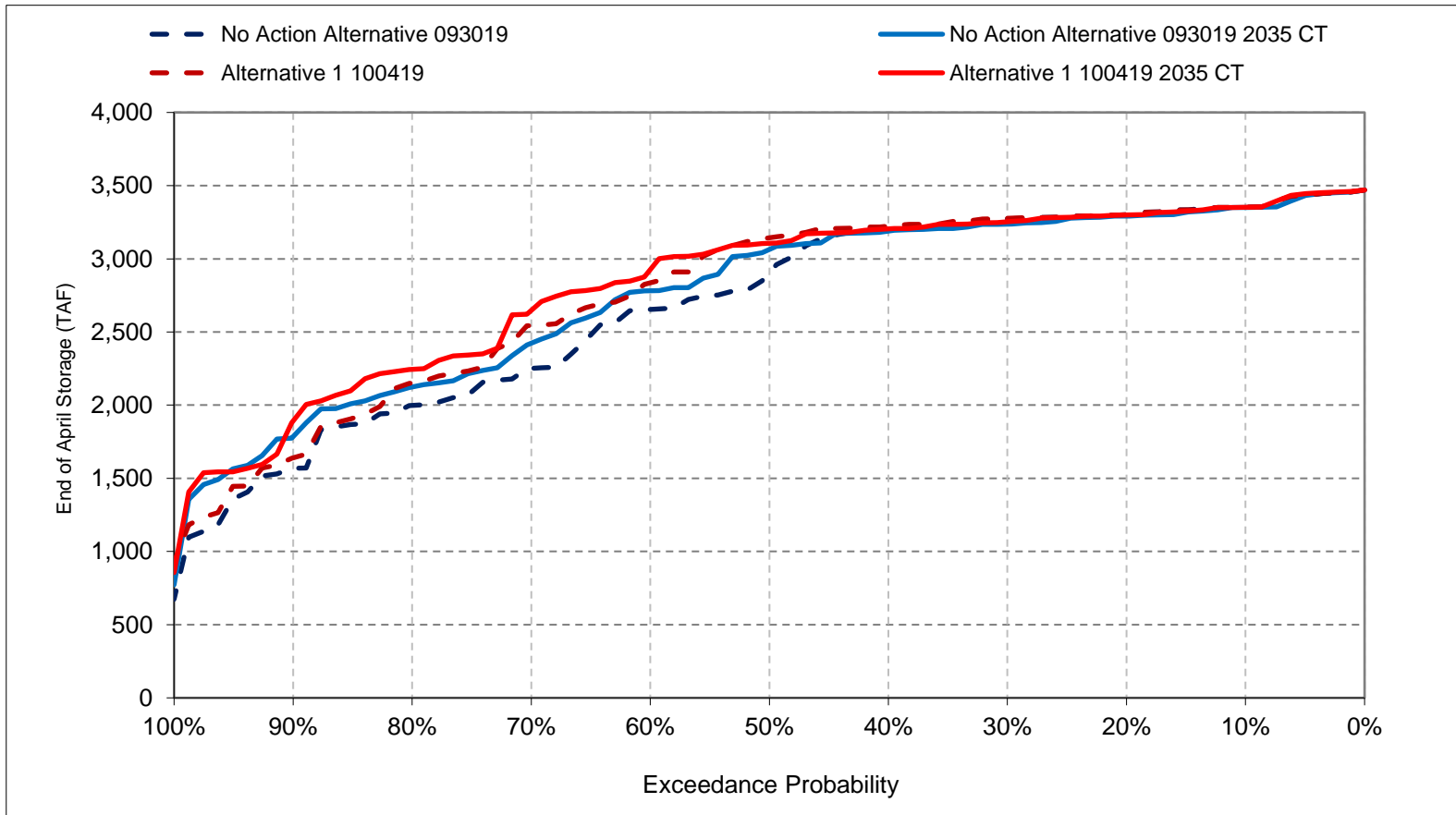
Figure 4-12. Lake Oroville Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

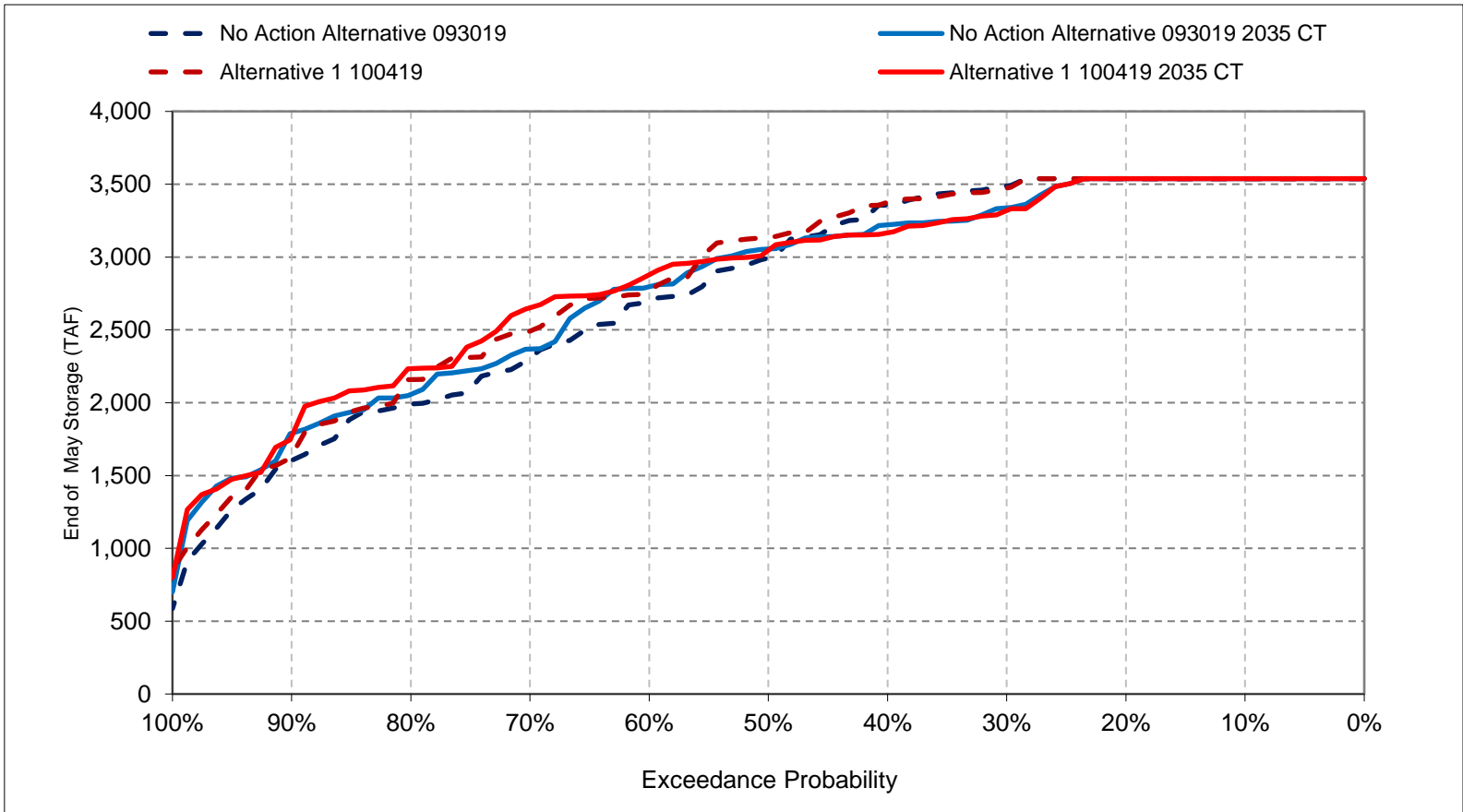
Figure 4-13. Lake Oroville Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

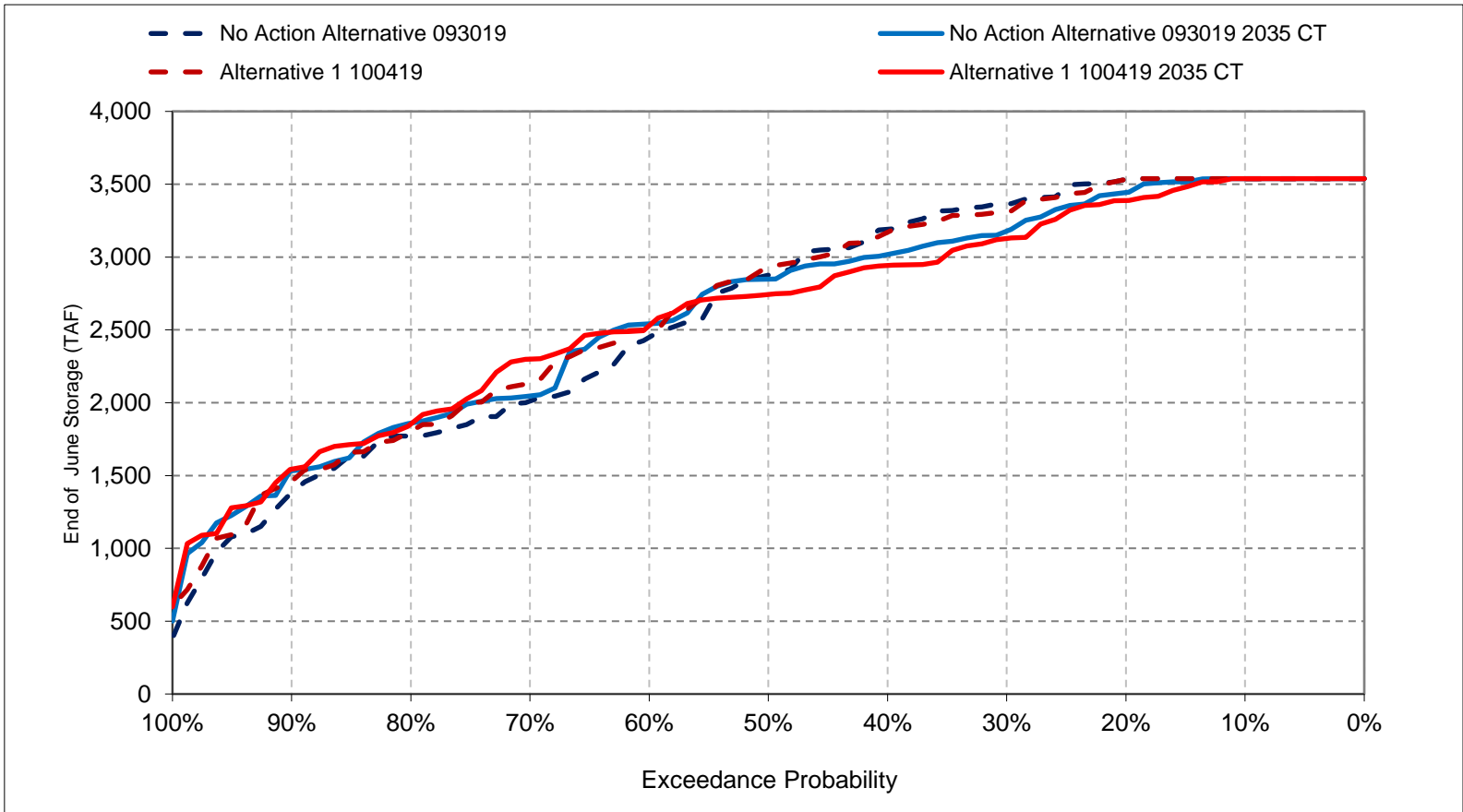
Figure 4-14. Lake Oroville Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

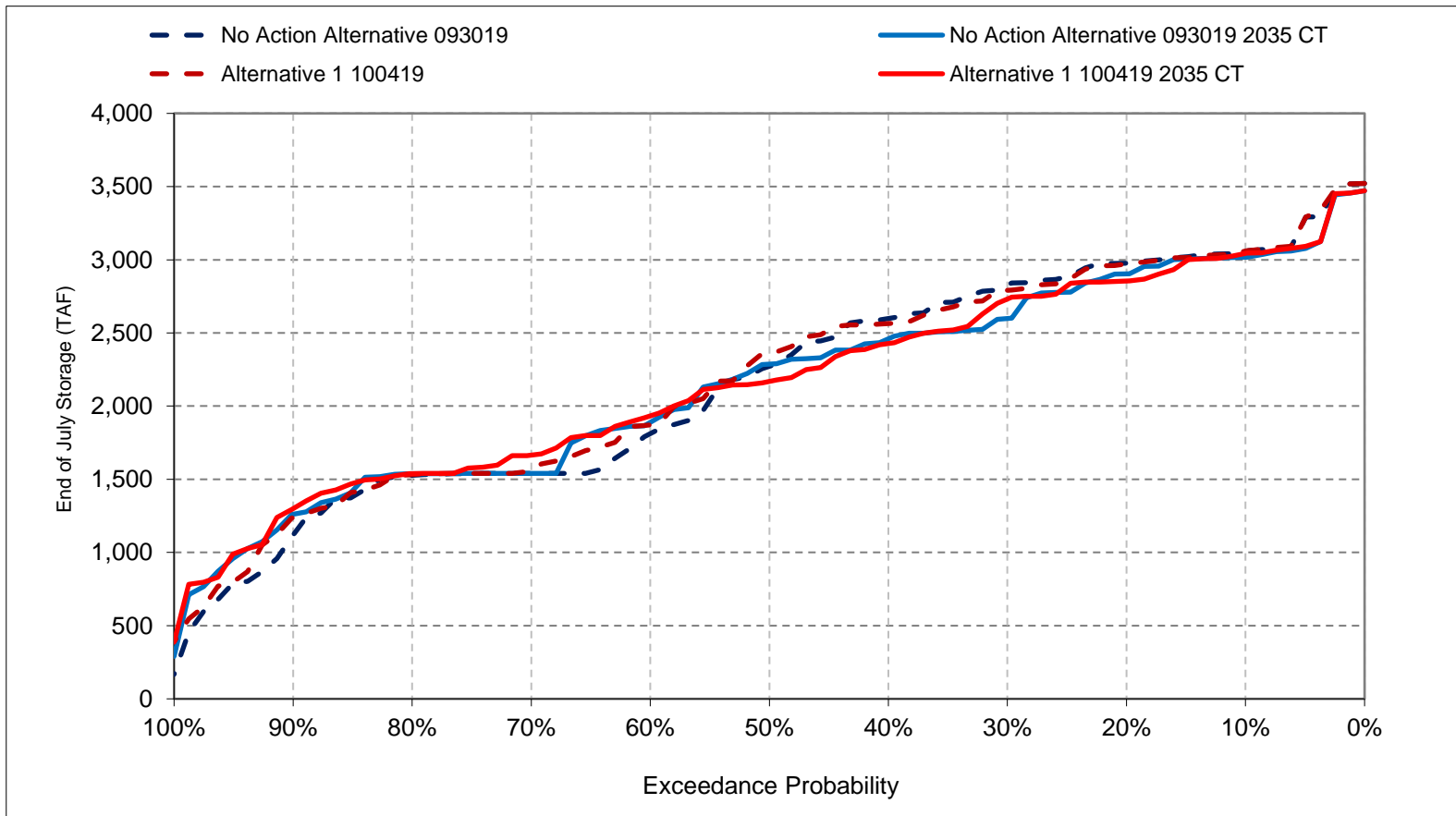
Figure 4-15. Lake Oroville Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

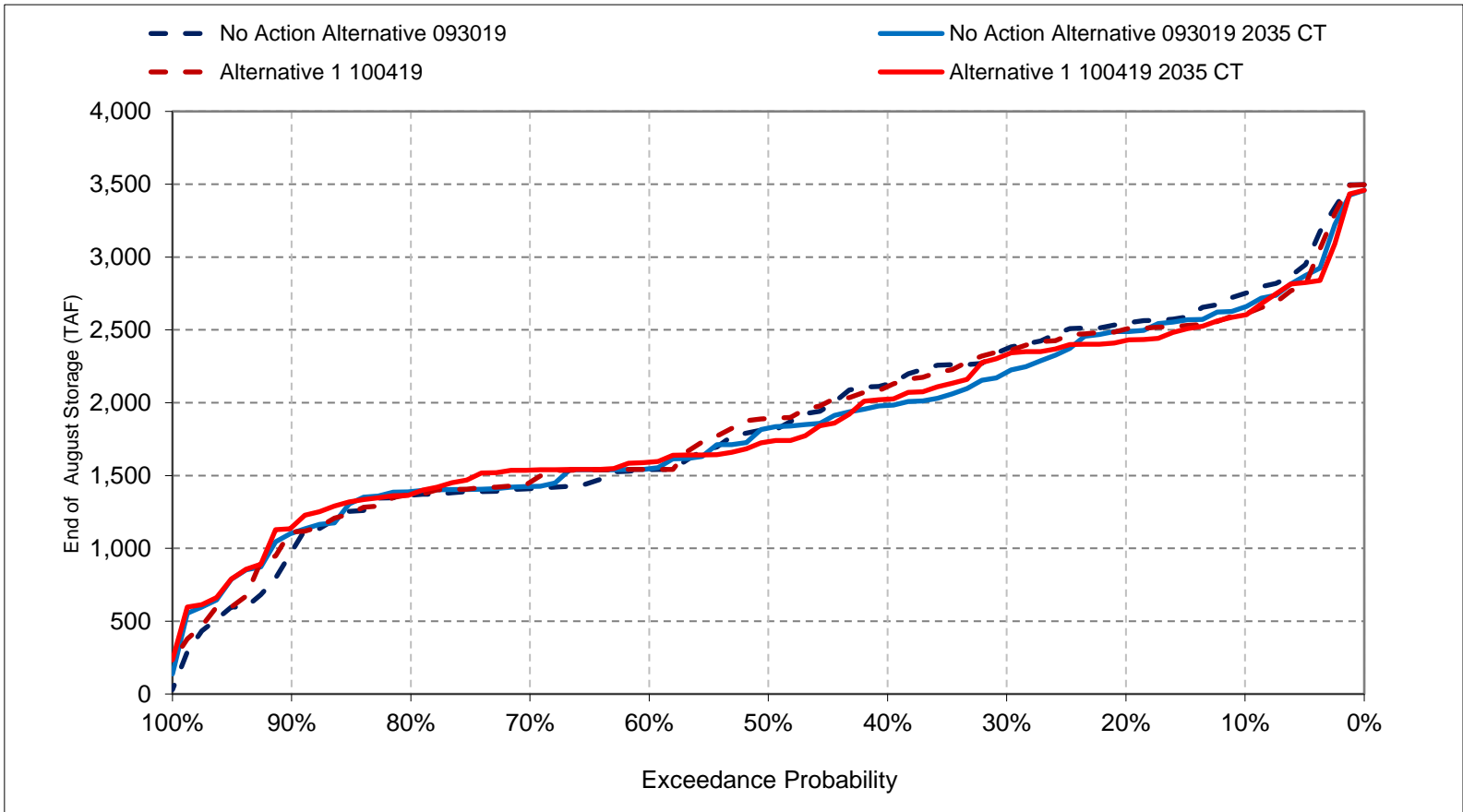
Figure 4-16. Lake Oroville Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

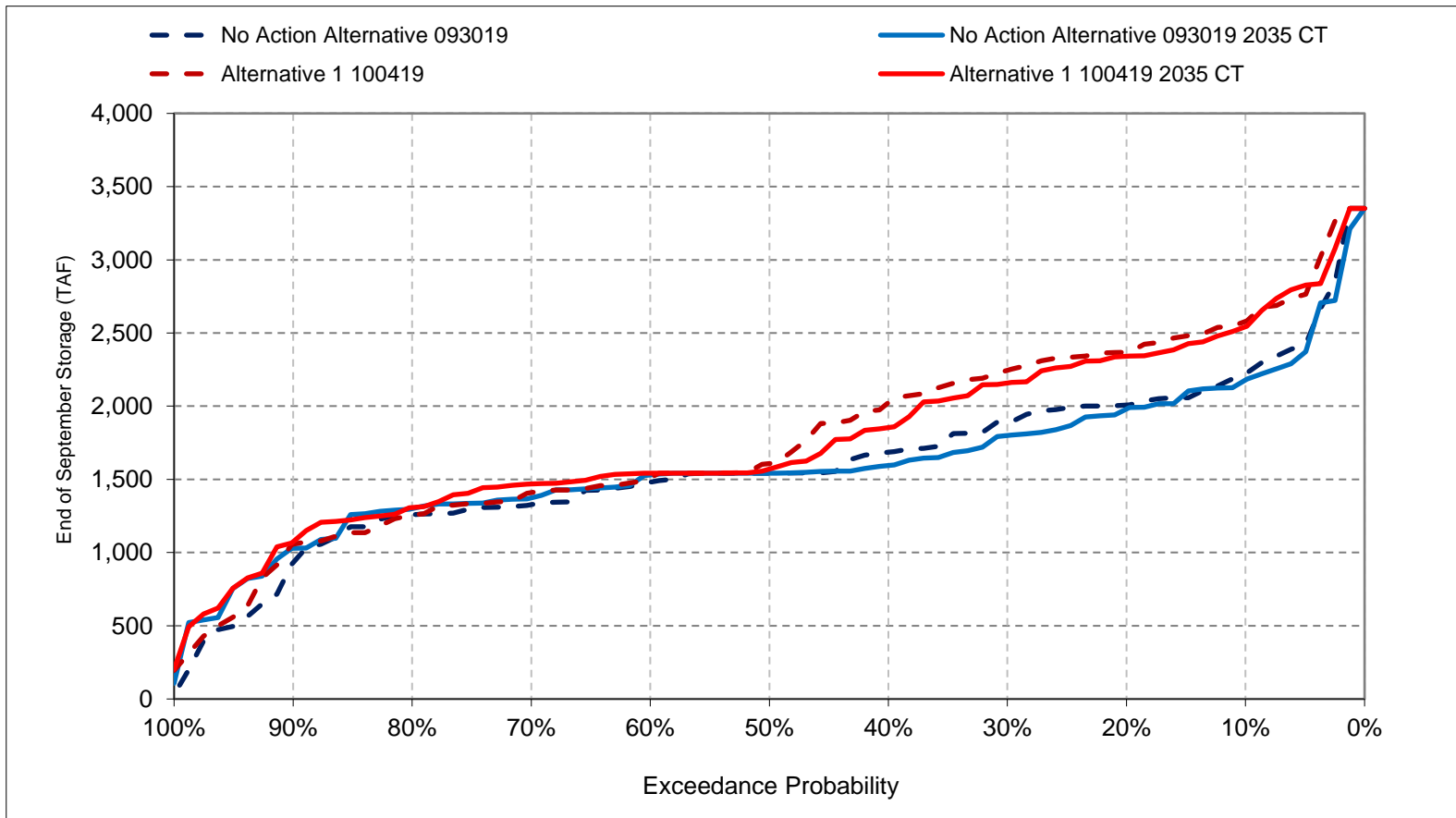
Figure 4-17. Lake Oroville Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4-18. Lake Oroville Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-1. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	798	798	848	849	858	866	887	900	900	867	846	806
20%	766	768	793	846	849	861	884	900	900	862	832	784
30%	752	755	772	822	849	857	882	897	888	851	820	772
40%	734	734	754	779	841	849	877	888	876	836	796	751
50%	726	724	734	763	804	840	857	863	855	811	764	733
60%	711	699	717	735	784	819	840	843	826	764	733	726
70%	692	685	691	720	756	794	809	814	784	733	717	707
80%	682	669	671	694	734	766	783	782	759	731	712	699
90%	645	647	649	666	694	722	737	741	714	682	662	654
Long Term												
Full Simulation Period ^d	714	712	731	761	791	813	833	839	824	785	756	729
Water Year Types ^{b,c}												
Wet (32%)	780	776	786	834	854	859	884	896	894	864	840	798
Above Normal (16%)	746	742	754	777	826	858	881	891	883	843	805	761
Below Normal (13%)	716	706	719	757	799	822	842	845	832	782	743	726
Dry (24%)	692	695	727	706	741	779	803	805	779	734	717	705
Critical (15%)	571	574	604	677	692	713	715	709	678	636	598	586

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	833	832	849	849	861	867	887	900	900	867	837	834
20%	808	813	824	849	852	863	884	900	900	861	829	820
30%	795	796	811	836	849	859	882	896	885	849	819	808
40%	780	775	796	825	849	854	878	889	875	833	794	785
50%	734	738	760	809	843	849	873	873	858	820	772	741
60%	715	708	734	750	798	841	852	848	829	770	733	730
70%	701	692	694	731	775	811	832	828	797	736	722	717
80%	683	668	674	700	742	772	798	799	763	732	712	698
90%	658	648	649	675	705	732	745	744	723	696	681	674
Long Term												
Full Simulation Period ^d	736	734	749	775	802	821	841	846	829	789	760	749
Water Year Types ^{b,c}												
Wet (32%)	819	817	821	841	856	859	884	896	892	863	835	830
Above Normal (16%)	778	774	781	795	837	860	883	892	882	843	804	792
Below Normal (13%)	723	713	725	783	817	839	858	860	843	793	749	732
Dry (24%)	696	697	728	725	759	795	818	818	788	738	721	709
Critical (15%)	591	590	616	688	703	725	727	722	691	652	622	610

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	35	34	0	0	3	1	0	0	0	0	-9	29
20%	42	45	31	2	3	2	0	0	0	0	-3	36
30%	42	40	39	14	0	2	0	-1	-4	-2	-1	36
40%	46	41	41	46	8	5	1	1	-1	-2	-2	35
50%	8	15	25	46	39	9	16	10	3	9	8	8
60%	5	10	18	16	14	22	12	5	4	6	0	4
70%	9	7	3	11	19	17	23	14	13	3	5	10
80%	1	-1	4	7	8	6	16	17	3	1	0	0
90%	13	2	1	9	10	10	9	4	10	15	19	20
Long Term												
Full Simulation Period ^d	22	22	18	15	11	8	8	7	5	4	4	20
Water Year Types ^{b,c}												
Wet (32%)	39	41	36	7	2	0	0	0	-1	-1	-4	33
Above Normal (16%)	32	31	27	18	11	3	2	1	-2	-1	-1	31
Below Normal (13%)	6	7	6	25	19	16	16	15	11	12	6	6
Dry (24%)	4	2	1	18	18	16	15	12	9	3	4	4
Critical (15%)	20	16	12	11	12	12	12	13	14	16	24	24

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 4a-2. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	789	790	849	850	861	867	887	900	900	864	840	801
20%	763	768	814	849	850	861	883	900	893	857	828	781
30%	738	752	773	838	849	859	879	886	875	836	804	762
40%	734	733	752	791	842	851	876	878	864	826	781	740
50%	726	721	735	761	821	849	868	867	853	812	765	733
60%	714	705	716	752	786	833	848	849	832	771	734	732
70%	699	693	697	728	768	796	824	820	788	733	719	713
80%	689	677	682	709	739	784	796	789	768	733	715	704
90%	653	647	670	689	720	749	761	761	732	699	680	671
Long Term												
Full Simulation Period ^d	720	719	740	772	801	823	841	843	828	787	758	733
Water Year Types ^{b,c}												
Wet (32%)	776	775	787	839	855	859	882	894	889	858	832	794
Above Normal (16%)	737	737	754	788	833	859	879	883	872	831	788	747
Below Normal (13%)	717	708	726	770	809	832	850	847	832	781	743	726
Dry (24%)	697	702	736	721	757	797	818	816	791	745	721	711
Critical (15%)	617	619	645	700	717	739	741	735	705	665	637	627

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	827	828	849	853	862	868	887	900	900	866	836	832
20%	804	805	827	849	855	864	884	900	890	853	824	818
30%	789	792	817	848	849	860	881	885	872	845	817	799
40%	759	765	792	833	849	857	877	875	859	824	785	768
50%	734	733	769	807	838	849	871	866	846	800	755	737
60%	714	710	732	758	813	840	858	855	831	776	739	733
70%	708	696	701	740	784	825	839	839	814	748	733	724
80%	688	682	683	708	753	790	808	807	768	733	712	704
90%	667	651	659	694	721	745	772	759	733	704	685	676
Long Term												
Full Simulation Period ^d	739	738	756	784	809	828	847	847	828	789	760	751
Water Year Types ^{b,c}												
Wet (32%)	814	813	822	843	856	859	882	892	885	857	831	825
Above Normal (16%)	763	761	773	807	844	861	881	882	868	829	789	776
Below Normal (13%)	722	713	730	793	824	843	862	856	836	785	745	732
Dry (24%)	704	707	739	736	771	810	830	826	797	749	727	717
Critical (15%)	626	625	649	703	721	744	746	740	708	670	643	634

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	38	0	2	2	1	0	0	0	2	-4	31
20%	41	37	13	0	5	3	0	0	-4	-3	-4	37
30%	51	39	44	11	0	1	1	-1	-3	9	12	37
40%	25	33	40	42	7	6	1	-4	-5	-2	4	28
50%	8	11	35	46	18	0	3	-1	-7	-12	-10	3
60%	1	5	16	5	27	7	10	6	-1	5	5	2
70%	9	4	4	12	16	28	15	19	26	15	14	12
80%	0	5	2	-1	14	6	12	18	-1	0	-2	1
90%	14	4	-11	4	1	-4	11	-2	1	5	5	5
Long Term												
Full Simulation Period ^d	20	19	16	12	8	6	6	4	0	2	2	18
Water Year Types ^{b,c}												
Wet (32%)	38	38	35	4	1	0	0	-2	-4	-1	-1	32
Above Normal (16%)	26	24	19	19	11	2	2	0	-4	-2	0	29
Below Normal (13%)	5	5	4	23	15	12	12	9	4	4	2	6
Dry (24%)	6	5	2	15	14	12	12	10	6	3	6	6
Critical (15%)	8	6	4	4	4	5	5	5	3	5	6	7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-3. Lake Oroville Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	798	798	848	849	858	866	887	900	900	867	846	806
20%	766	768	793	846	849	861	884	900	900	862	832	784
30%	752	755	772	822	849	857	882	897	888	851	820	772
40%	734	734	754	779	841	849	877	888	876	836	796	751
50%	726	724	734	763	804	840	857	863	855	811	764	733
60%	711	699	717	735	784	819	840	843	826	764	733	726
70%	692	685	691	720	756	794	809	814	784	733	717	707
80%	682	669	671	694	734	766	783	782	759	731	712	699
90%	645	647	649	666	694	722	737	741	714	682	662	654
Long Term												
Full Simulation Period ^d	714	712	731	761	791	813	833	839	824	785	756	729
Water Year Types ^{b,c}												
Wet (32%)	780	776	786	834	854	859	884	896	894	864	840	798
Above Normal (16%)	746	742	754	777	826	858	881	891	883	843	805	761
Below Normal (13%)	716	706	719	757	799	822	842	845	832	782	743	726
Dry (24%)	692	695	727	706	741	779	803	805	779	734	717	705
Critical (15%)	571	574	604	677	692	713	715	709	678	636	598	586

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	789	790	849	850	861	867	887	900	900	864	840	801
20%	763	768	814	849	850	861	883	900	893	857	828	781
30%	738	752	773	838	849	859	879	886	875	836	804	762
40%	734	733	752	791	842	851	876	878	864	826	781	740
50%	726	721	735	761	821	849	868	867	853	812	765	733
60%	714	705	716	752	786	833	848	849	832	771	734	732
70%	699	693	697	728	768	796	824	820	788	733	719	713
80%	689	677	682	709	739	784	796	789	768	733	715	704
90%	653	647	670	689	720	749	761	761	732	699	680	671
Long Term												
Full Simulation Period ^d	720	719	740	772	801	823	841	843	828	787	758	733
Water Year Types ^{b,c}												
Wet (32%)	776	775	787	839	855	859	882	894	889	858	832	794
Above Normal (16%)	737	737	754	788	833	859	879	883	872	831	788	747
Below Normal (13%)	717	708	726	770	809	832	850	847	832	781	743	726
Dry (24%)	697	702	736	721	757	797	818	816	791	745	721	711
Critical (15%)	617	619	645	700	717	739	741	735	705	665	637	627

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-9	-8	0	1	3	1	0	0	0	-3	-6	-4
20%	-3	0	20	2	2	0	-1	0	-6	-5	-4	-3
30%	-14	-3	1	16	0	2	-2	-10	-13	-16	-16	-10
40%	0	-2	-3	11	1	2	-1	-9	-12	-9	-15	-11
50%	0	-2	0	-2	17	9	11	4	-2	2	1	0
60%	3	7	-1	18	2	14	9	7	6	8	1	6
70%	7	8	6	8	13	2	15	6	4	0	2	6
80%	7	8	11	16	5	18	13	7	9	2	3	5
90%	8	0	21	23	26	27	24	21	18	17	18	17
Long Term												
Full Simulation Period ^d	6	7	9	12	11	10	8	4	4	3	2	4
Water Year Types ^{b,c}												
Wet (32%)	-4	-2	1	5	1	0	-1	-3	-5	-6	-7	-4
Above Normal (16%)	-8	-5	-1	12	8	1	-2	-9	-11	-13	-17	-14
Below Normal (13%)	0	3	8	12	10	9	7	2	0	-1	0	0
Dry (24%)	5	7	9	14	16	18	15	10	12	11	5	6
Critical (15%)	47	45	41	23	26	26	26	26	27	29	39	41

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 4a-4. Lake Oroville Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	833	832	849	849	861	867	887	900	900	867	837	834
20%	808	813	824	849	852	863	884	900	900	861	829	820
30%	795	796	811	836	849	859	882	896	885	849	819	808
40%	780	775	796	825	849	854	878	889	875	833	794	785
50%	734	738	760	809	843	849	873	873	858	820	772	741
60%	715	708	734	750	798	841	852	848	829	770	733	730
70%	701	692	694	731	775	811	832	828	797	736	722	717
80%	683	668	674	700	742	772	798	799	763	732	712	698
90%	658	648	649	675	705	732	745	744	723	696	681	674
Long Term												
Full Simulation Period ^d	736	734	749	775	802	821	841	846	829	789	760	749
Water Year Types ^{b,c}												
Wet (32%)	819	817	821	841	856	859	884	896	892	863	835	830
Above Normal (16%)	778	774	781	795	837	860	883	892	882	843	804	792
Below Normal (13%)	723	713	725	783	817	839	858	860	843	793	749	732
Dry (24%)	696	697	728	725	759	795	818	818	788	738	721	709
Critical (15%)	591	590	616	688	703	725	727	722	691	652	622	610

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	827	828	849	853	862	868	887	900	900	866	836	832
20%	804	805	827	849	855	864	884	900	890	853	824	818
30%	789	792	817	848	849	860	881	885	872	845	817	799
40%	759	765	792	833	849	857	877	875	859	824	785	768
50%	734	733	769	807	838	849	871	866	846	800	755	737
60%	714	710	732	758	813	840	858	855	831	776	739	733
70%	708	696	701	740	784	825	839	839	814	748	733	724
80%	688	682	683	708	753	790	808	807	768	733	712	704
90%	667	651	659	694	721	745	772	759	733	704	685	676
Long Term												
Full Simulation Period ^d	739	738	756	784	809	828	847	847	828	789	760	751
Water Year Types ^{b,c}												
Wet (32%)	814	813	822	843	856	859	882	892	885	857	831	825
Above Normal (16%)	763	761	773	807	844	861	881	882	868	829	789	776
Below Normal (13%)	722	713	730	793	824	843	862	856	836	785	745	732
Dry (24%)	704	707	739	736	771	810	830	826	797	749	727	717
Critical (15%)	626	625	649	703	721	744	746	740	708	670	643	634

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-6	-4	0	4	2	1	0	0	0	-1	-1	-2
20%	-4	-8	2	0	3	1	0	0	-10	-8	-5	-2
30%	-6	-4	6	12	0	1	-2	-11	-13	-4	-2	-9
40%	-21	-9	-4	8	0	3	-1	-14	-16	-9	-9	-18
50%	-1	-6	10	-2	-4	0	-2	-6	-12	-20	-16	-5
60%	-1	2	-2	7	15	-1	6	7	2	6	6	4
70%	7	5	7	8	9	14	7	11	17	12	10	7
80%	6	14	9	8	10	19	10	8	5	1	0	6
90%	9	2	9	18	16	14	27	15	10	7	4	2
Long Term												
Full Simulation Period ^d	3	4	7	9	8	7	5	1	-1	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	-5	-4	1	2	0	0	-1	-4	-8	-6	-4	-5
Above Normal (16%)	-15	-13	-8	12	7	0	-3	-10	-14	-14	-16	-15
Below Normal (13%)	-1	0	6	10	6	5	3	-4	-7	-8	-4	1
Dry (24%)	8	9	10	11	13	14	12	8	10	11	6	9
Critical (15%)	35	35	33	16	18	20	19	18	17	18	21	24

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

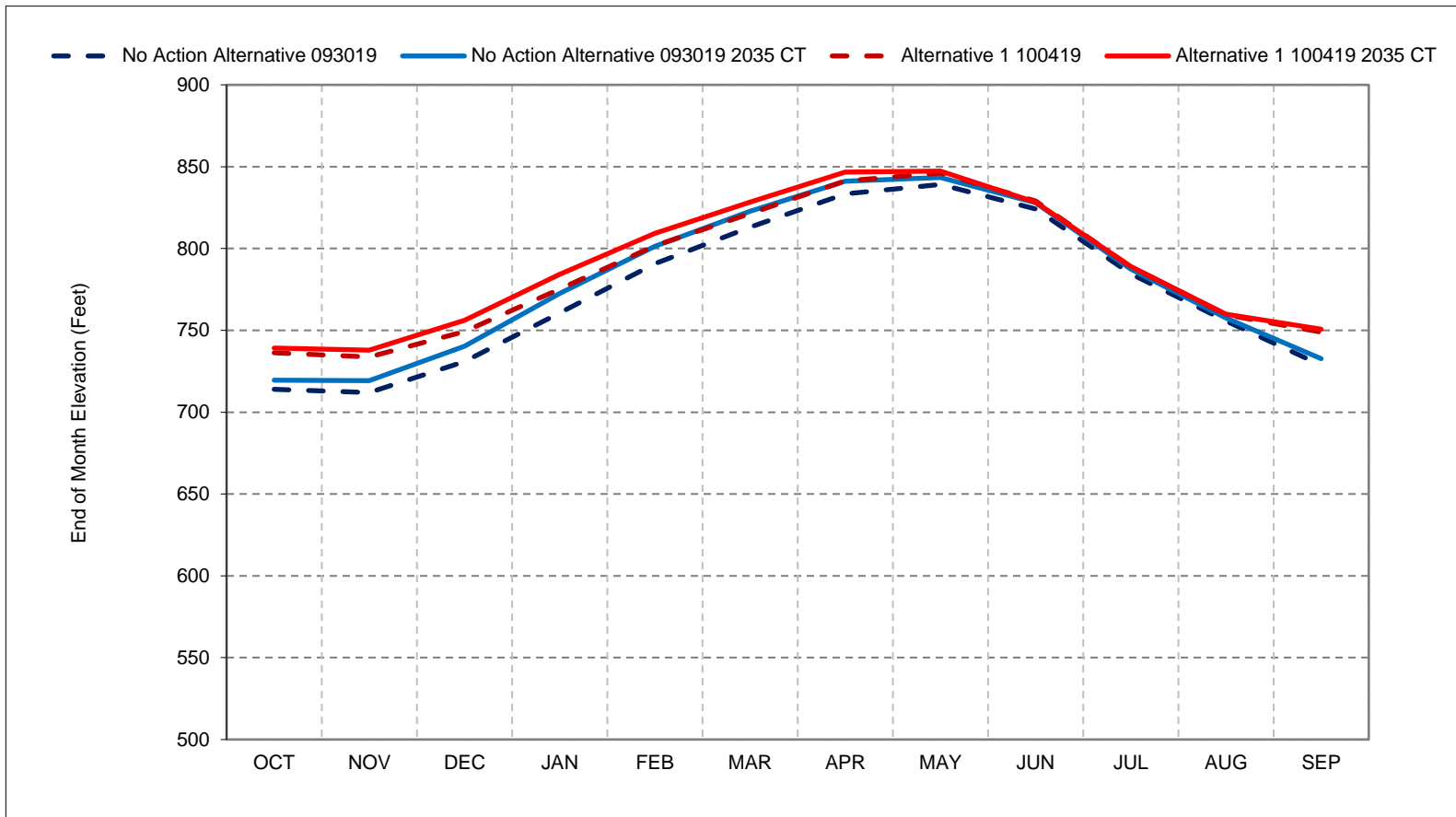
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4a-1. Lake Oroville Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

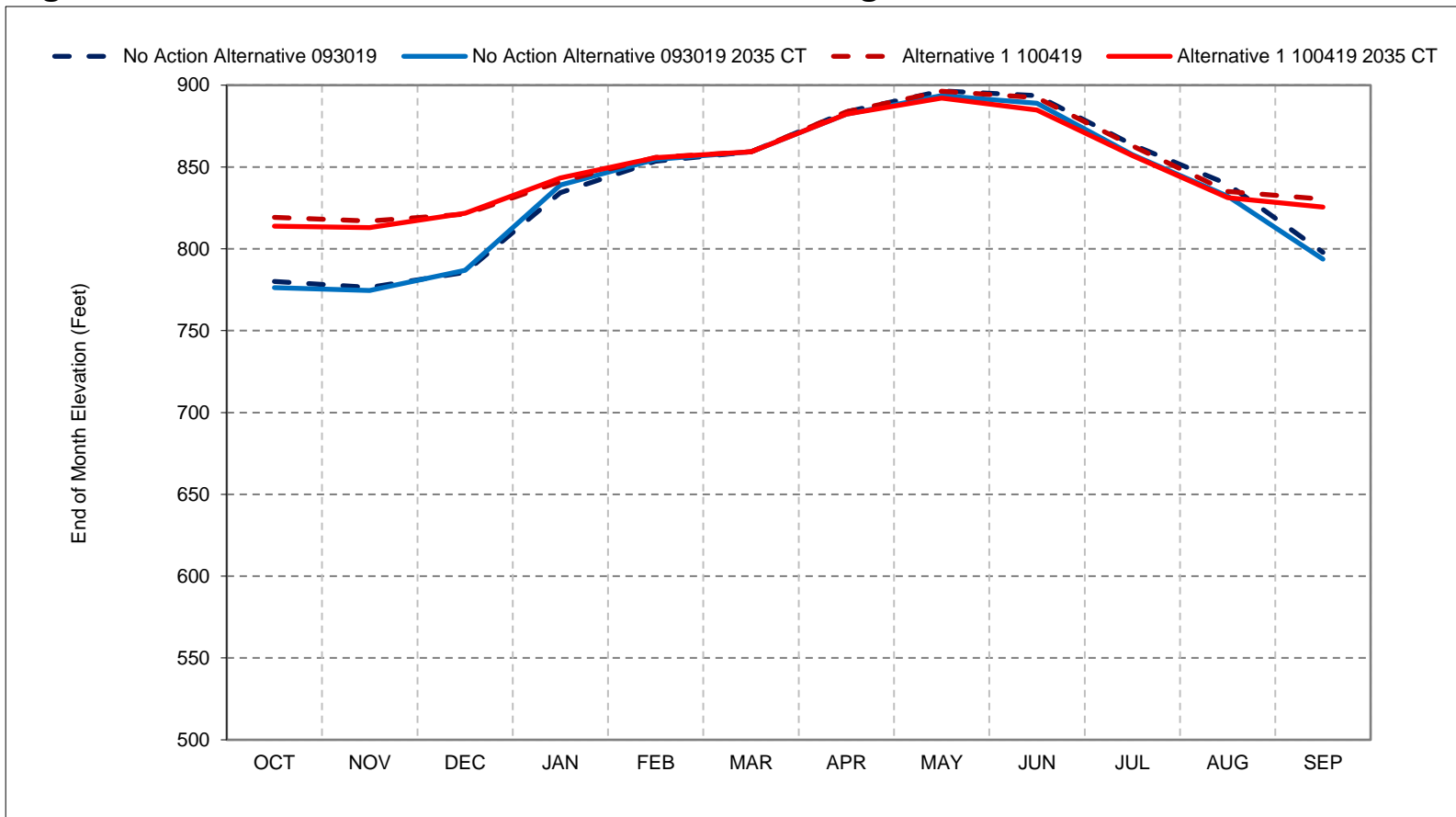
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-2. Lake Oroville Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

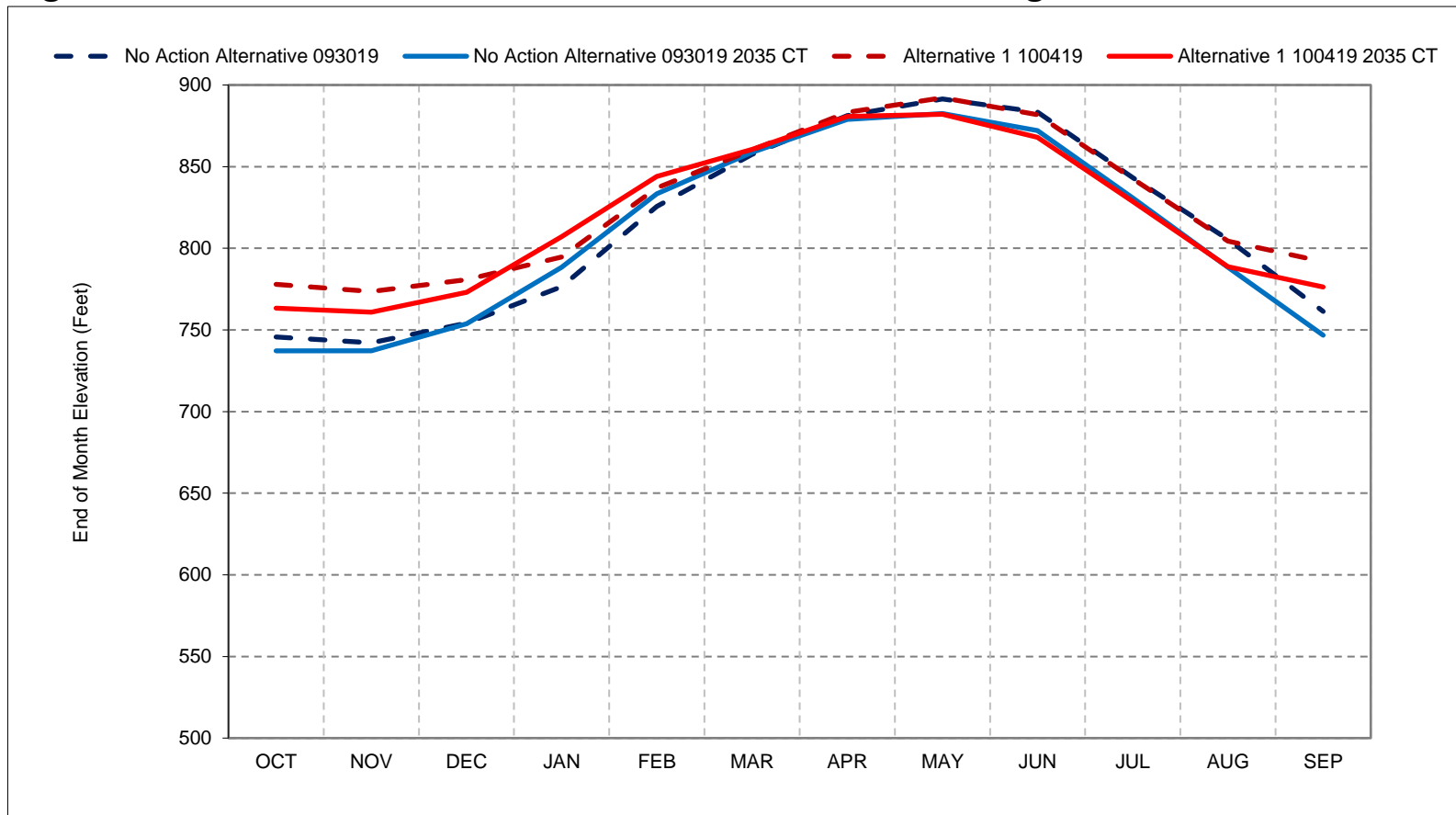
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-3. Lake Oroville Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

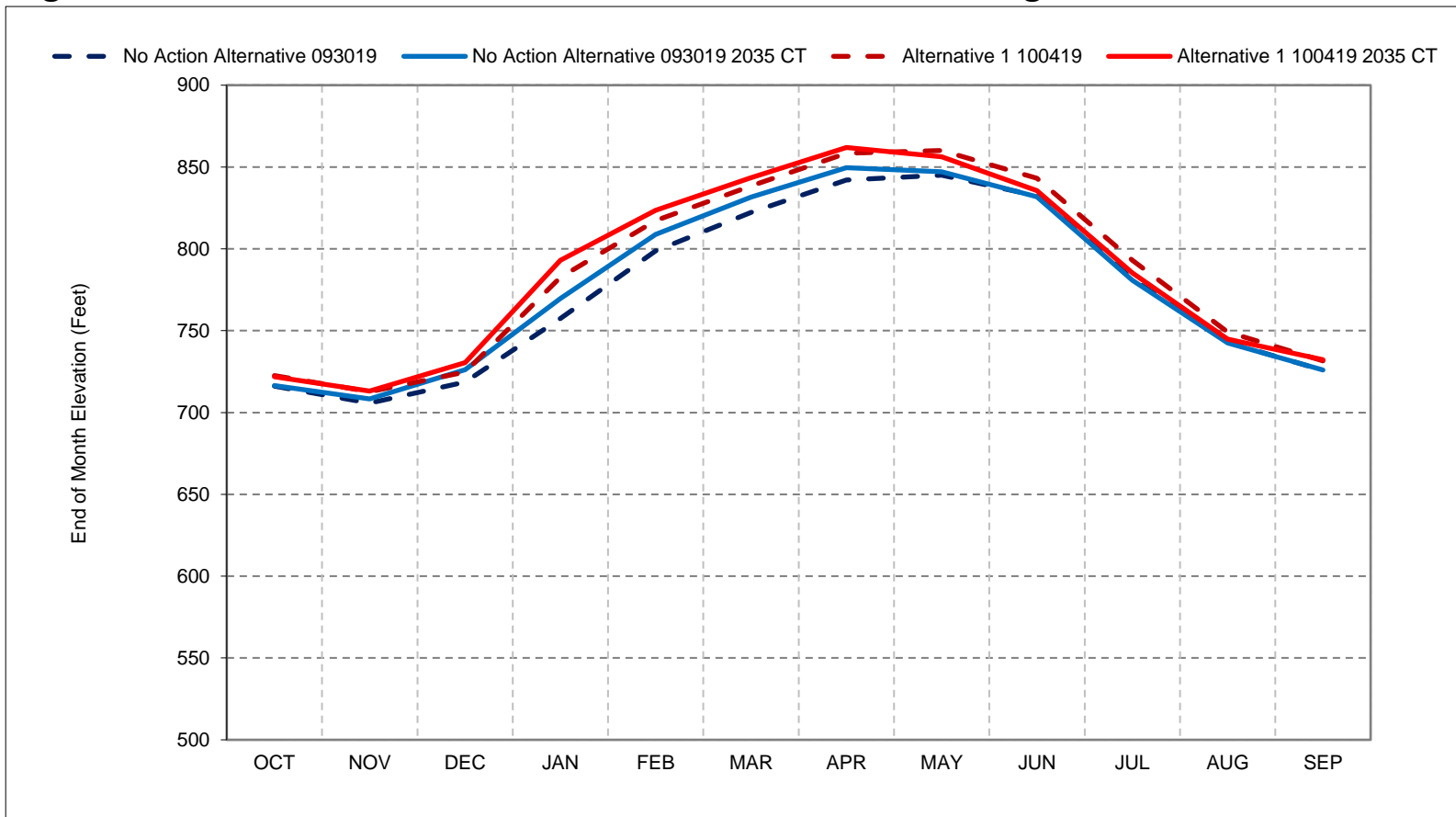
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-4. Lake Oroville Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

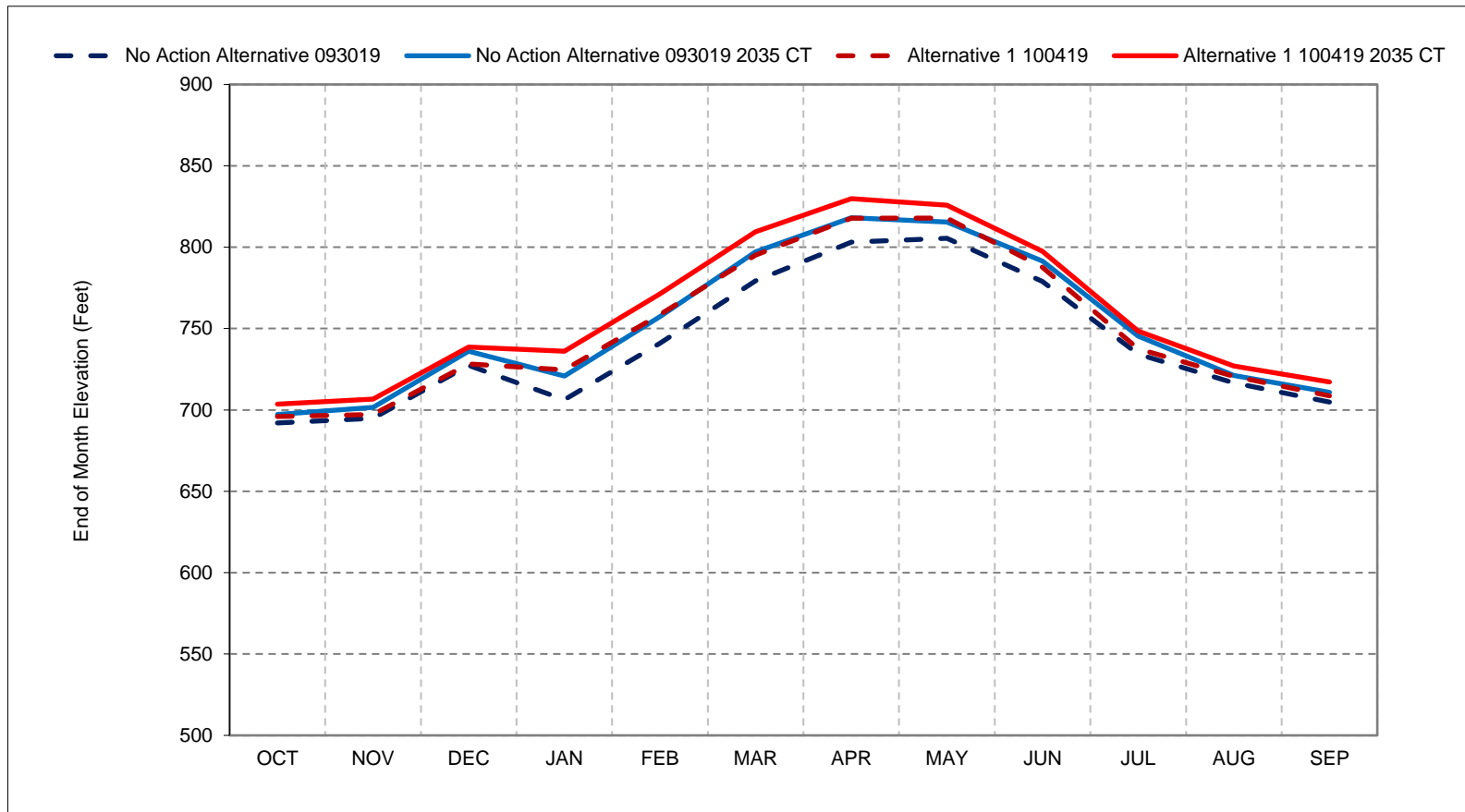
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-5. Lake Oroville Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

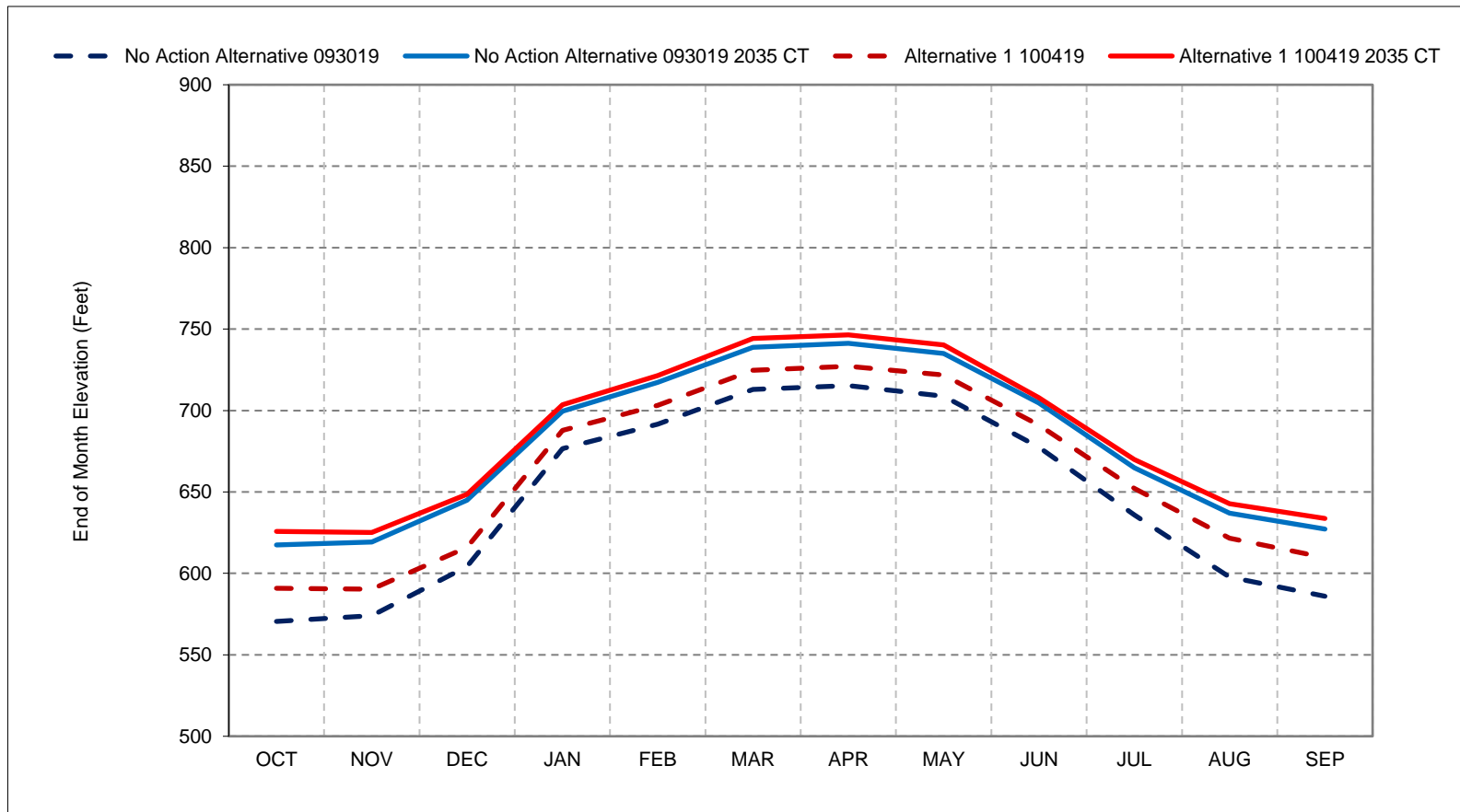
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 4a-6. Lake Oroville Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

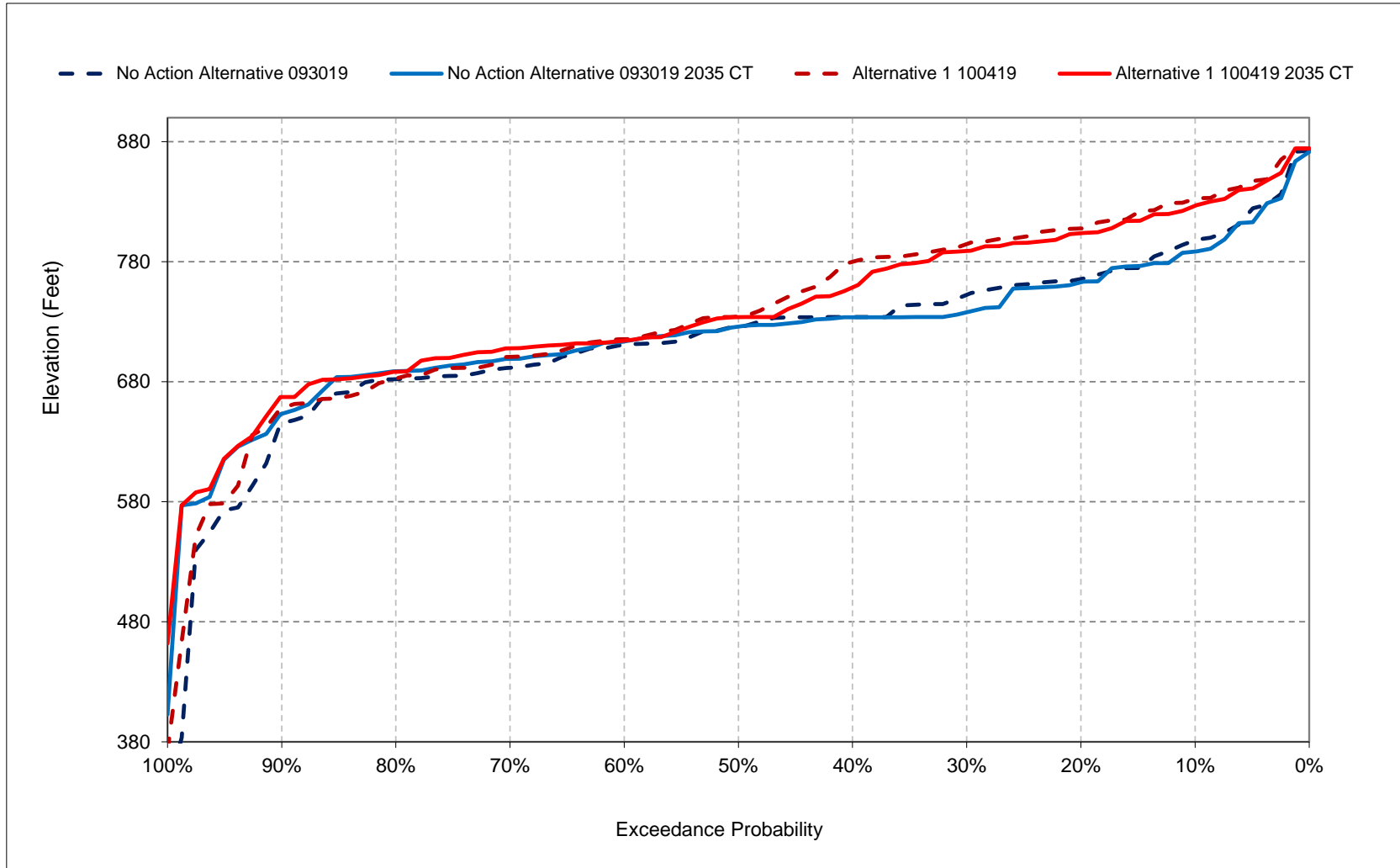
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

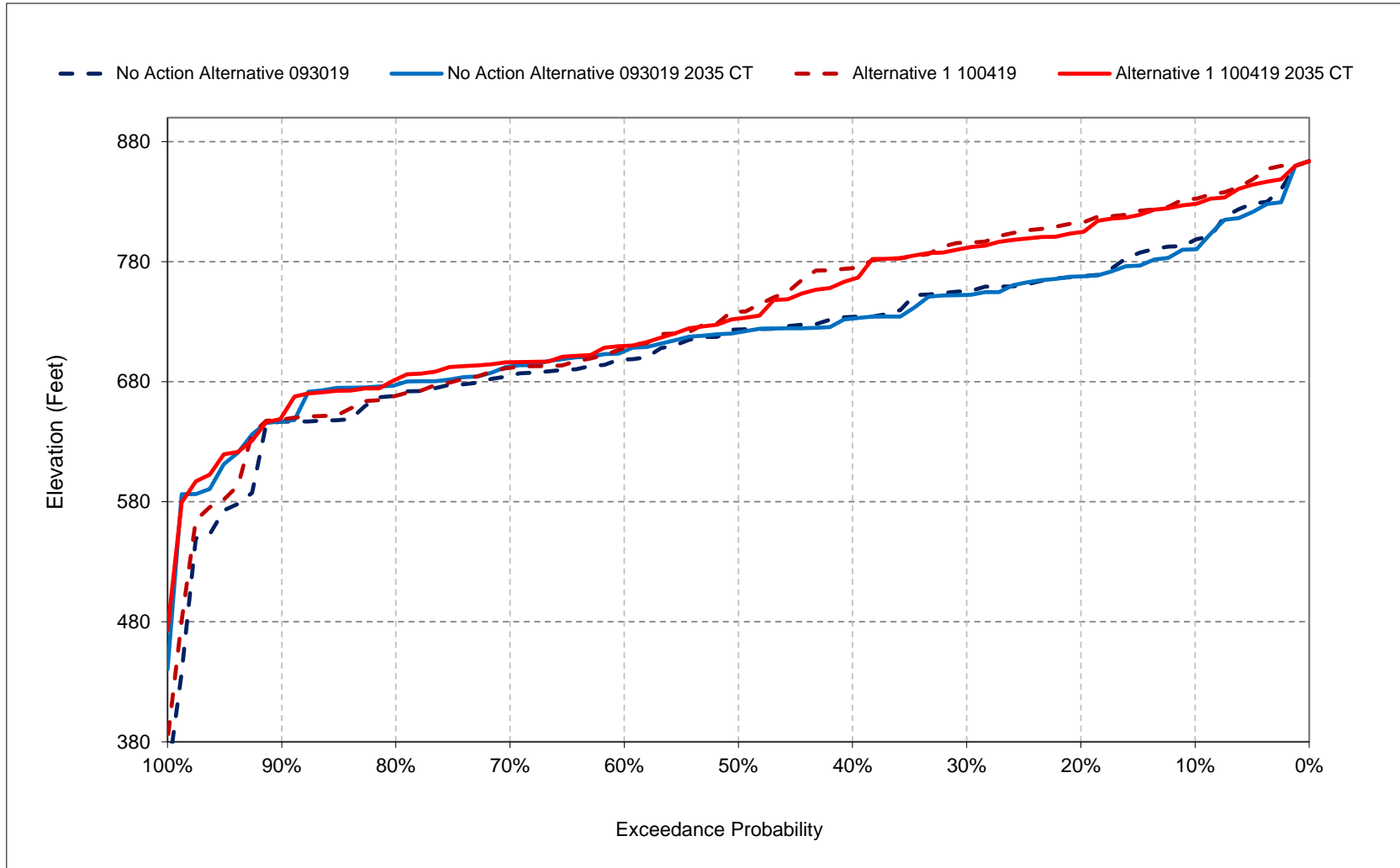
Figure 4a-7. Lake Oroville, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

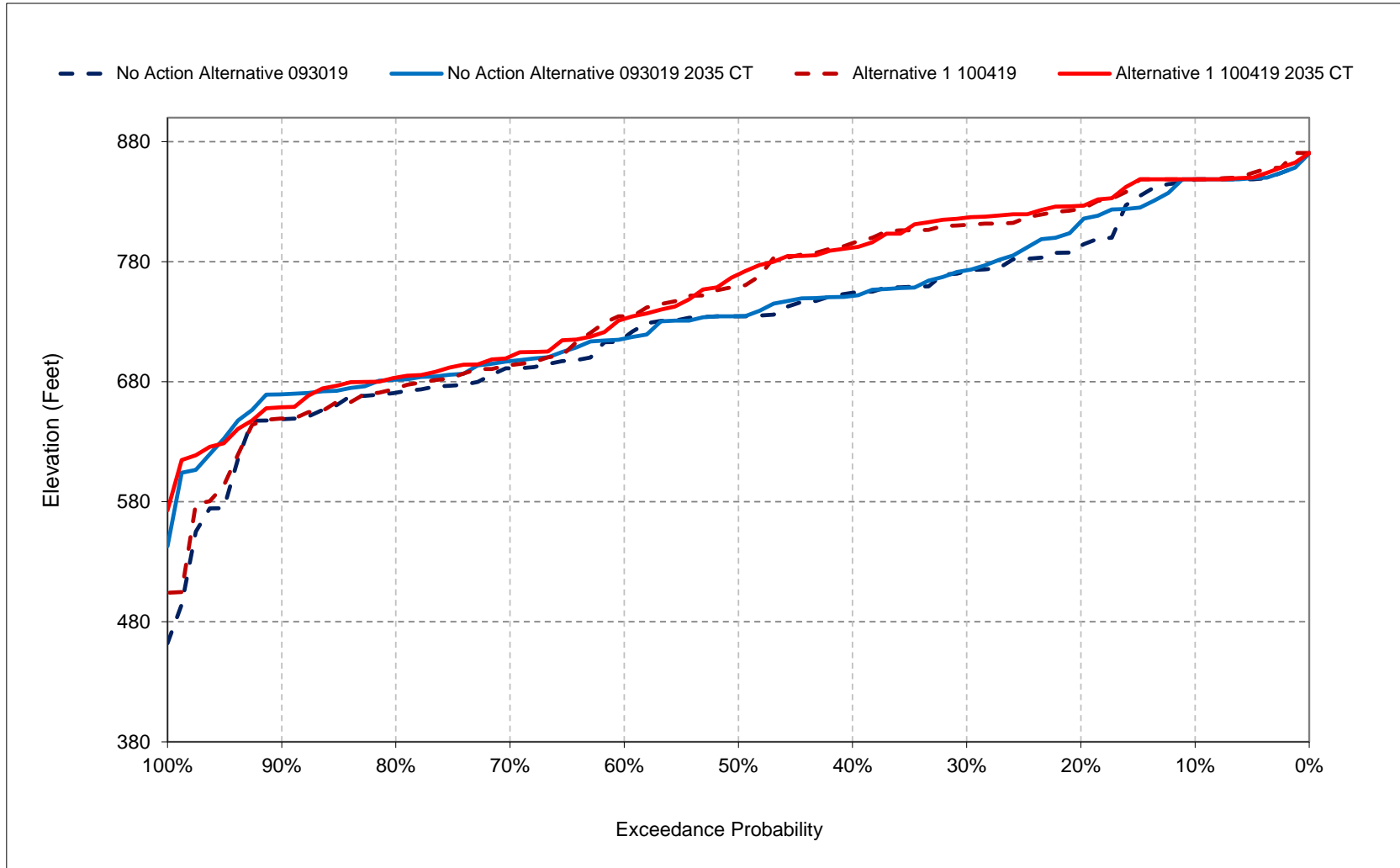
Figure 4a-8. Lake Oroville, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

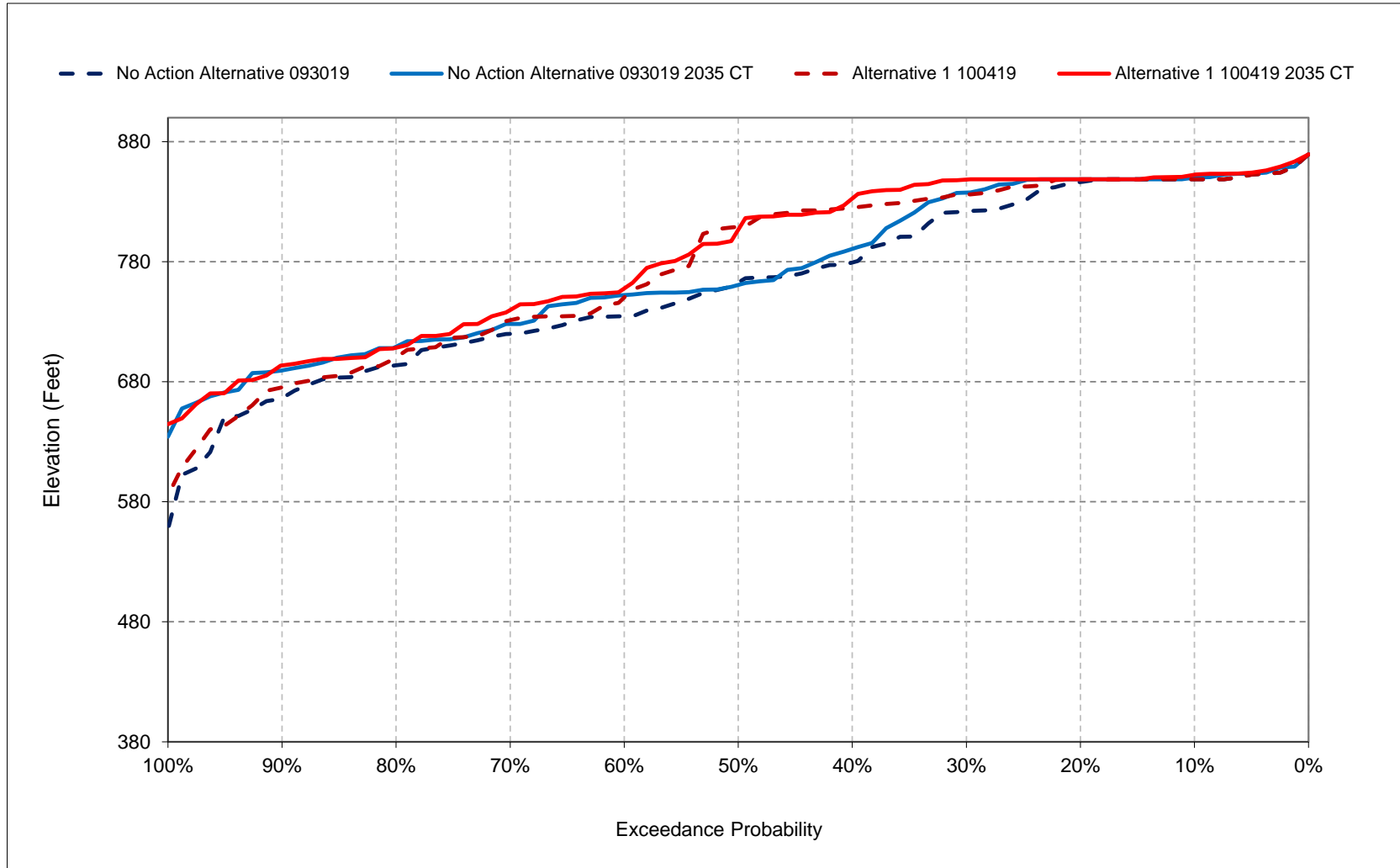
Figure 4a-9. Lake Oroville, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

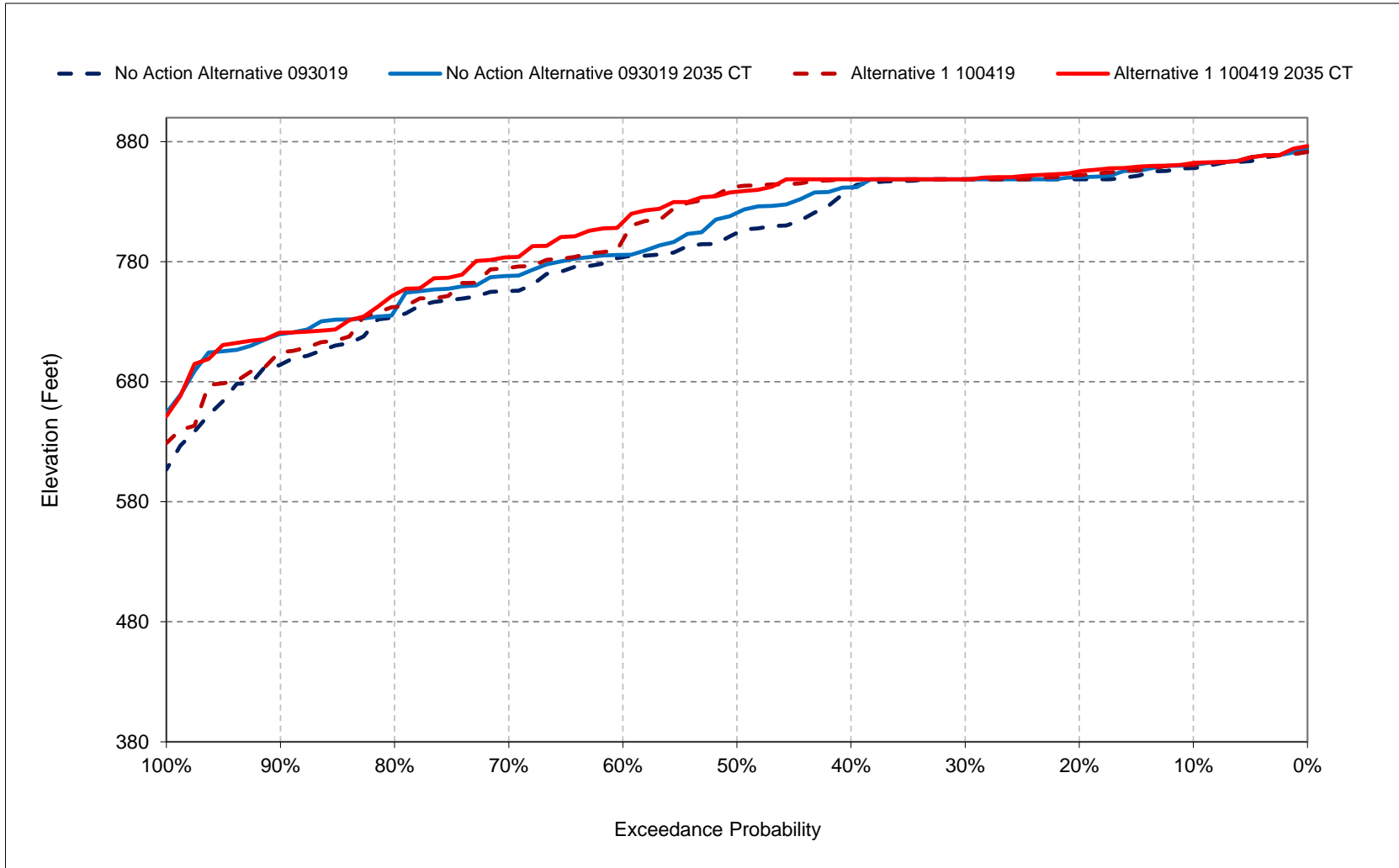
Figure 4a-10. Lake Oroville, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

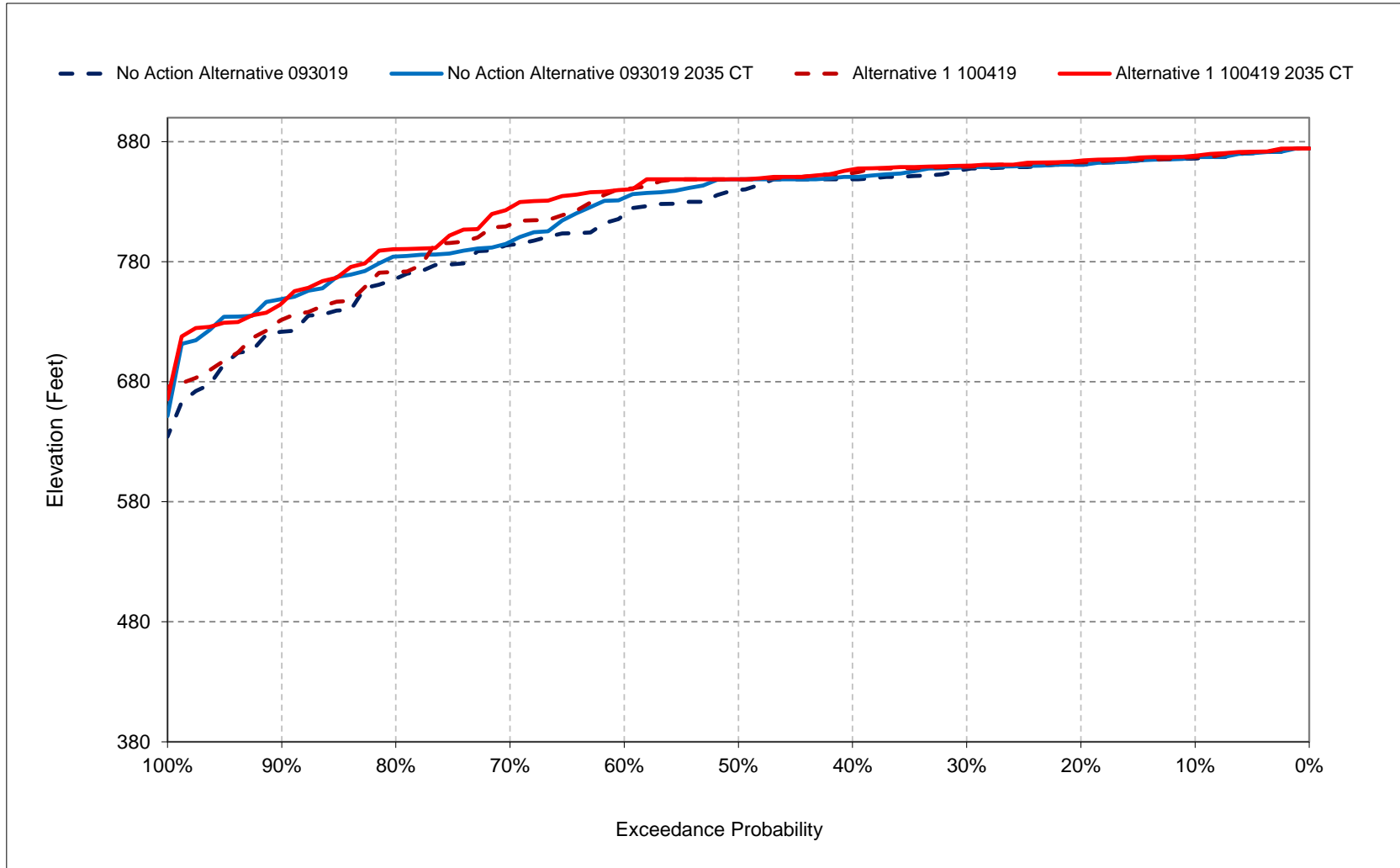
Figure 4a-11. Lake Oroville, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

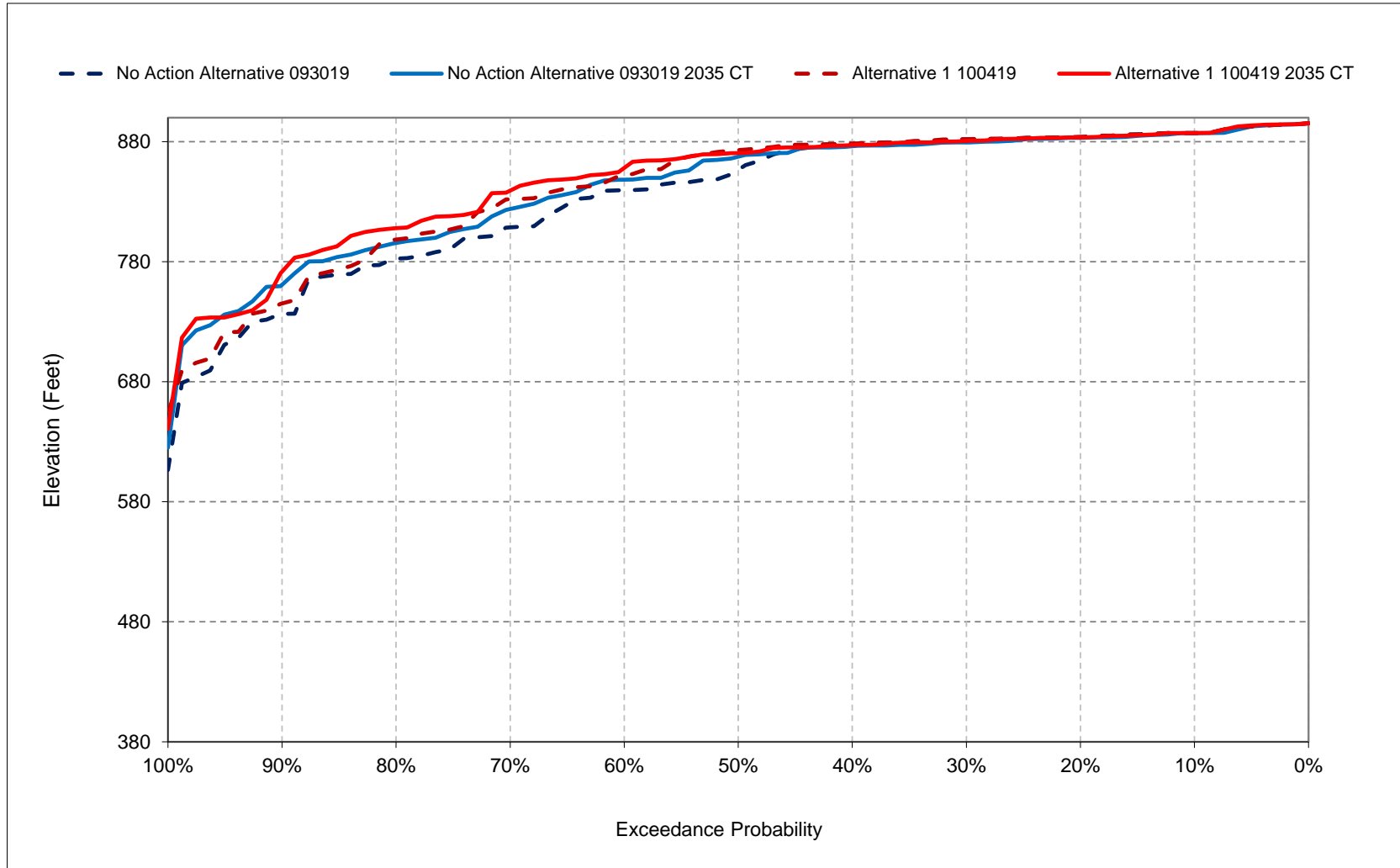
Figure 4a-12. Lake Oroville, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

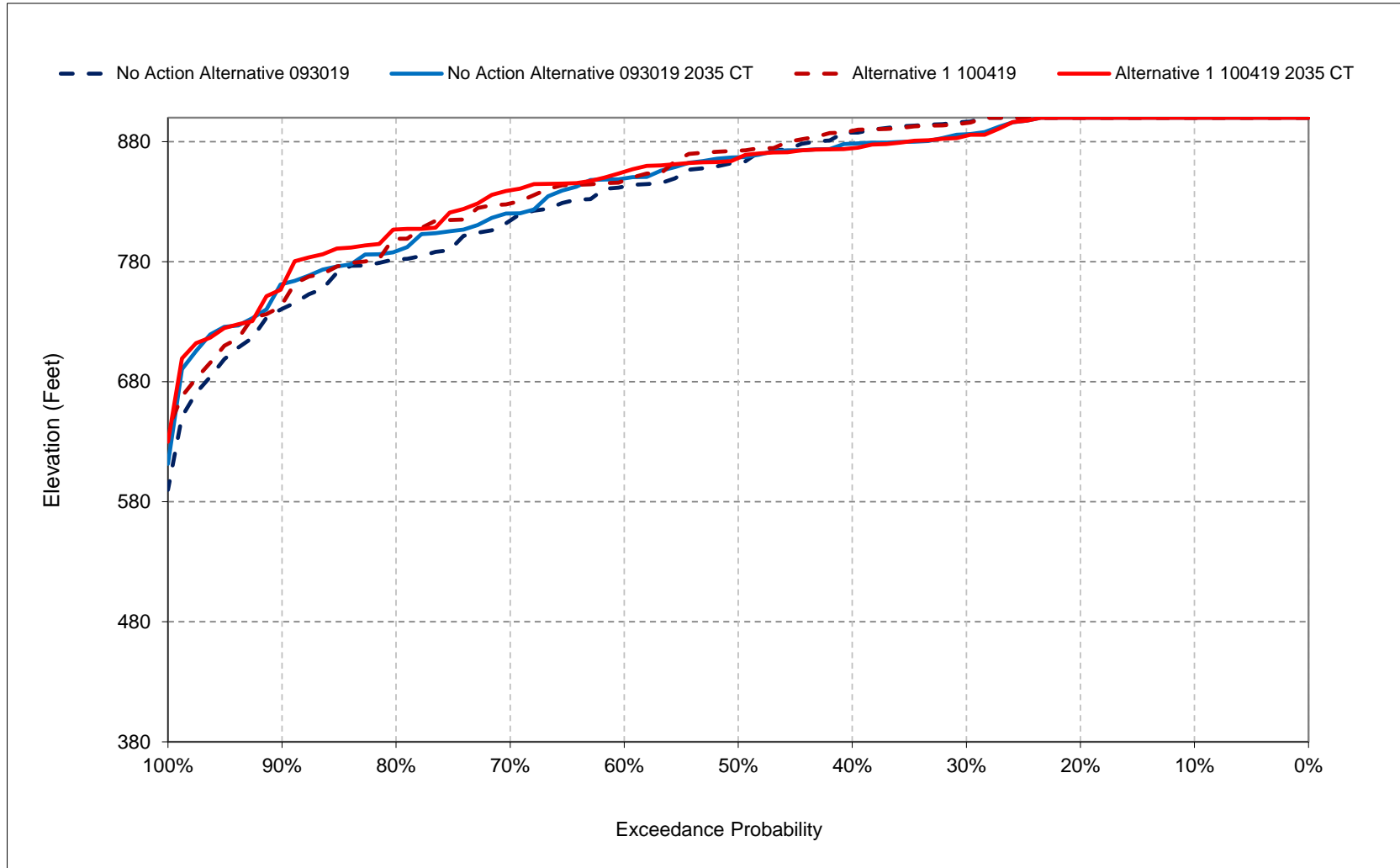
Figure 4a-13. Lake Oroville, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

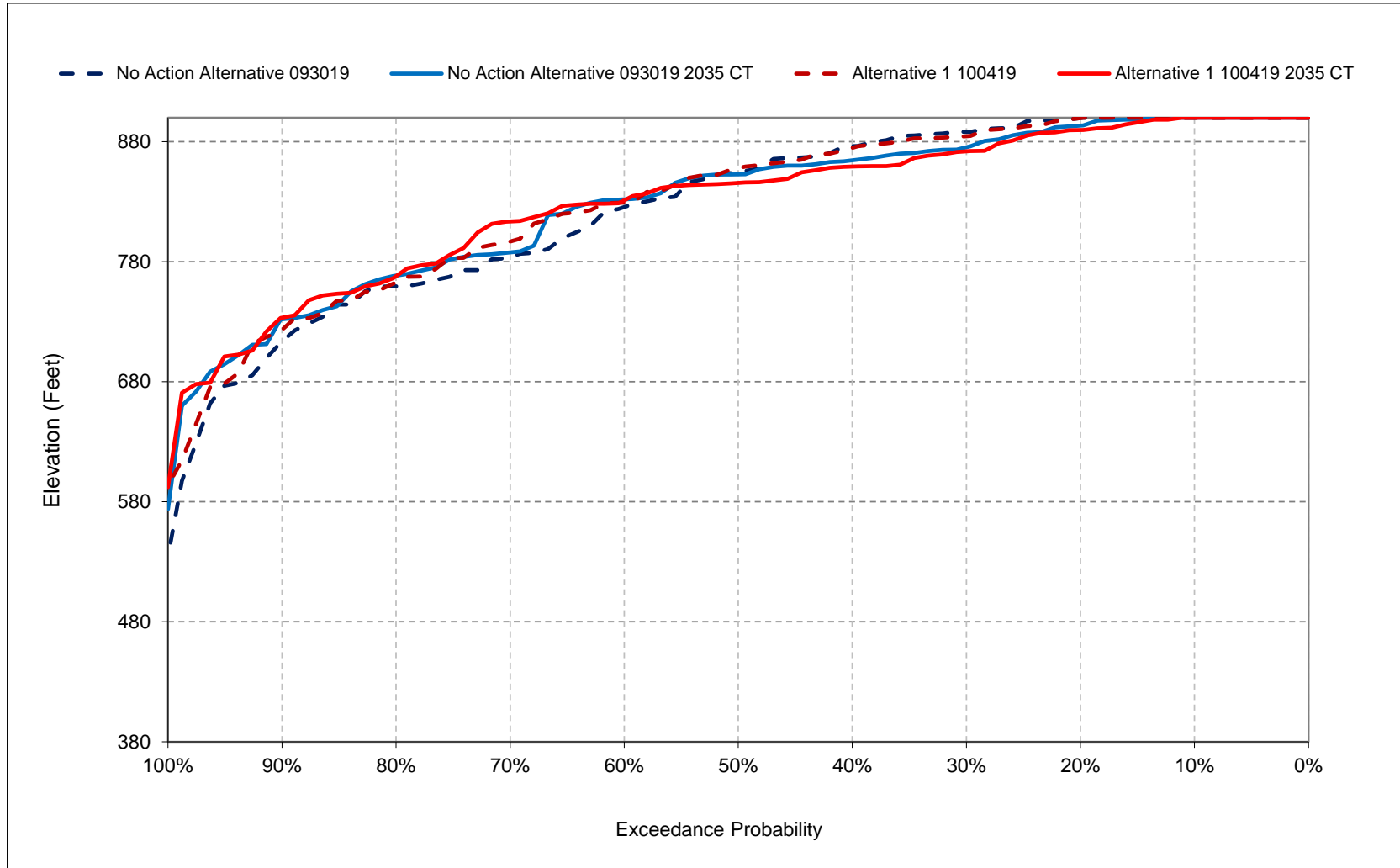
Figure 4a-14. Lake Oroville, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

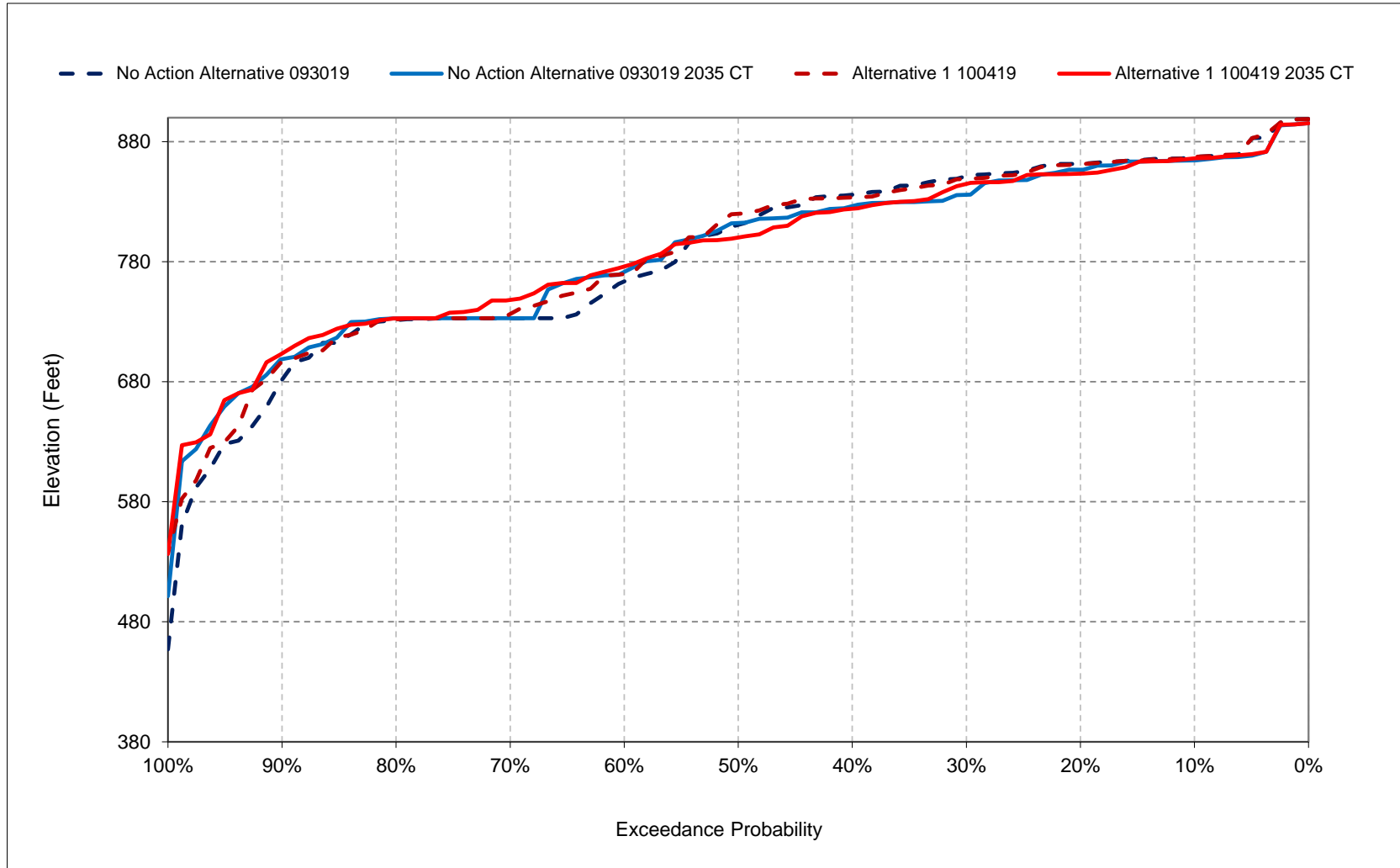
Figure 4a-15. Lake Oroville, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

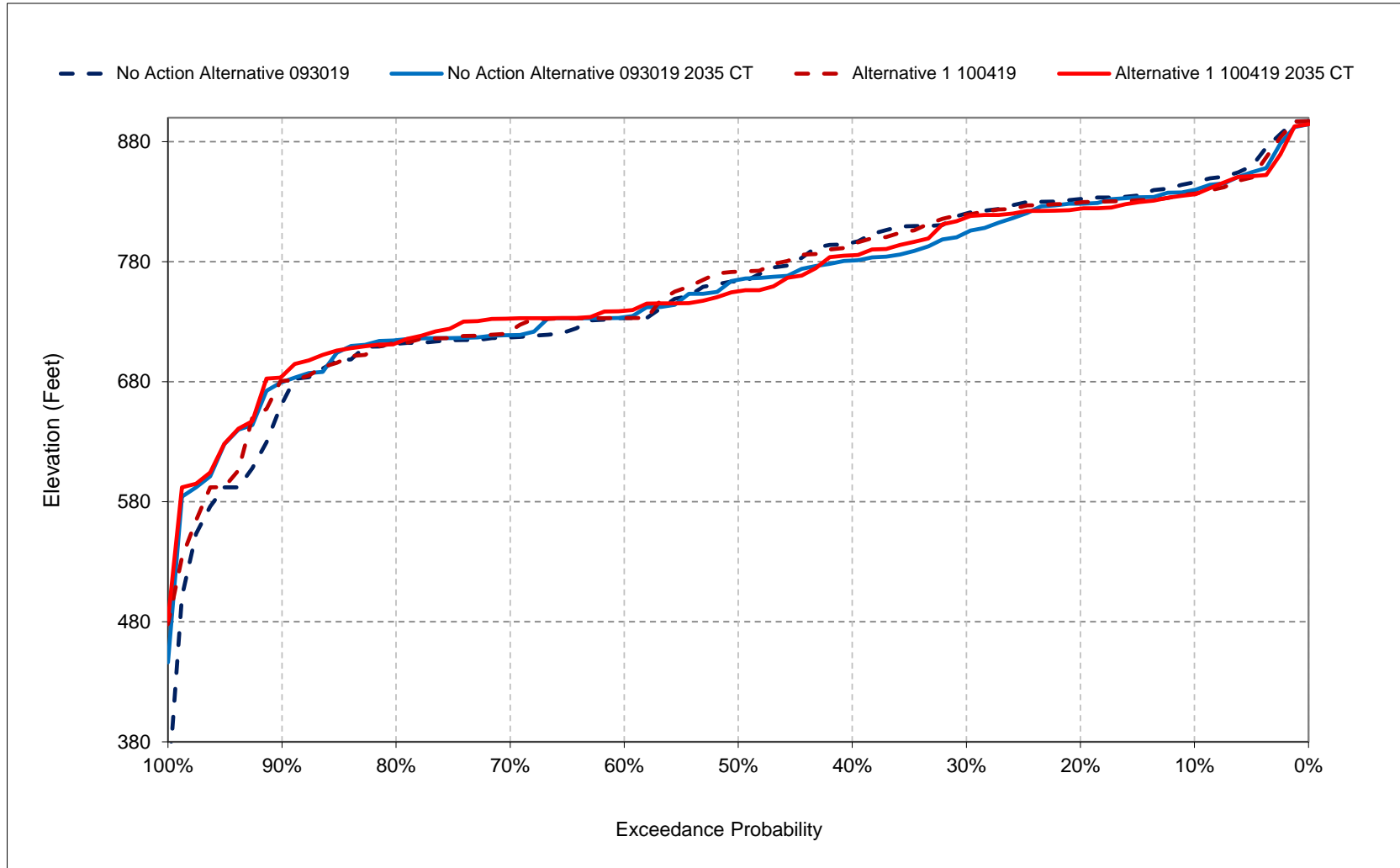
Figure 4a-16. Lake Oroville, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

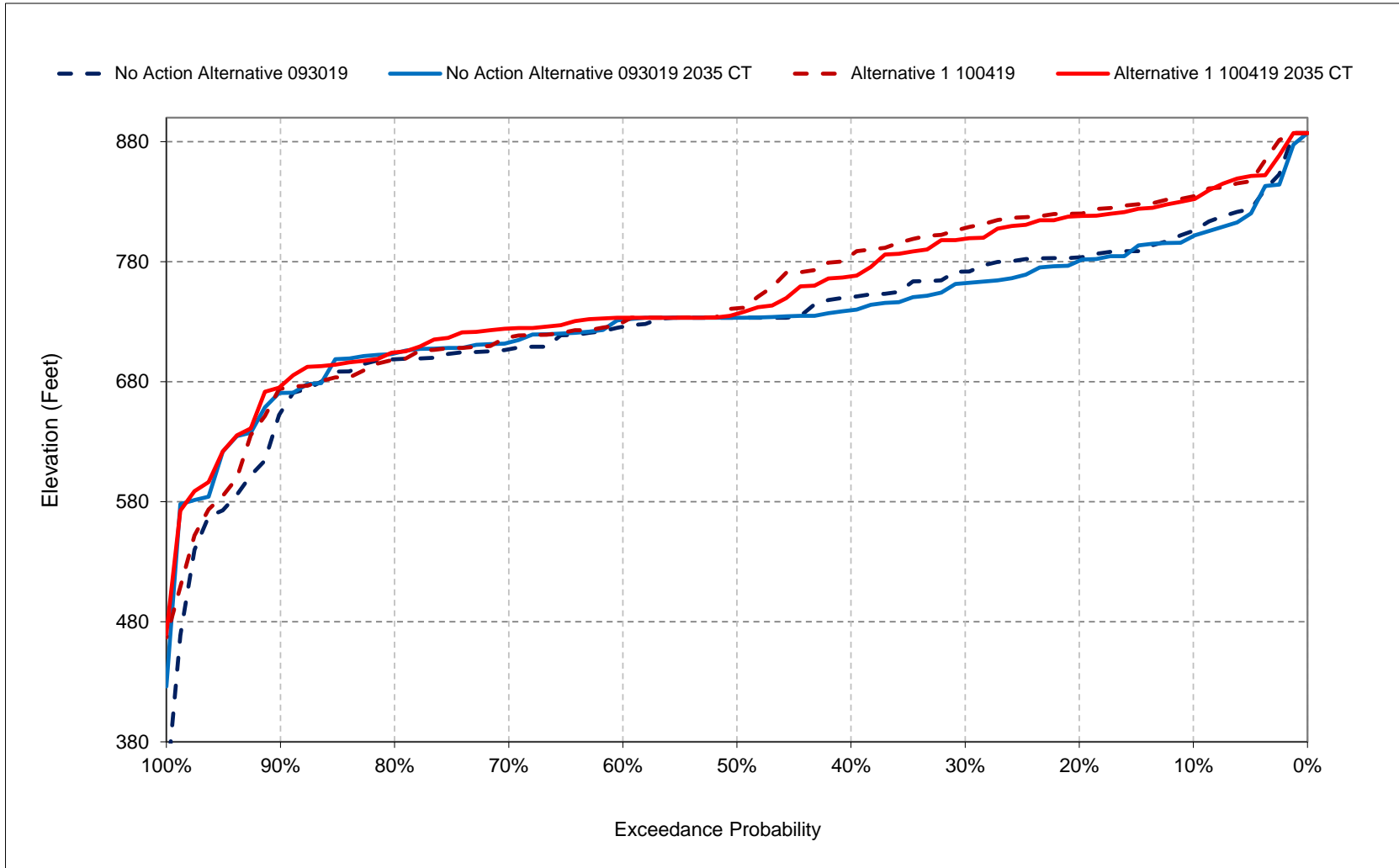
Figure 4a-17. Lake Oroville, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 4a-18. Lake Oroville, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-1. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	592	545	567	567	567	659	792	967	967	913	792	681
20%	534	482	567	564	565	656	792	967	967	847	767	622
30%	484	452	520	556	558	652	792	967	955	765	683	558
40%	438	421	479	522	553	644	792	967	911	657	571	508
50%	401	402	437	476	528	632	792	960	833	595	521	467
60%	351	375	410	435	485	621	783	852	765	519	458	408
70%	318	344	377	405	453	595	731	747	667	453	395	372
80%	288	304	345	346	403	515	596	614	532	397	350	298
90%	256	255	241	296	358	410	469	474	422	342	296	278
Long Term												
Full Simulation Period ^d	407	391	434	454	484	584	707	813	761	603	529	463
Water Year Types^{b,c}												
Wet (32%)	495	435	476	517	515	632	784	950	935	792	696	579
Above Normal (16%)	413	407	451	506	526	640	786	944	872	607	538	473
Below Normal (13%)	411	405	444	483	529	615	753	831	766	540	477	442
Dry (24%)	386	403	428	411	468	564	678	748	659	529	463	431
Critical (15%)	239	245	324	306	355	427	457	467	427	369	318	271

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	702	567	567	567	567	659	792	967	967	910	792	742
20%	591	558	567	567	567	656	792	967	967	868	745	654
30%	546	539	566	565	564	652	792	967	948	763	677	597
40%	498	503	527	557	558	642	792	967	900	682	589	547
50%	439	456	496	543	553	629	792	959	805	604	535	479
60%	390	421	456	495	516	621	792	880	760	567	491	438
70%	352	379	425	450	472	606	726	747	659	521	456	407
80%	333	349	379	415	444	556	648	629	536	429	375	342
90%	295	303	308	329	380	456	522	545	477	395	331	295
Long Term												
Full Simulation Period ^d	456	443	468	487	501	593	716	823	760	629	545	493
Water Year Types^{b,c}												
Wet (32%)	603	531	526	525	515	632	786	954	926	809	705	649
Above Normal (16%)	441	434	473	539	539	640	789	948	859	643	555	498
Below Normal (13%)	422	427	458	541	545	620	756	828	750	575	488	438
Dry (24%)	412	442	461	439	494	580	693	763	670	561	489	443
Critical (15%)	256	276	358	378	401	457	485	499	451	386	332	283

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	110	22	0	0	0	0	0	0	0	-4	0	61
20%	57	76	0	3	2	0	0	0	0	21	-22	32
30%	62	87	47	9	6	0	0	0	-7	-2	-7	40
40%	60	81	48	34	5	-2	0	0	-11	25	19	39
50%	38	54	60	67	25	-3	0	-1	-28	9	14	13
60%	39	47	47	60	31	0	9	28	-6	48	33	31
70%	34	35	48	45	19	11	-5	0	-8	68	62	36
80%	45	46	34	69	41	41	52	15	4	33	25	44
90%	39	48	68	33	22	45	53	70	55	53	35	17
Long Term												
Full Simulation Period ^d	49	52	34	33	17	9	9	10	0	26	16	30
Water Year Types^{b,c}												
Wet (32%)	108	96	51	9	0	0	2	4	-9	17	9	70
Above Normal (16%)	28	27	22	33	13	0	3	4	-13	37	17	25
Below Normal (13%)	11	23	14	58	16	5	3	-4	-16	35	11	-5
Dry (24%)	26	39	33	27	26	16	15	15	11	31	26	12
Critical (15%)	18	31	34	72	47	30	27	32	25	17	14	12

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 5-2. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	560	542	567	567	567	661	792	967	959	831	771	632
20%	492	457	567	567	567	658	792	967	879	742	698	571
30%	440	429	553	566	566	656	792	931	830	639	570	506
40%	417	397	507	560	559	652	792	890	790	576	518	470
50%	384	386	430	546	555	644	792	804	714	547	459	442
60%	347	362	407	485	535	629	789	762	682	467	413	390
70%	314	335	375	426	483	617	725	703	619	433	378	365
80%	294	301	342	372	441	594	658	652	555	385	355	315
90%	254	257	269	285	368	452	499	477	436	355	314	275
Long Term												
Full Simulation Period ^d	396	383	439	475	499	604	718	777	706	558	502	446
Water Year Types ^{b,c}												
Wet (32%)	475	428	483	522	515	633	780	912	869	723	660	546
Above Normal (16%)	369	375	446	527	539	641	776	833	754	528	471	419
Below Normal (13%)	414	399	456	503	533	631	755	772	697	509	449	436
Dry (24%)	379	389	422	442	507	609	717	737	634	501	444	419
Critical (15%)	268	265	350	344	372	465	487	493	430	373	339	313

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	672	567	567	567	567	661	792	967	959	850	760	725
20%	569	551	567	567	567	658	792	967	896	762	678	612
30%	522	515	567	567	566	656	792	933	834	656	597	567
40%	438	474	554	564	558	651	792	893	786	624	533	489
50%	405	422	496	556	555	642	792	818	726	573	497	450
60%	391	392	441	527	535	627	773	745	645	538	478	427
70%	368	380	400	453	493	615	720	690	605	493	429	392
80%	348	344	353	411	445	577	647	599	530	440	383	363
90%	288	302	302	323	394	510	537	518	467	386	335	309
Long Term												
Full Simulation Period ^d	444	431	467	492	507	608	720	778	709	588	520	476
Water Year Types ^{b,c}												
Wet (32%)	576	515	520	529	515	632	778	909	865	747	668	619
Above Normal (16%)	433	423	467	542	539	641	777	837	758	604	534	485
Below Normal (13%)	418	416	471	537	546	637	748	764	686	546	469	427
Dry (24%)	397	420	450	449	512	607	717	734	642	521	460	421
Critical (15%)	275	289	378	387	410	493	513	517	450	379	333	296

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	112	25	0	0	0	0	0	0	0	19	-11	92
20%	77	95	0	0	0	0	0	0	17	20	-20	41
30%	82	86	14	1	0	0	0	1	4	18	28	61
40%	21	77	47	4	-1	-1	0	3	-4	48	15	19
50%	21	35	65	10	0	-2	0	13	12	25	39	9
60%	44	30	33	42	0	-2	-17	-18	-37	71	65	37
70%	55	44	25	27	10	-1	-5	-13	-14	60	51	27
80%	54	43	11	40	4	-17	-12	-53	-25	54	28	48
90%	34	45	33	38	26	57	37	42	31	31	21	34
Long Term												
Full Simulation Period ^d	48	48	28	17	8	4	3	1	3	31	18	30
Water Year Types ^{b,c}												
Wet (32%)	101	87	37	7	0	-1	-2	-3	-4	24	7	73
Above Normal (16%)	64	48	21	16	0	0	1	4	4	76	63	66
Below Normal (13%)	4	17	16	34	13	6	-7	-8	-11	38	20	-9
Dry (24%)	19	31	28	7	4	-2	0	-3	8	20	16	2
Critical (15%)	7	24	28	43	38	27	26	24	20	6	-6	-17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-3. Folsom Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	592	545	567	567	567	659	792	967	967	913	792	681
20%	534	482	567	564	565	656	792	967	967	847	767	622
30%	484	452	520	556	558	652	792	967	955	765	683	558
40%	438	421	479	522	553	644	792	967	911	657	571	508
50%	401	402	437	476	528	632	792	960	833	595	521	467
60%	351	375	410	435	485	621	783	852	765	519	458	408
70%	318	344	377	405	453	595	731	747	667	453	395	372
80%	288	304	345	346	403	515	596	614	532	397	350	298
90%	256	255	241	296	358	410	469	474	422	342	296	278
Long Term												
Full Simulation Period ^d	407	391	434	454	484	584	707	813	761	603	529	463
Water Year Types ^{b,c}												
Wet (32%)	495	435	476	517	515	632	784	950	935	792	696	579
Above Normal (16%)	413	407	451	506	526	640	786	944	872	607	538	473
Below Normal (13%)	411	405	444	483	529	615	753	831	766	540	477	442
Dry (24%)	386	403	428	411	468	564	678	748	659	529	463	431
Critical (15%)	239	245	324	306	355	427	457	467	427	369	318	271

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	560	542	567	567	567	661	792	967	959	831	771	632
20%	492	457	567	567	567	658	792	967	879	742	698	571
30%	440	429	553	566	566	656	792	931	830	639	570	506
40%	417	397	507	560	559	652	792	890	790	576	518	470
50%	384	386	430	546	555	644	792	804	714	547	459	442
60%	347	362	407	485	535	629	789	762	682	467	413	390
70%	314	335	375	426	483	617	725	703	619	433	378	365
80%	294	301	342	372	441	594	658	652	555	385	355	315
90%	254	257	269	285	368	452	499	477	436	355	314	275
Long Term												
Full Simulation Period ^d	396	383	439	475	499	604	718	777	706	558	502	446
Water Year Types ^{b,c}												
Wet (32%)	475	428	483	522	515	633	780	912	869	723	660	546
Above Normal (16%)	369	375	446	527	539	641	776	833	754	528	471	419
Below Normal (13%)	414	399	456	503	533	631	755	772	697	509	449	436
Dry (24%)	379	389	422	442	507	609	717	737	634	501	444	419
Critical (15%)	268	265	350	344	372	465	487	493	430	373	339	313

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-32	-3	0	0	0	2	0	0	-8	-82	-21	-49
20%	-43	-25	0	3	2	2	0	0	-88	-105	-70	-51
30%	-44	-23	33	10	8	4	0	-36	-125	-126	-113	-52
40%	-21	-24	28	37	6	8	0	-77	-121	-82	-53	-38
50%	-17	-15	-6	70	27	12	0	-155	-119	-48	-63	-25
60%	-4	-13	-2	50	50	8	7	-90	-83	-52	-45	-18
70%	-5	-9	-2	21	30	22	-5	-44	-48	-20	-16	-6
80%	6	-3	-4	25	38	79	62	38	22	-11	5	17
90%	-2	2	29	-11	10	42	30	2	14	13	18	-3
Long Term												
Full Simulation Period ^d	-11	-8	5	20	15	19	11	-36	-54	-45	-27	-17
Water Year Types ^{b,c}												
Wet (32%)	-20	-7	7	5	0	1	-5	-38	-66	-69	-36	-34
Above Normal (16%)	-44	-32	-5	21	13	1	-10	-111	-119	-79	-67	-53
Below Normal (13%)	3	-6	11	20	4	16	2	-59	-69	-31	-28	-6
Dry (24%)	-8	-13	-6	30	39	45	38	-11	-25	-29	-18	-13
Critical (15%)	29	20	26	38	17	39	29	25	3	4	21	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5-4. Folsom Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	702	567	567	567	567	659	792	967	967	910	792	742
20%	591	558	567	567	567	656	792	967	967	868	745	654
30%	546	539	566	565	564	652	792	967	948	763	677	597
40%	498	503	527	557	558	642	792	967	900	682	589	547
50%	439	456	496	543	553	629	792	959	805	604	535	479
60%	390	421	456	495	516	621	792	880	760	567	491	438
70%	352	379	425	450	472	606	726	747	659	521	456	407
80%	333	349	379	415	444	556	648	629	536	429	375	342
90%	295	303	308	329	380	456	522	545	477	395	331	295
Long Term												
Full Simulation Period ^d	456	443	468	487	501	593	716	823	760	629	545	493
Water Year Types ^{b,c}												
Wet (32%)	603	531	526	525	515	632	786	954	926	809	705	649
Above Normal (16%)	441	434	473	539	539	640	789	948	859	643	555	498
Below Normal (13%)	422	427	458	541	545	620	756	828	750	575	488	438
Dry (24%)	412	442	461	439	494	580	693	763	670	561	489	443
Critical (15%)	256	276	358	378	401	457	485	499	451	386	332	283

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	672	567	567	567	567	661	792	967	959	850	760	725
20%	569	551	567	567	567	658	792	967	896	762	678	612
30%	522	515	567	567	566	656	792	933	834	656	597	567
40%	438	474	554	564	558	651	792	893	786	624	533	489
50%	405	422	496	556	555	642	792	818	726	573	497	450
60%	391	392	441	527	535	627	773	745	645	538	478	427
70%	368	380	400	453	493	615	720	690	605	493	429	392
80%	348	344	353	411	445	577	647	599	530	440	383	363
90%	288	302	302	323	394	510	537	518	467	386	335	309
Long Term												
Full Simulation Period ^d	444	431	467	492	507	608	720	778	709	588	520	476
Water Year Types ^{b,c}												
Wet (32%)	576	515	520	529	515	632	778	909	865	747	668	619
Above Normal (16%)	433	423	467	542	539	641	777	837	758	604	534	485
Below Normal (13%)	418	416	471	537	546	637	748	764	686	546	469	427
Dry (24%)	397	420	450	449	512	607	717	734	642	521	460	421
Critical (15%)	275	289	378	387	410	493	513	517	450	379	333	296

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-30	0	0	0	0	2	0	0	-8	-59	-32	-17
20%	-22	-7	0	0	0	2	0	0	-71	-106	-67	-42
30%	-25	-24	1	2	2	4	0	-34	-114	-107	-79	-31
40%	-60	-29	27	7	0	9	0	-74	-115	-58	-56	-59
50%	-34	-34	-1	13	3	13	0	-141	-79	-31	-38	-29
60%	1	-29	-16	32	19	6	-19	-136	-115	-29	-13	-12
70%	17	1	-25	3	21	9	-6	-58	-54	-28	-27	-15
80%	15	-5	-27	-4	1	21	-1	-30	-6	10	8	21
90%	-7	0	-6	-6	14	54	15	-26	-10	-9	4	14
Long Term												
Full Simulation Period ^d	-12	-12	-1	5	6	14	4	-45	-51	-41	-25	-17
Water Year Types ^{b,c}												
Wet (32%)	-28	-16	-6	3	0	0	-8	-44	-61	-62	-38	-31
Above Normal (16%)	-8	-10	-6	3	0	1	-12	-111	-102	-39	-21	-13
Below Normal (13%)	-4	-12	13	-4	1	17	-8	-63	-64	-29	-19	-11
Dry (24%)	-15	-22	-11	10	18	27	24	-29	-28	-40	-28	-22
Critical (15%)	18	13	20	9	9	36	28	18	-2	-7	0	13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

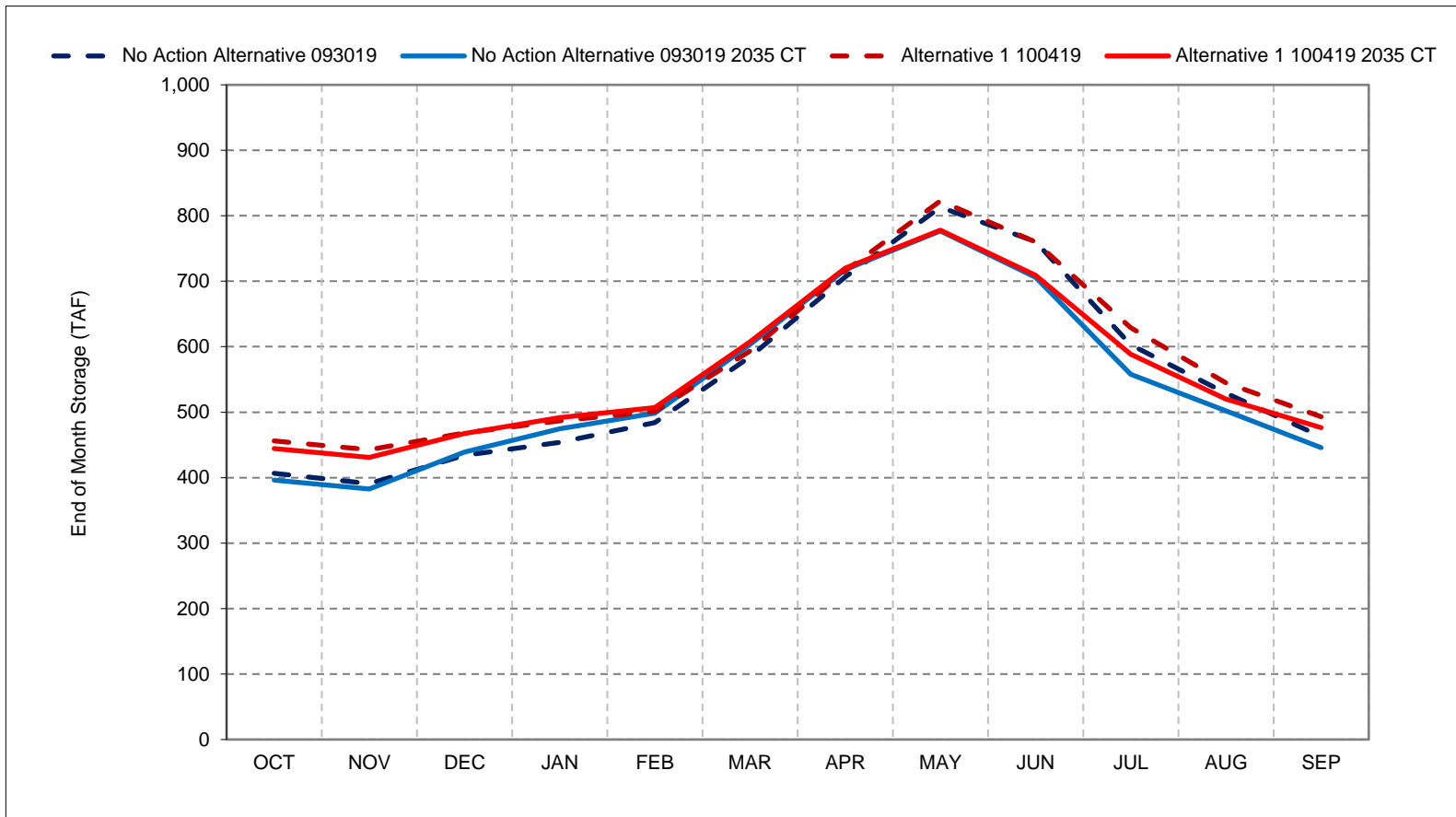
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5-1. Folsom Lake Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

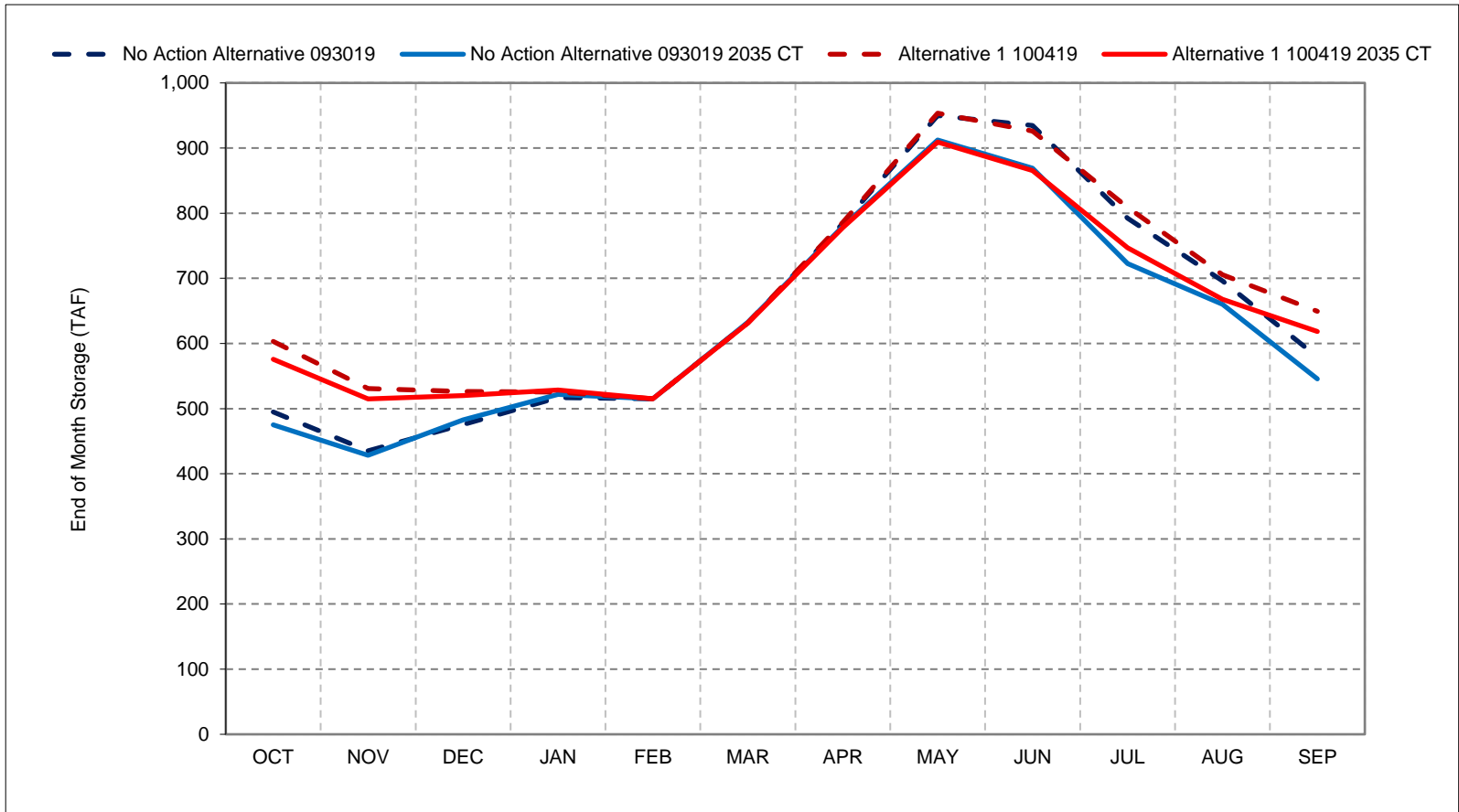
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-2. Folsom Lake Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

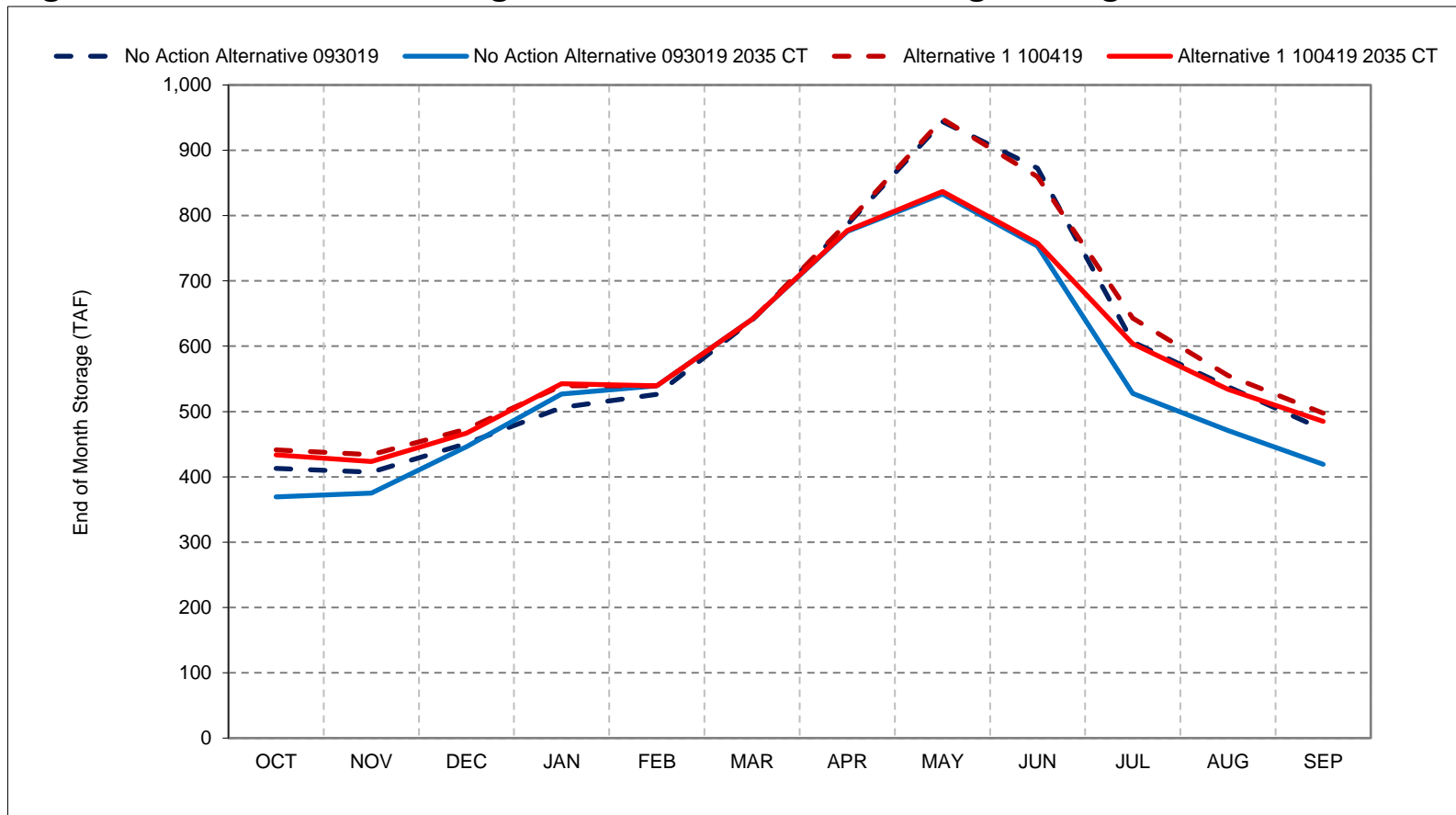
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-3. Folsom Lake Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

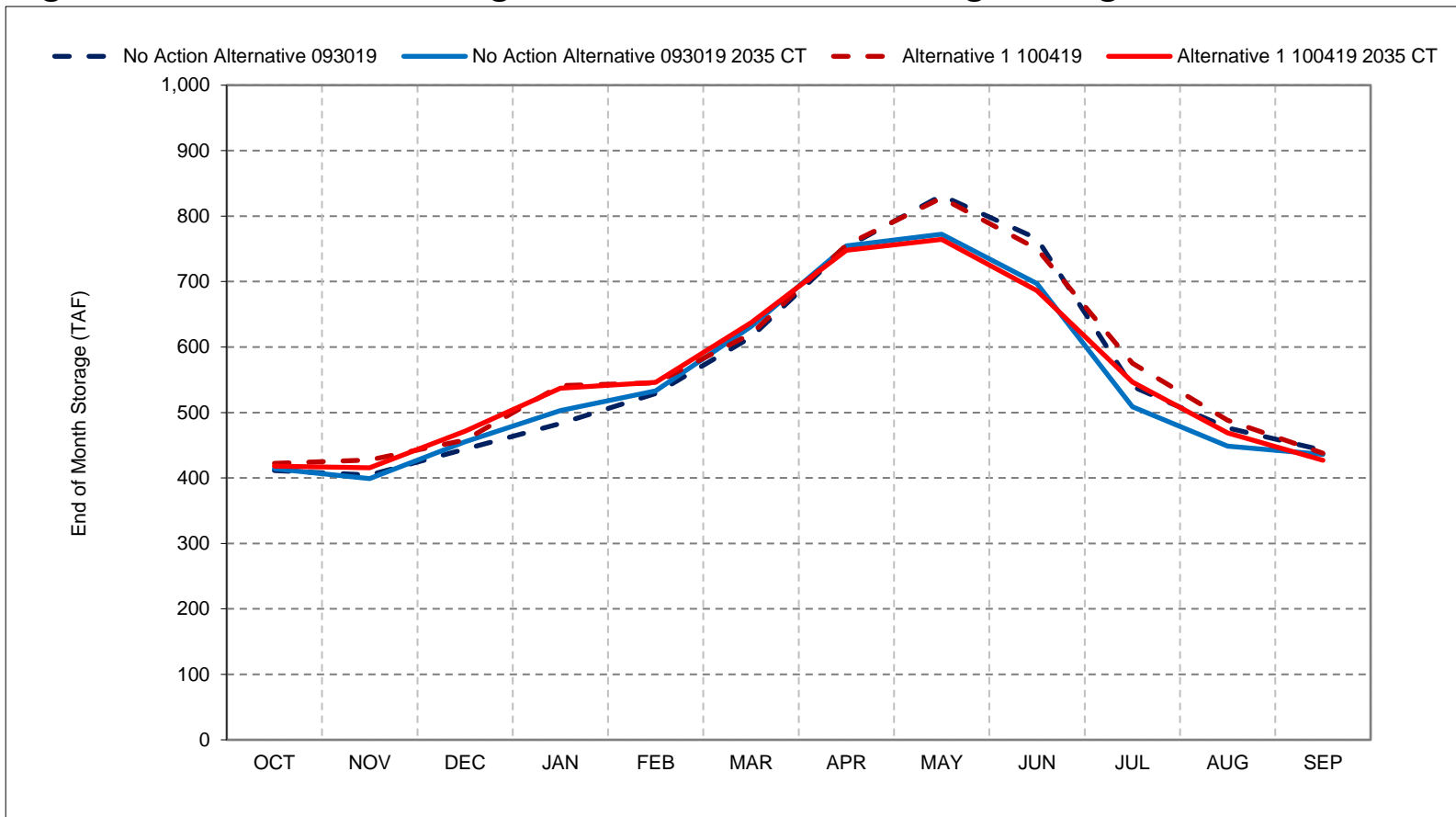
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-4. Folsom Lake Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

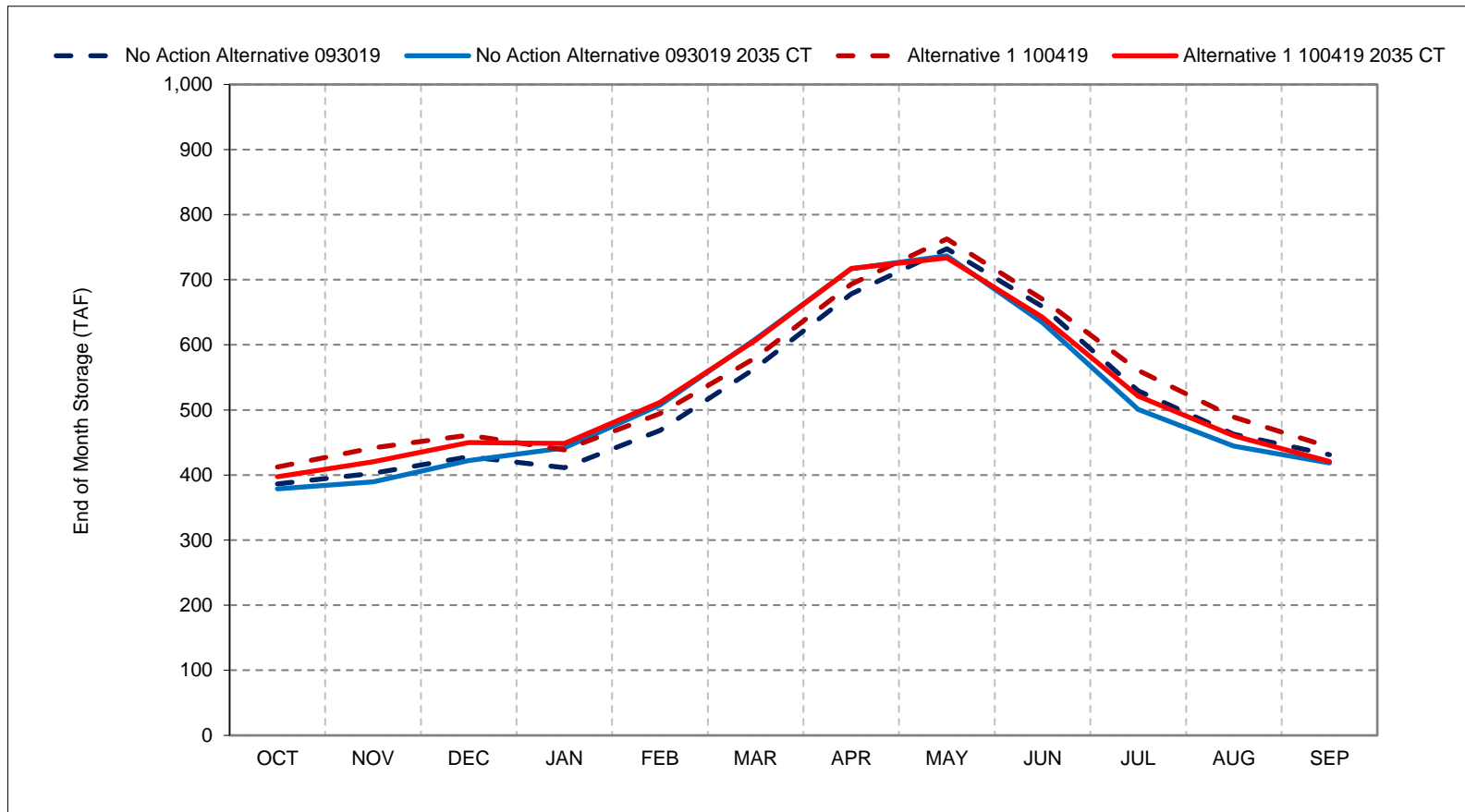
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-5. Folsom Lake Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

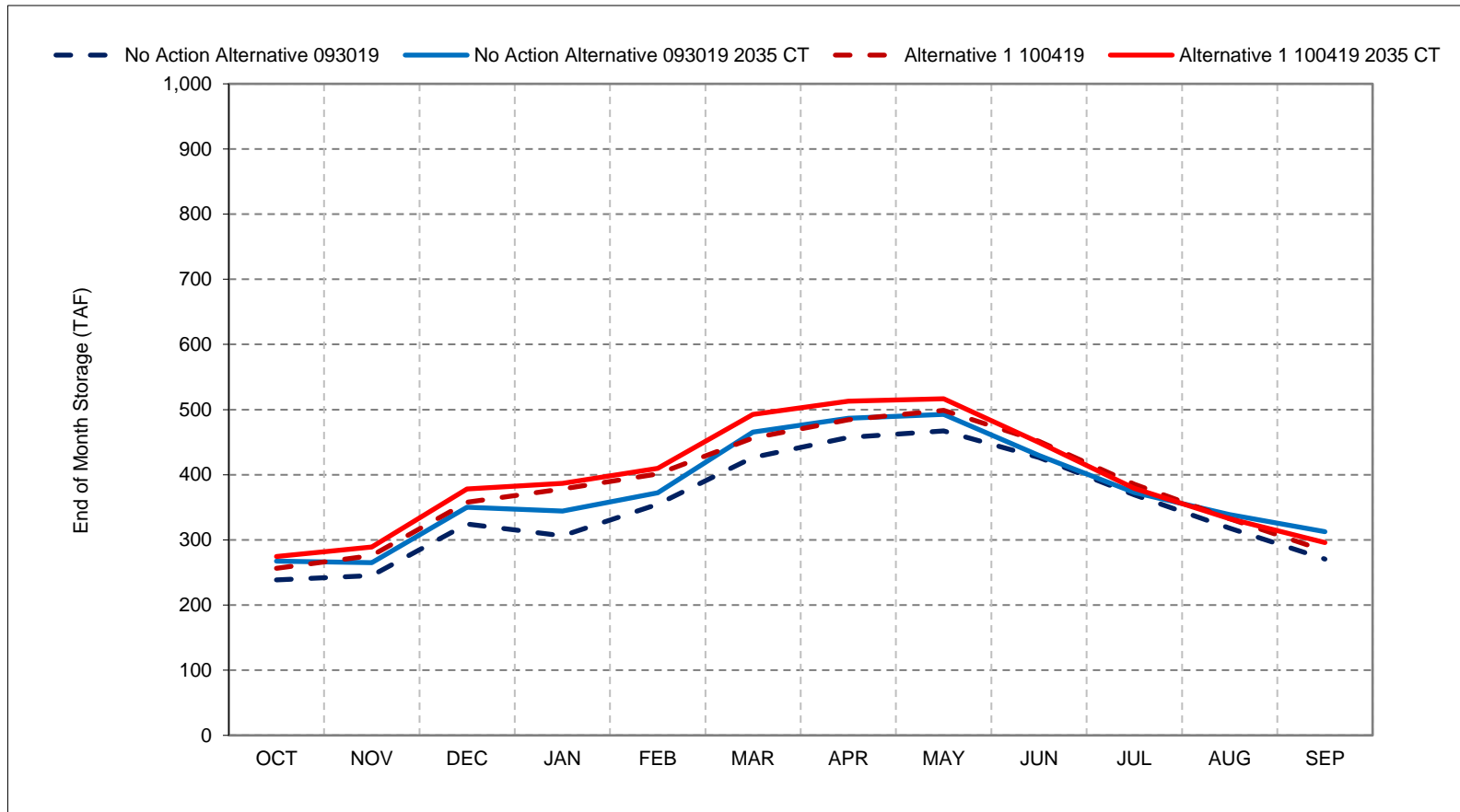
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5-6. Folsom Lake Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

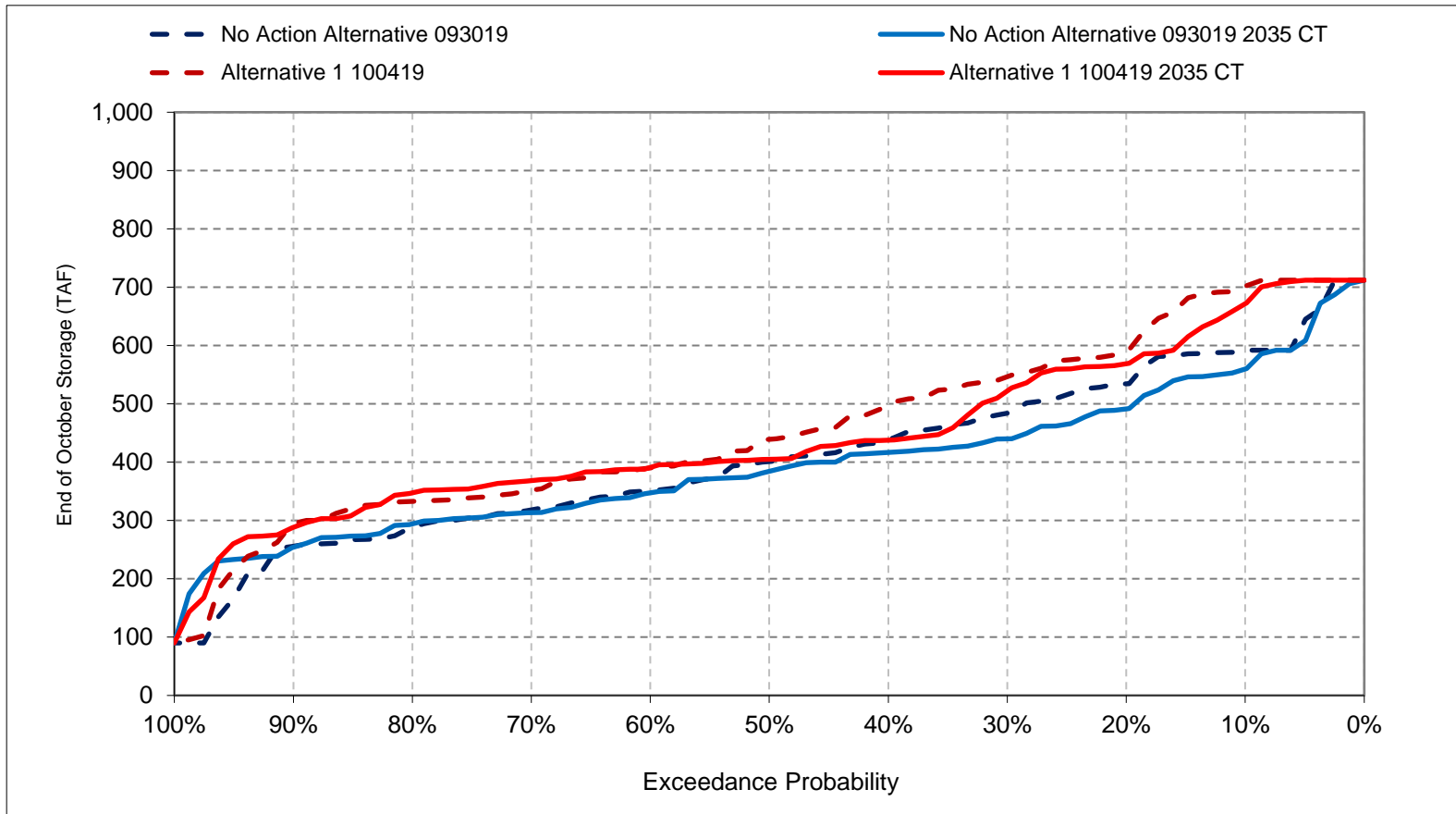
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

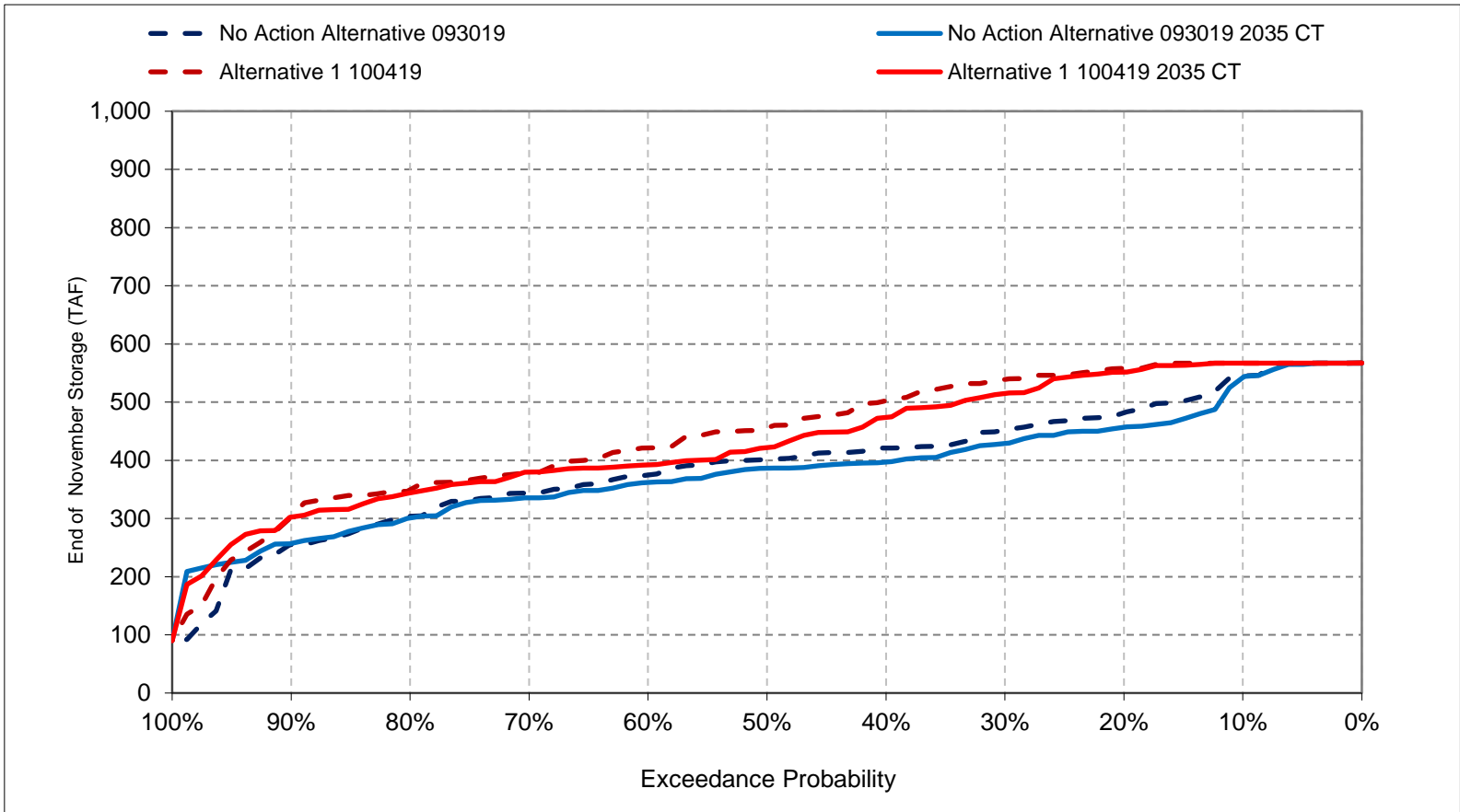
Figure 5-7. Folsom Lake Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

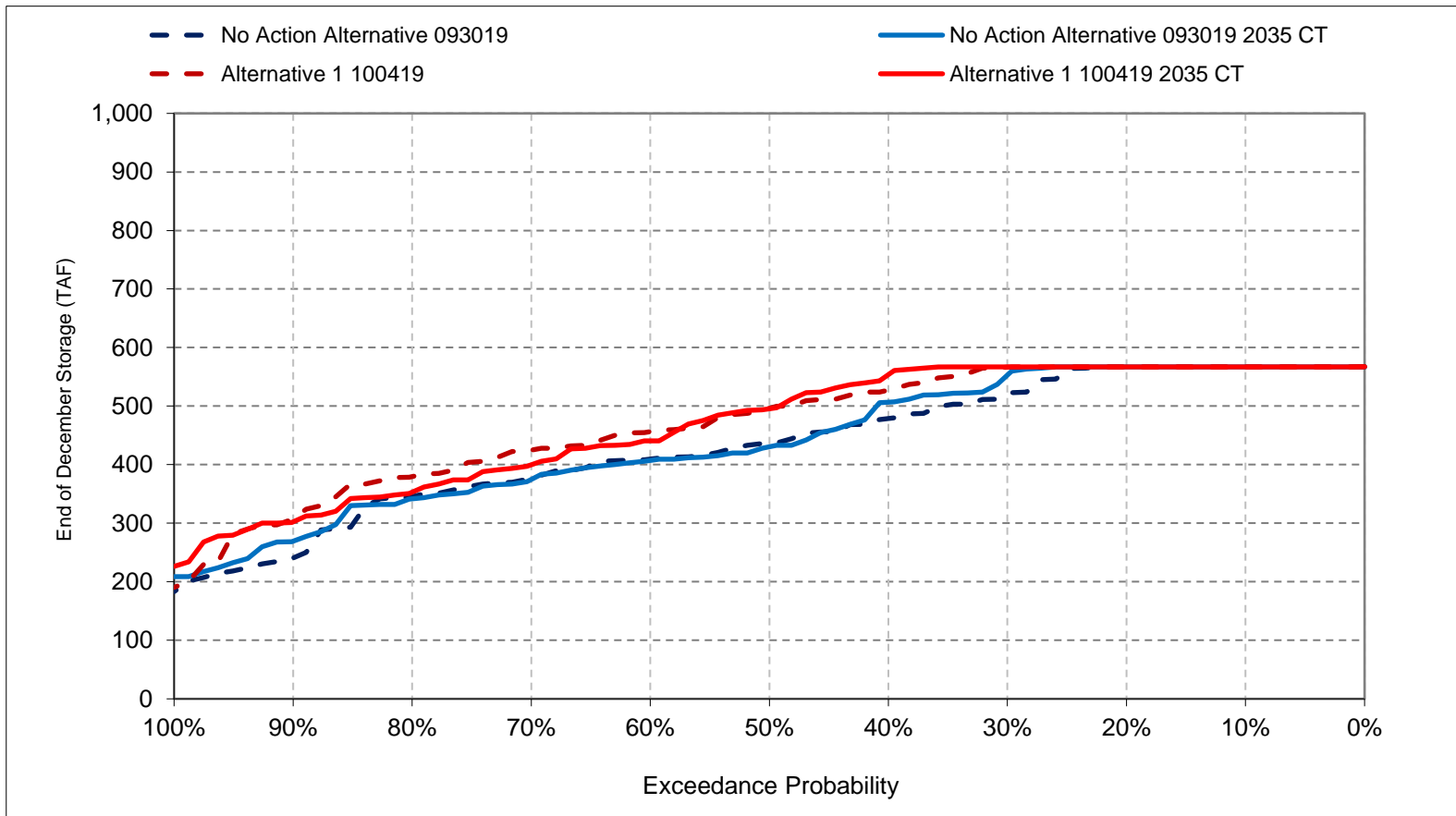
Figure 5-8. Folsom Lake Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

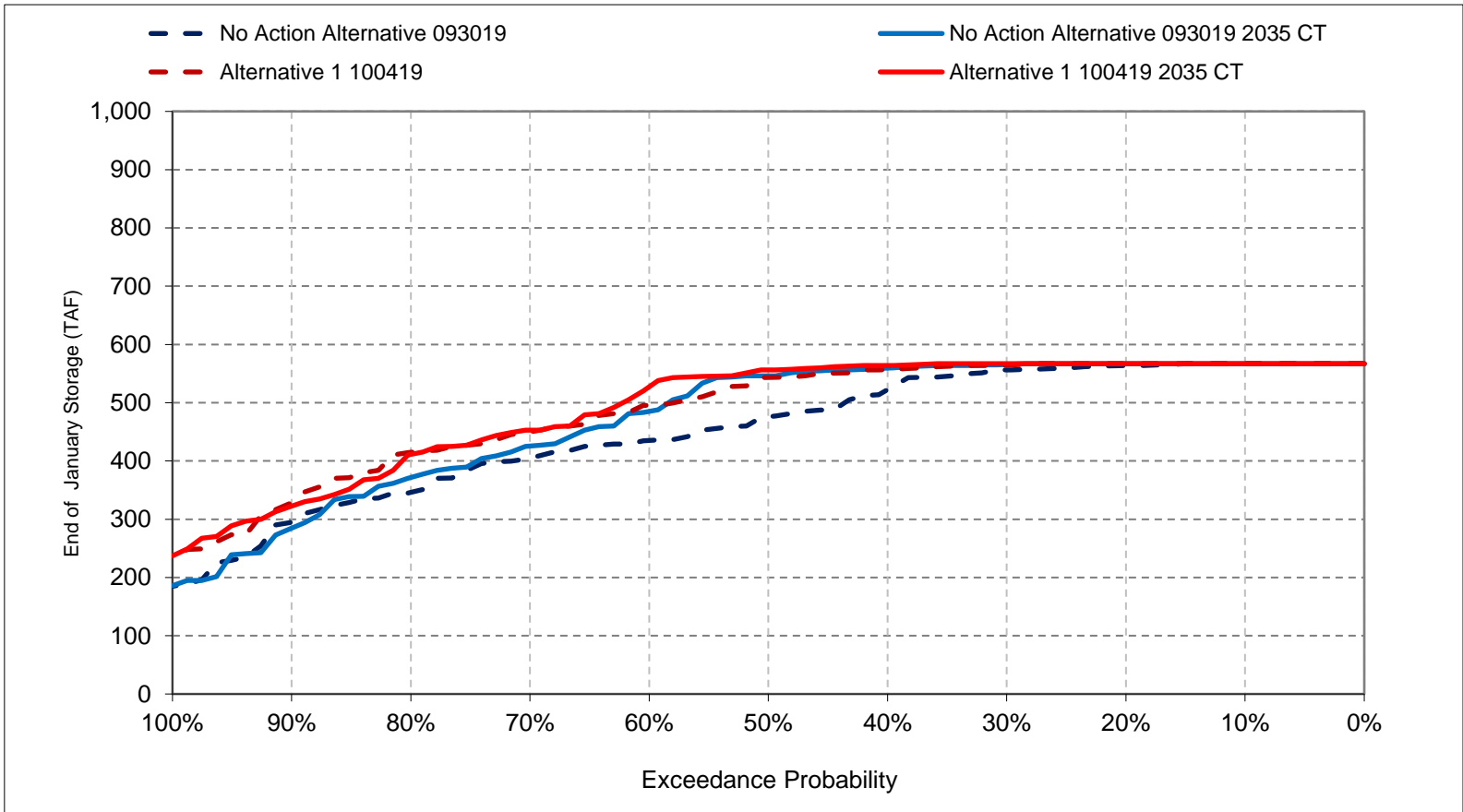
Figure 5-9. Folsom Lake Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

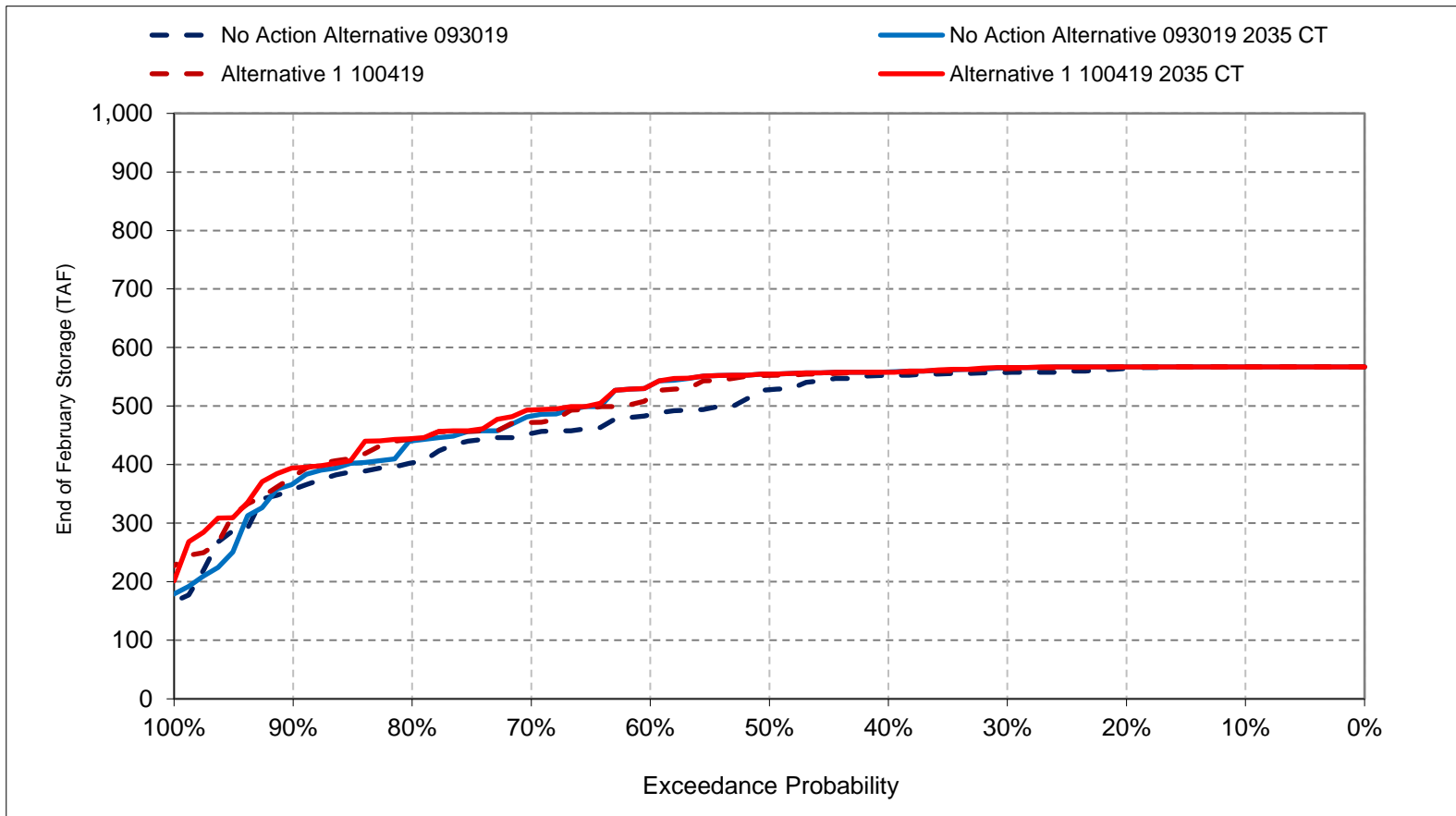
Figure 5-10. Folsom Lake Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

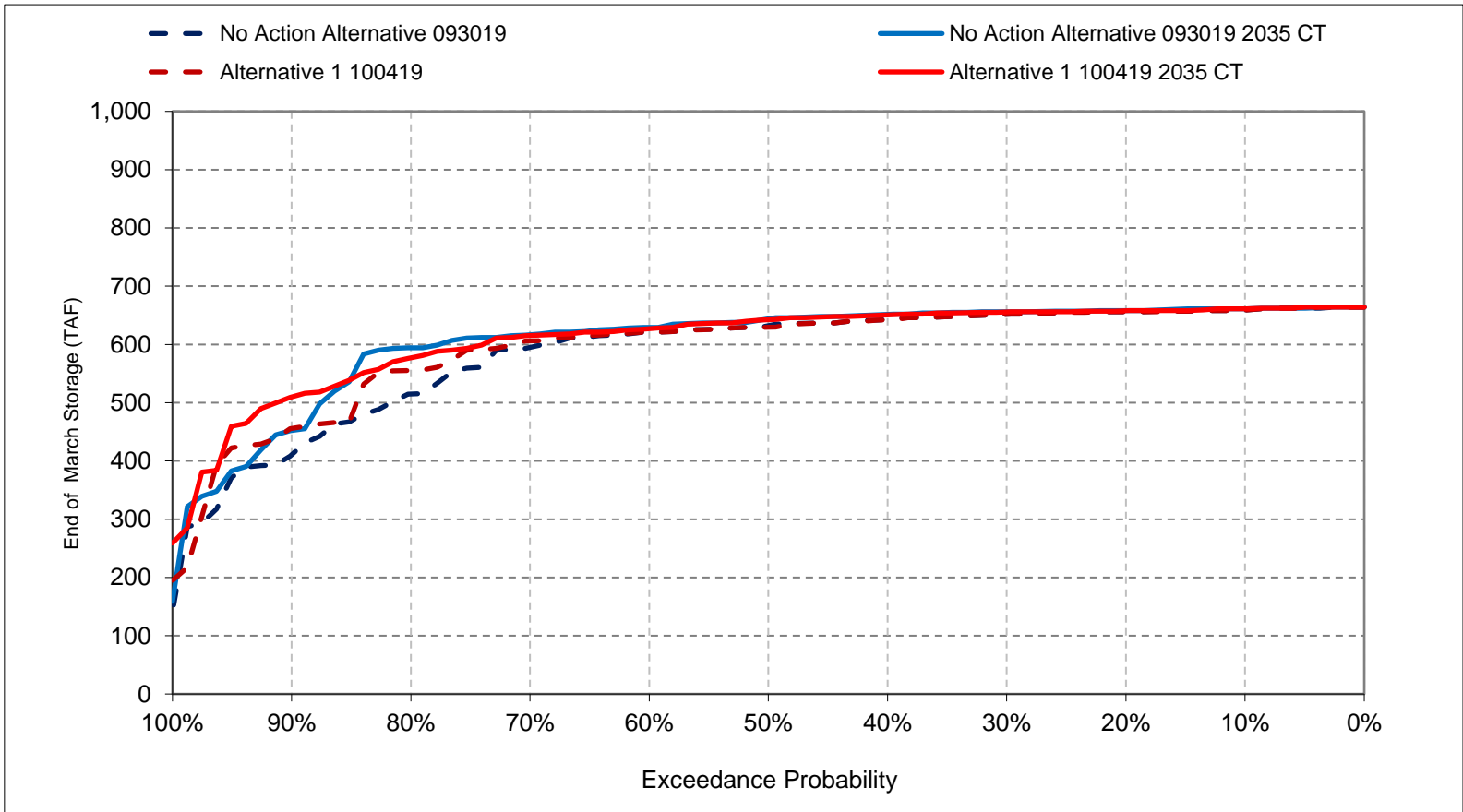
Figure 5-11. Folsom Lake Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

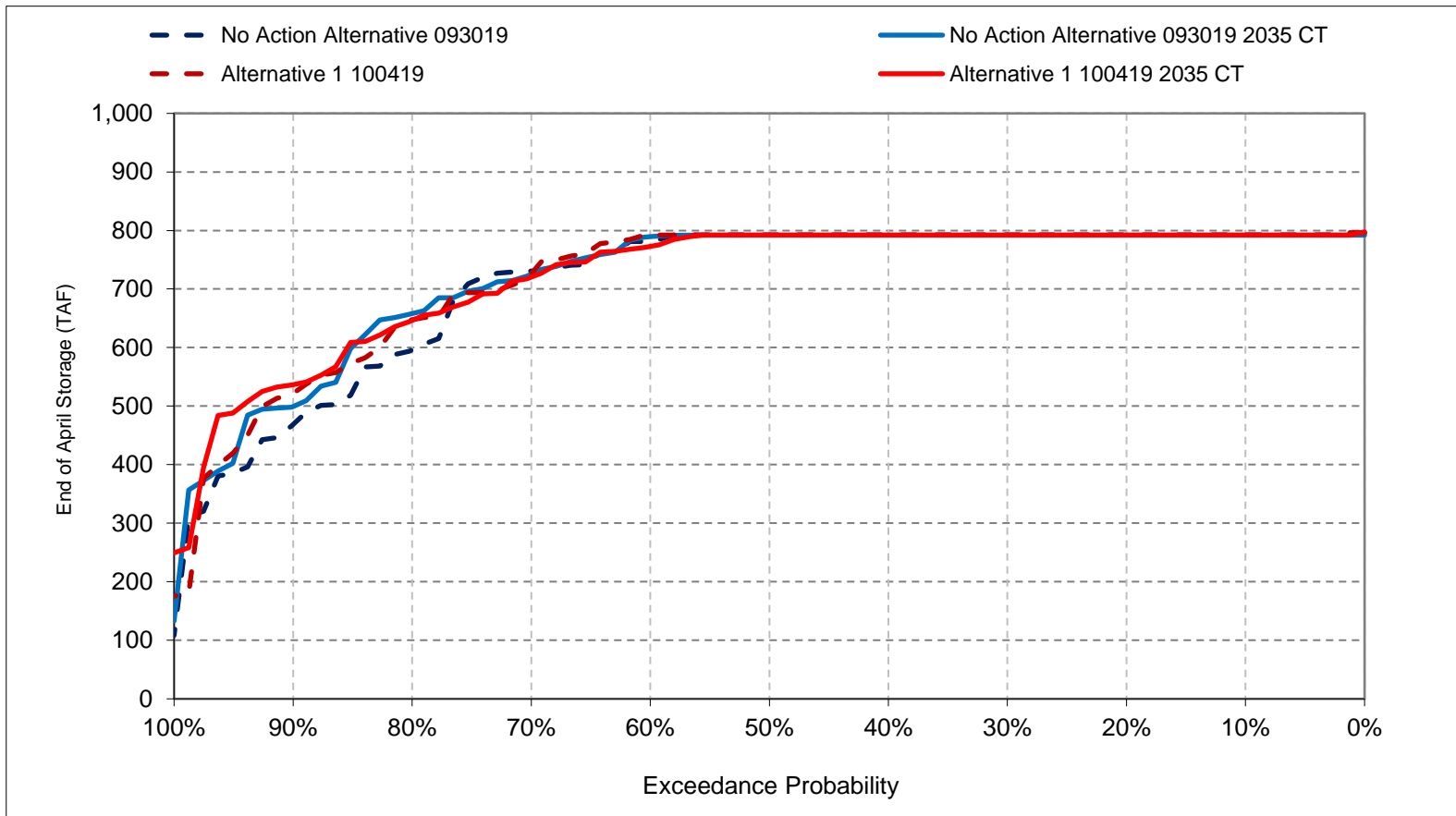
Figure 5-12. Folsom Lake Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

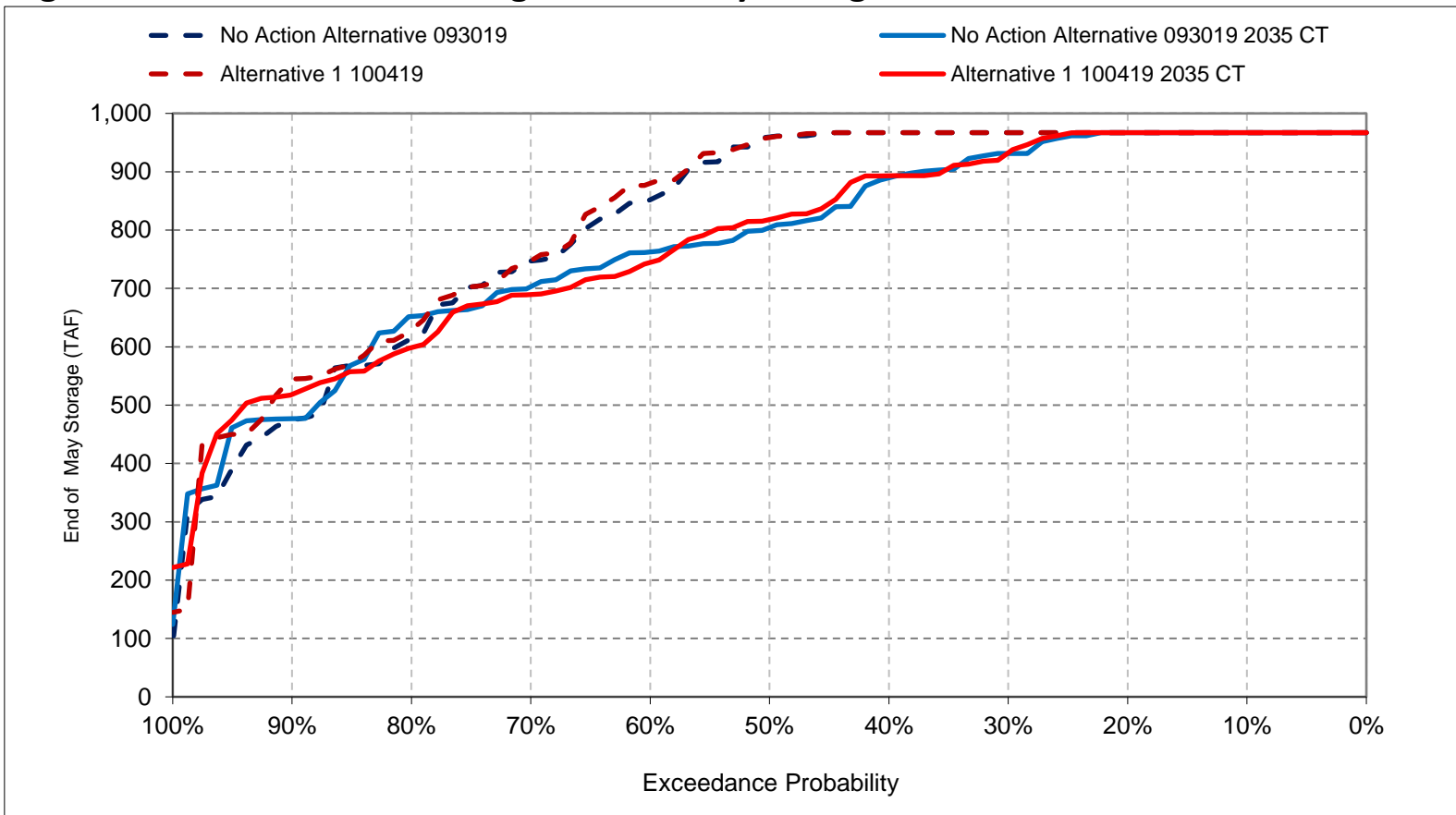
Figure 5-13. Folsom Lake Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

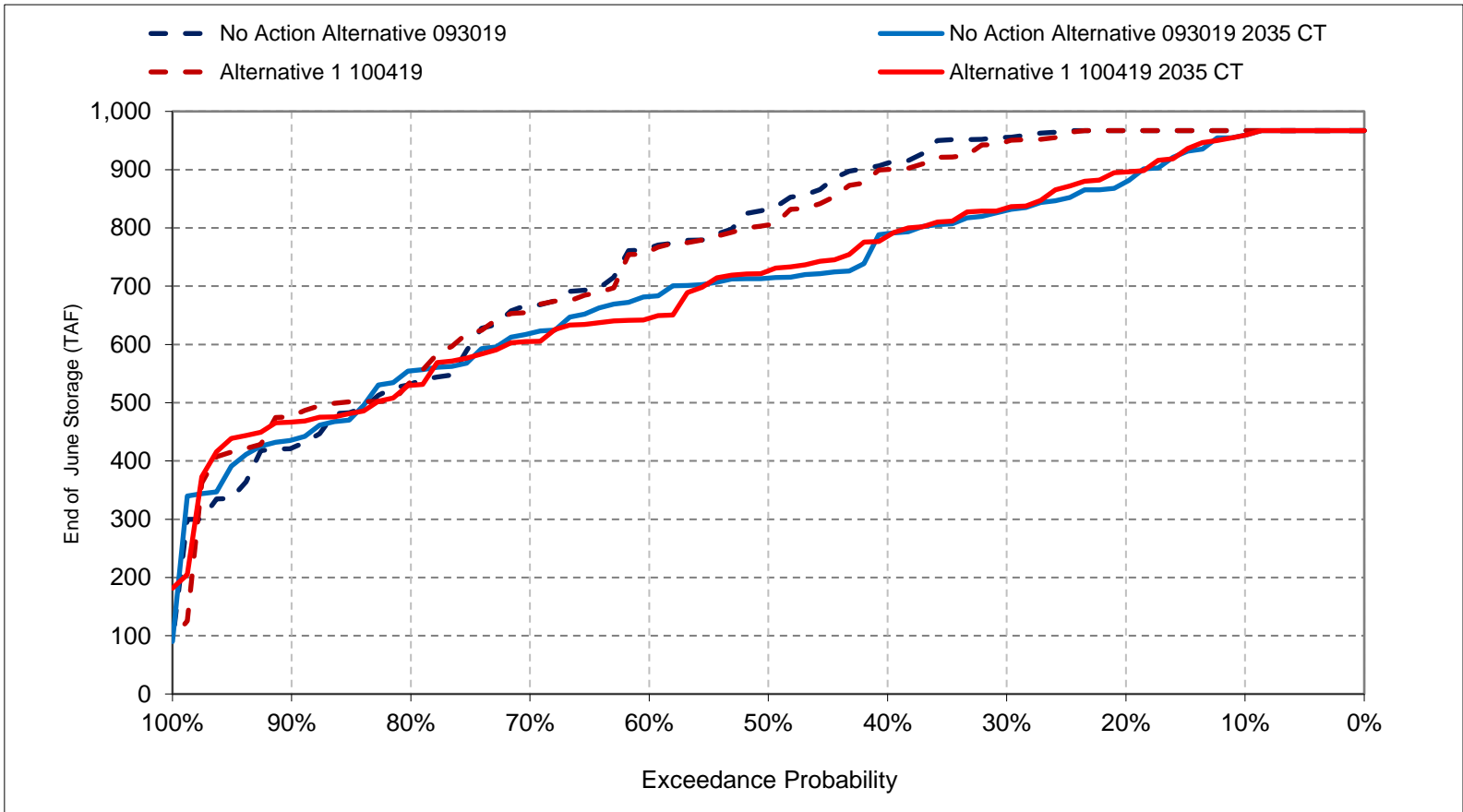
Figure 5-14. Folsom Lake Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

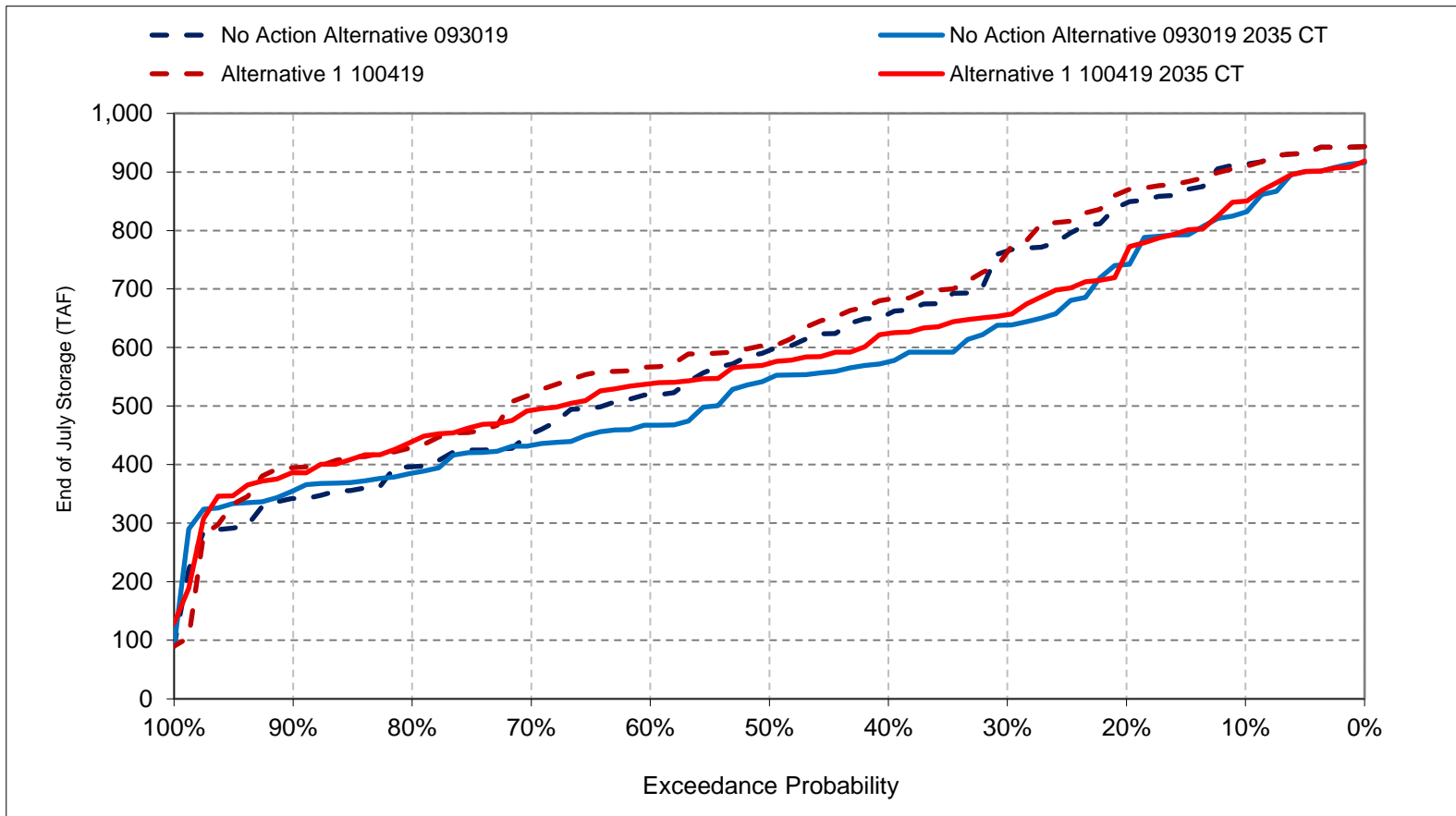
Figure 5-15. Folsom Lake Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

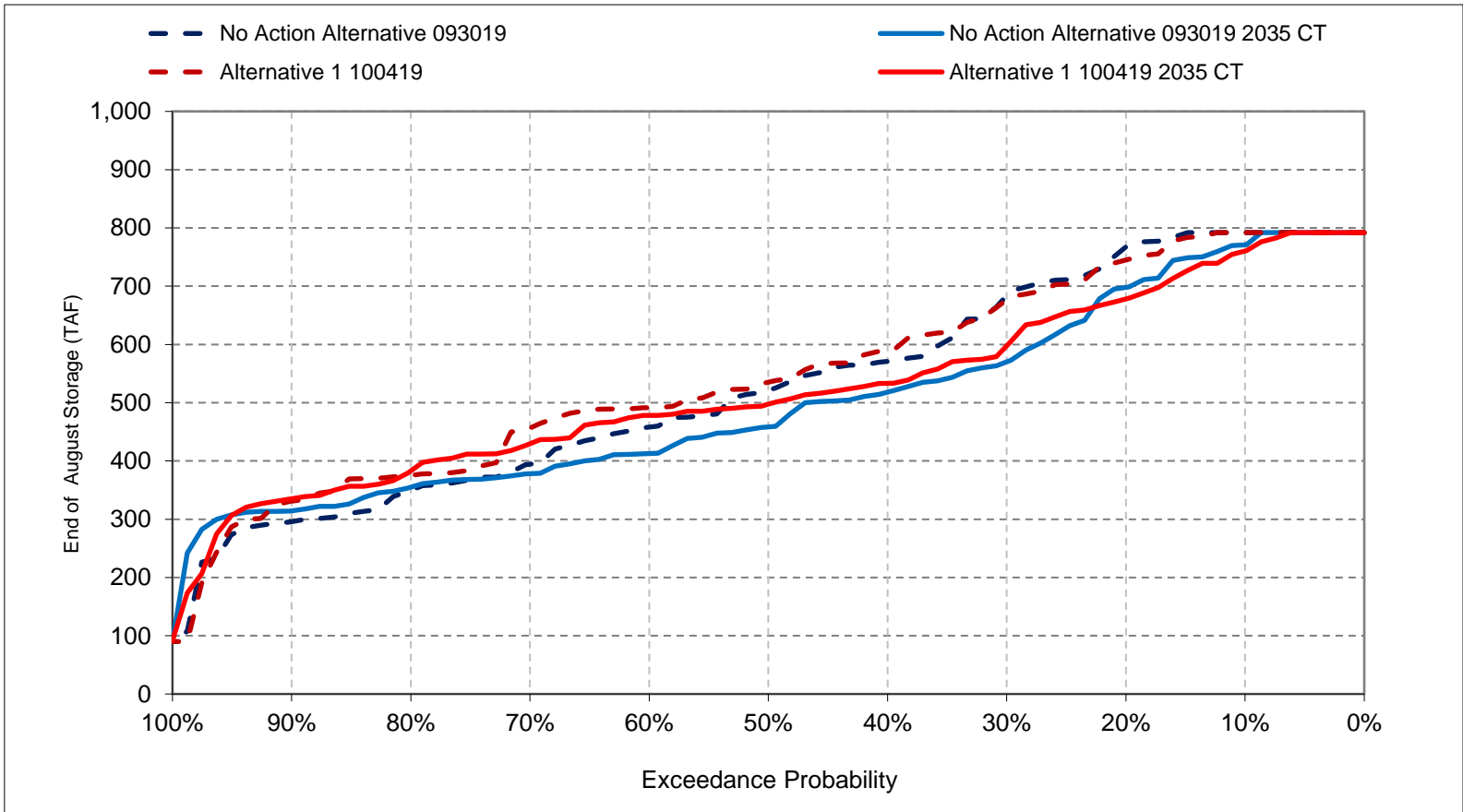
Figure 5-16. Folsom Lake Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

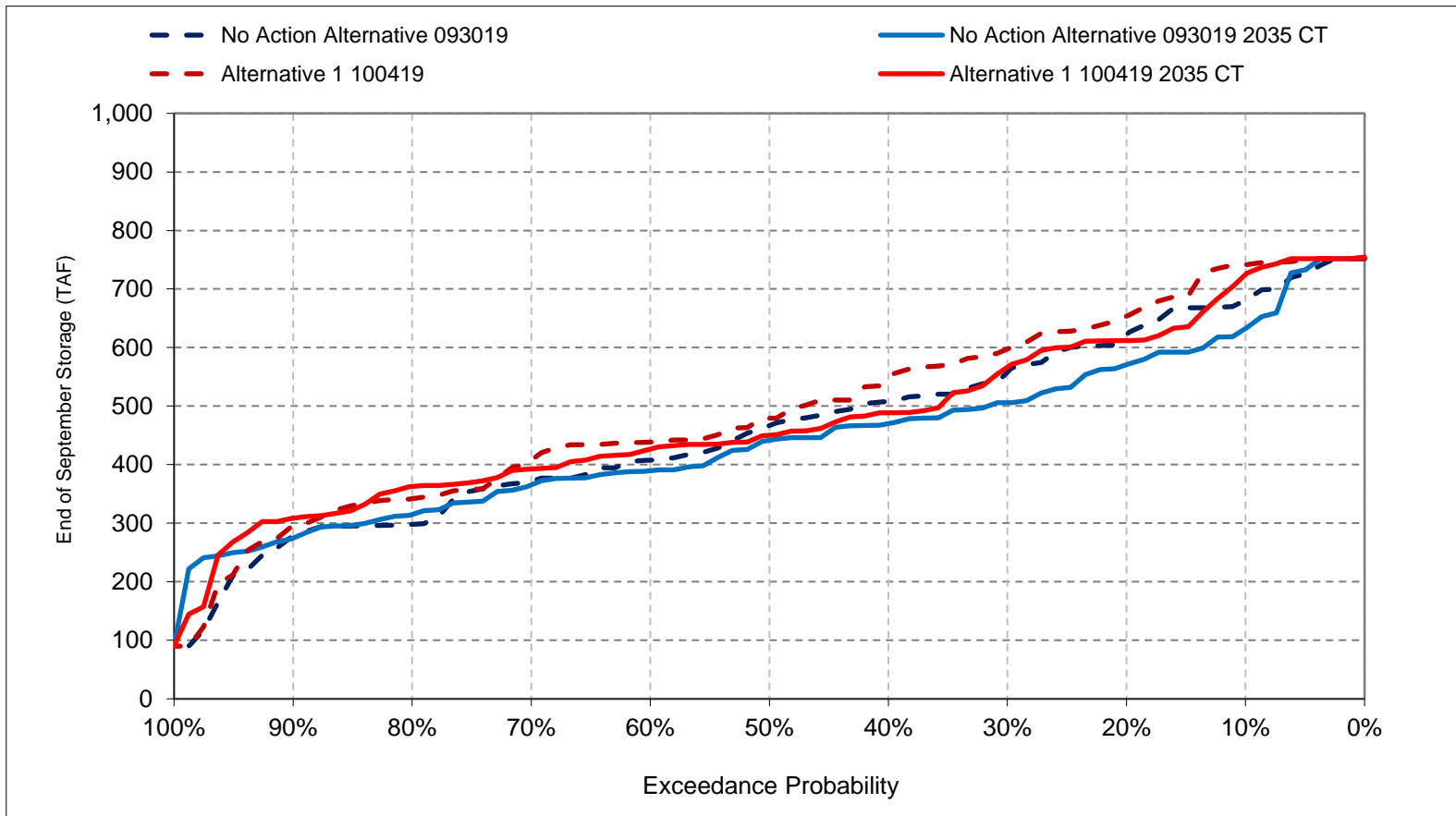
Figure 5-17. Folsom Lake Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5-18. Folsom Lake Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-1. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	427	422	424	424	424	436	449	466	466	461	449	438
20%	420	414	424	424	424	435	449	466	466	454	447	431
30%	414	410	418	423	423	435	449	466	465	446	438	423
40%	408	406	413	419	423	434	449	466	461	436	425	417
50%	404	404	408	413	419	432	449	465	453	428	419	412
60%	396	400	405	408	414	431	448	455	446	418	411	405
70%	391	395	401	404	410	428	443	445	437	410	403	400
80%	386	389	395	395	404	418	428	430	420	403	396	387
90%	380	380	377	387	397	405	412	413	406	395	387	384
Long Term												
Full Simulation Period ^d	401	400	406	409	413	426	439	449	444	426	417	409
Water Year Types ^{b,c}												
Wet (32%)	414	407	413	418	418	432	448	464	463	448	438	425
Above Normal (16%)	405	404	410	417	419	433	448	464	457	429	421	413
Below Normal (13%)	403	402	407	414	420	430	445	453	446	420	412	407
Dry (24%)	400	403	406	403	412	424	436	444	434	419	410	406
Critical (15%)	370	372	390	387	394	404	407	408	402	394	385	376

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	440	424	424	424	424	436	449	466	466	460	449	444
20%	427	423	424	424	424	435	449	466	466	456	444	435
30%	422	421	424	424	424	435	449	466	464	446	438	428
40%	416	416	419	423	423	434	449	466	460	438	427	422
50%	408	411	416	421	423	432	449	465	450	429	420	413
60%	402	406	411	415	418	431	449	458	446	424	415	408
70%	396	401	407	410	413	429	443	445	436	419	411	404
80%	393	396	401	405	409	423	434	432	421	407	400	395
90%	387	388	389	393	401	410	419	422	413	403	393	387
Long Term												
Full Simulation Period ^d	408	407	411	414	416	427	440	450	444	429	420	413
Water Year Types ^{b,c}												
Wet (32%)	428	420	419	419	418	432	448	465	462	450	440	434
Above Normal (16%)	409	407	412	421	421	433	449	464	456	433	423	416
Below Normal (13%)	405	406	409	421	422	431	445	452	444	425	414	407
Dry (24%)	404	409	411	407	415	426	438	445	435	423	414	408
Critical (15%)	374	379	395	399	401	409	411	412	404	395	387	378

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	13	3	0	0	0	0	0	0	0	0	0	6
20%	7	10	0	0	0	0	0	0	0	2	-2	4
30%	8	11	6	1	1	0	0	0	-1	0	-1	5
40%	7	10	6	4	1	0	0	0	-1	3	2	5
50%	5	7	7	8	3	0	0	0	-3	1	2	2
60%	6	6	6	7	4	0	1	3	-1	6	4	4
70%	6	6	6	6	2	1	0	0	-1	9	8	5
80%	7	8	6	10	5	5	6	2	1	4	4	7
90%	7	9	12	5	4	6	7	9	7	8	6	3
Long Term												
Full Simulation Period ^d	7	7	5	5	2	1	1	1	0	3	2	4
Water Year Types ^{b,c}												
Wet (32%)	14	12	7	1	0	0	0	0	-1	2	1	9
Above Normal (16%)	4	4	3	4	2	0	0	0	-1	4	2	3
Below Normal (13%)	2	3	2	8	2	1	0	0	-2	5	2	-1
Dry (24%)	4	6	5	4	3	2	2	2	1	4	4	2
Critical (15%)	4	7	6	12	8	4	4	4	2	1	1	2

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 5a-2. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	421	424	424	424	436	449	466	465	453	447	433
20%	415	411	424	424	424	436	449	466	457	444	440	425
30%	409	407	423	424	424	435	449	463	453	433	425	417
40%	406	403	417	423	423	435	449	458	449	425	418	412
50%	402	402	407	422	423	434	449	450	441	422	411	409
60%	396	398	404	414	420	432	449	446	438	412	405	402
70%	390	394	400	407	414	431	443	440	431	408	401	399
80%	387	388	395	400	409	428	436	435	423	402	397	390
90%	379	380	382	385	399	410	416	413	408	397	390	383
Long Term												
Full Simulation Period ^d	401	399	407	412	415	429	440	446	439	422	415	408
Water Year Types^{b,c}												
Wet (32%)	412	407	414	419	418	433	448	461	456	441	434	420
Above Normal (16%)	398	399	409	419	421	434	447	453	445	419	412	405
Below Normal (13%)	404	402	409	416	420	432	445	447	439	416	409	407
Dry (24%)	400	401	405	408	417	430	441	443	432	416	409	405
Critical (15%)	380	379	394	391	396	410	412	412	404	397	391	387

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	437	424	424	424	424	436	449	466	465	455	446	442
20%	425	422	424	424	424	436	449	466	459	446	438	430
30%	419	418	424	424	424	435	449	463	453	435	428	424
40%	408	413	423	424	423	435	449	459	448	431	420	415
50%	404	406	415	423	423	434	449	452	443	425	416	410
60%	402	403	409	419	420	432	447	444	434	421	413	407
70%	399	401	404	410	415	430	442	439	429	415	407	403
80%	396	395	397	405	409	426	434	428	420	408	401	398
90%	386	388	388	392	403	417	421	418	412	402	394	389
Long Term												
Full Simulation Period ^d	407	406	411	414	417	429	441	446	439	425	417	411
Water Year Types^{b,c}												
Wet (32%)	425	418	418	420	418	432	448	460	456	444	435	430
Above Normal (16%)	408	406	411	421	421	434	448	453	445	429	420	414
Below Normal (13%)	404	404	411	421	422	433	445	446	437	421	411	406
Dry (24%)	403	406	409	409	417	429	441	442	433	419	411	406
Critical (15%)	380	383	399	400	403	414	416	416	407	397	389	383

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14	3	0	0	0	0	0	0	0	2	-1	10
20%	10	12	0	0	0	0	0	0	2	2	-2	5
30%	10	11	2	0	0	0	0	0	0	2	3	8
40%	3	10	6	1	0	0	0	0	0	6	2	2
50%	3	4	8	1	0	0	0	1	1	3	5	1
60%	7	4	4	5	0	0	-2	-2	-4	9	8	5
70%	9	7	3	3	1	0	0	-1	-2	7	6	4
80%	9	7	2	5	0	-2	-1	-7	-3	7	5	8
90%	6	8	6	6	4	7	5	5	4	5	4	6
Long Term												
Full Simulation Period ^d	7	7	4	3	1	1	1	0	0	4	2	4
Water Year Types^{b,c}												
Wet (32%)	13	11	5	1	0	0	0	0	0	3	1	10
Above Normal (16%)	9	7	3	2	0	0	0	0	0	9	8	9
Below Normal (13%)	1	3	3	5	2	1	-1	-1	-1	5	3	-1
Dry (24%)	3	5	4	1	1	0	0	0	1	3	2	1
Critical (15%)	0	4	4	8	7	4	4	4	4	1	-2	-5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-3. Folsom Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	427	422	424	424	424	436	449	466	466	461	449	438
20%	420	414	424	424	424	435	449	466	466	454	447	431
30%	414	410	418	423	423	435	449	466	465	446	438	423
40%	408	406	413	419	423	434	449	466	461	436	425	417
50%	404	404	408	413	419	432	449	465	453	428	419	412
60%	396	400	405	408	414	431	448	455	446	418	411	405
70%	391	395	401	404	410	428	443	445	437	410	403	400
80%	386	389	395	395	404	418	428	430	420	403	396	387
90%	380	380	377	387	397	405	412	413	406	395	387	384
Long Term												
Full Simulation Period ^d	401	400	406	409	413	426	439	449	444	426	417	409
Water Year Types ^{b,c}												
Wet (32%)	414	407	413	418	418	432	448	464	463	448	438	425
Above Normal (16%)	405	404	410	417	419	433	448	464	457	429	421	413
Below Normal (13%)	403	402	407	414	420	430	445	453	446	420	412	407
Dry (24%)	400	403	406	403	412	424	436	444	434	419	410	406
Critical (15%)	370	372	390	387	394	404	407	408	402	394	385	376

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	421	424	424	424	436	449	466	465	453	447	433
20%	415	411	424	424	424	436	449	466	457	444	440	425
30%	409	407	423	424	424	435	449	463	453	433	425	417
40%	406	403	417	423	423	435	449	458	449	425	418	412
50%	402	402	407	422	423	434	449	450	441	422	411	409
60%	396	398	404	414	420	432	449	446	438	412	405	402
70%	390	394	400	407	414	431	443	440	431	408	401	399
80%	387	388	395	400	409	428	436	435	423	402	397	390
90%	379	380	382	385	399	410	416	413	408	397	390	383
Long Term												
Full Simulation Period ^d	401	399	407	412	415	429	440	446	439	422	415	408
Water Year Types ^{b,c}												
Wet (32%)	412	407	414	419	418	433	448	461	456	441	434	420
Above Normal (16%)	398	399	409	419	421	434	447	453	445	419	412	405
Below Normal (13%)	404	402	409	416	420	432	445	447	439	416	409	407
Dry (24%)	400	401	405	408	417	430	441	443	432	416	409	405
Critical (15%)	380	379	394	391	396	410	412	412	404	397	391	387

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	0	0	0	0	0	0	0	-1	-8	-2	-6
20%	-5	-3	0	0	0	0	0	0	-9	-10	-7	-6
30%	-5	-3	4	1	1	1	0	-3	-12	-13	-14	-6
40%	-3	-3	3	5	1	1	0	-8	-12	-10	-7	-5
50%	-2	-2	-1	9	3	1	0	-15	-12	-6	-8	-3
60%	-1	-2	0	6	6	1	1	-9	-8	-6	-6	-2
70%	-1	-1	0	3	4	3	-1	-4	-6	-2	-2	-1
80%	1	-1	-1	4	5	10	8	5	3	-1	1	3
90%	0	0	6	-2	2	5	4	0	2	2	3	-1
Long Term												
Full Simulation Period ^d	0	0	1	3	2	2	1	-3	-5	-5	-3	-1
Water Year Types ^{b,c}												
Wet (32%)	-3	-1	1	1	0	0	0	-4	-7	-7	-4	-4
Above Normal (16%)	-6	-5	-1	3	2	0	-1	-11	-12	-10	-9	-8
Below Normal (13%)	1	-1	2	2	0	2	0	-6	-7	-4	-3	0
Dry (24%)	-1	-2	-1	4	5	6	4	-1	-2	-3	-2	-1
Critical (15%)	10	7	5	4	2	5	5	4	1	2	6	11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 5a-4. Folsom Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	440	424	424	424	424	436	449	466	466	460	449	444
20%	427	423	424	424	424	435	449	466	466	456	444	435
30%	422	421	424	424	424	435	449	466	464	446	438	428
40%	416	416	419	423	423	434	449	466	460	438	427	422
50%	408	411	416	421	423	432	449	465	450	429	420	413
60%	402	406	411	415	418	431	449	458	446	424	415	408
70%	396	401	407	410	413	429	443	445	436	419	411	404
80%	393	396	401	405	409	423	434	432	421	407	400	395
90%	387	388	389	393	401	410	419	422	413	403	393	387
Long Term												
Full Simulation Period ^d	408	407	411	414	416	427	440	450	444	429	420	413
Water Year Types ^{b,c}												
Wet (32%)	428	420	419	419	418	432	448	465	462	450	440	434
Above Normal (16%)	409	407	412	421	421	433	449	464	456	433	423	416
Below Normal (13%)	405	406	409	421	422	431	445	452	444	425	414	407
Dry (24%)	404	409	411	407	415	426	438	445	435	423	414	408
Critical (15%)	374	379	395	399	401	409	411	412	404	395	387	378

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	437	424	424	424	424	436	449	466	465	455	446	442
20%	425	422	424	424	424	436	449	466	459	446	438	430
30%	419	418	424	424	424	435	449	463	453	435	428	424
40%	408	413	423	424	423	435	449	459	448	431	420	415
50%	404	406	415	423	423	434	449	452	443	425	416	410
60%	402	403	409	419	420	432	447	444	434	421	413	407
70%	399	401	404	410	415	430	442	439	429	415	407	403
80%	396	395	397	405	409	426	434	428	420	408	401	398
90%	386	388	388	392	403	417	421	418	412	402	394	389
Long Term												
Full Simulation Period ^d	407	406	411	414	417	429	441	446	439	425	417	411
Water Year Types ^{b,c}												
Wet (32%)	425	418	418	420	418	432	448	460	456	444	435	430
Above Normal (16%)	408	406	411	421	421	434	448	453	445	429	420	414
Below Normal (13%)	404	404	411	421	422	433	445	446	437	421	411	406
Dry (24%)	403	406	409	409	417	429	441	442	433	419	411	406
Critical (15%)	380	383	399	400	403	414	416	416	407	397	389	383

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	0	0	0	0	0	0	0	-1	-6	-3	-2
20%	-3	-1	0	0	0	0	0	0	-7	-10	-7	-5
30%	-3	-3	0	0	0	0	0	-3	-11	-11	-10	-4
40%	-8	-4	3	1	0	1	0	-7	-11	-7	-7	-7
50%	-4	-4	0	2	0	2	0	-14	-8	-4	-5	-4
60%	0	-4	-2	4	2	1	-2	-13	-12	-4	-2	-1
70%	3	0	-3	0	3	1	-1	-6	-7	-3	-3	-2
80%	2	-1	-4	0	0	3	0	-4	-1	1	1	3
90%	-1	0	-1	-1	2	7	2	-3	-1	-1	1	2
Long Term												
Full Simulation Period ^d	-1	-1	0	1	1	2	1	-4	-5	-4	-2	-1
Water Year Types ^{b,c}												
Wet (32%)	-4	-2	-1	0	0	0	-1	-4	-6	-7	-4	-4
Above Normal (16%)	-1	-2	-1	0	0	0	-1	-11	-10	-4	-3	-2
Below Normal (13%)	0	-1	2	-1	0	2	-1	-7	-7	-3	-2	-1
Dry (24%)	-1	-3	-1	1	2	3	3	-3	-3	-4	-3	-2
Critical (15%)	6	4	3	1	1	6	5	4	3	3	2	5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

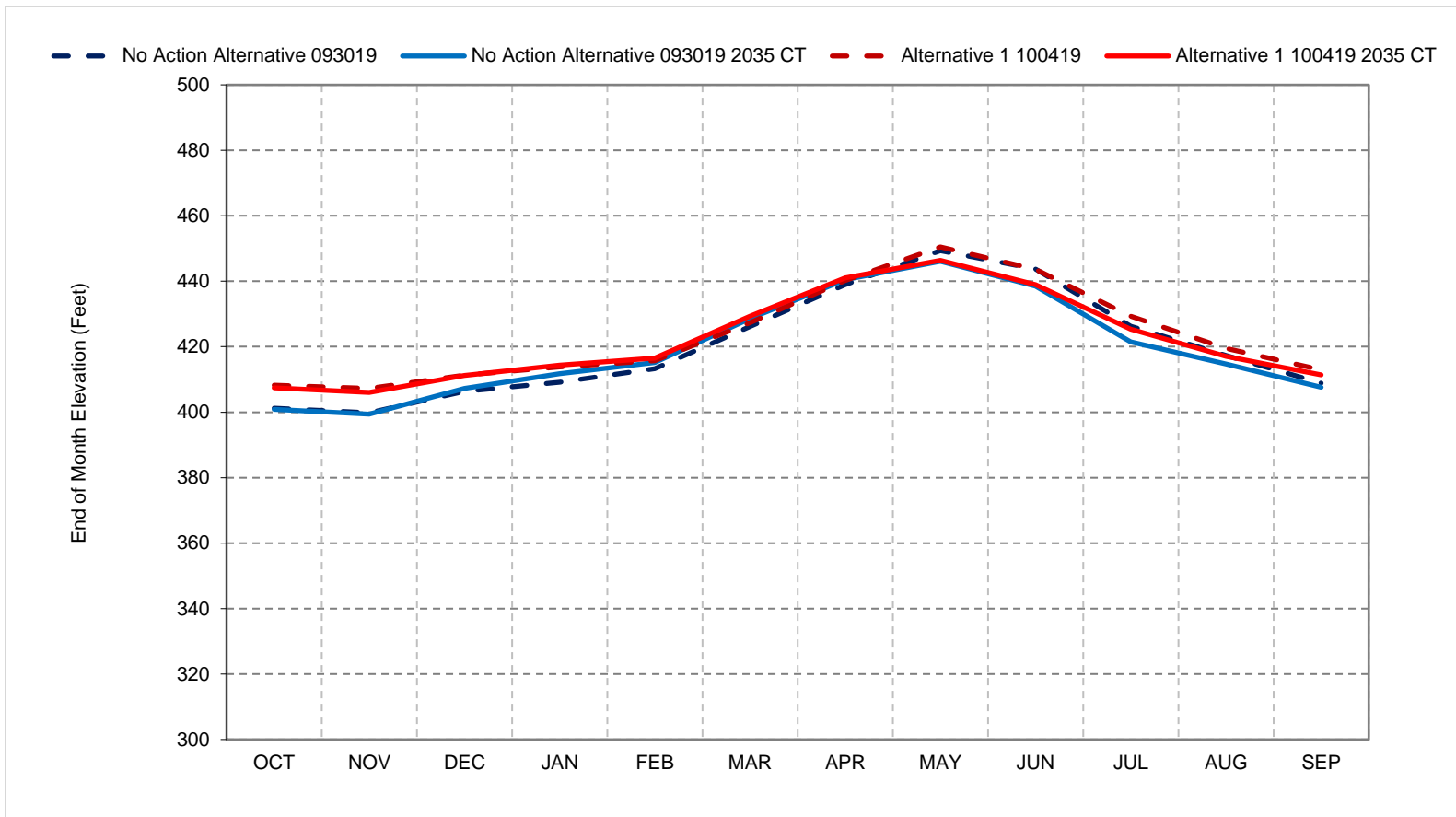
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5a-1. Folsom Lake Elevation, Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

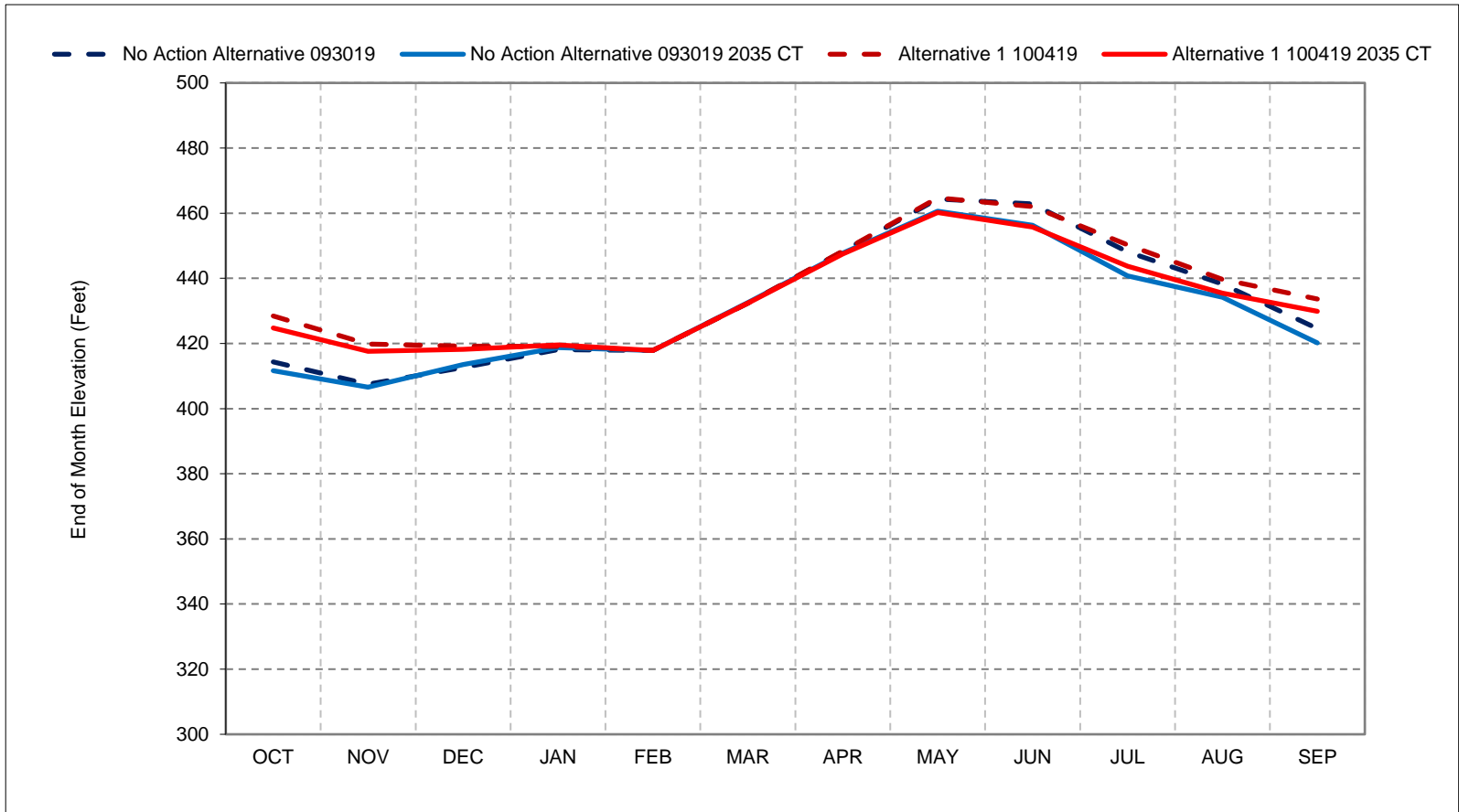
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-2. Folsom Lake Elevation, Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

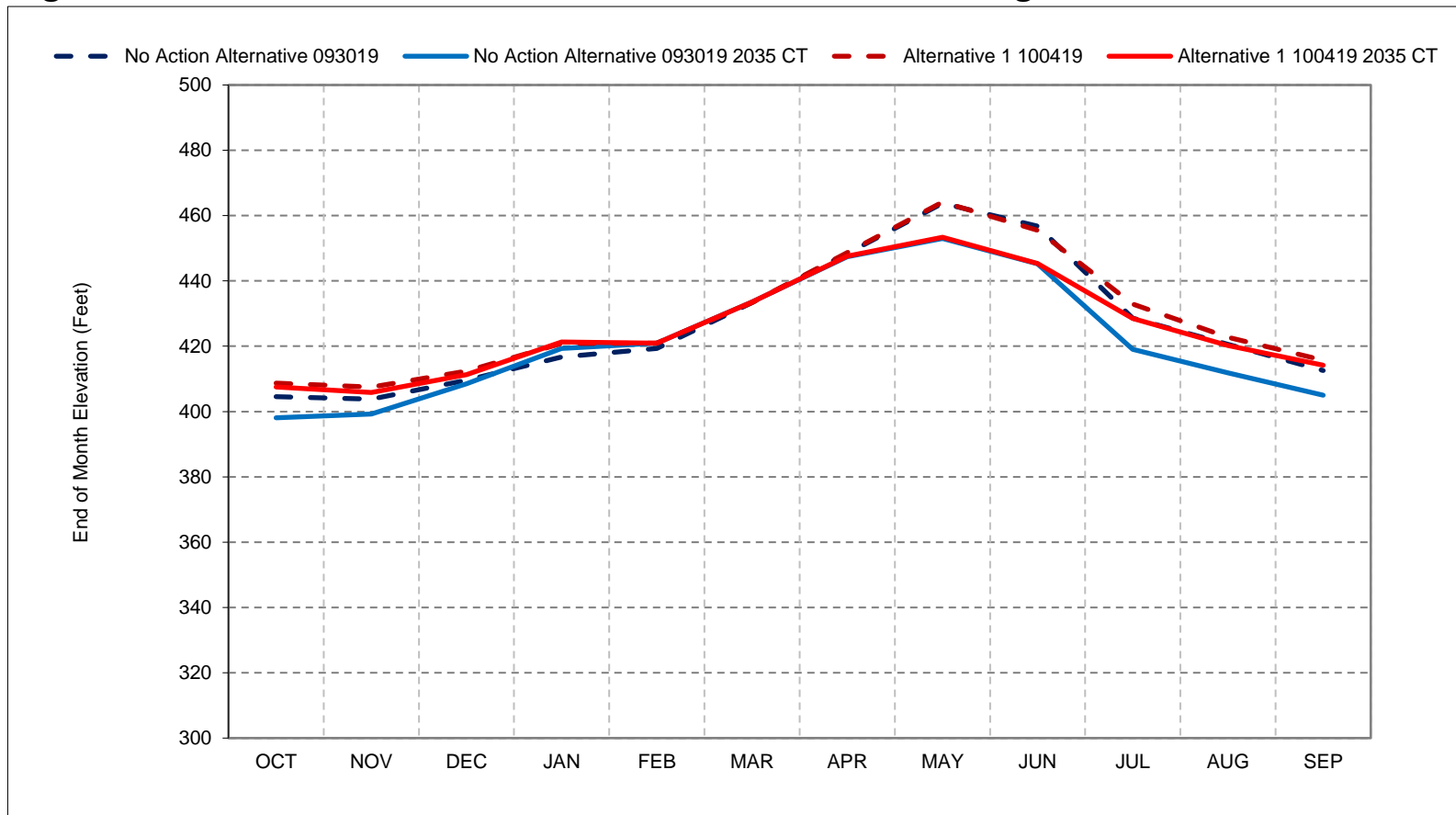
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-3. Folsom Lake Elevation, Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

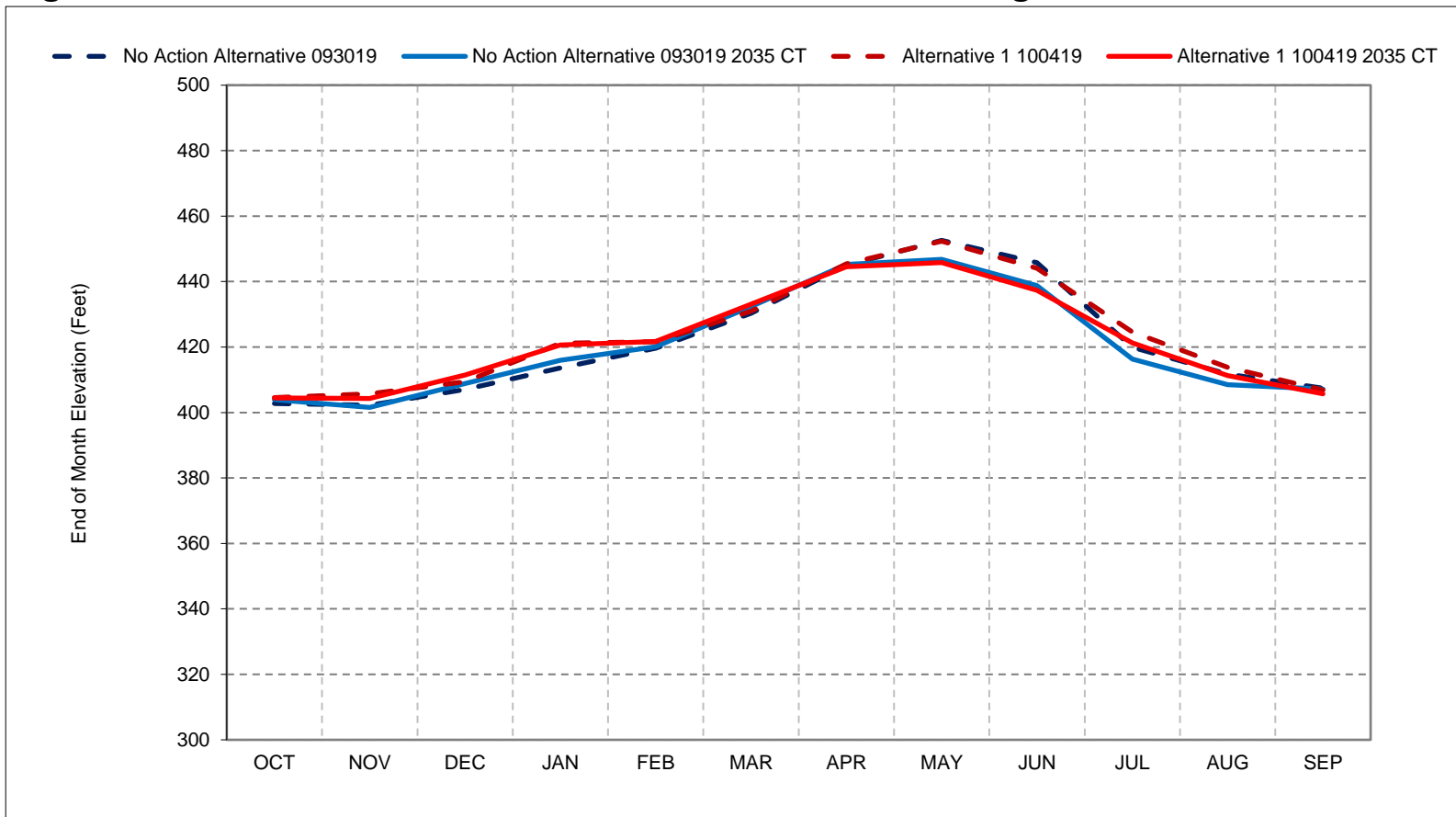
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-4. Folsom Lake Elevation, Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

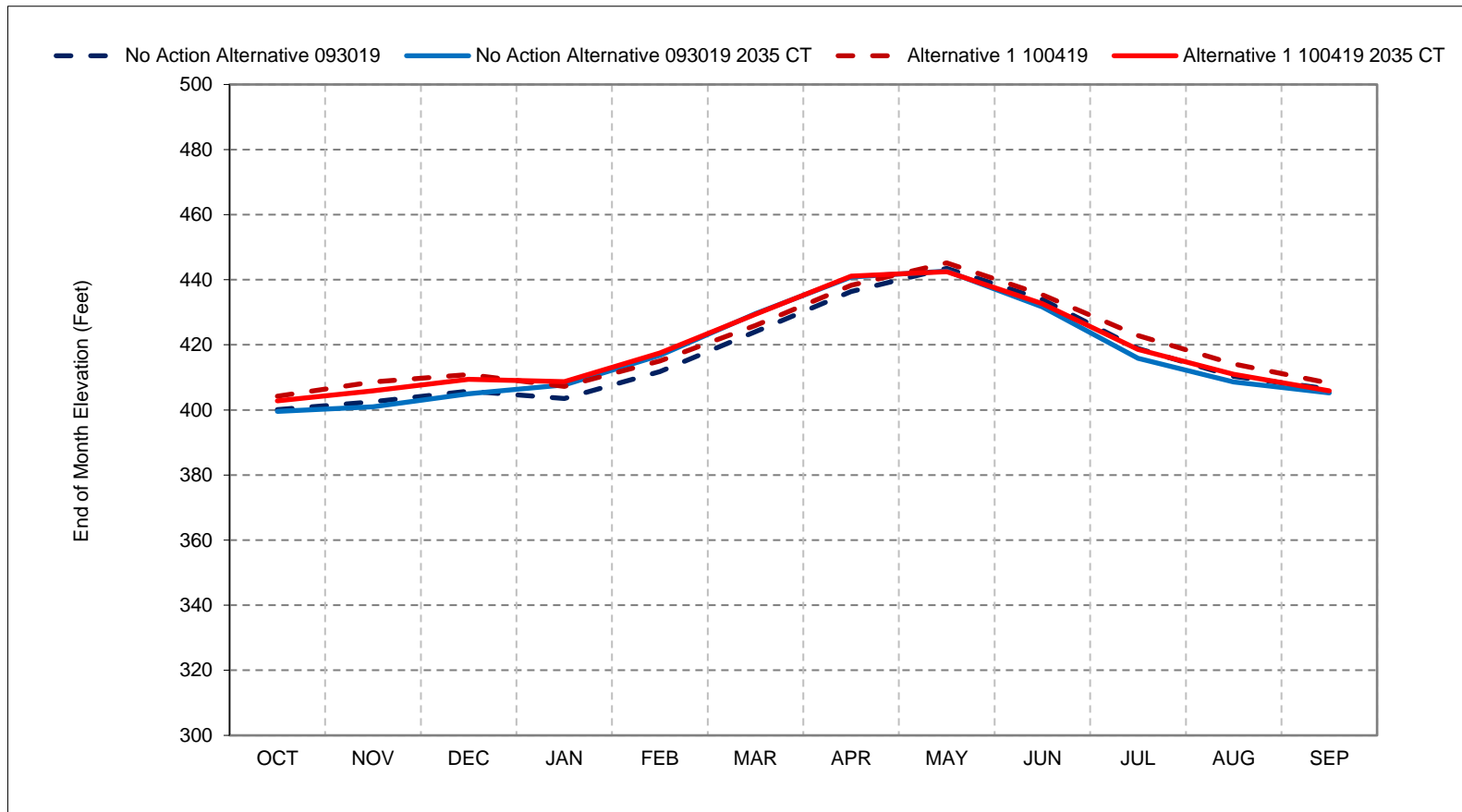
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-5. Folsom Lake Elevation, Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

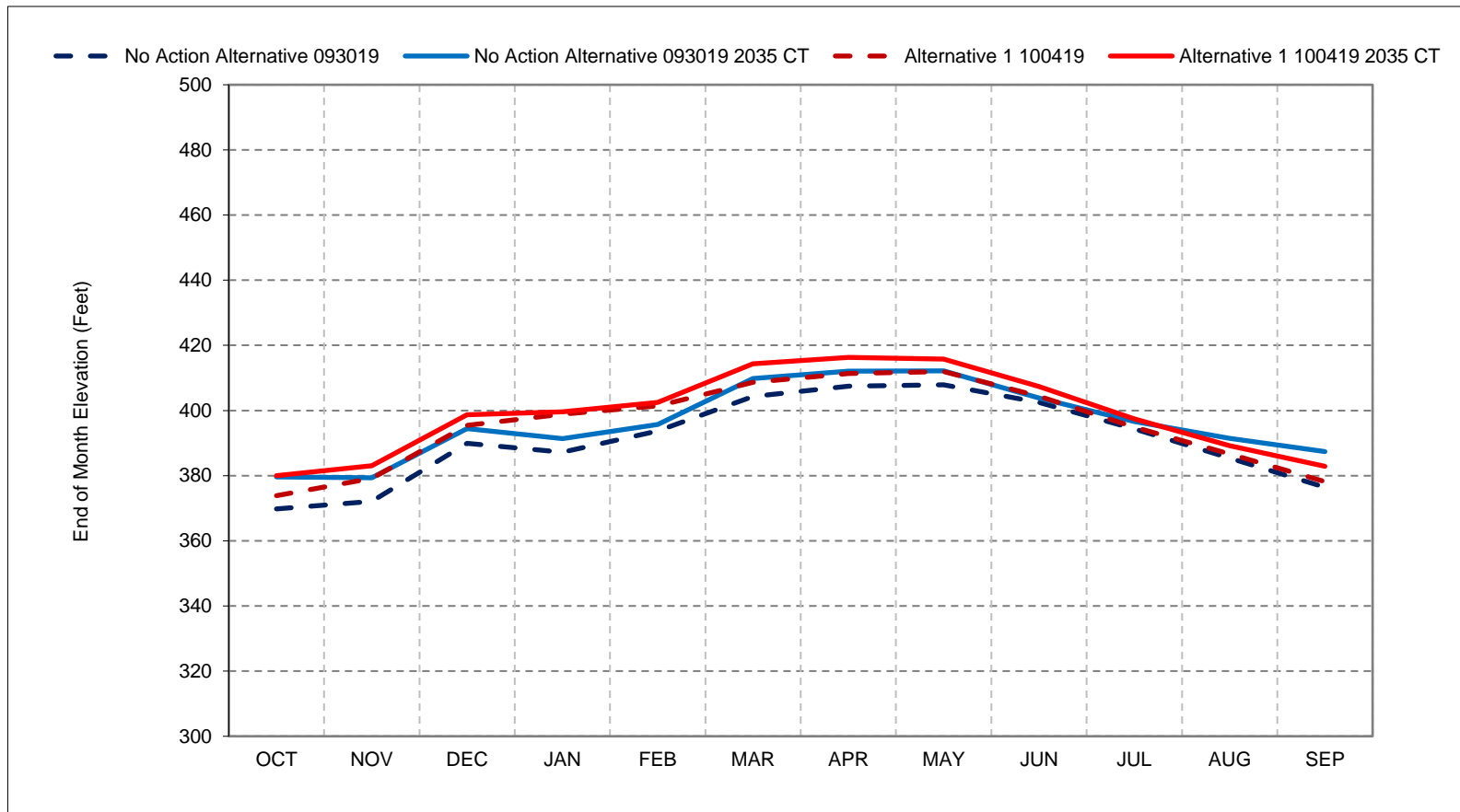
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 5a-6. Folsom Lake Elevation, Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

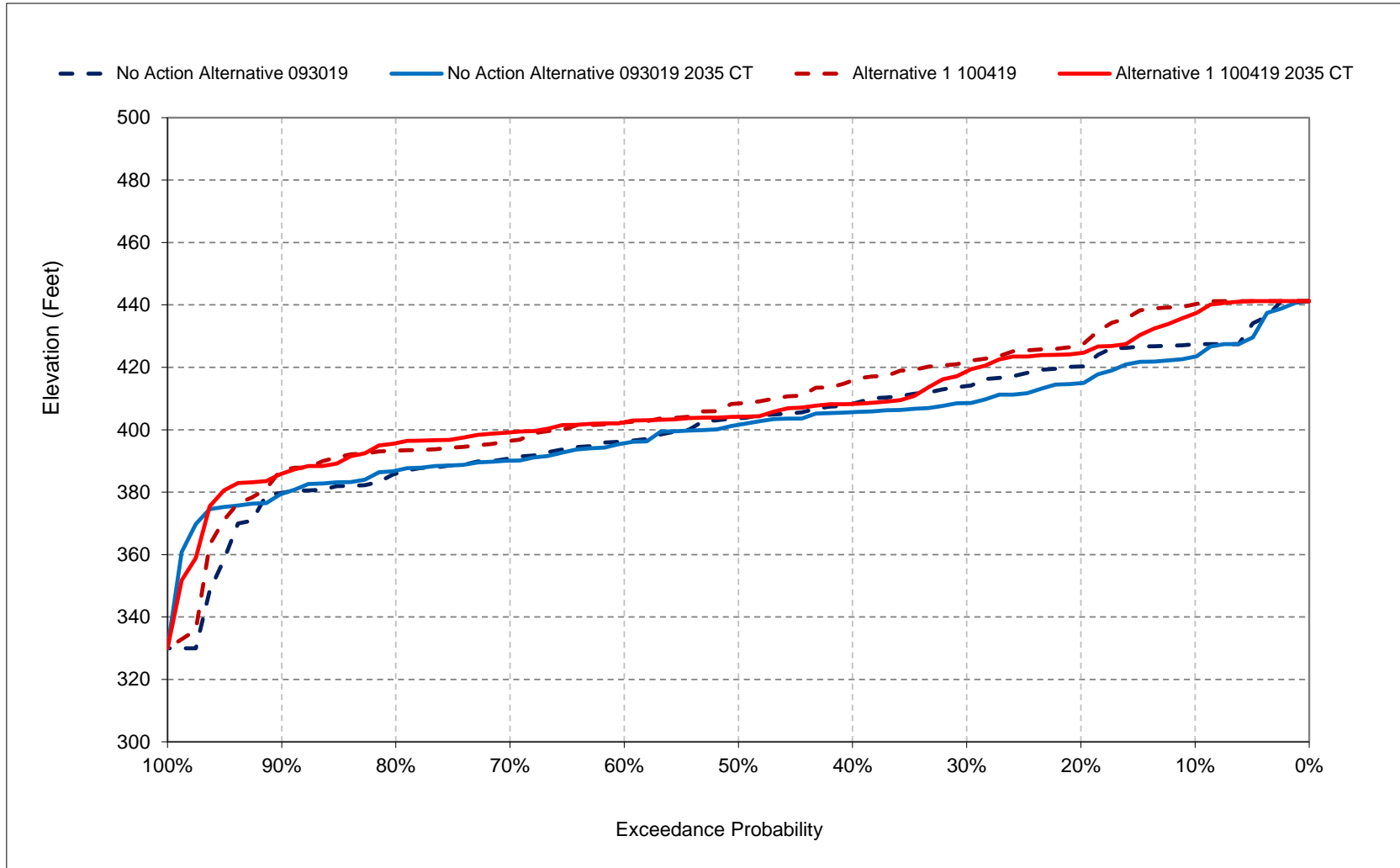
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

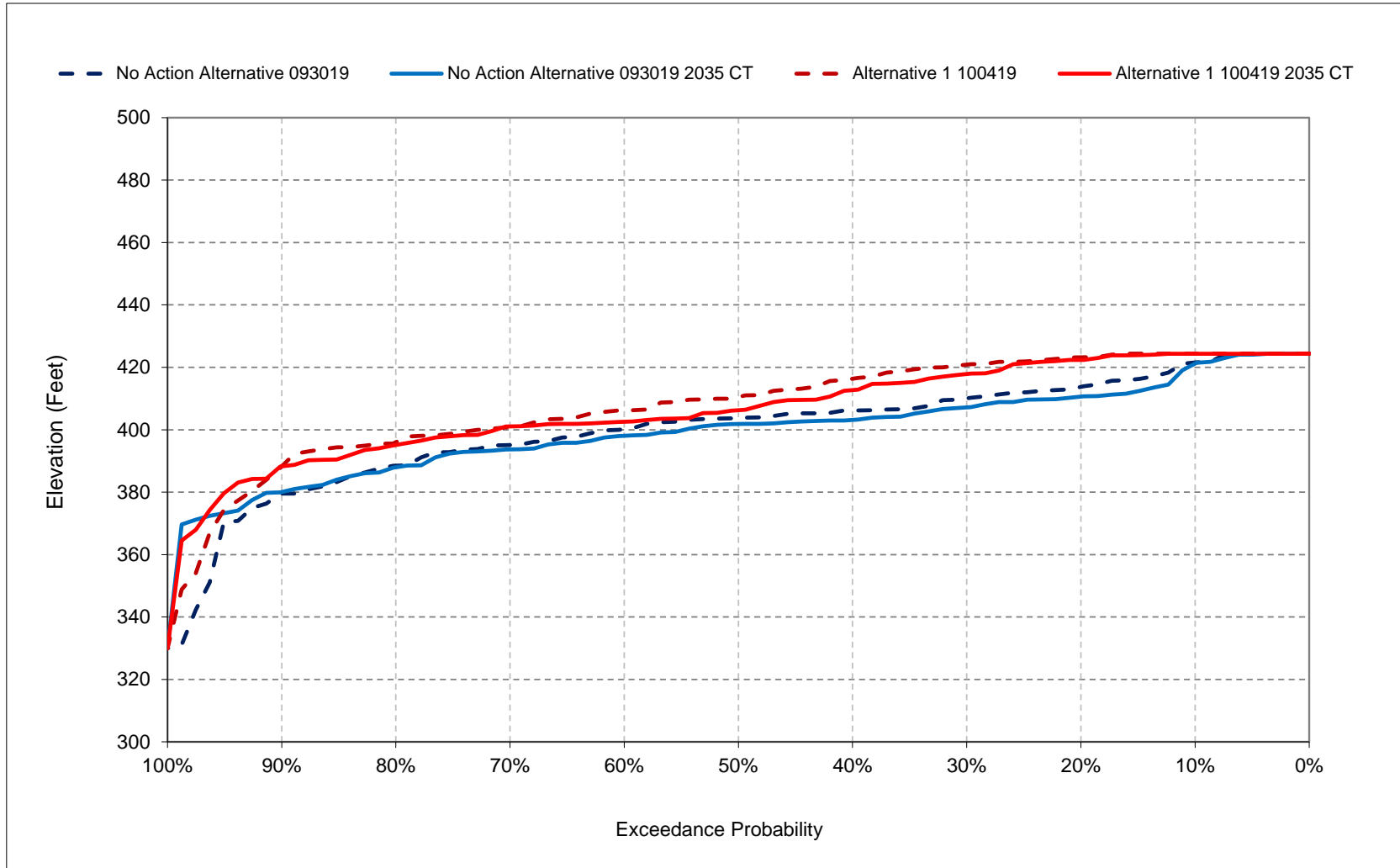
Figure 5a-7. Folsom Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

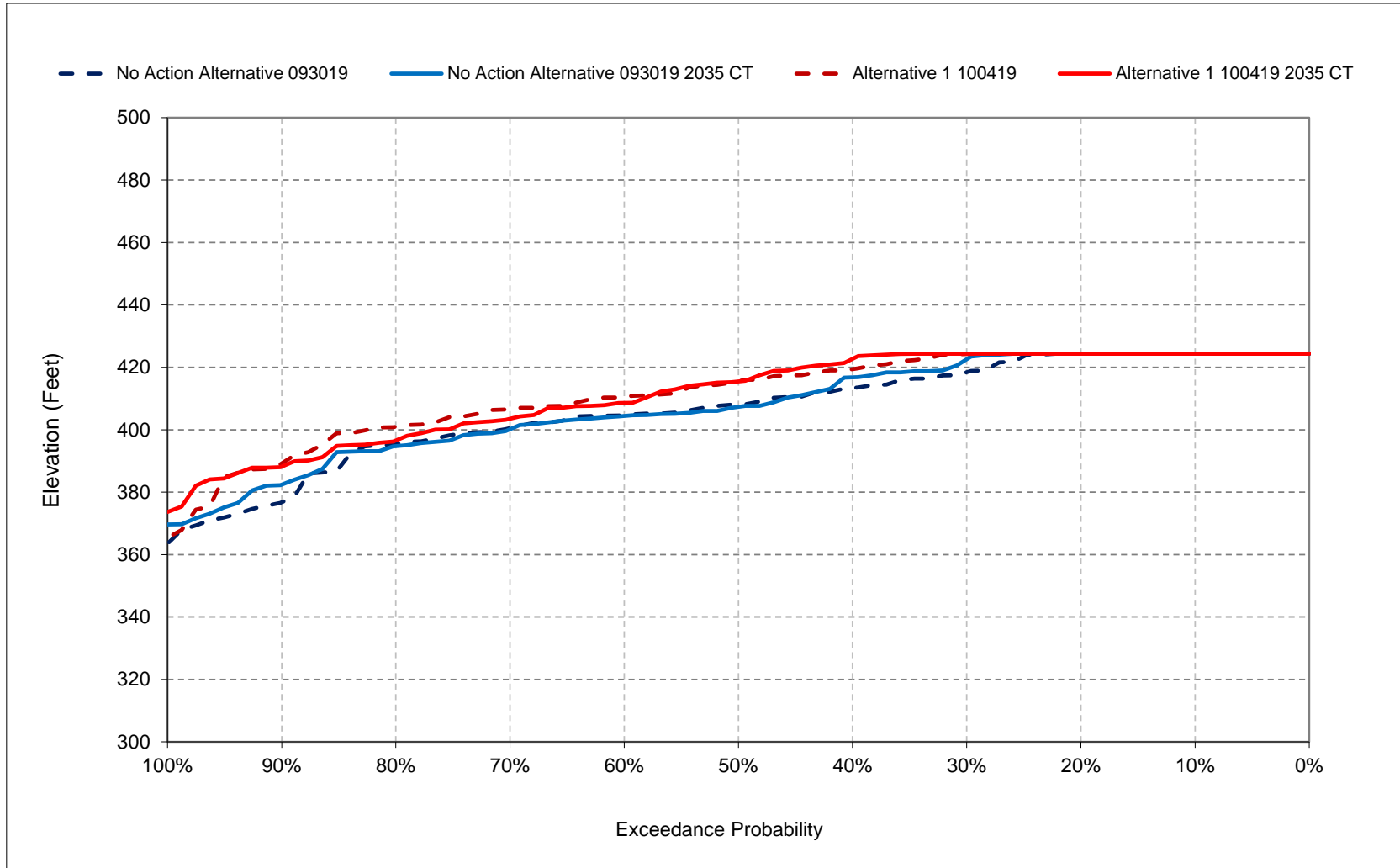
Figure 5a-8. Folsom Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

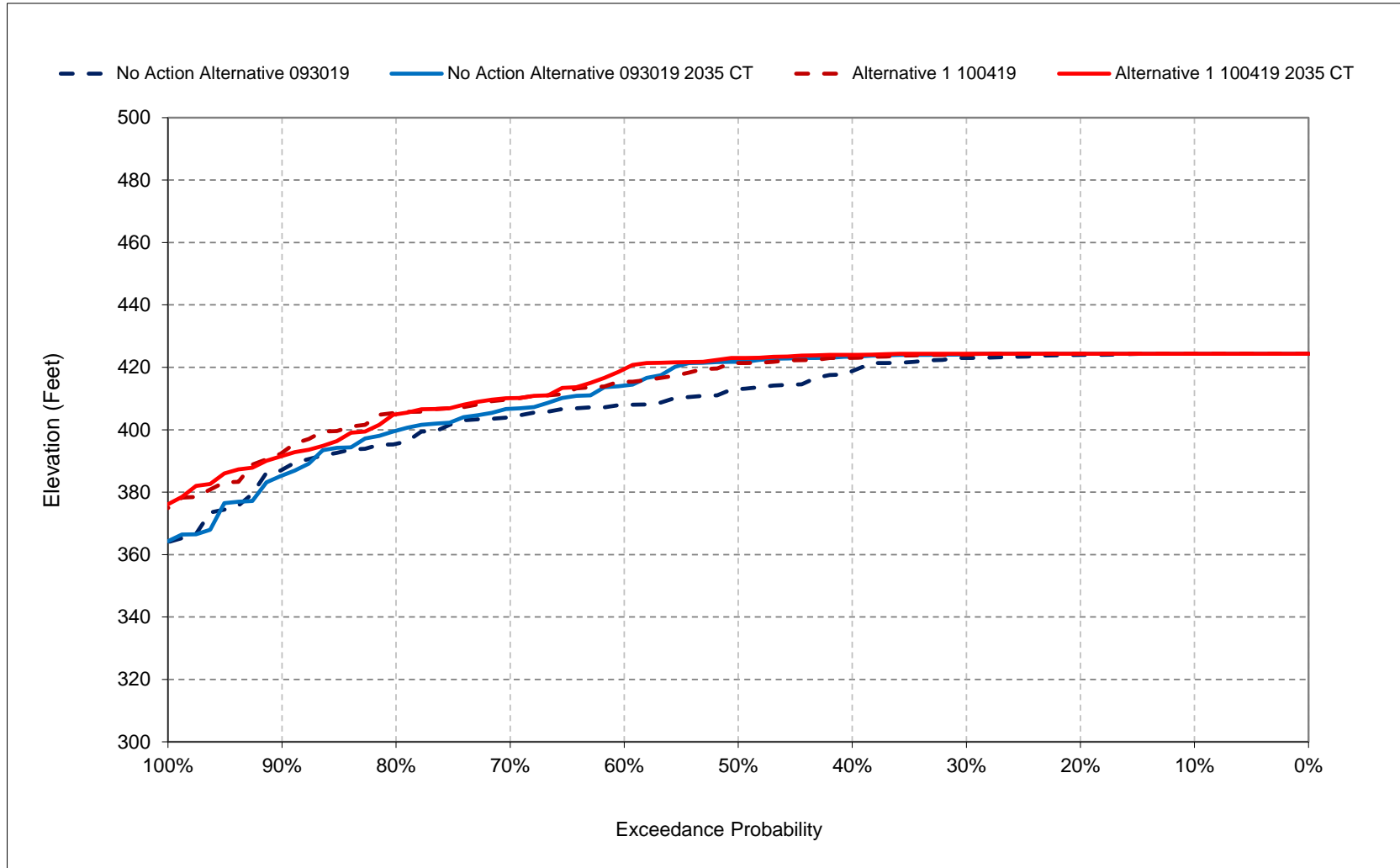
Figure 5a-9. Folsom Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

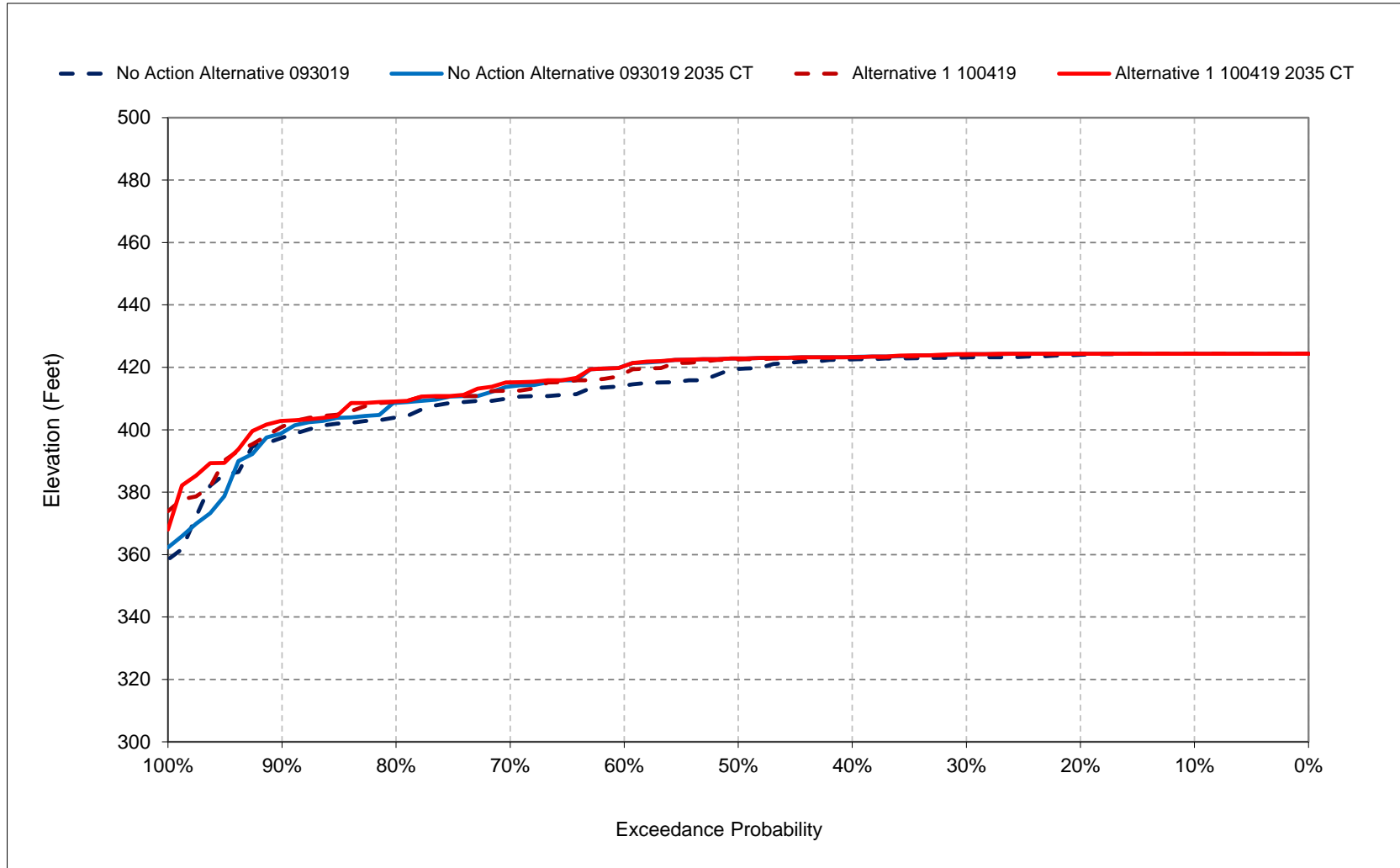
Figure 5a-10. Folsom Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

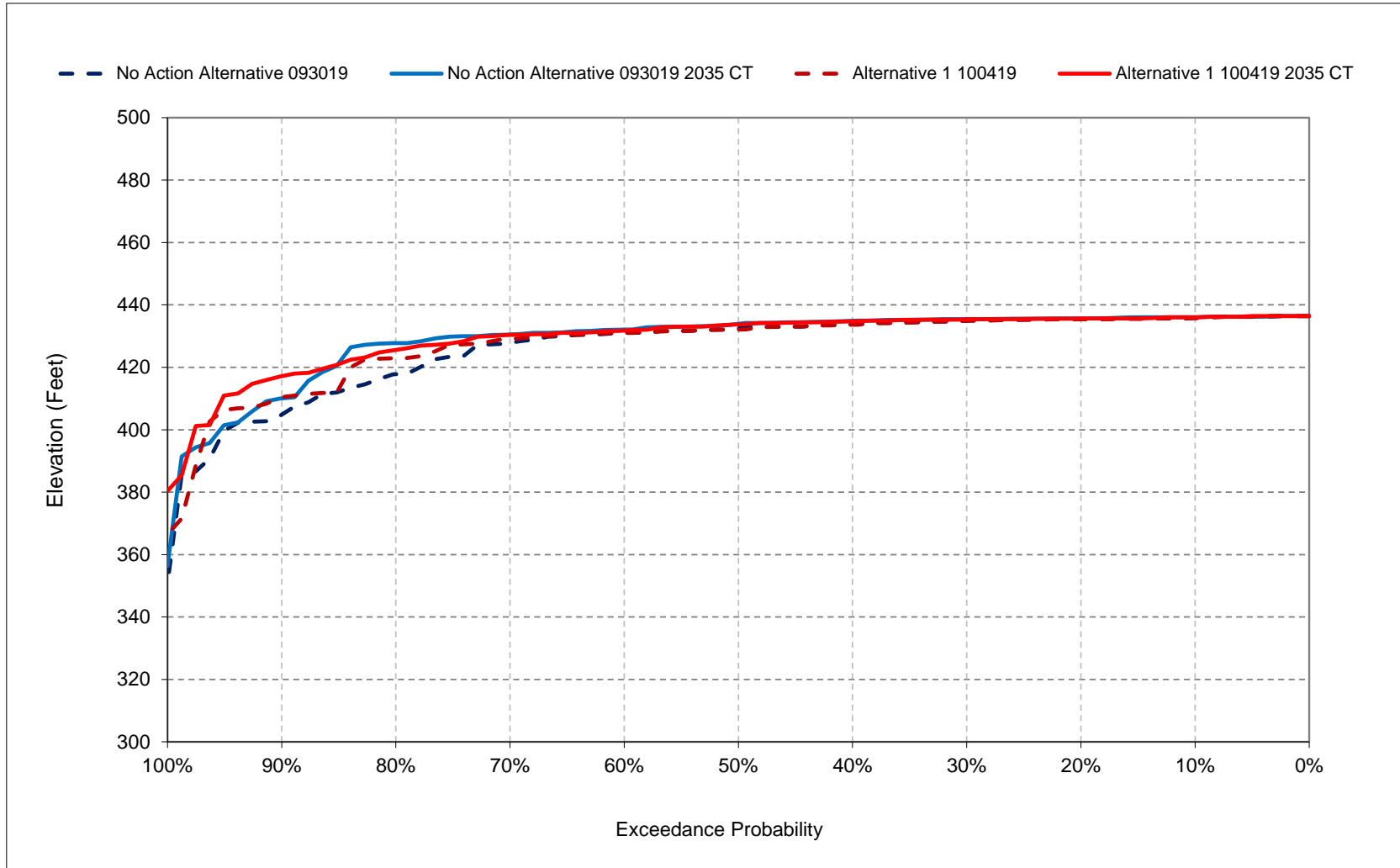
Figure 5a-11. Folsom Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

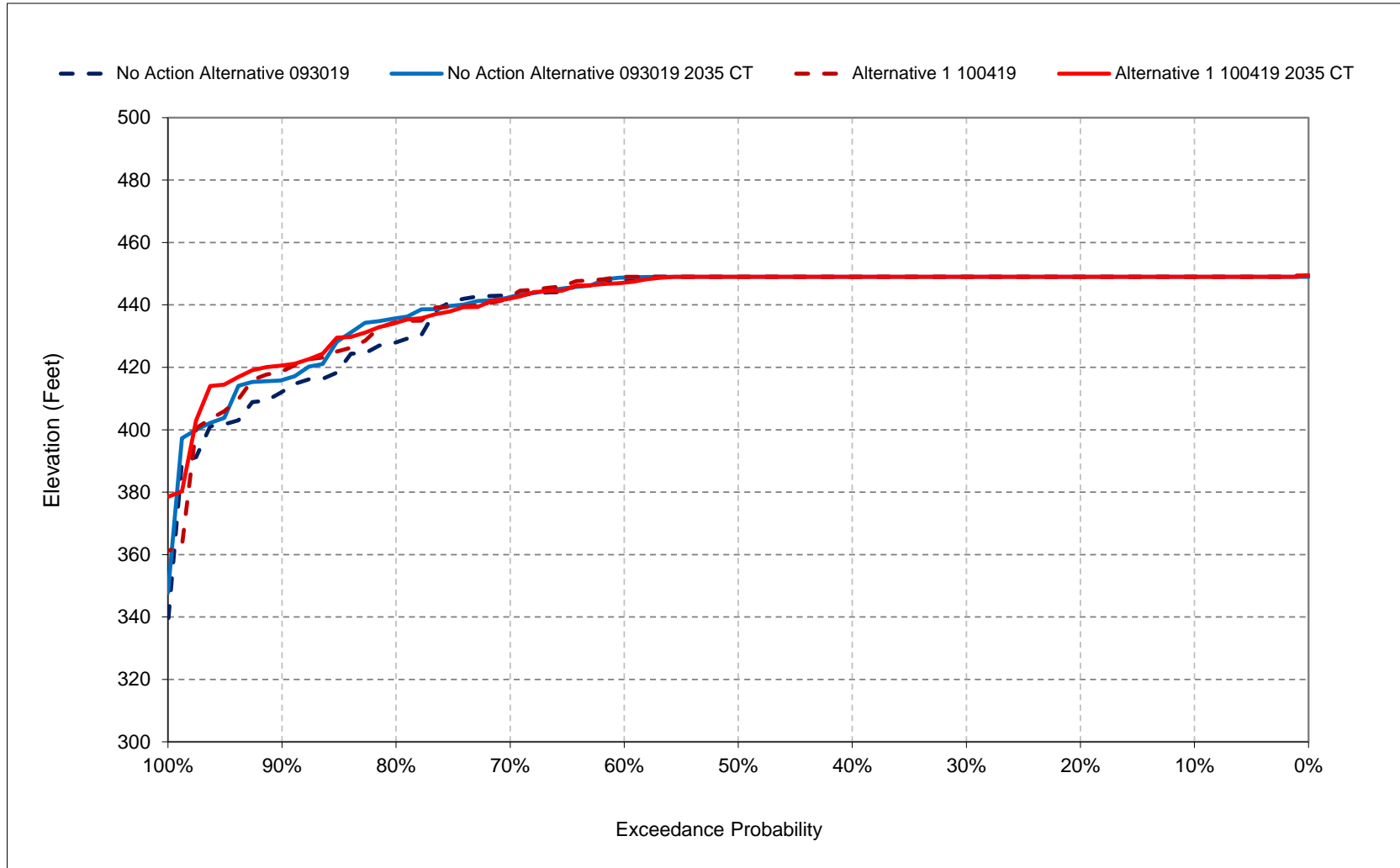
Figure 5a-12. Folsom Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

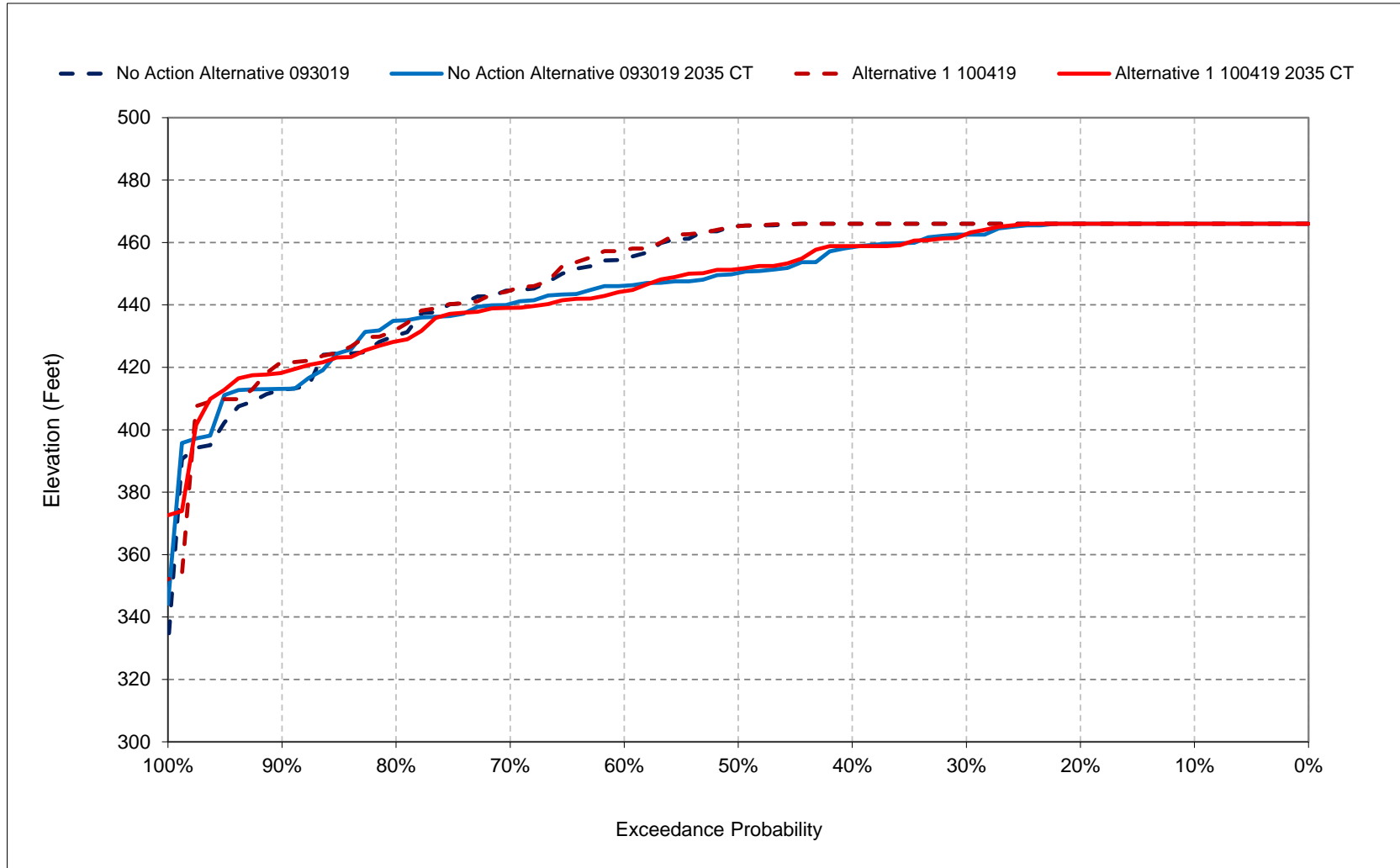
Figure 5a-13. Folsom Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

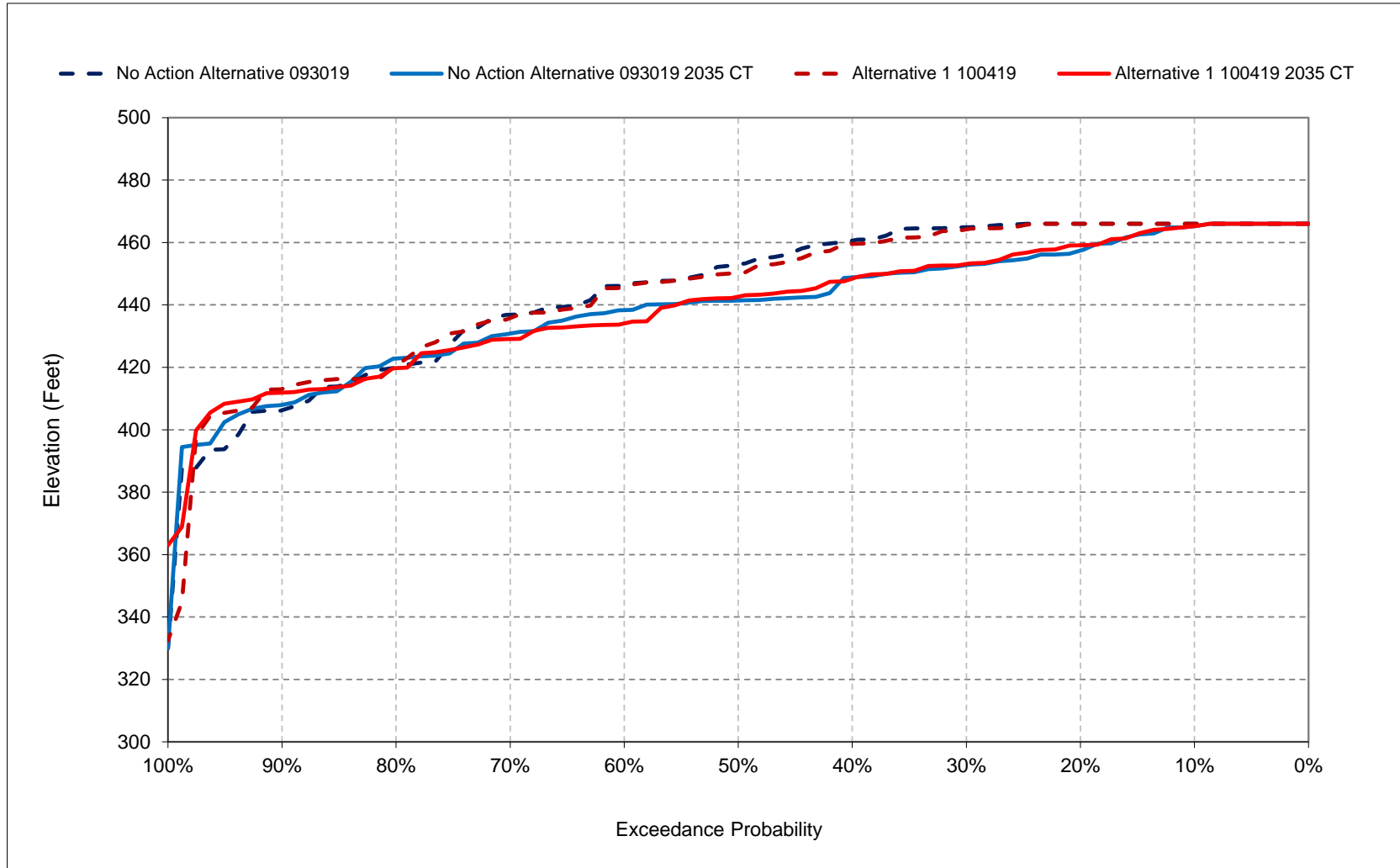
Figure 5a-14. Folsom Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

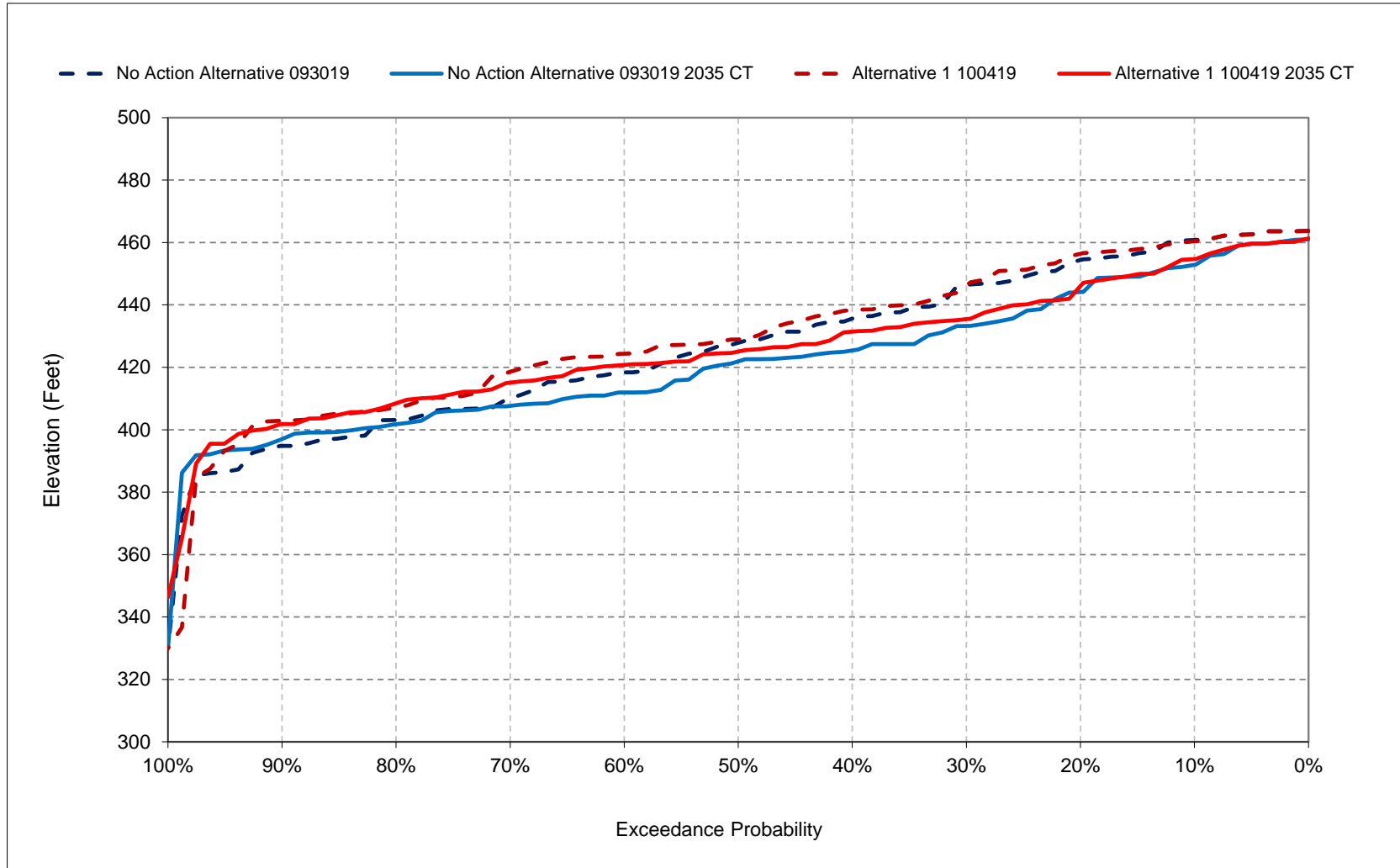
Figure 5a-15. Folsom Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

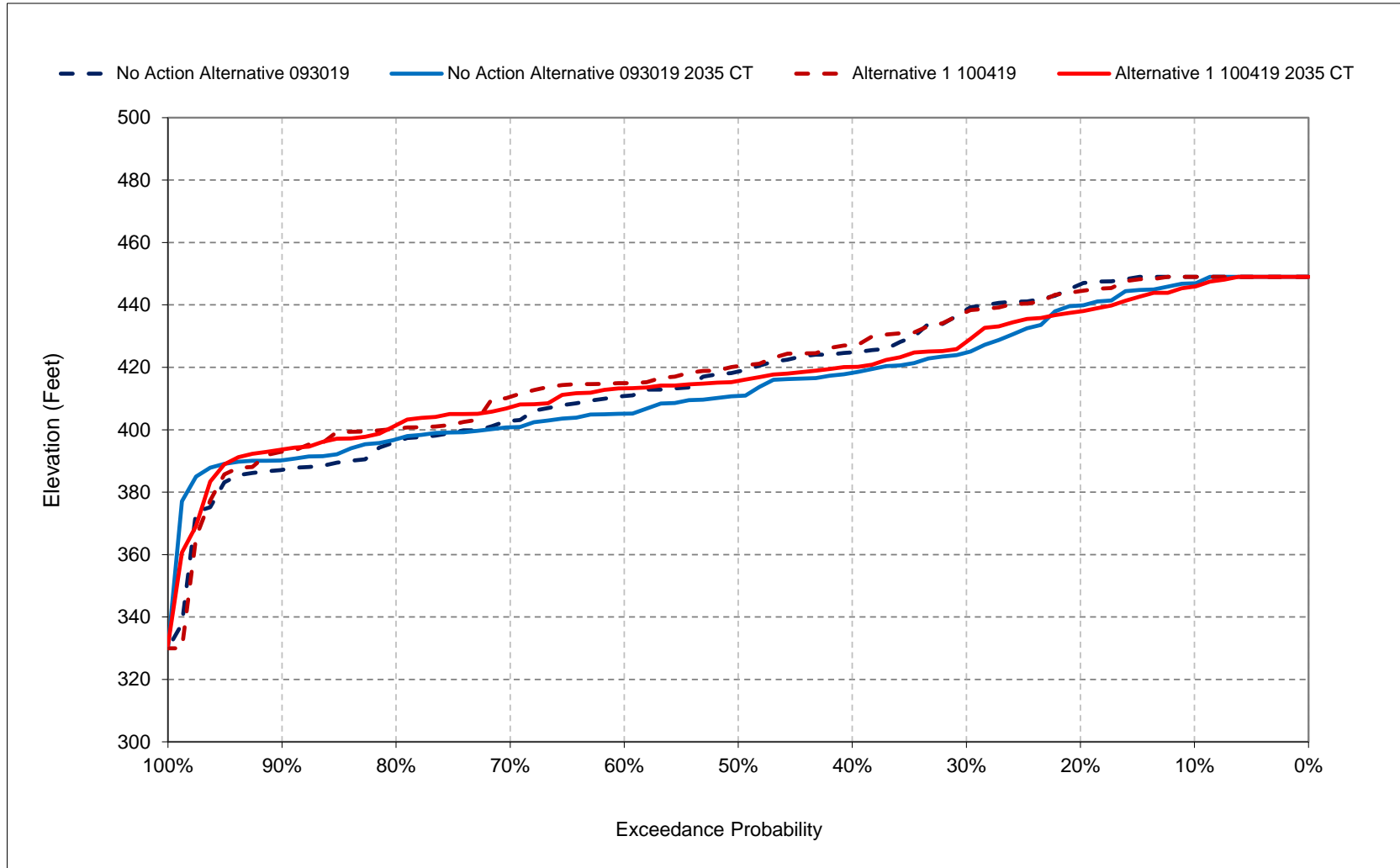
Figure 5a-16. Folsom Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

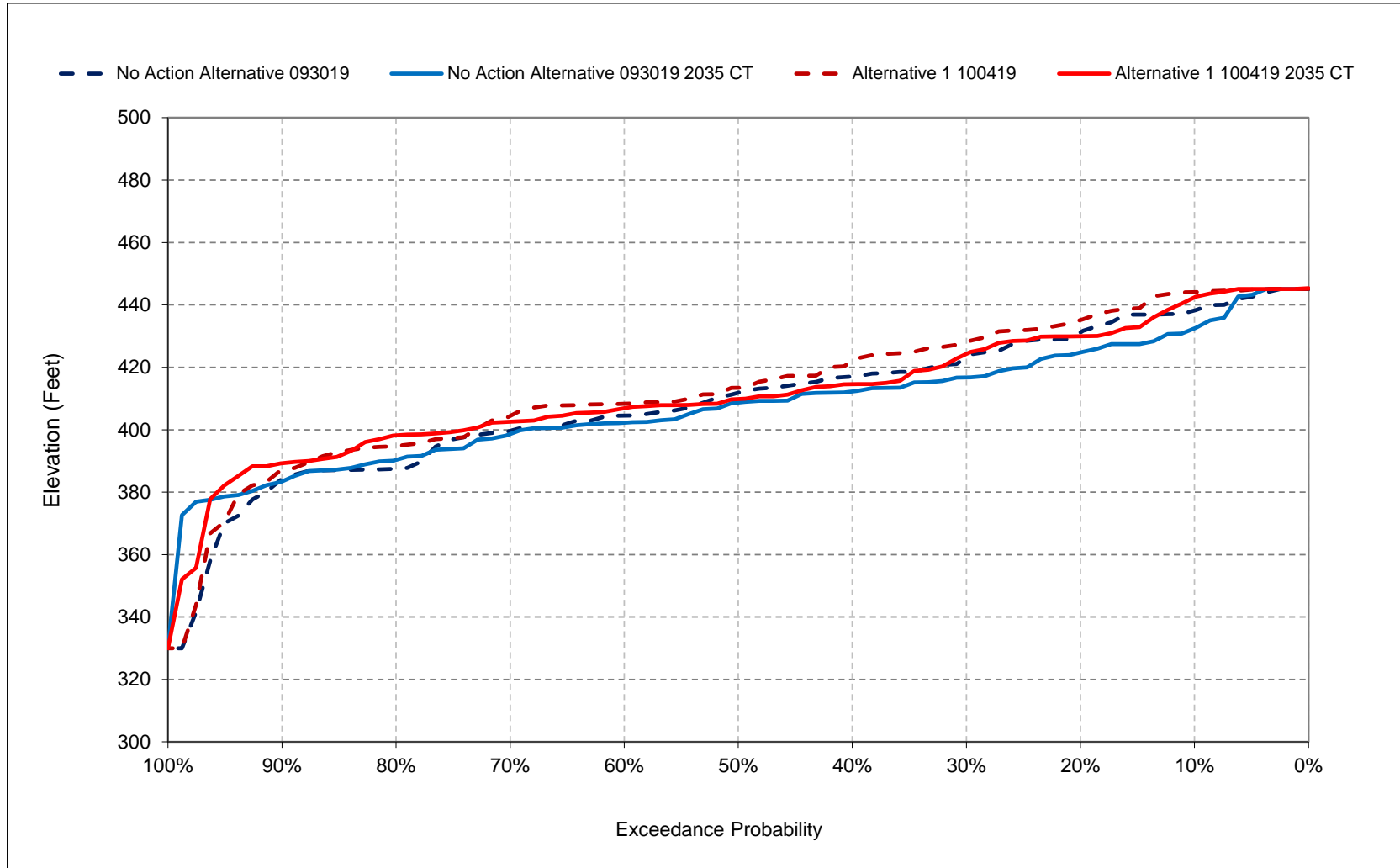
Figure 5a-17. Folsom Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 5a-18. Folsom Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-1. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	686	889	1,129	1,532	1,935	2,039	1,838	1,443	1,223	911	672	687
20%	528	689	1,029	1,311	1,572	1,960	1,751	1,346	951	717	522	588
30%	473	599	910	1,221	1,492	1,773	1,583	1,241	853	602	467	505
40%	440	540	835	1,137	1,398	1,677	1,490	1,145	772	529	362	446
50%	382	480	734	1,014	1,332	1,527	1,371	1,071	714	443	313	377
60%	321	436	694	933	1,196	1,384	1,273	1,002	628	408	256	313
70%	270	422	599	870	1,066	1,314	1,182	919	582	380	201	236
80%	211	346	515	813	970	1,223	1,105	814	509	304	167	197
90%	170	275	423	716	914	1,054	936	737	390	233	129	150
Long Term												
Full Simulation Period ^d	419	542	781	1,073	1,319	1,533	1,397	1,102	768	544	380	424
Water Year Types ^{b,c}												
Wet (32%)	578	619	892	1,202	1,517	1,808	1,623	1,276	954	709	587	649
Above Normal (16%)	440	555	845	1,097	1,369	1,608	1,402	1,019	634	394	356	465
Below Normal (13%)	360	493	683	980	1,180	1,394	1,242	917	528	415	289	322
Dry (24%)	299	520	763	1,029	1,226	1,421	1,355	1,114	780	558	267	274
Critical (15%)	303	442	592	930	1,118	1,167	1,114	961	712	441	233	239

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	815	993	1,331	1,723	1,990	2,039	2,039	2,000	1,655	1,209	956	859
20%	573	773	1,003	1,276	1,614	1,952	2,013	1,814	1,411	1,061	785	610
30%	478	663	865	1,177	1,447	1,612	1,766	1,731	1,296	921	698	454
40%	336	561	794	1,081	1,374	1,517	1,609	1,449	1,139	813	557	361
50%	290	494	707	1,001	1,266	1,444	1,481	1,273	972	701	476	325
60%	233	417	652	942	1,206	1,344	1,380	1,211	891	595	433	238
70%	202	367	584	880	1,140	1,283	1,292	1,142	799	546	285	210
80%	160	348	521	813	1,055	1,202	1,171	1,030	751	458	231	147
90%	100	302	439	740	969	1,123	1,115	926	638	411	186	102
Long Term												
Full Simulation Period ^d	399	589	801	1,087	1,346	1,502	1,544	1,406	1,076	779	544	404
Water Year Types ^{b,c}												
Wet (32%)	519	737	976	1,204	1,495	1,710	1,808	1,701	1,357	1,052	849	573
Above Normal (16%)	150	371	614	1,123	1,357	1,471	1,536	1,379	969	634	466	188
Below Normal (13%)	451	587	721	1,080	1,319	1,422	1,414	1,203	826	606	446	435
Dry (24%)	409	610	846	1,009	1,262	1,425	1,438	1,303	1,027	747	396	381
Critical (15%)	341	470	621	930	1,178	1,289	1,277	1,155	896	557	301	284

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	129	104	202	191	54	0	201	556	432	298	283	172
20%	45	83	-26	-36	43	-7	262	468	460	344	264	22
30%	5	64	-44	-44	-45	-161	183	490	443	319	230	-51
40%	-104	21	-41	-56	-23	-160	120	304	367	284	196	-85
50%	-92	14	-27	-14	-66	-83	111	202	258	257	164	-52
60%	-88	-19	-42	9	10	-40	107	209	263	186	177	-75
70%	-68	-54	-15	10	74	-31	109	223	217	166	84	-26
80%	-51	2	7	0	85	-21	66	216	242	154	64	-50
90%	-70	27	16	24	55	69	178	189	247	178	57	-48
Long Term												
Full Simulation Period ^d	-20	47	20	14	27	-30	147	304	308	235	163	-20
Water Year Types ^{b,c}												
Wet (32%)	-59	119	84	3	-22	-98	185	425	403	343	262	-76
Above Normal (16%)	-290	-185	-231	26	-12	-138	134	359	335	240	110	-277
Below Normal (13%)	90	94	38	100	139	29	172	286	299	191	157	113
Dry (24%)	110	90	84	-20	36	4	83	189	247	189	130	107
Critical (15%)	38	28	28	0	60	122	163	193	184	116	69	46

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6-2. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	669	820	1,167	1,546	1,906	2,039	1,858	1,542	1,206	863	657	674
20%	532	652	1,003	1,274	1,647	1,997	1,778	1,378	981	709	550	595
30%	447	583	919	1,184	1,498	1,810	1,629	1,286	882	614	460	539
40%	411	546	798	1,108	1,359	1,711	1,519	1,139	754	558	409	432
50%	344	470	717	1,064	1,293	1,583	1,413	1,058	690	485	335	360
60%	302	422	628	977	1,200	1,413	1,302	993	645	460	260	298
70%	256	375	581	840	1,117	1,268	1,200	953	588	406	202	224
80%	216	333	506	795	975	1,157	1,082	858	558	335	159	186
90%	193	294	437	692	865	1,028	950	725	463	268	142	155
Long Term												
Full Simulation Period ^d	404	526	768	1,067	1,323	1,542	1,415	1,125	784	558	389	416
Water Year Types ^{b,c}												
Wet (32%)	554	588	850	1,212	1,571	1,872	1,712	1,383	1,052	751	601	628
Above Normal (16%)	351	456	732	1,133	1,413	1,659	1,464	1,084	666	408	356	452
Below Normal (13%)	374	522	694	938	1,188	1,394	1,288	973	559	449	302	330
Dry (24%)	324	539	801	1,011	1,174	1,367	1,270	1,017	692	533	282	280
Critical (15%)	298	445	643	893	1,058	1,127	1,078	927	687	444	223	224

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	699	876	1,165	1,502	1,974	2,039	2,039	2,036	1,688	1,207	889	718
20%	557	740	970	1,272	1,636	1,928	2,028	1,902	1,510	1,036	724	601
30%	424	632	850	1,160	1,475	1,703	1,865	1,708	1,283	867	652	451
40%	358	552	805	1,089	1,394	1,593	1,693	1,519	1,119	832	575	367
50%	264	514	706	1,018	1,338	1,457	1,552	1,376	1,006	715	504	302
60%	232	413	638	971	1,242	1,416	1,437	1,254	924	606	421	228
70%	204	347	577	879	1,165	1,320	1,320	1,157	861	538	276	203
80%	165	317	496	805	1,082	1,255	1,233	1,060	761	484	223	160
90%	100	284	425	686	971	1,127	1,085	933	648	418	182	100
Long Term												
Full Simulation Period ^d	375	562	775	1,079	1,359	1,530	1,573	1,437	1,104	772	523	381
Water Year Types ^{b,c}												
Wet (32%)	444	655	890	1,208	1,548	1,774	1,862	1,767	1,429	1,032	791	497
Above Normal (16%)	188	399	623	1,158	1,407	1,530	1,606	1,451	1,026	647	478	252
Below Normal (13%)	441	597	739	930	1,216	1,358	1,380	1,191	829	611	431	410
Dry (24%)	390	575	822	1,033	1,276	1,444	1,451	1,298	999	719	387	357
Critical (15%)	342	482	647	929	1,168	1,305	1,291	1,166	915	578	304	284

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	31	56	-2	-43	68	0	181	495	481	344	231	44
20%	26	87	-33	-2	-11	-70	250	524	529	327	174	6
30%	-22	49	-69	-24	-22	-107	236	422	401	253	192	-87
40%	-52	6	8	-19	35	-117	174	380	365	274	166	-65
50%	-80	43	-11	-47	45	-127	139	318	316	230	170	-58
60%	-70	-9	10	-5	42	3	135	261	278	146	161	-69
70%	-52	-28	-4	39	48	53	120	204	273	132	74	-21
80%	-51	-16	-10	10	106	98	152	202	204	150	64	-26
90%	-93	-9	-13	-6	106	99	135	208	185	150	41	-55
Long Term												
Full Simulation Period ^d	-29	37	7	12	37	-12	158	312	321	214	134	-35
Water Year Types ^{b,c}												
Wet (32%)	-110	67	40	-3	-23	-99	150	383	377	281	190	-131
Above Normal (16%)	-162	-57	-109	25	-6	-129	142	367	360	239	122	-200
Below Normal (13%)	67	75	45	-8	29	-37	92	217	269	162	129	80
Dry (24%)	66	36	20	22	101	77	182	281	307	186	104	76
Critical (15%)	44	37	4	36	111	178	214	240	228	133	80	60

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-3. San Luis Storage (CVP and SWP), End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	686	889	1,129	1,532	1,935	2,039	1,838	1,443	1,223	911	672	687
20%	528	689	1,029	1,311	1,572	1,960	1,751	1,346	951	717	522	588
30%	473	599	910	1,221	1,492	1,773	1,583	1,241	853	602	467	505
40%	440	540	835	1,137	1,398	1,677	1,490	1,145	772	529	362	446
50%	382	480	734	1,014	1,332	1,527	1,371	1,071	714	443	313	377
60%	321	436	694	933	1,196	1,384	1,273	1,002	628	408	256	313
70%	270	422	599	870	1,066	1,314	1,182	919	582	380	201	236
80%	211	346	515	813	970	1,223	1,105	814	509	304	167	197
90%	170	275	423	716	914	1,054	936	737	390	233	129	150
Long Term												
Full Simulation Period ^d	419	542	781	1,073	1,319	1,533	1,397	1,102	768	544	380	424
Water Year Types ^{b,c}												
Wet (32%)	578	619	892	1,202	1,517	1,808	1,623	1,276	954	709	587	649
Above Normal (16%)	440	555	845	1,097	1,369	1,608	1,402	1,019	634	394	356	465
Below Normal (13%)	360	493	683	980	1,180	1,394	1,242	917	528	415	289	322
Dry (24%)	299	520	763	1,029	1,226	1,421	1,355	1,114	780	558	267	274
Critical (15%)	303	442	592	930	1,118	1,167	1,114	961	712	441	233	239

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	669	820	1,167	1,546	1,906	2,039	1,858	1,542	1,206	863	657	674
20%	532	652	1,003	1,274	1,647	1,997	1,778	1,378	981	709	550	595
30%	447	583	919	1,184	1,498	1,810	1,629	1,286	882	614	460	539
40%	411	546	798	1,108	1,359	1,711	1,519	1,139	754	558	409	432
50%	344	470	717	1,064	1,293	1,583	1,413	1,058	690	485	335	360
60%	302	422	628	977	1,200	1,413	1,302	993	645	460	260	298
70%	256	375	581	840	1,117	1,268	1,200	953	588	406	202	224
80%	216	333	506	795	975	1,157	1,082	858	558	335	159	186
90%	193	294	437	692	865	1,028	950	725	463	268	142	155
Long Term												
Full Simulation Period ^d	404	526	768	1,067	1,323	1,542	1,415	1,125	784	558	389	416
Water Year Types ^{b,c}												
Wet (32%)	554	588	850	1,212	1,571	1,872	1,712	1,383	1,052	751	601	628
Above Normal (16%)	351	456	732	1,133	1,413	1,659	1,464	1,084	666	408	356	452
Below Normal (13%)	374	522	694	938	1,188	1,394	1,288	973	559	449	302	330
Dry (24%)	324	539	801	1,011	1,174	1,367	1,270	1,017	692	533	282	280
Critical (15%)	298	445	643	893	1,058	1,127	1,078	927	687	444	223	224

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-17	-69	39	14	-29	0	20	98	-17	-47	-15	-12
20%	4	-37	-26	-38	75	37	27	32	30	-8	28	7
30%	-26	-16	9	-37	6	37	46	45	29	12	-7	34
40%	-29	6	-37	-29	-39	34	29	-7	-18	29	47	-14
50%	-38	-10	-17	50	-39	56	42	-13	-24	42	22	-17
60%	-18	-14	-66	43	4	29	29	-9	17	51	3	-16
70%	-14	-47	-18	-30	51	-47	18	34	6	26	1	-12
80%	5	-13	-9	-18	6	-66	-24	45	49	31	-8	-11
90%	23	19	14	-24	-49	-26	14	-12	73	35	13	5
Long Term												
Full Simulation Period ^d	-15	-16	-13	-7	4	9	18	23	15	14	9	-8
Water Year Types ^{b,c}												
Wet (32%)	-24	-30	-42	10	54	64	88	107	99	42	14	-21
Above Normal (16%)	-89	-99	-113	36	45	50	62	65	32	14	0	-13
Below Normal (13%)	14	29	11	-42	8	1	46	56	32	34	13	8
Dry (24%)	25	19	39	-18	-52	-54	-85	-97	-88	-25	16	7
Critical (15%)	-5	3	51	-37	-60	-40	-36	-35	-25	4	-9	-15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6-4. San Luis Storage (CVP and SWP), End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	815	993	1,331	1,723	1,990	2,039	2,039	2,000	1,655	1,209	956	859
20%	573	773	1,003	1,276	1,614	1,952	2,013	1,814	1,411	1,061	785	610
30%	478	663	865	1,177	1,447	1,612	1,766	1,731	1,296	921	698	454
40%	336	561	794	1,081	1,374	1,517	1,609	1,449	1,139	813	557	361
50%	290	494	707	1,001	1,266	1,444	1,481	1,273	972	701	476	325
60%	233	417	652	942	1,206	1,344	1,380	1,211	891	595	433	238
70%	202	367	584	880	1,140	1,283	1,292	1,142	799	546	285	210
80%	160	348	521	813	1,055	1,202	1,171	1,030	751	458	231	147
90%	100	302	439	740	969	1,123	1,115	926	638	411	186	102
Long Term												
Full Simulation Period ^d	399	589	801	1,087	1,346	1,502	1,544	1,406	1,076	779	544	404
Water Year Types ^{b,c}												
Wet (32%)	519	737	976	1,204	1,495	1,710	1,808	1,701	1,357	1,052	849	573
Above Normal (16%)	150	371	614	1,123	1,357	1,471	1,536	1,379	969	634	466	188
Below Normal (13%)	451	587	721	1,080	1,319	1,422	1,414	1,203	826	606	446	435
Dry (24%)	409	610	846	1,009	1,262	1,425	1,438	1,303	1,027	747	396	381
Critical (15%)	341	470	621	930	1,178	1,289	1,277	1,155	896	557	301	284

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	699	876	1,165	1,502	1,974	2,039	2,039	2,036	1,688	1,207	889	718
20%	557	740	970	1,272	1,636	1,928	2,028	1,902	1,510	1,036	724	601
30%	424	632	850	1,160	1,475	1,703	1,865	1,708	1,283	867	652	451
40%	358	552	805	1,089	1,394	1,593	1,693	1,519	1,119	832	575	367
50%	264	514	706	1,018	1,338	1,457	1,552	1,376	1,006	715	504	302
60%	232	413	638	971	1,242	1,416	1,437	1,254	924	606	421	228
70%	204	347	577	879	1,165	1,320	1,320	1,157	861	538	276	203
80%	165	317	496	805	1,082	1,255	1,233	1,060	761	484	223	160
90%	100	284	425	686	971	1,127	1,085	933	648	418	182	100
Long Term												
Full Simulation Period ^d	375	562	775	1,079	1,359	1,530	1,573	1,437	1,104	772	523	381
Water Year Types ^{b,c}												
Wet (32%)	444	655	890	1,208	1,548	1,774	1,862	1,767	1,429	1,032	791	497
Above Normal (16%)	188	399	623	1,158	1,407	1,530	1,606	1,451	1,026	647	478	252
Below Normal (13%)	441	597	739	930	1,216	1,358	1,380	1,191	829	611	431	410
Dry (24%)	390	575	822	1,033	1,276	1,444	1,451	1,298	999	719	387	357
Critical (15%)	342	482	647	929	1,168	1,305	1,291	1,166	915	578	304	284

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-115	-117	-165	-220	-15	0	0	37	33	-2	-67	-141
20%	-16	-33	-33	-4	22	-25	15	88	99	-25	-62	-9
30%	-53	-31	-16	-17	28	91	99	-23	-13	-53	-46	-3
40%	23	-9	11	8	20	77	84	70	-20	19	18	6
50%	-26	20	-1	17	72	13	71	102	34	15	28	-22
60%	-1	-4	-14	29	36	72	57	43	33	11	-12	-10
70%	2	-21	-7	-1	25	37	28	15	62	-8	-10	-7
80%	5	-32	-25	-8	27	52	62	30	11	26	-8	13
90%	0	-17	-15	-54	2	4	-30	7	10	7	-3	-2
Long Term												
Full Simulation Period ^d	-24	-27	-25	-8	13	28	29	31	28	-7	-20	-23
Water Year Types ^{b,c}												
Wet (32%)	-75	-82	-86	4	53	63	53	66	73	-20	-57	-76
Above Normal (16%)	38	29	10	35	50	59	69	72	57	13	13	64
Below Normal (13%)	-10	10	18	-150	-103	-65	-34	-12	2	5	-15	-26
Dry (24%)	-19	-35	-25	23	14	19	14	-5	-29	-27	-10	-24
Critical (15%)	2	13	27	-1	-9	16	15	12	18	21	2	-1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

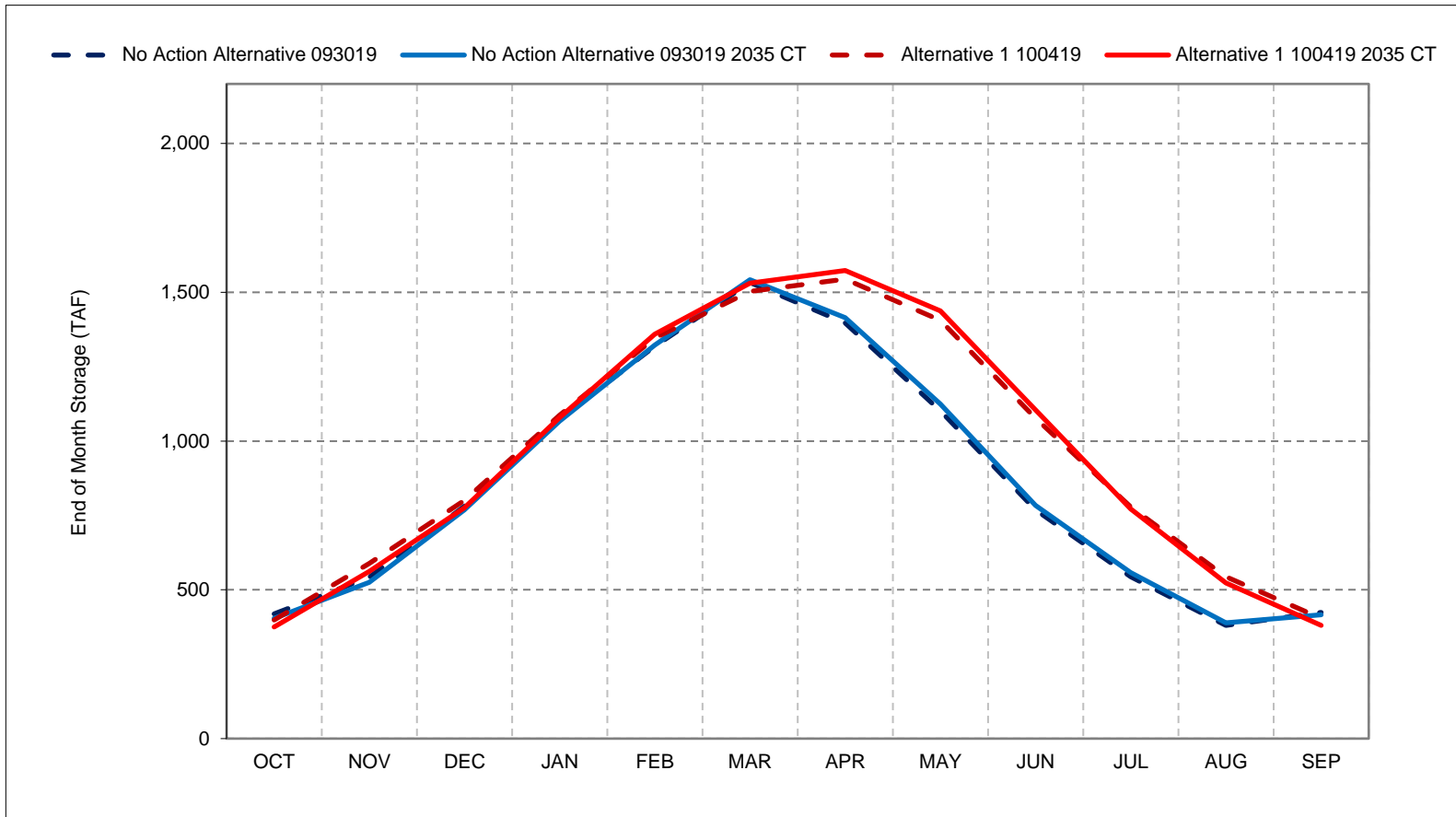
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6-1. San Luis Storage (CVP and SWP), Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

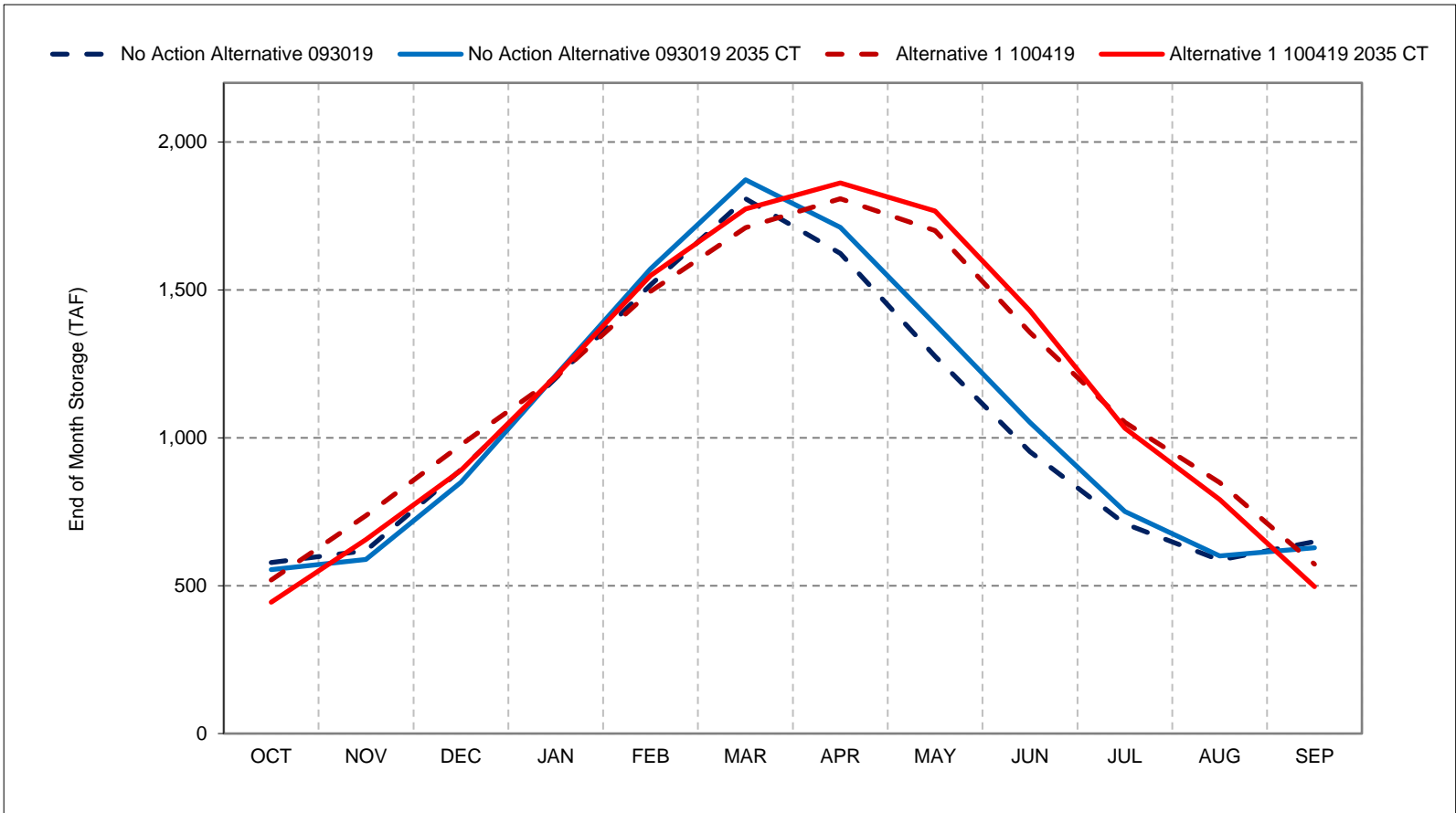
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-2. San Luis Storage (CVP and SWP), Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

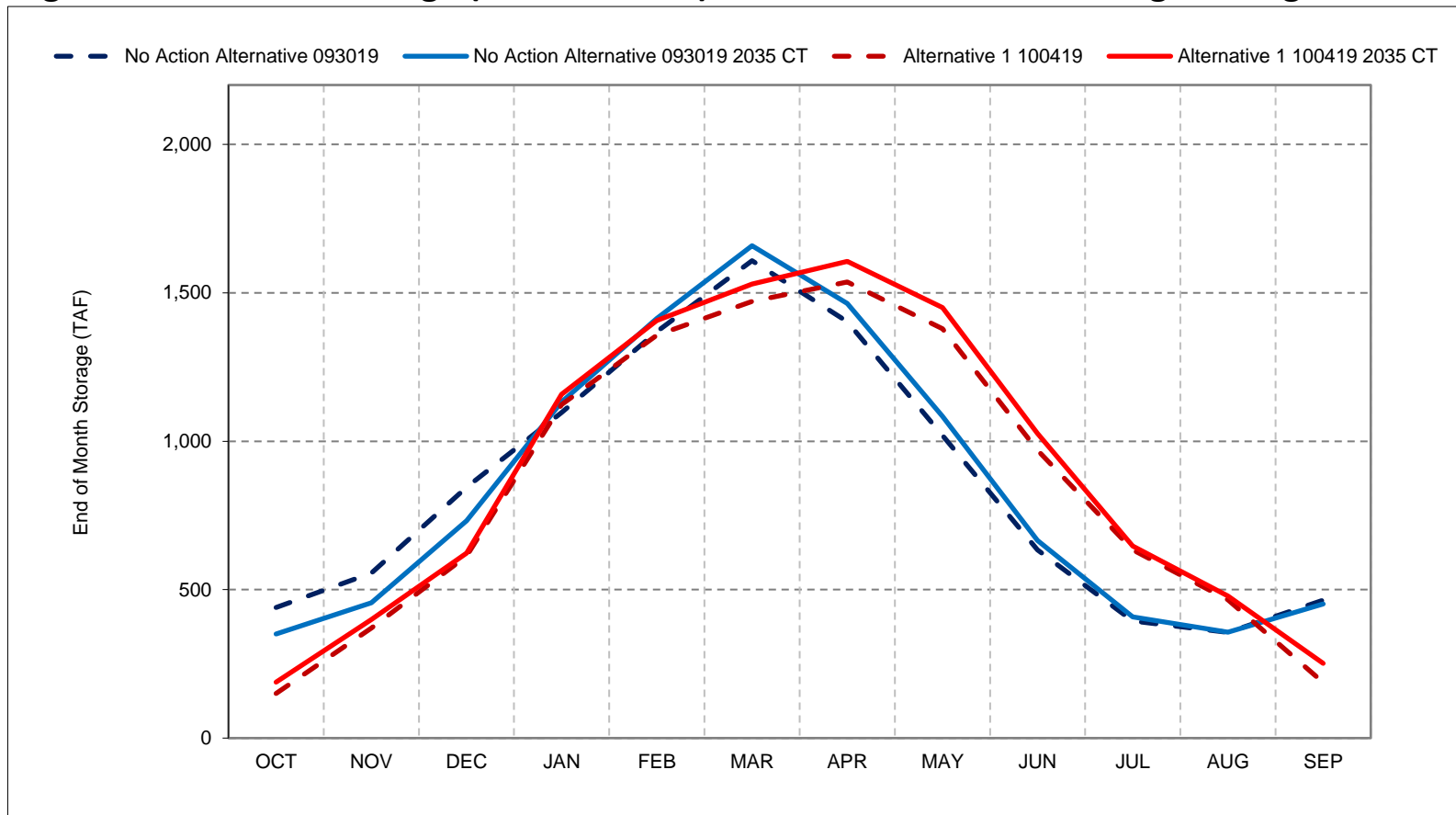
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-3. San Luis Storage (CVP and SWP), Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

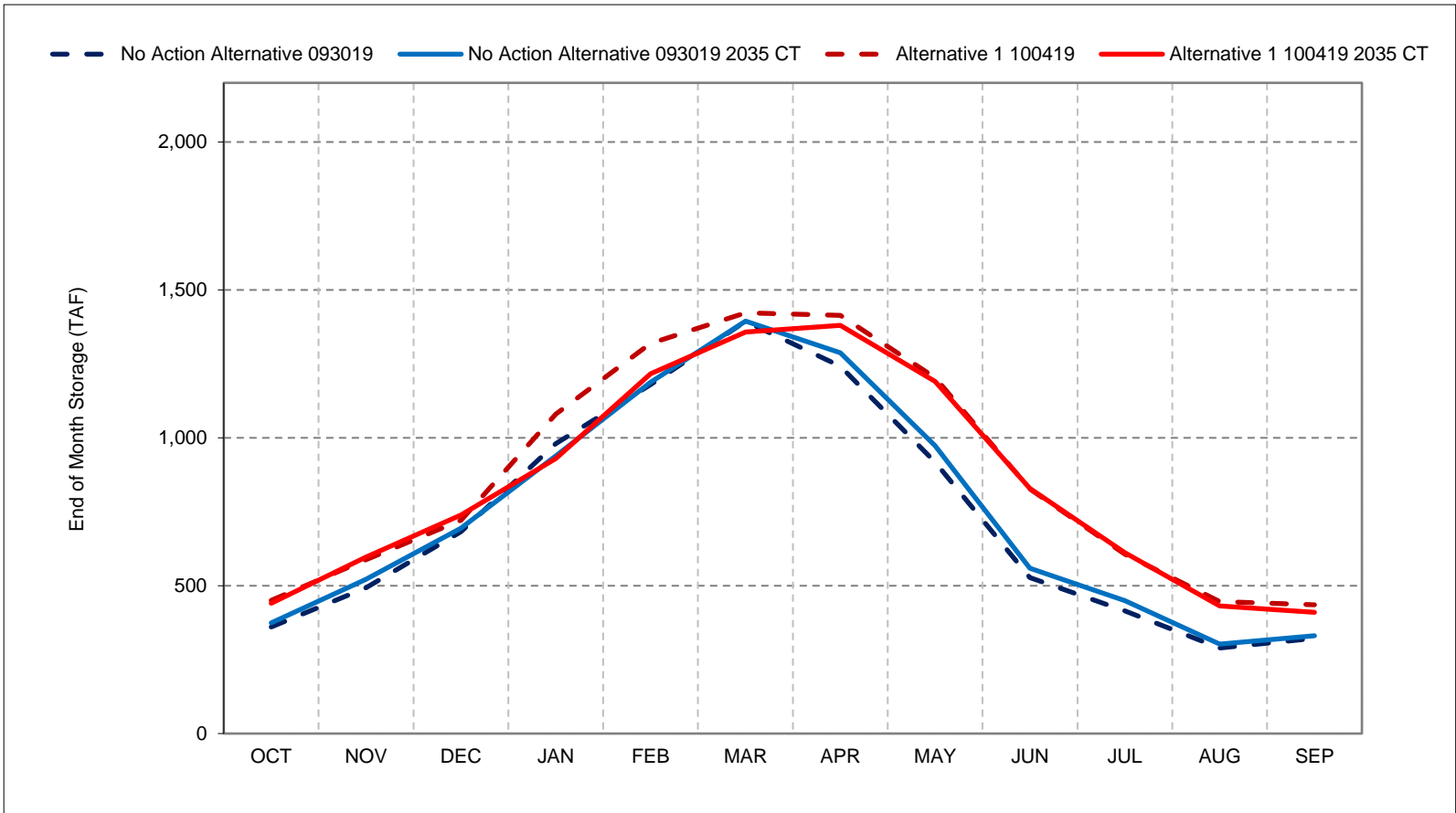
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-4. San Luis Storage (CVP and SWP), Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

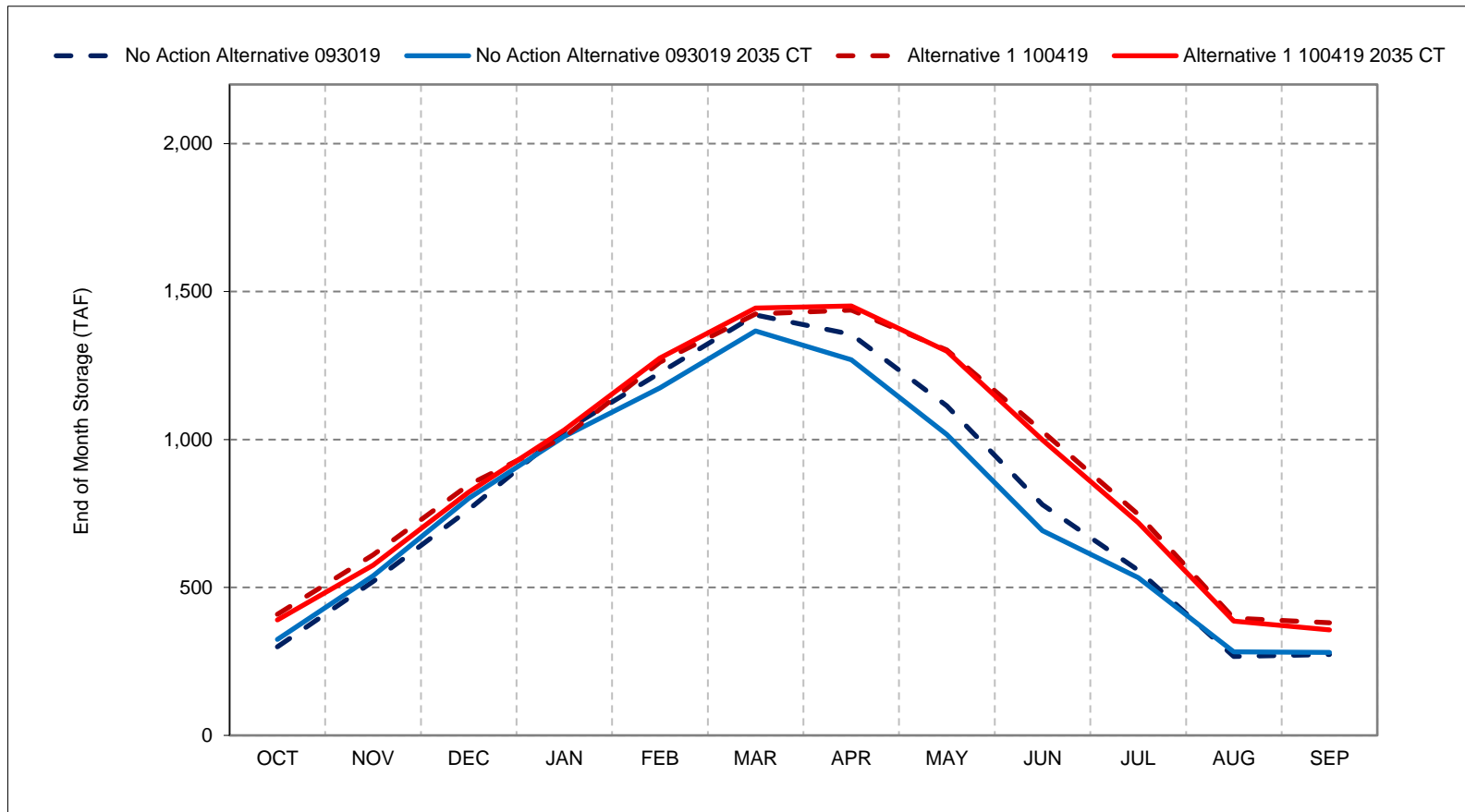
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-5. San Luis Storage (CVP and SWP), Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

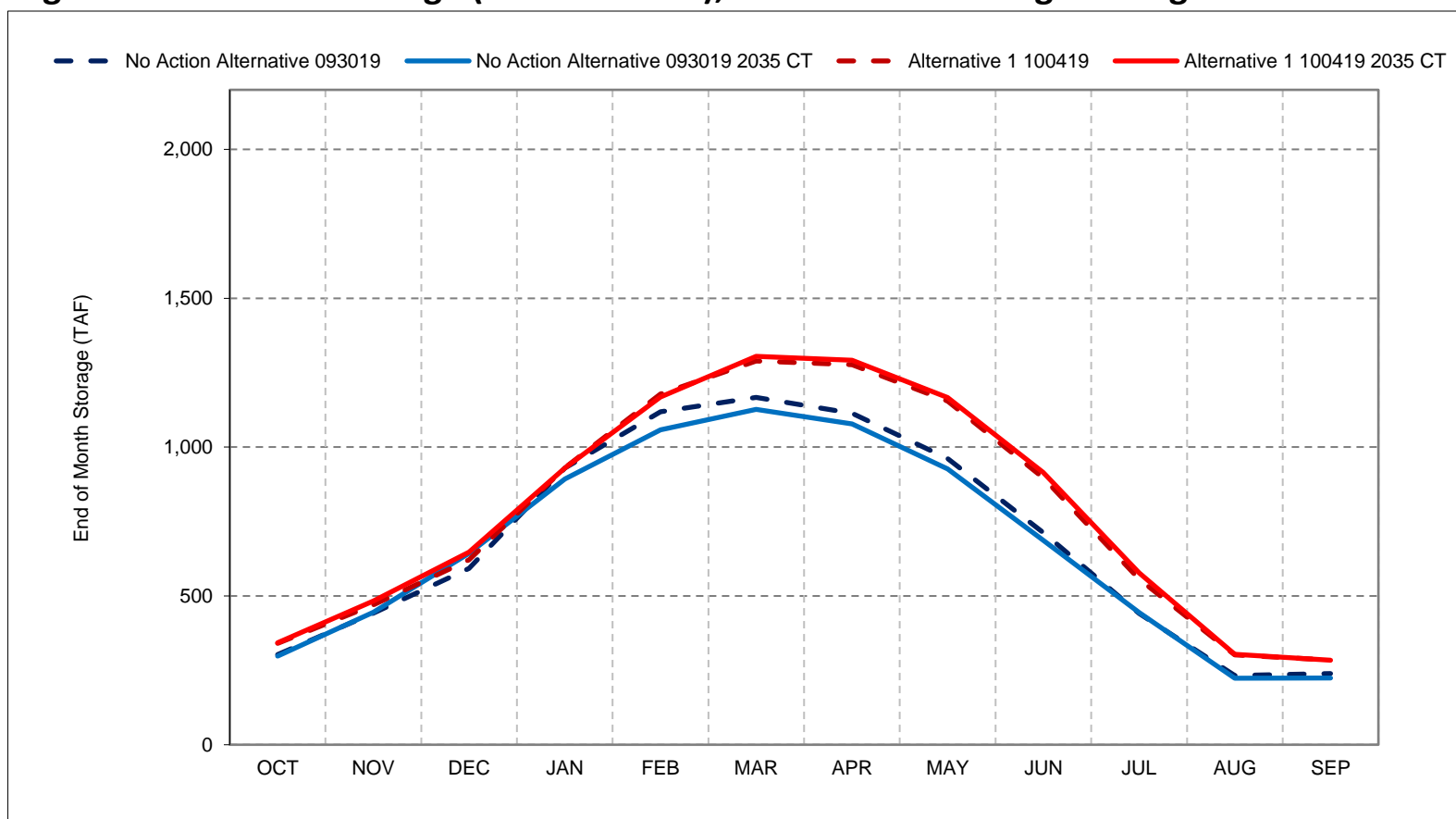
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6-6. San Luis Storage (CVP and SWP), Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

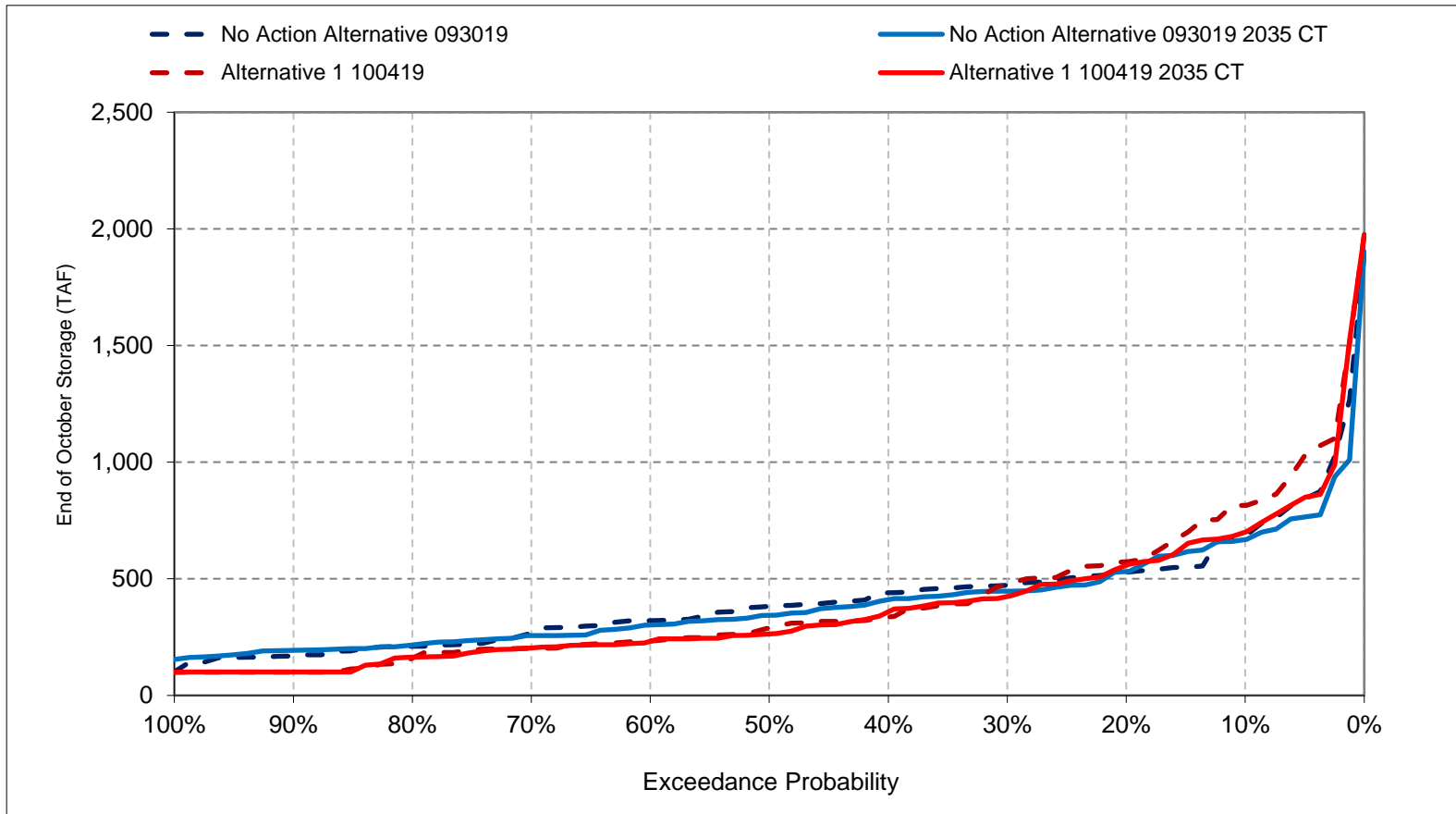
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

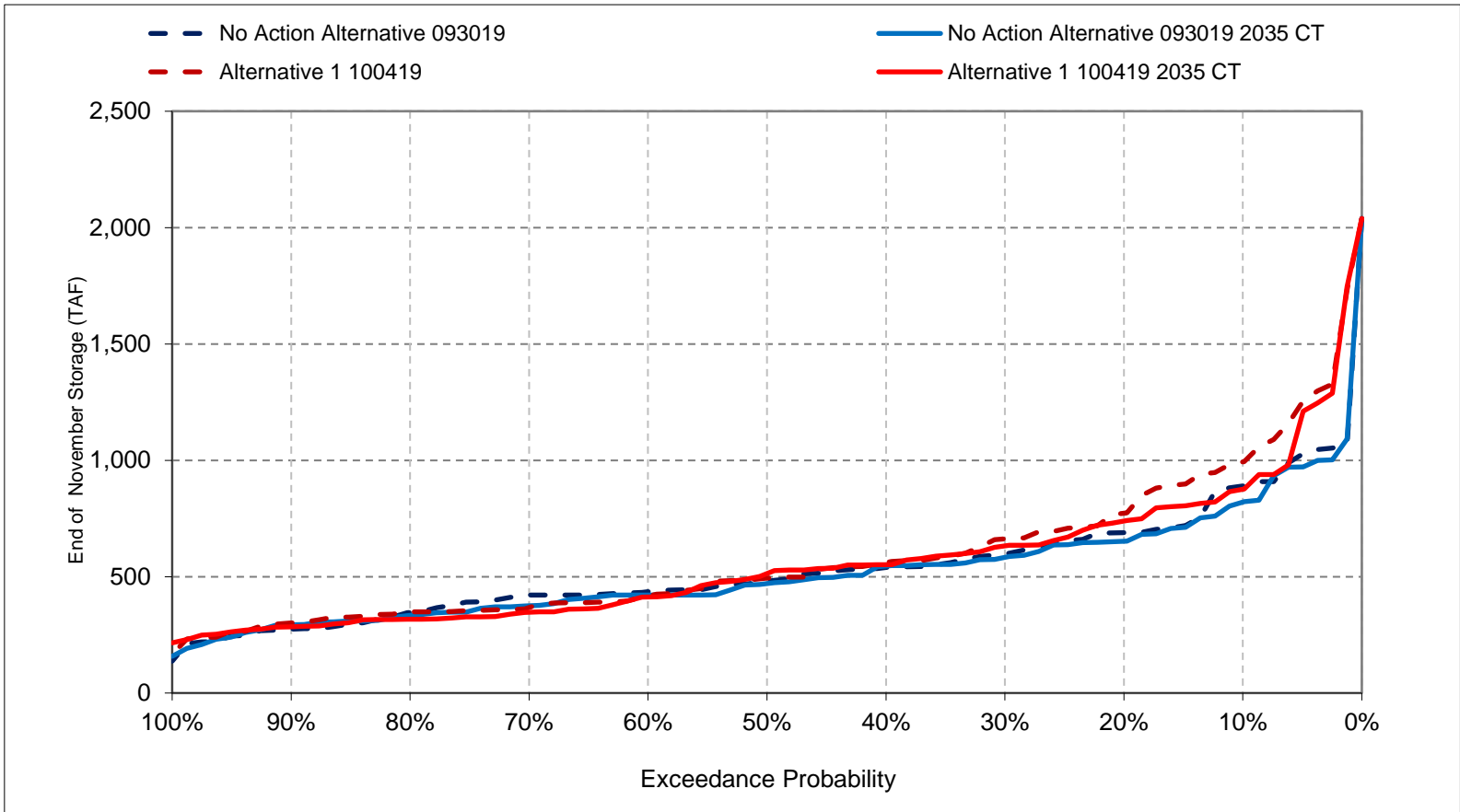
Figure 6-7. San Luis Storage (CVP and SWP), End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

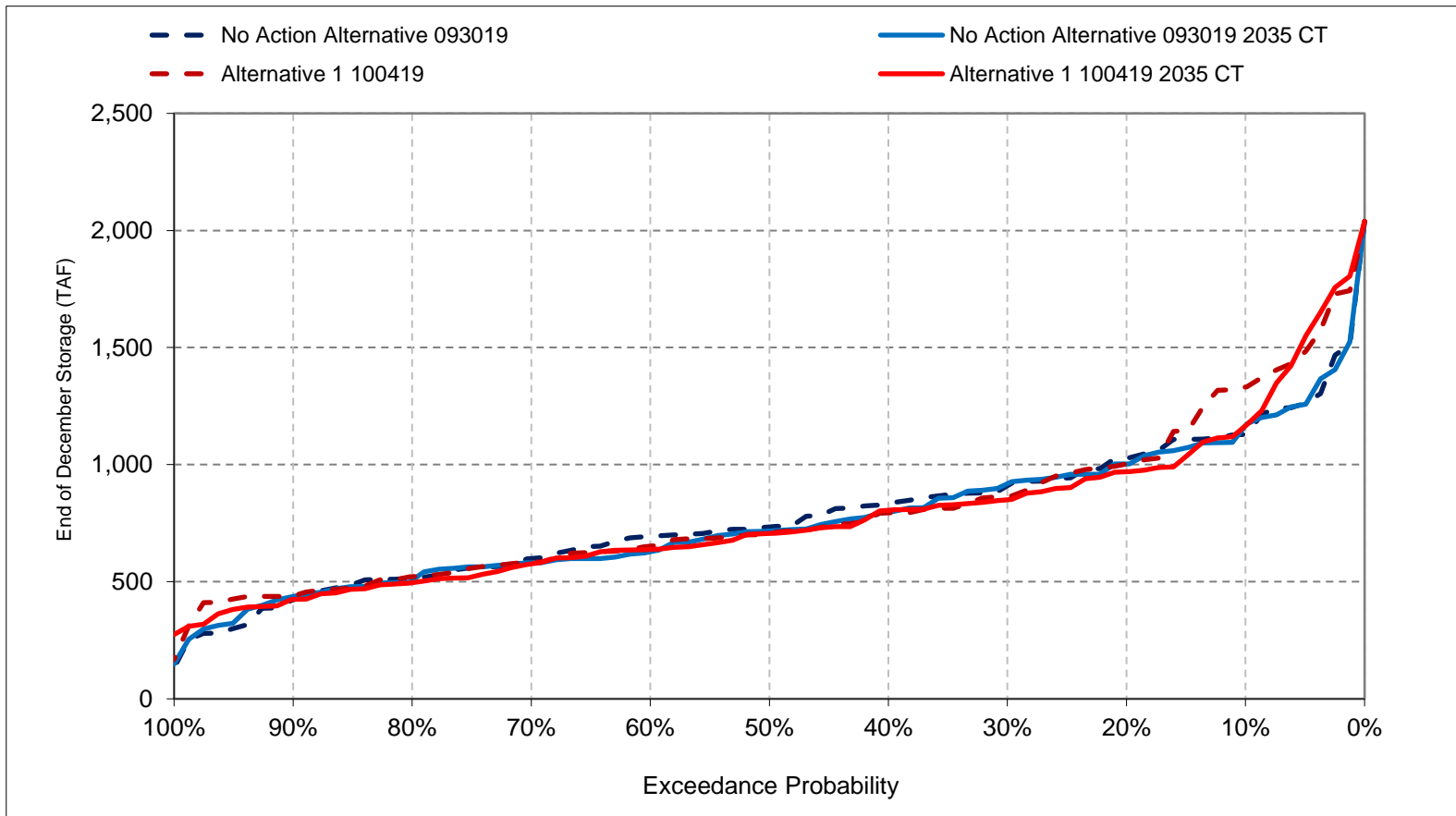
Figure 6-8. San Luis Storage (CVP and SWP), End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

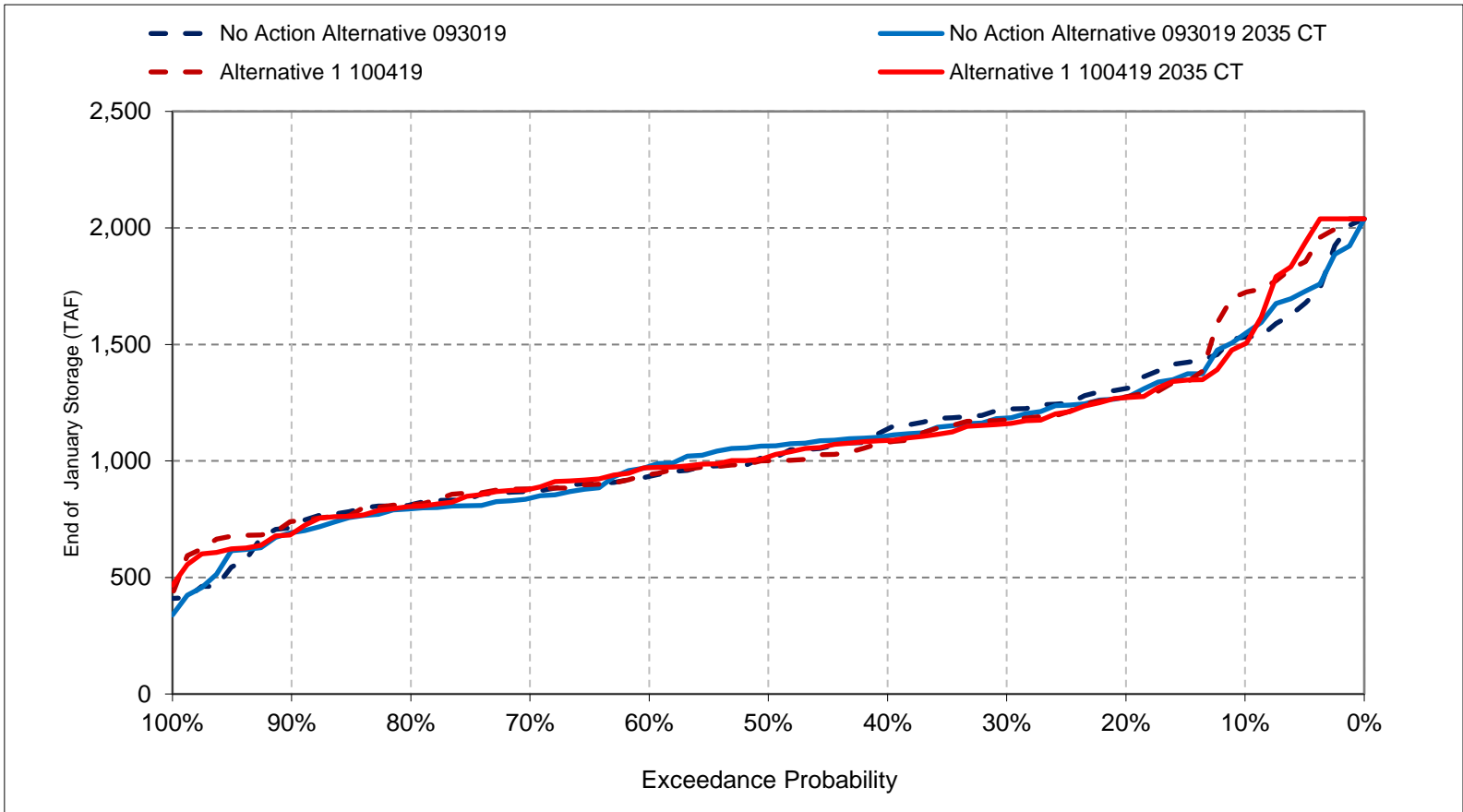
Figure 6-9. San Luis Storage (CVP and SWP), End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

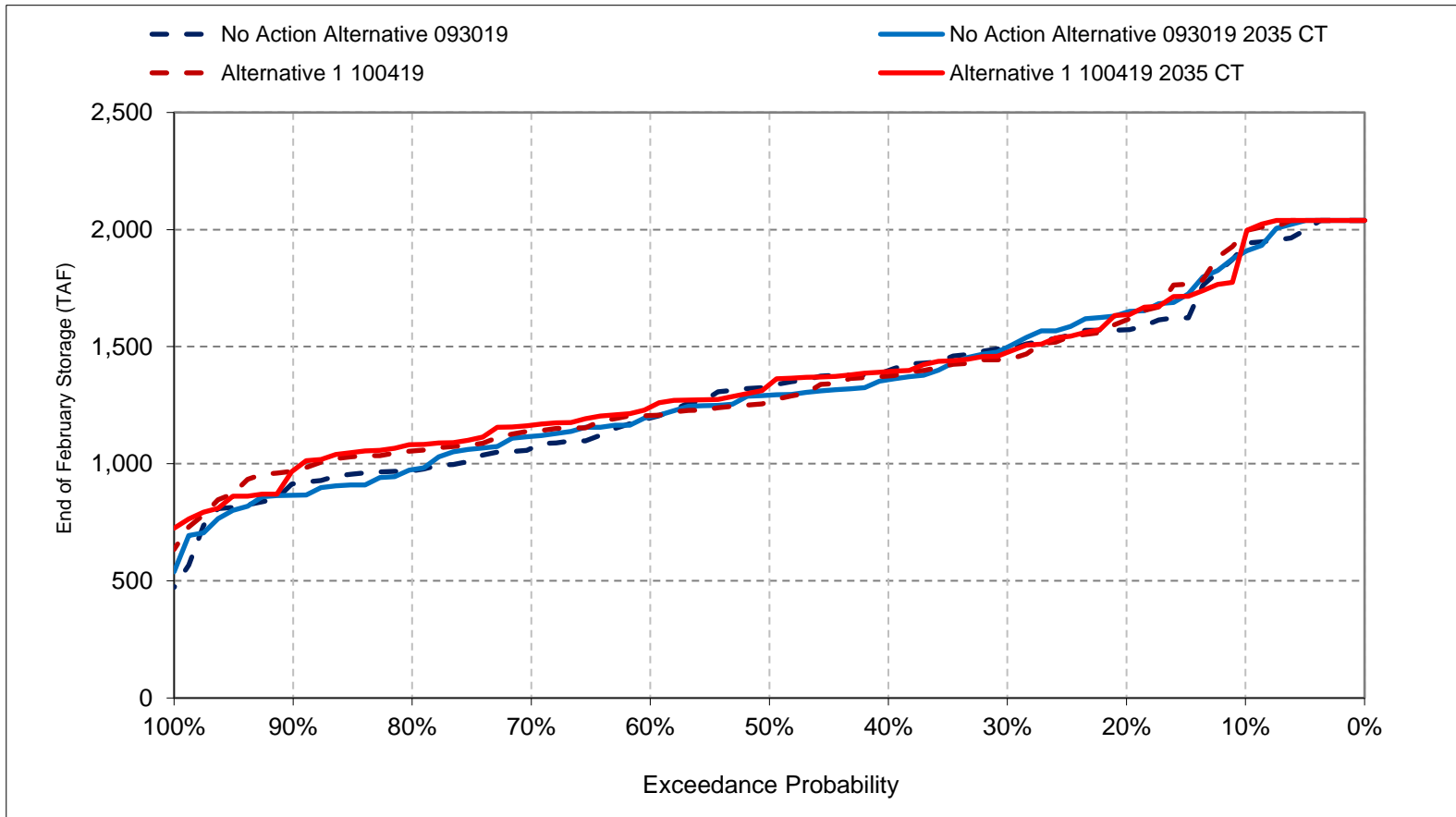
Figure 6-10. San Luis Storage (CVP and SWP), End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

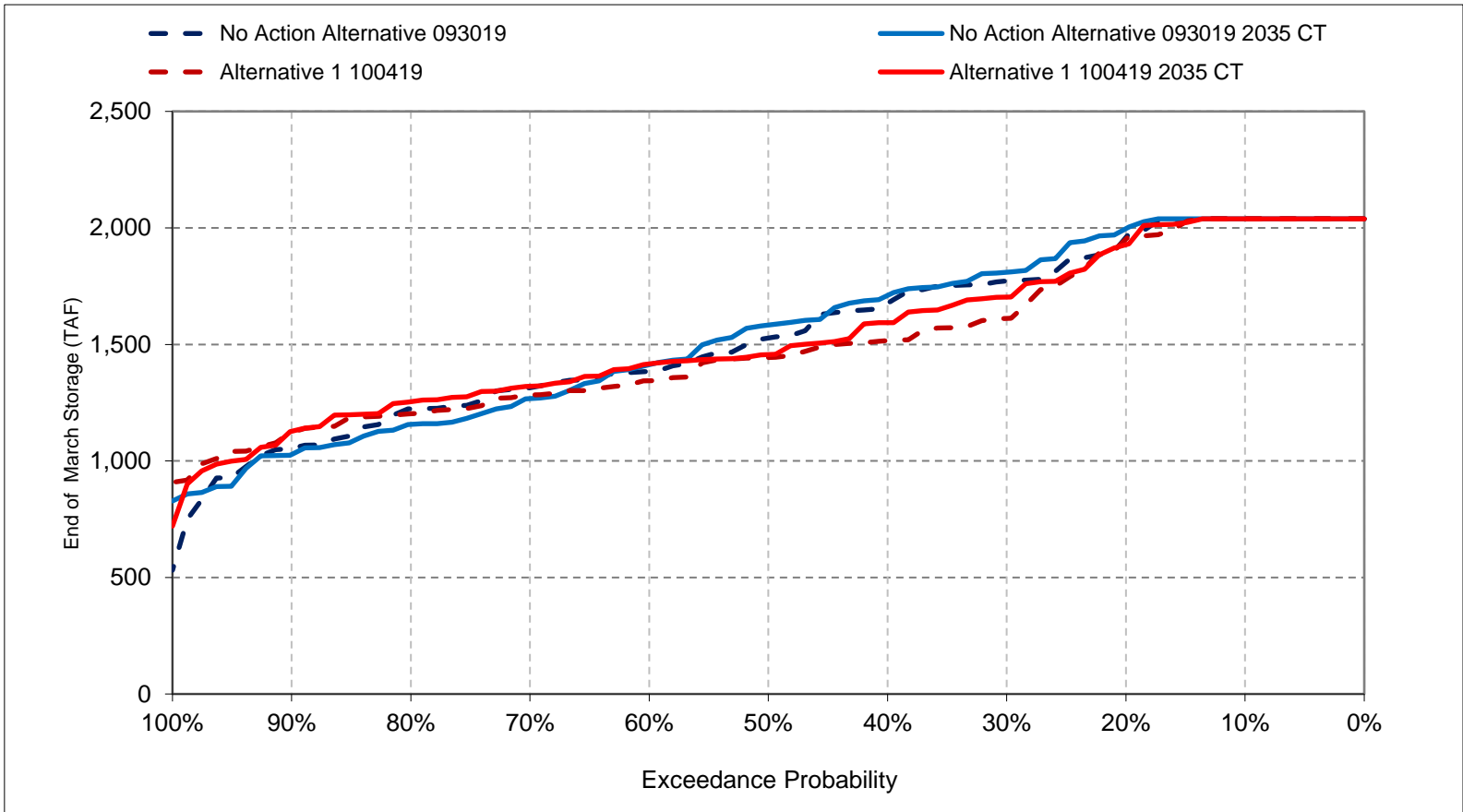
Figure 6-11. San Luis Storage (CVP and SWP), End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

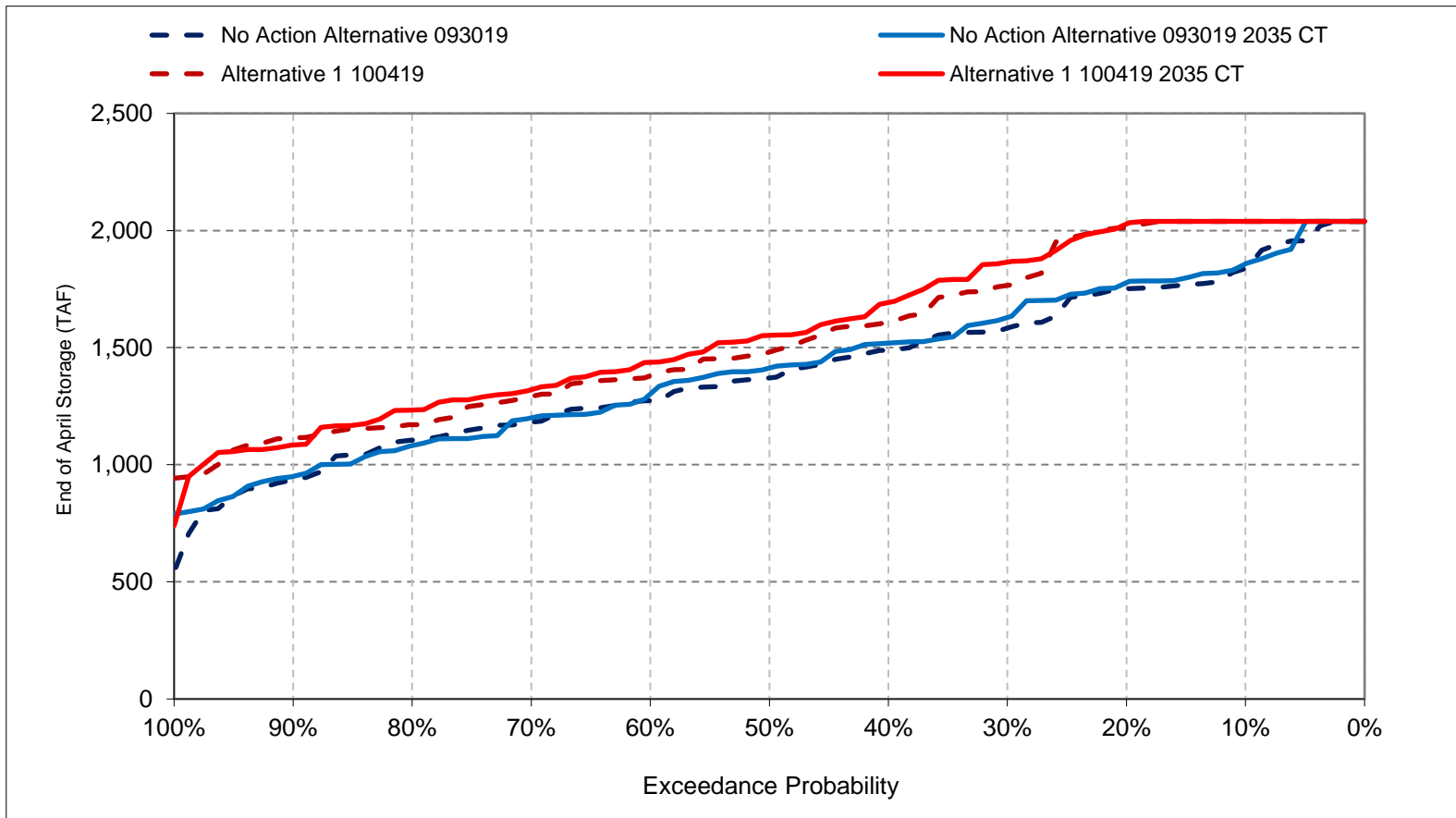
Figure 6-12. San Luis Storage (CVP and SWP), End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

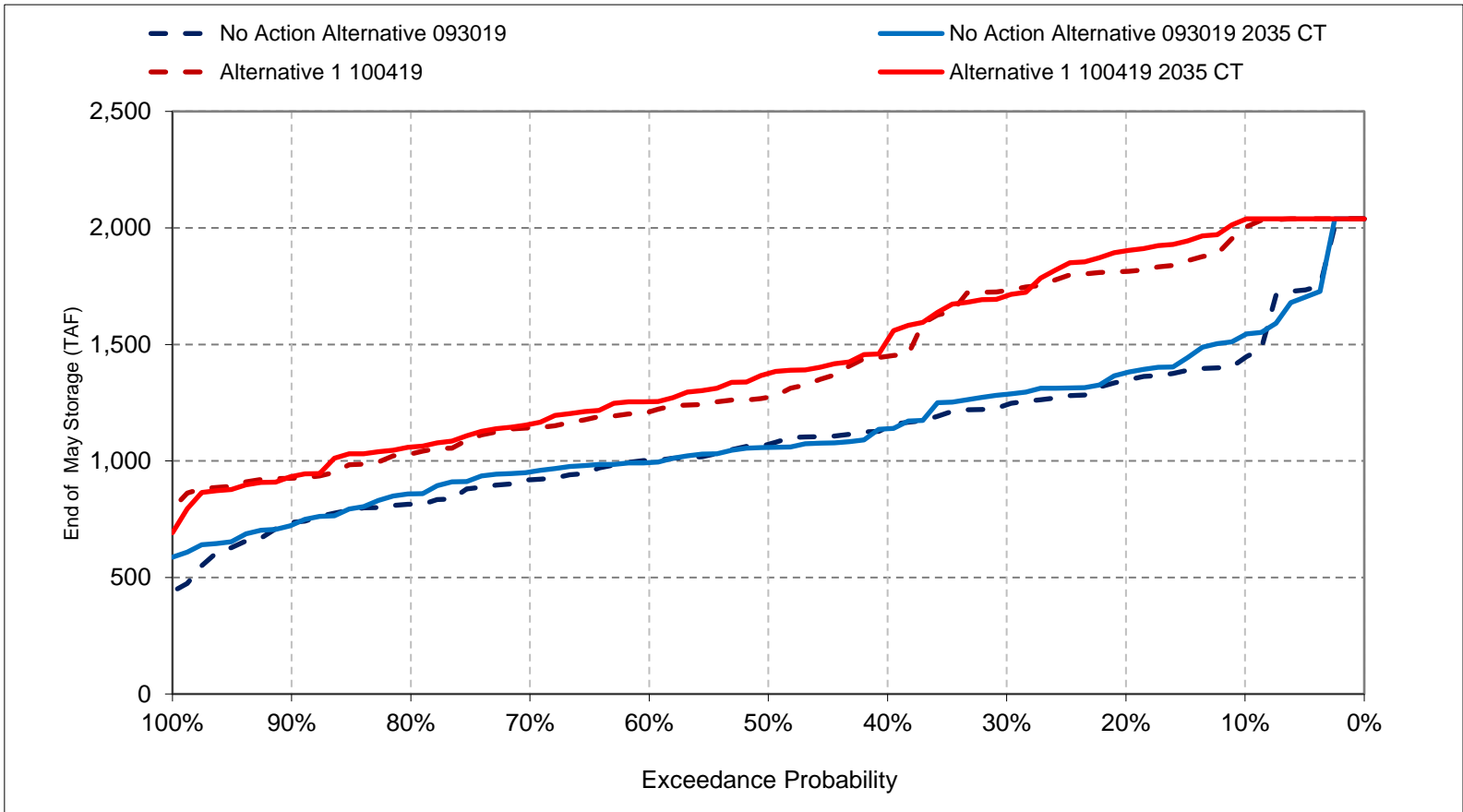
Figure 6-13. San Luis Storage (CVP and SWP), End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

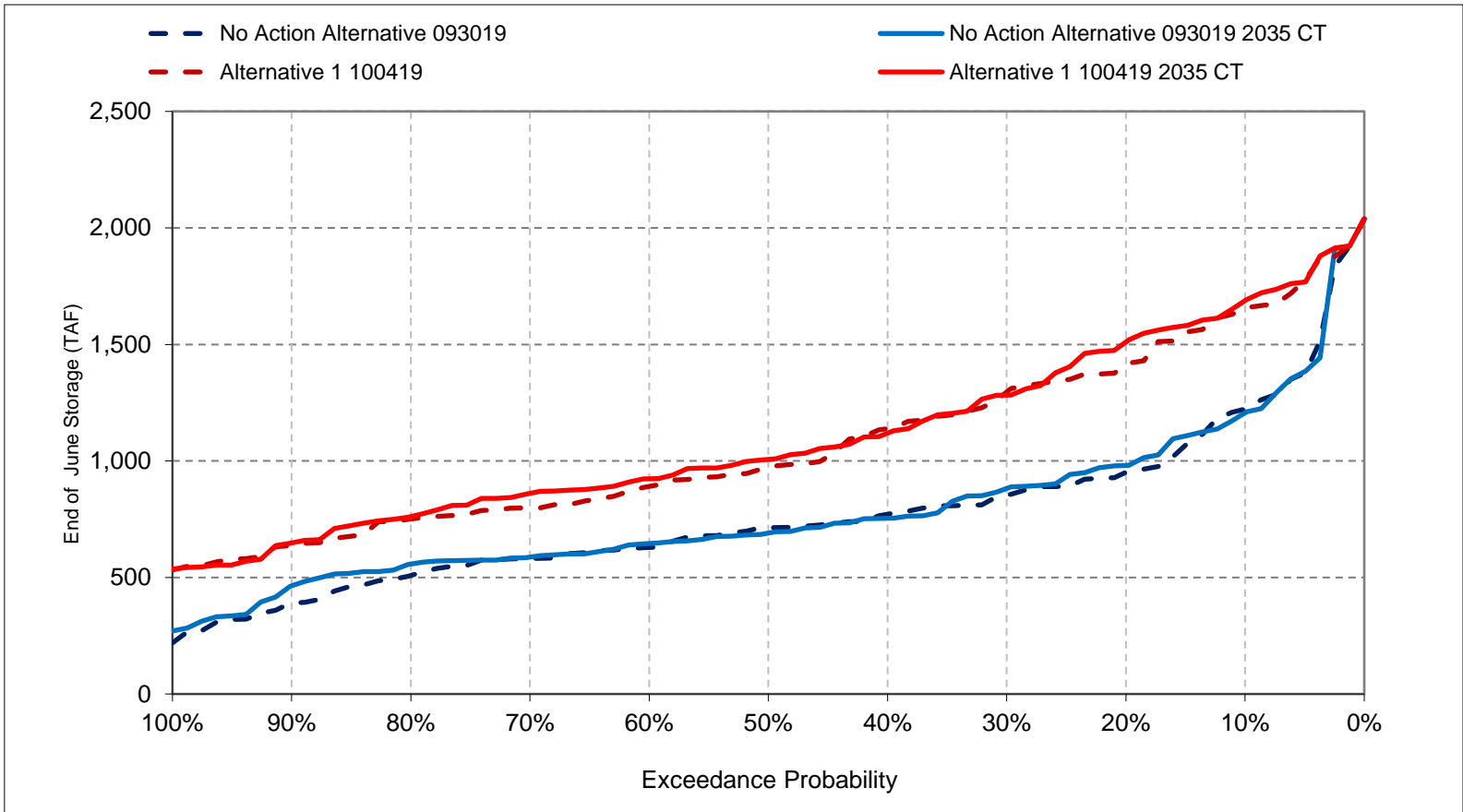
Figure 6-14. San Luis Storage (CVP and SWP), End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

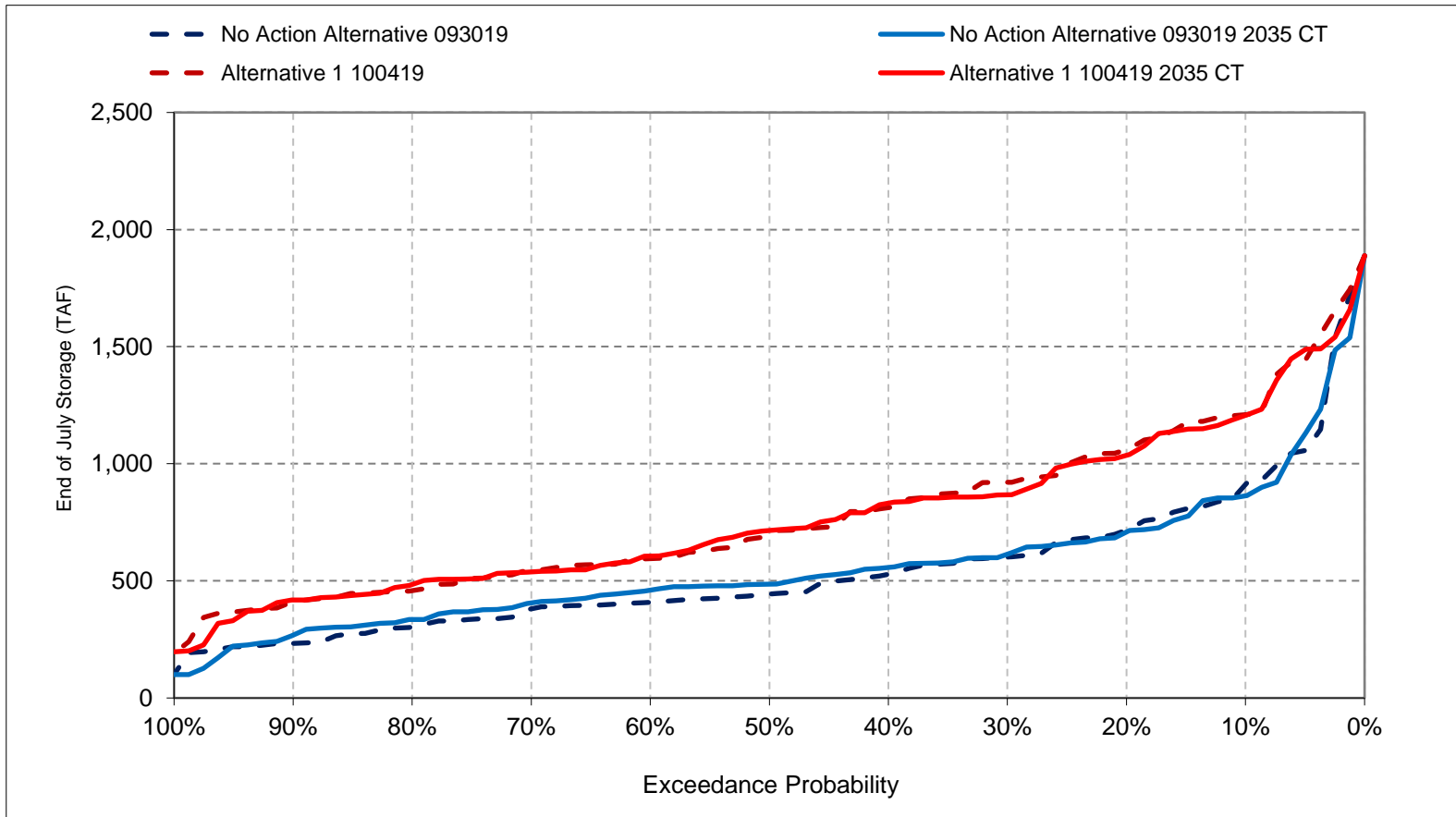
Figure 6-15. San Luis Storage (CVP and SWP), End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

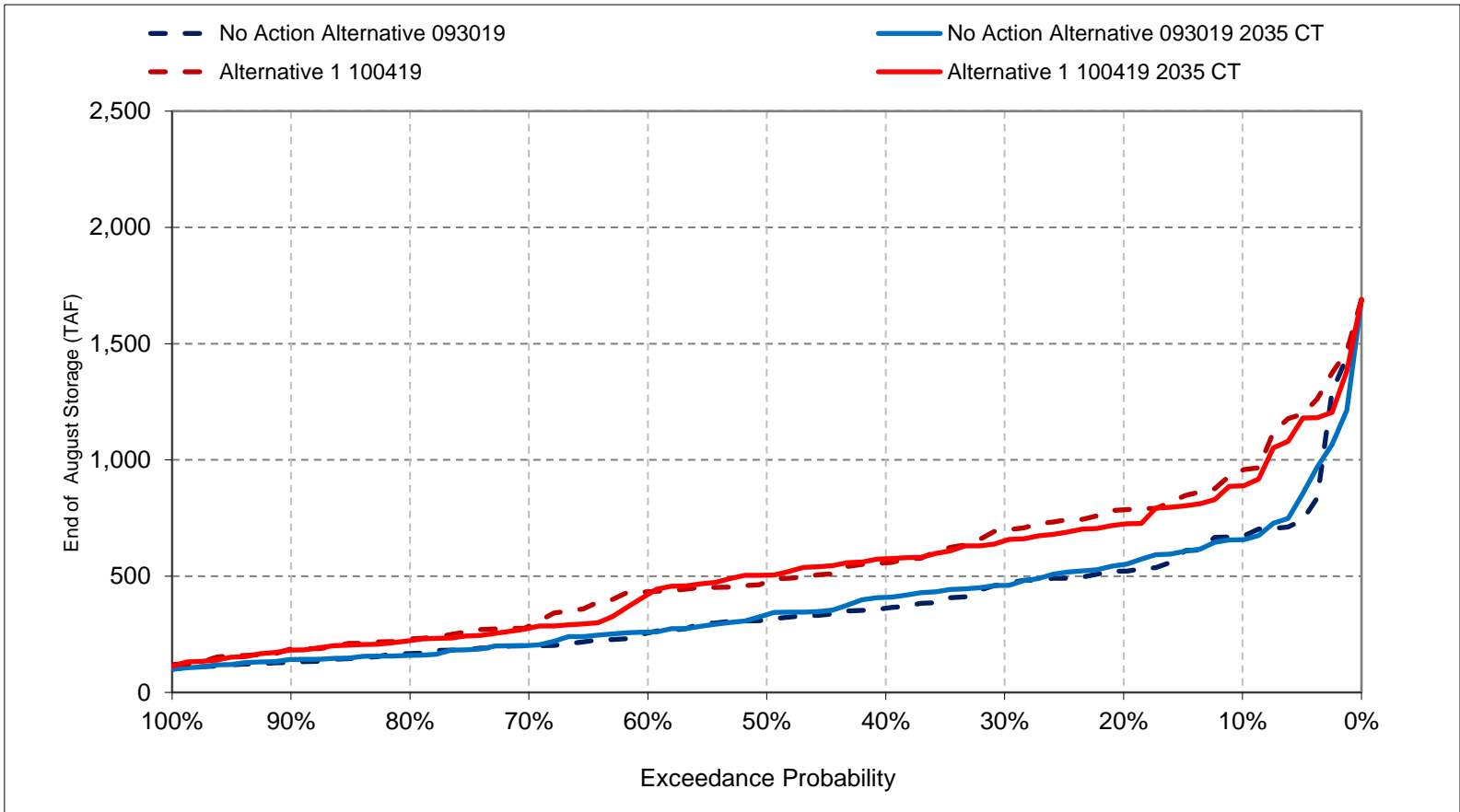
Figure 6-16. San Luis Storage (CVP and SWP), End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

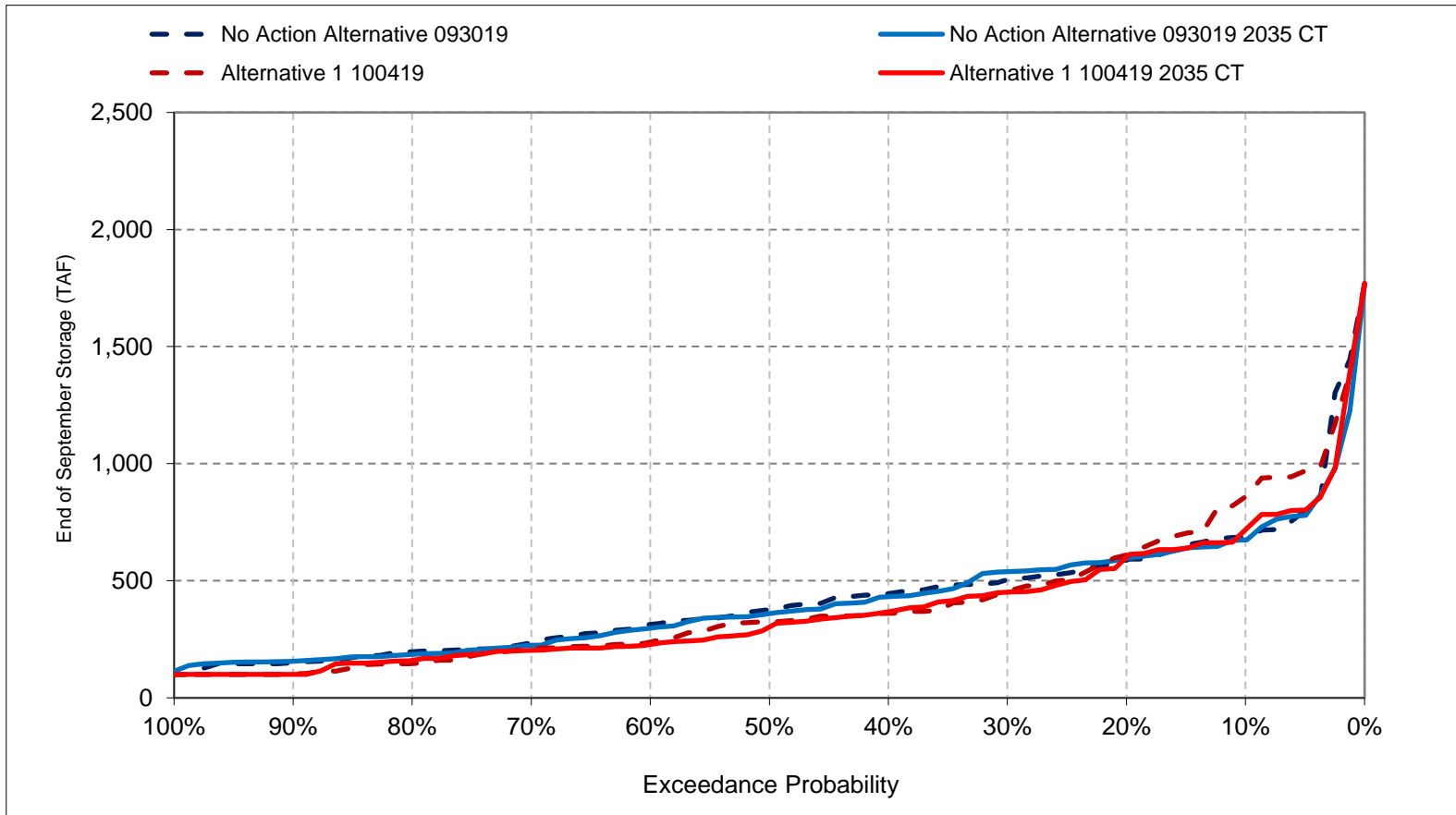
Figure 6-17. San Luis Storage (CVP and SWP), End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6-18. San Luis Storage (CVP and SWP), End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-1. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	439	480	506	538	544	536	514	500	445	412	417
20%	395	429	468	500	527	544	529	499	475	422	383	396
30%	386	429	467	493	519	543	523	488	454	403	362	374
40%	381	421	463	490	511	529	515	481	443	399	352	368
50%	379	415	452	485	503	521	510	477	430	392	349	361
60%	377	409	447	477	494	515	503	468	423	386	347	356
70%	373	399	435	471	489	505	494	462	418	377	336	351
80%	369	389	430	459	477	494	483	454	412	365	331	348
90%	356	376	399	442	458	476	465	443	404	348	329	344
Long Term												
Full Simulation Period ^d	385	413	448	479	500	516	504	477	441	395	361	372
Water Year Types^{b,c}												
Wet (32%)	398	429	466	491	516	535	524	497	466	411	375	384
Above Normal (16%)	378	411	455	477	502	523	507	472	437	368	346	365
Below Normal (13%)	379	404	435	474	492	510	495	462	418	382	347	367
Dry (24%)	378	408	442	477	493	509	500	474	433	399	360	368
Critical (15%)	378	400	424	466	483	484	474	456	425	393	360	366

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	451	475	508	537	544	544	544	544	526	465	433	440
20%	421	452	487	509	538	544	544	544	510	448	407	407
30%	400	429	466	498	519	540	544	533	495	436	389	391
40%	382	413	455	487	513	531	539	524	480	424	380	378
50%	374	410	448	479	507	526	532	516	474	416	373	368
60%	369	400	439	475	497	519	520	506	468	409	368	355
70%	352	391	435	465	488	510	507	490	457	402	358	348
80%	329	386	424	457	486	499	496	481	446	397	352	329
90%	329	379	411	450	477	487	483	471	443	388	346	329
Long Term												
Full Simulation Period ^d	383	418	453	483	506	520	521	510	478	423	382	376
Water Year Types^{b,c}												
Wet (32%)	398	442	480	495	516	534	541	534	503	448	404	391
Above Normal (16%)	340	396	442	479	503	518	526	516	482	411	364	338
Below Normal (13%)	387	409	437	488	510	522	517	502	469	413	371	379
Dry (24%)	388	414	448	474	498	512	509	495	461	410	372	379
Critical (15%)	385	406	430	471	495	505	497	484	454	413	377	378

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	28	35	28	31	7	0	8	30	27	20	21	23
20%	26	24	19	9	11	0	16	46	35	26	23	11
30%	14	0	0	5	0	-3	22	44	41	32	27	17
40%	1	-8	-8	-3	2	2	25	43	37	25	28	10
50%	-5	-6	-4	-6	4	5	22	39	44	24	24	7
60%	-7	-8	-8	-2	2	5	17	38	44	24	22	-1
70%	-21	-7	0	-6	-1	5	13	29	39	25	22	-3
80%	-40	-2	-6	-2	9	5	14	26	34	31	22	-19
90%	-27	3	12	7	19	10	18	28	38	40	16	-15
Long Term												
Full Simulation Period ^d	-1	5	5	4	6	4	17	33	36	28	21	4
Water Year Types^{b,c}												
Wet (32%)	0	14	14	4	0	-1	16	36	36	37	28	7
Above Normal (16%)	-39	-14	-12	2	1	-5	19	45	45	42	18	-27
Below Normal (13%)	9	5	2	14	18	12	22	40	50	30	24	12
Dry (24%)	10	6	6	-2	5	3	9	21	28	12	12	11
Critical (15%)	7	6	6	5	12	21	23	28	29	20	17	11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6a-2. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	401	429	470	504	542	544	539	522	501	442	397	400
20%	389	428	466	496	526	544	529	501	470	410	374	378
30%	385	422	463	489	519	541	526	490	452	403	358	371
40%	381	415	456	484	505	534	521	481	440	396	352	365
50%	380	409	450	478	499	516	502	473	434	390	348	359
60%	377	404	442	472	490	506	498	466	423	381	344	355
70%	372	400	433	462	476	498	488	459	417	375	336	351
80%	369	387	417	450	468	488	477	446	407	370	331	348
90%	363	376	403	436	450	464	453	434	399	334	329	346
Long Term												
Full Simulation Period ^d	382	409	445	475	496	513	503	476	440	392	357	367
Water Year Types ^{b,c}												
Wet (32%)	398	422	460	489	516	538	529	504	474	412	376	386
Above Normal (16%)	375	400	445	477	504	525	511	479	439	365	346	363
Below Normal (13%)	376	406	438	466	488	508	497	466	422	387	346	362
Dry (24%)	374	403	440	469	481	498	486	458	420	389	348	358
Critical (15%)	377	400	426	457	474	478	469	451	419	386	349	353

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	457	491	519	544	544	544	544	520	459	417	411
20%	404	438	475	504	535	544	544	544	503	444	397	391
30%	389	420	462	492	522	540	544	533	493	432	392	382
40%	381	410	450	485	512	535	544	526	486	424	379	374
50%	374	406	445	479	503	528	533	516	476	416	372	368
60%	371	403	440	472	493	518	521	504	466	405	367	356
70%	356	394	436	467	489	506	506	490	454	402	359	348
80%	329	388	431	460	483	500	496	480	447	397	355	329
90%	329	381	414	448	476	490	485	472	441	385	347	329
Long Term												
Full Simulation Period ^d	377	414	450	481	505	520	522	510	477	420	378	361
Water Year Types ^{b,c}												
Wet (32%)	382	430	469	493	518	536	542	535	505	443	401	377
Above Normal (16%)	338	393	438	483	507	523	531	521	481	404	362	289
Below Normal (13%)	385	413	442	479	503	516	514	499	463	413	370	375
Dry (24%)	383	409	448	474	495	510	507	493	459	408	366	370
Critical (15%)	390	411	433	470	494	505	497	484	453	410	373	373

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	22	28	21	15	2	0	5	22	18	17	20	11
20%	15	10	8	8	9	0	15	43	33	34	23	12
30%	4	-1	0	3	3	-1	19	42	41	29	34	10
40%	0	-5	-7	2	7	1	23	44	46	28	27	8
50%	-6	-3	-5	1	4	12	31	43	43	27	24	9
60%	-6	-1	-3	0	3	12	23	38	43	25	24	1
70%	-16	-6	3	5	13	8	18	30	37	28	23	-3
80%	-40	1	14	10	15	12	19	34	40	26	24	-19
90%	-34	5	11	12	26	26	32	37	42	50	18	-17
Long Term												
Full Simulation Period ^d	-5	5	5	7	9	7	19	34	36	28	21	-7
Water Year Types ^{b,c}												
Wet (32%)	-16	8	9	3	2	-1	13	31	30	31	24	-9
Above Normal (16%)	-37	-7	-7	5	3	-2	19	43	42	38	15	-74
Below Normal (13%)	10	7	4	13	14	8	18	33	41	26	23	13
Dry (24%)	9	6	8	4	14	12	21	35	39	20	18	12
Critical (15%)	13	11	7	13	20	27	28	33	34	24	24	20

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-3. San Luis Reservoir (SWP and CVP), End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	439	480	506	538	544	536	514	500	445	412	417
20%	395	429	468	500	527	544	529	499	475	422	383	396
30%	386	429	467	493	519	543	523	488	454	403	362	374
40%	381	421	463	490	511	529	515	481	443	399	352	368
50%	379	415	452	485	503	521	510	477	430	392	349	361
60%	377	409	447	477	494	515	503	468	423	386	347	356
70%	373	399	435	471	489	505	494	462	418	377	336	351
80%	369	389	430	459	477	494	483	454	412	365	331	348
90%	356	376	399	442	458	476	465	443	404	348	329	344
Long Term												
Full Simulation Period ^d	385	413	448	479	500	516	504	477	441	395	361	372
Water Year Types ^{b,c}												
Wet (32%)	398	429	466	491	516	535	524	497	466	411	375	384
Above Normal (16%)	378	411	455	477	502	523	507	472	437	368	346	365
Below Normal (13%)	379	404	435	474	492	510	495	462	418	382	347	367
Dry (24%)	378	408	442	477	493	509	500	474	433	399	360	368
Critical (15%)	378	400	424	466	483	484	474	456	425	393	360	366

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	401	429	470	504	542	544	539	522	501	442	397	400
20%	389	428	466	496	526	544	529	501	470	410	374	378
30%	385	422	463	489	519	541	526	490	452	403	358	371
40%	381	415	456	484	505	534	521	481	440	396	352	365
50%	380	409	450	478	499	516	502	473	434	390	348	359
60%	377	404	442	472	490	506	498	466	423	381	344	355
70%	372	400	433	462	476	498	488	459	417	375	336	351
80%	369	387	417	450	468	488	477	446	407	370	331	348
90%	363	376	403	436	450	464	453	434	399	334	329	346
Long Term												
Full Simulation Period ^d	382	409	445	475	496	513	503	476	440	392	357	367
Water Year Types ^{b,c}												
Wet (32%)	398	422	460	489	516	538	529	504	474	412	376	386
Above Normal (16%)	375	400	445	477	504	525	511	479	439	365	346	363
Below Normal (13%)	376	406	438	466	488	508	497	466	422	387	346	362
Dry (24%)	374	403	440	469	481	498	486	458	420	389	348	358
Critical (15%)	377	400	426	457	474	478	469	451	419	386	349	353

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-22	-10	-10	-2	4	0	3	8	2	-3	-16	-17
20%	-7	-1	-2	-4	-1	0	1	3	-4	-12	-9	-18
30%	-1	-7	-4	-4	0	-2	3	2	-2	0	-5	-3
40%	0	-6	-6	-6	-6	5	7	0	-3	-2	0	-3
50%	1	-7	-2	-7	-4	-5	-8	-4	4	-2	-1	-2
60%	0	-5	-5	-5	-5	-9	-5	-2	0	-5	-3	-2
70%	0	1	-2	-9	-13	-7	-6	-2	0	-2	0	0
80%	0	-2	-13	-9	-9	-5	-6	-8	-4	5	0	0
90%	7	0	4	-6	-8	-12	-12	-9	-5	-14	0	2
Long Term												
Full Simulation Period ^d	-2	-5	-3	-5	-4	-2	-2	-1	-1	-3	-4	-5
Water Year Types ^{b,c}												
Wet (32%)	-1	-7	-6	-2	1	3	4	7	8	1	1	2
Above Normal (16%)	-4	-11	-10	0	2	2	4	7	3	-3	0	-2
Below Normal (13%)	-3	3	3	-8	-3	-2	2	4	4	4	-1	-5
Dry (24%)	-5	-4	-1	-7	-11	-11	-13	-15	-14	-10	-12	-10
Critical (15%)	-1	0	2	-9	-9	-5	-5	-5	-5	-7	-11	-13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6a-4. San Luis Reservoir (SWP and CVP), End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	451	475	508	537	544	544	544	544	526	465	433	440
20%	421	452	487	509	538	544	544	544	510	448	407	407
30%	400	429	466	498	519	540	544	533	495	436	389	391
40%	382	413	455	487	513	531	539	524	480	424	380	378
50%	374	410	448	479	507	526	532	516	474	416	373	368
60%	369	400	439	475	497	519	520	506	468	409	368	355
70%	352	391	435	465	488	510	507	490	457	402	358	348
80%	329	386	424	457	486	499	496	481	446	397	352	329
90%	329	379	411	450	477	487	483	471	443	388	346	329
Long Term												
Full Simulation Period ^d	383	418	453	483	506	520	521	510	478	423	382	376
Water Year Types ^{b,c}												
Wet (32%)	398	442	480	495	516	534	541	534	503	448	404	391
Above Normal (16%)	340	396	442	479	503	518	526	516	482	411	364	338
Below Normal (13%)	387	409	437	488	510	522	517	502	469	413	371	379
Dry (24%)	388	414	448	474	498	512	509	495	461	410	372	379
Critical (15%)	385	406	430	471	495	505	497	484	454	413	377	378

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	423	457	491	519	544	544	544	544	520	459	417	411
20%	404	438	475	504	535	544	544	544	503	444	397	391
30%	389	420	462	492	522	540	544	533	493	432	392	382
40%	381	410	450	485	512	535	544	526	486	424	379	374
50%	374	406	445	479	503	528	533	516	476	416	372	368
60%	371	403	440	472	493	518	521	504	466	405	367	356
70%	356	394	436	467	489	506	506	490	454	402	359	348
80%	329	388	431	460	483	500	496	480	447	397	355	329
90%	329	381	414	448	476	490	485	472	441	385	347	329
Long Term												
Full Simulation Period ^d	377	414	450	481	505	520	522	510	477	420	378	361
Water Year Types ^{b,c}												
Wet (32%)	382	430	469	493	518	536	542	535	505	443	401	377
Above Normal (16%)	338	393	438	483	507	523	531	521	481	404	362	289
Below Normal (13%)	385	413	442	479	503	516	514	499	463	413	370	375
Dry (24%)	383	409	448	474	495	510	507	493	459	408	366	370
Critical (15%)	390	411	433	470	494	505	497	484	453	410	373	373

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-28	-18	-17	-18	0	0	0	0	-7	-6	-16	-29
20%	-17	-14	-12	-5	-3	0	0	0	-7	-4	-9	-16
30%	-10	-8	-4	-6	3	0	0	0	-2	-4	2	-10
40%	-1	-3	-5	-1	-1	3	5	1	6	1	0	-5
50%	1	-4	-3	0	-4	3	0	0	3	1	-1	0
60%	2	2	1	-3	-4	-2	2	-2	-1	-4	-1	0
70%	4	2	1	2	0	-4	-1	-1	-3	1	2	0
80%	0	2	6	3	-2	1	0	0	1	0	3	0
90%	0	3	3	-1	-2	3	2	1	-1	-3	2	0
Long Term												
Full Simulation Period ^d	-6	-4	-3	-2	0	0	0	0	-1	-3	-4	-15
Water Year Types ^{b,c}												
Wet (32%)	-16	-13	-11	-3	3	2	1	2	2	-4	-3	-13
Above Normal (16%)	-2	-3	-5	4	4	5	5	5	-1	-7	-3	-49
Below Normal (13%)	-2	4	5	-9	-7	-5	-3	-3	-5	0	-2	-4
Dry (24%)	-5	-4	0	-1	-3	-2	-2	-1	-2	-2	-6	-9
Critical (15%)	5	5	3	-2	-1	0	0	0	-1	-3	-4	-5

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

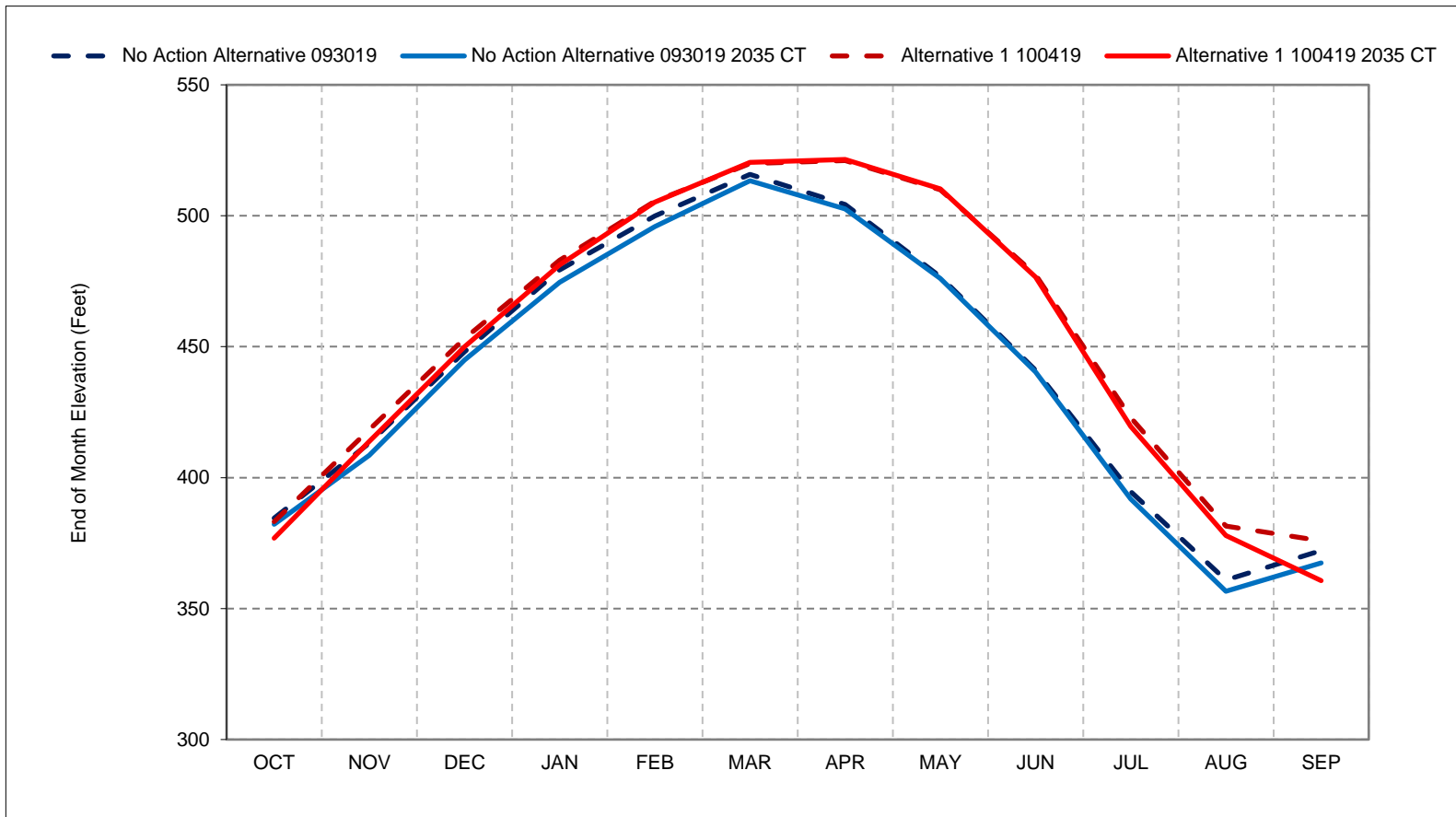
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6a-1. San Luis Reservoir (SWP and CVP), Long-Term Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

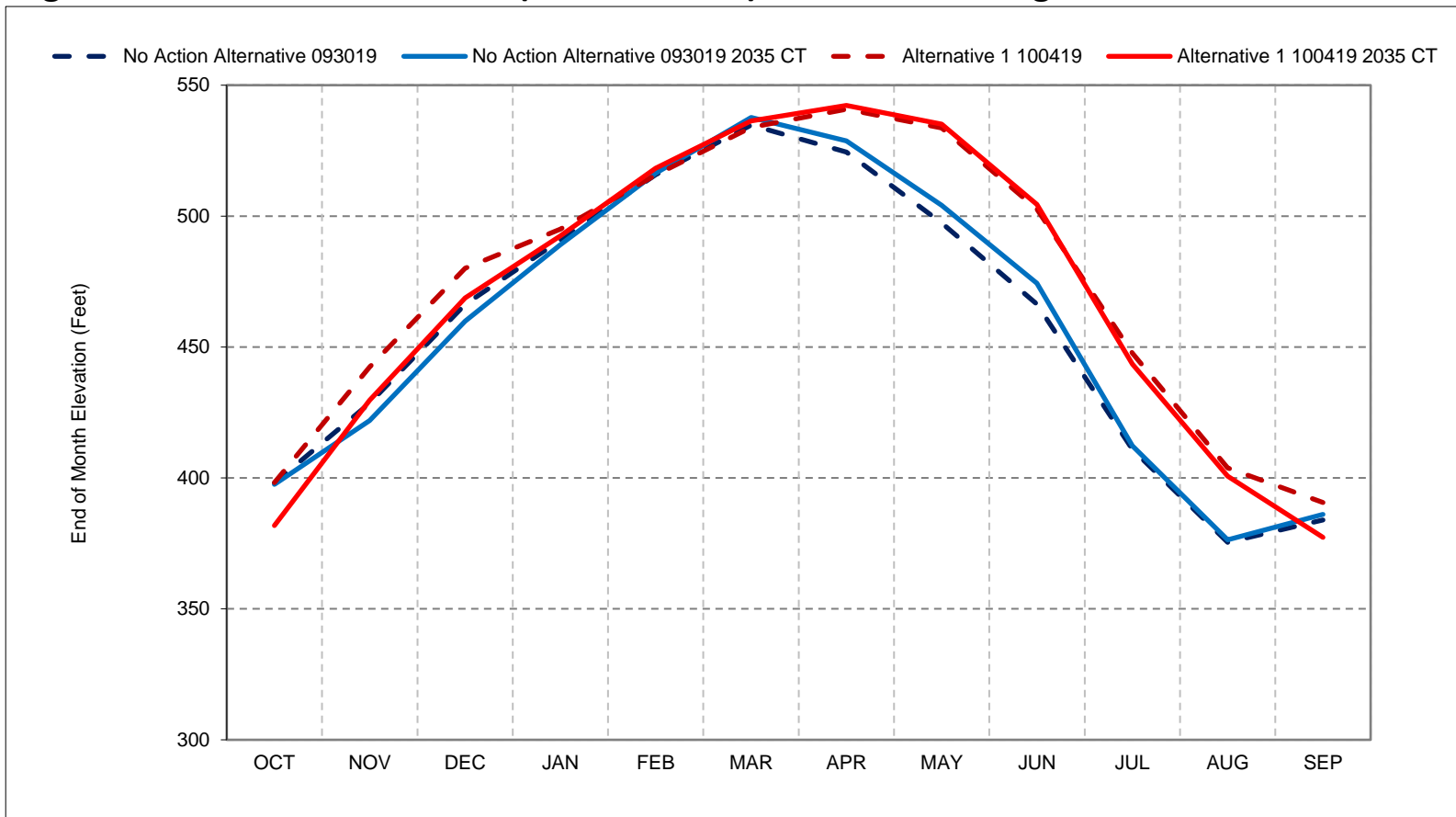
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-2. San Luis Reservoir (SWP and CVP), Wet Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

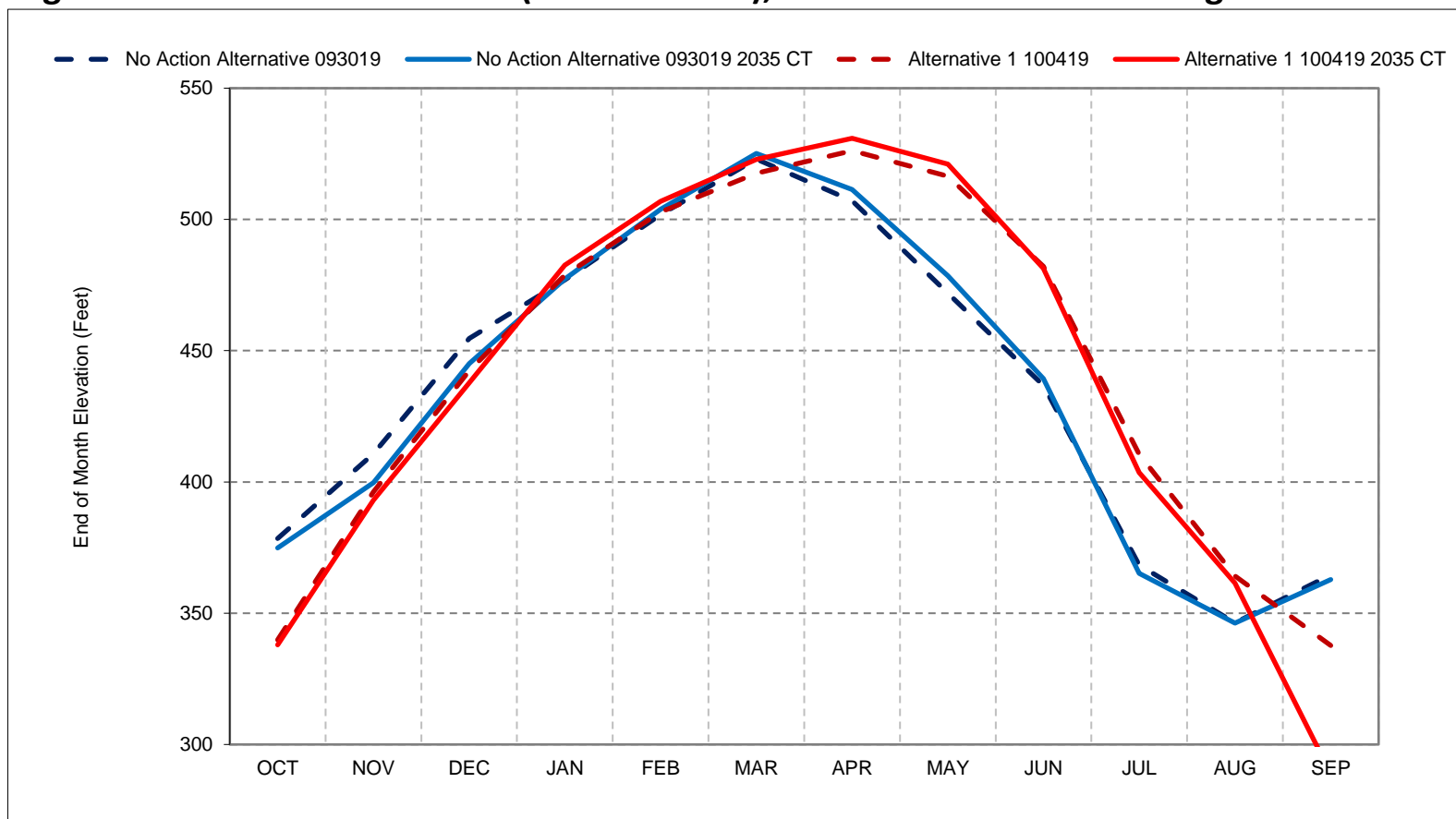
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-3. San Luis Reservoir (SWP and CVP), Above Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

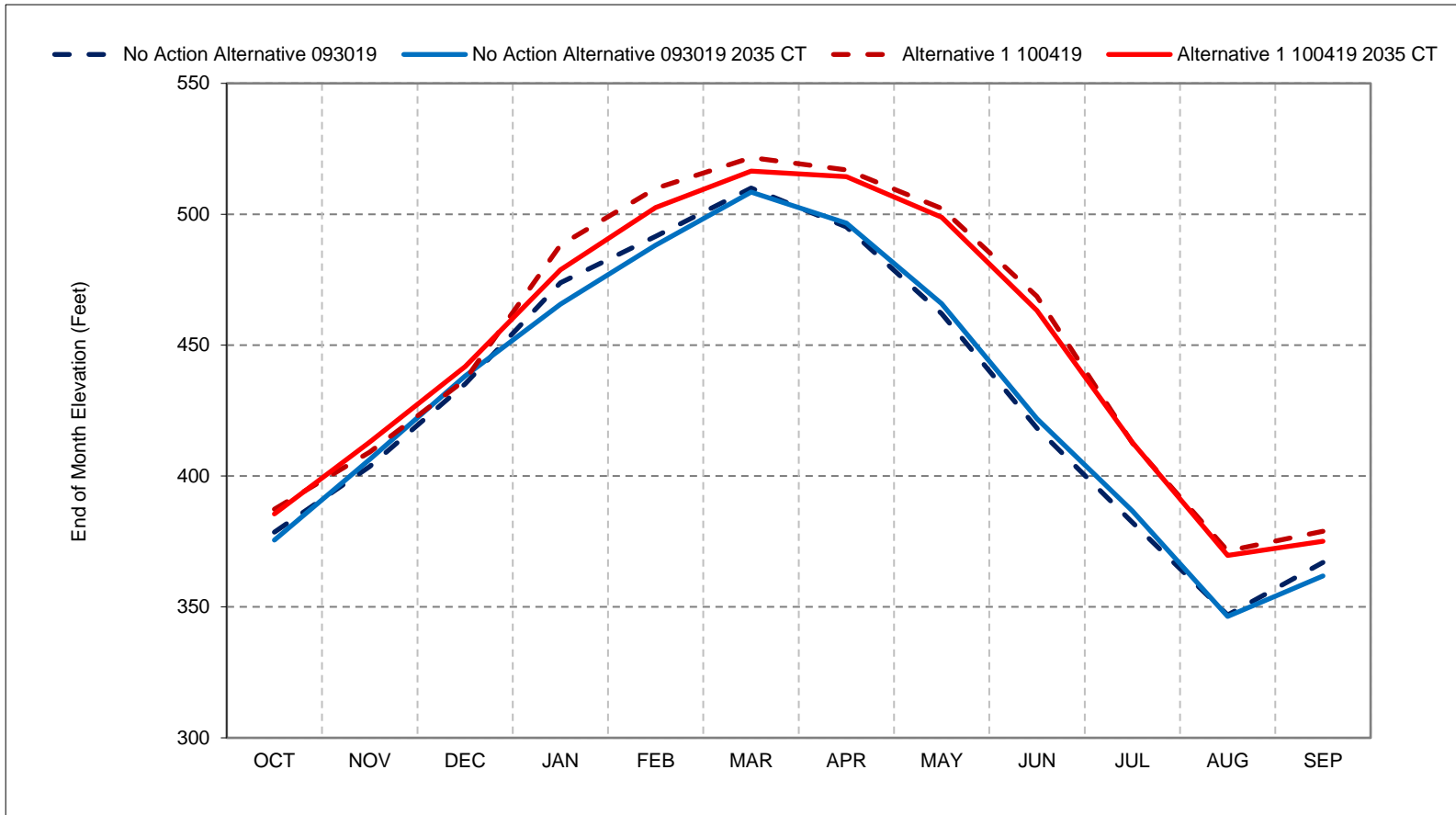
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-4. San Luis Reservoir (SWP and CVP), Below Normal Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

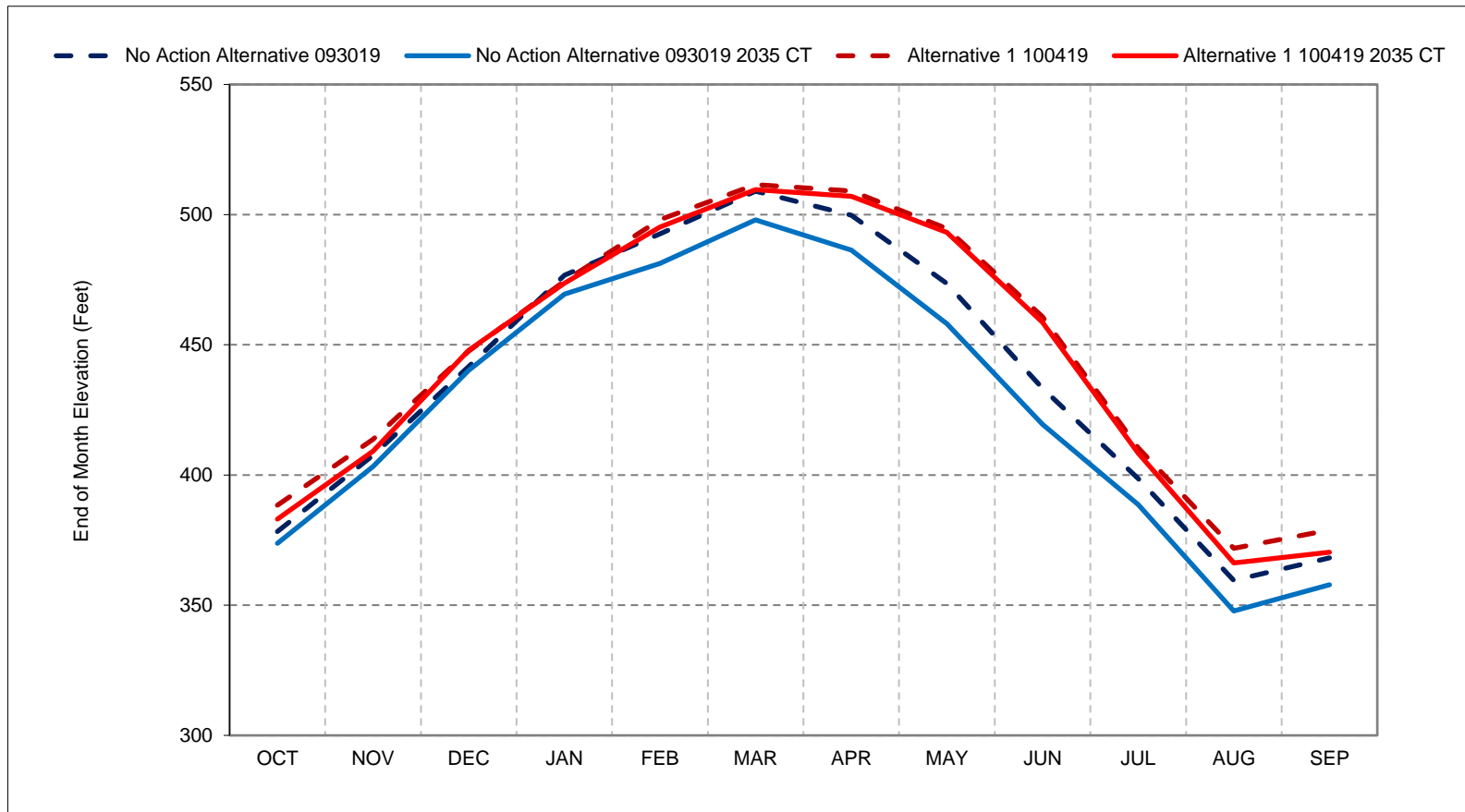
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-5. San Luis Reservoir (SWP and CVP), Dry Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

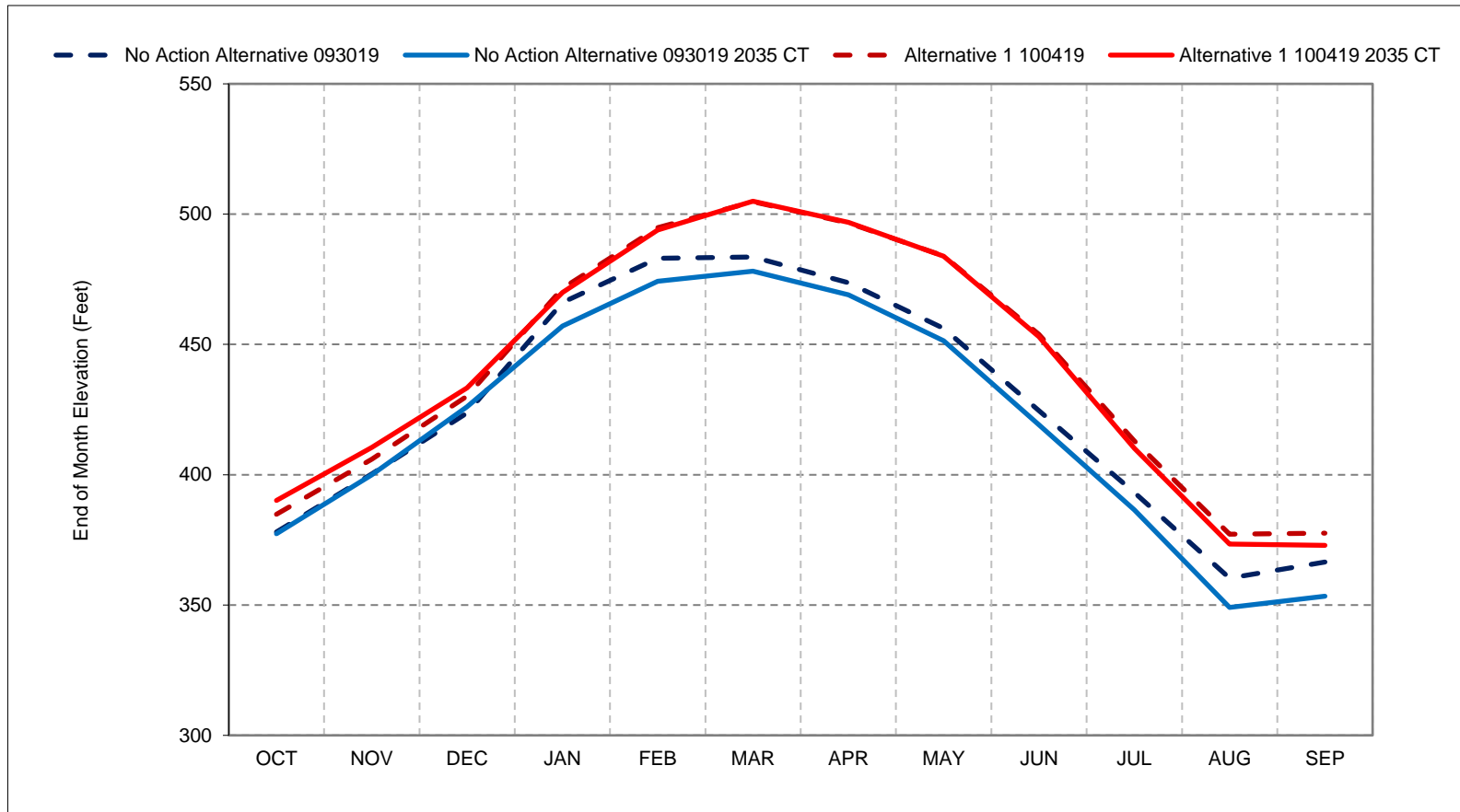
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6a-6. San Luis Reservoir (SWP and CVP), Critical Year Average Elevation



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

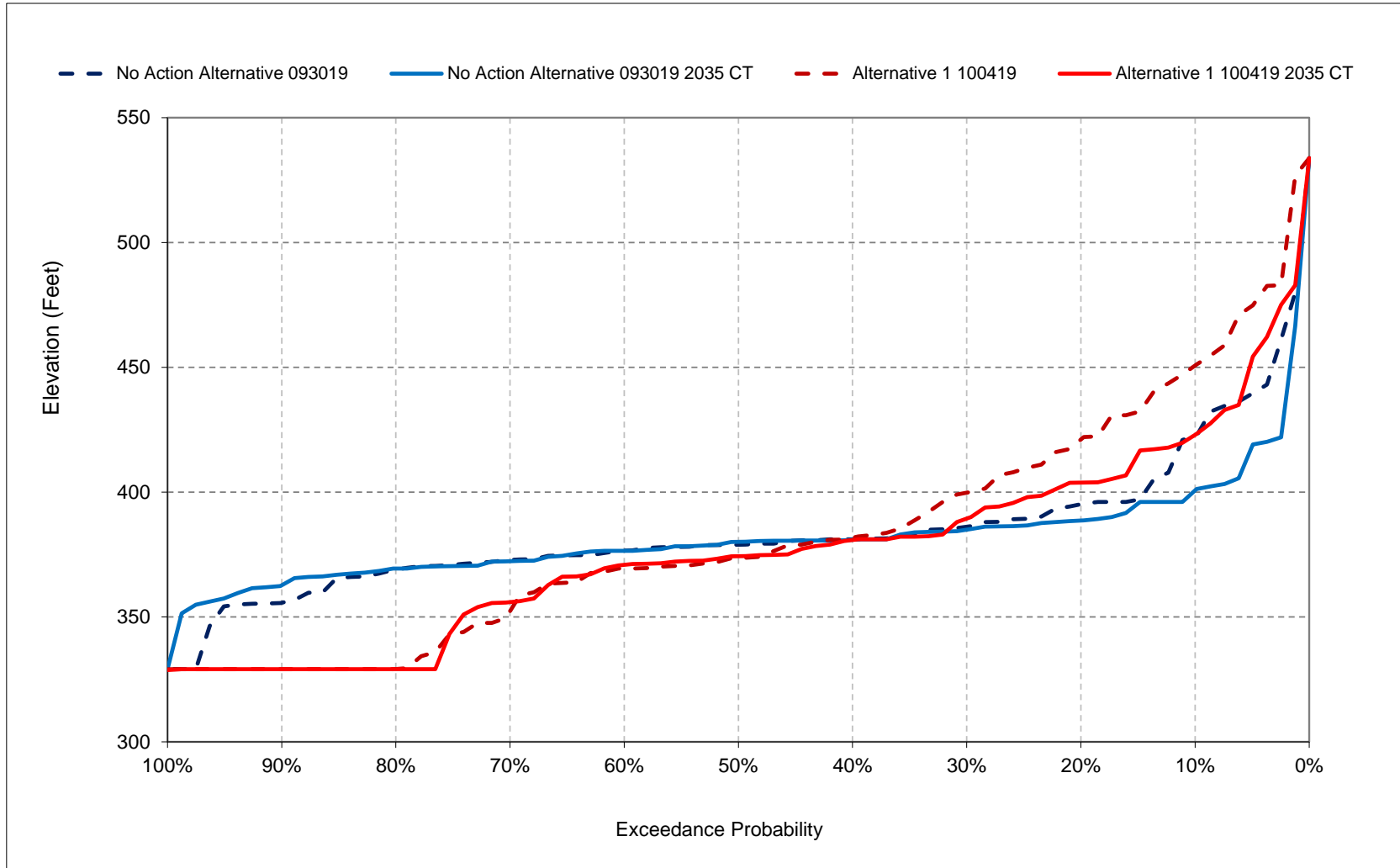
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

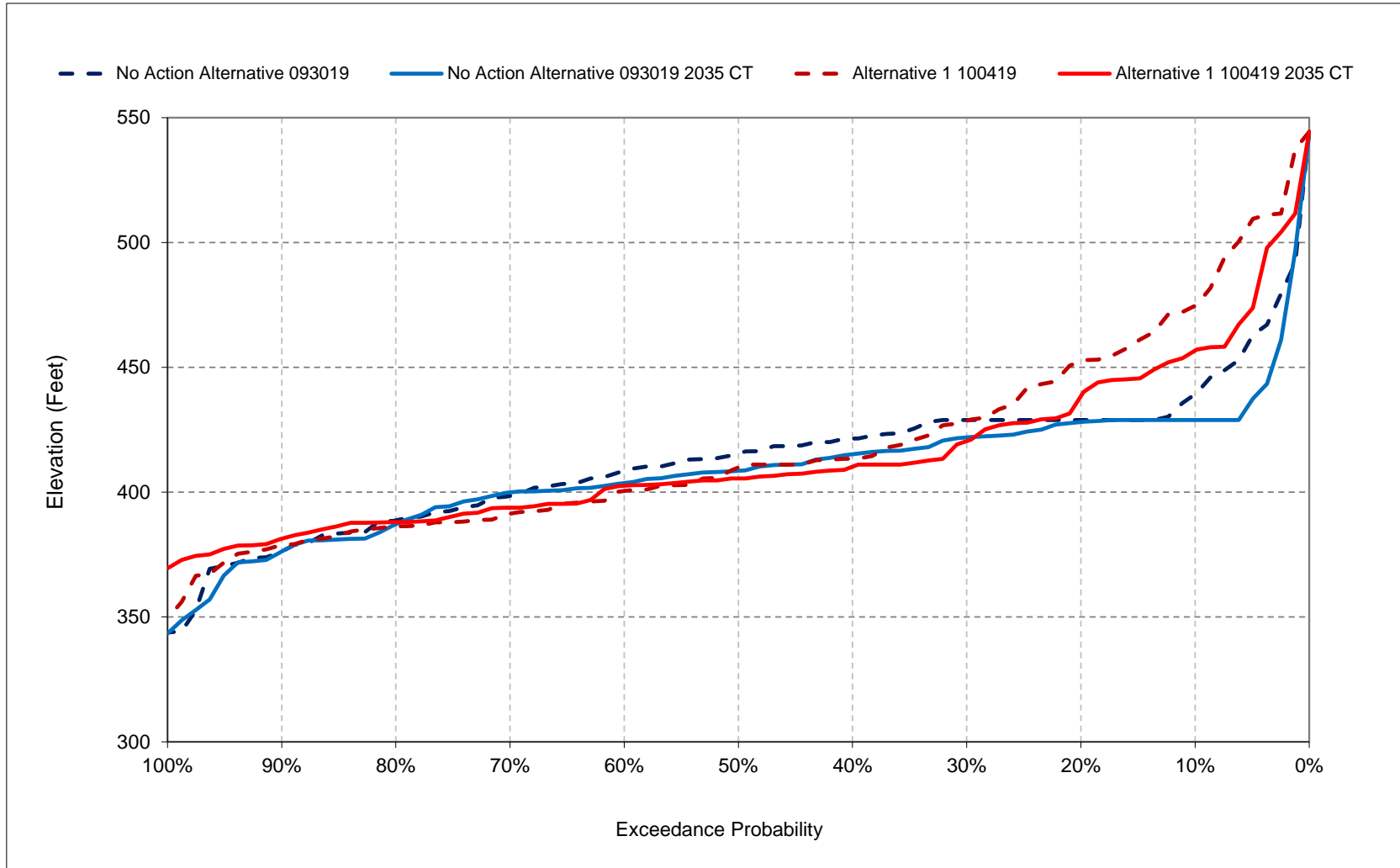
Figure 6a-7. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

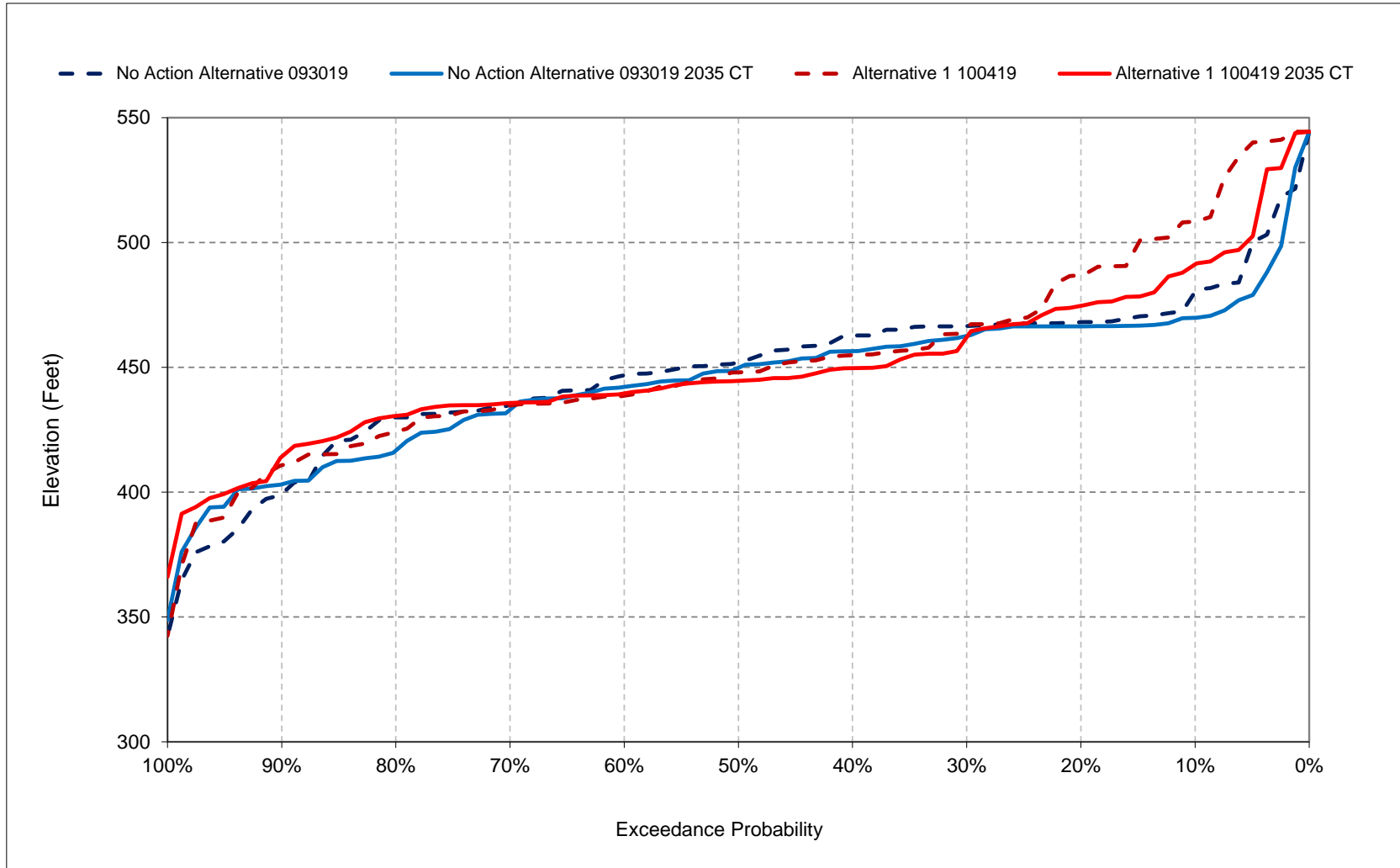
Figure 6a-8. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

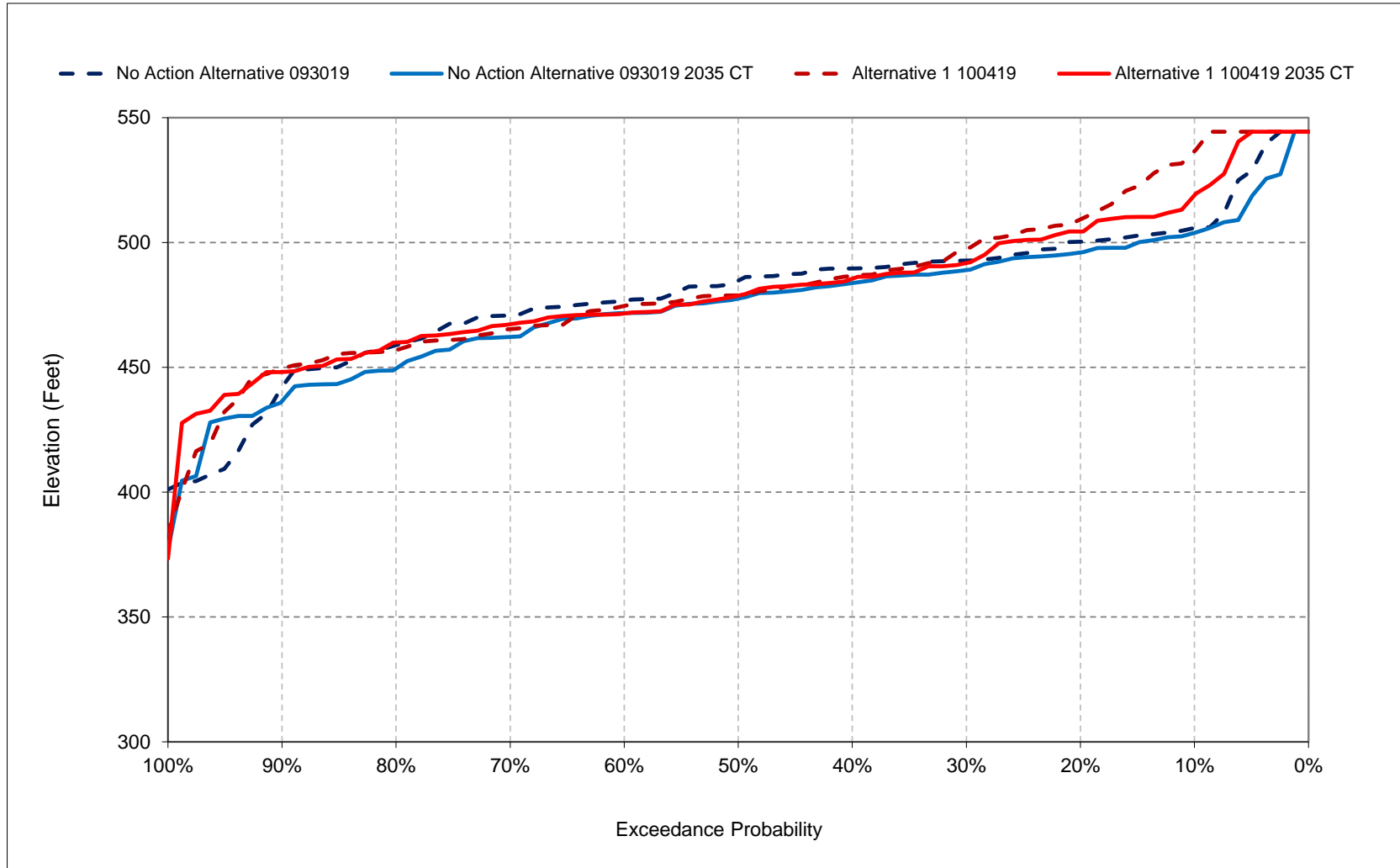
Figure 6a-9. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

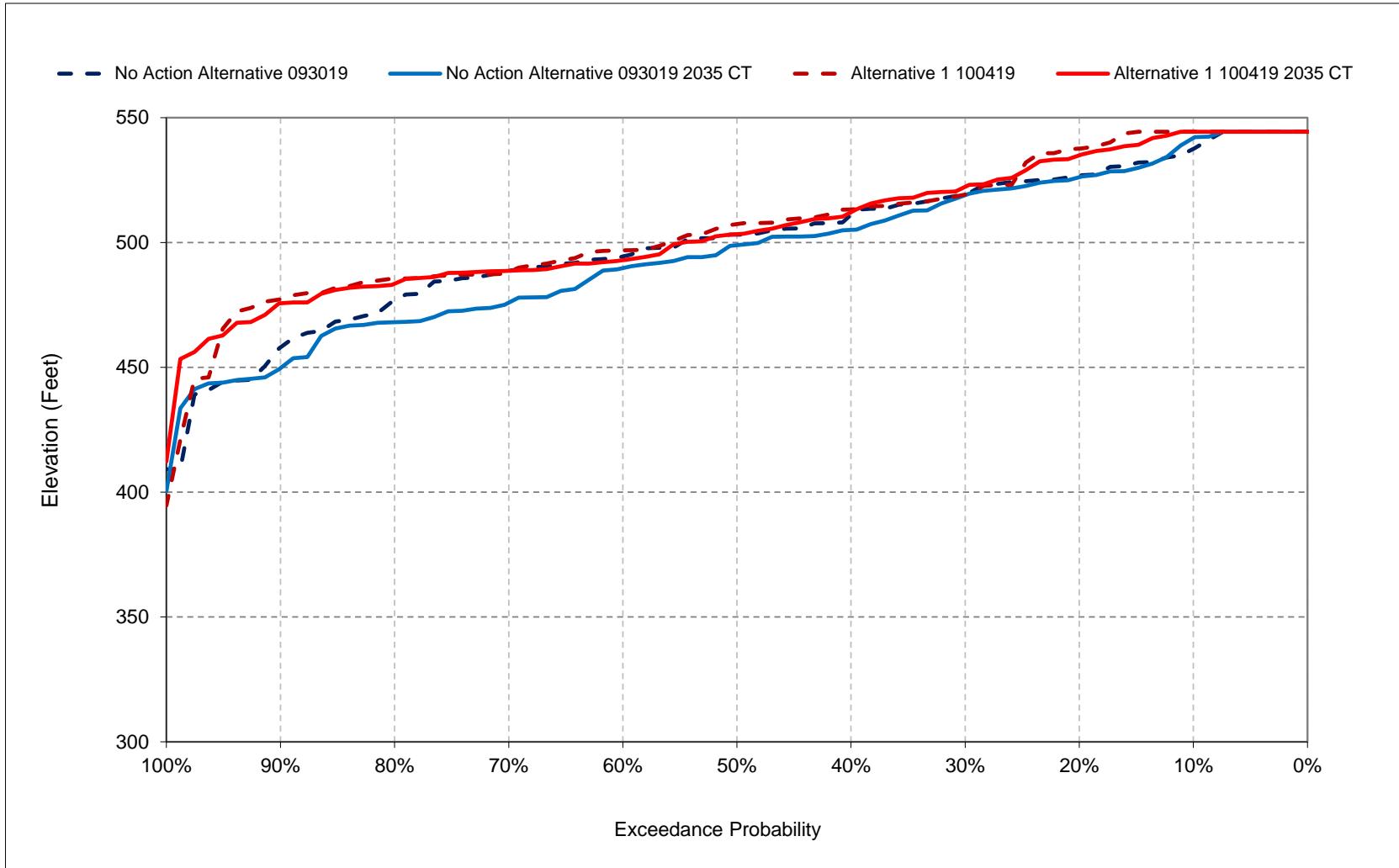
Figure 6a-10. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

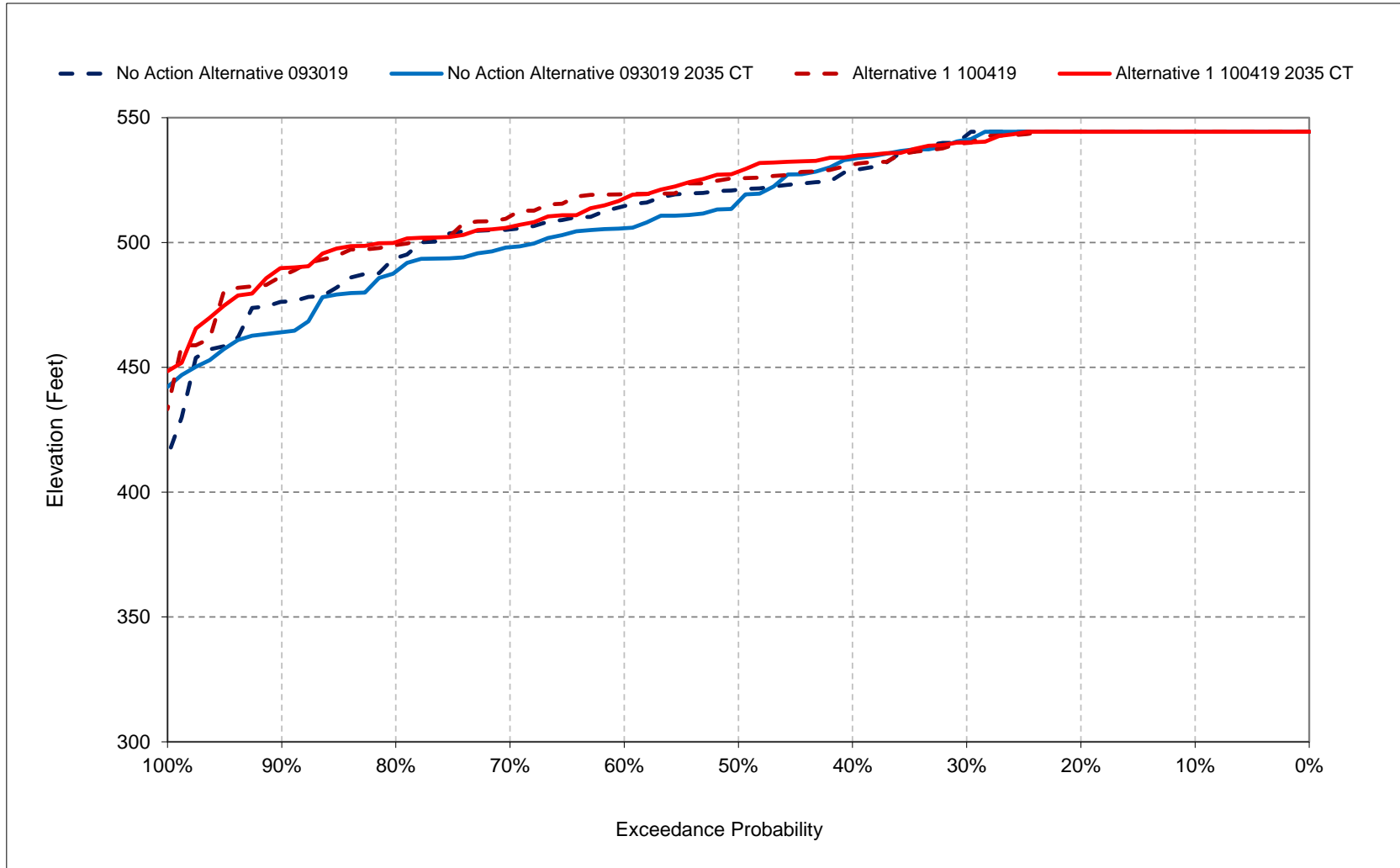
Figure 6a-11. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

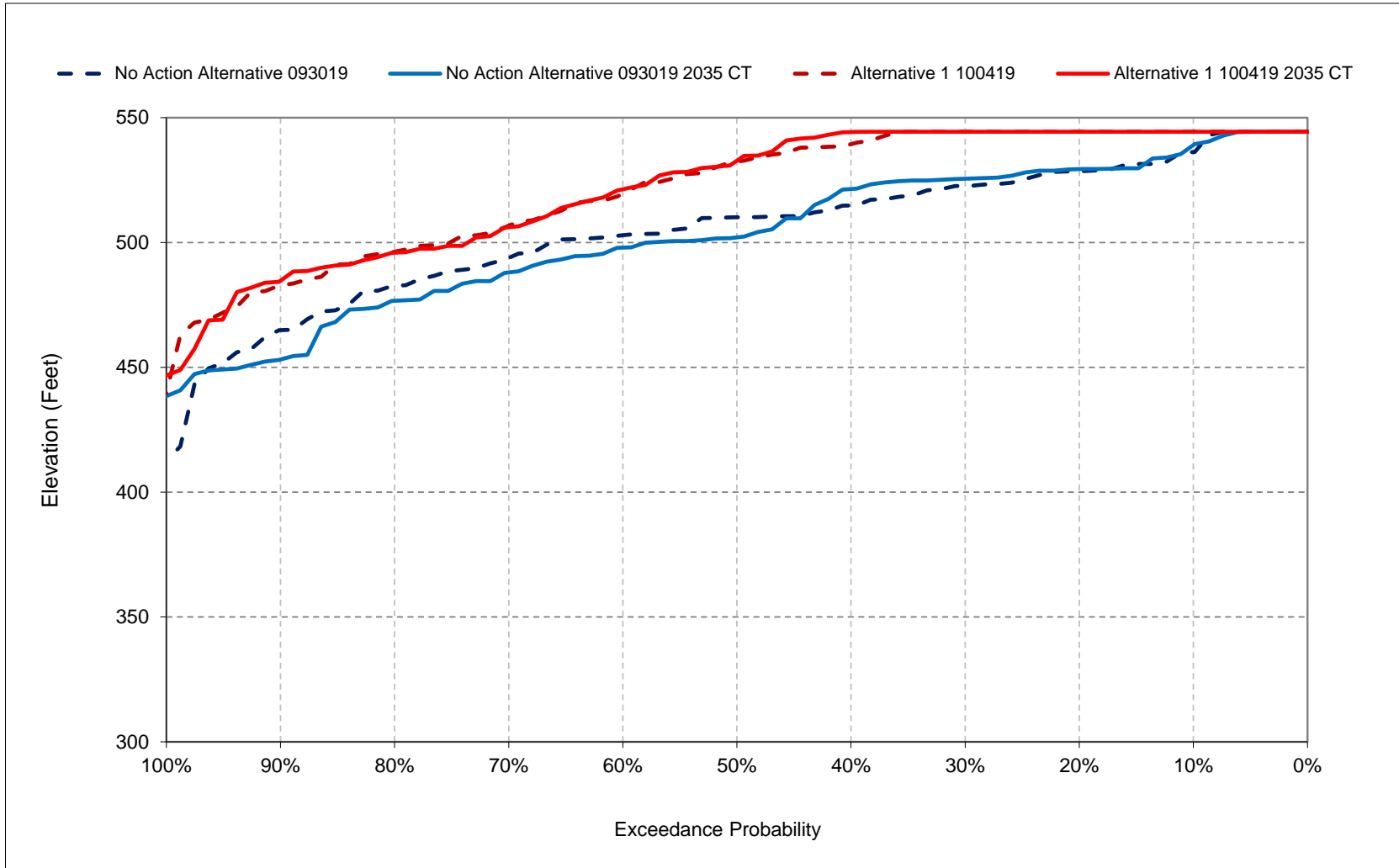
Figure 6a-12. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

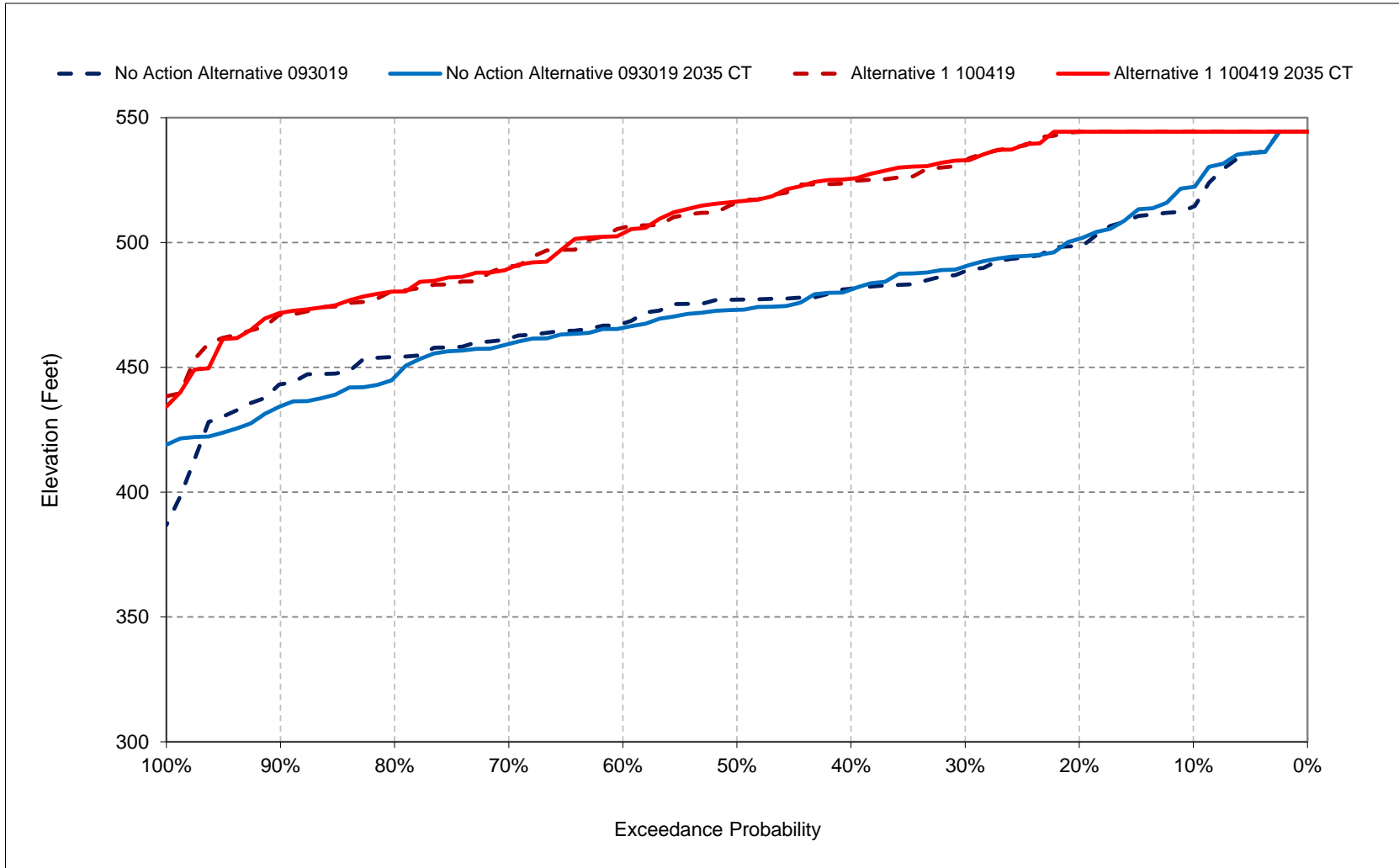
Figure 6a-13. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

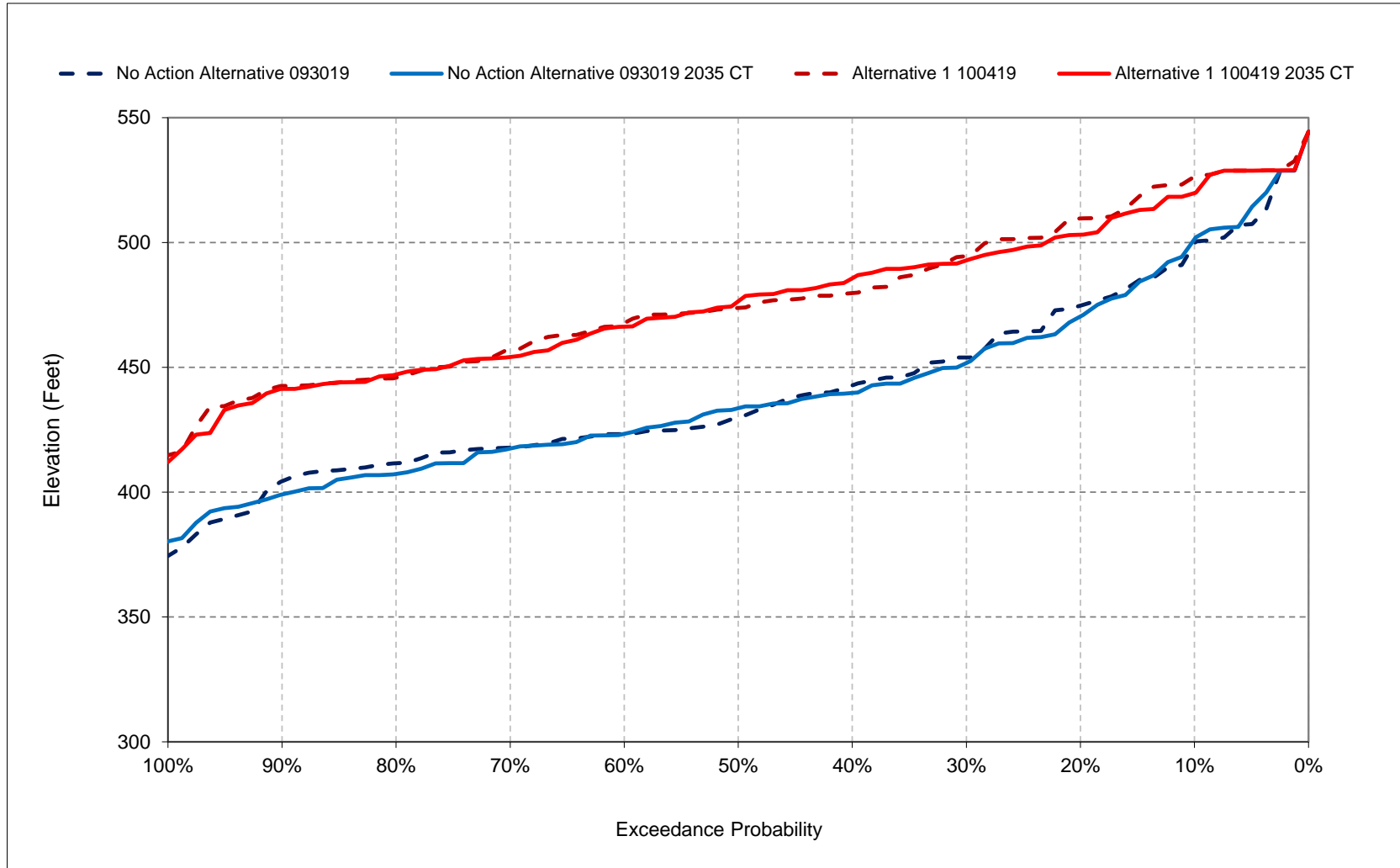
Figure 6a-14. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

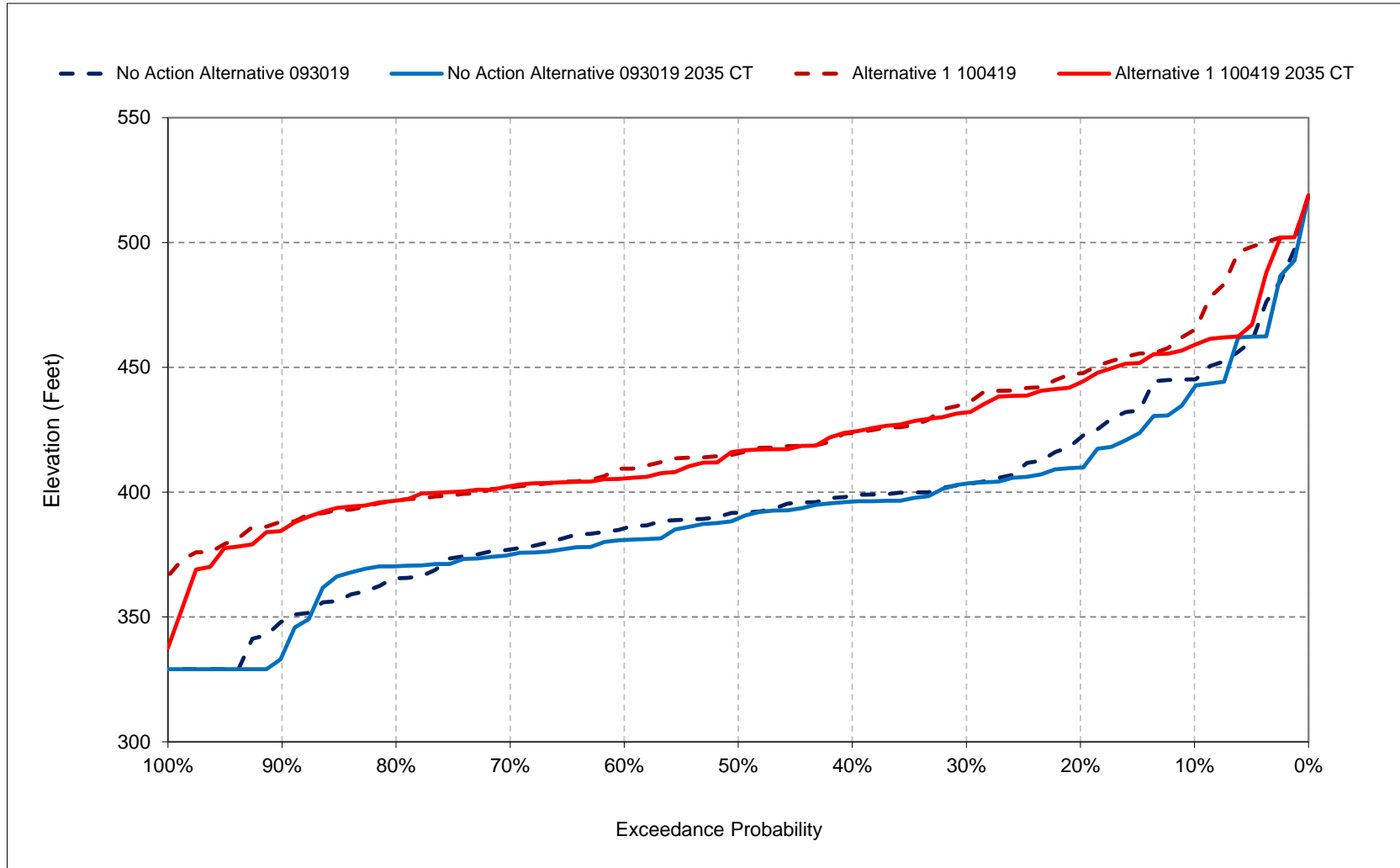
Figure 6a-15. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

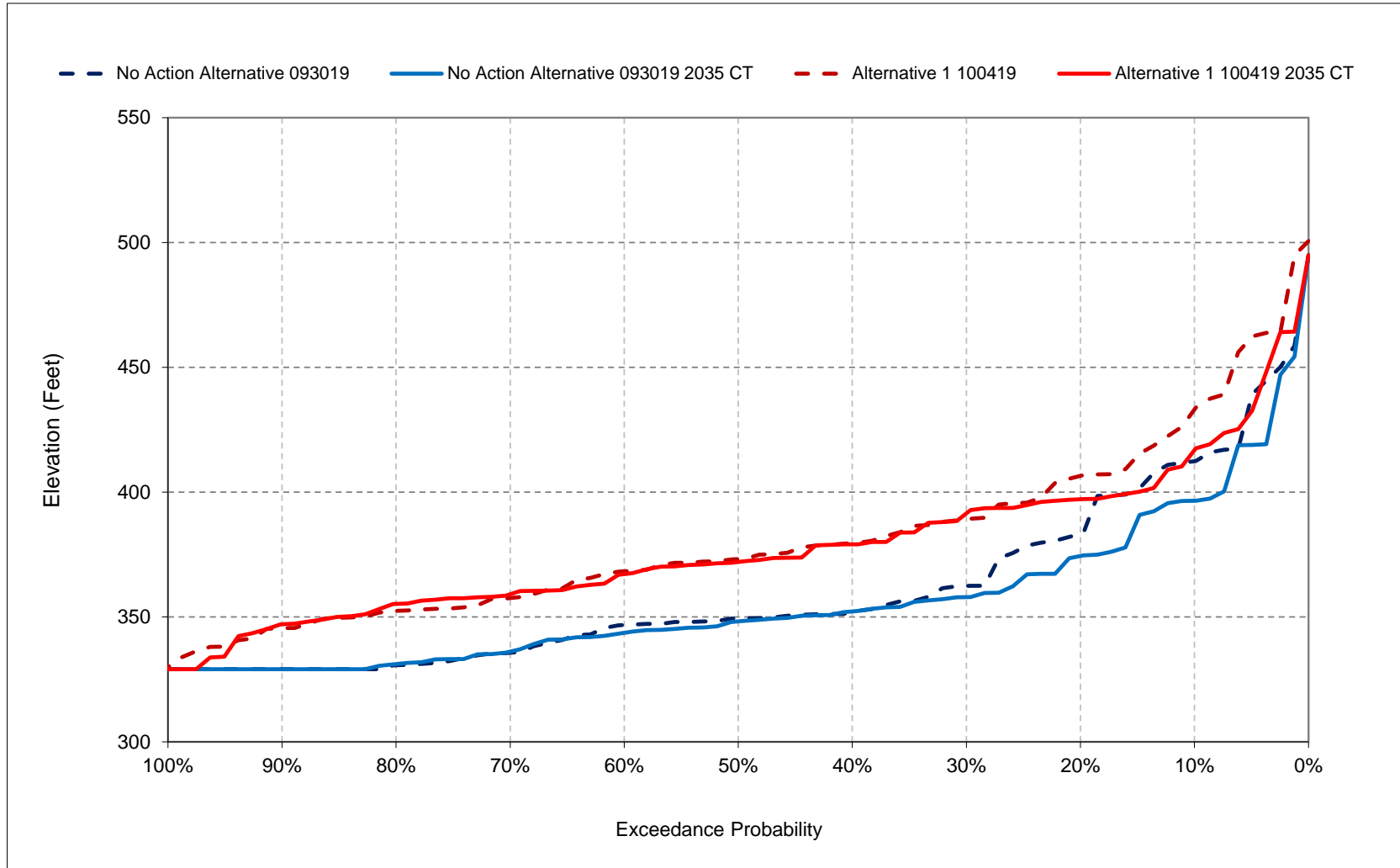
Figure 6a-16. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

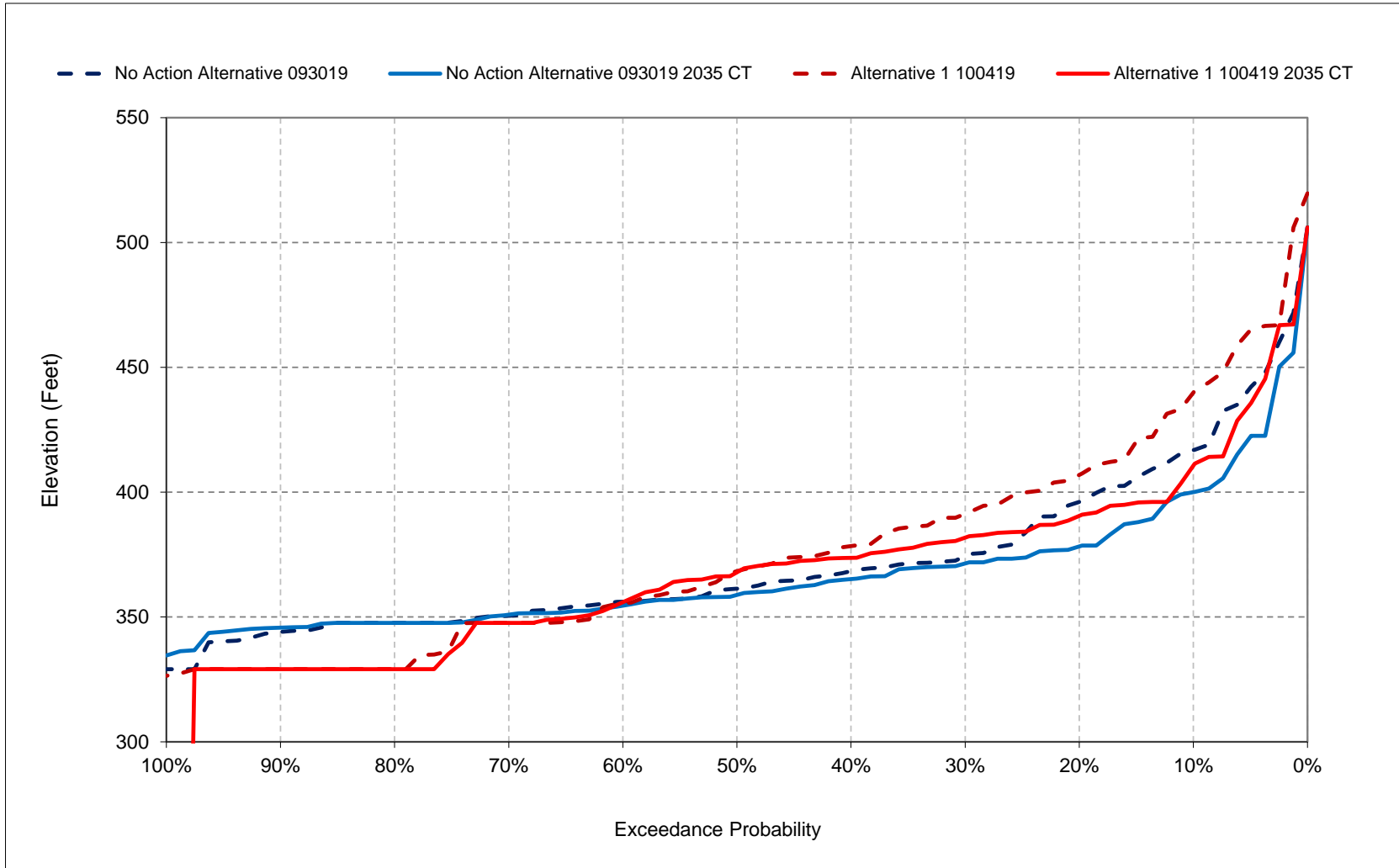
Figure 6a-17. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6a-18. San Luis Reservoir (SWP and CVP), Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-1. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	339	414	614	749	931	972	923	796	715	441	299	317
20%	232	367	552	719	868	972	878	709	585	337	191	235
30%	201	367	544	678	825	964	844	655	481	262	126	161
40%	183	336	525	660	779	879	799	619	430	244	101	140
50%	176	311	471	636	735	835	773	598	372	220	94	123
60%	168	283	448	595	686	797	733	549	343	199	88	111
70%	155	243	394	566	656	746	684	519	321	169	61	97
80%	142	210	371	506	596	683	625	482	295	133	49	90
90%	110	167	246	427	501	593	536	432	266	92	45	81
Long Term												
Full Simulation Period ^d	205	310	464	615	723	811	747	602	433	247	138	169
Water Year Types^{b,c}												
Wet (32%)	254	373	547	676	810	916	856	708	554	320	192	214
Above Normal (16%)	175	295	488	603	732	849	759	573	407	160	90	137
Below Normal (13%)	177	269	404	588	681	780	698	529	332	193	90	143
Dry (24%)	183	289	438	597	681	770	720	585	396	249	127	153
Critical (15%)	192	265	358	549	636	638	586	499	355	231	136	157

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	466	585	764	925	972	972	972	972	865	536	386	416
20%	334	473	647	768	931	972	972	972	770	451	275	277
30%	248	365	542	704	824	945	972	903	687	398	211	218
40%	186	303	486	646	790	893	942	853	611	344	178	174
50%	158	289	453	606	758	862	900	805	581	312	156	140
60%	143	250	411	585	700	825	826	750	550	287	140	109
70%	101	219	393	538	654	775	754	665	496	256	114	90
80%	45	201	347	496	640	712	697	615	444	237	102	45
90%	45	175	292	460	599	645	626	567	428	208	85	45
Long Term												
Full Simulation Period ^d	216	338	491	636	754	833	840	778	606	352	200	189
Water Year Types^{b,c}												
Wet (32%)	283	446	622	699	808	911	951	909	737	462	282	249
Above Normal (16%)	72	238	429	617	741	819	867	812	627	301	140	68
Below Normal (13%)	213	295	418	663	778	843	815	734	557	303	157	181
Dry (24%)	219	313	462	587	710	784	771	695	520	295	164	190
Critical (15%)	222	294	387	576	699	749	704	637	487	308	187	196

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	127	172	150	176	41	0	49	176	151	96	87	99
20%	102	107	95	49	64	0	94	262	185	114	84	42
30%	47	-1	-2	26	-1	-19	128	248	207	136	85	58
40%	2	-33	-39	-15	12	14	143	234	181	101	78	34
50%	-18	-23	-18	-30	23	27	127	207	209	91	62	17
60%	-25	-33	-37	-11	14	27	93	200	207	88	52	-1
70%	-54	-25	-1	-28	-3	29	71	146	176	87	53	-7
80%	-97	-8	-25	-10	44	28	72	133	148	103	53	-45
90%	-65	9	46	34	97	52	90	135	162	116	40	-36
Long Term												
Full Simulation Period ^d	11	28	27	21	30	22	93	176	173	105	62	20
Water Year Types^{b,c}												
Wet (32%)	29	73	75	23	-2	-5	95	201	183	143	90	35
Above Normal (16%)	-104	-57	-59	14	8	-30	108	239	220	141	49	-70
Below Normal (13%)	36	27	14	75	97	63	117	205	225	110	66	38
Dry (24%)	37	23	24	-10	29	13	51	109	125	46	38	37
Critical (15%)	30	29	29	27	63	112	119	139	132	77	52	39

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6b-2. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	252	367	561	739	957	972	940	841	724	426	236	249
20%	209	363	544	695	864	972	883	725	564	288	160	174
30%	197	337	524	657	822	953	861	665	470	262	115	150
40%	183	310	494	631	745	907	836	618	416	235	101	133
50%	180	283	462	600	712	807	729	577	388	212	91	117
60%	168	263	427	570	661	749	706	541	343	182	80	107
70%	153	248	385	522	591	707	652	508	319	162	62	98
80%	143	204	316	460	552	654	595	444	278	146	50	90
90%	127	167	261	401	461	532	477	391	245	58	45	86
Long Term												
Full Simulation Period ^d	193	291	447	590	702	797	738	598	430	235	123	151
Water Year Types^{b,c}												
Wet (32%)	252	350	518	665	812	933	881	744	593	323	192	219
Above Normal (16%)	166	255	443	601	743	861	783	607	419	153	89	131
Below Normal (13%)	165	277	416	546	658	767	702	543	342	204	87	125
Dry (24%)	162	267	427	561	624	711	649	508	335	211	91	117
Critical (15%)	172	253	363	505	591	607	560	473	329	203	95	105

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	342	495	670	822	972	972	972	972	827	506	317	292
20%	264	410	585	741	915	972	972	972	734	435	239	216
30%	212	331	522	672	842	946	972	903	678	380	219	186
40%	182	290	461	640	784	913	971	861	641	347	177	158
50%	160	271	438	606	735	877	903	807	594	315	152	139
60%	148	259	415	570	678	815	836	737	543	271	138	110
70%	110	227	397	548	656	751	751	660	482	258	118	90
80%	45	207	374	511	630	718	695	614	449	237	109	45
90%	45	184	306	454	590	661	636	571	423	196	89	45
Long Term												
Full Simulation Period ^d	188	314	471	624	751	835	842	780	601	337	184	158
Water Year Types^{b,c}												
Wet (32%)	222	388	563	683	822	925	960	918	745	443	268	200
Above Normal (16%)	67	226	408	633	762	849	894	838	622	278	132	65
Below Normal (13%)	200	304	432	611	735	812	801	715	530	302	147	164
Dry (24%)	194	291	459	582	694	773	759	685	508	284	141	156
Critical (15%)	222	299	398	571	693	752	707	639	483	295	166	167

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	90	128	109	83	15	0	32	131	103	80	80	43
20%	55	47	41	46	51	0	89	247	171	146	78	42
30%	15	-6	-2	15	19	-6	111	238	207	118	104	35
40%	0	-20	-33	9	39	6	135	243	225	111	75	25
50%	-20	-12	-24	6	24	70	174	230	206	103	61	22
60%	-19	-4	-12	-1	17	66	130	197	200	88	57	3
70%	-43	-21	12	26	64	44	99	152	162	96	56	-8
80%	-98	3	58	51	77	64	99	170	171	90	59	-45
90%	-82	18	45	53	129	129	159	179	178	138	44	-41
Long Term												
Full Simulation Period ^d	-5	23	24	34	48	38	104	182	171	102	62	7
Water Year Types^{b,c}												
Wet (32%)	-30	37	45	18	10	-8	79	173	153	119	75	-19
Above Normal (16%)	-98	-29	-35	32	19	-12	112	231	203	125	43	-66
Below Normal (13%)	36	28	16	66	77	45	99	172	188	98	60	39
Dry (24%)	32	24	32	21	70	62	110	177	173	73	50	39
Critical (15%)	50	46	35	65	101	145	147	166	154	91	71	63

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-3. San Luis CVP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	339	414	614	749	931	972	923	796	715	441	299	317
20%	232	367	552	719	868	972	878	709	585	337	191	235
30%	201	367	544	678	825	964	844	655	481	262	126	161
40%	183	336	525	660	779	879	799	619	430	244	101	140
50%	176	311	471	636	735	835	773	598	372	220	94	123
60%	168	283	448	595	686	797	733	549	343	199	88	111
70%	155	243	394	566	656	746	684	519	321	169	61	97
80%	142	210	371	506	596	683	625	482	295	133	49	90
90%	110	167	246	427	501	593	536	432	266	92	45	81
Long Term												
Full Simulation Period ^d	205	310	464	615	723	811	747	602	433	247	138	169
Water Year Types^{b,c}												
Wet (32%)	254	373	547	676	810	916	856	708	554	320	192	214
Above Normal (16%)	175	295	488	603	732	849	759	573	407	160	90	137
Below Normal (13%)	177	269	404	588	681	780	698	529	332	193	90	143
Dry (24%)	183	289	438	597	681	770	720	585	396	249	127	153
Critical (15%)	192	265	358	549	636	638	586	499	355	231	136	157

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	252	367	561	739	957	972	940	841	724	426	236	249
20%	209	363	544	695	864	972	883	725	564	288	160	174
30%	197	337	524	657	822	953	861	665	470	262	115	150
40%	183	310	494	631	745	907	836	618	416	235	101	133
50%	180	283	462	600	712	807	729	577	388	212	91	117
60%	168	263	427	570	661	749	706	541	343	182	80	107
70%	153	248	385	522	591	707	652	508	319	162	62	98
80%	143	204	316	460	552	654	595	444	278	146	50	90
90%	127	167	261	401	461	532	477	391	245	58	45	86
Long Term												
Full Simulation Period ^d	193	291	447	590	702	797	738	598	430	235	123	151
Water Year Types^{b,c}												
Wet (32%)	252	350	518	665	812	933	881	744	593	323	192	219
Above Normal (16%)	166	255	443	601	743	861	783	607	419	153	89	131
Below Normal (13%)	165	277	416	546	658	767	702	543	342	204	87	125
Dry (24%)	162	267	427	561	624	711	649	508	335	211	91	117
Critical (15%)	172	253	363	505	591	607	560	473	329	203	95	105

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-87	-47	-53	-11	26	0	17	45	10	-15	-62	-68
20%	-22	-4	-8	-24	-3	0	5	16	-22	-49	-30	-61
30%	-4	-29	-20	-20	-3	-11	17	10	-10	1	-11	-10
40%	-1	-26	-31	-29	-34	28	38	-1	-14	-8	1	-8
50%	4	-28	-10	-36	-23	-27	-44	-21	16	-8	-3	-6
60%	0	-20	-21	-25	-25	-49	-27	-9	0	-16	-8	-4
70%	-2	5	-9	-44	-65	-39	-31	-11	-1	-7	1	1
80%	1	-5	-55	-46	-44	-29	-30	-38	-17	13	1	0
90%	17	0	15	-25	-41	-61	-59	-40	-21	-34	0	4
Long Term												
Full Simulation Period ^d	-12	-20	-17	-24	-21	-13	-9	-4	-3	-12	-15	-18
Water Year Types^{b,c}												
Wet (32%)	-3	-23	-29	-10	3	17	25	37	39	4	1	5
Above Normal (16%)	-10	-40	-45	-2	11	12	24	34	12	-7	-2	-6
Below Normal (13%)	-13	8	11	-43	-23	-12	4	14	9	11	-3	-18
Dry (24%)	-21	-22	-11	-36	-57	-59	-71	-77	-60	-38	-36	-36
Critical (15%)	-20	-12	4	-44	-45	-31	-26	-26	-26	-28	-41	-52

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6b-4. San Luis CVP Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	466	585	764	925	972	972	972	972	865	536	386	416
20%	334	473	647	768	931	972	972	972	770	451	275	277
30%	248	365	542	704	824	945	972	903	687	398	211	218
40%	186	303	486	646	790	893	942	853	611	344	178	174
50%	158	289	453	606	758	862	900	805	581	312	156	140
60%	143	250	411	585	700	825	826	750	550	287	140	109
70%	101	219	393	538	654	775	754	665	496	256	114	90
80%	45	201	347	496	640	712	697	615	444	237	102	45
90%	45	175	292	460	599	645	626	567	428	208	85	45
Long Term												
Full Simulation Period ^d	216	338	491	636	754	833	840	778	606	352	200	189
Water Year Types^{b,c}												
Wet (32%)	283	446	622	699	808	911	951	909	737	462	282	249
Above Normal (16%)	72	238	429	617	741	819	867	812	627	301	140	68
Below Normal (13%)	213	295	418	663	778	843	815	734	557	303	157	181
Dry (24%)	219	313	462	587	710	784	771	695	520	295	164	190
Critical (15%)	222	294	387	576	699	749	704	637	487	308	187	196

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	342	495	670	822	972	972	972	972	827	506	317	292
20%	264	410	585	741	915	972	972	972	734	435	239	216
30%	212	331	522	672	842	946	972	903	678	380	219	186
40%	182	290	461	640	784	913	971	861	641	347	177	158
50%	160	271	438	606	735	877	903	807	594	315	152	139
60%	148	259	415	570	678	815	836	737	543	271	138	110
70%	110	227	397	548	656	751	751	660	482	258	118	90
80%	45	207	374	511	630	718	695	614	449	237	109	45
90%	45	184	306	454	590	661	636	571	423	196	89	45
Long Term												
Full Simulation Period ^d	188	314	471	624	751	835	842	780	601	337	184	158
Water Year Types^{b,c}												
Wet (32%)	222	388	563	683	822	925	960	918	745	443	268	200
Above Normal (16%)	67	226	408	633	762	849	894	838	622	278	132	65
Below Normal (13%)	200	304	432	611	735	812	801	715	530	302	147	164
Dry (24%)	194	291	459	582	694	773	759	685	508	284	141	156
Critical (15%)	222	299	398	571	693	752	707	639	483	295	166	167

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-124	-91	-94	-103	0	0	0	0	-38	-31	-69	-125
20%	-70	-63	-62	-27	-16	0	0	0	-36	-17	-36	-61
30%	-36	-34	-20	-31	18	1	0	0	-10	-17	8	-33
40%	-3	-13	-25	-6	-6	20	29	7	30	2	-2	-16
50%	2	-18	-15	0	-22	15	3	2	13	3	-4	-1
60%	5	9	4	-15	-22	-10	10	-12	-7	-16	-3	1
70%	9	8	5	10	2	-24	-3	-4	-14	2	4	0
80%	0	6	28	15	-10	6	-2	-1	6	0	7	0
90%	0	9	14	-7	-9	16	10	4	-5	-12	4	0
Long Term												
Full Simulation Period ^d	-28	-24	-19	-11	-3	3	3	2	-5	-14	-16	-31
Water Year Types^{b,c}												
Wet (32%)	-61	-58	-59	-15	14	14	8	9	9	-19	-14	-49
Above Normal (16%)	-4	-12	-21	16	21	30	27	26	-4	-23	-8	-3
Below Normal (13%)	-13	9	14	-52	-43	-31	-15	-19	-27	-1	-9	-17
Dry (24%)	-25	-21	-3	-5	-16	-11	-12	-10	-12	-10	-23	-34
Critical (15%)	1	5	11	-6	-6	3	3	1	-4	-13	-22	-29

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

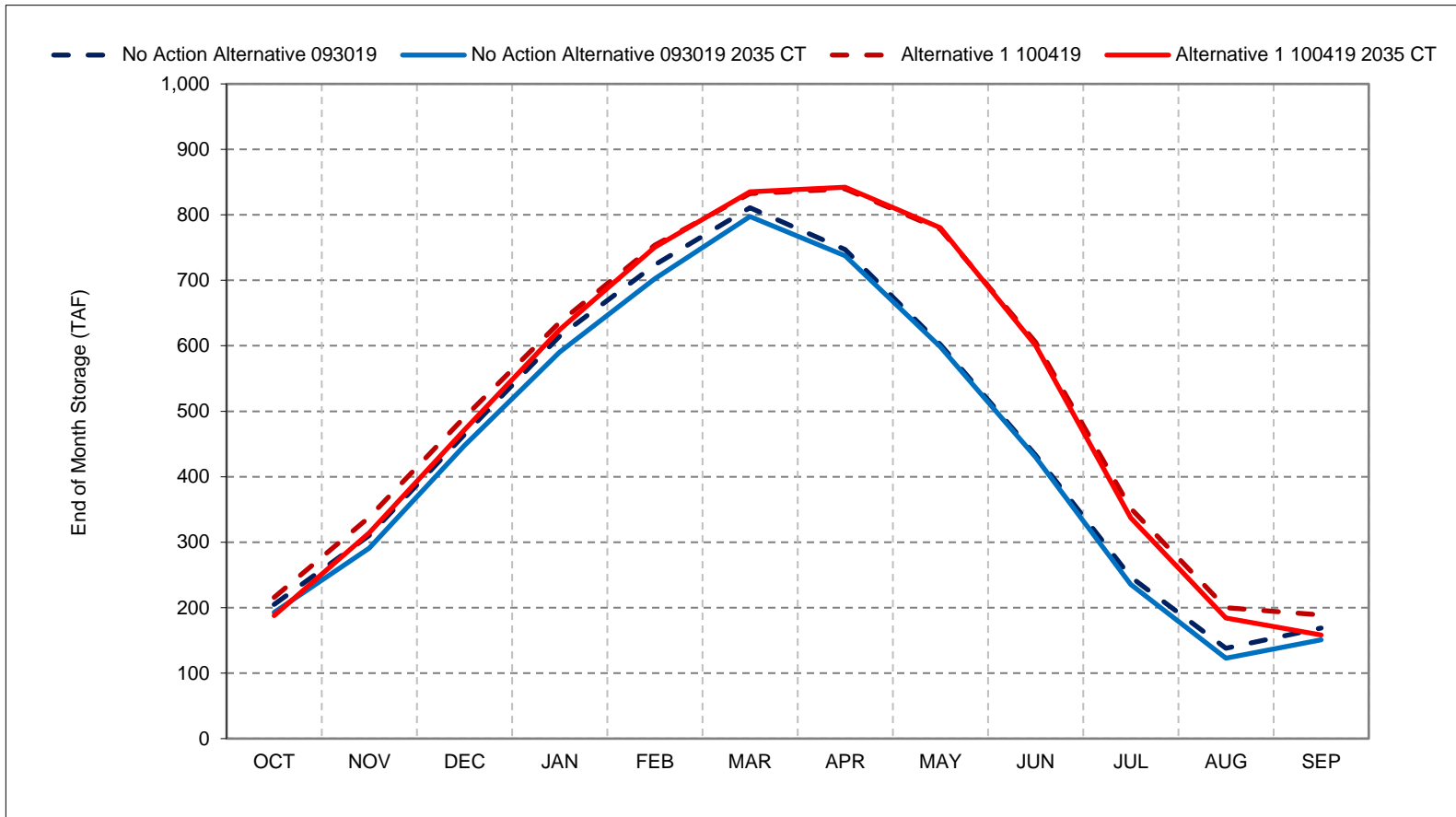
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6b-1. San Luis CVP Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

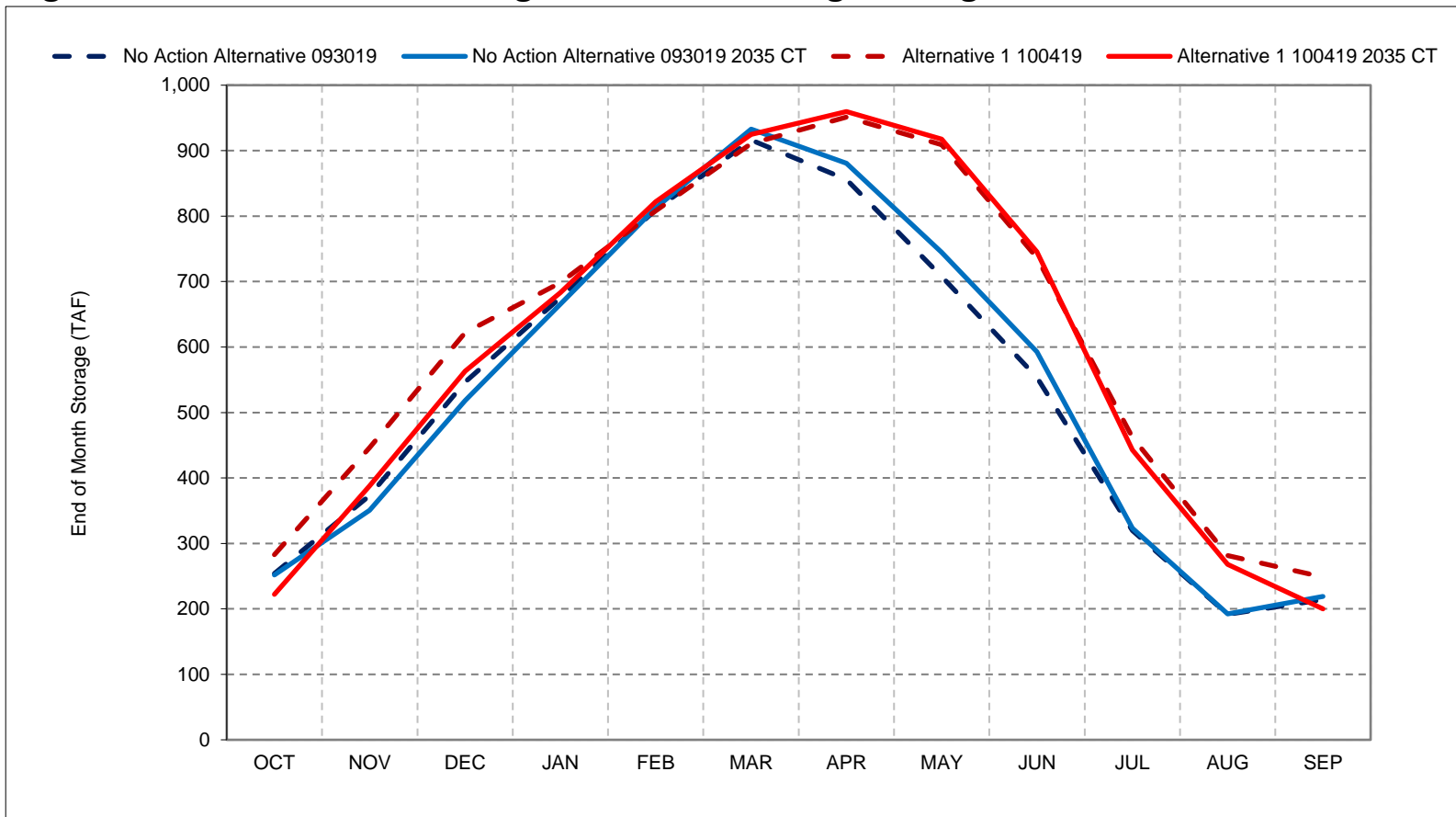
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-2. San Luis CVP Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

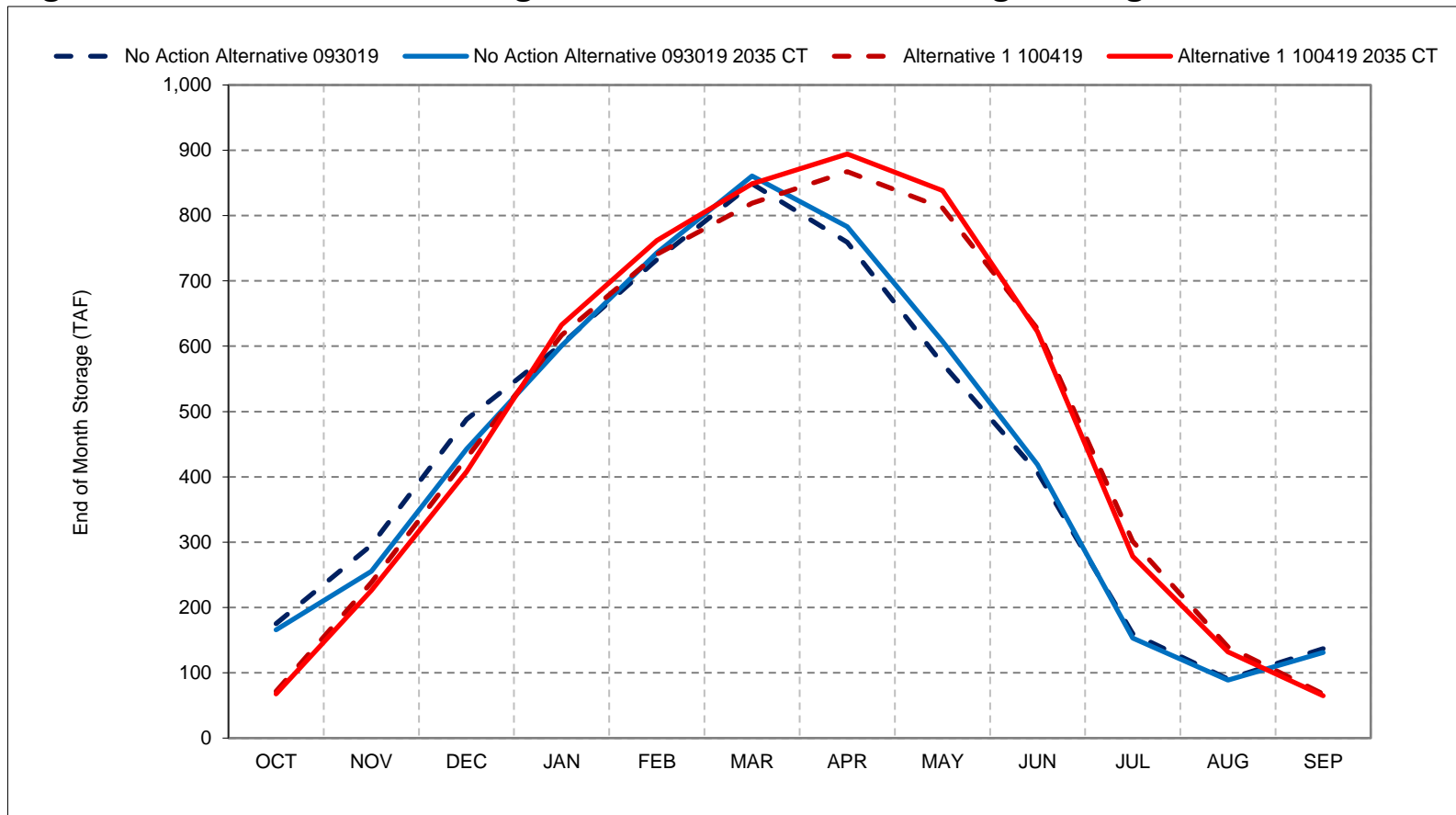
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-3. San Luis CVP Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

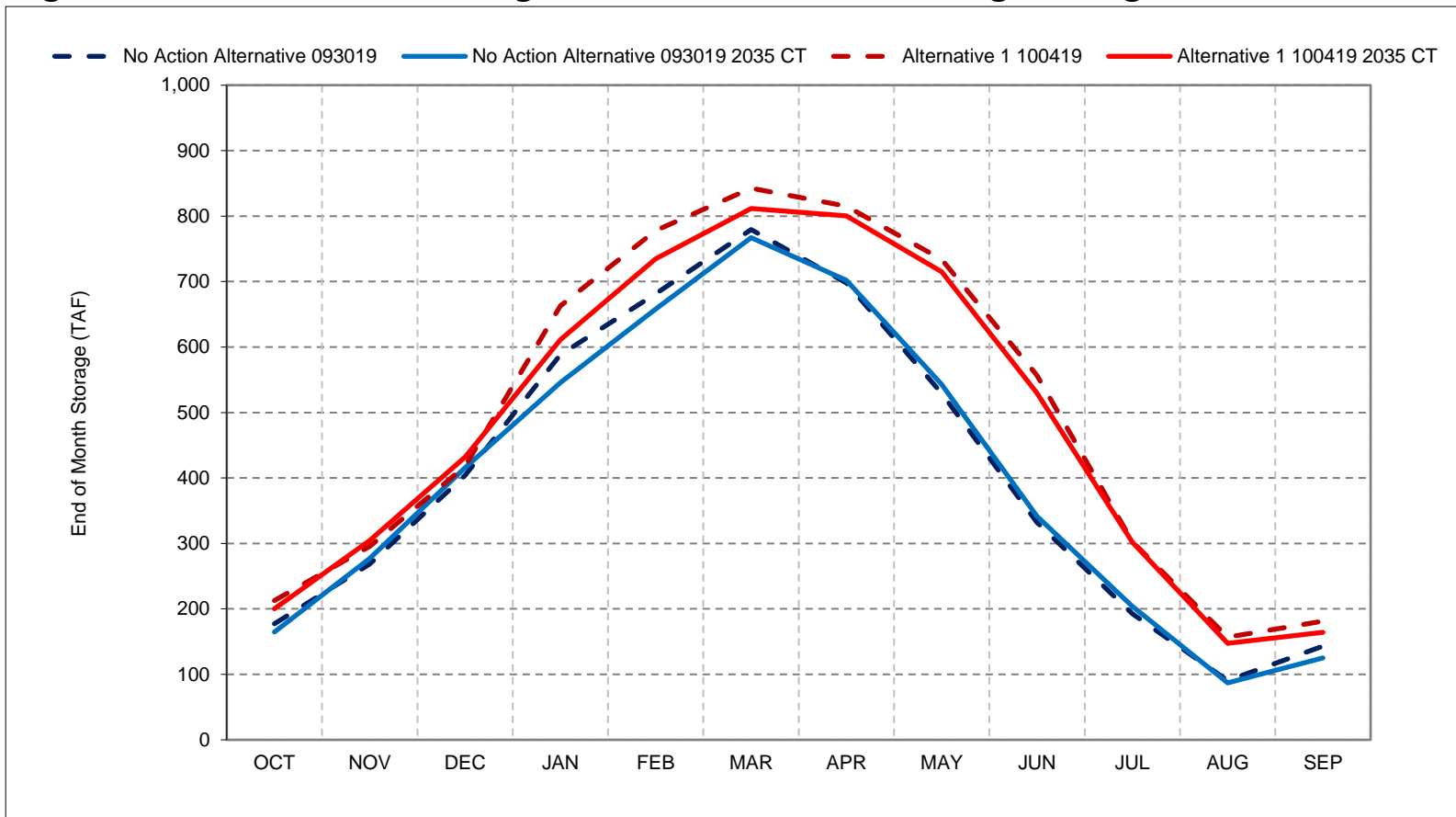
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-4. San Luis CVP Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

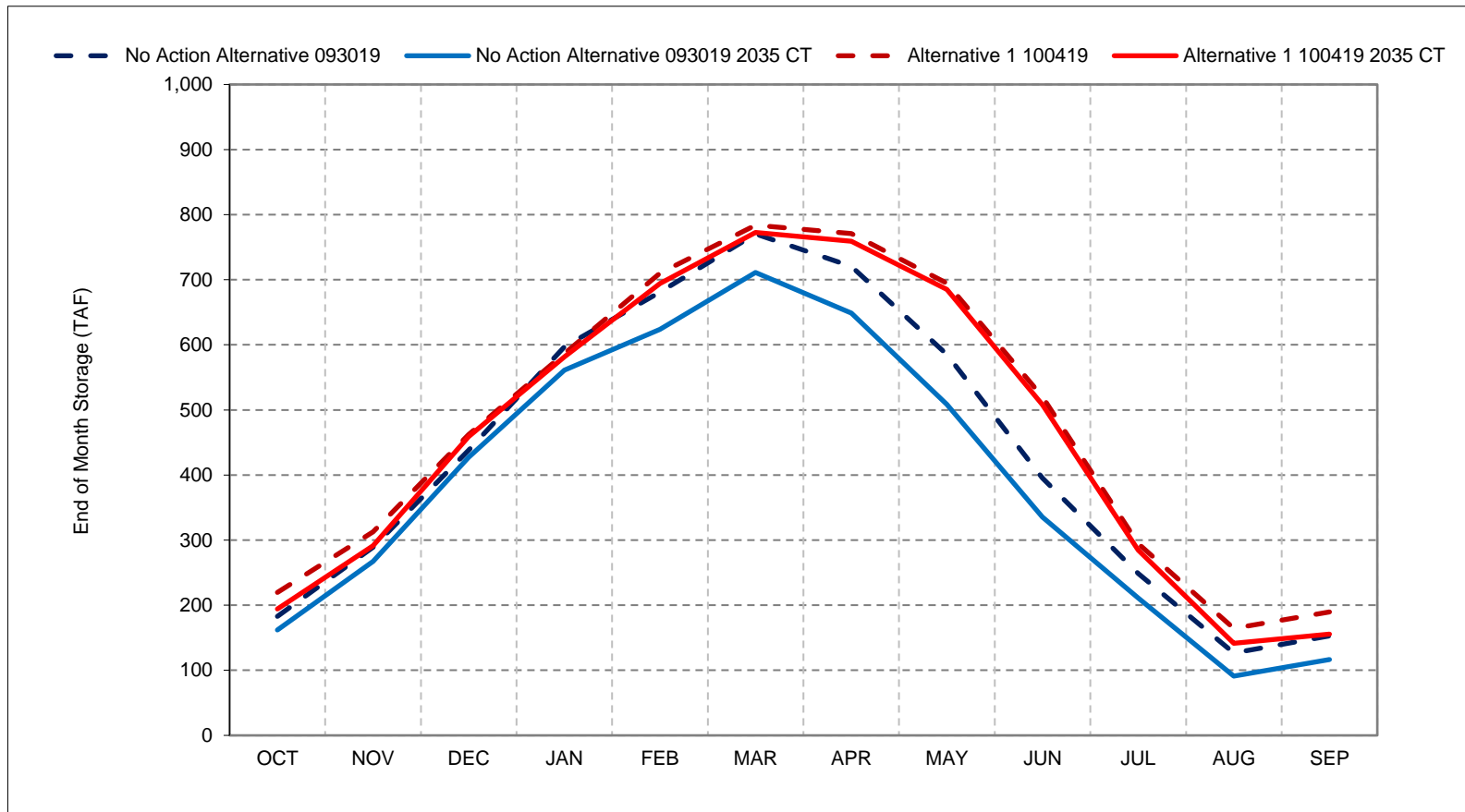
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-5. San Luis CVP Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

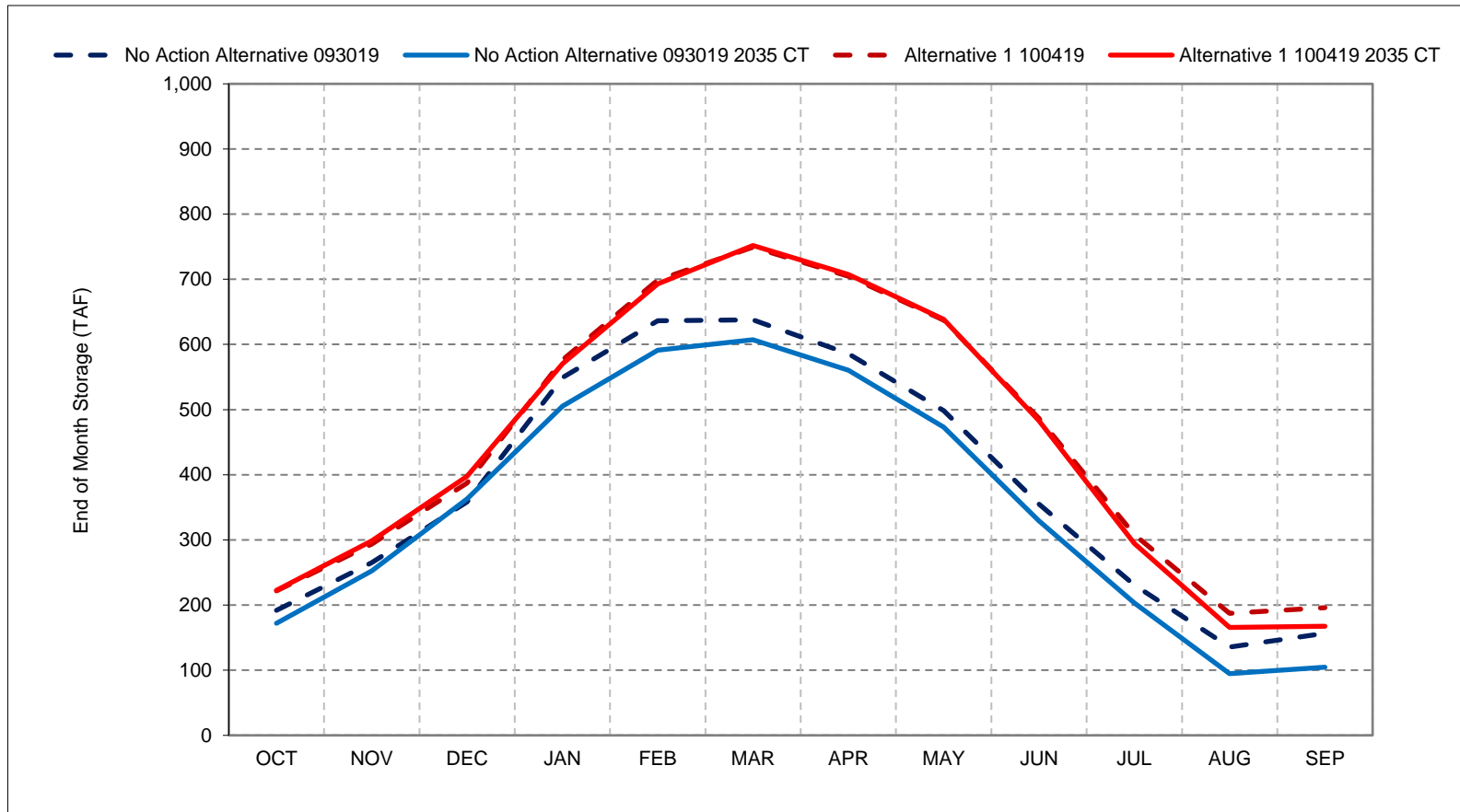
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6b-6. San Luis CVP Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

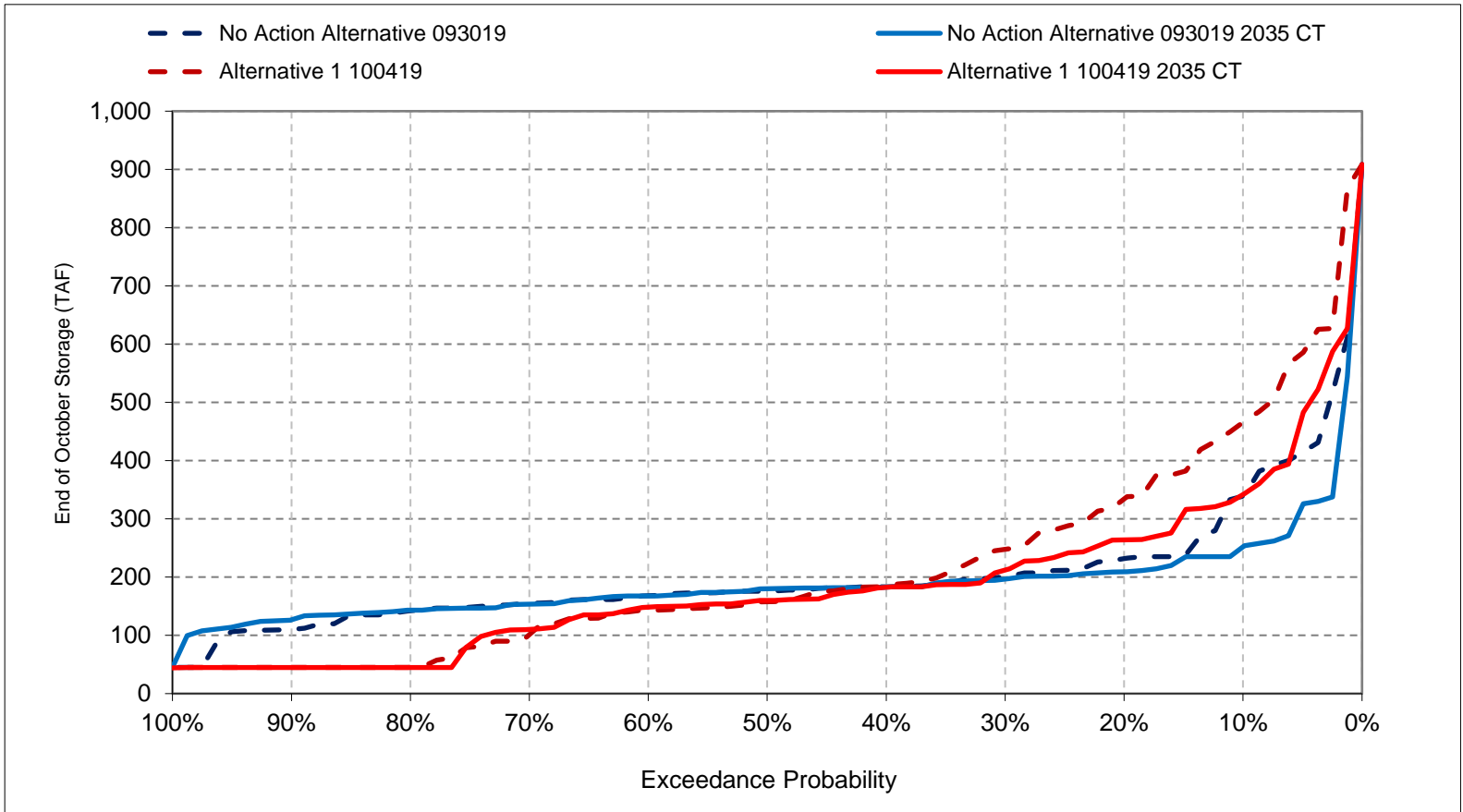
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

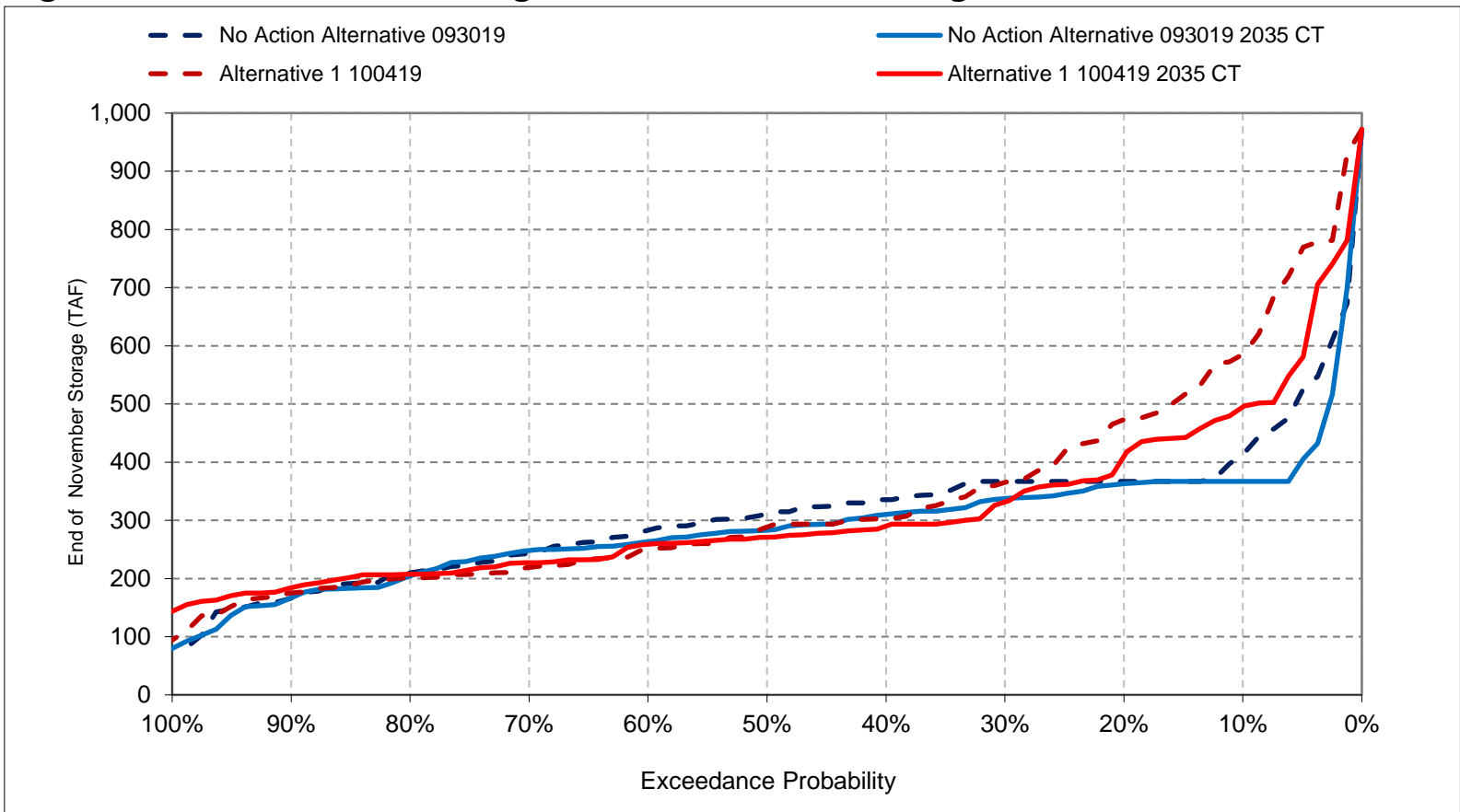
Figure 6b-7. San Luis CVP Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

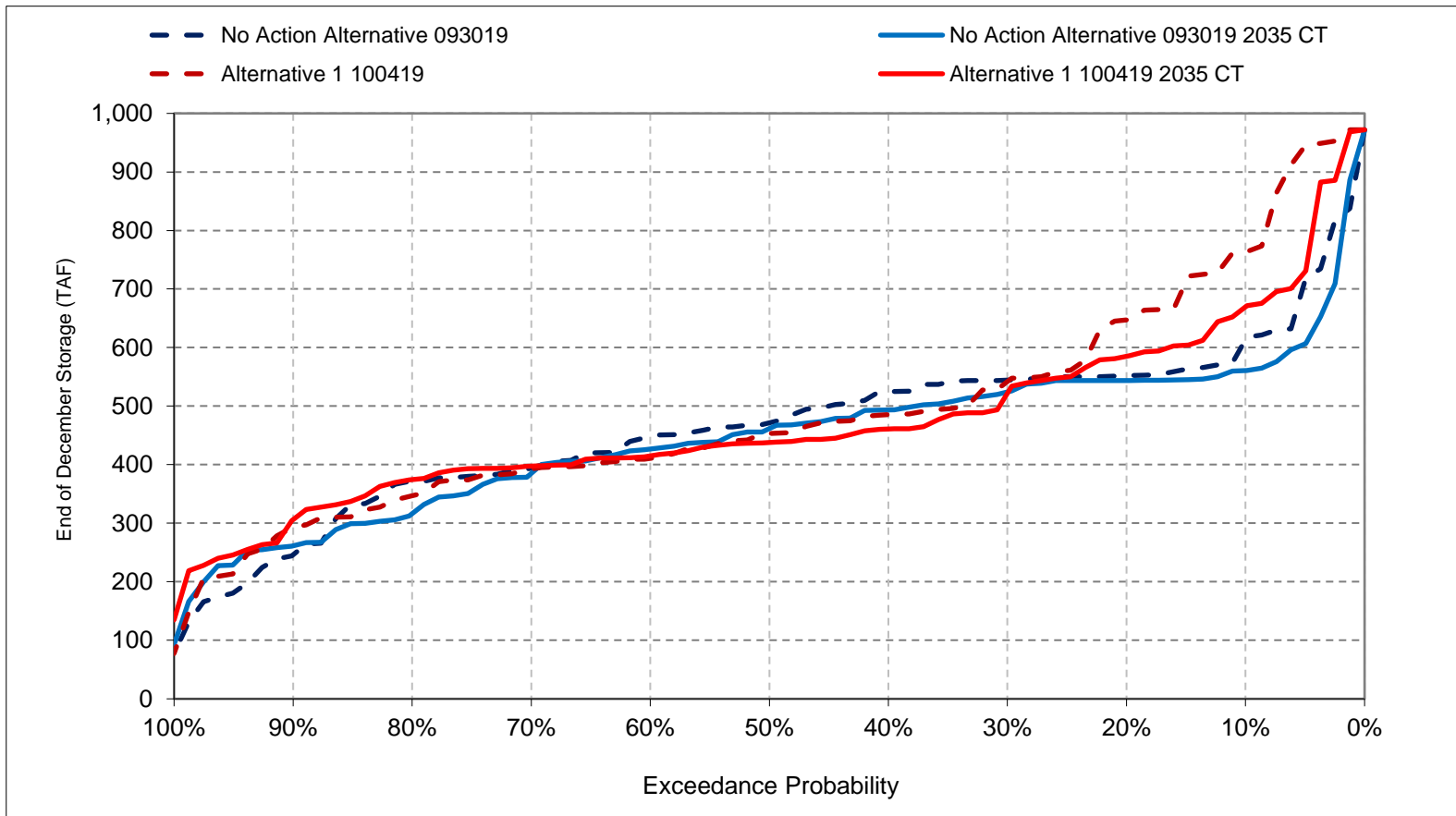
Figure 6b-8. San Luis CVP Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

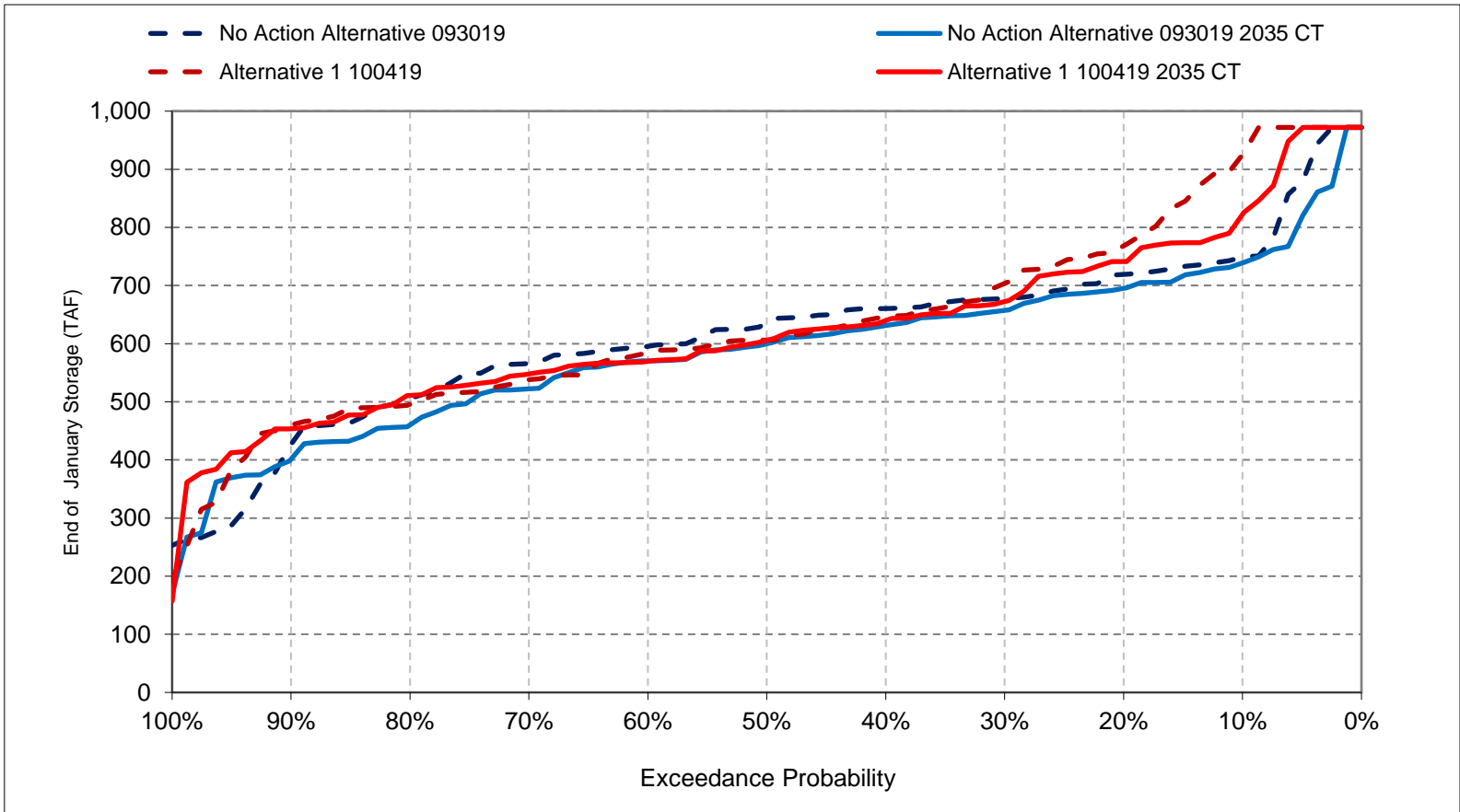
Figure 6b-9. San Luis CVP Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

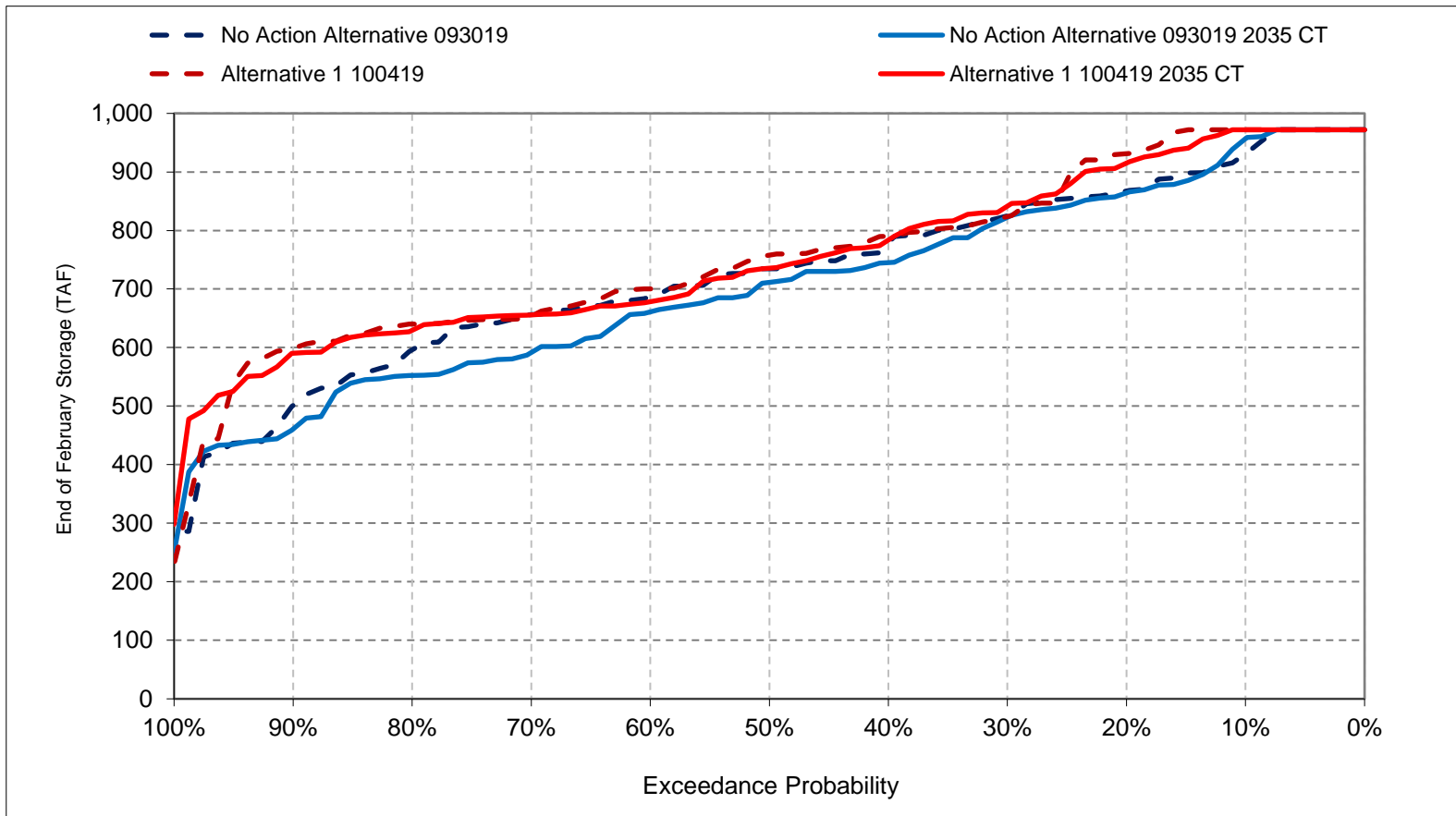
Figure 6b-10. San Luis CVP Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

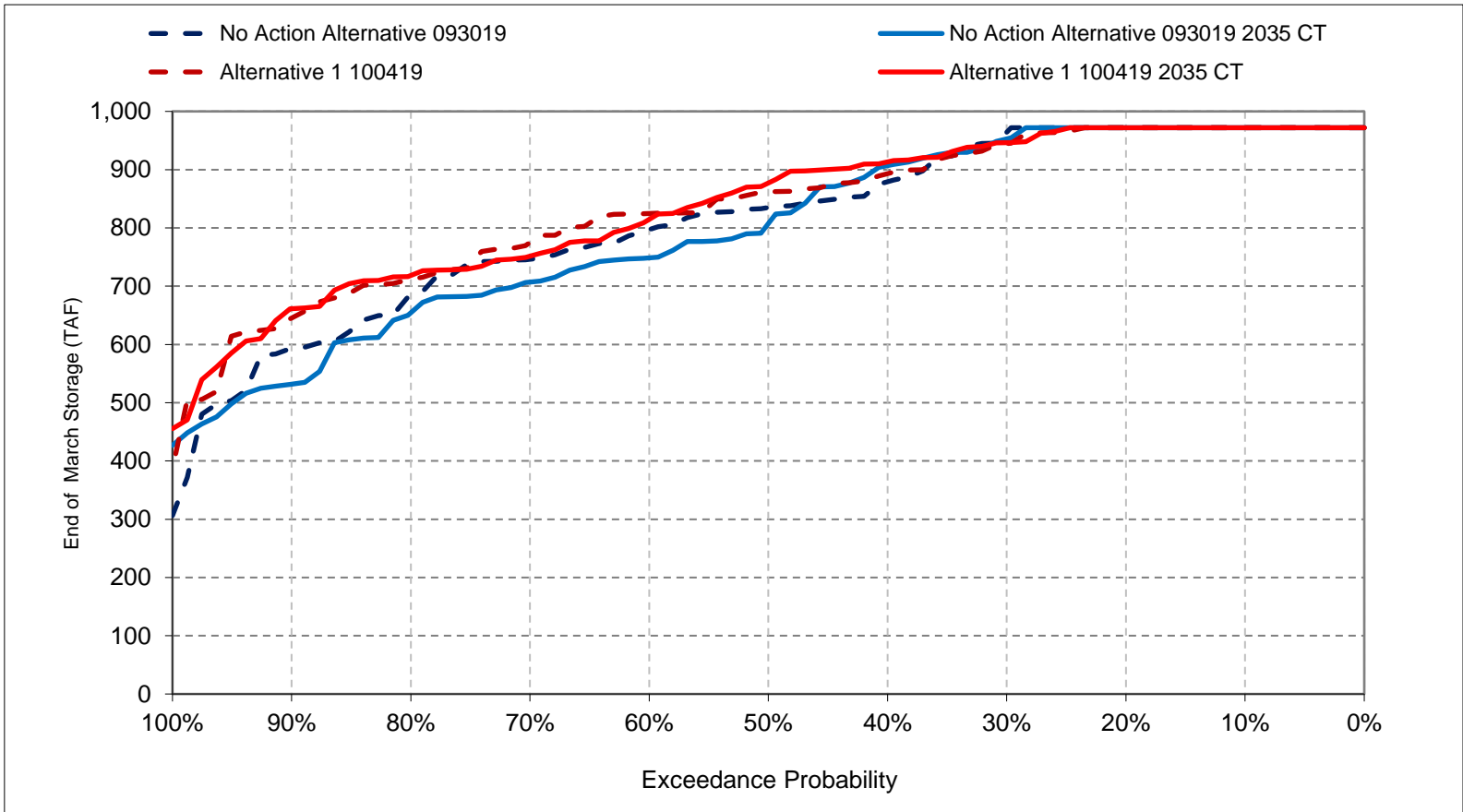
Figure 6b-11. San Luis CVP Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

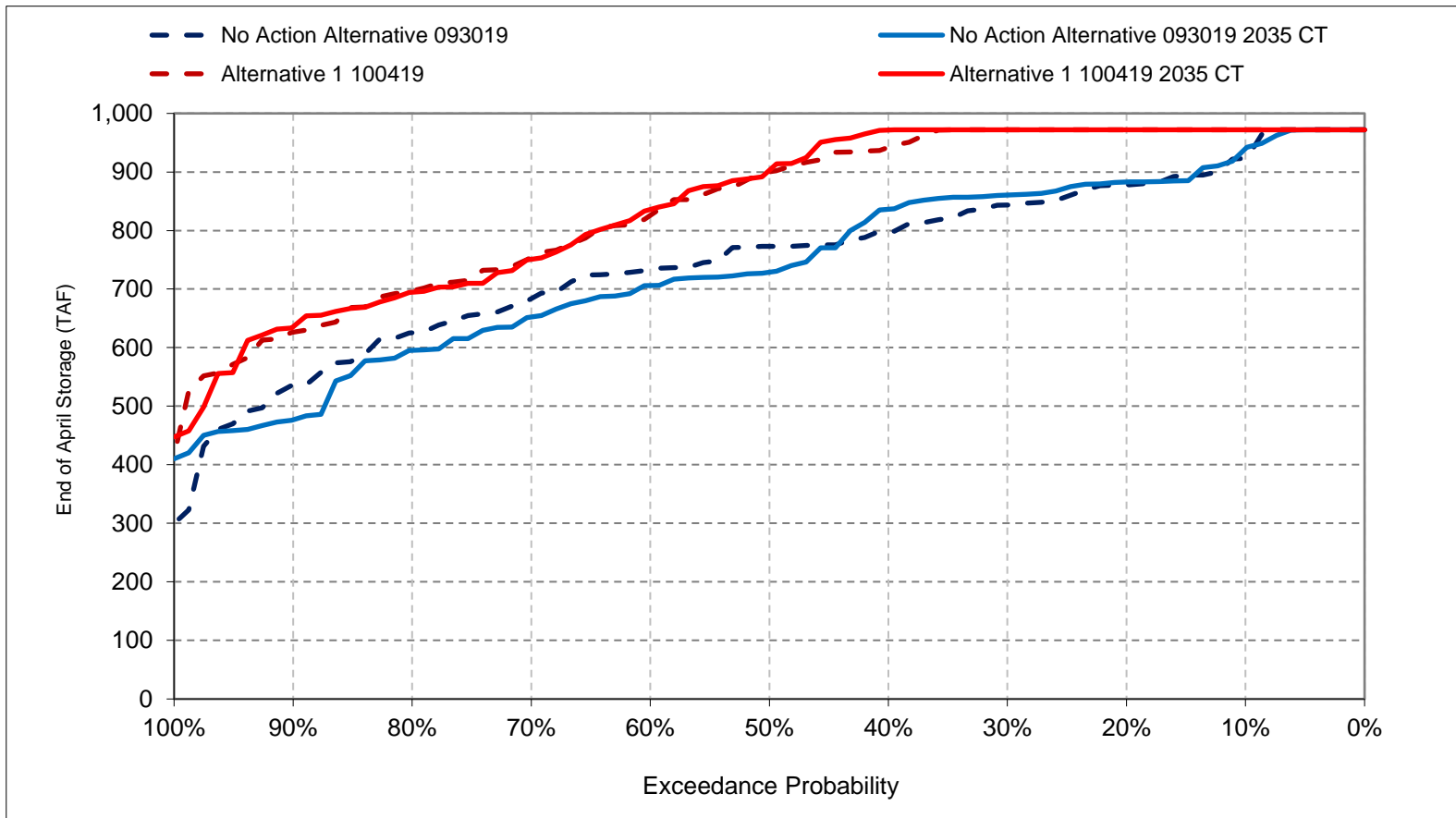
Figure 6b-12. San Luis CVP Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

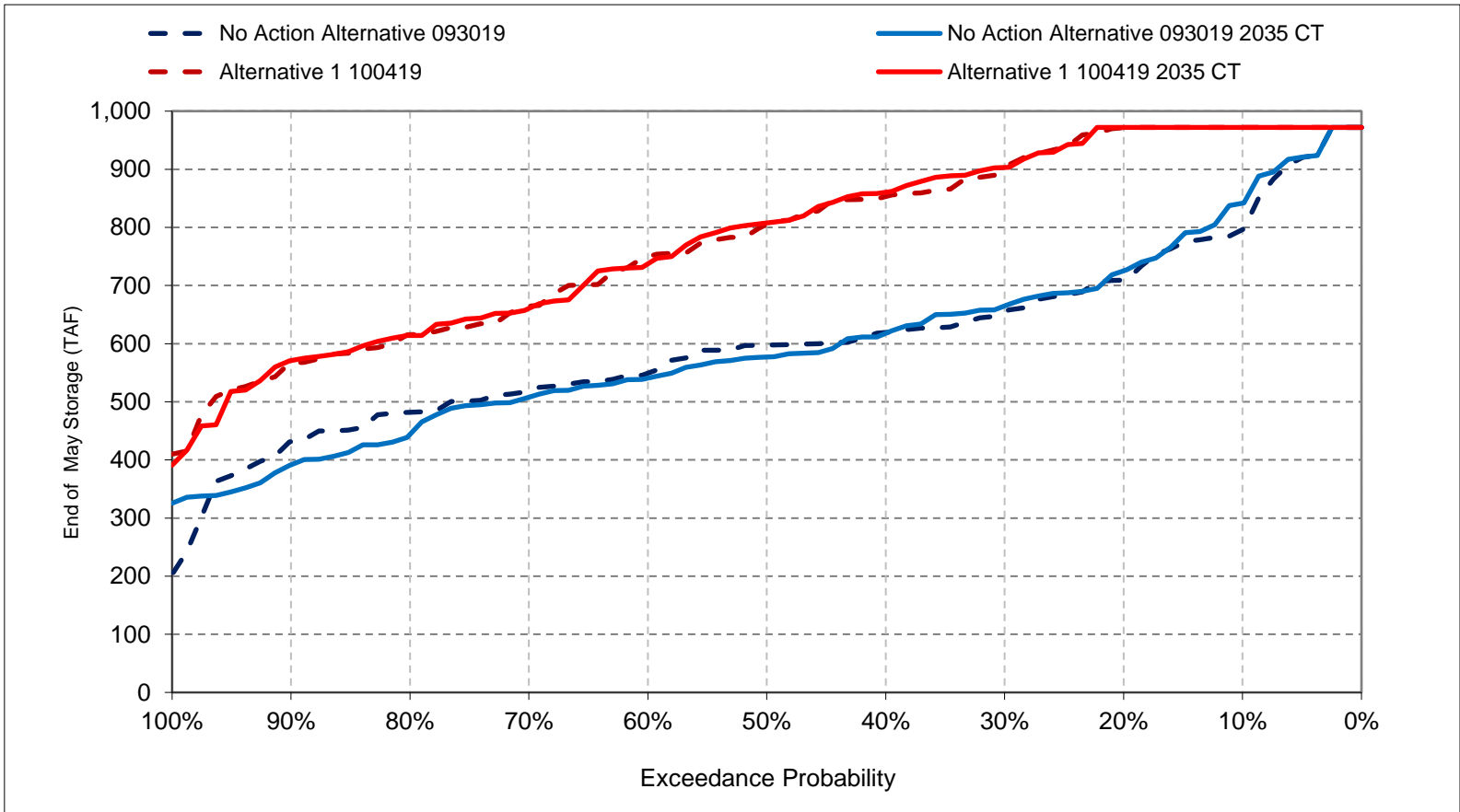
Figure 6b-13. San Luis CVP Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

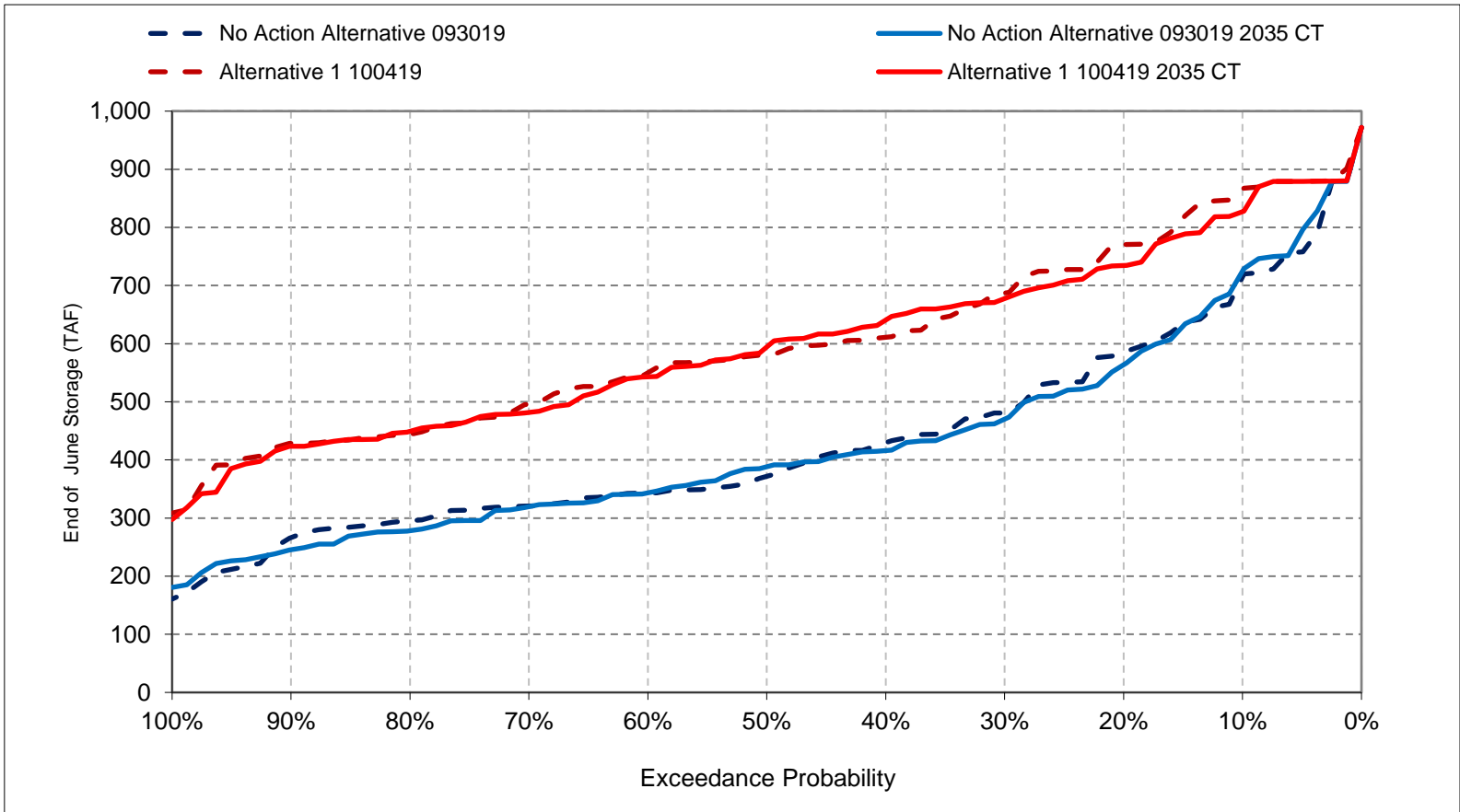
Figure 6b-14. San Luis CVP Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

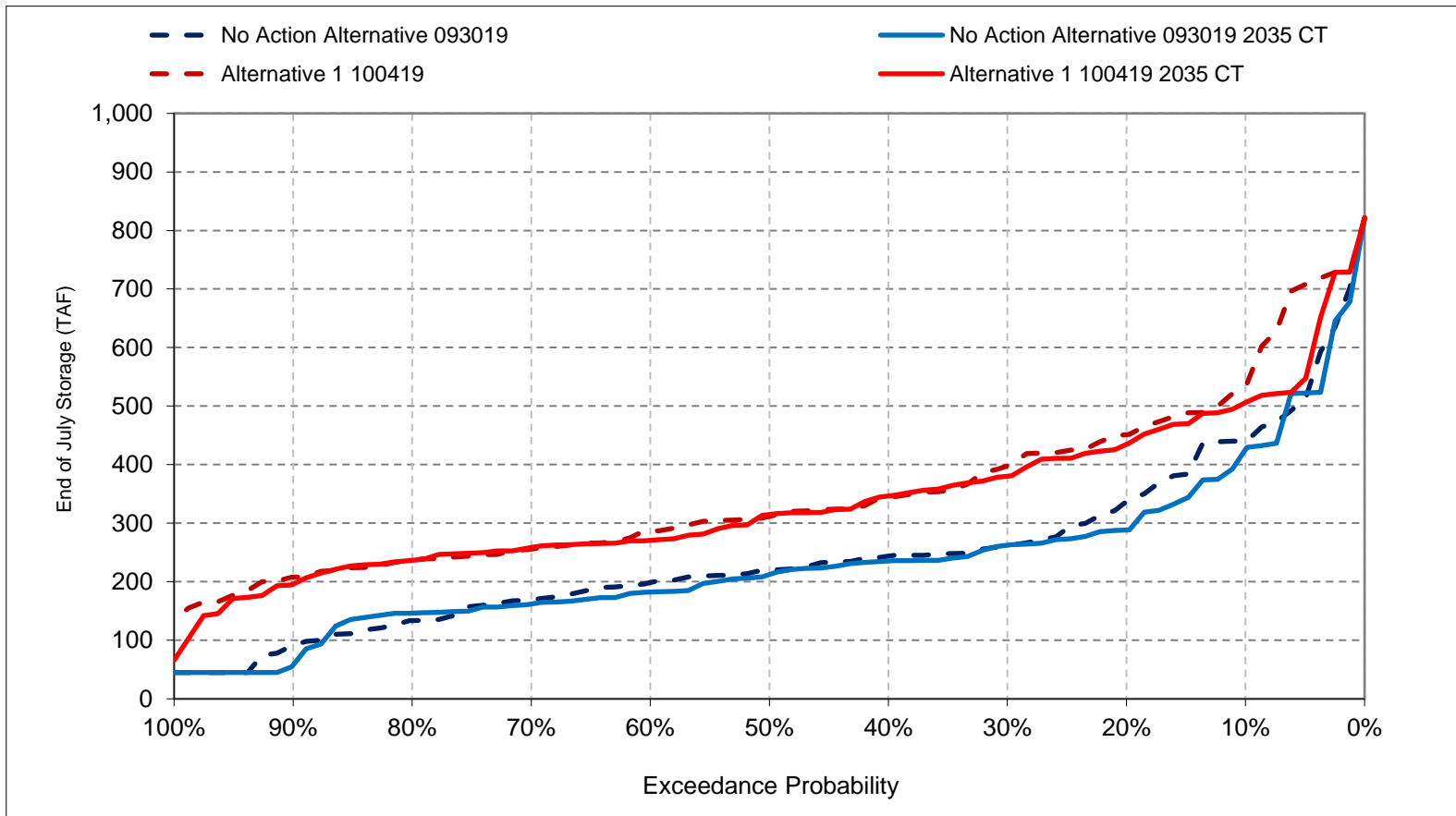
Figure 6b-15. San Luis CVP Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

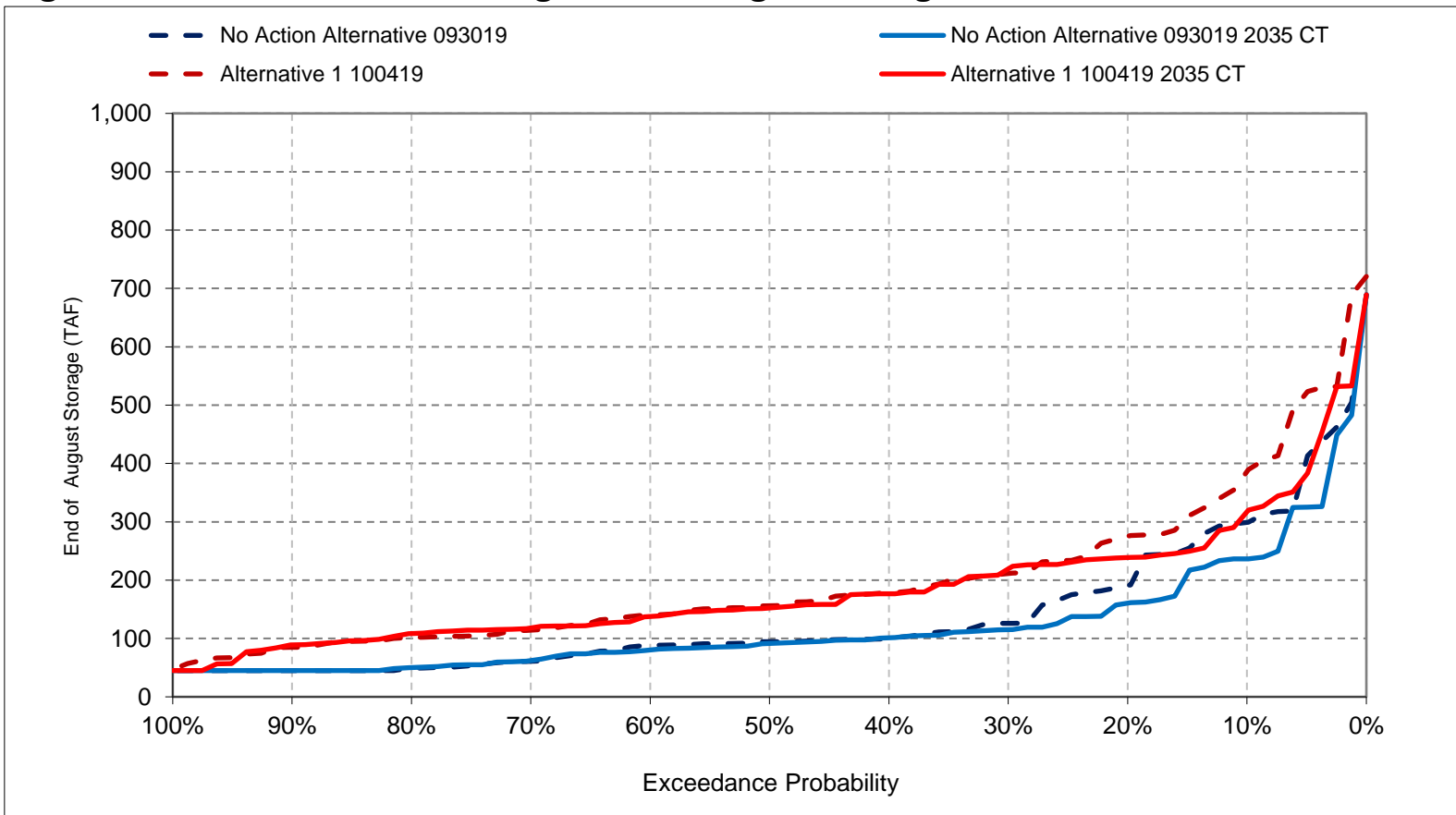
Figure 6b-16. San Luis CVP Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

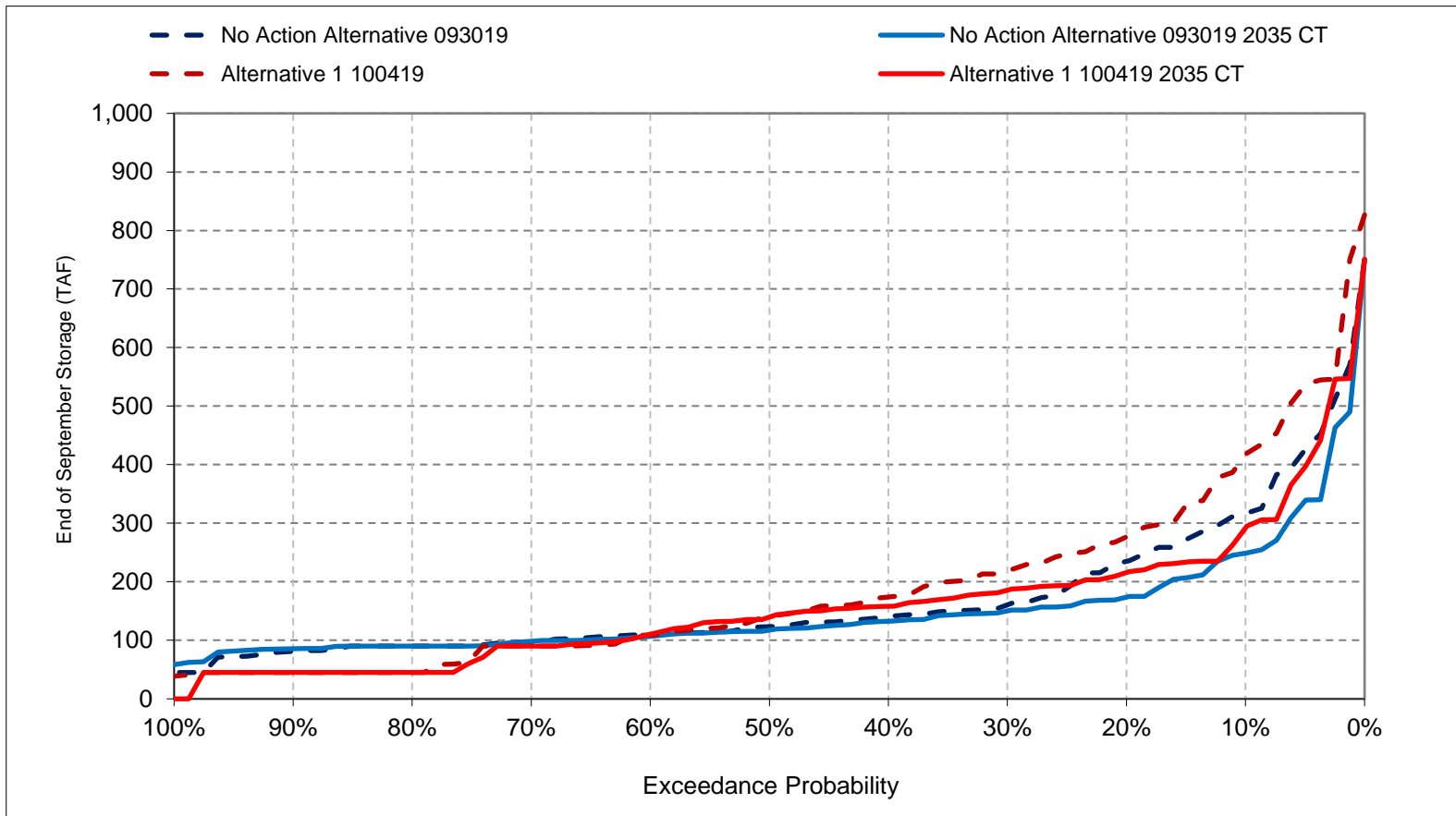
Figure 6b-17. San Luis CVP Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6b-18. San Luis CVP Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-1. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	467	490	655	762	990	1,067	941	788	564	478	424	451
20%	297	382	500	679	804	1,021	892	641	466	409	361	424
30%	268	318	407	566	719	897	809	612	396	358	315	364
40%	229	224	359	492	649	813	725	520	352	310	234	278
50%	179	185	285	400	578	710	630	494	303	263	204	228
60%	128	142	204	342	513	636	579	440	250	208	174	164
70%	61	68	144	272	418	549	495	357	219	186	104	97
80%	55	55	89	217	329	456	417	293	181	145	75	55
90%	55	55	55	199	296	378	344	238	77	100	55	55
Long Term												
Full Simulation Period ^d	214	231	317	459	595	722	650	499	335	297	242	255
Water Year Types ^{b,c}												
Wet (32%)	324	245	345	526	707	892	767	568	400	390	395	435
Above Normal (16%)	264	260	357	494	636	759	643	446	227	235	266	328
Below Normal (13%)	183	224	279	392	499	614	544	388	195	222	199	179
Dry (24%)	116	231	325	432	545	651	635	528	385	310	140	121
Critical (15%)	111	177	234	381	482	529	528	463	357	210	97	82

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	381	476	614	770	1,067	1,067	1,067	1,029	793	723	640	459
20%	281	378	477	653	840	1,007	1,056	891	710	642	562	332
30%	225	332	389	534	680	809	840	837	620	587	480	278
40%	167	261	348	425	585	647	747	669	533	478	367	229
50%	107	184	274	371	493	611	633	547	454	378	306	161
60%	55	154	208	327	435	535	585	487	372	300	277	102
70%	55	94	125	277	408	483	533	427	255	263	183	55
80%	55	55	92	226	377	445	459	381	214	223	89	55
90%	55	55	55	210	344	386	410	328	189	156	61	55
Long Term												
Full Simulation Period ^d	183	251	310	451	593	670	704	628	471	427	344	215
Water Year Types ^{b,c}												
Wet (32%)	236	291	354	506	687	799	857	791	620	590	567	324
Above Normal (16%)	79	132	184	506	616	652	669	567	343	333	326	120
Below Normal (13%)	238	292	303	417	541	580	599	469	269	303	290	254
Dry (24%)	190	297	384	422	551	641	666	608	507	452	232	191
Critical (15%)	119	176	233	354	479	540	572	517	409	249	114	88

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-86	-13	-41	8	77	0	126	241	228	245	216	8
20%	-16	-4	-23	-26	36	-14	164	250	244	233	200	-92
30%	-43	14	-18	-31	-40	-88	31	225	224	229	166	-86
40%	-62	37	-11	-67	-63	-166	23	149	181	169	133	-49
50%	-71	-1	-11	-28	-85	-98	2	54	152	115	102	-67
60%	-73	12	4	-15	-78	-101	5	47	121	92	103	-62
70%	-6	25	-19	5	-10	-66	38	70	36	76	79	-42
80%	0	0	3	9	49	-11	42	88	33	78	15	0
90%	0	0	0	11	49	8	66	90	112	56	6	0
Long Term												
Full Simulation Period ^d	-31	19	-7	-7	-3	-52	54	128	136	130	101	-40
Water Year Types ^{b,c}												
Wet (32%)	-88	46	9	-20	-20	-93	90	223	220	200	172	-111
Above Normal (16%)	-186	-128	-173	12	-20	-108	26	121	116	98	60	-208
Below Normal (13%)	55	68	24	25	43	-34	54	81	74	81	91	75
Dry (24%)	74	67	59	-10	6	-10	32	80	123	143	92	70
Critical (15%)	8	-1	0	-27	-3	11	44	55	52	39	17	6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 6c-2. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	448	453	653	812	1,065	1,067	954	748	545	533	497	511
20%	320	384	508	634	864	1,064	902	680	462	430	398	404
30%	236	322	433	591	696	963	808	616	422	401	324	334
40%	197	257	382	532	672	829	714	571	392	334	292	301
50%	173	201	286	448	625	740	667	524	364	289	226	228
60%	119	126	199	381	553	679	627	459	272	250	172	196
70%	58	55	132	275	456	590	543	401	239	214	129	122
80%	55	55	55	232	352	438	429	375	188	168	97	58
90%	55	55	55	187	287	389	365	274	140	100	55	55
Long Term												
Full Simulation Period ^d	211	235	321	477	620	744	677	526	354	323	266	265
Water Year Types^{b,c}												
Wet (32%)	302	238	332	546	758	939	831	639	460	428	408	409
Above Normal (16%)	185	201	289	532	670	798	681	476	247	255	268	321
Below Normal (13%)	209	245	278	393	530	627	586	430	218	245	215	205
Dry (24%)	162	272	374	450	550	656	621	509	357	322	191	164
Critical (15%)	126	192	281	388	466	519	517	454	358	241	129	119

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	419	536	647	882	1,067	1,067	1,067	1,067	878	745	641	468
20%	297	410	498	634	842	1,034	1,066	954	783	667	523	369
30%	233	309	400	521	752	881	903	862	623	565	463	305
40%	148	252	328	454	654	752	819	716	560	497	415	263
50%	86	170	231	385	551	657	743	637	472	402	366	134
60%	55	130	135	313	489	561	642	537	408	326	246	80
70%	55	77	84	274	434	508	553	475	331	271	133	55
80%	55	55	55	241	369	458	475	381	266	198	75	55
90%	55	55	55	189	319	402	405	334	159	144	55	55
Long Term												
Full Simulation Period ^d	187	248	304	455	609	695	731	657	504	434	339	223
Water Year Types^{b,c}												
Wet (32%)	222	268	327	525	726	849	902	849	684	589	523	297
Above Normal (16%)	121	174	215	525	645	681	712	612	404	369	346	187
Below Normal (13%)	240	292	307	319	482	546	580	476	299	310	284	245
Dry (24%)	196	284	363	451	582	672	692	613	490	435	245	201
Critical (15%)	120	184	250	359	476	553	584	528	432	283	138	117

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-28	82	-6	70	1	0	113	319	333	212	143	-43
20%	-23	26	-9	1	-21	-31	164	274	321	237	124	-35
30%	-3	-12	-33	-70	56	-82	95	246	200	163	139	-29
40%	-49	-5	-54	-77	-18	-77	104	145	167	162	122	-38
50%	-87	-31	-55	-62	-74	-83	76	113	108	113	140	-94
60%	-64	4	-64	-68	-64	-118	14	78	136	76	75	-116
70%	-3	22	-48	0	-22	-83	10	74	92	57	4	-67
80%	0	0	0	9	18	21	46	5	78	30	-21	-3
90%	0	0	0	2	33	13	40	60	19	44	0	0
Long Term												
Full Simulation Period ^d	-24	13	-17	-22	-12	-49	54	131	150	112	73	-43
Water Year Types^{b,c}												
Wet (32%)	-81	30	-5	-21	-32	-90	71	210	224	162	115	-112
Above Normal (16%)	-64	-27	-74	-7	-25	-117	30	136	157	114	79	-134
Below Normal (13%)	31	47	29	-74	-48	-81	-6	46	81	64	68	40
Dry (24%)	34	12	-11	1	31	16	72	104	134	113	54	37
Critical (15%)	-6	-9	-31	-29	9	33	66	74	74	42	9	-3

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-3. San Luis SWP Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	467	490	655	762	990	1,067	941	788	564	478	424	451
20%	297	382	500	679	804	1,021	892	641	466	409	361	424
30%	268	318	407	566	719	897	809	612	396	358	315	364
40%	229	224	359	492	649	813	725	520	352	310	234	278
50%	179	185	285	400	578	710	630	494	303	263	204	228
60%	128	142	204	342	513	636	579	440	250	208	174	164
70%	61	68	144	272	418	549	495	357	219	186	104	97
80%	55	55	89	217	329	456	417	293	181	145	75	55
90%	55	55	55	199	296	378	344	238	77	100	55	55
Long Term												
Full Simulation Period ^d	214	231	317	459	595	722	650	499	335	297	242	255
Water Year Types ^{b,c}												
Wet (32%)	324	245	345	526	707	892	767	568	400	390	395	435
Above Normal (16%)	264	260	357	494	636	759	643	446	227	235	266	328
Below Normal (13%)	183	224	279	392	499	614	544	388	195	222	199	179
Dry (24%)	116	231	325	432	545	651	635	528	385	310	140	121
Critical (15%)	111	177	234	381	482	529	528	463	357	210	97	82

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	448	453	653	812	1,065	1,067	954	748	545	533	497	511
20%	320	384	508	634	864	1,064	902	680	462	430	398	404
30%	236	322	433	591	696	963	808	616	422	401	324	334
40%	197	257	382	532	672	829	714	571	392	334	292	301
50%	173	201	286	448	625	740	667	524	364	289	226	228
60%	119	126	199	381	553	679	627	459	272	250	172	196
70%	58	55	132	275	456	590	543	401	239	214	129	122
80%	55	55	55	232	352	438	429	375	188	168	97	58
90%	55	55	55	187	287	389	365	274	140	100	55	55
Long Term												
Full Simulation Period ^d	211	235	321	477	620	744	677	526	354	323	266	265
Water Year Types ^{b,c}												
Wet (32%)	302	238	332	546	758	939	831	639	460	428	408	409
Above Normal (16%)	185	201	289	532	670	798	681	476	247	255	268	321
Below Normal (13%)	209	245	278	393	530	627	586	430	218	245	215	205
Dry (24%)	162	272	374	450	550	656	621	509	357	322	191	164
Critical (15%)	126	192	281	388	466	519	517	454	358	241	129	119

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-36	-2	50	75	0	13	-40	-20	55	74	60
20%	23	2	7	-45	60	43	9	38	-4	21	37	-20
30%	-31	4	26	26	-23	66	-1	3	27	44	10	-30
40%	-32	33	22	40	23	16	-10	51	41	25	59	23
50%	-6	15	2	48	47	30	37	31	61	27	22	0
60%	-9	-16	-5	39	40	43	48	19	21	42	-2	32
70%	-3	-13	-13	3	38	42	48	44	20	28	25	25
80%	0	0	-34	15	23	-18	12	82	7	23	22	3
90%	0	0	0	-12	-9	10	21	37	62	0	0	0
Long Term												
Full Simulation Period ^d	-3	3	4	18	25	23	27	27	18	26	24	10
Water Year Types ^{b,c}												
Wet (32%)	-21	-7	-13	20	51	47	64	71	60	38	13	-26
Above Normal (16%)	-79	-59	-67	38	34	39	38	30	20	21	2	-7
Below Normal (13%)	26	21	0	1	31	13	42	42	22	23	17	26
Dry (24%)	46	41	49	18	5	5	-14	-20	-28	12	51	43
Critical (15%)	14	16	47	7	-15	-10	-11	-9	0	31	32	37

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 6c-4. San Luis SWP Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	381	476	614	770	1,067	1,067	1,067	1,029	793	723	640	459
20%	281	378	477	653	840	1,007	1,056	891	710	642	562	332
30%	225	332	389	534	680	809	840	837	620	587	480	278
40%	167	261	348	425	585	647	747	669	533	478	367	229
50%	107	184	274	371	493	611	633	547	454	378	306	161
60%	55	154	208	327	435	535	585	487	372	300	277	102
70%	55	94	125	277	408	483	533	427	255	263	183	55
80%	55	55	92	226	377	445	459	381	214	223	89	55
90%	55	55	55	210	344	386	410	328	189	156	61	55
Long Term												
Full Simulation Period ^d	183	251	310	451	593	670	704	628	471	427	344	215
Water Year Types ^{b,c}												
Wet (32%)	236	291	354	506	687	799	857	791	620	590	567	324
Above Normal (16%)	79	132	184	506	616	652	669	567	343	333	326	120
Below Normal (13%)	238	292	303	417	541	580	599	469	269	303	290	254
Dry (24%)	190	297	384	422	551	641	666	608	507	452	232	191
Critical (15%)	119	176	233	354	479	540	572	517	409	249	114	88

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	419	536	647	882	1,067	1,067	1,067	1,067	878	745	641	468
20%	297	410	498	634	842	1,034	1,066	954	783	667	523	369
30%	233	309	400	521	752	881	903	862	623	565	463	305
40%	148	252	328	454	654	752	819	716	560	497	415	263
50%	86	170	231	385	551	657	743	637	472	402	366	134
60%	55	130	135	313	489	561	642	537	408	326	246	80
70%	55	77	84	274	434	508	553	475	331	271	133	55
80%	55	55	55	241	369	458	475	381	266	198	75	55
90%	55	55	55	189	319	402	405	334	159	144	55	55
Long Term												
Full Simulation Period ^d	187	248	304	455	609	695	731	657	504	434	339	223
Water Year Types ^{b,c}												
Wet (32%)	222	268	327	525	726	849	902	849	684	589	523	297
Above Normal (16%)	121	174	215	525	645	681	712	612	404	369	346	187
Below Normal (13%)	240	292	307	319	482	546	580	476	299	310	284	245
Dry (24%)	196	284	363	451	582	672	692	613	490	435	245	201
Critical (15%)	120	184	250	359	476	553	584	528	432	283	138	117

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	59	32	112	0	0	0	38	85	22	1	9
20%	17	31	22	-18	2	26	10	62	74	25	-39	37
30%	9	-23	11	-13	72	72	63	24	3	-22	-17	27
40%	-19	-9	-20	29	69	104	71	47	27	18	48	35
50%	-21	-14	-43	14	58	45	110	90	17	25	60	-26
60%	0	-24	-73	-14	54	26	57	49	36	26	-31	-22
70%	0	-17	-41	-2	26	24	19	48	76	8	-49	0
80%	0	0	-37	15	-8	14	17	0	53	-25	-14	0
90%	0	0	0	-21	-25	16	-5	7	-31	-12	-6	0
Long Term												
Full Simulation Period ^d	4	-3	-6	3	16	25	26	29	33	7	-5	7
Water Year Types ^{b,c}												
Wet (32%)	-14	-23	-27	19	39	50	45	57	64	0	-43	-27
Above Normal (16%)	42	41	31	19	29	29	42	46	61	36	20	67
Below Normal (13%)	3	0	4	-98	-60	-34	-19	7	29	6	-6	-9
Dry (24%)	6	-13	-21	28	30	31	26	5	-17	-17	13	10
Critical (15%)	1	7	16	5	-3	13	12	10	22	35	24	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

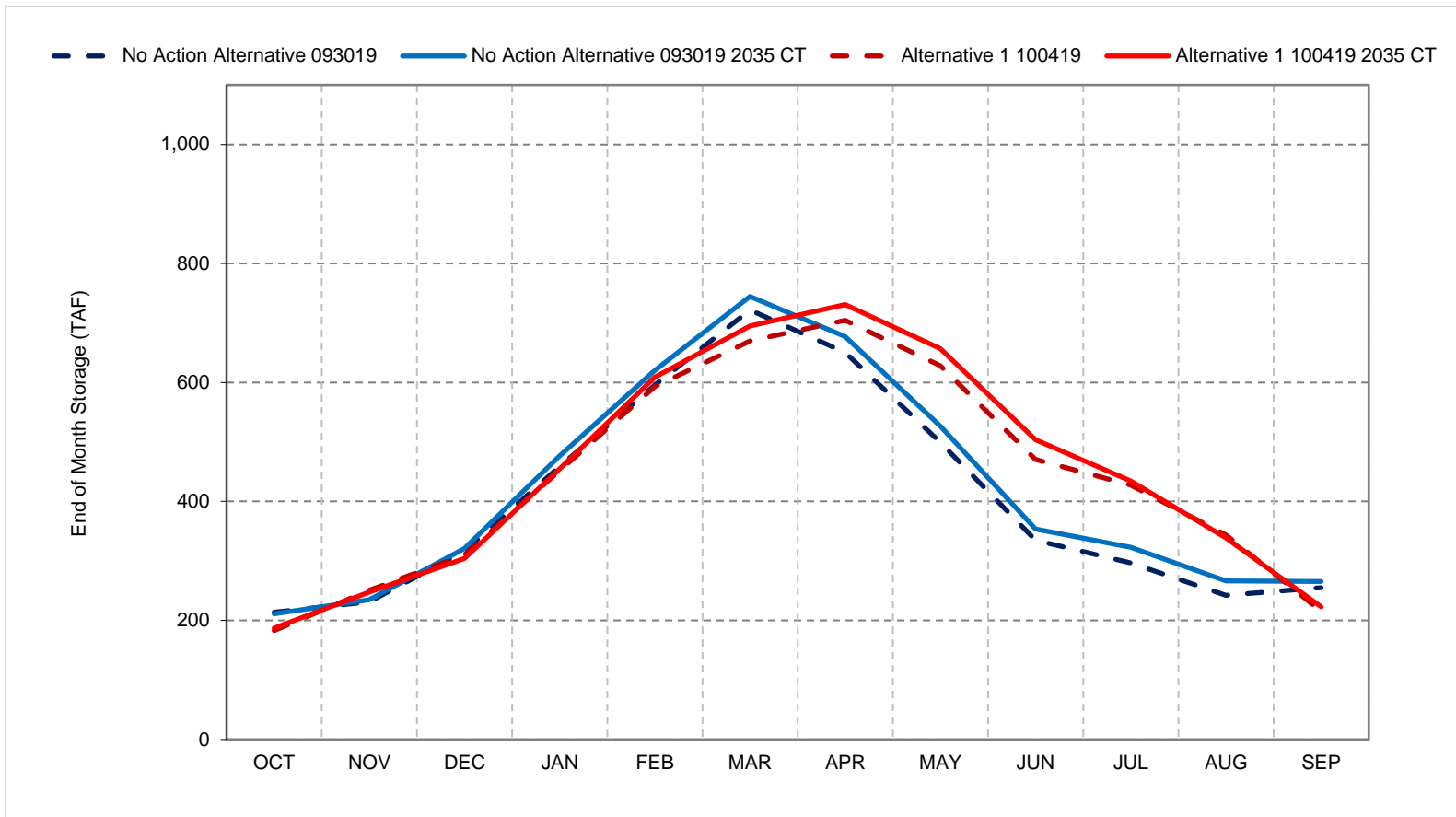
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6c-1. San Luis SWP Storage, Long-Term Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

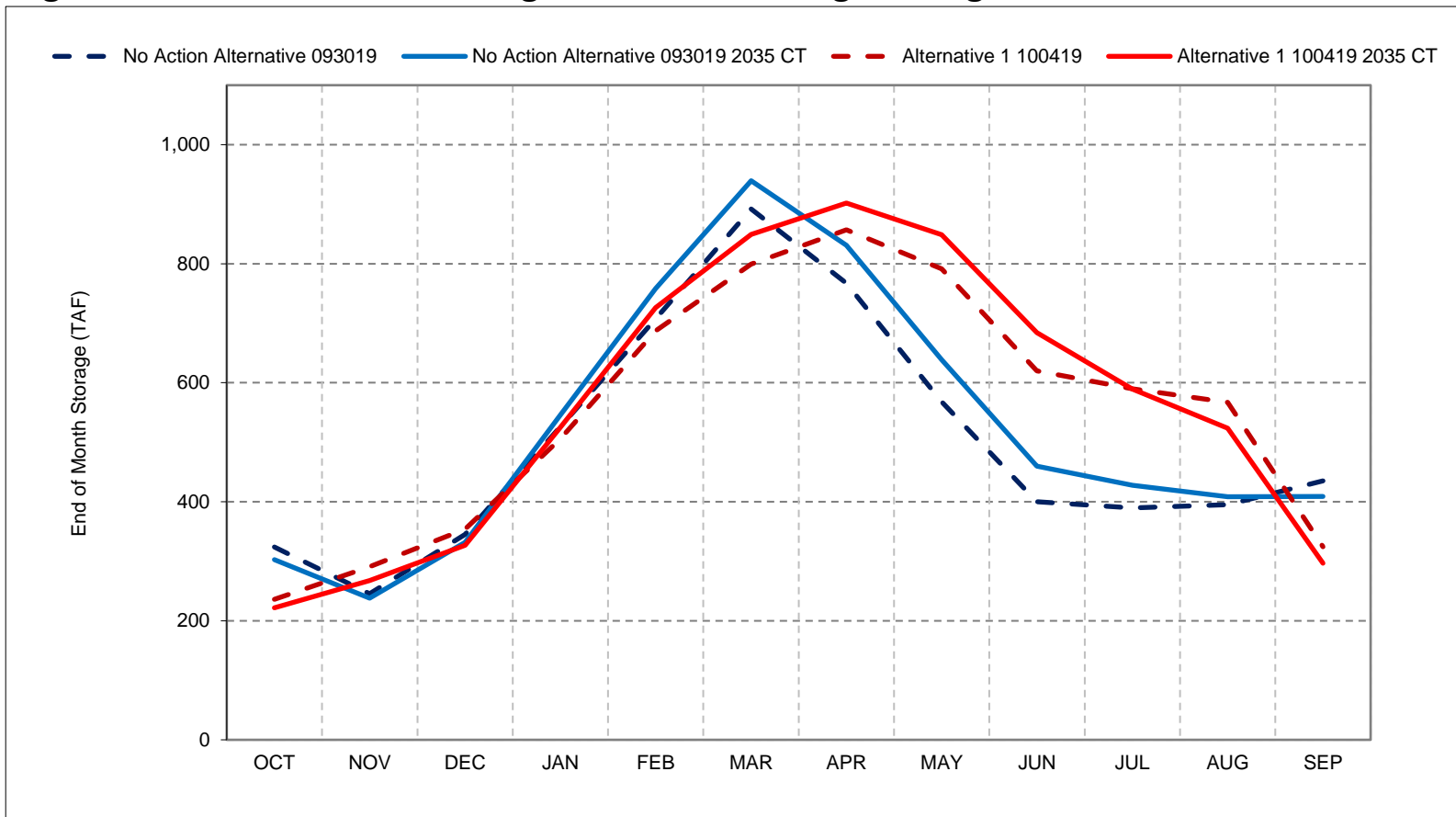
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-2. San Luis SWP Storage, Wet Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

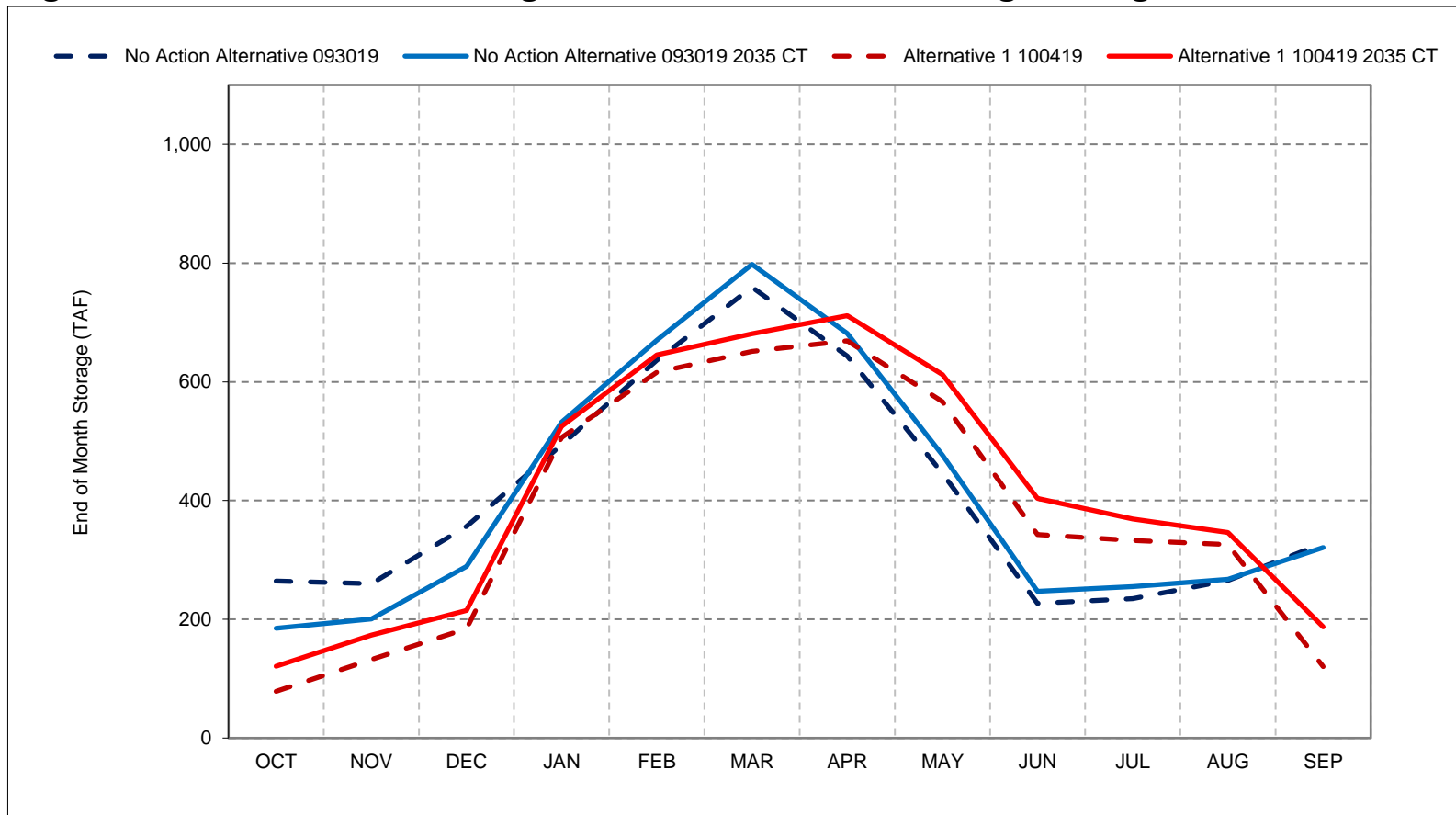
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-3. San Luis SWP Storage, Above Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

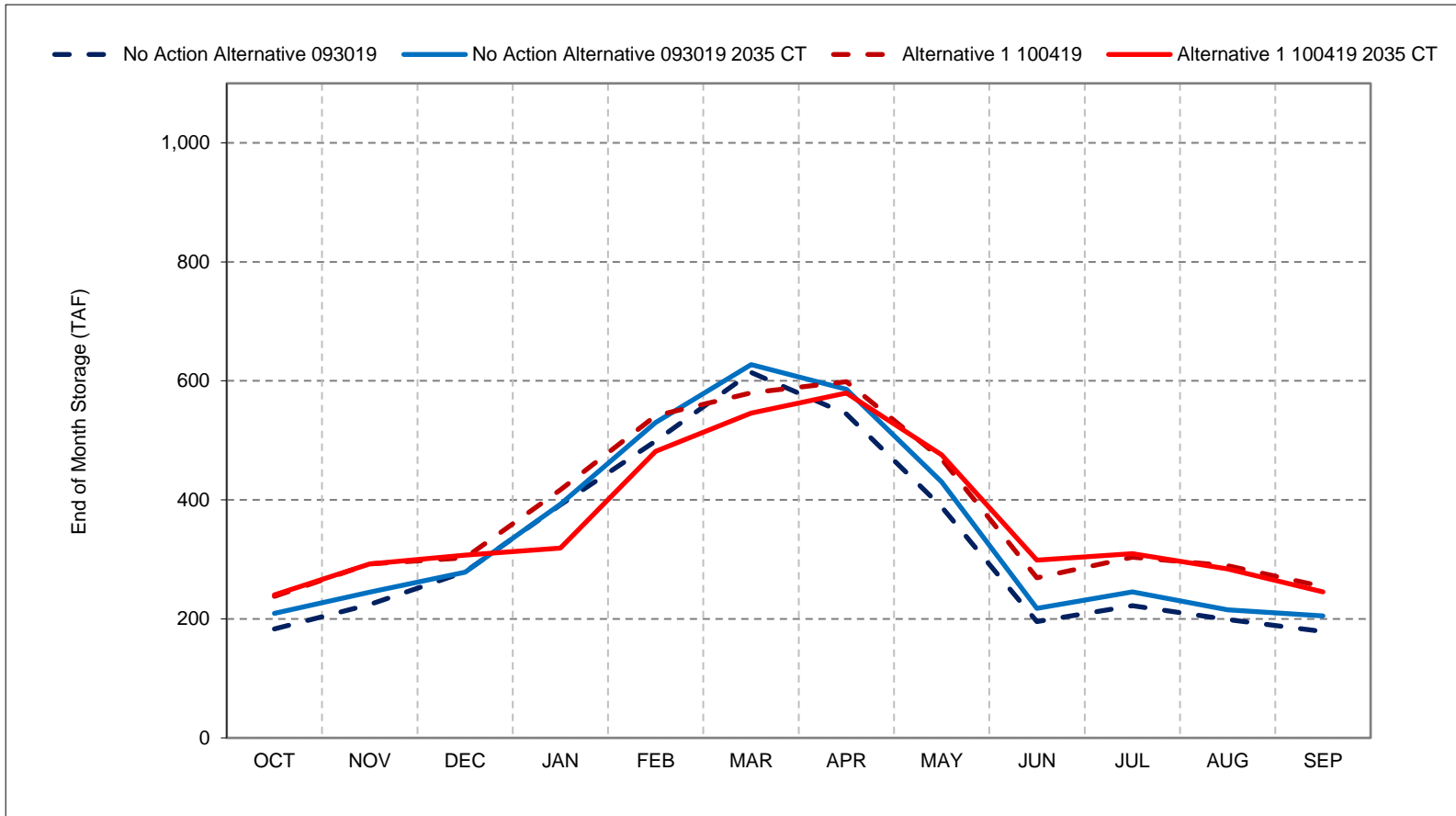
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-4. San Luis SWP Storage, Below Normal Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

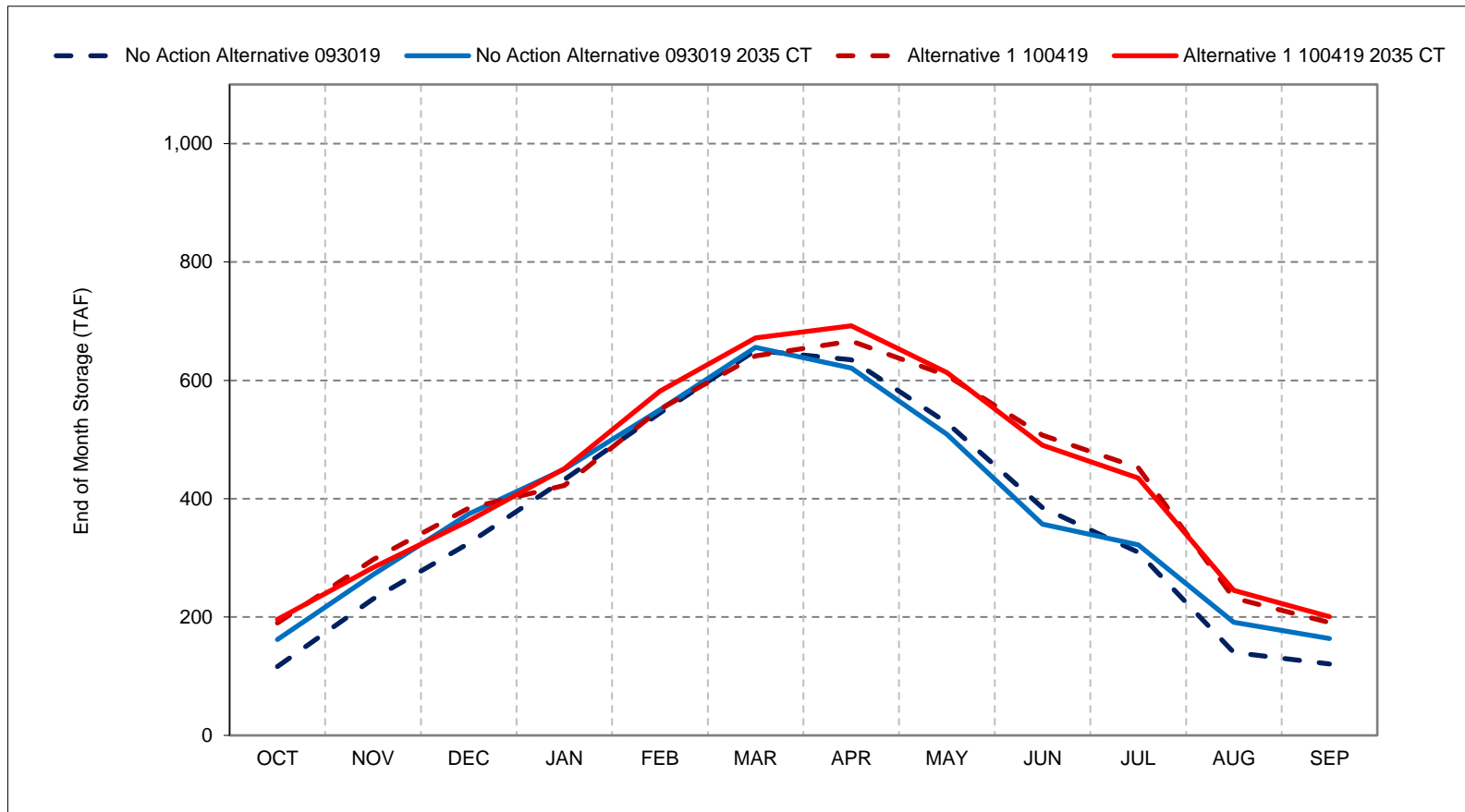
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-5. San Luis SWP Storage, Dry Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

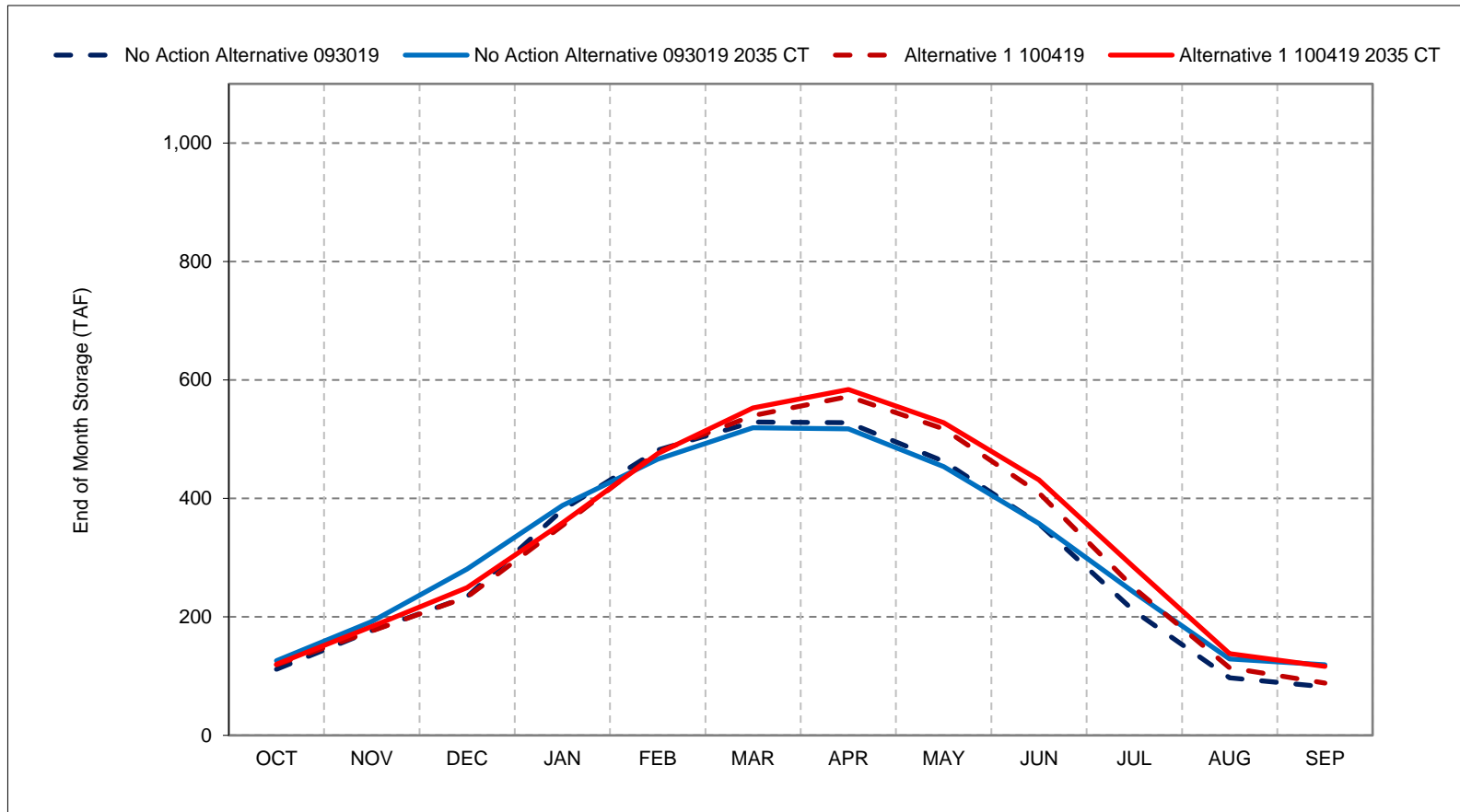
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 6c-6. San Luis SWP Storage, Critical Year Average Storage



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

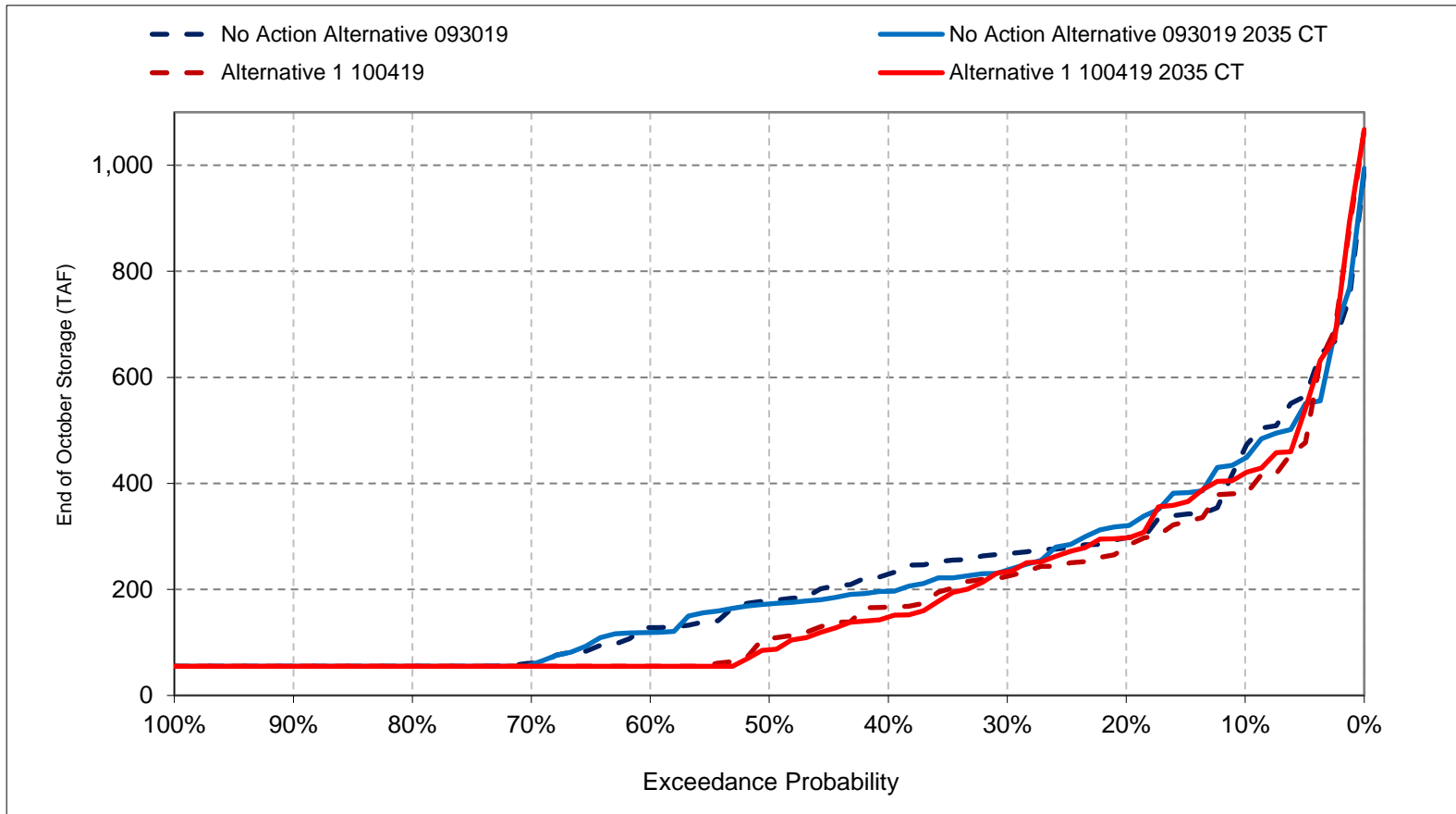
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

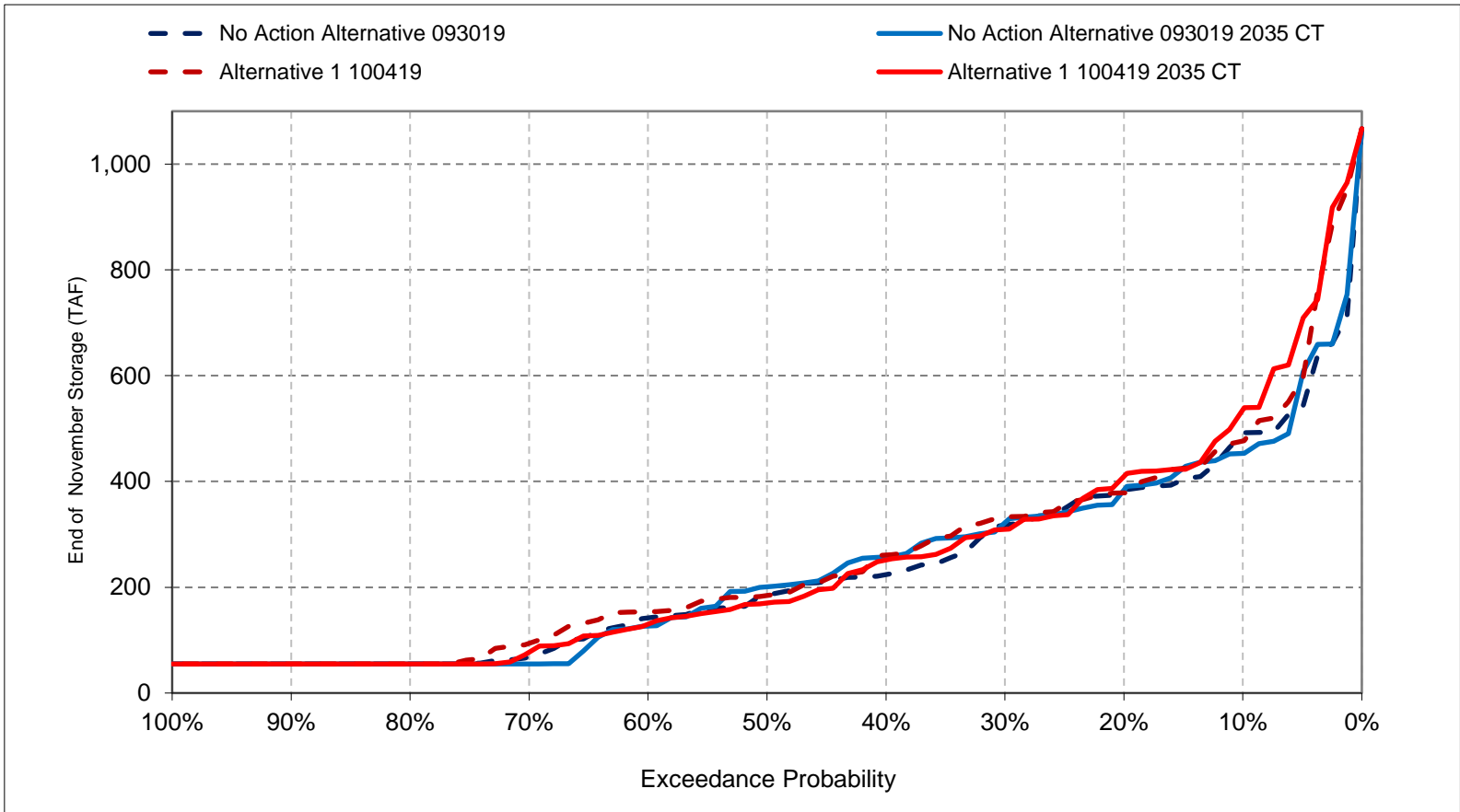
Figure 6c-7. San Luis SWP Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

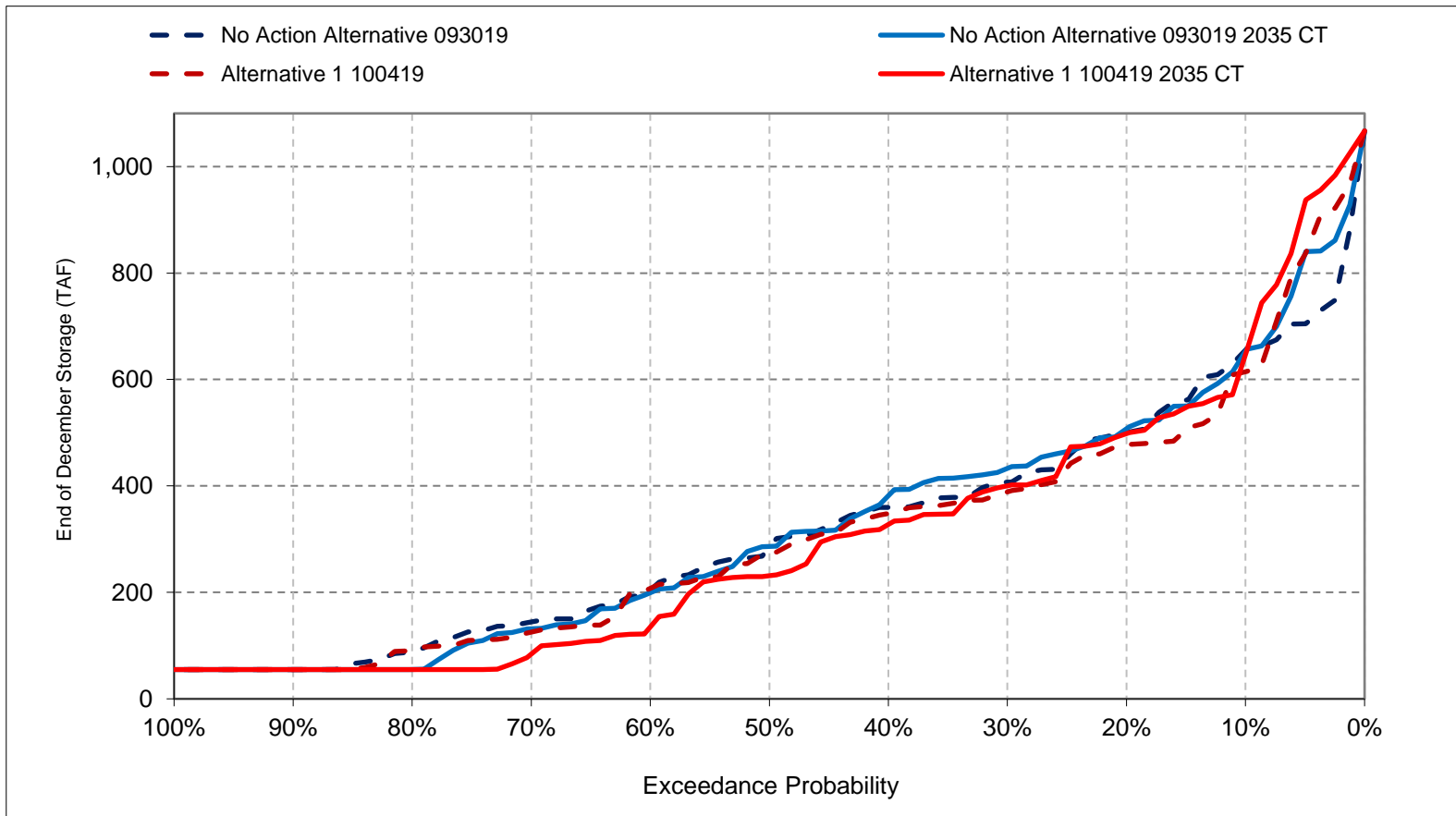
Figure 6c-8. San Luis SWP Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

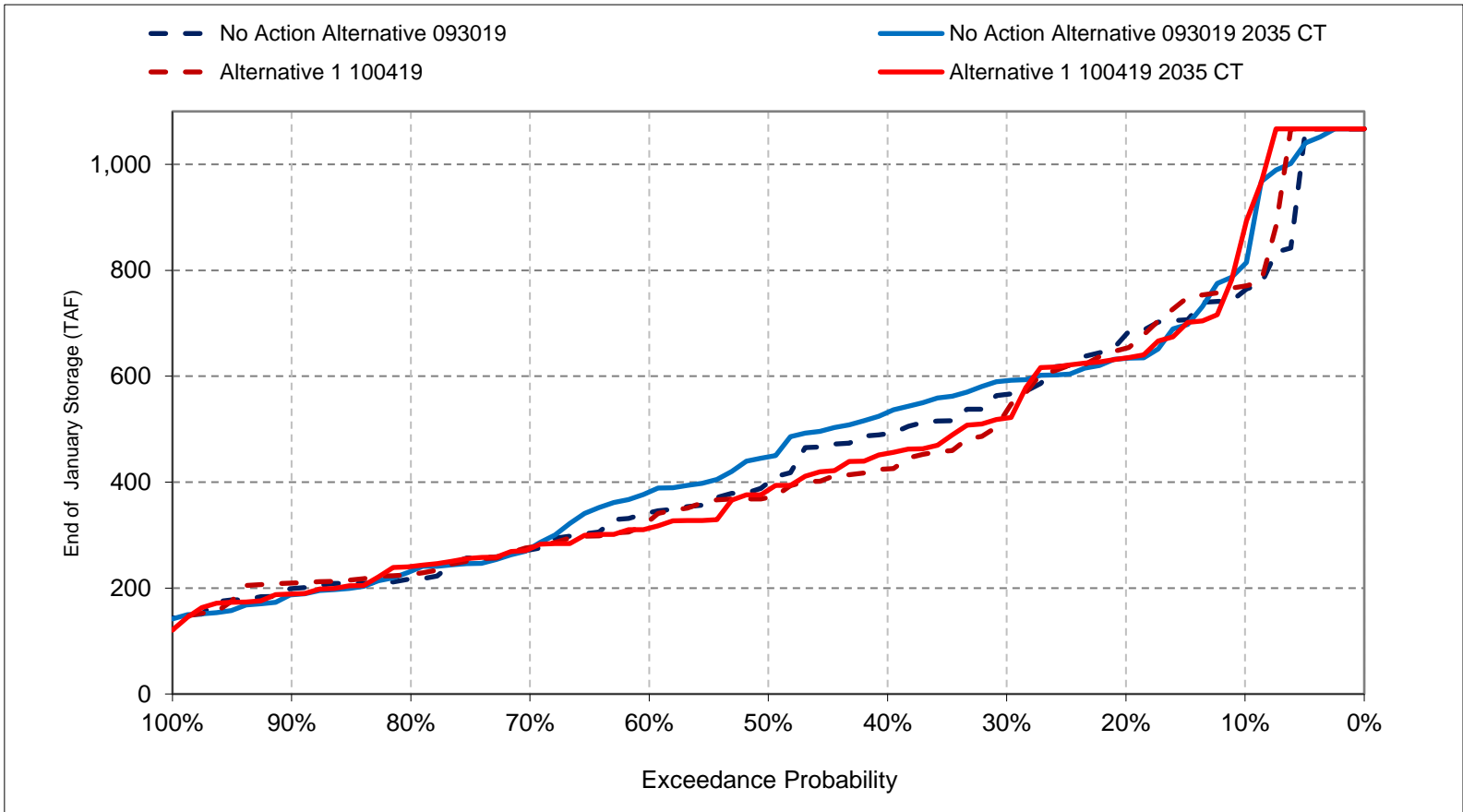
Figure 6c-9. San Luis SWP Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

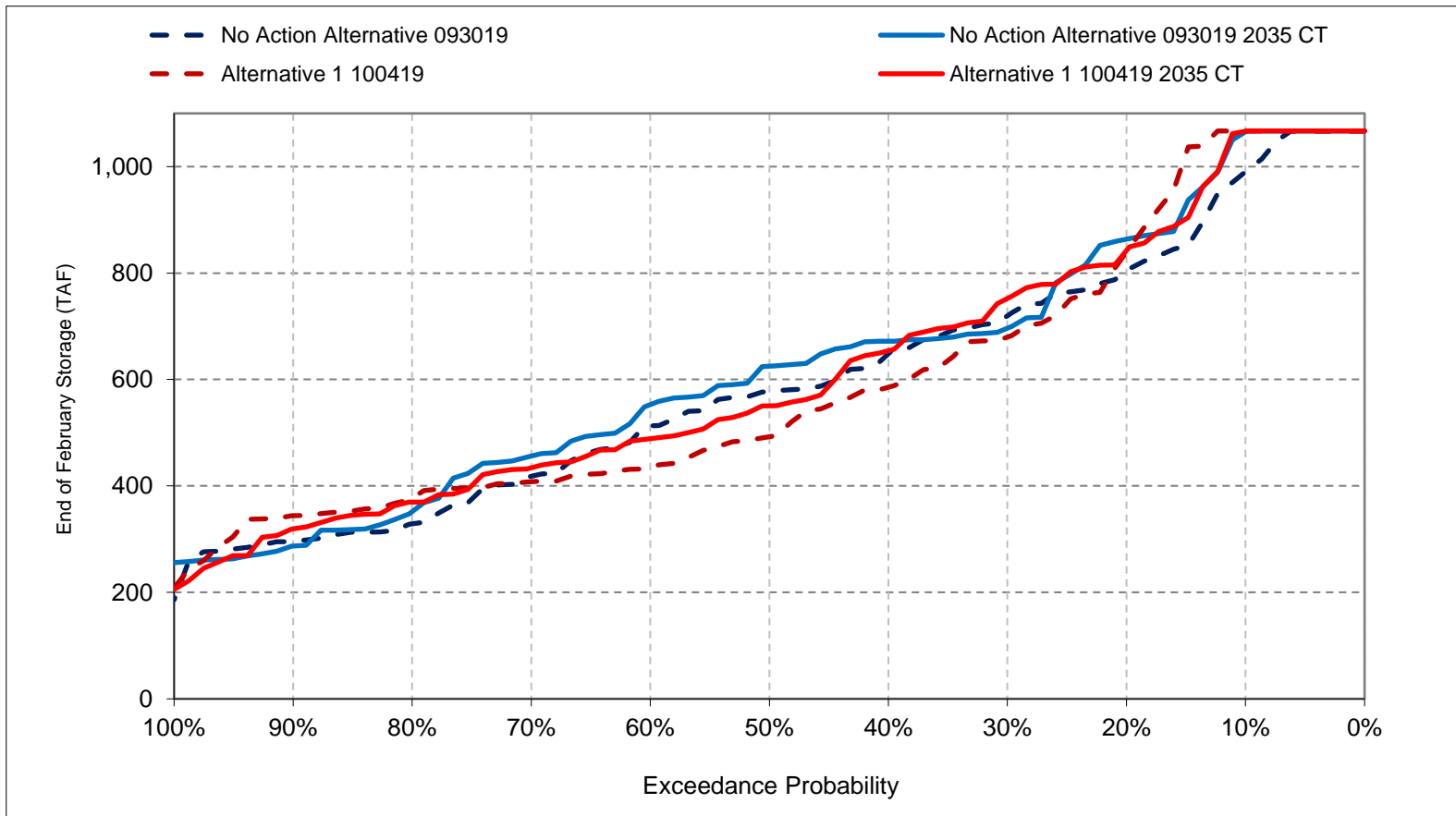
Figure 6c-10. San Luis SWP Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

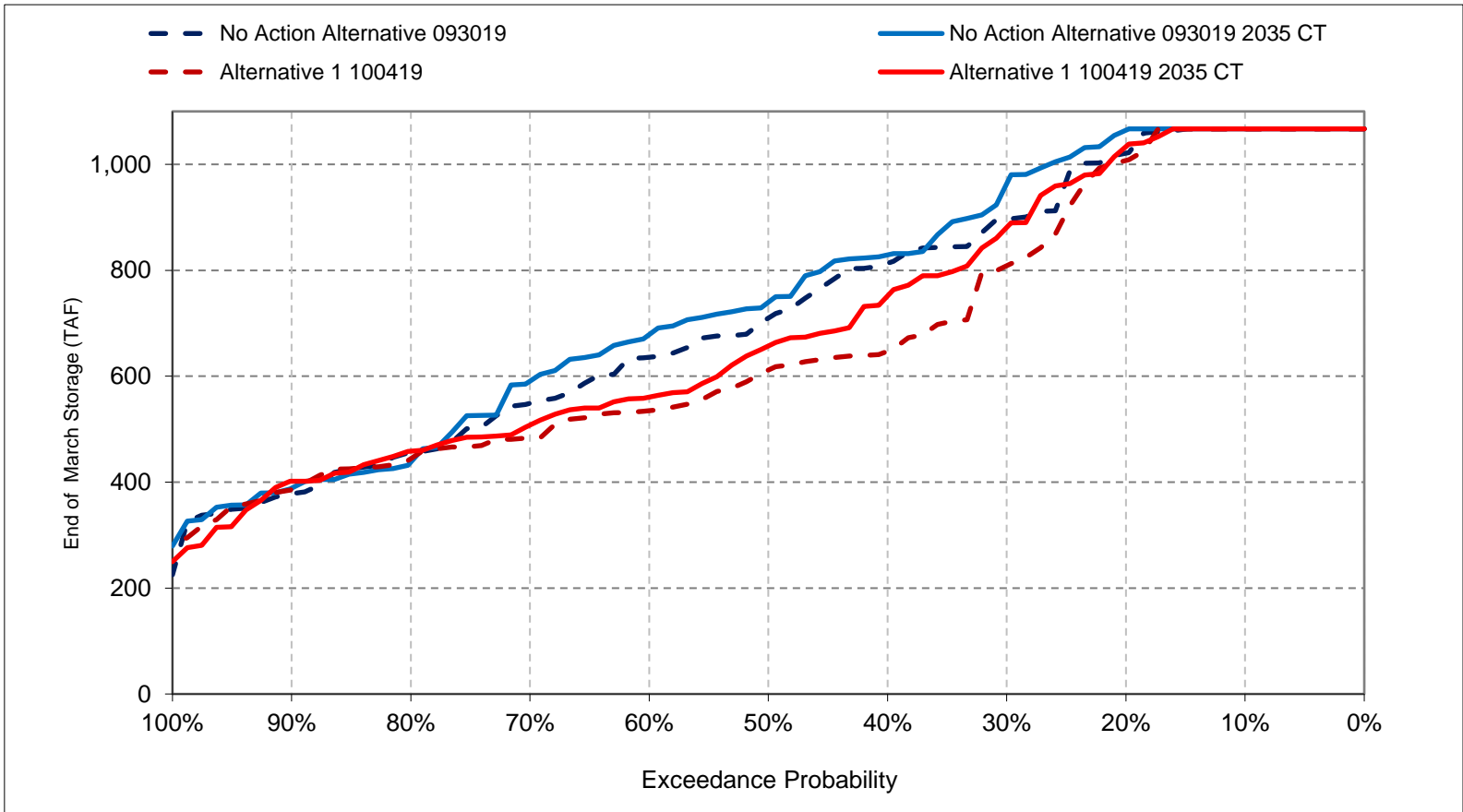
Figure 6c-11. San Luis SWP Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

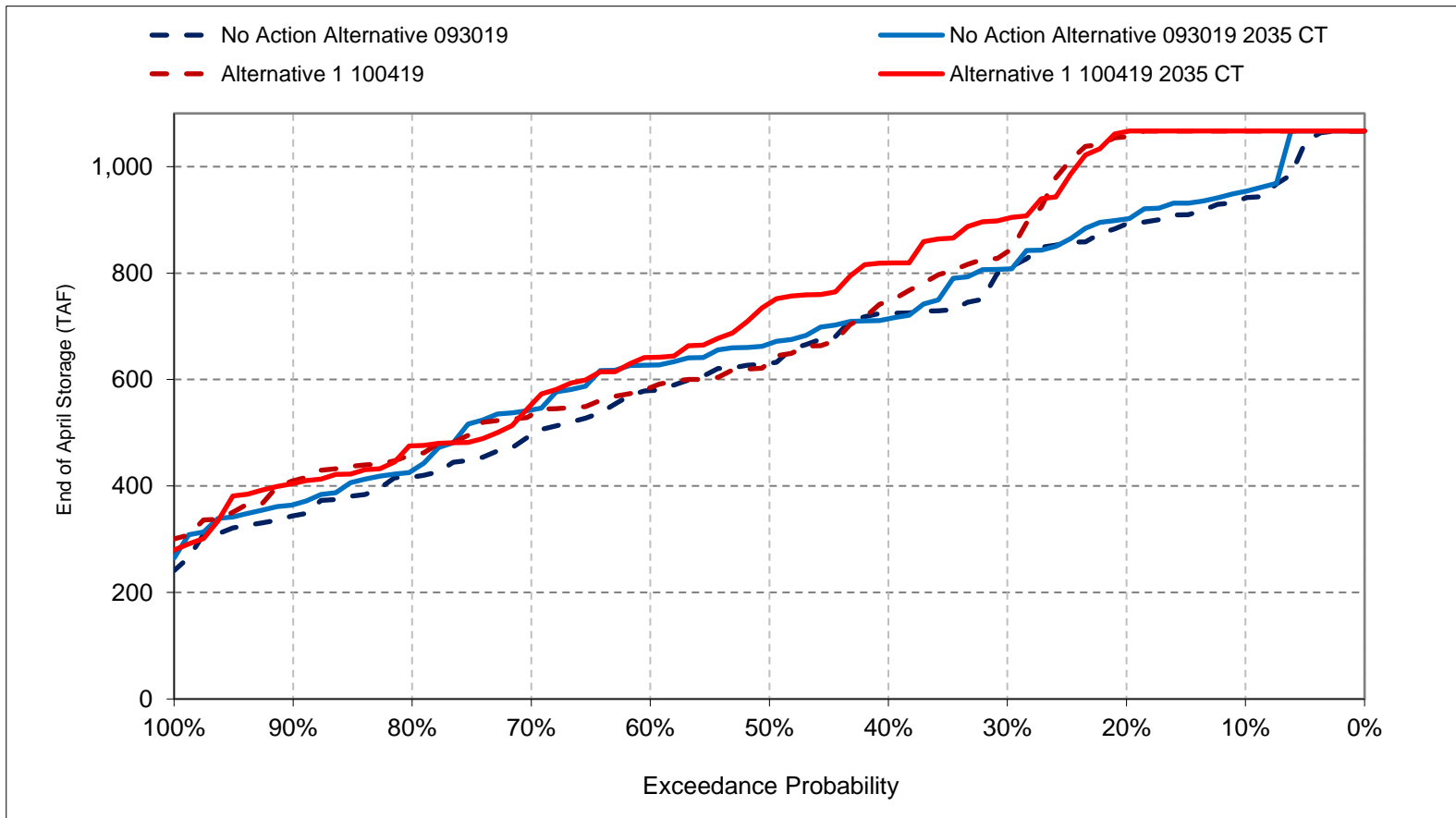
Figure 6c-12. San Luis SWP Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

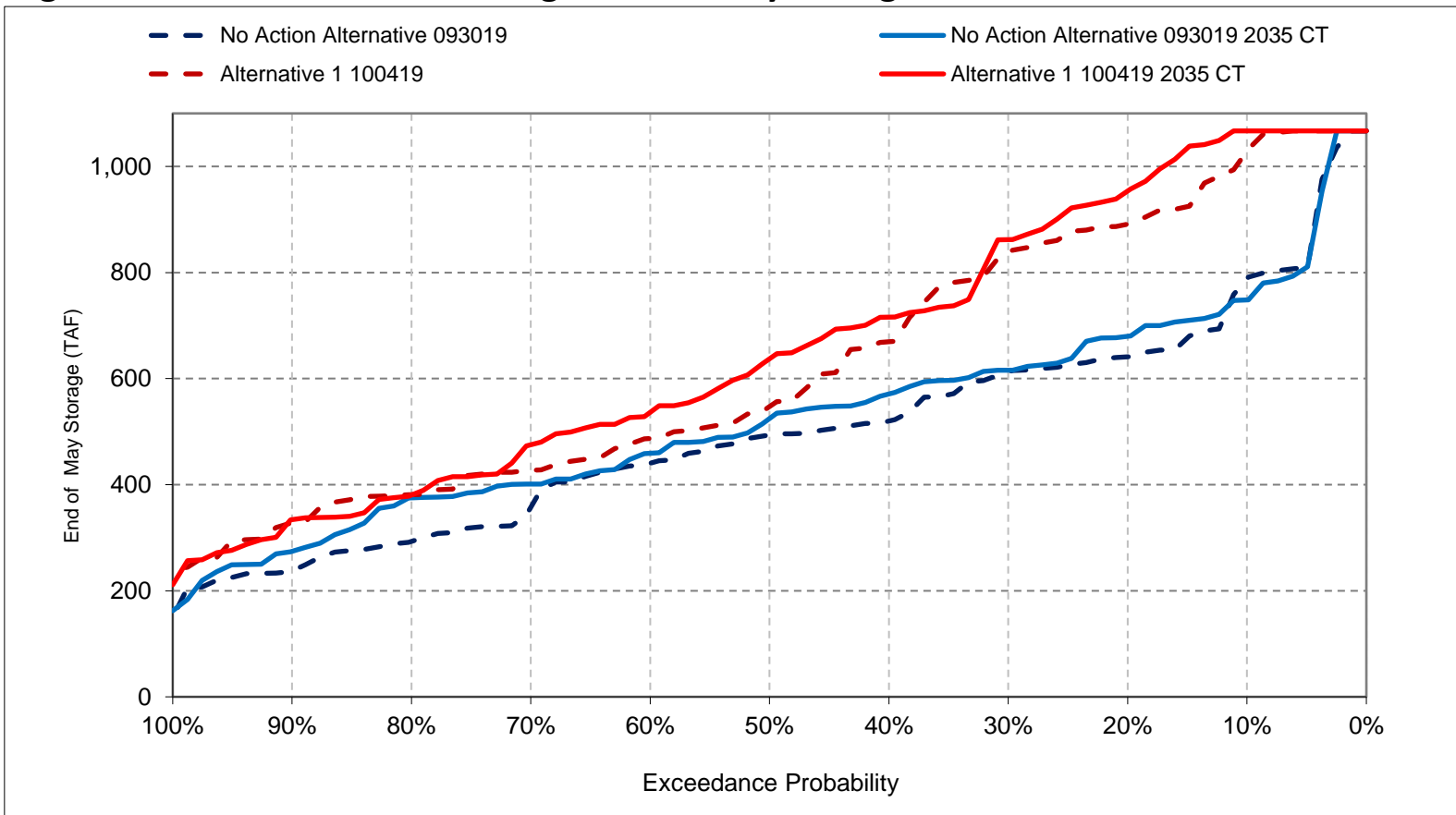
Figure 6c-13. San Luis SWP Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

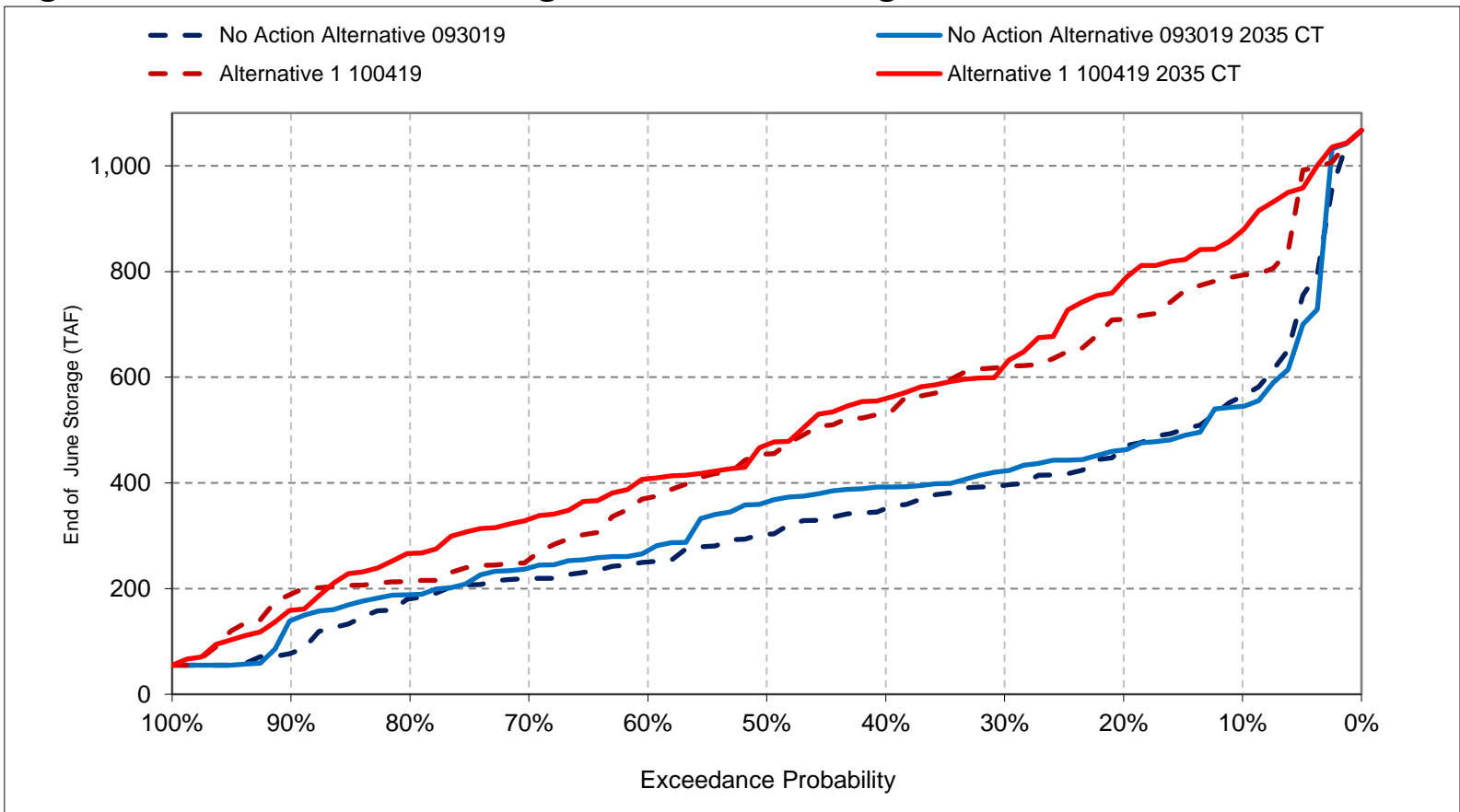
Figure 6c-14. San Luis SWP Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

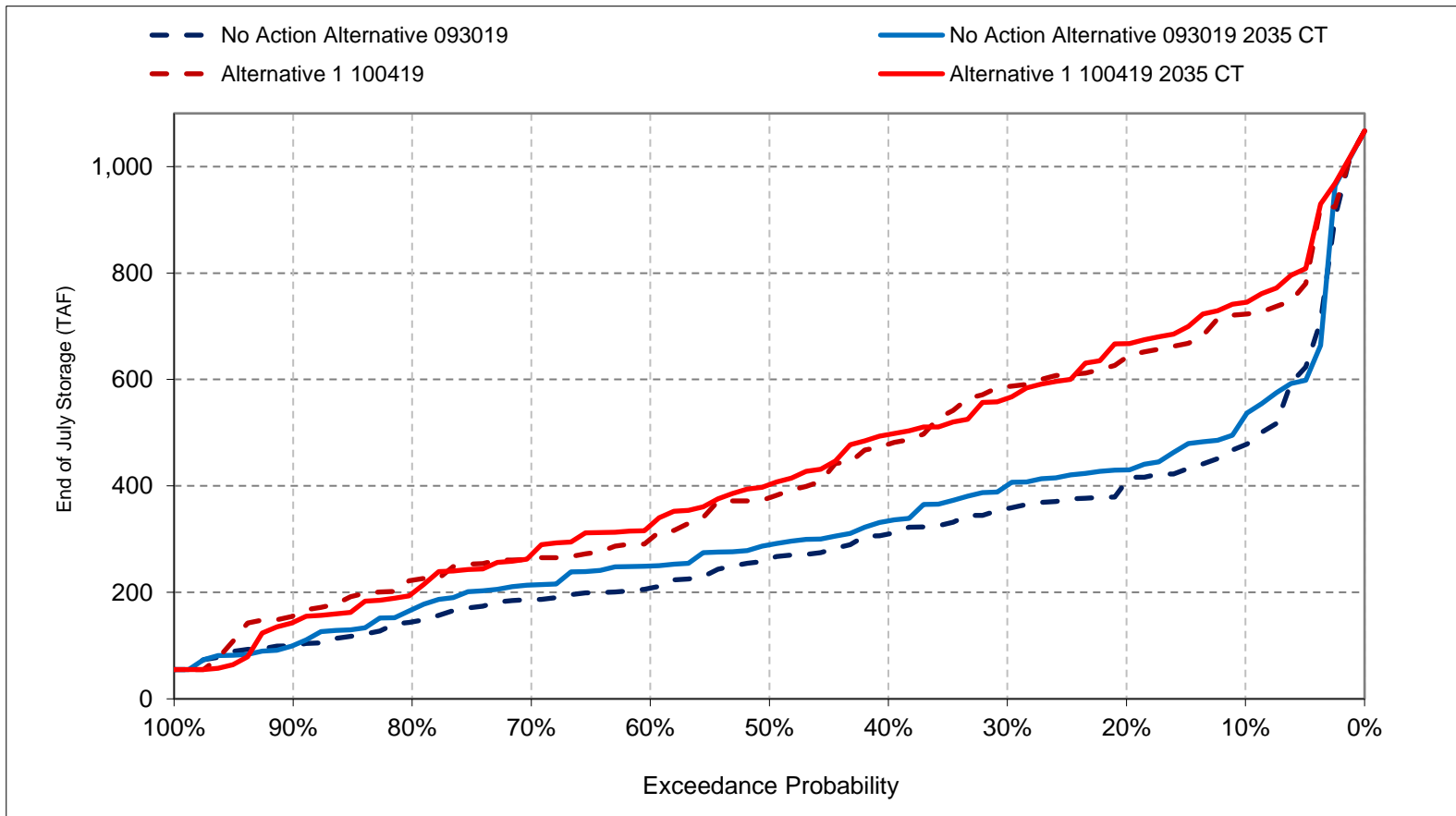
Figure 6c-15. San Luis SWP Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

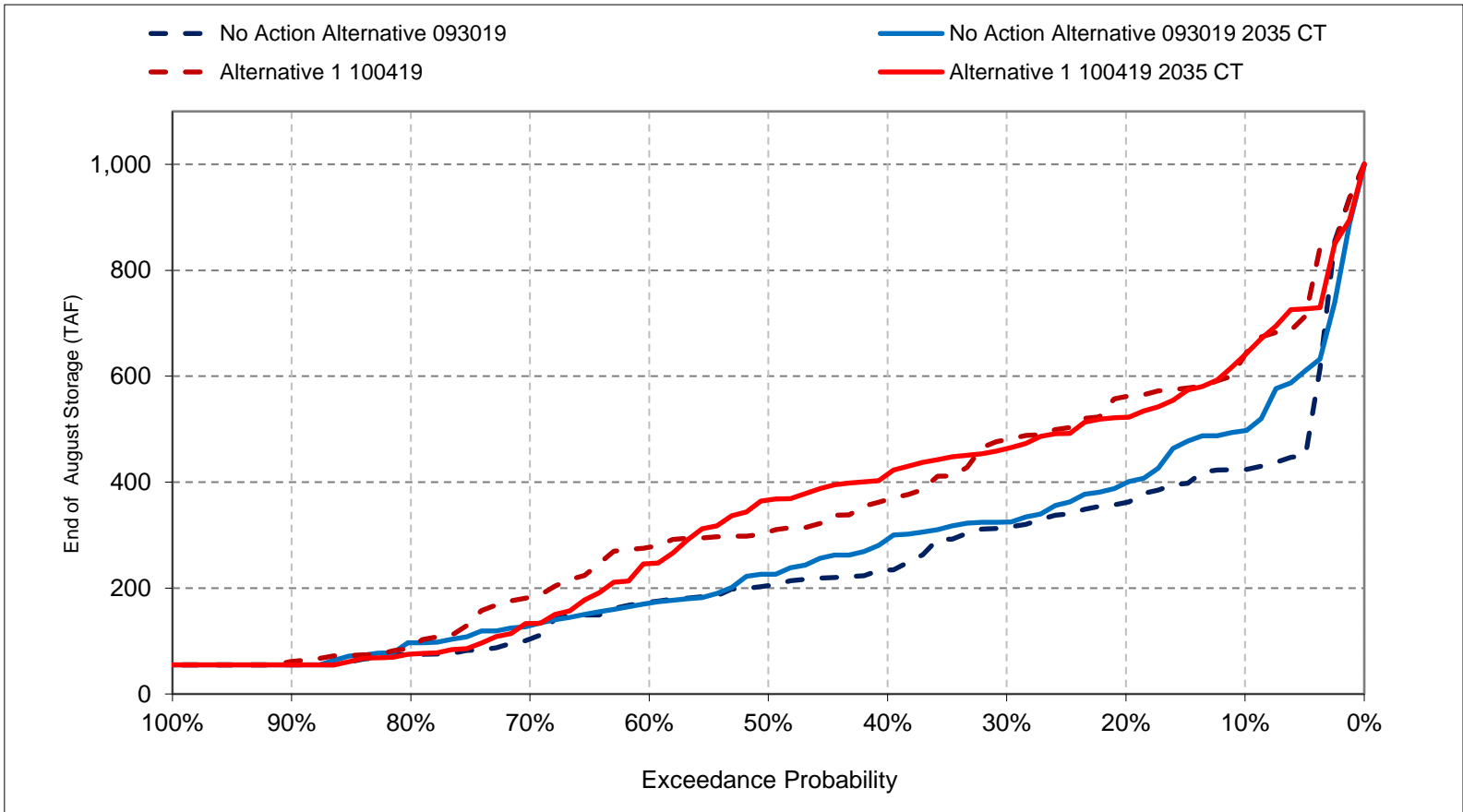
Figure 6c-16. San Luis SWP Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

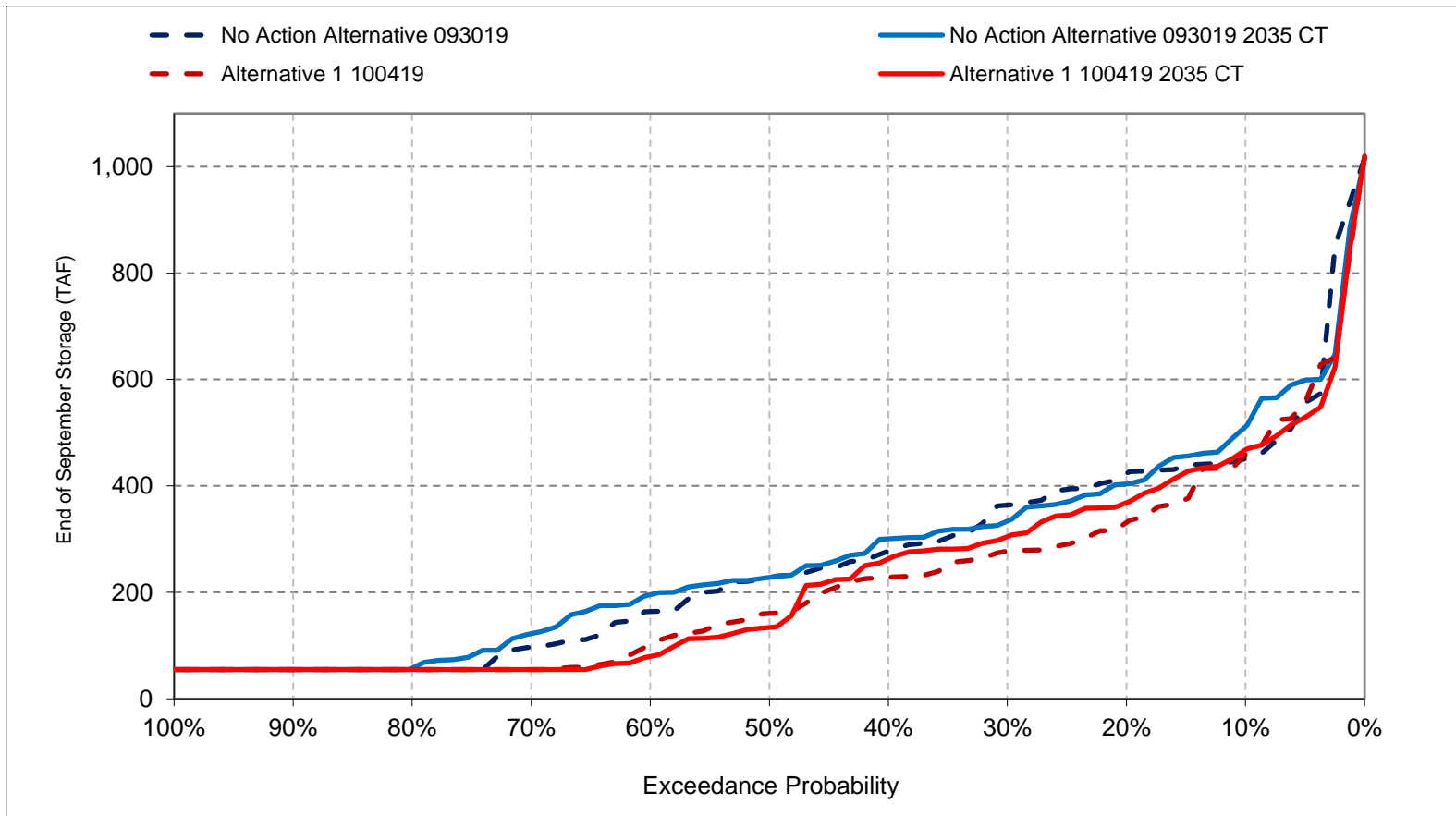
Figure 6c-17. San Luis SWP Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 6c-18. San Luis SWP Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-1. New Melones Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,765	1,759	1,823	1,880	1,931	1,980	1,946	2,053	2,075	1,978	1,870	1,806
20%	1,612	1,631	1,647	1,687	1,768	1,799	1,834	1,901	1,877	1,798	1,692	1,634
30%	1,533	1,537	1,555	1,597	1,687	1,730	1,687	1,745	1,786	1,707	1,605	1,557
40%	1,272	1,274	1,432	1,515	1,594	1,618	1,592	1,534	1,539	1,433	1,333	1,274
50%	1,120	1,127	1,154	1,308	1,436	1,535	1,462	1,443	1,392	1,283	1,190	1,156
60%	1,024	1,042	1,079	1,146	1,199	1,273	1,279	1,336	1,277	1,200	1,103	1,055
70%	882	911	986	1,015	1,038	1,057	1,083	1,090	1,087	994	910	868
80%	646	658	682	684	735	808	835	878	871	808	733	692
90%	430	435	440	486	541	569	574	586	630	566	507	473
Long Term												
Full Simulation Period ^d	1,132	1,142	1,180	1,237	1,305	1,348	1,338	1,373	1,381	1,300	1,208	1,159
Water Year Types^{b,c}												
Wet (23%)	1,725	1,729	1,754	1,496	1,637	1,703	1,757	1,913	2,035	1,968	1,845	1,772
Above Normal (24%)	1,229	1,239	1,271	1,174	1,267	1,342	1,366	1,470	1,480	1,387	1,290	1,241
Below Normal (10%)	1,201	1,206	1,228	1,464	1,518	1,550	1,495	1,502	1,502	1,408	1,307	1,249
Dry (16%)	931	965	1,040	1,254	1,277	1,315	1,265	1,226	1,175	1,080	996	958
Critical (27%)	614	615	656	978	993	994	935	860	804	734	674	643

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,884	1,877	1,911	1,965	1,970	2,030	2,010	2,086	2,207	2,117	2,008	1,942
20%	1,745	1,748	1,780	1,860	1,942	1,975	1,918	1,989	2,023	1,919	1,828	1,785
30%	1,619	1,628	1,685	1,781	1,833	1,857	1,818	1,867	1,900	1,817	1,713	1,655
40%	1,504	1,539	1,586	1,652	1,738	1,765	1,752	1,759	1,753	1,653	1,569	1,527
50%	1,411	1,432	1,456	1,522	1,620	1,669	1,628	1,662	1,623	1,560	1,483	1,439
60%	1,317	1,341	1,361	1,408	1,473	1,554	1,531	1,552	1,560	1,485	1,384	1,349
70%	1,131	1,160	1,254	1,299	1,369	1,403	1,379	1,376	1,369	1,277	1,211	1,173
80%	974	974	1,013	1,027	1,055	1,112	1,068	1,174	1,166	1,103	1,045	1,004
90%	594	580	589	597	616	690	672	734	834	765	692	642
Long Term												
Full Simulation Period ^d	1,316	1,326	1,366	1,422	1,483	1,526	1,516	1,558	1,572	1,490	1,398	1,349
Water Year Types^{b,c}												
Wet (23%)	1,753	1,758	1,791	1,593	1,703	1,758	1,816	1,973	2,073	1,997	1,874	1,800
Above Normal (24%)	1,339	1,349	1,379	1,304	1,396	1,474	1,475	1,570	1,610	1,515	1,413	1,361
Below Normal (10%)	1,383	1,387	1,407	1,675	1,719	1,758	1,691	1,692	1,695	1,597	1,493	1,433
Dry (16%)	1,234	1,270	1,347	1,495	1,523	1,563	1,528	1,509	1,469	1,380	1,299	1,264
Critical (27%)	938	940	983	1,245	1,262	1,266	1,224	1,168	1,121	1,056	997	968

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	118	118	88	85	39	50	64	33	132	138	138	137
20%	134	117	133	173	173	176	84	88	146	121	136	151
30%	86	91	130	184	147	128	131	122	115	110	108	99
40%	233	264	154	137	143	146	160	226	214	219	236	254
50%	290	305	303	214	183	134	166	218	231	277	292	283
60%	293	299	282	262	274	281	252	216	283	285	281	294
70%	249	249	268	284	330	347	296	285	282	282	301	304
80%	329	316	331	343	320	305	233	297	296	295	312	312
90%	164	146	149	110	76	121	98	147	204	198	185	170
Long Term												
Full Simulation Period ^d	184	184	186	185	178	177	179	184	191	190	190	190
Water Year Types^{b,c}												
Wet (23%)	28	29	37	97	67	55	59	60	37	29	29	28
Above Normal (24%)	111	110	108	130	129	132	109	100	129	128	123	121
Below Normal (10%)	181	180	180	211	201	207	196	190	193	189	186	184
Dry (16%)	303	305	307	242	247	248	263	283	294	300	304	306
Critical (27%)	324	325	327	267	269	271	289	308	316	321	323	325

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 7-2. New Melones Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,739	1,751	1,928	1,957	1,970	2,027	2,048	2,113	2,129	1,974	1,863	1,801
20%	1,654	1,653	1,675	1,748	1,954	1,927	1,947	1,976	1,926	1,826	1,741	1,690
30%	1,515	1,510	1,623	1,693	1,791	1,833	1,847	1,846	1,775	1,675	1,587	1,545
40%	1,322	1,333	1,498	1,620	1,685	1,734	1,685	1,662	1,578	1,481	1,389	1,343
50%	1,217	1,233	1,266	1,381	1,555	1,616	1,572	1,539	1,483	1,376	1,276	1,230
60%	1,098	1,100	1,158	1,246	1,331	1,393	1,456	1,427	1,369	1,262	1,167	1,125
70%	913	973	1,008	1,074	1,104	1,136	1,231	1,203	1,142	1,050	966	927
80%	669	670	684	780	916	984	975	955	888	807	747	718
90%	541	564	581	585	645	656	638	753	686	620	572	552
Long Term												
Full Simulation Period ^d	1,172	1,183	1,231	1,310	1,391	1,454	1,462	1,474	1,431	1,333	1,243	1,197
Water Year Types ^{b,c}												
Wet (23%)	1,736	1,742	1,778	1,588	1,733	1,824	1,898	2,030	2,066	1,960	1,844	1,779
Above Normal (24%)	1,273	1,287	1,333	1,264	1,375	1,456	1,506	1,578	1,531	1,420	1,329	1,284
Below Normal (10%)	1,238	1,247	1,282	1,502	1,572	1,620	1,594	1,584	1,535	1,430	1,338	1,284
Dry (16%)	1,000	1,032	1,120	1,313	1,347	1,414	1,378	1,317	1,233	1,136	1,052	1,013
Critical (27%)	660	662	704	1,042	1,068	1,096	1,045	951	872	793	725	692

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,918	1,930	1,967	1,970	1,970	2,030	2,071	2,203	2,219	2,115	2,011	1,950
20%	1,774	1,765	1,837	1,968	1,970	2,030	2,016	2,074	2,085	1,977	1,875	1,825
30%	1,648	1,653	1,738	1,833	1,938	1,976	1,957	1,942	1,877	1,769	1,687	1,667
40%	1,542	1,559	1,646	1,730	1,815	1,867	1,887	1,876	1,806	1,703	1,616	1,576
50%	1,485	1,511	1,541	1,620	1,715	1,809	1,794	1,796	1,720	1,619	1,537	1,505
60%	1,398	1,422	1,471	1,544	1,629	1,692	1,667	1,685	1,623	1,543	1,460	1,433
70%	1,237	1,259	1,333	1,404	1,461	1,508	1,525	1,514	1,460	1,377	1,302	1,260
80%	1,077	1,088	1,121	1,171	1,205	1,265	1,252	1,306	1,281	1,215	1,150	1,110
90%	726	729	760	788	908	945	978	1,011	952	889	828	778
Long Term												
Full Simulation Period ^d	1,381	1,392	1,441	1,512	1,575	1,639	1,649	1,669	1,637	1,546	1,458	1,411
Water Year Types ^{b,c}												
Wet (23%)	1,789	1,796	1,831	1,697	1,783	1,871	1,947	2,080	2,114	2,020	1,903	1,832
Above Normal (24%)	1,402	1,415	1,460	1,436	1,538	1,616	1,642	1,705	1,678	1,568	1,472	1,425
Below Normal (10%)	1,421	1,429	1,464	1,706	1,764	1,826	1,787	1,774	1,729	1,621	1,525	1,470
Dry (16%)	1,356	1,391	1,480	1,588	1,616	1,682	1,669	1,636	1,568	1,482	1,407	1,373
Critical (27%)	1,007	1,010	1,055	1,306	1,335	1,366	1,334	1,263	1,196	1,128	1,067	1,037

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	178	179	40	13	0	3	23	89	90	141	148	149
20%	120	112	162	220	16	103	70	98	158	151	134	134
30%	133	142	116	140	147	143	110	97	102	94	99	121
40%	220	225	148	110	131	133	202	214	228	222	227	233
50%	268	278	275	239	160	194	222	257	236	243	261	276
60%	299	322	313	298	298	299	211	258	254	281	293	308
70%	323	287	325	330	358	373	294	311	318	327	335	333
80%	408	418	437	391	289	281	278	350	393	408	403	391
90%	186	166	179	203	263	289	340	258	267	269	256	226
Long Term												
Full Simulation Period ^d	209	209	209	201	184	185	187	196	206	213	215	214
Water Year Types ^{b,c}												
Wet (23%)	53	53	53	108	50	48	49	51	48	60	59	53
Above Normal (24%)	129	128	127	171	163	160	136	127	148	148	143	141
Below Normal (10%)	183	182	182	204	192	206	193	190	194	191	187	186
Dry (16%)	356	359	360	276	269	268	291	319	336	346	355	359
Critical (27%)	347	348	351	264	267	270	289	312	324	334	342	345

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-3. New Melones Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,765	1,759	1,823	1,880	1,931	1,980	1,946	2,053	2,075	1,978	1,870	1,806
20%	1,612	1,631	1,647	1,687	1,768	1,799	1,834	1,901	1,877	1,798	1,692	1,634
30%	1,533	1,537	1,555	1,597	1,687	1,730	1,687	1,745	1,786	1,707	1,605	1,557
40%	1,272	1,274	1,432	1,515	1,594	1,618	1,592	1,534	1,539	1,433	1,333	1,274
50%	1,120	1,127	1,154	1,308	1,436	1,436	1,535	1,462	1,443	1,392	1,283	1,190
60%	1,024	1,042	1,079	1,146	1,199	1,273	1,279	1,336	1,277	1,200	1,103	1,055
70%	882	911	986	1,015	1,038	1,057	1,083	1,090	1,087	994	910	868
80%	646	658	682	684	735	808	835	878	871	808	733	692
90%	430	435	440	486	541	569	574	586	630	566	507	473
Long Term												
Full Simulation Period ^d	1,132	1,142	1,180	1,237	1,305	1,348	1,338	1,373	1,381	1,300	1,208	1,159
Water Year Types ^{b,c}												
Wet (23%)	1,725	1,729	1,754	1,496	1,637	1,703	1,757	1,913	2,035	1,968	1,845	1,772
Above Normal (24%)	1,229	1,239	1,271	1,174	1,267	1,342	1,366	1,470	1,480	1,387	1,290	1,241
Below Normal (10%)	1,201	1,206	1,228	1,464	1,518	1,550	1,495	1,502	1,502	1,408	1,307	1,249
Dry (16%)	931	965	1,040	1,254	1,277	1,315	1,265	1,226	1,175	1,080	996	958
Critical (27%)	614	615	656	978	993	994	935	860	804	734	674	643

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,739	1,751	1,928	1,957	1,970	2,027	2,048	2,113	2,129	1,974	1,863	1,801
20%	1,654	1,653	1,675	1,748	1,954	1,927	1,947	1,976	1,926	1,826	1,741	1,690
30%	1,515	1,510	1,623	1,693	1,791	1,833	1,847	1,846	1,775	1,675	1,587	1,545
40%	1,322	1,333	1,498	1,620	1,685	1,734	1,685	1,662	1,578	1,481	1,389	1,343
50%	1,217	1,233	1,266	1,381	1,555	1,616	1,572	1,539	1,483	1,376	1,276	1,230
60%	1,098	1,100	1,158	1,246	1,331	1,393	1,456	1,427	1,369	1,262	1,167	1,125
70%	913	973	1,008	1,074	1,104	1,136	1,231	1,203	1,142	1,050	966	927
80%	669	670	684	780	916	984	975	955	888	807	747	718
90%	541	564	581	585	645	656	638	753	686	620	572	552
Long Term												
Full Simulation Period ^d	1,172	1,183	1,231	1,310	1,391	1,454	1,462	1,474	1,431	1,333	1,243	1,197
Water Year Types ^{b,c}												
Wet (23%)	1,736	1,742	1,778	1,588	1,733	1,824	1,898	2,030	2,066	1,960	1,844	1,779
Above Normal (24%)	1,273	1,287	1,333	1,264	1,375	1,456	1,506	1,578	1,531	1,420	1,329	1,284
Below Normal (10%)	1,238	1,247	1,282	1,502	1,572	1,620	1,594	1,584	1,535	1,430	1,338	1,284
Dry (16%)	1,000	1,032	1,120	1,313	1,347	1,414	1,378	1,317	1,233	1,136	1,052	1,013
Critical (27%)	660	662	704	1,042	1,068	1,096	1,045	951	872	793	725	692

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-26	-8	104	77	39	47	102	60	54	-5	-7	-5
20%	43	22	28	61	186	128	113	75	49	28	49	57
30%	-18	-26	68	96	105	104	160	101	-10	-32	-17	-11
40%	50	59	66	105	90	116	93	128	39	47	56	70
50%	97	106	112	73	119	81	110	96	92	93	86	73
60%	74	58	79	100	132	119	177	92	93	62	64	70
70%	31	61	22	59	65	79	148	113	55	56	56	59
80%	23	12	2	96	182	177	139	78	17	-1	14	26
90%	111	129	141	99	105	87	63	167	56	53	65	79
Long Term												
Full Simulation Period ^d	40	41	51	74	85	106	124	100	50	33	35	38
Water Year Types ^{b,c}												
Wet (23%)	11	14	24	92	96	121	141	117	31	-8	-1	7
Above Normal (24%)	44	48	62	91	108	114	141	108	50	33	39	44
Below Normal (10%)	37	40	54	38	54	70	98	83	33	23	31	35
Dry (16%)	69	67	79	59	71	100	113	92	58	56	57	56
Critical (27%)	46	46	48	64	75	102	110	91	68	59	51	48

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7-4. New Melones Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,884	1,877	1,911	1,965	1,970	2,030	2,010	2,086	2,207	2,117	2,008	1,942
20%	1,745	1,748	1,780	1,860	1,942	1,975	1,918	1,989	2,023	1,919	1,828	1,785
30%	1,619	1,628	1,685	1,781	1,833	1,857	1,818	1,867	1,900	1,817	1,713	1,655
40%	1,504	1,539	1,586	1,652	1,738	1,765	1,752	1,759	1,753	1,653	1,569	1,527
50%	1,411	1,432	1,456	1,522	1,620	1,669	1,628	1,662	1,623	1,560	1,483	1,439
60%	1,317	1,341	1,361	1,408	1,473	1,554	1,531	1,552	1,560	1,485	1,384	1,349
70%	1,131	1,160	1,254	1,299	1,369	1,403	1,379	1,376	1,369	1,277	1,211	1,173
80%	974	974	1,013	1,027	1,055	1,112	1,068	1,174	1,166	1,103	1,045	1,004
90%	594	580	589	597	616	690	672	734	834	765	692	642
Long Term												
Full Simulation Period ^d	1,316	1,326	1,366	1,422	1,483	1,526	1,516	1,558	1,572	1,490	1,398	1,349
Water Year Types ^{b,c}												
Wet (23%)	1,753	1,758	1,791	1,593	1,703	1,758	1,816	1,973	2,073	1,997	1,874	1,800
Above Normal (24%)	1,339	1,349	1,379	1,304	1,396	1,474	1,475	1,570	1,610	1,515	1,413	1,361
Below Normal (10%)	1,383	1,387	1,407	1,675	1,719	1,758	1,691	1,692	1,695	1,597	1,493	1,433
Dry (16%)	1,234	1,270	1,347	1,495	1,523	1,563	1,528	1,509	1,469	1,380	1,299	1,264
Critical (27%)	938	940	983	1,245	1,262	1,266	1,224	1,168	1,121	1,056	997	968

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,918	1,930	1,967	1,970	1,970	2,030	2,071	2,203	2,219	2,115	2,011	1,950
20%	1,774	1,765	1,837	1,968	1,970	2,030	2,016	2,074	2,085	1,977	1,875	1,825
30%	1,648	1,653	1,738	1,833	1,938	1,976	1,957	1,942	1,877	1,769	1,687	1,667
40%	1,542	1,559	1,646	1,730	1,815	1,867	1,887	1,876	1,806	1,703	1,616	1,576
50%	1,485	1,511	1,541	1,620	1,715	1,809	1,794	1,796	1,720	1,619	1,537	1,505
60%	1,398	1,422	1,471	1,544	1,629	1,692	1,667	1,685	1,623	1,543	1,460	1,433
70%	1,237	1,259	1,333	1,404	1,461	1,508	1,525	1,514	1,460	1,377	1,302	1,260
80%	1,077	1,088	1,121	1,171	1,205	1,265	1,252	1,306	1,281	1,215	1,150	1,110
90%	726	729	760	788	908	945	978	1,011	952	889	828	778
Long Term												
Full Simulation Period ^d	1,381	1,392	1,441	1,512	1,575	1,639	1,649	1,669	1,637	1,546	1,458	1,411
Water Year Types ^{b,c}												
Wet (23%)	1,789	1,796	1,831	1,697	1,783	1,871	1,947	2,080	2,114	2,020	1,903	1,832
Above Normal (24%)	1,402	1,415	1,460	1,436	1,538	1,616	1,642	1,705	1,678	1,568	1,472	1,425
Below Normal (10%)	1,421	1,429	1,464	1,706	1,764	1,826	1,787	1,774	1,729	1,621	1,525	1,470
Dry (16%)	1,356	1,391	1,480	1,588	1,616	1,682	1,669	1,636	1,568	1,482	1,407	1,373
Critical (27%)	1,007	1,010	1,055	1,306	1,335	1,366	1,334	1,263	1,196	1,128	1,067	1,037

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	34	52	56	5	0	0	61	116	12	-2	3	8
20%	29	17	57	108	28	55	99	85	62	57	47	40
30%	29	25	54	52	105	119	138	76	-23	-48	-27	11
40%	38	20	60	78	78	103	135	117	53	50	47	49
50%	74	79	85	98	95	140	166	134	97	60	54	66
60%	80	81	110	136	156	138	136	134	63	58	76	85
70%	105	99	79	105	93	105	146	138	91	100	90	88
80%	102	115	108	144	150	153	184	131	114	112	105	106
90%	132	149	171	191	292	255	306	278	119	124	136	135
Long Term												
Full Simulation Period ^d	64	66	74	90	92	113	133	112	65	56	60	62
Water Year Types ^{b,c}												
Wet (23%)	35	38	40	104	79	113	132	108	41	23	29	32
Above Normal (24%)	63	66	81	132	142	142	167	135	69	53	59	64
Below Normal (10%)	39	43	56	31	45	69	96	82	34	24	32	37
Dry (16%)	122	121	133	93	93	120	141	128	100	103	108	109
Critical (27%)	69	70	71	61	73	100	110	95	75	72	70	69

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

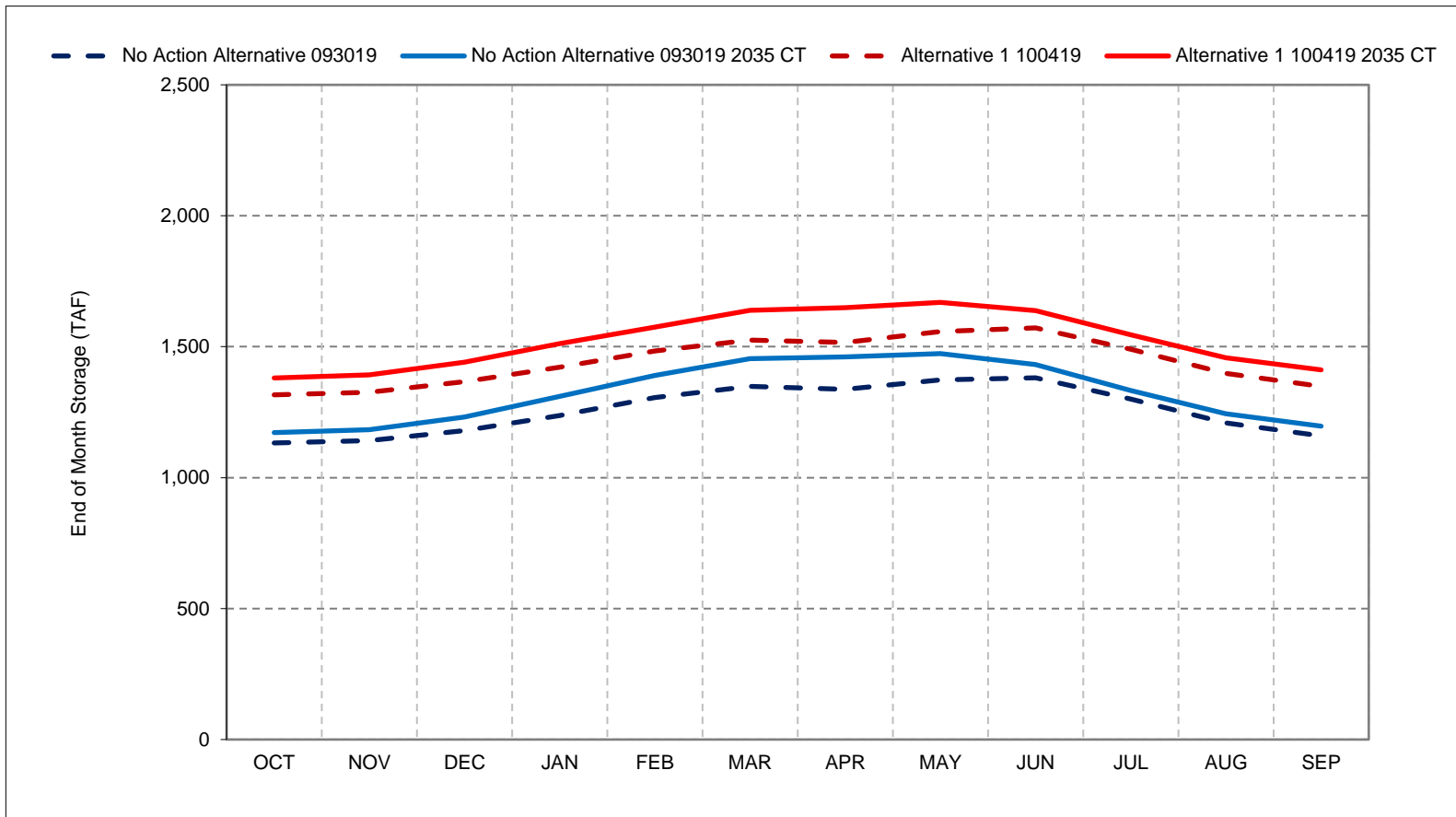
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7-1. New Melones Storage, Long-Term Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

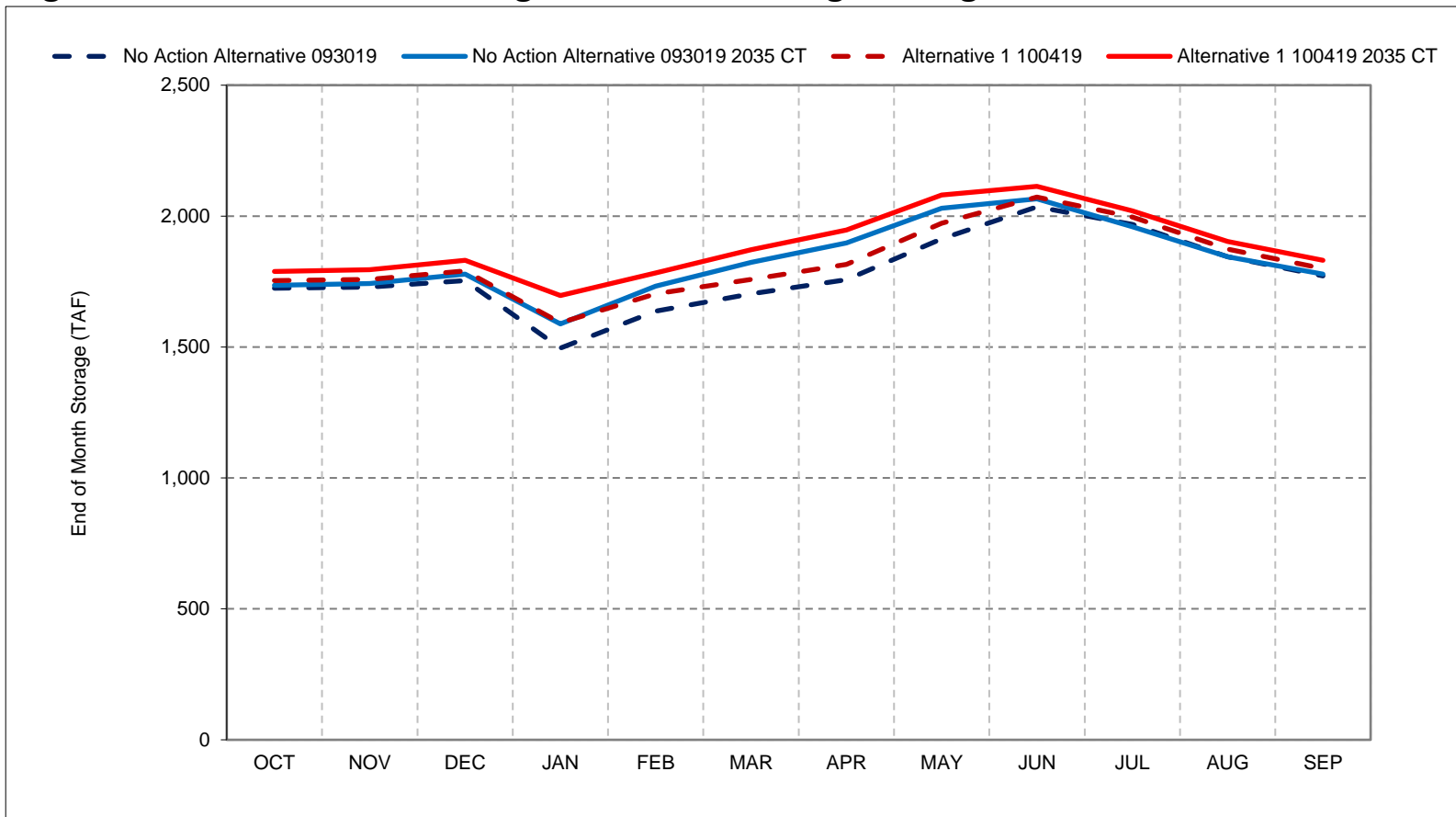
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-2. New Melones Storage, Wet Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

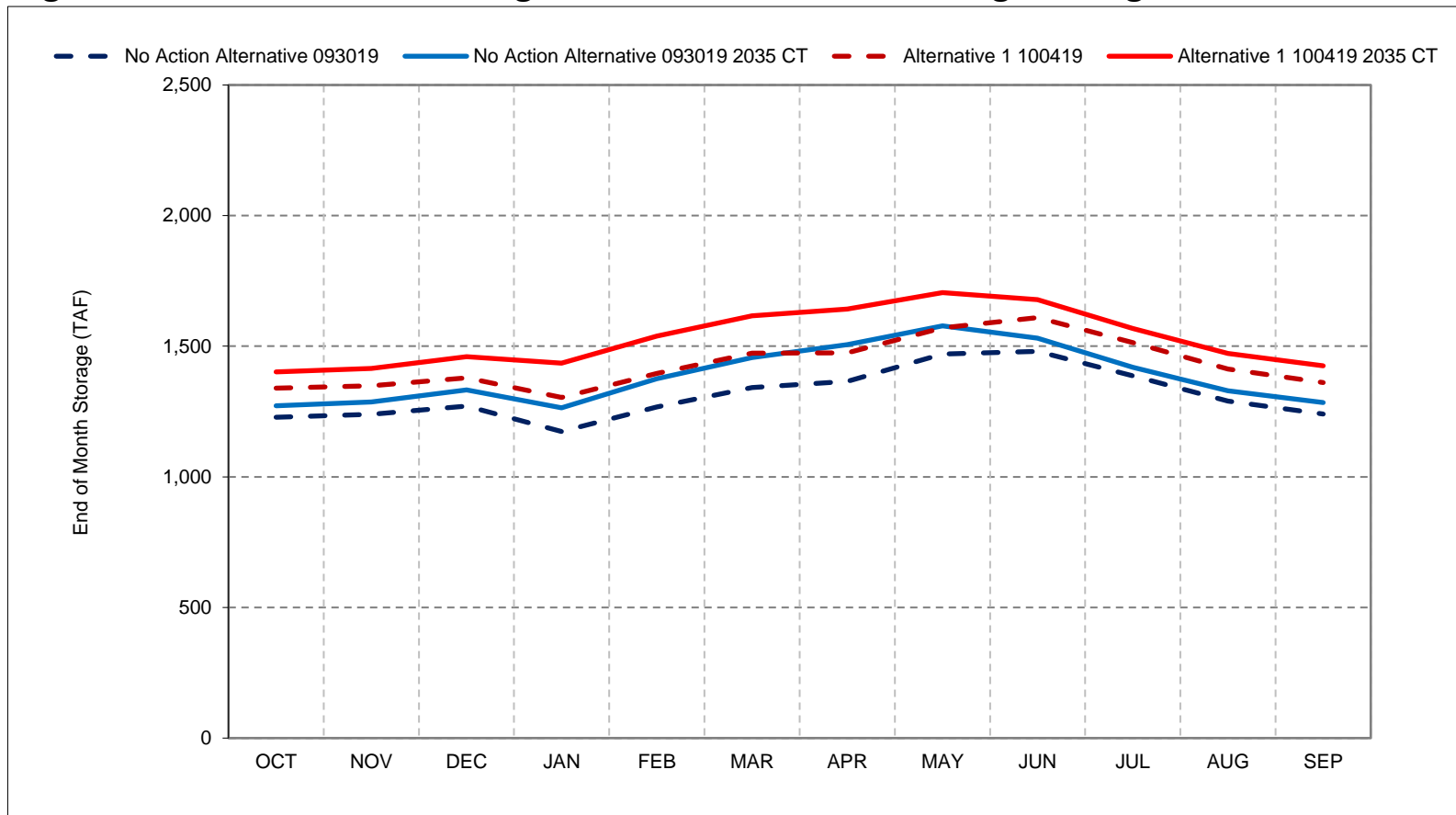
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-3. New Melones Storage, Above Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

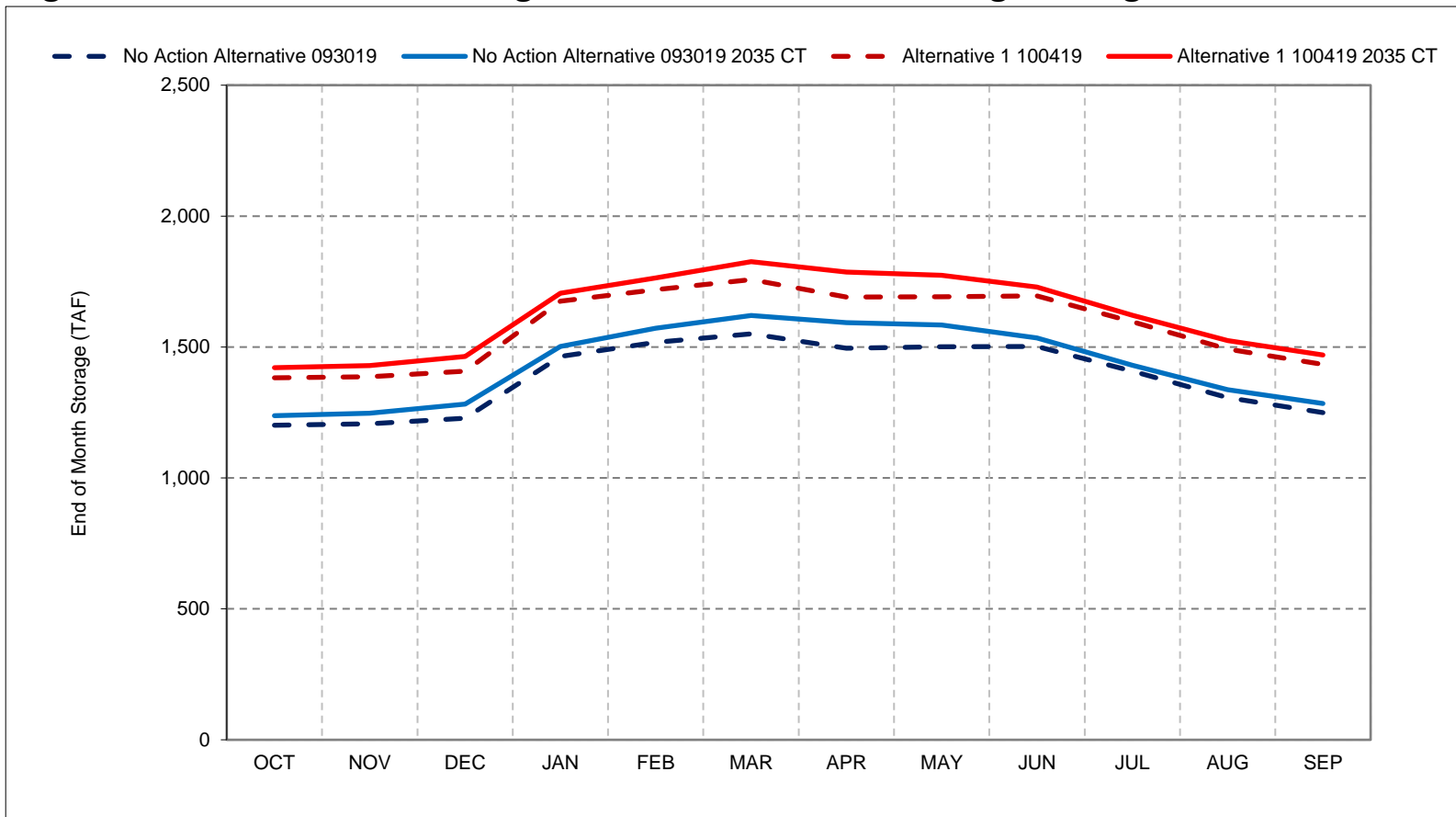
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-4. New Melones Storage, Below Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

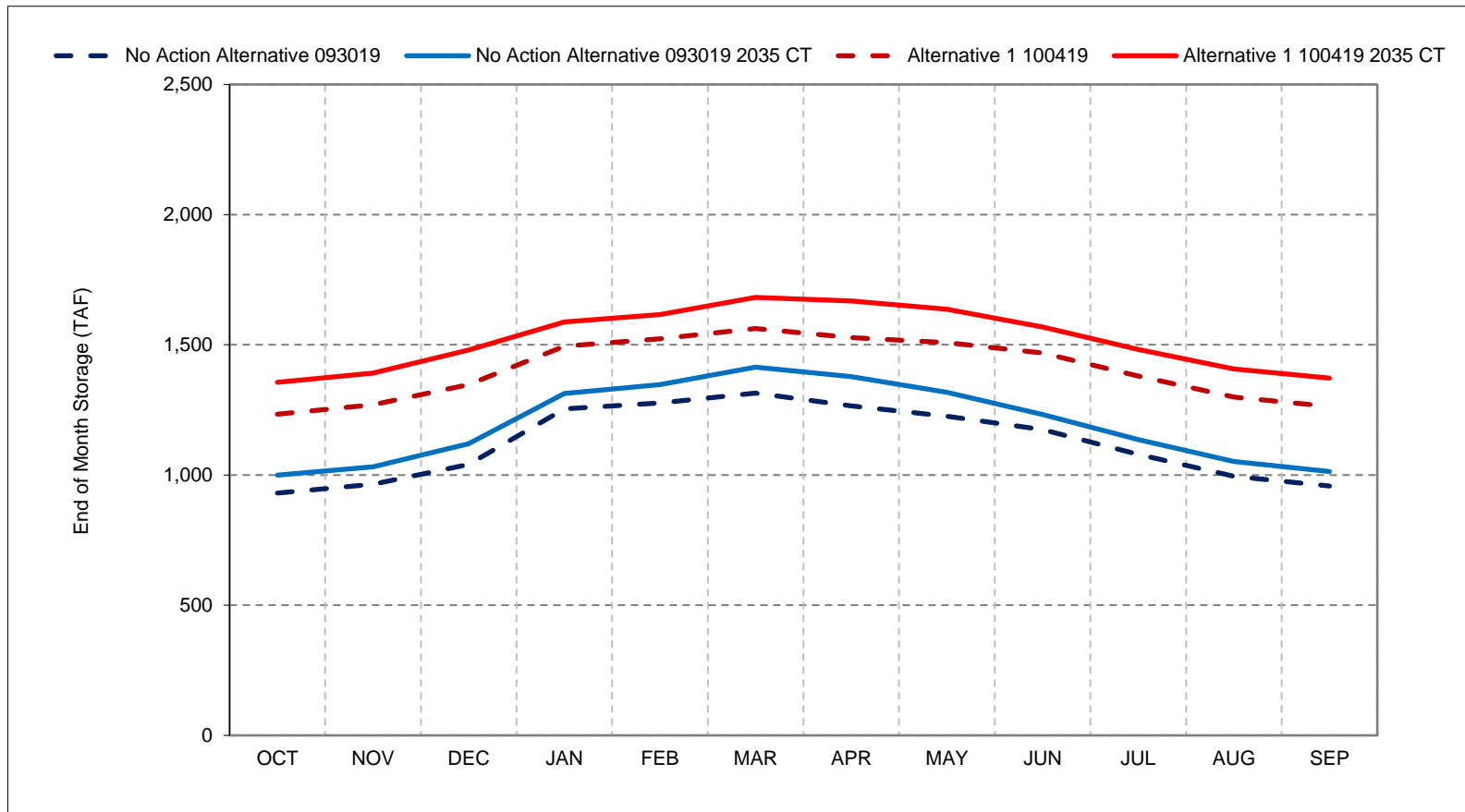
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-5. New Melones Storage, Dry Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

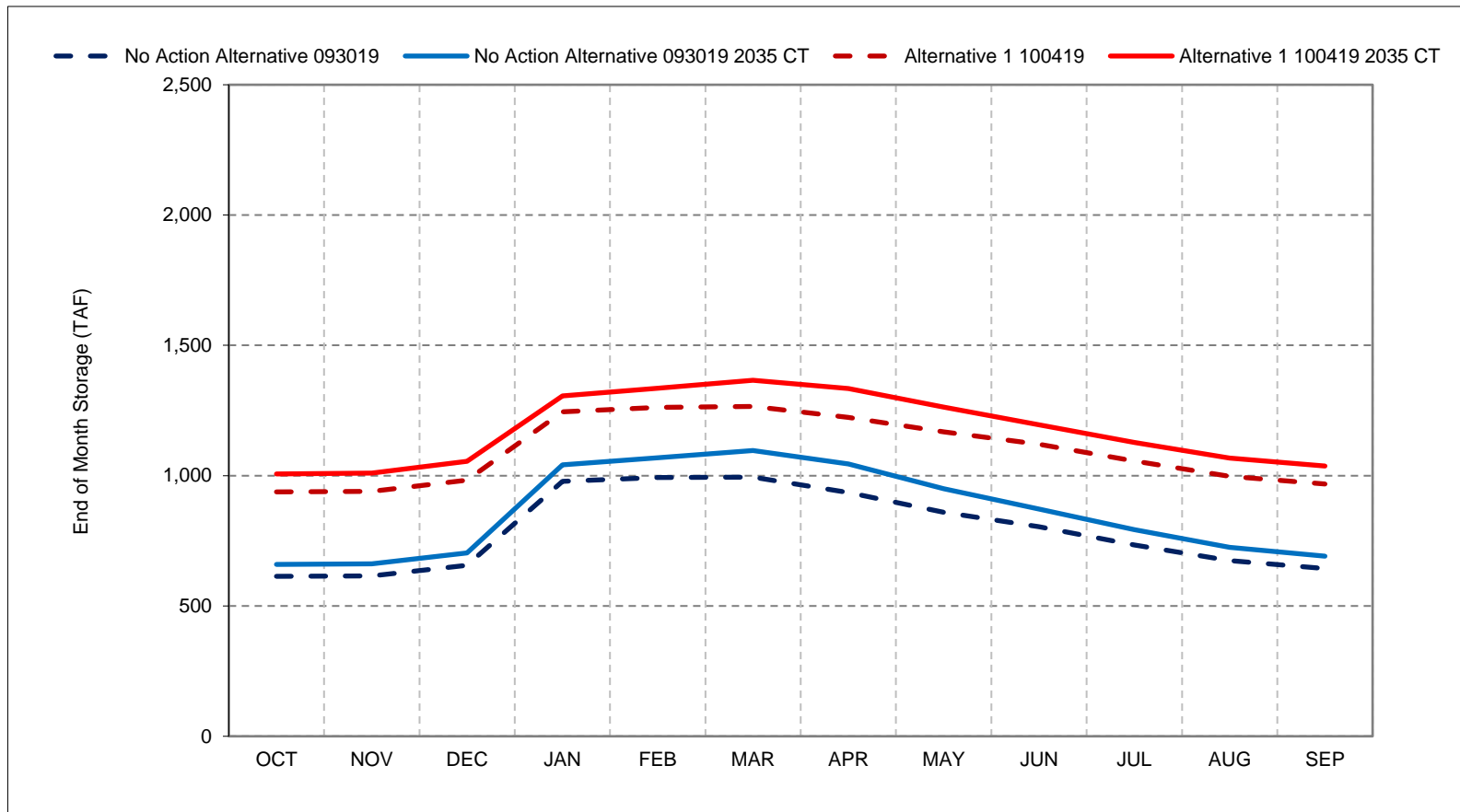
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7-6. New Melones Storage, Critical Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

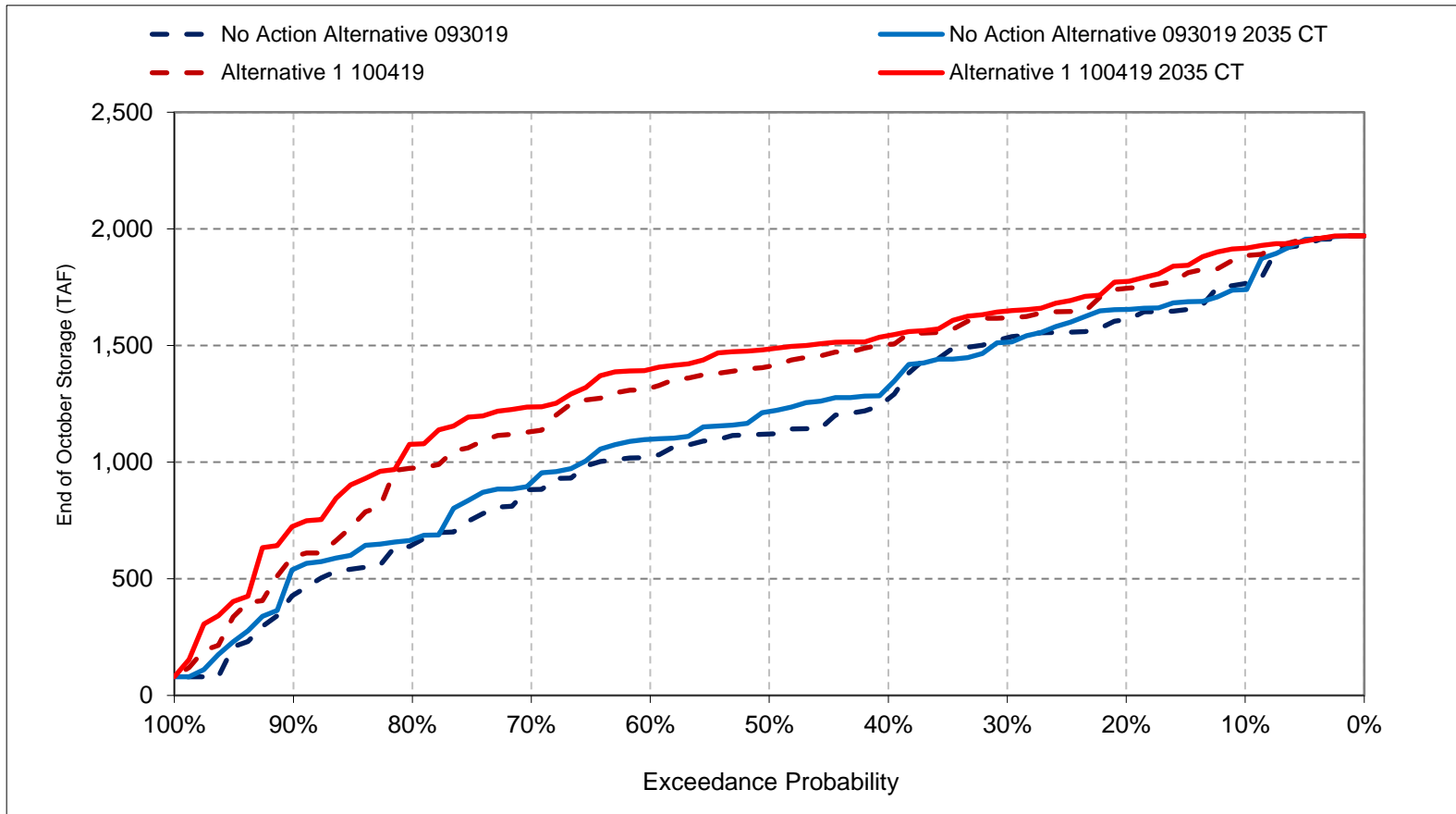
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

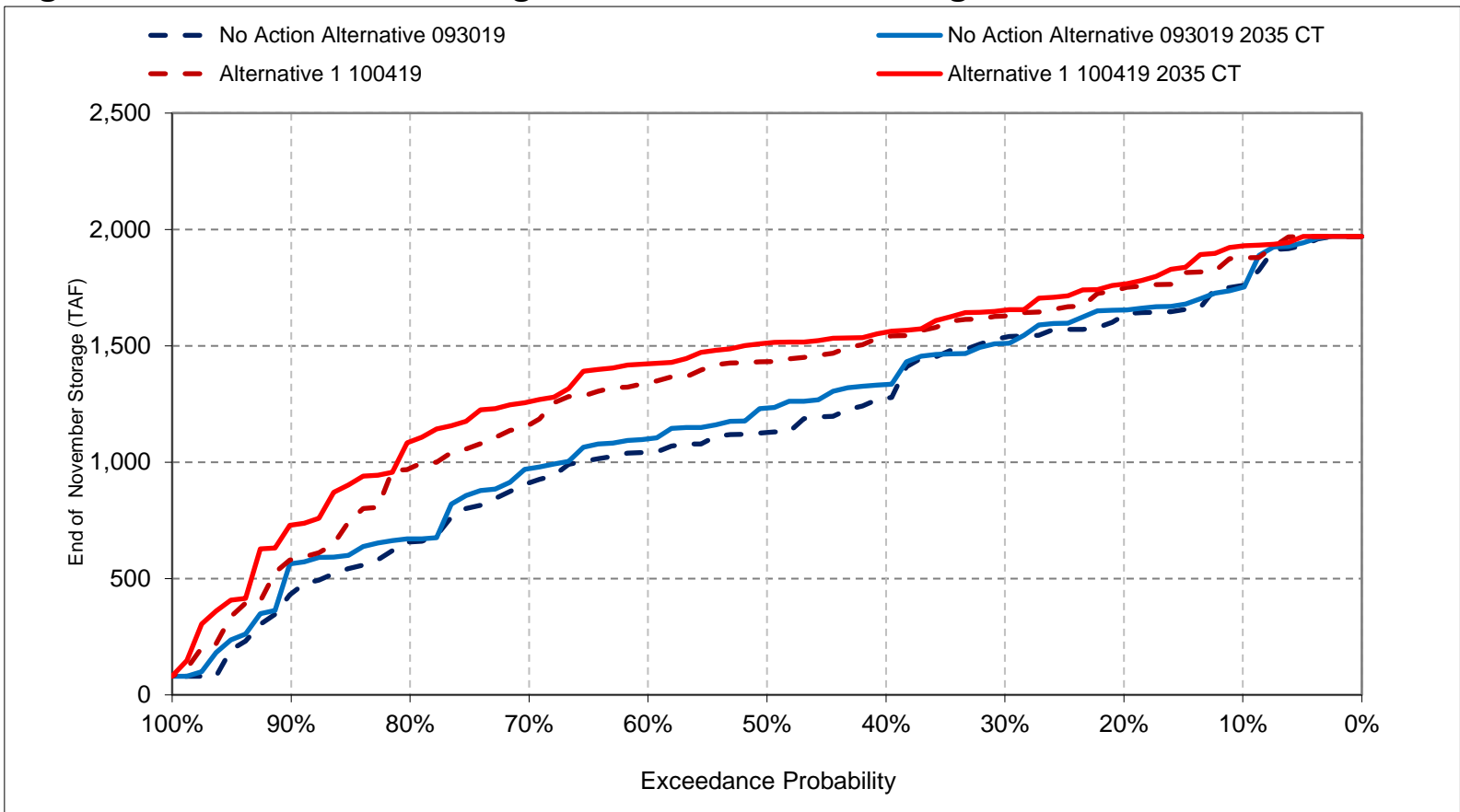
Figure 7-7. New Melones Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

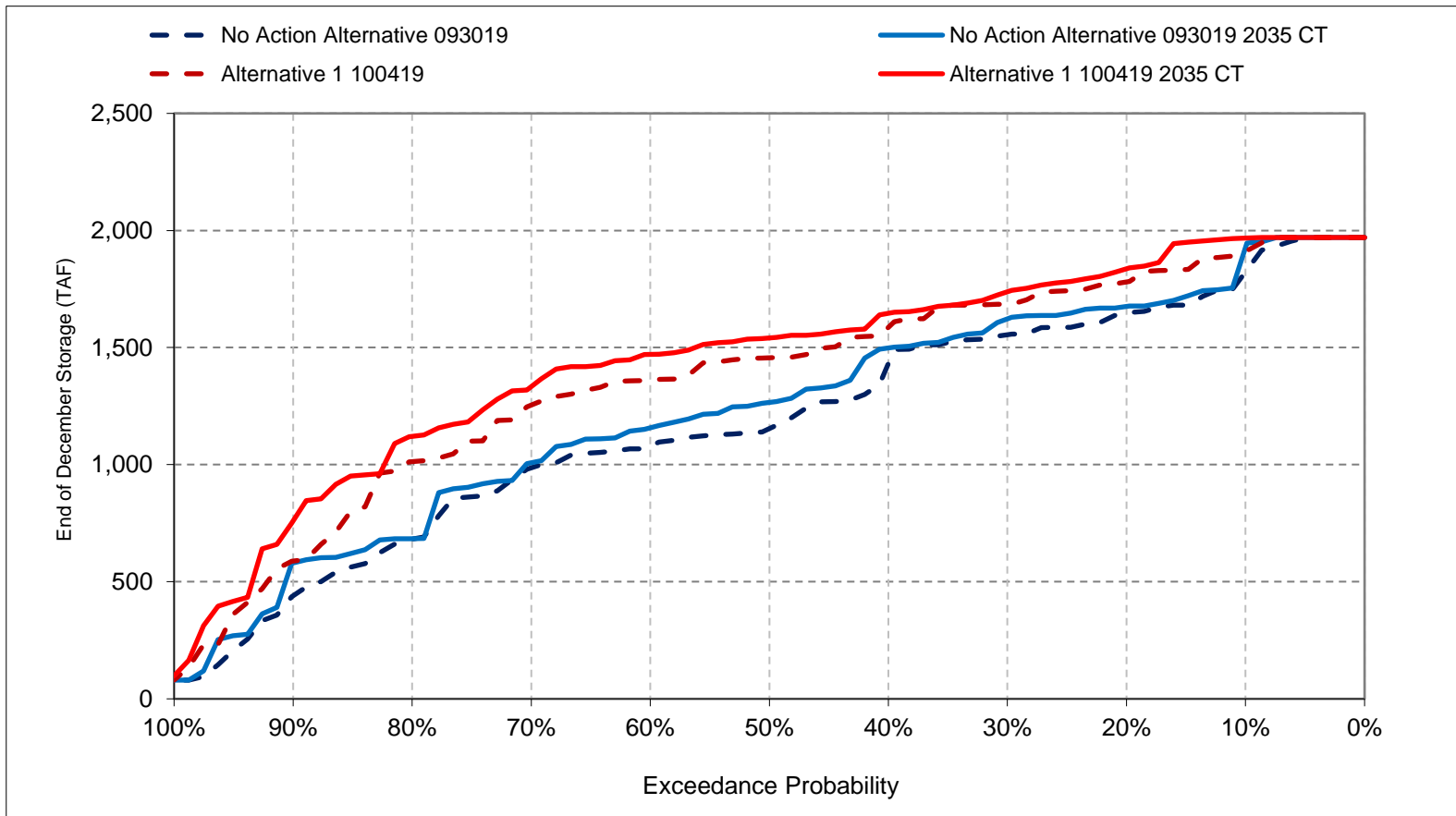
Figure 7-8. New Melones Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

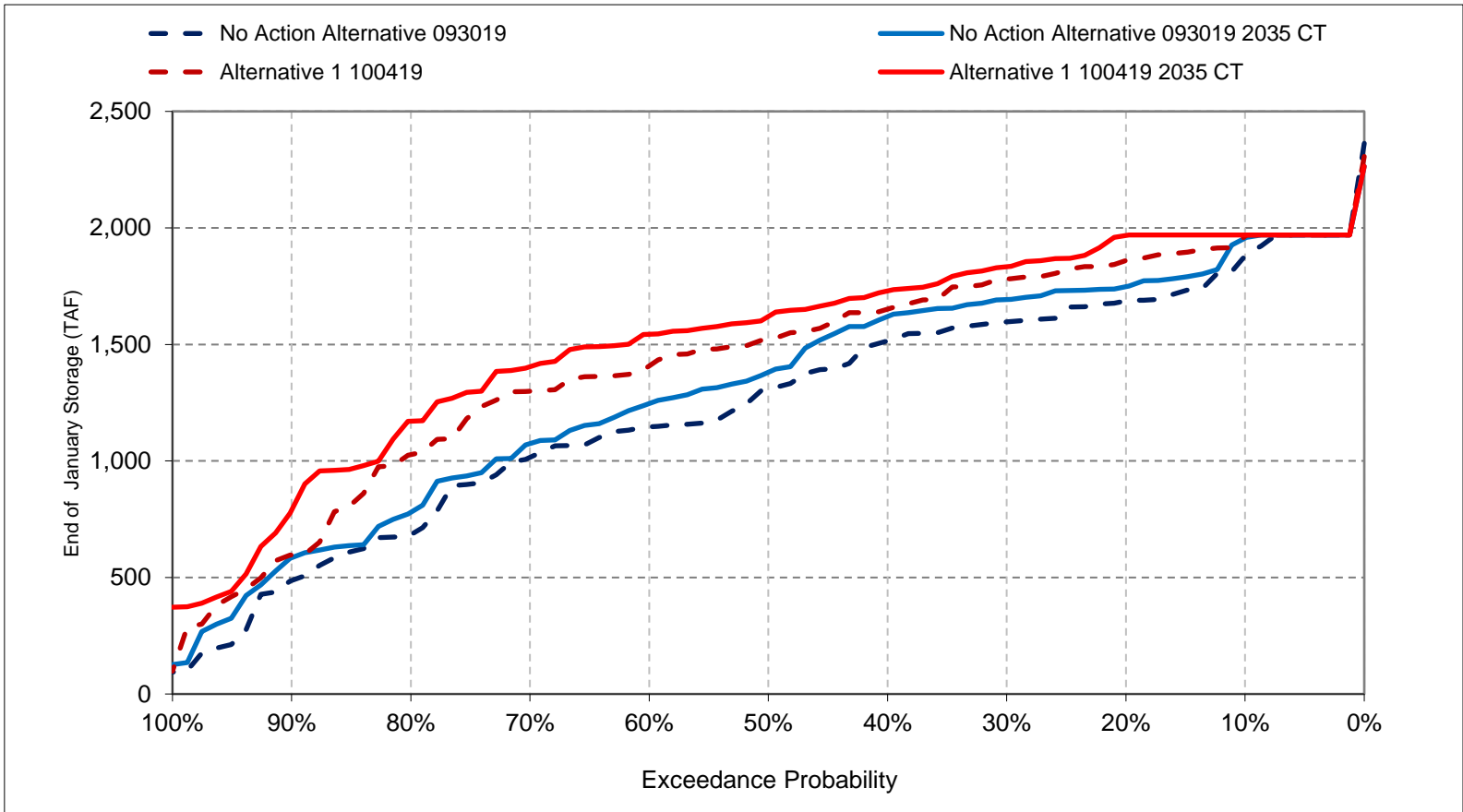
Figure 7-9. New Melones Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

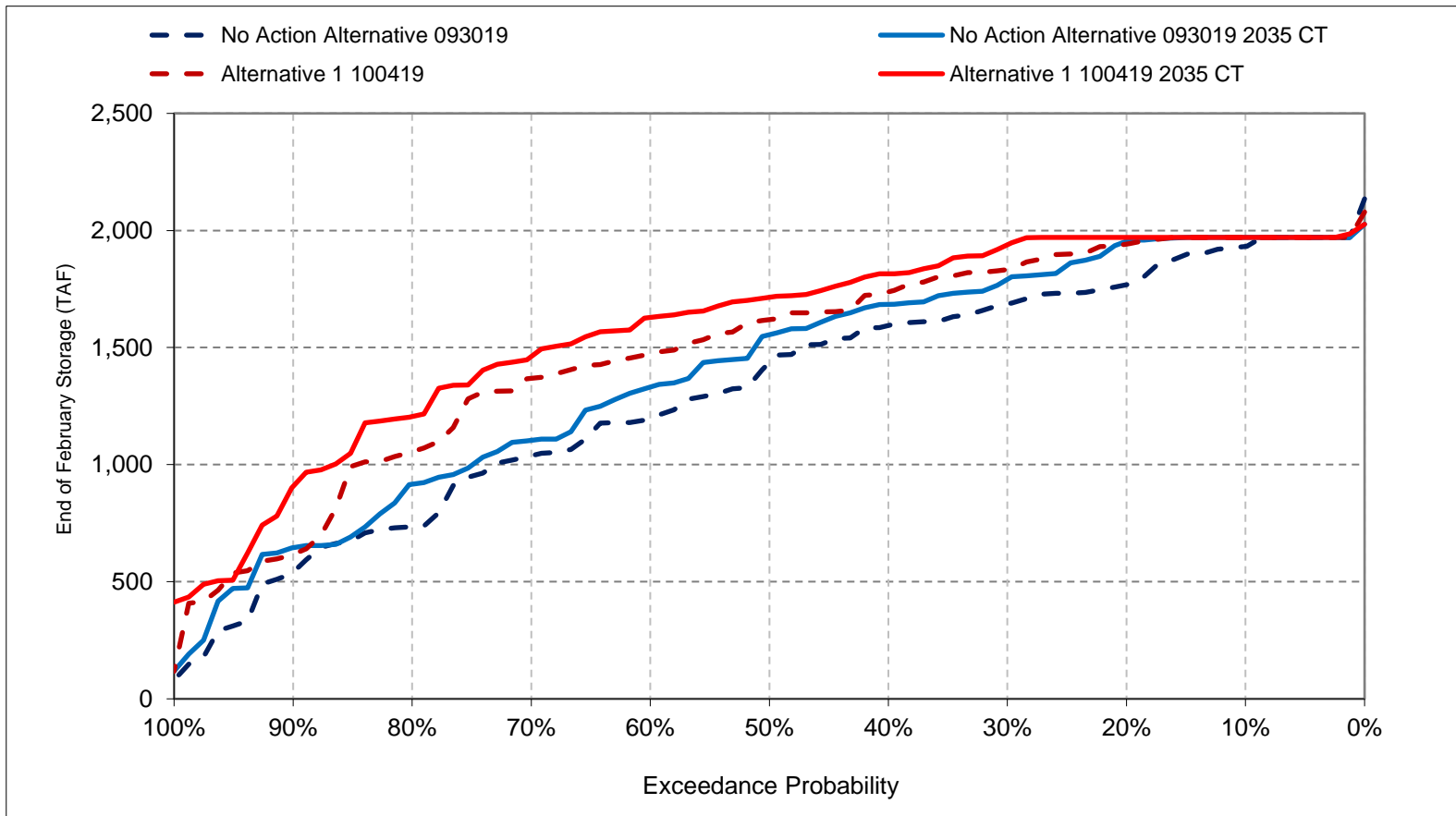
Figure 7-10. New Melones Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

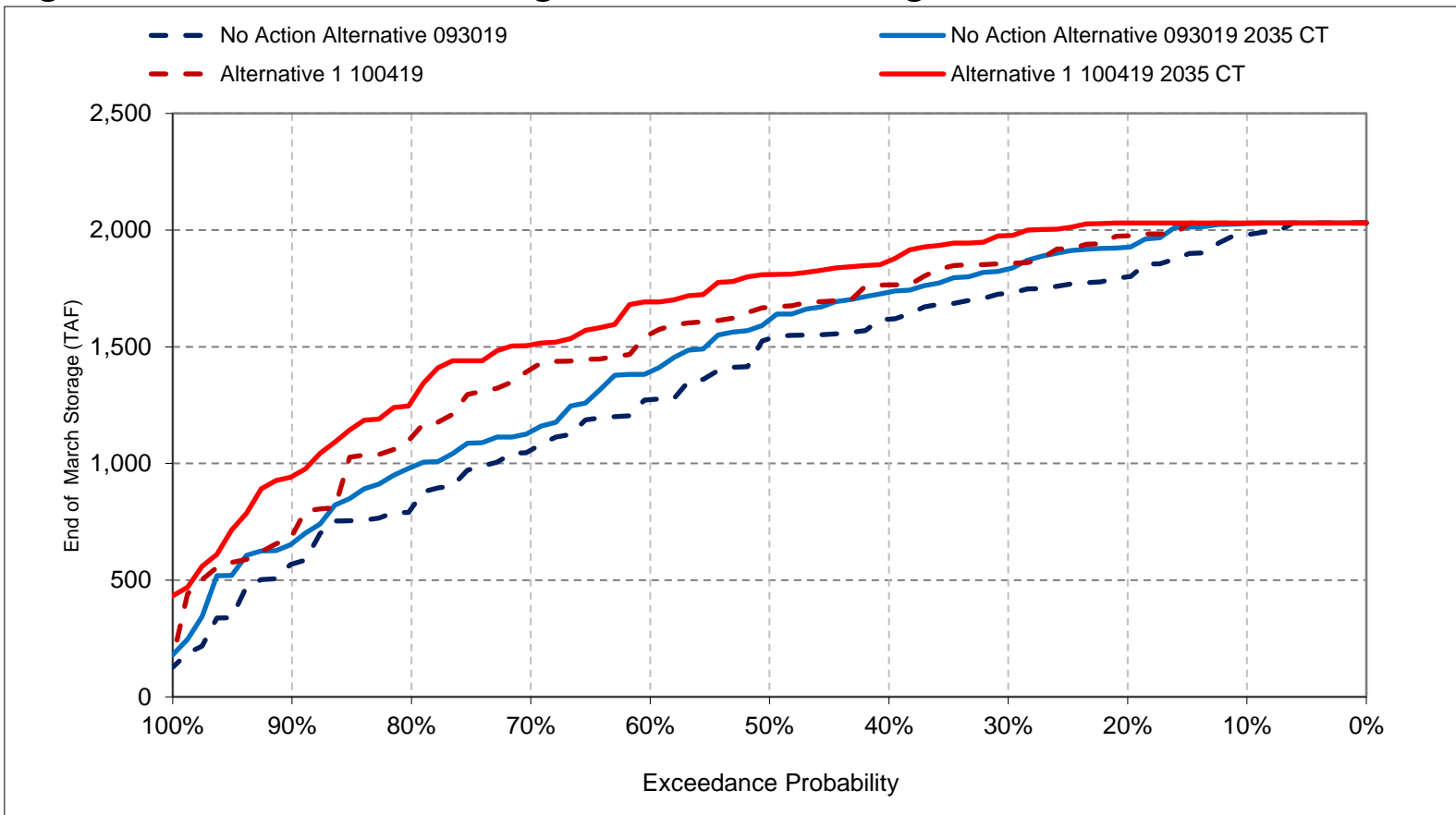
Figure 7-11. New Melones Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

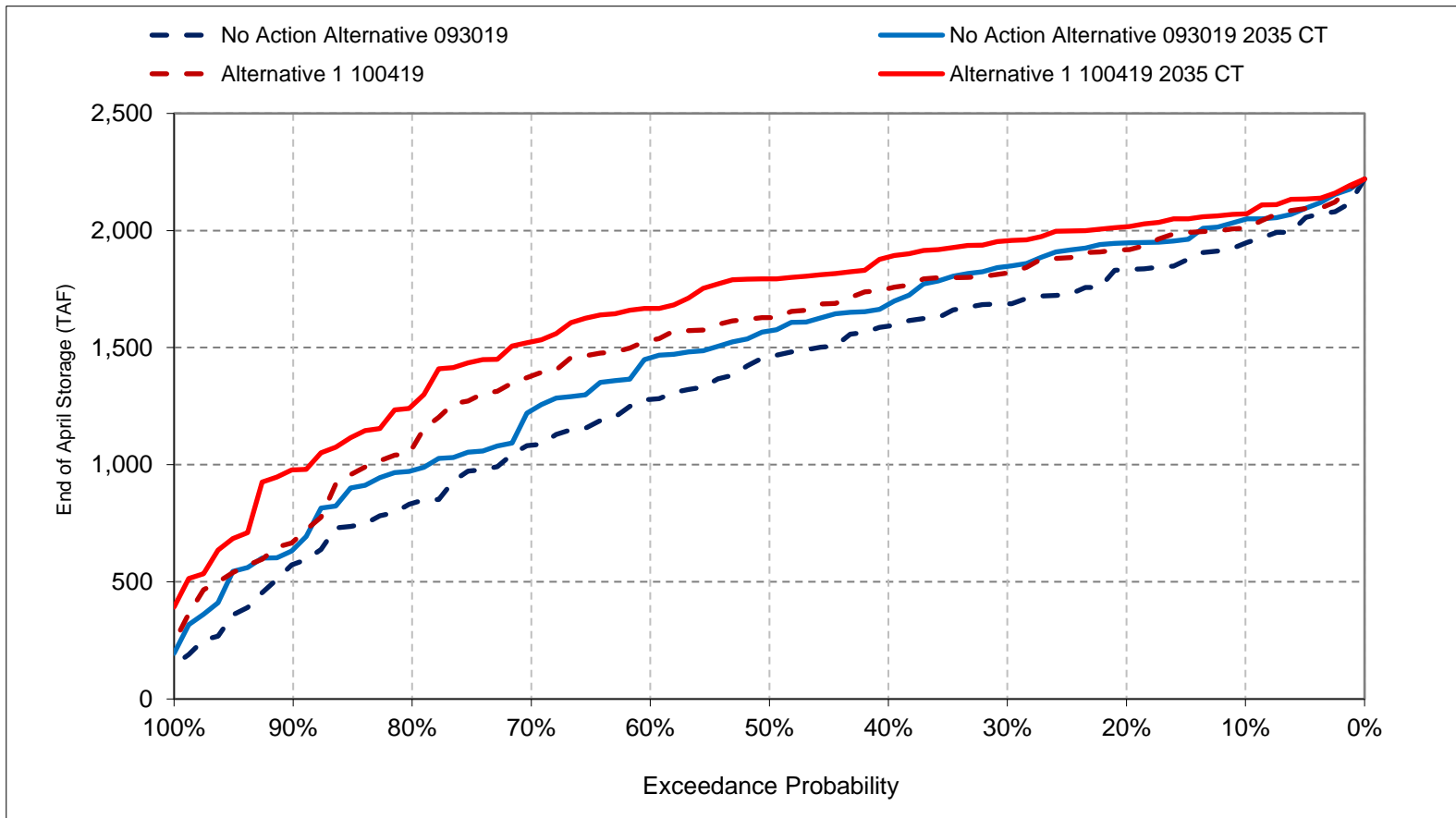
Figure 7-12. New Melones Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

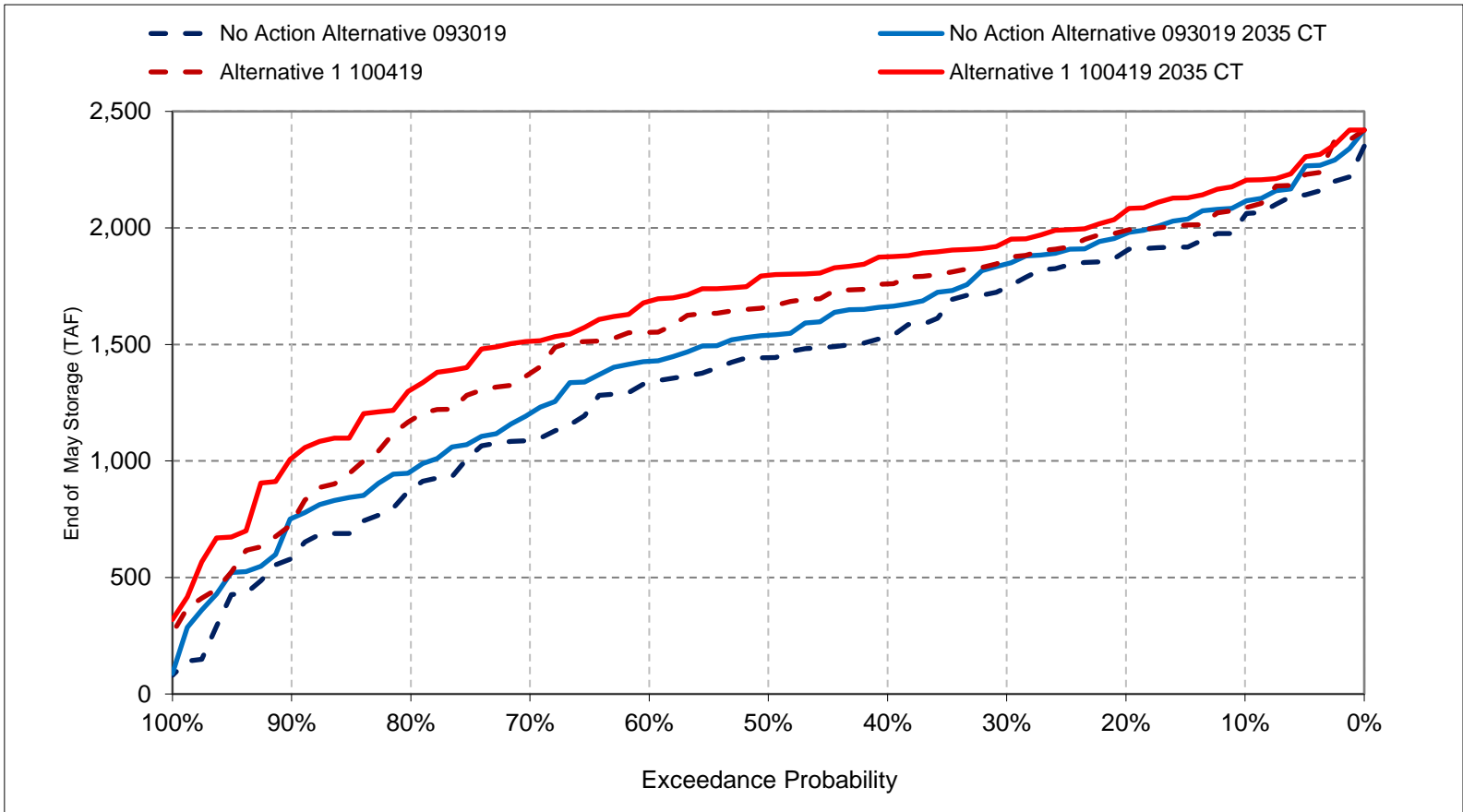
Figure 7-13. New Melones Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

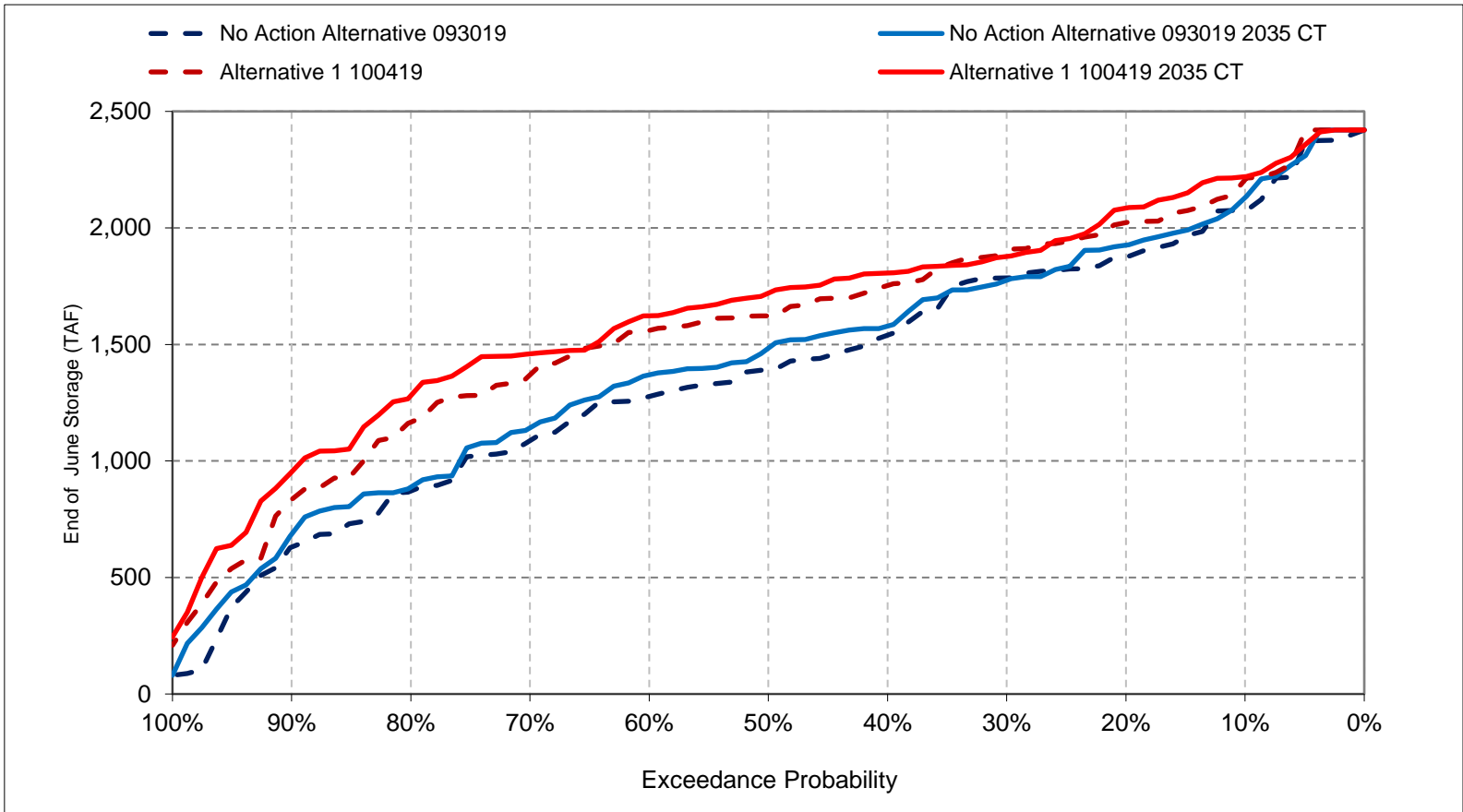
Figure 7-14. New Melones Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

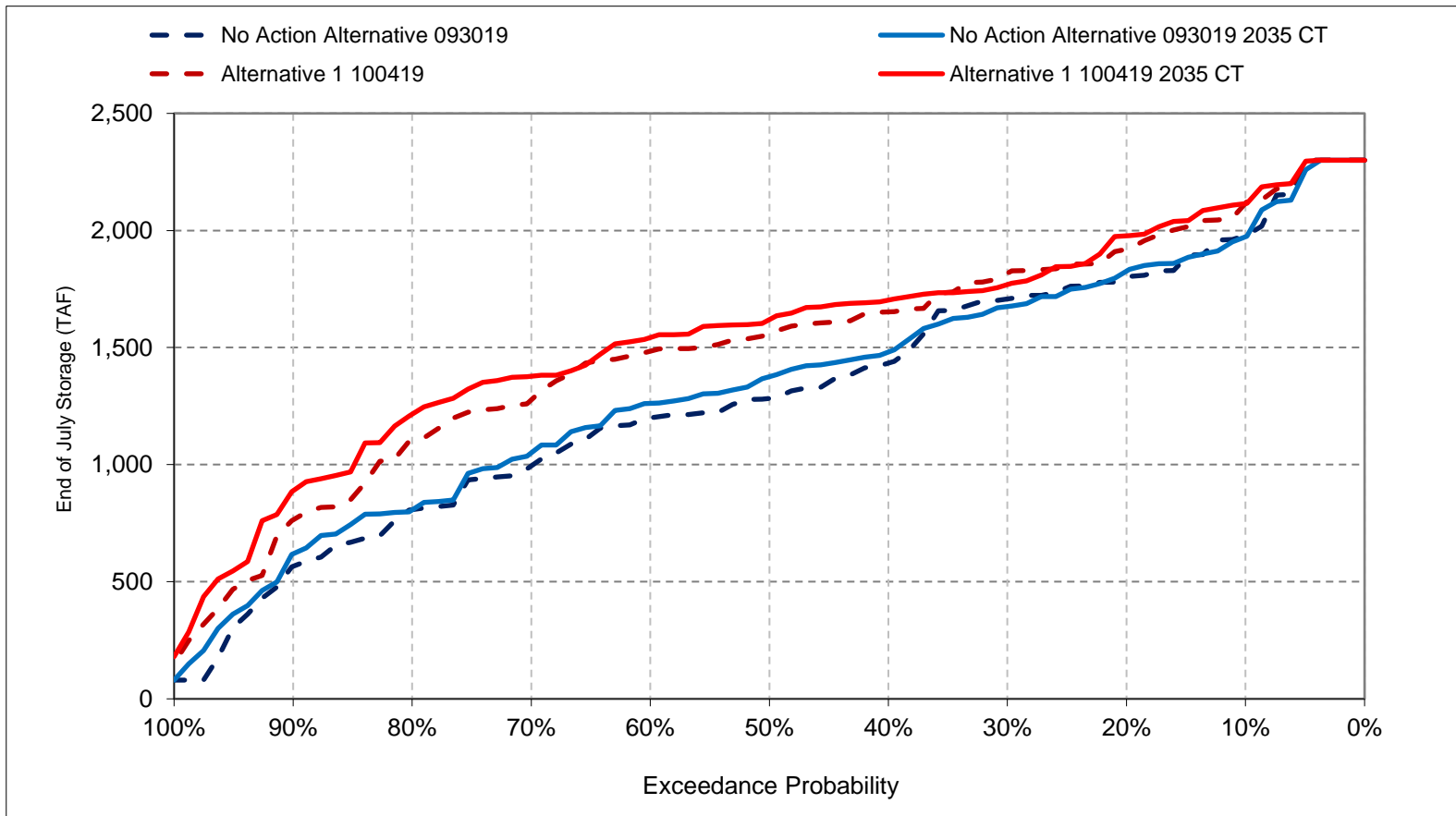
Figure 7-15. New Melones Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

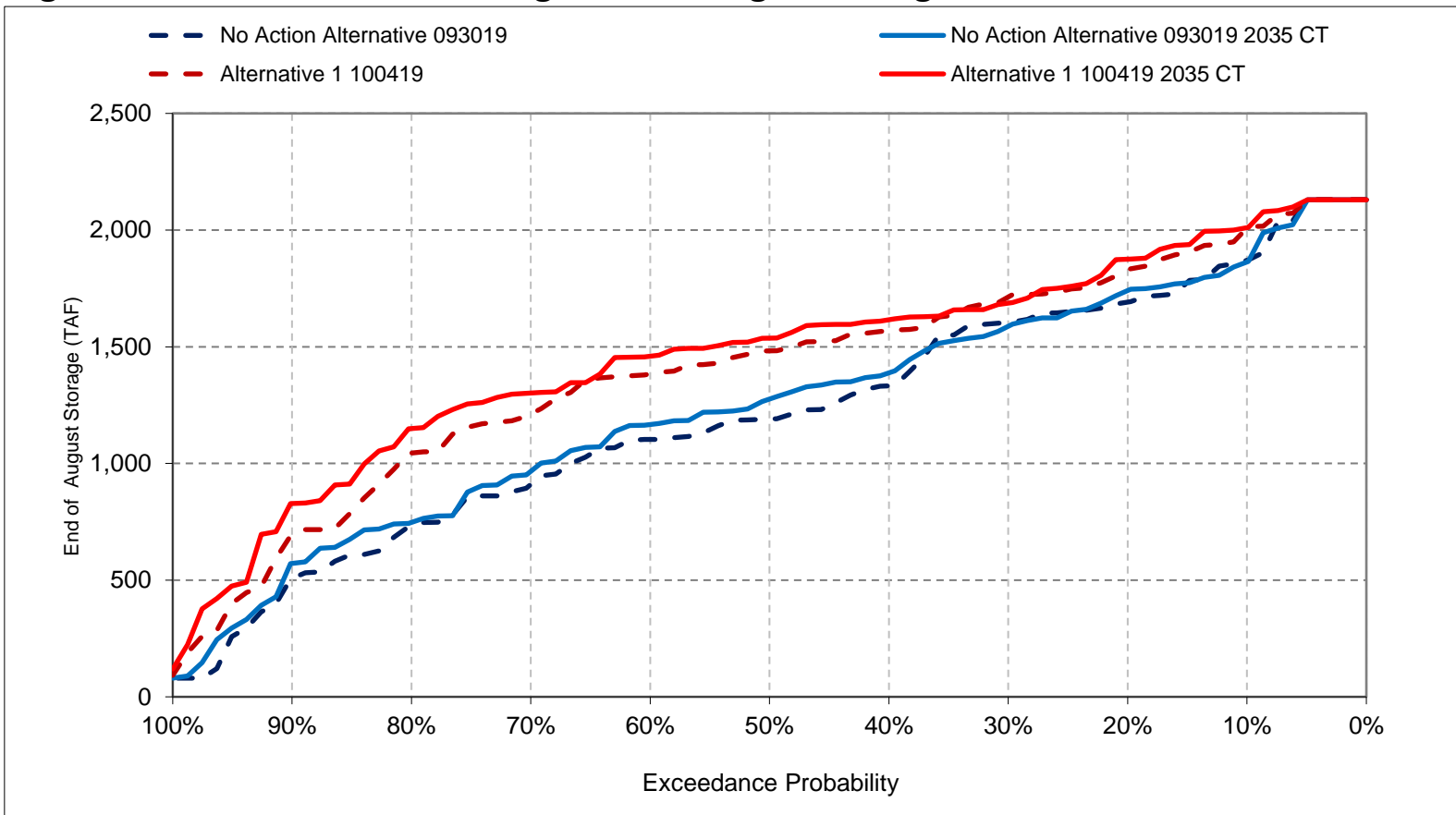
Figure 7-16. New Melones Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

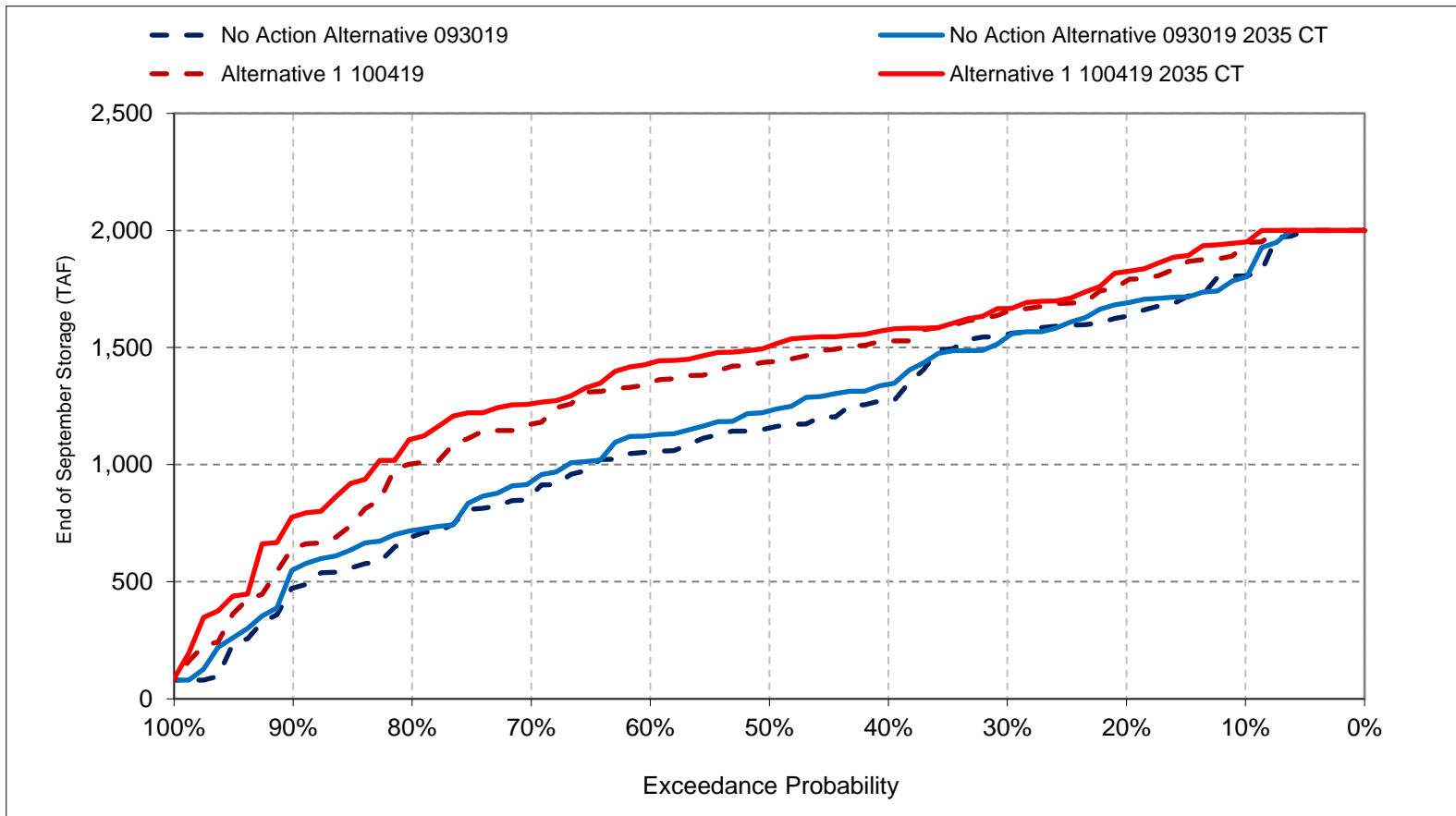
Figure 7-17. New Melones Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7-18. New Melones Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-1. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,029	1,028	1,035	1,040	1,046	1,050	1,047	1,057	1,059	1,050	1,039	1,033
20%	1,013	1,015	1,017	1,021	1,029	1,032	1,036	1,043	1,040	1,032	1,022	1,016
30%	1,006	1,006	1,008	1,012	1,021	1,025	1,021	1,027	1,031	1,023	1,013	1,008
40%	975	976	995	1,004	1,012	1,014	1,011	1,006	1,006	995	983	976
50%	956	957	960	980	996	1,006	998	996	991	977	965	960
60%	943	945	950	959	966	976	976	984	976	966	953	947
70%	925	928	938	942	945	947	951	952	951	939	928	923
80%	879	881	886	887	897	912	918	924	923	912	897	888
90%	835	836	837	846	857	863	864	867	876	863	850	843
Long Term												
Full Simulation Period ^d	944	945	950	958	968	974	973	976	976	965	954	947
Water Year Types^{b,c}												
Wet (23%)	1,024	1,025	1,027	996	1,012	1,021	1,026	1,042	1,054	1,047	1,036	1,029
Above Normal (24%)	963	965	969	945	959	970	976	991	994	983	971	965
Below Normal (10%)	963	963	966	990	998	1,001	996	998	999	988	976	969
Dry (16%)	924	929	939	967	970	975	969	965	960	947	935	929
Critical (27%)	858	859	867	922	925	927	917	903	893	881	870	864

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,041	1,040	1,044	1,049	1,050	1,055	1,053	1,060	1,070	1,062	1,053	1,047
20%	1,027	1,027	1,030	1,038	1,047	1,050	1,044	1,051	1,054	1,044	1,035	1,031
30%	1,014	1,015	1,021	1,031	1,036	1,038	1,034	1,039	1,043	1,034	1,024	1,018
40%	1,003	1,006	1,011	1,017	1,026	1,029	1,028	1,028	1,028	1,018	1,009	1,005
50%	993	995	998	1,004	1,014	1,019	1,015	1,018	1,015	1,008	1,000	996
60%	981	984	987	993	999	1,008	1,005	1,007	1,008	1,001	990	985
70%	957	961	973	979	988	992	989	989	988	976	968	963
80%	937	937	942	943	947	955	949	963	962	953	946	941
90%	868	865	867	869	873	888	884	897	917	903	888	878
Long Term												
Full Simulation Period ^d	970	972	977	984	992	997	996	1,000	1,001	992	981	975
Water Year Types^{b,c}												
Wet (23%)	1,027	1,028	1,031	1,007	1,019	1,026	1,032	1,048	1,057	1,050	1,039	1,032
Above Normal (24%)	972	973	977	962	976	986	987	1,001	1,006	995	982	975
Below Normal (10%)	987	988	990	1,018	1,023	1,027	1,020	1,020	1,021	1,011	1,000	993
Dry (16%)	966	971	979	998	1,001	1,005	1,001	999	995	985	975	971
Critical (27%)	916	916	923	964	966	967	961	953	946	936	926	921

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	12	12	9	9	4	4	6	3	11	12	13	14
20%	13	12	13	17	17	18	9	9	14	12	14	15
30%	9	9	13	19	15	13	13	12	12	11	11	10
40%	27	30	16	14	14	15	16	23	22	22	26	29
50%	38	39	38	24	18	14	17	22	23	31	36	36
60%	38	39	37	34	34	32	29	24	32	35	37	38
70%	32	32	35	37	43	45	39	37	37	37	39	40
80%	58	55	55	57	50	43	31	39	39	41	49	52
90%	34	30	30	23	15	25	20	30	42	41	38	35
Long Term												
Full Simulation Period ^d	27	27	26	25	24	23	23	24	26	27	27	28
Water Year Types^{b,c}												
Wet (23%)	3	3	4	11	7	6	6	6	4	3	3	3
Above Normal (24%)	9	9	9	17	16	16	11	9	12	12	11	11
Below Normal (10%)	24	24	24	28	26	25	24	22	22	22	24	24
Dry (16%)	42	41	40	31	31	30	32	34	35	38	40	42
Critical (27%)	57	57	56	41	41	40	44	49	53	55	56	57

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 7a-2. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,026	1,027	1,045	1,048	1,050	1,054	1,056	1,062	1,063	1,050	1,039	1,033
20%	1,018	1,018	1,020	1,027	1,048	1,045	1,047	1,050	1,045	1,035	1,026	1,021
30%	1,004	1,003	1,015	1,022	1,032	1,036	1,037	1,037	1,030	1,020	1,011	1,007
40%	982	983	1,002	1,014	1,021	1,026	1,021	1,019	1,010	1,000	991	985
50%	968	970	975	990	1,008	1,014	1,009	1,006	1,001	989	976	970
60%	953	953	961	972	983	991	998	995	988	974	962	956
70%	929	936	941	950	954	958	970	966	959	947	936	931
80%	884	884	887	906	929	938	937	934	925	912	900	894
90%	857	862	865	866	879	881	877	901	887	874	864	860
Long Term												
Full Simulation Period ^d	950	952	958	969	979	988	989	989	984	971	960	954
Water Year Types ^{b,c}												
Wet (23%)	1,026	1,026	1,030	1,007	1,023	1,034	1,041	1,053	1,057	1,047	1,036	1,030
Above Normal (24%)	969	971	976	959	974	986	994	1,005	1,000	987	976	970
Below Normal (10%)	969	970	974	996	1,005	1,011	1,009	1,009	1,004	992	981	974
Dry (16%)	936	940	951	975	979	987	983	977	967	955	944	938
Critical (27%)	869	869	877	933	937	943	936	921	908	895	881	875

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,044	1,046	1,049	1,050	1,050	1,055	1,058	1,069	1,071	1,062	1,053	1,048
20%	1,030	1,029	1,036	1,049	1,050	1,055	1,054	1,058	1,059	1,050	1,040	1,035
30%	1,017	1,018	1,026	1,036	1,046	1,050	1,048	1,047	1,040	1,029	1,021	1,019
40%	1,006	1,008	1,017	1,025	1,034	1,039	1,041	1,040	1,033	1,023	1,014	1,010
50%	1,001	1,003	1,006	1,014	1,024	1,033	1,032	1,032	1,024	1,014	1,006	1,003
60%	992	994	999	1,007	1,015	1,022	1,019	1,021	1,015	1,006	998	995
70%	971	974	983	993	998	1,003	1,005	1,004	998	989	979	974
80%	950	952	956	962	967	975	973	980	977	968	960	954
90%	895	896	902	908	928	933	937	941	934	926	916	906
Long Term												
Full Simulation Period ^d	980	981	987	996	1,004	1,012	1,012	1,014	1,010	1,000	989	984
Water Year Types ^{b,c}												
Wet (23%)	1,031	1,032	1,036	1,017	1,028	1,038	1,046	1,058	1,061	1,052	1,042	1,035
Above Normal (24%)	982	984	989	984	998	1,007	1,010	1,017	1,015	1,002	991	985
Below Normal (10%)	992	993	997	1,022	1,028	1,034	1,030	1,029	1,025	1,013	1,003	997
Dry (16%)	983	987	996	1,010	1,013	1,019	1,018	1,015	1,008	998	989	985
Critical (27%)	928	928	935	972	976	980	976	966	957	948	938	933

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	18	18	4	1	0	0	2	8	8	12	14	15
20%	12	11	16	22	2	9	6	8	14	15	14	14
30%	13	14	12	14	15	14	11	10	10	9	10	12
40%	24	25	15	11	13	13	20	22	23	22	23	25
50%	32	33	32	25	16	20	22	26	24	25	30	33
60%	39	41	39	35	32	30	21	26	26	32	36	39
70%	42	37	42	43	45	45	35	37	40	43	44	43
80%	66	68	69	56	38	37	36	46	51	56	60	61
90%	38	34	37	41	49	52	60	41	47	52	53	46
Long Term												
Full Simulation Period ^d	30	30	29	27	25	23	23	24	26	28	30	30
Water Year Types ^{b,c}												
Wet (23%)	6	6	6	11	5	5	5	4	4	6	6	5
Above Normal (24%)	13	13	13	25	23	21	16	13	15	15	15	15
Below Normal (10%)	24	23	23	26	23	23	21	20	21	21	22	23
Dry (16%)	47	47	46	35	34	33	35	38	41	43	46	47
Critical (27%)	59	59	58	39	38	37	40	45	49	53	56	58

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-3. New Melones Reservoir, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,029	1,028	1,035	1,040	1,046	1,050	1,047	1,057	1,059	1,050	1,039	1,033
20%	1,013	1,015	1,017	1,021	1,029	1,032	1,036	1,043	1,040	1,032	1,022	1,016
30%	1,006	1,006	1,008	1,012	1,021	1,025	1,021	1,027	1,031	1,023	1,013	1,008
40%	975	976	995	1,004	1,012	1,014	1,011	1,006	1,006	995	983	976
50%	956	957	960	980	996	1,006	998	996	991	977	965	960
60%	943	945	950	959	966	976	976	984	976	966	953	947
70%	925	928	938	942	945	947	951	952	951	939	928	923
80%	879	881	886	887	897	912	918	924	923	912	897	888
90%	835	836	837	846	857	863	864	867	876	863	850	843
Long Term												
Full Simulation Period ^d	944	945	950	958	968	974	973	976	976	965	954	947
Water Year Types ^{b,c}												
Wet (23%)	1,024	1,025	1,027	996	1,012	1,021	1,026	1,042	1,054	1,047	1,036	1,029
Above Normal (24%)	963	965	969	945	959	970	976	991	994	983	971	965
Below Normal (10%)	963	963	966	990	998	1,001	996	998	999	988	976	969
Dry (16%)	924	929	939	967	970	975	969	965	960	947	935	929
Critical (27%)	858	859	867	922	925	927	917	903	893	881	870	864

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,026	1,027	1,045	1,048	1,050	1,054	1,056	1,062	1,063	1,050	1,039	1,033
20%	1,018	1,018	1,020	1,027	1,048	1,045	1,047	1,050	1,045	1,035	1,026	1,021
30%	1,004	1,003	1,015	1,022	1,032	1,036	1,037	1,037	1,030	1,020	1,011	1,007
40%	982	983	1,002	1,014	1,021	1,026	1,021	1,019	1,010	1,000	991	985
50%	968	970	975	990	1,008	1,014	1,009	1,006	1,001	989	976	970
60%	953	953	961	972	983	991	998	995	988	974	962	956
70%	929	936	941	950	954	958	970	966	959	947	936	931
80%	884	884	887	906	929	938	937	934	925	912	900	894
90%	857	862	865	866	879	881	877	901	887	874	864	860
Long Term												
Full Simulation Period ^d	950	952	958	969	979	988	989	989	984	971	960	954
Water Year Types ^{b,c}												
Wet (23%)	1,026	1,026	1,030	1,007	1,023	1,034	1,041	1,053	1,057	1,047	1,036	1,030
Above Normal (24%)	969	971	976	959	974	986	994	1,005	1,000	987	976	970
Below Normal (10%)	969	970	974	996	1,005	1,011	1,009	1,009	1,004	992	981	974
Dry (16%)	936	940	951	975	979	987	983	977	967	955	944	938
Critical (27%)	869	869	877	933	937	943	936	921	908	895	881	875

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	-1	11	8	4	4	9	5	5	0	-1	0
20%	4	2	3	6	19	13	11	7	5	3	5	6
30%	-2	-3	7	10	11	10	16	10	-1	-3	-2	-1
40%	7	8	7	11	9	12	9	13	4	5	7	9
50%	13	14	15	9	12	8	11	10	9	12	11	10
60%	10	8	10	13	17	15	21	11	12	8	8	9
70%	4	8	3	8	9	10	19	15	7	7	7	8
80%	5	3	0	20	32	26	19	10	2	0	3	5
90%	23	26	29	20	21	18	13	34	12	11	13	16
Long Term												
Full Simulation Period ^d	7	7	8	11	12	14	16	13	8	6	6	6
Water Year Types ^{b,c}												
Wet (23%)	1	2	3	11	11	13	15	11	3	-1	0	1
Above Normal (24%)	6	6	7	15	15	16	18	13	6	4	5	6
Below Normal (10%)	6	6	8	6	8	9	13	11	5	4	5	6
Dry (16%)	12	11	11	8	9	12	14	12	8	8	9	9
Critical (27%)	10	10	10	10	12	16	18	18	16	14	12	11

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 7a-4. New Melones Reservoir, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,041	1,040	1,044	1,049	1,050	1,055	1,053	1,060	1,070	1,062	1,053	1,047
20%	1,027	1,027	1,030	1,038	1,047	1,050	1,044	1,051	1,054	1,044	1,035	1,031
30%	1,014	1,015	1,021	1,031	1,036	1,038	1,034	1,039	1,043	1,034	1,024	1,018
40%	1,003	1,006	1,011	1,017	1,026	1,029	1,028	1,028	1,028	1,018	1,009	1,005
50%	993	995	998	1,004	1,014	1,019	1,015	1,018	1,015	1,008	1,000	996
60%	981	984	987	993	999	1,008	1,005	1,007	1,008	1,001	990	985
70%	957	961	973	979	988	992	989	989	988	976	968	963
80%	937	937	942	943	947	955	949	963	962	953	946	941
90%	868	865	867	869	873	888	884	897	917	903	888	878
Long Term												
Full Simulation Period ^d	970	972	977	984	992	997	996	1,000	1,001	992	981	975
Water Year Types ^{b,c}												
Wet (23%)	1,027	1,028	1,031	1,007	1,019	1,026	1,032	1,048	1,057	1,050	1,039	1,032
Above Normal (24%)	972	973	977	962	976	986	987	1,001	1,006	995	982	975
Below Normal (10%)	987	988	990	1,018	1,023	1,027	1,020	1,020	1,021	1,011	1,000	993
Dry (16%)	966	971	979	998	1,001	1,005	1,001	999	995	985	975	971
Critical (27%)	916	916	923	964	966	967	961	953	946	936	926	921

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,044	1,046	1,049	1,050	1,050	1,055	1,058	1,069	1,071	1,062	1,053	1,048
20%	1,030	1,029	1,036	1,049	1,050	1,055	1,054	1,058	1,059	1,050	1,040	1,035
30%	1,017	1,018	1,026	1,036	1,046	1,050	1,048	1,047	1,040	1,029	1,021	1,019
40%	1,006	1,008	1,017	1,025	1,034	1,039	1,041	1,040	1,033	1,023	1,014	1,010
50%	1,001	1,003	1,006	1,014	1,024	1,033	1,032	1,032	1,024	1,014	1,006	1,003
60%	992	994	999	1,007	1,015	1,022	1,019	1,021	1,015	1,006	998	995
70%	971	974	983	993	998	1,003	1,005	1,004	998	989	979	974
80%	950	952	956	962	967	975	973	980	977	968	960	954
90%	895	896	902	908	928	933	937	941	934	926	916	906
Long Term												
Full Simulation Period ^d	980	981	987	996	1,004	1,012	1,012	1,014	1,010	1,000	989	984
Water Year Types ^{b,c}												
Wet (23%)	1,031	1,032	1,036	1,017	1,028	1,038	1,046	1,058	1,061	1,052	1,042	1,035
Above Normal (24%)	982	984	989	984	998	1,007	1,010	1,017	1,015	1,002	991	985
Below Normal (10%)	992	993	997	1,022	1,028	1,034	1,030	1,029	1,025	1,013	1,003	997
Dry (16%)	983	987	996	1,010	1,013	1,019	1,018	1,015	1,008	998	989	985
Critical (27%)	928	928	935	972	976	980	976	966	957	948	938	933

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3	5	6	1	0	0	5	10	1	0	0	1
20%	3	2	6	11	3	5	9	7	5	6	5	4
30%	3	2	5	5	11	12	14	8	-2	-5	-3	1
40%	4	2	6	8	8	10	14	12	5	5	5	5
50%	7	8	9	10	10	14	17	14	10	6	5	7
60%	10	10	12	14	16	14	14	13	6	6	8	10
70%	14	13	10	14	10	11	15	15	10	13	12	11
80%	13	15	14	19	20	20	24	17	15	15	14	14
90%	27	31	35	39	55	45	53	45	17	22	28	28
Long Term												
Full Simulation Period ^d	10	10	10	12	12	14	16	14	8	8	9	9
Water Year Types ^{b,c}												
Wet (23%)	4	4	4	11	8	12	13	10	4	2	3	3
Above Normal (24%)	10	10	12	22	22	20	22	17	8	7	9	10
Below Normal (10%)	5	6	7	4	5	7	10	9	4	3	4	4
Dry (16%)	16	16	17	12	12	15	17	16	13	13	14	14
Critical (27%)	13	12	12	8	10	13	15	14	11	12	12	12

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

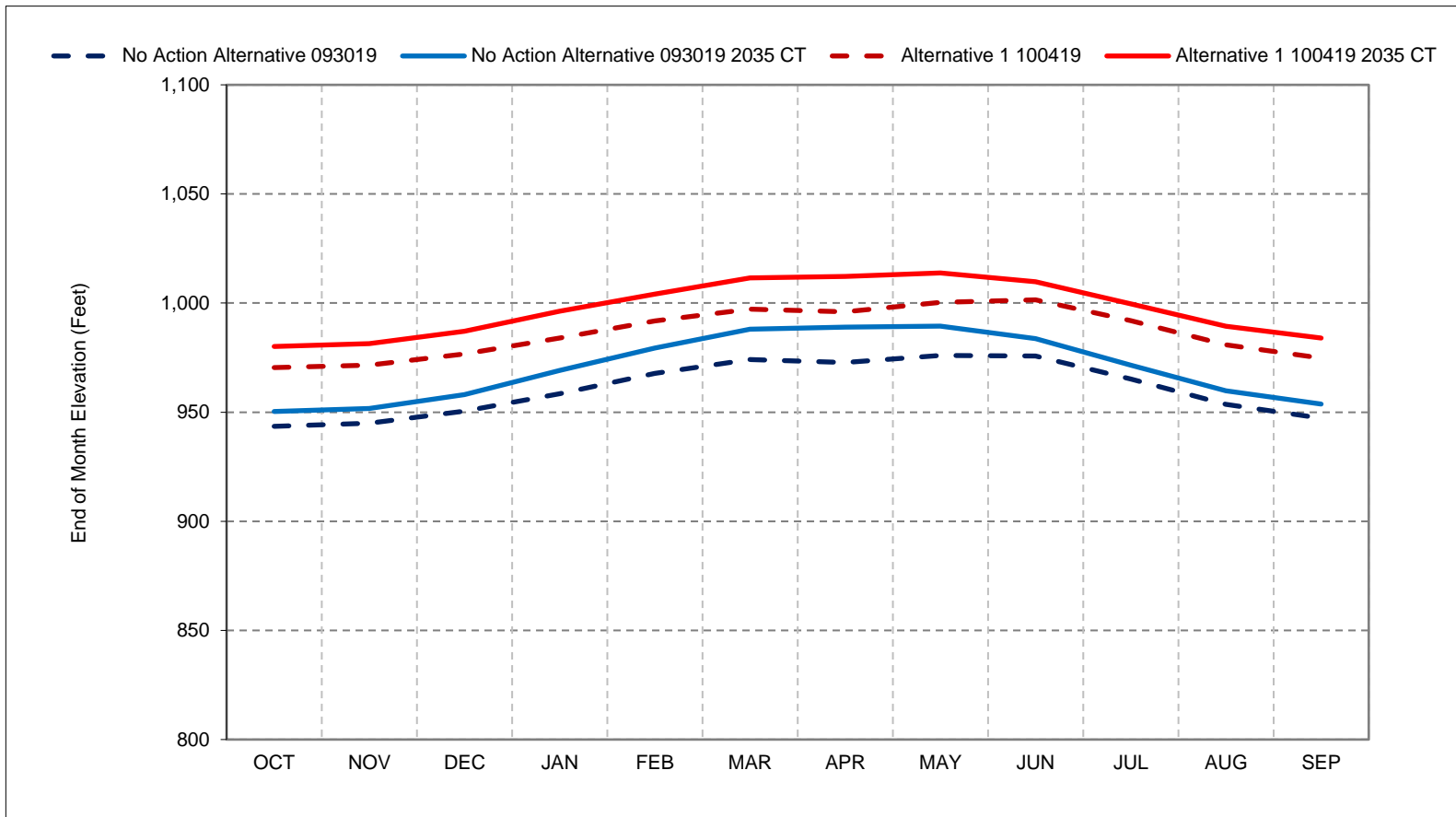
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7a-1. New Melones Reservoir, Long-Term Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

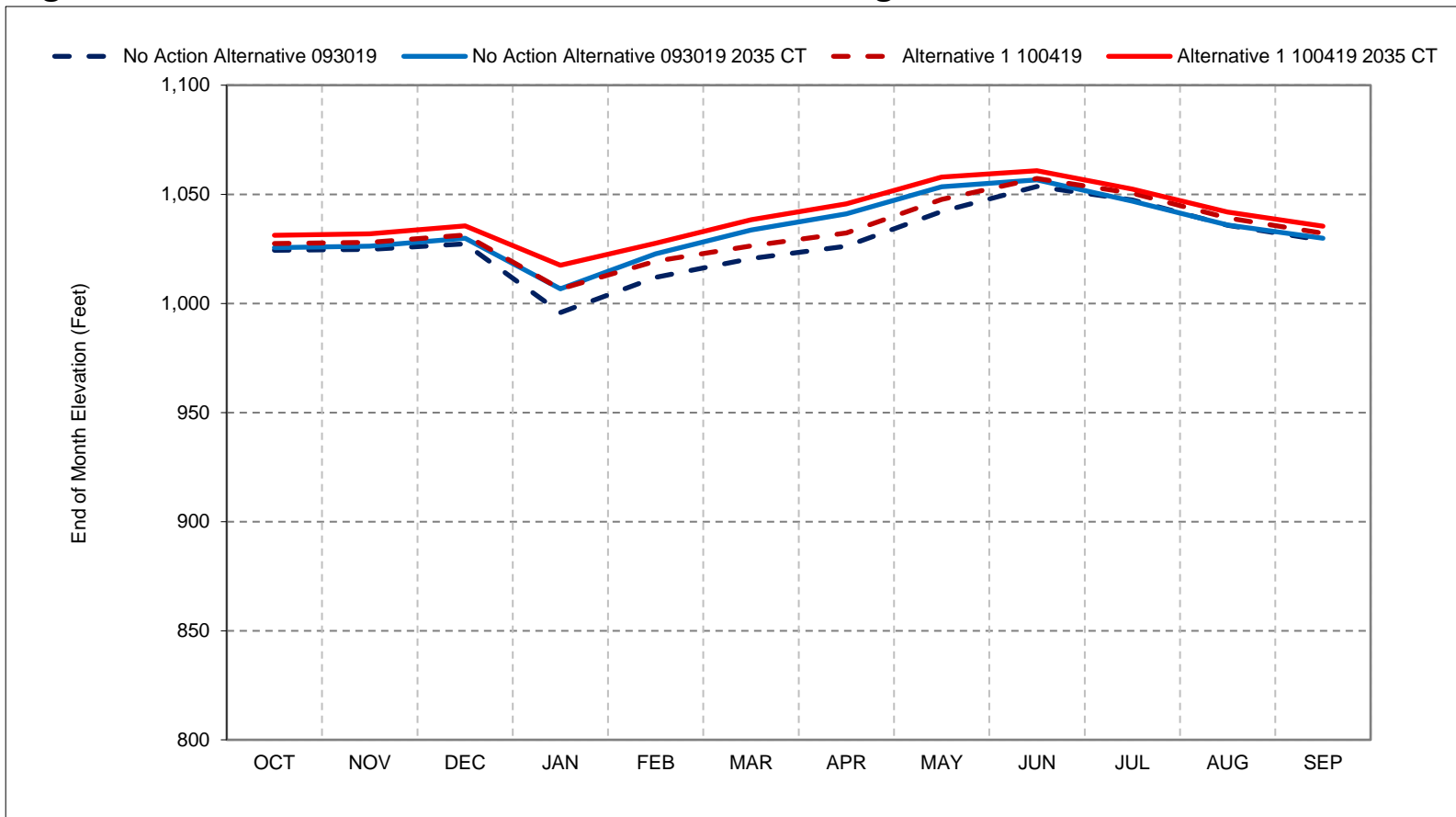
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-2. New Melones Reservoir, Wet Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

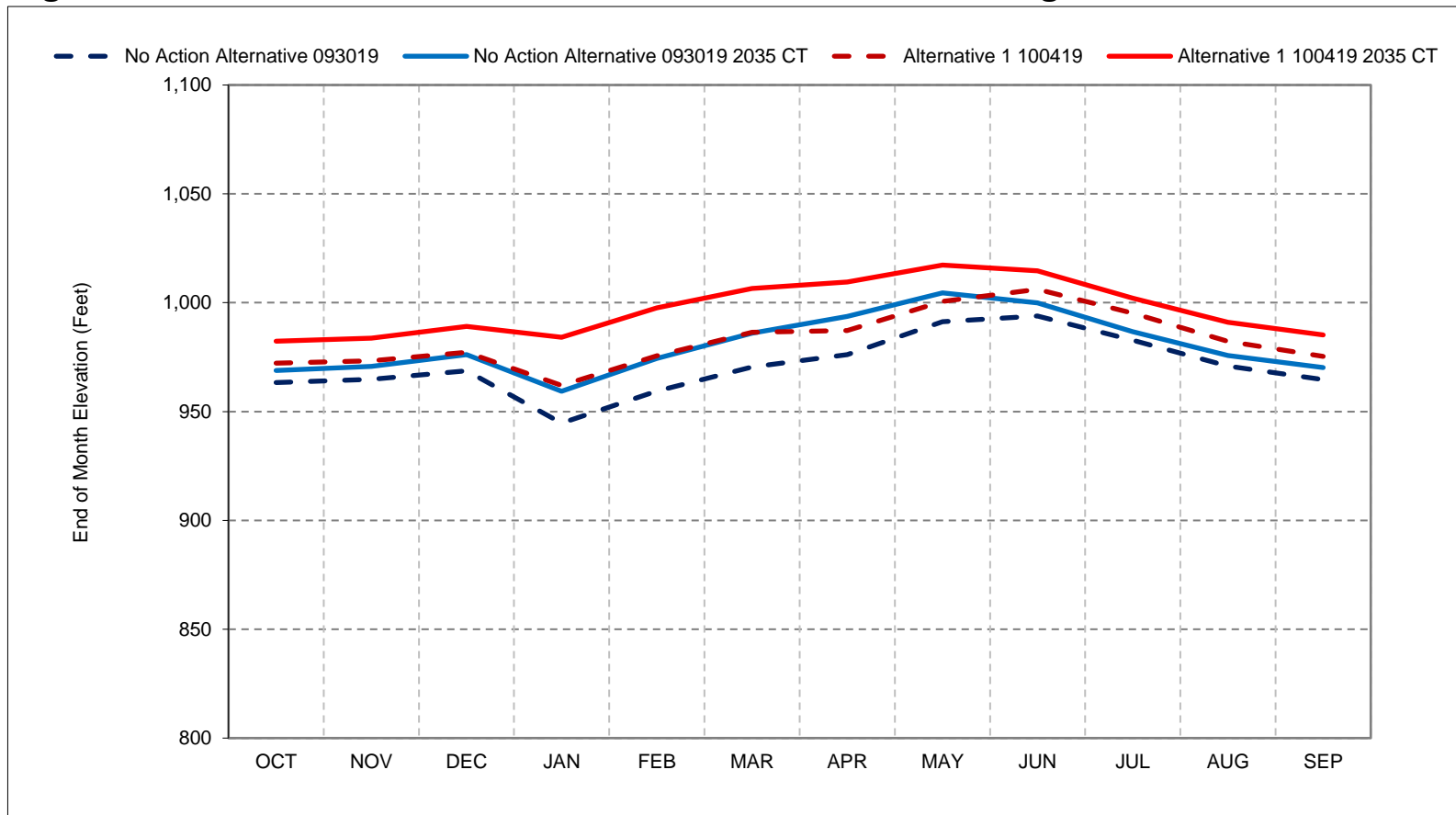
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-3. New Melones Reservoir, Above Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

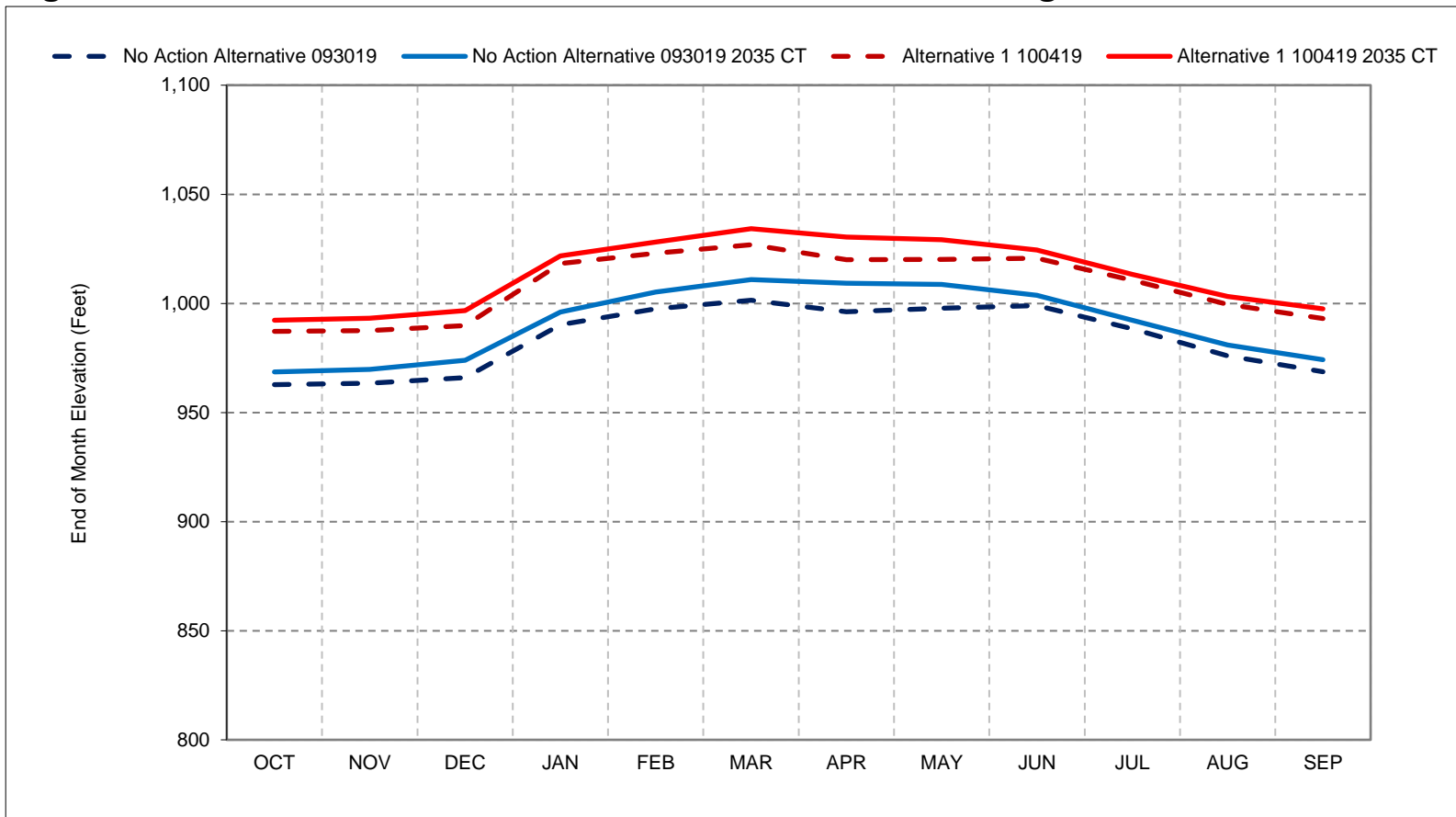
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-4. New Melones Reservoir, Below Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

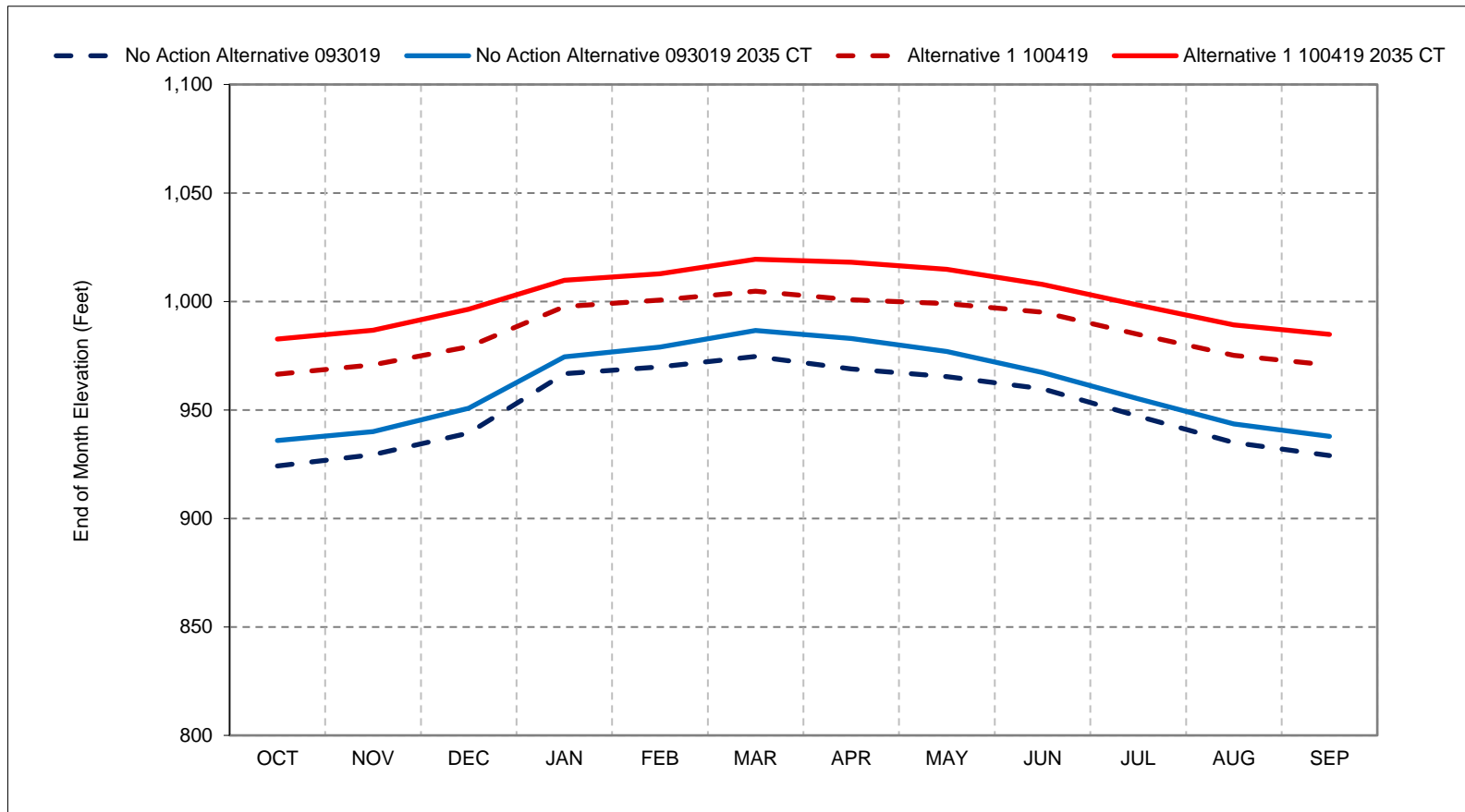
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-5. New Melones Reservoir, Dry Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

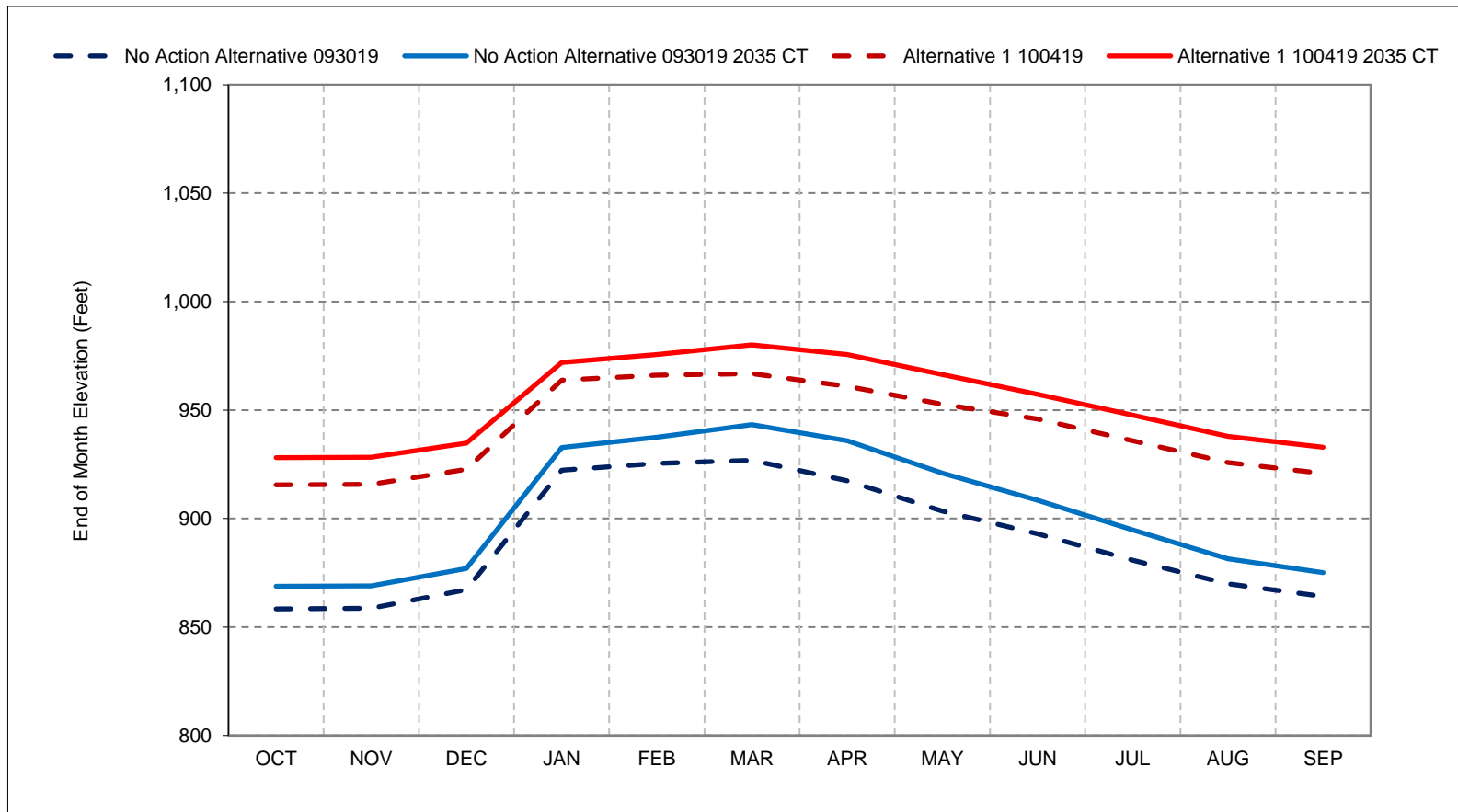
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 7a-6. New Melones Reservoir, Critical Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

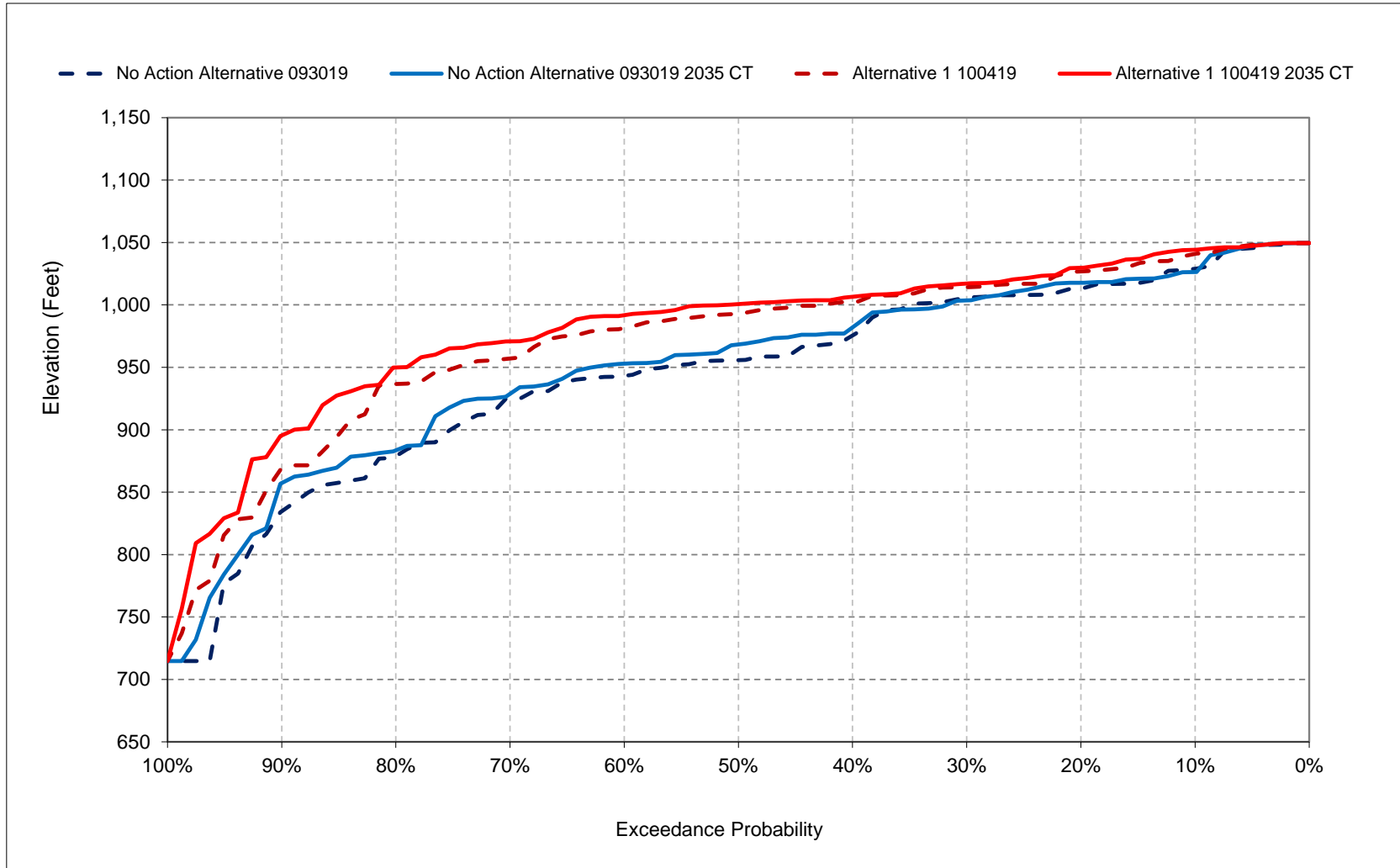
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

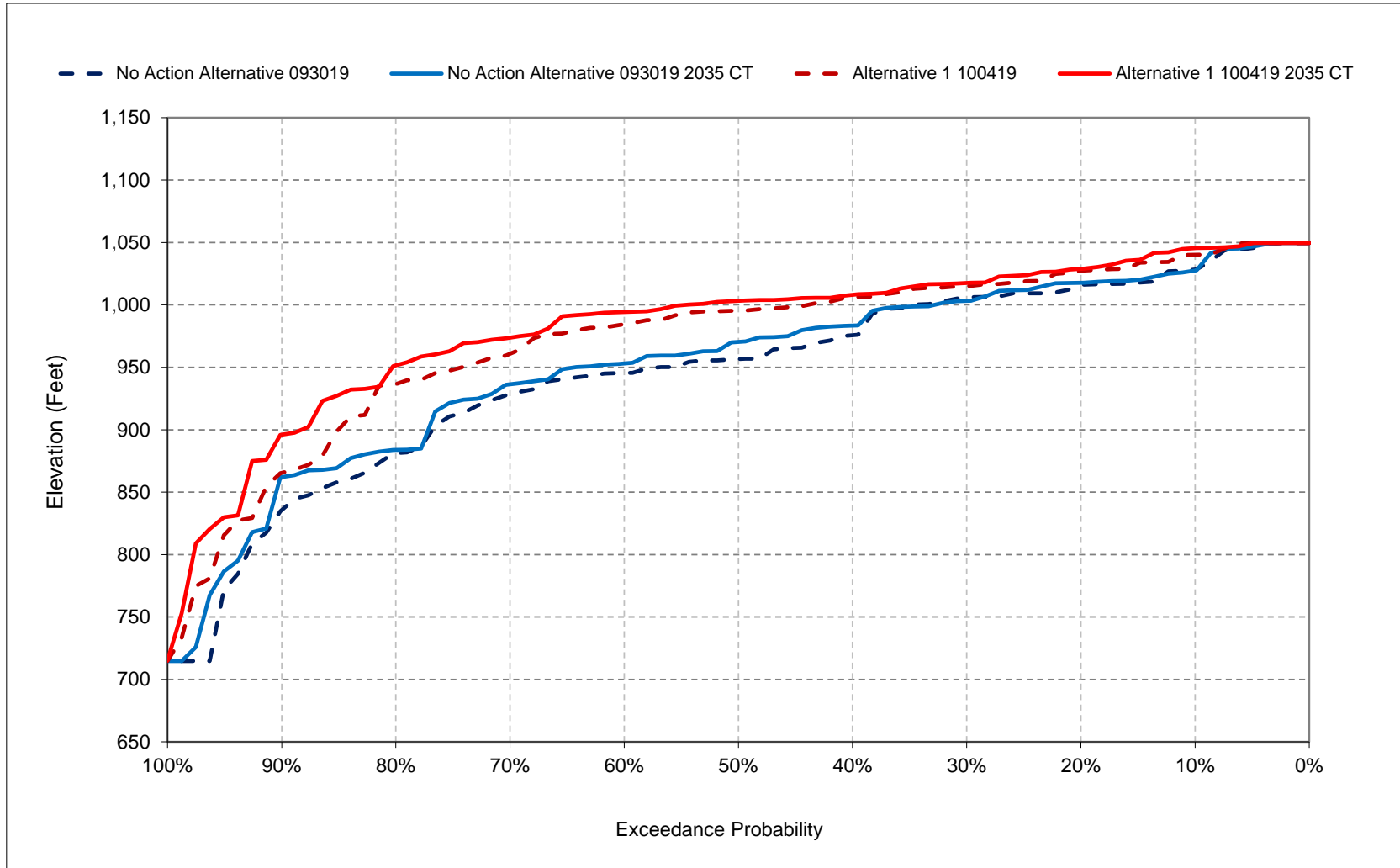
Figure 7a-7. New Melones Reservoir, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

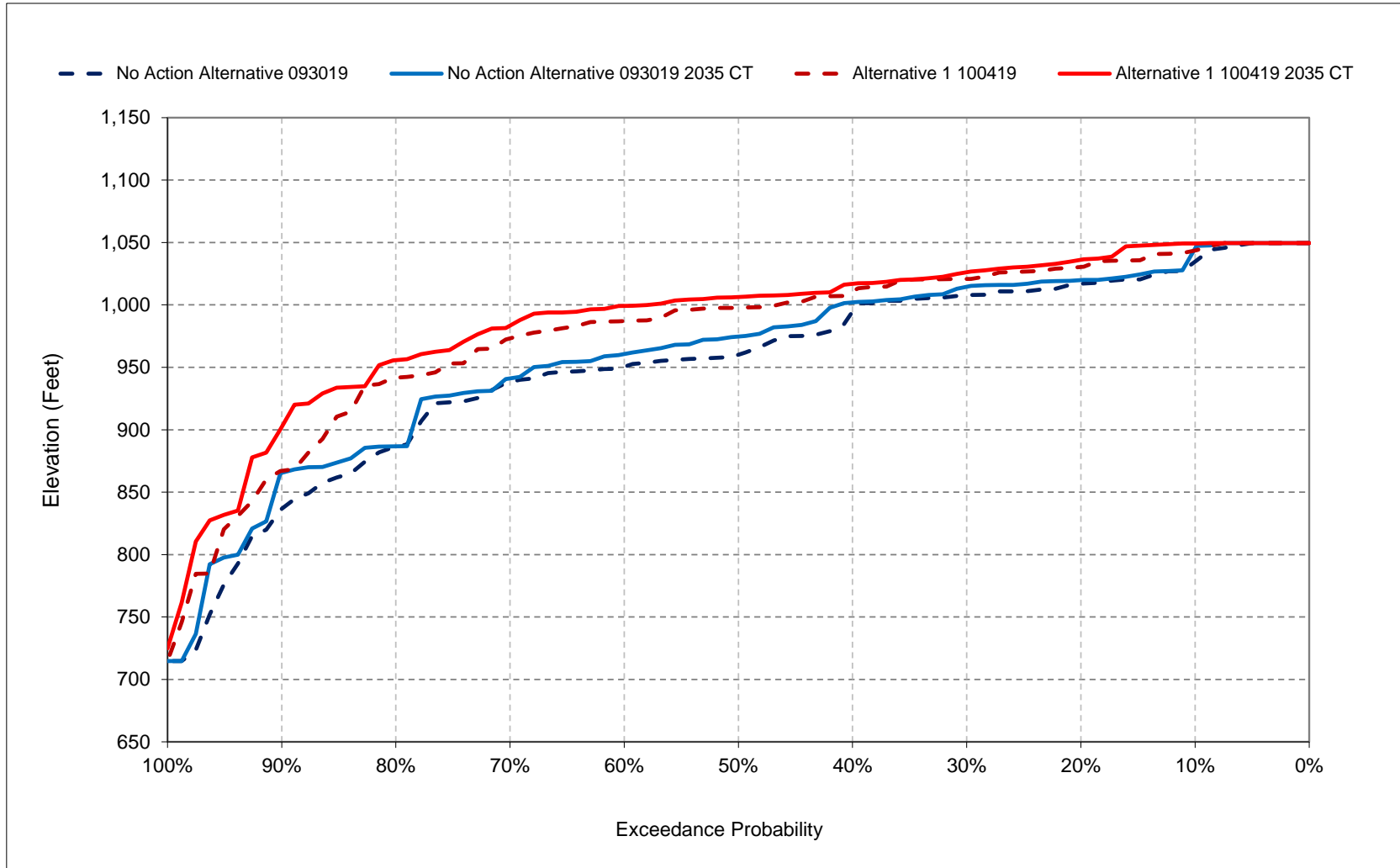
Figure 7a-8. New Melones Reservoir, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

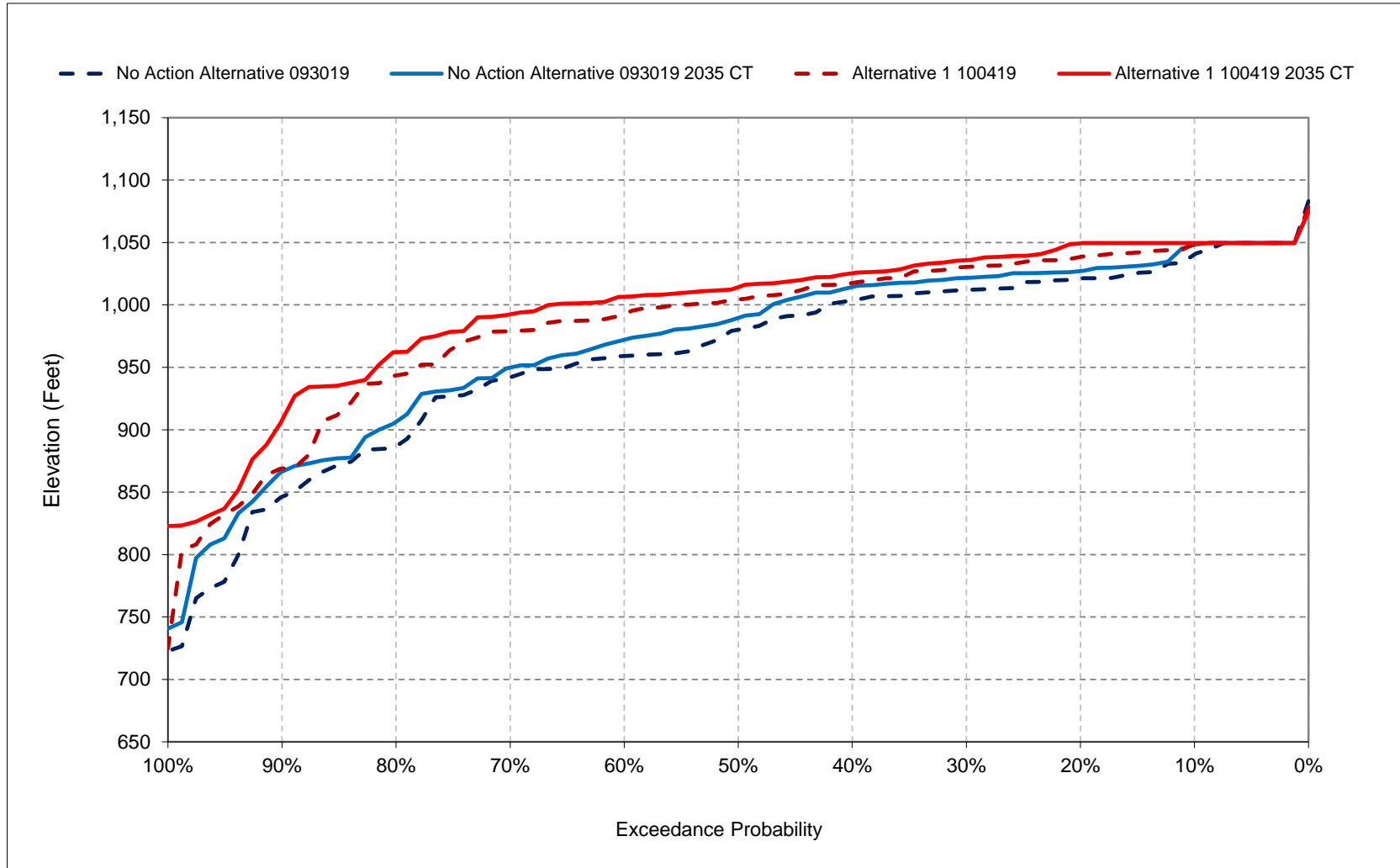
Figure 7a-9. New Melones Reservoir, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

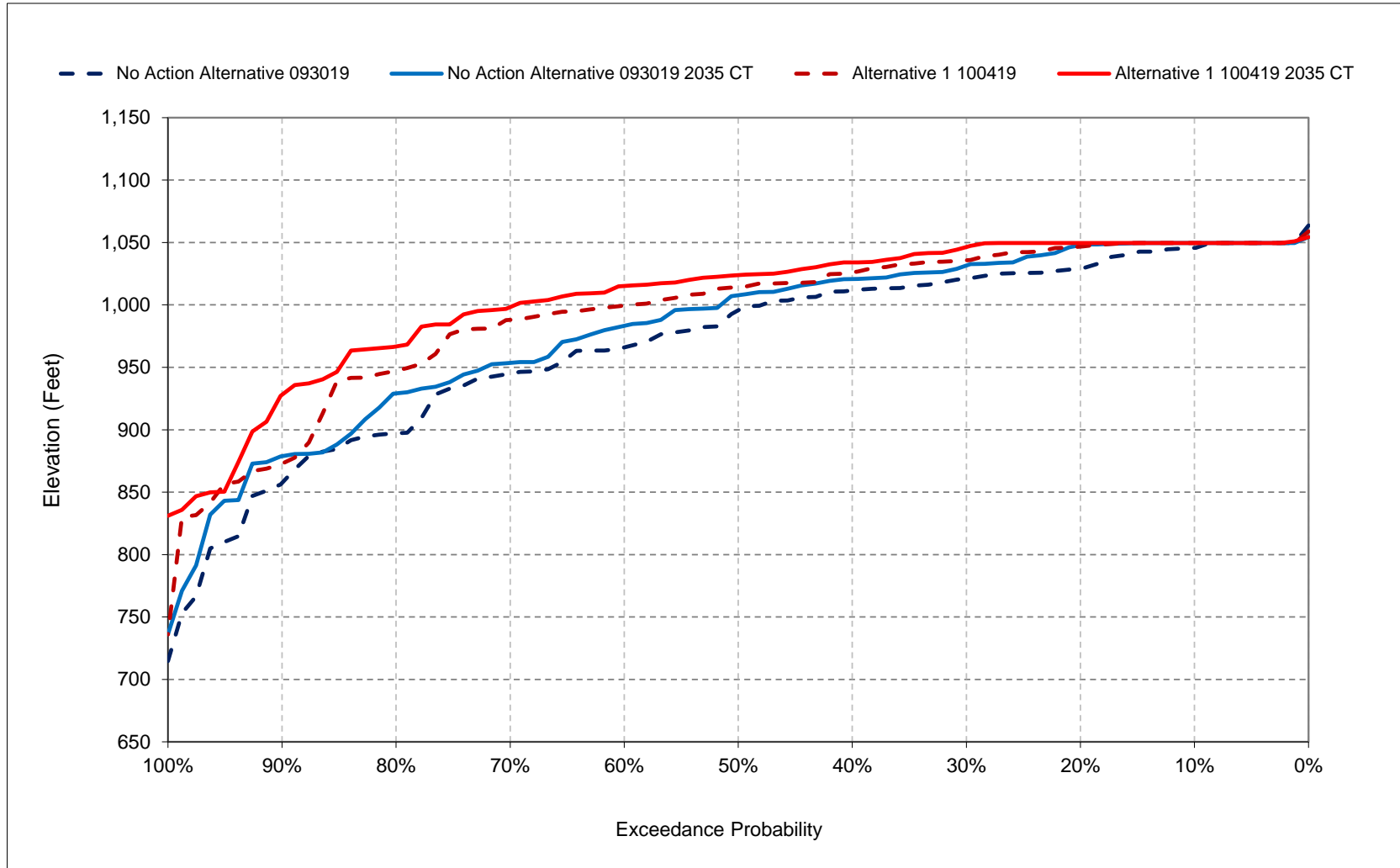
Figure 7a-10. New Melones Reservoir, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

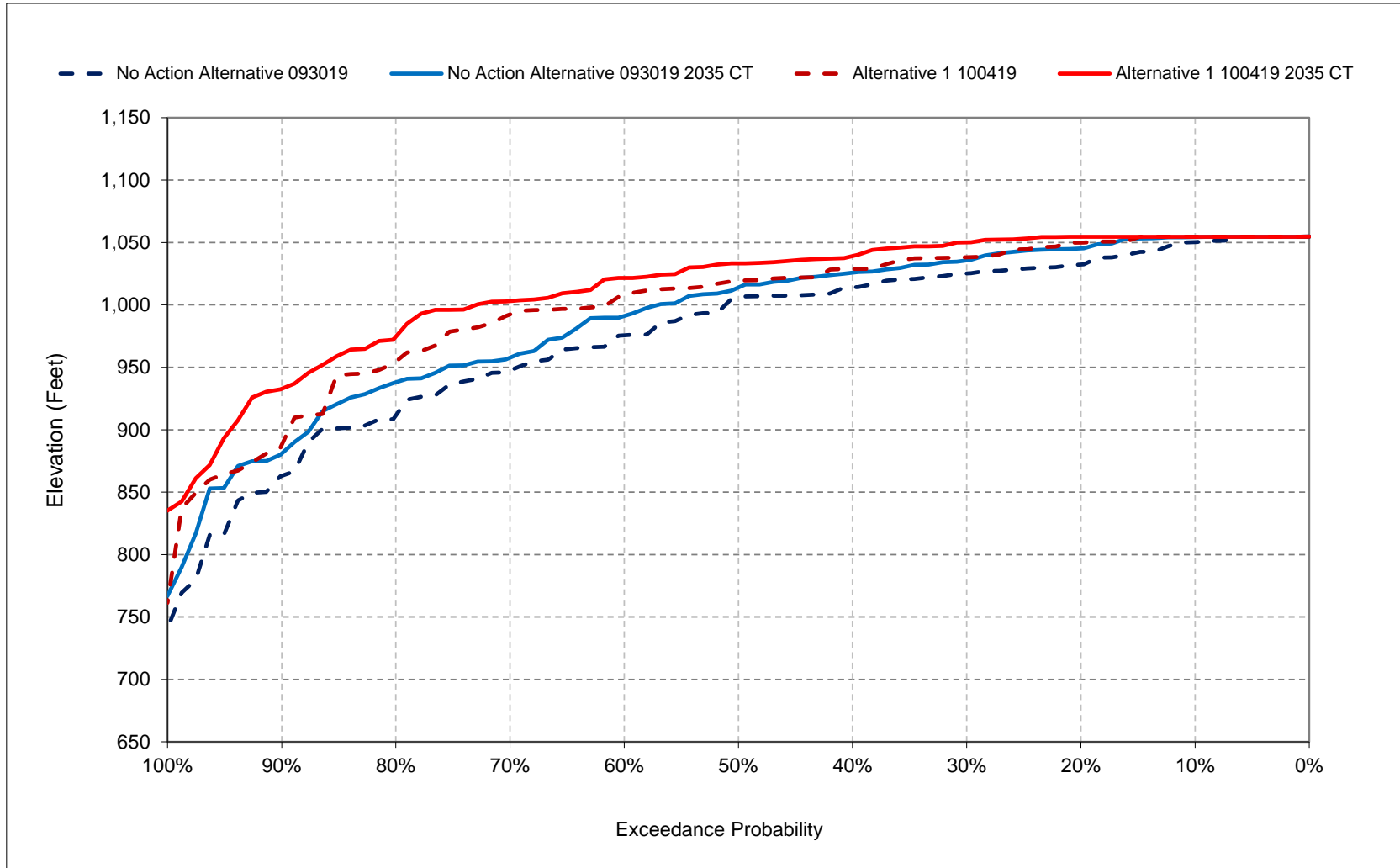
Figure 7a-11. New Melones Reservoir, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

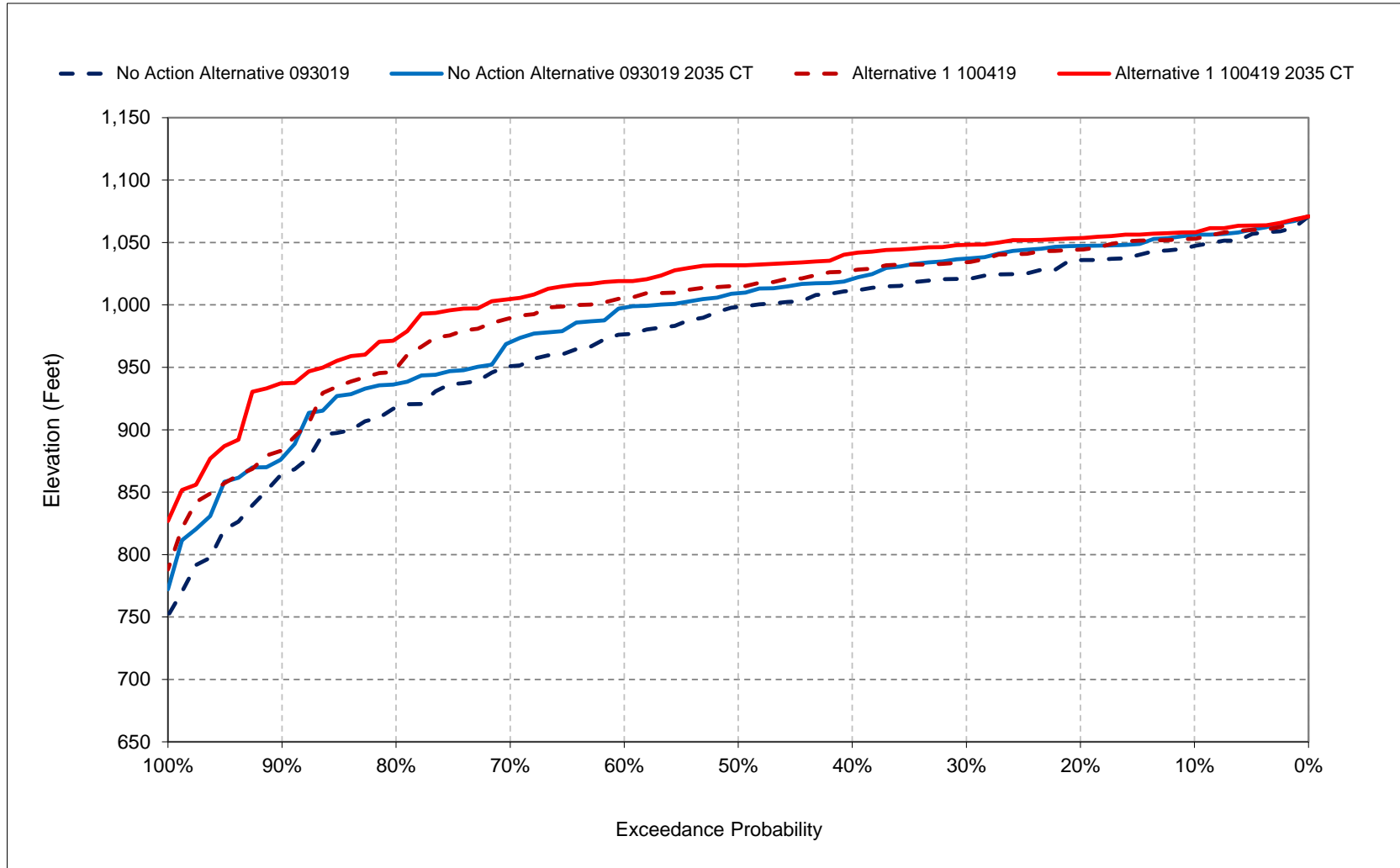
Figure 7a-12. New Melones Reservoir, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

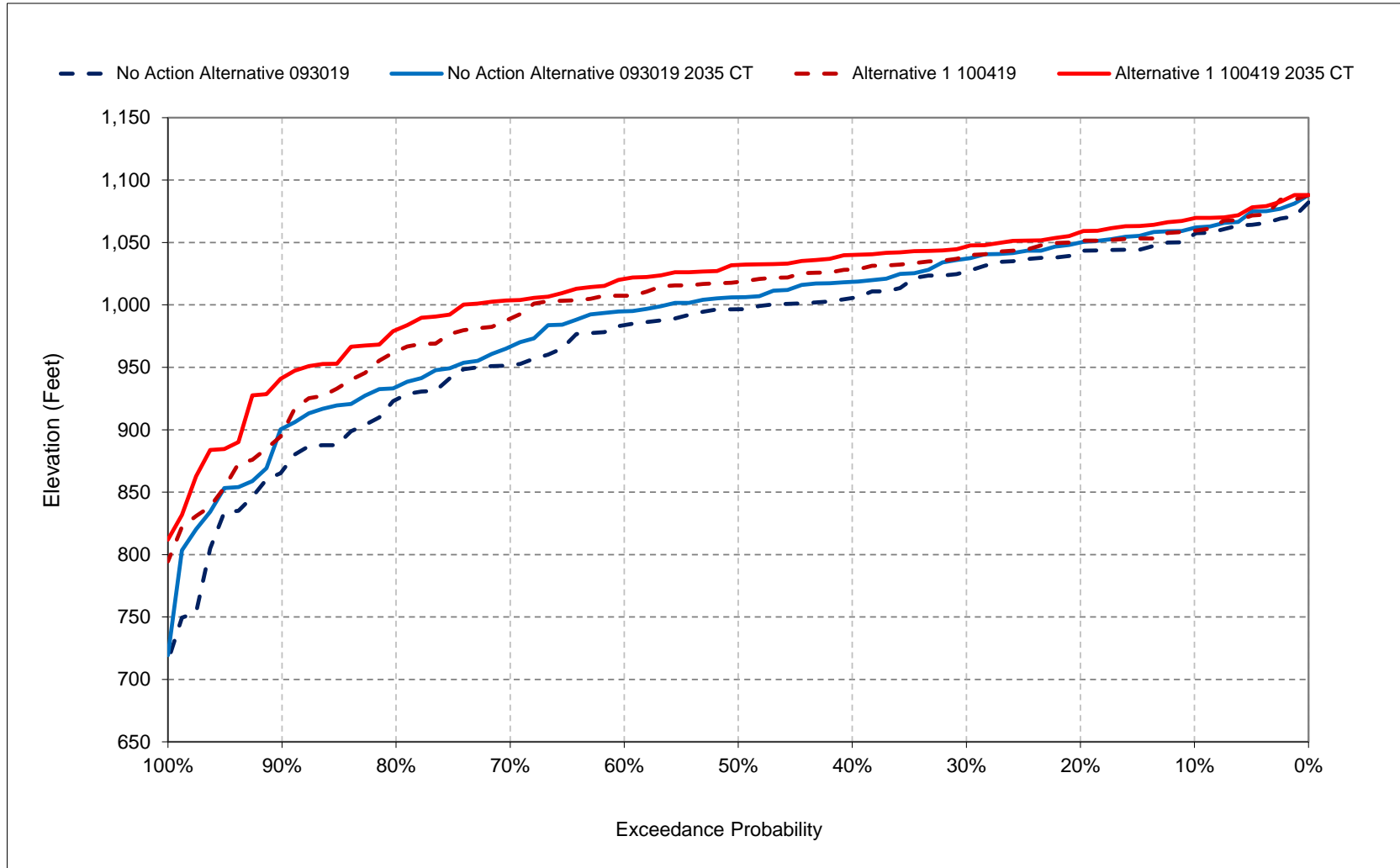
Figure 7a-13. New Melones Reservoir, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

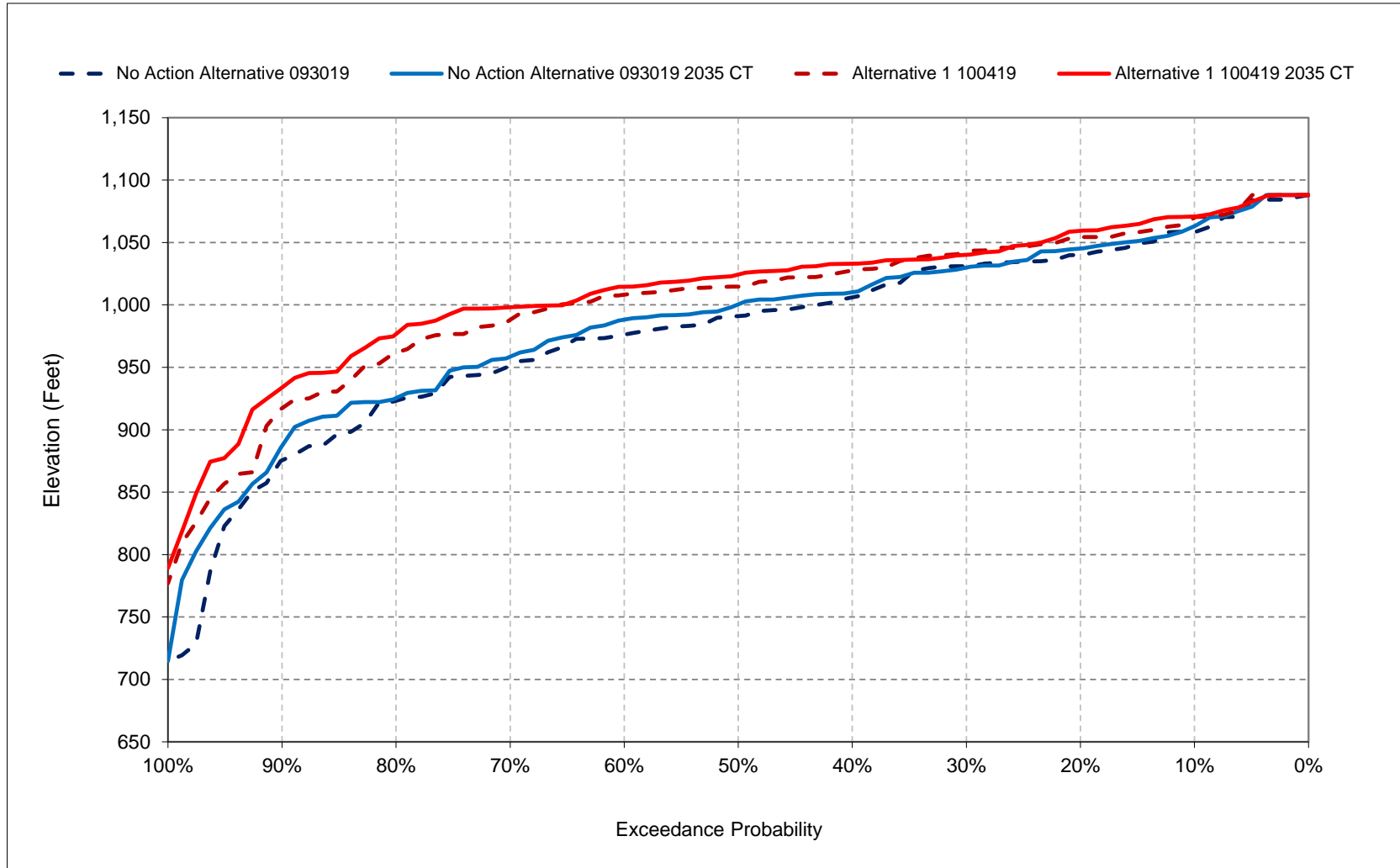
Figure 7a-14. New Melones Reservoir, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

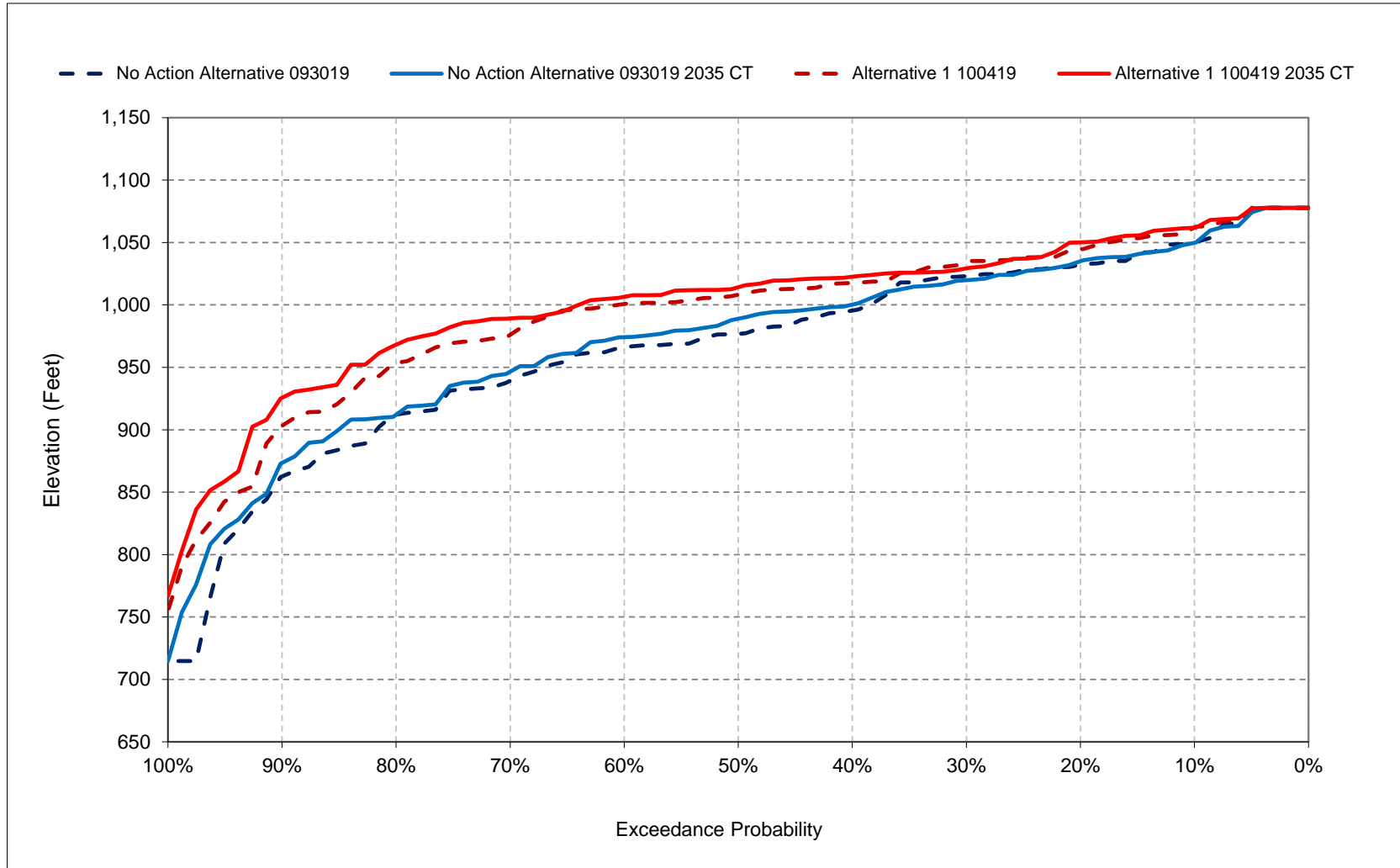
Figure 7a-15. New Melones Reservoir, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

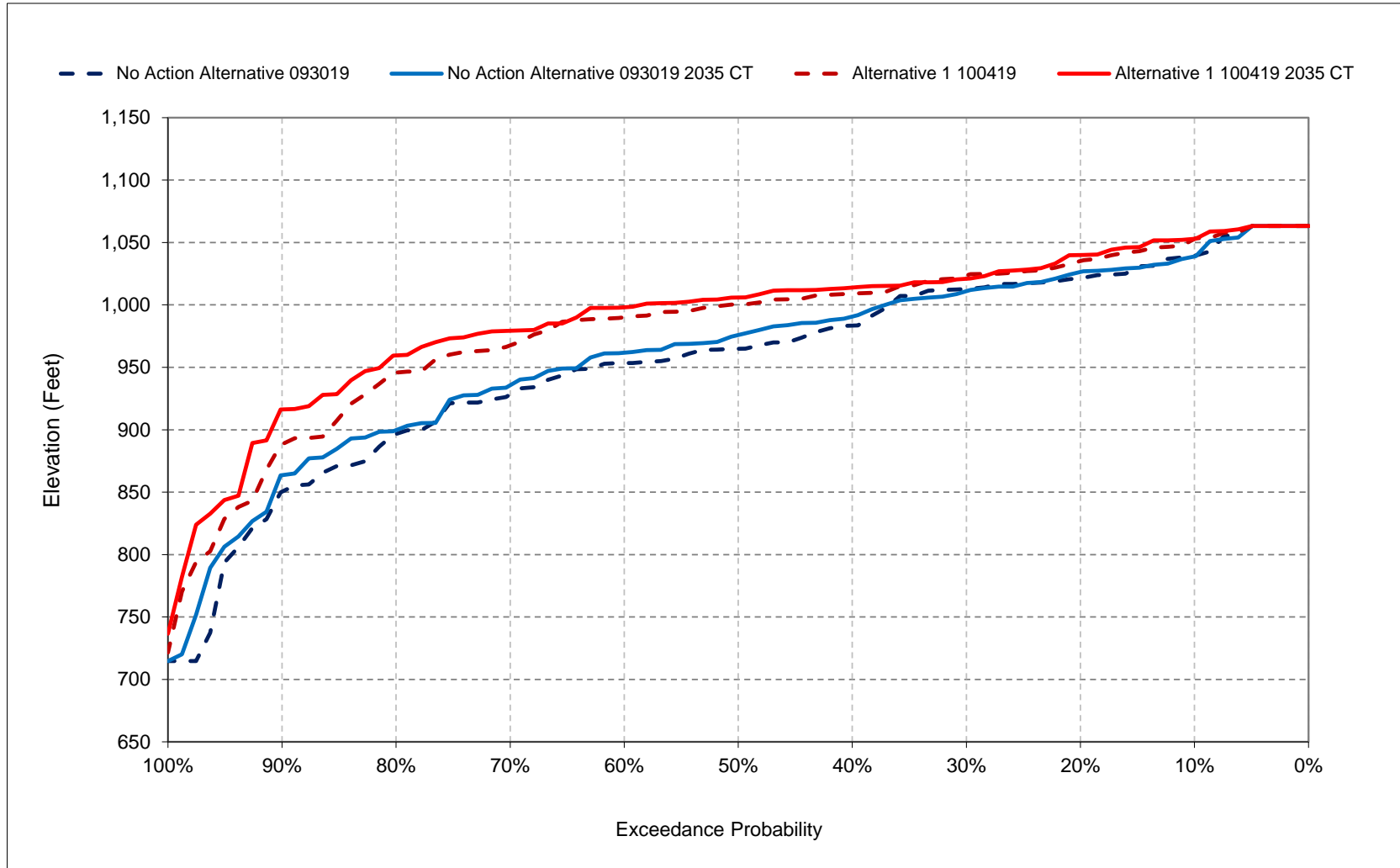
Figure 7a-16. New Melones Reservoir, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

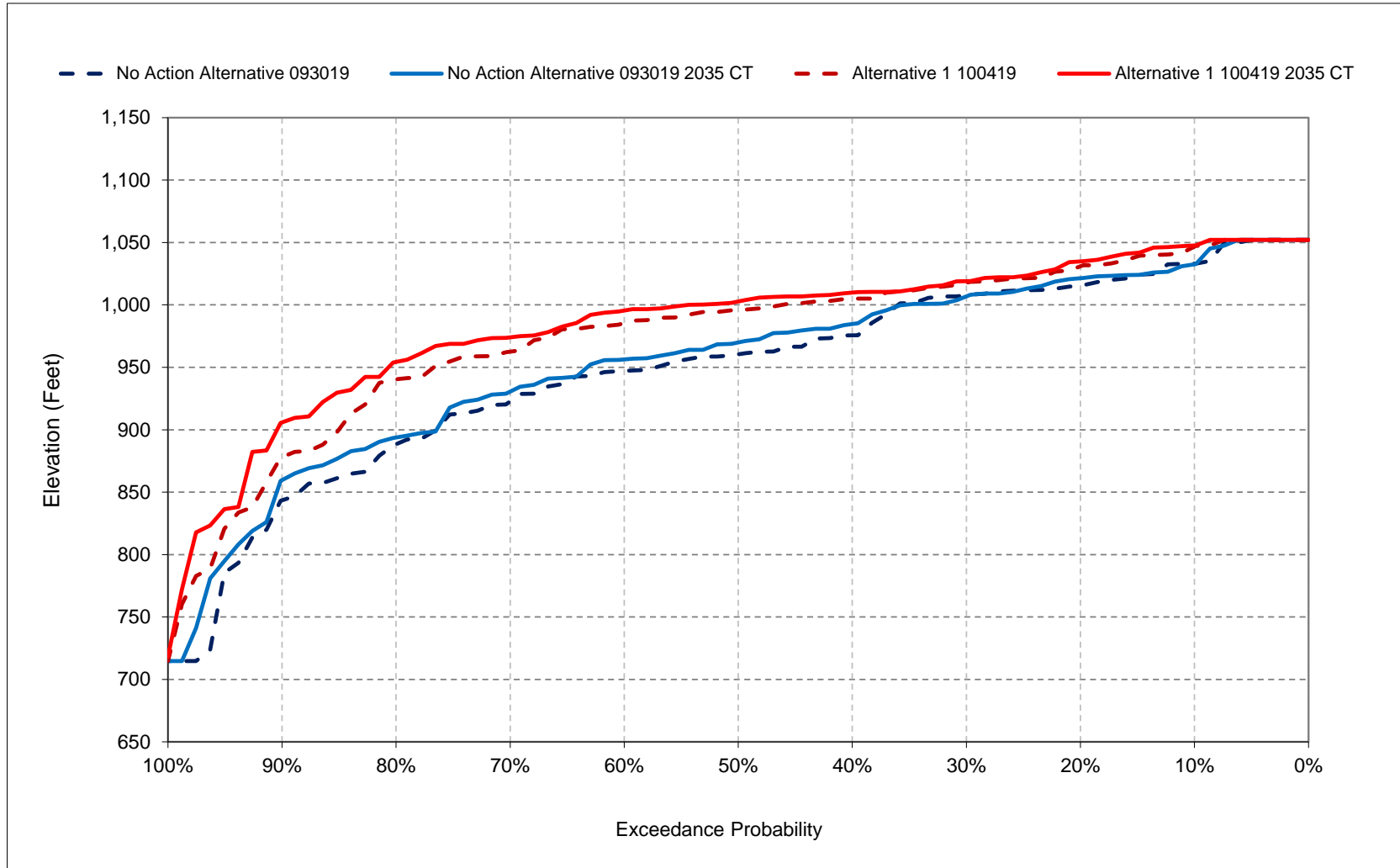
Figure 7a-17. New Melones Reservoir, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 7a-18. New Melones Reservoir, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-1. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 8-2. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-3. Millerton Lake Storage, End of Month Storage

No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types ^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

No Action Alternative 093019 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types ^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-5	7	0	0	0	34	0	0	-81	-60	-38
20%	-18	-8	28	27	0	0	58	1	-5	-93	-72	-27
30%	-19	-18	16	62	0	6	60	44	-5	-50	-33	-15
40%	-13	-3	13	37	20	42	57	68	-30	-44	-15	-8
50%	-10	-4	4	41	53	67	61	79	11	-21	-15	-6
60%	-2	1	4	37	57	56	52	46	5	-19	-12	-5
70%	-5	6	6	29	23	45	70	43	12	0	-9	-6
80%	-5	3	7	28	40	48	74	33	4	-3	-17	-8
90%	-4	6	5	28	16	32	38	72	28	2	-5	-6
Long Term												
Full Simulation Period ^d	-10	-2	10	28	23	34	53	36	2	-31	-30	-16
Water Year Types ^{b,c}												
Wet (23%)	-29	-18	-5	25	2	14	44	28	-9	-68	-83	-46
Above Normal (24%)	-14	-3	10	43	21	26	55	26	-14	-54	-36	-19
Below Normal (10%)	-7	1	17	33	32	51	70	68	29	-12	-12	-7
Dry (16%)	2	4	18	21	40	52	58	42	4	-8	-5	-1
Critical (27%)	2	8	18	18	29	41	48	36	15	1	-1	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8-4. Millerton Lake Storage, End of Month Storage

Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	258	292	374	439	439	479	488	524	524	495	311	258
20%	224	267	318	412	439	479	447	523	521	433	260	213
30%	211	250	293	351	439	472	421	479	503	361	210	194
40%	197	223	270	333	419	436	396	455	477	323	188	183
50%	189	210	252	303	383	396	373	430	418	283	178	179
60%	178	194	232	288	339	368	344	403	394	257	169	175
70%	172	176	213	258	315	326	308	382	364	228	162	172
80%	162	168	197	232	266	274	268	332	313	195	158	168
90%	155	154	172	187	204	205	225	245	246	163	136	159
Long Term												
Full Simulation Period ^d	199	220	261	310	353	372	359	415	411	307	207	195
Water Year Types ^{b,c}												
Wet (23%)	256	279	311	382	426	448	360	428	509	464	312	256
Above Normal (24%)	202	241	291	340	417	447	404	491	496	355	210	184
Below Normal (10%)	192	209	244	297	354	360	348	401	393	283	185	180
Dry (16%)	177	202	246	302	327	343	386	426	372	231	162	181
Critical (27%)	161	162	202	231	247	260	306	334	278	182	148	168

Alternative 1 100419 2035 CT

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	238	286	381	439	439	479	522	524	524	414	250	221
20%	207	258	346	439	439	479	505	524	516	340	188	187
30%	192	232	308	412	439	479	482	523	498	311	177	179
40%	184	220	282	370	439	478	453	523	447	279	172	175
50%	180	206	257	344	436	463	433	508	429	262	163	173
60%	176	195	236	325	396	424	396	449	399	238	157	170
70%	167	182	219	288	338	372	378	425	377	228	153	166
80%	157	172	204	260	306	323	342	364	316	192	141	160
90%	151	159	177	215	220	238	263	317	273	165	131	153
Long Term												
Full Simulation Period ^d	189	218	271	338	375	406	412	451	412	276	177	179
Water Year Types ^{b,c}												
Wet (23%)	227	261	306	406	428	463	404	455	500	396	229	210
Above Normal (24%)	188	238	301	384	438	473	460	517	481	301	173	164
Below Normal (10%)	185	210	261	331	385	411	418	469	421	271	173	173
Dry (16%)	179	205	264	323	366	395	444	467	376	223	158	179
Critical (27%)	162	170	220	249	276	300	355	370	293	184	147	169

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Storage (TAF)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	-5	7	0	0	0	34	0	0	-81	-60	-38
20%	-18	-8	28	27	0	0	58	1	-5	-93	-72	-27
30%	-19	-18	16	62	0	6	60	44	-5	-50	-33	-15
40%	-13	-3	13	37	20	42	57	68	-30	-44	-15	-8
50%	-10	-4	4	41	53	67	61	79	11	-21	-15	-6
60%	-2	1	4	37	57	56	52	46	5	-19	-12	-5
70%	-5	6	6	29	23	45	70	43	12	0	-9	-6
80%	-5	3	7	28	40	48	74	33	4	-3	-17	-8
90%	-4	6	5	28	16	32	38	72	28	2	-5	-6
Long Term												
Full Simulation Period ^d	-10	-2	10	28	23	34	53	36	2	-31	-30	-16
Water Year Types ^{b,c}												
Wet (23%)	-29	-18	-5	25	2	14	44	28	-9	-68	-83	-46
Above Normal (24%)	-14	-3	10	43	21	26	55	26	-14	-54	-36	-19
Below Normal (10%)	-7	1	17	33	32	51	70	68	29	-12	-12	-7
Dry (16%)	2	4	18	21	40	52	58	42	4	-8	-5	-1
Critical (27%)	2	8	18	18	29	41	48	36	15	1	-1	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

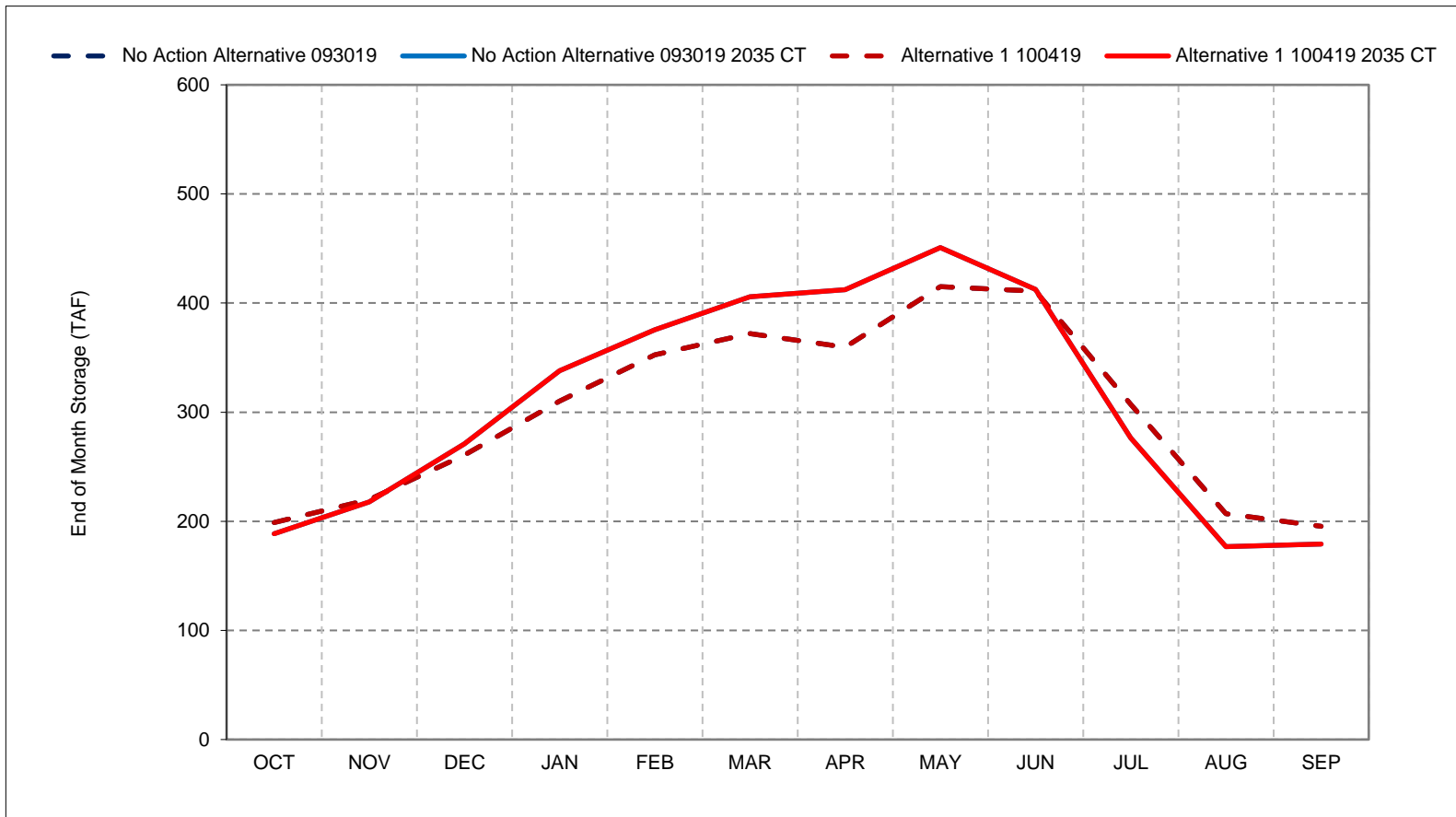
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8-1. Millerton Lake Storage, Long-Term Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

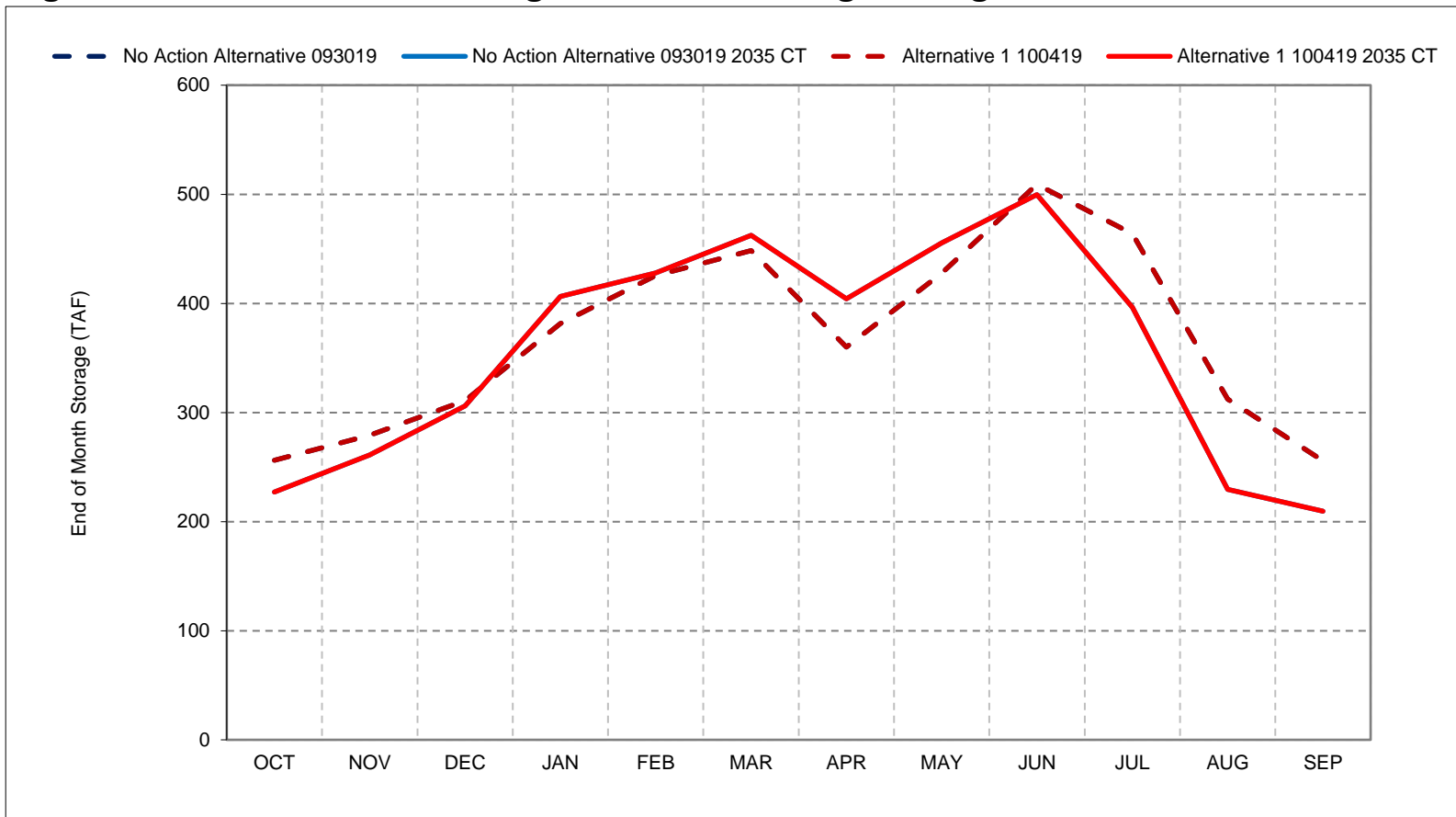
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-2. Millerton Lake Storage, Wet Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

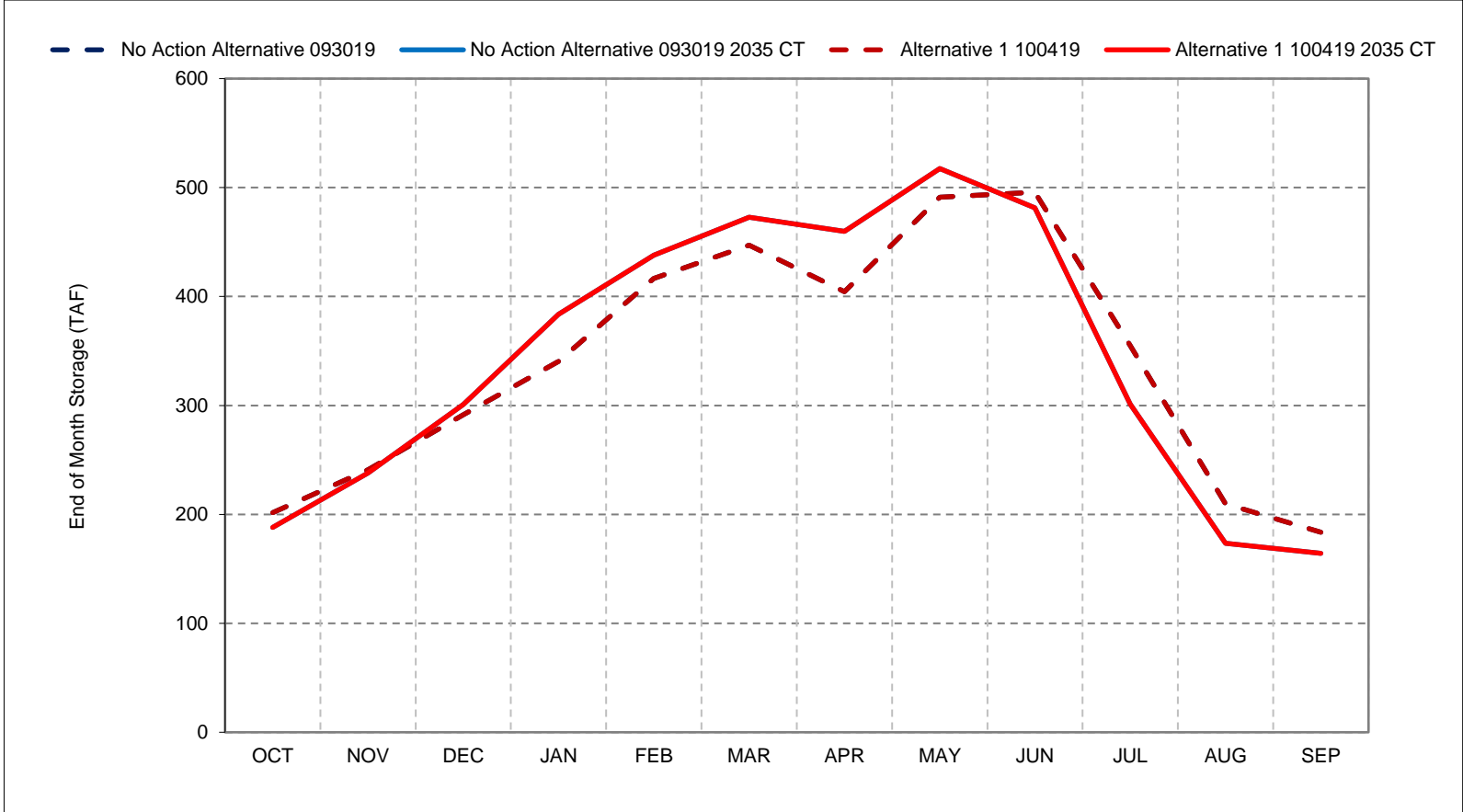
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-3. Millerton Lake Storage, Above Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

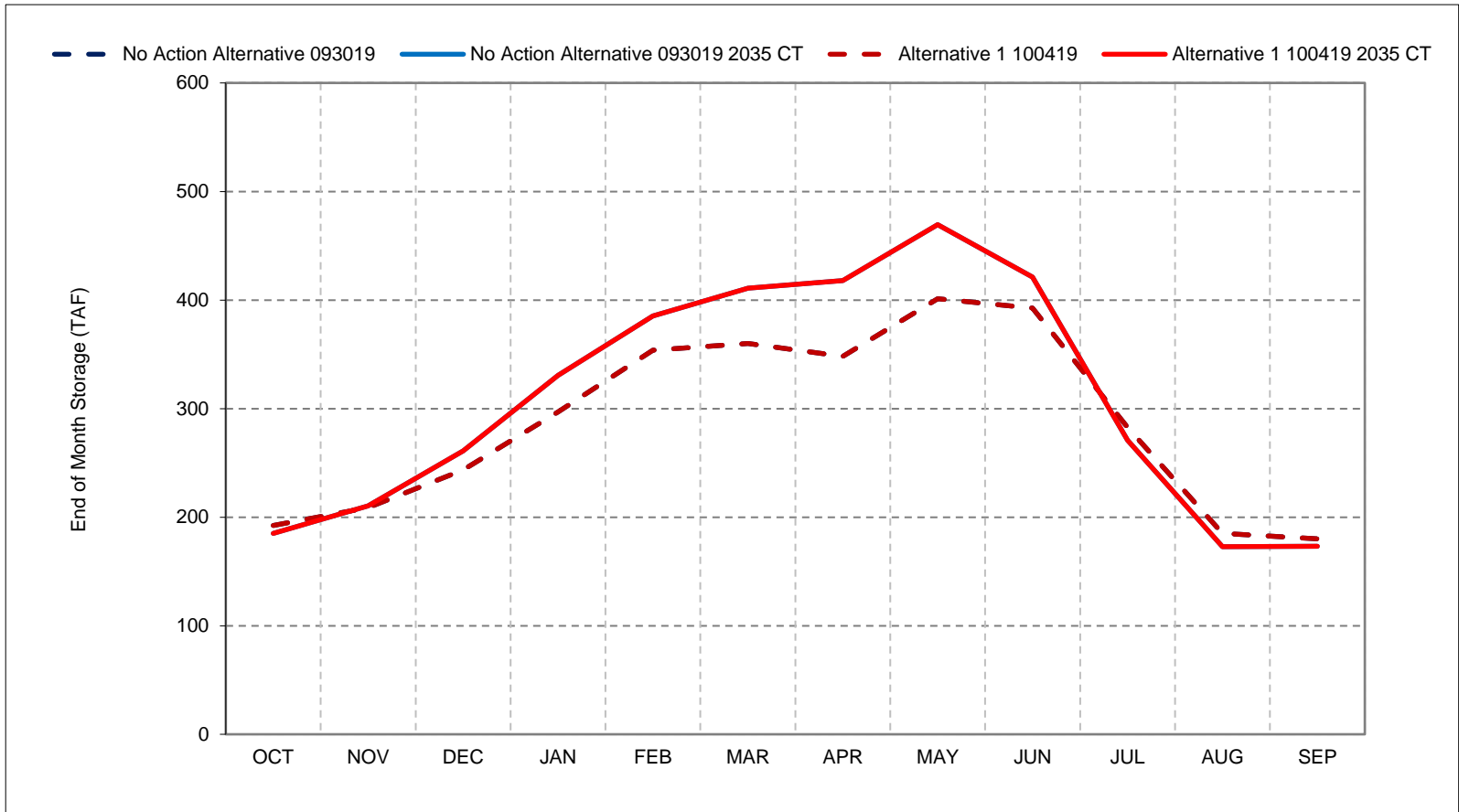
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-4. Millerton Lake Storage, Below Normal Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

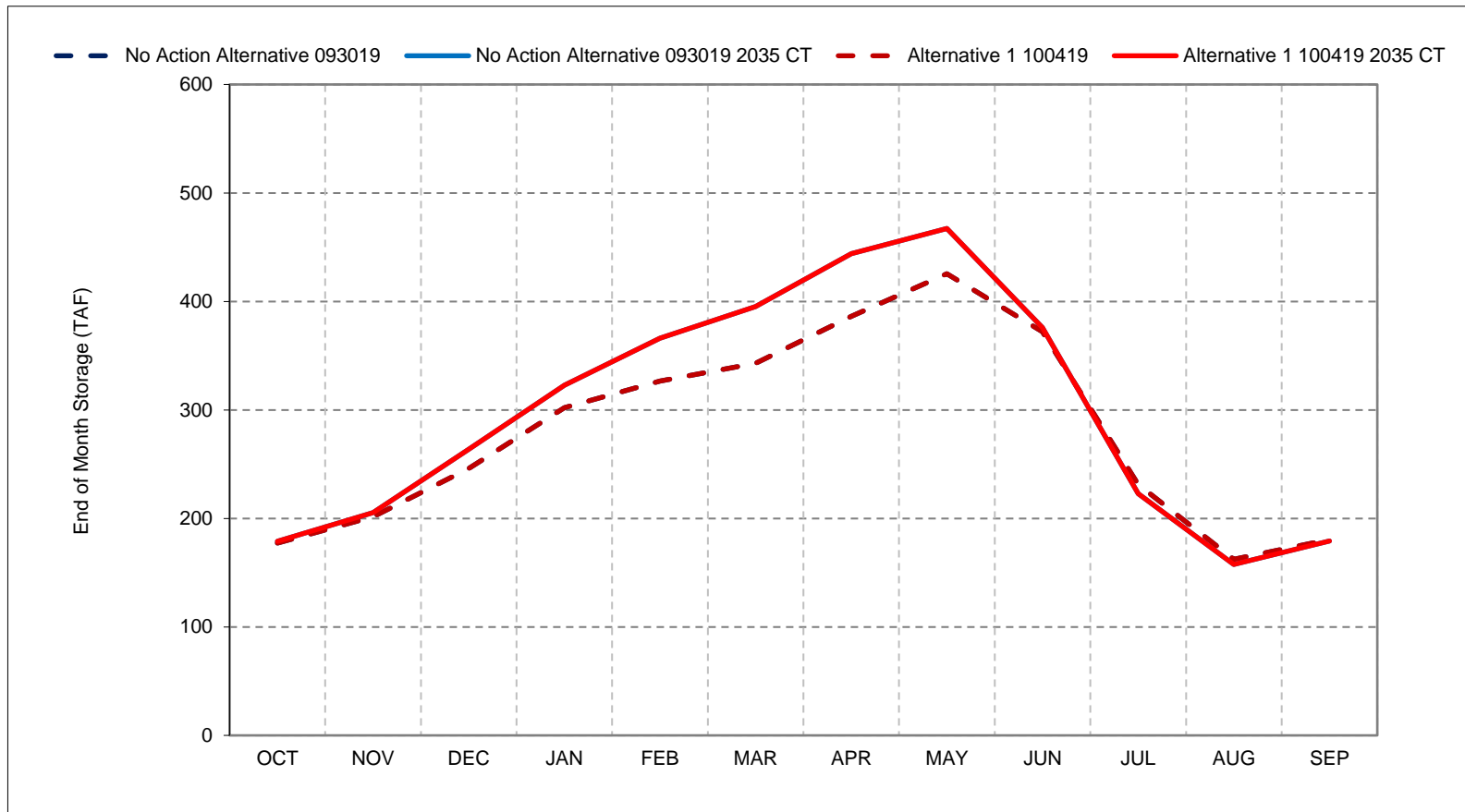
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-5. Millerton Lake Storage, Dry Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

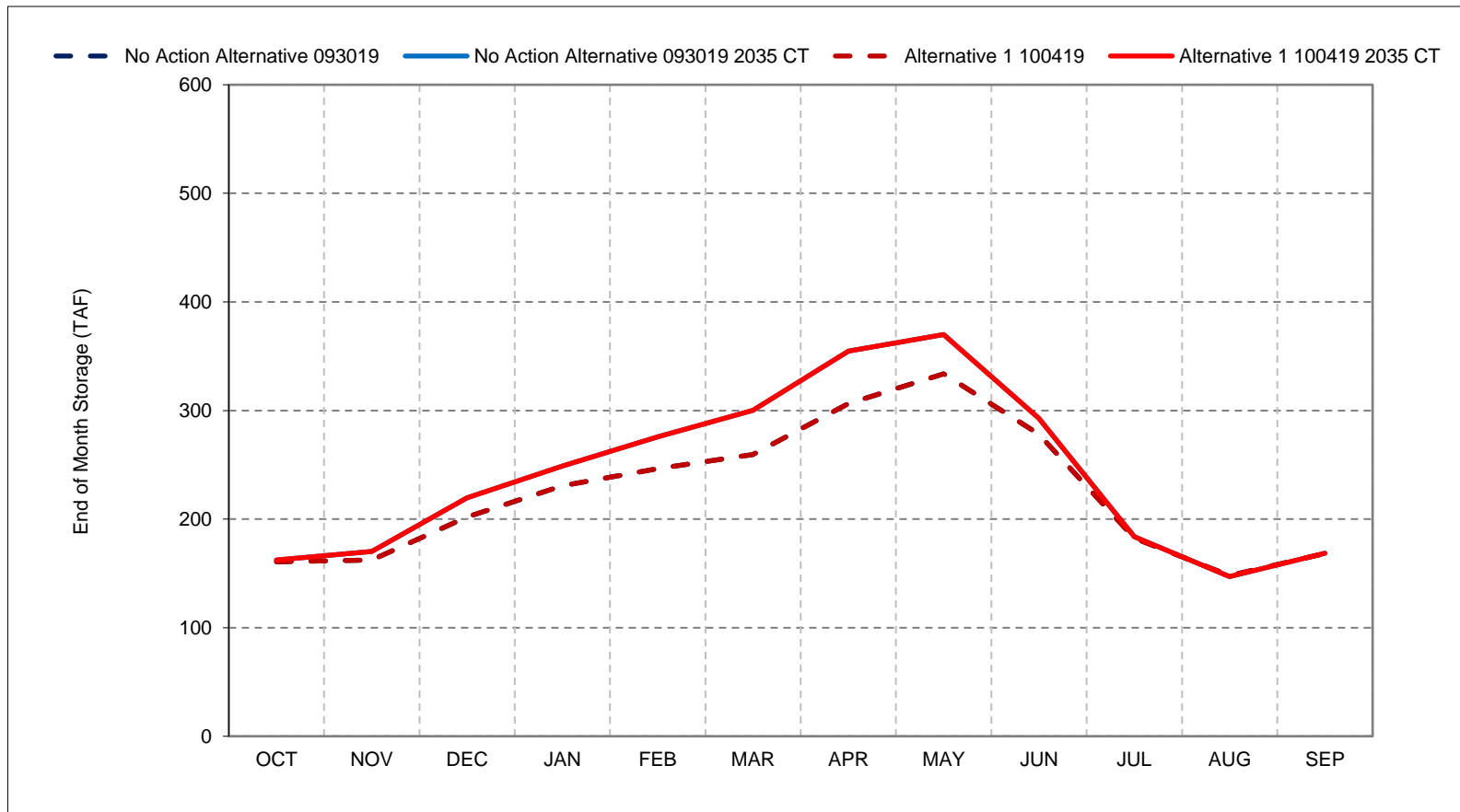
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8-6. Millerton Lake Storage, Critical Year Average Storage



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

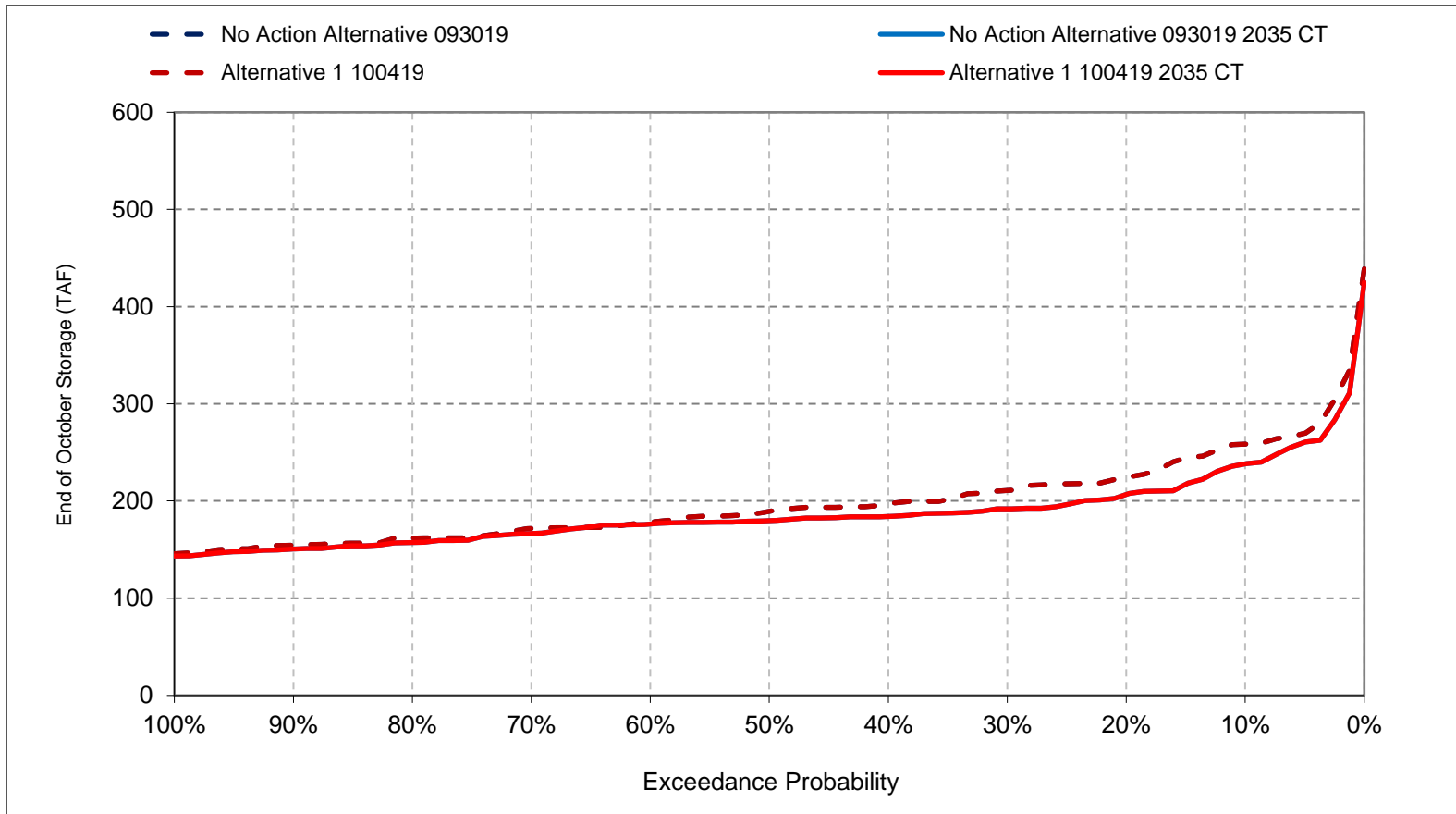
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

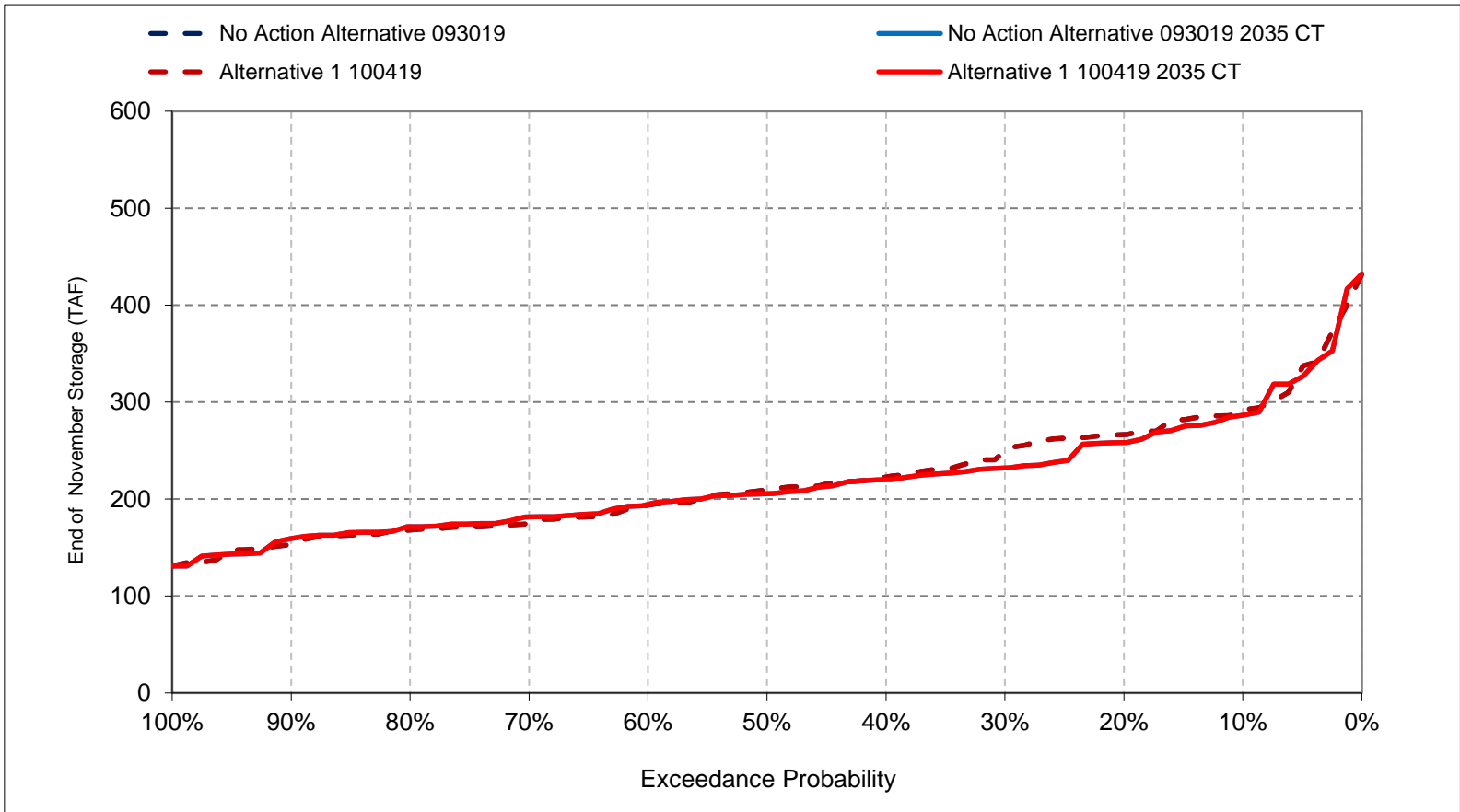
Figure 8-7. Millerton Storage, End of October Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

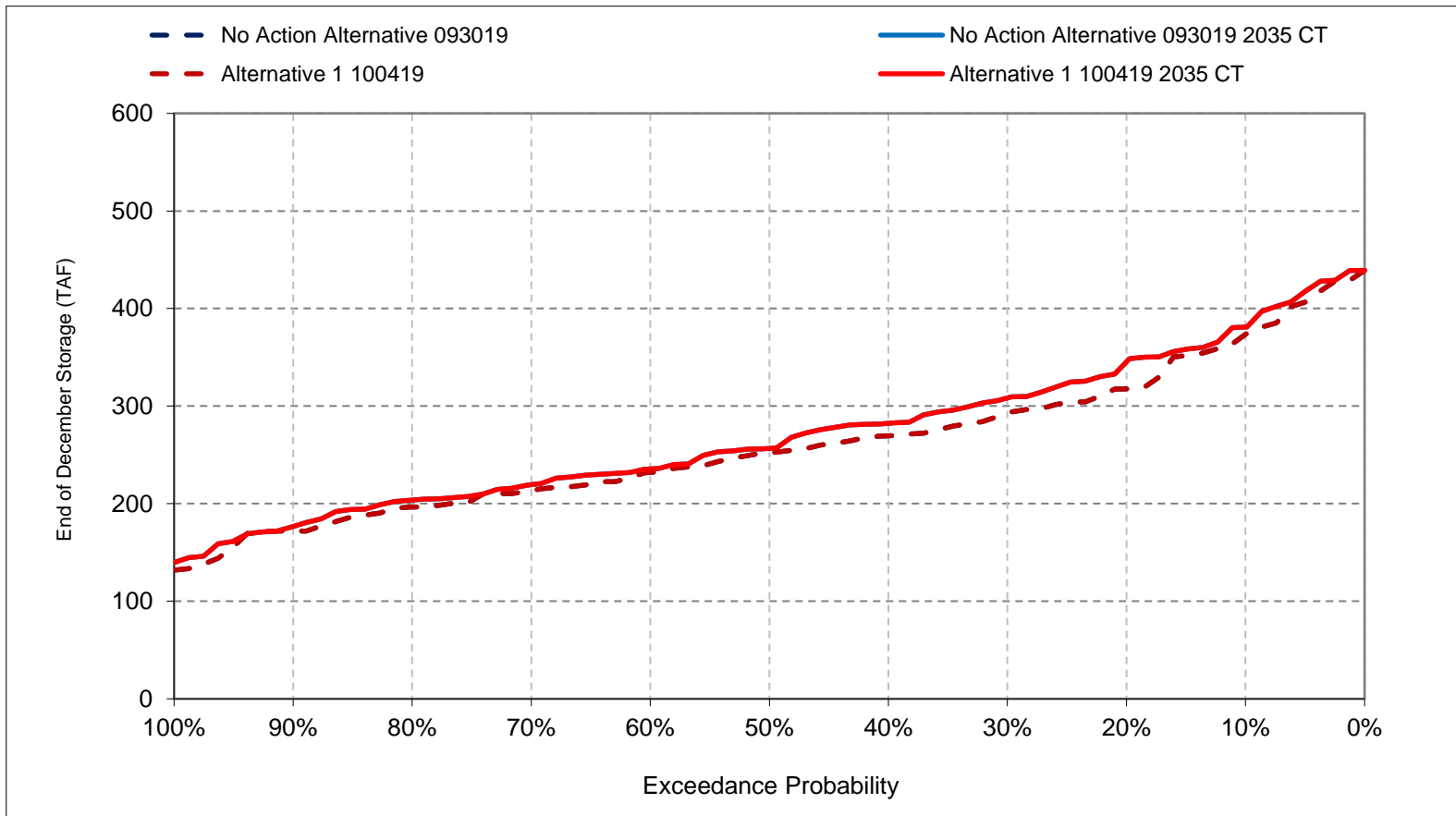
Figure 8-8. Millerton Storage, End of November Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

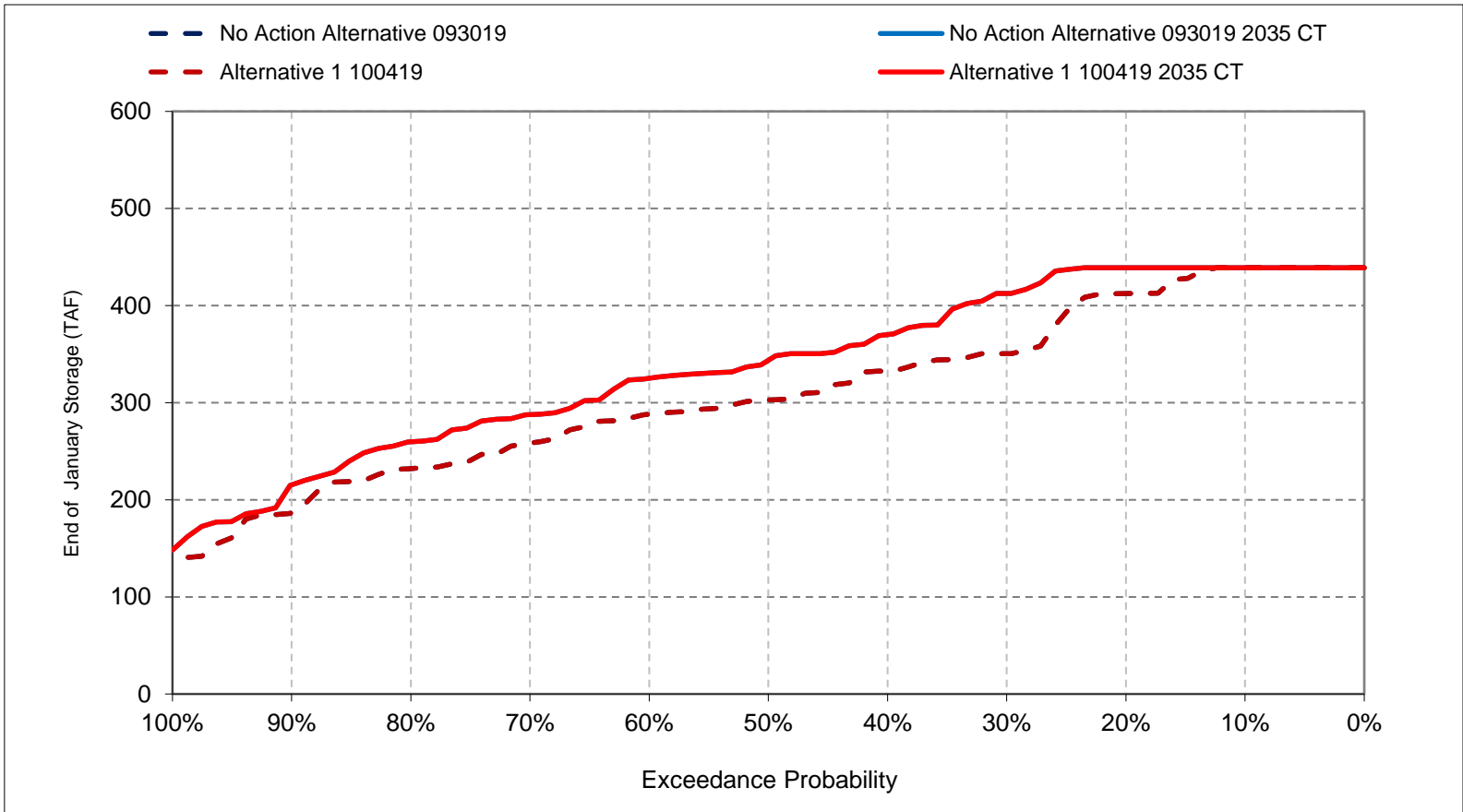
Figure 8-9. Millerton Storage, End of December Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

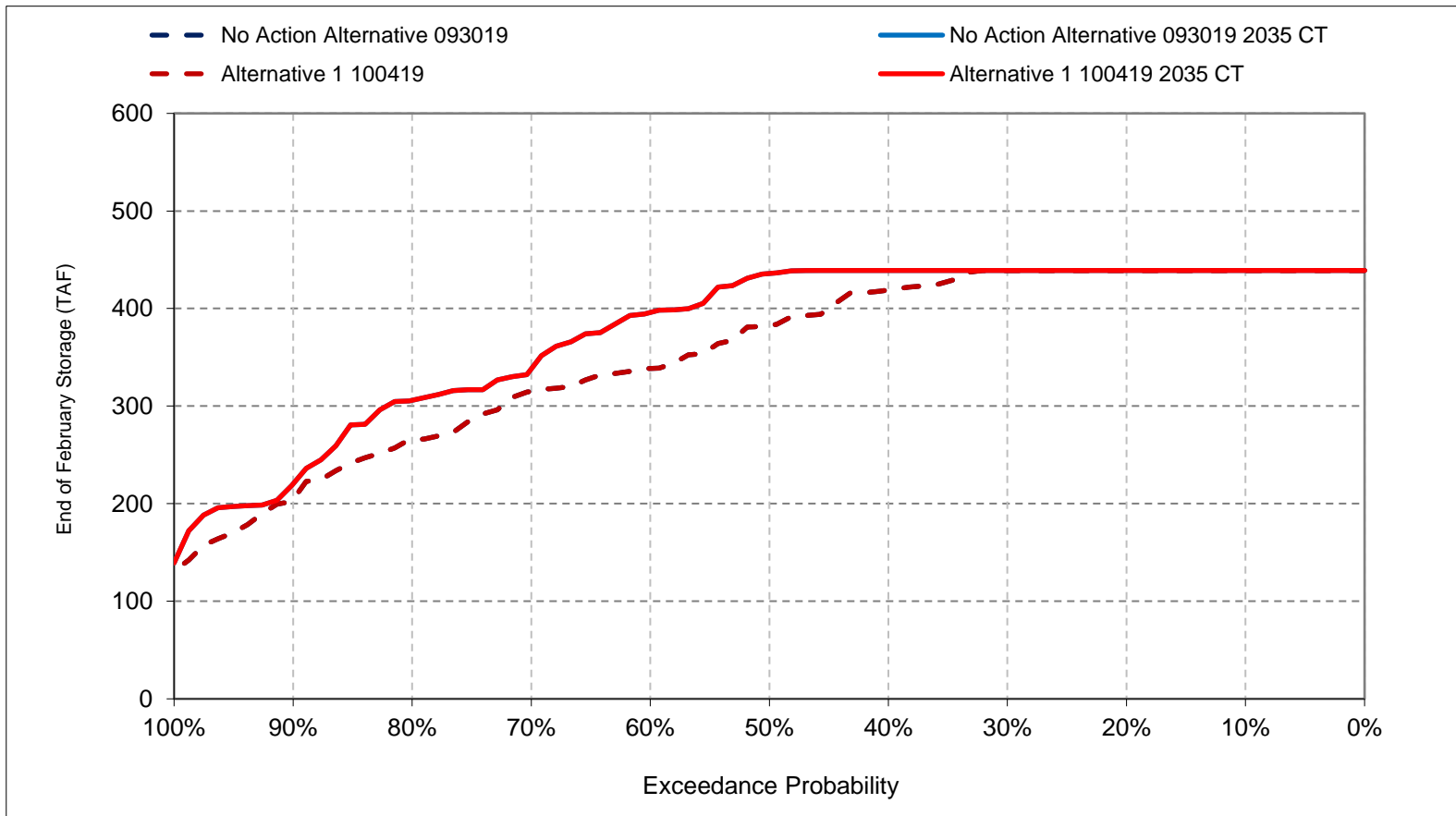
Figure 8-10. Millerton Storage, End of January Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

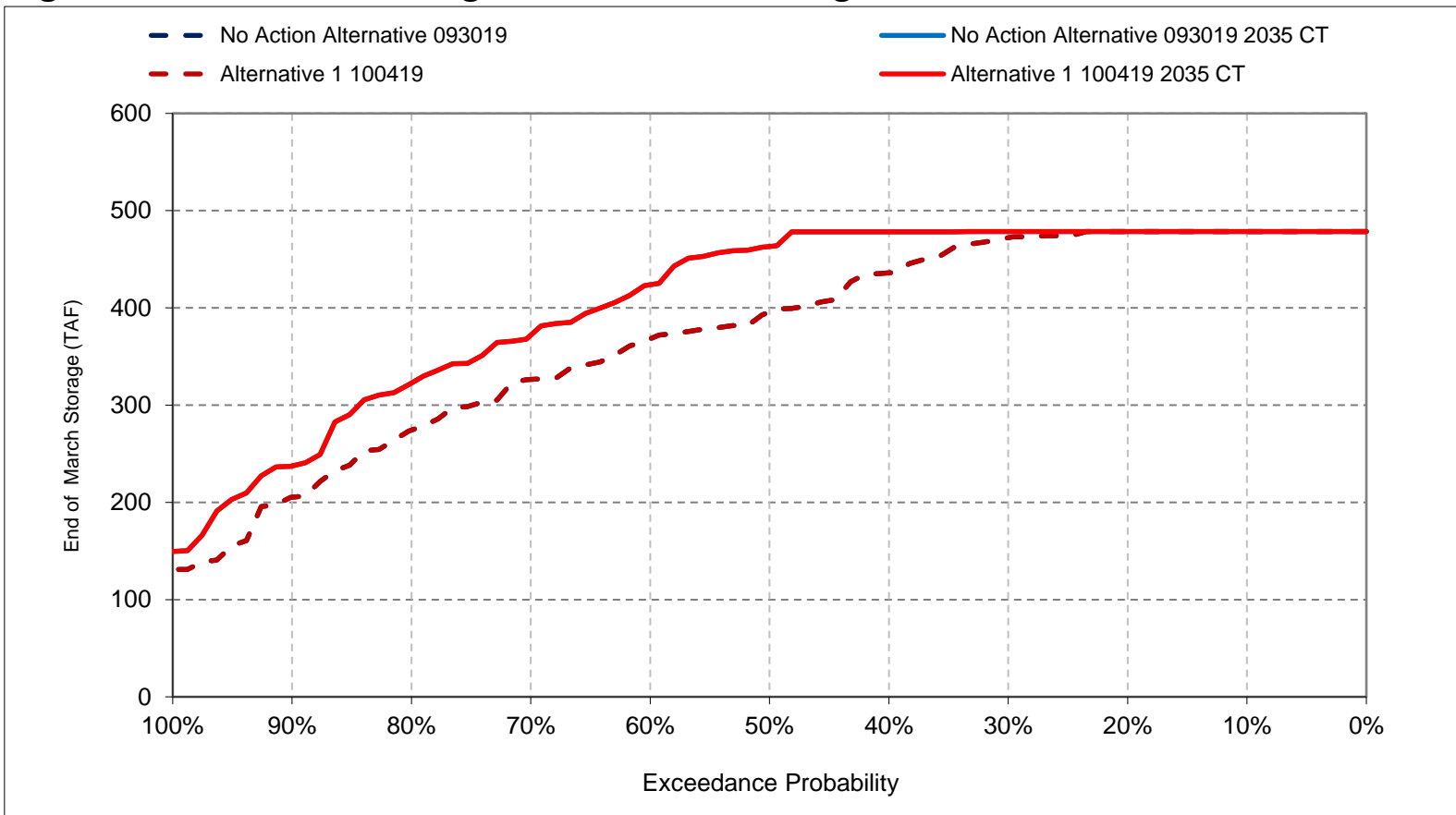
Figure 8-11. Millerton Storage, End of February Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

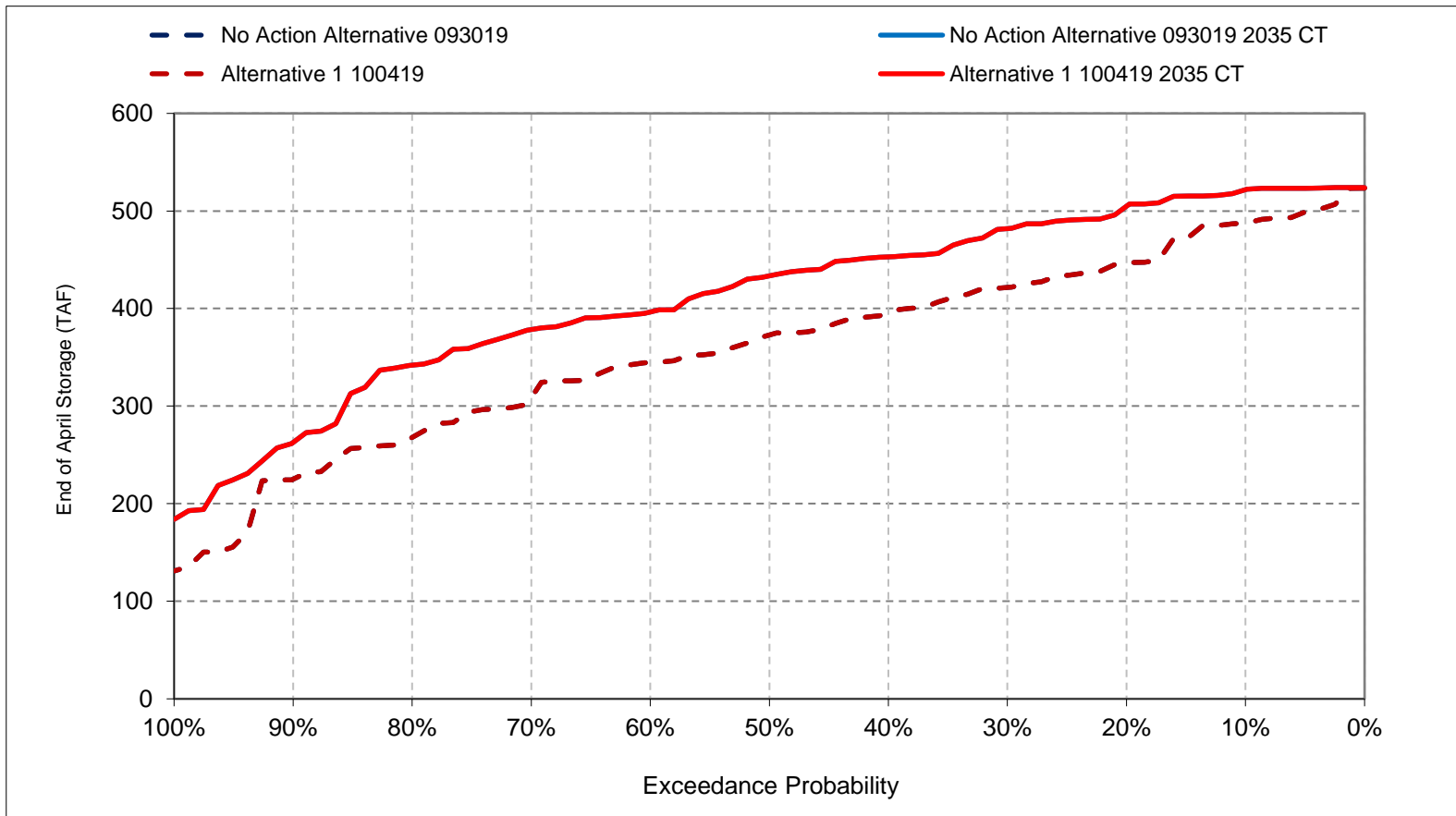
Figure 8-12. Millerton Storage, End of March Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

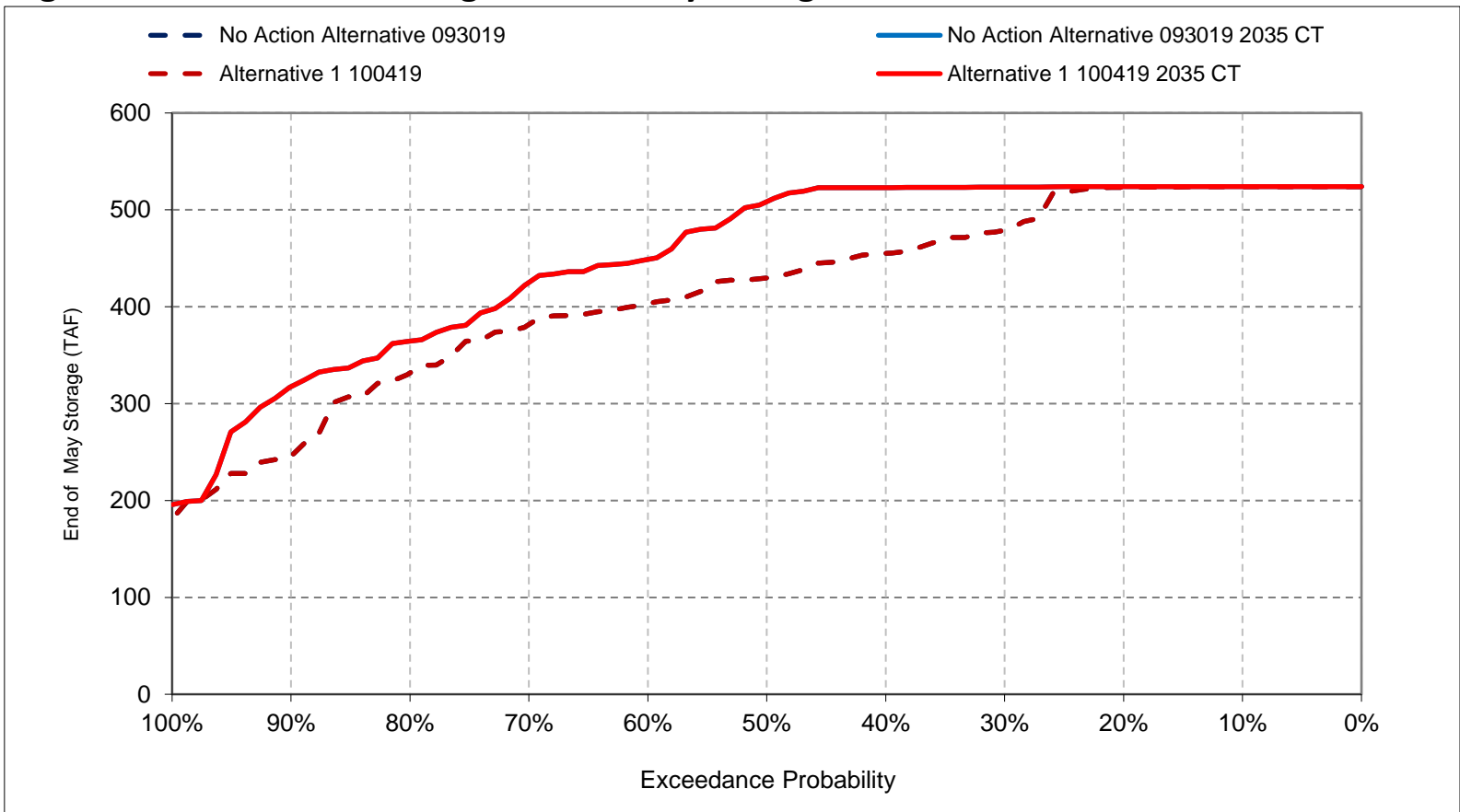
Figure 8-13. Millerton Storage, End of April Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

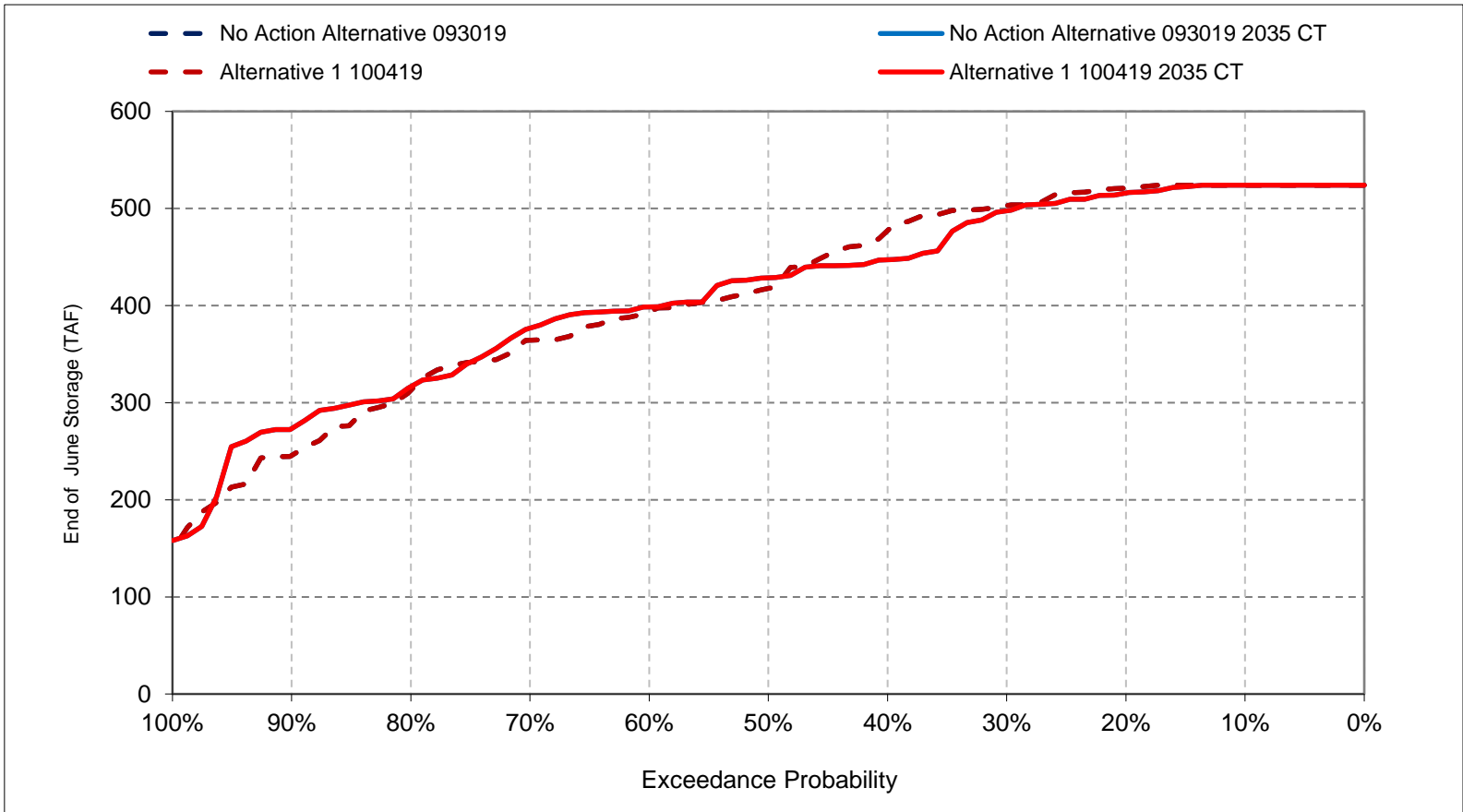
Figure 8-14. Millerton Storage, End of May Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

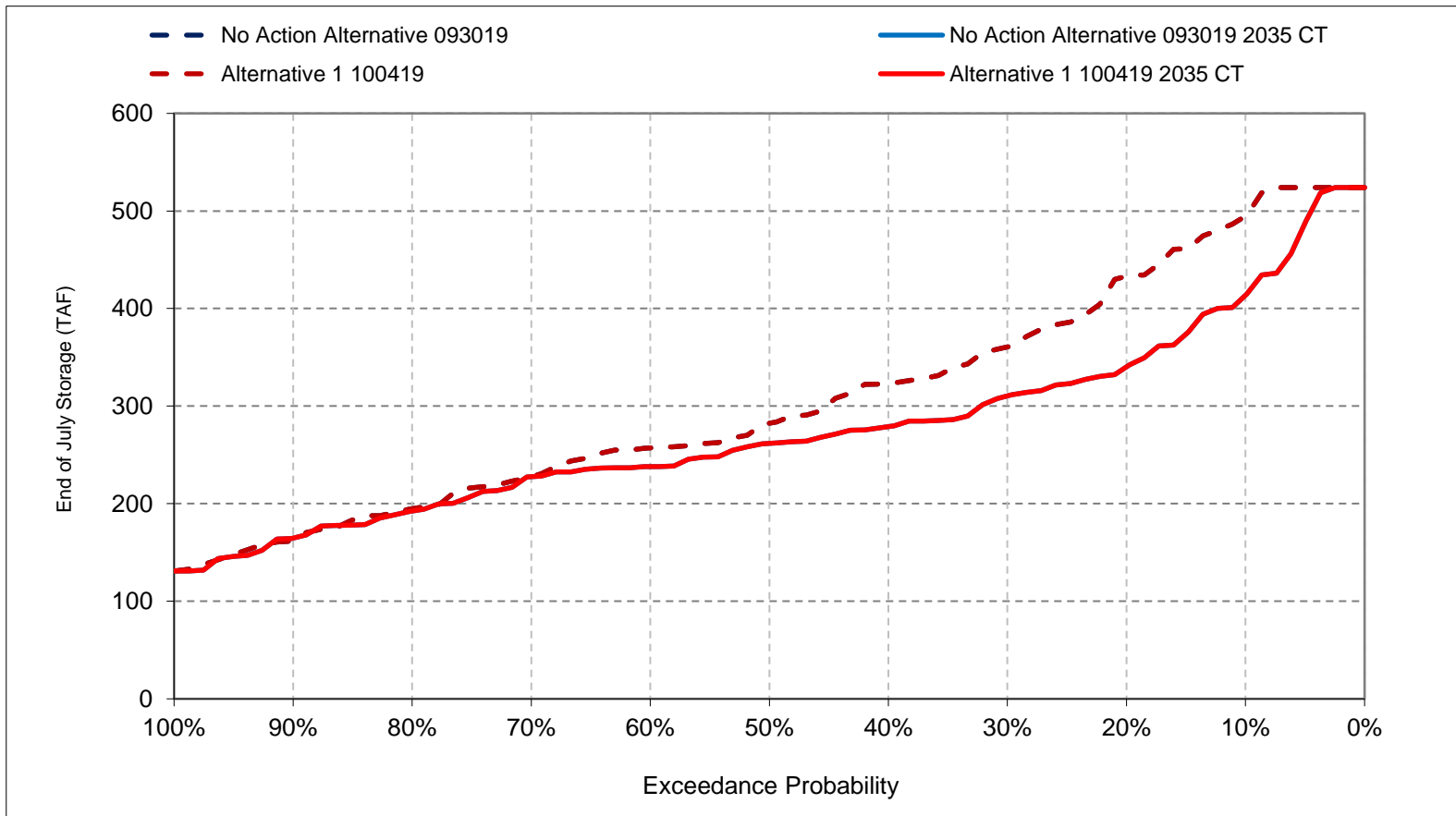
Figure 8-15. Millerton Storage, End of June Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

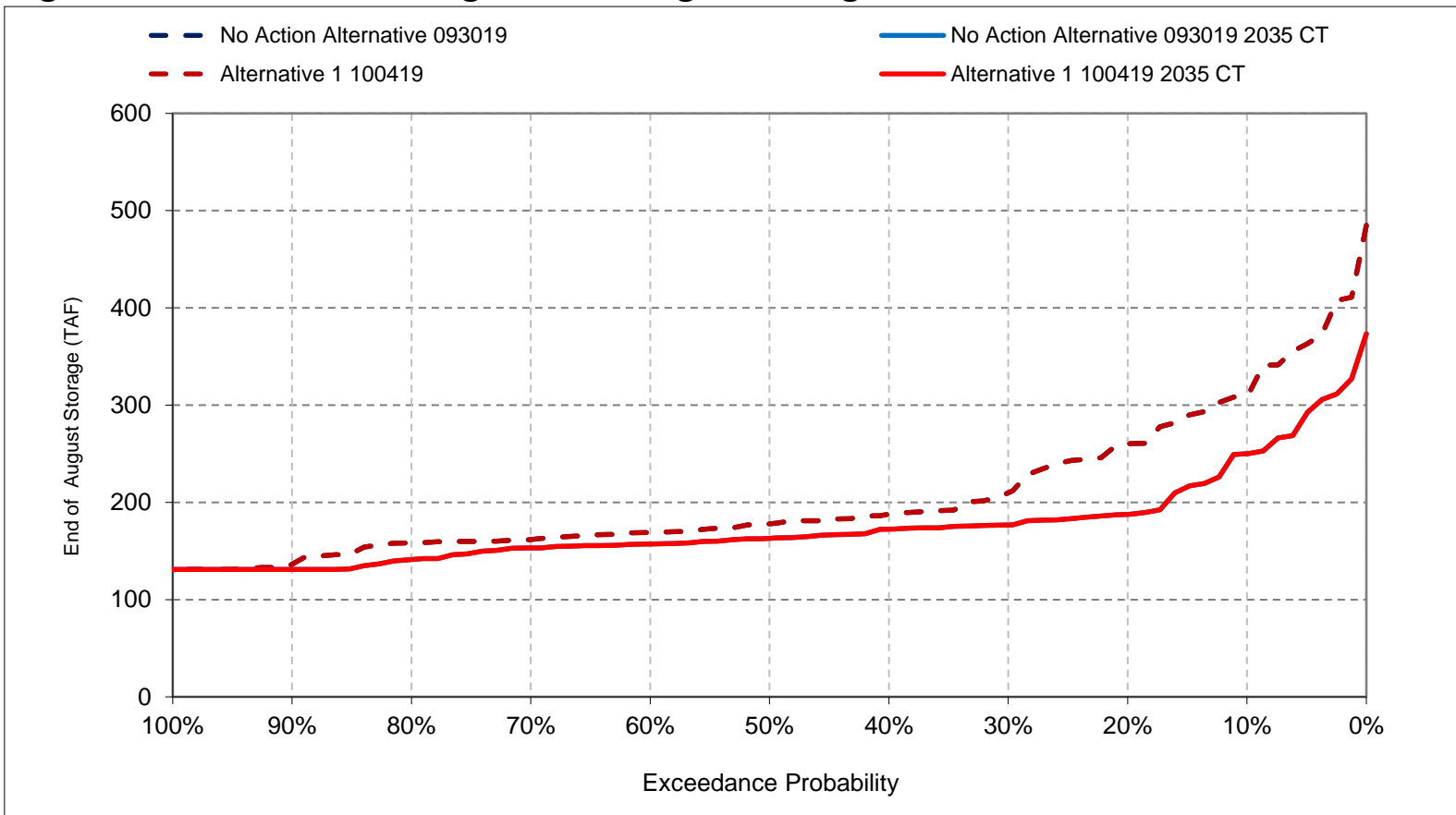
Figure 8-16. Millerton Storage, End of July Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

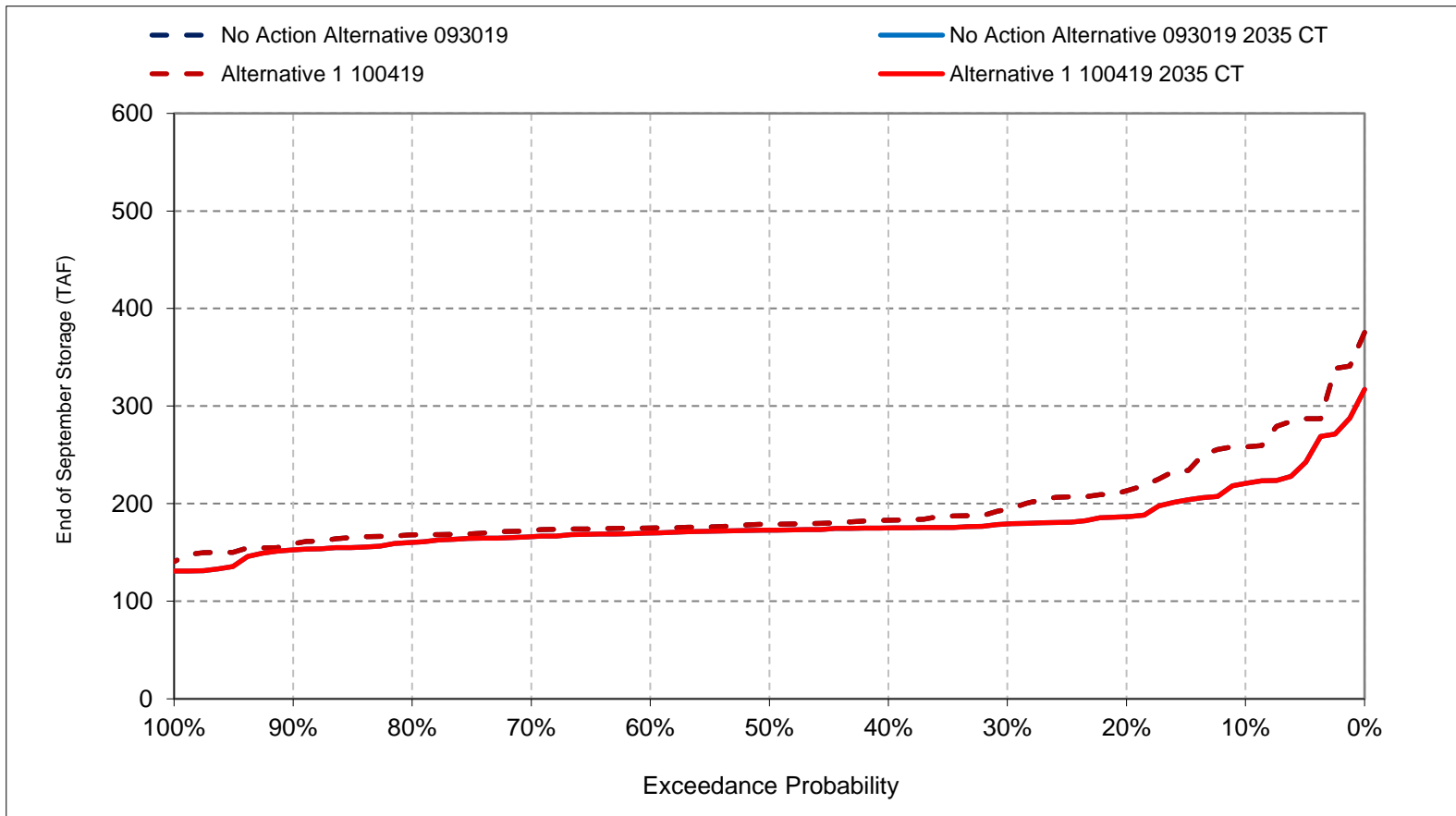
Figure 8-17. Millerton Storage, End of August Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8-18. Millerton Storage, End of September Storage



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-1. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419 minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 8a-2. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-3. Millerton Lake Elevation, End of Month Elevation

No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types ^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

No Action Alternative 093019 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-7	-2	2	0	0	0	6	0	0	-16	-18	-13
20%	-6	-2	7	6	0	0	11	0	-1	-22	-25	-10
30%	-7	-6	5	15	0	1	12	8	-1	-13	-13	-6
40%	-5	-1	4	10	4	8	12	13	-6	-13	-7	-3
50%	-4	-1	1	11	11	14	13	15	2	-6	-7	-3
60%	-1	0	1	10	14	12	13	10	1	-6	-5	-2
70%	-2	3	2	9	6	12	18	9	3	0	-4	-3
80%	-2	2	2	9	12	14	21	8	1	-1	-8	-3
90%	-2	3	2	10	6	11	13	22	9	1	-3	-3
Long Term												
Full Simulation Period ^d	-4	-1	3	8	6	9	13	8	1	-8	-10	-6
Water Year Types ^{b,c}												
Wet (23%)	-10	-6	-2	6	0	3	12	5	-2	-15	-26	-16
Above Normal (24%)	-5	-1	3	11	5	6	13	5	-3	-14	-14	-8
Below Normal (10%)	-3	0	5	10	8	12	16	14	6	-4	-5	-3
Dry (16%)	0	2	6	6	10	13	13	9	1	-3	-2	-1
Critical (27%)	1	3	6	6	9	13	14	10	4	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 8a-4. Millerton Lake Elevation, End of Month Elevation

Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	515	524	546	561	561	568	570	577	577	571	530	515
20%	503	517	532	555	561	568	562	577	576	559	515	499
30%	498	512	525	540	561	567	557	568	573	543	498	493
40%	493	502	518	536	556	560	551	564	568	533	490	488
50%	491	498	513	528	549	551	546	559	556	522	486	486
60%	486	492	506	523	537	545	539	553	551	514	482	484
70%	483	485	499	514	531	534	529	548	544	504	479	483
80%	479	481	493	506	517	519	517	536	531	493	477	481
90%	475	475	483	490	496	496	503	510	510	479	467	477
Long Term												
Full Simulation Period ^d	493	500	513	527	538	542	540	553	552	524	494	491
Water Year Types ^{b,c}												
Wet (23%)	512	520	529	547	558	562	539	556	574	565	528	512
Above Normal (24%)	495	508	523	536	555	562	552	570	572	541	497	487
Below Normal (10%)	492	497	509	524	540	542	539	552	550	521	488	487
Dry (16%)	485	493	508	526	533	535	546	556	545	505	479	487
Critical (27%)	478	479	493	503	508	511	526	533	518	486	472	482

Alternative 1 100419 2035 CT

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	508	523	548	561	561	568	576	577	577	555	512	502
20%	497	514	539	561	561	568	573	577	575	538	490	490
30%	492	506	529	555	561	568	569	577	572	530	485	486
40%	488	501	522	545	561	568	564	577	562	521	483	484
50%	486	496	514	539	560	565	559	574	558	516	479	483
60%	485	493	507	534	551	557	552	563	552	508	477	482
70%	481	487	501	523	537	546	548	558	547	504	475	481
80%	477	483	496	515	529	533	538	544	532	492	470	478
90%	474	477	485	500	502	508	516	532	519	480	465	475
Long Term												
Full Simulation Period ^d	489	499	516	535	544	551	553	561	552	516	484	485
Water Year Types ^{b,c}												
Wet (23%)	502	513	527	553	558	565	550	562	572	549	502	496
Above Normal (24%)	489	507	525	548	560	567	564	576	569	527	483	479
Below Normal (10%)	489	498	514	533	548	554	555	566	556	518	483	484
Dry (16%)	486	495	514	532	543	548	559	565	546	502	477	486
Critical (27%)	479	482	500	509	517	524	539	543	523	487	472	482

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	End of Month Elevation (FEET)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-7	-2	2	0	0	0	6	0	0	-16	-18	-13
20%	-6	-2	7	6	0	0	11	0	-1	-22	-25	-10
30%	-7	-6	5	15	0	1	12	8	-1	-13	-13	-6
40%	-5	-1	4	10	4	8	12	13	-6	-13	-7	-3
50%	-4	-1	1	11	11	14	13	15	2	-6	-7	-3
60%	-1	0	1	10	14	12	13	10	1	-6	-5	-2
70%	-2	3	2	9	6	12	18	9	3	0	-4	-3
80%	-2	2	2	9	12	14	21	8	1	-1	-8	-3
90%	-2	3	2	10	6	11	13	22	9	1	-3	-3
Long Term												
Full Simulation Period ^d	-4	-1	3	8	6	9	13	8	1	-8	-10	-6
Water Year Types ^{b,c}												
Wet (23%)	-10	-6	-2	6	0	3	12	5	-2	-15	-26	-16
Above Normal (24%)	-5	-1	3	11	5	6	13	5	-3	-14	-14	-8
Below Normal (10%)	-3	0	5	10	8	12	16	14	6	-4	-5	-3
Dry (16%)	0	2	6	6	10	13	13	9	1	-3	-2	-1
Critical (27%)	1	3	6	6	9	13	14	10	4	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

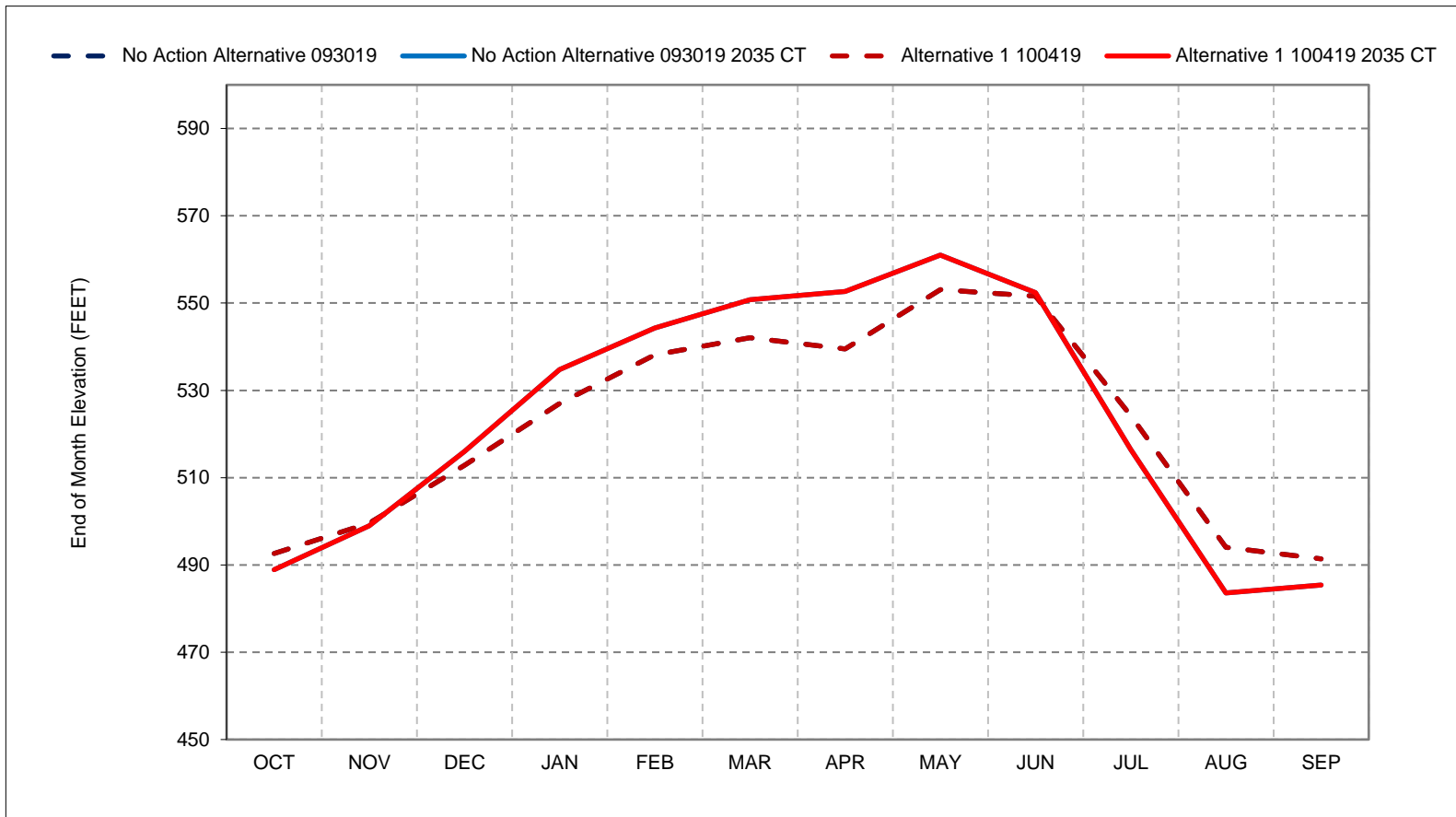
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8a-1. Millerton Lake Elevation, Long-Term Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

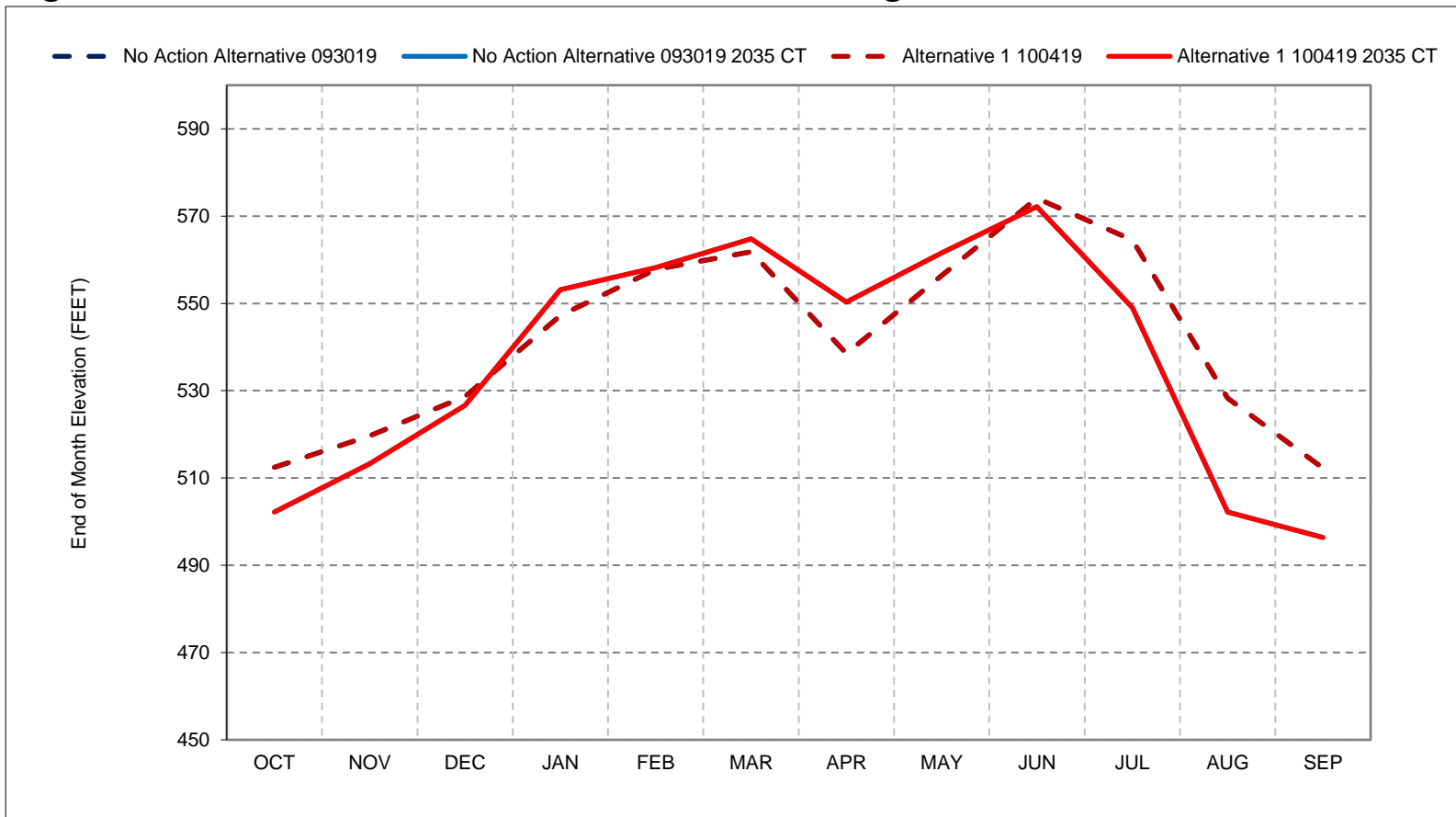
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-2. Millerton Lake Elevation, Wet Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

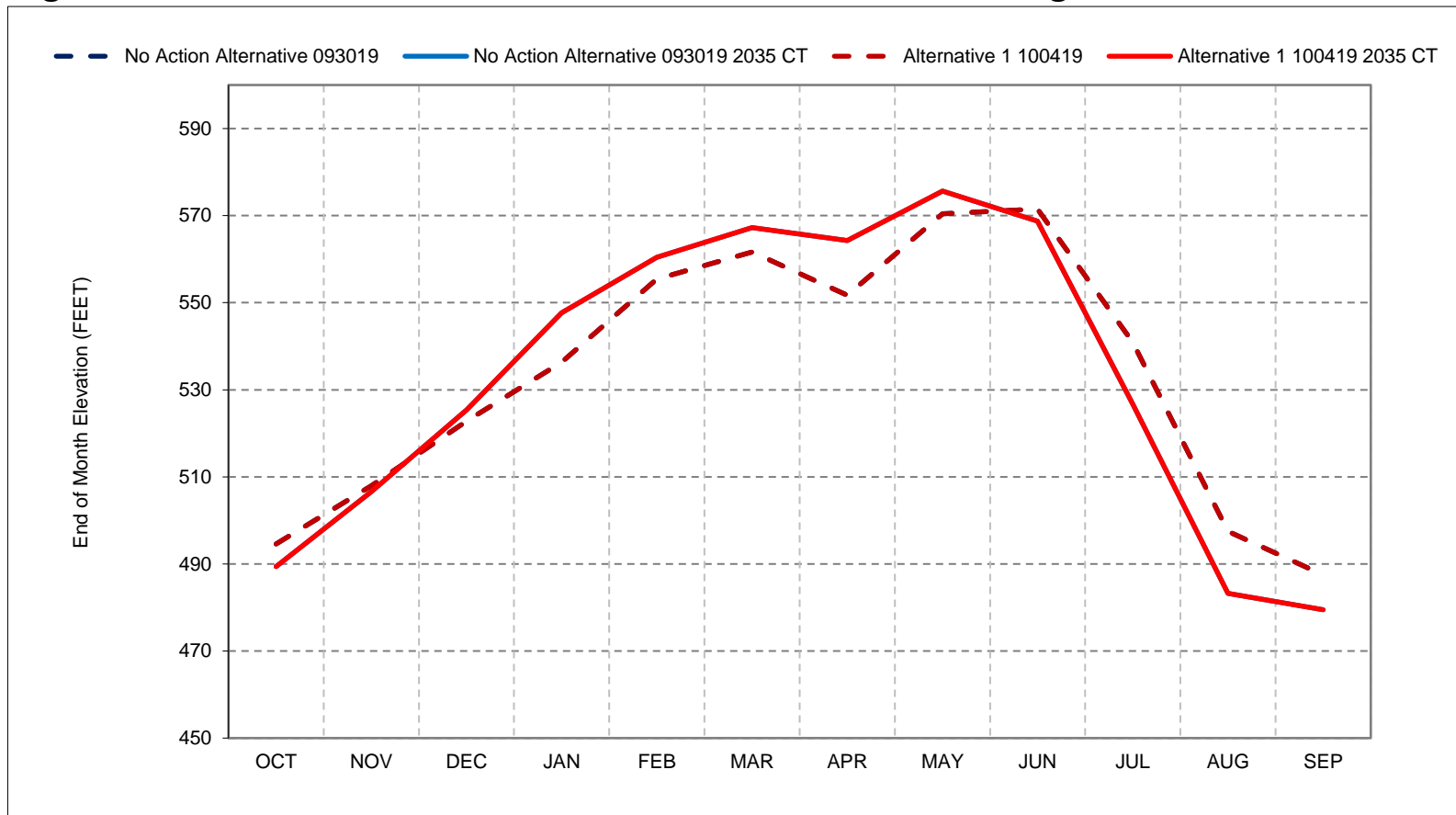
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-3. Millerton Lake Elevation, Above Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

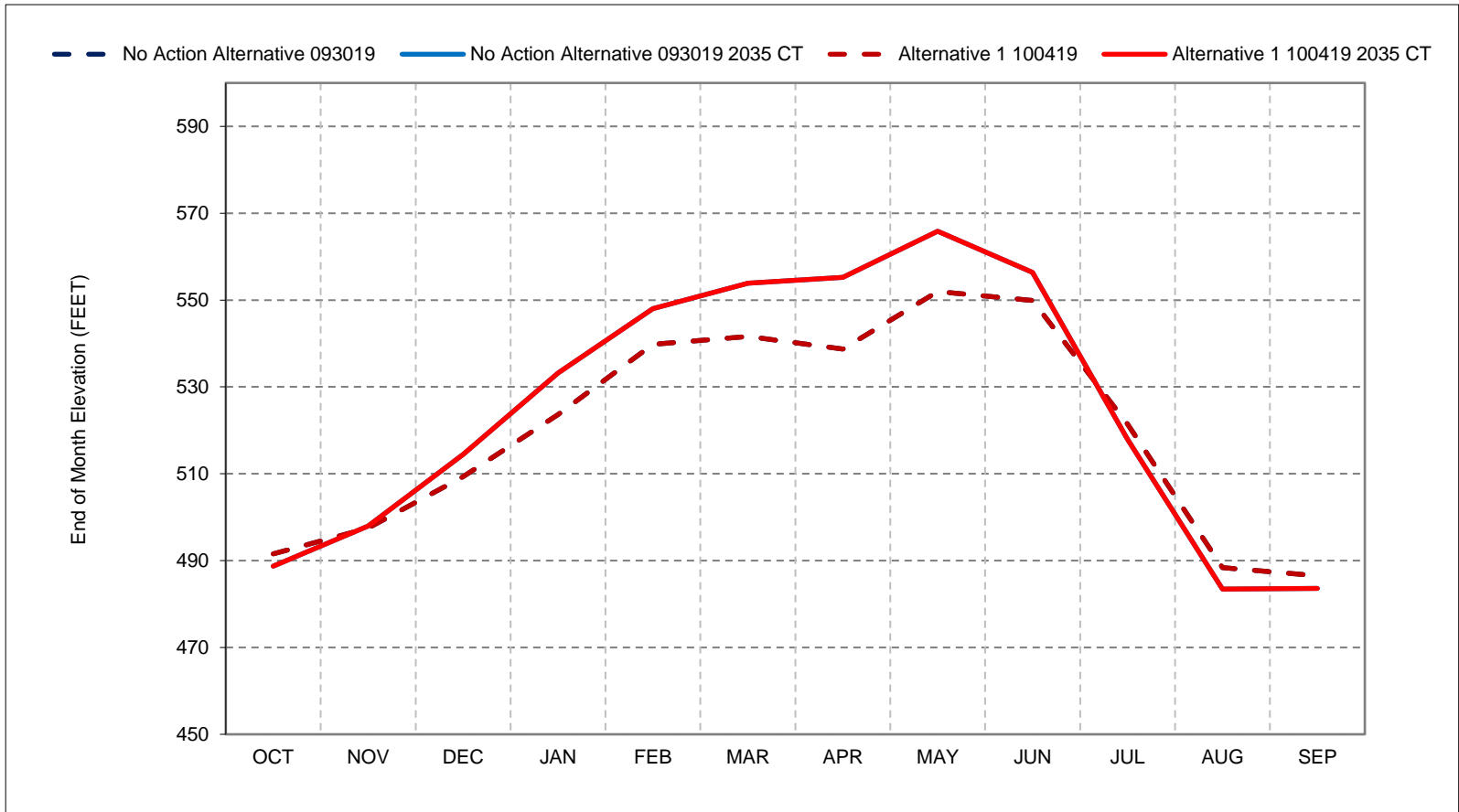
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-4. Millerton Lake Elevation, Below Normal Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

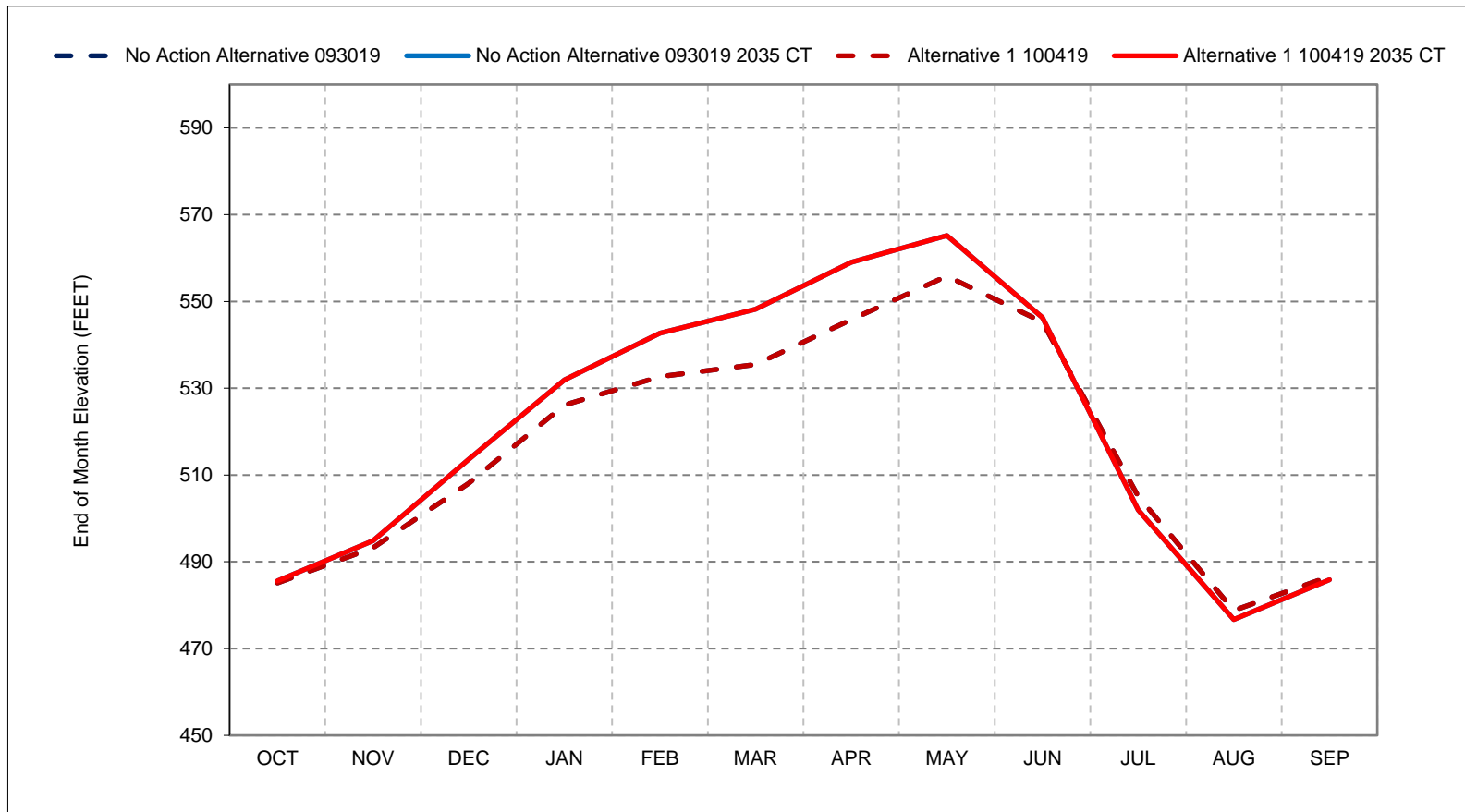
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-5. Millerton Lake Elevation, Dry Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

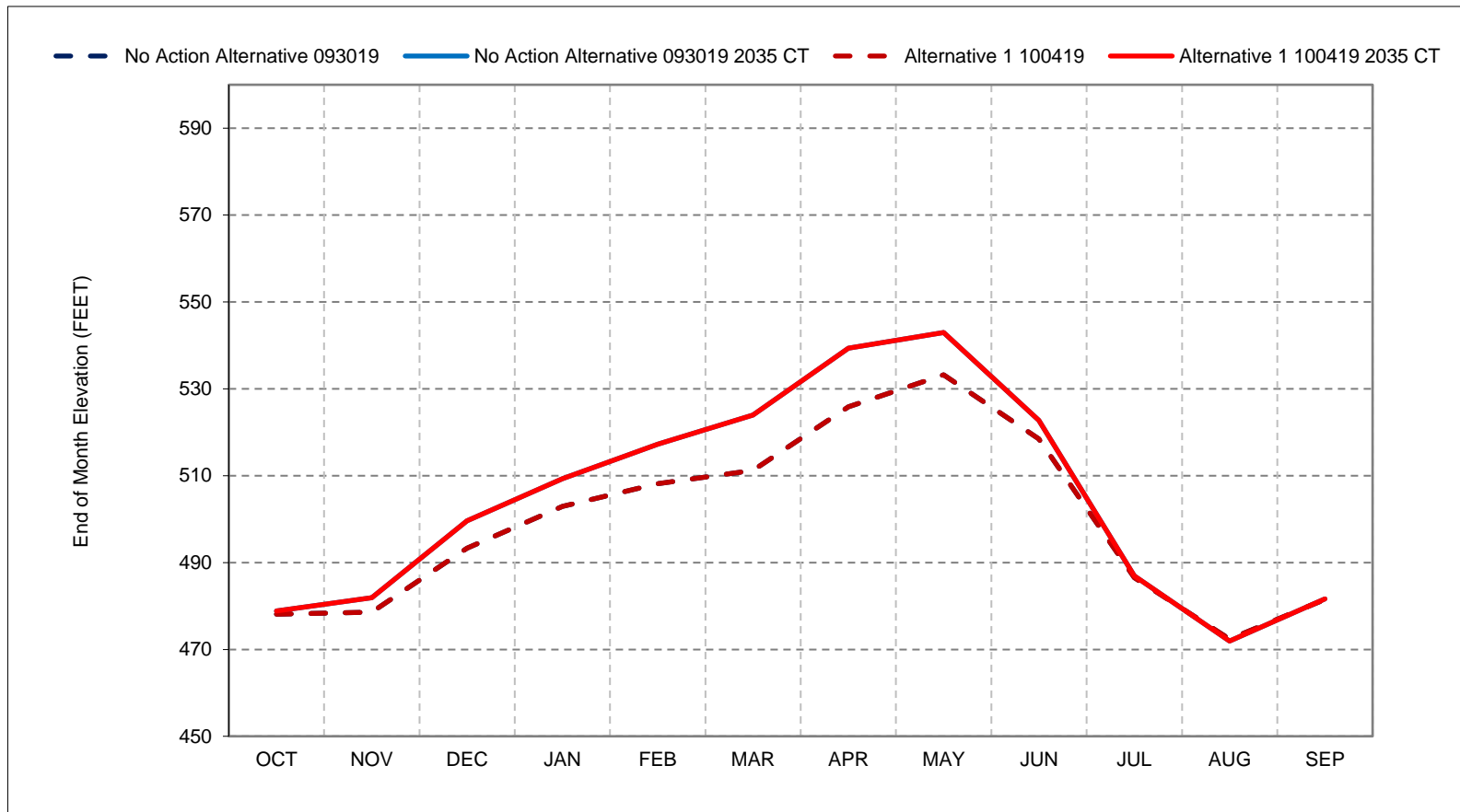
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 8a-6. Millerton Lake Elevation, Critical Year Average Elevation



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

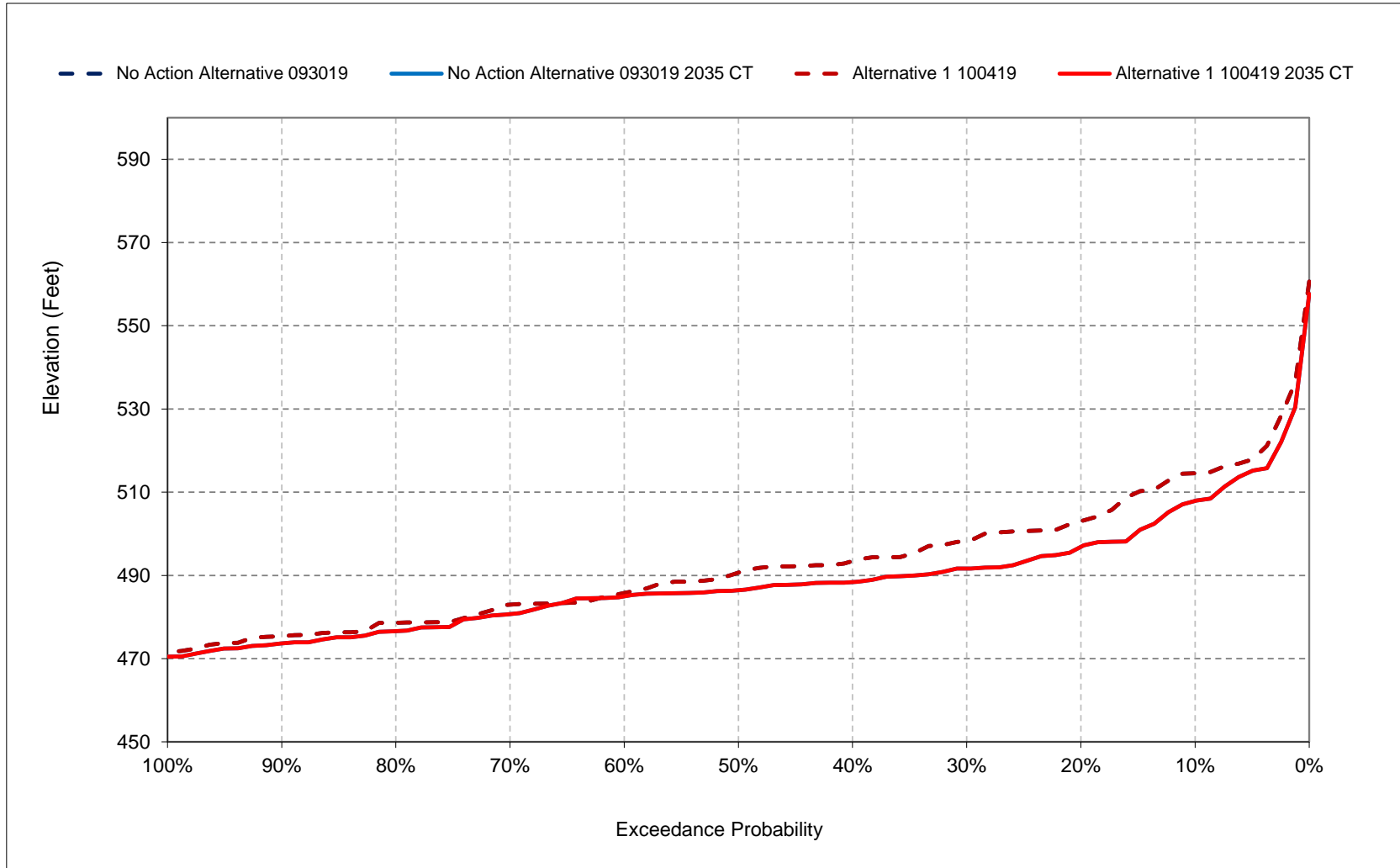
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

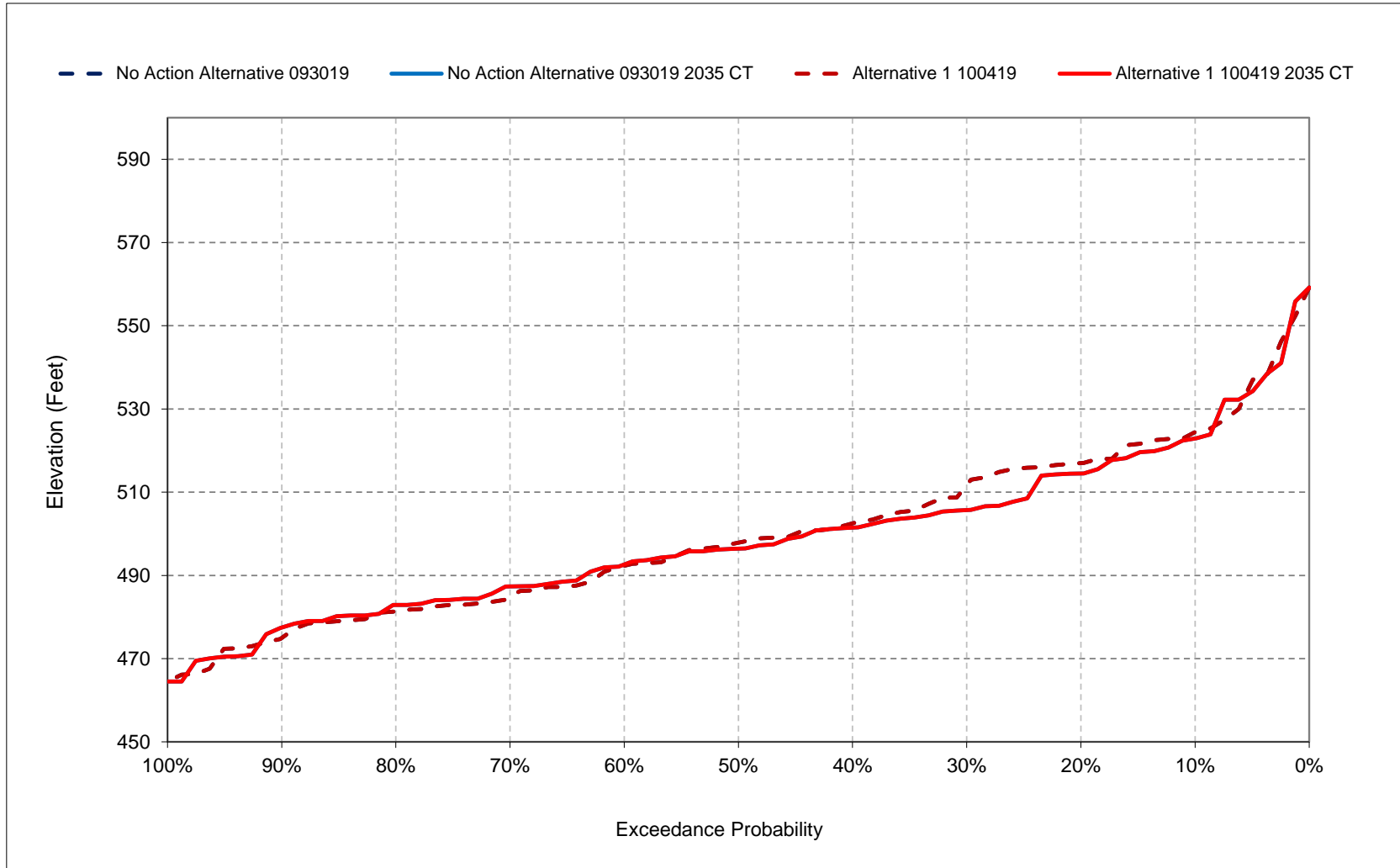
Figure 8a-7. Millerton Lake, Reservoir Pool Elevation, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

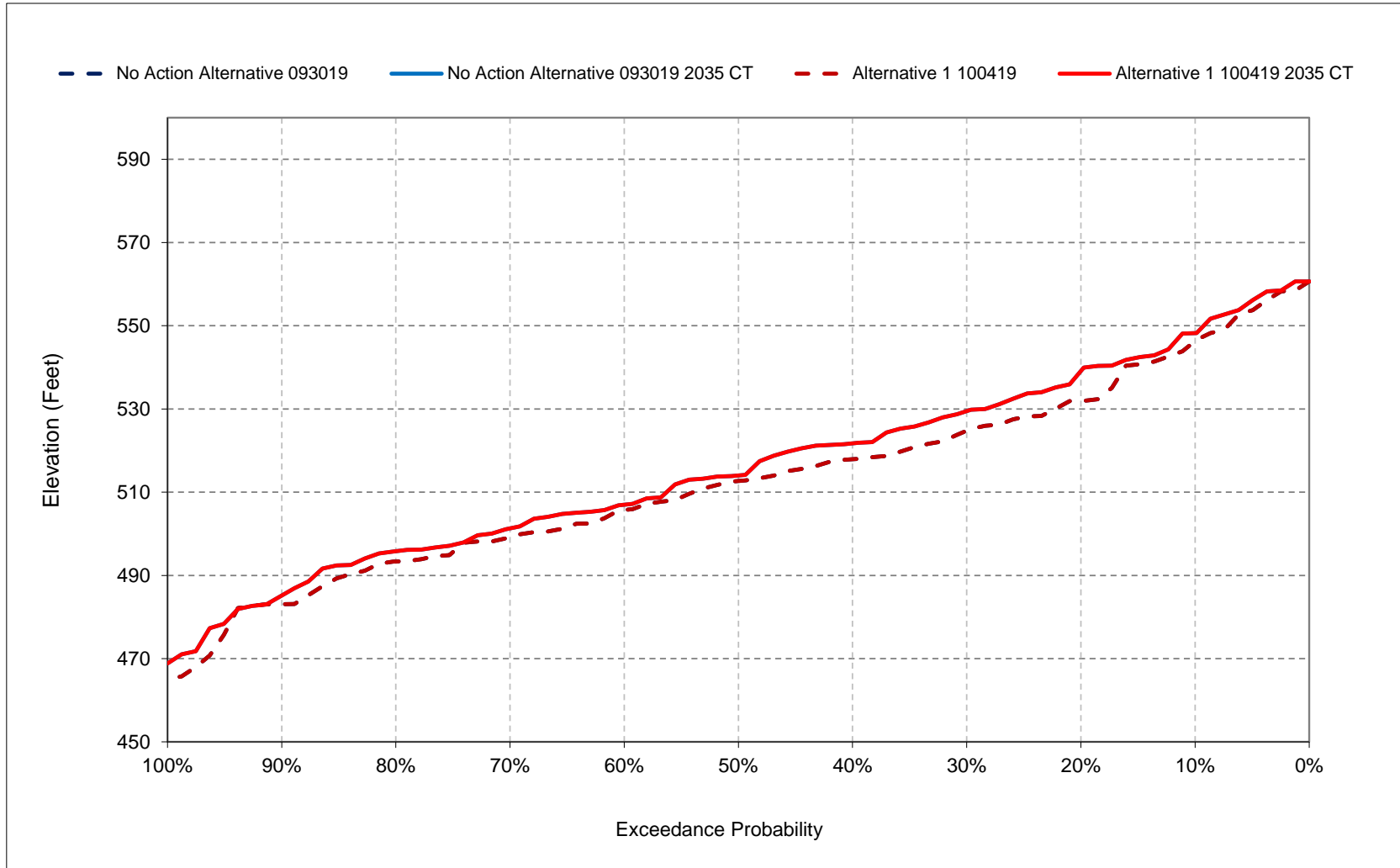
Figure 8a-8. Millerton Lake, Reservoir Pool Elevation, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

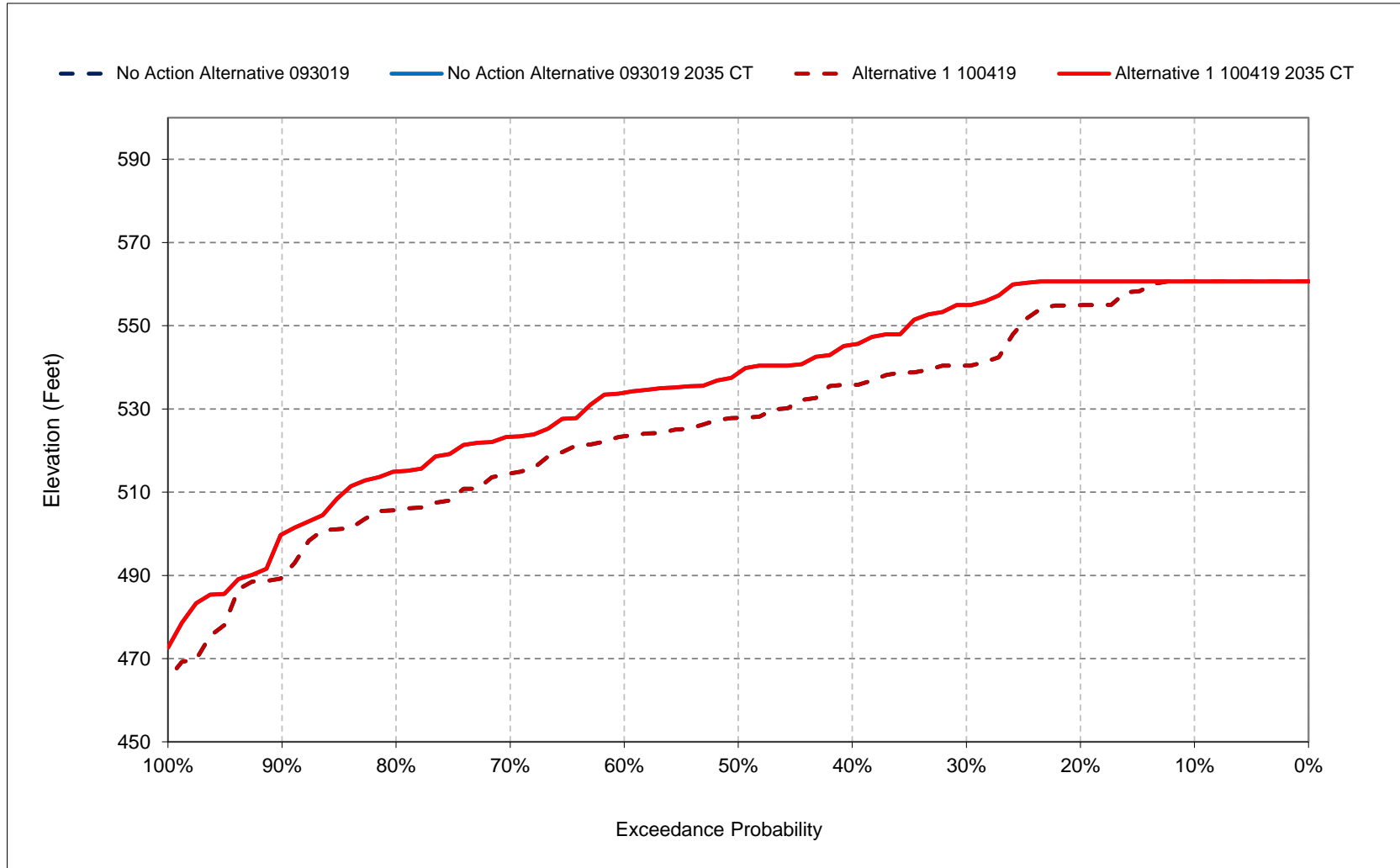
Figure 8a-9. Millerton Lake, Reservoir Pool Elevation, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

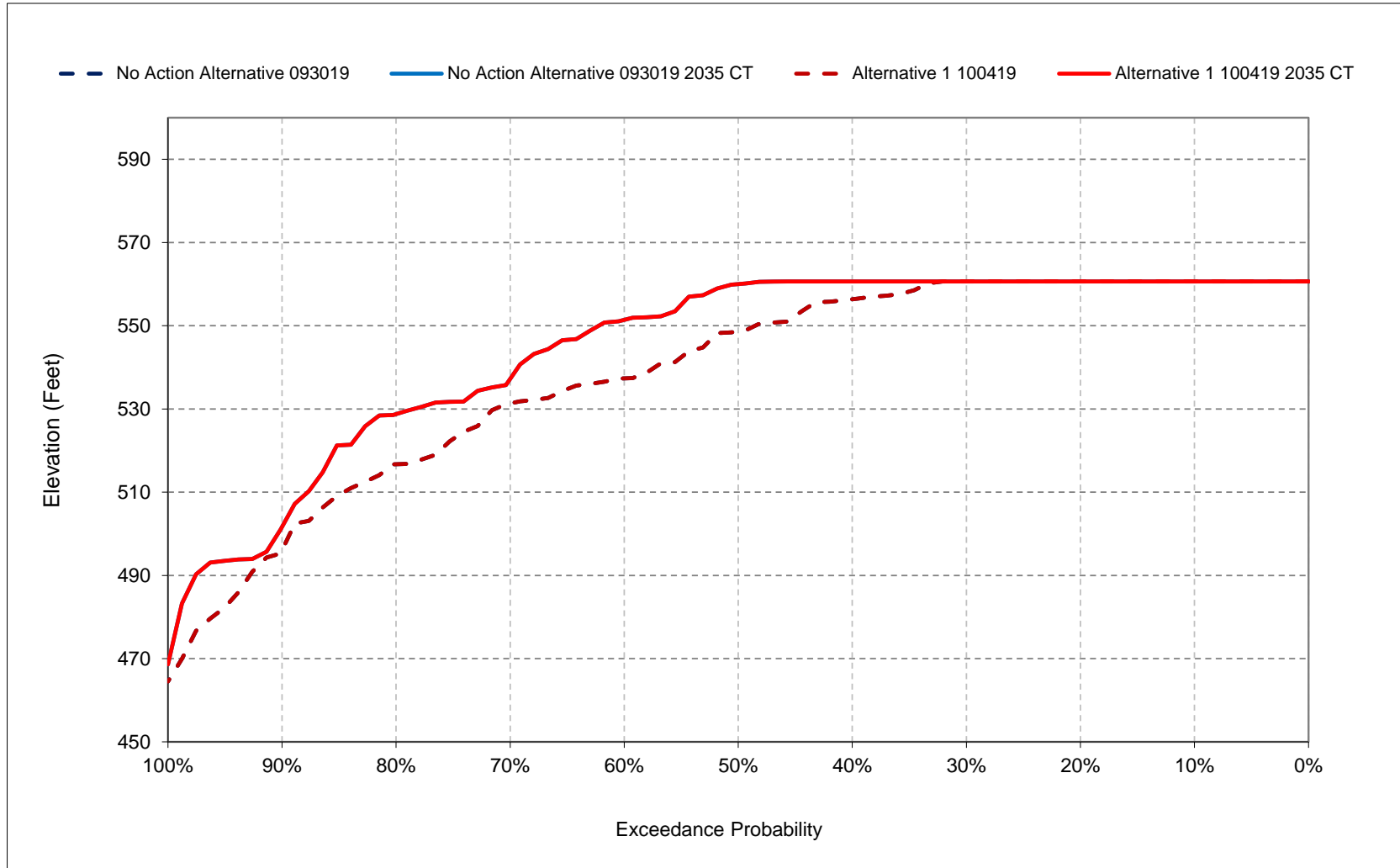
Figure 8a-10. Millerton Lake, Reservoir Pool Elevation, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

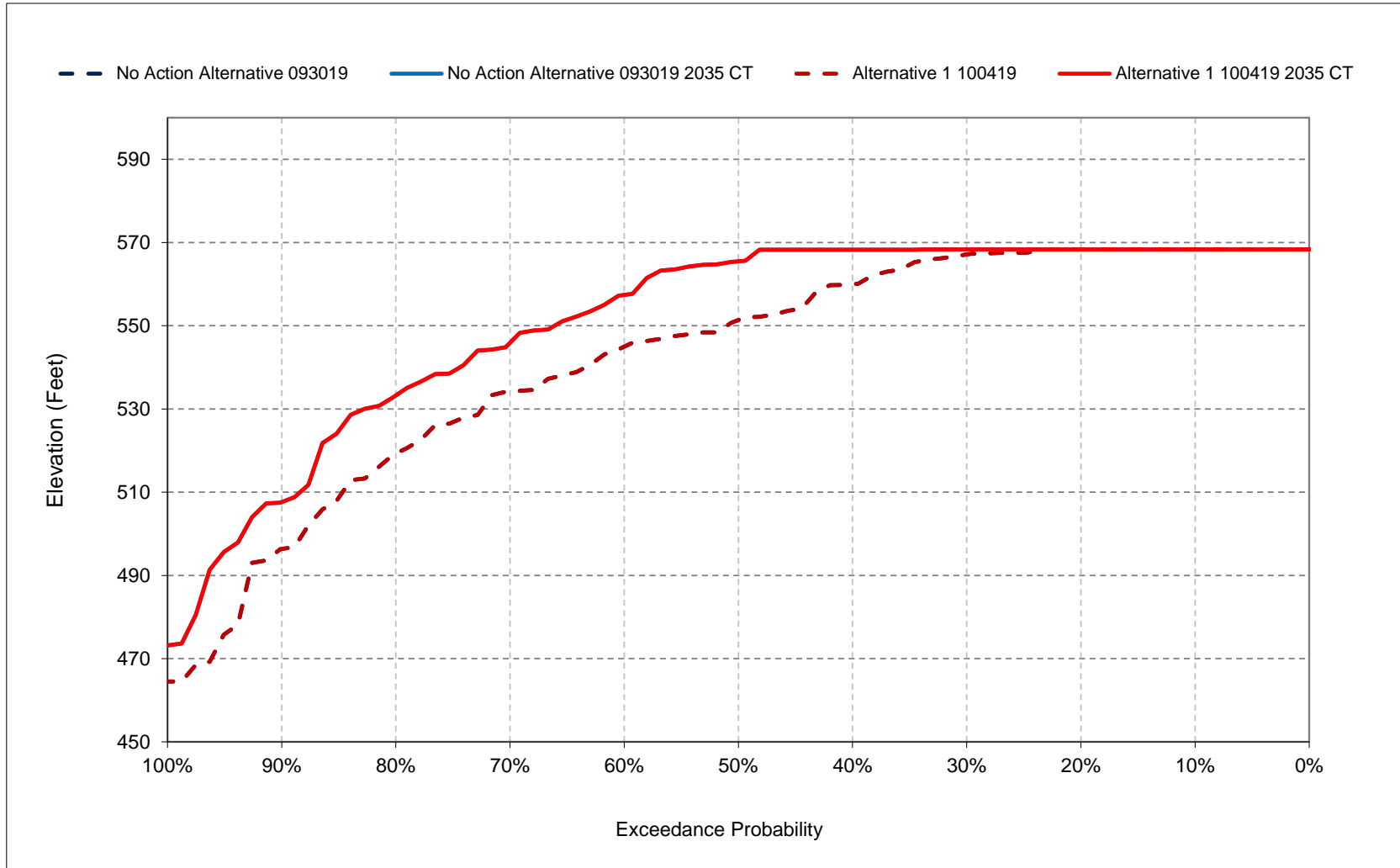
Figure 8a-11. Millerton Lake, Reservoir Pool Elevation, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

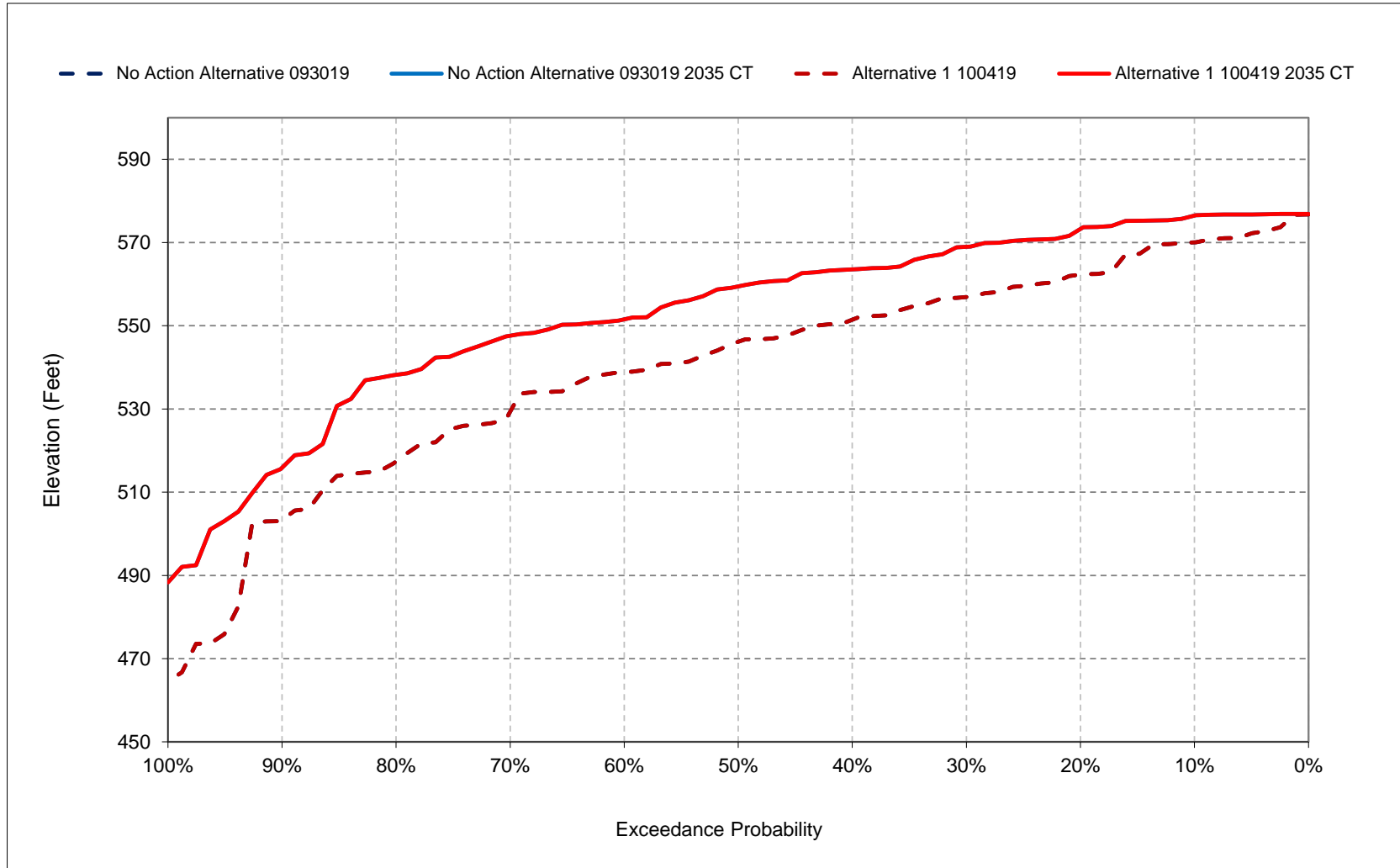
Figure 8a-12. Millerton Lake, Reservoir Pool Elevation, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

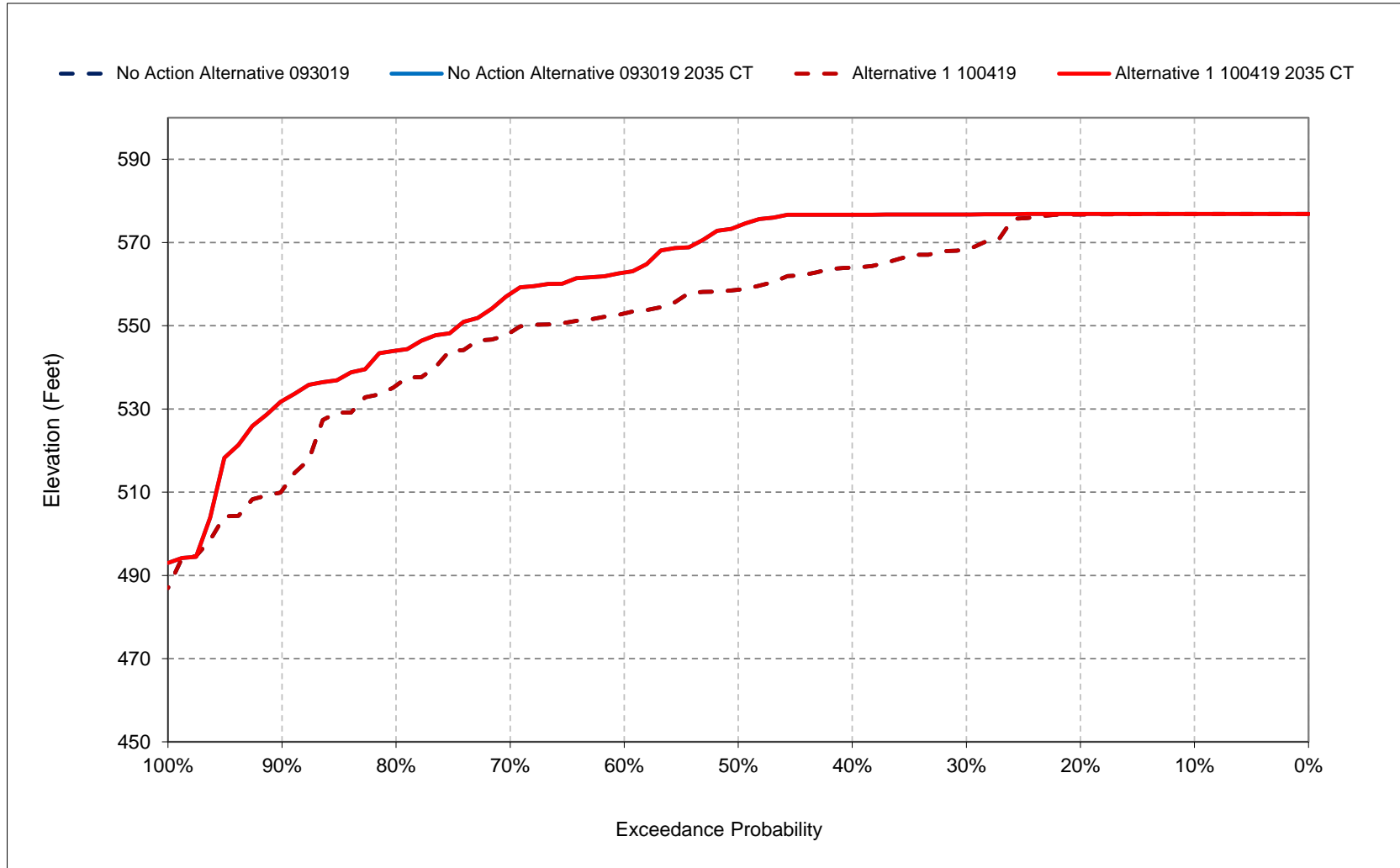
Figure 8a-13. Millerton Lake, Reservoir Pool Elevation, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

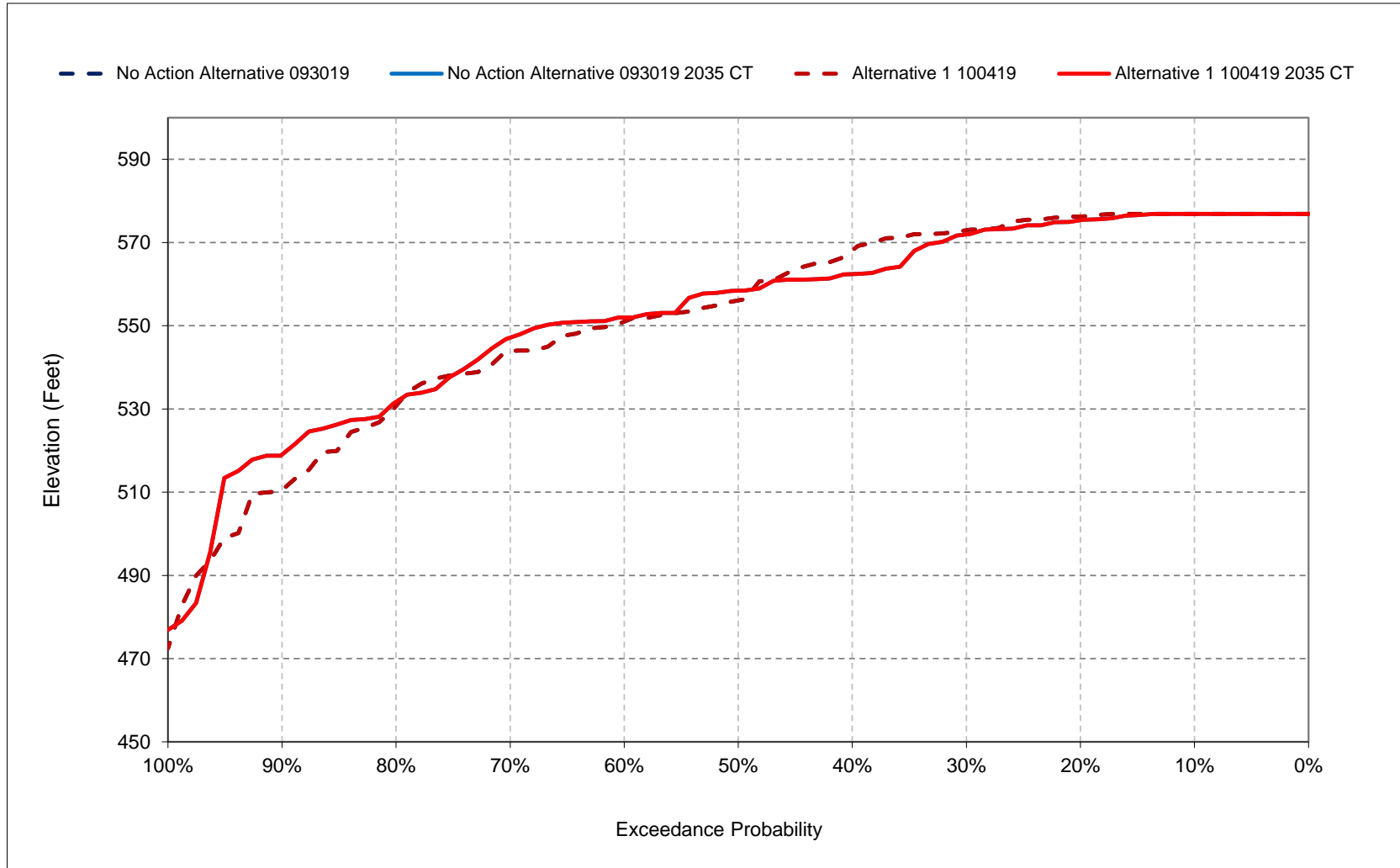
Figure 8a-14. Millerton Lake, Reservoir Pool Elevation, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

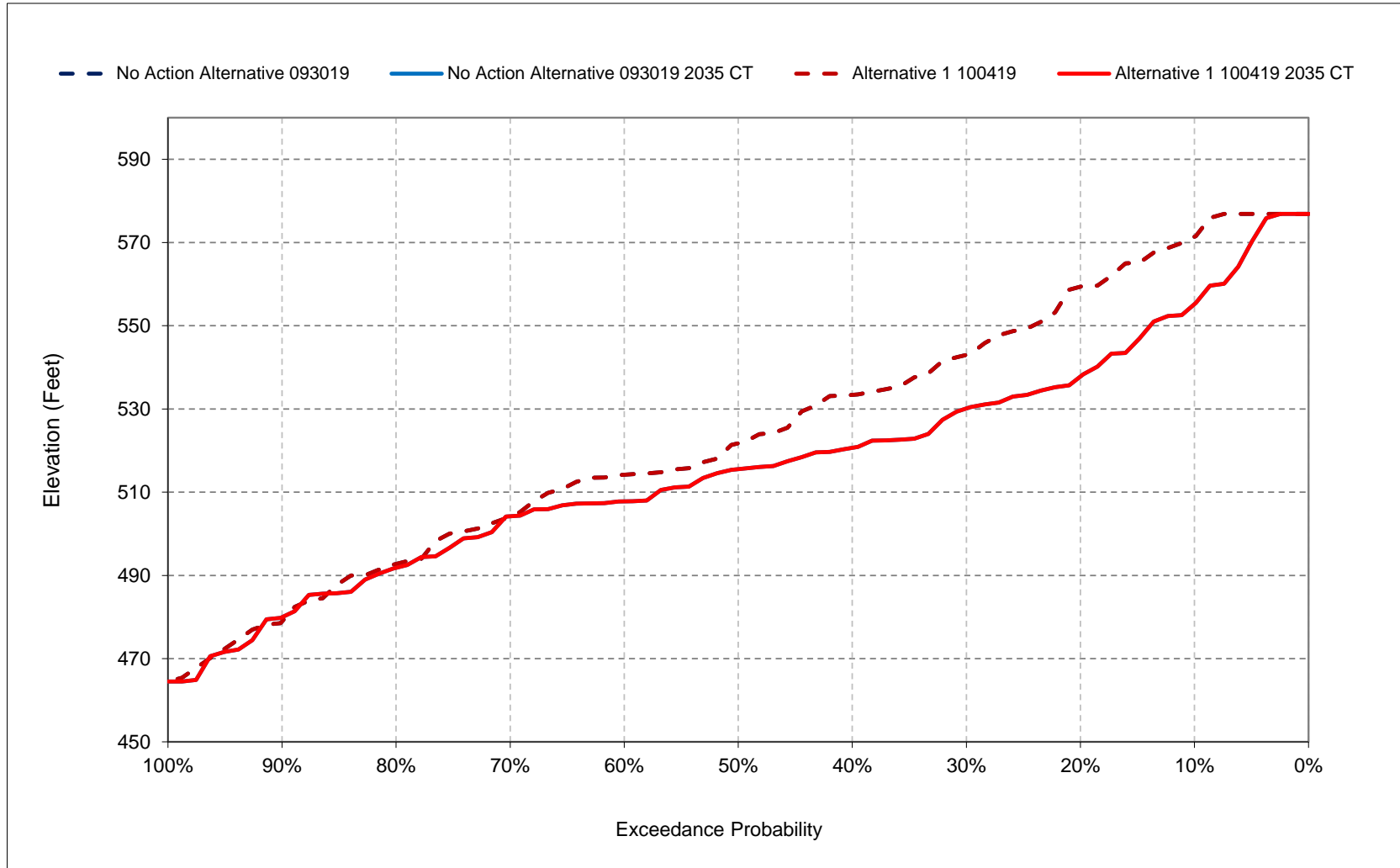
Figure 8a-15. Millerton Lake, Reservoir Pool Elevation, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

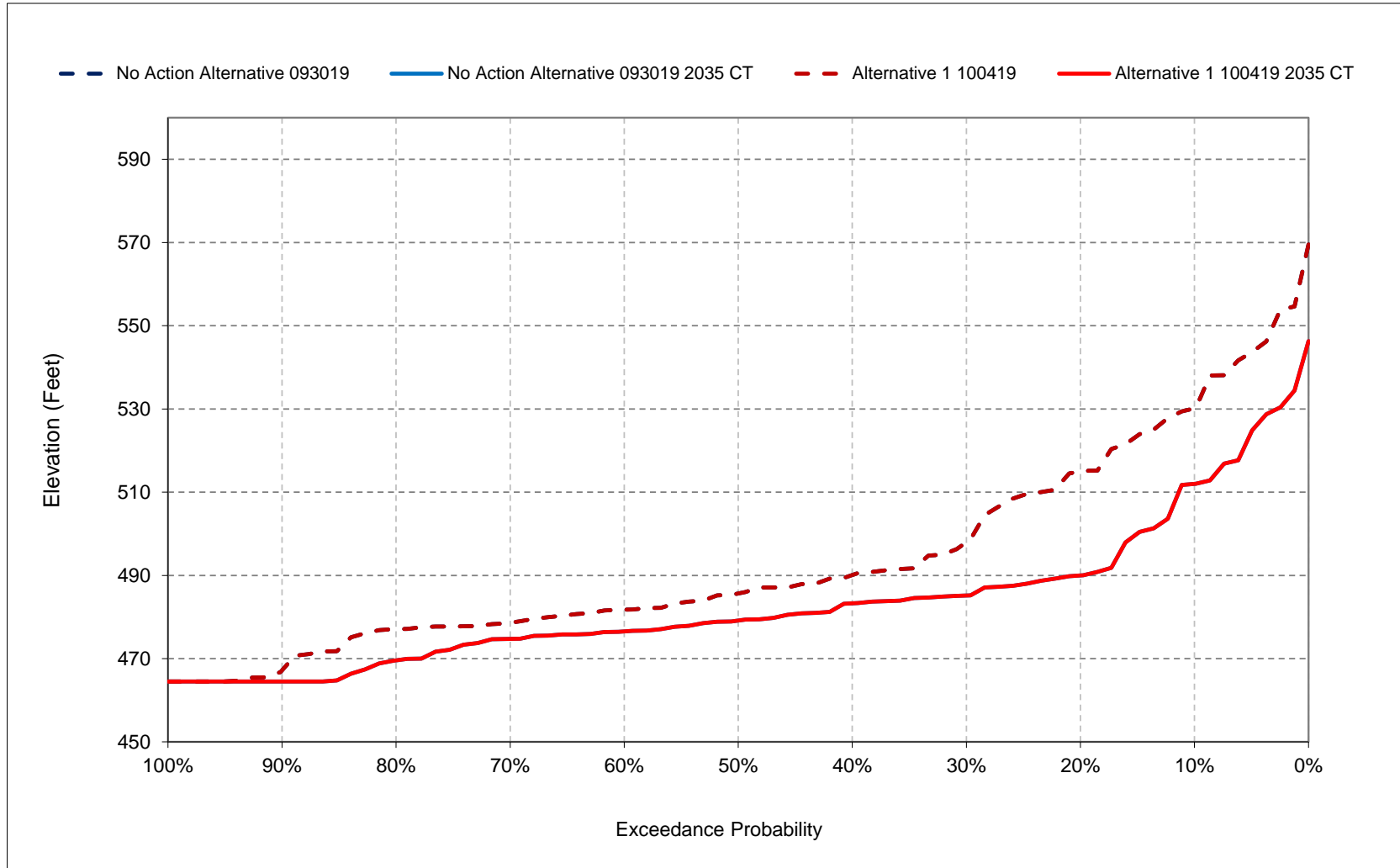
Figure 8a-16. Millerton Lake, Reservoir Pool Elevation, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

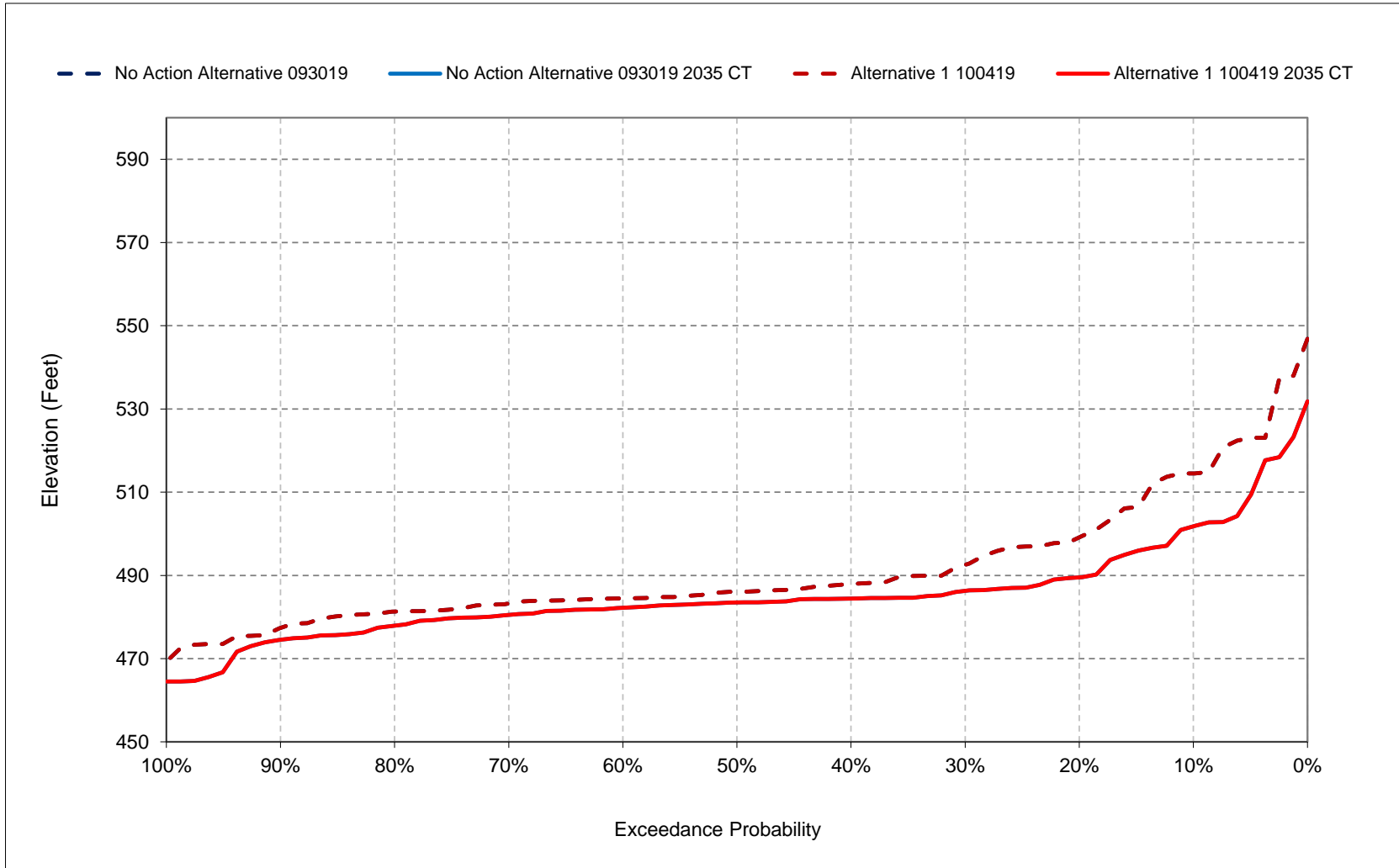
Figure 8a-17. Millerton Lake, Reservoir Pool Elevation, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 8a-18. Millerton Lake, Reservoir Pool Elevation, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.2 – Flow Results (CalSim II)

The following results of the CalSim II model are included for river flow conditions for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity River Flow below Lewiston	C100	12-1 to 12-4	12-1 to 12-18
Clear Creek below Whiskeytown Dam Flow	C3	14-1 to 14-4	14-1 to 14-18
Sacramento River Flow downstream of Keswick Reservoir	C5	15-1 to 15-4	15-1 to 15-18
Sacramento Flow River at Bend Bridge	C109	16-1 to 16-4	16-1 to 16-18
Sacramento River below Red Bluff Diversion Dam Flow	C112	17-1 to 17-4	17-1 to 17-18
Sacramento River Flow at Hamilton City	C114	18-1 to 18-4	18-1 to 18-18
Sacramento River at Wilkins Slough Flow	C129	19-1 to 19-4	19-1 to 19-18
Feather River Flow downstream of Thermalito	C203	21-1 to 21-4	21-1 to 21-18
Feather River at Sacramento River Confluence Flow	C223	22-1 to 22-4	22-1 to 22-18
Fremont Weir Spills	D160	24-1 to 24-4	24-1 to 24-18
Yolo Bypass Flow	C157	25-1 to 25-4	25-1 to 25-18
American River below Nimbus Dam Flow	C9	27-1 to 27-4	27-1 to 27-18
American River at H Street	C303	28-1 to 28-4	28-1 to 28-18
Sacramento River Flow at Freeport	C169	29-1 to 29-4	29-1 to 29-18
Sacramento River Flow at Rio Vista (Alternative 3 revised DXC equation)	C405	32-1 to 32-4	32-1 to 32-18
San Joaquin River Flow at Gravelly Ford	C603	33-1 to 33-4	33-1 to 33-18
San Joaquin River Flow below Sack Dam	C608	34-1 to 34-4	34-1 to 34-18
San Joaquin River Flow below confluence with Merced	C620	35-1 to 35-4	35-1 to 35-18
Stanislaus River Flow below Goodwin	C520	37-1 to 37-4	37-1 to 37-18
Stanislaus River Flow at	C528	38-1 to 38-4	38-1 to 38-18

Mouth			
San Joaquin River at Vernalis	C639	39-1 to 39-4	39-1 to 39-18
San Joaquin River at Vernalis (60-20-20)	C639	39b-1 to 39b-4	39b-1 to 39b-18
Old and Middle River Flow	C408	40-1 to 40-4	40-1 to 40-18
Delta Outflow	C406	41-1 to 41-4	41-1 to 41-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 12-1. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	532	1,219	501	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	356	639	698	678	658	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,192	1,555	1,250	1,348	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	678	652	300	545	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	582	300	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	275	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,372	2,099	1,544	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	346	672	728	739	694	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,297	1,650	1,293	1,462	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	593	652	300	803	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	630	303	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	300	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	839	880	1,043	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	-10	33	30	61	36	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	105	95	42	114	0	0	0	0	0	0
Above Normal (16%)	0	-86	0	0	258	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	47	3	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	25	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 12-2. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,539	2,881	1,775	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	347	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	306	513	784	875	764	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	761	1,811	1,490	1,658	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	338	720	330	1,018	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	2,881	3,926	2,167	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	350	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	307	672	853	970	804	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	1,264	1,967	1,592	1,785	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	341	720	452	1,411	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,341	1,045	391	0	0	0	0	0	0
20%	0	0	0	0	3	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	1	159	69	95	40	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	502	156	102	127	0	0	0	0	0	0
Above Normal (16%)	0	4	0	122	393	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 12-3. Trinity River Flow below Lewiston, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	532	1,219	501	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	356	639	698	678	658	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,192	1,555	1,250	1,348	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	678	652	300	545	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	582	300	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	275	300	300	300	300	575	2,092	783	450	870	798

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,539	2,881	1,775	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	347	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	306	513	784	875	764	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	761	1,811	1,490	1,658	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	338	720	330	1,018	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,007	1,661	1,275	0	0	0	0	0	0
20%	0	0	0	0	47	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	139	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	33	143	0	0	0	0
Long Term												
Full Simulation Period ^d	5	-50	-126	86	197	106	86	34	-139	-27	26	36
Water Year Types^{b,c}												
Wet (32%)	0	0	-431	256	240	310	273	16	-242	-59	48	48
Above Normal (16%)	0	-341	68	30	473	46	5	21	-323	0	65	65
Below Normal (13%)	0	0	0	0	345	0	-4	62	-85	-59	0	0
Dry (24%)	0	0	0	0	0	0	-3	71	0	0	0	0
Critical (15%)	31	25	0	0	0	0	0	0	0	0	0	73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 12-4. Trinity River Flow below Lewiston, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	1,372	2,099	1,544	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	427	1,498	783	450	450	450
Long Term												
Full Simulation Period ^d	368	346	672	728	739	694	588	3,753	2,210	890	793	783
Water Year Types^{b,c}												
Wet (32%)	373	300	1,297	1,650	1,293	1,462	735	4,556	3,413	1,136	676	676
Above Normal (16%)	373	593	652	300	803	462	457	4,597	2,948	1,102	773	773
Below Normal (13%)	373	300	300	300	630	303	517	3,585	1,755	924	870	870
Dry (24%)	373	300	300	300	300	300	528	3,250	1,271	678	870	870
Critical (15%)	342	300	300	300	300	300	575	2,092	783	450	870	798

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	373	300	300	2,881	3,926	2,167	600	4,709	4,626	1,102	870	870
20%	373	300	300	300	350	300	540	4,709	2,526	1,102	870	870
30%	373	300	300	300	300	300	540	4,709	2,526	1,102	870	870
40%	373	300	300	300	300	300	540	4,570	2,526	1,102	870	870
50%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
60%	373	300	300	300	300	300	493	4,189	2,120	1,102	870	870
70%	373	300	300	300	300	300	460	2,924	783	450	870	870
80%	373	300	300	300	300	300	460	2,924	783	450	870	870
90%	373	300	300	300	300	300	460	1,641	783	450	450	450
Long Term												
Full Simulation Period ^d	373	307	672	853	970	804	674	3,787	2,070	863	819	819
Water Year Types^{b,c}												
Wet (32%)	373	300	1,264	1,967	1,592	1,785	1,008	4,572	3,170	1,077	725	725
Above Normal (16%)	373	341	720	452	1,411	508	463	4,618	2,625	1,102	838	838
Below Normal (13%)	373	300	300	300	928	300	513	3,647	1,671	865	870	870
Dry (24%)	373	300	300	300	300	300	525	3,321	1,271	678	870	870
Critical (15%)	373	300	300	300	300	300	575	2,092	783	450	870	870

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,509	1,826	623	0	0	0	0	0	0
20%	0	0	0	0	50	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	139	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	33	143	0	0	0	0
Long Term												
Full Simulation Period ^d	5	-40	0	125	231	109	86	34	-139	-27	26	36
Water Year Types^{b,c}												
Wet (32%)	0	0	-34	317	299	323	273	16	-242	-59	48	48
Above Normal (16%)	0	-251	68	152	607	46	5	21	-323	0	65	65
Below Normal (13%)	0	0	0	0	298	-3	-4	62	-85	-59	0	0
Dry (24%)	0	0	0	0	0	0	-3	71	0	0	0	0
Critical (15%)	31	0	0	0	0	0	0	0	0	0	0	73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

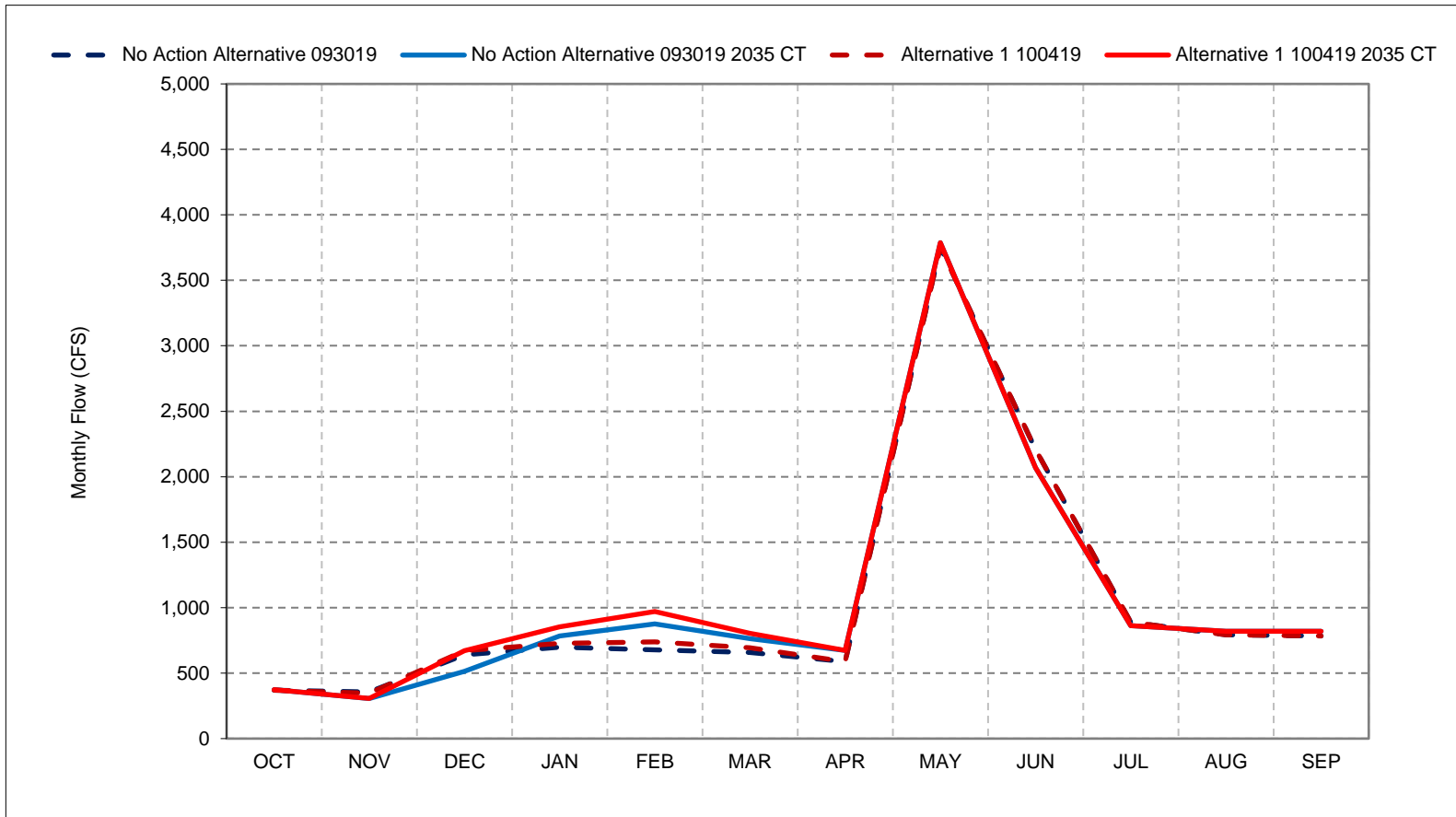
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 12-1. Trinity River Flow below Lewiston, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

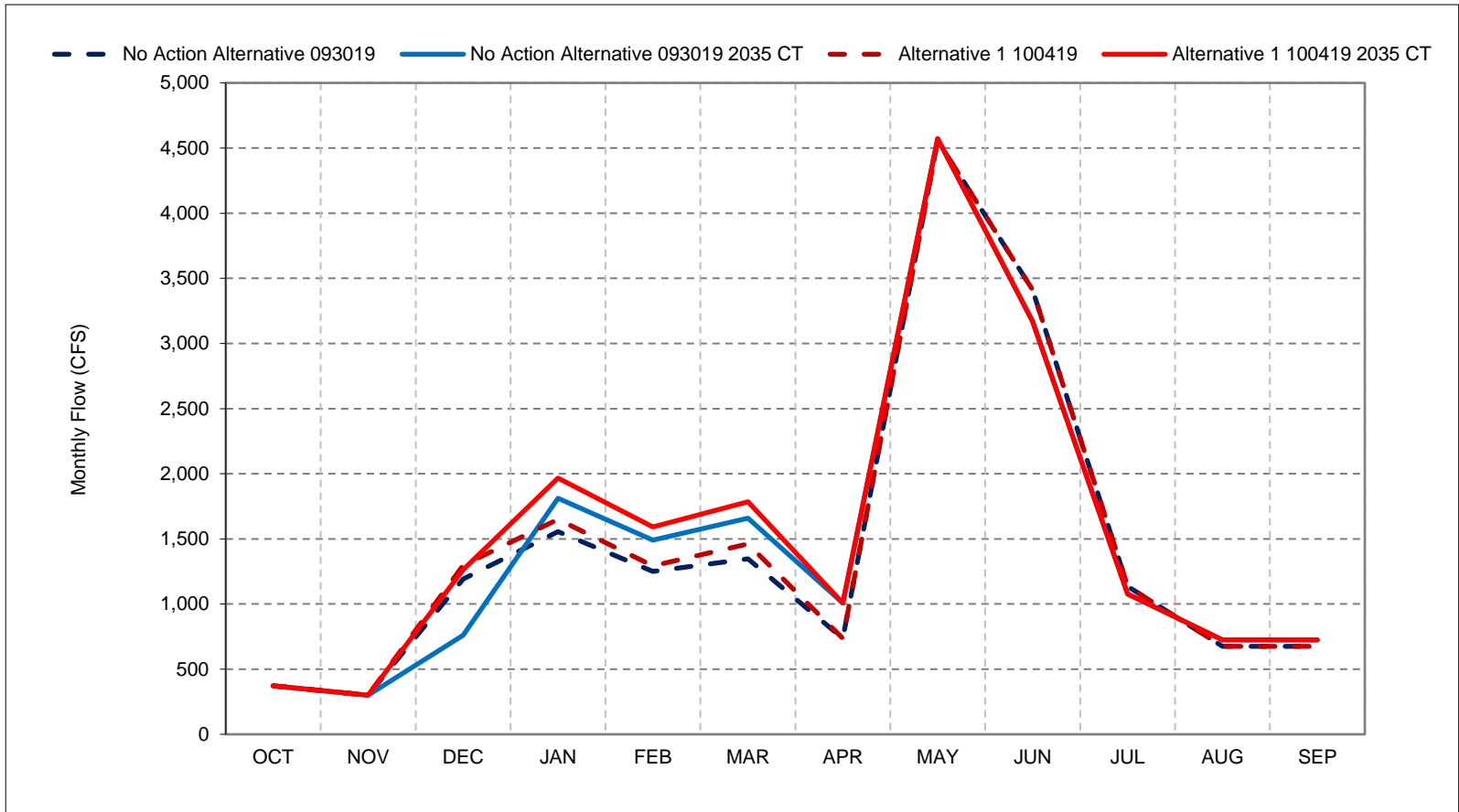
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-2. Trinity River Flow below Lewiston, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

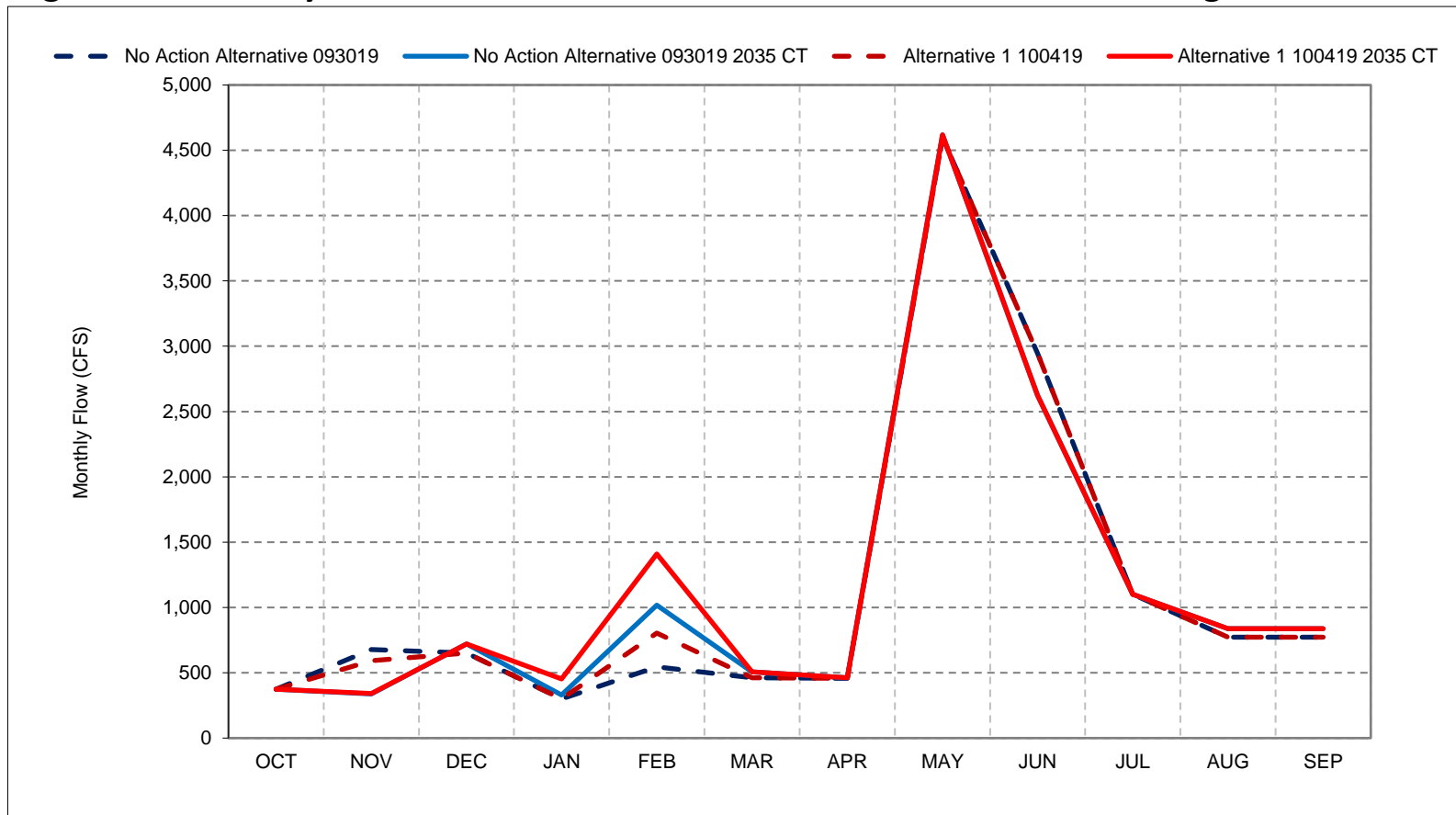
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-3. Trinity River Flow below Lewiston, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

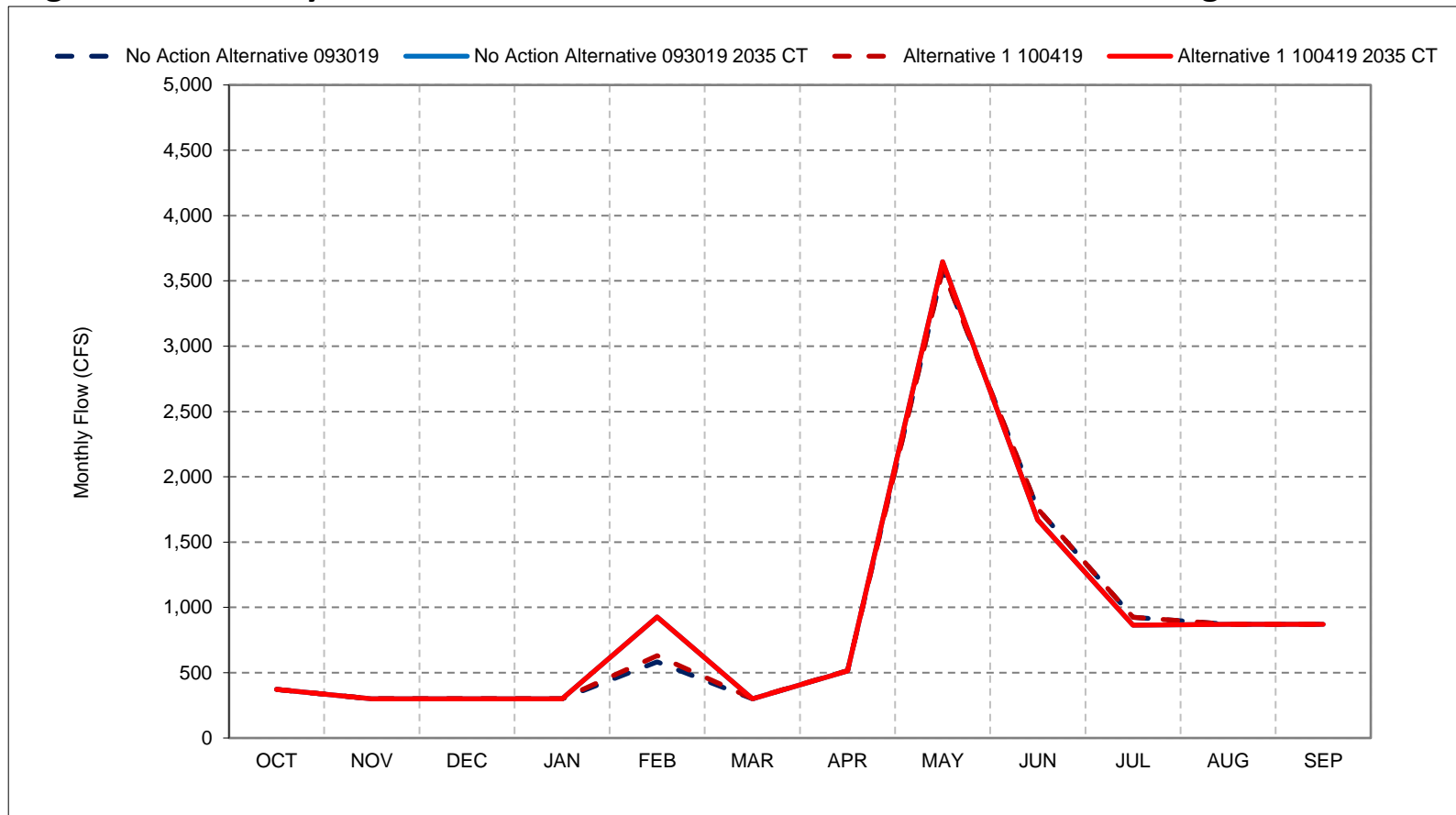
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-4. Trinity River Flow below Lewiston, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

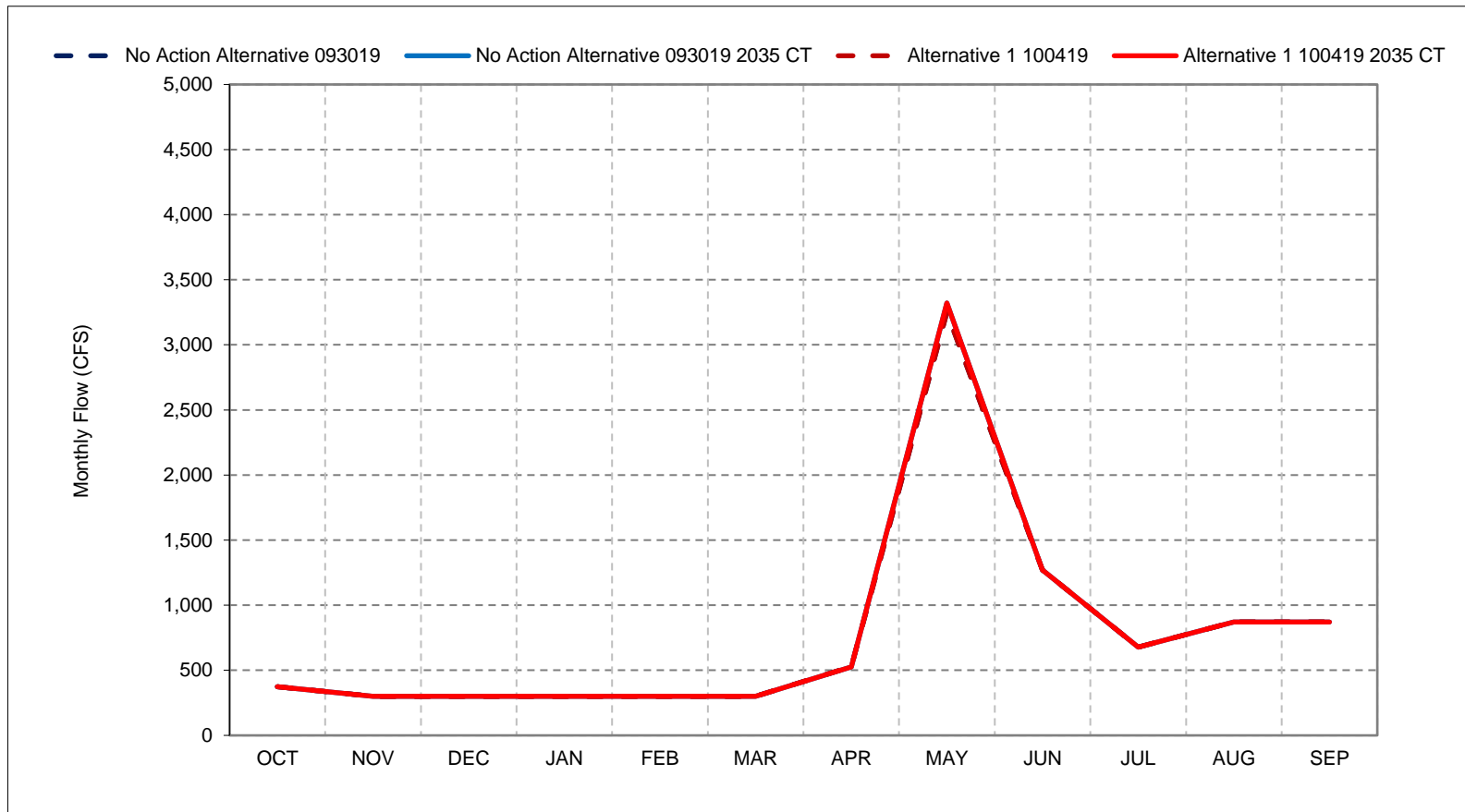
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-5. Trinity River Flow below Lewiston, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

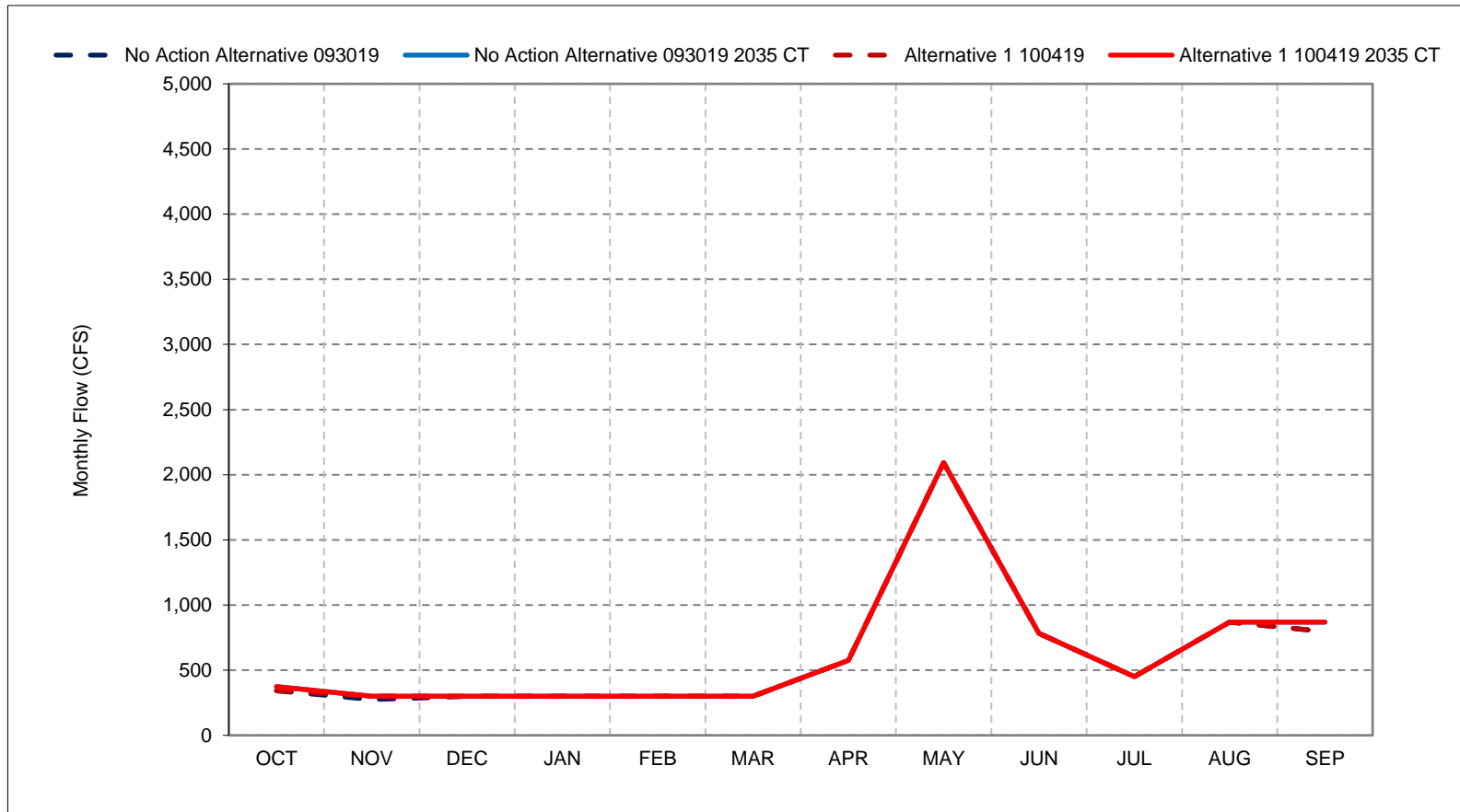
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 12-6. Trinity River Flow below Lewiston, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

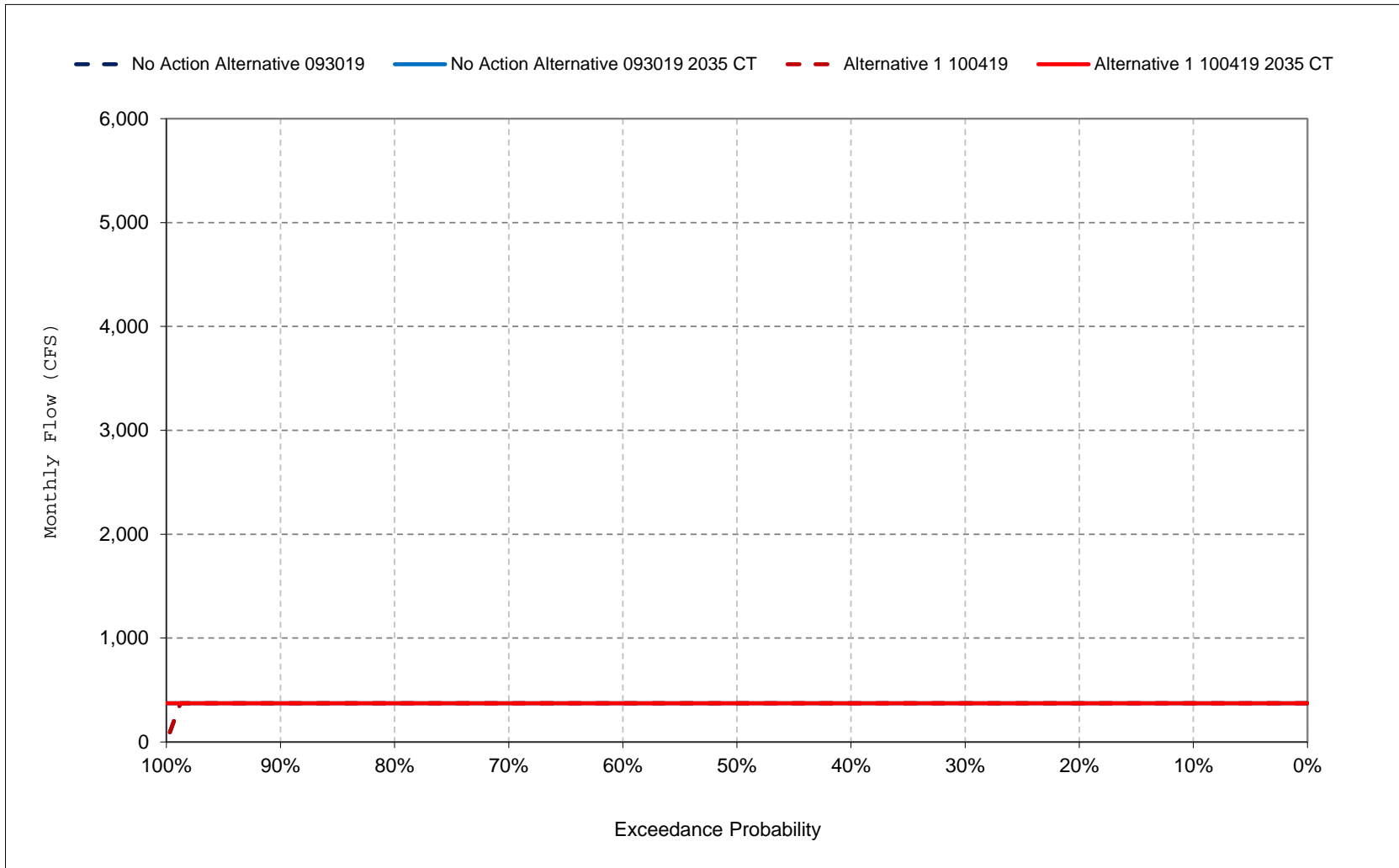
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

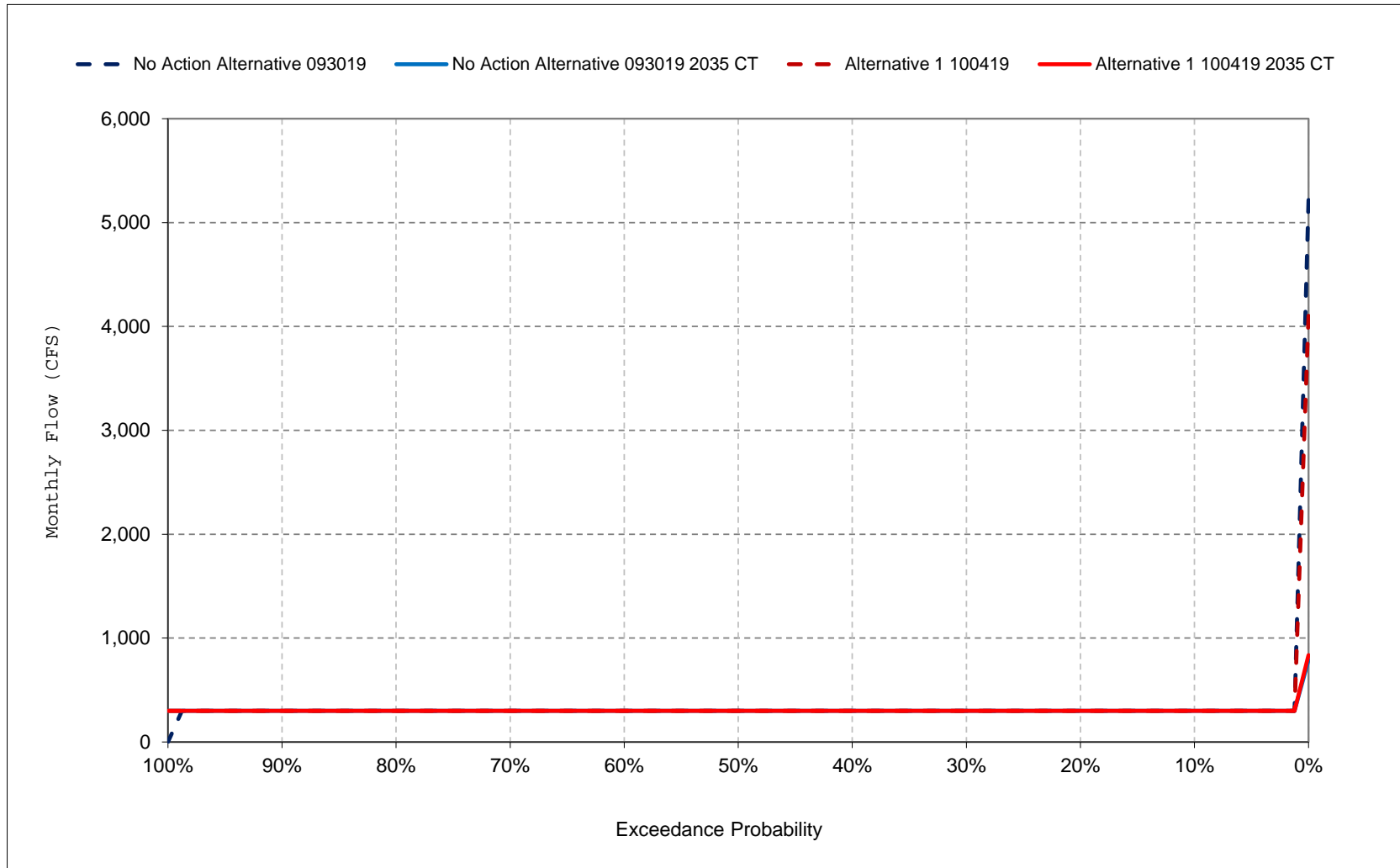
Figure 12-7. Trinity River Flow below Lewiston, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

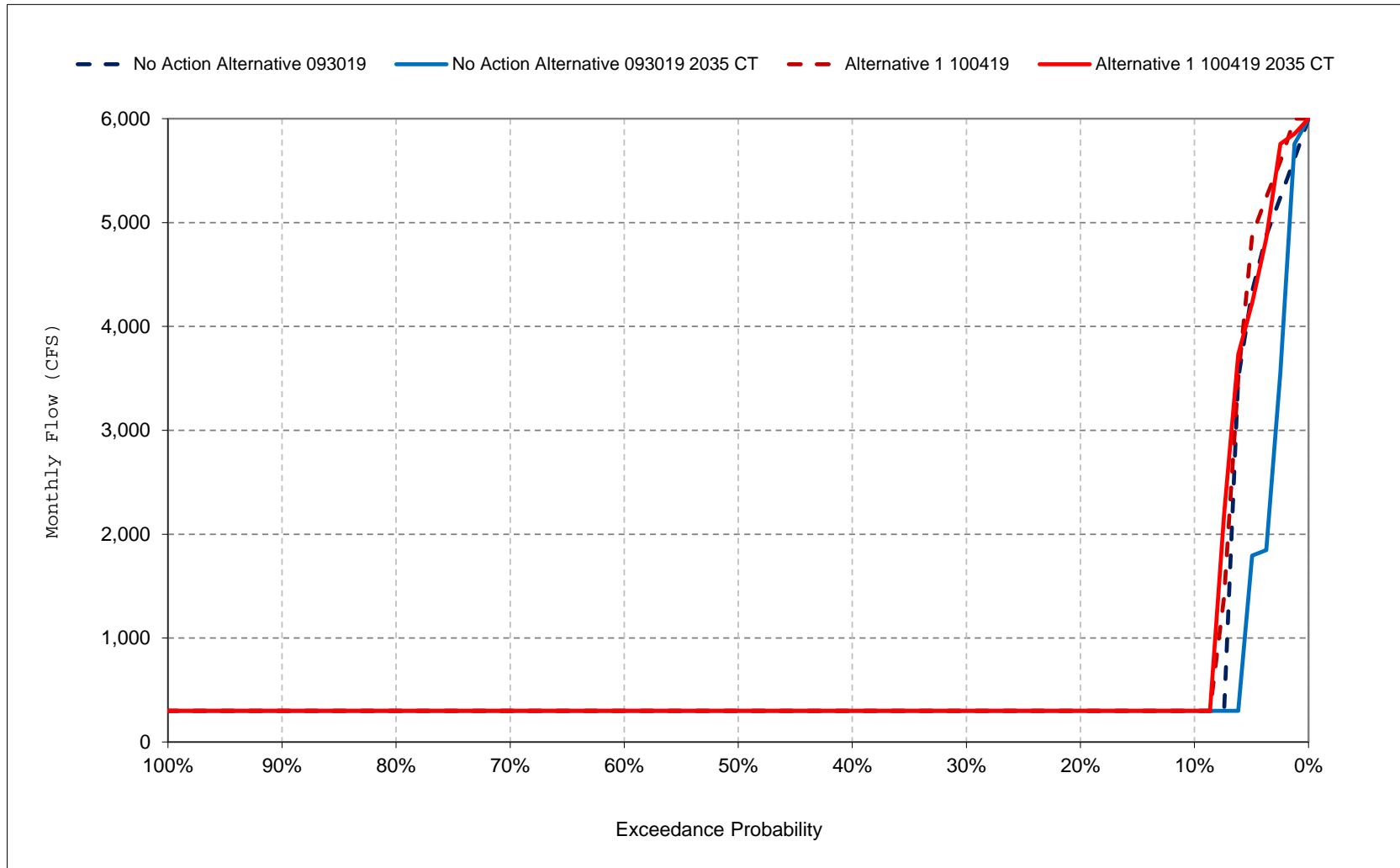
Figure 12-8. Trinity River Flow below Lewiston, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

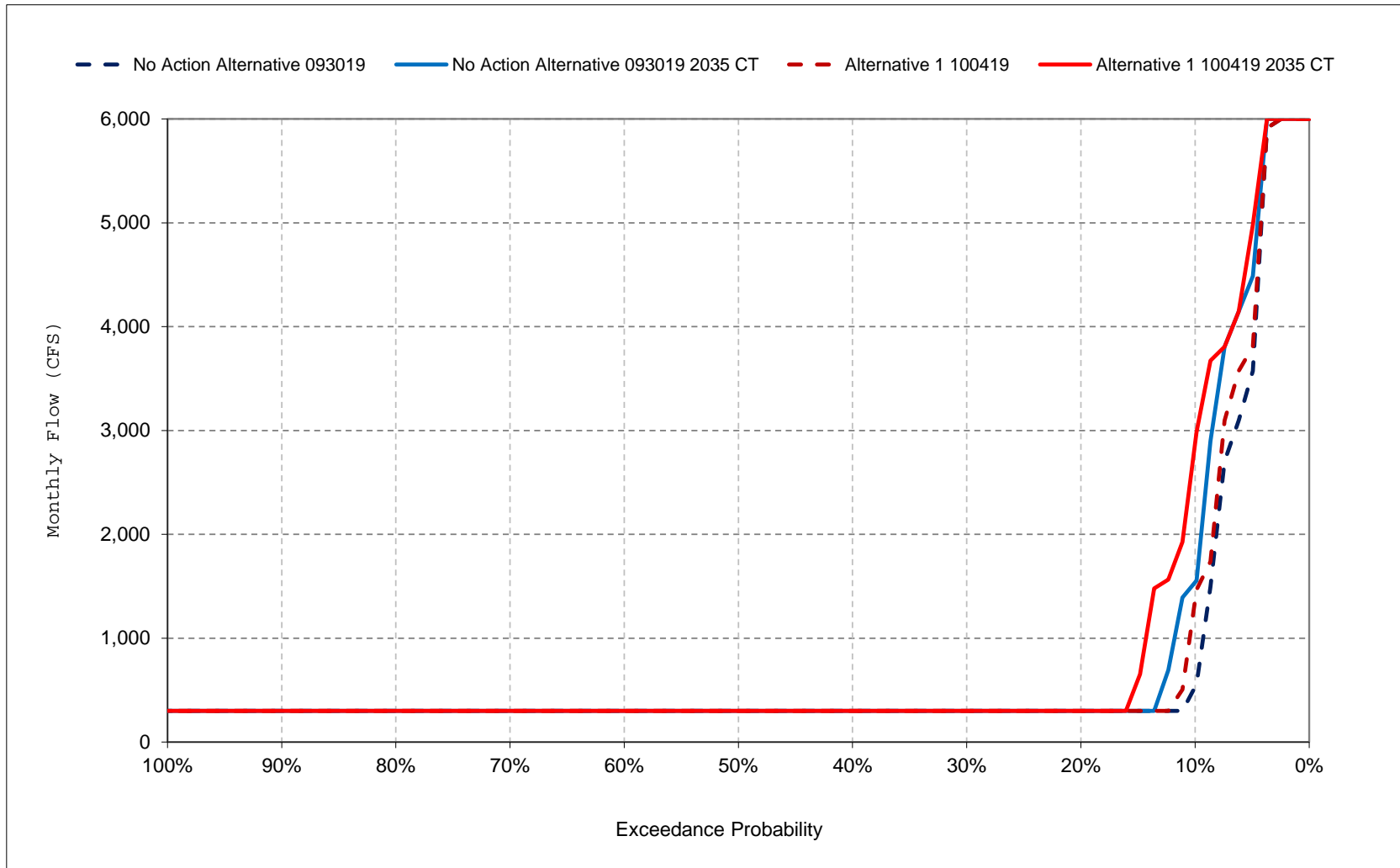
Figure 12-9. Trinity River Flow below Lewiston, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

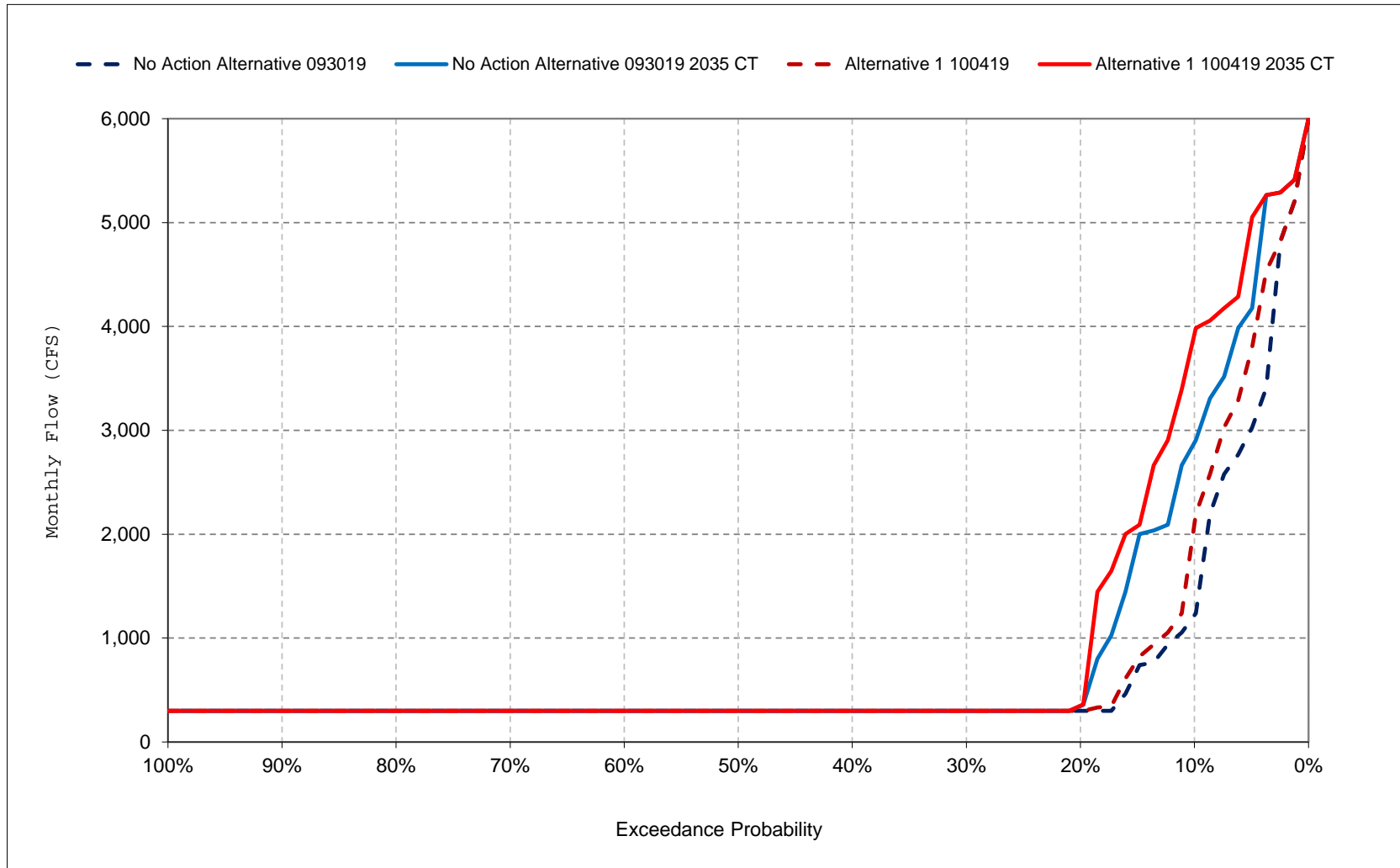
Figure 12-10. Trinity River Flow below Lewiston, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

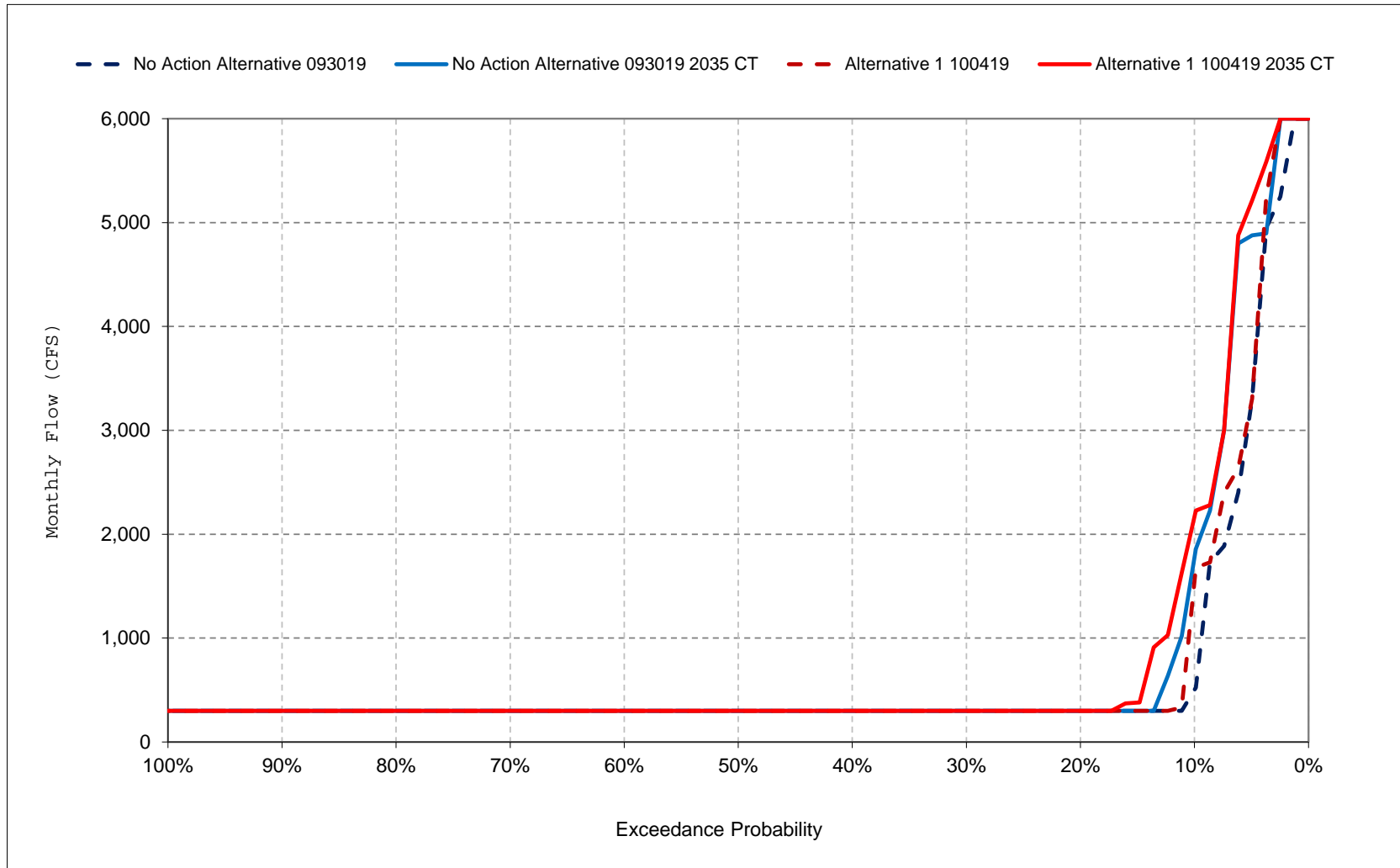
Figure 12-11. Trinity River Flow below Lewiston, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

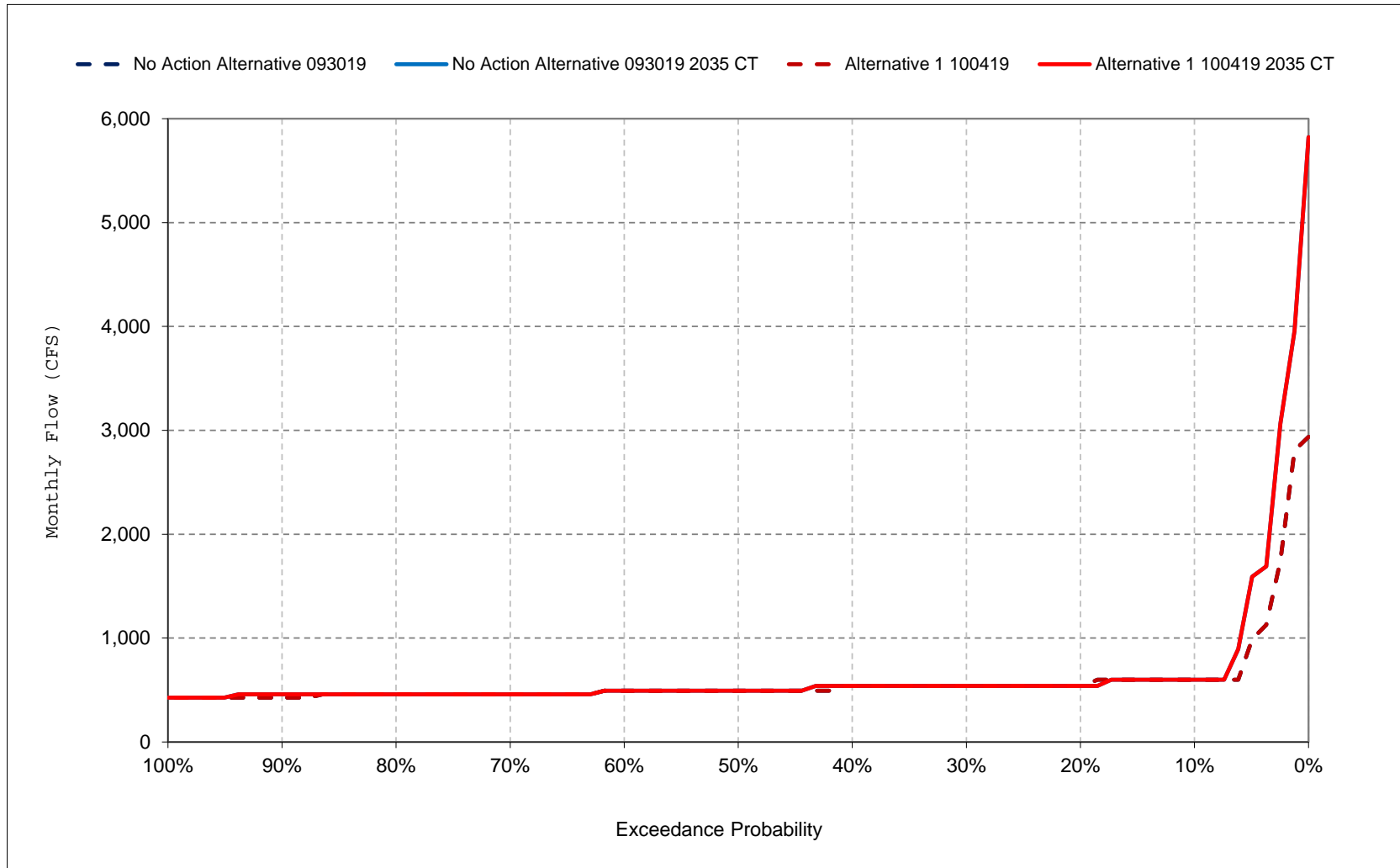
Figure 12-12. Trinity River Flow below Lewiston, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

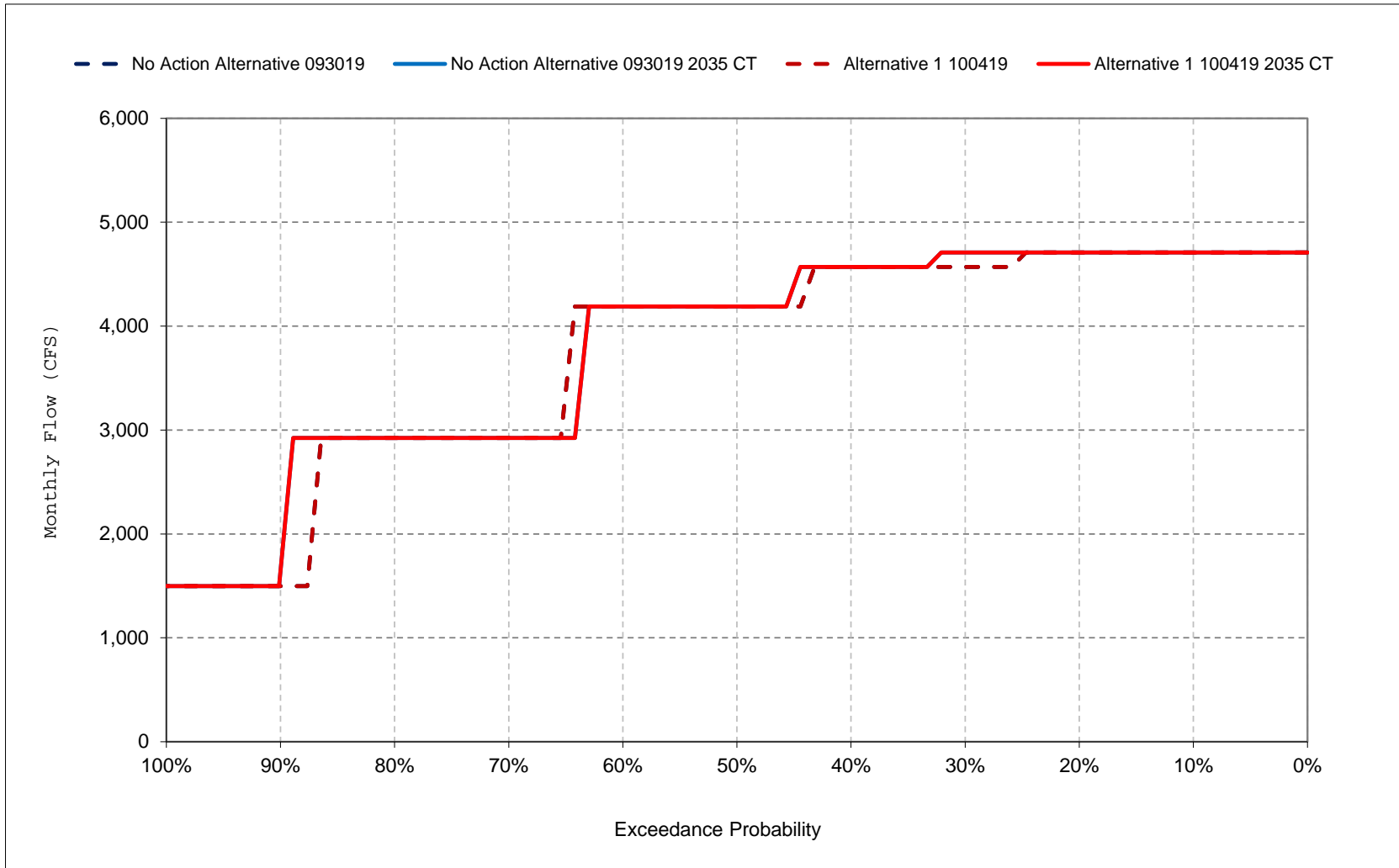
Figure 12-13. Trinity River Flow below Lewiston, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

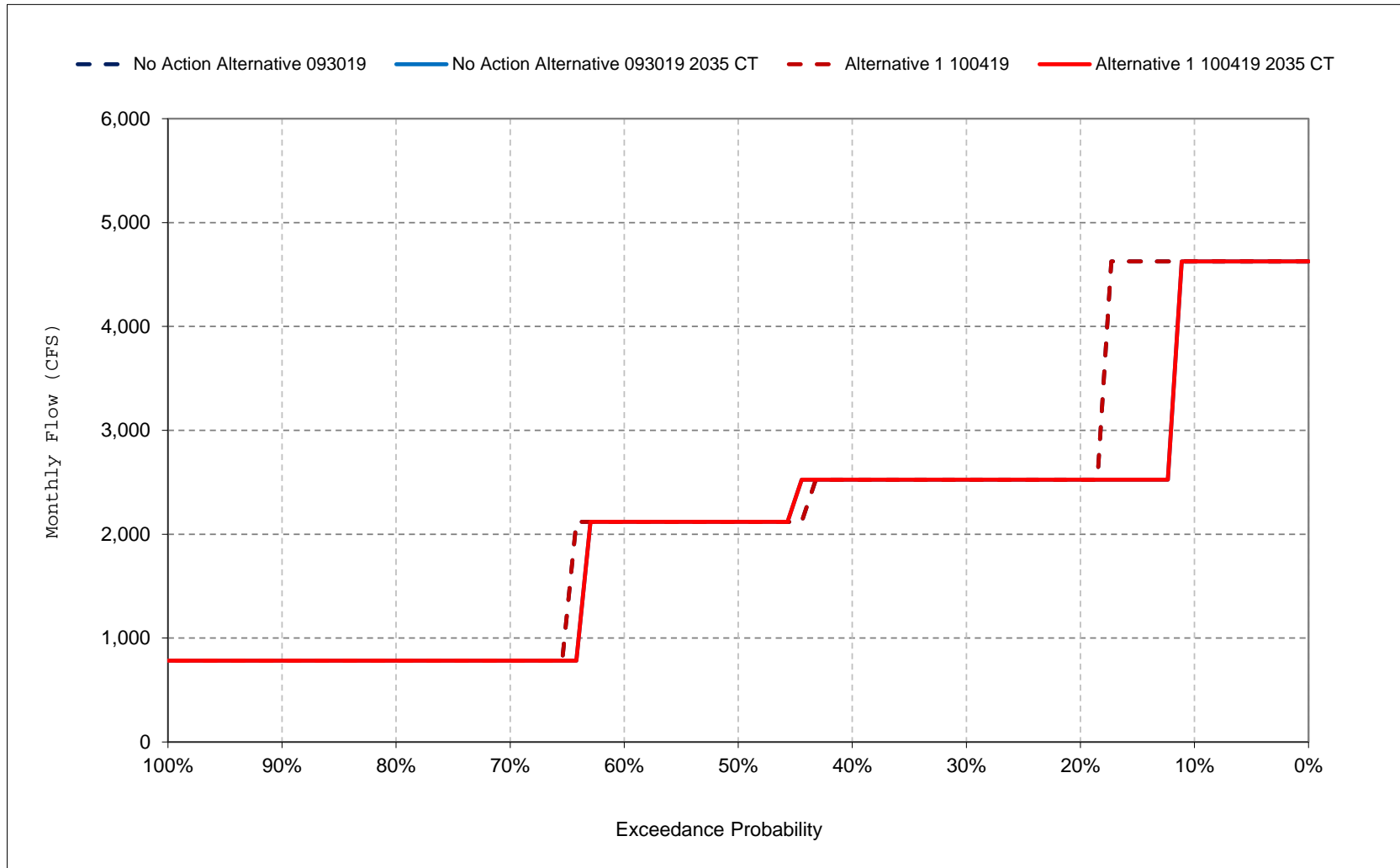
Figure 12-14. Trinity River Flow below Lewiston, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

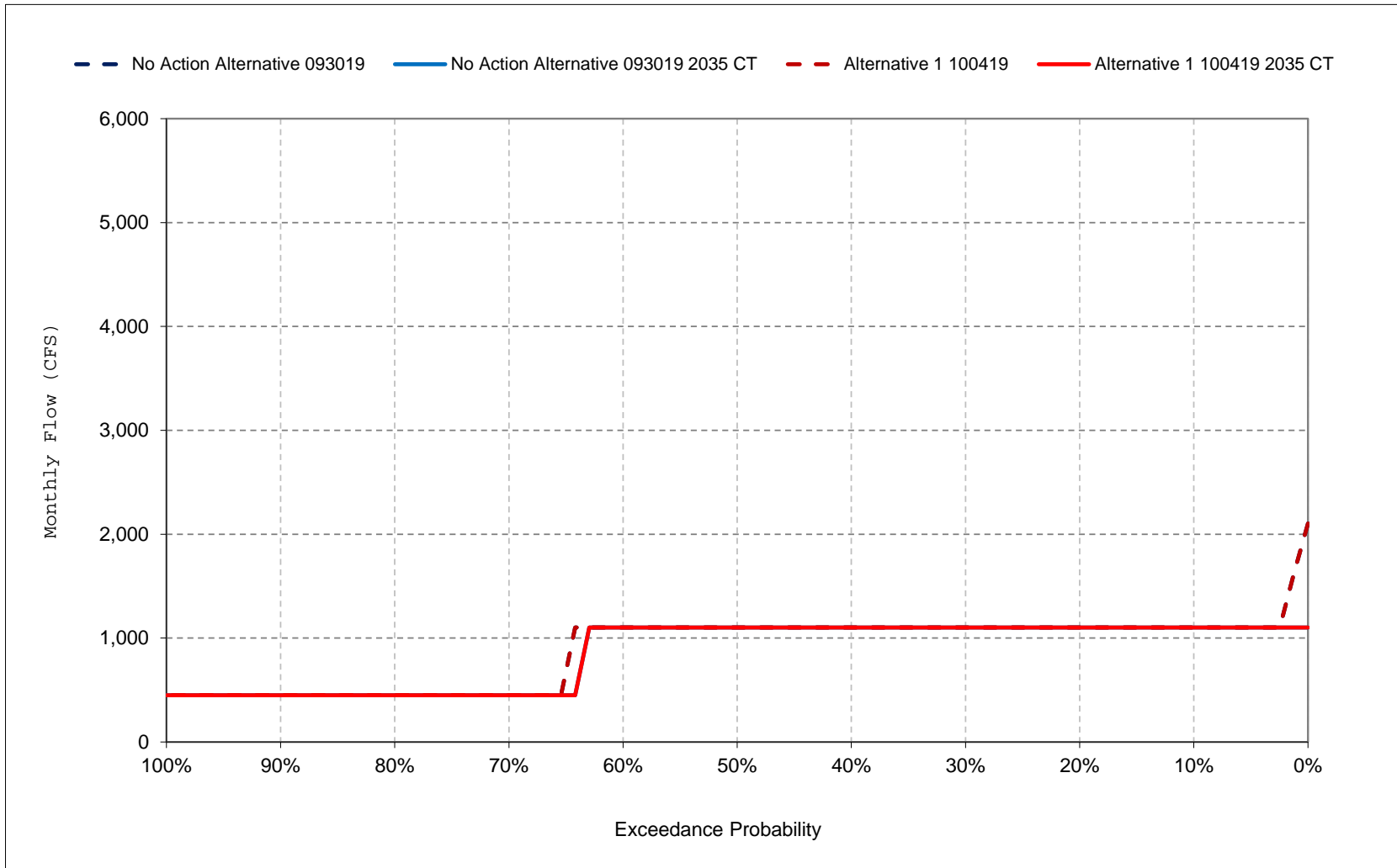
Figure 12-15. Trinity River Flow below Lewiston, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

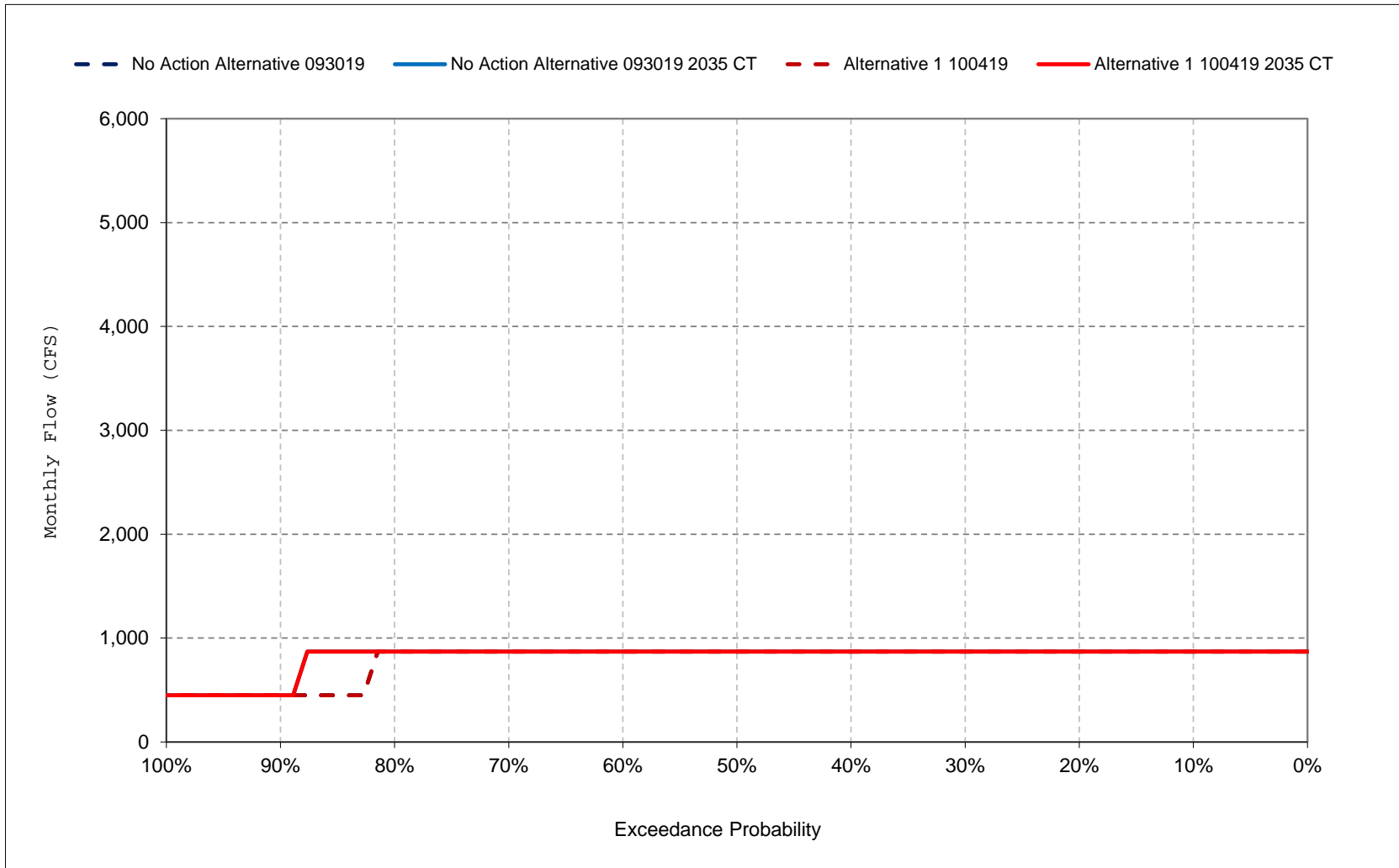
Figure 12-16. Trinity River Flow below Lewiston, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

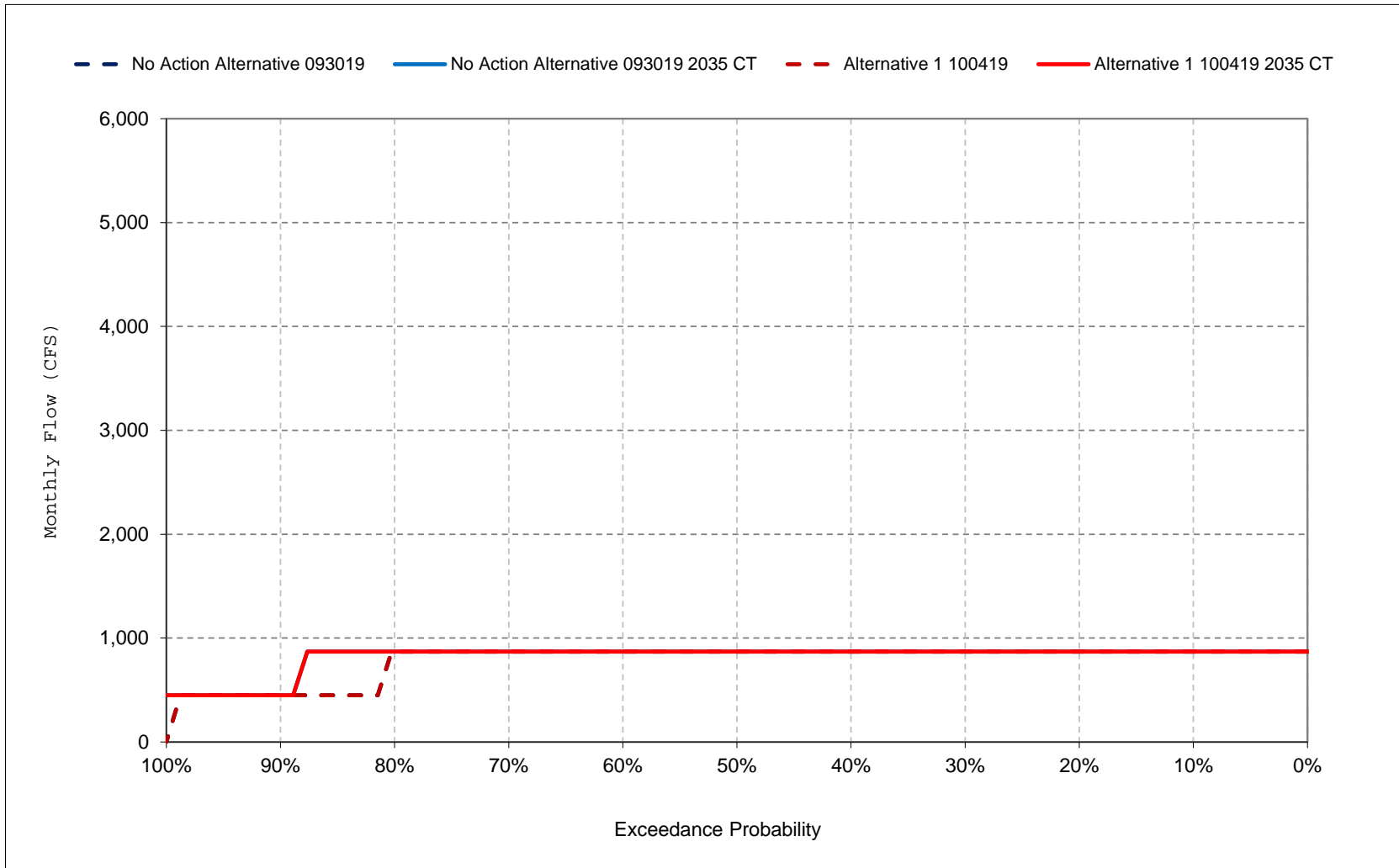
Figure 12-17. Trinity River Flow below Lewiston, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 12-18. Trinity River Flow below Lewiston, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-1. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	188	190	225	207	194	191	265	181	86	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	249	207	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	141	154	167	167	167	167	214	111	90	85	133

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	150	150	150	155	200	200	200	237	318	150	150	150
Long Term												
Full Simulation Period ^d	194	194	194	229	319	195	197	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	421	192	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	378	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	200	200	200	277	318	150	150	150
Critical (15%)	158	158	158	179	179	179	179	244	318	150	150	150

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	180	0	0	0	118	65	65	0
20%	0	0	0	0	180	0	0	0	118	65	65	0
30%	0	0	0	0	180	0	0	0	118	65	65	0
40%	0	0	0	0	180	0	0	0	118	65	65	0
50%	0	0	0	0	174	0	0	0	118	65	65	0
60%	0	0	0	0	174	0	0	0	118	65	65	0
70%	0	0	0	0	0	0	0	0	118	65	65	0
80%	0	0	0	0	0	0	0	0	168	65	65	0
90%	0	0	0	5	50	50	50	0	168	65	65	0
Long Term												
Full Simulation Period ^d	7	6	4	4	112	1	5	7	137	64	65	2
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	172	-14	0	0	118	65	65	0
Above Normal (16%)	0	0	0	0	182	4	4	0	118	65	65	0
Below Normal (13%)	5	5	5	5	182	5	5	4	127	65	65	0
Dry (24%)	13	13	13	5	10	10	10	10	136	65	65	0
Critical (15%)	25	18	4	13	13	13	13	30	207	60	65	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 14-2. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	187	189	245	202	209	191	265	181	85	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	372	233	256	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	138	152	164	164	164	164	214	111	85	85	133

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	155	155	155	200	200	200	200	241	318	150	150	150
Long Term												
Full Simulation Period ^d	195	195	195	243	320	210	198	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	350	405	238	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	345	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	236	200	200	277	318	150	150	150
Critical (15%)	163	163	163	183	188	188	188	247	318	150	150	150

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	180	0	0	0	118	65	65	0
20%	0	0	0	0	180	0	0	0	118	65	65	0
30%	0	0	0	0	180	0	0	0	118	65	65	0
40%	0	0	0	0	180	0	0	0	118	65	65	0
50%	0	0	0	0	174	0	0	0	118	65	65	0
60%	0	0	0	0	174	0	0	0	118	65	65	0
70%	0	0	0	0	0	0	0	0	118	65	65	0
80%	0	0	0	0	0	0	0	0	168	65	65	0
90%	5	5	5	50	50	50	50	4	168	65	65	0
Long Term												
Full Simulation Period ^d	8	7	5	-2	118	2	7	8	137	65	65	2
Water Year Types^{b,c}												
Wet (32%)	0	0	0	-21	172	-17	0	0	118	65	65	0
Above Normal (16%)	0	0	0	0	182	4	4	0	118	65	65	0
Below Normal (13%)	5	5	5	5	150	5	5	4	127	65	65	0
Dry (24%)	13	13	13	5	46	10	10	10	136	65	65	0
Critical (15%)	29	24	11	19	23	23	23	33	207	65	65	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-3. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	188	190	225	207	194	191	265	181	86	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	249	207	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	141	154	167	167	167	167	214	111	90	85	133

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	200	200	200	277	200	85	85	150
20%	200	200	200	200	200	200	200	277	200	85	85	150
30%	200	200	200	200	200	200	200	277	200	85	85	150
40%	200	200	200	200	200	200	200	277	200	85	85	150
50%	200	200	200	200	200	200	200	277	200	85	85	150
60%	200	200	200	200	200	200	200	277	200	85	85	150
70%	200	200	200	200	200	200	200	277	200	85	85	150
80%	200	200	200	200	200	200	200	277	150	85	85	150
90%	150	150	150	150	150	150	150	237	150	85	85	150
Long Term												
Full Simulation Period ^d	187	187	189	245	202	209	191	265	181	85	85	148
Water Year Types^{b,c}												
Wet (32%)	200	200	200	372	233	256	200	277	200	85	85	150
Above Normal (16%)	200	200	200	192	196	196	196	277	200	85	85	150
Below Normal (13%)	195	195	195	195	195	195	195	274	191	85	85	150
Dry (24%)	188	188	188	190	190	190	190	267	183	85	85	150
Critical (15%)	133	138	152	164	164	164	164	214	111	85	85	133

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	19	-5	15	0	0	0	-1	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	63	-15	49	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	-3	-3	-3	-3	-3	-3	0	0	-5	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 14-4. Clear Creek below Whiskeytown Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	150	150	150	155	200	200	200	237	318	150	150	150
Long Term												
Full Simulation Period ^d	194	194	194	229	319	195	197	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	309	421	192	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	378	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	200	200	200	277	318	150	150	150
Critical (15%)	158	158	158	179	179	179	179	244	318	150	150	150

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	200	200	200	200	380	200	200	277	318	150	150	150
20%	200	200	200	200	380	200	200	277	318	150	150	150
30%	200	200	200	200	380	200	200	277	318	150	150	150
40%	200	200	200	200	380	200	200	277	318	150	150	150
50%	200	200	200	200	374	200	200	277	318	150	150	150
60%	200	200	200	200	374	200	200	277	318	150	150	150
70%	200	200	200	200	200	200	200	277	318	150	150	150
80%	200	200	200	200	200	200	200	277	318	150	150	150
90%	155	155	155	200	200	200	200	241	318	150	150	150
Long Term												
Full Simulation Period ^d	195	195	195	243	320	210	198	273	318	150	150	150
Water Year Types^{b,c}												
Wet (32%)	200	200	200	350	405	238	200	277	318	150	150	150
Above Normal (16%)	200	200	200	192	378	200	200	277	318	150	150	150
Below Normal (13%)	200	200	200	200	345	200	200	277	318	150	150	150
Dry (24%)	200	200	200	195	236	200	200	277	318	150	150	150
Critical (15%)	163	163	163	183	188	188	188	247	318	150	150	150

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	5	5	5	45	0	0	0	4	0	0	0	0
Long Term												
Full Simulation Period ^d	1	1	1	14	1	16	1	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	41	-15	46	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	-33	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	36	0	0	0	0	0	0	0
Critical (15%)	4	4	4	4	8	8	8	3	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

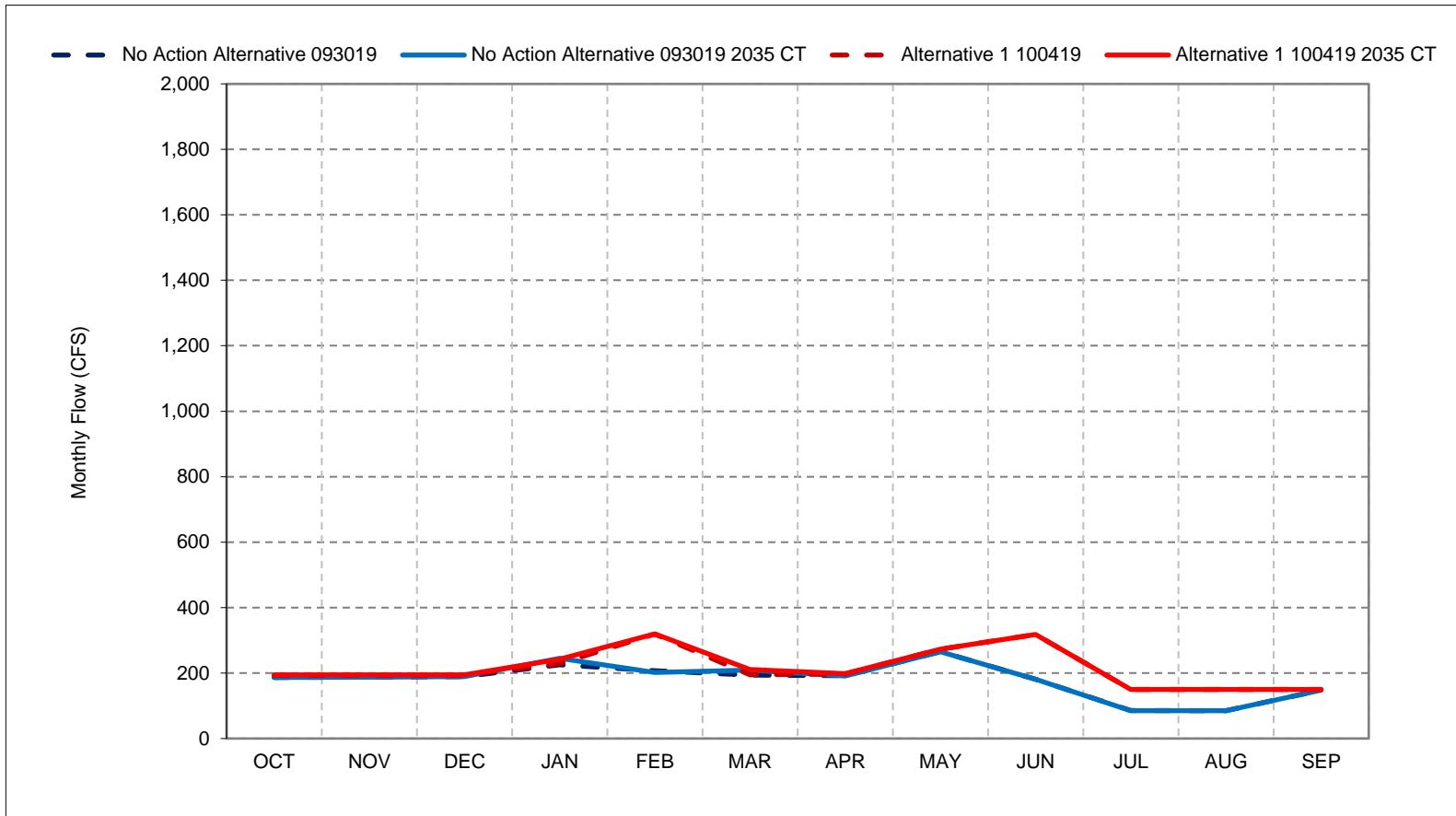
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 14-1. Clear Creek below Whiskeytown Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

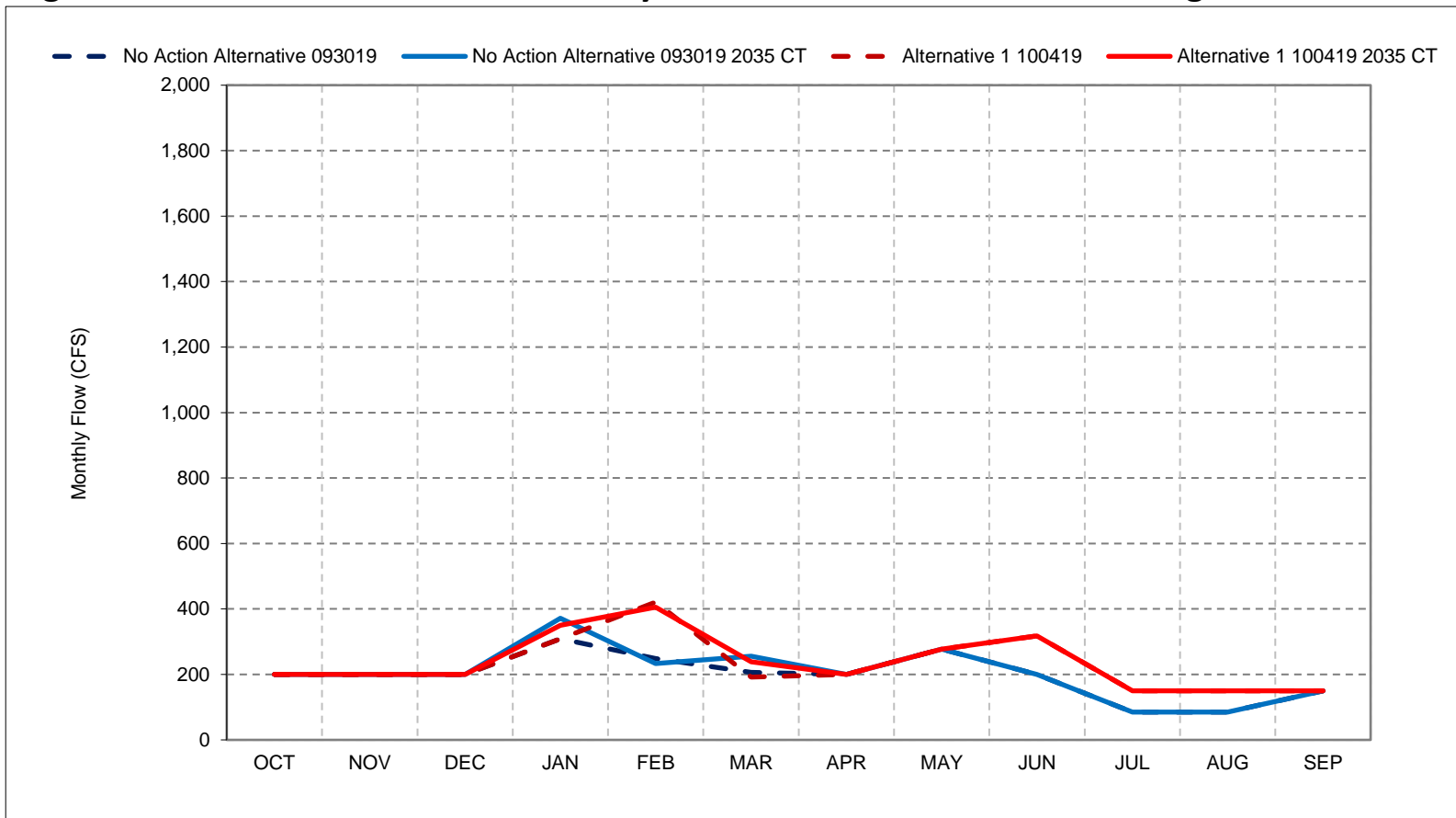
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-2. Clear Creek below Whiskeytown Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

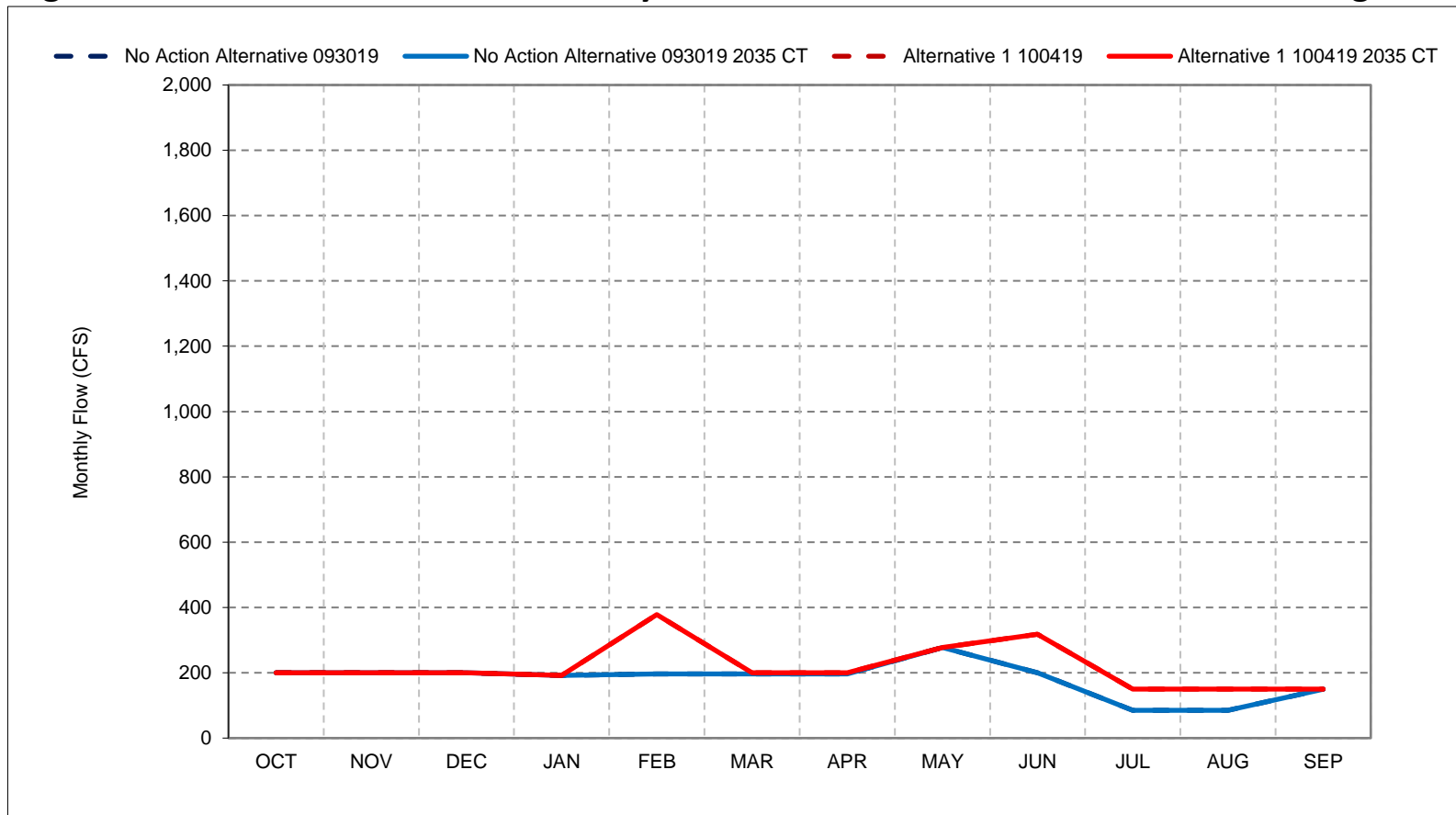
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-3. Clear Creek below Whiskeytown Dam Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

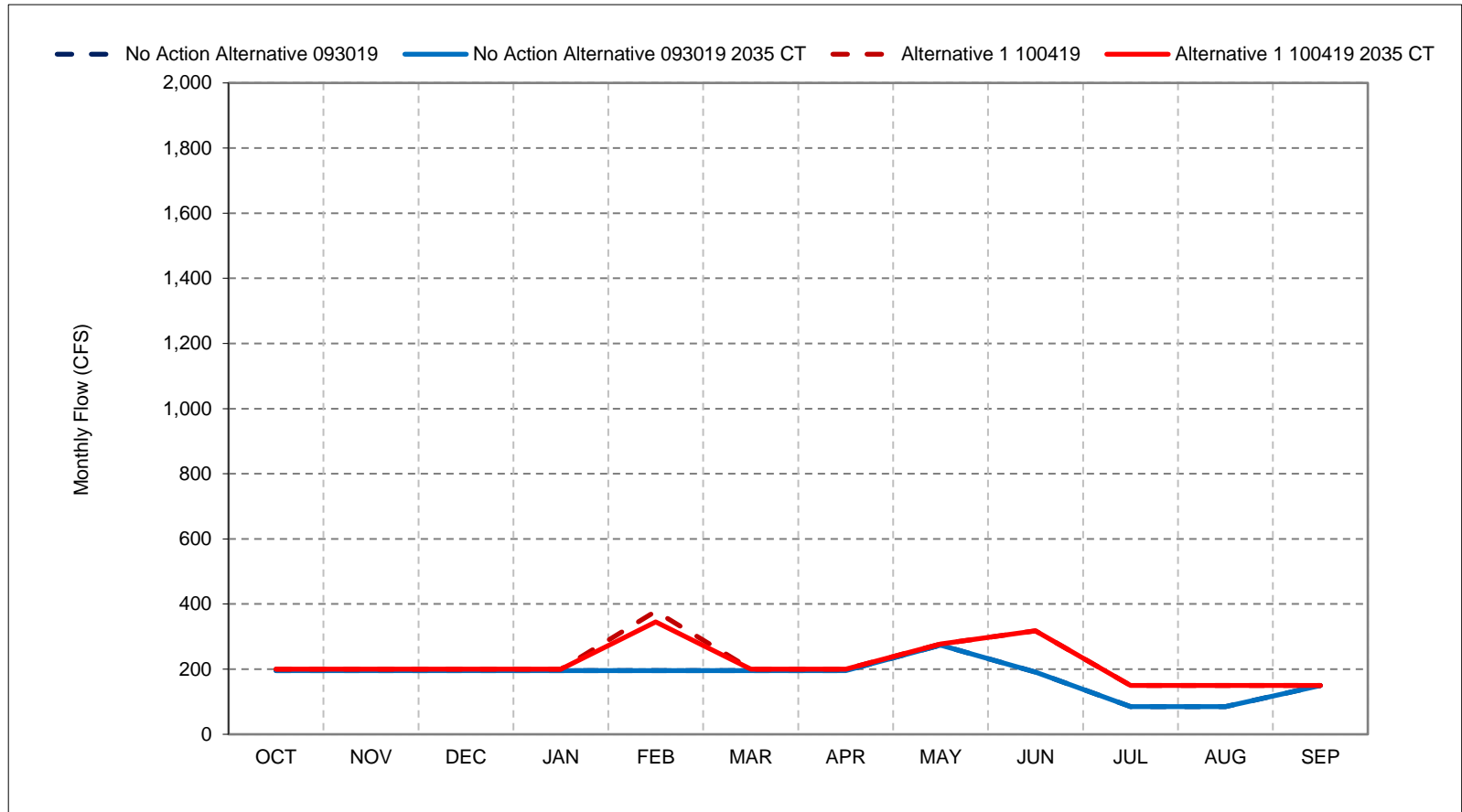
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-4. Clear Creek below Whiskeytown Dam Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

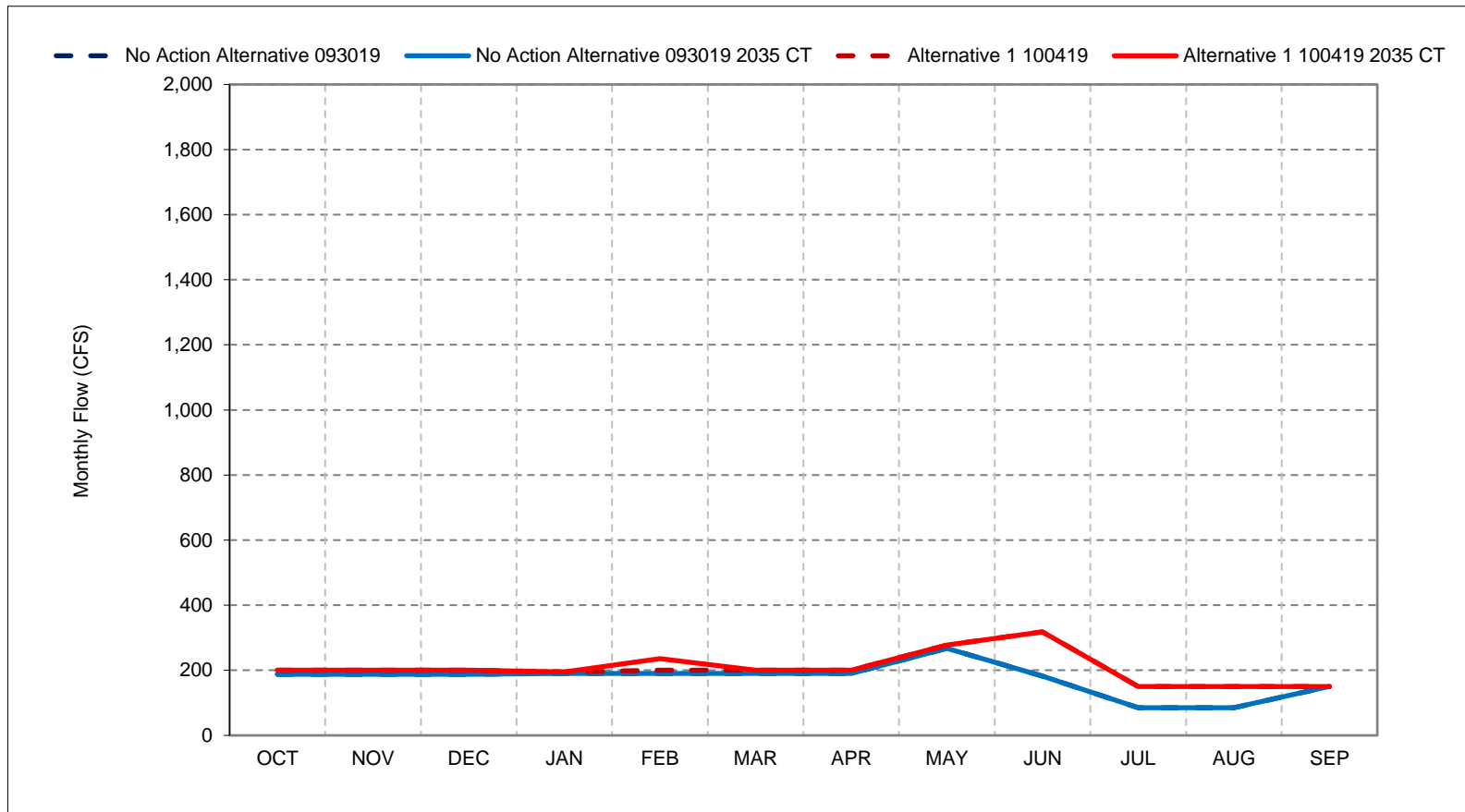
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-5. Clear Creek below Whiskeytown Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

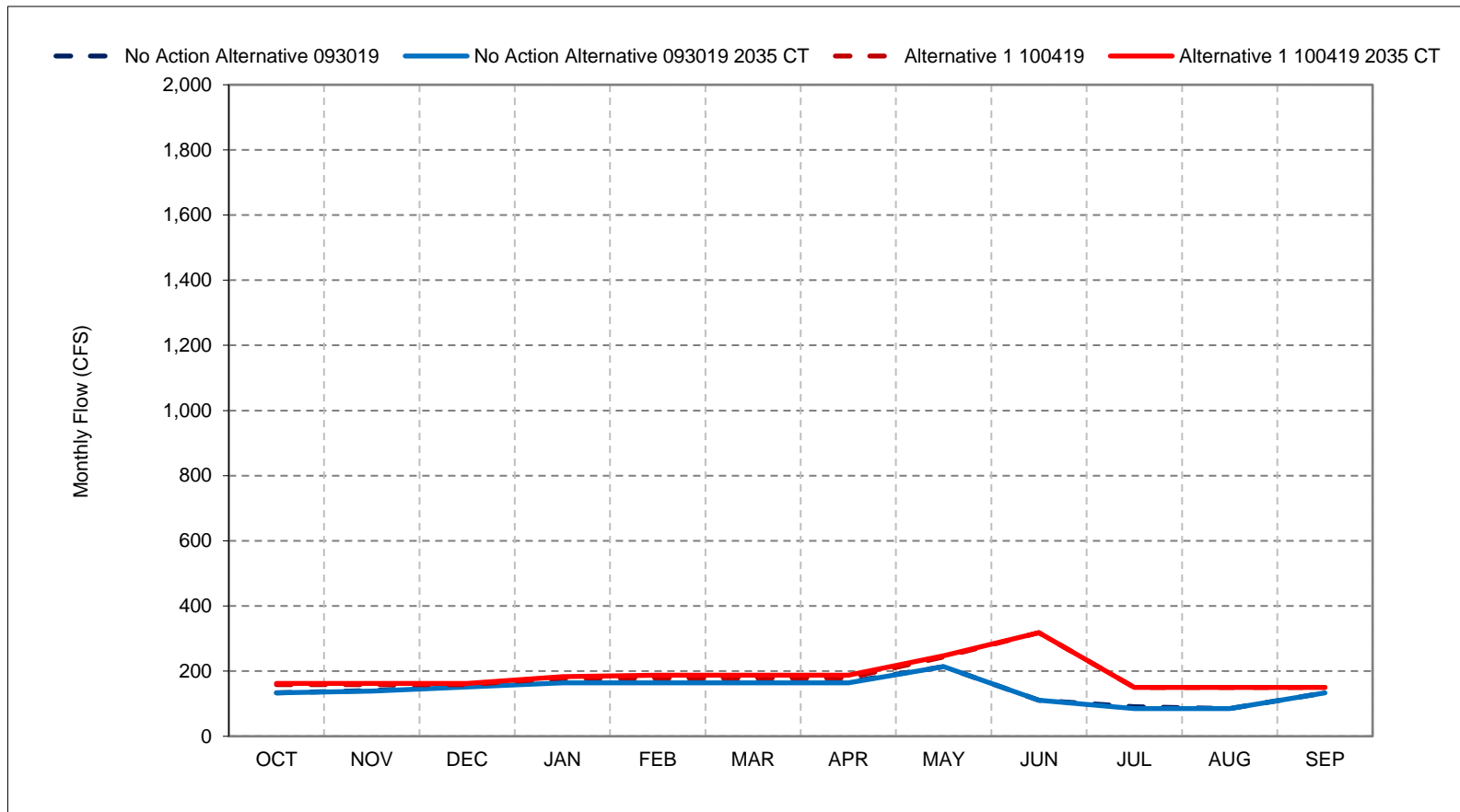
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 14-6. Clear Creek below Whiskeytown Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

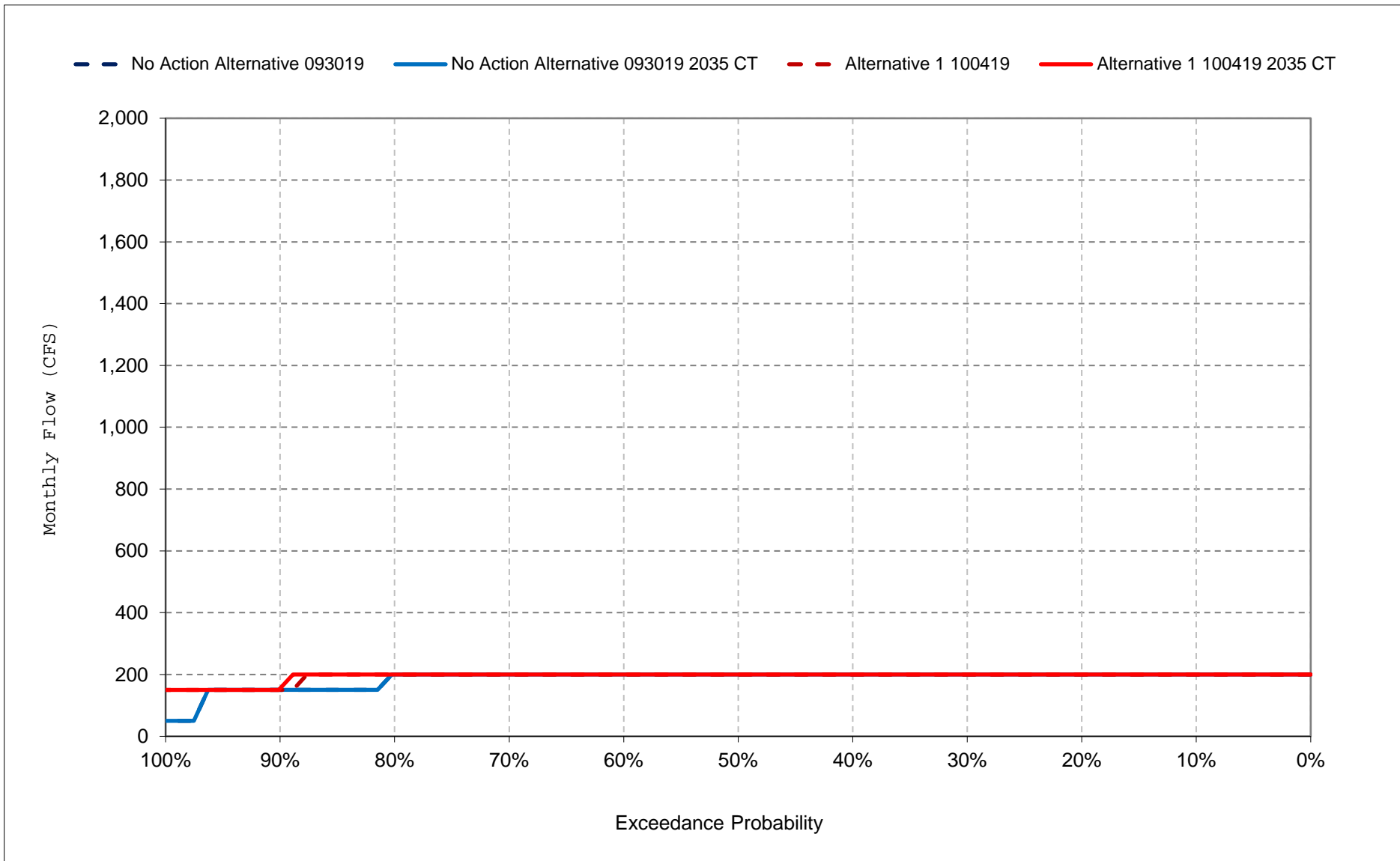
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

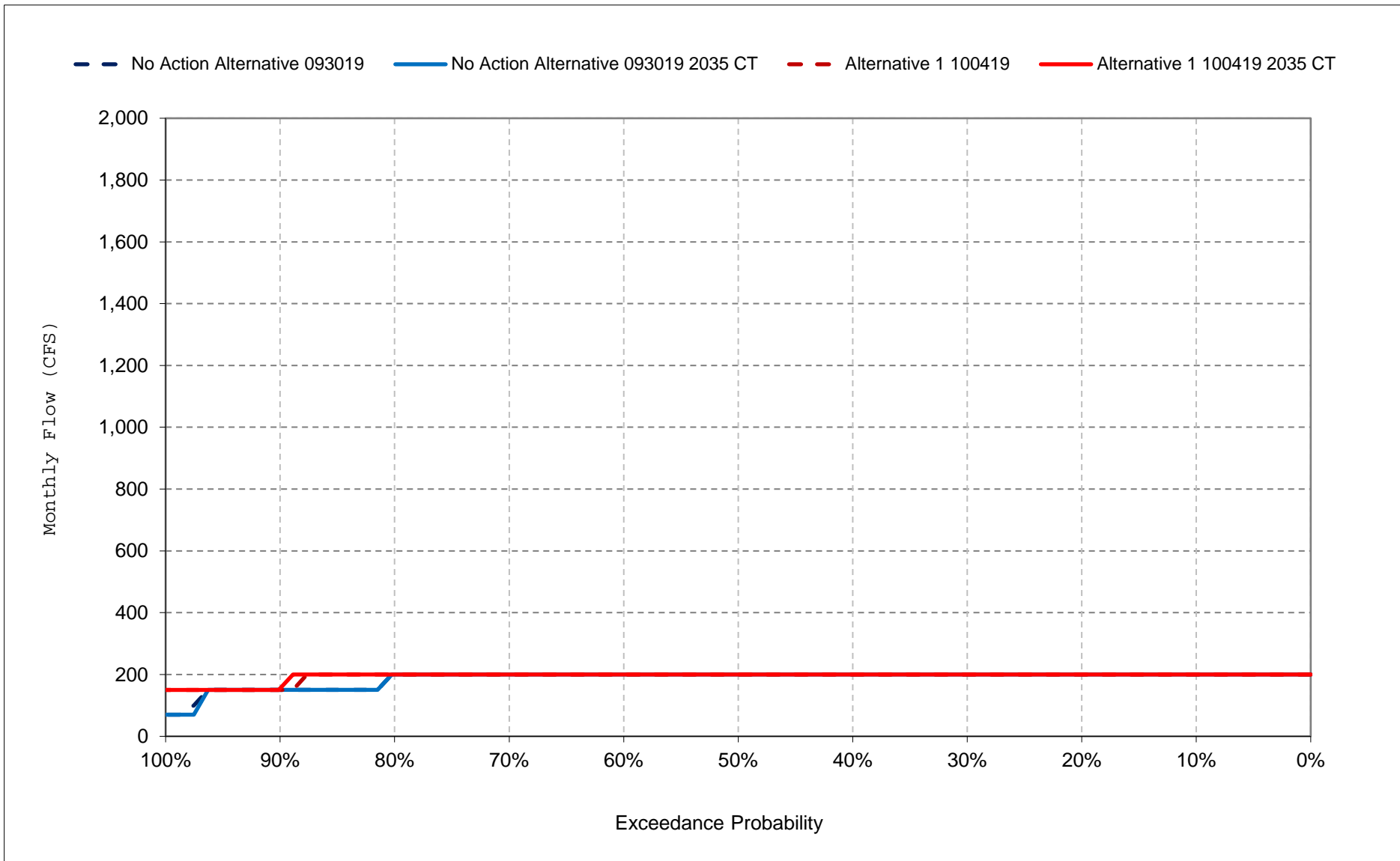
Figure 14-7. Clear Creek below Whiskeytown Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

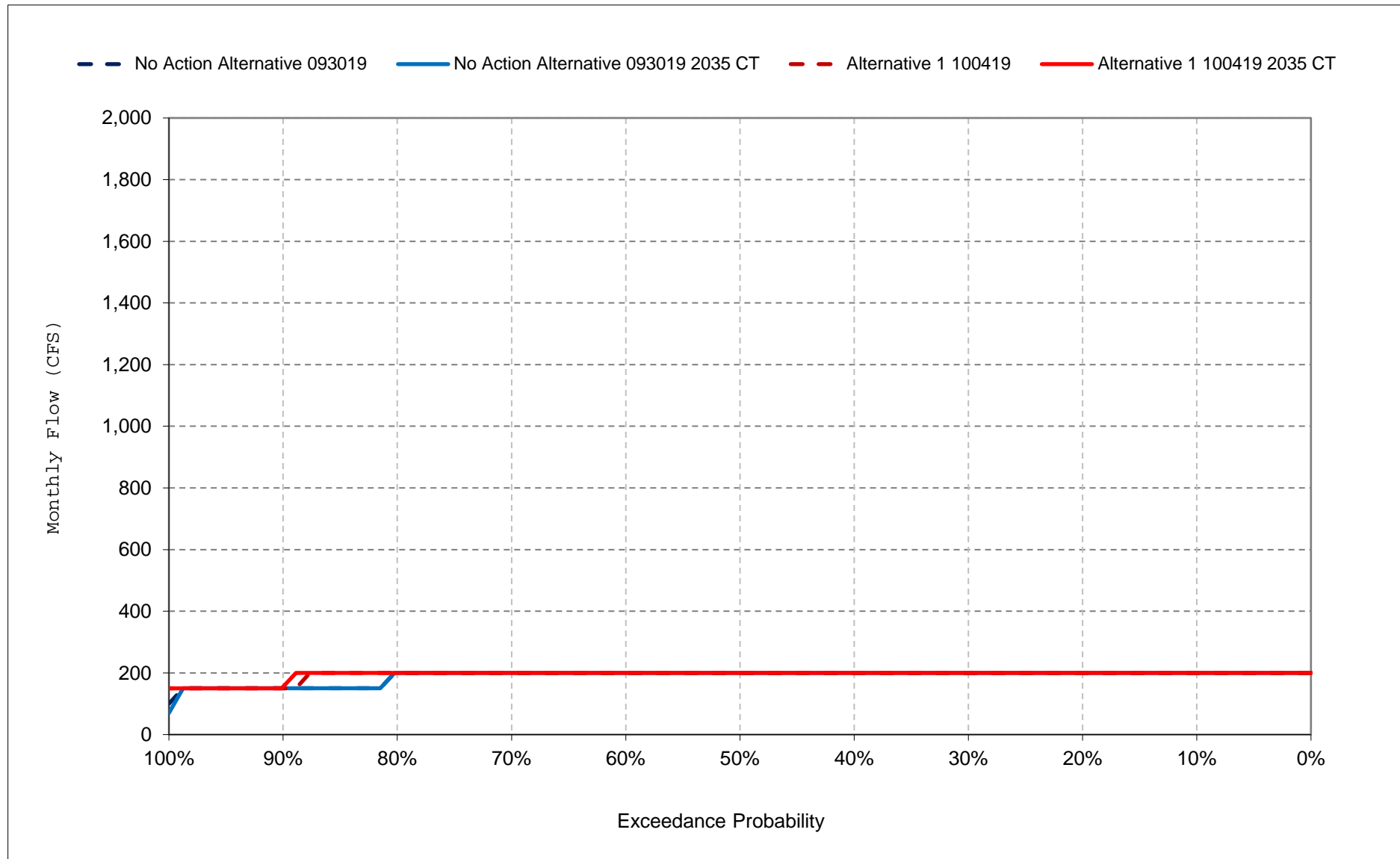
Figure 14-8. Clear Creek below Whiskeytown Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

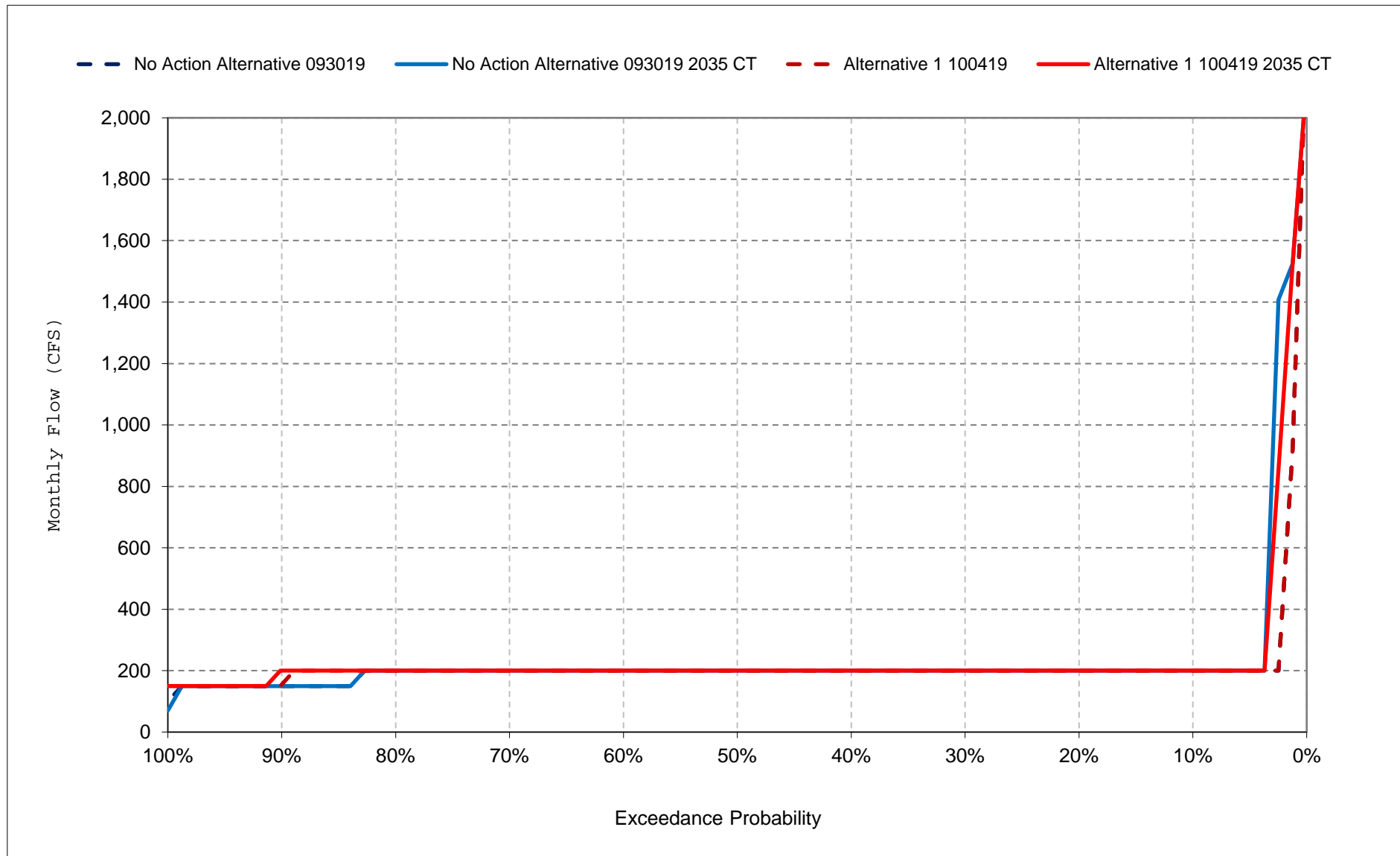
Figure 14-9. Clear Creek below Whiskeytown Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

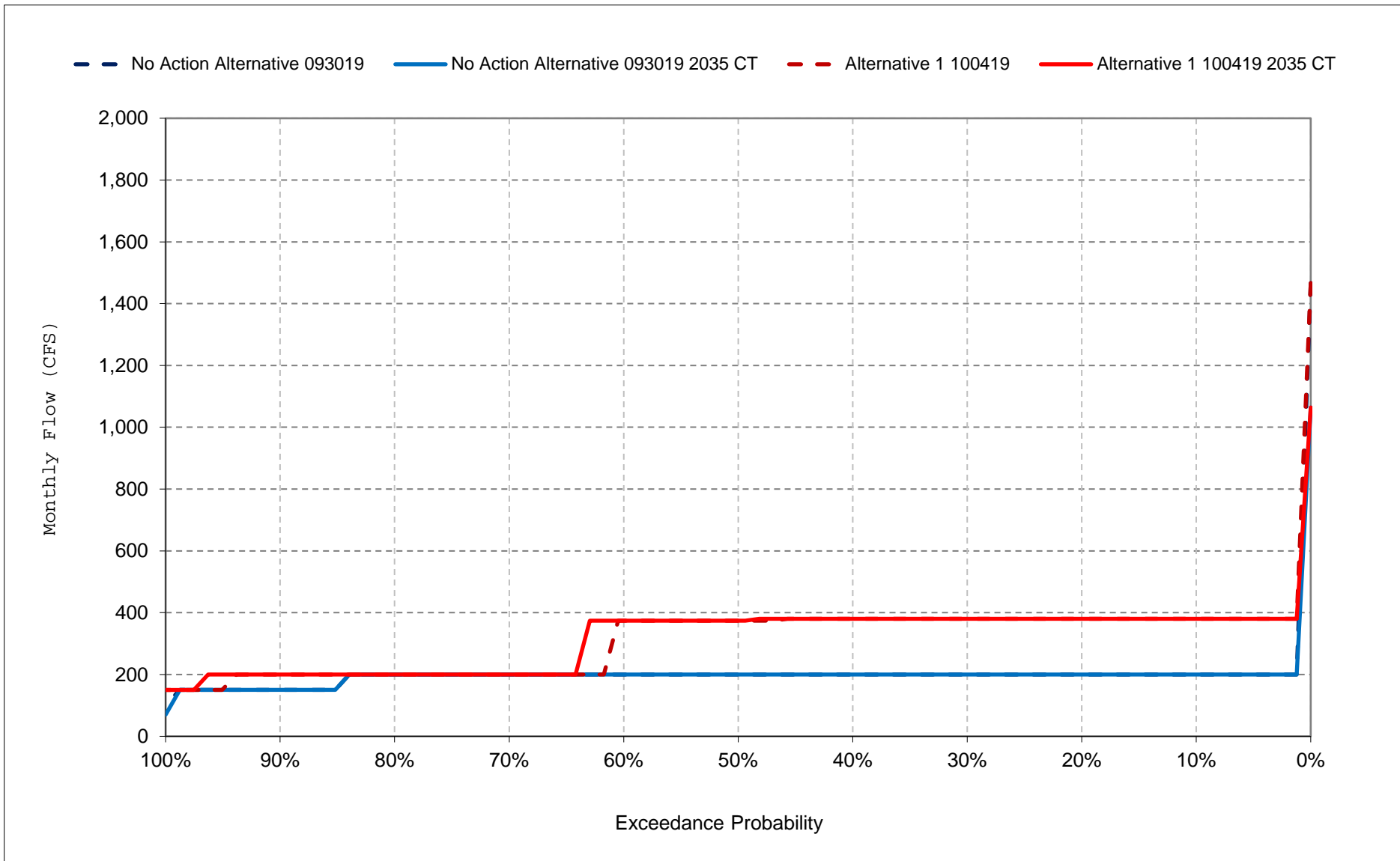
Figure 14-10. Clear Creek below Whiskeytown Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

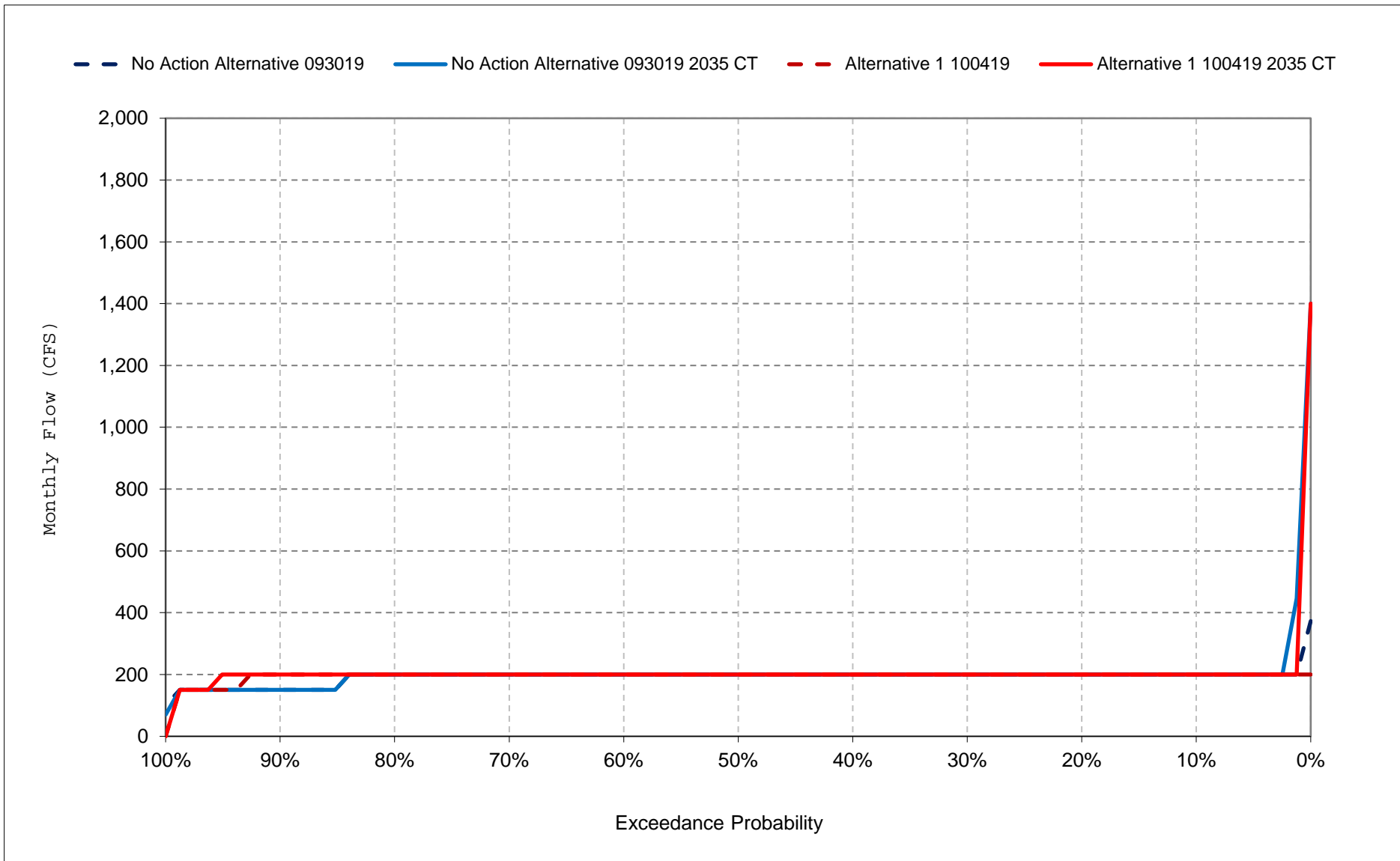
Figure 14-11. Clear Creek below Whiskeytown Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

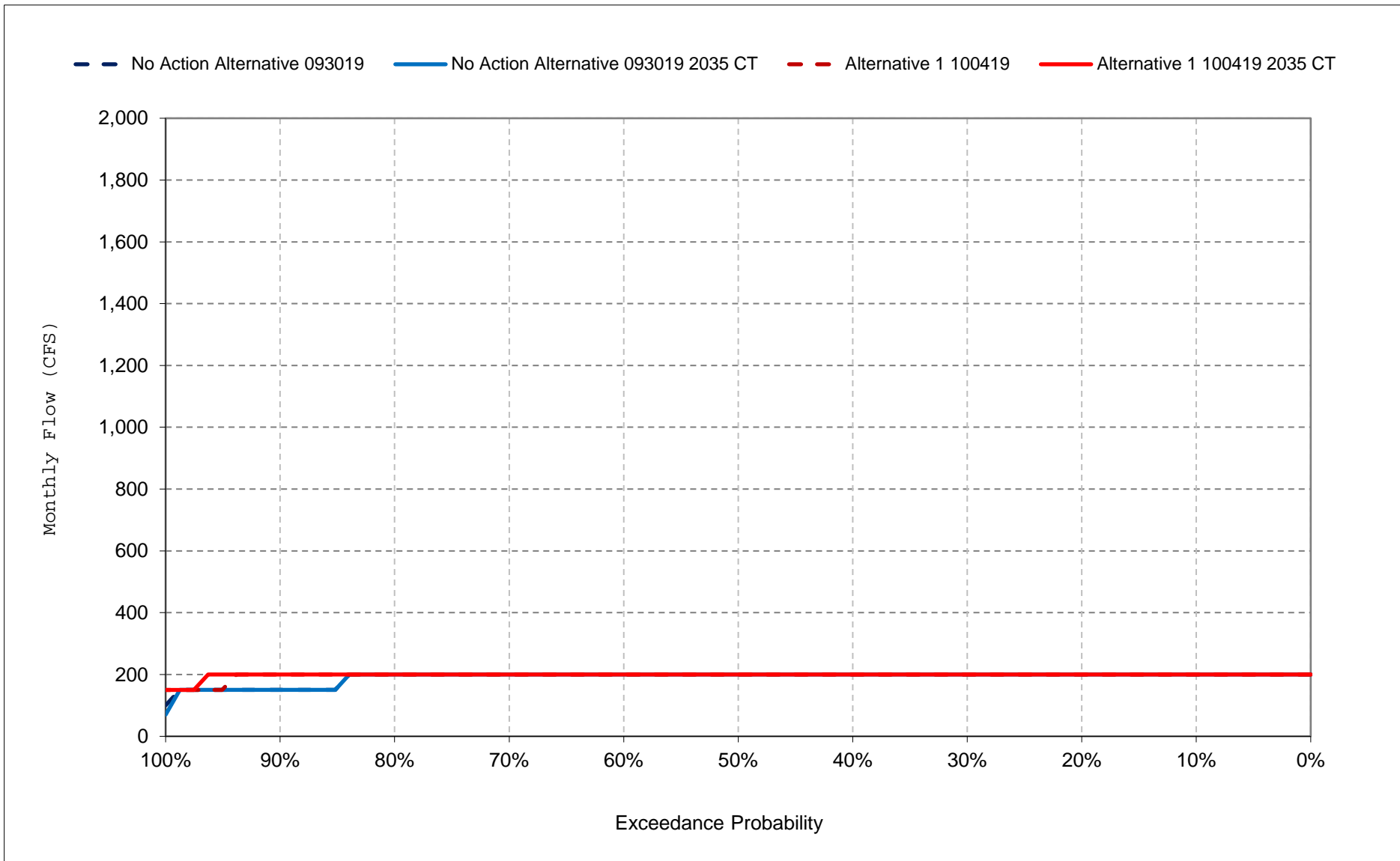
Figure 14-12. Clear Creek below Whiskeytown Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

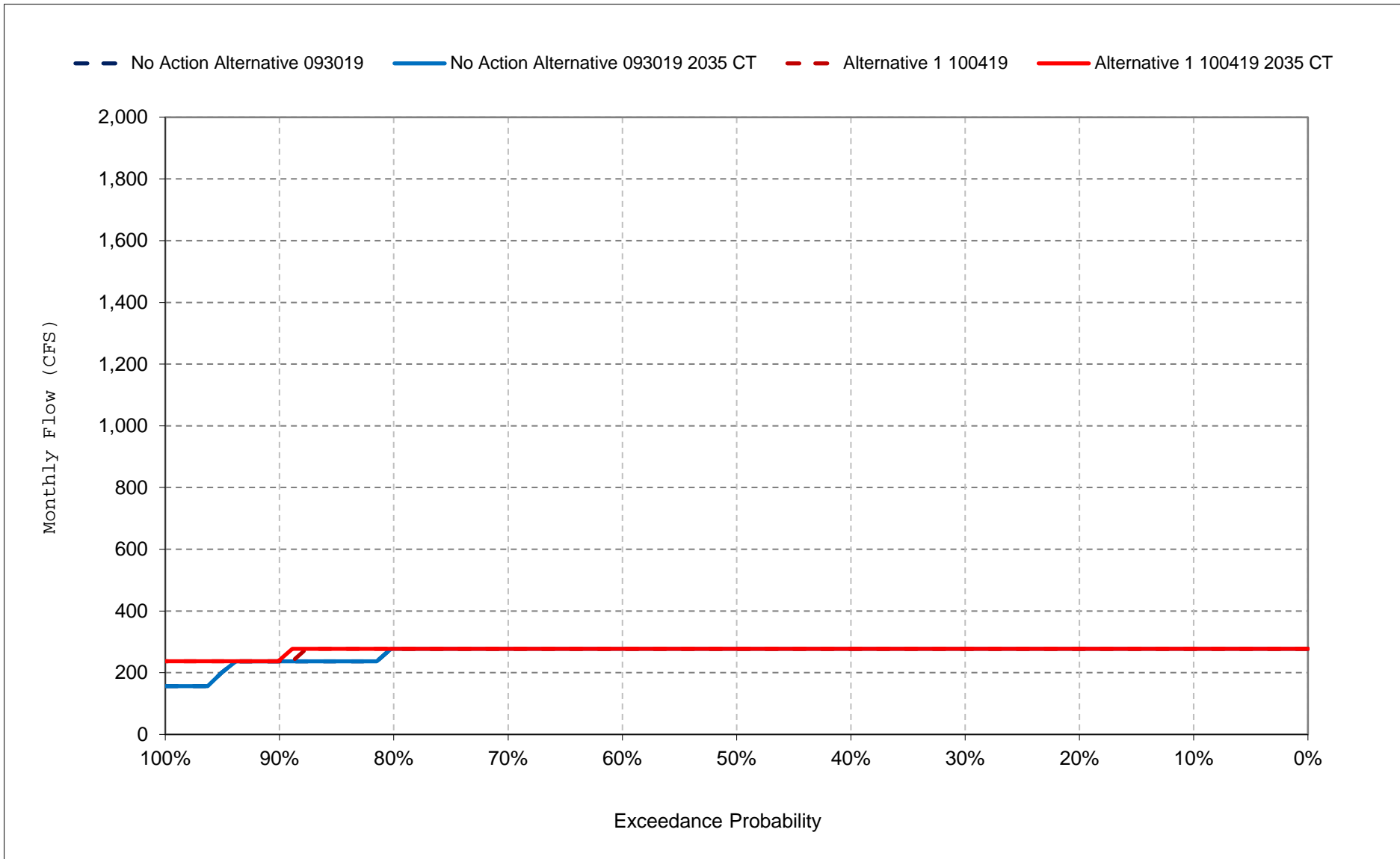
Figure 14-13. Clear Creek below Whiskeytown Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

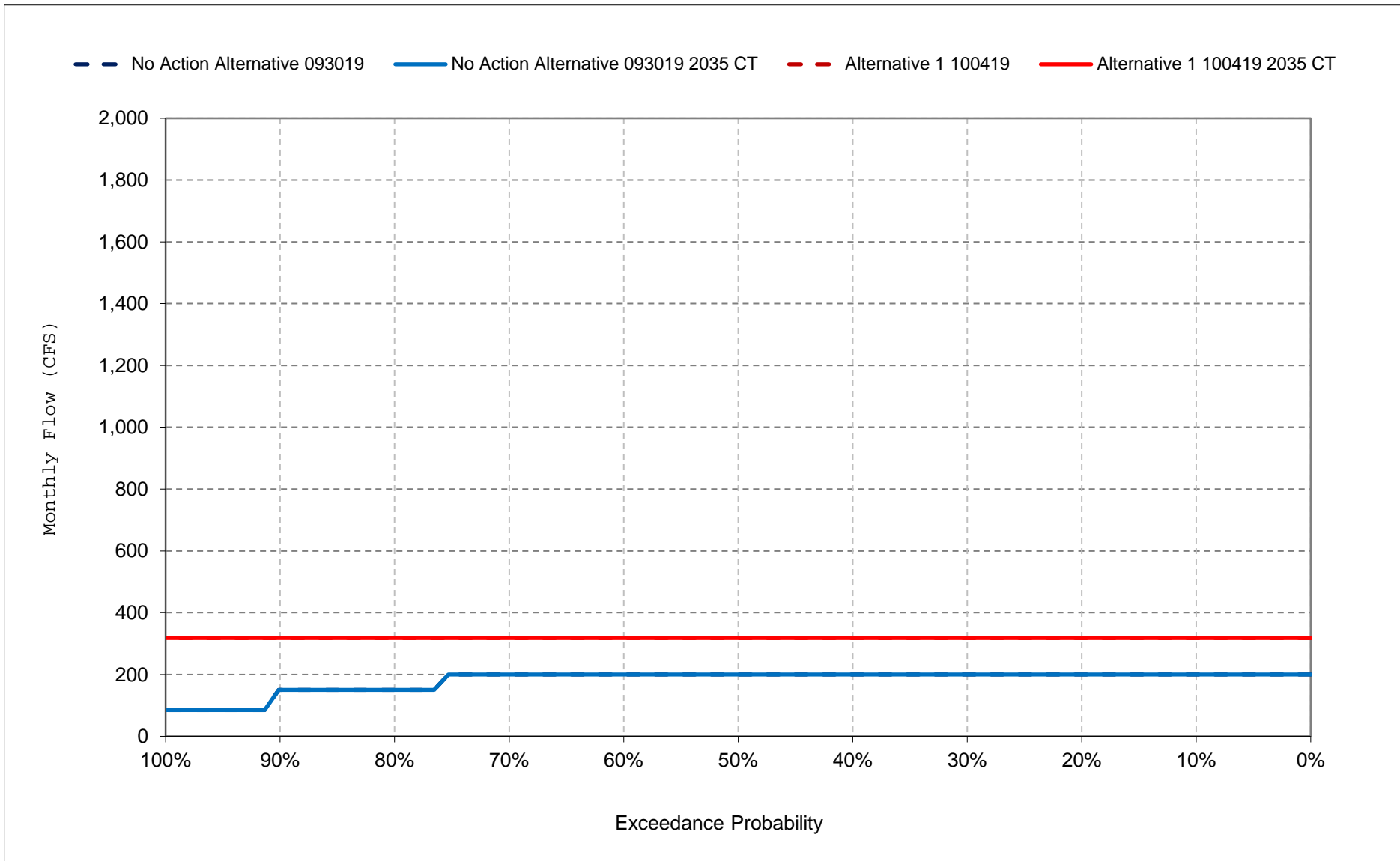
Figure 14-14. Clear Creek below Whiskeytown Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

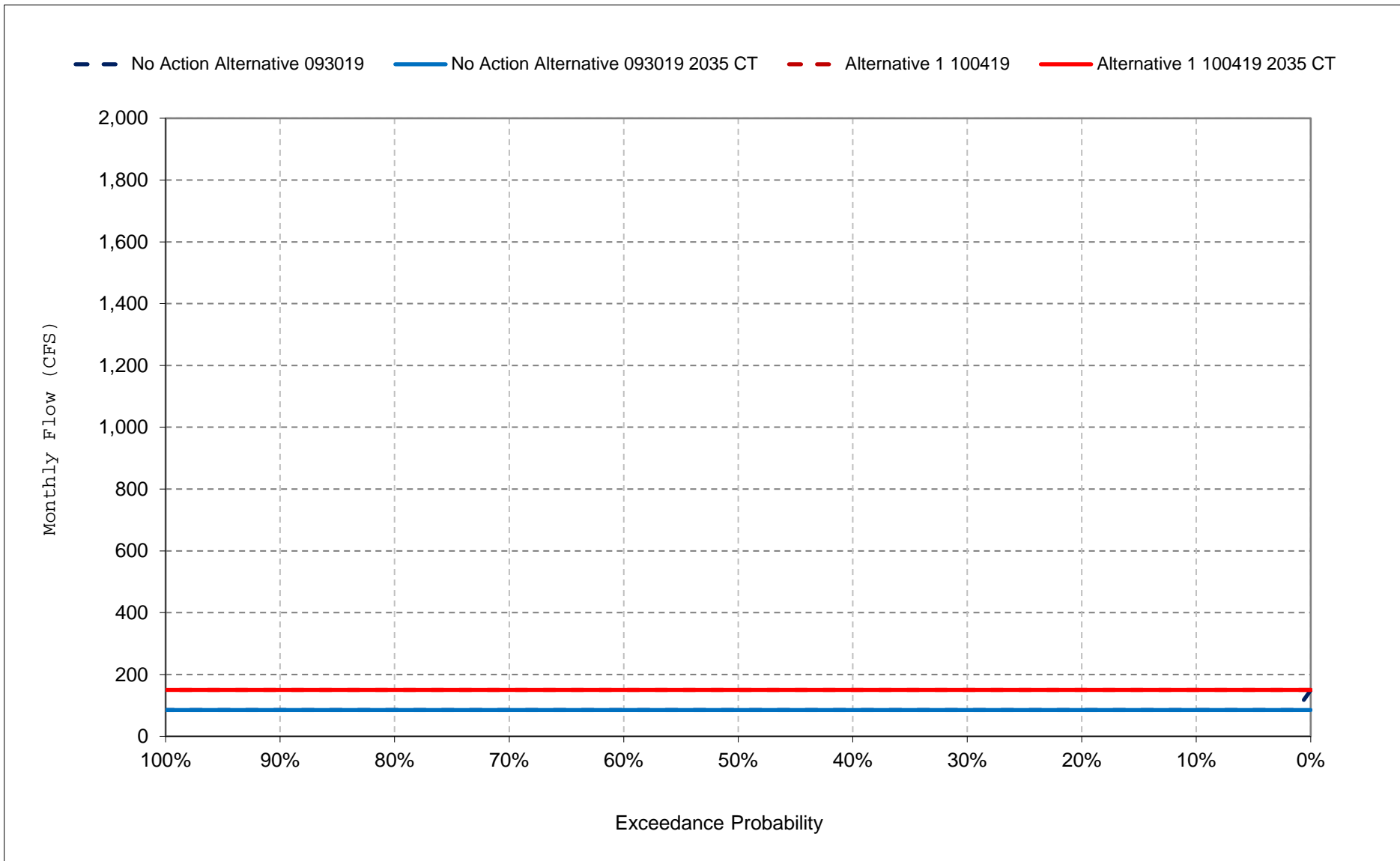
Figure 14-15. Clear Creek below Whiskeytown Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

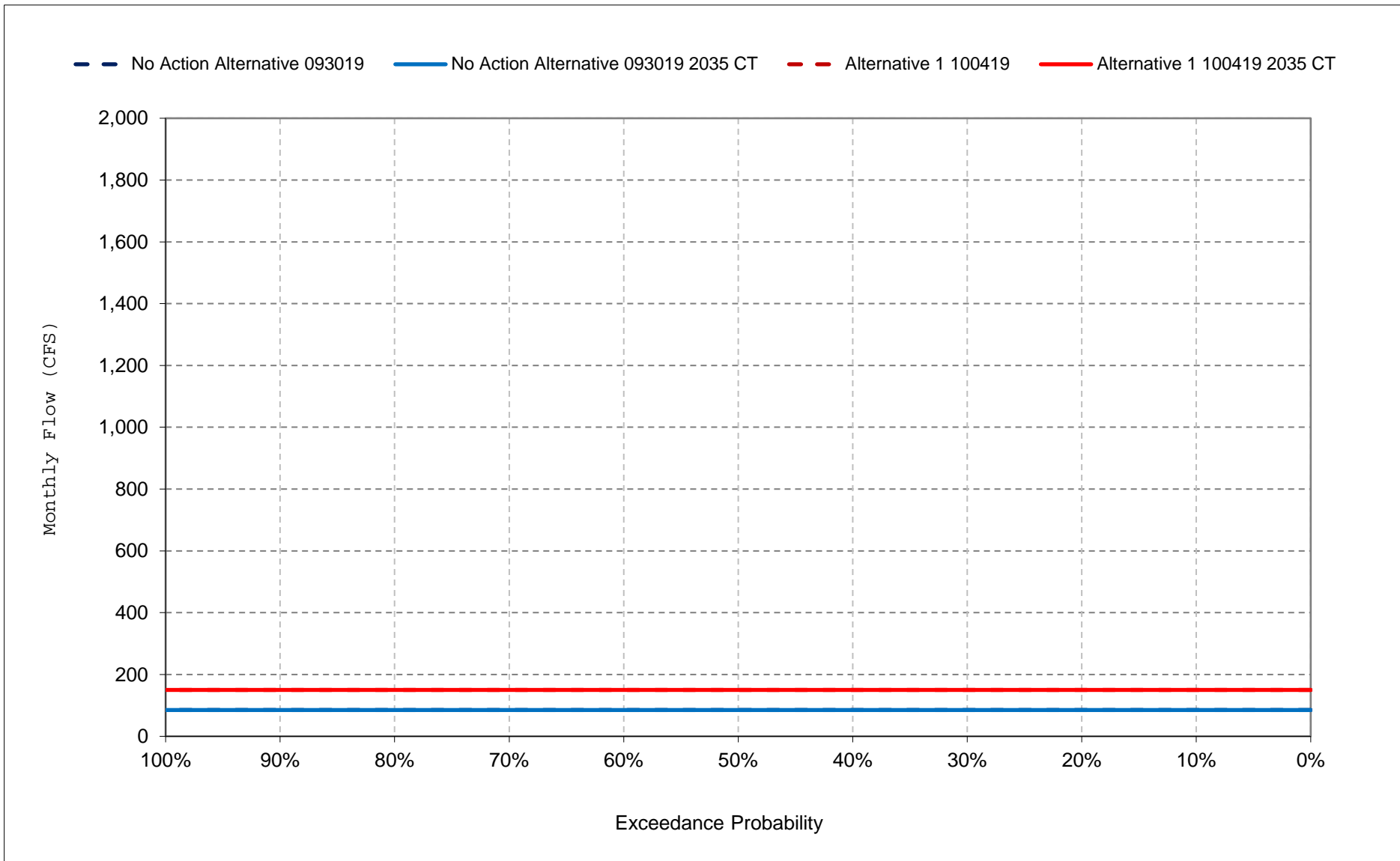
Figure 14-16. Clear Creek below Whiskeytown Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

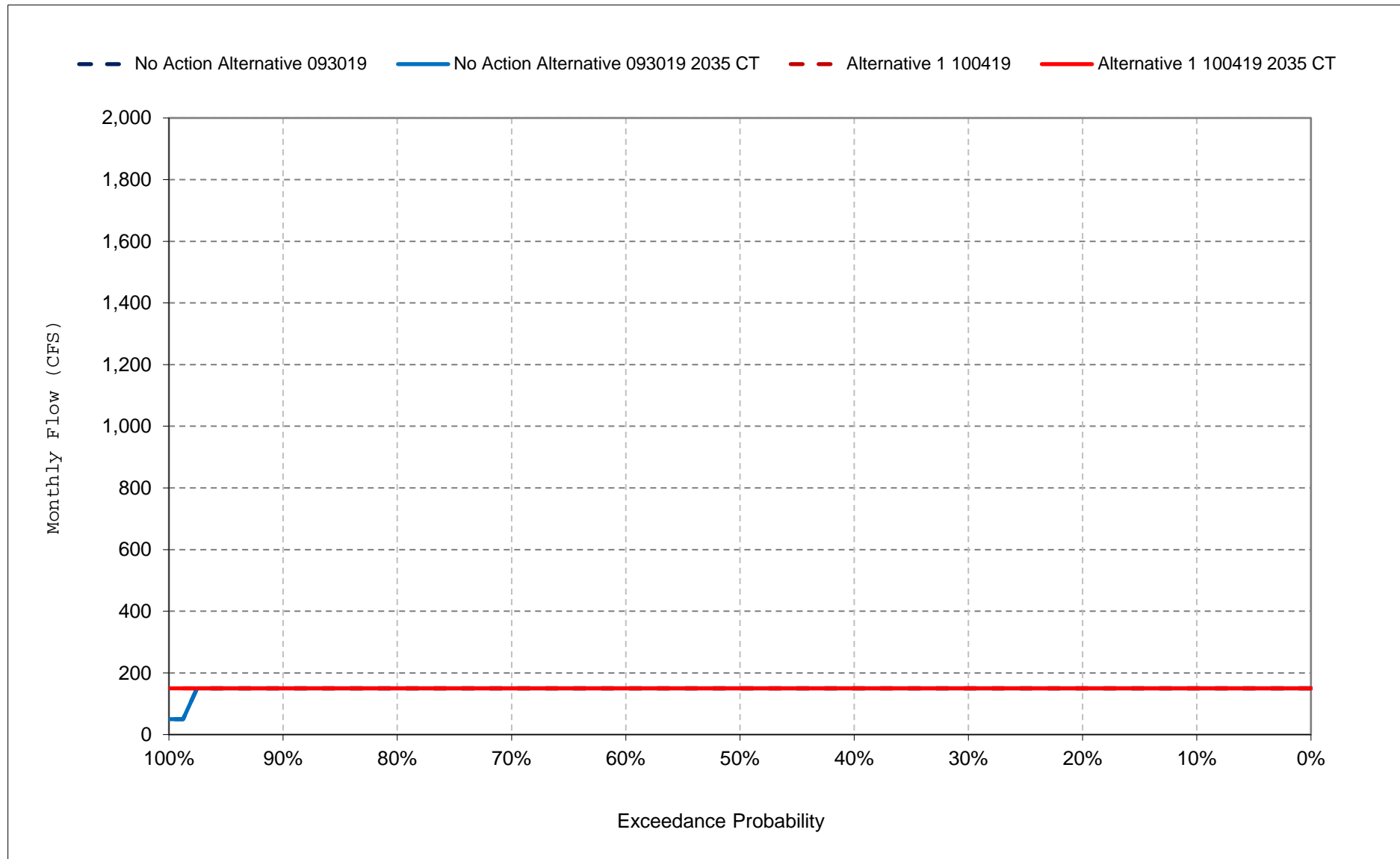
Figure 14-17. Clear Creek below Whiskeytown Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 14-18. Clear Creek below Whiskeytown Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-1. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,260	11,896	16,906	20,957	30,533	18,502	10,385	10,438	13,182	16,000	11,926	15,678
20%	8,276	10,437	9,072	12,166	23,093	12,316	6,774	9,491	11,541	16,000	10,965	13,351
30%	7,485	8,843	5,112	7,729	11,072	7,916	4,490	8,775	10,869	15,672	10,429	11,603
40%	7,015	7,668	4,486	3,592	4,136	4,156	3,719	8,240	9,904	14,278	9,701	9,546
50%	6,280	6,332	3,582	3,250	3,250	3,250	3,250	7,634	9,309	13,308	9,503	6,414
60%	5,921	5,790	3,367	3,250	3,250	3,250	3,250	7,150	8,897	12,322	9,171	5,547
70%	5,363	4,486	3,250	3,250	3,250	3,250	3,250	6,656	8,401	11,515	8,718	5,248
80%	4,904	3,602	3,250	3,250	3,250	3,250	3,250	6,014	8,126	10,802	8,221	4,865
90%	4,296	3,250	3,250	3,250	3,250	3,250	3,250	5,117	7,591	9,809	7,609	4,341
Long Term												
Full Simulation Period ^d	6,603	7,231	6,955	8,689	11,017	8,450	5,525	7,799	9,888	13,202	9,640	8,687
Water Year Types ^{b,c}												
Wet (32%)	8,021	9,866	7,441	17,792	19,245	16,127	8,455	8,663	8,971	13,464	10,501	14,061
Above Normal (16%)	7,394	10,104	6,298	7,444	16,207	8,331	5,221	7,926	10,435	15,324	10,549	9,996
Below Normal (13%)	5,839	5,014	7,557	3,328	6,912	3,925	3,731	7,865	10,908	14,379	10,758	5,610
Dry (24%)	5,781	5,160	8,619	3,705	3,511	4,006	3,740	7,034	10,446	12,434	8,521	4,960
Critical (15%)	4,742	3,891	3,287	3,535	3,842	3,499	4,122	7,006	9,418	10,535	7,632	4,657

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,559	9,060	19,004	22,149	30,593	19,078	10,156	10,499	13,807	16,000	11,616	9,092
20%	7,903	7,286	11,909	14,917	21,627	12,718	6,798	9,753	12,418	15,817	10,678	8,132
30%	7,361	6,708	6,656	9,342	12,886	9,001	5,746	9,253	11,759	14,484	10,231	7,408
40%	6,903	5,939	4,989	6,199	6,743	5,632	4,510	8,616	10,594	13,351	9,830	6,168
50%	6,334	5,579	4,428	3,619	3,970	4,470	3,691	8,267	9,902	12,438	9,620	5,693
60%	5,793	5,223	3,871	3,250	3,250	3,250	3,250	7,735	9,069	11,778	9,083	5,167
70%	5,411	4,825	3,250	3,250	3,250	3,250	3,250	7,003	8,534	11,393	8,722	4,970
80%	5,024	4,304	3,250	3,250	3,250	3,250	3,250	6,161	8,116	10,146	8,071	4,490
90%	4,332	3,498	3,250	3,250	3,250	3,250	3,250	5,422	7,665	9,601	7,598	4,224
Long Term												
Full Simulation Period ^d	6,412	6,261	7,807	9,378	11,457	8,860	5,702	8,122	10,305	12,822	9,551	6,332
Water Year Types ^{b,c}												
Wet (32%)	7,691	6,914	9,421	18,493	19,566	16,396	8,634	8,587	9,103	13,506	10,625	8,278
Above Normal (16%)	6,891	8,278	7,133	8,569	17,409	9,405	5,402	8,276	10,918	15,142	10,559	7,311
Below Normal (13%)	5,846	5,387	7,730	4,503	8,026	4,794	4,165	8,629	12,250	13,871	10,015	5,250
Dry (24%)	5,793	5,707	8,808	3,908	3,633	4,053	3,869	7,739	10,949	11,581	8,538	4,809
Critical (15%)	4,673	4,385	3,445	4,093	3,628	3,677	4,136	7,125	9,385	9,934	7,396	4,583

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-701	-2,836	2,098	1,192	60	576	-229	60	625	0	-310	-6,587
20%	-373	-3,151	2,837	2,751	-1,466	402	24	262	876	-183	-287	-5,219
30%	-124	-2,134	1,544	1,613	1,814	1,085	1,256	478	890	-1,188	-198	-4,195
40%	-111	-1,729	503	2,607	2,607	1,476	792	376	690	-928	130	-3,378
50%	54	-753	846	369	720	1,220	441	633	593	-870	117	-721
60%	-127	-567	505	0	0	0	0	584	172	-543	-88	-380
70%	48	339	0	0	0	0	0	347	133	-121	3	-278
80%	120	703	0	0	0	0	0	147	-10	-656	-150	-375
90%	36	248	0	0	0	0	0	306	75	-209	-11	-117
Long Term												
Full Simulation Period ^d	-191	-970	853	689	440	410	177	323	417	-380	-89	-2,355
Water Year Types ^{b,c}												
Wet (32%)	-330	-2,952	1,980	701	321	268	178	-76	132	42	124	-5,783
Above Normal (16%)	-503	-1,826	835	1,125	1,202	1,074	181	350	484	-182	10	-2,685
Below Normal (13%)	7	374	173	1,175	1,115	869	434	764	1,343	-508	-743	-359
Dry (24%)	12	547	190	202	122	47	130	705	503	-852	17	-151
Critical (15%)	-69	494	158	559	-215	178	13	119	-33	-602	-236	-74

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 15-2. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,422	11,642	15,722	22,213	28,482	19,848	11,602	10,370	13,374	16,000	11,443	15,711
20%	8,464	9,645	8,505	11,827	22,006	13,384	7,408	9,306	12,032	16,000	10,904	14,798
30%	7,212	8,279	4,984	8,973	13,171	8,856	5,473	8,876	11,187	15,873	10,171	12,124
40%	6,829	7,011	3,962	3,613	5,042	4,950	4,071	8,522	10,698	14,987	9,757	9,915
50%	6,369	6,075	3,407	3,250	3,250	3,250	3,538	8,147	9,966	13,972	9,471	6,158
60%	6,042	4,712	3,250	3,250	3,250	3,250	3,250	7,858	9,399	13,182	9,123	5,504
70%	5,438	4,148	3,250	3,250	3,250	3,250	3,250	7,024	9,047	12,134	8,682	5,273
80%	5,021	3,390	3,250	3,250	3,250	3,250	3,250	6,330	8,694	11,403	8,271	4,977
90%	4,509	3,250	3,250	3,250	3,250	3,250	3,250	5,876	8,070	9,851	7,789	4,425
Long Term												
Full Simulation Period ^d	6,656	6,698	6,571	8,978	10,975	8,949	6,022	8,148	10,286	13,577	9,592	8,821
Water Year Types ^{b,c}												
Wet (32%)	7,783	9,308	6,937	18,680	18,813	17,028	9,377	8,581	9,282	13,743	10,291	14,017
Above Normal (16%)	7,783	8,819	5,745	7,429	16,100	8,468	5,877	8,440	10,930	15,812	10,546	10,645
Below Normal (13%)	5,678	4,688	7,061	3,284	7,843	4,330	4,508	8,664	11,225	14,908	10,424	5,558
Dry (24%)	5,823	4,697	8,345	3,608	3,725	4,435	3,738	7,493	10,933	13,073	8,664	5,023
Critical (15%)	5,278	3,921	3,266	3,806	3,392	3,720	4,100	7,510	9,825	10,419	7,831	4,910

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,982	8,372	16,927	24,105	29,272	19,860	11,303	11,052	14,358	16,000	11,254	8,101
20%	7,287	7,184	11,109	15,657	22,117	14,245	7,760	10,142	12,820	15,885	10,754	7,346
30%	6,985	6,141	5,987	9,550	13,045	11,099	5,799	9,621	11,954	14,978	10,205	6,549
40%	6,407	5,624	5,000	4,764	7,319	7,054	4,811	9,030	11,507	13,715	9,826	5,765
50%	6,198	5,313	4,522	3,501	4,000	4,470	3,972	8,496	10,690	12,988	9,513	5,276
60%	5,788	4,882	3,657	3,250	3,250	3,250	3,356	8,031	10,035	12,281	9,098	5,020
70%	5,487	4,418	3,250	3,250	3,250	3,250	3,250	7,600	9,263	11,713	8,673	4,786
80%	5,188	4,000	3,250	3,250	3,250	3,250	3,250	7,031	8,613	10,866	8,111	4,507
90%	4,397	3,250	3,250	3,250	3,250	3,250	3,250	5,973	7,789	9,749	7,634	4,123
Long Term												
Full Simulation Period ^d	6,218	5,801	7,598	9,685	11,366	9,579	6,183	8,623	10,805	13,114	9,518	5,891
Water Year Types ^{b,c}												
Wet (32%)	7,111	6,484	9,062	19,543	19,148	17,537	9,497	8,787	9,569	13,666	10,438	7,248
Above Normal (16%)	6,675	7,106	6,195	8,628	17,103	9,953	6,086	8,969	11,748	15,798	10,746	6,775
Below Normal (13%)	5,559	5,181	7,299	5,215	8,348	5,298	4,554	9,395	12,308	14,143	9,641	5,036
Dry (24%)	5,710	5,227	9,302	3,774	3,783	4,612	3,994	8,307	11,540	12,040	8,603	4,726
Critical (15%)	5,237	4,431	3,381	3,419	3,699	4,132	4,251	7,709	9,859	9,856	7,605	4,717

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,440	-3,269	1,204	1,891	790	12	-299	682	984	0	-188	-7,611
20%	-1,177	-2,460	2,603	3,830	111	861	353	835	788	-115	-151	-7,451
30%	-227	-2,138	1,003	576	-126	2,243	325	745	768	-895	33	-5,575
40%	-422	-1,386	1,038	1,151	2,277	2,104	740	508	810	-1,272	69	-4,151
50%	-171	-762	1,115	251	750	1,220	434	349	724	-984	42	-882
60%	-253	169	407	0	0	0	106	174	636	-900	-25	-485
70%	49	271	0	0	0	0	0	576	216	-422	-9	-488
80%	167	610	0	0	0	0	0	701	-82	-537	-161	-470
90%	-113	0	0	0	0	0	0	97	-281	-102	-154	-302
Long Term												
Full Simulation Period ^d	-438	-897	1,027	707	392	630	162	475	519	-463	-75	-2,931
Water Year Types ^{b,c}												
Wet (32%)	-672	-2,825	2,125	863	335	509	120	205	287	-76	147	-6,769
Above Normal (16%)	-1,108	-1,712	450	1,199	1,003	1,485	208	529	818	-14	200	-3,870
Below Normal (13%)	-118	493	238	1,931	505	968	46	730	1,083	-765	-783	-522
Dry (24%)	-113	530	957	166	58	177	256	814	607	-1,033	-61	-297
Critical (15%)	-42	510	116	-386	307	412	152	199	34	-562	-226	-193

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-3. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,260	11,896	16,906	20,957	30,533	18,502	10,385	10,438	13,182	16,000	11,926	15,678
20%	8,276	10,437	9,072	12,166	23,093	12,316	6,774	9,491	11,541	16,000	10,965	13,351
30%	7,485	8,843	5,112	7,729	11,072	7,916	4,490	8,775	10,869	15,672	10,429	11,603
40%	7,015	7,668	4,486	3,592	4,136	4,156	3,719	8,240	9,904	14,278	9,701	9,546
50%	6,280	6,332	3,582	3,250	3,250	3,250	3,250	7,634	9,309	13,308	9,503	6,414
60%	5,921	5,790	3,367	3,250	3,250	3,250	3,250	7,150	8,897	12,322	9,171	5,547
70%	5,363	4,486	3,250	3,250	3,250	3,250	3,250	6,656	8,401	11,515	8,718	5,248
80%	4,904	3,602	3,250	3,250	3,250	3,250	3,250	6,014	8,126	10,802	8,221	4,865
90%	4,296	3,250	3,250	3,250	3,250	3,250	3,250	5,117	7,591	9,809	7,609	4,341
Long Term												
Full Simulation Period ^d	6,603	7,231	6,955	8,689	11,017	8,450	5,525	7,799	9,888	13,202	9,640	8,687
Water Year Types ^{b,c}												
Wet (32%)	8,021	9,866	7,441	17,792	19,245	16,127	8,455	8,663	8,971	13,464	10,501	14,061
Above Normal (16%)	7,394	10,104	6,298	7,444	16,207	8,331	5,221	7,926	10,435	15,324	10,549	9,996
Below Normal (13%)	5,839	5,014	7,557	3,328	6,912	3,925	3,731	7,865	10,908	14,379	10,758	5,610
Dry (24%)	5,781	5,160	8,619	3,705	3,511	4,006	3,740	7,034	10,446	12,434	8,521	4,960
Critical (15%)	4,742	3,891	3,287	3,535	3,842	3,499	4,122	7,006	9,418	10,535	7,632	4,657

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,422	11,642	15,722	22,213	28,482	19,848	11,602	10,370	13,374	16,000	11,443	15,711
20%	8,464	9,645	8,505	11,827	22,006	13,384	7,408	9,306	12,032	16,000	10,904	14,798
30%	7,212	8,279	4,984	8,973	13,171	8,856	5,473	8,876	11,187	15,873	10,171	12,124
40%	6,829	7,011	3,962	3,613	5,042	4,950	4,071	8,522	10,698	14,987	9,757	9,915
50%	6,369	6,075	3,407	3,250	3,250	3,250	3,538	8,147	9,966	13,972	9,471	6,158
60%	6,042	4,712	3,250	3,250	3,250	3,250	3,250	7,858	9,399	13,182	9,123	5,504
70%	5,438	4,148	3,250	3,250	3,250	3,250	3,250	7,024	9,047	12,134	8,682	5,273
80%	5,021	3,390	3,250	3,250	3,250	3,250	3,250	6,330	8,694	11,403	8,271	4,977
90%	4,509	3,250	3,250	3,250	3,250	3,250	3,250	5,876	8,070	9,851	7,789	4,425
Long Term												
Full Simulation Period ^d	6,656	6,698	6,571	8,978	10,975	8,949	6,022	8,148	10,286	13,577	9,592	8,821
Water Year Types ^{b,c}												
Wet (32%)	7,783	9,308	6,937	18,680	18,813	17,028	9,377	8,581	9,282	13,743	10,291	14,017
Above Normal (16%)	7,783	8,819	5,745	7,429	16,100	8,468	5,877	8,440	10,930	15,812	10,546	10,645
Below Normal (13%)	5,678	4,688	7,061	3,284	7,843	4,330	4,508	8,664	11,225	14,908	10,424	5,558
Dry (24%)	5,823	4,697	8,345	3,608	3,725	4,435	3,738	7,493	10,933	13,073	8,664	5,023
Critical (15%)	5,278	3,921	3,266	3,806	3,392	3,720	4,100	7,510	9,825	10,419	7,831	4,910

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	162	-255	-1,184	1,257	-2,051	1,346	1,218	-68	192	0	-483	33
20%	187	-792	-566	-339	-1,087	1,068	634	-185	491	0	-61	1,447
30%	-273	-563	-128	1,244	2,099	940	983	101	318	201	-258	521
40%	-186	-657	-524	21	906	794	352	282	794	709	56	370
50%	89	-256	-175	0	0	0	288	513	657	664	-32	-256
60%	121	-1,077	-117	0	0	0	0	707	502	860	-48	-42
70%	75	-338	0	0	0	0	0	368	646	620	-37	25
80%	117	-212	0	0	0	0	0	316	569	601	51	112
90%	213	0	0	0	0	0	0	760	479	42	180	84
Long Term												
Full Simulation Period ^d	53	-533	-384	289	-43	499	497	349	398	376	-48	134
Water Year Types ^{b,c}												
Wet (32%)	-238	-558	-504	888	-432	901	922	-81	312	279	-210	-45
Above Normal (16%)	389	-1,286	-553	-16	-107	136	657	514	495	488	-3	649
Below Normal (13%)	-162	-325	-496	-44	931	405	777	799	317	530	-334	-52
Dry (24%)	42	-463	-274	-97	214	429	-1	459	487	639	143	63
Critical (15%)	536	30	-21	271	-450	221	-22	504	407	-116	199	253

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 15-4. Sacramento River Flow downstream of Keswick Reservoir, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,559	9,060	19,004	22,149	30,593	19,078	10,156	10,499	13,807	16,000	11,616	9,092
20%	7,903	7,286	11,909	14,917	21,627	12,718	6,798	9,753	12,418	15,817	10,678	8,132
30%	7,361	6,708	6,656	9,342	12,886	9,001	5,746	9,253	11,759	14,484	10,231	7,408
40%	6,903	5,939	4,989	6,199	6,743	5,632	4,510	8,616	10,594	13,351	9,830	6,168
50%	6,334	5,579	4,428	3,619	3,970	4,470	3,691	8,267	9,902	12,438	9,620	5,693
60%	5,793	5,223	3,871	3,250	3,250	3,250	3,250	7,735	9,069	11,778	9,083	5,167
70%	5,411	4,825	3,250	3,250	3,250	3,250	3,250	7,003	8,534	11,393	8,722	4,970
80%	5,024	4,304	3,250	3,250	3,250	3,250	3,250	6,161	8,116	10,146	8,071	4,490
90%	4,332	3,498	3,250	3,250	3,250	3,250	3,250	5,422	7,665	9,601	7,598	4,224
Long Term												
Full Simulation Period ^d	6,412	6,261	7,807	9,378	11,457	8,860	5,702	8,122	10,305	12,822	9,551	6,332
Water Year Types ^{b,c}												
Wet (32%)	7,691	6,914	9,421	18,493	19,566	16,396	8,634	8,587	9,103	13,506	10,625	8,278
Above Normal (16%)	6,891	8,278	7,133	8,569	17,409	9,405	5,402	8,276	10,918	15,142	10,559	7,311
Below Normal (13%)	5,846	5,387	7,730	4,503	8,026	4,794	4,165	8,629	12,250	13,871	10,015	5,250
Dry (24%)	5,793	5,707	8,808	3,908	3,633	4,053	3,869	7,739	11,949	11,581	8,538	4,809
Critical (15%)	4,673	4,385	3,445	4,093	3,628	3,677	4,136	7,125	9,385	9,934	7,396	4,583

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,982	8,372	16,927	24,105	29,272	19,860	11,303	11,052	14,358	16,000	11,254	8,101
20%	7,287	7,184	11,109	15,657	22,117	14,245	7,760	10,142	12,820	15,885	10,754	7,346
30%	6,985	6,141	5,987	9,550	13,045	11,099	5,799	9,621	11,954	14,978	10,205	6,549
40%	6,407	5,624	5,000	4,764	7,319	7,054	4,811	9,030	11,507	13,715	9,826	5,765
50%	6,198	5,313	4,522	3,501	4,000	4,470	3,972	8,496	10,690	12,988	9,513	5,276
60%	5,788	4,882	3,657	3,250	3,250	3,250	3,356	8,031	10,035	12,281	9,098	5,020
70%	5,487	4,418	3,250	3,250	3,250	3,250	3,250	7,600	9,263	11,713	8,673	4,786
80%	5,188	4,000	3,250	3,250	3,250	3,250	3,250	7,031	8,613	10,866	8,111	4,507
90%	4,397	3,250	3,250	3,250	3,250	3,250	3,250	5,973	7,789	9,749	7,634	4,123
Long Term												
Full Simulation Period ^d	6,218	5,801	7,598	9,685	11,366	9,579	6,183	8,623	10,805	13,114	9,518	5,891
Water Year Types ^{b,c}												
Wet (32%)	7,111	6,484	9,062	19,543	19,148	17,537	9,497	8,787	9,569	13,666	10,438	7,248
Above Normal (16%)	6,675	7,106	6,195	8,628	17,103	9,953	6,086	8,969	11,748	15,798	10,746	6,775
Below Normal (13%)	5,559	5,181	7,299	5,215	8,348	5,298	4,554	9,395	12,308	14,143	9,641	5,036
Dry (24%)	5,710	5,227	9,302	3,774	3,783	4,612	3,994	8,307	11,540	12,040	8,603	4,726
Critical (15%)	5,237	4,431	3,381	3,419	3,699	4,132	4,251	7,709	9,859	9,856	7,605	4,717

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-577	-687	-2,078	1,956	-1,320	782	1,147	553	551	0	-362	-991
20%	-616	-102	-800	740	491	1,527	963	388	402	69	75	-785
30%	-376	-567	-669	207	159	2,098	53	368	195	494	-27	-859
40%	-497	-314	11	-1,435	576	1,422	300	414	913	364	-5	-403
50%	-136	-265	94	-118	30	0	281	229	788	550	-108	-417
60%	-5	-342	-215	0	0	0	106	296	966	503	15	-148
70%	76	-407	0	0	0	0	0	597	729	319	-49	-184
80%	164	-304	0	0	0	0	0	870	497	720	40	17
90%	65	-248	0	0	0	0	0	551	124	148	37	-101
Long Term												
Full Simulation Period ^d	-194	-460	-209	307	-91	719	482	500	500	292	-34	-441
Water Year Types ^{b,c}												
Wet (32%)	-580	-431	-359	1,050	-418	1,141	863	200	466	160	-187	-1,031
Above Normal (16%)	-217	-1,172	-938	59	-306	548	684	693	829	657	186	-536
Below Normal (13%)	-287	-206	-431	712	322	503	389	766	57	273	-374	-215
Dry (24%)	-83	-480	494	-134	150	559	125	568	591	458	64	-83
Critical (15%)	564	46	-64	-674	72	455	116	584	474	-77	209	134

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

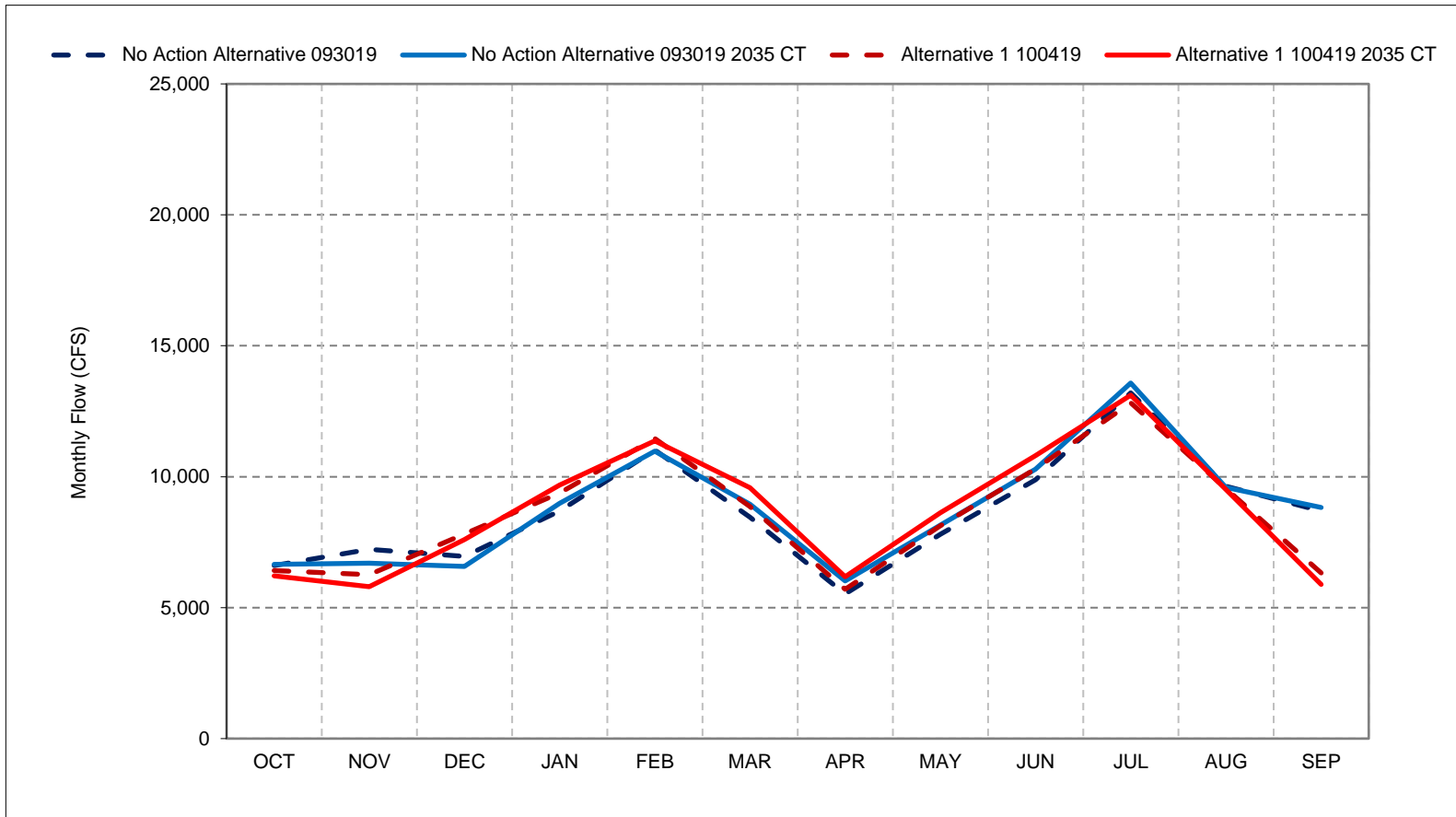
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 15-1. Sacramento River Flow downstream of Keswick Reservoir, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

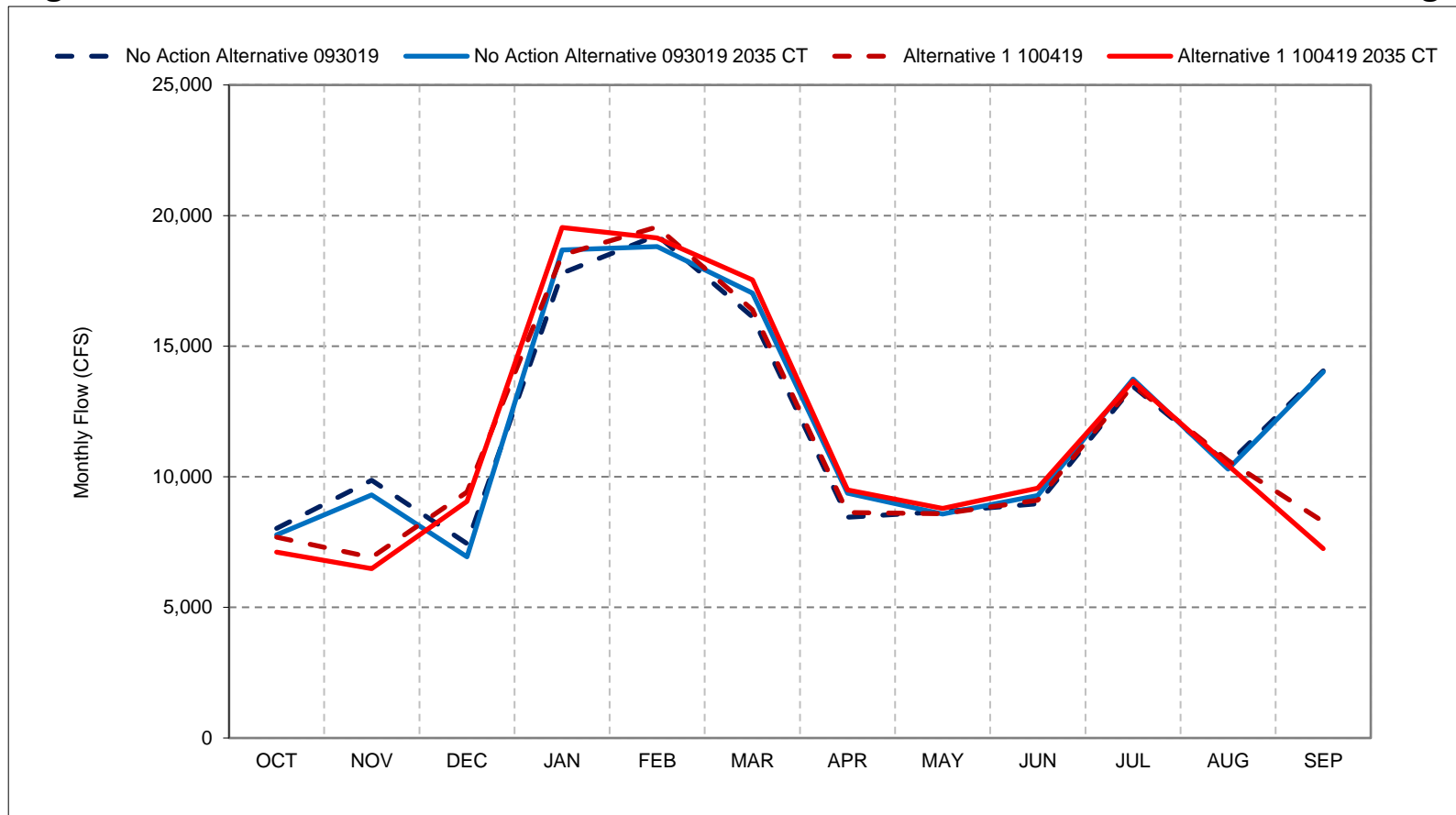
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-2. Sacramento River Flow downstream of Keswick Reservoir, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

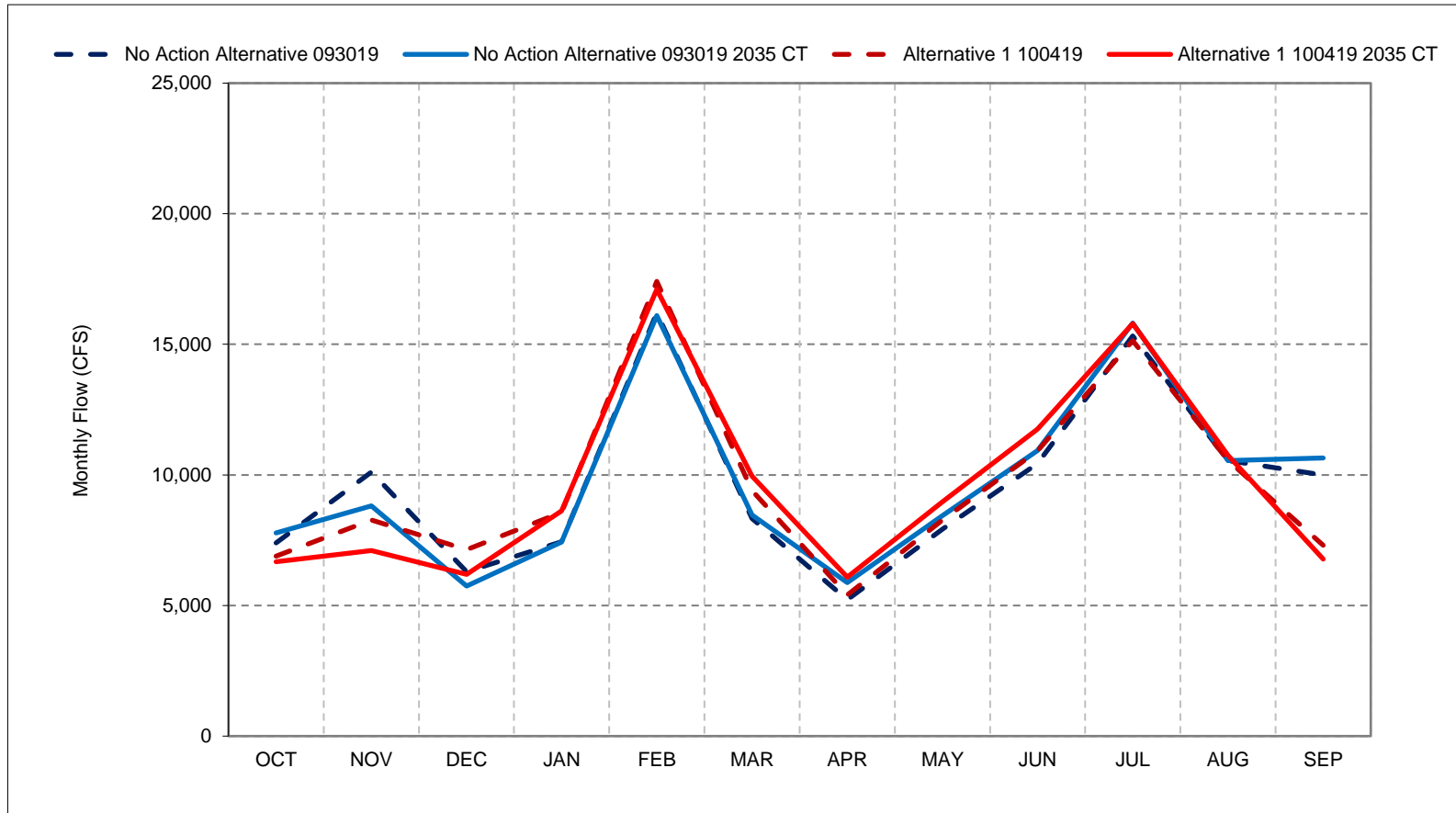
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-3. Sacramento River Flow downstream of Keswick Reservoir, Above Normal Year Average



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

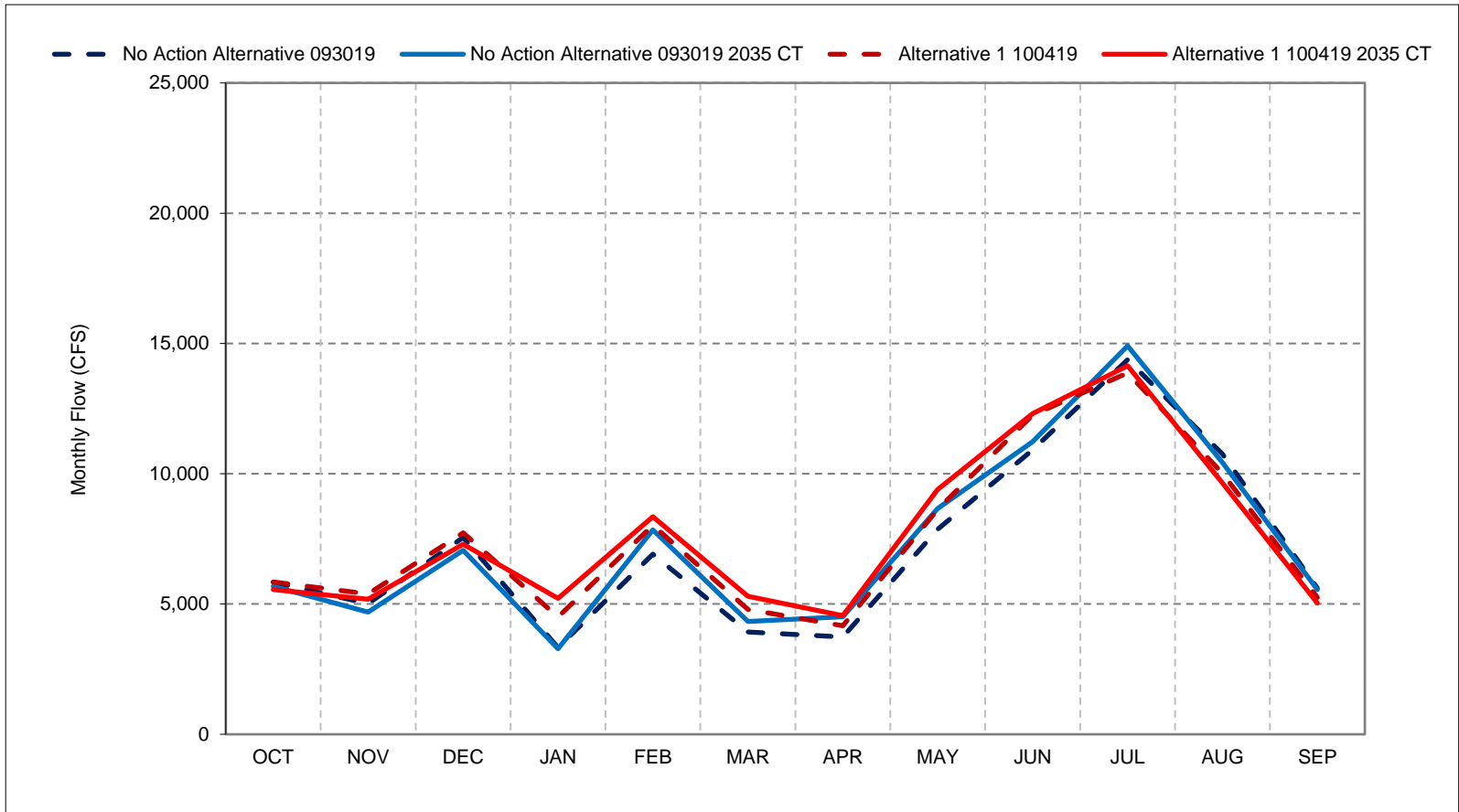
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-4. Sacramento River Flow downstream of Keswick Reservoir, Below Normal Year Averag



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

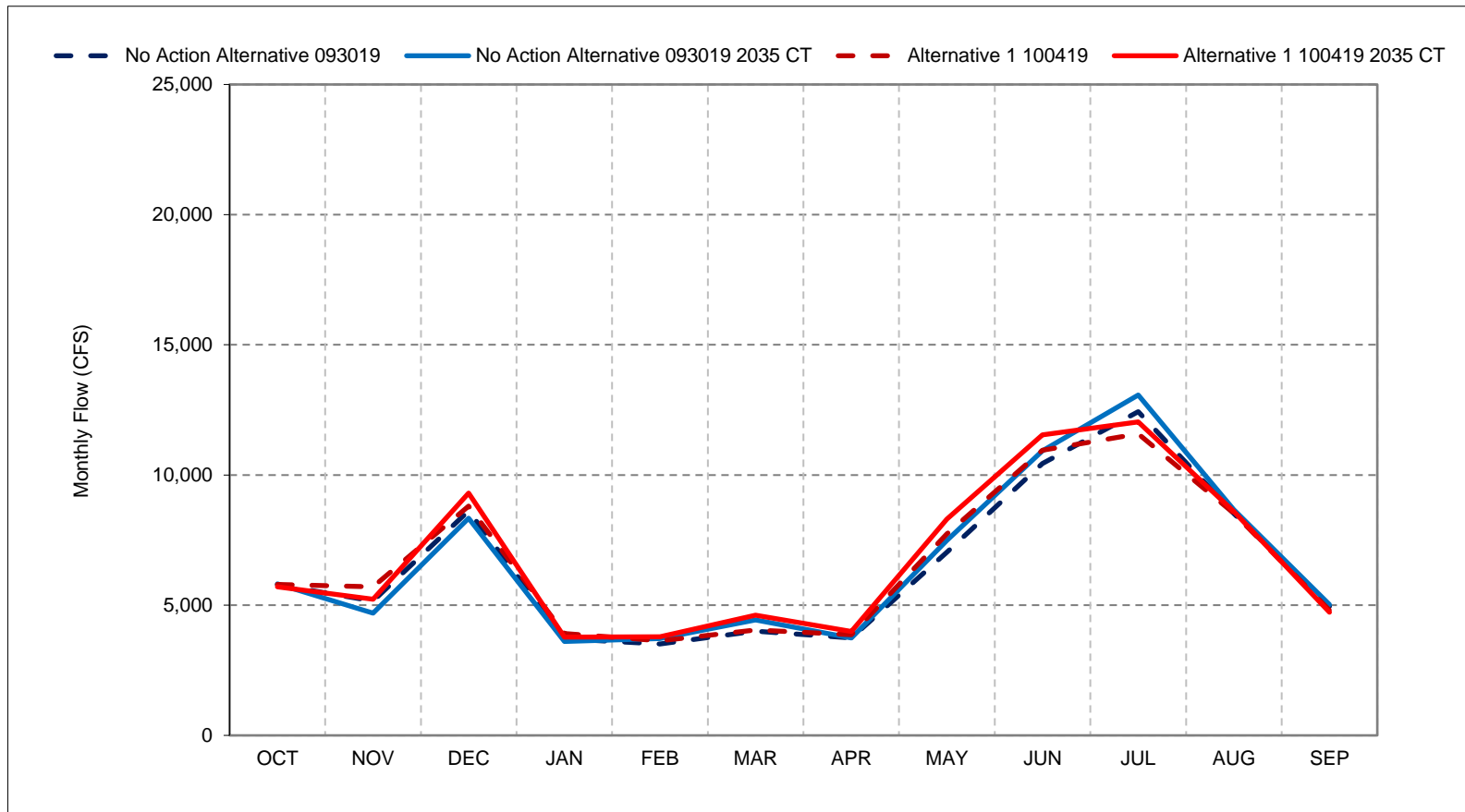
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-5. Sacramento River Flow downstream of Keswick Reservoir, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

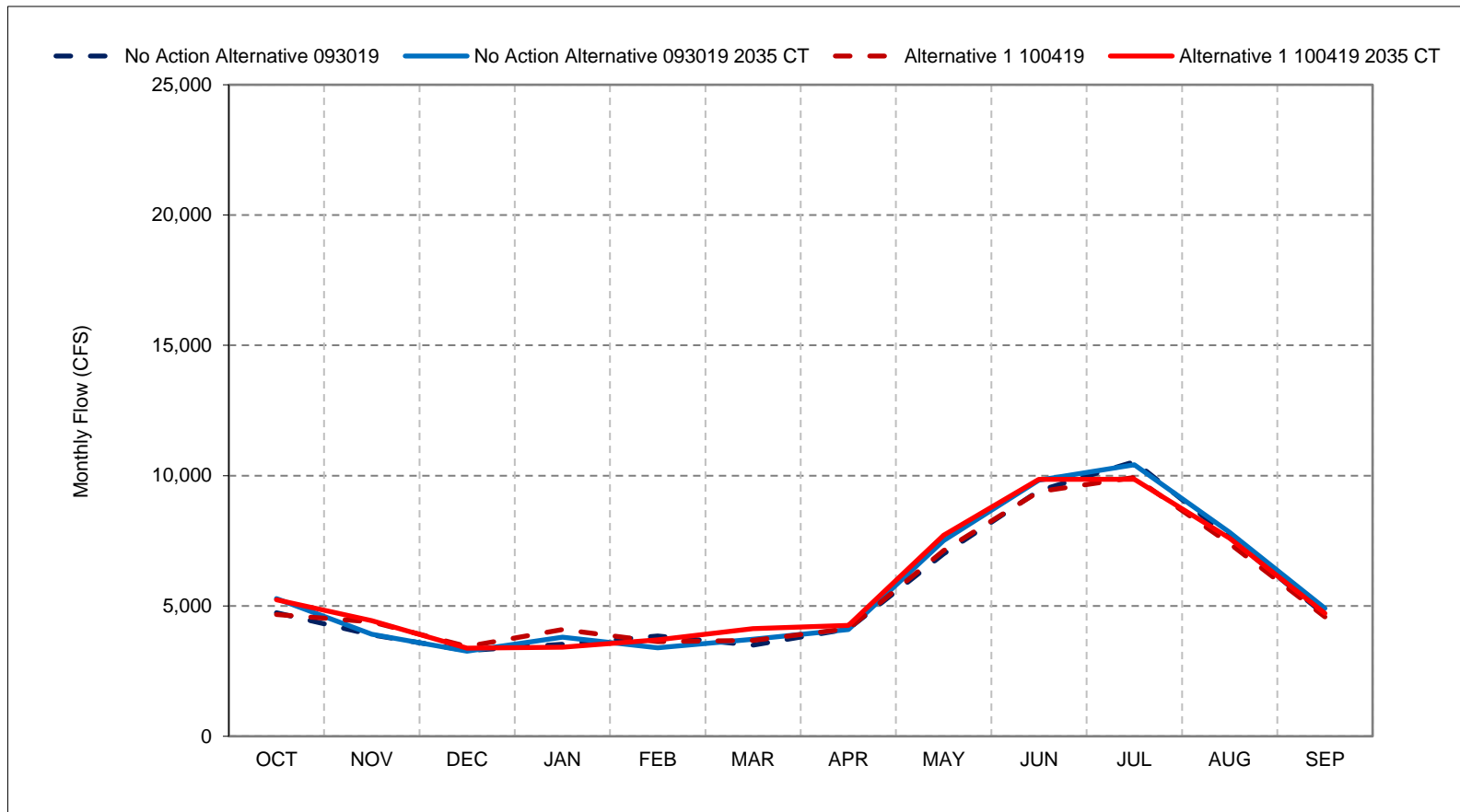
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 15-6. Sacramento River Flow downstream of Keswick Reservoir, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

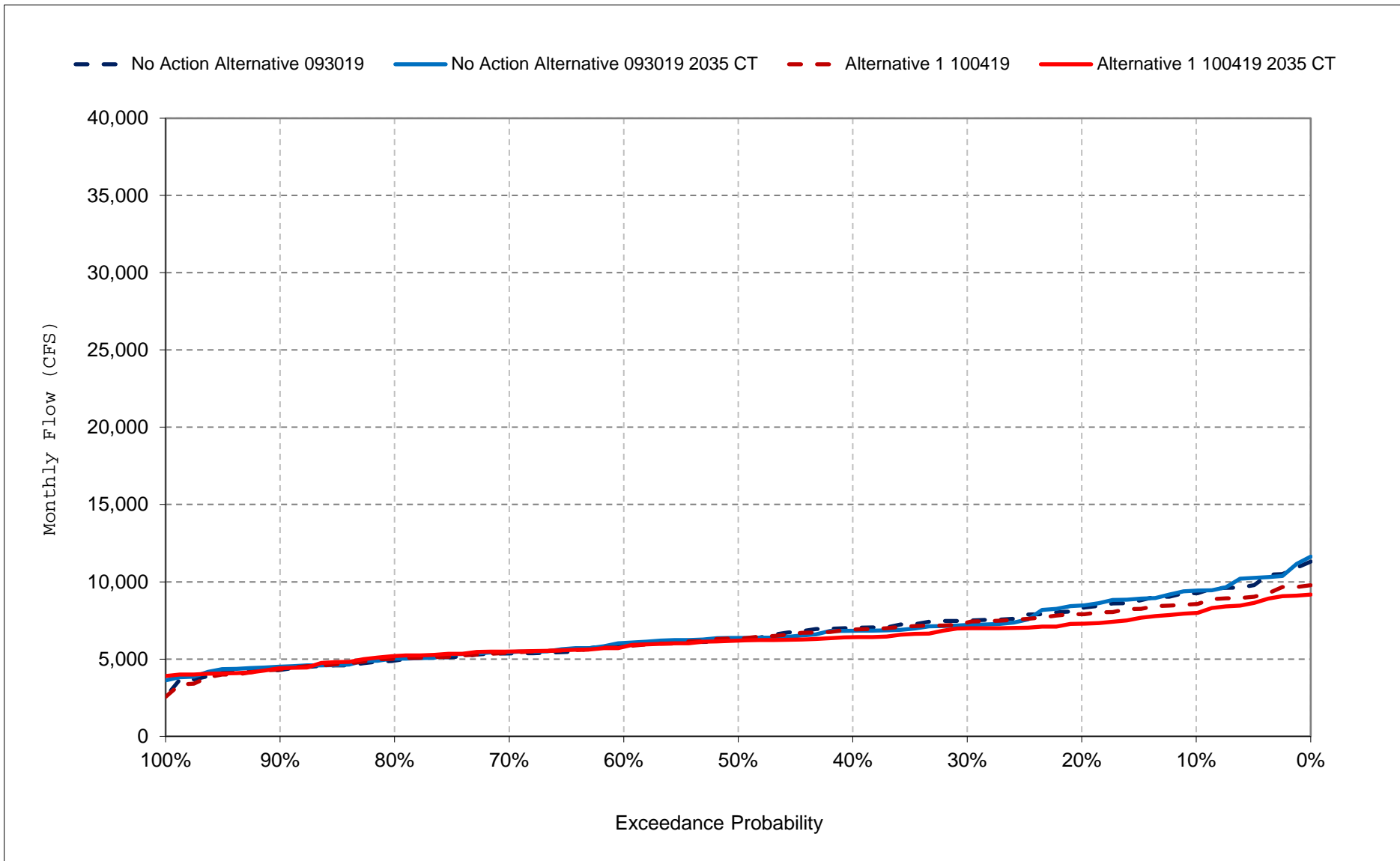
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

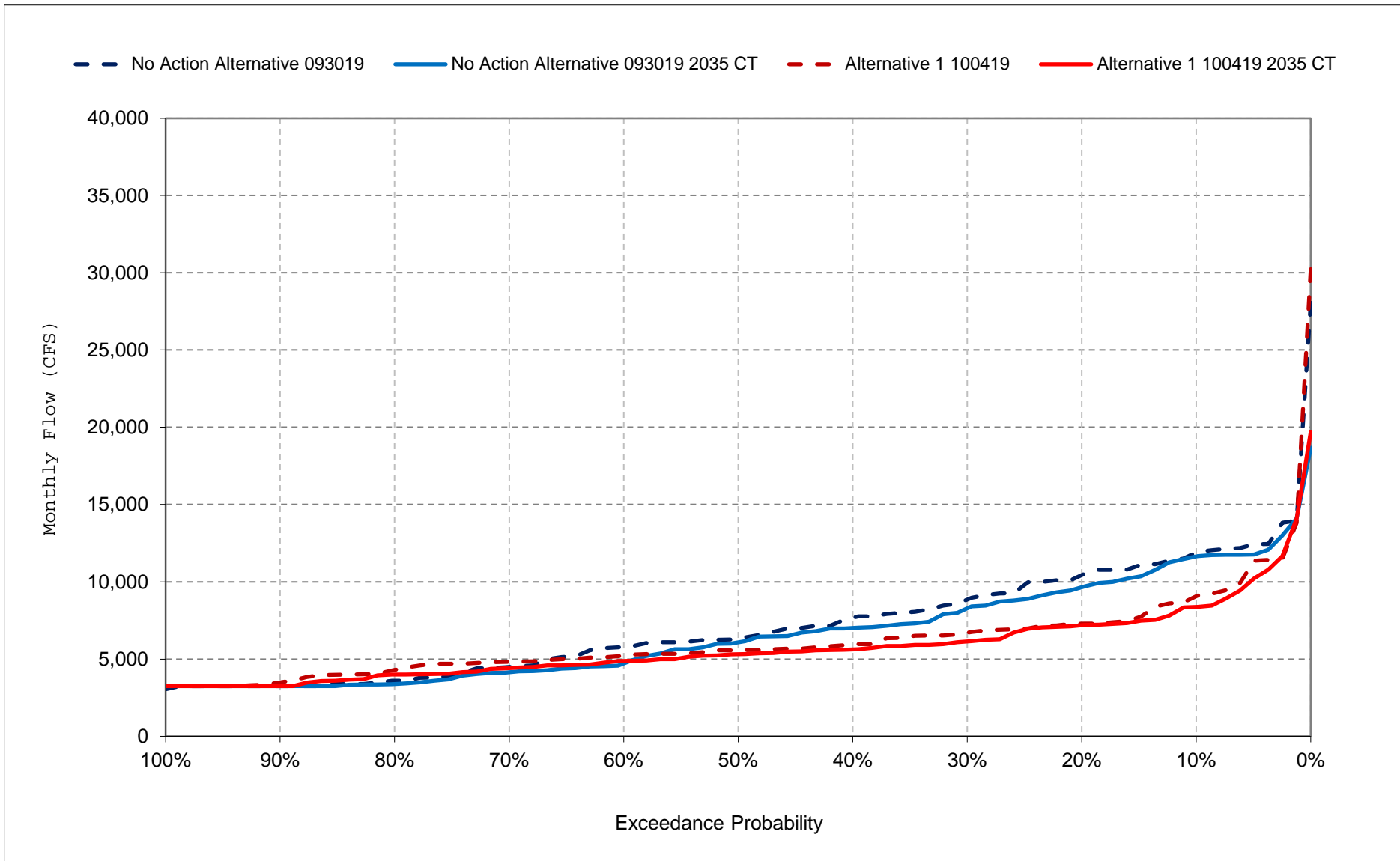
Figure 15-7. Sacramento River Flow downstream of Keswick Reservoir, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

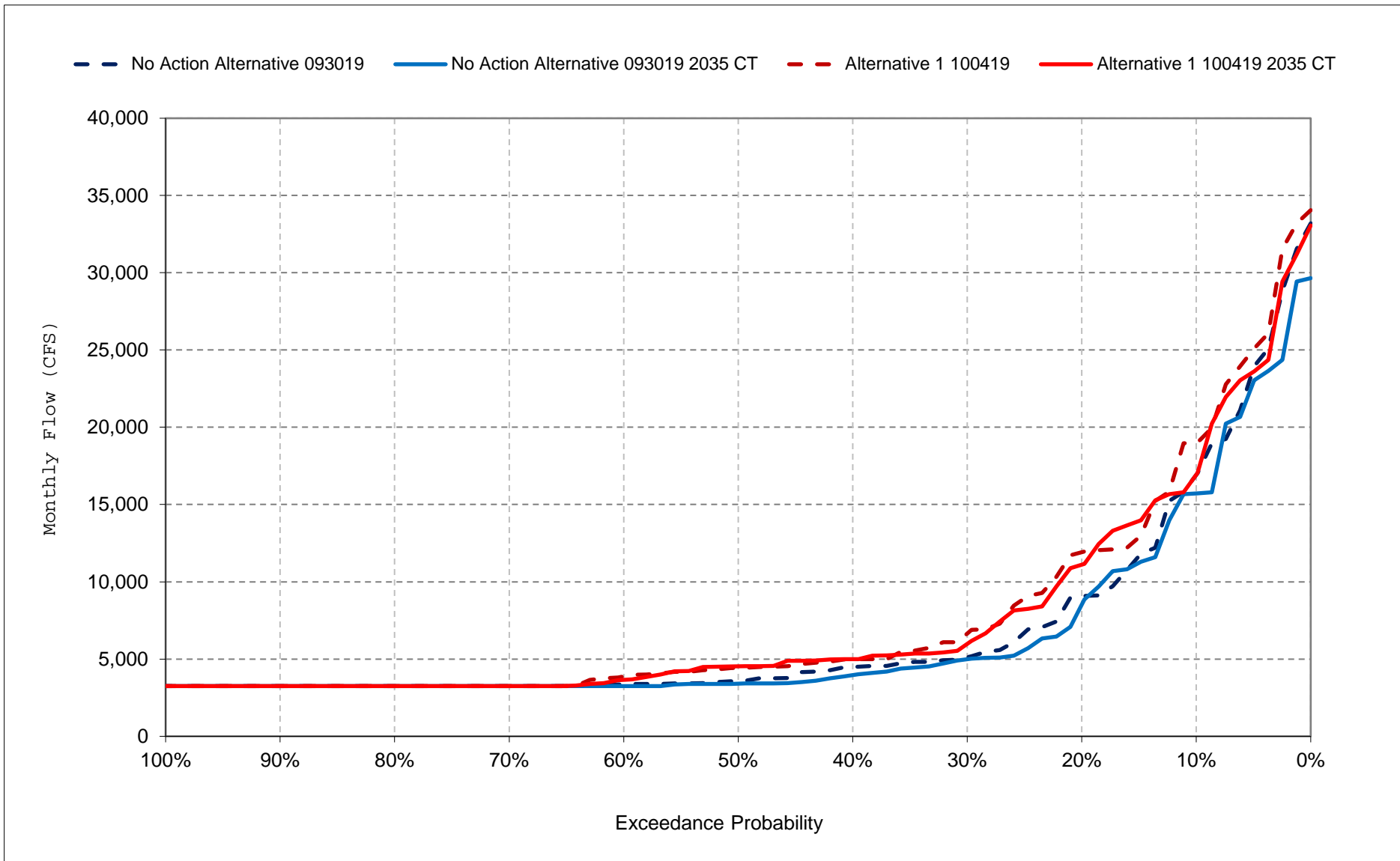
Figure 15-8. Sacramento River Flow downstream of Keswick Reservoir, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

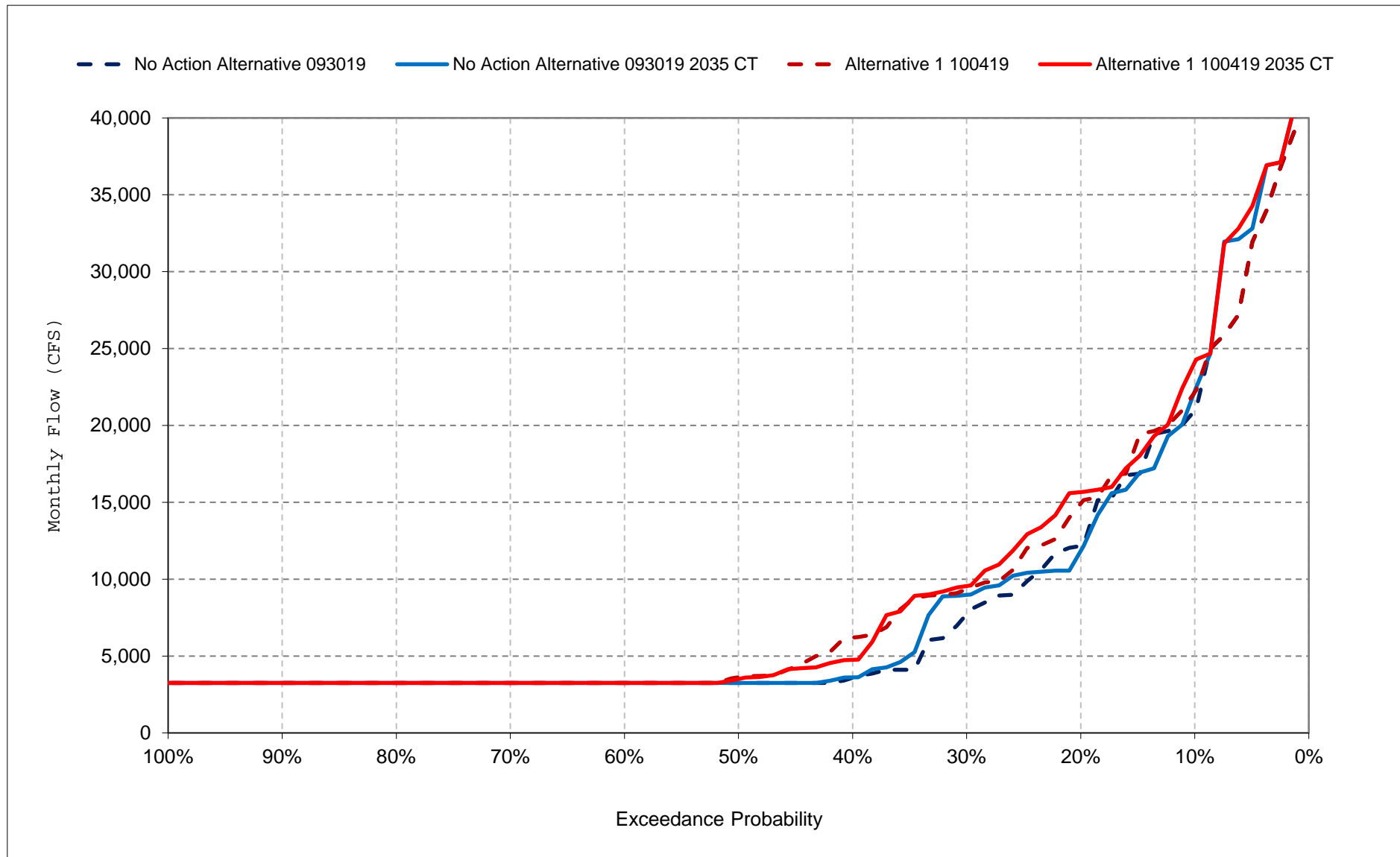
Figure 15-9. Sacramento River Flow downstream of Keswick Reservoir, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

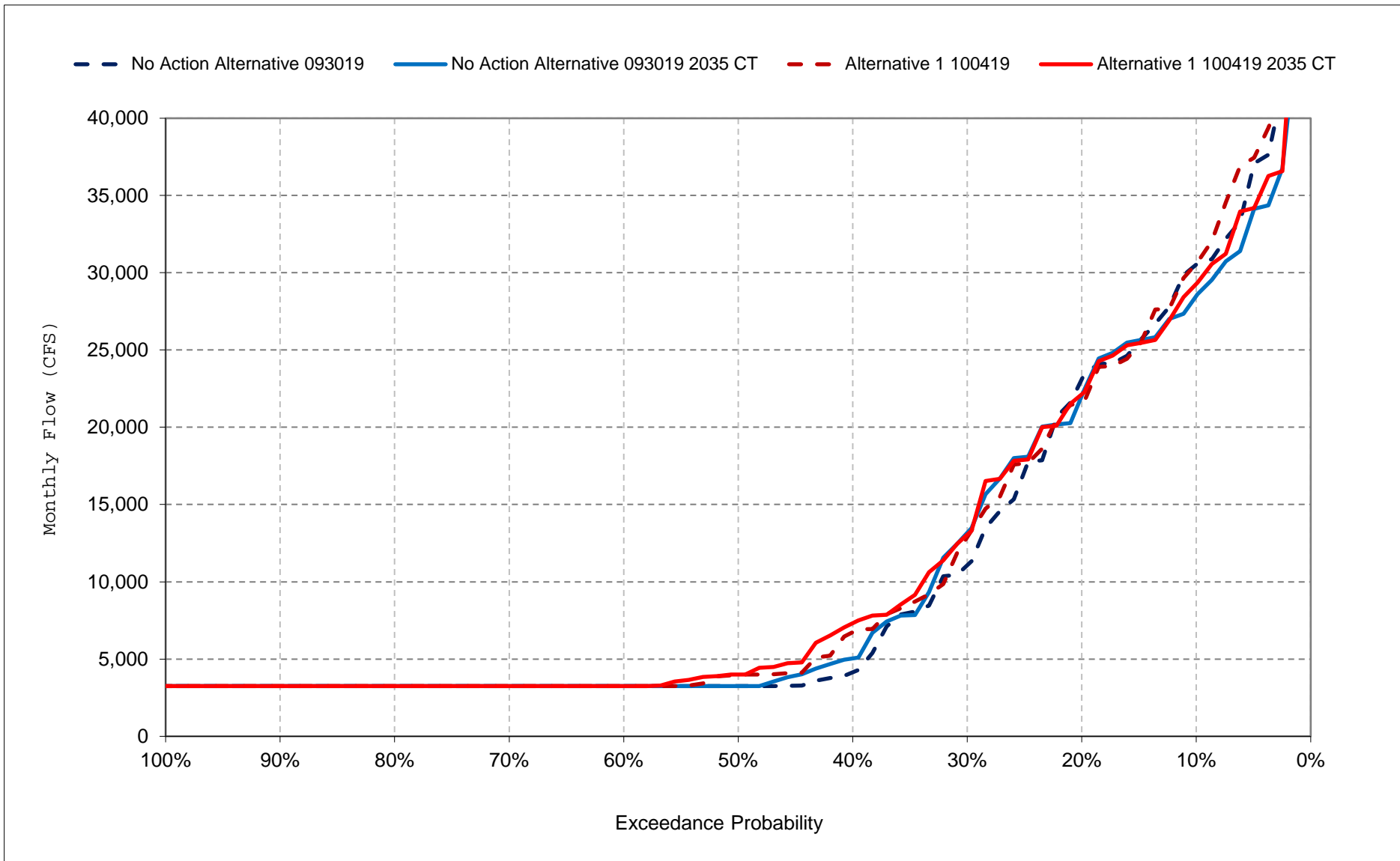
Figure 15-10. Sacramento River Flow downstream of Keswick Reservoir, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

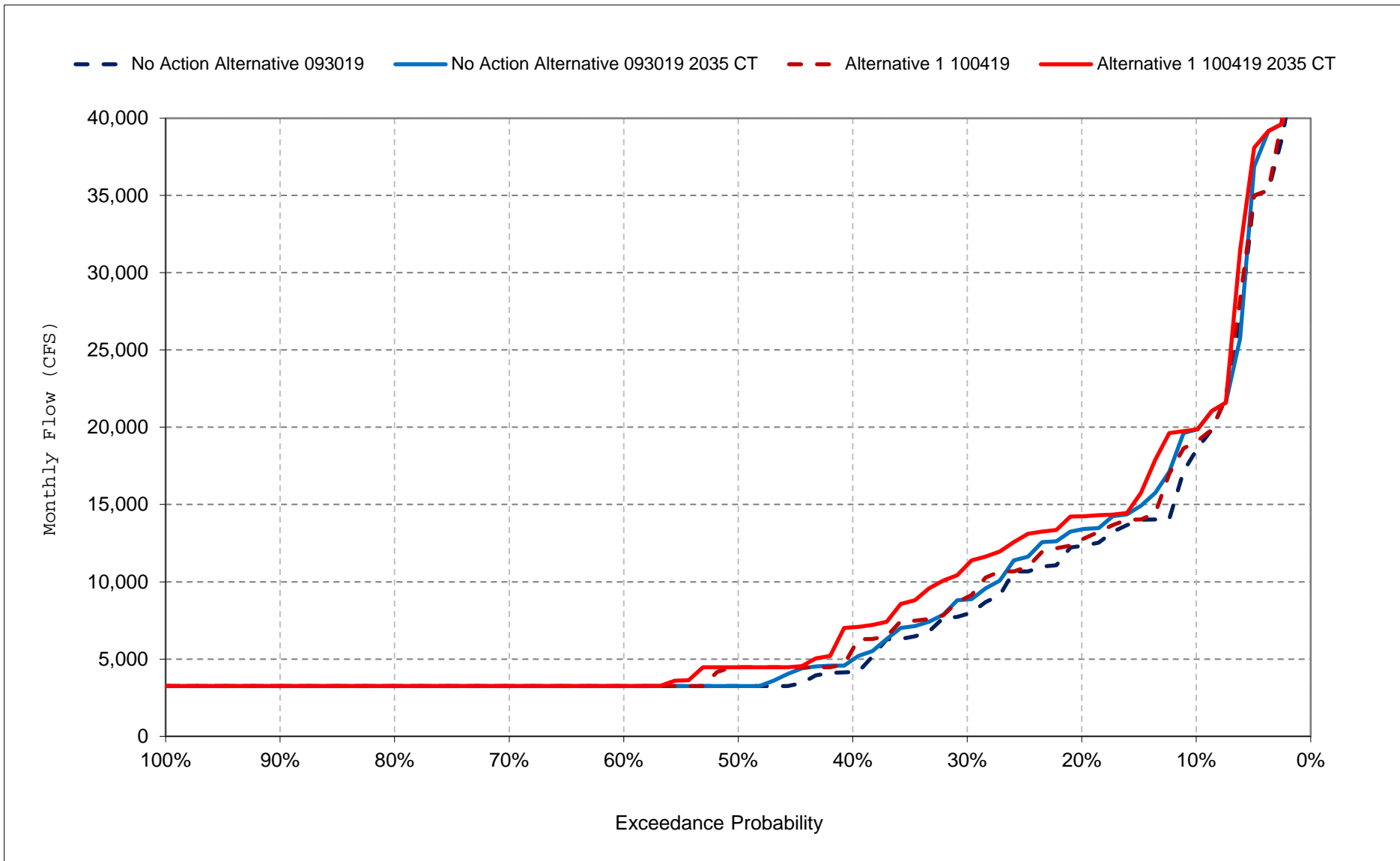
Figure 15-11. Sacramento River Flow downstream of Keswick Reservoir, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

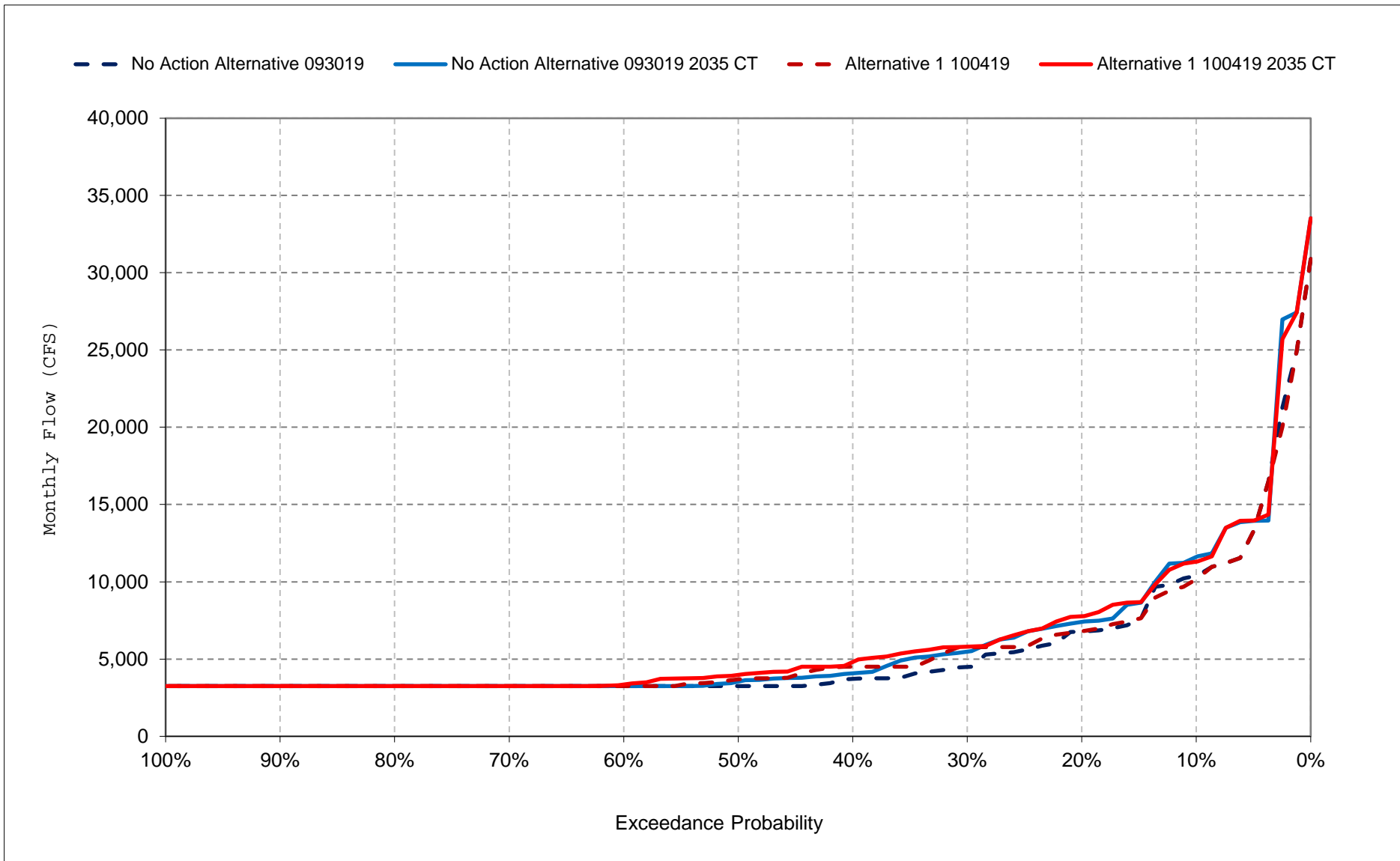
Figure 15-12. Sacramento River Flow downstream of Keswick Reservoir, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

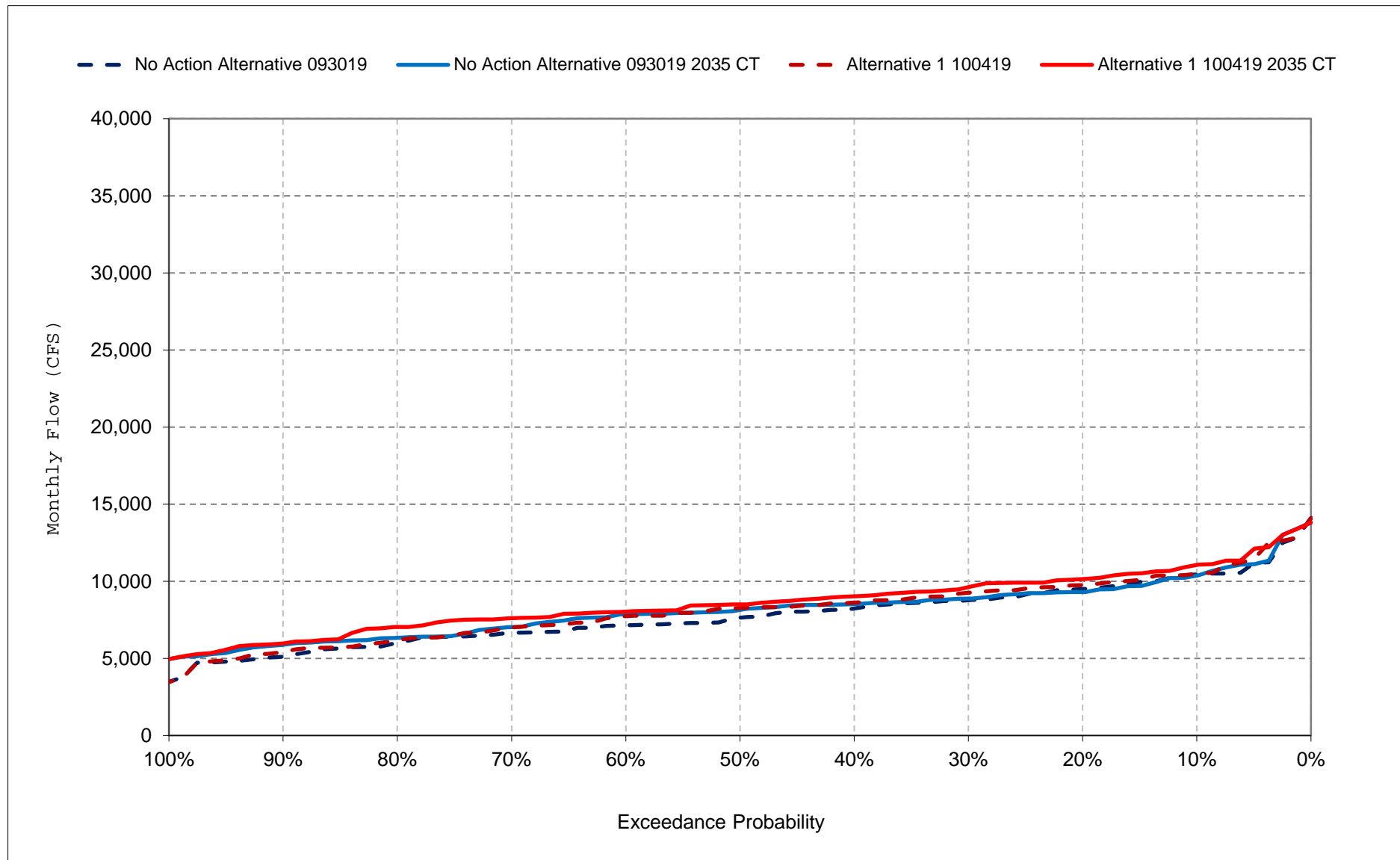
Figure 15-13. Sacramento River Flow downstream of Keswick Reservoir, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

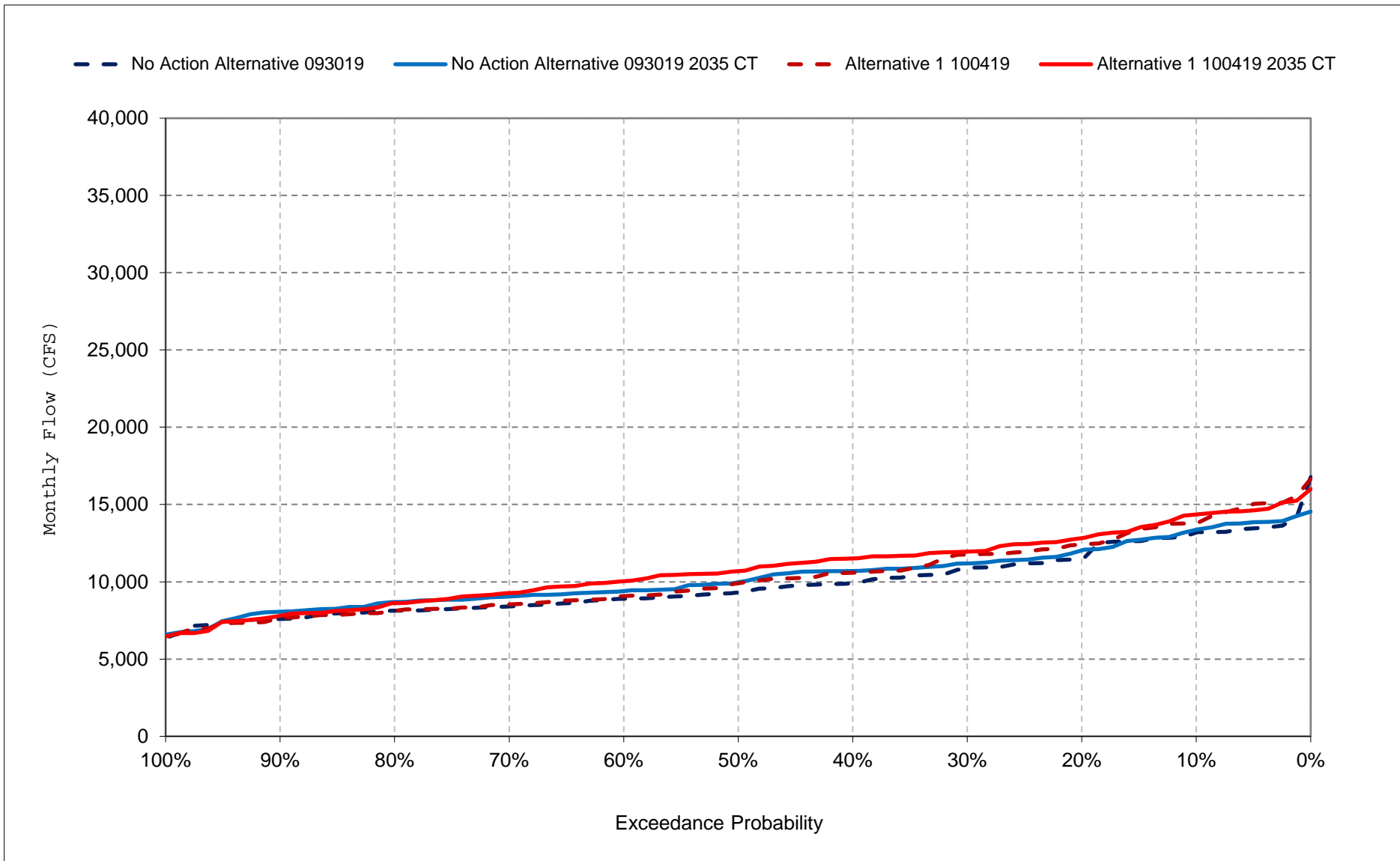
Figure 15-14. Sacramento River Flow downstream of Keswick Reservoir, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

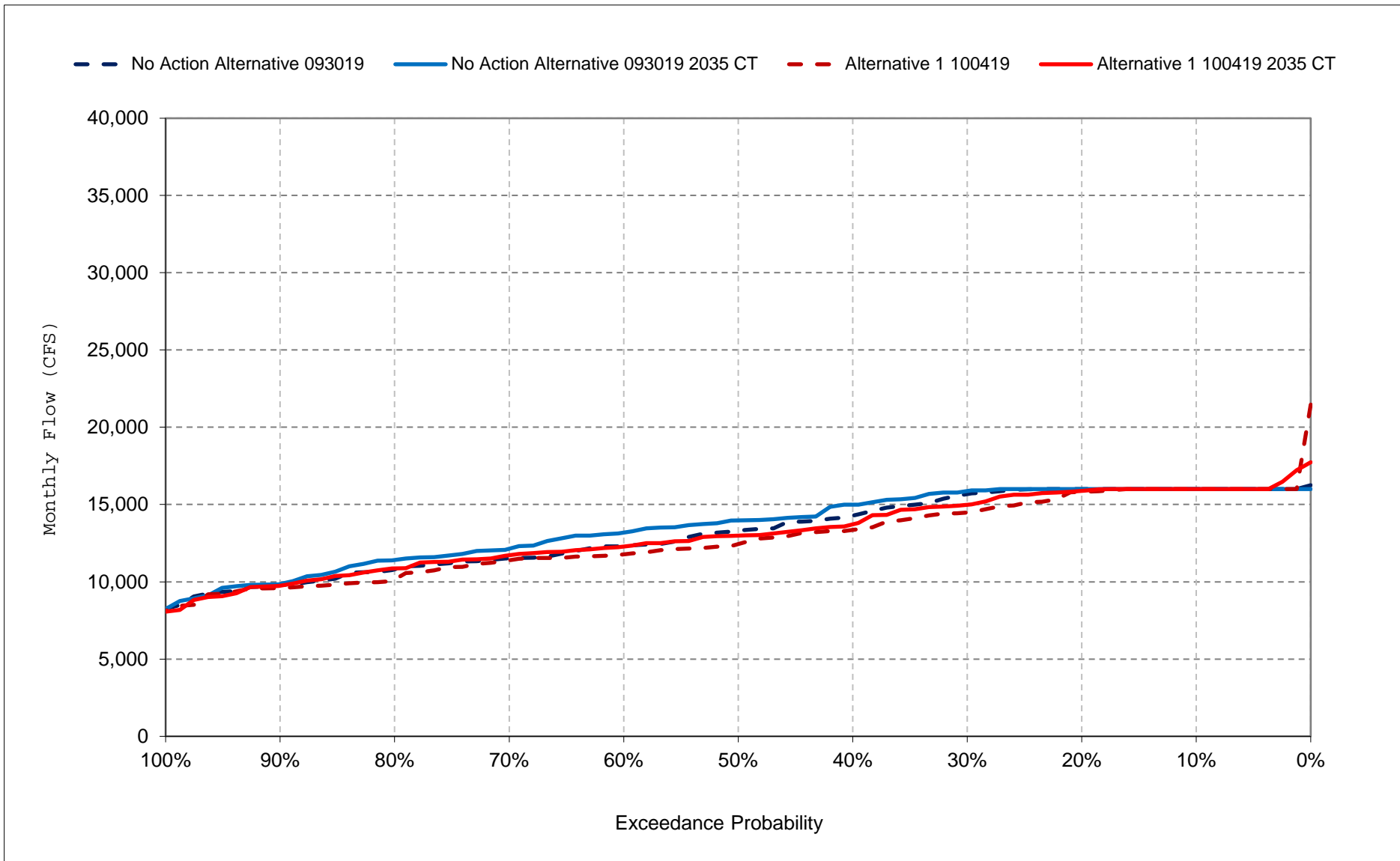
Figure 15-15. Sacramento River Flow downstream of Keswick Reservoir, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

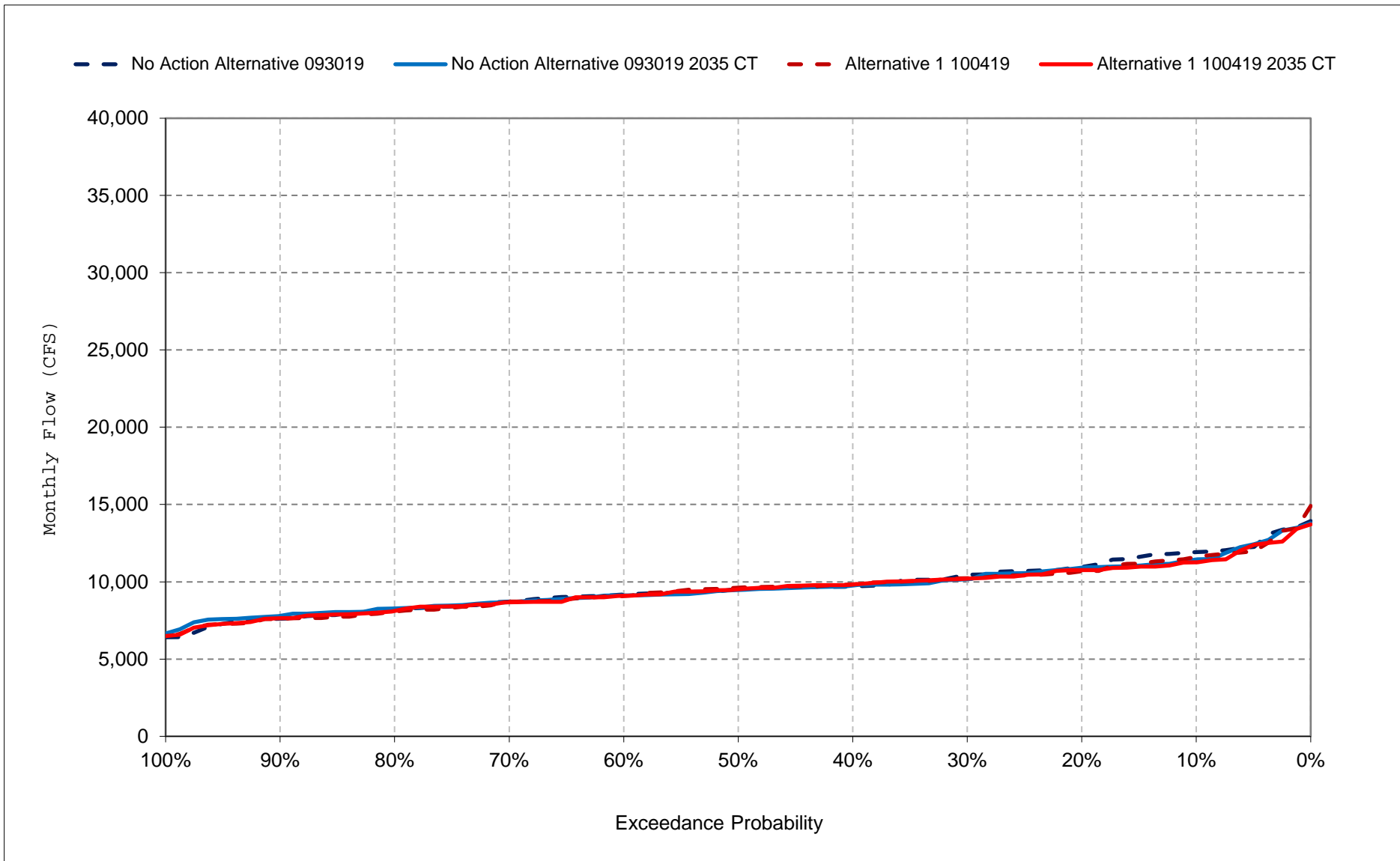
Figure 15-16. Sacramento River Flow downstream of Keswick Reservoir, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

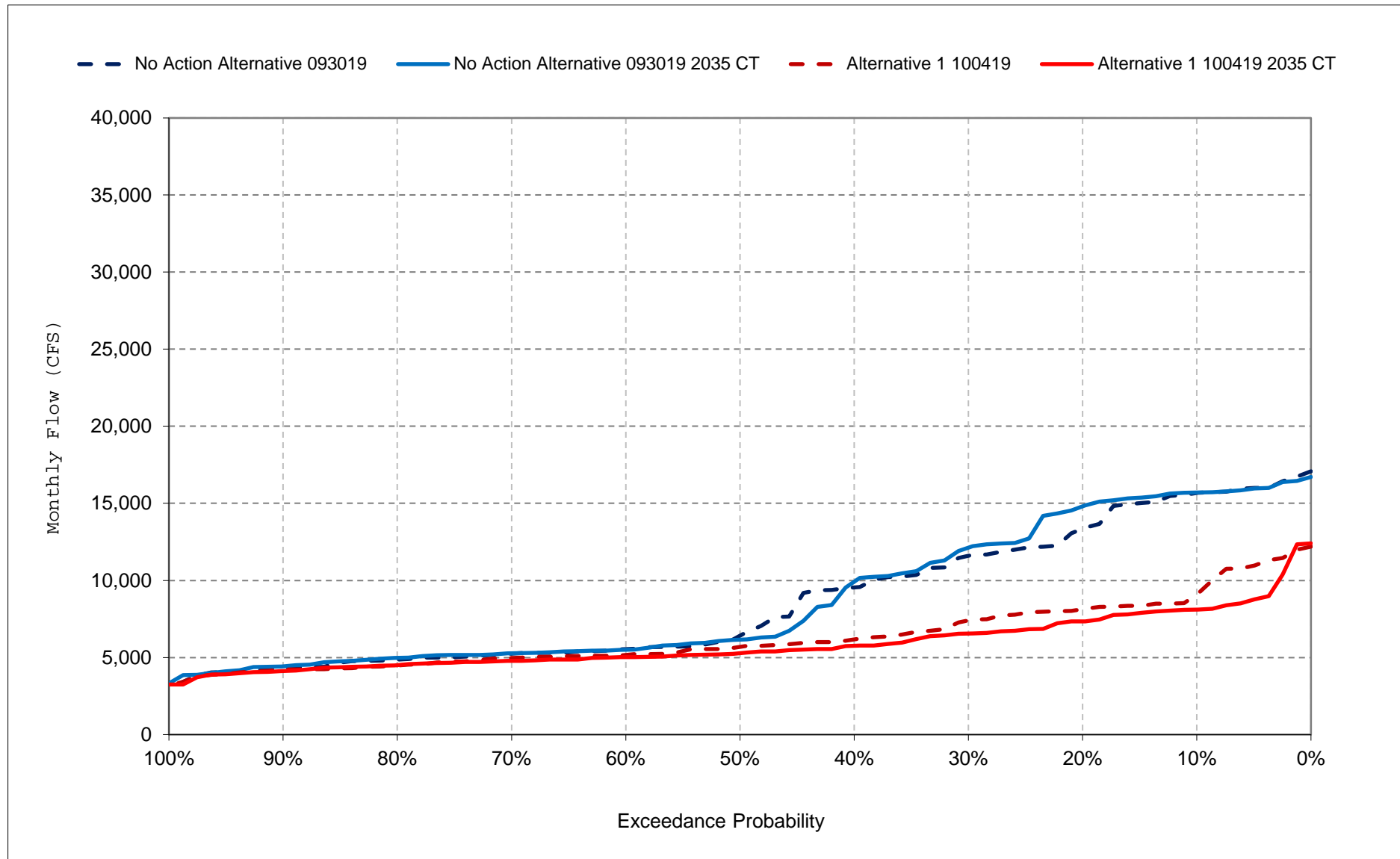
Figure 15-17. Sacramento River Flow downstream of Keswick Reservoir, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 15-18. Sacramento River Flow downstream of Keswick Reservoir, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-1. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,198	13,953	26,688	35,638	46,109	29,262	16,420	13,490	13,551	16,306	12,112	16,020
20%	9,498	12,211	15,873	23,609	32,798	19,328	12,773	11,737	12,471	15,987	11,287	13,911
30%	8,462	11,288	10,517	15,778	21,195	14,704	8,502	10,439	11,286	15,695	10,484	11,975
40%	7,922	10,189	7,881	11,219	12,726	10,332	7,391	9,564	10,723	14,509	10,023	10,170
50%	7,346	8,607	6,865	8,652	10,395	8,537	6,357	8,987	10,334	13,470	9,675	7,057
60%	6,574	7,355	6,269	7,028	8,309	7,612	5,807	8,557	9,943	12,467	9,377	5,866
70%	6,171	6,547	5,741	6,470	7,352	6,586	5,469	8,058	9,685	11,691	8,850	5,669
80%	5,818	5,927	5,387	5,793	5,852	5,734	5,242	7,767	9,277	11,074	8,363	5,328
90%	5,155	5,163	5,015	4,941	5,103	5,308	4,898	6,907	8,721	10,298	7,835	4,725
Long Term												
Full Simulation Period ^d	7,529	9,445	11,764	15,505	18,752	14,404	9,161	9,828	10,812	13,424	9,822	9,127
Water Year Types ^{b,c}												
Wet (32%)	8,976	12,271	12,210	29,245	30,766	24,888	13,986	11,642	10,481	13,927	10,755	14,538
Above Normal (16%)	8,375	12,465	10,942	16,112	25,805	15,721	9,621	10,248	11,260	15,411	10,700	10,438
Below Normal (13%)	6,912	6,720	11,740	7,446	12,327	7,257	6,300	9,296	11,605	14,450	10,870	6,082
Dry (24%)	6,744	7,760	14,998	7,168	9,322	8,960	6,452	8,495	11,039	12,524	8,692	5,386
Critical (15%)	5,350	5,355	6,319	6,361	6,689	5,888	5,349	8,151	9,941	10,738	7,775	5,011

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,822	11,114	29,772	38,805	47,109	29,725	16,203	13,852	14,735	16,223	11,697	9,621
20%	8,844	9,366	20,581	25,056	31,587	19,309	12,814	11,831	13,413	15,892	10,954	8,383
30%	8,199	8,144	11,327	16,650	22,645	16,537	8,681	10,762	12,213	14,740	10,458	7,818
40%	7,530	7,749	8,955	13,252	13,213	10,674	7,506	10,304	11,164	13,857	10,129	6,732
50%	7,140	7,302	6,954	9,040	10,625	8,857	6,863	9,838	10,913	12,682	9,856	6,111
60%	6,666	7,034	6,590	7,342	8,427	7,849	6,093	8,960	10,578	11,864	9,516	5,662
70%	6,245	6,661	5,964	6,634	7,539	7,188	5,676	8,501	9,822	11,451	8,800	5,369
80%	5,891	6,116	5,590	5,851	6,070	5,804	5,266	7,850	9,461	10,680	8,207	4,908
90%	5,463	5,606	5,215	4,941	5,367	5,276	4,930	7,252	8,755	9,846	7,838	4,639
Long Term												
Full Simulation Period ^d	7,358	8,479	12,625	16,190	19,299	14,812	9,341	10,154	11,359	13,101	9,796	6,773
Water Year Types ^{b,c}												
Wet (32%)	8,683	9,312	14,204	29,931	31,255	25,141	14,164	11,566	10,733	14,034	10,945	8,756
Above Normal (16%)	7,894	10,639	11,788	17,231	27,182	16,793	9,801	10,601	11,863	15,295	10,779	7,755
Below Normal (13%)	6,924	7,098	11,914	8,618	13,613	8,122	6,728	10,046	13,051	13,976	10,176	5,718
Dry (24%)	6,768	8,320	15,197	7,368	9,450	9,015	6,589	9,203	11,664	11,726	8,771	5,229
Critical (15%)	5,289	5,866	6,478	6,933	6,482	6,083	5,371	8,298	10,111	10,190	7,603	4,952

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-376	-2,839	3,084	3,167	1,001	462	-217	362	1,184	-83	-415	-6,399
20%	-654	-2,845	4,708	1,447	-1,211	-18	41	94	942	-95	-333	-5,528
30%	-263	-3,145	810	873	1,451	1,833	179	323	927	-955	-26	-4,157
40%	-392	-2,440	1,073	2,034	487	342	115	740	441	-652	105	-3,437
50%	-206	-1,305	89	388	230	321	507	851	579	-788	180	-946
60%	92	-321	321	313	117	238	285	403	635	-603	139	-204
70%	75	114	223	164	187	603	207	443	136	-240	-50	-300
80%	72	189	203	58	218	69	24	83	184	-394	-156	-420
90%	308	444	200	0	264	-32	32	344	34	-453	3	-86
Long Term												
Full Simulation Period ^d	-171	-966	862	685	547	408	179	327	547	-323	-26	-2,355
Water Year Types ^{b,c}												
Wet (32%)	-293	-2,959	1,994	686	489	253	178	-76	252	107	190	-5,783
Above Normal (16%)	-481	-1,826	846	1,119	1,377	1,072	181	353	603	-116	79	-2,683
Below Normal (13%)	12	377	175	1,172	1,287	865	428	750	1,446	-474	-695	-364
Dry (24%)	24	560	199	200	129	55	137	708	625	-798	80	-157
Critical (15%)	-61	511	159	571	-206	194	23	147	170	-548	-172	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 16-2. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,333	13,298	24,754	35,634	43,884	30,551	17,667	13,078	14,009	16,315	11,637	16,102
20%	9,528	11,706	15,894	23,106	32,003	20,449	12,644	10,973	12,562	16,106	10,837	15,475
30%	8,069	10,742	10,888	17,049	22,329	16,982	8,777	10,113	11,666	15,865	10,377	12,705
40%	7,546	9,595	8,264	12,301	13,483	10,615	7,667	9,625	11,238	15,143	9,980	10,264
50%	7,113	7,886	7,038	8,813	10,949	8,851	6,348	9,300	10,767	14,145	9,581	6,553
60%	6,553	6,888	6,297	7,699	8,483	7,863	5,678	9,046	9,994	13,529	9,289	6,019
70%	6,241	6,381	5,778	6,705	7,061	6,763	5,462	8,224	9,754	12,449	8,819	5,607
80%	5,937	5,670	5,323	5,872	5,842	5,764	5,036	7,690	9,403	11,669	8,437	5,366
90%	5,567	5,151	4,959	5,056	5,270	5,277	4,669	7,374	8,758	10,328	8,092	4,896
Long Term												
Full Simulation Period ^d	7,505	8,938	11,591	16,269	18,776	15,047	9,525	9,749	10,988	13,812	9,774	9,272
Water Year Types ^{b,c}												
Wet (32%)	8,649	11,729	11,908	30,758	30,184	25,960	14,778	10,834	10,315	14,229	10,555	14,513
Above Normal (16%)	8,688	11,193	10,542	16,714	25,692	15,887	10,137	10,284	11,663	15,925	10,704	11,100
Below Normal (13%)	6,658	6,455	11,501	7,763	13,523	7,711	6,846	9,853	11,786	14,981	10,525	6,042
Dry (24%)	6,721	7,328	14,929	7,400	9,804	9,673	6,334	8,674	11,447	13,172	8,838	5,460
Critical (15%)	5,829	5,408	6,564	6,975	6,332	6,173	5,252	8,513	10,220	10,617	7,944	5,252

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,836	10,759	26,849	39,360	44,225	30,557	17,550	13,275	14,841	16,403	11,504	8,479
20%	8,183	9,459	18,995	26,361	32,093	22,463	12,685	11,350	13,550	16,028	10,977	7,789
30%	7,739	7,950	11,780	18,718	22,364	18,192	8,962	10,988	12,959	15,213	10,411	6,802
40%	7,251	7,463	9,060	14,037	14,351	10,896	7,708	10,414	12,117	14,197	10,088	6,153
50%	6,904	7,027	7,624	9,340	11,342	9,334	6,868	9,952	11,484	13,482	9,835	5,689
60%	6,687	6,590	6,908	7,842	8,710	8,247	6,126	9,384	10,962	12,471	9,333	5,430
70%	6,161	6,490	5,991	6,742	7,350	7,496	5,491	9,017	10,330	11,842	8,857	5,277
80%	6,064	6,170	5,767	5,925	6,015	6,017	5,182	8,106	9,437	11,069	8,438	4,927
90%	5,500	5,554	5,501	5,097	5,444	5,282	4,845	7,423	8,745	10,184	7,909	4,657
Long Term												
Full Simulation Period ^d	7,094	8,047	12,626	16,964	19,281	15,676	9,688	10,227	11,636	13,406	9,762	6,341
Water Year Types ^{b,c}												
Wet (32%)	8,021	8,899	14,044	31,583	30,686	26,451	14,896	11,040	10,720	14,216	10,769	7,744
Above Normal (16%)	7,607	9,485	10,998	17,908	26,869	17,371	10,341	10,813	12,597	15,973	10,970	7,229
Below Normal (13%)	6,548	6,952	11,738	9,687	14,161	8,681	6,883	10,579	12,976	14,259	9,797	5,517
Dry (24%)	6,621	7,872	15,894	7,562	9,905	9,858	6,595	9,486	12,172	12,187	8,836	5,154
Critical (15%)	5,817	5,943	6,686	6,606	6,668	6,606	5,422	8,744	10,458	10,116	7,783	5,075

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,497	-2,538	2,095	3,726	340	6	-117	197	832	88	-133	-7,623
20%	-1,346	-2,247	3,100	3,255	90	2,014	41	377	988	-77	139	-7,686
30%	-330	-2,792	892	1,668	34	1,210	186	875	1,293	-652	33	-5,903
40%	-296	-2,132	796	1,737	868	281	41	789	879	-947	108	-4,111
50%	-209	-859	586	527	392	483	519	652	717	-664	253	-864
60%	135	-298	611	143	227	384	448	337	968	-1,058	44	-589
70%	-80	109	213	36	289	733	28	793	575	-608	38	-331
80%	127	501	444	53	173	253	146	416	33	-599	2	-440
90%	-67	403	542	41	174	5	176	49	-14	-144	-183	-239
Long Term												
Full Simulation Period ^d	-411	-891	1,035	694	505	629	163	479	648	-407	-12	-2,931
Water Year Types ^{b,c}												
Wet (32%)	-628	-2,831	2,137	825	502	490	118	206	405	-12	214	-6,769
Above Normal (16%)	-1,081	-1,708	456	1,193	1,176	1,483	204	529	934	48	267	-3,871
Below Normal (13%)	-110	497	237	1,924	638	970	38	726	1,190	-722	-728	-525
Dry (24%)	-100	544	966	163	101	185	261	812	725	-985	-2	-305
Critical (15%)	-11	534	122	-369	336	433	170	231	238	-501	-161	-177

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-3. Sacramento Flow River at Bend Bridge, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,198	13,953	26,688	35,638	46,109	29,262	16,420	13,490	13,551	16,306	12,112	16,020
20%	9,498	12,211	15,873	23,609	32,798	19,328	12,773	11,737	12,471	15,987	11,287	13,911
30%	8,462	11,288	10,517	15,778	21,195	14,704	8,502	10,439	11,286	15,695	10,484	11,975
40%	7,922	10,189	7,881	11,219	12,726	10,332	7,391	9,564	10,723	14,509	10,023	10,170
50%	7,346	8,607	6,865	8,652	10,395	8,537	6,357	8,987	10,334	13,470	9,675	7,057
60%	6,574	7,355	6,269	7,028	8,309	7,612	5,807	8,557	9,943	12,467	9,377	5,866
70%	6,171	6,547	5,741	6,470	7,352	6,586	5,469	8,058	9,685	11,691	8,850	5,669
80%	5,818	5,927	5,387	5,793	5,852	5,734	5,242	7,767	9,277	11,074	8,363	5,328
90%	5,155	5,163	5,015	4,941	5,103	5,308	4,898	6,907	8,721	10,298	7,835	4,725
Long Term												
Full Simulation Period ^d	7,529	9,445	11,764	15,505	18,752	14,404	9,161	9,828	10,812	13,424	9,822	9,127
Water Year Types ^{b,c}												
Wet (32%)	8,976	12,271	12,210	29,245	30,766	24,888	13,986	11,642	10,481	13,927	10,755	14,538
Above Normal (16%)	8,375	12,465	10,942	16,112	25,805	15,721	9,621	10,248	11,260	15,411	10,700	10,438
Below Normal (13%)	6,912	6,720	11,740	7,446	12,327	7,257	6,300	9,296	11,605	14,450	10,870	6,082
Dry (24%)	6,744	7,760	14,998	7,168	9,322	8,960	6,452	8,495	11,039	12,524	8,692	5,386
Critical (15%)	5,350	5,355	6,319	6,361	6,689	5,888	5,349	8,151	9,941	10,738	7,775	5,011

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,333	13,298	24,754	35,634	43,884	30,551	17,667	13,078	14,009	16,315	11,637	16,102
20%	9,528	11,706	15,894	23,106	32,003	20,449	12,644	10,973	12,562	16,106	10,837	15,475
30%	8,069	10,742	10,888	17,049	22,329	16,982	8,777	10,113	11,666	15,865	10,377	12,705
40%	7,546	9,595	8,264	12,301	13,483	10,615	7,667	9,625	11,238	15,143	9,980	10,264
50%	7,113	7,886	7,038	8,813	10,949	8,851	6,348	9,300	10,767	14,145	9,581	6,553
60%	6,553	6,888	6,297	7,699	8,483	7,863	5,678	9,046	9,994	13,529	9,289	6,019
70%	6,241	6,381	5,778	6,705	7,061	6,763	5,462	8,224	9,754	12,449	8,819	5,607
80%	5,937	5,670	5,323	5,872	5,842	5,764	5,036	7,690	9,403	11,669	8,437	5,366
90%	5,567	5,151	4,959	5,056	5,270	5,277	4,669	7,374	8,758	10,328	8,092	4,896
Long Term												
Full Simulation Period ^d	7,505	8,938	11,591	16,269	18,776	15,047	9,525	9,749	10,988	13,812	9,774	9,272
Water Year Types ^{b,c}												
Wet (32%)	8,649	11,729	11,908	30,758	30,184	25,960	14,778	10,834	10,315	14,229	10,555	14,513
Above Normal (16%)	8,688	11,193	10,542	16,714	25,692	15,887	10,137	10,284	11,663	15,925	10,704	11,100
Below Normal (13%)	6,658	6,455	11,501	7,763	13,523	7,711	6,846	9,853	11,786	14,981	10,525	6,042
Dry (24%)	6,721	7,328	14,929	7,400	9,804	9,673	6,334	8,674	11,447	13,172	8,838	5,460
Critical (15%)	5,829	5,408	6,564	6,975	6,332	6,173	5,252	8,513	10,220	10,617	7,944	5,252

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	136	-656	-1,933	-4	-2,224	1,289	1,247	-413	458	9	-475	82
20%	30	-506	21	-503	-795	1,122	-129	-764	90	119	-450	1,564
30%	-393	-547	371	1,272	1,135	2,278	275	-326	380	170	-107	730
40%	-375	-594	383	1,082	758	283	276	61	515	635	-43	94
50%	-233	-721	173	162	554	314	-8	312	433	675	-94	-505
60%	-21	-468	28	671	174	251	-129	489	51	1,062	-88	153
70%	71	-167	37	235	-291	177	-7	166	69	759	-31	-62
80%	119	-258	-65	79	-11	30	-206	-77	126	595	74	38
90%	413	-12	-56	115	166	-31	-229	466	38	29	257	171
Long Term												
Full Simulation Period ^d	-24	-506	-172	764	24	643	363	-79	176	389	-49	145
Water Year Types ^{b,c}												
Wet (32%)	-327	-541	-302	1,513	-582	1,072	792	-808	-166	301	-200	-26
Above Normal (16%)	314	-1,272	-401	602	-113	166	516	35	403	514	4	662
Below Normal (13%)	-255	-265	-239	317	1,196	454	545	557	181	532	-346	-40
Dry (24%)	-23	-432	-69	232	483	713	-118	179	408	648	146	73
Critical (15%)	479	54	245	613	-357	285	-97	362	279	-121	169	241

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 16-4. Sacramento Flow River at Bend Bridge, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,822	11,114	29,772	38,805	47,109	29,725	16,203	13,852	14,735	16,223	11,697	9,621
20%	8,844	9,366	20,581	25,056	31,587	19,309	12,814	11,831	13,413	15,892	10,954	8,383
30%	8,199	8,144	11,327	16,650	22,645	16,537	8,681	10,762	12,213	14,740	10,458	7,818
40%	7,530	7,749	8,955	13,252	13,213	10,674	7,506	10,304	11,164	13,857	10,129	6,732
50%	7,140	7,302	6,954	9,040	10,625	8,857	6,863	9,838	10,913	12,682	9,856	6,111
60%	6,666	7,034	6,590	7,342	8,427	7,849	6,093	8,960	10,578	11,864	9,516	5,662
70%	6,245	6,661	5,964	6,634	7,539	7,188	5,676	8,501	9,822	11,451	8,800	5,369
80%	5,891	6,116	5,590	5,851	6,070	5,804	5,266	7,850	9,461	10,680	8,207	4,908
90%	5,463	5,606	5,215	4,941	5,367	5,276	4,930	7,252	8,755	9,846	7,838	4,639
Long Term												
Full Simulation Period ^d	7,358	8,479	12,625	16,190	19,299	14,812	9,341	10,154	11,359	13,101	9,796	6,773
Water Year Types ^{b,c}												
Wet (32%)	8,683	9,312	14,204	29,931	31,255	25,141	14,164	11,566	10,733	14,034	10,945	8,756
Above Normal (16%)	7,894	10,639	11,788	17,231	27,182	16,793	9,801	10,601	11,863	15,295	10,779	7,755
Below Normal (13%)	6,924	7,098	11,914	8,618	13,613	8,122	6,728	10,046	13,051	13,976	10,176	5,718
Dry (24%)	6,768	8,320	15,197	7,368	9,450	9,015	6,589	9,203	11,664	11,726	8,771	5,229
Critical (15%)	5,289	5,866	6,478	6,933	6,482	6,083	5,371	8,298	10,111	10,190	7,603	4,952

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,836	10,759	26,849	39,360	44,225	30,557	17,550	13,275	14,841	16,403	11,504	8,479
20%	8,183	9,459	18,995	26,361	32,093	22,463	12,685	11,350	13,550	16,028	10,977	7,789
30%	7,739	7,950	11,780	18,718	22,364	18,192	8,962	10,988	12,959	15,213	10,411	6,802
40%	7,251	7,463	9,060	14,037	14,351	10,896	7,708	10,414	12,117	14,197	10,088	6,153
50%	6,904	7,027	7,624	9,340	11,342	9,334	6,868	9,952	11,484	13,482	9,835	5,689
60%	6,687	6,590	6,908	7,842	8,710	8,247	6,126	9,384	10,962	12,471	9,333	5,430
70%	6,161	6,490	5,991	6,742	7,350	7,496	5,491	9,017	10,330	11,842	8,857	5,277
80%	6,064	6,170	5,767	5,925	6,015	6,017	5,182	8,106	9,437	11,069	8,438	4,927
90%	5,500	5,554	5,501	5,097	5,444	5,282	4,845	7,423	8,745	10,184	7,909	4,657
Long Term												
Full Simulation Period ^d	7,094	8,047	12,626	16,964	19,281	15,676	9,688	10,227	11,636	13,406	9,762	6,341
Water Year Types ^{b,c}												
Wet (32%)	8,021	8,899	14,044	31,583	30,686	26,451	14,896	11,040	10,720	14,216	10,769	7,744
Above Normal (16%)	7,607	9,485	10,998	17,908	26,869	17,371	10,341	10,813	12,597	15,973	10,970	7,229
Below Normal (13%)	6,548	6,952	11,738	9,687	14,161	8,681	6,883	10,579	12,976	14,259	9,797	5,517
Dry (24%)	6,621	7,872	15,894	7,562	9,905	9,858	6,595	9,486	12,172	12,187	8,836	5,154
Critical (15%)	5,817	5,943	6,686	6,606	6,668	6,606	5,422	8,744	10,458	10,116	7,783	5,075

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-985	-355	-2,923	555	-2,885	833	1,347	-577	106	180	-193	-1,142
20%	-661	93	-1,586	1,305	507	3,154	-129	-480	137	136	23	-594
30%	-461	-194	454	2,067	-282	1,655	281	226	746	473	-48	-1,016
40%	-280	-286	106	785	1,139	222	203	110	953	340	-40	-579
50%	-236	-275	670	301	717	476	4	114	570	799	-21	-422
60%	22	-444	318	501	284	398	33	424	385	607	-183	-232
70%	-84	-171	27	107	-189	308	-185	516	508	391	58	-92
80%	174	54	177	74	-55	214	-84	256	-24	389	232	19
90%	38	-52	286	156	76	6	-86	171	-11	338	71	17
Long Term												
Full Simulation Period ^d	-264	-432	1	774	-18	864	347	73	277	305	-34	-431
Water Year Types ^{b,c}												
Wet (32%)	-662	-413	-159	1,652	-569	1,309	732	-526	-13	183	-177	-1,012
Above Normal (16%)	-286	-1,155	-790	677	-313	578	540	212	734	678	191	-526
Below Normal (13%)	-377	-145	-176	1,069	547	559	155	533	-75	284	-379	-201
Dry (24%)	-148	-448	697	194	455	843	6	284	508	461	64	-75
Critical (15%)	528	77	209	-327	186	524	51	446	346	-74	180	123

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

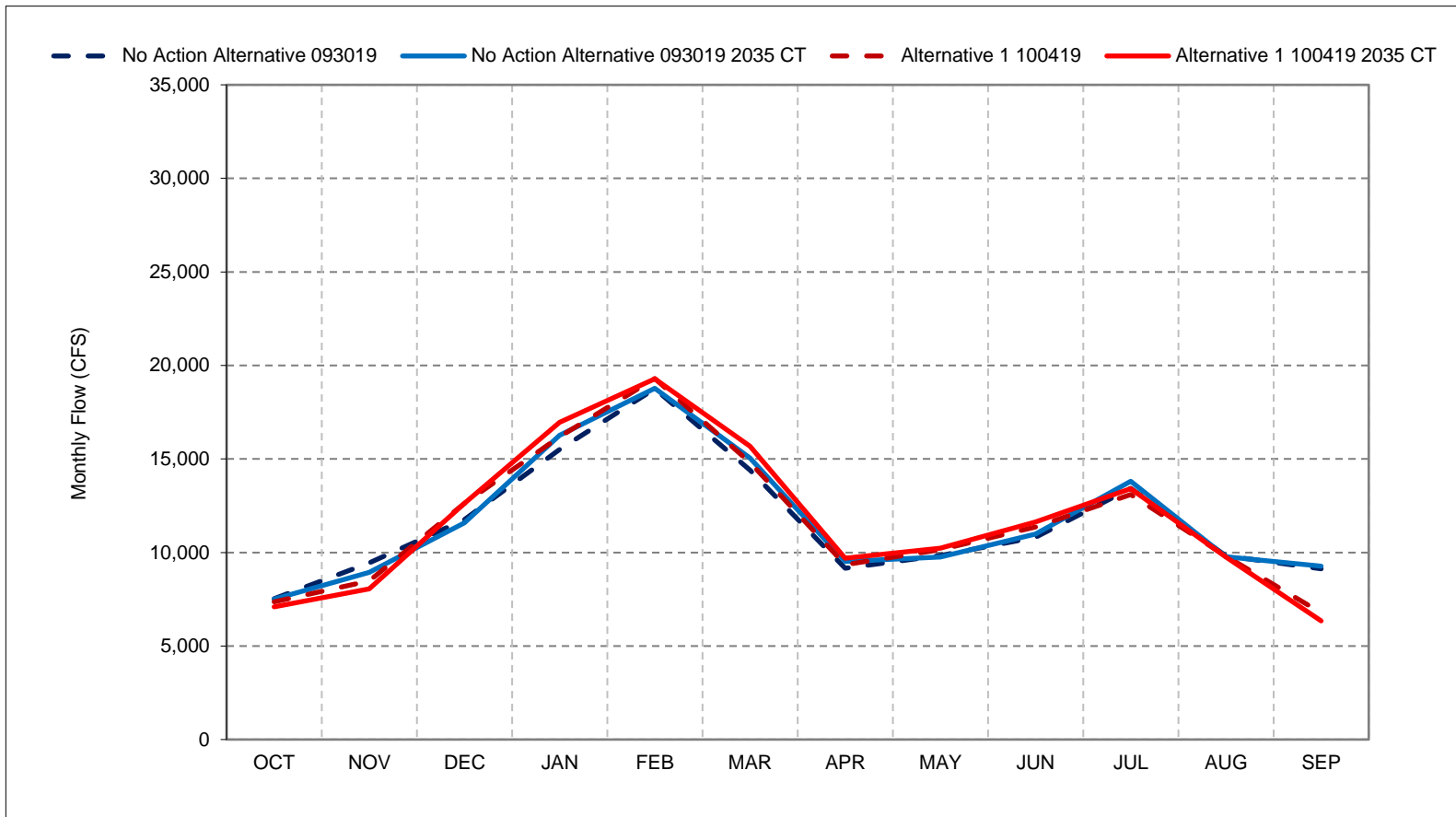
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 16-1. Sacramento Flow River at Bend Bridge, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

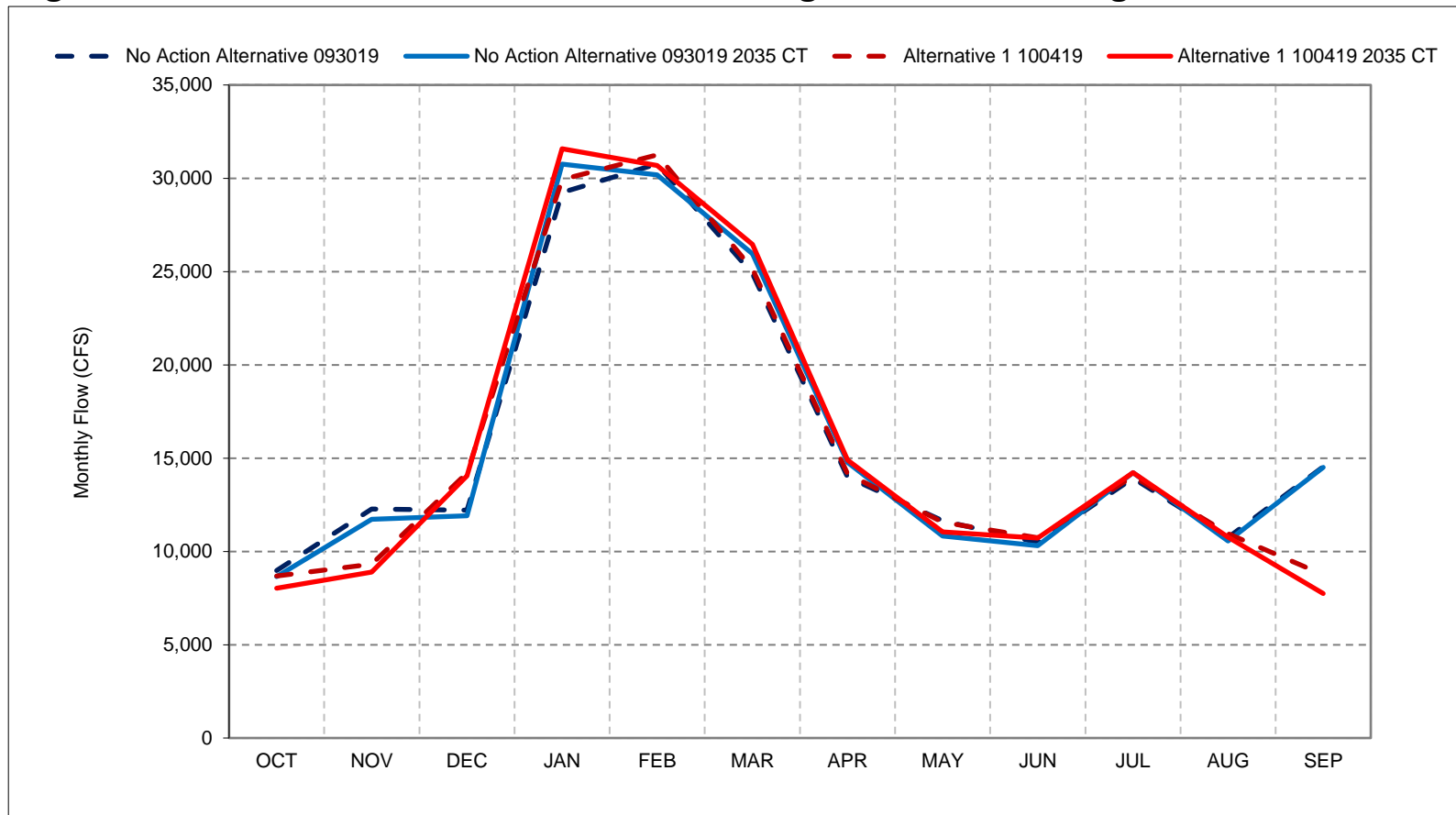
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-2. Sacramento Flow River at Bend Bridge, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

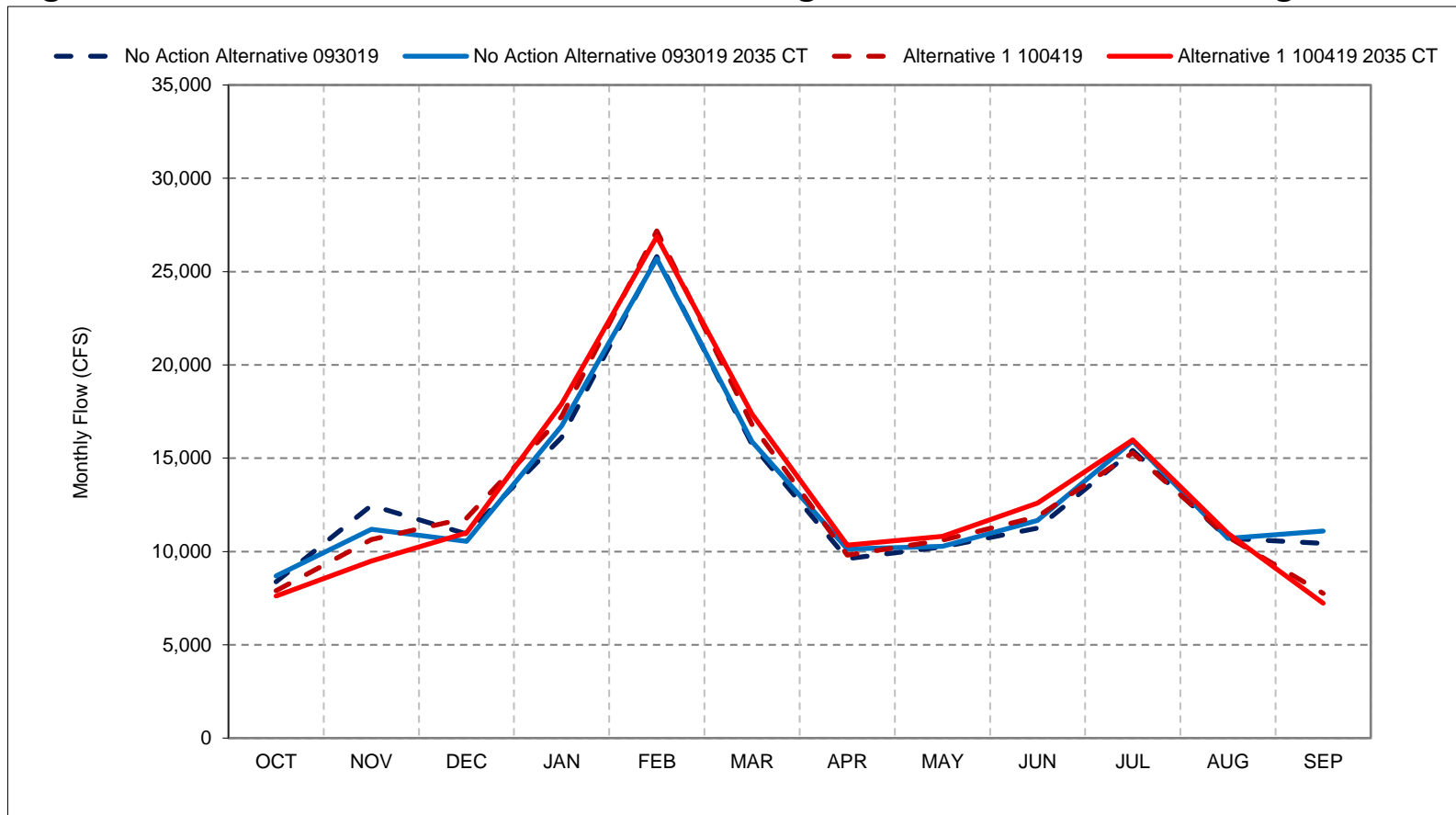
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-3. Sacramento Flow River at Bend Bridge, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

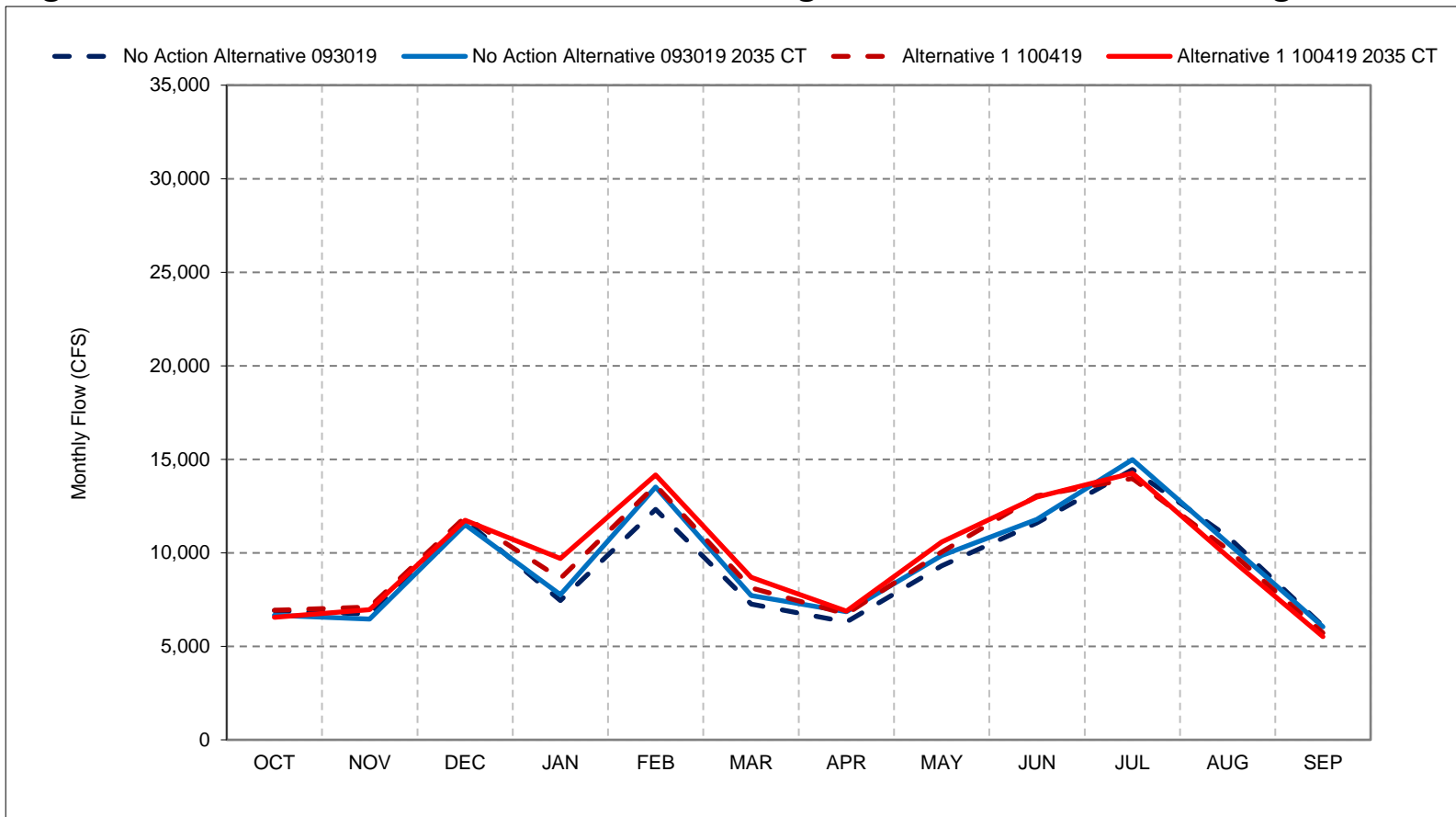
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-4. Sacramento Flow River at Bend Bridge, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

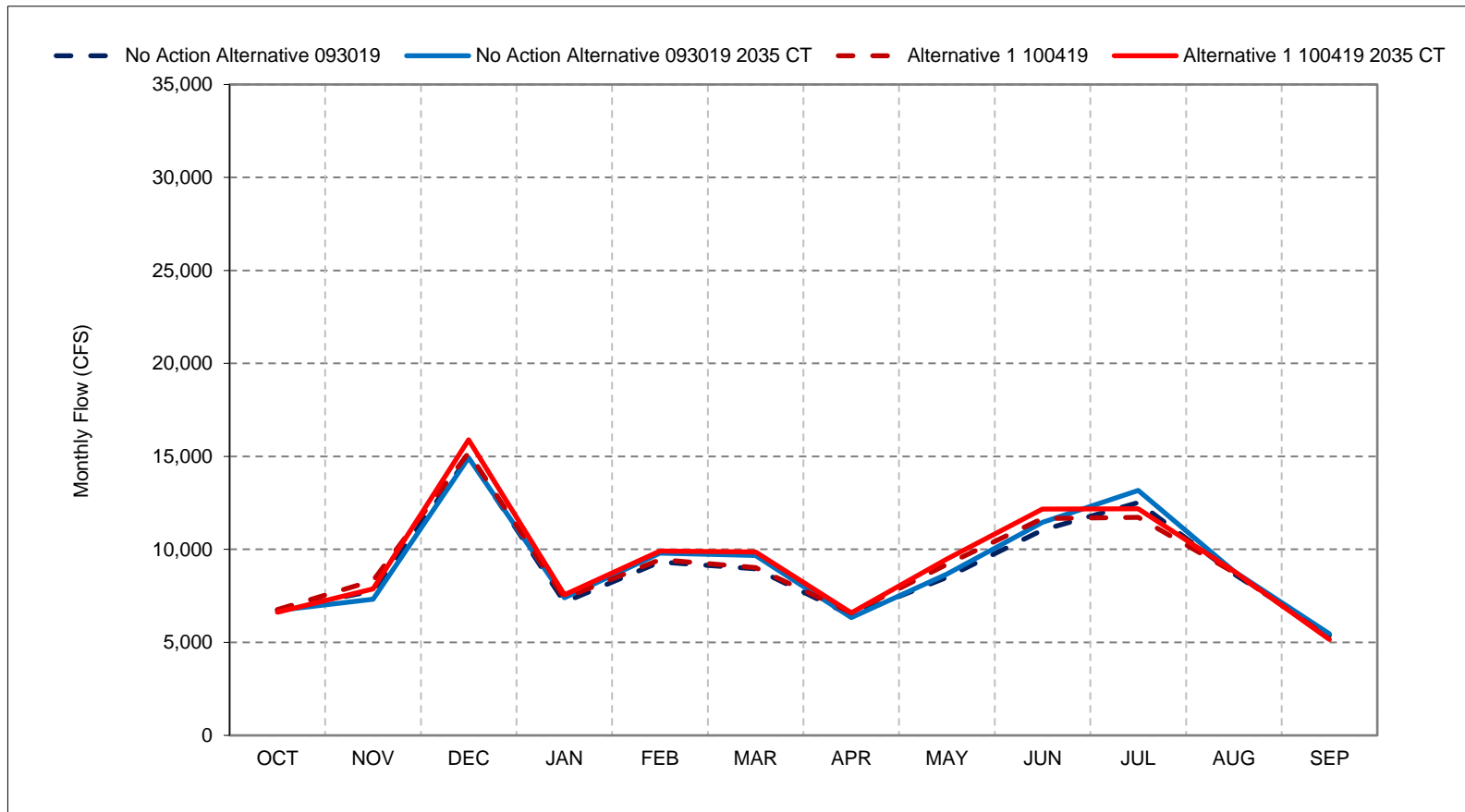
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-5. Sacramento Flow River at Bend Bridge, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

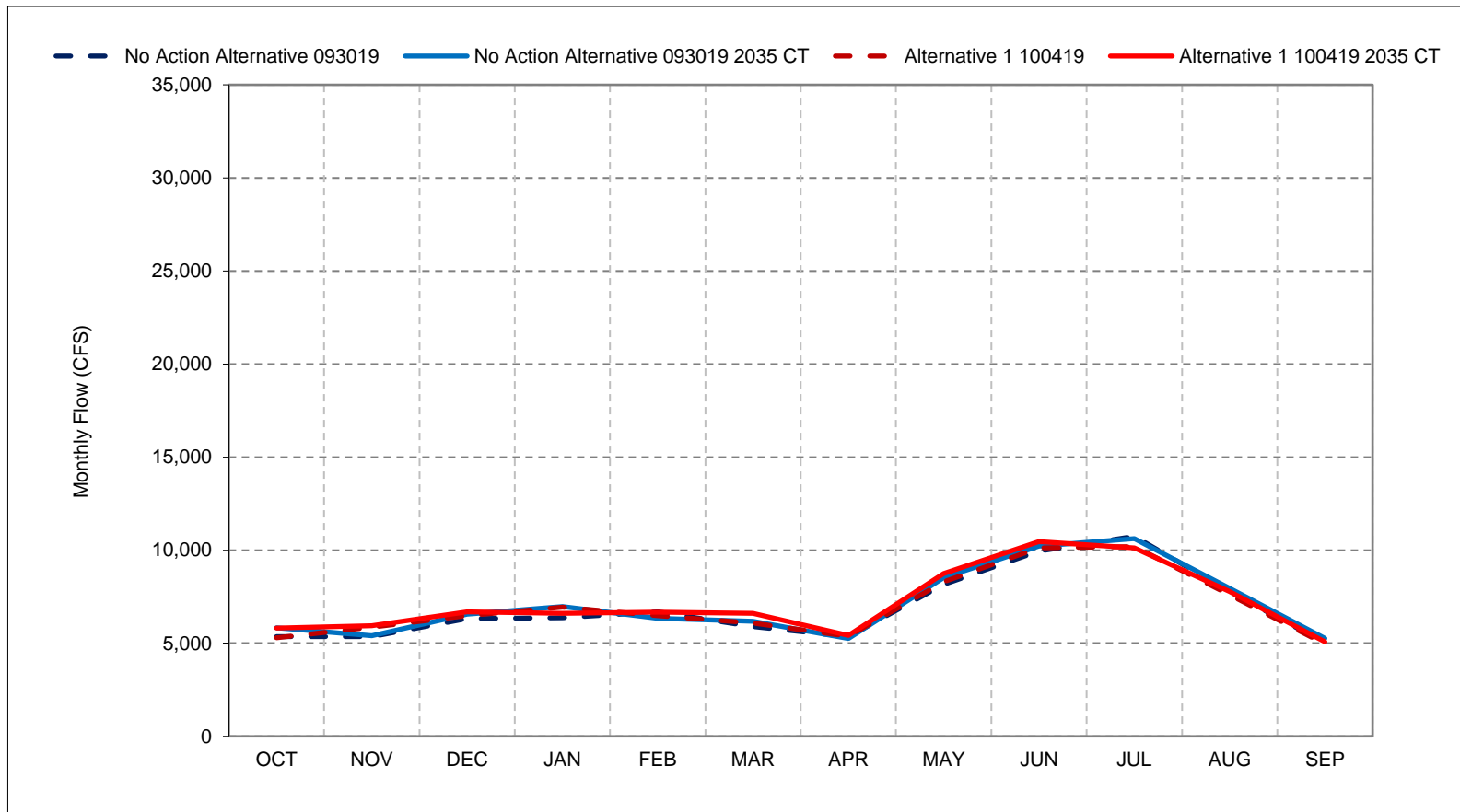
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 16-6. Sacramento Flow River at Bend Bridge, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

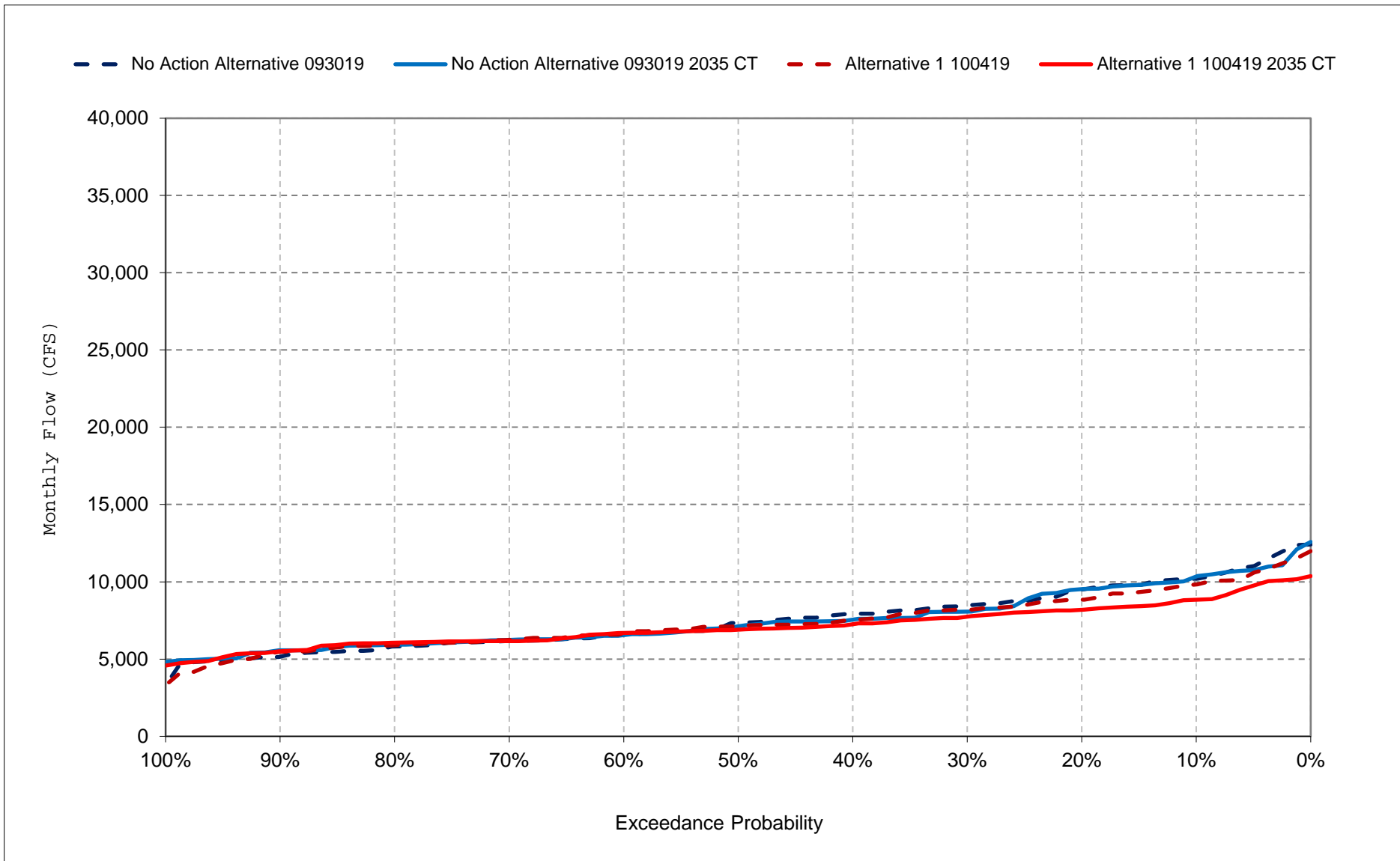
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

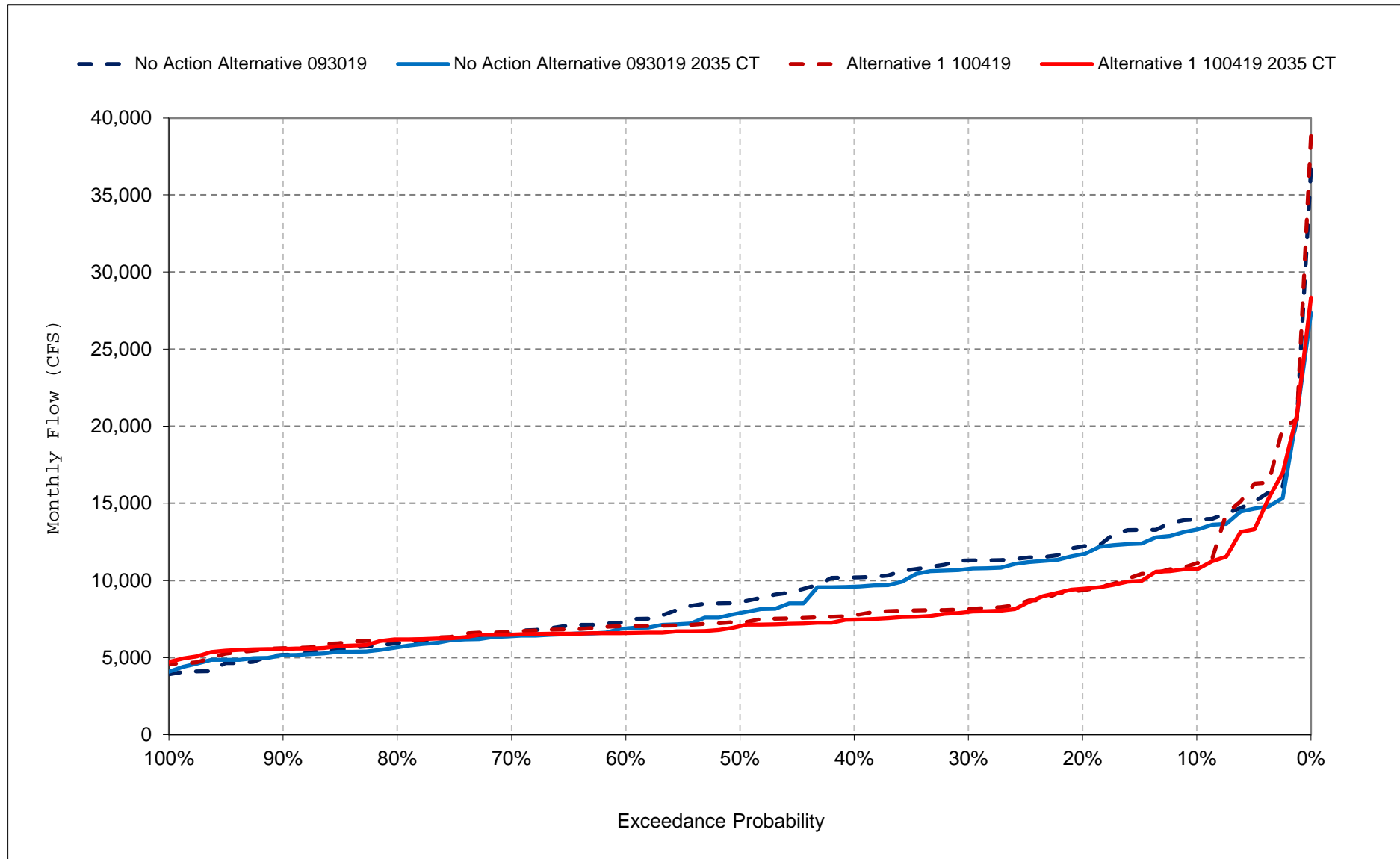
Figure 16-7. Sacramento Flow River at Bend Bridge, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

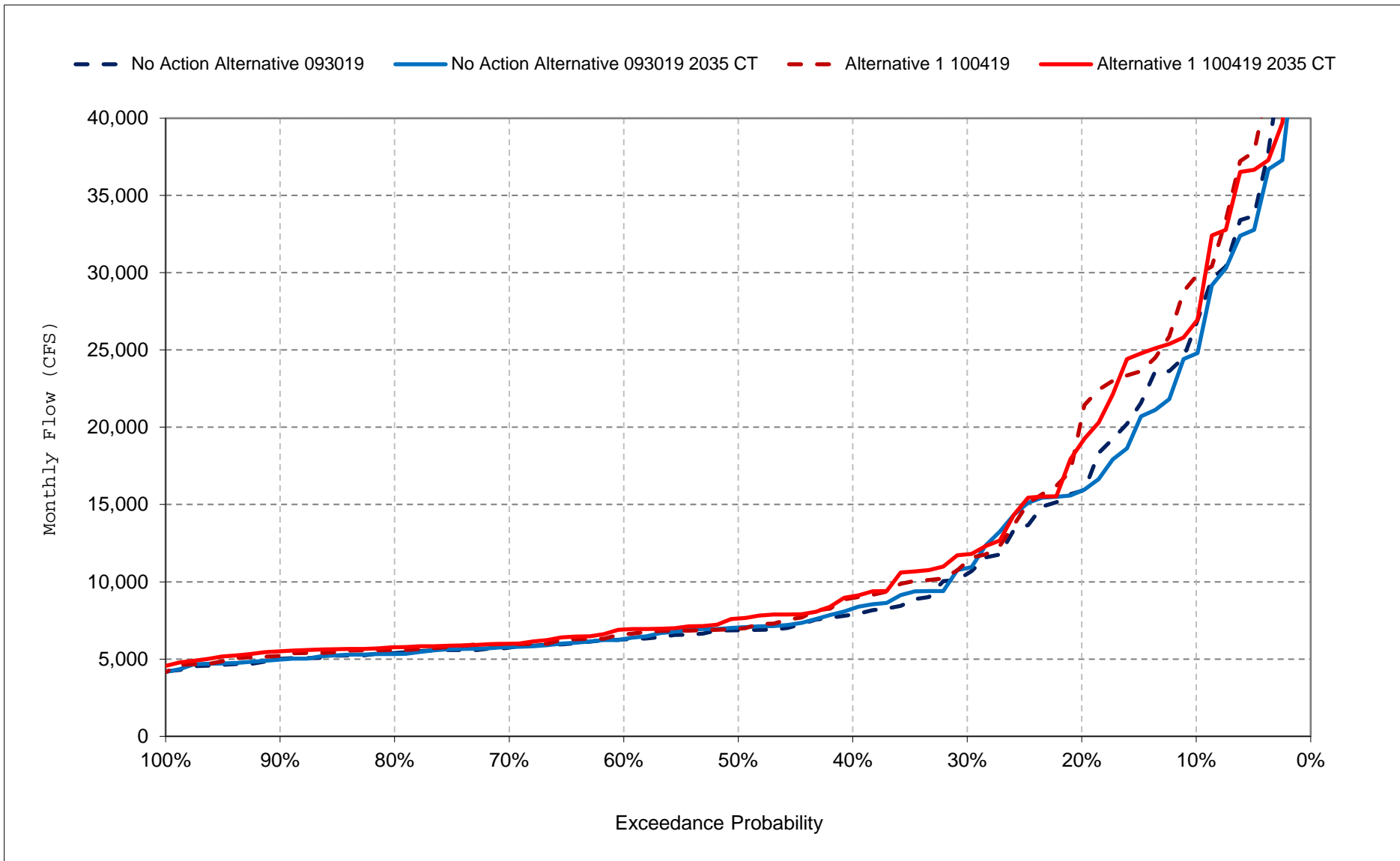
Figure 16-8. Sacramento Flow River at Bend Bridge, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

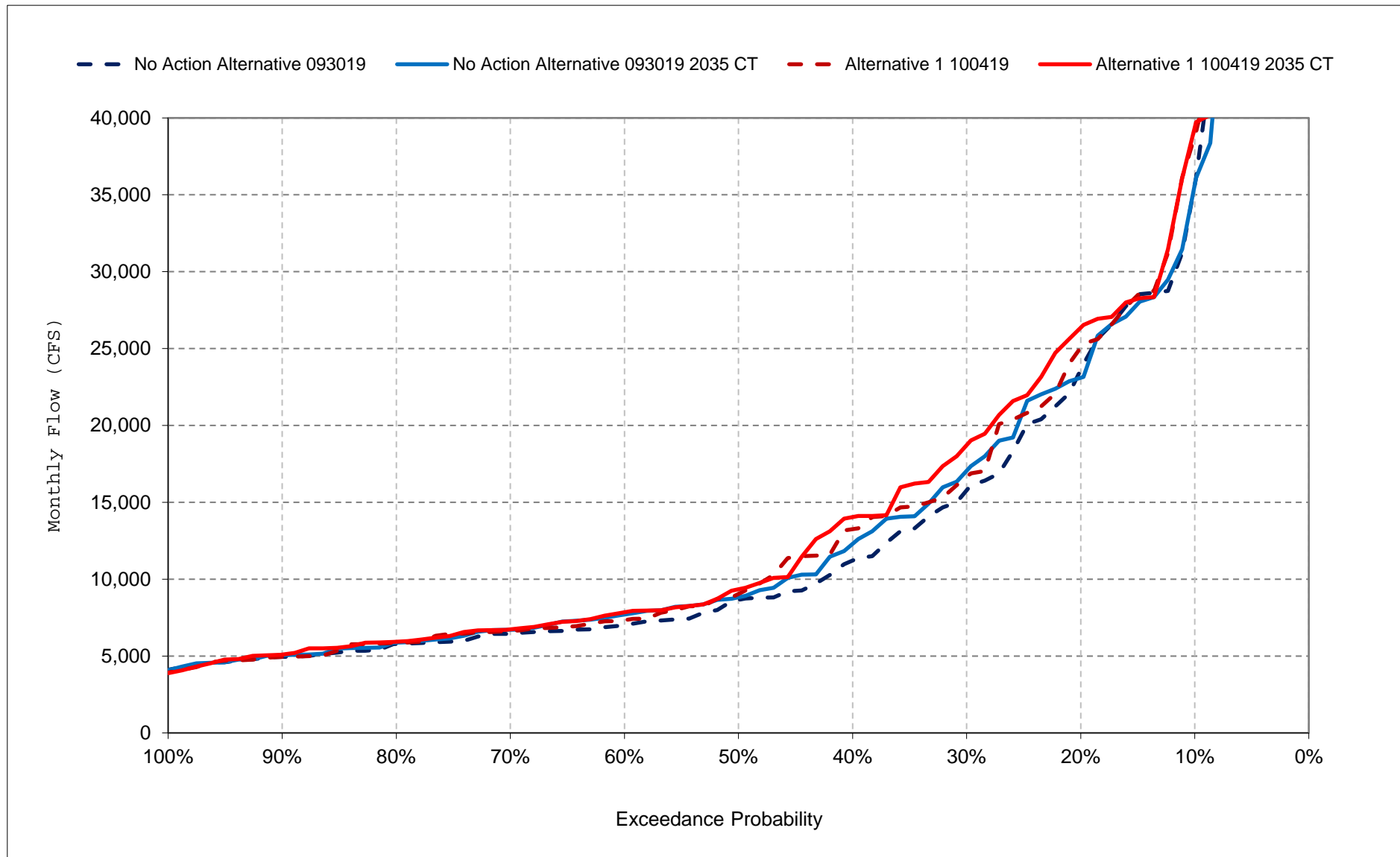
Figure 16-9. Sacramento Flow River at Bend Bridge, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

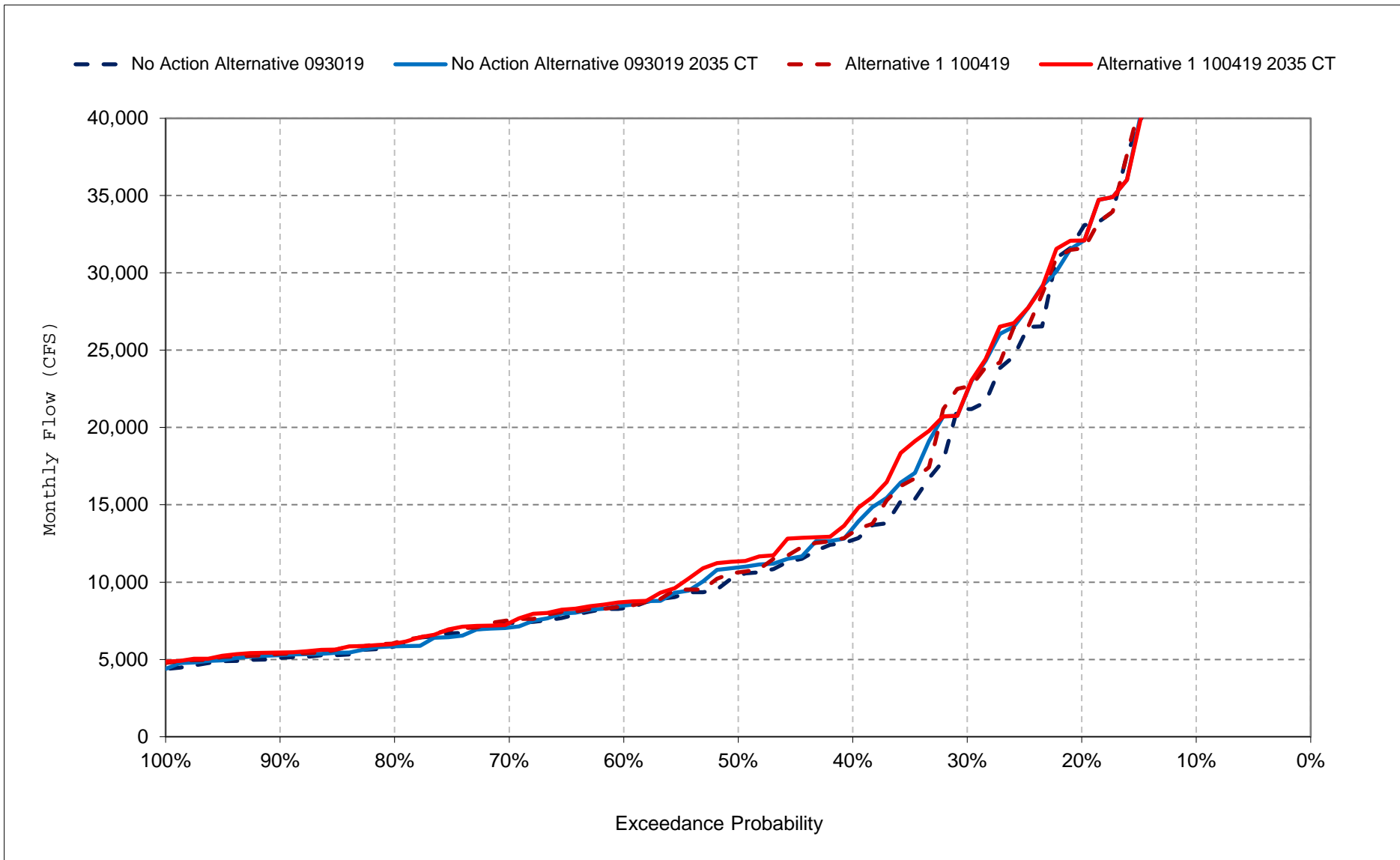
Figure 16-10. Sacramento Flow River at Bend Bridge, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

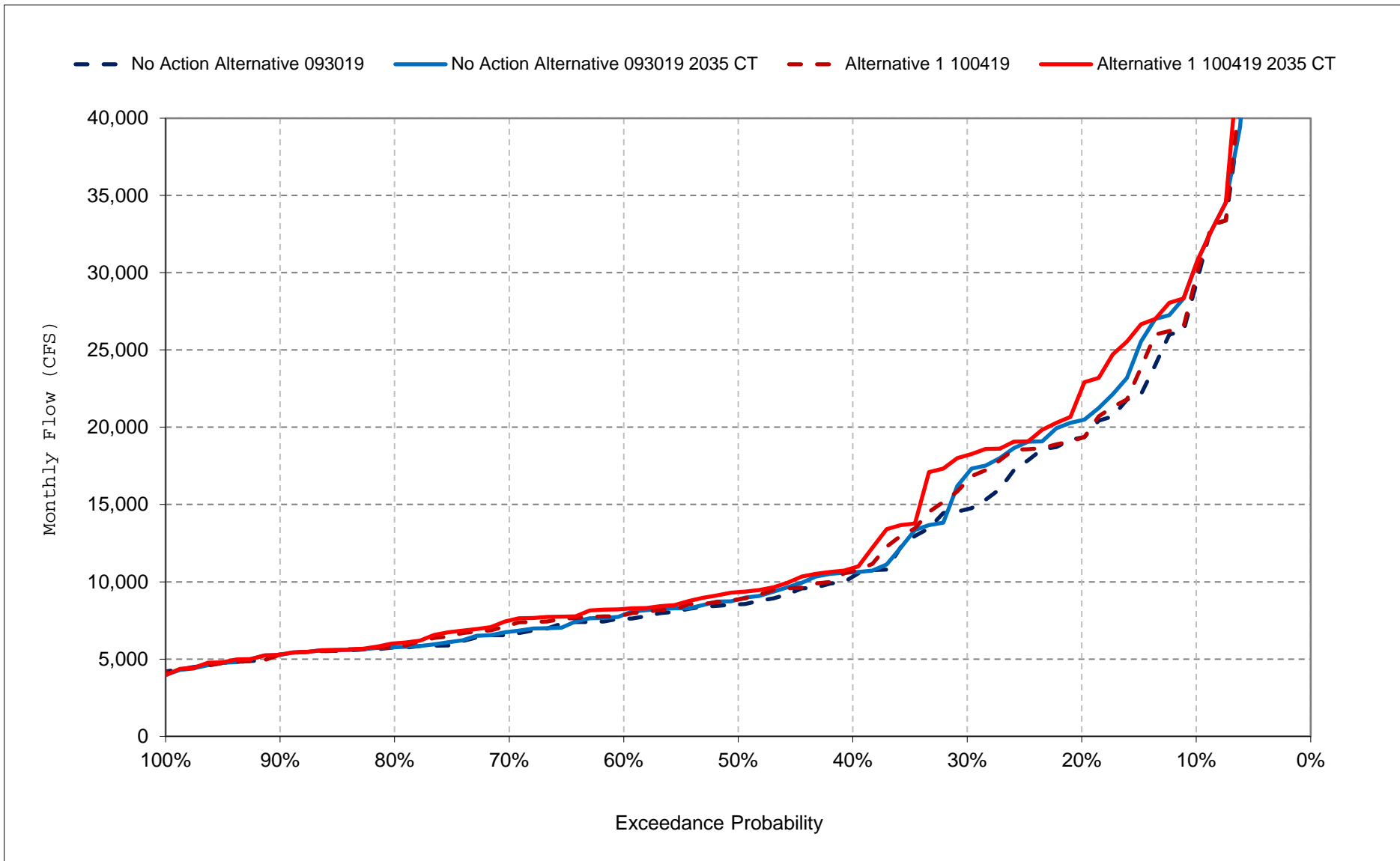
Figure 16-11. Sacramento Flow River at Bend Bridge, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

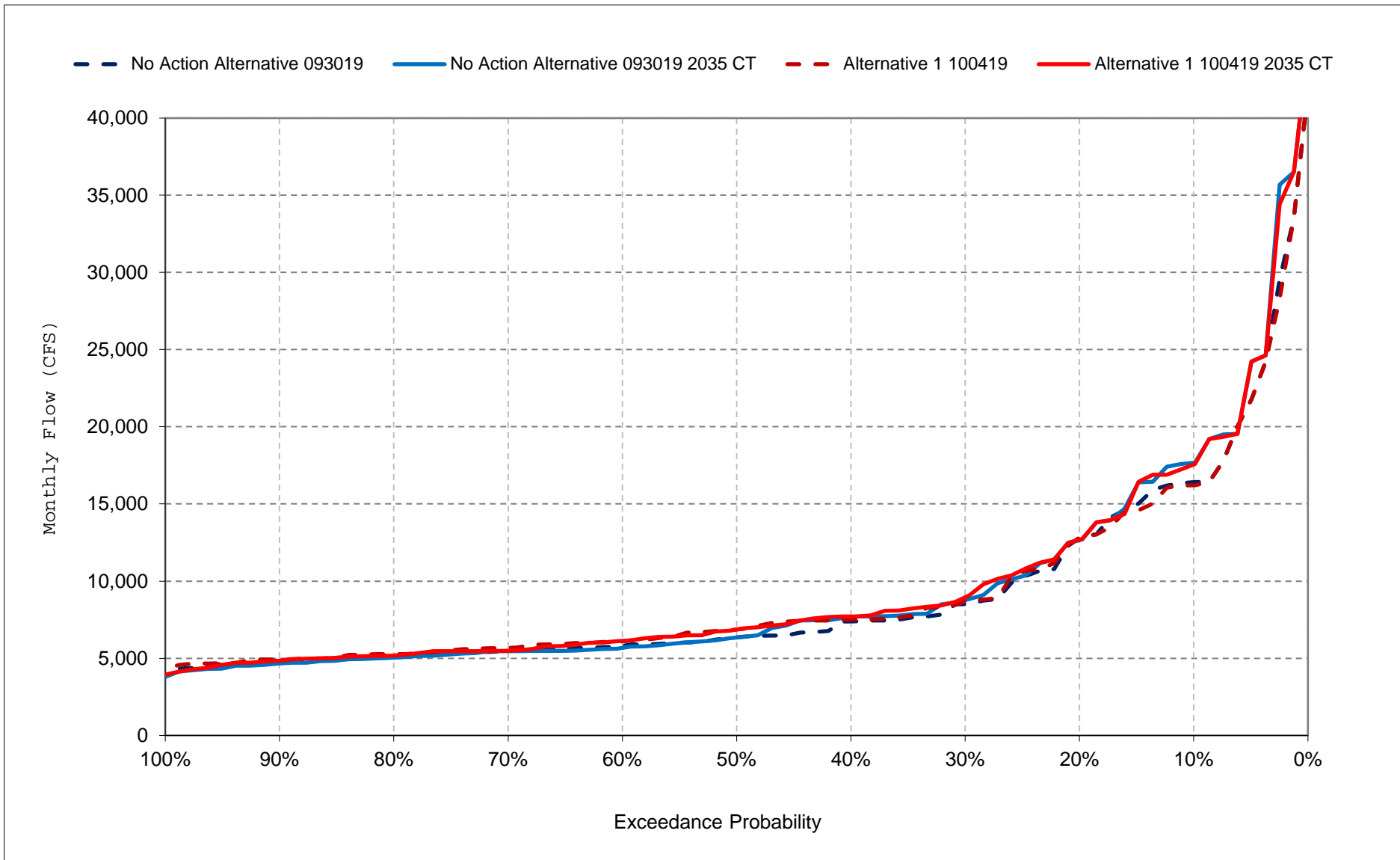
Figure 16-12. Sacramento Flow River at Bend Bridge, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

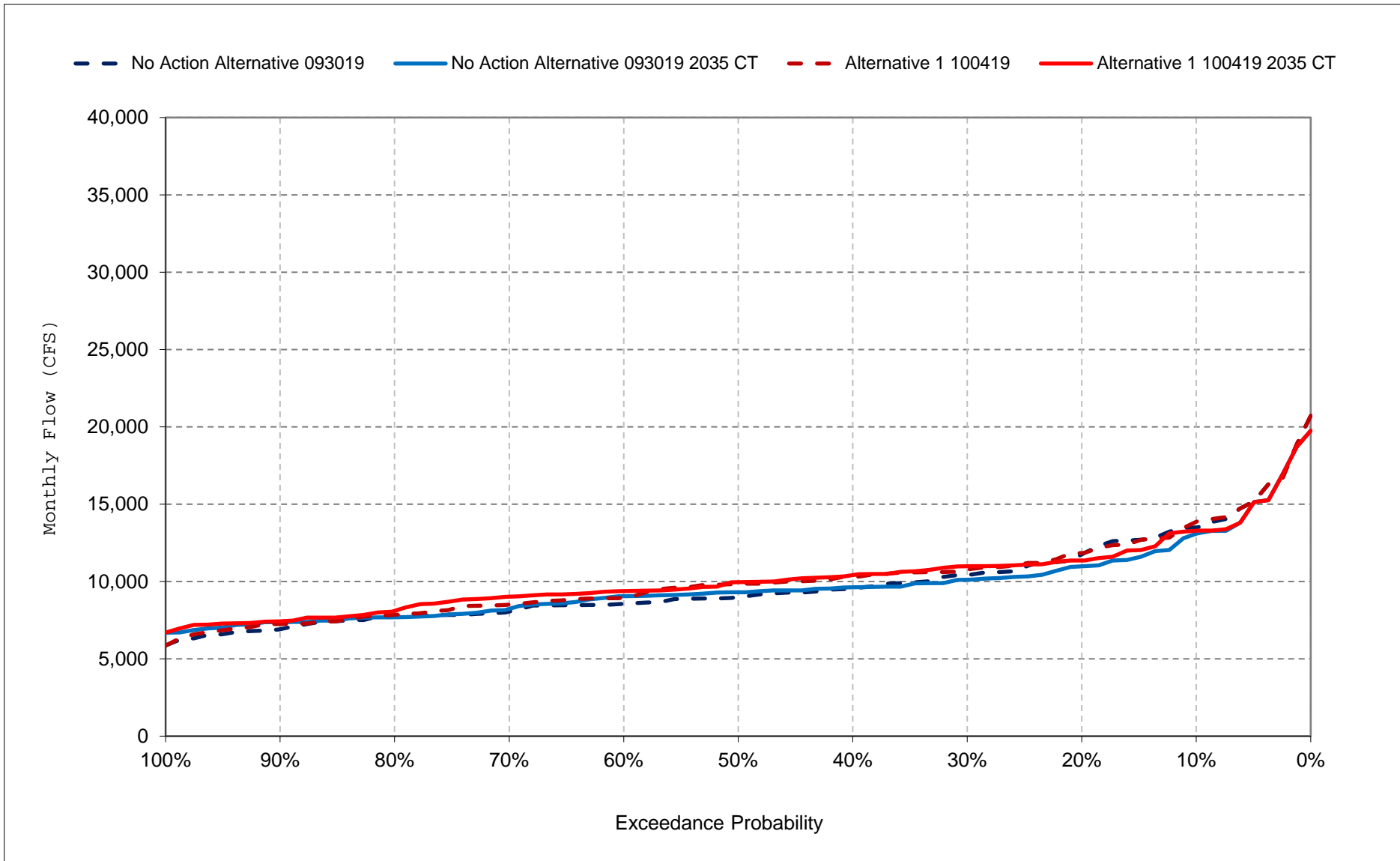
Figure 16-13. Sacramento Flow River at Bend Bridge, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

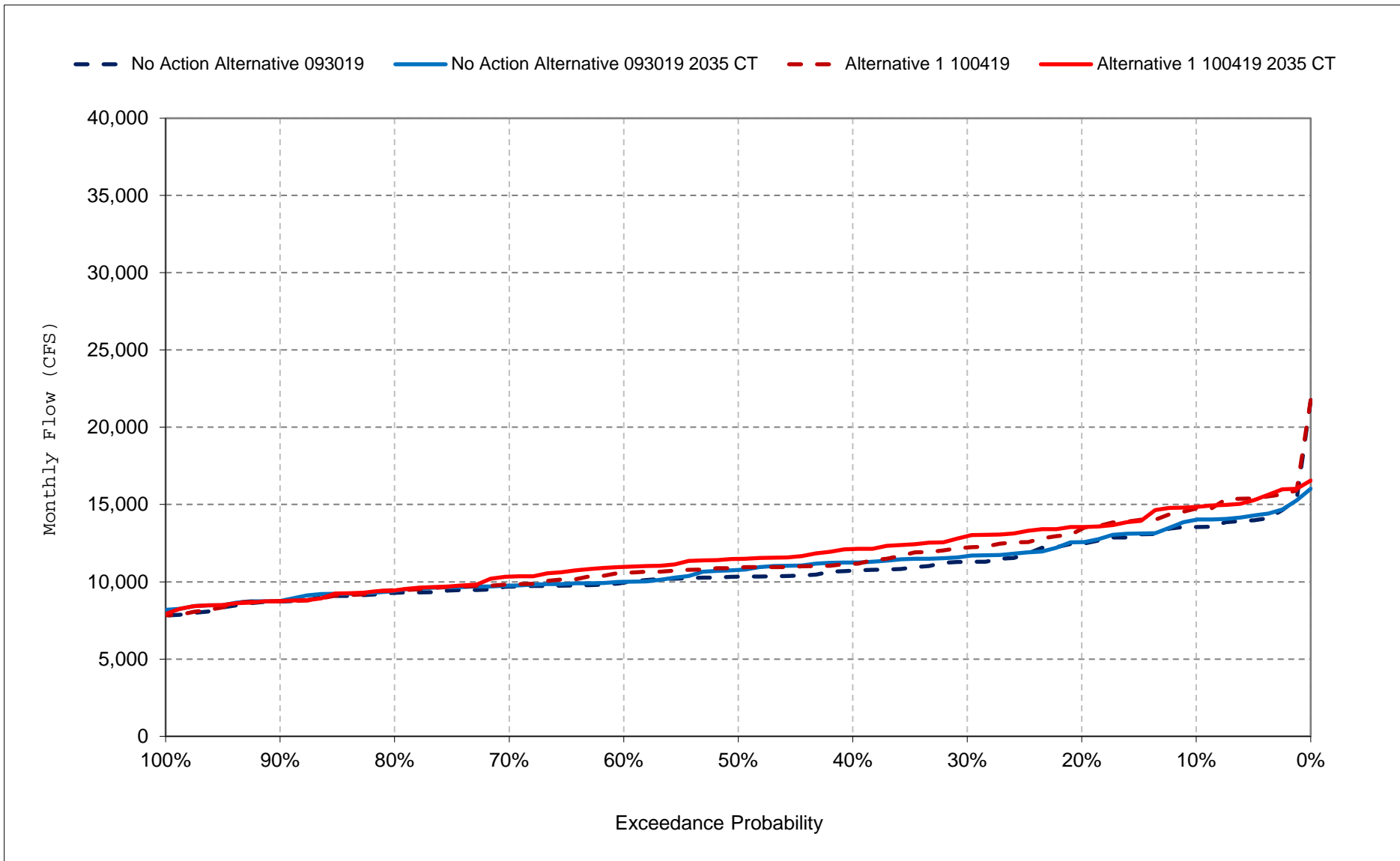
Figure 16-14. Sacramento Flow River at Bend Bridge, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

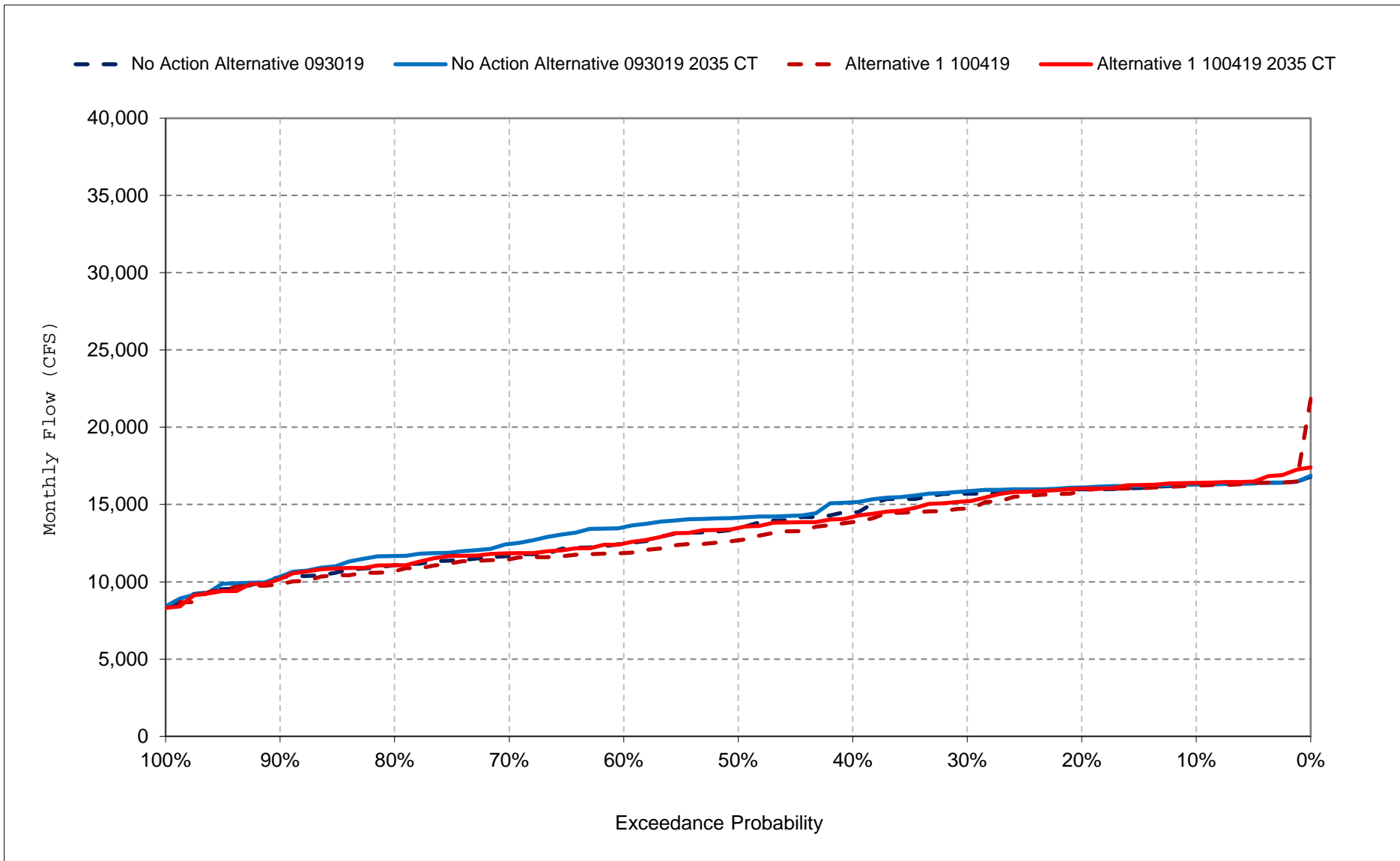
Figure 16-15. Sacramento Flow River at Bend Bridge, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

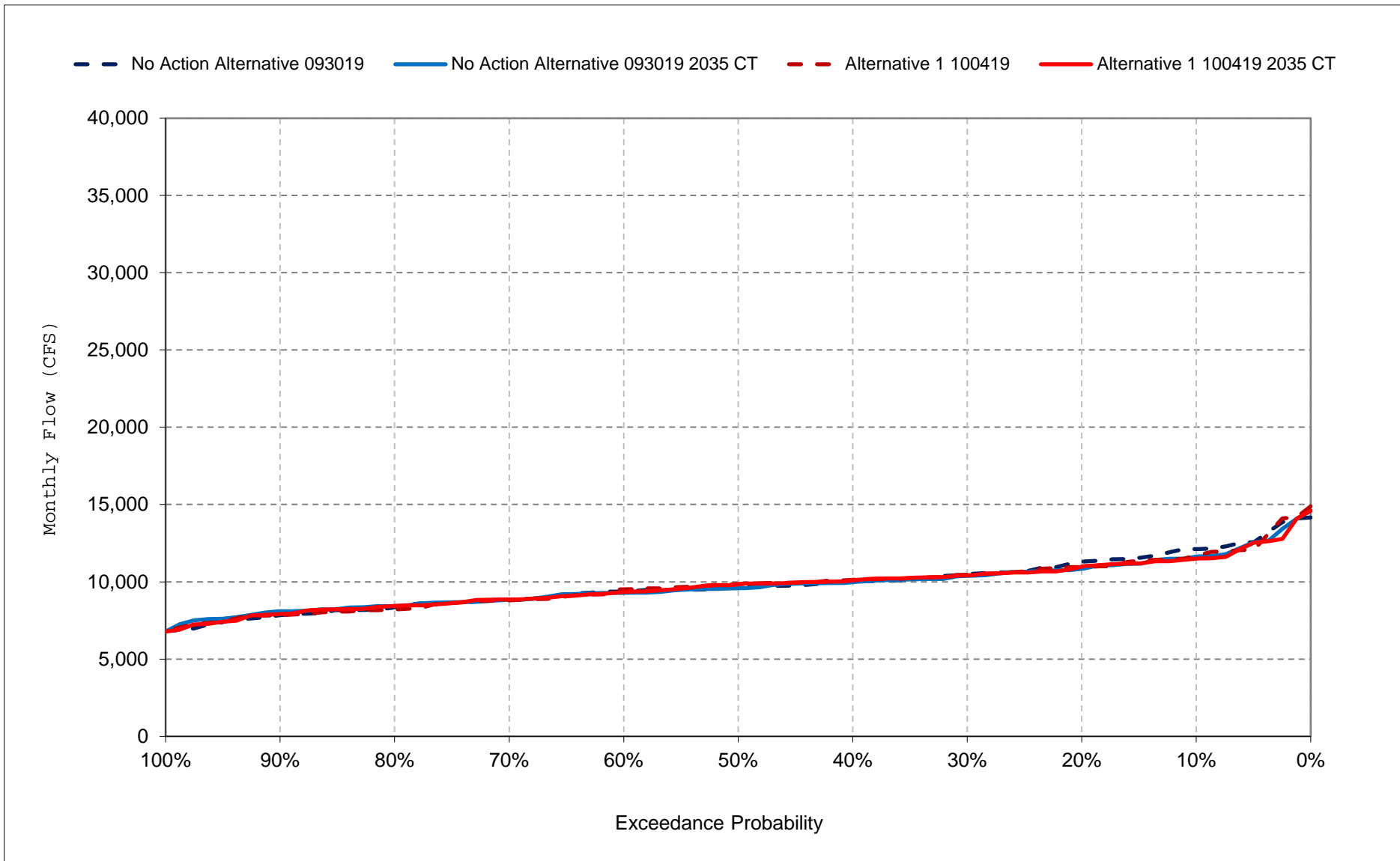
Figure 16-16. Sacramento Flow River at Bend Bridge, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

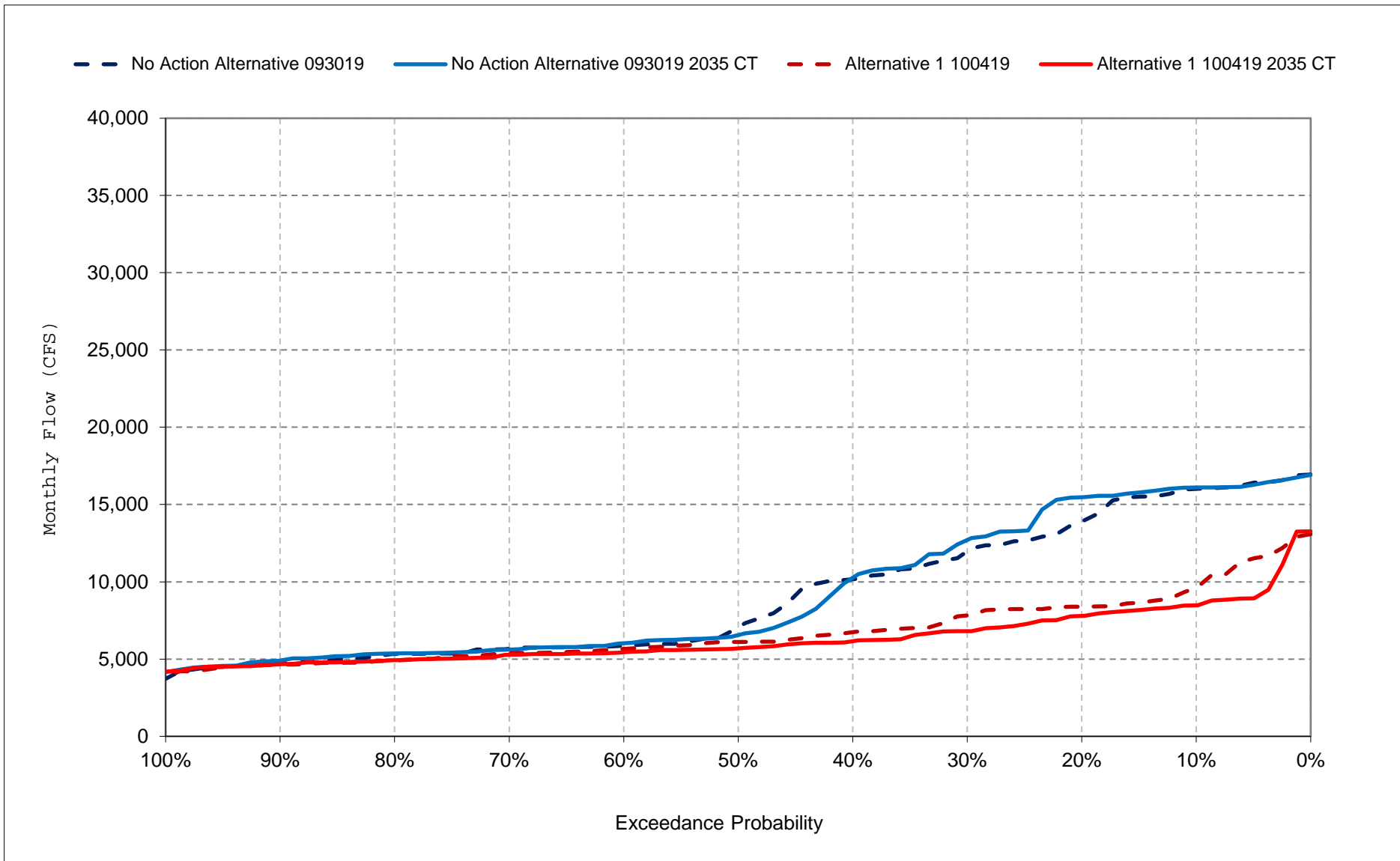
Figure 16-17. Sacramento Flow River at Bend Bridge, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 16-18. Sacramento Flow River at Bend Bridge, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-1. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,017	13,965	27,074	36,351	46,941	29,623	16,602	13,122	12,968	15,249	11,408	15,799
20%	9,366	12,194	16,314	24,185	33,404	19,585	13,008	11,124	11,883	14,883	10,277	13,682
30%	8,274	11,312	10,713	16,194	21,593	14,900	8,412	9,878	10,487	14,524	9,534	11,817
40%	7,806	10,331	8,071	11,498	13,059	10,522	7,223	9,155	10,029	13,717	9,230	10,011
50%	7,237	8,636	6,976	8,852	10,588	8,716	6,016	8,700	9,542	12,545	8,865	6,859
60%	6,456	7,426	6,322	7,152	8,534	7,750	5,487	8,064	9,227	11,841	8,515	5,768
70%	6,065	6,557	5,808	6,579	7,537	6,651	5,298	7,736	8,671	10,986	8,382	5,575
80%	5,695	6,000	5,456	5,870	5,964	5,771	5,044	7,403	8,309	10,201	7,853	5,164
90%	5,103	5,159	5,047	5,027	5,168	5,331	4,659	6,602	7,928	9,360	7,624	4,651
Long Term												
Full Simulation Period ^d	7,421	9,496	11,959	15,865	19,096	14,587	9,072	9,397	10,056	12,545	9,124	8,960
Water Year Types ^{b,c}												
Wet (32%)	8,835	12,325	12,419	29,900	31,303	25,200	14,016	11,059	9,412	12,682	9,768	14,299
Above Normal (16%)	8,260	12,531	11,127	16,587	26,265	15,956	9,460	9,610	10,181	14,173	9,728	10,196
Below Normal (13%)	6,810	6,758	11,913	7,653	12,611	7,306	6,075	8,849	10,892	13,601	10,206	5,927
Dry (24%)	6,658	7,832	15,244	7,311	9,520	9,089	6,353	8,254	10,571	11,991	8,268	5,310
Critical (15%)	5,281	5,366	6,428	6,460	6,789	5,945	5,221	7,973	9,690	10,444	7,511	4,915

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,705	11,122	30,177	39,517	47,844	30,071	16,604	13,460	13,687	14,948	10,764	9,379
20%	8,737	9,388	21,061	25,647	32,306	19,531	13,047	11,429	12,459	14,663	9,972	8,148
30%	8,049	8,178	11,623	17,083	23,110	16,487	8,494	10,372	11,532	13,784	9,534	7,595
40%	7,331	7,808	9,138	13,869	13,475	10,870	7,305	9,772	10,465	13,008	9,171	6,511
50%	7,013	7,323	7,033	9,371	10,838	9,112	6,890	9,342	10,037	12,017	8,933	5,875
60%	6,537	7,070	6,707	7,538	8,583	7,911	5,898	8,673	9,652	11,152	8,595	5,520
70%	6,144	6,666	6,019	6,772	7,660	7,290	5,474	8,069	9,000	10,591	8,270	5,270
80%	5,789	6,141	5,653	5,961	6,165	5,871	5,128	7,450	8,553	9,927	7,797	4,737
90%	5,386	5,614	5,259	5,026	5,413	5,234	4,724	6,957	7,959	9,296	7,587	4,517
Long Term												
Full Simulation Period ^d	7,246	8,530	12,821	16,550	19,644	14,991	9,231	9,693	10,550	12,161	9,051	6,592
Water Year Types ^{b,c}												
Wet (32%)	8,541	9,366	14,414	30,586	31,792	25,452	14,203	10,979	9,658	12,782	9,954	8,515
Above Normal (16%)	7,779	10,704	11,973	17,705	27,642	17,026	9,625	9,966	10,773	14,044	9,798	7,512
Below Normal (13%)	6,807	7,134	12,088	8,824	13,897	8,154	6,438	9,452	12,154	12,911	9,342	5,533
Dry (24%)	6,677	8,392	15,444	7,512	9,649	9,143	6,457	8,932	11,121	11,107	8,280	5,127
Critical (15%)	5,216	5,875	6,587	7,031	6,583	6,136	5,216	8,097	9,818	9,846	7,299	4,838

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-312	-2,843	3,102	3,166	903	447	1	338	719	-300	-644	-6,420
20%	-629	-2,807	4,747	1,462	-1,098	-55	39	306	575	-220	-305	-5,535
30%	-225	-3,134	910	889	1,517	1,586	82	494	1,045	-741	0	-4,222
40%	-475	-2,523	1,067	2,370	416	348	82	617	436	-709	-59	-3,500
50%	-224	-1,313	57	518	249	395	873	643	495	-528	68	-984
60%	81	-356	385	387	49	161	411	609	426	-689	80	-248
70%	79	109	211	193	123	639	176	333	328	-395	-112	-305
80%	94	141	197	91	201	100	83	48	244	-274	-55	-427
90%	284	455	212	0	245	-97	66	355	32	-64	-36	-134
Long Term												
Full Simulation Period ^d	-175	-966	862	685	547	404	159	296	494	-384	-74	-2,368
Water Year Types ^{b,c}												
Wet (32%)	-294	-2,959	1,994	686	489	252	187	-79	246	101	186	-5,784
Above Normal (16%)	-481	-1,827	846	1,119	1,377	1,070	165	356	592	-129	69	-2,684
Below Normal (13%)	-3	377	175	1,172	1,287	848	363	603	1,262	-690	-864	-394
Dry (24%)	19	560	199	200	129	54	104	678	550	-884	12	-184
Critical (15%)	-65	510	159	571	-206	190	-5	124	129	-598	-212	-76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 17-2. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,214	13,363	25,166	36,521	44,631	30,844	17,739	12,301	13,086	15,219	10,716	15,849
20%	9,420	11,799	16,181	23,805	32,569	20,699	12,726	10,553	12,041	14,934	9,986	15,265
30%	8,073	10,792	11,090	17,704	22,803	17,249	8,581	9,733	10,941	14,716	9,561	12,423
40%	7,371	9,623	8,533	12,514	14,058	10,778	7,366	9,223	10,308	14,148	9,070	9,969
50%	7,036	7,888	7,119	9,087	11,249	9,020	6,118	8,672	9,867	13,334	8,870	6,488
60%	6,429	6,894	6,367	7,982	8,714	8,022	5,499	8,467	9,417	12,626	8,784	5,812
70%	6,169	6,420	5,807	6,826	7,204	6,811	5,174	7,918	9,060	11,753	8,361	5,507
80%	5,835	5,672	5,370	5,962	5,903	5,794	4,943	7,317	8,628	10,601	7,982	5,209
90%	5,392	5,152	4,977	5,147	5,360	5,303	4,484	6,930	8,033	9,698	7,628	4,868
Long Term												
Full Simulation Period ^d	7,393	8,988	11,800	16,675	19,141	15,217	9,402	9,301	10,224	12,931	9,077	9,105
Water Year Types ^{b,c}												
Wet (32%)	8,509	11,777	12,132	31,468	30,732	26,256	14,771	10,241	9,274	13,026	9,602	14,282
Above Normal (16%)	8,571	11,262	10,745	17,258	26,180	16,096	9,912	9,660	10,590	14,698	9,742	10,860
Below Normal (13%)	6,547	6,496	11,701	8,005	13,832	7,757	6,620	9,367	11,043	14,099	9,832	5,897
Dry (24%)	6,631	7,397	15,175	7,577	10,032	9,797	6,199	8,402	10,958	12,618	8,398	5,369
Critical (15%)	5,747	5,419	6,690	7,103	6,449	6,221	5,108	8,310	9,914	10,263	7,661	5,156

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,702	10,854	27,355	40,050	44,798	30,850	17,688	12,830	13,945	15,184	10,489	8,265
20%	8,123	9,468	19,377	26,782	32,600	22,670	12,767	10,912	12,988	14,730	9,995	7,541
30%	7,528	7,946	11,935	19,061	22,840	18,279	8,729	10,347	12,101	14,134	9,510	6,519
40%	7,098	7,494	9,194	14,367	14,640	11,092	7,505	9,872	11,233	13,278	9,195	5,977
50%	6,773	7,115	7,719	9,683	11,743	9,433	6,670	9,382	10,498	12,358	8,854	5,565
60%	6,564	6,646	6,943	8,081	8,841	8,334	5,832	8,721	10,089	11,667	8,539	5,317
70%	6,085	6,507	6,011	6,858	7,494	7,630	5,287	8,557	9,506	10,906	8,324	5,158
80%	5,986	6,179	5,800	6,034	6,090	5,984	4,986	7,871	8,587	10,430	7,991	4,789
90%	5,368	5,600	5,548	5,245	5,530	5,308	4,670	7,123	8,018	9,546	7,492	4,522
Long Term												
Full Simulation Period ^d	6,978	8,097	12,835	17,369	19,646	15,843	9,542	9,736	10,816	12,460	9,015	6,160
Water Year Types ^{b,c}												
Wet (32%)	7,880	8,946	14,269	32,292	31,234	26,745	14,872	10,442	9,671	13,005	9,808	7,510
Above Normal (16%)	7,487	9,552	11,202	18,452	27,357	17,577	10,095	10,142	11,490	14,708	9,978	6,981
Below Normal (13%)	6,429	6,993	11,938	9,929	14,470	8,714	6,587	9,975	12,101	13,224	8,985	5,356
Dry (24%)	6,522	7,941	16,140	7,739	10,133	9,979	6,432	9,154	11,574	11,508	8,298	5,038
Critical (15%)	5,733	5,952	6,812	6,734	6,785	6,652	5,283	8,517	10,124	9,729	7,474	4,952

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,512	-2,509	2,189	3,529	166	6	-50	529	859	-35	-227	-7,585
20%	-1,296	-2,331	3,196	2,977	30	1,972	41	359	947	-204	9	-7,724
30%	-545	-2,847	845	1,356	36	1,030	148	614	1,160	-581	-51	-5,904
40%	-272	-2,129	661	1,852	582	314	139	649	925	-870	125	-3,991
50%	-263	-774	600	596	493	413	552	710	630	-977	-16	-923
60%	135	-248	576	99	127	313	334	255	672	-959	-246	-495
70%	-84	88	205	32	290	818	113	638	447	-848	-37	-349
80%	151	507	429	72	187	190	43	554	-41	-171	9	-420
90%	-23	448	570	98	170	5	186	193	-16	-152	-135	-346
Long Term												
Full Simulation Period ^d	-416	-891	1,035	694	505	626	139	435	591	-471	-63	-2,945
Water Year Types ^{b,c}												
Wet (32%)	-629	-2,831	2,137	825	502	489	102	201	397	-21	207	-6,772
Above Normal (16%)	-1,084	-1,710	456	1,193	1,176	1,481	183	481	899	10	236	-3,879
Below Normal (13%)	-119	497	237	1,924	638	957	-33	608	1,057	-875	-848	-541
Dry (24%)	-108	544	966	163	101	182	233	753	616	-1,110	-100	-330
Critical (15%)	-14	533	122	-369	336	431	175	208	210	-535	-187	-204

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-3. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,017	13,965	27,074	36,351	46,941	29,623	16,602	13,122	12,968	15,249	11,408	15,799
20%	9,366	12,194	16,314	24,185	33,404	19,585	13,008	11,124	11,883	14,883	10,277	13,682
30%	8,274	11,312	10,713	16,194	21,593	14,900	8,412	9,878	10,487	14,524	9,534	11,817
40%	7,806	10,331	8,071	11,498	13,059	10,522	7,223	9,155	10,029	13,717	9,230	10,011
50%	7,237	8,636	6,976	8,852	10,588	8,716	6,016	8,700	9,542	12,545	8,865	6,859
60%	6,456	7,426	6,322	7,152	8,534	7,750	5,487	8,064	9,227	11,841	8,515	5,768
70%	6,065	6,557	5,808	6,579	7,537	6,651	5,298	7,736	8,671	10,986	8,382	5,575
80%	5,695	6,000	5,456	5,870	5,964	5,771	5,044	7,403	8,309	10,201	7,853	5,164
90%	5,103	5,159	5,047	5,027	5,168	5,331	4,659	6,602	7,928	9,360	7,624	4,651
Long Term												
Full Simulation Period ^d	7,421	9,496	11,959	15,865	19,096	14,587	9,072	9,397	10,056	12,545	9,124	8,960
Water Year Types ^{b,c}												
Wet (32%)	8,835	12,325	12,419	29,900	31,303	25,200	14,016	11,059	9,412	12,682	9,768	14,299
Above Normal (16%)	8,260	12,531	11,127	16,587	26,265	15,956	9,460	9,610	10,181	14,173	9,728	10,196
Below Normal (13%)	6,810	6,758	11,913	7,653	12,611	7,306	6,075	8,849	10,892	13,601	10,206	5,927
Dry (24%)	6,658	7,832	15,244	7,311	9,520	9,089	6,353	8,254	10,571	11,991	8,268	5,310
Critical (15%)	5,281	5,366	6,428	6,460	6,789	5,945	5,221	7,973	9,690	10,444	7,511	4,915

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,214	13,363	25,166	36,521	44,631	30,844	17,739	12,301	13,086	15,219	10,716	15,849
20%	9,420	11,799	16,181	23,805	32,569	20,699	12,726	10,553	12,041	14,934	9,986	15,265
30%	8,073	10,792	11,090	17,704	22,803	17,249	8,581	9,733	10,941	14,716	9,561	12,423
40%	7,371	9,623	8,533	12,514	14,058	10,778	7,366	9,223	10,308	14,148	9,070	9,969
50%	7,036	7,888	7,119	9,087	11,249	9,020	6,118	8,672	9,867	13,334	8,870	6,488
60%	6,429	6,894	6,367	7,982	8,714	8,022	5,499	8,467	9,417	12,626	8,784	5,812
70%	6,169	6,420	5,807	6,826	7,204	6,811	5,174	7,918	9,060	11,753	8,361	5,507
80%	5,835	5,672	5,370	5,962	5,903	5,794	4,943	7,317	8,628	10,601	7,982	5,209
90%	5,392	5,152	4,977	5,147	5,360	5,303	4,484	6,930	8,033	9,698	7,628	4,868
Long Term												
Full Simulation Period ^d	7,393	8,988	11,800	16,675	19,141	15,217	9,402	9,301	10,224	12,931	9,077	9,105
Water Year Types ^{b,c}												
Wet (32%)	8,509	11,777	12,132	31,468	30,732	26,256	14,771	10,241	9,274	13,026	9,602	14,282
Above Normal (16%)	8,571	11,262	10,745	17,258	26,180	16,096	9,912	9,660	10,590	14,698	9,742	10,860
Below Normal (13%)	6,547	6,496	11,701	8,005	13,832	7,757	6,620	9,367	11,043	14,099	9,832	5,897
Dry (24%)	6,631	7,397	15,175	7,577	10,032	9,797	6,199	8,402	10,958	12,618	8,398	5,369
Critical (15%)	5,747	5,419	6,690	7,103	6,449	6,221	5,108	8,310	9,914	10,263	7,661	5,156

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	196	-602	-1,908	170	-2,310	1,220	1,136	-821	118	-30	-692	50
20%	54	-395	-133	-380	-835	1,113	-282	-571	158	51	-291	1,582
30%	-201	-520	377	1,511	1,210	2,349	168	-145	454	191	28	605
40%	-436	-708	463	1,016	998	255	143	68	279	431	-160	-42
50%	-200	-748	143	235	661	304	101	-28	325	789	4	-371
60%	-27	-532	45	831	180	272	12	402	190	786	269	44
70%	104	-137	-2	247	-333	161	-124	182	388	767	-21	-68
80%	140	-327	-86	92	-61	23	-102	-86	319	400	129	45
90%	289	-7	-69	120	192	-28	-175	328	106	338	4	217
Long Term												
Full Simulation Period ^d	-28	-508	-159	810	44	631	330	-96	169	386	-47	145
Water Year Types ^{b,c}												
Wet (32%)	-326	-548	-287	1,568	-571	1,056	755	-817	-138	344	-166	-17
Above Normal (16%)	310	-1,270	-382	672	-85	140	452	50	409	525	13	664
Below Normal (13%)	-262	-262	-212	352	1,222	452	545	518	152	498	-373	-30
Dry (24%)	-27	-435	-70	265	511	708	-154	148	387	627	130	58
Critical (15%)	466	53	261	644	-340	276	-113	337	225	-180	150	241

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 17-4. Sacramento River below Red Bluff Diversion Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,705	11,122	30,177	39,517	47,844	30,071	16,604	13,460	13,687	14,948	10,764	9,379
20%	8,737	9,388	21,061	25,647	32,306	19,531	13,047	11,429	12,459	14,663	9,972	8,148
30%	8,049	8,178	11,623	17,083	23,110	16,487	8,494	10,372	11,532	13,784	9,534	7,595
40%	7,331	7,808	9,138	13,869	13,475	10,870	7,305	9,772	10,465	13,008	9,171	6,511
50%	7,013	7,323	7,033	9,371	10,838	9,112	6,890	9,342	10,037	12,017	8,933	5,875
60%	6,537	7,070	6,707	7,538	8,583	7,911	5,898	8,673	9,652	11,152	8,595	5,520
70%	6,144	6,666	6,019	6,772	7,660	7,290	5,474	8,069	9,000	10,591	8,270	5,270
80%	5,789	6,141	5,653	5,961	6,165	5,871	5,128	7,450	8,553	9,927	7,797	4,737
90%	5,386	5,614	5,259	5,026	5,413	5,234	4,724	6,957	7,959	9,296	7,587	4,517
Long Term												
Full Simulation Period ^d	7,246	8,530	12,821	16,550	19,644	14,991	9,231	9,693	10,550	12,161	9,051	6,592
Water Year Types ^{b,c}												
Wet (32%)	8,541	9,366	14,414	30,586	31,792	25,452	14,203	10,979	9,658	12,782	9,954	8,515
Above Normal (16%)	7,779	10,704	11,973	17,705	27,642	17,026	9,625	9,966	10,773	14,044	9,798	7,512
Below Normal (13%)	6,807	7,134	12,088	8,824	13,897	8,154	6,438	9,452	12,154	12,911	9,342	5,533
Dry (24%)	6,677	8,392	15,444	7,512	9,649	9,143	6,457	8,932	11,121	11,107	8,280	5,127
Critical (15%)	5,216	5,875	6,587	7,031	6,583	6,136	5,216	8,097	9,818	9,846	7,299	4,838

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,702	10,854	27,355	40,050	44,798	30,850	17,688	12,830	13,945	15,184	10,489	8,265
20%	8,123	9,468	19,377	26,782	32,600	22,670	12,767	10,912	12,988	14,730	9,995	7,541
30%	7,528	7,946	11,935	19,061	22,840	18,279	8,729	10,347	12,101	14,134	9,510	6,519
40%	7,098	7,494	9,194	14,367	14,640	11,092	7,505	9,872	11,233	13,278	9,195	5,977
50%	6,773	7,115	7,719	9,683	11,743	9,433	6,670	9,382	10,498	12,358	8,854	5,565
60%	6,564	6,646	6,943	8,081	8,841	8,334	5,832	8,721	10,089	11,667	8,539	5,317
70%	6,085	6,507	6,011	6,858	7,494	7,630	5,287	8,557	9,506	10,906	8,324	5,158
80%	5,986	6,179	5,800	6,034	6,090	5,984	4,986	7,871	8,587	10,430	7,991	4,789
90%	5,368	5,600	5,548	5,245	5,530	5,308	4,670	7,123	8,018	9,546	7,492	4,522
Long Term												
Full Simulation Period ^d	6,978	8,097	12,835	17,369	19,646	15,843	9,542	9,736	10,816	12,460	9,015	6,160
Water Year Types ^{b,c}												
Wet (32%)	7,880	8,946	14,269	32,292	31,234	26,745	14,872	10,442	9,671	13,005	9,808	7,510
Above Normal (16%)	7,487	9,552	11,202	18,452	27,357	17,577	10,095	10,142	11,490	14,708	9,978	6,981
Below Normal (13%)	6,429	6,993	11,938	9,929	14,470	8,714	6,587	9,975	12,101	13,224	8,985	5,356
Dry (24%)	6,522	7,941	16,140	7,739	10,133	9,979	6,432	9,154	11,574	11,508	8,298	5,038
Critical (15%)	5,733	5,952	6,812	6,734	6,785	6,652	5,283	8,517	10,124	9,729	7,474	4,952

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,003	-269	-2,821	532	-3,046	779	1,085	-630	258	236	-275	-1,114
20%	-614	80	-1,684	1,135	294	3,140	-280	-518	529	67	24	-607
30%	-521	-232	312	1,978	-271	1,793	234	-24	569	351	-24	-1,076
40%	-233	-314	57	498	1,165	222	200	100	768	270	24	-534
50%	-240	-208	686	312	905	322	-220	40	460	341	-79	-310
60%	27	-424	235	543	258	424	-65	48	437	515	-57	-203
70%	-59	-158	-7	86	-166	340	-187	487	507	315	54	-113
80%	197	38	147	73	-76	113	-141	420	34	504	194	52
90%	-18	-14	289	219	117	74	-54	166	58	250	-95	6
Long Term												
Full Simulation Period ^d	-268	-434	15	820	2	852	310	43	266	298	-36	-432
Water Year Types ^{b,c}												
Wet (32%)	-661	-419	-145	1,707	-558	1,293	669	-537	12	222	-146	-1,006
Above Normal (16%)	-292	-1,152	-771	747	-285	551	470	175	717	664	180	-531
Below Normal (13%)	-378	-142	-150	1,104	573	561	148	523	-53	312	-357	-177
Dry (24%)	-154	-451	697	228	484	836	-25	222	453	401	17	-89
Critical (15%)	517	76	225	-297	201	516	67	420	305	-117	175	114

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

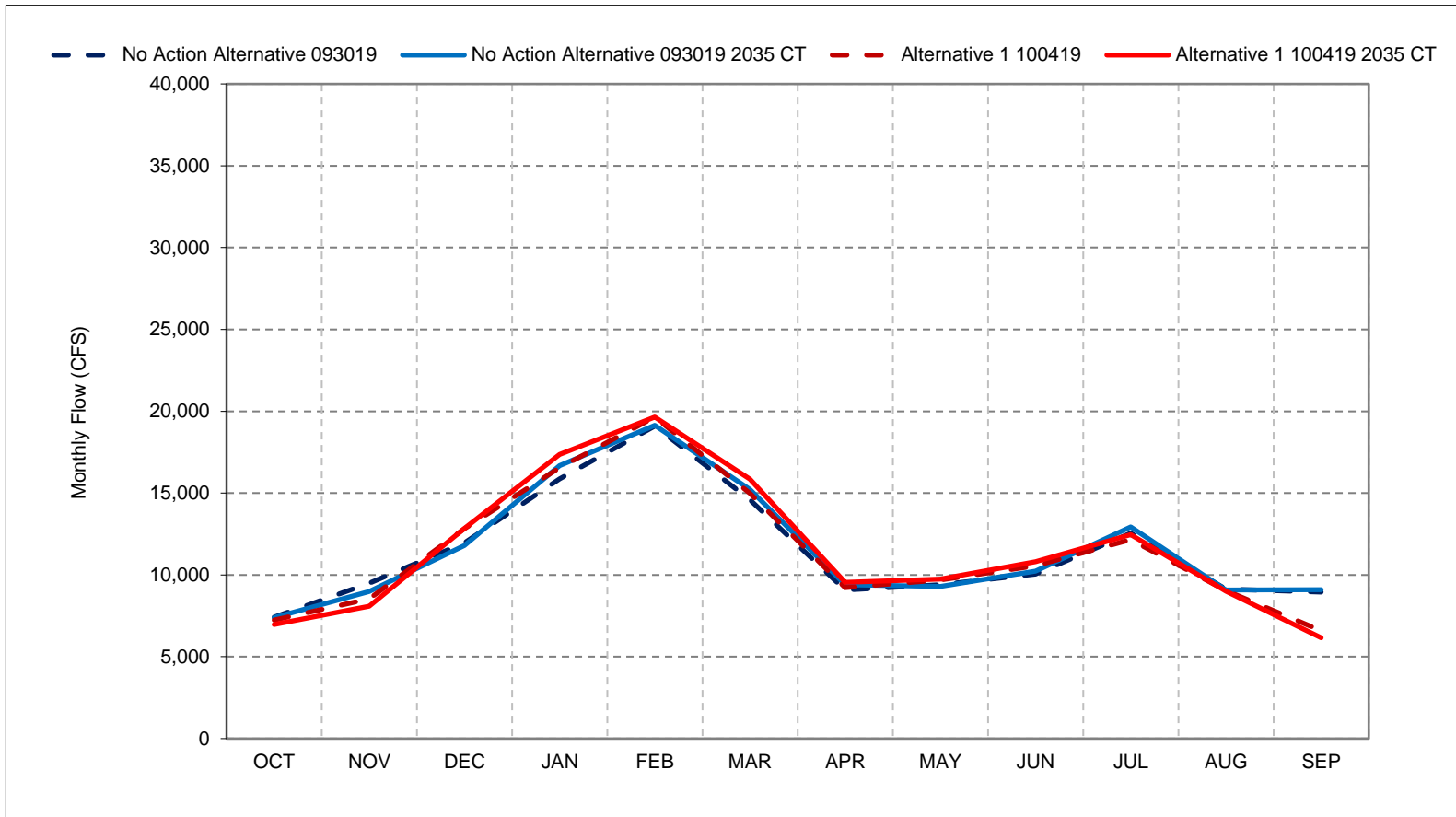
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 17-1. Sacramento River below Red Bluff Diversion Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

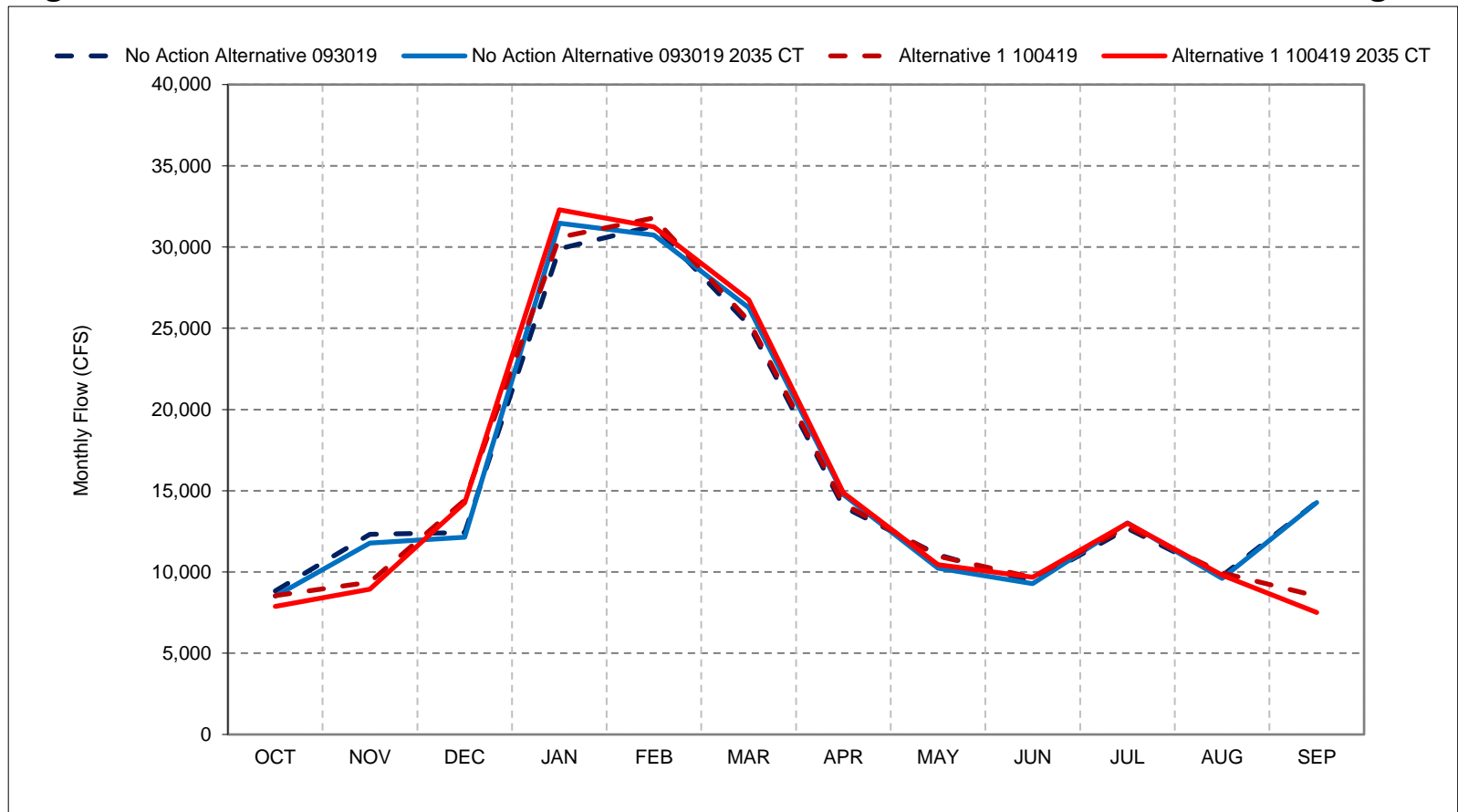
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-2. Sacramento River below Red Bluff Diversion Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

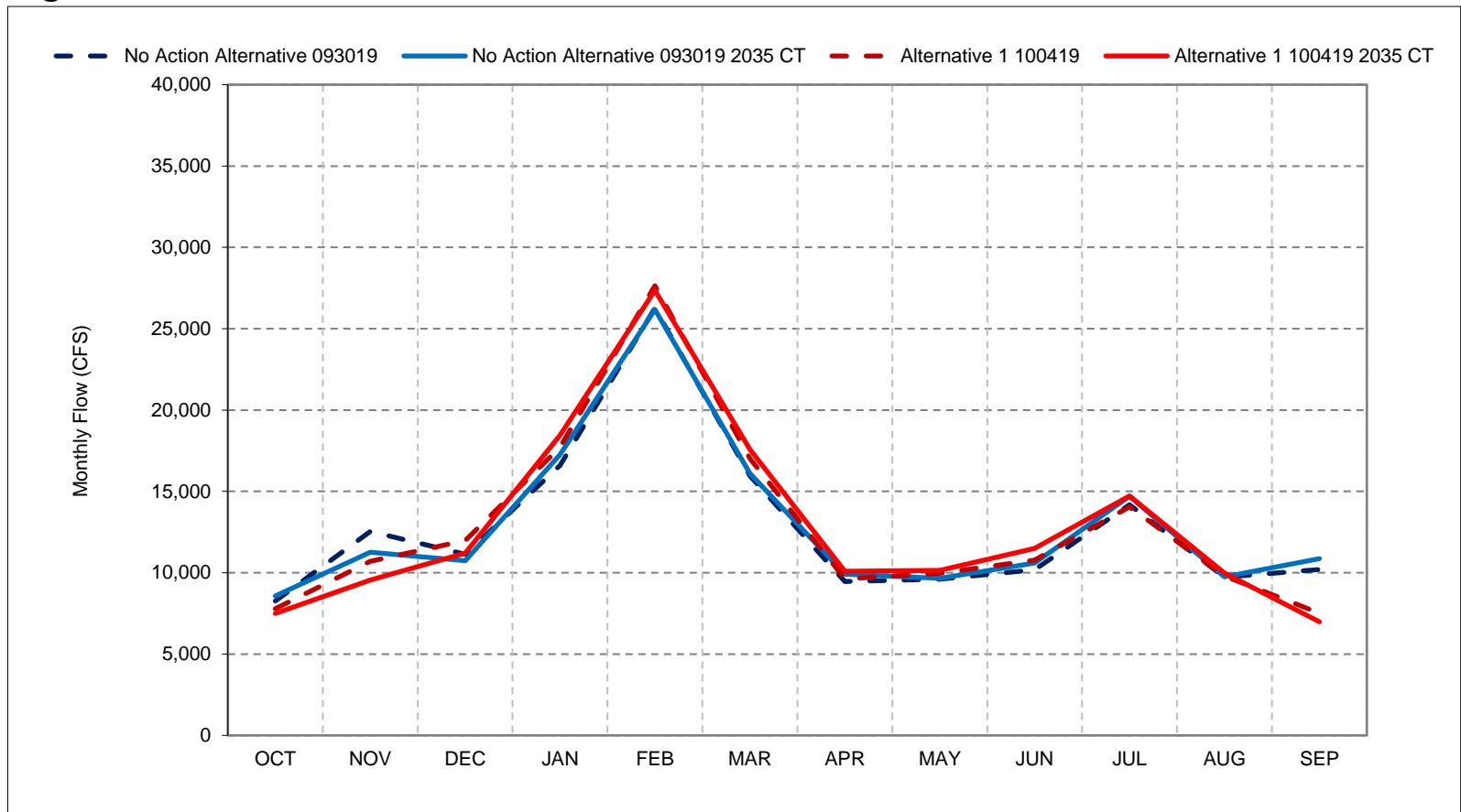
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-3. Sacramento River below Red Bluff Diversion Dam Flow, Above Normal Year Average f



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

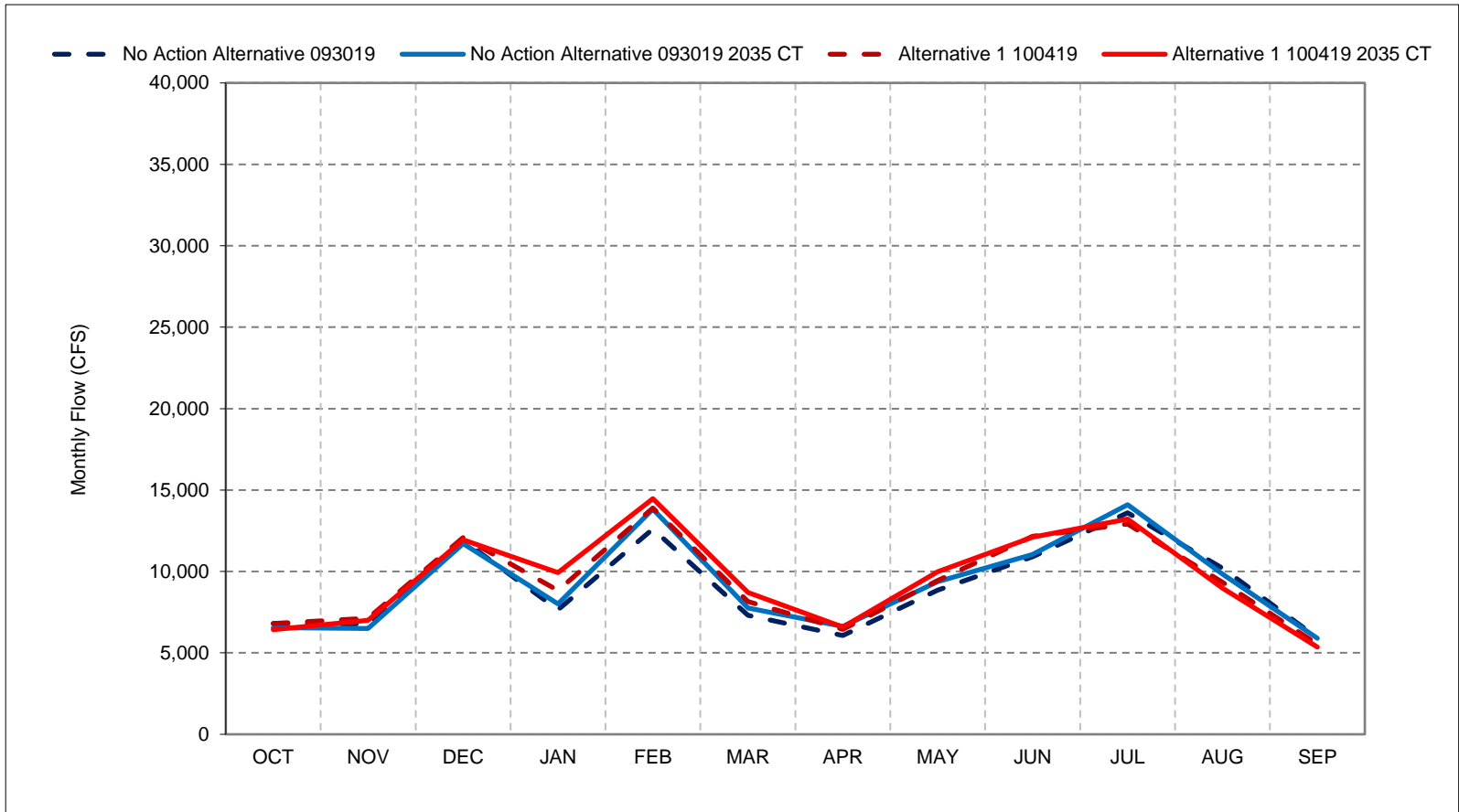
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-4. Sacramento River below Red Bluff Diversion Dam Flow, Below Normal Year Average F



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

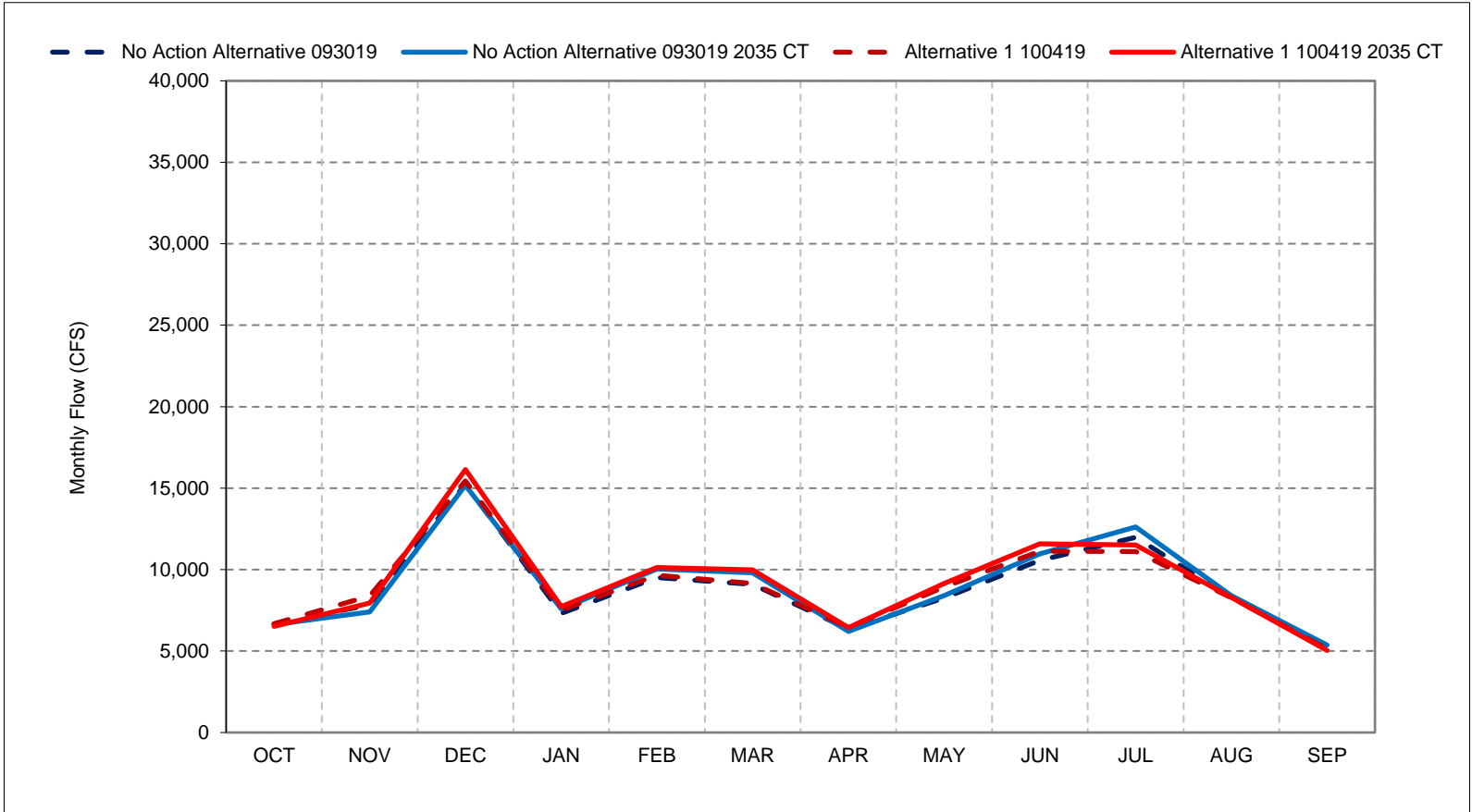
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-5. Sacramento River below Red Bluff Diversion Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

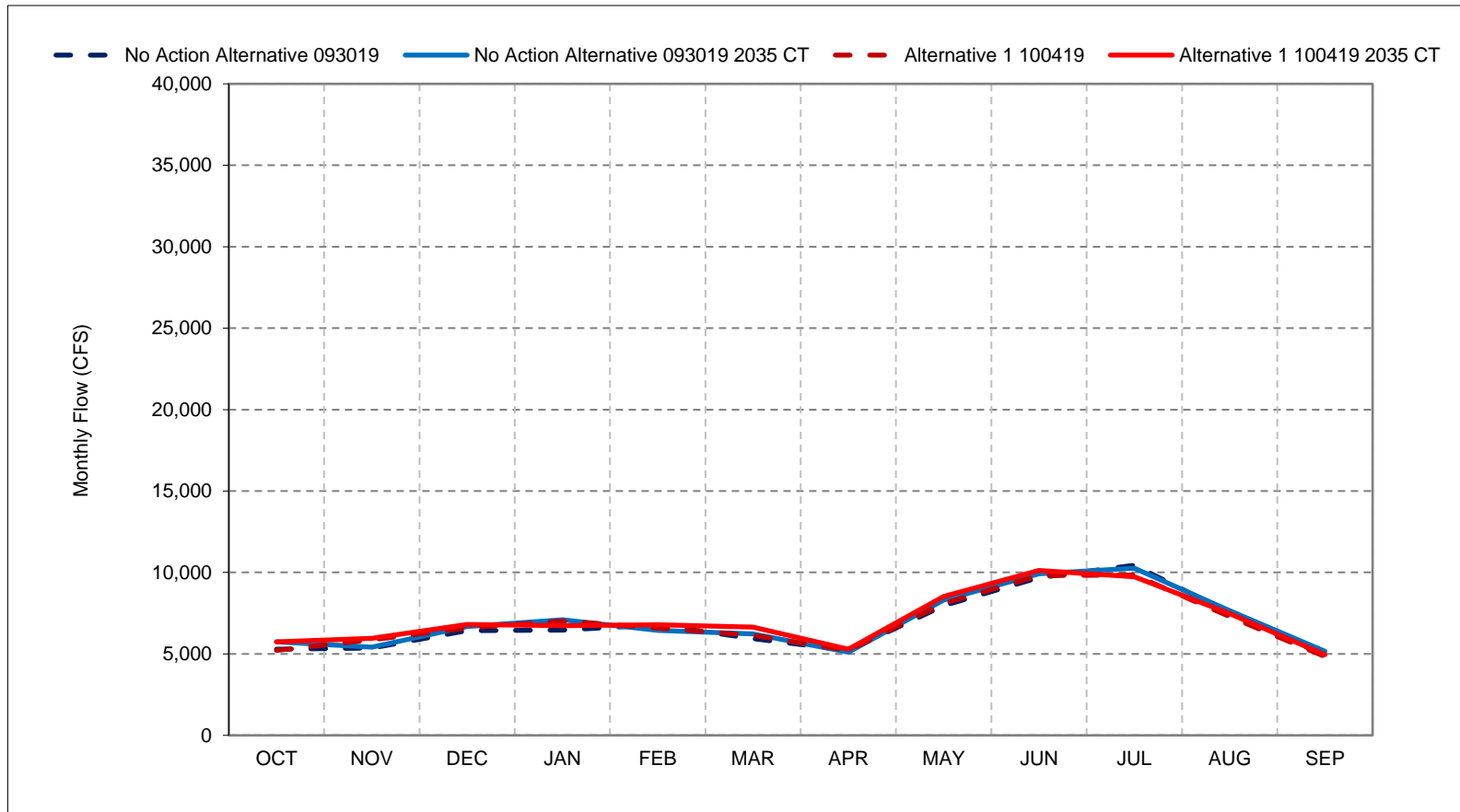
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 17-6. Sacramento River below Red Bluff Diversion Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

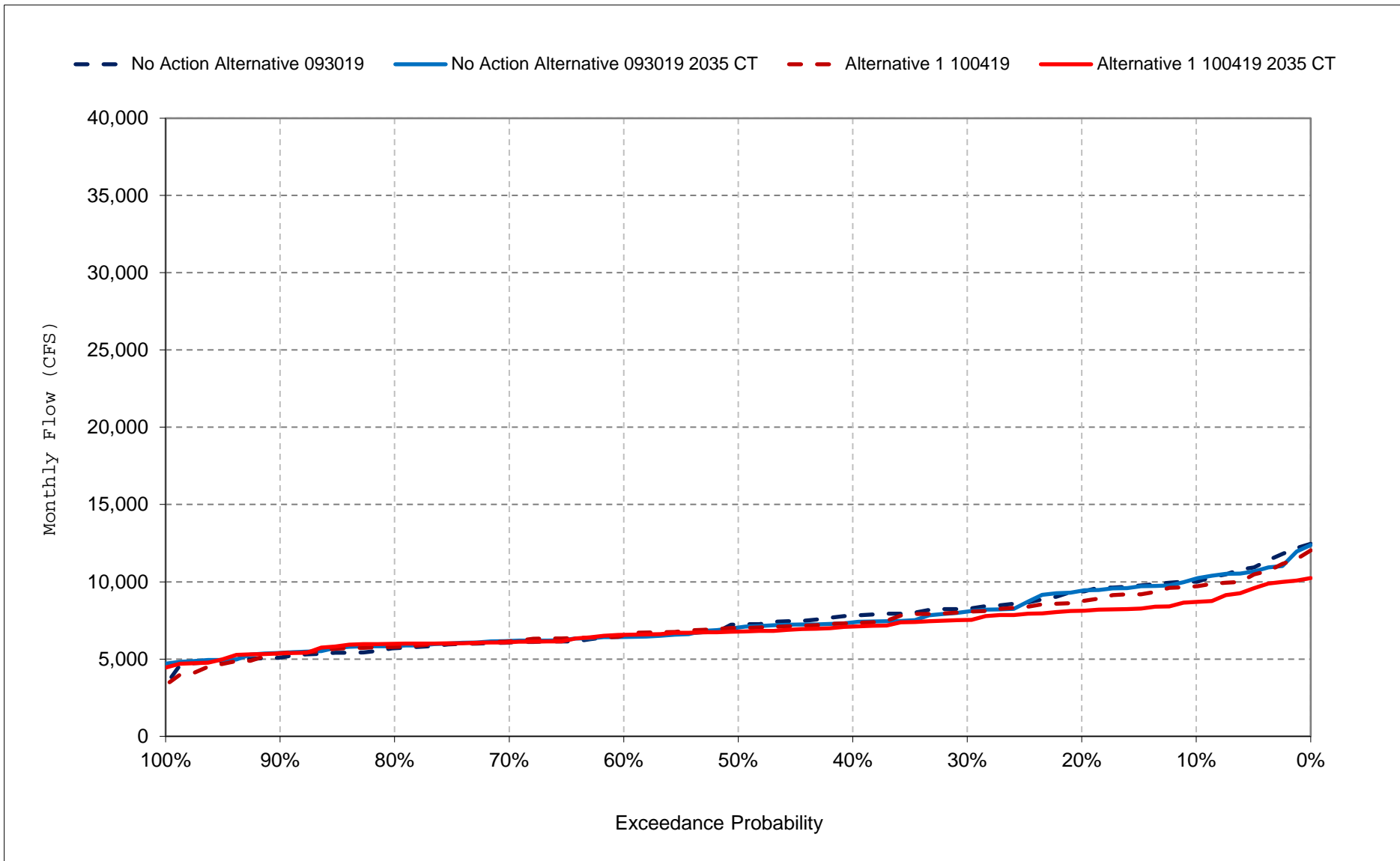
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

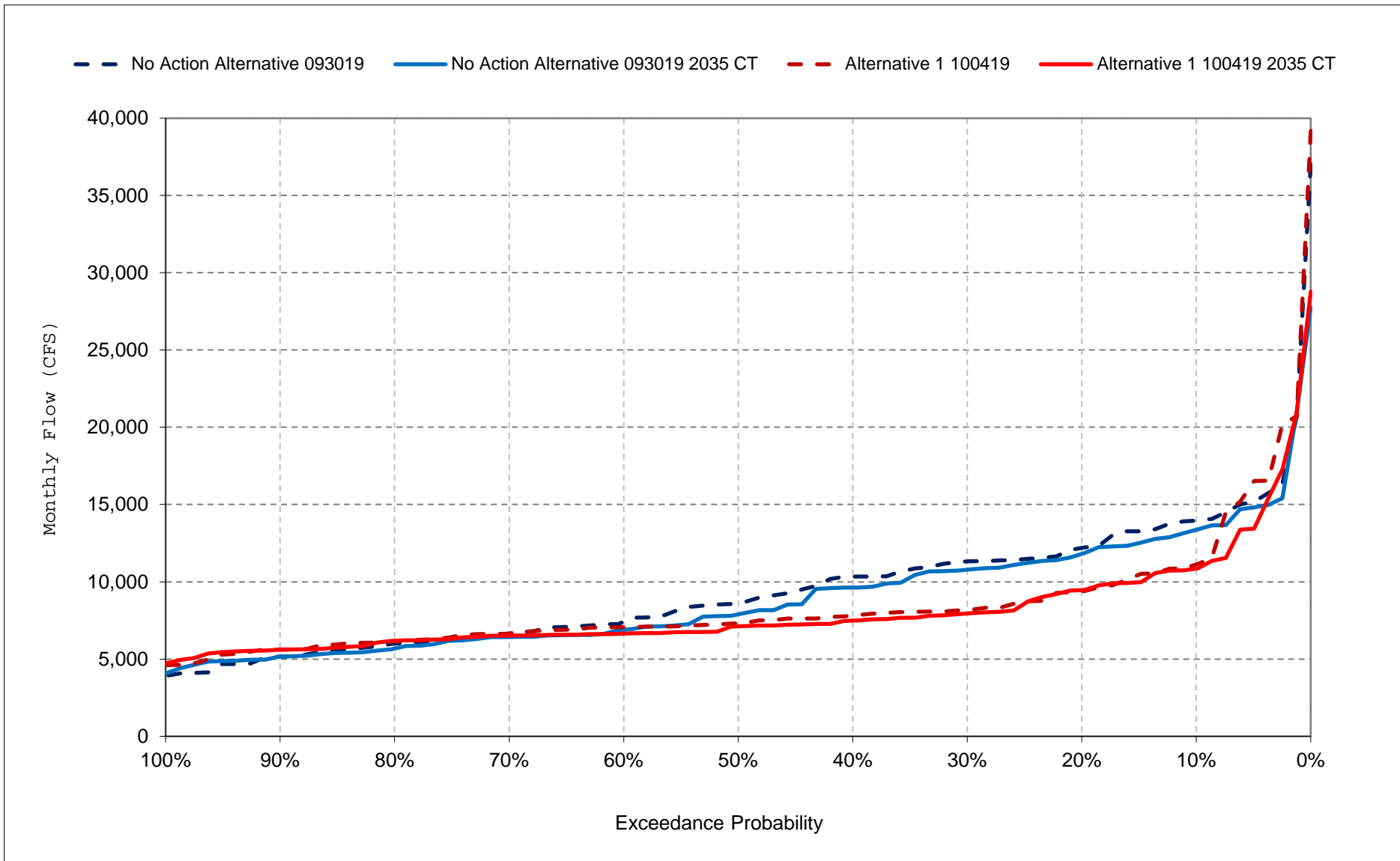
Figure 17-7. Sacramento River below Red Bluff Diversion Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

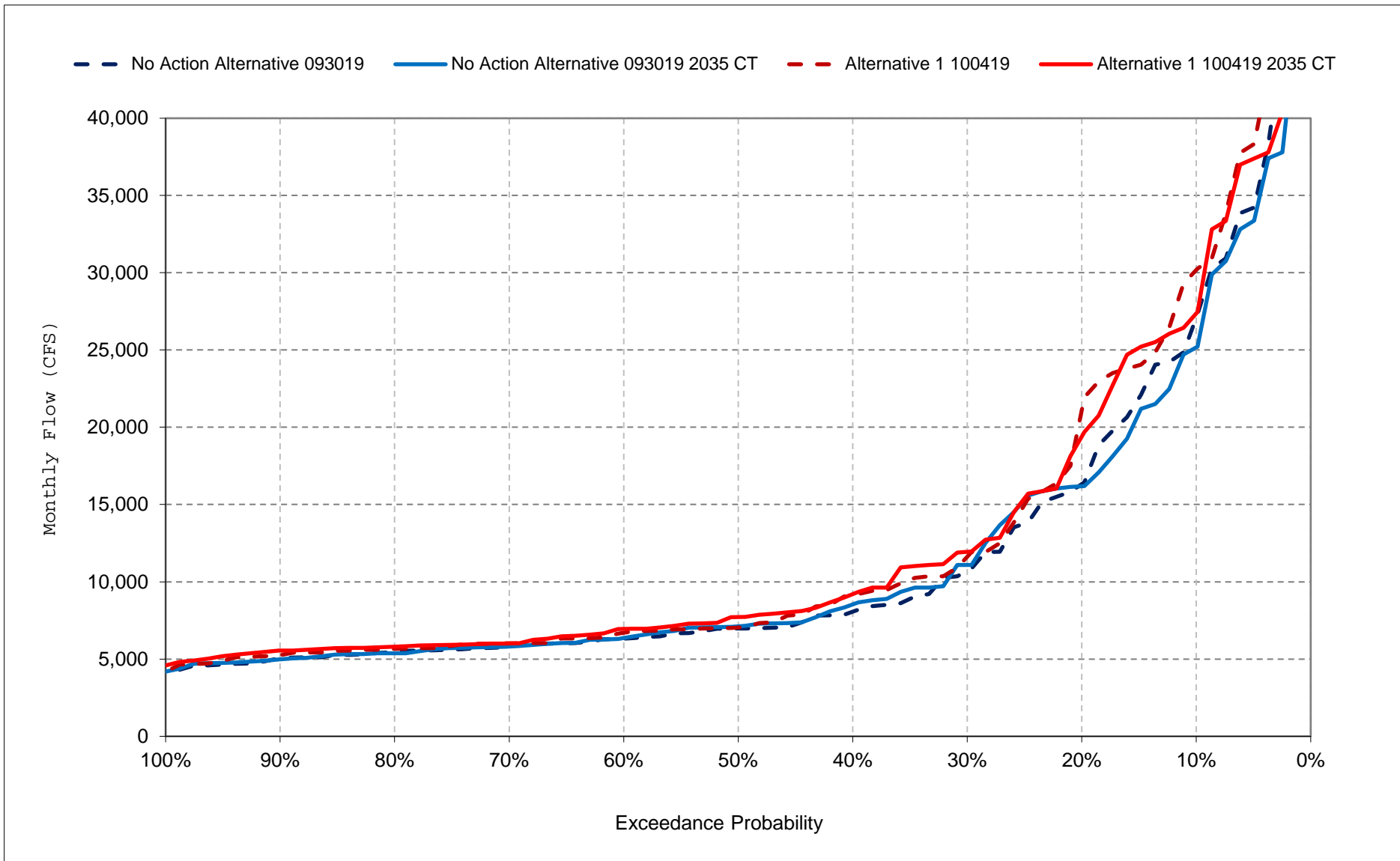
Figure 17-8. Sacramento River below Red Bluff Diversion Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

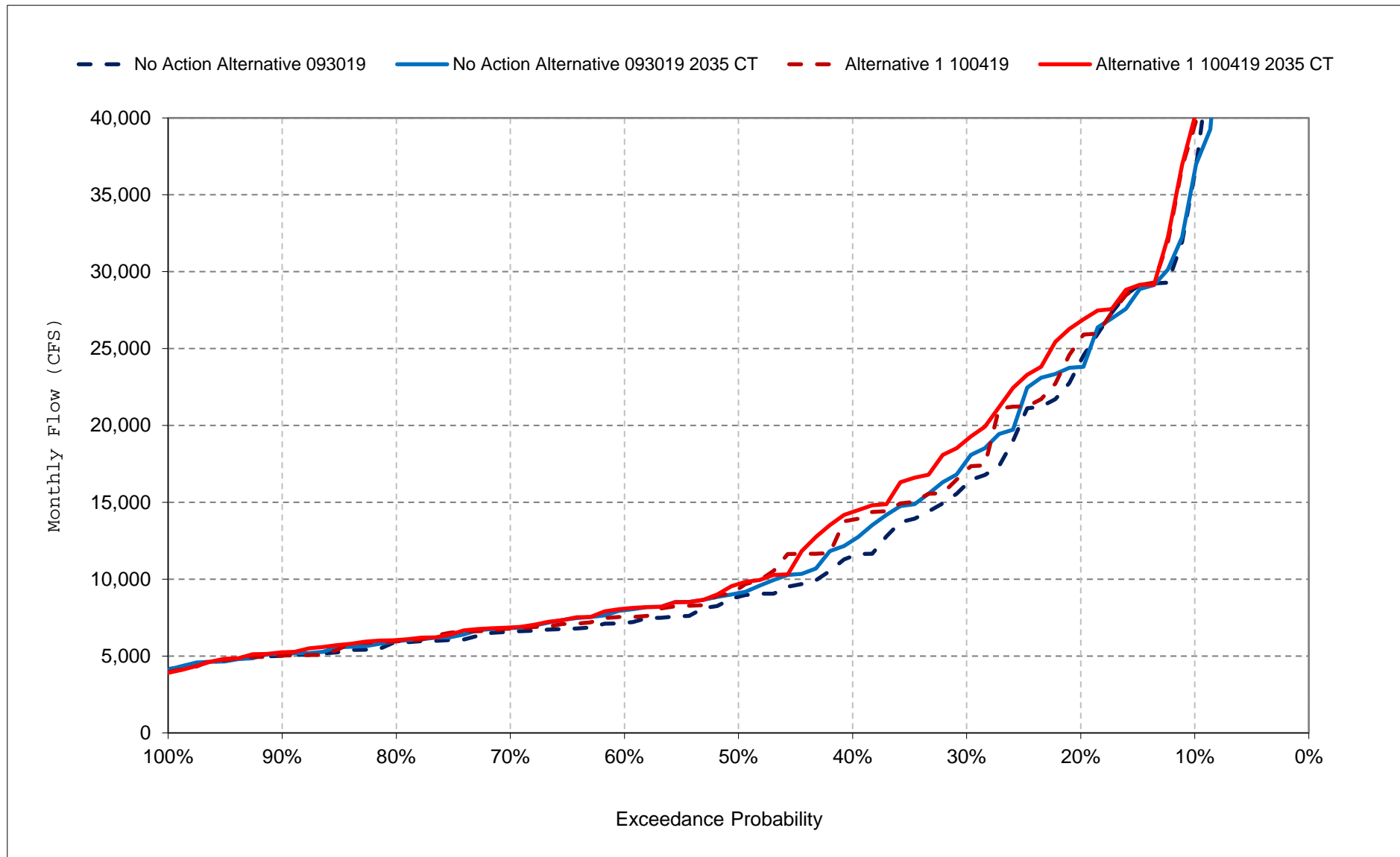
Figure 17-9. Sacramento River below Red Bluff Diversion Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

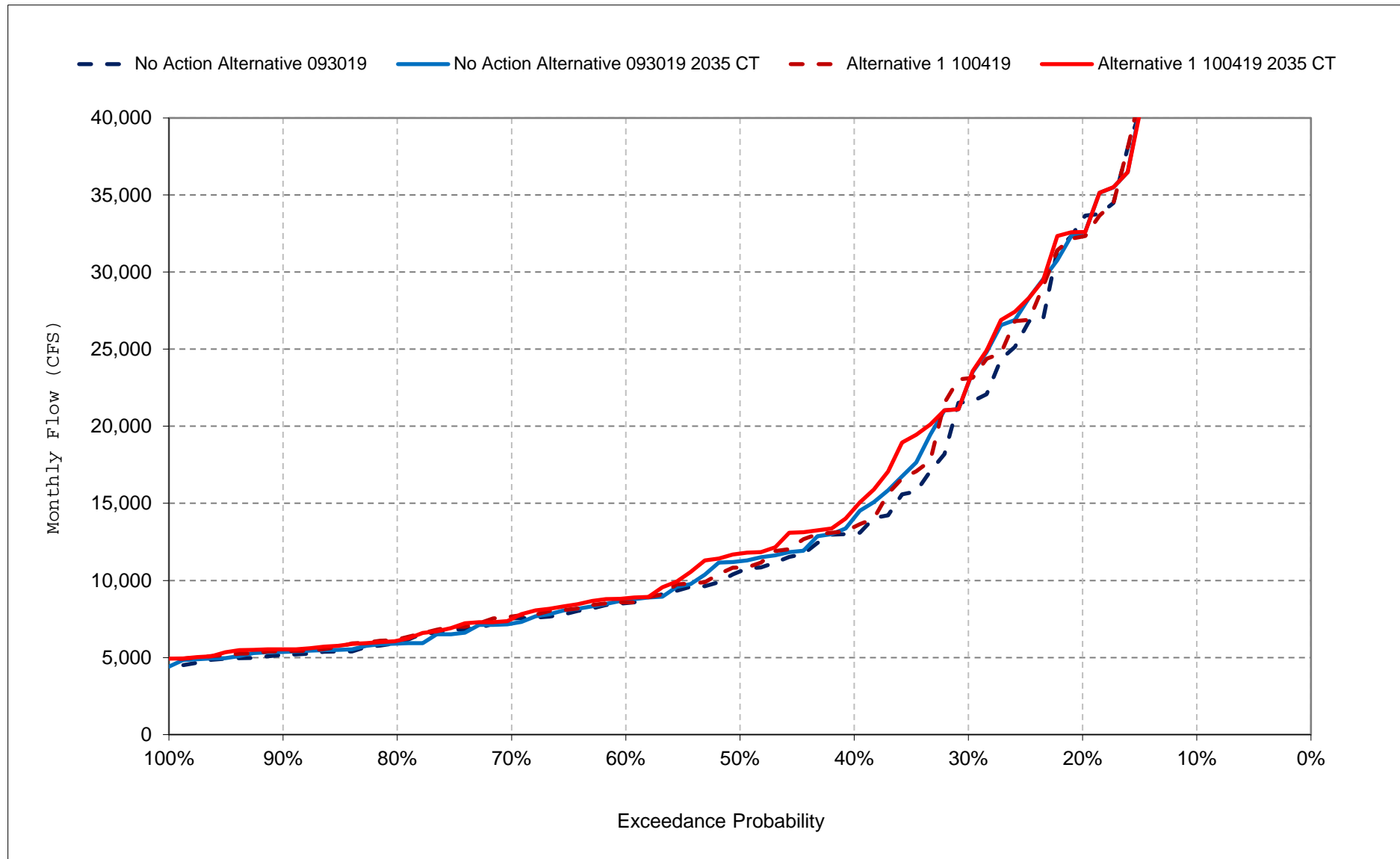
Figure 17-10. Sacramento River below Red Bluff Diversion Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

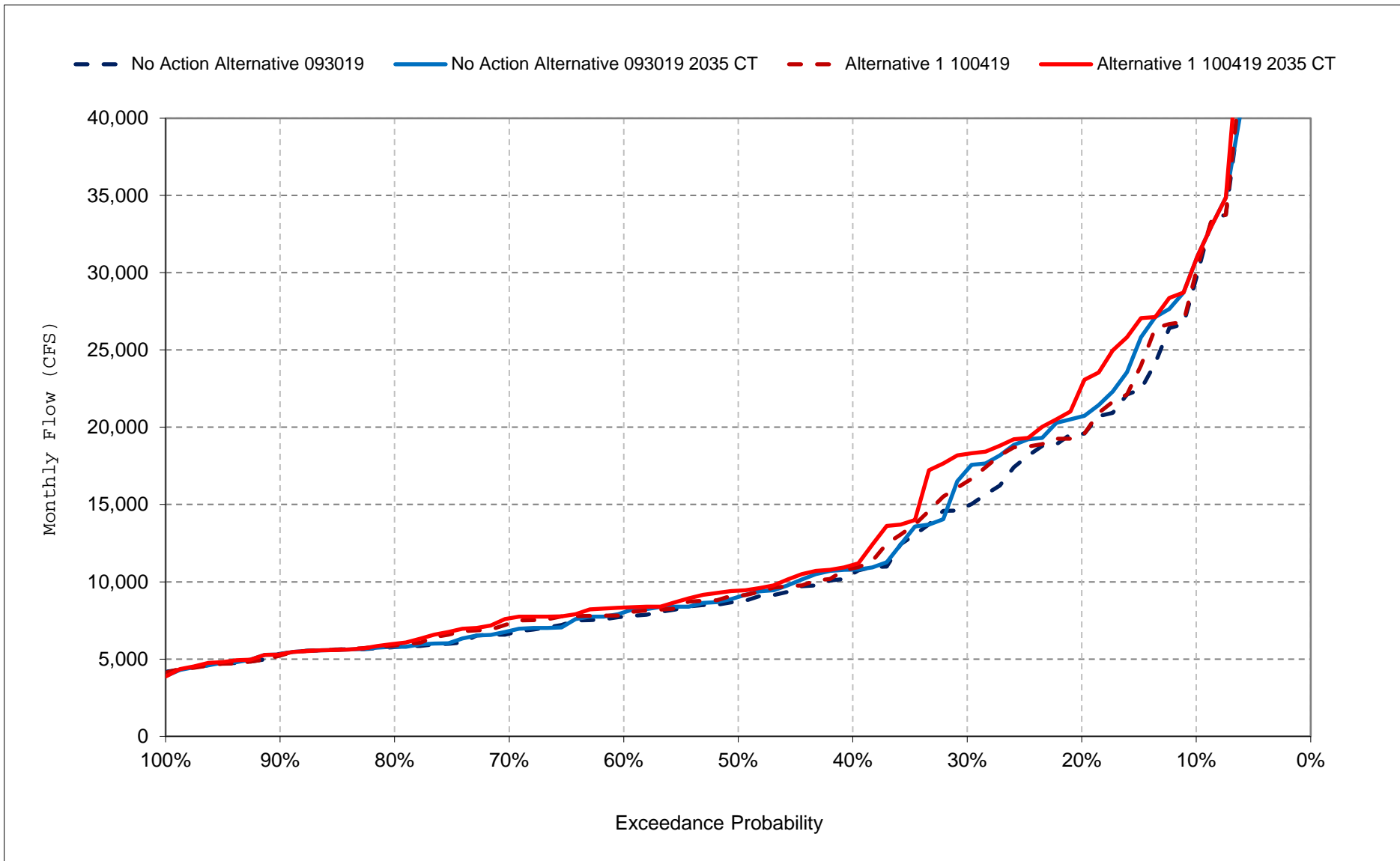
Figure 17-11. Sacramento River below Red Bluff Diversion Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

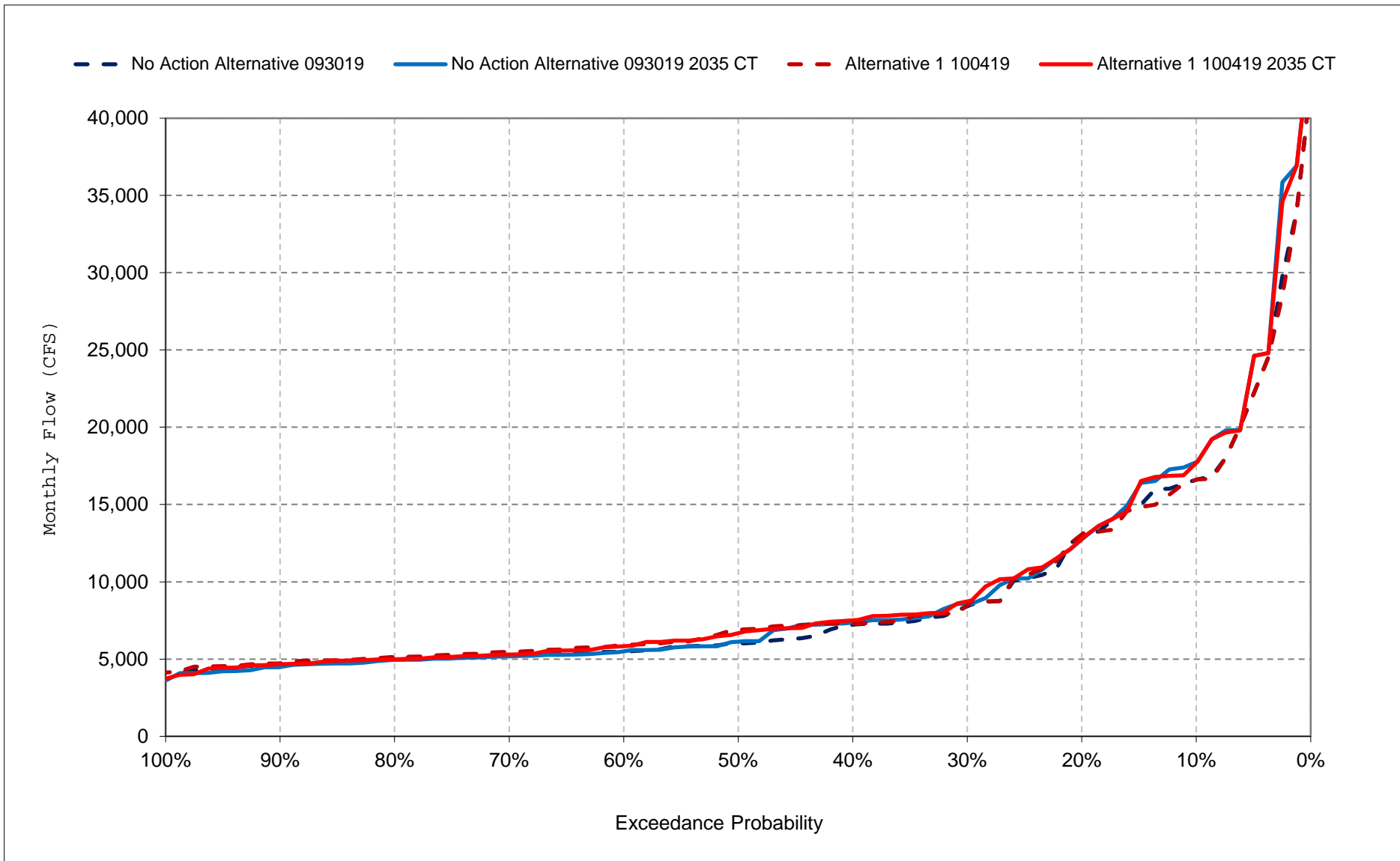
Figure 17-12. Sacramento River below Red Bluff Diversion Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

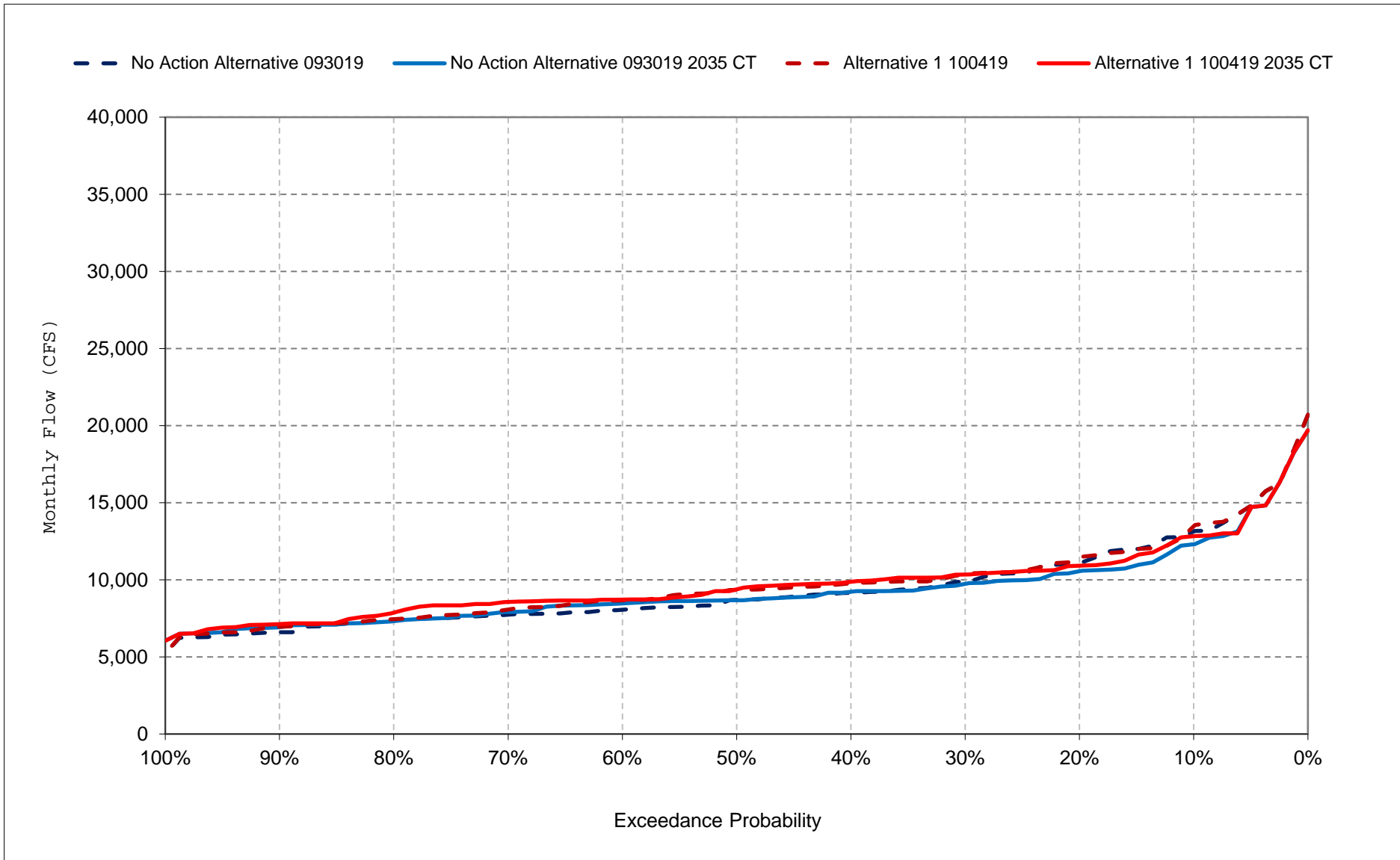
Figure 17-13. Sacramento River below Red Bluff Diversion Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

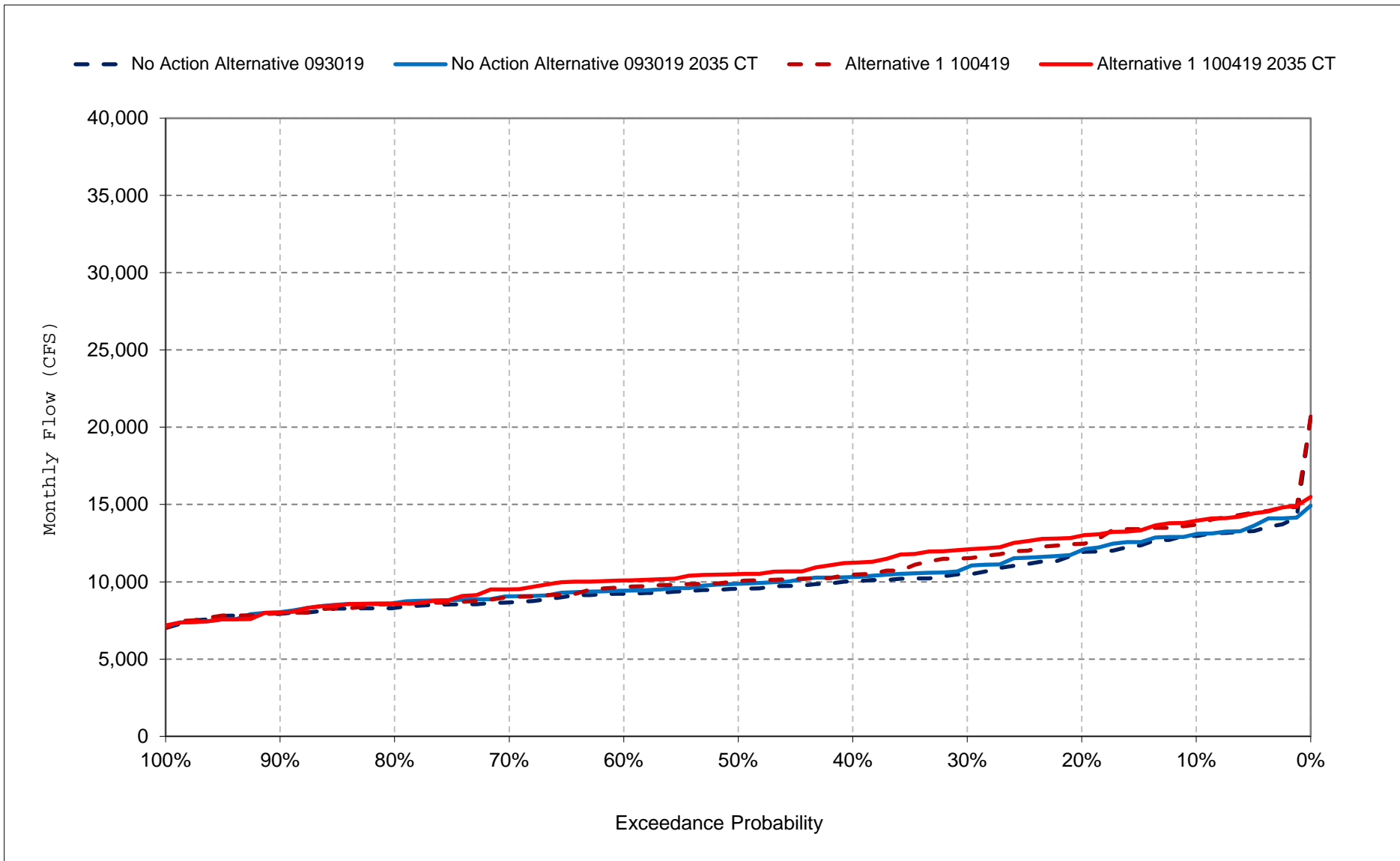
Figure 17-14. Sacramento River below Red Bluff Diversion Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

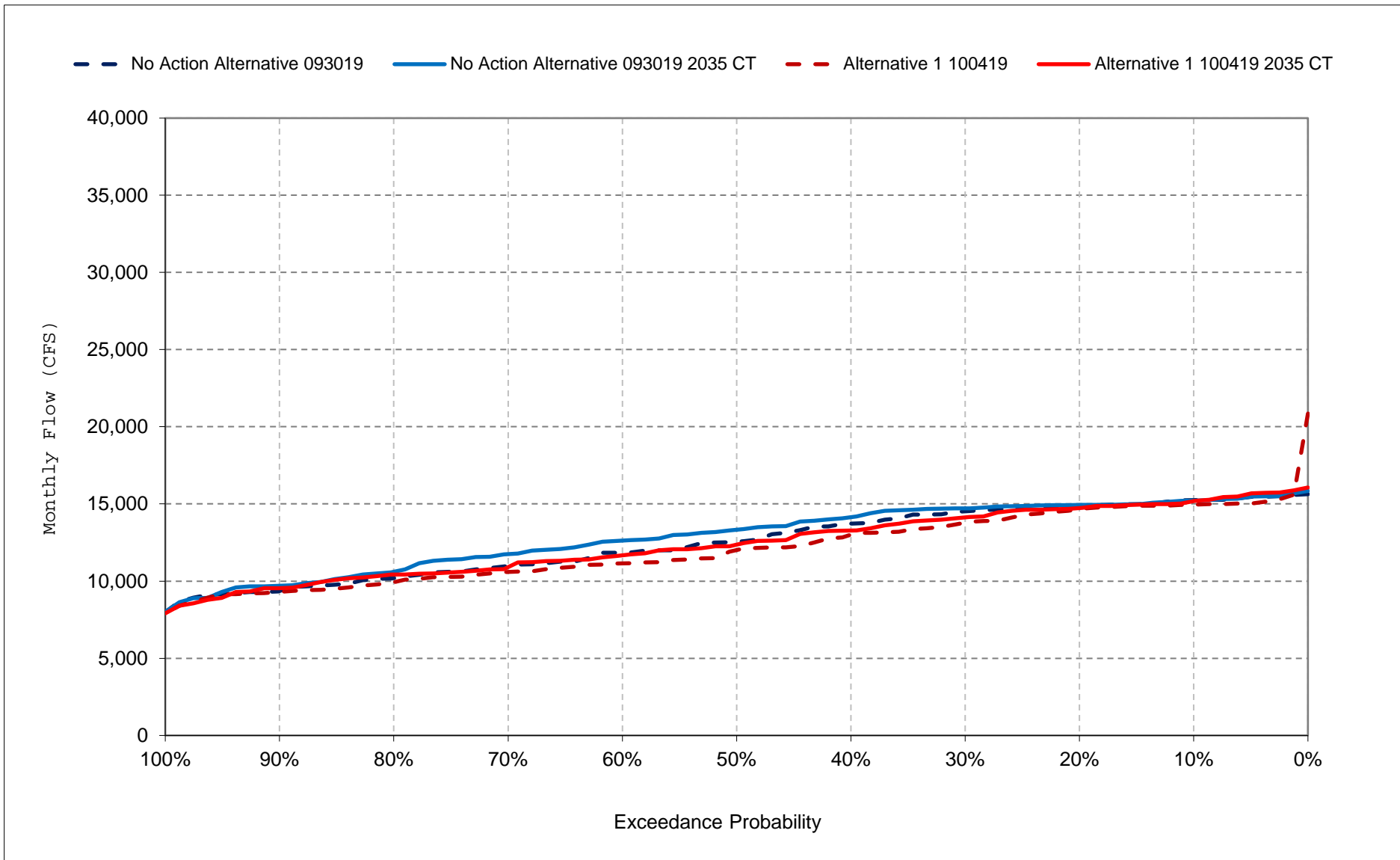
Figure 17-15. Sacramento River below Red Bluff Diversion Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

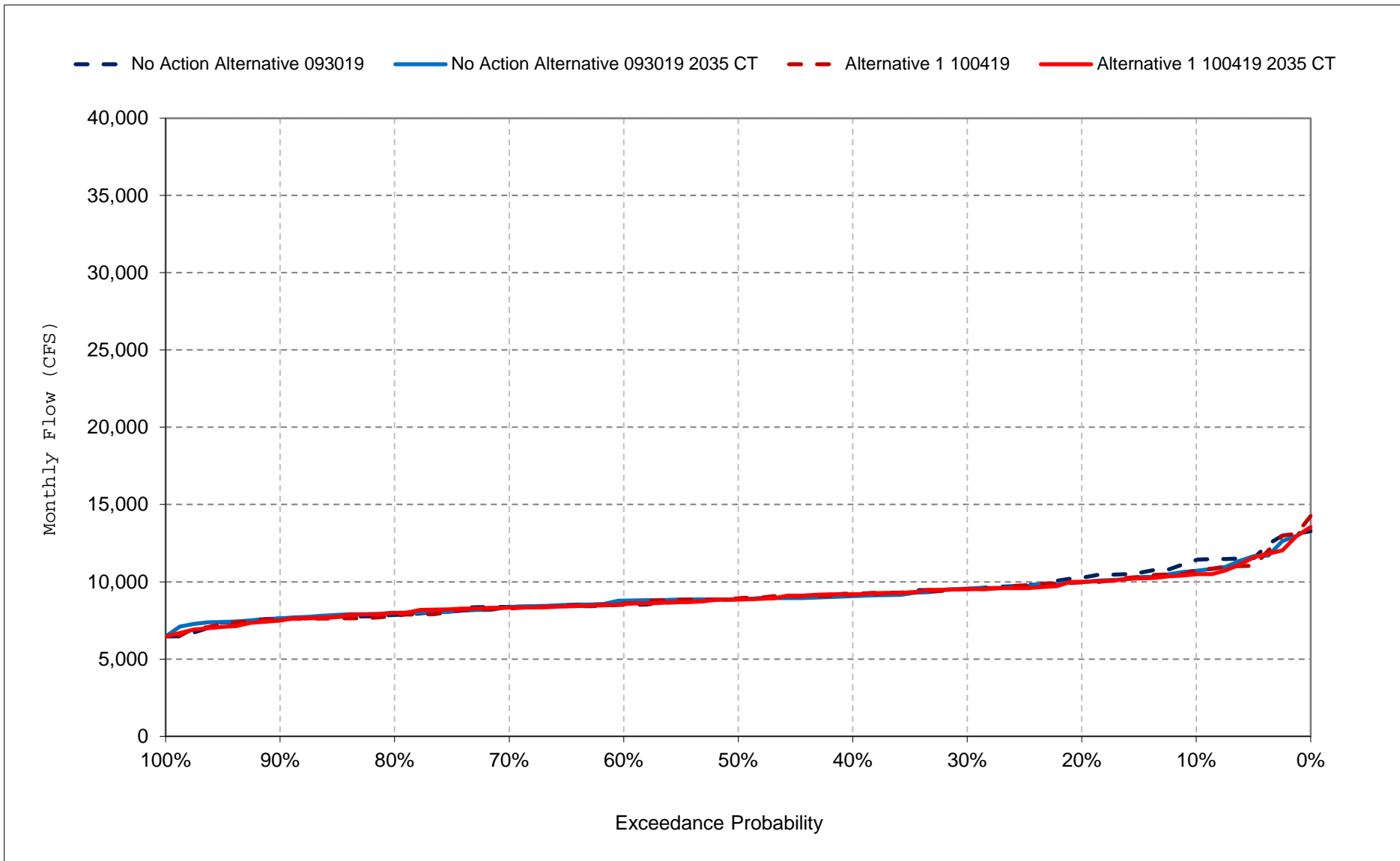
Figure 17-16. Sacramento River below Red Bluff Diversion Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

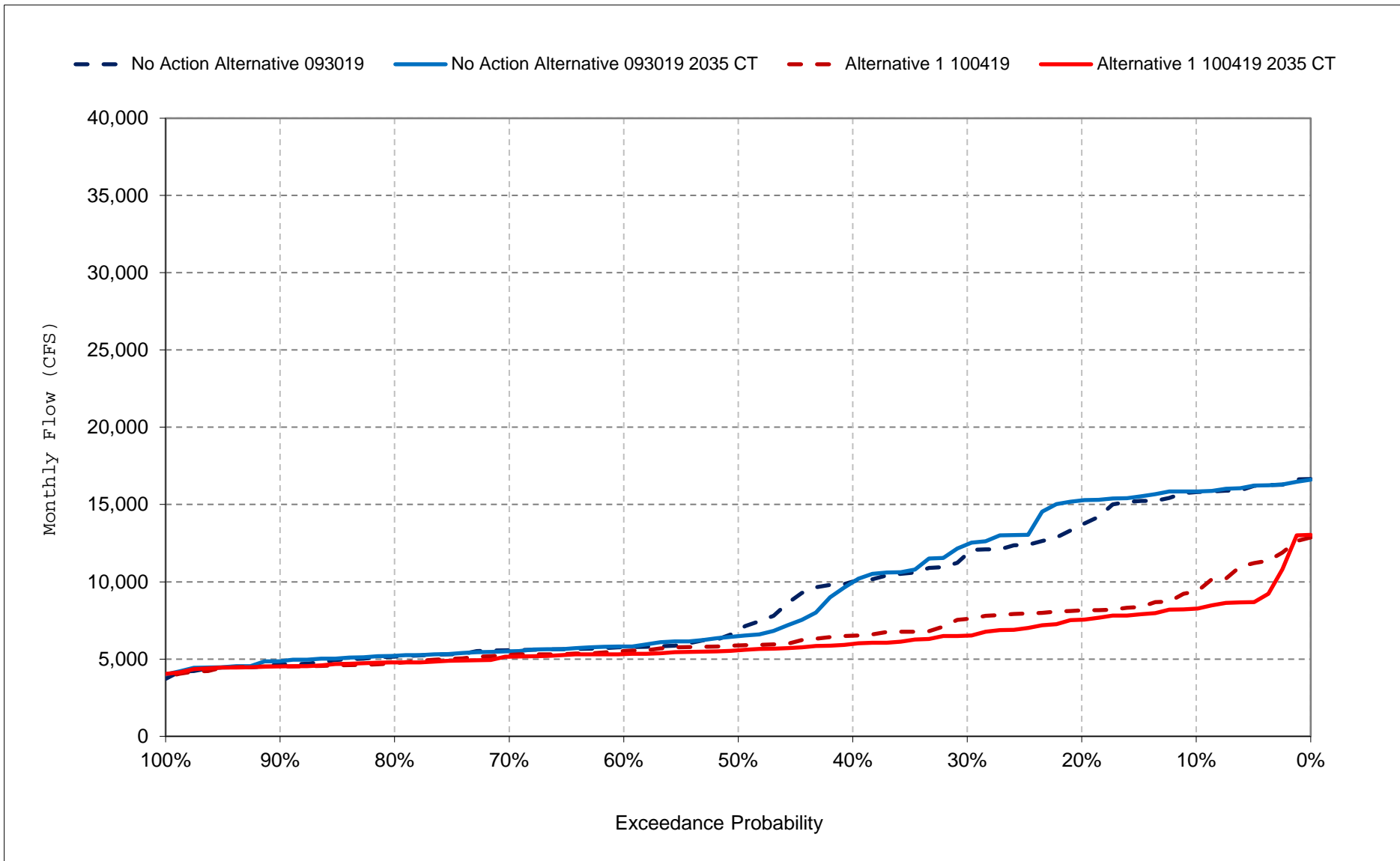
Figure 17-17. Sacramento River below Red Bluff Diversion Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 17-18. Sacramento River below Red Bluff Diversion Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-1. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,533	14,514	30,454	40,895	51,928	33,410	19,892	13,667	10,490	12,795	9,381	15,318
20%	9,137	11,964	18,666	26,959	36,320	22,469	15,439	11,335	9,589	12,458	8,069	13,180
30%	7,718	11,342	11,974	18,701	24,155	17,461	9,651	8,554	8,702	12,074	7,628	11,244
40%	7,314	10,538	9,354	13,004	15,887	12,300	7,794	7,444	7,998	11,276	7,252	9,491
50%	6,628	8,952	7,755	10,368	11,802	10,484	7,129	7,104	7,653	10,195	6,873	6,441
60%	5,920	7,700	6,702	8,239	10,219	9,310	6,399	6,770	7,186	9,473	6,596	5,180
70%	5,494	6,660	6,170	7,032	8,669	7,907	5,977	6,462	6,911	8,610	6,421	4,978
80%	5,116	5,957	5,568	6,358	7,193	6,759	5,606	5,942	6,765	7,906	6,000	4,689
90%	4,762	5,062	5,147	5,443	5,738	6,104	5,027	5,633	6,250	7,083	5,788	4,140
Long Term												
Full Simulation Period ^d	6,929	9,736	13,273	17,954	21,489	16,693	10,444	8,521	8,163	10,170	7,193	8,464
Water Year Types ^{b,c}												
Wet (32%)	8,327	12,618	13,752	33,701	35,050	28,342	16,373	11,144	8,195	10,422	7,757	13,845
Above Normal (16%)	7,758	12,844	12,277	19,245	29,447	18,600	11,053	8,831	8,346	11,738	7,749	9,687
Below Normal (13%)	6,429	6,841	13,002	8,952	14,297	8,532	7,040	7,434	8,670	11,120	8,241	5,434
Dry (24%)	6,108	8,224	17,136	8,121	10,990	10,694	7,270	6,820	8,162	9,498	6,373	4,762
Critical (15%)	4,826	5,302	7,123	7,075	7,574	6,866	5,351	6,333	7,432	8,176	5,776	4,426

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,529	11,628	33,595	43,813	52,523	33,844	19,846	13,031	11,494	12,531	8,698	8,927
20%	8,476	9,418	23,477	28,534	35,439	22,900	15,436	10,920	10,232	12,294	8,040	7,612
30%	7,663	8,347	12,940	19,297	25,966	19,460	9,477	9,170	9,279	11,405	7,558	7,114
40%	6,954	7,491	10,171	16,596	15,909	12,669	8,858	8,206	8,794	10,602	7,177	5,993
50%	6,659	7,194	7,868	11,157	12,260	11,290	7,407	7,819	8,149	9,583	6,992	5,316
60%	6,292	6,888	6,989	8,503	10,224	9,380	6,862	7,131	7,629	8,745	6,709	5,023
70%	5,798	6,408	6,473	7,474	8,654	8,422	6,198	6,636	7,127	8,219	6,317	4,760
80%	5,502	5,698	5,761	6,555	7,352	7,003	5,708	6,372	6,843	7,602	5,914	4,338
90%	4,949	5,408	5,481	5,440	5,986	6,364	5,235	5,752	6,246	7,005	5,777	3,954
Long Term												
Full Simulation Period ^d	6,976	8,534	14,134	18,638	22,036	17,097	10,603	8,811	8,655	9,787	7,109	6,097
Water Year Types ^{b,c}												
Wet (32%)	8,269	9,415	15,746	34,387	35,539	28,595	16,560	11,062	8,436	10,523	7,915	8,058
Above Normal (16%)	7,511	10,776	13,123	20,364	30,824	19,670	11,218	9,187	8,938	11,609	7,787	7,004
Below Normal (13%)	6,655	6,981	13,176	10,124	15,584	9,380	7,403	8,025	9,927	10,422	7,388	5,049
Dry (24%)	6,361	8,540	17,332	8,321	11,118	10,747	7,374	7,483	8,713	8,618	6,400	4,583
Critical (15%)	4,914	5,609	7,282	7,647	7,368	7,056	5,346	6,459	7,561	7,586	5,557	4,350

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-2,886	3,141	2,918	595	434	-47	-636	1,003	-265	-682	-6,391
20%	-661	-2,546	4,811	1,575	-881	431	-3	-415	644	-163	-28	-5,568
30%	-54	-2,994	966	597	1,811	1,999	-174	616	578	-669	-70	-4,130
40%	-360	-3,047	817	3,592	22	370	1,064	762	796	-673	-75	-3,498
50%	31	-1,758	113	789	458	805	278	715	496	-612	119	-1,125
60%	372	-812	286	264	5	71	463	360	443	-728	113	-158
70%	304	-251	303	442	-15	515	221	174	216	-391	-104	-218
80%	387	-260	194	197	160	245	102	429	78	-303	-86	-351
90%	187	347	334	-3	248	260	208	119	-3	-79	-11	-186
Long Term												
Full Simulation Period ^d	47	-1,202	861	685	547	404	159	290	492	-383	-84	-2,367
Water Year Types ^{b,c}												
Wet (32%)	-58	-3,203	1,994	686	489	253	187	-83	241	101	158	-5,787
Above Normal (16%)	-247	-2,068	846	1,119	1,377	1,070	165	356	592	-129	38	-2,684
Below Normal (13%)	225	141	175	1,172	1,287	848	363	592	1,257	-699	-853	-385
Dry (24%)	253	317	196	200	129	54	104	664	551	-880	26	-179
Critical (15%)	88	307	159	571	-206	190	-5	126	129	-590	-219	-76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 18-2. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,698	13,722	28,124	42,263	49,956	34,648	20,434	11,725	10,566	12,669	8,632	15,393
20%	8,966	12,072	19,359	30,041	37,324	24,551	15,842	8,648	9,608	12,436	7,954	14,741
30%	7,454	11,190	13,030	21,087	26,541	19,936	9,750	7,897	8,506	12,239	7,503	11,896
40%	6,709	9,724	10,216	14,559	17,323	13,174	8,261	7,252	8,067	11,714	7,106	9,410
50%	6,401	7,836	8,165	10,992	13,427	11,116	6,813	6,918	7,534	11,049	6,940	6,137
60%	5,770	7,035	7,009	9,519	10,602	9,635	6,112	6,587	6,951	10,105	6,715	5,255
70%	5,620	6,493	6,307	7,882	8,912	7,772	5,636	6,328	6,870	9,480	6,371	4,962
80%	5,241	5,710	5,743	6,731	6,893	6,820	5,180	5,892	6,655	8,111	6,122	4,629
90%	4,936	5,064	5,055	5,749	6,152	6,032	4,584	5,601	6,140	7,444	5,691	4,287
Long Term												
Full Simulation Period ^d	6,820	9,298	13,425	19,361	22,049	17,520	10,529	7,867	7,983	10,481	7,120	8,591
Water Year Types ^{b,c}												
Wet (32%)	7,917	12,123	13,795	36,128	35,100	29,678	16,887	9,437	7,359	10,563	7,551	13,803
Above Normal (16%)	8,004	11,692	12,254	20,688	29,960	18,875	11,105	8,223	8,438	12,230	7,744	10,358
Below Normal (13%)	6,083	6,649	13,153	9,779	16,082	9,090	7,342	7,557	8,614	11,582	7,833	5,378
Dry (24%)	6,013	7,864	17,301	8,774	11,965	11,650	6,898	6,581	8,391	10,128	6,509	4,809
Critical (15%)	5,178	5,399	7,678	8,022	7,476	7,224	5,103	6,511	7,583	7,988	5,873	4,629

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,488	11,656	31,485	45,102	50,192	34,685	20,482	11,675	11,543	12,701	8,456	7,793
20%	7,732	9,406	21,905	30,707	37,553	25,315	15,835	9,431	10,538	12,260	7,906	7,050
30%	7,165	7,642	13,978	22,255	26,577	20,325	9,934	8,582	9,718	11,607	7,483	6,015
40%	6,690	7,383	10,921	16,750	17,306	13,740	8,365	8,134	8,805	10,886	7,133	5,453
50%	6,387	6,995	8,521	11,418	14,273	11,442	7,136	7,592	8,247	10,019	6,893	5,108
60%	6,114	6,717	7,280	9,599	10,673	9,742	6,380	6,946	7,936	9,145	6,635	4,782
70%	5,797	6,145	6,753	7,877	8,920	8,869	5,859	6,653	7,344	8,459	6,388	4,543
80%	5,544	5,733	6,012	6,743	7,175	7,053	5,456	6,379	6,635	7,960	6,100	4,264
90%	5,044	5,321	5,704	5,779	6,334	6,249	4,839	5,811	6,048	7,252	5,645	3,982
Long Term												
Full Simulation Period ^d	6,634	8,169	14,460	20,055	22,554	18,146	10,668	8,291	8,566	10,010	7,055	5,641
Water Year Types ^{b,c}												
Wet (32%)	7,525	9,049	15,932	36,953	35,602	30,168	16,989	9,631	7,745	10,549	7,746	7,022
Above Normal (16%)	7,155	9,742	12,711	21,881	31,136	20,356	11,286	8,685	9,323	12,228	7,971	6,465
Below Normal (13%)	6,198	6,904	13,390	11,703	16,720	10,046	7,309	8,150	9,660	10,691	7,002	4,838
Dry (24%)	6,139	8,164	18,266	8,937	12,068	11,831	7,131	7,320	9,008	9,017	6,414	4,483
Critical (15%)	5,361	5,729	7,801	7,653	7,811	7,655	5,277	6,707	7,789	7,472	5,679	4,425

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,210	-2,066	3,362	2,839	236	37	47	-50	977	32	-176	-7,600
20%	-1,234	-2,666	2,546	666	229	764	-7	783	931	-176	-49	-7,691
30%	-290	-3,548	948	1,169	36	389	184	685	1,211	-632	-21	-5,881
40%	-19	-2,341	704	2,191	-18	566	104	883	738	-828	27	-3,957
50%	-14	-840	356	426	846	326	323	675	713	-1,029	-47	-1,029
60%	345	-318	271	81	71	107	268	359	985	-960	-81	-474
70%	178	-347	446	-5	8	1,097	223	324	475	-1,022	17	-419
80%	303	23	270	12	282	233	276	487	-20	-151	-22	-364
90%	108	257	649	30	182	216	255	210	-91	-191	-47	-305
Long Term												
Full Simulation Period ^d	-186	-1,129	1,035	694	506	626	139	424	583	-471	-65	-2,949
Water Year Types ^{b,c}												
Wet (32%)	-393	-3,075	2,137	825	502	490	102	195	385	-15	195	-6,782
Above Normal (16%)	-849	-1,951	457	1,193	1,176	1,481	181	462	885	-1	228	-3,893
Below Normal (13%)	115	255	237	1,924	638	957	-33	593	1,046	-891	-831	-539
Dry (24%)	126	300	966	163	104	182	233	740	616	-1,111	-95	-326
Critical (15%)	183	330	122	-369	336	431	175	196	206	-517	-194	-204

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-3. Sacramento River Flow at Hamilton City, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,533	14,514	30,454	40,895	51,928	33,410	19,892	13,667	10,490	12,795	9,381	15,318
20%	9,137	11,964	18,666	26,959	36,320	22,469	15,439	11,335	9,589	12,458	8,069	13,180
30%	7,718	11,342	11,974	18,701	24,155	17,461	9,651	8,554	8,702	12,074	7,628	11,244
40%	7,314	10,538	9,354	13,004	15,887	12,300	7,794	7,444	7,998	11,276	7,252	9,491
50%	6,628	8,952	7,755	10,368	11,802	10,484	7,129	7,104	7,653	10,195	6,873	6,441
60%	5,920	7,700	6,702	8,239	10,219	9,310	6,399	6,770	7,186	9,473	6,596	5,180
70%	5,494	6,660	6,170	7,032	8,669	7,907	5,977	6,462	6,911	8,610	6,421	4,978
80%	5,116	5,957	5,568	6,358	7,193	6,759	5,606	5,942	6,765	7,906	6,000	4,689
90%	4,762	5,062	5,147	5,443	5,738	6,104	5,027	5,633	6,250	7,083	5,788	4,140
Long Term												
Full Simulation Period ^d	6,929	9,736	13,273	17,954	21,489	16,693	10,444	8,521	8,163	10,170	7,193	8,464
Water Year Types ^{b,c}												
Wet (32%)	8,327	12,618	13,752	33,701	35,050	28,342	16,373	11,144	8,195	10,422	7,757	13,845
Above Normal (16%)	7,758	12,844	12,277	19,245	29,447	18,600	11,053	8,831	8,346	11,738	7,749	9,687
Below Normal (13%)	6,429	6,841	13,002	8,952	14,297	8,532	7,040	7,434	8,670	11,120	8,241	5,434
Dry (24%)	6,108	8,224	17,136	8,121	10,990	10,694	7,270	6,820	8,162	9,498	6,373	4,762
Critical (15%)	4,826	5,302	7,123	7,075	7,574	6,866	5,351	6,333	7,432	8,176	5,776	4,426

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,698	13,722	28,124	42,263	49,956	34,648	20,434	11,725	10,566	12,669	8,632	15,393
20%	8,966	12,072	19,359	30,041	37,324	24,551	15,842	8,648	9,608	12,436	7,954	14,741
30%	7,454	11,190	13,030	21,087	26,541	19,936	9,750	7,897	8,506	12,239	7,503	11,896
40%	6,709	9,724	10,216	14,559	17,323	13,174	8,261	7,252	8,067	11,714	7,106	9,410
50%	6,401	7,836	8,165	10,992	13,427	11,116	6,813	6,918	7,534	11,049	6,940	6,137
60%	5,770	7,035	7,009	9,519	10,602	9,635	6,112	6,587	6,951	10,105	6,715	5,255
70%	5,620	6,493	6,307	7,882	8,912	7,772	5,636	6,328	6,870	9,480	6,371	4,962
80%	5,241	5,710	5,743	6,731	6,893	6,820	5,180	5,892	6,655	8,111	6,122	4,629
90%	4,936	5,064	5,055	5,749	6,152	6,032	4,584	5,601	6,140	7,444	5,691	4,287
Long Term												
Full Simulation Period ^d	6,820	9,298	13,425	19,361	22,049	17,520	10,529	7,867	7,983	10,481	7,120	8,591
Water Year Types ^{b,c}												
Wet (32%)	7,917	12,123	13,795	36,128	35,100	29,678	16,887	9,437	7,359	10,563	7,551	13,803
Above Normal (16%)	8,004	11,692	12,254	20,688	29,960	18,875	11,105	8,223	8,438	12,230	7,744	10,358
Below Normal (13%)	6,083	6,649	13,153	9,779	16,082	9,090	7,342	7,557	8,614	11,582	7,833	5,378
Dry (24%)	6,013	7,864	17,301	8,774	11,965	11,650	6,898	6,581	8,391	10,128	6,509	4,809
Critical (15%)	5,178	5,399	7,678	8,022	7,476	7,224	5,103	6,511	7,583	7,988	5,873	4,629

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	165	-791	-2,330	1,368	-1,972	1,238	542	-1,942	75	-127	-749	75
20%	-171	108	693	3,083	1,004	2,082	403	-2,687	19	-22	-114	1,561
30%	-263	-152	1,056	2,386	2,385	2,474	99	-657	-196	165	-125	651
40%	-605	-814	862	1,556	1,437	875	467	-192	69	439	-146	-81
50%	-227	-1,116	410	624	1,624	632	-316	-186	-120	853	67	-305
60%	-151	-666	306	1,280	383	325	-287	-183	-235	632	120	75
70%	126	-167	137	850	243	-135	-341	-133	-41	871	-50	-16
80%	125	-247	175	373	-300	61	-426	-50	-110	206	122	-60
90%	174	2	-92	306	414	-72	-443	-32	-110	360	-97	147
Long Term												
Full Simulation Period ^d	-109	-439	152	1,407	560	827	84	-653	-180	311	-74	127
Water Year Types ^{b,c}												
Wet (32%)	-409	-494	43	2,427	50	1,335	514	-1,708	-836	141	-206	-42
Above Normal (16%)	246	-1,152	-23	1,442	512	275	52	-607	92	492	-5	671
Below Normal (13%)	-346	-192	151	827	1,785	558	302	124	-55	461	-408	-57
Dry (24%)	-95	-360	165	653	975	956	-372	-239	230	630	136	47
Critical (15%)	352	97	555	947	-98	359	-249	178	151	-188	97	203

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 18-4. Sacramento River Flow at Hamilton City, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,529	11,628	33,595	43,813	52,523	33,844	19,846	13,031	11,494	12,531	8,698	8,927
20%	8,476	9,418	23,477	28,534	35,439	22,900	15,436	10,920	10,232	12,294	8,040	7,612
30%	7,663	8,347	12,940	19,297	25,966	19,460	9,477	9,170	9,279	11,405	7,558	7,114
40%	6,954	7,491	10,171	16,596	15,909	12,669	8,858	8,206	8,794	10,602	7,177	5,993
50%	6,659	7,194	7,868	11,157	12,260	11,290	7,407	7,819	8,149	9,583	6,992	5,316
60%	6,292	6,888	6,989	8,503	10,224	9,380	6,862	7,131	7,629	8,745	6,709	5,023
70%	5,798	6,408	6,473	7,474	8,654	8,422	6,198	6,636	7,127	8,219	6,317	4,760
80%	5,502	5,698	5,761	6,555	7,352	7,003	5,708	6,372	6,843	7,602	5,914	4,338
90%	4,949	5,408	5,481	5,440	5,986	6,364	5,235	5,752	6,246	7,005	5,777	3,954
Long Term												
Full Simulation Period ^d	6,976	8,534	14,134	18,638	22,036	17,097	10,603	8,811	8,655	9,787	7,109	6,097
Water Year Types ^{b,c}												
Wet (32%)	8,269	9,415	15,746	34,387	35,539	28,595	16,560	11,062	8,436	10,523	7,915	8,058
Above Normal (16%)	7,511	10,776	13,123	20,364	30,824	19,670	11,218	9,187	8,938	11,609	7,787	7,004
Below Normal (13%)	6,655	6,981	13,176	10,124	15,584	9,380	7,403	8,025	9,927	10,422	7,388	5,049
Dry (24%)	6,361	8,540	17,332	8,321	11,118	10,747	7,374	7,483	8,713	8,618	6,400	4,583
Critical (15%)	4,914	5,609	7,282	7,647	7,368	7,056	5,346	6,459	7,561	7,586	5,557	4,350

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,488	11,656	31,485	45,102	50,192	34,685	20,482	11,675	11,543	12,701	8,456	7,793
20%	7,732	9,406	21,905	30,707	37,553	25,315	15,835	9,431	10,538	12,260	7,906	7,050
30%	7,165	7,642	13,978	22,255	26,577	20,325	9,934	8,582	9,718	11,607	7,483	6,015
40%	6,690	7,383	10,921	16,750	17,306	13,740	8,365	8,134	8,805	10,886	7,133	5,453
50%	6,387	6,995	8,521	11,418	14,273	11,442	7,136	7,592	8,247	10,019	6,893	5,108
60%	6,114	6,717	7,280	9,599	10,673	9,742	6,380	6,946	7,936	9,145	6,635	4,782
70%	5,797	6,145	6,753	7,877	8,920	8,869	5,859	6,653	7,344	8,459	6,388	4,543
80%	5,544	5,733	6,012	6,743	7,175	7,053	5,456	6,379	6,635	7,960	6,100	4,264
90%	5,044	5,321	5,704	5,779	6,334	6,249	4,839	5,811	6,048	7,252	5,645	3,982
Long Term												
Full Simulation Period ^d	6,634	8,169	14,460	20,055	22,554	18,146	10,668	8,291	8,566	10,010	7,055	5,641
Water Year Types ^{b,c}												
Wet (32%)	7,525	9,049	15,932	36,953	35,602	30,168	16,989	9,631	7,745	10,549	7,746	7,022
Above Normal (16%)	7,155	9,742	12,711	21,881	31,136	20,356	11,286	8,685	9,323	12,228	7,971	6,465
Below Normal (13%)	6,198	6,904	13,390	11,703	16,720	10,046	7,309	8,150	9,660	10,691	7,002	4,838
Dry (24%)	6,139	8,164	18,266	8,937	12,068	11,831	7,131	7,320	9,008	9,017	6,414	4,483
Critical (15%)	5,361	5,729	7,801	7,653	7,811	7,655	5,277	6,707	7,789	7,472	5,679	4,425

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,041	28	-2,110	1,289	-2,331	841	636	-1,356	49	170	-242	-1,134
20%	-744	-11	-1,571	2,173	2,114	2,415	399	-1,489	306	-34	-135	-562
30%	-499	-705	1,038	2,958	610	865	458	-588	438	203	-76	-1,099
40%	-264	-108	749	155	1,397	1,070	-492	-72	11	283	-44	-540
50%	-272	-199	653	261	2,013	152	-271	-227	98	436	-99	-208
60%	-177	-171	291	1,096	449	362	-482	-185	307	400	-74	-241
70%	-1	-263	280	403	266	447	-339	17	217	240	71	-217
80%	41	35	251	188	-177	50	-252	8	-208	358	186	-74
90%	95	-87	223	339	348	-115	-396	59	-198	248	-132	28
Long Term												
Full Simulation Period ^d	-342	-365	326	1,417	519	1,049	65	-520	-89	223	-55	-455
Water Year Types ^{b,c}												
Wet (32%)	-744	-366	186	2,566	63	1,573	429	-1,431	-691	26	-169	-1,036
Above Normal (16%)	-357	-1,034	-412	1,517	312	686	68	-501	385	619	184	-538
Below Normal (13%)	-456	-77	214	1,579	1,136	666	-95	125	-267	270	-386	-211
Dry (24%)	-222	-376	935	615	950	1,084	-244	-163	295	399	14	-100
Critical (15%)	447	120	518	7	444	599	-69	248	228	-114	122	76

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

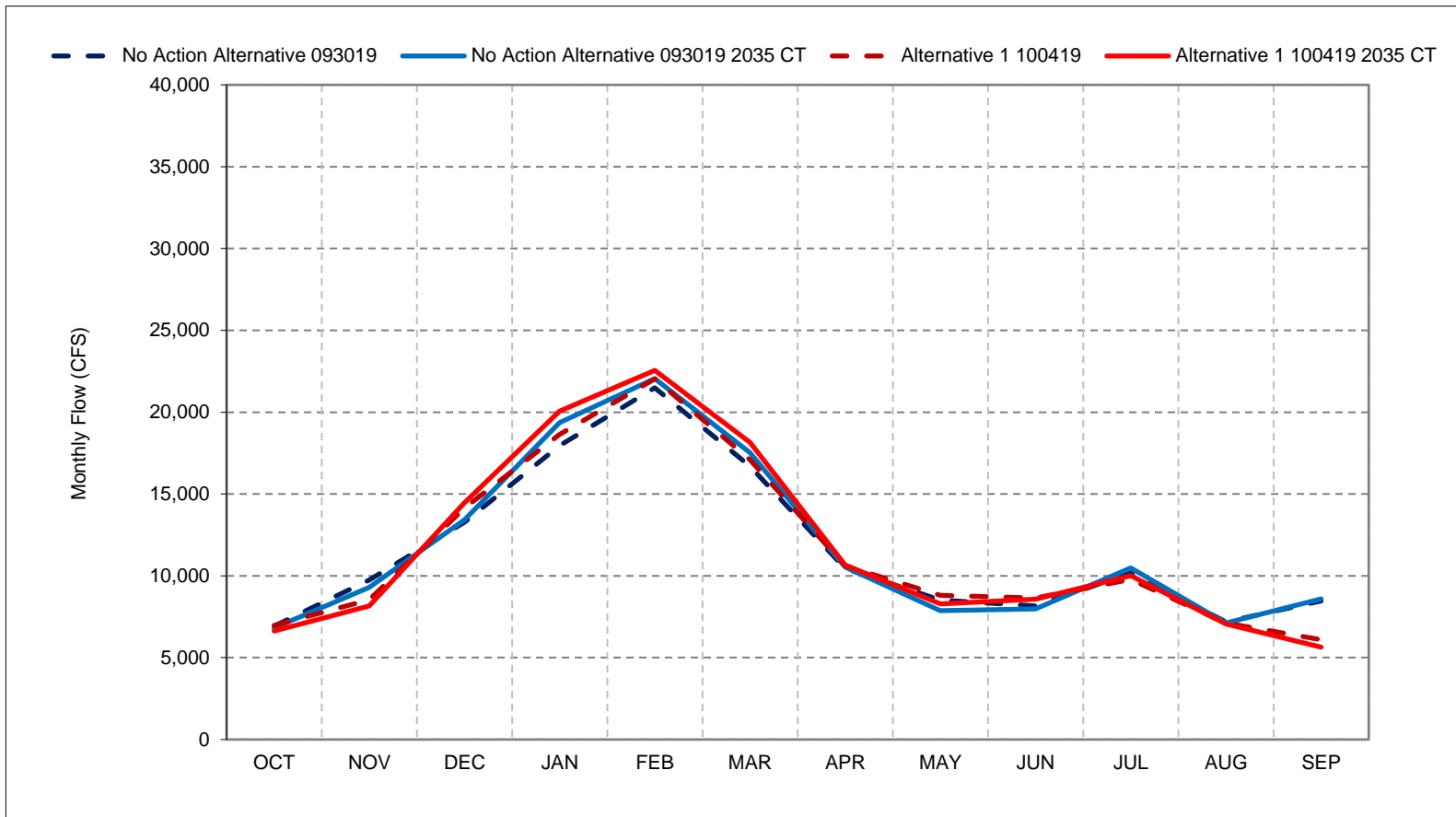
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 18-1. Sacramento River Flow at Hamilton City, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

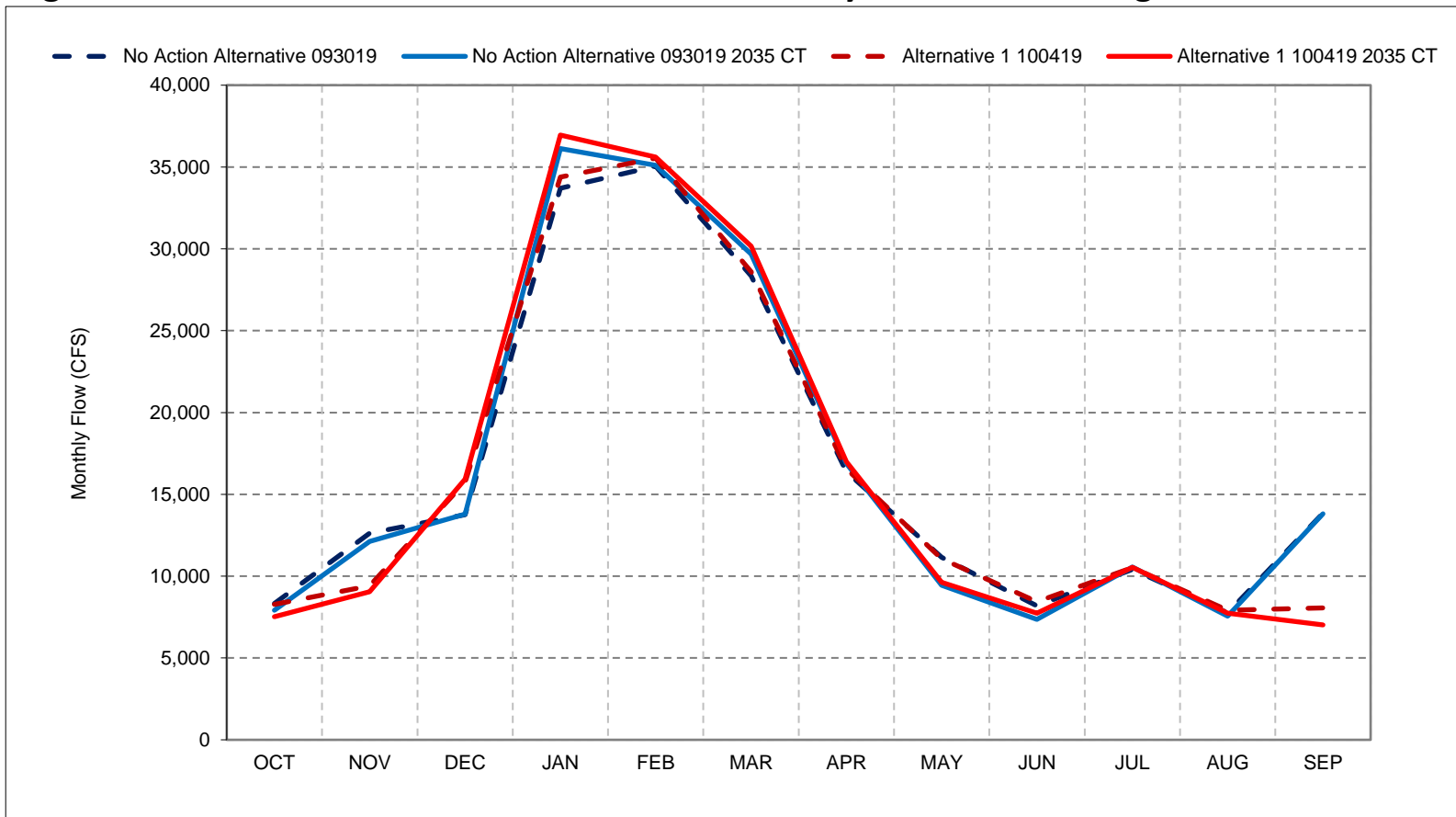
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-2. Sacramento River Flow at Hamilton City, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

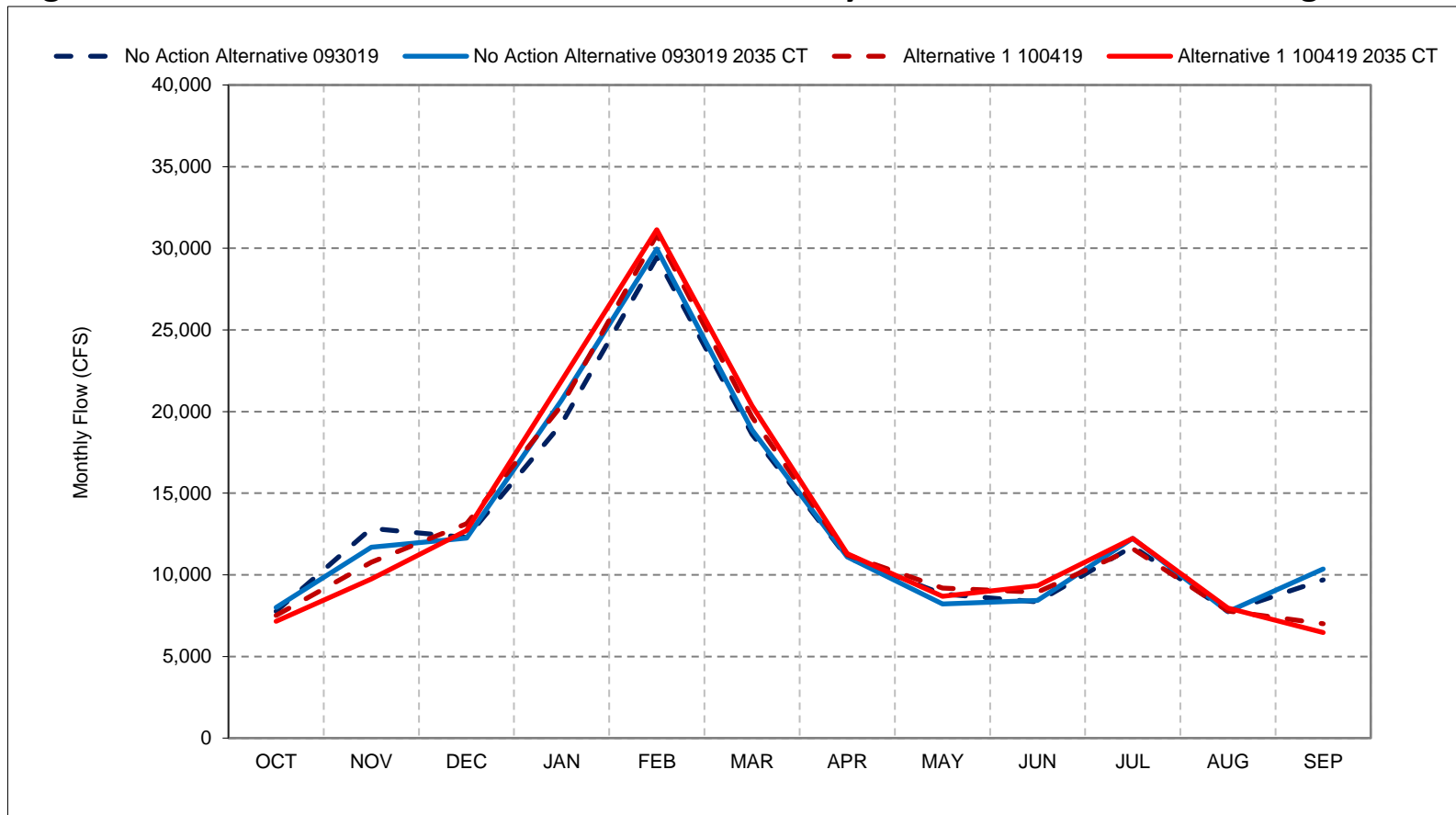
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-3. Sacramento River Flow at Hamilton City, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

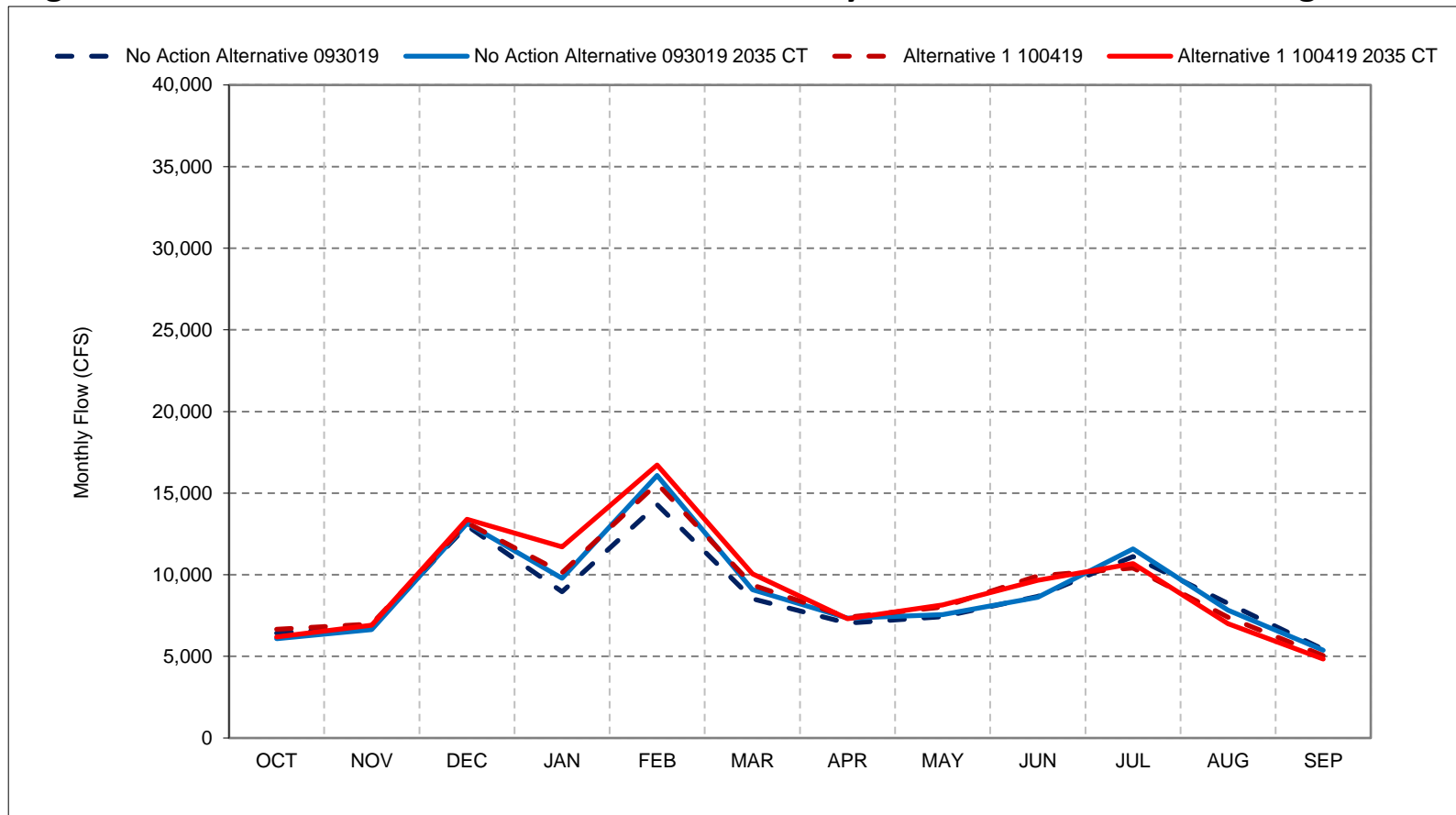
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-4. Sacramento River Flow at Hamilton City, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

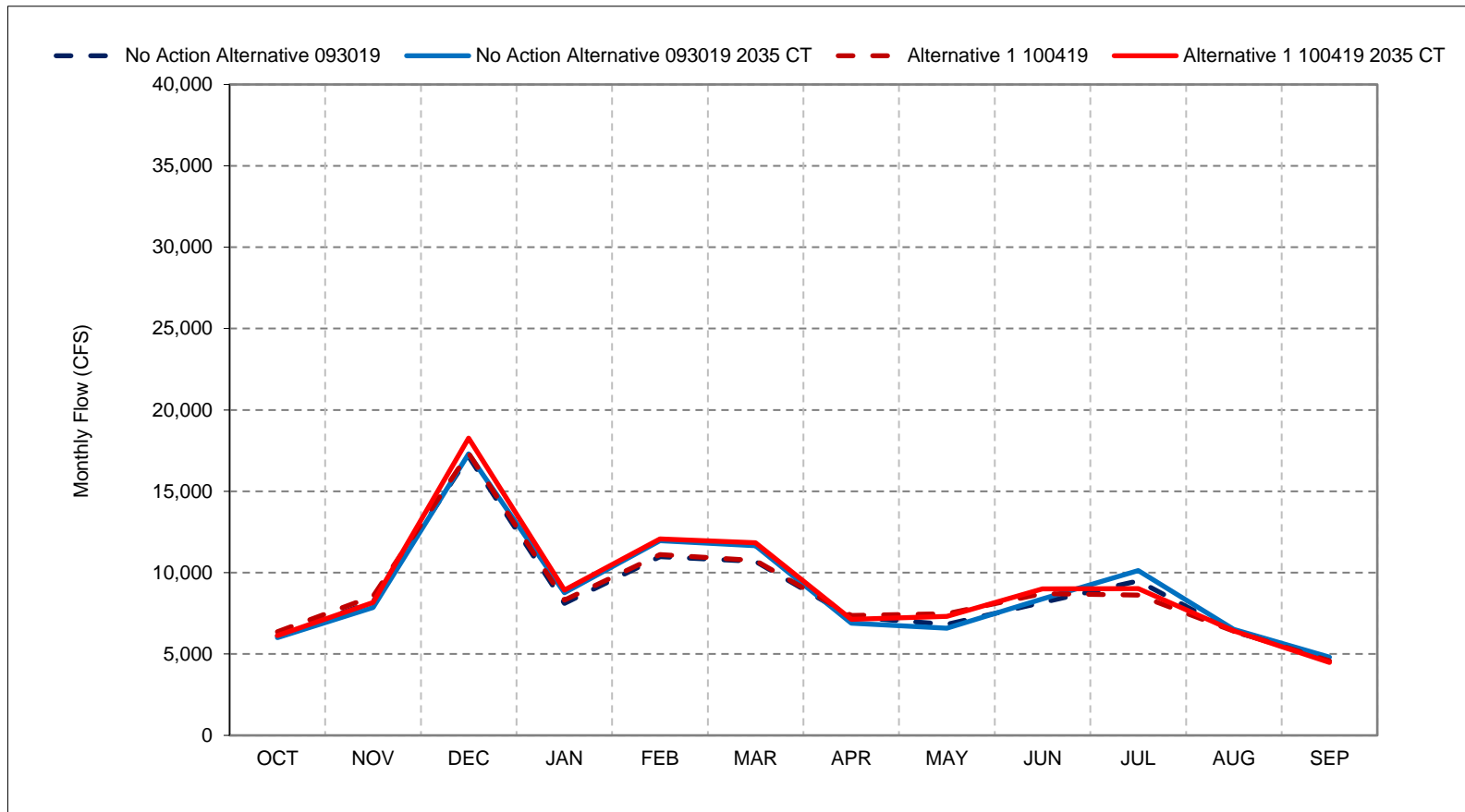
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-5. Sacramento River Flow at Hamilton City, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

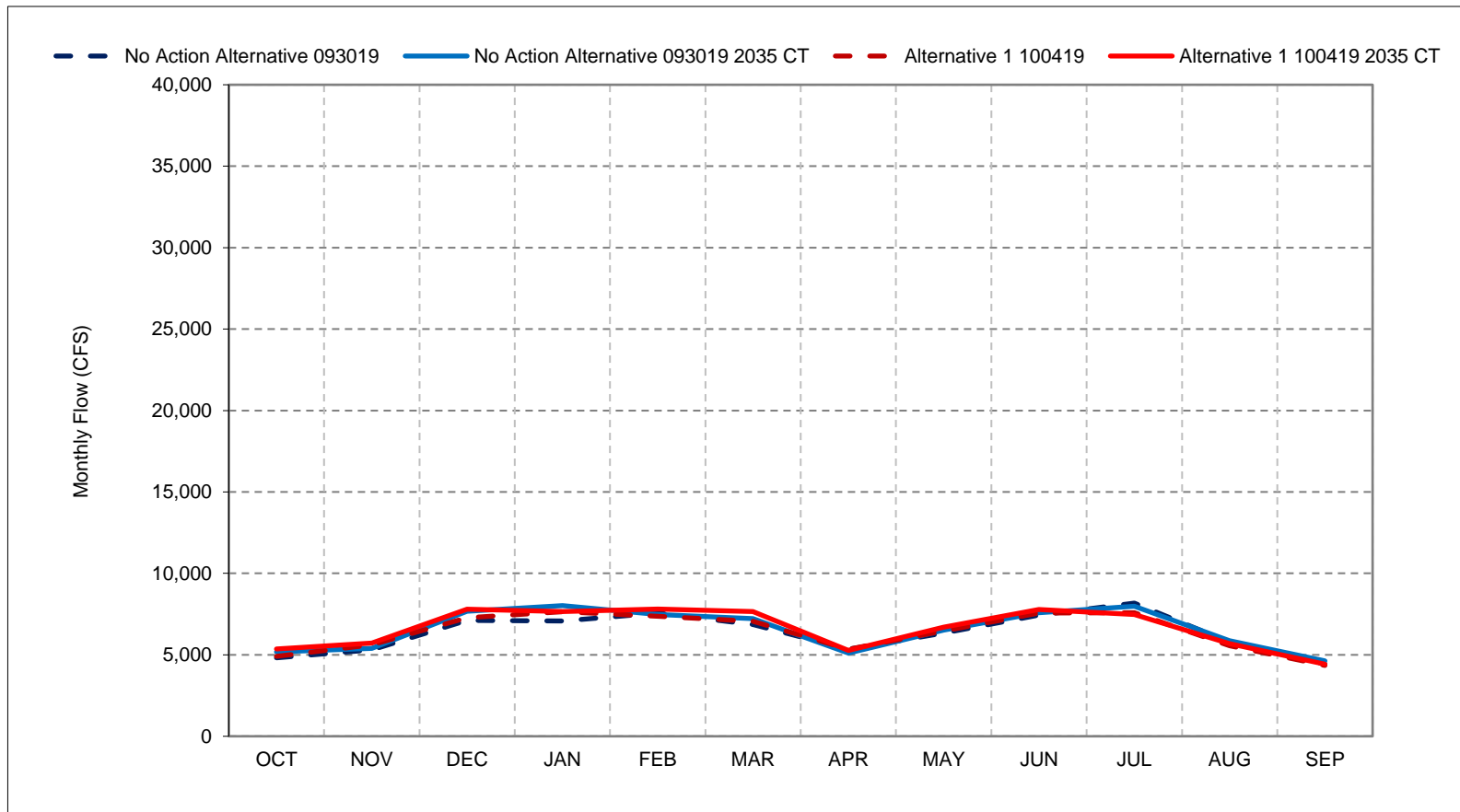
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 18-6. Sacramento River Flow at Hamilton City, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

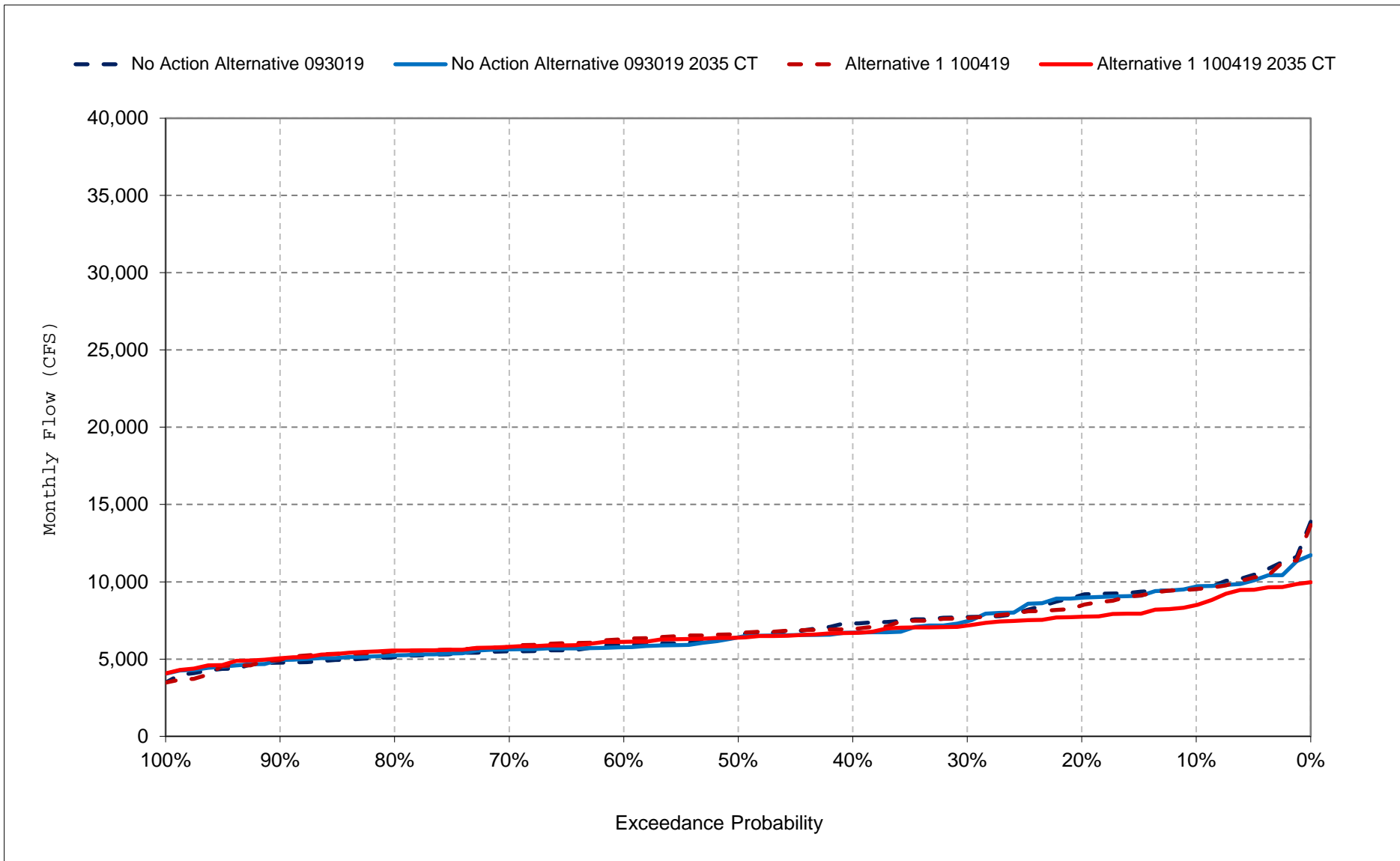
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

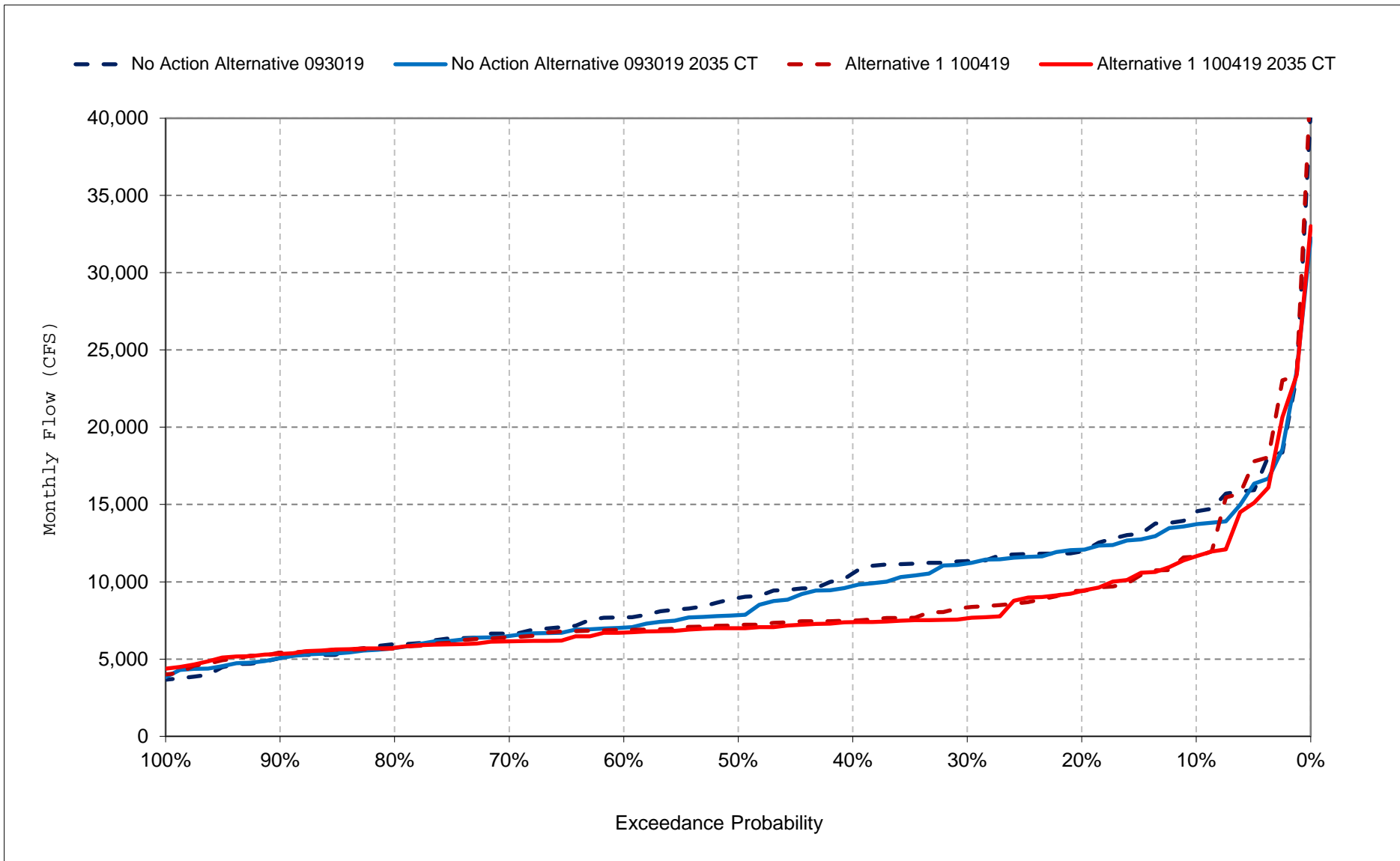
Figure 18-7. Sacramento River Flow at Hamilton City, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

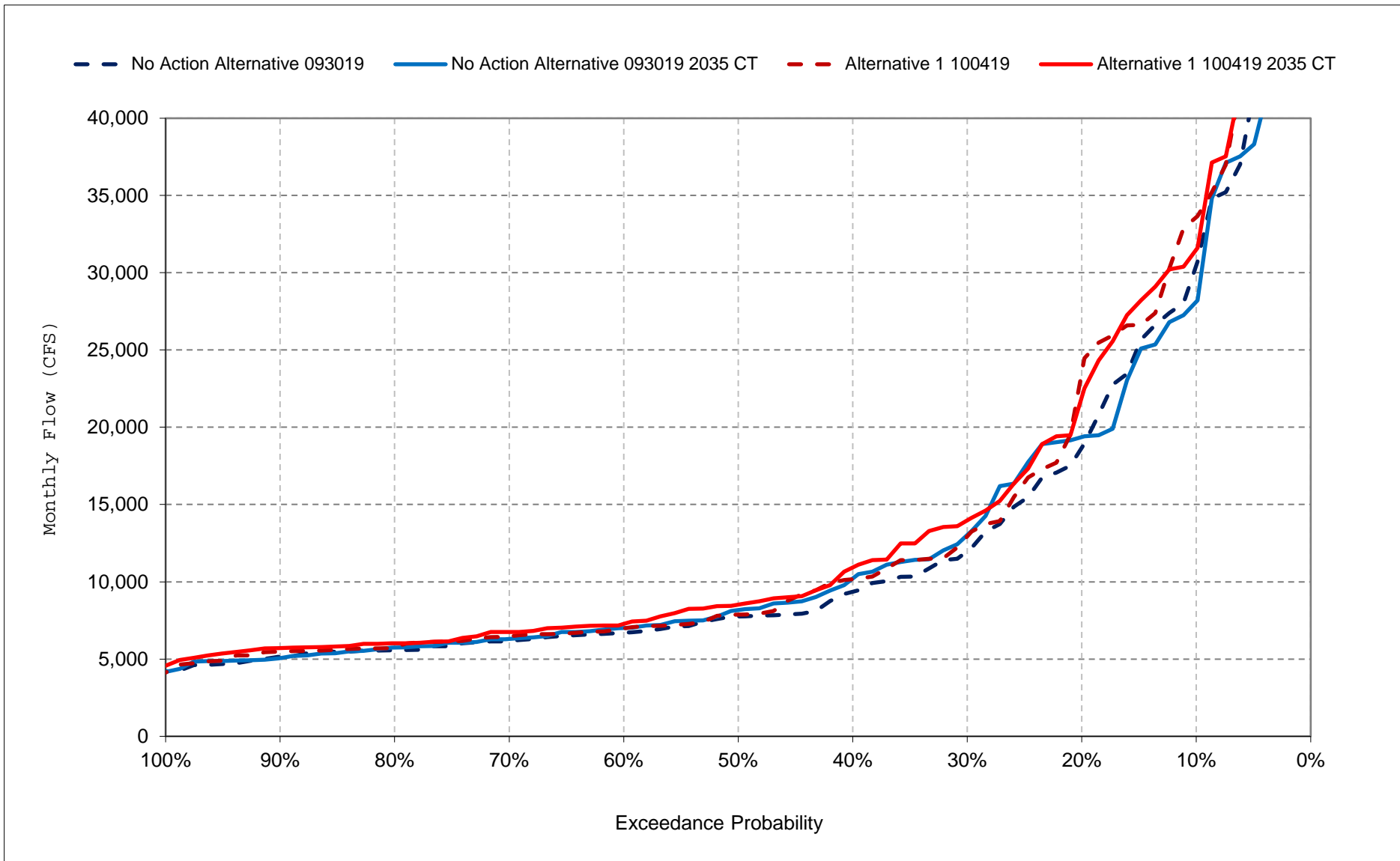
Figure 18-8. Sacramento River Flow at Hamilton City, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

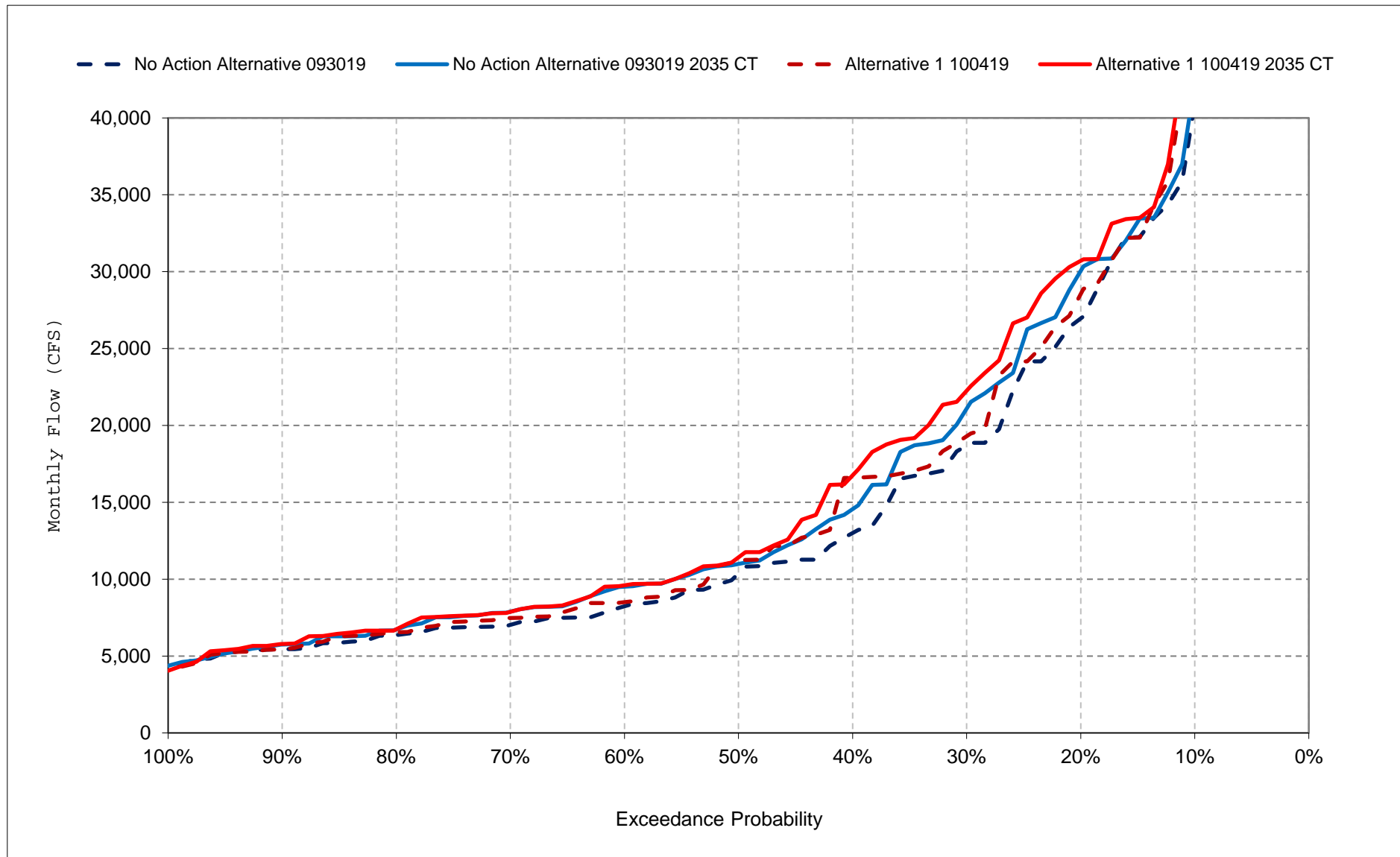
Figure 18-9. Sacramento River Flow at Hamilton City, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

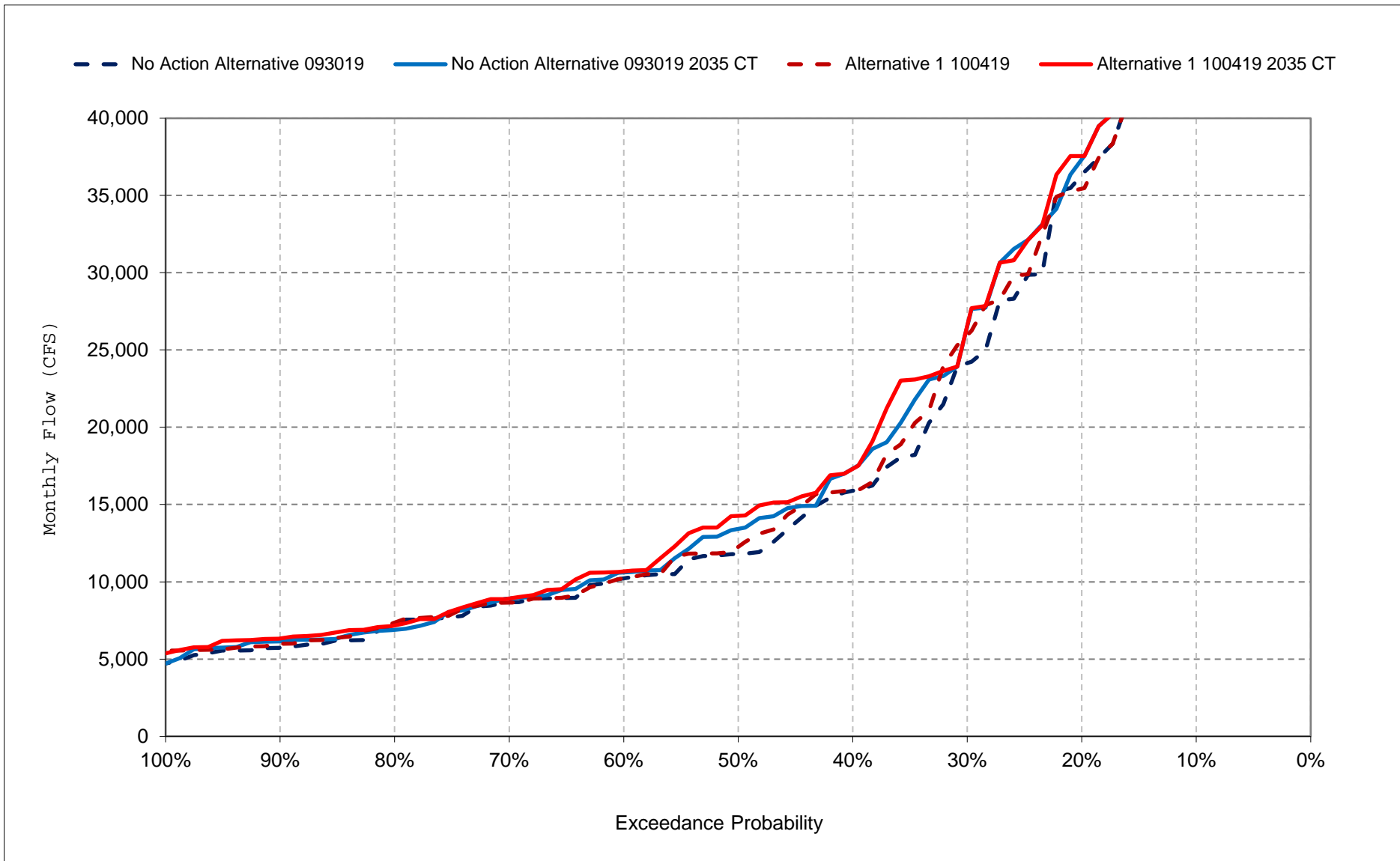
Figure 18-10. Sacramento River Flow at Hamilton City, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

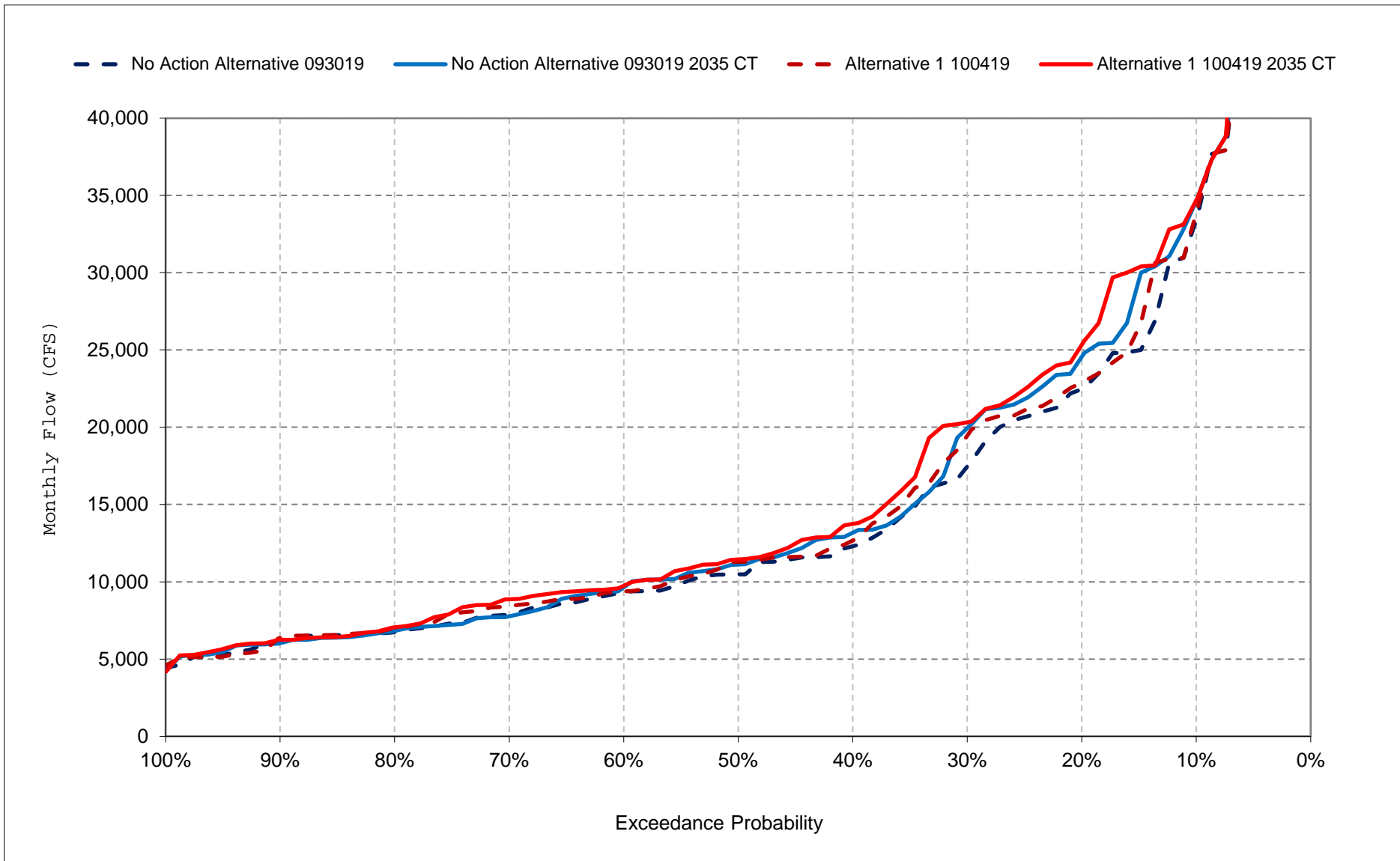
Figure 18-11. Sacramento River Flow at Hamilton City, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

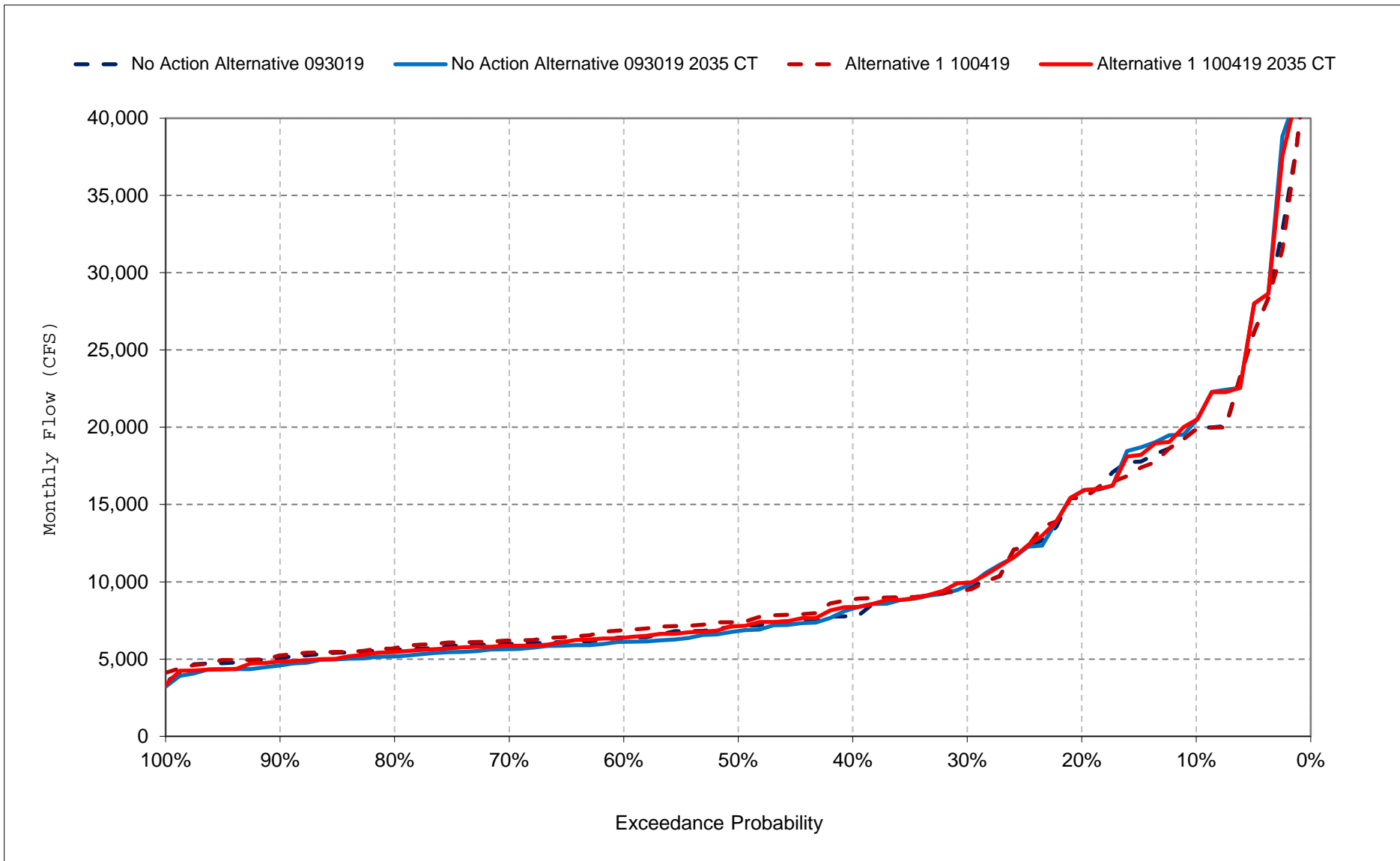
Figure 18-12. Sacramento River Flow at Hamilton City, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

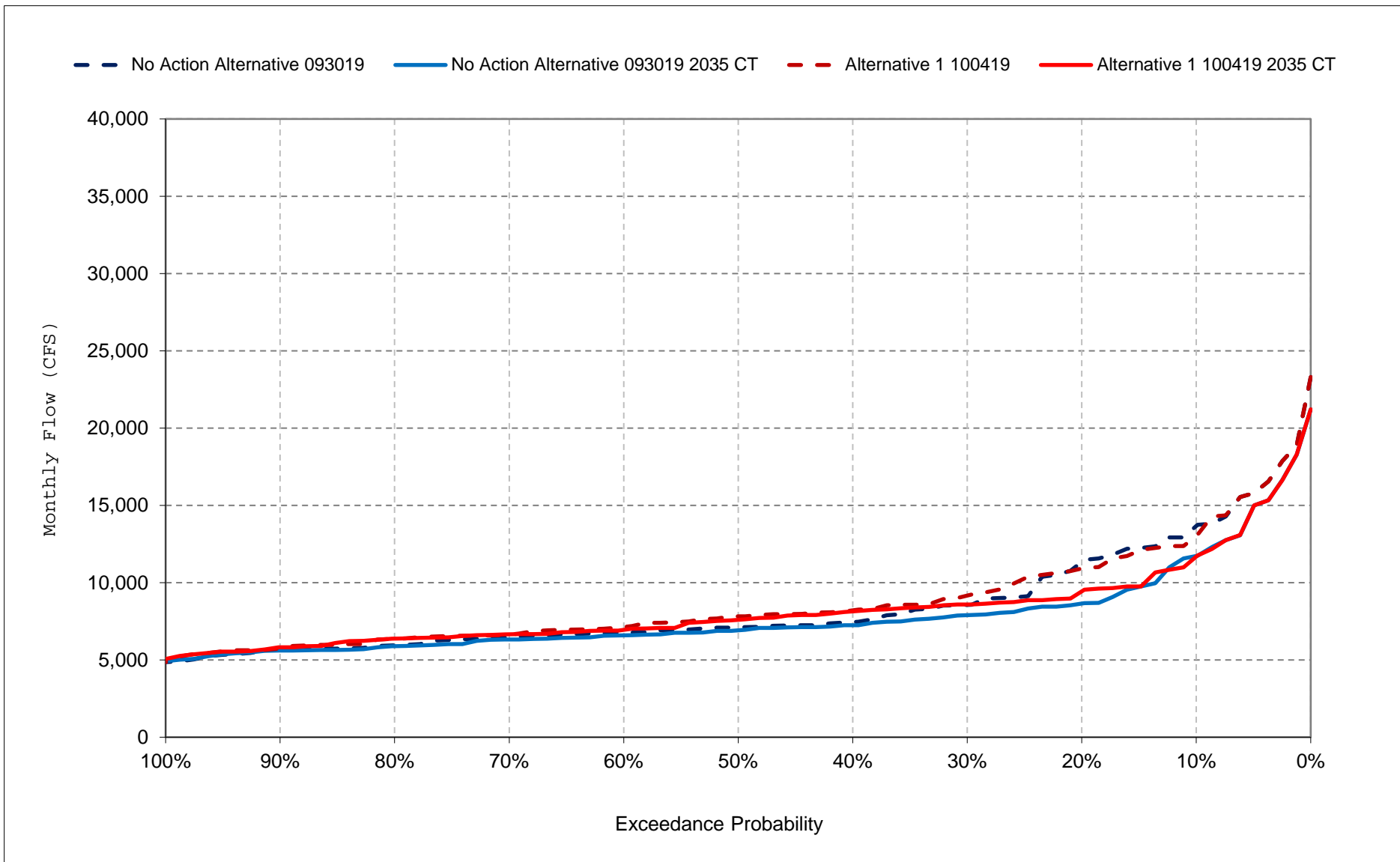
Figure 18-13. Sacramento River Flow at Hamilton City, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

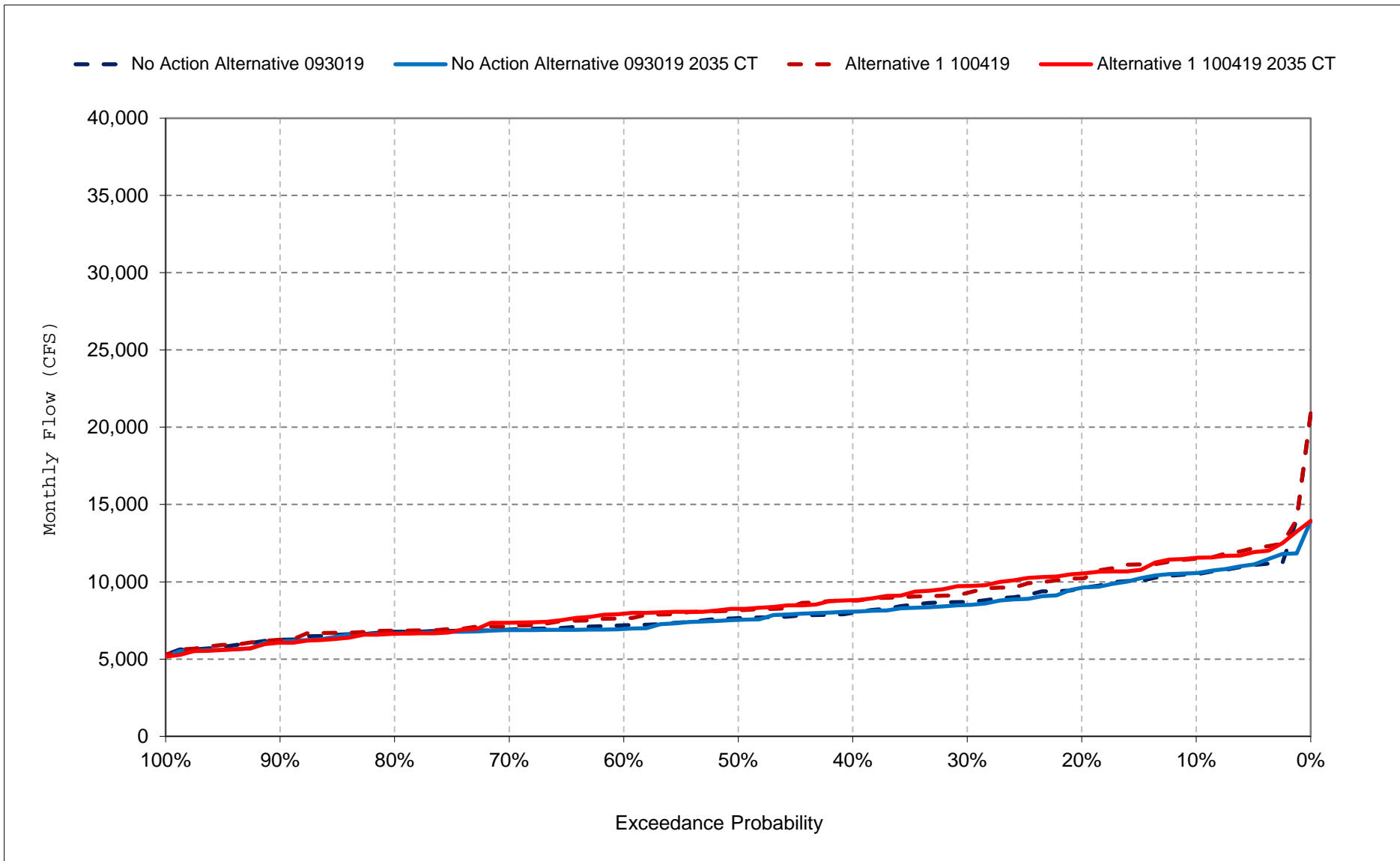
Figure 18-14. Sacramento River Flow at Hamilton City, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

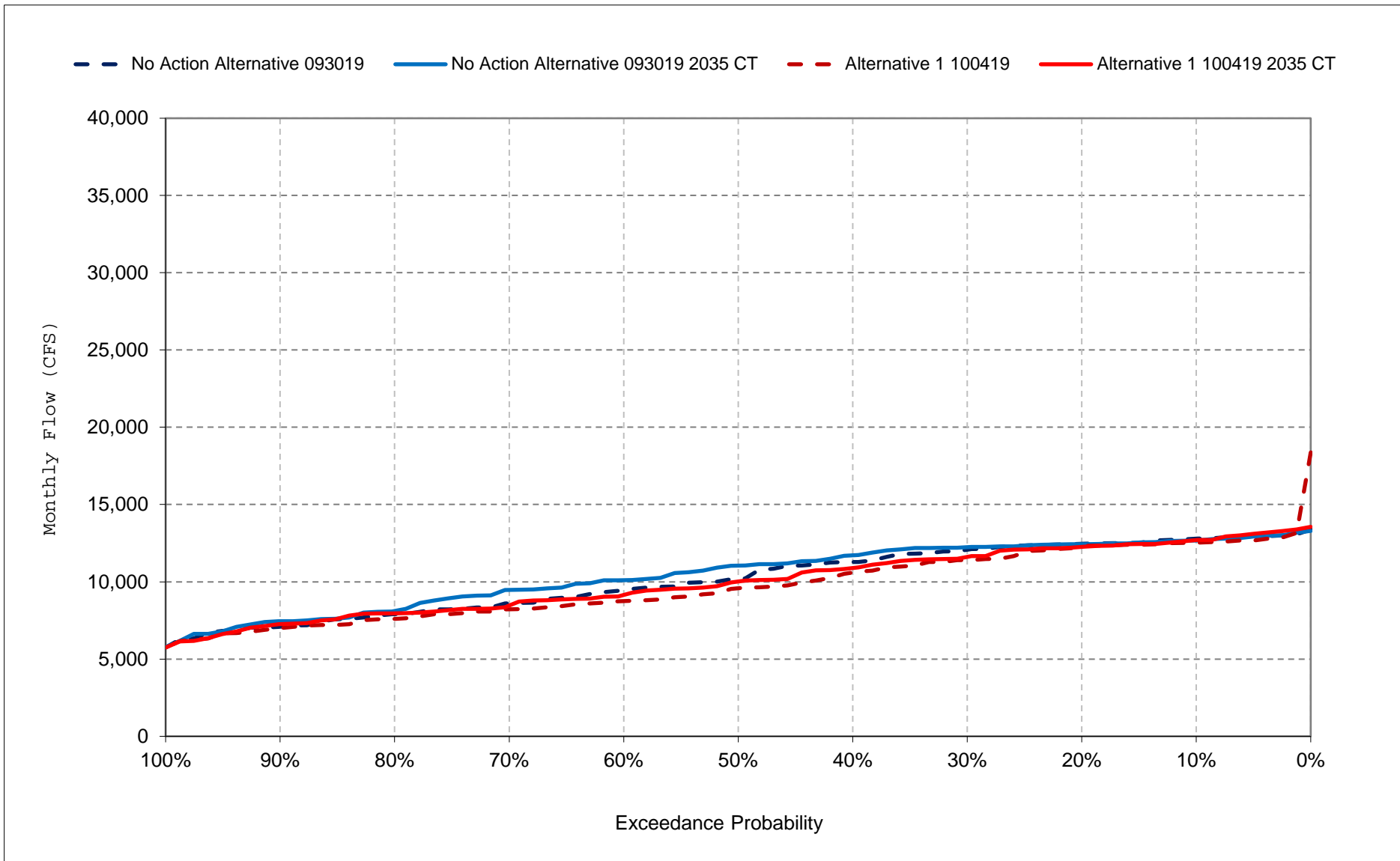
Figure 18-15. Sacramento River Flow at Hamilton City, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

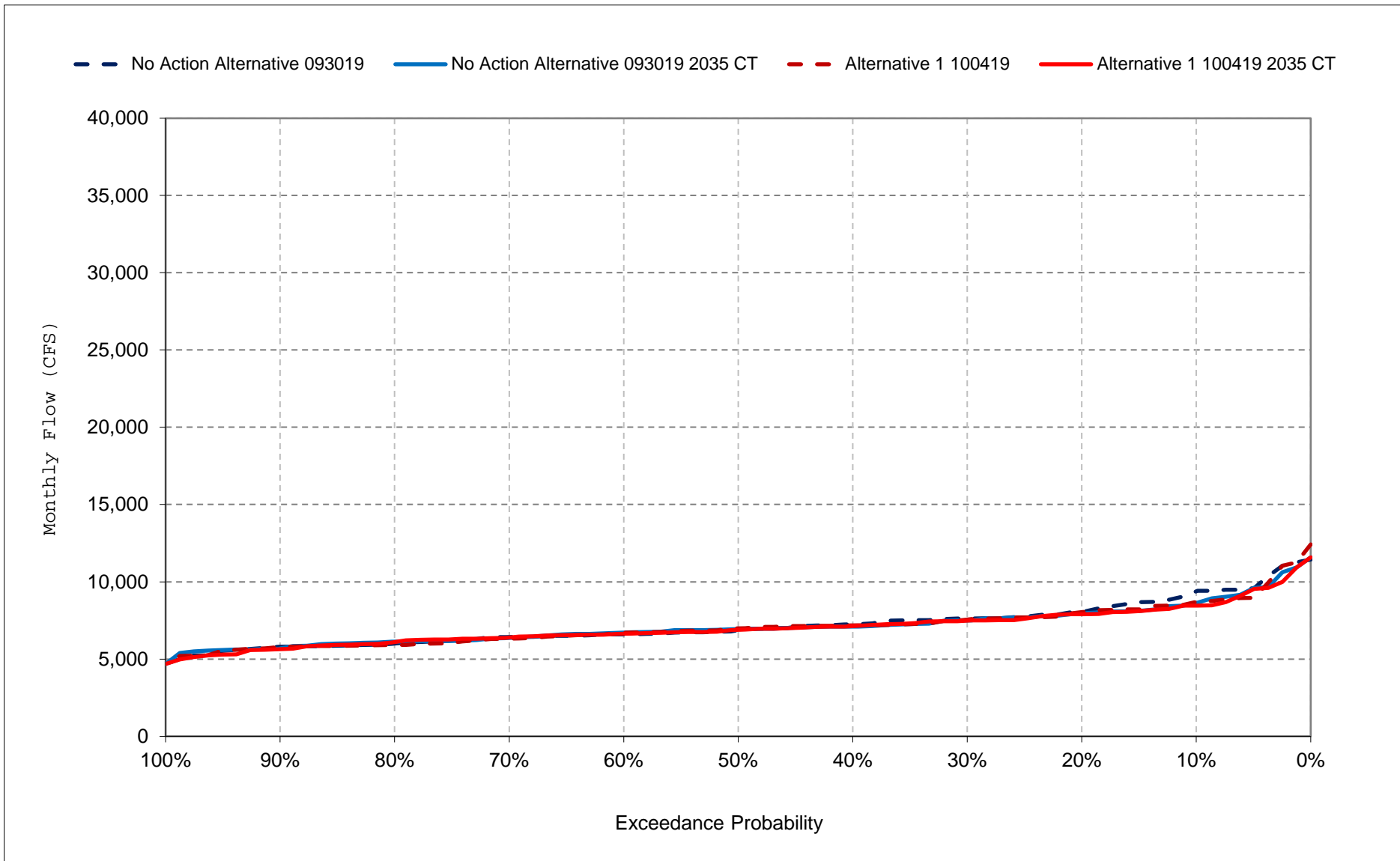
Figure 18-16. Sacramento River Flow at Hamilton City, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

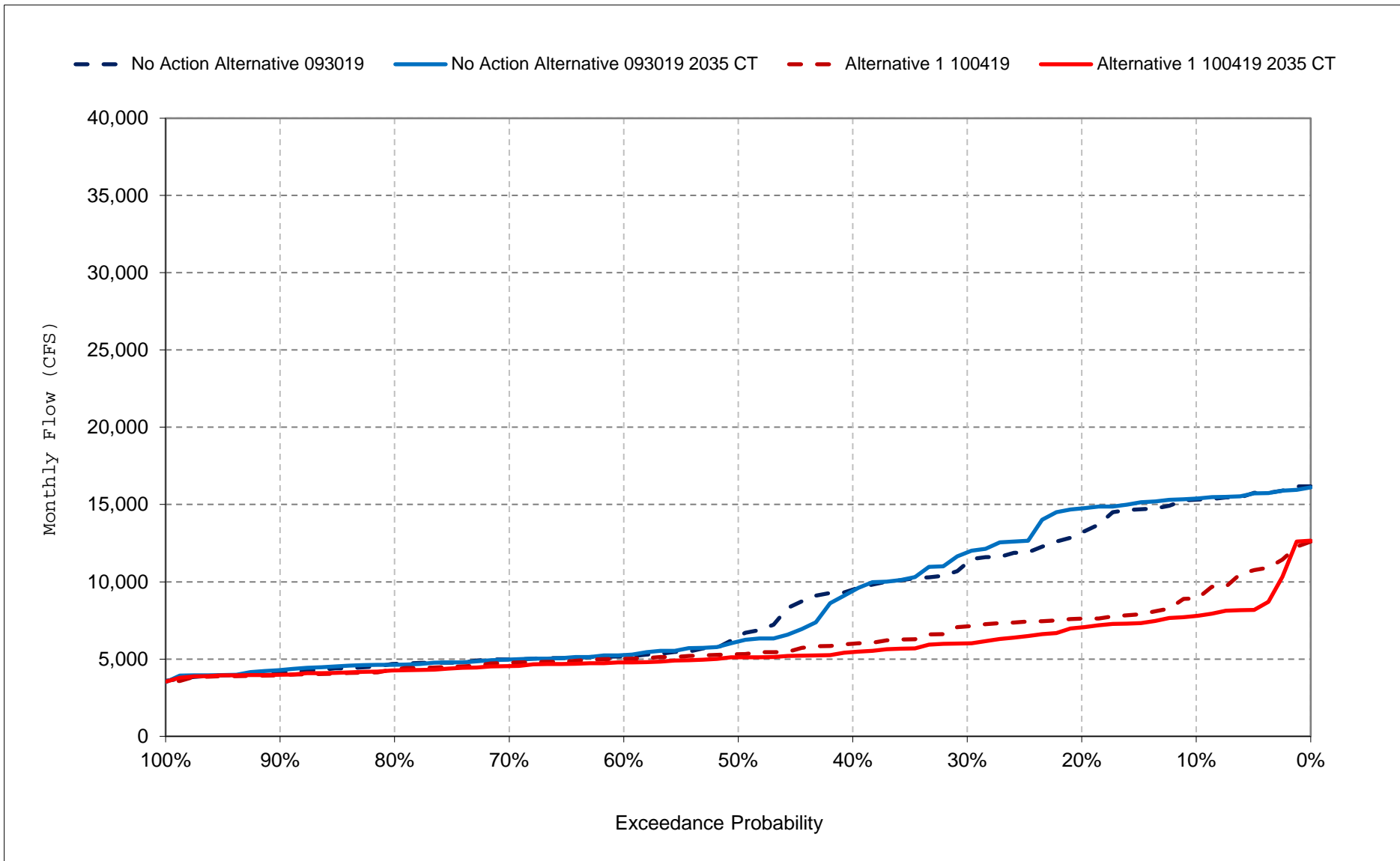
Figure 18-17. Sacramento River Flow at Hamilton City, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 18-18. Sacramento River Flow at Hamilton City, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-1. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,085	13,680	21,054	22,004	22,663	21,629	19,305	12,626	7,647	9,651	6,604	15,000
20%	8,058	12,740	19,478	21,246	21,557	20,322	17,770	9,257	6,993	9,342	5,490	13,578
30%	6,899	11,329	13,790	19,595	20,842	18,849	11,344	6,196	6,309	8,911	5,164	10,896
40%	6,477	10,258	11,682	15,309	19,622	15,823	9,141	5,251	5,529	8,538	4,706	9,358
50%	5,903	9,074	8,485	10,934	15,932	13,561	7,733	4,691	5,083	7,329	4,546	6,362
60%	5,455	7,395	7,185	9,497	12,629	10,304	6,915	4,505	4,836	6,392	4,519	5,258
70%	4,796	6,283	6,108	7,878	10,574	9,133	6,401	4,101	4,735	5,502	4,158	4,675
80%	4,470	5,372	5,670	7,058	7,685	7,985	5,750	3,677	4,620	4,959	3,863	4,349
90%	4,002	4,466	4,991	6,212	6,408	6,215	5,156	3,510	3,649	4,191	3,442	4,001
Long Term												
Full Simulation Period ^d	6,232	9,230	11,257	13,457	15,264	13,880	10,353	6,553	5,746	7,136	4,875	8,370
Water Year Types^{b,c}												
Wet (32%)	7,619	12,240	11,638	18,867	19,561	17,809	14,595	9,612	6,414	7,547	5,281	13,895
Above Normal (16%)	7,040	11,188	11,140	16,786	18,478	17,386	12,415	7,171	6,148	8,548	5,420	9,640
Below Normal (13%)	6,031	6,518	11,368	10,427	13,493	9,849	7,410	5,495	5,868	7,832	5,714	5,213
Dry (24%)	5,332	8,146	12,802	9,108	12,411	12,203	8,103	4,421	5,230	6,445	4,208	4,627
Critical (15%)	4,040	4,883	7,879	8,156	8,851	8,055	5,375	3,779	4,606	5,233	3,749	4,158

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,455	11,933	21,332	22,273	22,721	21,625	19,299	12,491	8,675	9,650	6,079	9,511
20%	7,777	9,189	20,239	21,202	21,568	20,370	17,637	9,259	7,883	9,024	5,478	7,511
30%	7,276	7,832	15,000	19,711	20,994	19,091	11,363	7,084	7,040	8,353	5,171	6,796
40%	6,676	6,972	12,001	18,137	19,623	16,138	9,314	6,198	6,075	7,310	4,774	6,141
50%	6,397	6,500	8,853	12,511	16,156	13,918	8,006	5,072	5,724	6,457	4,542	5,334
60%	6,001	6,077	7,551	9,589	13,234	11,705	7,344	4,741	5,248	5,666	4,514	4,861
70%	5,479	5,650	6,604	8,398	10,693	9,321	6,768	4,459	4,930	5,128	4,268	4,526
80%	5,048	5,061	5,791	7,144	7,977	8,073	6,259	4,182	4,706	4,632	3,760	4,194
90%	4,527	4,629	5,375	6,333	6,452	7,117	5,132	3,599	3,683	4,052	3,485	3,551
Long Term												
Full Simulation Period ^d	6,612	7,660	11,671	13,838	15,439	14,108	10,528	6,843	6,231	6,743	4,828	6,008
Water Year Types^{b,c}												
Wet (32%)	8,029	8,661	12,579	18,885	19,632	17,961	14,828	9,524	6,665	7,641	5,448	8,105
Above Normal (16%)	7,168	8,696	11,647	17,686	19,000	17,790	12,595	7,531	6,736	8,408	5,485	6,963
Below Normal (13%)	6,504	6,379	11,390	11,283	14,123	10,588	7,767	6,087	7,115	7,099	4,927	4,881
Dry (24%)	5,844	8,008	12,849	9,252	12,486	12,146	8,212	5,086	5,751	5,557	4,296	4,439
Critical (15%)	4,319	4,963	8,022	8,720	8,624	8,267	5,365	3,914	4,733	4,642	3,567	4,075

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	369	-1,747	278	269	59	-4	-6	-134	1,028	-1	-525	-5,489
20%	-281	-3,551	761	-45	11	48	-133	2	889	-318	-12	-6,068
30%	377	-3,496	1,210	116	152	242	20	888	731	-557	7	-4,100
40%	199	-3,286	319	2,828	0	316	174	947	545	-1,228	68	-3,218
50%	494	-2,574	368	1,577	224	357	273	382	642	-872	-4	-1,028
60%	546	-1,319	366	92	605	1,401	430	237	412	-727	-5	-397
70%	683	-633	496	520	119	188	368	358	195	-374	109	-150
80%	577	-311	121	86	292	88	509	505	86	-328	-103	-155
90%	525	162	384	121	44	901	-24	89	34	-139	43	-450
Long Term												
Full Simulation Period ^d	380	-1,571	414	381	175	228	175	290	485	-394	-47	-2,363
Water Year Types^{b,c}												
Wet (32%)	410	-3,579	940	18	71	152	232	-88	251	94	167	-5,790
Above Normal (16%)	128	-2,493	507	901	523	404	180	360	588	-140	65	-2,676
Below Normal (13%)	473	-139	21	856	630	739	357	592	1,246	-733	-787	-332
Dry (24%)	512	-138	47	144	75	-57	110	665	521	-888	88	-188
Critical (15%)	279	80	143	564	-228	211	-10	135	127	-590	-182	-83

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 19-2. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,783	13,326	21,080	22,097	22,566	21,591	19,685	10,350	7,576	9,683	6,051	15,000
20%	8,160	12,522	19,287	21,352	21,596	20,810	17,922	6,727	6,771	9,241	5,324	14,950
30%	6,534	11,034	15,280	20,063	21,105	19,522	11,727	5,169	5,804	8,878	4,958	12,447
40%	5,955	9,695	12,357	17,611	20,064	16,549	8,500	4,861	5,617	8,422	4,597	9,648
50%	5,675	7,699	9,259	11,695	17,744	14,379	7,560	4,681	5,034	7,753	4,535	6,074
60%	5,126	6,856	7,601	10,395	13,268	10,829	6,714	4,583	4,930	7,161	4,515	4,995
70%	4,785	5,992	6,317	9,073	10,605	9,043	6,222	4,229	4,739	6,544	4,245	4,746
80%	4,552	5,129	5,798	7,449	7,754	7,548	5,315	3,752	4,427	5,232	4,069	4,463
90%	4,064	4,453	4,943	6,352	6,581	7,001	4,655	3,530	4,016	4,591	3,612	4,239
Long Term												
Full Simulation Period ^d	6,095	8,876	11,560	14,086	15,552	14,166	10,194	5,932	5,649	7,440	4,779	8,503
Water Year Types^{b,c}												
Wet (32%)	7,160	11,711	11,806	19,217	19,727	18,041	14,399	7,974	5,832	7,690	5,044	13,855
Above Normal (16%)	7,265	10,591	11,521	17,540	18,528	17,387	12,395	6,601	6,265	9,022	5,388	10,320
Below Normal (13%)	5,667	6,311	11,766	11,096	14,192	10,286	7,651	5,606	5,794	8,282	5,270	5,191
Dry (24%)	5,237	7,829	13,018	9,828	13,064	12,610	7,738	4,194	5,470	7,059	4,317	4,683
Critical (15%)	4,345	4,972	8,453	9,065	8,675	8,431	5,120	3,976	4,747	5,045	3,864	4,345

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,130	12,040	21,358	22,367	22,609	21,584	19,651	9,824	8,757	9,593	6,365	7,675
20%	7,337	9,031	19,797	21,358	21,553	20,855	17,820	7,699	7,648	9,107	5,473	6,727
30%	6,813	7,280	16,672	20,312	21,101	19,501	11,379	6,194	7,033	8,470	4,939	6,110
40%	6,333	6,546	12,536	18,388	20,061	17,521	8,709	5,342	6,295	7,724	4,580	5,525
50%	6,135	6,268	9,192	11,632	18,000	14,619	7,662	5,141	5,714	7,043	4,527	4,990
60%	5,666	5,935	8,109	10,444	13,550	11,897	7,146	4,913	5,461	6,243	4,455	4,569
70%	5,365	5,447	6,973	9,069	10,933	9,658	6,511	4,614	5,016	5,688	4,149	4,451
80%	5,064	4,968	6,085	7,478	7,733	7,784	5,907	4,327	4,796	4,722	4,020	4,055
90%	4,643	4,593	5,565	6,342	6,933	7,091	4,784	3,713	3,978	4,366	3,565	3,776
Long Term												
Full Simulation Period ^d	6,269	7,442	12,035	14,261	15,759	14,455	10,347	6,355	6,218	6,955	4,756	5,557
Water Year Types^{b,c}												
Wet (32%)	7,284	8,290	12,846	19,219	19,787	18,249	14,526	8,167	6,214	7,667	5,252	7,069
Above Normal (16%)	6,831	8,311	11,755	18,017	18,981	17,811	12,618	7,062	7,138	8,995	5,644	6,427
Below Normal (13%)	6,040	6,279	11,886	12,220	14,521	10,981	7,634	6,214	6,815	7,361	4,510	4,693
Dry (24%)	5,624	7,841	13,325	9,842	13,141	12,619	7,969	4,926	6,054	5,938	4,298	4,349
Critical (15%)	4,745	5,067	8,571	8,682	9,043	8,844	5,282	4,175	4,955	4,528	3,706	4,144

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-653	-1,286	278	271	43	-7	-34	-525	1,181	-89	315	-7,325
20%	-823	-3,491	510	6	-43	44	-102	972	877	-134	150	-8,223
30%	278	-3,754	1,391	249	-3	-21	-348	1,025	1,229	-408	-20	-6,337
40%	378	-3,150	179	777	-2	971	210	481	678	-698	-17	-4,123
50%	459	-1,431	-67	-62	256	240	102	460	680	-710	-8	-1,084
60%	540	-921	508	48	282	1,068	433	330	532	-918	-60	-426
70%	580	-545	656	-4	328	614	289	385	277	-856	-97	-295
80%	512	-161	286	30	-21	236	592	575	369	-510	-49	-407
90%	580	140	623	-10	352	90	129	183	-38	-224	-47	-463
Long Term												
Full Simulation Period ^d	173	-1,434	475	175	207	289	153	424	569	-484	-23	-2,946
Water Year Types^{b,c}												
Wet (32%)	124	-3,421	1,040	3	60	208	127	194	381	-24	208	-6,785
Above Normal (16%)	-434	-2,279	234	477	453	424	223	461	874	-27	256	-3,892
Below Normal (13%)	373	-32	120	1,124	329	695	-18	607	1,021	-921	-761	-499
Dry (24%)	387	12	307	14	76	8	231	731	584	-1,121	-19	-333
Critical (15%)	399	95	118	-383	367	413	162	199	207	-517	-158	-201

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-3. Sacramento River at Wilkins Slough Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,085	13,680	21,054	22,004	22,663	21,629	19,305	12,626	7,647	9,651	6,604	15,000
20%	8,058	12,740	19,478	21,246	21,557	20,322	17,770	9,257	6,993	9,342	5,490	13,578
30%	6,899	11,329	13,790	19,595	20,842	18,849	11,344	6,196	6,309	8,911	5,164	10,896
40%	6,477	10,258	11,682	15,309	19,622	15,823	9,141	5,251	5,529	8,538	4,706	9,358
50%	5,903	9,074	8,485	10,934	15,932	13,561	7,733	4,691	5,083	7,329	4,546	6,362
60%	5,455	7,395	7,185	9,497	12,629	10,304	6,915	4,505	4,836	6,392	4,519	5,258
70%	4,796	6,283	6,108	7,878	10,574	9,133	6,401	4,101	4,735	5,502	4,158	4,675
80%	4,470	5,372	5,670	7,058	7,685	7,985	5,750	3,677	4,620	4,959	3,863	4,349
90%	4,002	4,466	4,991	6,212	6,408	6,215	5,156	3,510	3,649	4,191	3,442	4,001
Long Term												
Full Simulation Period ^d	6,232	9,230	11,257	13,457	15,264	13,880	10,353	6,553	5,746	7,136	4,875	8,370
Water Year Types ^{b,c}												
Wet (32%)	7,619	12,240	11,638	18,867	19,561	17,809	14,595	9,612	6,414	7,547	5,281	13,895
Above Normal (16%)	7,040	11,188	11,140	16,786	18,478	17,386	12,415	7,171	6,148	8,548	5,420	9,640
Below Normal (13%)	6,031	6,518	11,368	10,427	13,493	9,849	7,410	5,495	5,868	7,832	5,714	5,213
Dry (24%)	5,332	8,146	12,802	9,108	12,411	12,203	8,103	4,421	5,230	6,445	4,208	4,627
Critical (15%)	4,040	4,883	7,879	8,156	8,851	8,055	5,375	3,779	4,606	5,233	3,749	4,158

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,783	13,326	21,080	22,097	22,566	21,591	19,685	10,350	7,576	9,683	6,051	15,000
20%	8,160	12,522	19,287	21,352	21,596	20,810	17,922	6,727	6,771	9,241	5,324	14,950
30%	6,534	11,034	15,280	20,063	21,105	19,522	11,727	5,169	5,804	8,878	4,958	12,447
40%	5,955	9,695	12,357	17,611	20,064	16,549	8,500	4,861	5,617	8,422	4,597	9,648
50%	5,675	7,699	9,259	11,695	17,744	14,379	7,560	4,681	5,034	7,753	4,535	6,074
60%	5,126	6,856	7,601	10,395	13,268	10,829	6,714	4,583	4,930	7,161	4,515	4,995
70%	4,785	5,992	6,317	9,073	10,605	9,043	6,222	4,229	4,739	6,544	4,245	4,746
80%	4,552	5,129	5,798	7,449	7,754	7,548	5,315	3,752	4,427	5,232	4,069	4,463
90%	4,064	4,453	4,943	6,352	6,581	7,001	4,655	3,530	4,016	4,591	3,612	4,239
Long Term												
Full Simulation Period ^d	6,095	8,876	11,560	14,086	15,552	14,166	10,194	5,932	5,649	7,440	4,779	8,503
Water Year Types ^{b,c}												
Wet (32%)	7,160	11,711	11,806	19,217	19,727	18,041	14,399	7,974	5,832	7,690	5,044	13,855
Above Normal (16%)	7,265	10,591	11,521	17,540	18,528	17,387	12,395	6,601	6,265	9,022	5,388	10,320
Below Normal (13%)	5,667	6,311	11,766	11,096	14,192	10,286	7,651	5,606	5,794	8,282	5,270	5,191
Dry (24%)	5,237	7,829	13,018	9,828	13,064	12,610	7,738	4,194	5,470	7,059	4,317	4,683
Critical (15%)	4,345	4,972	8,453	9,065	8,675	8,431	5,120	3,976	4,747	5,045	3,864	4,345

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-302	-354	26	93	-96	-38	380	-2,276	-72	32	-554	0
20%	102	-219	-191	105	39	488	152	-2,530	-222	-101	-166	1,372
30%	-365	-295	1,491	467	263	672	383	-1,027	-505	-32	-205	1,551
40%	-521	-563	675	2,302	441	727	-641	-391	87	-116	-109	290
50%	-228	-1,376	774	761	1,812	818	-173	-10	-49	424	-11	-288
60%	-329	-540	416	898	639	525	-201	79	93	769	-4	-262
70%	-11	-291	209	1,195	31	-90	-179	128	4	1,042	87	71
80%	81	-243	129	391	69	-437	-435	76	-193	272	205	114
90%	62	-14	-48	140	173	786	-501	21	367	400	170	239
Long Term												
Full Simulation Period ^d	-137	-355	303	629	288	287	-159	-621	-97	304	-96	133
Water Year Types ^{b,c}												
Wet (32%)	-459	-529	168	350	166	232	-196	-1,638	-582	144	-236	-40
Above Normal (16%)	225	-598	380	755	50	0	-20	-570	117	474	-32	680
Below Normal (13%)	-364	-207	397	669	699	437	242	111	-74	451	-443	-22
Dry (24%)	-96	-317	216	720	653	408	-365	-226	240	614	108	55
Critical (15%)	306	89	574	908	-176	376	-255	197	141	-187	116	187

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 19-4. Sacramento River at Wilkins Slough Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,455	11,933	21,332	22,273	22,721	21,625	19,299	12,491	8,675	9,650	6,079	9,511
20%	7,777	9,189	20,239	21,202	21,568	20,370	17,637	9,259	7,883	9,024	5,478	7,511
30%	7,276	7,832	15,000	19,711	20,994	19,091	11,363	7,084	7,040	8,353	5,171	6,796
40%	6,676	6,972	12,001	18,137	19,623	16,138	9,314	6,198	6,075	7,310	4,774	6,141
50%	6,397	6,500	8,853	12,511	16,156	13,918	8,006	5,072	5,724	6,457	4,542	5,334
60%	6,001	6,077	7,551	9,589	13,234	11,705	7,344	4,741	5,248	5,666	4,514	4,861
70%	5,479	5,650	6,604	8,398	10,693	9,321	6,768	4,459	4,930	5,128	4,268	4,526
80%	5,048	5,061	5,791	7,144	7,977	8,073	6,259	4,182	4,706	4,632	3,760	4,194
90%	4,527	4,629	5,375	6,333	6,452	7,117	5,132	3,599	3,683	4,052	3,485	3,551
Long Term												
Full Simulation Period ^d	6,612	7,660	11,671	13,838	15,439	14,108	10,528	6,843	6,231	6,743	4,828	6,008
Water Year Types ^{b,c}												
Wet (32%)	8,029	8,661	12,579	18,885	19,632	17,961	14,828	9,524	6,665	7,641	5,448	8,105
Above Normal (16%)	7,168	8,696	11,647	17,686	19,000	17,790	12,595	7,531	6,736	8,408	5,485	6,963
Below Normal (13%)	6,504	6,379	11,390	11,283	14,123	10,588	7,767	6,087	7,115	7,099	4,927	4,881
Dry (24%)	5,844	8,008	12,849	9,252	12,486	12,146	8,212	5,086	5,751	5,557	4,296	4,439
Critical (15%)	4,319	4,963	8,022	8,720	8,624	8,267	5,365	3,914	4,733	4,642	3,567	4,075

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,130	12,040	21,358	22,367	22,609	21,584	19,651	9,824	8,757	9,593	6,365	7,675
20%	7,337	9,031	19,797	21,358	21,553	20,855	17,820	7,699	7,648	9,107	5,473	6,727
30%	6,813	7,280	16,672	20,312	21,101	19,501	11,379	6,194	7,033	8,470	4,939	6,110
40%	6,333	6,546	12,536	18,388	20,061	17,521	8,709	5,342	6,295	7,724	4,580	5,525
50%	6,135	6,268	9,192	11,632	18,000	14,619	7,662	5,141	5,714	7,043	4,527	4,990
60%	5,666	5,935	8,109	10,444	13,550	11,897	7,146	4,913	5,461	6,243	4,455	4,569
70%	5,365	5,447	6,973	9,069	10,933	9,658	6,511	4,614	5,016	5,688	4,149	4,451
80%	5,064	4,968	6,085	7,478	7,733	7,784	5,907	4,327	4,796	4,722	4,020	4,055
90%	4,643	4,593	5,565	6,342	6,933	7,091	4,784	3,713	3,978	4,366	3,565	3,776
Long Term												
Full Simulation Period ^d	6,269	7,442	12,035	14,261	15,759	14,455	10,347	6,355	6,218	6,955	4,756	5,557
Water Year Types ^{b,c}												
Wet (32%)	7,284	8,290	12,846	19,219	19,787	18,249	14,526	8,167	6,214	7,667	5,252	7,069
Above Normal (16%)	6,831	8,311	11,755	18,017	18,981	17,811	12,618	7,062	7,138	8,995	5,644	6,427
Below Normal (13%)	6,040	6,279	11,886	12,220	14,521	10,981	7,634	6,214	6,815	7,361	4,510	4,693
Dry (24%)	5,624	7,841	13,325	9,842	13,141	12,619	7,969	4,926	6,054	5,938	4,298	4,349
Critical (15%)	4,745	5,067	8,571	8,682	9,043	8,844	5,282	4,175	4,955	4,528	3,706	4,144

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,325	107	26	94	-112	-41	352	-2,667	81	-57	286	-1,836
20%	-440	-158	-441	157	-15	485	182	-1,560	-235	82	-5	-783
30%	-463	-552	1,672	601	108	409	16	-890	-6	117	-232	-686
40%	-343	-426	535	251	439	1,383	-605	-856	220	413	-194	-615
50%	-262	-233	339	-879	1,844	701	-344	68	-11	586	-15	-344
60%	-335	-142	559	854	316	192	-198	172	213	578	-59	-292
70%	-113	-203	369	672	240	337	-258	155	86	560	-119	-74
80%	16	-93	294	334	-244	-289	-353	145	90	90	259	-139
90%	116	-36	190	9	482	-25	-347	114	295	315	80	225
Long Term												
Full Simulation Period ^d	-343	-217	365	422	320	347	-181	-488	-13	213	-72	-450
Water Year Types ^{b,c}												
Wet (32%)	-745	-371	268	334	155	288	-302	-1,357	-451	26	-196	-1,036
Above Normal (16%)	-337	-385	107	331	-19	21	24	-469	402	587	159	-536
Below Normal (13%)	-464	-100	497	937	398	393	-133	127	-299	262	-417	-188
Dry (24%)	-220	-167	476	590	655	473	-243	-160	303	381	2	-90
Critical (15%)	426	105	549	-38	419	578	-83	261	221	-114	139	69

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

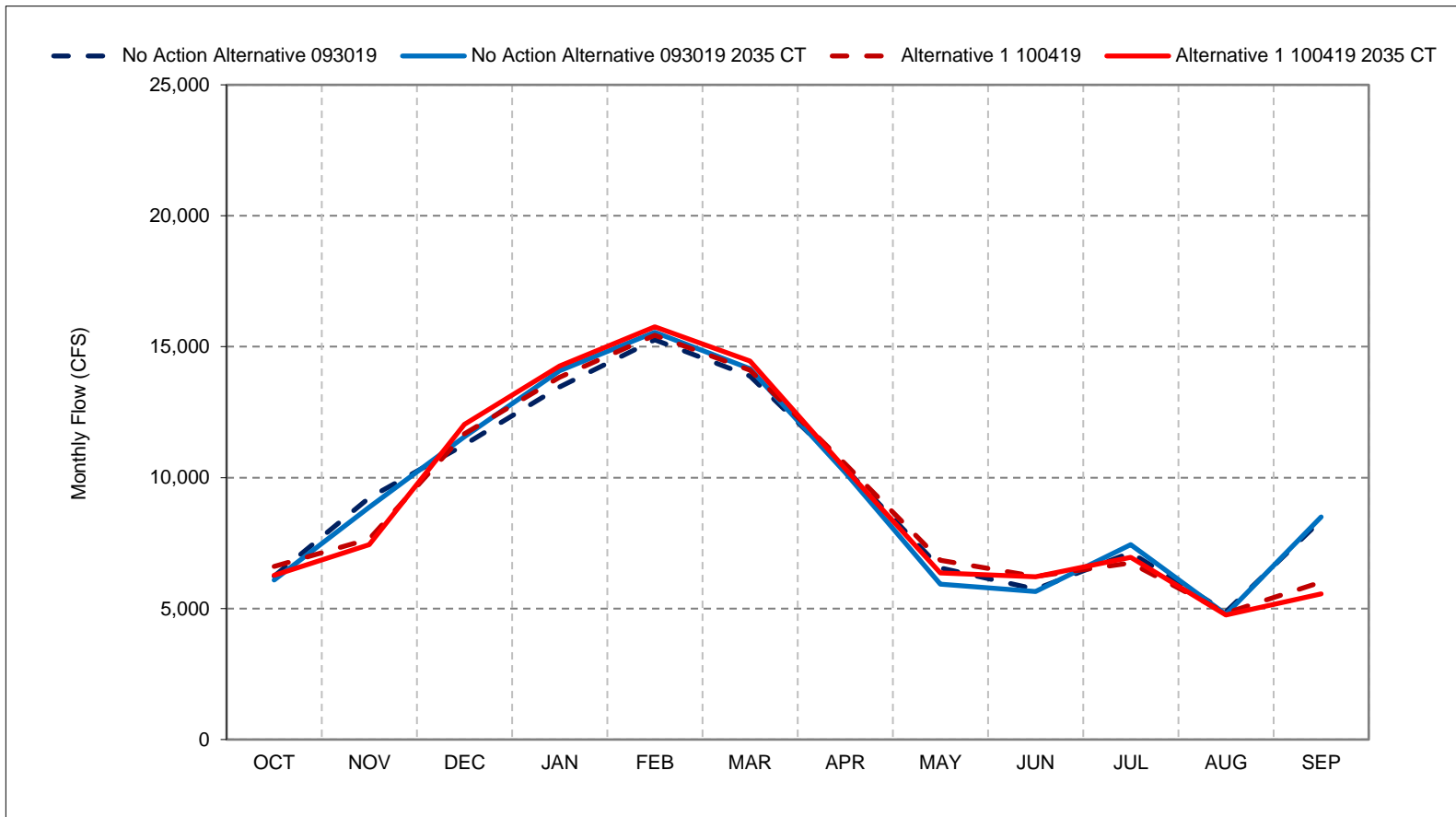
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 19-1. Sacramento River at Wilkins Slough Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

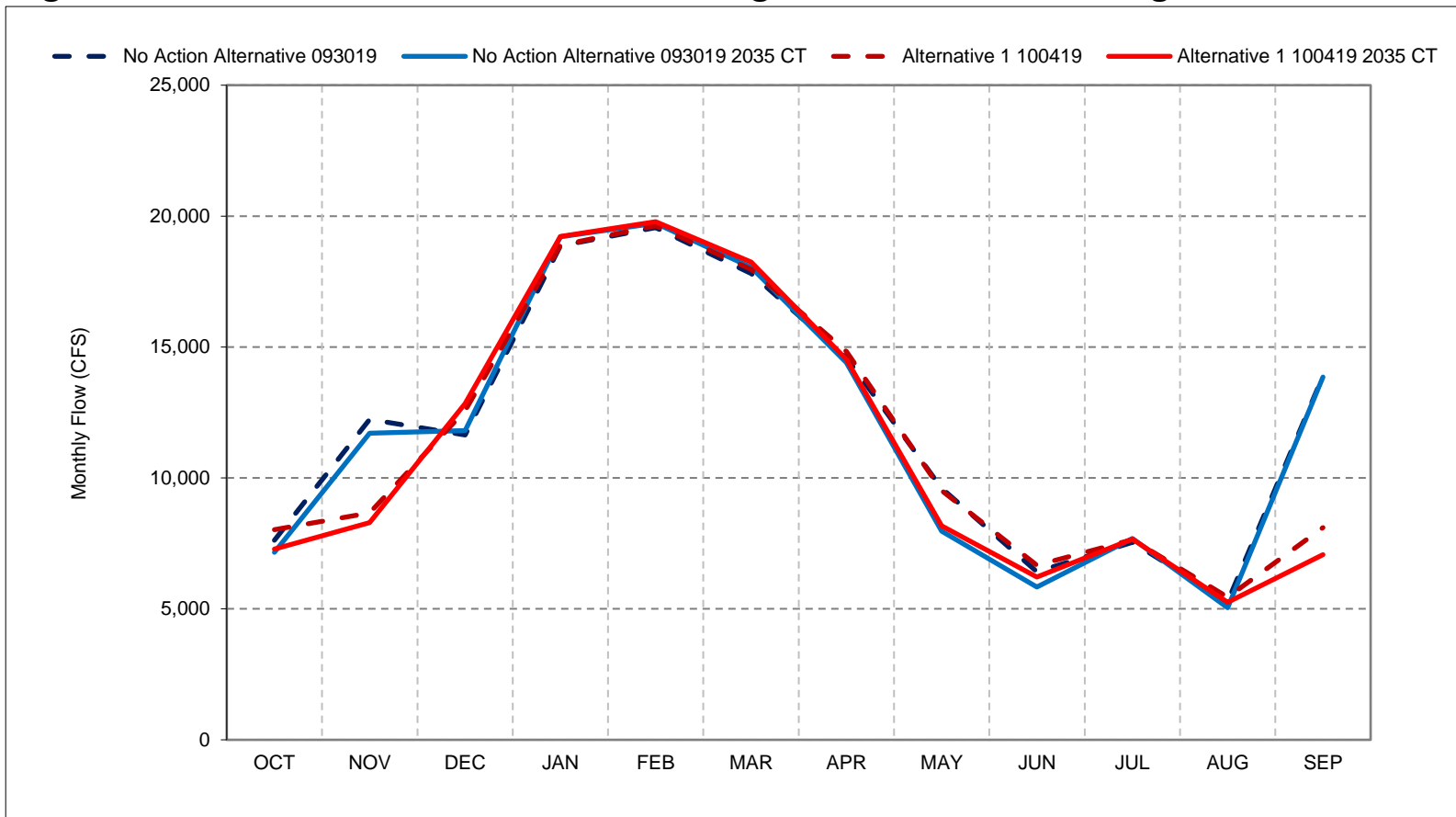
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-2. Sacramento River at Wilkins Slough Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

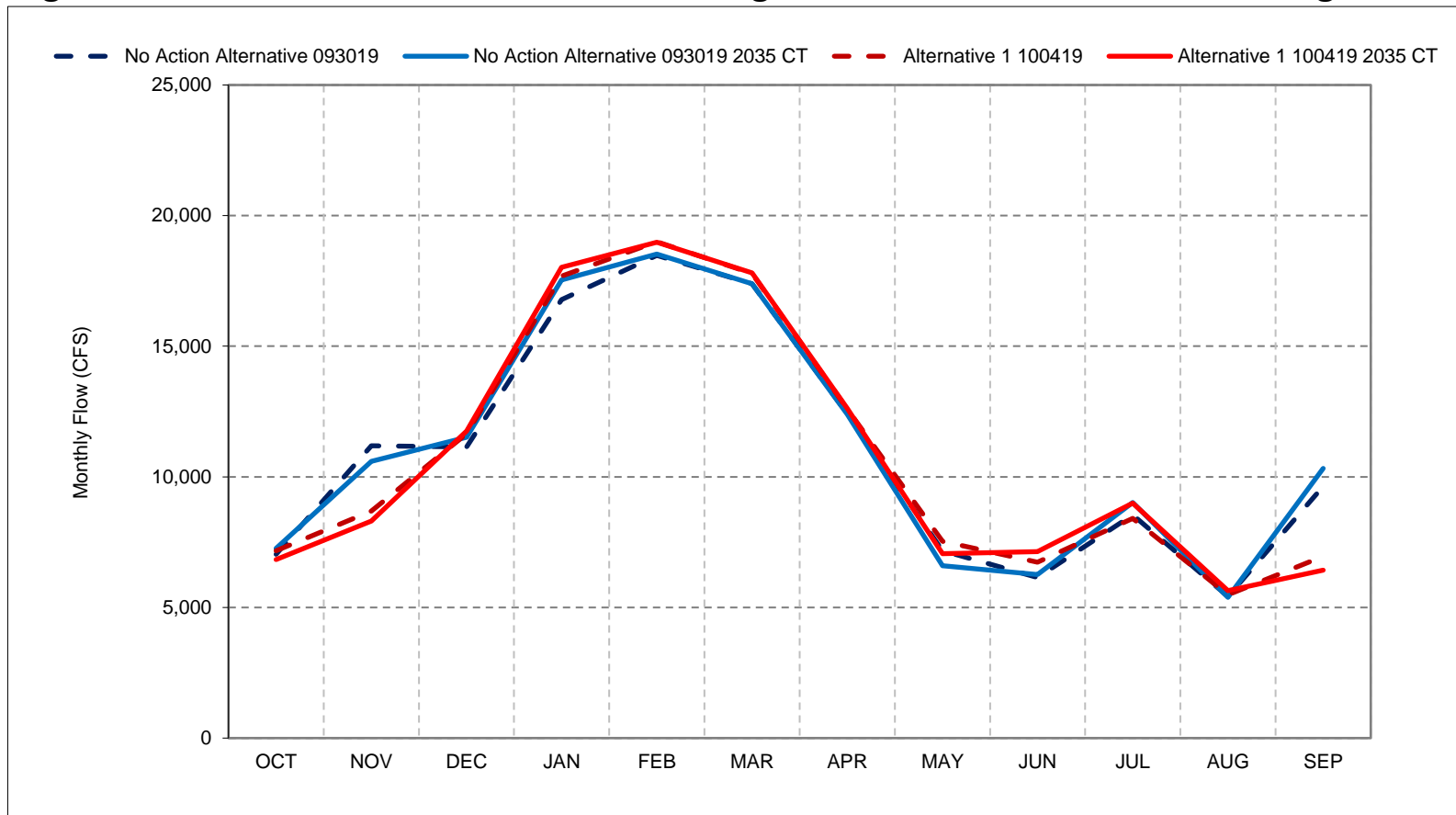
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-3. Sacramento River at Wilkins Slough Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

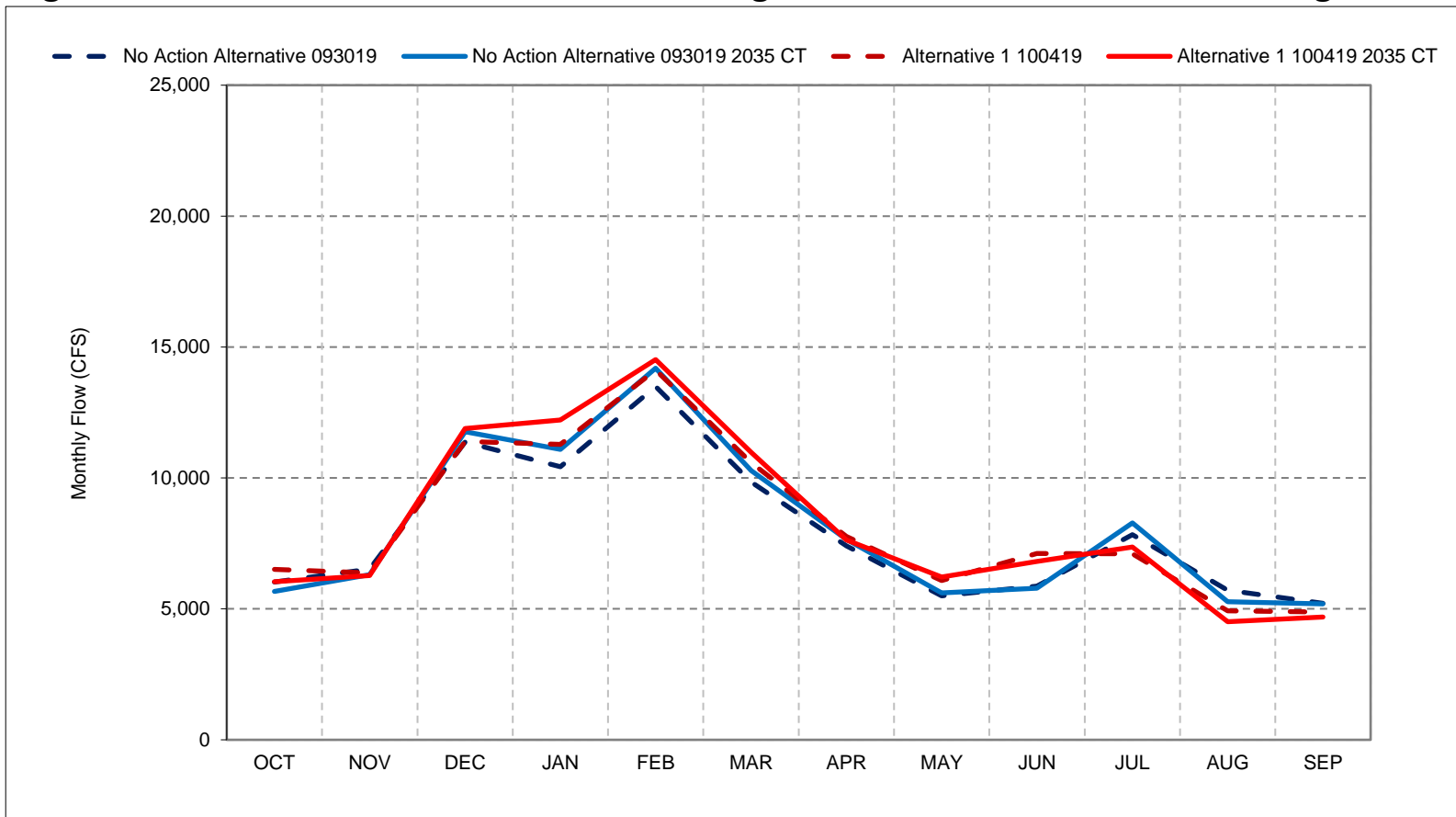
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-4. Sacramento River at Wilkins Slough Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

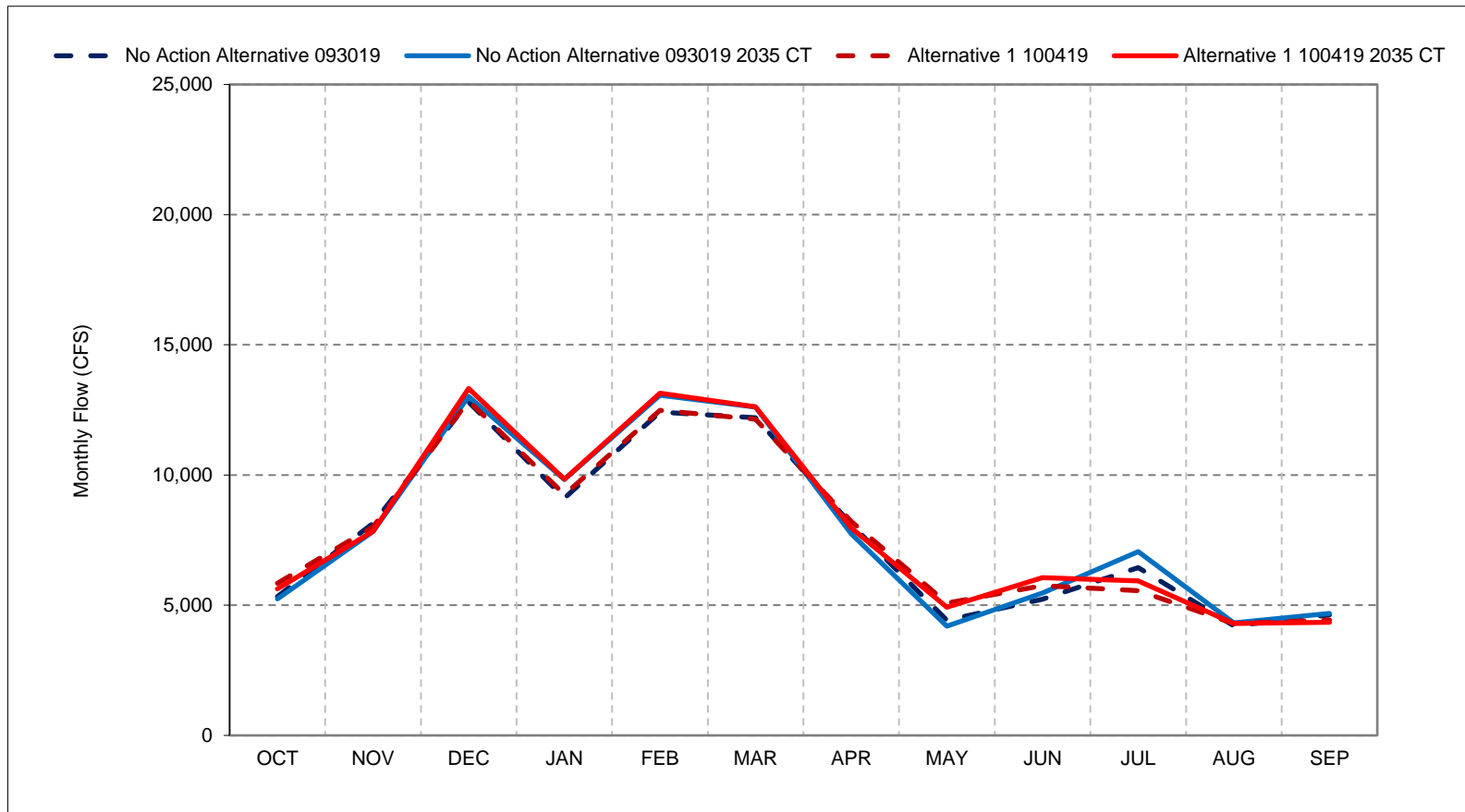
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-5. Sacramento River at Wilkins Slough Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

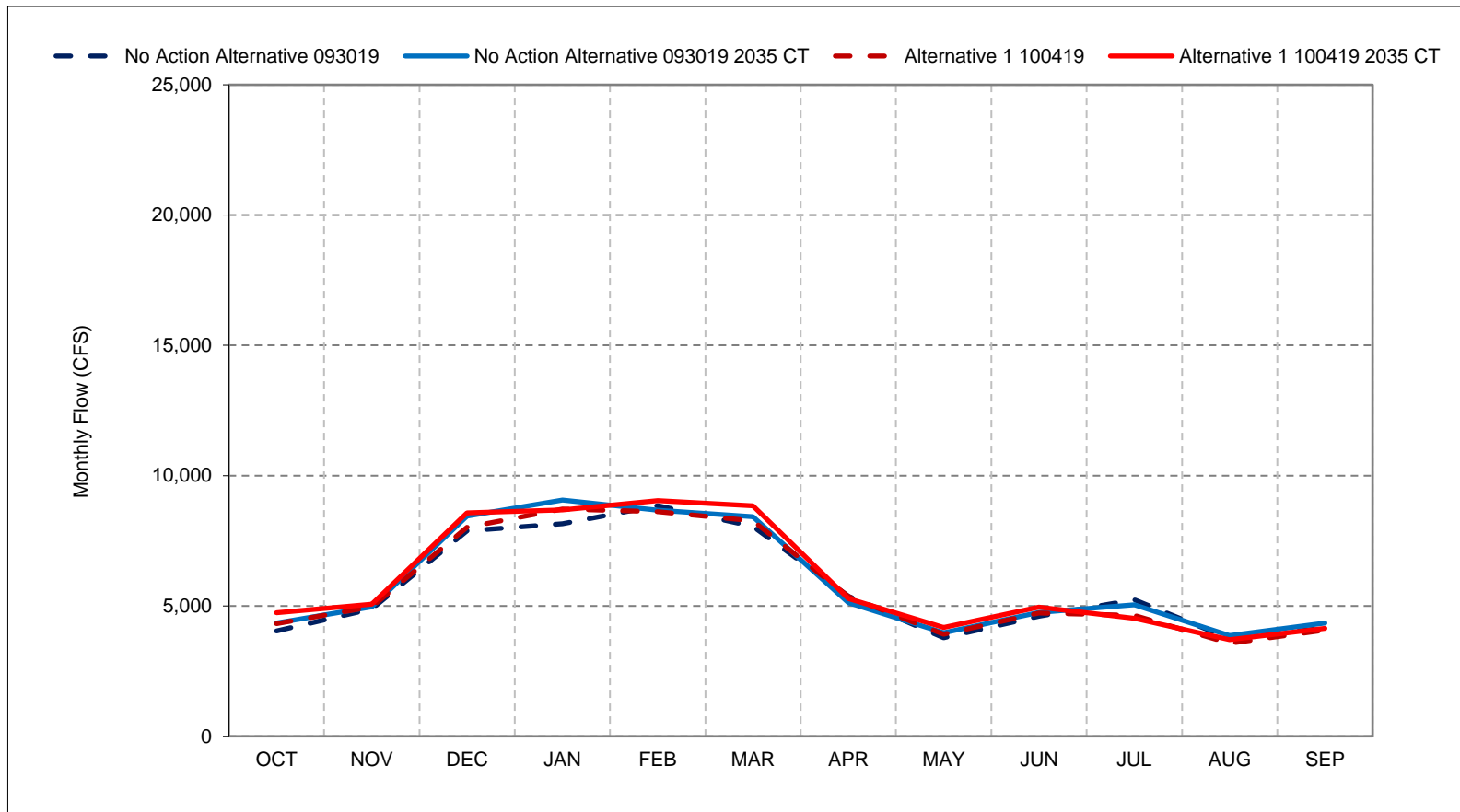
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 19-6. Sacramento River at Wilkins Slough Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

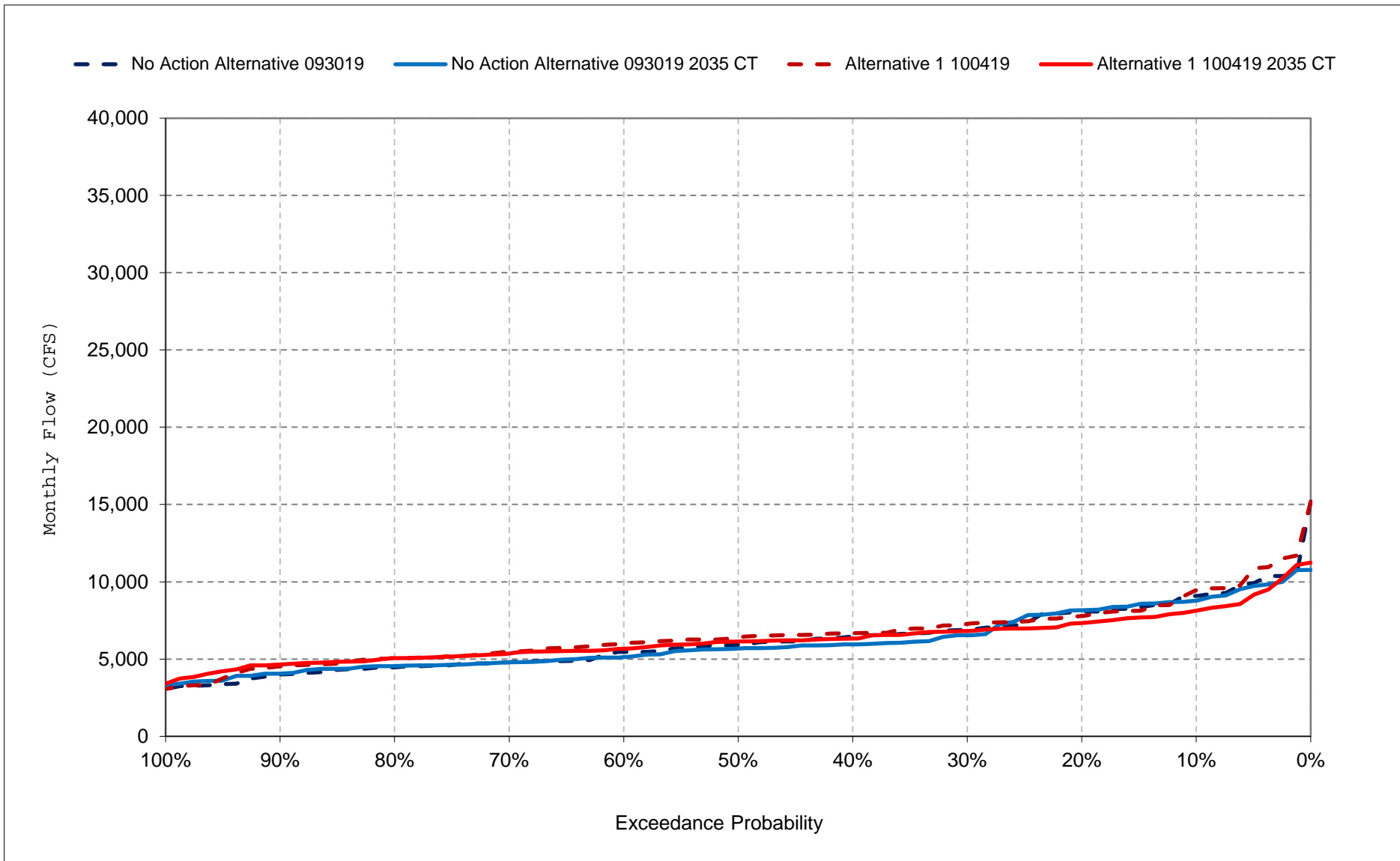
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

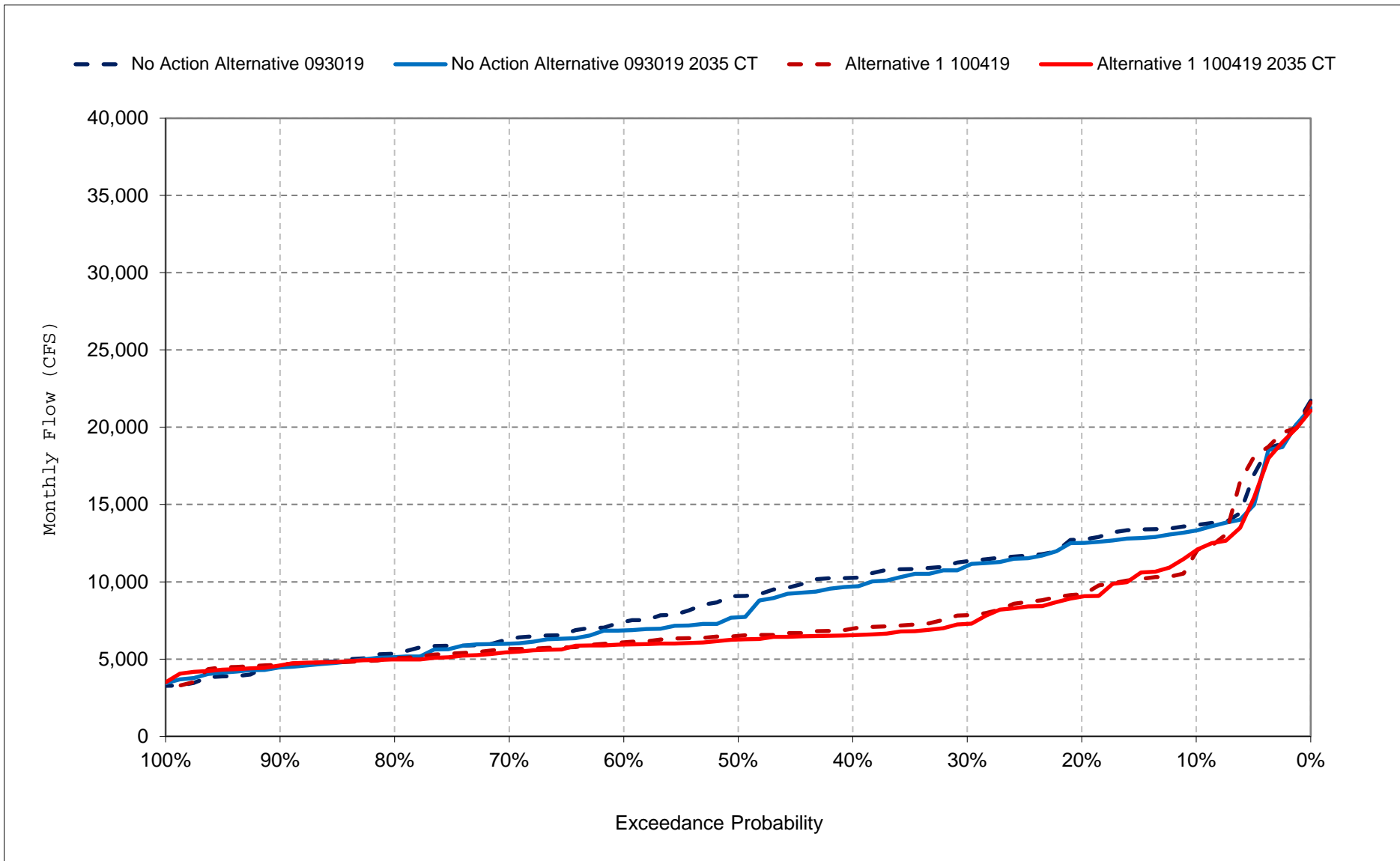
Figure 19-7. Sacramento River at Wilkins Slough Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

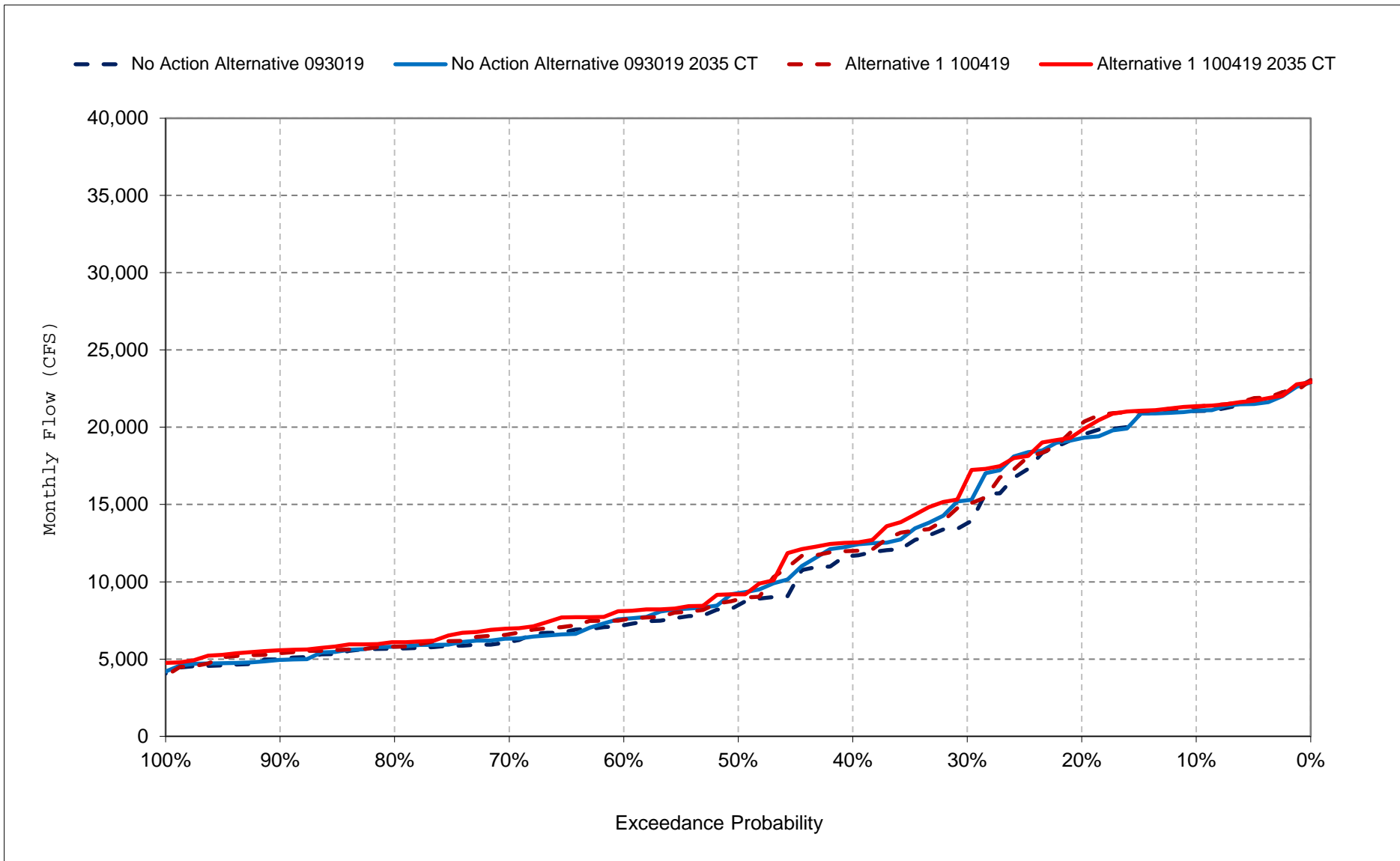
Figure 19-8. Sacramento River at Wilkins Slough Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

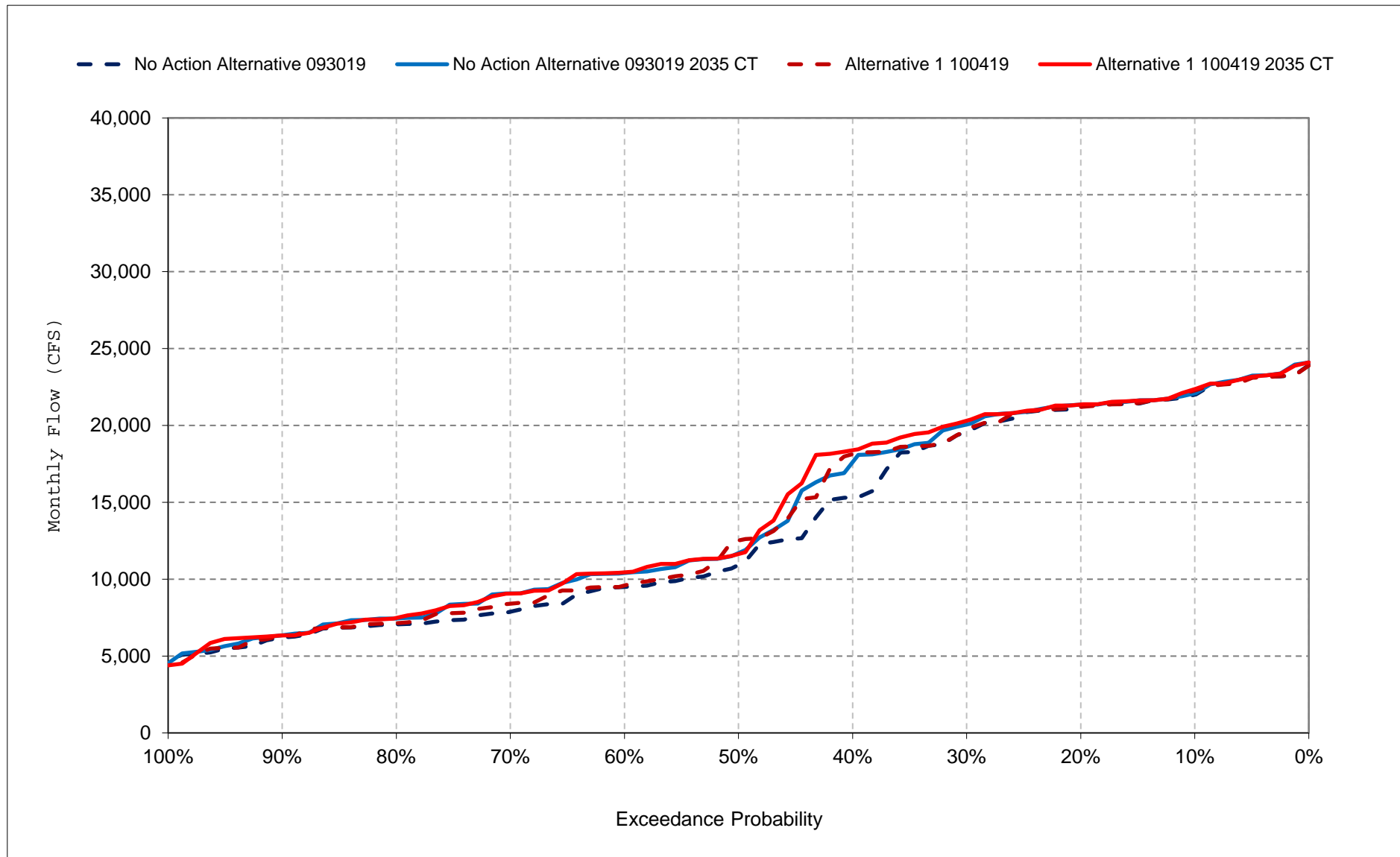
Figure 19-9. Sacramento River at Wilkins Slough Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

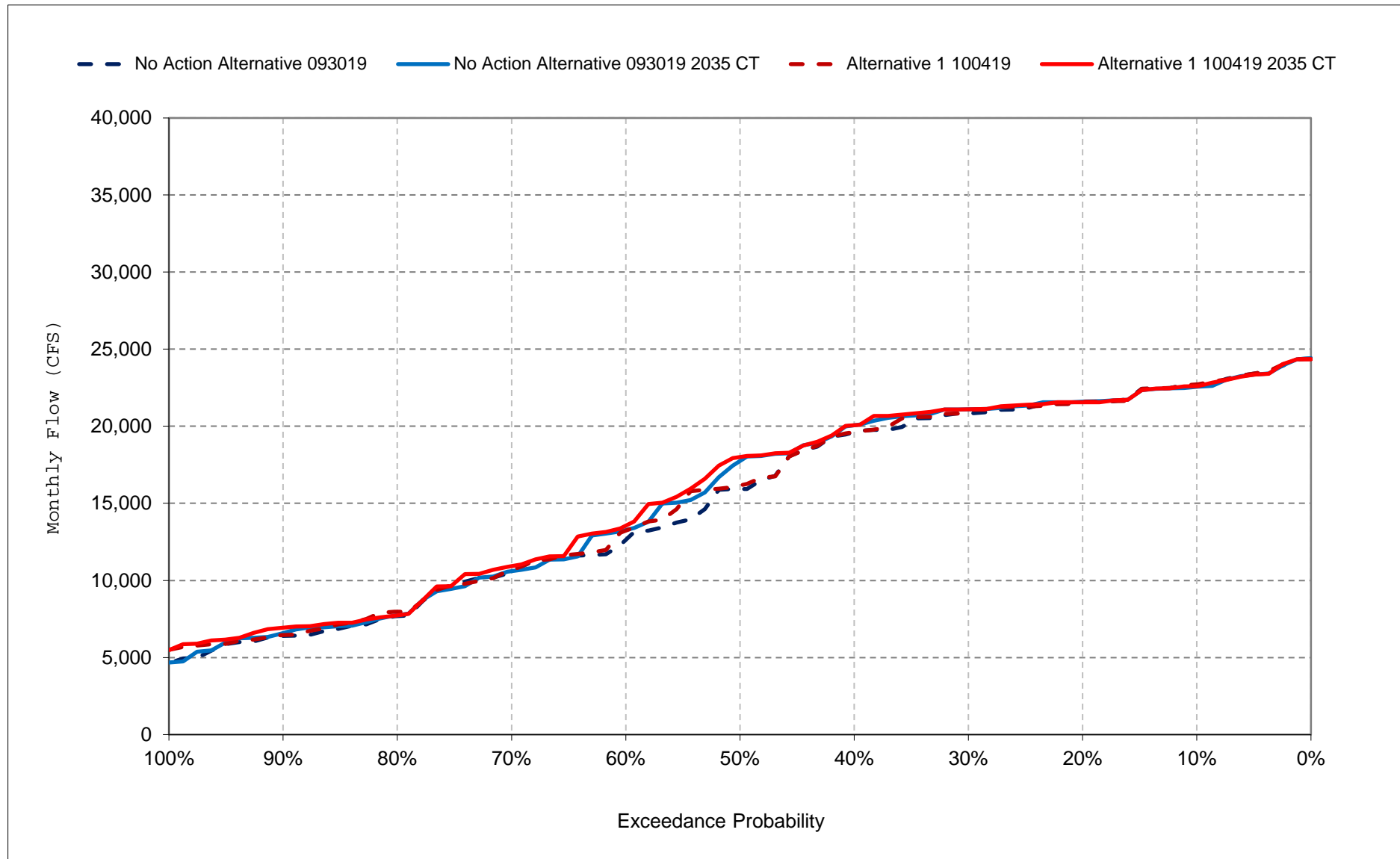
Figure 19-10. Sacramento River at Wilkins Slough Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

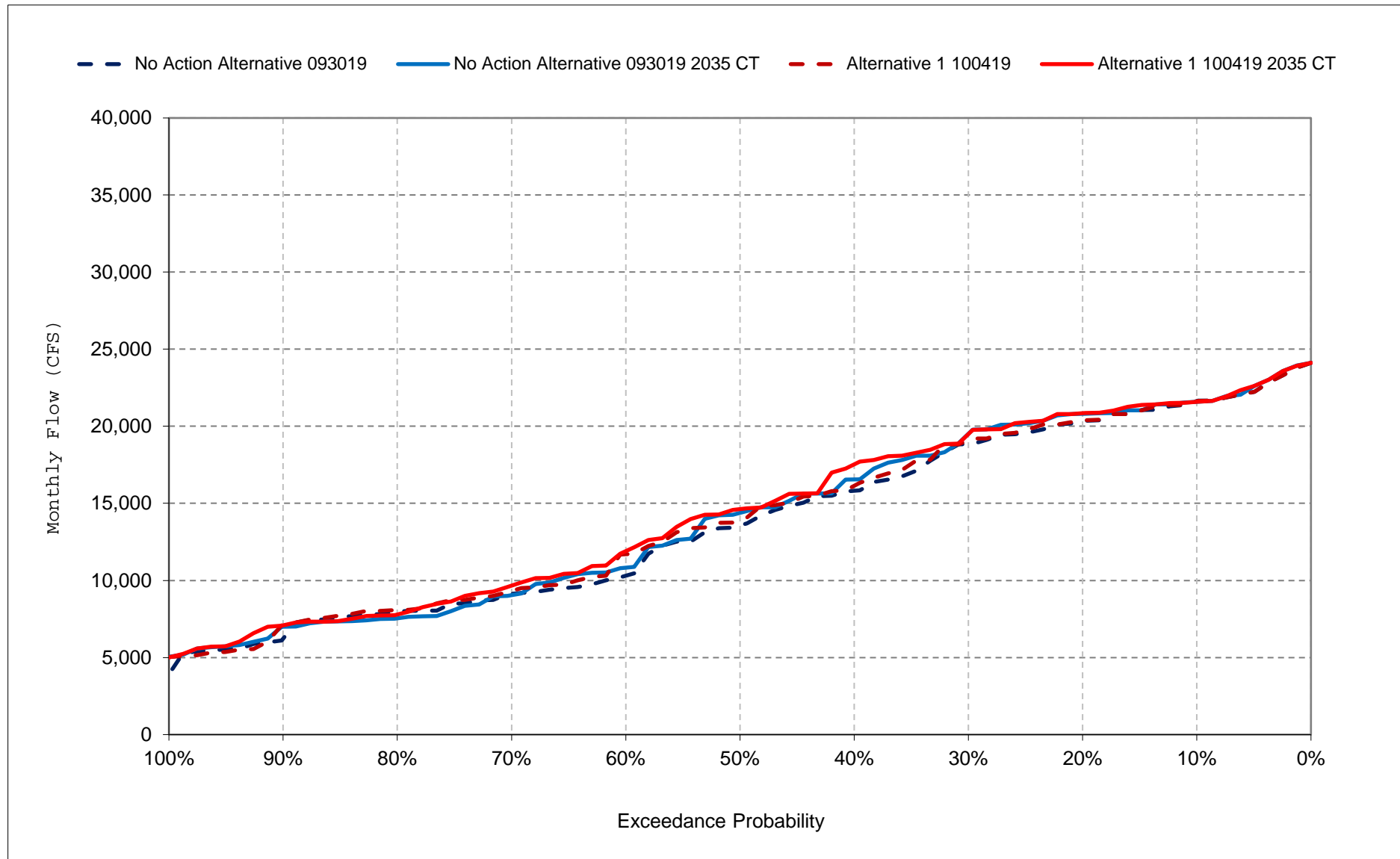
Figure 19-11. Sacramento River at Wilkins Slough Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

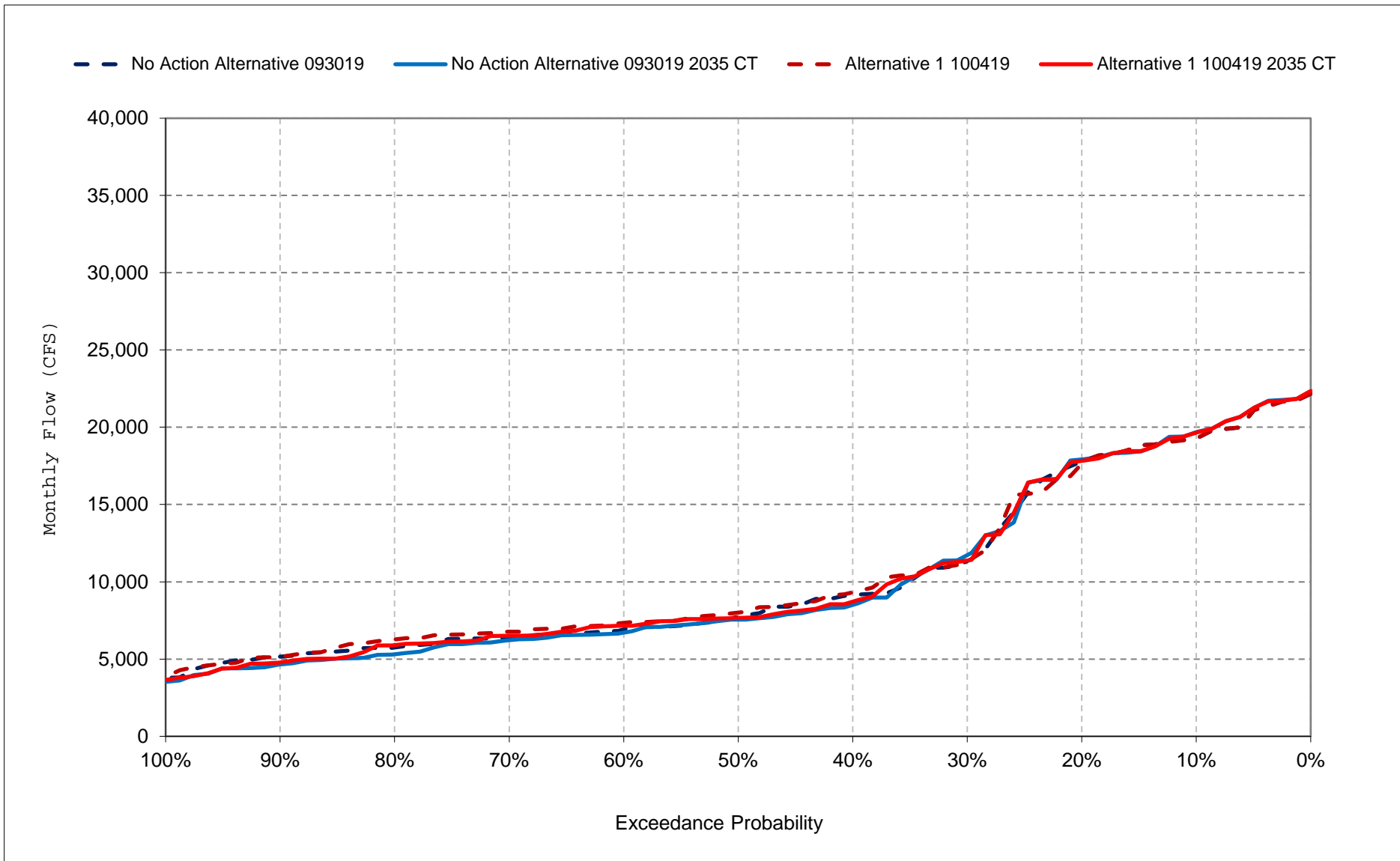
Figure 19-12. Sacramento River at Wilkins Slough Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

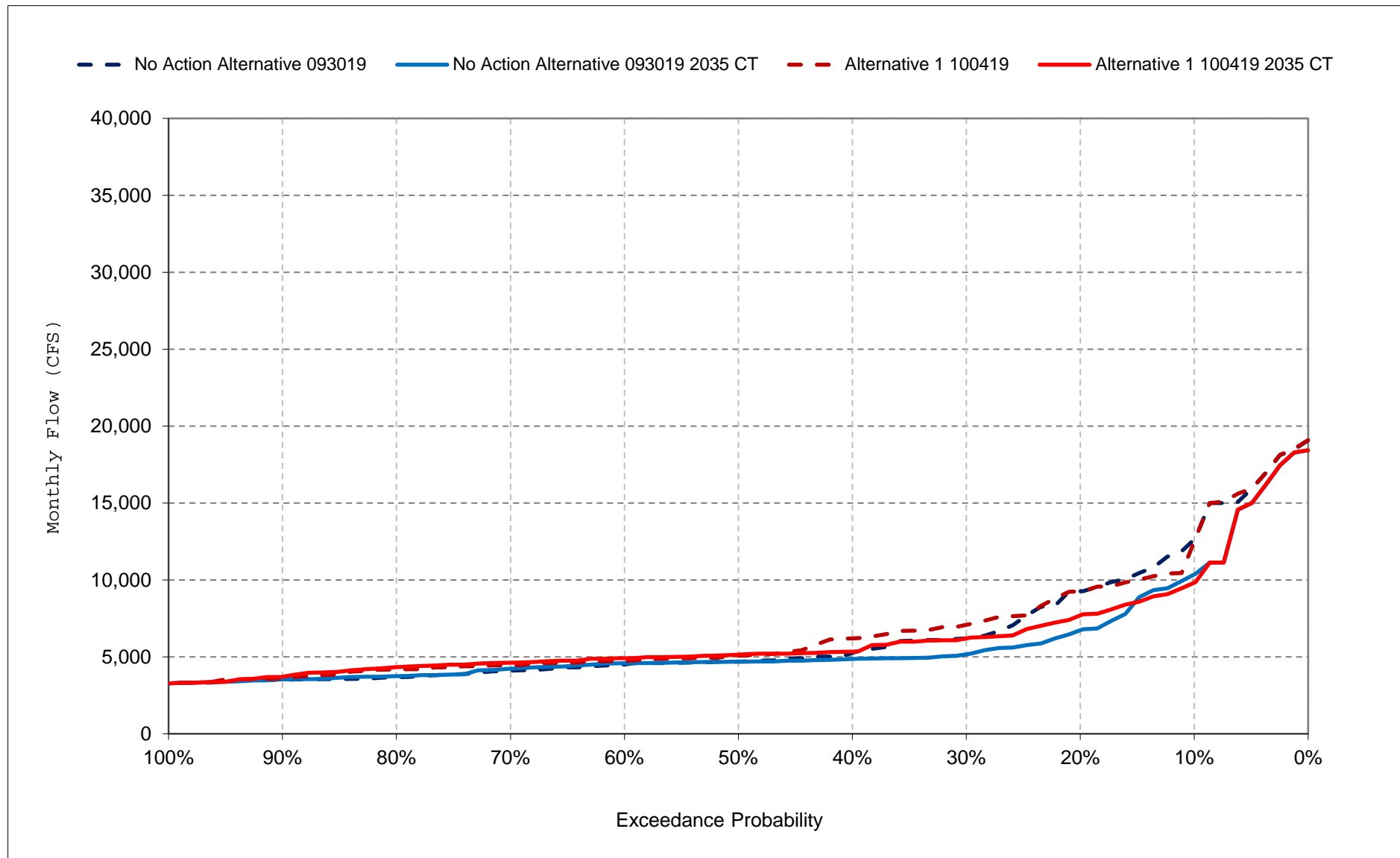
Figure 19-13. Sacramento River at Wilkins Slough Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

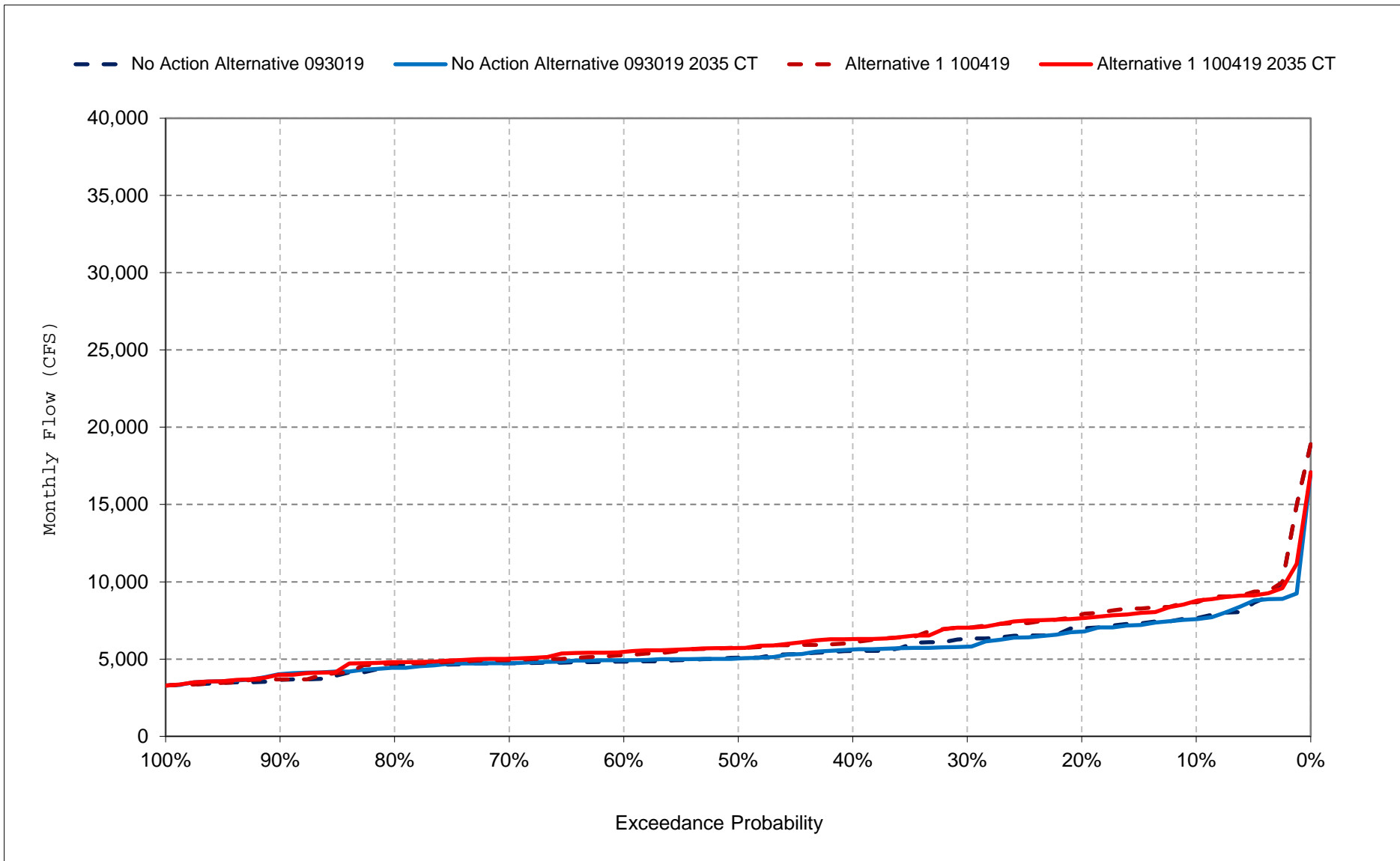
Figure 19-14. Sacramento River at Wilkins Slough Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

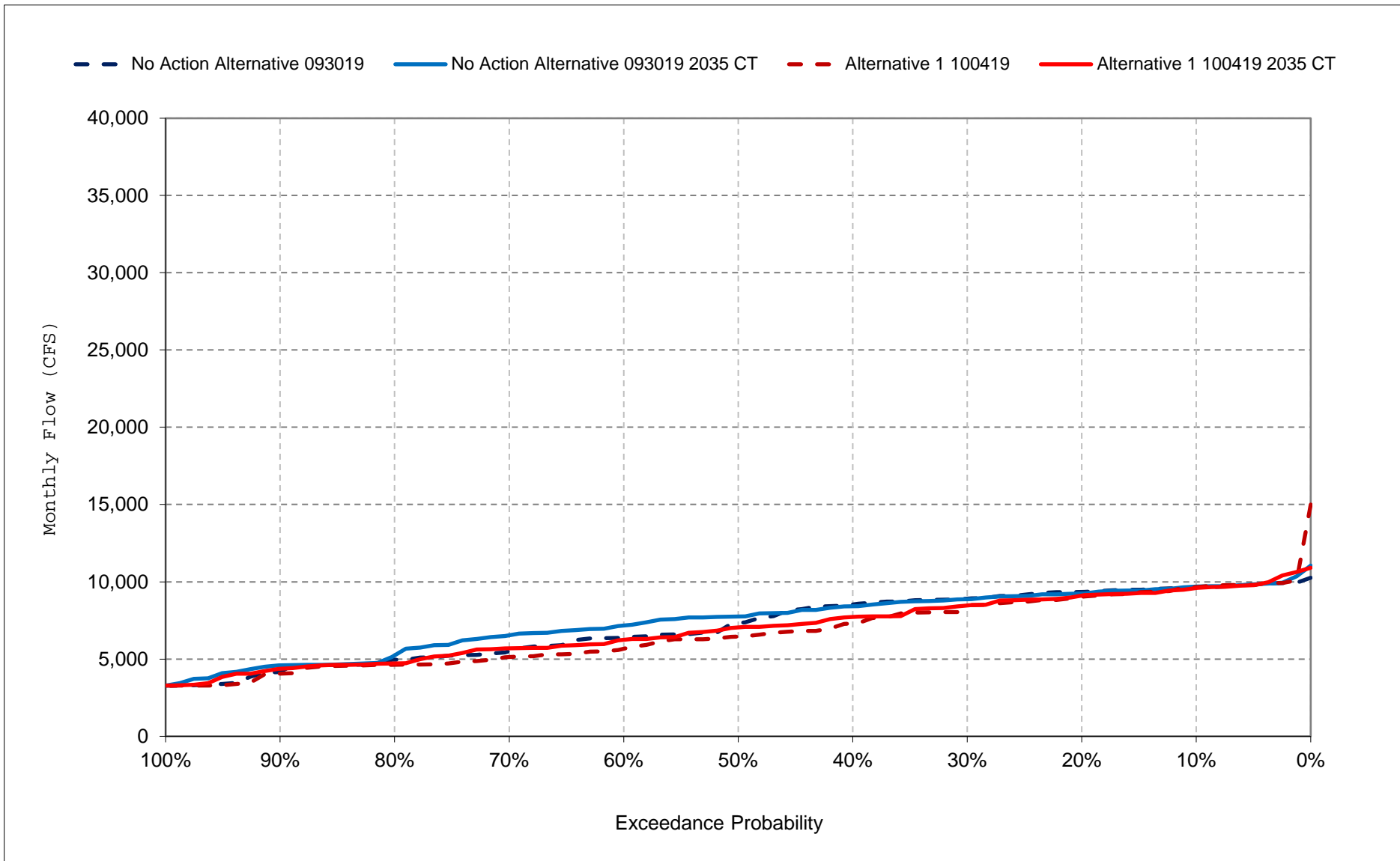
Figure 19-15. Sacramento River at Wilkins Slough Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

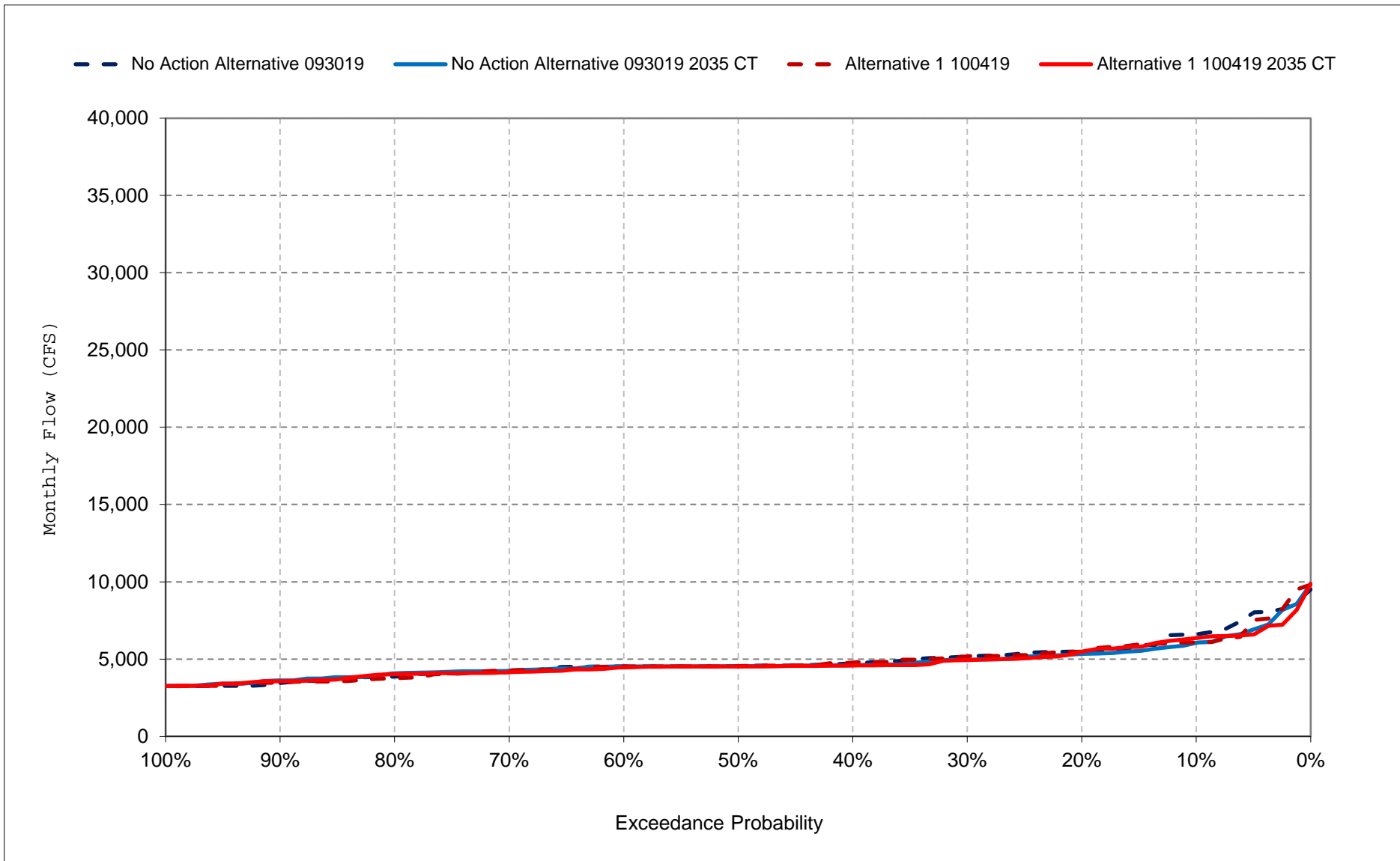
Figure 19-16. Sacramento River at Wilkins Slough Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

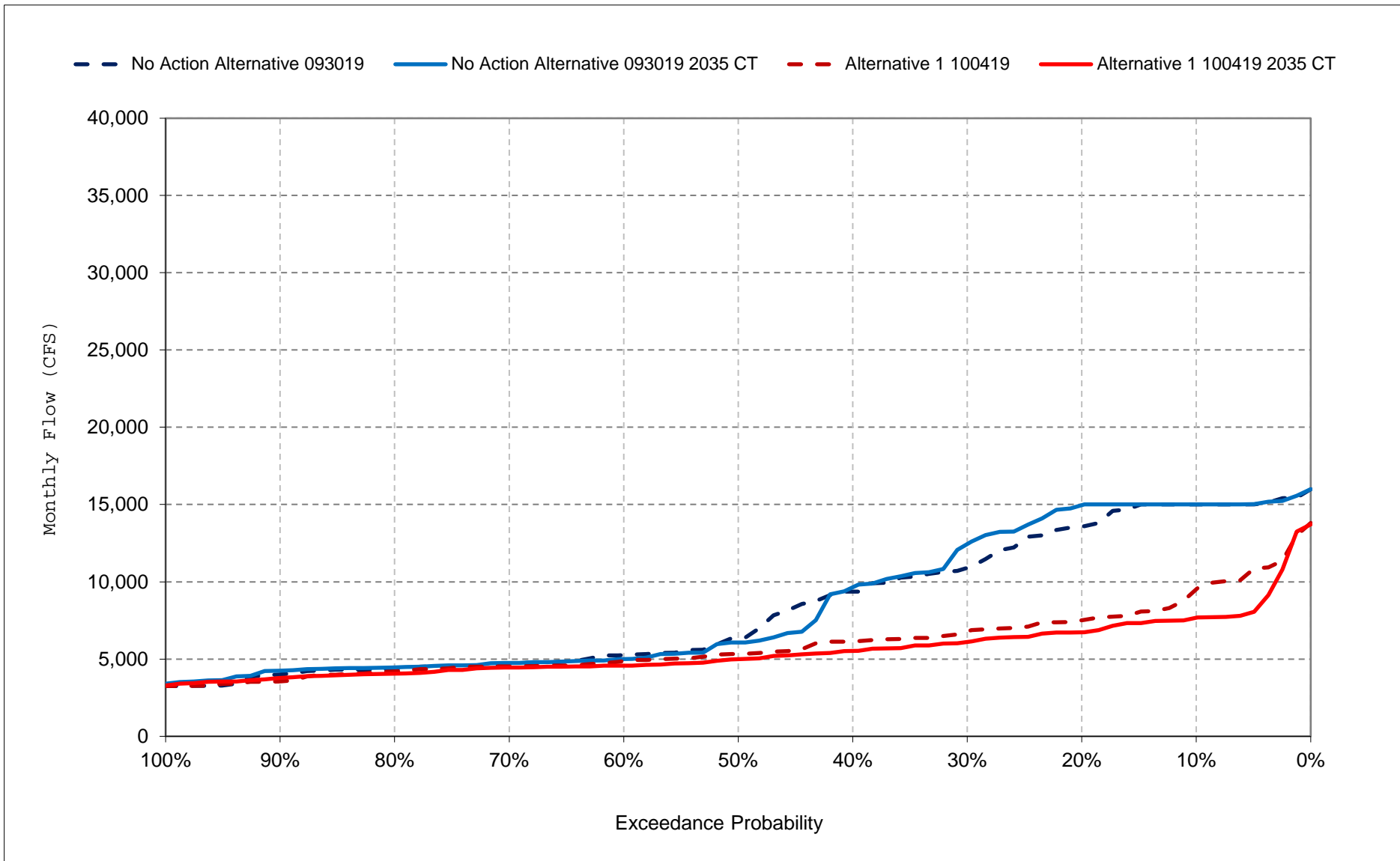
Figure 19-17. Sacramento River at Wilkins Slough Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 19-18. Sacramento River at Wilkins Slough Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-1. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,986	13,760	17,818	14,306	8,408	8,297	5,564	9,650	7,982	9,482
20%	4,000	2,500	3,301	2,024	10,725	8,929	3,597	5,400	4,241	9,170	7,501	9,012
30%	4,000	2,427	2,098	1,700	4,284	6,733	2,615	3,185	3,956	8,696	7,084	7,888
40%	3,026	1,880	1,855	1,700	1,700	4,675	1,648	2,574	3,413	8,285	6,101	7,341
50%	1,927	1,700	1,700	1,700	1,700	1,700	1,152	2,089	3,148	8,001	4,740	3,789
60%	1,858	1,700	1,700	1,700	1,700	1,700	1,000	1,420	2,820	7,189	2,848	1,749
70%	1,700	1,385	1,700	1,200	1,700	1,700	1,000	1,000	2,594	4,462	2,284	1,204
80%	1,375	1,200	1,307	960	1,200	1,000	1,000	1,000	2,234	3,529	1,828	1,008
90%	1,125	1,124	917	900	900	800	758	1,000	1,717	2,921	1,435	1,000
Long Term												
Full Simulation Period ^d	2,552	2,020	2,829	4,460	5,436	6,072	3,040	3,527	3,427	6,794	4,604	4,815
Water Year Types ^{b,c}												
Wet (32%)	3,793	2,993	4,430	10,639	12,543	13,565	6,589	6,935	3,757	7,169	5,750	8,775
Above Normal (16%)	3,341	2,144	2,438	2,389	4,111	6,137	2,040	2,013	2,156	8,856	7,636	7,462
Below Normal (13%)	1,737	1,651	1,622	1,595	1,589	1,885	1,279	1,986	2,685	8,689	5,627	2,419
Dry (24%)	1,539	1,400	2,408	1,360	1,514	1,299	1,136	1,843	4,187	5,983	1,886	1,330
Critical (15%)	1,442	1,146	1,591	1,108	1,538	1,560	1,225	2,000	3,503	3,359	2,424	1,375

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,614	2,500	5,661	13,863	20,147	14,824	8,408	8,262	6,452	9,821	8,202	3,339
20%	3,162	2,500	3,972	5,104	11,464	11,020	3,656	5,390	5,207	9,274	7,904	2,317
30%	2,730	2,500	2,740	1,700	6,134	7,638	2,578	3,647	4,519	8,938	7,664	1,798
40%	2,132	1,866	1,763	1,700	2,678	5,038	1,713	3,263	4,250	8,521	7,069	1,550
50%	1,962	1,700	1,700	1,700	1,700	2,486	1,184	2,476	3,916	8,097	5,103	1,285
60%	1,846	1,700	1,700	1,700	1,700	1,700	1,000	1,796	3,593	7,459	3,227	1,093
70%	1,700	1,423	1,700	1,216	1,700	1,700	1,000	1,263	3,247	4,728	2,231	1,003
80%	1,354	1,205	1,307	960	1,200	1,000	1,000	1,000	2,877	3,826	1,882	1,000
90%	1,125	1,123	916	900	900	800	758	1,000	2,223	3,289	1,504	1,000
Long Term												
Full Simulation Period ^d	2,209	2,019	3,293	4,898	5,900	6,528	3,070	3,758	4,041	6,964	4,995	1,750
Water Year Types ^{b,c}												
Wet (32%)	2,938	2,902	5,356	11,938	13,386	14,130	6,587	6,982	4,022	7,012	6,659	1,624
Above Normal (16%)	2,760	2,311	3,210	2,388	4,869	7,728	2,226	2,315	2,727	8,643	7,594	2,295
Below Normal (13%)	1,753	1,638	1,622	1,595	2,339	2,064	1,279	2,382	3,773	9,022	6,550	2,441
Dry (24%)	1,565	1,415	2,596	1,401	1,513	1,310	1,145	2,351	5,245	6,772	1,858	1,407
Critical (15%)	1,525	1,149	1,603	1,218	1,376	1,545	1,212	1,940	3,742	3,475	2,377	1,372

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-386	0	675	104	2,329	518	0	-34	888	171	220	-6,143
20%	-838	0	671	3,080	739	2,092	60	-10	966	104	403	-6,695
30%	-1,270	73	642	0	1,849	906	-37	462	564	243	580	-6,090
40%	-894	-14	-92	0	978	363	65	689	837	236	968	-5,791
50%	36	0	0	0	0	786	32	387	769	96	363	-2,504
60%	-13	0	0	0	0	0	0	377	773	270	378	-656
70%	0	38	0	16	0	0	0	263	653	266	-53	-201
80%	-21	5	0	0	0	0	0	0	643	297	54	-8
90%	0	-1	0	0	0	0	0	0	507	368	69	0
Long Term												
Full Simulation Period ^d	-342	0	464	438	464	456	29	231	613	170	391	-3,065
Water Year Types ^{b,c}												
Wet (32%)	-855	-91	926	1,299	843	565	-2	46	265	-157	909	-7,151
Above Normal (16%)	-580	167	772	-1	757	1,591	185	302	570	-213	-43	-5,167
Below Normal (13%)	16	-13	0	0	750	179	0	396	1,088	333	923	22
Dry (24%)	26	15	188	41	0	10	10	508	1,058	789	-29	77
Critical (15%)	83	3	13	110	-162	-15	-13	-59	239	116	-47	-3

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 21-2. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,897	15,118	20,347	17,187	8,173	5,184	4,597	9,724	8,062	9,464
20%	4,000	2,500	3,201	2,295	13,455	11,258	3,512	3,407	4,153	9,229	7,681	8,966
30%	3,899	2,070	2,080	1,700	6,699	8,391	2,080	2,923	3,853	8,954	7,435	7,688
40%	2,026	1,847	1,799	1,700	2,136	5,062	1,449	2,695	3,444	8,590	6,678	5,886
50%	1,889	1,700	1,700	1,700	1,700	2,924	1,000	2,013	3,242	8,346	5,648	3,771
60%	1,785	1,700	1,700	1,700	1,700	1,700	1,000	1,468	3,003	7,917	4,296	1,672
70%	1,508	1,423	1,700	1,464	1,700	1,700	1,000	1,044	2,753	6,704	2,685	1,163
80%	1,241	1,200	1,233	980	1,200	1,000	1,000	1,000	2,220	4,279	1,959	1,013
90%	1,111	1,078	1,064	900	900	800	750	1,000	1,755	3,072	1,559	1,000
Long Term												
Full Simulation Period ^d	2,388	1,948	2,767	4,856	6,308	7,003	2,978	2,697	3,212	7,226	5,044	4,564
Water Year Types ^{b,c}												
Wet (32%)	3,746	2,893	4,444	11,756	14,581	15,416	6,567	4,161	2,774	7,529	6,080	8,167
Above Normal (16%)	2,603	1,918	2,201	2,594	5,592	8,112	1,868	1,845	2,554	9,156	7,739	7,027
Below Normal (13%)	1,718	1,663	1,604	1,597	1,929	2,185	1,236	2,276	3,065	8,900	5,868	2,446
Dry (24%)	1,563	1,393	2,293	1,360	1,452	1,296	1,061	1,961	3,894	6,669	3,071	1,370
Critical (15%)	1,204	1,120	1,604	1,170	1,263	1,498	1,195	2,059	3,872	3,875	2,410	1,354

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,535	2,500	5,433	15,905	20,671	17,223	8,174	5,210	5,522	9,853	8,183	3,369
20%	3,275	2,500	3,440	6,080	13,737	12,434	3,496	4,354	5,125	9,181	7,851	2,393
30%	2,648	1,942	2,224	2,015	9,247	8,413	2,074	3,647	4,806	8,857	7,642	2,051
40%	2,134	1,857	1,700	1,700	3,595	6,198	1,476	3,140	4,505	8,424	6,909	1,710
50%	1,901	1,700	1,700	1,700	1,700	3,329	1,079	2,637	4,244	7,875	5,386	1,371
60%	1,865	1,700	1,700	1,700	1,700	1,700	1,000	2,193	3,743	6,787	3,324	1,174
70%	1,508	1,407	1,700	1,249	1,700	1,700	1,000	1,645	3,488	4,837	2,551	1,010
80%	1,204	1,200	1,364	960	1,200	1,000	1,000	1,000	3,155	3,937	2,042	1,000
90%	1,125	1,123	1,066	900	900	800	750	1,000	2,416	3,137	1,727	1,000
Long Term												
Full Simulation Period ^d	2,198	1,992	3,139	5,398	6,885	7,405	2,980	3,095	4,086	6,873	5,031	1,787
Water Year Types ^{b,c}												
Wet (32%)	3,030	2,878	4,987	13,357	15,196	15,662	6,567	4,521	3,452	6,620	6,365	1,960
Above Normal (16%)	2,679	2,163	3,009	2,745	6,804	9,764	1,868	2,381	3,485	8,426	7,361	2,358
Below Normal (13%)	1,870	1,644	1,604	1,684	3,373	2,594	1,246	3,031	4,473	8,884	6,143	1,955
Dry (24%)	1,574	1,438	2,590	1,392	1,452	1,333	1,075	2,346	4,979	6,959	2,784	1,350
Critical (15%)	1,211	1,129	1,598	1,108	1,242	1,492	1,182	2,086	4,268	3,751	2,341	1,366

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-465	0	536	787	324	35	1	26	925	128	120	-6,095
20%	-725	0	240	3,785	282	1,176	-15	947	973	-48	170	-6,572
30%	-1,251	-128	145	315	2,548	22	-6	723	953	-97	207	-5,637
40%	108	10	-99	0	1,458	1,136	27	445	1,061	-166	231	-4,176
50%	13	0	0	0	0	405	79	624	1,002	-472	-262	-2,400
60%	81	0	0	0	0	0	0	725	740	-1,130	-972	-498
70%	0	-15	0	-215	0	0	0	601	735	-1,867	-135	-153
80%	-37	0	131	-20	0	0	0	0	936	-342	83	-13
90%	14	46	2	0	0	0	0	0	661	65	168	0
Long Term												
Full Simulation Period ^d	-191	44	372	542	578	403	3	398	874	-353	-13	-2,777
Water Year Types ^{b,c}												
Wet (32%)	-716	-15	543	1,601	615	246	-1	359	678	-909	285	-6,207
Above Normal (16%)	76	245	808	151	1,213	1,652	0	536	932	-730	-378	-4,669
Below Normal (13%)	152	-19	0	88	1,443	409	10	755	1,408	-15	275	-492
Dry (24%)	11	45	298	32	0	37	14	385	1,085	290	-287	-20
Critical (15%)	7	9	-6	-61	-21	-6	-13	27	396	-124	-69	12

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-3. Feather River Flow downstream of Thermalito, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,986	13,760	17,818	14,306	8,408	8,297	5,564	9,650	7,982	9,482
20%	4,000	2,500	3,301	2,024	10,725	8,929	3,597	5,400	4,241	9,170	7,501	9,012
30%	4,000	2,427	2,098	1,700	4,284	6,733	2,615	3,185	3,956	8,696	7,084	7,888
40%	3,026	1,880	1,855	1,700	1,700	4,675	1,648	2,574	3,413	8,285	6,101	7,341
50%	1,927	1,700	1,700	1,700	1,700	1,700	1,152	2,089	3,148	8,001	4,740	3,789
60%	1,858	1,700	1,700	1,700	1,700	1,700	1,000	1,420	2,820	7,189	2,848	1,749
70%	1,700	1,385	1,700	1,200	1,700	1,700	1,000	1,000	2,594	4,462	2,284	1,204
80%	1,375	1,200	1,307	960	1,200	1,000	1,000	1,000	2,234	3,529	1,828	1,008
90%	1,125	1,124	917	900	900	800	758	1,000	1,717	2,921	1,435	1,000
Long Term												
Full Simulation Period ^d	2,552	2,020	2,829	4,460	5,436	6,072	3,040	3,527	3,427	6,794	4,604	4,815
Water Year Types ^{b,c}												
Wet (32%)	3,793	2,993	4,430	10,639	12,543	13,565	6,589	6,935	3,757	7,169	5,750	8,775
Above Normal (16%)	3,341	2,144	2,438	2,389	4,111	6,137	2,040	2,013	2,156	8,856	7,636	7,462
Below Normal (13%)	1,737	1,651	1,622	1,595	1,589	1,885	1,279	1,986	2,685	8,689	5,627	2,419
Dry (24%)	1,539	1,400	2,408	1,360	1,514	1,299	1,136	1,843	4,187	5,983	1,886	1,330
Critical (15%)	1,442	1,146	1,591	1,108	1,538	1,560	1,225	2,000	3,503	3,359	2,424	1,375

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,000	2,500	4,897	15,118	20,347	17,187	8,173	5,184	4,597	9,724	8,062	9,464
20%	4,000	2,500	3,201	2,295	13,455	11,258	3,512	3,407	4,153	9,229	7,681	8,966
30%	3,899	2,070	2,080	1,700	6,699	8,391	2,080	2,923	3,853	8,954	7,435	7,688
40%	2,026	1,847	1,799	1,700	2,136	5,062	1,449	2,695	3,444	8,590	6,678	5,886
50%	1,889	1,700	1,700	1,700	1,700	2,924	1,000	2,013	3,242	8,346	5,648	3,771
60%	1,785	1,700	1,700	1,700	1,700	1,700	1,000	1,468	3,003	7,917	4,296	1,672
70%	1,508	1,423	1,700	1,464	1,700	1,700	1,000	1,044	2,753	6,704	2,685	1,163
80%	1,241	1,200	1,233	980	1,200	1,000	1,000	1,000	2,220	4,279	1,959	1,013
90%	1,111	1,078	1,064	900	900	800	750	1,000	1,755	3,072	1,559	1,000
Long Term												
Full Simulation Period ^d	2,388	1,948	2,767	4,856	6,308	7,003	2,978	2,697	3,212	7,226	5,044	4,564
Water Year Types ^{b,c}												
Wet (32%)	3,746	2,893	4,444	11,756	14,581	15,416	6,567	4,161	2,774	7,529	6,080	8,167
Above Normal (16%)	2,603	1,918	2,201	2,594	5,592	8,112	1,868	1,845	2,554	9,156	7,739	7,027
Below Normal (13%)	1,718	1,663	1,604	1,597	1,929	2,185	1,236	2,276	3,065	8,900	5,868	2,446
Dry (24%)	1,563	1,393	2,293	1,360	1,452	1,296	1,061	1,961	3,894	6,669	3,071	1,370
Critical (15%)	1,204	1,120	1,604	1,170	1,263	1,498	1,195	2,059	3,872	3,875	2,410	1,354

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	-90	1,358	2,529	2,882	-235	-3,113	-967	75	81	-18
20%	0	0	-100	271	2,730	2,329	-85	-1,993	-88	60	180	-46
30%	-101	-357	-18	0	2,414	1,658	-535	-261	-103	258	351	-199
40%	-1,000	-32	-57	0	436	387	-198	122	31	305	577	-1,455
50%	-38	0	0	0	0	1,224	-152	-76	94	345	908	-17
60%	-74	0	0	0	0	0	0	48	183	727	1,448	-77
70%	-192	37	0	264	0	0	0	44	159	2,242	401	-41
80%	-134	0	-75	20	0	0	0	0	-14	749	131	5
90%	-14	-46	147	0	0	0	-8	0	39	151	124	0
Long Term												
Full Simulation Period ^d	-163	-71	-62	396	871	930	-63	-830	-215	433	440	-251
Water Year Types ^{b,c}												
Wet (32%)	-47	-100	13	1,117	2,038	1,851	-22	-2,774	-982	360	330	-608
Above Normal (16%)	-738	-226	-237	205	1,480	1,975	-172	-168	397	300	103	-435
Below Normal (13%)	-19	12	-18	2	341	300	-43	291	379	210	241	27
Dry (24%)	24	-6	-116	0	-61	-3	-75	118	-293	685	1,184	40
Critical (15%)	-238	-26	13	61	-275	-62	-30	59	369	516	-14	-21

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 21-4. Feather River Flow downstream of Thermalito, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,614	2,500	5,661	13,863	20,147	14,824	8,408	8,262	6,452	9,821	8,202	3,339
20%	3,162	2,500	3,972	5,104	11,464	11,020	3,656	5,390	5,207	9,274	7,904	2,317
30%	2,730	2,500	2,740	1,700	6,134	7,638	2,578	3,647	4,519	8,938	7,664	1,798
40%	2,132	1,866	1,763	1,700	2,678	5,038	1,713	3,263	4,250	8,521	7,069	1,550
50%	1,962	1,700	1,700	1,700	1,700	2,486	1,184	2,476	3,916	8,097	5,103	1,285
60%	1,846	1,700	1,700	1,700	1,700	1,700	1,000	1,796	3,593	7,459	3,227	1,093
70%	1,700	1,423	1,700	1,216	1,700	1,700	1,000	1,263	3,247	4,728	2,231	1,003
80%	1,354	1,205	1,307	960	1,200	1,000	1,000	1,000	2,877	3,826	1,882	1,000
90%	1,125	1,123	916	900	900	800	758	1,000	2,223	3,289	1,504	1,000
Long Term												
Full Simulation Period ^d	2,209	2,019	3,293	4,898	5,900	6,528	3,070	3,758	4,041	6,964	4,995	1,750
Water Year Types ^{b,c}												
Wet (32%)	2,938	2,902	5,356	11,938	13,386	14,130	6,587	6,982	4,022	7,012	6,659	1,624
Above Normal (16%)	2,760	2,311	3,210	2,388	4,869	7,728	2,226	2,315	2,727	8,643	7,594	2,295
Below Normal (13%)	1,753	1,638	1,622	1,595	2,339	2,064	1,279	2,382	3,773	9,022	6,550	2,441
Dry (24%)	1,565	1,415	2,596	1,401	1,513	1,310	1,145	2,351	5,245	6,772	1,858	1,407
Critical (15%)	1,525	1,149	1,603	1,218	1,376	1,545	1,212	1,940	3,742	3,475	2,377	1,372

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,535	2,500	5,433	15,905	20,671	17,223	8,174	5,210	5,522	9,853	8,183	3,369
20%	3,275	2,500	3,440	6,080	13,737	12,434	3,496	4,354	5,125	9,181	7,851	2,393
30%	2,648	1,942	2,224	2,015	9,247	8,413	2,074	3,647	4,806	8,857	7,642	2,051
40%	2,134	1,857	1,700	1,700	3,595	6,198	1,476	3,140	4,505	8,424	6,909	1,710
50%	1,901	1,700	1,700	1,700	1,700	3,329	1,079	2,637	4,244	7,875	5,386	1,371
60%	1,865	1,700	1,700	1,700	1,700	1,700	1,000	2,193	3,743	6,787	3,324	1,174
70%	1,508	1,407	1,700	1,249	1,700	1,700	1,000	1,645	3,488	4,837	2,551	1,010
80%	1,204	1,200	1,364	960	1,200	1,000	1,000	1,000	3,155	3,937	2,042	1,000
90%	1,125	1,123	1,066	900	900	800	750	1,000	2,416	3,137	1,727	1,000
Long Term												
Full Simulation Period ^d	2,198	1,992	3,139	5,398	6,885	7,405	2,980	3,095	4,086	6,873	5,031	1,787
Water Year Types ^{b,c}												
Wet (32%)	3,030	2,878	4,987	13,357	15,196	15,662	6,567	4,521	3,452	6,620	6,365	1,960
Above Normal (16%)	2,679	2,163	3,009	2,745	6,804	9,764	1,868	2,381	3,485	8,426	7,361	2,358
Below Normal (13%)	1,870	1,644	1,604	1,684	3,373	2,594	1,246	3,031	4,473	8,884	6,143	1,955
Dry (24%)	1,574	1,438	2,590	1,392	1,452	1,333	1,075	2,346	4,979	6,959	2,784	1,350
Critical (15%)	1,211	1,129	1,598	1,108	1,242	1,492	1,182	2,086	4,268	3,751	2,341	1,366

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-79	0	-228	2,041	524	2,399	-234	-3,052	-930	32	-19	30
20%	113	0	-532	976	2,272	1,414	-160	-1,036	-82	-92	-53	77
30%	-81	-558	-516	315	3,113	775	-504	0	287	-82	-22	253
40%	2	-9	-63	0	917	1,160	-237	-122	255	-97	-159	160
50%	-61	0	0	0	0	843	-105	161	327	-222	283	86
60%	20	0	0	0	0	0	0	397	150	-673	98	81
70%	-192	-16	0	33	0	0	0	382	241	109	319	7
80%	-150	-5	57	0	0	0	0	0	278	111	159	0
90%	0	0	149	0	0	0	-8	0	192	-153	223	0
Long Term												
Full Simulation Period ^d	-12	-27	-154	500	985	877	-89	-662	46	-91	36	37
Water Year Types ^{b,c}												
Wet (32%)	92	-24	-370	1,419	1,810	1,532	-20	-2,461	-569	-393	-294	336
Above Normal (16%)	-81	-148	-201	357	1,936	2,036	-358	66	759	-217	-232	63
Below Normal (13%)	117	5	-19	89	1,034	529	-33	649	700	-138	-406	-486
Dry (24%)	9	23	-6	-9	-61	23	-71	-5	-266	187	926	-56
Critical (15%)	-315	-20	-5	-110	-134	-52	-30	146	526	276	-36	-6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

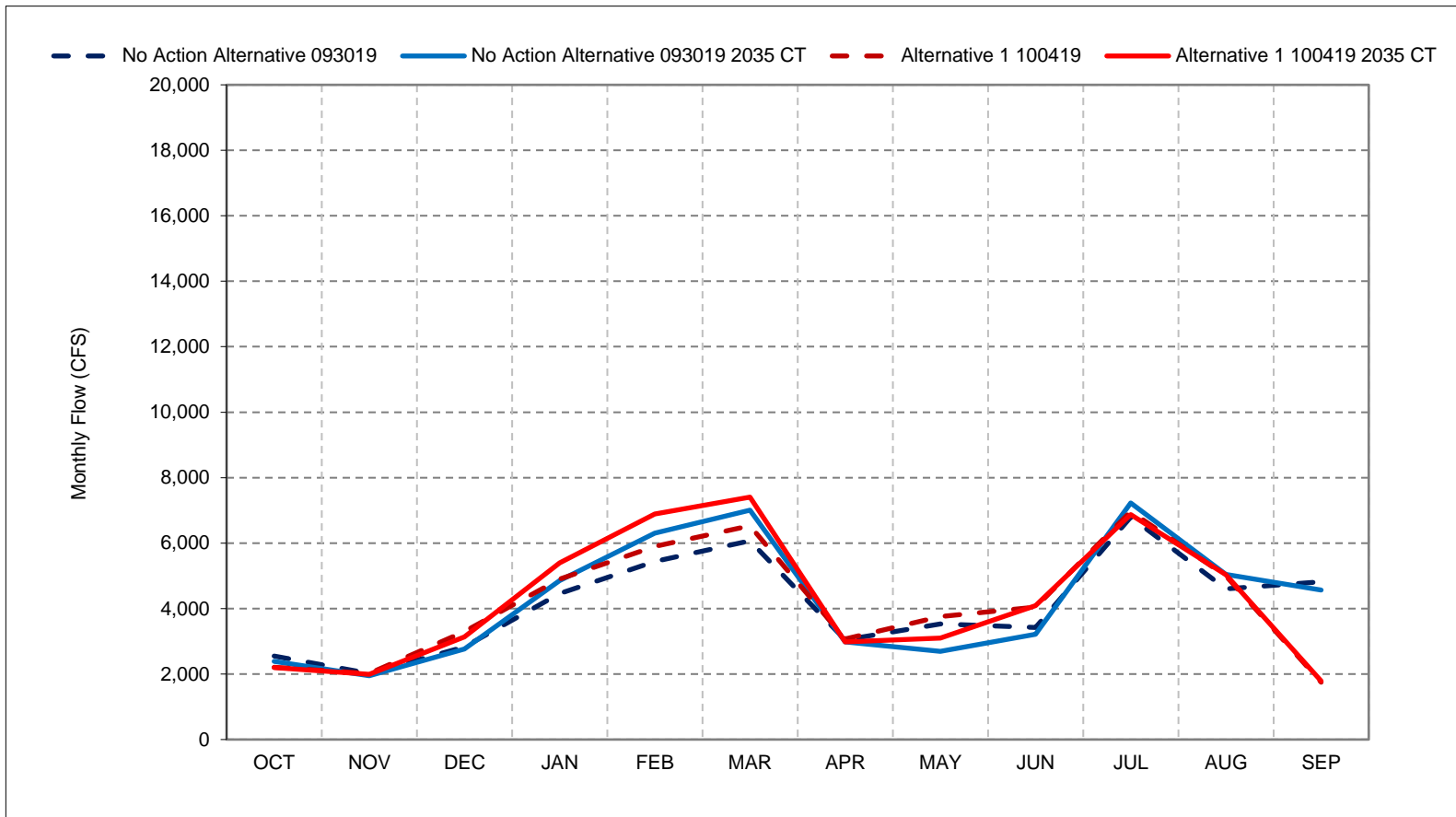
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 21-1. Feather River Flow downstream of Thermalito, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

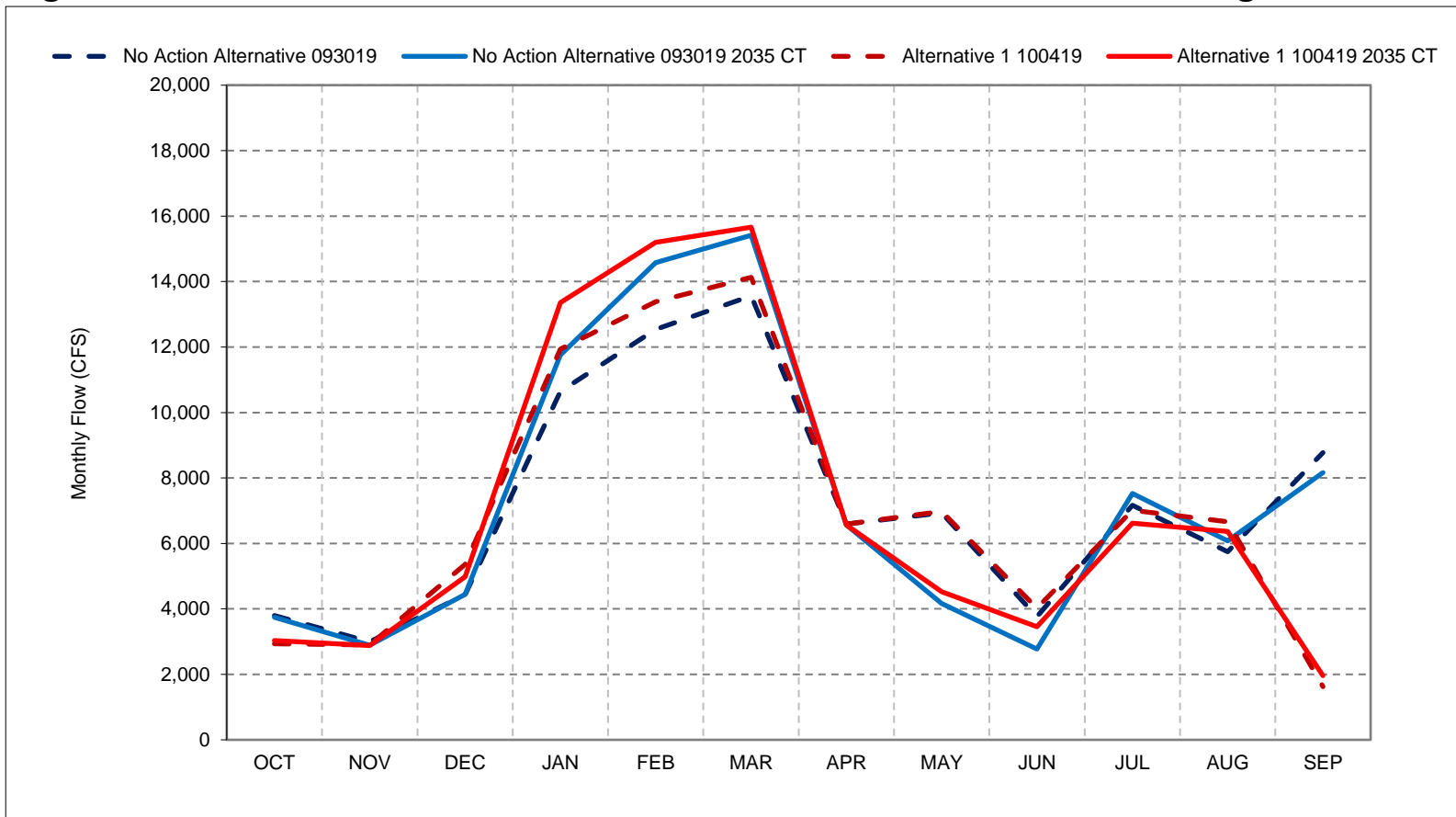
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-2. Feather River Flow downstream of Thermalito, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

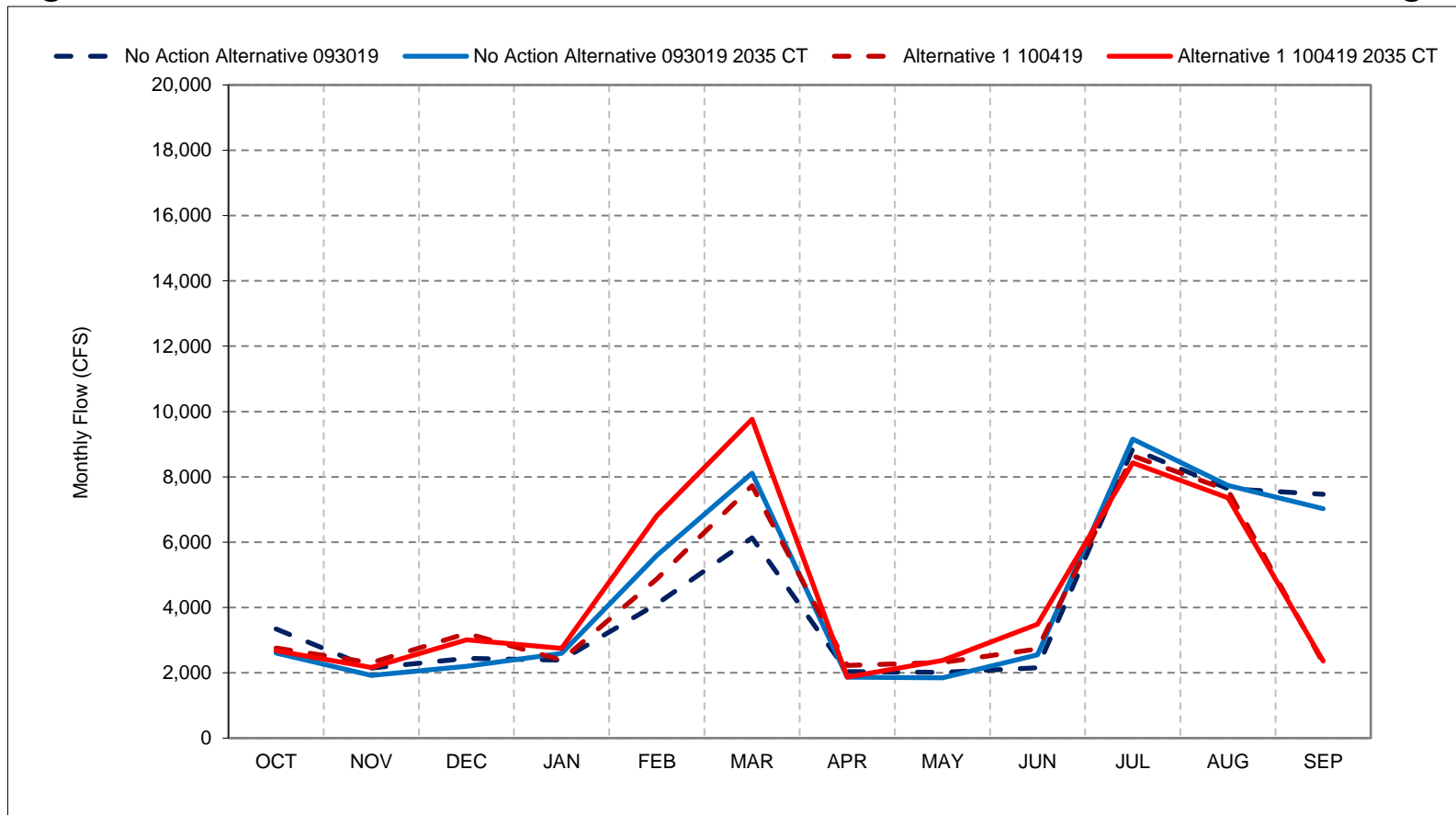
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-3. Feather River Flow downstream of Thermalito, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

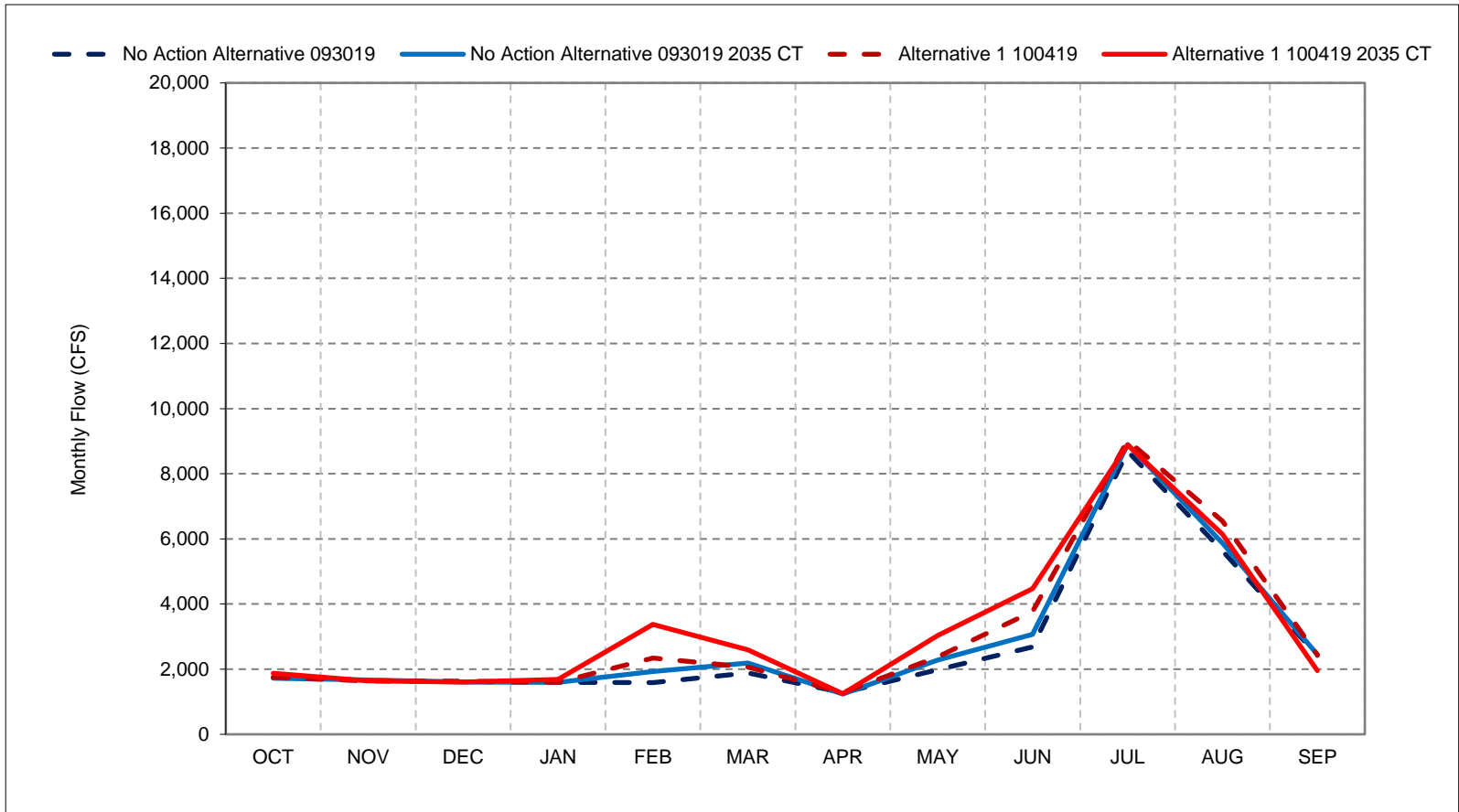
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-4. Feather River Flow downstream of Thermalito, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

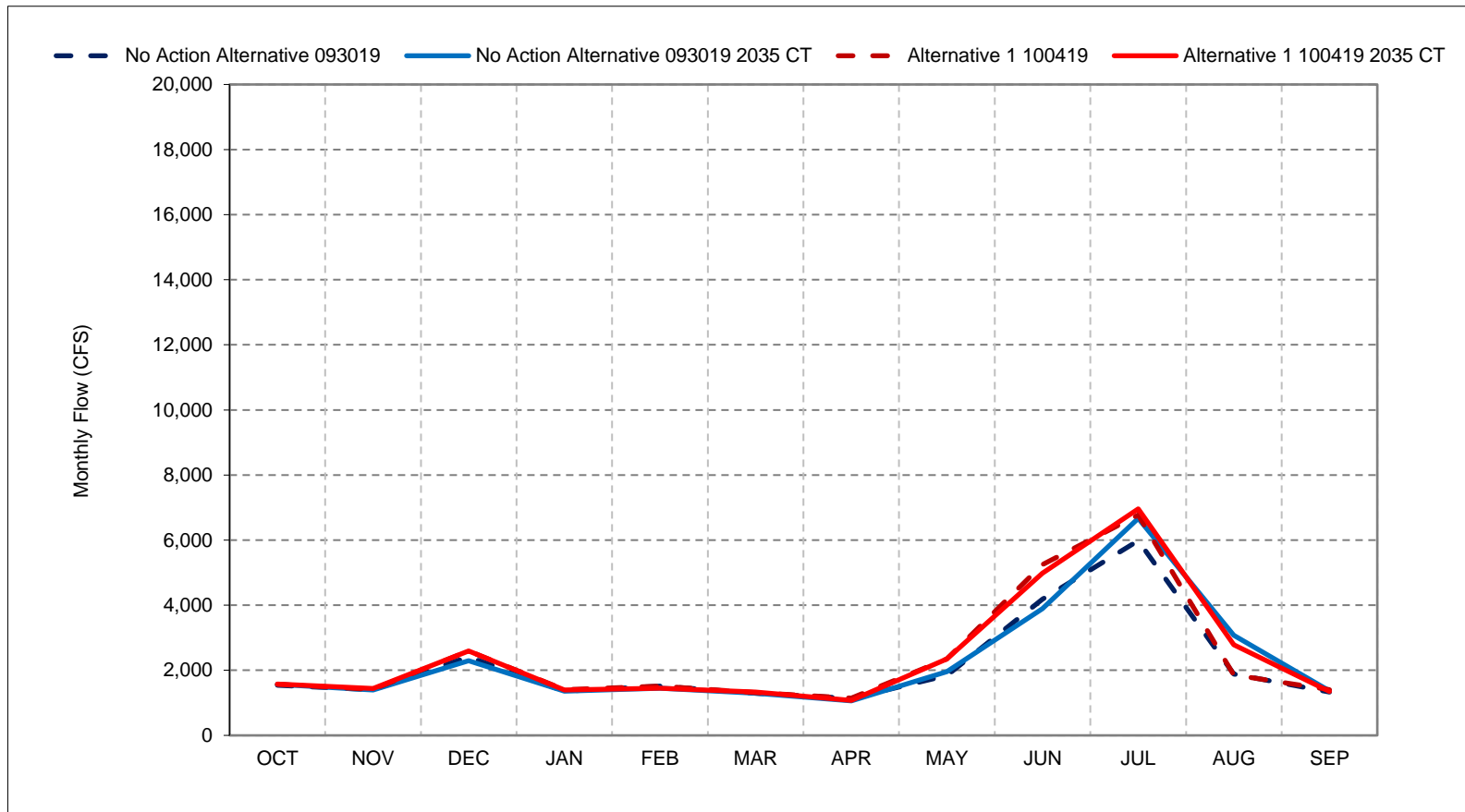
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-5. Feather River Flow downstream of Thermalito, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

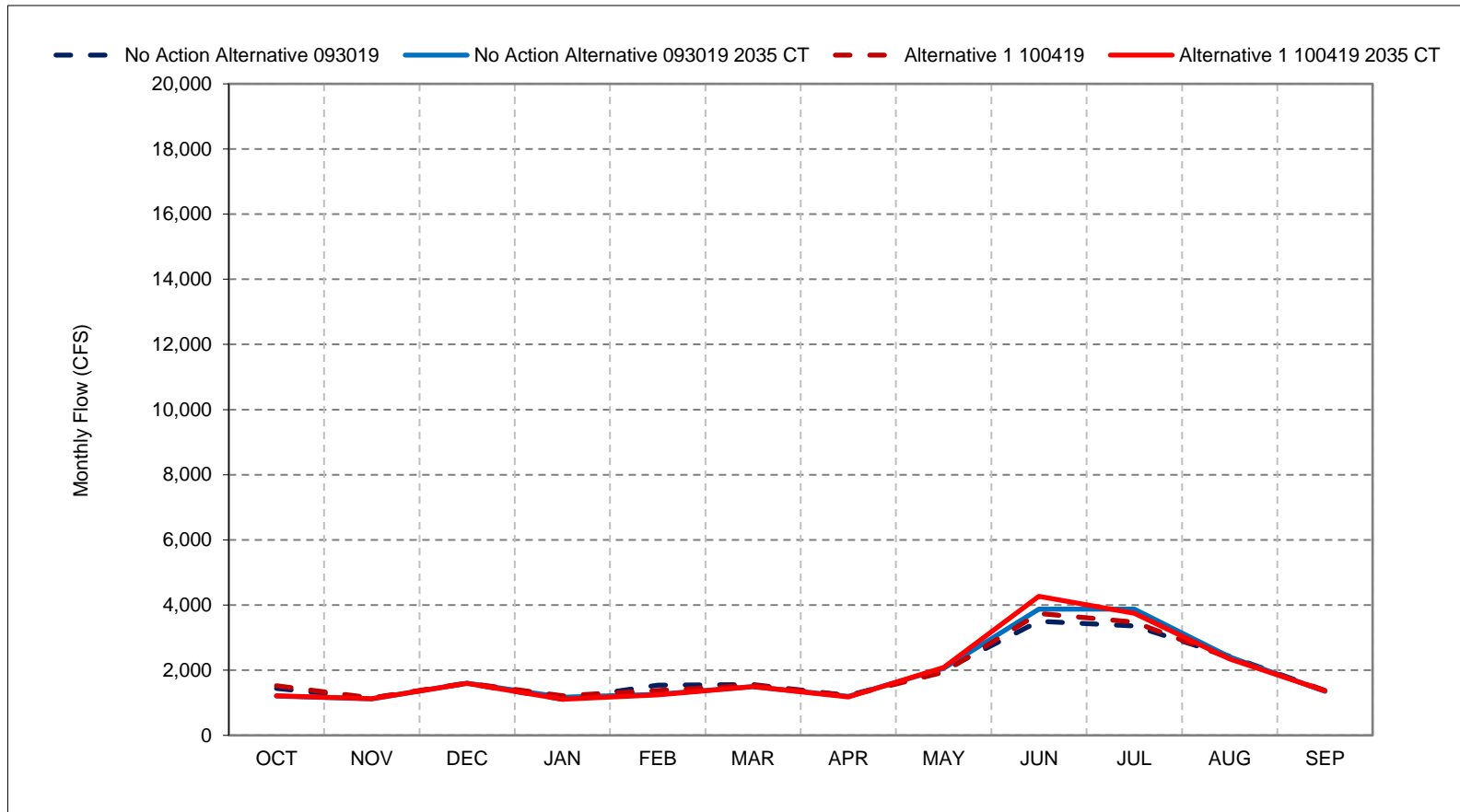
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 21-6. Feather River Flow downstream of Thermalito, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

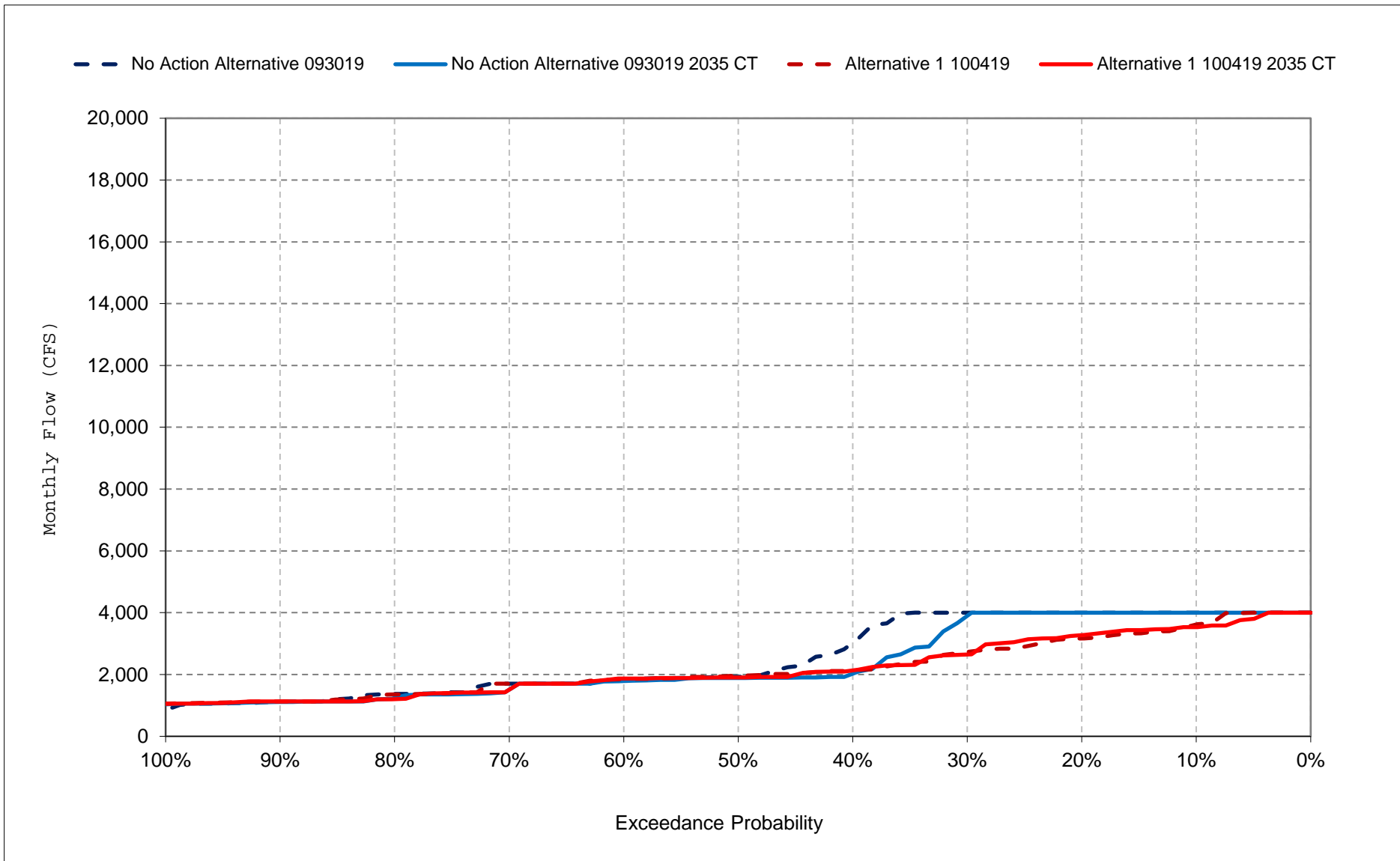
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

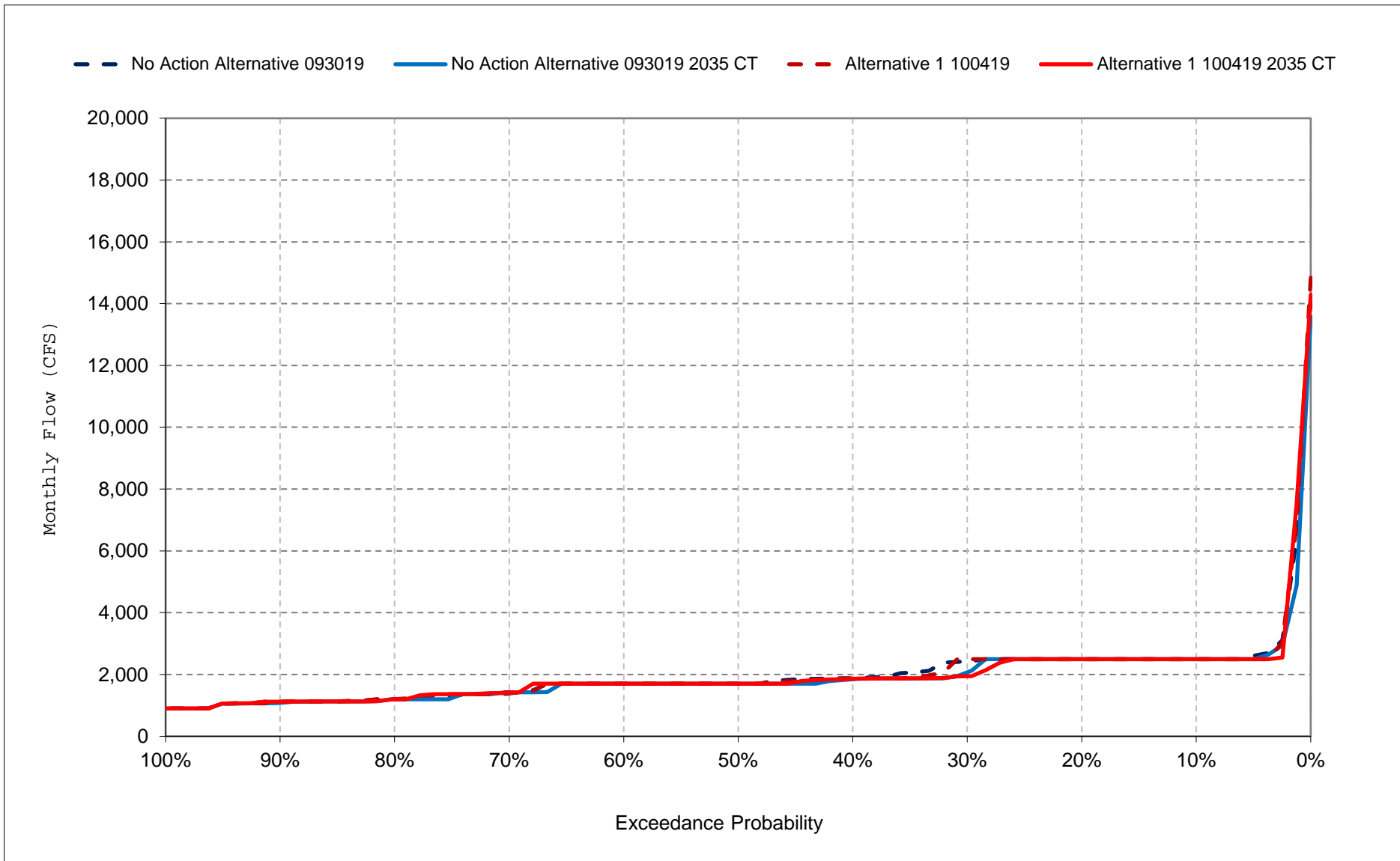
Figure 21-7. Feather River Flow downstream of Thermalito, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

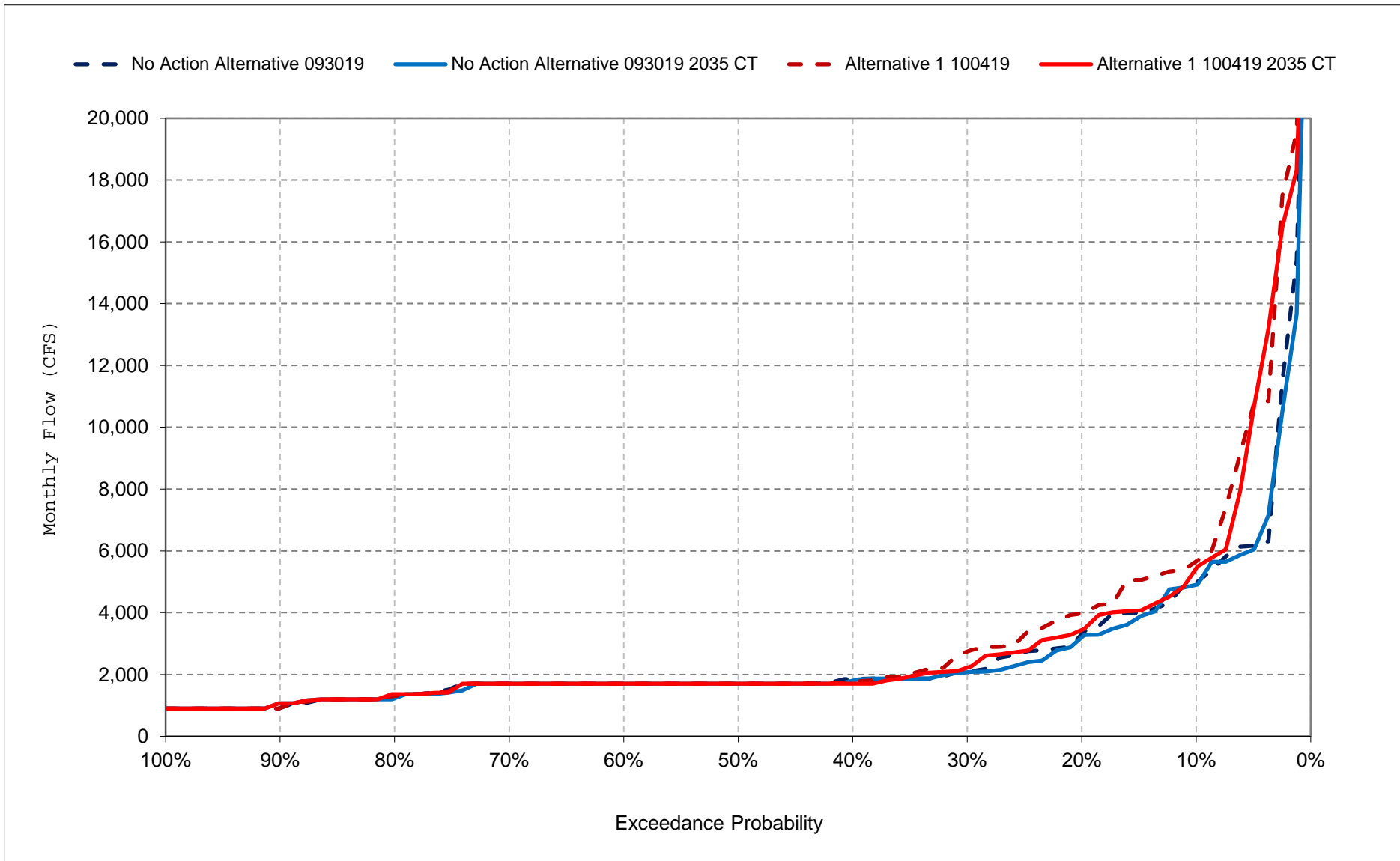
Figure 21-8. Feather River Flow downstream of Thermalito, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

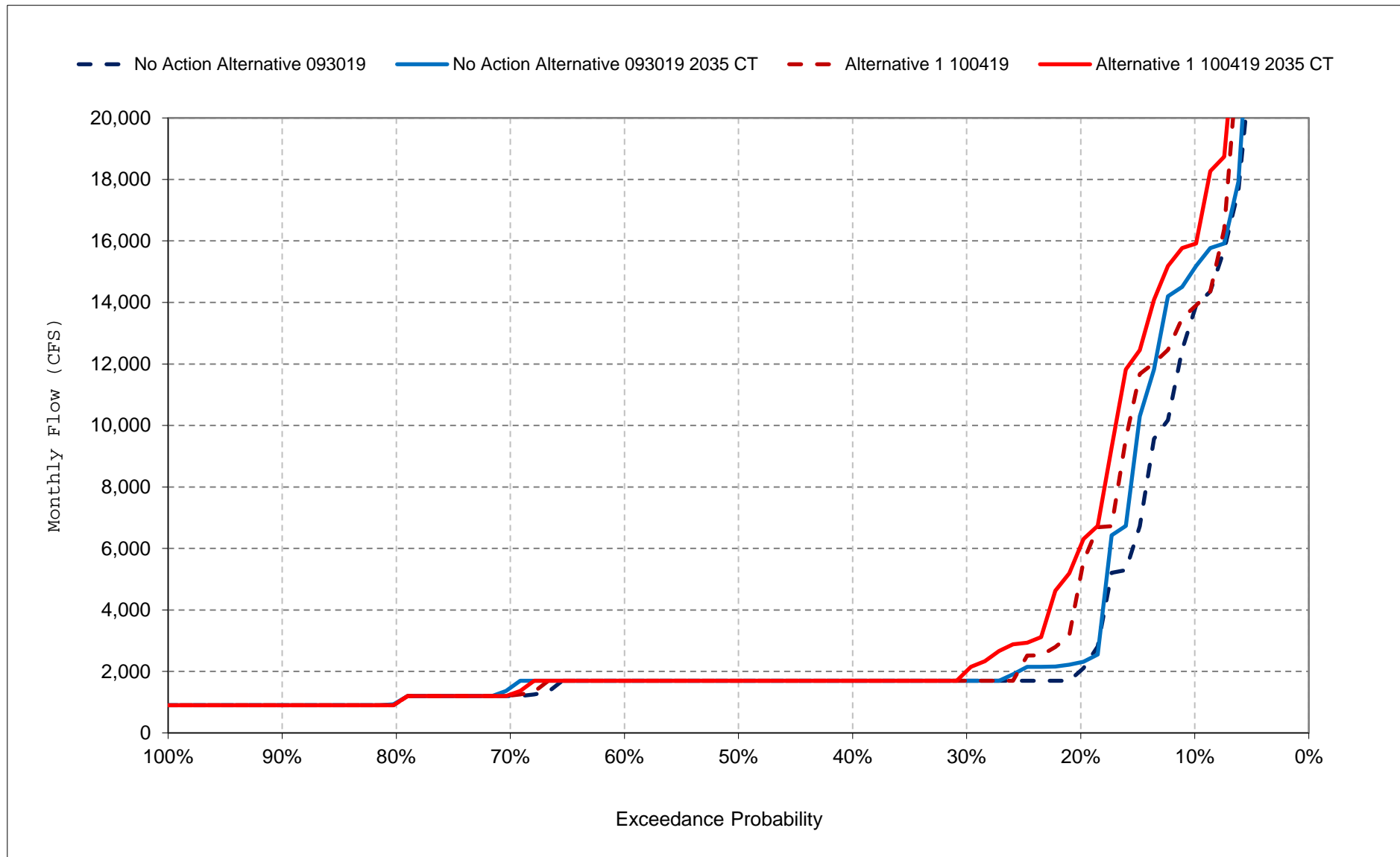
Figure 21-9. Feather River Flow downstream of Thermalito, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

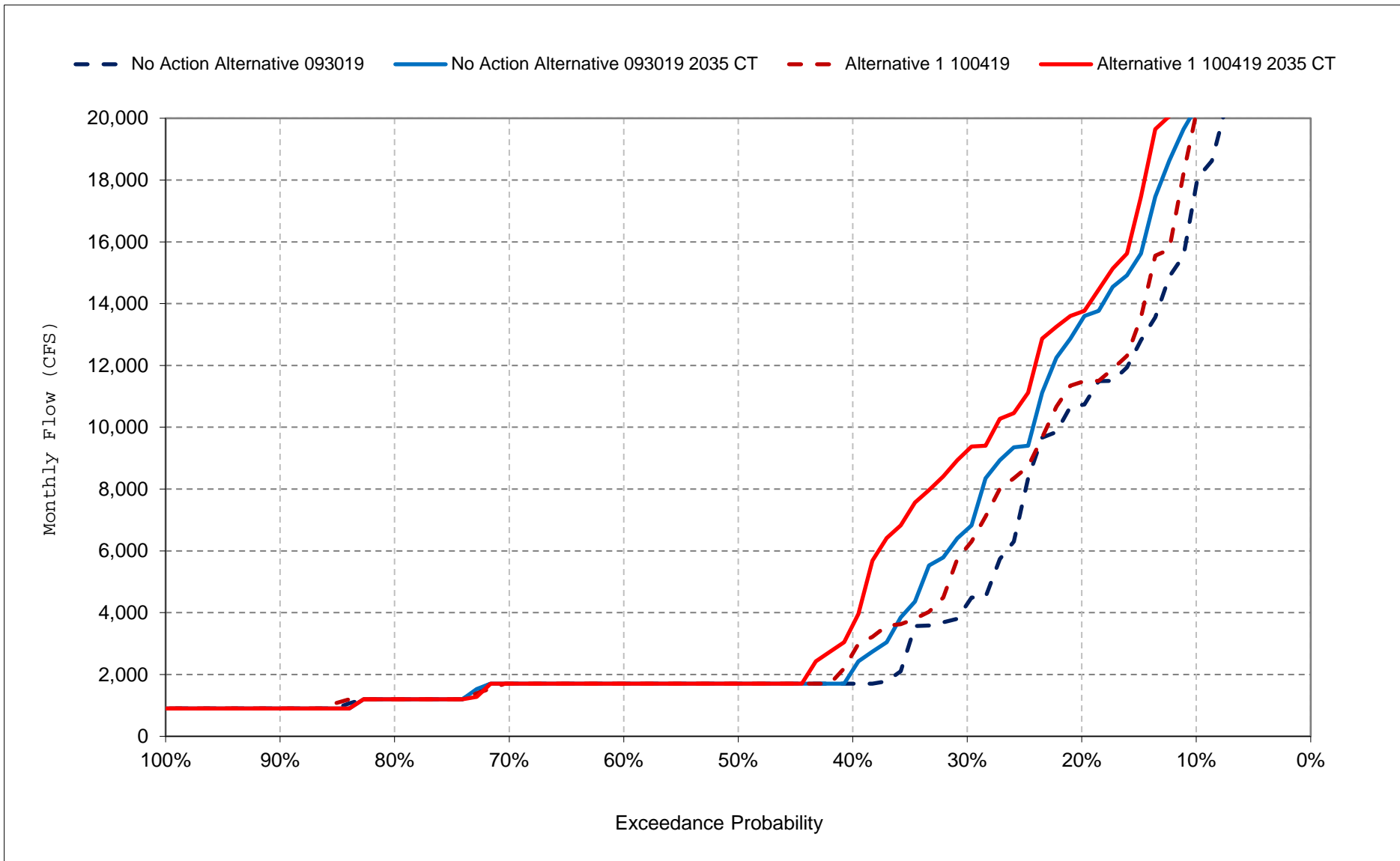
Figure 21-10. Feather River Flow downstream of Thermalito, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

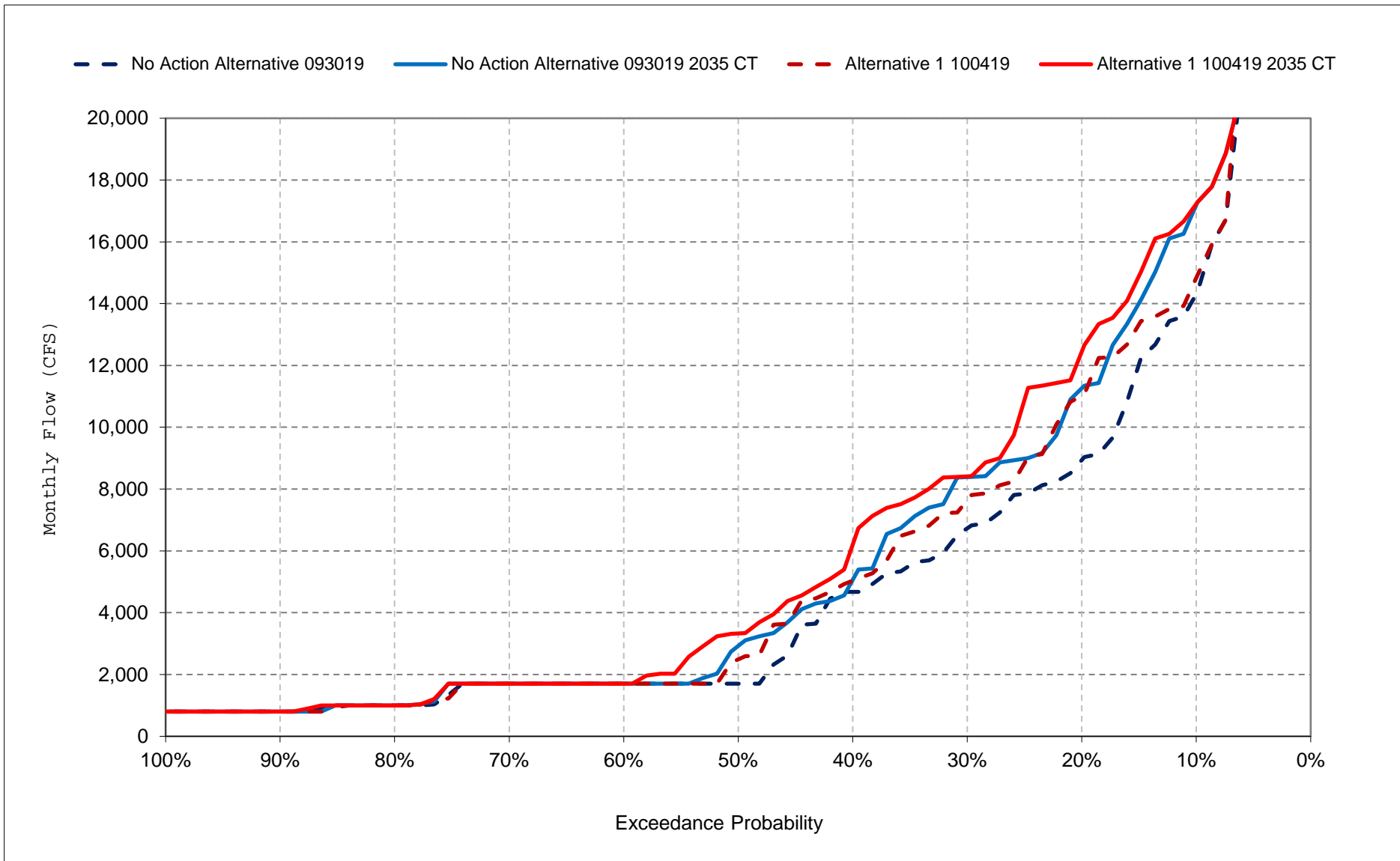
Figure 21-11. Feather River Flow downstream of Thermalito, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

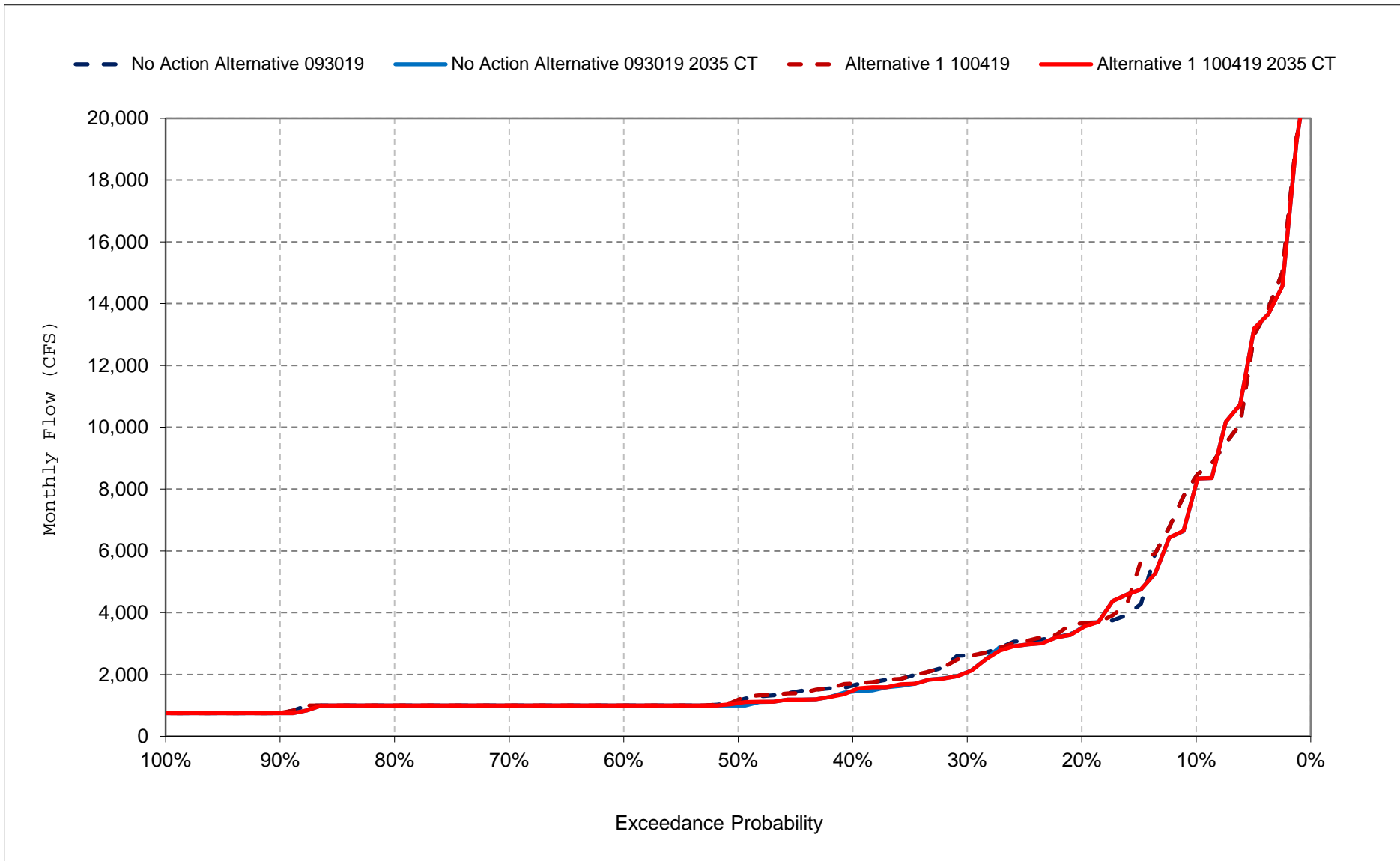
Figure 21-12. Feather River Flow downstream of Thermalito, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

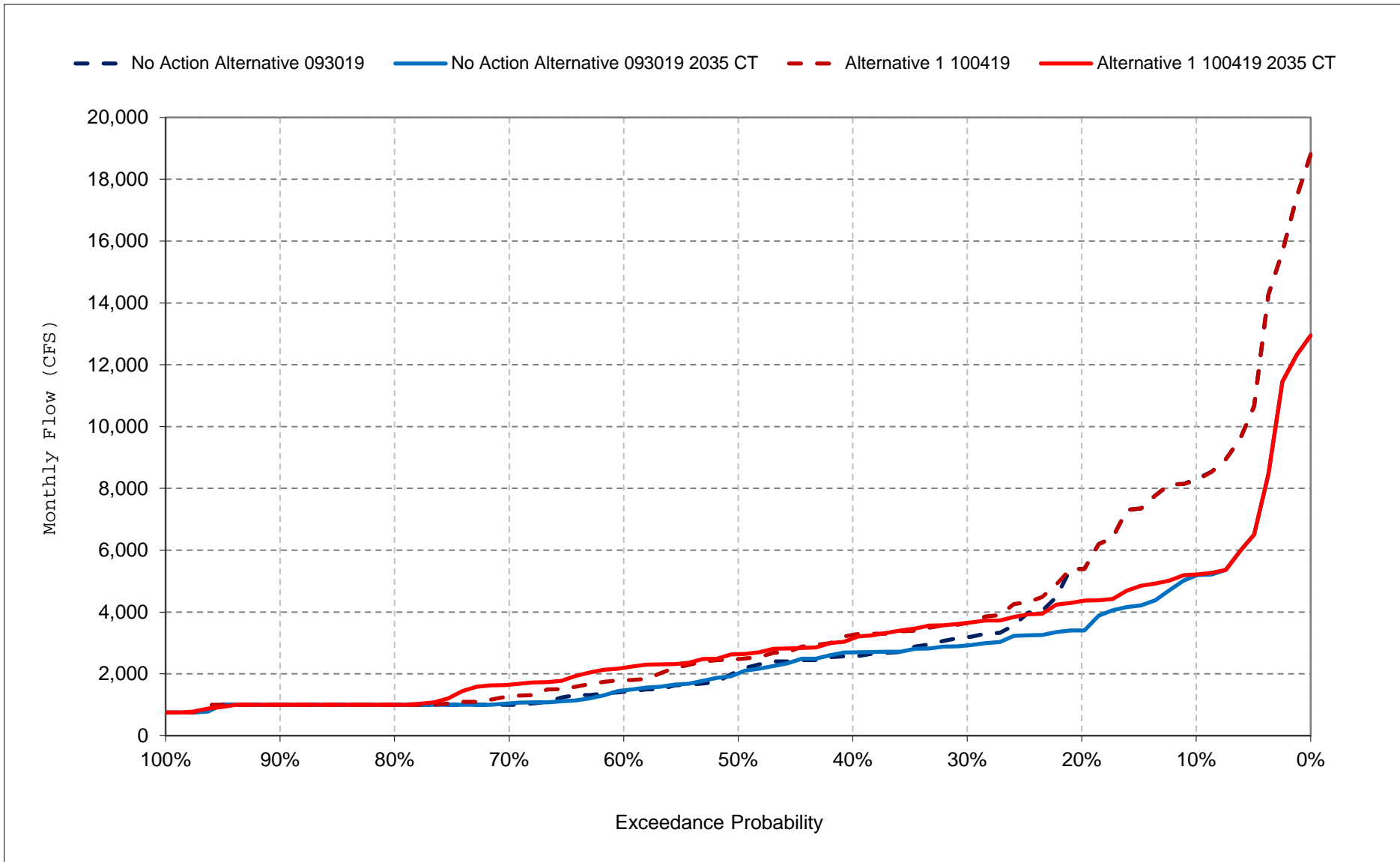
Figure 21-13. Feather River Flow downstream of Thermalito, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

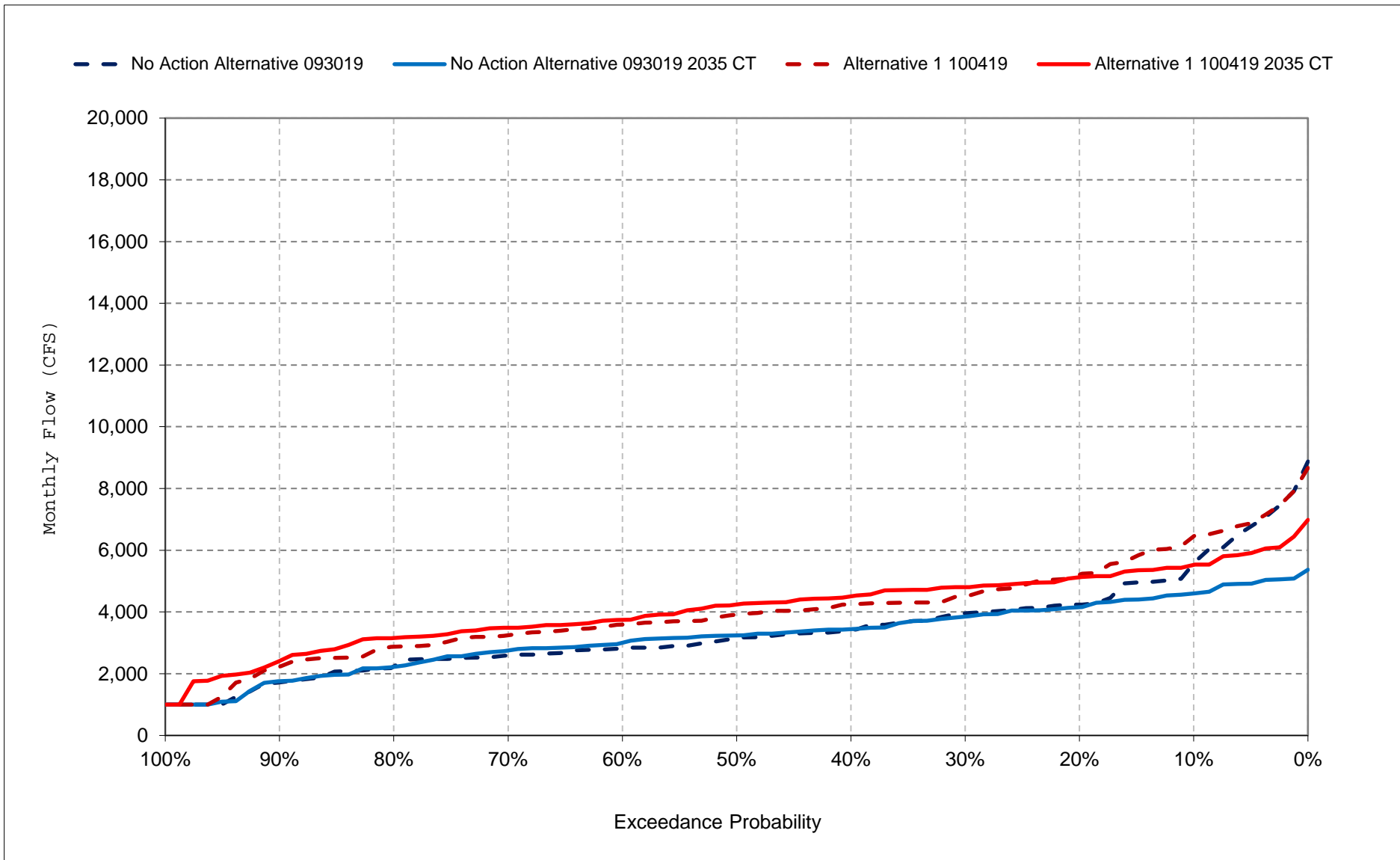
Figure 21-14. Feather River Flow downstream of Thermalito, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

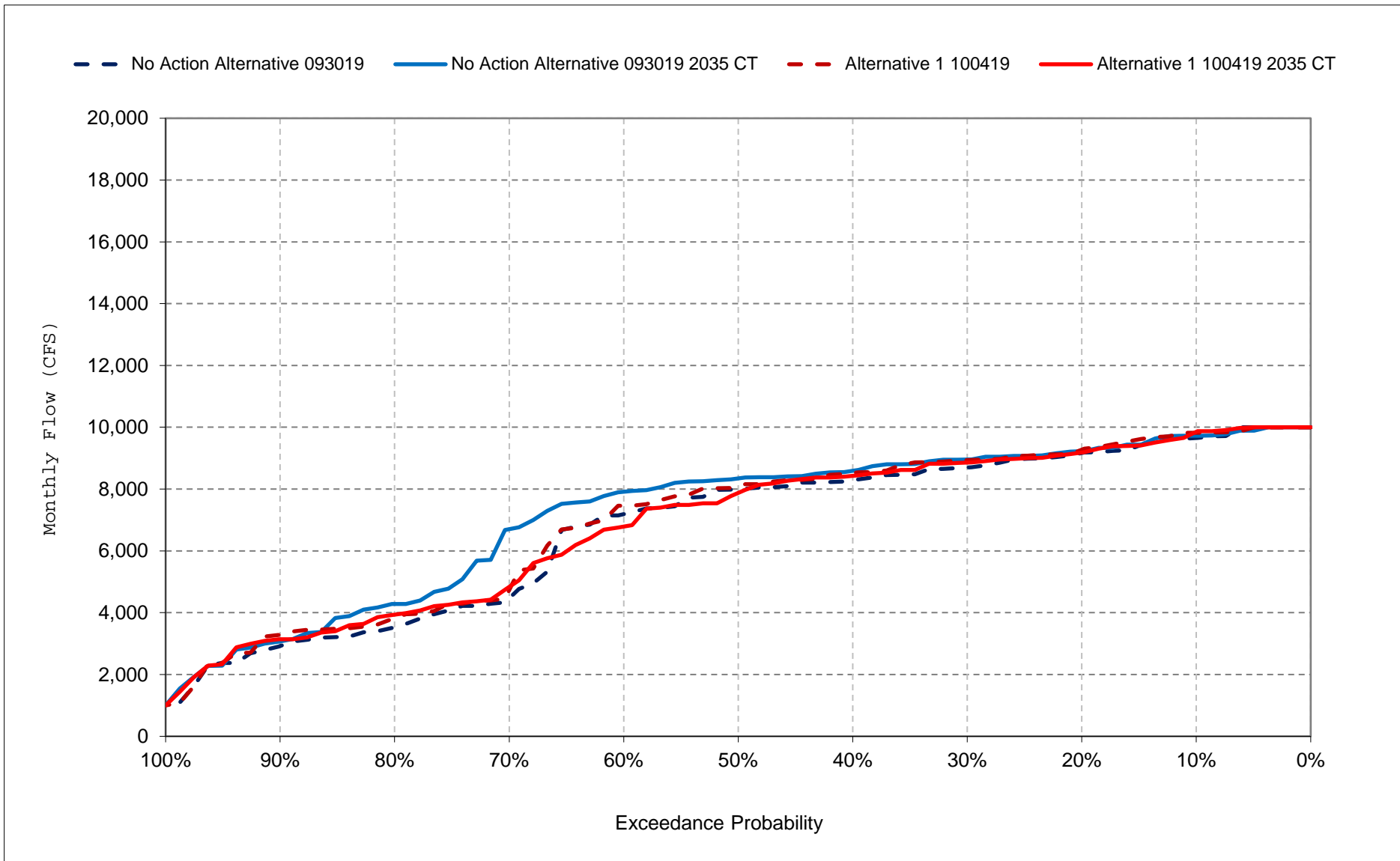
Figure 21-15. Feather River Flow downstream of Thermalito, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

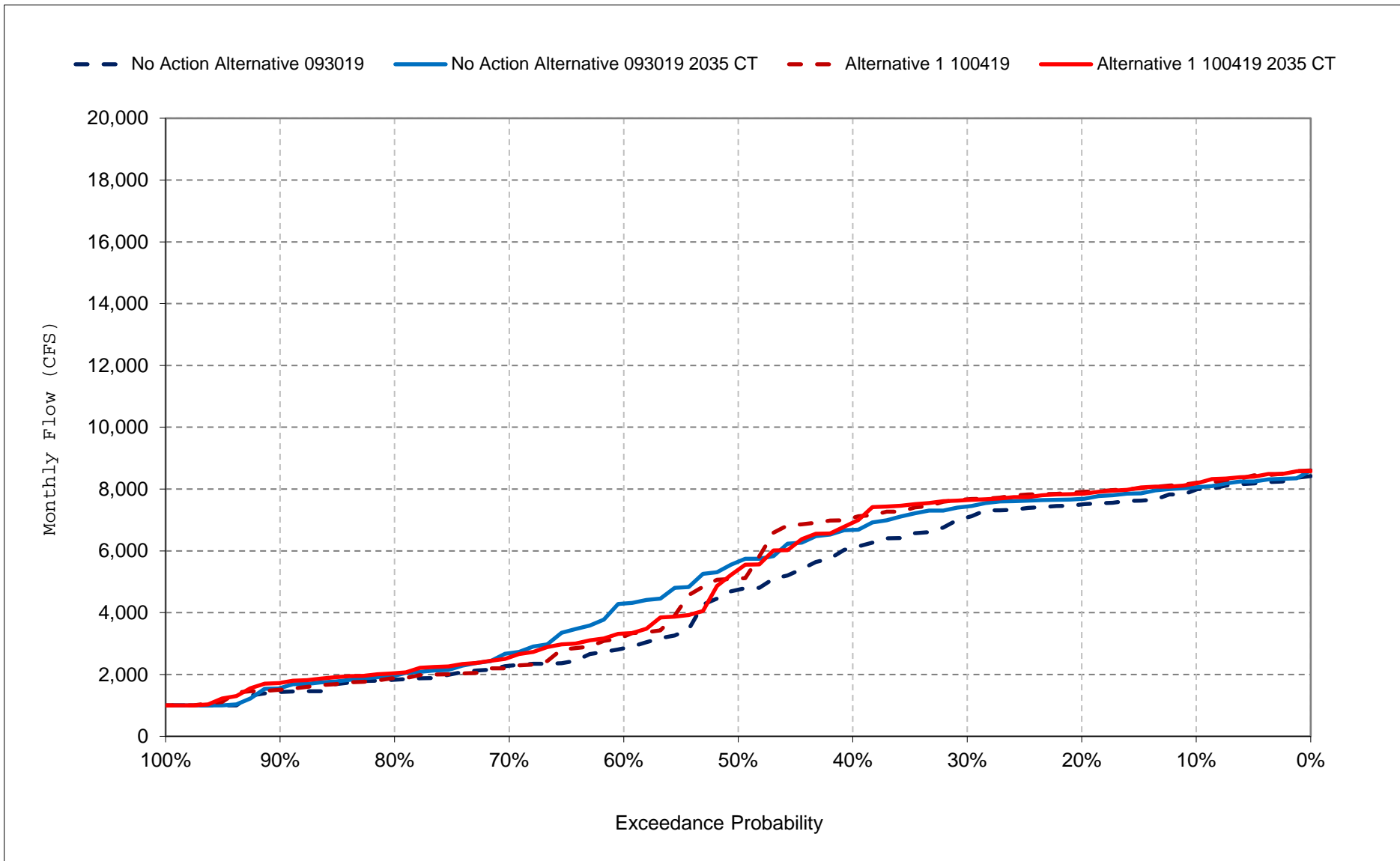
Figure 21-16. Feather River Flow downstream of Thermalito, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

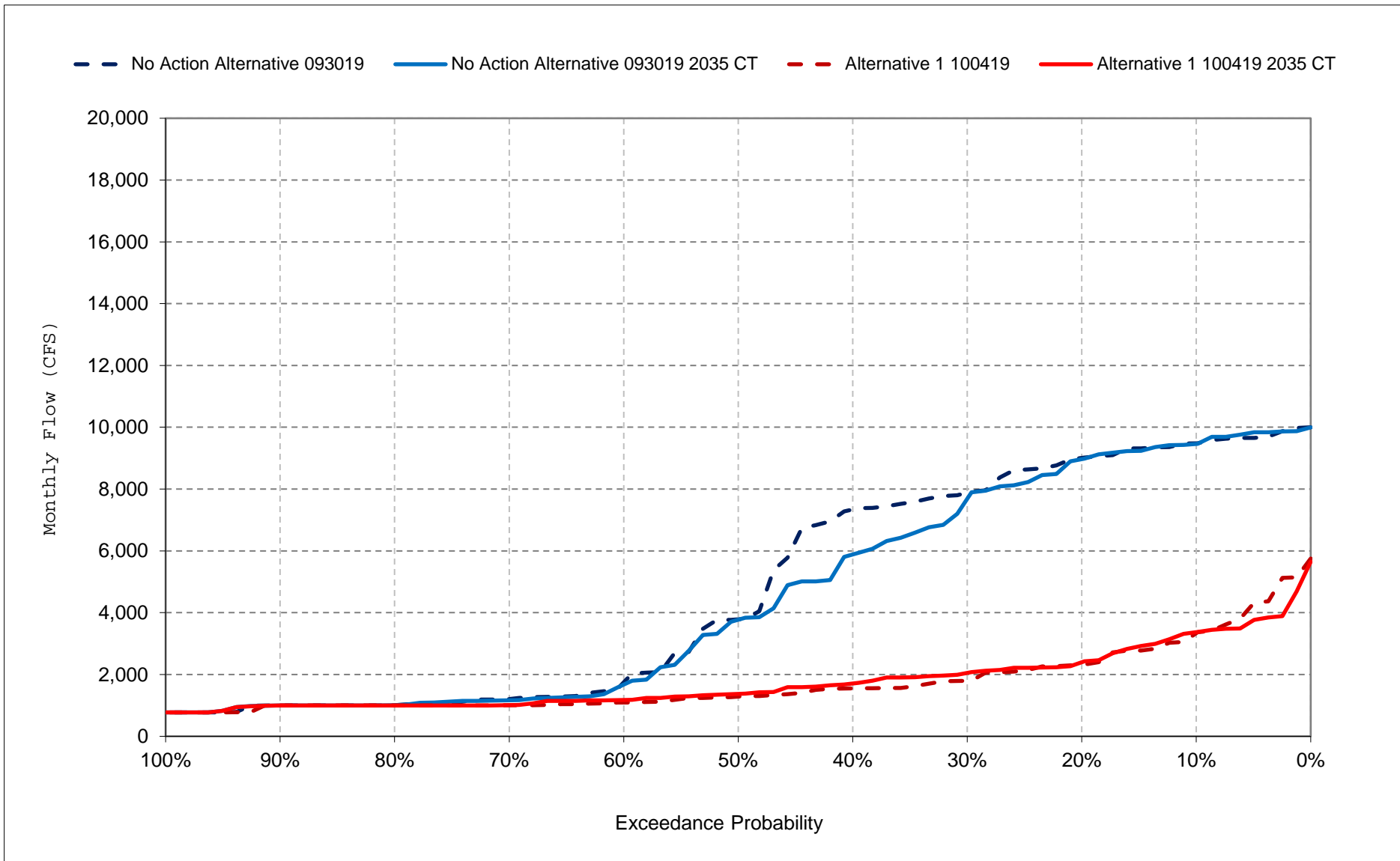
Figure 21-17. Feather River Flow downstream of Thermalito, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 21-18. Feather River Flow downstream of Thermalito, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-1. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,841	4,662	10,528	23,578	33,695	31,621	20,963	15,602	9,008	9,734	8,637	11,410
20%	4,467	3,131	6,550	16,882	24,493	21,216	11,923	10,226	6,218	9,416	8,382	11,009
30%	3,945	2,929	5,010	10,855	16,466	13,587	8,210	6,585	5,121	8,943	8,018	9,899
40%	3,420	2,571	3,865	8,535	11,070	11,523	6,523	4,917	4,579	8,673	7,243	8,954
50%	2,579	2,404	3,243	5,369	6,813	8,214	5,721	4,421	3,943	8,083	5,551	6,158
60%	2,232	2,222	2,808	4,544	5,321	5,661	4,104	4,048	3,678	7,177	3,158	3,107
70%	1,977	1,875	2,017	3,714	4,239	4,149	3,602	3,650	3,388	5,082	2,544	2,832
80%	1,730	1,587	1,717	2,904	2,682	3,230	3,027	3,061	3,133	3,183	2,418	2,609
90%	1,571	1,365	1,206	2,272	1,863	2,301	2,800	2,800	2,672	2,666	2,128	2,531
Long Term												
Full Simulation Period ^d	3,055	2,968	5,637	11,560	13,509	13,327	8,700	7,307	5,337	6,882	5,361	6,517
Water Year Types ^{b,c}												
Wet (32%)	4,179	3,815	8,315	23,745	27,631	25,039	16,022	13,871	8,218	7,862	6,919	10,813
Above Normal (16%)	3,873	3,141	4,196	11,530	13,471	18,282	9,162	5,610	3,693	8,761	8,442	9,306
Below Normal (13%)	3,114	2,600	4,245	4,186	6,827	5,784	4,598	4,474	3,624	8,723	6,289	4,261
Dry (24%)	1,896	2,928	6,172	4,373	4,915	5,508	4,578	4,086	4,637	5,775	2,556	3,092
Critical (15%)	1,612	1,349	1,783	3,927	3,398	2,530	2,965	2,887	3,615	2,883	2,475	1,968

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,295	4,667	13,075	23,855	34,046	32,487	20,965	15,604	9,459	9,866	9,050	5,757
20%	3,747	3,055	6,412	19,753	25,546	21,204	12,528	10,222	7,056	9,545	8,684	4,464
30%	3,094	2,885	5,074	11,475	17,165	16,317	8,375	6,916	5,836	9,165	8,341	3,756
40%	2,669	2,573	3,972	8,551	11,635	12,859	6,523	5,379	5,168	8,719	8,080	3,160
50%	2,410	2,405	3,353	5,372	7,517	8,334	5,724	4,917	4,899	8,161	6,598	2,987
60%	2,072	2,199	2,861	4,564	5,369	5,708	4,110	4,416	4,637	7,475	3,304	2,778
70%	1,883	1,851	1,955	3,851	4,263	4,284	3,609	3,914	4,275	5,472	2,588	2,591
80%	1,720	1,606	1,723	2,940	2,655	3,227	3,083	3,634	3,706	3,809	2,276	2,561
90%	1,595	1,323	1,207	2,435	1,985	2,298	2,800	2,823	3,090	2,859	1,976	2,355
Long Term												
Full Simulation Period ^d	2,725	2,966	6,101	12,048	14,038	13,835	8,730	7,541	5,948	7,021	5,656	3,417
Water Year Types ^{b,c}												
Wet (32%)	3,357	3,724	9,237	25,106	28,552	25,667	16,022	13,923	8,473	7,644	7,635	3,657
Above Normal (16%)	3,317	3,300	4,967	11,545	14,234	19,875	9,341	5,916	4,265	8,513	8,330	4,142
Below Normal (13%)	3,135	2,591	4,249	4,252	7,705	6,037	4,599	4,873	4,714	9,035	7,184	4,254
Dry (24%)	1,924	2,946	6,362	4,461	4,982	5,577	4,590	4,596	5,695	6,559	2,472	3,068
Critical (15%)	1,677	1,340	1,796	4,088	3,278	2,570	2,954	2,830	3,851	2,977	2,379	1,927

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-546	5	2,547	277	350	867	2	1	451	132	413	-5,653
20%	-720	-76	-138	2,871	1,054	-12	605	-4	838	128	302	-6,546
30%	-851	-44	64	620	699	2,730	165	331	715	222	323	-6,143
40%	-751	2	106	16	566	1,337	-1	463	589	47	837	-5,794
50%	-169	1	110	3	704	121	2	496	956	78	1,047	-3,171
60%	-160	-23	52	20	48	47	6	368	959	299	146	-329
70%	-94	-24	-62	137	24	135	7	263	887	389	44	-241
80%	-11	19	6	36	-27	-3	56	573	573	625	-142	-48
90%	24	-42	0	162	122	-2	0	23	418	193	-152	-176
Long Term												
Full Simulation Period ^d	-330	-2	464	488	530	508	30	234	610	139	295	-3,100
Water Year Types ^{b,c}												
Wet (32%)	-822	-90	922	1,361	922	628	-1	51	255	-218	716	-7,156
Above Normal (16%)	-555	159	772	15	763	1,593	179	305	572	-248	-113	-5,164
Below Normal (13%)	21	-10	4	66	878	253	1	399	1,090	312	896	-6
Dry (24%)	28	18	190	88	66	69	12	510	1,057	785	-84	-24
Critical (15%)	65	-8	13	161	-120	39	-10	-58	236	94	-96	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 22-2. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,865	4,077	13,885	28,912	36,345	32,935	20,705	10,643	6,826	9,859	8,700	11,404
20%	4,179	3,056	5,957	20,670	27,796	25,368	12,646	7,502	5,558	9,566	8,481	10,986
30%	3,807	2,881	4,921	12,858	16,607	17,955	9,242	4,861	4,672	9,206	8,200	9,396
40%	2,745	2,658	4,578	8,825	12,505	14,251	6,471	4,438	4,406	8,982	7,677	7,677
50%	2,407	2,298	3,287	6,111	8,443	8,978	5,362	3,709	4,005	8,718	6,903	5,447
60%	2,208	2,134	2,407	5,076	6,425	6,842	4,227	3,202	3,527	8,191	4,224	3,229
70%	1,909	1,982	1,958	3,909	4,749	5,119	3,649	2,914	3,187	6,342	2,843	2,810
80%	1,778	1,700	1,701	3,195	3,218	3,955	3,290	2,800	2,958	3,956	2,267	2,613
90%	1,460	1,412	1,069	2,526	2,102	2,401	2,800	2,267	2,378	2,863	1,957	2,482
Long Term												
Full Simulation Period ^d	2,906	2,911	5,847	12,975	15,412	15,479	9,039	5,622	4,497	7,351	5,647	6,250
Water Year Types ^{b,c}												
Wet (32%)	4,185	3,858	8,772	26,423	31,082	28,655	16,583	9,855	5,712	8,137	7,240	10,180
Above Normal (16%)	3,164	2,963	4,285	13,283	16,160	21,828	9,221	3,868	3,278	9,226	8,372	8,846
Below Normal (13%)	2,939	2,422	4,406	5,188	8,208	6,940	4,915	4,181	3,681	8,932	6,172	4,269
Dry (24%)	1,957	2,831	6,293	4,838	5,653	6,533	4,908	3,742	4,447	6,520	3,470	3,122
Critical (15%)	1,406	1,382	1,780	4,200	3,516	2,790	3,159	2,802	4,017	3,550	2,394	1,957

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,294	4,117	13,664	29,313	36,459	37,159	20,706	10,646	7,617	9,779	9,214	5,460
20%	3,738	3,046	5,894	22,870	30,608	25,368	12,641	7,494	6,202	9,483	8,597	4,466
30%	3,220	2,877	4,846	13,258	18,874	20,070	9,239	5,942	5,869	9,143	8,247	3,821
40%	2,756	2,628	4,450	8,911	14,679	14,823	6,471	5,103	5,253	8,780	7,631	3,405
50%	2,489	2,317	3,475	6,131	8,461	9,692	5,352	4,350	5,020	8,153	5,724	3,075
60%	2,183	2,148	2,486	5,075	6,428	6,928	4,228	3,980	4,896	6,982	3,768	2,838
70%	1,915	1,979	2,021	3,909	4,829	5,159	3,652	3,371	4,487	5,070	3,001	2,727
80%	1,777	1,667	1,702	3,329	3,216	4,139	3,249	2,977	3,877	3,525	2,448	2,579
90%	1,432	1,412	1,070	2,497	2,084	2,667	2,800	2,770	3,412	2,878	1,988	2,476
Long Term												
Full Simulation Period ^d	2,730	2,954	6,218	13,537	16,013	15,909	9,041	6,020	5,370	6,978	5,615	3,438
Water Year Types ^{b,c}												
Wet (32%)	3,498	3,842	9,311	28,050	31,724	28,942	16,584	10,218	6,386	7,213	7,509	9,395
Above Normal (16%)	3,263	3,205	5,090	13,442	17,378	23,484	9,214	4,407	4,211	8,472	7,972	4,140
Below Normal (13%)	3,099	2,404	4,408	5,287	9,673	7,355	4,924	4,939	5,089	8,898	6,433	3,767
Dry (24%)	1,970	2,878	6,589	4,891	5,685	6,607	4,923	4,120	5,531	6,784	3,170	3,052
Critical (15%)	1,415	1,392	1,781	4,166	3,516	2,807	3,148	2,831	4,414	3,409	2,283	1,940

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-571	40	-221	401	114	4,224	1	3	791	-80	513	-5,944
20%	-442	-9	-62	2,200	2,812	1	-5	-8	645	-84	116	-6,520
30%	-587	-4	-75	400	2,266	2,115	-3	1,081	1,198	-62	47	-5,575
40%	11	-30	-127	86	2,175	572	0	666	847	-201	-46	-4,272
50%	82	19	189	20	18	714	-10	641	1,014	-565	-1,178	-2,372
60%	-25	14	79	-1	3	85	1	778	1,370	-1,209	-456	-390
70%	6	-3	63	0	79	41	3	457	1,300	-1,272	157	-82
80%	-1	-33	0	134	-3	185	-41	177	919	-430	181	-34
90%	-28	0	0	-29	-18	266	0	503	1,034	15	30	-6
Long Term												
Full Simulation Period ^d	-176	44	371	562	601	430	3	398	873	-373	-32	-2,813
Water Year Types ^{b,c}												
Wet (32%)	-687	-16	539	1,627	642	287	1	363	674	-924	270	-6,245
Above Normal (16%)	99	242	805	159	1,218	1,656	-7	539	934	-754	-401	-4,705
Below Normal (13%)	160	-18	2	99	1,465	414	9	757	1,409	-34	262	-502
Dry (24%)	13	47	296	52	33	74	15	378	1,084	264	-300	-70
Critical (15%)	8	10	1	-34	0	17	-11	29	397	-141	-111	-17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-3. Feather River at Sacramento River Confluence Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,841	4,662	10,528	23,578	33,695	31,621	20,963	15,602	9,008	9,734	8,637	11,410
20%	4,467	3,131	6,550	16,882	24,493	21,216	11,923	10,226	6,218	9,416	8,382	11,009
30%	3,945	2,929	5,010	10,855	16,466	13,587	8,210	6,585	5,121	8,943	8,018	9,899
40%	3,420	2,571	3,865	8,535	11,070	11,523	6,523	4,917	4,579	8,673	7,243	8,954
50%	2,579	2,404	3,243	5,369	6,813	8,214	5,721	4,421	3,943	8,083	5,551	6,158
60%	2,232	2,222	2,808	4,544	5,321	5,661	4,104	4,048	3,678	7,177	3,158	3,107
70%	1,977	1,875	2,017	3,714	4,239	4,149	3,602	3,650	3,388	5,082	2,544	2,832
80%	1,730	1,587	1,717	2,904	2,682	3,230	3,027	3,061	3,133	3,183	2,418	2,609
90%	1,571	1,365	1,206	2,272	1,863	2,301	2,800	2,800	2,672	2,666	2,128	2,531
Long Term												
Full Simulation Period ^d	3,055	2,968	5,637	11,560	13,509	13,327	8,700	7,307	5,337	6,882	5,361	6,517
Water Year Types ^{b,c}												
Wet (32%)	4,179	3,815	8,315	23,745	27,631	25,039	16,022	13,871	8,218	7,862	6,919	10,813
Above Normal (16%)	3,873	3,141	4,196	11,530	13,471	18,282	9,162	5,610	3,693	8,761	8,442	9,306
Below Normal (13%)	3,114	2,600	4,245	4,186	6,827	5,784	4,598	4,474	3,624	8,723	6,289	4,261
Dry (24%)	1,896	2,928	6,172	4,373	4,915	5,508	4,578	4,086	4,637	5,775	2,556	3,092
Critical (15%)	1,612	1,349	1,783	3,927	3,398	2,530	2,965	2,887	3,615	2,883	2,475	1,968

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,865	4,077	13,885	28,912	36,345	32,935	20,705	10,643	6,826	9,859	8,700	11,404
20%	4,179	3,056	5,957	20,670	27,796	25,368	12,646	7,502	5,558	9,566	8,481	10,986
30%	3,807	2,881	4,921	12,858	16,607	17,955	9,242	4,861	4,672	9,206	8,200	9,396
40%	2,745	2,658	4,578	8,825	12,505	14,251	6,471	4,438	4,406	8,982	7,677	7,677
50%	2,407	2,298	3,287	6,111	8,443	8,978	5,362	3,709	4,005	8,718	6,903	5,447
60%	2,208	2,134	2,407	5,076	6,425	6,842	4,227	3,202	3,527	8,191	4,224	3,229
70%	1,909	1,982	1,958	3,909	4,749	5,119	3,649	2,914	3,187	6,342	2,843	2,810
80%	1,778	1,700	1,701	3,195	3,218	3,955	3,290	2,800	2,958	3,956	2,267	2,613
90%	1,460	1,412	1,069	2,526	2,102	2,401	2,800	2,267	2,378	2,863	1,957	2,482
Long Term												
Full Simulation Period ^d	2,906	2,911	5,847	12,975	15,412	15,479	9,039	5,622	4,497	7,351	5,647	6,250
Water Year Types ^{b,c}												
Wet (32%)	4,185	3,858	8,772	26,423	31,082	28,655	16,583	9,855	5,712	8,137	7,240	10,180
Above Normal (16%)	3,164	2,963	4,285	13,283	16,160	21,828	9,221	3,868	3,278	9,226	8,372	8,846
Below Normal (13%)	2,939	2,422	4,406	5,188	8,208	6,940	4,915	4,181	3,681	8,932	6,172	4,269
Dry (24%)	1,957	2,831	6,293	4,838	5,653	6,533	4,908	3,742	4,447	6,520	3,470	3,122
Critical (15%)	1,406	1,382	1,780	4,200	3,516	2,790	3,159	2,802	4,017	3,550	2,394	1,957

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	24	-586	3,357	5,334	2,649	1,314	-258	-4,959	-2,182	125	64	-6
20%	-288	-76	-593	3,789	3,303	4,151	723	-2,724	-660	150	99	-24
30%	-138	-48	-89	2,003	142	4,368	1,031	-1,724	-449	263	182	-503
40%	-676	87	712	290	1,435	2,728	-52	-479	-173	309	433	-1,276
50%	-171	-106	44	742	1,630	765	-360	-712	62	635	1,351	-711
60%	-24	-88	-401	532	1,104	1,181	124	-846	-151	1,014	1,067	121
70%	-69	107	-59	195	510	969	47	-737	-200	1,260	300	-22
80%	48	113	-16	290	536	725	263	-261	-175	772	-151	4
90%	-111	47	-137	253	239	100	0	-533	-294	197	-171	-48
Long Term												
Full Simulation Period ^d	-149	-57	210	1,415	1,903	2,152	339	-1,685	-840	468	286	-267
Water Year Types ^{b,c}												
Wet (32%)	7	44	457	2,678	3,451	3,616	561	-4,016	-2,506	275	321	-633
Above Normal (16%)	-708	-178	90	1,753	2,689	3,546	59	-1,742	-416	465	-70	-460
Below Normal (13%)	-176	-179	161	1,002	1,381	1,156	318	-292	56	209	-117	8
Dry (24%)	61	-97	121	466	737	1,025	330	-343	-190	746	914	29
Critical (15%)	-205	33	-3	273	118	260	194	-85	402	667	-81	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 22-4. Feather River at Sacramento River Confluence Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,295	4,667	13,075	23,855	34,046	32,487	20,965	15,604	9,459	9,866	9,050	5,757
20%	3,747	3,055	6,412	19,753	25,546	21,204	12,528	10,222	7,056	9,545	8,684	4,464
30%	3,094	2,885	5,074	11,475	17,165	16,317	8,375	6,916	5,836	9,165	8,341	3,756
40%	2,669	2,573	3,972	8,551	11,635	12,859	6,523	5,379	5,168	8,719	8,080	3,160
50%	2,410	2,405	3,353	5,372	7,517	8,334	5,724	4,917	4,899	8,161	6,598	2,987
60%	2,072	2,199	2,861	4,564	5,369	5,708	4,110	4,416	4,637	7,475	3,304	2,778
70%	1,883	1,851	1,955	3,851	4,263	4,284	3,609	3,914	4,275	5,472	2,588	2,591
80%	1,720	1,606	1,723	2,940	2,655	3,227	3,083	3,634	3,706	3,809	2,276	2,561
90%	1,595	1,323	1,207	2,435	1,985	2,298	2,800	2,823	3,090	2,859	1,976	2,355
Long Term												
Full Simulation Period ^d	2,725	2,966	6,101	12,048	14,038	13,835	8,730	7,541	5,948	7,021	5,656	3,417
Water Year Types ^{b,c}												
Wet (32%)	3,357	3,724	9,237	25,106	28,552	25,667	16,022	13,923	8,473	7,644	7,635	3,657
Above Normal (16%)	3,317	3,300	4,967	11,545	14,234	19,875	9,341	5,916	4,265	8,513	8,330	4,142
Below Normal (13%)	3,135	2,591	4,249	4,252	7,705	6,037	4,599	4,873	4,714	9,035	7,184	4,254
Dry (24%)	1,924	2,946	6,362	4,461	4,982	5,577	4,590	4,596	5,695	6,559	2,472	3,068
Critical (15%)	1,677	1,340	1,796	4,088	3,278	2,570	2,954	2,830	3,851	2,977	2,379	1,927

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,294	4,117	13,664	29,313	36,459	37,159	20,706	10,646	7,617	9,779	9,214	5,460
20%	3,738	3,046	5,894	22,870	30,608	25,368	12,641	7,494	6,202	9,483	8,597	4,466
30%	3,220	2,877	4,846	13,258	18,874	20,070	9,239	5,942	5,869	9,143	8,247	3,821
40%	2,756	2,628	4,450	8,911	14,679	14,823	6,471	5,103	5,253	8,780	7,631	3,405
50%	2,489	2,317	3,475	6,131	8,461	9,692	5,352	4,350	5,020	8,153	5,724	3,075
60%	2,183	2,148	2,486	5,075	6,428	6,928	4,228	3,980	4,896	6,982	3,768	2,838
70%	1,915	1,979	2,021	3,909	4,829	5,159	3,652	3,371	4,487	5,070	3,001	2,727
80%	1,777	1,667	1,702	3,329	3,216	4,139	3,249	2,977	3,877	3,525	2,448	2,579
90%	1,432	1,412	1,070	2,497	2,084	2,667	2,800	2,770	3,412	2,878	1,988	2,476
Long Term												
Full Simulation Period ^d	2,730	2,954	6,218	13,537	16,013	15,909	9,041	6,020	5,370	6,978	5,615	3,438
Water Year Types ^{b,c}												
Wet (32%)	3,498	3,842	9,311	28,050	31,724	28,942	16,584	10,218	6,386	7,213	7,509	3,935
Above Normal (16%)	3,263	3,205	5,090	13,442	17,378	23,484	9,214	4,407	4,211	8,472	7,972	4,140
Below Normal (13%)	3,099	2,404	4,408	5,287	9,673	7,355	4,924	4,939	5,089	8,898	6,433	3,767
Dry (24%)	1,970	2,878	6,589	4,891	5,685	6,607	4,923	4,120	5,531	6,784	3,170	3,052
Critical (15%)	1,415	1,392	1,781	4,166	3,516	2,807	3,148	2,831	4,414	3,409	2,283	1,940

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-550	589	5,458	2,413	4,672	-259	-4,958	-1,842	-88	164	-297
20%	-9	-9	-517	3,117	5,062	4,164	113	-2,728	-853	-62	-87	2
30%	126	-8	-228	1,783	1,709	3,754	864	-974	34	-22	-94	64
40%	87	55	479	360	3,044	1,964	-52	-276	85	61	-449	245
50%	79	-88	123	760	944	1,358	-372	-567	120	-8	-874	88
60%	111	-51	-375	510	1,059	1,220	118	-436	260	-494	465	60
70%	32	128	66	58	565	875	43	-543	212	-402	413	136
80%	58	61	-21	388	561	912	166	-657	171	-284	172	19
90%	-163	89	-137	62	99	368	0	-53	322	18	12	121
Long Term												
Full Simulation Period ^d	4	-12	117	1,489	1,975	2,073	312	-1,521	-577	-43	-41	20
Water Year Types ^{b,c}												
Wet (32%)	142	118	73	2,944	3,172	3,275	563	-3,705	-2,087	-431	-125	278
Above Normal (16%)	-54	-95	123	1,897	3,144	3,609	-128	-1,509	-54	-41	-358	-1
Below Normal (13%)	-36	-187	159	1,035	1,968	1,318	326	66	375	-137	-751	-487
Dry (24%)	46	-68	227	430	703	1,030	334	-476	-163	225	697	-17
Critical (15%)	-262	51	-15	77	238	238	193	2	564	432	-96	13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

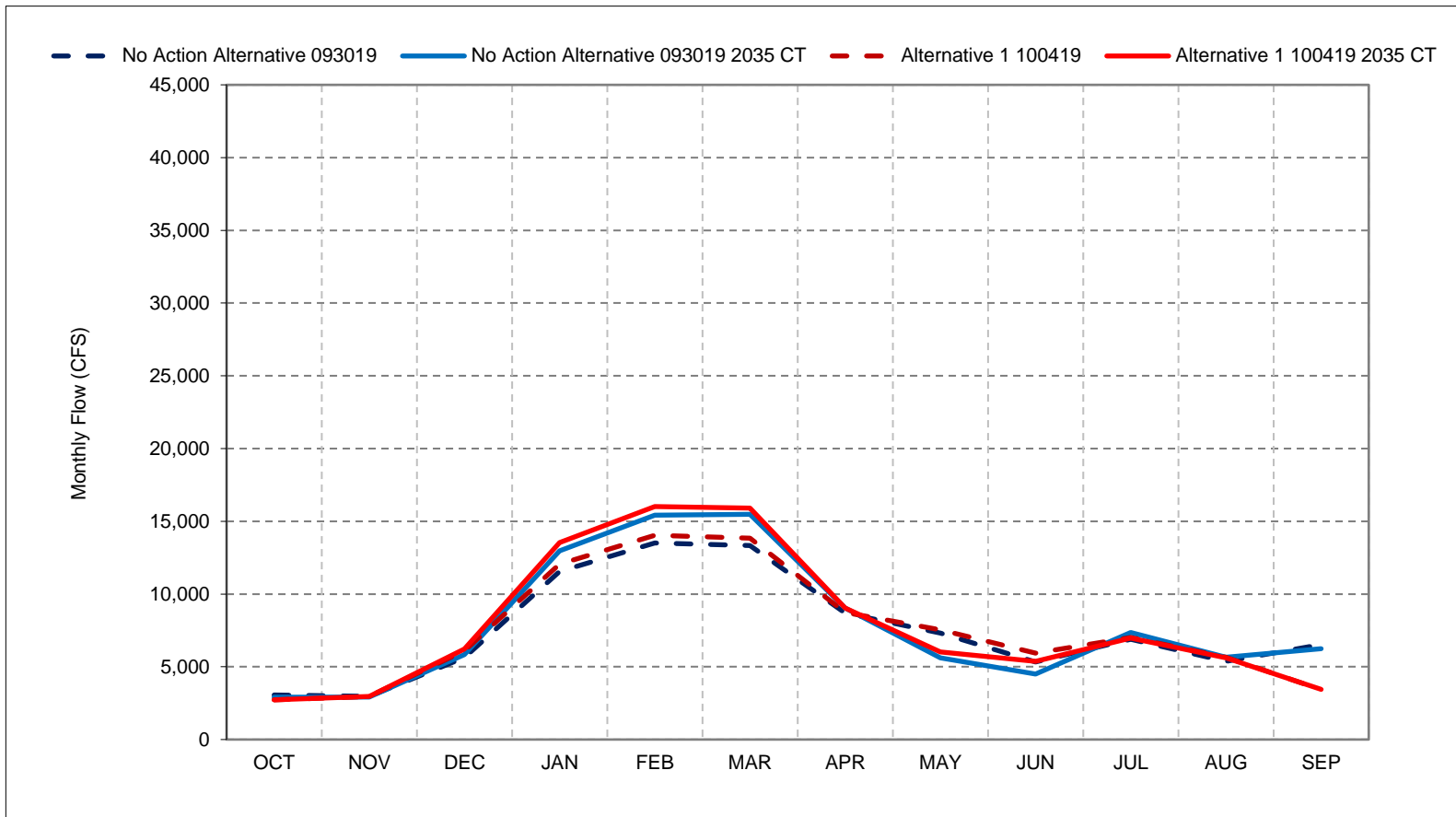
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 22-1. Feather River at Sacramento River Confluence Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

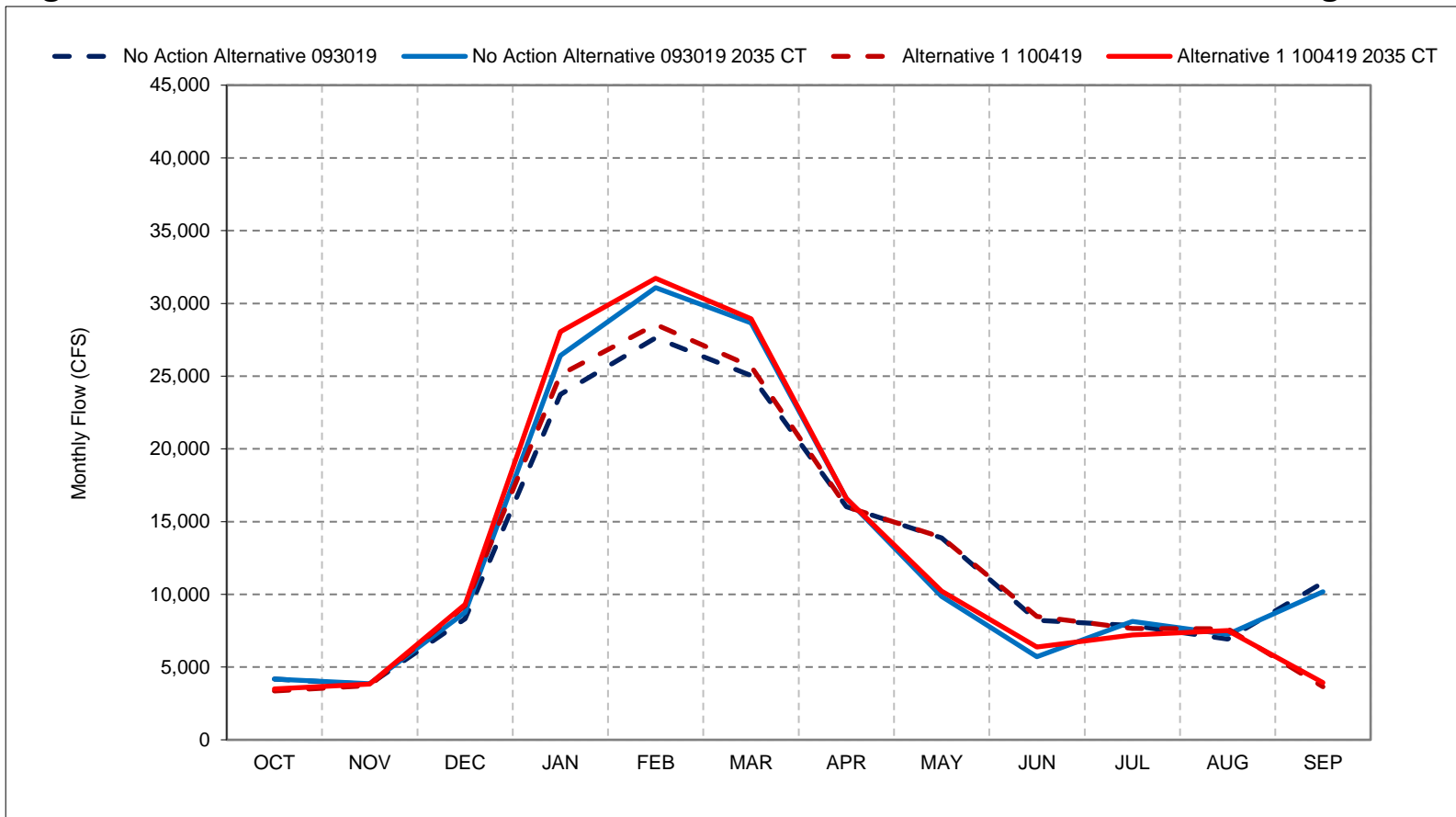
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-2. Feather River at Sacramento River Confluence Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

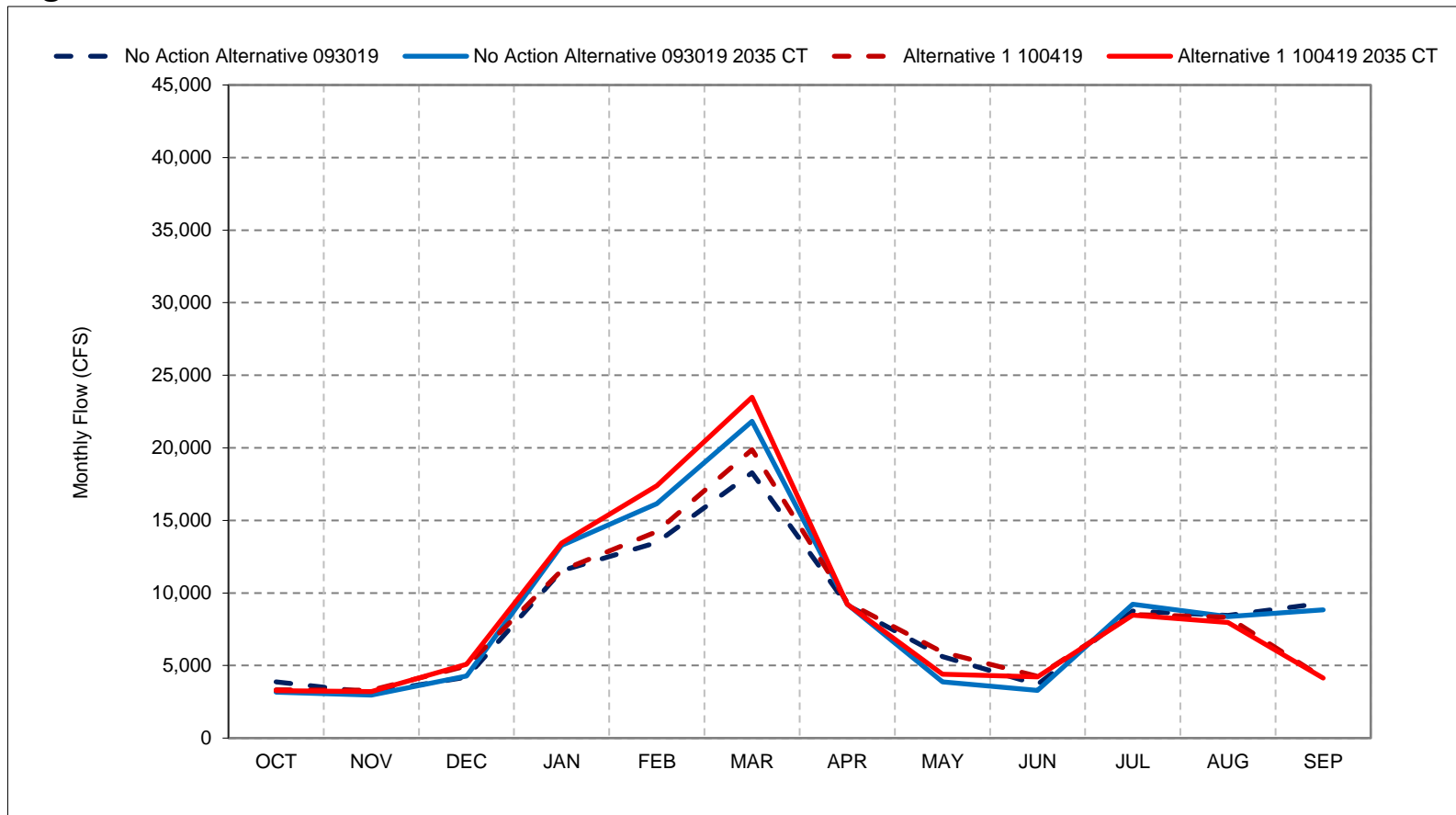
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-3. Feather River at Sacramento River Confluence Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

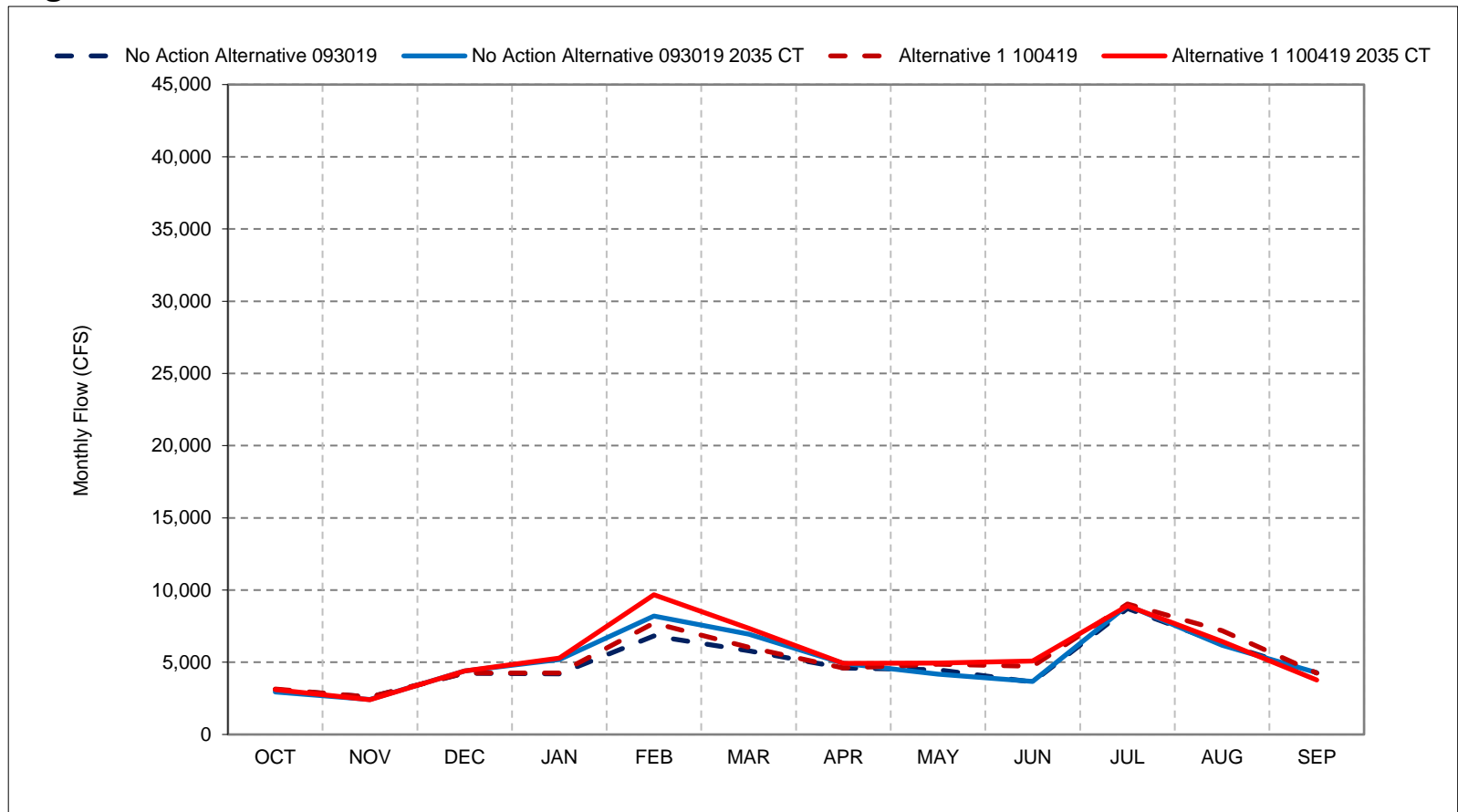
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-4. Feather River at Sacramento River Confluence Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

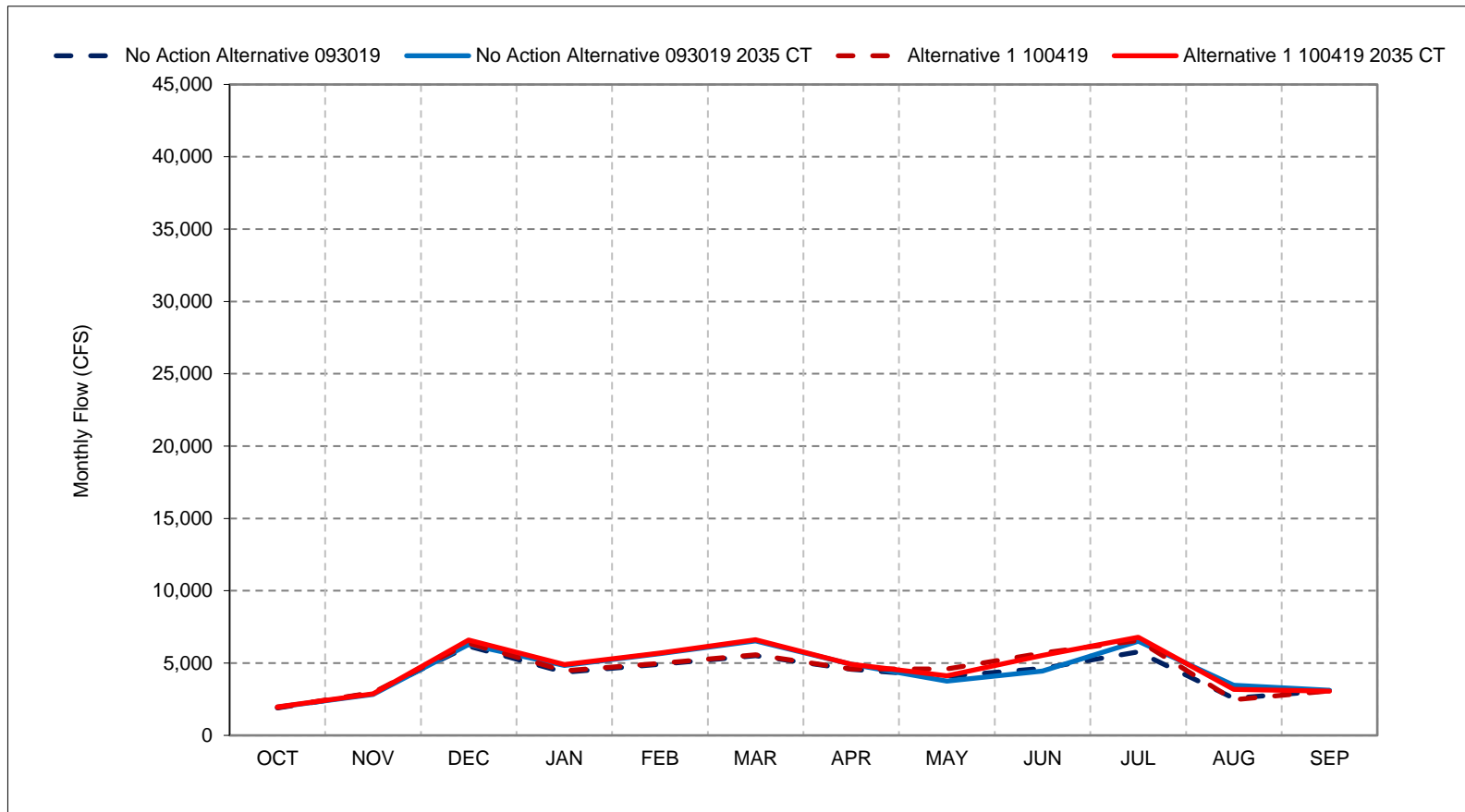
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-5. Feather River at Sacramento River Confluence Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

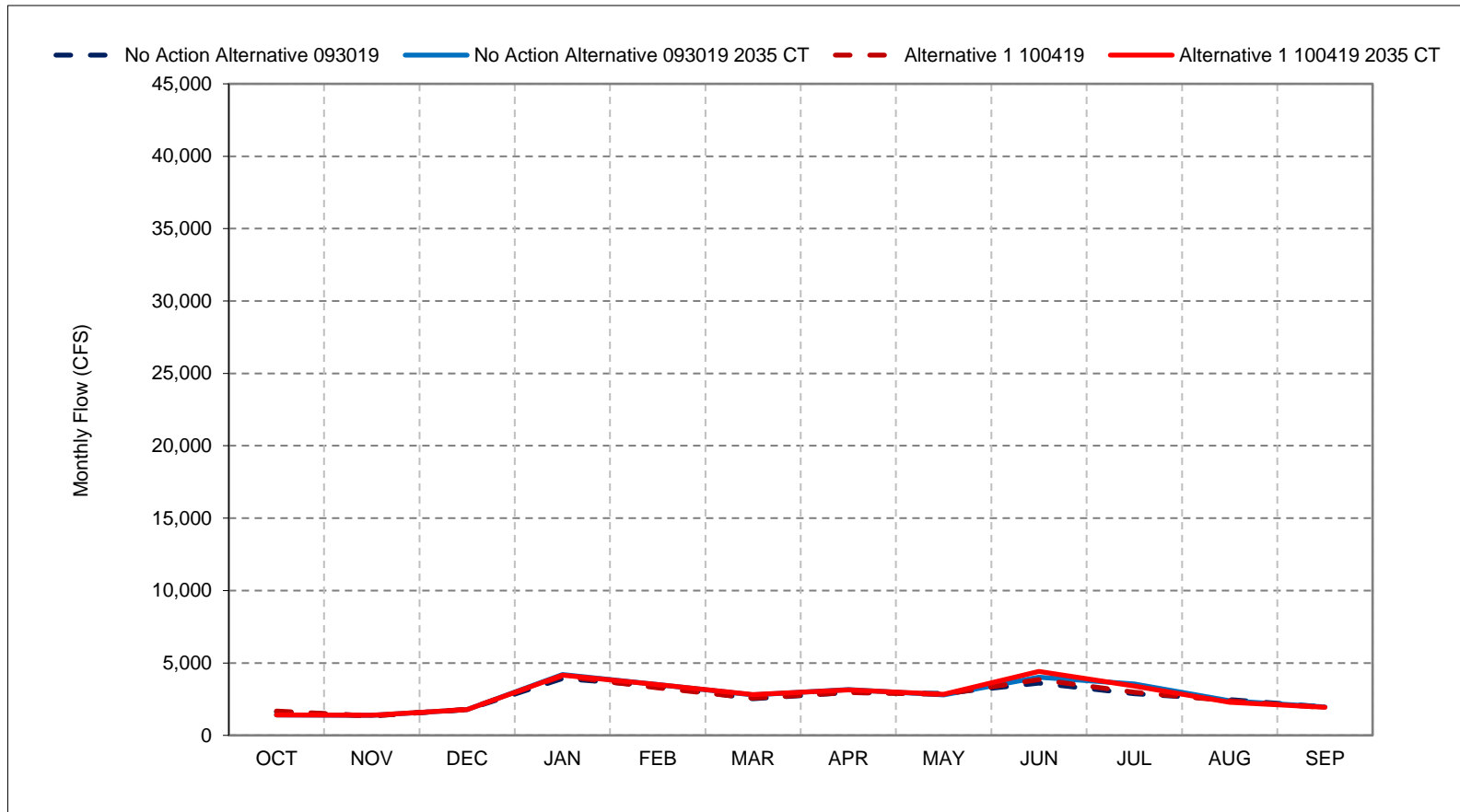
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 22-6. Feather River at Sacramento River Confluence Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

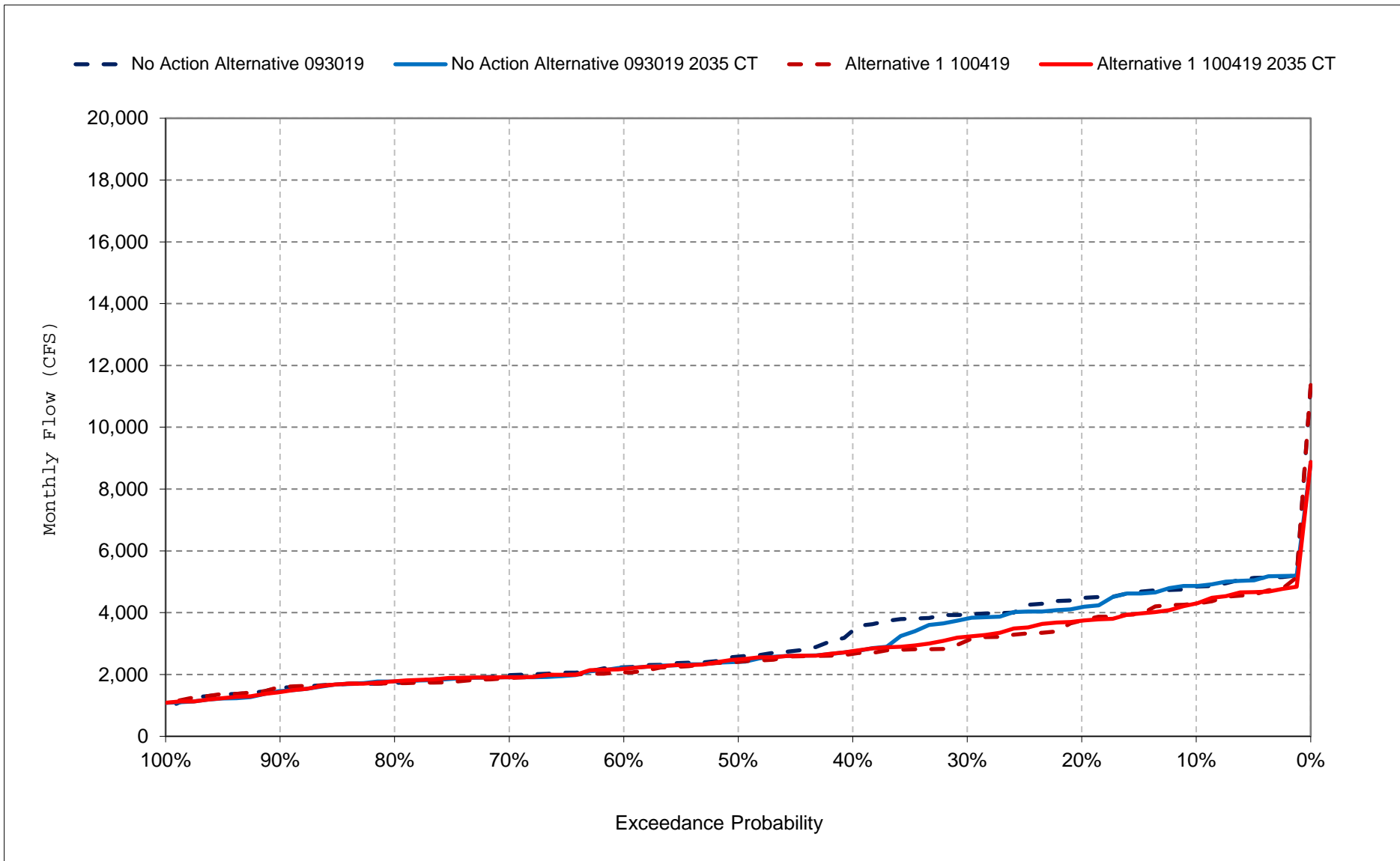
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

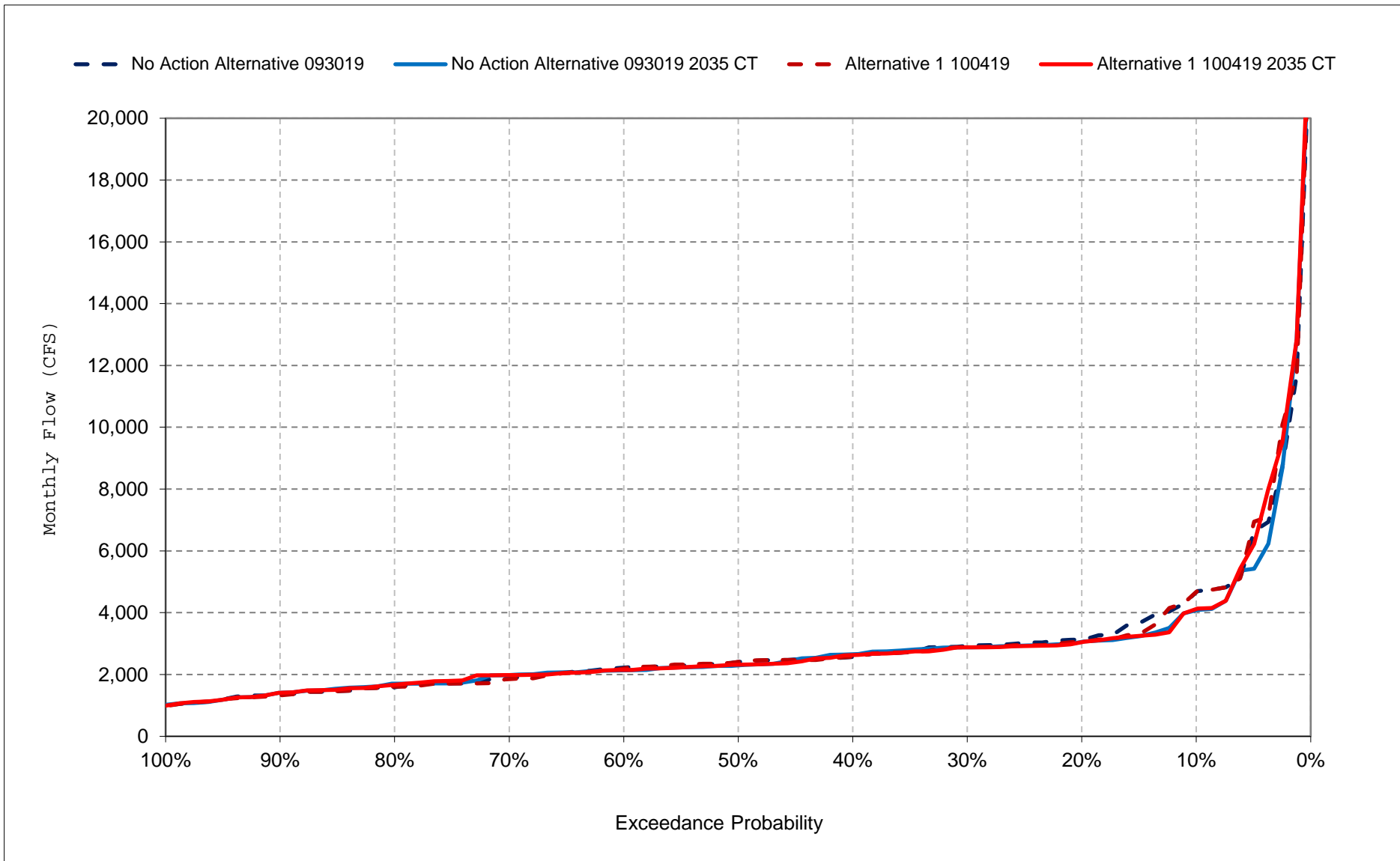
Figure 22-7. Feather River at Sacramento River Confluence Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

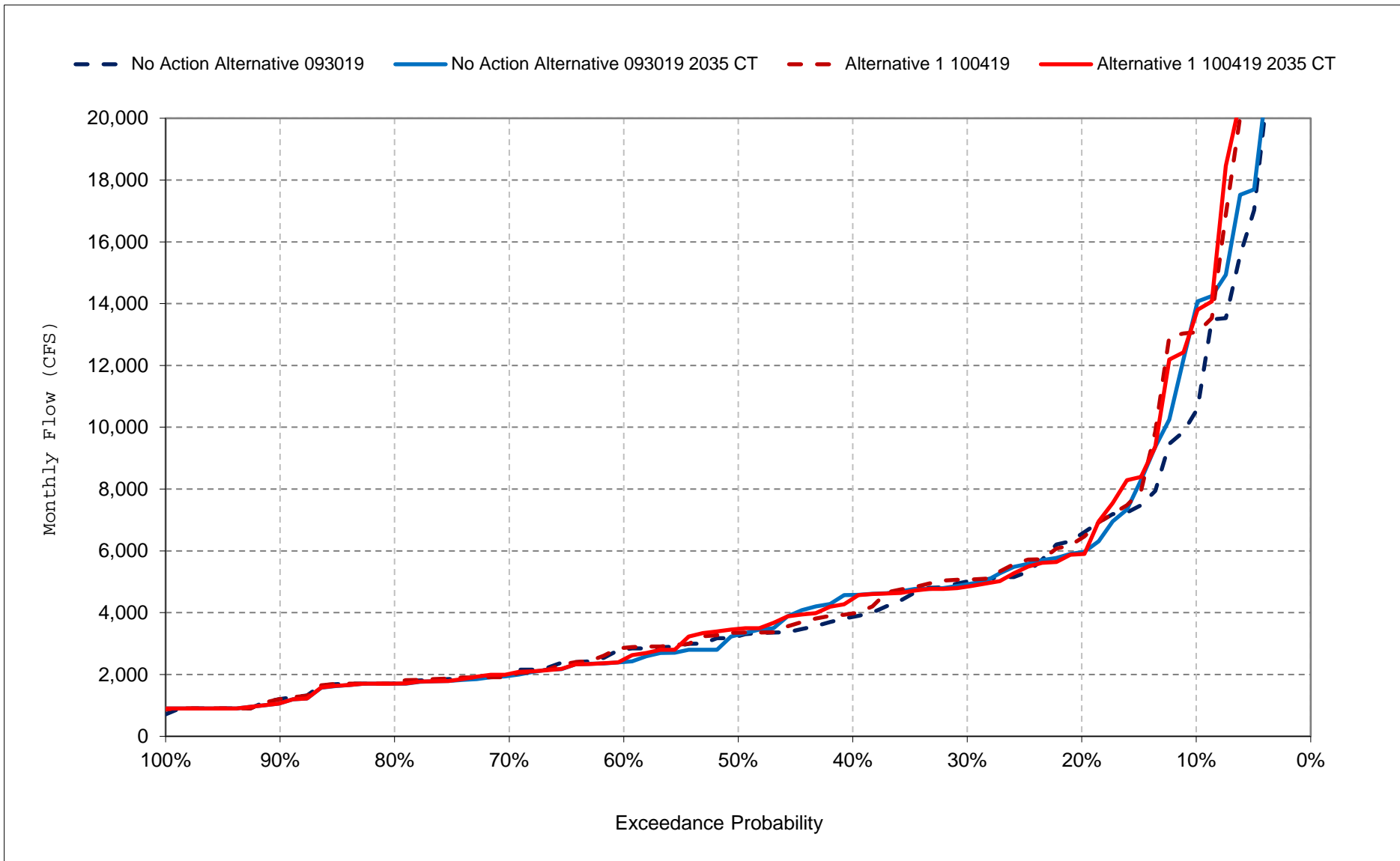
Figure 22-8. Feather River at Sacramento River Confluence Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

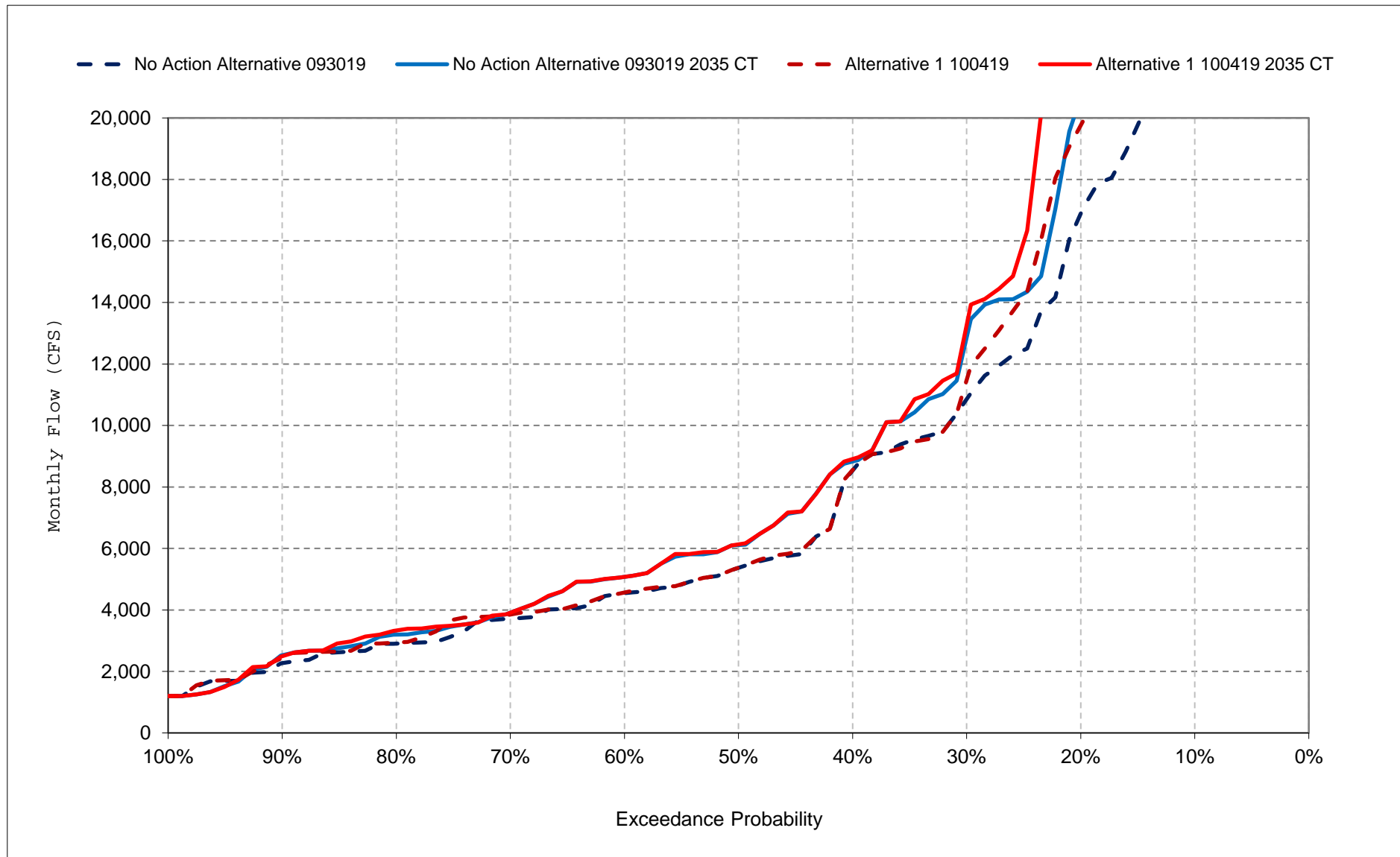
Figure 22-9. Feather River at Sacramento River Confluence Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

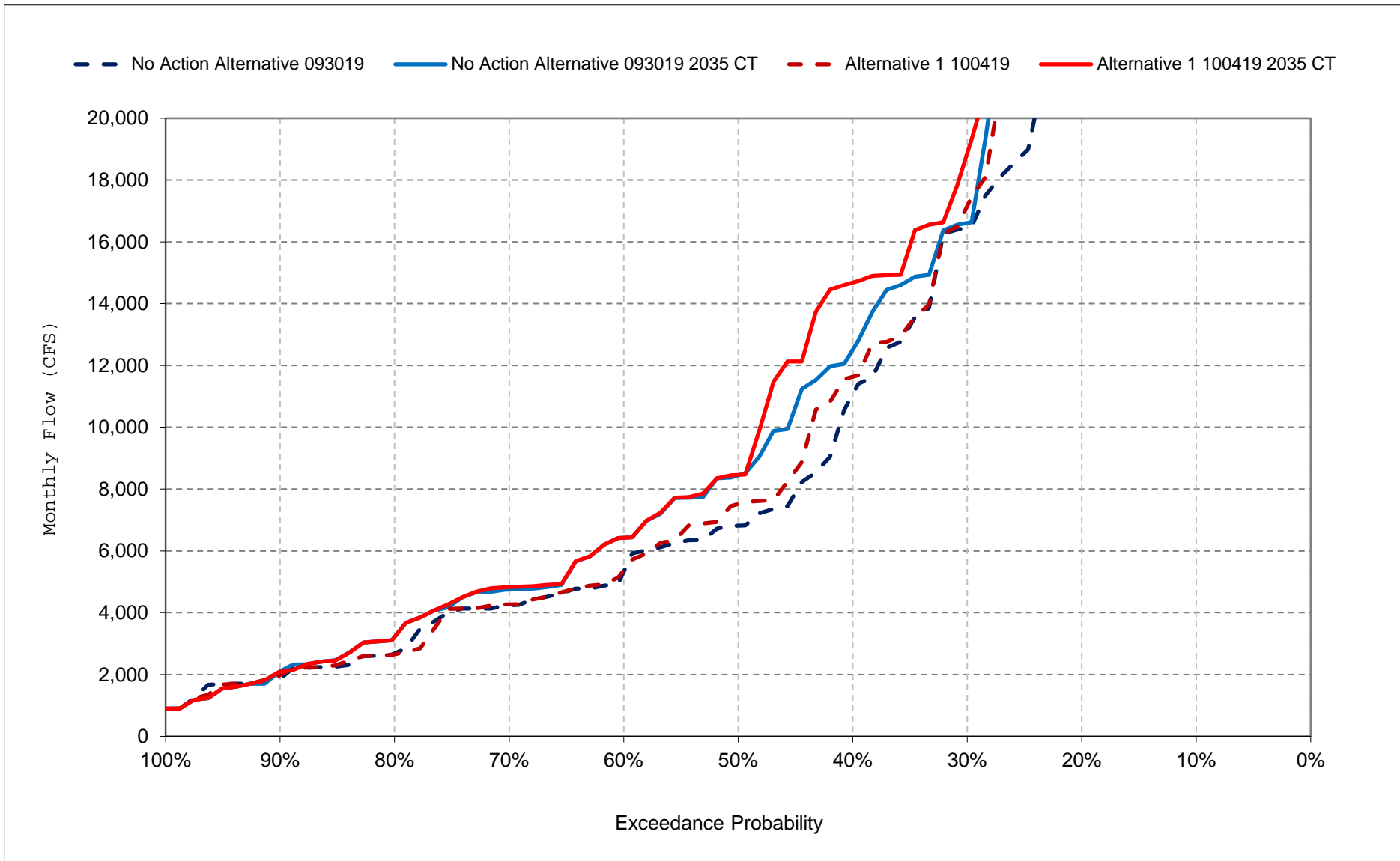
Figure 22-10. Feather River at Sacramento River Confluence Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

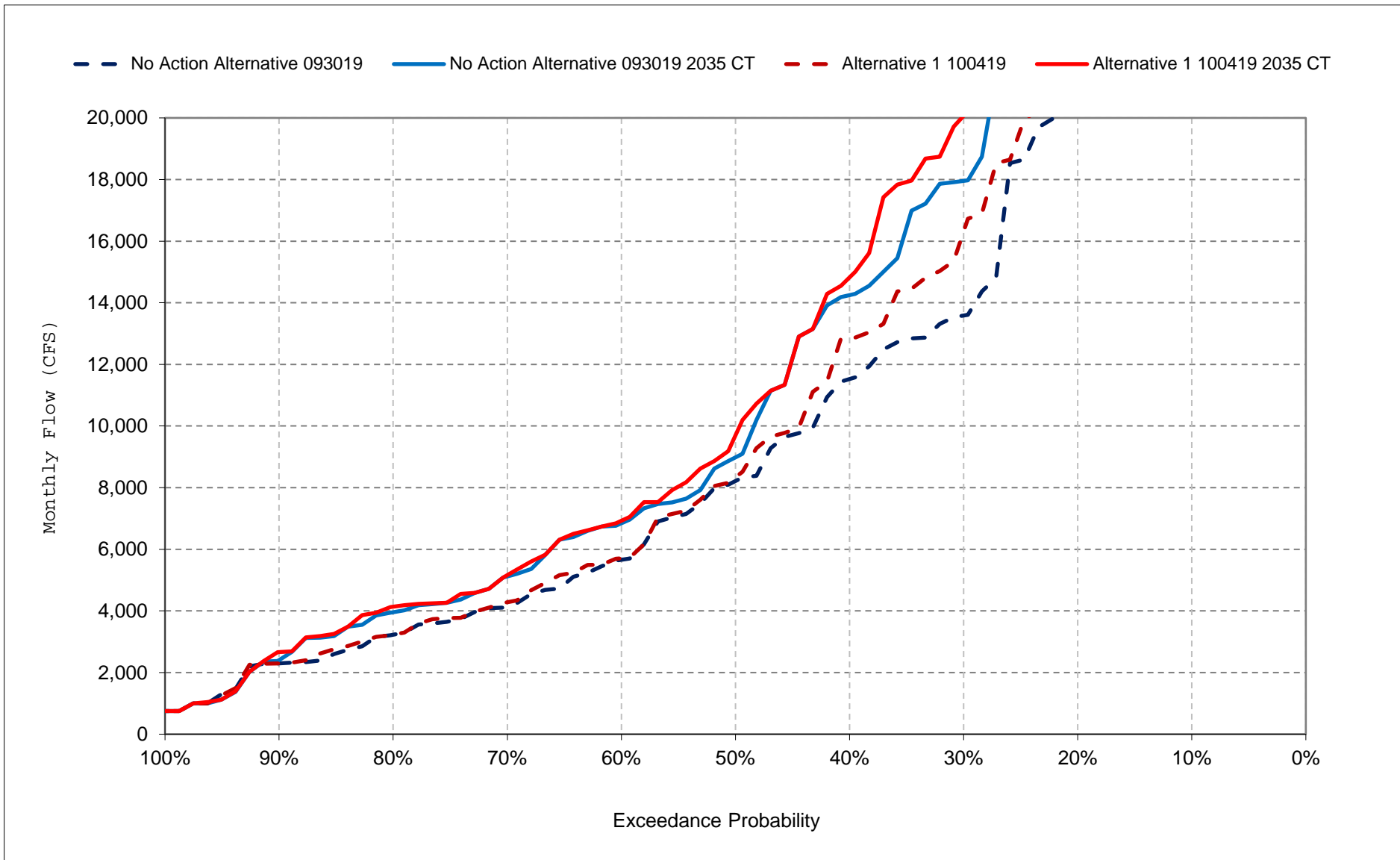
Figure 22-11. Feather River at Sacramento River Confluence Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

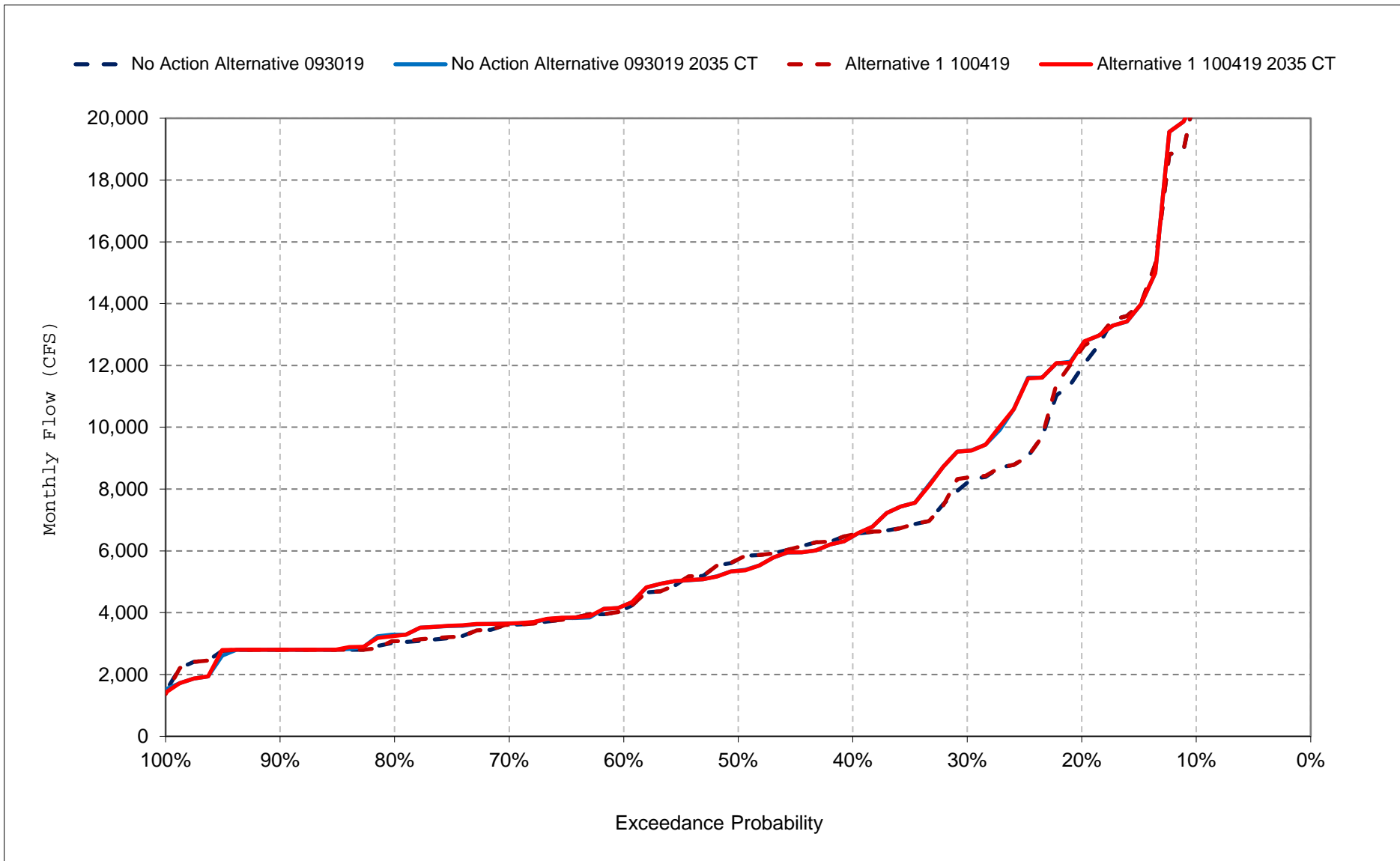
Figure 22-12. Feather River at Sacramento River Confluence Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

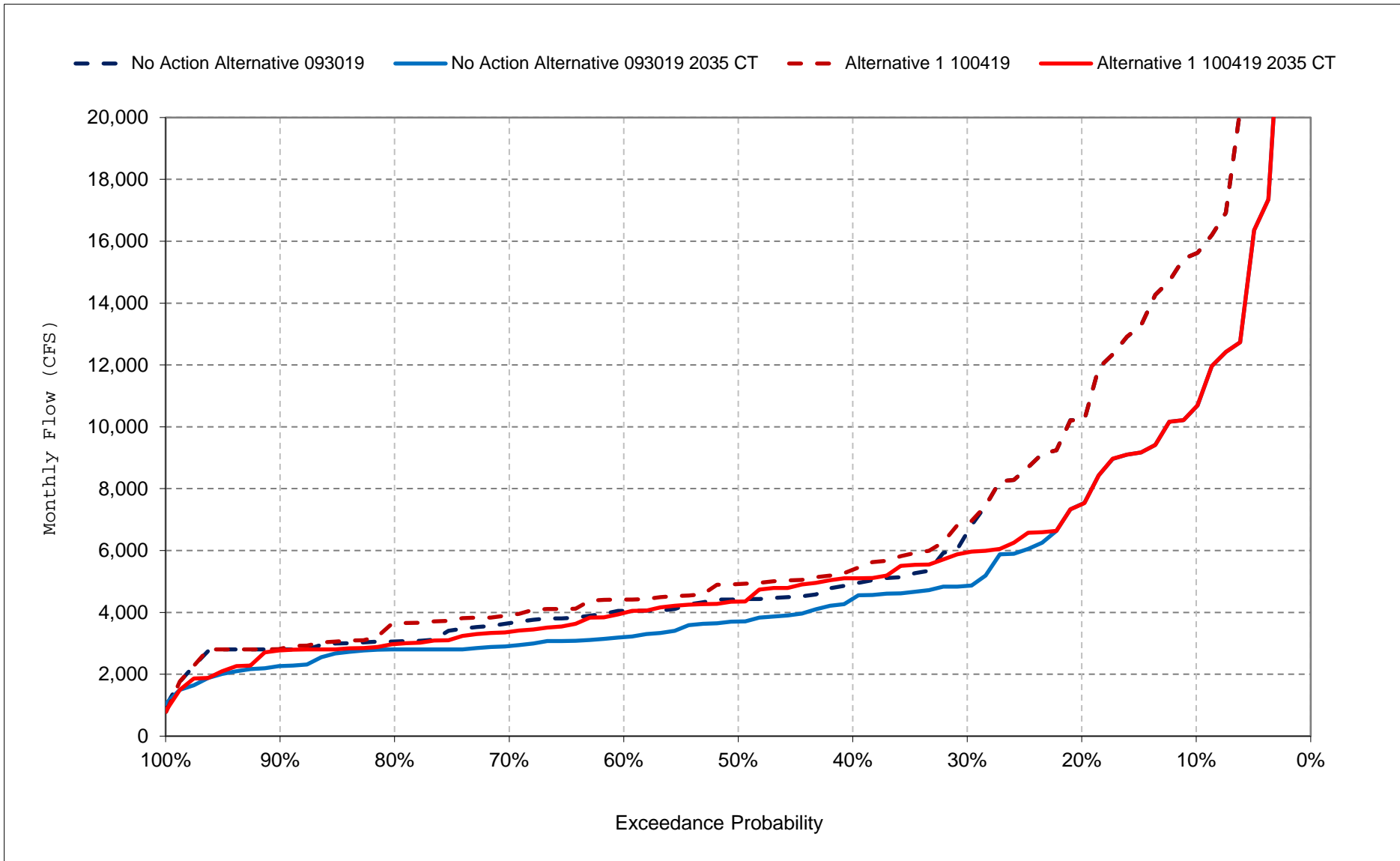
Figure 22-13. Feather River at Sacramento River Confluence Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

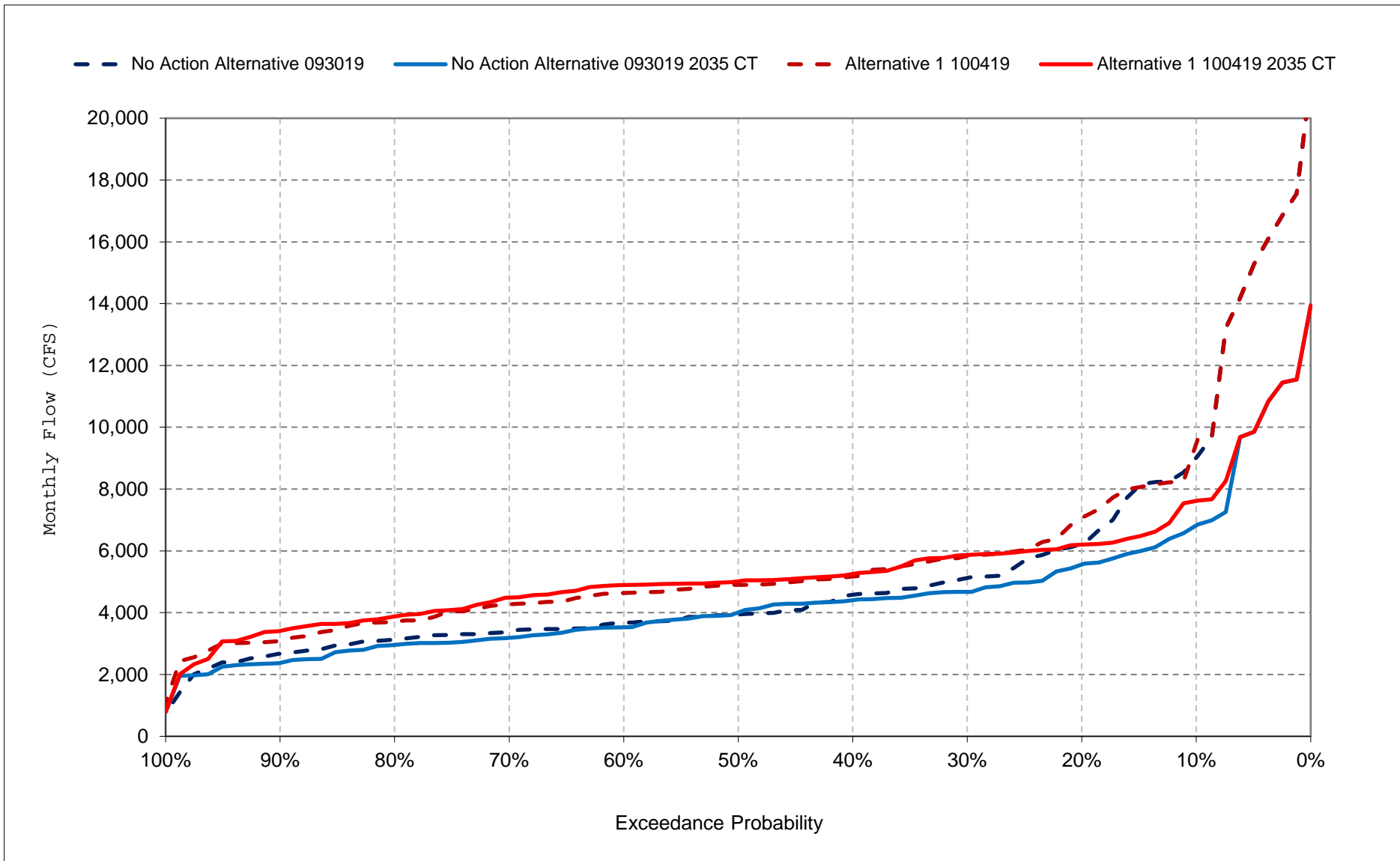
Figure 22-14. Feather River at Sacramento River Confluence Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

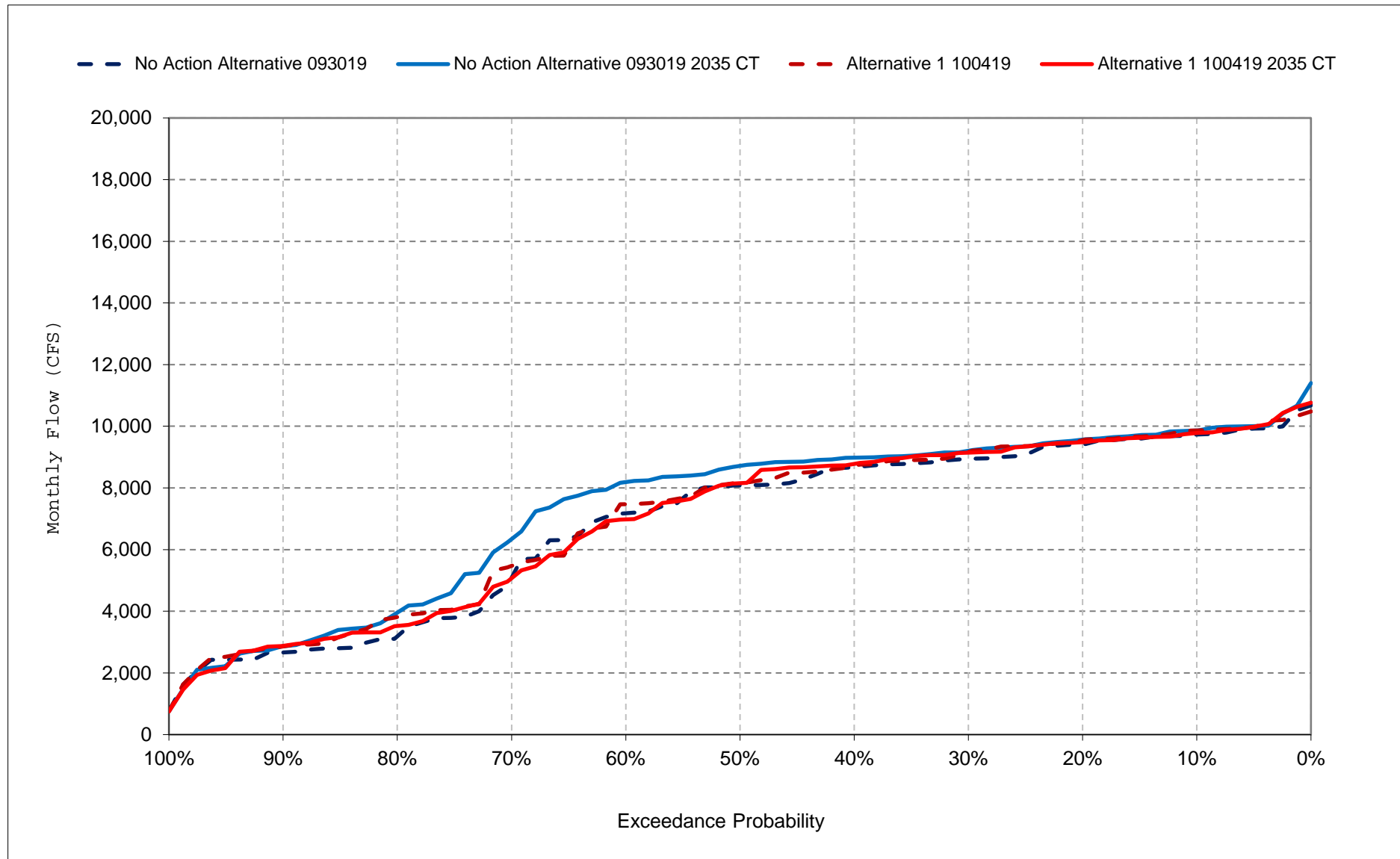
Figure 22-15. Feather River at Sacramento River Confluence Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

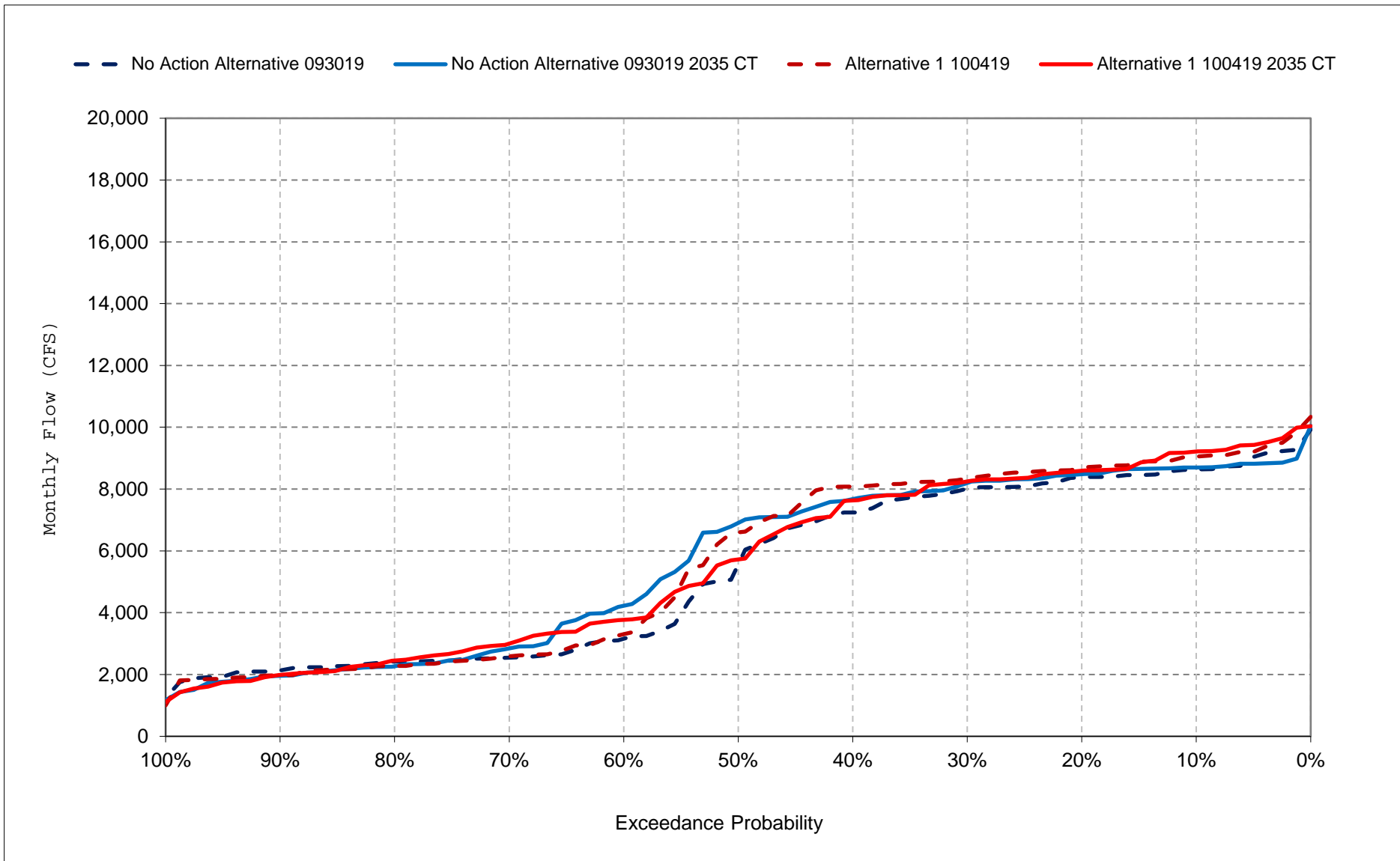
Figure 22-16. Feather River at Sacramento River Confluence Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

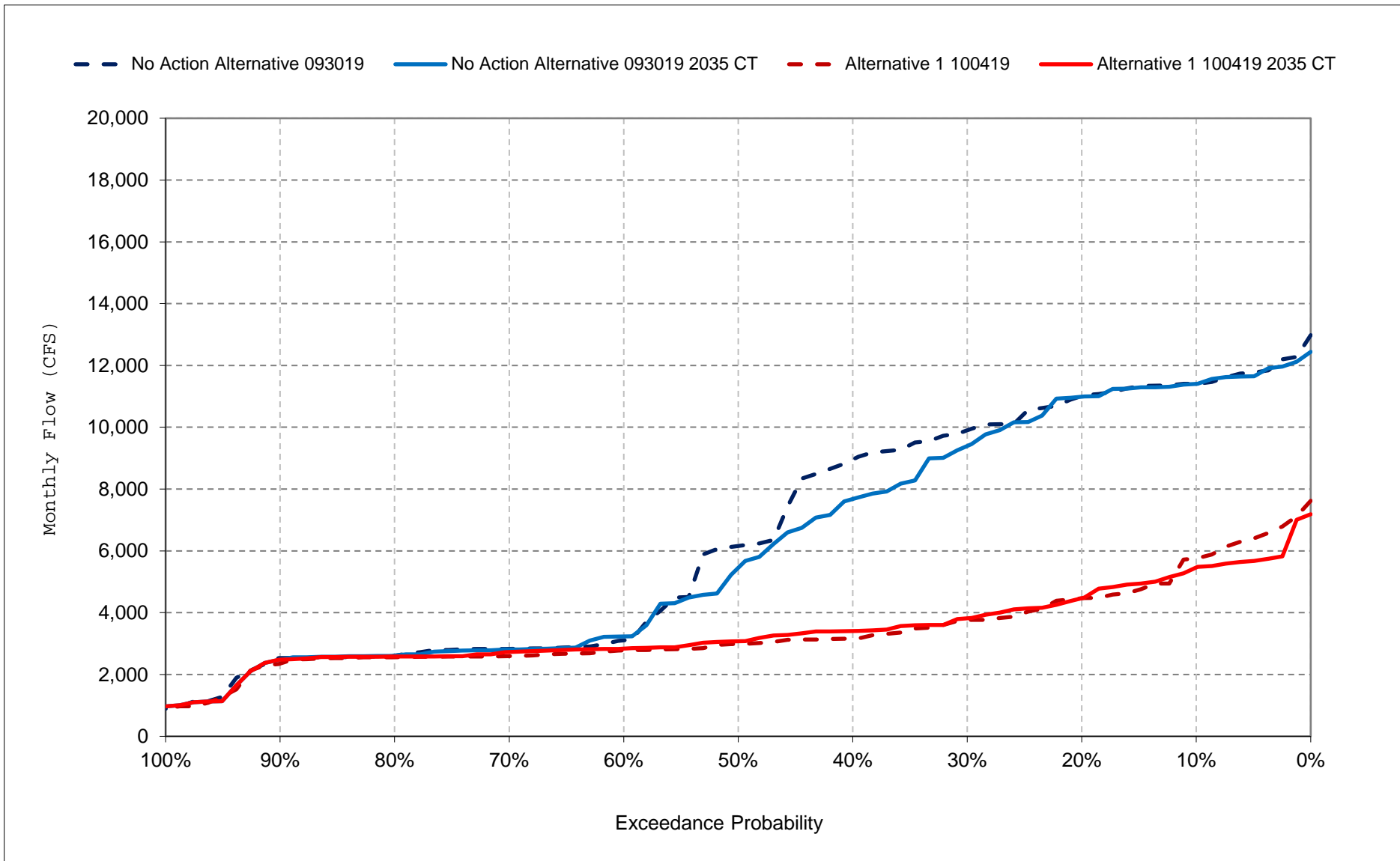
Figure 22-17. Feather River at Sacramento River Confluence Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 22-18. Feather River at Sacramento River Confluence Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-1. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	303	7,185	24,208	44,207	14,379	1,902	0	0	0	0	0
20%	0	75	2,176	9,897	14,185	4,429	0	0	0	0	0	0
30%	0	51	454	4,190	5,961	2,120	0	0	0	0	0	0
40%	0	22	139	907	3,793	934	0	0	0	0	0	0
50%	0	10	89	485	2,219	296	0	0	0	0	0	0
60%	0	0	21	202	889	139	0	0	0	0	0	0
70%	0	0	10	37	333	82	0	0	0	0	0	0
80%	0	0	0	17	103	15	0	0	0	0	0	0
90%	0	0	0	4	34	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	361	2,985	8,740	11,929	6,607	1,213	51	7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	479	4,298	24,449	28,532	17,554	3,706	161	22	0	0	0
Above Normal (16%)	0	776	1,010	5,088	13,111	5,640	184	1	0	0	0	0
Below Normal (13%)	120	21	2,229	355	2,932	239	0	0	0	0	0	0
Dry (24%)	0	339	4,730	456	1,496	447	38	0	0	0	0	0
Critical (15%)	0	2	66	150	313	42	0	0	0	0	0	0

Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	379	9,979	27,926	45,922	15,957	1,904	0	0	0	0	0
20%	0	30	2,449	9,911	13,660	4,857	0	0	0	0	0	0
30%	0	15	612	4,205	7,579	2,583	0	0	0	0	0	0
40%	0	0	160	1,144	4,424	977	0	0	0	0	0	0
50%	0	0	88	661	2,331	351	0	0	0	0	0	0
60%	0	0	21	236	986	172	0	0	0	0	0	0
70%	0	0	12	66	327	83	0	0	0	0	0	0
80%	0	0	2	21	91	15	0	0	0	0	0	0
90%	0	0	0	6	33	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	397	3,473	9,117	12,562	6,883	1,203	51	7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	466	5,519	25,509	29,558	17,953	3,675	162	22	0	0	0
Above Normal (16%)	0	908	1,287	5,222	14,491	6,474	180	1	0	0	0	0
Below Normal (13%)	120	21	2,255	474	3,606	311	0	0	0	0	0	0
Dry (24%)	0	419	4,950	460	1,501	477	38	0	0	0	0	0
Critical (15%)	0	1	66	174	294	43	0	0	0	0	0	0

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	77	2,793	3,719	1,715	1,578	3	0	0	0	0	0
20%	0	-45	272	14	-524	428	0	0	0	0	0	0
30%	0	-36	157	15	1,617	464	0	0	0	0	0	0
40%	0	-22	21	237	632	44	0	0	0	0	0	0
50%	0	-10	-1	175	112	54	0	0	0	0	0	0
60%	0	0	0	33	97	33	0	0	0	0	0	0
70%	0	0	3	30	-6	0	0	0	0	0	0	0
80%	0	0	1	5	-12	0	0	0	0	0	0	0
90%	0	0	0	2	-1	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	36	488	378	633	276	-10	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	-13	1,221	1,060	1,026	399	-31	1	0	0	0	0
Above Normal (16%)	0	132	277	134	1,380	834	-4	0	0	0	0	0
Below Normal (13%)	0	0	26	119	674	71	0	0	0	0	0	0
Dry (24%)	0	80	219	4	5	30	0	0	0	0	0	0
Critical (15%)	0	-1	0	24	-20	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 24-2. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	282	8,174	23,395	46,830	17,659	1,531	0	0	0	0	0
20%	0	76	2,289	13,263	17,570	8,077	0	0	0	0	0	0
30%	0	36	627	4,591	8,784	3,332	0	0	0	0	0	0
40%	0	16	186	1,527	4,862	1,181	0	0	0	0	0	0
50%	0	4	122	735	2,748	400	0	0	0	0	0	0
60%	0	1	29	465	1,074	209	0	0	0	0	0	0
70%	0	0	10	78	435	96	0	0	0	0	0	0
80%	0	0	1	28	105	28	0	0	0	0	0	0
90%	0	0	0	11	58	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	3	295	2,999	10,226	13,180	7,987	1,476	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	483	4,310	28,143	30,878	20,864	4,522	61	0	0	0	0
Above Normal (16%)	0	422	1,075	6,617	15,087	7,145	172	0	0	0	0	0
Below Normal (13%)	23	20	2,027	595	3,798	338	0	0	0	0	0	0
Dry (24%)	0	295	4,827	555	1,796	762	59	0	0	0	0	0
Critical (15%)	0	3	86	263	342	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	346	9,560	31,997	47,038	23,310	1,534	0	0	0	0	0
20%	0	24	2,869	14,450	18,371	7,945	0	0	0	0	0	0
30%	0	9	805	5,021	11,437	3,846	0	0	0	0	0	0
40%	0	0	185	1,723	5,201	1,594	0	0	0	0	0	0
50%	0	0	122	819	2,840	451	0	0	0	0	0	0
60%	0	0	29	463	1,179	222	0	0	0	0	0	0
70%	0	0	15	78	461	105	0	0	0	0	0	0
80%	0	0	1	28	110	30	0	0	0	0	0	0
90%	0	0	0	11	55	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	4	296	3,523	10,785	13,815	8,364	1,466	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	467	5,292	29,647	31,663	21,283	4,493	61	0	0	0	0
Above Normal (16%)	0	443	1,470	6,911	16,700	8,401	167	0	0	0	0	0
Below Normal (13%)	31	25	2,056	798	4,733	483	0	0	0	0	0	0
Dry (24%)	0	303	5,427	588	1,814	867	60	0	0	0	0	0
Critical (15%)	0	2	86	263	346	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	64	1,387	8,601	207	5,650	3	0	0	0	0	0
20%	0	-52	580	1,187	801	-132	0	0	0	0	0	0
30%	0	-27	177	430	2,653	514	0	0	0	0	0	0
40%	0	-16	-1	196	339	412	0	0	0	0	0	0
50%	0	-4	0	85	92	51	0	0	0	0	0	0
60%	0	-1	1	-2	105	14	0	0	0	0	0	0
70%	0	0	4	0	25	9	0	0	0	0	0	0
80%	0	0	0	0	5	2	0	0	0	0	0	0
90%	0	0	0	0	-3	2	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	1	1	524	559	635	377	-10	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	-16	982	1,504	786	419	-29	0	0	0	0	0
Above Normal (16%)	0	21	395	294	1,612	1,255	-4	0	0	0	0	0
Below Normal (13%)	8	5	29	204	935	146	0	0	0	0	0	0
Dry (24%)	0	8	600	32	17	105	1	0	0	0	0	0
Critical (15%)	0	-1	0	0	4	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-3. Fremont Weir Spills, Monthly Spills

No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	303	7,185	24,208	44,207	14,379	1,902	0	0	0	0	0
20%	0	75	2,176	9,897	14,185	4,429	0	0	0	0	0	0
30%	0	51	454	4,190	5,961	2,120	0	0	0	0	0	0
40%	0	22	139	907	3,793	934	0	0	0	0	0	0
50%	0	10	89	485	2,219	296	0	0	0	0	0	0
60%	0	0	21	202	889	139	0	0	0	0	0	0
70%	0	0	10	37	333	82	0	0	0	0	0	0
80%	0	0	0	17	103	15	0	0	0	0	0	0
90%	0	0	0	4	34	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	361	2,985	8,740	11,929	6,607	1,213	51	7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	479	4,298	24,449	28,532	17,554	3,706	161	22	0	0	0
Above Normal (16%)	0	776	1,010	5,088	13,111	5,640	184	1	0	0	0	0
Below Normal (13%)	120	21	2,229	355	2,932	239	0	0	0	0	0	0
Dry (24%)	0	339	4,730	456	1,496	447	38	0	0	0	0	0
Critical (15%)	0	2	66	150	313	42	0	0	0	0	0	0

No Action Alternative 093019 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	282	8,174	23,395	46,830	17,659	1,531	0	0	0	0	0
20%	0	76	2,289	13,263	17,570	8,077	0	0	0	0	0	0
30%	0	36	627	4,591	8,784	3,332	0	0	0	0	0	0
40%	0	16	186	1,527	4,862	1,181	0	0	0	0	0	0
50%	0	4	122	735	2,748	400	0	0	0	0	0	0
60%	0	1	29	465	1,074	209	0	0	0	0	0	0
70%	0	0	10	78	435	96	0	0	0	0	0	0
80%	0	0	1	28	105	28	0	0	0	0	0	0
90%	0	0	0	11	58	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	3	295	2,999	10,226	13,180	7,987	1,476	19	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	483	4,310	28,143	30,878	20,864	4,522	61	0	0	0	0
Above Normal (16%)	0	422	1,075	6,617	15,087	7,145	172	0	0	0	0	0
Below Normal (13%)	23	20	2,027	595	3,798	338	0	0	0	0	0	0
Dry (24%)	0	295	4,827	555	1,796	762	59	0	0	0	0	0
Critical (15%)	0	3	86	263	342	52	0	0	0	0	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-20	988	-812	2,623	3,281	-371	0	0	0	0	0
20%	0	2	113	3,366	3,385	3,648	0	0	0	0	0	0
30%	0	-15	173	402	2,823	1,212	0	0	0	0	0	0
40%	0	-6	47	620	1,070	248	0	0	0	0	0	0
50%	0	-6	33	249	529	104	0	0	0	0	0	0
60%	0	0	8	262	185	70	0	0	0	0	0	0
70%	0	0	1	41	102	14	0	0	0	0	0	0
80%	0	0	0	12	2	13	0	0	0	0	0	0
90%	0	0	0	7	24	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-13	-66	13	1,486	1,251	1,379	262	-32	-7	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	5	11	3,693	2,346	3,310	816	-100	-22	0	0	0
Above Normal (16%)	0	-354	66	1,529	1,976	1,505	-12	-1	0	0	0	0
Below Normal (13%)	-97	-1	-202	240	866	98	0	0	0	0	0	0
Dry (24%)	0	-45	97	99	301	315	22	0	0	0	0	0
Critical (15%)	0	1	20	113	29	9	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 24-4. Fremont Weir Spills, Monthly Spills

Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	379	9,979	27,926	45,922	15,957	1,904	0	0	0	0	0
20%	0	30	2,449	9,911	13,660	4,857	0	0	0	0	0	0
30%	0	15	612	4,205	7,579	2,583	0	0	0	0	0	0
40%	0	0	160	1,144	4,424	977	0	0	0	0	0	0
50%	0	0	88	661	2,331	351	0	0	0	0	0	0
60%	0	0	21	236	986	172	0	0	0	0	0	0
70%	0	0	12	66	327	83	0	0	0	0	0	0
80%	0	0	2	21	91	15	0	0	0	0	0	0
90%	0	0	0	6	33	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	16	397	3,473	9,117	12,562	6,883	1,203	51	7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	466	5,519	25,509	29,558	17,953	3,675	162	22	0	0	0
Above Normal (16%)	0	908	1,287	5,222	14,491	6,474	180	1	0	0	0	0
Below Normal (13%)	120	21	2,255	474	3,606	311	0	0	0	0	0	0
Dry (24%)	0	419	4,950	460	1,501	477	38	0	0	0	0	0
Critical (15%)	0	1	66	174	294	43	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	346	9,560	31,997	47,038	23,310	1,534	0	0	0	0	0
20%	0	24	2,869	14,450	18,371	7,945	0	0	0	0	0	0
30%	0	9	805	5,021	11,437	3,846	0	0	0	0	0	0
40%	0	0	185	1,723	5,201	1,594	0	0	0	0	0	0
50%	0	0	122	819	2,840	451	0	0	0	0	0	0
60%	0	0	29	463	1,179	222	0	0	0	0	0	0
70%	0	0	15	78	461	105	0	0	0	0	0	0
80%	0	0	1	28	110	30	0	0	0	0	0	0
90%	0	0	0	11	55	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	4	296	3,523	10,785	13,815	8,364	1,466	19	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	467	5,292	29,647	31,663	21,283	4,493	61	0	0	0	0
Above Normal (16%)	0	443	1,470	6,911	16,700	8,401	167	0	0	0	0	0
Below Normal (13%)	31	25	2,056	798	4,733	483	0	0	0	0	0	0
Dry (24%)	0	303	5,427	588	1,814	867	60	0	0	0	0	0
Critical (15%)	0	2	86	263	346	52	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Spills (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-33	-418	4,070	1,115	7,353	-371	0	0	0	0	0
20%	0	-6	421	4,538	4,711	3,088	0	0	0	0	0	0
30%	0	-6	193	816	3,858	1,262	0	0	0	0	0	0
40%	0	0	25	579	776	616	0	0	0	0	0	0
50%	0	0	34	159	509	100	0	0	0	0	0	0
60%	0	0	9	227	193	50	0	0	0	0	0	0
70%	0	0	3	11	133	22	0	0	0	0	0	0
80%	0	0	-1	7	19	15	0	0	0	0	0	0
90%	0	0	0	5	22	3	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-12	-101	50	1,667	1,253	1,481	263	-32	-7	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	2	-227	4,138	2,105	3,330	818	-101	-22	0	0	0
Above Normal (16%)	0	-465	183	1,689	2,209	1,927	-13	-1	0	0	0	0
Below Normal (13%)	-89	4	-199	325	1,128	173	0	0	0	0	0	0
Dry (24%)	0	-117	477	128	313	391	22	0	0	0	0	0
Critical (15%)	0	1	20	89	52	9	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

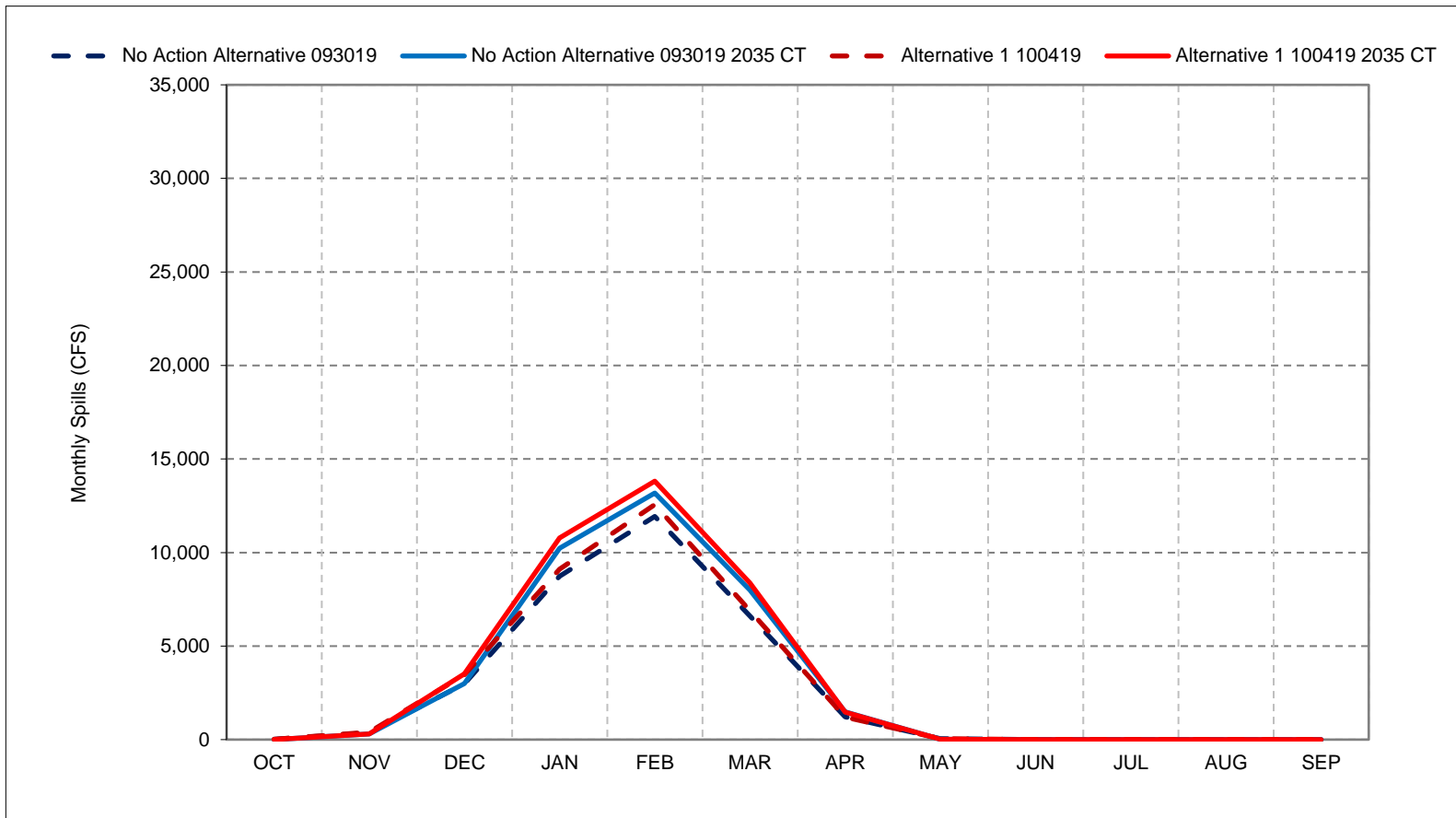
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 24-1. Fremont Weir Spills, Long-Term Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

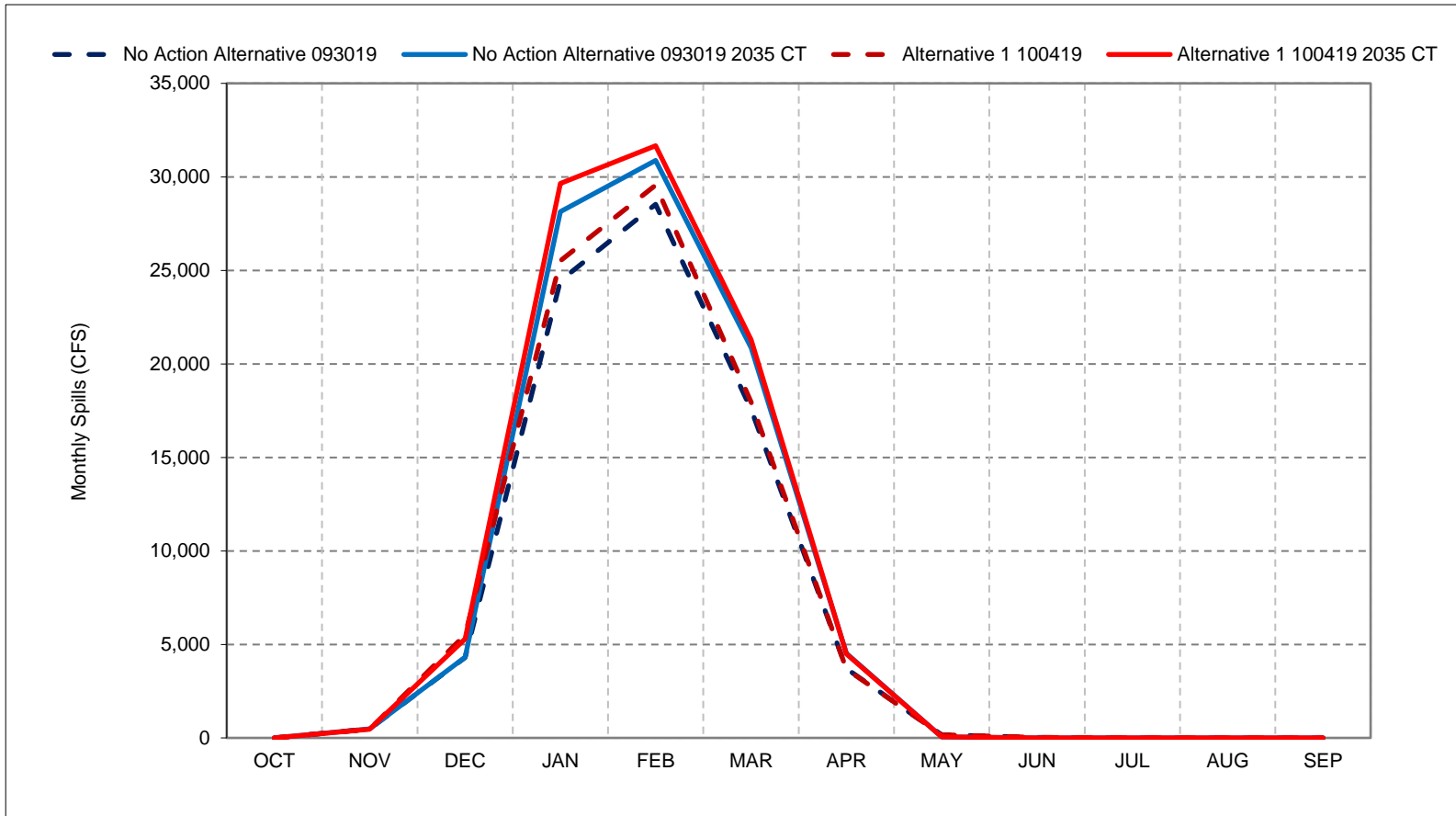
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-2. Fremont Weir Spills, Wet Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

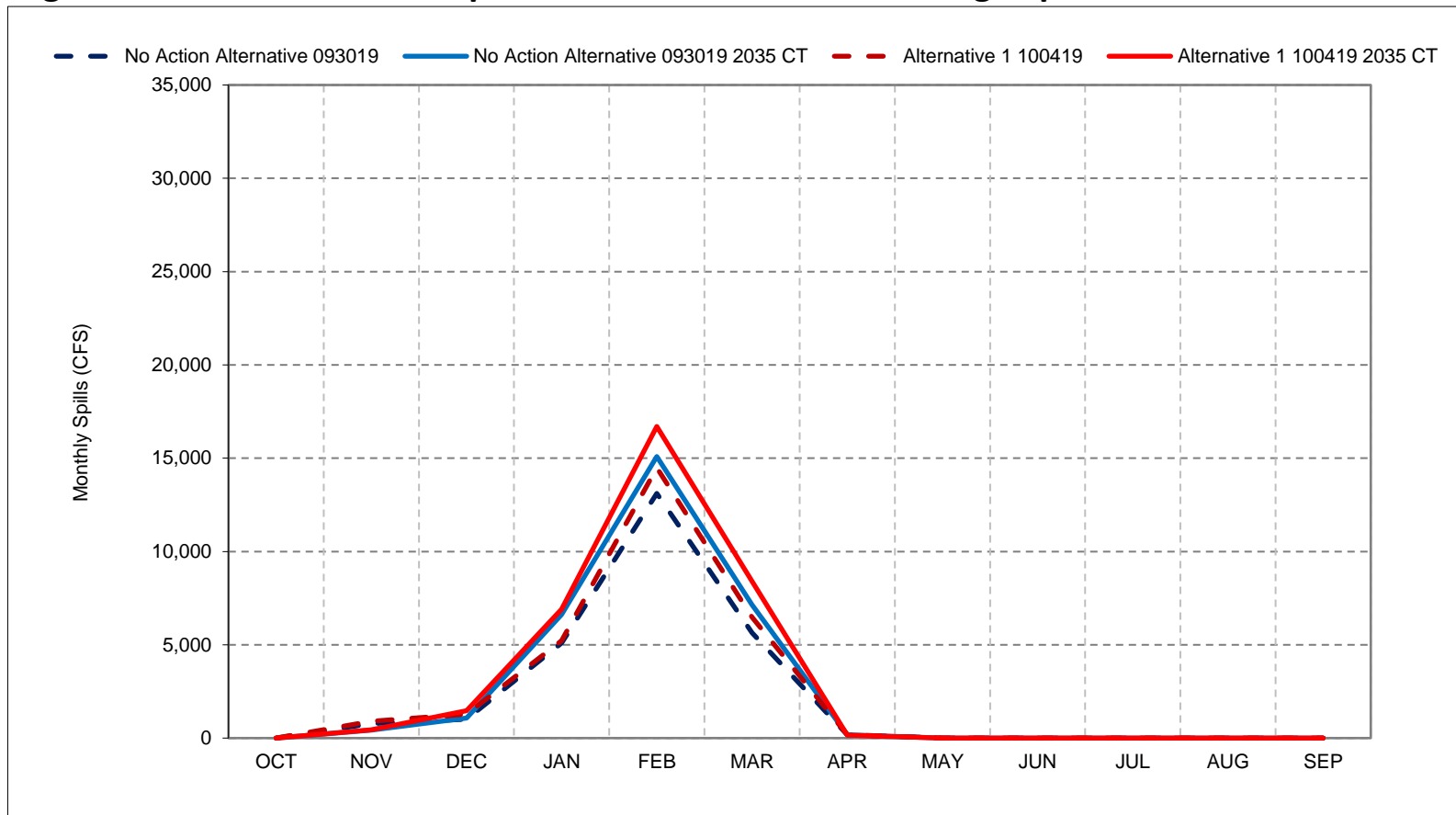
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-3. Fremont Weir Spills, Above Normal Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

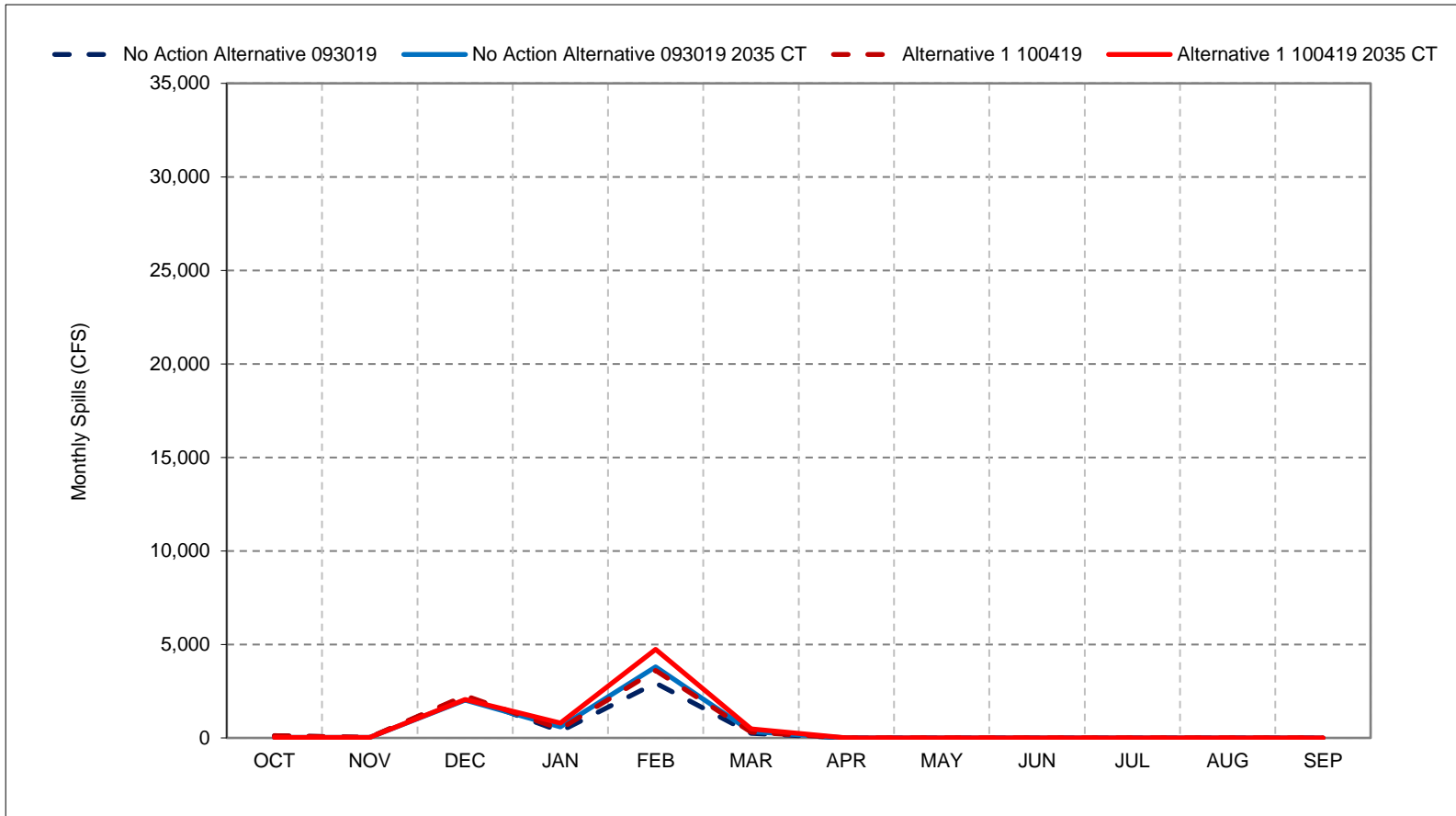
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-4. Fremont Weir Spills, Below Normal Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

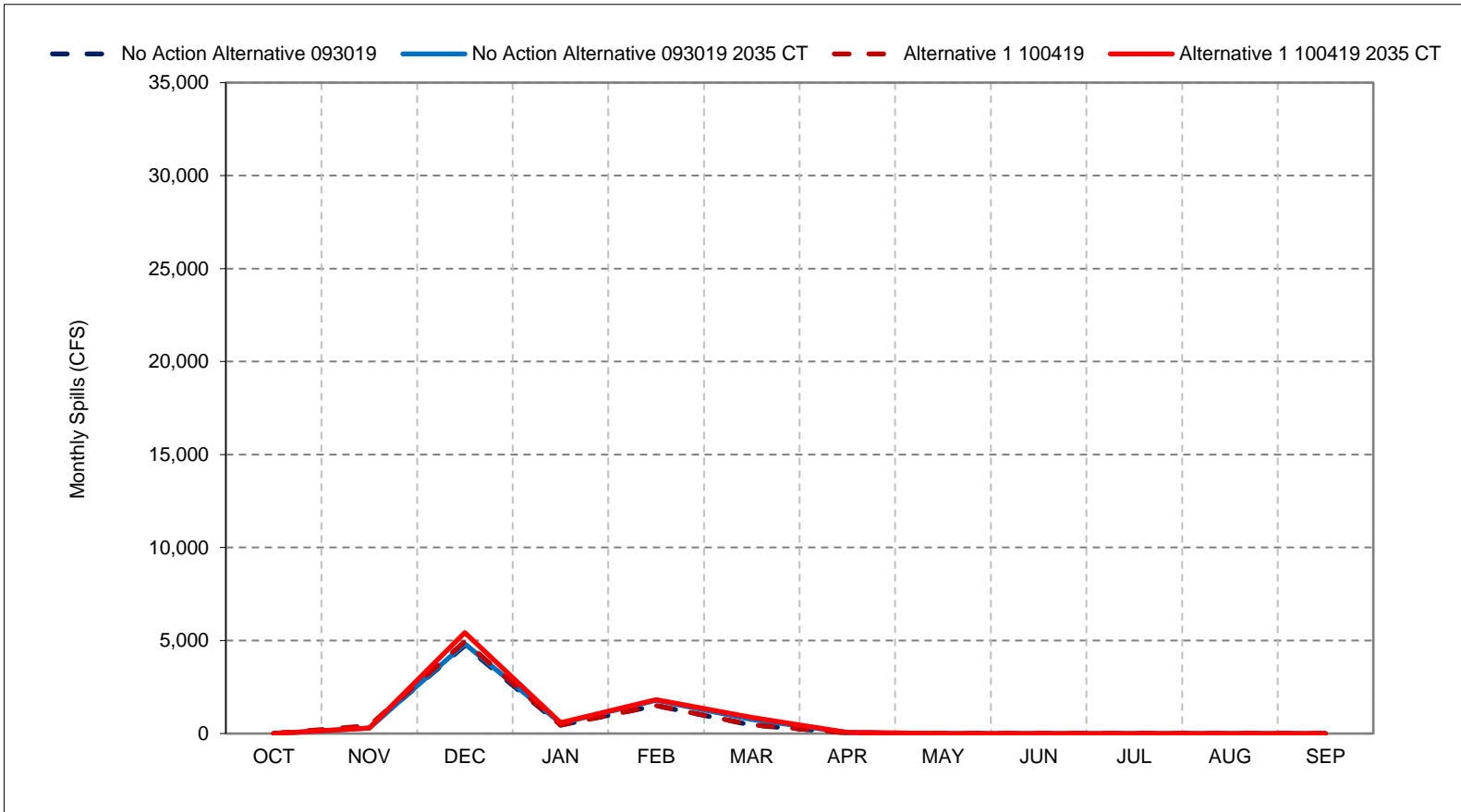
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-5. Fremont Weir Spills, Dry Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

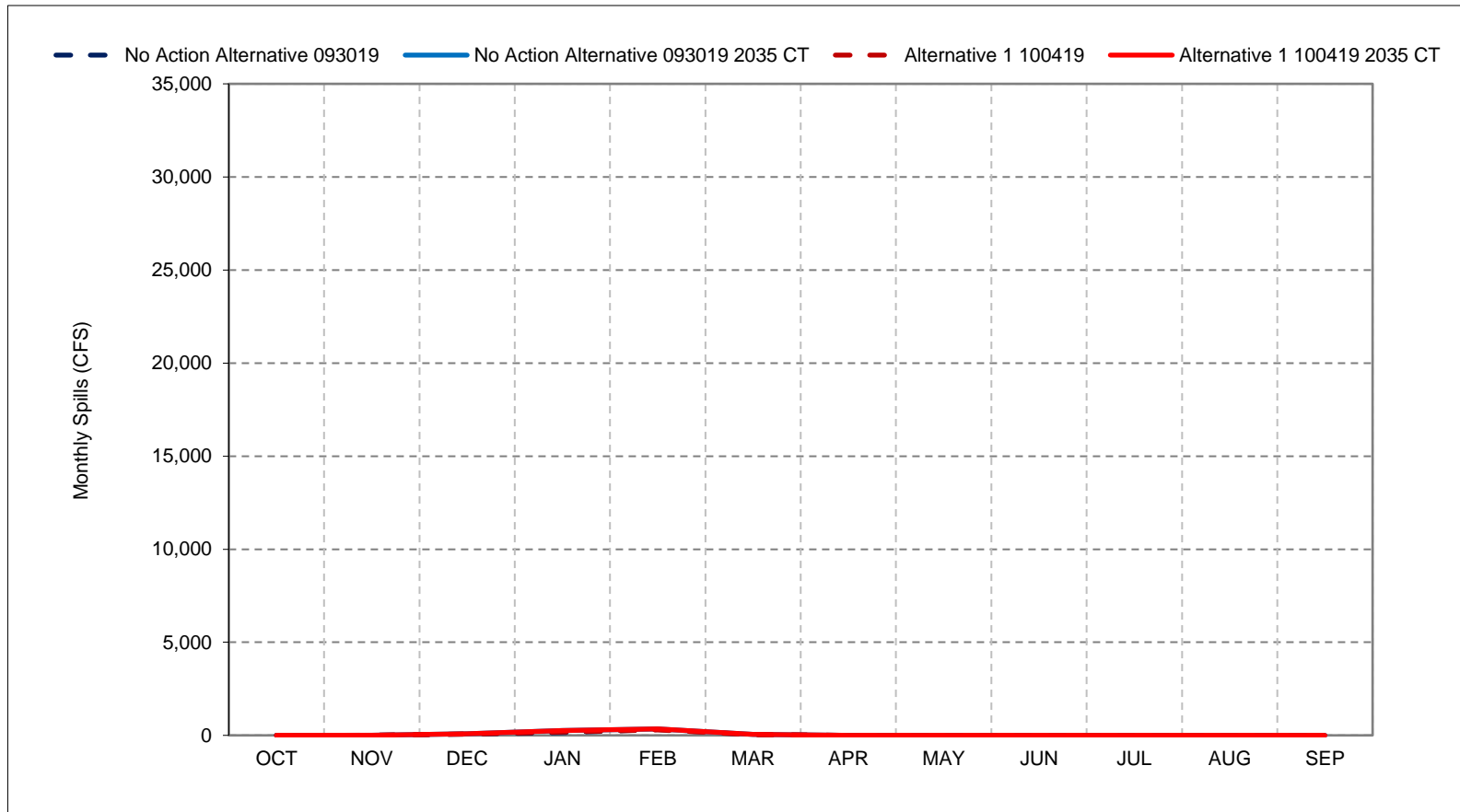
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 24-6. Fremont Weir Spills, Critical Year Average Spills



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

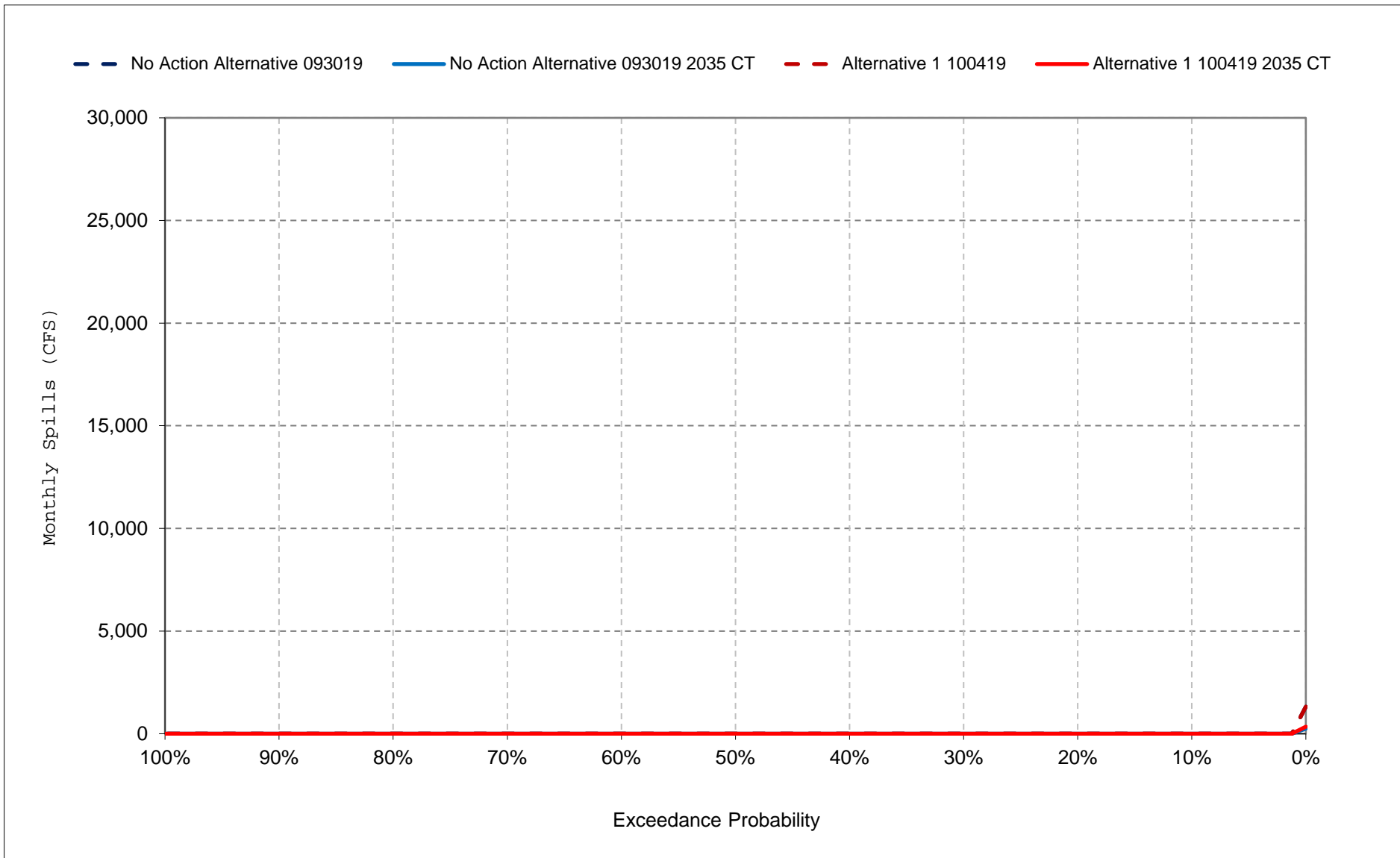
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

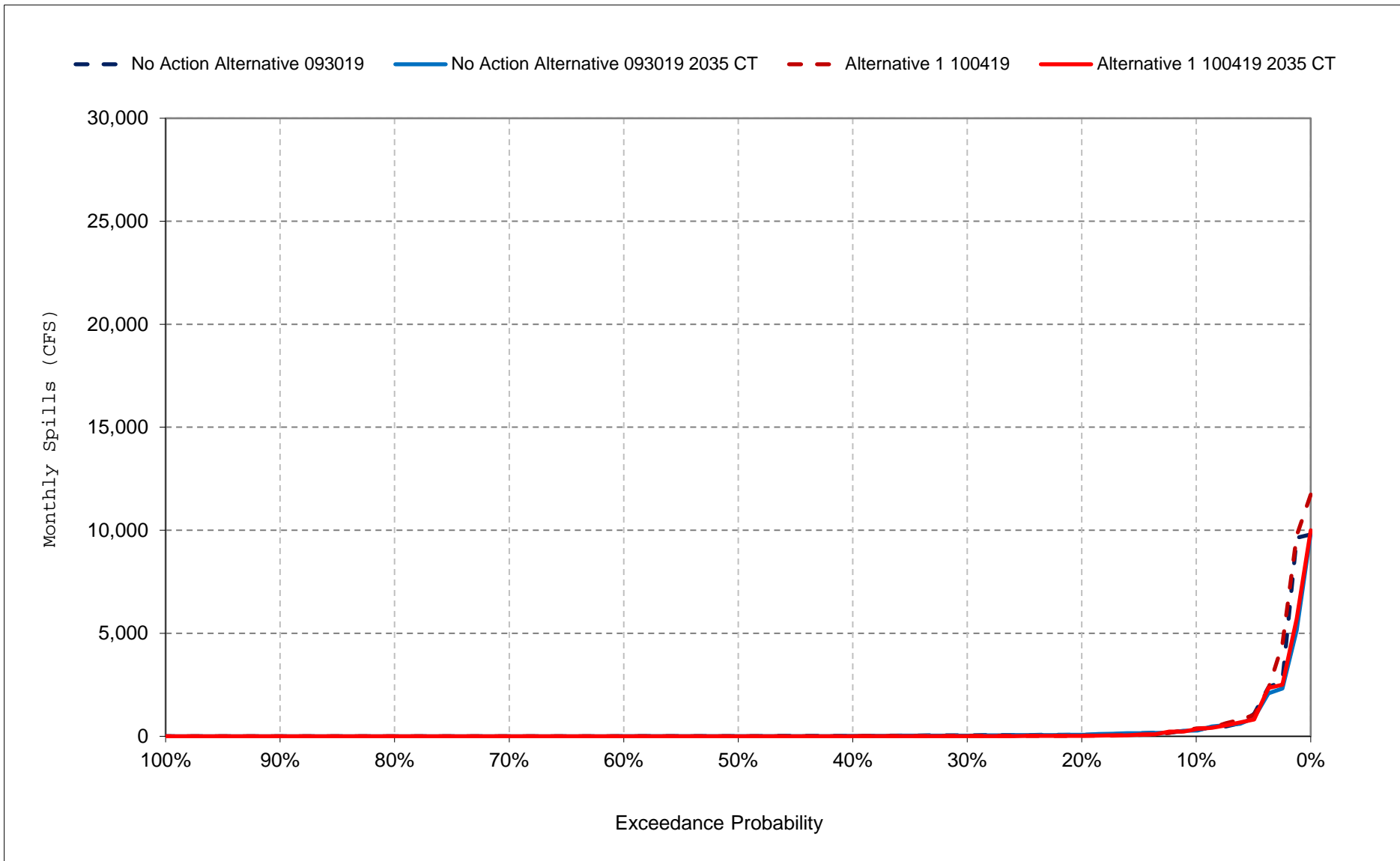
Figure 24-7. Fremont Weir Spills, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

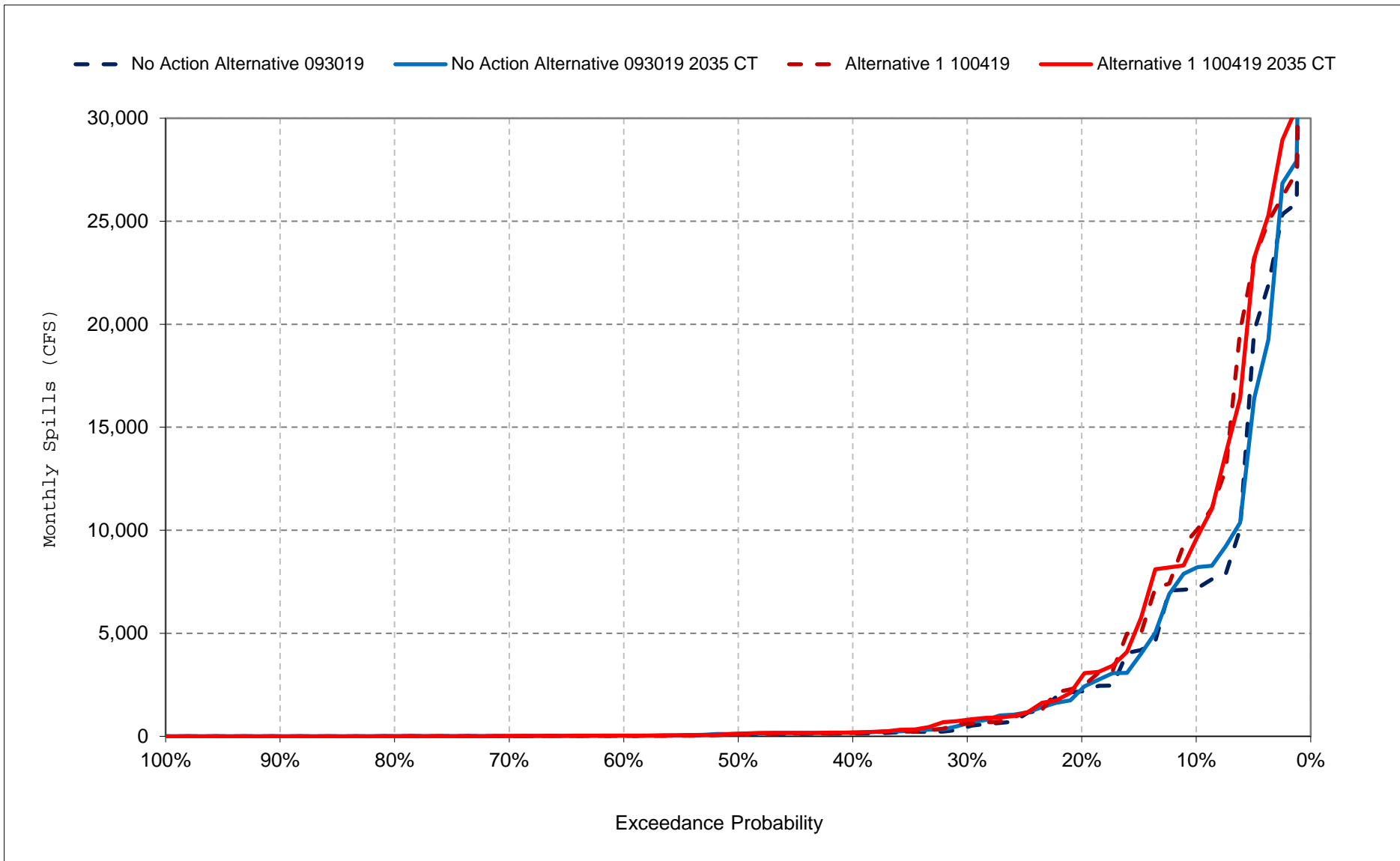
Figure 24-8. Fremont Weir Spills, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

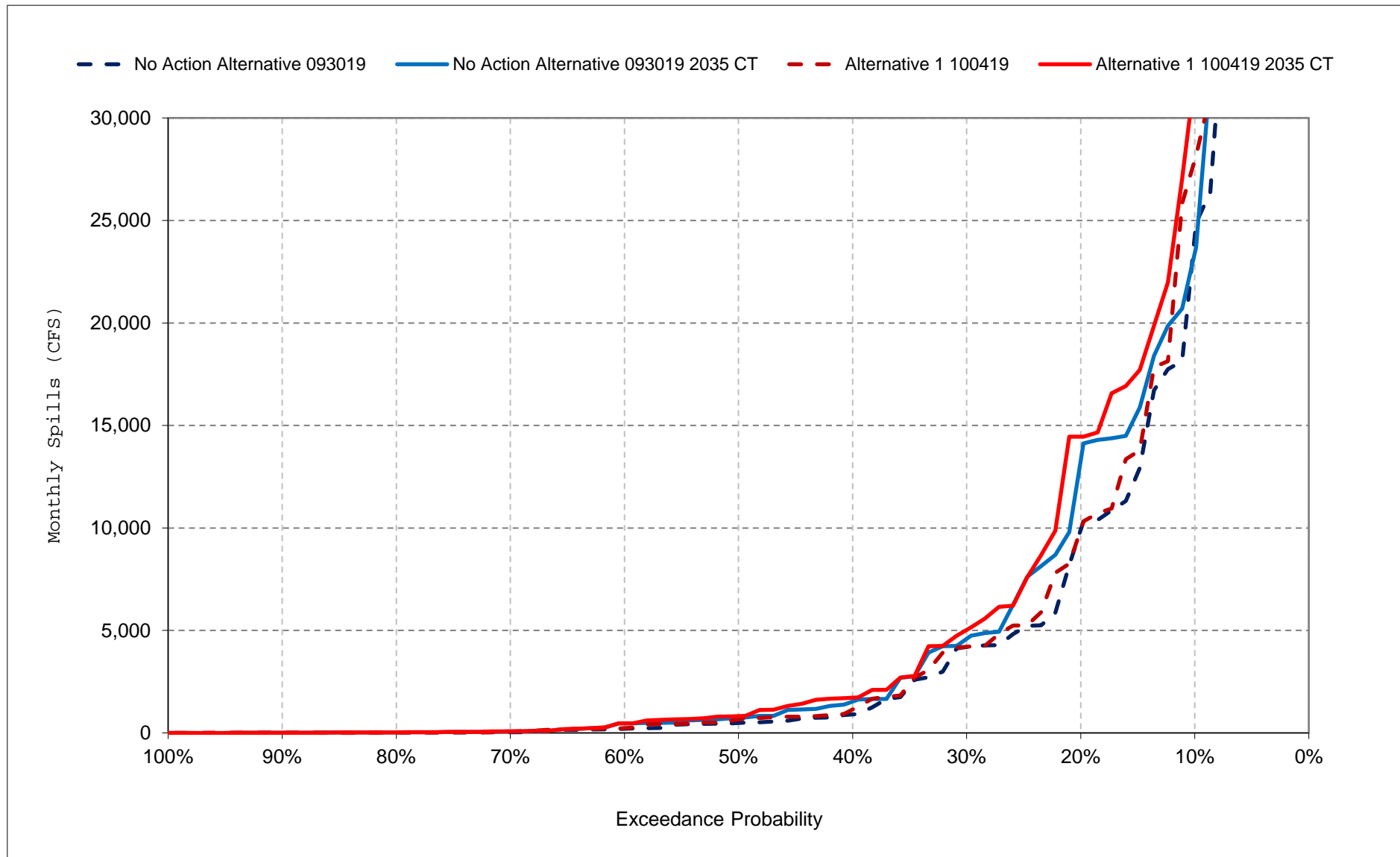
Figure 24-9. Fremont Weir Spills, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

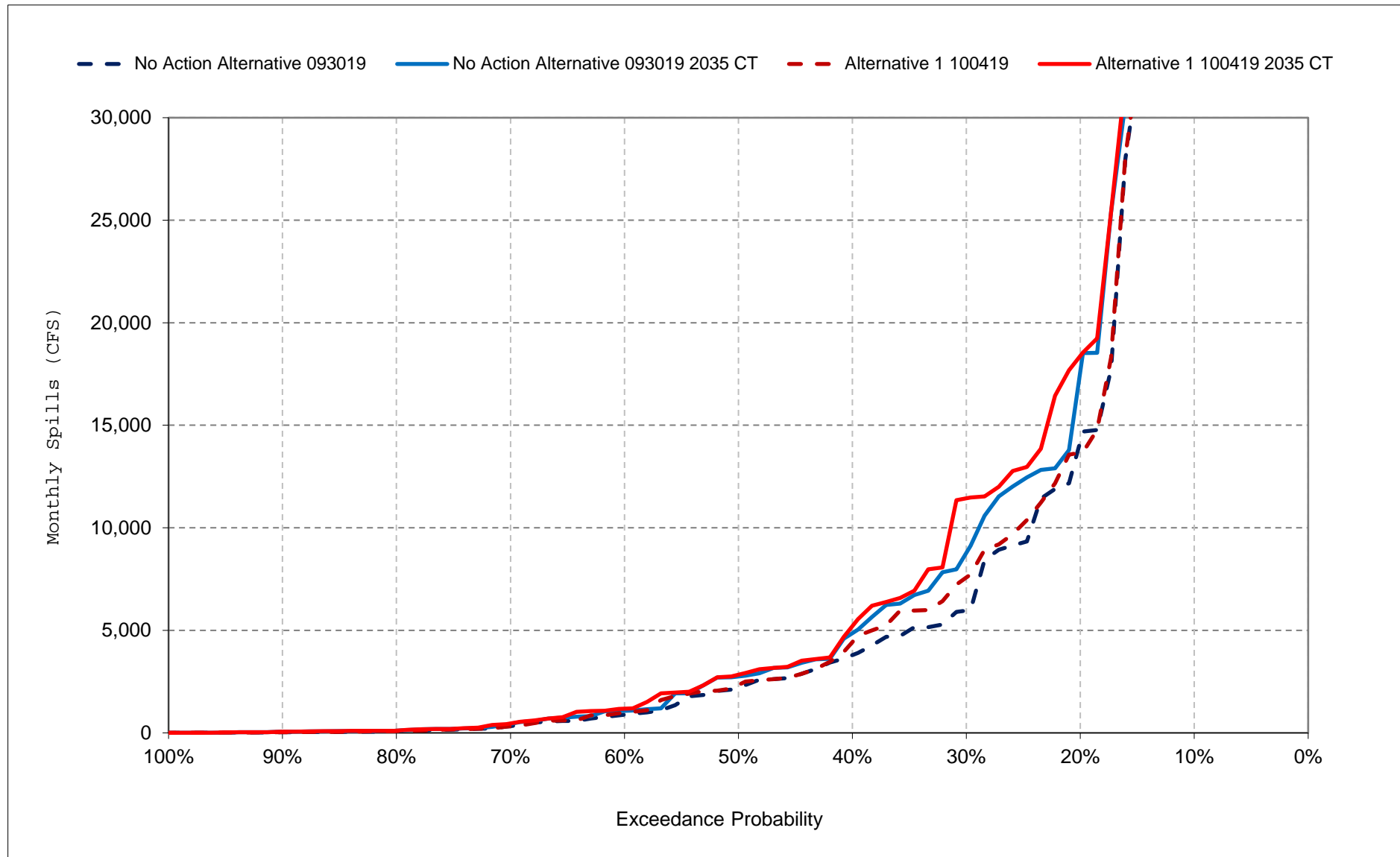
Figure 24-10. Fremont Weir Spills, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

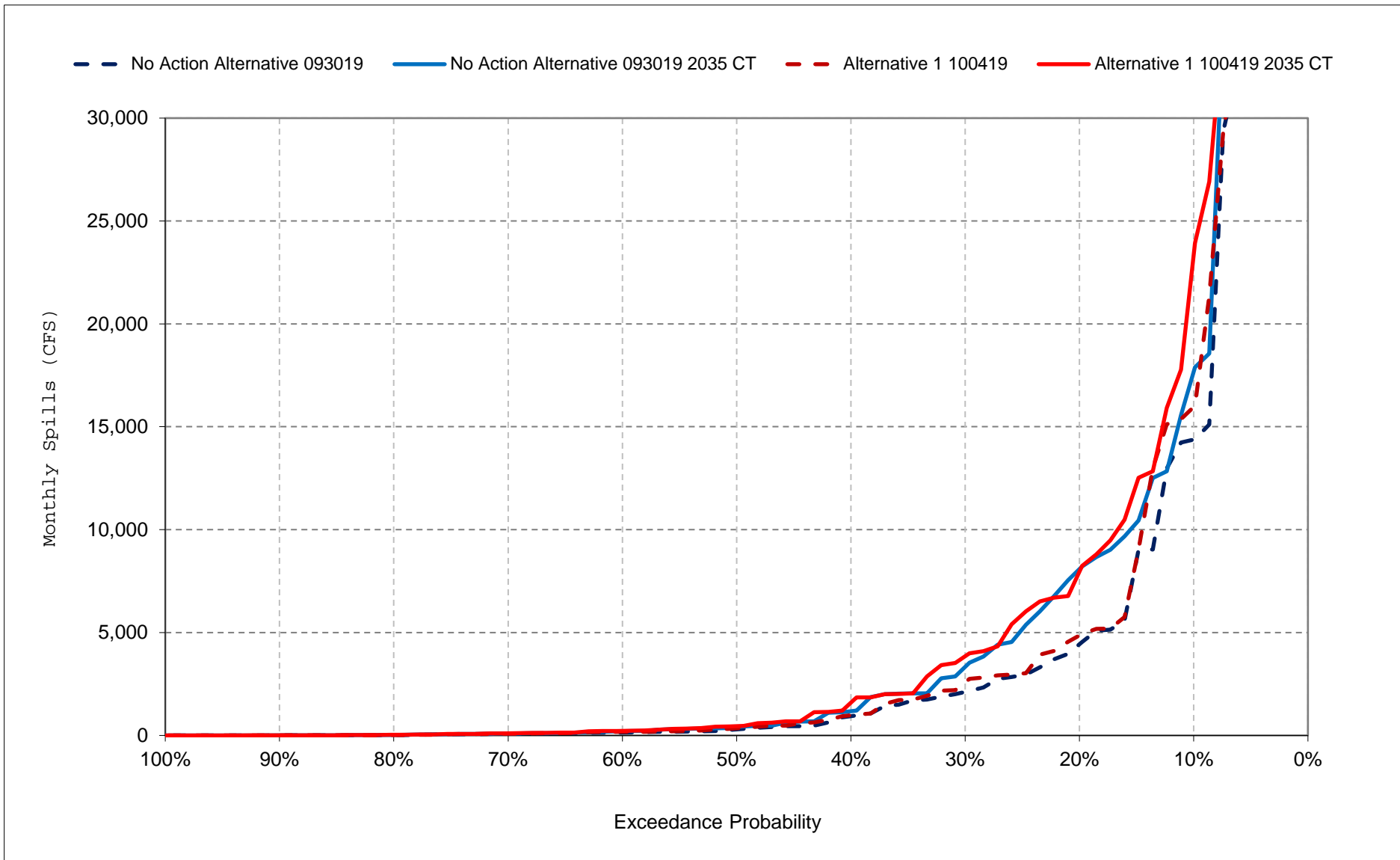
Figure 24-11. Fremont Weir Spills, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

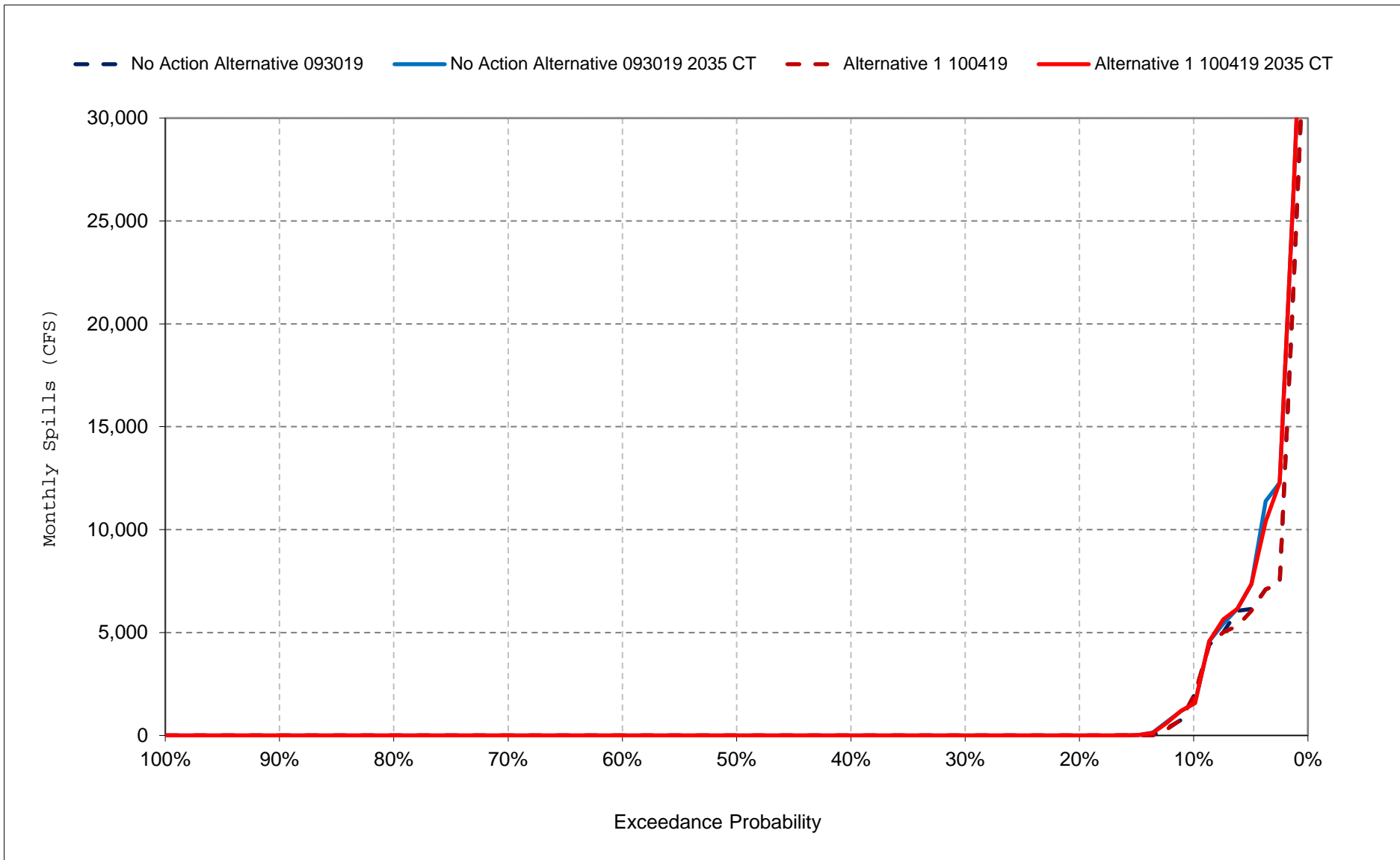
Figure 24-12. Fremont Weir Spills, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

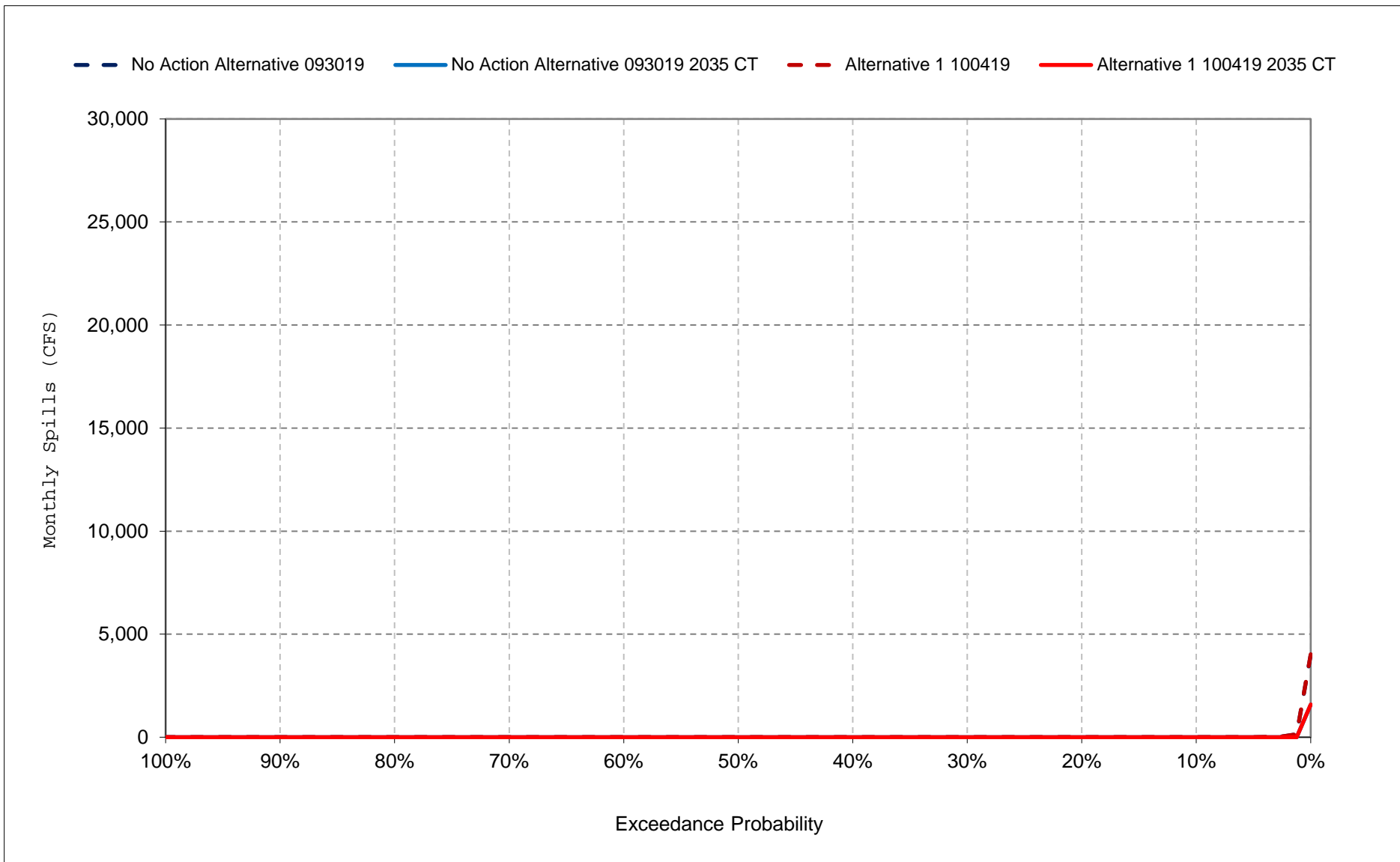
Figure 24-13. Fremont Weir Spills, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

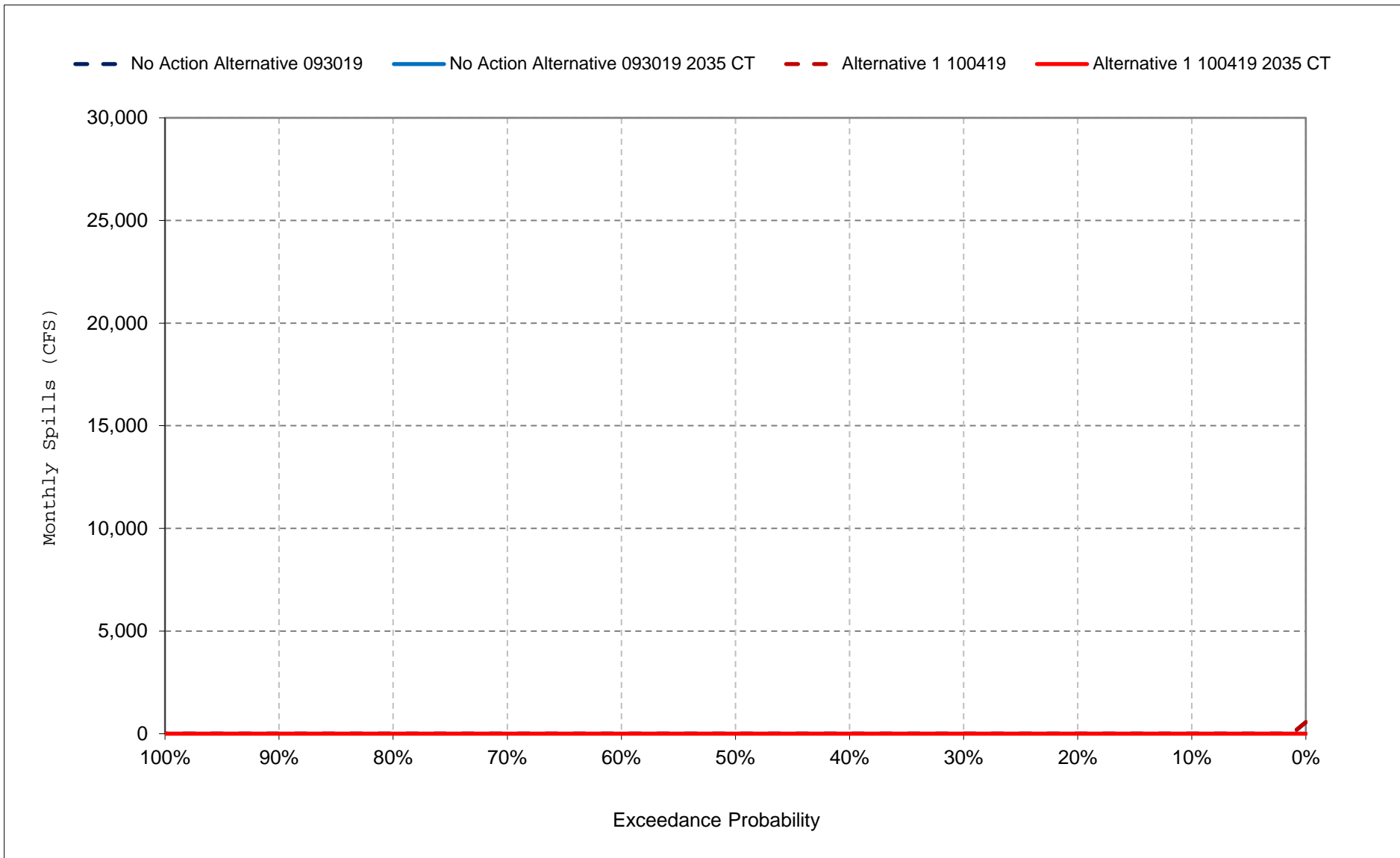
Figure 24-14. Fremont Weir Spills, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

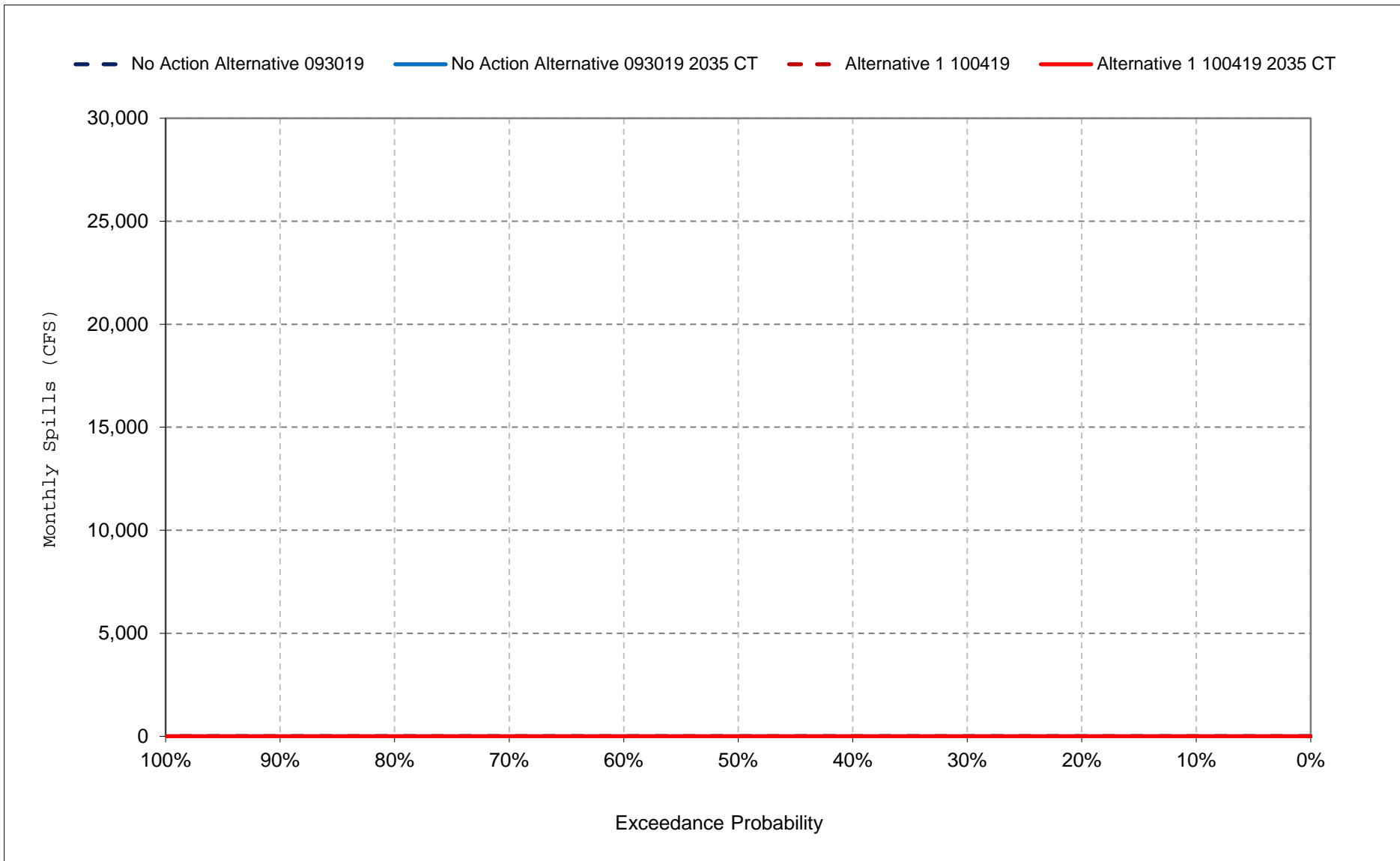
Figure 24-15. Fremont Weir Spills, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

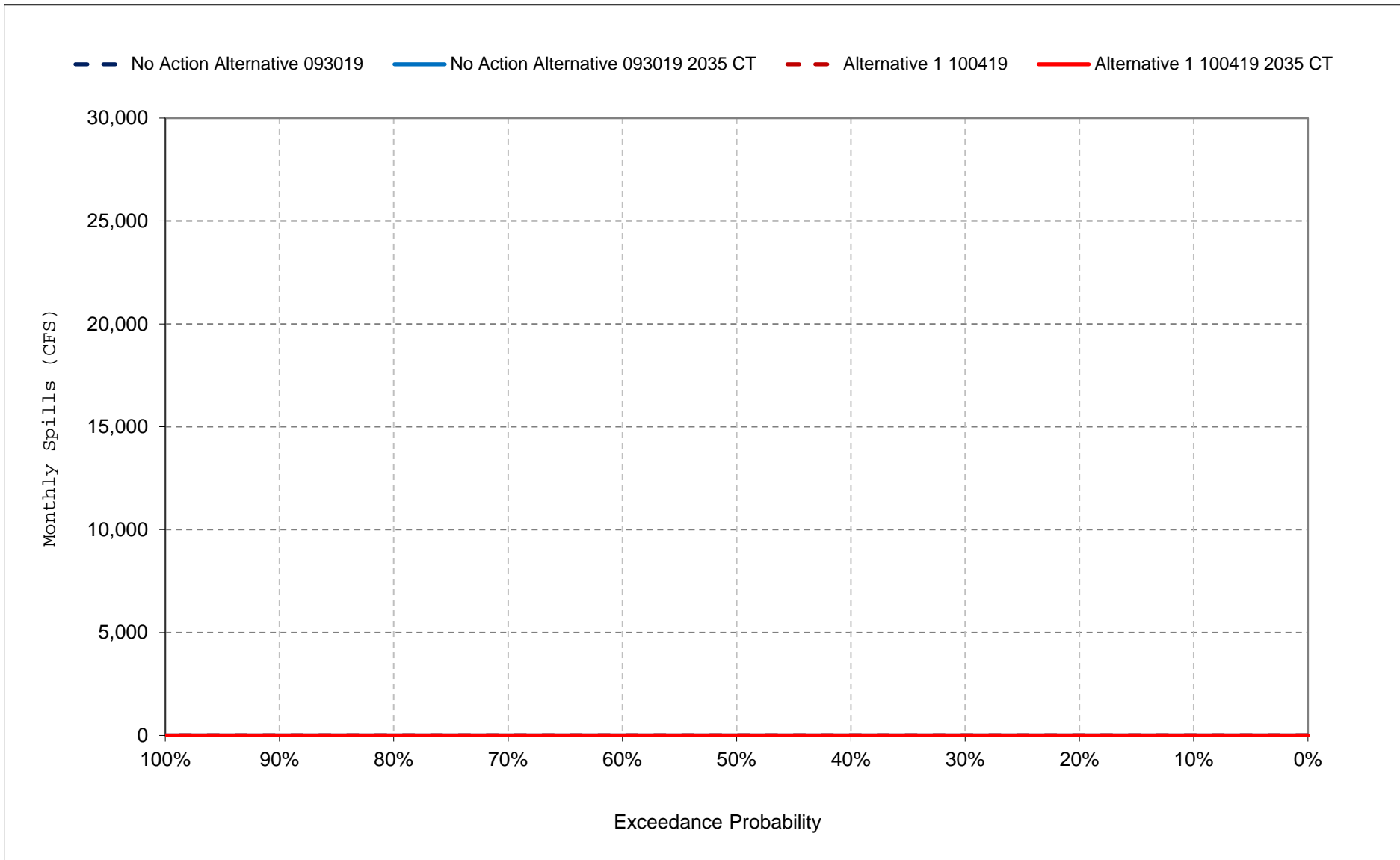
Figure 24-16. Fremont Weir Spills, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

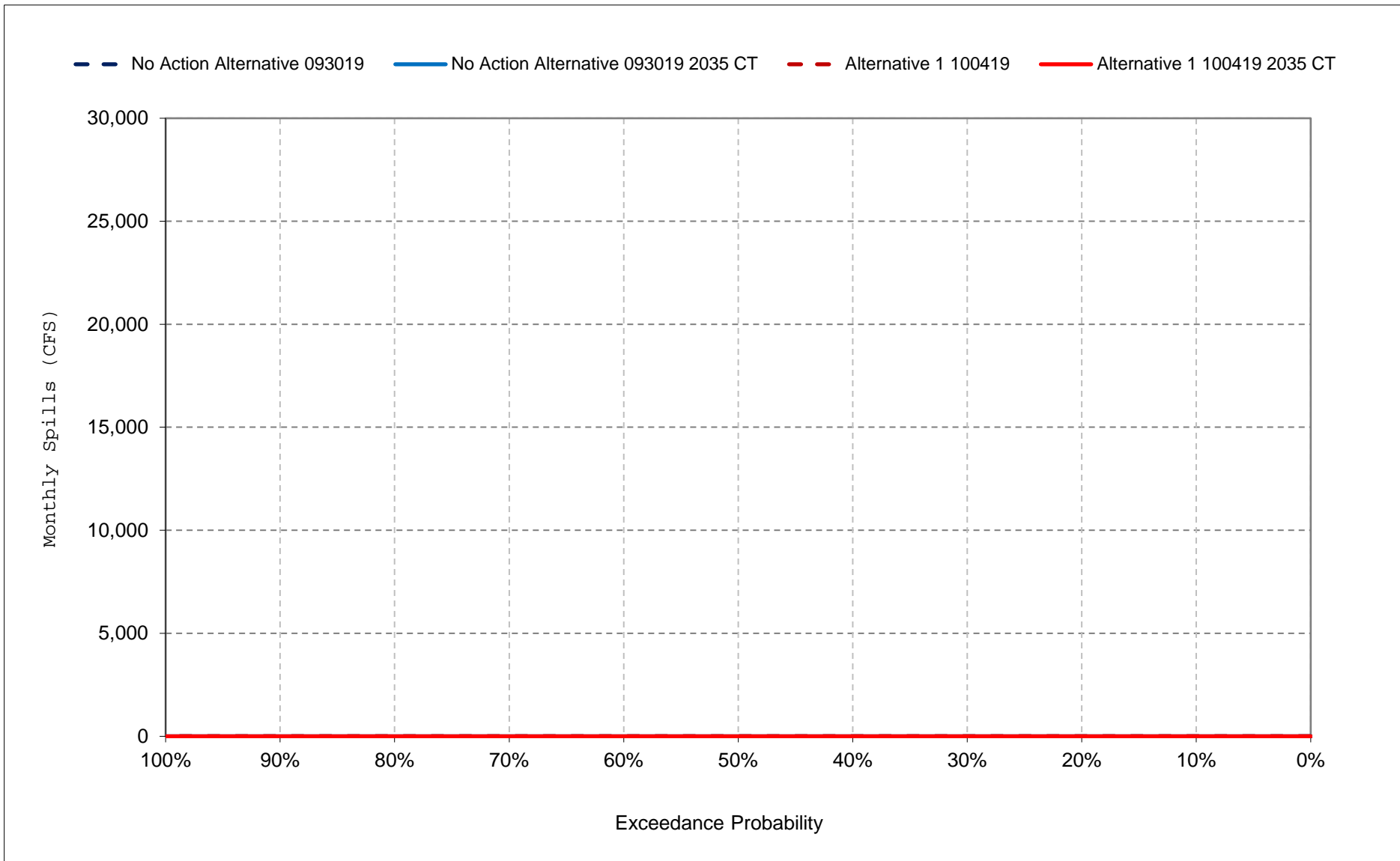
Figure 24-17. Fremont Weir Spills, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 24-18. Fremont Weir Spills, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-1. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	807	11,074	34,905	52,512	18,729	7,044	243	68	48	183	247
20%	61	180	4,879	14,950	20,714	8,858	3,162	78	68	48	55	125
30%	58	82	1,495	7,020	11,107	4,888	1,068	73	68	48	55	59
40%	53	59	462	3,091	6,866	2,861	229	70	68	48	55	59
50%	45	33	271	900	4,160	1,136	135	68	67	48	55	59
60%	39	14	138	490	1,520	437	111	65	67	48	55	59
70%	27	10	52	273	581	187	88	63	66	48	55	58
80%	14	5	20	68	210	90	78	59	64	48	55	56
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	121	537	4,367	11,804	15,744	9,246	2,650	210	88	48	101	115
Water Year Types ^{b,c}												
Wet (32%)	86	746	5,579	31,618	36,367	23,469	6,899	453	135	48	147	209
Above Normal (16%)	38	895	1,881	8,321	17,536	8,646	1,822	185	66	48	92	65
Below Normal (13%)	538	115	3,563	928	4,721	656	234	69	66	48	130	92
Dry (24%)	36	571	7,239	1,094	2,868	1,228	522	75	67	48	61	70
Critical (15%)	48	27	385	467	684	320	105	67	65	48	55	61

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	803	13,705	38,091	52,656	24,848	7,045	243	68	48	183	127
20%	61	159	5,197	15,725	21,991	8,913	3,162	78	68	48	55	59
30%	57	51	1,584	7,125	11,501	5,386	1,068	73	68	48	55	59
40%	53	28	462	3,249	9,166	3,026	229	70	68	48	55	59
50%	45	11	272	1,144	4,188	1,261	135	68	67	48	55	59
60%	39	8	146	525	2,188	465	111	65	67	48	55	59
70%	27	5	56	282	587	214	88	63	66	48	55	58
80%	14	1	19	95	210	90	78	59	64	48	55	55
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	120	588	4,907	12,219	16,420	9,543	2,664	211	88	50	101	72
Water Year Types ^{b,c}												
Wet (32%)	86	776	6,876	32,731	37,427	23,879	6,946	454	135	55	147	73
Above Normal (16%)	38	1,027	2,165	8,489	19,015	9,520	1,818	185	66	48	92	65
Below Normal (13%)	538	115	3,588	1,154	5,578	809	234	69	66	48	130	92
Dry (24%)	36	655	7,568	1,103	2,844	1,260	521	75	67	48	61	70
Critical (15%)	42	26	384	488	660	322	105	67	65	48	55	61

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-4	2,631	3,186	144	6,119	1	0	0	0	0	-120
20%	0	-21	318	774	1,277	55	0	0	0	0	0	-66
30%	-1	-31	89	104	393	498	0	0	0	0	0	0
40%	0	-30	0	158	2,300	165	0	0	0	0	0	0
50%	0	-22	1	244	27	126	0	0	0	0	0	0
60%	0	-5	8	34	668	29	0	0	0	0	0	0
70%	0	-4	4	9	6	27	0	0	0	0	0	-1
80%	0	-4	-1	27	0	0	0	0	0	0	0	-1
90%	0	0	0	-1	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-1	51	540	415	676	297	14	0	0	2	0	-43
Water Year Types ^{b,c}												
Wet (32%)	0	30	1,297	1,113	1,059	410	47	1	0	8	0	-137
Above Normal (16%)	0	132	285	168	1,479	874	-4	0	0	0	0	0
Below Normal (13%)	-1	0	24	226	857	153	0	0	0	0	0	0
Dry (24%)	0	84	330	8	-24	32	-1	0	0	0	0	0
Critical (15%)	-7	-1	-1	22	-24	2	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 25-2. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	719	11,670	36,216	55,495	23,061	7,044	82	68	48	183	271
20%	61	182	5,300	19,007	26,804	11,560	3,162	77	68	48	55	133
30%	57	71	1,700	7,693	12,667	7,061	1,068	72	68	48	55	60
40%	53	50	475	3,693	9,810	3,333	229	69	68	48	55	59
50%	45	29	293	1,228	5,310	1,285	135	67	67	48	55	59
60%	39	10	148	584	1,734	517	111	64	67	48	55	59
70%	27	7	55	292	641	210	88	62	66	48	55	58
80%	14	3	20	103	221	104	78	58	64	48	55	56
90%	4	0	0	38	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	72	471	4,447	13,494	17,209	10,886	2,934	142	81	48	101	129
Water Year Types ^{b,c}												
Wet (32%)	86	768	5,646	35,756	39,045	27,425	7,776	236	113	48	147	218
Above Normal (16%)	38	534	1,952	10,195	19,744	10,335	1,818	184	66	48	92	138
Below Normal (13%)	180	114	3,449	1,208	5,782	754	234	69	66	48	130	92
Dry (24%)	36	506	7,415	1,201	3,360	1,651	546	75	67	48	61	70
Critical (15%)	42	28	519	581	710	329	105	67	65	48	55	58

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	869	13,190	39,763	55,503	29,719	7,044	82	68	48	183	127
20%	61	159	5,688	21,327	27,345	11,567	3,162	77	68	48	55	59
30%	57	51	1,914	9,127	14,566	7,819	1,068	72	68	48	55	59
40%	53	23	574	4,008	9,794	3,465	229	69	68	48	55	59
50%	45	10	304	1,518	5,484	1,364	125	67	67	48	55	59
60%	39	7	169	652	2,125	566	111	64	67	48	55	59
70%	27	4	55	292	649	235	88	62	66	48	55	57
80%	14	0	22	75	242	112	78	58	64	48	55	55
90%	4	0	0	25	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	74	475	5,034	14,085	17,872	11,291	2,922	142	81	48	101	71
Water Year Types ^{b,c}												
Wet (32%)	86	750	6,676	37,312	39,866	27,852	7,746	237	113	48	147	73
Above Normal (16%)	38	553	2,361	10,513	21,453	11,669	1,807	184	66	48	92	65
Below Normal (13%)	189	119	3,464	1,516	6,770	981	234	69	66	48	130	92
Dry (24%)	36	531	8,207	1,233	3,357	1,764	545	75	67	48	61	70
Critical (15%)	42	27	523	575	709	331	105	67	65	48	55	58

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	150	1,520	3,548	7	6,658	0	0	0	0	0	-145
20%	0	-23	388	2,320	541	7	0	0	0	0	0	-74
30%	0	-20	215	1,434	1,899	758	0	0	0	0	0	0
40%	0	-27	99	315	-17	132	0	0	0	0	0	0
50%	0	-19	11	290	174	79	-10	0	0	0	0	0
60%	0	-3	21	69	391	49	-1	0	0	0	0	-1
70%	0	-2	0	0	7	25	0	0	0	0	0	-1
80%	0	-3	2	-29	22	9	0	0	0	0	0	-1
90%	0	0	0	-14	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	1	4	587	592	663	405	-12	0	0	0	0	-58
Water Year Types ^{b,c}												
Wet (32%)	0	-18	1,031	1,555	821	428	-30	0	0	0	0	-145
Above Normal (16%)	0	19	410	317	1,709	1,334	-11	0	0	0	0	-74
Below Normal (13%)	9	5	15	308	988	227	0	0	0	0	0	0
Dry (24%)	0	24	792	32	-3	113	-1	0	0	0	0	0
Critical (15%)	0	-1	4	-6	-1	2	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-3. Yolo Bypass Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	807	11,074	34,905	52,512	18,729	7,044	243	68	48	183	247
20%	61	180	4,879	14,950	20,714	8,858	3,162	78	68	48	55	125
30%	58	82	1,495	7,020	11,107	4,888	1,068	73	68	48	55	59
40%	53	59	462	3,091	6,866	2,861	229	70	68	48	55	59
50%	45	33	271	900	4,160	1,136	135	68	67	48	55	59
60%	39	14	138	490	1,520	437	111	65	67	48	55	59
70%	27	10	52	273	581	187	88	63	66	48	55	58
80%	14	5	20	68	210	90	78	59	64	48	55	56
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	121	537	4,367	11,804	15,744	9,246	2,650	210	88	48	101	115
Water Year Types ^{b,c}												
Wet (32%)	86	746	5,579	31,618	36,367	23,469	6,899	453	135	48	147	209
Above Normal (16%)	38	895	1,881	8,321	17,536	8,646	1,822	185	66	48	92	65
Below Normal (13%)	538	115	3,563	928	4,721	656	234	69	66	48	130	92
Dry (24%)	36	571	7,239	1,094	2,868	1,228	522	75	67	48	61	70
Critical (15%)	48	27	385	467	684	320	105	67	65	48	55	61

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	719	11,670	36,216	55,495	23,061	7,044	82	68	48	183	271
20%	61	182	5,300	19,007	26,804	11,560	3,162	77	68	48	55	133
30%	57	71	1,700	7,693	12,667	7,061	1,068	72	68	48	55	60
40%	53	50	475	3,693	9,810	3,333	229	69	68	48	55	59
50%	45	29	293	1,228	5,310	1,285	135	67	67	48	55	59
60%	39	10	148	584	1,734	517	111	64	67	48	55	59
70%	27	7	55	292	641	210	88	62	66	48	55	58
80%	14	3	20	103	221	104	78	58	64	48	55	56
90%	4	0	0	38	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	72	471	4,447	13,494	17,209	10,886	2,934	142	81	48	101	129
Water Year Types ^{b,c}												
Wet (32%)	86	768	5,646	35,756	39,045	27,425	7,776	236	113	48	147	218
Above Normal (16%)	38	534	1,952	10,195	19,744	10,335	1,818	184	66	48	92	138
Below Normal (13%)	180	114	3,449	1,208	5,782	754	234	69	66	48	130	92
Dry (24%)	36	506	7,415	1,201	3,360	1,651	546	75	67	48	61	70
Critical (15%)	42	28	519	581	710	329	105	67	65	48	55	58

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-88	596	1,311	2,983	4,332	0	-161	0	0	0	24
20%	0	2	421	4,057	6,090	2,702	0	-1	0	0	0	8
30%	-1	-11	204	673	1,560	2,173	0	-1	0	0	0	0
40%	0	-8	13	602	2,944	473	0	-1	0	0	0	0
50%	0	-4	21	328	1,150	149	0	-1	0	0	0	0
60%	0	-4	11	93	213	80	0	0	0	0	0	0
70%	0	-3	3	19	61	22	0	0	0	0	0	0
80%	0	-2	0	35	11	14	0	-1	0	0	0	0
90%	0	0	0	3	22	8	0	-1	0	0	0	0
Long Term												
Full Simulation Period ^d	-49	-66	80	1,690	1,465	1,640	283	-69	-7	0	0	14
Water Year Types ^{b,c}												
Wet (32%)	0	22	66	4,138	2,678	3,956	877	-217	-22	0	0	8
Above Normal (16%)	0	-361	71	1,874	2,208	1,690	-4	-1	0	0	0	74
Below Normal (13%)	-358	-1	-115	280	1,061	98	0	0	0	0	0	0
Dry (24%)	0	-65	177	107	492	423	24	0	0	0	0	0
Critical (15%)	-7	1	135	114	27	9	0	0	0	0	0	-4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 25-4. Yolo Bypass Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	803	13,705	38,091	52,656	24,848	7,045	243	68	48	183	127
20%	61	159	5,197	15,725	21,991	8,913	3,162	78	68	48	55	59
30%	57	51	1,584	7,125	11,501	5,386	1,068	73	68	48	55	59
40%	53	28	462	3,249	9,166	3,026	229	70	68	48	55	59
50%	45	11	272	1,144	4,188	1,261	135	68	67	48	55	59
60%	39	8	146	525	2,188	465	111	65	67	48	55	59
70%	27	5	56	282	587	214	88	63	66	48	55	58
80%	14	1	19	95	210	90	78	59	64	48	55	55
90%	4	0	0	35	69	37	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	120	588	4,907	12,219	16,420	9,543	2,664	211	88	50	101	72
Water Year Types ^{b,c}												
Wet (32%)	86	776	6,876	32,731	37,427	23,879	6,946	454	135	55	147	73
Above Normal (16%)	38	1,027	2,165	8,489	19,015	9,520	1,818	185	66	48	92	65
Below Normal (13%)	538	115	3,588	1,154	5,578	809	234	69	66	48	130	92
Dry (24%)	36	655	7,568	1,103	2,844	1,260	521	75	67	48	61	70
Critical (15%)	42	26	384	488	660	322	105	67	65	48	55	61

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	869	13,190	39,763	55,503	29,719	7,044	82	68	48	183	127
20%	61	159	5,688	21,327	27,345	11,567	3,162	77	68	48	55	59
30%	57	51	1,914	9,127	14,566	7,819	1,068	72	68	48	55	59
40%	53	23	574	4,008	9,794	3,465	229	69	68	48	55	59
50%	45	10	304	1,518	5,484	1,364	125	67	67	48	55	59
60%	39	7	169	652	2,125	566	111	64	67	48	55	59
70%	27	4	55	292	649	235	88	62	66	48	55	57
80%	14	0	22	75	242	112	78	58	64	48	55	55
90%	4	0	0	25	90	45	56	53	62	48	54	52
Long Term												
Full Simulation Period ^d	74	475	5,034	14,085	17,872	11,291	2,922	142	81	48	101	71
Water Year Types ^{b,c}												
Wet (32%)	86	750	6,676	37,312	39,866	27,852	7,746	237	113	48	147	73
Above Normal (16%)	38	553	2,361	10,513	21,453	11,669	1,807	184	66	48	92	65
Below Normal (13%)	189	119	3,464	1,516	6,770	981	234	69	66	48	130	92
Dry (24%)	36	531	8,207	1,233	3,357	1,764	545	75	67	48	61	70
Critical (15%)	42	27	523	575	709	331	105	67	65	48	55	58

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	65	-515	1,672	2,847	4,871	-1	-161	0	0	0	0
20%	0	0	490	5,602	5,355	2,654	0	-1	0	0	0	0
30%	0	0	330	2,003	3,066	2,433	0	-1	0	0	0	0
40%	0	-5	113	759	628	440	0	-1	0	0	0	0
50%	0	-1	32	374	1,297	103	-10	-1	0	0	0	0
60%	0	-1	24	128	-63	101	-1	0	0	0	0	0
70%	0	-1	-1	10	62	21	0	0	0	0	0	0
80%	0	0	3	-21	32	22	0	-1	0	0	0	0
90%	0	0	0	-10	21	8	0	-1	0	0	0	0
Long Term												
Full Simulation Period ^d	-47	-113	127	1,866	1,452	1,748	258	-69	-7	-2	0	-1
Water Year Types ^{b,c}												
Wet (32%)	0	-25	-200	4,581	2,439	3,974	800	-217	-22	-8	0	0
Above Normal (16%)	0	-473	196	2,023	2,437	2,149	-12	-1	0	0	0	0
Below Normal (13%)	-348	4	-124	362	1,192	173	0	0	0	0	0	0
Dry (24%)	0	-124	639	131	513	504	24	0	0	0	0	0
Critical (15%)	0	1	140	86	50	9	0	0	0	0	0	-4

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

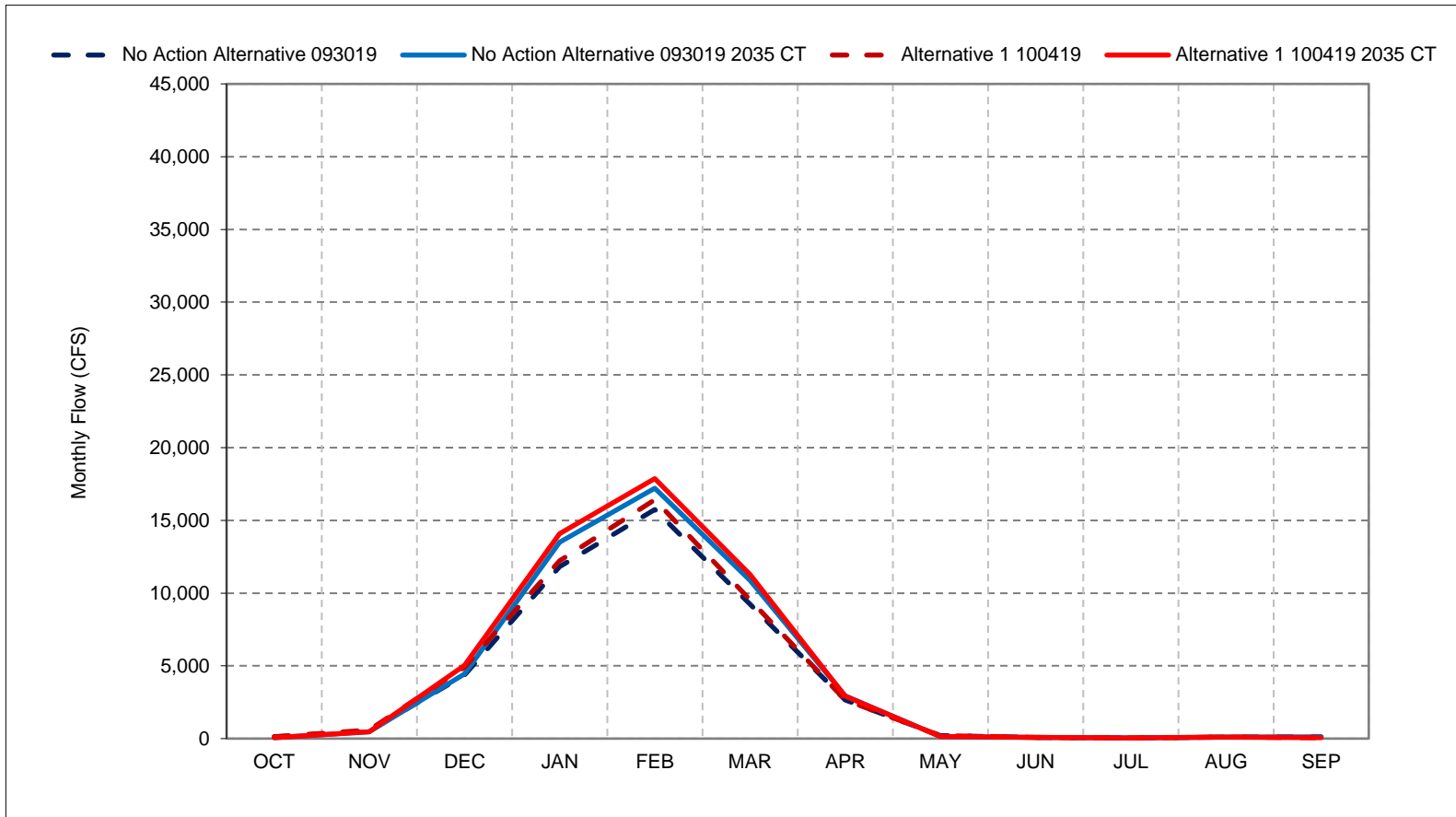
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 25-1. Yolo Bypass Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

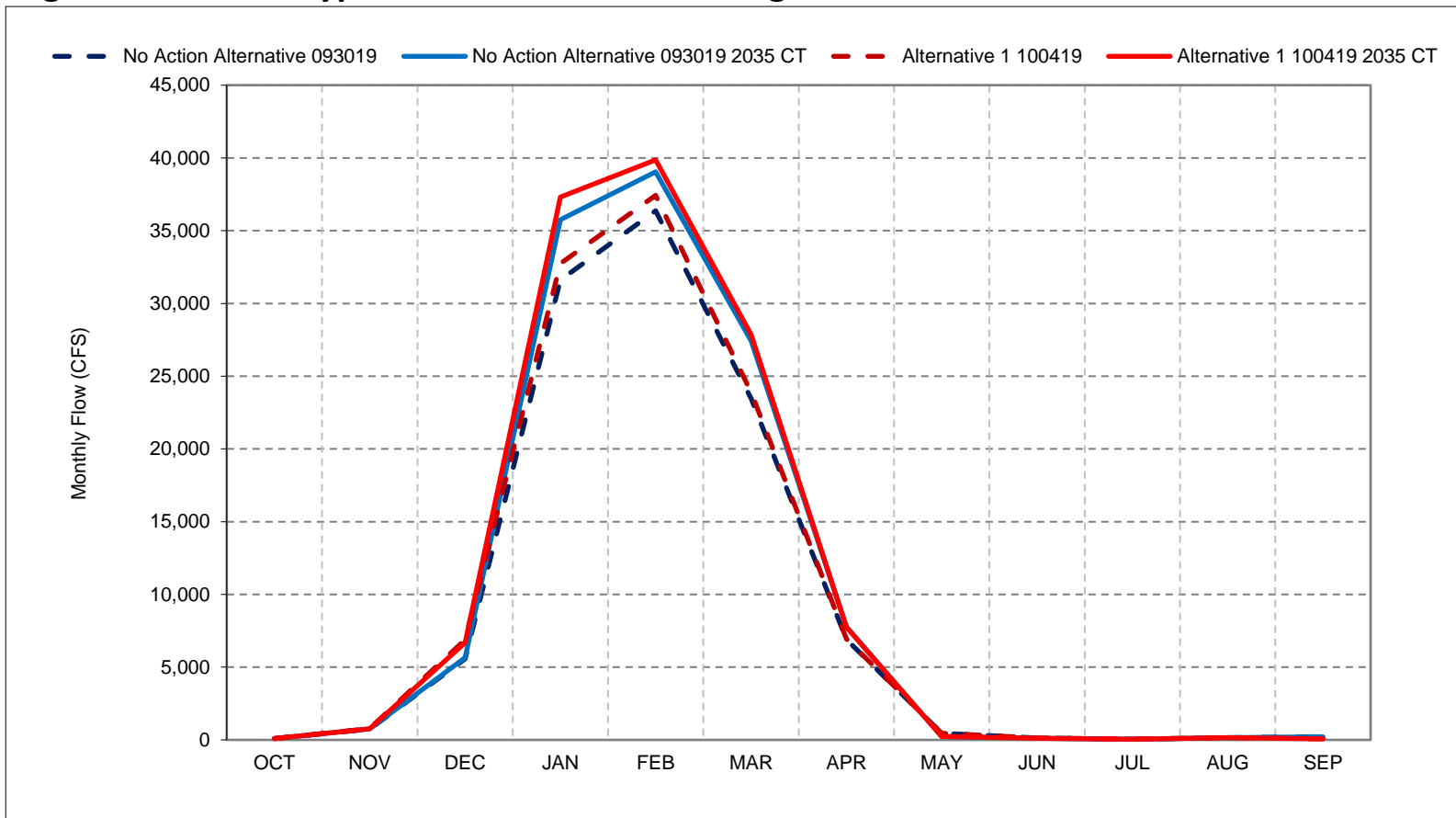
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-2. Yolo Bypass Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

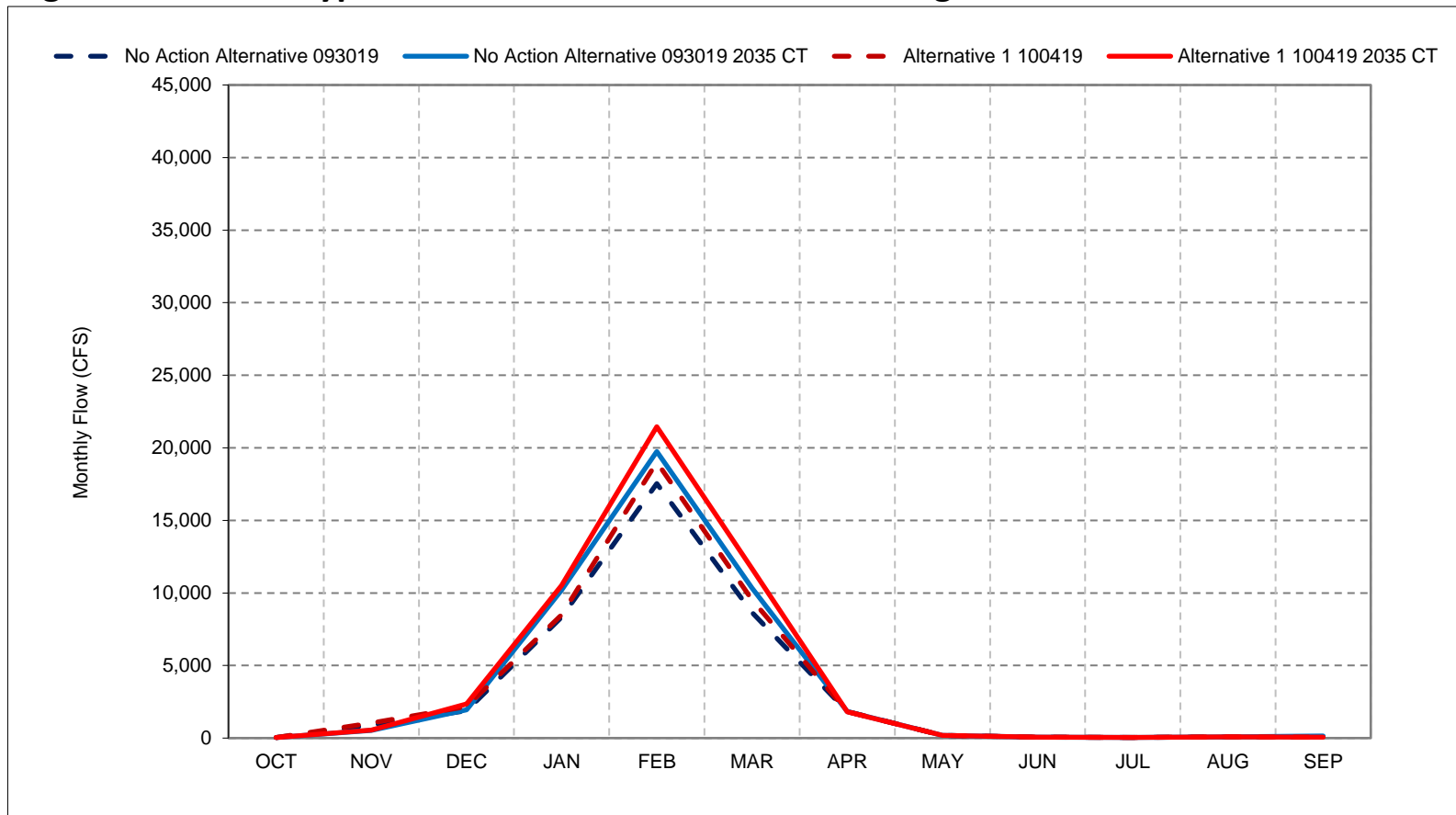
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-3. Yolo Bypass Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

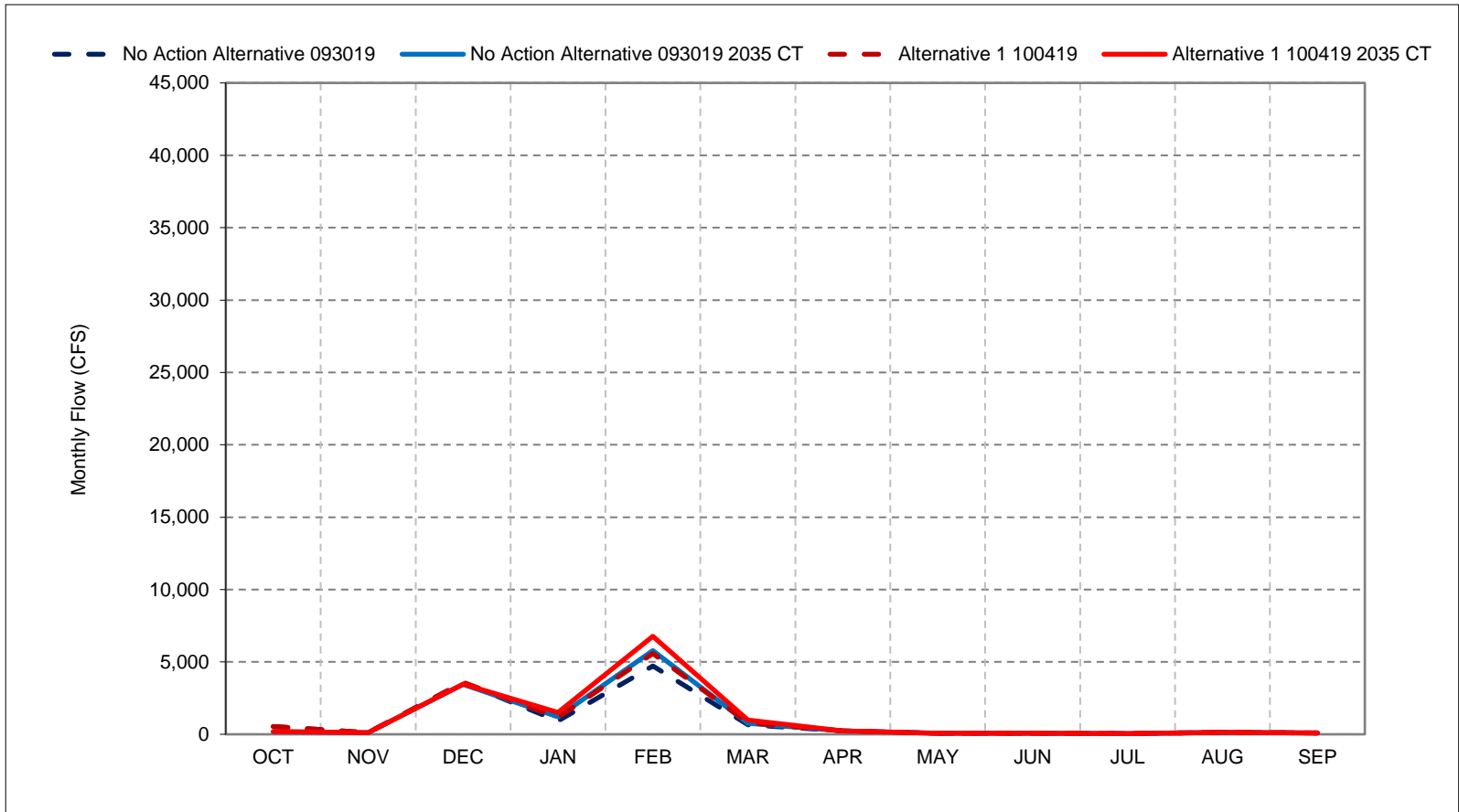
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-4. Yolo Bypass Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

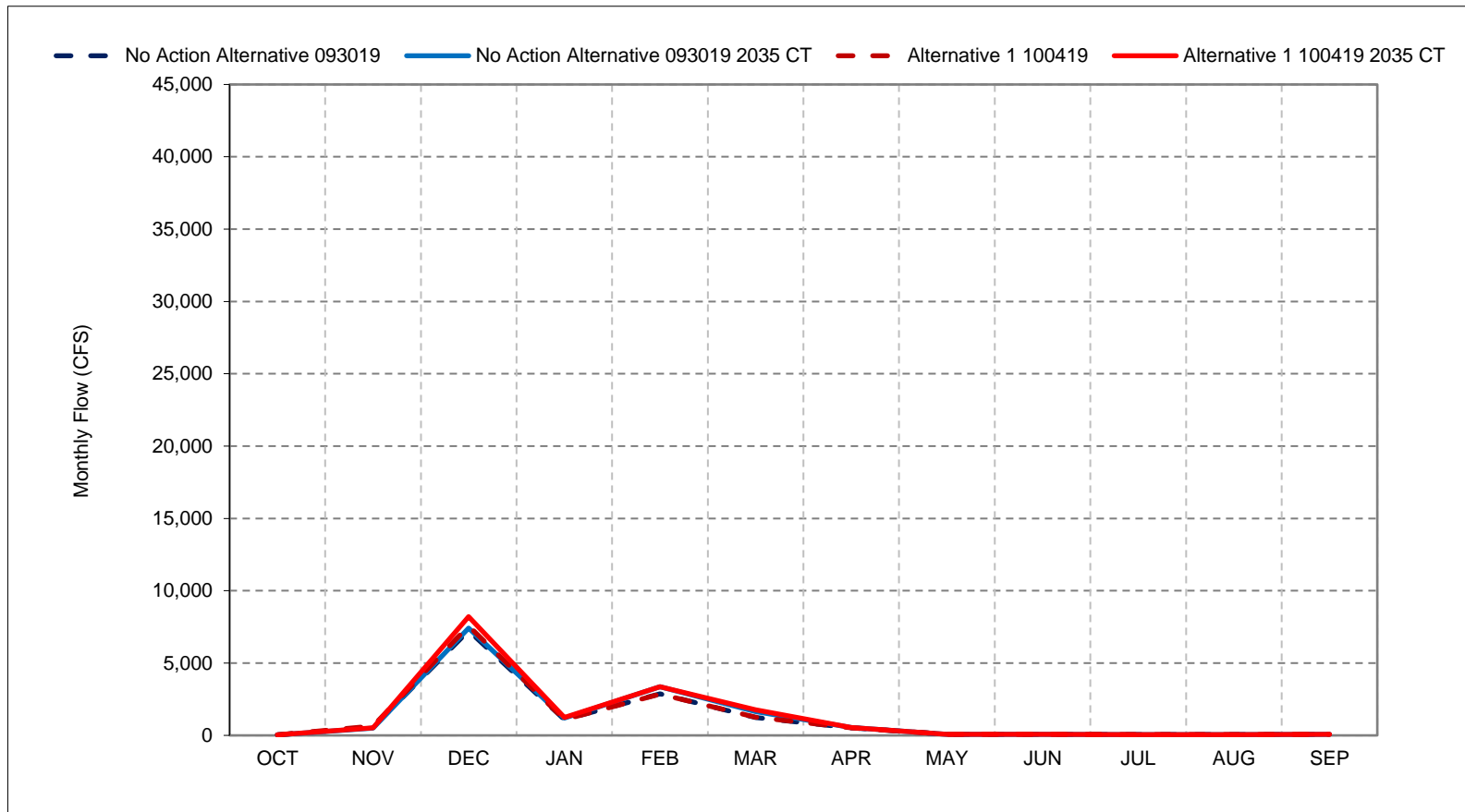
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-5. Yolo Bypass Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

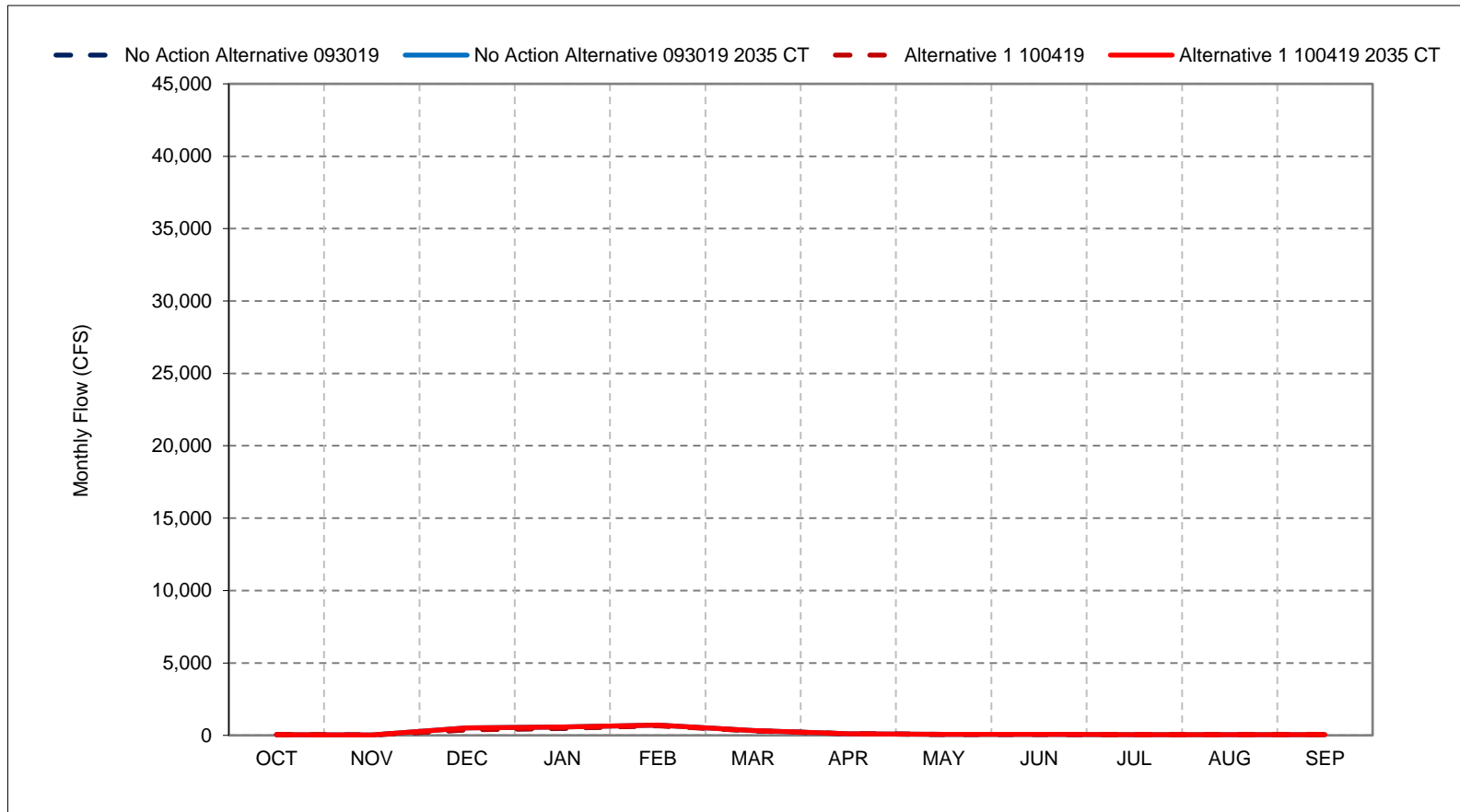
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 25-6. Yolo Bypass Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

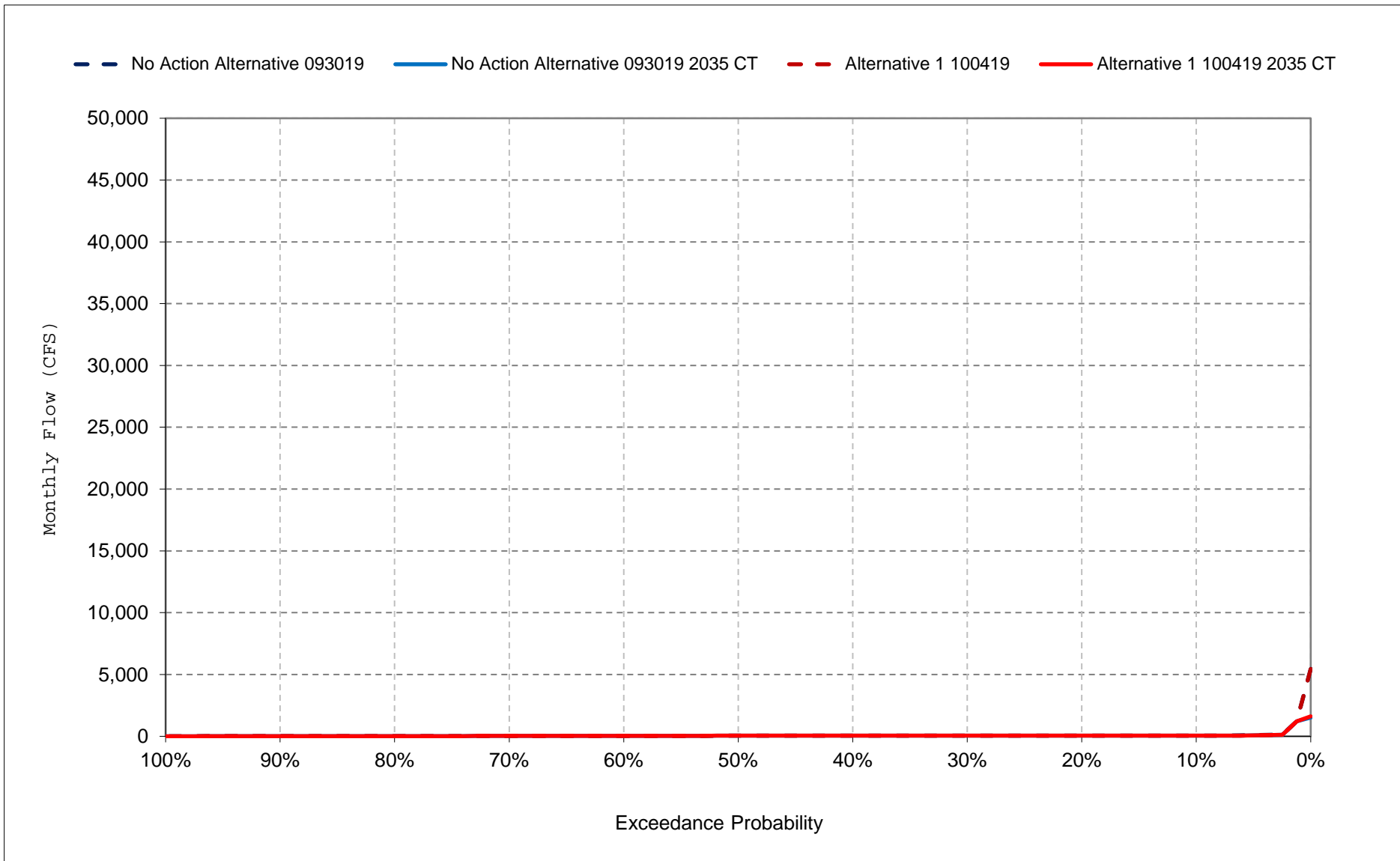
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

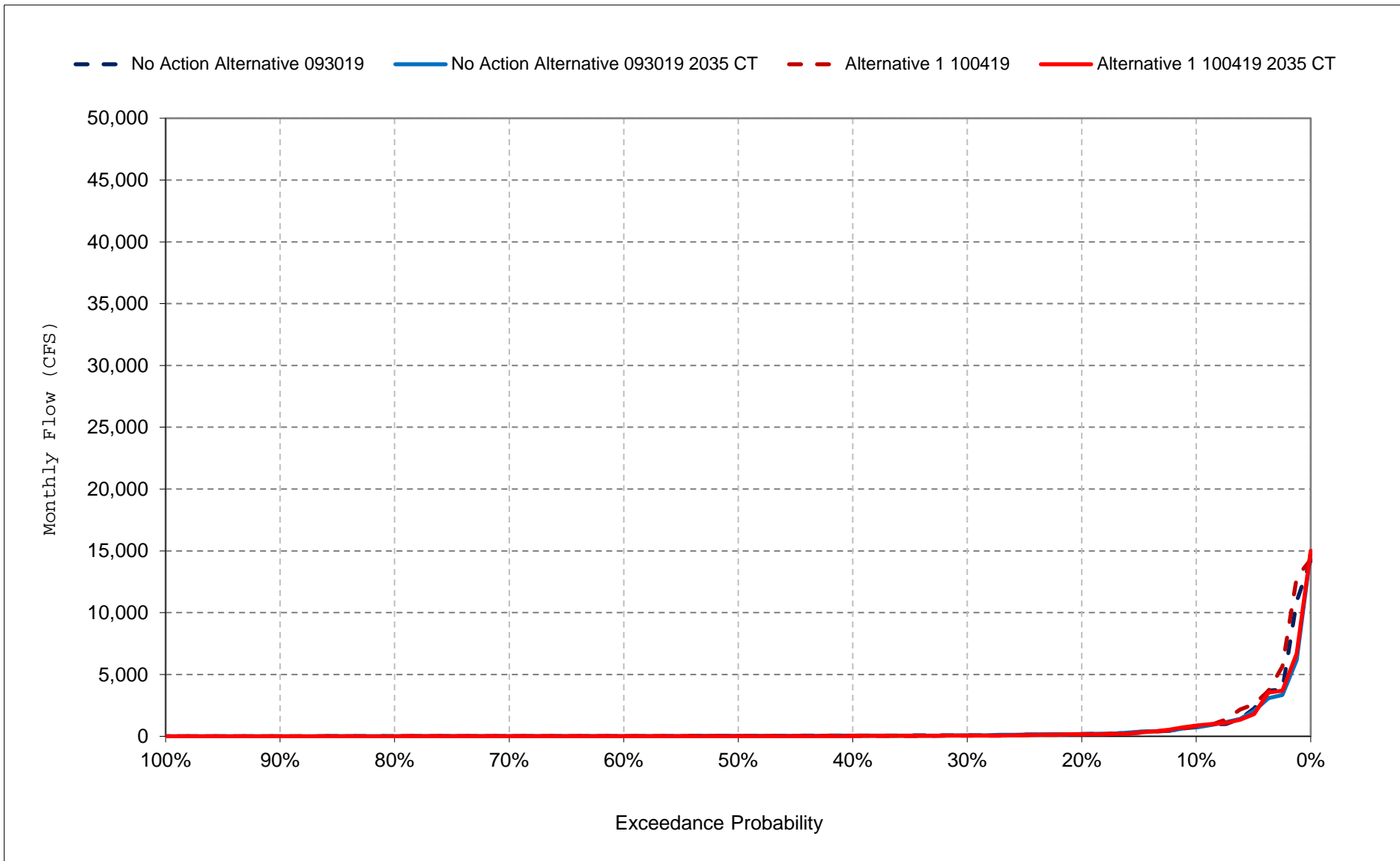
Figure 25-7. Yolo Bypass Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

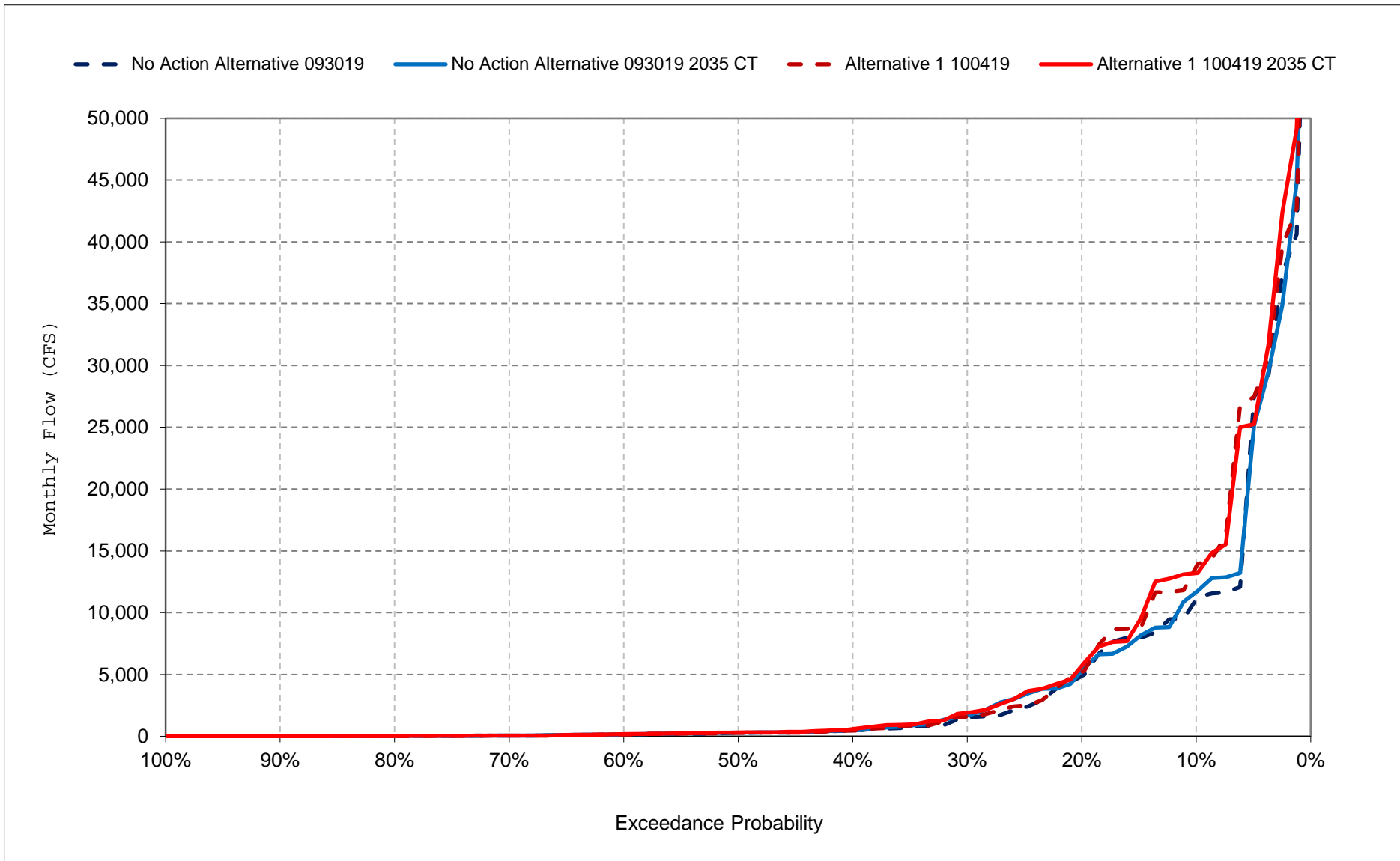
Figure 25-8. Yolo Bypass Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

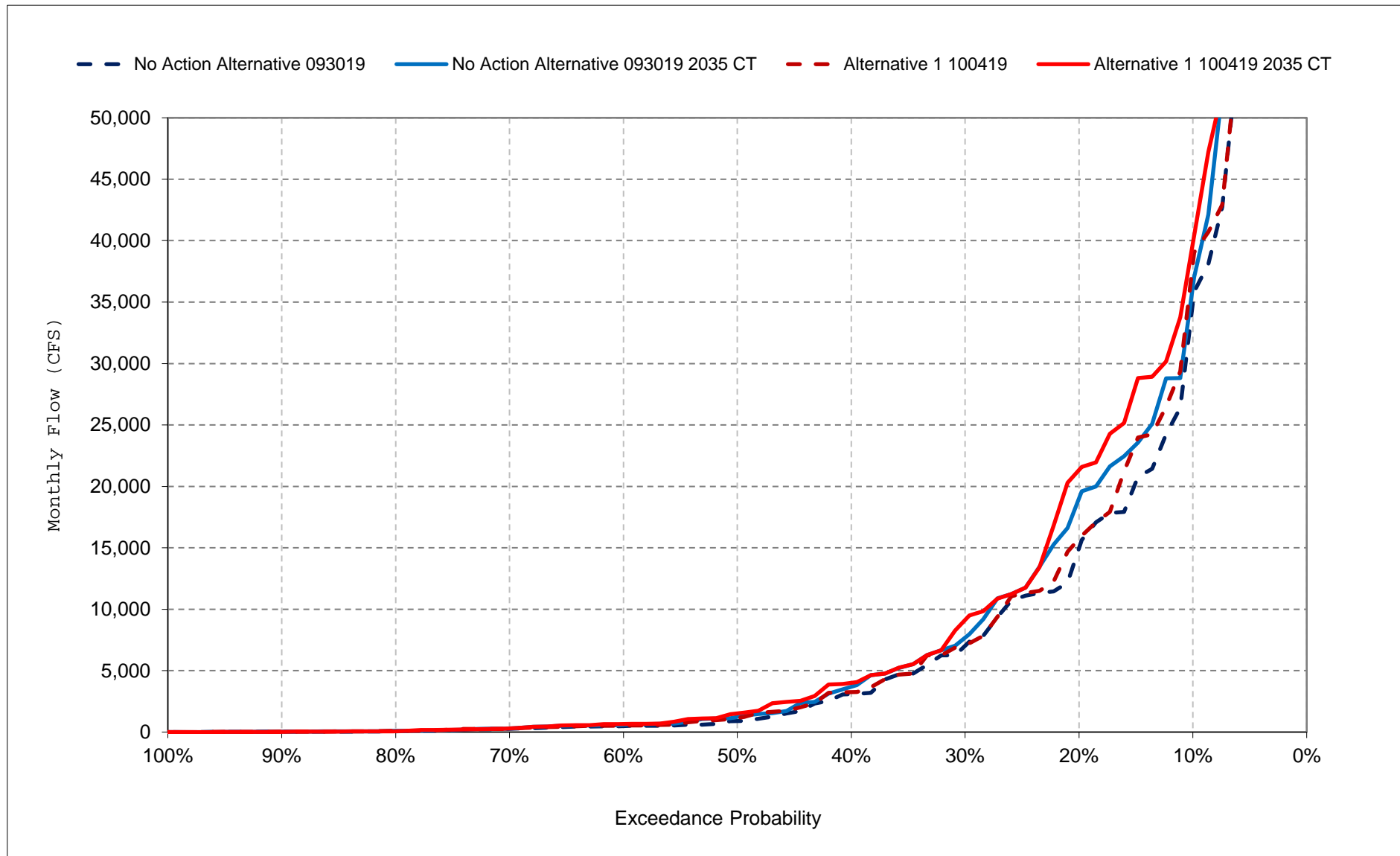
Figure 25-9. Yolo Bypass Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

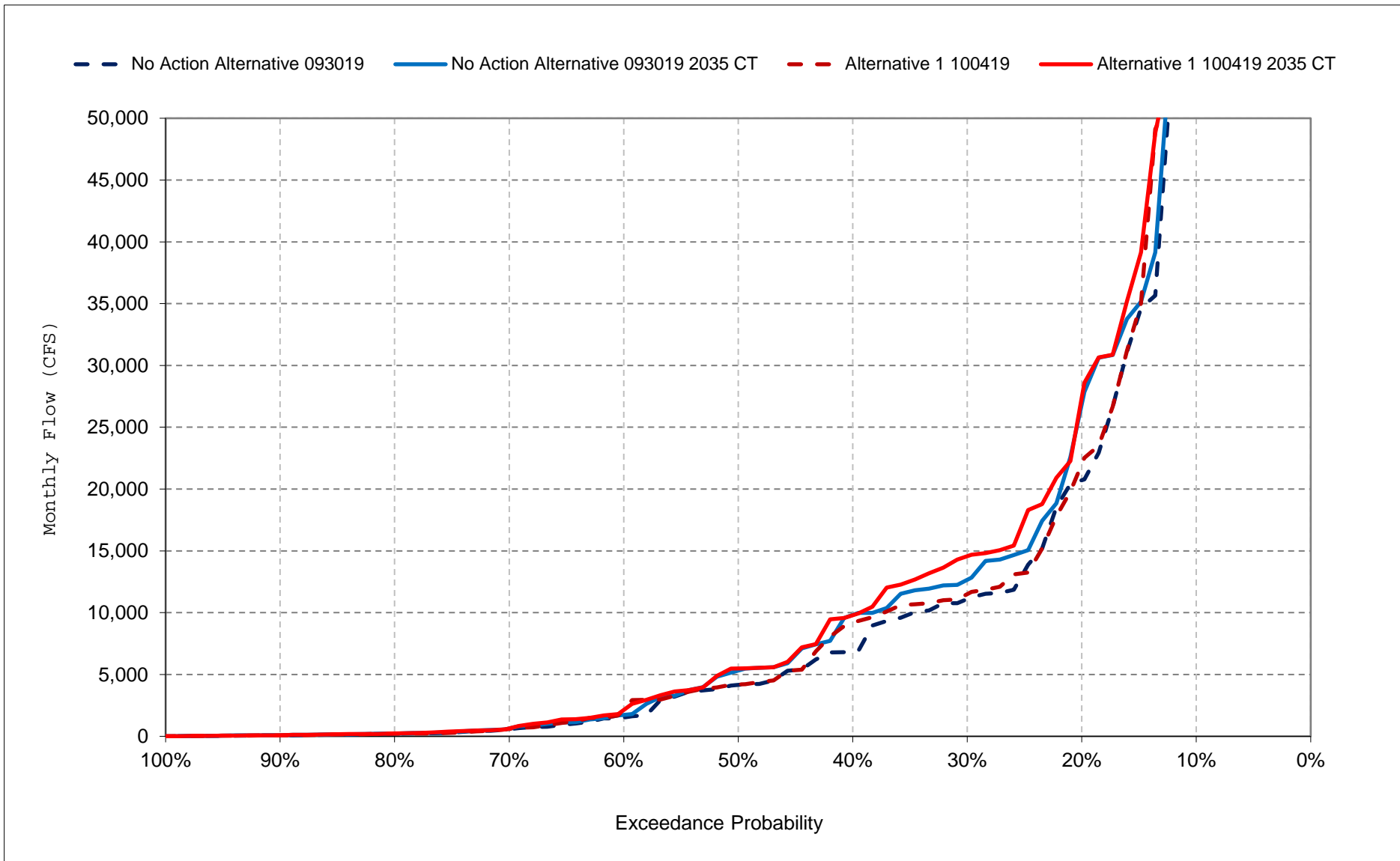
Figure 25-10. Yolo Bypass Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

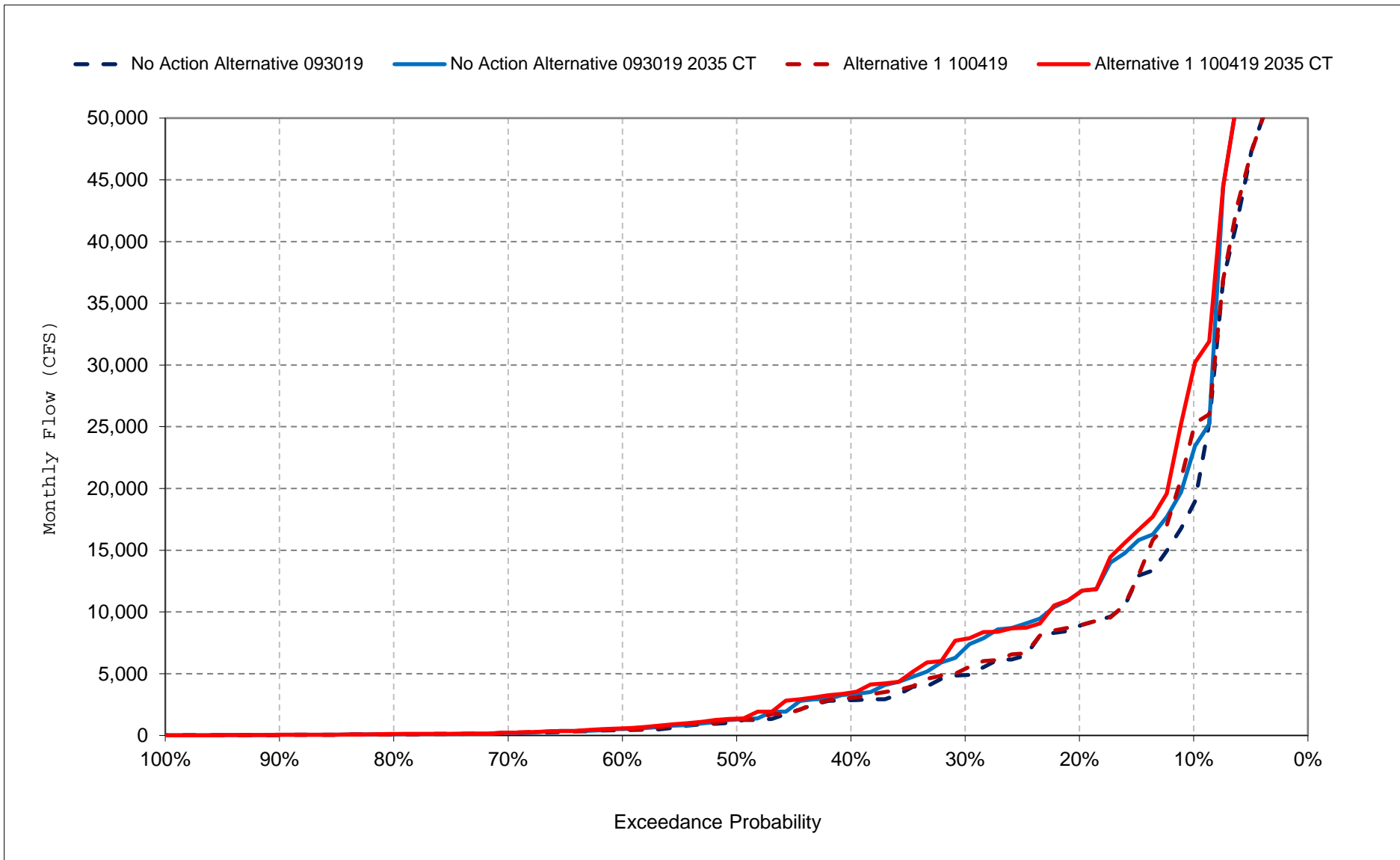
Figure 25-11. Yolo Bypass Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

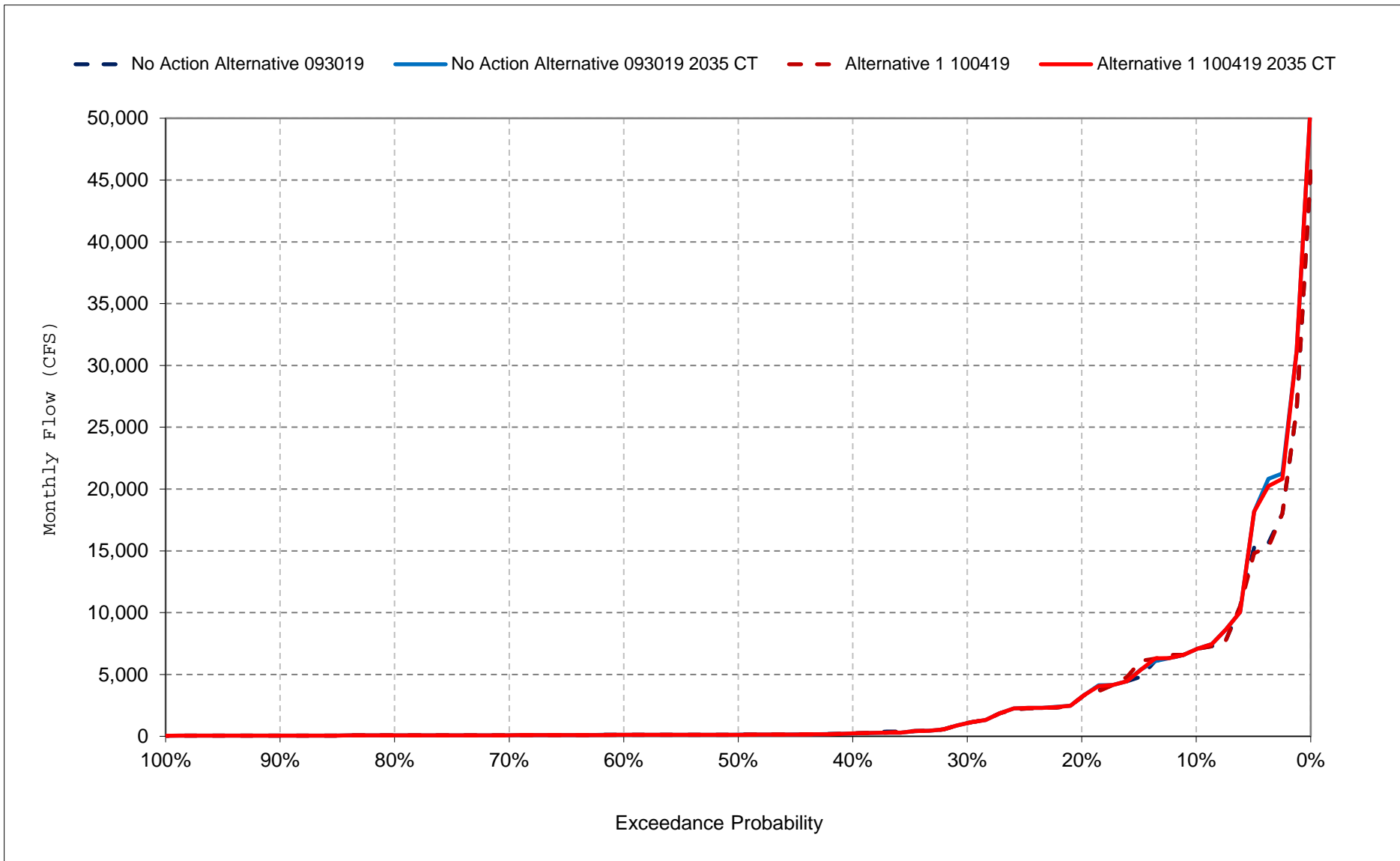
Figure 25-12. Yolo Bypass Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

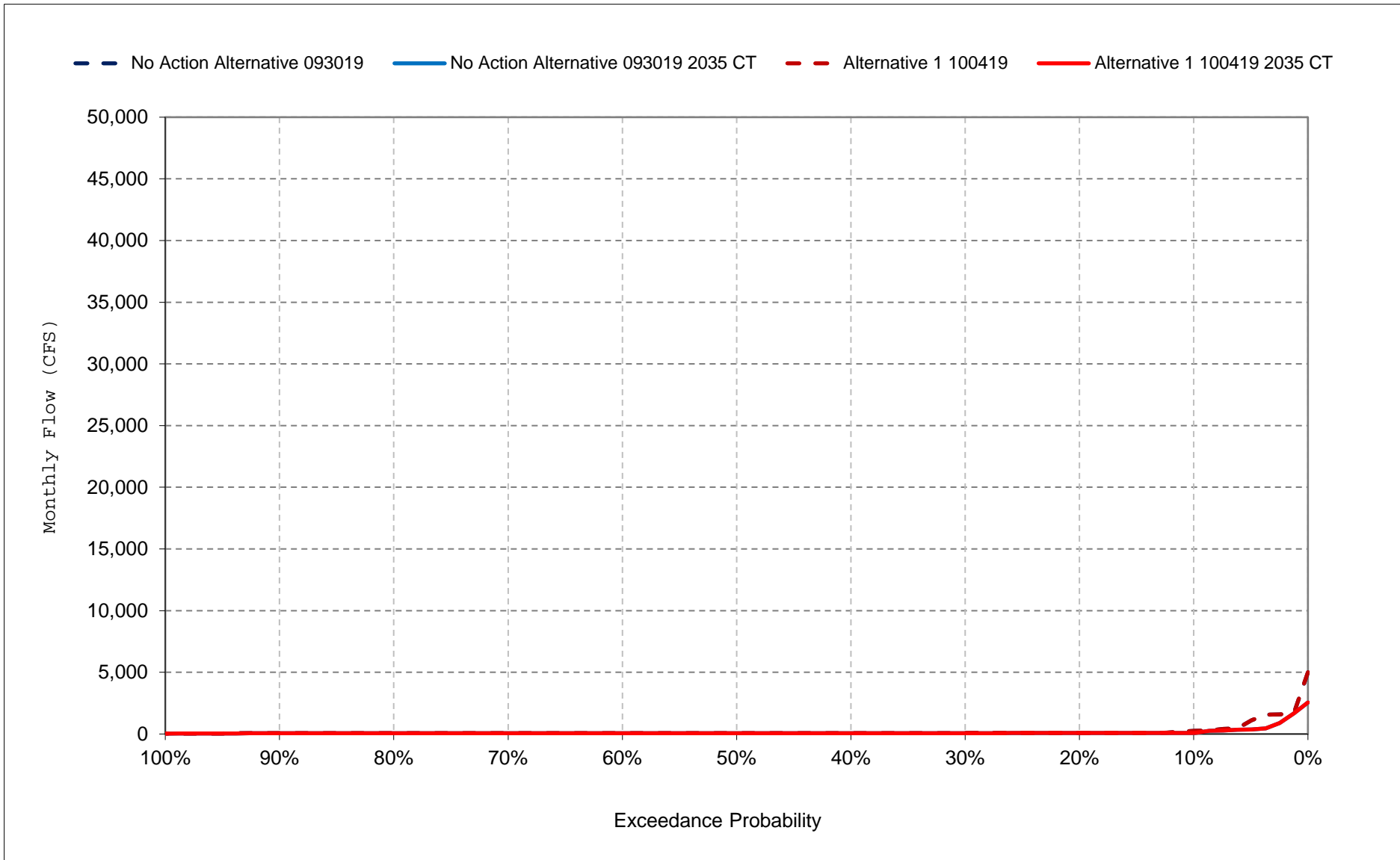
Figure 25-13. Yolo Bypass Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

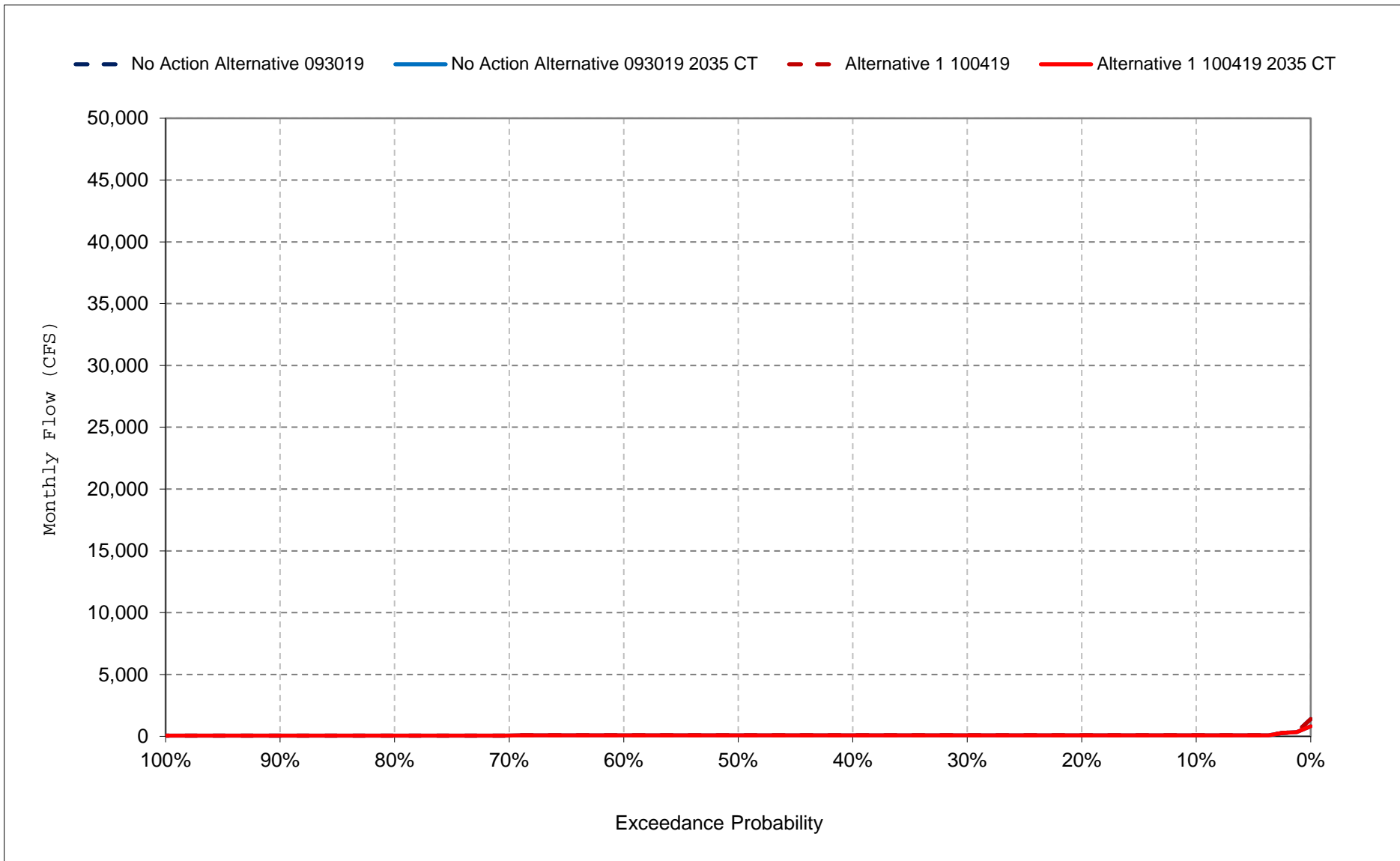
Figure 25-14. Yolo Bypass Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

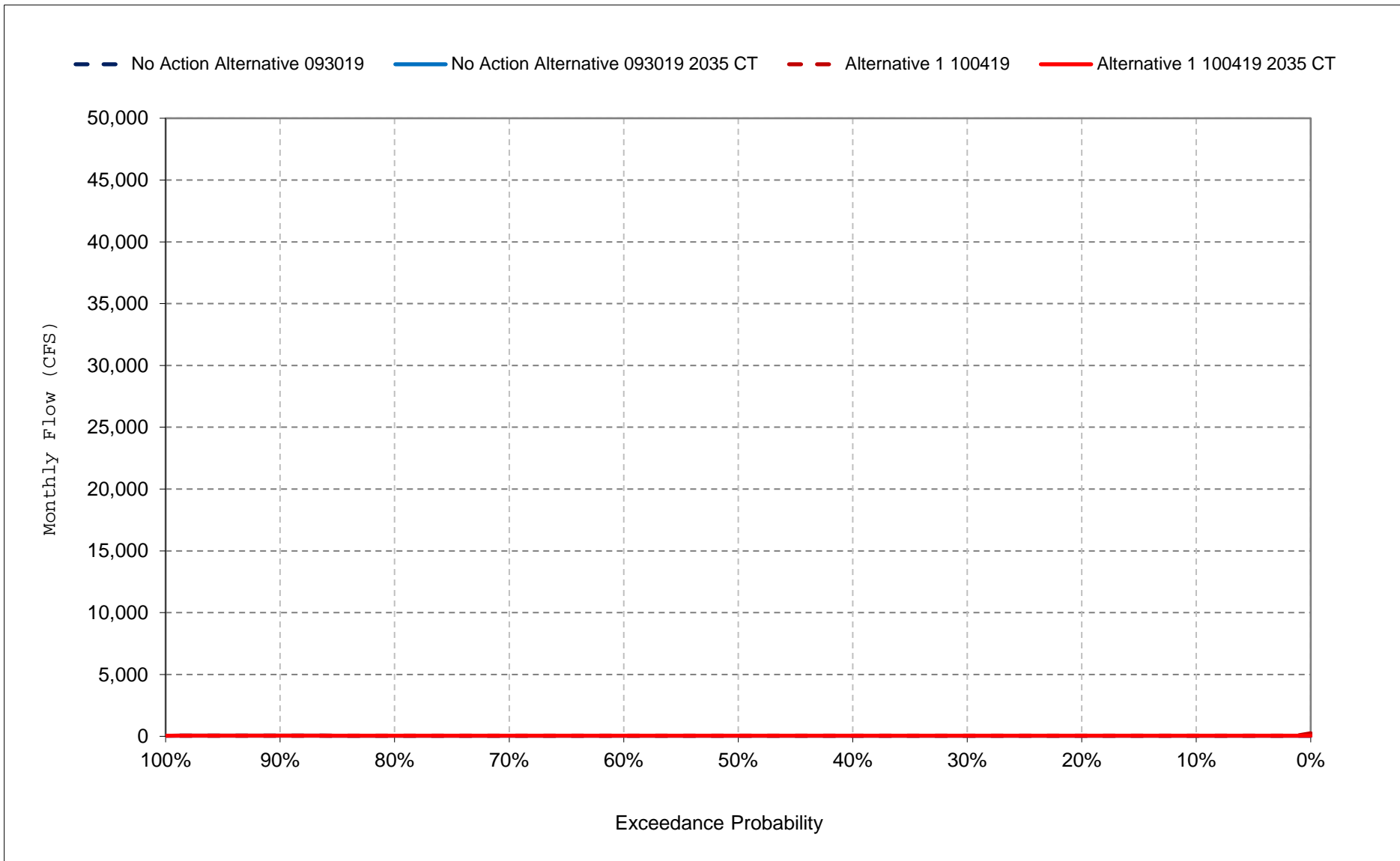
Figure 25-15. Yolo Bypass Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

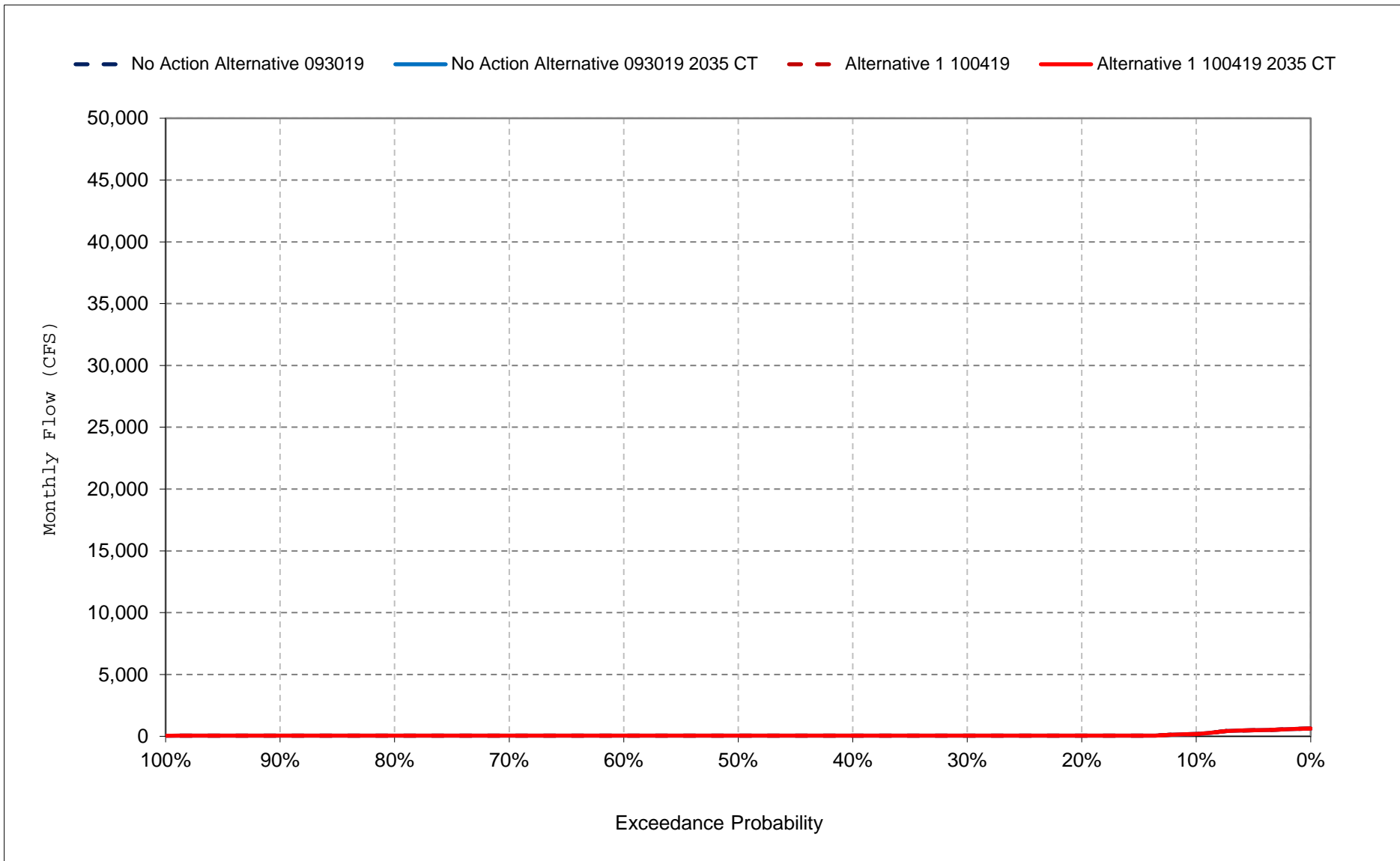
Figure 25-16. Yolo Bypass Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

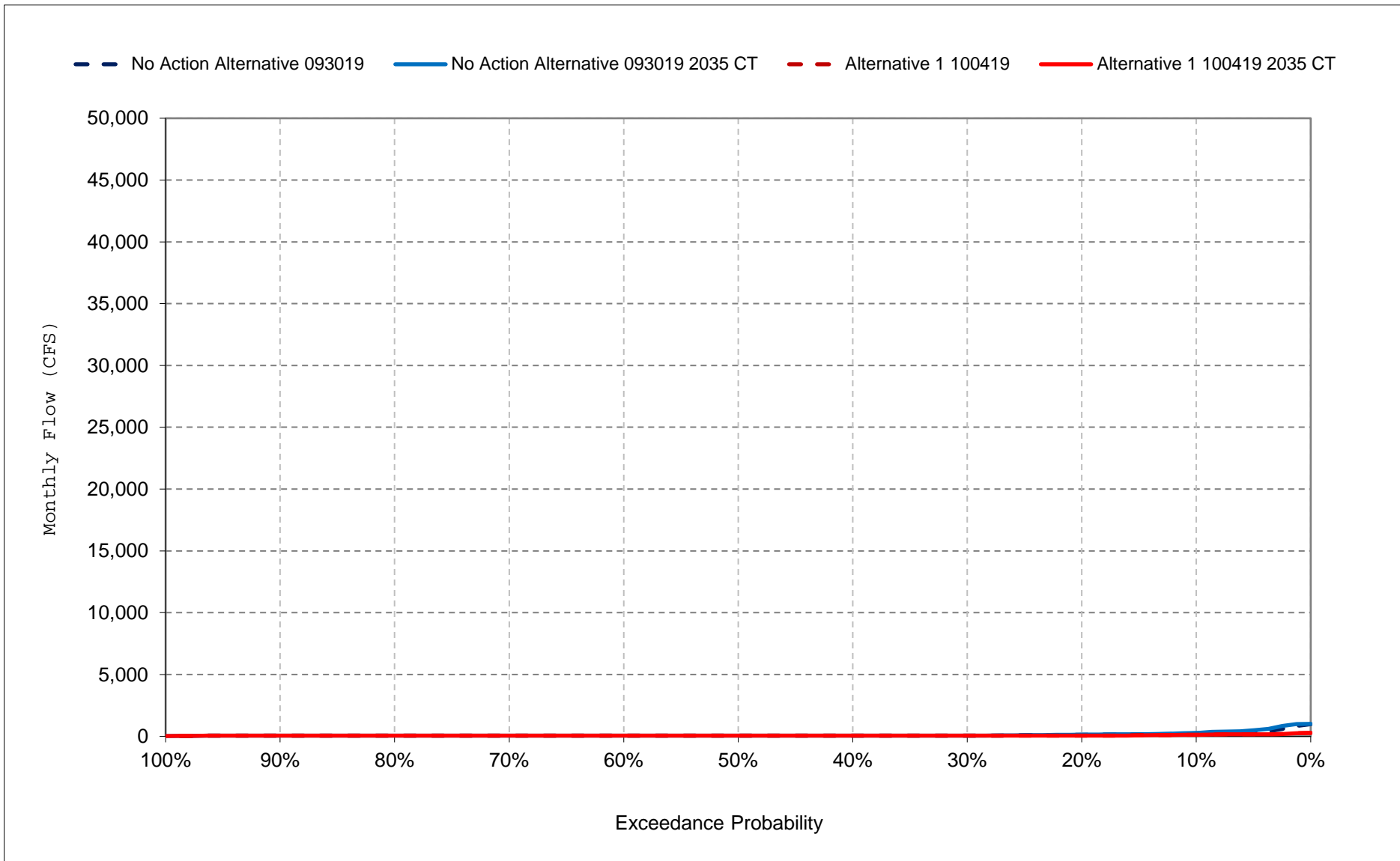
Figure 25-17. Yolo Bypass Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 25-18. Yolo Bypass Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-1. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,892	3,756	8,397	12,142	14,637	9,735	6,685	7,387	4,577	5,500	2,905	3,291
20%	2,206	3,252	3,810	7,661	10,862	6,799	5,026	4,409	3,718	4,869	2,356	2,855
30%	1,758	2,699	2,257	5,529	7,077	5,020	4,432	3,523	3,161	3,964	1,993	2,354
40%	1,500	2,248	2,000	3,516	5,728	4,151	3,390	2,648	2,675	3,359	1,750	1,953
50%	1,500	1,901	2,000	1,750	2,906	2,972	2,486	2,002	2,220	2,819	1,750	1,688
60%	1,500	1,683	1,970	1,700	1,771	1,996	2,045	1,750	1,804	2,461	1,750	1,533
70%	1,500	1,525	1,731	1,670	1,445	1,750	1,747	1,664	1,750	1,996	1,609	1,518
80%	1,036	1,103	1,172	1,469	1,264	843	891	1,071	1,087	1,750	1,000	808
90%	800	800	812	858	895	800	800	800	800	810	800	800
Long Term												
Full Simulation Period ^d	1,714	2,507	3,656	5,038	5,820	4,222	3,343	3,046	2,681	3,029	1,789	1,930
Water Year Types ^{b,c}												
Wet (32%)	2,347	3,656	4,380	10,456	10,454	7,190	5,483	5,489	4,153	3,490	2,371	2,971
Above Normal (16%)	1,654	2,194	2,818	5,589	7,611	5,910	3,524	2,486	2,496	4,680	1,845	1,977
Below Normal (13%)	1,574	1,957	2,933	2,220	4,840	2,152	2,392	1,971	2,101	3,871	1,550	1,397
Dry (24%)	1,426	2,412	5,300	1,538	2,147	2,395	2,162	1,874	2,063	2,142	1,592	1,292
Critical (15%)	1,014	1,017	916	1,116	859	905	1,353	1,294	1,254	950	1,015	1,173

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,939	4,469	10,055	12,142	14,637	9,735	6,685	7,387	4,560	4,707	3,058	2,200
20%	1,635	3,454	4,450	7,854	10,946	6,796	5,026	4,409	3,695	3,498	2,622	1,841
30%	1,500	2,309	2,922	5,529	7,486	5,020	4,397	3,523	3,608	3,232	2,312	1,750
40%	1,500	2,000	2,091	3,728	5,725	4,151	3,277	2,637	2,911	2,773	2,000	1,750
50%	1,500	2,000	2,000	1,972	3,654	3,022	2,508	1,916	2,656	2,444	1,829	1,750
60%	1,500	1,937	2,000	1,491	2,696	2,237	2,252	1,542	2,113	2,007	1,750	1,750
70%	1,308	1,159	1,830	1,400	1,750	1,750	1,426	1,428	1,786	1,789	1,669	1,669
80%	749	749	1,124	1,400	1,400	1,421	1,002	1,205	1,237	1,544	1,511	1,545
90%	607	599	633	666	1,389	953	953	953	877	990	820	906
Long Term												
Full Simulation Period ^d	1,387	2,464	3,938	5,062	6,093	4,356	3,337	3,031	2,837	2,588	1,948	1,681
Water Year Types ^{b,c}												
Wet (32%)	1,718	3,867	5,114	10,522	10,608	7,190	5,453	5,456	4,357	3,070	2,489	1,948
Above Normal (16%)	1,543	2,223	2,893	5,774	7,966	6,116	3,479	2,465	2,779	3,874	2,163	1,835
Below Normal (13%)	1,317	1,741	3,072	2,205	5,579	2,322	2,407	2,061	2,281	2,999	1,913	1,663
Dry (24%)	1,186	2,186	5,404	1,499	2,163	2,555	2,168	1,869	2,119	1,805	1,663	1,526
Critical (15%)	901	811	873	1,017	1,300	1,173	1,399	1,215	1,309	1,076	1,049	1,210

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-954	713	1,658	0	0	0	0	0	-17	-793	152	-1,091
20%	-571	202	641	193	84	-3	0	0	-24	-1,371	267	-1,013
30%	-258	-390	665	0	409	0	-35	0	447	-731	319	-604
40%	0	-248	91	212	-3	0	-114	-11	236	-586	250	-203
50%	0	99	0	222	748	51	22	-86	435	-376	79	62
60%	0	254	30	-209	924	241	207	-208	309	-454	0	217
70%	-192	-366	99	-270	305	0	-321	-235	36	-208	60	151
80%	-288	-354	-48	-69	136	578	111	134	150	-206	511	737
90%	-193	-201	-180	-192	494	153	153	153	77	180	20	106
Long Term												
Full Simulation Period ^d	-327	-43	282	24	273	134	-6	-15	156	-442	159	-249
Water Year Types ^{b,c}												
Wet (32%)	-628	211	734	66	154	0	-30	-33	204	-420	119	-1,023
Above Normal (16%)	-111	29	75	185	355	206	-45	-21	284	-806	319	-143
Below Normal (13%)	-257	-216	139	-14	739	170	15	91	180	-872	362	266
Dry (24%)	-240	-226	104	-39	16	160	6	-5	56	-337	71	234
Critical (15%)	-113	-206	-43	-99	441	268	46	-79	56	126	34	38

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 27-2. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,798	3,956	9,676	15,003	15,548	11,953	7,695	4,934	3,153	4,914	2,688	3,620
20%	2,067	3,313	4,787	10,332	12,160	7,873	6,476	3,445	2,380	4,236	2,000	3,008
30%	1,598	2,601	2,474	7,189	8,752	6,030	4,520	1,874	1,750	3,601	1,799	2,513
40%	1,500	1,925	2,000	4,993	6,567	5,410	4,081	1,750	1,750	3,135	1,750	1,885
50%	1,500	1,724	2,000	3,226	4,362	4,290	2,914	1,750	1,750	2,630	1,750	1,533
60%	1,500	1,631	1,781	1,700	3,187	3,105	1,750	1,643	1,668	2,373	1,590	1,478
70%	1,500	1,445	1,600	1,700	2,350	2,059	1,460	1,381	1,333	1,843	1,379	1,159
80%	1,067	1,015	1,279	1,488	1,445	1,310	859	998	1,111	1,750	930	800
90%	800	800	820	910	1,134	800	800	800	800	1,026	800	800
Long Term												
Full Simulation Period ^d	1,652	2,476	3,916	6,119	6,755	5,261	3,795	2,335	1,782	2,820	1,672	1,912
Water Year Types ^{b,c}												
Wet (32%)	2,148	3,665	4,778	12,261	11,477	8,644	6,140	4,063	2,109	3,112	2,123	3,182
Above Normal (16%)	1,613	1,963	2,687	7,480	8,477	7,376	3,989	1,700	1,545	4,185	1,751	1,888
Below Normal (13%)	1,421	1,875	3,449	2,920	5,771	2,719	2,768	1,534	1,507	3,293	1,625	1,155
Dry (24%)	1,391	2,390	5,569	1,966	2,969	3,352	2,617	1,609	1,940	2,352	1,551	1,306
Critical (15%)	1,263	1,151	1,050	1,187	1,872	1,149	1,410	1,220	1,318	1,052	857	889

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,654	4,579	10,238	15,002	15,548	11,953	7,695	4,934	2,976	3,585	2,915	2,197
20%	1,500	2,917	5,005	11,288	11,986	7,872	6,446	3,445	2,128	3,262	2,375	1,952
30%	1,500	2,300	3,214	7,190	8,748	6,030	4,520	2,061	1,882	2,899	2,001	1,780
40%	1,500	2,000	2,337	5,396	6,644	5,409	4,081	1,603	1,527	2,474	1,834	1,750
50%	1,500	2,000	2,000	3,985	5,367	4,290	2,964	1,500	1,500	2,000	1,750	1,750
60%	1,500	1,849	2,000	2,472	3,396	3,135	1,703	1,500	1,500	1,762	1,750	1,750
70%	1,279	1,279	1,990	1,419	2,684	2,092	1,458	1,432	1,458	1,750	1,686	1,685
80%	715	749	1,461	1,400	1,400	1,597	1,104	1,224	1,261	1,685	1,530	1,534
90%	574	583	656	766	1,400	953	953	953	815	948	761	761
Long Term												
Full Simulation Period ^d	1,344	2,476	4,242	6,296	6,909	5,330	3,815	2,349	1,746	2,351	1,859	1,693
Water Year Types ^{b,c}												
Wet (32%)	1,696	3,905	5,581	12,280	11,595	8,664	6,154	4,081	2,120	2,661	2,385	2,069
Above Normal (16%)	1,555	2,259	3,126	8,035	8,755	7,374	3,969	1,649	1,534	2,996	1,944	1,821
Below Normal (13%)	1,199	1,643	3,459	3,196	6,145	2,829	2,971	1,535	1,538	2,476	1,890	1,650
Dry (24%)	1,111	2,184	5,610	2,003	3,016	3,447	2,575	1,657	1,734	2,140	1,604	1,522
Critical (15%)	874	863	986	1,443	1,946	1,326	1,424	1,252	1,375	1,218	1,021	1,066

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,144	622	561	-1	0	0	0	0	-177	-1,329	228	-1,422
20%	-567	-396	218	956	-173	-1	-29	0	-251	-974	375	-1,056
30%	-98	-301	741	0	-3	0	0	187	132	-702	203	-733
40%	0	75	337	403	77	-1	0	-147	-223	-661	84	-135
50%	0	276	0	759	1,005	0	50	-250	-250	-630	0	217
60%	0	217	219	772	210	29	-47	-143	-168	-611	160	272
70%	-221	-166	390	-281	334	33	-2	51	125	-93	307	526
80%	-352	-266	182	-88	-45	287	245	226	149	-65	599	734
90%	-226	-217	-164	-143	266	153	153	153	15	-78	-39	-39
Long Term												
Full Simulation Period ^d	-308	0	326	177	154	70	20	14	-36	-469	186	-219
Water Year Types ^{b,c}												
Wet (32%)	-452	240	803	18	117	19	14	18	11	-451	263	-1,113
Above Normal (16%)	-58	296	438	555	278	-2	-20	-51	-11	-1,190	193	-68
Below Normal (13%)	-222	-233	10	276	374	110	202	0	31	-817	264	494
Dry (24%)	-281	-205	42	38	46	95	-42	48	-206	-212	53	216
Critical (15%)	-390	-287	-64	255	74	177	13	32	57	166	165	177

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-3. American River below Nimbus Dam Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,892	3,756	8,397	12,142	14,637	9,735	6,685	7,387	4,577	5,500	2,905	3,291
20%	2,206	3,252	3,810	7,661	10,862	6,799	5,026	4,409	3,718	4,869	2,356	2,855
30%	1,758	2,699	2,257	5,529	7,077	5,020	4,432	3,523	3,161	3,964	1,993	2,354
40%	1,500	2,248	2,000	3,516	5,728	4,151	3,390	2,648	2,675	3,359	1,750	1,953
50%	1,500	1,901	2,000	1,750	2,906	2,972	2,486	2,002	2,220	2,819	1,750	1,688
60%	1,500	1,683	1,970	1,700	1,771	1,996	2,045	1,750	1,804	2,461	1,750	1,533
70%	1,500	1,525	1,731	1,670	1,445	1,750	1,747	1,664	1,750	1,996	1,609	1,518
80%	1,036	1,103	1,172	1,469	1,264	843	891	1,071	1,087	1,750	1,000	808
90%	800	800	812	858	895	800	800	800	800	810	800	800
Long Term												
Full Simulation Period ^d	1,714	2,507	3,656	5,038	5,820	4,222	3,343	3,046	2,681	3,029	1,789	1,930
Water Year Types ^{b,c}												
Wet (32%)	2,347	3,656	4,380	10,456	10,454	7,190	5,483	5,489	4,153	3,490	2,371	2,971
Above Normal (16%)	1,654	2,194	2,818	5,589	7,611	5,910	3,524	2,486	2,496	4,680	1,845	1,977
Below Normal (13%)	1,574	1,957	2,933	2,220	4,840	2,152	2,392	1,971	2,101	3,871	1,550	1,397
Dry (24%)	1,426	2,412	5,300	1,538	2,147	2,395	2,162	1,874	2,063	2,142	1,592	1,292
Critical (15%)	1,014	1,017	916	1,116	859	905	1,353	1,294	1,254	950	1,015	1,173

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,798	3,956	9,676	15,003	15,548	11,953	7,695	4,934	3,153	4,914	2,688	3,620
20%	2,067	3,313	4,787	10,332	12,160	7,873	6,476	3,445	2,380	4,236	2,000	3,008
30%	1,598	2,601	2,474	7,189	8,752	6,030	4,520	1,874	1,750	3,601	1,799	2,513
40%	1,500	1,925	2,000	4,993	6,567	5,410	4,081	1,750	1,750	3,135	1,750	1,885
50%	1,500	1,724	2,000	3,226	4,362	4,290	2,914	1,750	1,750	2,630	1,750	1,533
60%	1,500	1,631	1,781	1,700	3,187	3,105	1,750	1,643	1,668	2,373	1,590	1,478
70%	1,500	1,445	1,600	1,700	2,350	2,059	1,460	1,381	1,333	1,843	1,379	1,159
80%	1,067	1,015	1,279	1,488	1,445	1,310	859	998	1,111	1,750	930	800
90%	800	800	820	910	1,134	800	800	800	800	1,026	800	800
Long Term												
Full Simulation Period ^d	1,652	2,476	3,916	6,119	6,755	5,261	3,795	2,335	1,782	2,820	1,672	1,912
Water Year Types ^{b,c}												
Wet (32%)	2,148	3,665	4,778	12,261	11,477	8,644	6,140	4,063	2,109	3,112	2,123	3,182
Above Normal (16%)	1,613	1,963	2,687	7,480	8,477	7,376	3,989	1,700	1,545	4,185	1,751	1,888
Below Normal (13%)	1,421	1,875	3,449	2,920	5,771	2,719	2,768	1,534	1,507	3,293	1,625	1,155
Dry (24%)	1,391	2,390	5,569	1,966	2,969	3,352	2,617	1,609	1,940	2,352	1,551	1,306
Critical (15%)	1,263	1,151	1,050	1,187	1,872	1,149	1,410	1,220	1,318	1,052	857	889

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-94	200	1,280	2,861	911	2,218	1,010	-2,453	-1,424	-586	-218	329
20%	-139	61	977	2,670	1,298	1,074	1,450	-965	-1,339	-633	-356	153
30%	-160	-98	217	1,661	1,675	1,010	89	-1,649	-1,411	-363	-194	159
40%	0	-323	0	1,477	839	1,258	690	-898	-925	-224	0	-68
50%	0	-177	0	1,476	1,456	1,319	428	-252	-470	-190	0	-155
60%	0	-52	-188	0	1,415	1,109	-295	-107	-135	-88	-160	-55
70%	0	-80	-131	30	905	309	-286	-283	-417	-154	-230	-358
80%	31	-88	107	18	181	468	-32	-73	24	0	-70	-8
90%	0	0	8	51	239	0	0	0	0	215	0	0
Long Term												
Full Simulation Period ^d	-62	-31	260	1,081	935	1,039	452	-711	-899	-210	-117	-18
Water Year Types ^{b,c}												
Wet (32%)	-199	9	398	1,805	1,023	1,454	657	-1,426	-2,044	-378	-248	210
Above Normal (16%)	-41	-231	-131	1,891	866	1,466	465	-786	-951	-495	-94	-89
Below Normal (13%)	-153	-82	516	700	931	566	376	-436	-594	-578	75	-241
Dry (24%)	-35	-23	269	428	822	957	455	-265	-123	210	-42	14
Critical (15%)	249	134	134	71	1,013	244	57	-74	64	102	-158	-284

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 27-4. American River below Nimbus Dam Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,939	4,469	10,055	12,142	14,637	9,735	6,685	7,387	4,560	4,707	3,058	2,200
20%	1,635	3,454	4,450	7,854	10,946	6,796	5,026	4,409	3,695	3,498	2,622	1,841
30%	1,500	2,309	2,922	5,529	7,486	5,020	4,397	3,523	3,608	3,232	2,312	1,750
40%	1,500	2,000	2,091	3,728	5,725	4,151	3,277	2,637	2,911	2,773	2,000	1,750
50%	1,500	2,000	2,000	1,972	3,654	3,022	2,508	1,916	2,656	2,444	1,829	1,750
60%	1,500	1,937	2,000	1,491	2,696	2,237	2,252	1,542	2,113	2,007	1,750	1,750
70%	1,308	1,159	1,830	1,400	1,750	1,750	1,426	1,428	1,786	1,789	1,669	1,669
80%	749	749	1,124	1,400	1,400	1,421	1,002	1,205	1,237	1,544	1,511	1,545
90%	607	599	633	666	1,389	953	953	953	877	990	820	906
Long Term												
Full Simulation Period ^d	1,387	2,464	3,938	5,062	6,093	4,356	3,337	3,031	2,837	2,588	1,948	1,681
Water Year Types ^{b,c}												
Wet (32%)	1,718	3,867	5,114	10,522	10,608	7,190	5,453	5,456	4,357	3,070	2,489	1,948
Above Normal (16%)	1,543	2,223	2,893	5,774	7,966	6,116	3,479	2,465	2,779	3,874	2,163	1,835
Below Normal (13%)	1,317	1,741	3,072	2,205	5,579	2,322	2,407	2,061	2,281	2,999	1,913	1,663
Dry (24%)	1,186	2,186	5,404	1,499	2,163	2,555	2,168	1,869	2,119	1,805	1,663	1,526
Critical (15%)	901	811	873	1,017	1,300	1,173	1,399	1,215	1,309	1,076	1,049	1,210

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,654	4,579	10,238	15,002	15,548	11,953	7,695	4,934	2,976	3,585	2,915	2,197
20%	1,500	2,917	5,005	11,288	11,986	7,872	6,446	3,445	2,128	3,262	2,375	1,952
30%	1,500	2,300	3,214	7,190	8,748	6,030	4,520	2,061	1,882	2,899	2,001	1,780
40%	1,500	2,000	2,337	5,396	6,644	5,409	4,081	1,603	1,527	2,474	1,834	1,750
50%	1,500	2,000	2,000	3,985	5,367	4,290	2,964	1,500	1,500	2,000	1,750	1,750
60%	1,500	1,849	2,000	2,472	3,396	3,135	1,703	1,500	1,500	1,762	1,750	1,750
70%	1,279	1,279	1,990	1,419	2,684	2,092	1,458	1,432	1,458	1,750	1,686	1,685
80%	715	749	1,461	1,400	1,400	1,597	1,104	1,224	1,261	1,685	1,530	1,534
90%	574	583	656	766	1,400	953	953	953	815	948	761	761
Long Term												
Full Simulation Period ^d	1,344	2,476	4,242	6,296	6,909	5,330	3,815	2,349	1,746	2,351	1,859	1,693
Water Year Types ^{b,c}												
Wet (32%)	1,696	3,905	5,581	12,280	11,595	8,664	6,154	4,081	2,120	2,661	2,385	2,069
Above Normal (16%)	1,555	2,259	3,126	8,035	8,755	7,374	3,969	1,649	1,534	2,996	1,944	1,821
Below Normal (13%)	1,199	1,643	3,459	3,196	6,145	2,829	2,971	1,535	1,538	2,476	1,890	1,650
Dry (24%)	1,111	2,184	5,610	2,003	3,016	3,447	2,575	1,657	1,734	2,140	1,604	1,522
Critical (15%)	874	863	986	1,443	1,946	1,326	1,424	1,252	1,375	1,218	1,021	1,066

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-285	110	183	2,861	911	2,218	1,010	-2,453	-1,583	-1,122	-142	-3
20%	-135	-537	555	3,434	1,041	1,076	1,420	-965	-1,566	-236	-247	111
30%	0	-9	293	1,661	1,263	1,010	123	-1,461	-1,726	-334	-311	30
40%	0	0	246	1,668	919	1,258	805	-1,034	-1,383	-299	-166	0
50%	0	0	0	2,013	1,713	1,268	456	-416	-1,156	-444	-79	0
60%	0	-89	0	981	701	898	-549	-42	-613	-245	0	0
70%	-29	120	161	19	934	342	32	4	-328	-39	17	16
80%	-33	1	337	0	0	177	103	18	24	140	18	-11
90%	-32	-16	23	100	11	0	0	0	-62	-43	-60	-145
Long Term												
Full Simulation Period ^d	-43	12	304	1,234	816	975	478	-682	-1,091	-237	-89	12
Water Year Types ^{b,c}												
Wet (32%)	-22	38	467	1,758	986	1,474	702	-1,376	-2,238	-409	-104	120
Above Normal (16%)	11	36	232	2,261	789	1,258	490	-816	-1,245	-879	-219	-14
Below Normal (13%)	-118	-99	387	991	566	507	563	-527	-743	-523	-23	-13
Dry (24%)	-75	-2	207	504	853	892	406	-212	-385	335	-59	-4
Critical (15%)	-27	52	113	426	646	153	24	37	65	142	-27	-145

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

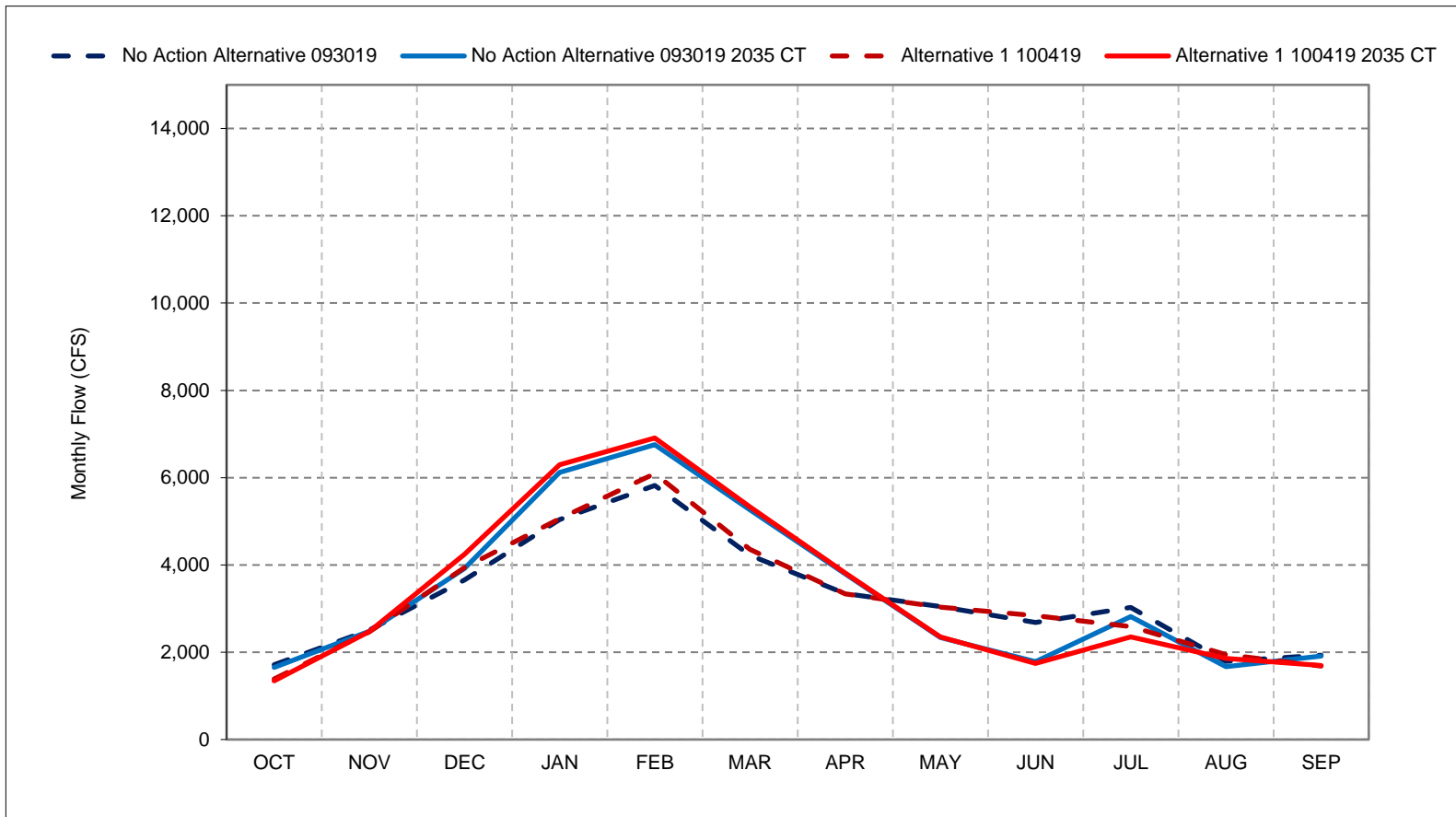
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 27-1. American River below Nimbus Dam Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

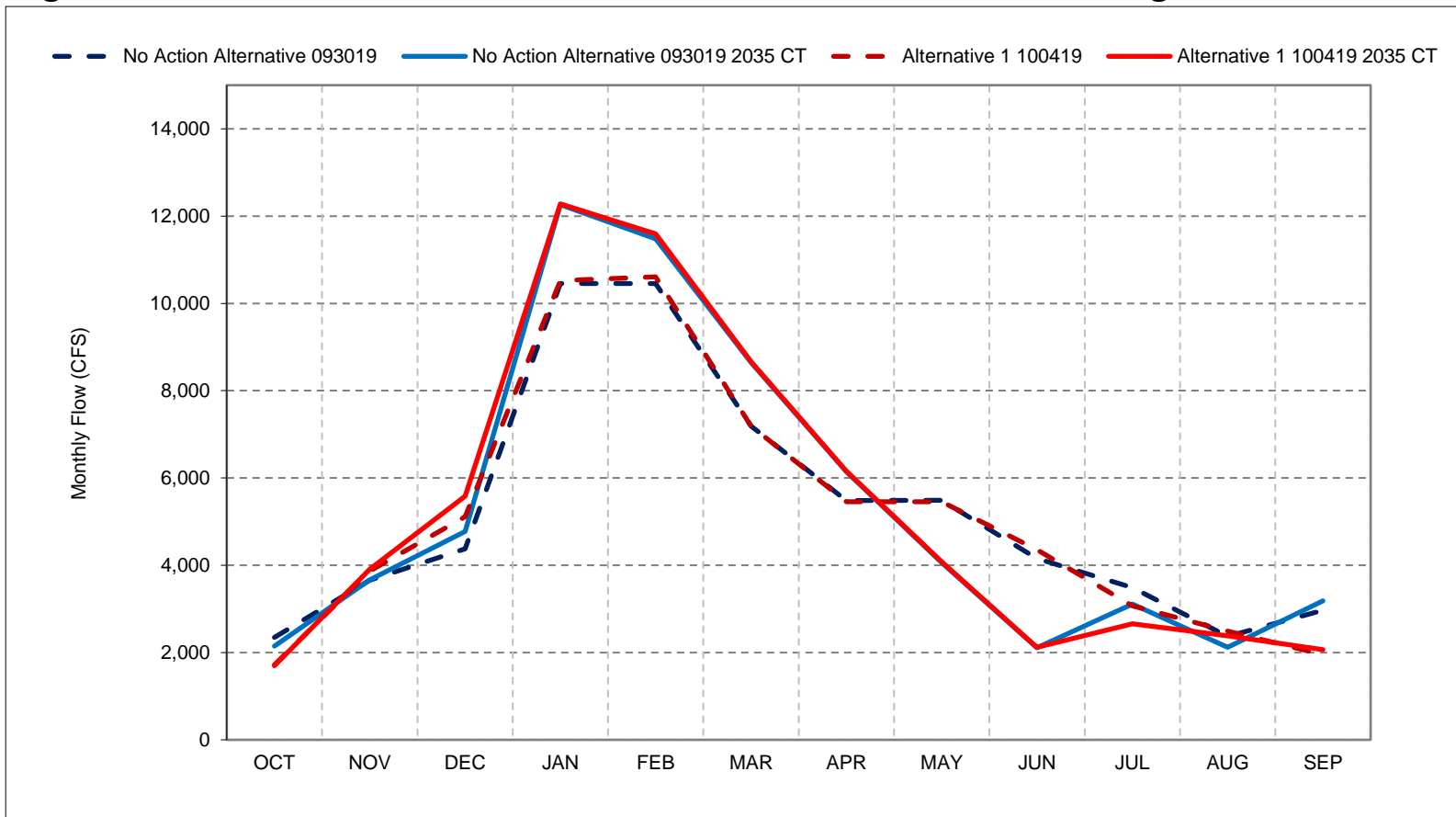
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-2. American River below Nimbus Dam Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

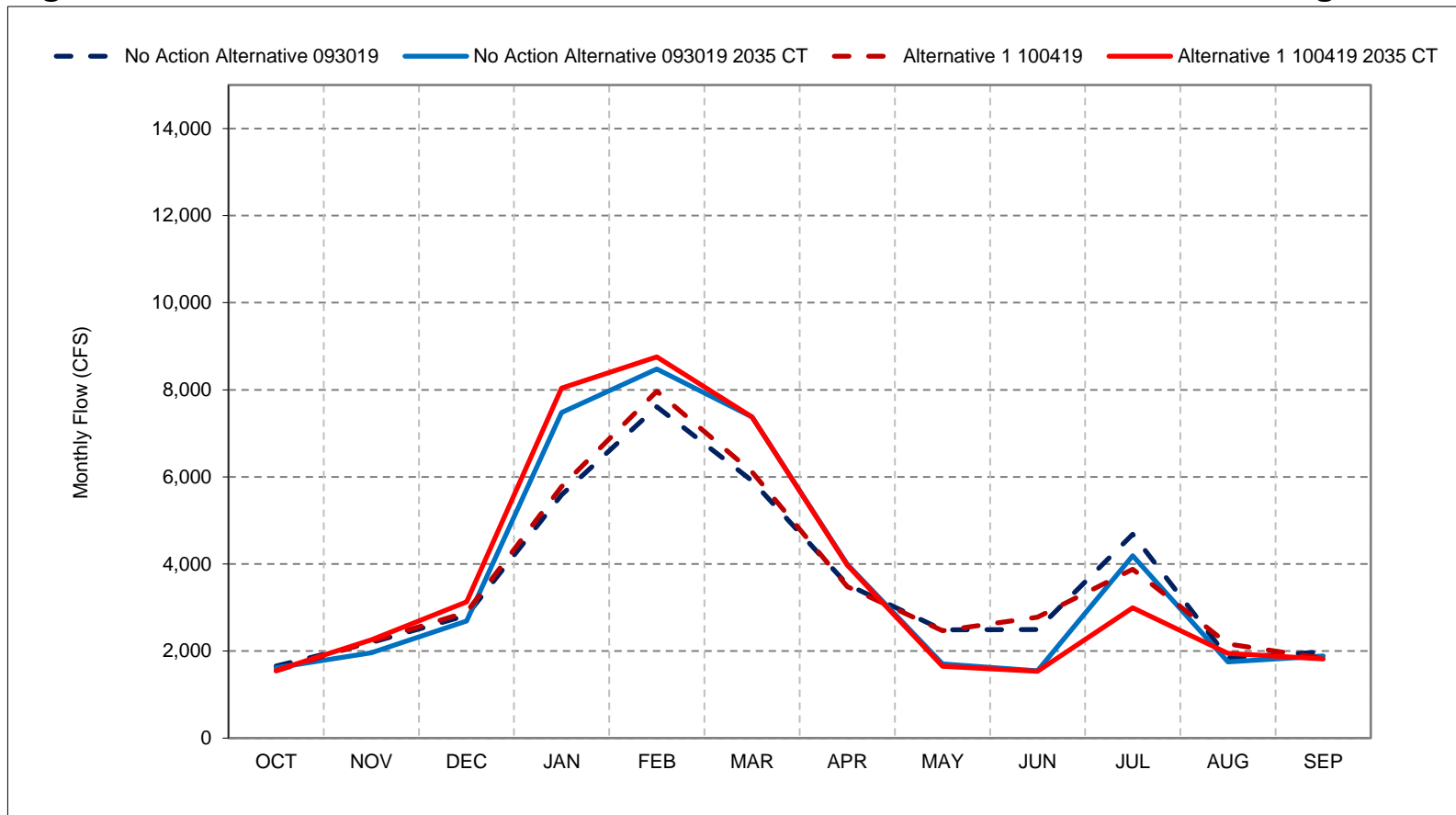
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-3. American River below Nimbus Dam Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

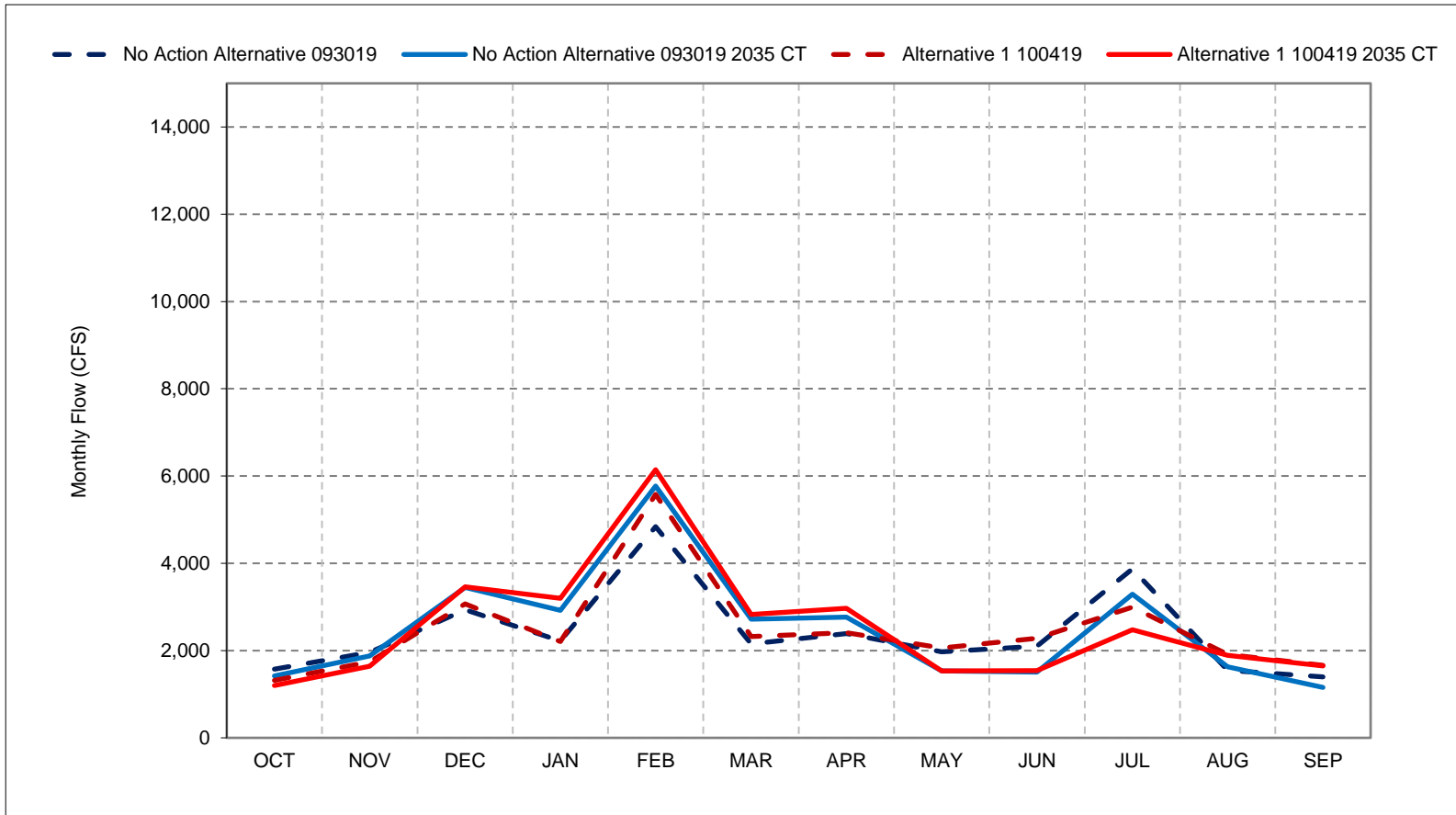
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-4. American River below Nimbus Dam Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

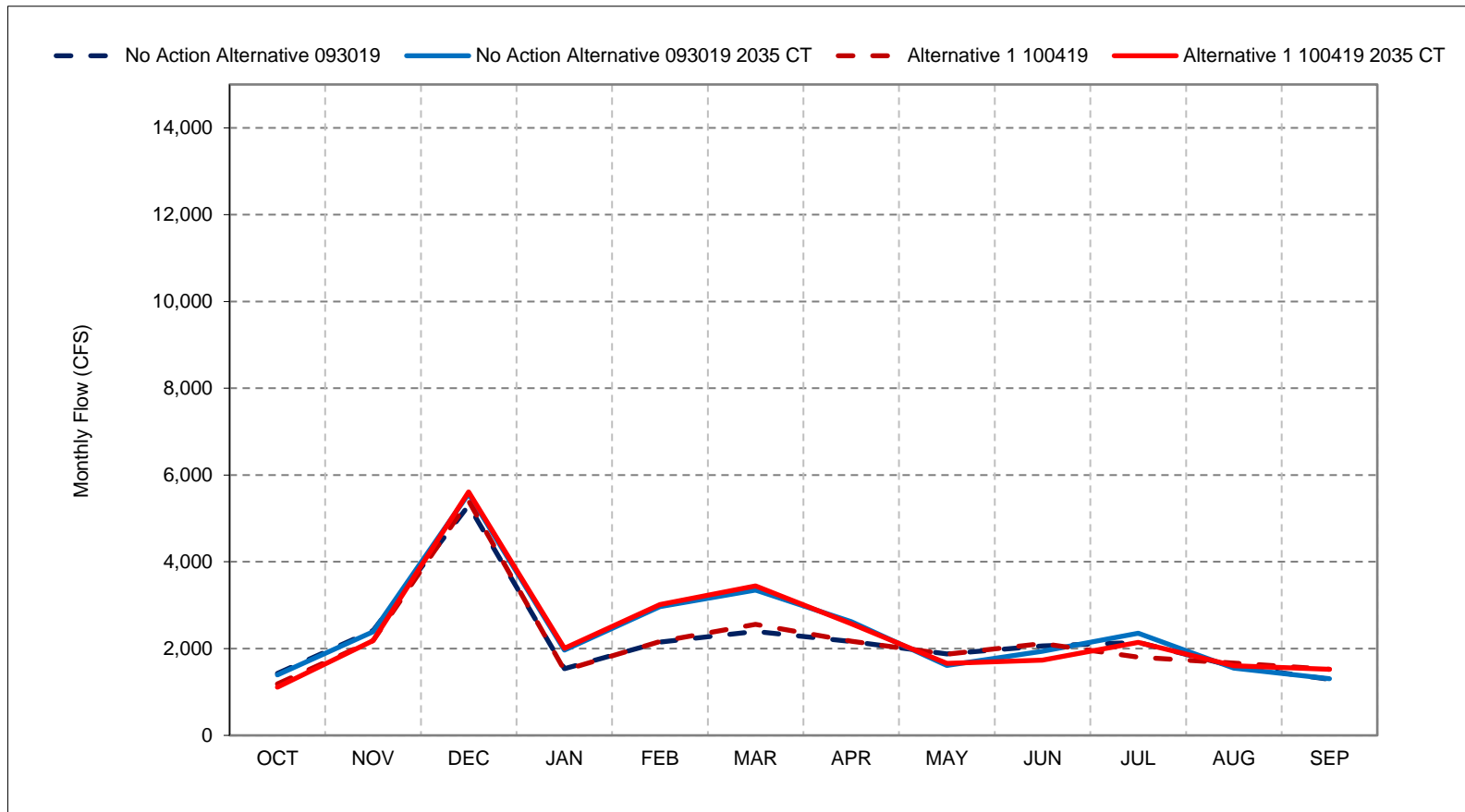
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-5. American River below Nimbus Dam Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

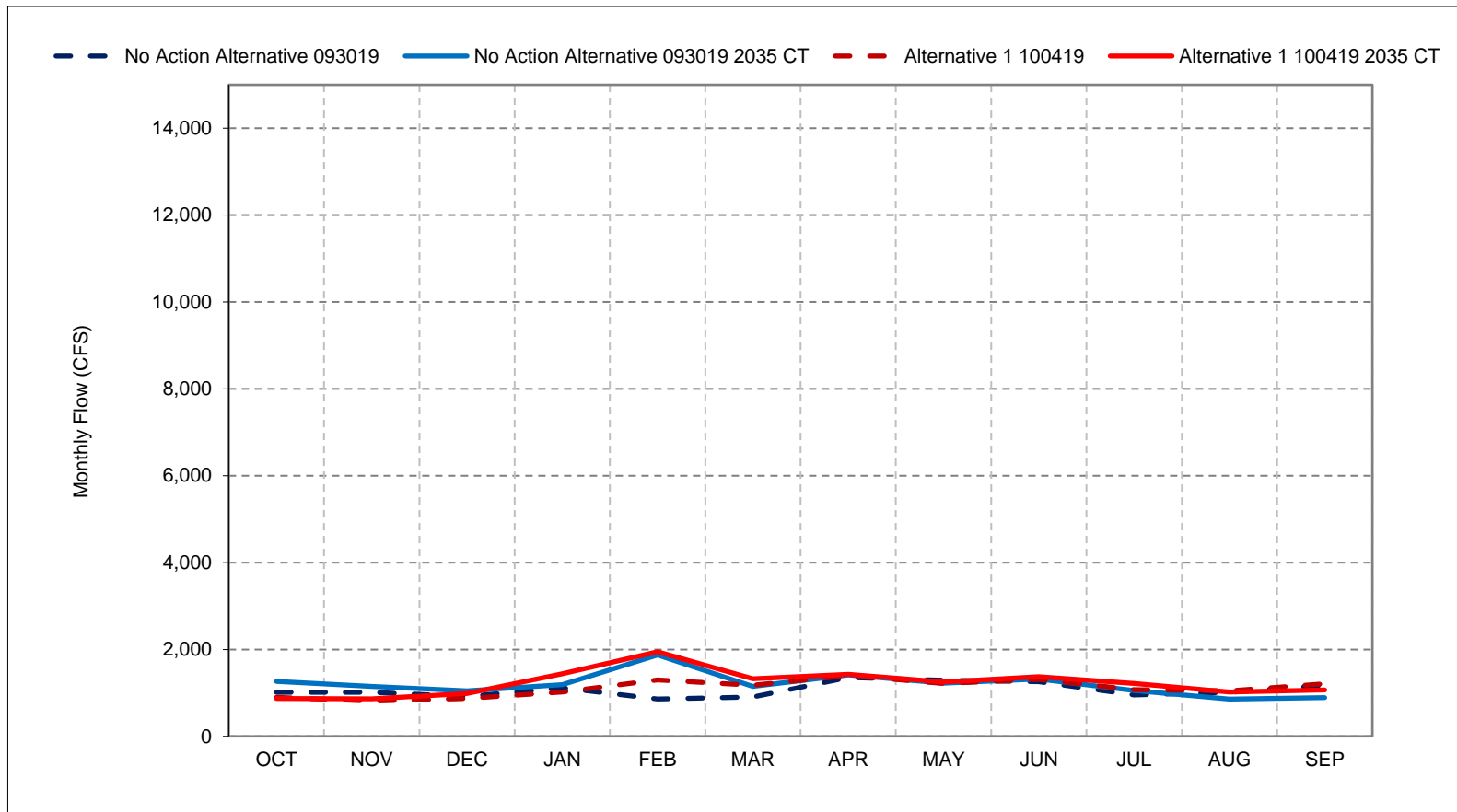
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 27-6. American River below Nimbus Dam Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

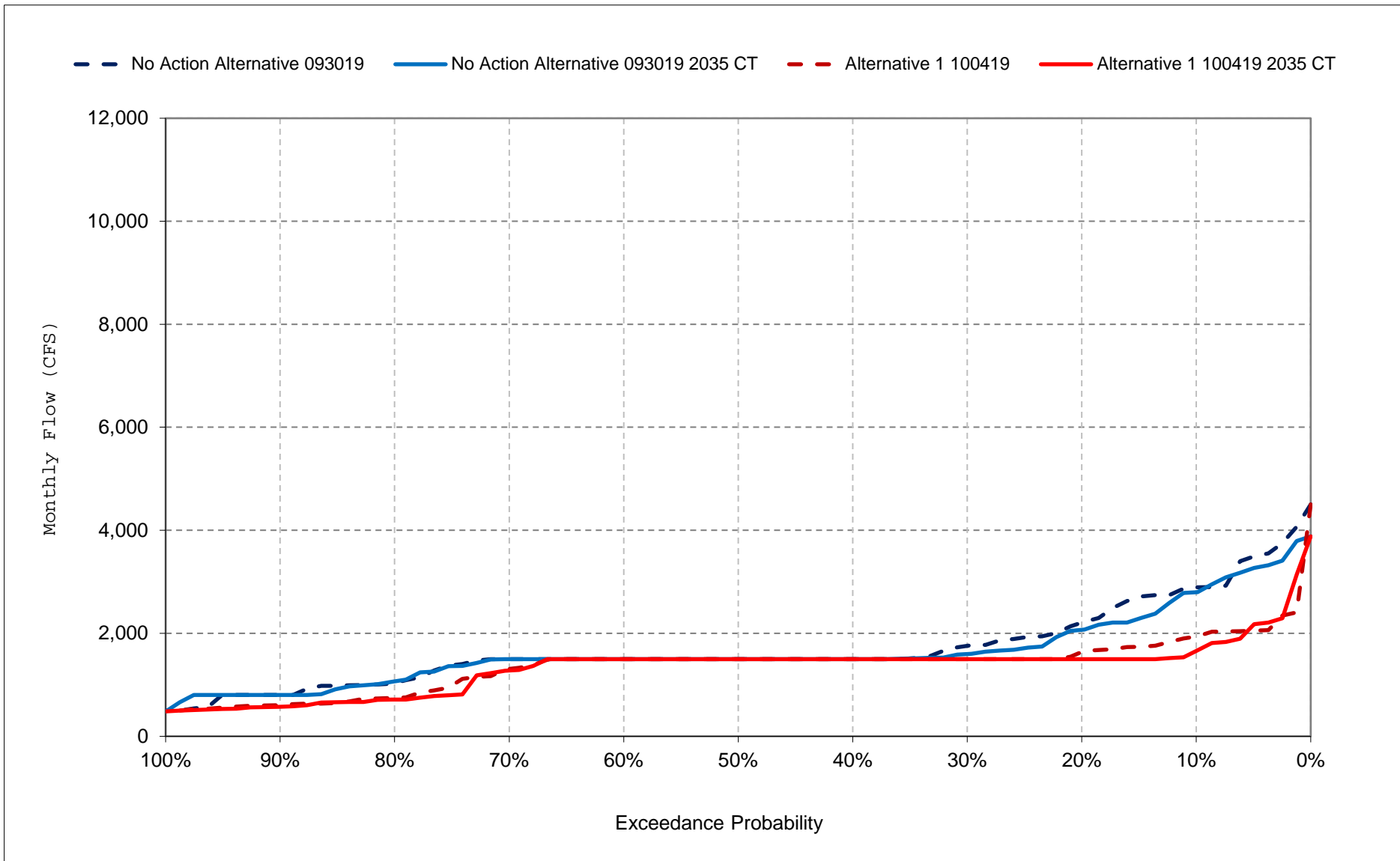
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

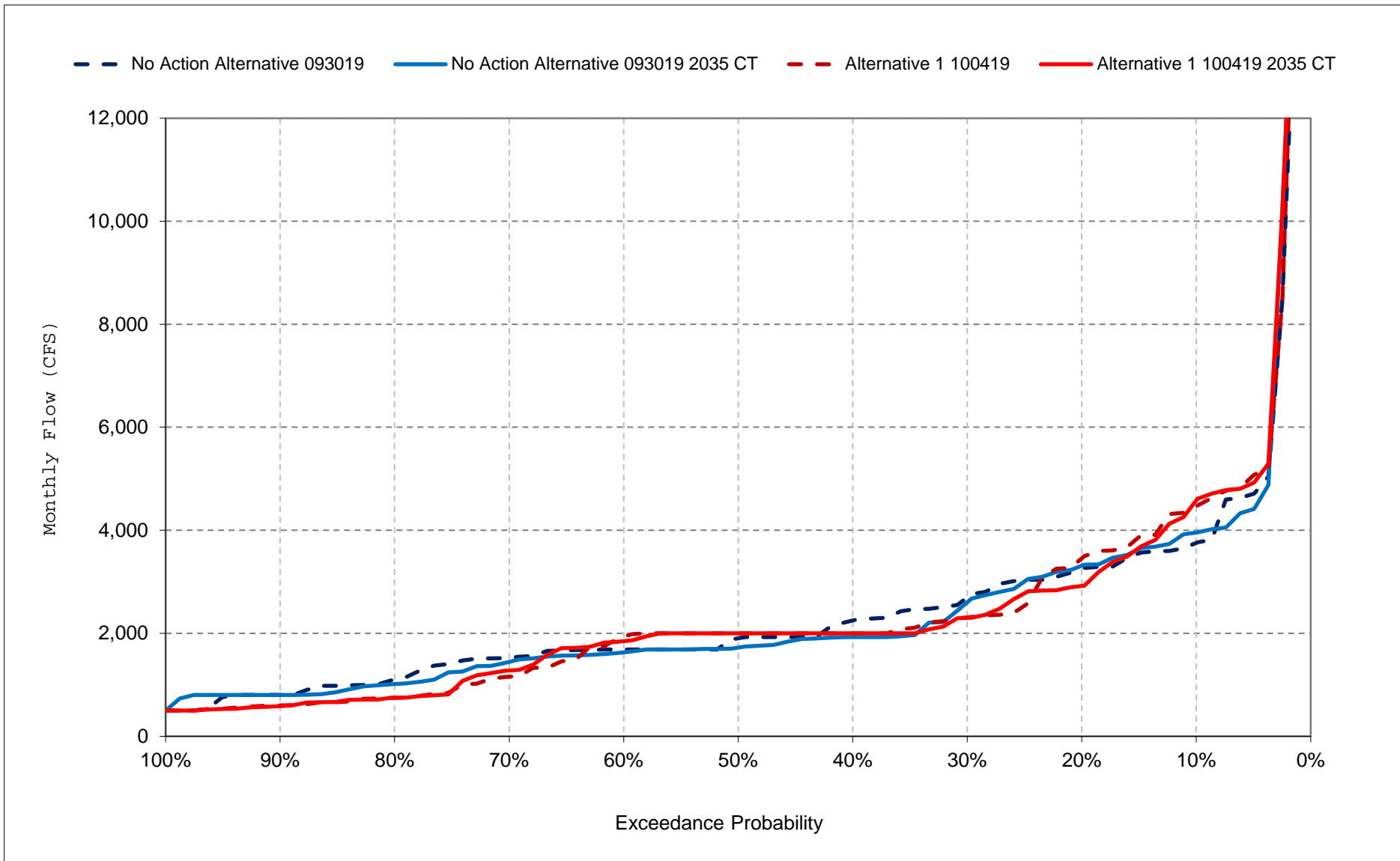
Figure 27-7. American River below Nimbus Dam Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

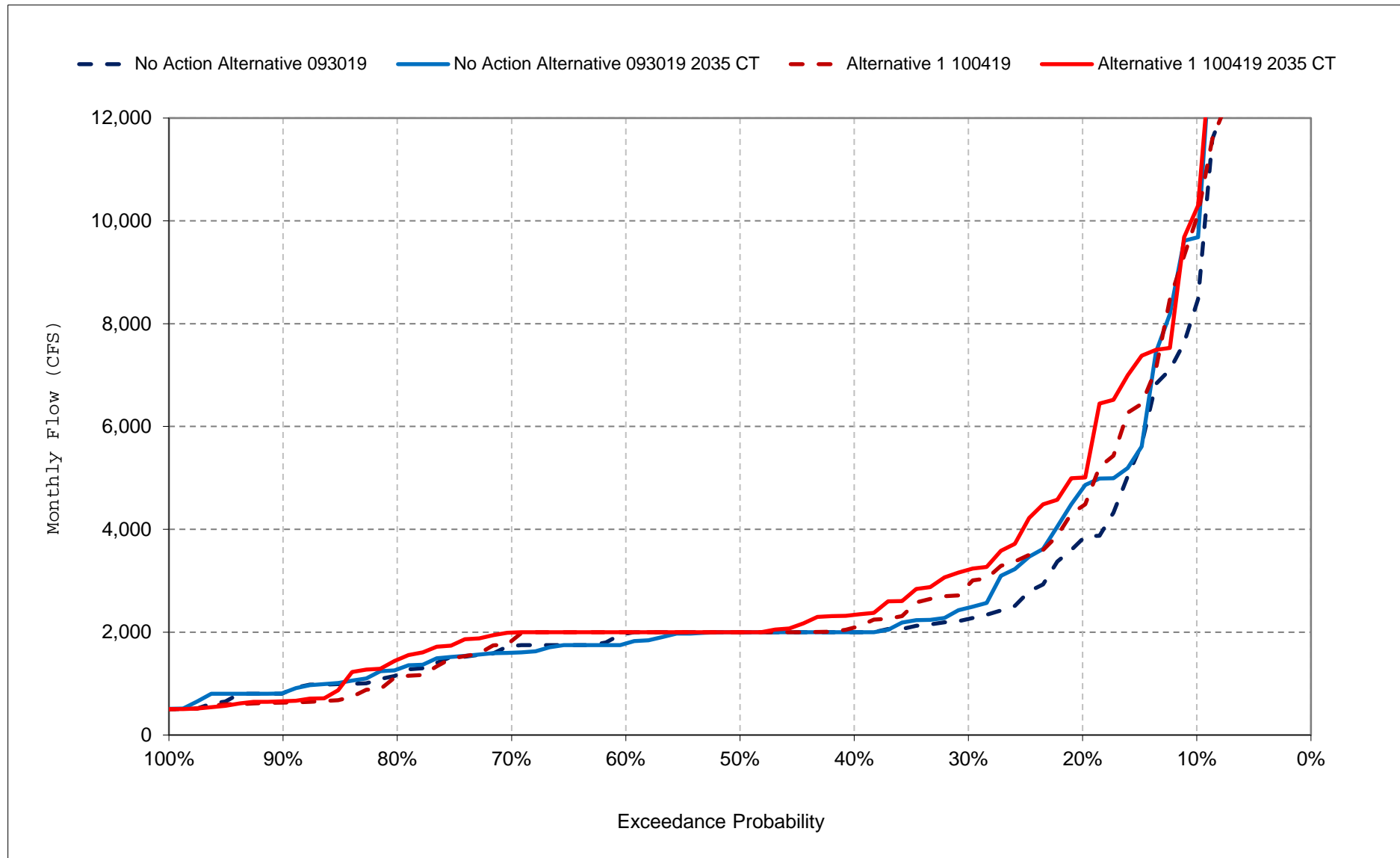
Figure 27-8. American River below Nimbus Dam Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

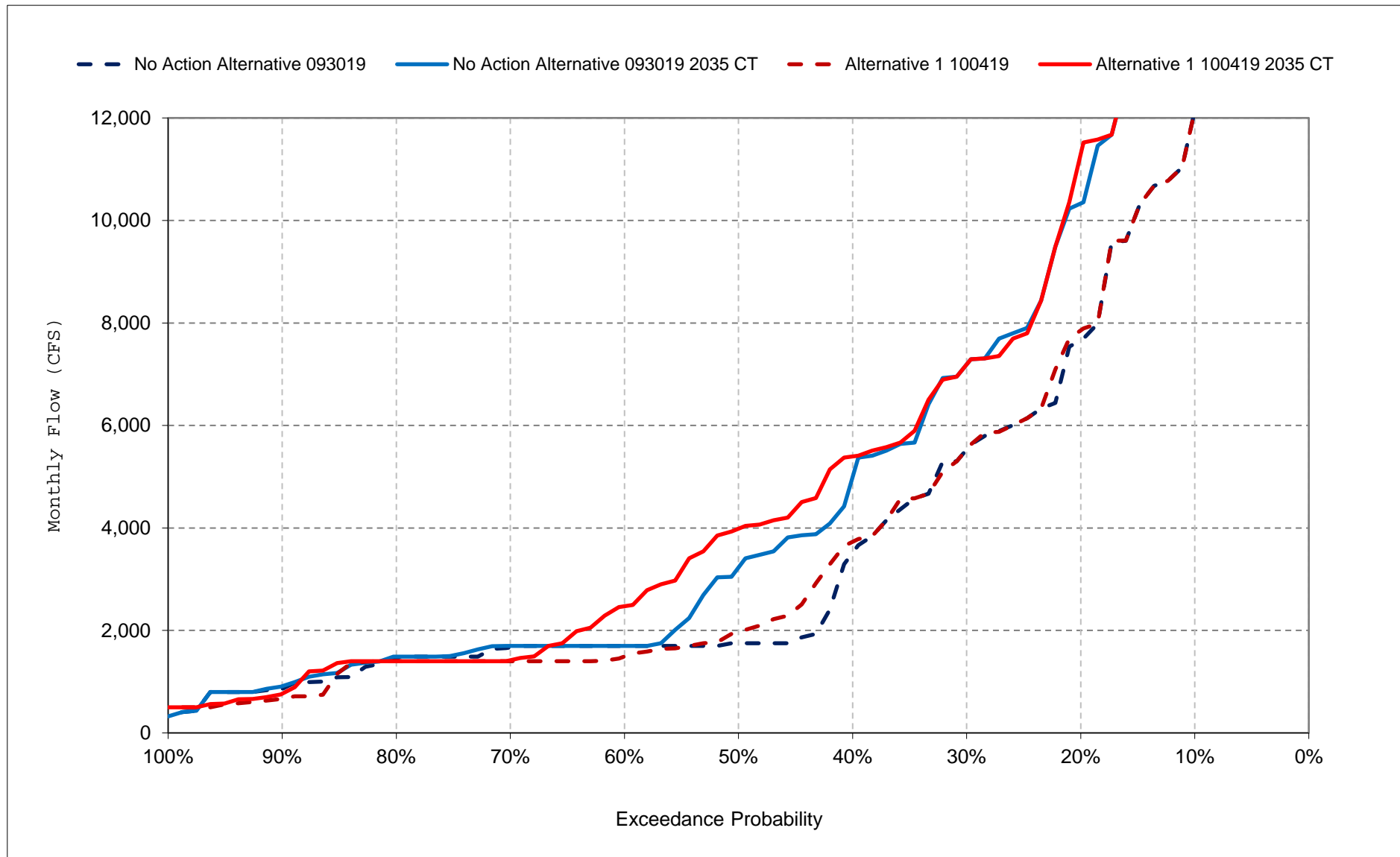
Figure 27-9. American River below Nimbus Dam Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

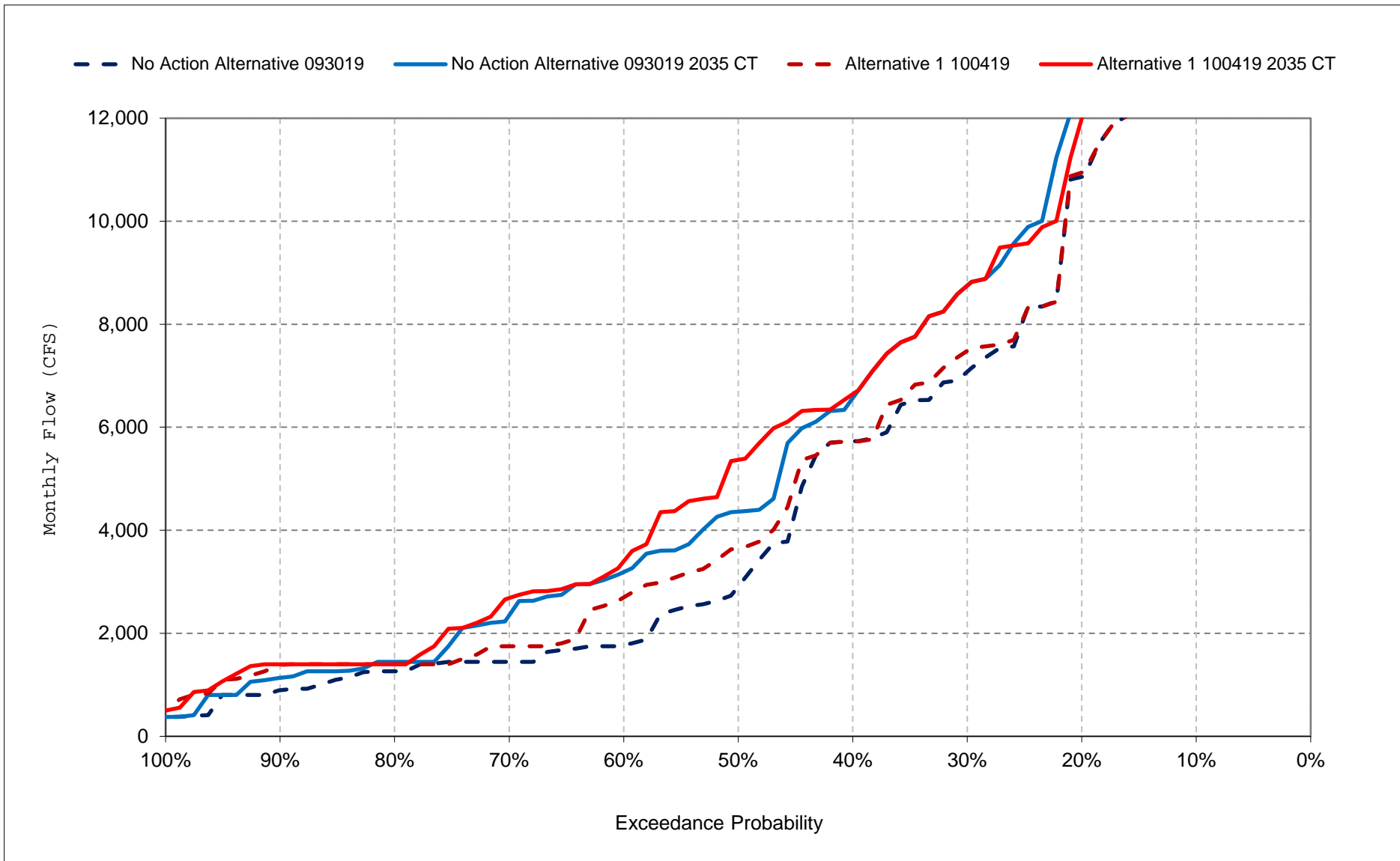
Figure 27-10. American River below Nimbus Dam Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

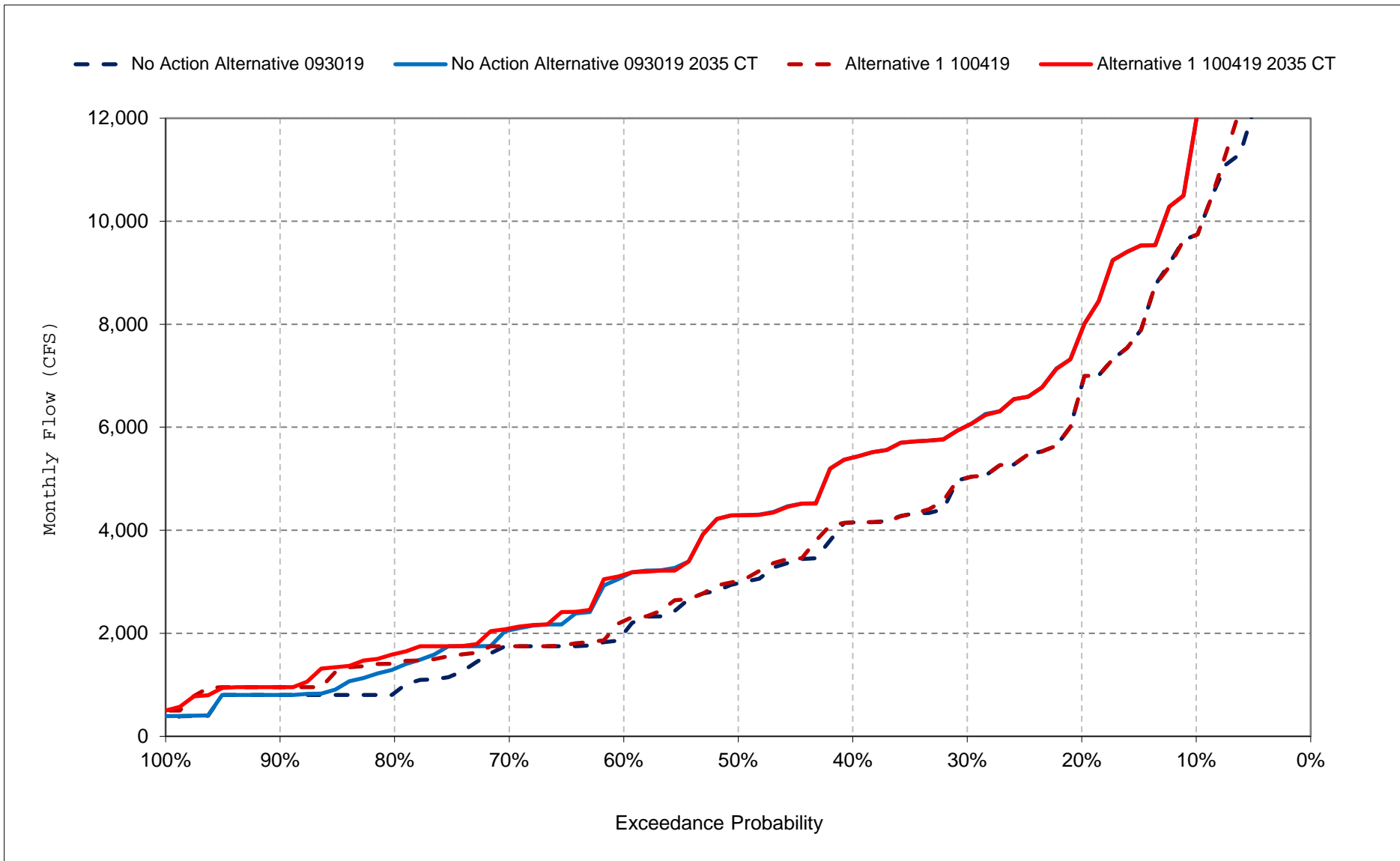
Figure 27-11. American River below Nimbus Dam Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

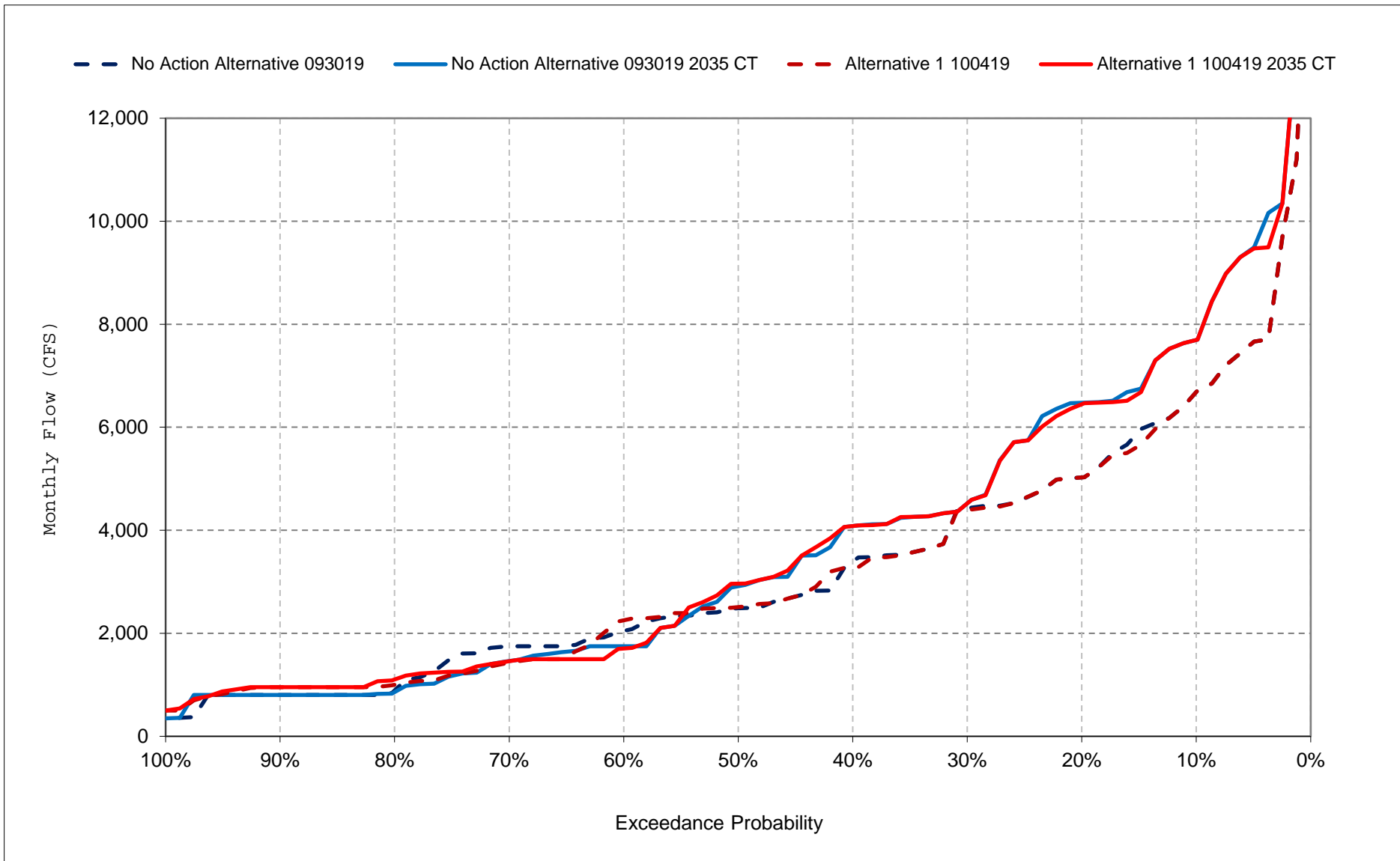
Figure 27-12. American River below Nimbus Dam Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

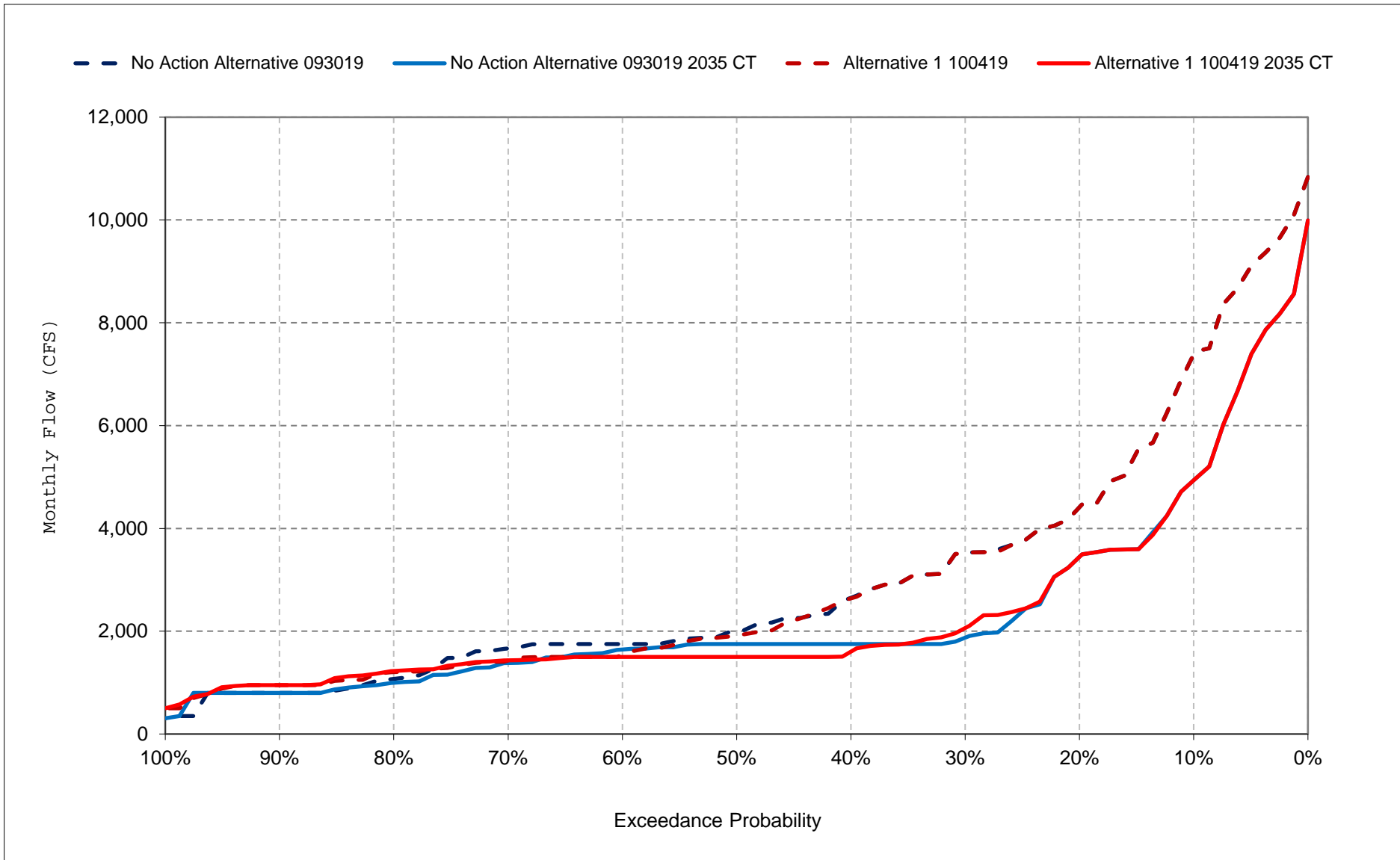
Figure 27-13. American River below Nimbus Dam Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

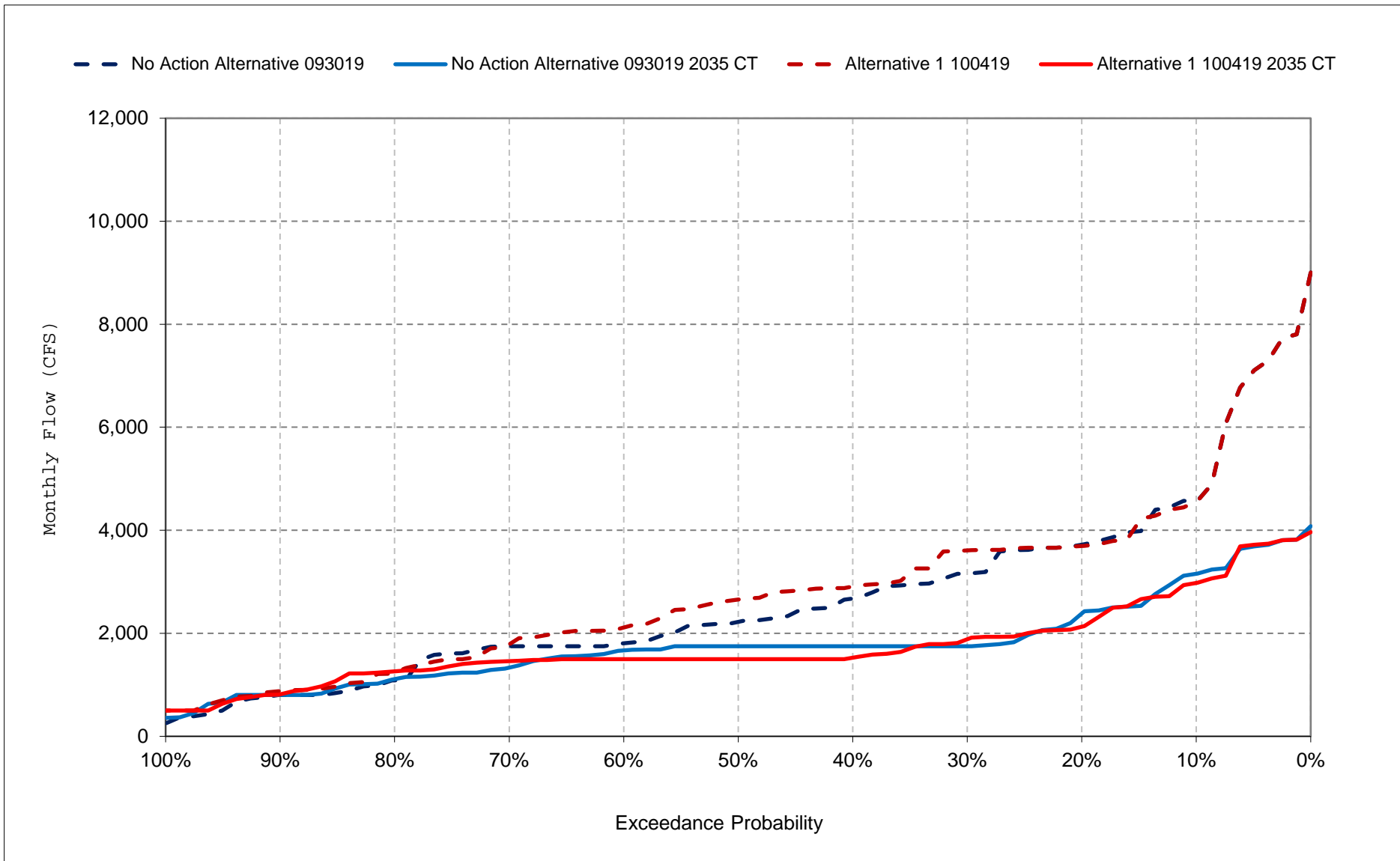
Figure 27-14. American River below Nimbus Dam Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

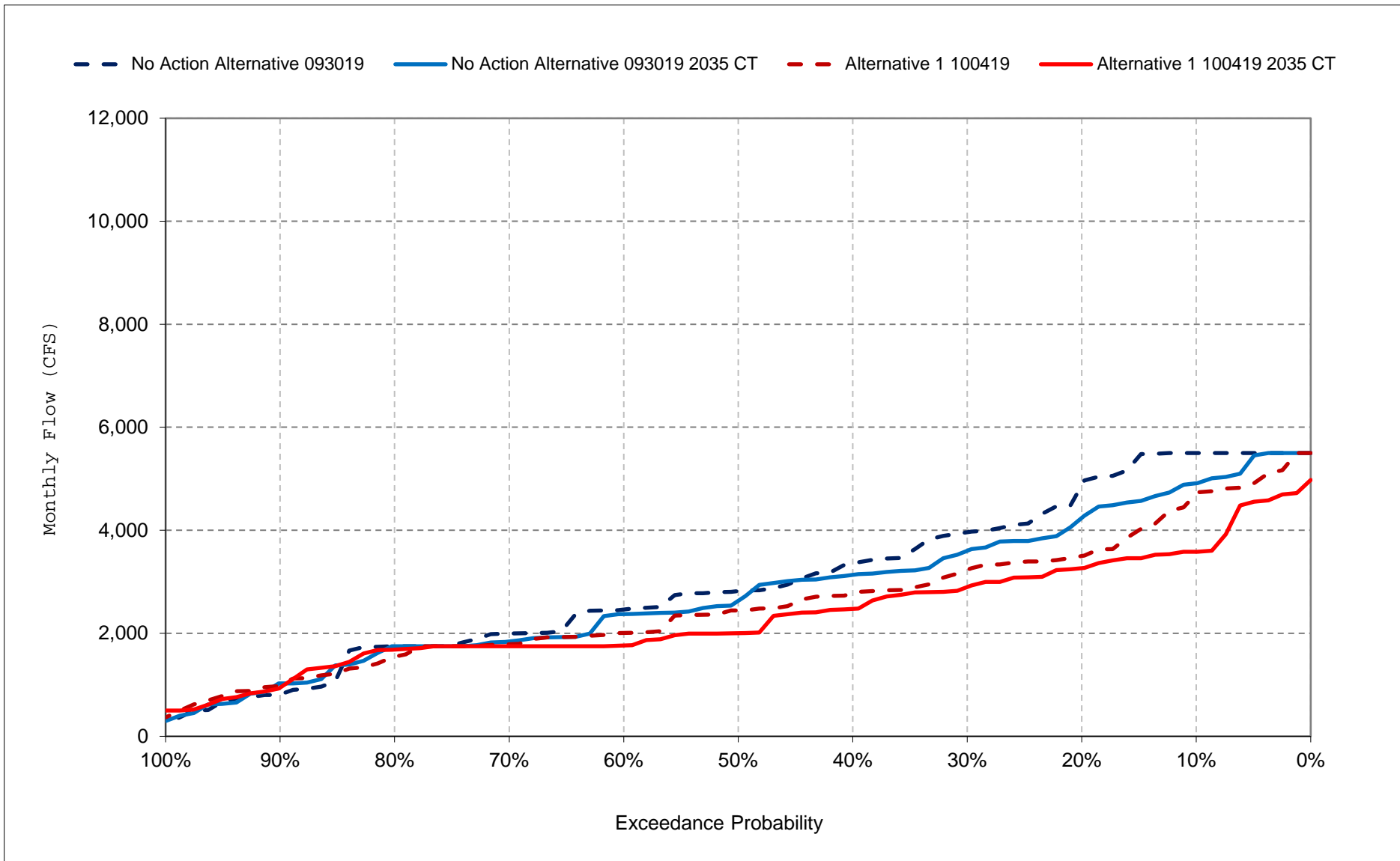
Figure 27-15. American River below Nimbus Dam Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

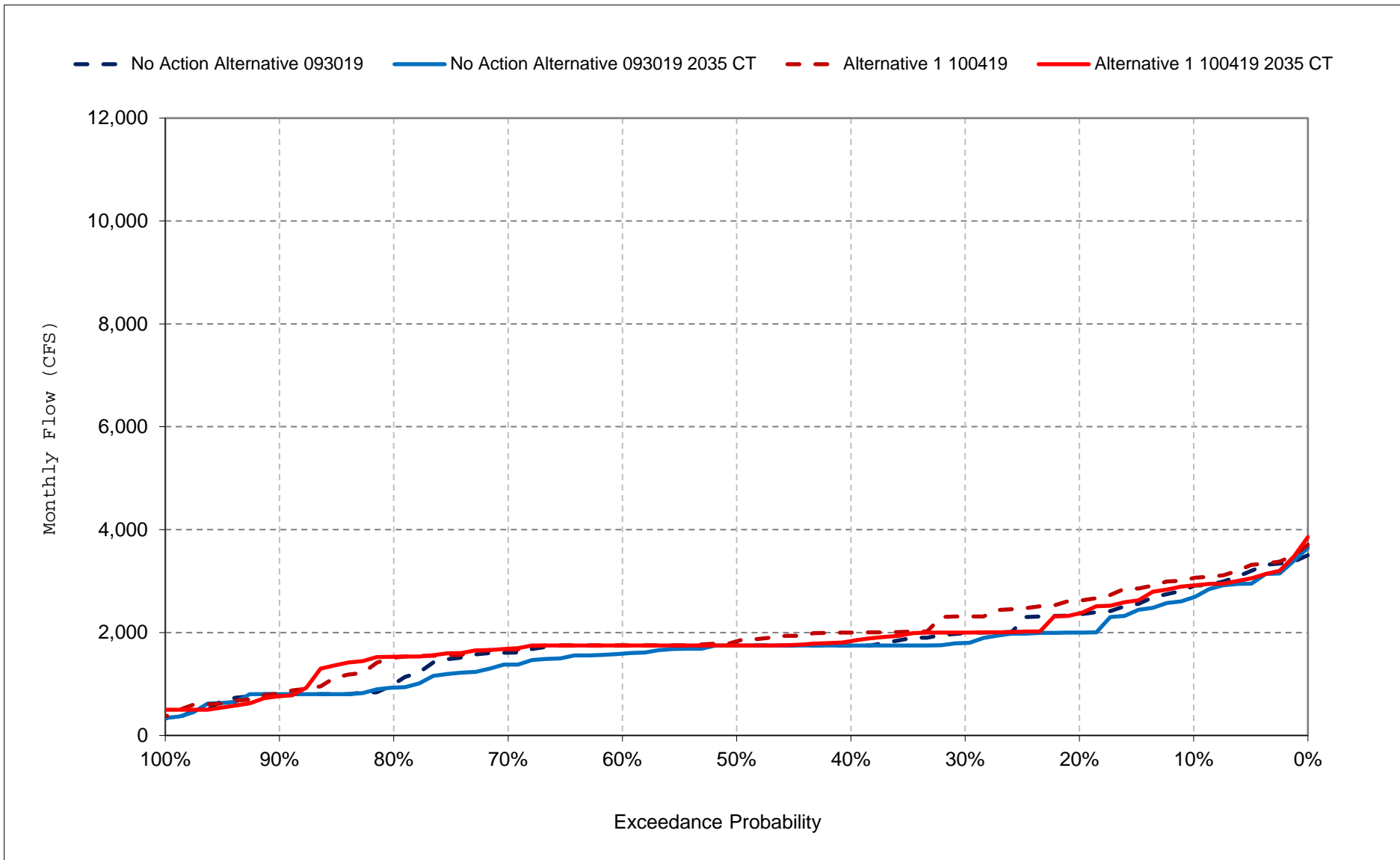
Figure 27-16. American River below Nimbus Dam Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

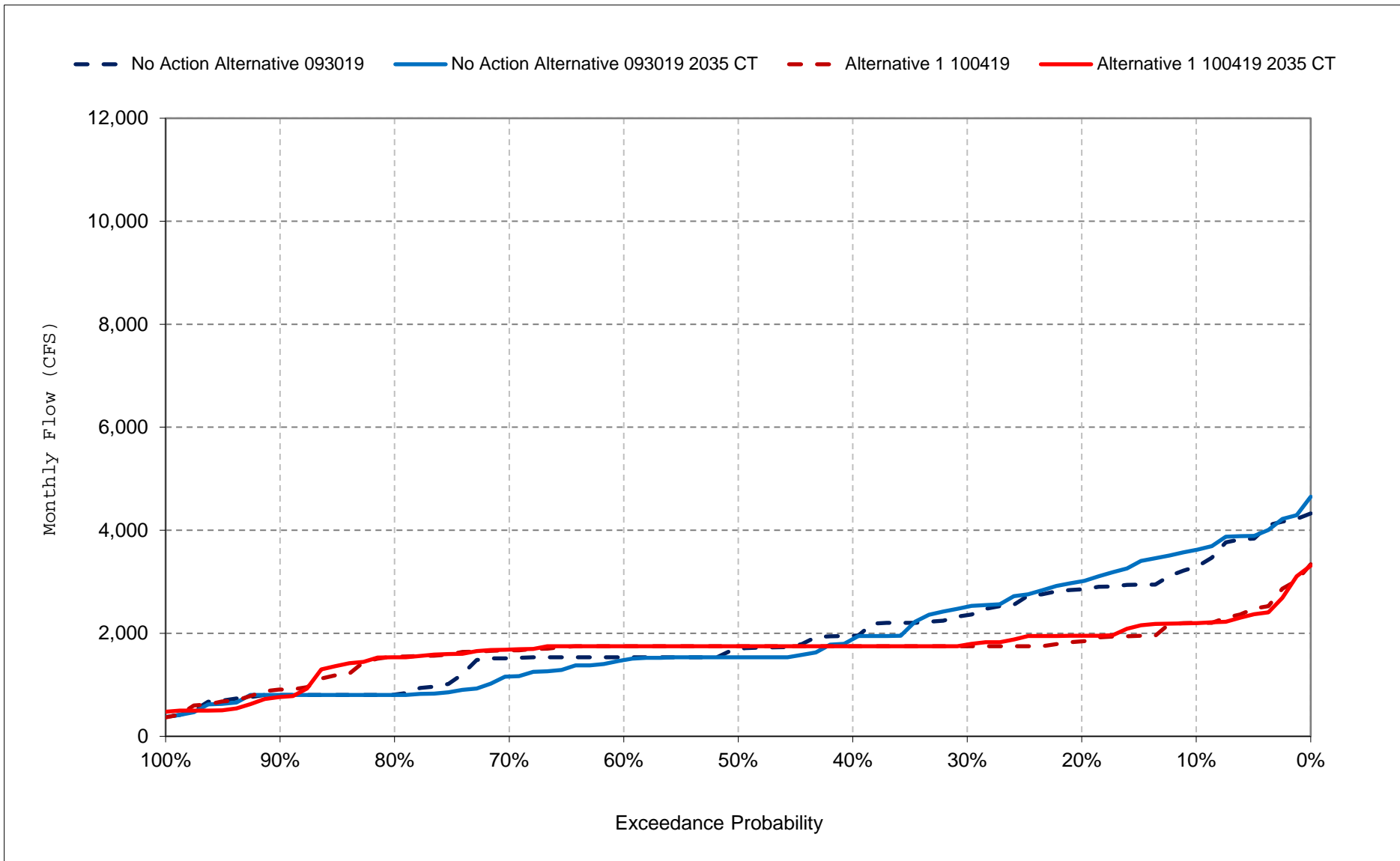
Figure 27-17. American River below Nimbus Dam Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 27-18. American River below Nimbus Dam Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-1. American River at H Street, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,585	3,530	8,214	11,989	14,510	9,476	6,247	6,818	3,949	4,871	2,323	2,845
20%	1,954	3,051	3,590	7,341	10,626	6,579	4,612	3,824	3,096	4,286	1,800	2,427
30%	1,568	2,441	2,041	5,320	6,812	4,829	3,949	3,000	2,908	3,323	1,735	1,945
40%	1,364	2,027	1,914	3,416	5,507	3,858	3,000	2,437	2,426	2,707	1,503	1,750
50%	1,339	1,733	1,859	1,598	2,649	2,822	2,275	1,806	1,973	2,179	1,486	1,485
60%	1,326	1,539	1,816	1,555	1,612	1,807	1,845	1,554	1,562	1,757	1,476	1,330
70%	1,313	1,407	1,566	1,514	1,318	1,571	1,527	1,476	1,492	1,750	1,360	1,323
80%	879	1,007	1,043	1,308	1,137	725	738	874	848	1,485	767	648
90%	657	703	764	732	759	622	619	612	563	583	537	601
Long Term												
Full Simulation Period ^d	1,531	2,344	3,517	4,880	5,627	4,021	3,062	2,742	2,323	2,536	1,456	1,644
Water Year Types ^{b,c}												
Wet (32%)	2,114	3,458	4,217	10,270	10,185	6,940	5,145	5,068	3,668	2,932	1,950	2,564
Above Normal (16%)	1,477	2,032	2,689	5,442	7,426	5,684	3,174	2,204	2,162	4,052	1,530	1,688
Below Normal (13%)	1,412	1,806	2,784	2,055	4,675	1,952	2,141	1,690	1,755	3,253	1,262	1,188
Dry (24%)	1,268	2,273	5,154	1,404	1,997	2,242	1,936	1,638	1,780	1,725	1,285	1,083
Critical (15%)	872	881	838	971	724	759	1,151	1,091	1,010	730	771	953

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,766	4,186	9,959	11,969	14,510	9,476	6,247	6,818	3,852	4,075	2,514	1,750
20%	1,472	3,242	4,297	7,618	10,744	6,579	4,613	3,829	3,077	2,868	2,066	1,634
30%	1,361	2,063	2,715	5,267	7,106	4,825	3,947	3,000	3,000	2,628	1,750	1,553
40%	1,343	1,901	1,973	3,675	5,489	3,884	3,000	2,429	2,663	2,116	1,750	1,547
50%	1,329	1,858	1,869	1,827	3,492	2,863	2,338	1,718	2,411	1,752	1,572	1,541
60%	1,324	1,799	1,842	1,356	2,438	2,040	2,034	1,354	1,870	1,743	1,495	1,537
70%	1,144	1,064	1,684	1,255	1,588	1,583	1,231	1,232	1,547	1,532	1,427	1,469
80%	612	659	1,001	1,239	1,273	1,333	804	1,012	999	1,301	1,258	1,345
90%	461	465	544	564	1,221	802	760	758	638	753	583	713
Long Term												
Full Simulation Period ^d	1,230	2,311	3,796	4,899	5,895	4,152	3,057	2,728	2,459	2,125	1,595	1,452
Water Year Types ^{b,c}												
Wet (32%)	1,553	3,681	4,941	10,331	10,338	6,938	5,115	5,036	3,846	2,524	2,036	1,681
Above Normal (16%)	1,386	2,076	2,764	5,622	7,769	5,883	3,147	2,183	2,418	3,244	1,807	1,613
Below Normal (13%)	1,165	1,590	2,926	2,034	5,402	2,116	2,154	1,780	1,933	2,485	1,570	1,448
Dry (24%)	1,033	2,058	5,258	1,360	2,013	2,402	1,940	1,632	1,816	1,448	1,373	1,317
Critical (15%)	748	678	792	874	1,161	1,020	1,192	1,010	1,055	845	801	1,008

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-819	657	1,745	-20	0	0	0	0	-97	-795	190	-1,095
20%	-482	191	707	277	118	0	1	4	-19	-1,419	266	-793
30%	-208	-378	674	-53	294	-4	-2	0	92	-696	15	-392
40%	-22	-126	60	259	-18	26	0	-8	237	-591	247	-203
50%	-10	125	10	230	842	42	62	-88	438	-427	86	56
60%	-1	260	26	-199	826	234	189	-200	308	-13	19	207
70%	-170	-343	118	-260	271	12	-295	-244	55	-218	66	146
80%	-267	-347	-42	-69	135	608	66	138	151	-184	491	697
90%	-196	-238	-220	-168	462	180	140	146	75	169	46	112
Long Term												
Full Simulation Period ^d	-301	-33	279	20	268	130	-5	-15	136	-411	139	-192
Water Year Types ^{b,c}												
Wet (32%)	-562	223	724	60	153	-2	-30	-33	178	-409	87	-882
Above Normal (16%)	-91	44	75	180	342	199	-27	-21	256	-808	278	-75
Below Normal (13%)	-247	-216	141	-21	728	163	13	91	178	-768	308	260
Dry (24%)	-236	-215	103	-44	16	160	4	-6	36	-277	87	233
Critical (15%)	-124	-203	-45	-97	437	261	40	-81	45	115	30	55

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 28-2. American River at H Street, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,493	3,696	9,514	14,852	15,317	11,753	7,256	4,323	2,909	4,286	2,073	3,185
20%	1,878	3,066	4,587	10,226	12,021	7,763	6,065	2,991	2,133	3,630	1,750	2,628
30%	1,456	2,376	2,280	6,992	8,439	5,793	4,062	1,673	1,515	2,972	1,552	2,083
40%	1,370	1,770	1,876	4,816	6,390	5,238	3,567	1,541	1,503	2,495	1,494	1,683
50%	1,350	1,613	1,835	3,022	4,094	4,021	2,750	1,511	1,488	2,021	1,482	1,330
60%	1,334	1,508	1,668	1,581	2,932	2,870	1,546	1,449	1,430	1,750	1,342	1,279
70%	1,322	1,343	1,460	1,521	2,125	1,861	1,252	1,180	1,094	1,584	1,129	964
80%	941	879	1,152	1,308	1,270	1,136	703	778	879	1,486	672	620
90%	648	709	798	765	983	664	620	613	565	782	561	608
Long Term												
Full Simulation Period ^d	1,471	2,320	3,774	5,952	6,543	5,048	3,493	2,061	1,508	2,343	1,364	1,634
Water Year Types ^{b,c}												
Wet (32%)	1,918	3,473	4,613	12,070	11,191	8,386	5,771	3,671	1,787	2,615	1,768	2,766
Above Normal (16%)	1,432	1,809	2,560	7,326	8,259	7,135	3,615	1,462	1,301	3,595	1,440	1,617
Below Normal (13%)	1,281	1,732	3,294	2,735	5,574	2,500	2,484	1,332	1,267	2,785	1,286	964
Dry (24%)	1,240	2,262	5,423	1,821	2,812	3,184	2,367	1,387	1,678	1,860	1,271	1,098
Critical (15%)	1,100	1,012	964	1,041	1,719	993	1,229	1,016	1,065	798	635	708

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,510	4,351	10,133	14,829	15,316	11,753	7,256	4,323	2,698	2,982	2,339	1,757
20%	1,363	2,719	4,822	11,151	11,682	7,762	6,034	2,992	1,877	2,649	1,821	1,750
30%	1,346	2,086	3,063	6,991	8,439	5,793	4,057	1,827	1,645	2,280	1,750	1,592
40%	1,339	1,886	2,131	5,198	6,553	5,234	3,579	1,399	1,275	1,849	1,580	1,549
50%	1,329	1,845	1,885	3,810	5,179	4,021	2,764	1,297	1,257	1,750	1,508	1,547
60%	1,324	1,726	1,860	2,271	3,172	2,922	1,512	1,275	1,244	1,521	1,500	1,541
70%	1,114	1,150	1,827	1,291	2,415	1,913	1,202	1,228	1,216	1,505	1,446	1,484
80%	571	640	1,337	1,241	1,342	1,434	904	1,032	1,024	1,444	1,286	1,340
90%	438	468	553	601	1,222	805	758	766	577	706	530	574
Long Term												
Full Simulation Period ^d	1,183	2,325	4,095	6,123	6,694	5,117	3,515	2,075	1,471	1,928	1,539	1,456
Water Year Types ^{b,c}												
Wet (32%)	1,524	3,720	5,402	12,081	11,308	8,404	5,785	3,688	1,798	2,193	1,986	1,766
Above Normal (16%)	1,386	2,111	2,985	7,874	8,531	7,131	3,595	1,411	1,290	2,494	1,644	1,601
Below Normal (13%)	1,054	1,503	3,307	3,002	5,946	2,617	2,701	1,330	1,297	2,065	1,525	1,435
Dry (24%)	958	2,061	5,461	1,855	2,854	3,279	2,323	1,435	1,469	1,724	1,344	1,313
Critical (15%)	720	731	911	1,290	1,791	1,168	1,239	1,047	1,119	957	796	882

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-983	655	619	-23	-1	0	0	0	-212	-1,304	266	-1,428
20%	-515	-347	235	925	-339	-1	-30	1	-256	-981	71	-878
30%	-110	-290	783	-1	0	-1	-6	154	130	-692	198	-491
40%	-31	117	255	382	163	-4	12	-142	-228	-646	86	-134
50%	-21	232	51	788	1,085	0	14	-214	-231	-271	27	216
60%	-10	218	192	690	239	52	-34	-174	-186	-229	158	262
70%	-209	-194	367	-230	290	53	-50	49	123	-80	317	520
80%	-370	-239	184	-67	72	298	202	253	145	-41	613	720
90%	-210	-241	-246	-164	238	141	138	153	12	-76	-31	-34
Long Term												
Full Simulation Period ^d	-288	5	321	171	151	69	21	13	-37	-415	175	-178
Water Year Types ^{b,c}												
Wet (32%)	-395	247	790	11	117	18	14	18	11	-423	217	-1,000
Above Normal (16%)	-46	302	424	548	272	-5	-20	-51	-11	-1,101	203	-16
Below Normal (13%)	-227	-230	13	266	372	117	217	-2	30	-720	240	471
Dry (24%)	-283	-201	37	34	42	95	-43	48	-209	-136	73	215
Critical (15%)	-380	-281	-53	250	72	175	10	30	55	160	161	174

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-3. American River at H Street, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,585	3,530	8,214	11,989	14,510	9,476	6,247	6,818	3,949	4,871	2,323	2,845
20%	1,954	3,051	3,590	7,341	10,626	6,579	4,612	3,824	3,096	4,286	1,800	2,427
30%	1,568	2,441	2,041	5,320	6,812	4,829	3,949	3,000	2,908	3,323	1,735	1,945
40%	1,364	2,027	1,914	3,416	5,507	3,858	3,000	2,437	2,426	2,707	1,503	1,750
50%	1,339	1,733	1,859	1,598	2,649	2,822	2,275	1,806	1,973	2,179	1,486	1,485
60%	1,326	1,539	1,816	1,555	1,612	1,807	1,845	1,554	1,562	1,757	1,476	1,330
70%	1,313	1,407	1,566	1,514	1,318	1,571	1,527	1,476	1,492	1,750	1,360	1,323
80%	879	1,007	1,043	1,308	1,137	725	738	874	848	1,485	767	648
90%	657	703	764	732	759	622	619	612	563	583	537	601
Long Term												
Full Simulation Period ^d	1,531	2,344	3,517	4,880	5,627	4,021	3,062	2,742	2,323	2,536	1,456	1,644
Water Year Types ^{b,c}												
Wet (32%)	2,114	3,458	4,217	10,270	10,185	6,940	5,145	5,068	3,668	2,932	1,950	2,564
Above Normal (16%)	1,477	2,032	2,689	5,442	7,426	5,684	3,174	2,204	2,162	4,052	1,530	1,688
Below Normal (13%)	1,412	1,806	2,784	2,055	4,675	1,952	2,141	1,690	1,755	3,253	1,262	1,188
Dry (24%)	1,268	2,273	5,154	1,404	1,997	2,242	1,936	1,638	1,780	1,725	1,285	1,083
Critical (15%)	872	881	838	971	724	759	1,151	1,091	1,010	730	771	953

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,493	3,696	9,514	14,852	15,317	11,753	7,256	4,323	2,909	4,286	2,073	3,185
20%	1,878	3,066	4,587	10,226	12,021	7,763	6,065	2,991	2,133	3,630	1,750	2,628
30%	1,456	2,376	2,280	6,992	8,439	5,793	4,062	1,673	1,515	2,972	1,552	2,083
40%	1,370	1,770	1,876	4,816	6,390	5,238	3,567	1,541	1,503	2,495	1,494	1,683
50%	1,350	1,613	1,835	3,022	4,094	4,021	2,750	1,511	1,488	2,021	1,482	1,330
60%	1,334	1,508	1,668	1,581	2,932	2,870	1,546	1,449	1,430	1,750	1,342	1,279
70%	1,322	1,343	1,460	1,521	2,125	1,861	1,252	1,180	1,094	1,584	1,129	964
80%	941	879	1,152	1,308	1,270	1,136	703	778	879	1,486	672	620
90%	648	709	798	765	983	664	620	613	565	782	561	608
Long Term												
Full Simulation Period ^d	1,471	2,320	3,774	5,952	6,543	5,048	3,493	2,061	1,508	2,343	1,364	1,634
Water Year Types ^{b,c}												
Wet (32%)	1,918	3,473	4,613	12,070	11,191	8,386	5,771	3,671	1,787	2,615	1,768	2,766
Above Normal (16%)	1,432	1,809	2,560	7,326	8,259	7,135	3,615	1,462	1,301	3,595	1,440	1,617
Below Normal (13%)	1,281	1,732	3,294	2,735	5,574	2,500	2,484	1,332	1,267	2,785	1,286	964
Dry (24%)	1,240	2,262	5,423	1,821	2,812	3,184	2,367	1,387	1,678	1,860	1,271	1,098
Critical (15%)	1,100	1,012	964	1,041	1,719	993	1,229	1,016	1,065	798	635	708

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-92	167	1,300	2,863	807	2,278	1,009	-2,495	-1,040	-585	-250	340
20%	-77	16	997	2,885	1,395	1,185	1,453	-833	-963	-657	-50	201
30%	-112	-65	239	1,672	1,627	965	114	-1,327	-1,393	-352	-183	138
40%	6	-257	-38	1,400	884	1,380	567	-896	-924	-212	-9	-67
50%	11	-120	-24	1,424	1,445	1,200	475	-295	-485	-159	-4	-155
60%	8	-31	-148	26	1,321	1,064	-299	-105	-132	-7	-134	-52
70%	9	-63	-105	7	808	290	-275	-296	-398	-166	-232	-358
80%	62	-127	109	0	132	411	-35	-95	31	0	-95	-28
90%	-9	6	34	33	225	41	1	1	2	199	24	7
Long Term												
Full Simulation Period ^d	-60	-24	257	1,072	916	1,026	431	-681	-815	-193	-92	-10
Water Year Types ^{b,c}												
Wet (32%)	-196	14	396	1,800	1,005	1,446	626	-1,398	-1,880	-317	-181	202
Above Normal (16%)	-45	-223	-129	1,883	832	1,451	441	-742	-861	-457	-89	-71
Below Normal (13%)	-131	-74	510	680	899	548	343	-357	-489	-467	24	-224
Dry (24%)	-28	-11	269	416	815	942	431	-251	-102	135	-14	14
Critical (15%)	228	131	126	70	995	234	77	-75	55	67	-136	-245

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 28-4. American River at H Street, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,766	4,186	9,959	11,969	14,510	9,476	6,247	6,818	3,852	4,075	2,514	1,750
20%	1,472	3,242	4,297	7,618	10,744	6,579	4,613	3,829	3,077	2,868	2,066	1,634
30%	1,361	2,063	2,715	5,267	7,106	4,825	3,947	3,000	3,000	2,628	1,750	1,553
40%	1,343	1,901	1,973	3,675	5,489	3,884	3,000	2,429	2,663	2,116	1,750	1,547
50%	1,329	1,858	1,869	1,827	3,492	2,863	2,338	1,718	2,411	1,752	1,572	1,541
60%	1,324	1,799	1,842	1,356	2,438	2,040	2,034	1,354	1,870	1,743	1,495	1,537
70%	1,144	1,064	1,684	1,255	1,588	1,583	1,231	1,232	1,547	1,532	1,427	1,469
80%	612	659	1,001	1,239	1,273	1,333	804	1,012	999	1,301	1,258	1,345
90%	461	465	544	564	1,221	802	760	758	638	753	583	713
Long Term												
Full Simulation Period ^d	1,230	2,311	3,796	4,899	5,895	4,152	3,057	2,728	2,459	2,125	1,595	1,452
Water Year Types ^{b,c}												
Wet (32%)	1,553	3,681	4,941	10,331	10,338	6,938	5,115	5,036	3,846	2,524	2,036	1,681
Above Normal (16%)	1,386	2,076	2,764	5,622	7,769	5,883	3,147	2,183	2,418	3,244	1,807	1,613
Below Normal (13%)	1,165	1,590	2,926	2,034	5,402	2,116	2,154	1,780	1,933	2,485	1,570	1,448
Dry (24%)	1,033	2,058	5,258	1,360	2,013	2,402	1,940	1,632	1,816	1,448	1,373	1,317
Critical (15%)	748	678	792	874	1,161	1,020	1,192	1,010	1,055	845	801	1,008

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,510	4,351	10,133	14,829	15,316	11,753	7,256	4,323	2,698	2,982	2,339	1,757
20%	1,363	2,719	4,822	11,151	11,682	7,762	6,034	2,992	1,877	2,649	1,821	1,750
30%	1,346	2,086	3,063	6,991	8,439	5,793	4,057	1,827	1,645	2,280	1,750	1,592
40%	1,339	1,886	2,131	5,198	6,553	5,234	3,579	1,399	1,275	1,849	1,580	1,549
50%	1,329	1,845	1,885	3,810	5,179	4,021	2,764	1,297	1,257	1,750	1,508	1,547
60%	1,324	1,726	1,860	2,271	3,172	2,922	1,512	1,275	1,244	1,521	1,500	1,541
70%	1,114	1,150	1,827	1,291	2,415	1,913	1,202	1,228	1,216	1,505	1,446	1,484
80%	571	640	1,337	1,241	1,342	1,434	904	1,032	1,024	1,444	1,286	1,340
90%	438	468	553	601	1,222	805	758	766	577	706	530	574
Long Term												
Full Simulation Period ^d	1,183	2,325	4,095	6,123	6,694	5,117	3,515	2,075	1,471	1,928	1,539	1,456
Water Year Types ^{b,c}												
Wet (32%)	1,524	3,720	5,402	12,081	11,308	8,404	5,785	3,688	1,798	2,193	1,986	1,766
Above Normal (16%)	1,386	2,111	2,985	7,874	8,531	7,131	3,595	1,411	1,290	2,494	1,644	1,601
Below Normal (13%)	1,054	1,503	3,307	3,002	5,946	2,617	2,701	1,330	1,297	2,065	1,525	1,435
Dry (24%)	958	2,061	5,461	1,855	2,854	3,279	2,323	1,435	1,469	1,724	1,344	1,313
Critical (15%)	720	731	911	1,290	1,791	1,168	1,239	1,047	1,119	957	796	882

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-256	165	174	2,860	806	2,278	1,009	-2,495	-1,154	-1,093	-175	7
20%	-110	-522	525	3,534	938	1,183	1,421	-836	-1,200	-219	-245	116
30%	-15	23	348	1,724	1,332	968	110	-1,173	-1,355	-348	0	39
40%	-3	-14	158	1,524	1,064	1,350	579	-1,031	-1,389	-267	-170	2
50%	-1	-13	16	1,982	1,687	1,158	426	-421	-1,154	-2	-63	5
60%	0	-74	18	915	734	882	-522	-79	-626	-222	6	3
70%	-30	86	143	36	827	330	-29	-3	-331	-27	19	16
80%	-41	-19	335	3	69	102	100	20	24	143	28	-5
90%	-23	3	9	37	1	3	-2	9	-61	-47	-53	-139
Long Term												
Full Simulation Period ^d	-47	15	299	1,223	798	965	457	-653	-988	-196	-56	4
Water Year Types ^{b,c}												
Wet (32%)	-29	39	461	1,750	969	1,466	670	-1,347	-2,048	-331	-51	85
Above Normal (16%)	0	36	221	2,252	762	1,248	448	-772	-1,127	-750	-164	-12
Below Normal (13%)	-111	-87	381	967	544	501	547	-450	-637	-419	-45	-13
Dry (24%)	-75	3	203	495	841	876	383	-197	-347	277	-28	-4
Critical (15%)	-29	53	118	417	630	147	47	37	65	112	-5	-126

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

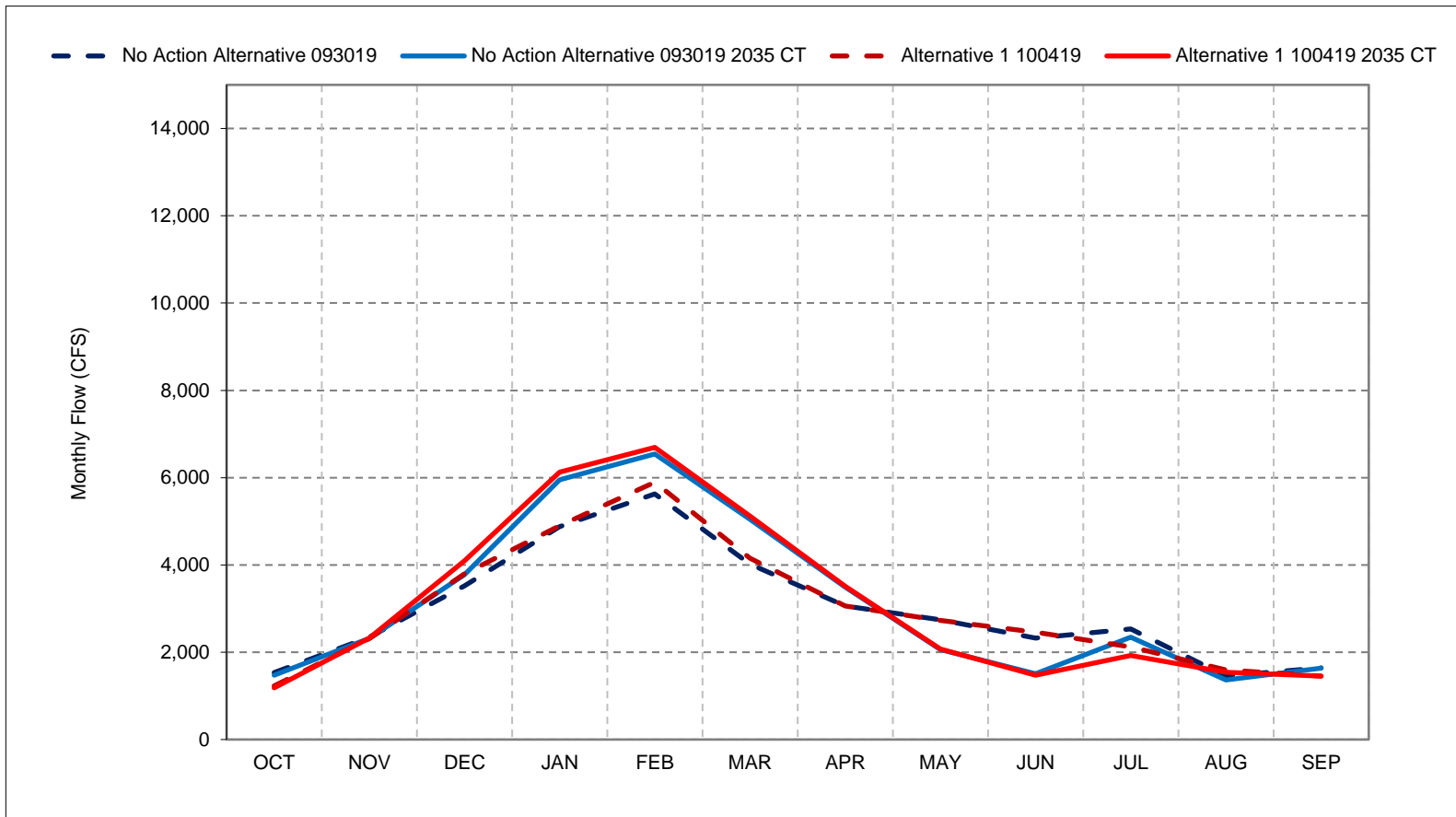
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 28-1. American River at H Street, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

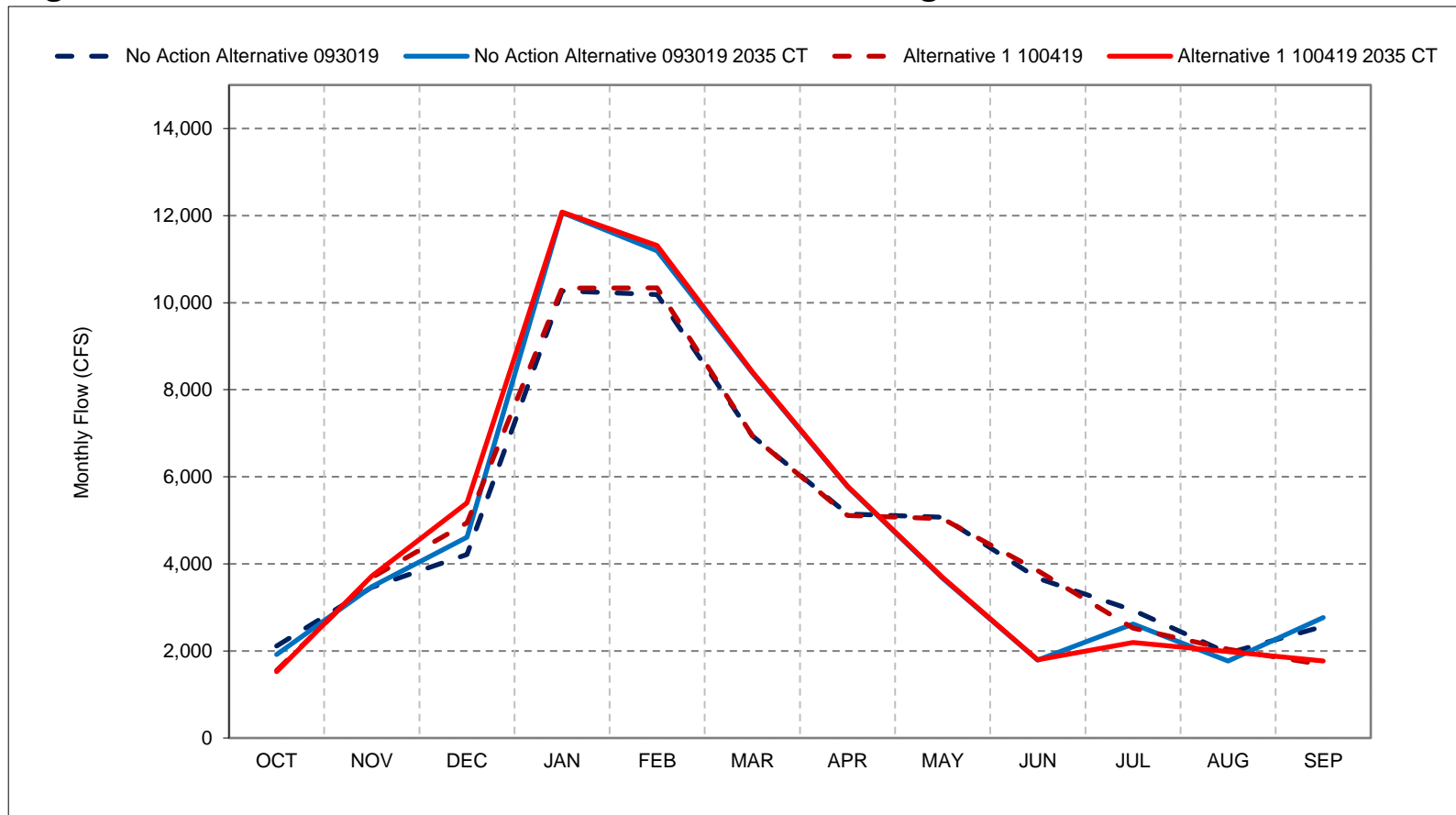
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-2. American River at H Street, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

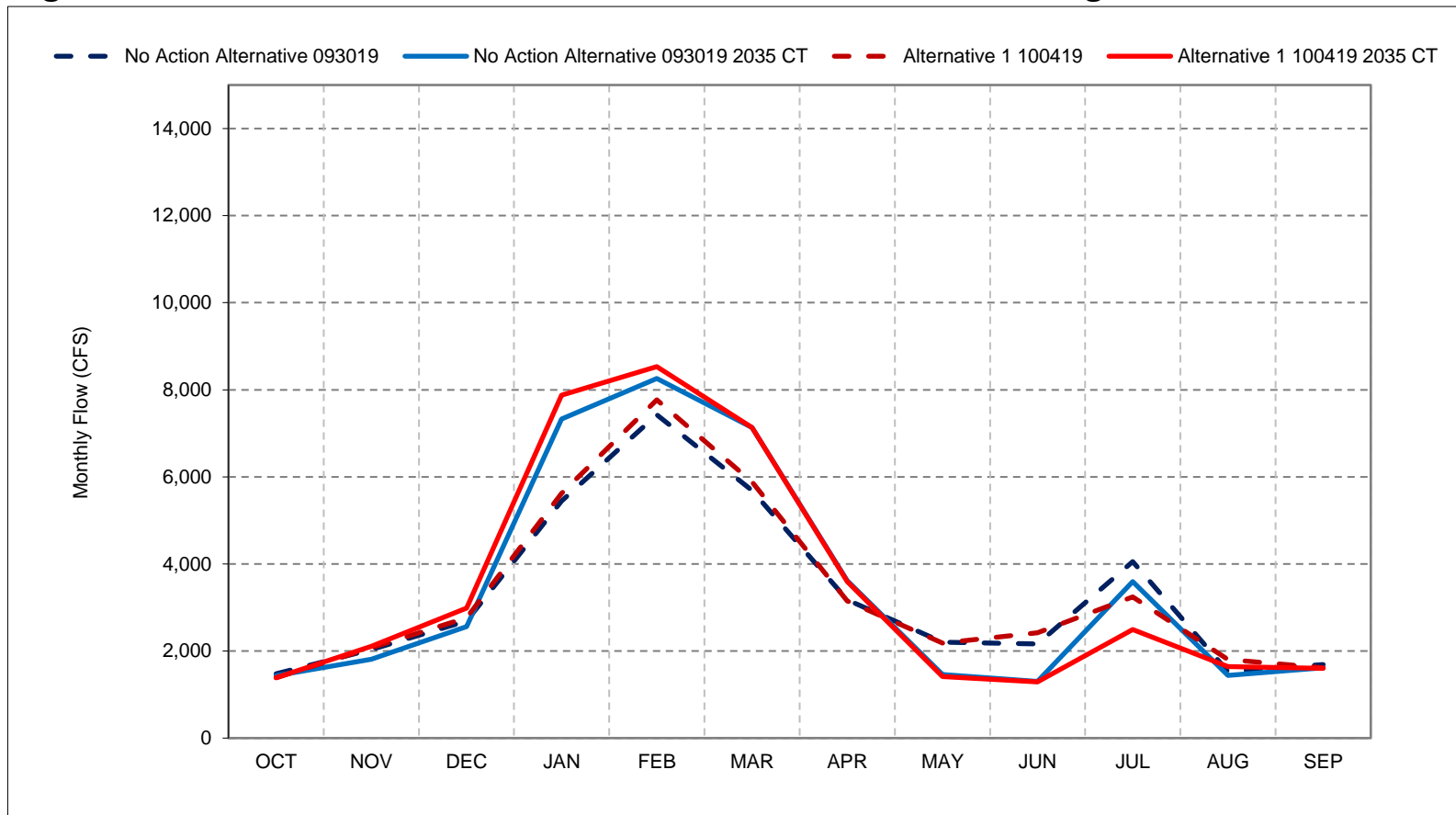
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-3. American River at H Street, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

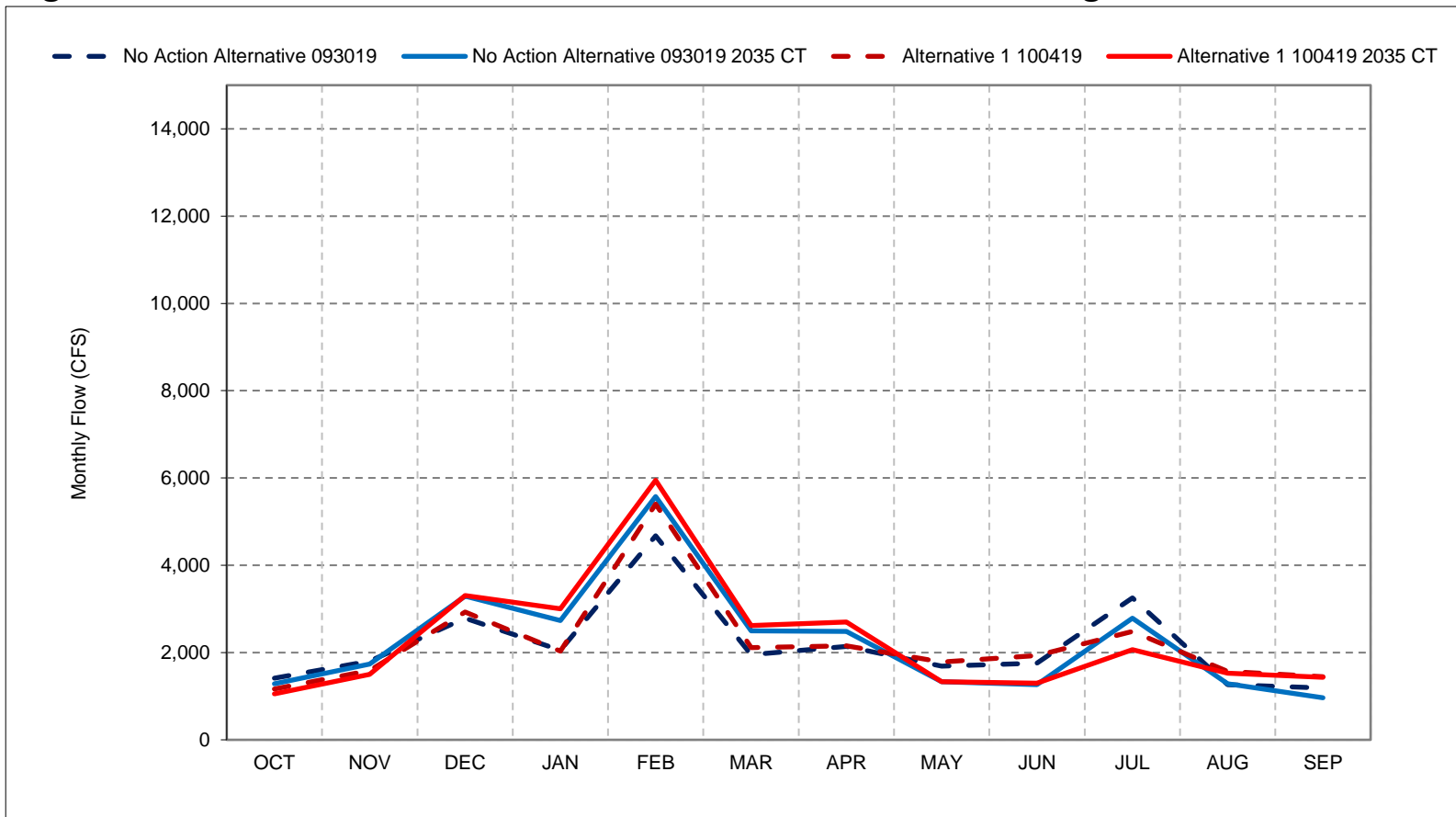
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-4. American River at H Street, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

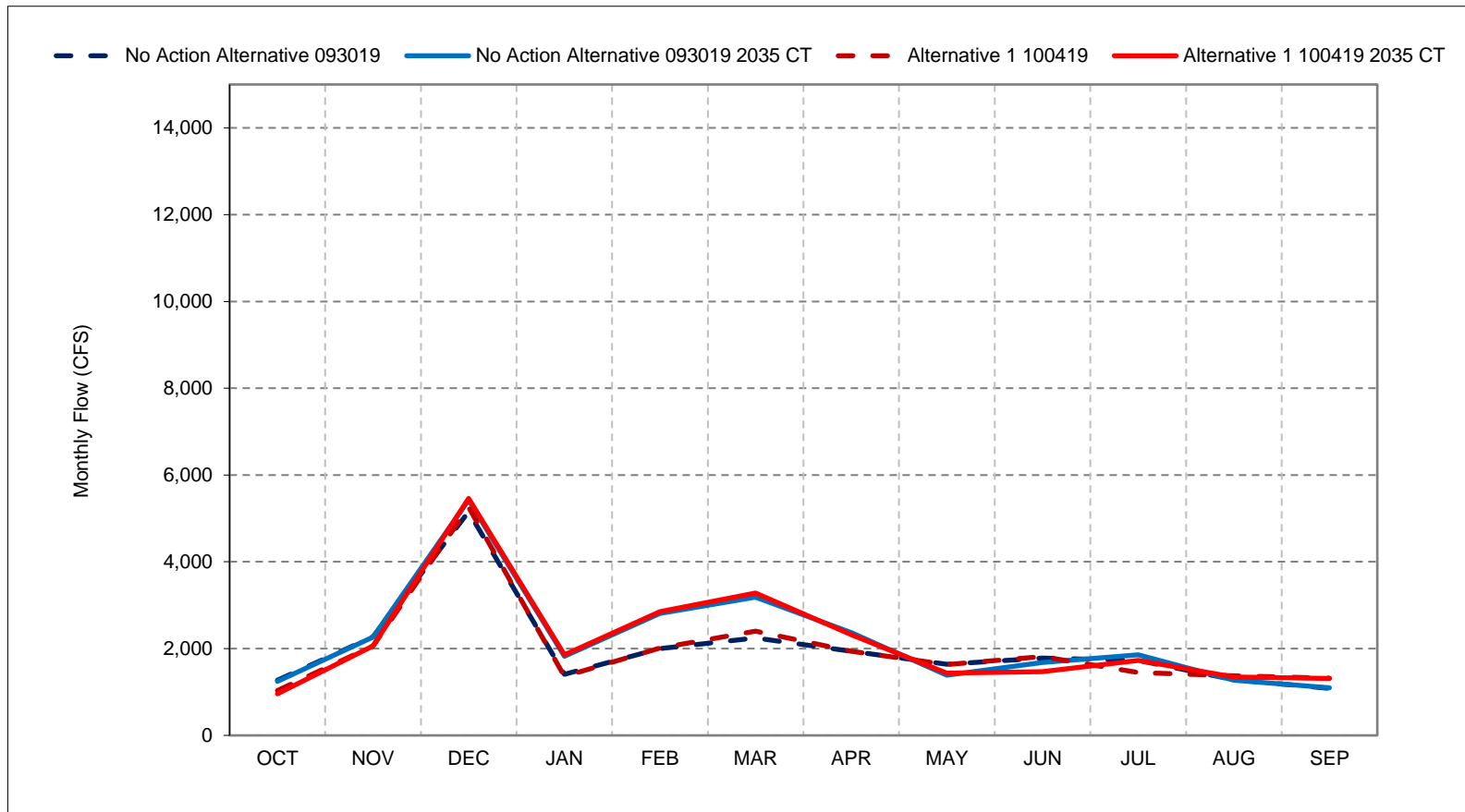
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-5. American River at H Street, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

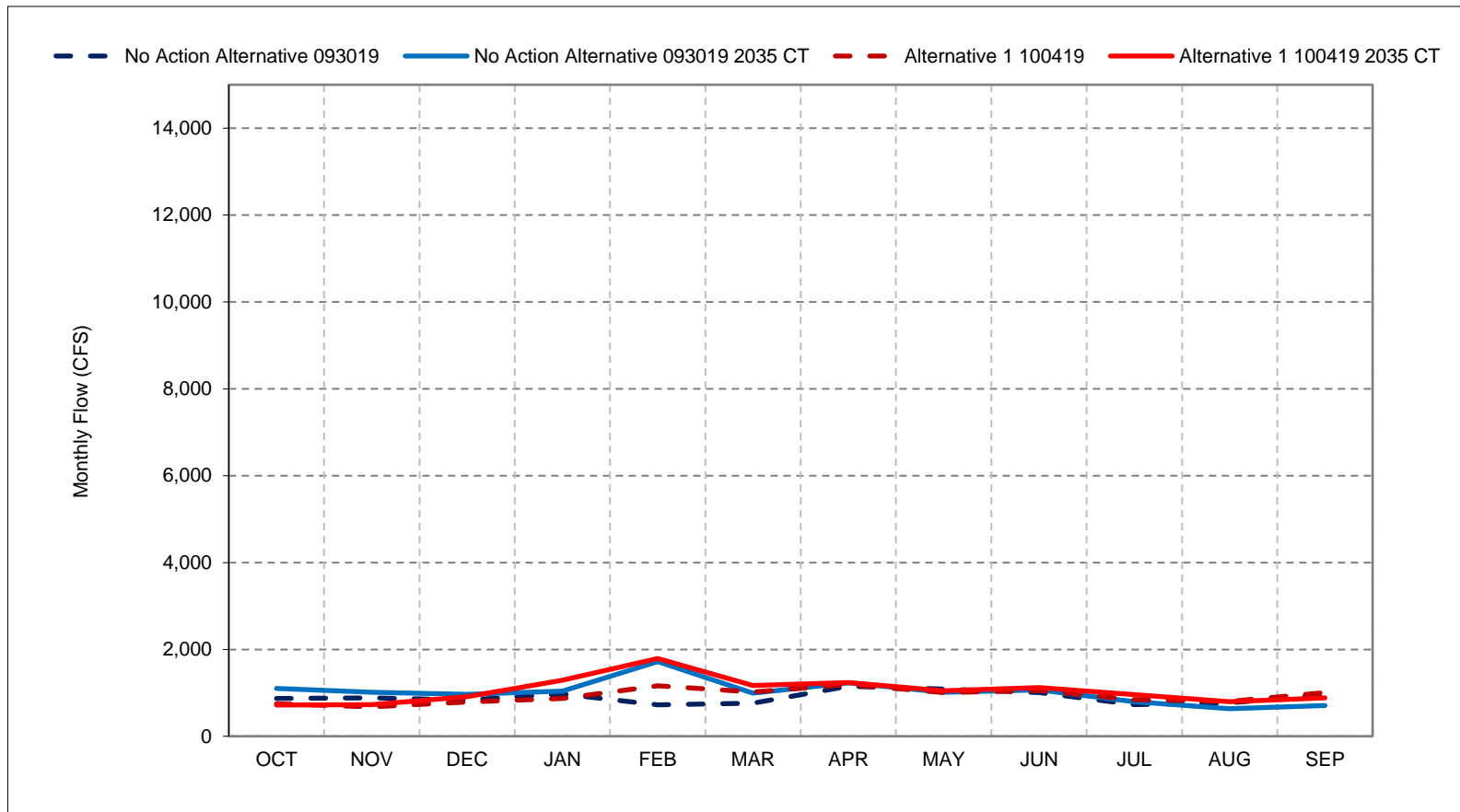
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 28-6. American River at H Street, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

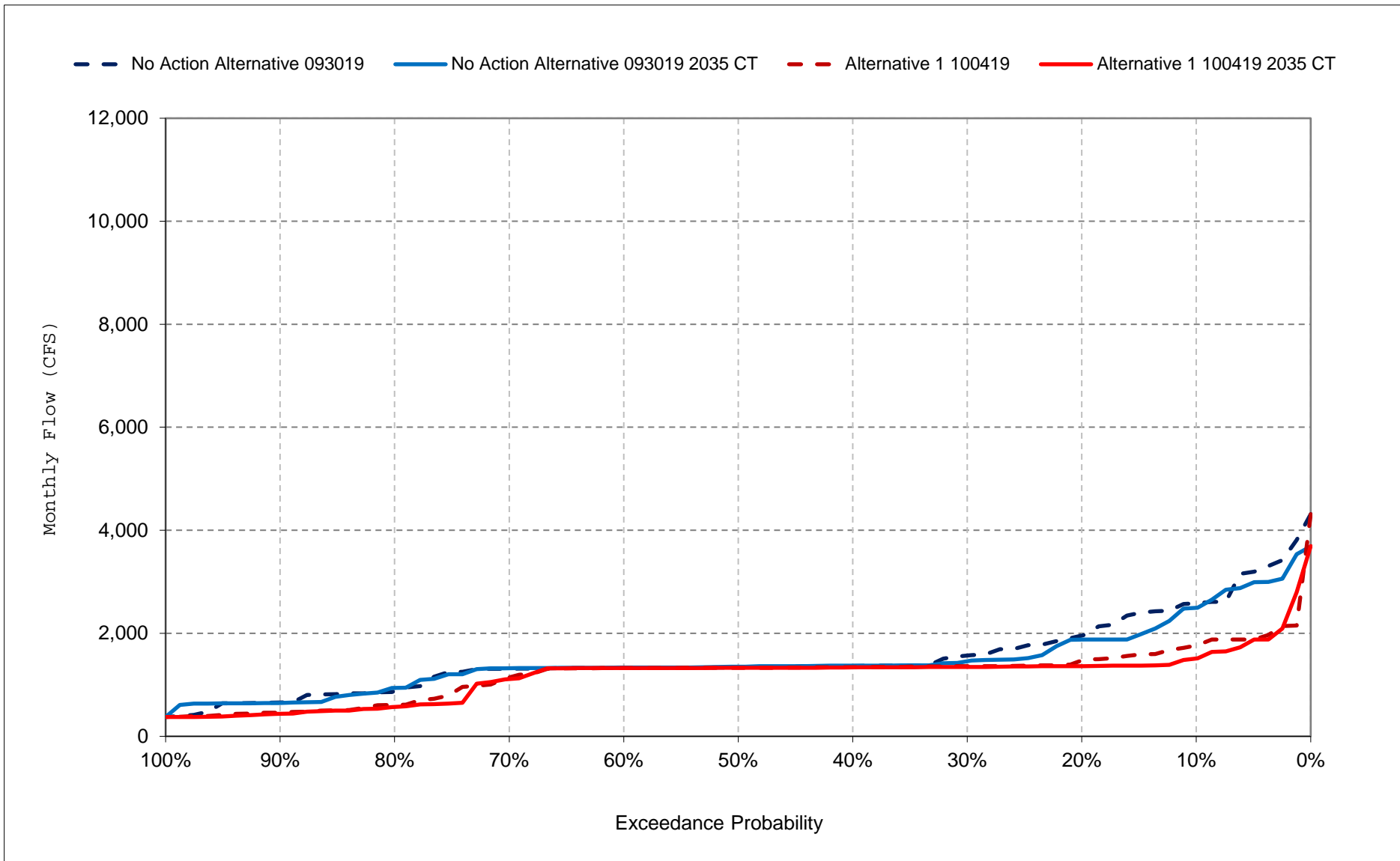
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

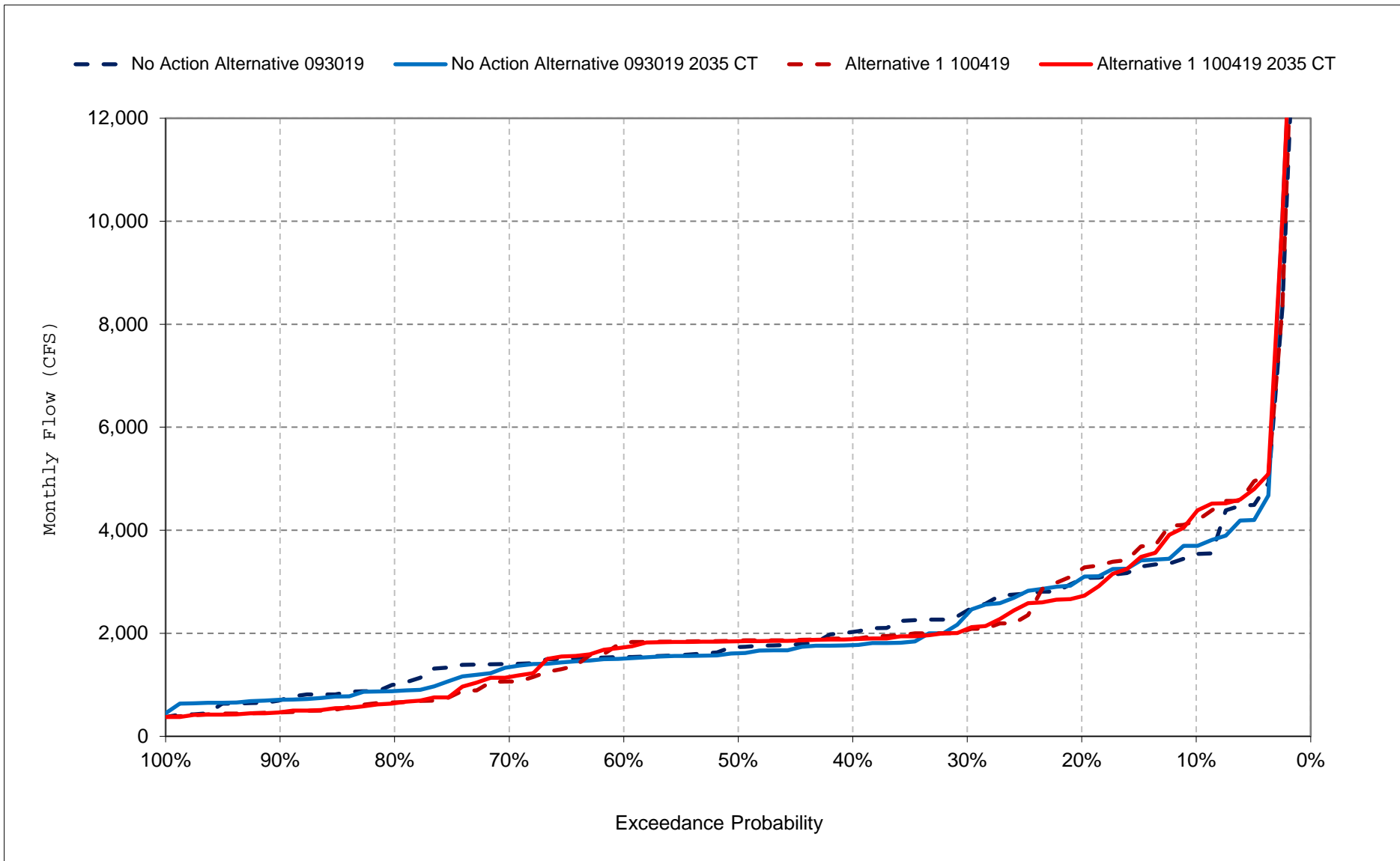
Figure 28-7. American River at H Street, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

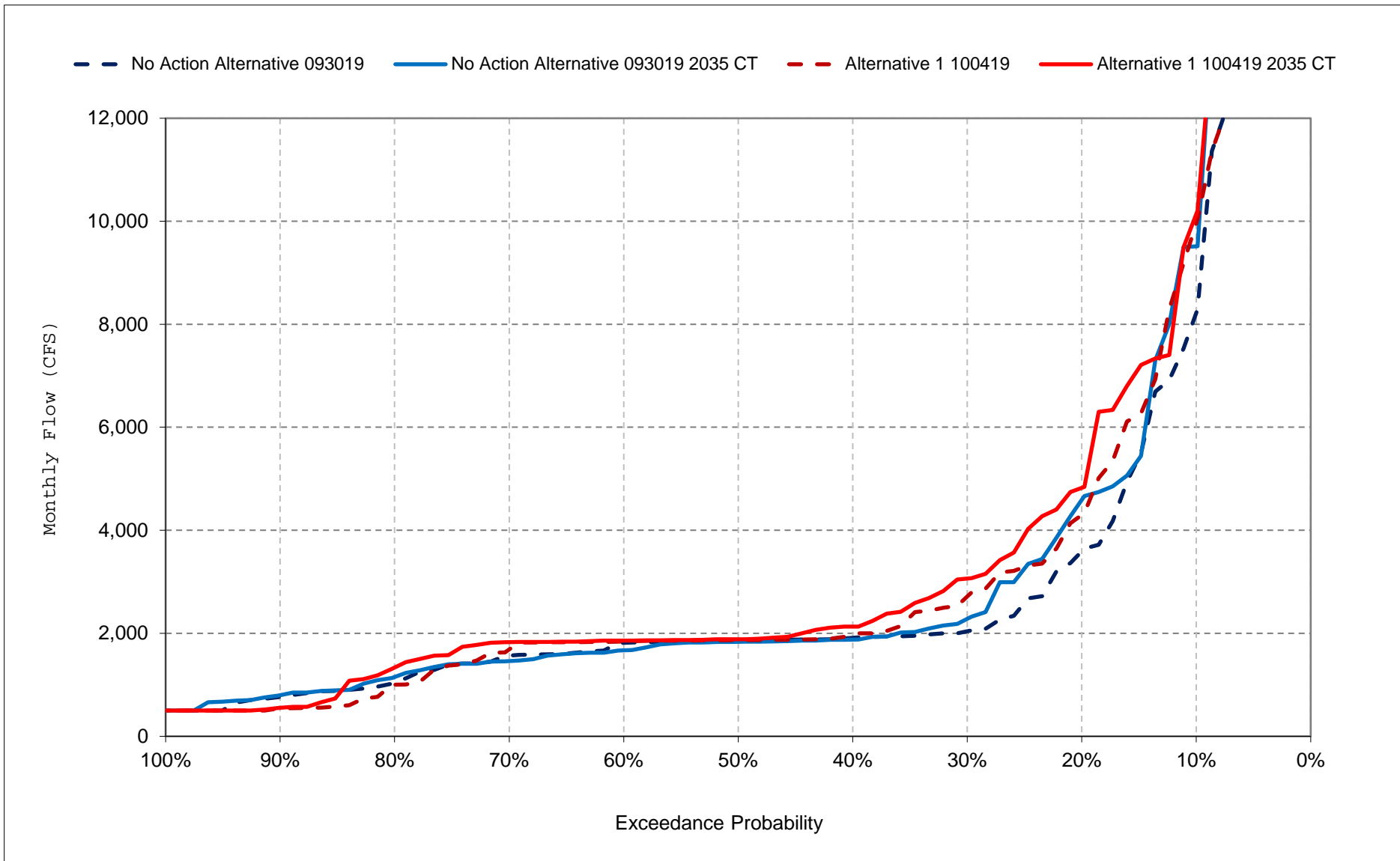
Figure 28-8. American River at H Street, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

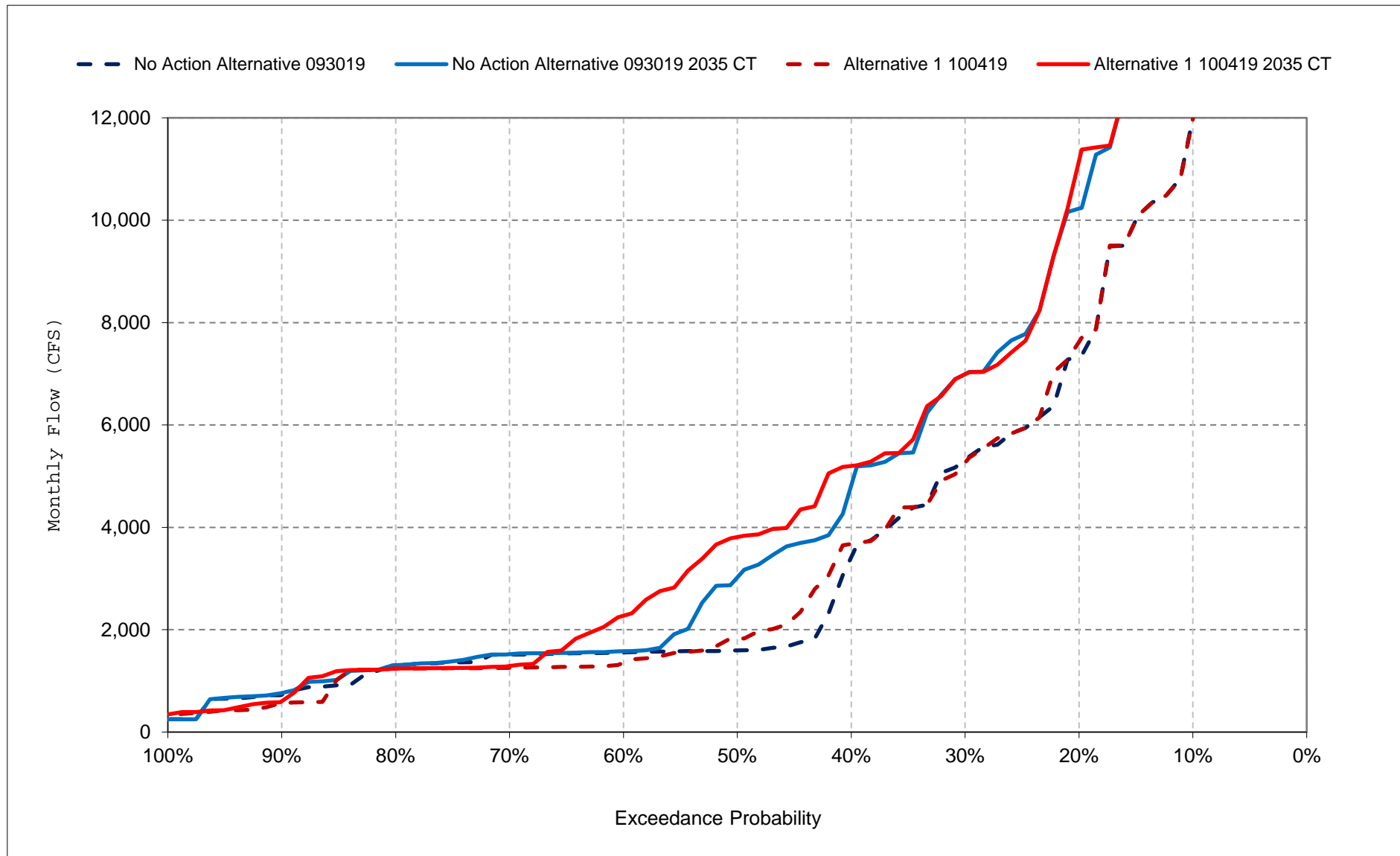
Figure 28-9. American River at H Street, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

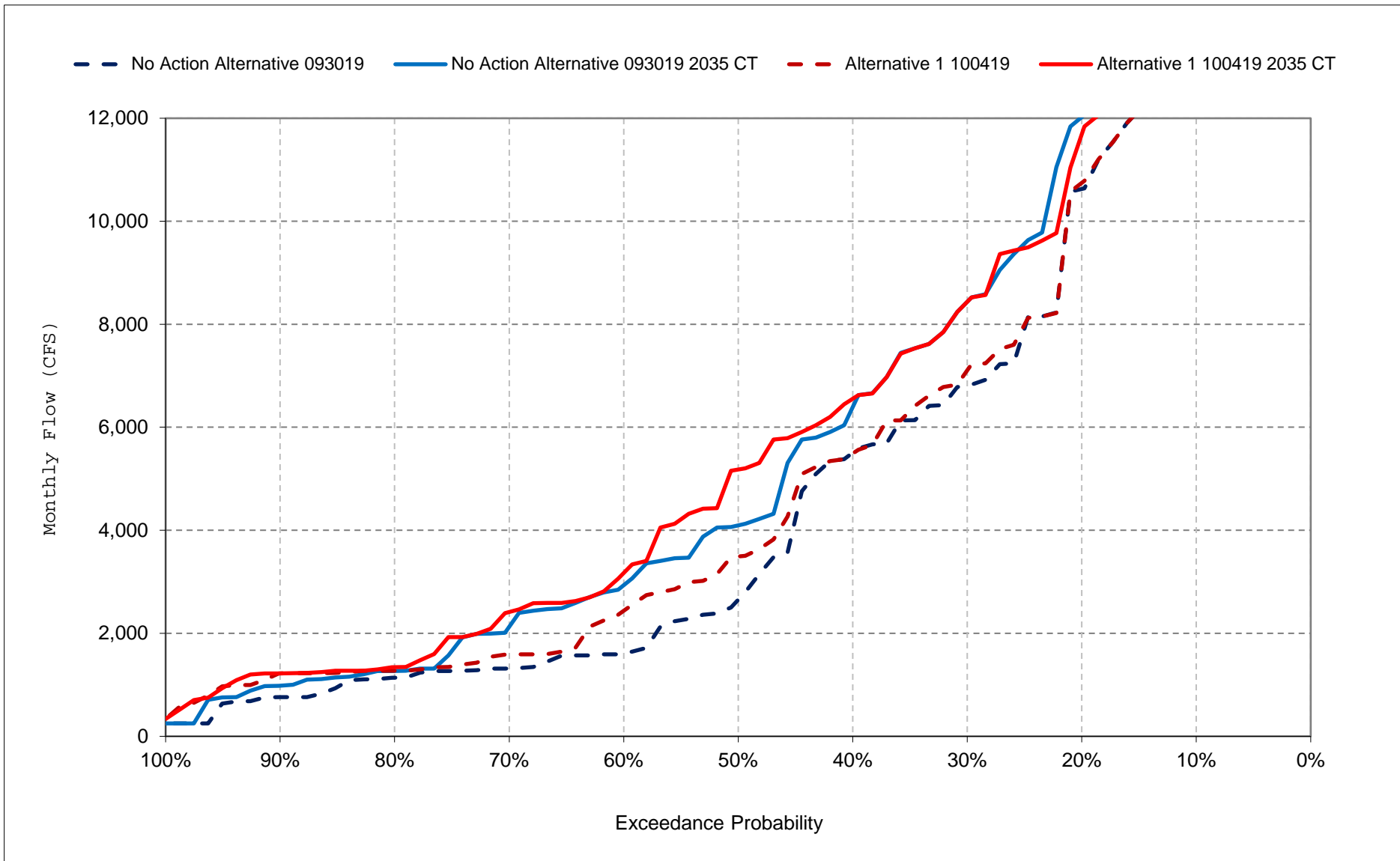
Figure 28-10. American River at H Street, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

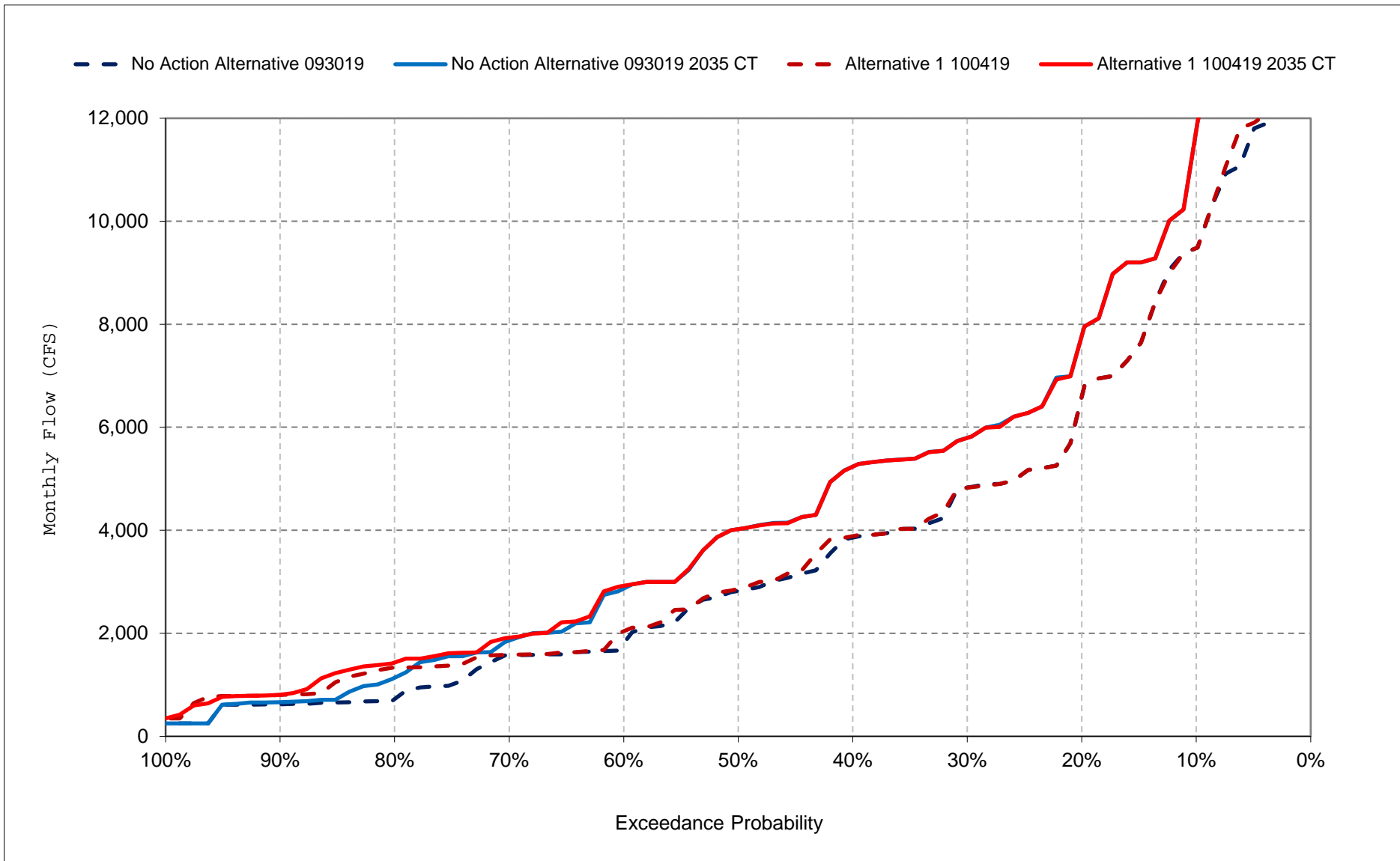
Figure 28-11. American River at H Street, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

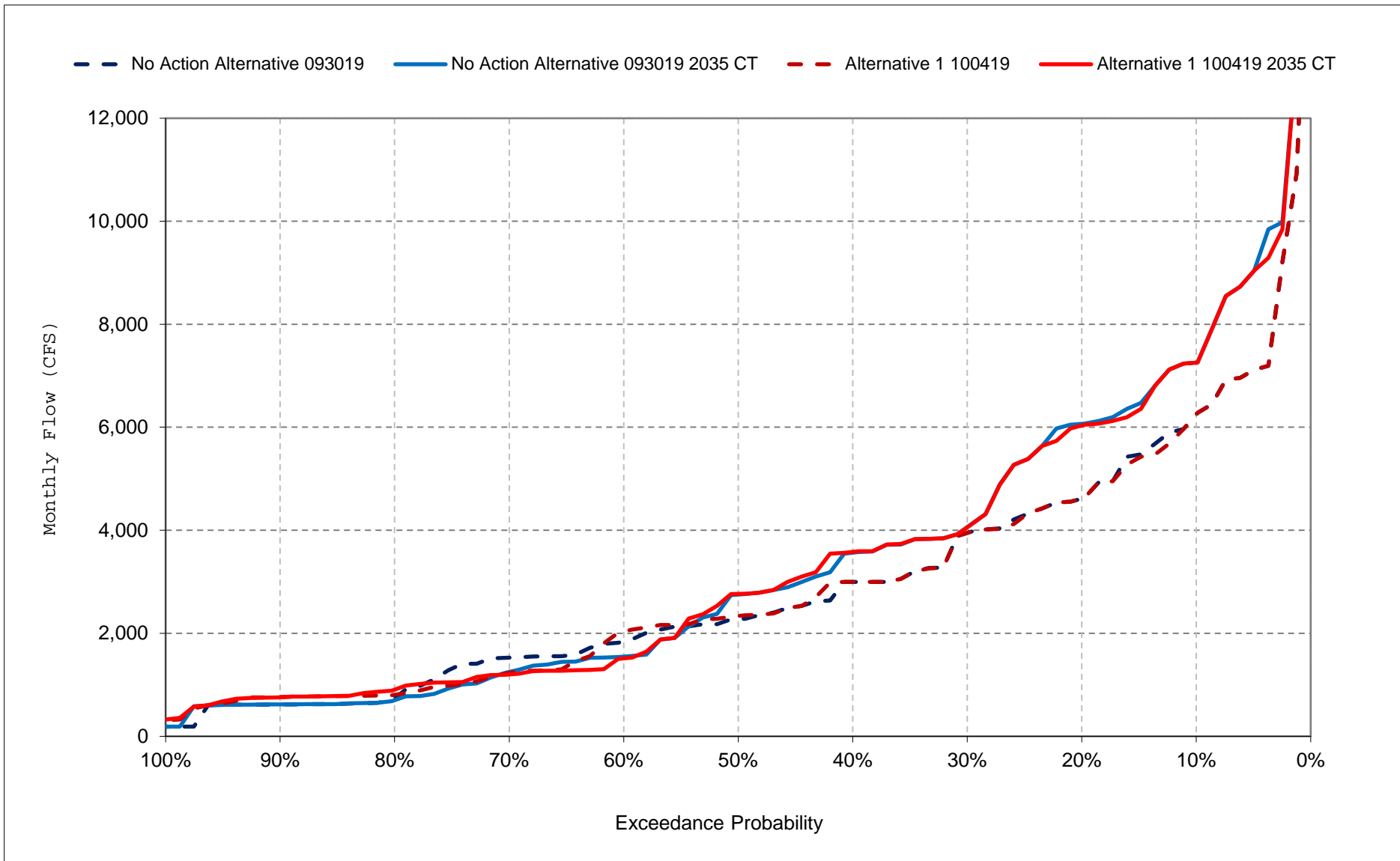
Figure 28-12. American River at H Street, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

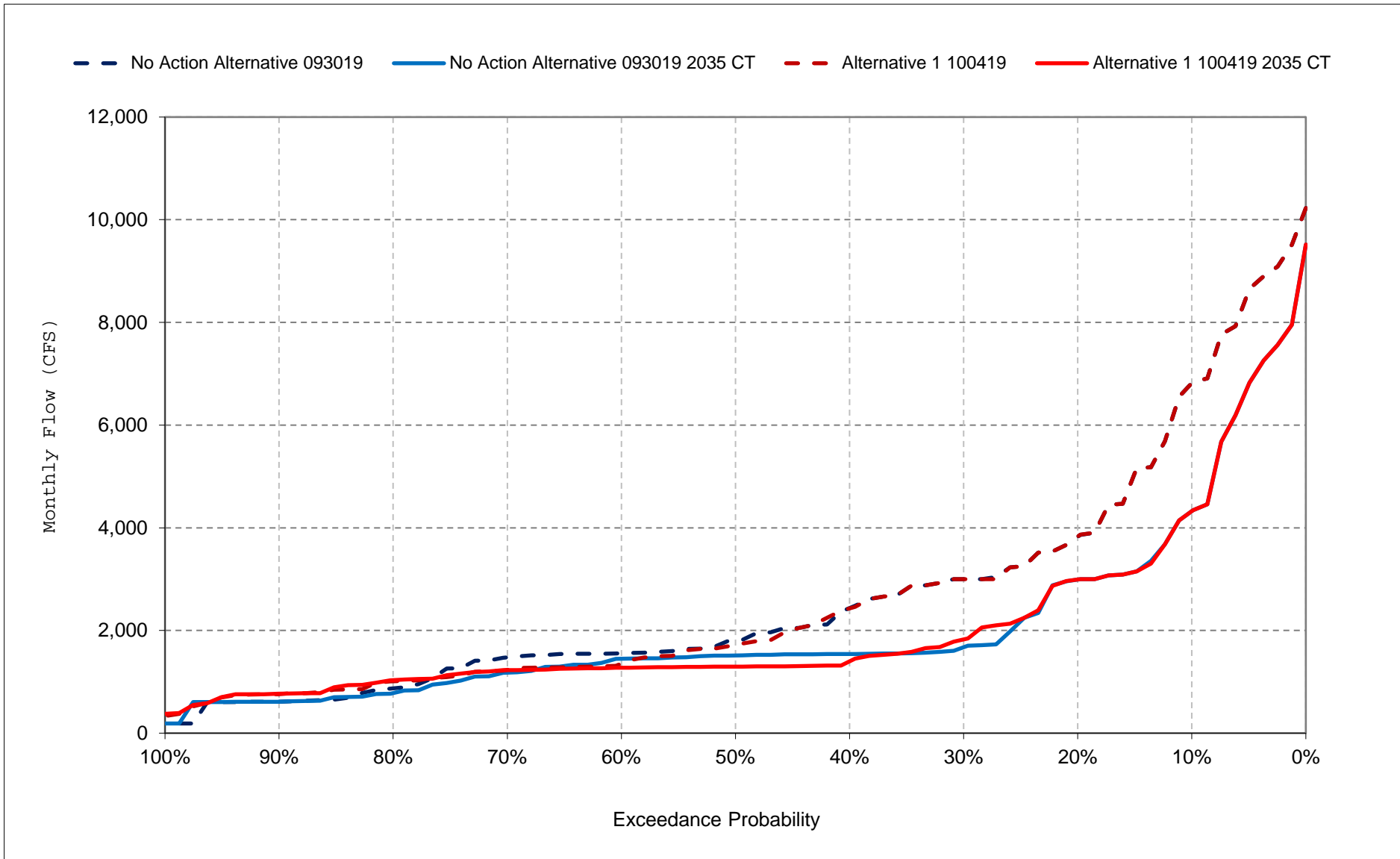
Figure 28-13. American River at H Street, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

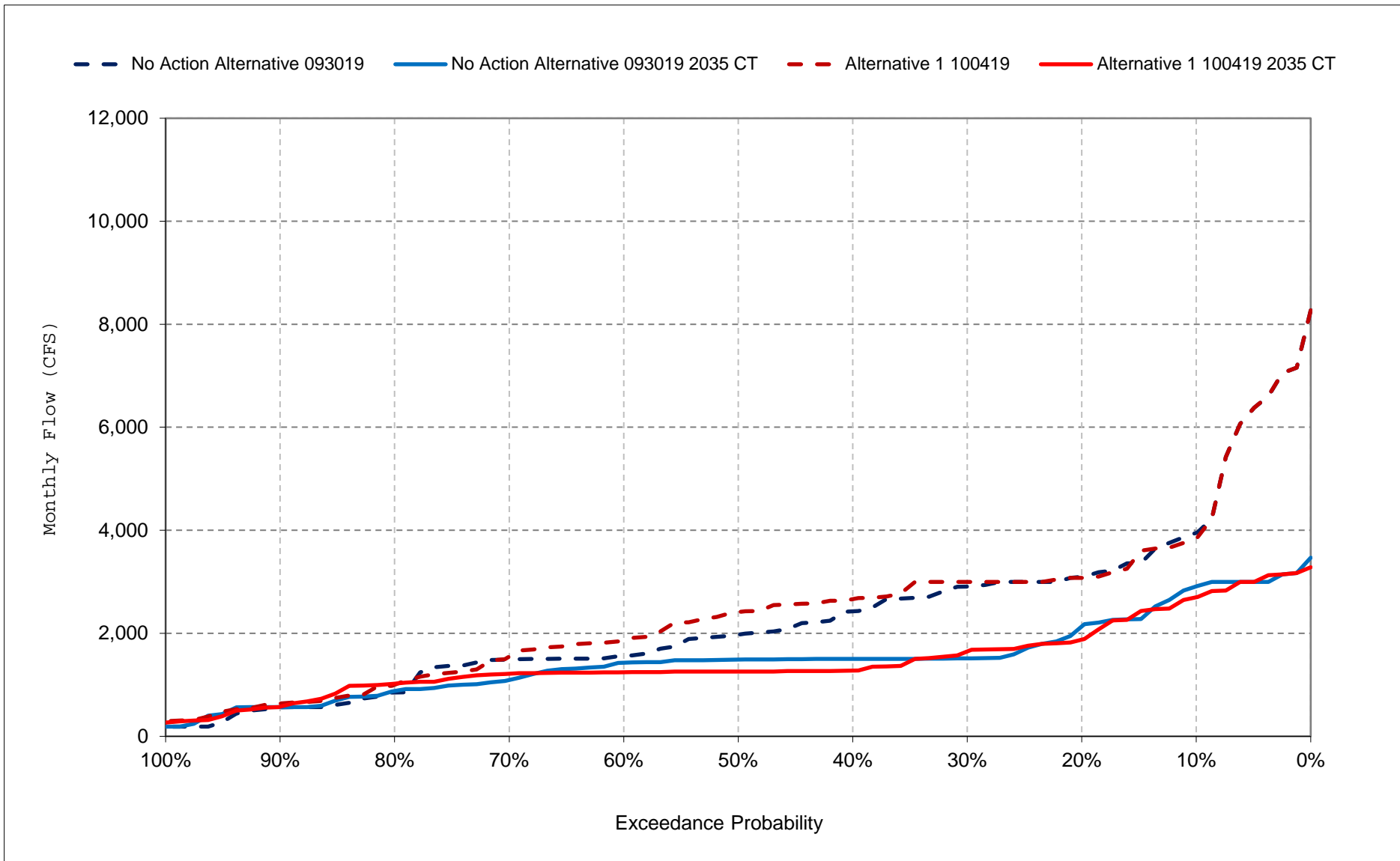
Figure 28-14. American River at H Street, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

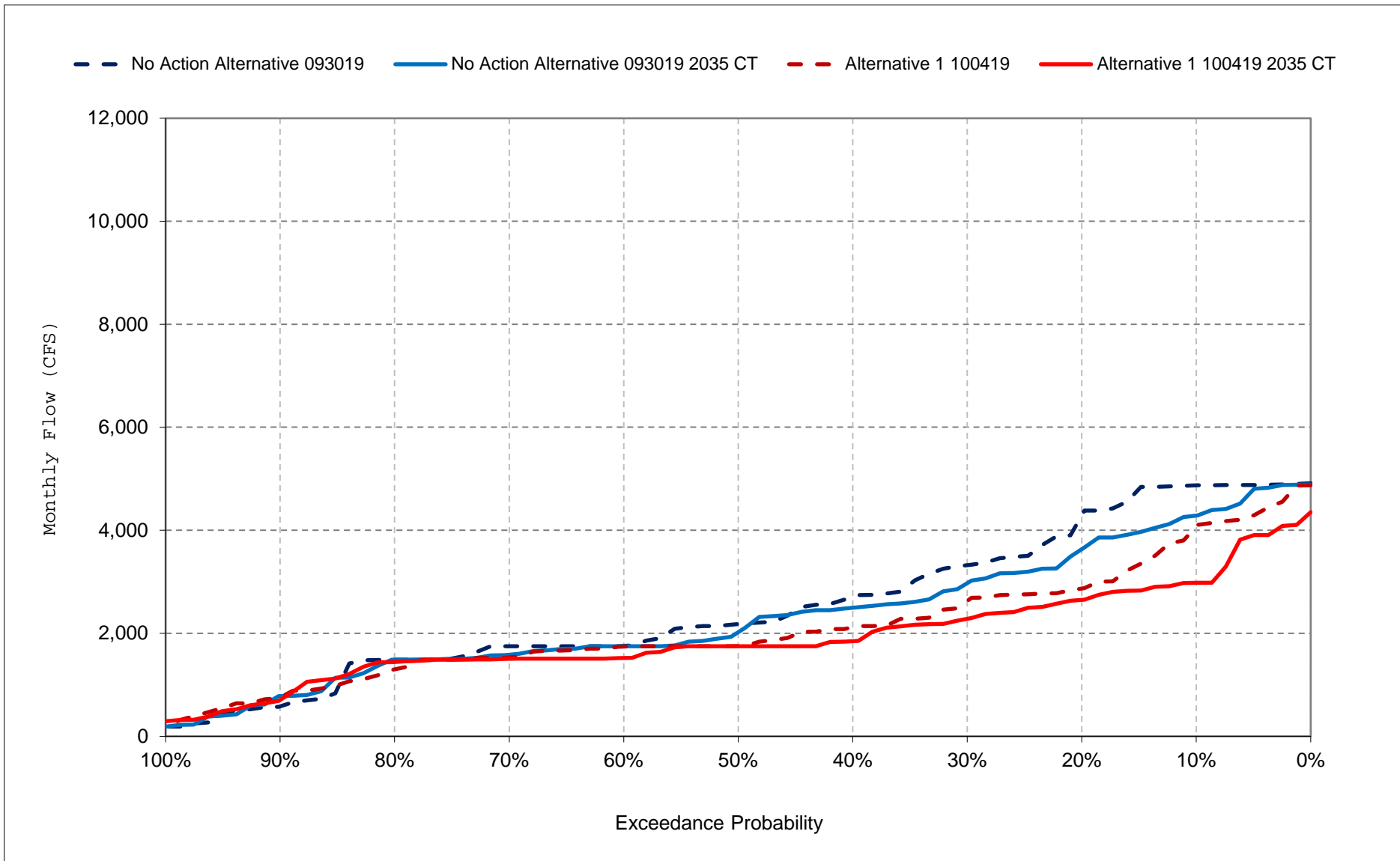
Figure 28-15. American River at H Street, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

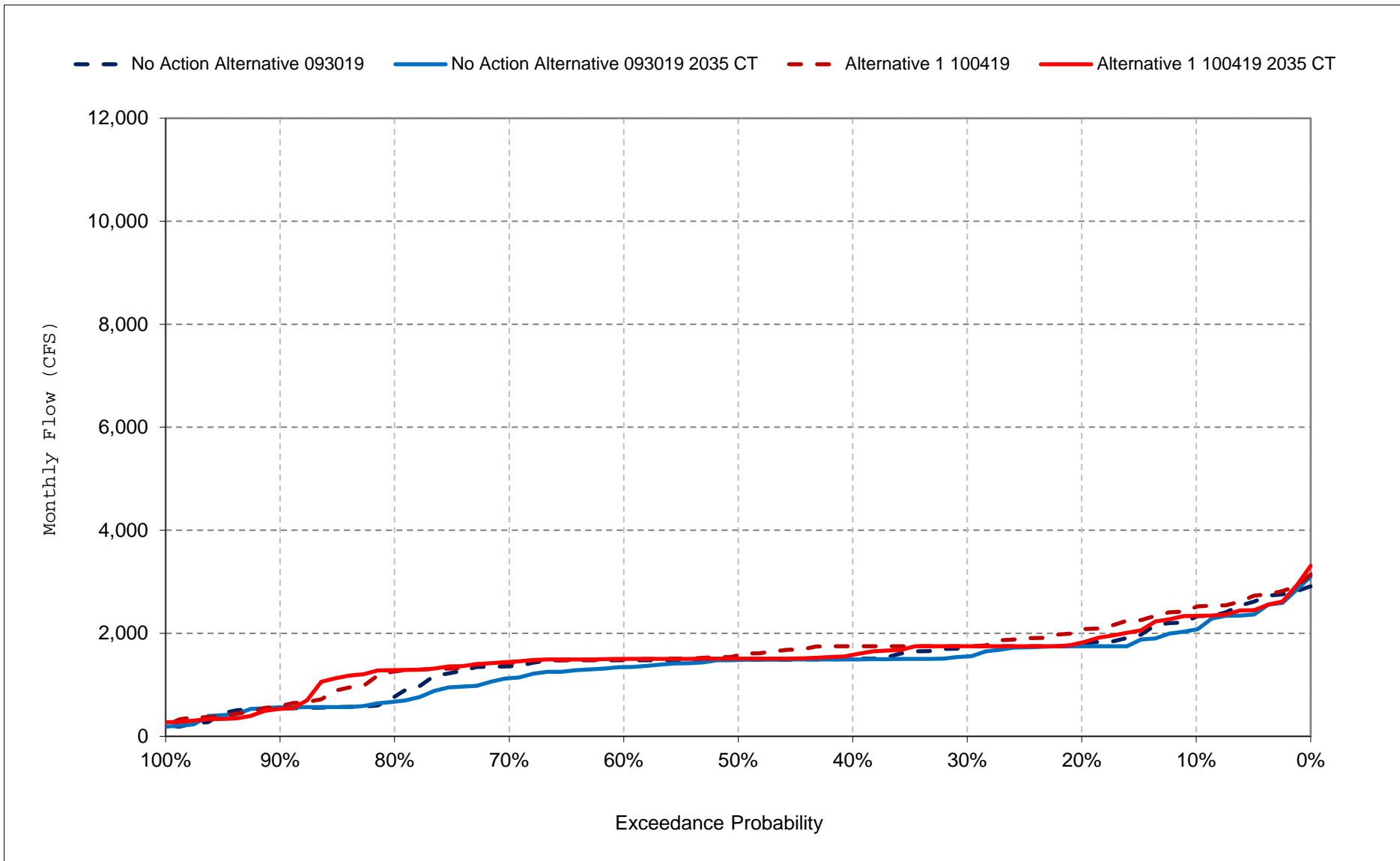
Figure 28-16. American River at H Street, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

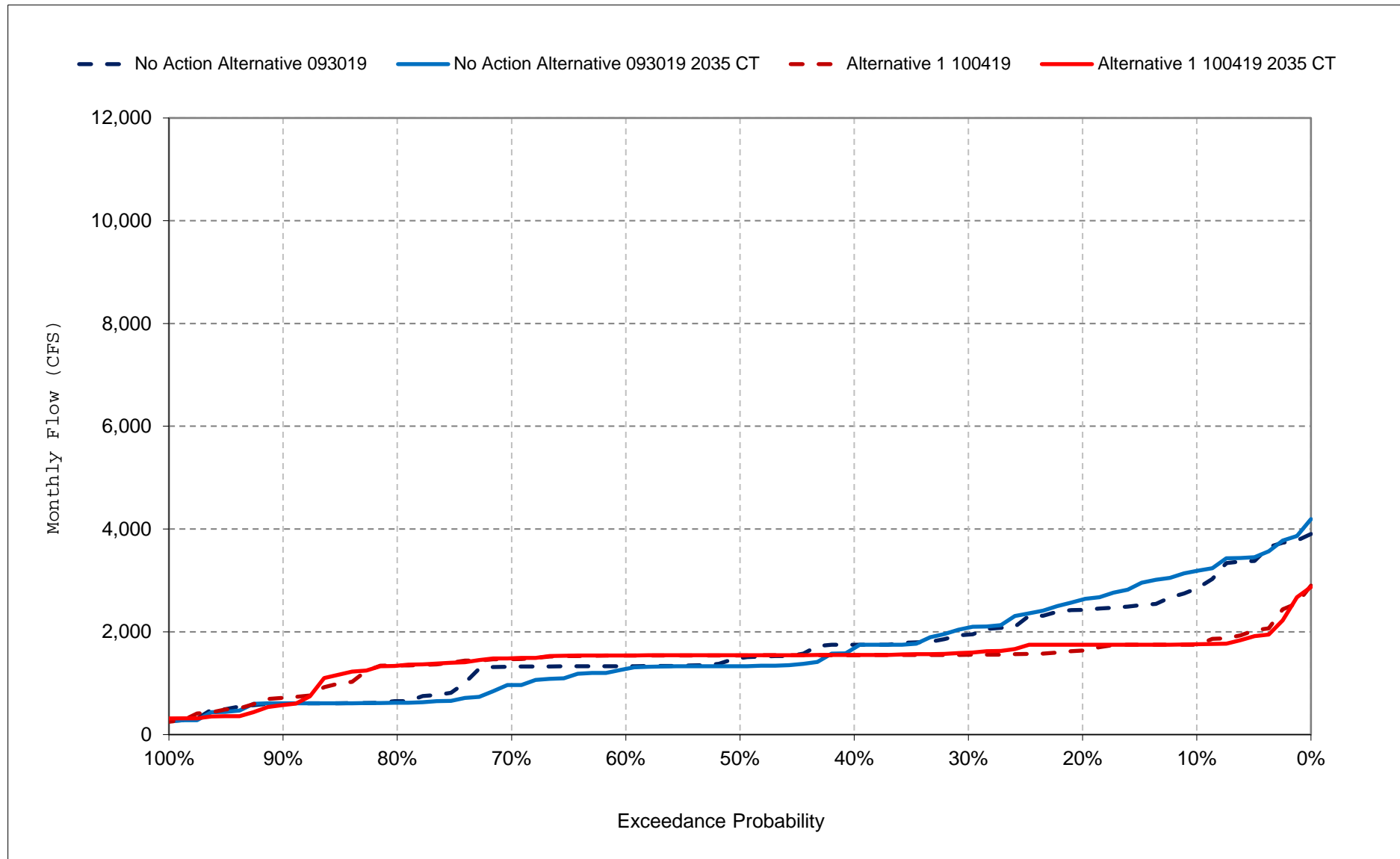
Figure 28-17. American River at H Street, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 28-18. American River at H Street, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-1. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,471	21,520	50,148	65,044	69,734	64,827	52,538	38,630	20,649	24,535	16,949	29,446
20%	14,419	19,264	33,826	53,961	62,354	53,989	38,731	28,049	16,178	24,386	16,584	28,640
30%	13,478	18,440	21,271	38,470	50,842	41,539	25,303	16,030	14,192	22,848	16,052	22,482
40%	12,610	17,030	18,052	25,993	43,713	31,090	22,498	13,503	13,462	19,647	15,775	21,527
50%	10,576	15,415	15,548	20,242	33,071	25,543	17,536	12,278	13,083	18,487	15,154	14,313
60%	9,264	13,162	14,780	18,089	25,378	20,354	14,903	11,668	12,650	17,038	13,114	10,778
70%	8,621	10,546	13,476	14,854	20,010	19,020	12,839	10,977	11,981	15,156	9,460	9,856
80%	8,512	9,649	10,973	13,039	16,732	15,252	11,446	10,183	11,262	13,608	8,677	9,157
90%	7,069	7,451	9,531	11,909	13,927	11,409	10,251	9,040	10,208	10,491	8,053	7,826
Long Term												
Full Simulation Period ^d	11,413	16,007	22,816	30,923	38,024	32,516	24,585	18,247	15,065	18,203	13,218	17,475
Water Year Types ^{b,c}												
Wet (32%)	14,589	20,859	25,502	50,060	56,961	49,903	39,423	30,324	20,383	20,296	16,036	28,223
Above Normal (16%)	12,970	18,552	21,872	39,071	47,089	42,836	27,210	17,155	13,493	22,967	16,776	21,758
Below Normal (13%)	11,392	12,386	21,131	18,527	31,041	18,867	15,286	13,200	12,993	21,623	14,732	11,752
Dry (24%)	9,017	14,972	26,890	17,320	24,129	22,495	16,841	11,727	13,147	15,525	9,571	9,734
Critical (15%)	6,859	7,780	12,775	14,666	16,730	12,880	11,024	8,761	10,341	9,834	7,949	7,694

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,128	22,221	50,316	65,935	70,126	64,885	51,980	38,639	20,656	23,879	17,562	15,344
20%	12,840	14,806	35,947	56,764	62,807	54,087	38,731	28,038	16,637	22,649	17,363	14,227
30%	12,339	13,957	23,631	41,810	52,713	43,179	25,336	16,080	15,676	21,138	16,911	13,815
40%	11,928	13,708	18,569	27,712	45,648	31,460	22,520	14,876	15,440	18,725	16,323	13,193
50%	11,010	13,169	15,603	22,755	33,716	26,313	17,396	13,599	14,995	18,004	15,477	12,202
60%	9,731	12,156	15,117	19,533	25,478	21,832	15,088	12,629	14,676	16,726	13,501	10,317
70%	8,960	9,996	14,260	15,362	21,078	19,047	13,028	11,674	13,937	15,460	9,630	9,577
80%	8,539	8,866	12,937	13,139	17,389	14,989	11,782	11,158	12,573	12,093	8,825	9,030
90%	7,069	7,194	9,737	12,082	14,555	11,857	10,751	9,905	11,360	9,572	7,723	7,875
Long Term												
Full Simulation Period ^d	11,114	14,377	23,918	31,659	38,696	33,248	24,751	18,766	16,317	17,486	13,634	11,821
Water Year Types ^{b,c}												
Wet (32%)	13,503	17,350	27,955	50,989	57,481	50,329	39,529	30,260	21,099	19,712	17,057	14,460
Above Normal (16%)	12,402	16,216	23,324	40,196	48,122	44,816	27,506	17,804	14,939	21,822	17,068	13,775
Below Normal (13%)	11,630	11,993	21,409	19,471	33,060	19,952	15,660	14,296	15,513	20,343	15,206	11,664
Dry (24%)	9,317	14,688	27,055	17,515	24,358	22,746	16,970	12,914	14,778	15,080	9,655	9,752
Critical (15%)	7,065	7,610	12,888	15,275	16,845	13,396	11,046	8,755	10,748	9,359	7,692	7,577

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,343	701	169	891	392	58	-558	9	7	-656	613	-14,101
20%	-1,579	-4,459	2,121	2,804	453	98	0	-11	459	-1,737	779	-14,413
30%	-1,139	-4,483	2,361	3,340	1,871	1,640	33	50	1,484	-1,710	858	-8,668
40%	-683	-3,322	517	1,720	1,935	371	22	1,374	1,979	-922	548	-8,334
50%	434	-2,245	56	2,513	645	770	-140	1,321	1,911	-483	322	-2,111
60%	466	-1,005	337	1,444	100	1,478	185	961	2,026	-312	388	-461
70%	339	-550	784	508	1,068	28	189	697	1,955	305	170	-280
80%	27	-783	1,964	100	657	-263	336	974	1,311	-1,515	148	-127
90%	0	-258	206	173	628	448	500	865	1,153	-920	-329	49
Long Term												
Full Simulation Period ^d	-299	-1,630	1,102	736	672	731	165	519	1,252	-716	416	-5,654
Water Year Types ^{b,c}												
Wet (32%)	-1,086	-3,509	2,453	929	520	426	106	-64	716	-583	1,021	-13,763
Above Normal (16%)	-568	-2,336	1,452	1,125	1,033	1,980	296	649	1,446	-1,144	292	-7,984
Below Normal (13%)	238	-394	279	944	2,018	1,085	374	1,096	2,520	-1,280	474	-88
Dry (24%)	300	-284	166	195	229	251	130	1,188	1,631	-445	84	18
Critical (15%)	207	-170	112	609	115	516	22	-6	407	-476	-257	-118

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 29-2. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,064	21,141	51,516	68,263	70,745	66,361	54,646	29,266	15,822	24,525	16,845	30,183
20%	14,247	18,863	33,063	60,831	64,954	59,103	38,026	19,412	14,458	24,025	16,369	28,463
30%	12,973	18,231	23,717	44,636	53,939	48,201	28,339	14,176	13,613	23,597	15,982	23,119
40%	11,419	16,039	19,009	29,310	47,068	34,818	22,807	11,954	13,062	20,603	15,634	21,297
50%	10,296	14,062	16,525	24,467	35,479	28,429	16,051	11,069	12,596	19,671	15,131	14,084
60%	9,295	12,135	15,004	21,187	26,756	22,852	14,509	10,560	12,096	18,634	13,552	10,625
70%	8,584	10,713	14,013	15,713	22,859	20,686	12,236	9,977	11,724	16,249	9,931	9,693
80%	8,495	9,447	10,694	14,011	18,824	15,633	11,551	9,605	10,943	13,896	9,074	9,101
90%	7,084	8,103	9,685	12,485	15,693	12,018	10,303	8,323	9,533	9,936	8,001	7,763
Long Term												
Full Simulation Period ^d	11,091	15,531	23,466	33,369	40,080	34,990	25,144	15,194	13,160	18,758	13,273	17,294
Water Year Types ^{b,c}												
Wet (32%)	13,913	20,378	26,431	53,228	58,943	52,527	40,175	23,207	15,037	20,380	15,867	27,753
Above Normal (16%)	12,414	17,293	21,881	42,693	48,945	46,476	27,786	13,970	12,241	23,406	16,583	21,746
Below Normal (13%)	11,041	11,947	22,163	20,837	34,171	21,055	16,288	12,581	12,382	21,675	14,220	11,499
Dry (24%)	8,937	14,551	27,394	18,825	26,308	25,090	17,232	10,856	13,079	17,096	10,542	9,830
Critical (15%)	7,178	8,035	13,408	15,965	17,974	13,820	11,016	8,780	10,941	10,303	7,748	7,559

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,046	20,669	55,349	68,486	70,740	66,346	54,671	29,272	17,392	22,989	17,583	14,301
20%	12,441	14,676	37,846	61,075	65,815	59,994	38,022	18,612	16,363	21,834	17,102	13,925
30%	12,115	13,744	25,608	44,623	54,319	49,170	28,129	15,998	15,296	20,838	16,650	13,289
40%	11,758	13,244	19,643	32,486	49,820	34,734	22,773	14,253	14,982	19,543	15,389	12,485
50%	10,531	12,684	17,266	26,743	35,853	29,536	16,018	12,796	14,507	18,074	14,849	11,105
60%	9,363	11,659	15,215	20,801	27,013	23,420	14,689	11,804	13,833	17,121	13,931	10,177
70%	8,897	10,038	13,948	16,296	23,359	21,126	12,369	10,980	13,216	14,988	9,844	9,462
80%	8,538	8,927	12,197	13,727	18,900	15,151	11,856	10,158	12,188	12,897	8,706	8,663
90%	7,084	7,764	10,265	12,560	15,981	12,663	10,906	9,128	11,001	10,019	7,929	7,519
Long Term												
Full Simulation Period ^d	10,763	14,110	24,639	34,134	40,699	35,691	25,309	16,044	14,573	17,449	13,412	11,411
Water Year Types ^{b,c}												
Wet (32%)	12,856	17,134	28,968	54,011	59,444	52,853	40,312	23,790	16,114	18,980	16,621	13,838
Above Normal (16%)	12,002	15,551	23,219	44,246	49,895	48,259	27,942	14,944	14,054	21,503	16,649	13,224
Below Normal (13%)	11,340	11,631	22,395	22,751	35,601	22,305	16,457	13,962	14,850	19,964	13,982	10,989
Dry (24%)	9,057	14,374	27,874	18,971	26,509	25,331	17,439	12,031	14,539	16,034	10,269	9,644
Critical (15%)	7,198	7,829	13,467	15,817	18,448	14,426	11,179	9,052	11,603	9,788	7,668	7,519

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,018	-471	3,833	223	-5	-15	25	7	1,569	-1,536	739	-15,882
20%	-1,806	-4,187	4,782	244	861	891	-4	-800	1,905	-2,192	733	-14,538
30%	-858	-4,488	1,891	-13	380	969	-210	1,823	1,684	-2,759	668	-9,830
40%	339	-2,795	634	3,176	2,752	-83	-35	2,299	1,920	-1,060	-245	-8,813
50%	234	-1,378	741	2,276	374	1,107	-32	1,728	1,911	-1,597	-282	-2,979
60%	68	-476	211	-386	257	569	180	1,244	1,738	-1,513	379	-448
70%	313	-675	-64	582	500	440	133	1,002	1,492	-1,261	-87	-231
80%	44	-520	1,504	-284	75	-483	305	554	1,245	-999	-368	-439
90%	0	-339	580	75	287	645	604	804	1,469	83	-72	-244
Long Term												
Full Simulation Period ^d	-328	-1,421	1,173	765	620	701	165	851	1,413	-1,309	139	-5,883
Water Year Types ^{b,c}												
Wet (32%)	-1,057	-3,245	2,537	783	501	326	137	583	1,077	-1,400	754	-13,915
Above Normal (16%)	-412	-1,742	1,338	1,553	950	1,783	156	974	1,812	-1,902	66	-8,522
Below Normal (13%)	299	-316	232	1,914	1,430	1,250	169	1,380	2,468	-1,711	-238	-510
Dry (24%)	120	-177	480	146	201	240	207	1,175	1,460	-1,062	-273	-187
Critical (15%)	20	-206	59	-149	474	607	163	272	662	-515	-81	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-3. Sacramento River Flow at Freeport, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,471	21,520	50,148	65,044	69,734	64,827	52,538	38,630	20,649	24,535	16,949	29,446
20%	14,419	19,264	33,826	53,961	62,354	53,989	38,731	28,049	16,178	24,386	16,584	28,640
30%	13,478	18,440	21,271	38,470	50,842	41,539	25,303	16,030	14,192	22,848	16,052	22,482
40%	12,610	17,030	18,052	25,993	43,713	31,090	22,498	13,503	13,462	19,647	15,775	21,527
50%	10,576	15,415	15,548	20,242	33,071	25,543	17,536	12,278	13,083	18,487	15,154	14,313
60%	9,264	13,162	14,780	18,089	25,378	20,354	14,903	11,668	12,650	17,038	13,114	10,778
70%	8,621	10,546	13,476	14,854	20,010	19,020	12,839	10,977	11,981	15,156	9,460	9,856
80%	8,512	9,649	10,973	13,039	16,732	15,252	11,446	10,183	11,262	13,608	8,677	9,157
90%	7,069	7,451	9,531	11,909	13,927	11,409	10,251	9,040	10,208	10,491	8,053	7,826
Long Term												
Full Simulation Period ^d	11,413	16,007	22,816	30,923	38,024	32,516	24,585	18,247	15,065	18,203	13,218	17,475
Water Year Types^{b,c}												
Wet (32%)	14,589	20,859	25,502	50,060	56,961	49,903	39,423	30,324	20,383	20,296	16,036	28,223
Above Normal (16%)	12,970	18,552	21,872	39,071	47,089	42,836	27,210	17,155	13,493	22,967	16,776	21,758
Below Normal (13%)	11,392	12,386	21,131	18,527	31,041	18,867	15,286	13,200	12,993	21,623	14,732	11,752
Dry (24%)	9,017	14,972	26,890	17,320	24,129	22,495	16,841	11,727	13,147	15,525	9,571	9,734
Critical (15%)	6,859	7,780	12,775	14,666	16,730	12,880	11,024	8,761	10,341	9,834	7,949	7,694

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	15,064	21,141	51,516	68,263	70,745	66,361	54,646	29,266	15,822	24,525	16,845	30,183
20%	14,247	18,863	33,063	60,831	64,954	59,103	38,026	19,412	14,458	24,025	16,369	28,463
30%	12,973	18,231	23,717	44,636	53,939	48,201	28,339	14,176	13,613	23,597	15,982	23,119
40%	11,419	16,039	19,009	29,310	47,068	34,818	22,807	11,954	13,062	20,603	15,634	21,297
50%	10,296	14,062	16,525	24,467	35,479	28,429	16,051	11,069	12,596	19,671	15,131	14,084
60%	9,295	12,135	15,004	21,187	26,756	22,852	14,509	10,560	12,096	18,634	13,552	10,625
70%	8,584	10,713	14,013	15,713	22,859	20,686	12,236	9,977	11,724	16,249	9,931	9,693
80%	8,495	9,447	10,694	14,011	18,824	15,633	11,551	9,605	10,943	13,896	9,074	9,101
90%	7,084	8,103	9,685	12,485	15,693	12,018	10,303	8,323	9,533	9,936	8,001	7,763
Long Term												
Full Simulation Period ^d	11,091	15,531	23,466	33,369	40,080	34,990	25,144	15,194	13,160	18,758	13,273	17,294
Water Year Types^{b,c}												
Wet (32%)	13,913	20,378	26,431	53,228	58,943	52,527	40,175	23,207	15,037	20,380	15,867	27,753
Above Normal (16%)	12,414	17,293	21,881	42,693	48,945	46,476	27,786	13,970	12,241	23,406	16,583	21,746
Below Normal (13%)	11,041	11,947	22,163	20,837	34,171	21,055	16,288	12,581	12,382	21,675	14,220	11,499
Dry (24%)	8,937	14,551	27,394	18,825	26,308	25,090	17,232	10,856	13,079	17,096	10,542	9,830
Critical (15%)	7,178	8,035	13,408	15,965	17,974	13,820	11,016	8,780	10,941	10,303	7,748	7,559

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-408	-379	1,368	3,219	1,011	1,534	2,108	-9,364	-4,827	-10	-104	738
20%	-172	-401	-762	6,871	2,600	5,114	-705	-8,637	-1,720	-361	-215	-177
30%	-505	-209	2,446	6,166	3,097	6,662	3,036	-1,854	-579	748	-71	636
40%	-1,191	-991	957	3,317	3,356	3,728	309	-1,549	-400	956	-141	-229
50%	-280	-1,353	977	4,225	2,408	2,886	-1,485	-1,209	-487	1,184	-23	-229
60%	30	-1,026	224	3,098	1,378	2,498	-394	-1,108	-554	1,596	439	-153
70%	-37	167	537	859	2,849	1,666	-603	-1,000	-258	1,093	471	-164
80%	-17	-202	-280	972	2,093	381	106	-578	-319	287	397	-55
90%	15	652	154	576	1,766	609	52	-716	-675	-555	-51	-63
Long Term												
Full Simulation Period ^d	-322	-476	650	2,446	2,056	2,473	558	-3,054	-1,904	555	55	-181
Water Year Types^{b,c}												
Wet (32%)	-676	-481	929	3,168	1,982	2,624	752	-7,117	-5,346	85	-168	-470
Above Normal (16%)	-556	-1,258	8	3,622	1,856	3,640	575	-3,185	-1,251	439	-193	-12
Below Normal (13%)	-351	-440	1,032	2,310	3,129	2,188	1,002	-619	-611	52	-512	-253
Dry (24%)	-80	-422	504	1,505	2,179	2,595	391	-870	-68	1,571	971	96
Critical (15%)	319	255	633	1,299	1,244	939	-8	19	600	469	-201	-135

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 29-4. Sacramento River Flow at Freeport, Monthly Flow

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,128	22,221	50,316	65,935	70,126	64,885	51,980	38,639	20,656	23,879	17,562	15,344
20%	12,840	14,806	35,947	56,764	62,807	54,087	38,731	28,038	16,637	22,649	17,363	14,227
30%	12,339	13,957	23,631	41,810	52,713	43,179	25,336	16,080	15,676	21,138	16,911	13,815
40%	11,928	13,708	18,569	27,712	45,648	31,460	22,520	14,876	15,440	18,725	16,323	13,193
50%	11,010	13,169	15,603	22,755	33,716	26,313	17,396	13,599	14,995	18,004	15,477	12,202
60%	9,731	12,156	15,117	19,533	25,478	21,832	15,088	12,629	14,676	16,726	13,501	10,317
70%	8,960	9,996	14,260	15,362	21,078	19,047	13,028	11,674	13,937	15,460	9,630	9,577
80%	8,539	8,866	12,937	13,139	17,389	14,989	11,782	11,158	12,573	12,093	8,825	9,030
90%	7,069	7,194	9,737	12,082	14,555	11,857	10,751	9,905	11,360	9,572	7,723	7,875
Long Term												
Full Simulation Period ^d	11,114	14,377	23,918	31,659	38,696	33,248	24,751	18,766	16,317	17,486	13,634	11,821
Water Year Types ^{b,c}												
Wet (32%)	13,503	17,350	27,955	50,989	57,481	50,329	39,529	30,260	21,099	19,712	17,057	14,460
Above Normal (16%)	12,402	16,216	23,324	40,196	48,122	44,816	27,506	17,804	14,939	21,822	17,068	13,775
Below Normal (13%)	11,630	11,993	21,409	19,471	33,060	19,952	15,660	14,296	15,513	20,343	15,206	11,664
Dry (24%)	9,317	14,688	27,055	17,515	24,358	22,746	16,970	12,914	14,778	15,080	9,655	9,752
Critical (15%)	7,065	7,610	12,888	15,275	16,845	13,396	11,046	8,755	10,748	9,359	7,692	7,577

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	14,046	20,669	55,349	68,486	70,740	66,346	54,671	29,272	17,392	22,989	17,583	14,301
20%	12,441	14,676	37,846	61,075	65,815	59,994	38,022	18,612	16,363	21,834	17,102	13,925
30%	12,115	13,744	25,608	44,623	54,319	49,170	28,129	15,998	15,296	20,838	16,650	13,289
40%	11,758	13,244	19,643	32,486	49,820	34,734	22,773	14,253	14,982	19,543	15,389	12,485
50%	10,531	12,684	17,266	26,743	35,853	29,536	16,018	12,796	14,507	18,074	14,849	11,105
60%	9,363	11,659	15,215	20,801	27,013	23,420	14,689	11,804	13,833	17,121	13,931	10,177
70%	8,897	10,038	13,948	16,296	23,359	21,126	12,369	10,980	13,216	14,988	9,844	9,462
80%	8,538	8,927	12,197	13,727	18,900	15,151	11,856	10,158	12,188	12,897	8,706	8,663
90%	7,084	7,764	10,265	12,560	15,981	12,663	10,906	9,128	11,001	10,019	7,929	7,519
Long Term												
Full Simulation Period ^d	10,763	14,110	24,639	34,134	40,699	35,691	25,309	16,044	14,573	17,449	13,412	11,411
Water Year Types ^{b,c}												
Wet (32%)	12,856	17,134	28,968	54,011	59,444	52,853	40,312	23,790	16,114	18,980	16,621	13,838
Above Normal (16%)	12,002	15,551	23,219	44,246	49,895	48,259	27,942	14,944	14,054	21,503	16,649	13,224
Below Normal (13%)	11,340	11,631	22,395	22,751	35,601	22,305	16,457	13,962	14,850	19,964	13,982	10,989
Dry (24%)	9,057	14,374	27,874	18,971	26,509	25,331	17,439	12,031	14,539	16,034	10,269	9,644
Critical (15%)	7,198	7,829	13,467	15,817	18,448	14,426	11,179	9,052	11,603	9,788	7,668	7,519

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-82	-1,552	5,032	2,551	614	1,461	2,691	-9,367	-3,265	-891	22	-1,043
20%	-399	-130	1,899	4,310	3,008	5,907	-709	-9,426	-274	-816	-261	-302
30%	-224	-213	1,976	2,814	1,606	5,990	2,793	-81	-379	-300	-261	-526
40%	-170	-463	1,074	4,774	4,172	3,274	253	-624	-458	818	-934	-708
50%	-479	-486	1,663	3,987	2,137	3,223	-1,377	-803	-487	70	-628	-1,097
60%	-368	-497	98	1,268	1,534	1,588	-399	-825	-842	395	430	-140
70%	-63	42	-311	934	2,281	2,079	-659	-694	-721	-473	214	-115
80%	-1	61	-740	587	1,511	162	74	-999	-386	804	-119	-367
90%	15	570	528	478	1,426	807	156	-777	-359	447	206	-356
Long Term												
Full Simulation Period ^d	-351	-267	721	2,475	2,003	2,443	558	-2,722	-1,743	-38	-223	-410
Water Year Types ^{b,c}												
Wet (32%)	-648	-216	1,013	3,023	1,963	2,524	783	-6,470	-4,985	-732	-436	-622
Above Normal (16%)	-399	-665	-105	4,050	1,773	3,443	436	-2,859	-885	-319	-419	-551
Below Normal (13%)	-290	-362	985	3,280	2,541	2,354	797	-334	-663	-379	-1,224	-675
Dry (24%)	-259	-315	819	1,456	2,151	2,585	469	-884	-240	954	614	-109
Critical (15%)	132	219	580	541	1,603	1,030	132	297	855	429	-24	-57

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

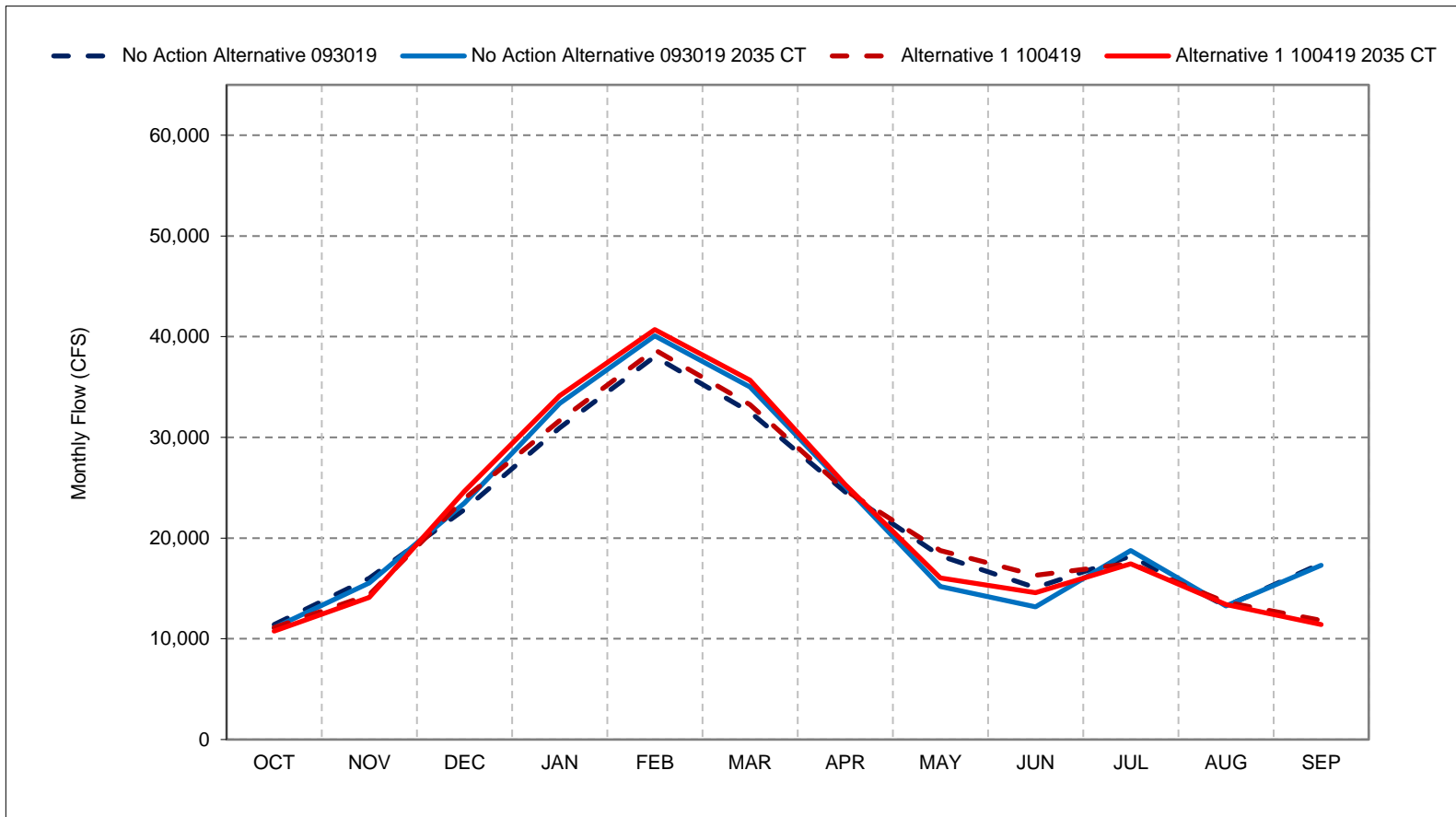
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 29-1. Sacramento River Flow at Freeport, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

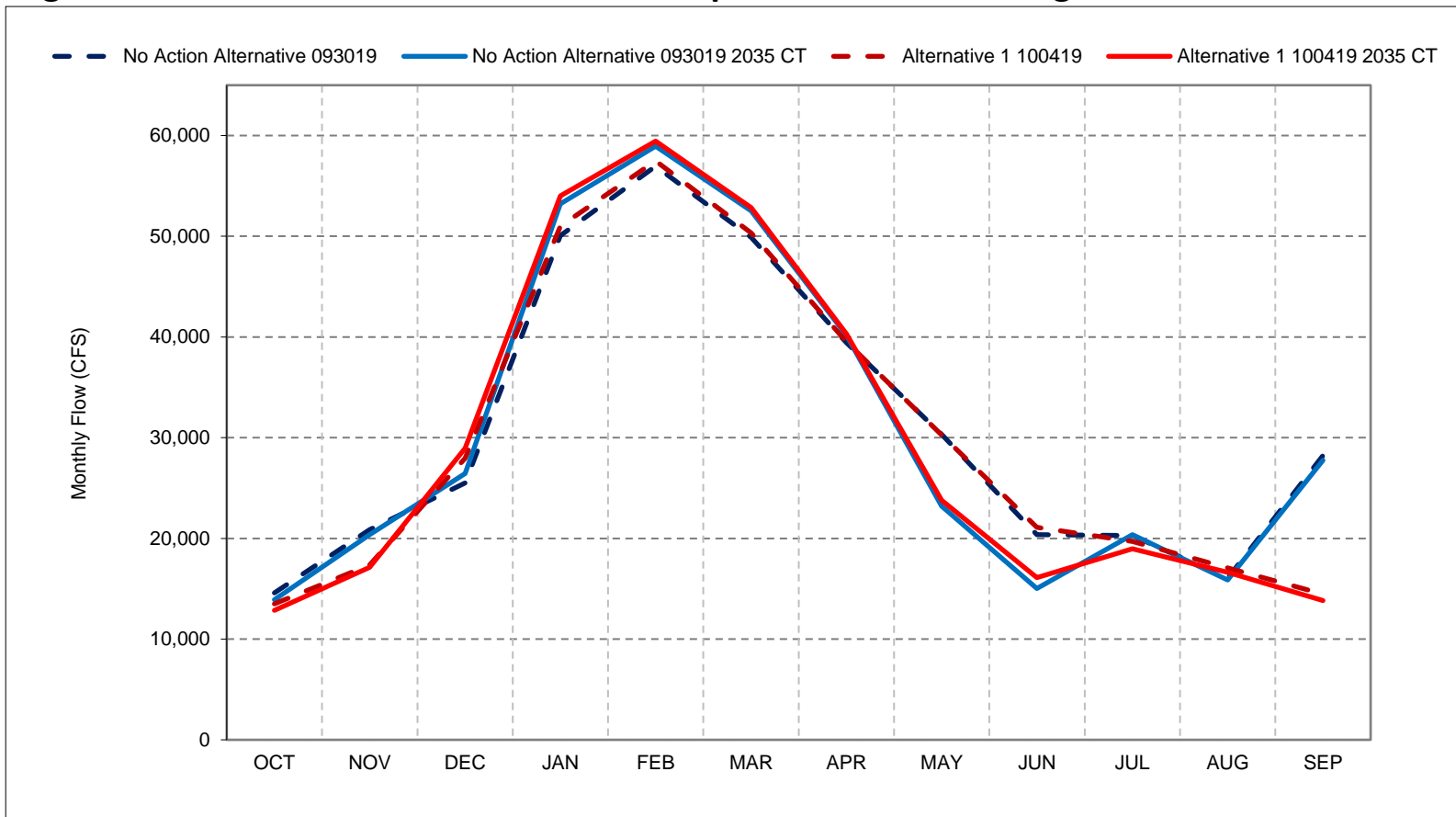
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-2. Sacramento River Flow at Freeport, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

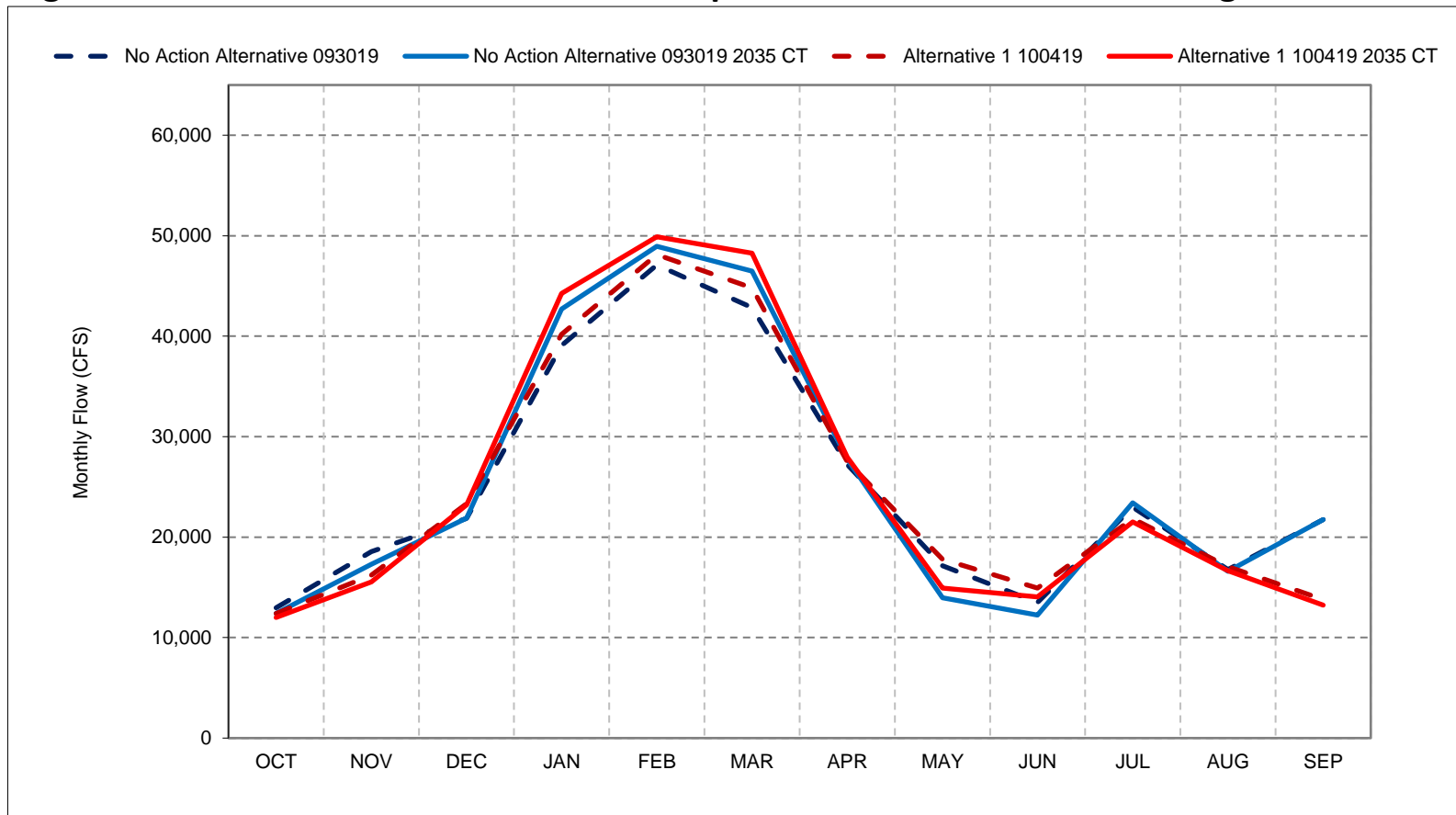
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-3. Sacramento River Flow at Freeport, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

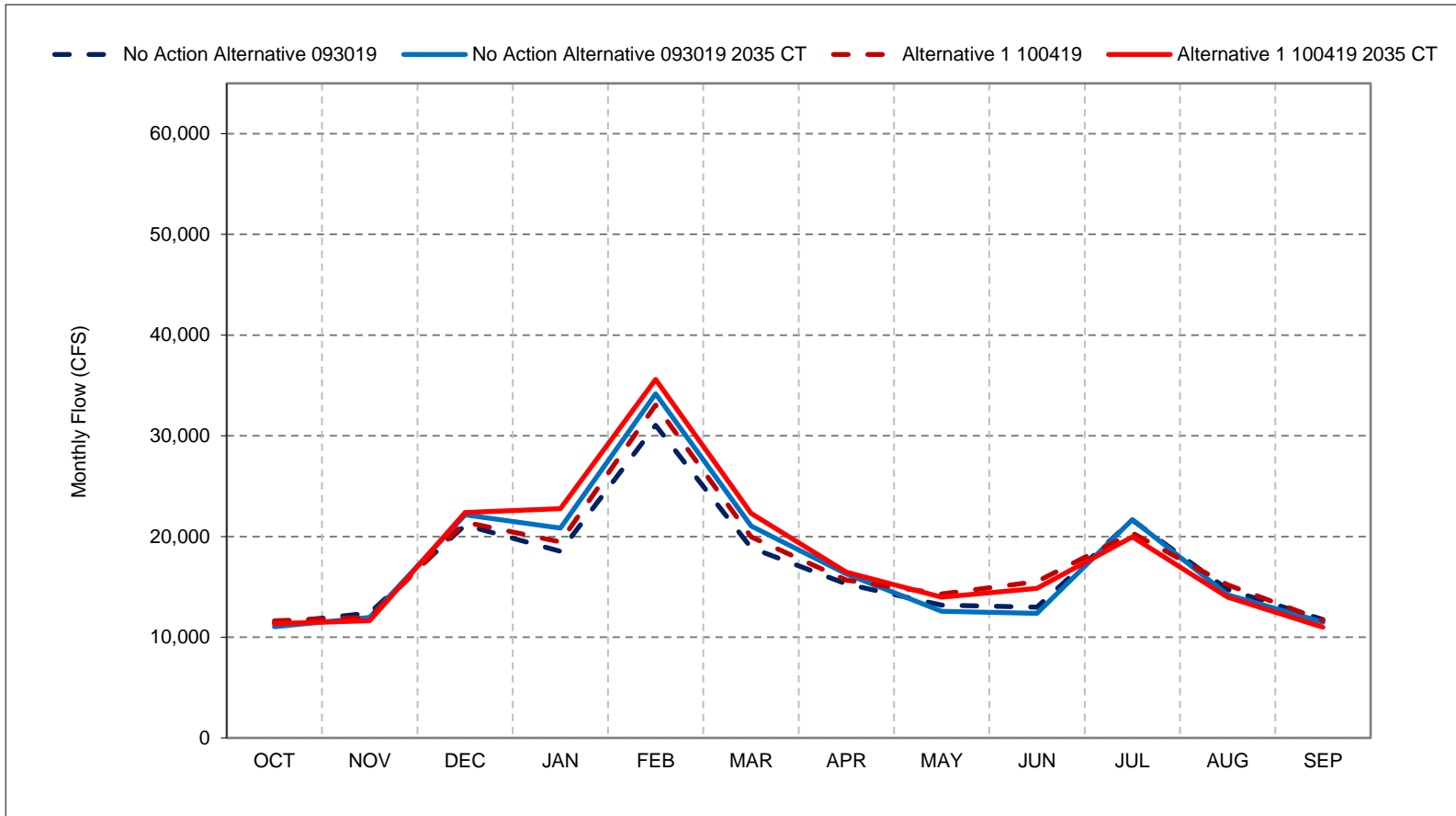
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-4. Sacramento River Flow at Freeport, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

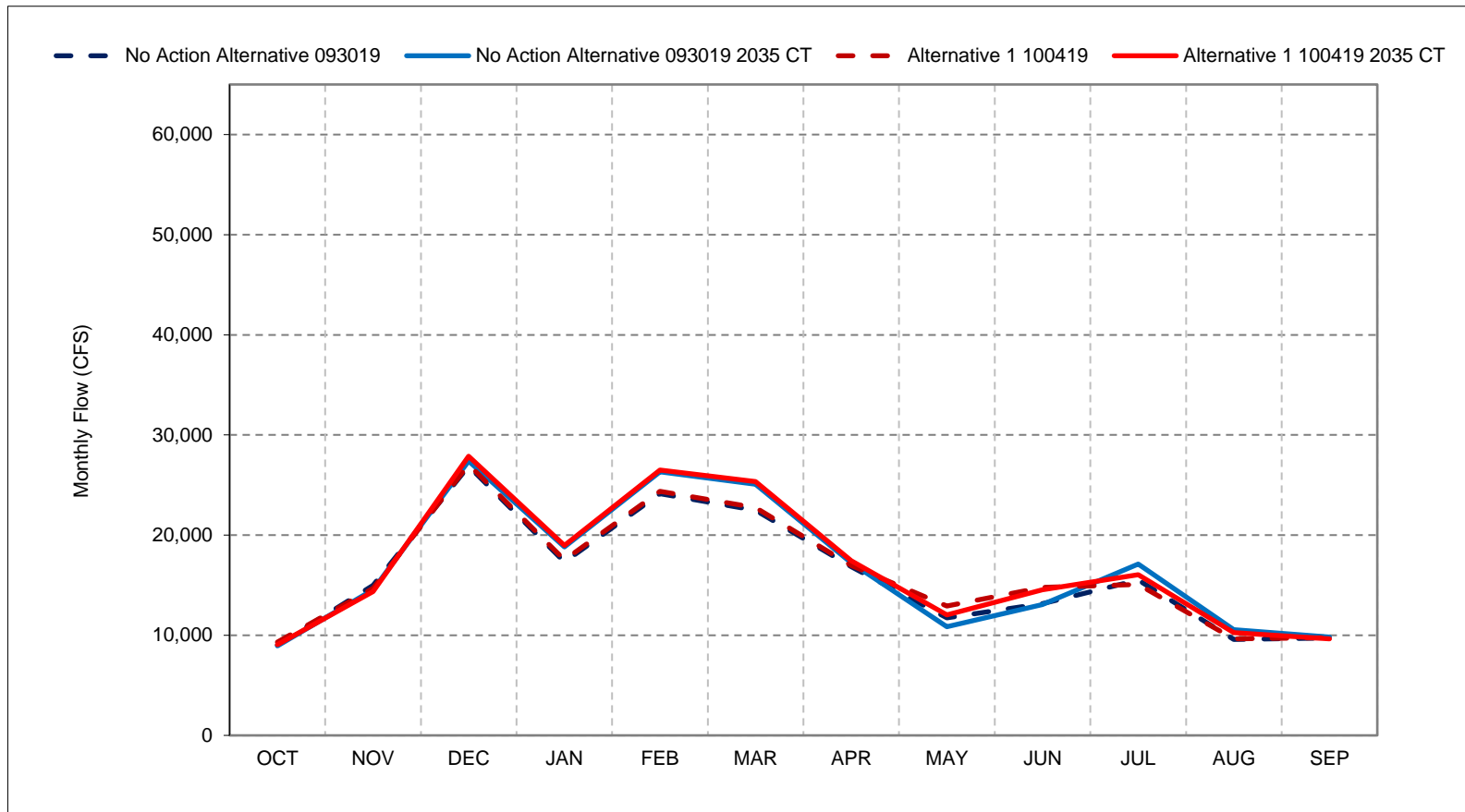
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-5. Sacramento River Flow at Freeport, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

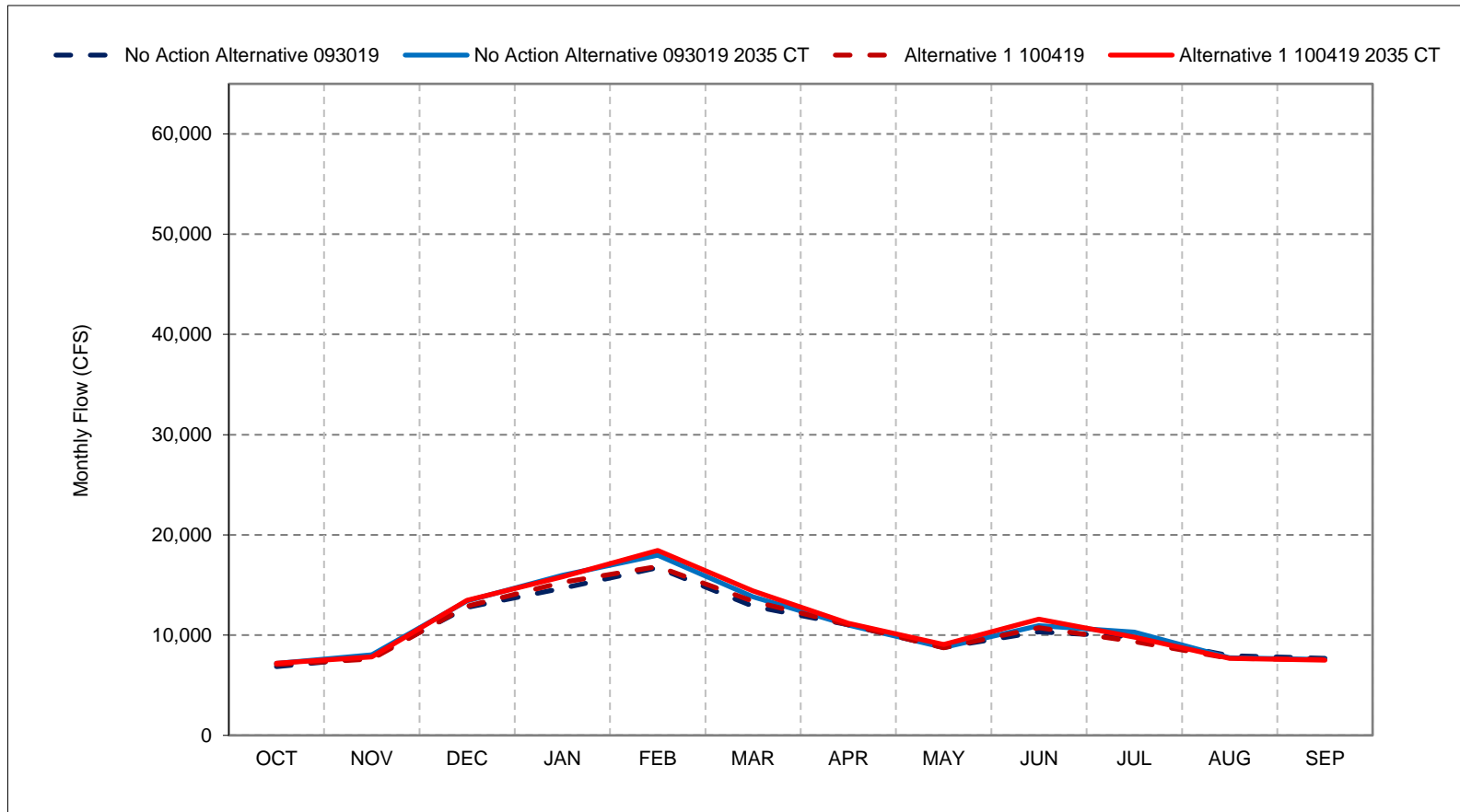
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 29-6. Sacramento River Flow at Freeport, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

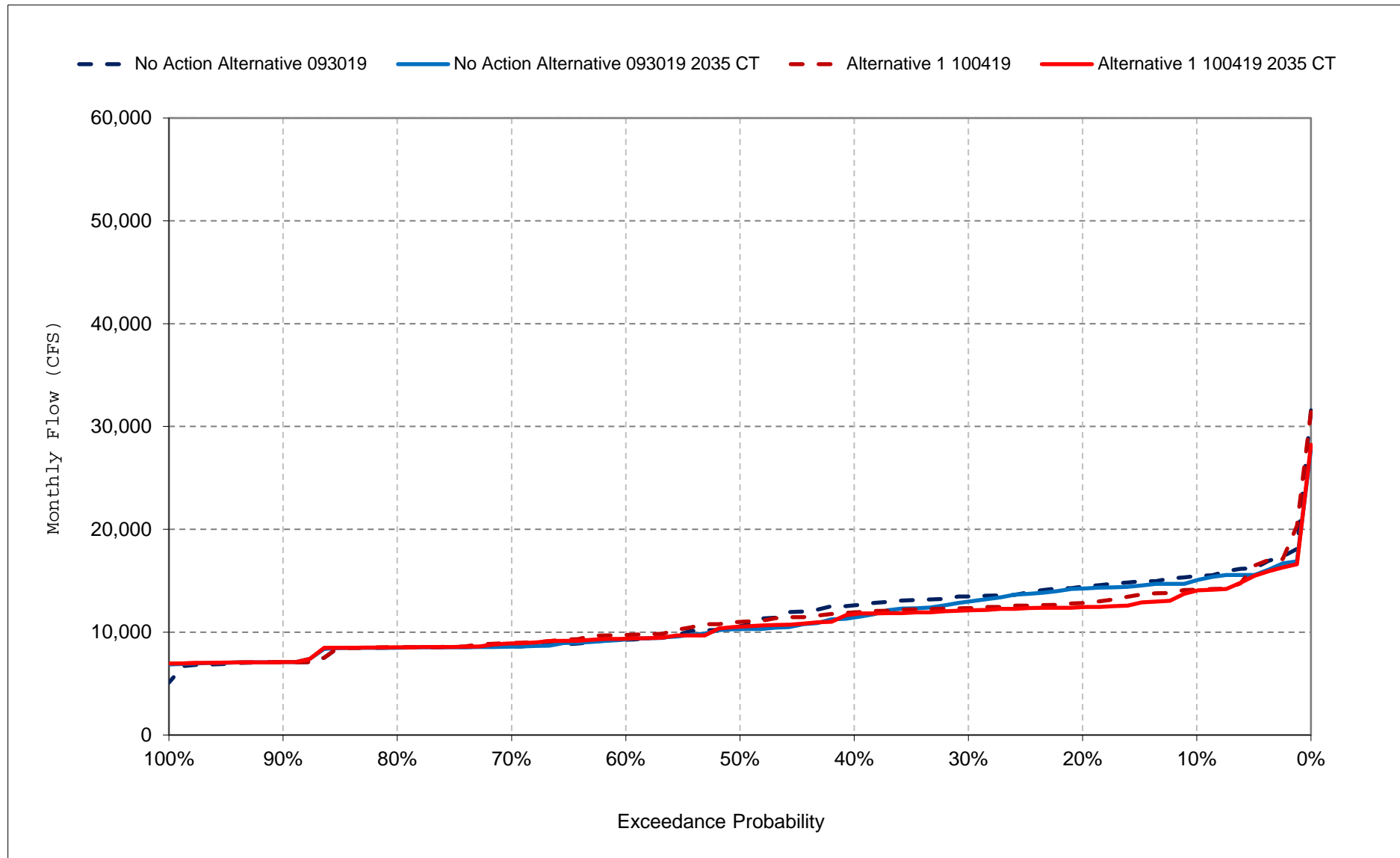
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

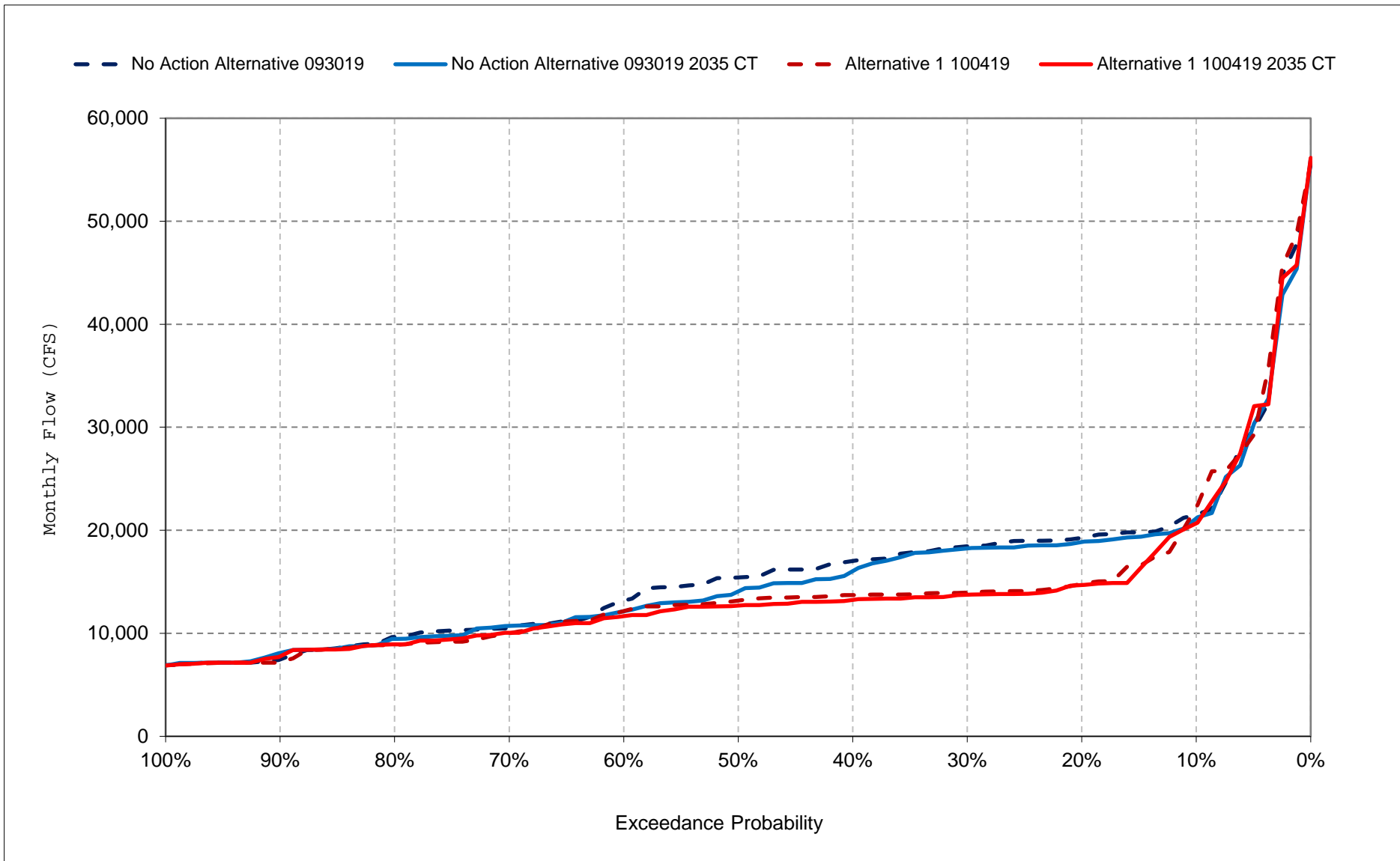
Figure 29-7. Sacramento River Flow at Freeport, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

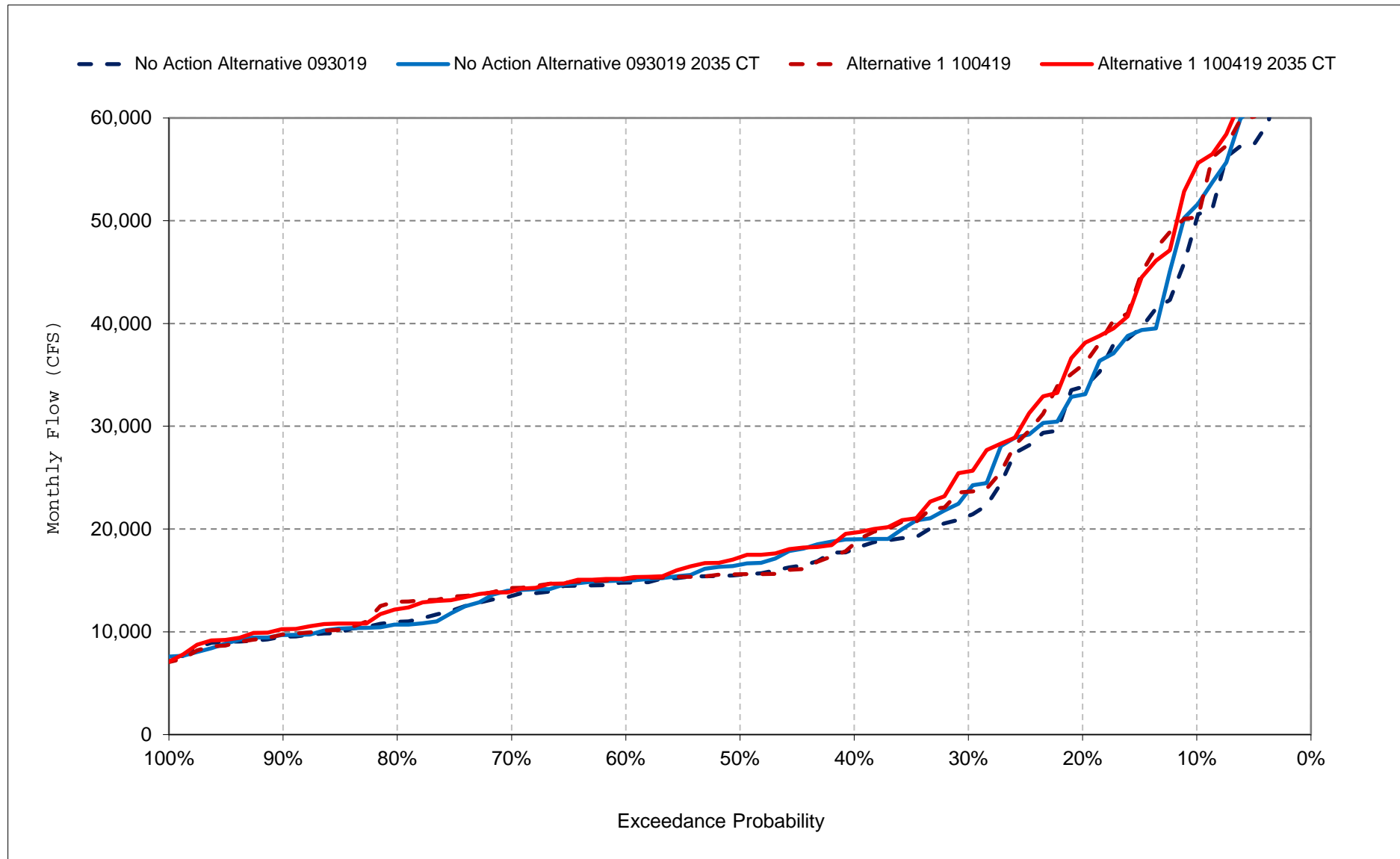
Figure 29-8. Sacramento River Flow at Freeport, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

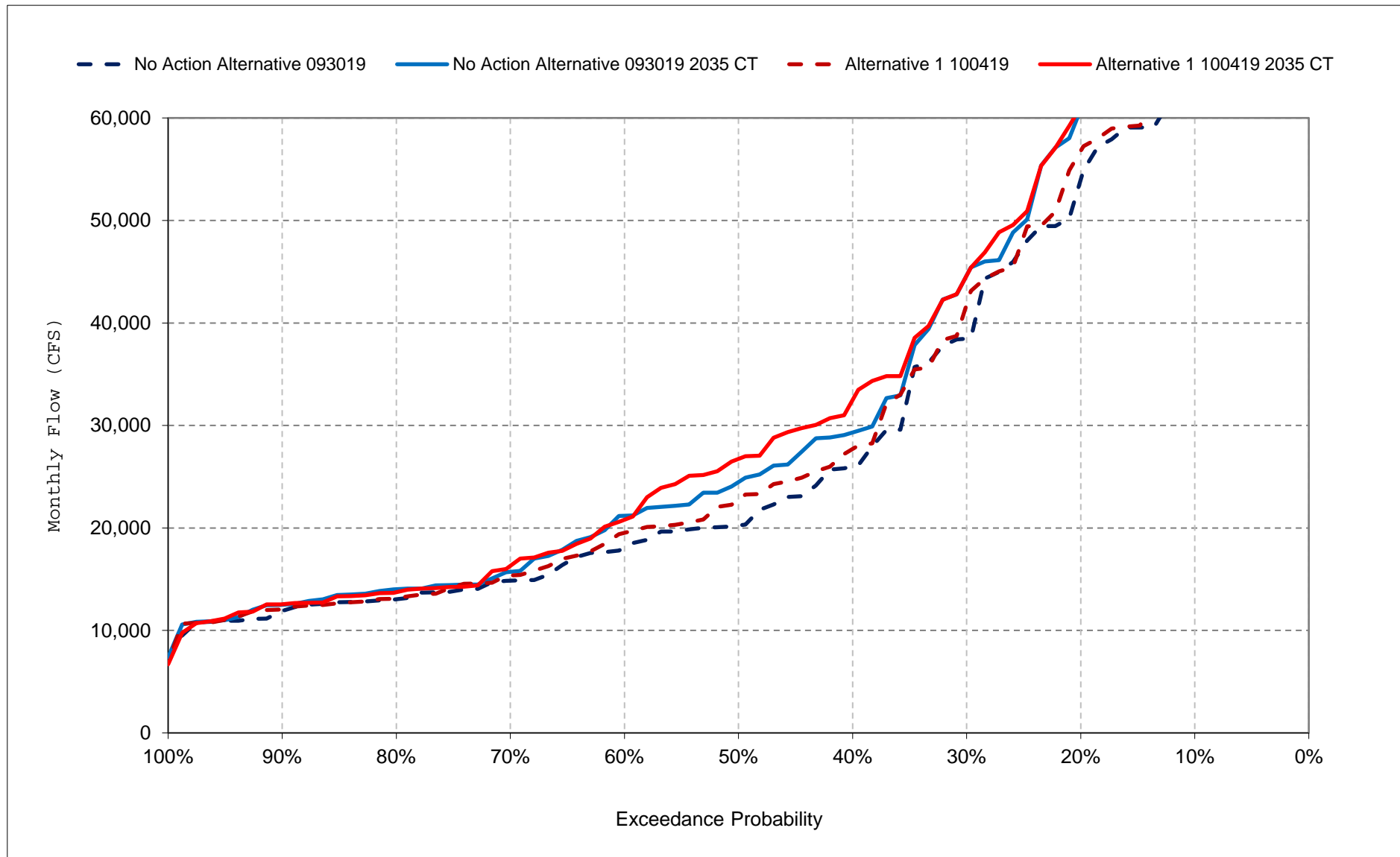
Figure 29-9. Sacramento River Flow at Freeport, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

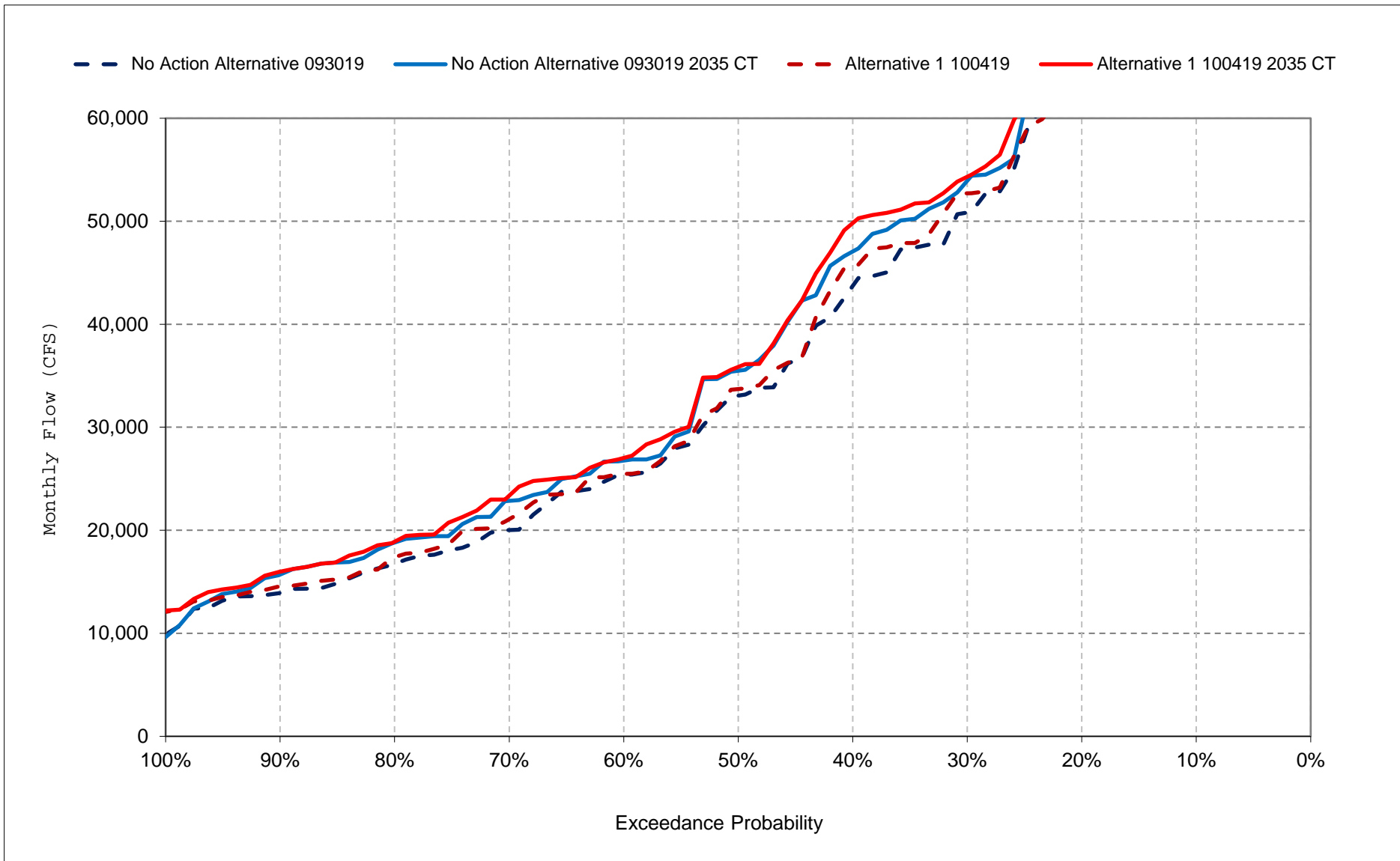
Figure 29-10. Sacramento River Flow at Freeport, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

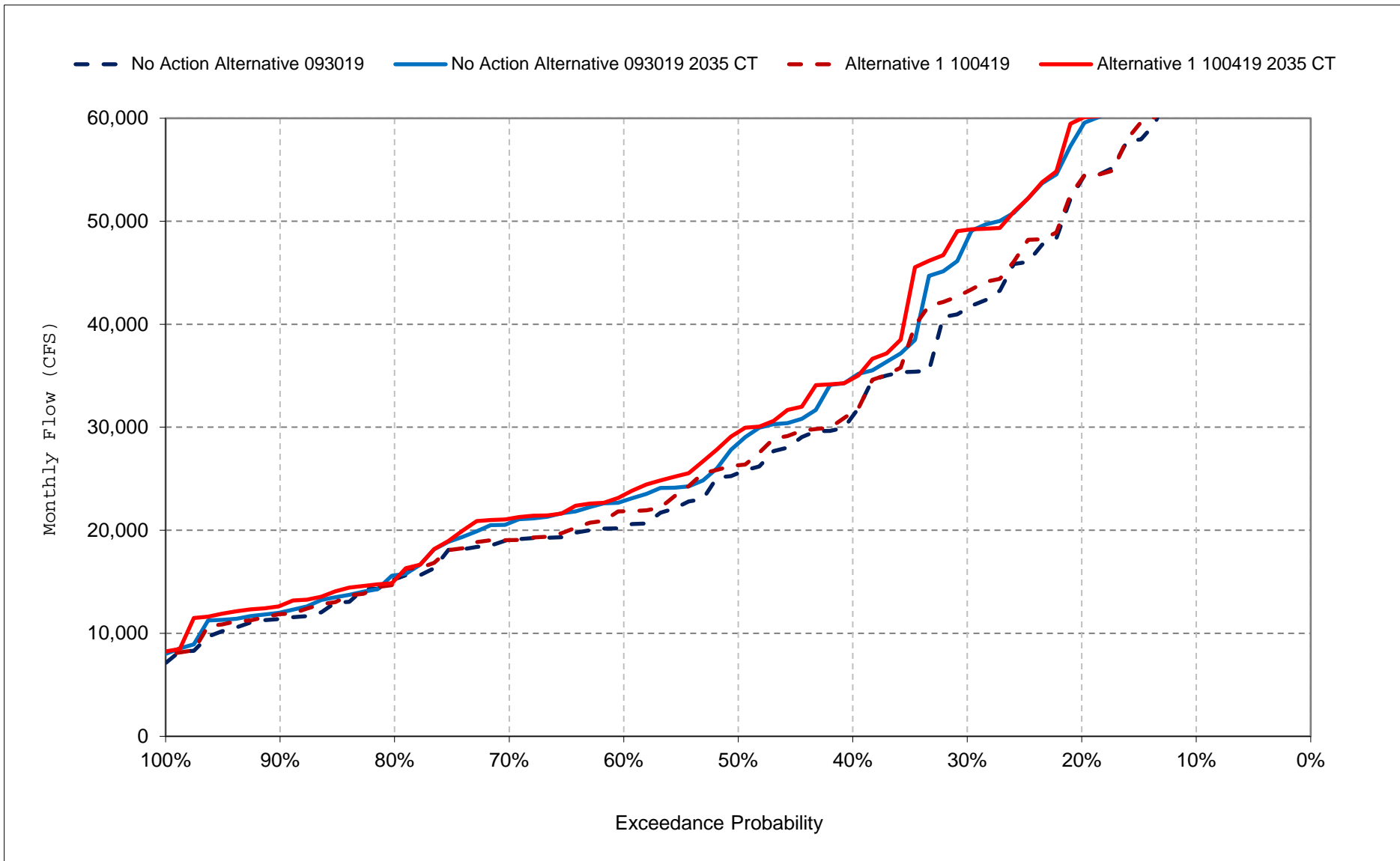
Figure 29-11. Sacramento River Flow at Freeport, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

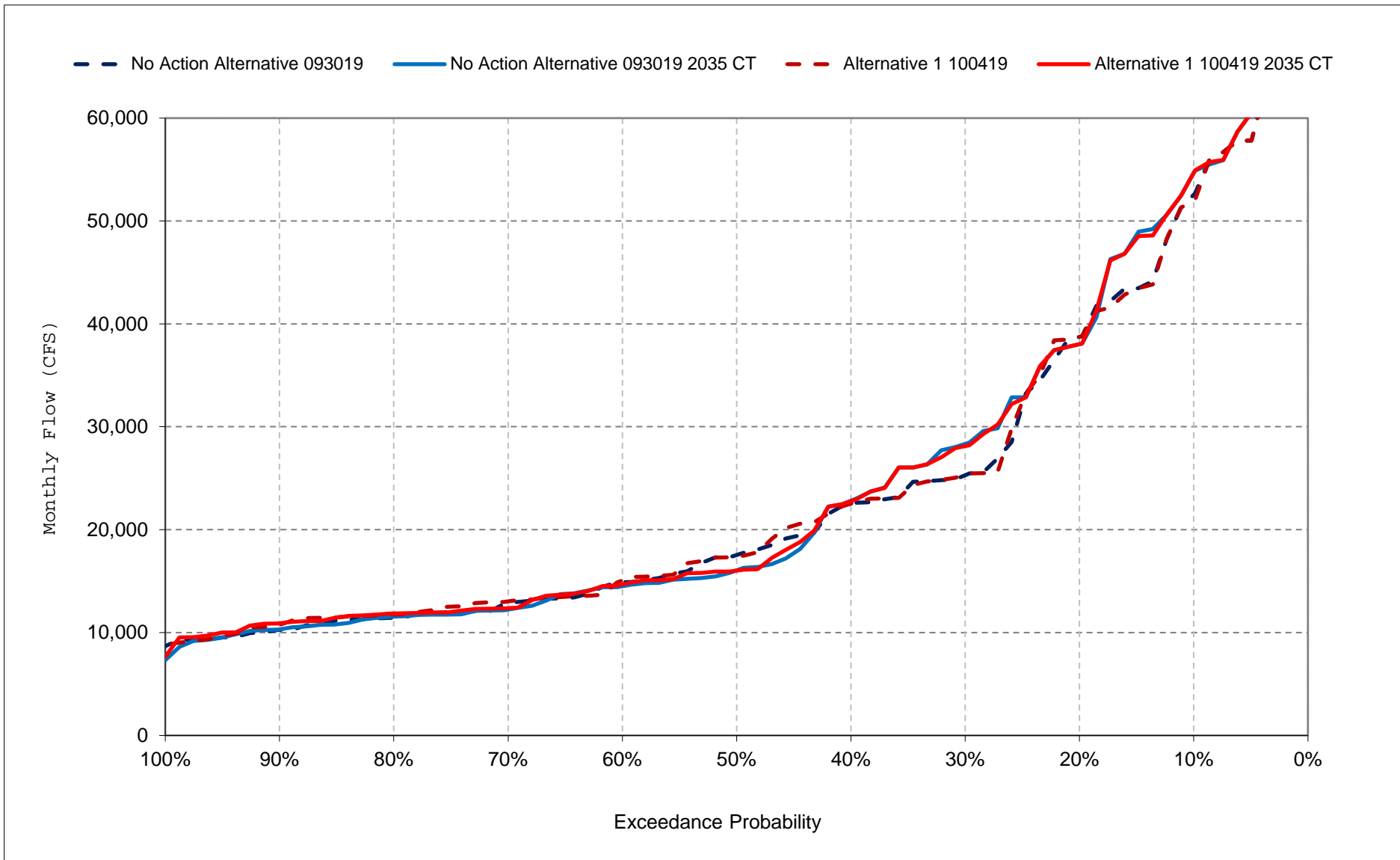
Figure 29-12. Sacramento River Flow at Freeport, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

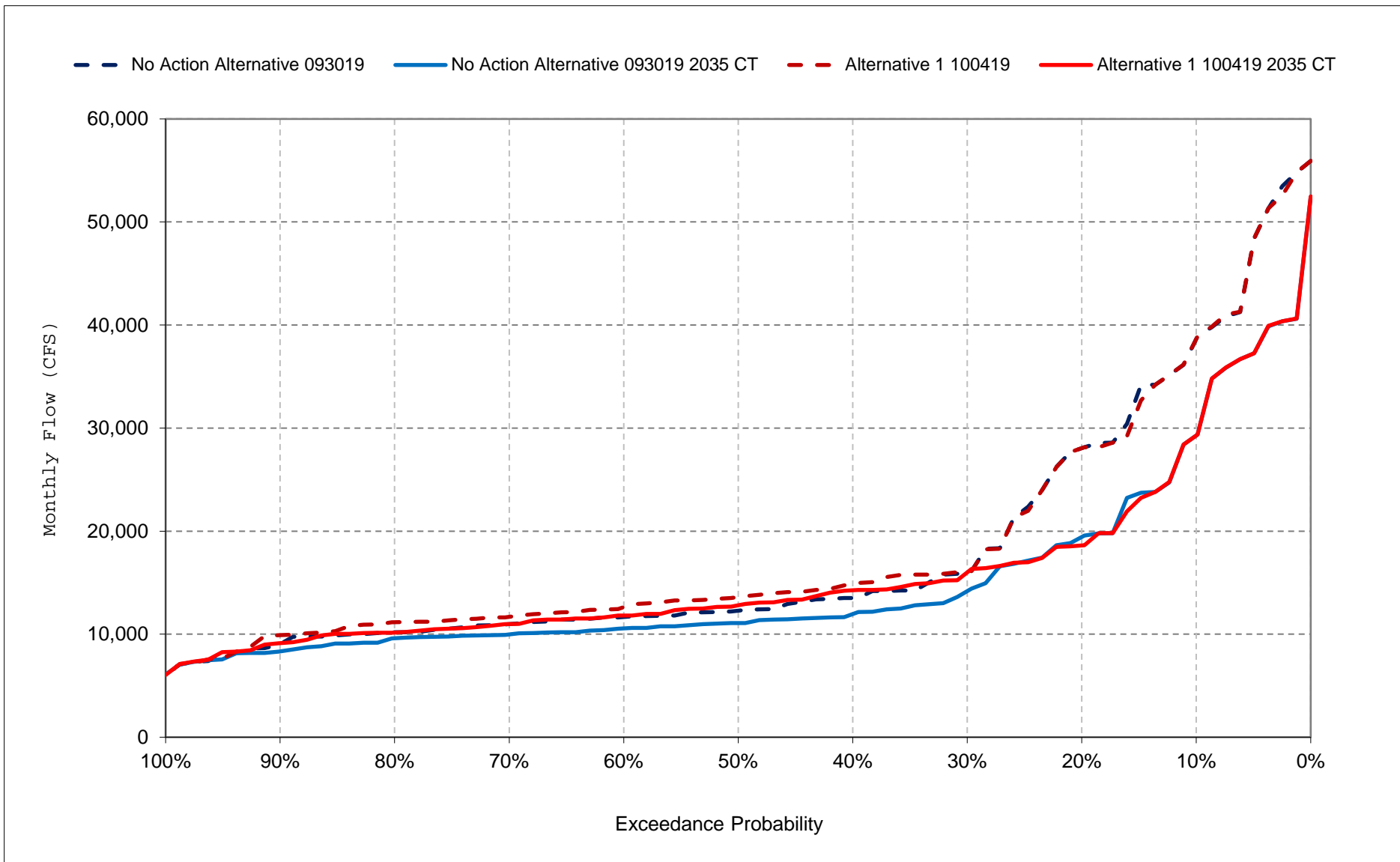
Figure 29-13. Sacramento River Flow at Freeport, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

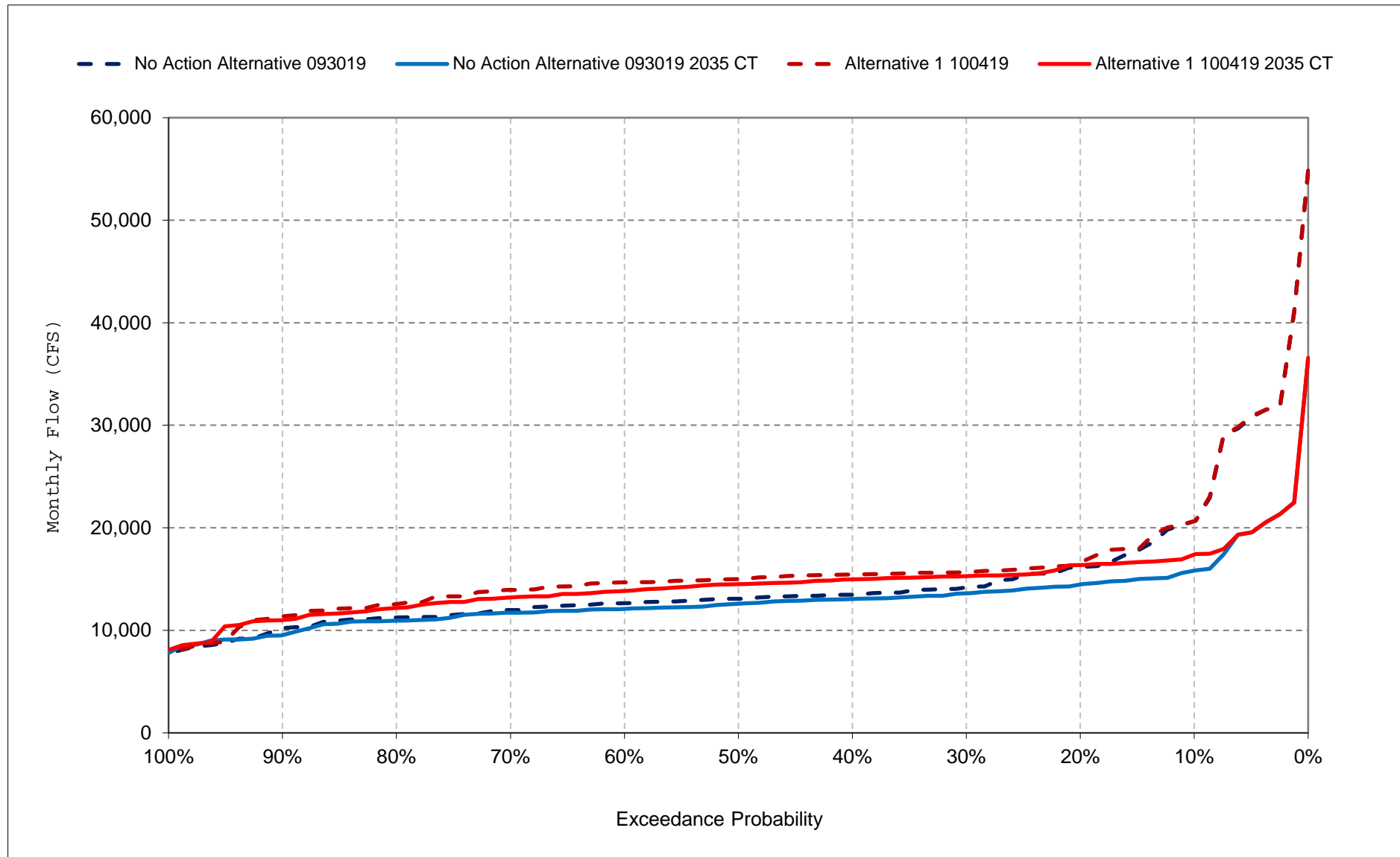
Figure 29-14. Sacramento River Flow at Freeport, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

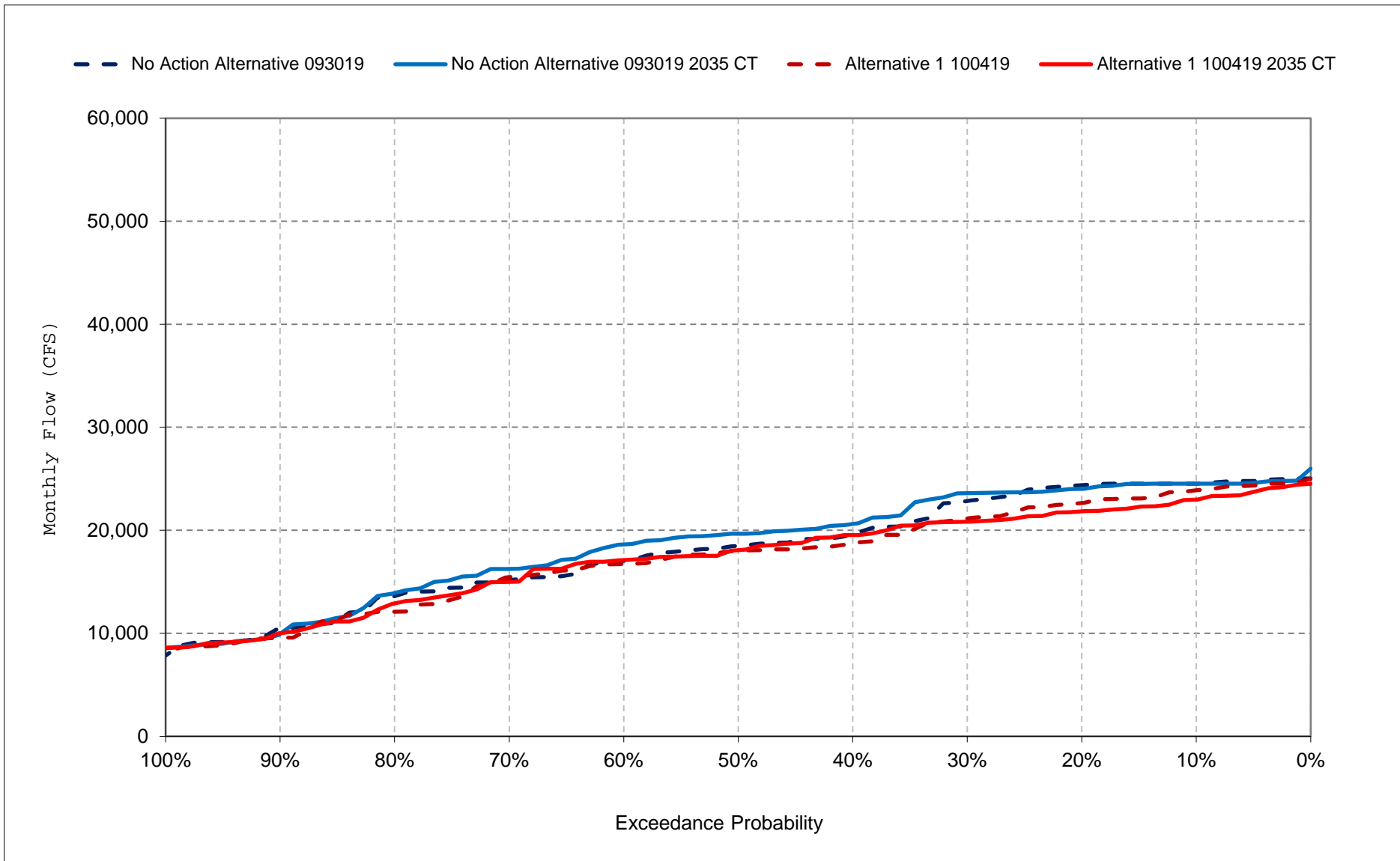
Figure 29-15. Sacramento River Flow at Freeport, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

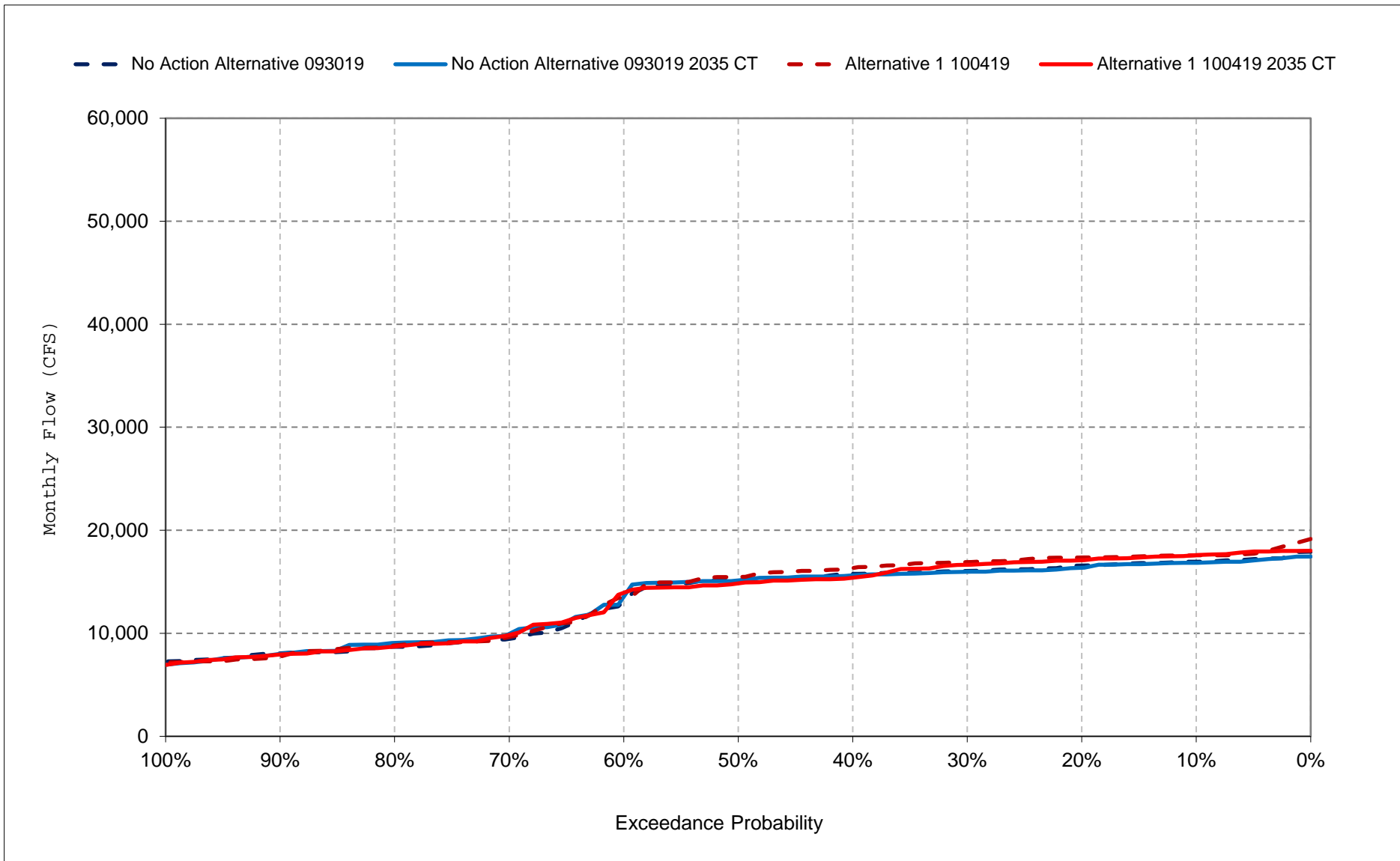
Figure 29-16. Sacramento River Flow at Freeport, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

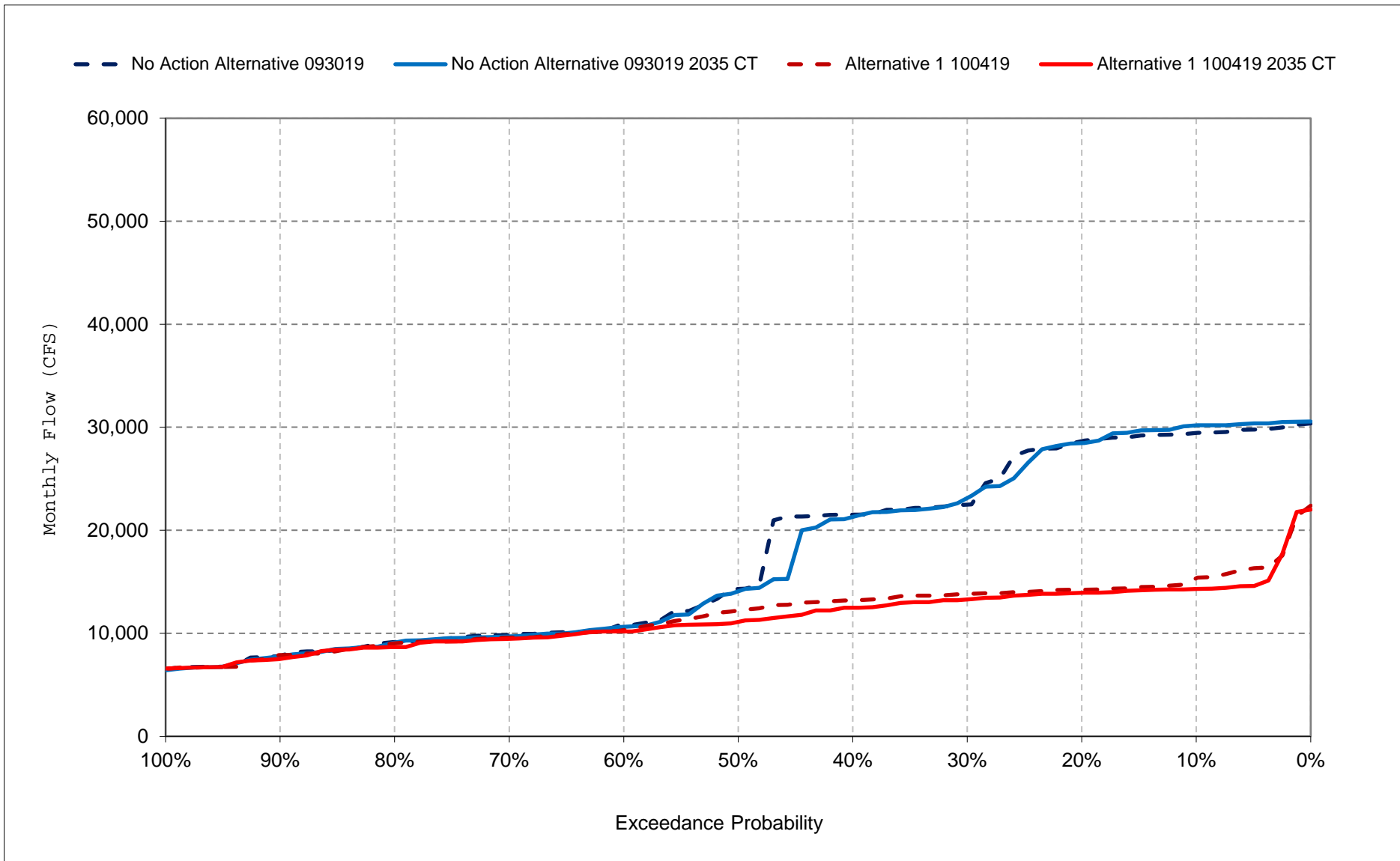
Figure 29-17. Sacramento River Flow at Freeport, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 29-18. Sacramento River Flow at Freeport, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-1. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,849	18,526	59,783	90,859	115,629	71,537	54,378	32,151	12,572	14,390	9,716	24,135
20%	9,813	15,400	32,940	59,690	74,834	54,948	36,577	22,544	9,094	14,231	9,407	23,512
30%	8,220	14,565	17,912	43,533	54,988	39,268	21,124	12,100	7,783	13,196	9,022	13,703
40%	7,468	12,850	14,830	26,554	43,909	28,818	18,466	9,824	7,257	11,058	8,852	13,020
50%	5,942	11,535	12,026	18,543	31,842	22,098	13,804	8,905	7,083	10,270	8,438	8,100
60%	4,986	8,504	10,684	15,100	22,638	16,751	11,379	8,293	6,693	9,261	7,235	5,791
70%	4,496	6,775	9,658	12,112	16,605	15,397	9,551	7,643	6,279	8,038	4,562	5,142
80%	4,341	6,006	7,232	10,483	13,483	12,079	8,418	7,012	5,692	6,951	3,951	4,633
90%	3,341	4,222	6,005	9,373	11,206	8,470	7,396	6,194	4,999	4,764	3,603	3,785
Long Term												
Full Simulation Period ^d	7,007	12,429	22,548	38,074	48,035	36,312	22,473	14,218	8,927	10,059	7,139	11,789
Water Year Types ^{b,c}												
Wet (32%)	9,721	17,261	25,988	74,970	85,291	65,800	39,722	24,975	13,812	11,481	9,093	22,314
Above Normal (16%)	8,113	15,008	19,189	41,908	57,916	44,653	23,907	13,273	7,293	13,292	9,560	13,178
Below Normal (13%)	7,378	8,451	20,209	16,033	30,870	15,688	11,854	9,615	6,915	12,364	8,209	6,422
Dry (24%)	4,828	11,438	29,212	15,260	22,941	19,561	13,616	8,402	7,027	8,253	4,609	5,038
Critical (15%)	3,221	4,461	9,774	12,205	14,170	10,206	8,039	5,849	5,122	4,373	3,518	3,650

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,414	18,468	64,178	93,058	115,874	79,154	54,328	32,159	12,577	13,893	10,059	8,810
20%	8,242	11,033	36,722	60,978	75,463	55,156	36,478	22,548	9,439	13,109	9,926	8,065
30%	7,491	9,282	20,239	44,714	56,098	41,414	21,251	12,134	8,820	12,096	9,701	7,735
40%	7,059	8,931	15,406	27,126	47,537	29,298	18,546	11,077	8,643	10,428	9,201	7,338
50%	6,462	8,589	11,924	20,007	32,053	23,066	13,777	9,883	8,392	9,872	8,928	6,673
60%	5,254	7,935	10,899	16,562	23,345	17,736	11,475	9,142	8,144	9,066	7,338	5,513
70%	4,787	6,032	10,230	12,559	17,489	15,555	9,757	8,423	7,590	8,187	4,645	4,887
80%	4,341	5,439	8,967	10,479	14,146	11,698	8,716	7,780	6,739	5,902	4,071	4,559
90%	3,341	3,908	6,171	9,529	11,598	8,917	7,740	6,816	5,909	4,213	3,393	3,755
Long Term												
Full Simulation Period ^d	6,838	10,681	24,031	39,128	49,295	37,245	22,633	14,671	9,811	9,573	7,424	6,439
Water Year Types ^{b,c}												
Wet (32%)	9,023	13,338	29,420	76,890	86,802	66,580	39,861	24,920	14,320	11,091	9,790	8,214
Above Normal (16%)	7,672	12,537	20,681	43,053	60,292	47,247	24,160	13,837	8,313	12,513	9,761	7,739
Below Normal (13%)	7,588	8,100	20,465	17,082	33,479	16,783	12,189	10,567	8,691	11,492	8,532	6,362
Dry (24%)	5,136	11,251	29,669	15,438	23,112	19,811	13,729	9,441	8,181	7,947	4,668	5,048
Critical (15%)	3,348	4,328	9,858	12,749	14,253	10,662	8,065	5,844	5,409	4,052	3,342	3,573

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,435	-58	4,394	2,199	245	7,618	-49	8	5	-497	343	-15,326
20%	-1,572	-4,367	3,782	1,288	629	208	-100	4	345	-1,122	519	-15,447
30%	-729	-5,283	2,327	1,181	1,110	2,146	127	34	1,036	-1,100	679	-5,969
40%	-409	-3,919	576	573	3,627	480	79	1,253	1,386	-631	349	-5,682
50%	520	-2,946	-102	1,464	211	968	-28	978	1,309	-398	490	-1,427
60%	267	-569	215	1,463	706	985	96	849	1,451	-194	103	-278
70%	291	-743	572	447	884	158	206	780	1,312	149	84	-256
80%	0	-567	1,735	-3	663	-381	299	769	1,047	-1,048	120	-74
90%	0	-314	166	156	392	447	344	622	910	-551	-209	-30
Long Term												
Full Simulation Period ^d	-169	-1,748	1,483	1,054	1,260	933	160	453	884	-486	285	-5,350
Water Year Types ^{b,c}												
Wet (32%)	-698	-3,923	3,432	1,920	1,511	780	139	-55	508	-390	698	-14,100
Above Normal (16%)	-441	-2,472	1,491	1,145	2,376	2,594	253	564	1,019	-780	201	-5,439
Below Normal (13%)	210	-351	257	1,049	2,610	1,095	335	952	1,776	-872	323	-60
Dry (24%)	308	-188	457	178	171	249	113	1,040	1,153	-305	59	10
Critical (15%)	127	-133	84	545	83	456	26	-5	287	-321	-175	-77

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 32-2. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,554	17,885	63,220	92,609	120,179	75,970	52,726	23,850	8,929	14,335	9,724	24,651
20%	9,568	15,138	33,007	68,930	83,892	60,480	33,935	15,168	7,961	13,986	9,437	23,111
30%	7,699	14,147	20,865	47,373	58,571	49,293	23,879	10,601	7,263	13,703	9,041	14,096
40%	6,464	12,056	15,400	29,549	48,748	31,667	19,035	8,515	7,054	11,704	8,813	12,913
50%	5,564	9,770	13,215	21,330	35,392	24,663	12,353	7,818	6,609	11,105	8,558	7,955
60%	4,936	8,139	10,853	18,638	23,446	19,233	11,122	7,368	6,283	10,360	7,280	5,749
70%	4,457	6,671	9,984	12,877	19,311	17,140	9,246	6,897	6,015	8,713	4,881	4,966
80%	4,341	5,823	7,114	11,077	15,602	12,291	8,437	6,540	5,531	7,129	4,261	4,652
90%	3,349	4,633	6,212	9,791	12,592	8,974	7,417	5,422	4,629	4,491	3,541	3,744
Long Term												
Full Simulation Period ^d	6,652	11,890	23,219	41,887	51,286	40,100	23,242	11,499	7,158	10,493	7,176	11,636
Water Year Types ^{b,c}												
Wet (32%)	9,035	16,780	26,881	81,860	89,690	72,035	41,252	18,578	8,699	11,720	8,980	21,426
Above Normal (16%)	7,809	13,463	19,325	46,924	61,736	49,504	24,403	10,507	6,409	13,589	9,432	14,099
Below Normal (13%)	6,710	8,037	21,013	18,323	34,648	17,700	12,739	9,086	6,489	12,399	7,856	6,258
Dry (24%)	4,702	10,962	29,822	16,674	25,318	22,236	13,975	7,651	6,979	9,319	5,276	5,101
Critical (15%)	3,428	4,671	10,521	13,445	15,286	11,025	8,032	5,862	5,539	4,686	3,371	3,578

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,188	17,841	67,447	96,826	120,210	85,685	53,120	23,856	9,985	13,284	10,139	8,096
20%	7,576	10,237	37,231	70,569	83,889	61,229	33,940	14,531	9,292	12,526	9,858	7,821
30%	7,340	8,856	22,777	50,600	60,979	49,052	23,809	12,133	8,491	11,859	9,434	7,472
40%	6,633	8,521	15,643	32,211	53,760	32,003	19,121	10,578	8,364	10,897	8,753	6,848
50%	5,900	8,173	13,686	23,320	35,324	25,162	12,416	9,211	7,993	9,903	8,170	6,024
60%	5,104	7,401	11,209	18,818	24,247	20,140	11,378	8,519	7,609	9,349	7,610	5,342
70%	4,632	6,161	9,910	13,630	20,009	17,327	9,281	7,775	7,095	7,854	4,794	4,774
80%	4,341	5,412	8,291	11,017	15,758	11,913	8,705	7,024	6,360	6,416	3,998	4,354
90%	3,349	4,381	6,612	9,936	12,706	9,617	7,944	6,296	5,628	4,406	3,544	3,587
Long Term												
Full Simulation Period ^d	6,368	10,300	24,831	43,142	52,487	41,115	23,376	12,243	8,156	9,542	7,272	6,161
Water Year Types ^{b,c}												
Wet (32%)	8,166	13,125	30,159	84,095	90,946	72,746	41,341	19,085	9,460	10,582	9,493	7,790
Above Normal (16%)	7,308	11,437	20,865	48,590	64,269	52,386	24,527	11,354	7,687	12,293	9,476	7,364
Below Normal (13%)	6,968	7,776	21,224	20,289	36,877	19,013	12,885	10,289	8,232	11,234	7,696	5,909
Dry (24%)	4,843	10,764	31,025	16,834	25,489	22,557	14,159	8,682	8,015	8,594	5,091	4,974
Critical (15%)	3,445	4,485	10,565	13,302	15,704	11,566	8,183	6,111	6,007	4,338	3,316	3,537

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,367	-44	4,227	4,217	31	9,715	394	6	1,055	-1,050	414	-16,555
20%	-1,992	-4,901	4,223	1,639	-3	748	5	-636	1,330	-1,460	421	-15,289
30%	-359	-5,291	1,912	3,226	2,409	-241	-70	1,532	1,228	-1,844	393	-6,624
40%	170	-3,535	242	2,662	5,012	336	86	2,063	1,310	-807	-60	-6,065
50%	336	-1,597	471	1,990	-68	499	63	1,393	1,384	-1,202	-388	-1,931
60%	167	-739	356	180	801	907	256	1,151	1,326	-1,011	329	-406
70%	175	-510	-74	754	698	186	35	878	1,080	-860	-87	-192
80%	0	-411	1,176	-60	156	-377	268	484	829	-713	-262	-298
90%	0	-252	399	145	114	643	527	873	998	-86	2	-157
Long Term												
Full Simulation Period ^d	-284	-1,591	1,612	1,255	1,202	1,016	134	744	999	-951	96	-5,475
Water Year Types ^{b,c}												
Wet (32%)	-869	-3,656	3,278	2,235	1,256	711	89	506	761	-1,139	514	-13,636
Above Normal (16%)	-501	-2,025	1,541	1,666	2,533	2,882	124	847	1,278	-1,296	45	-6,735
Below Normal (13%)	258	-261	212	1,967	2,230	1,313	147	1,203	1,742	-1,166	-160	-349
Dry (24%)	141	-198	1,204	160	172	321	183	1,031	1,036	-725	-184	-127
Critical (15%)	17	-187	44	-143	417	541	151	249	468	-348	-55	-40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-3. Sacramento River Flow at Rio Vista, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,849	18,526	59,783	90,859	115,629	71,537	54,378	32,151	12,572	14,390	9,716	24,135
20%	9,813	15,400	32,940	59,690	74,834	54,948	36,577	22,544	9,094	14,231	9,407	23,512
30%	8,220	14,565	17,912	43,533	54,988	39,268	21,124	12,100	7,783	13,196	9,022	13,703
40%	7,468	12,850	14,830	26,554	43,909	28,818	18,466	9,824	7,257	11,058	8,852	13,020
50%	5,942	11,535	12,026	18,543	31,842	22,098	13,804	8,905	7,083	10,270	8,438	8,100
60%	4,986	8,504	10,684	15,100	22,638	16,751	11,379	8,293	6,693	9,261	7,235	5,791
70%	4,496	6,775	9,658	12,112	16,605	15,397	9,551	7,643	6,279	8,038	4,562	5,142
80%	4,341	6,006	7,232	10,483	13,483	12,079	8,418	7,012	5,692	6,951	3,951	4,633
90%	3,341	4,222	6,005	9,373	11,206	8,470	7,396	6,194	4,999	4,764	3,603	3,785
Long Term												
Full Simulation Period ^d	7,007	12,429	22,548	38,074	48,035	36,312	22,473	14,218	8,927	10,059	7,139	11,789
Water Year Types ^{b,c}												
Wet (32%)	9,721	17,261	25,988	74,970	85,291	65,800	39,722	24,975	13,812	11,481	9,093	22,314
Above Normal (16%)	8,113	15,008	19,189	41,908	57,916	44,653	23,907	13,273	7,293	13,292	9,560	13,178
Below Normal (13%)	7,378	8,451	20,209	16,033	30,870	15,688	11,854	9,615	6,915	12,364	8,209	6,422
Dry (24%)	4,828	11,438	29,212	15,260	22,941	19,561	13,616	8,402	7,027	8,253	4,609	5,038
Critical (15%)	3,221	4,461	9,774	12,205	14,170	10,206	8,039	5,849	5,122	4,373	3,518	3,650

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,554	17,885	63,220	92,609	120,179	75,970	52,726	23,850	8,929	14,335	9,724	24,651
20%	9,568	15,138	33,007	68,930	83,892	60,480	33,935	15,168	7,961	13,986	9,437	23,111
30%	7,699	14,147	20,865	47,373	58,571	49,293	23,879	10,601	7,263	13,703	9,041	14,096
40%	6,464	12,056	15,400	29,549	48,748	31,667	19,035	8,515	7,054	11,704	8,813	12,913
50%	5,564	9,770	13,215	21,330	35,392	24,663	12,353	7,818	6,609	11,105	8,558	7,955
60%	4,936	8,139	10,853	18,638	23,446	19,233	11,122	7,368	6,283	10,360	7,280	5,749
70%	4,457	6,671	9,984	12,877	19,311	17,140	9,246	6,897	6,015	8,713	4,881	4,966
80%	4,341	5,823	7,114	11,077	15,602	12,291	8,437	6,540	5,531	7,129	4,261	4,652
90%	3,349	4,633	6,212	9,791	12,592	8,974	7,417	5,422	4,629	4,491	3,541	3,744
Long Term												
Full Simulation Period ^d	6,652	11,890	23,219	41,887	51,286	40,100	23,242	11,499	7,158	10,493	7,176	11,636
Water Year Types ^{b,c}												
Wet (32%)	9,035	16,780	26,881	81,860	89,690	72,035	41,252	18,578	8,699	11,720	8,980	21,426
Above Normal (16%)	7,809	13,463	19,325	46,924	61,736	49,504	24,403	10,507	6,409	13,589	9,432	14,099
Below Normal (13%)	6,710	8,037	21,013	18,323	34,648	17,700	12,739	9,086	6,489	12,399	7,856	6,258
Dry (24%)	4,702	10,962	29,822	16,674	25,318	22,236	13,975	7,651	6,979	9,319	5,276	5,101
Critical (15%)	3,428	4,671	10,521	13,445	15,286	11,025	8,032	5,862	5,539	4,686	3,371	3,578

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-295	-641	3,437	1,750	4,550	4,433	-1,652	-8,301	-3,642	-56	9	516
20%	-246	-262	67	9,240	9,058	5,532	-2,642	-7,377	-1,133	-245	30	-401
30%	-522	-418	2,952	3,840	3,582	10,025	2,755	-1,499	-520	506	19	392
40%	-1,004	-795	570	2,995	4,839	2,849	569	-1,309	-203	645	-39	-107
50%	-379	-1,764	1,189	2,787	3,550	2,565	-1,452	-1,087	-474	835	120	-145
60%	-50	-365	169	3,539	807	2,482	-256	-925	-410	1,099	45	-43
70%	-39	-104	327	765	2,706	1,743	-305	-746	-264	675	319	-176
80%	0	-183	-117	594	2,118	211	19	-472	-161	178	310	19
90%	8	411	207	418	1,385	504	21	-772	-369	-273	-62	-41
Long Term												
Full Simulation Period ^d	-356	-538	670	3,813	3,250	3,788	769	-2,719	-1,769	434	38	-153
Water Year Types ^{b,c}												
Wet (32%)	-686	-481	893	6,890	4,399	6,235	1,530	-6,397	-5,113	240	-113	-888
Above Normal (16%)	-304	-1,545	136	5,016	3,820	4,851	496	-2,765	-884	297	-128	921
Below Normal (13%)	-668	-414	804	2,290	3,778	2,011	885	-529	-426	35	-353	-164
Dry (24%)	-126	-476	609	1,414	2,377	2,674	360	-751	-48	1,066	666	63
Critical (15%)	207	210	747	1,240	1,117	820	-7	13	417	313	-146	-73

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 32-4. Sacramento River Flow at Rio Vista, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,414	18,468	64,178	93,058	115,874	79,154	54,328	32,159	12,577	13,893	10,059	8,810
20%	8,242	11,033	36,722	60,978	75,463	55,156	36,478	22,548	9,439	13,109	9,926	8,065
30%	7,491	9,282	20,239	44,714	56,098	41,414	21,251	12,134	8,820	12,096	9,701	7,735
40%	7,059	8,931	15,406	27,126	47,537	29,298	18,546	11,077	8,643	10,428	9,201	7,338
50%	6,462	8,589	11,924	20,007	32,053	23,066	13,777	9,883	8,392	9,872	8,928	6,673
60%	5,254	7,935	10,899	16,562	23,345	17,736	11,475	9,142	8,144	9,066	7,338	5,513
70%	4,787	6,032	10,230	12,559	17,489	15,555	9,757	8,423	7,590	8,187	4,645	4,887
80%	4,341	5,439	8,967	10,479	14,146	11,698	8,716	7,780	6,739	5,902	4,071	4,559
90%	3,341	3,908	6,171	9,529	11,598	8,917	7,740	6,816	5,909	4,213	3,393	3,755
Long Term												
Full Simulation Period ^d	6,838	10,681	24,031	39,128	49,295	37,245	22,633	14,671	9,811	9,573	7,424	6,439
Water Year Types ^{b,c}												
Wet (32%)	9,023	13,338	29,420	76,890	86,802	66,580	39,861	24,920	14,320	11,091	9,790	8,214
Above Normal (16%)	7,672	12,537	20,681	43,053	60,292	47,247	24,160	13,837	8,313	12,513	9,761	7,739
Below Normal (13%)	7,588	8,100	20,465	17,082	33,479	16,783	12,189	10,567	8,691	11,492	8,532	6,362
Dry (24%)	5,136	11,251	29,669	15,438	23,112	19,811	13,729	9,441	8,181	7,947	4,668	5,048
Critical (15%)	3,348	4,328	9,858	12,749	14,253	10,662	8,065	5,844	5,409	4,052	3,342	3,573

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,188	17,841	67,447	96,826	120,210	85,685	53,120	23,856	9,985	13,284	10,139	8,096
20%	7,576	10,237	37,231	70,569	83,889	61,229	33,940	14,531	9,292	12,526	9,858	7,821
30%	7,340	8,856	22,777	50,600	60,979	49,052	23,809	12,133	8,491	11,859	9,434	7,472
40%	6,633	8,521	15,643	32,211	53,760	32,003	19,121	10,578	8,364	10,897	8,753	6,848
50%	5,900	8,173	13,686	23,320	35,324	25,162	12,416	9,211	7,993	9,903	8,170	6,024
60%	5,104	7,401	11,209	18,818	24,247	20,140	11,378	8,519	7,609	9,349	7,610	5,342
70%	4,632	6,161	9,910	13,630	20,009	17,327	9,281	7,775	7,095	7,854	4,794	4,774
80%	4,341	5,412	8,291	11,017	15,758	11,913	8,705	7,024	6,360	6,416	3,998	4,354
90%	3,349	4,381	6,612	9,936	12,706	9,617	7,944	6,296	5,628	4,406	3,544	3,587
Long Term												
Full Simulation Period ^d	6,368	10,300	24,831	43,142	52,487	41,115	23,376	12,243	8,156	9,542	7,272	6,161
Water Year Types ^{b,c}												
Wet (32%)	8,166	13,125	30,159	84,095	90,946	72,746	41,341	19,085	9,460	10,582	9,493	7,790
Above Normal (16%)	7,308	11,437	20,865	48,590	64,269	52,386	24,527	11,354	7,687	12,293	9,476	7,364
Below Normal (13%)	6,968	7,776	21,224	20,289	36,877	19,013	12,885	10,289	8,232	11,234	7,696	5,909
Dry (24%)	4,843	10,764	31,025	16,834	25,489	22,557	14,159	8,682	8,015	8,594	5,091	4,974
Critical (15%)	3,445	4,485	10,565	13,302	15,704	11,566	8,183	6,111	6,007	4,338	3,316	3,537

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-226	-627	3,269	3,768	4,336	6,530	-1,208	-8,304	-2,592	-609	80	-713
20%	-666	-796	509	9,591	8,426	6,073	-2,538	-8,017	-147	-583	-68	-243
30%	-151	-426	2,537	5,886	4,881	7,638	2,558	-1	-329	-237	-268	-263
40%	-426	-410	237	5,085	6,224	2,705	575	-499	-279	470	-447	-491
50%	-562	-415	1,762	3,313	3,271	2,096	-1,361	-672	-399	30	-758	-649
60%	-150	-534	311	2,256	902	2,404	-97	-623	-535	282	271	-171
70%	-155	129	-320	1,071	2,520	1,772	-476	-648	-496	-333	149	-112
80%	0	-27	-676	538	1,612	215	-12	-756	-379	514	-72	-205
90%	8	473	441	406	1,108	700	204	-521	-281	192	150	-168
Long Term												
Full Simulation Period ^d	-470	-381	800	4,014	3,192	3,871	743	-2,427	-1,655	-31	-152	-278
Water Year Types ^{b,c}												
Wet (32%)	-857	-213	740	7,205	4,144	6,165	1,480	-5,836	-4,860	-509	-297	-424
Above Normal (16%)	-364	-1,099	185	5,537	3,977	5,139	367	-2,483	-626	-220	-284	-375
Below Normal (13%)	-620	-324	759	3,207	3,398	2,229	697	-278	-459	-259	-836	-453
Dry (24%)	-293	-486	1,356	1,396	2,377	2,746	430	-760	-165	647	423	-74
Critical (15%)	97	157	707	553	1,451	904	118	267	597	286	-26	-36

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

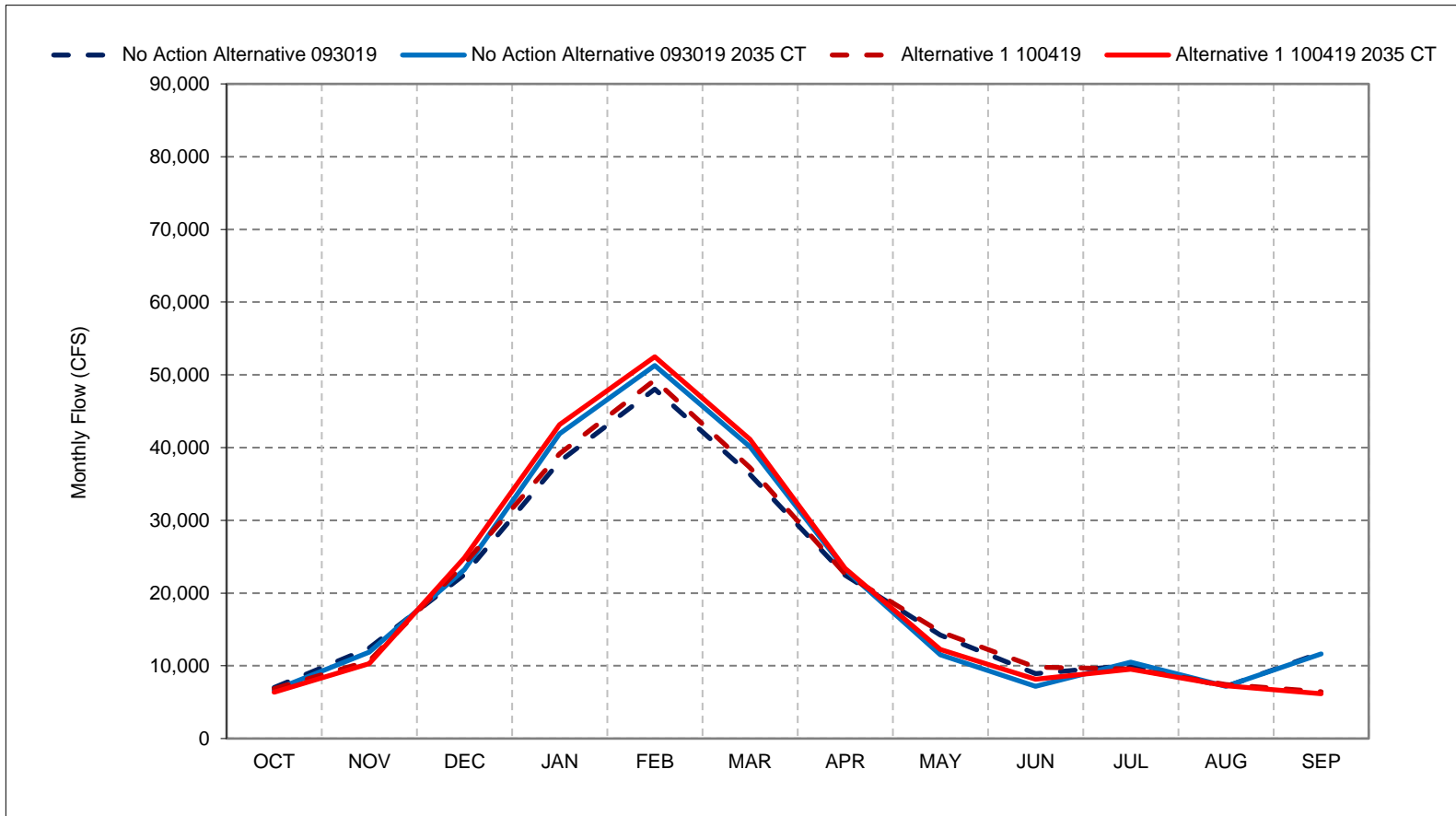
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 32-1. Sacramento River Flow at Rio Vista, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

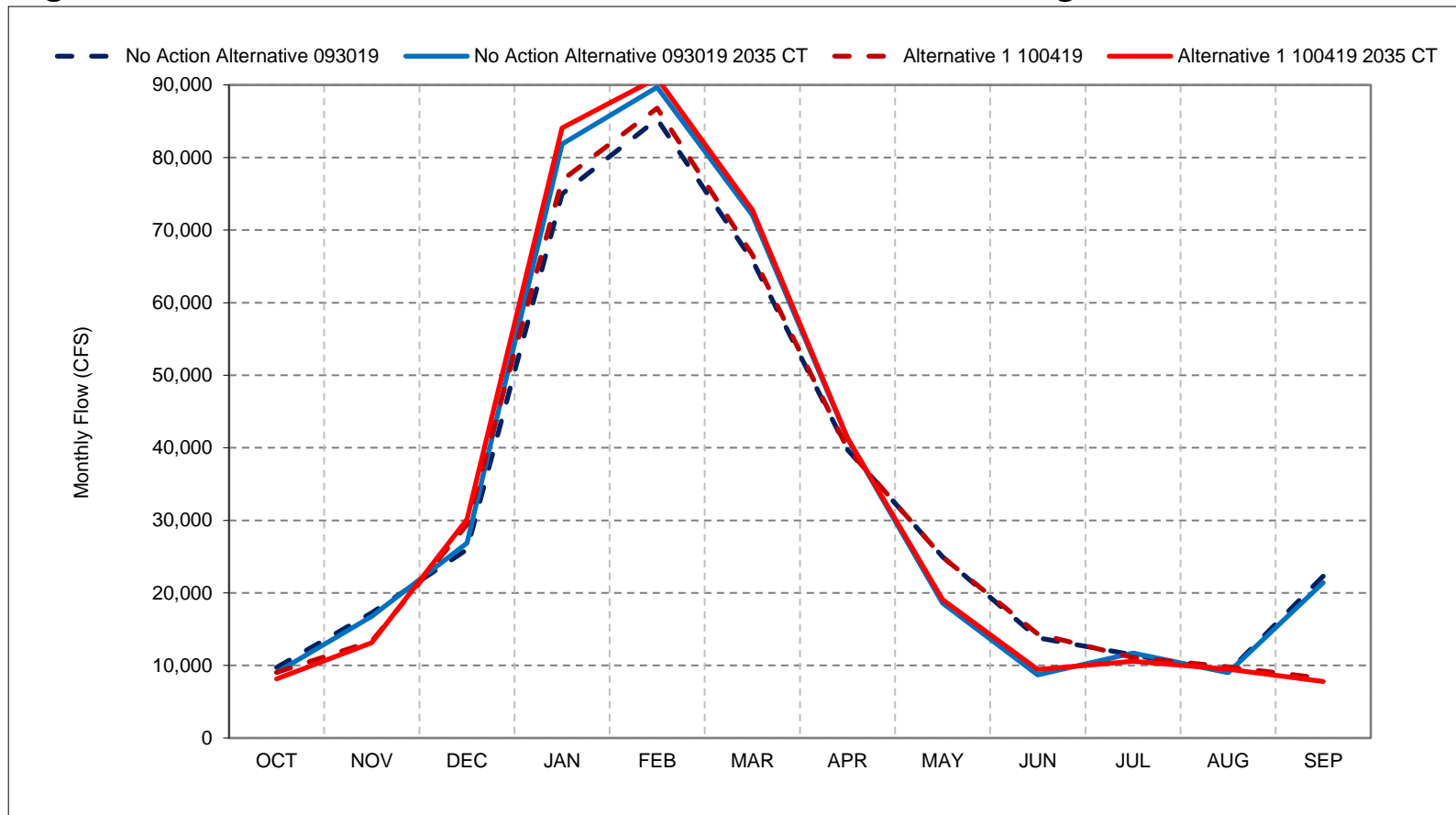
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-2. Sacramento River Flow at Rio Vista, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

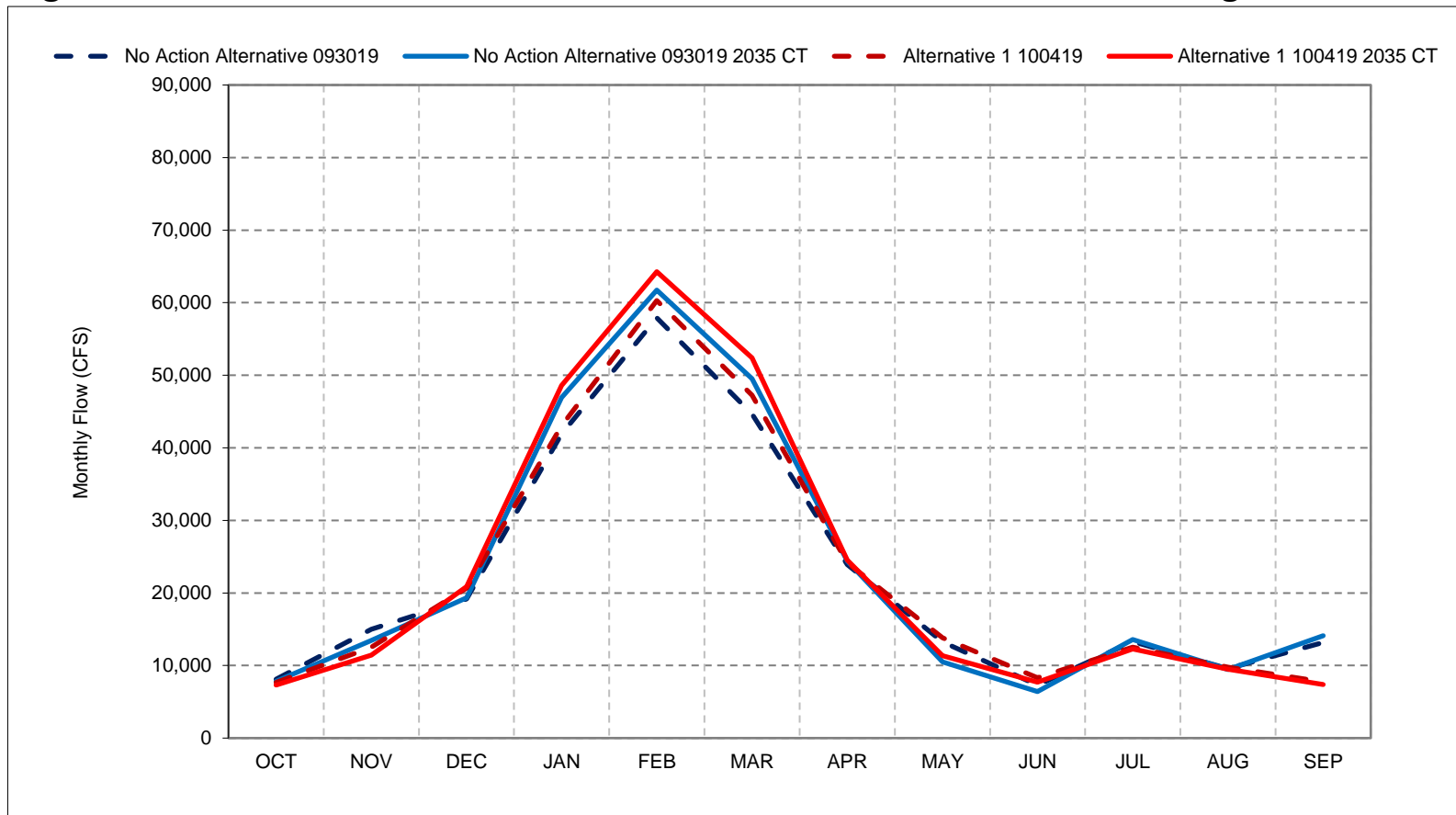
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-3. Sacramento River Flow at Rio Vista, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

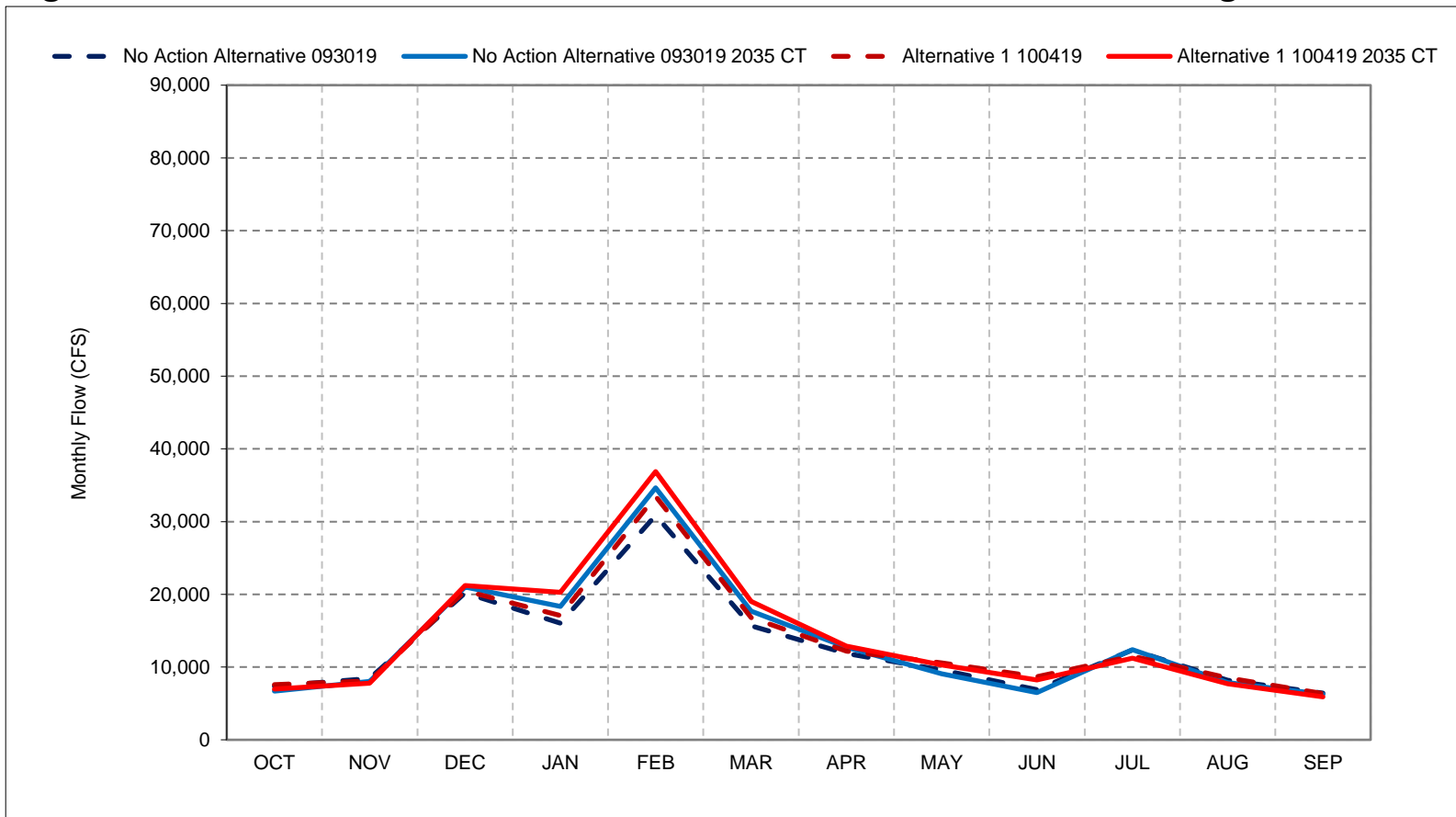
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-4. Sacramento River Flow at Rio Vista, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

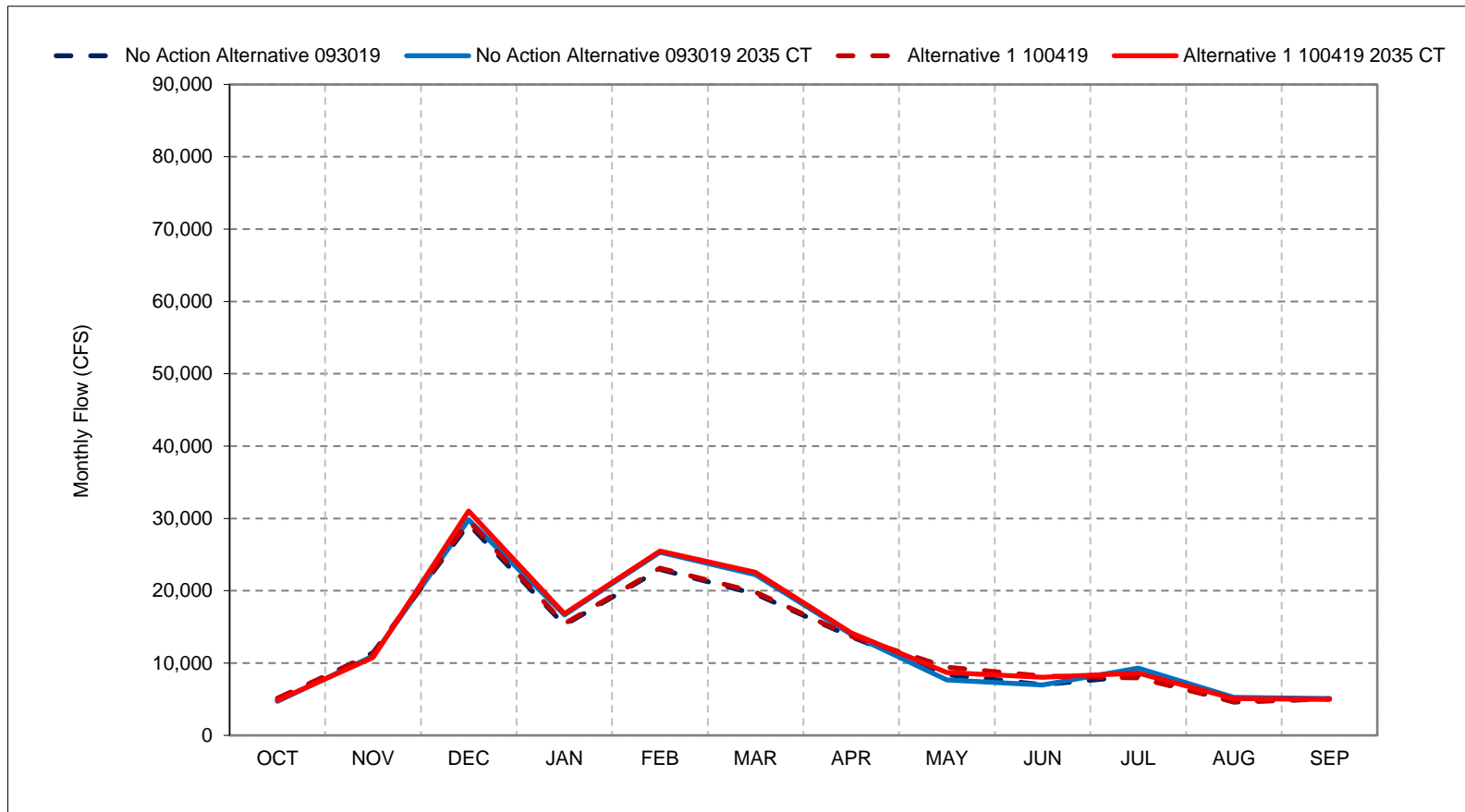
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-5. Sacramento River Flow at Rio Vista, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

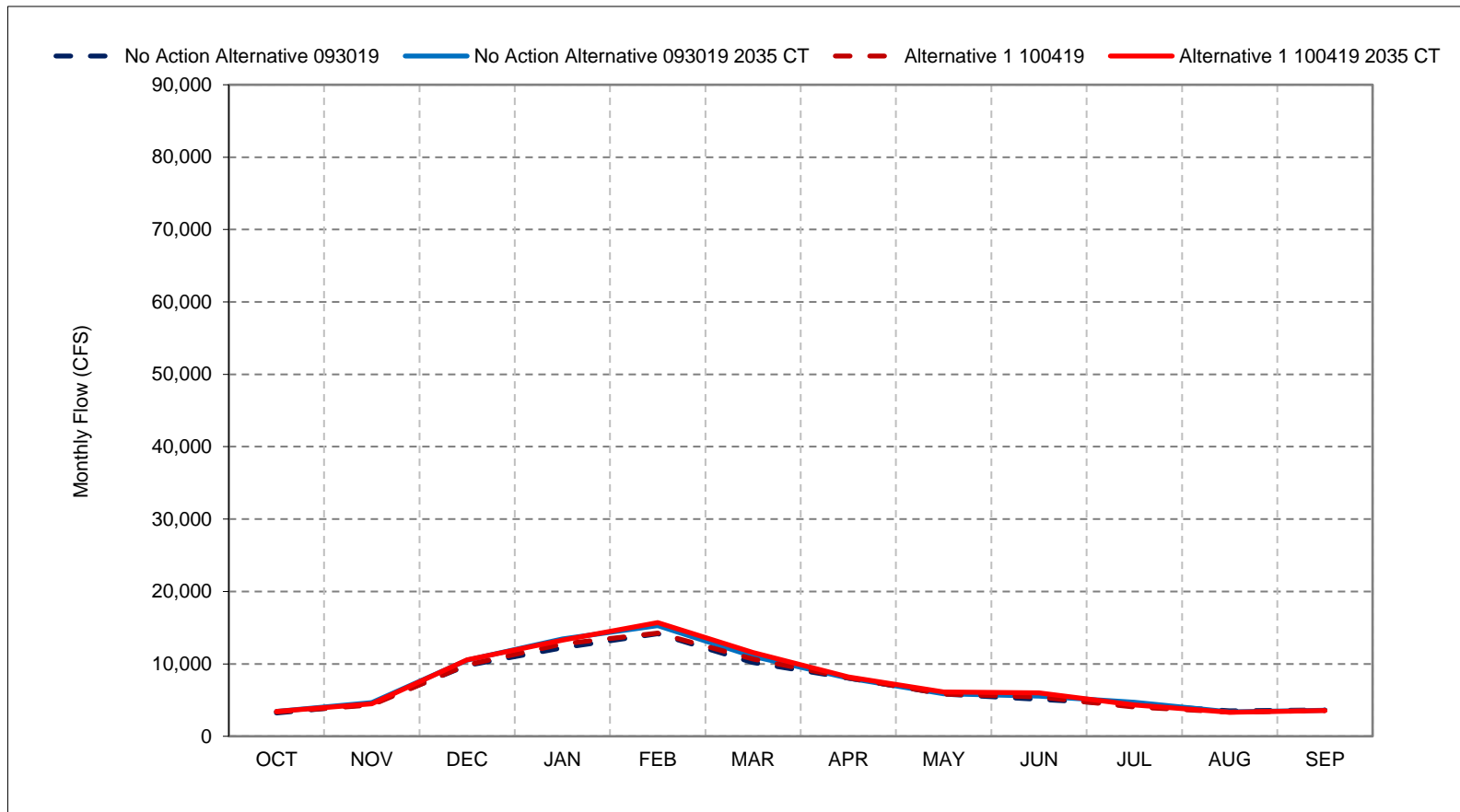
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 32-6. Sacramento River Flow at Rio Vista, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

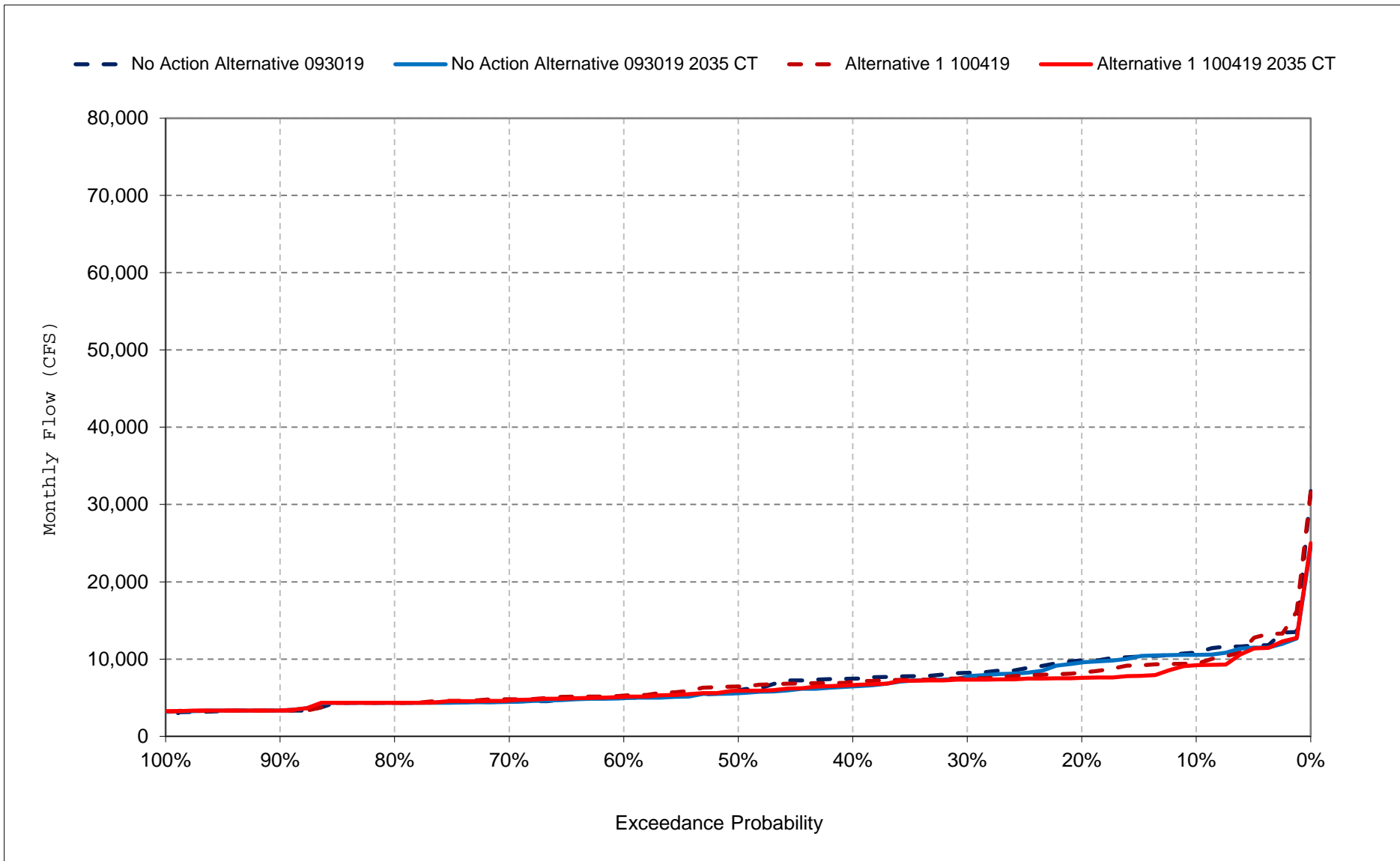
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

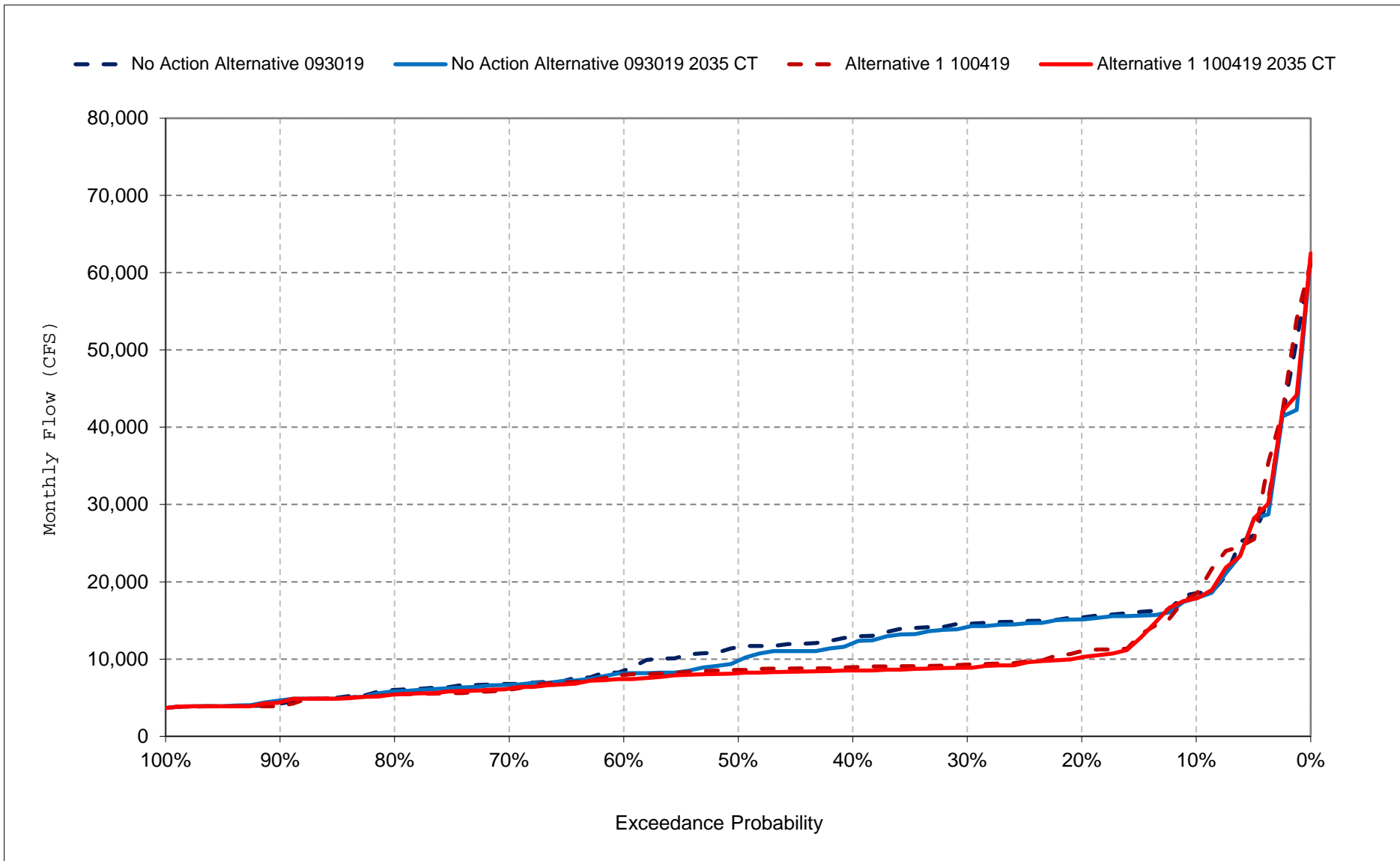
Figure 32-7. Sacramento River Flow at Rio Vista, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

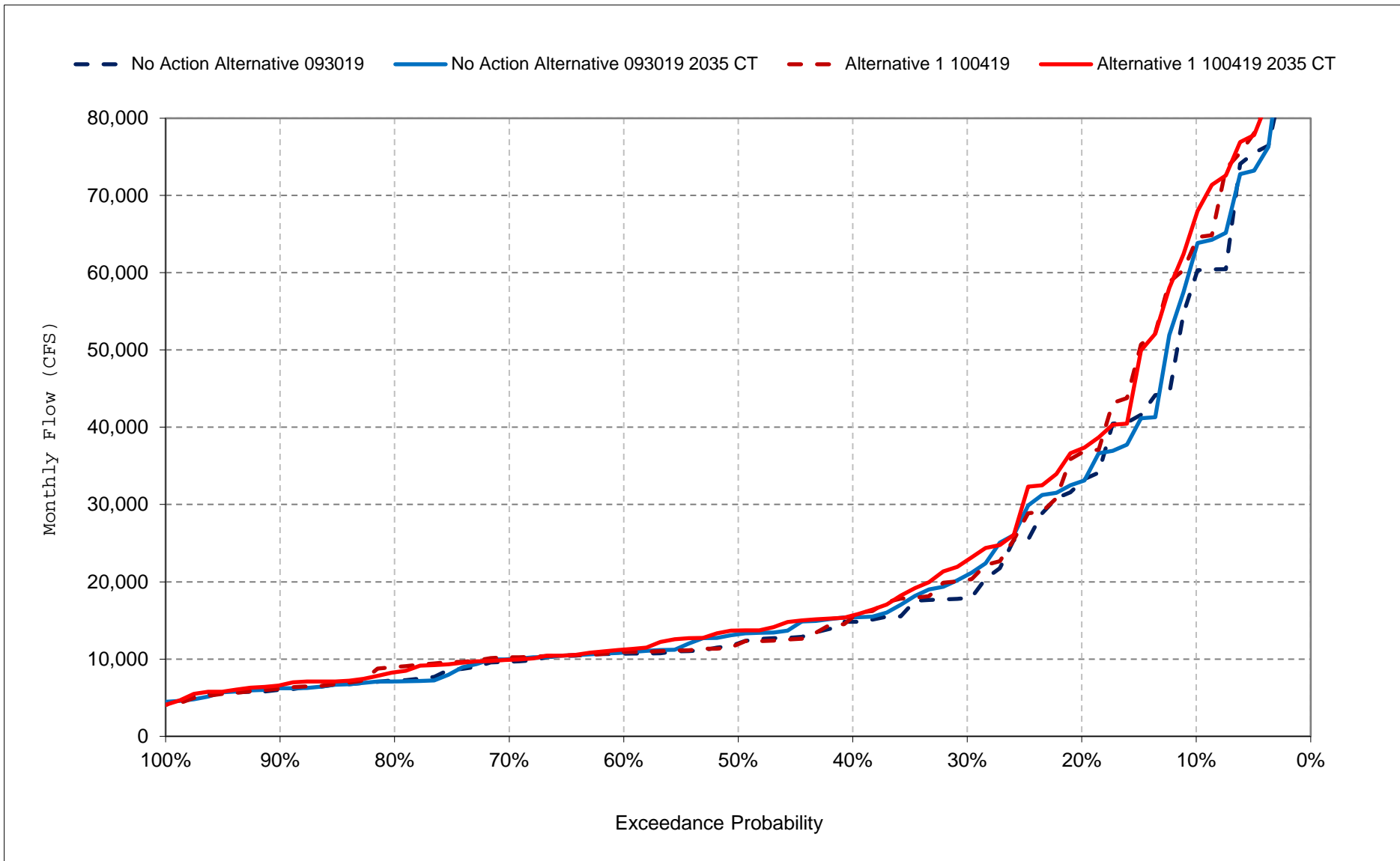
Figure 32-8. Sacramento River Flow at Rio Vista, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

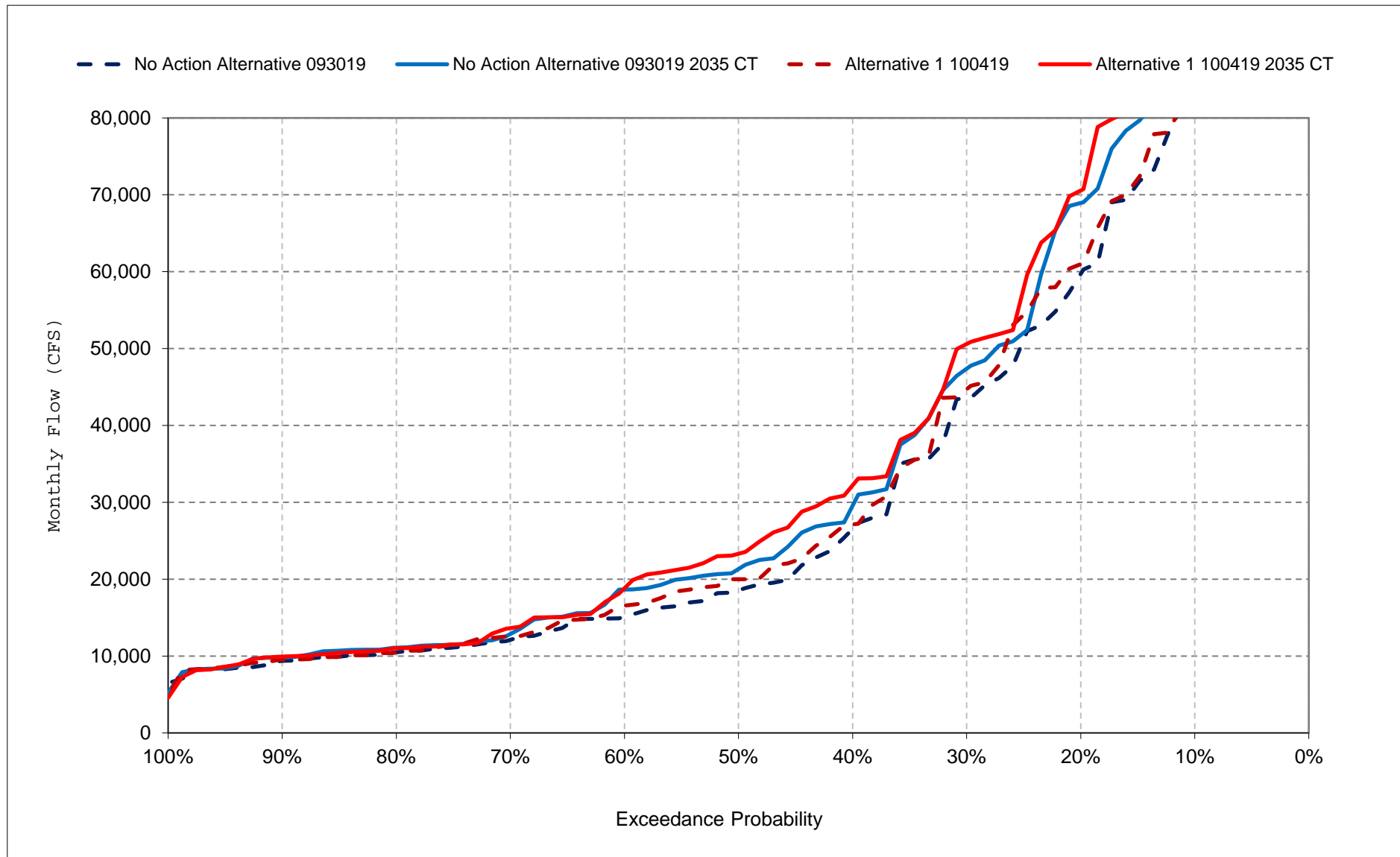
Figure 32-9. Sacramento River Flow at Rio Vista, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

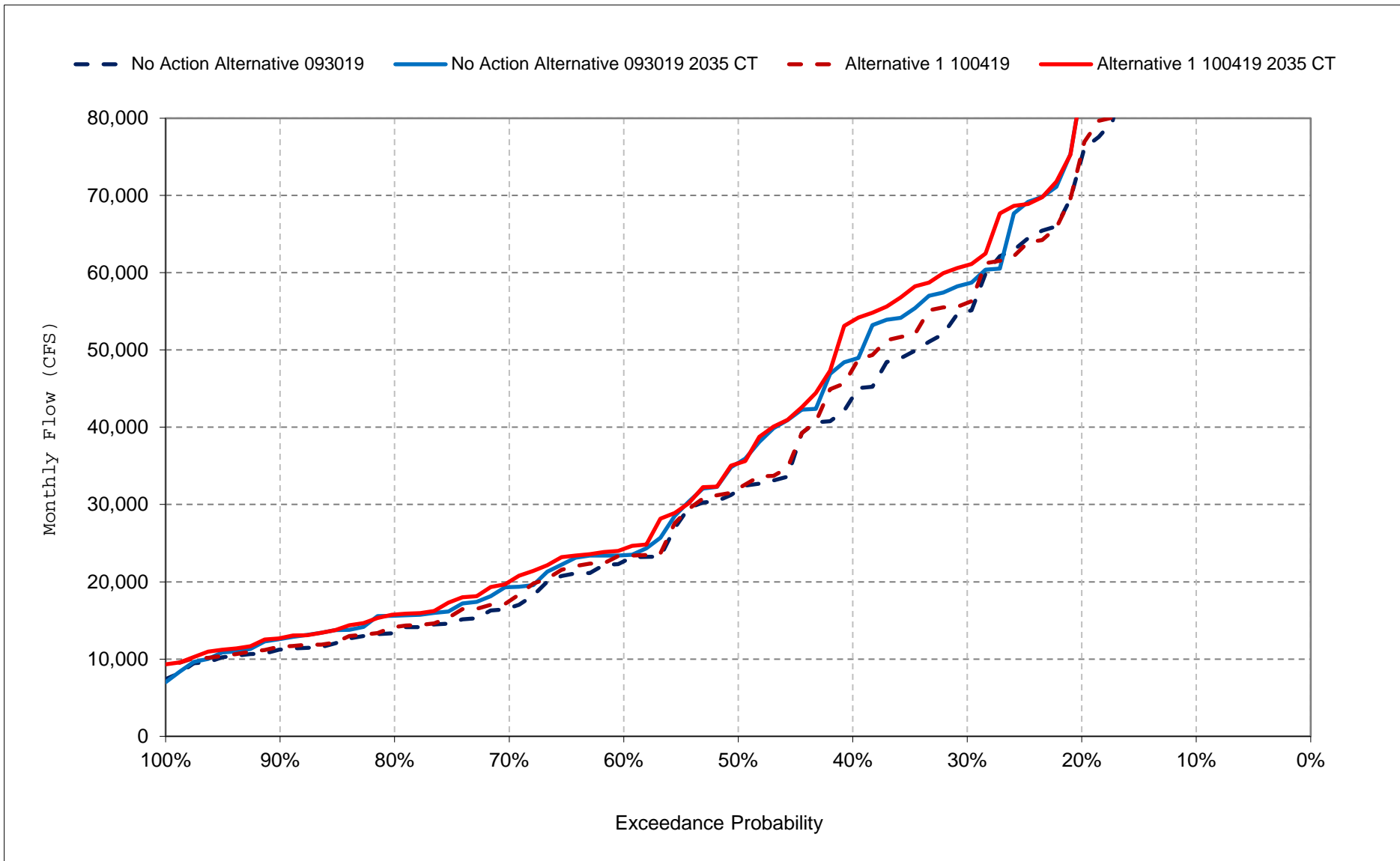
Figure 32-10. Sacramento River Flow at Rio Vista, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

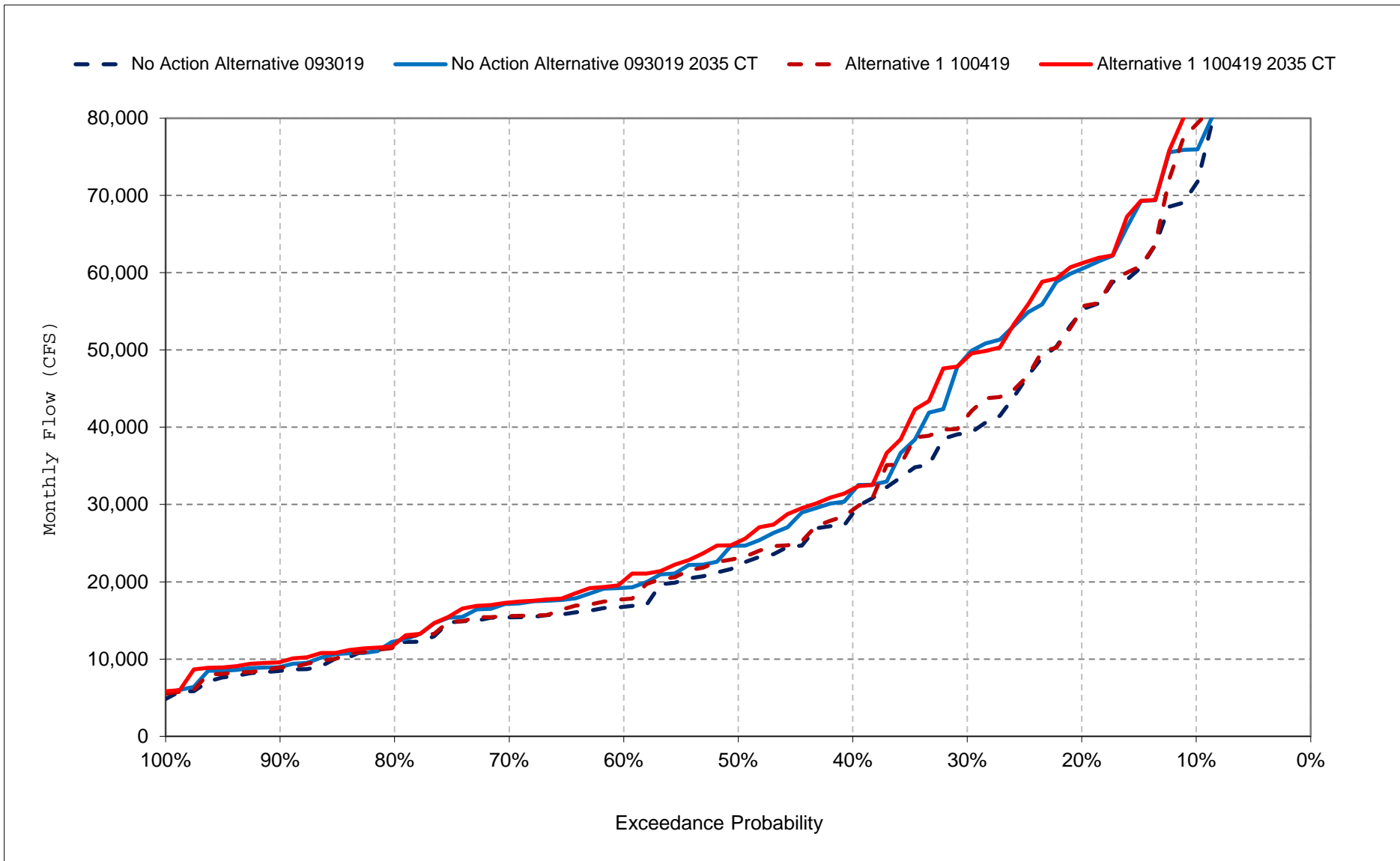
Figure 32-11. Sacramento River Flow at Rio Vista, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

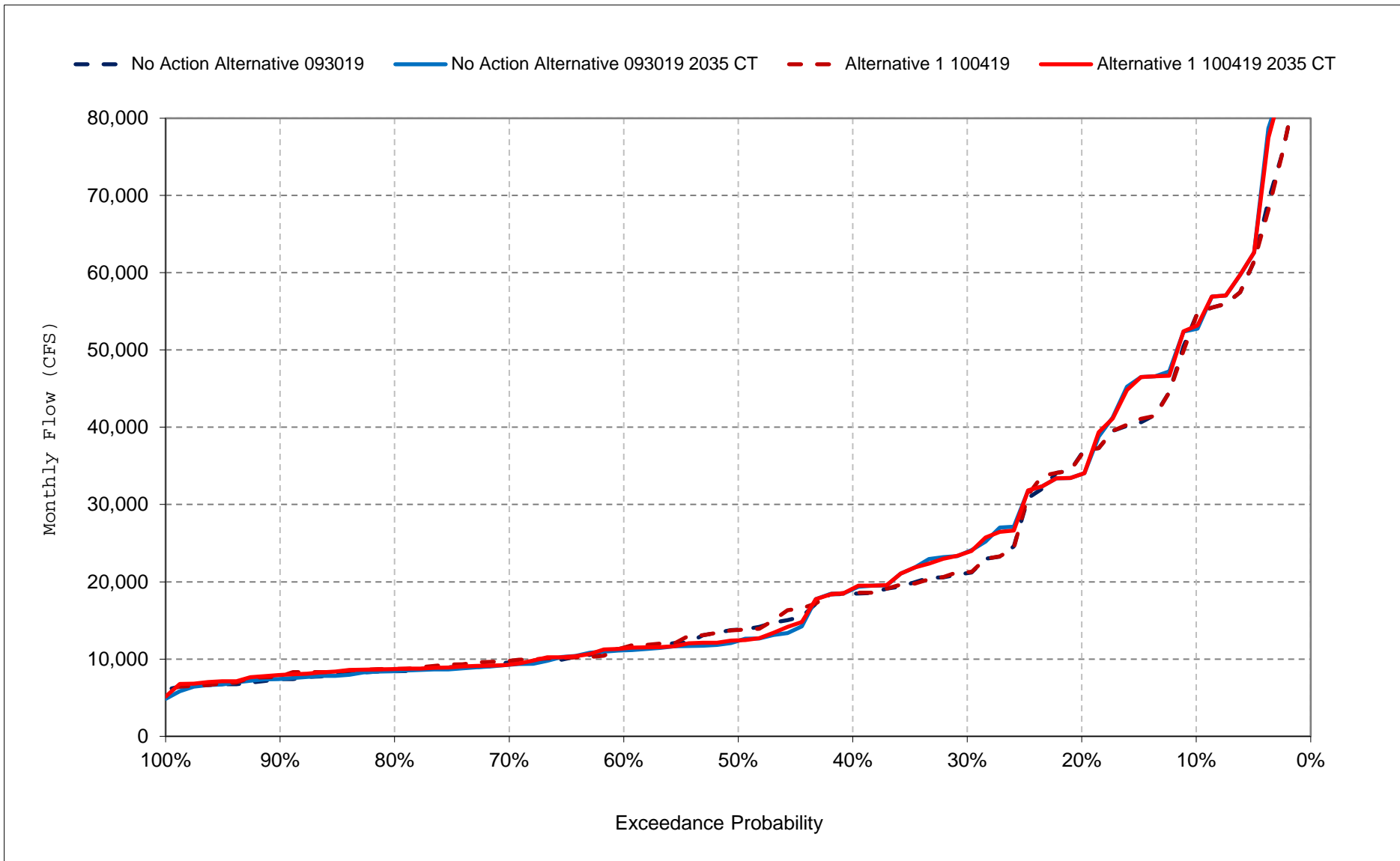
Figure 32-12. Sacramento River Flow at Rio Vista, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

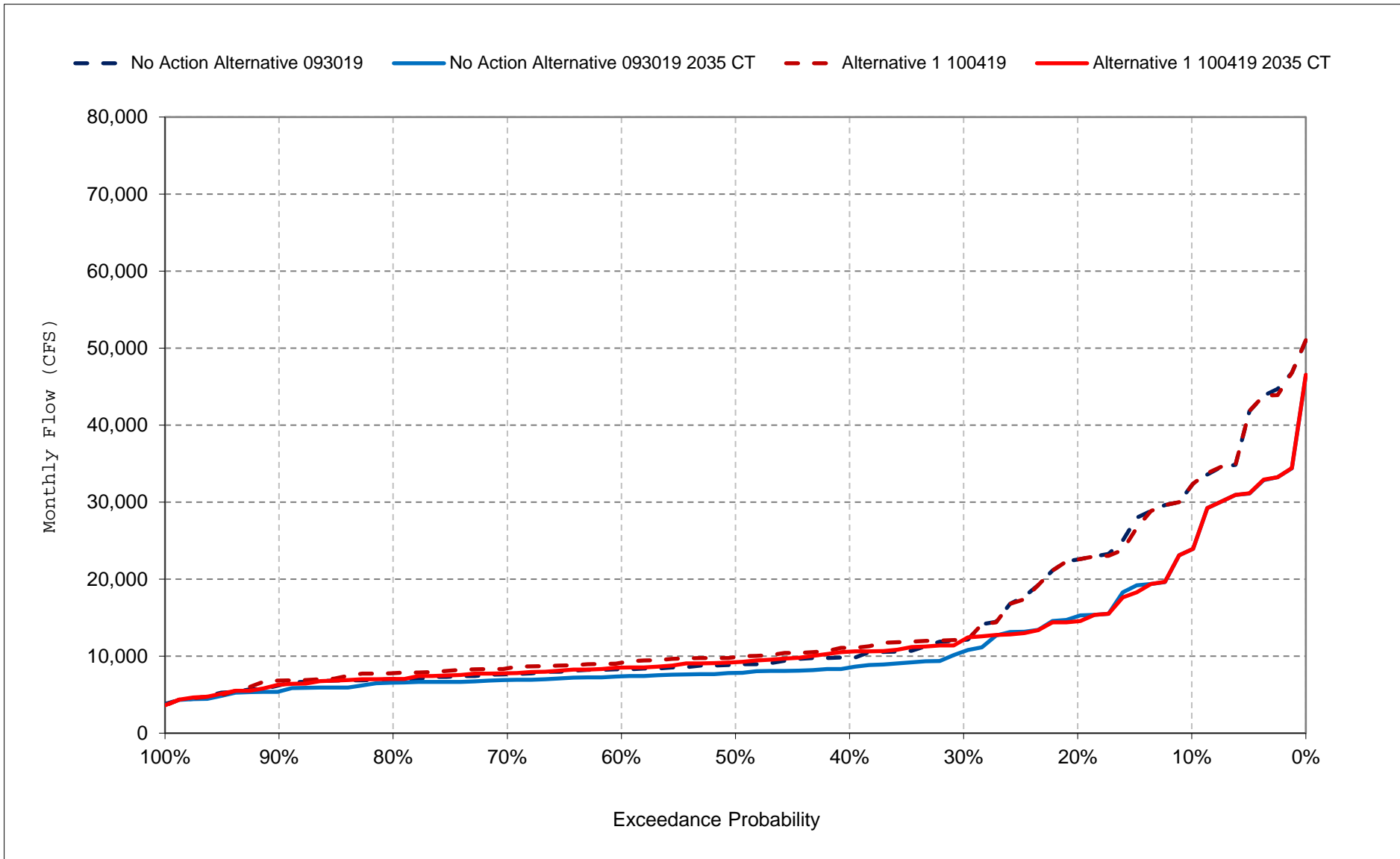
Figure 32-13. Sacramento River Flow at Rio Vista, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

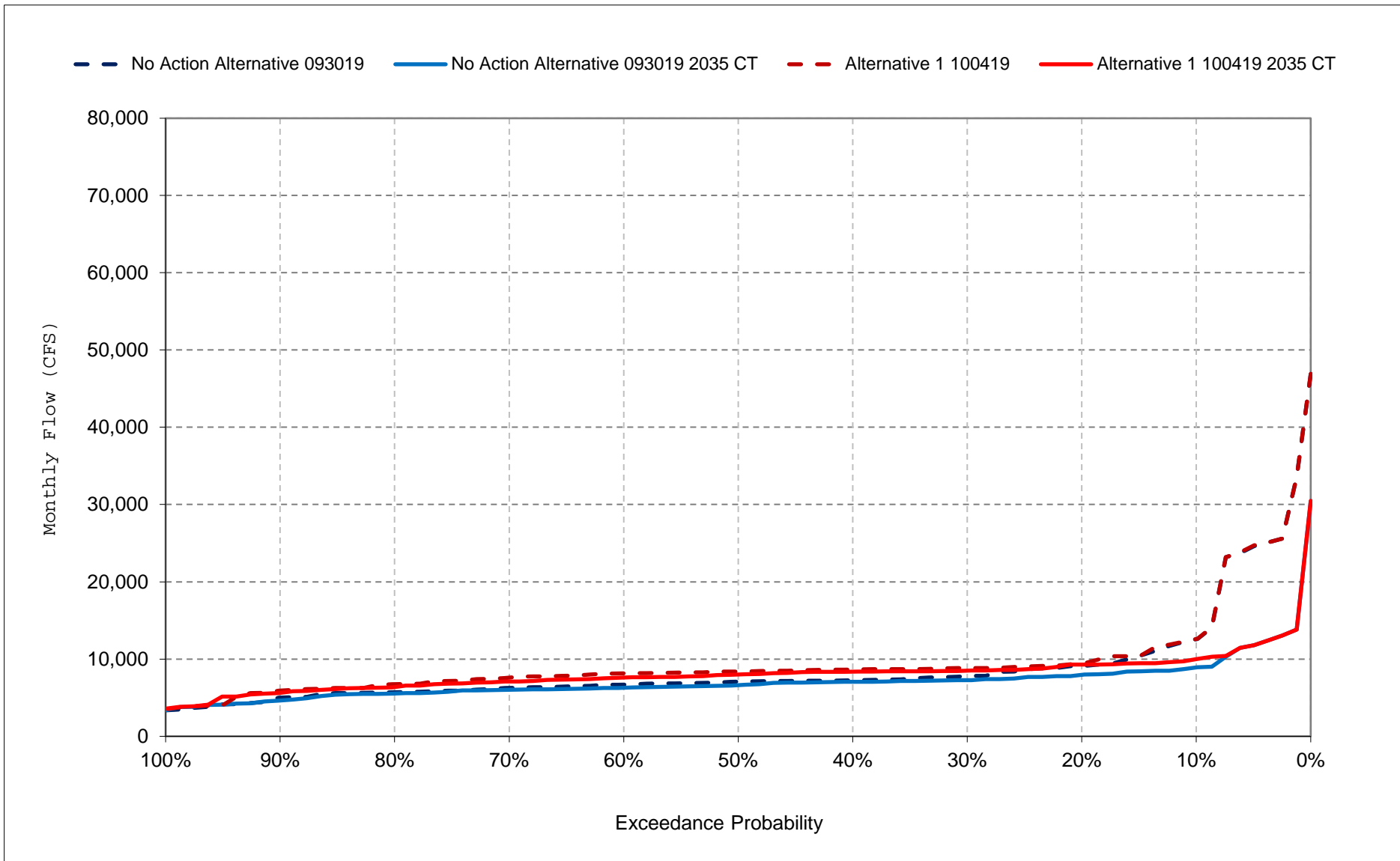
Figure 32-14. Sacramento River Flow at Rio Vista, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

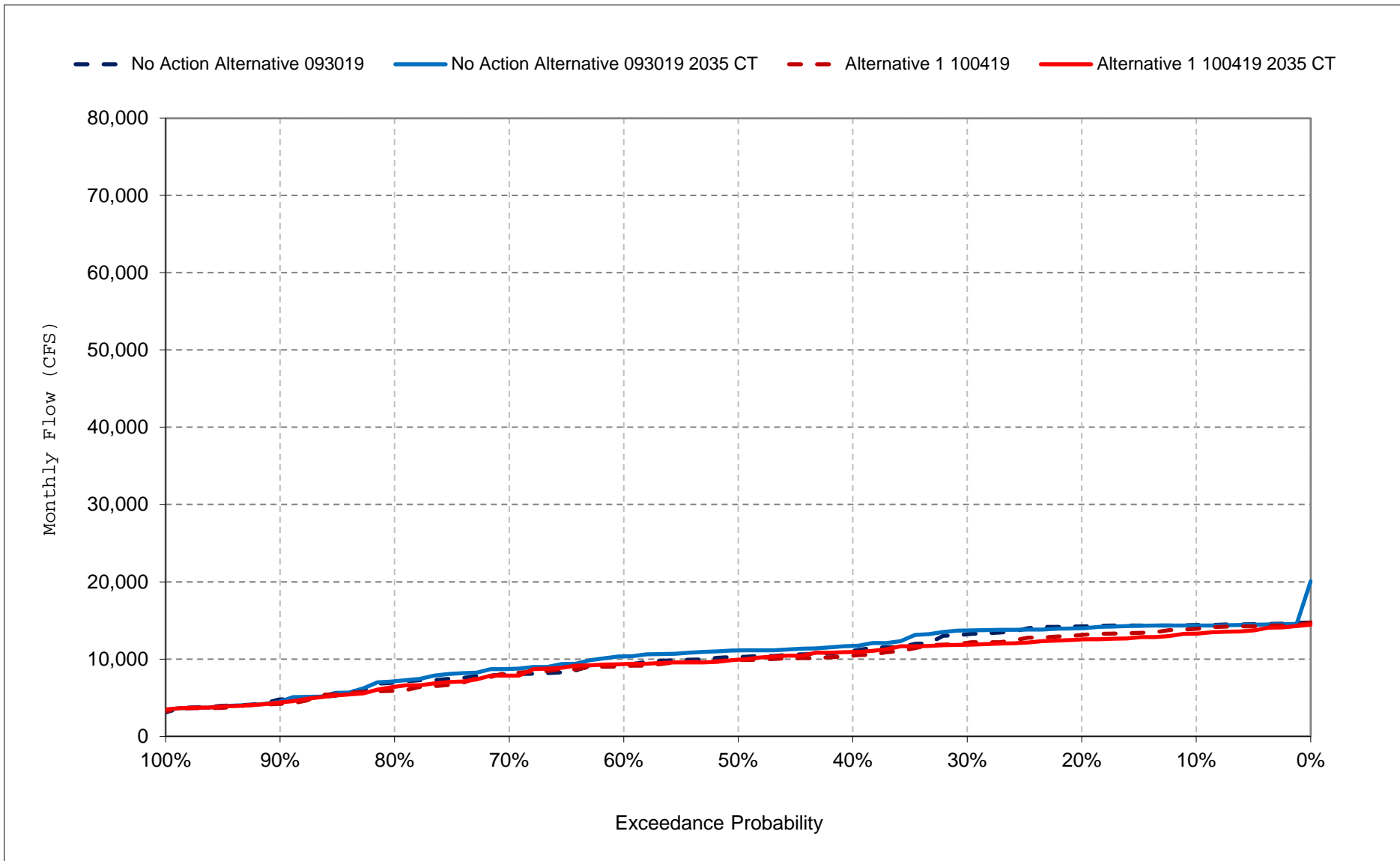
Figure 32-15. Sacramento River Flow at Rio Vista, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

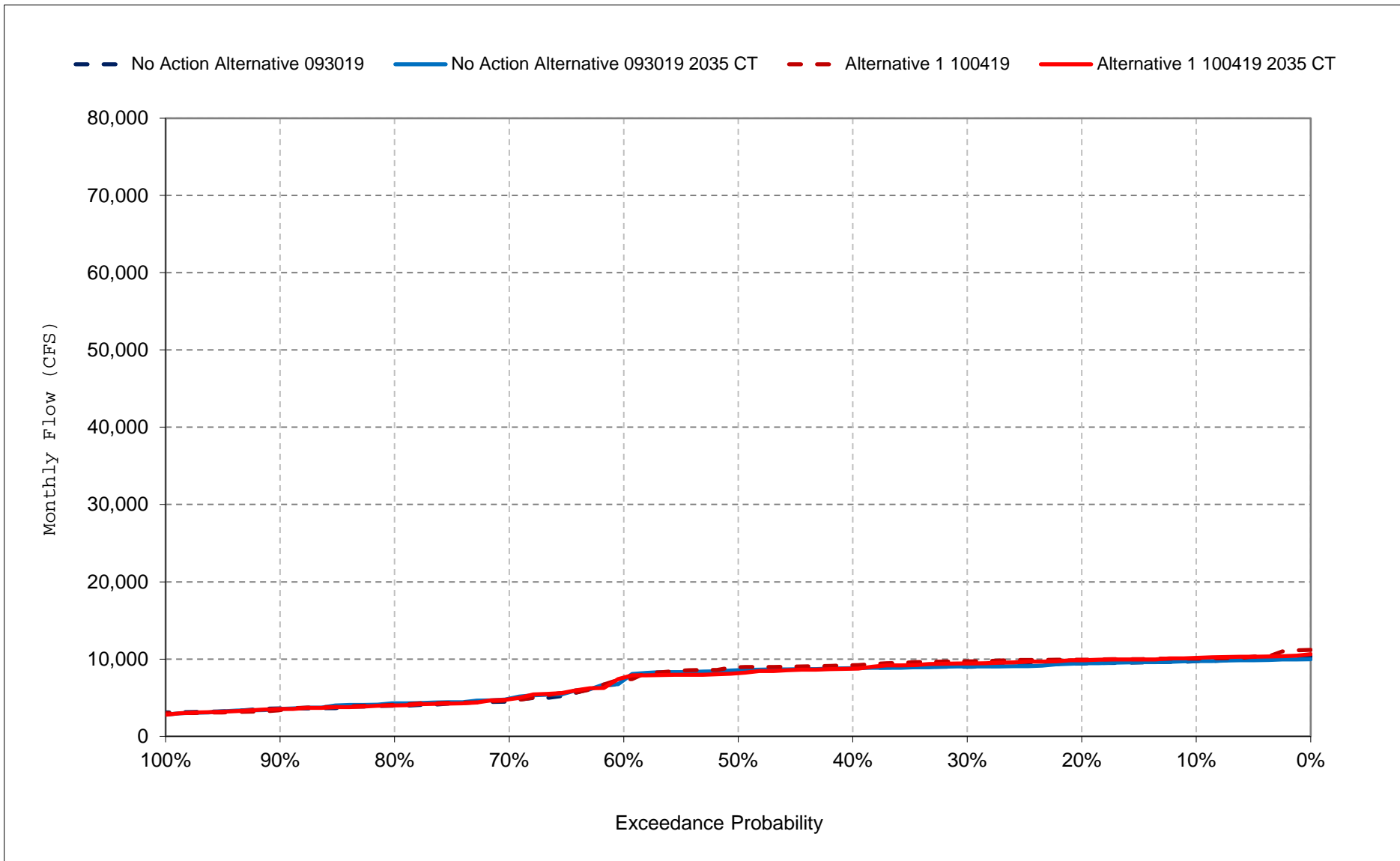
Figure 32-16. Sacramento River Flow at Rio Vista, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

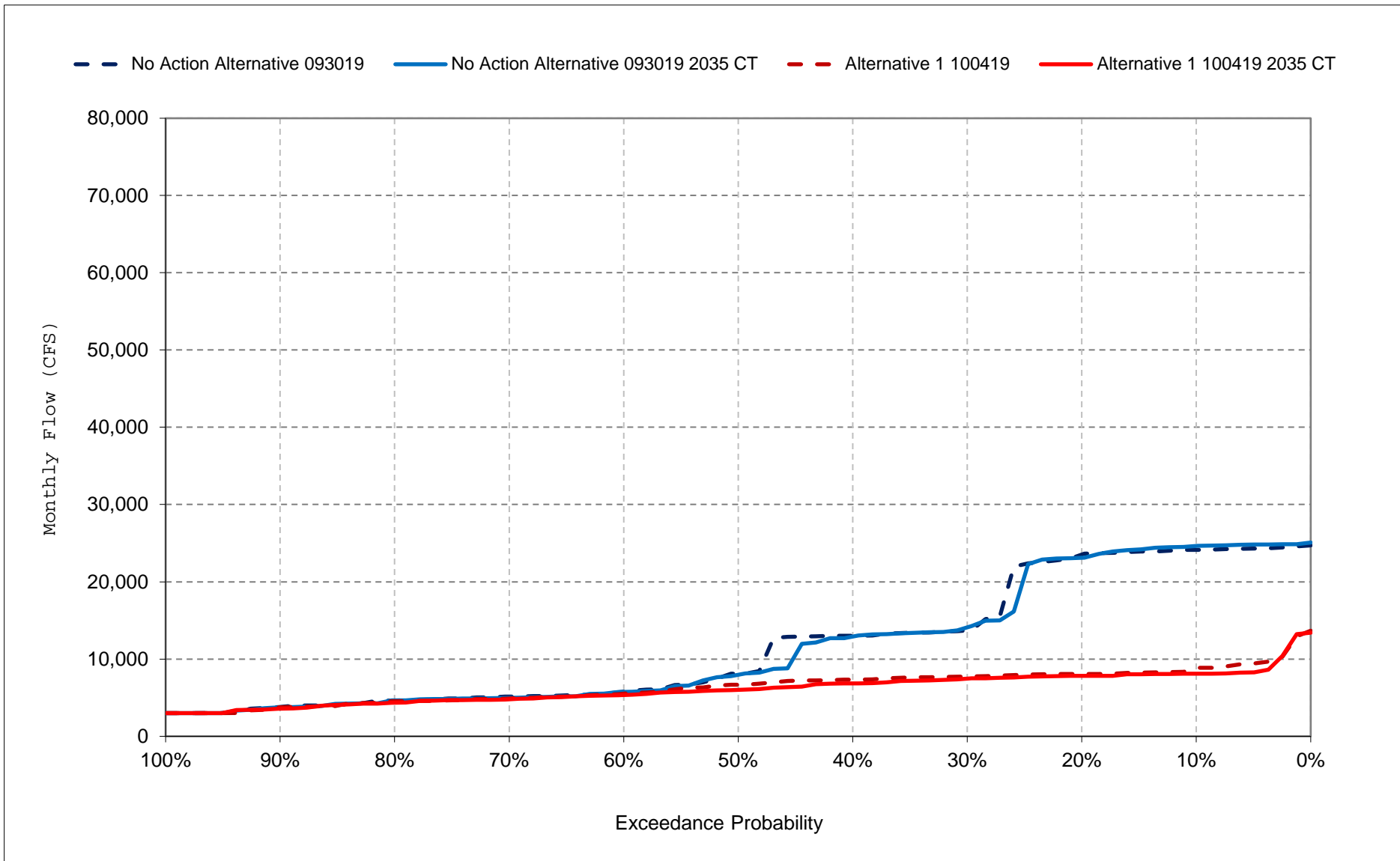
Figure 32-17. Sacramento River Flow at Rio Vista, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 32-18. Sacramento River Flow at Rio Vista, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-1. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 33-2. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,444	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,447	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	3	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-3. San Joaquin River Flow at Gravelly Ford, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,444	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,177	729	726	346	1,156	-412	0	0	0
20%	0	0	0	642	1,199	432	0	521	-60	0	0	0
30%	0	0	0	44	1,086	85	0	193	-70	0	0	0
40%	0	0	0	0	389	0	0	85	0	0	0	0
50%	0	0	0	0	60	0	0	0	0	0	0	0
60%	0	0	0	0	3	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	8	69	281	460	145	83	233	-36	-123	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	34	155	789	971	478	335	603	-67	-532	0	0
Above Normal (24%)	0	0	12	361	889	131	23	383	-85	0	0	0
Below Normal (10%)	0	0	0	95	173	0	0	0	0	0	0	0
Dry (16%)	0	0	79	4	6	0	0	0	0	0	0	0
Critical (27%)	0	0	67	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 33-4. San Joaquin River Flow at Gravelly Ford, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	728	2,696	2,726	4,098	3,406	2,892	121	121	140
20%	191	344	230	258	807	1,072	3,100	1,774	1,646	121	121	140
30%	191	344	230	251	355	925	3,100	497	320	121	121	140
40%	191	344	230	251	253	886	2,821	160	160	121	121	140
50%	191	344	230	251	253	886	1,858	160	160	121	121	140
60%	191	344	230	251	249	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	337	371	586	781	1,320	2,280	1,071	912	301	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	409	610	1,602	2,227	2,567	4,661	3,580	3,182	930	121	140
Above Normal (24%)	191	344	234	322	563	1,123	2,867	688	414	121	121	140
Below Normal (10%)	191	344	230	330	250	886	1,922	160	160	121	121	140
Dry (16%)	191	344	539	251	250	886	1,150	160	160	121	121	140
Critical (27%)	147	261	255	240	239	835	486	122	122	94	94	117

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	191	344	230	1,906	3,424	3,452	4,447	4,562	2,479	121	121	140
20%	191	344	230	900	2,006	1,503	3,100	2,295	1,586	121	121	140
30%	191	344	230	295	1,441	1,010	3,100	691	249	121	121	140
40%	191	344	230	251	642	886	2,821	244	160	121	121	140
50%	191	344	230	251	312	886	1,858	160	160	121	121	140
60%	191	344	230	251	253	886	1,393	160	160	121	121	140
70%	191	344	230	251	249	886	1,131	160	160	121	121	140
80%	191	344	230	251	249	886	668	160	160	121	121	140
90%	191	344	230	251	249	886	238	160	160	121	121	140
Long Term												
Full Simulation Period ^d	179	345	440	867	1,241	1,465	2,363	1,304	876	178	113	134
Water Year Types ^{b,c}												
Wet (23%)	191	442	765	2,391	3,198	3,044	4,995	4,183	3,115	399	121	140
Above Normal (24%)	191	344	246	683	1,452	1,254	2,890	1,071	329	121	121	140
Below Normal (10%)	191	344	230	425	424	886	1,922	160	160	121	121	140
Dry (16%)	191	344	618	255	256	886	1,150	160	160	121	121	140
Critical (27%)	147	261	322	240	239	846	486	122	122	94	94	117

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	1,177	729	726	349	1,156	-412	0	0	0
20%	0	0	0	642	1,199	432	0	521	-60	0	0	0
30%	0	0	0	44	1,086	85	0	193	-70	0	0	0
40%	0	0	0	0	389	0	0	85	0	0	0	0
50%	0	0	0	0	60	0	0	0	0	0	0	0
60%	0	0	0	0	3	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	8	69	281	460	145	83	233	-36	-123	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	34	155	789	971	478	335	603	-67	-532	0	0
Above Normal (24%)	0	0	12	361	889	131	23	383	-85	0	0	0
Below Normal (10%)	0	0	0	95	173	0	0	0	0	0	0	0
Dry (16%)	0	0	79	4	6	0	0	0	0	0	0	0
Critical (27%)	0	0	67	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

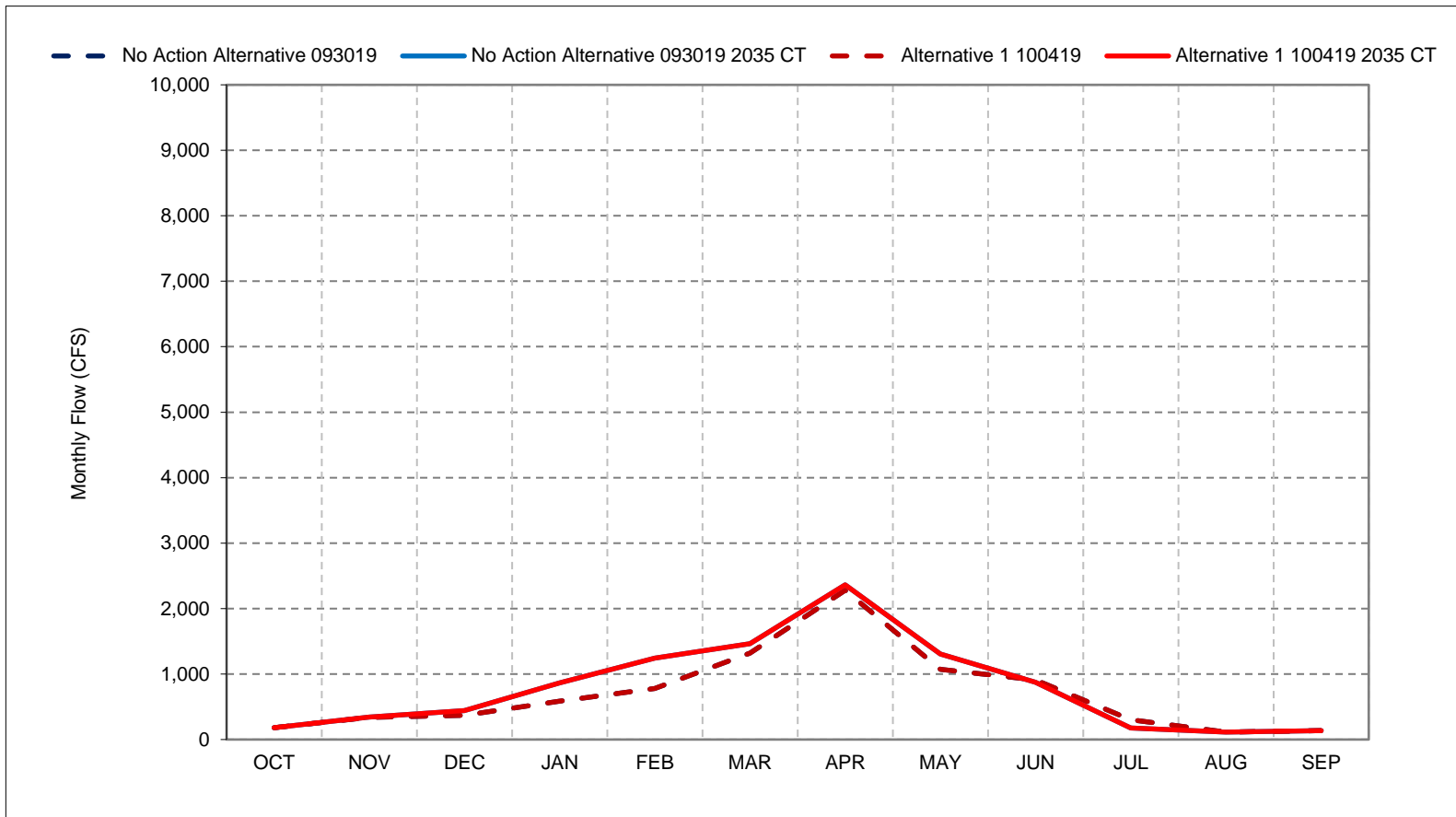
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 33-1. San Joaquin River Flow at Gravelly Ford, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

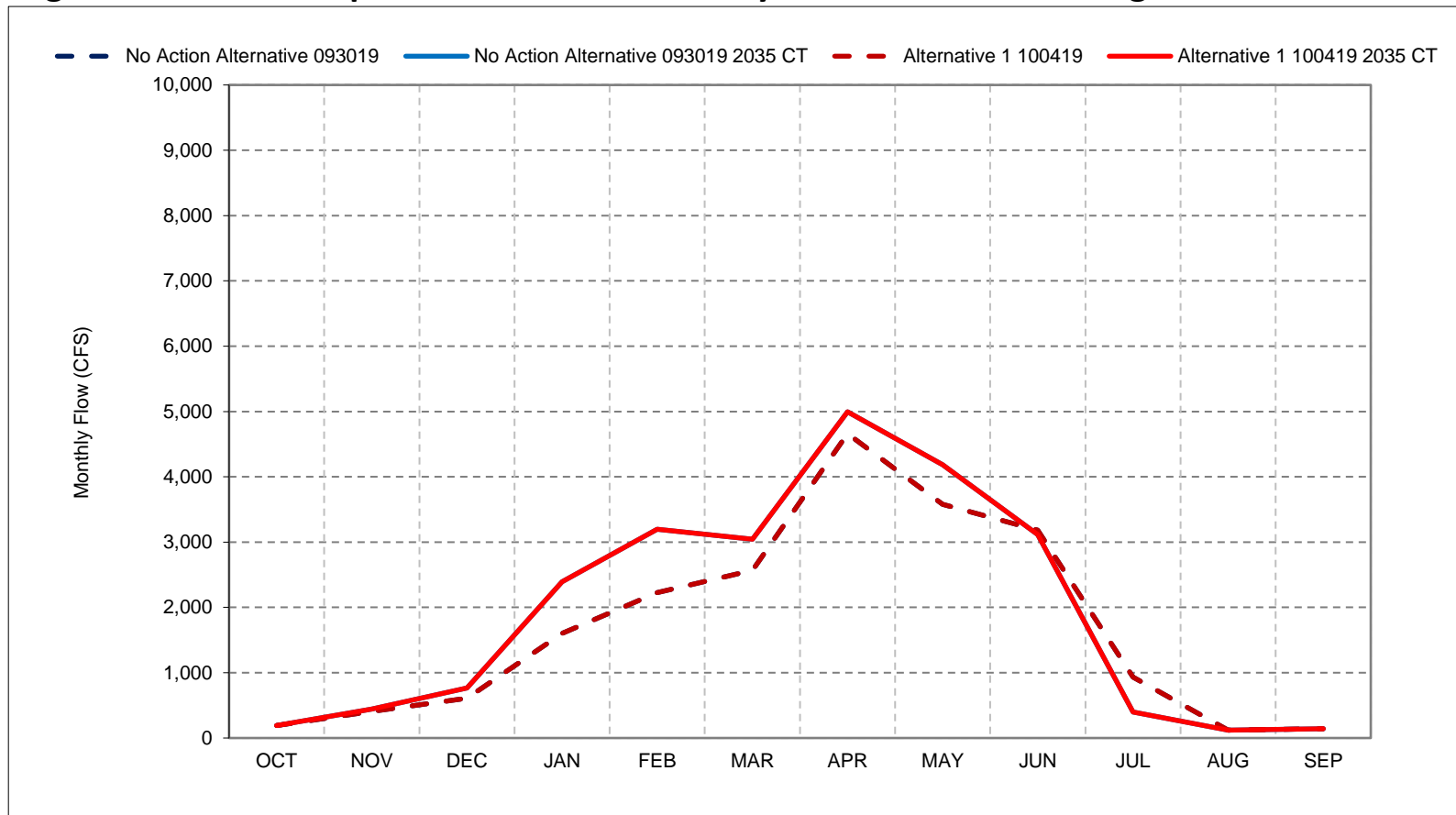
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-2. San Joaquin River Flow at Gravelly Ford, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

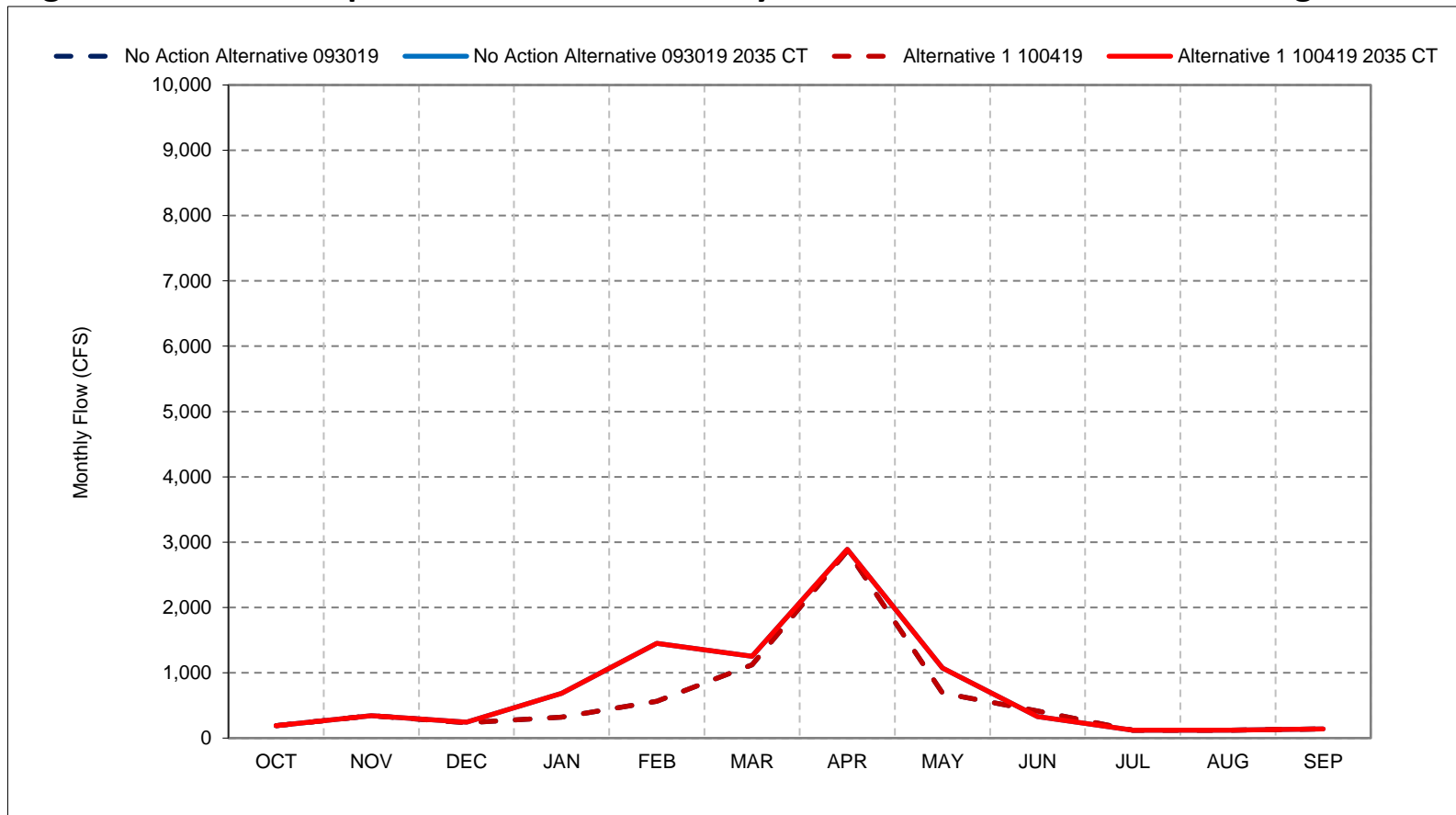
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-3. San Joaquin River Flow at Gravelly Ford, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

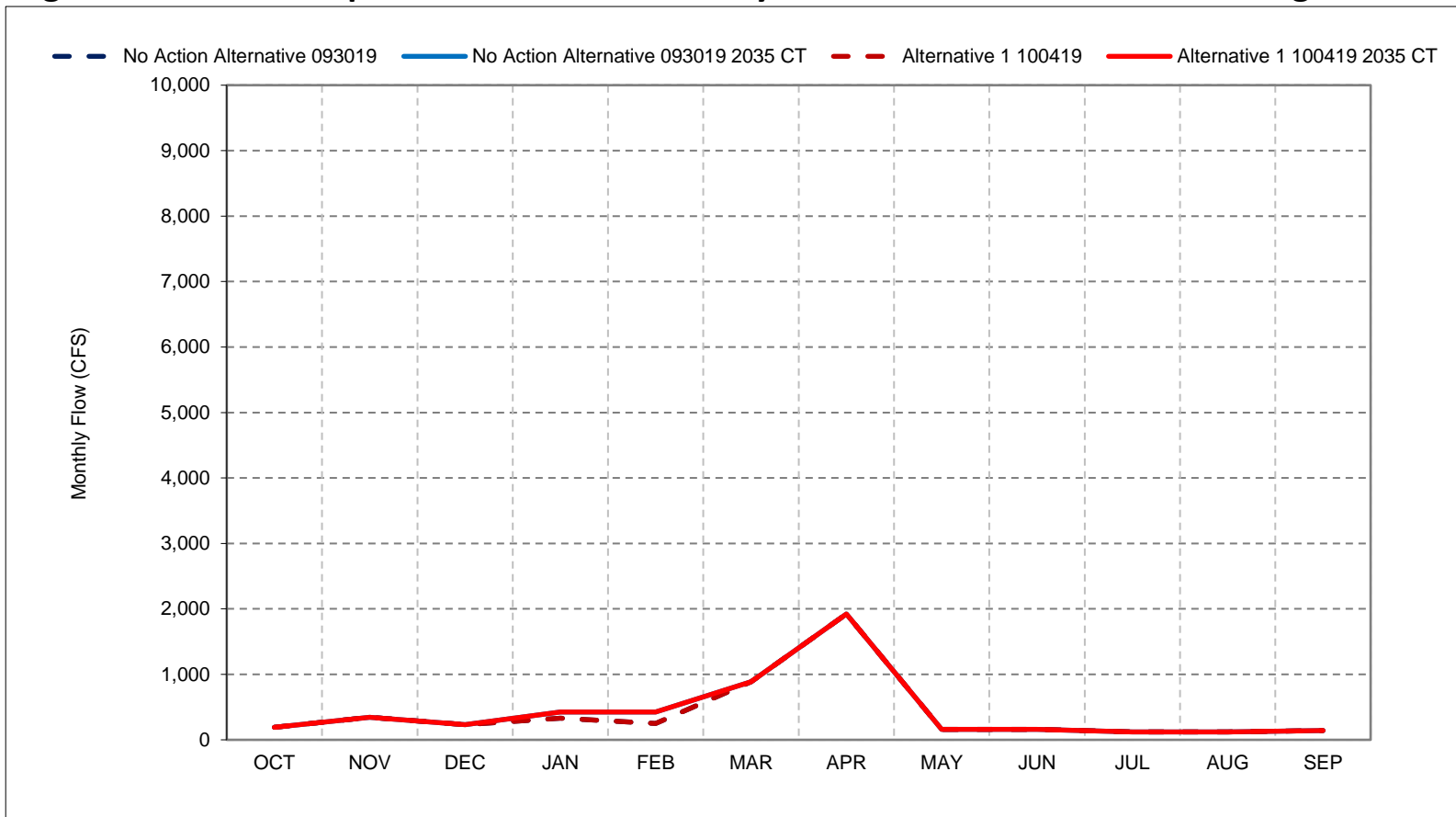
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-4. San Joaquin River Flow at Gravelly Ford, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

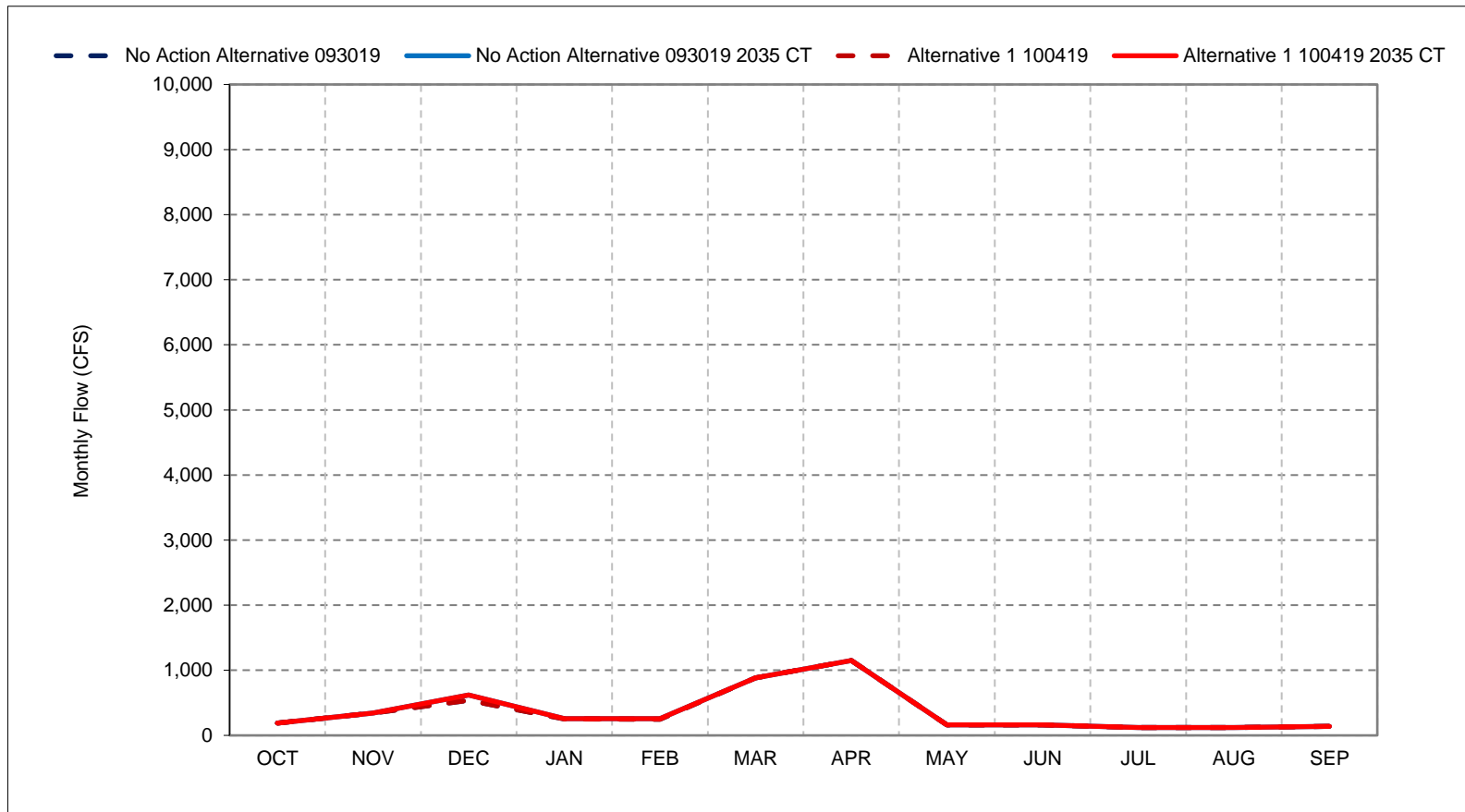
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-5. San Joaquin River Flow at Gravelly Ford, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

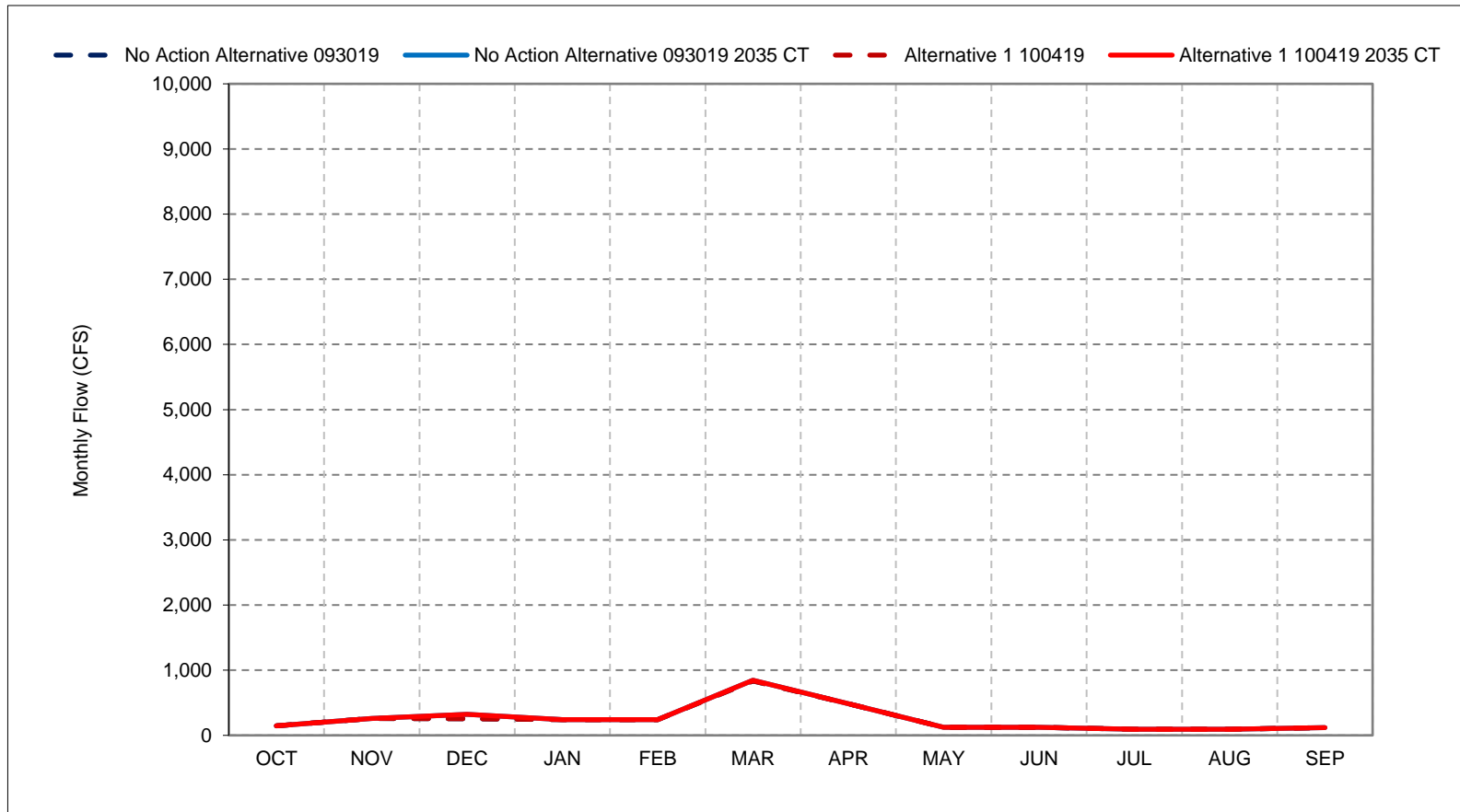
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 33-6. San Joaquin River Flow at Gravelly Ford, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

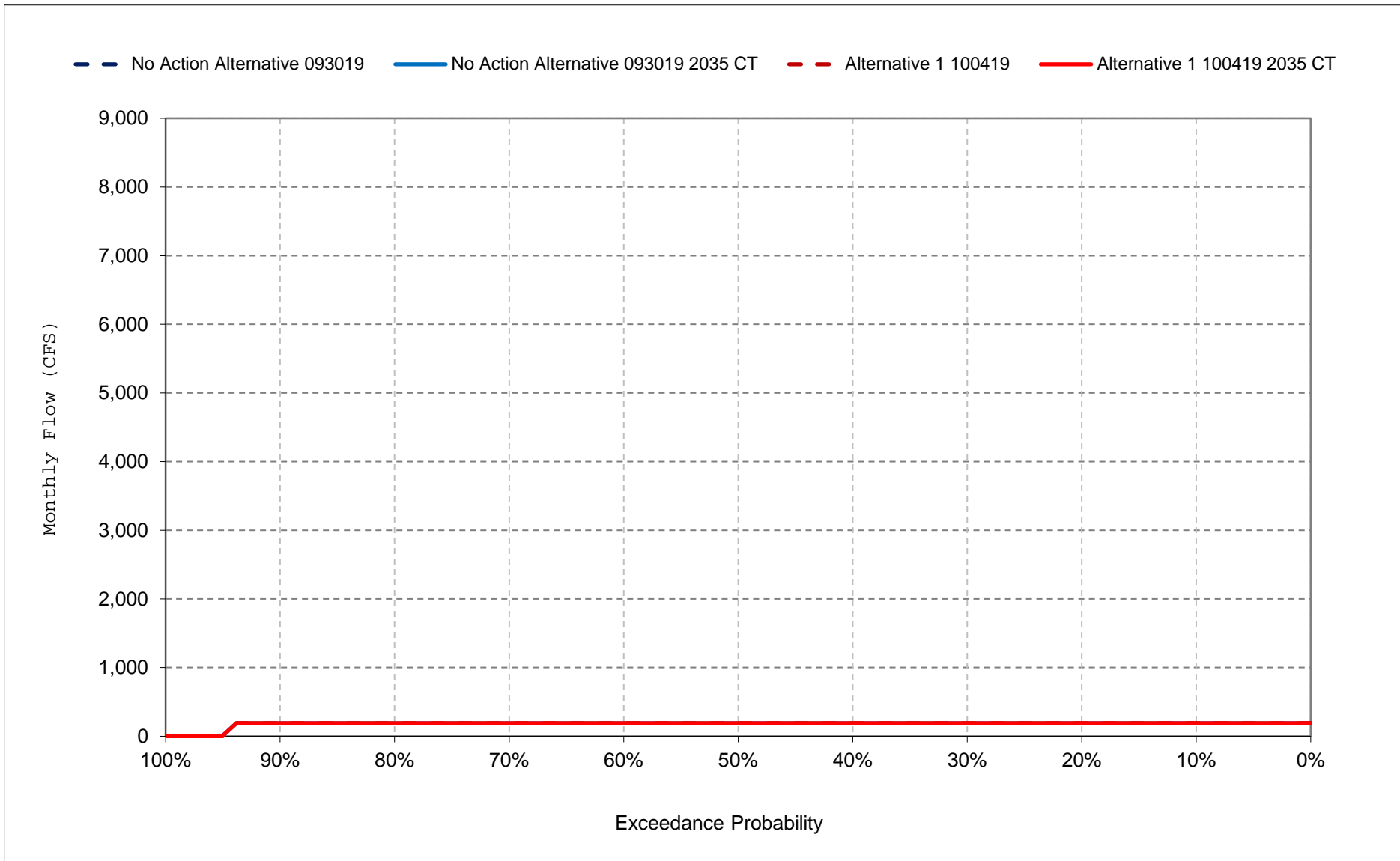
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

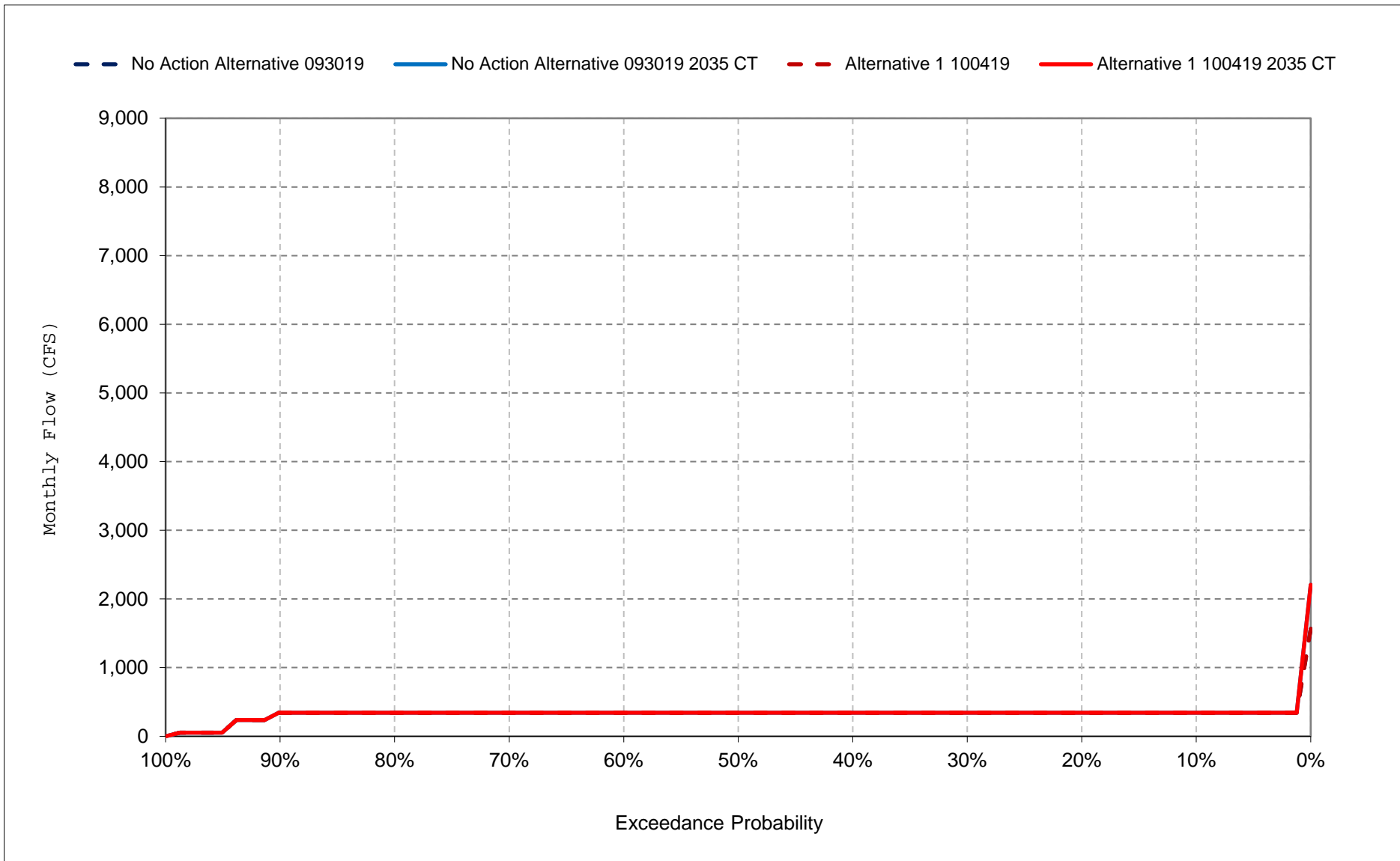
Figure 33-7. San Joaquin River Flow at Gravelly Ford, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

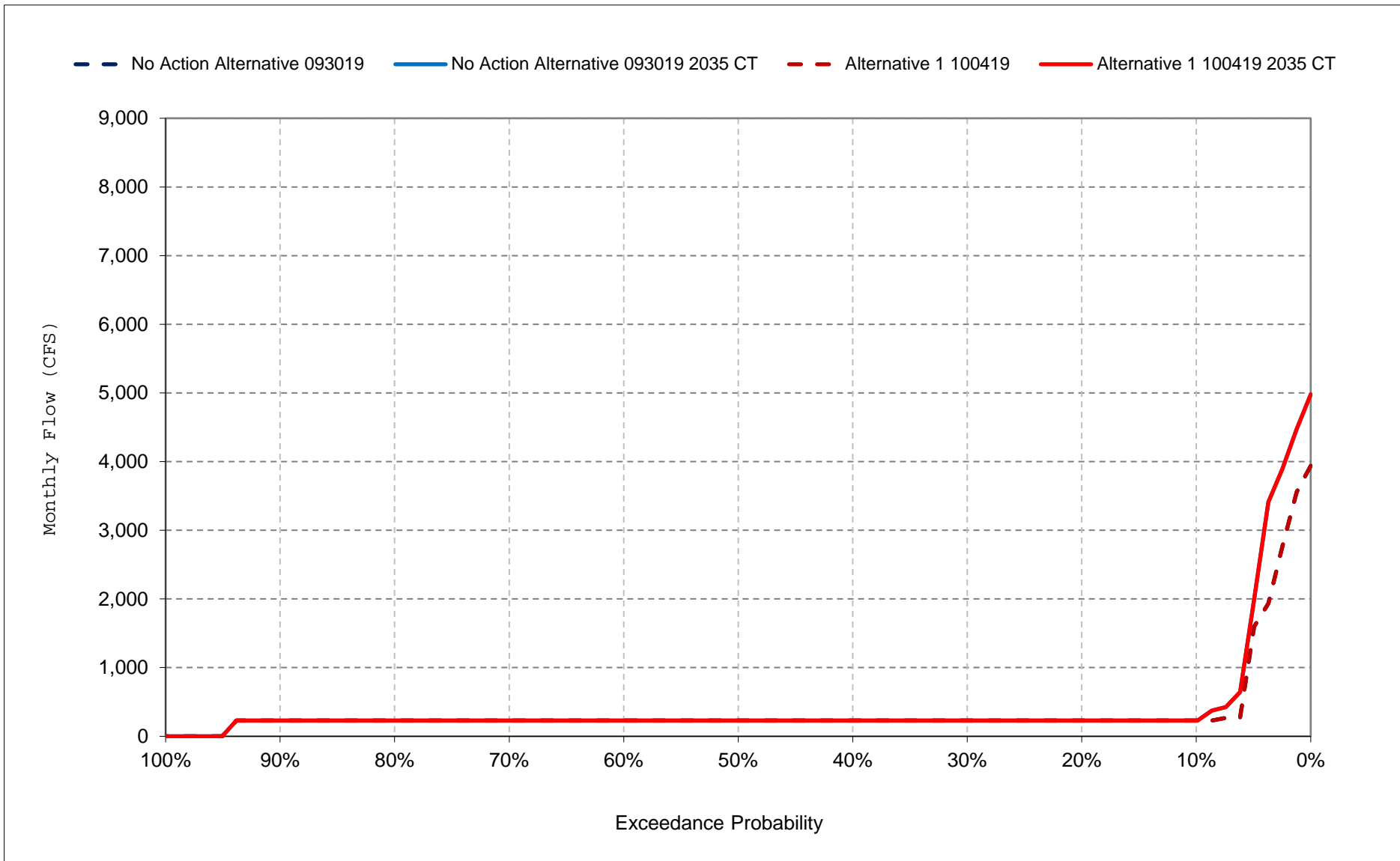
Figure 33-8. San Joaquin River Flow at Gravelly Ford, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

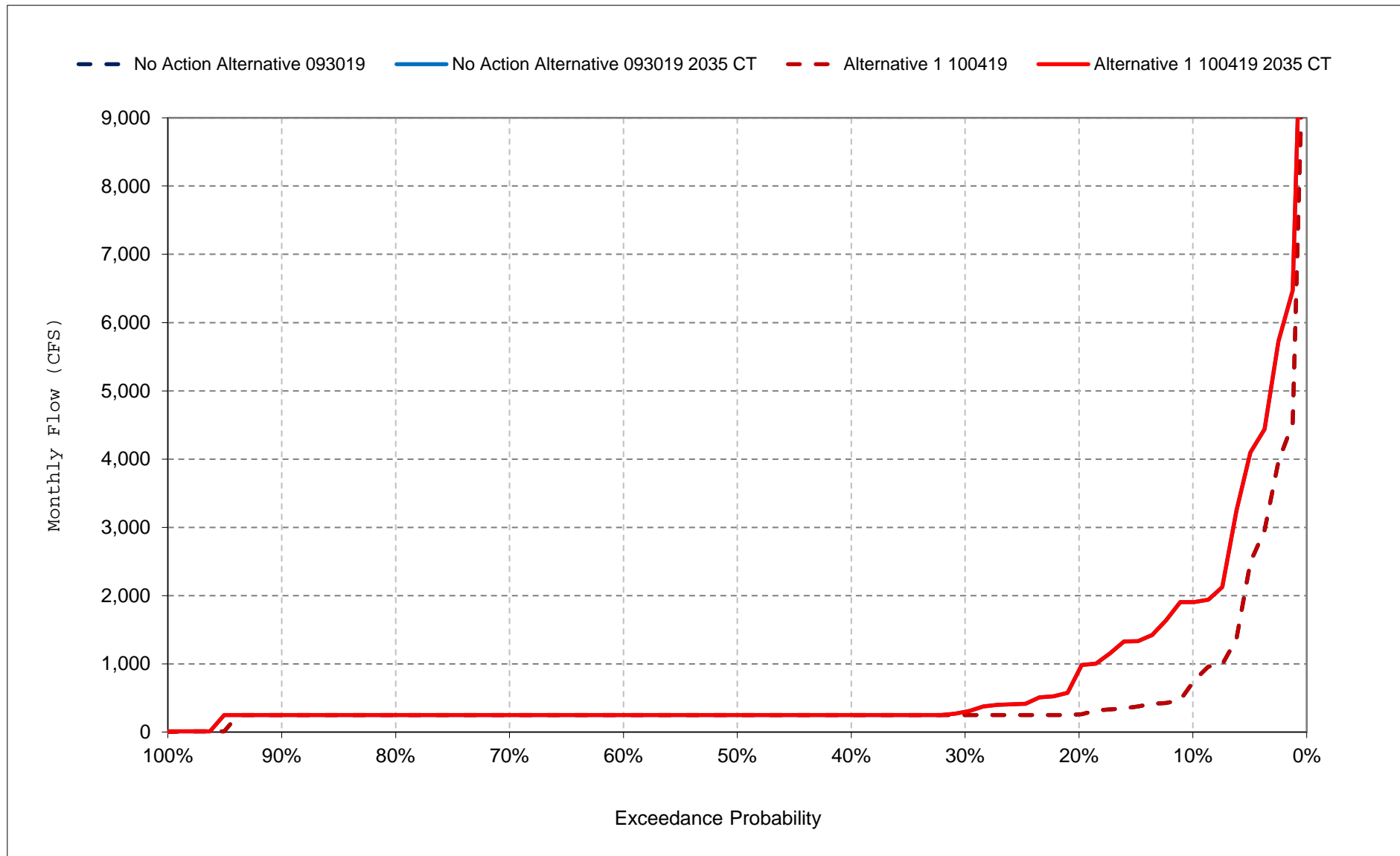
Figure 33-9. San Joaquin River Flow at Gravelly Ford, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

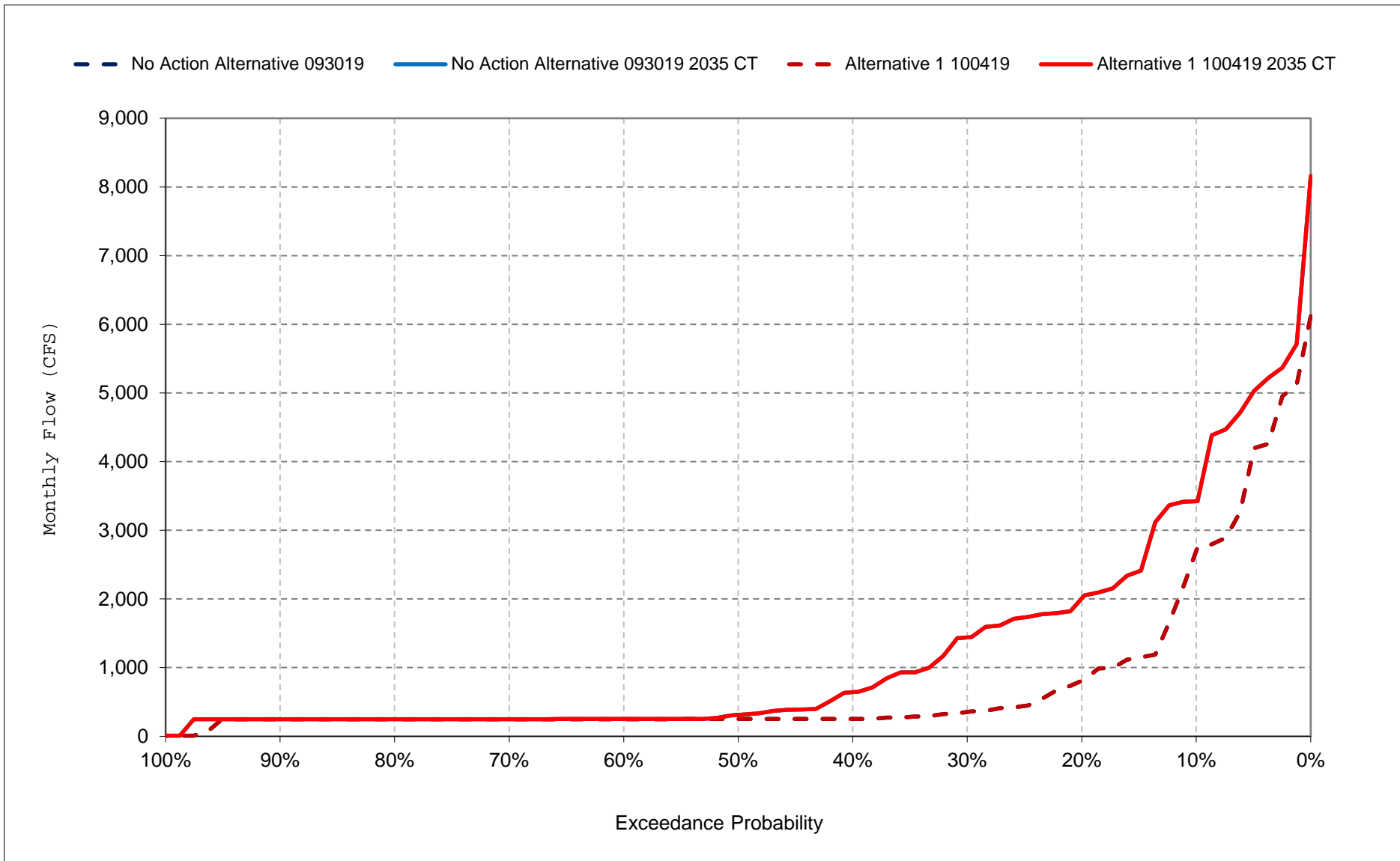
Figure 33-10. San Joaquin River Flow at Gravelly Ford, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

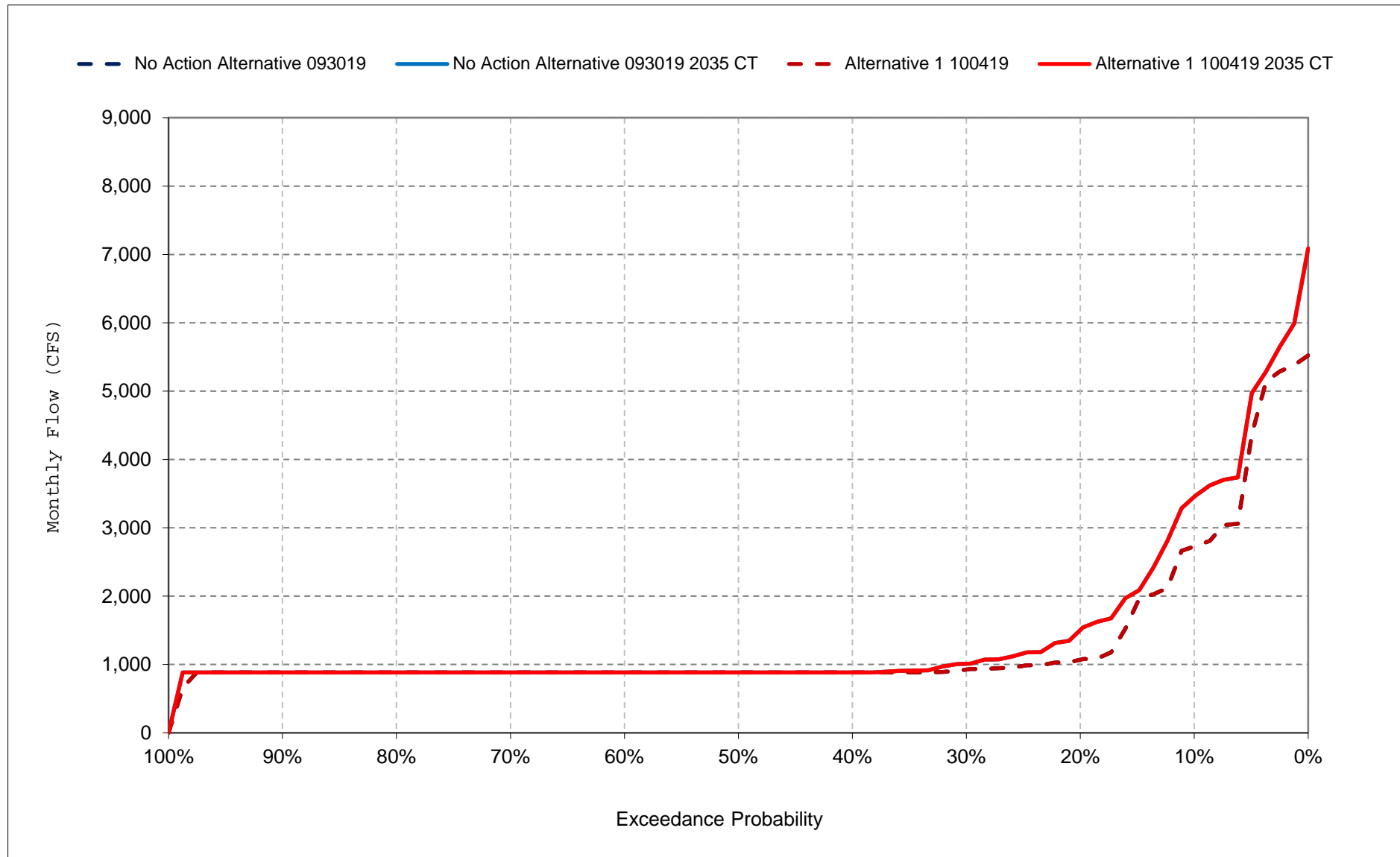
Figure 33-11. San Joaquin River Flow at Gravelly Ford, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

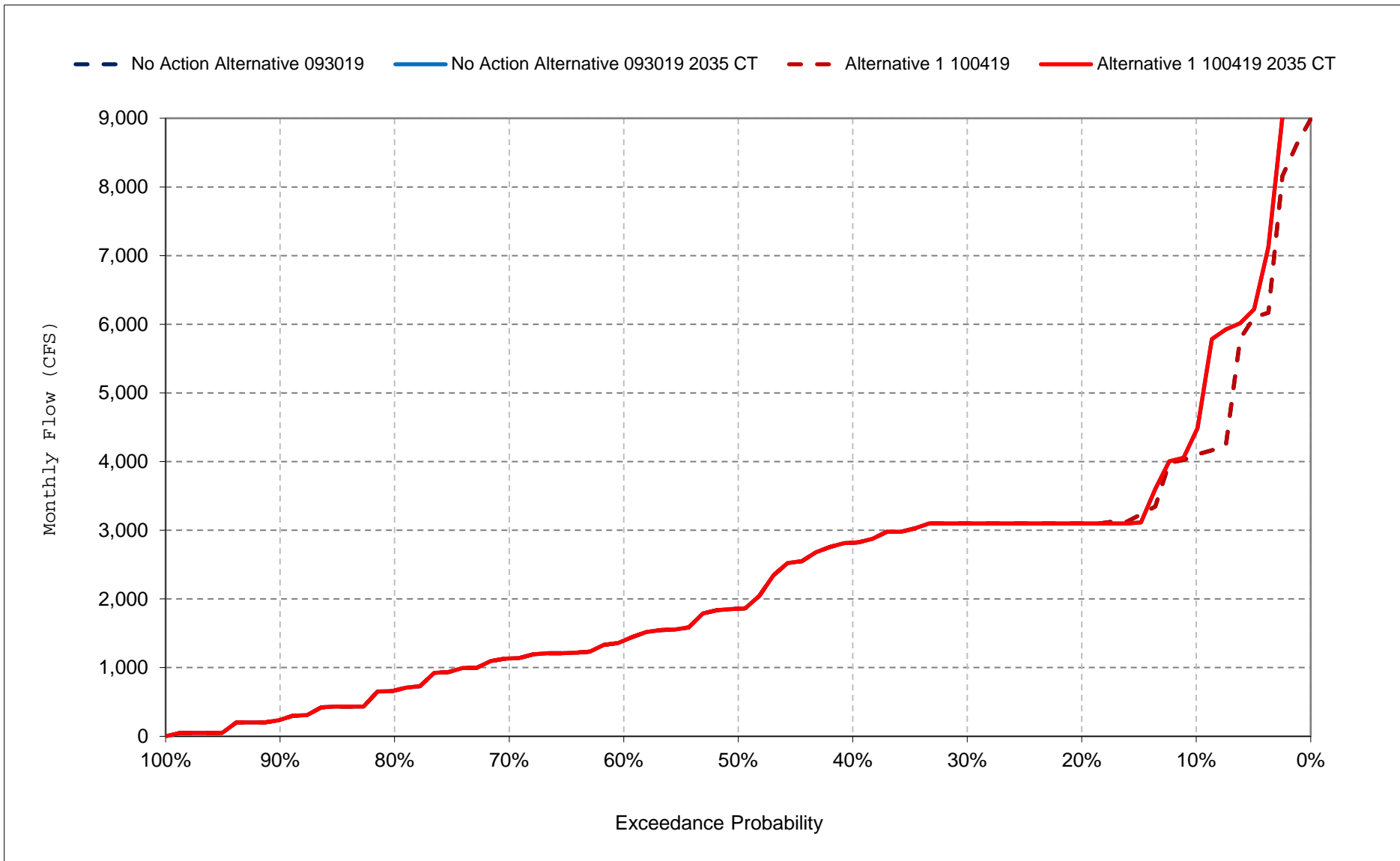
Figure 33-12. San Joaquin River Flow at Gravelly Ford, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

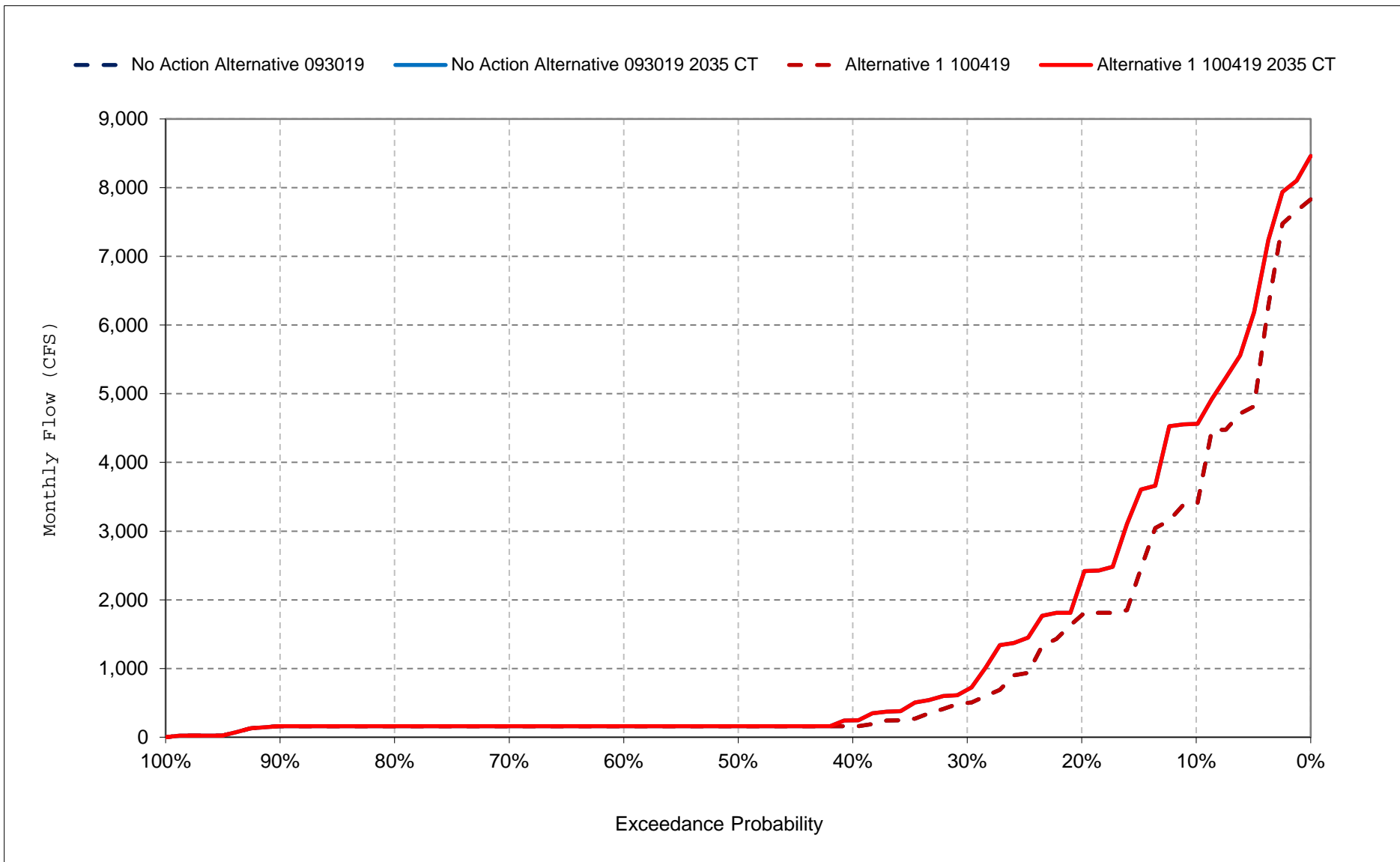
Figure 33-13. San Joaquin River Flow at Gravelly Ford, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

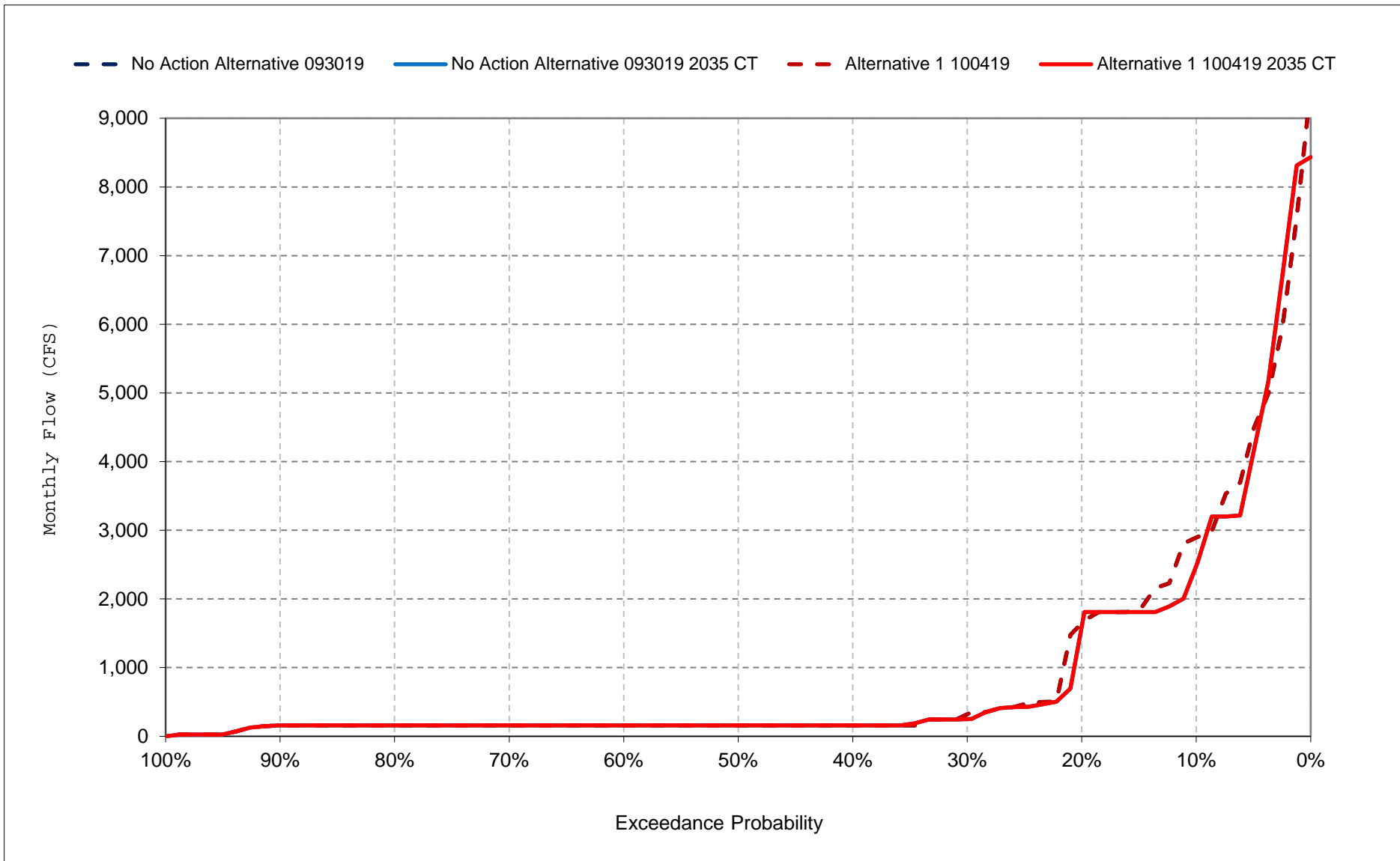
Figure 33-14. San Joaquin River Flow at Gravelly Ford, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

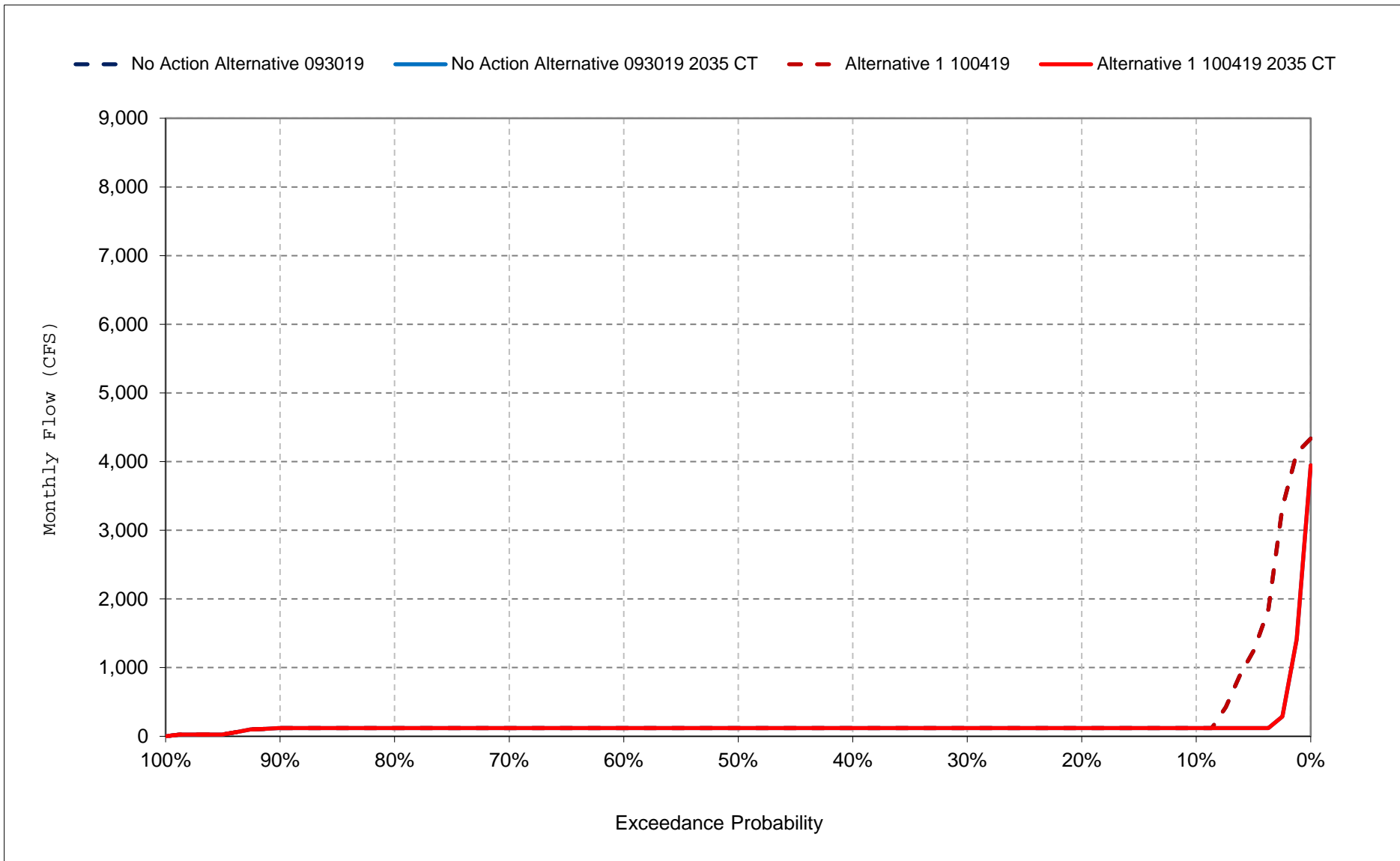
Figure 33-15. San Joaquin River Flow at Gravelly Ford, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

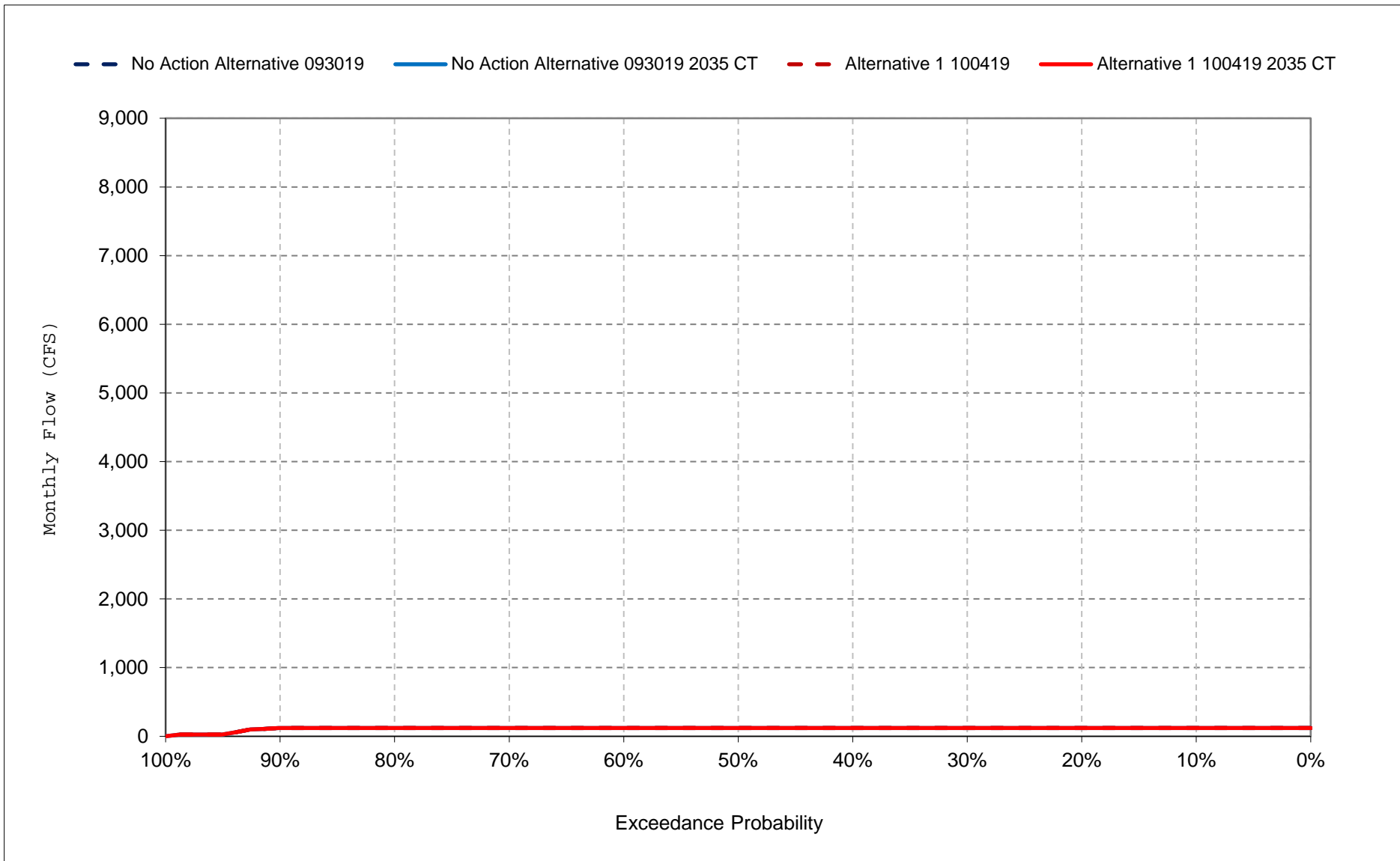
Figure 33-16. San Joaquin River Flow at Gravelly Ford, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

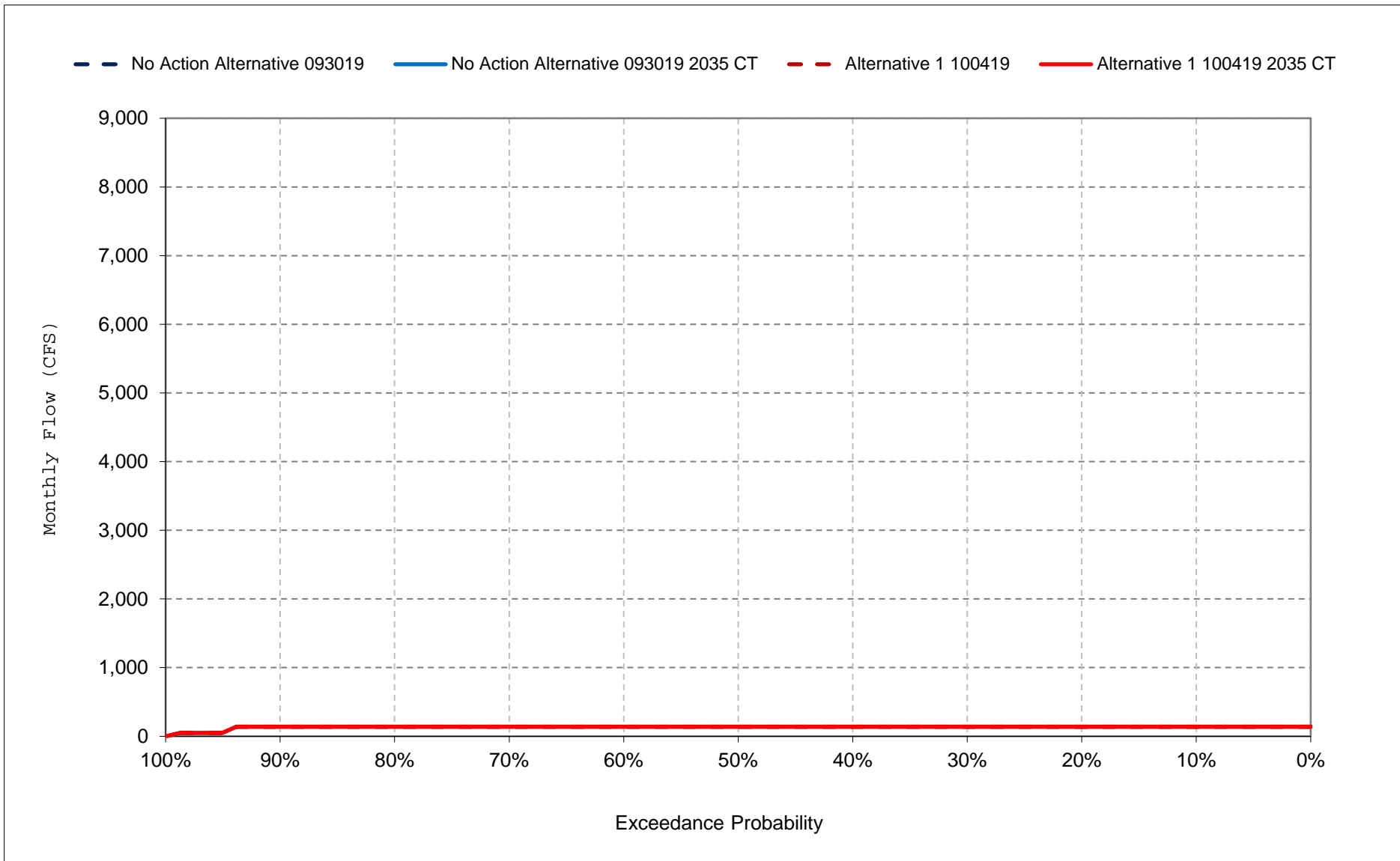
Figure 33-17. San Joaquin River Flow at Gravelly Ford, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 33-18. San Joaquin River Flow at Gravelly Ford, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-1. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,034	1,171	1,492	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	378	747	2,850	1,432	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	456	493	1,041	2,074	806	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,262	1,519	1,987	4,330	3,075	2,204	231	20	38
Above Normal (24%)	86	232	167	302	293	826	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,033	1,188	1,489	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	377	747	2,850	1,430	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	455	493	1,041	2,073	805	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,261	1,517	1,985	4,328	3,073	2,203	230	20	38
Above Normal (24%)	86	232	167	302	293	825	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	17	-3	0	-1	0	0	0	0
20%	0	0	0	0	-1	0	0	-2	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	-1	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	-1	-1	-2	-2	-2	-1	-1	0	0
Above Normal (24%)	0	0	0	0	-1	0	0	0	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 34-2. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,806	1,352	1,560	3,772	4,035	1,625	20	20	38
20%	86	232	123	717	1,002	747	2,850	1,521	457	20	20	38
30%	86	232	123	143	927	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	649	1,066	2,080	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,598	1,752	2,080	4,348	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	527	690	826	2,639	304	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	271	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,802	1,353	1,554	3,769	4,034	1,625	20	20	38
20%	86	232	123	714	1,001	747	2,850	1,520	457	20	20	38
30%	86	232	123	143	932	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	648	1,065	2,079	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,597	1,751	2,078	4,346	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	526	686	825	2,638	303	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	272	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-3	1	-6	-3	-1	0	0	0	0
20%	0	0	0	-3	-1	0	0	-1	0	0	0	0
30%	0	0	0	0	5	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	-1	-1	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (23%)	0	0	0	0	-1	-2	-2	-1	0	0	0	0
Above Normal (24%)	0	0	0	0	-4	0	0	-1	0	0	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-3. San Joaquin River Flow below Sack Dam, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,034	1,171	1,492	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	378	747	2,850	1,432	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	456	493	1,041	2,074	806	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,262	1,519	1,987	4,330	3,075	2,204	231	20	38
Above Normal (24%)	86	232	167	302	293	826	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,806	1,352	1,560	3,772	4,035	1,625	20	20	38
20%	86	232	123	717	1,002	747	2,850	1,521	457	20	20	38
30%	86	232	123	143	927	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	649	1,066	2,080	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,598	1,752	2,080	4,348	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	527	690	826	2,639	304	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	271	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	772	181	69	-31	79	-81	0	0	0
20%	0	0	0	574	624	0	0	89	0	0	0	0
30%	0	0	0	0	782	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	3	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	3	4	137	156	24	6	22	-3	-25	0	0
Water Year Types^{b,c}												
Wet (23%)	0	13	5	336	234	93	18	71	-11	-109	0	0
Above Normal (24%)	0	0	5	225	397	0	8	24	0	0	0	0
Below Normal (10%)	0	0	0	42	52	0	0	0	0	0	0	0
Dry (16%)	0	0	12	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 34-4. San Joaquin River Flow below Sack Dam, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,033	1,188	1,489	3,803	3,955	1,706	20	20	38
20%	86	232	123	143	377	747	2,850	1,430	457	20	20	38
30%	86	232	123	143	145	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	142	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	263	274	455	493	1,041	2,073	805	584	67	18	36
Water Year Types^{b,c}												
Wet (23%)	110	442	610	1,261	1,517	1,985	4,328	3,073	2,203	230	20	38
Above Normal (24%)	86	232	167	302	293	825	2,631	280	199	20	20	38
Below Normal (10%)	86	232	123	310	107	747	1,731	57	57	20	20	38
Dry (16%)	86	232	260	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	703	380	39	40	13	13	29

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	86	232	123	1,802	1,353	1,554	3,769	4,034	1,625	20	20	38
20%	86	232	123	714	1,001	747	2,850	1,520	457	20	20	38
30%	86	232	123	143	932	747	2,850	137	138	20	20	38
40%	86	232	123	143	145	747	2,585	57	57	20	20	38
50%	86	232	123	143	145	747	1,670	57	57	20	20	38
60%	86	232	123	143	142	747	1,228	57	57	20	20	38
70%	86	232	123	143	142	747	980	57	57	20	20	38
80%	86	232	123	143	142	747	539	57	57	20	20	38
90%	86	232	123	143	142	747	131	57	57	20	20	38
Long Term												
Full Simulation Period ^d	86	266	278	592	648	1,065	2,079	828	582	42	18	36
Water Year Types^{b,c}												
Wet (23%)	110	455	615	1,597	1,751	2,078	4,346	3,145	2,193	122	20	38
Above Normal (24%)	86	232	172	526	686	825	2,638	303	199	20	20	38
Below Normal (10%)	86	232	123	353	158	747	1,731	57	57	20	20	38
Dry (16%)	86	232	272	143	142	747	998	57	57	20	20	38
Critical (27%)	67	165	147	137	136	713	380	39	40	13	13	29

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	769	164	66	-34	80	-81	0	0	0
20%	0	0	0	571	624	0	0	90	0	0	0	0
30%	0	0	0	0	787	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	3	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	3	4	137	155	24	6	22	-2	-25	0	0
Water Year Types^{b,c}												
Wet (23%)	0	13	5	336	234	93	18	72	-10	-108	0	0
Above Normal (24%)	0	0	5	225	393	0	8	24	0	0	0	0
Below Normal (10%)	0	0	0	42	52	0	0	0	0	0	0	0
Dry (16%)	0	0	12	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	10	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

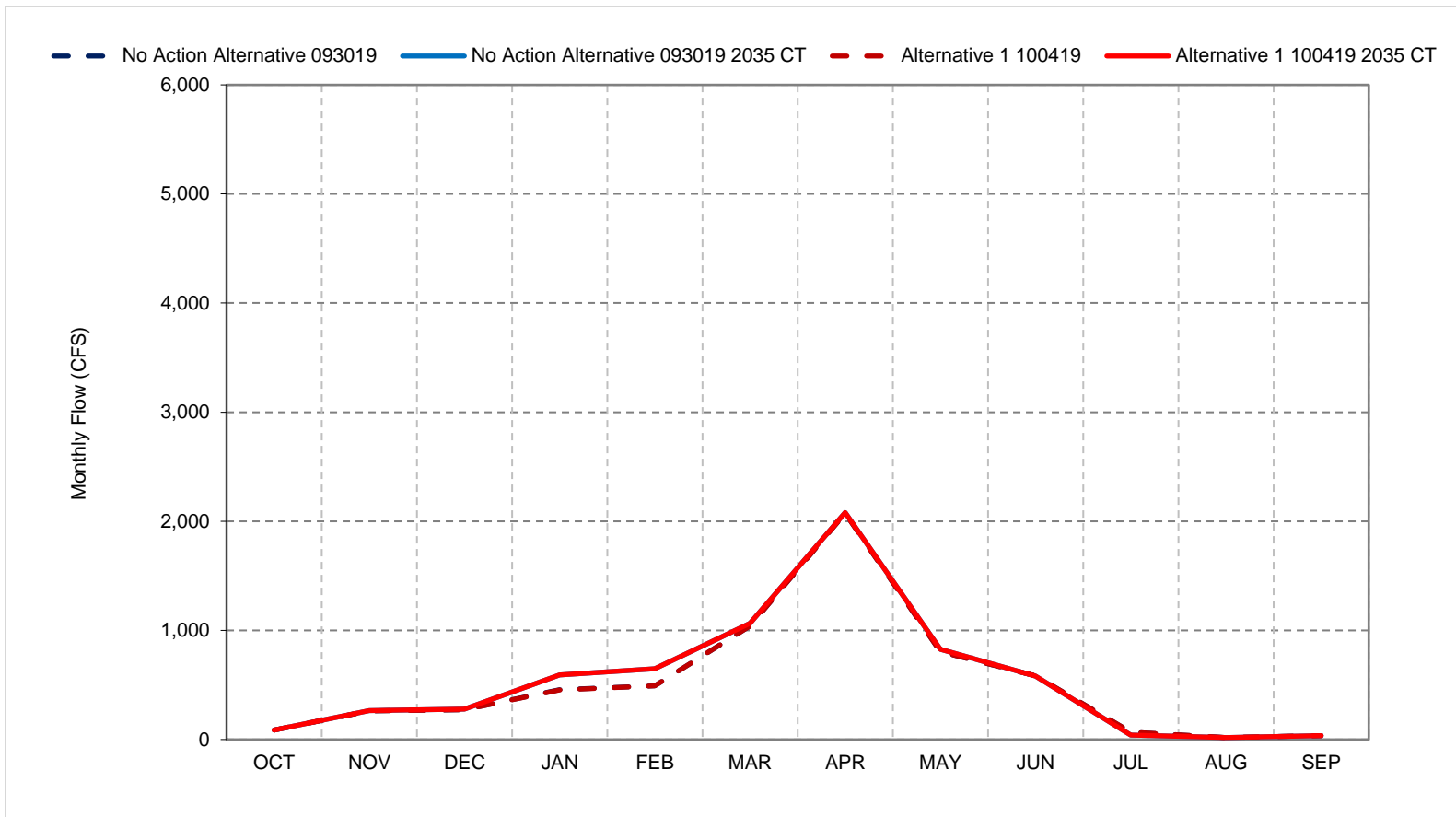
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 34-1. San Joaquin River Flow below Sack Dam, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

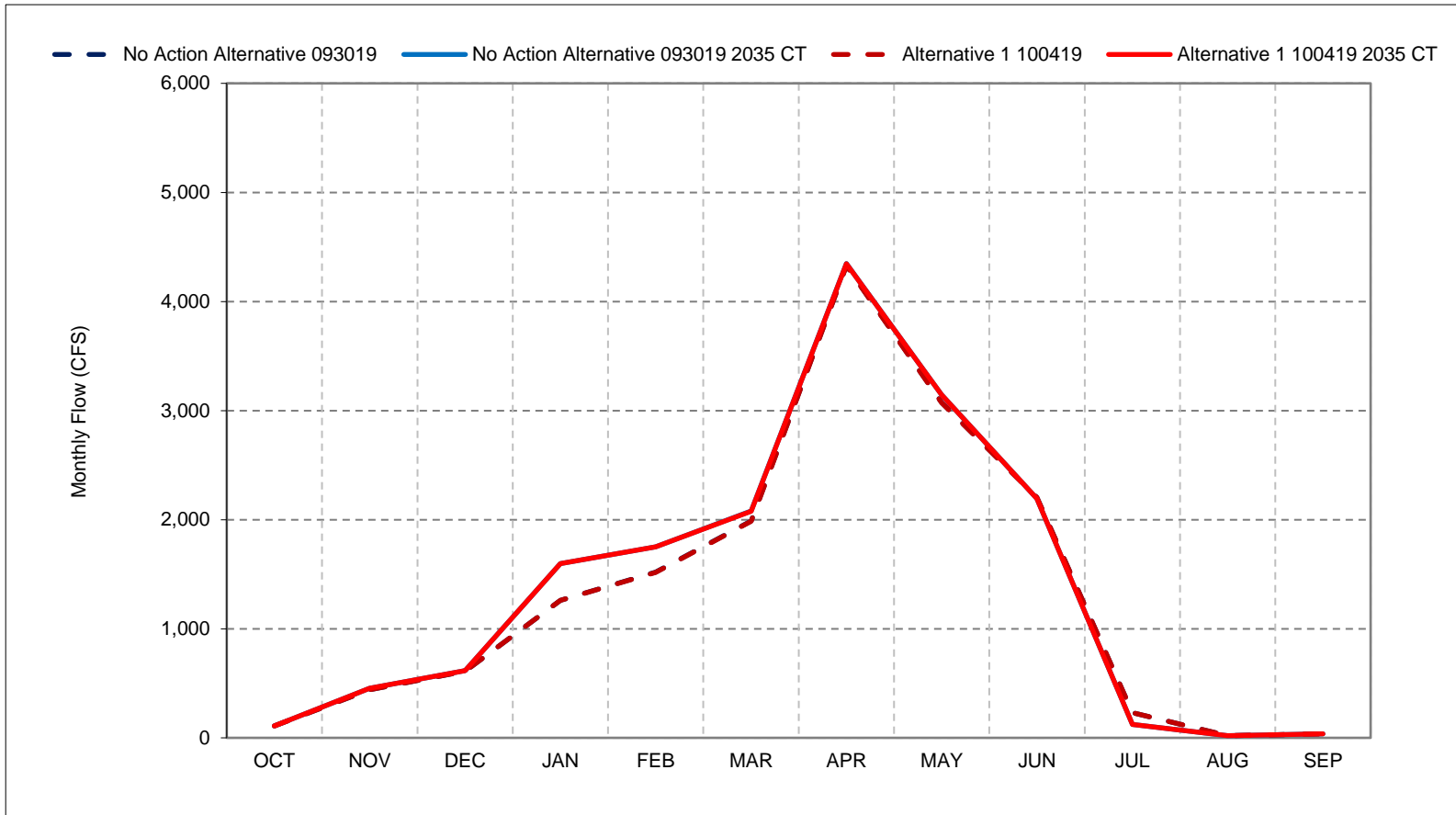
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-2. San Joaquin River Flow below Sack Dam, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

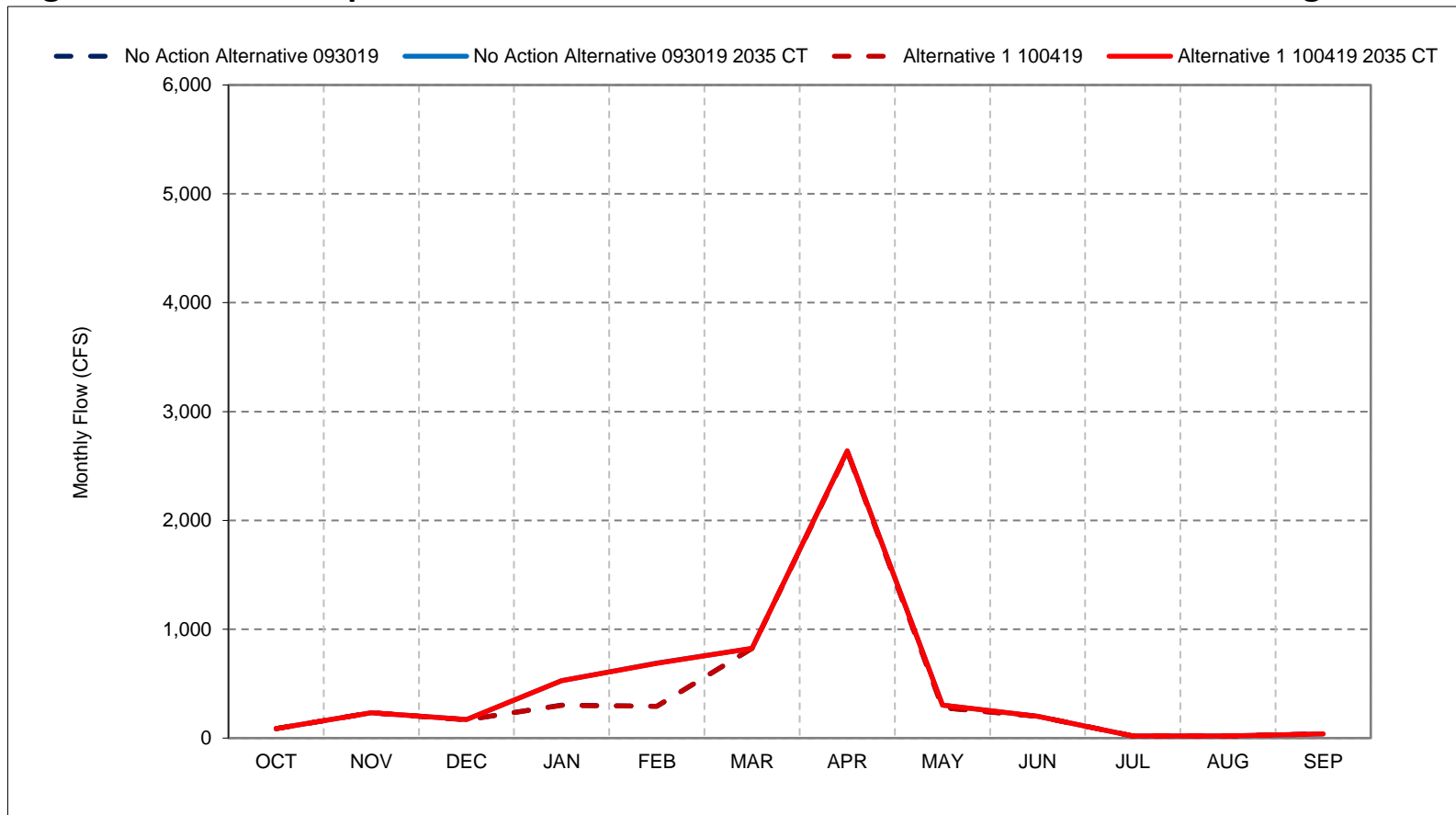
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-3. San Joaquin River Flow below Sack Dam, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

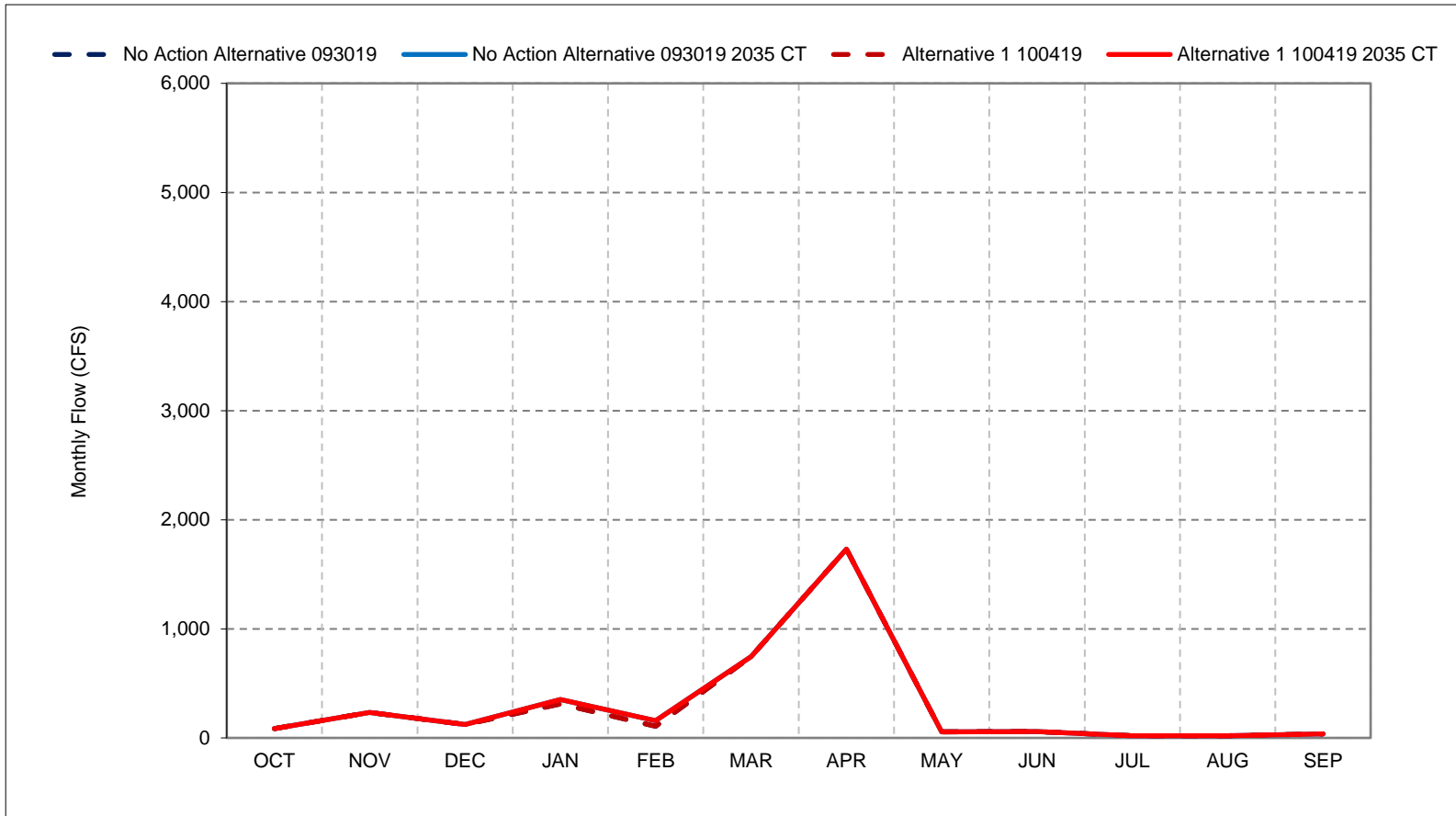
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-4. San Joaquin River Flow below Sack Dam, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

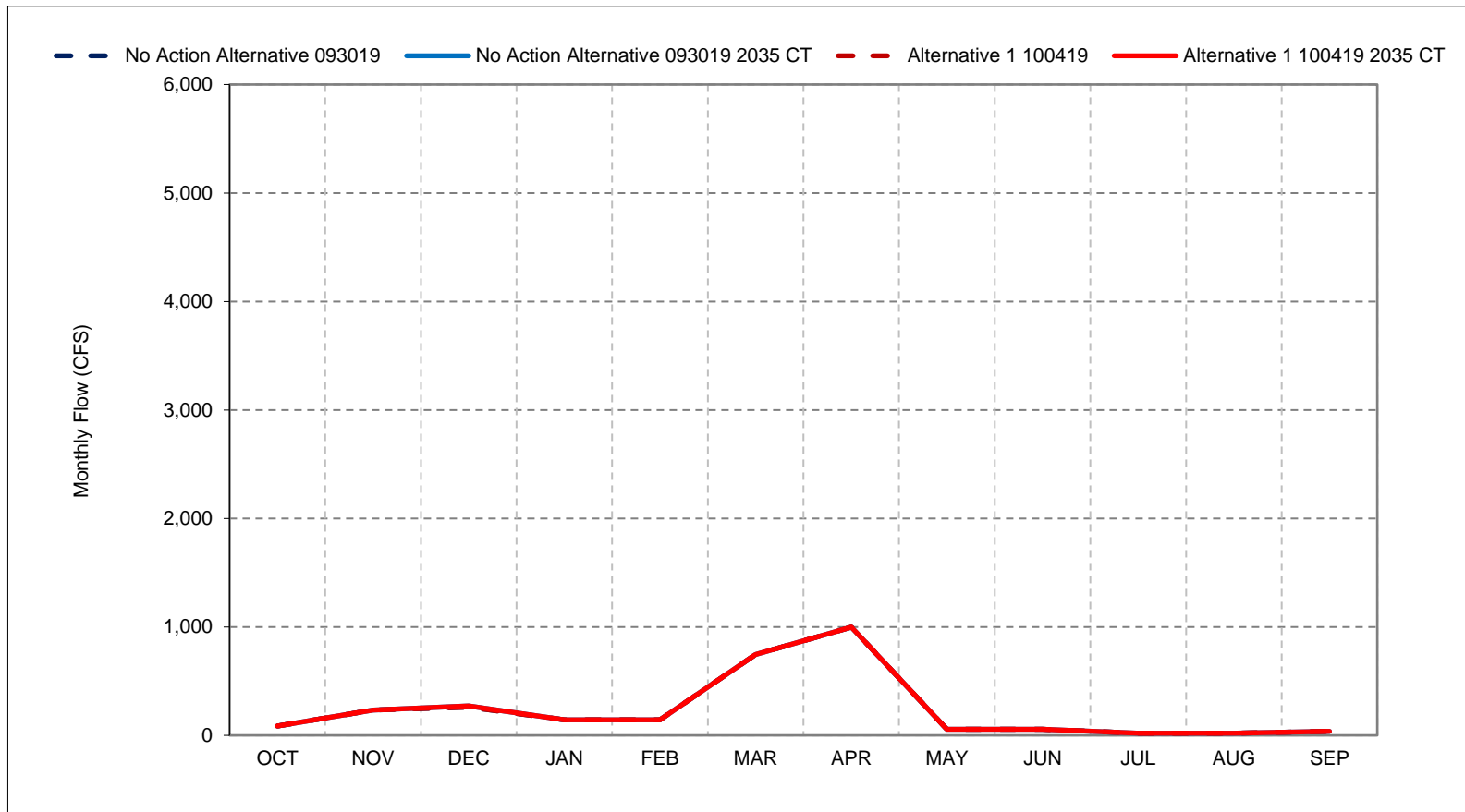
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-5. San Joaquin River Flow below Sack Dam, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

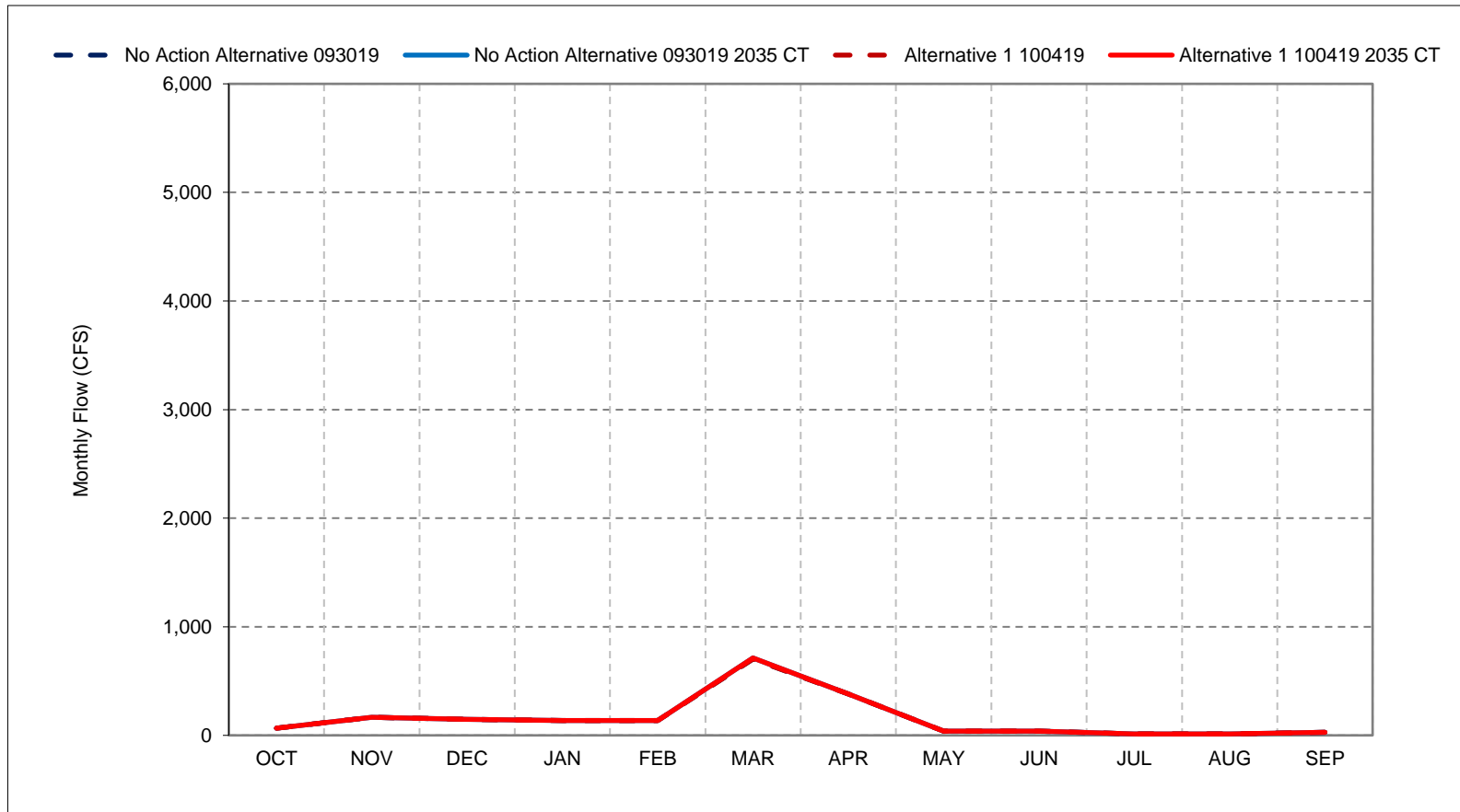
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 34-6. San Joaquin River Flow below Sack Dam, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

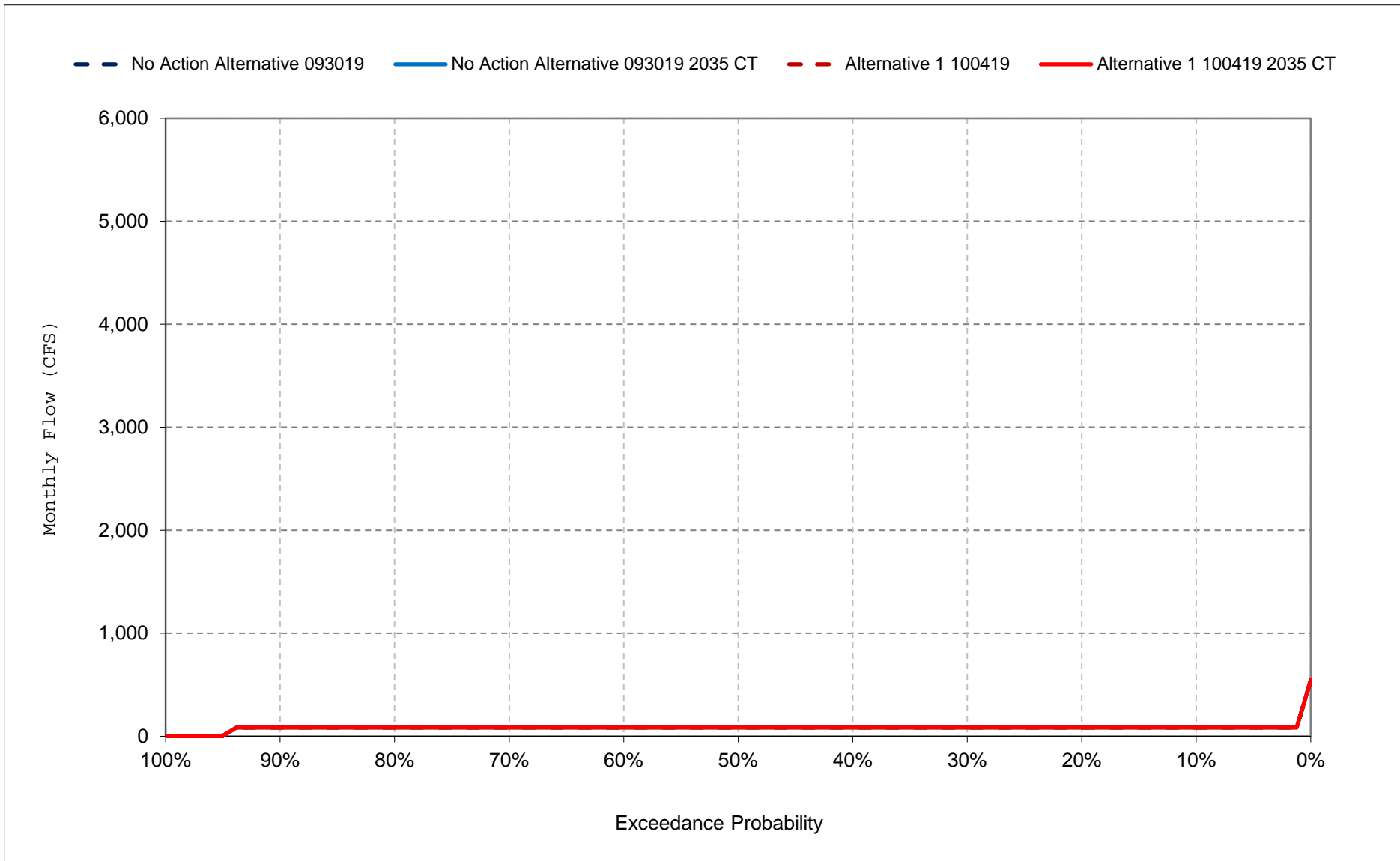
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

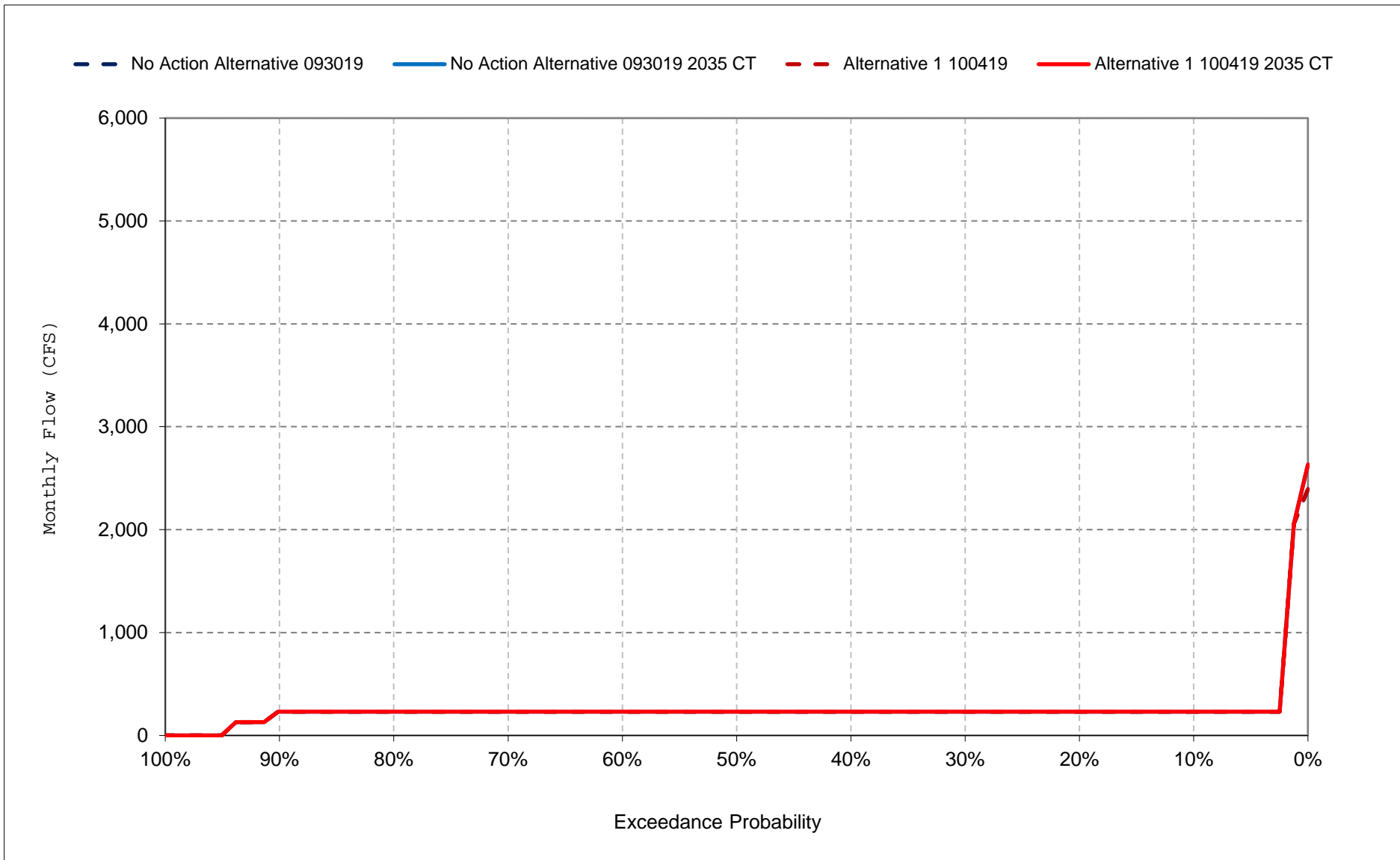
Figure 34-7. San Joaquin River Flow below Sack Dam, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

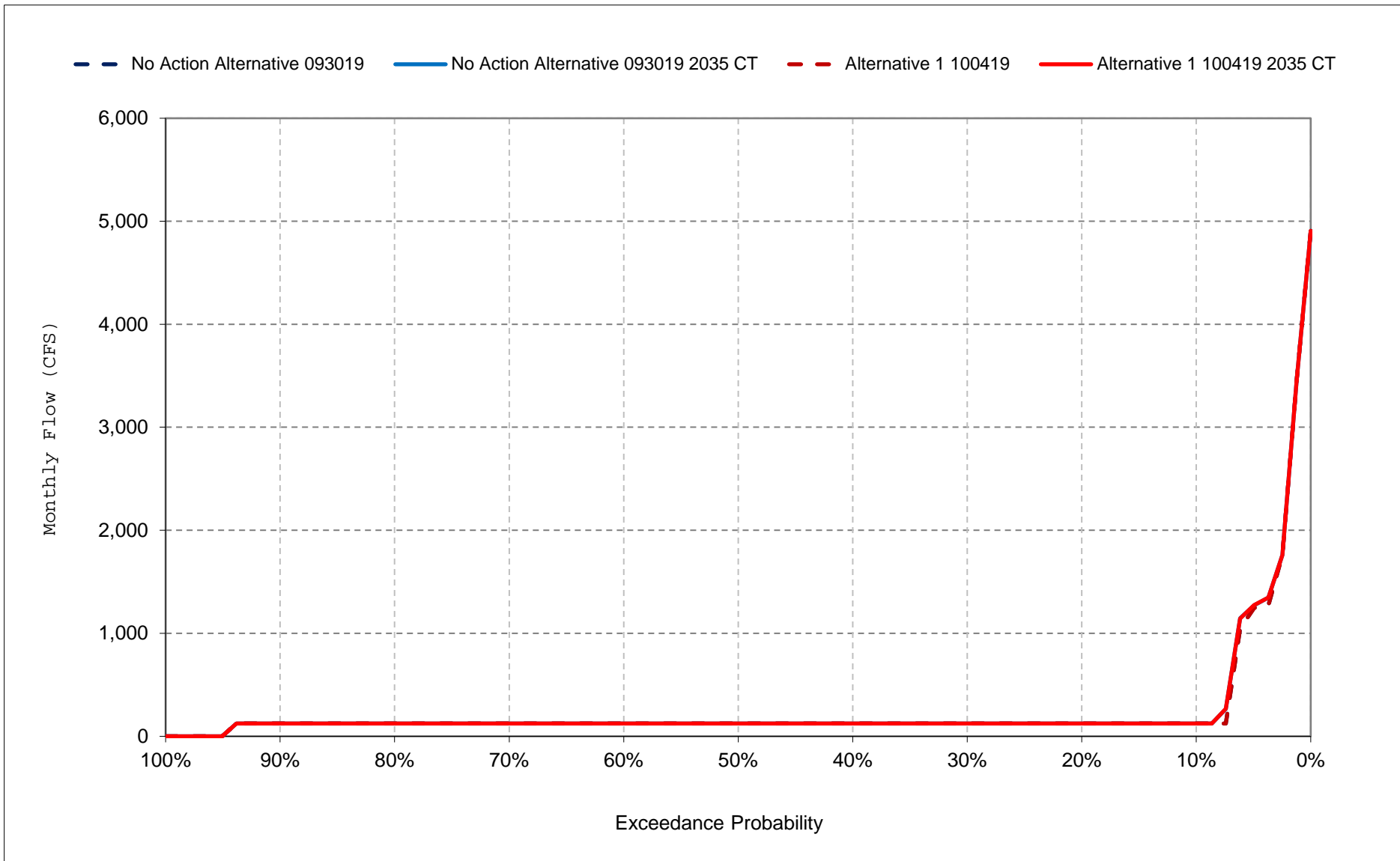
Figure 34-8. San Joaquin River Flow below Sack Dam, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

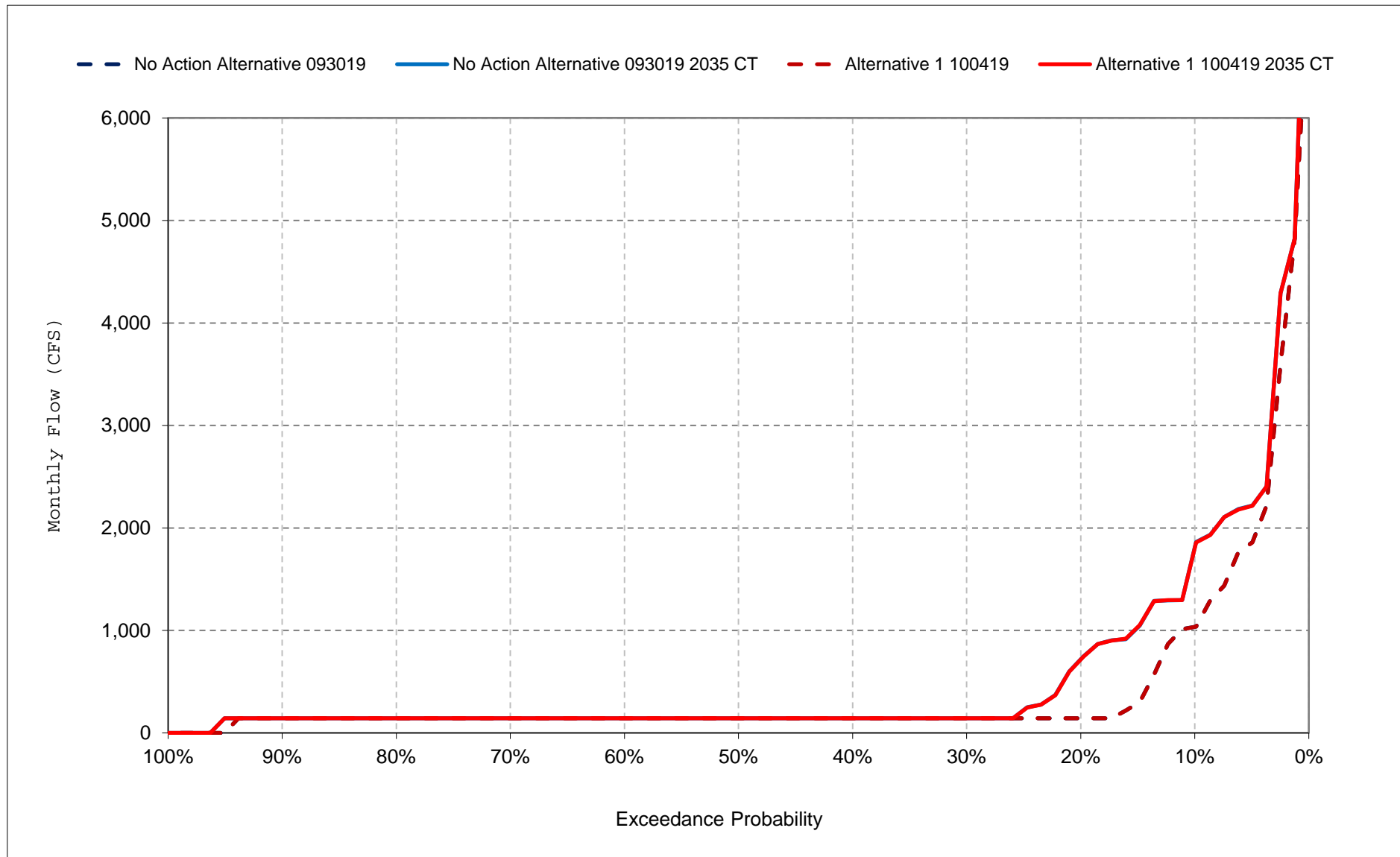
Figure 34-9. San Joaquin River Flow below Sack Dam, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

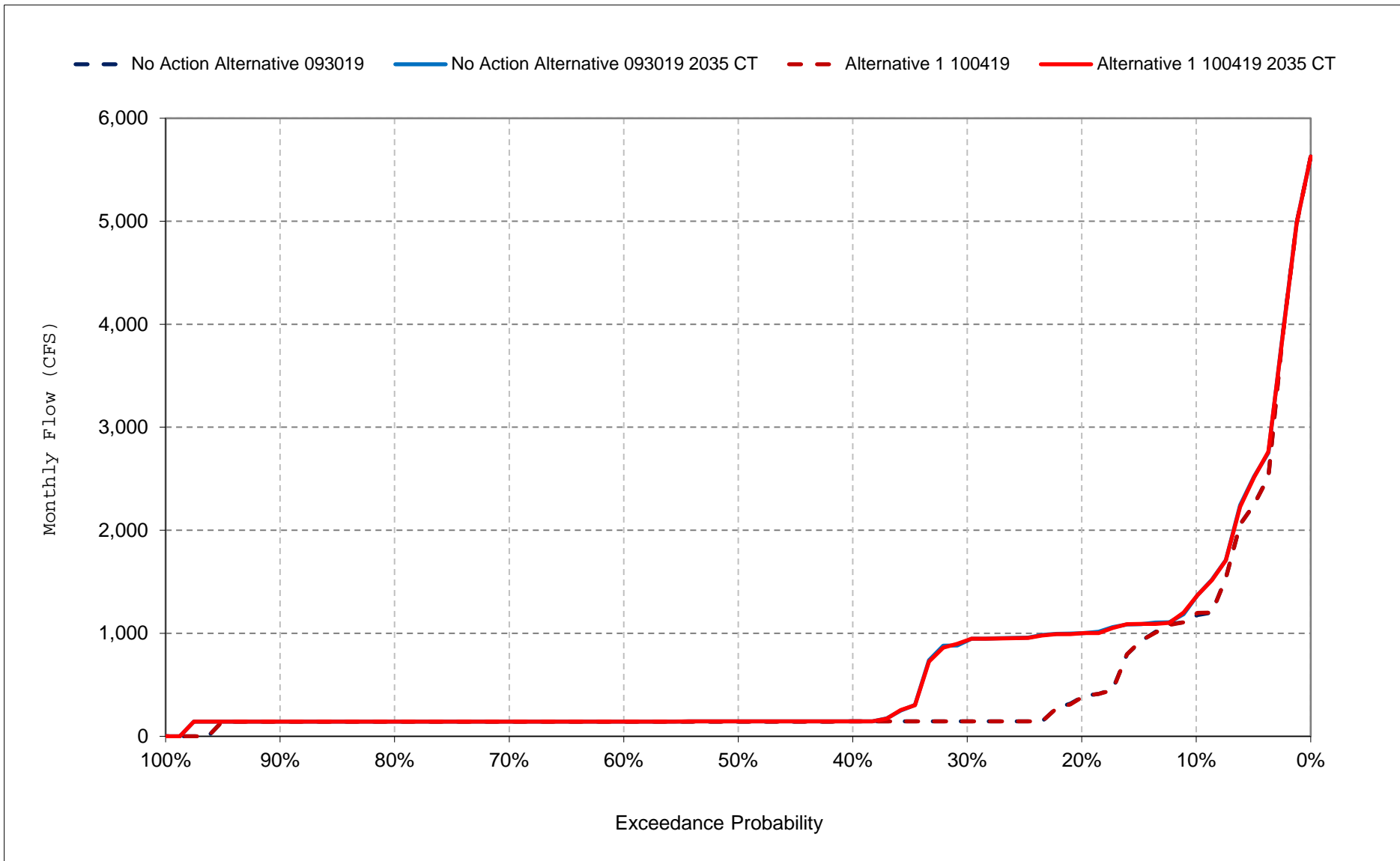
Figure 34-10. San Joaquin River Flow below Sack Dam, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

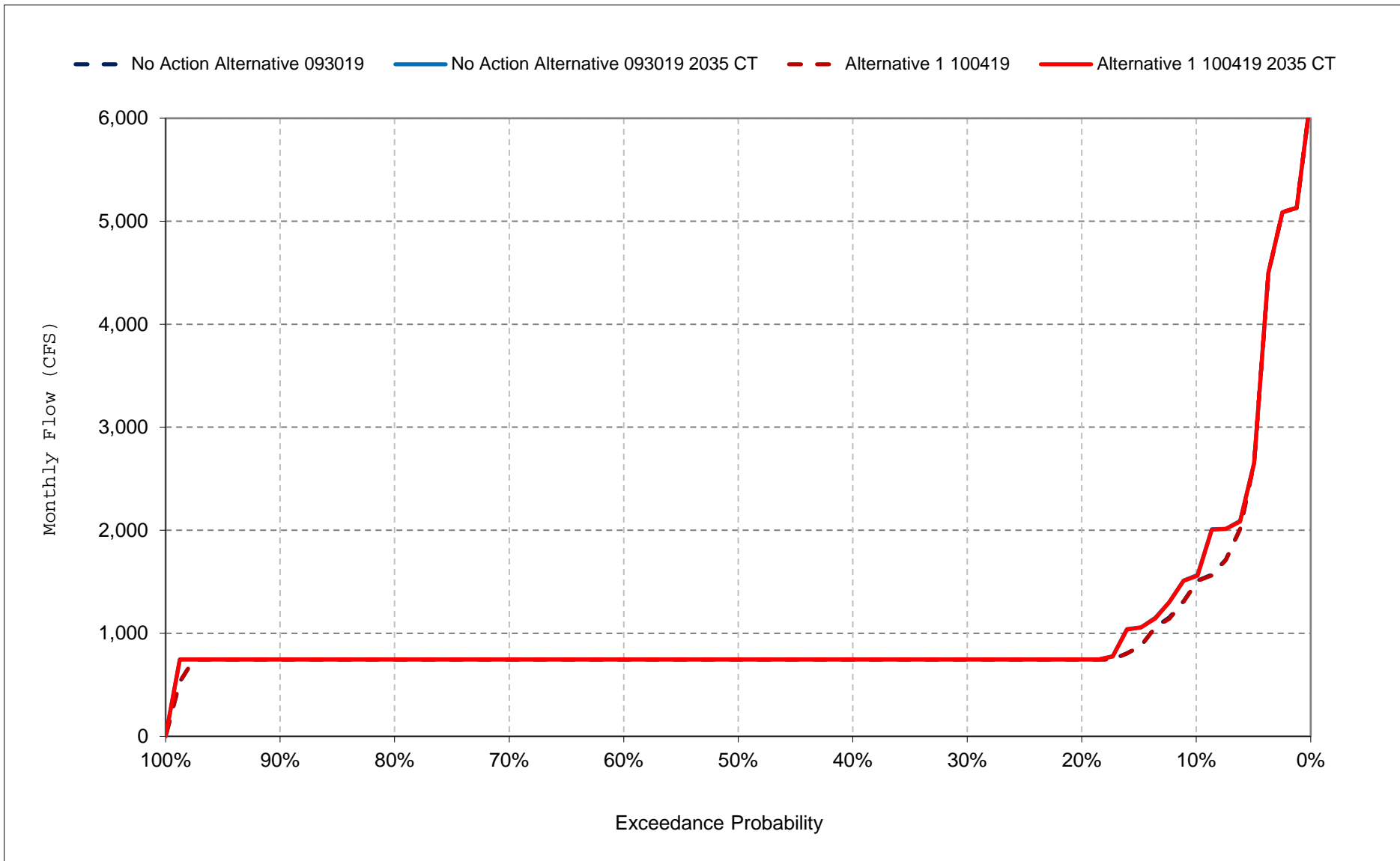
Figure 34-11. San Joaquin River Flow below Sack Dam, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

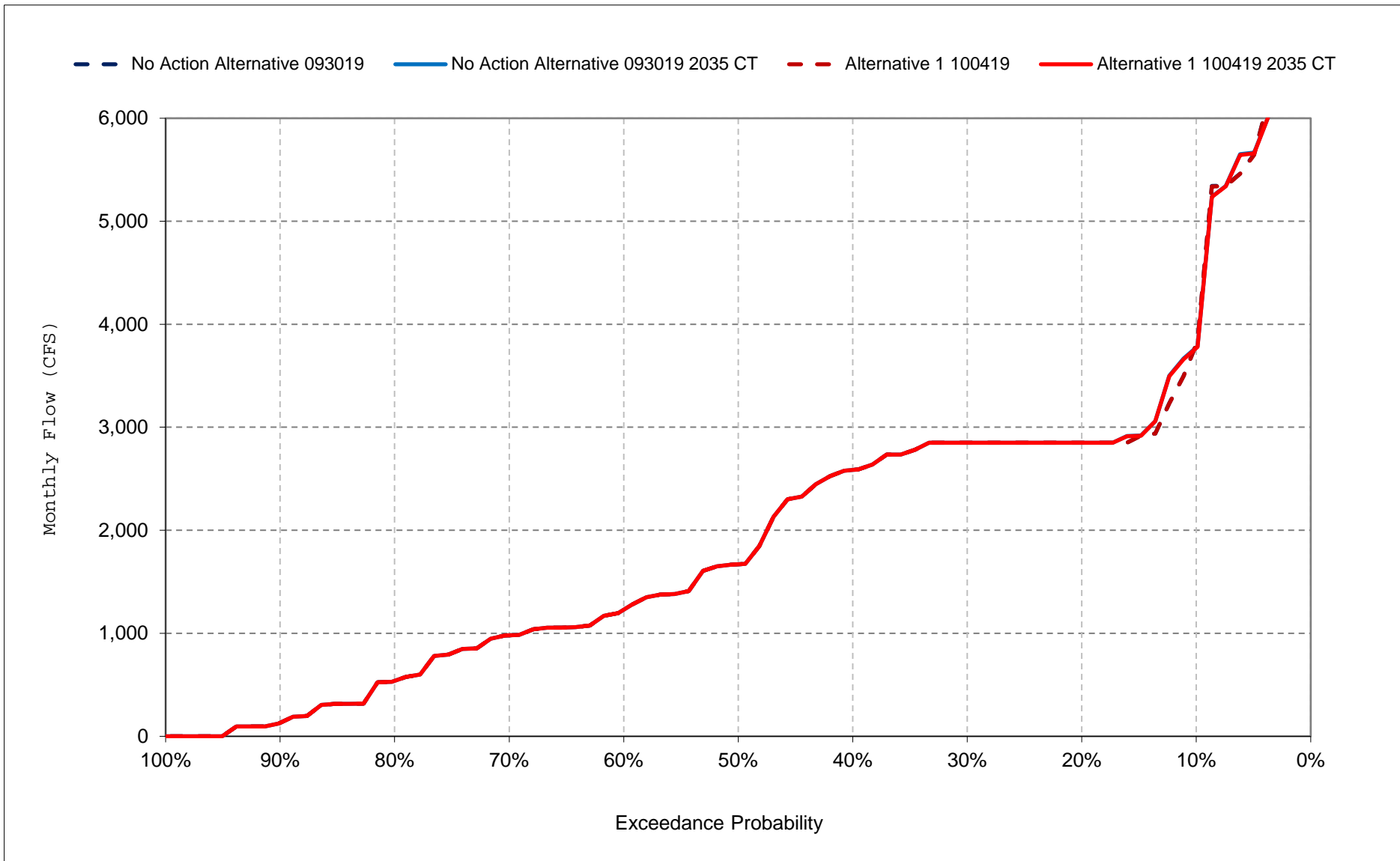
Figure 34-12. San Joaquin River Flow below Sack Dam, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

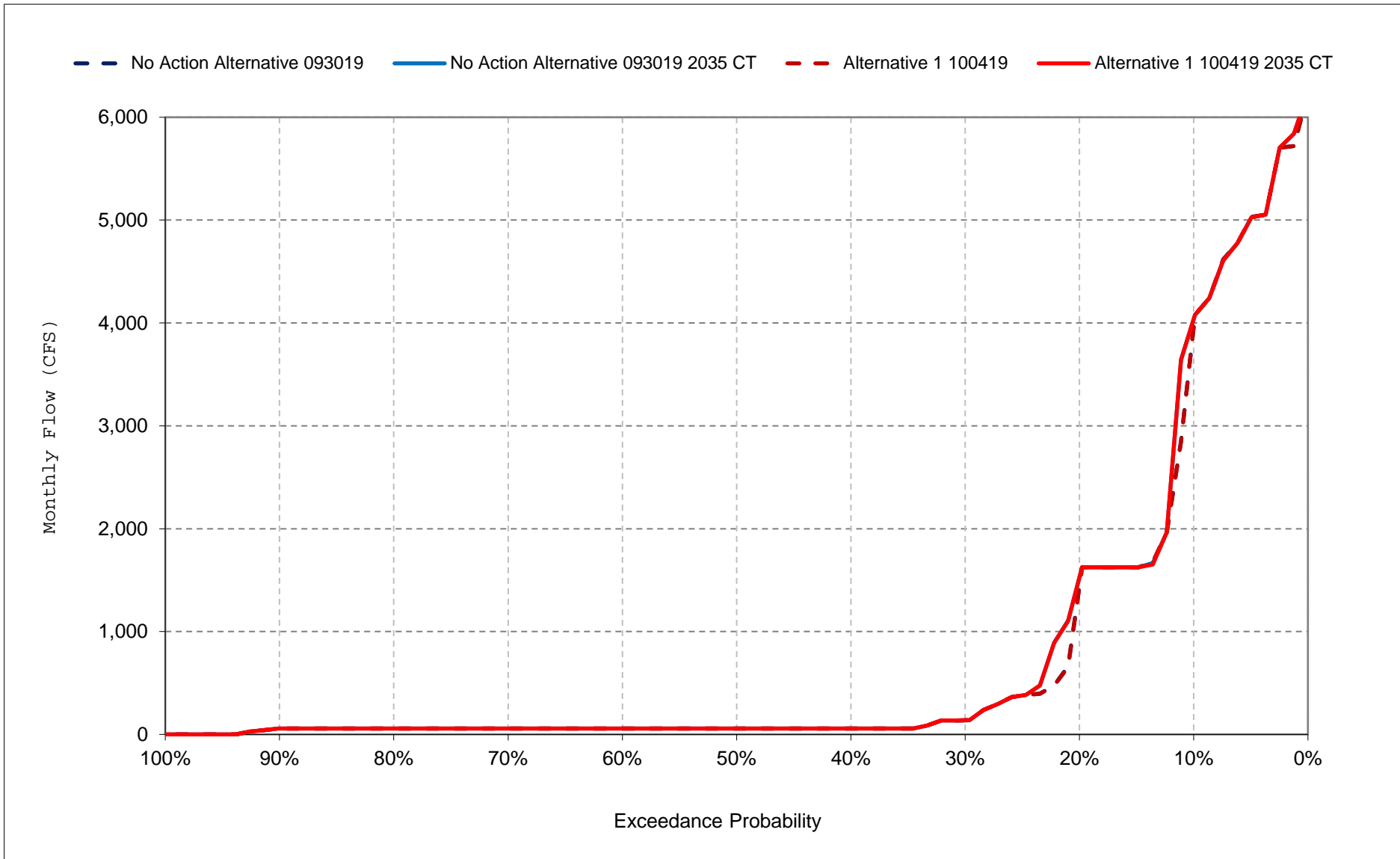
Figure 34-13. San Joaquin River Flow below Sack Dam, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

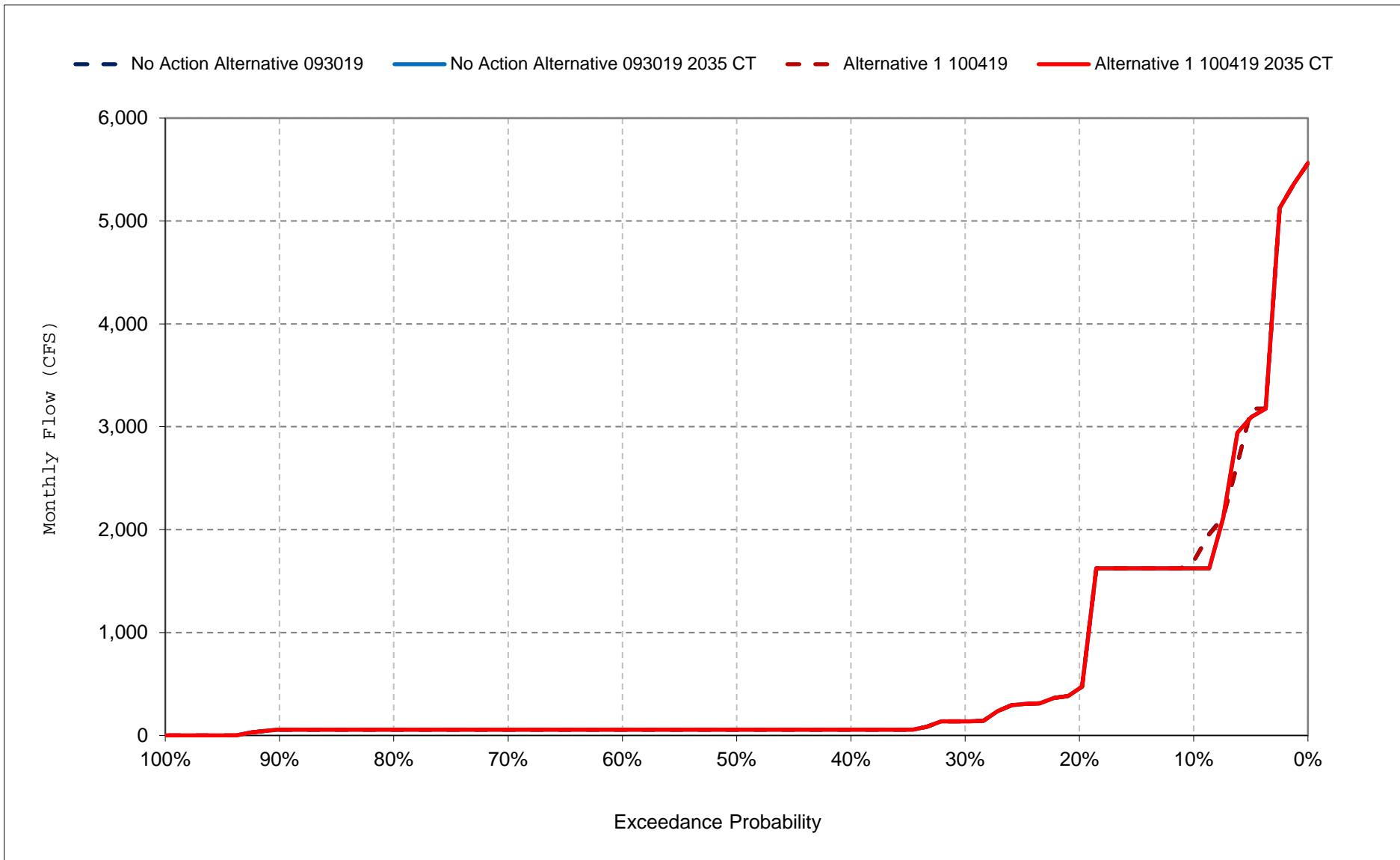
Figure 34-14. San Joaquin River Flow below Sack Dam, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

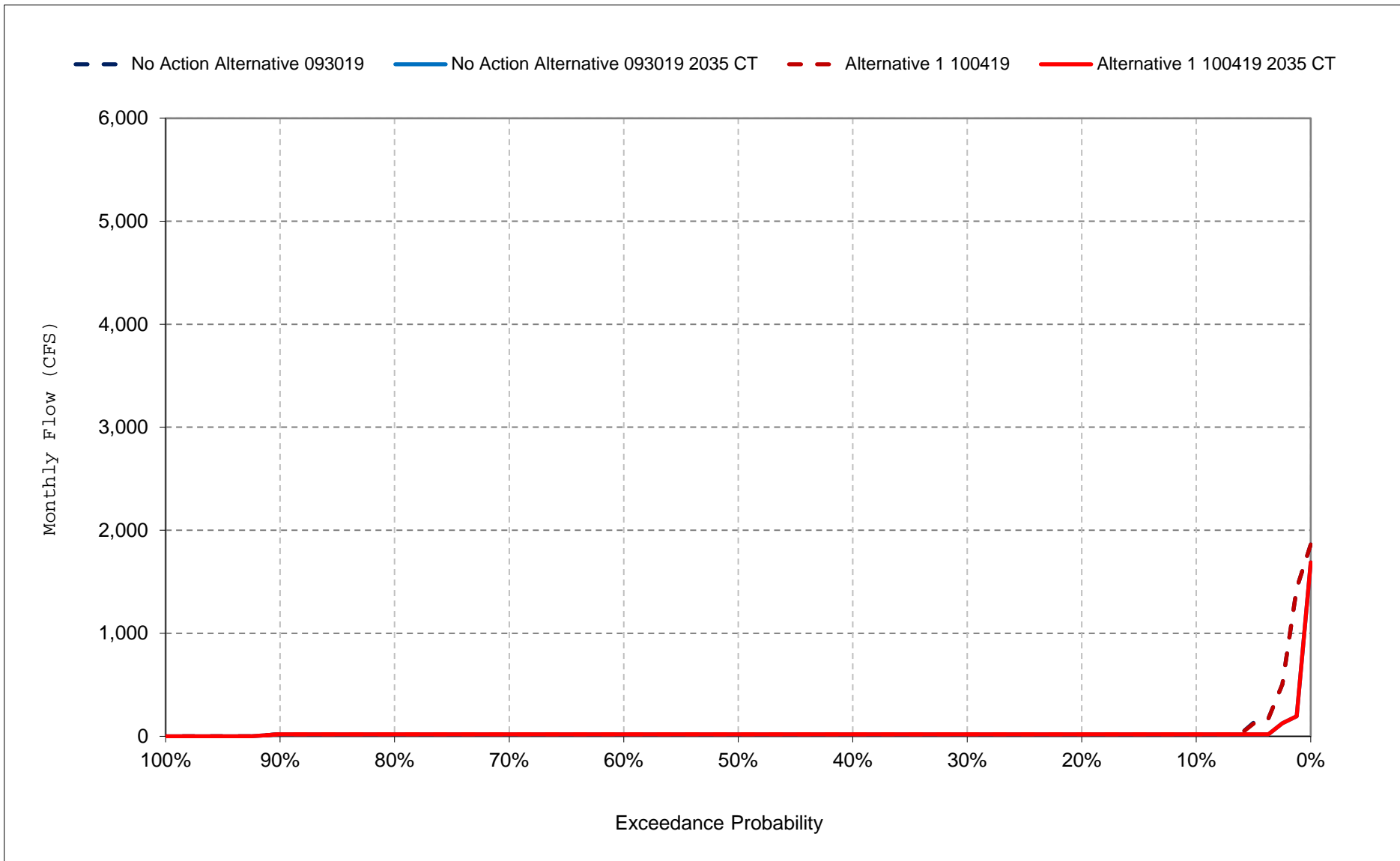
Figure 34-15. San Joaquin River Flow below Sack Dam, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

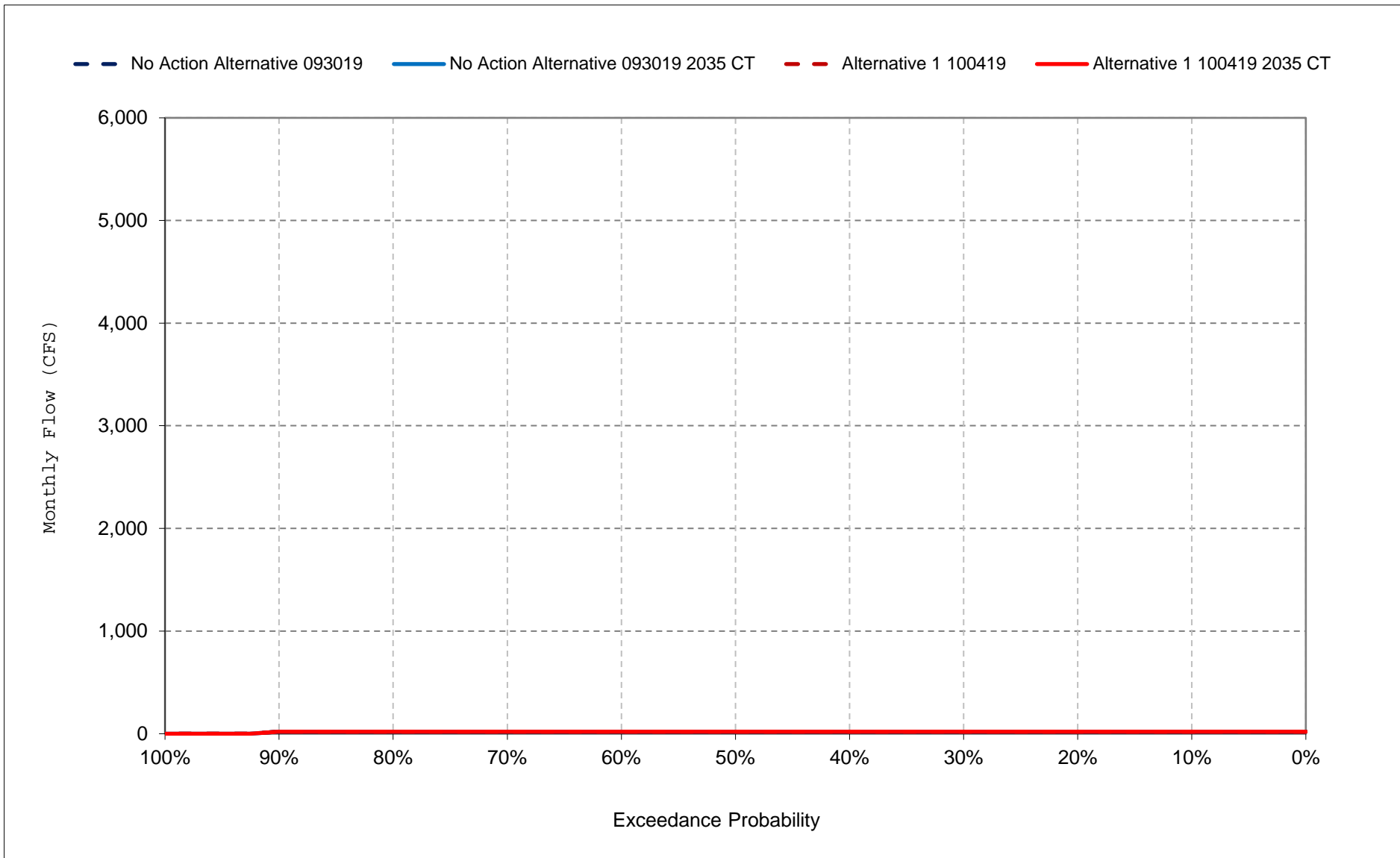
Figure 34-16. San Joaquin River Flow below Sack Dam, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

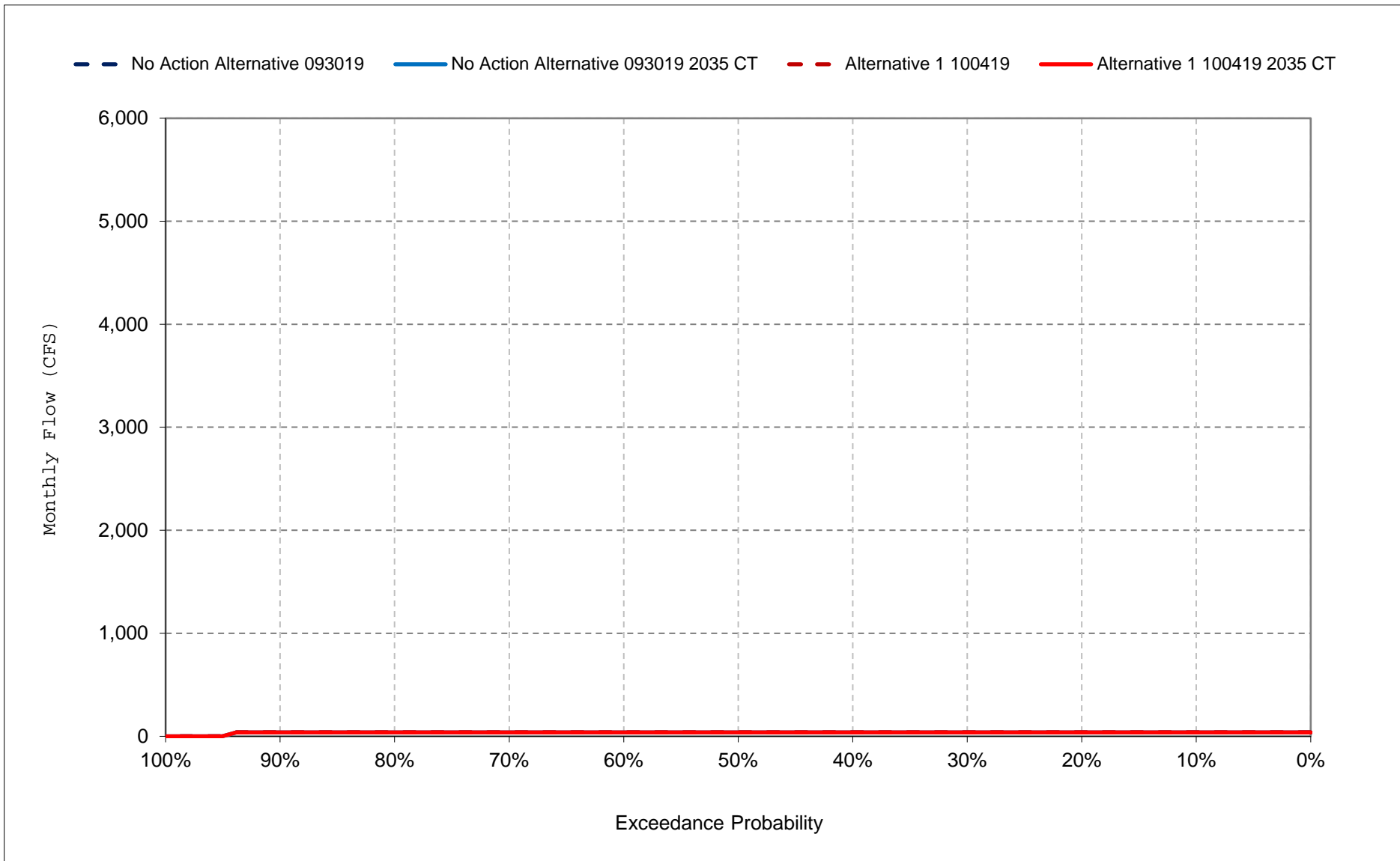
Figure 34-17. San Joaquin River Flow below Sack Dam, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 34-18. San Joaquin River Flow below Sack Dam, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-1. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,426	9,524	6,041	7,446	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	825	906	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,739	1,705	670	269	306	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	786	495	217	208	605
50%	587	1,087	935	1,002	1,583	1,813	2,337	577	425	161	151	555
60%	559	1,064	902	926	1,421	1,608	1,761	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	297	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	34	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	10	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,463	3,542	3,231	3,316	2,314	1,701	656	379	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,113	8,349	7,546	7,760	7,497	5,902	2,282	936	1,095
Above Normal (24%)	774	1,233	1,481	2,160	3,818	2,934	3,713	1,572	799	329	453	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	473	177	157	532
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,425	9,515	6,040	7,441	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	826	907	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,740	1,705	670	270	307	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	787	495	216	208	605
50%	588	1,087	935	1,002	1,584	1,813	2,337	578	425	161	152	554
60%	559	1,064	902	926	1,421	1,608	1,762	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	296	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	35	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	9	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,462	3,541	3,231	3,315	2,314	1,701	656	380	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,112	8,348	7,544	7,759	7,495	5,902	2,282	936	1,096
Above Normal (24%)	774	1,233	1,481	2,159	3,817	2,934	3,713	1,572	799	329	454	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	474	178	158	533
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-1	-9	0	-5	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	1	0	0
30%	0	0	0	0	0	0	0	0	0	1	0	0
40%	0	0	0	0	0	0	0	1	1	0	0	0
50%	0	0	0	0	0	0	0	0	0	1	1	0
60%	0	0	0	0	0	0	0	0	1	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	1	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	1	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	-1	-1	-2	-2	-2	-1	0	0	0
Above Normal (24%)	0	0	0	0	-1	0	0	0	0	1	0	0
Below Normal (10%)	0	0	0	0	0	0	0	0	1	1	1	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 35-2. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,948	7,025	8,898	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,385	6,347	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,128	3,532	3,236	3,782	1,626	670	243	233	680
40%	643	1,110	983	1,248	2,962	2,159	3,347	769	495	205	191	596
50%	578	1,084	945	1,033	1,758	1,803	2,337	567	420	161	149	549
60%	559	1,064	911	930	1,463	1,608	1,761	458	371	148	131	536
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	114	526
80%	486	1,004	872	821	1,131	1,383	857	321	226	50	72	501
90%	447	899	807	748	1,018	1,273	323	243	139	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,148	3,551	3,482	2,524	1,627	485	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,252	9,589	8,626	8,341	8,086	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,998	3,179	3,836	1,863	790	285	365	740
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	473	177	157	532
Dry (16%)	536	1,138	1,744	980	1,342	1,576	1,416	424	316	127	136	544
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	169	41	66	454

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,943	7,016	8,897	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,384	6,346	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,131	3,528	3,236	3,782	1,627	670	244	232	680
40%	643	1,110	983	1,248	2,973	2,159	3,347	769	495	204	191	596
50%	579	1,085	945	1,033	1,758	1,803	2,337	568	421	161	150	549
60%	559	1,064	911	930	1,463	1,608	1,762	459	371	149	130	537
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	115	526
80%	486	1,004	872	821	1,131	1,383	857	322	227	51	72	501
90%	447	899	807	748	1,018	1,273	323	243	138	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,147	3,551	3,481	2,524	1,628	486	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,251	9,588	8,623	8,339	8,085	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,994	3,179	3,836	1,862	791	285	365	741
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	474	178	158	533
Dry (16%)	536	1,138	1,745	980	1,342	1,577	1,416	424	316	127	136	543
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	170	41	66	454

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	-5	-9	0	0	0	0	0	0
20%	0	0	0	-1	-1	0	0	-1	0	0	0	0
30%	0	0	0	3	-4	0	0	1	0	1	0	0
40%	0	0	0	0	11	0	0	0	1	-1	1	0
50%	0	0	0	0	0	0	0	1	0	1	1	0
60%	0	0	0	0	0	0	0	0	0	0	0	1
70%	0	0	0	0	0	0	0	0	0	0	1	0
80%	0	0	0	0	0	0	0	0	0	1	0	0
90%	0	0	0	0	0	0	0	0	-1	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	-1	-1	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (23%)	0	0	0	0	-1	-2	-2	-1	0	0	0	0
Above Normal (24%)	0	0	0	0	-4	0	0	-1	0	0	0	1
Below Normal (10%)	0	0	0	0	0	0	0	0	1	1	1	0
Dry (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (27%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-3. San Joaquin River Flow below confluence with Merced , Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,426	9,524	6,041	7,446	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	825	906	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,739	1,705	670	269	306	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	786	495	217	208	605
50%	587	1,087	935	1,002	1,583	1,813	2,337	577	425	161	151	555
60%	559	1,064	902	926	1,421	1,608	1,761	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	297	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	34	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	10	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,463	3,542	3,231	3,316	2,314	1,701	656	379	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,113	8,349	7,546	7,760	7,497	5,902	2,282	936	1,095
Above Normal (24%)	774	1,233	1,481	2,160	3,818	2,934	3,713	1,572	799	329	453	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	473	177	157	532
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,948	7,025	8,898	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,385	6,347	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,128	3,532	3,236	3,782	1,626	670	243	233	680
40%	643	1,110	983	1,248	2,962	2,159	3,347	769	495	205	191	596
50%	578	1,084	945	1,033	1,758	1,803	2,337	567	420	161	149	549
60%	559	1,064	911	930	1,463	1,608	1,761	458	371	148	131	536
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	114	526
80%	486	1,004	872	821	1,131	1,383	857	321	226	50	72	501
90%	447	899	807	748	1,018	1,273	323	243	139	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,148	3,551	3,482	2,524	1,627	485	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,252	9,589	8,626	8,341	8,086	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,998	3,179	3,836	1,863	790	285	365	740
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	473	177	157	532
Dry (16%)	536	1,138	1,744	980	1,342	1,576	1,416	424	316	127	136	544
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	169	41	66	454

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-31	-441	1,980	2,423	984	1,452	1,524	-337	-395	-22	-8
20%	-11	-30	88	619	2,044	255	353	1,121	-377	-80	-44	-17
30%	-9	-1	5	283	475	420	42	-79	0	-26	-73	-211
40%	-17	-4	12	29	647	71	18	-17	0	-12	-17	-9
50%	-9	-3	10	31	174	-10	0	-11	-5	0	-2	-6
60%	0	1	9	4	42	0	0	0	0	1	-3	1
70%	-1	1	2	12	16	0	11	9	0	0	-3	5
80%	0	0	2	2	14	5	-1	0	7	15	-2	6
90%	10	4	-3	0	0	0	-3	14	8	0	14	5
Long Term												
Full Simulation Period ^d	-10	-6	75	427	606	320	166	210	-74	-171	-30	-10
Water Year Types ^{b,c}												
Wet (23%)	-36	1	126	1,139	1,240	1,080	581	589	-322	-696	-47	-18
Above Normal (24%)	-12	-36	-16	587	1,181	245	123	291	-9	-44	-89	-41
Below Normal (10%)	0	0	0	164	136	56	0	0	0	0	0	0
Dry (16%)	7	17	107	-20	72	11	2	8	9	6	7	21
Critical (27%)	1	0	128	24	24	10	4	5	6	1	5	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 35-4. San Joaquin River Flow below confluence with Merced , Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	961	1,382	3,009	4,425	9,515	6,040	7,441	8,097	4,050	1,658	1,016	1,095
20%	792	1,288	1,482	2,766	4,303	3,738	4,295	2,720	2,395	826	907	994
30%	691	1,174	1,020	1,845	3,057	2,816	3,740	1,705	670	270	307	891
40%	660	1,114	970	1,219	2,315	2,088	3,330	787	495	216	208	605
50%	588	1,087	935	1,002	1,584	1,813	2,337	578	425	161	152	554
60%	559	1,064	902	926	1,421	1,608	1,762	459	371	148	134	535
70%	504	1,034	890	852	1,222	1,478	1,262	398	296	106	118	521
80%	486	1,004	870	819	1,116	1,378	858	321	220	35	74	496
90%	438	895	810	748	1,018	1,273	326	229	131	0	9	444
Long Term												
Full Simulation Period ^d	675	1,231	1,665	2,462	3,541	3,231	3,315	2,314	1,701	656	380	700
Water Year Types ^{b,c}												
Wet (23%)	949	1,697	2,787	6,112	8,348	7,544	7,759	7,495	5,902	2,282	936	1,096
Above Normal (24%)	774	1,233	1,481	2,159	3,817	2,934	3,713	1,572	799	329	454	781
Below Normal (10%)	568	1,090	995	1,445	1,865	1,766	2,281	563	474	178	158	533
Dry (16%)	529	1,121	1,638	1,000	1,270	1,565	1,414	416	307	120	129	522
Critical (27%)	463	939	1,130	819	1,092	1,293	615	270	164	40	61	451

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	960	1,351	2,568	6,406	11,943	7,016	8,897	9,621	3,713	1,263	995	1,087
20%	781	1,257	1,570	3,384	6,346	3,994	4,648	3,840	2,018	746	862	978
30%	683	1,172	1,025	2,131	3,528	3,236	3,782	1,627	670	244	232	680
40%	643	1,110	983	1,248	2,973	2,159	3,347	769	495	204	191	596
50%	579	1,085	945	1,033	1,758	1,803	2,337	568	421	161	150	549
60%	559	1,064	911	930	1,463	1,608	1,762	459	371	149	130	537
70%	503	1,034	891	864	1,237	1,478	1,272	407	296	106	115	526
80%	486	1,004	872	821	1,131	1,383	857	322	227	51	72	501
90%	447	899	807	748	1,018	1,273	323	243	138	0	24	449
Long Term												
Full Simulation Period ^d	665	1,225	1,740	2,889	4,147	3,551	3,481	2,524	1,628	486	349	690
Water Year Types ^{b,c}												
Wet (23%)	913	1,698	2,913	7,251	9,588	8,623	8,339	8,085	5,580	1,586	889	1,077
Above Normal (24%)	763	1,198	1,465	2,747	4,994	3,179	3,836	1,862	791	285	365	741
Below Normal (10%)	568	1,090	995	1,610	2,001	1,823	2,281	563	474	178	158	533
Dry (16%)	536	1,138	1,745	980	1,342	1,577	1,416	424	316	127	136	543
Critical (27%)	464	939	1,258	844	1,116	1,303	619	275	170	41	66	454

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	-31	-441	1,981	2,428	976	1,456	1,524	-337	-395	-21	-8
20%	-11	-31	88	618	2,043	255	353	1,120	-377	-80	-45	-17
30%	-9	-1	5	287	471	420	42	-78	0	-26	-74	-211
40%	-17	-4	12	29	658	71	17	-18	0	-12	-16	-9
50%	-9	-3	10	31	174	-10	0	-10	-5	0	-2	-5
60%	0	0	9	4	42	0	0	0	0	1	-4	2
70%	-1	1	2	12	16	0	11	9	0	0	-3	5
80%	0	0	2	2	14	5	0	0	7	16	-2	5
90%	10	4	-3	0	0	0	-3	14	7	0	15	5
Long Term												
Full Simulation Period ^d	-10	-6	75	427	606	320	166	210	-74	-171	-30	-10
Water Year Types ^{b,c}												
Wet (23%)	-36	1	126	1,139	1,241	1,080	581	590	-322	-696	-47	-18
Above Normal (24%)	-12	-36	-16	587	1,177	245	123	290	-9	-44	-89	-40
Below Normal (10%)	0	0	0	164	136	56	0	0	0	0	0	0
Dry (16%)	7	17	107	-20	72	11	2	8	9	6	7	21
Critical (27%)	1	0	128	24	24	10	4	5	6	1	5	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

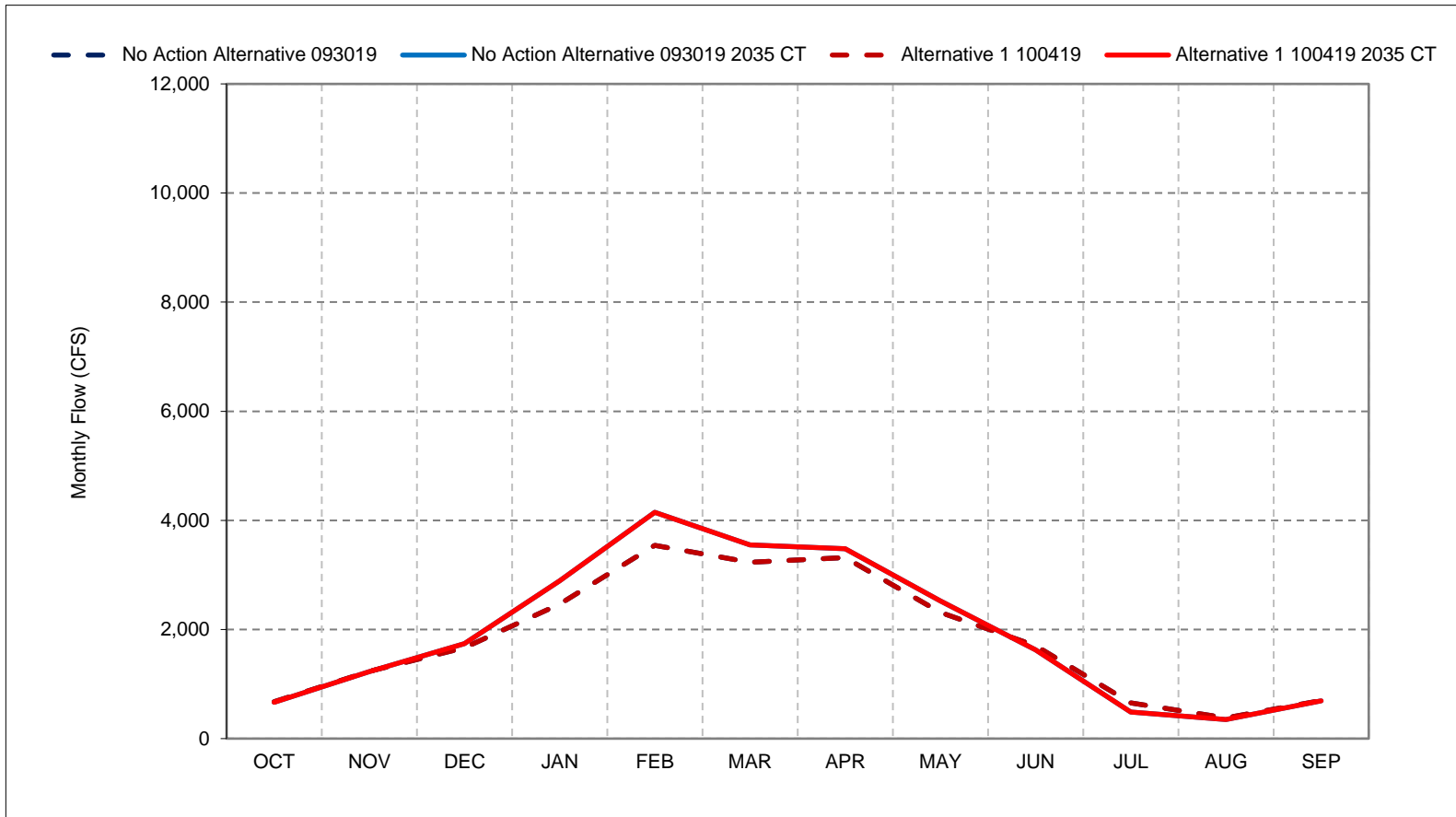
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 35-1. San Joaquin River Flow below confluence with Merced , Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

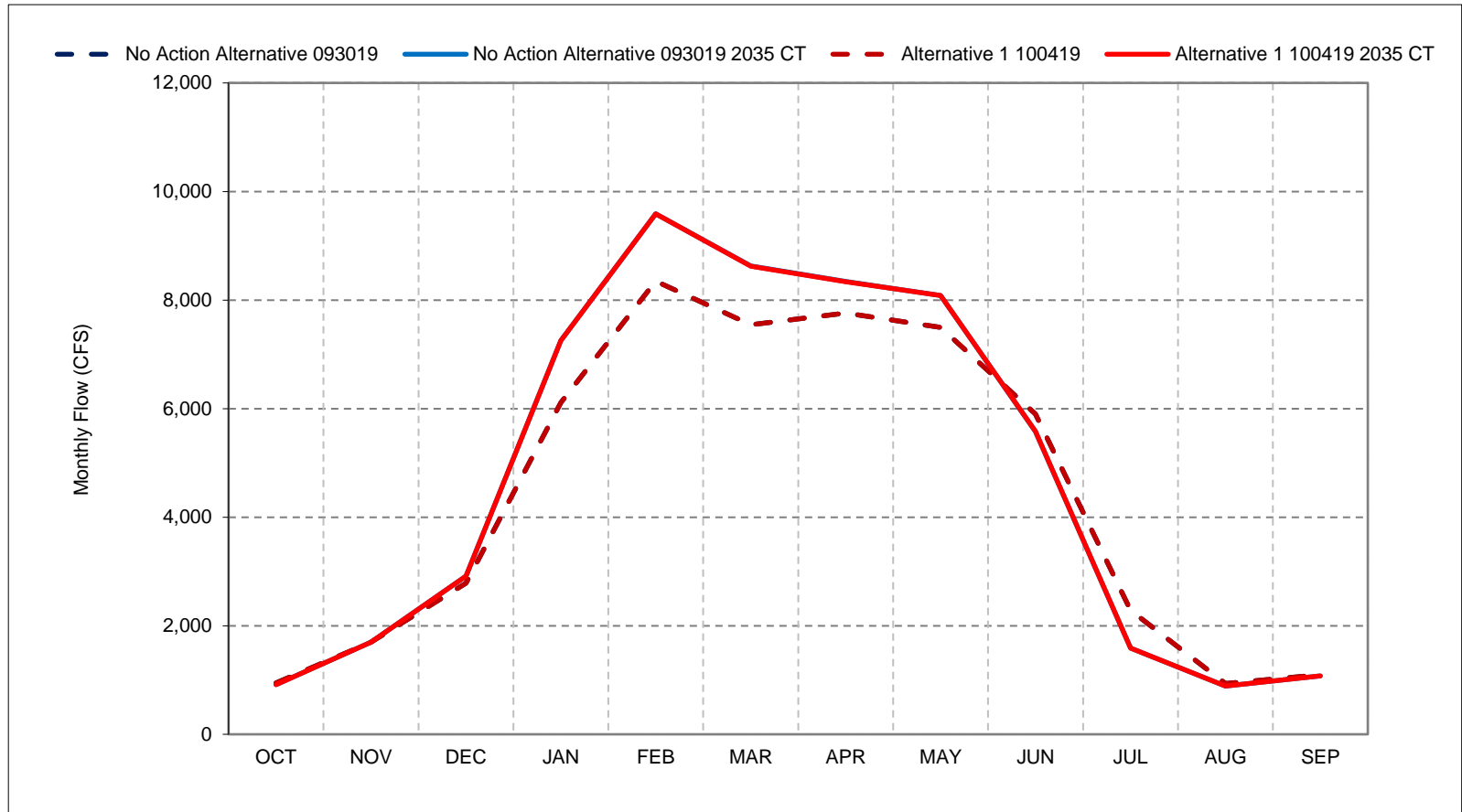
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-2. San Joaquin River Flow below confluence with Merced , Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

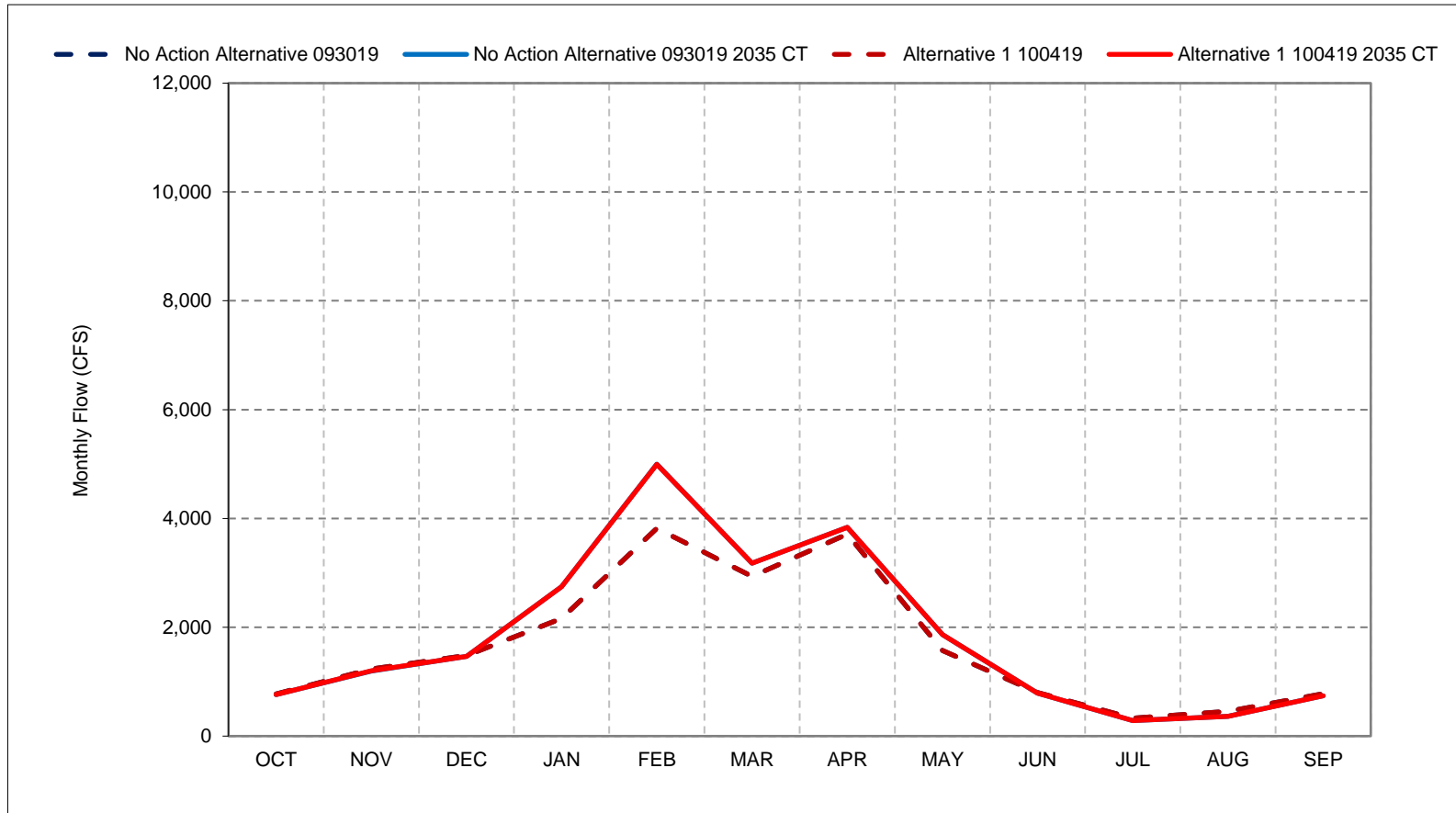
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-3. San Joaquin River Flow below confluence with Merced , Above Normal Year Average |



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

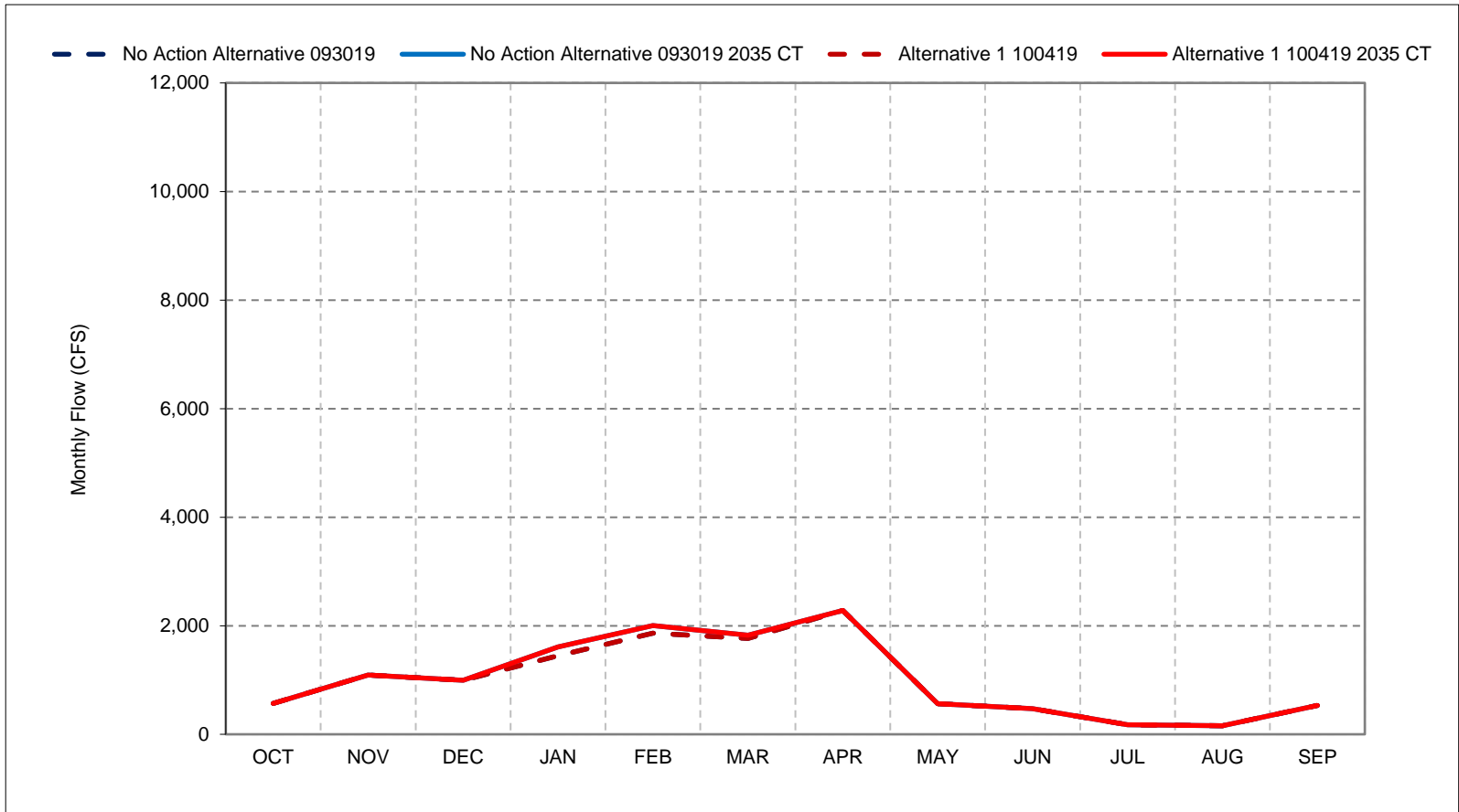
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-4. San Joaquin River Flow below confluence with Merced , Below Normal Year Average I



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

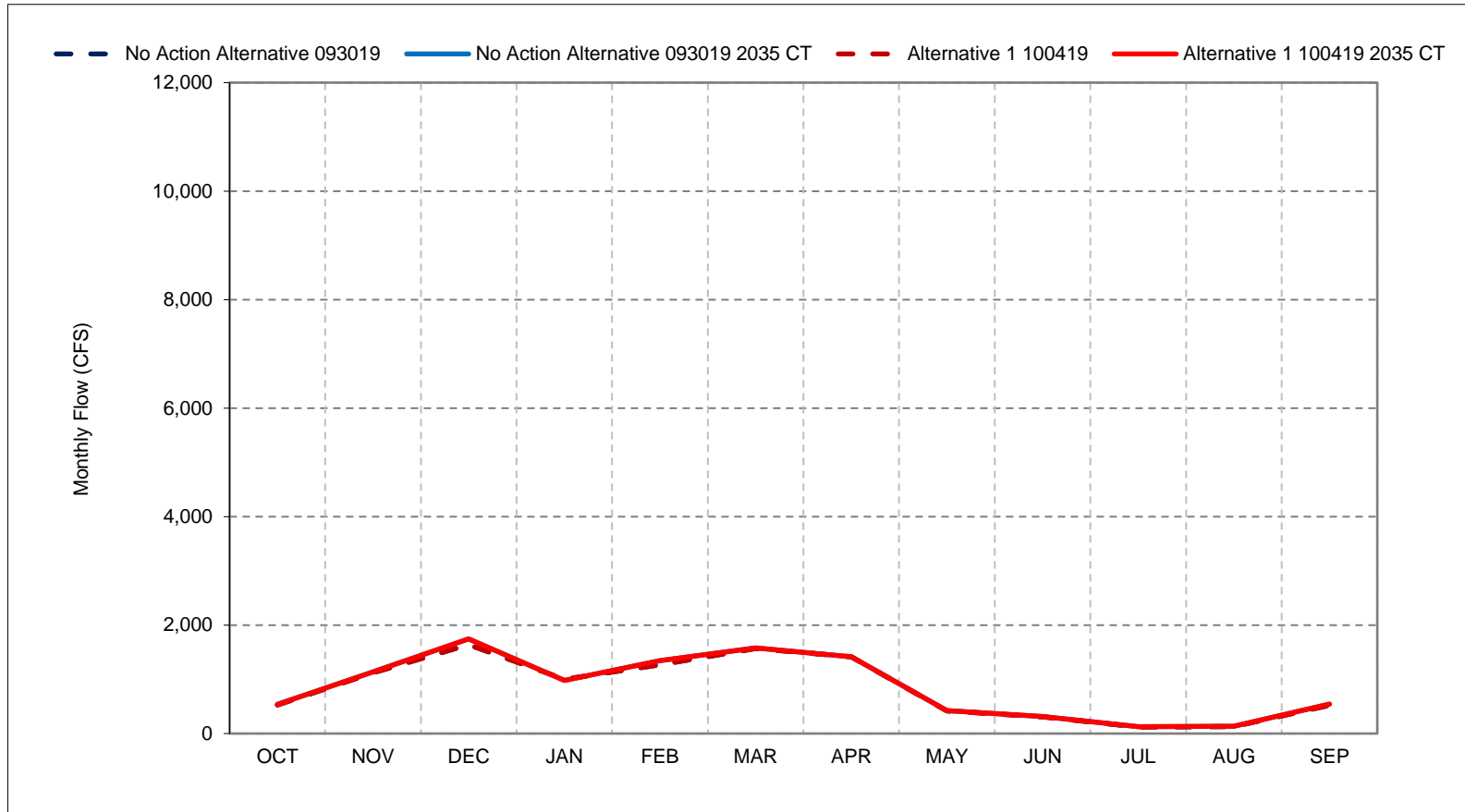
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-5. San Joaquin River Flow below confluence with Merced , Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

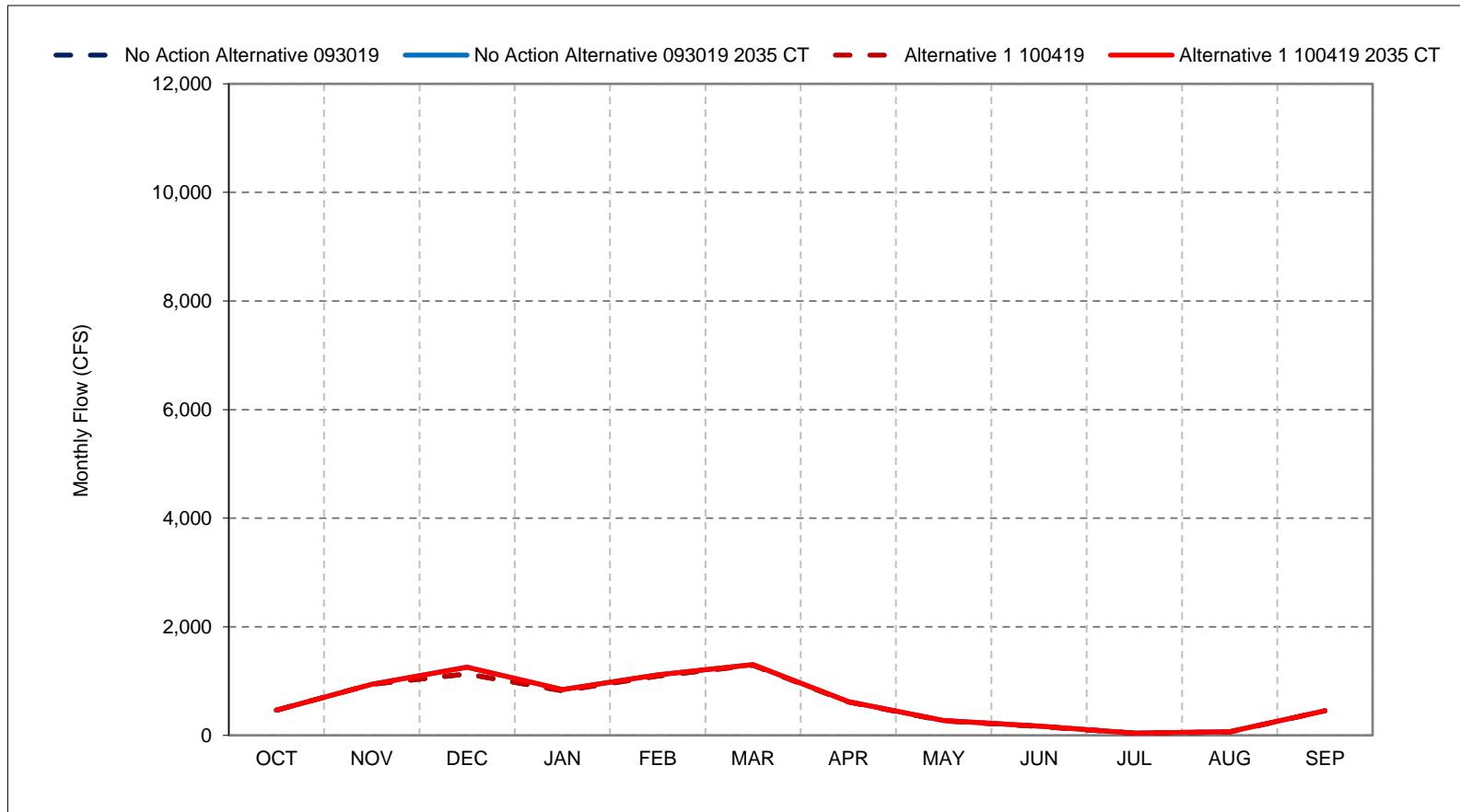
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 35-6. San Joaquin River Flow below confluence with Merced , Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

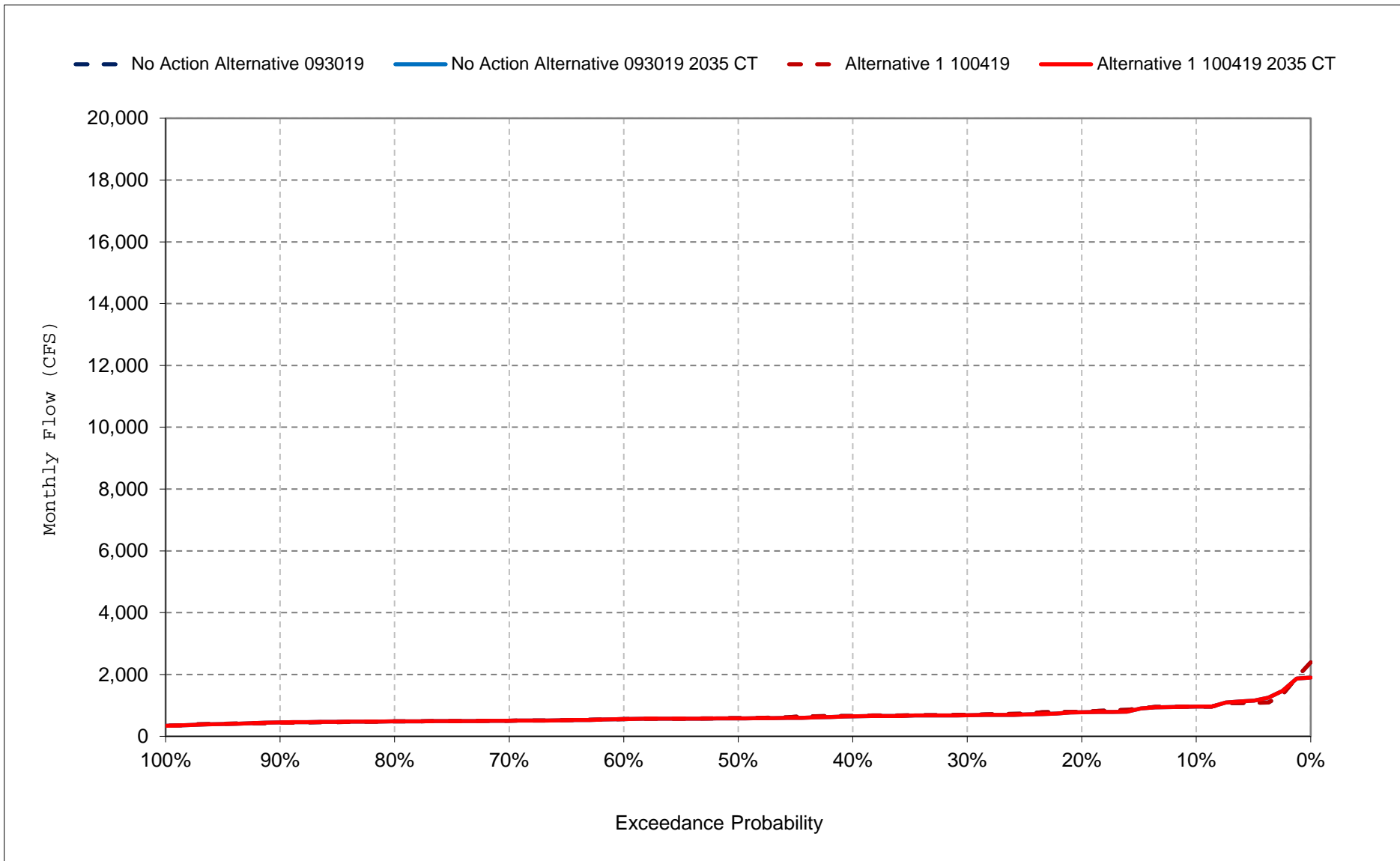
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

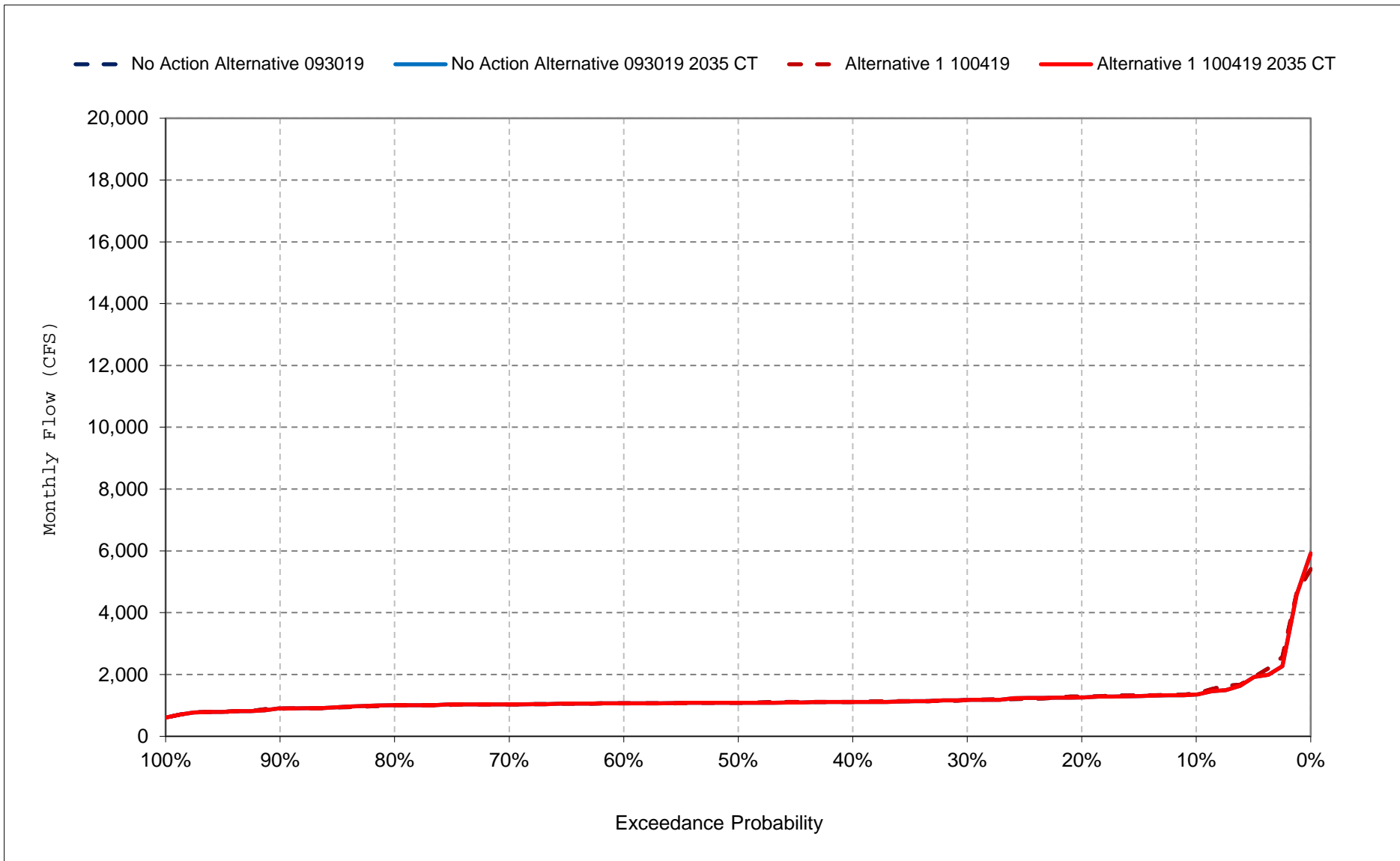
Figure 35-7. San Joaquin River Flow below confluence with Merced , October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

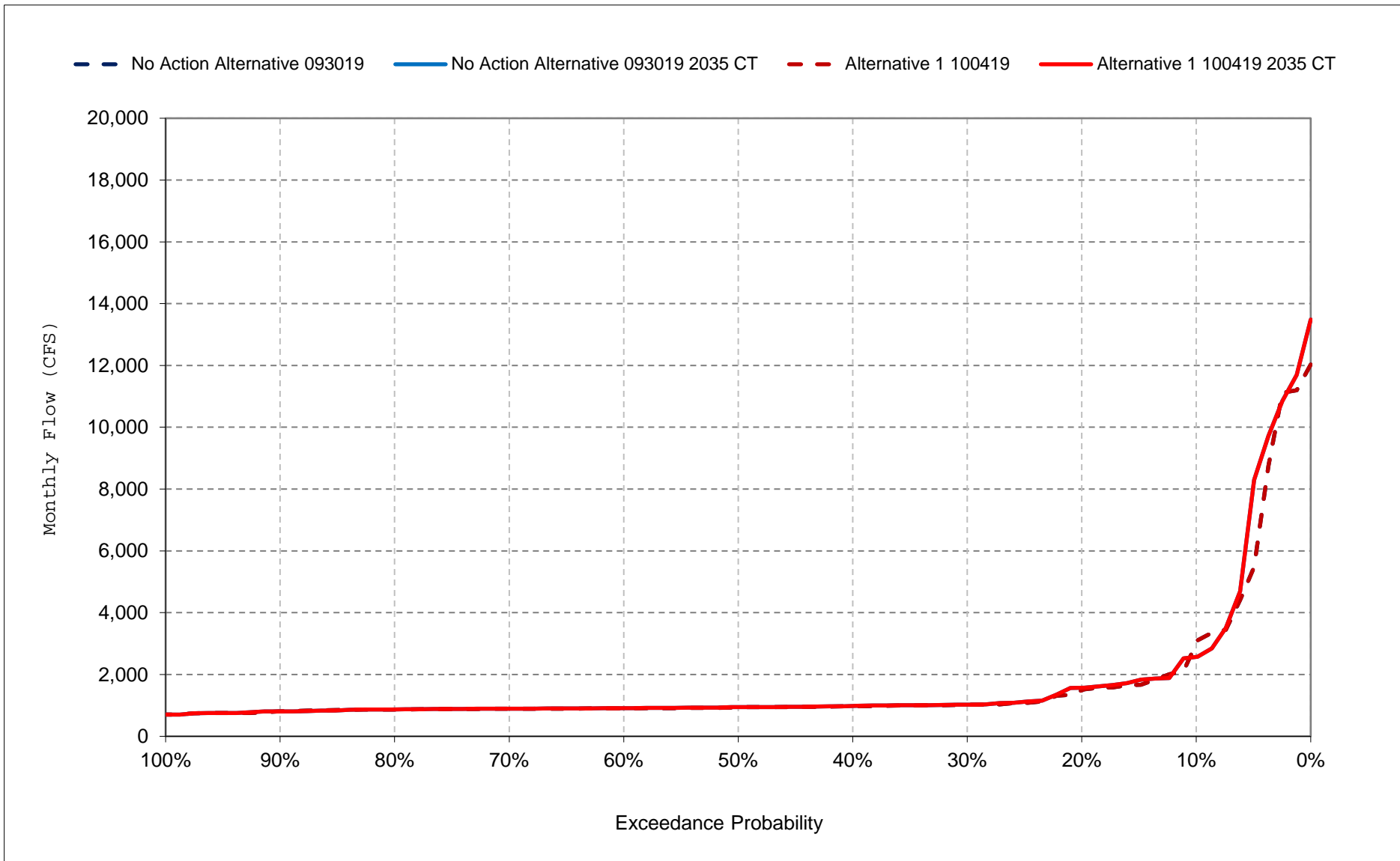
Figure 35-8. San Joaquin River Flow below confluence with Merced , November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

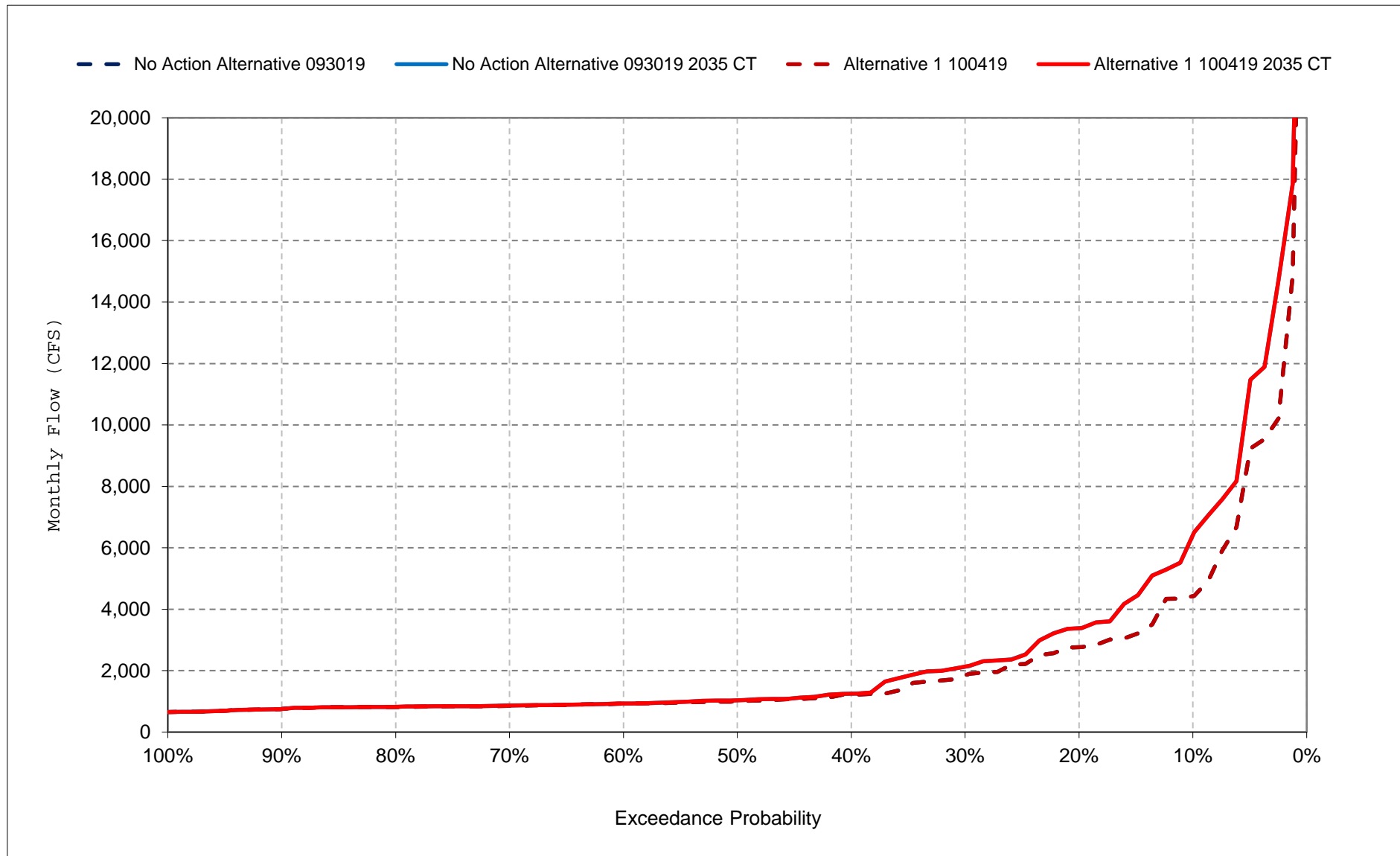
Figure 35-9. San Joaquin River Flow below confluence with Merced , December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

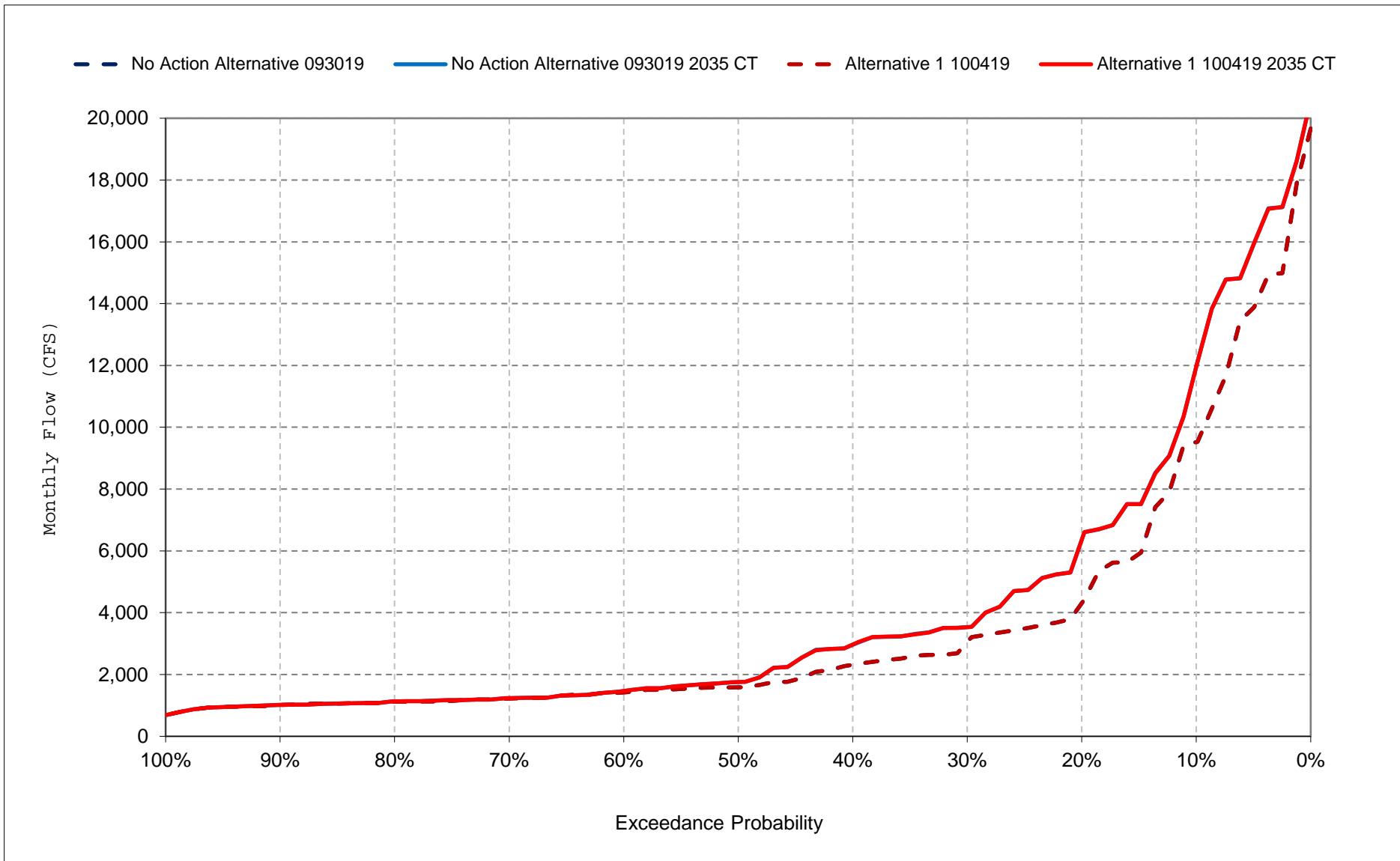
Figure 35-10. San Joaquin River Flow below confluence with Merced , January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

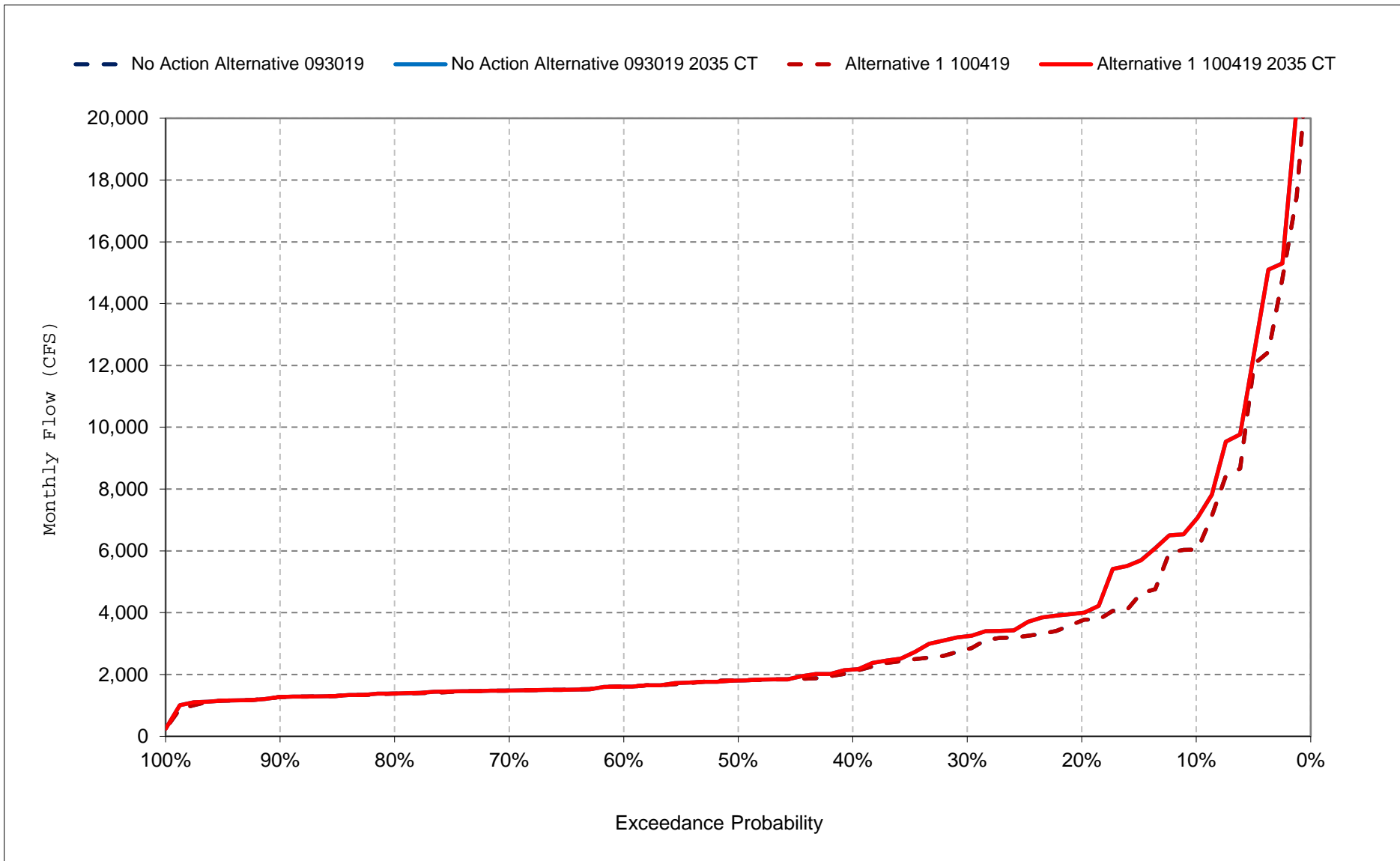
Figure 35-11. San Joaquin River Flow below confluence with Merced , February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

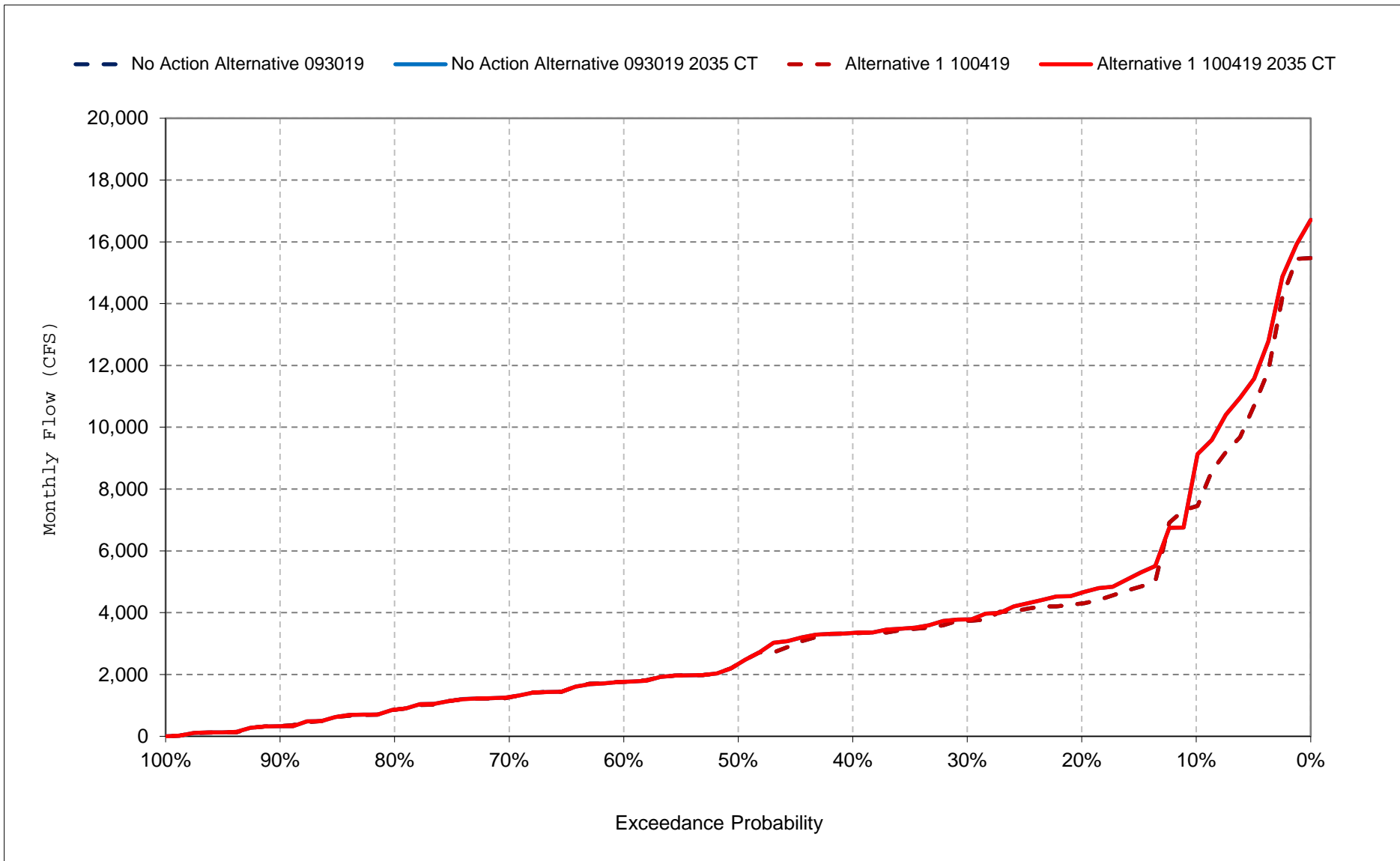
Figure 35-12. San Joaquin River Flow below confluence with Merced , March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

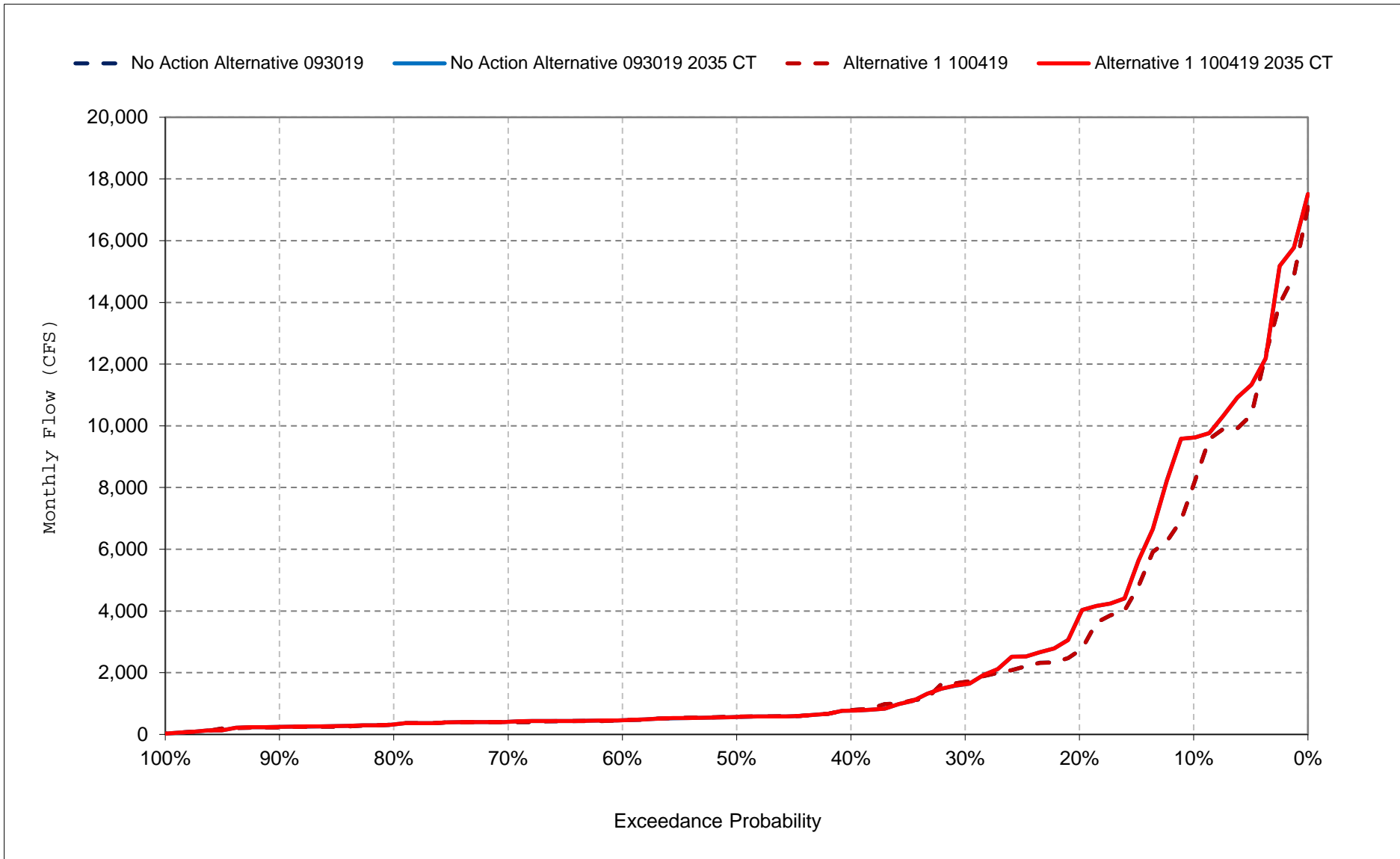
Figure 35-13. San Joaquin River Flow below confluence with Merced , April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

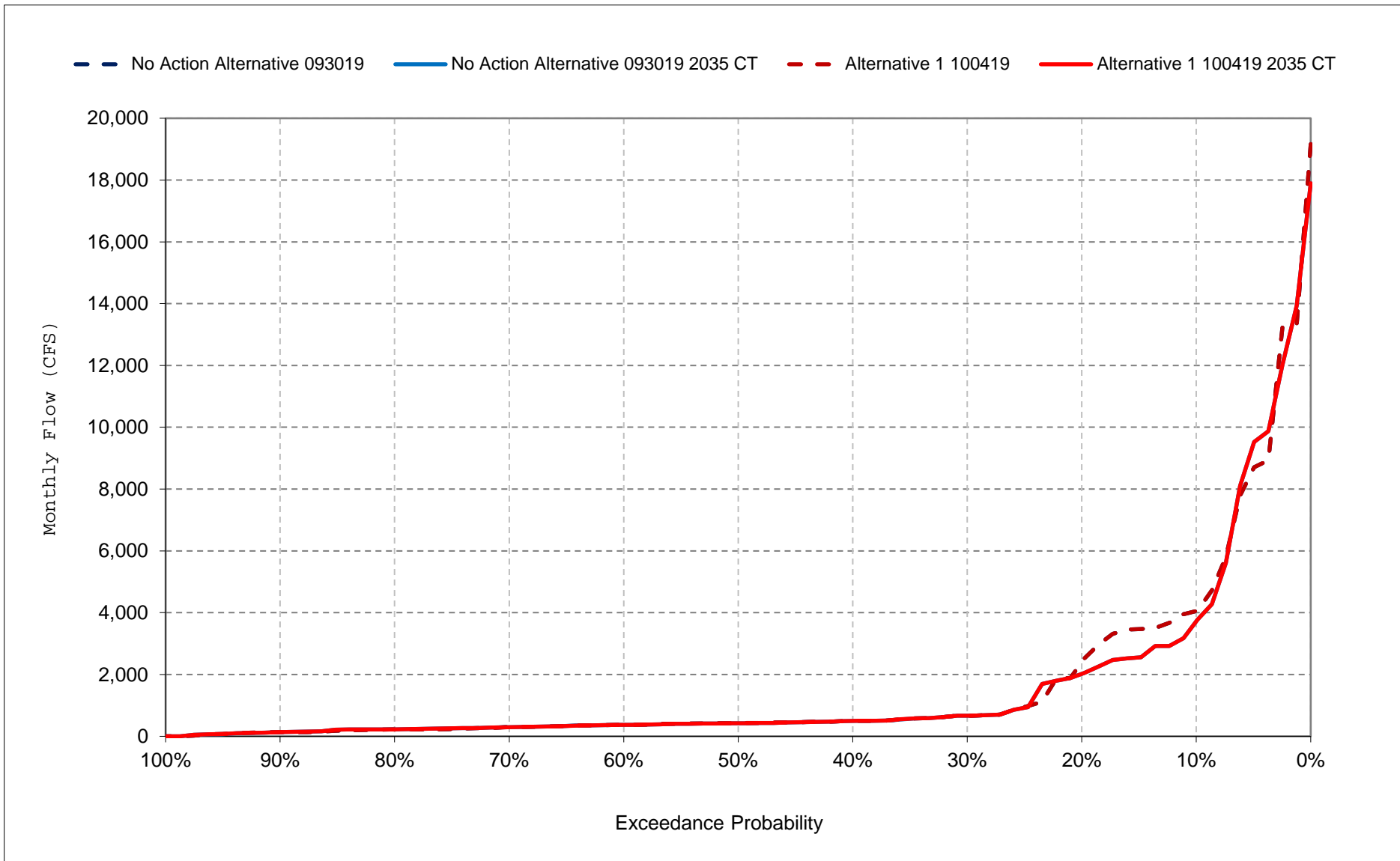
Figure 35-14. San Joaquin River Flow below confluence with Merced , May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

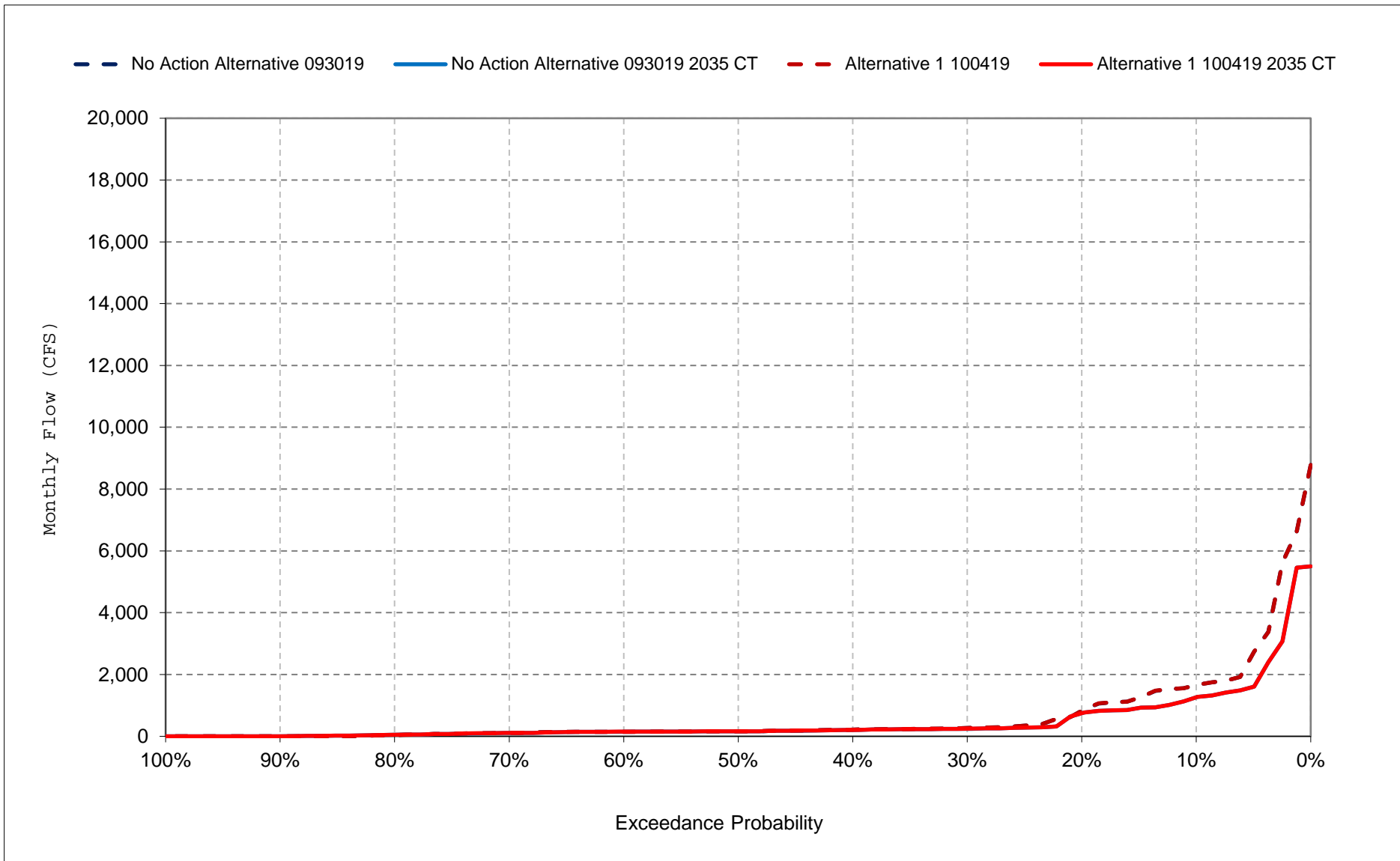
Figure 35-15. San Joaquin River Flow below confluence with Merced , June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

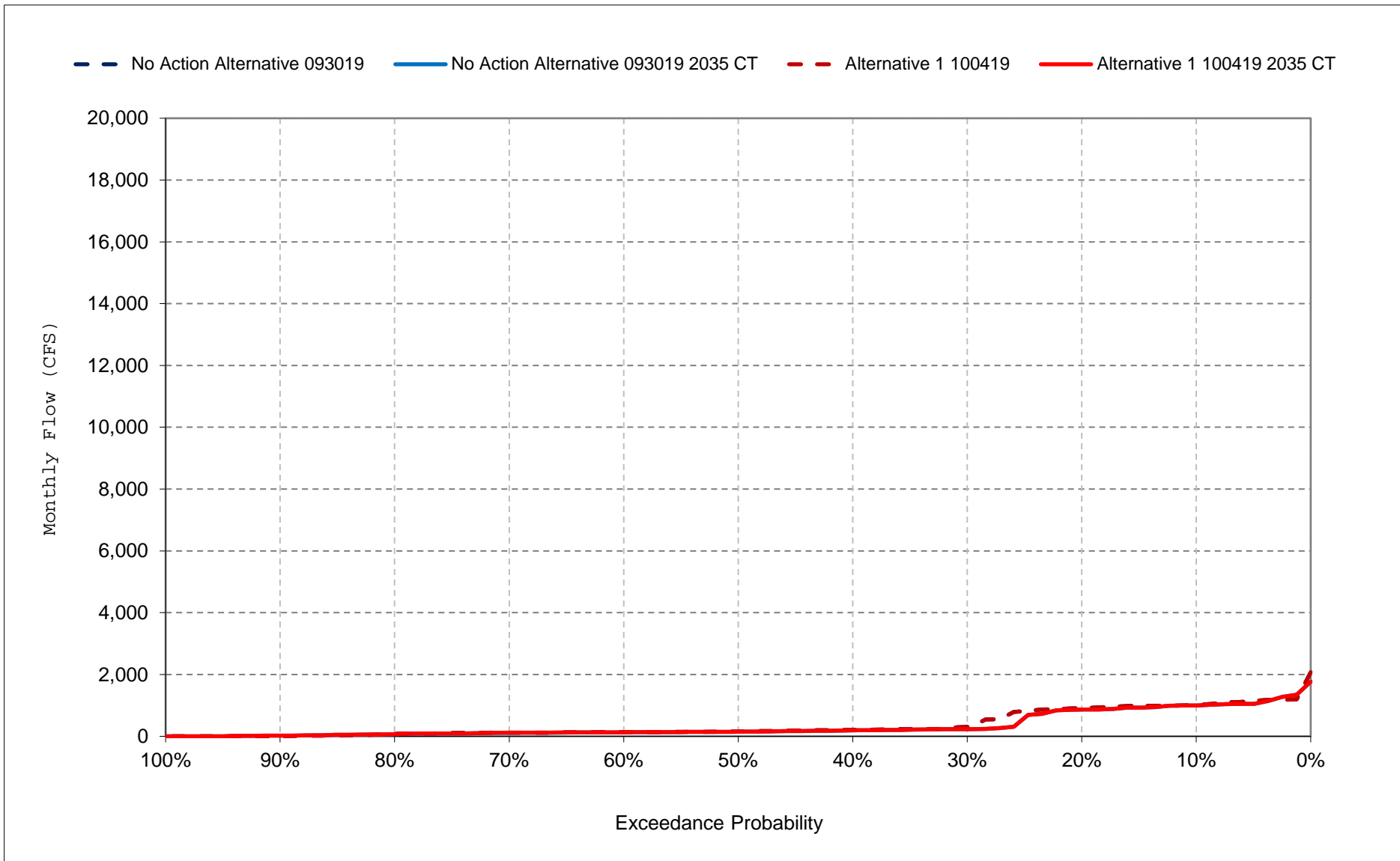
Figure 35-16. San Joaquin River Flow below confluence with Merced , July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

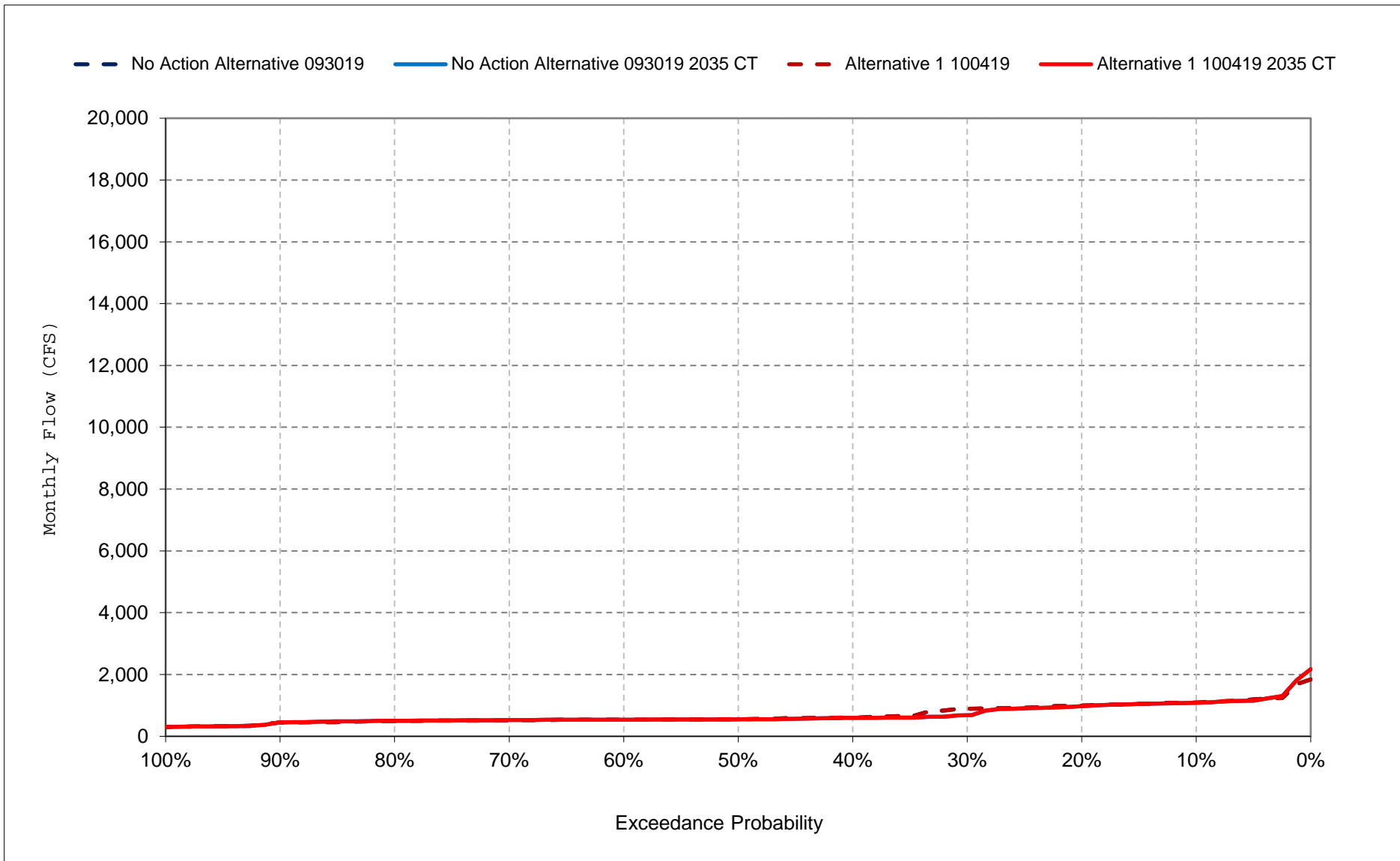
Figure 35-17. San Joaquin River Flow below confluence with Merced , August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 35-18. San Joaquin River Flow below confluence with Merced , September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 37-1. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	837	290	306	358	897	1,648	1,633	1,929	1,100	429	392	390
20%	797	200	218	232	405	1,521	1,553	1,555	1,089	318	300	300
30%	774	200	200	232	282	440	1,553	1,294	940	300	284	250
40%	774	200	200	226	236	200	1,400	1,242	853	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	363	277	283	250
60%	636	200	200	219	229	200	812	918	363	265	283	249
70%	636	200	200	219	229	200	767	705	294	265	283	249
80%	578	200	200	214	221	200	767	631	262	265	283	249
90%	577	200	200	213	215	200	504	547	255	265	283	249
Long Term												
Full Simulation Period ^d	723	278	367	519	593	754	1,159	1,124	679	395	362	351
Water Year Types ^{b,c}												
Wet (23%)	859	532	863	999	1,193	2,014	1,536	1,691	1,140	716	639	692
Above Normal (24%)	728	205	212	664	676	645	1,224	1,145	959	353	292	267
Below Normal (10%)	752	200	202	282	346	365	1,454	1,201	475	269	285	256
Dry (16%)	677	200	200	234	313	200	1,030	930	375	276	277	245
Critical (27%)	614	200	236	227	255	234	743	700	282	272	264	231

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	552	2,259	1,528	1,572	1,555	940	300	300	300
20%	797	200	200	232	294	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	230	236	675	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	636	200	200	226	229	200	972	819	255	265	283	249
70%	636	200	200	219	221	200	767	631	255	265	283	249
80%	577	200	200	213	214	200	466	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	718	272	341	549	722	762	1,147	1,036	566	378	338	339
Water Year Types ^{b,c}												
Wet (23%)	854	508	735	1,003	1,750	2,189	1,475	1,665	1,499	834	625	691
Above Normal (24%)	774	202	223	694	695	577	1,571	1,255	363	265	283	258
Below Normal (10%)	774	200	202	546	528	247	1,610	1,242	363	265	283	250
Dry (16%)	626	200	209	224	228	200	825	655	256	255	270	241
Critical (27%)	578	200	236	220	222	218	501	445	200	200	200	198

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-41	-90	0	194	1,362	-121	-62	-375	-160	-129	-92	-90
20%	0	0	-18	0	-111	0	0	0	-149	-18	0	0
30%	0	0	0	-2	-46	236	0	-52	-577	-35	-1	0
40%	0	0	0	0	-7	0	0	0	-490	-35	0	0
50%	0	0	0	0	-7	0	0	0	0	-12	0	0
60%	0	0	0	6	0	0	160	-99	-108	0	0	0
70%	0	0	0	0	-7	0	0	-75	-38	0	0	0
80%	-1	0	0	-1	-7	0	-300	-231	-62	-65	-83	-49
90%	0	0	0	0	-1	0	-44	-147	-55	-65	-83	-49
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-12	-87	-114	-17	-24	-13
Water Year Types ^{b,c}												
Wet (23%)	-5	-24	-128	4	557	175	-61	-26	359	118	-14	-1
Above Normal (24%)	46	-3	11	31	20	-68	347	109	-596	-88	-9	-9
Below Normal (10%)	22	0	0	264	183	-118	156	41	-111	-4	-2	-6
Dry (16%)	-51	0	9	-10	-86	0	-205	-275	-119	-21	-6	-4
Critical (27%)	-36	0	0	-7	-33	-15	-242	-255	-82	-72	-64	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 37-2. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	362	1,485	1,648	1,633	1,662	1,106	792	319	300
20%	797	200	218	232	610	1,521	1,553	1,555	940	359	300	300
30%	797	200	200	232	364	1,521	1,553	1,555	940	300	300	300
40%	774	200	200	230	253	304	1,400	1,242	940	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	375	294	283	250
60%	636	200	200	219	229	200	885	917	363	277	283	249
70%	636	200	200	219	229	200	767	732	329	265	283	249
80%	636	200	200	219	221	200	767	660	264	265	283	249
90%	577	200	200	213	215	200	580	566	255	265	283	249
Long Term												
Full Simulation Period ^d	734	293	393	610	699	906	1,175	1,158	678	403	353	369
Water Year Types ^{b,c}												
Wet (23%)	887	598	982	1,032	1,457	2,256	1,553	1,689	1,183	702	581	748
Above Normal (24%)	733	205	212	955	811	974	1,199	1,208	864	381	296	277
Below Normal (10%)	755	200	202	425	382	530	1,435	1,240	497	274	287	262
Dry (16%)	688	200	200	235	358	200	1,092	972	394	281	283	249
Critical (27%)	622	200	232	222	260	232	783	735	308	285	274	233

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	528	2,440	2,618	1,660	1,572	1,555	940	300	300	300
20%	797	200	200	433	1,423	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	232	380	1,490	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	266	1,408	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	691	200	200	226	229	200	882	819	255	265	283	249
70%	636	200	200	219	221	200	768	631	255	265	283	249
80%	577	200	200	213	214	200	461	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	727	291	397	746	1,009	903	1,156	1,045	517	302	332	374
Water Year Types ^{b,c}												
Wet (23%)	882	594	981	1,408	2,515	2,300	1,521	1,669	1,229	503	596	842
Above Normal (24%)	776	200	207	1,021	955	997	1,561	1,286	421	269	285	255
Below Normal (10%)	774	200	202	720	591	296	1,610	1,242	363	265	283	250
Dry (16%)	628	200	229	263	480	251	779	620	247	245	257	234
Critical (27%)	583	200	236	220	222	218	529	466	205	206	208	204

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	222	2,078	1,132	12	-61	-107	-166	-492	-19	0
20%	0	0	-18	201	813	0	0	0	-59	0	0	0
30%	-23	0	0	0	15	-31	0	-313	-577	-35	-17	-50
40%	0	0	0	-4	-25	-38	8	0	-577	-35	0	0
50%	0	0	0	0	-7	0	0	0	-11	-29	0	0
60%	55	0	0	6	0	0	-3	-98	-108	-11	0	0
70%	0	0	0	0	-7	0	2	-101	-73	0	0	0
80%	-58	0	0	-7	-7	0	-305	-260	-64	-65	-83	-49
90%	0	0	0	0	-1	0	-120	-166	-55	-65	-83	-49
Long Term												
Full Simulation Period ^d	-7	-2	4	136	310	-2	-20	-113	-161	-101	-22	5
Water Year Types ^{b,c}												
Wet (23%)	-5	-5	0	376	1,057	45	-32	-20	46	-200	15	93
Above Normal (24%)	44	-5	-5	66	144	24	363	78	-443	-112	-11	-22
Below Normal (10%)	19	0	0	295	208	-235	175	2	-134	-9	-4	-12
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-254	-269	-103	-79	-66	-29

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 37-3. Stanislaus River Flow below Goodwin, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	837	290	306	358	897	1,648	1,633	1,929	1,100	429	392	390
20%	797	200	218	232	405	1,521	1,553	1,555	1,089	318	300	300
30%	774	200	200	232	282	440	1,553	1,294	940	300	284	250
40%	774	200	200	226	236	200	1,400	1,242	853	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	363	277	283	250
60%	636	200	200	219	229	200	812	918	363	265	283	249
70%	636	200	200	219	229	200	767	705	294	265	283	249
80%	578	200	200	214	221	200	767	631	262	265	283	249
90%	577	200	200	213	215	200	504	547	255	265	283	249
Long Term												
Full Simulation Period ^d	723	278	367	519	593	754	1,159	1,124	679	395	362	351
Water Year Types ^{b,c}												
Wet (23%)	859	532	863	999	1,193	2,014	1,536	1,691	1,140	716	639	692
Above Normal (24%)	728	205	212	664	676	645	1,224	1,145	959	353	292	267
Below Normal (10%)	752	200	202	282	346	365	1,454	1,201	475	269	285	256
Dry (16%)	677	200	200	234	313	200	1,030	930	375	276	277	245
Critical (27%)	614	200	236	227	255	234	743	700	282	272	264	231

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	362	1,485	1,648	1,633	1,662	1,106	792	319	300
20%	797	200	218	232	610	1,521	1,553	1,555	940	359	300	300
30%	797	200	200	232	364	1,521	1,553	1,555	940	300	300	300
40%	774	200	200	230	253	304	1,400	1,242	940	300	283	250
50%	774	200	200	226	236	200	1,400	1,242	375	294	283	250
60%	636	200	200	219	229	200	885	917	363	277	283	249
70%	636	200	200	219	229	200	767	732	329	265	283	249
80%	636	200	200	219	221	200	767	660	264	265	283	249
90%	577	200	200	213	215	200	580	566	255	265	283	249
Long Term												
Full Simulation Period ^d	734	293	393	610	699	906	1,175	1,158	678	403	353	369
Water Year Types ^{b,c}												
Wet (23%)	887	598	982	1,032	1,457	2,256	1,553	1,689	1,183	702	581	748
Above Normal (24%)	733	205	212	955	811	974	1,199	1,208	864	381	296	277
Below Normal (10%)	755	200	202	425	382	530	1,435	1,240	497	274	287	262
Dry (16%)	688	200	200	235	358	200	1,092	972	394	281	283	249
Critical (27%)	622	200	232	222	260	232	783	735	308	285	274	233

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-41	-90	0	4	588	0	0	-268	6	363	-73	-90
20%	0	0	0	0	205	0	0	0	-149	40	0	0
30%	23	0	0	0	82	1,081	0	261	0	0	16	50
40%	0	0	0	4	17	104	0	0	87	0	0	0
50%	0	0	0	0	0	0	0	0	11	17	0	0
60%	0	0	0	0	0	0	73	-1	0	11	0	0
70%	0	0	0	0	0	0	0	27	35	0	0	0
80%	57	0	0	5	0	0	0	29	2	0	0	0
90%	0	0	0	0	0	0	75	19	0	0	0	0
Long Term												
Full Simulation Period ^d	12	15	26	92	106	152	17	35	-1	8	-9	17
Water Year Types ^{b,c}												
Wet (23%)	28	66	118	34	264	241	17	-2	43	-14	-57	56
Above Normal (24%)	4	0	0	291	135	329	-26	63	-95	28	3	10
Below Normal (10%)	3	0	0	143	37	165	-19	39	22	4	2	6
Dry (16%)	12	0	0	0	44	0	62	42	19	4	6	4
Critical (27%)	8	0	-4	-5	5	-1	40	35	26	13	10	2

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Table 37-4. Stanislaus River Flow below Goodwin, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	306	552	2,259	1,528	1,572	1,555	940	300	300	300
20%	797	200	200	232	294	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	230	236	675	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	636	200	200	226	229	200	972	819	255	265	283	249
70%	636	200	200	219	221	200	767	631	255	265	283	249
80%	577	200	200	213	214	200	466	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	718	272	341	549	722	762	1,147	1,036	566	378	338	339
Water Year Types ^{b,c}												
Wet (23%)	854	508	735	1,003	1,750	2,189	1,475	1,665	1,499	834	625	691
Above Normal (24%)	774	202	223	694	695	577	1,571	1,255	363	265	283	258
Below Normal (10%)	774	200	202	546	528	247	1,610	1,242	363	265	283	250
Dry (16%)	626	200	209	224	228	200	825	655	256	255	270	241
Critical (27%)	578	200	236	220	222	218	501	445	200	200	200	198

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	797	200	528	2,440	2,618	1,660	1,572	1,555	940	300	300	300
20%	797	200	200	433	1,423	1,521	1,553	1,555	940	300	300	300
30%	774	200	200	232	380	1,490	1,553	1,242	363	265	283	250
40%	774	200	200	226	229	266	1,408	1,242	363	265	283	250
50%	774	200	200	226	229	200	1,400	1,242	363	265	283	250
60%	691	200	200	226	229	200	882	819	255	265	283	249
70%	636	200	200	219	221	200	768	631	255	265	283	249
80%	577	200	200	213	214	200	461	400	200	200	200	200
90%	577	200	200	213	214	200	460	400	200	200	200	200
Long Term												
Full Simulation Period ^d	727	291	397	746	1,009	903	1,156	1,045	517	302	332	374
Water Year Types ^{b,c}												
Wet (23%)	882	594	981	1,408	2,515	2,300	1,521	1,669	1,229	503	596	842
Above Normal (24%)	776	200	207	1,021	955	997	1,561	1,286	421	269	285	255
Below Normal (10%)	774	200	202	720	591	296	1,610	1,242	363	265	283	250
Dry (16%)	628	200	229	263	480	251	779	620	247	245	257	234
Critical (27%)	583	200	236	220	222	218	529	466	205	206	208	204

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	222	1,888	359	132	1	0	0	0	0	0
20%	0	0	0	201	1,129	0	0	0	0	0	0	0
30%	0	0	0	2	144	815	0	0	0	0	0	0
40%	0	0	0	0	0	66	8	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	55	0	0	0	0	0	-90	0	0	0	0	0
70%	0	0	0	0	0	0	2	0	0	0	0	0
80%	0	0	0	0	0	0	-5	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	9	19	56	197	287	141	8	8	-49	-76	-6	35
Water Year Types ^{b,c}												
Wet (23%)	28	86	246	405	765	111	46	4	-270	-331	-29	151
Above Normal (24%)	2	-2	-15	327	260	420	-10	31	58	3	2	-3
Below Normal (10%)	0	0	0	174	62	49	0	0	0	0	0	0
Dry (16%)	2	0	20	39	253	51	-45	-35	-9	-10	-13	-7
Critical (27%)	5	0	0	1	1	0	28	21	5	6	8	7

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

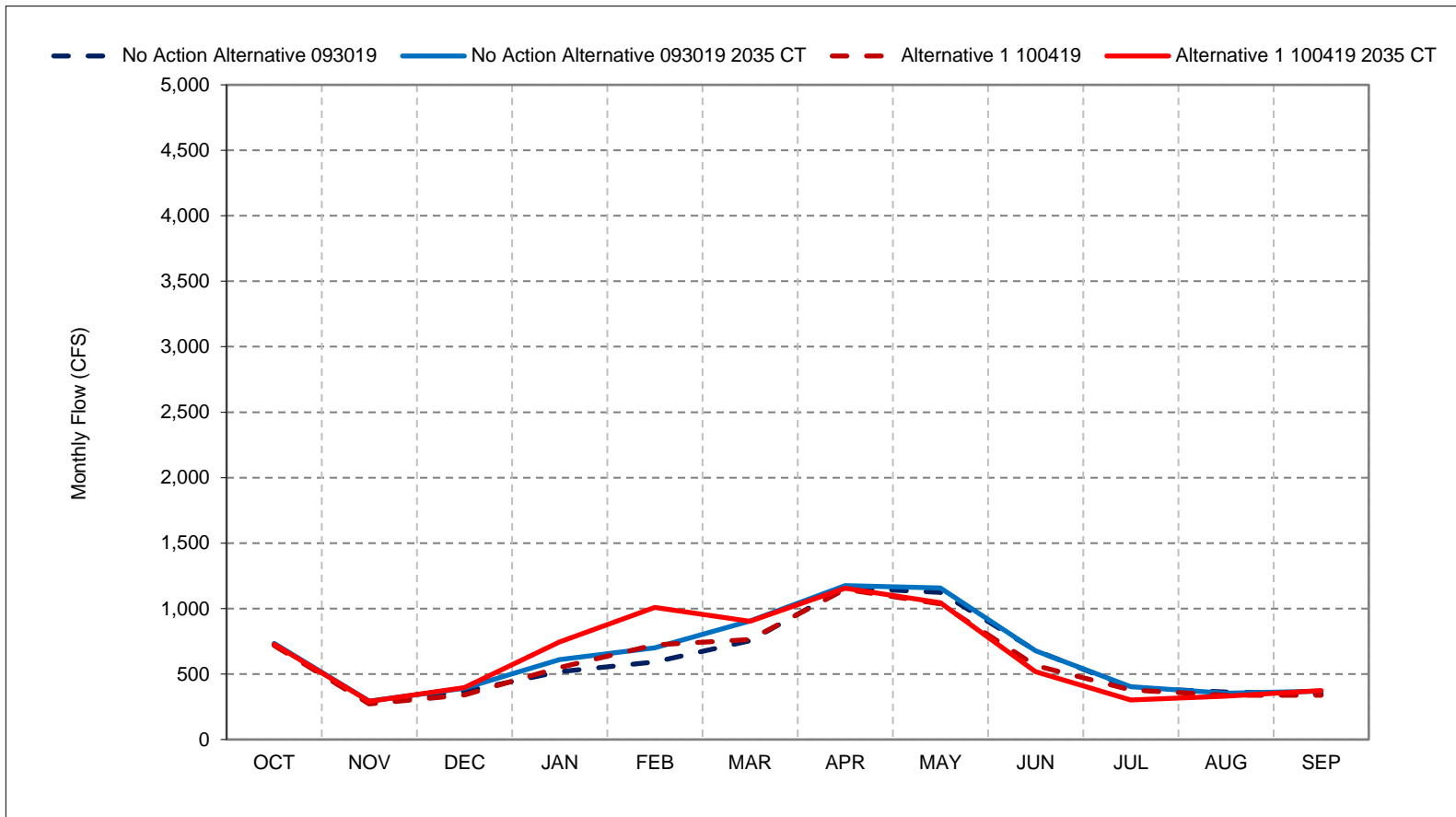
d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Figure 37-1. Stanislaus River Flow below Goodwin, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

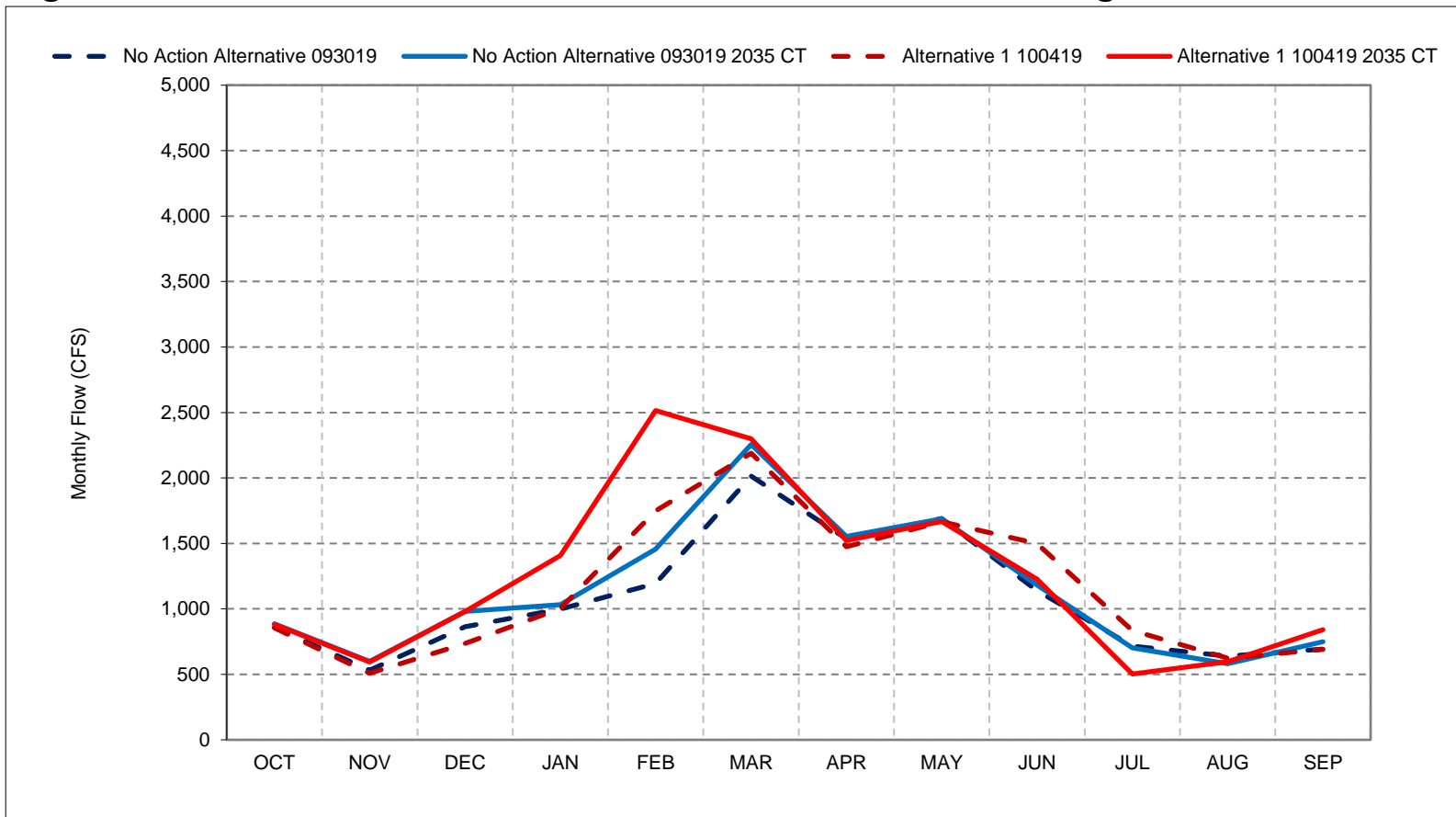
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-2. Stanislaus River Flow below Goodwin, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

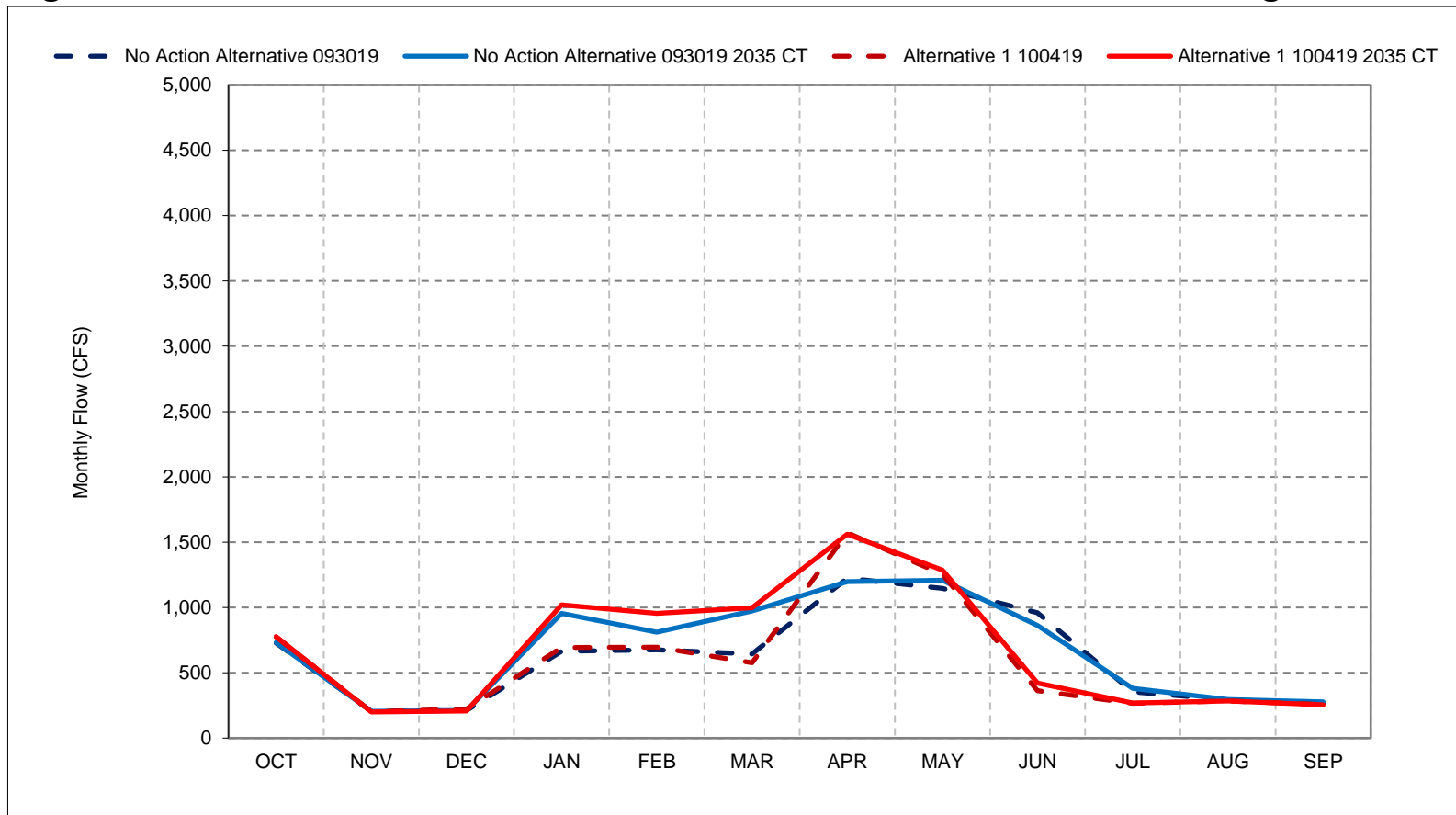
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-3. Stanislaus River Flow below Goodwin, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

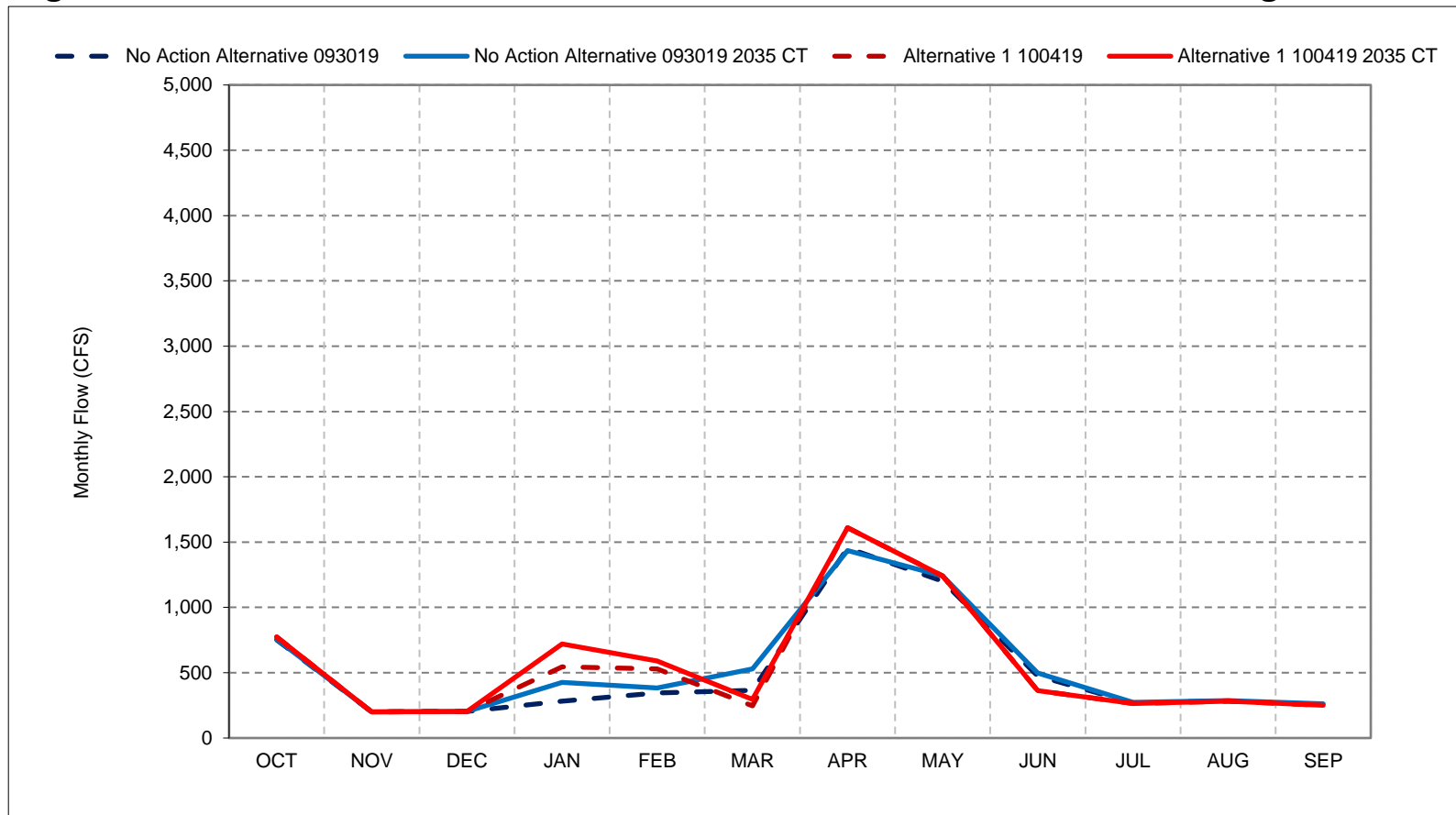
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-4. Stanislaus River Flow below Goodwin, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

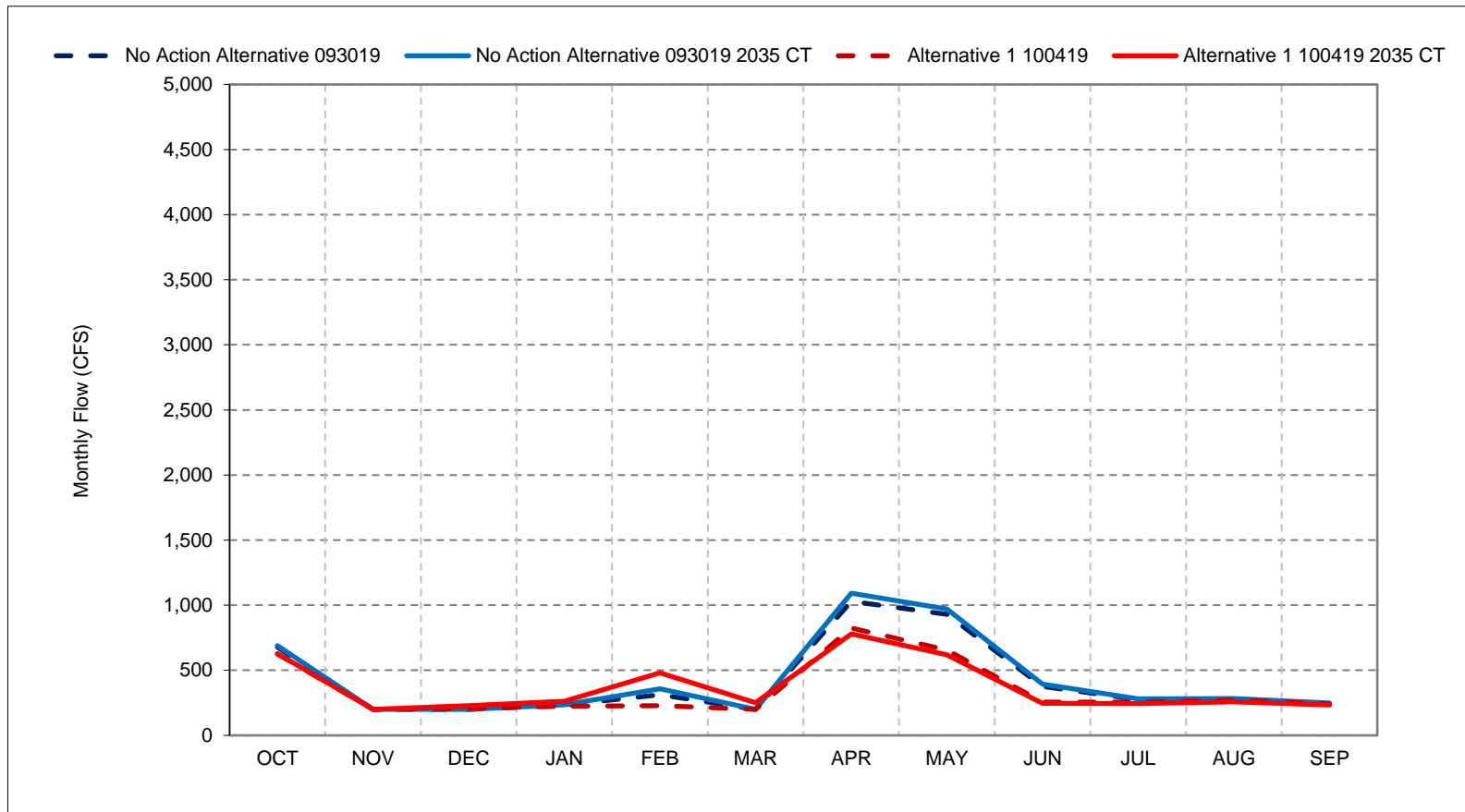
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-5. Stanislaus River Flow below Goodwin, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

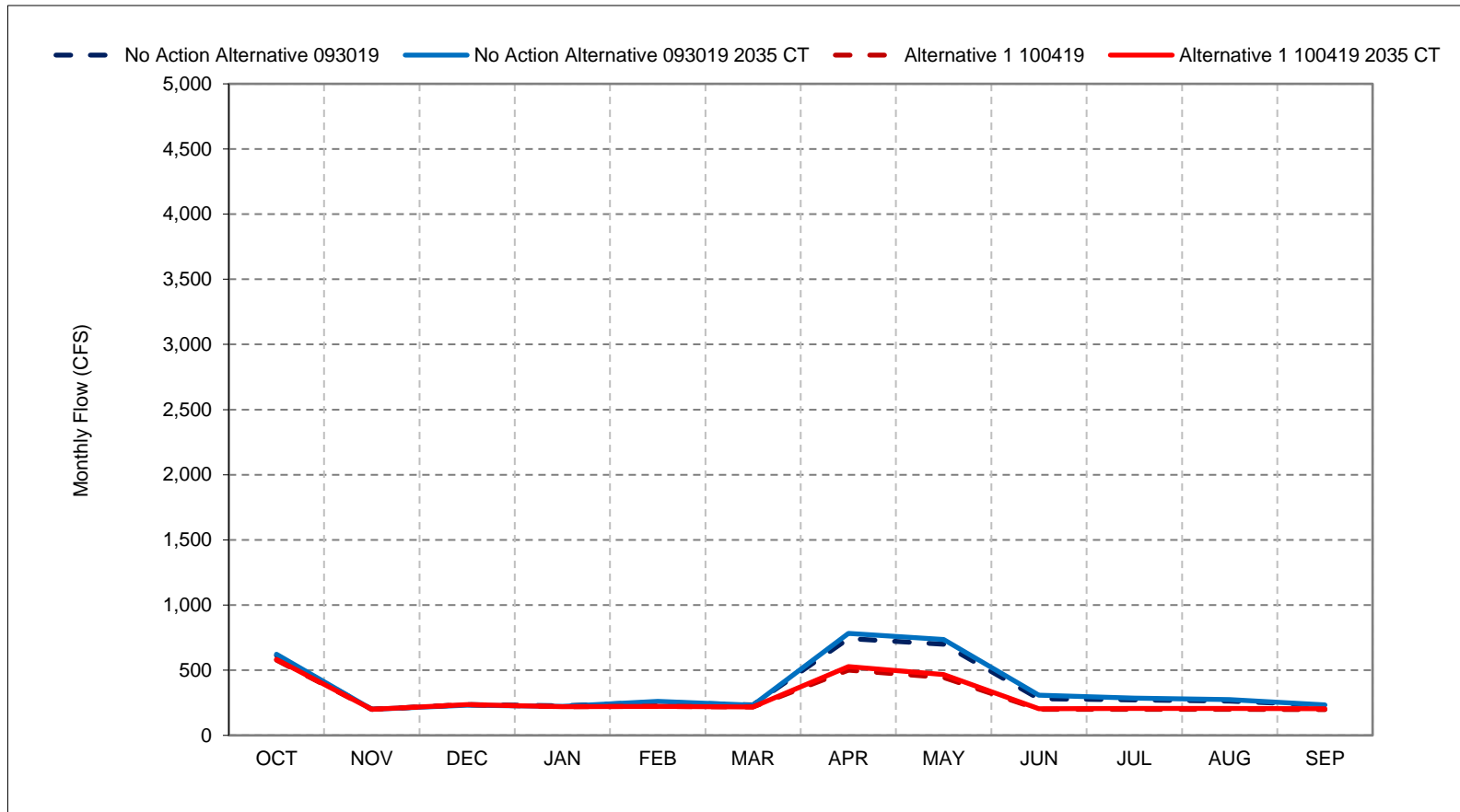
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 37-6. Stanislaus River Flow below Goodwin, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

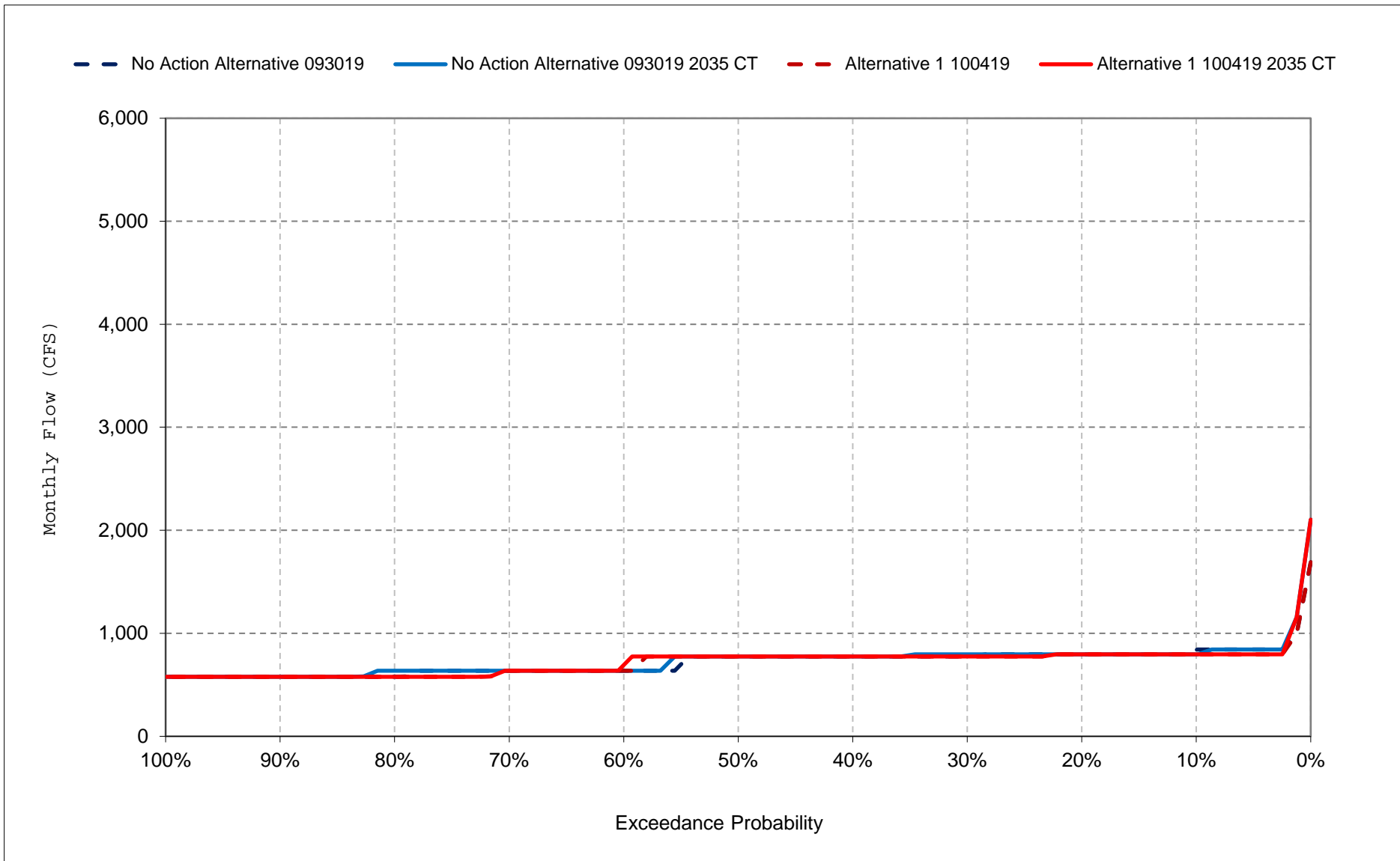
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

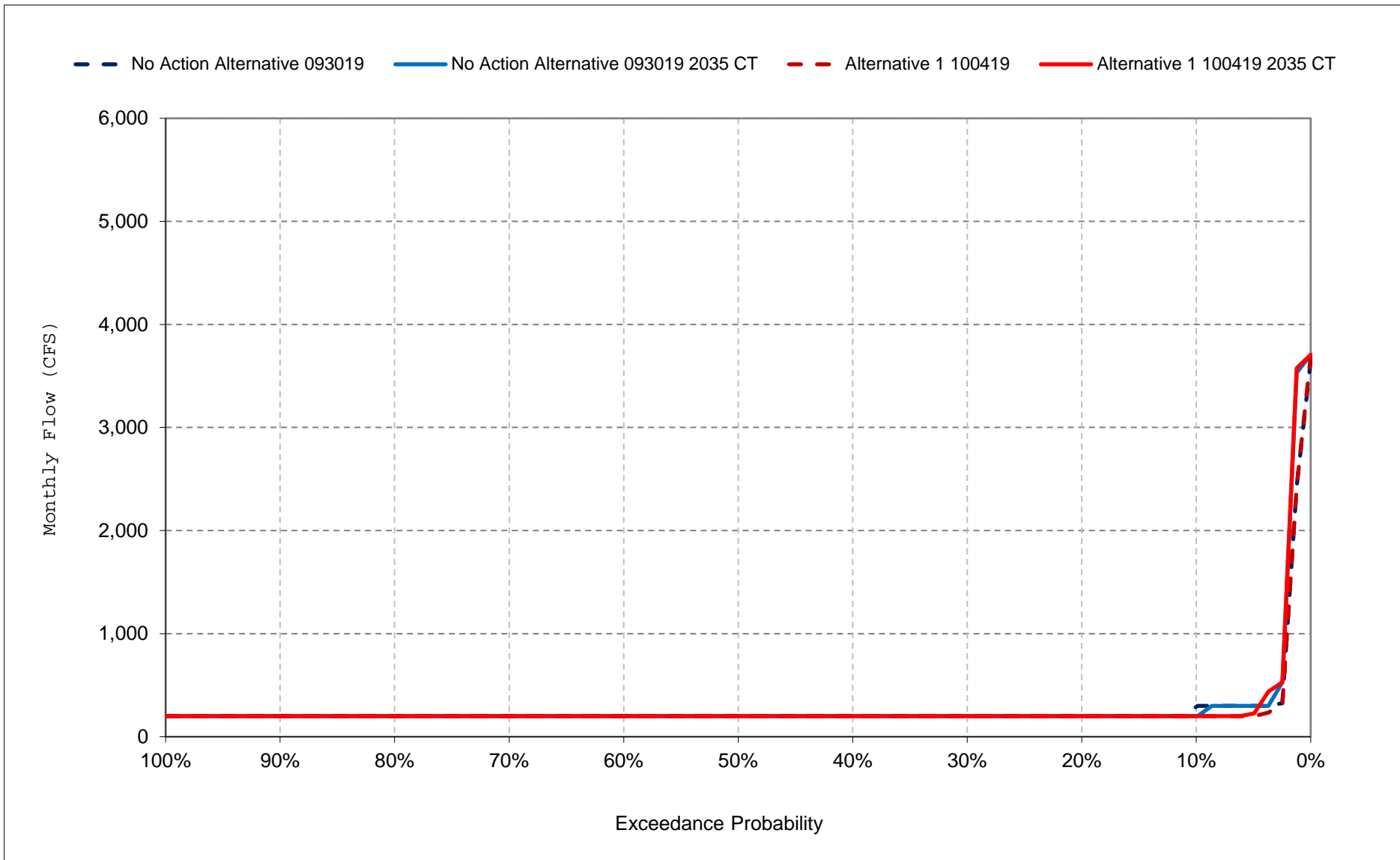
Figure 37-7. Stanislaus River Flow below Goodwin, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

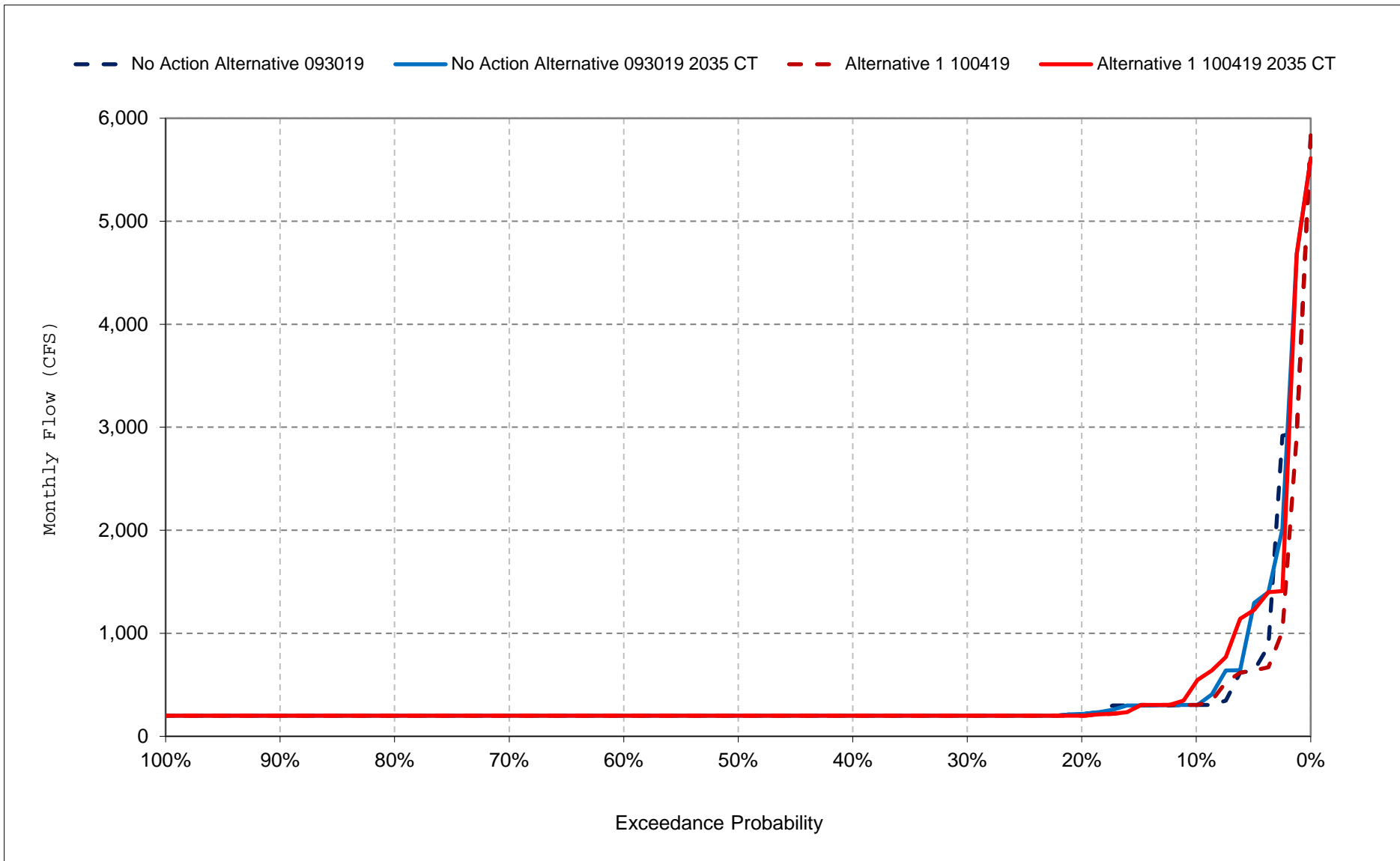
Figure 37-8. Stanislaus River Flow below Goodwin, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

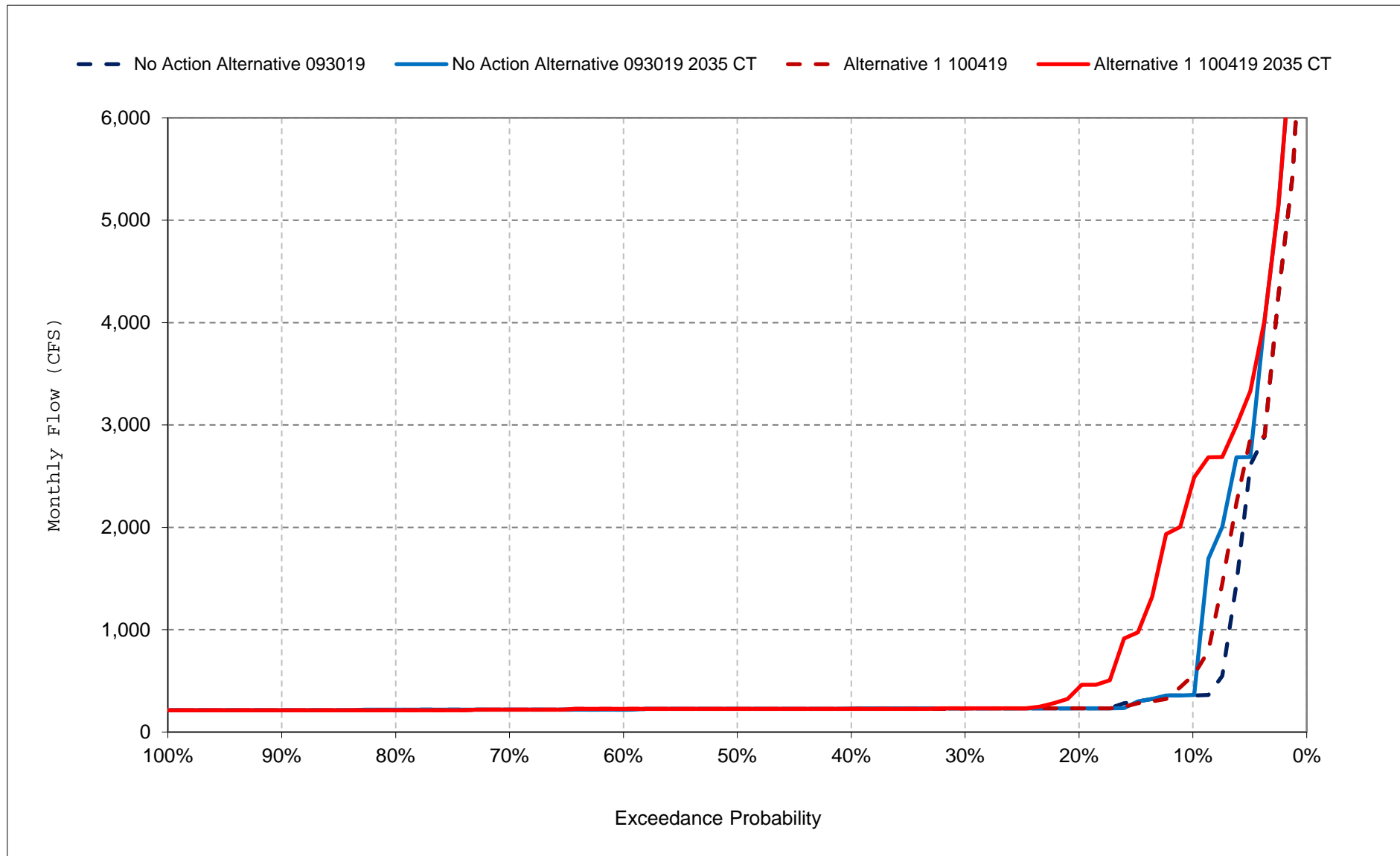
Figure 37-9. Stanislaus River Flow below Goodwin, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

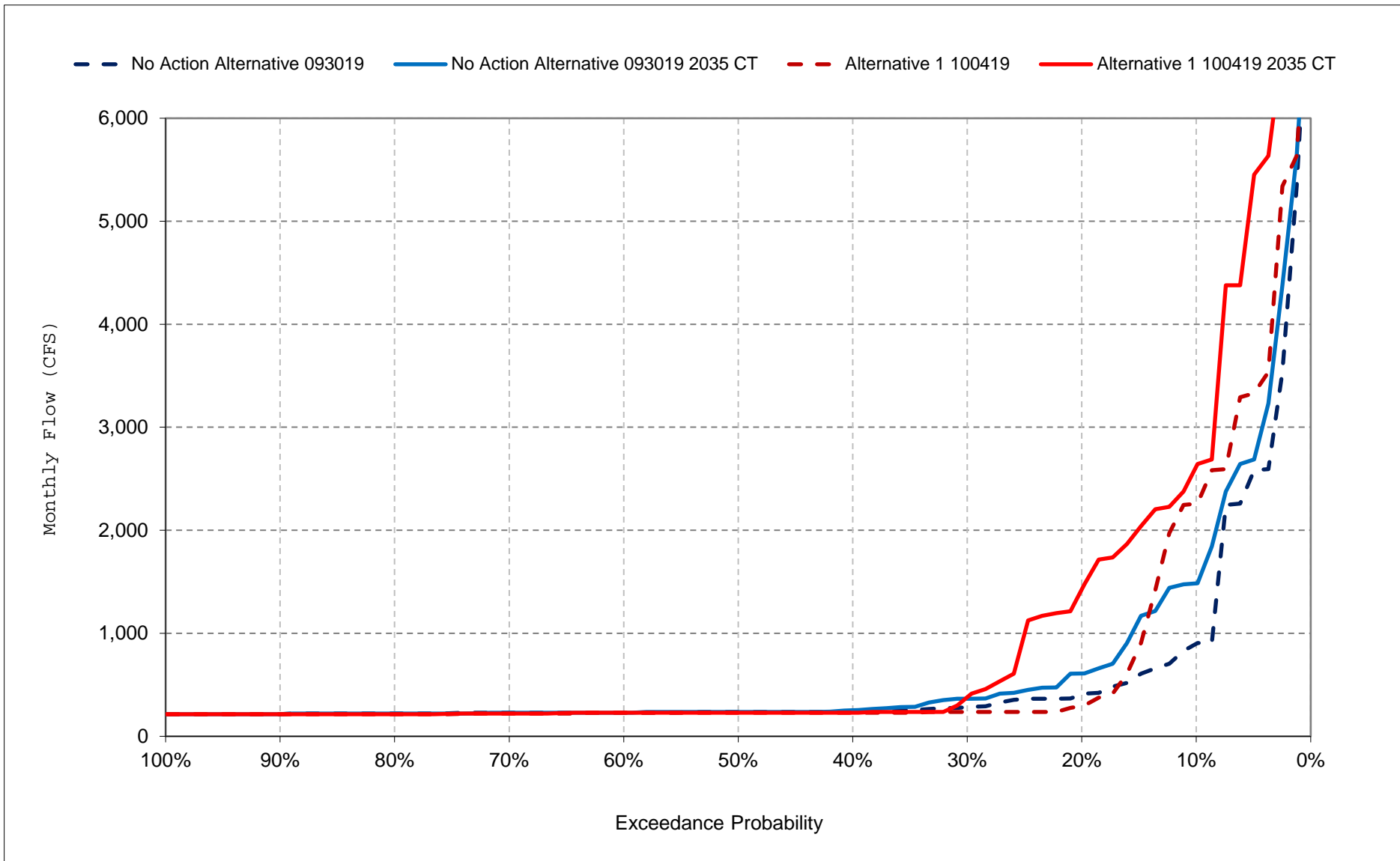
Figure 37-10. Stanislaus River Flow below Goodwin, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

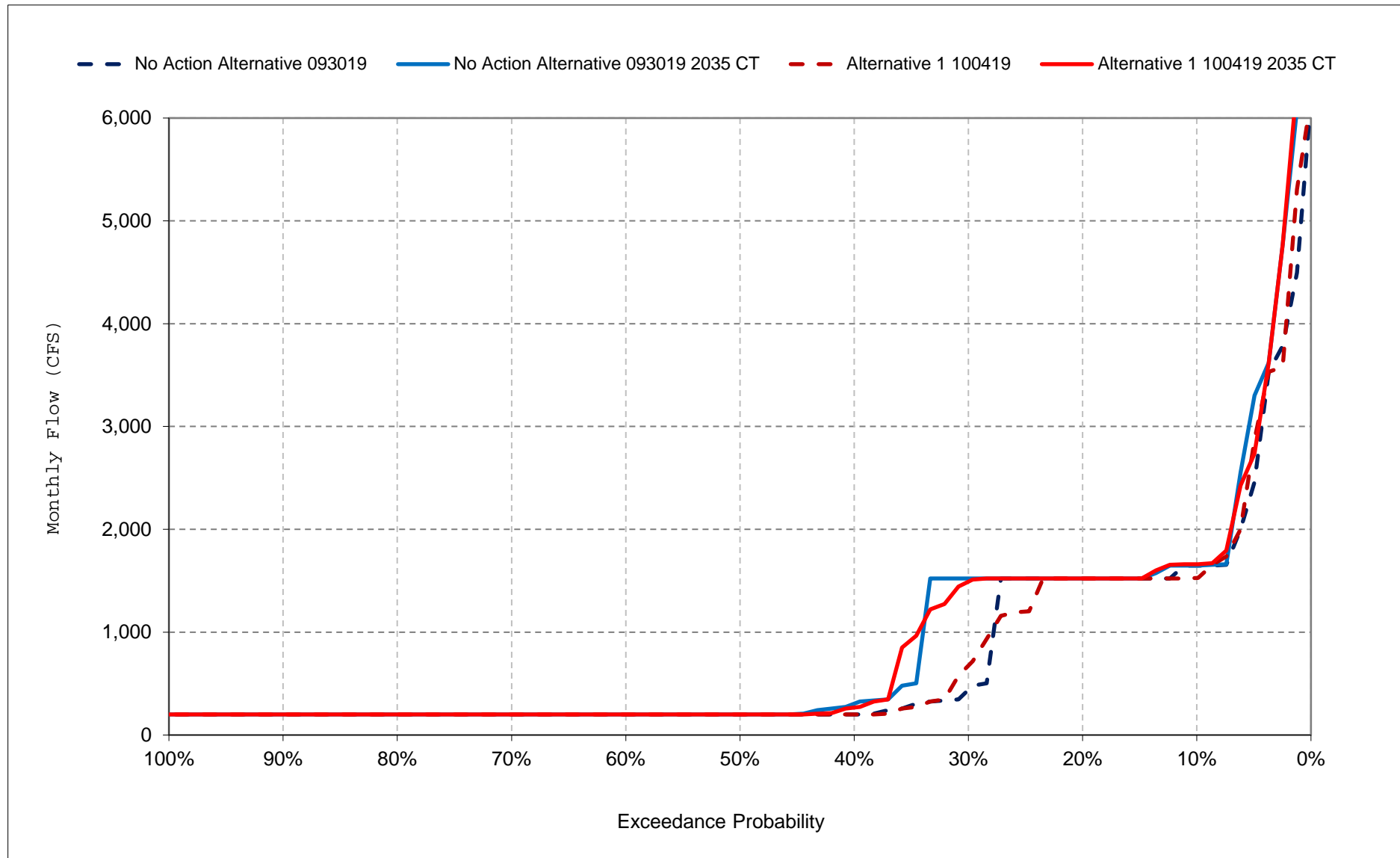
Figure 37-11. Stanislaus River Flow below Goodwin, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

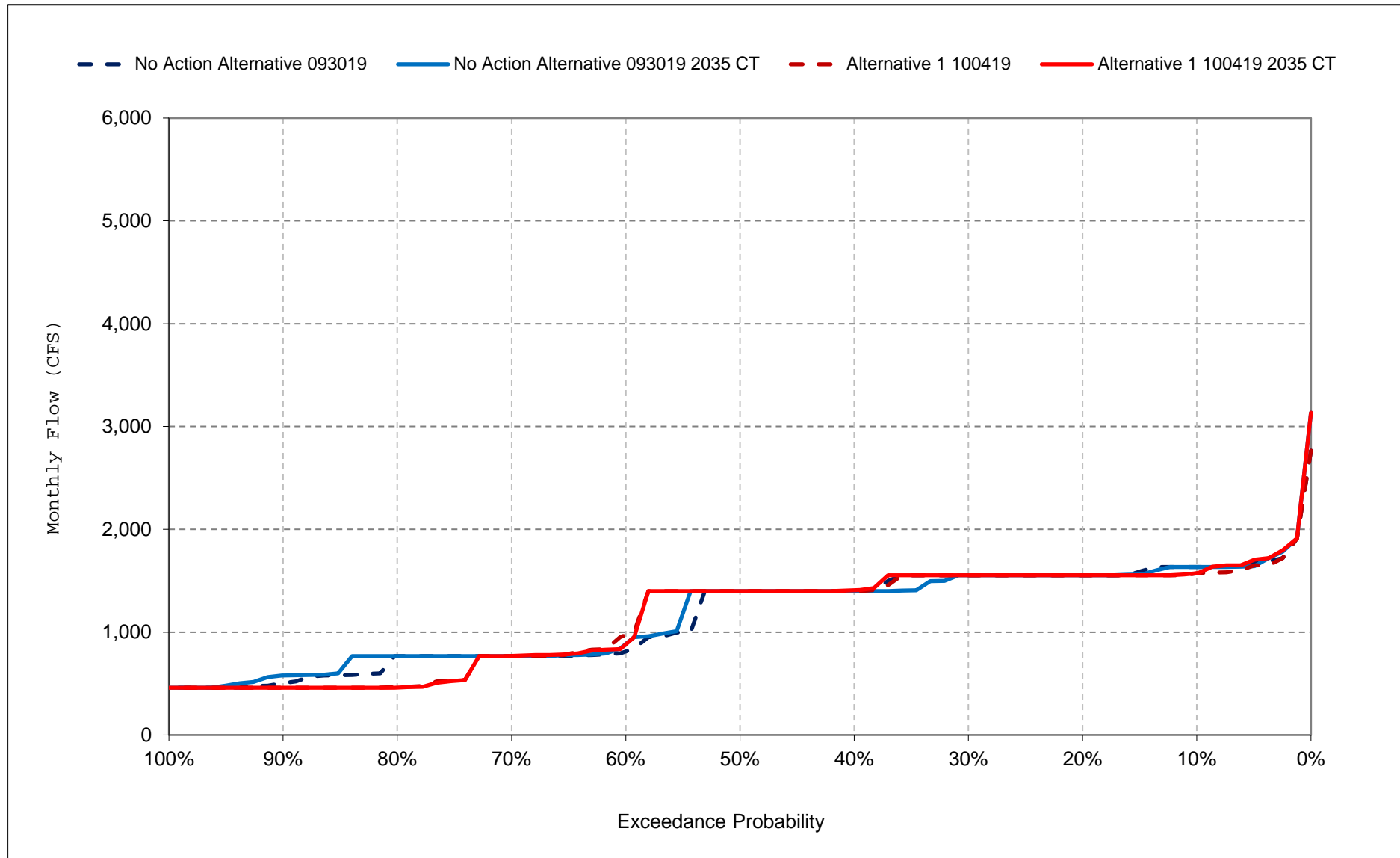
Figure 37-12. Stanislaus River Flow below Goodwin, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

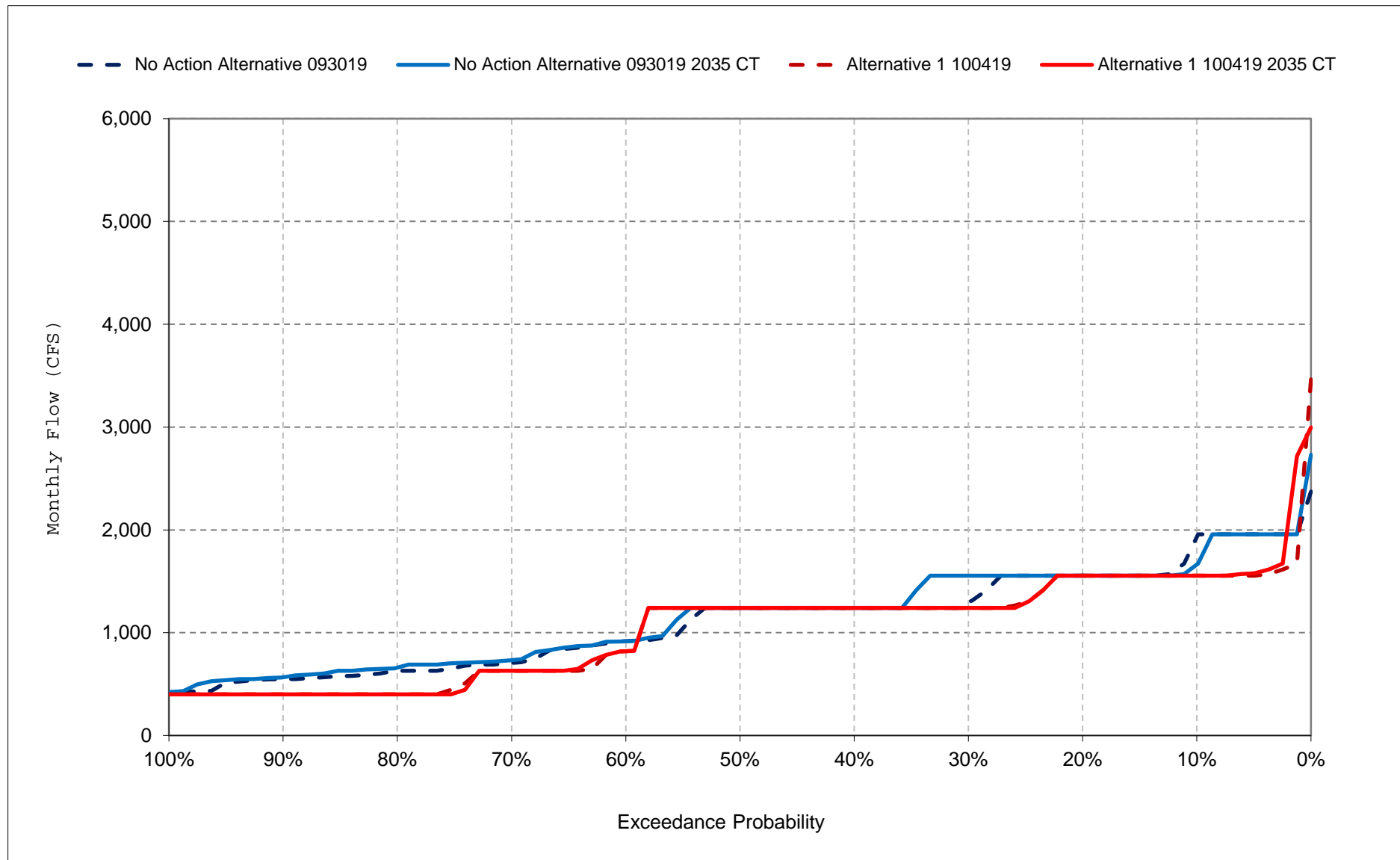
Figure 37-13. Stanislaus River Flow below Goodwin, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

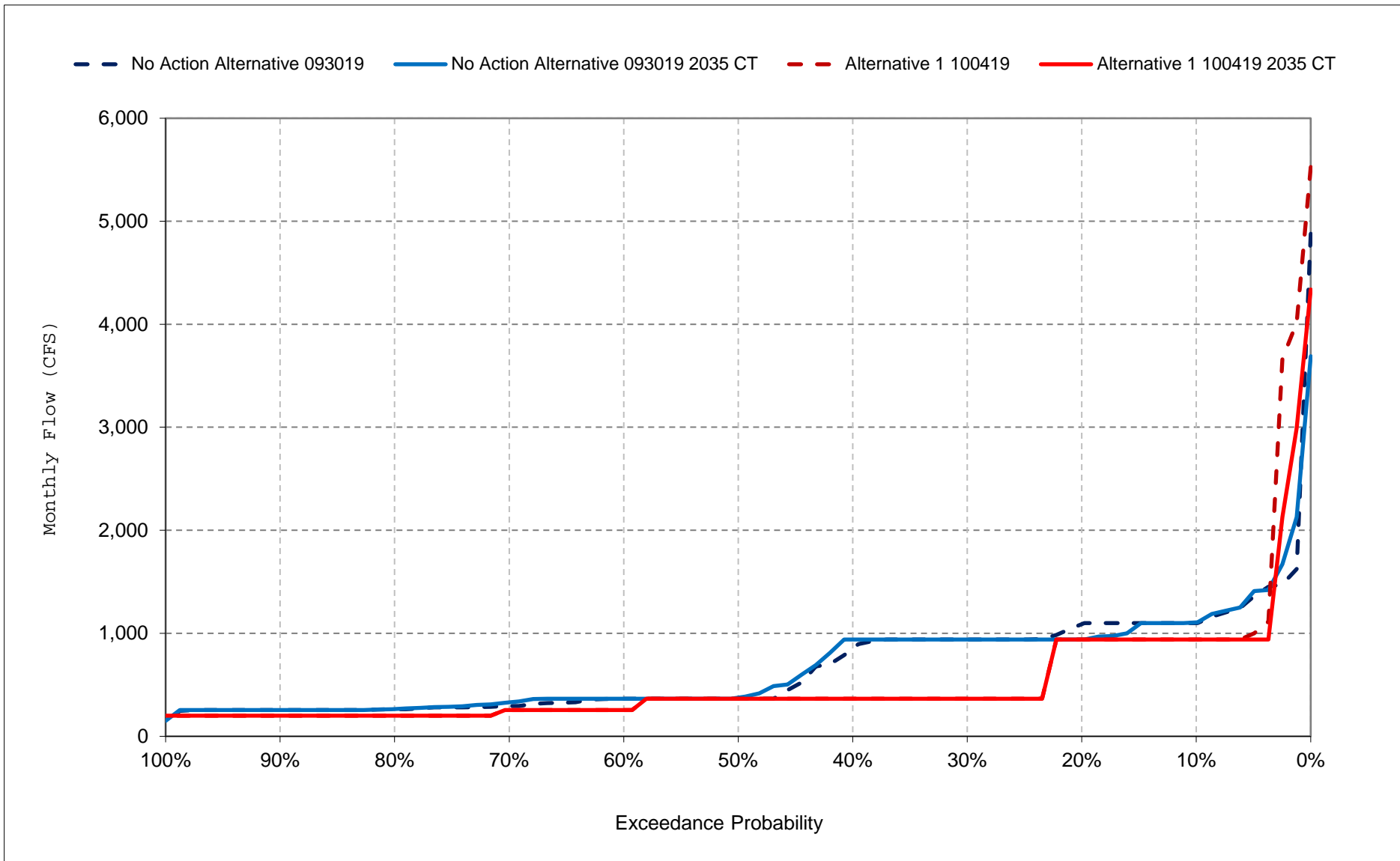
Figure 37-14. Stanislaus River Flow below Goodwin, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

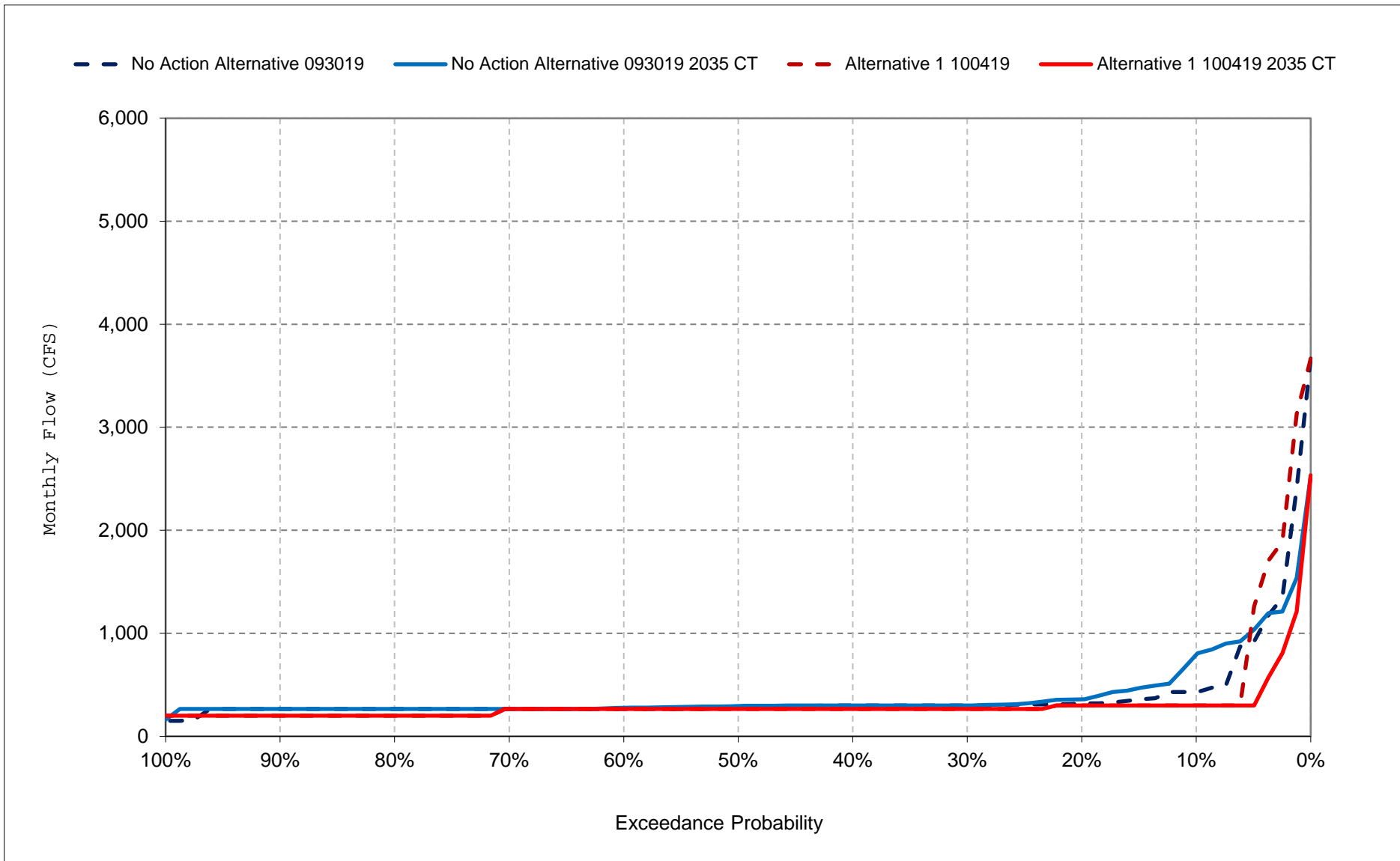
Figure 37-15. Stanislaus River Flow below Goodwin, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

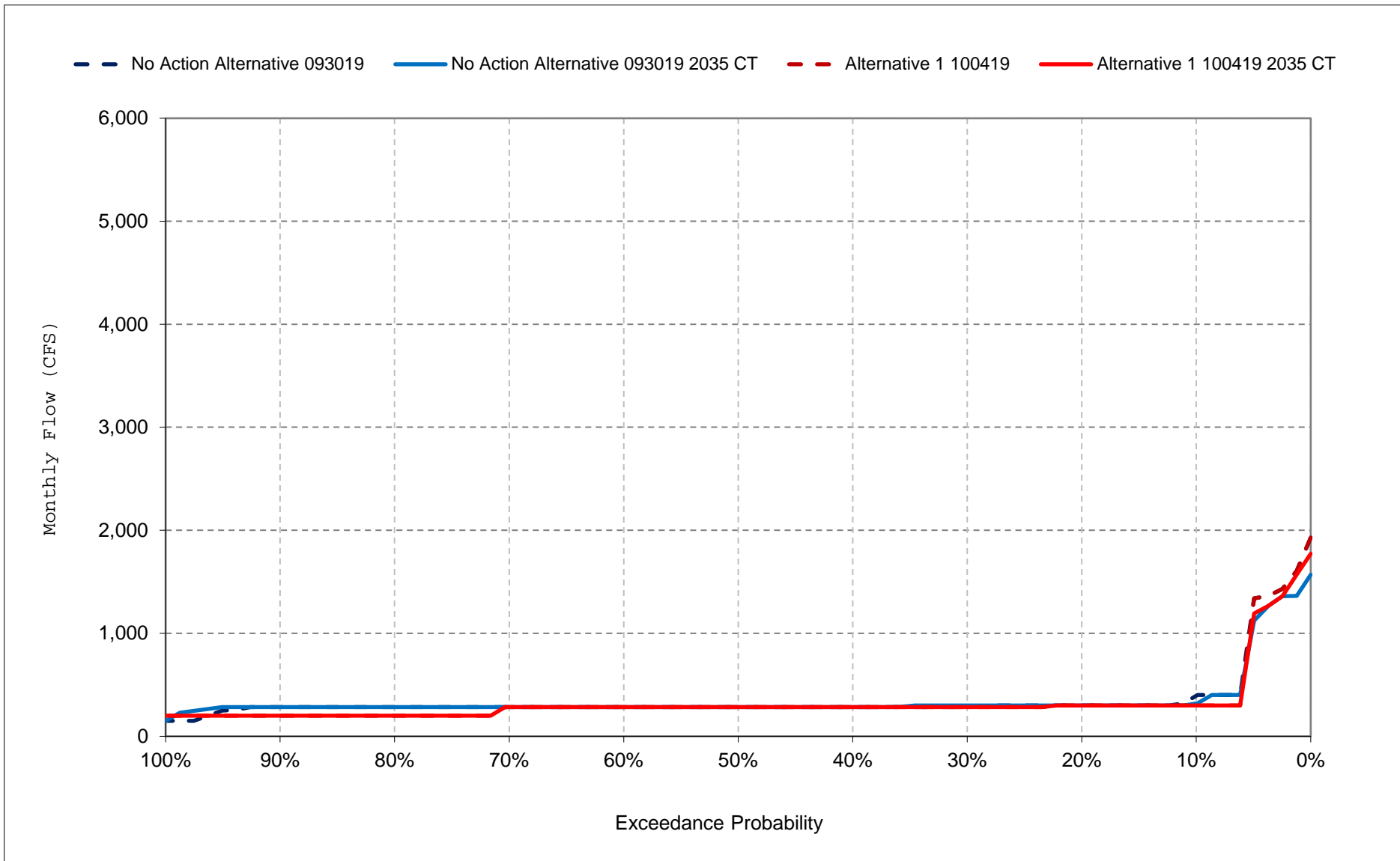
Figure 37-16. Stanislaus River Flow below Goodwin, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

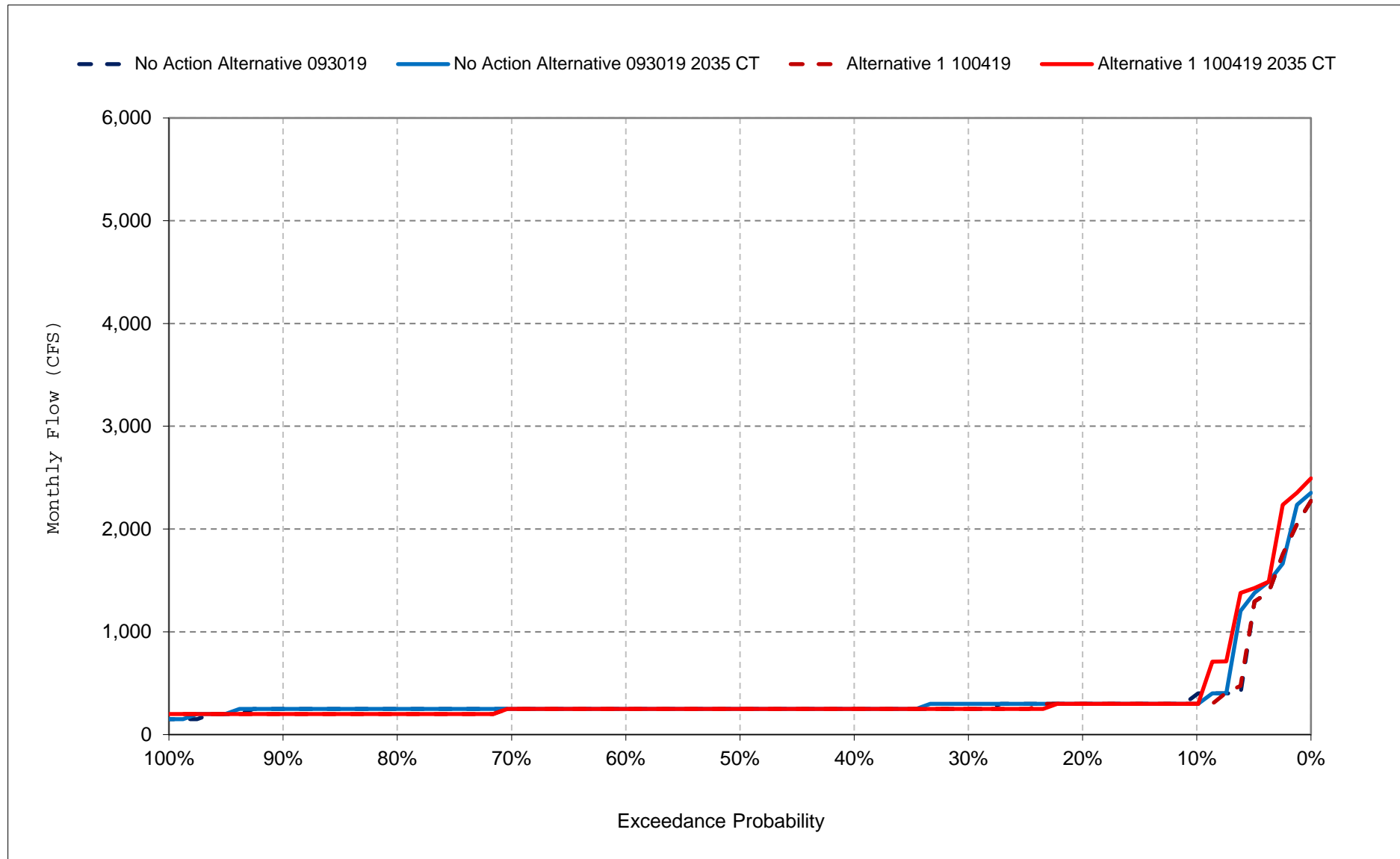
Figure 37-17. Stanislaus River Flow below Goodwin, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 37-18. Stanislaus River Flow below Goodwin, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 38-1. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	442	576	1,083	1,969	1,886	1,989	1,535	752	587	646
20%	1,029	384	368	427	643	1,708	1,769	1,647	1,329	606	488	507
30%	982	348	319	368	469	521	1,696	1,536	1,220	502	462	473
40%	958	337	304	347	399	433	1,610	1,362	1,053	443	445	443
50%	879	319	290	337	368	367	1,485	1,289	634	415	445	439
60%	826	292	281	326	331	336	936	870	510	384	416	428
70%	772	267	262	312	279	314	806	755	406	374	395	389
80%	755	260	241	295	253	241	693	647	361	343	371	360
90%	676	248	224	273	230	207	579	577	317	311	331	318
Long Term												
Full Simulation Period ^d	903	398	449	630	717	902	1,279	1,207	883	547	506	533
Water Year Types^{b,c}												
Wet (23%)	1,120	701	994	1,115	1,404	2,256	1,779	1,828	1,456	977	831	946
Above Normal (24%)	918	316	288	777	786	801	1,410	1,244	1,254	534	467	480
Below Normal (10%)	950	315	291	430	517	539	1,556	1,378	668	449	440	429
Dry (16%)	832	309	311	349	405	345	1,064	1,002	531	377	397	399
Critical (27%)	722	294	266	317	319	286	755	696	336	323	347	342

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	401	403	765	2,628	1,947	1,886	1,726	1,352	633	569	673
20%	1,036	376	338	425	541	1,638	1,817	1,610	1,061	536	482	493
30%	975	347	314	364	449	1,054	1,705	1,443	800	479	458	462
40%	966	335	304	350	388	415	1,553	1,335	615	427	445	441
50%	901	318	288	336	340	362	1,525	1,294	531	398	435	437
60%	821	292	280	325	293	334	976	841	408	376	402	400
70%	766	267	262	308	257	312	767	631	341	309	360	382
80%	751	260	239	294	237	241	545	459	287	282	318	337
90%	659	248	223	273	227	207	460	419	243	231	274	282
Long Term												
Full Simulation Period ^d	898	392	424	661	846	911	1,268	1,120	769	530	482	520
Water Year Types^{b,c}												
Wet (23%)	1,115	677	866	1,120	1,961	2,431	1,718	1,802	1,816	1,095	817	945
Above Normal (24%)	964	313	299	808	806	733	1,758	1,353	658	446	457	471
Below Normal (10%)	972	315	291	694	700	421	1,712	1,419	557	445	438	423
Dry (16%)	780	309	320	339	320	345	859	727	412	355	391	395
Critical (27%)	686	294	266	310	286	271	514	441	254	252	284	309

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-29	-62	-40	188	1,545	-22	0	-264	-183	-119	-18	28
20%	7	-8	-29	-2	-102	-70	48	-37	-268	-70	-7	-14
30%	-7	-1	-4	-4	-20	532	8	-94	-420	-23	-4	-11
40%	7	-2	-1	2	-11	-18	-56	-27	-438	-16	0	-3
50%	23	-1	-1	-1	-28	-5	41	5	-103	-17	-10	-2
60%	-5	0	0	0	-38	-2	40	-29	-103	-7	-14	-27
70%	-6	0	0	-4	-22	-2	-39	-124	-66	-66	-34	-7
80%	-4	0	-2	-1	-16	0	-149	-188	-74	-61	-52	-24
90%	-17	0	-1	0	-2	0	-119	-158	-74	-80	-56	-36
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-12	-87	-114	-17	-24	-13
Water Year Types^{b,c}												
Wet (23%)	-5	-24	-128	4	557	175	-61	-26	359	118	-14	-1
Above Normal (24%)	46	-3	11	31	20	-68	347	109	-596	-88	-9	-9
Below Normal (10%)	22	0	0	264	183	-118	156	41	-111	-4	-2	-6
Dry (16%)	-51	0	9	-10	-86	0	-205	-275	-119	-21	-6	-4
Critical (27%)	-36	0	0	-7	-33	-15	-242	-255	-82	-72	-64	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f New Melones forecasts are used as the basis of water operations.

Table 38-2. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	472	699	1,754	2,064	1,855	1,989	1,522	1,094	592	661
20%	1,029	382	378	431	717	1,769	1,761	1,719	1,355	555	489	502
30%	982	348	319	370	486	1,646	1,698	1,608	1,194	506	462	482
40%	958	336	304	349	443	478	1,573	1,414	1,019	453	445	445
50%	889	318	290	337	395	372	1,475	1,296	669	415	443	439
60%	826	292	280	326	355	339	949	946	532	386	419	431
70%	773	267	262	315	316	314	851	766	445	378	392	401
80%	759	260	239	295	265	241	767	708	373	349	375	363
90%	692	248	223	273	239	203	585	606	318	326	347	320
Long Term												
Full Simulation Period ^d	914	413	476	722	824	1,054	1,296	1,242	882	555	497	550
Water Year Types ^{b,c}												
Wet (23%)	1,148	767	1,112	1,149	1,668	2,498	1,796	1,826	1,500	964	774	1,002
Above Normal (24%)	923	316	288	1,068	922	1,130	1,385	1,307	1,159	562	470	490
Below Normal (10%)	953	315	291	573	554	704	1,537	1,417	690	454	442	436
Dry (16%)	842	309	311	349	449	344	1,125	1,043	549	380	403	402
Critical (27%)	731	294	262	313	324	285	796	731	362	337	358	344

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	450	441	2,452	2,882	1,956	1,907	1,726	1,355	593	550	667
20%	1,036	376	345	604	1,655	1,750	1,830	1,580	1,060	535	482	493
30%	979	347	316	395	469	1,613	1,687	1,468	811	479	461	473
40%	966	335	304	357	415	476	1,584	1,345	615	424	445	441
50%	906	318	288	343	361	367	1,528	1,307	531	398	433	435
60%	820	292	280	328	308	337	949	789	397	376	395	398
70%	764	267	262	315	264	314	767	631	324	309	357	382
80%	750	260	241	296	239	241	550	466	280	288	323	350
90%	662	248	224	274	227	207	480	423	244	232	276	288
Long Term												
Full Simulation Period ^d	907	411	480	858	1,133	1,052	1,276	1,128	720	454	475	555
Water Year Types ^{b,c}												
Wet (23%)	1,143	763	1,112	1,524	2,726	2,542	1,764	1,806	1,545	764	788	1,096
Above Normal (24%)	966	311	284	1,135	1,066	1,154	1,747	1,385	716	450	459	468
Below Normal (10%)	972	315	291	868	762	469	1,712	1,419	557	445	438	423
Dry (16%)	781	309	340	378	572	395	813	691	402	344	377	386
Critical (27%)	692	294	266	311	286	271	542	462	259	258	292	316

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-29	-13	-31	1,753	1,128	-108	52	-264	-167	-500	-42	7
20%	7	-6	-32	173	938	-19	69	-139	-295	-21	-8	-9
30%	-3	-1	-3	25	-17	-33	-11	-139	-383	-28	-1	-10
40%	9	-1	-1	8	-28	-2	11	-69	-404	-29	0	-4
50%	17	0	-1	5	-34	-5	52	10	-138	-17	-9	-5
60%	-7	0	0	2	-47	-2	0	-156	-134	-10	-25	-32
70%	-9	0	0	0	-52	0	-85	-136	-121	-69	-35	-19
80%	-9	0	2	1	-26	0	-217	-242	-93	-61	-52	-13
90%	-30	0	1	1	-12	4	-105	-184	-75	-94	-71	-32
Long Term												
Full Simulation Period ^d	-7	-2	4	136	310	-2	-20	-113	-161	-101	-22	5
Water Year Types ^{b,c}												
Wet (23%)	-5	-5	0	376	1,057	45	-32	-20	46	-200	15	93
Above Normal (24%)	44	-5	-5	66	144	24	363	78	-443	-112	-11	-22
Below Normal (10%)	19	0	0	295	208	-235	175	2	-134	-9	-4	-12
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-254	-269	-103	-79	-66	-29

a Based on the 82-year simulation period.
 b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
 c These results are displayed with calendar year - year type sorting.
 d All year type sorting uses ELT 05 climate scenario indices.
 e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.
 f New Melones forecasts are used as the basis of water operations.

Table 38-3. Stanislaus River Flow at Mouth, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	442	576	1,083	1,969	1,886	1,989	1,535	752	587	646
20%	1,029	384	368	427	643	1,708	1,769	1,647	1,329	606	488	507
30%	982	348	319	368	469	521	1,696	1,536	1,220	502	462	473
40%	958	337	304	347	399	433	1,610	1,362	1,053	443	445	443
50%	879	319	290	337	368	367	1,485	1,289	634	415	445	439
60%	826	292	281	326	331	336	936	870	510	384	416	428
70%	772	267	262	312	279	314	806	755	406	374	395	389
80%	755	260	241	295	253	241	693	647	361	343	371	360
90%	676	248	224	273	230	207	579	577	317	311	331	318
Long Term												
Full Simulation Period ^d	903	398	449	630	717	902	1,279	1,207	883	547	506	533
Water Year Types ^{b,c}												
Wet (23%)	1,120	701	994	1,115	1,404	2,256	1,779	1,828	1,456	977	831	946
Above Normal (24%)	918	316	288	777	786	801	1,410	1,244	1,254	534	467	480
Below Normal (10%)	950	315	291	430	517	539	1,556	1,378	668	449	440	429
Dry (16%)	832	309	311	349	405	345	1,064	1,002	531	377	397	399
Critical (27%)	722	294	266	317	319	286	755	696	336	323	347	342

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,122	463	472	699	1,754	2,064	1,855	1,989	1,522	1,094	592	661
20%	1,029	382	378	431	717	1,769	1,761	1,719	1,355	555	489	502
30%	982	348	319	370	486	1,646	1,698	1,608	1,194	506	462	482
40%	958	336	304	349	443	478	1,573	1,414	1,019	453	445	445
50%	889	318	290	337	395	372	1,475	1,296	669	415	443	439
60%	826	292	280	326	355	339	949	946	532	386	419	431
70%	773	267	262	315	316	314	851	766	445	378	392	401
80%	759	260	239	295	265	241	767	708	373	349	375	363
90%	692	248	223	273	239	203	585	606	318	326	347	320
Long Term												
Full Simulation Period ^d	914	413	476	722	824	1,054	1,296	1,242	882	555	497	550
Water Year Types ^{b,c}												
Wet (23%)	1,148	767	1,112	1,149	1,668	2,498	1,796	1,826	1,500	964	774	1,002
Above Normal (24%)	923	316	288	1,068	922	1,130	1,385	1,307	1,159	562	470	490
Below Normal (10%)	953	315	291	573	554	704	1,537	1,417	690	454	442	436
Dry (16%)	842	309	311	349	449	344	1,125	1,043	549	380	403	402
Critical (27%)	731	294	262	313	324	285	796	731	362	337	358	344

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	30	122	670	94	-31	0	-13	341	5	15
20%	0	-2	10	5	74	61	-7	72	25	-51	1	-5
30%	0	0	0	1	17	1,125	1	71	-26	5	0	10
40%	-1	-1	0	2	44	44	-37	52	-34	10	0	2
50%	11	-1	0	0	26	5	-9	8	35	-1	-2	0
60%	0	0	0	0	24	3	13	76	21	3	4	3
70%	1	0	0	3	36	0	45	12	38	3	-2	12
80%	4	0	-2	-1	12	0	73	60	12	7	5	2
90%	16	0	-1	0	10	-4	6	29	1	16	16	2
Long Term												
Full Simulation Period ^d	12	15	26	92	106	152	17	35	-1	8	-9	17
Water Year Types ^{b,c}												
Wet (23%)	28	66	118	34	264	241	17	-2	43	-14	-57	56
Above Normal (24%)	4	0	0	291	135	329	-26	63	-95	28	3	10
Below Normal (10%)	3	0	0	143	37	165	-19	39	22	4	2	6
Dry (16%)	10	0	0	0	44	-1	61	41	18	3	6	3
Critical (27%)	9	0	-4	-5	5	-1	41	35	26	14	10	3

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Table 38-4. Stanislaus River Flow at Mouth, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	401	403	765	2,628	1,947	1,886	1,726	1,352	633	569	673
20%	1,036	376	338	425	541	1,638	1,817	1,610	1,061	536	482	493
30%	975	347	314	364	449	1,054	1,705	1,443	800	479	458	462
40%	966	335	304	350	388	415	1,553	1,335	615	427	445	441
50%	901	318	288	336	340	362	1,525	1,294	531	398	435	437
60%	821	292	280	325	293	334	976	841	408	376	402	400
70%	766	267	262	308	257	312	767	631	341	309	360	382
80%	751	260	239	294	237	241	545	459	287	282	318	337
90%	659	248	223	273	227	207	460	419	243	231	274	282
Long Term												
Full Simulation Period ^d	898	392	424	661	846	911	1,268	1,120	769	530	482	520
Water Year Types ^{b,c}												
Wet (23%)	1,115	677	866	1,120	1,961	2,431	1,718	1,802	1,816	1,095	817	945
Above Normal (24%)	964	313	299	808	806	733	1,758	1,353	658	446	457	471
Below Normal (10%)	972	315	291	694	700	421	1,712	1,419	557	445	438	423
Dry (16%)	780	309	320	339	320	345	859	727	412	355	391	395
Critical (27%)	686	294	266	310	286	271	514	441	254	252	284	309

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,094	450	441	2,452	2,882	1,956	1,907	1,726	1,355	593	550	667
20%	1,036	376	345	604	1,655	1,750	1,830	1,580	1,060	535	482	493
30%	979	347	316	395	469	1,613	1,687	1,468	811	479	461	473
40%	966	335	304	357	415	476	1,584	1,345	615	424	445	441
50%	906	318	288	343	361	367	1,528	1,307	531	398	433	435
60%	820	292	280	328	308	337	949	789	397	376	395	398
70%	764	267	262	315	264	314	767	631	324	309	357	382
80%	750	260	241	296	239	241	550	466	280	288	323	350
90%	662	248	224	274	227	207	480	423	244	232	276	288
Long Term												
Full Simulation Period ^d	907	411	480	858	1,133	1,052	1,276	1,128	720	454	475	555
Water Year Types ^{b,c}												
Wet (23%)	1,143	763	1,112	1,524	2,726	2,542	1,764	1,806	1,545	764	788	1,096
Above Normal (24%)	966	311	284	1,135	1,066	1,154	1,747	1,385	716	450	459	468
Below Normal (10%)	972	315	291	868	762	469	1,712	1,419	557	445	438	423
Dry (16%)	781	309	340	378	572	395	813	691	402	344	377	386
Critical (27%)	692	294	266	311	286	271	542	462	259	258	292	316

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	49	38	1,687	254	9	21	0	3	-40	-19	-6
20%	0	0	7	179	1,114	112	13	-30	-1	-2	0	0
30%	4	-1	2	31	19	560	-18	26	10	0	3	11
40%	0	-1	0	7	27	60	30	10	0	-3	0	0
50%	5	0	0	7	21	5	2	13	0	0	-1	-3
60%	-1	0	0	2	15	3	-28	-51	-10	0	-7	-2
70%	-2	0	0	7	6	2	0	0	-17	0	-3	0
80%	0	0	2	1	2	0	5	7	-7	6	4	13
90%	3	0	1	1	0	0	19	3	1	1	2	6
Long Term												
Full Simulation Period ^d	9	19	56	197	287	141	8	8	-49	-76	-6	35
Water Year Types ^{b,c}												
Wet (23%)	28	86	246	405	765	111	46	4	-270	-331	-29	151
Above Normal (24%)	2	-2	-15	327	260	420	-10	31	58	3	2	-3
Below Normal (10%)	0	0	0	174	62	49	0	0	0	0	0	0
Dry (16%)	0	0	20	39	253	50	-46	-36	-10	-11	-13	-8
Critical (27%)	6	0	0	1	1	0	28	21	6	6	8	7

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

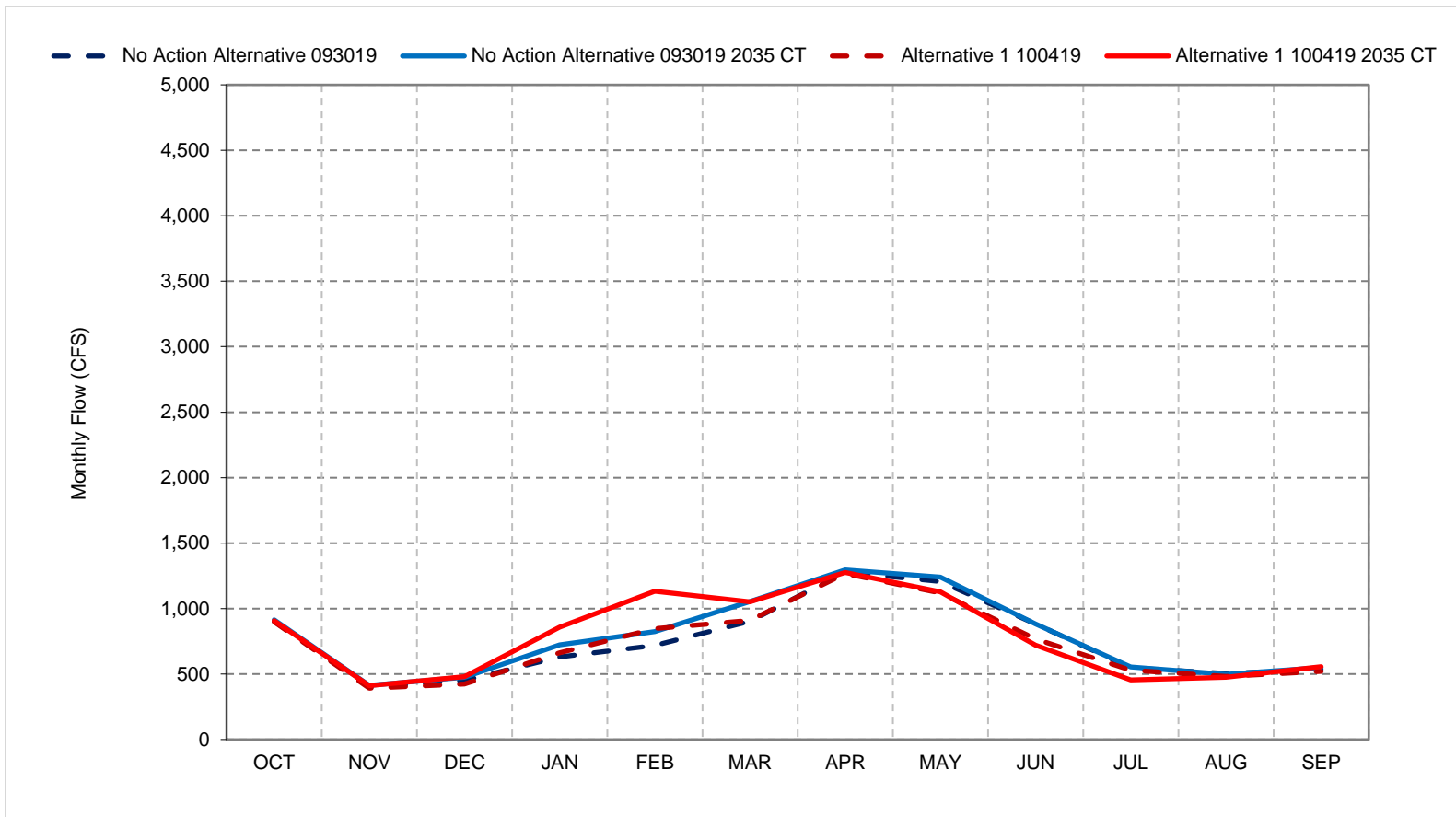
d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

g New Melones forecasts are used as the basis of water operations.

Figure 38-1. Stanislaus River Flow at Mouth, Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

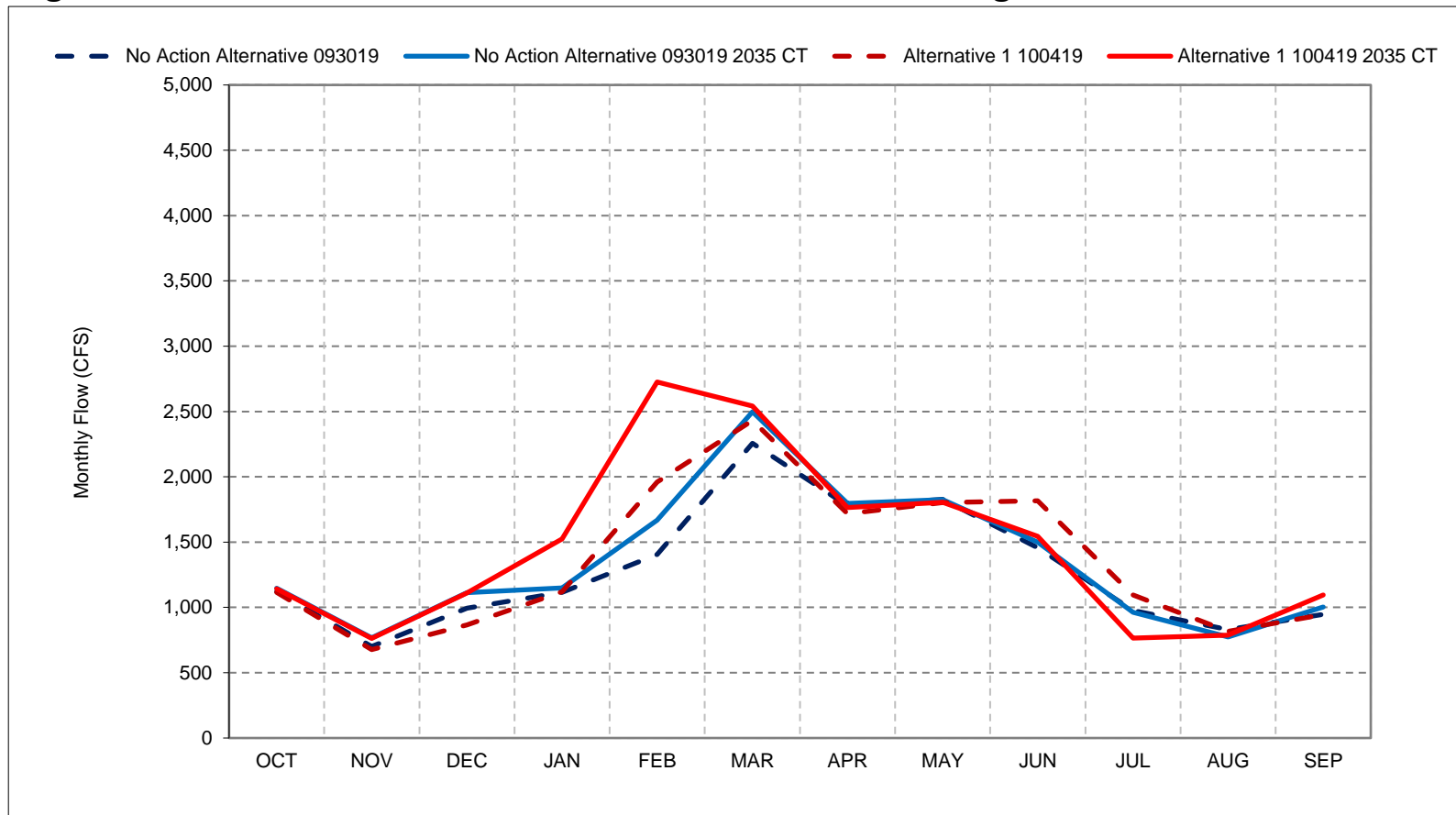
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-2. Stanislaus River Flow at Mouth, Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

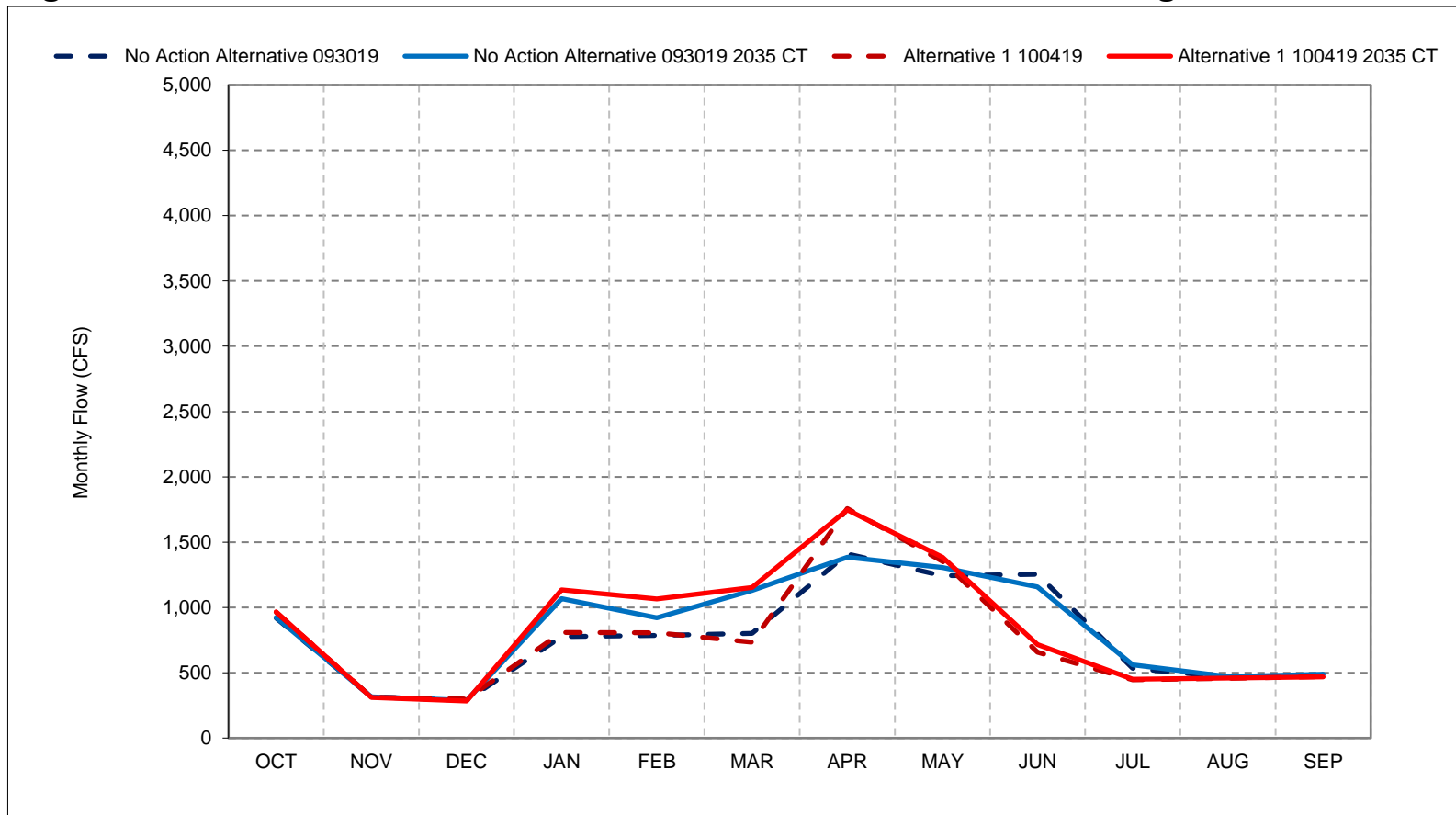
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-3. Stanislaus River Flow at Mouth, Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

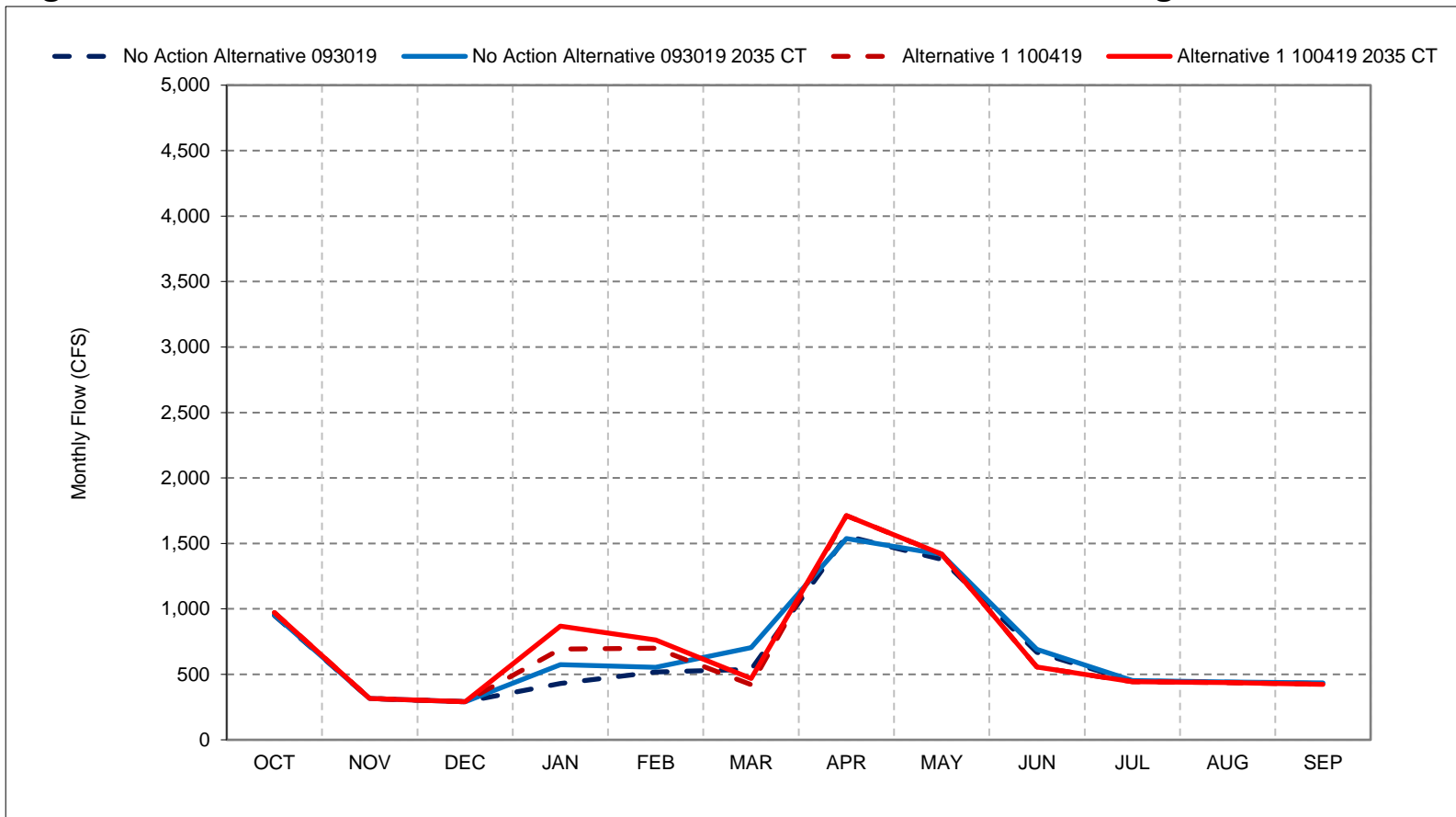
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-4. Stanislaus River Flow at Mouth, Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

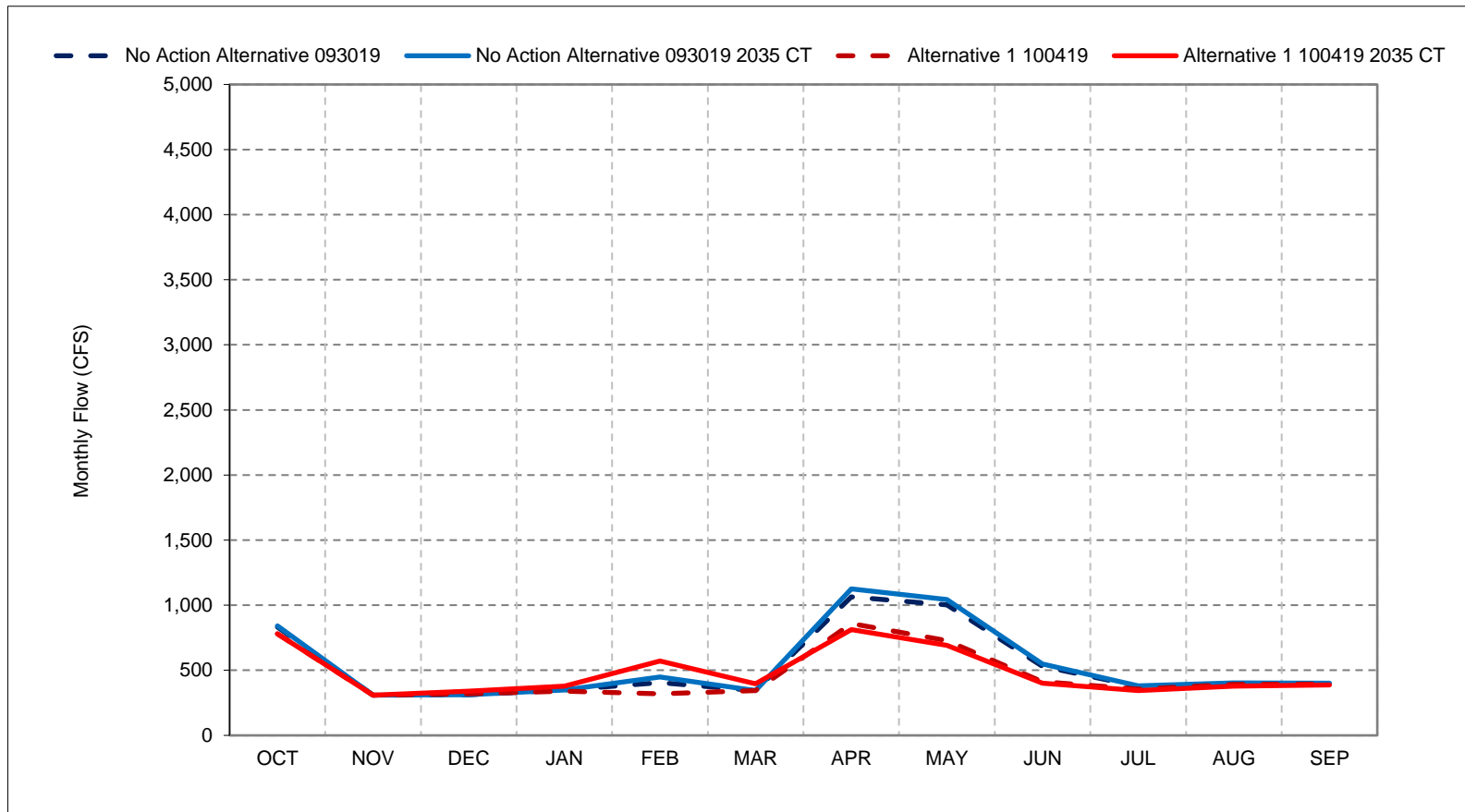
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-5. Stanislaus River Flow at Mouth, Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

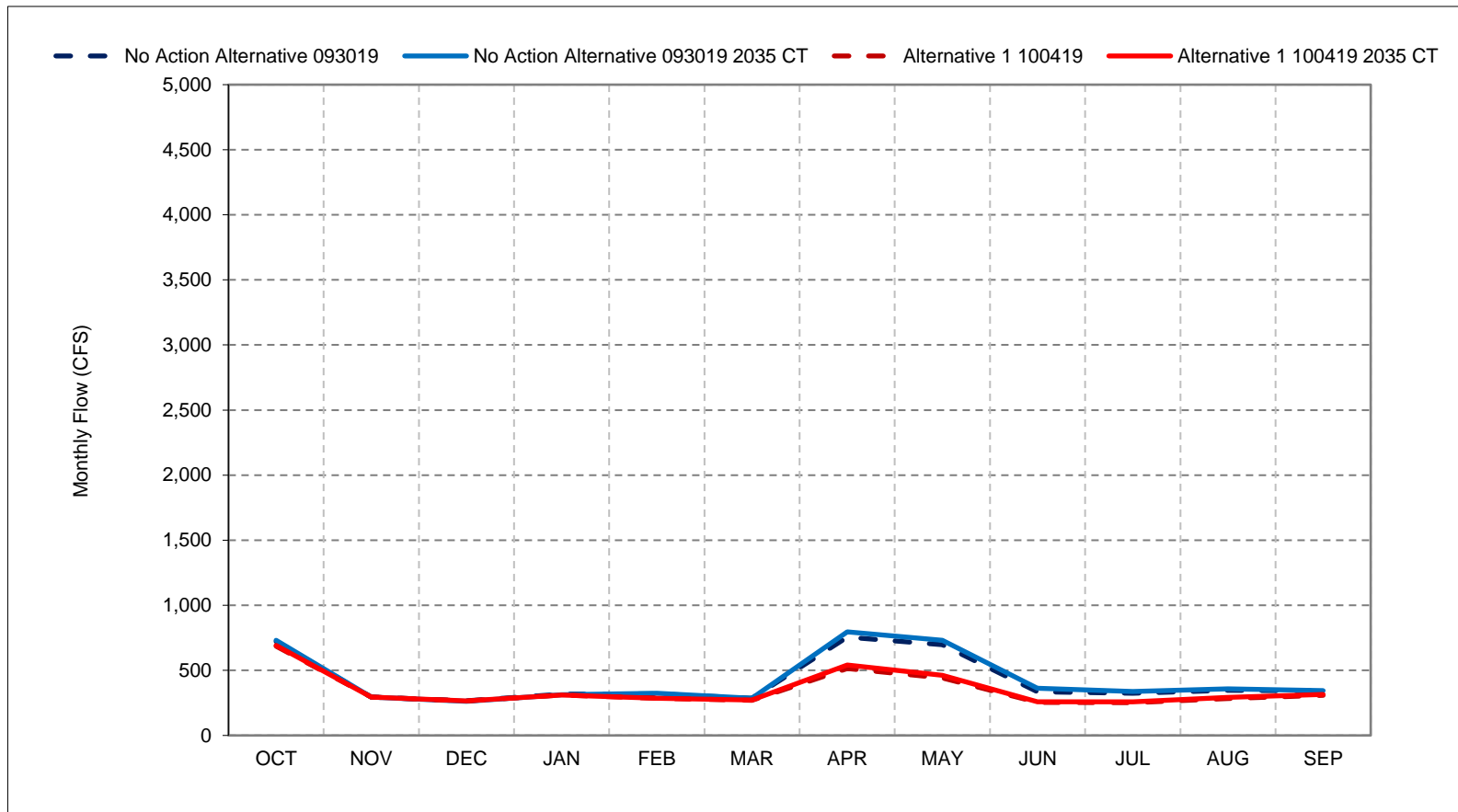
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

Figure 38-6. Stanislaus River Flow at Mouth, Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

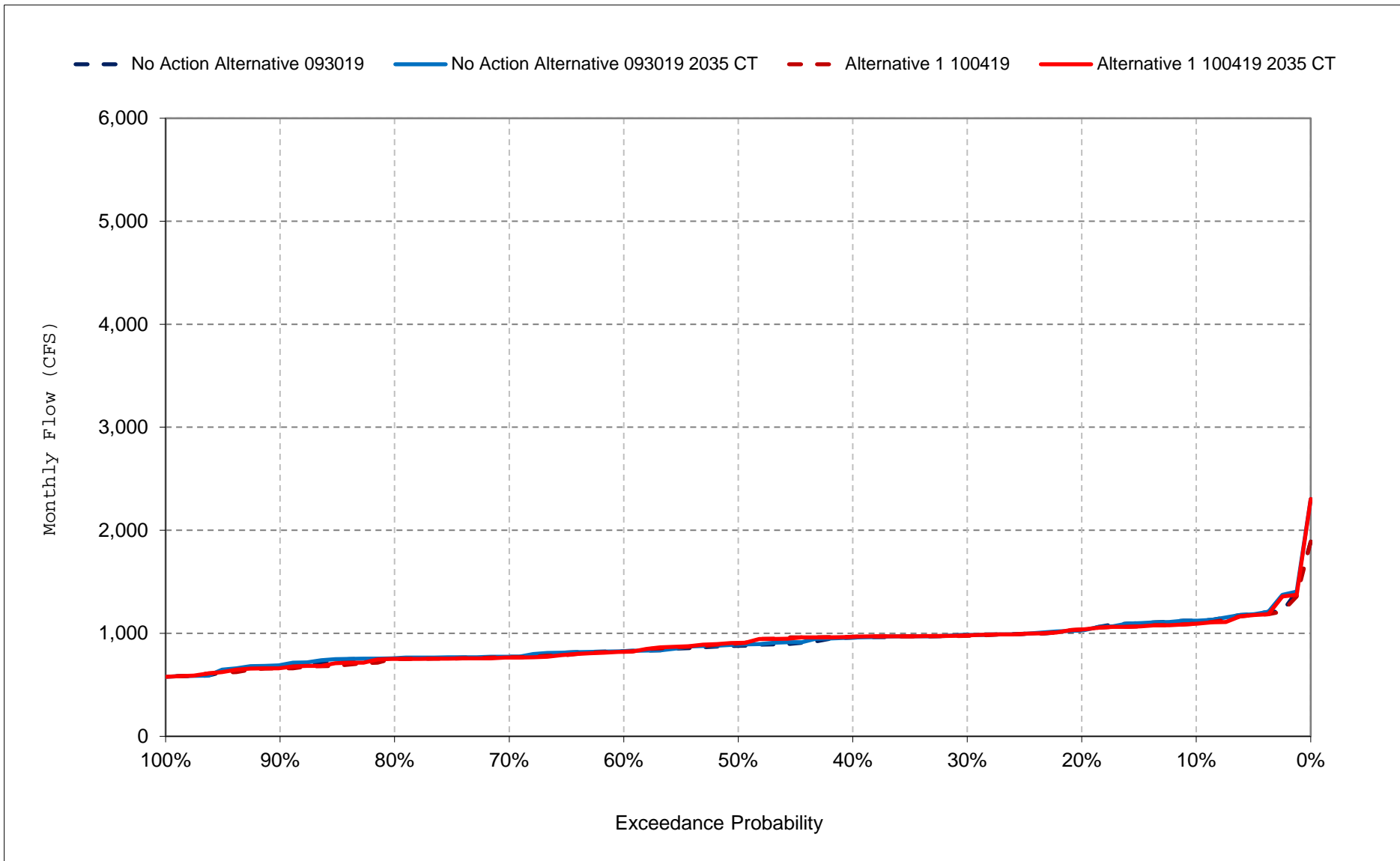
*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

*New Melones forecasts are used as the basis of water operations.

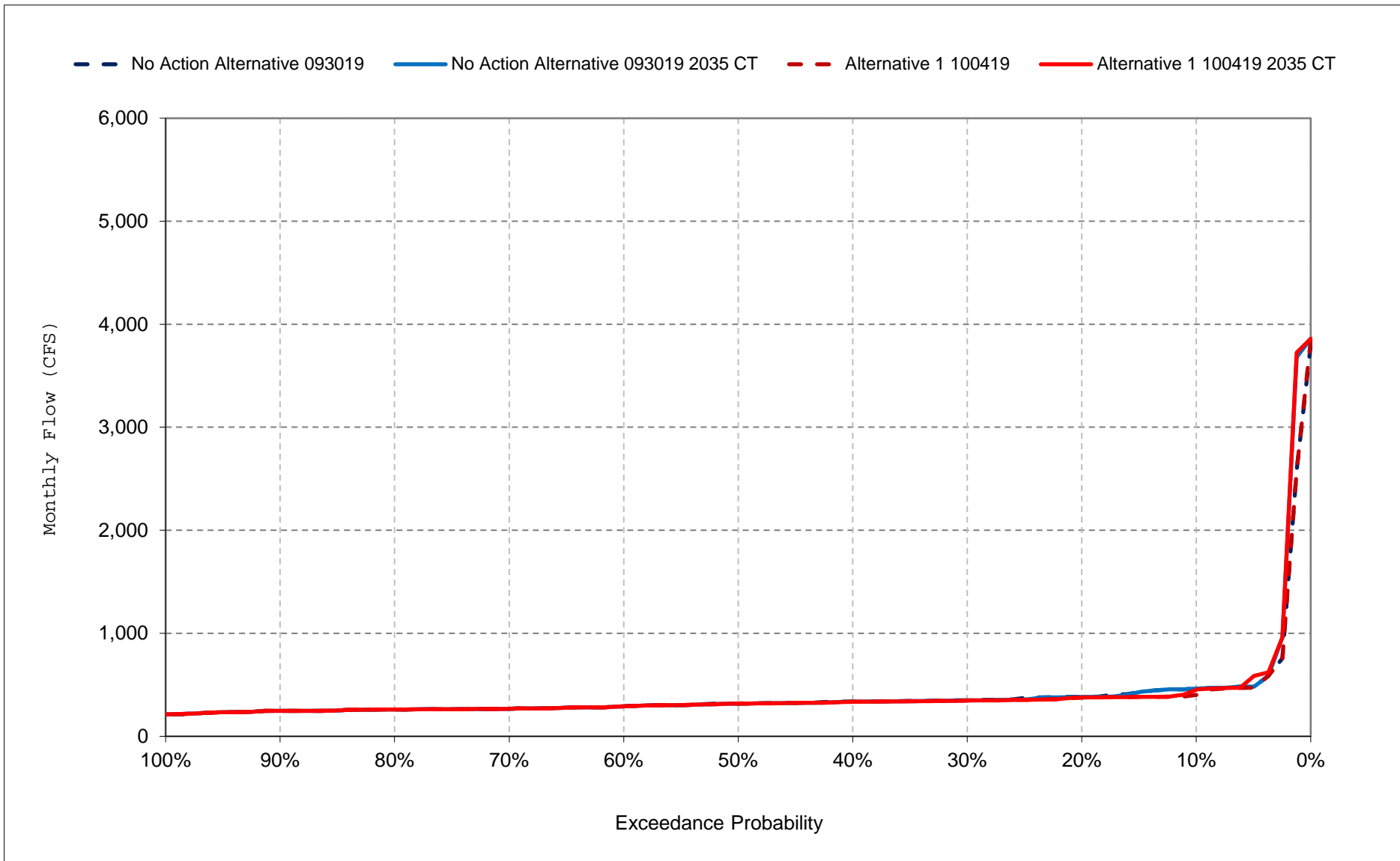
Figure 38-7. Stanislaus River Flow at Mouth, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

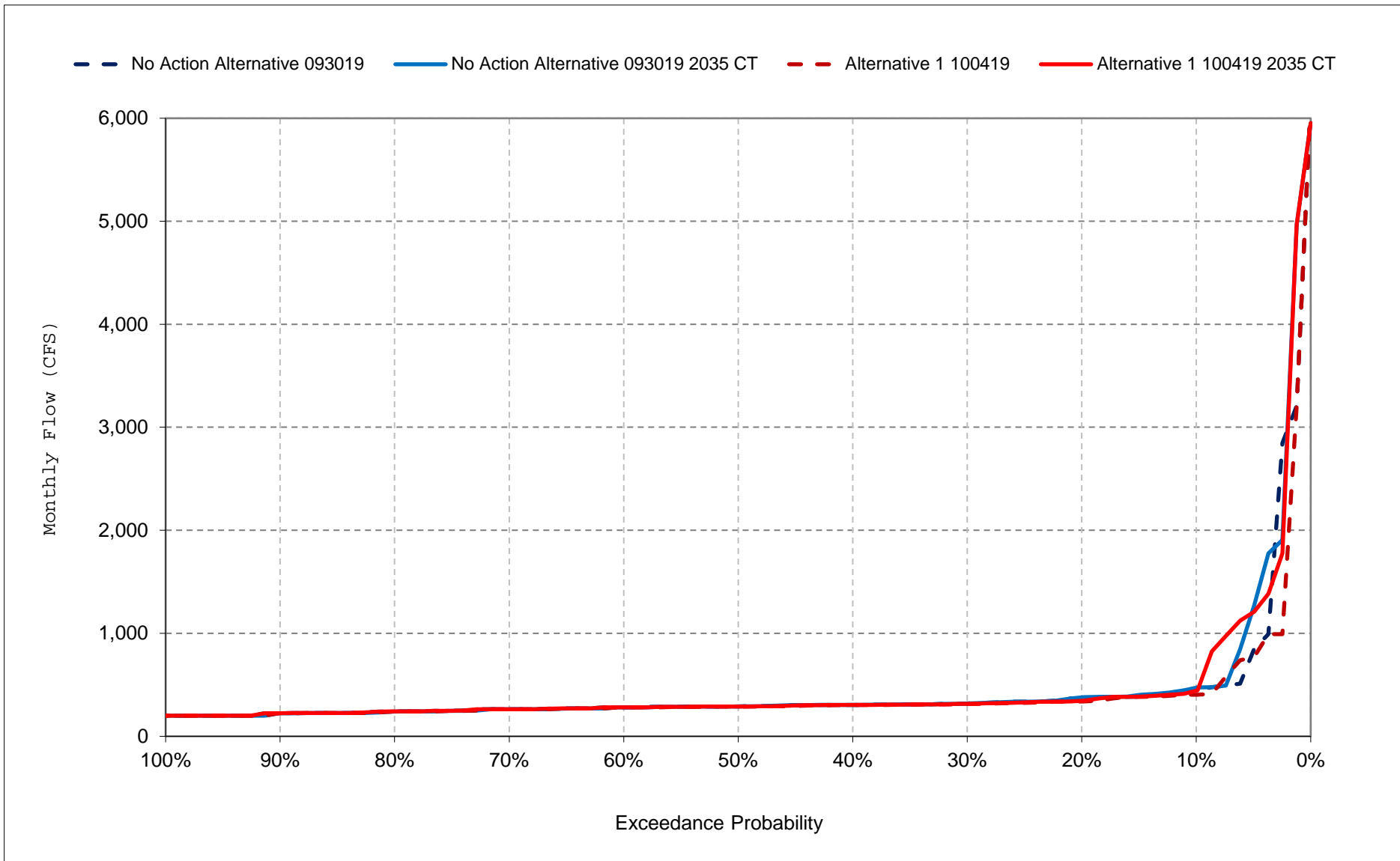
Figure 38-8. Stanislaus River Flow at Mouth, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

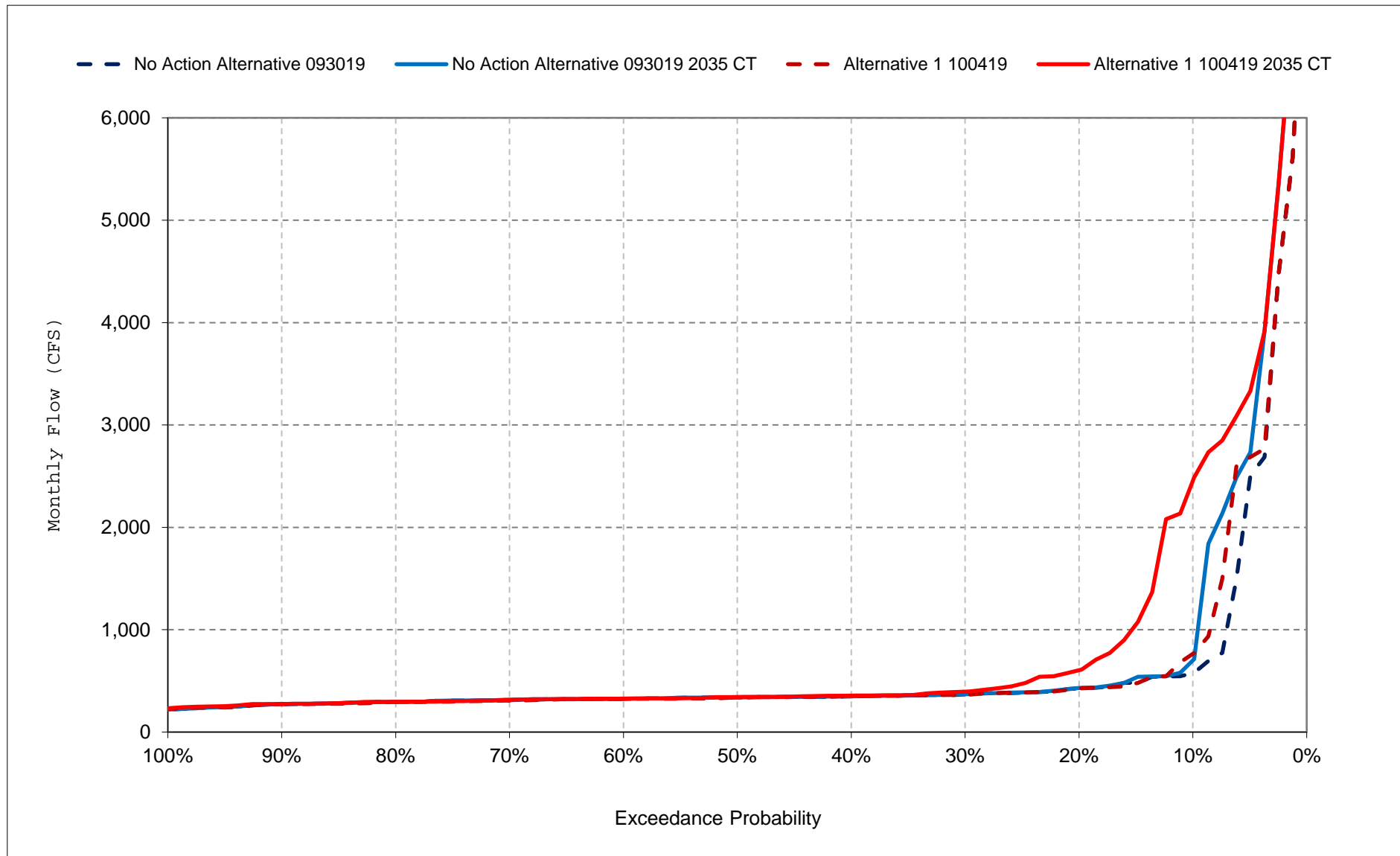
Figure 38-9. Stanislaus River Flow at Mouth, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

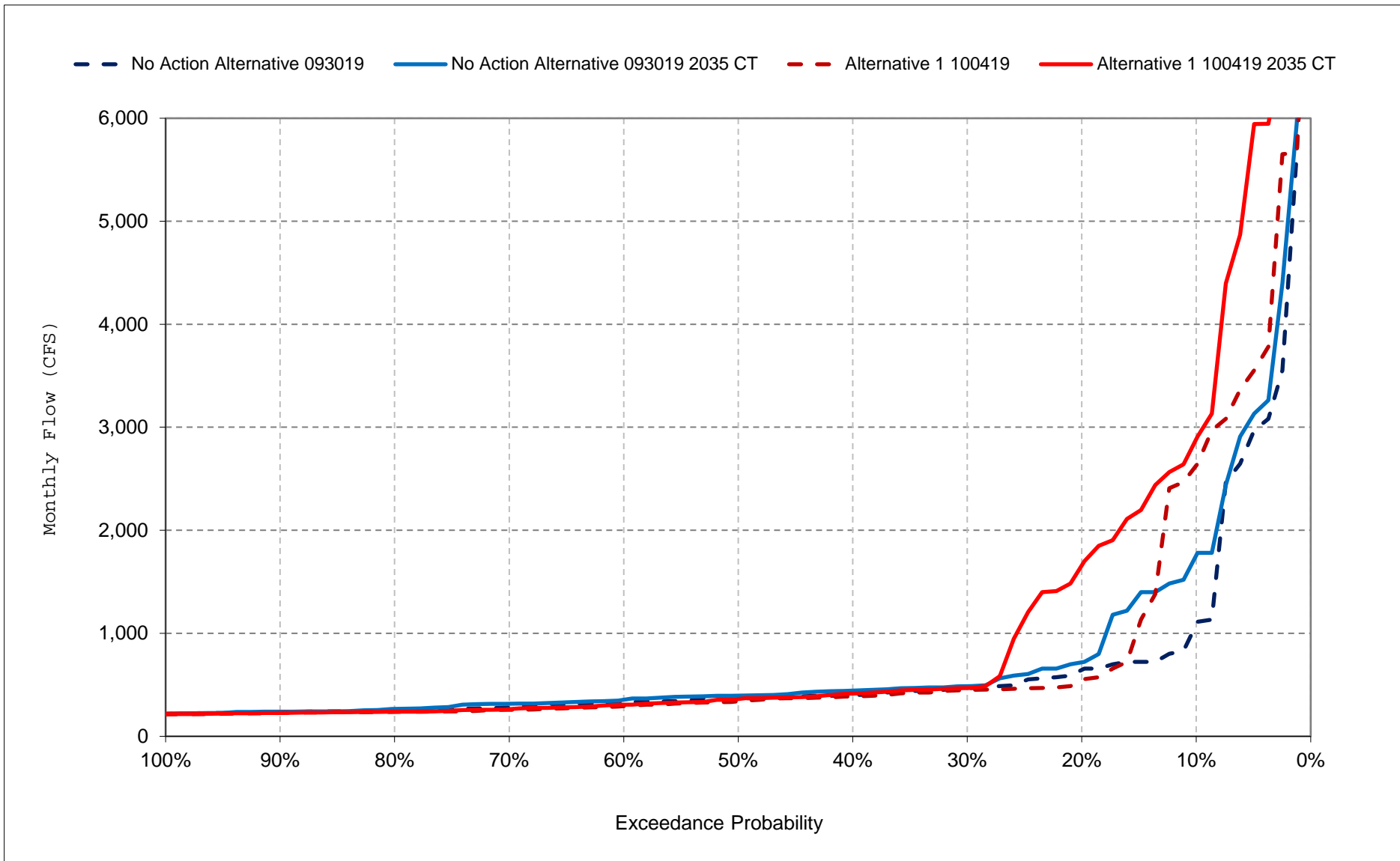
Figure 38-10. Stanislaus River Flow at Mouth, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

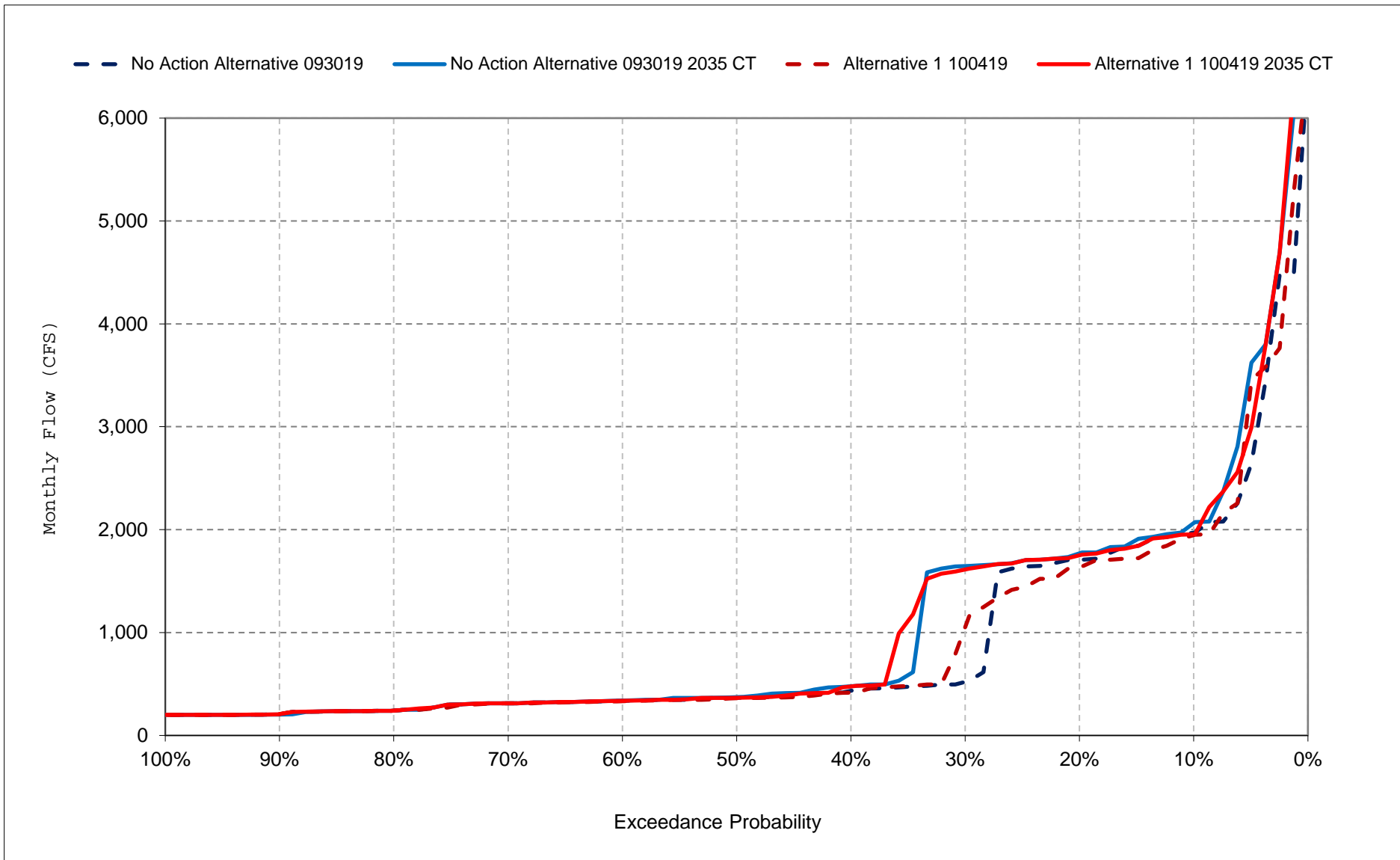
Figure 38-11. Stanislaus River Flow at Mouth, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

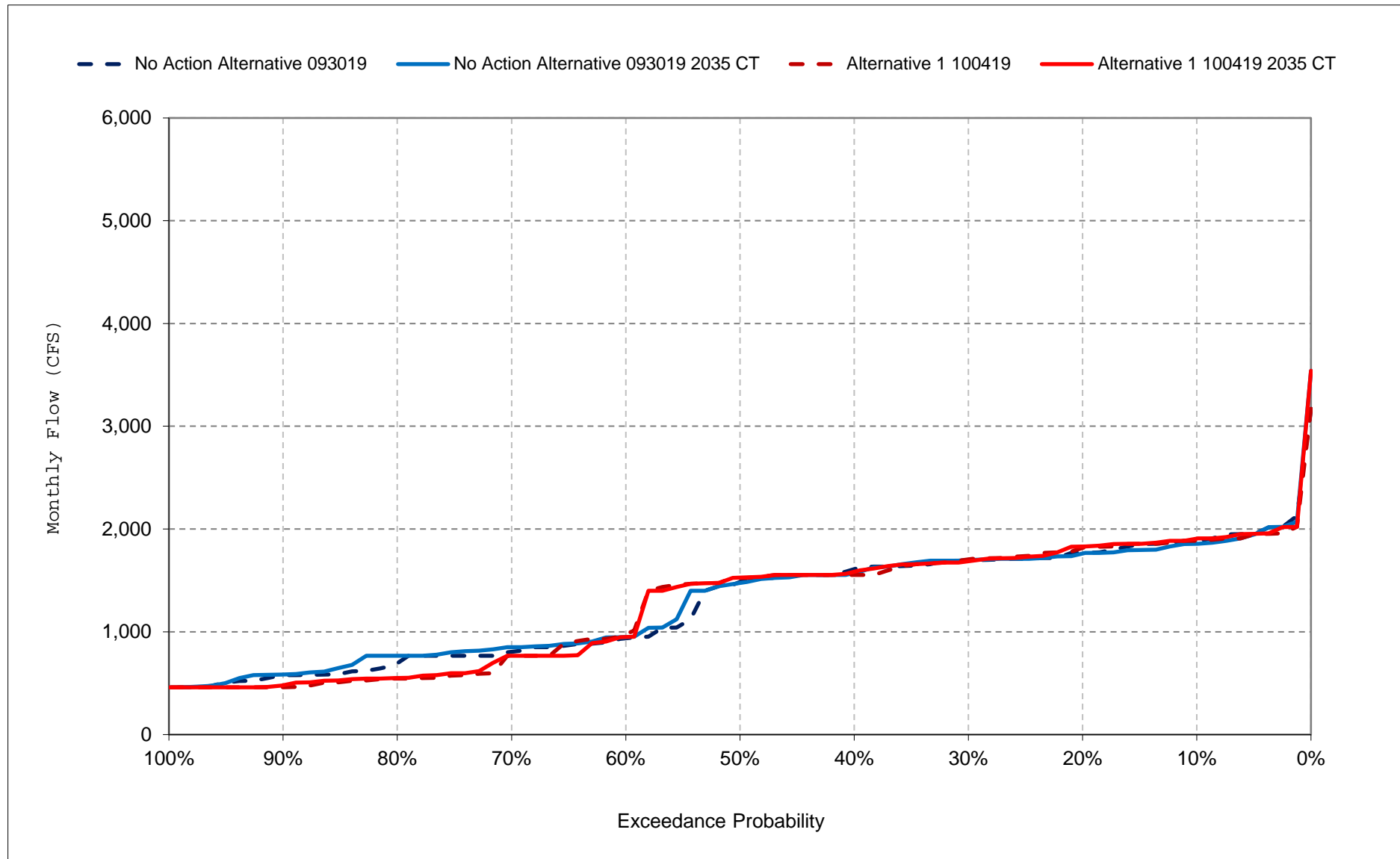
Figure 38-12. Stanislaus River Flow at Mouth, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

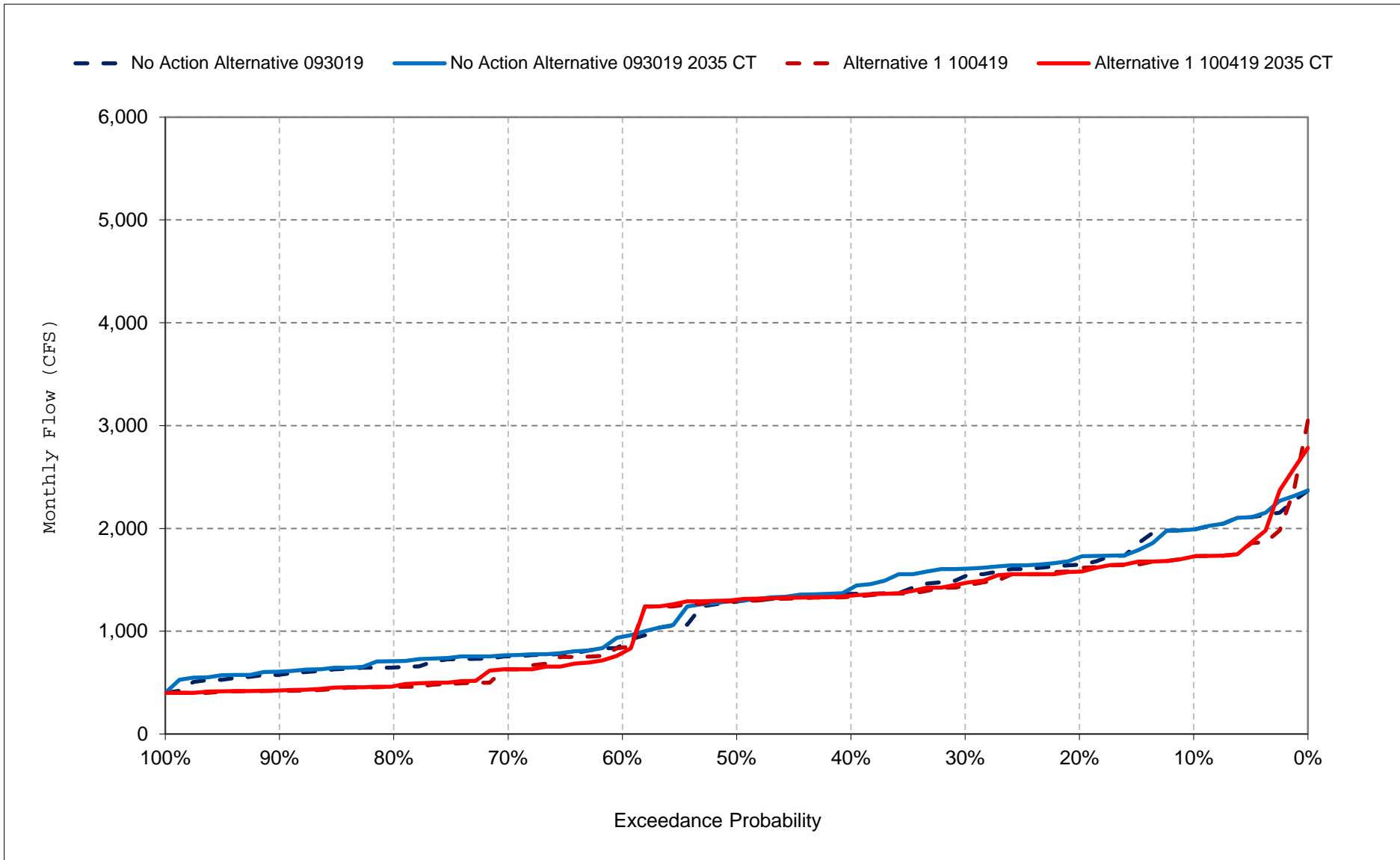
Figure 38-13. Stanislaus River Flow at Mouth, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

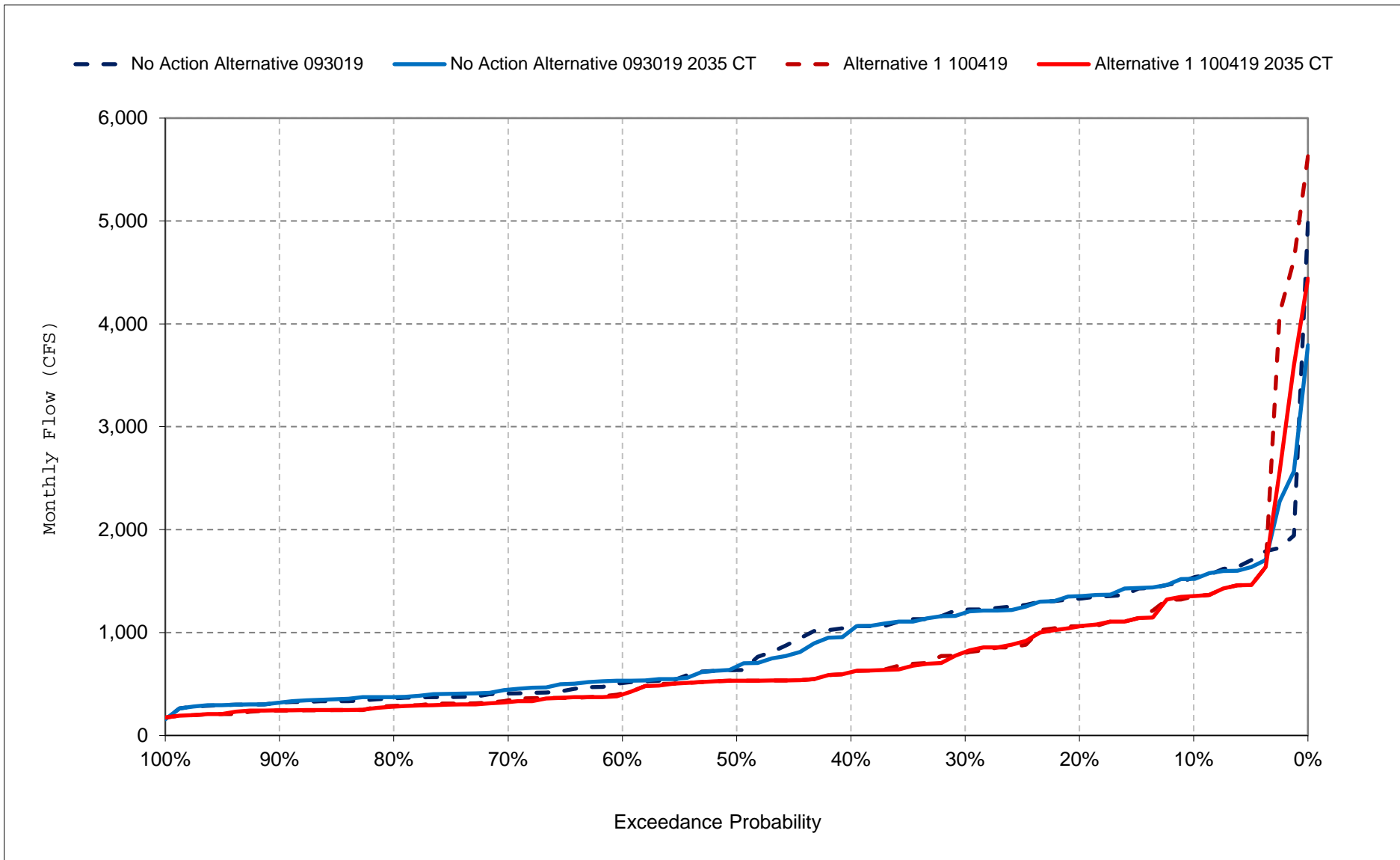
Figure 38-14. Stanislaus River Flow at Mouth, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

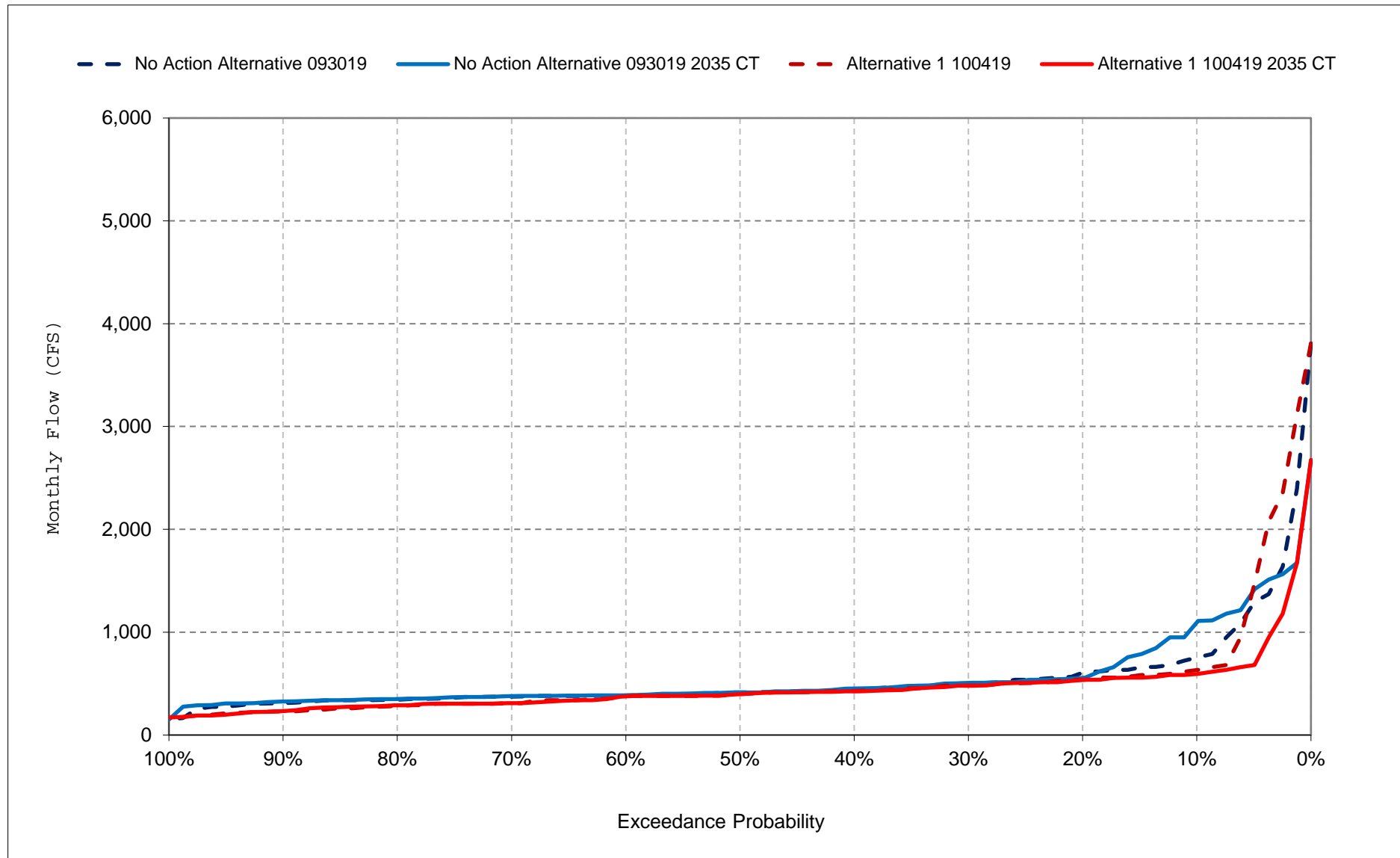
Figure 38-15. Stanislaus River Flow at Mouth, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

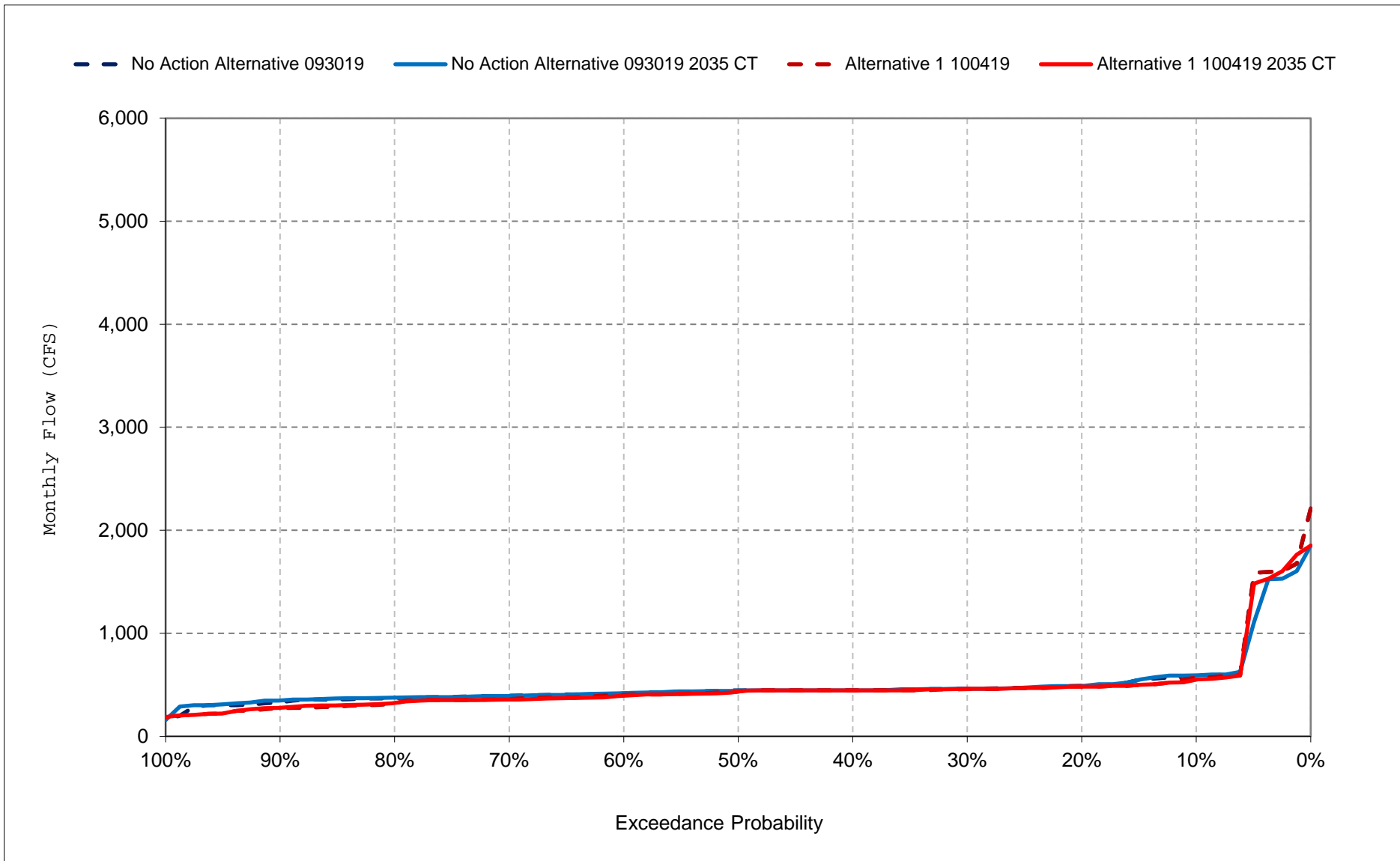
Figure 38-16. Stanislaus River Flow at Mouth, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

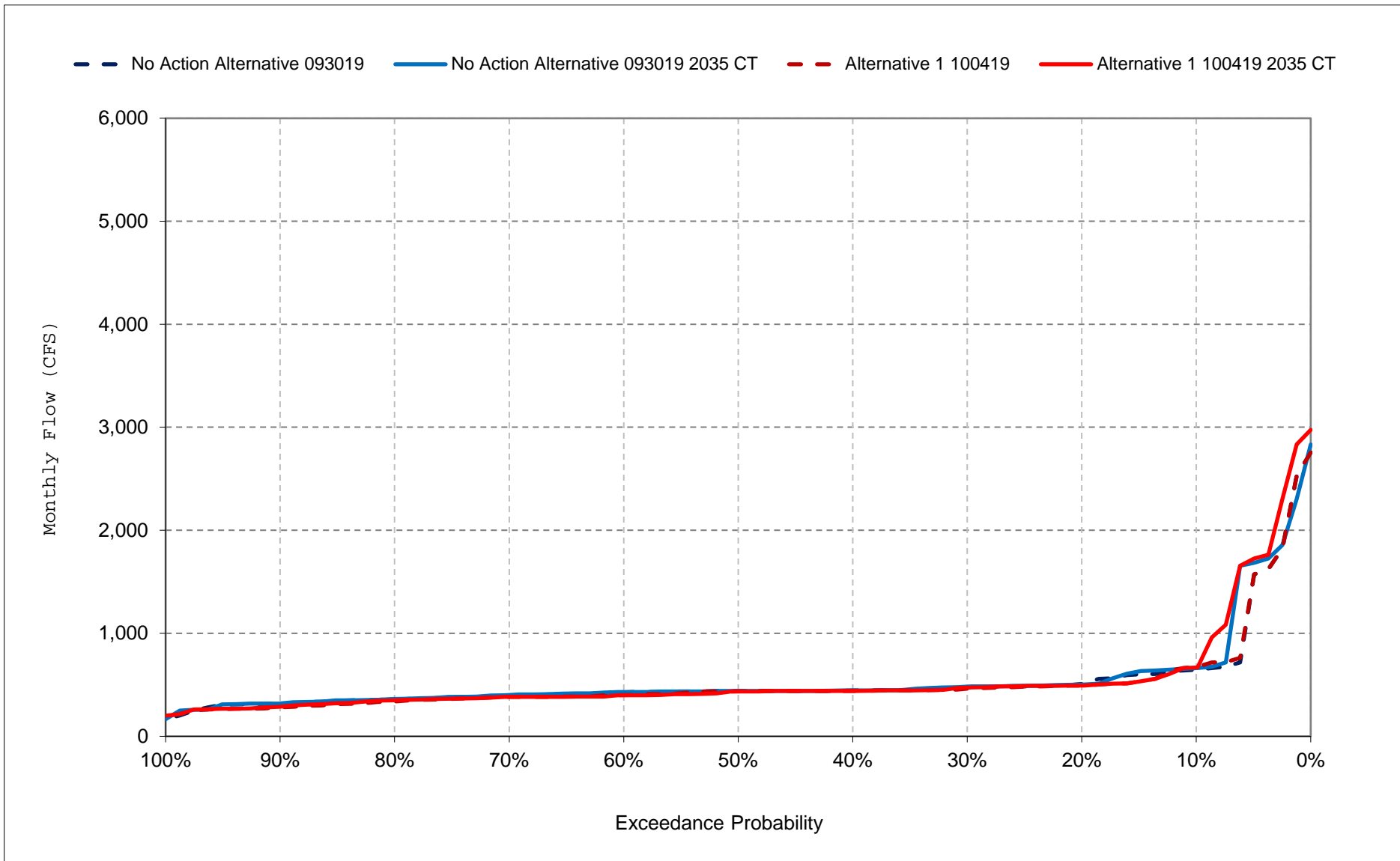
Figure 38-17. Stanislaus River Flow at Mouth, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 38-18. Stanislaus River Flow at Mouth, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-1. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (32%)	3,440	3,630	5,116	10,106	12,569	14,034	13,210	11,444	8,798	5,276	2,791	3,062
Above Normal (16%)	2,750	2,461	2,591	4,383	6,149	6,704	7,697	5,516	3,483	2,020	1,768	2,215
Below Normal (13%)	2,558	2,191	2,461	2,701	4,599	4,249	5,598	3,700	2,031	1,495	1,579	1,999
Dry (24%)	2,201	2,118	3,166	2,295	3,124	3,599	4,307	3,260	1,733	1,228	1,348	1,764
Critical (15%)	1,815	1,786	1,764	1,757	2,224	2,199	2,133	1,855	1,192	941	990	1,396

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (32%)	3,431	3,610	5,031	10,142	13,009	14,070	13,186	11,331	8,821	5,339	2,776	3,055
Above Normal (16%)	2,785	2,462	2,591	4,535	6,245	6,809	7,961	5,682	3,214	1,939	1,770	2,216
Below Normal (13%)	2,519	2,191	2,461	2,690	4,546	4,130	5,399	3,449	1,875	1,482	1,572	1,990
Dry (24%)	2,188	2,118	3,172	2,282	3,075	3,599	4,230	3,126	1,587	1,175	1,299	1,735
Critical (15%)	1,827	1,786	1,764	1,757	2,177	2,171	2,131	1,784	1,052	889	957	1,385

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	22	0	1,162	2,506	-95	247	825	0	-111	-53	0
20%	-14	0	47	26	-7	128	0	3	82	-133	4	-21
30%	15	-45	-79	2	694	-28	342	232	-663	-39	-23	-7
40%	39	0	-11	52	0	-264	355	39	-577	-9	4	1
50%	26	0	0	-30	-349	0	414	201	-182	2	6	-2
60%	0	0	0	-3	-70	-20	-50	-156	-115	-21	-7	-12
70%	-111	0	0	-31	0	0	-567	-404	-102	-17	2	-1
80%	-18	0	0	-1	-23	0	-295	-302	-83	-102	-72	-39
90%	-42	0	0	-1	-57	0	-135	-208	-113	-21	-40	-24
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-11	-86	-112	-15	-22	-12
Water Year Types ^{b,c}												
Wet (32%)	-9	-20	-85	35	440	37	-24	-113	23	63	-15	-7
Above Normal (16%)	35	0	0	152	96	105	264	166	-269	-80	2	1
Below Normal (13%)	-39	0	0	-11	-53	-120	-200	-251	-155	-13	-7	-8
Dry (24%)	-13	0	5	-13	-50	0	-76	-134	-146	-52	-49	-29
Critical (15%)	12	0	0	0	-47	-28	-2	-71	-140	-52	-33	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 39-2. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (32%)	3,479	3,691	5,432	11,917	13,953	15,749	13,816	11,912	8,544	4,239	2,654	3,124
Above Normal (16%)	2,737	2,432	2,541	4,885	6,805	7,917	8,163	5,631	3,506	1,959	1,802	2,232
Below Normal (13%)	2,525	2,205	2,533	3,055	5,738	4,776	5,939	3,651	1,937	1,465	1,442	1,957
Dry (24%)	2,218	2,126	3,424	2,427	3,623	3,734	4,453	3,461	1,749	1,224	1,328	1,776
Critical (15%)	1,851	1,790	1,764	1,759	2,397	2,220	2,196	1,925	1,249	980	1,034	1,423

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (32%)	3,468	3,684	5,428	12,226	14,670	15,687	13,825	11,782	8,387	4,079	2,657	3,176
Above Normal (16%)	2,769	2,432	2,541	5,107	7,319	7,994	8,391	5,702	3,243	1,817	1,802	2,226
Below Normal (13%)	2,464	2,205	2,533	3,090	5,976	4,717	5,628	3,319	1,826	1,418	1,404	1,931
Dry (24%)	2,209	2,126	3,445	2,418	3,529	3,800	4,386	3,357	1,630	1,183	1,288	1,754
Critical (15%)	1,863	1,790	1,764	1,762	2,335	2,195	2,198	1,840	1,083	915	991	1,417

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	0	12	2,289	329	-61	290	92	0	-571	-94	201
20%	0	0	0	159	150	68	630	1	-117	-356	2	16
30%	-9	-51	-80	1	969	-247	65	-250	-445	-98	-17	-39
40%	84	0	0	37	245	-528	249	41	-467	-28	2	-43
50%	34	0	0	62	35	80	492	199	-242	6	-9	-15
60%	10	0	0	1	-44	0	-53	-284	-49	-14	-13	-13
70%	-68	0	0	3	-7	0	-737	-498	-129	-39	-58	-3
80%	-115	0	0	-1	-152	0	-208	-324	-174	-72	-75	-33
90%	0	0	0	0	-135	0	-302	-210	-147	-69	-77	-12
Long Term												
Full Simulation Period ^d	-7	-2	4	136	309	-3	-19	-112	-160	-99	-20	6
Water Year Types ^{b,c}												
Wet (32%)	-11	-7	-4	309	717	-61	8	-130	-157	-160	4	52
Above Normal (16%)	32	0	0	223	515	77	228	70	-262	-142	0	-6
Below Normal (13%)	-61	0	0	34	238	-60	-312	-332	-111	-47	-38	-27
Dry (24%)	-9	0	22	-9	-94	66	-68	-104	-119	-41	-39	-21
Critical (15%)	12	0	0	2	-62	-25	2	-85	-167	-65	-44	-7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-3. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (32%)	3,440	3,630	5,116	10,106	12,569	14,034	13,210	11,444	8,798	5,276	2,791	3,062
Above Normal (16%)	2,750	2,461	2,591	4,383	6,149	6,704	7,697	5,516	3,483	2,020	1,768	2,215
Below Normal (13%)	2,558	2,191	2,461	2,701	4,599	4,249	5,598	3,700	2,031	1,495	1,579	1,999
Dry (24%)	2,201	2,118	3,166	2,295	3,124	3,599	4,307	3,260	1,733	1,228	1,348	1,764
Critical (15%)	1,815	1,786	1,764	1,757	2,224	2,199	2,133	1,855	1,192	941	990	1,396

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (32%)	3,479	3,691	5,432	11,917	13,953	15,749	13,816	11,912	8,544	4,239	2,654	3,124
Above Normal (16%)	2,737	2,432	2,541	4,885	6,805	7,917	8,163	5,631	3,506	1,959	1,802	2,232
Below Normal (13%)	2,525	2,205	2,533	3,055	5,738	4,776	5,939	3,651	1,937	1,465	1,442	1,957
Dry (24%)	2,218	2,126	3,424	2,427	3,623	3,734	4,453	3,461	1,749	1,224	1,328	1,776
Critical (15%)	1,851	1,790	1,764	1,759	2,397	2,220	2,196	1,925	1,249	980	1,034	1,423

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	87	0	510	1,709	3,894	1,682	817	1,003	353	-1,583	42	79
20%	-13	-120	77	2,269	1,639	1,550	640	44	231	-64	-210	-115
30%	-68	1	0	818	1,985	957	430	436	-69	-42	-58	-32
40%	-50	-30	-11	5	625	1,657	364	-40	-61	14	-21	3
50%	-8	17	10	42	640	631	185	46	59	-1	-1	-17
60%	-10	-5	2	0	-11	34	49	101	-60	-17	6	-1
70%	-73	24	-30	-40	63	-53	174	117	11	0	2	12
80%	98	0	8	0	102	26	19	49	88	-15	17	58
90%	0	0	7	0	79	0	167	114	37	58	33	0
Long Term												
Full Simulation Period ^d	15	19	165	734	843	843	357	219	-77	-337	-55	24
Water Year Types ^{b,c}												
Wet (32%)	39	61	316	1,811	1,384	1,715	606	468	-254	-1,037	-138	62
Above Normal (16%)	-13	-30	-50	502	656	1,213	466	115	22	-60	34	17
Below Normal (13%)	-34	15	72	354	1,139	527	341	-50	-93	-30	-136	-41
Dry (24%)	16	8	257	132	498	135	147	201	17	-3	-20	11
Critical (15%)	36	4	0	2	173	21	63	70	57	38	45	28

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39-4. San Joaquin River at Vernalis, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (32%)	3,431	3,610	5,031	10,142	13,009	14,070	13,186	11,331	8,821	5,339	2,776	3,055
Above Normal (16%)	2,785	2,462	2,591	4,535	6,245	6,809	7,961	5,682	3,214	1,939	1,770	2,216
Below Normal (13%)	2,519	2,191	2,461	2,690	4,546	4,130	5,399	3,449	1,875	1,482	1,572	1,990
Dry (24%)	2,188	2,118	3,172	2,282	3,075	3,599	4,230	3,126	1,587	1,175	1,299	1,735
Critical (15%)	1,827	1,786	1,764	1,757	2,177	2,171	2,131	1,784	1,052	889	957	1,385

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (32%)	3,468	3,684	5,428	12,226	14,670	15,687	13,825	11,782	8,387	4,079	2,657	3,176
Above Normal (16%)	2,769	2,432	2,541	5,107	7,319	7,994	8,391	5,702	3,243	1,817	1,802	2,226
Below Normal (13%)	2,464	2,205	2,533	3,090	5,976	4,717	5,628	3,319	1,826	1,418	1,404	1,931
Dry (24%)	2,209	2,126	3,445	2,418	3,529	3,800	4,386	3,357	1,630	1,183	1,288	1,754
Critical (15%)	1,863	1,790	1,764	1,762	2,335	2,195	2,198	1,840	1,083	915	991	1,417

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	66	-22	522	2,836	1,718	1,716	860	270	353	-2,043	1	280
20%	1	-120	30	2,402	1,797	1,490	1,270	43	32	-287	-212	-78
30%	-93	-6	0	816	2,260	738	154	-45	149	-100	-51	-63
40%	-4	-30	0	-10	870	1,393	258	-38	49	-4	-23	-41
50%	0	17	10	134	1,024	711	263	44	-1	3	-15	-30
60%	1	-5	2	4	15	54	46	-27	6	-10	0	-2
70%	-31	24	-30	-6	56	-53	4	22	-16	-22	-57	9
80%	0	0	8	0	-26	26	107	27	-3	15	15	63
90%	41	0	7	0	0	0	1	112	4	11	-3	12
Long Term												
Full Simulation Period ^d	12	23	194	839	1,023	832	349	193	-124	-421	-53	41
Water Year Types ^{b,c}												
Wet (32%)	37	74	397	2,084	1,661	1,617	638	452	-434	-1,259	-118	121
Above Normal (16%)	-16	-30	-50	572	1,074	1,185	430	20	29	-122	32	9
Below Normal (13%)	-55	15	72	399	1,430	587	229	-130	-49	-64	-168	-60
Dry (24%)	21	8	274	136	454	202	155	231	44	8	-10	19
Critical (15%)	36	4	0	4	158	24	67	56	31	26	34	32

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

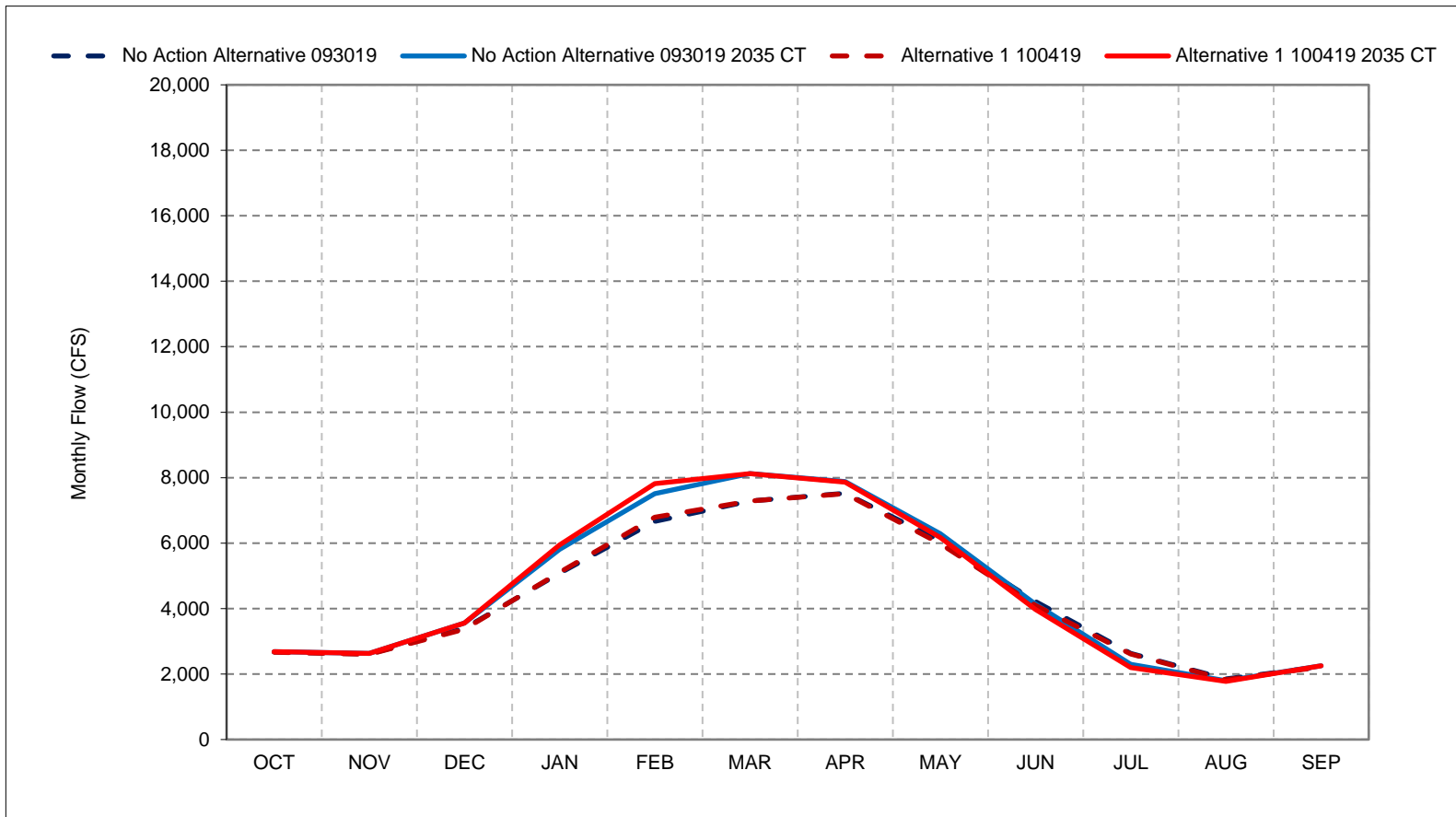
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39-1. San Joaquin River at Vernalis, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

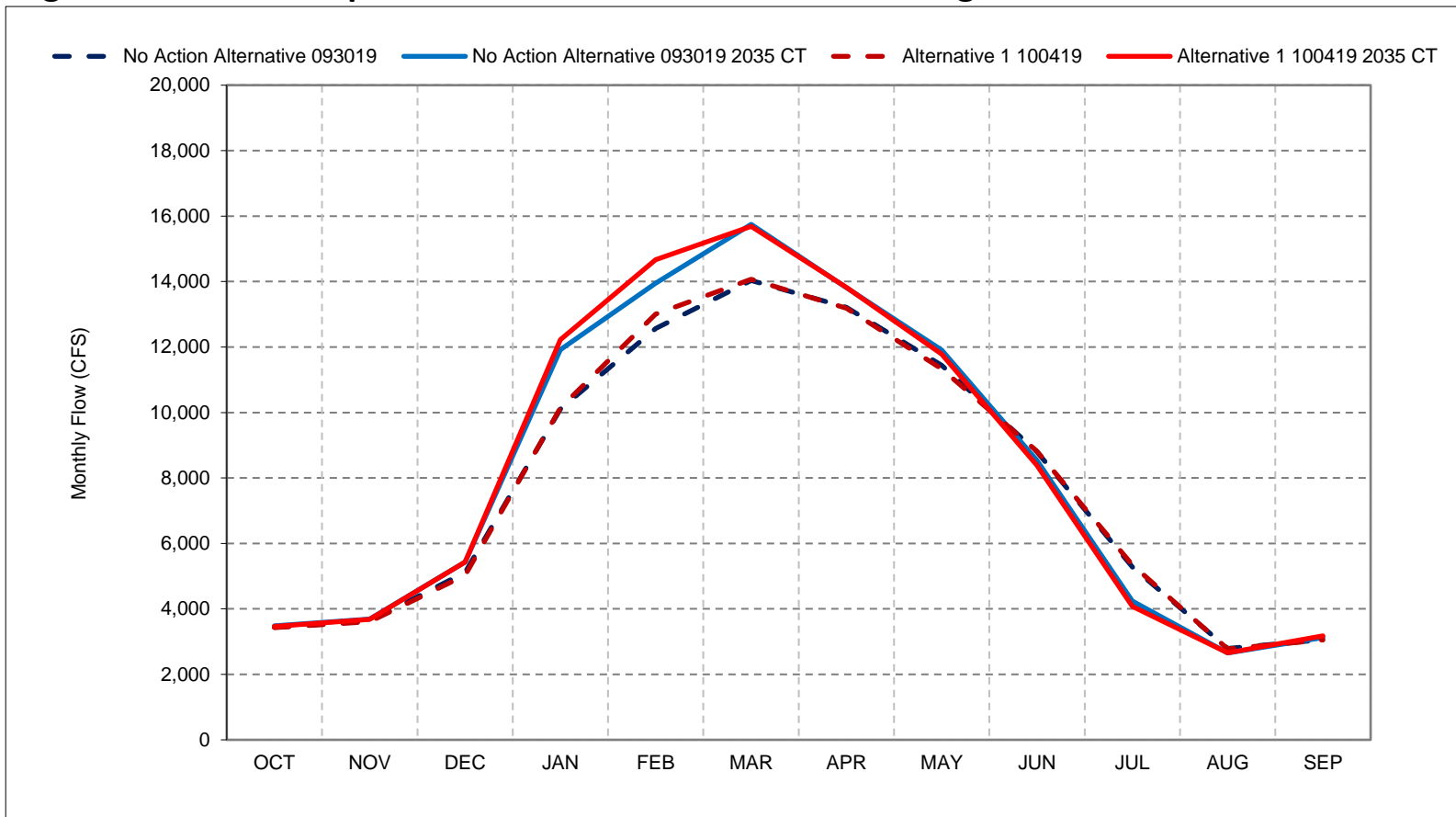
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-2. San Joaquin River at Vernalis, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

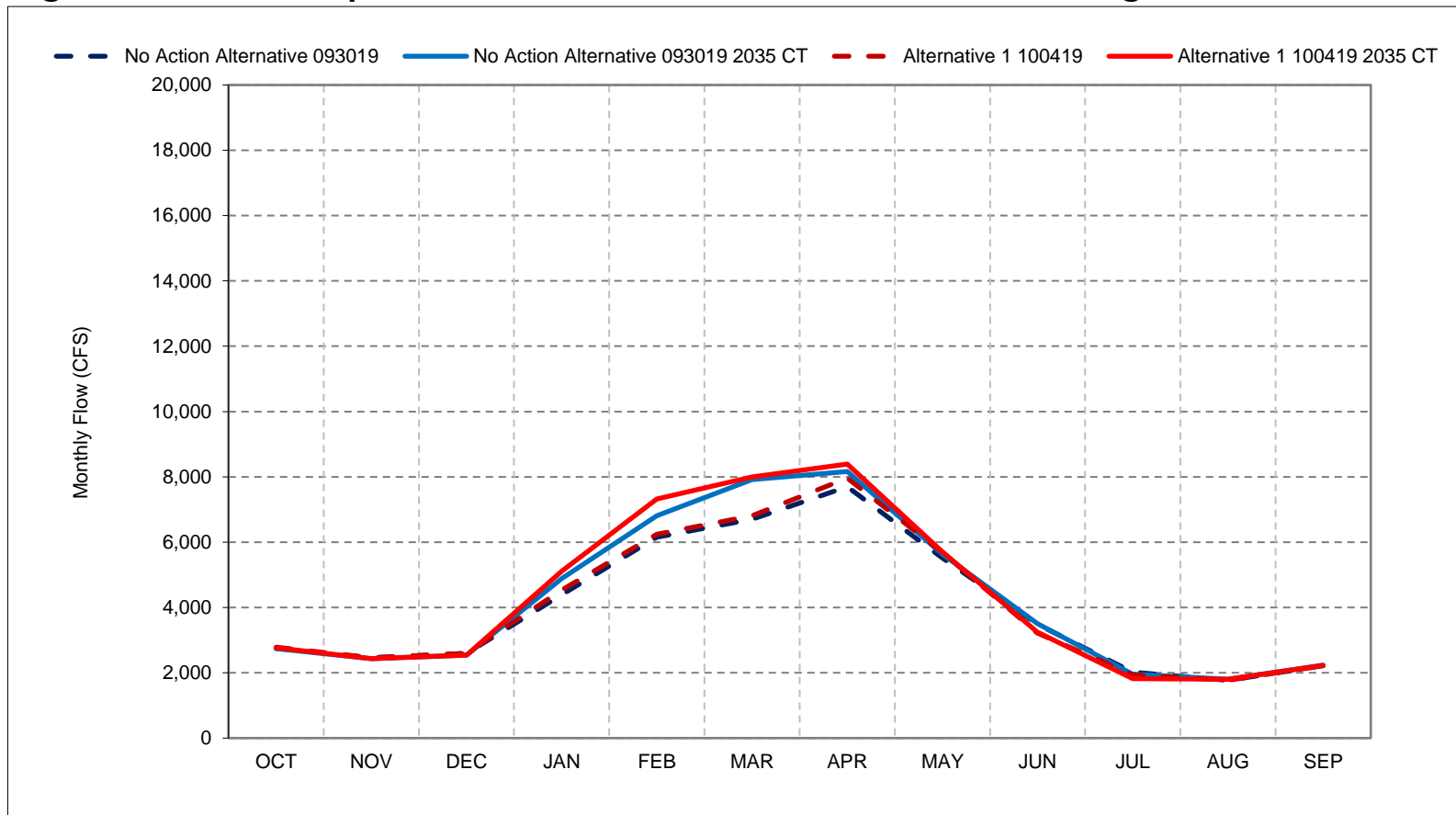
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-3. San Joaquin River at Vernalis, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

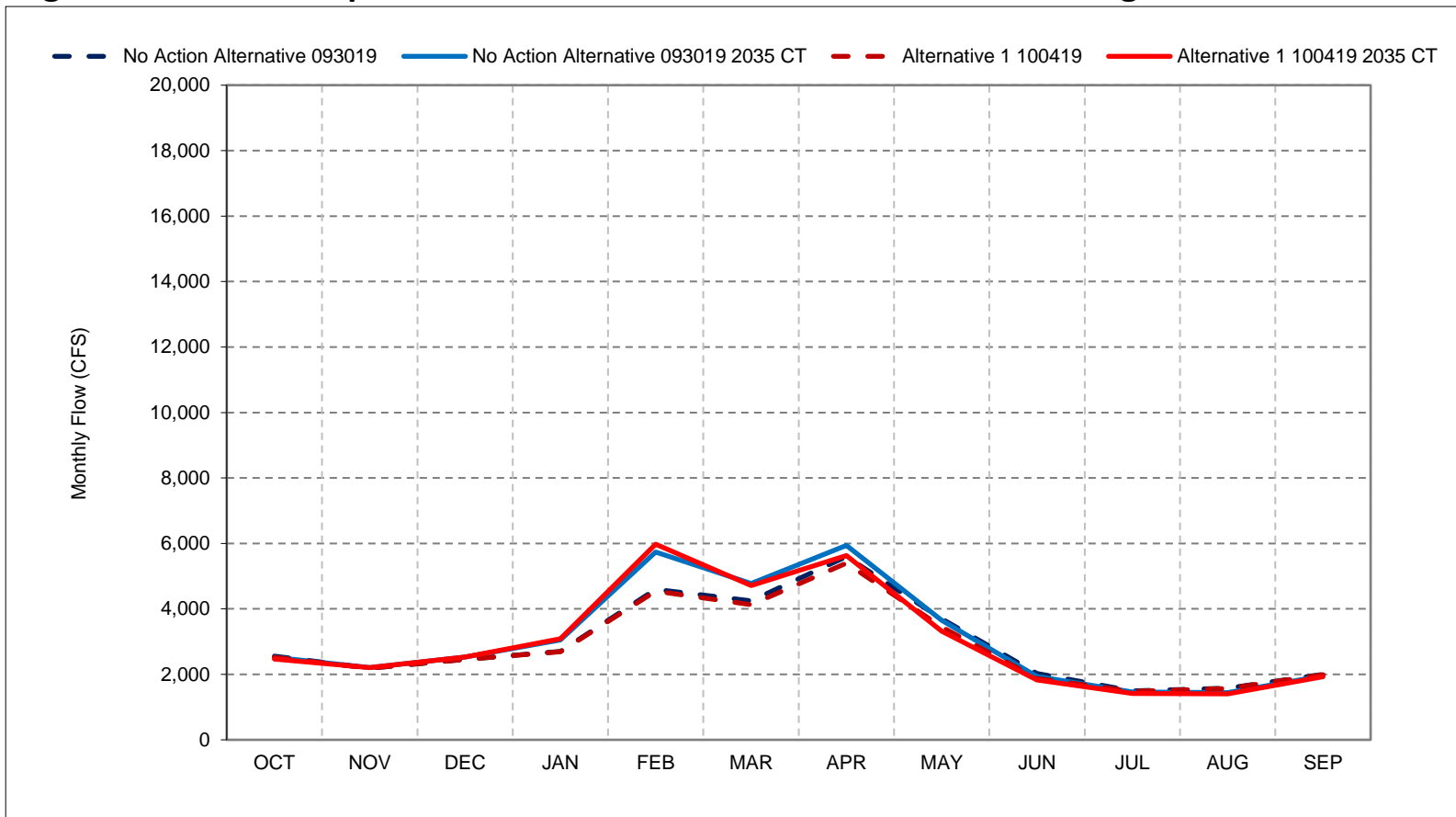
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-4. San Joaquin River at Vernalis, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

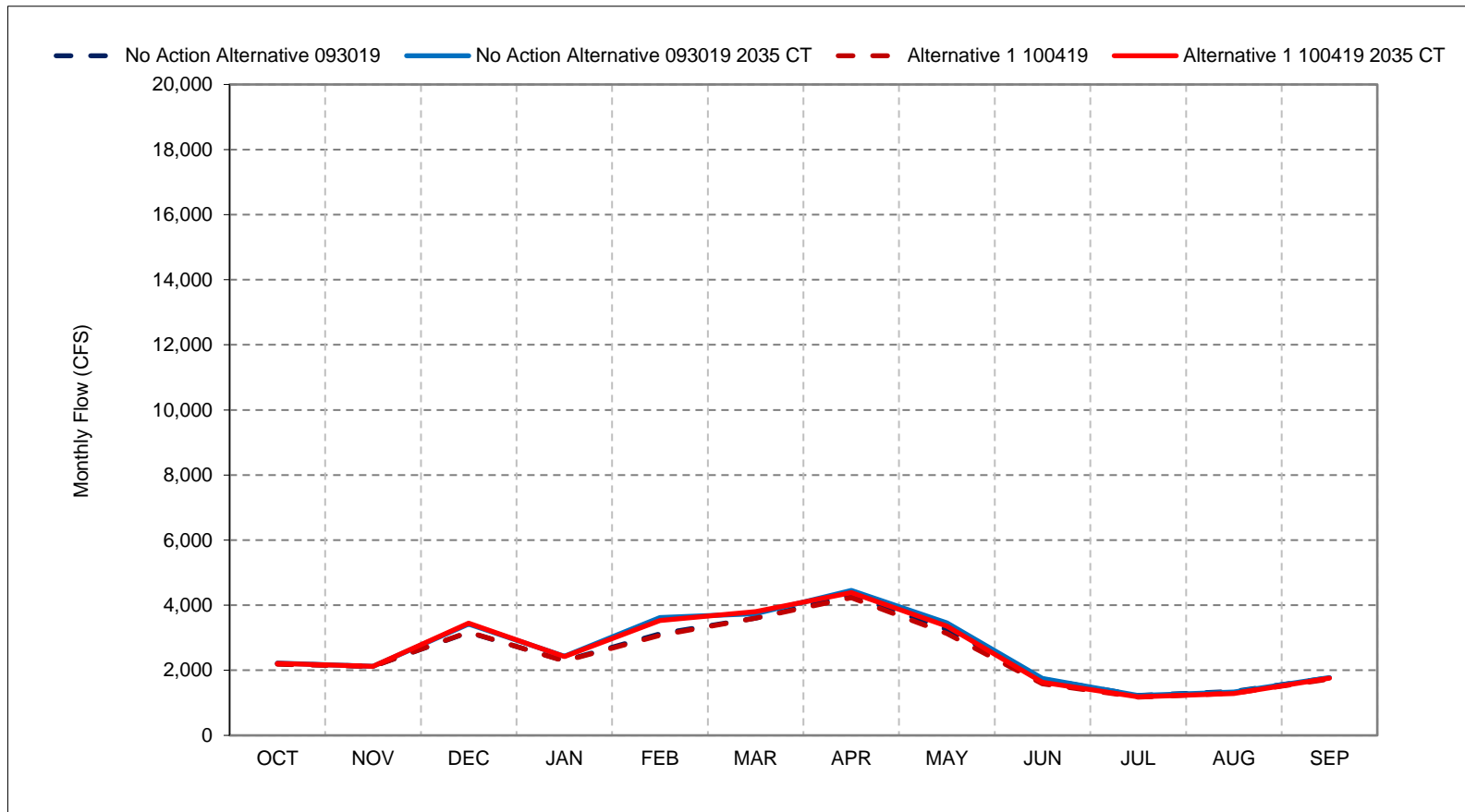
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-5. San Joaquin River at Vernalis, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

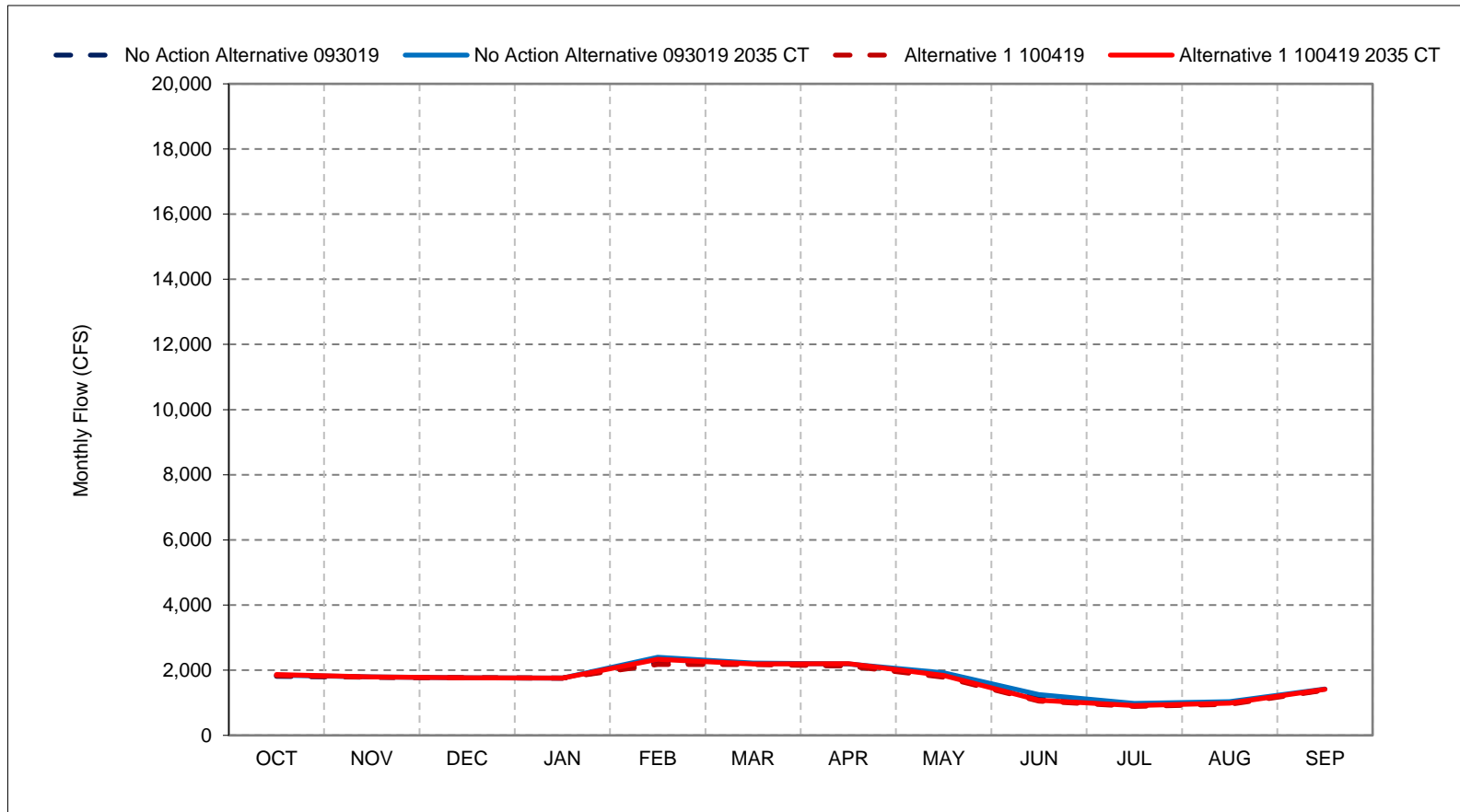
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39-6. San Joaquin River at Vernalis, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

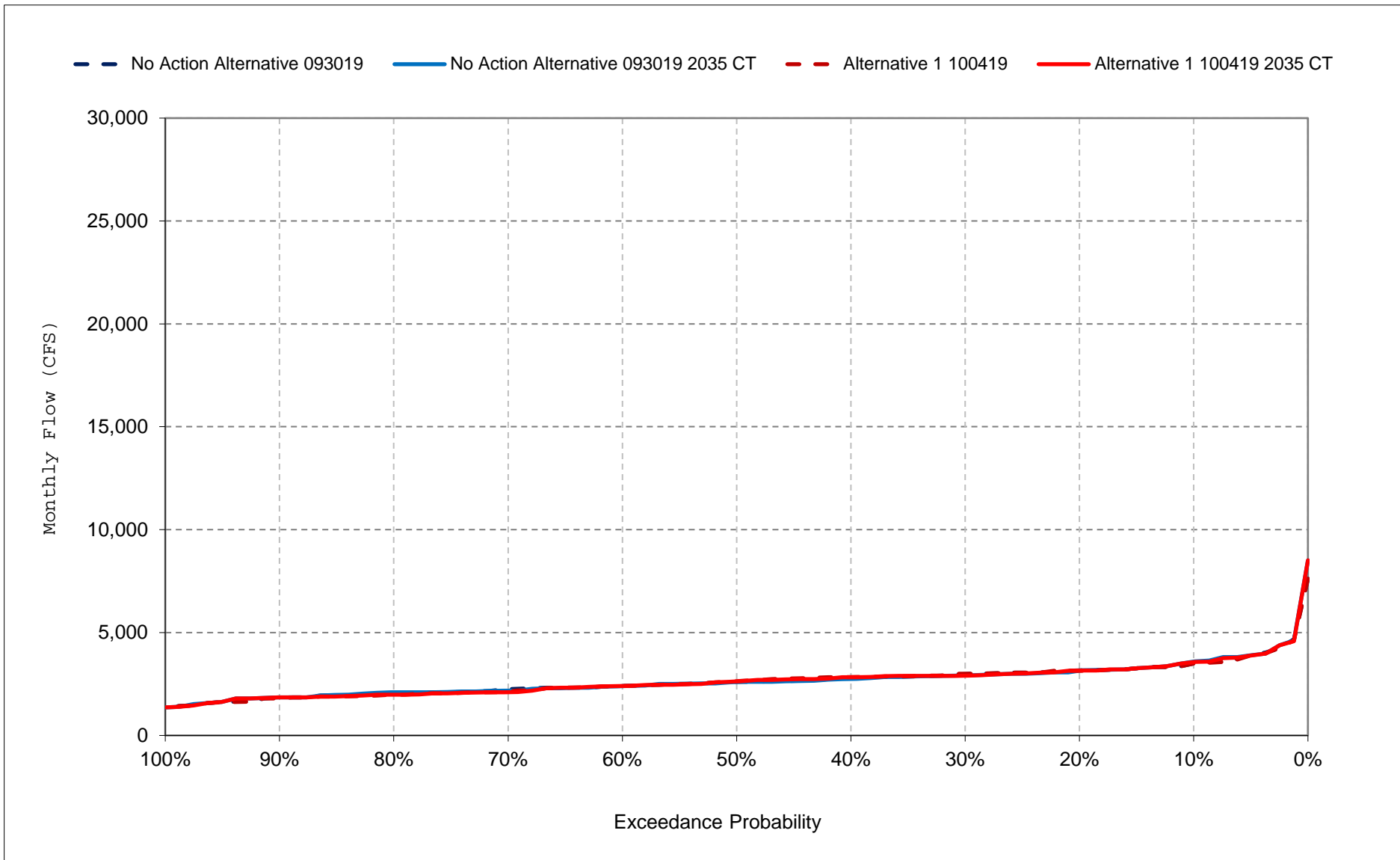
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

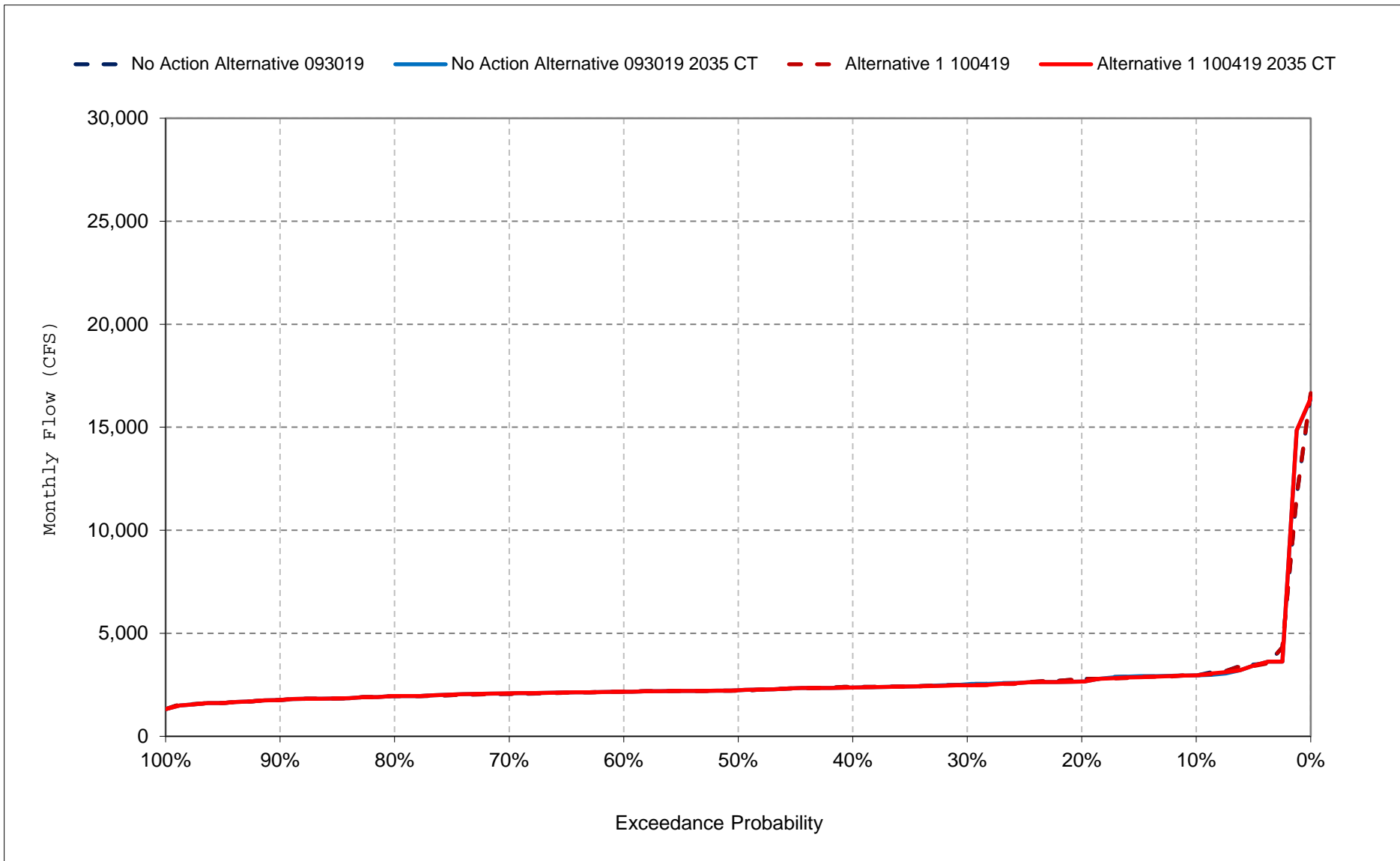
Figure 39-7. San Joaquin River at Vernalis, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

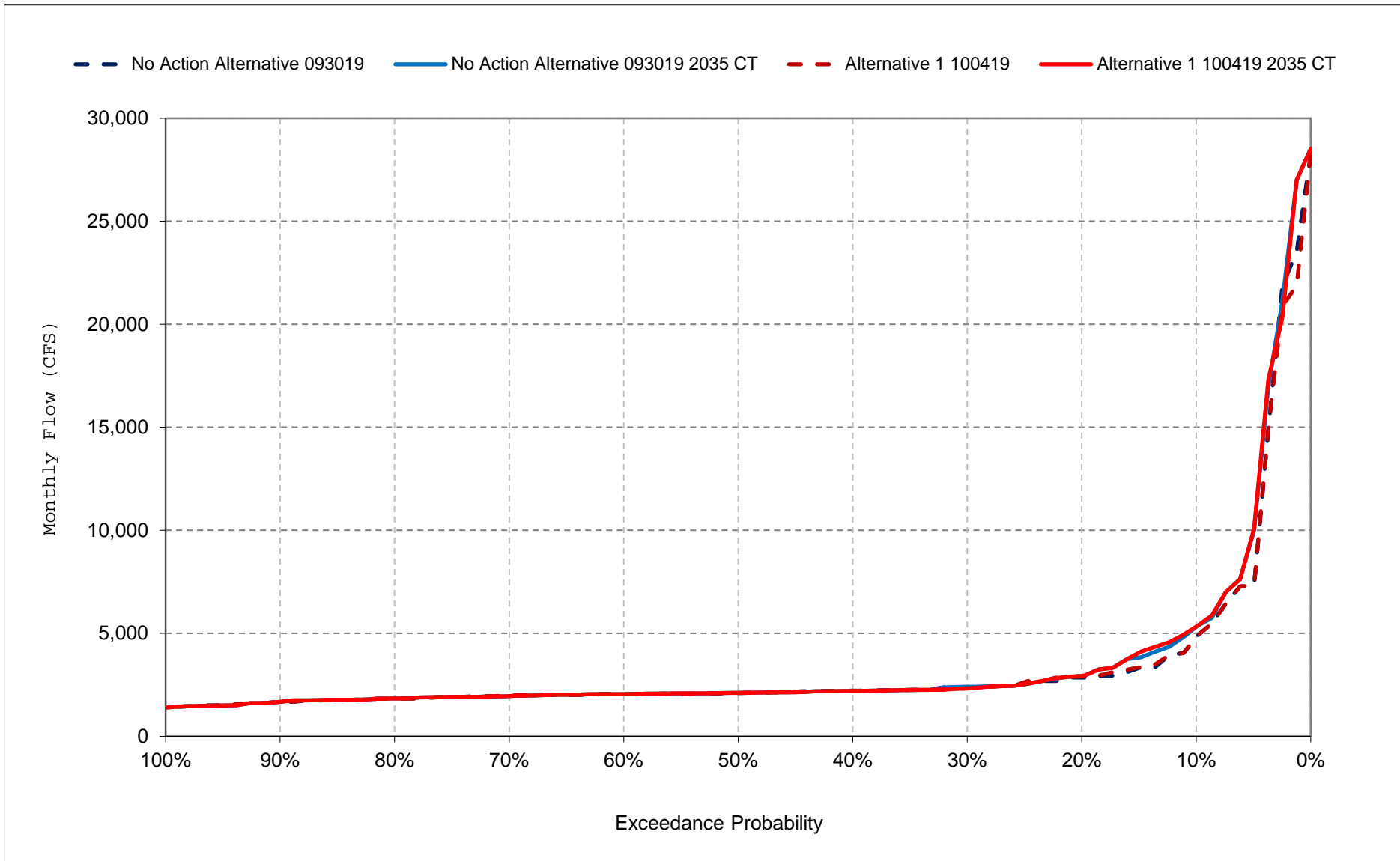
Figure 39-8. San Joaquin River at Vernalis, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

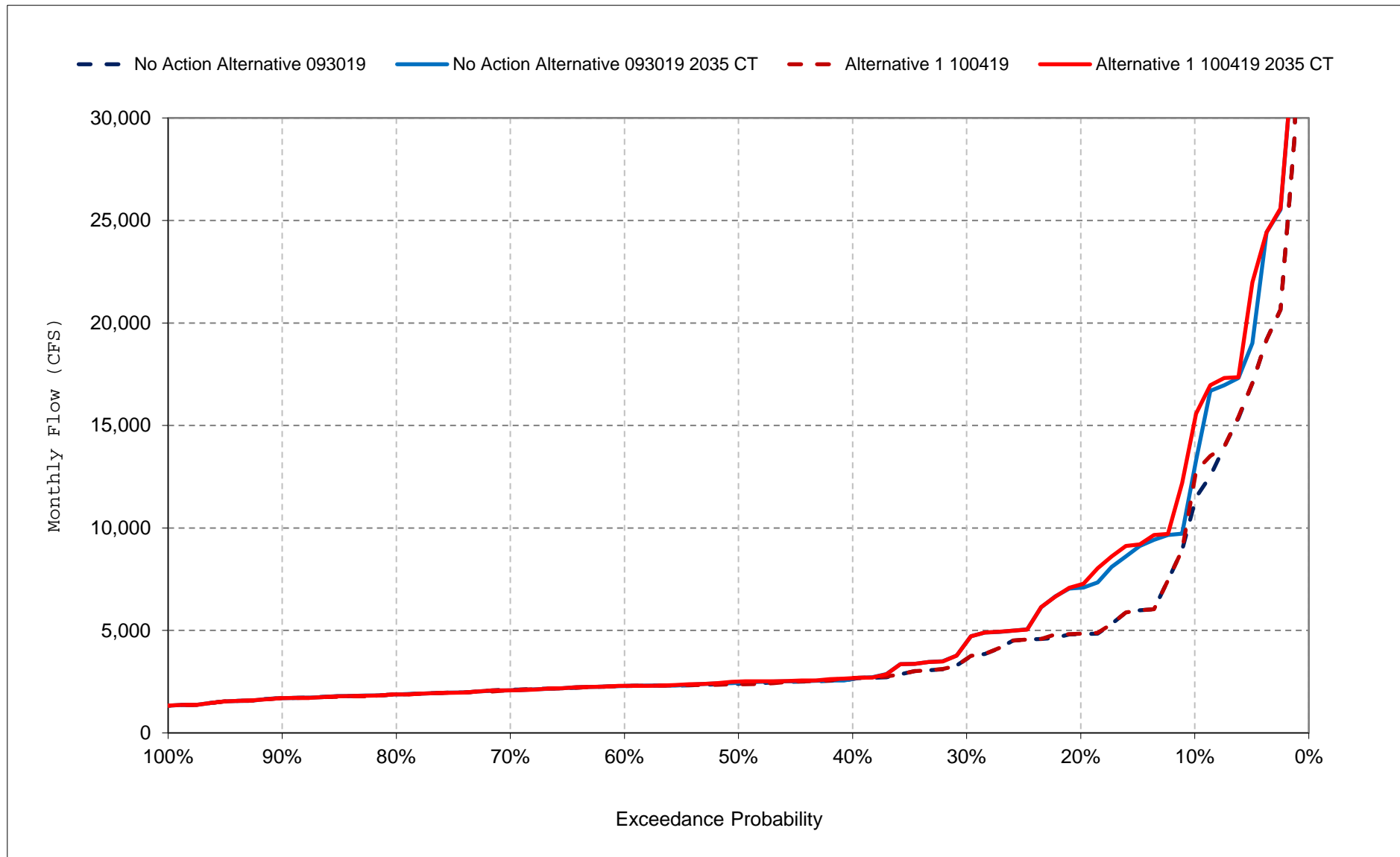
Figure 39-9. San Joaquin River at Vernalis, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

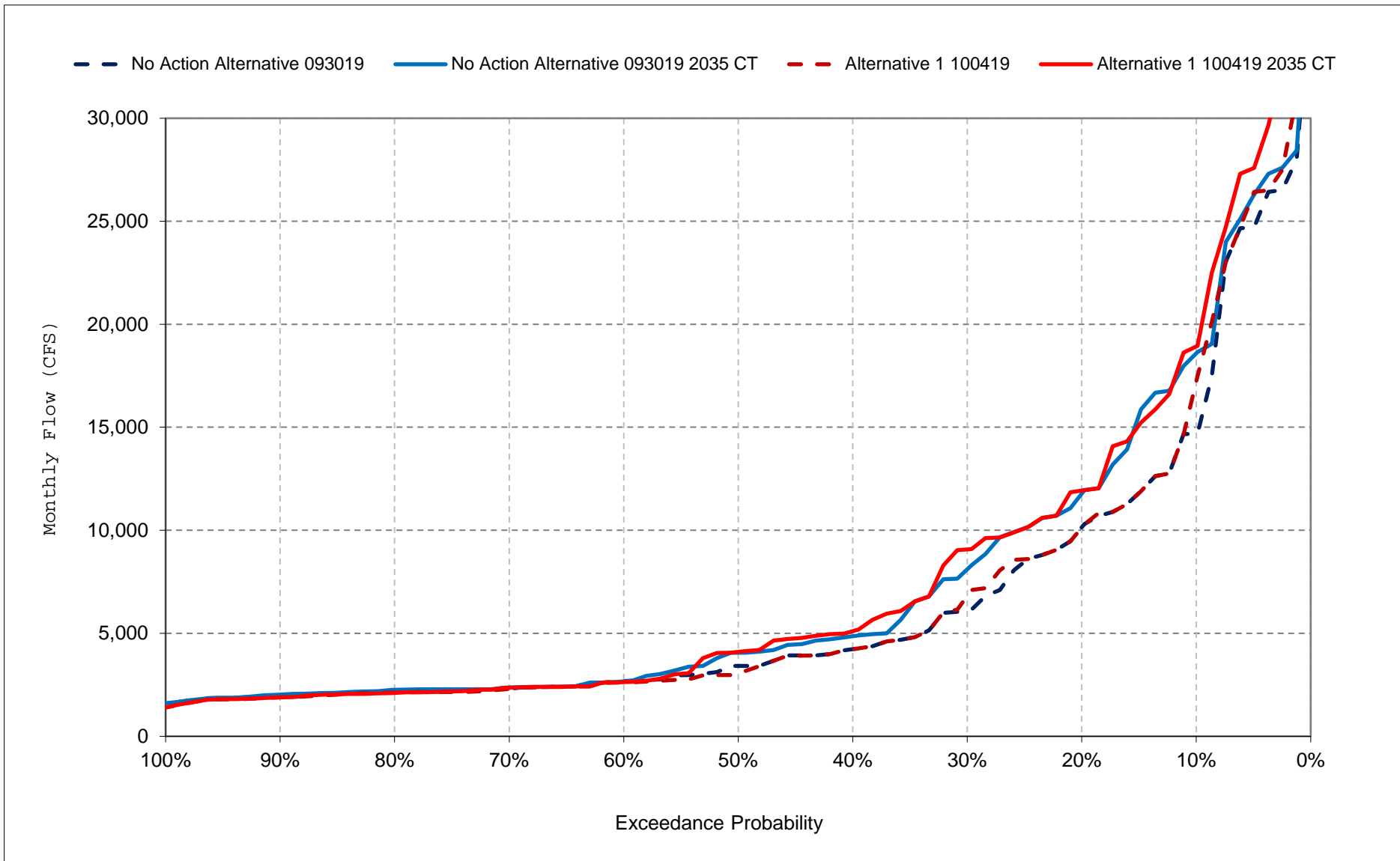
Figure 39-10. San Joaquin River at Vernalis, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

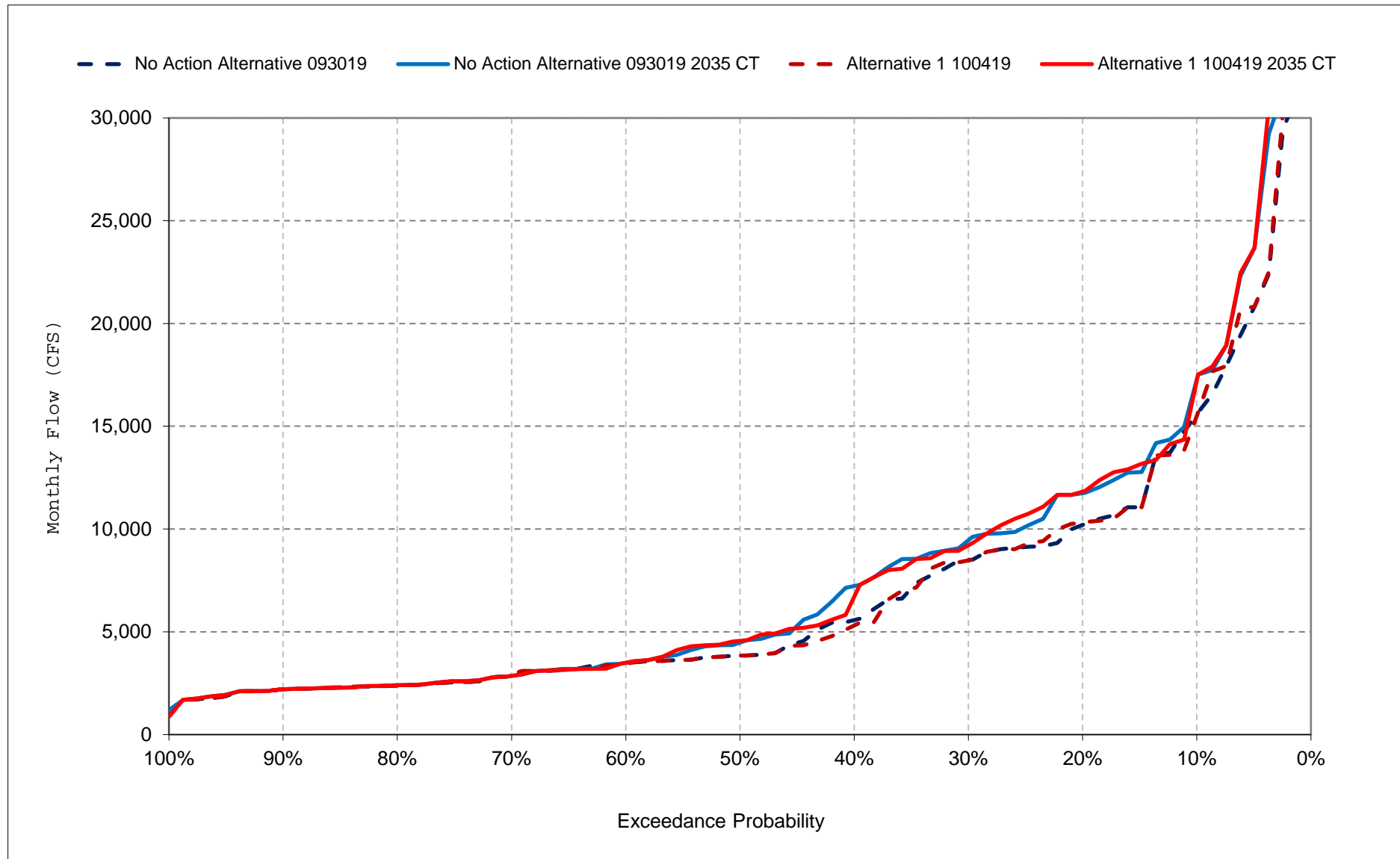
Figure 39-11. San Joaquin River at Vernalis, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

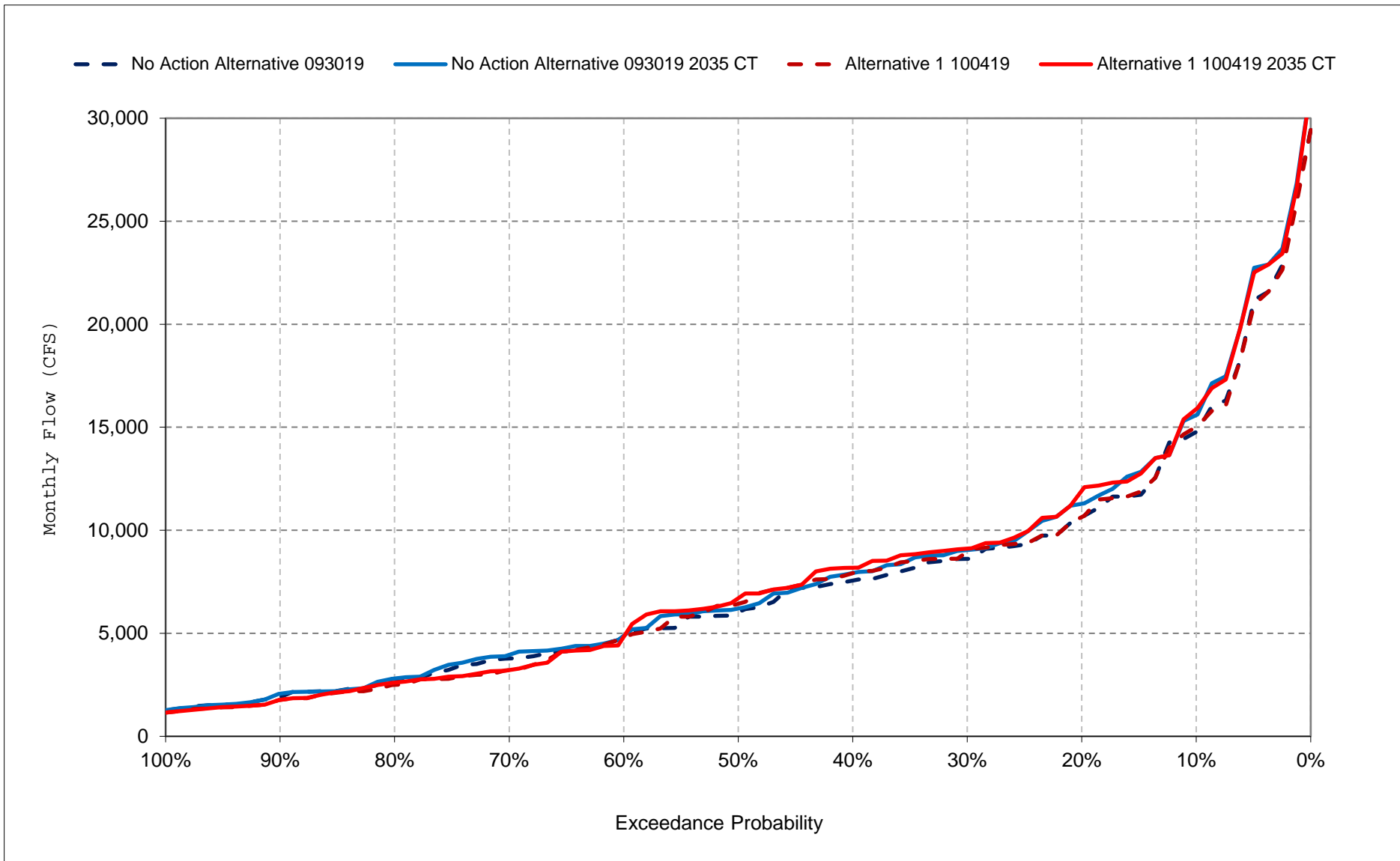
Figure 39-12. San Joaquin River at Vernalis, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

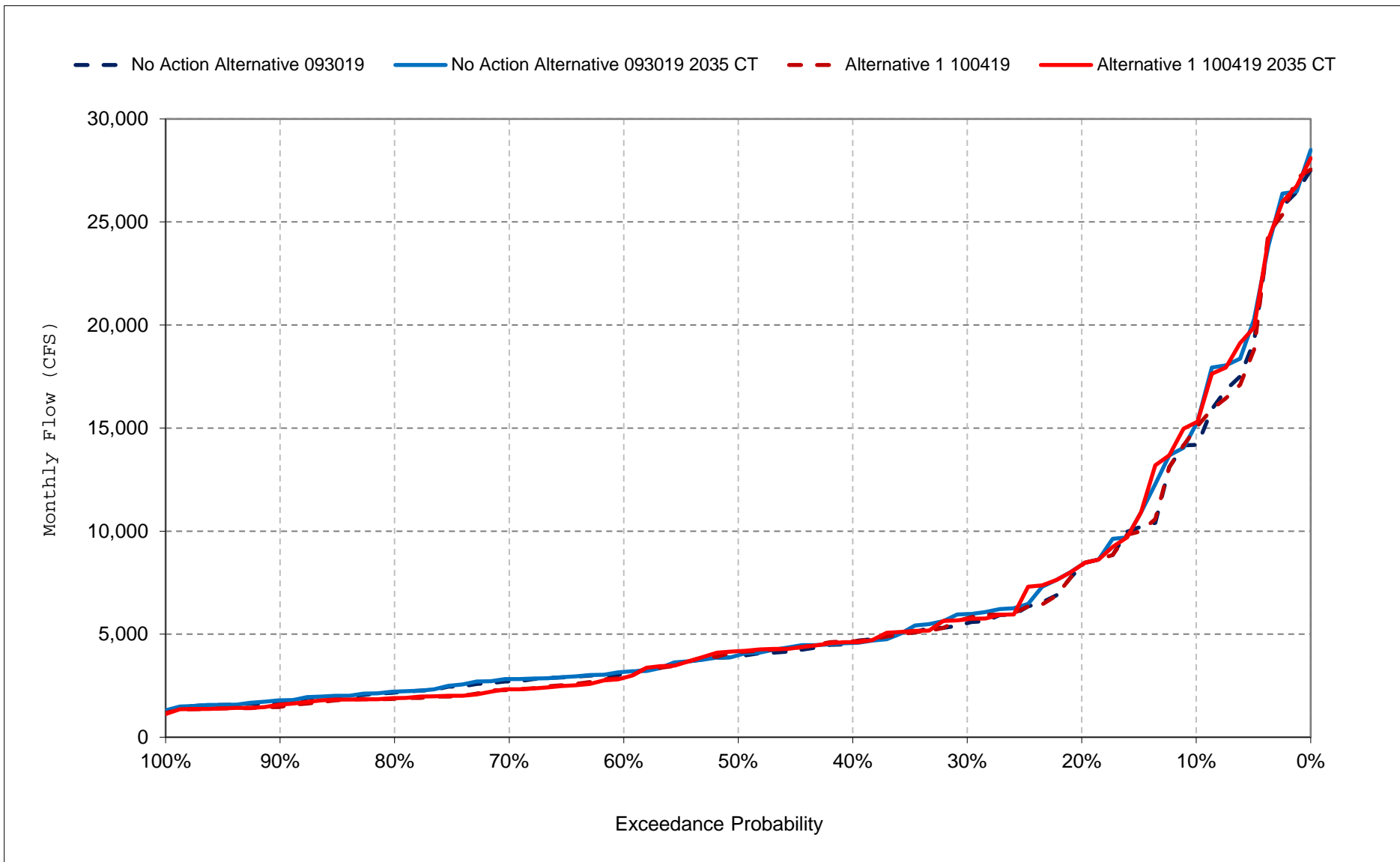
Figure 39-13. San Joaquin River at Vernalis, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

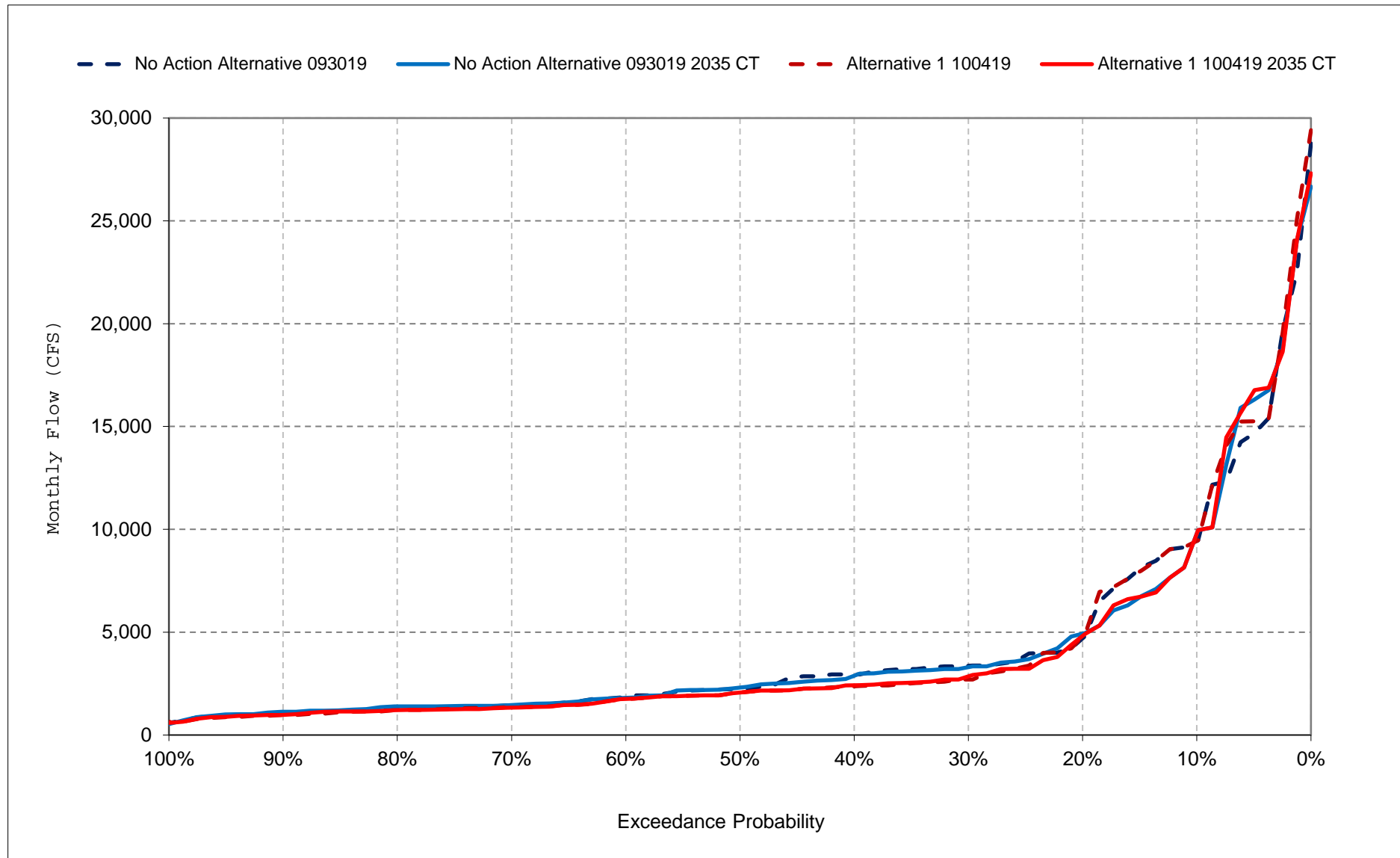
Figure 39-14. San Joaquin River at Vernalis, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

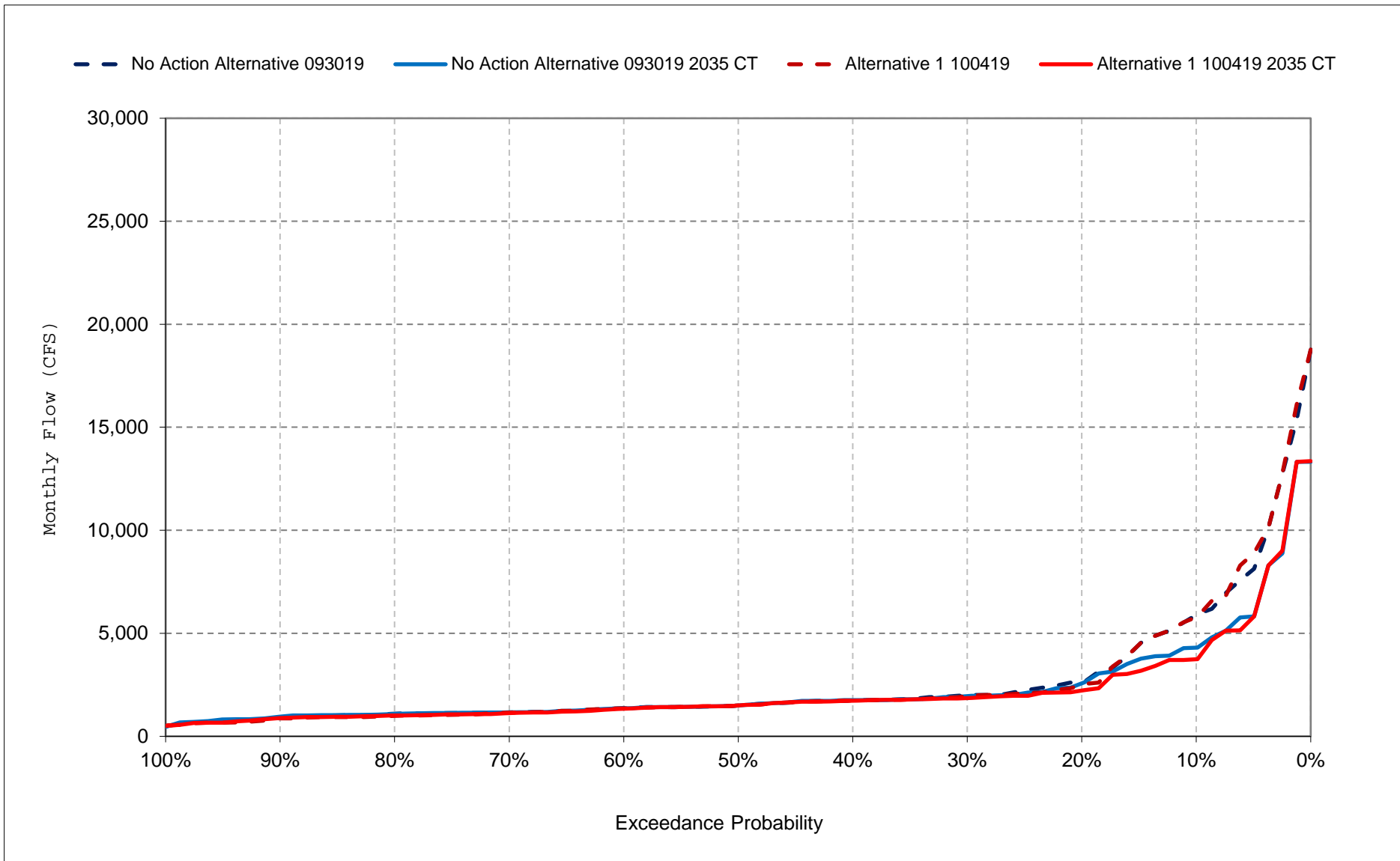
Figure 39-15. San Joaquin River at Vernalis, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

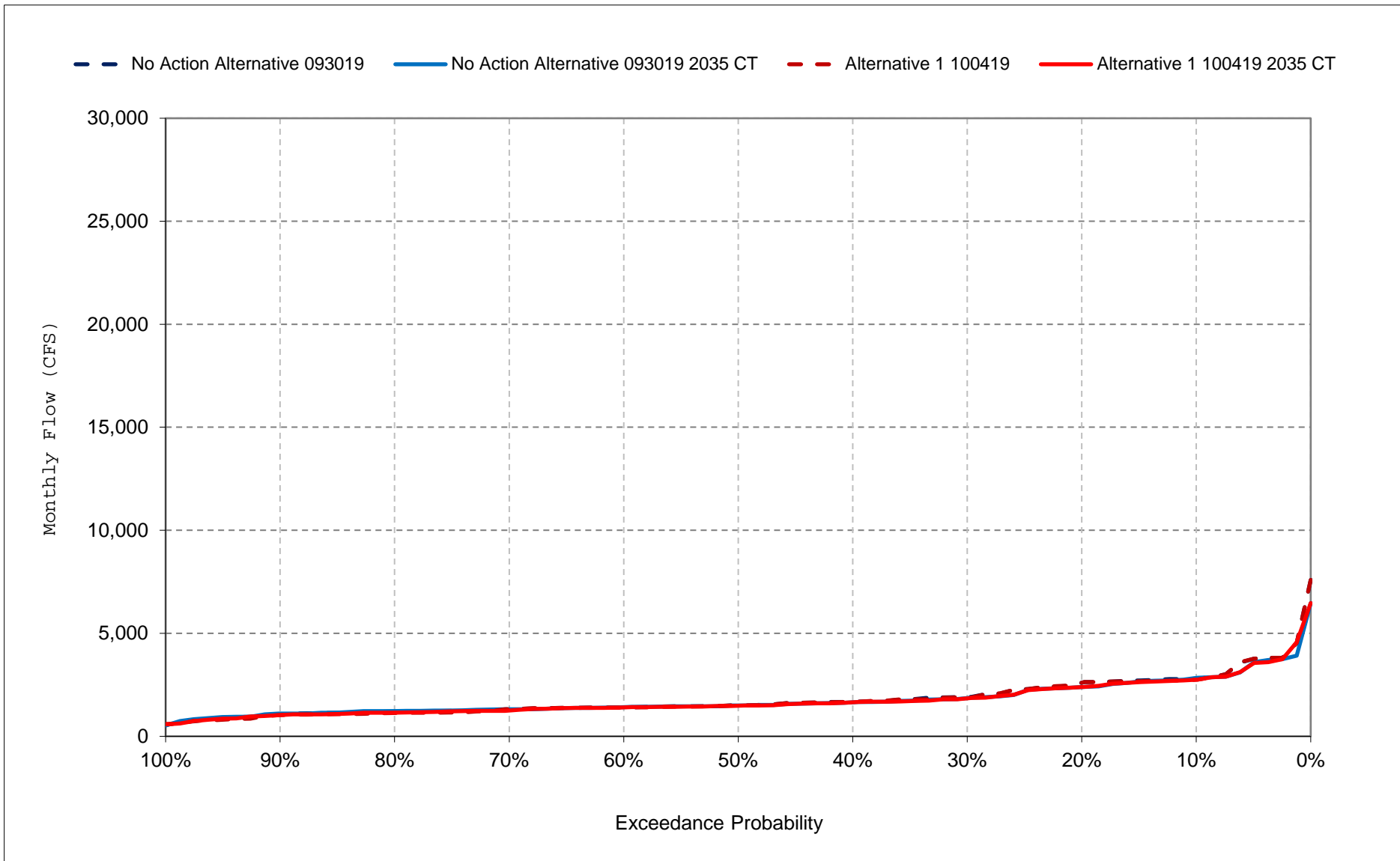
Figure 39-16. San Joaquin River at Vernalis, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

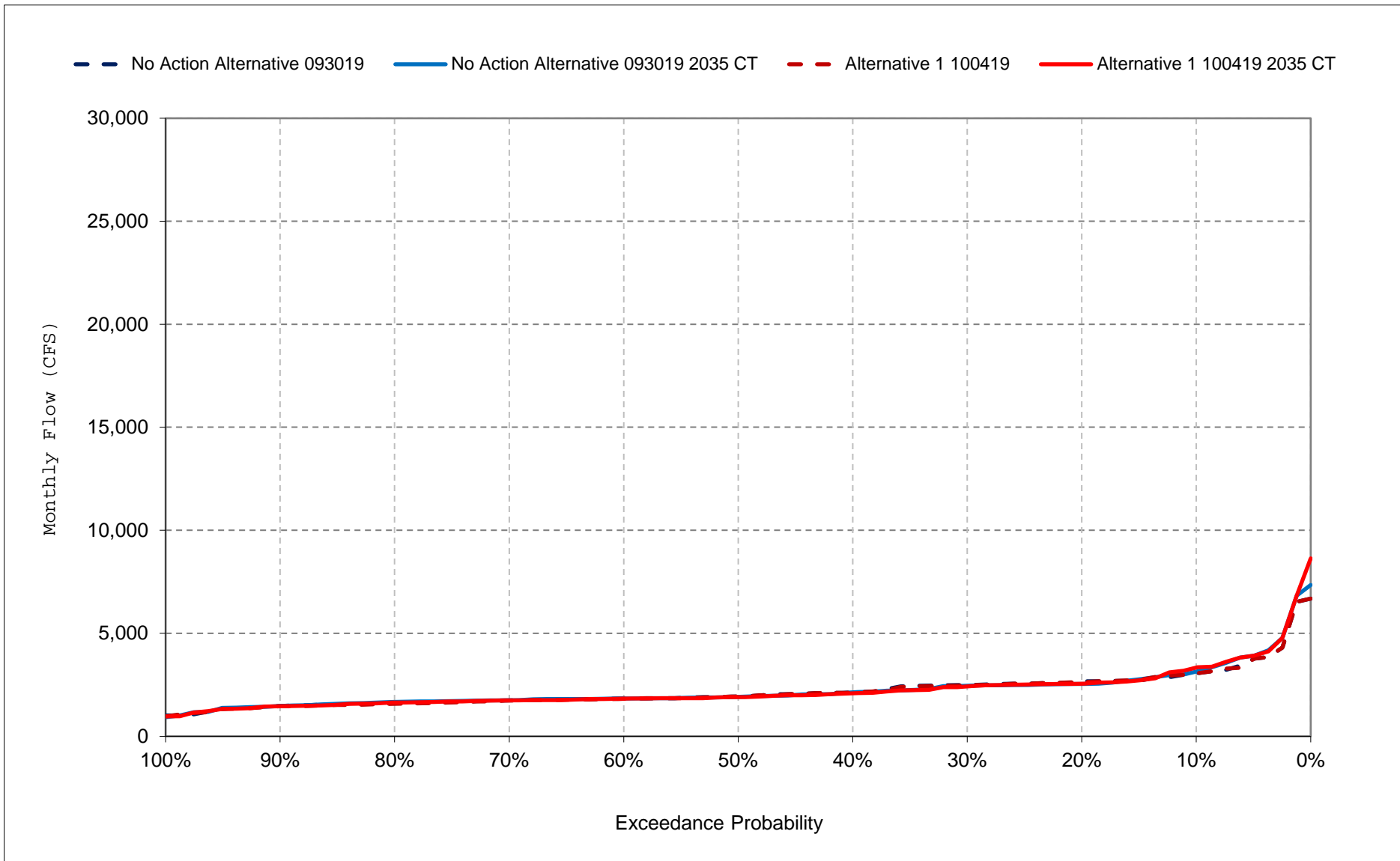
Figure 39-17. San Joaquin River at Vernalis, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39-18. San Joaquin River at Vernalis, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-1. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types^{b,c}												
Wet (23%)	3,611	4,025	6,134	11,463	15,794	16,881	15,400	14,703	11,398	6,693	3,136	3,417
Above Normal (24%)	2,947	2,582	2,953	4,898	6,903	7,536	8,537	5,295	3,282	1,996	1,980	2,347
Below Normal (10%)	2,518	2,133	2,067	3,520	3,651	4,149	6,338	4,142	2,078	1,467	1,449	1,839
Dry (16%)	2,289	2,153	3,123	2,402	2,549	3,241	3,998	2,808	1,685	1,260	1,351	1,778
Critical (27%)	1,864	1,849	2,077	1,878	2,091	2,288	2,310	1,932	1,119	932	1,064	1,489

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types^{b,c}												
Wet (23%)	3,606	4,001	6,006	11,467	16,349	17,054	15,338	14,677	11,758	6,813	3,124	3,416
Above Normal (24%)	2,994	2,579	2,964	4,928	6,922	7,468	8,885	5,407	2,689	1,912	1,973	2,339
Below Normal (10%)	2,541	2,133	2,067	3,784	3,834	4,032	6,495	4,186	1,970	1,468	1,451	1,834
Dry (16%)	2,238	2,153	3,131	2,392	2,464	3,241	3,792	2,533	1,565	1,238	1,344	1,774
Critical (27%)	1,828	1,849	2,077	1,871	2,058	2,273	2,069	1,678	1,038	862	1,001	1,456

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	22	0	1,162	2,506	-95	247	825	0	-111	-53	0
20%	-14	0	47	26	-7	128	0	3	82	-133	4	-21
30%	15	-45	-79	2	694	-28	342	232	-663	-39	-23	-7
40%	39	0	-11	52	0	-264	355	39	-577	-9	4	1
50%	26	0	0	-30	-349	0	414	201	-182	2	6	-2
60%	0	0	0	-3	-70	-20	-50	-156	-115	-21	-7	-12
70%	-111	0	0	-31	0	0	-567	-404	-102	-17	2	-1
80%	-18	0	0	-1	-23	0	-295	-302	-83	-102	-72	-39
90%	-42	0	0	-1	-57	0	-135	-208	-113	-21	-40	-24
Long Term												
Full Simulation Period ^d	-4	-6	-26	31	129	8	-11	-86	-112	-15	-22	-12
Water Year Types^{b,c}												
Wet (23%)	-4	-24	-128	4	555	173	-61	-26	360	120	-12	0
Above Normal (24%)	46	-3	11	31	19	-68	348	111	-593	-85	-7	-8
Below Normal (10%)	23	0	0	264	183	-118	157	44	-107	1	2	-4
Dry (16%)	-51	0	9	-10	-85	0	-205	-275	-120	-22	-7	-4
Critical (27%)	-36	0	0	-7	-33	-15	-241	-254	-81	-70	-63	-33

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 39b-2. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (23%)	3,653	4,161	6,574	13,037	17,252	18,890	16,135	15,177	11,057	5,249	2,974	3,534
Above Normal (24%)	2,947	2,521	2,953	6,177	8,687	8,533	9,030	5,654	3,229	1,962	1,884	2,310
Below Normal (10%)	2,521	2,133	2,067	4,045	3,890	4,530	6,533	4,181	2,100	1,471	1,451	1,845
Dry (16%)	2,284	2,170	3,324	2,405	2,791	3,835	4,212	2,846	1,698	1,256	1,349	1,787
Critical (27%)	1,886	1,851	2,201	1,897	2,120	2,300	2,360	1,978	1,158	954	1,087	1,502

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (23%)	3,648	4,157	6,574	13,412	18,309	18,932	16,102	15,157	11,103	5,051	2,990	3,628
Above Normal (24%)	2,992	2,516	2,949	6,243	8,827	8,556	9,393	5,733	2,789	1,853	1,875	2,289
Below Normal (10%)	2,541	2,133	2,067	4,340	4,099	4,295	6,709	4,186	1,970	1,467	1,450	1,834
Dry (16%)	2,223	2,170	3,353	2,434	2,914	3,886	3,899	2,494	1,550	1,220	1,324	1,772
Critical (27%)	1,848	1,851	2,205	1,896	2,082	2,286	2,108	1,711	1,057	877	1,022	1,474

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	0	12	2,289	329	-61	290	92	0	-571	-94	201
20%	0	0	0	159	150	68	630	1	-117	-356	2	16
30%	-9	-51	-80	1	969	-247	65	-250	-445	-98	-17	-39
40%	84	0	0	37	245	-528	249	41	-467	-28	2	-43
50%	34	0	0	62	35	80	492	199	-242	6	-9	-15
60%	10	0	0	1	-44	0	-53	-284	-49	-14	-13	-13
70%	-68	0	0	3	-7	0	-737	-498	-129	-39	-58	-3
80%	-115	0	0	-1	-152	0	-208	-324	-174	-72	-75	-33
90%	0	0	0	0	-135	0	-302	-210	-147	-69	-77	-12
Long Term												
Full Simulation Period ^d	-7	-2	4	136	309	-3	-19	-112	-160	-99	-20	6
Water Year Types ^{b,c}												
Wet (23%)	-4	-5	0	375	1,057	42	-33	-20	47	-198	16	94
Above Normal (24%)	44	-5	-5	66	140	24	363	79	-440	-109	-9	-21
Below Normal (10%)	20	0	0	295	208	-234	176	5	-130	-3	0	-10
Dry (16%)	-61	0	29	29	123	51	-313	-352	-148	-36	-26	-15
Critical (27%)	-39	0	4	-1	-38	-14	-253	-268	-101	-76	-65	-28

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-3. San Joaquin River at Vernalis (60-20-20), Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,952	4,804	11,236	14,693	15,582	14,771	14,183	9,432	5,890	2,796	3,060
20%	3,162	2,777	2,857	4,812	10,135	10,196	10,640	8,319	4,694	2,635	2,595	2,656
30%	2,980	2,527	2,401	3,611	6,119	8,500	8,616	5,538	3,364	1,994	1,912	2,491
40%	2,796	2,395	2,216	2,629	4,232	5,570	7,564	4,615	2,947	1,741	1,672	2,125
50%	2,602	2,219	2,101	2,402	3,420	3,847	6,019	3,929	2,246	1,493	1,492	1,932
60%	2,401	2,169	2,046	2,293	2,684	3,459	4,834	3,064	1,864	1,370	1,408	1,838
70%	2,247	2,059	1,979	2,114	2,305	2,906	3,778	2,703	1,449	1,162	1,310	1,741
80%	1,995	1,951	1,829	1,883	2,151	2,371	2,792	2,167	1,298	1,096	1,207	1,613
90%	1,849	1,763	1,669	1,699	1,947	2,205	1,899	1,680	1,091	891	1,067	1,476
Long Term												
Full Simulation Period ^d	2,672	2,613	3,393	5,079	6,664	7,282	7,522	6,066	4,211	2,631	1,851	2,225
Water Year Types ^{b,c}												
Wet (23%)	3,611	4,025	6,134	11,463	15,794	16,881	15,400	14,703	11,398	6,693	3,136	3,417
Above Normal (24%)	2,947	2,582	2,953	4,898	6,903	7,536	8,537	5,295	3,282	1,996	1,980	2,347
Below Normal (10%)	2,518	2,133	2,067	3,520	3,651	4,149	6,338	4,142	2,078	1,467	1,449	1,839
Dry (16%)	2,289	2,153	3,123	2,402	2,549	3,241	3,998	2,808	1,685	1,260	1,351	1,778
Critical (27%)	1,864	1,849	2,077	1,878	2,091	2,288	2,310	1,932	1,119	932	1,064	1,489

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,586	2,953	5,314	12,946	18,588	17,264	15,588	15,186	9,785	4,307	2,838	3,139
20%	3,150	2,657	2,934	7,081	11,774	11,746	11,279	8,363	4,925	2,571	2,384	2,540
30%	2,912	2,528	2,401	4,428	8,103	9,456	9,046	5,974	3,295	1,952	1,855	2,459
40%	2,747	2,365	2,204	2,633	4,857	7,227	7,928	4,575	2,886	1,755	1,650	2,128
50%	2,594	2,236	2,111	2,443	4,060	4,477	6,204	3,975	2,306	1,493	1,491	1,915
60%	2,391	2,164	2,048	2,293	2,673	3,494	4,884	3,166	1,804	1,353	1,414	1,836
70%	2,174	2,083	1,949	2,074	2,368	2,853	3,952	2,820	1,460	1,162	1,313	1,753
80%	2,093	1,951	1,837	1,884	2,253	2,397	2,811	2,215	1,386	1,081	1,224	1,671
90%	1,849	1,763	1,676	1,699	2,026	2,205	2,066	1,794	1,129	949	1,100	1,476
Long Term												
Full Simulation Period ^d	2,688	2,632	3,558	5,812	7,507	8,125	7,879	6,285	4,134	2,293	1,796	2,249
Water Year Types ^{b,c}												
Wet (23%)	3,653	4,161	6,574	13,037	17,252	18,890	16,135	15,177	11,057	5,249	2,974	3,534
Above Normal (24%)	2,947	2,521	2,953	6,177	8,687	8,533	9,030	5,654	3,229	1,962	1,884	2,310
Below Normal (10%)	2,521	2,133	2,067	4,045	3,890	4,530	6,533	4,181	2,100	1,471	1,451	1,845
Dry (16%)	2,284	2,170	3,324	2,405	2,791	3,835	4,212	2,846	1,698	1,256	1,349	1,787
Critical (27%)	1,886	1,851	2,201	1,897	2,120	2,300	2,360	1,978	1,158	954	1,087	1,502

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	87	0	510	1,709	3,894	1,682	817	1,003	353	-1,583	42	79
20%	-13	-120	77	2,269	1,639	1,550	640	44	231	-64	-210	-115
30%	-68	1	0	818	1,985	957	430	436	-69	-42	-58	-32
40%	-50	-30	-11	5	625	1,657	364	-40	-61	14	-21	3
50%	-8	17	10	42	640	631	185	46	59	-1	-1	-17
60%	-10	-5	2	0	-11	34	49	101	-60	-17	6	-1
70%	-73	24	-30	-40	63	-53	174	117	11	0	2	12
80%	98	0	8	0	102	26	19	49	88	-15	17	58
90%	0	0	7	0	79	0	167	114	37	58	33	0
Long Term												
Full Simulation Period ^d	15	19	165	734	843	843	357	219	-77	-337	-55	24
Water Year Types ^{b,c}												
Wet (23%)	42	137	440	1,574	1,459	2,009	735	474	-341	-1,444	-162	117
Above Normal (24%)	0	-61	0	1,279	1,784	997	493	358	-53	-34	-96	-38
Below Normal (10%)	3	0	0	526	239	380	195	39	22	4	2	6
Dry (16%)	-5	17	201	3	242	594	215	38	13	-4	-1	9
Critical (27%)	22	2	124	20	29	11	50	46	39	22	23	14

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 39b-4. San Joaquin River at Vernalis (60-20-20), Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,499	2,975	4,804	12,398	17,199	15,487	15,018	15,008	9,433	5,779	2,743	3,060
20%	3,148	2,778	2,904	4,838	10,128	10,324	10,639	8,322	4,776	2,502	2,599	2,635
30%	2,996	2,483	2,321	3,613	6,813	8,471	8,958	5,770	2,701	1,955	1,889	2,484
40%	2,835	2,395	2,204	2,680	4,232	5,306	7,919	4,654	2,370	1,732	1,675	2,126
50%	2,628	2,219	2,101	2,371	3,071	3,847	6,433	4,130	2,064	1,495	1,497	1,930
60%	2,401	2,170	2,046	2,290	2,613	3,440	4,784	2,909	1,749	1,349	1,401	1,825
70%	2,136	2,059	1,979	2,084	2,305	2,906	3,210	2,300	1,347	1,145	1,312	1,741
80%	1,977	1,951	1,829	1,882	2,128	2,371	2,497	1,865	1,215	993	1,135	1,574
90%	1,807	1,763	1,669	1,698	1,891	2,205	1,763	1,472	978	870	1,027	1,452
Long Term												
Full Simulation Period ^d	2,668	2,607	3,368	5,109	6,793	7,290	7,511	5,980	4,099	2,616	1,828	2,213
Water Year Types ^{b,c}												
Wet (23%)	3,606	4,001	6,006	11,467	16,349	17,054	15,338	14,677	11,758	6,813	3,124	3,416
Above Normal (24%)	2,994	2,579	2,964	4,928	6,922	7,468	8,885	5,407	2,689	1,912	1,973	2,339
Below Normal (10%)	2,541	2,133	2,067	3,784	3,834	4,032	6,495	4,186	1,970	1,468	1,451	1,834
Dry (16%)	2,238	2,153	3,131	2,392	2,464	3,241	3,792	2,533	1,565	1,238	1,344	1,774
Critical (27%)	1,828	1,849	2,077	1,871	2,058	2,273	2,069	1,678	1,038	862	1,001	1,456

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,566	2,953	5,325	15,234	18,917	17,203	15,878	15,278	9,786	3,736	2,744	3,340
20%	3,149	2,658	2,934	7,239	11,925	11,814	11,909	8,365	4,808	2,215	2,386	2,556
30%	2,903	2,477	2,321	4,430	9,073	9,209	9,111	5,724	2,850	1,854	1,838	2,421
40%	2,830	2,365	2,204	2,670	5,102	6,699	8,177	4,616	2,419	1,728	1,652	2,085
50%	2,628	2,236	2,111	2,505	4,095	4,558	6,696	4,174	2,064	1,498	1,482	1,900
60%	2,402	2,164	2,048	2,294	2,629	3,494	4,830	2,882	1,755	1,339	1,401	1,823
70%	2,106	2,083	1,948	2,077	2,361	2,853	3,214	2,322	1,331	1,123	1,255	1,750
80%	1,978	1,951	1,837	1,882	2,101	2,398	2,604	1,892	1,212	1,009	1,149	1,638
90%	1,849	1,763	1,676	1,699	1,891	2,205	1,764	1,584	982	881	1,024	1,464
Long Term												
Full Simulation Period ^d	2,680	2,630	3,562	5,948	7,816	8,122	7,860	6,173	3,974	2,194	1,776	2,254
Water Year Types ^{b,c}												
Wet (23%)	3,648	4,157	6,574	13,412	18,309	18,932	16,102	15,157	11,103	5,051	2,990	3,628
Above Normal (24%)	2,992	2,516	2,949	6,243	8,827	8,556	9,393	5,733	2,789	1,853	1,875	2,289
Below Normal (10%)	2,541	2,133	2,067	4,340	4,099	4,295	6,709	4,186	1,970	1,467	1,450	1,834
Dry (16%)	2,223	2,170	3,353	2,434	2,914	3,886	3,899	2,494	1,550	1,220	1,324	1,772
Critical (27%)	1,848	1,851	2,205	1,896	2,082	2,286	2,108	1,711	1,057	877	1,022	1,474

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	66	-22	522	2,836	1,718	1,716	860	270	353	-2,043	1	280
20%	1	-120	30	2,402	1,797	1,490	1,270	43	32	-287	-212	-78
30%	-93	-6	0	816	2,260	738	154	-45	149	-100	-51	-63
40%	-4	-30	0	-10	870	1,393	258	-38	49	-4	-23	-41
50%	0	17	10	134	1,024	711	263	44	-1	3	-15	-30
60%	1	-5	2	4	15	54	46	-27	6	-10	0	-2
70%	-31	24	-30	-6	56	-53	4	22	-16	-22	-57	9
80%	0	0	8	0	-26	26	107	27	-3	15	15	63
90%	41	0	7	0	0	0	1	112	4	11	-3	12
Long Term												
Full Simulation Period ^d	12	23	194	839	1,023	832	349	193	-124	-421	-53	41
Water Year Types ^{b,c}												
Wet (23%)	42	156	567	1,946	1,960	1,878	763	480	-655	-1,763	-134	212
Above Normal (24%)	-2	-63	-16	1,314	1,905	1,088	508	326	100	-58	-98	-51
Below Normal (10%)	0	0	0	557	265	264	214	0	0	0	0	0
Dry (16%)	-15	17	222	42	450	645	107	-40	-15	-18	-20	-2
Critical (27%)	20	2	128	25	24	13	38	33	19	16	21	19

a Based on the 82-year simulation period.

b As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

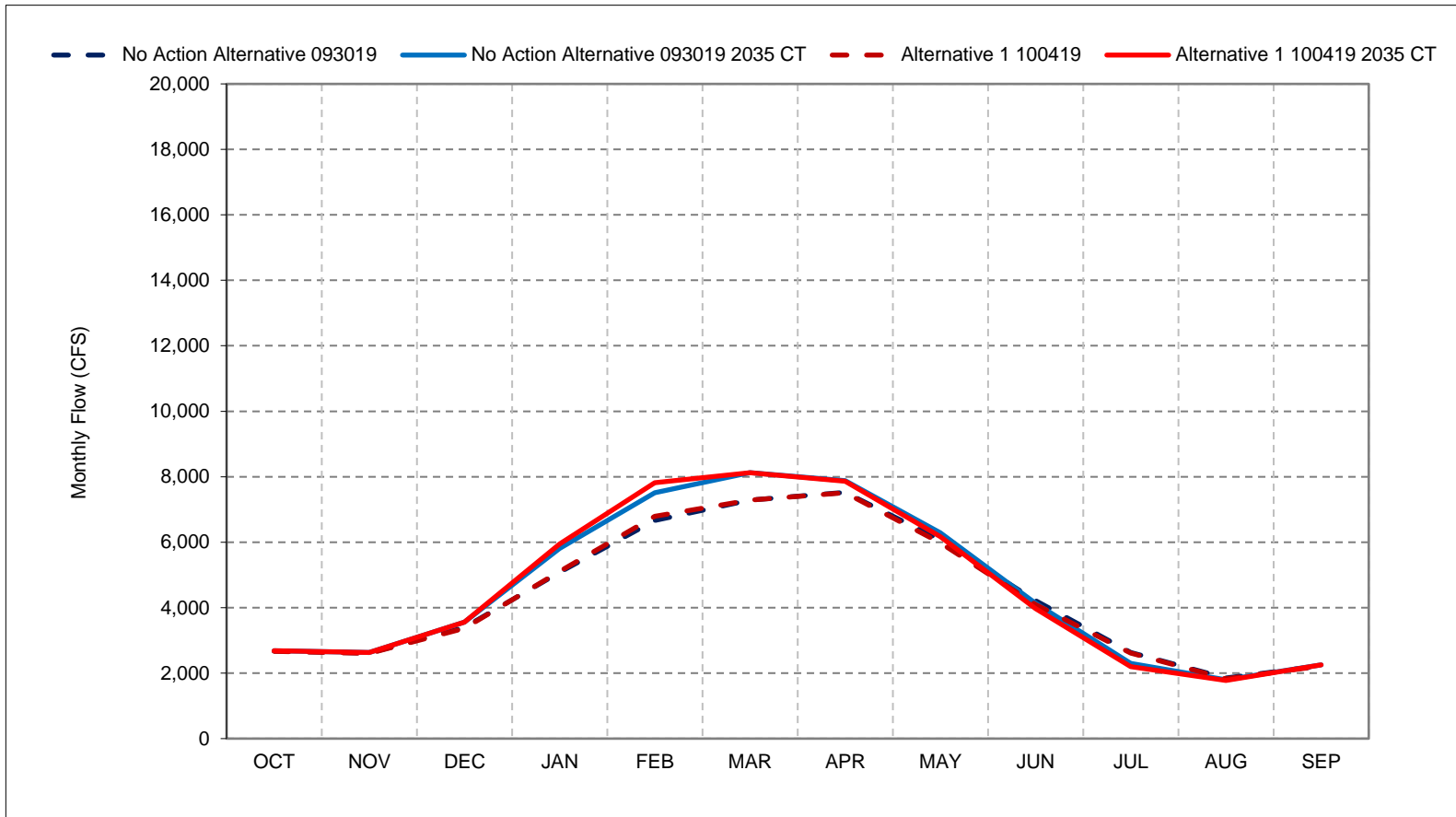
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 39b-1. San Joaquin River at Vernalis (60-20-20), Long-Term Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

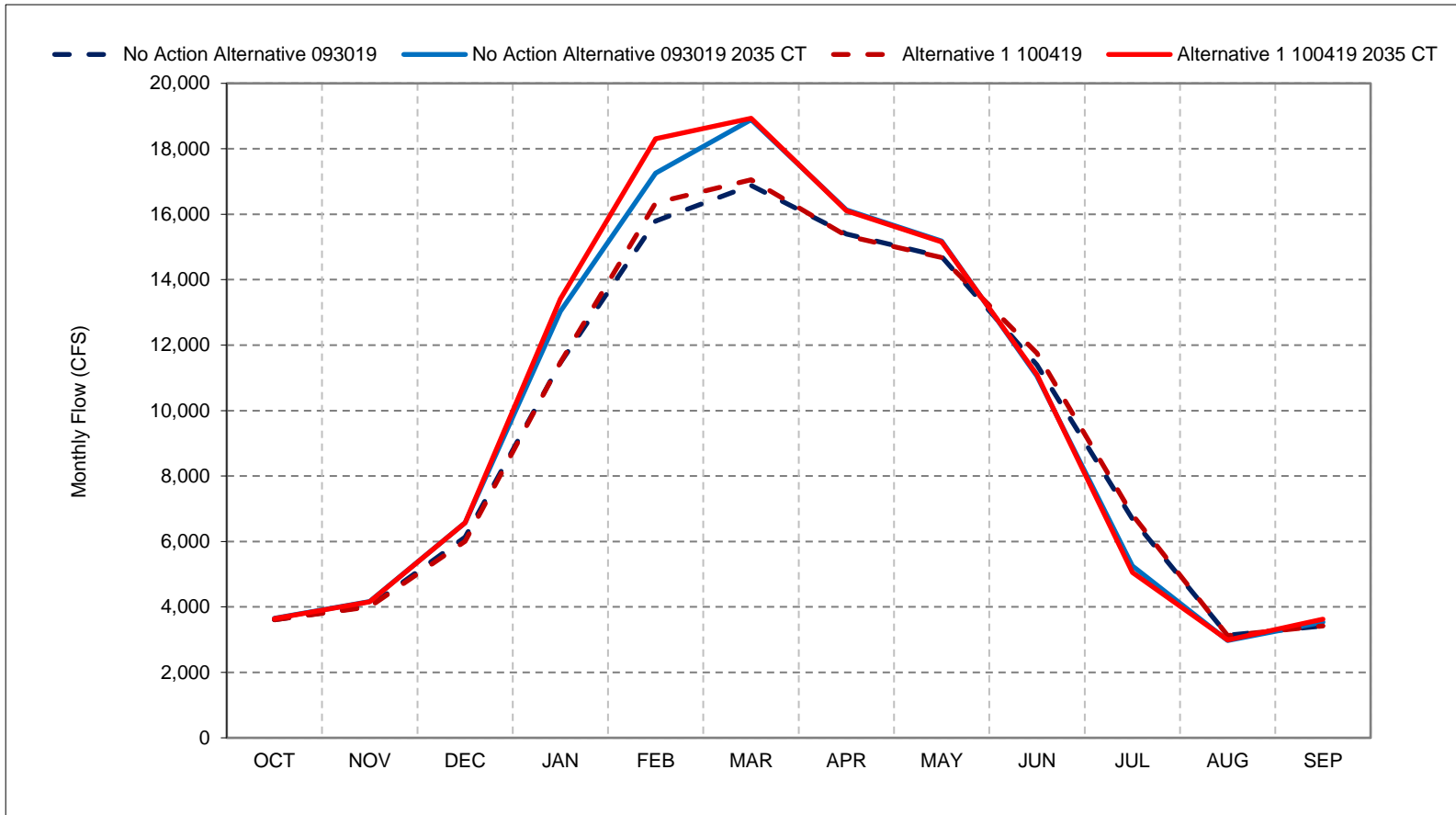
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-2. San Joaquin River at Vernalis (60-20-20), Wet Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

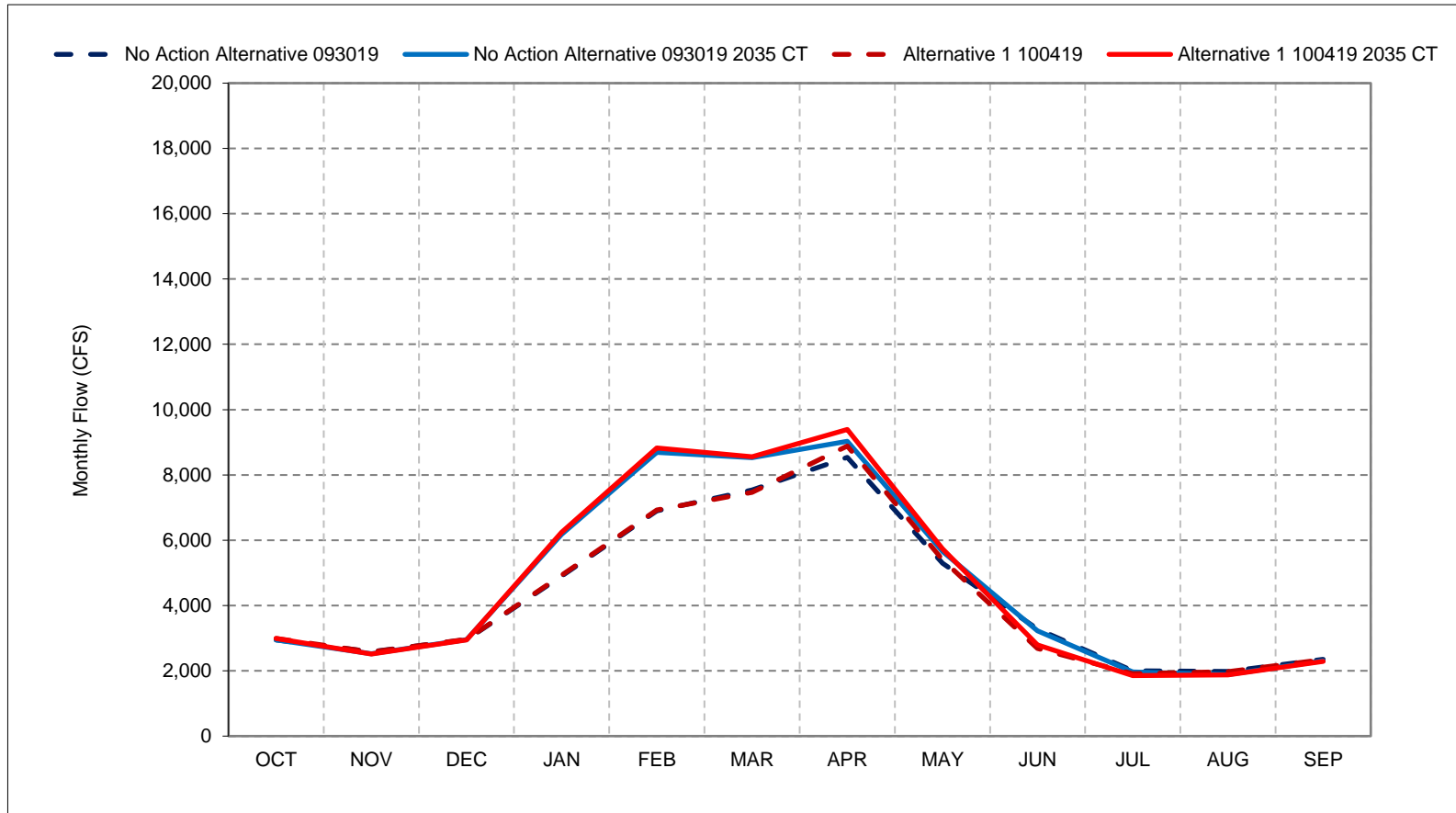
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-3. San Joaquin River at Vernalis (60-20-20), Above Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

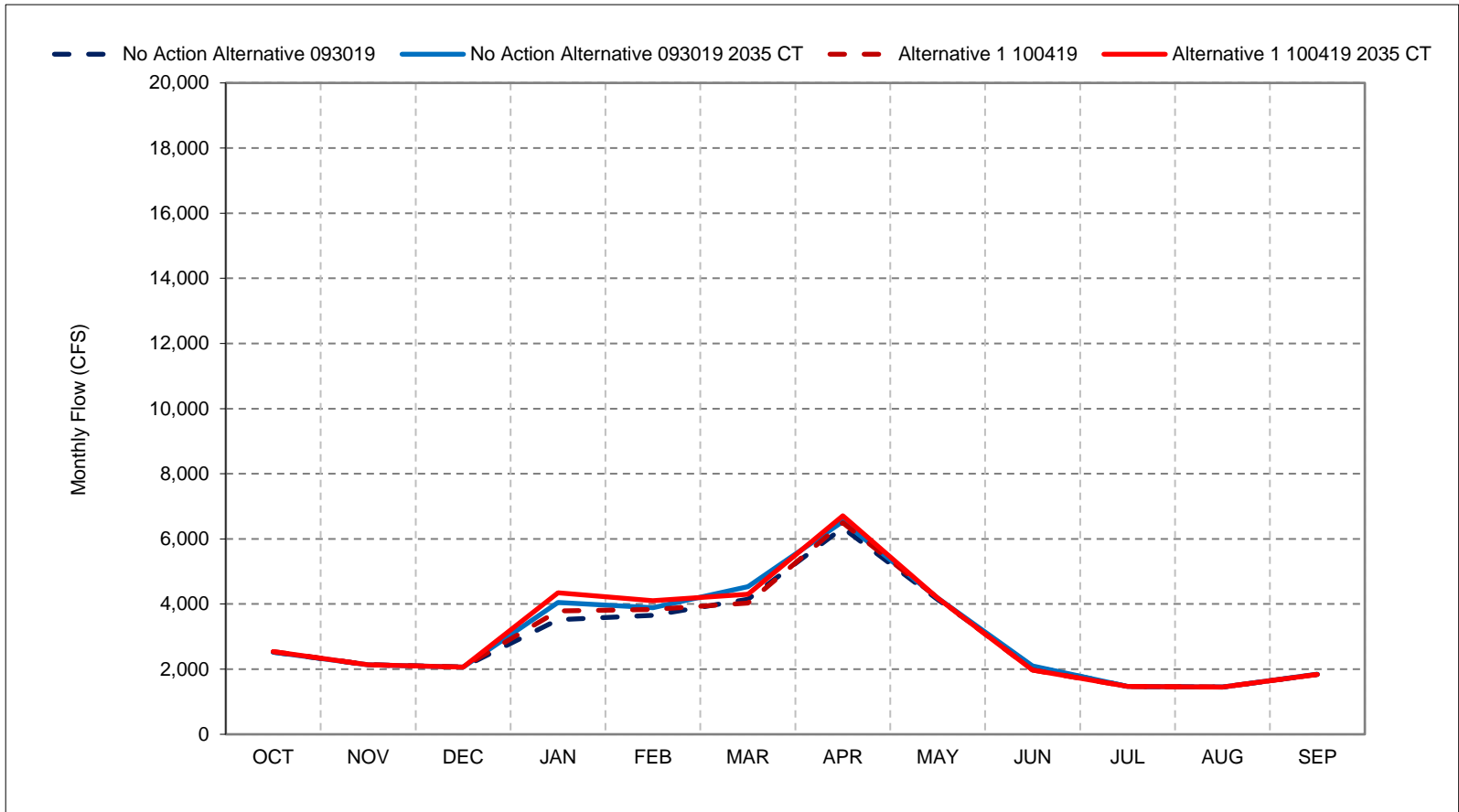
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-4. San Joaquin River at Vernalis (60-20-20), Below Normal Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

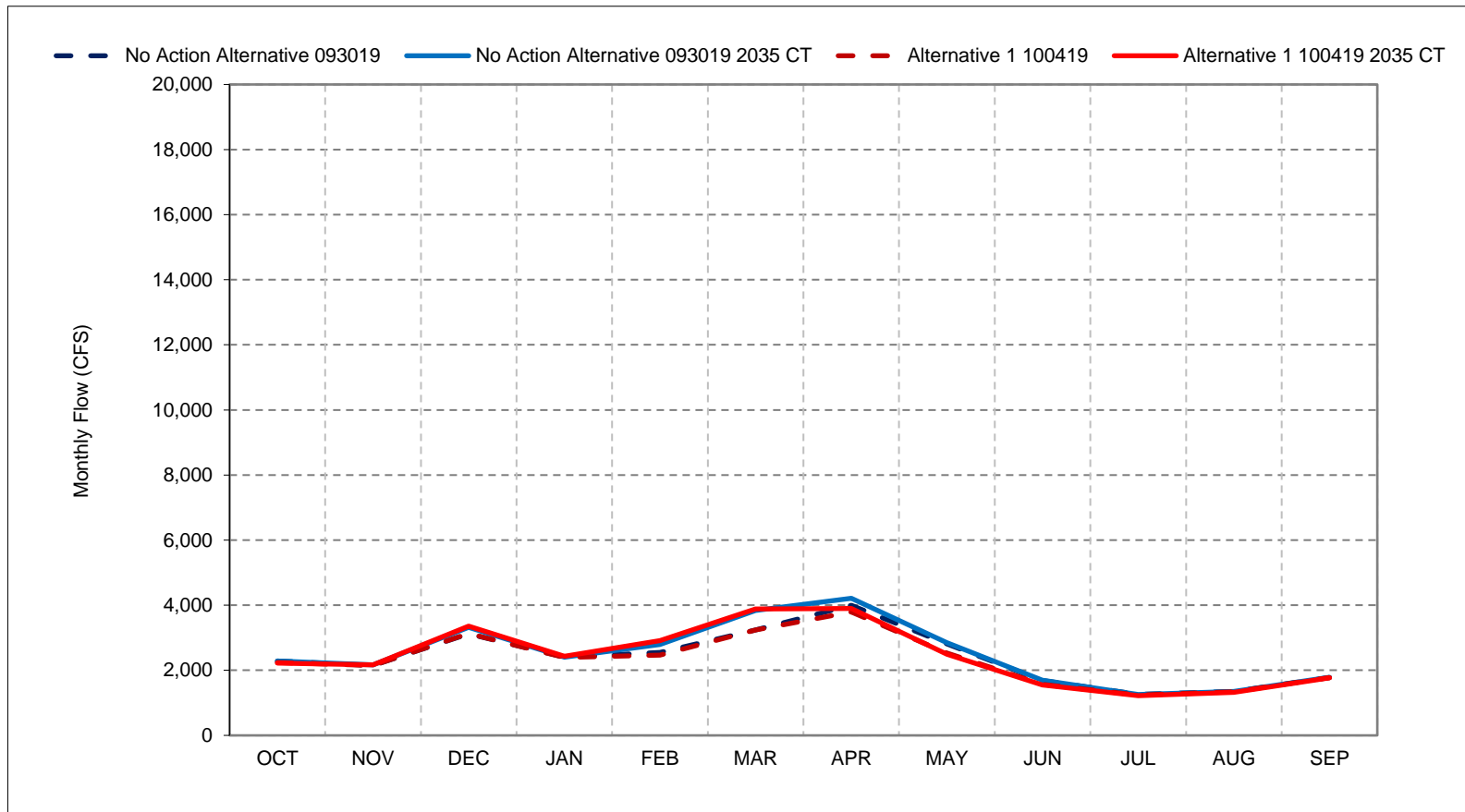
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-5. San Joaquin River at Vernalis (60-20-20), Dry Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

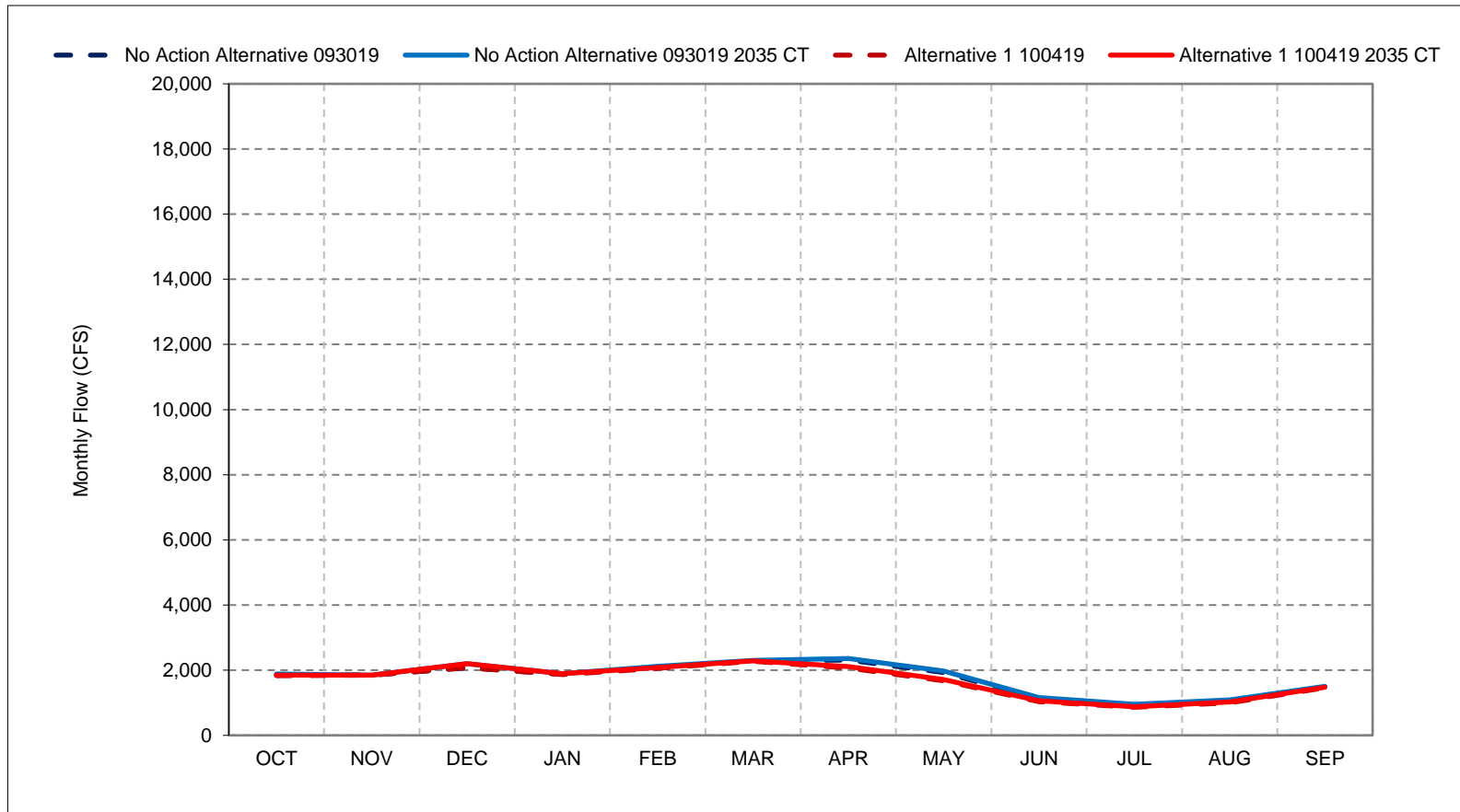
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 39b-6. San Joaquin River at Vernalis (60-20-20), Critical Year Average Flow



*As defined by the SJ Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Table 40-1. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,837	-4,016	-3,354	-2,823	-1,324	-1,150	3,172	2,675	-1,949	-2,924	-2,643	-4,274
20%	-4,194	-4,901	-4,061	-2,823	-2,053	-1,444	2,207	1,315	-2,324	-5,485	-3,241	-5,608
30%	-4,586	-5,452	-4,939	-3,355	-2,825	-3,060	1,603	614	-3,500	-6,424	-4,517	-6,190
40%	-4,871	-5,838	-5,871	-4,201	-3,500	-3,500	1,275	205	-3,500	-7,575	-7,573	-7,014
50%	-5,159	-6,241	-5,871	-4,710	-4,106	-4,068	612	-34	-3,500	-8,781	-9,624	-8,554
60%	-5,421	-6,575	-5,871	-5,000	-5,000	-4,841	-223	-490	-4,323	-9,267	-10,281	-9,571
70%	-5,912	-7,046	-6,578	-5,000	-5,000	-5,000	-652	-800	-5,000	-9,661	-10,684	-9,913
80%	-6,391	-8,001	-9,125	-5,000	-5,000	-5,000	-1,125	-1,141	-5,000	-10,042	-10,771	-10,029
90%	-6,954	-9,846	-9,680	-5,000	-5,000	-5,000	-1,387	-1,422	-5,000	-10,943	-11,007	-10,128
Long Term												
Full Simulation Period ^d	-5,348	-6,448	-5,941	-3,613	-3,155	-2,902	865	272	-3,699	-7,771	-7,632	-7,771
Water Year Types ^{b,c}												
Wet (32%)	-5,855	-6,543	-6,758	-2,059	-2,155	-1,796	3,081	1,959	-4,304	-8,752	-10,560	-9,575
Above Normal (16%)	-5,837	-7,712	-7,688	-3,716	-3,869	-4,115	1,194	429	-4,479	-8,818	-10,816	-10,029
Below Normal (13%)	-6,108	-6,447	-5,770	-4,380	-3,655	-4,055	161	-305	-3,561	-10,030	-8,793	-7,925
Dry (24%)	-4,913	-6,833	-5,108	-4,696	-3,613	-3,587	-817	-938	-3,450	-7,418	-4,111	-6,131
Critical (15%)	-3,748	-4,234	-3,824	-4,359	-3,325	-1,785	-847	-1,007	-2,083	-3,028	-2,641	-4,010

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,961	-3,320	-3,454	-3,492	-2,542	-1,126	-941	-1,414	-2,141	-2,804	-2,559	-2,414
20%	-3,292	-3,859	-4,175	-3,645	-4,464	-3,258	-1,807	-1,935	-3,927	-4,146	-3,313	-2,820
30%	-3,630	-4,712	-4,981	-3,821	-4,464	-3,258	-2,041	-2,694	-4,922	-5,875	-4,408	-2,992
40%	-3,825	-5,844	-5,290	-4,516	-4,464	-3,258	-2,262	-2,888	-5,000	-7,482	-7,676	-3,442
50%	-4,030	-7,808	-5,290	-4,516	-4,464	-3,258	-2,474	-3,029	-5,000	-8,083	-9,369	-4,125
60%	-4,231	-8,812	-5,290	-4,593	-4,483	-3,258	-3,075	-3,301	-5,000	-8,596	-9,573	-5,059
70%	-4,829	-9,049	-7,391	-5,188	-4,897	-3,258	-3,500	-3,500	-5,000	-9,172	-9,902	-5,655
80%	-5,166	-9,174	-9,426	-5,226	-5,000	-3,258	-3,500	-3,500	-5,000	-9,558	-10,352	-6,157
90%	-6,143	-9,328	-9,668	-5,226	-5,250	-3,500	-3,500	-3,500	-5,000	-9,960	-10,814	-7,415
Long Term												
Full Simulation Period ^d	-4,368	-6,769	-5,926	-3,763	-3,638	-2,374	-2,146	-2,508	-4,341	-7,217	-7,403	-4,541
Water Year Types ^{b,c}												
Wet (32%)	-4,804	-8,442	-6,953	-2,171	-1,938	-805	-1,440	-1,928	-4,405	-8,363	-10,148	-3,712
Above Normal (16%)	-3,547	-8,669	-7,825	-4,284	-3,640	-2,711	-3,051	-3,251	-4,862	-8,171	-9,883	-2,778
Below Normal (13%)	-5,437	-5,932	-5,231	-4,747	-4,663	-3,311	-2,745	-3,125	-4,951	-8,984	-9,155	-7,360
Dry (24%)	-4,416	-5,794	-4,982	-4,617	-4,807	-3,287	-2,414	-2,892	-4,740	-6,938	-4,262	-5,757
Critical (15%)	-3,254	-3,478	-3,854	-4,324	-4,432	-3,030	-1,698	-1,752	-2,412	-2,546	-2,400	-3,636

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	876	696	-100	-669	-1,218	25	-4,113	-4,089	-192	119	83	1,860
20%	902	1,042	-114	-823	-2,412	-1,815	-4,014	-3,250	-1,604	1,340	-72	2,788
30%	956	740	-42	-466	-1,640	-198	-3,644	-3,308	-1,422	548	109	3,198
40%	1,047	-6	581	-315	-964	242	-3,537	-3,093	-1,500	93	-103	3,572
50%	1,129	-1,566	581	194	-358	810	-3,086	-2,994	-1,500	699	255	4,429
60%	1,189	-2,237	581	407	517	1,583	-2,852	-2,811	-677	671	708	4,512
70%	1,083	-2,003	-813	-188	103	1,742	-2,848	-2,700	0	490	782	4,258
80%	1,225	-1,173	-302	-226	0	1,742	-2,375	-2,359	0	484	420	3,873
90%	811	517	12	-226	-250	1,500	-2,113	-2,078	0	983	193	2,713
Long Term												
Full Simulation Period ^d	980	-321	15	-151	-484	528	-3,011	-2,780	-642	554	229	3,230
Water Year Types ^{b,c}												
Wet (32%)	1,051	-1,899	-194	-112	217	991	-4,521	-3,887	-101	389	412	5,863
Above Normal (16%)	2,291	-957	-137	-568	229	1,404	-4,245	-3,680	-382	647	933	7,251
Below Normal (13%)	671	515	539	-367	-1,008	744	-2,906	-2,820	-1,389	1,046	-362	564
Dry (24%)	497	1,039	126	79	-1,194	300	-1,597	-1,954	-1,291	480	-151	373
Critical (15%)	493	756	-30	35	-1,107	-1,245	-851	-745	-330	482	241	374

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 40-2. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,591	-3,910	-3,941	-2,823	-389	-1,094	3,334	2,719	-1,865	-3,139	-2,700	-3,777
20%	-4,086	-4,511	-4,399	-2,823	-1,855	-1,437	2,306	1,358	-2,148	-5,879	-3,435	-5,217
30%	-4,525	-4,951	-5,051	-2,843	-2,750	-3,469	1,725	747	-3,500	-7,344	-4,527	-5,925
40%	-4,733	-5,429	-5,871	-3,355	-3,404	-3,500	1,466	211	-3,500	-7,939	-7,990	-6,544
50%	-5,080	-5,765	-5,871	-3,832	-3,500	-3,817	638	35	-3,500	-8,534	-9,472	-8,005
60%	-5,358	-6,428	-5,871	-4,710	-3,827	-5,000	-17	-359	-4,056	-9,107	-10,013	-9,029
70%	-5,938	-7,036	-5,933	-4,803	-5,000	-5,000	-495	-721	-4,602	-9,519	-10,329	-9,694
80%	-6,348	-7,725	-8,454	-5,000	-5,000	-5,000	-1,135	-1,150	-5,000	-10,111	-10,537	-9,953
90%	-6,727	-9,344	-9,640	-5,000	-5,000	-5,000	-1,389	-1,437	-5,000	-10,884	-10,847	-10,218
Long Term												
Full Simulation Period ^d	-5,229	-6,177	-5,827	-3,252	-2,854	-2,707	913	370	-3,629	-7,902	-7,600	-7,519
Water Year Types ^{b,c}												
Wet (32%)	-5,680	-6,122	-6,296	-1,767	-1,961	-1,036	3,051	2,172	-4,076	-8,308	-10,196	-8,948
Above Normal (16%)	-4,716	-7,009	-7,481	-3,675	-3,616	-4,061	1,184	456	-4,155	-8,730	-10,588	-9,905
Below Normal (13%)	-6,162	-6,613	-5,502	-3,670	-3,872	-4,078	-289	-593	-3,508	-10,026	-8,319	-7,673
Dry (24%)	-5,190	-6,628	-5,247	-4,291	-2,815	-3,585	-344	-694	-3,658	-8,366	-4,993	-6,171
Critical (15%)	-4,018	-4,243	-4,284	-3,893	-3,096	-2,138	-819	-975	-2,157	-3,406	-2,424	-3,945

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,850	-3,134	-3,839	-3,179	-251	-1,152	-760	-1,078	-2,169	-2,583	-2,683	-1,323
20%	-3,331	-3,821	-4,333	-3,645	-3,649	-2,934	-1,787	-1,754	-3,474	-4,175	-3,293	-2,562
30%	-3,606	-4,921	-5,290	-3,645	-4,464	-3,258	-2,002	-2,428	-4,612	-5,815	-4,489	-2,918
40%	-3,831	-5,979	-5,290	-4,263	-4,464	-3,258	-2,189	-2,743	-5,000	-7,077	-7,063	-3,161
50%	-4,052	-7,266	-5,290	-4,516	-4,464	-3,258	-2,434	-2,915	-5,000	-7,739	-8,315	-3,714
60%	-4,195	-8,435	-5,290	-4,516	-4,464	-3,258	-3,046	-3,069	-5,000	-8,396	-9,251	-4,775
70%	-4,604	-8,905	-6,306	-4,516	-4,477	-3,258	-3,446	-3,228	-5,000	-8,914	-9,572	-5,594
80%	-5,010	-9,153	-8,449	-5,000	-4,483	-3,258	-3,500	-3,437	-5,000	-9,213	-10,181	-6,263
90%	-6,009	-9,361	-9,678	-5,226	-5,000	-3,500	-3,500	-3,500	-5,000	-9,531	-10,676	-7,487
Long Term												
Full Simulation Period ^d	-4,215	-6,694	-5,756	-3,499	-3,221	-2,102	-2,015	-2,344	-4,338	-6,927	-7,177	-4,307
Water Year Types ^{b,c}												
Wet (32%)	-4,433	-8,202	-6,376	-1,808	-1,366	82	-1,016	-1,541	-4,412	-7,390	-9,528	-3,013
Above Normal (16%)	-2,952	-8,420	-7,357	-4,200	-3,111	-2,654	-3,070	-3,165	-4,735	-7,553	-9,893	-3,227
Below Normal (13%)	-5,497	-6,092	-5,297	-4,225	-4,569	-3,302	-2,714	-3,064	-4,847	-8,929	-8,060	-6,879
Dry (24%)	-4,546	-5,796	-5,212	-4,409	-4,300	-3,269	-2,420	-2,780	-4,681	-7,234	-4,743	-5,685
Critical (15%)	-3,387	-3,604	-4,004	-4,223	-4,326	-3,192	-1,724	-1,805	-2,709	-2,899	-2,386	-3,628

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	740	776	102	-356	137	-59	-4,094	-3,796	-304	556	17	2,454
20%	755	690	67	-823	-1,794	-1,498	-4,093	-3,112	-1,326	1,704	142	2,655
30%	919	29	-239	-802	-1,714	211	-3,727	-3,175	-1,112	1,529	38	3,007
40%	902	-550	581	-909	-1,061	242	-3,655	-2,954	-1,500	861	927	3,382
50%	1,027	-1,501	581	-684	-964	559	-3,072	-2,950	-1,500	795	1,157	4,290
60%	1,162	-2,007	581	194	-638	1,742	-3,029	-2,710	-944	711	762	4,254
70%	1,334	-1,869	-373	287	523	1,742	-2,951	-2,507	-398	605	757	4,101
80%	1,338	-1,427	5	0	517	1,742	-2,365	-2,286	0	898	356	3,689
90%	718	-16	-39	-226	0	1,500	-2,111	-2,063	0	1,353	171	2,730
Long Term												
Full Simulation Period ^d	1,014	-517	71	-248	-367	604	-2,928	-2,713	-709	975	423	3,212
Water Year Types ^{b,c}												
Wet (32%)	1,247	-2,079	-80	-41	595	1,118	-4,067	-3,712	-336	918	668	5,935
Above Normal (16%)	1,764	-1,410	124	-525	505	1,407	-4,254	-3,621	-581	1,177	694	6,678
Below Normal (13%)	665	521	205	-554	-697	776	-2,424	-2,472	-1,339	1,097	259	794
Dry (24%)	644	832	36	-118	-1,485	316	-2,076	-2,086	-1,023	1,132	250	486
Critical (15%)	632	639	280	-330	-1,230	-1,054	-904	-830	-553	507	39	317

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 40-3. Old and Middle River Flow, Monthly Flow (combined flows)

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,837	-4,016	-3,354	-2,823	-1,324	-1,150	3,172	2,675	-1,949	-2,924	-2,643	-4,274
20%	-4,194	-4,901	-4,061	-2,823	-2,053	-1,444	2,207	1,315	-2,324	-5,485	-3,241	-5,608
30%	-4,586	-5,452	-4,939	-3,355	-2,825	-3,060	1,603	614	-3,500	-6,424	-4,517	-6,190
40%	-4,871	-5,838	-5,871	-4,201	-3,500	-3,500	1,275	205	-3,500	-7,575	-7,573	-7,014
50%	-5,159	-6,241	-5,871	-4,710	-4,106	-4,068	612	-34	-3,500	-8,781	-9,624	-8,554
60%	-5,421	-6,575	-5,871	-5,000	-5,000	-4,841	-223	-490	-4,323	-9,267	-10,281	-9,571
70%	-5,912	-7,046	-6,578	-5,000	-5,000	-5,000	-652	-800	-5,000	-9,661	-10,684	-9,913
80%	-6,391	-8,001	-9,125	-5,000	-5,000	-5,000	-1,125	-1,141	-5,000	-10,042	-10,771	-10,029
90%	-6,954	-9,846	-9,680	-5,000	-5,000	-5,000	-1,387	-1,422	-5,000	-10,943	-11,007	-10,128
Long Term												
Full Simulation Period ^d	-5,348	-6,448	-5,941	-3,613	-3,155	-2,902	865	272	-3,699	-7,771	-7,632	-7,771
Water Year Types^{b,c}												
Wet (32%)	-5,855	-6,543	-6,758	-2,059	-2,155	-1,796	3,081	1,959	-4,304	-8,752	-10,560	-9,575
Above Normal (16%)	-5,837	-7,712	-7,688	-3,716	-3,869	-4,115	1,194	429	-4,479	-8,818	-10,816	-10,029
Below Normal (13%)	-6,108	-6,447	-5,770	-4,380	-3,655	-4,055	161	-305	-3,561	-10,030	-8,793	-7,925
Dry (24%)	-4,913	-6,833	-5,108	-4,696	-3,613	-3,587	-817	-938	-3,450	-7,418	-4,111	-6,131
Critical (15%)	-3,748	-4,234	-3,824	-4,359	-3,325	-1,785	-847	-1,007	-2,083	-3,028	-2,641	-4,010

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3,591	-3,910	-3,941	-2,823	-389	-1,094	3,334	2,719	-1,865	-3,139	-2,700	-3,777
20%	-4,086	-4,511	-4,399	-2,823	-1,855	-1,437	2,306	1,358	-2,148	-5,879	-3,435	-5,217
30%	-4,525	-4,951	-5,051	-2,843	-2,750	-3,469	1,725	747	-3,500	-7,344	-4,527	-5,925
40%	-4,733	-5,429	-5,871	-3,355	-3,404	-3,500	1,466	211	-3,500	-7,939	-7,990	-6,544
50%	-5,080	-5,765	-5,871	-3,832	-3,500	-3,817	638	35	-3,500	-8,534	-9,472	-8,005
60%	-5,358	-6,428	-5,871	-4,710	-3,827	-5,000	-17	-359	-4,056	-9,107	-10,013	-9,029
70%	-5,938	-7,036	-5,933	-4,803	-5,000	-5,000	-495	-721	-4,602	-9,519	-10,329	-9,694
80%	-6,348	-7,725	-8,454	-5,000	-5,000	-5,000	-1,135	-1,150	-5,000	-10,111	-10,537	-9,953
90%	-6,727	-9,344	-9,640	-5,000	-5,000	-5,000	-1,389	-1,437	-5,000	-10,884	-10,847	-10,218
Long Term												
Full Simulation Period ^d	-5,229	-6,177	-5,827	-3,252	-2,854	-2,707	913	370	-3,629	-7,902	-7,600	-7,519
Water Year Types^{b,c}												
Wet (32%)	-5,680	-6,122	-6,296	-1,767	-1,961	-1,036	3,051	2,172	-4,076	-8,308	-10,196	-8,948
Above Normal (16%)	-4,716	-7,009	-7,481	-3,675	-3,616	-4,061	1,184	456	-4,155	-8,730	-10,588	-9,905
Below Normal (13%)	-6,162	-6,613	-5,502	-3,670	-3,872	-4,078	-289	-593	-3,508	-10,026	-8,319	-7,673
Dry (24%)	-5,190	-6,628	-5,247	-4,291	-2,815	-3,585	-344	-694	-3,658	-8,366	-4,993	-6,171
Critical (15%)	-4,018	-4,243	-4,284	-3,893	-3,096	-2,138	-819	-975	-2,157	-3,406	-2,424	-3,945

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	247	105	-587	0	935	57	162	43	85	-215	-58	497
20%	108	390	-338	0	197	7	99	43	176	-394	-194	391
30%	61	502	-112	511	75	-410	122	133	0	-920	-9	265
40%	138	410	0	847	96	0	191	6	0	-364	-417	470
50%	79	477	0	878	606	251	26	70	0	247	151	549
60%	63	147	0	290	1,173	-159	206	132	267	159	269	541
70%	-26	10	645	197	0	0	157	78	398	142	355	219
80%	43	275	670	0	0	0	-11	-10	0	-69	234	77
90%	226	501	40	0	0	0	-2	-15	0	59	160	-90
Long Term												
Full Simulation Period ^d	119	271	114	361	301	195	48	97	69	-131	32	252
Water Year Types^{b,c}												
Wet (32%)	175	421	462	291	194	760	-30	213	228	444	364	628
Above Normal (16%)	1,121	703	207	41	252	54	-10	28	325	88	228	124
Below Normal (13%)	-55	-166	269	709	-217	-23	-450	-288	54	3	474	252
Dry (24%)	-277	206	-140	405	798	2	473	244	-208	-948	-882	-40
Critical (15%)	-271	-9	-460	466	229	-354	28	32	-74	-378	217	64

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 40-4. Old and Middle River Flow, Monthly Flow (combined flows)

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,961	-3,320	-3,454	-3,492	-2,542	-1,126	-941	-1,414	-2,141	-2,804	-2,559	-2,414
20%	-3,292	-3,859	-4,175	-3,645	-4,464	-3,258	-1,807	-1,935	-3,927	-4,146	-3,313	-2,820
30%	-3,630	-4,712	-4,981	-3,821	-4,464	-3,258	-2,041	-2,694	-4,922	-5,875	-4,408	-2,992
40%	-3,825	-5,844	-5,290	-4,516	-4,464	-3,258	-2,262	-2,888	-5,000	-7,482	-7,676	-3,442
50%	-4,030	-7,808	-5,290	-4,516	-4,464	-3,258	-2,474	-3,029	-5,000	-8,083	-9,369	-4,125
60%	-4,231	-8,812	-5,290	-4,593	-4,483	-3,258	-3,075	-3,301	-5,000	-8,596	-9,573	-5,059
70%	-4,829	-9,049	-7,391	-5,188	-4,897	-3,258	-3,500	-3,500	-5,000	-9,172	-9,902	-5,655
80%	-5,166	-9,174	-9,426	-5,226	-5,000	-3,258	-3,500	-3,500	-5,000	-9,558	-10,352	-6,157
90%	-6,143	-9,328	-9,668	-5,226	-5,250	-3,500	-3,500	-3,500	-5,000	-9,960	-10,814	-7,415
Long Term												
Full Simulation Period ^d	-4,368	-6,769	-5,926	-3,763	-3,638	-2,374	-2,146	-2,508	-4,341	-7,217	-7,403	-4,541
Water Year Types ^{b,c}												
Wet (32%)	-4,804	-8,442	-6,953	-2,171	-1,938	-805	-1,440	-1,928	-4,405	-8,363	-10,148	-3,712
Above Normal (16%)	-3,547	-8,669	-7,825	-4,284	-3,640	-2,711	-3,051	-3,251	-4,862	-8,171	-9,883	-2,778
Below Normal (13%)	-5,437	-5,932	-5,231	-4,747	-4,663	-3,311	-2,745	-3,125	-4,951	-8,984	-9,155	-7,360
Dry (24%)	-4,416	-5,794	-4,982	-4,617	-4,807	-3,287	-2,414	-2,892	-4,740	-6,938	-4,262	-5,757
Critical (15%)	-3,254	-3,478	-3,854	-4,324	-4,432	-3,030	-1,698	-1,752	-2,412	-2,546	-2,400	-3,636

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2,850	-3,134	-3,839	-3,179	-251	-1,152	-760	-1,078	-2,169	-2,583	-2,683	-1,323
20%	-3,331	-3,821	-4,333	-3,645	-3,649	-2,934	-1,787	-1,754	-3,474	-4,175	-3,293	-2,562
30%	-3,606	-4,921	-5,290	-3,645	-4,464	-3,258	-2,002	-2,428	-4,612	-5,815	-4,489	-2,918
40%	-3,831	-5,979	-5,290	-4,263	-4,464	-3,258	-2,189	-2,743	-5,000	-7,077	-7,063	-3,161
50%	-4,052	-7,266	-5,290	-4,516	-4,464	-3,258	-2,434	-2,915	-5,000	-7,739	-8,315	-3,714
60%	-4,195	-8,435	-5,290	-4,516	-4,464	-3,258	-3,046	-3,069	-5,000	-8,396	-9,251	-4,775
70%	-4,604	-8,905	-6,306	-4,516	-4,477	-3,258	-3,446	-3,228	-5,000	-8,914	-9,572	-5,594
80%	-5,010	-9,153	-8,449	-5,000	-4,483	-3,258	-3,500	-3,437	-5,000	-9,213	-10,181	-6,263
90%	-6,009	-9,361	-9,678	-5,226	-5,000	-3,500	-3,500	-3,500	-5,000	-9,531	-10,676	-7,487
Long Term												
Full Simulation Period ^d	-4,215	-6,694	-5,756	-3,499	-3,221	-2,102	-2,015	-2,344	-4,338	-6,927	-7,177	-4,307
Water Year Types ^{b,c}												
Wet (32%)	-4,433	-8,202	-6,376	-1,808	-1,366	82	-1,016	-1,541	-4,412	-7,390	-9,528	-3,013
Above Normal (16%)	-2,952	-8,420	-7,357	-4,200	-3,111	-2,654	-3,070	-3,165	-4,735	-7,553	-9,893	-3,227
Below Normal (13%)	-5,497	-6,092	-5,297	-4,225	-4,569	-3,302	-2,714	-3,064	-4,847	-8,929	-8,060	-6,879
Dry (24%)	-4,546	-5,796	-5,212	-4,409	-4,300	-3,269	-2,420	-2,780	-4,681	-7,234	-4,743	-5,685
Critical (15%)	-3,387	-3,604	-4,004	-4,223	-4,326	-3,192	-1,724	-1,805	-2,709	-2,899	-2,386	-3,628

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	111	186	-385	313	2,291	-26	181	336	-28	221	-124	1,091
20%	-39	38	-157	0	815	324	20	181	453	-29	19	258
30%	24	-209	-309	175	0	0	39	266	310	61	-81	74
40%	-7	-135	0	253	0	0	73	145	0	405	613	280
50%	-22	542	0	0	0	0	40	114	0	343	1,054	410
60%	36	378	0	77	18	0	29	232	0	200	323	283
70%	225	144	1,085	672	420	0	54	272	0	258	330	61
80%	155	21	977	226	517	0	0	63	0	345	171	-107
90%	134	-32	-10	0	250	0	0	0	0	429	138	-73
Long Term												
Full Simulation Period ^d	153	75	170	264	417	272	131	164	3	290	226	234
Water Year Types ^{b,c}												
Wet (32%)	371	240	576	363	573	886	424	387	-7	973	620	699
Above Normal (16%)	594	250	468	84	529	57	-19	87	127	618	-10	-449
Below Normal (13%)	-61	-160	-66	522	94	9	32	61	104	55	1,095	482
Dry (24%)	-130	-2	-230	208	507	18	-6	112	60	-296	-481	73
Critical (15%)	-132	-126	-150	101	106	-162	-25	-53	-297	-352	15	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

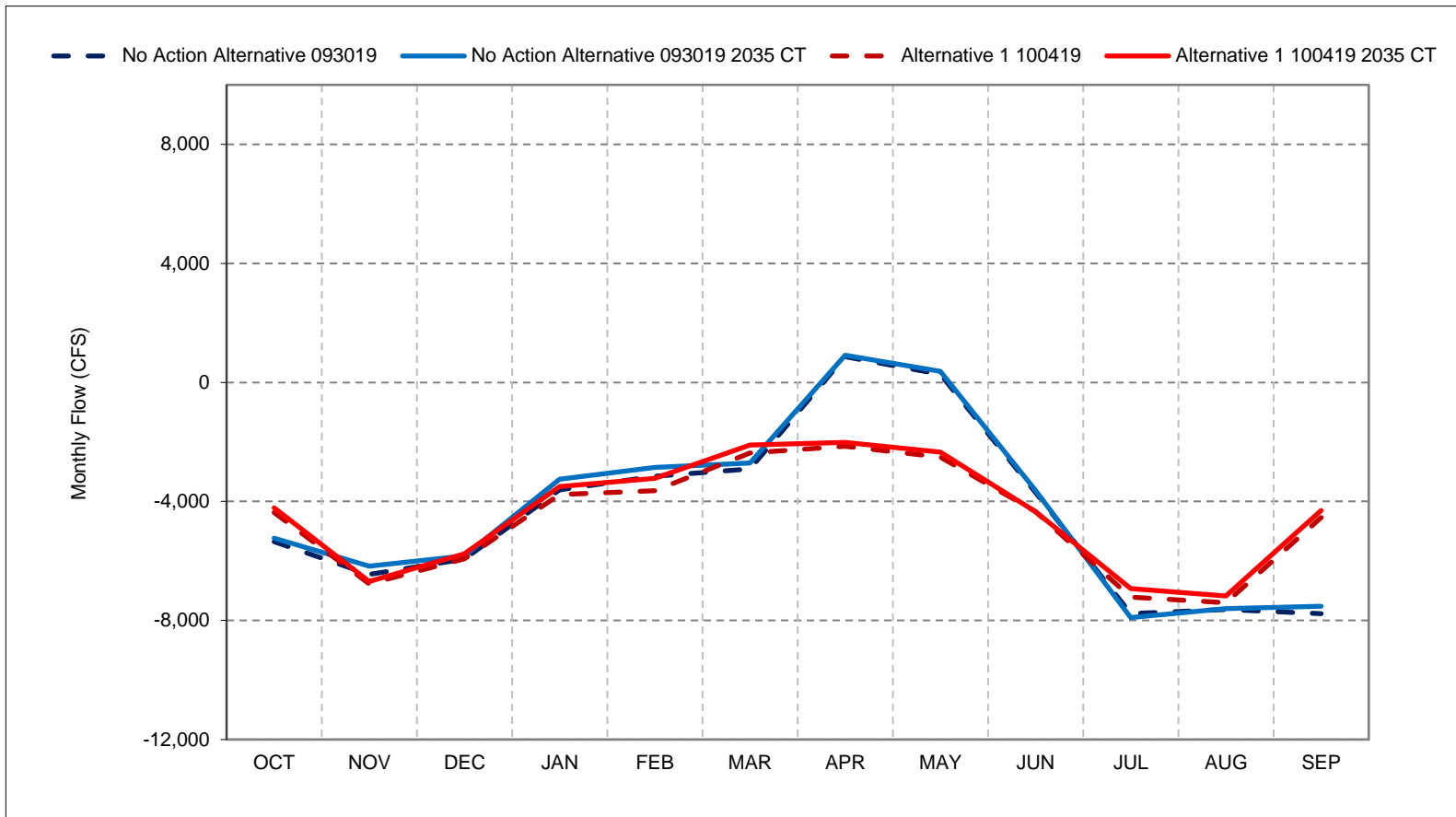
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 40-1. Old and Middle River Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

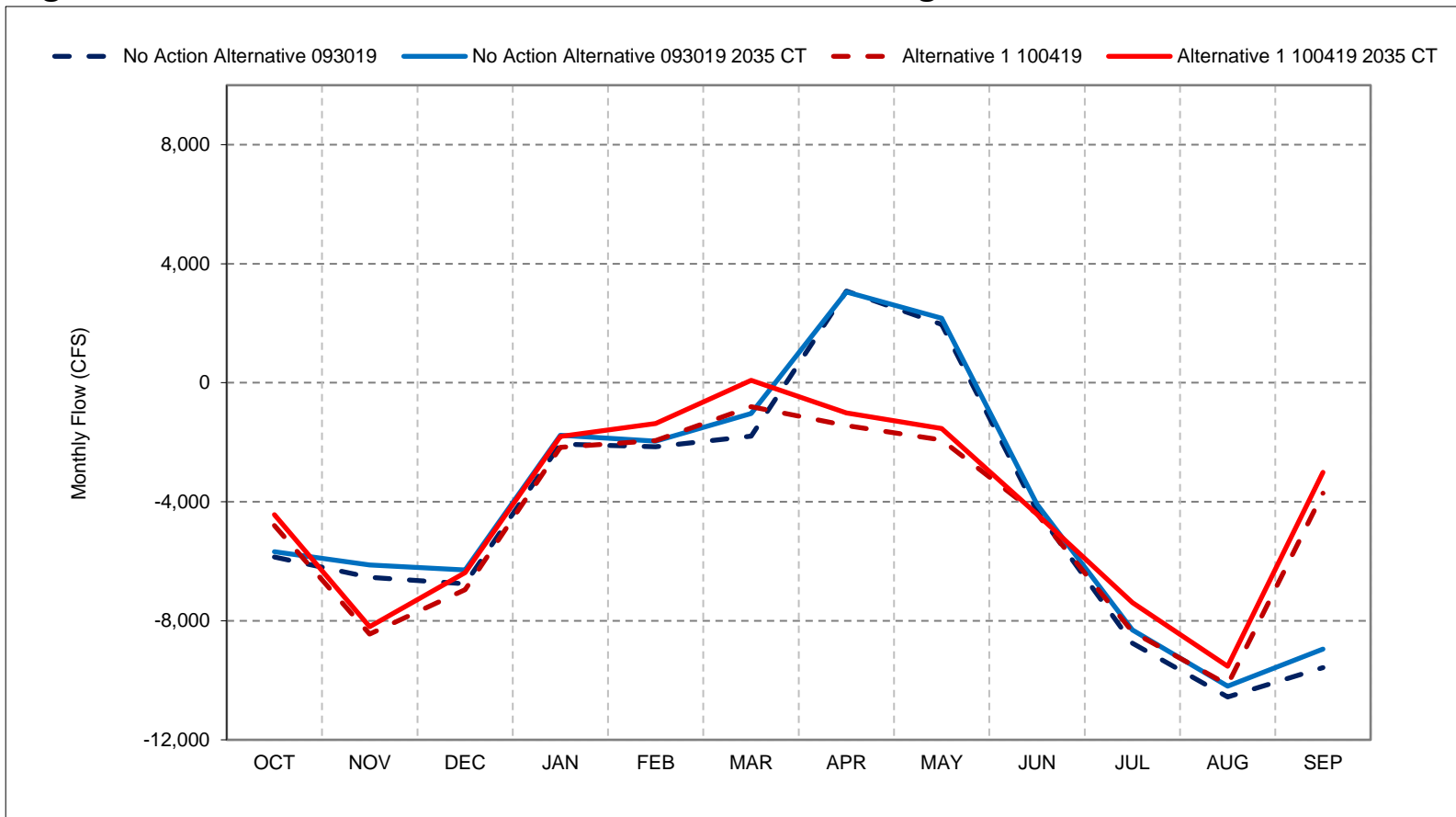
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-2. Old and Middle River Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

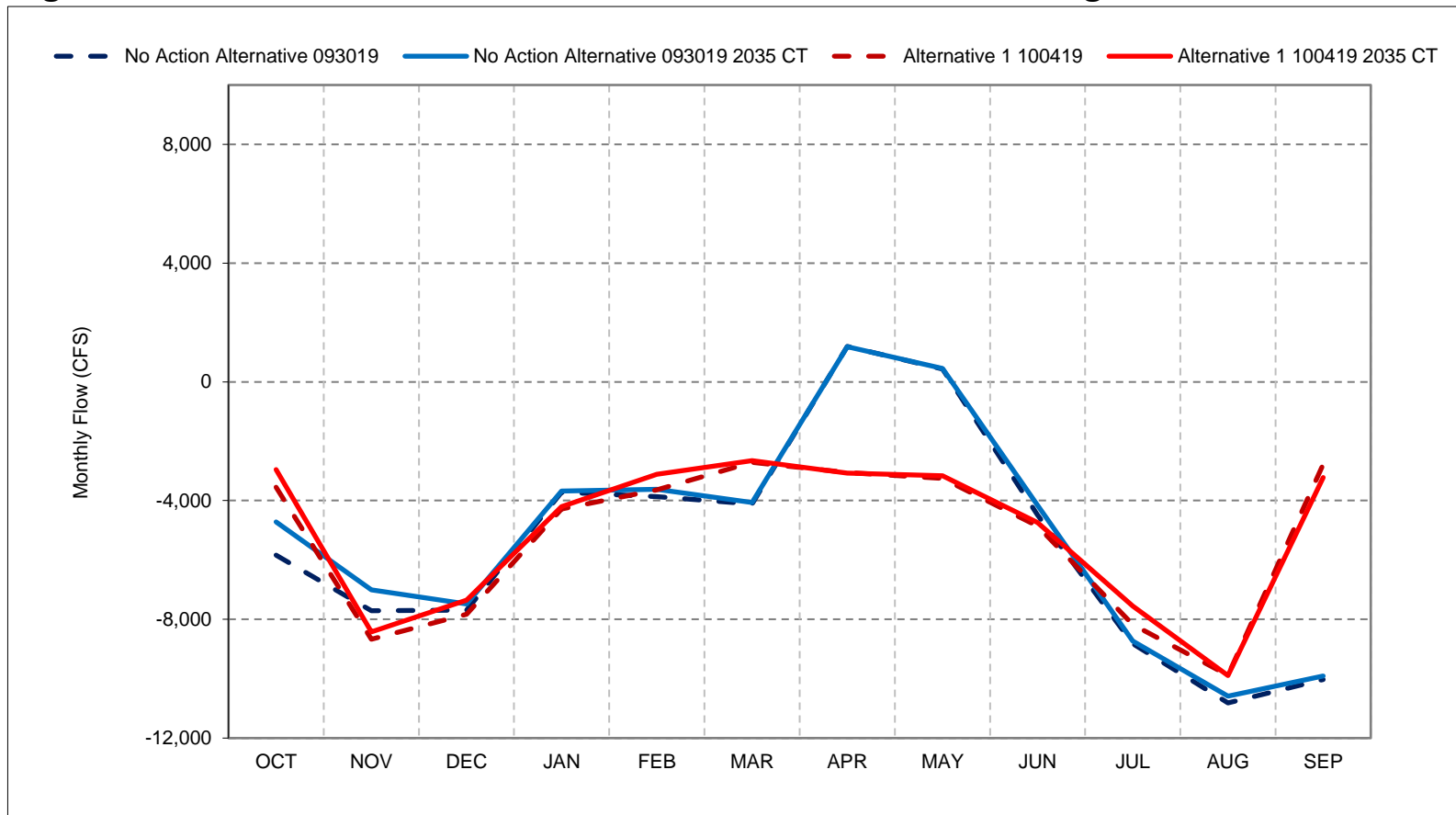
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-3. Old and Middle River Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

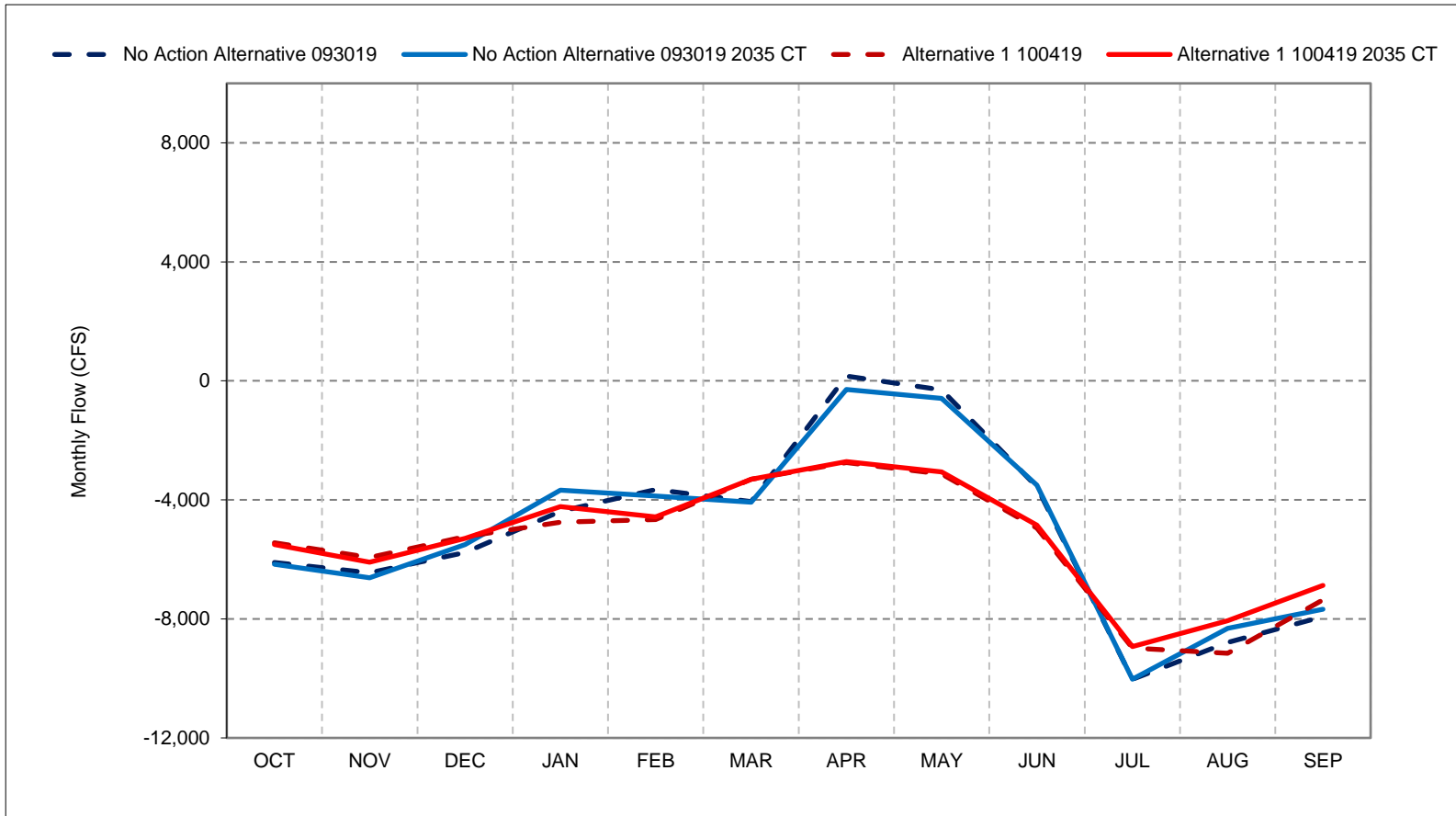
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-4. Old and Middle River Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

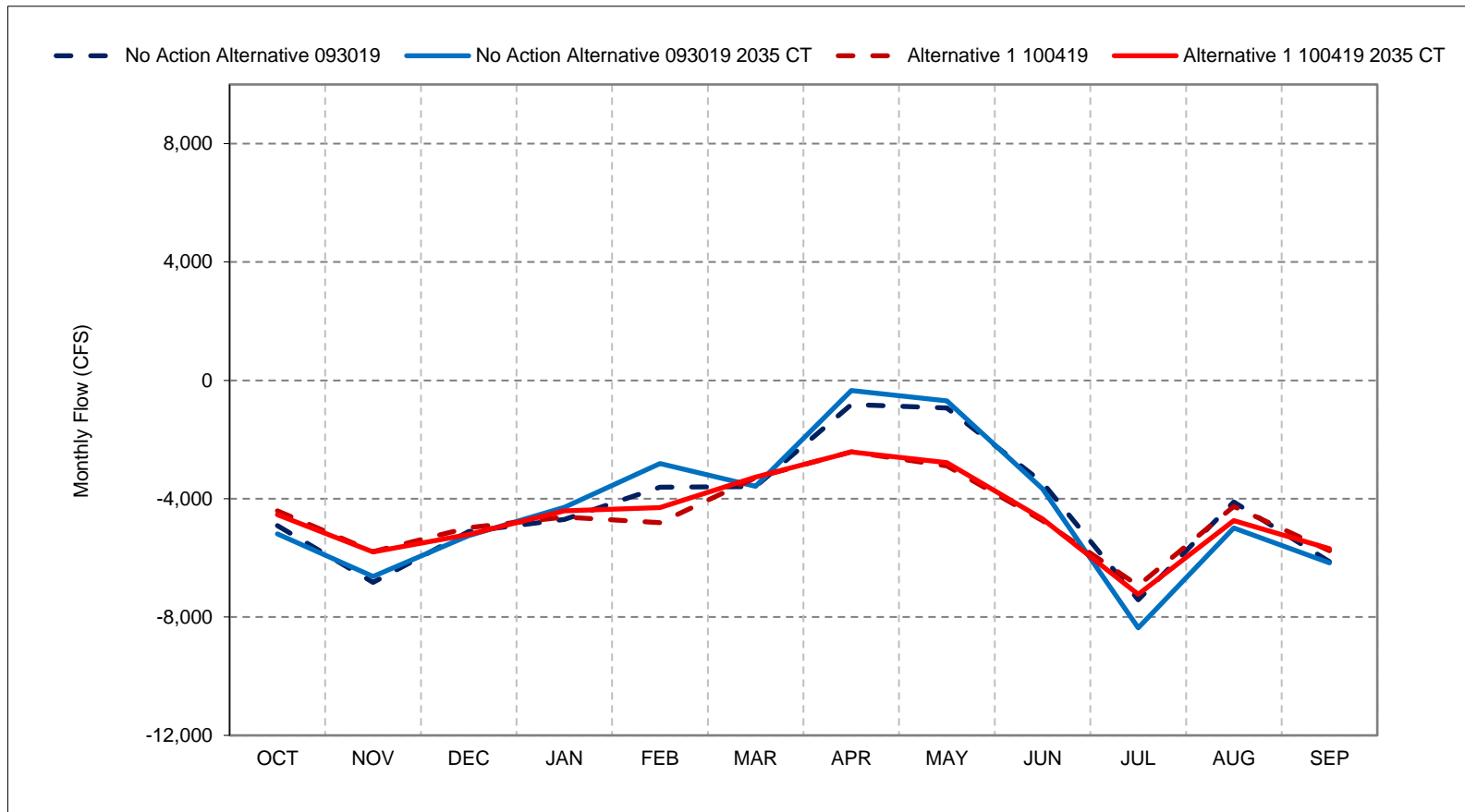
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-5. Old and Middle River Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

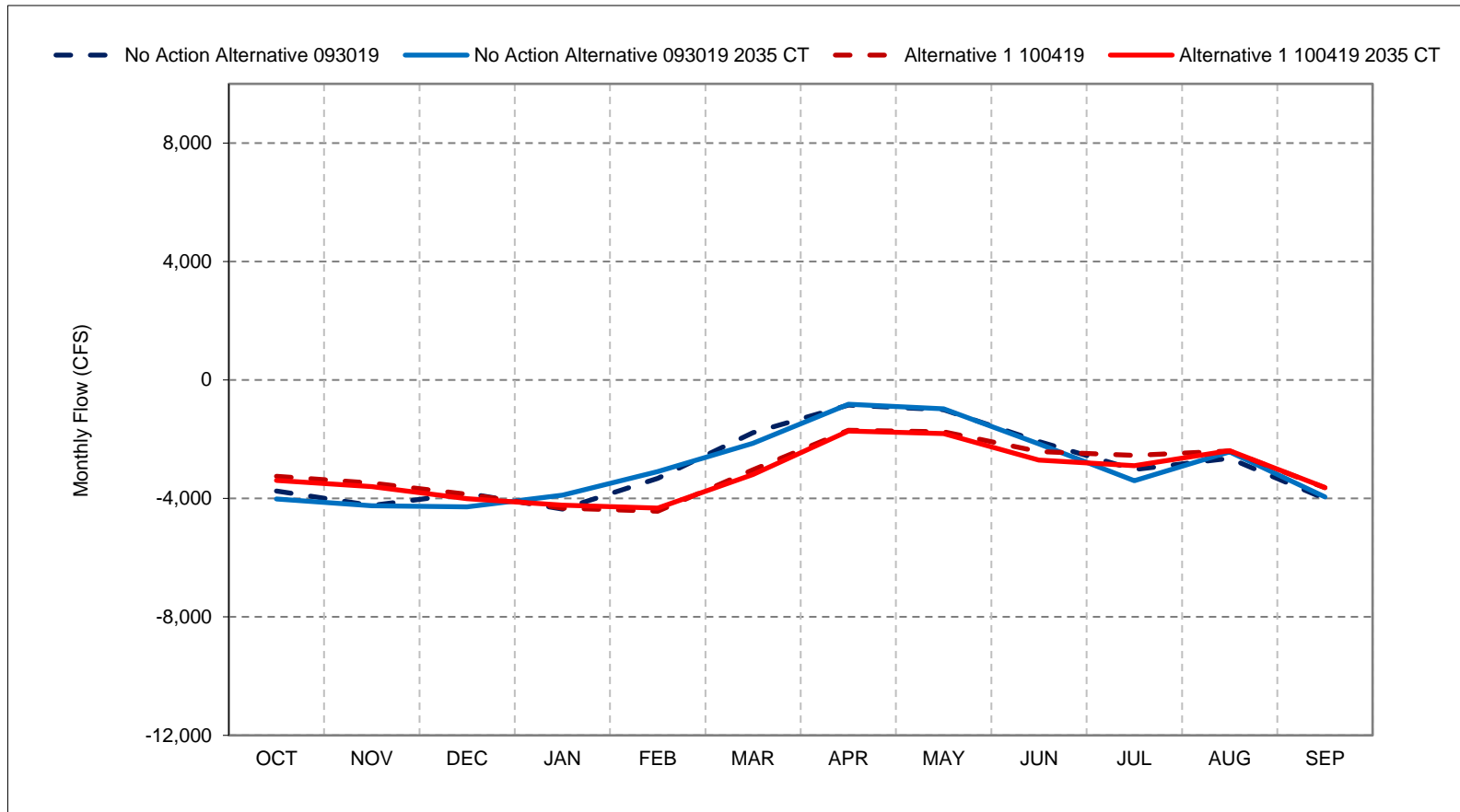
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 40-6. Old and Middle River Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

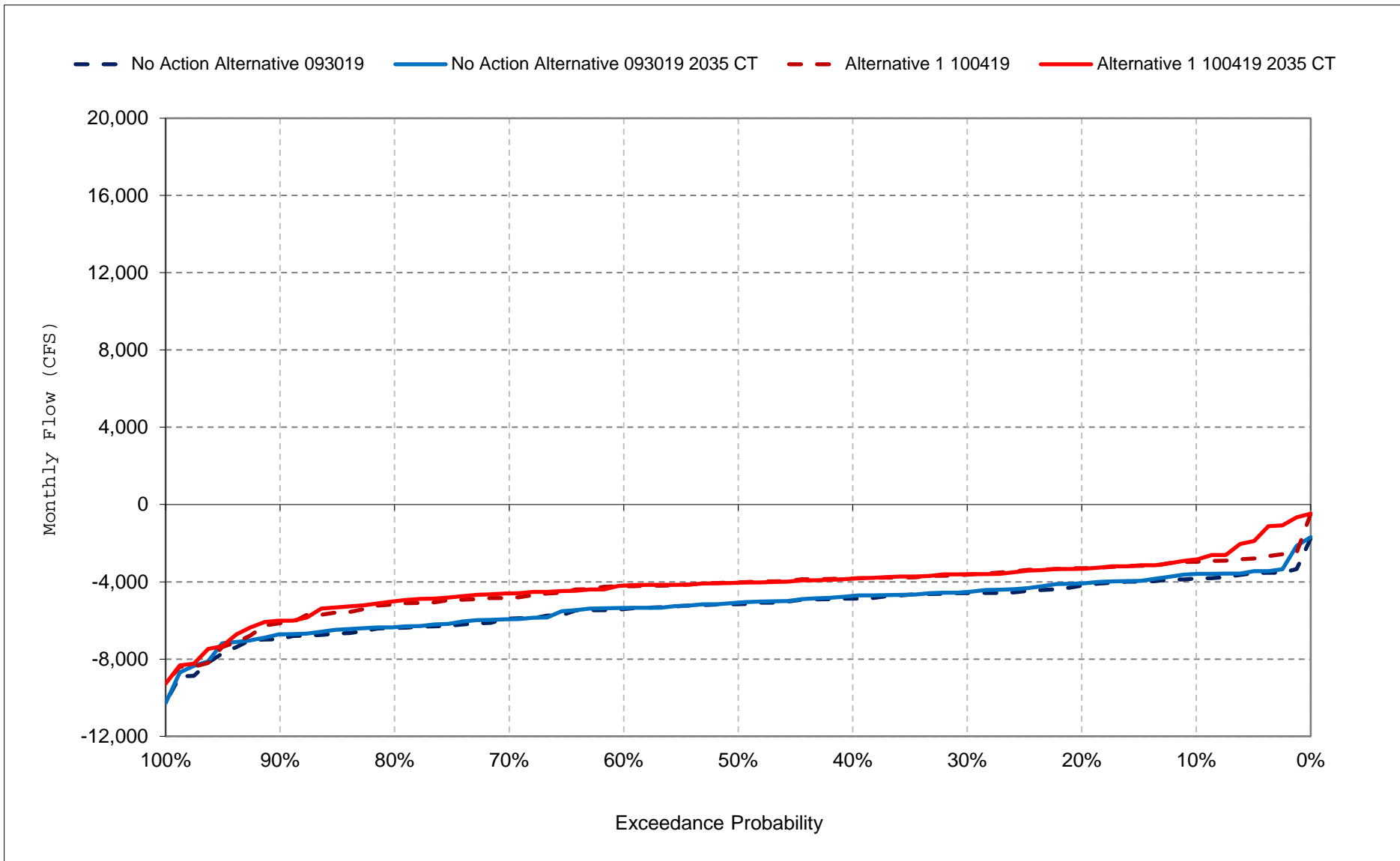
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

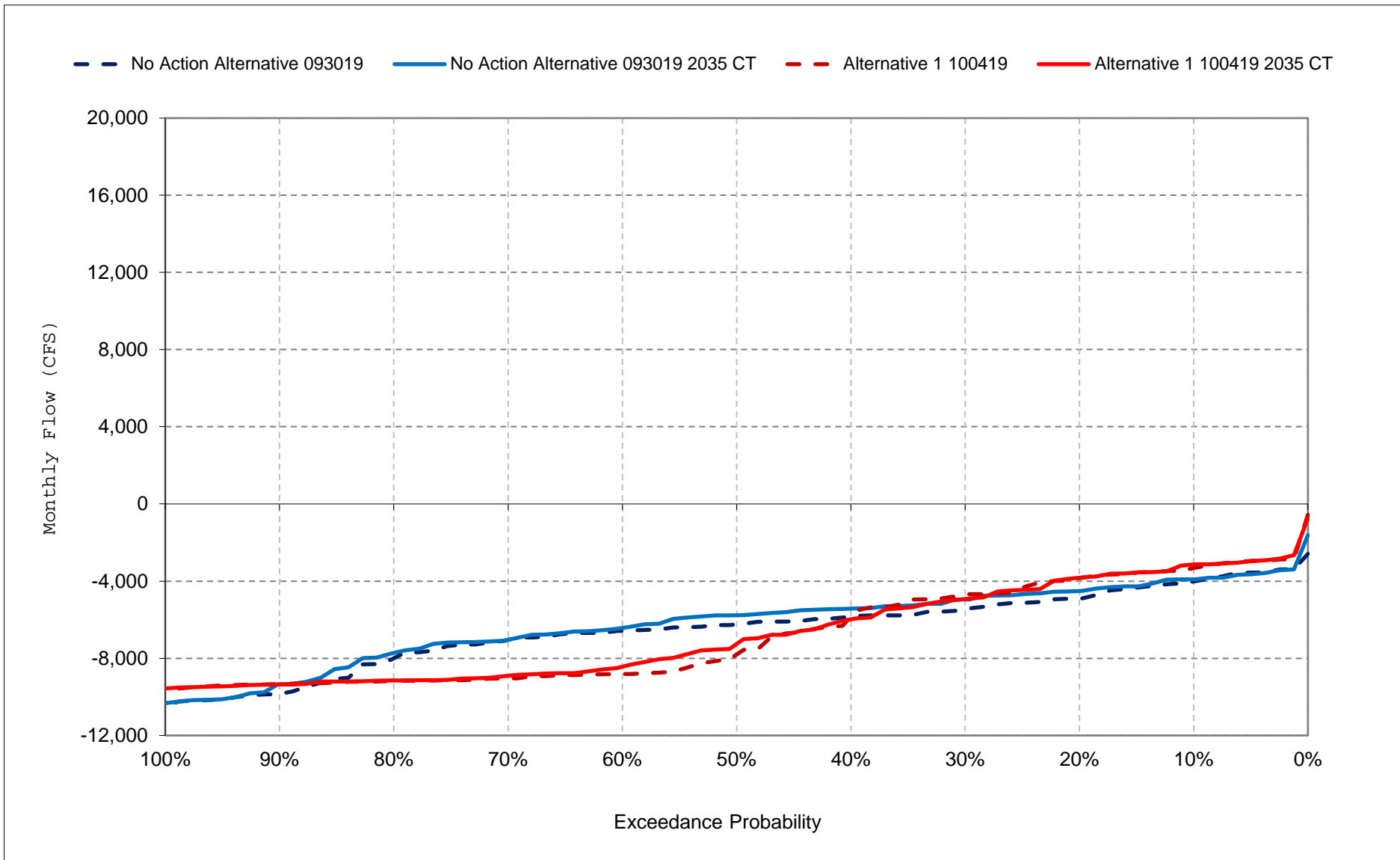
Figure 40-7. Old and Middle River Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

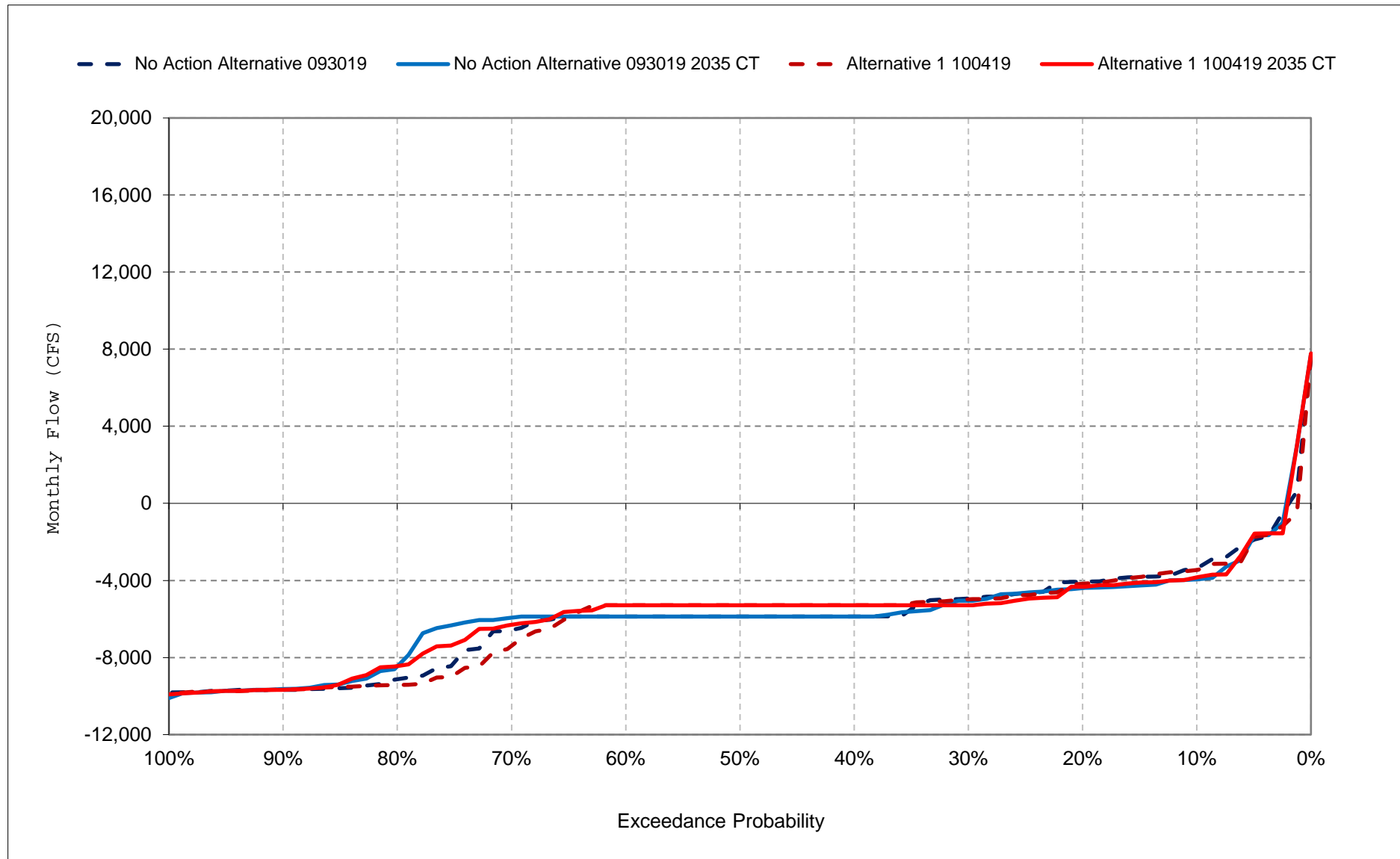
Figure 40-8. Old and Middle River Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

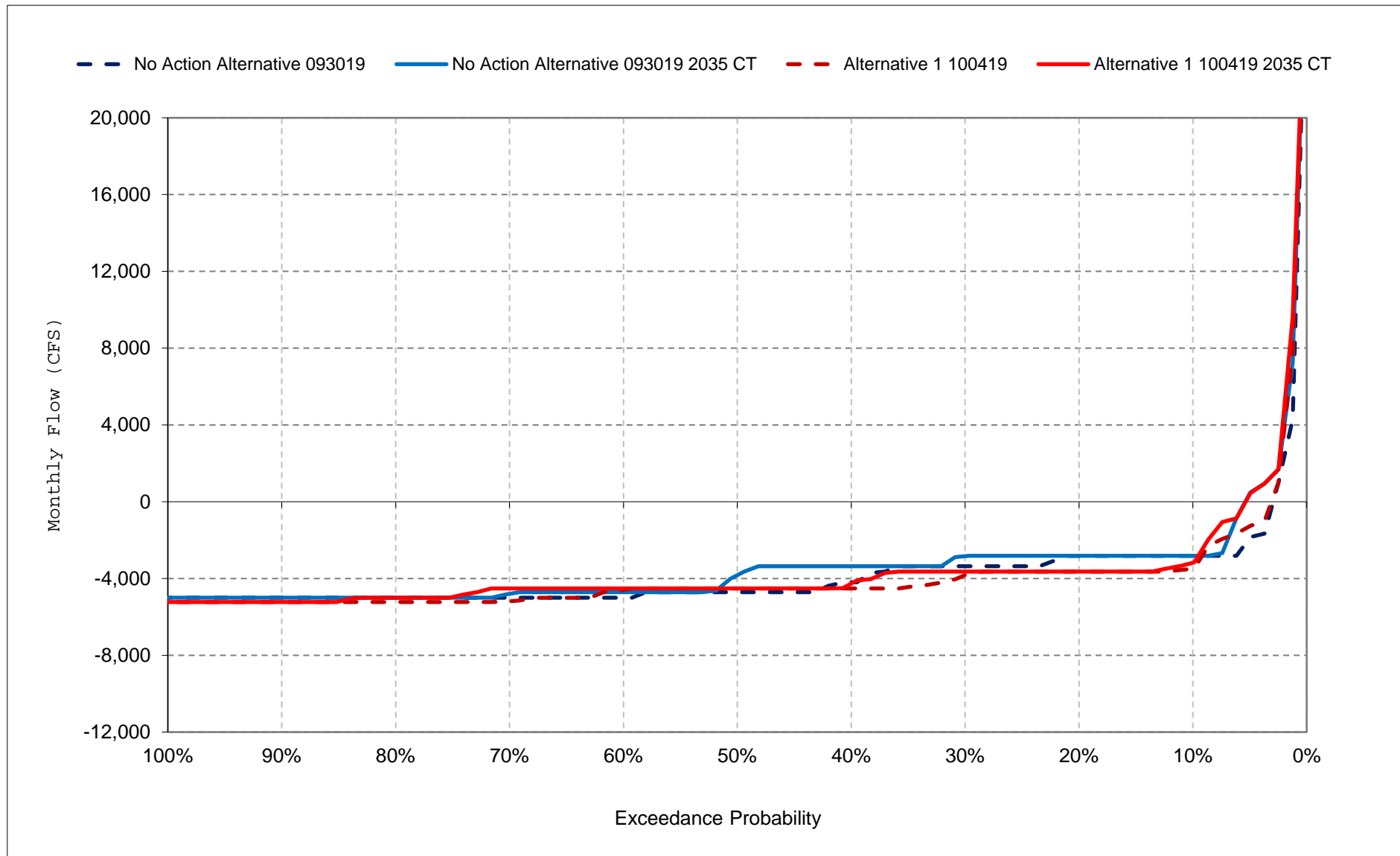
Figure 40-9. Old and Middle River Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

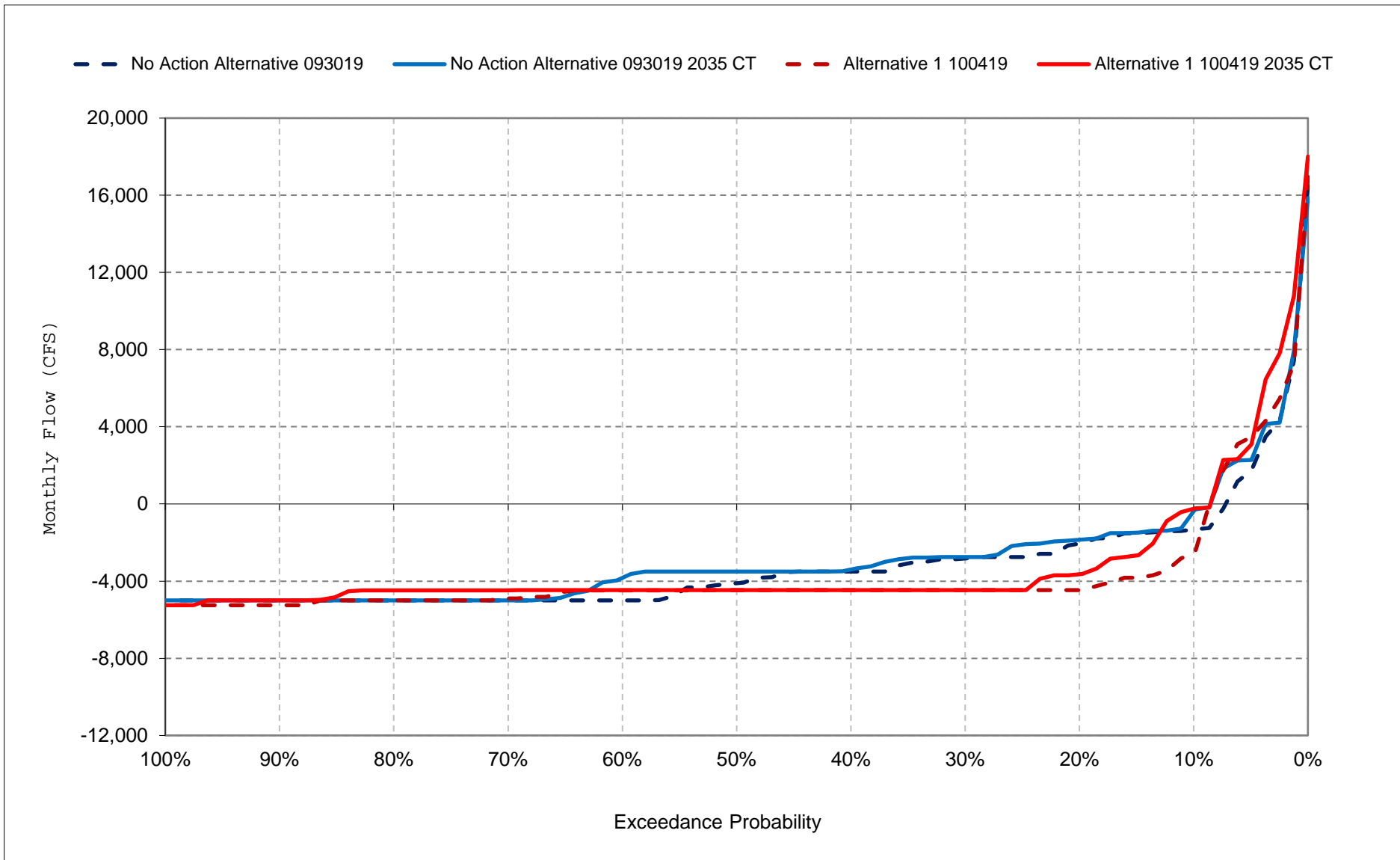
Figure 40-10. Old and Middle River Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

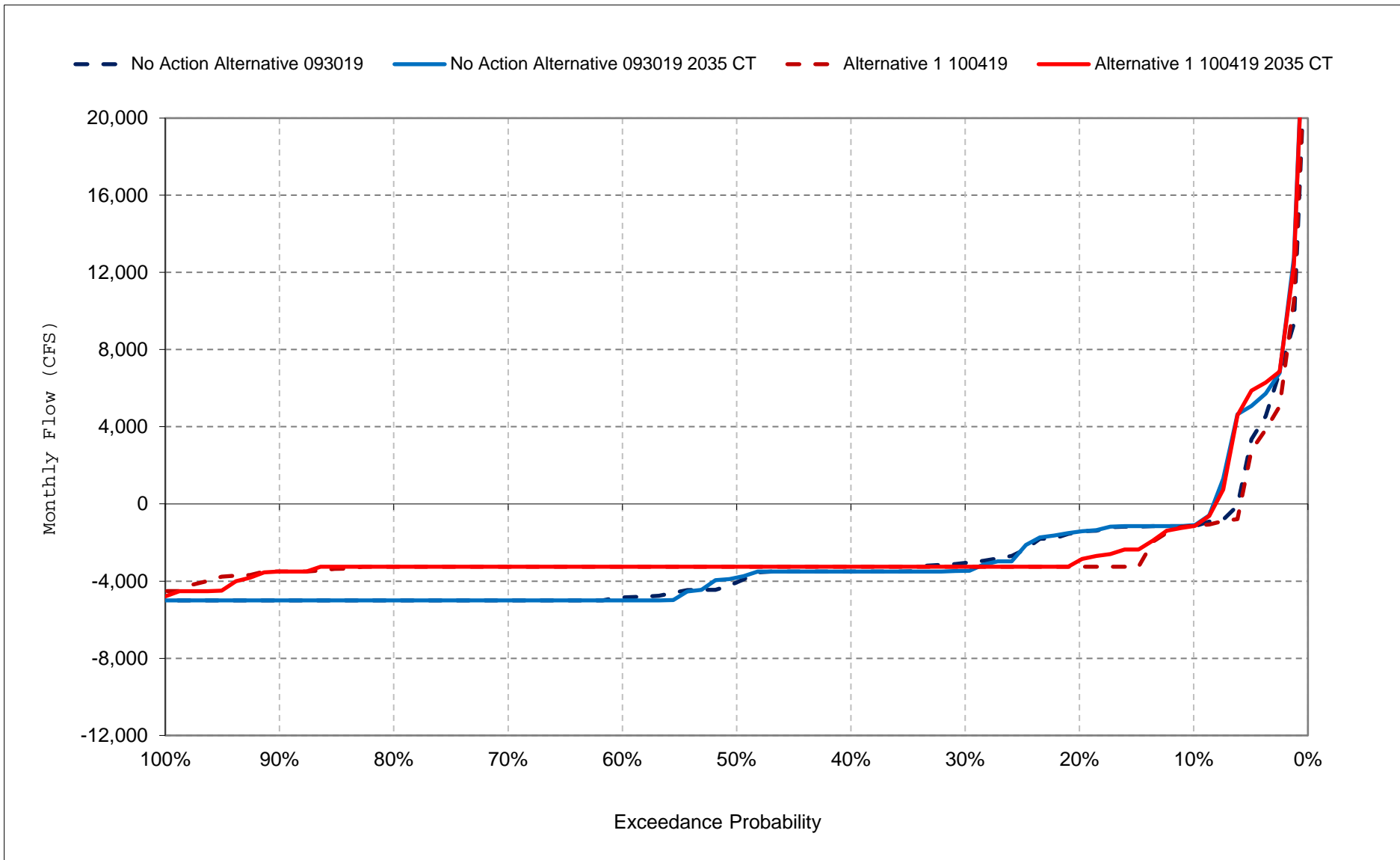
Figure 40-11. Old and Middle River Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

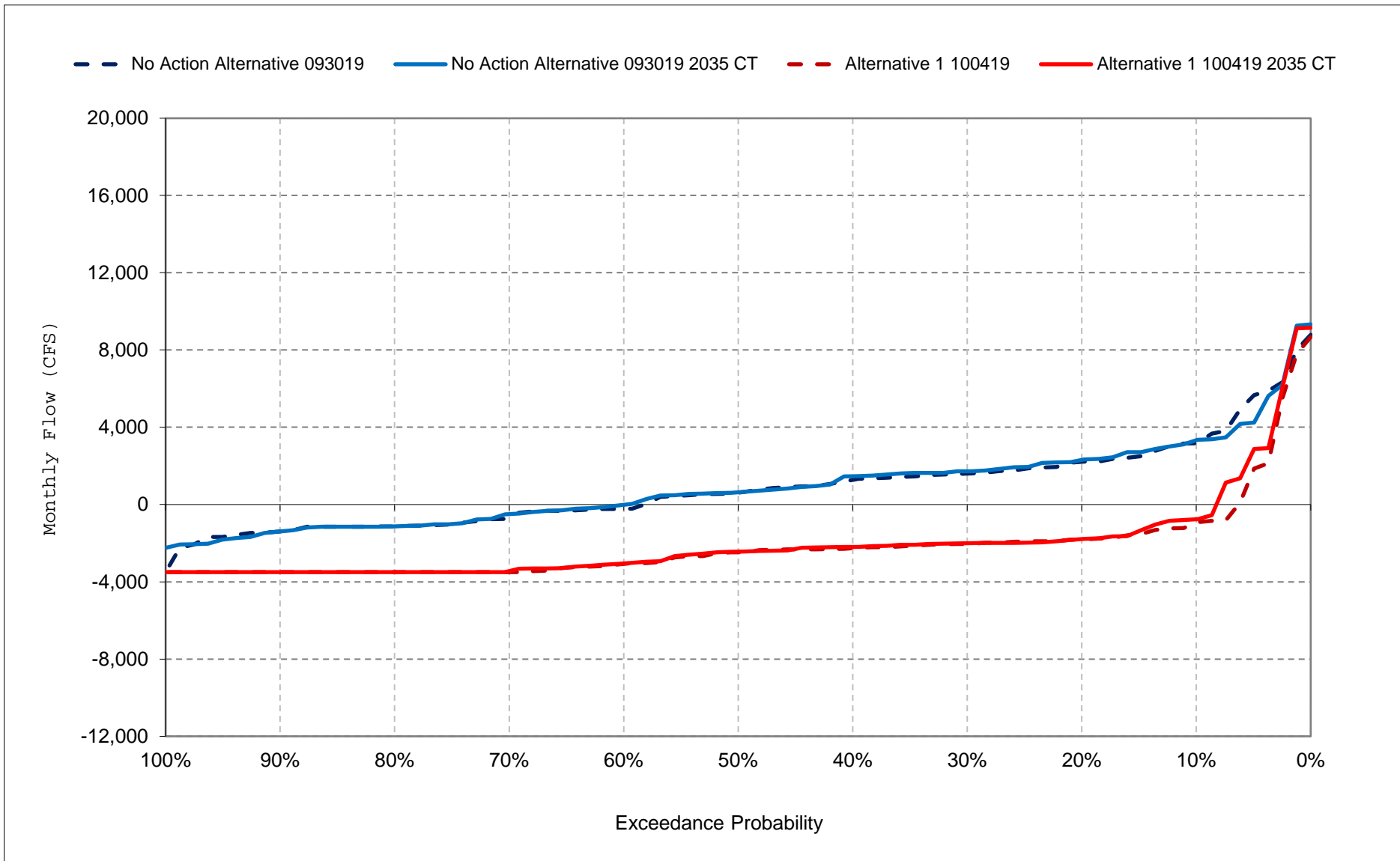
Figure 40-12. Old and Middle River Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

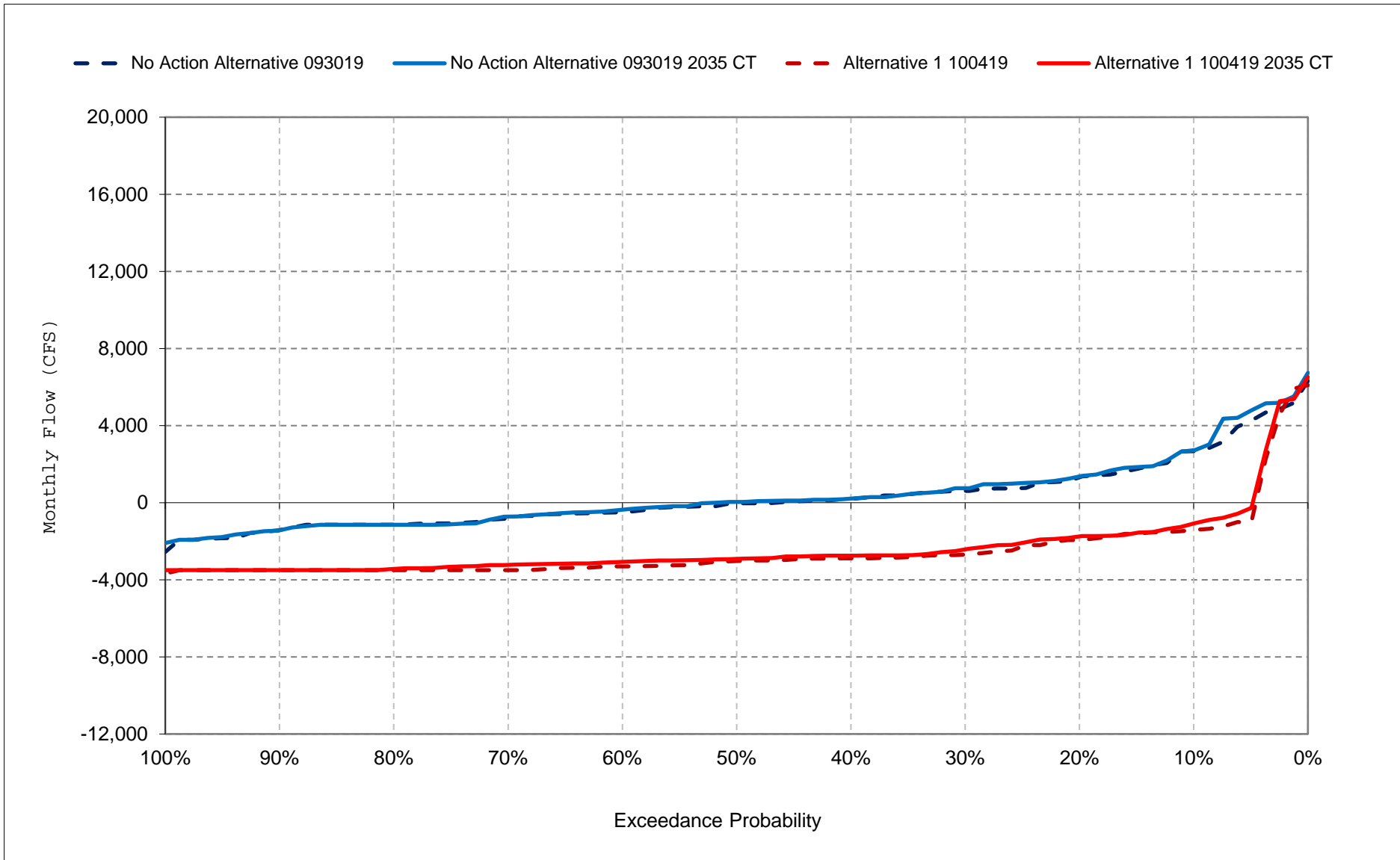
Figure 40-13. Old and Middle River Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

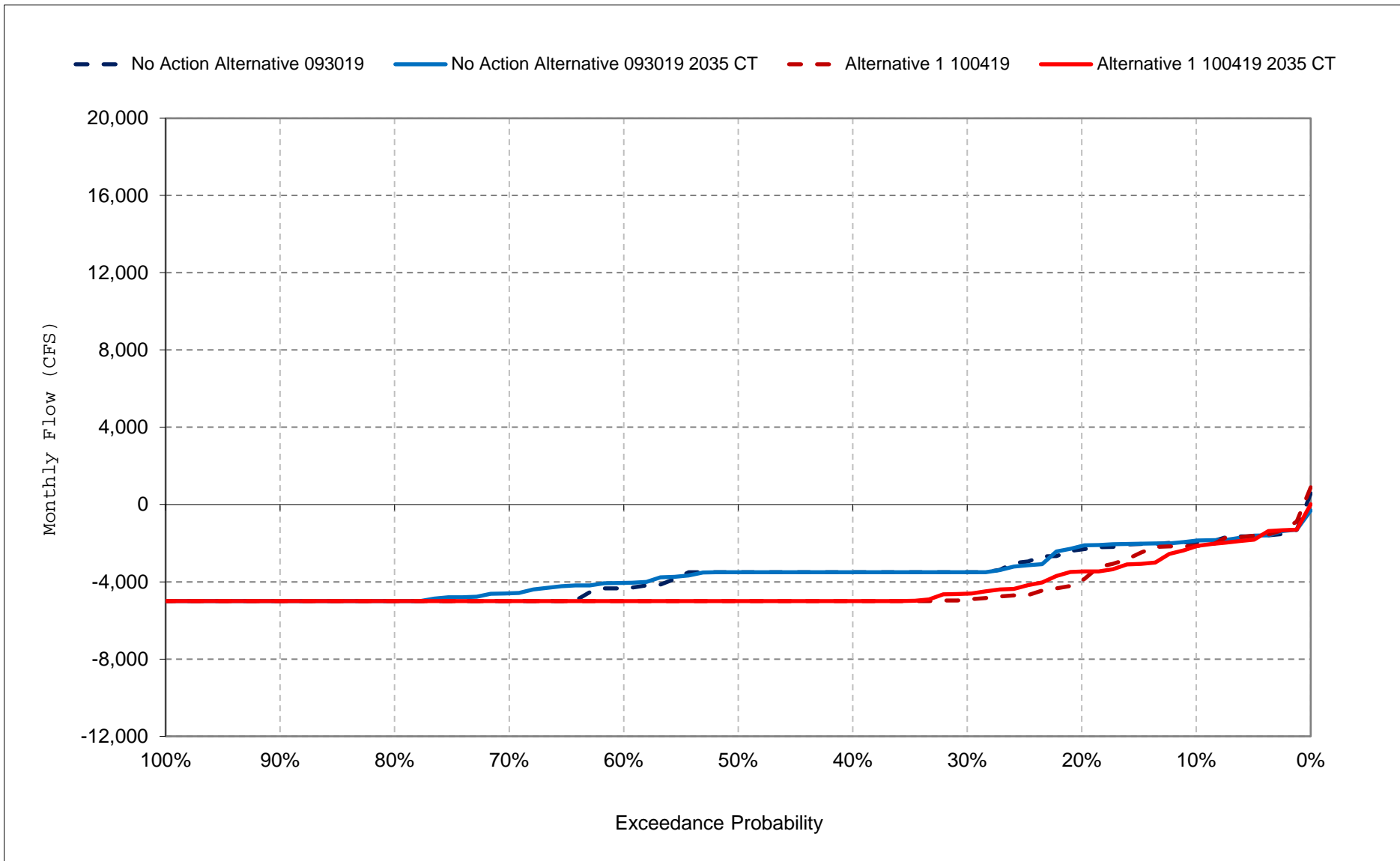
Figure 40-14. Old and Middle River Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

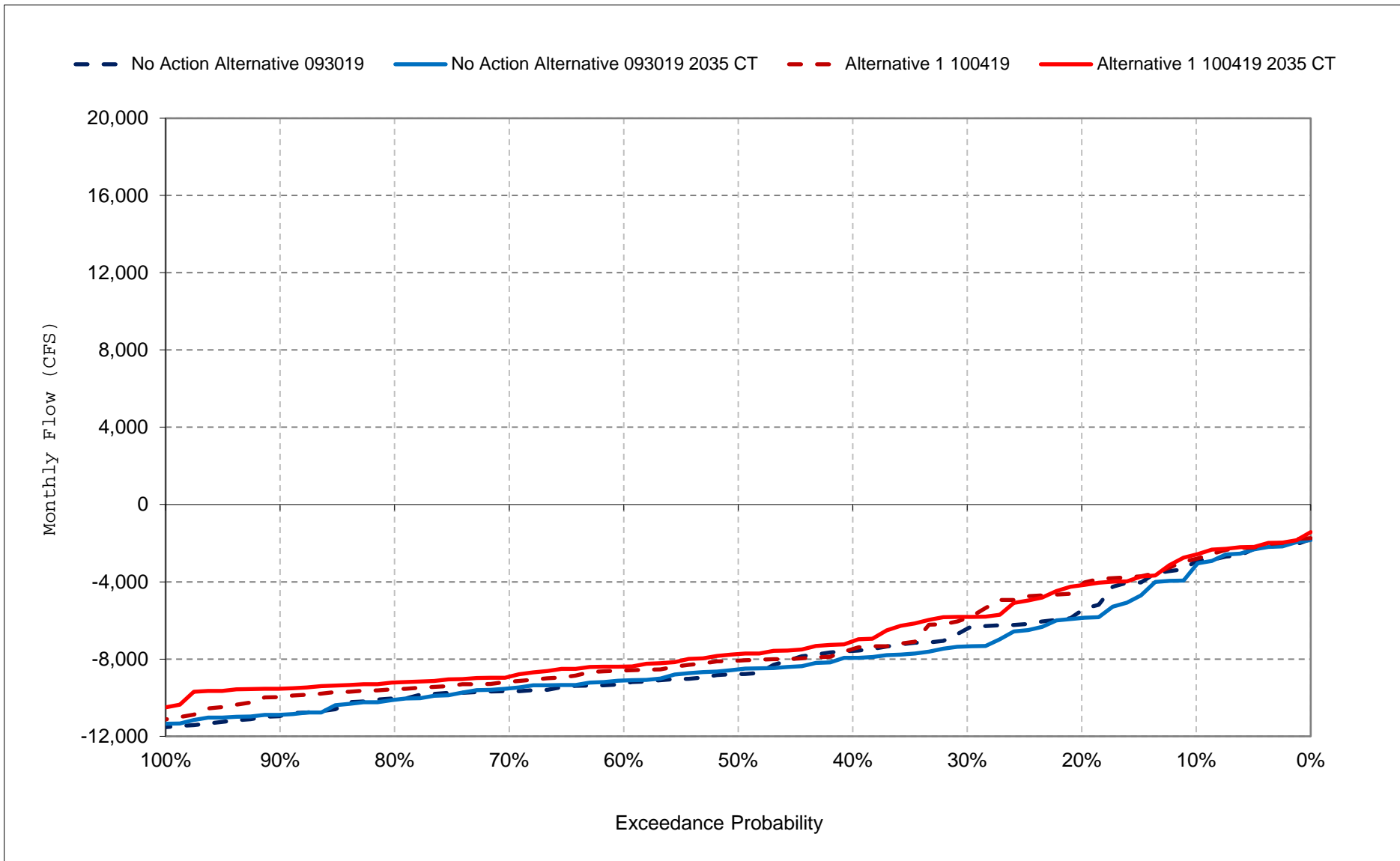
Figure 40-15. Old and Middle River Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

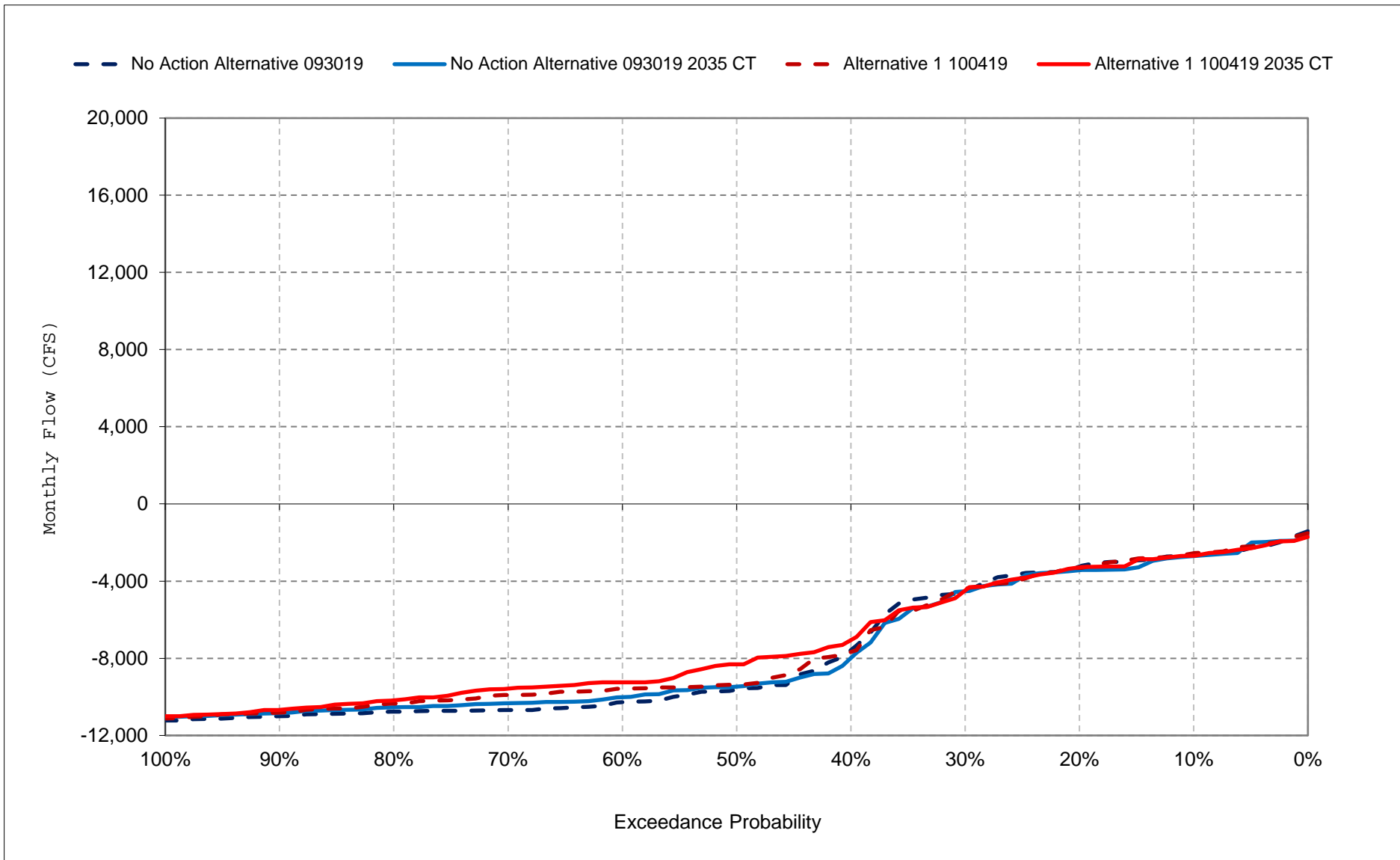
Figure 40-16. Old and Middle River Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

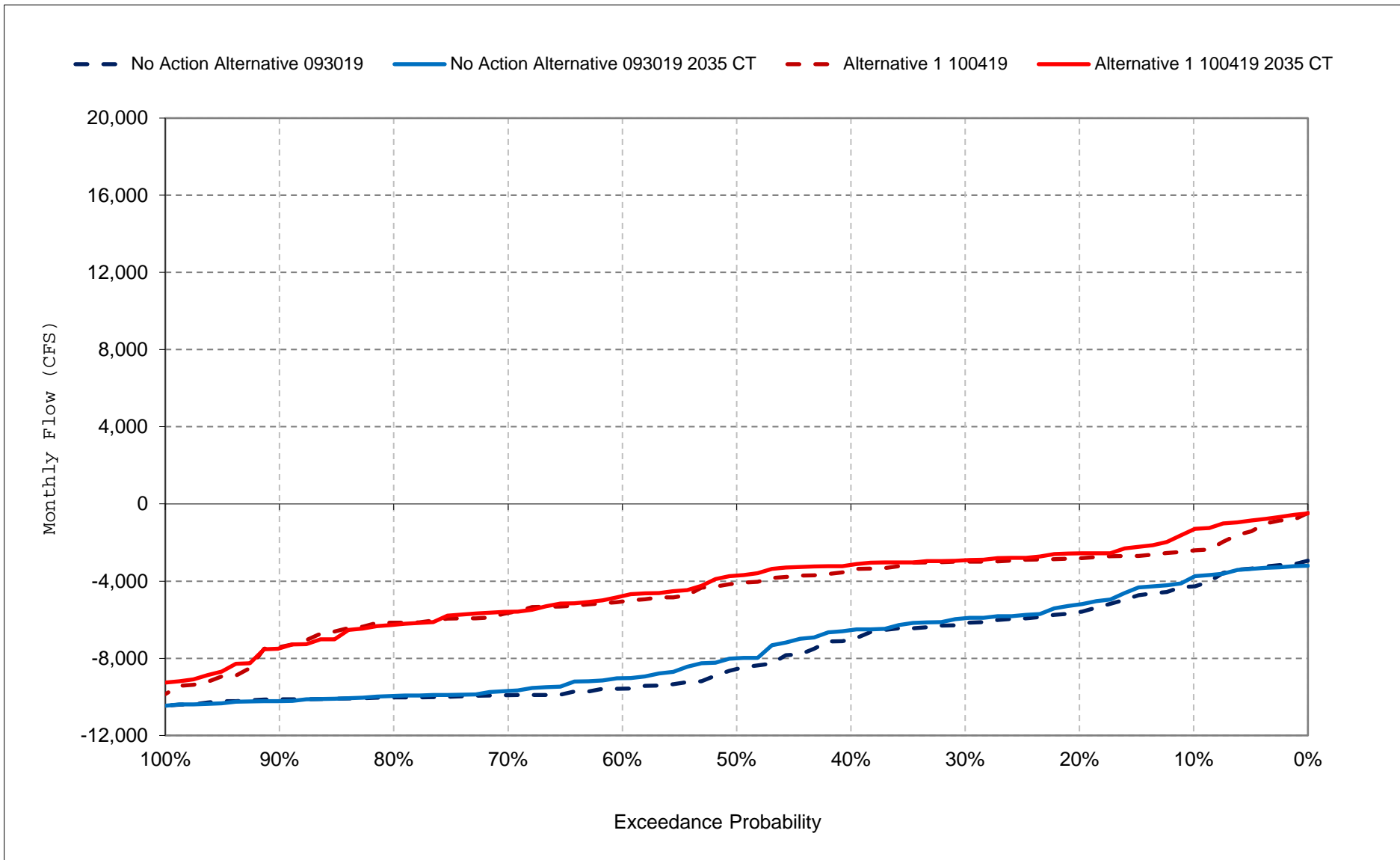
Figure 40-17. Old and Middle River Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 40-18. Old and Middle River Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-1. Delta Outflow, Monthly Outflow

No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,133	15,760	68,054	104,330	137,953	88,095	72,949	46,569	21,258	12,505	4,445	19,516
20%	9,656	14,688	34,125	70,458	87,865	67,691	50,835	30,360	10,131	11,572	4,113	19,313
30%	9,375	13,956	16,450	51,332	68,295	46,265	32,891	19,349	8,975	9,455	4,000	15,354
40%	7,469	11,757	12,532	29,119	51,291	35,091	26,989	16,139	7,676	8,000	4,000	10,938
50%	5,732	9,953	10,088	20,018	36,848	26,813	22,263	13,853	7,243	8,000	4,000	3,770
60%	4,500	6,045	6,366	16,371	24,990	19,799	16,534	11,668	7,100	6,500	4,000	3,000
70%	4,500	5,000	5,268	12,483	18,562	16,619	13,760	9,783	6,775	5,000	4,000	3,000
80%	4,500	5,000	5,000	9,229	14,864	12,429	10,854	8,556	6,044	5,000	3,892	3,000
90%	3,500	4,000	5,000	7,945	10,851	10,761	9,673	7,295	5,391	4,000	3,535	3,000
Long Term												
Full Simulation Period ^d	6,947	11,771	23,344	44,231	56,747	43,793	32,011	21,014	10,915	8,080	4,111	9,430
Water Year Types ^{b,c}												
Wet (32%)	9,942	17,964	27,364	90,233	102,483	81,643	57,636	39,191	19,063	10,717	4,468	19,039
Above Normal (16%)	7,832	12,999	17,266	49,302	67,372	52,328	34,332	19,805	7,958	11,132	4,035	11,118
Below Normal (13%)	6,658	7,067	20,085	17,038	36,772	17,576	17,971	13,328	7,343	8,171	4,096	3,342
Dry (24%)	4,706	10,054	31,865	15,520	26,067	22,423	18,157	10,887	7,272	5,064	3,942	3,049
Critical (15%)	3,500	4,201	10,002	11,845	15,590	12,186	9,940	6,863	5,809	4,000	3,714	3,000

Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,938	15,144	72,539	107,663	139,836	93,758	66,017	39,592	21,377	11,856	6,174	11,121
20%	8,625	7,074	37,911	72,594	89,133	69,130	45,588	26,980	10,857	11,083	6,174	10,740
30%	8,469	5,116	20,645	51,097	67,870	48,025	27,606	15,581	9,395	9,256	5,275	10,485
40%	8,313	5,000	12,598	29,248	55,354	35,423	23,827	12,303	8,691	8,500	4,840	9,980
50%	5,667	5,000	10,644	21,650	37,404	28,110	17,364	10,930	8,190	8,000	4,305	4,035
60%	4,500	5,000	6,783	16,963	24,358	22,798	13,798	10,424	7,590	7,000	4,000	3,000
70%	4,500	5,000	5,315	12,557	17,910	17,477	11,354	9,047	7,100	5,000	3,973	3,000
80%	4,500	5,000	5,000	9,766	14,158	13,025	9,798	7,730	6,957	5,000	3,850	3,000
90%	3,500	4,000	5,000	8,236	10,942	9,267	8,824	6,655	5,700	4,000	3,553	3,000
Long Term												
Full Simulation Period ^d	6,747	8,920	25,033	45,224	57,590	45,403	28,838	18,412	11,414	7,966	4,734	6,789
Water Year Types ^{b,c}												
Wet (32%)	8,828	11,297	30,964	92,137	104,423	83,568	52,760	34,757	19,683	10,597	5,868	10,936
Above Normal (16%)	8,775	8,899	18,922	49,993	70,112	56,774	30,005	16,440	8,842	10,662	5,342	10,527
Below Normal (13%)	6,663	6,398	20,976	17,834	38,533	19,574	15,019	11,197	8,271	8,046	4,170	3,430
Dry (24%)	4,719	10,098	32,492	15,829	24,938	23,047	16,475	9,859	7,428	5,129	3,795	3,090
Critical (15%)	3,500	4,144	10,092	12,511	14,440	11,333	9,014	6,005	5,809	4,001	3,698	3,000

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1,195	-616	4,485	3,333	1,883	5,663	-6,932	-6,976	119	-649	1,729	-8,394
20%	-1,031	-7,614	3,786	2,136	1,268	1,440	-5,247	-3,380	727	-489	2,061	-8,573
30%	-906	-8,841	4,195	-235	-424	1,760	-5,285	-3,767	420	-199	1,275	-4,869
40%	844	-6,757	66	129	4,063	332	-3,161	-3,836	1,015	500	840	-958
50%	-65	-4,953	556	1,632	556	1,297	-4,899	-2,923	946	0	305	265
60%	0	-1,045	417	592	-632	2,999	-2,736	-1,244	490	500	0	0
70%	0	0	47	75	-651	857	-2,406	-737	325	0	-27	0
80%	0	0	0	536	-707	595	-1,056	-826	914	0	-42	0
90%	0	0	0	291	91	-1,494	-849	-640	309	0	17	0
Long Term												
Full Simulation Period ^d	-200	-2,851	1,690	993	842	1,610	-3,174	-2,602	499	-113	623	-2,641
Water Year Types ^{b,c}												
Wet (32%)	-1,114	-6,667	3,600	1,903	1,940	1,924	-4,876	-4,434	620	-120	1,400	-8,103
Above Normal (16%)	943	-4,100	1,656	690	2,740	4,446	-4,327	-3,365	883	-470	1,307	-591
Below Normal (13%)	4	-669	891	796	1,761	1,998	-2,952	-2,131	928	-125	74	88
Dry (24%)	14	44	626	309	-1,129	624	-1,682	-1,028	156	64	-147	41
Critical (15%)	0	-57	91	666	-1,150	-853	-925	-858	0	1	-16	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 41-2. Delta Outflow, Monthly Outflow

No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,984	15,000	72,754	114,098	147,486	95,656	77,109	37,746	12,294	13,198	4,056	19,531
20%	9,531	14,688	36,513	83,364	99,135	75,987	56,021	23,737	8,437	11,678	4,000	19,375
30%	9,375	14,209	20,554	55,843	71,006	58,639	35,127	17,769	7,477	9,803	4,000	18,219
40%	7,563	11,621	13,617	35,310	59,658	38,112	27,852	13,560	7,100	8,728	4,000	10,938
50%	4,500	9,797	11,701	25,723	44,031	29,491	21,360	11,909	7,100	8,000	4,000	3,762
60%	4,500	5,923	6,690	21,548	27,126	21,765	16,217	10,670	6,906	7,441	4,000	3,000
70%	4,500	5,000	5,155	13,108	21,971	19,000	13,417	9,582	6,585	5,000	4,000	3,000
80%	4,500	5,000	5,000	10,134	17,246	13,579	10,971	7,681	5,945	5,000	3,859	3,000
90%	3,500	4,050	5,000	9,049	13,060	11,183	9,280	7,061	5,066	4,000	3,667	3,000
Long Term												
Full Simulation Period ^d	6,838	11,607	24,394	49,579	61,288	49,128	33,401	17,905	8,743	8,208	4,037	9,449
Water Year Types ^{b,c}												
Wet (32%)	9,679	18,130	29,259	99,400	108,346	90,892	60,048	31,807	13,152	10,474	4,301	19,016
Above Normal (16%)	8,549	12,218	17,673	55,849	72,394	59,151	35,704	16,384	6,768	11,536	4,000	11,234
Below Normal (13%)	5,967	6,521	21,569	20,988	41,481	20,478	18,861	12,402	6,567	8,222	3,972	3,312
Dry (24%)	4,466	9,812	32,448	17,896	30,153	25,828	19,277	10,412	6,941	5,556	3,918	3,095
Critical (15%)	3,583	4,469	10,300	13,855	17,346	12,879	10,042	6,963	6,326	4,097	3,764	3,000

Alternative 1 100419 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,245	14,468	79,965	119,800	149,738	101,374	70,478	34,301	12,262	11,918	6,174	11,126
20%	8,625	7,626	41,294	85,540	99,960	77,497	49,630	18,065	9,419	10,424	5,400	10,786
30%	8,469	5,114	23,088	57,501	71,271	59,089	30,642	14,517	8,329	9,421	5,022	10,395
40%	8,250	5,000	14,394	35,953	63,492	40,523	23,314	11,232	7,797	8,588	4,500	9,551
50%	4,500	5,000	12,200	27,335	43,617	31,937	16,117	10,375	7,213	8,010	4,029	3,468
60%	4,500	5,000	9,492	21,242	27,306	24,204	13,475	9,174	7,100	7,382	4,000	3,000
70%	4,500	5,000	5,412	13,471	22,503	20,173	10,995	8,247	7,100	5,000	3,888	3,000
80%	4,500	5,000	5,000	10,154	17,123	13,853	10,216	7,184	6,568	5,000	3,736	3,000
90%	3,500	4,016	5,000	9,049	11,998	10,708	8,504	6,613	5,973	4,000	3,617	3,000
Long Term												
Full Simulation Period ^d	6,652	8,708	26,262	50,709	62,249	50,899	30,284	15,699	9,306	7,908	4,593	6,547
Water Year Types ^{b,c}												
Wet (32%)	8,802	11,482	32,829	101,790	110,536	92,833	55,624	28,205	13,780	9,980	5,726	10,859
Above Normal (16%)	9,098	8,051	19,637	57,182	75,727	63,844	31,200	13,362	7,807	10,842	4,806	9,393
Below Normal (13%)	6,032	5,940	22,004	22,628	43,248	22,780	16,168	10,903	7,525	7,706	3,982	3,226
Dry (24%)	4,450	9,722	33,720	17,967	28,656	26,574	17,156	9,243	7,234	5,714	3,839	3,045
Critical (15%)	3,583	4,255	10,685	13,334	16,435	12,334	9,204	6,295	6,326	4,083	3,725	3,000

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-739	-532	7,212	5,702	2,252	5,718	-6,631	-3,445	-32	-1,280	2,118	-8,405
20%	-906	-7,061	4,782	2,176	825	1,509	-6,391	-5,672	982	-1,254	1,400	-8,589
30%	-906	-9,095	2,534	1,658	265	451	-4,485	-3,252	852	-383	1,022	-7,824
40%	688	-6,621	777	643	3,834	2,411	-4,538	-2,328	697	-140	500	-1,386
50%	0	-4,797	499	1,611	-415	2,446	-5,243	-1,534	113	10	29	-294
60%	0	-923	2,802	-306	180	2,439	-2,743	-1,496	194	-59	0	0
70%	0	0	257	363	532	1,173	-2,422	-1,336	515	0	-112	0
80%	0	0	0	20	-122	275	-755	-496	623	0	-122	0
90%	0	-34	0	0	-1,063	-475	-776	-448	907	0	-50	0
Long Term												
Full Simulation Period ^d	-186	-2,900	1,868	1,130	961	1,771	-3,118	-2,205	564	-299	556	-2,902
Water Year Types ^{b,c}												
Wet (32%)	-877	-6,648	3,569	2,390	2,190	1,942	-4,424	-3,603	628	-494	1,425	-8,157
Above Normal (16%)	550	-4,166	1,965	1,333	3,332	4,693	-4,504	-3,021	1,039	-694	806	-1,841
Below Normal (13%)	65	-580	435	1,640	1,767	2,302	-2,693	-1,499	958	-516	10	-86
Dry (24%)	-16	-90	1,272	71	-1,497	746	-2,121	-1,169	293	158	-79	-50
Critical (15%)	0	-214	385	-521	-911	-544	-838	-668	0	-13	-39	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-3. Delta Outflow, Monthly Outflow

No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	10,133	15,760	68,054	104,330	137,953	88,095	72,949	46,569	21,258	12,505	4,445	19,516
20%	9,656	14,688	34,125	70,458	87,865	67,691	50,835	30,360	10,131	11,572	4,113	19,313
30%	9,375	13,956	16,450	51,332	68,295	46,265	32,891	19,349	8,975	9,455	4,000	15,354
40%	7,469	11,757	12,532	29,119	51,291	35,091	26,989	16,139	7,676	8,000	4,000	10,938
50%	5,732	9,953	10,088	20,018	36,848	26,813	22,263	13,853	7,243	8,000	4,000	3,770
60%	4,500	6,045	6,366	16,371	24,990	19,799	16,534	11,668	7,100	6,500	4,000	3,000
70%	4,500	5,000	5,268	12,483	18,562	16,619	13,760	9,783	6,775	5,000	4,000	3,000
80%	4,500	5,000	5,000	9,229	14,864	12,429	10,854	8,556	6,044	5,000	3,892	3,000
90%	3,500	4,000	5,000	7,945	10,851	10,761	9,673	7,295	5,391	4,000	3,535	3,000
Long Term												
Full Simulation Period ^d	6,947	11,771	23,344	44,231	56,747	43,793	32,011	21,014	10,915	8,080	4,111	9,430
Water Year Types ^{b,c}												
Wet (32%)	9,942	17,964	27,364	90,233	102,483	81,643	57,636	39,191	19,063	10,717	4,468	19,039
Above Normal (16%)	7,832	12,999	17,266	49,302	67,372	52,328	34,332	19,805	7,958	11,132	4,035	11,118
Below Normal (13%)	6,658	7,067	20,085	17,038	36,772	17,576	17,971	13,328	7,343	8,171	4,096	3,342
Dry (24%)	4,706	10,054	31,865	15,520	26,067	22,423	18,157	10,887	7,272	5,064	3,942	3,049
Critical (15%)	3,500	4,201	10,002	11,845	15,590	12,186	9,940	6,863	5,809	4,000	3,714	3,000

No Action Alternative 093019 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,984	15,000	72,754	114,098	147,486	95,656	77,109	37,746	12,294	13,198	4,056	19,531
20%	9,531	14,688	36,513	83,364	99,135	75,987	56,021	23,737	8,437	11,678	4,000	19,375
30%	9,375	14,209	20,554	55,843	71,006	58,639	35,127	17,769	7,477	9,803	4,000	18,219
40%	7,563	11,621	13,617	35,310	59,658	38,112	27,852	13,560	7,100	8,728	4,000	10,938
50%	4,500	9,797	11,701	25,723	44,031	29,491	21,360	11,909	7,100	8,000	4,000	3,762
60%	4,500	5,923	6,690	21,548	27,126	21,765	16,217	10,670	6,906	7,441	4,000	3,000
70%	4,500	5,000	5,155	13,108	21,971	19,000	13,417	9,582	6,585	5,000	4,000	3,000
80%	4,500	5,000	5,000	10,134	17,246	13,579	10,971	7,681	5,945	5,000	3,859	3,000
90%	3,500	4,050	5,000	9,049	13,060	11,183	9,280	7,061	5,066	4,000	3,667	3,000
Long Term												
Full Simulation Period ^d	6,838	11,607	24,394	49,579	61,288	49,128	33,401	17,905	8,743	8,208	4,037	9,449
Water Year Types ^{b,c}												
Wet (32%)	9,679	18,130	29,259	99,400	108,346	90,892	60,048	31,807	13,152	10,474	4,301	19,016
Above Normal (16%)	8,549	12,218	17,673	55,849	72,394	59,151	35,704	16,384	6,768	11,536	4,000	11,234
Below Normal (13%)	5,967	6,521	21,569	20,988	41,481	20,478	18,861	12,402	6,567	8,222	3,972	3,312
Dry (24%)	4,466	9,812	32,448	17,896	30,153	25,828	19,277	10,412	6,941	5,556	3,918	3,095
Critical (15%)	3,583	4,469	10,300	13,855	17,346	12,879	10,042	6,963	6,326	4,097	3,764	3,000

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-148	-760	4,700	9,767	9,533	7,561	4,160	-8,823	-8,964	693	-389	16
20%	-125	0	2,388	12,906	11,271	8,296	5,186	-6,624	-1,694	105	-113	63
30%	0	253	4,104	4,510	2,712	12,373	2,236	-1,580	-1,499	348	0	2,865
40%	94	-136	1,085	6,190	8,367	3,021	864	-2,580	-576	728	0	0
50%	-1,232	-156	1,613	5,705	7,183	2,679	-903	-1,944	-143	0	0	-8
60%	0	-122	324	5,177	2,136	1,966	-316	-998	-194	941	0	0
70%	0	0	-114	625	3,409	2,381	-343	-201	-190	0	0	0
80%	0	0	0	905	2,382	1,150	117	-875	-99	0	-34	0
90%	0	50	0	1,105	2,209	422	-393	-235	-325	0	131	0
Long Term												
Full Simulation Period ^d	-109	-164	1,050	5,348	4,541	5,335	1,390	-3,109	-2,172	128	-74	18
Water Year Types ^{b,c}												
Wet (32%)	-263	166	1,896	9,167	5,863	9,248	2,412	-7,383	-5,911	-242	-167	-23
Above Normal (16%)	717	-781	406	6,546	5,023	6,823	1,372	-3,421	-1,190	405	-35	116
Below Normal (13%)	-691	-546	1,483	3,950	4,709	2,901	890	-926	-776	50	-124	-29
Dry (24%)	-239	-241	583	2,376	4,086	3,405	1,120	-476	-331	492	-24	46
Critical (15%)	83	268	298	2,011	1,756	693	102	100	517	97	50	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 41-4. Delta Outflow, Monthly Outflow

Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	8,938	15,144	72,539	107,663	139,836	93,758	66,017	39,592	21,377	11,856	6,174	11,121
20%	8,625	7,074	37,911	72,594	89,133	69,130	45,588	26,980	10,857	11,083	6,174	10,740
30%	8,469	5,116	20,645	51,097	67,870	48,025	27,606	15,581	9,395	9,256	5,275	10,485
40%	8,313	5,000	12,598	29,248	55,354	35,423	23,827	12,303	8,691	8,500	4,840	9,980
50%	5,667	5,000	10,644	21,650	37,404	28,110	17,364	10,930	8,190	8,000	4,305	4,035
60%	4,500	5,000	6,783	16,963	24,358	22,798	13,798	10,424	7,590	7,000	4,000	3,000
70%	4,500	5,000	5,315	12,557	17,910	17,477	11,354	9,047	7,100	5,000	3,973	3,000
80%	4,500	5,000	5,000	9,766	14,158	13,025	9,798	7,730	6,957	5,000	3,850	3,000
90%	3,500	4,000	5,000	8,236	10,942	9,267	8,824	6,655	5,700	4,000	3,553	3,000
Long Term												
Full Simulation Period ^d	6,747	8,920	25,033	45,224	57,590	45,403	28,838	18,412	11,414	7,966	4,734	6,789
Water Year Types ^{b,c}												
Wet (32%)	8,828	11,297	30,964	92,137	104,423	83,568	52,760	34,757	19,683	10,597	5,868	10,936
Above Normal (16%)	8,775	8,899	18,922	49,993	70,112	56,774	30,005	16,440	8,842	10,662	5,342	10,527
Below Normal (13%)	6,663	6,398	20,976	17,834	38,533	19,574	15,019	11,197	8,271	8,046	4,170	3,430
Dry (24%)	4,719	10,098	32,492	15,829	24,938	23,047	16,475	9,859	7,428	5,129	3,795	3,090
Critical (15%)	3,500	4,144	10,092	12,511	14,440	11,333	9,014	6,005	5,809	4,001	3,698	3,000

Alternative 1 100419 2035 CT

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	9,245	14,468	79,965	119,800	149,738	101,374	70,478	34,301	12,262	11,918	6,174	11,126
20%	8,625	7,626	41,294	85,540	99,960	77,497	49,630	18,065	9,419	10,424	5,400	10,786
30%	8,469	5,114	23,088	57,501	71,271	59,089	30,642	14,517	8,329	9,421	5,022	10,395
40%	8,250	5,000	14,394	35,953	63,492	40,523	23,314	11,232	7,797	8,588	4,500	9,551
50%	4,500	5,000	12,200	27,335	43,617	31,937	16,117	10,375	7,213	8,010	4,029	3,468
60%	4,500	5,000	9,492	21,242	27,306	24,204	13,475	9,174	7,100	7,382	4,000	3,000
70%	4,500	5,000	5,412	13,471	22,503	20,173	10,995	8,247	7,100	5,000	3,888	3,000
80%	4,500	5,000	5,000	10,154	17,123	13,853	10,216	7,184	6,568	5,000	3,736	3,000
90%	3,500	4,016	5,000	9,049	11,998	10,708	8,504	6,613	5,973	4,000	3,617	3,000
Long Term												
Full Simulation Period ^d	6,652	8,708	26,262	50,709	62,249	50,899	30,284	15,699	9,306	7,908	4,593	6,547
Water Year Types ^{b,c}												
Wet (32%)	8,802	11,482	32,829	101,790	110,536	92,833	55,624	28,205	13,780	9,980	5,726	10,859
Above Normal (16%)	9,098	8,051	19,637	57,182	75,727	63,844	31,200	13,362	7,807	10,842	4,806	9,393
Below Normal (13%)	6,032	5,940	22,004	22,628	43,248	22,780	16,168	10,903	7,525	7,706	3,982	3,226
Dry (24%)	4,450	9,722	33,720	17,967	28,656	26,574	17,156	9,243	7,234	5,714	3,839	3,045
Critical (15%)	3,583	4,255	10,685	13,334	16,435	12,334	9,204	6,295	6,326	4,083	3,725	3,000

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Outflow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	307	-676	7,426	12,137	9,903	7,616	4,461	-5,292	-9,115	62	0	5
20%	0	553	3,383	12,947	10,827	8,366	4,042	-8,916	-1,438	-660	-774	46
30%	0	-2	2,443	6,403	3,400	11,064	3,037	-1,065	-1,066	164	-253	-90
40%	-63	0	1,795	6,705	8,139	5,100	-513	-1,072	-894	88	-340	-429
50%	-1,167	0	1,557	5,684	6,212	3,828	-1,247	-555	-977	10	-276	-567
60%	0	0	2,709	4,279	2,948	1,406	-323	-1,250	-490	382	0	0
70%	0	0	96	913	4,592	2,696	-359	-800	0	0	-85	0
80%	0	0	0	388	2,966	829	418	-546	-389	0	-114	0
90%	0	16	0	814	1,055	1,441	-320	-42	273	0	64	0
Long Term												
Full Simulation Period ^d	-95	-212	1,229	5,486	4,660	5,495	1,446	-2,713	-2,107	-58	-140	-243
Water Year Types ^{b,c}												
Wet (32%)	-26	185	1,865	9,653	6,113	9,266	2,864	-6,552	-5,903	-616	-142	-77
Above Normal (16%)	323	-848	715	7,189	5,615	7,070	1,195	-3,077	-1,034	180	-536	-1,134
Below Normal (13%)	-630	-458	1,027	4,794	4,715	3,205	1,150	-294	-746	-340	-188	-203
Dry (24%)	-269	-375	1,229	2,138	3,718	3,527	681	-616	-194	585	44	-45
Critical (15%)	83	111	592	823	1,995	1,001	190	290	517	82	28	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

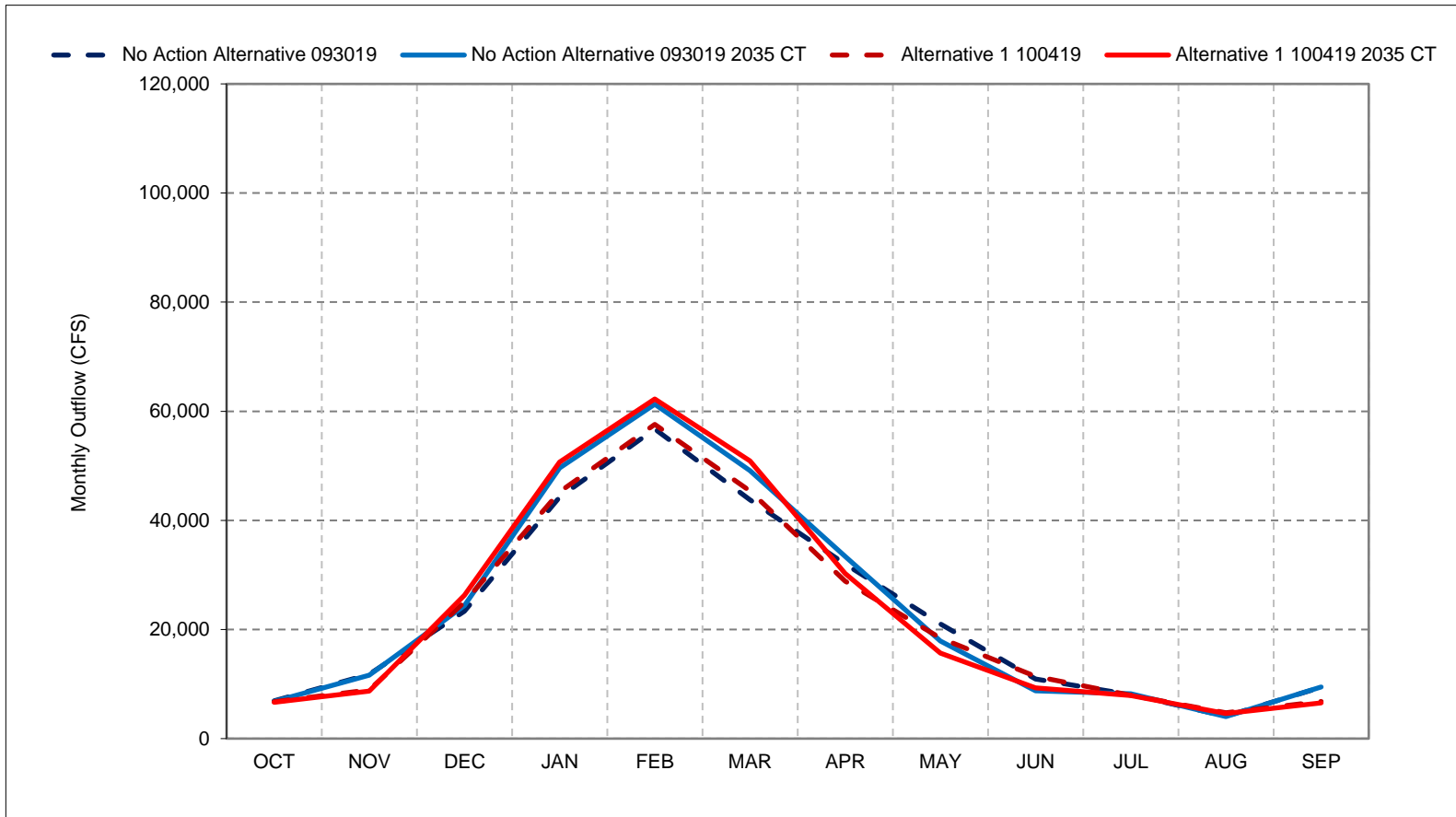
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 41-1. Delta Outflow, Long-Term Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

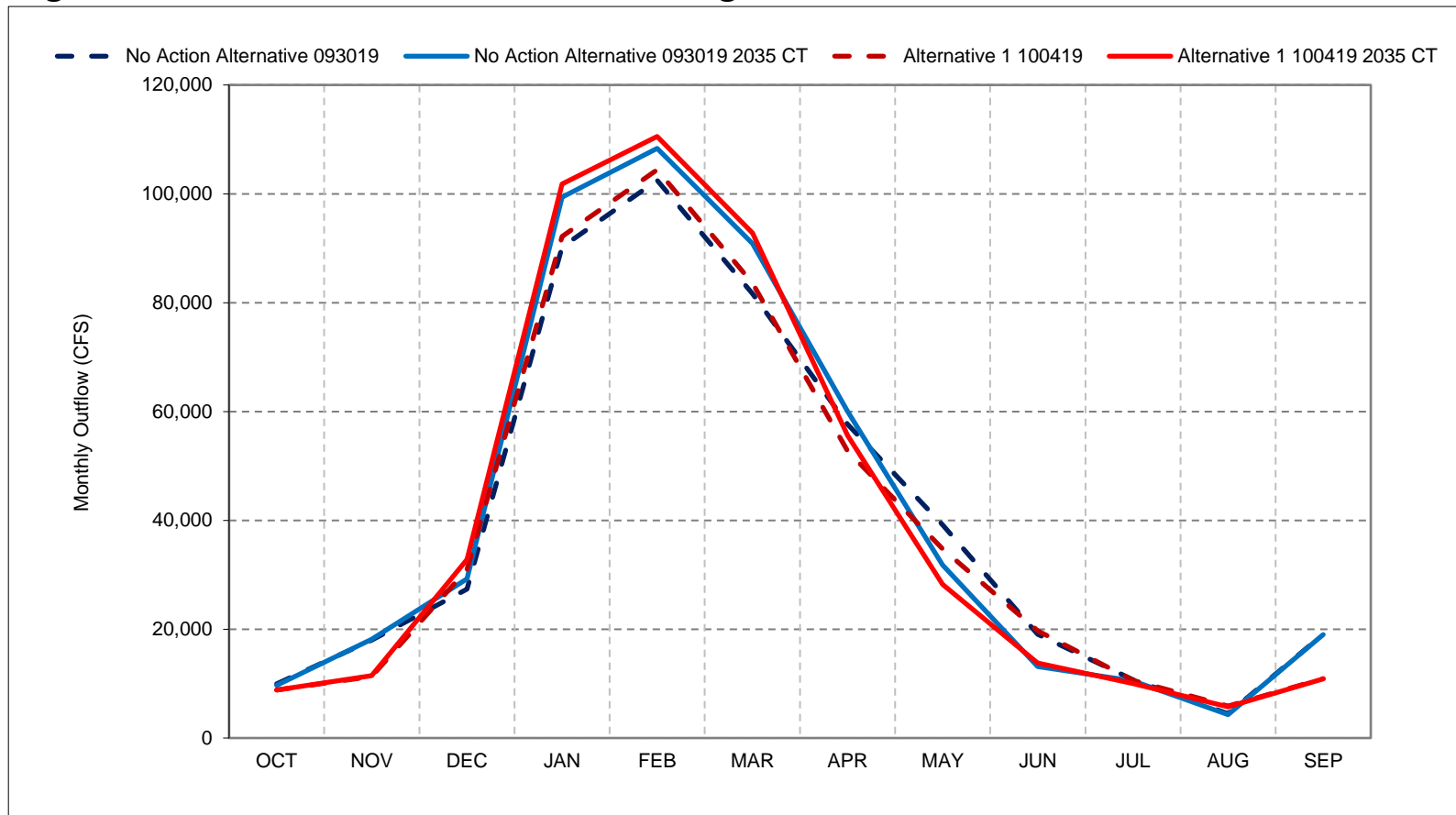
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-2. Delta Outflow, Wet Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

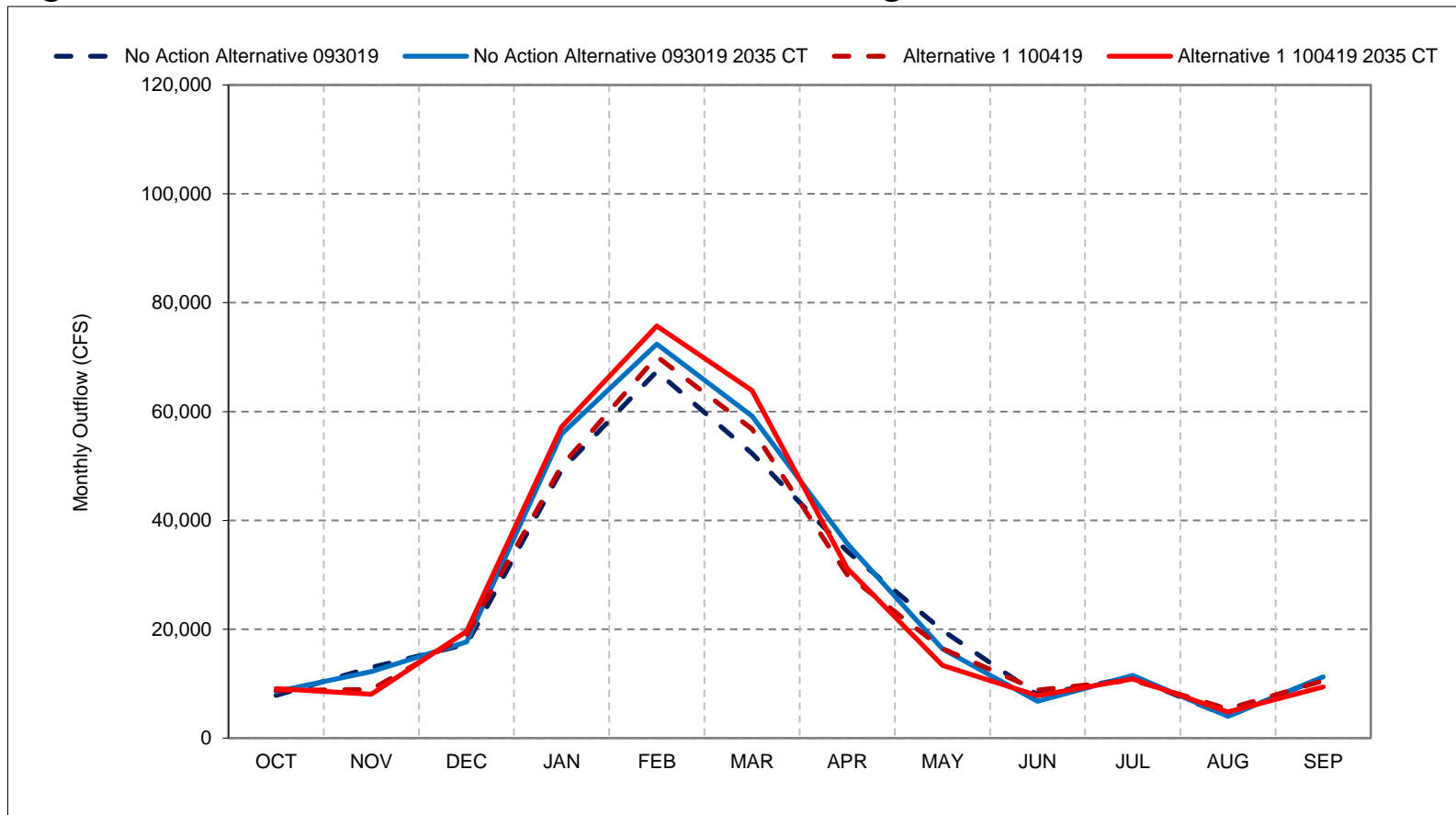
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-3. Delta Outflow, Above Normal Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

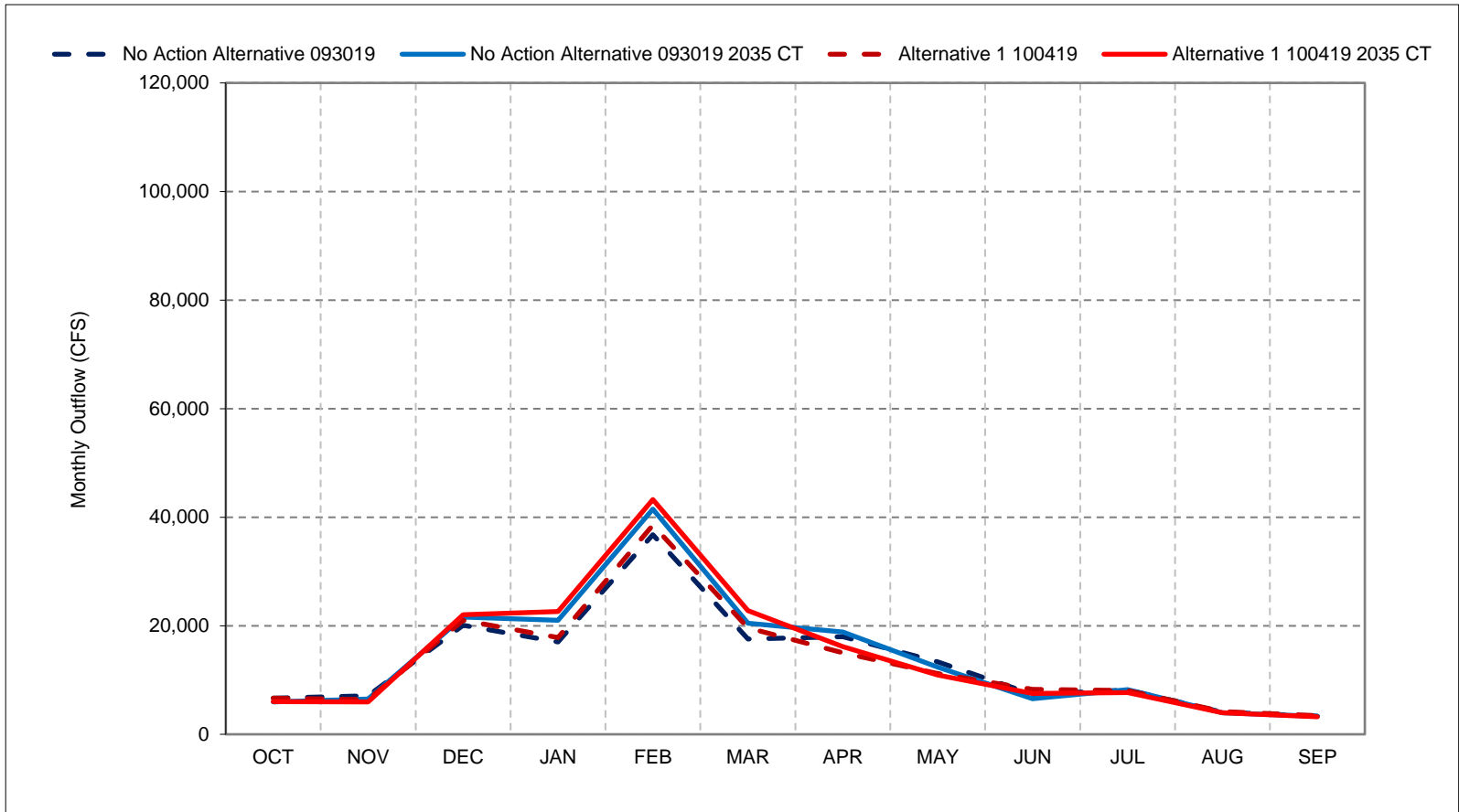
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-4. Delta Outflow, Below Normal Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

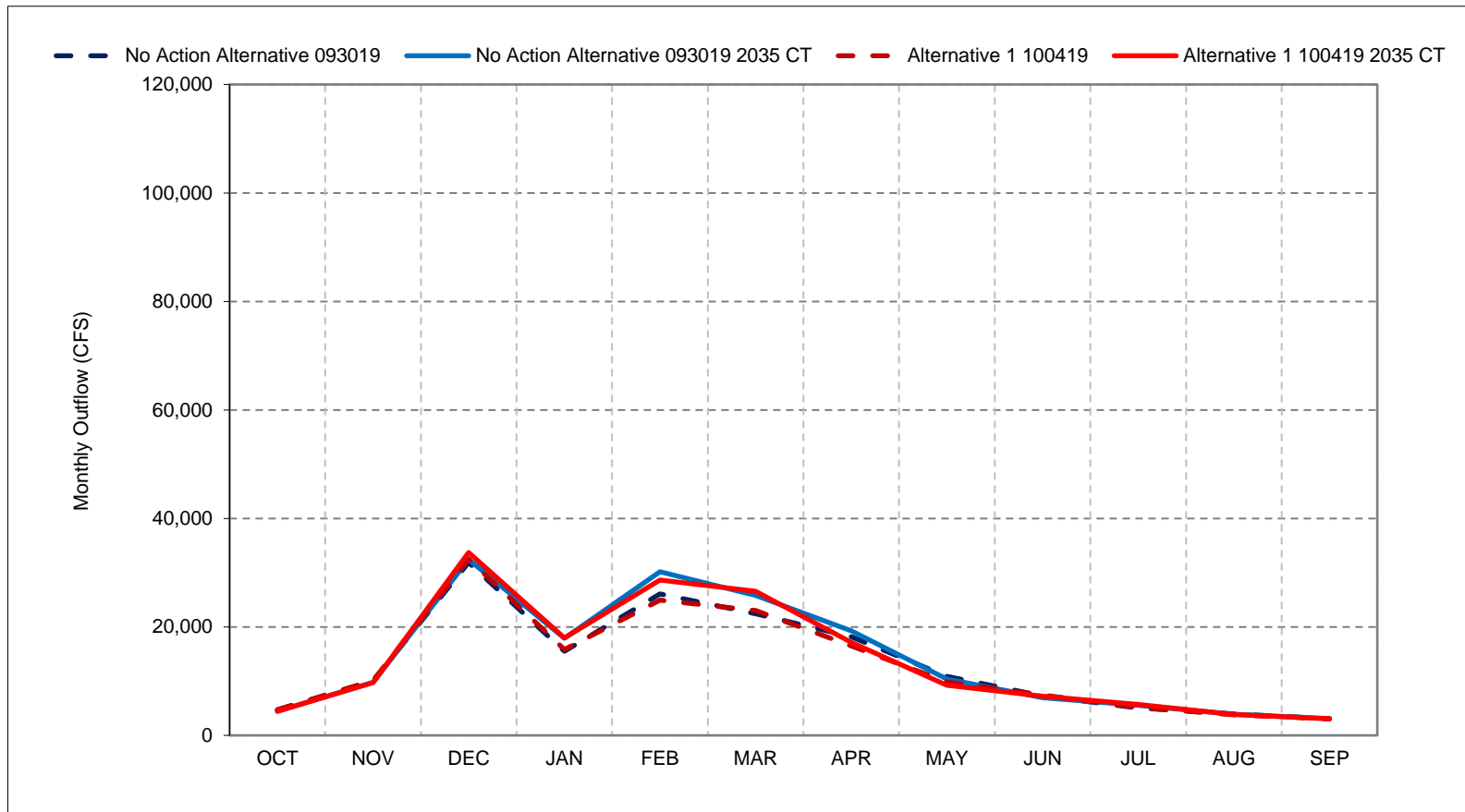
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-5. Delta Outflow, Dry Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

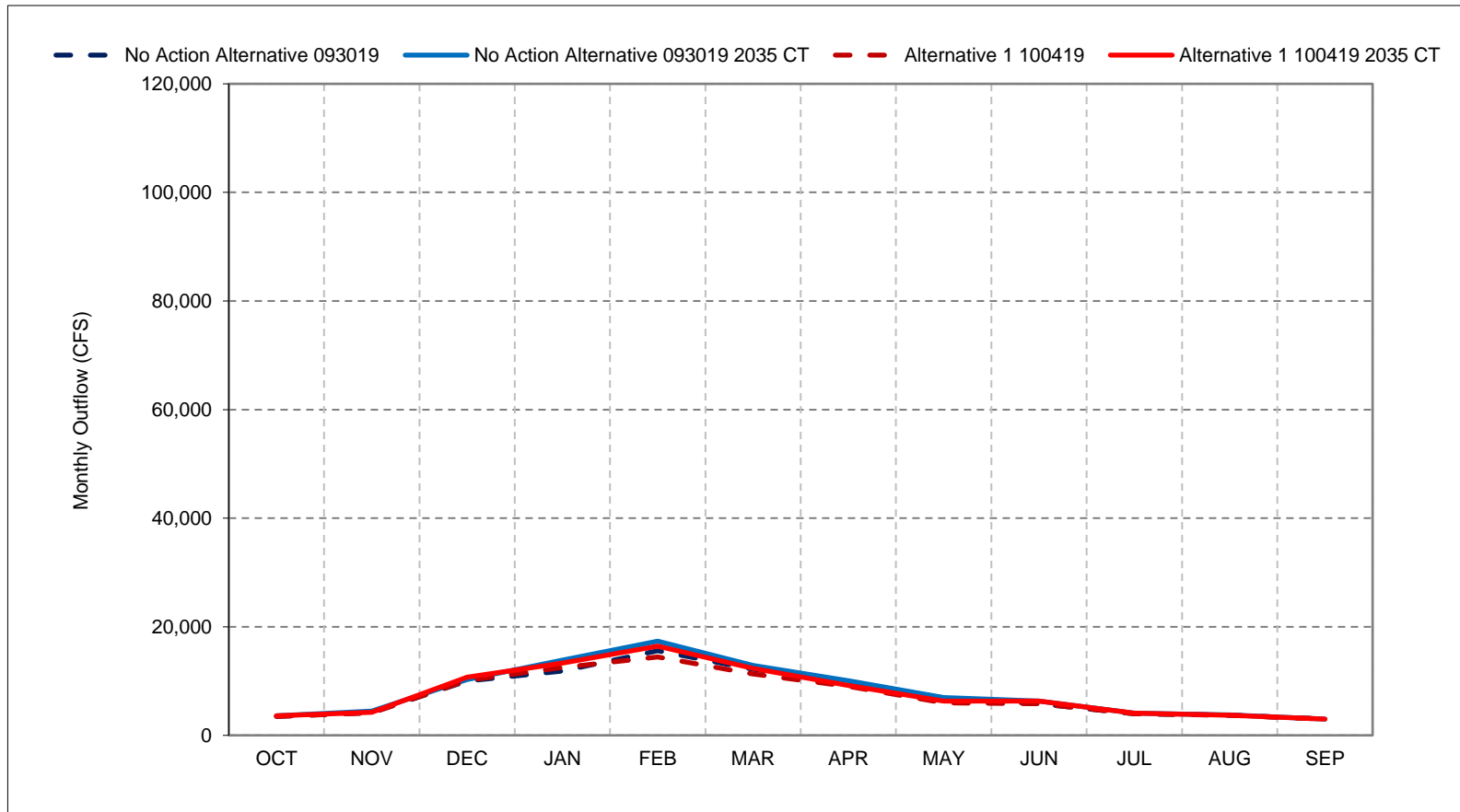
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 41-6. Delta Outflow, Critical Year Average Outflow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

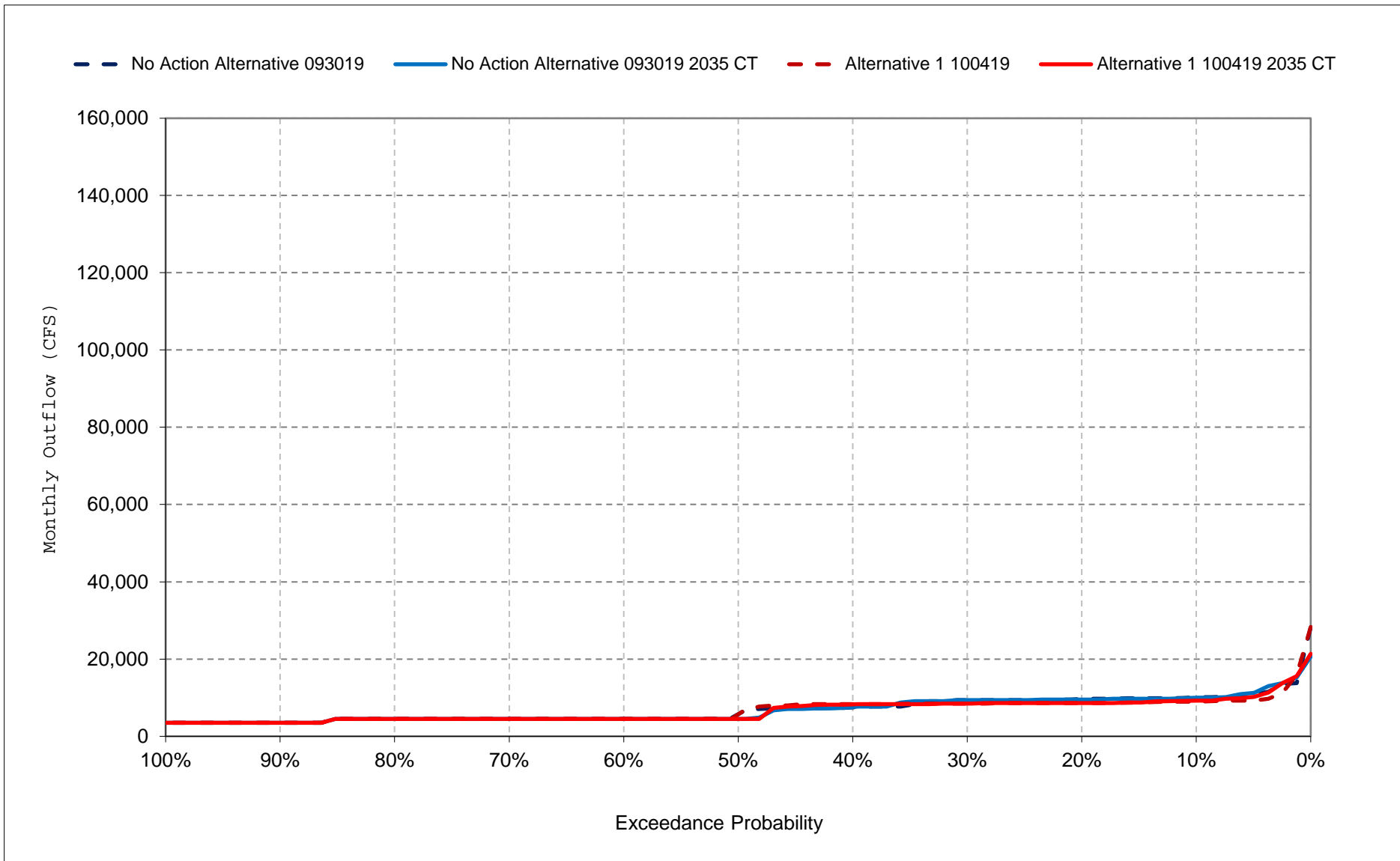
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

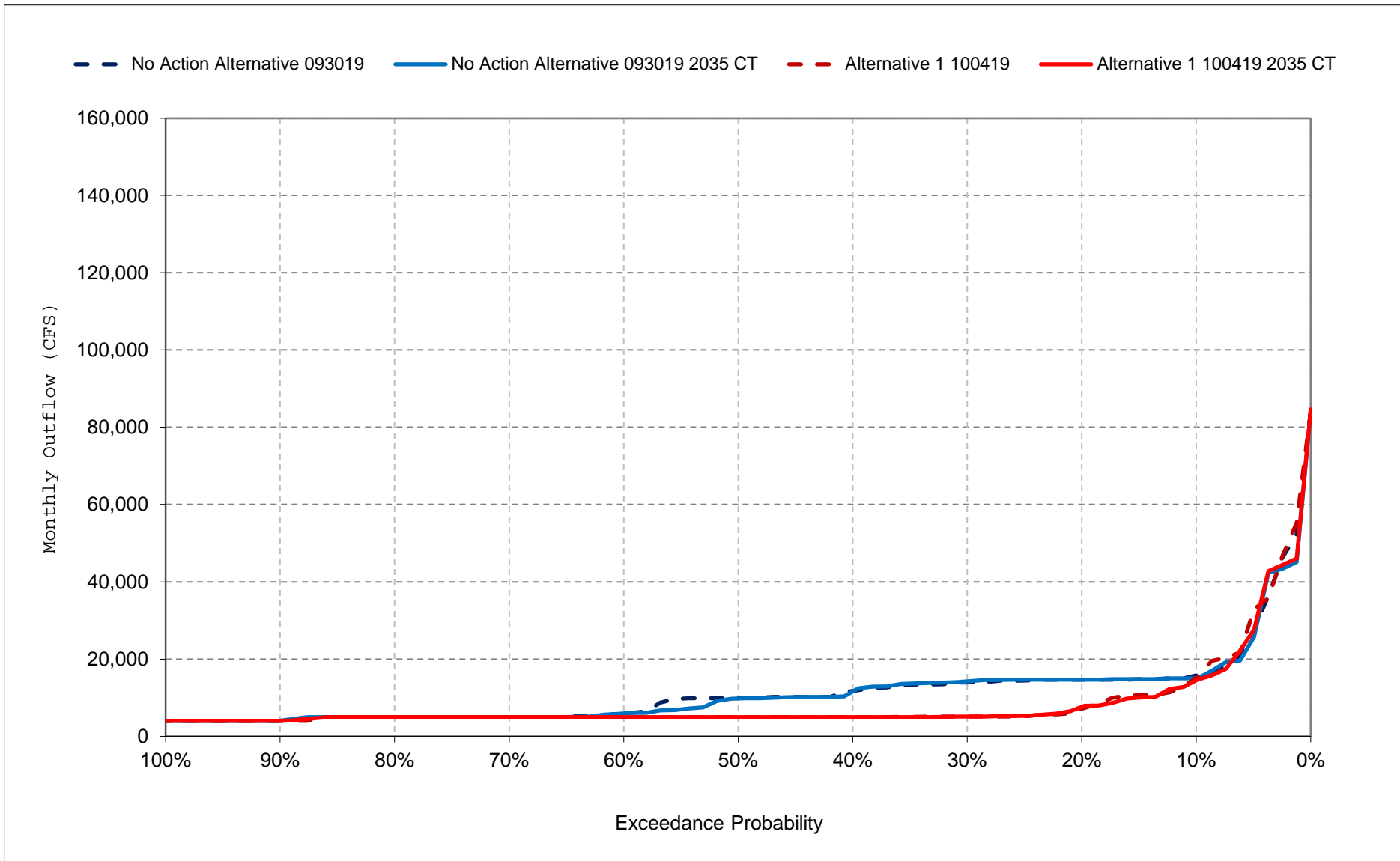
Figure 41-7. Delta Outflow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

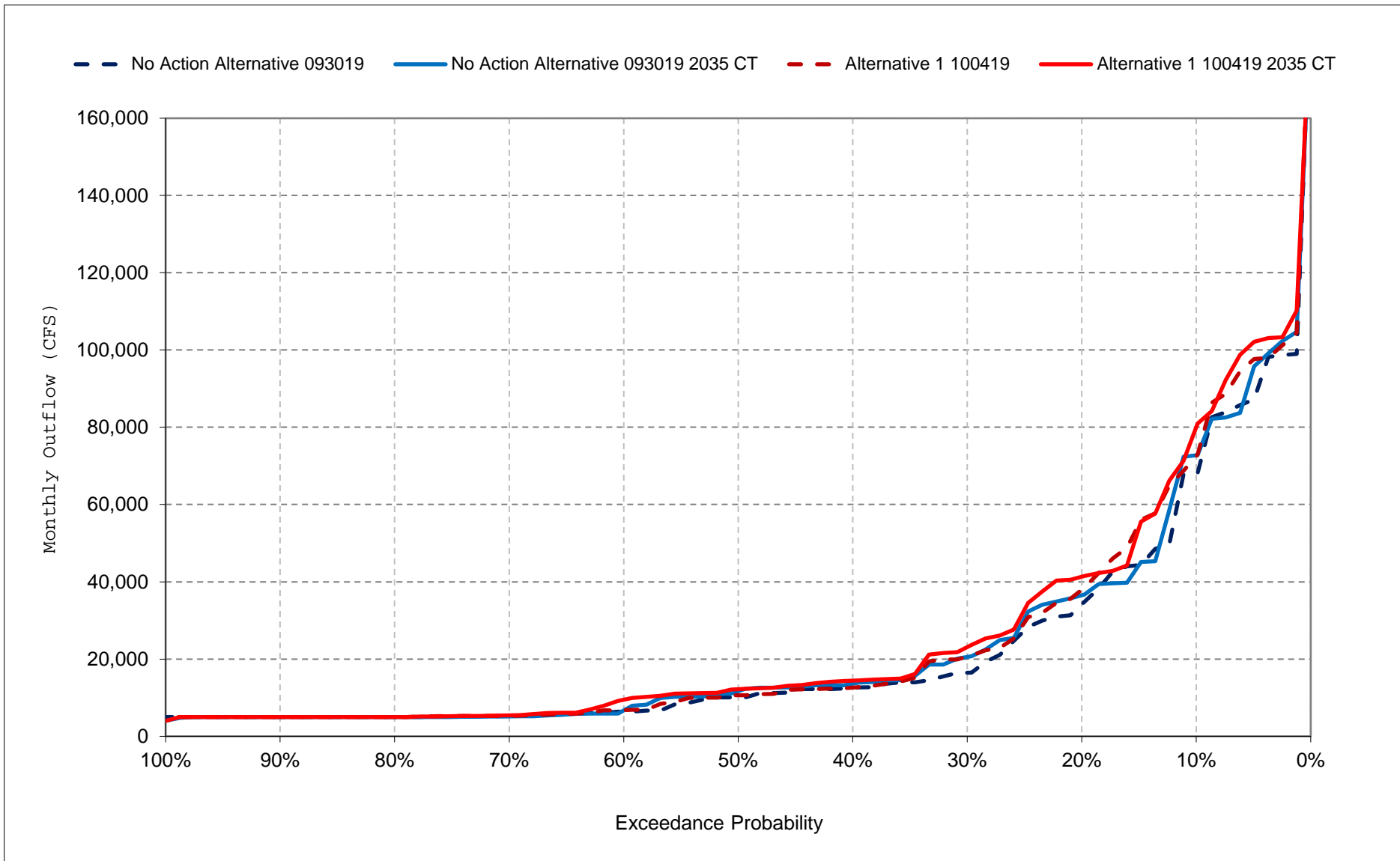
Figure 41-8. Delta Outflow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

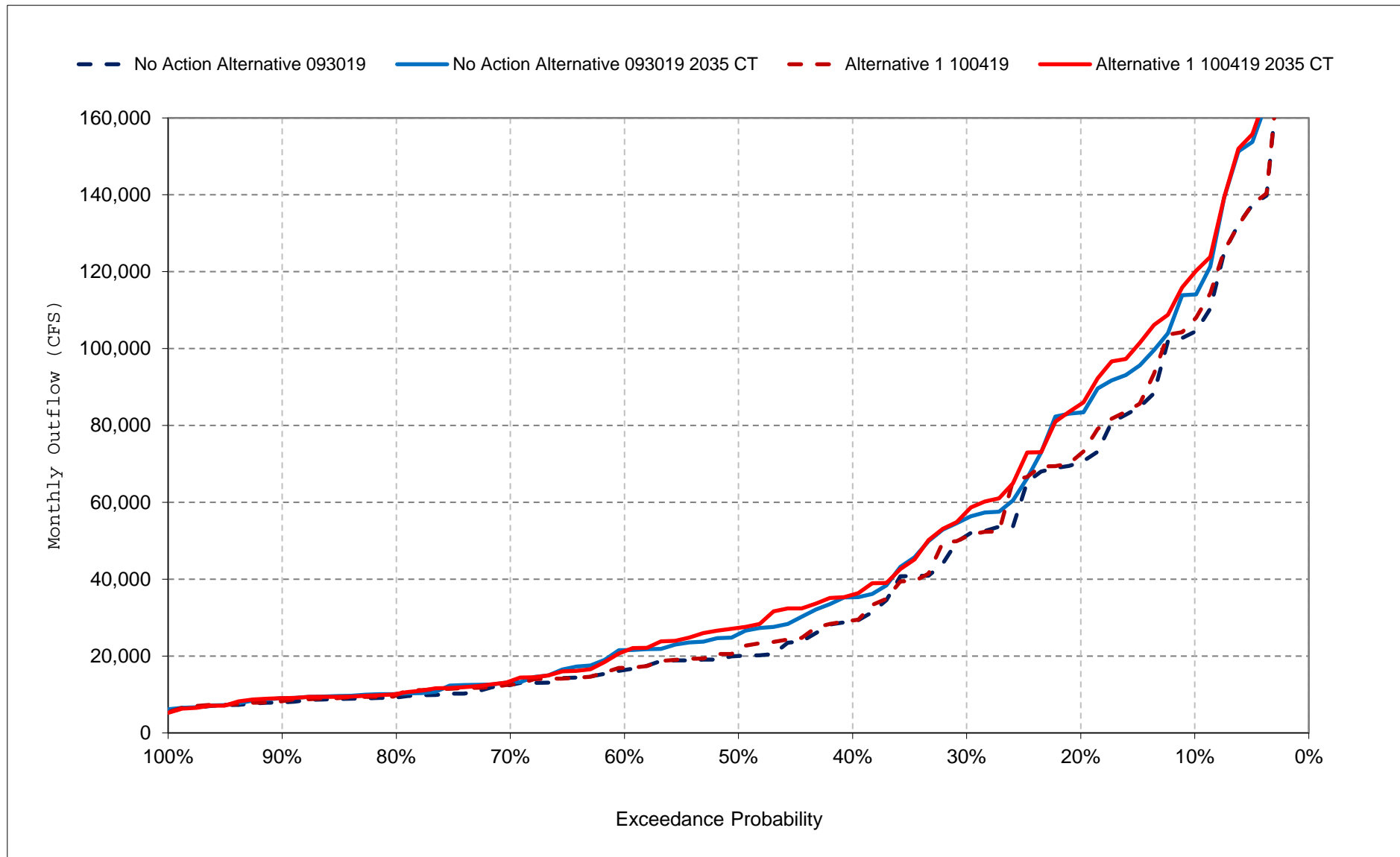
Figure 41-9. Delta Outflow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

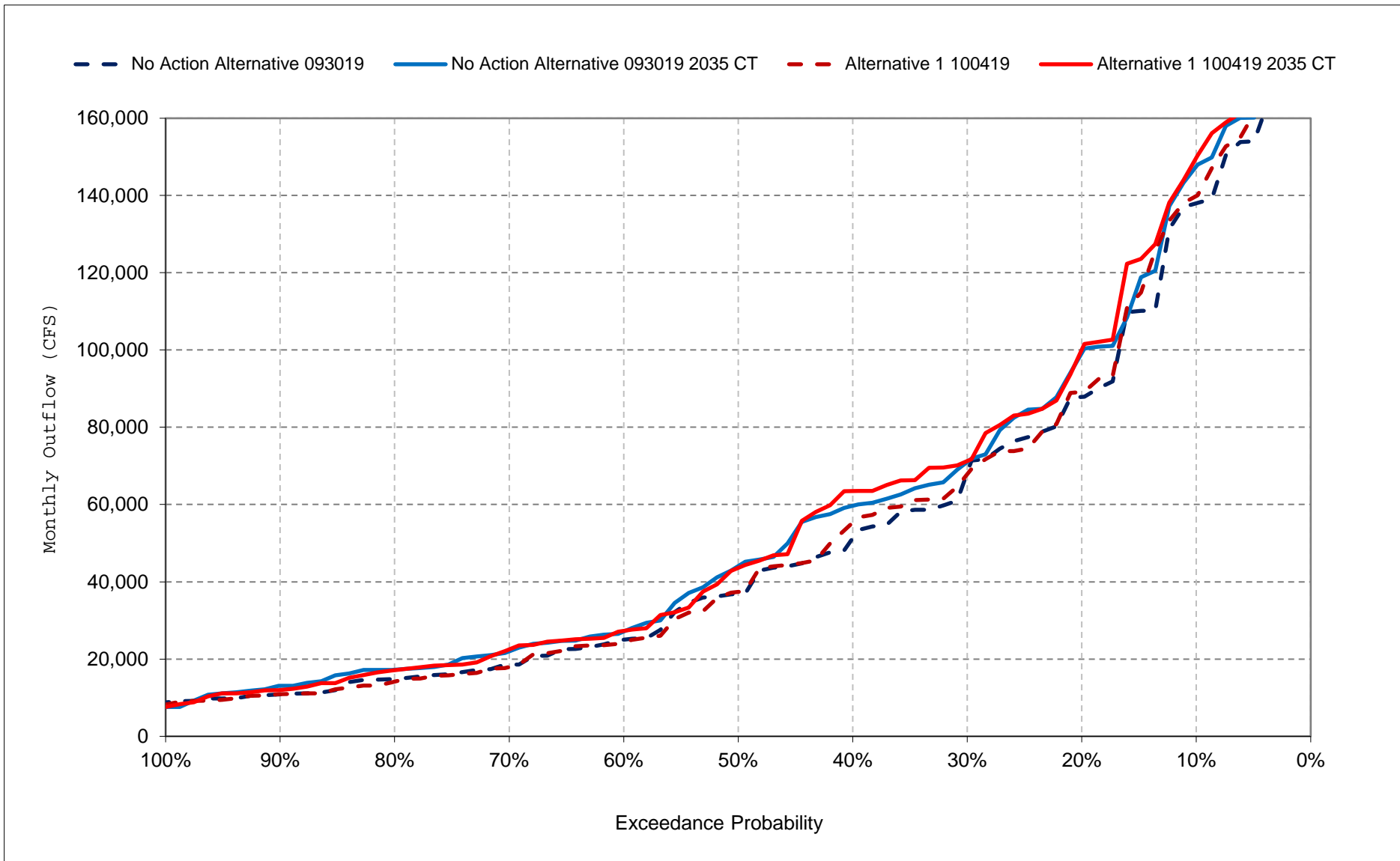
Figure 41-10. Delta Outflow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

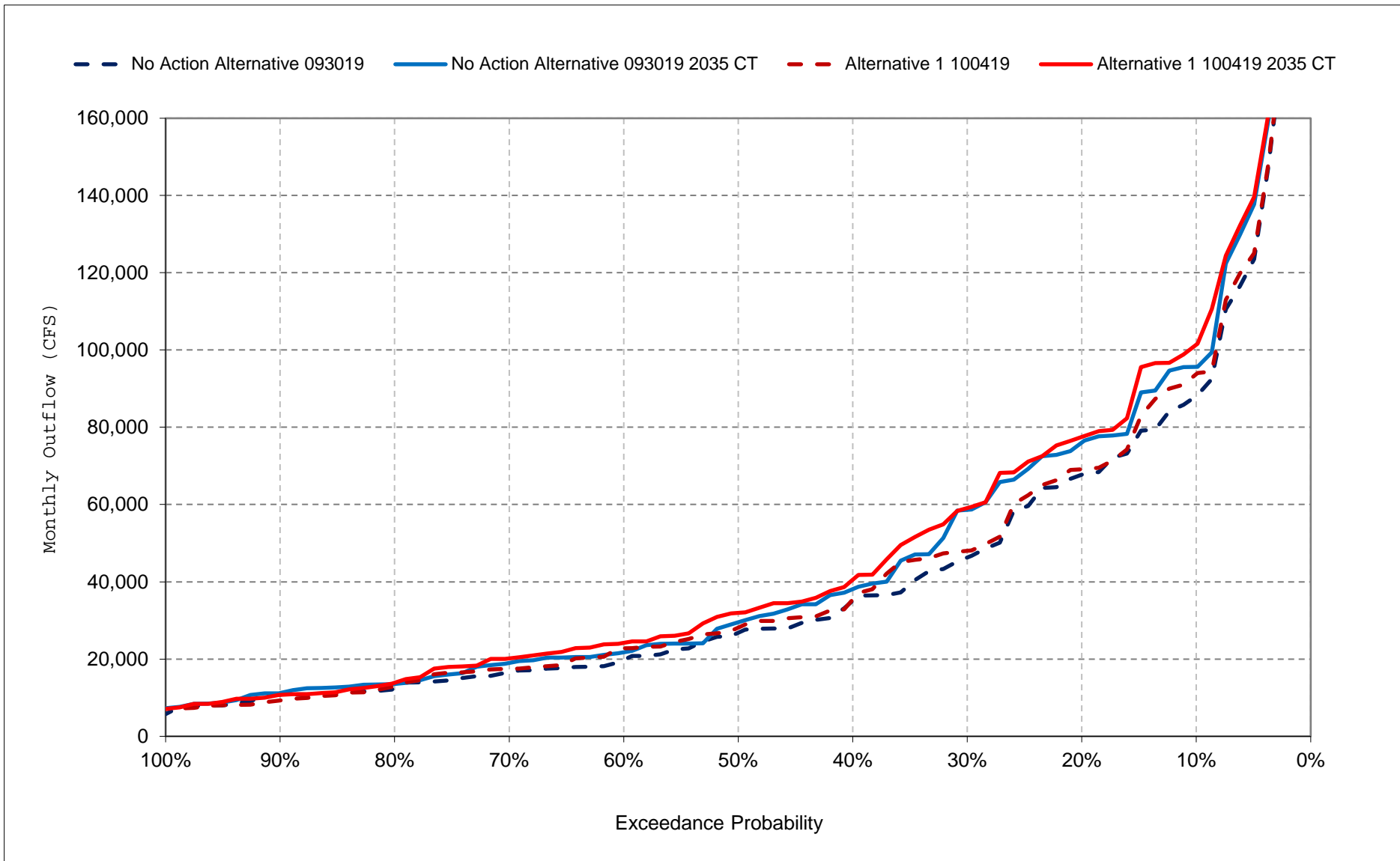
Figure 41-11. Delta Outflow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

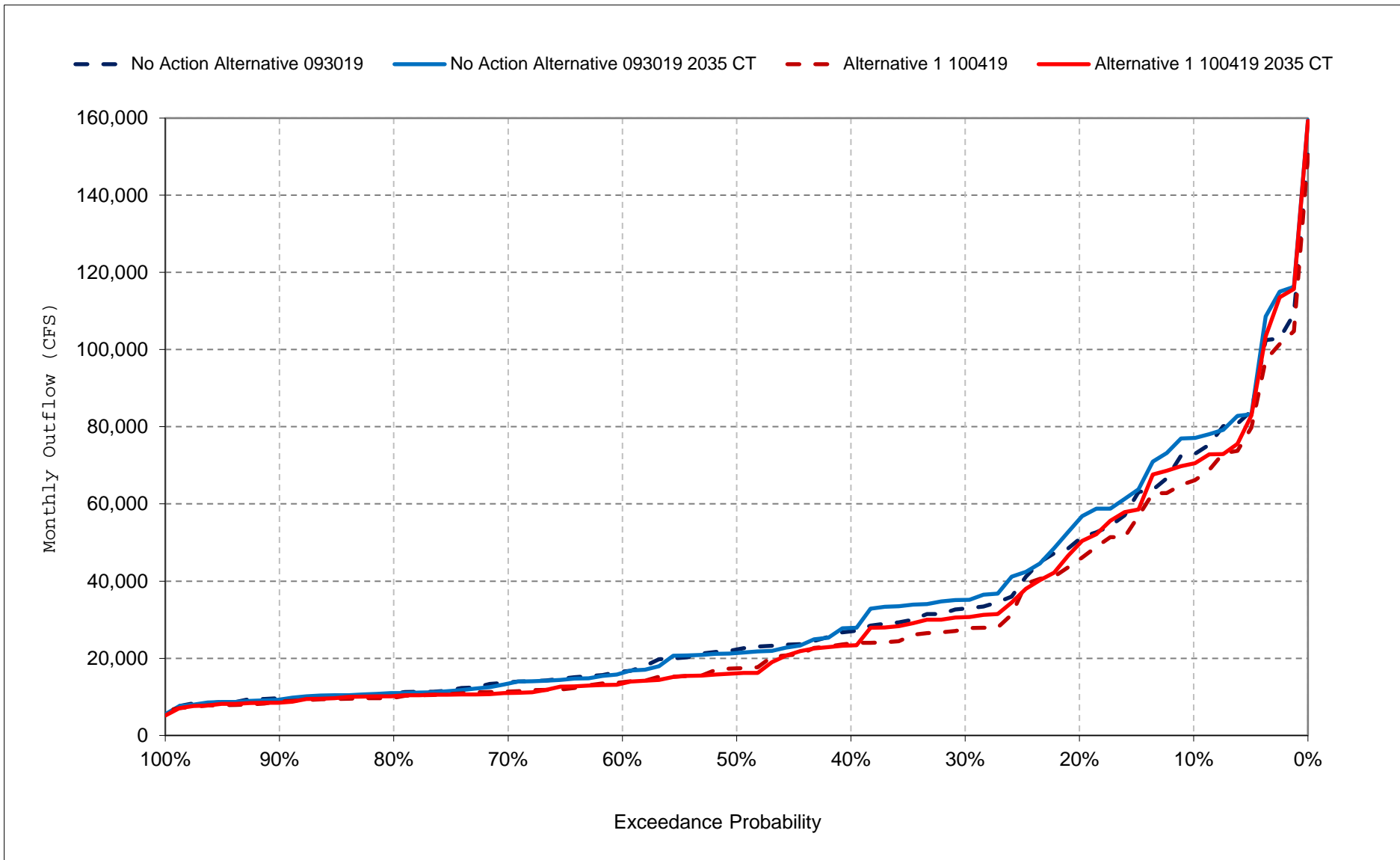
Figure 41-12. Delta Outflow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

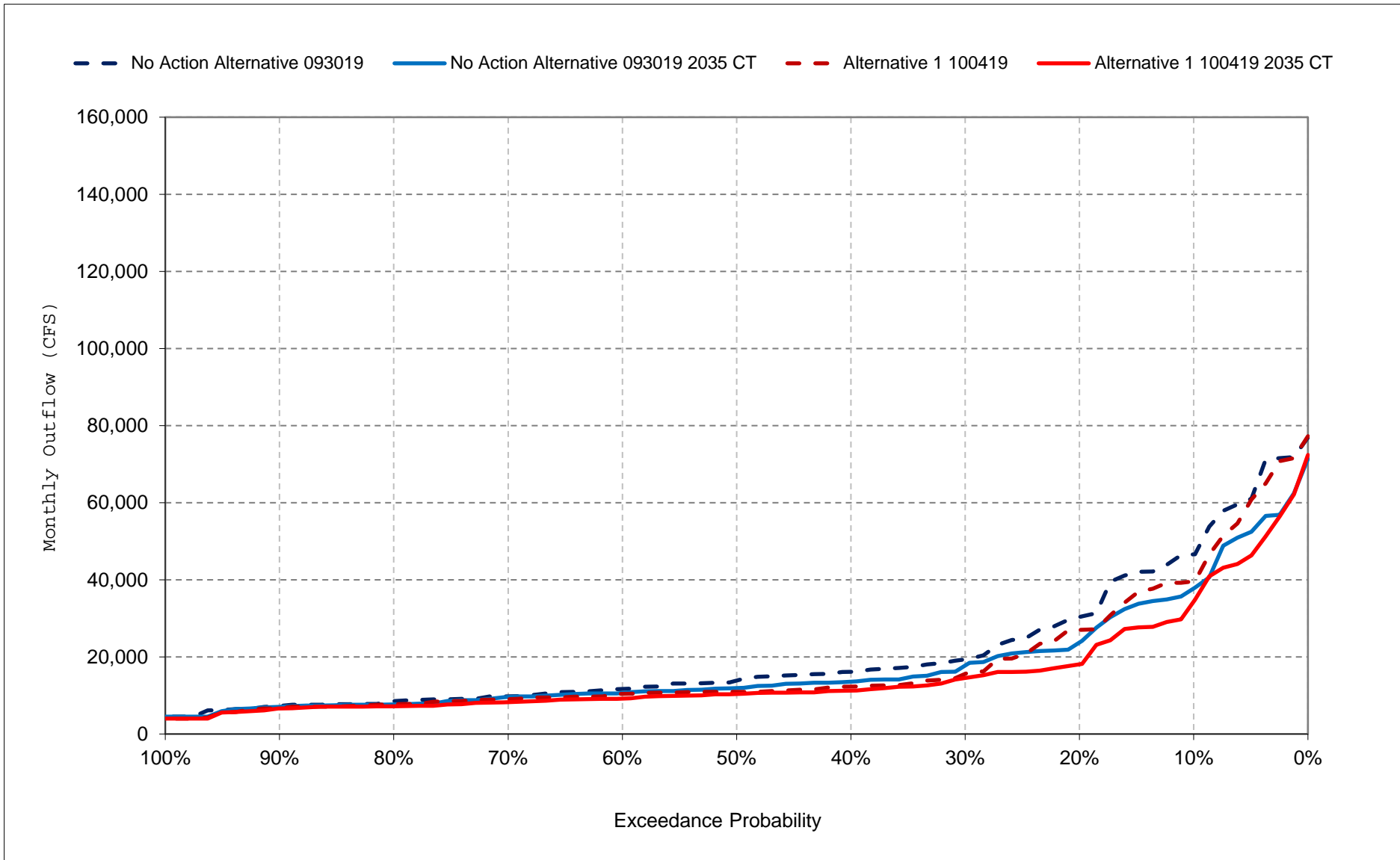
Figure 41-13. Delta Outflow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

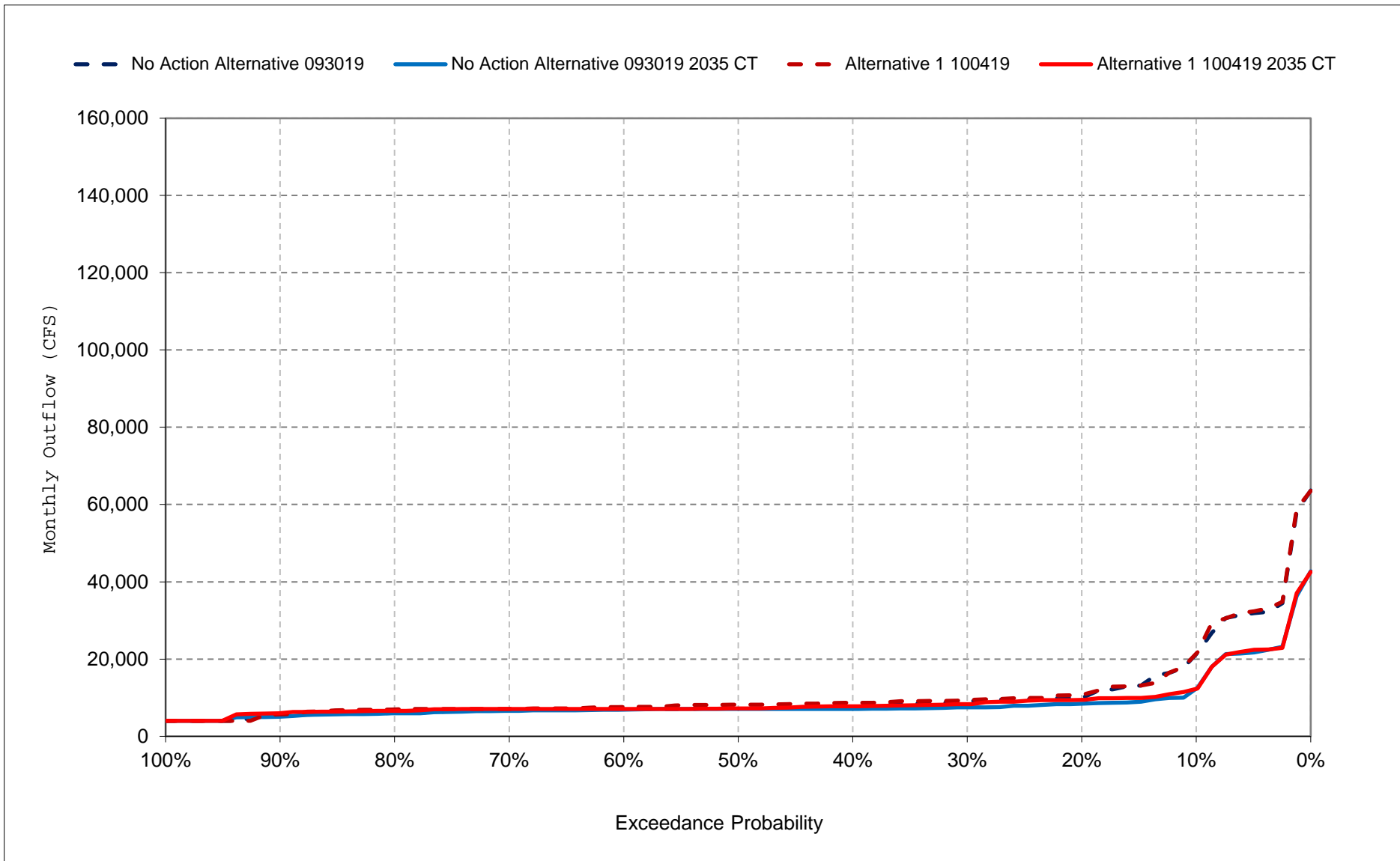
Figure 41-14. Delta Outflow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

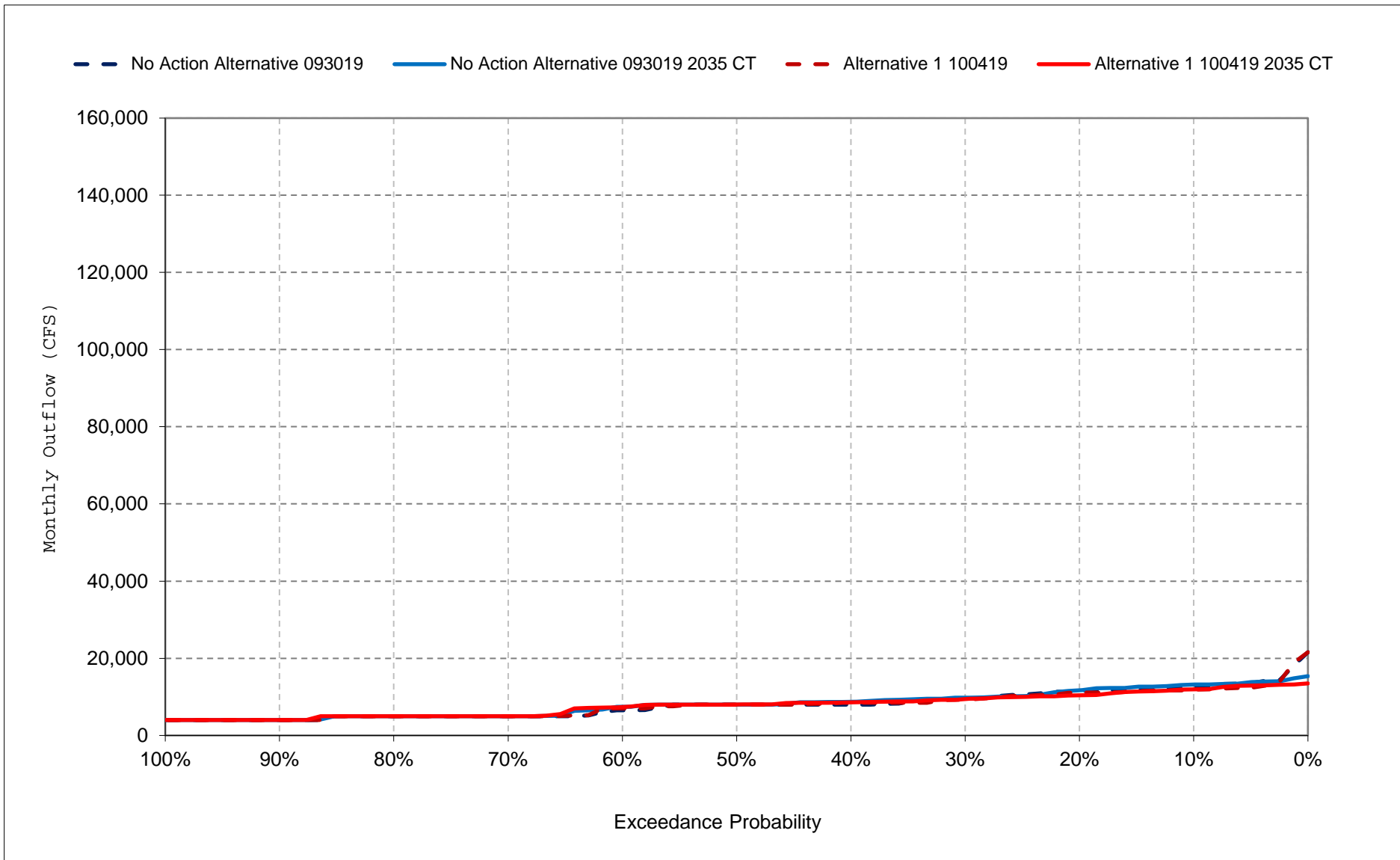
Figure 41-15. Delta Outflow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

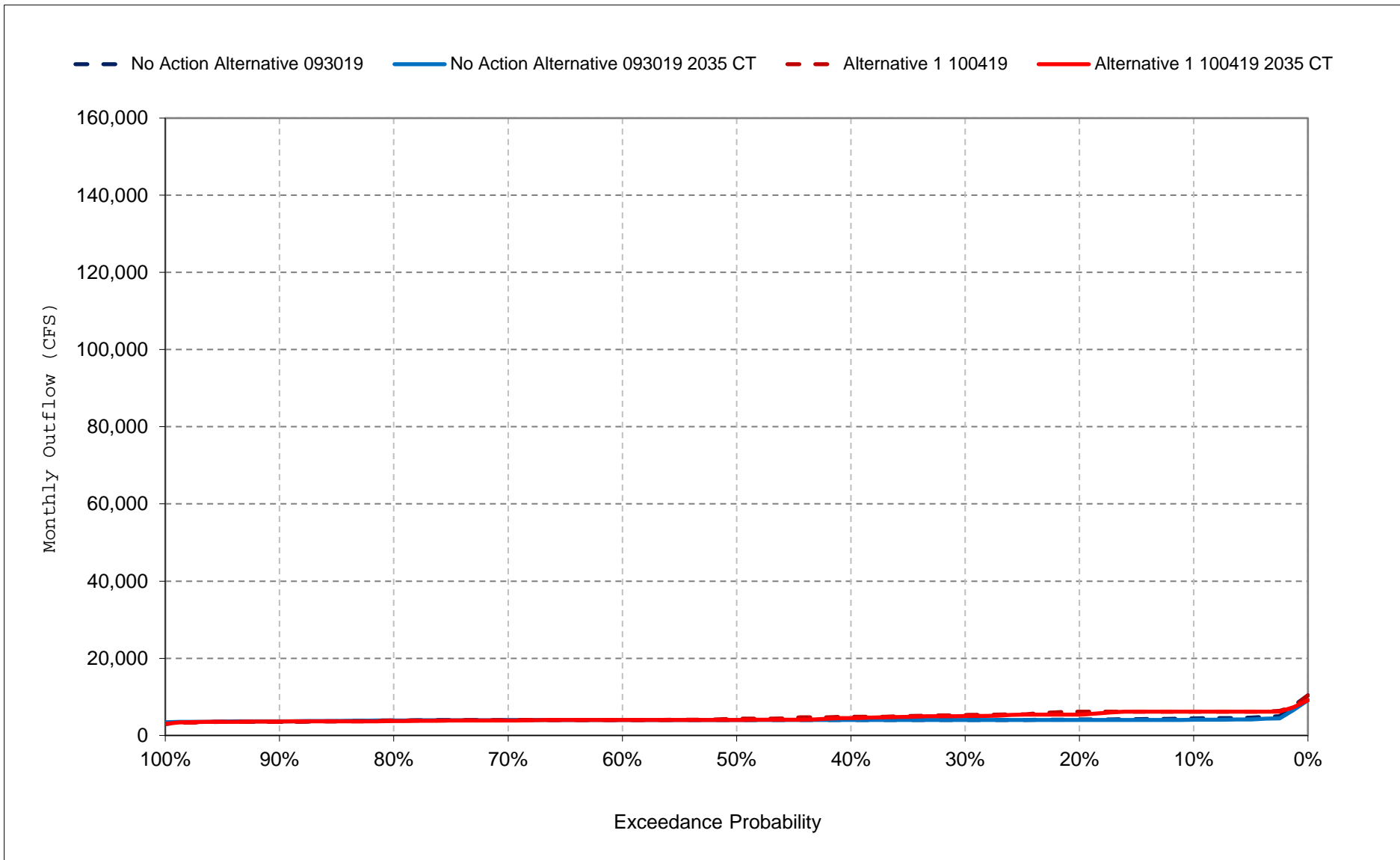
Figure 41-16. Delta Outflow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

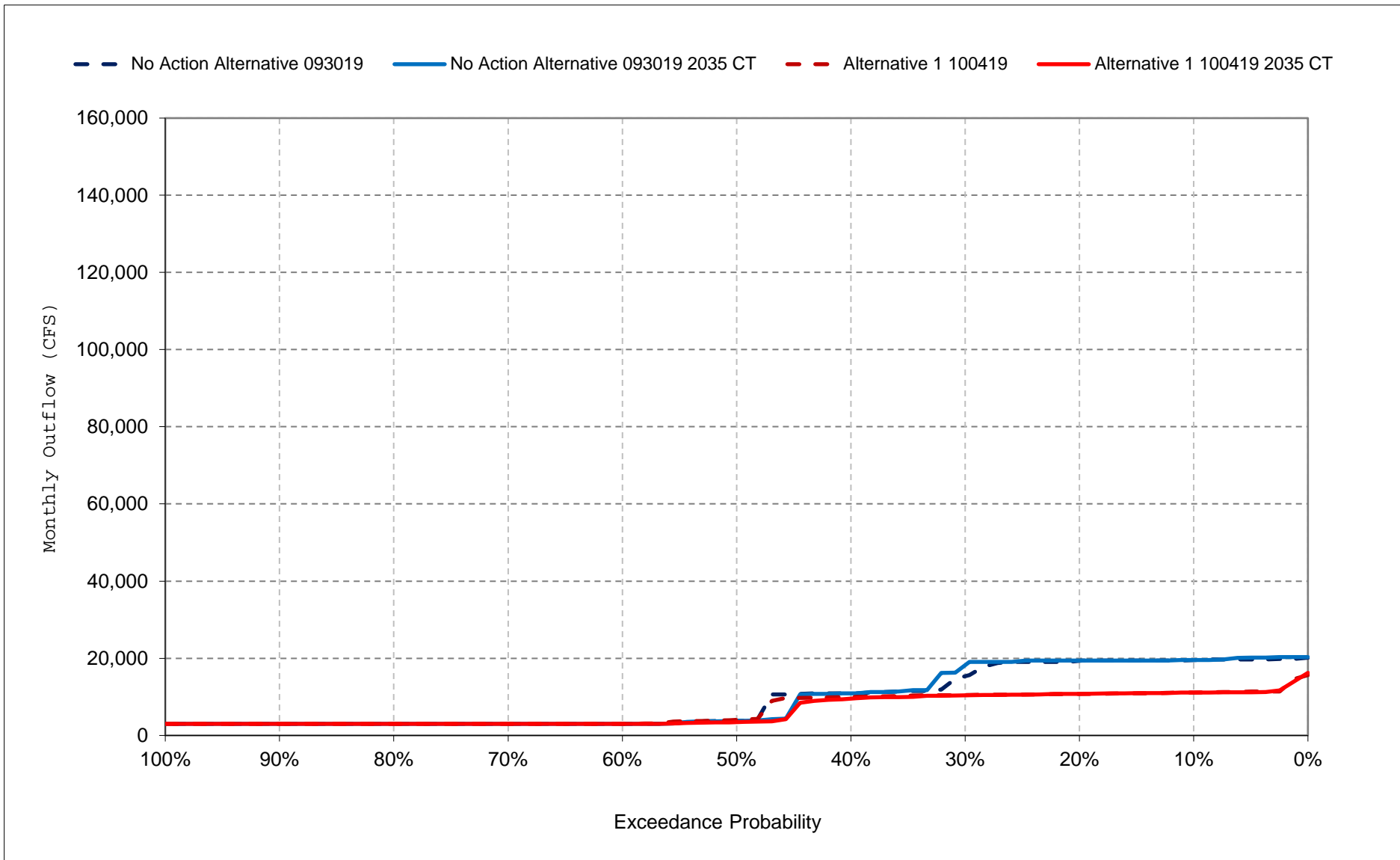
Figure 41-17. Delta Outflow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 41-18. Delta Outflow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.3 – Diversion Results (CalSim II)

The following results of the CalSim II model are included for diversions at key project locations for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
Trinity Import - Clear Creek Tunnel	D100	46-1 to 46-4	46-1 to 46-18
Red Bluff Diversion - Tehama Colusa Canal	D112	47-1 to 47-4	47-1 to 47-18
Hamilton City Diversion - Glenn Colusa Canal	D114	48-1 to 48-4	48-1 to 48-18
Folsom South Canal Diversion	D9	49-1 to 49-4	49-1 to 49-18
Friant-Kern Canal Diversion	D18A	50-1 to 50-4	50-1 to 50-18
Madera Canal Diversion	D18B	51-1 to 51-4	51-1 to 51-18
DCC Flow (Alternative 3 revised DXC equation)	C401B_DXC	52-1 to 52-4	52-1 to 52-18
Total Delta Exports	TOTAL_EXP	53-1 to 53-4	53-1 to 53-18
Jones PP Exports	D418	54-1 to 54-4	54-1 to 54-18
CVP Banks PP Exports	D419_CVP	55-1 to 55-4	55-1 to 55-18
SWP Banks PP Exports	D419_SWP	56-1 to 56-4	56-1 to 56-18
DMC - CA Intertie Flow	C700A	57-1 to 57-4	57-1 to 57-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 46-1. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,771	1,272	519	1,673	200	639	626	250	1,250	2,989	2,500	2,572
20%	1,250	501	250	510	100	237	408	197	783	2,111	2,000	2,305
30%	1,250	500	218	206	100	190	332	93	625	1,950	2,000	2,000
40%	750	450	180	116	70	100	261	0	263	1,500	1,773	1,800
50%	700	151	88	100	33	100	200	0	200	1,500	1,500	1,300
60%	625	75	50	50	0	50	162	0	156	1,404	1,500	1,300
70%	200	50	0	0	0	0	100	0	40	1,125	1,500	991
80%	200	0	0	0	0	0	0	0	0	622	1,125	750
90%	11	0	0	0	0	0	0	0	0	69	950	550
Long Term												
Full Simulation Period ^d	840	487	234	427	91	230	318	161	496	1,495	1,653	1,522
Water Year Types ^{b,c}												
Wet (32%)	1,390	882	517	516	101	354	369	205	284	1,262	1,583	2,179
Above Normal (16%)	1,265	811	250	144	48	327	358	0	206	1,249	2,025	1,774
Below Normal (13%)	552	226	68	267	94	179	219	262	842	1,807	2,012	1,619
Dry (24%)	324	144	50	527	107	88	195	181	845	1,901	1,461	1,004
Critical (15%)	316	94	63	525	84	142	457	112	373	1,304	1,393	597

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,872	610	390	2,173	200	701	502	250	1,330	3,070	2,500	2,500
20%	1,642	450	225	588	114	347	404	206	750	2,141	2,138	2,000
30%	750	450	186	200	100	200	332	100	750	2,000	2,000	2,000
40%	700	124	103	100	75	107	258	0	401	1,500	1,950	1,300
50%	700	75	75	96	0	100	204	0	302	1,500	1,638	1,300
60%	627	50	50	50	0	33	151	0	235	1,388	1,500	1,250
70%	343	0	0	0	0	0	99	0	129	1,125	1,500	750
80%	200	0	0	0	0	0	0	0	71	955	1,150	750
90%	37	0	0	0	0	0	0	0	0	203	955	282
Long Term												
Full Simulation Period ^d	823	283	193	489	90	280	302	174	552	1,539	1,721	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,361	316	362	514	77	372	353	212	351	1,280	1,660	1,728
Above Normal (16%)	917	320	290	280	82	373	351	0	405	1,398	2,061	1,812
Below Normal (13%)	681	378	77	440	80	477	210	291	879	1,995	2,031	1,277
Dry (24%)	419	164	59	436	126	81	212	201	801	1,830	1,658	1,023
Critical (15%)	361	281	50	793	73	130	371	130	428	1,345	1,309	575

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	101	-662	-129	500	0	62	-125	0	81	81	0	-72
20%	392	-51	-25	77	14	110	-4	9	-33	30	138	-305
30%	-500	-50	-32	-6	0	10	0	7	125	50	0	0
40%	-50	-326	-77	-16	5	7	-2	0	138	0	177	-500
50%	0	-76	-13	-4	-33	0	4	0	102	0	138	0
60%	2	-25	0	0	0	-17	-11	0	79	-16	0	-50
70%	143	-50	0	0	0	0	-1	0	89	0	0	-241
80%	0	0	0	0	0	0	0	0	71	333	25	0
90%	25	0	0	0	0	0	0	0	0	134	5	-268
Long Term												
Full Simulation Period ^d	-17	-205	-41	61	-1	50	-16	13	55	43	68	-182
Water Year Types ^{b,c}												
Wet (32%)	-29	-566	-155	-2	-24	18	-16	7	66	18	77	-451
Above Normal (16%)	-348	-491	40	137	34	46	-7	0	199	149	36	37
Below Normal (13%)	129	152	9	172	-14	298	-9	29	37	188	19	-342
Dry (24%)	95	21	9	-91	20	-7	17	20	-44	-70	198	19
Critical (15%)	46	188	-13	268	-11	-12	-86	18	56	41	-84	-22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 46-2. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,744	1,383	905	2,061	200	1,116	789	213	750	2,000	2,338	2,408
20%	1,250	500	250	888	147	562	414	181	625	2,000	2,000	2,000
30%	1,035	493	218	243	100	208	373	86	306	1,949	2,000	1,993
40%	700	450	200	200	100	192	308	0	233	1,500	1,950	1,527
50%	700	194	93	100	50	100	213	0	200	1,500	1,500	1,300
60%	625	75	75	75	0	88	177	0	164	1,125	1,500	1,270
70%	200	50	10	50	0	6	100	0	65	1,125	1,500	788
80%	200	1	0	0	0	0	29	0	35	709	1,125	750
90%	184	0	0	0	0	0	0	0	0	38	950	550
Long Term												
Full Simulation Period ^d	821	510	272	515	118	362	329	75	352	1,366	1,639	1,430
Water Year Types ^{b,c}												
Wet (32%)	1,343	914	613	635	146	511	412	50	100	958	1,648	1,967
Above Normal (16%)	1,213	887	300	62	52	400	378	0	90	1,043	1,786	1,973
Below Normal (13%)	461	261	56	404	50	695	215	79	613	1,875	1,884	1,233
Dry (24%)	428	161	76	630	136	103	196	128	684	1,788	1,616	1,045
Critical (15%)	250	35	29	658	164	127	418	116	388	1,429	1,271	500

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,276	500	801	1,869	249	1,122	735	218	750	2,599	2,500	2,000
20%	750	450	200	658	111	706	414	196	700	2,000	2,000	1,946
30%	700	450	200	200	100	217	354	76	625	1,950	2,000	1,300
40%	700	295	103	100	96	167	288	0	431	1,500	1,950	1,300
50%	700	75	75	100	50	100	206	0	326	1,500	1,950	1,250
60%	625	67	50	60	0	90	168	0	278	1,500	1,500	1,250
70%	200	15	0	2	0	50	100	0	198	1,125	1,500	750
80%	200	0	0	0	0	0	53	0	135	1,082	1,200	750
90%	3	0	0	0	0	0	0	0	0	212	968	267
Long Term												
Full Simulation Period ^d	627	279	224	488	109	384	337	97	456	1,504	1,713	1,197
Water Year Types ^{b,c}												
Wet (32%)	938	322	426	649	154	563	458	50	169	1,064	1,696	1,453
Above Normal (16%)	845	398	241	78	29	423	394	0	294	1,675	2,031	1,439
Below Normal (13%)	503	327	75	458	50	703	220	249	735	1,776	1,990	1,233
Dry (24%)	409	244	134	479	147	91	191	117	725	1,808	1,615	1,038
Critical (15%)	192	72	55	628	89	148	365	131	553	1,518	1,319	614

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-468	-883	-104	-193	49	6	-54	5	0	599	162	-408
20%	-500	-50	-50	-229	-35	143	0	15	75	0	0	-54
30%	-335	-42	-17	-42	0	9	-19	-10	319	1	0	-693
40%	0	-155	-97	-100	-4	-25	-20	0	198	0	0	-227
50%	0	-119	-18	0	0	0	-7	0	126	0	450	-50
60%	0	-8	-25	-15	0	1	-9	0	114	375	0	-20
70%	0	-35	-10	-48	0	44	0	0	133	0	0	-38
80%	0	-1	0	0	0	0	24	0	100	373	75	0
90%	-181	0	0	0	0	0	0	0	0	174	17	-283
Long Term												
Full Simulation Period ^d	-194	-231	-48	-27	-9	22	8	22	105	139	75	-233
Water Year Types ^{b,c}												
Wet (32%)	-405	-592	-187	14	8	53	46	0	69	106	48	-514
Above Normal (16%)	-367	-490	-60	16	-23	23	15	0	204	633	244	-534
Below Normal (13%)	42	66	19	54	0	8	5	170	122	-99	106	-1
Dry (24%)	-19	82	58	-152	11	-12	-6	-11	41	20	-1	-8
Critical (15%)	-58	36	26	-31	-75	21	-53	14	165	89	48	114

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 46-3. Trinity Import - Clear Creek Tunnel, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,771	1,272	519	1,673	200	639	626	250	1,250	2,989	2,500	2,572
20%	1,250	501	250	510	100	237	408	197	783	2,111	2,000	2,305
30%	1,250	500	218	206	100	190	332	93	625	1,950	2,000	2,000
40%	750	450	180	116	70	100	261	0	263	1,500	1,773	1,800
50%	700	151	88	100	33	100	200	0	200	1,500	1,500	1,300
60%	625	75	50	50	0	50	162	0	156	1,404	1,500	1,300
70%	200	50	0	0	0	0	100	0	40	1,125	1,500	991
80%	200	0	0	0	0	0	0	0	0	622	1,125	750
90%	11	0	0	0	0	0	0	0	0	69	950	550
Long Term												
Full Simulation Period ^d	840	487	234	427	91	230	318	161	496	1,495	1,653	1,522
Water Year Types ^{b,c}												
Wet (32%)	1,390	882	517	516	101	354	369	205	284	1,262	1,583	2,179
Above Normal (16%)	1,265	811	250	144	48	327	358	0	206	1,249	2,025	1,774
Below Normal (13%)	552	226	68	267	94	179	219	262	842	1,807	2,012	1,619
Dry (24%)	324	144	50	527	107	88	195	181	845	1,901	1,461	1,004
Critical (15%)	316	94	63	525	84	142	457	112	373	1,304	1,393	597

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,744	1,383	905	2,061	200	1,116	789	213	750	2,000	2,338	2,408
20%	1,250	500	250	888	147	562	414	181	625	2,000	2,000	2,000
30%	1,035	493	218	243	100	208	373	86	306	1,949	2,000	1,993
40%	700	450	200	200	100	192	308	0	233	1,500	1,950	1,527
50%	700	194	93	100	50	100	213	0	200	1,500	1,500	1,300
60%	625	75	75	75	0	88	177	0	164	1,125	1,500	1,270
70%	200	50	10	50	0	6	100	0	65	1,125	1,500	788
80%	200	1	0	0	0	0	29	0	35	709	1,125	750
90%	184	0	0	0	0	0	0	0	0	38	950	550
Long Term												
Full Simulation Period ^d	821	510	272	515	118	362	329	75	352	1,366	1,639	1,430
Water Year Types ^{b,c}												
Wet (32%)	1,343	914	613	635	146	511	412	50	100	958	1,648	1,967
Above Normal (16%)	1,213	887	300	62	52	400	378	0	90	1,043	1,786	1,973
Below Normal (13%)	461	261	56	404	50	695	215	79	613	1,875	1,884	1,233
Dry (24%)	428	161	76	630	136	103	196	128	684	1,788	1,616	1,045
Critical (15%)	250	35	29	658	164	127	418	116	388	1,429	1,271	500

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-27	111	386	388	0	476	162	-37	-500	-989	-163	-164
20%	0	-1	0	377	47	326	6	-16	-158	-111	0	-305
30%	-215	-8	0	36	0	18	41	-7	-319	-1	0	-7
40%	-50	0	20	84	30	92	47	0	-30	0	177	-273
50%	0	43	5	0	17	0	13	0	0	0	0	0
60%	0	0	25	25	0	38	15	0	7	-279	0	-30
70%	0	0	10	50	0	6	0	0	25	0	0	-204
80%	0	1	0	0	0	0	29	0	35	87	0	0
90%	173	0	0	0	0	0	0	0	0	-31	0	0
Long Term												
Full Simulation Period ^d	-20	23	38	88	28	132	11	-86	-145	-129	-14	-91
Water Year Types ^{b,c}												
Wet (32%)	-48	32	95	119	45	157	44	-154	-184	-305	65	-211
Above Normal (16%)	-52	76	50	-82	4	72	20	0	-116	-206	-239	199
Below Normal (13%)	-91	35	-12	137	-44	516	-4	-184	-229	67	-129	-386
Dry (24%)	104	17	26	103	29	16	1	-53	-162	-112	156	41
Critical (15%)	-66	-58	-34	133	80	-15	-39	4	15	125	-122	-97

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 46-4. Trinity Import - Clear Creek Tunnel, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,872	610	390	2,173	200	701	502	250	1,330	3,070	2,500	2,500
20%	1,642	450	225	588	114	347	404	206	750	2,141	2,138	2,000
30%	750	450	186	200	100	200	332	100	750	2,000	2,000	2,000
40%	700	124	103	100	75	107	258	0	401	1,500	1,950	1,300
50%	700	75	75	96	0	100	204	0	302	1,500	1,638	1,300
60%	627	50	50	50	0	33	151	0	235	1,388	1,500	1,250
70%	343	0	0	0	0	0	99	0	129	1,125	1,500	750
80%	200	0	0	0	0	0	0	0	71	955	1,150	750
90%	37	0	0	0	0	0	0	0	0	203	955	282
Long Term												
Full Simulation Period ^d	823	283	193	489	90	280	302	174	552	1,539	1,721	1,340
Water Year Types ^{b,c}												
Wet (32%)	1,361	316	362	514	77	372	353	212	351	1,280	1,660	1,728
Above Normal (16%)	917	320	290	280	82	373	351	0	405	1,398	2,061	1,812
Below Normal (13%)	681	378	77	440	80	477	210	291	879	1,995	2,031	1,277
Dry (24%)	419	164	59	436	126	81	212	201	801	1,830	1,658	1,023
Critical (15%)	361	281	50	793	73	130	371	130	428	1,345	1,309	575

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,276	500	801	1,869	249	1,122	735	218	750	2,599	2,500	2,000
20%	750	450	200	658	111	706	414	196	700	2,000	2,000	1,946
30%	700	450	200	200	100	217	354	76	625	1,950	2,000	1,300
40%	700	295	103	100	96	167	288	0	431	1,500	1,950	1,300
50%	700	75	75	100	50	100	206	0	326	1,500	1,950	1,250
60%	625	67	50	60	0	90	168	0	278	1,500	1,500	1,250
70%	200	15	0	2	0	50	100	0	198	1,125	1,500	750
80%	200	0	0	0	0	0	53	0	135	1,082	1,200	750
90%	3	0	0	0	0	0	0	0	0	212	968	267
Long Term												
Full Simulation Period ^d	627	279	224	488	109	384	337	97	456	1,504	1,713	1,197
Water Year Types ^{b,c}												
Wet (32%)	938	322	426	649	154	563	458	50	169	1,064	1,696	1,453
Above Normal (16%)	845	398	241	78	29	423	394	0	294	1,675	2,031	1,439
Below Normal (13%)	503	327	75	458	50	703	220	249	735	1,776	1,990	1,233
Dry (24%)	409	244	134	479	147	91	191	117	725	1,808	1,615	1,038
Critical (15%)	192	72	55	628	89	148	365	131	553	1,518	1,319	614

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-596	-110	411	-304	49	420	233	-32	-580	-471	0	-500
20%	-892	0	-25	71	-2	359	11	-9	-50	-141	-138	-54
30%	-50	0	14	0	0	17	22	-24	-125	-50	0	-700
40%	0	171	0	0	21	60	29	0	30	0	0	0
50%	0	0	0	4	50	0	2	0	24	0	312	-50
60%	-2	17	0	10	0	57	17	0	43	112	0	0
70%	-143	15	0	2	0	50	1	0	69	0	0	0
80%	0	0	0	0	0	0	53	0	64	127	50	0
90%	-33	0	0	0	0	0	0	0	0	9	12	-15
Long Term												
Full Simulation Period ^d	-197	-4	31	0	19	104	35	-77	-95	-34	-8	-143
Water Year Types ^{b,c}												
Wet (32%)	-424	6	63	135	77	192	105	-161	-182	-216	36	-275
Above Normal (16%)	-72	78	-50	-202	-53	50	42	0	-111	277	-30	-372
Below Normal (13%)	-178	-51	-2	19	-30	226	10	-42	-144	-219	-42	-44
Dry (24%)	-10	79	75	43	21	10	-21	-84	-76	-23	-43	15
Critical (15%)	-169	-210	5	-165	15	18	-6	1	124	173	10	38

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

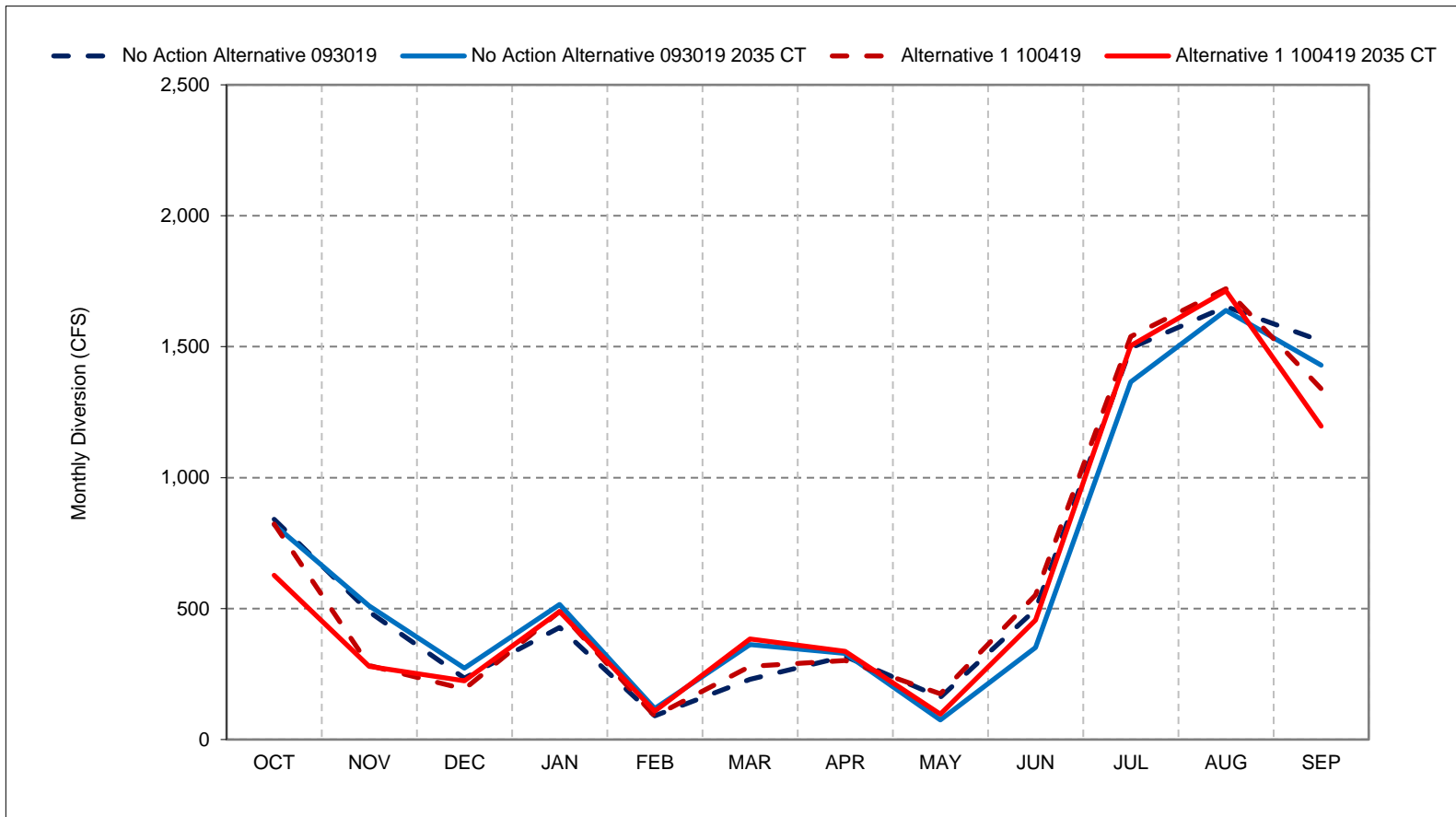
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 46-1. Trinity Import - Clear Creek Tunnel, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

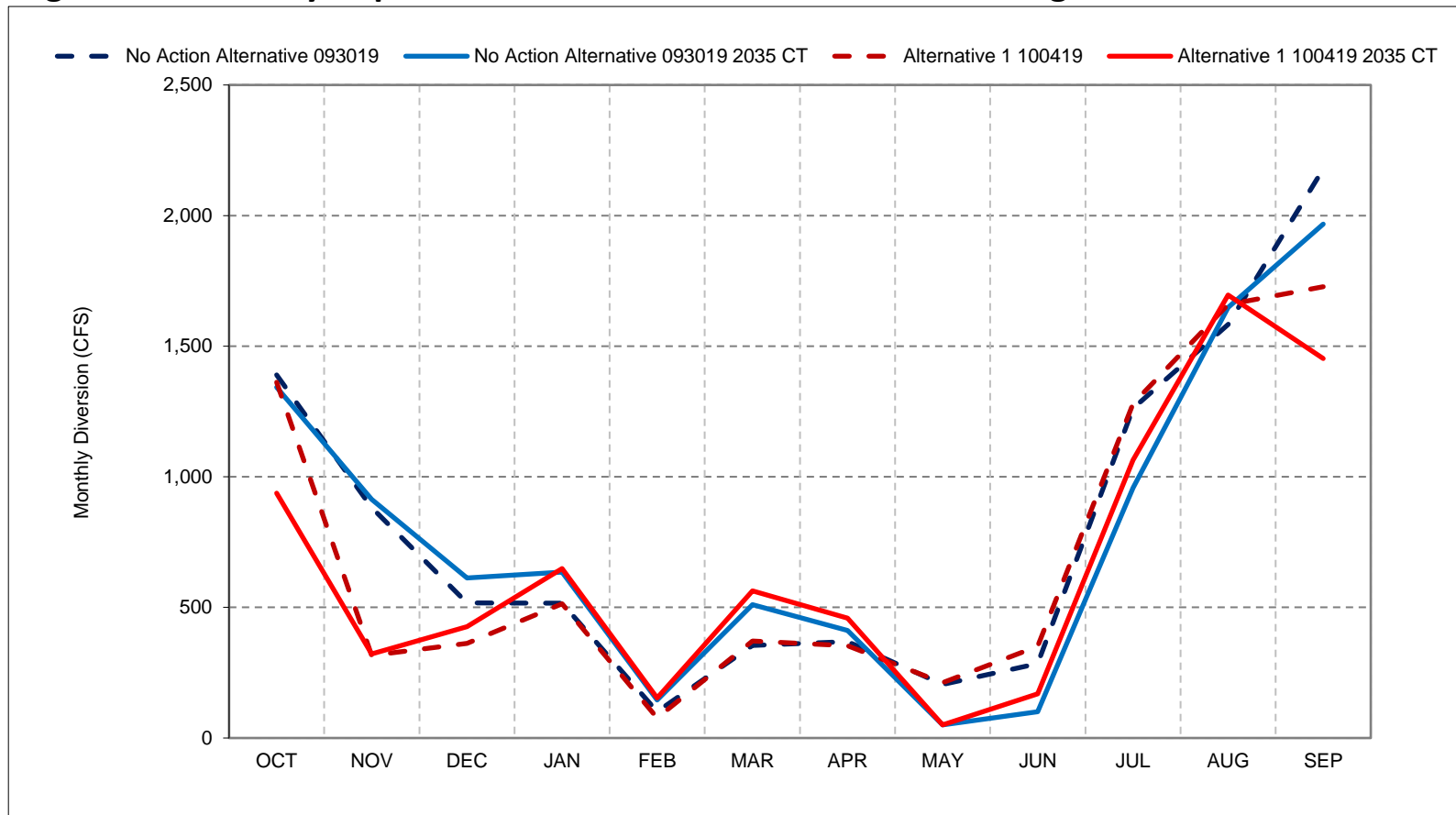
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-2. Trinity Import - Clear Creek Tunnel, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

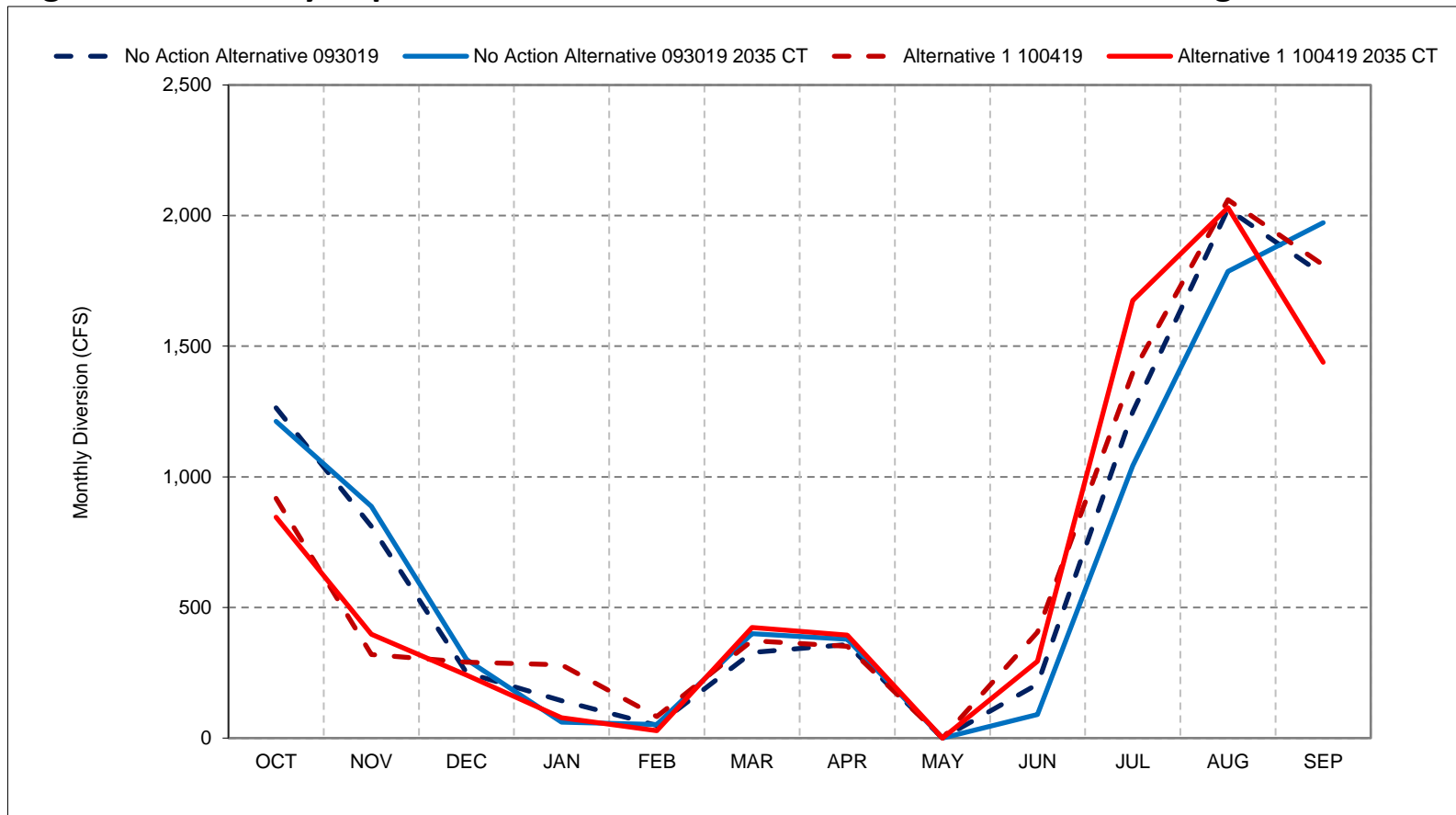
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-3. Trinity Import - Clear Creek Tunnel, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

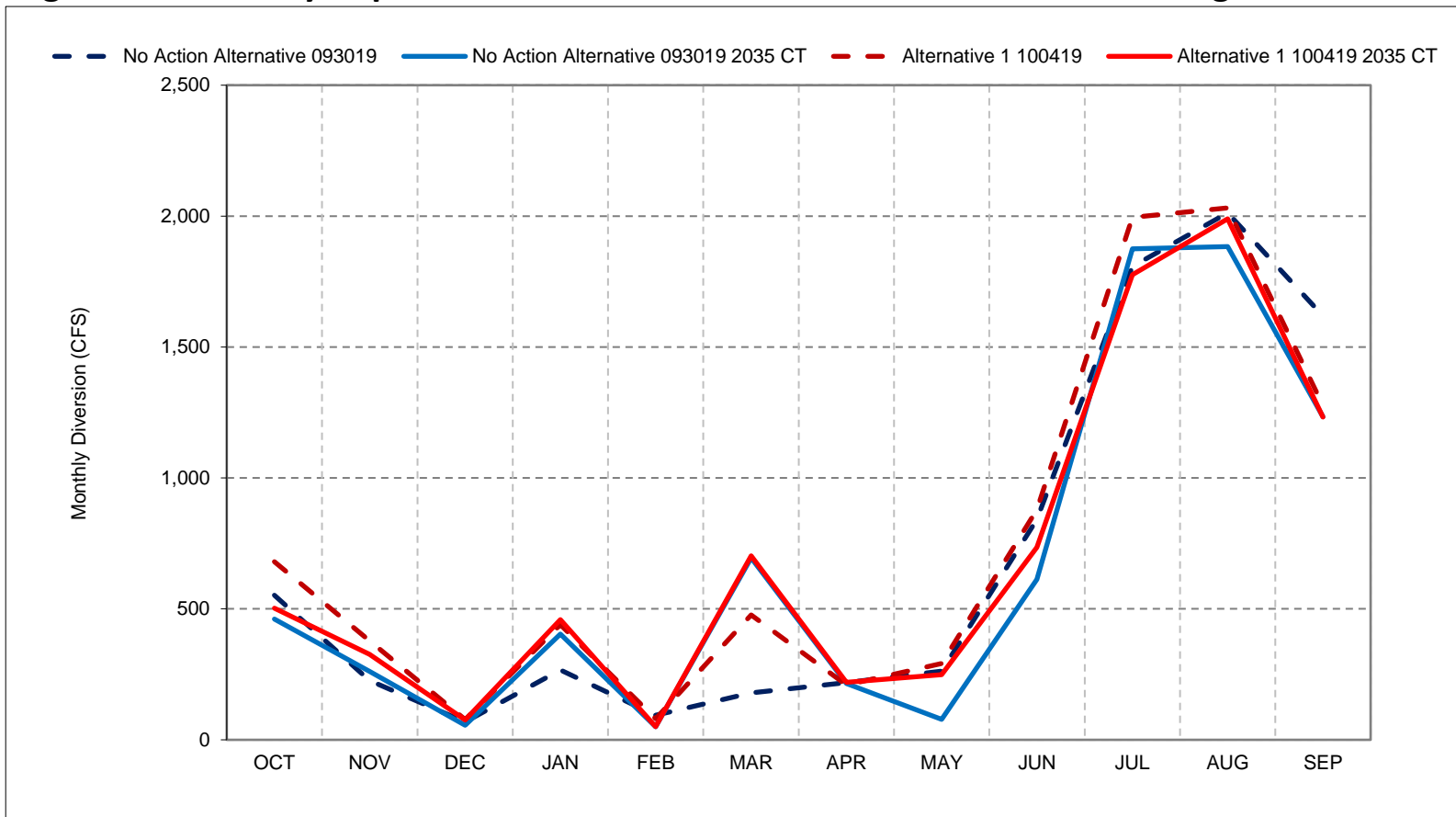
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-4. Trinity Import - Clear Creek Tunnel, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

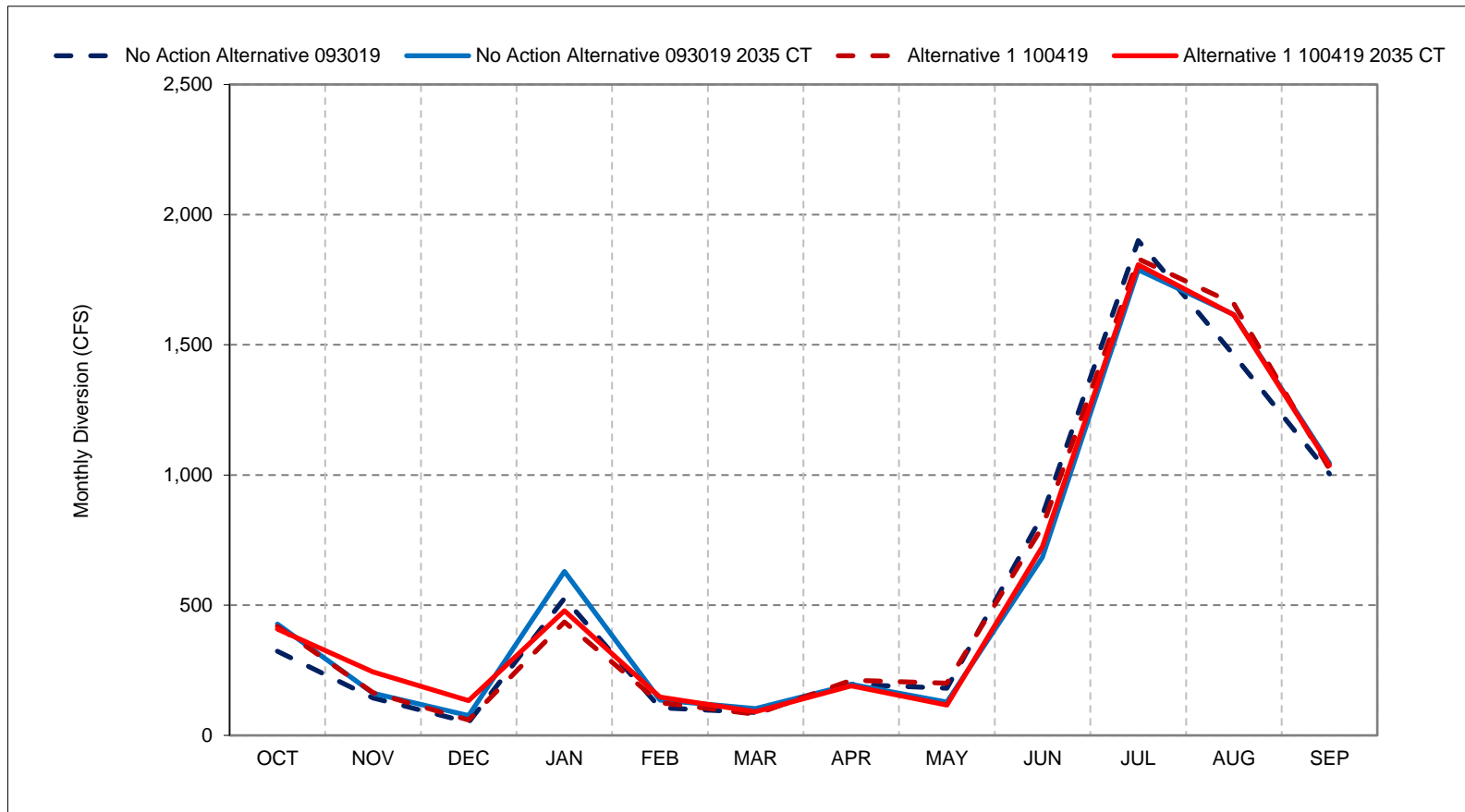
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-5. Trinity Import - Clear Creek Tunnel, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

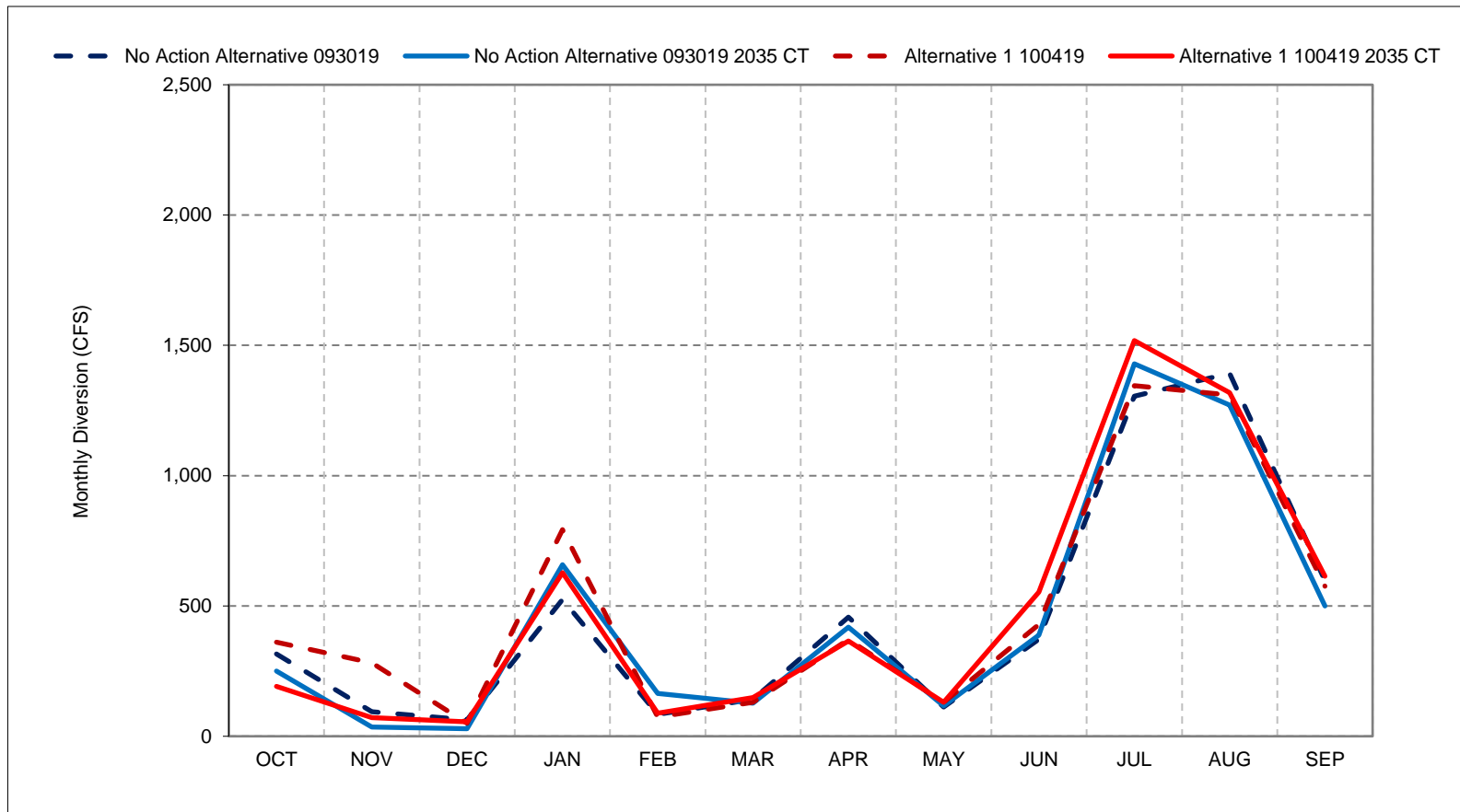
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 46-6. Trinity Import - Clear Creek Tunnel, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

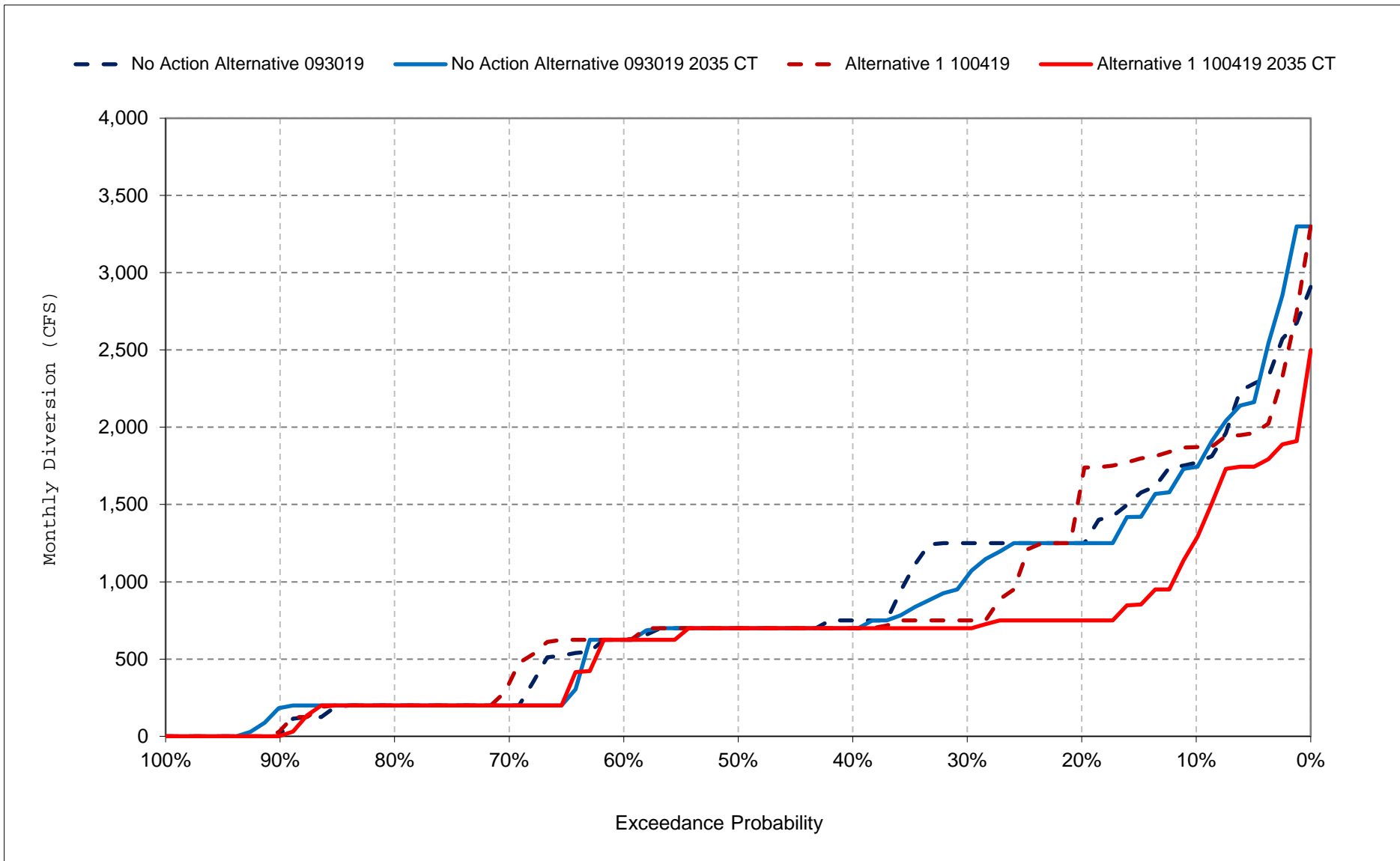
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

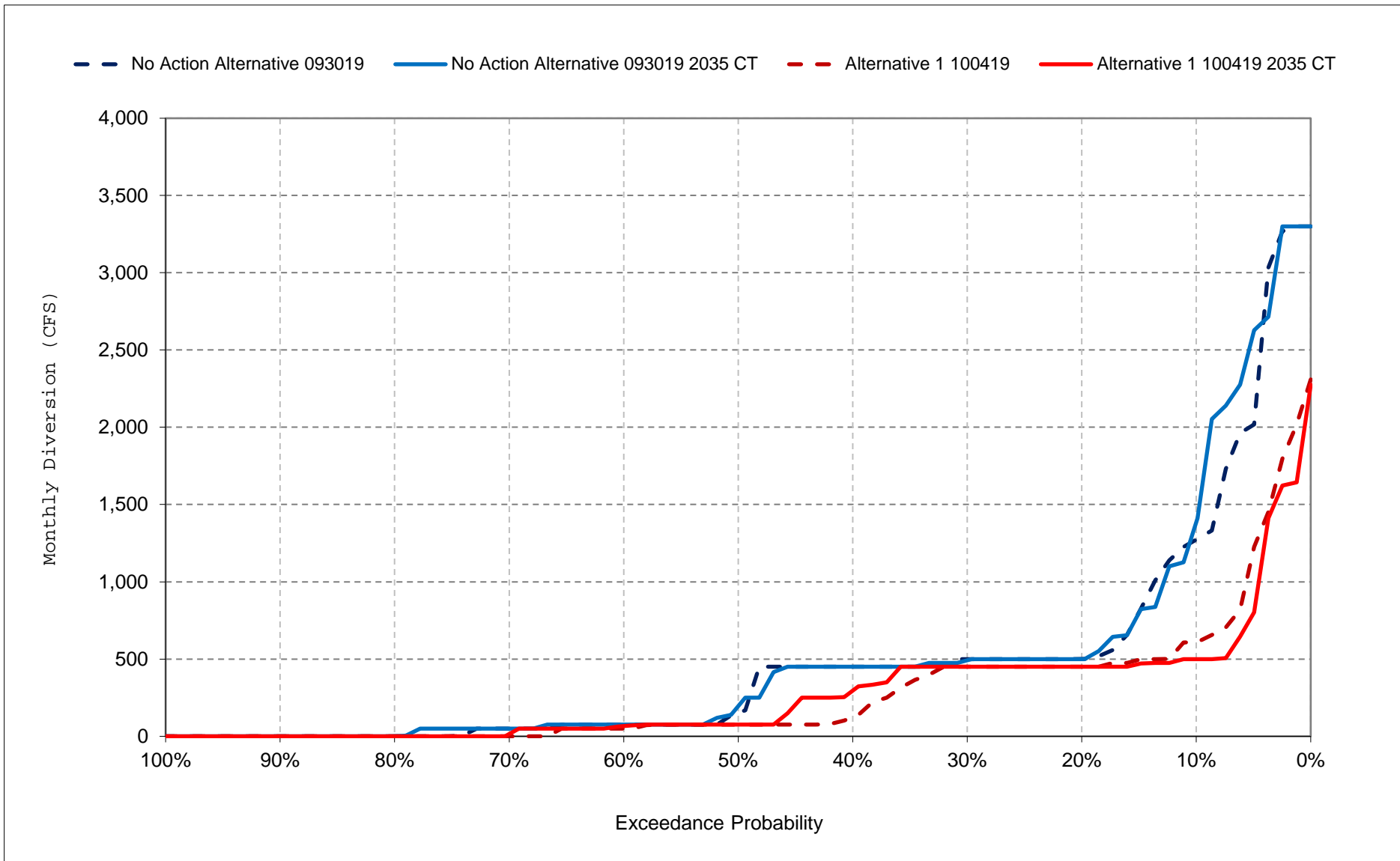
Figure 46-7. Trinity Import - Clear Creek Tunnel, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

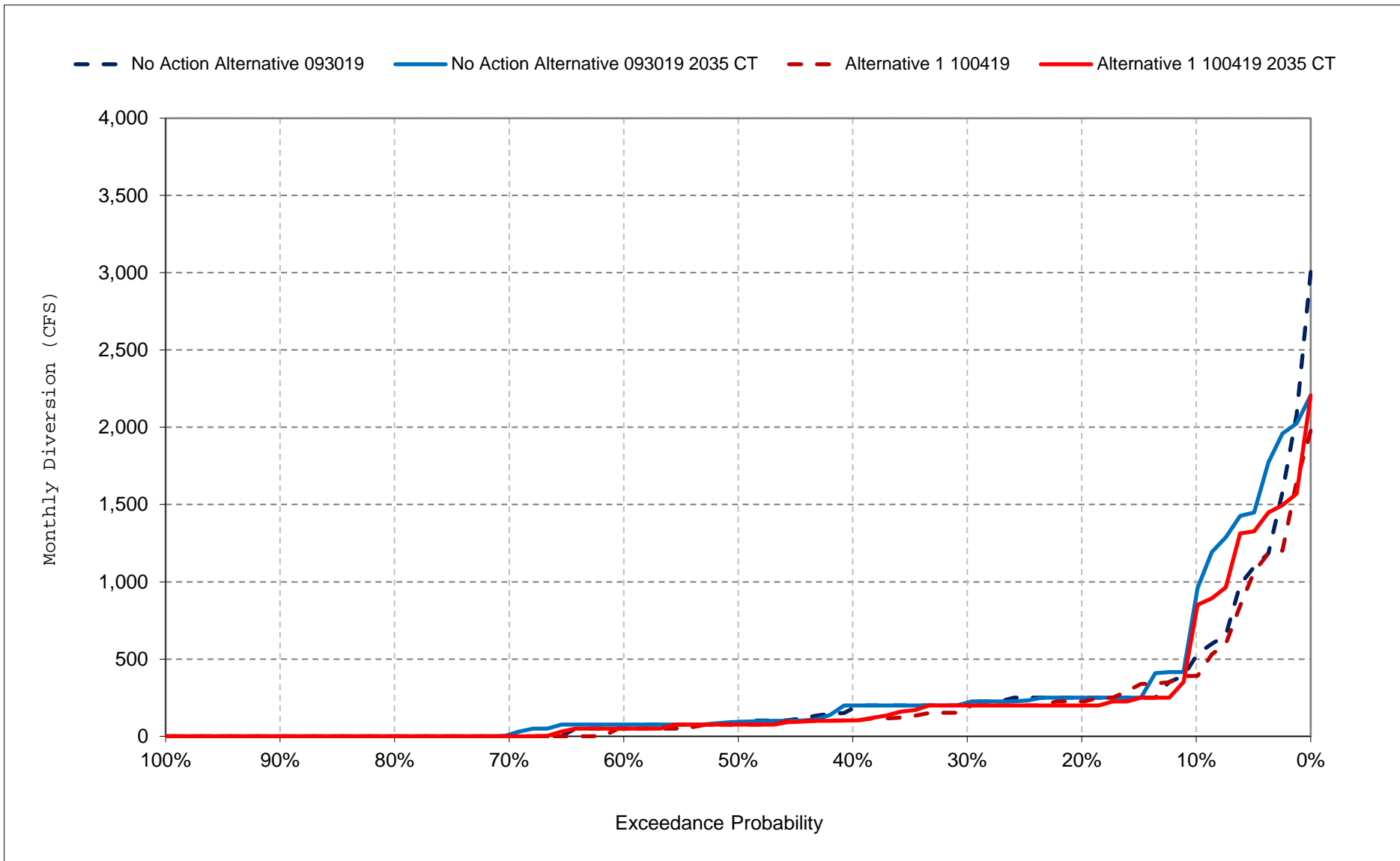
Figure 46-8. Trinity Import - Clear Creek Tunnel, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

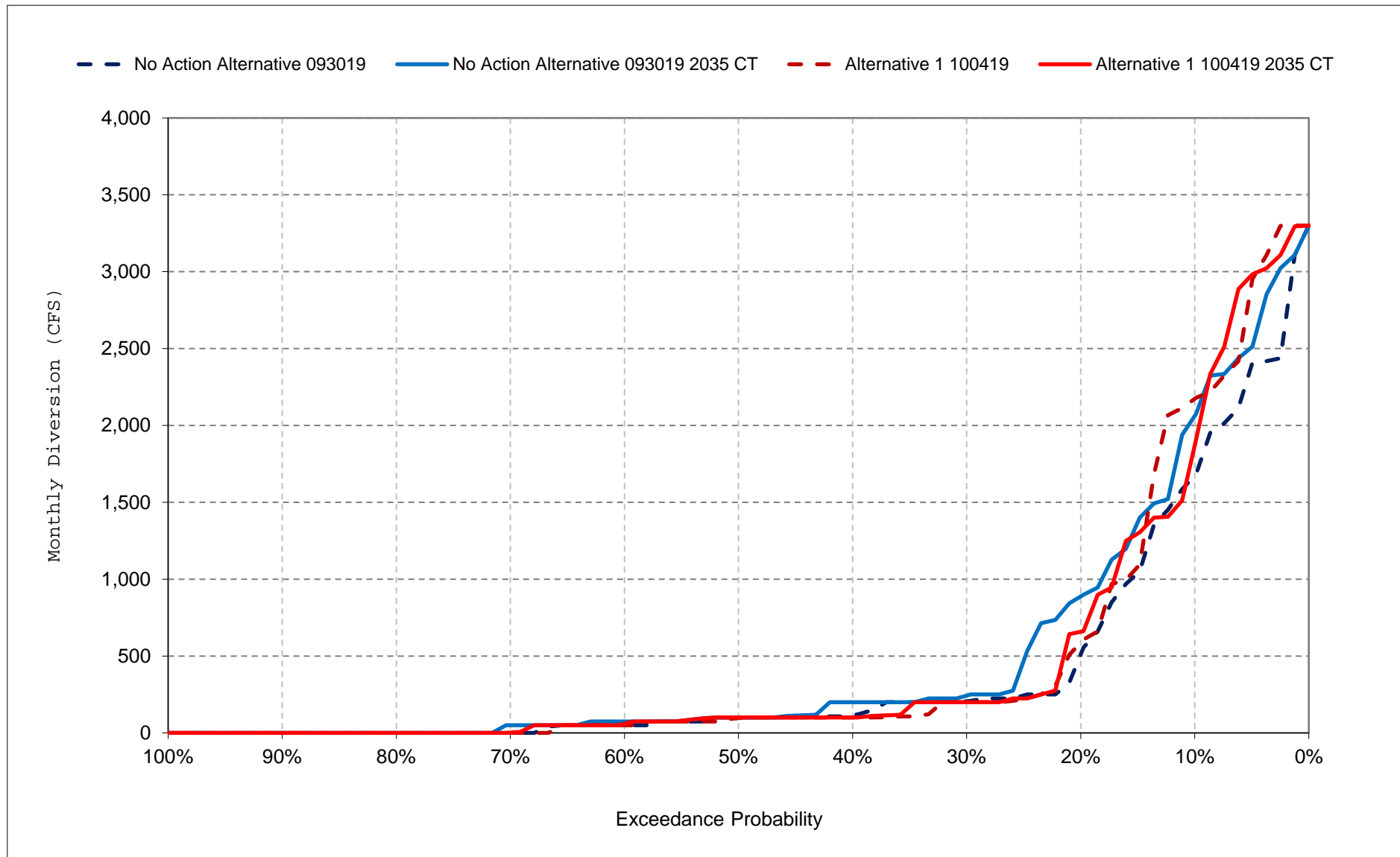
Figure 46-9. Trinity Import - Clear Creek Tunnel, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

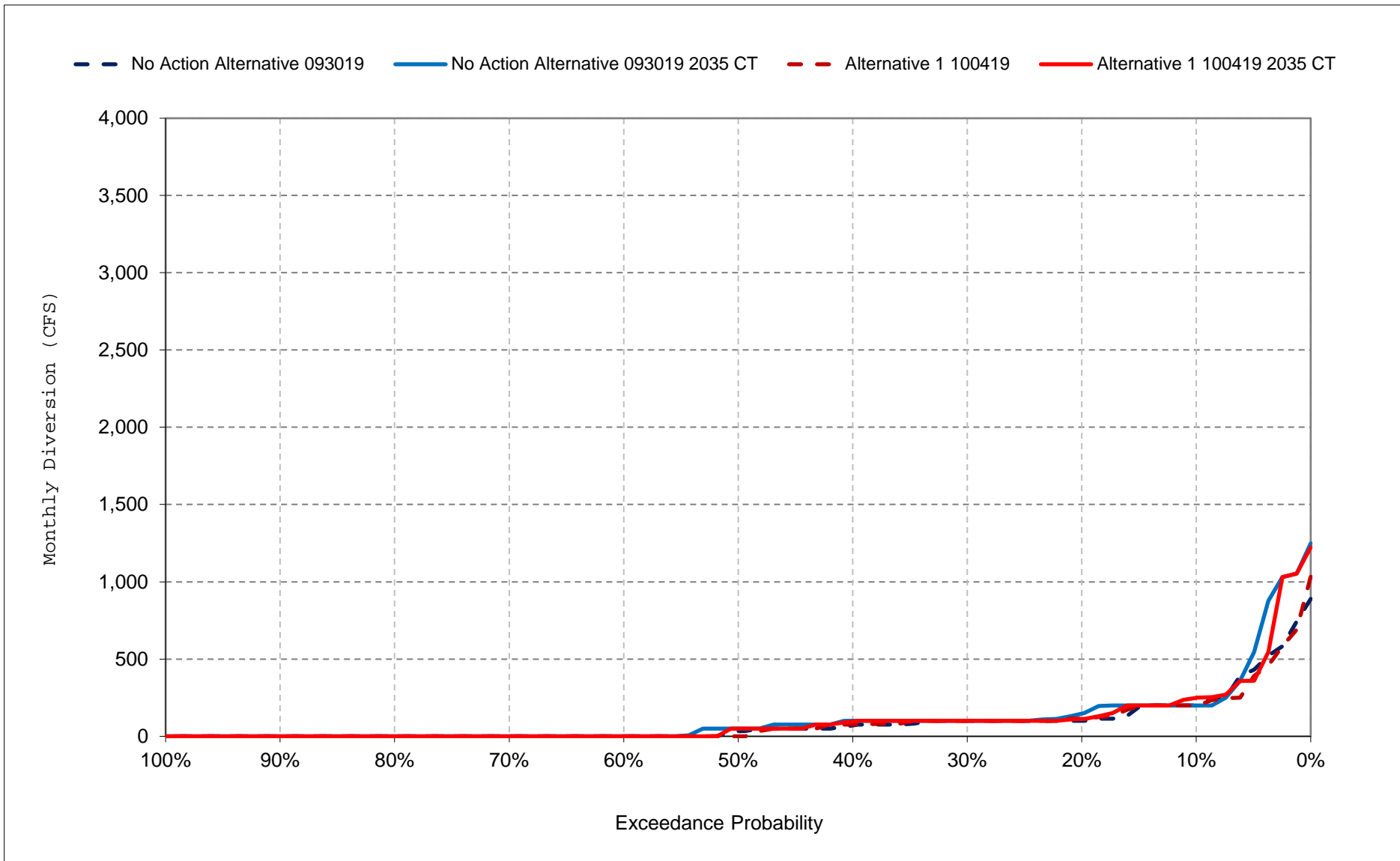
Figure 46-10. Trinity Import - Clear Creek Tunnel, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

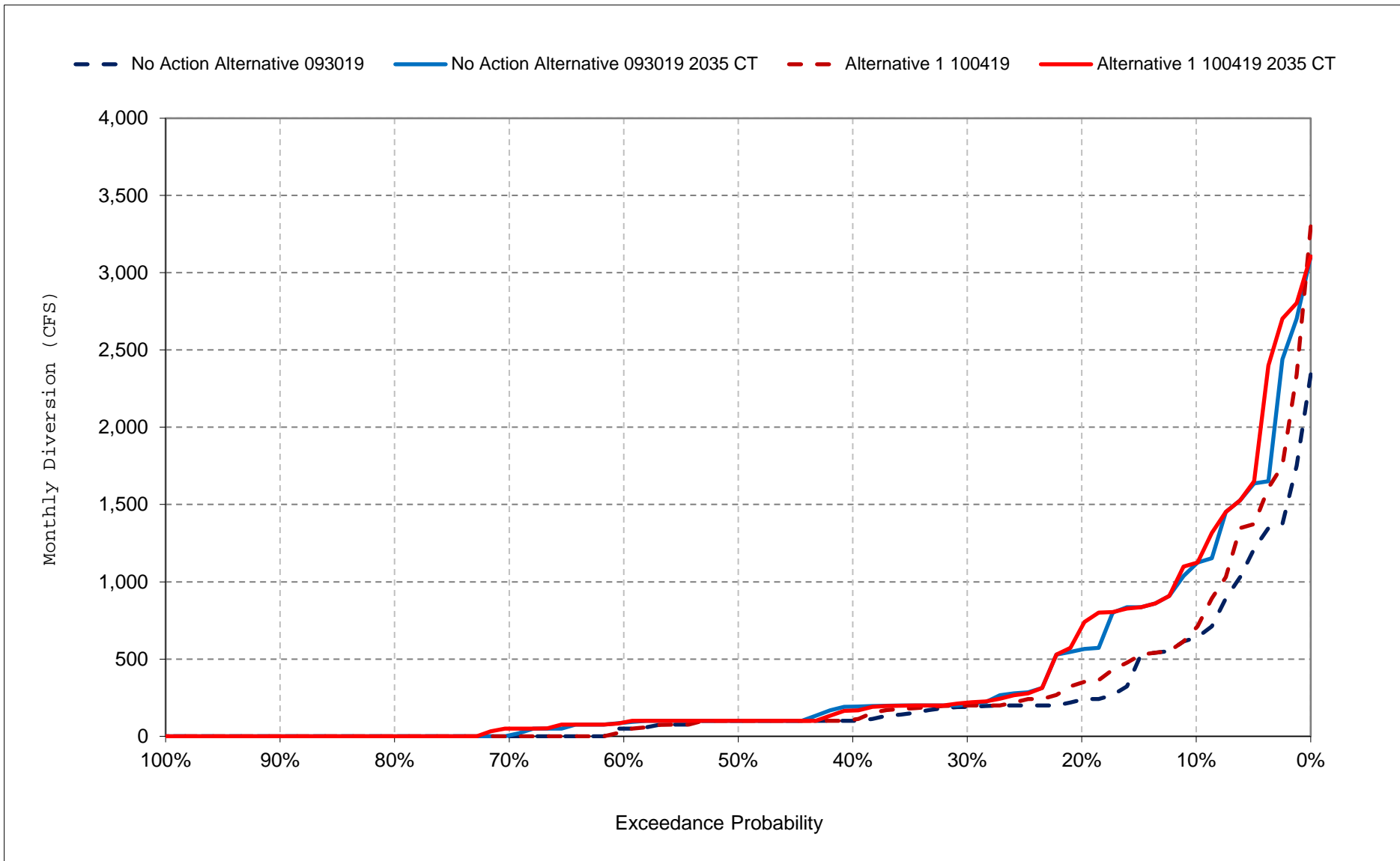
Figure 46-11. Trinity Import - Clear Creek Tunnel, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

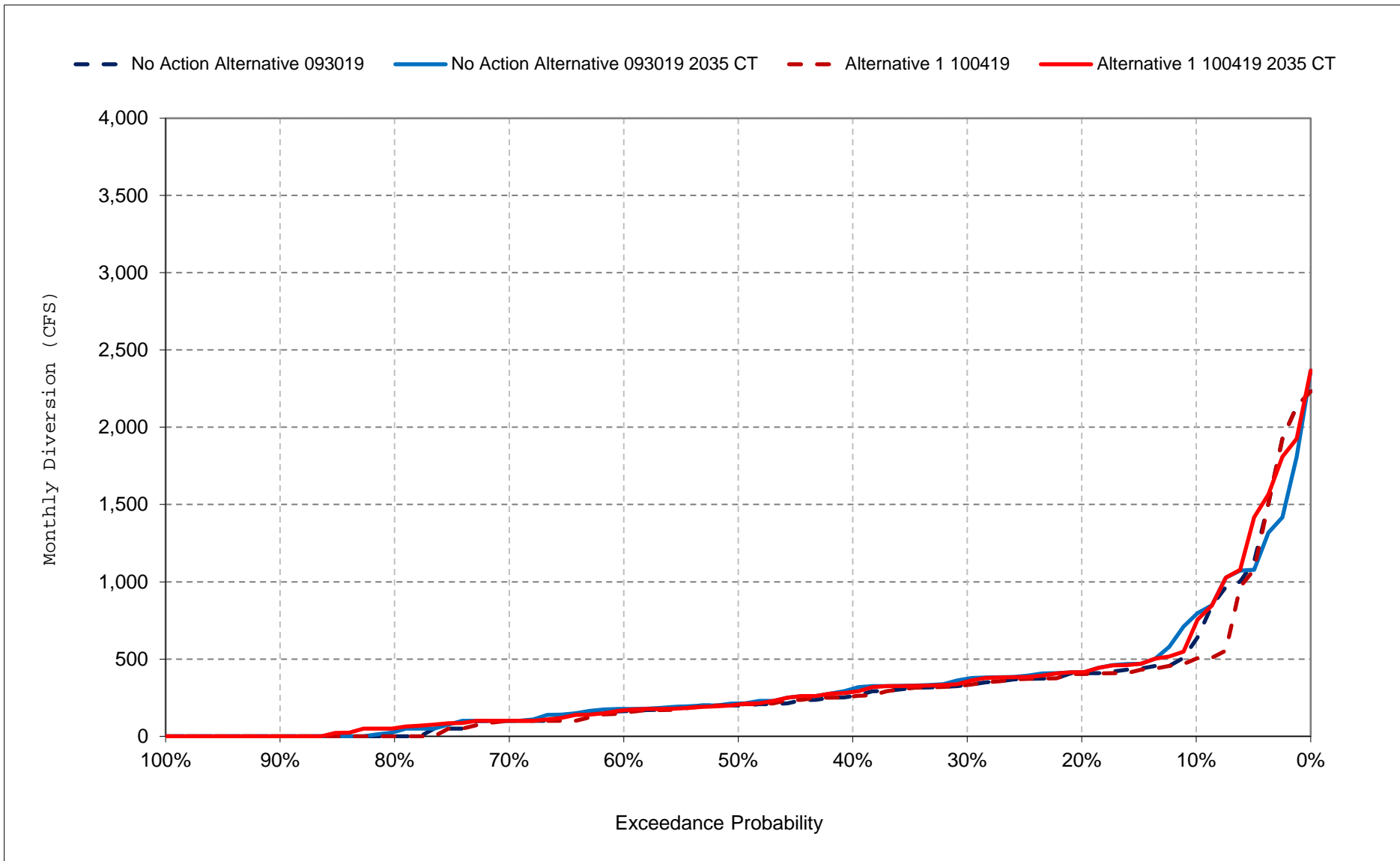
Figure 46-12. Trinity Import - Clear Creek Tunnel, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

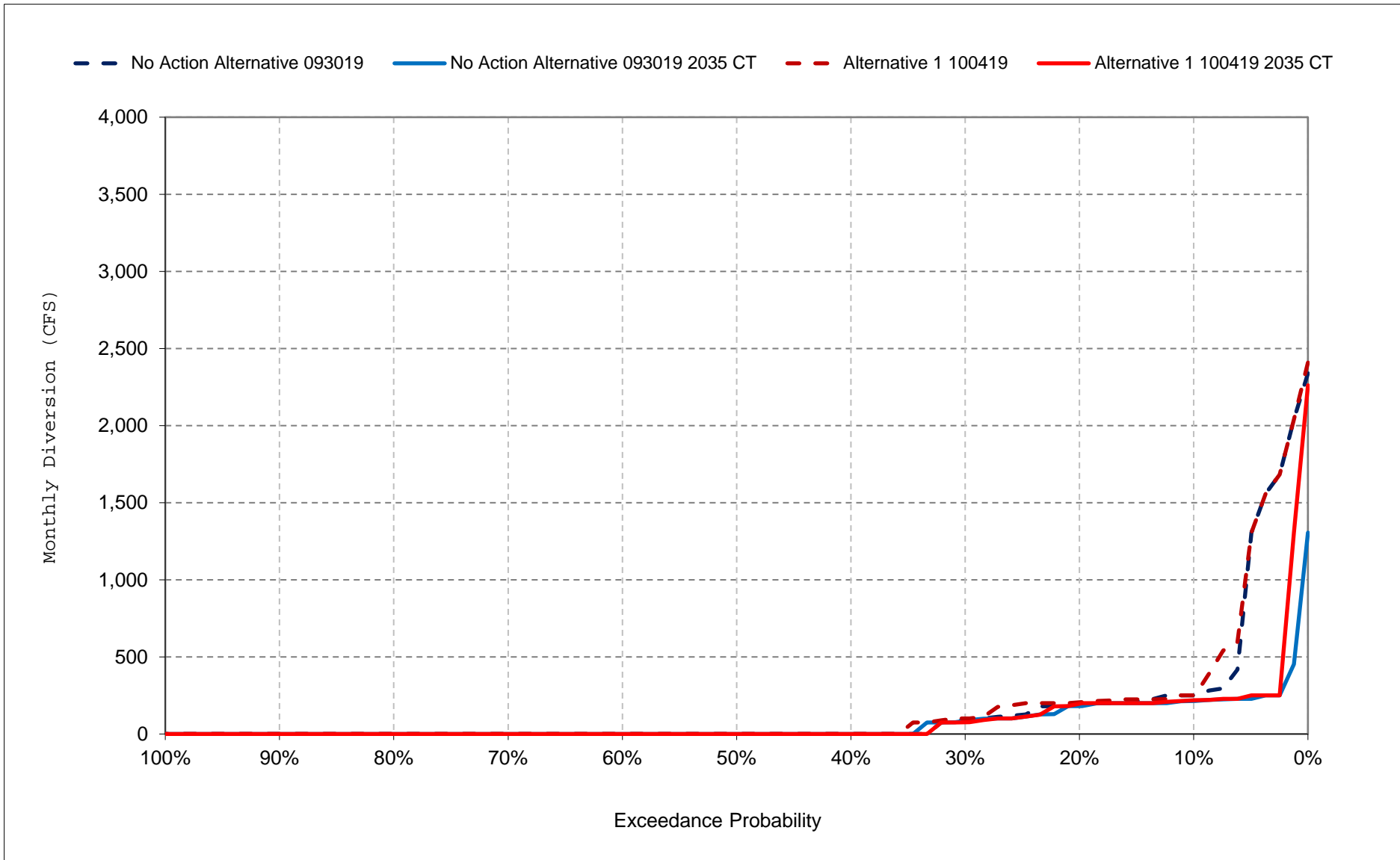
Figure 46-13. Trinity Import - Clear Creek Tunnel, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

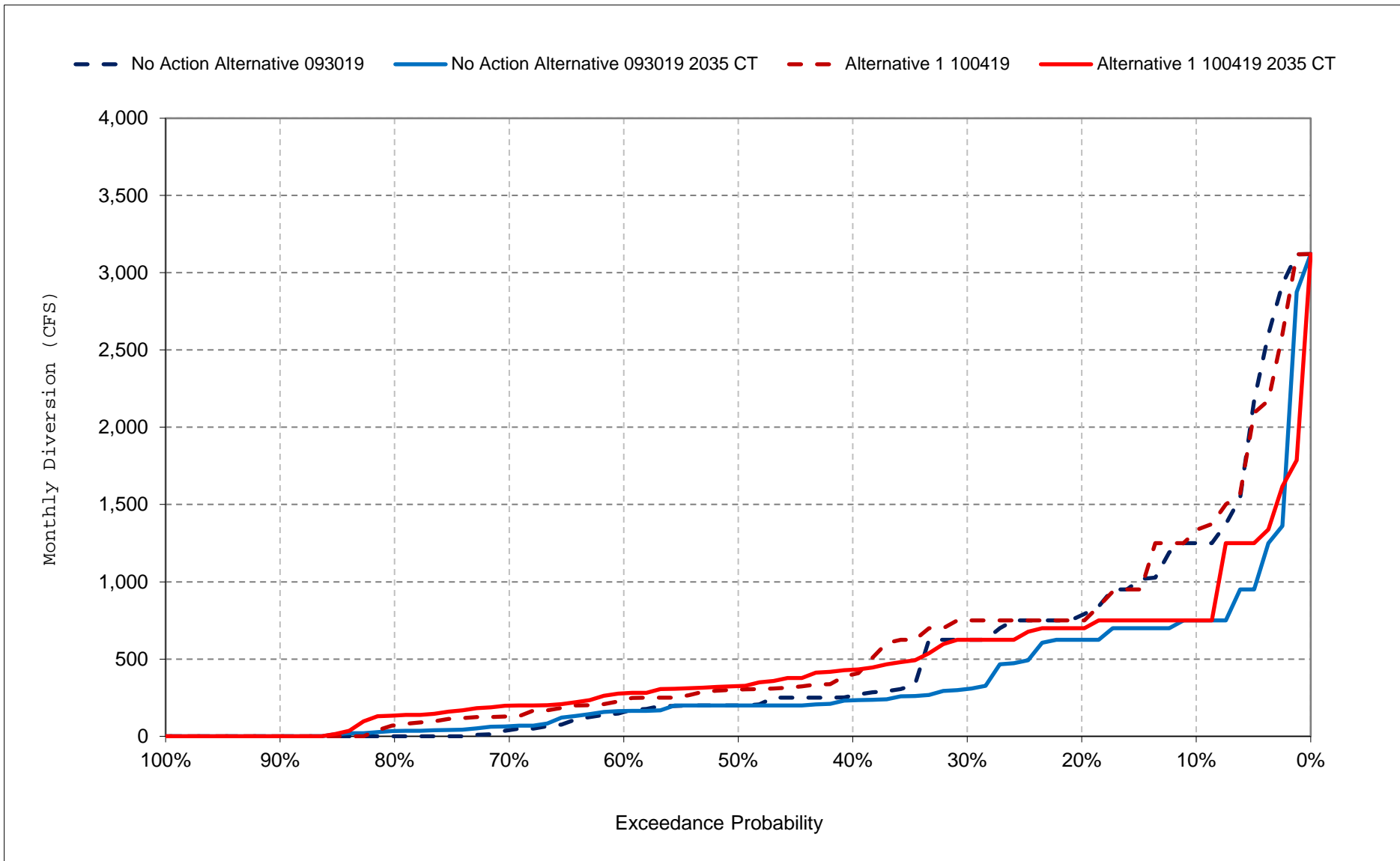
Figure 46-14. Trinity Import - Clear Creek Tunnel, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

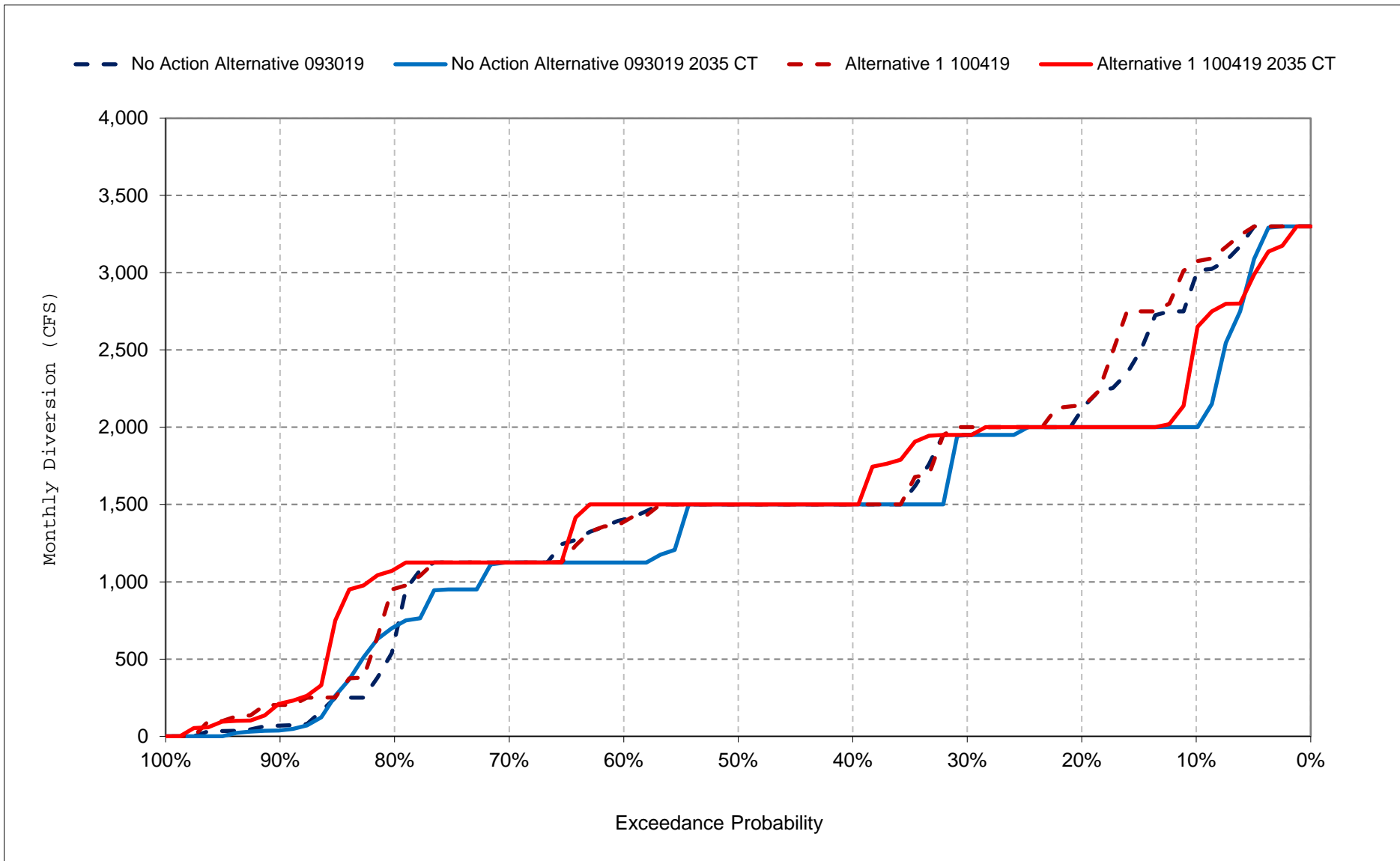
Figure 46-15. Trinity Import - Clear Creek Tunnel, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

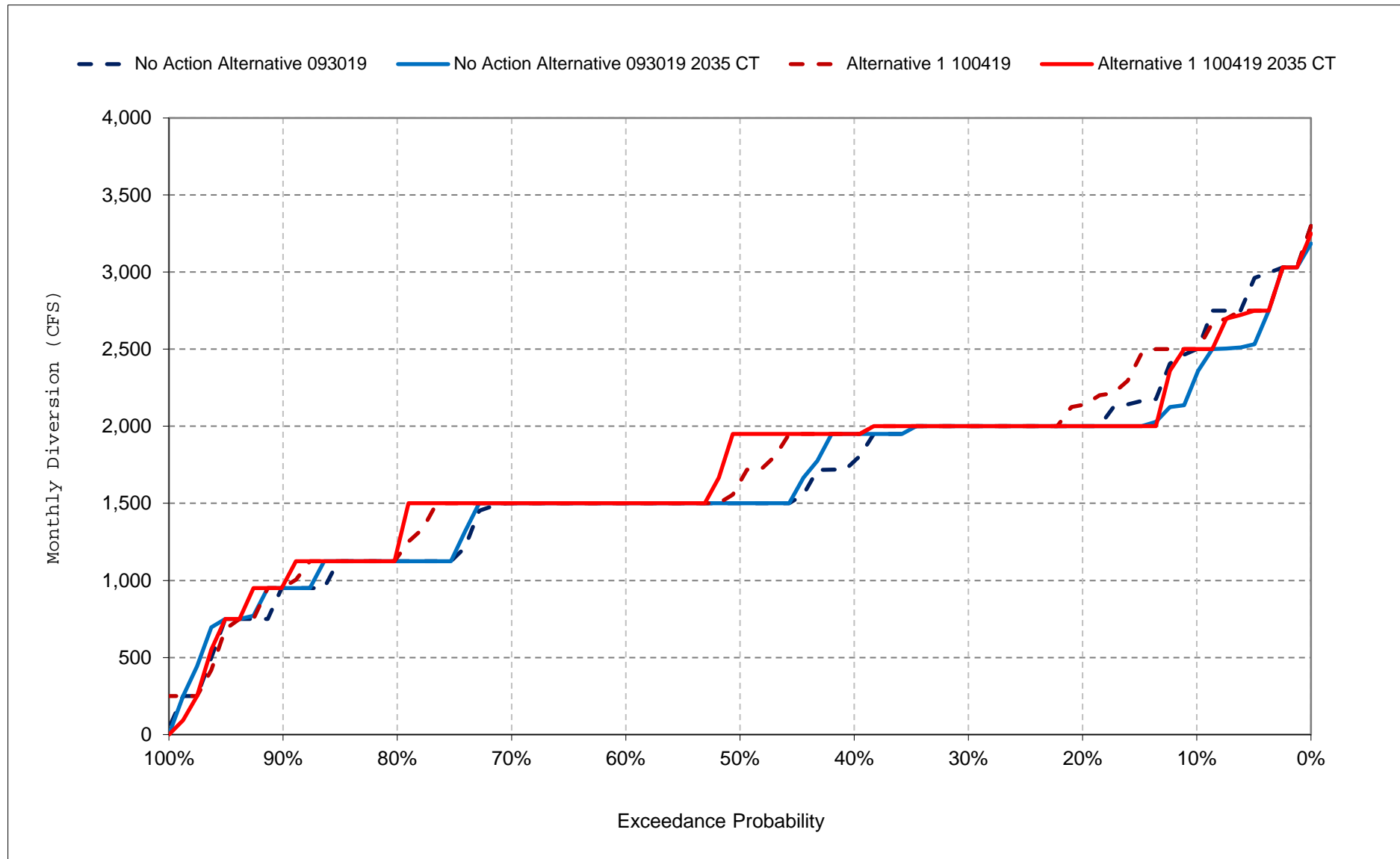
Figure 46-16. Trinity Import - Clear Creek Tunnel, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

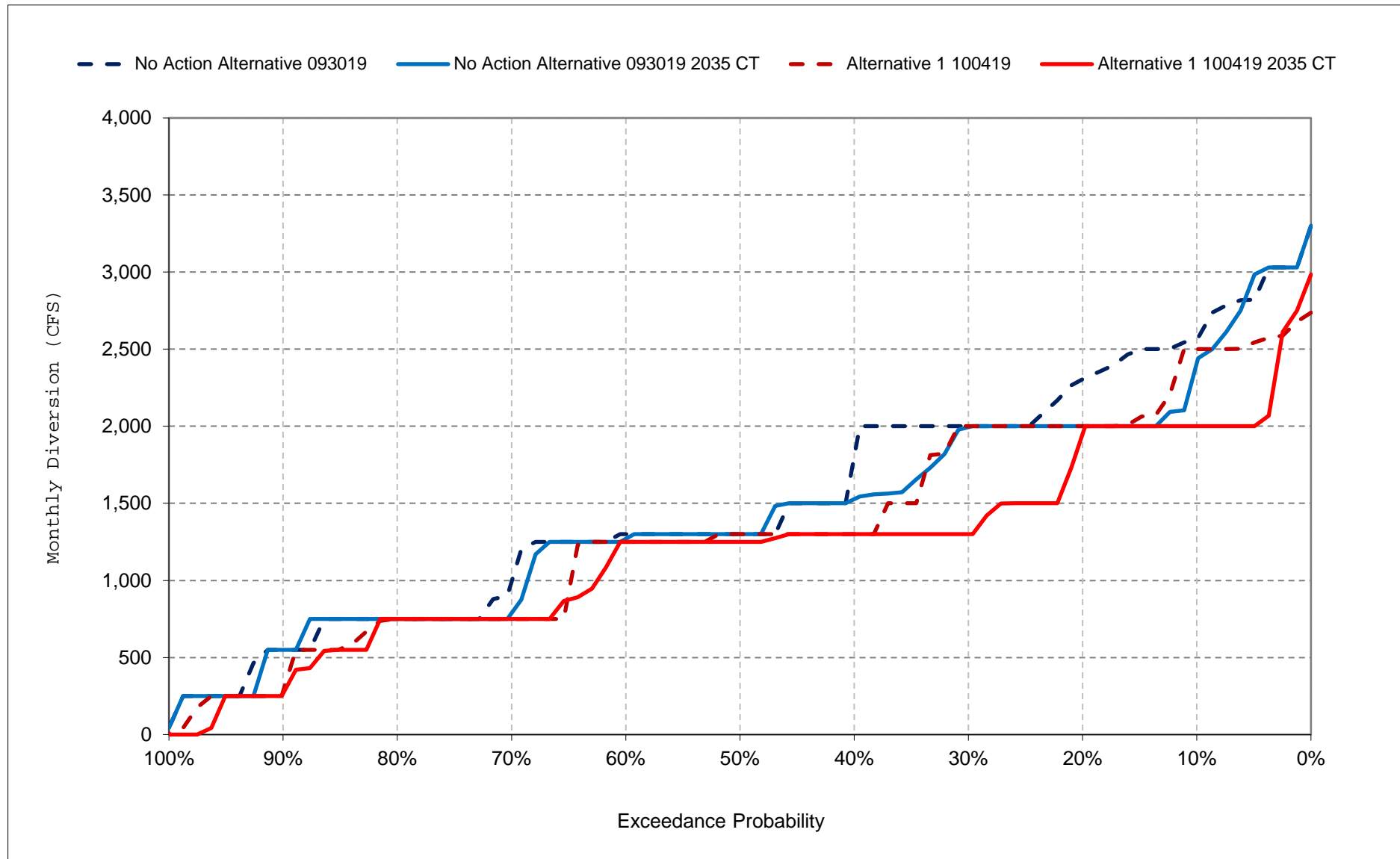
Figure 46-17. Trinity Import - Clear Creek Tunnel, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 46-18. Trinity Import - Clear Creek Tunnel, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-1. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	207	19	0	0	0	46	454	778	1,191	1,375	1,092	299
20%	186	17	0	0	0	30	341	722	1,107	1,283	1,027	274
30%	141	17	0	0	0	16	271	638	1,064	1,251	967	243
40%	126	3	0	0	0	3	220	529	1,015	1,153	910	211
50%	104	0	0	0	0	0	188	473	900	1,022	779	178
60%	83	0	0	0	0	0	153	350	655	720	575	137
70%	76	0	0	0	0	0	80	297	505	592	474	94
80%	66	0	0	0	0	0	40	219	335	394	324	69
90%	56	0	0	0	0	0	22	110	223	246	221	20
Long Term												
Full Simulation Period ^d	118	7	0	0	2	17	209	458	764	879	698	169
Water Year Types ^{b,c}												
Wet (32%)	150	7	0	0	0	10	179	631	1,083	1,248	988	241
Above Normal (16%)	127	4	0	0	0	8	283	664	1,085	1,240	972	244
Below Normal (13%)	119	8	0	0	8	49	293	463	718	849	665	156
Dry (24%)	95	4	0	0	4	12	180	257	471	534	423	77
Critical (15%)	76	15	0	0	1	21	168	190	255	295	264	97

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	214	20	0	0	0	52	455	786	1,191	1,378	1,095	299
20%	189	17	0	0	0	33	370	752	1,131	1,338	1,057	275
30%	150	17	0	0	0	19	315	674	1,094	1,277	1,010	261
40%	130	5	0	0	0	4	253	593	1,061	1,233	947	228
50%	105	1	0	0	0	1	201	479	1,028	1,146	905	209
60%	87	0	0	0	0	0	180	425	812	916	719	162
70%	80	0	0	0	0	0	112	347	527	633	522	111
80%	68	0	0	0	0	0	49	233	398	463	369	85
90%	57	0	0	0	0	0	24	123	291	325	269	19
Long Term												
Full Simulation Period ^d	122	8	0	0	2	21	230	489	817	940	746	182
Water Year Types ^{b,c}												
Wet (32%)	151	7	0	0	0	11	170	635	1,088	1,253	992	242
Above Normal (16%)	127	5	0	0	0	10	299	661	1,097	1,252	982	244
Below Normal (13%)	134	8	0	0	8	66	357	610	902	1,065	834	186
Dry (24%)	100	4	0	0	4	14	213	287	547	619	491	103
Critical (15%)	80	17	0	0	1	25	196	213	297	345	304	115

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7	1	0	0	0	7	0	9	0	3	3	0
20%	3	0	0	0	0	3	30	29	24	56	29	1
30%	9	0	0	0	0	3	45	36	29	25	44	18
40%	4	2	0	0	0	1	33	64	46	80	37	17
50%	0	1	0	0	0	0	13	7	129	124	127	31
60%	4	0	0	0	0	0	27	76	157	196	144	25
70%	4	0	0	0	0	0	32	50	21	41	48	17
80%	2	0	0	0	0	0	9	14	62	68	45	16
90%	1	0	0	0	0	0	2	14	68	79	48	0
Long Term												
Full Simulation Period ^d	4	1	0	0	0	4	20	31	53	61	48	13
Water Year Types ^{b,c}												
Wet (32%)	1	0	0	0	0	1	-9	4	5	6	4	1
Above Normal (16%)	0	1	0	0	0	2	16	-3	12	13	10	1
Below Normal (13%)	15	1	0	0	0	16	64	147	184	216	169	30
Dry (24%)	6	0	0	0	0	2	33	30	76	86	68	27
Critical (15%)	4	2	0	0	0	4	27	23	41	50	40	17

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 47-2. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	208	19	0	0	0	47	413	767	1,191	1,377	1,094	301
20%	181	17	0	0	0	29	326	700	1,107	1,320	1,033	275
30%	141	17	0	0	0	15	272	634	1,071	1,257	999	259
40%	124	3	0	0	0	2	241	521	980	1,142	902	208
50%	102	0	0	0	0	0	207	474	905	998	786	165
60%	88	0	0	0	0	0	165	377	597	698	551	115
70%	79	0	0	0	0	0	128	289	468	543	430	97
80%	65	0	0	0	0	0	48	219	365	411	329	63
90%	56	0	0	0	0	0	29	139	250	285	227	23
Long Term												
Full Simulation Period ^d	119	7	0	0	2	16	208	459	766	882	697	168
Water Year Types ^{b,c}												
Wet (32%)	146	7	0	0	0	10	170	612	1,044	1,204	954	232
Above Normal (16%)	126	4	0	0	0	7	299	633	1,075	1,228	962	241
Below Normal (13%)	123	6	0	0	9	39	273	493	745	883	693	146
Dry (24%)	96	4	0	0	4	12	187	278	490	554	440	92
Critical (15%)	86	15	0	0	1	23	168	209	308	354	282	97

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	209	19	0	0	0	53	459	825	1,191	1,377	1,094	301
20%	188	17	0	0	0	32	347	738	1,109	1,322	1,034	275
30%	153	17	0	0	0	17	319	674	1,085	1,270	1,005	259
40%	131	5	0	0	0	3	288	550	1,056	1,183	943	228
50%	103	1	0	0	0	1	225	500	944	1,141	877	206
60%	93	0	0	0	0	0	186	456	827	926	730	165
70%	86	0	0	0	0	0	142	379	546	639	506	110
80%	69	0	0	0	0	0	48	251	465	530	422	80
90%	57	0	0	0	0	0	29	140	332	384	306	21
Long Term												
Full Simulation Period ^d	123	7	0	0	2	19	232	502	822	946	748	182
Water Year Types ^{b,c}												
Wet (32%)	147	7	0	0	0	11	187	618	1,052	1,212	961	235
Above Normal (16%)	129	5	0	0	0	9	321	681	1,109	1,266	993	249
Below Normal (13%)	131	7	0	0	9	52	344	611	877	1,036	813	162
Dry (24%)	104	4	0	0	4	15	214	338	599	679	538	117
Critical (15%)	89	16	0	0	1	25	163	232	336	388	309	123

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2	0	0	0	0	6	46	59	0	0	0	0
20%	7	0	0	0	0	3	21	38	2	2	1	0
30%	11	0	0	0	0	2	47	40	13	13	7	0
40%	8	1	0	0	0	2	46	29	77	41	41	20
50%	0	1	0	0	0	1	18	27	39	143	91	41
60%	5	0	0	0	0	0	21	79	230	228	179	50
70%	7	0	0	0	0	0	14	90	78	97	77	13
80%	4	0	0	0	0	0	0	32	101	119	94	17
90%	1	0	0	0	0	0	0	1	82	99	79	-2
Long Term												
Full Simulation Period ^d	4	1	0	0	0	3	24	43	56	65	51	14
Water Year Types ^{b,c}												
Wet (32%)	1	0	0	0	0	1	16	6	8	9	7	3
Above Normal (16%)	3	1	0	0	0	2	22	48	34	38	30	8
Below Normal (13%)	8	0	0	0	0	13	71	119	132	153	120	16
Dry (24%)	8	0	0	0	0	3	28	60	108	125	99	25
Critical (15%)	3	2	0	0	0	2	-5	23	28	34	27	26

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-3. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	207	19	0	0	0	46	454	778	1,191	1,375	1,092	299
20%	186	17	0	0	0	30	341	722	1,107	1,283	1,027	274
30%	141	17	0	0	0	16	271	638	1,064	1,251	967	243
40%	126	3	0	0	0	3	220	529	1,015	1,153	910	211
50%	104	0	0	0	0	0	188	473	900	1,022	779	178
60%	83	0	0	0	0	0	153	350	655	720	575	137
70%	76	0	0	0	0	0	80	297	505	592	474	94
80%	66	0	0	0	0	0	40	219	335	394	324	69
90%	56	0	0	0	0	0	22	110	223	246	221	20
Long Term												
Full Simulation Period ^d	118	7	0	0	2	17	209	458	764	879	698	169
Water Year Types ^{b,c}												
Wet (32%)	150	7	0	0	0	10	179	631	1,083	1,248	988	241
Above Normal (16%)	127	4	0	0	0	8	283	664	1,085	1,240	972	244
Below Normal (13%)	119	8	0	0	8	49	293	463	718	849	665	156
Dry (24%)	95	4	0	0	4	12	180	257	471	534	423	77
Critical (15%)	76	15	0	0	1	21	168	190	255	295	264	97

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	208	19	0	0	0	47	413	767	1,191	1,377	1,094	301
20%	181	17	0	0	0	29	326	700	1,107	1,320	1,033	275
30%	141	17	0	0	0	15	272	634	1,071	1,257	999	259
40%	124	3	0	0	0	2	241	521	980	1,142	902	208
50%	102	0	0	0	0	0	207	474	905	998	786	165
60%	88	0	0	0	0	0	165	377	597	698	551	115
70%	79	0	0	0	0	0	128	289	468	543	430	97
80%	65	0	0	0	0	0	48	219	365	411	329	63
90%	56	0	0	0	0	0	29	139	250	285	227	23
Long Term												
Full Simulation Period ^d	119	7	0	0	2	16	208	459	766	882	697	168
Water Year Types ^{b,c}												
Wet (32%)	146	7	0	0	0	10	170	612	1,044	1,204	954	232
Above Normal (16%)	126	4	0	0	0	7	299	633	1,075	1,228	962	241
Below Normal (13%)	123	6	0	0	9	39	273	493	745	883	693	146
Dry (24%)	96	4	0	0	4	12	187	278	490	554	440	92
Critical (15%)	86	15	0	0	1	23	168	209	308	354	282	97

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	0	0	0	0	2	-42	-11	0	2	3	2
20%	-5	0	0	0	0	-2	-15	-22	0	38	6	1
30%	0	0	0	0	0	-1	2	-5	7	6	32	16
40%	-2	0	0	0	0	-1	21	-8	-35	-11	-8	-3
50%	-2	0	0	0	0	0	18	1	6	-24	8	-12
60%	5	0	0	0	0	0	12	28	-58	-22	-23	-22
70%	3	0	0	0	0	0	48	-8	-37	-49	-44	2
80%	-1	0	0	0	0	0	8	0	29	17	4	-6
90%	0	0	0	0	0	0	7	30	27	39	6	3
Long Term												
Full Simulation Period ^d	1	0	0	0	0	-1	-1	1	2	2	-2	-1
Water Year Types ^{b,c}												
Wet (32%)	-5	0	0	0	0	-1	-9	-19	-39	-44	-34	-9
Above Normal (16%)	-1	0	0	0	0	-1	16	-31	-11	-12	-9	-2
Below Normal (13%)	4	-1	0	0	0	-10	-19	30	26	34	27	-10
Dry (24%)	1	0	0	0	0	0	7	21	19	20	16	15
Critical (15%)	10	0	0	0	0	2	0	19	52	59	18	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 47-4. Red Bluff Diversion - Tehama Colusa Canal, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	214	20	0	0	0	52	455	786	1,191	1,378	1,095	299
20%	189	17	0	0	0	33	370	752	1,131	1,338	1,057	275
30%	150	17	0	0	0	19	315	674	1,094	1,277	1,010	261
40%	130	5	0	0	0	4	253	593	1,061	1,233	947	228
50%	105	1	0	0	0	1	201	479	1,028	1,146	905	209
60%	87	0	0	0	0	0	180	425	812	916	719	162
70%	80	0	0	0	0	0	112	347	527	633	522	111
80%	68	0	0	0	0	0	49	233	398	463	369	85
90%	57	0	0	0	0	0	24	123	291	325	269	19
Long Term												
Full Simulation Period ^d	122	8	0	0	2	21	230	489	817	940	746	182
Water Year Types ^{b,c}												
Wet (32%)	151	7	0	0	0	11	170	635	1,088	1,253	992	242
Above Normal (16%)	127	5	0	0	0	10	299	661	1,097	1,252	982	244
Below Normal (13%)	134	8	0	0	8	66	357	610	902	1,065	834	186
Dry (24%)	100	4	0	0	4	14	213	287	547	619	491	103
Critical (15%)	80	17	0	0	1	25	196	213	297	345	304	115

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	209	19	0	0	0	53	459	825	1,191	1,377	1,094	301
20%	188	17	0	0	0	32	347	738	1,109	1,322	1,034	275
30%	153	17	0	0	0	17	319	674	1,085	1,270	1,005	259
40%	131	5	0	0	0	3	288	550	1,056	1,183	943	228
50%	103	1	0	0	0	1	225	500	944	1,141	877	206
60%	93	0	0	0	0	0	186	456	827	926	730	165
70%	86	0	0	0	0	0	142	379	546	639	506	110
80%	69	0	0	0	0	0	48	251	465	530	422	80
90%	57	0	0	0	0	0	29	140	332	384	306	21
Long Term												
Full Simulation Period ^d	123	7	0	0	2	19	232	502	822	946	748	182
Water Year Types ^{b,c}												
Wet (32%)	147	7	0	0	0	11	187	618	1,052	1,212	961	235
Above Normal (16%)	129	5	0	0	0	9	321	681	1,109	1,266	993	249
Below Normal (13%)	131	7	0	0	9	52	344	611	877	1,036	813	162
Dry (24%)	104	4	0	0	4	15	214	338	599	679	538	117
Critical (15%)	89	16	0	0	1	25	163	232	336	388	309	123

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-1	0	0	0	1	4	39	0	-1	-1	2
20%	-1	0	0	0	0	-1	-23	-13	-22	-16	-23	0
30%	3	0	0	0	0	-2	4	0	-9	-6	-5	-2
40%	2	0	0	0	0	0	34	-43	-5	-50	-4	0
50%	-2	0	0	0	0	0	23	21	-84	-4	-28	-2
60%	6	0	0	0	0	0	7	31	15	10	11	3
70%	6	0	0	0	0	0	30	32	19	7	-15	-1
80%	1	0	0	0	0	0	-1	18	67	68	53	-5
90%	0	0	0	0	0	0	5	17	42	59	37	2
Long Term												
Full Simulation Period ^d	1	0	0	0	0	-2	3	13	5	6	1	0
Water Year Types ^{b,c}												
Wet (32%)	-4	0	0	0	0	-1	16	-18	-36	-41	-31	-7
Above Normal (16%)	2	0	0	0	0	-1	22	20	12	14	11	5
Below Normal (13%)	-3	-2	0	0	0	-14	-13	1	-25	-29	-22	-24
Dry (24%)	4	0	0	0	0	1	2	51	52	59	47	14
Critical (15%)	9	0	0	0	0	0	-32	19	39	43	5	9

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

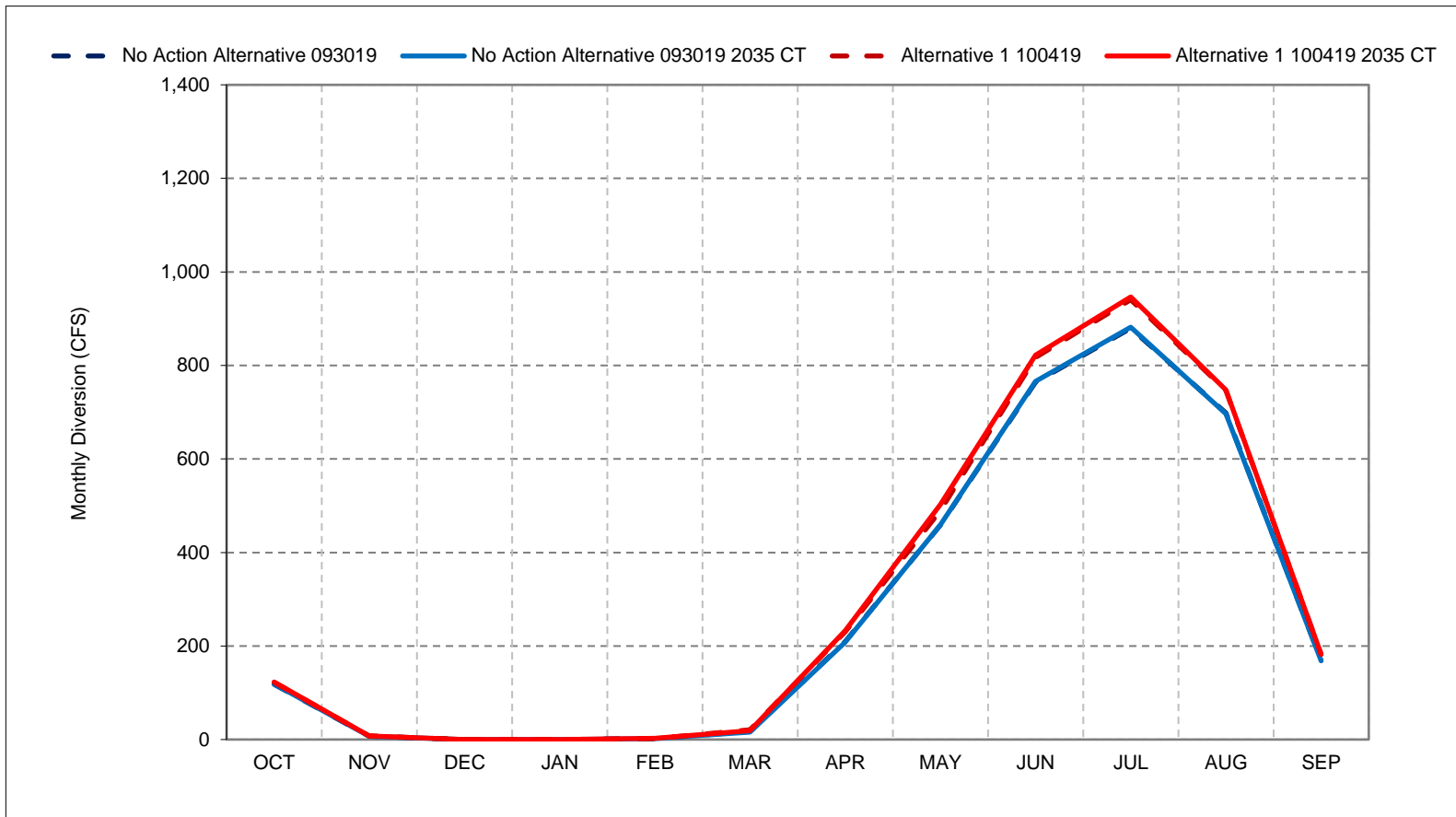
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 47-1. Red Bluff Diversion - Tehama Colusa Canal, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

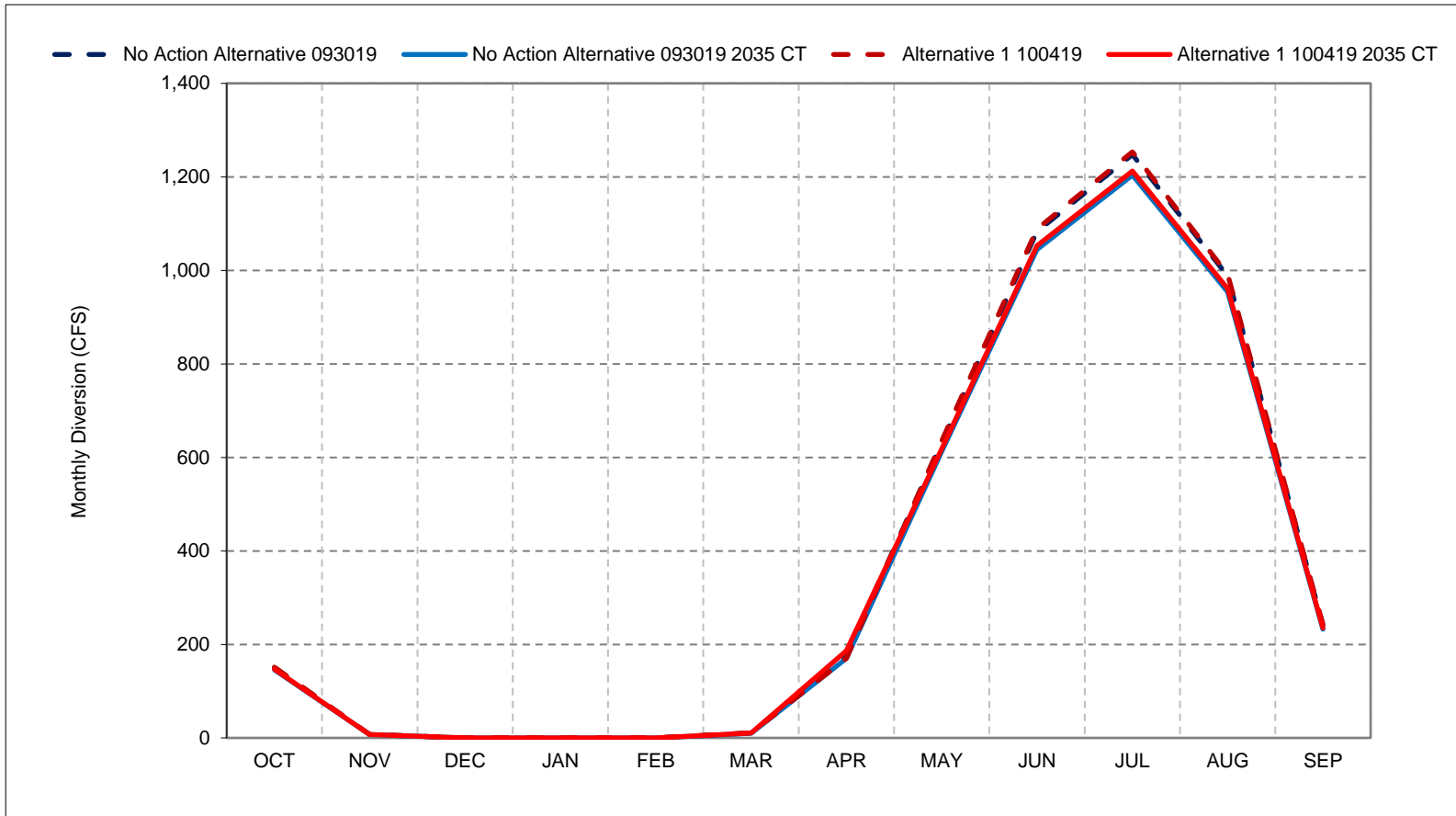
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-2. Red Bluff Diversion - Tehama Colusa Canal, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

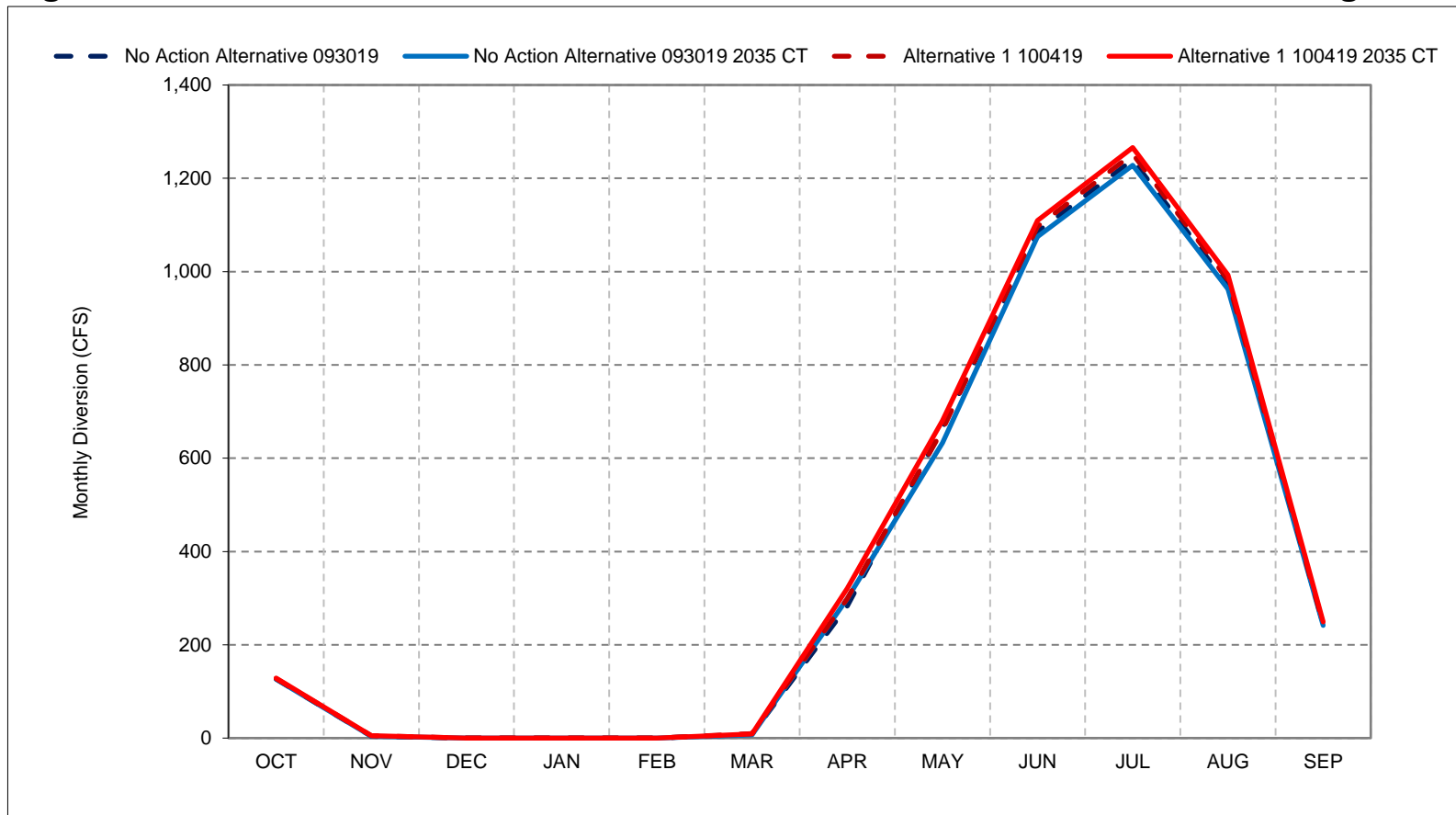
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-3. Red Bluff Diversion - Tehama Colusa Canal, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

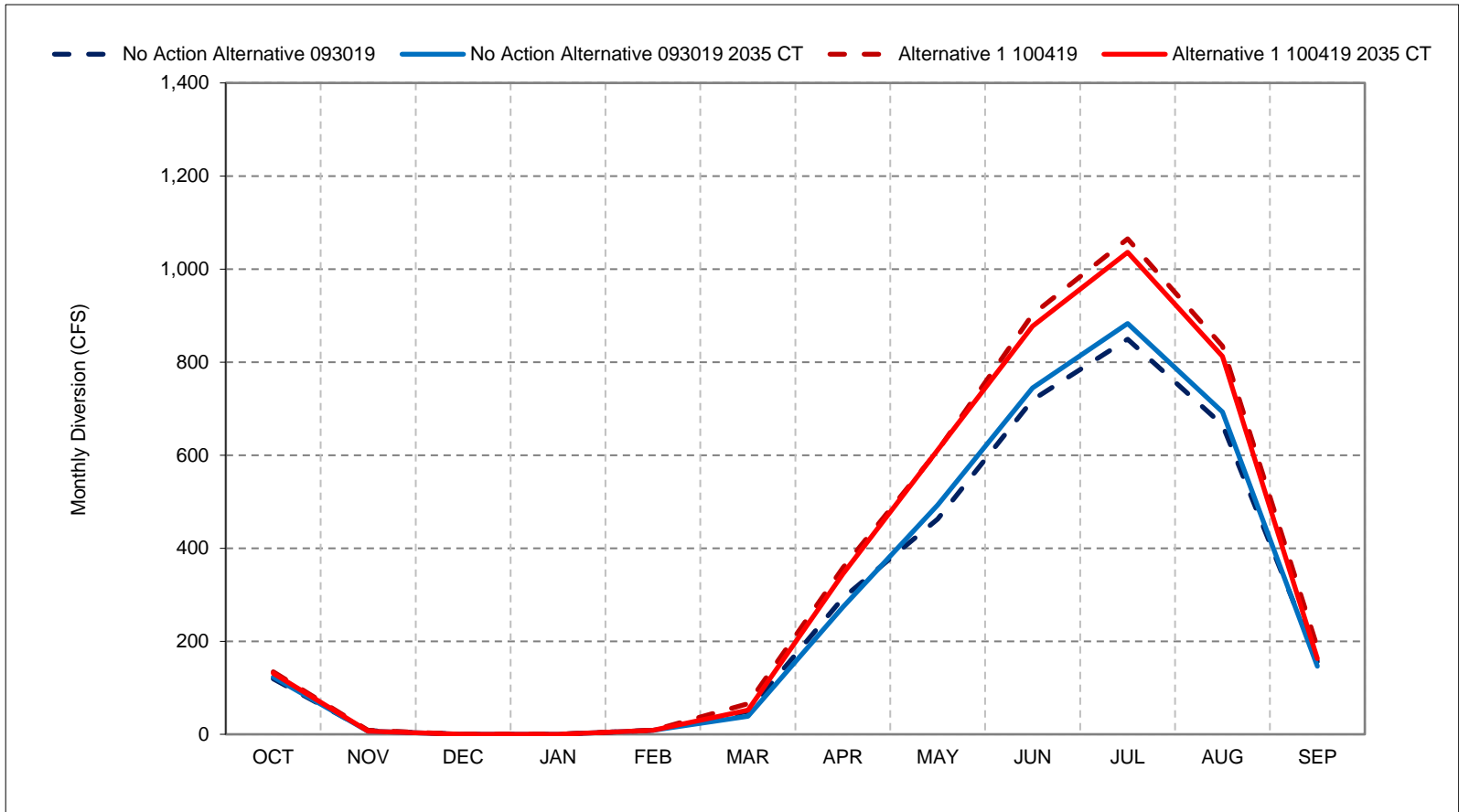
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-4. Red Bluff Diversion - Tehama Colusa Canal, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

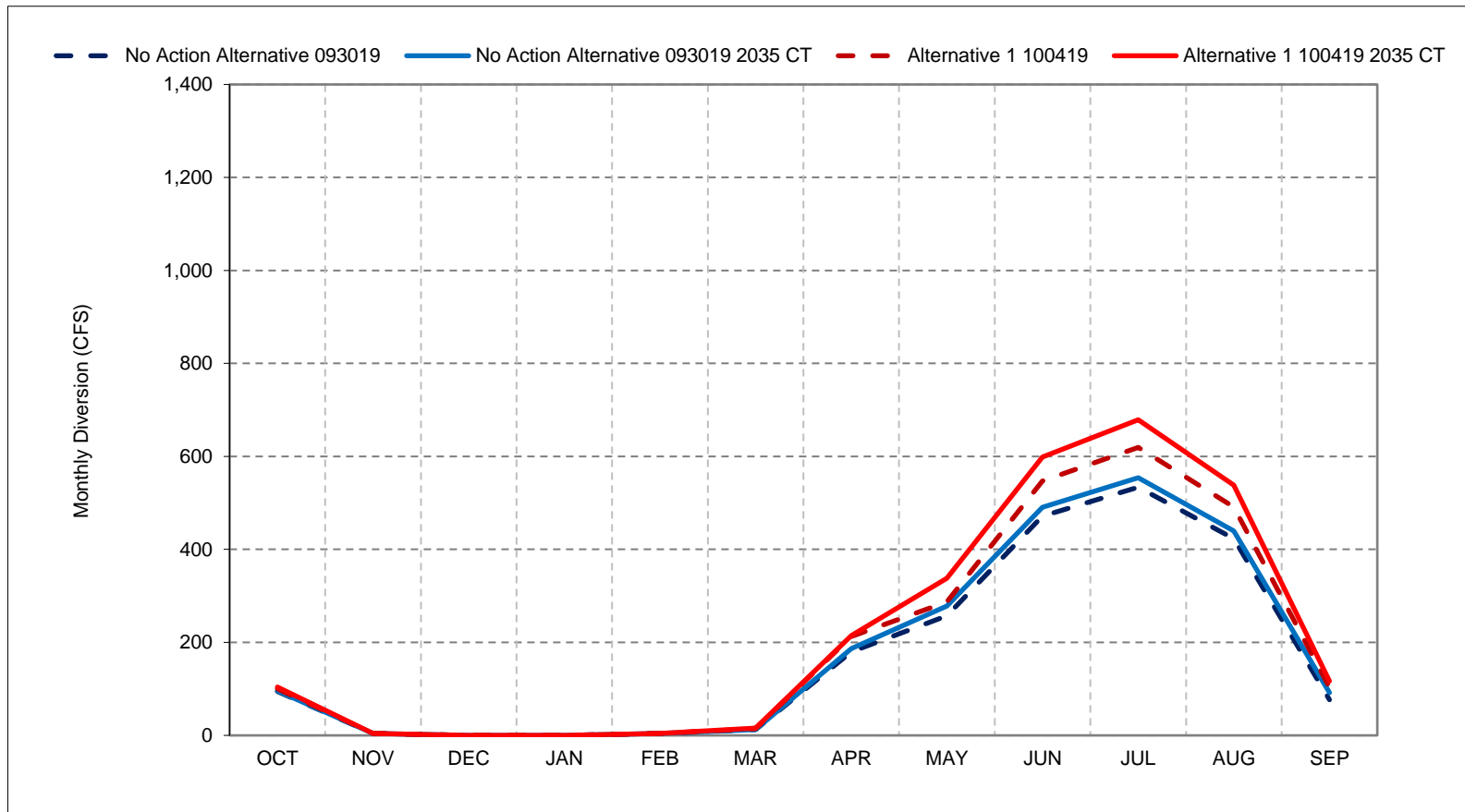
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-5. Red Bluff Diversion - Tehama Colusa Canal, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

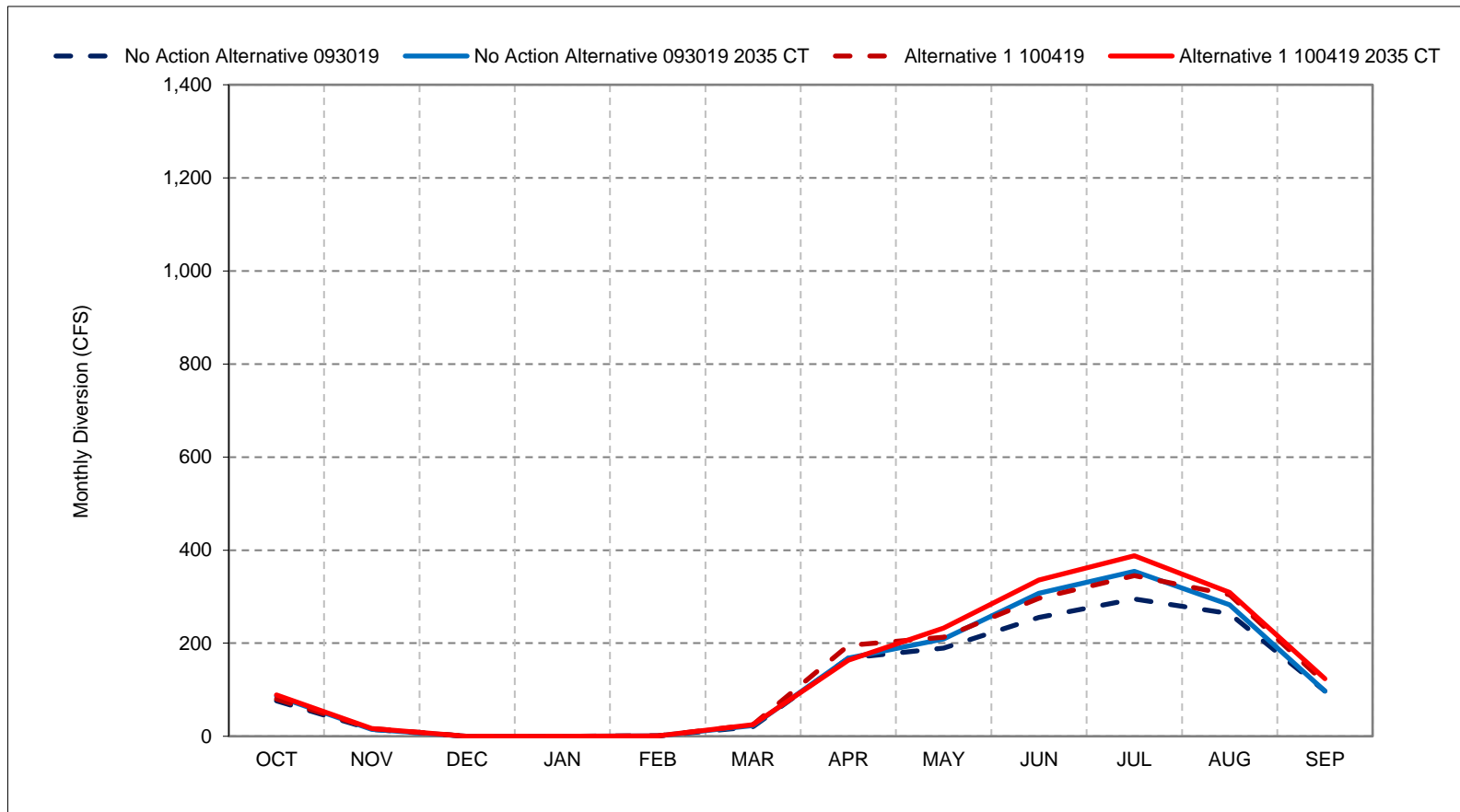
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 47-6. Red Bluff Diversion - Tehama Colusa Canal, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

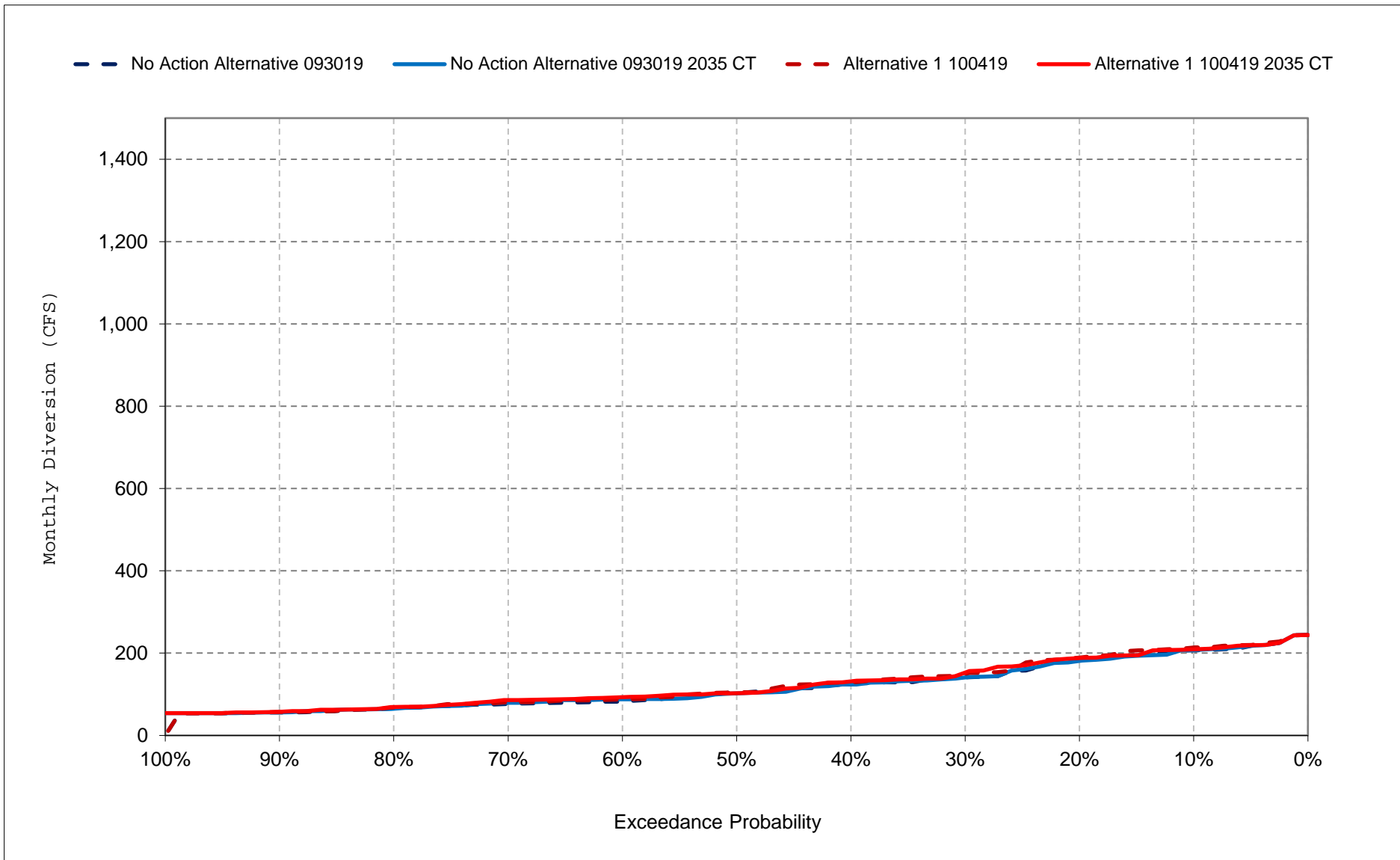
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

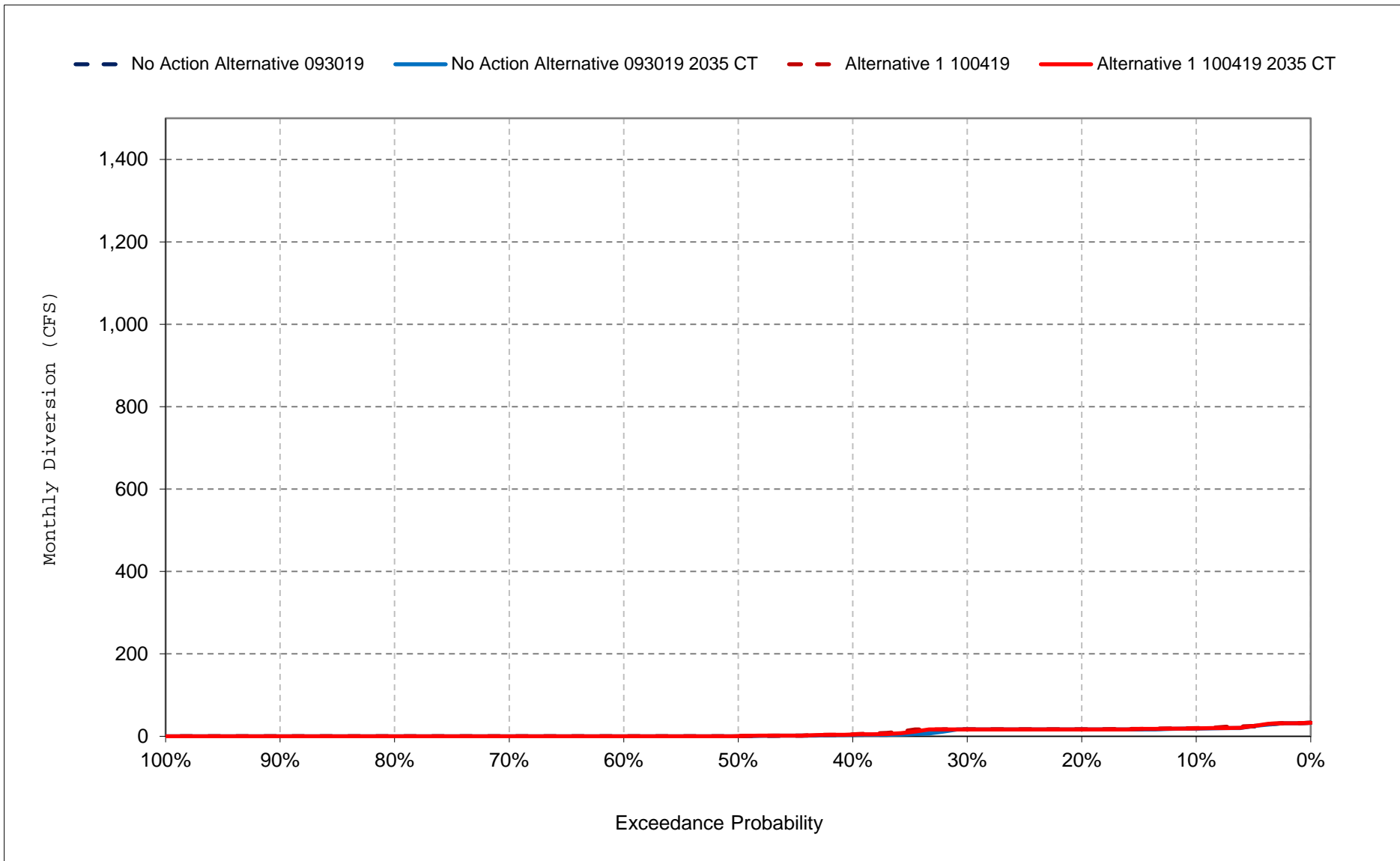
Figure 47-7. Red Bluff Diversion - Tehama Colusa Canal, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

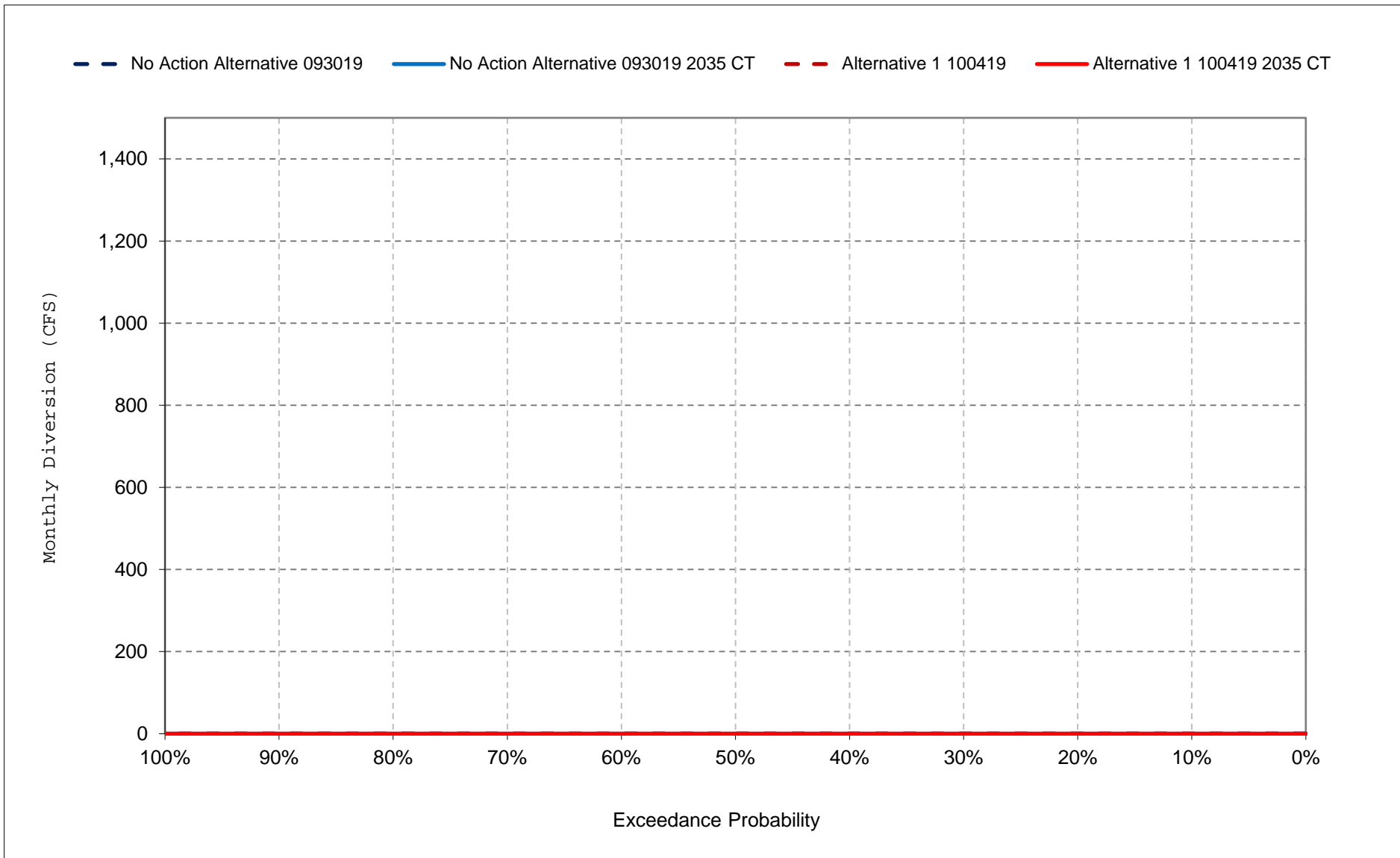
Figure 47-8. Red Bluff Diversion - Tehama Colusa Canal, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

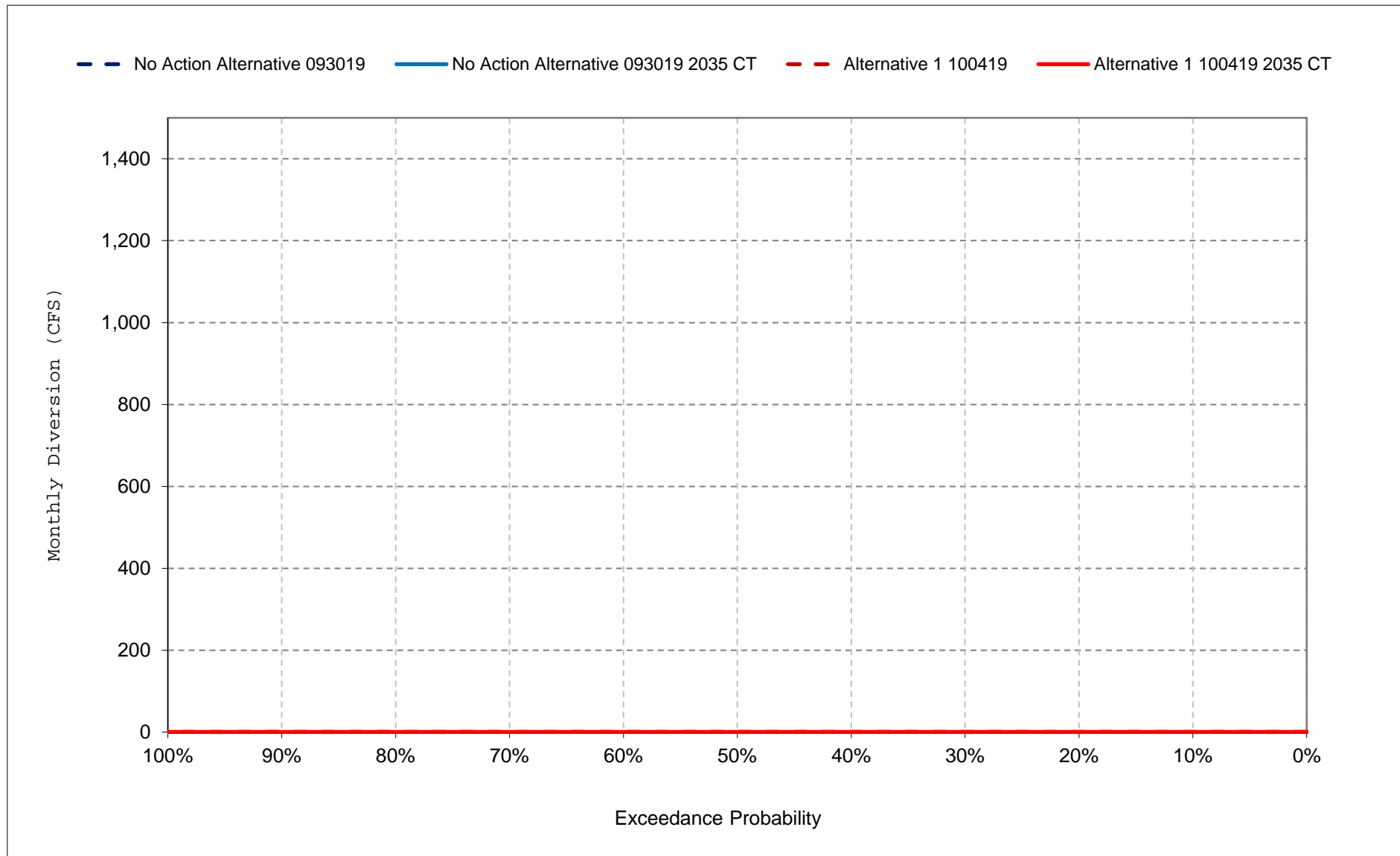
Figure 47-9. Red Bluff Diversion - Tehama Colusa Canal, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

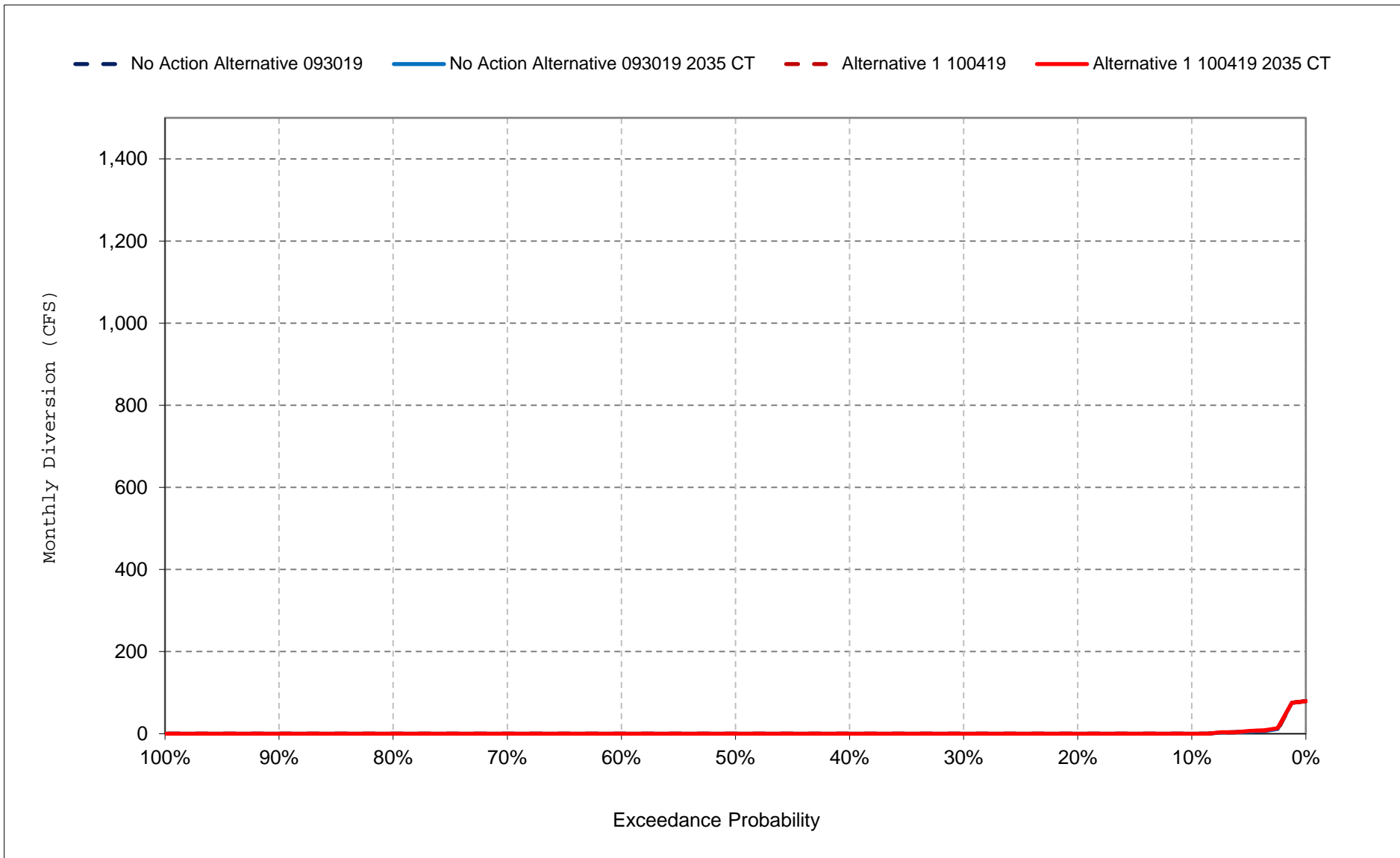
Figure 47-10. Red Bluff Diversion - Tehama Colusa Canal, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

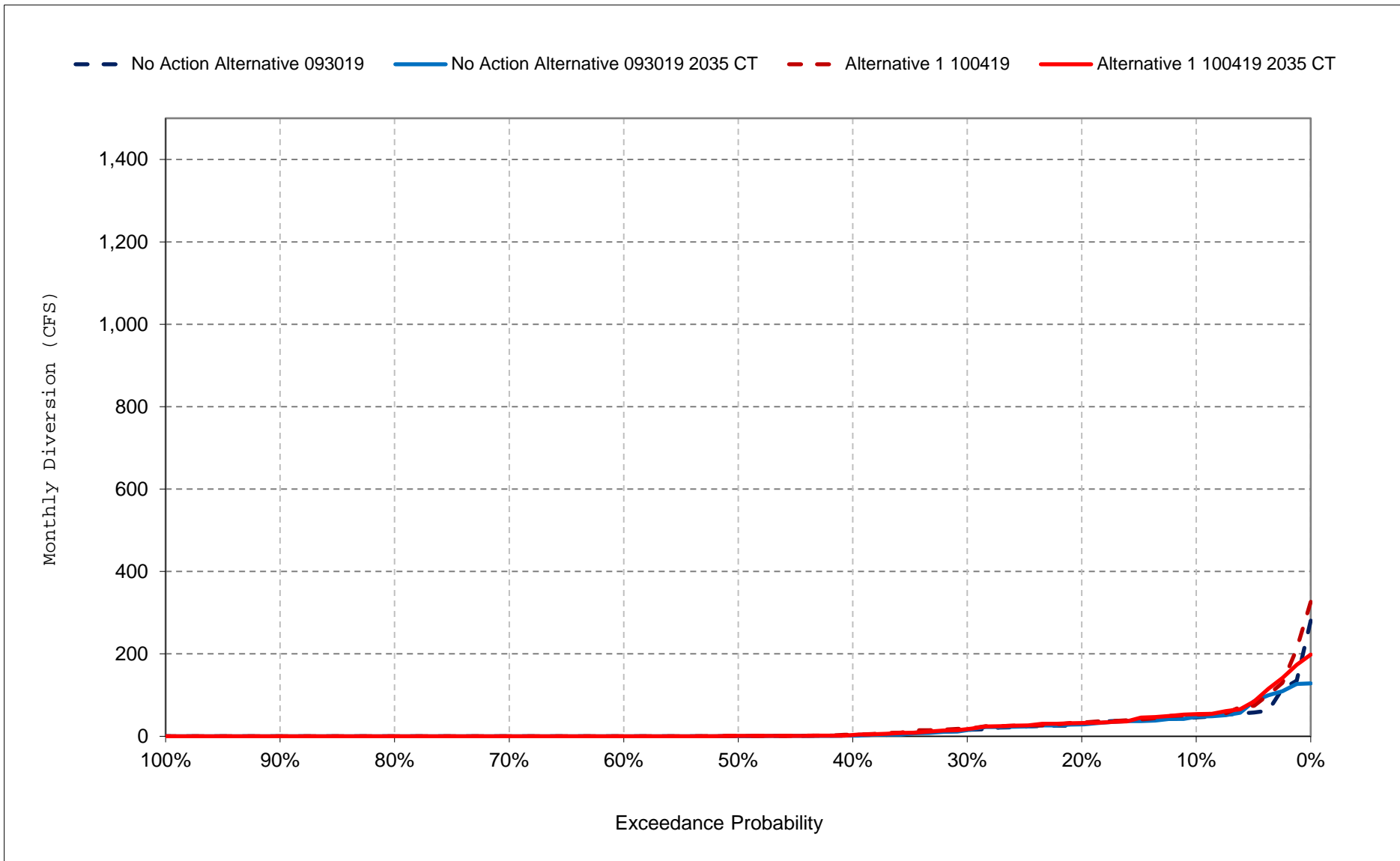
Figure 47-11. Red Bluff Diversion - Tehama Colusa Canal, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

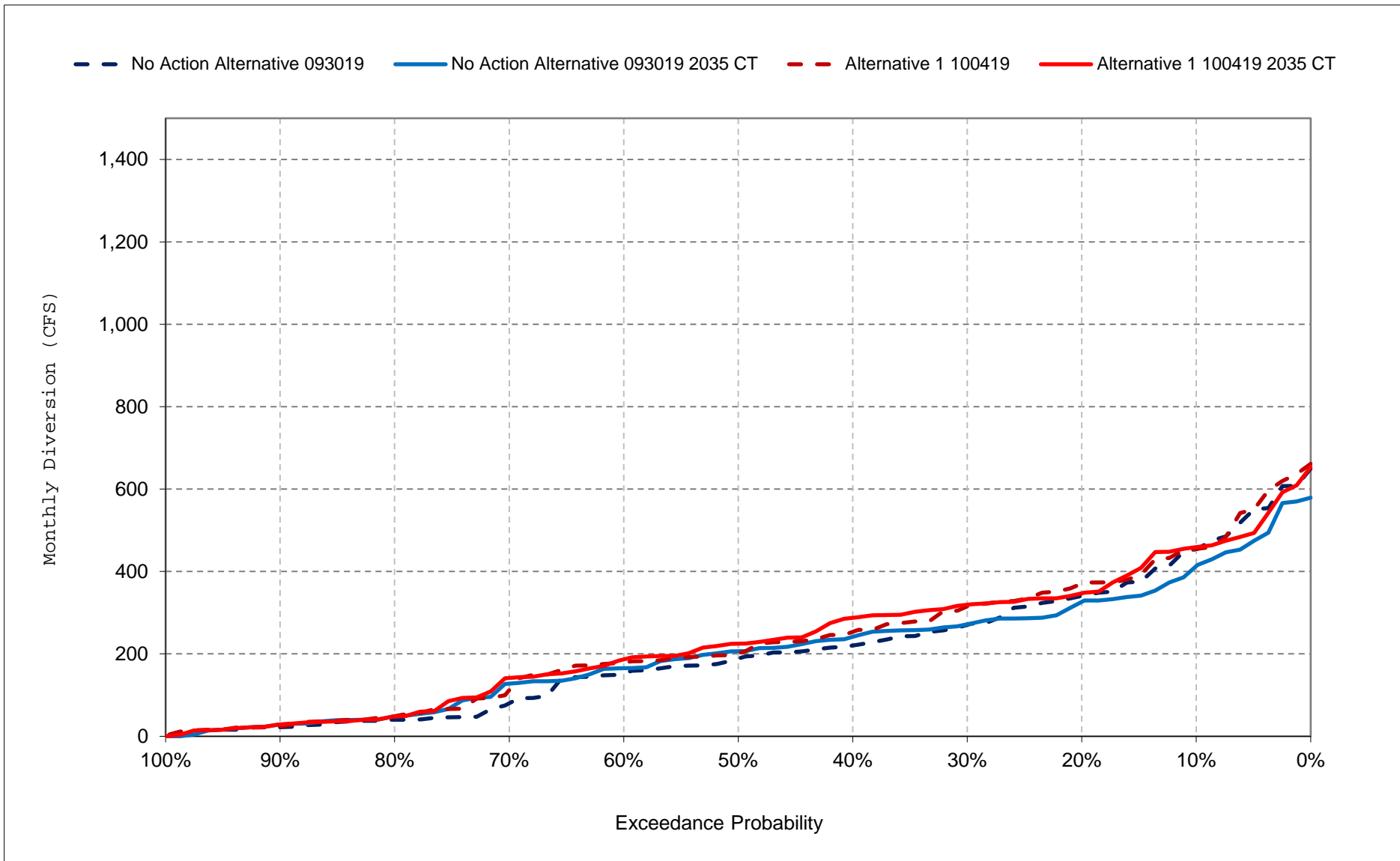
Figure 47-12. Red Bluff Diversion - Tehama Colusa Canal, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

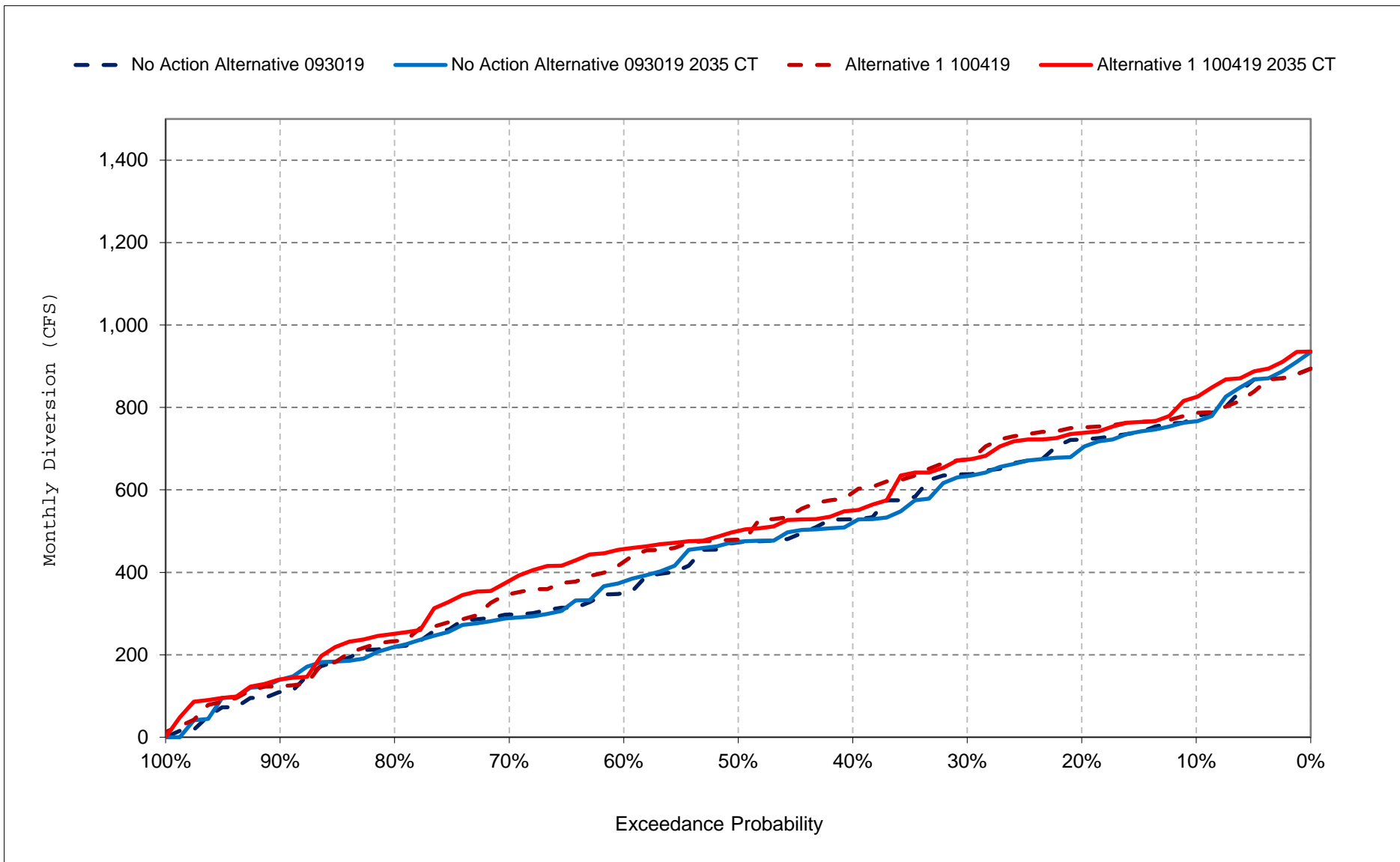
Figure 47-13. Red Bluff Diversion - Tehama Colusa Canal, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

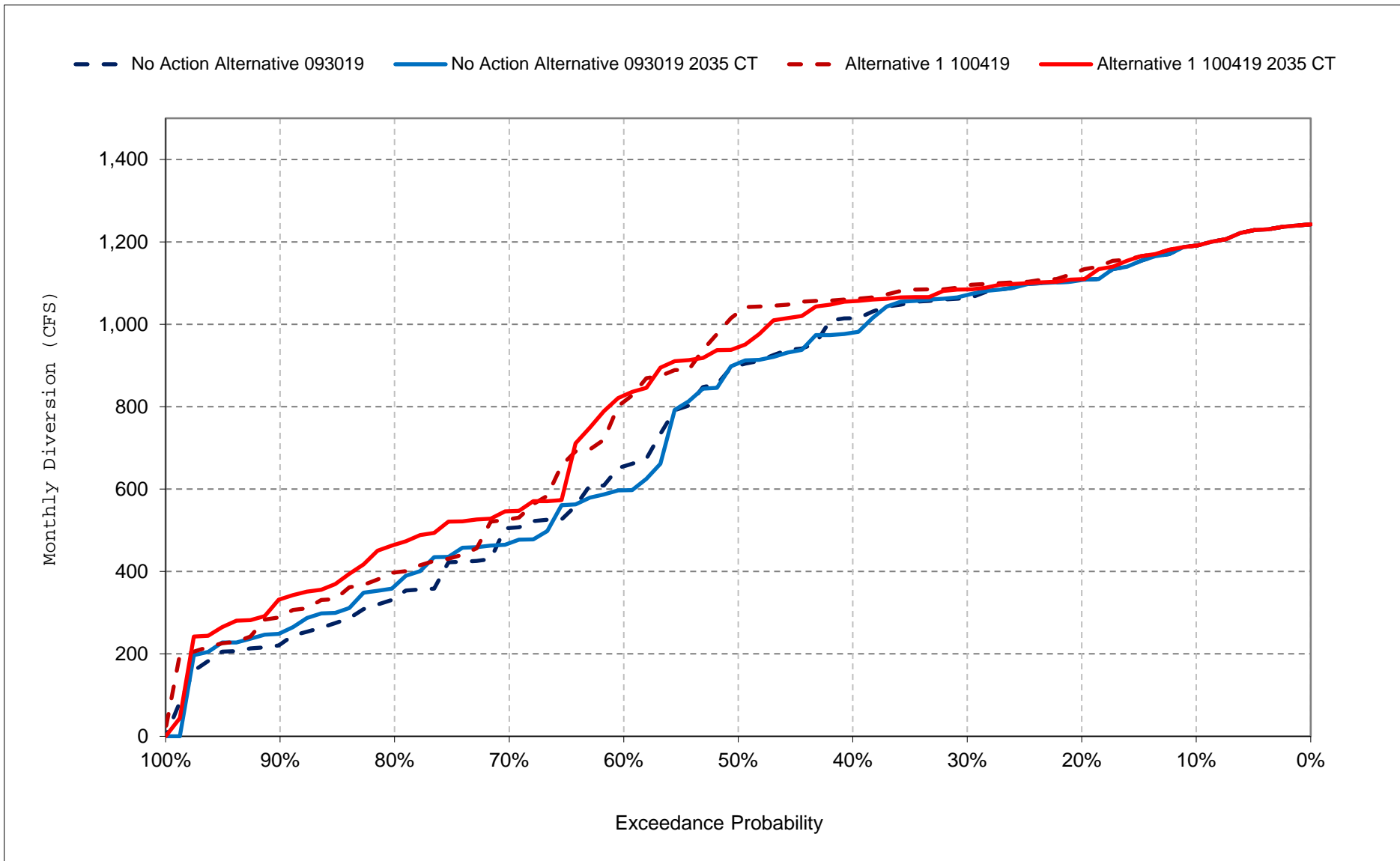
Figure 47-14. Red Bluff Diversion - Tehama Colusa Canal, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

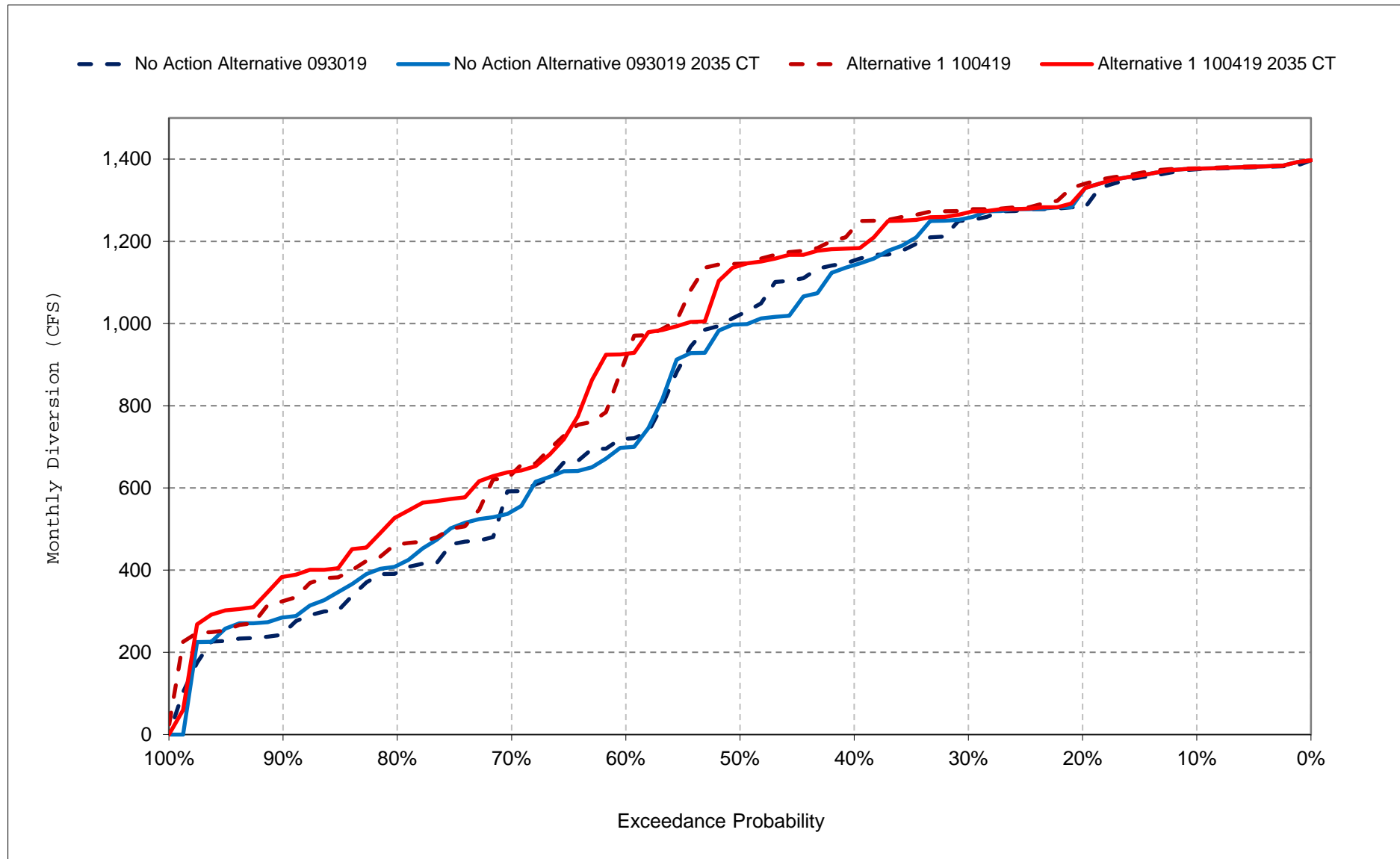
Figure 47-15. Red Bluff Diversion - Tehama Colusa Canal, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

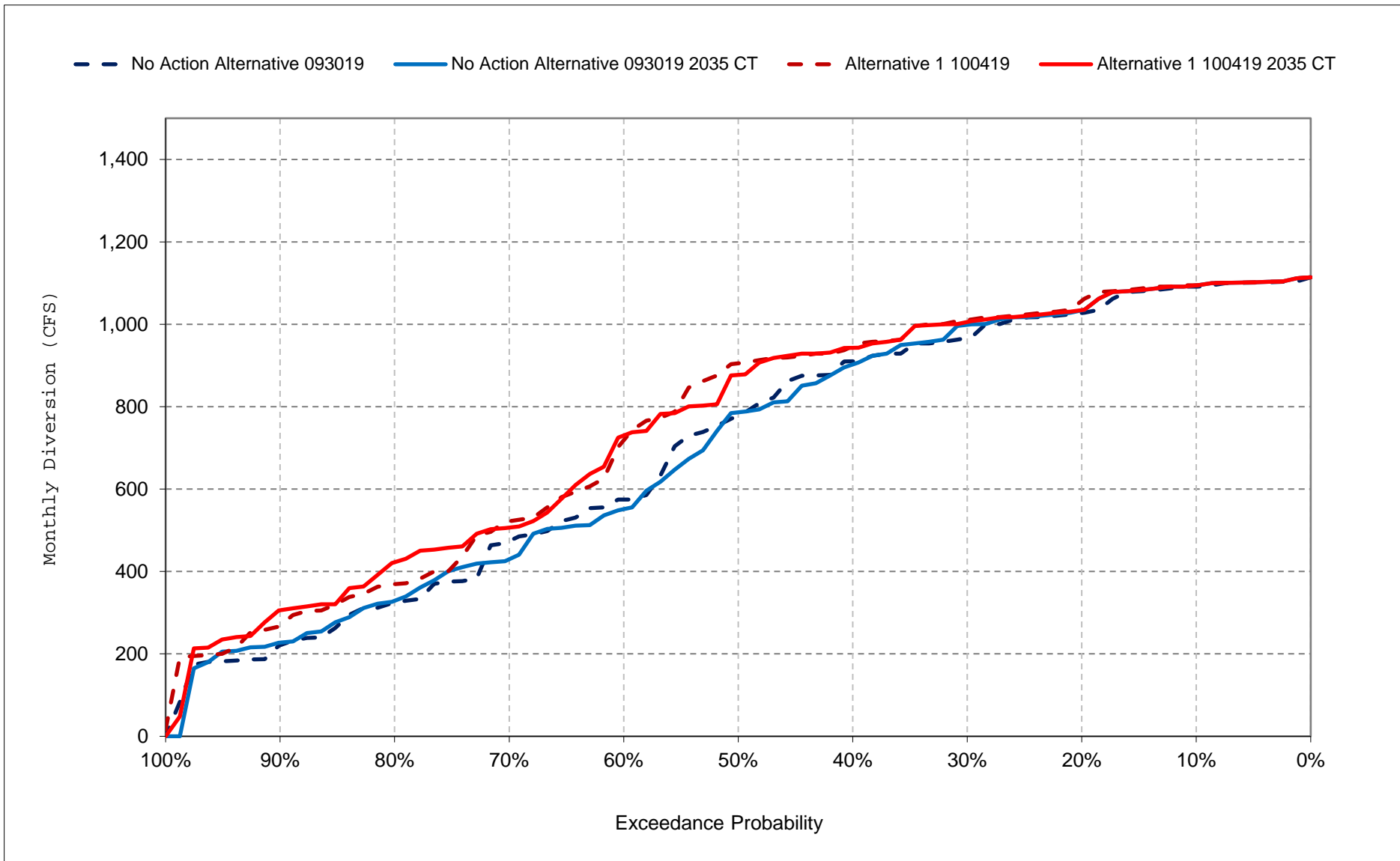
Figure 47-16. Red Bluff Diversion - Tehama Colusa Canal, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

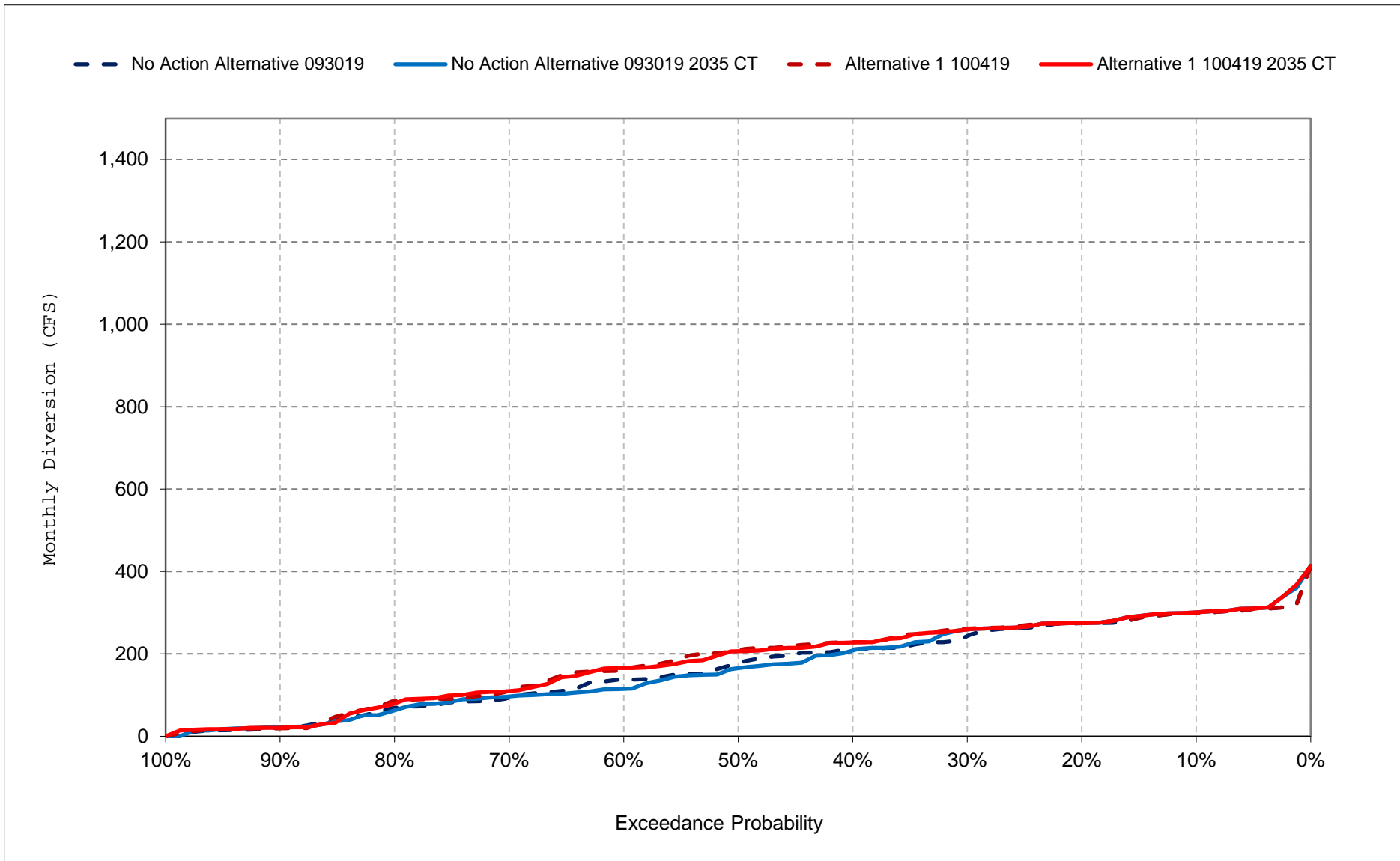
Figure 47-17. Red Bluff Diversion - Tehama Colusa Canal, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 47-18. Red Bluff Diversion - Tehama Colusa Canal, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-1. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	564	292	127	68	84	552	2,331	2,705	2,617	2,241	633
20%	845	546	268	86	68	65	527	2,297	2,620	2,611	2,130	633
30%	837	515	239	75	68	50	493	2,260	2,556	2,563	2,090	633
40%	823	478	222	75	68	35	467	2,245	2,483	2,538	2,040	630
50%	808	441	202	75	68	21	451	2,216	2,416	2,538	1,981	628
60%	790	420	181	75	68	20	427	2,153	2,339	2,535	1,928	612
70%	771	390	161	75	67	20	411	2,079	2,312	2,521	1,919	602
80%	745	354	158	75	66	20	391	2,007	2,271	2,443	1,874	569
90%	636	323	158	75	53	20	306	1,858	2,226	2,285	1,795	504
Long Term												
Full Simulation Period ^d	773	448	210	84	67	43	443	2,139	2,432	2,510	1,991	591
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	32	402	2,119	2,258	2,565	2,141	614
Above Normal (16%)	796	461	207	76	65	28	432	2,098	2,359	2,537	2,023	616
Below Normal (13%)	781	466	212	98	73	63	472	2,170	2,559	2,534	1,995	583
Dry (24%)	807	435	215	85	66	43	447	2,200	2,645	2,532	1,916	605
Critical (15%)	600	414	166	84	66	65	512	2,098	2,418	2,305	1,755	500

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	801	292	127	68	84	552	2,340	2,705	2,617	2,241	633
20%	605	788	270	86	68	65	527	2,313	2,621	2,615	2,135	633
30%	598	758	240	75	68	50	493	2,274	2,571	2,563	2,093	633
40%	586	724	224	75	68	35	467	2,250	2,483	2,538	2,065	630
50%	572	685	202	75	68	21	451	2,225	2,416	2,538	1,982	628
60%	555	658	181	75	68	20	427	2,154	2,340	2,524	1,924	613
70%	539	619	161	75	67	20	411	2,086	2,327	2,518	1,911	603
80%	516	586	158	75	66	20	391	2,007	2,277	2,443	1,855	554
90%	453	556	158	75	53	20	306	1,853	2,226	2,318	1,795	504
Long Term												
Full Simulation Period ^d	551	684	211	84	67	43	443	2,145	2,434	2,509	2,001	590
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,122	2,264	2,565	2,169	618
Above Normal (16%)	562	702	207	76	65	28	432	2,098	2,359	2,537	2,054	616
Below Normal (13%)	553	702	212	98	73	63	472	2,181	2,564	2,543	1,984	574
Dry (24%)	572	678	218	85	66	43	447	2,215	2,643	2,527	1,901	601
Critical (15%)	447	617	166	84	66	65	512	2,095	2,418	2,297	1,762	500

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-241	238	0	0	0	0	0	10	0	0	0	0
20%	-239	242	1	0	0	0	0	16	1	4	5	0
30%	-239	242	2	0	0	0	0	15	15	0	3	0
40%	-237	247	2	0	0	0	0	5	0	0	25	0
50%	-236	244	0	0	0	0	0	9	0	0	1	0
60%	-234	237	0	0	0	0	0	2	1	-12	-4	1
70%	-232	229	0	0	0	0	0	7	15	-3	-8	1
80%	-229	232	0	0	0	0	0	0	7	0	-20	-16
90%	-183	233	0	0	0	0	0	-5	0	33	0	0
Long Term												
Full Simulation Period ^d	-222	236	1	0	0	0	0	6	2	-1	10	-1
Water Year Types ^{b,c}												
Wet (32%)	-236	244	0	0	0	-1	0	3	6	0	28	4
Above Normal (16%)	-234	241	0	0	0	0	0	0	0	0	31	0
Below Normal (13%)	-228	236	0	0	0	0	0	11	5	9	-11	-9
Dry (24%)	-234	244	3	0	0	0	0	14	-2	-4	-14	-4
Critical (15%)	-153	203	0	0	0	0	0	-3	0	-7	7	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 48-2. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	573	292	127	68	87	552	2,338	2,710	2,617	2,186	633
20%	845	550	270	86	68	61	525	2,296	2,647	2,599	2,130	633
30%	837	521	249	75	68	50	493	2,257	2,580	2,583	2,093	633
40%	824	480	224	75	68	35	467	2,242	2,485	2,549	2,067	630
50%	811	447	199	75	68	21	451	2,209	2,414	2,538	2,027	626
60%	794	420	181	75	68	20	427	2,153	2,336	2,537	1,924	612
70%	775	390	161	75	68	20	411	2,069	2,296	2,527	1,912	602
80%	745	354	158	75	66	20	391	2,007	2,260	2,477	1,857	543
90%	697	323	158	75	66	20	306	1,841	2,203	2,327	1,796	507
Long Term												
Full Simulation Period ^d	787	450	212	84	68	43	443	2,135	2,431	2,517	2,003	596
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	31	402	2,114	2,243	2,578	2,136	611
Above Normal (16%)	796	461	207	76	65	28	431	2,085	2,362	2,535	2,037	602
Below Normal (13%)	801	481	219	98	73	64	473	2,172	2,566	2,556	2,026	596
Dry (24%)	807	435	218	86	69	43	447	2,202	2,651	2,529	1,911	605
Critical (15%)	682	415	164	85	66	65	512	2,090	2,421	2,313	1,808	542

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	818	286	127	68	87	552	2,340	2,710	2,617	2,241	633
20%	605	792	270	86	68	61	525	2,304	2,647	2,607	2,130	633
30%	598	761	249	75	68	50	493	2,278	2,591	2,574	2,093	633
40%	587	728	224	75	68	35	467	2,247	2,485	2,560	2,065	630
50%	575	692	199	75	68	21	451	2,224	2,416	2,538	2,012	628
60%	559	661	181	75	68	20	427	2,190	2,351	2,538	1,924	617
70%	543	621	161	75	67	20	411	2,079	2,312	2,524	1,914	603
80%	517	583	158	75	66	20	391	1,995	2,272	2,470	1,856	587
90%	487	556	158	75	62	20	306	1,853	2,223	2,327	1,796	507
Long Term												
Full Simulation Period ^d	558	687	211	84	68	43	443	2,147	2,439	2,517	2,005	600
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,120	2,255	2,572	2,148	621
Above Normal (16%)	562	702	207	76	65	28	432	2,104	2,376	2,547	2,046	616
Below Normal (13%)	567	722	219	98	73	64	473	2,186	2,577	2,571	2,009	594
Dry (24%)	572	678	218	86	67	43	447	2,215	2,651	2,530	1,905	601
Critical (15%)	484	618	164	85	66	65	512	2,102	2,424	2,295	1,815	542

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-241	245	-6	0	0	0	0	3	0	0	55	0
20%	-239	241	0	0	0	0	0	7	0	9	0	0
30%	-239	240	0	0	0	0	0	21	11	-8	0	0
40%	-237	248	0	0	0	0	0	5	0	12	-2	0
50%	-236	245	0	0	0	0	0	15	2	0	-15	1
60%	-235	241	0	0	0	0	0	37	15	1	0	5
70%	-233	231	0	0	-2	0	0	10	16	-3	3	1
80%	-229	229	0	0	0	0	0	-13	12	-7	-1	44
90%	-210	233	0	0	-4	0	0	12	20	0	0	0
Long Term												
Full Simulation Period ^d	-229	237	0	0	-1	0	0	12	8	0	2	4
Water Year Types ^{b,c}												
Wet (32%)	-236	244	0	0	0	-1	0	6	12	-6	11	10
Above Normal (16%)	-234	241	-1	0	0	0	1	19	14	11	9	14
Below Normal (13%)	-234	242	0	0	0	0	0	15	12	15	-16	-2
Dry (24%)	-234	244	0	0	-2	0	0	13	0	1	-6	-4
Critical (15%)	-198	203	0	0	0	0	0	12	3	-18	7	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-3. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	564	292	127	68	84	552	2,331	2,705	2,617	2,241	633
20%	845	546	268	86	68	65	527	2,297	2,620	2,611	2,130	633
30%	837	515	239	75	68	50	493	2,260	2,556	2,563	2,090	633
40%	823	478	222	75	68	35	467	2,245	2,483	2,538	2,040	630
50%	808	441	202	75	68	21	451	2,216	2,416	2,538	1,981	628
60%	790	420	181	75	68	20	427	2,153	2,339	2,535	1,928	612
70%	771	390	161	75	67	20	411	2,079	2,312	2,521	1,919	602
80%	745	354	158	75	66	20	391	2,007	2,271	2,443	1,874	569
90%	636	323	158	75	53	20	306	1,858	2,226	2,285	1,795	504
Long Term												
Full Simulation Period ^d	773	448	210	84	67	43	443	2,139	2,432	2,510	1,991	591
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	32	402	2,119	2,258	2,565	2,141	614
Above Normal (16%)	796	461	207	76	65	28	432	2,098	2,359	2,537	2,023	616
Below Normal (13%)	781	466	212	98	73	63	472	2,170	2,559	2,534	1,995	583
Dry (24%)	807	435	215	85	66	43	447	2,200	2,645	2,532	1,916	605
Critical (15%)	600	414	166	84	66	65	512	2,098	2,418	2,305	1,755	500

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	851	573	292	127	68	87	552	2,338	2,710	2,617	2,186	633
20%	845	550	270	86	68	61	525	2,296	2,647	2,599	2,130	633
30%	837	521	249	75	68	50	493	2,257	2,580	2,583	2,093	633
40%	824	480	224	75	68	35	467	2,242	2,485	2,549	2,067	630
50%	811	447	199	75	68	21	451	2,209	2,414	2,538	2,027	626
60%	794	420	181	75	68	20	427	2,153	2,336	2,537	1,924	612
70%	775	390	161	75	68	20	411	2,069	2,296	2,527	1,912	602
80%	745	354	158	75	66	20	391	2,007	2,260	2,477	1,857	543
90%	697	323	158	75	66	20	306	1,841	2,203	2,327	1,796	507
Long Term												
Full Simulation Period ^d	787	450	212	84	68	43	443	2,135	2,431	2,517	2,003	596
Water Year Types ^{b,c}												
Wet (32%)	811	460	227	81	67	31	402	2,114	2,243	2,578	2,136	611
Above Normal (16%)	796	461	207	76	65	28	431	2,085	2,362	2,535	2,037	602
Below Normal (13%)	801	481	219	98	73	64	473	2,172	2,566	2,556	2,026	596
Dry (24%)	807	435	218	86	69	43	447	2,202	2,651	2,529	1,911	605
Critical (15%)	682	415	164	85	66	65	512	2,090	2,421	2,313	1,808	542

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	9	0	0	0	3	0	7	5	0	-55	0
20%	0	4	1	0	0	-4	-2	-1	27	-12	0	0
30%	0	6	10	0	0	0	0	-3	24	20	3	0
40%	1	2	2	0	0	0	0	-3	2	11	27	0
50%	3	6	-3	0	0	0	0	-8	-2	0	46	-1
60%	4	0	-1	0	0	0	0	0	-3	2	-4	0
70%	5	0	0	0	2	0	0	-10	-16	5	-7	0
80%	0	0	0	0	0	0	0	0	-11	34	-17	-26
90%	62	0	0	0	13	0	0	-17	-23	42	1	3
Long Term												
Full Simulation Period ^d	15	2	1	0	1	0	0	-4	-1	7	12	5
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	0	-5	-14	13	-4	-3
Above Normal (16%)	0	0	0	0	0	0	-1	-13	3	-1	14	-14
Below Normal (13%)	20	14	6	0	0	1	1	2	7	22	31	13
Dry (24%)	0	0	3	1	3	0	0	2	6	-3	-5	0
Critical (15%)	82	1	-1	1	0	0	0	-8	3	8	53	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 48-4. Hamilton City Diversion - Glenn Colusa Canal, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	801	292	127	68	84	552	2,340	2,705	2,617	2,241	633
20%	605	788	270	86	68	65	527	2,313	2,621	2,615	2,135	633
30%	598	758	240	75	68	50	493	2,274	2,571	2,563	2,093	633
40%	586	724	224	75	68	35	467	2,250	2,483	2,538	2,065	630
50%	572	685	202	75	68	21	451	2,225	2,416	2,538	1,982	628
60%	555	658	181	75	68	20	427	2,154	2,340	2,524	1,924	613
70%	539	619	161	75	67	20	411	2,086	2,327	2,518	1,911	603
80%	516	586	158	75	66	20	391	2,007	2,277	2,443	1,855	554
90%	453	556	158	75	53	20	306	1,853	2,226	2,318	1,795	504
Long Term												
Full Simulation Period ^d	551	684	211	84	67	43	443	2,145	2,434	2,509	2,001	590
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,122	2,264	2,565	2,169	618
Above Normal (16%)	562	702	207	76	65	28	432	2,098	2,359	2,537	2,054	616
Below Normal (13%)	553	702	212	98	73	63	472	2,181	2,564	2,543	1,984	574
Dry (24%)	572	678	218	85	66	43	447	2,215	2,643	2,527	1,901	601
Critical (15%)	447	617	166	84	66	65	512	2,095	2,418	2,297	1,762	500

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	610	818	286	127	68	87	552	2,340	2,710	2,617	2,241	633
20%	605	792	270	86	68	61	525	2,304	2,647	2,607	2,130	633
30%	598	761	249	75	68	50	493	2,278	2,591	2,574	2,093	633
40%	587	728	224	75	68	35	467	2,247	2,485	2,560	2,065	630
50%	575	692	199	75	68	21	451	2,224	2,416	2,538	2,012	628
60%	559	661	181	75	68	20	427	2,190	2,351	2,538	1,924	617
70%	543	621	161	75	67	20	411	2,079	2,312	2,524	1,914	603
80%	517	583	158	75	66	20	391	1,995	2,272	2,470	1,856	587
90%	487	556	158	75	62	20	306	1,853	2,223	2,327	1,796	507
Long Term												
Full Simulation Period ^d	558	687	211	84	68	43	443	2,147	2,439	2,517	2,005	600
Water Year Types ^{b,c}												
Wet (32%)	575	704	227	81	67	31	402	2,120	2,255	2,572	2,148	621
Above Normal (16%)	562	702	207	76	65	28	432	2,104	2,376	2,547	2,046	616
Below Normal (13%)	567	722	219	98	73	64	473	2,186	2,577	2,571	2,009	594
Dry (24%)	572	678	218	86	67	43	447	2,215	2,651	2,530	1,905	601
Critical (15%)	484	618	164	85	66	65	512	2,102	2,424	2,295	1,815	542

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	17	-6	0	0	3	0	0	5	0	0	0
20%	0	4	0	0	0	-4	-2	-9	26	-7	-5	0
30%	0	3	8	0	0	0	0	4	20	11	0	0
40%	1	4	0	0	0	0	0	-3	2	22	0	0
50%	3	6	-3	0	0	0	0	-1	0	0	30	0
60%	4	4	-1	0	0	0	0	35	11	14	0	3
70%	4	2	0	0	0	0	0	-7	-15	6	4	0
80%	0	-4	0	0	0	0	0	-13	-6	27	2	34
90%	34	0	0	0	9	0	0	0	-3	9	1	3
Long Term												
Full Simulation Period ^d	7	3	1	0	0	0	0	2	5	8	4	10
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	0	-2	-9	6	-21	3
Above Normal (16%)	0	0	-1	0	0	0	0	6	17	10	-8	0
Below Normal (13%)	14	20	6	0	0	1	1	6	14	28	25	20
Dry (24%)	0	0	0	1	1	0	0	1	8	3	3	0
Critical (15%)	37	2	-1	1	0	0	0	7	6	-3	53	42

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

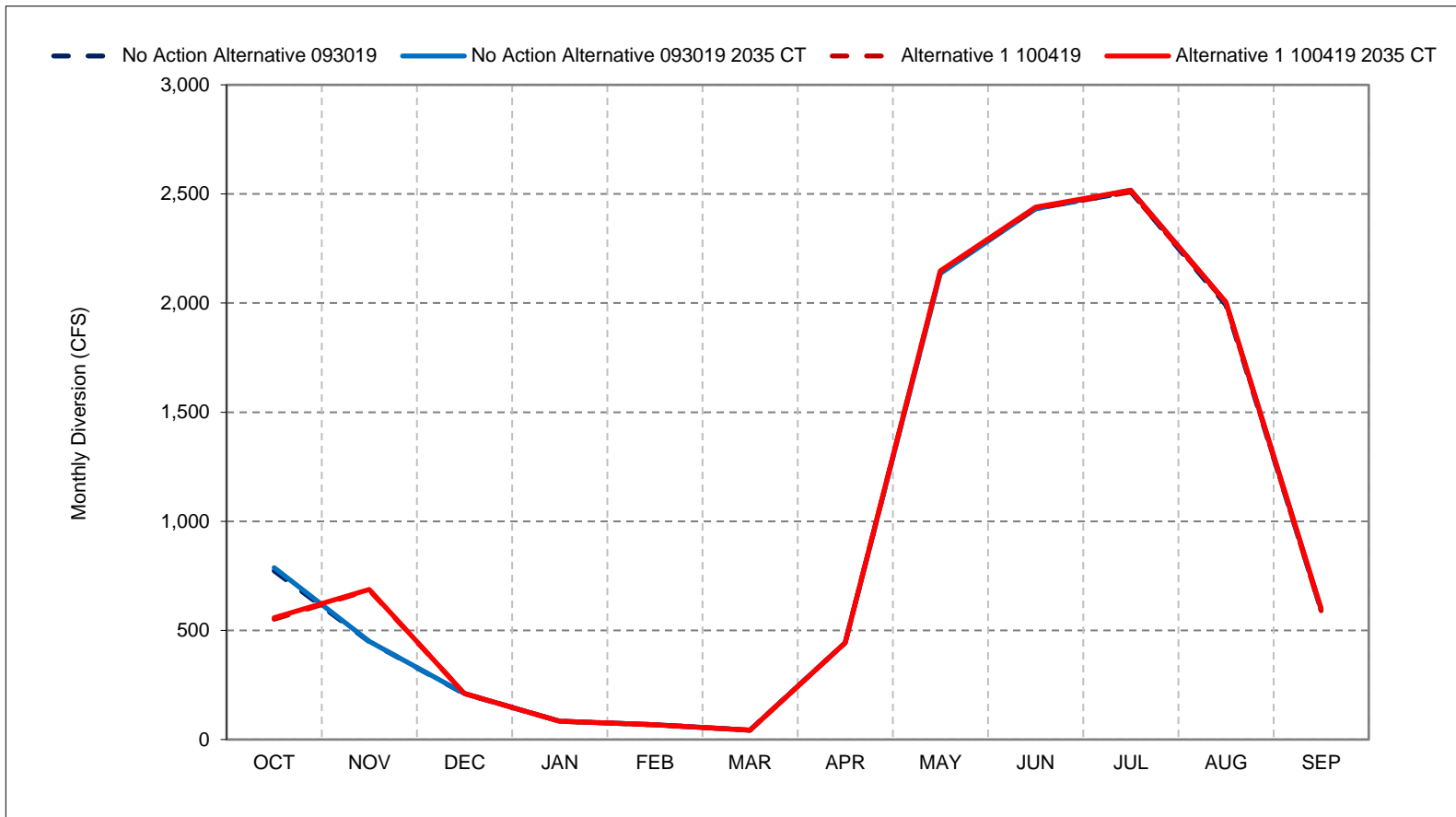
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 48-1. Hamilton City Diversion - Glenn Colusa Canal, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

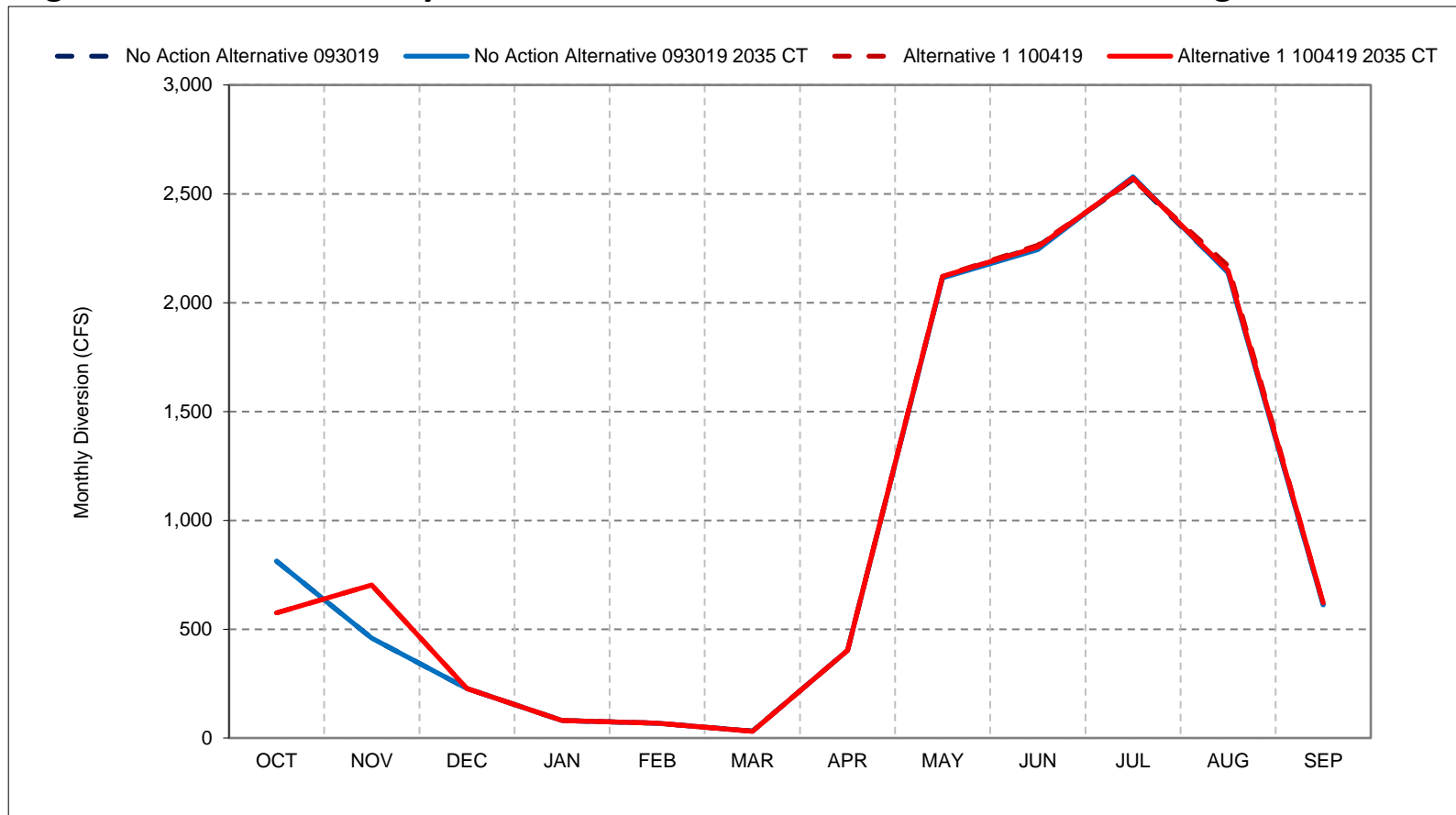
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-2. Hamilton City Diversion - Glenn Colusa Canal, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

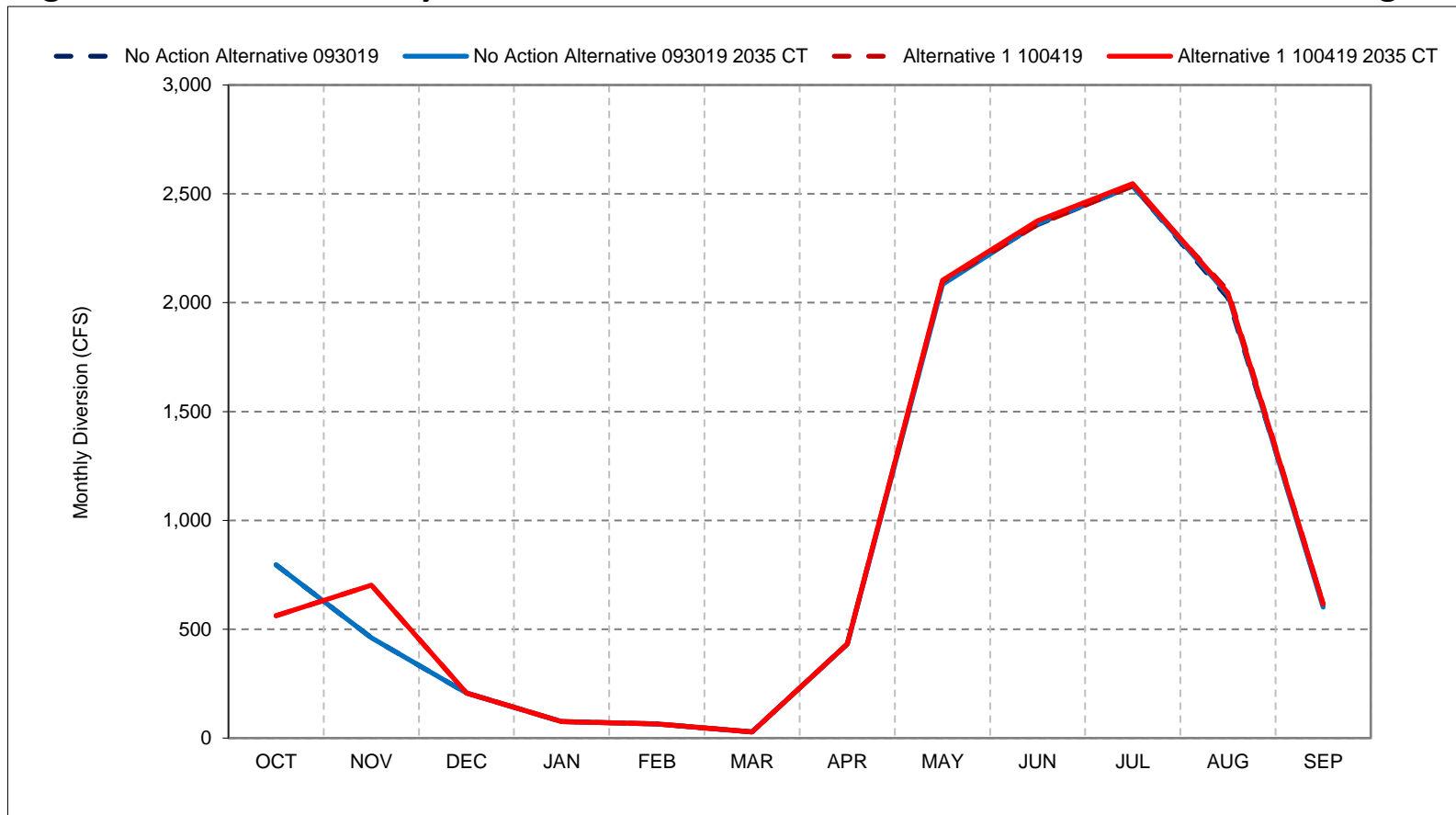
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-3. Hamilton City Diversion - Glenn Colusa Canal, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

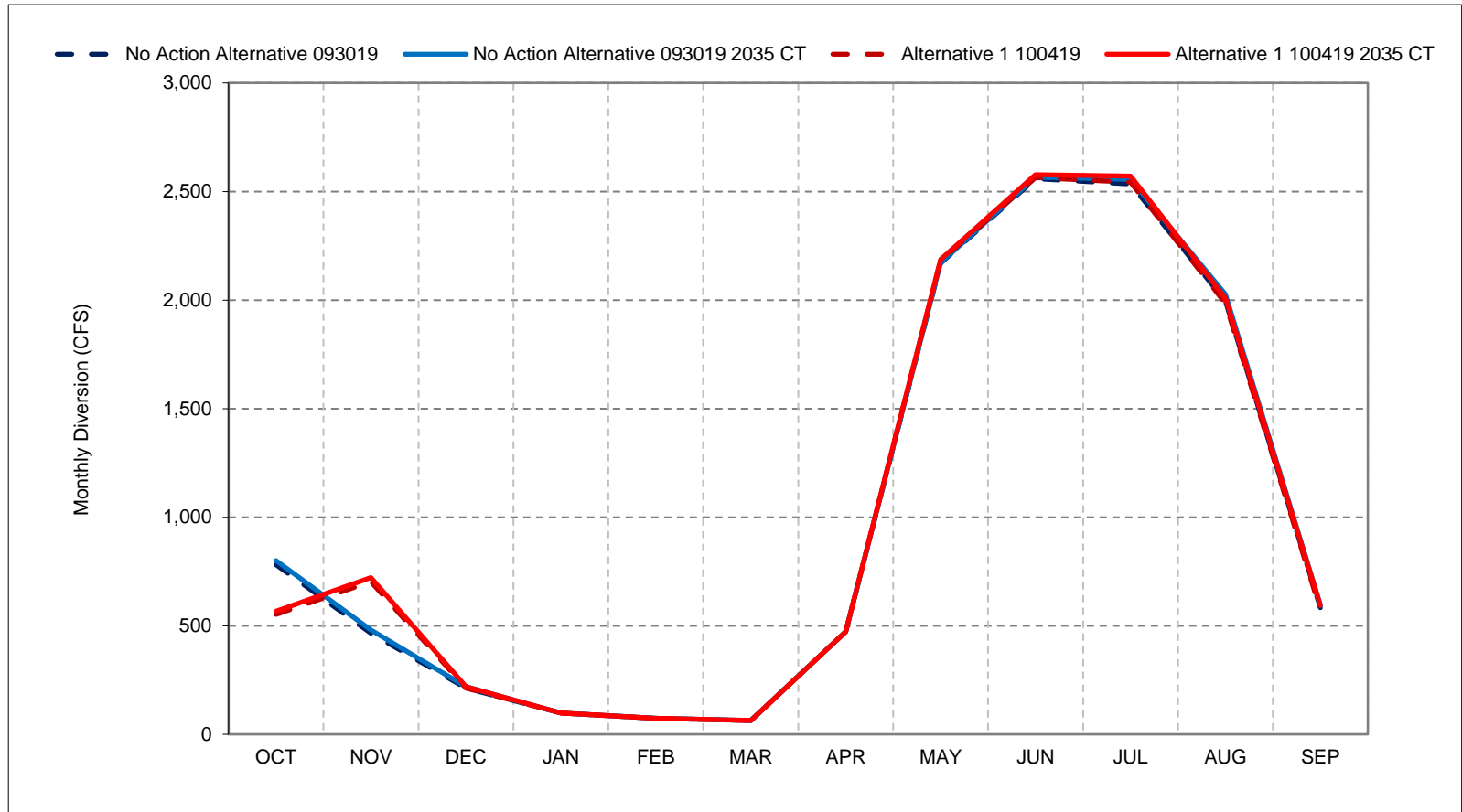
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-4. Hamilton City Diversion - Glenn Colusa Canal, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

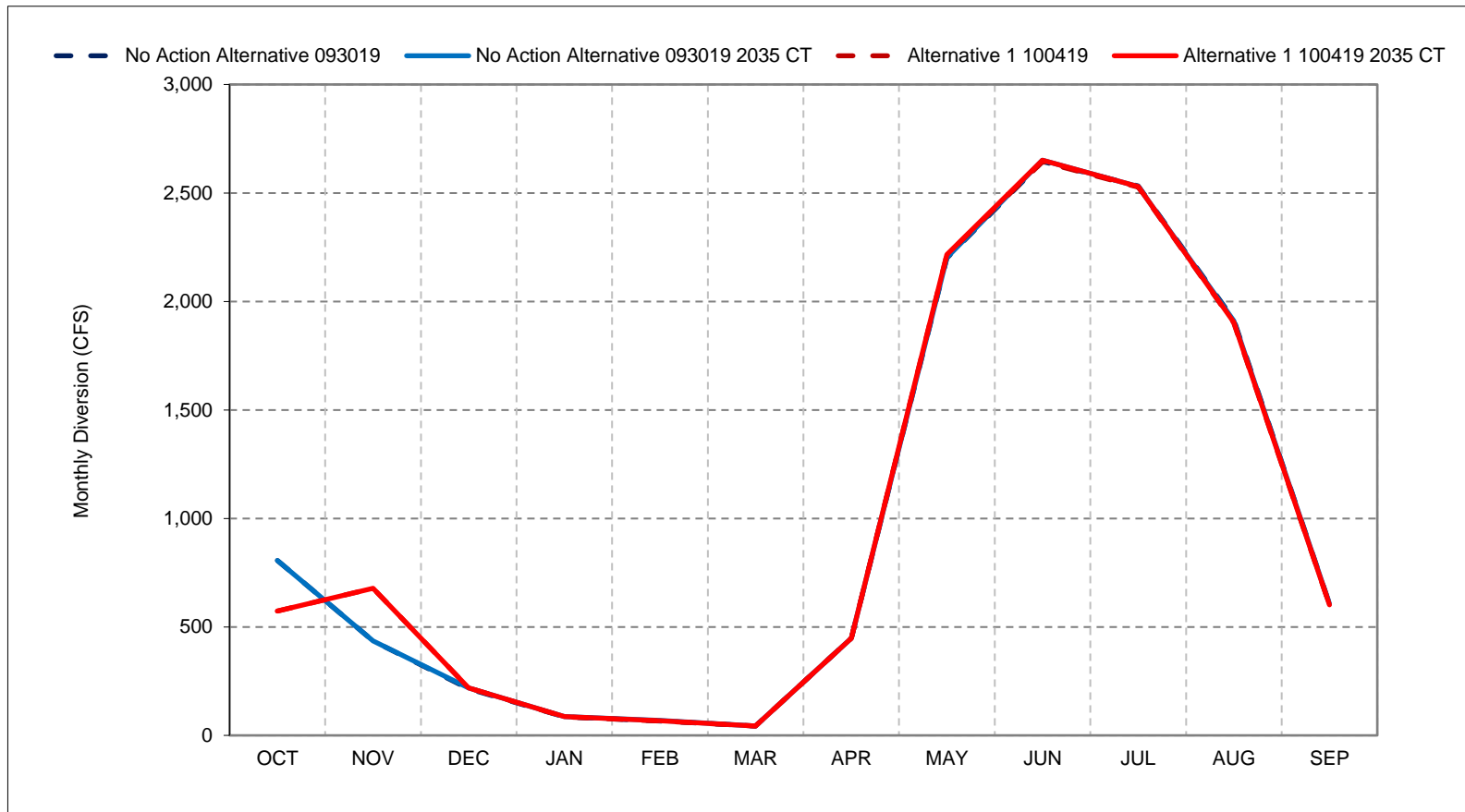
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-5. Hamilton City Diversion - Glenn Colusa Canal, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

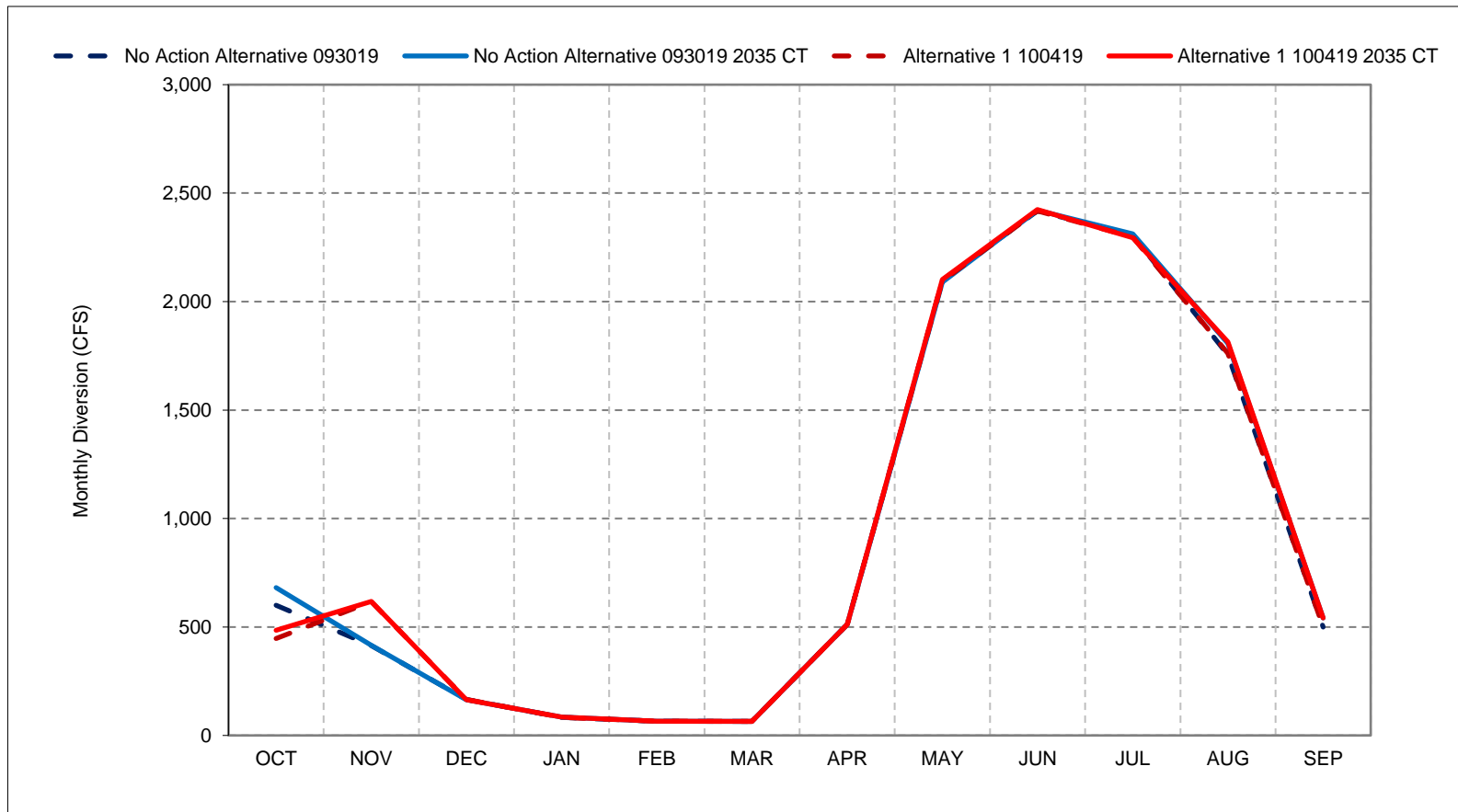
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 48-6. Hamilton City Diversion - Glenn Colusa Canal, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

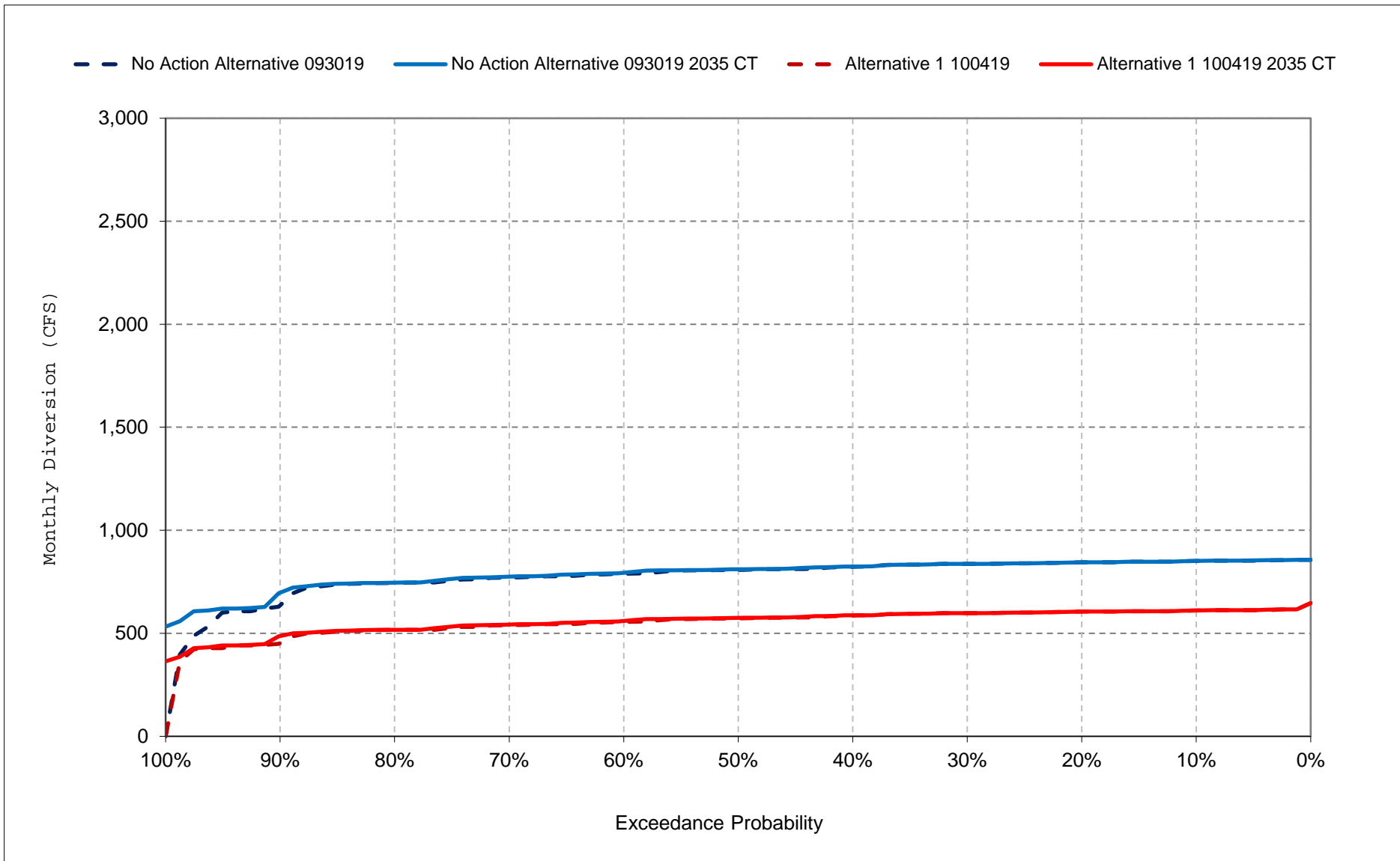
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

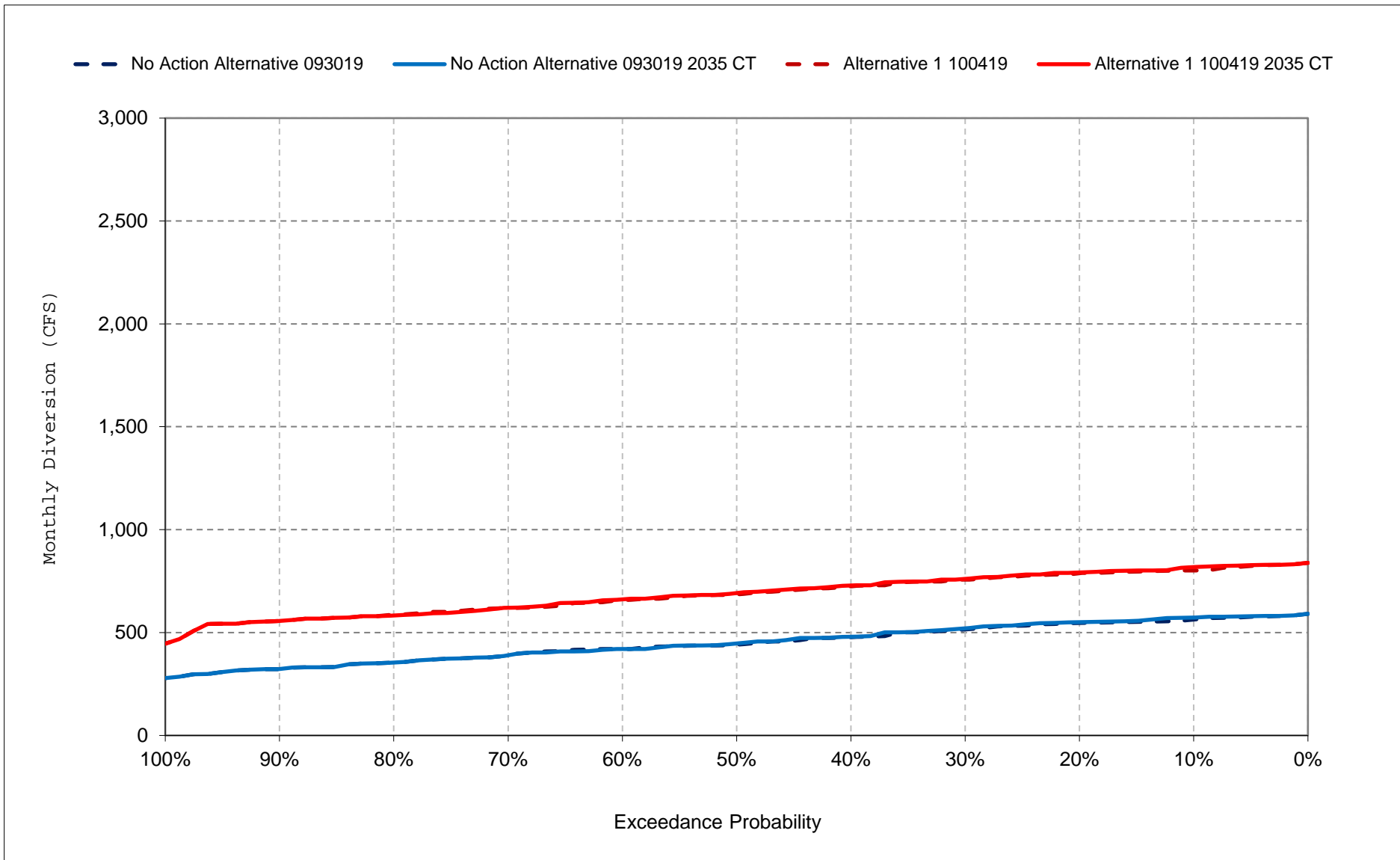
Figure 48-7. Hamilton City Diversion - Glenn Colusa Canal, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

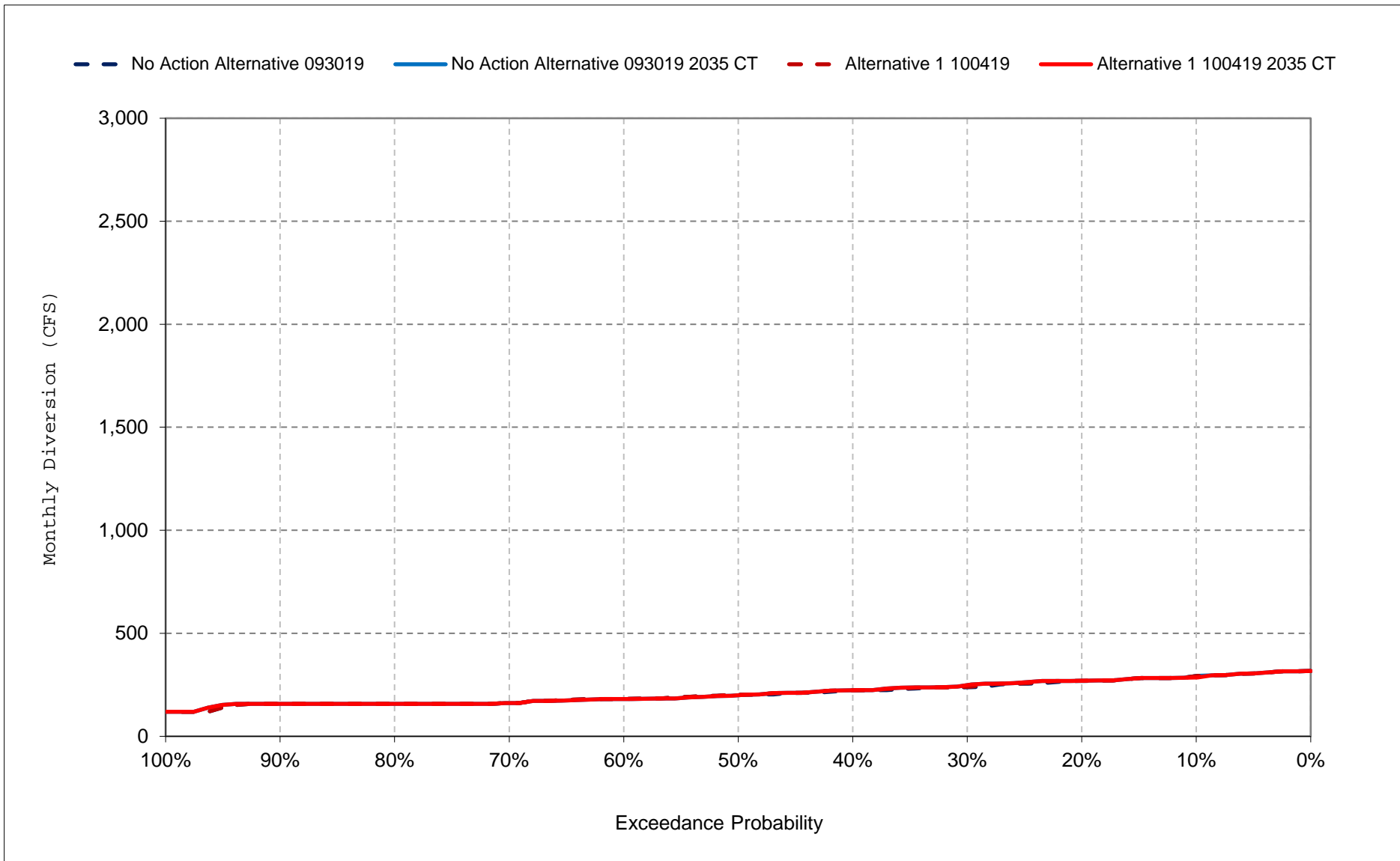
Figure 48-8. Hamilton City Diversion - Glenn Colusa Canal, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

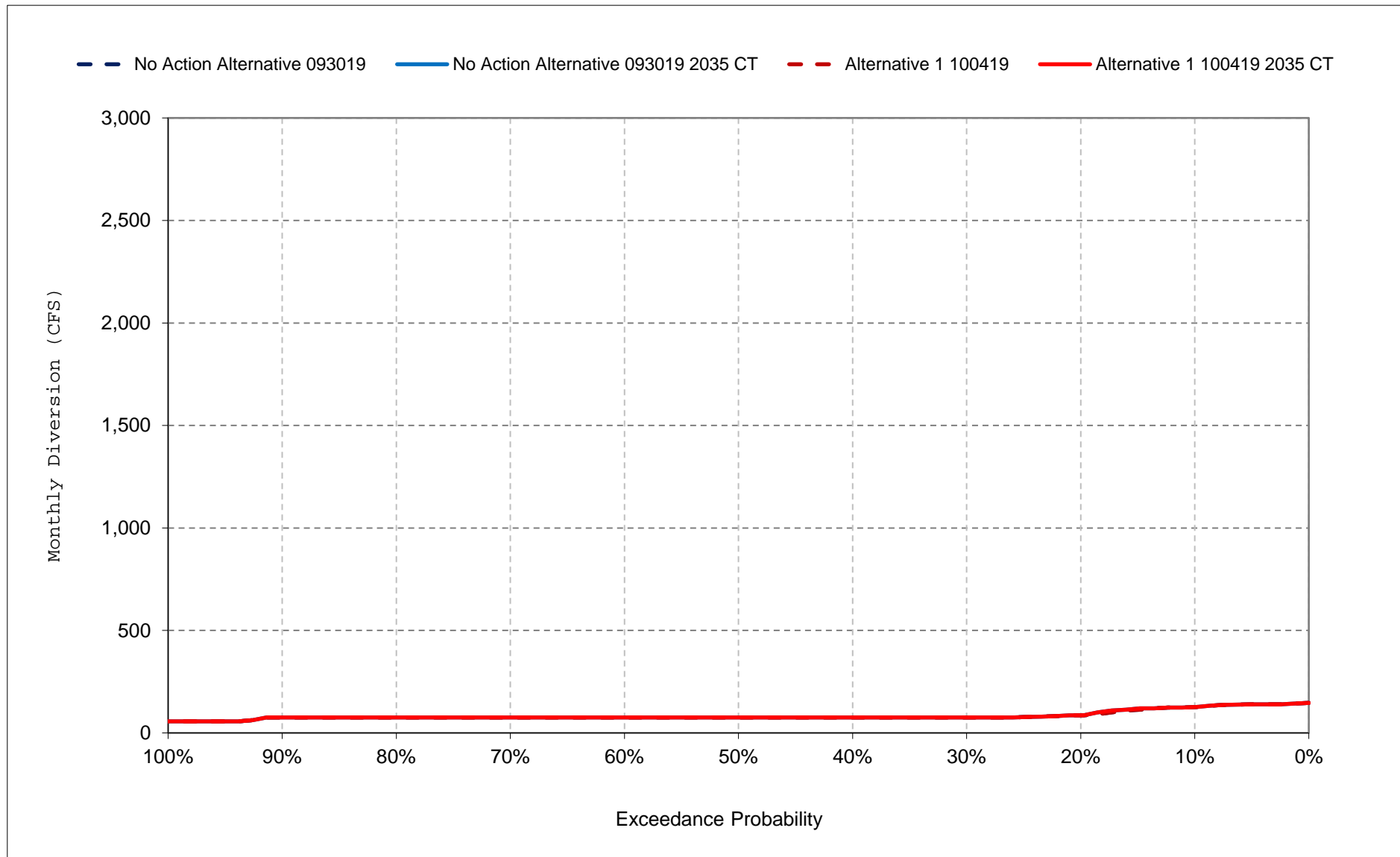
Figure 48-9. Hamilton City Diversion - Glenn Colusa Canal, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

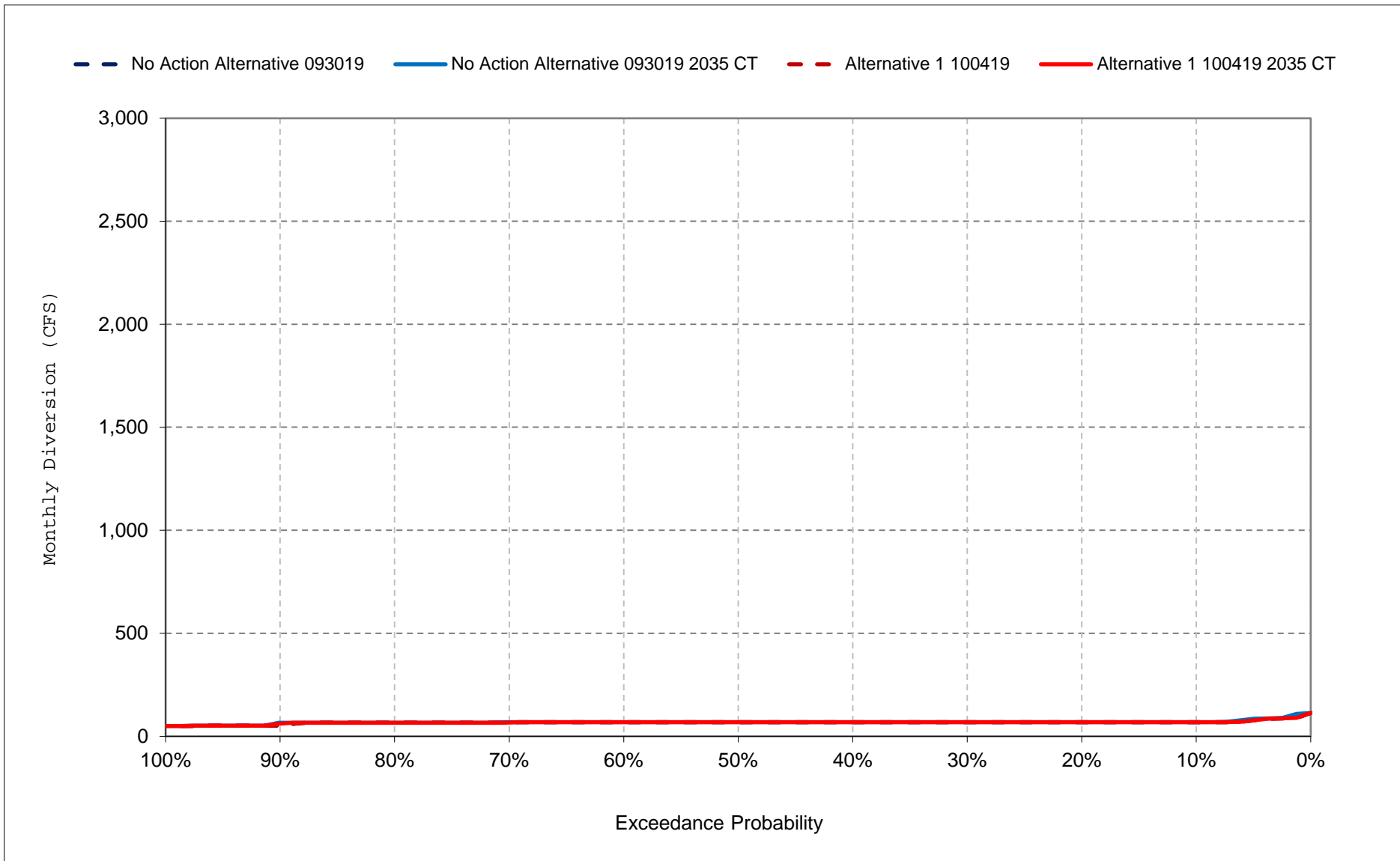
Figure 48-10. Hamilton City Diversion - Glenn Colusa Canal, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

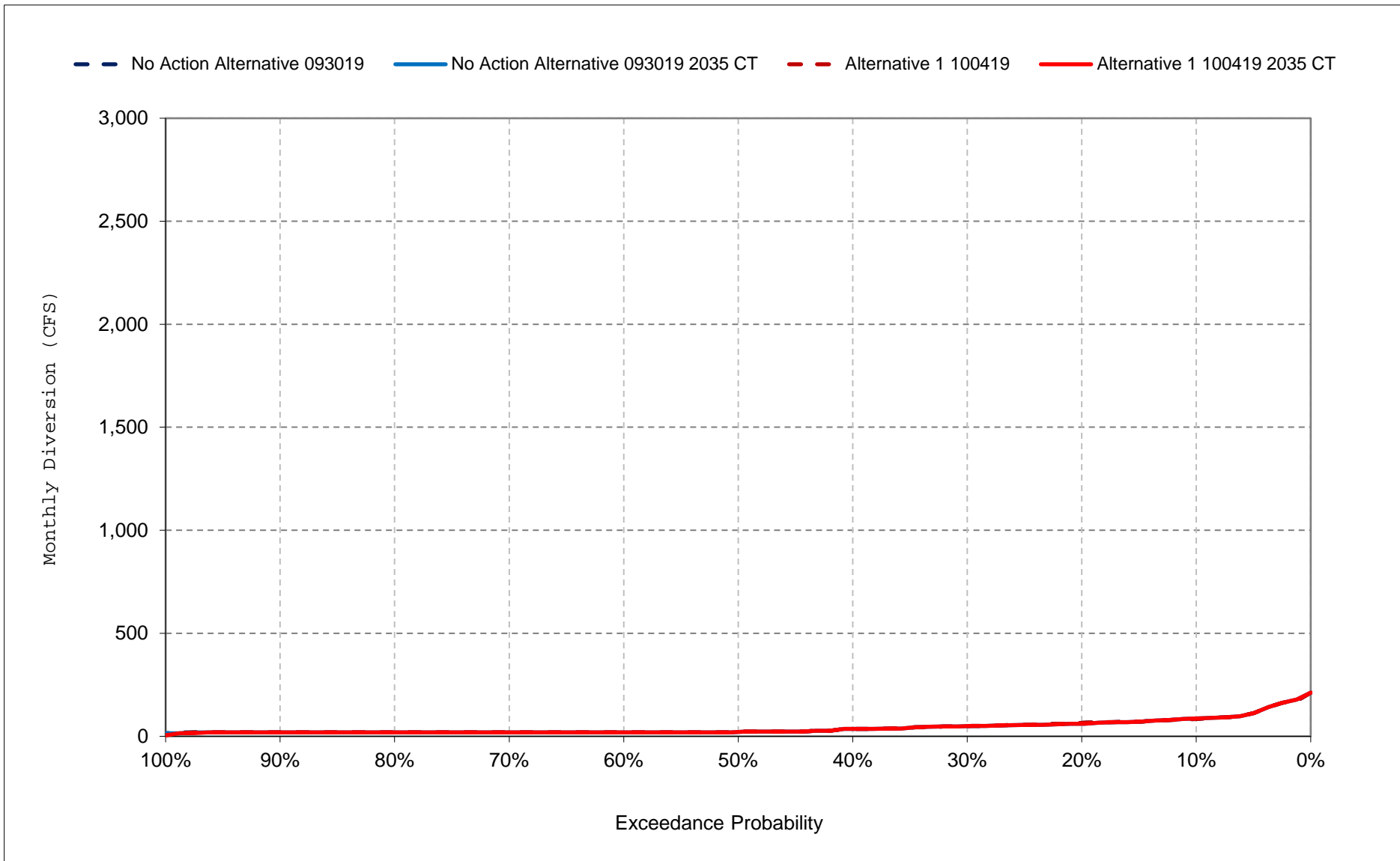
Figure 48-11. Hamilton City Diversion - Glenn Colusa Canal, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

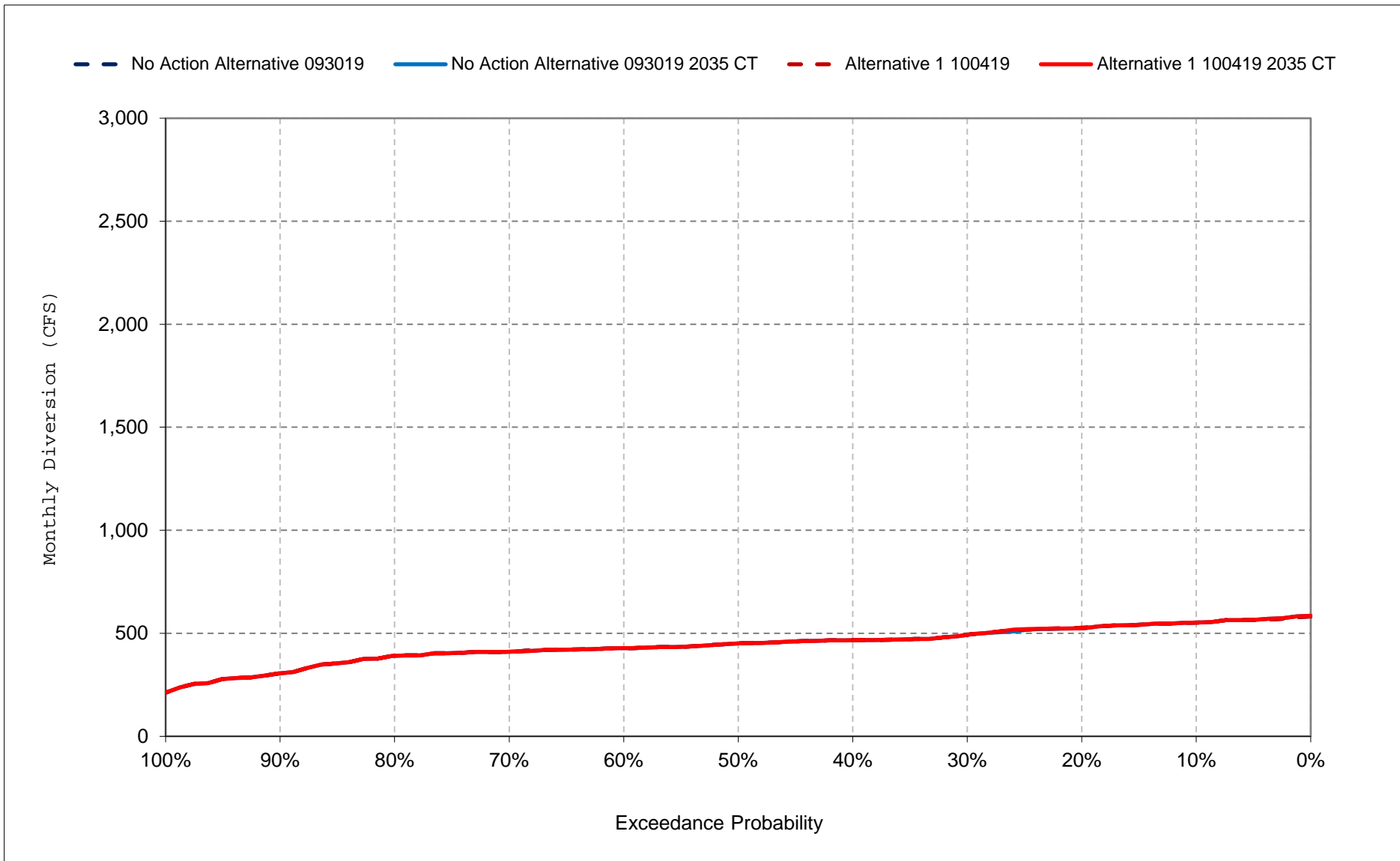
Figure 48-12. Hamilton City Diversion - Glenn Colusa Canal, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

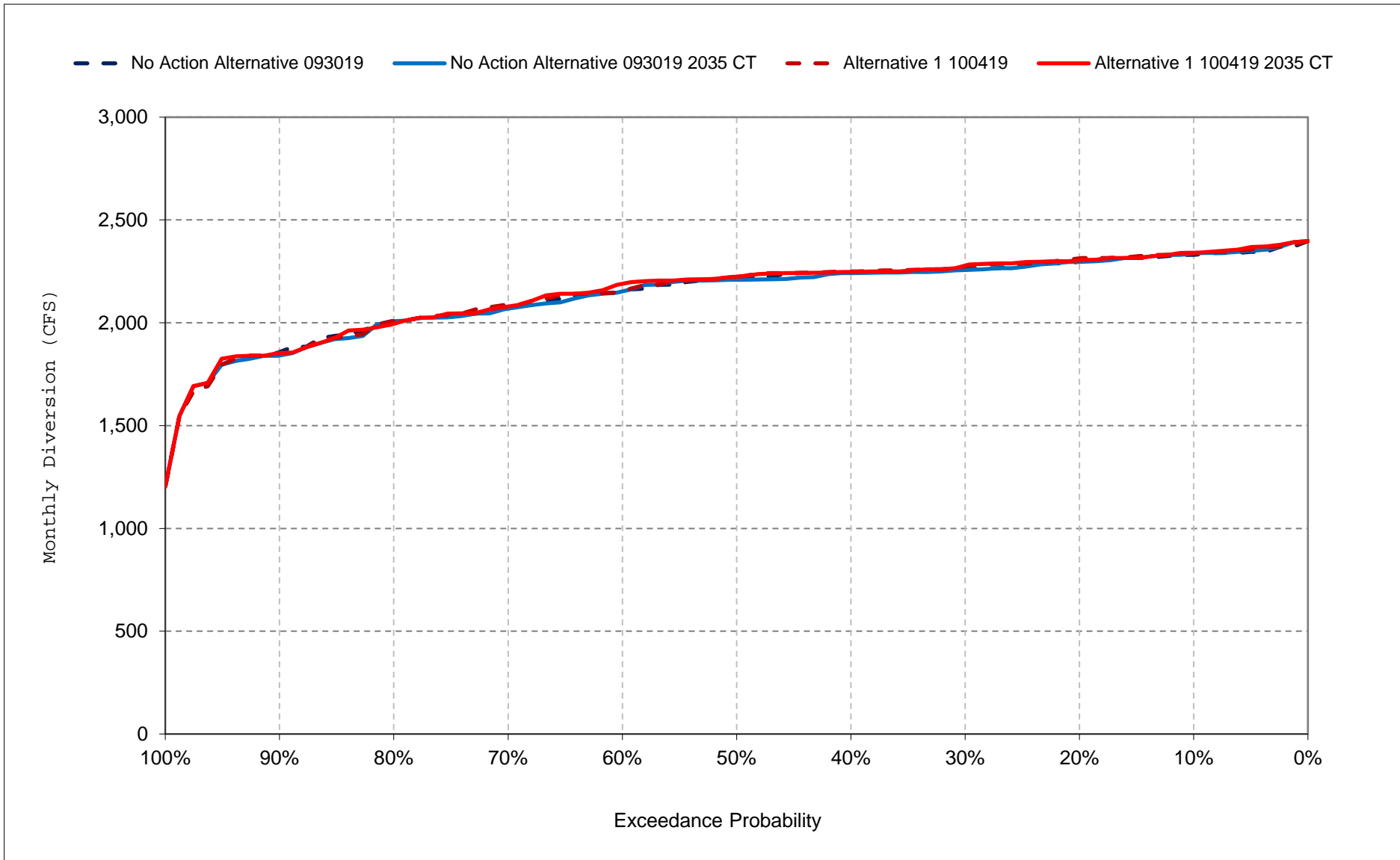
Figure 48-13. Hamilton City Diversion - Glenn Colusa Canal, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

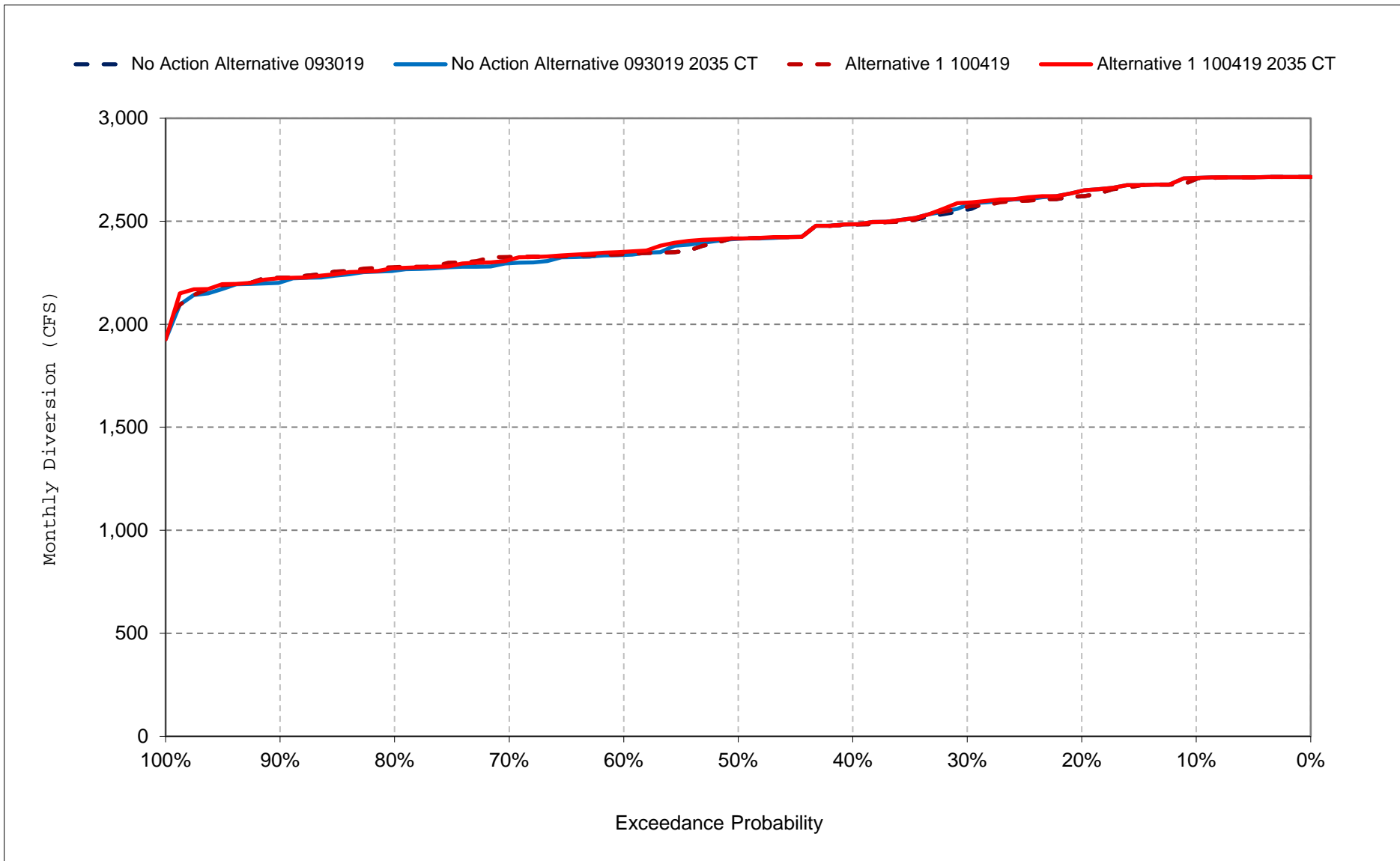
Figure 48-14. Hamilton City Diversion - Glenn Colusa Canal, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

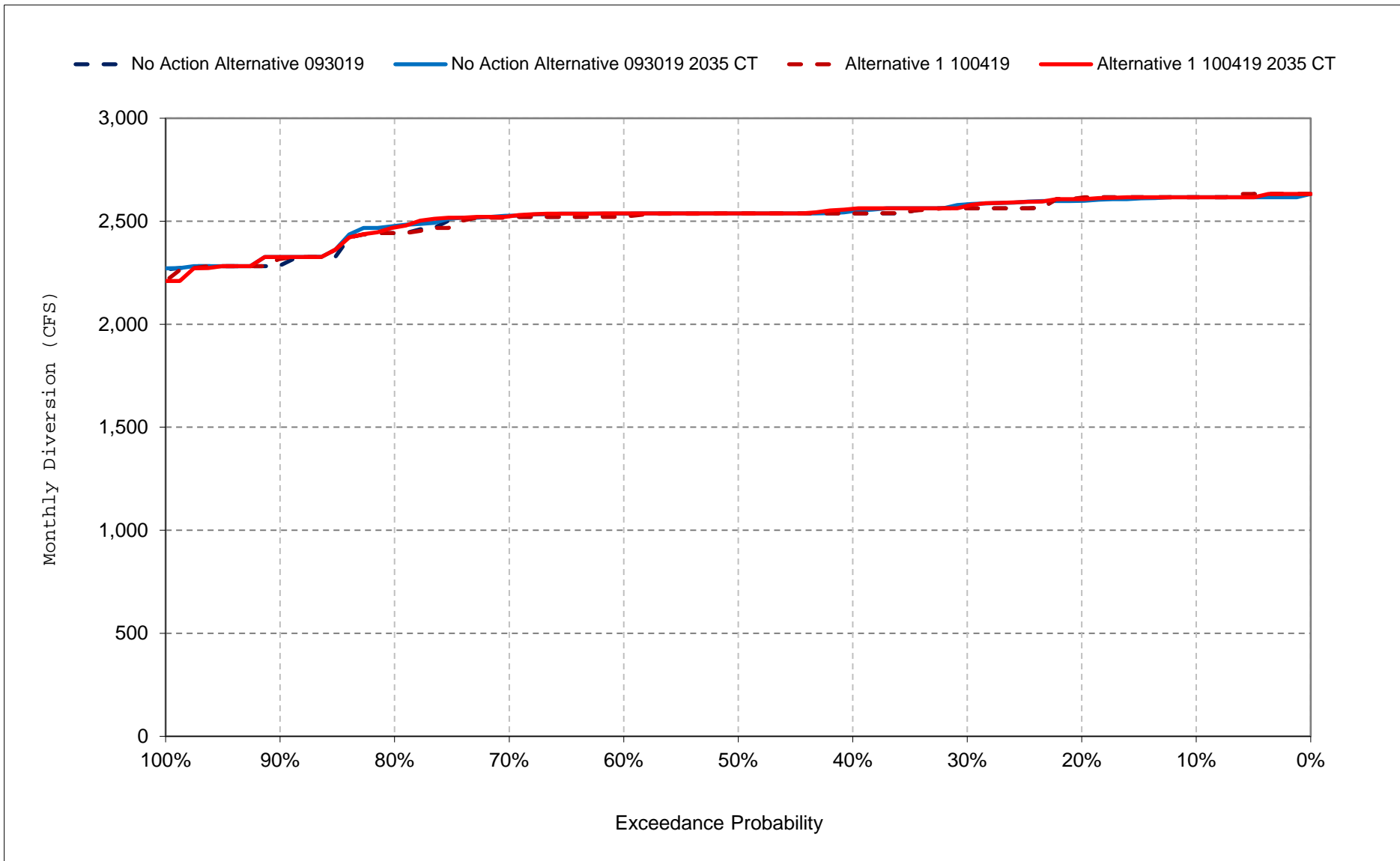
Figure 48-15. Hamilton City Diversion - Glenn Colusa Canal, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

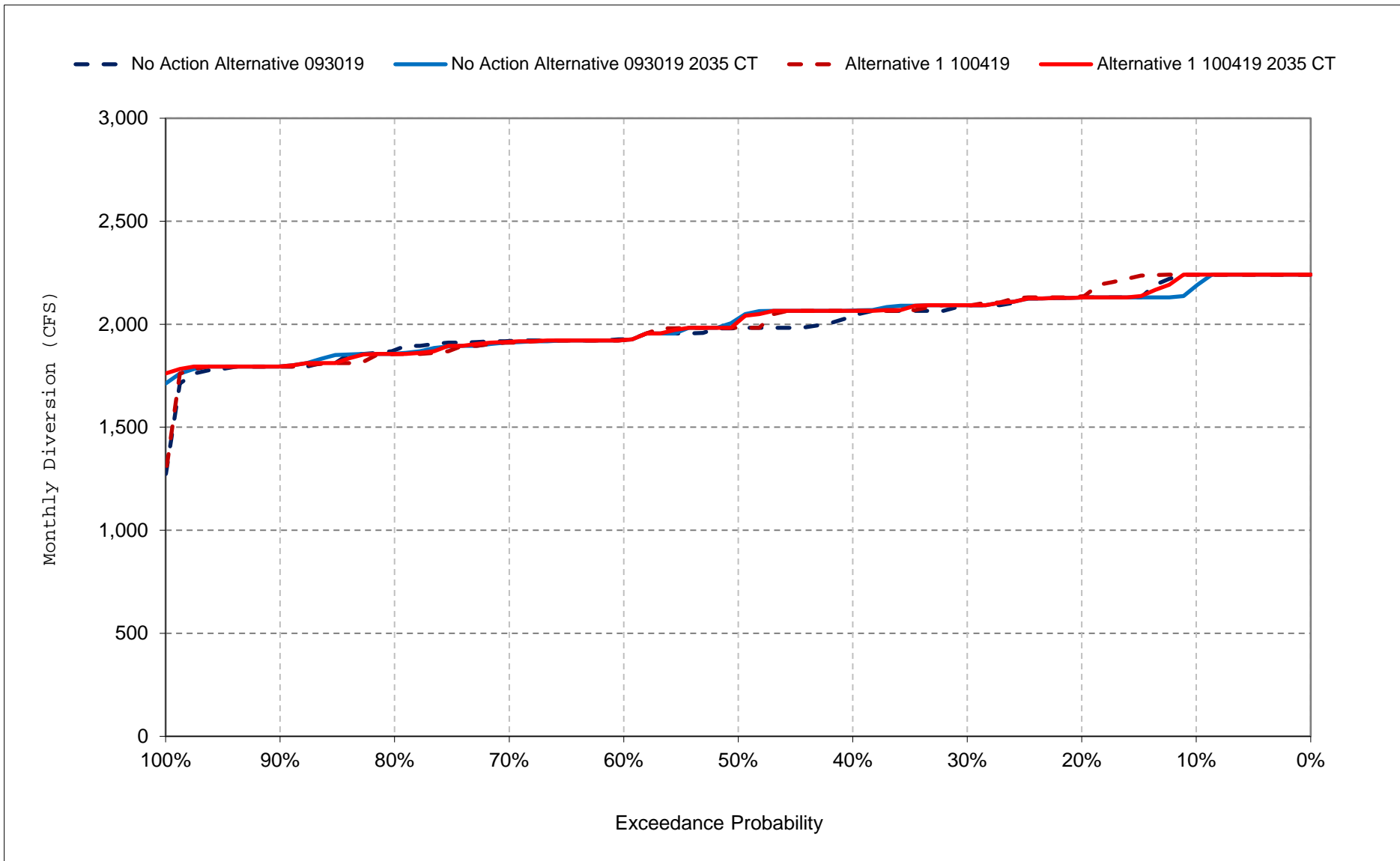
Figure 48-16. Hamilton City Diversion - Glenn Colusa Canal, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

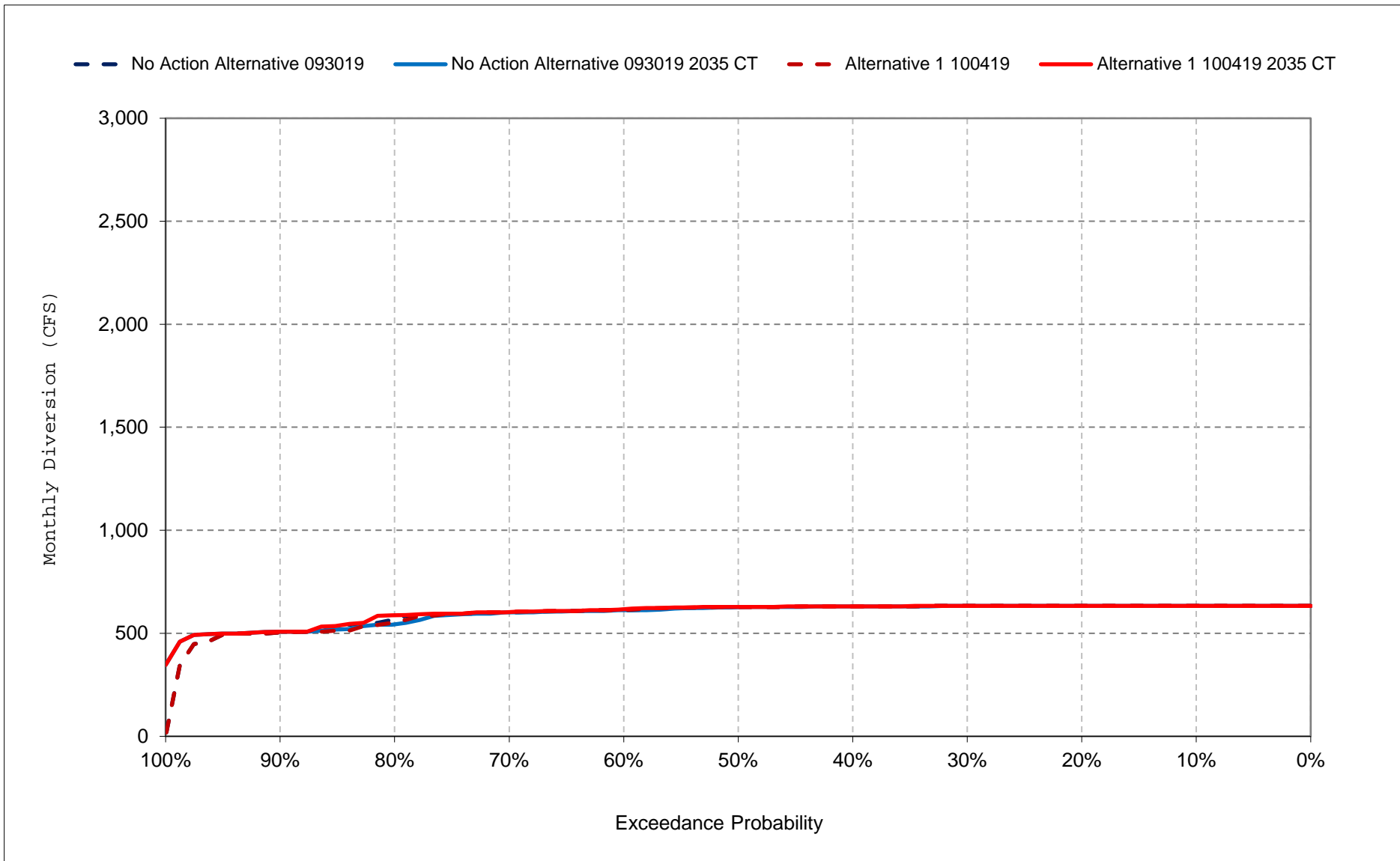
Figure 48-17. Hamilton City Diversion - Glenn Colusa Canal, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 48-18. Hamilton City Diversion - Glenn Colusa Canal, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-1. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	61	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	66	64	51	51	56	61	77	85	100	112	105	97
40%	66	64	51	51	56	58	75	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	104	96
60%	60	56	45	45	50	53	68	75	89	100	93	86
70%	56	54	43	43	48	52	66	72	85	95	89	82
80%	55	54	43	43	47	52	66	72	84	95	88	81
90%	54	53	42	42	46	49	64	70	82	92	86	79
Long Term												
Full Simulation Period ^d	62	59	47	47	52	56	71	79	93	104	98	90
Water Year Types^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	46	50	59	77	84	99	112	104	96
Below Normal (13%)	62	60	48	48	52	54	71	79	94	105	98	90
Dry (24%)	57	55	44	48	52	51	66	74	87	97	91	83
Critical (15%)	54	52	42	43	47	50	65	69	82	88	86	79

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	76	84	100	112	105	97
50%	65	64	51	51	55	57	74	84	100	112	105	96
60%	64	64	51	51	55	53	70	81	99	111	104	95
70%	57	54	43	43	48	52	67	72	85	96	89	82
80%	56	54	43	43	48	52	66	72	84	95	89	81
90%	55	54	43	43	46	51	65	71	83	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	57	72	80	94	106	99	91
Water Year Types^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	47	52	60	77	84	99	112	104	96
Below Normal (13%)	65	62	50	48	53	57	74	83	98	110	103	94
Dry (24%)	58	56	45	48	53	52	67	75	88	99	92	85
Critical (15%)	55	53	42	44	48	51	66	70	83	92	87	80

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	1	0	0	0	0	0
20%	0	0	0	0	0	0	1	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	3	1	0	0	0	0	0
50%	0	0	0	0	0	2	1	1	0	0	0	0
60%	5	7	6	6	4	0	2	6	10	12	11	9
70%	0	1	0	0	0	0	1	0	0	0	0	0
80%	1	0	0	0	0	0	1	0	0	0	0	0
90%	1	1	1	1	0	2	2	1	1	2	2	2
Long Term												
Full Simulation Period ^d	1	1	1	1	1	1	1	1	1	2	1	1
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	2	2	1	0	0	0	0	0	0
Below Normal (13%)	3	3	2	0	0	3	3	4	4	5	5	4
Dry (24%)	1	1	1	0	0	1	1	1	1	1	1	1
Critical (15%)	1	1	1	1	1	1	1	1	1	4	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 49-2. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	67	64	51	51	56	61	76	85	100	112	105	97
40%	66	64	51	51	56	59	74	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	105	96
60%	58	55	45	45	49	53	68	74	87	98	92	84
70%	56	54	43	43	48	52	67	72	85	95	89	82
80%	56	54	43	43	47	52	66	72	84	95	89	81
90%	55	53	43	43	46	51	64	71	83	94	88	80
Long Term												
Full Simulation Period ^d	61	59	47	47	52	56	71	79	93	104	98	90
Water Year Types^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	65	63	50	46	50	58	76	84	99	111	104	96
Below Normal (13%)	62	59	47	48	53	55	71	79	93	105	98	90
Dry (24%)	57	55	44	47	52	51	67	74	87	98	91	84
Critical (15%)	55	53	42	44	48	52	66	70	82	93	87	80

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	75	84	100	112	105	97
50%	66	64	51	51	55	55	73	84	100	112	105	96
60%	64	64	51	51	55	53	70	83	99	112	104	96
70%	57	55	44	44	48	52	68	73	86	97	90	83
80%	56	54	43	43	48	52	66	72	85	95	89	82
90%	55	54	43	43	47	52	65	71	84	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	56	72	80	94	106	99	91
Water Year Types^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	66	64	51	47	52	59	77	85	100	113	105	97
Below Normal (13%)	64	61	49	49	53	56	74	82	96	108	101	93
Dry (24%)	59	57	46	47	52	52	68	76	90	101	94	86
Critical (15%)	55	53	43	44	49	52	66	70	83	94	87	81

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	1	0	0	0	0	0
30%	0	0	0	0	0	0	1	0	0	0	0	0
40%	0	0	0	0	0	2	1	0	0	0	0	0
50%	1	0	0	0	0	2	0	0	0	0	0	0
60%	7	8	6	6	5	0	2	9	12	14	13	12
70%	1	1	1	1	0	0	1	1	1	2	2	1
80%	1	0	0	0	0	0	1	1	0	0	0	0
90%	1	0	0	0	1	0	1	0	0	1	1	1
Long Term												
Full Simulation Period ^d	1	1	1	1	1	1	1	1	1	2	1	1
Water Year Types^{b,c}												
Wet (32%)	0	0	0	1	1	0	0	0	0	0	0	0
Above Normal (16%)	1	1	1	1	1	1	0	1	1	1	1	1
Below Normal (13%)	2	2	2	1	1	1	3	3	3	4	3	3
Dry (24%)	2	2	1	0	0	1	1	2	3	3	3	3
Critical (15%)	1	1	0	1	1	0	1	1	1	1	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-3. Folsom South Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	61	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	66	64	51	51	56	61	77	85	100	112	105	97
40%	66	64	51	51	56	58	75	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	104	96
60%	60	56	45	45	50	53	68	75	89	100	93	86
70%	56	54	43	43	48	52	66	72	85	95	89	82
80%	55	54	43	43	47	52	66	72	84	95	88	81
90%	54	53	42	42	46	49	64	70	82	92	86	79
Long Term												
Full Simulation Period ^d	62	59	47	47	52	56	71	79	93	104	98	90
Water Year Types ^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	46	50	59	77	84	99	112	104	96
Below Normal (13%)	62	60	48	48	52	54	71	79	94	105	98	90
Dry (24%)	57	55	44	48	52	51	66	74	87	97	91	83
Critical (15%)	54	52	42	43	47	50	65	69	82	88	86	79

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	77	85	100	113	105	97
30%	67	64	51	51	56	61	76	85	100	112	105	97
40%	66	64	51	51	56	59	74	84	100	112	105	97
50%	65	64	51	51	55	54	73	83	99	112	105	96
60%	58	55	45	45	49	53	68	74	87	98	92	84
70%	56	54	43	43	48	52	67	72	85	95	89	82
80%	56	54	43	43	47	52	66	72	84	95	89	81
90%	55	53	43	43	46	51	64	71	83	94	88	80
Long Term												
Full Simulation Period ^d	61	59	47	47	52	56	71	79	93	104	98	90
Water Year Types ^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	65	63	50	46	50	58	76	84	99	111	104	96
Below Normal (13%)	62	59	47	48	53	55	71	79	93	105	98	90
Dry (24%)	57	55	44	47	52	51	67	74	87	98	91	84
Critical (15%)	55	53	42	44	48	52	66	70	82	93	87	80

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	-1	0	0	0	0	0
50%	0	0	0	0	0	-1	0	0	0	0	0	0
60%	-2	-1	-1	-1	-1	0	0	-1	-2	-2	-2	-2
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	2	0	0	1	2	2	1
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	-1	0	0	-1	-1	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	1	0	0	0	-1	-1	0
Dry (24%)	0	0	0	-1	-1	0	1	0	0	0	0	0
Critical (15%)	0	0	0	1	1	1	1	1	1	4	1	1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 49-4. Folsom South Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	76	84	100	112	105	97
50%	65	64	51	51	55	57	74	84	100	112	105	96
60%	64	64	51	51	55	53	70	81	99	111	104	95
70%	57	54	43	43	48	52	67	72	85	96	89	82
80%	56	54	43	43	48	52	66	72	84	95	89	81
90%	55	54	43	43	46	51	65	71	83	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	57	72	80	94	106	99	91
Water Year Types ^{b,c}												
Wet (32%)	66	63	51	50	55	61	75	84	100	112	105	96
Above Normal (16%)	66	63	51	47	52	60	77	84	99	112	104	96
Below Normal (13%)	65	62	50	48	53	57	74	83	98	110	103	94
Dry (24%)	58	56	45	48	53	52	67	75	88	99	92	85
Critical (15%)	55	53	42	44	48	51	66	70	83	92	87	80

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	67	64	51	51	56	62	79	85	101	114	106	97
20%	67	64	51	51	56	61	78	85	100	113	105	97
30%	67	64	51	51	56	61	77	85	100	113	105	97
40%	66	64	51	51	56	61	75	84	100	112	105	97
50%	66	64	51	51	55	55	73	84	100	112	105	96
60%	64	64	51	51	55	53	70	83	99	112	104	96
70%	57	55	44	44	48	52	68	73	86	97	90	83
80%	56	54	43	43	48	52	66	72	85	95	89	82
90%	55	54	43	43	47	52	65	71	84	94	88	81
Long Term												
Full Simulation Period ^d	62	60	48	48	53	56	72	80	94	106	99	91
Water Year Types ^{b,c}												
Wet (32%)	66	63	50	50	55	60	75	84	99	112	104	96
Above Normal (16%)	66	64	51	47	52	59	77	85	100	113	105	97
Below Normal (13%)	64	61	49	49	53	56	74	82	96	108	101	93
Dry (24%)	59	57	46	47	52	52	68	76	90	101	94	86
Critical (15%)	55	53	43	44	49	52	66	70	83	94	87	81

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	-1	-1	0	0	0	0	0
50%	0	0	0	0	0	-2	-1	0	0	0	0	0
60%	0	0	0	0	0	0	0	1	0	0	0	1
70%	0	1	1	1	0	0	0	0	1	1	1	1
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	1	1	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1
Above Normal (16%)	1	1	0	0	0	0	0	1	1	1	1	1
Below Normal (13%)	-1	-1	-1	1	1	-1	-1	-1	-1	-2	-2	-1
Dry (24%)	1	1	1	0	-1	0	1	1	2	2	2	2
Critical (15%)	0	0	0	1	1	1	0	0	0	2	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

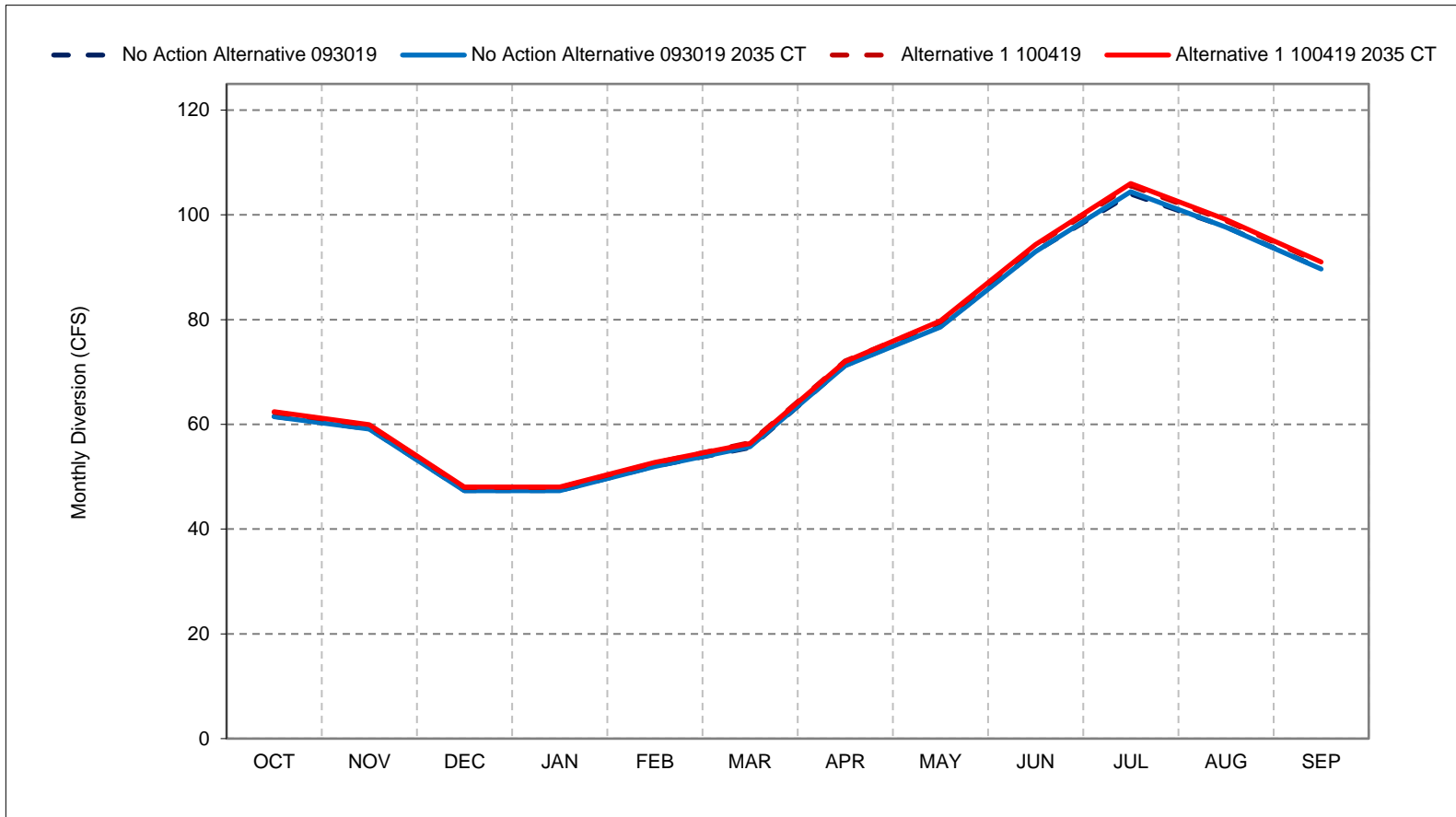
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 49-1. Folsom South Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

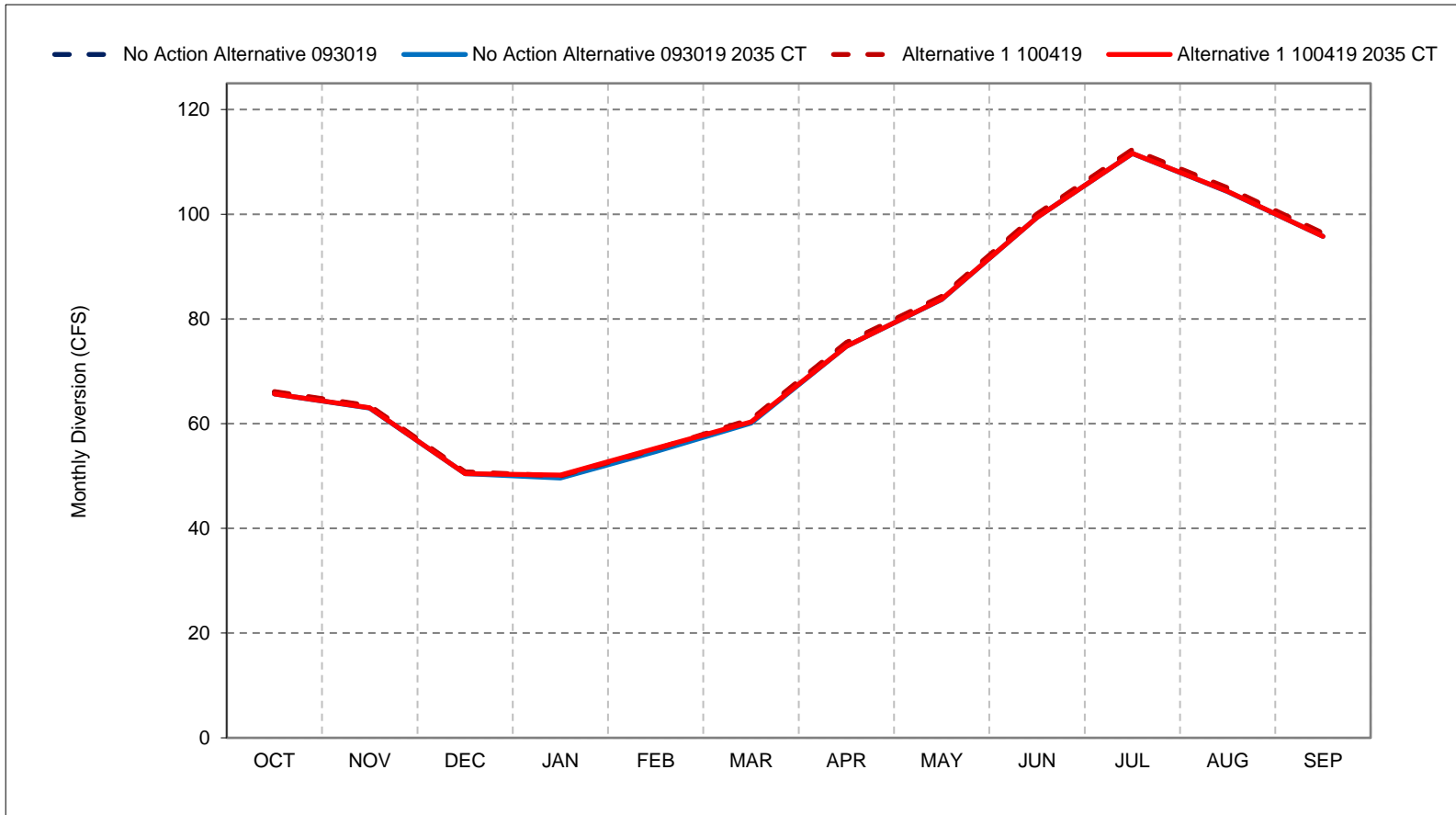
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-2. Folsom South Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

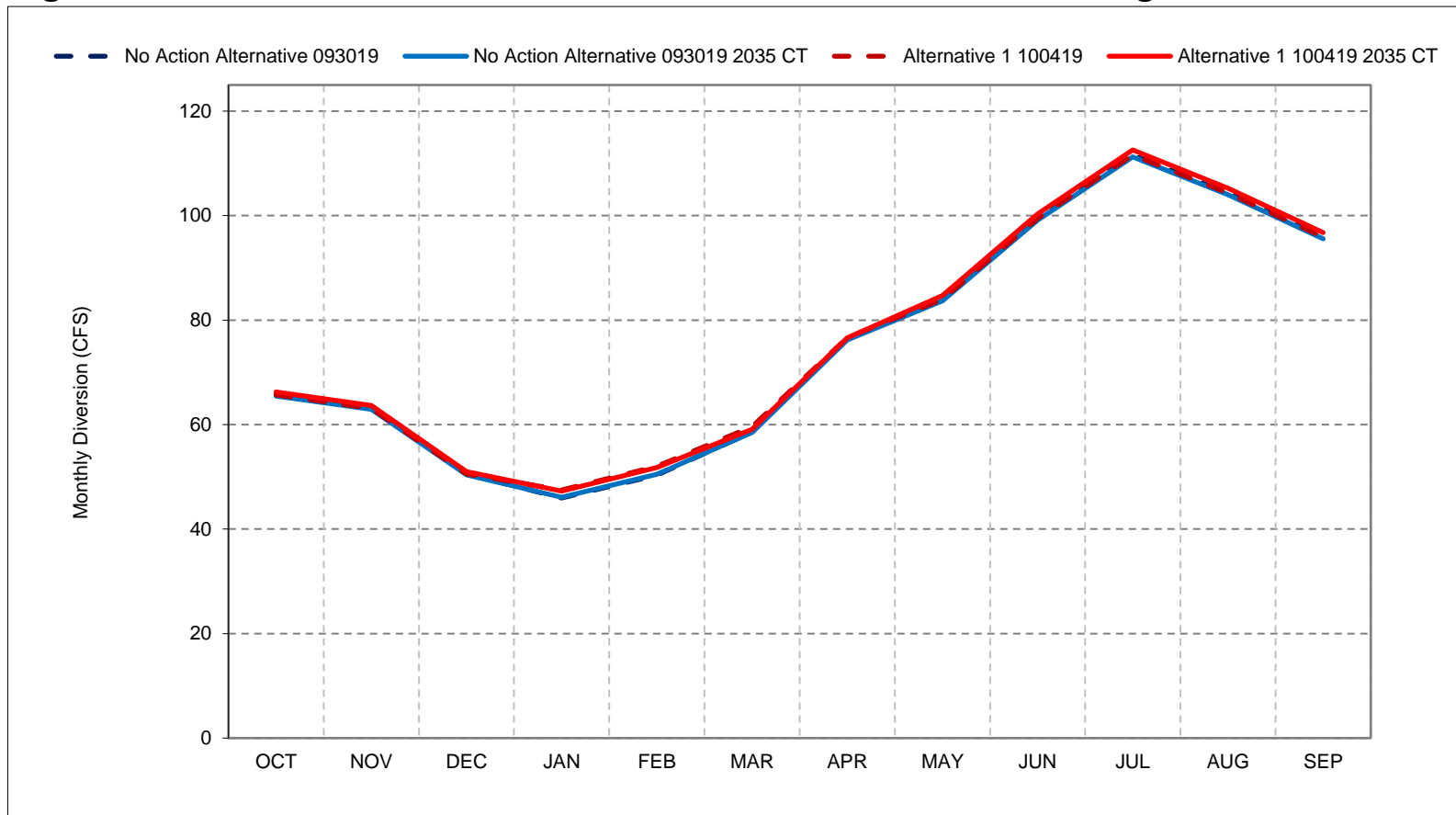
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-3. Folsom South Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

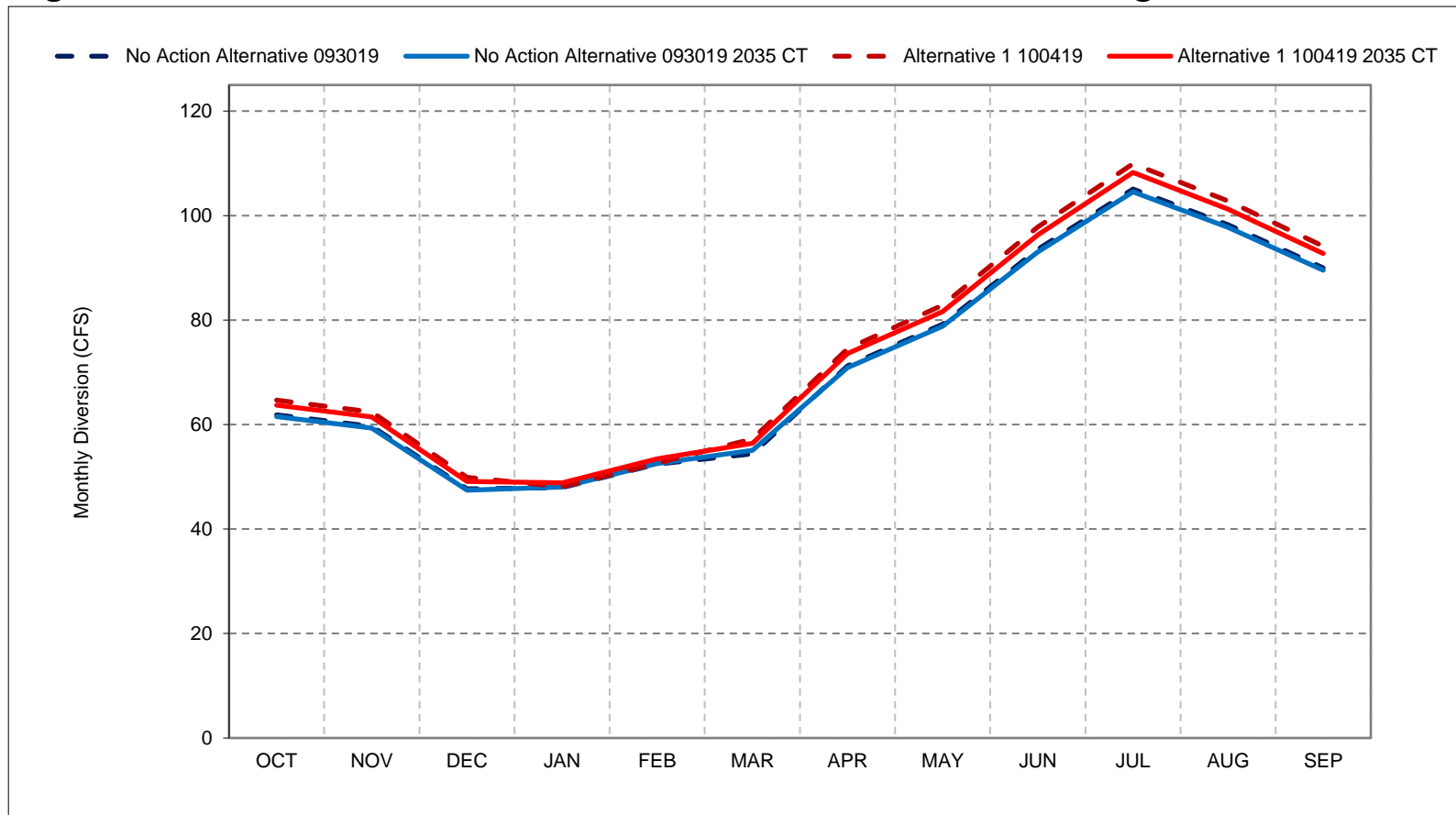
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-4. Folsom South Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

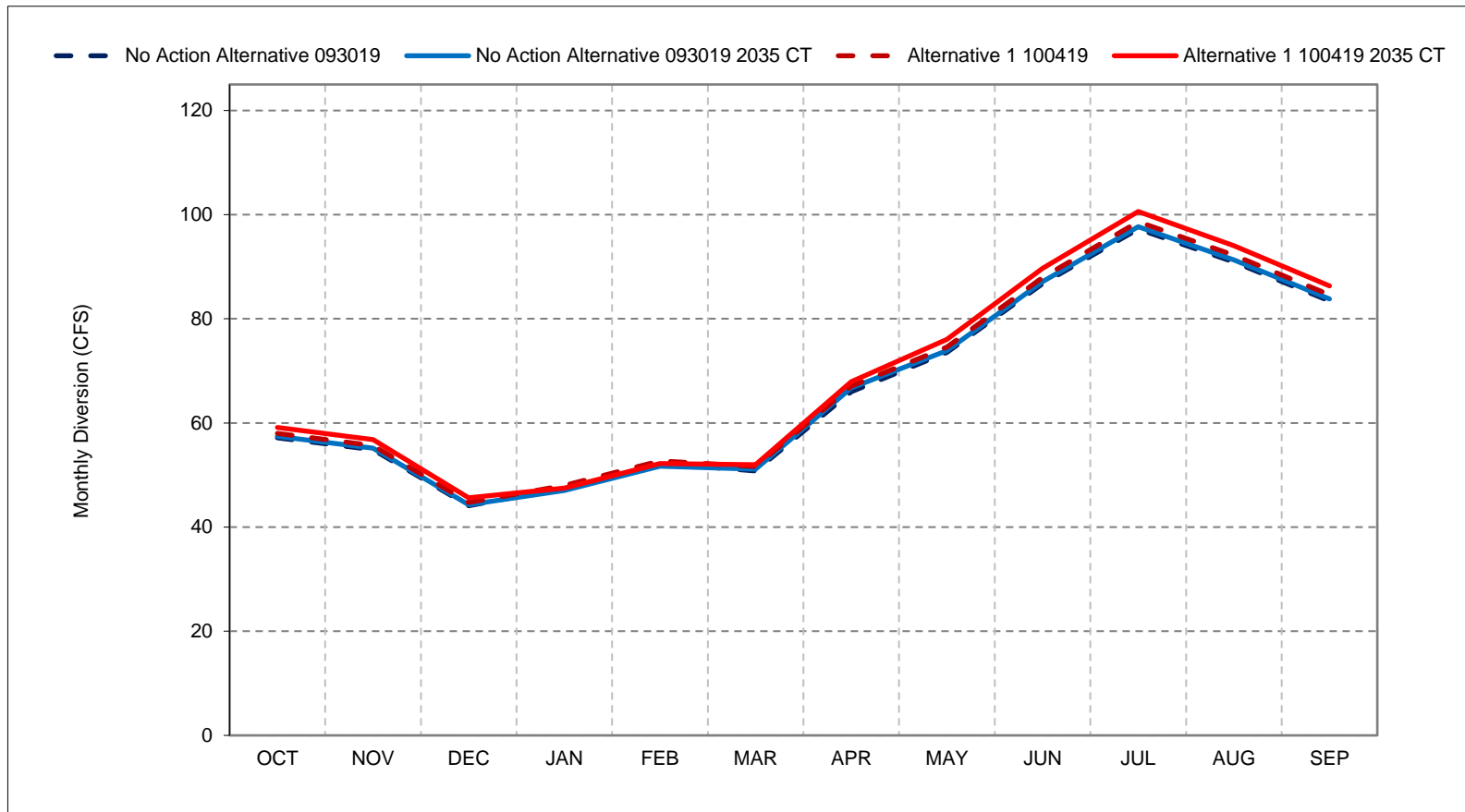
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-5. Folsom South Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

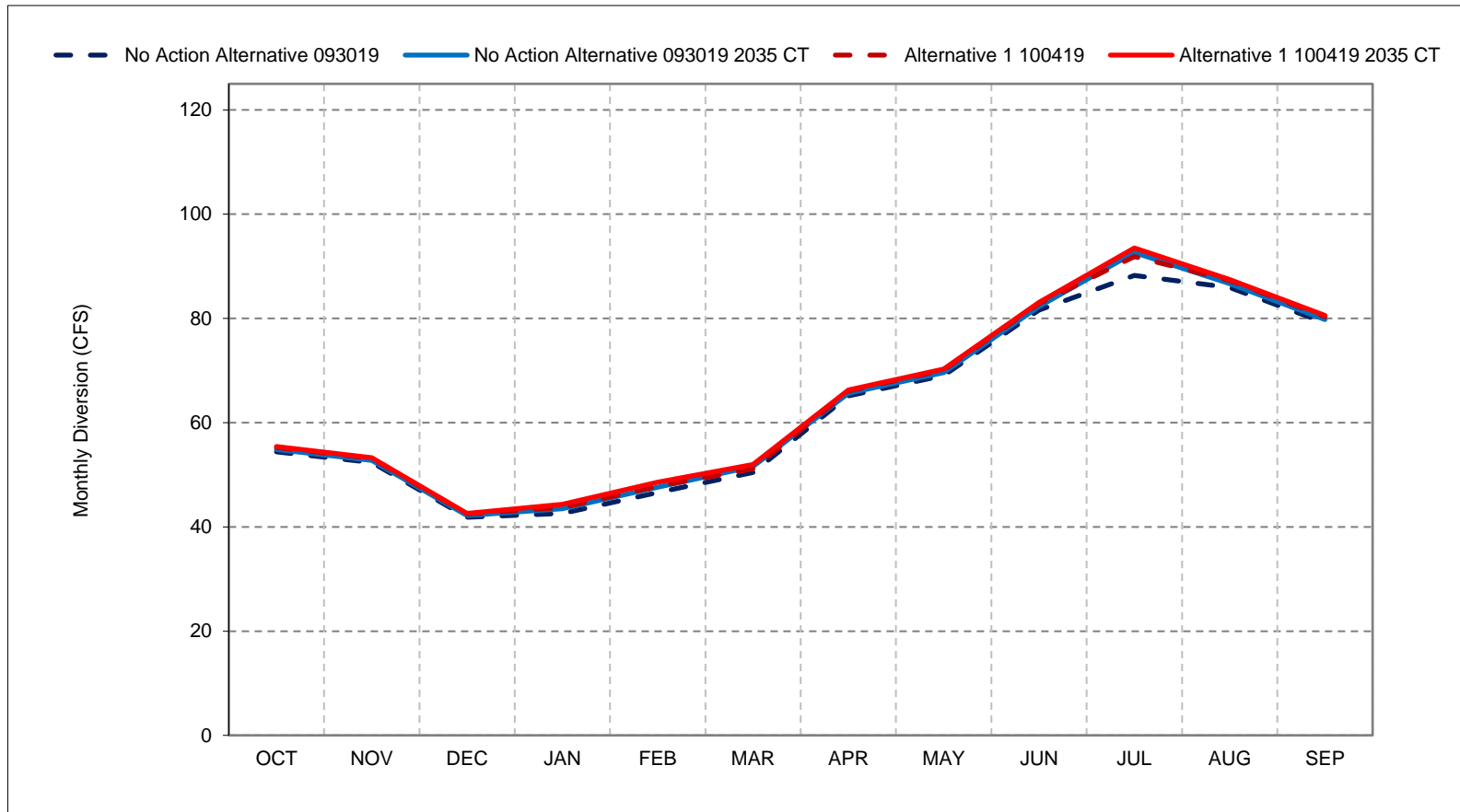
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 49-6. Folsom South Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

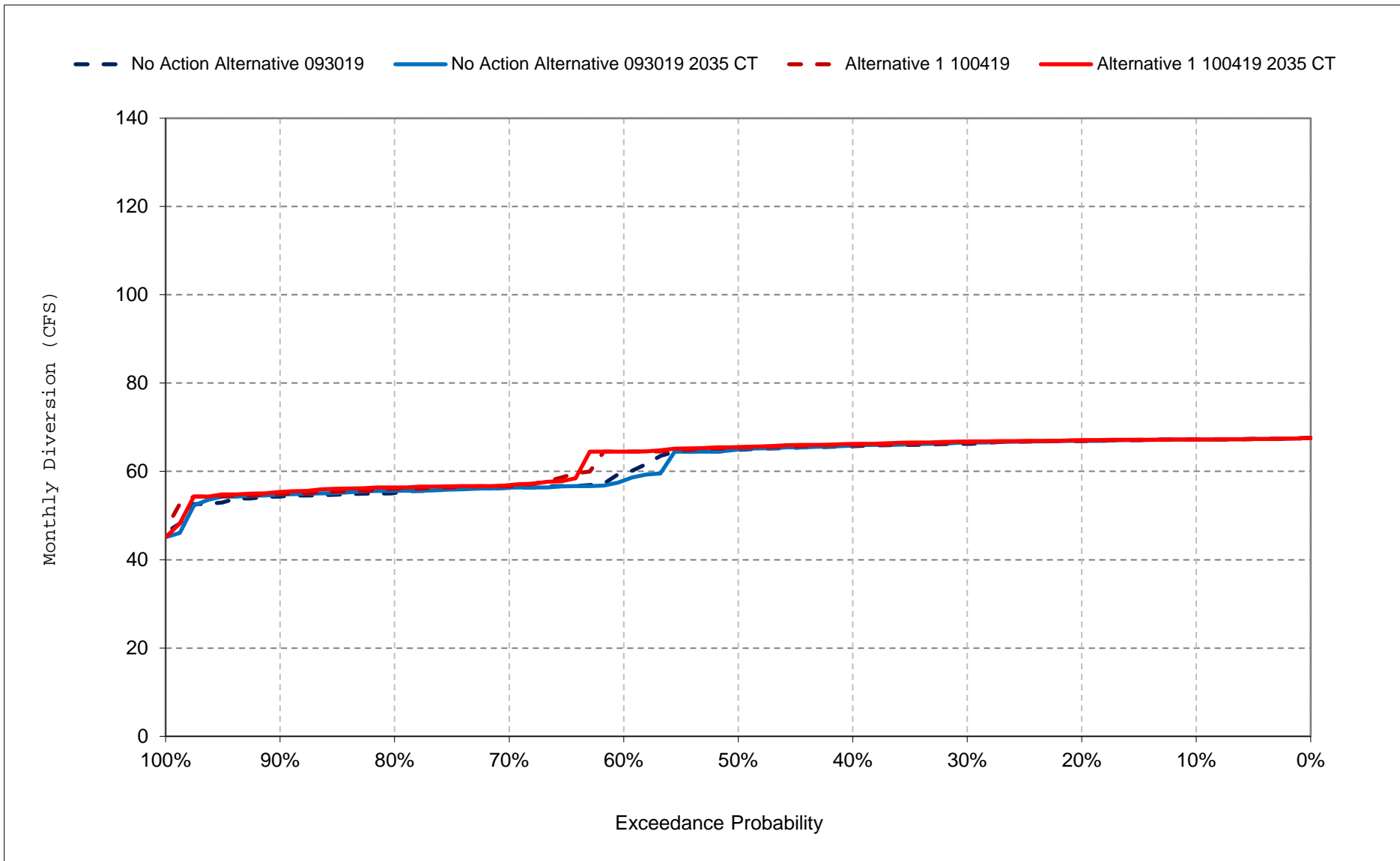
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

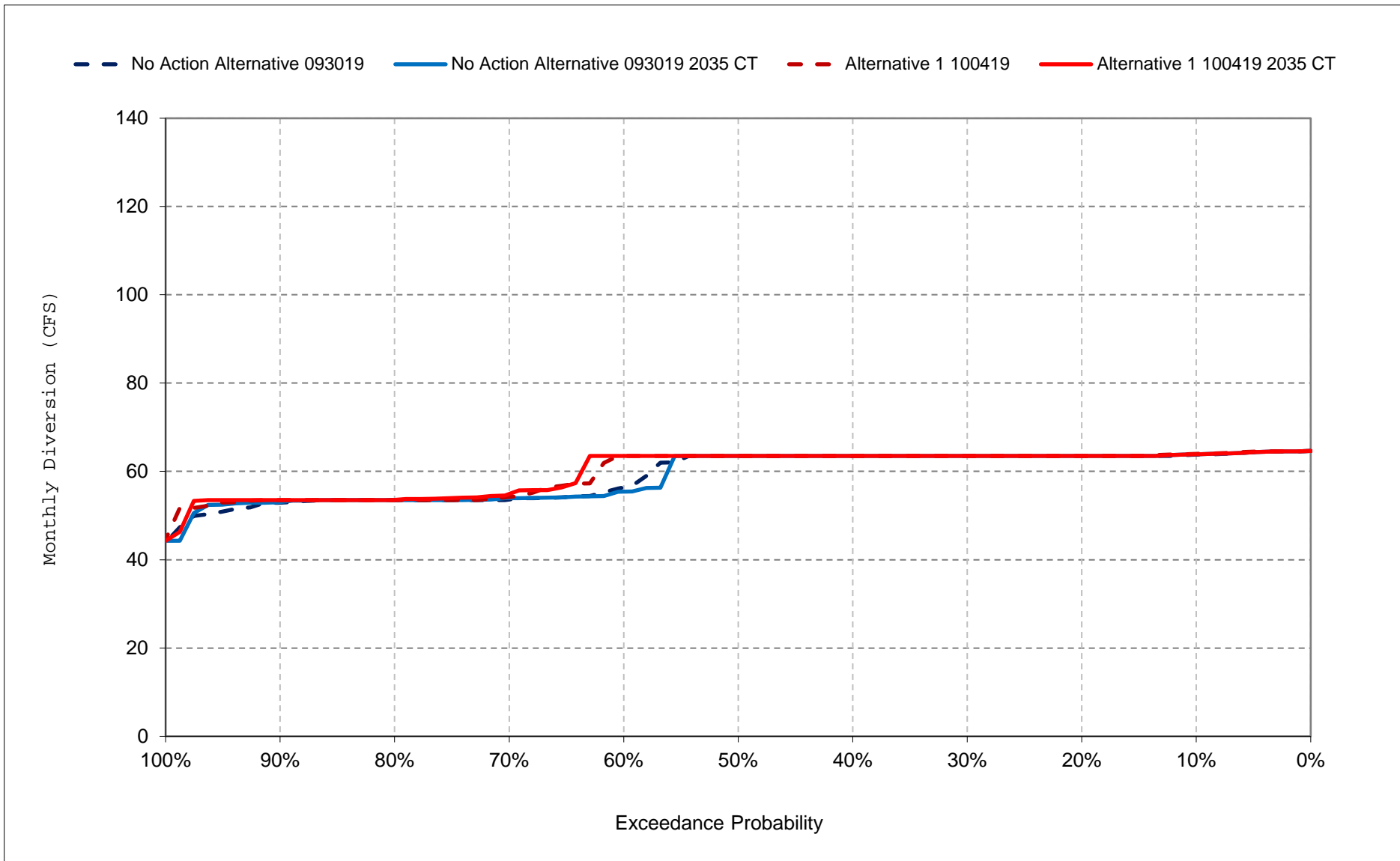
Figure 49-7. Folsom South Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

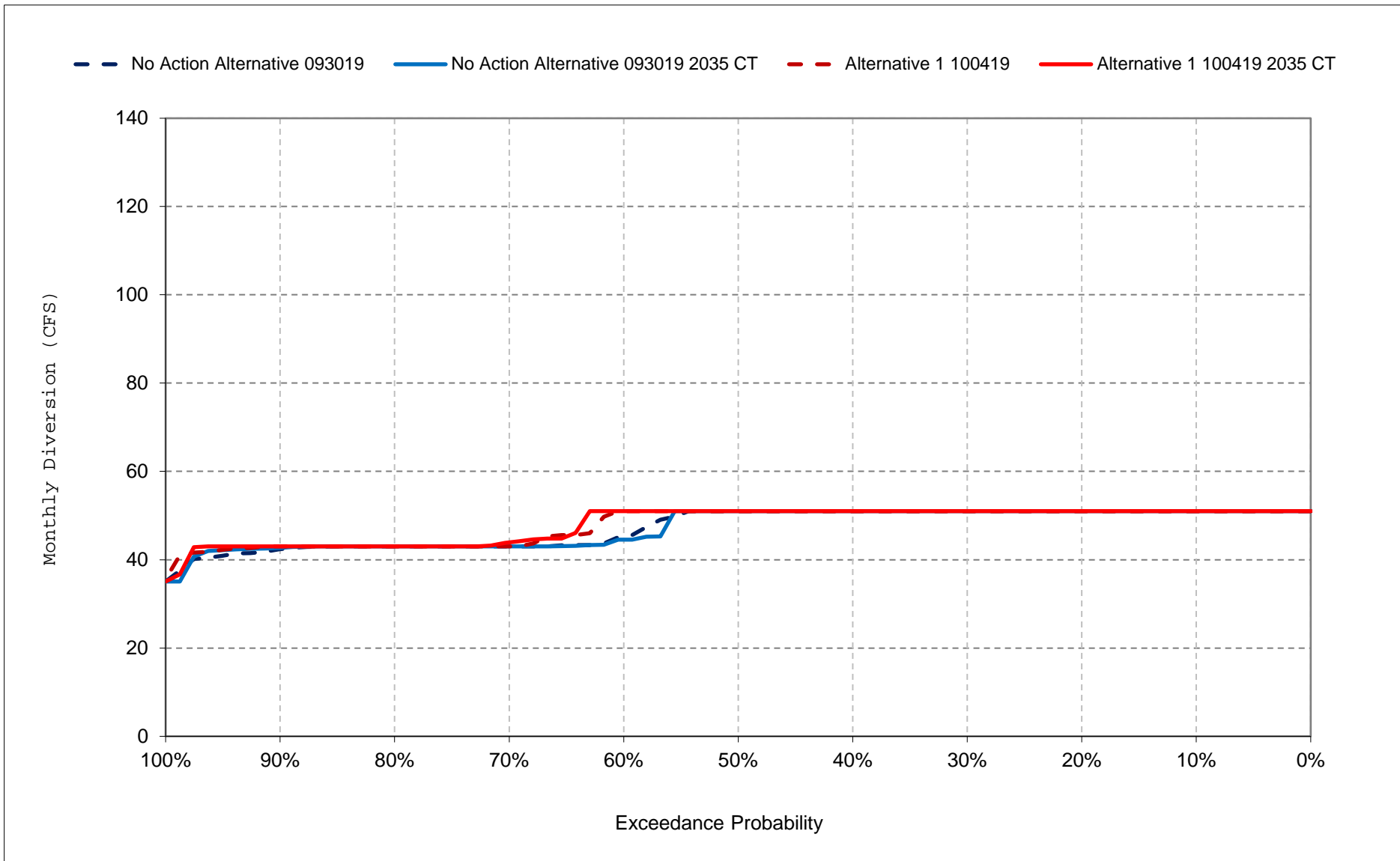
Figure 49-8. Folsom South Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

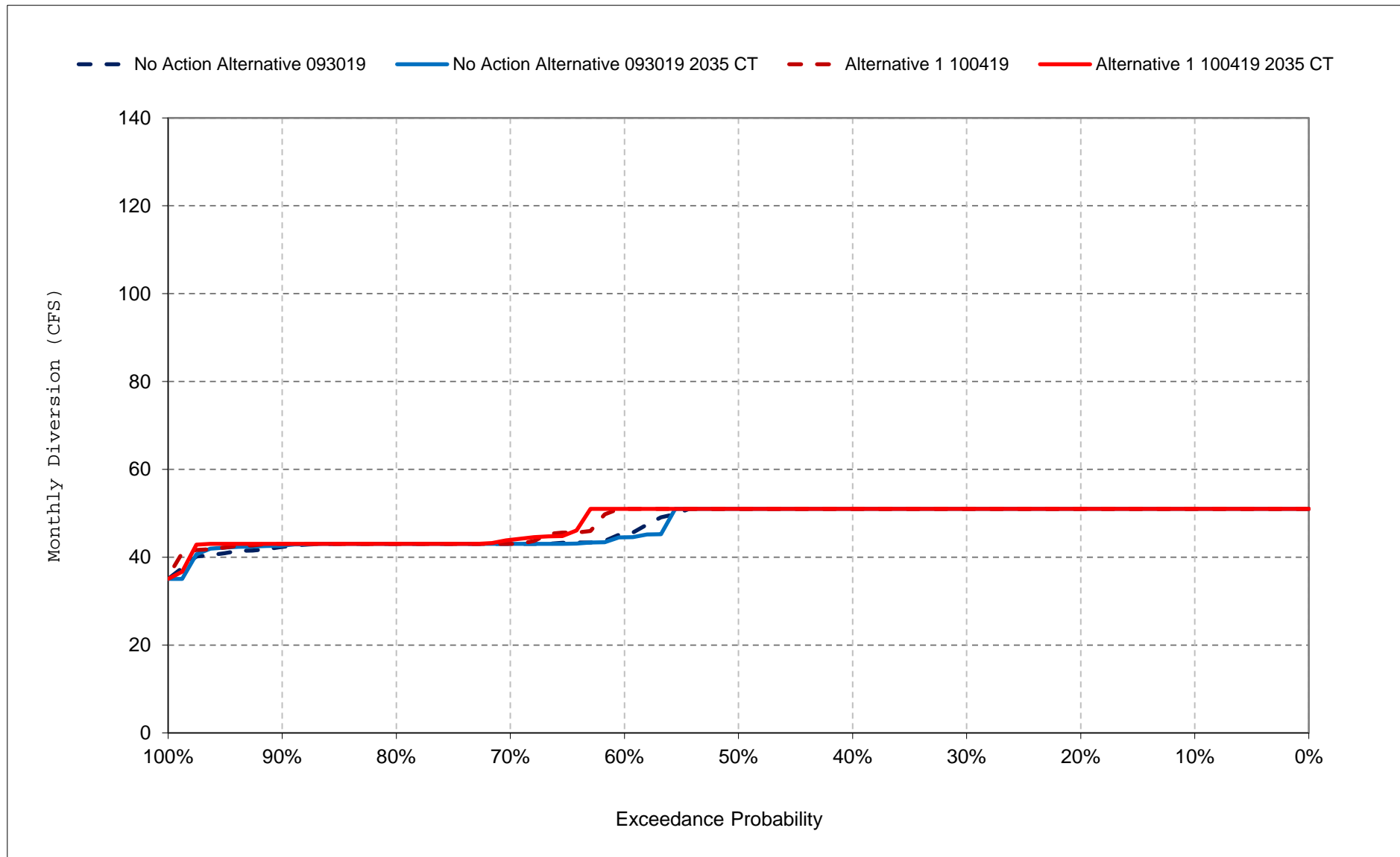
Figure 49-9. Folsom South Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

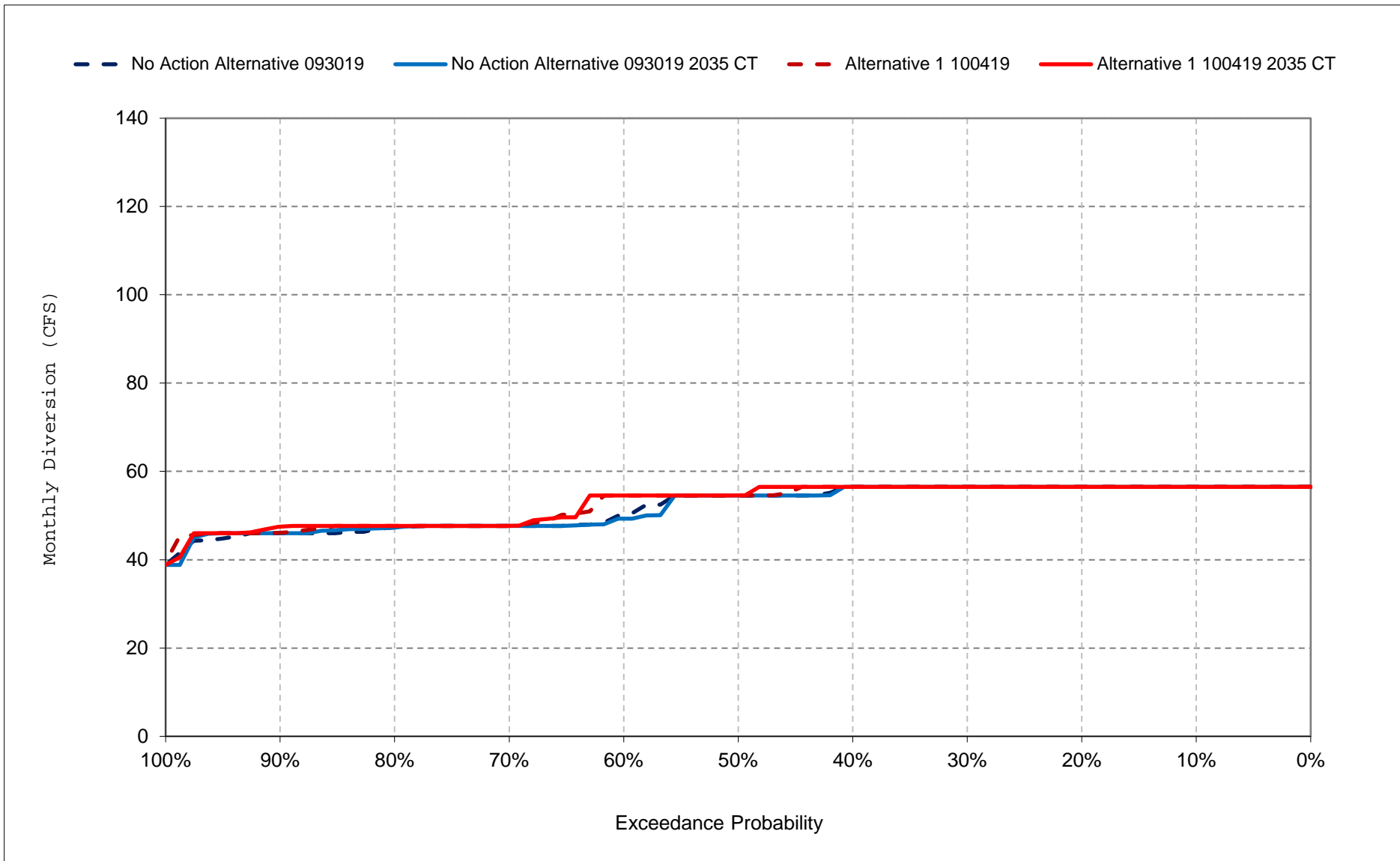
Figure 49-10. Folsom South Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

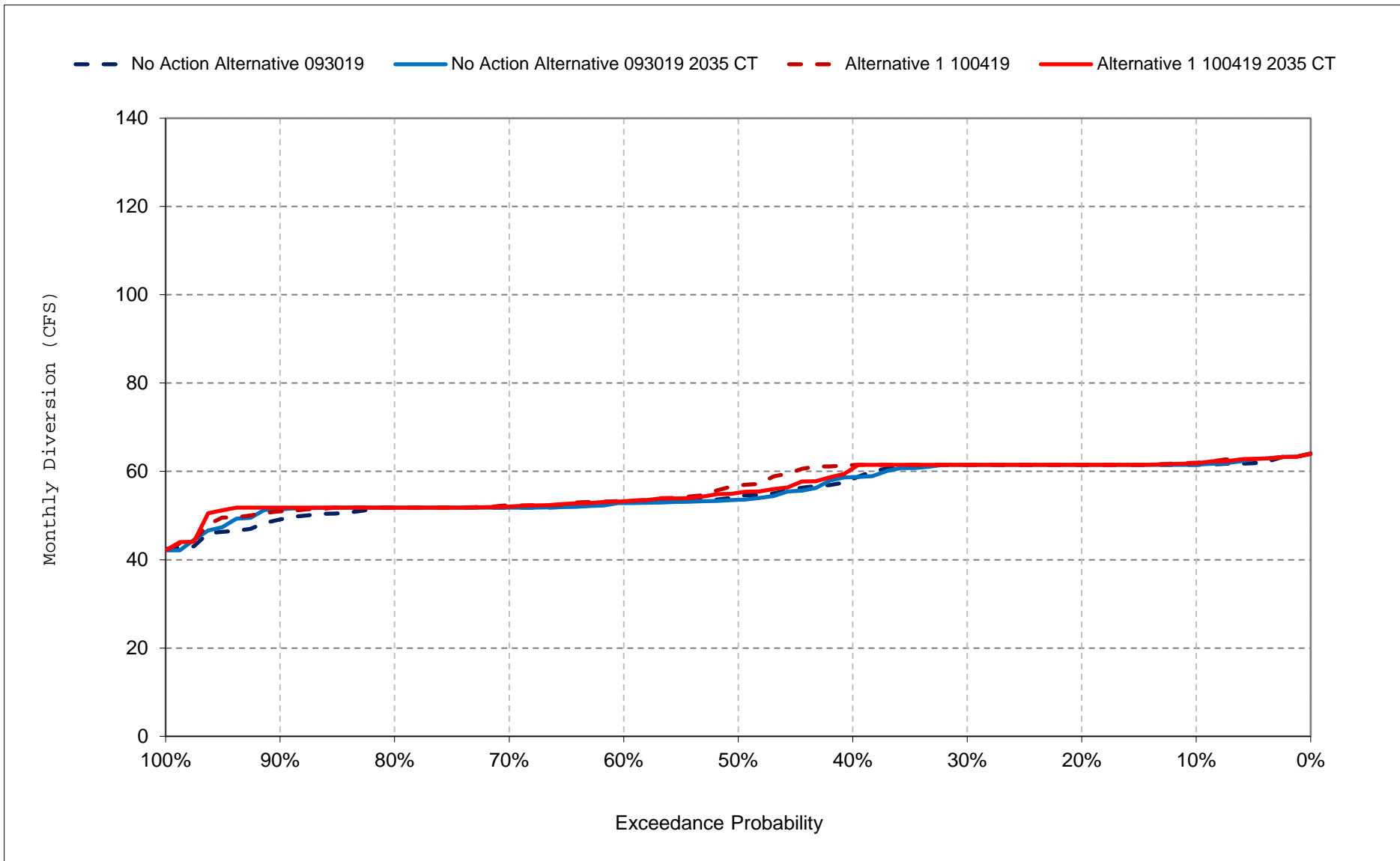
Figure 49-11. Folsom South Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

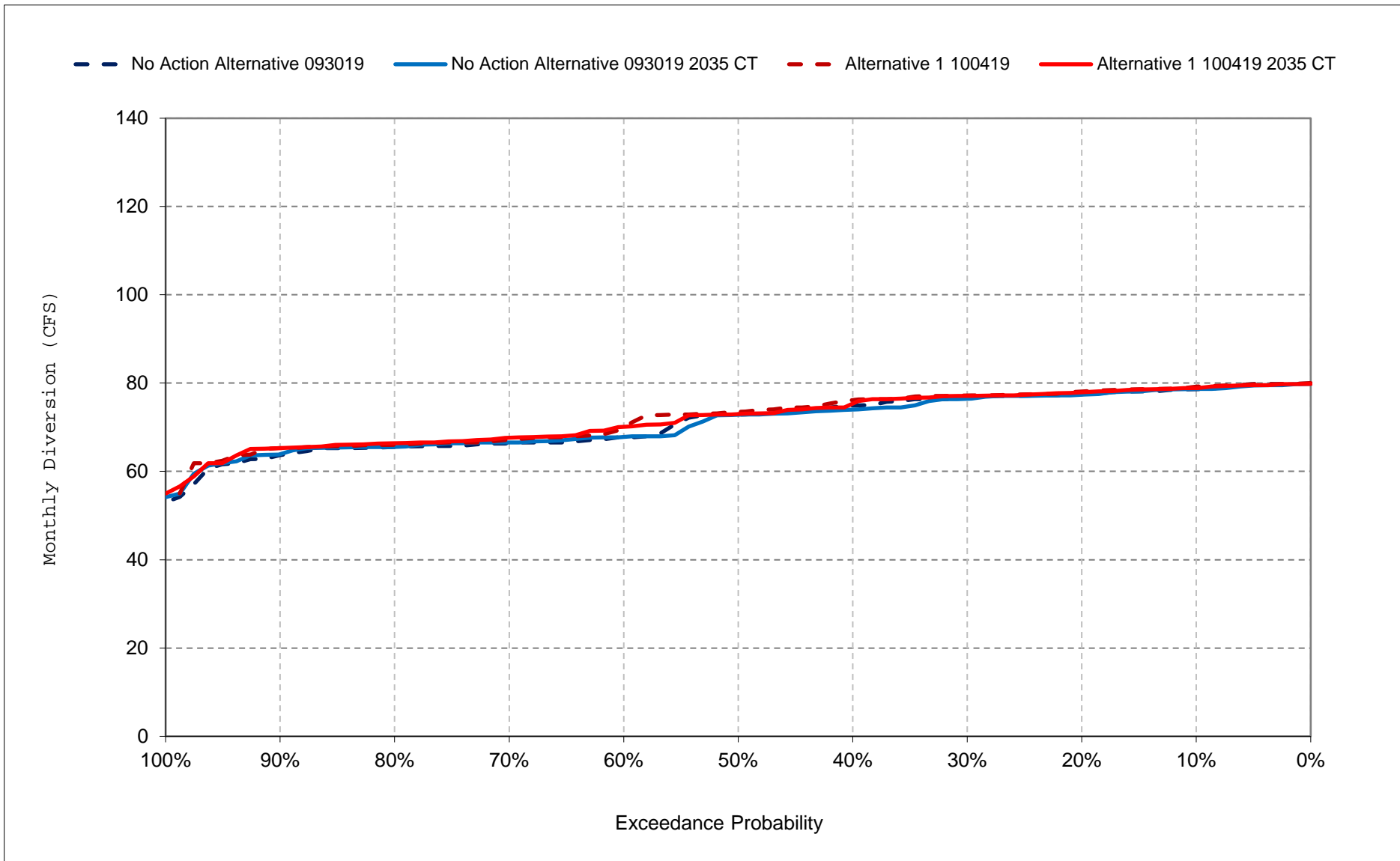
Figure 49-12. Folsom South Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

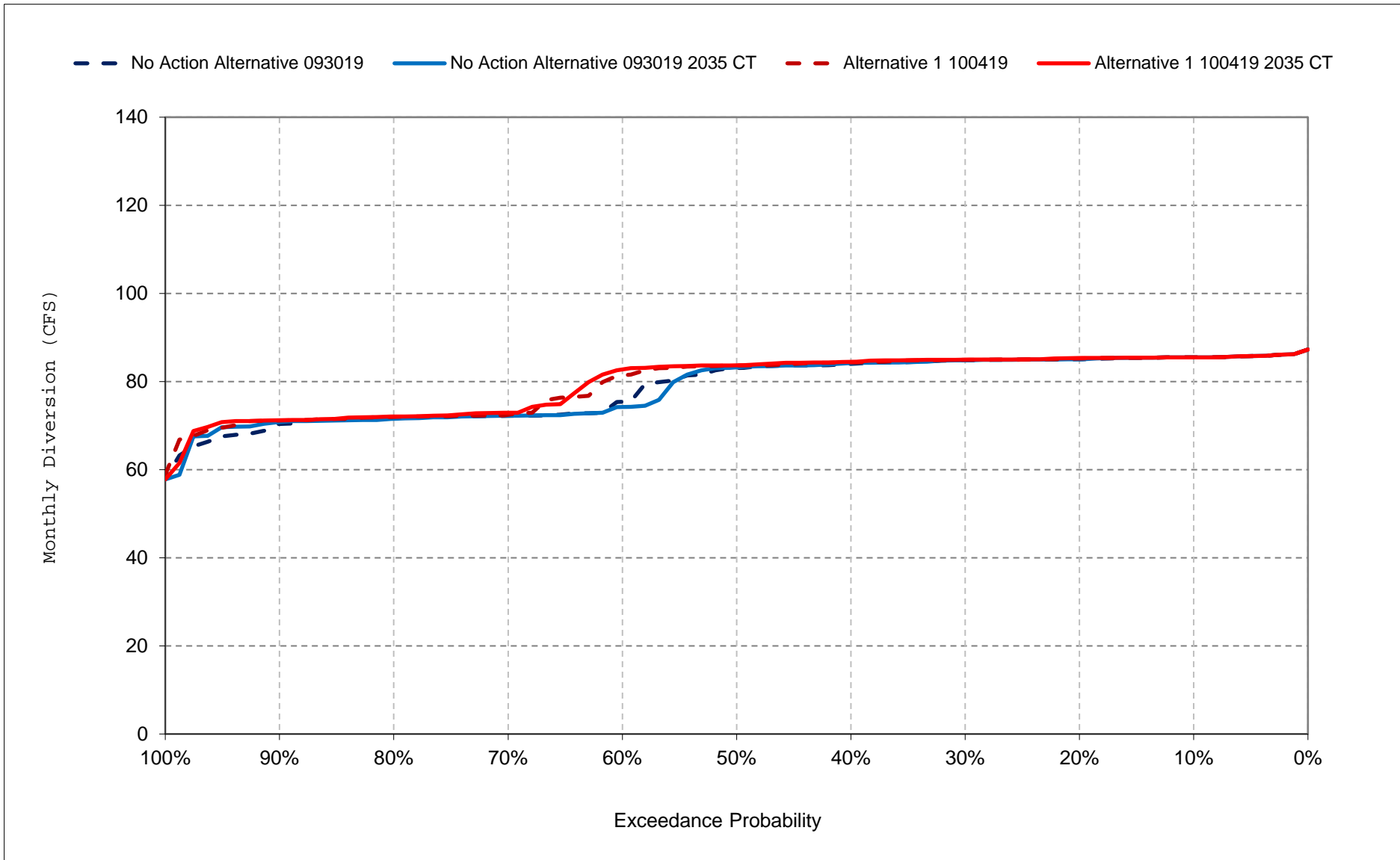
Figure 49-13. Folsom South Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

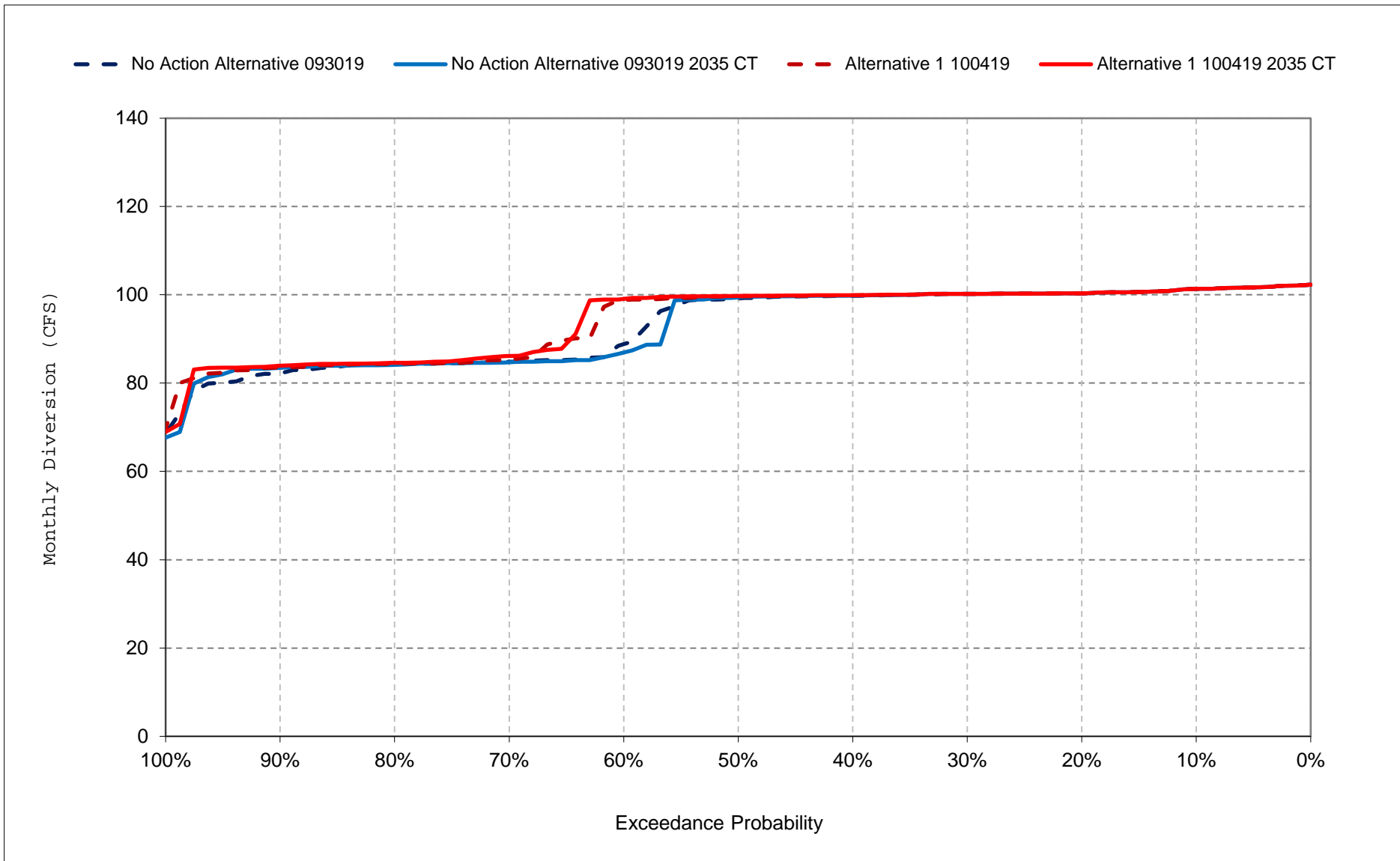
Figure 49-14. Folsom South Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

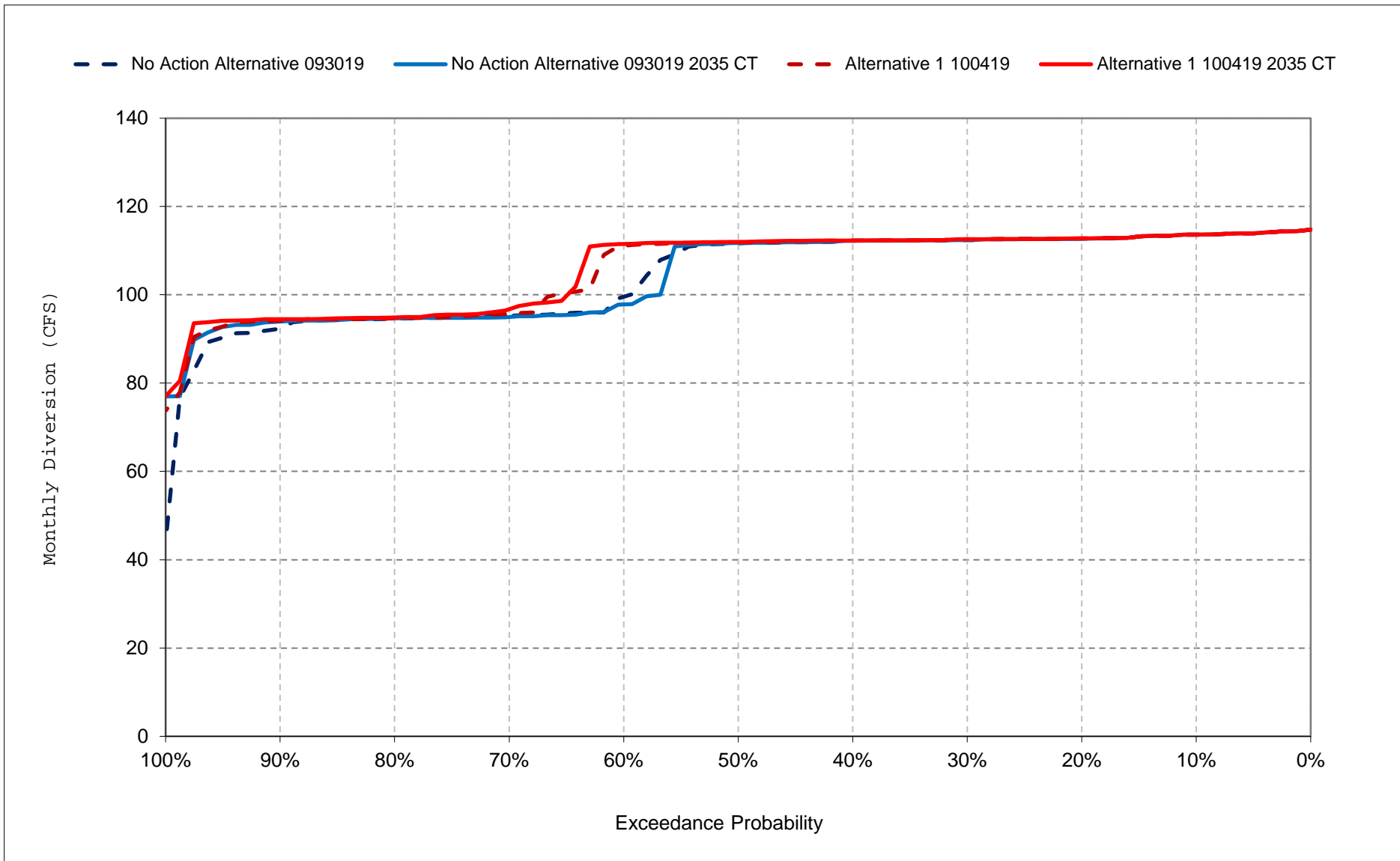
Figure 49-15. Folsom South Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

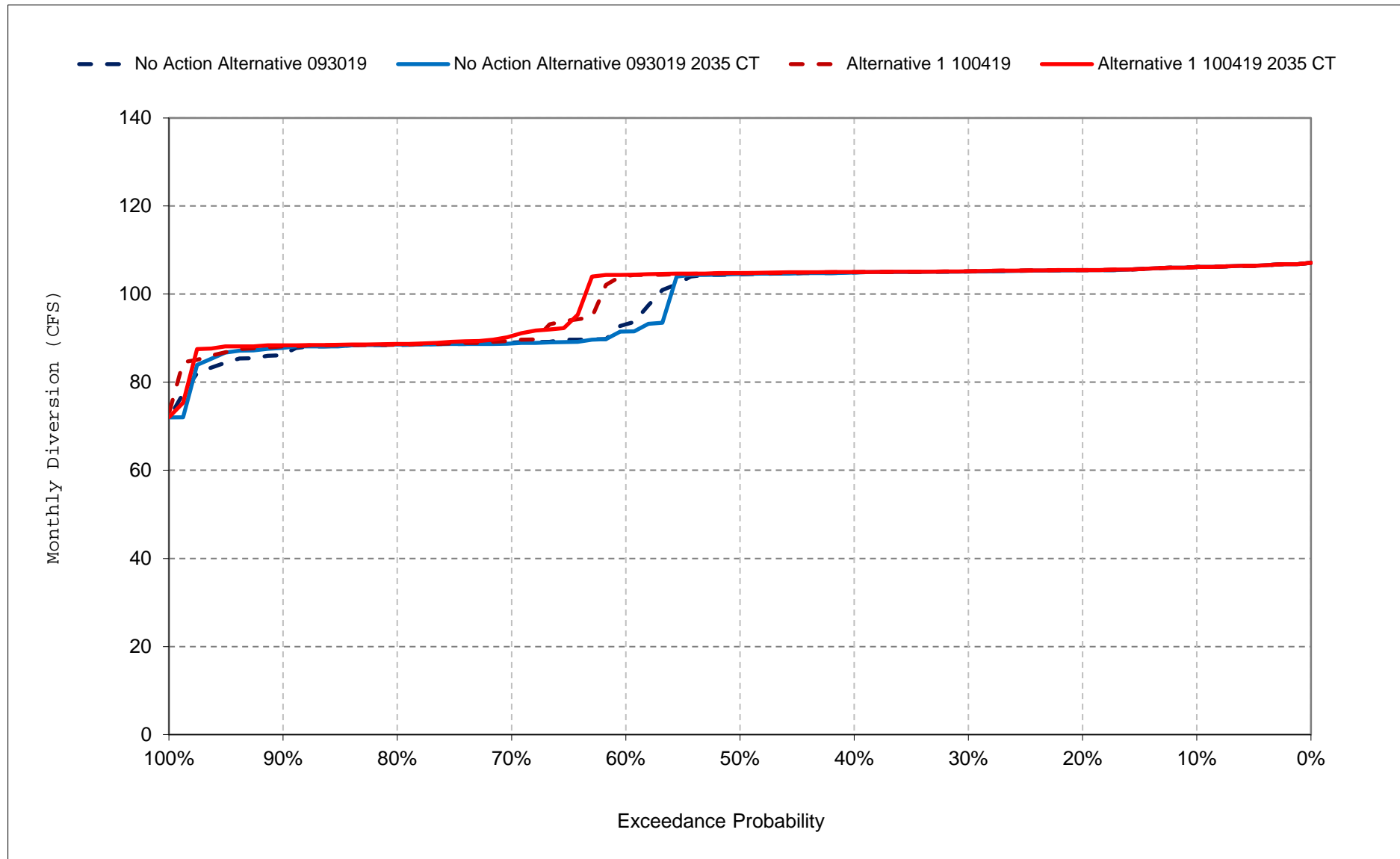
Figure 49-16. Folsom South Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

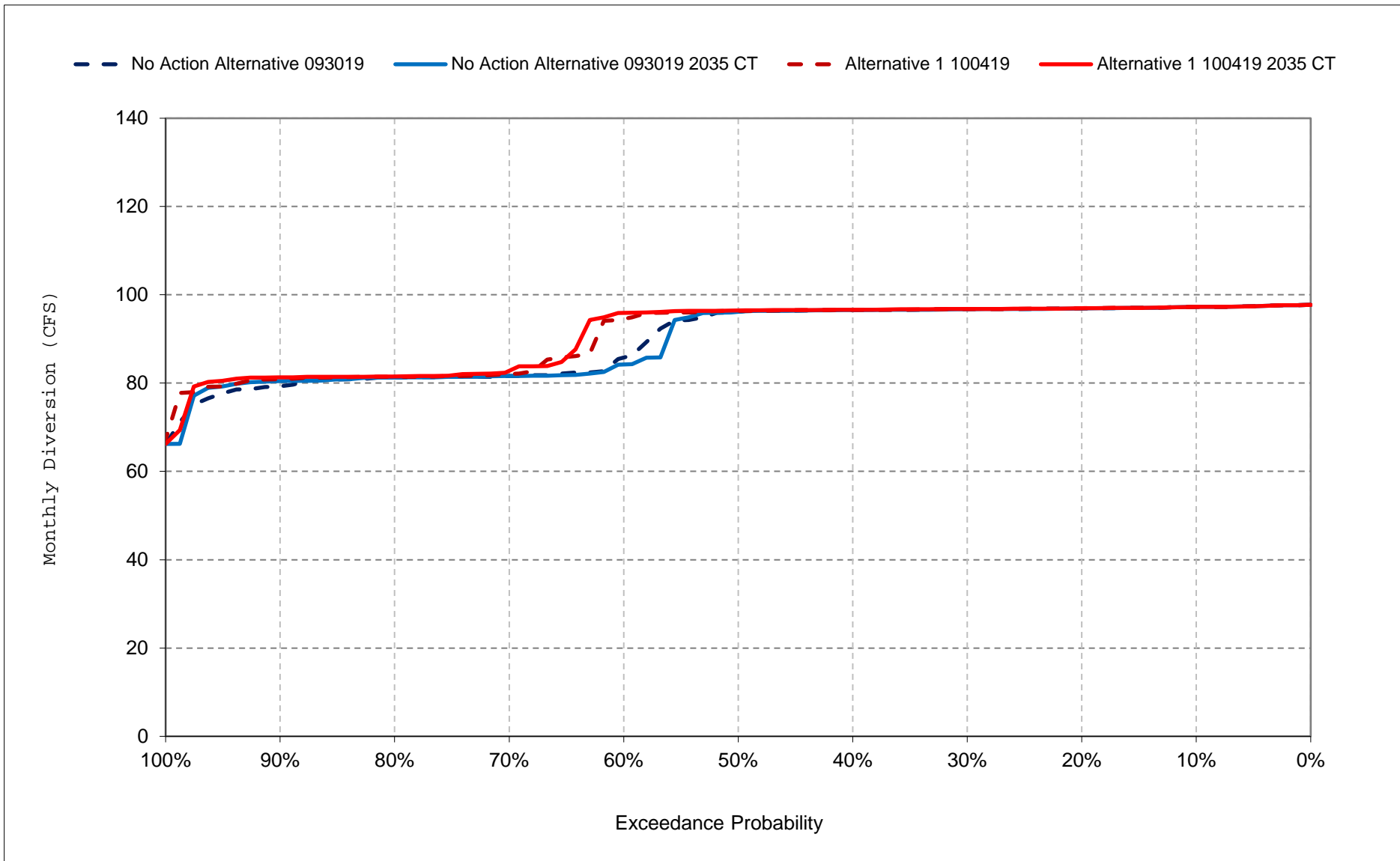
Figure 49-17. Folsom South Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 49-18. Folsom South Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-1. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 50-2. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-3. Friant-Kern Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-57	-7	-111	591	163	406	12	-52	-343	-649	-543	-297
20%	-47	-18	-9	874	332	291	-51	620	-546	-286	-249	-136
30%	-40	-20	-5	0	551	119	-42	243	-347	-163	-141	-88
40%	-36	-10	-7	-2	61	127	-137	172	-256	-215	-156	-123
50%	-31	-6	-2	-4	38	74	43	147	-18	-20	-17	-9
60%	-20	-5	-2	3	3	19	37	110	-13	-13	-53	-6
70%	4	-7	31	2	24	36	110	26	-10	-94	196	9
80%	0	1	0	0	26	-22	0	-38	-88	-59	-119	-35
90%	-6	-2	0	0	27	30	17	26	61	77	44	24
Long Term												
Full Simulation Period ^d	-61	-18	6	130	135	100	-10	107	-164	-158	-111	-80
Water Year Types ^{b,c}												
Wet (32%)	-164	-47	-39	237	182	88	-105	-21	-247	-366	-282	-210
Above Normal (16%)	-38	-7	-7	167	309	131	-6	90	-306	-291	-212	-124
Below Normal (13%)	-16	-3	75	118	177	210	34	141	-255	-95	-117	-46
Dry (24%)	-4	-5	38	51	-22	71	51	242	-59	22	63	27
Critical (15%)	4	-1	4	3	71	42	53	149	77	77	87	44

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 50-4. Friant-Kern Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	635	240	204	675	1,675	1,576	1,693	3,143	4,362	3,742	3,254	1,819
20%	575	203	98	108	1,199	865	1,593	2,278	3,958	3,162	2,772	1,555
30%	540	166	88	92	777	777	1,518	2,047	3,021	2,878	2,523	1,419
40%	506	150	82	86	654	634	1,363	1,748	2,590	2,705	2,373	1,329
50%	482	143	72	77	499	553	1,048	1,452	2,164	2,300	2,056	1,104
60%	436	137	65	66	389	532	966	1,346	1,986	2,204	1,878	1,018
70%	395	132	29	61	355	472	788	1,215	1,836	2,056	1,499	911
80%	377	119	16	16	301	392	493	731	1,593	1,873	1,197	698
90%	353	117	16	16	209	291	389	548	1,170	1,460	890	529
Long Term												
Full Simulation Period ^d	526	184	104	199	718	738	1,171	1,645	2,527	2,517	2,055	1,180
Water Year Types ^{b,c}												
Wet (32%)	719	250	144	400	1,168	1,080	1,630	2,236	3,427	3,332	2,839	1,658
Above Normal (16%)	471	140	86	235	586	859	1,567	2,200	2,991	2,766	2,422	1,353
Below Normal (13%)	489	166	88	91	597	666	1,075	1,600	2,339	2,418	1,873	1,075
Dry (24%)	421	154	120	71	497	507	794	1,144	1,881	1,979	1,549	867
Critical (15%)	376	158	23	39	362	320	466	635	1,322	1,467	967	574

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	578	233	93	1,267	1,838	1,983	1,705	3,091	4,019	3,093	2,711	1,522
20%	528	186	89	982	1,531	1,156	1,542	2,898	3,413	2,877	2,522	1,418
30%	501	146	83	91	1,328	896	1,476	2,290	2,674	2,714	2,383	1,331
40%	471	141	76	83	714	761	1,226	1,921	2,335	2,490	2,216	1,206
50%	451	136	69	73	537	627	1,091	1,599	2,146	2,280	2,040	1,096
60%	416	133	64	69	392	550	1,002	1,456	1,973	2,191	1,825	1,012
70%	399	125	60	63	380	508	898	1,242	1,826	1,962	1,694	920
80%	377	121	16	16	328	370	493	693	1,504	1,814	1,078	662
90%	347	114	16	16	236	321	406	574	1,232	1,536	935	553
Long Term												
Full Simulation Period ^d	465	167	110	329	853	839	1,162	1,752	2,363	2,358	1,944	1,100
Water Year Types ^{b,c}												
Wet (32%)	555	203	105	637	1,350	1,167	1,525	2,215	3,180	2,965	2,557	1,447
Above Normal (16%)	432	133	80	401	895	991	1,561	2,290	2,684	2,475	2,210	1,229
Below Normal (13%)	472	163	163	209	775	876	1,109	1,741	2,084	2,323	1,756	1,029
Dry (24%)	416	149	157	122	474	577	845	1,386	1,822	2,001	1,612	894
Critical (15%)	380	158	26	42	434	363	519	785	1,399	1,544	1,053	618

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-57	-7	-111	591	163	406	12	-52	-343	-649	-543	-297
20%	-47	-18	-9	874	332	291	-51	620	-546	-286	-249	-136
30%	-40	-20	-5	0	551	119	-42	243	-347	-163	-141	-88
40%	-36	-10	-7	-2	61	127	-137	172	-256	-215	-156	-123
50%	-31	-6	-2	-4	38	74	43	147	-18	-20	-17	-9
60%	-20	-5	-2	3	3	19	37	110	-13	-13	-53	-6
70%	4	-7	31	2	24	36	110	26	-10	-94	196	9
80%	0	1	0	0	26	-22	0	-38	-88	-59	-119	-35
90%	-6	-2	0	0	27	30	17	26	61	77	44	24
Long Term												
Full Simulation Period ^d	-61	-18	6	130	135	100	-10	107	-164	-158	-111	-80
Water Year Types ^{b,c}												
Wet (32%)	-164	-47	-39	237	182	88	-105	-21	-247	-366	-282	-210
Above Normal (16%)	-38	-7	-7	167	309	131	-6	90	-306	-291	-212	-124
Below Normal (13%)	-16	-3	75	118	177	210	34	141	-255	-95	-117	-46
Dry (24%)	-4	-5	38	51	-22	71	51	242	-59	22	63	27
Critical (15%)	4	-1	4	3	71	42	53	149	77	77	87	44

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

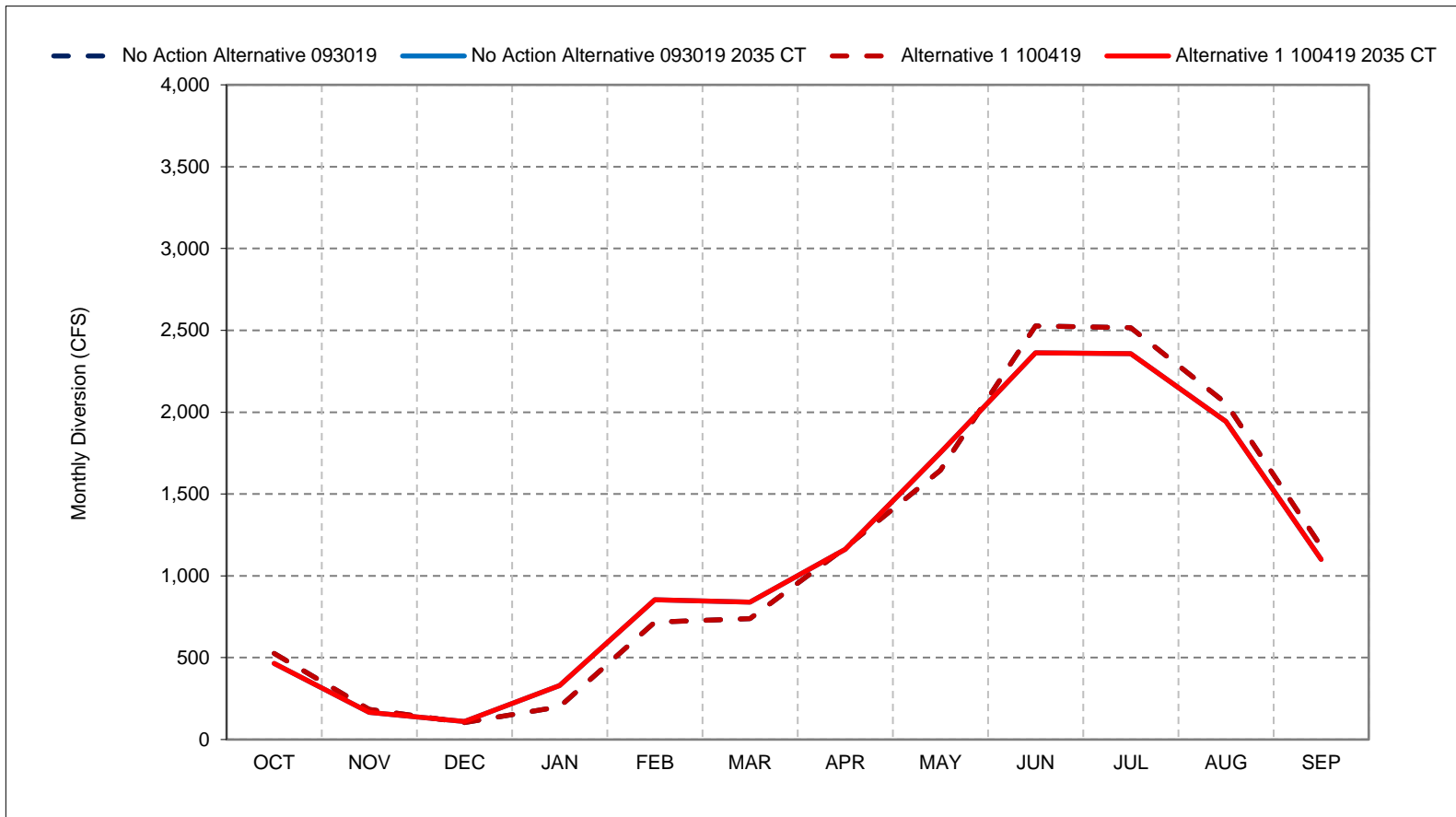
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 50-1. Friant-Kern Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

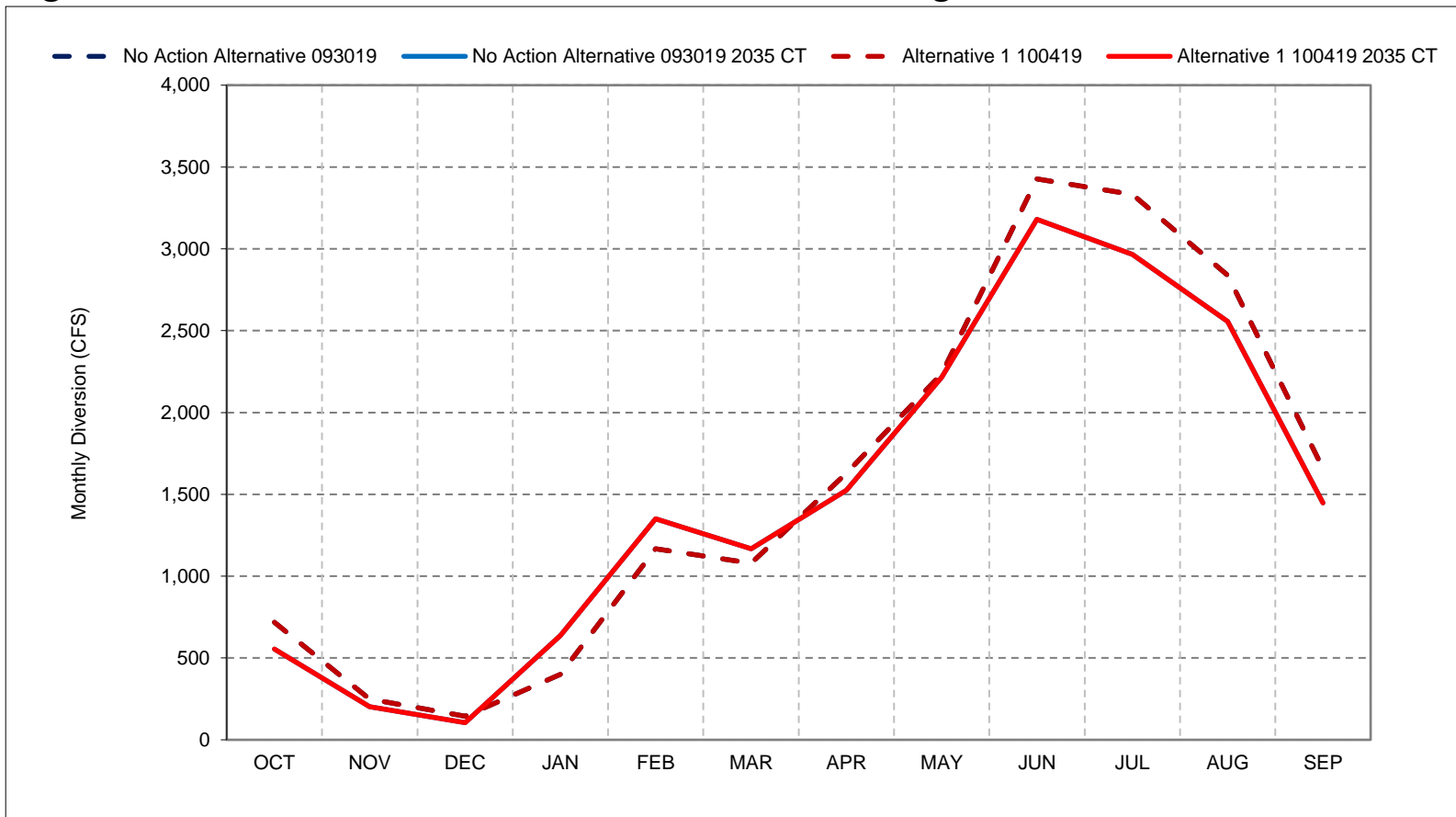
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-2. Friant-Kern Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

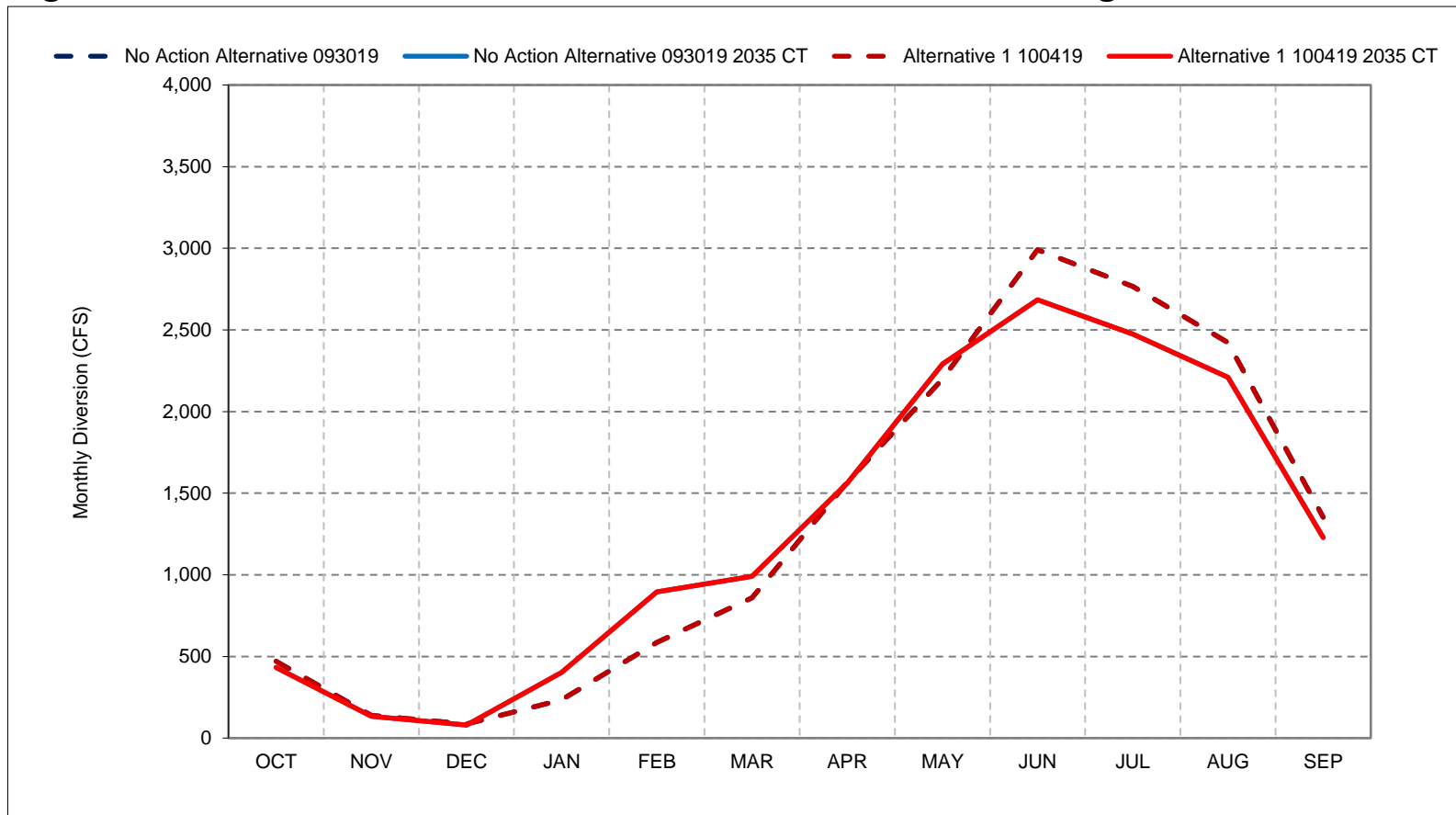
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-3. Friant-Kern Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

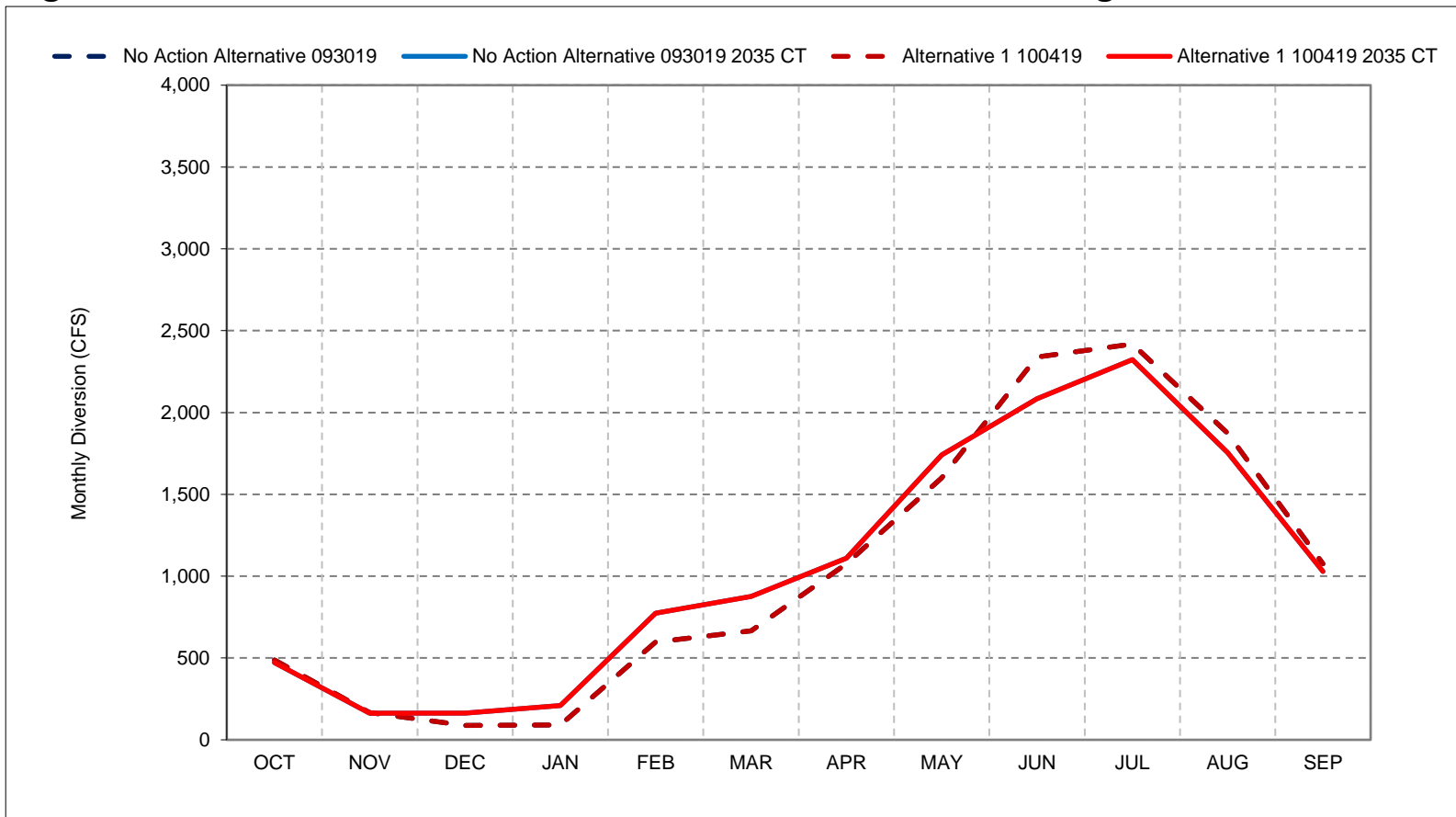
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-4. Friant-Kern Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

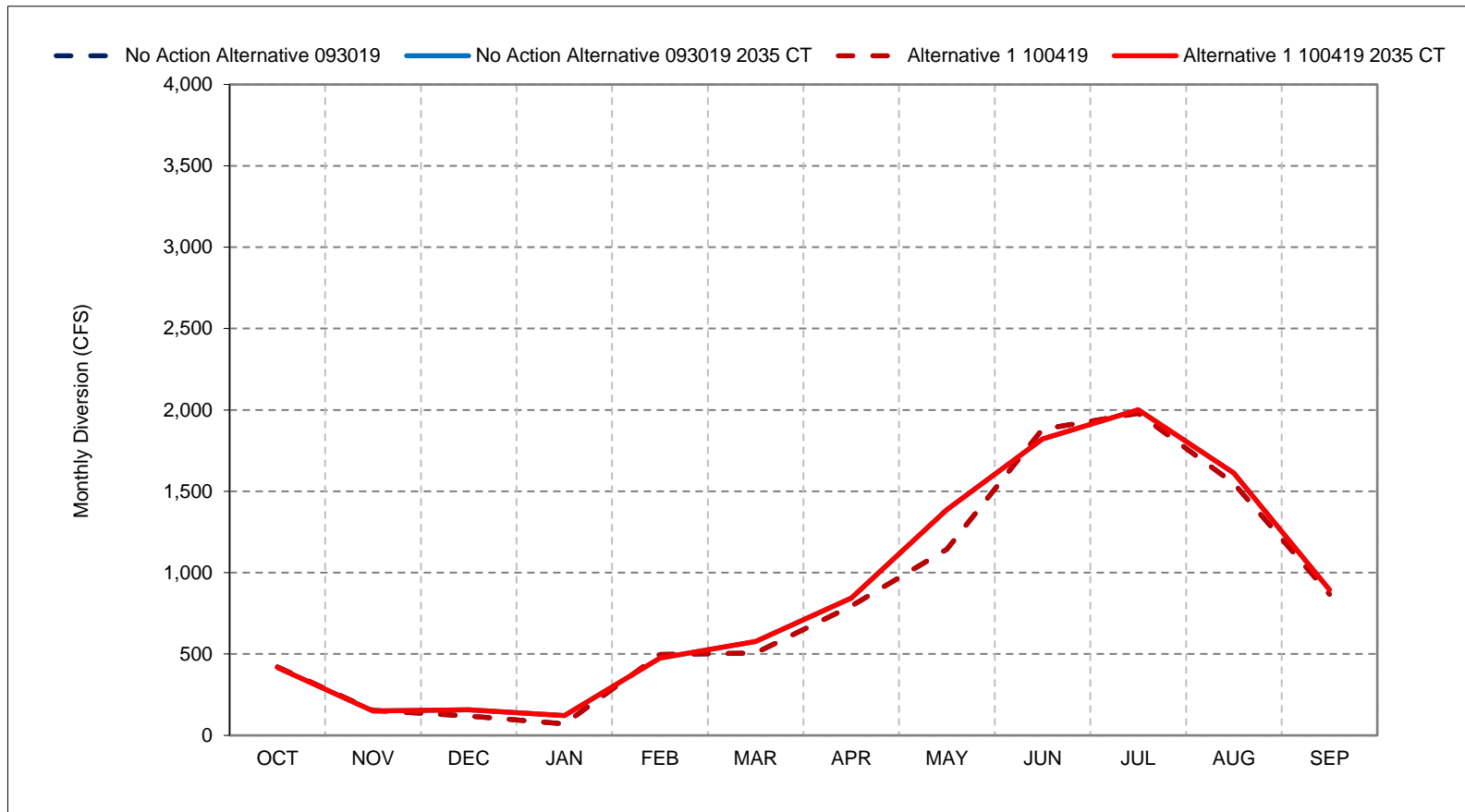
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-5. Friant-Kern Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

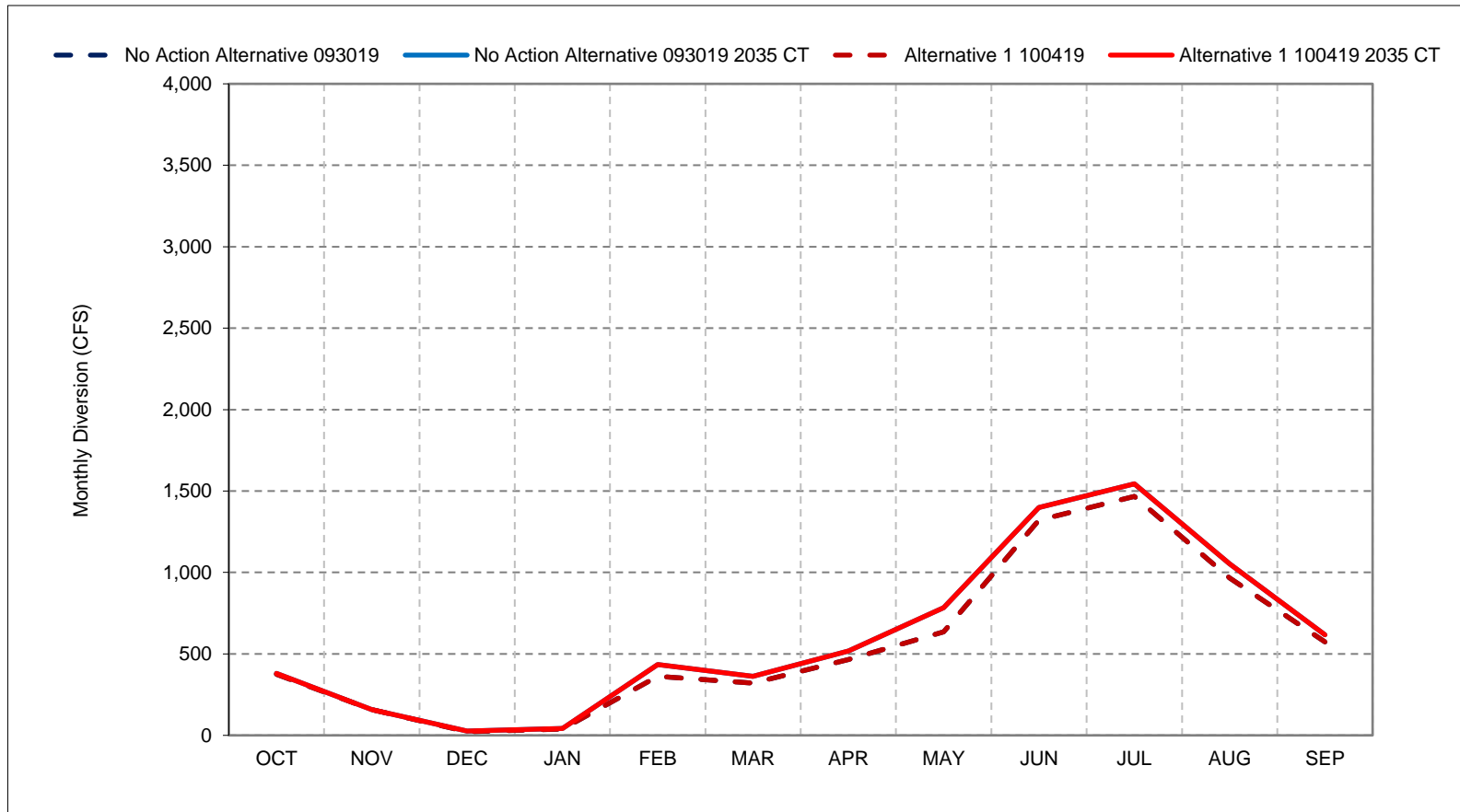
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 50-6. Friant-Kern Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

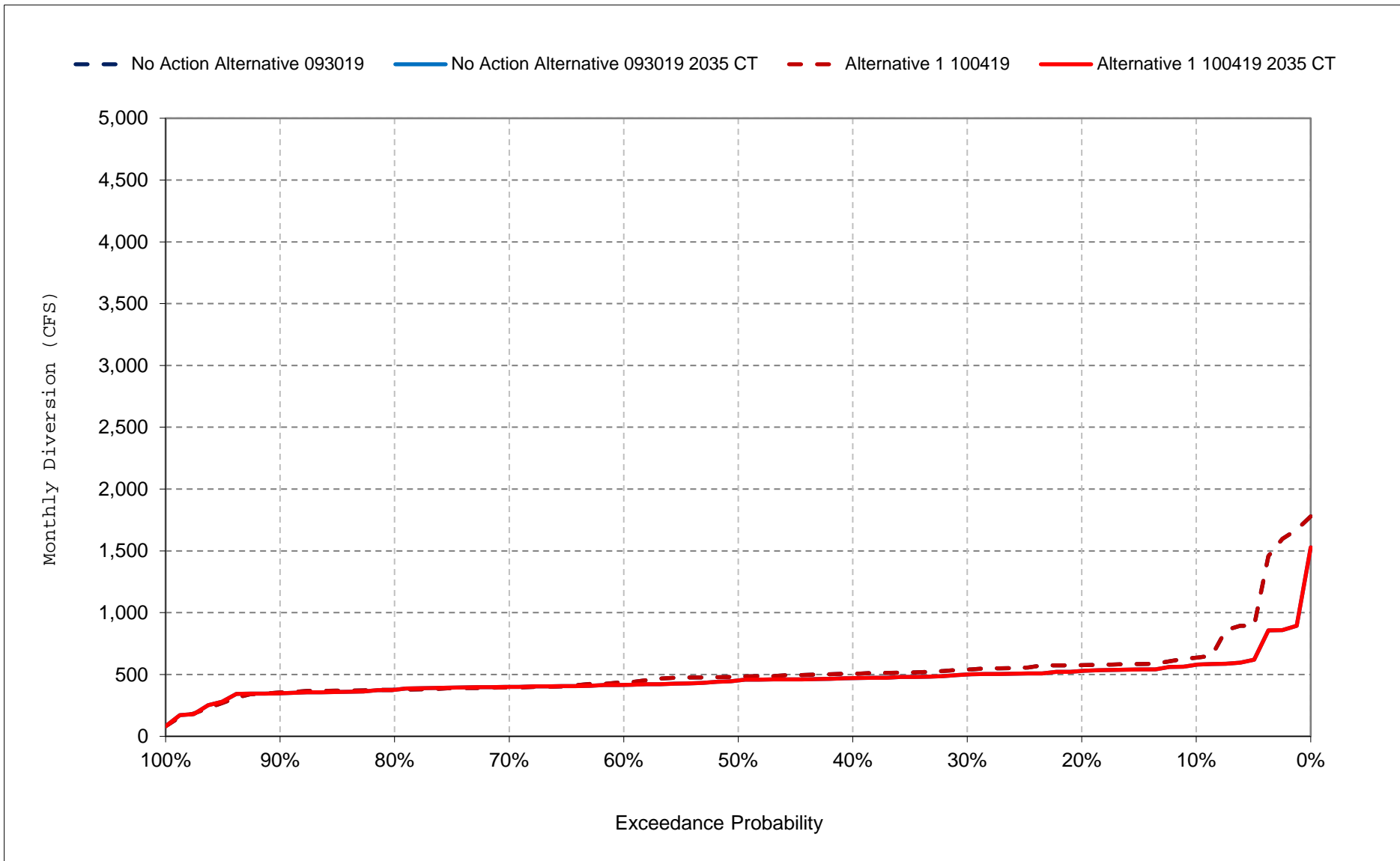
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

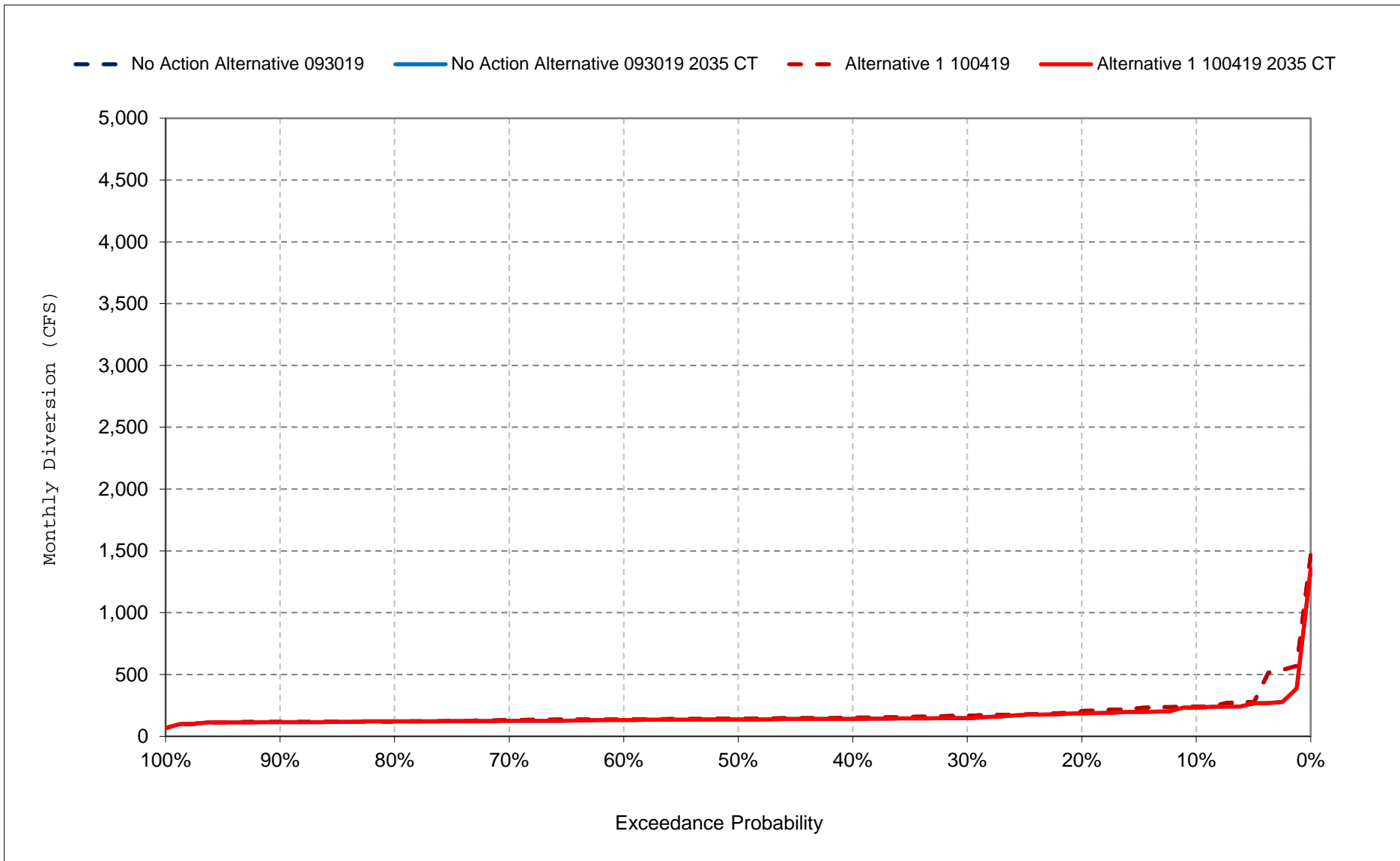
Figure 50-7. Friant-Kern Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

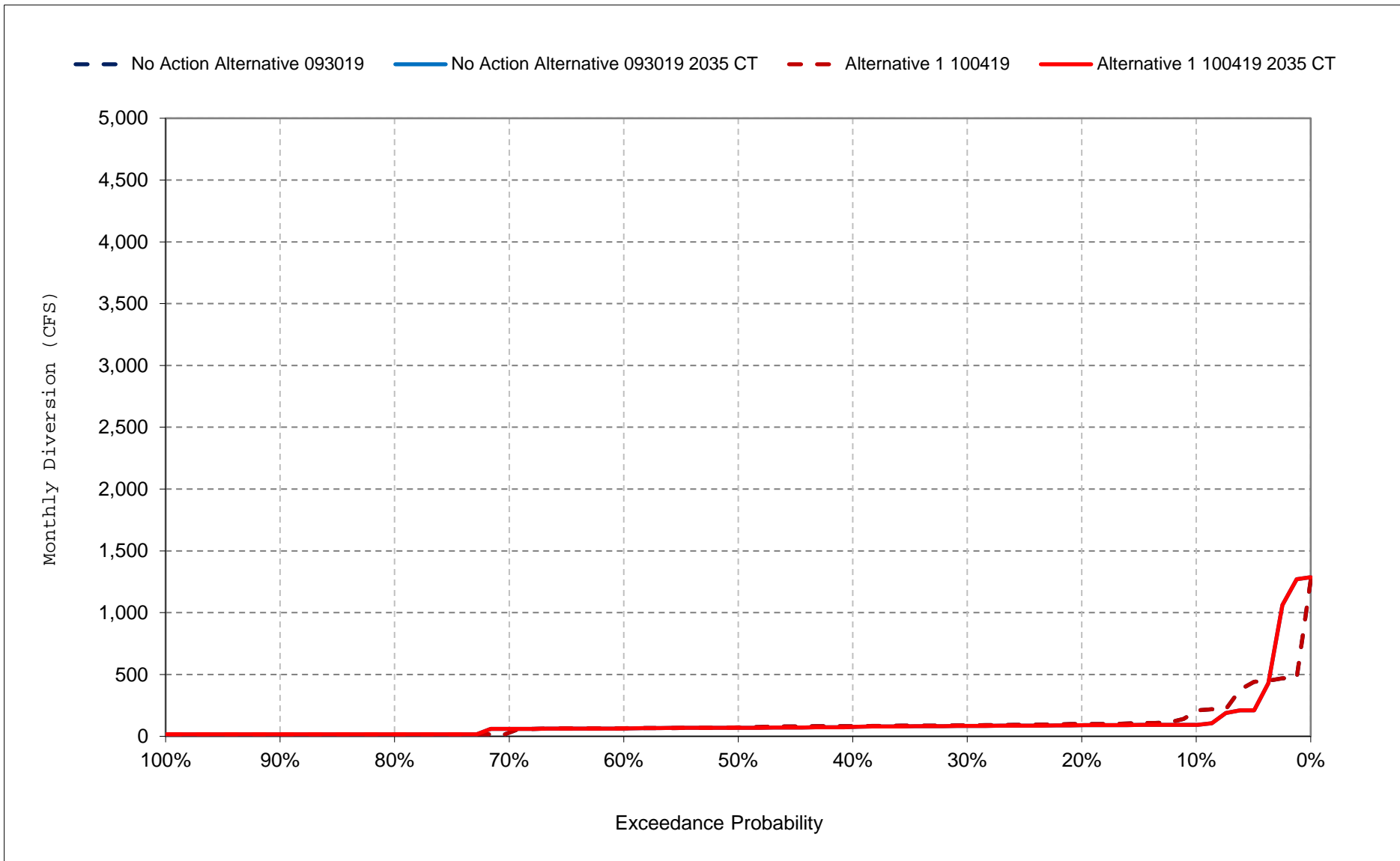
Figure 50-8. Friant-Kern Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

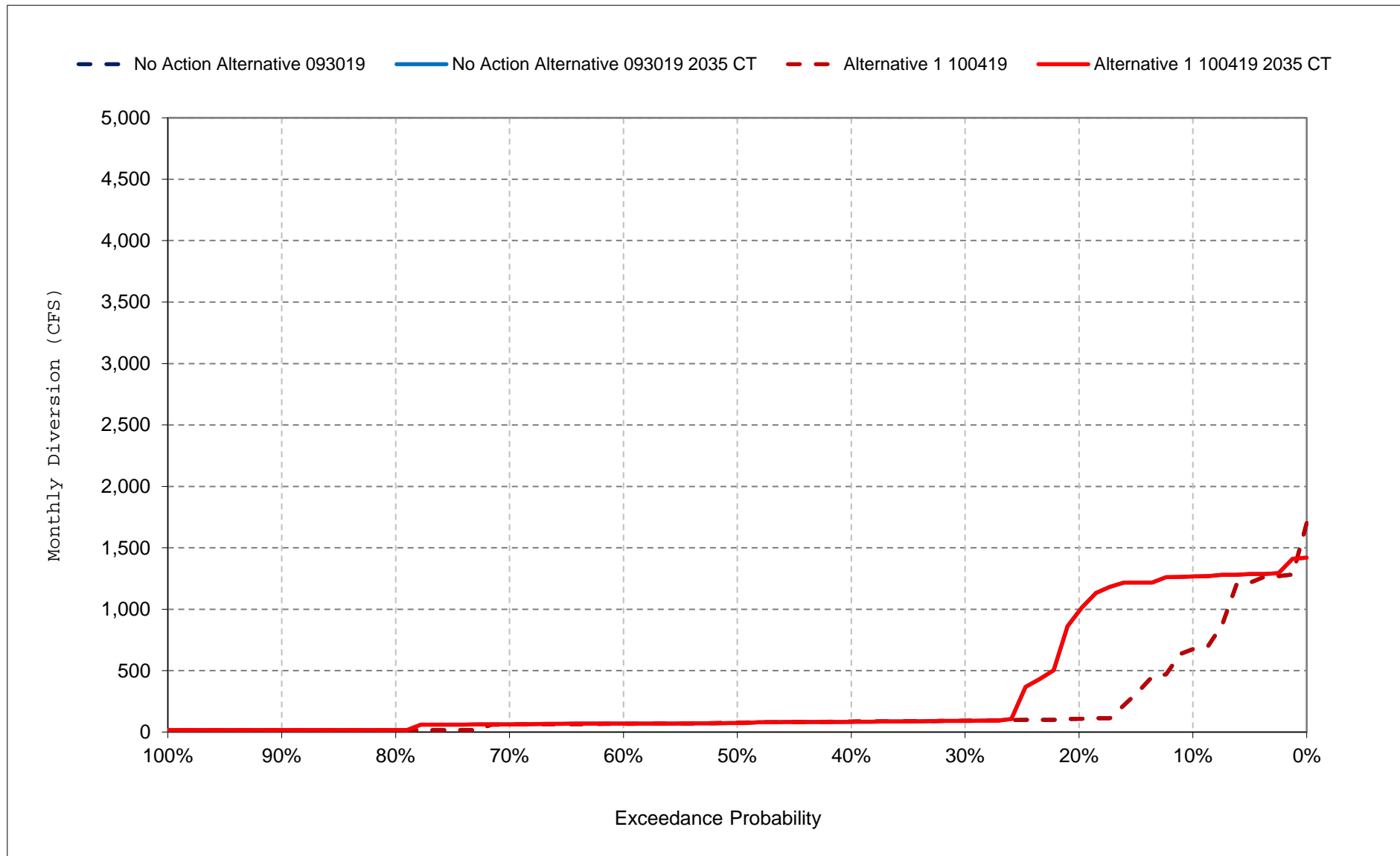
Figure 50-9. Friant-Kern Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

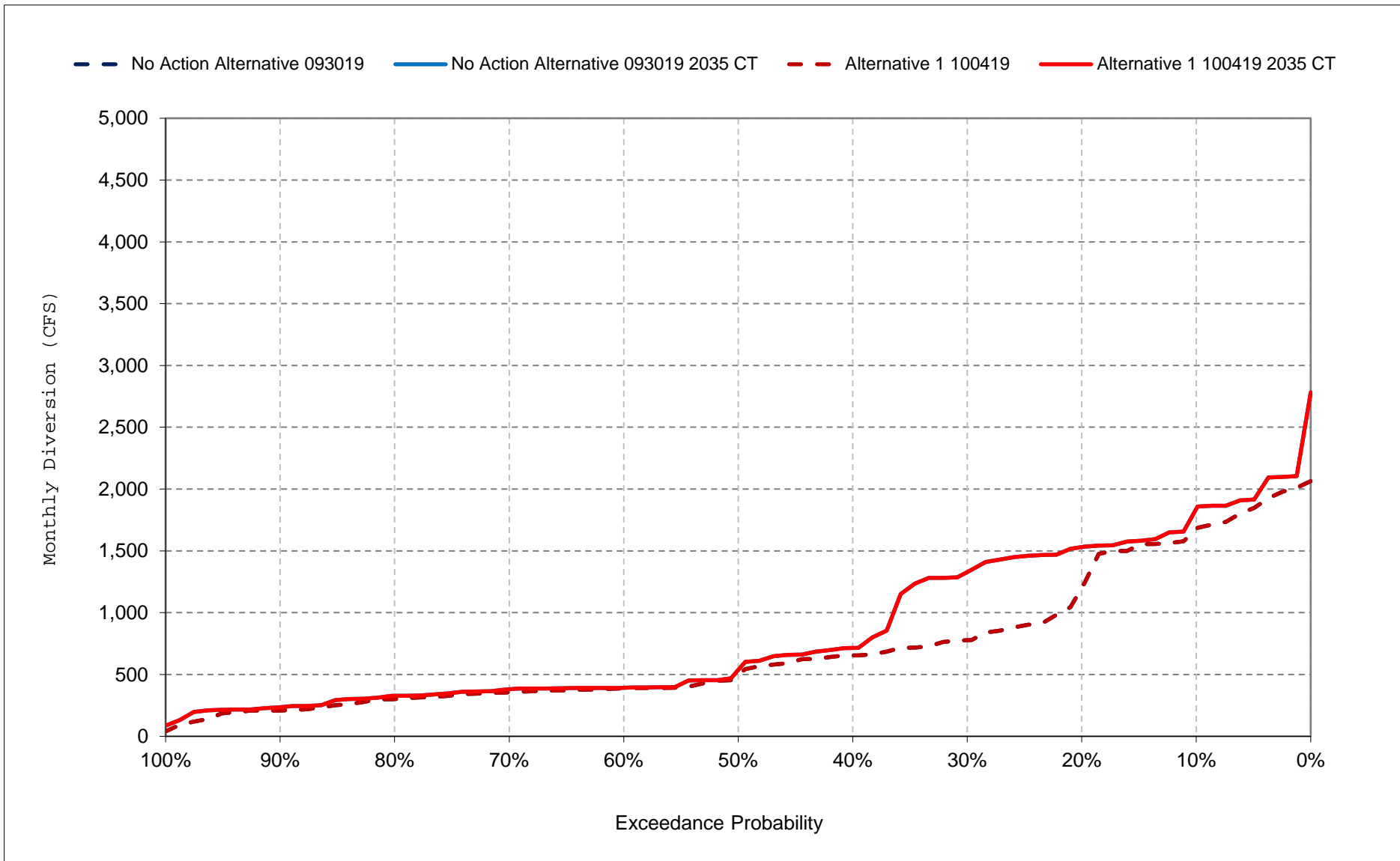
Figure 50-10. Friant-Kern Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

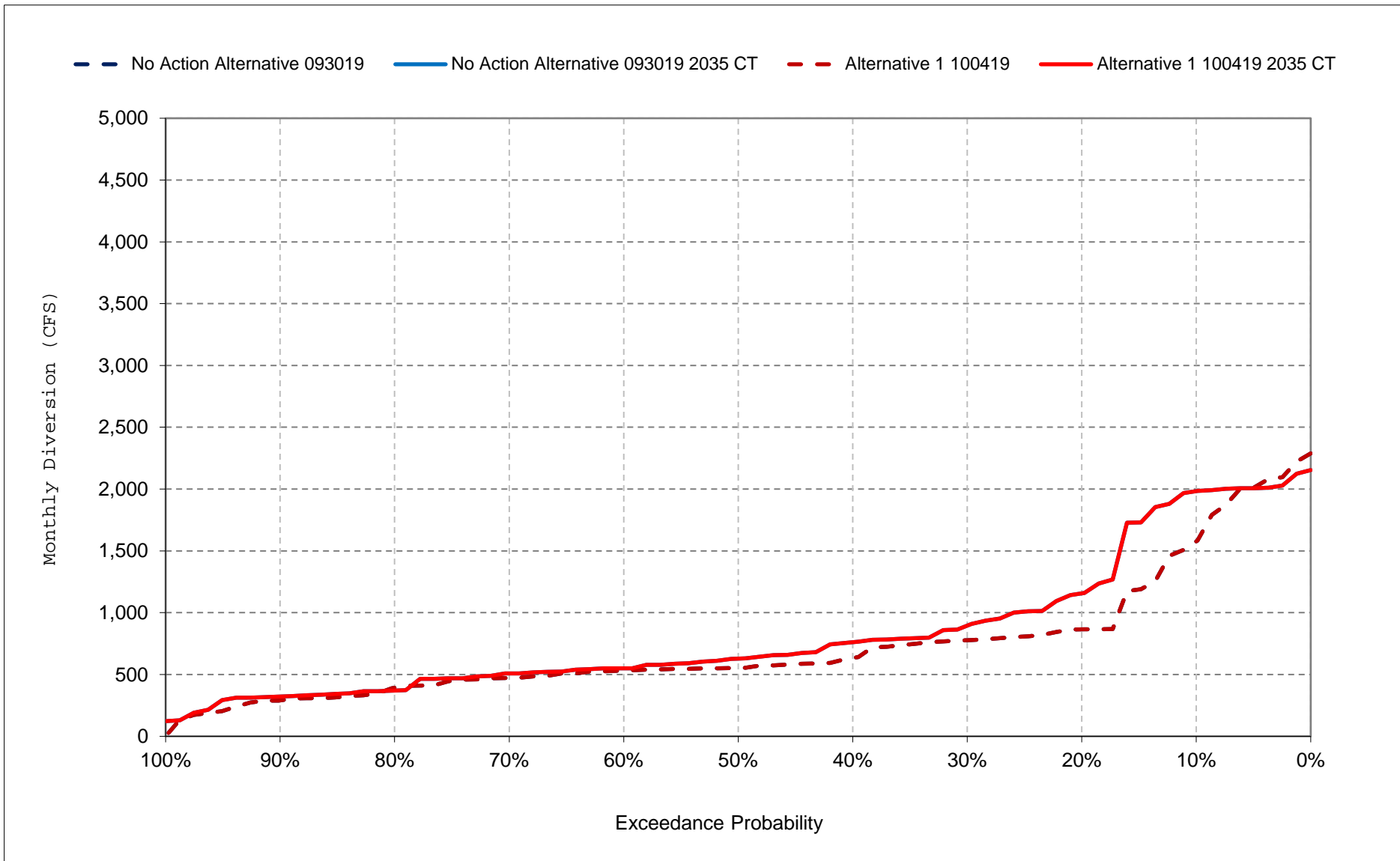
Figure 50-11. Friant-Kern Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

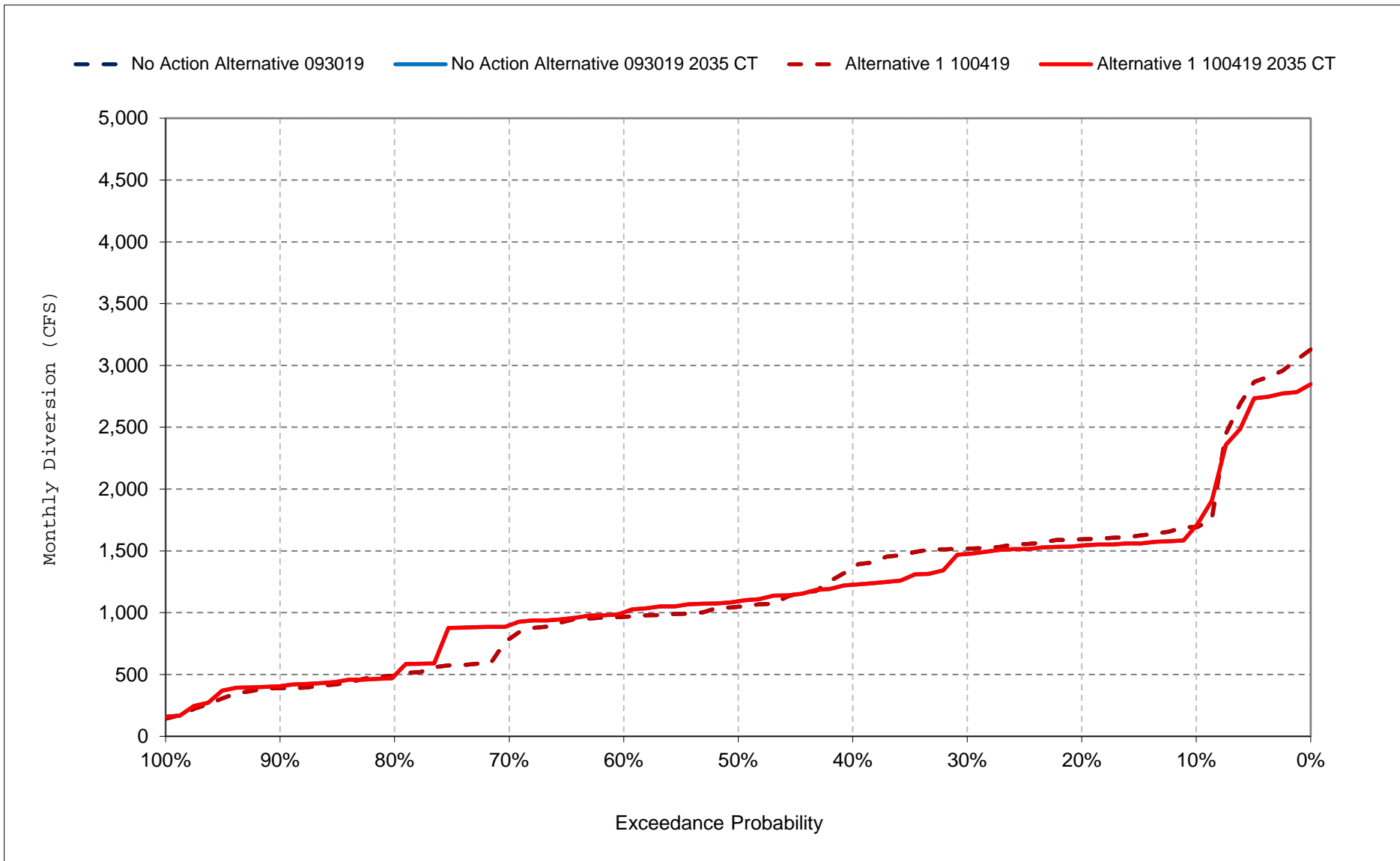
Figure 50-12. Friant-Kern Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

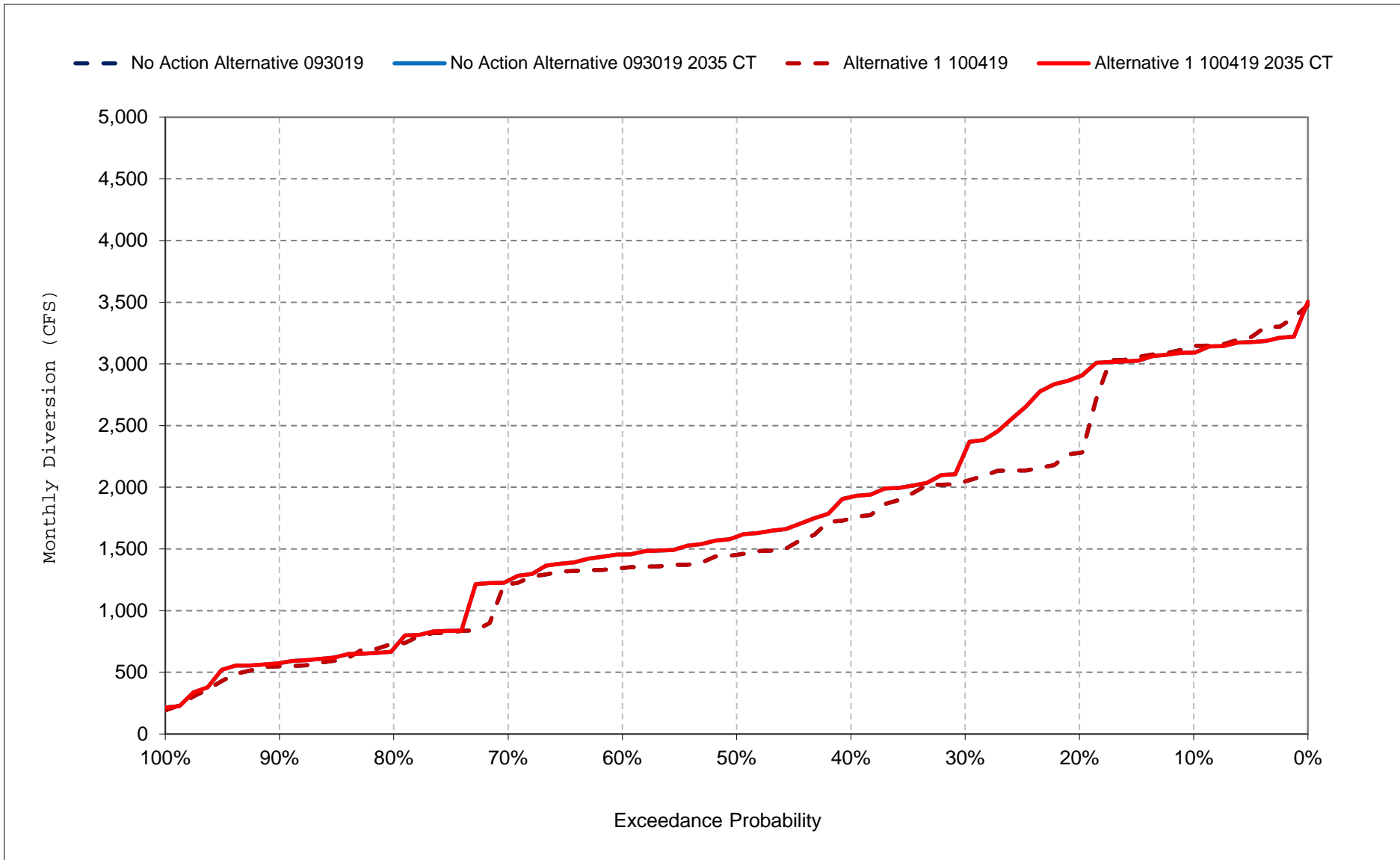
Figure 50-13. Friant-Kern Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

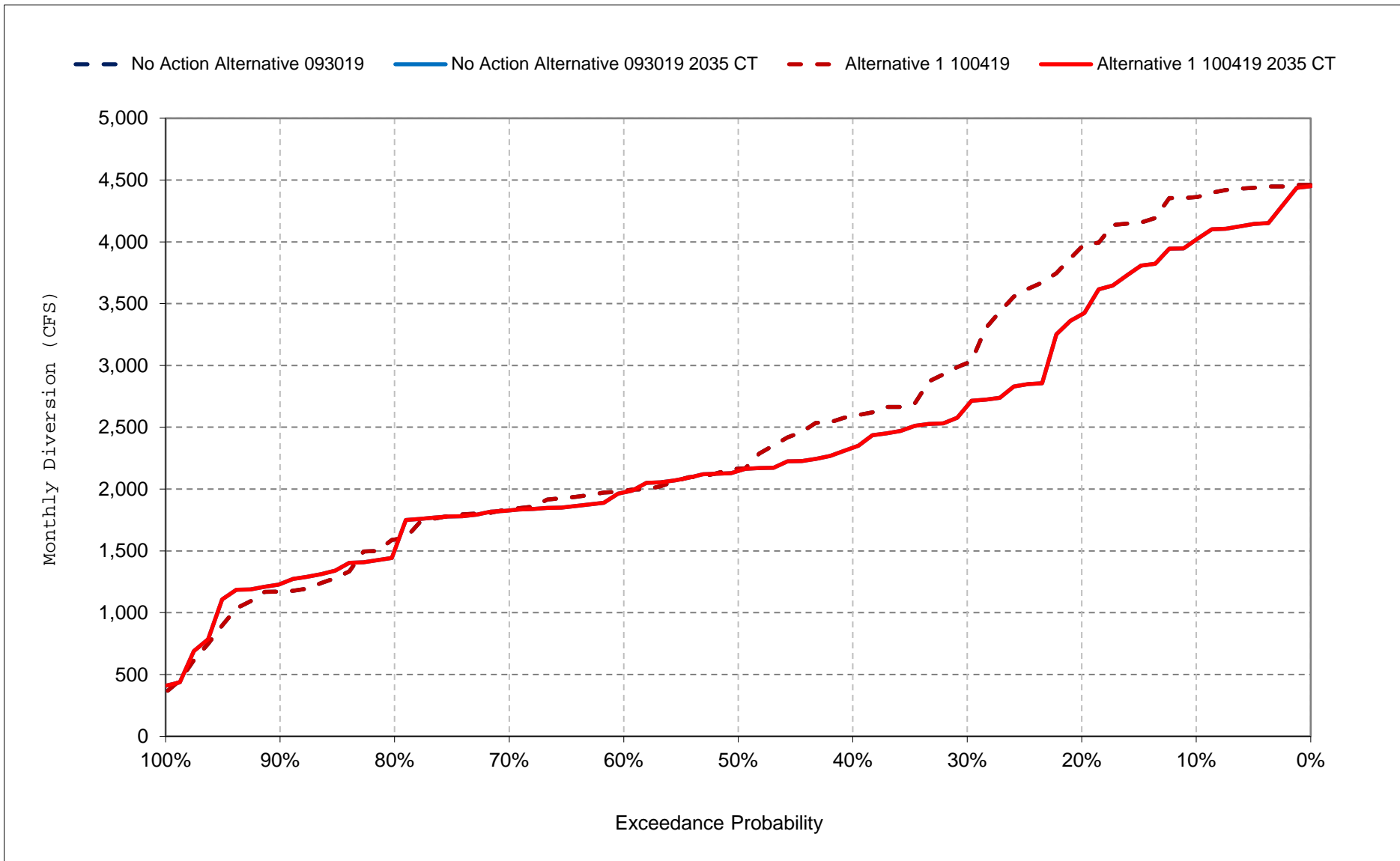
Figure 50-14. Friant-Kern Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

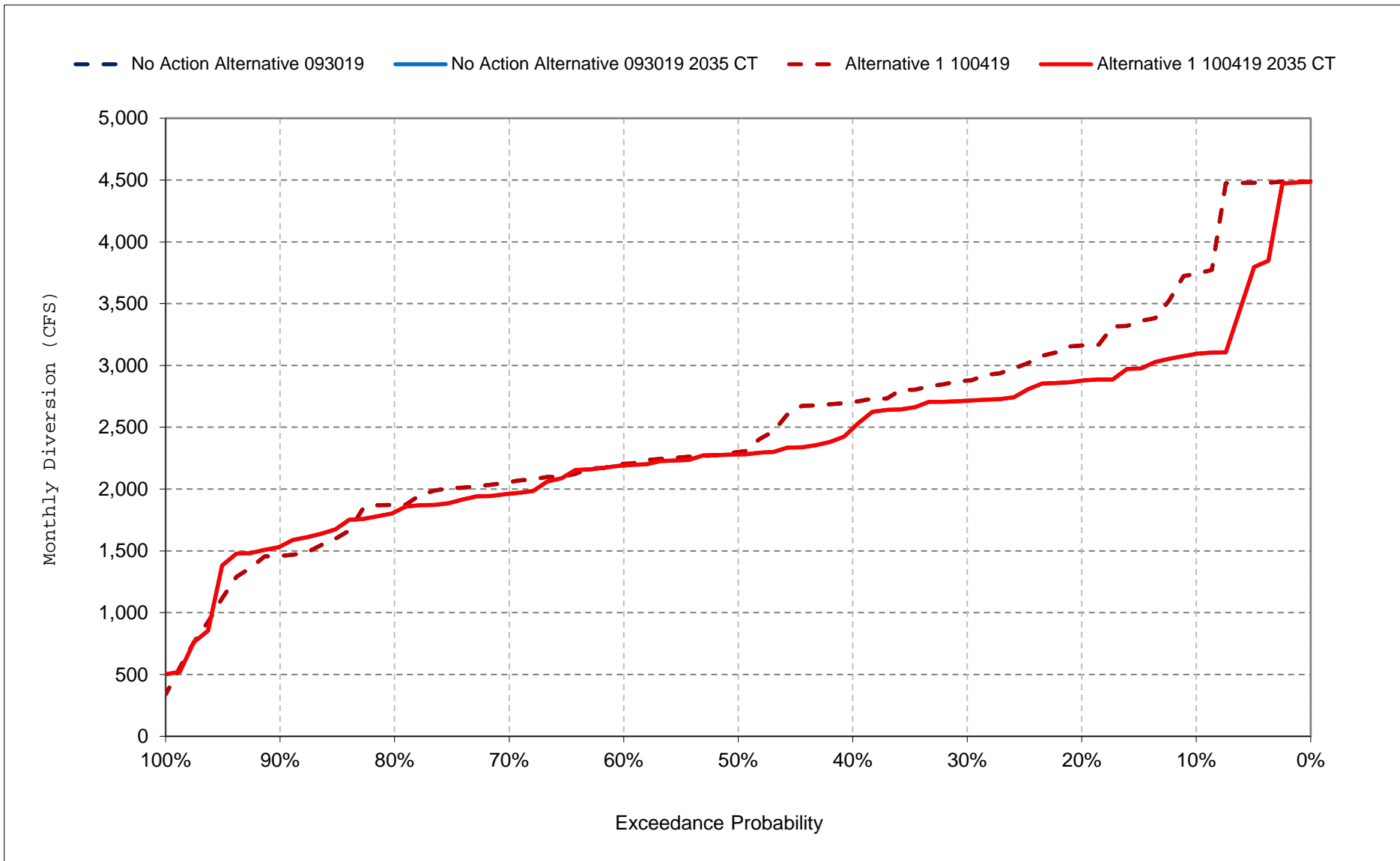
Figure 50-15. Friant-Kern Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

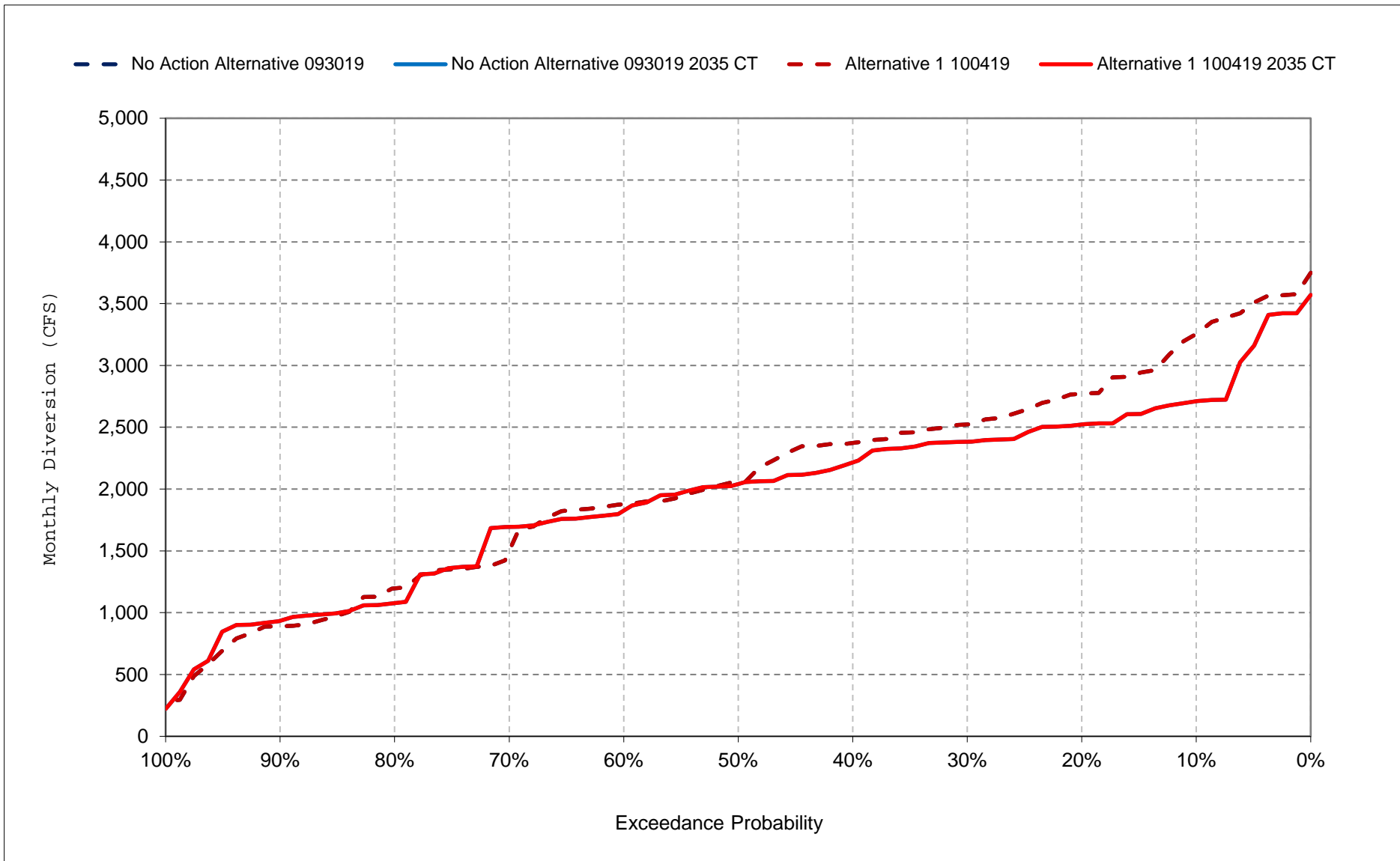
Figure 50-16. Friant-Kern Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

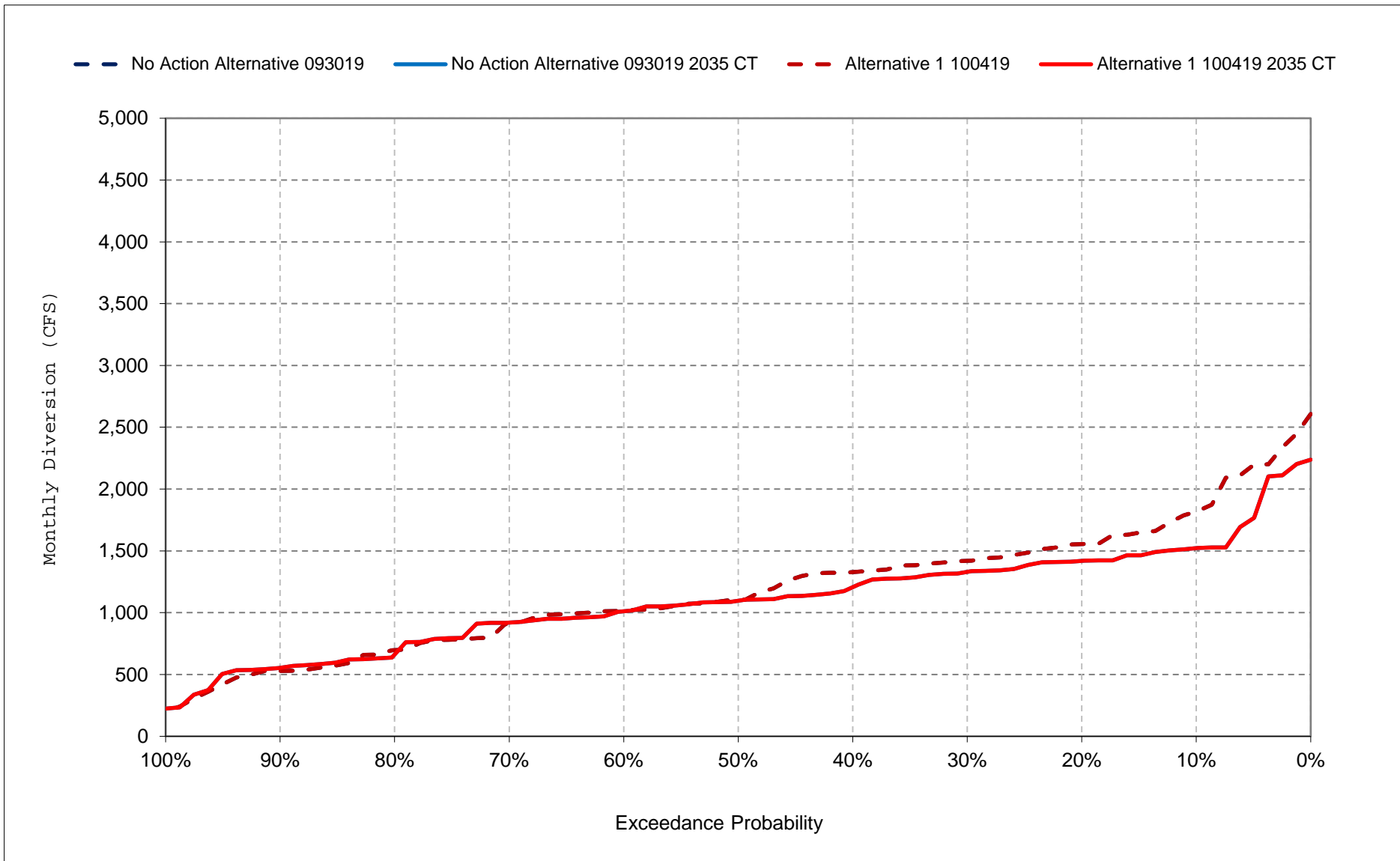
Figure 50-17. Friant-Kern Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 50-18. Friant-Kern Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-1. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 51-2. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	140	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	139	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	0	0	0	0	0	0
20%	0	0	0	0	0	0	0	0	0	0	0	0
30%	0	0	0	0	0	0	0	0	0	0	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	0	0	0	0	0	0	0	0	0	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal (16%)	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal (13%)	0	0	0	0	0	0	0	0	0	0	0	0
Dry (24%)	0	0	0	0	0	0	0	0	0	0	0	0
Critical (15%)	0	0	0	0	0	0	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-3. Madera Canal Diversion, Monthly Diversion

No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types ^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

No Action Alternative 093019 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	140	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-5	-9	1	82	87	20	-32	-109	-27	0	-192	-48
20%	-38	-1	0	48	70	20	-106	-61	-57	-69	-85	-27
30%	0	0	0	3	63	48	-15	-11	-75	-75	-66	-116
40%	0	0	0	0	33	49	0	-60	-139	-49	-134	-5
50%	0	0	0	0	11	26	0	57	-8	-9	-13	-7
60%	0	0	0	0	0	0	0	17	-4	-5	-17	4
70%	0	0	0	0	0	0	0	2	6	8	0	-3
80%	0	0	0	0	0	0	0	-8	-27	-33	-27	1
90%	0	0	0	0	0	0	0	6	19	23	-13	7
Long Term												
Full Simulation Period ^d	-9	-1	4	20	28	16	-26	-22	-25	-17	-58	-25
Water Year Types ^{b,c}												
Wet (32%)	-22	-3	7	50	43	22	-62	-102	-48	-53	-131	-88
Above Normal (16%)	-3	-1	0	20	33	20	-18	-13	-90	-83	-78	-34
Below Normal (13%)	-7	0	4	1	33	26	6	0	-12	21	-65	20
Dry (24%)	0	0	7	1	12	10	-15	49	-4	4	-1	28
Critical (15%)	-3	0	0	0	14	0	-3	0	50	61	31	-10

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 51-4. Madera Canal Diversion, Monthly Diversion

Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	44	9	1	33	100	121	333	996	1,250	1,250	1,106	424
20%	38	1	0	1	48	89	299	823	1,161	1,233	924	332
30%	0	0	0	0	20	31	46	618	1,042	1,112	859	260
40%	0	0	0	0	3	0	0	558	953	1,009	807	134
50%	0	0	0	0	0	0	0	257	740	899	621	110
60%	0	0	0	0	0	0	0	227	677	823	565	91
70%	0	0	0	0	0	0	0	207	604	735	497	86
80%	0	0	0	0	0	0	0	175	509	620	410	74
90%	0	0	0	0	0	0	0	135	379	463	321	50
Long Term												
Full Simulation Period ^d	18	3	11	25	32	40	103	469	803	886	676	193
Water Year Types ^{b,c}												
Wet (32%)	46	9	21	68	63	89	202	800	1,077	1,130	950	333
Above Normal (16%)	14	1	0	19	47	38	108	535	937	1,030	784	193
Below Normal (13%)	7	0	0	0	26	25	90	366	749	869	586	178
Dry (24%)	0	0	19	0	4	4	25	234	627	738	510	79
Critical (15%)	3	0	0	0	2	9	28	167	406	465	325	94

Alternative 1 100419 2035 CT

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	38	0	2	116	187	141	301	887	1,223	1,250	914	375
20%	0	0	0	49	119	109	194	762	1,104	1,164	839	305
30%	0	0	0	3	83	79	32	606	967	1,037	793	144
40%	0	0	0	0	36	50	0	498	814	960	673	129
50%	0	0	0	0	11	26	0	314	732	890	607	103
60%	0	0	0	0	0	0	0	244	672	817	548	95
70%	0	0	0	0	0	0	0	209	610	742	497	83
80%	0	0	0	0	0	0	0	167	482	587	383	76
90%	0	0	0	0	0	0	0	141	398	485	308	57
Long Term												
Full Simulation Period ^d	9	2	16	44	60	56	77	447	778	869	618	168
Water Year Types ^{b,c}												
Wet (32%)	24	6	27	118	105	110	139	698	1,030	1,077	819	245
Above Normal (16%)	11	1	0	39	80	58	90	522	847	947	706	159
Below Normal (13%)	0	0	4	2	58	51	96	366	738	889	521	199
Dry (24%)	0	0	27	1	16	14	10	283	623	742	509	107
Critical (15%)	0	0	0	0	15	10	25	168	456	526	355	84

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Diversion (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-5	-9	1	82	87	20	-32	-109	-27	0	-192	-48
20%	-38	-1	0	48	70	20	-106	-61	-57	-69	-85	-27
30%	0	0	0	3	63	48	-15	-11	-75	-75	-66	-116
40%	0	0	0	0	33	49	0	-60	-139	-49	-134	-5
50%	0	0	0	0	11	26	0	57	-8	-9	-13	-7
60%	0	0	0	0	0	0	0	17	-4	-5	-17	4
70%	0	0	0	0	0	0	0	2	6	8	0	-3
80%	0	0	0	0	0	0	0	-8	-27	-33	-27	1
90%	0	0	0	0	0	0	0	6	19	23	-13	7
Long Term												
Full Simulation Period ^d	-9	-1	4	20	28	16	-26	-22	-25	-17	-58	-25
Water Year Types ^{b,c}												
Wet (32%)	-22	-3	7	50	43	22	-62	-102	-48	-53	-131	-88
Above Normal (16%)	-3	-1	0	20	33	20	-18	-13	-90	-83	-78	-34
Below Normal (13%)	-7	0	4	1	33	26	6	0	-12	21	-65	20
Dry (24%)	0	0	7	1	12	10	-15	49	-4	4	-1	28
Critical (15%)	-3	0	0	0	14	0	-3	0	50	61	31	-10

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

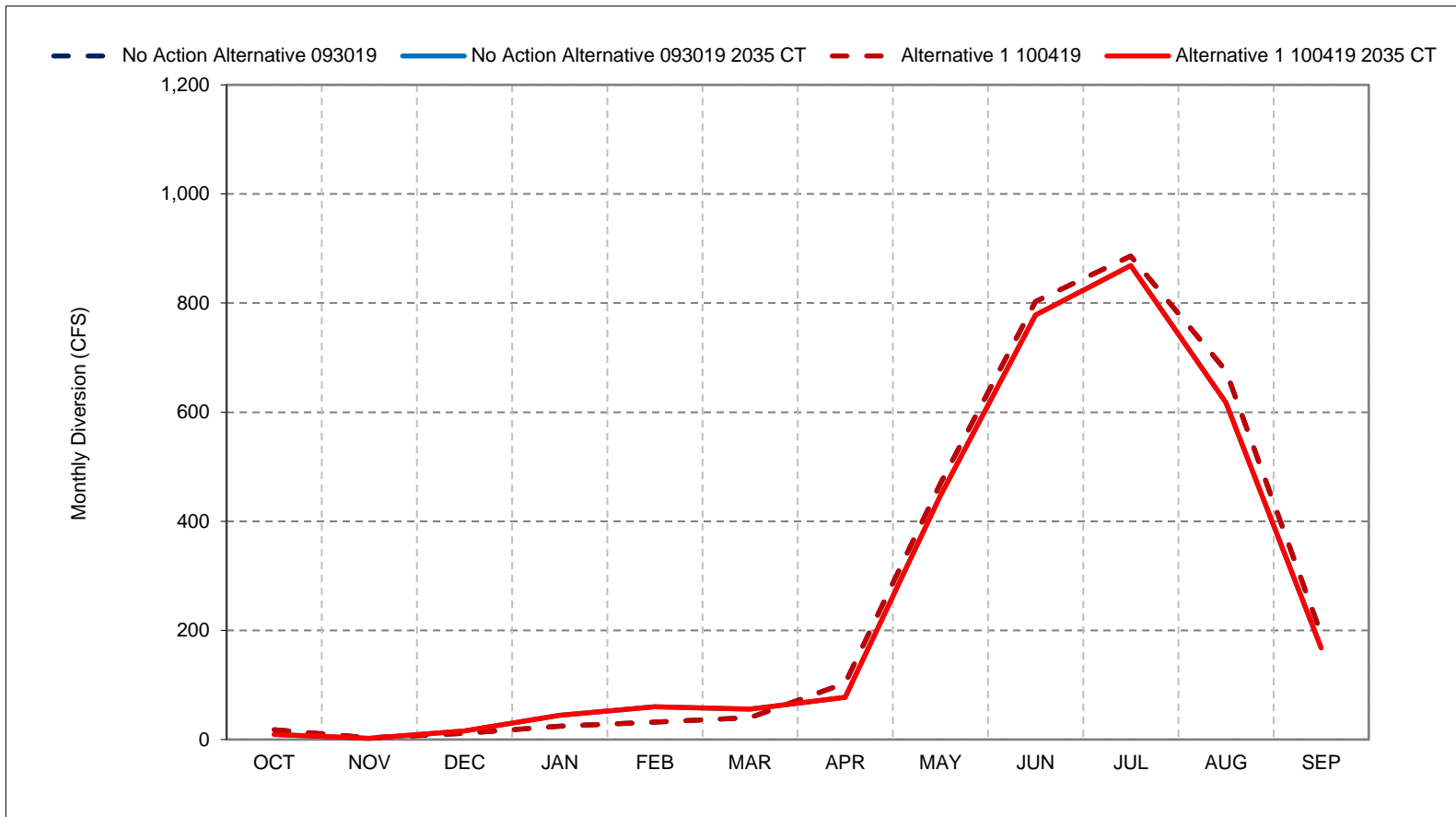
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 51-1. Madera Canal Diversion, Long-Term Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

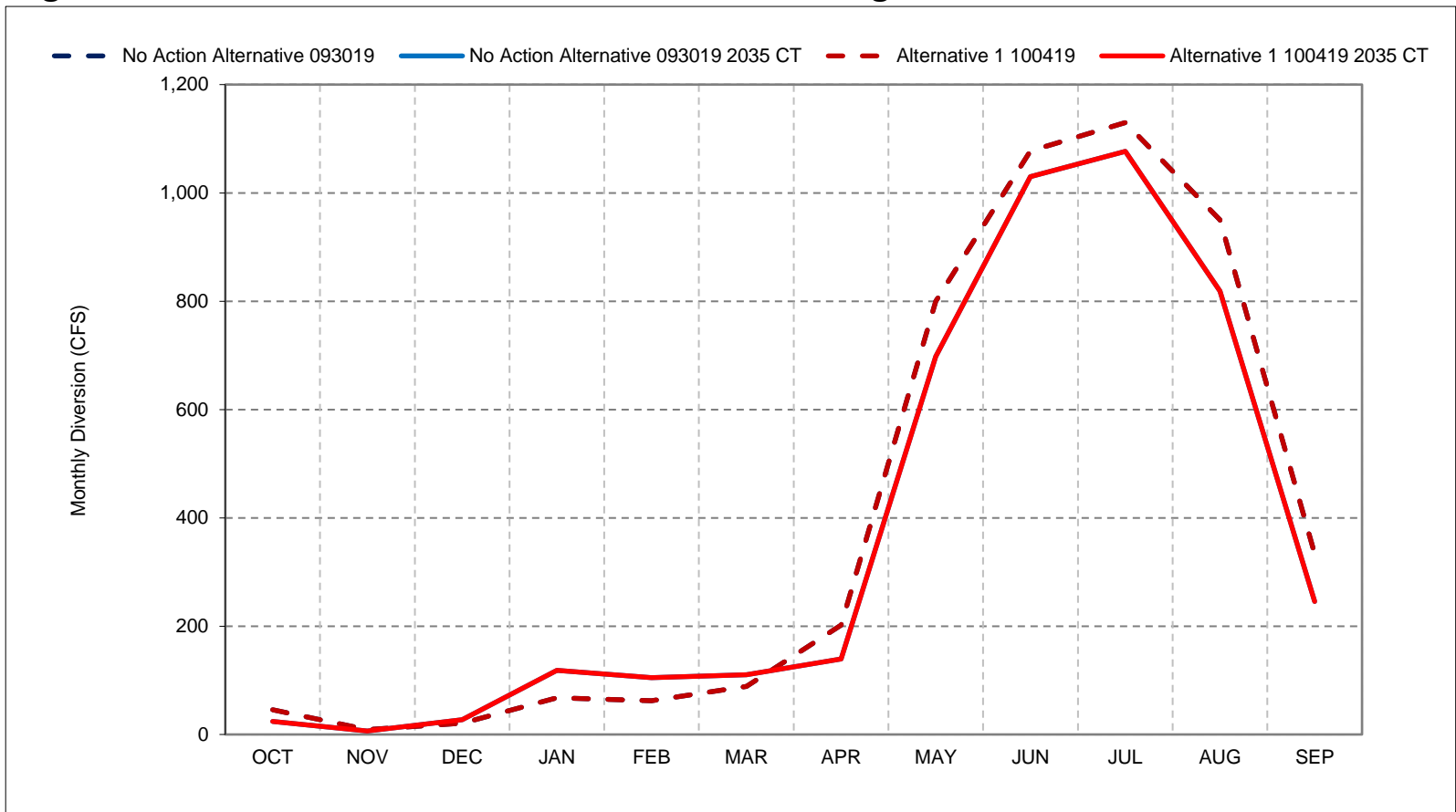
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-2. Madera Canal Diversion, Wet Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

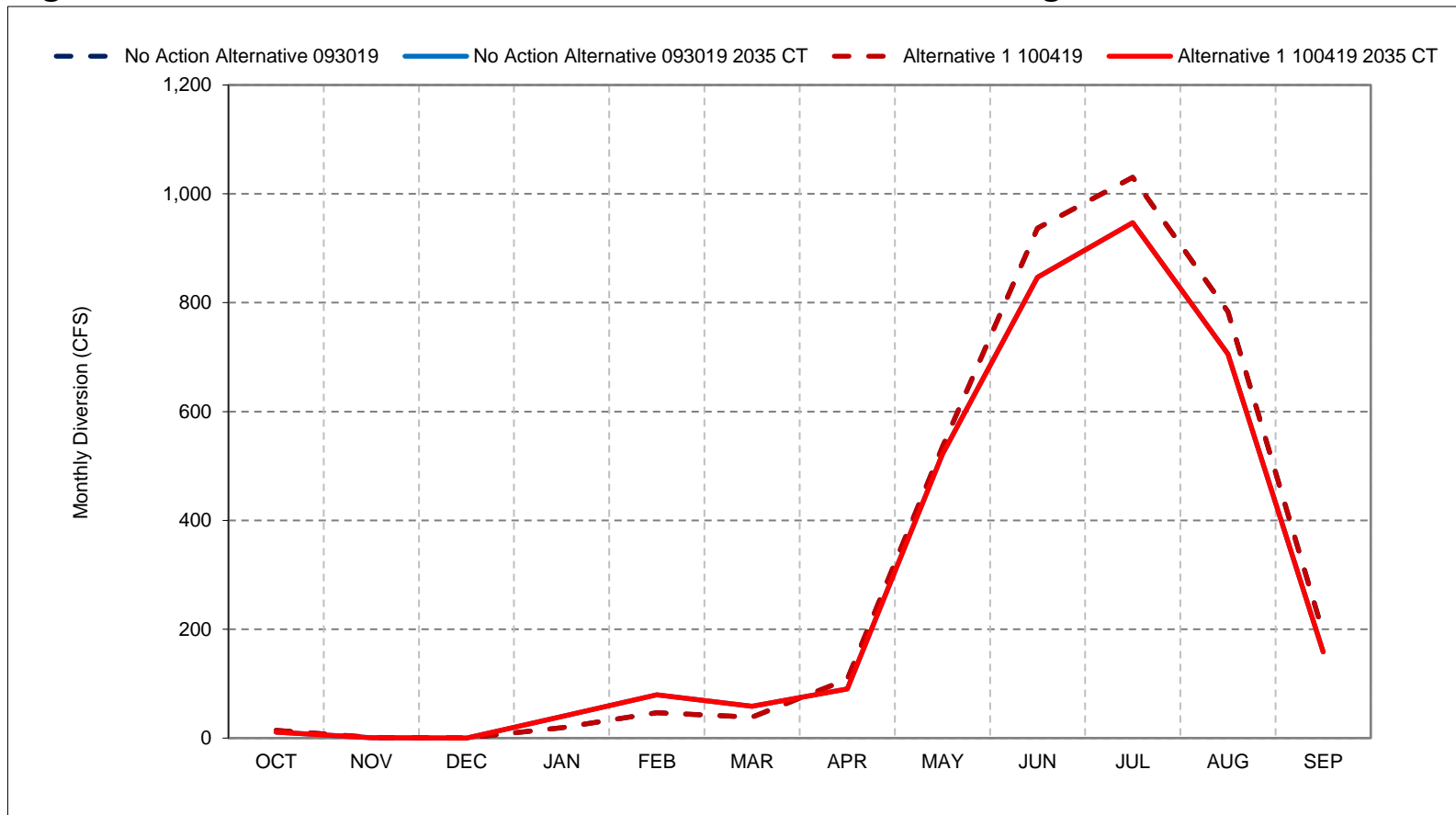
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-3. Madera Canal Diversion, Above Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

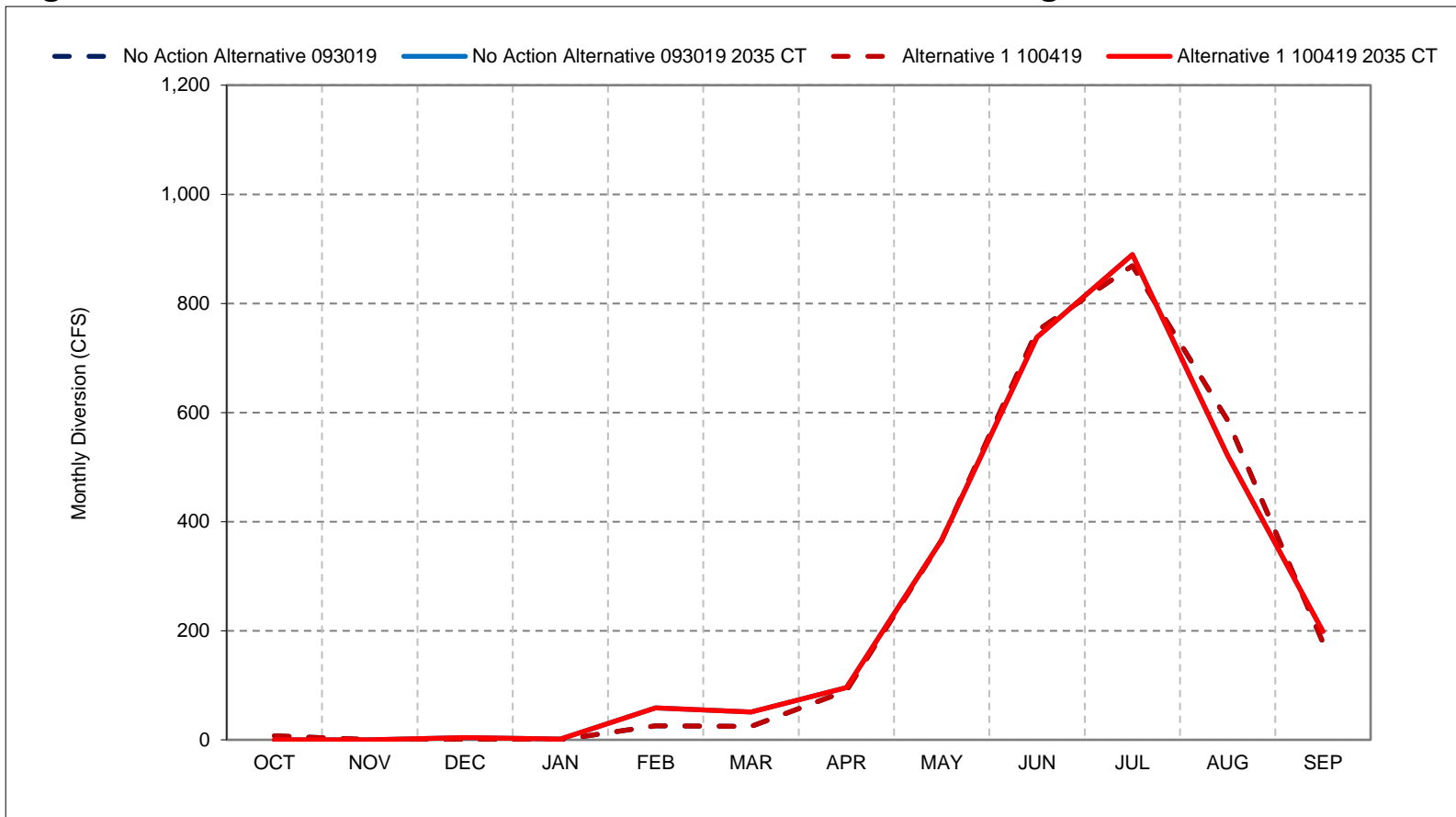
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-4. Madera Canal Diversion, Below Normal Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

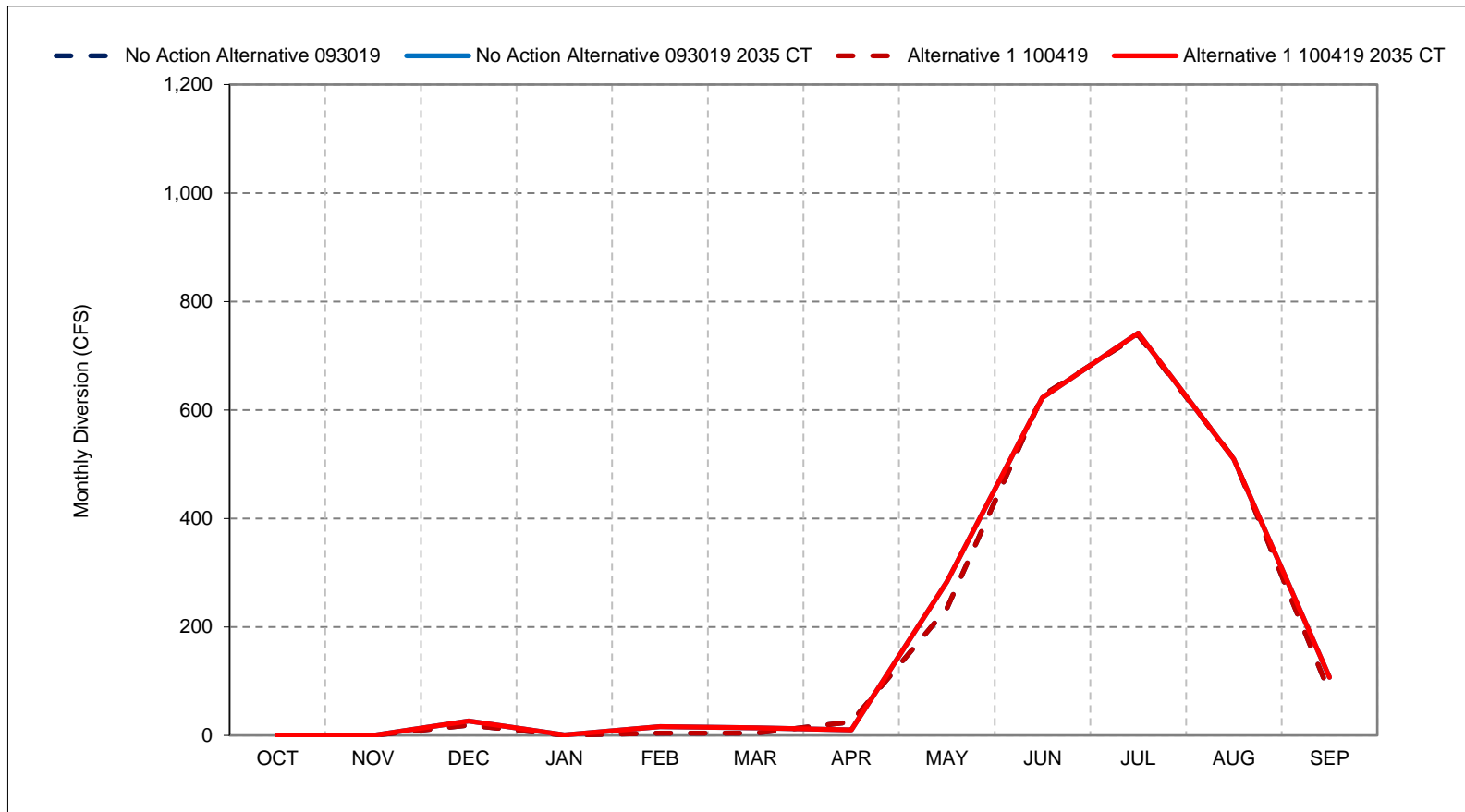
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-5. Madera Canal Diversion, Dry Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

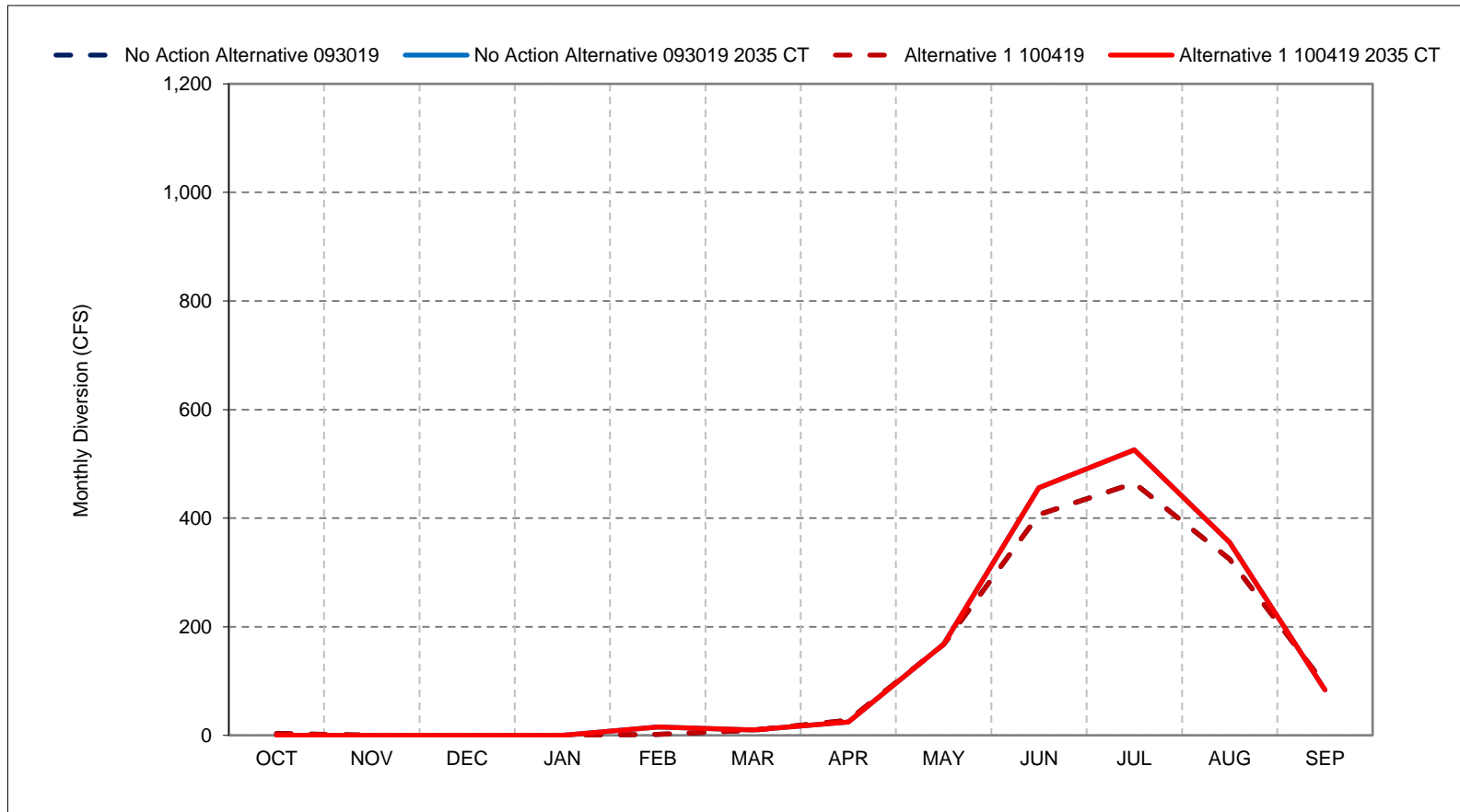
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 51-6. Madera Canal Diversion, Critical Year Average Diversion



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

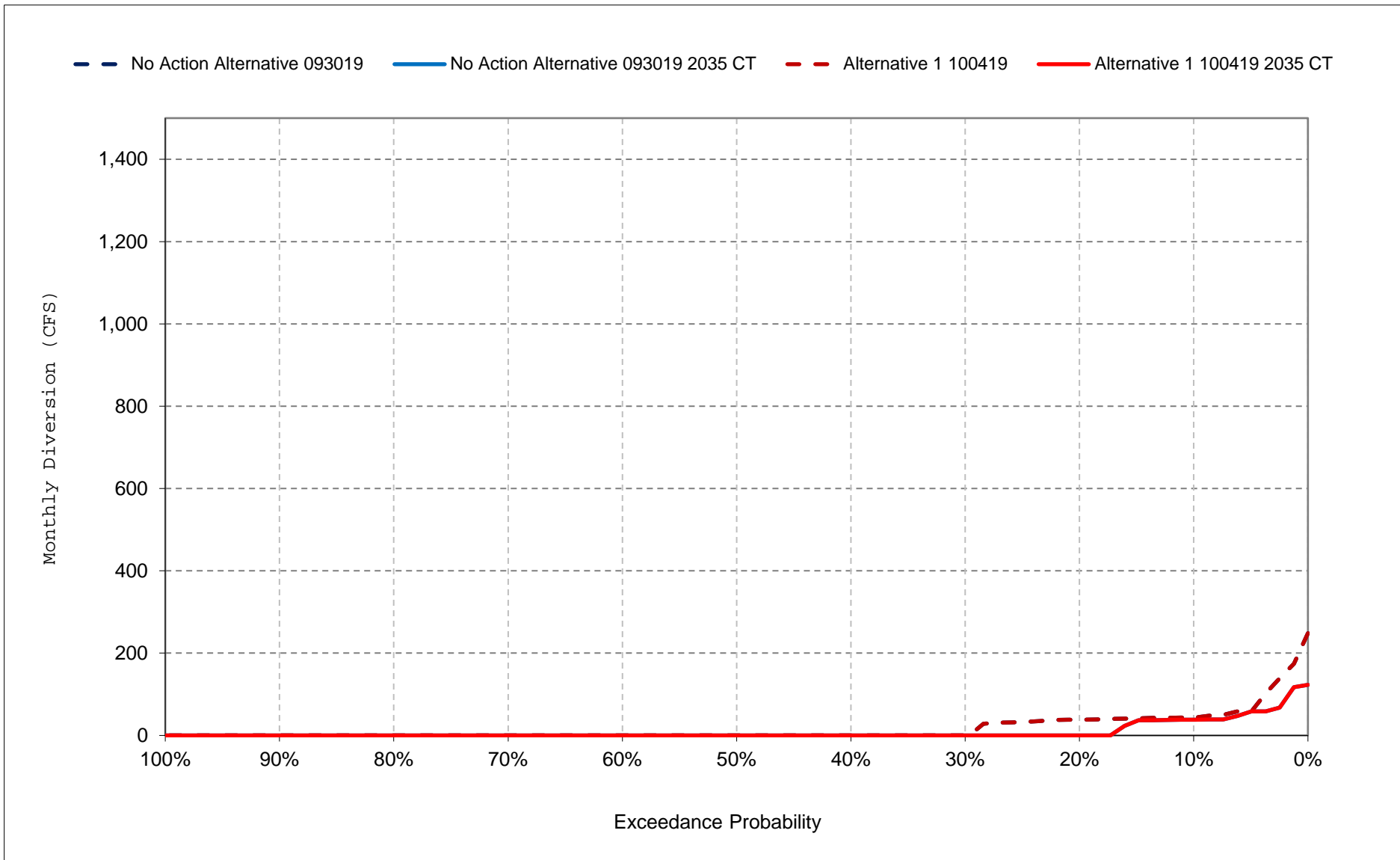
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

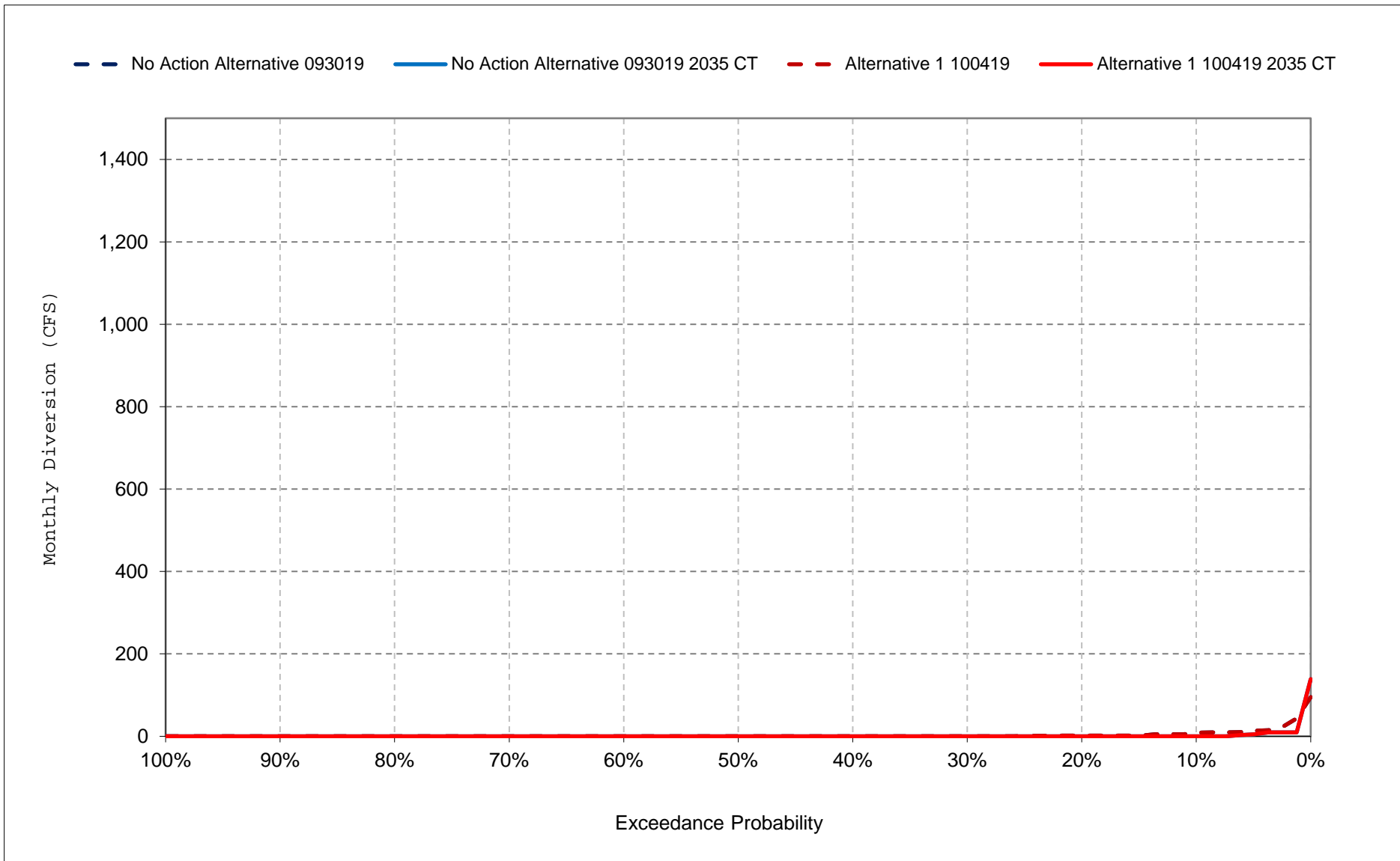
Figure 51-7. Madera Canal Diversion, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

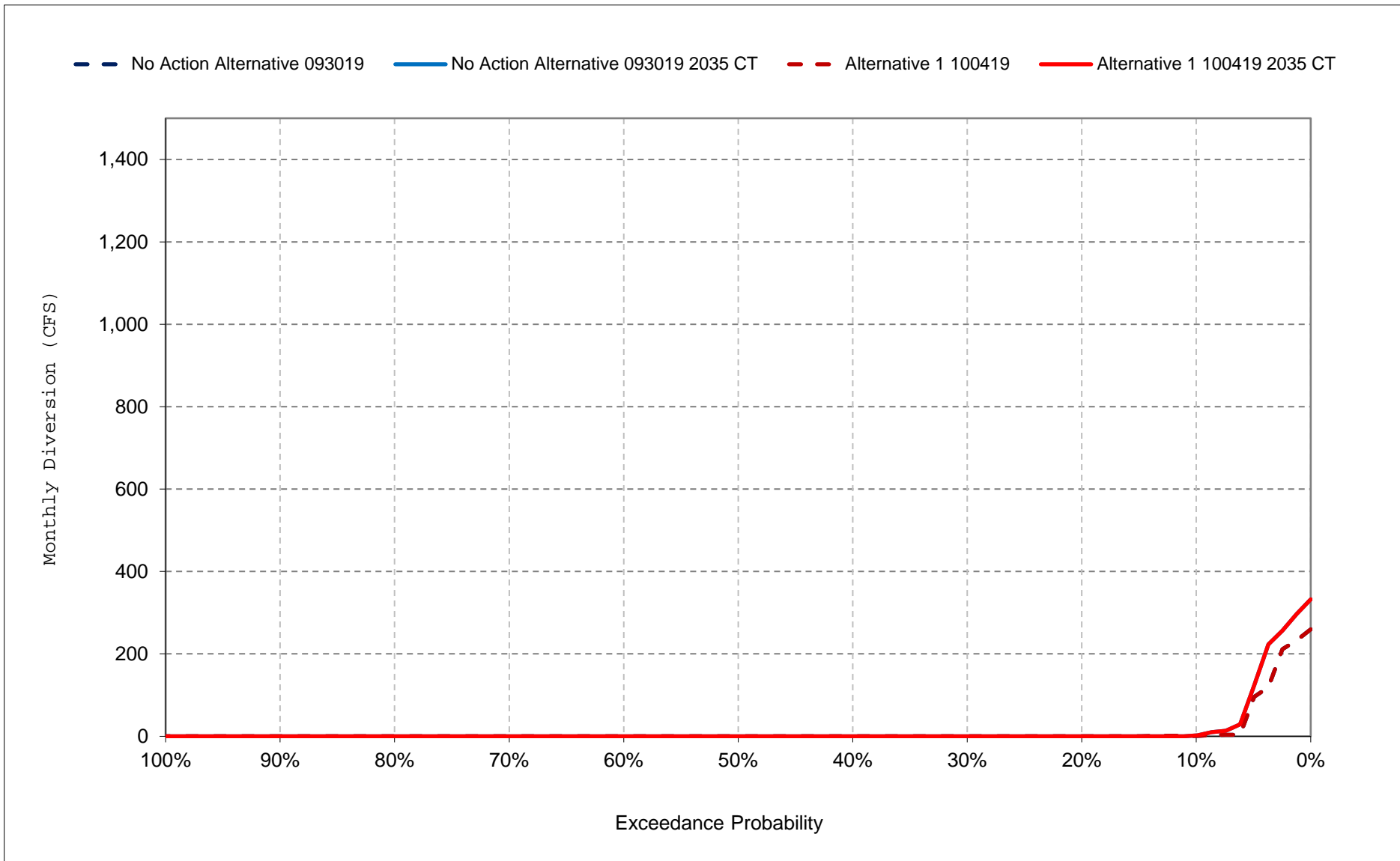
Figure 51-8. Madera Canal Diversion, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

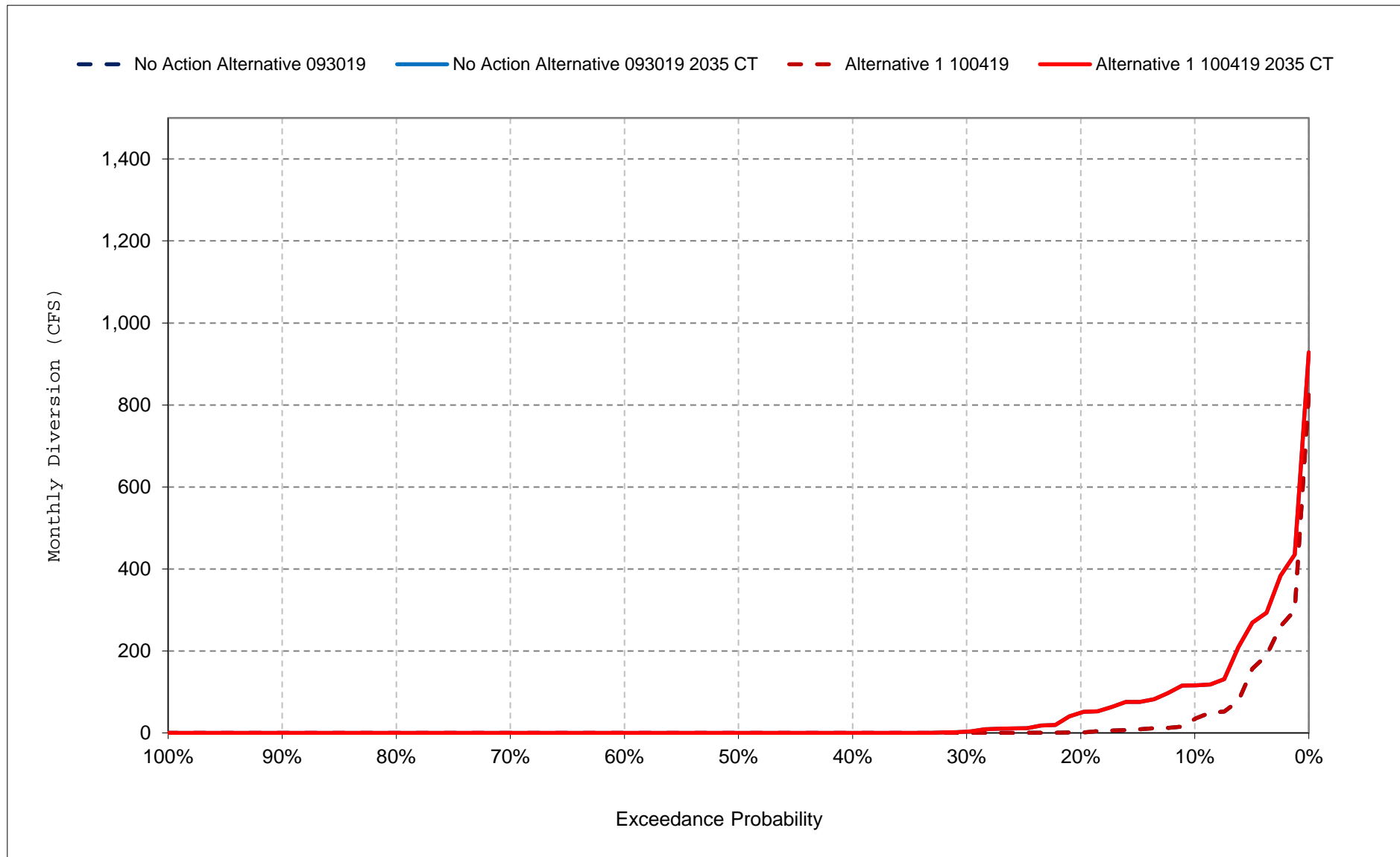
Figure 51-9. Madera Canal Diversion, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

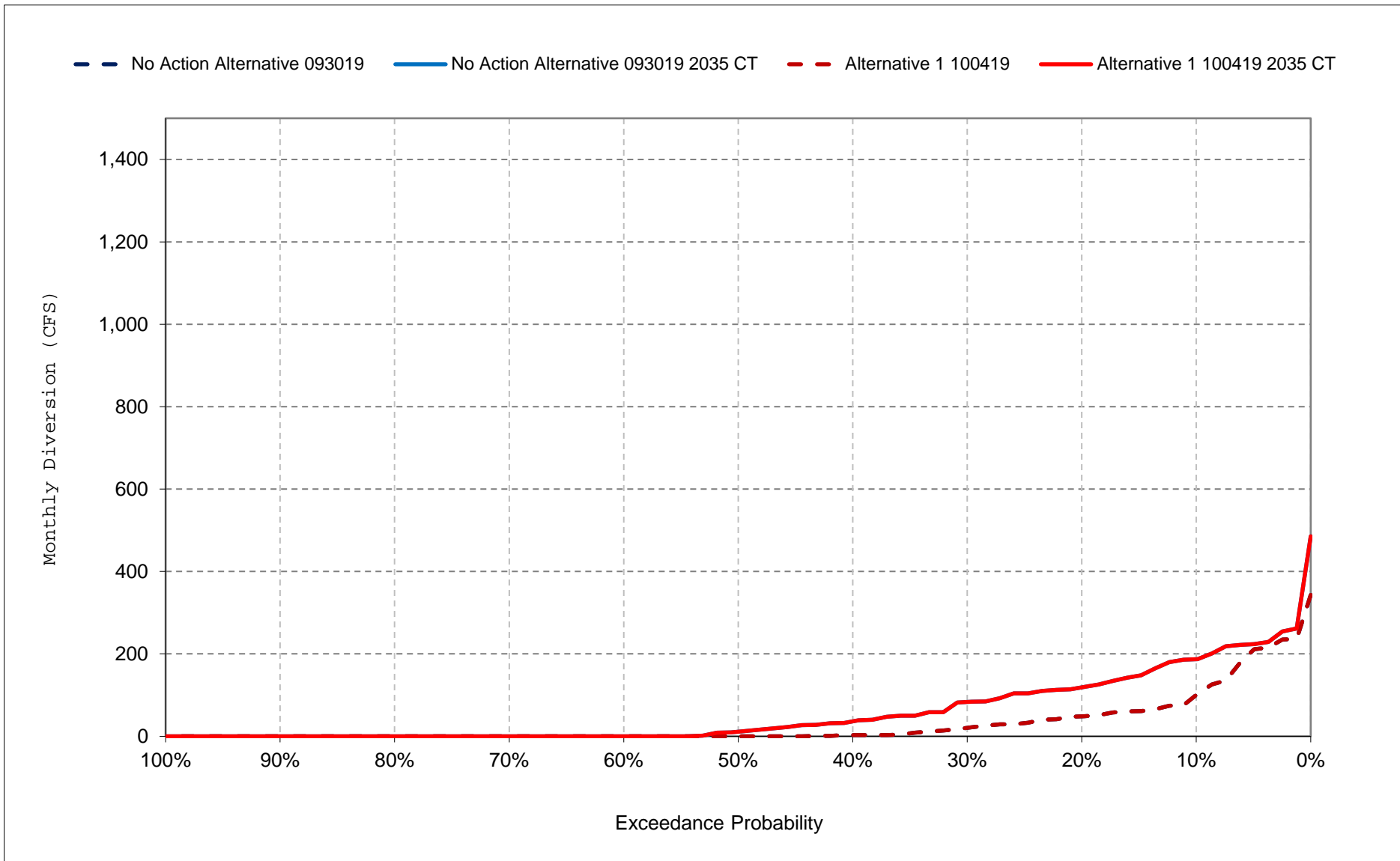
Figure 51-10. Madera Canal Diversion, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

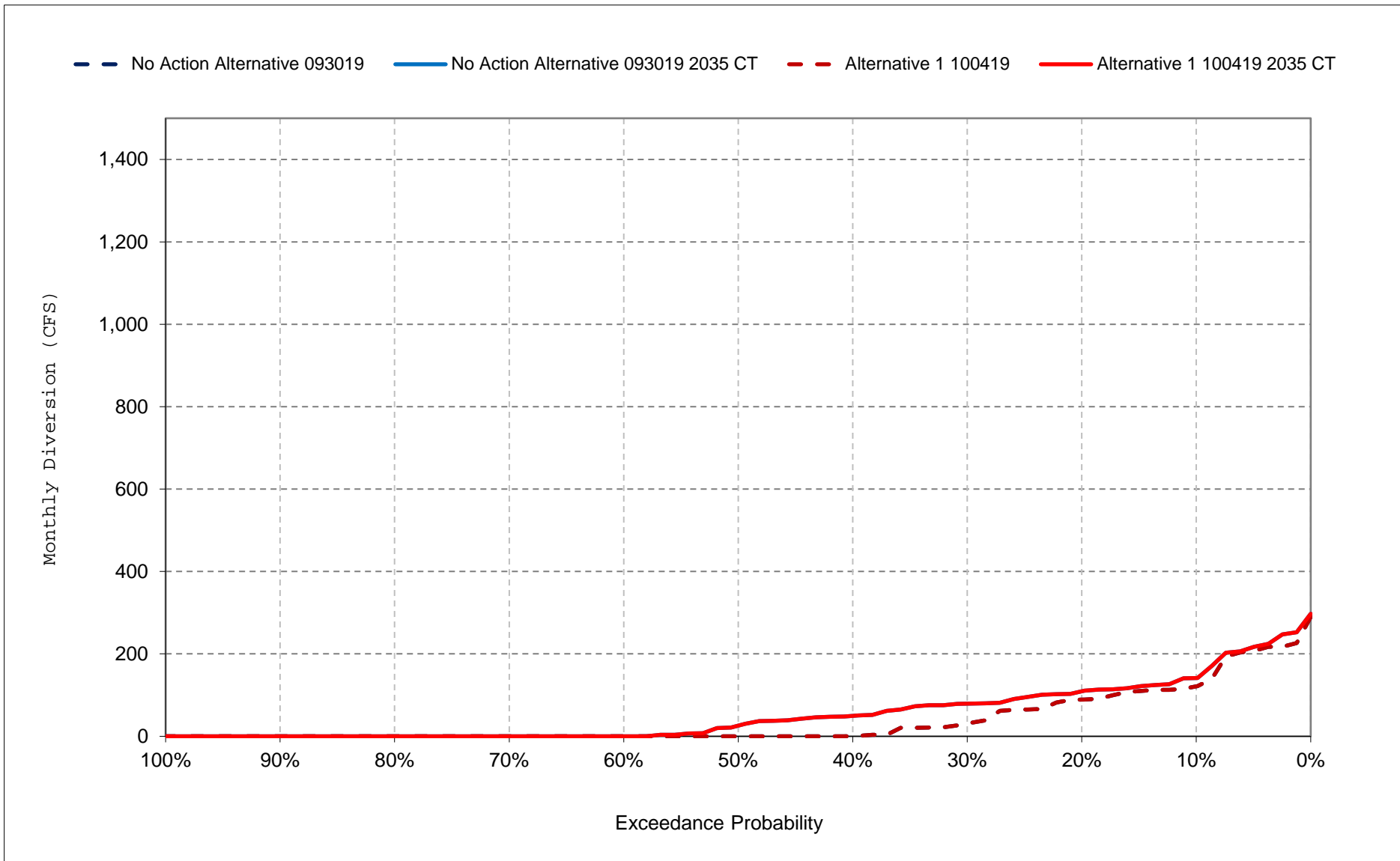
Figure 51-11. Madera Canal Diversion, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

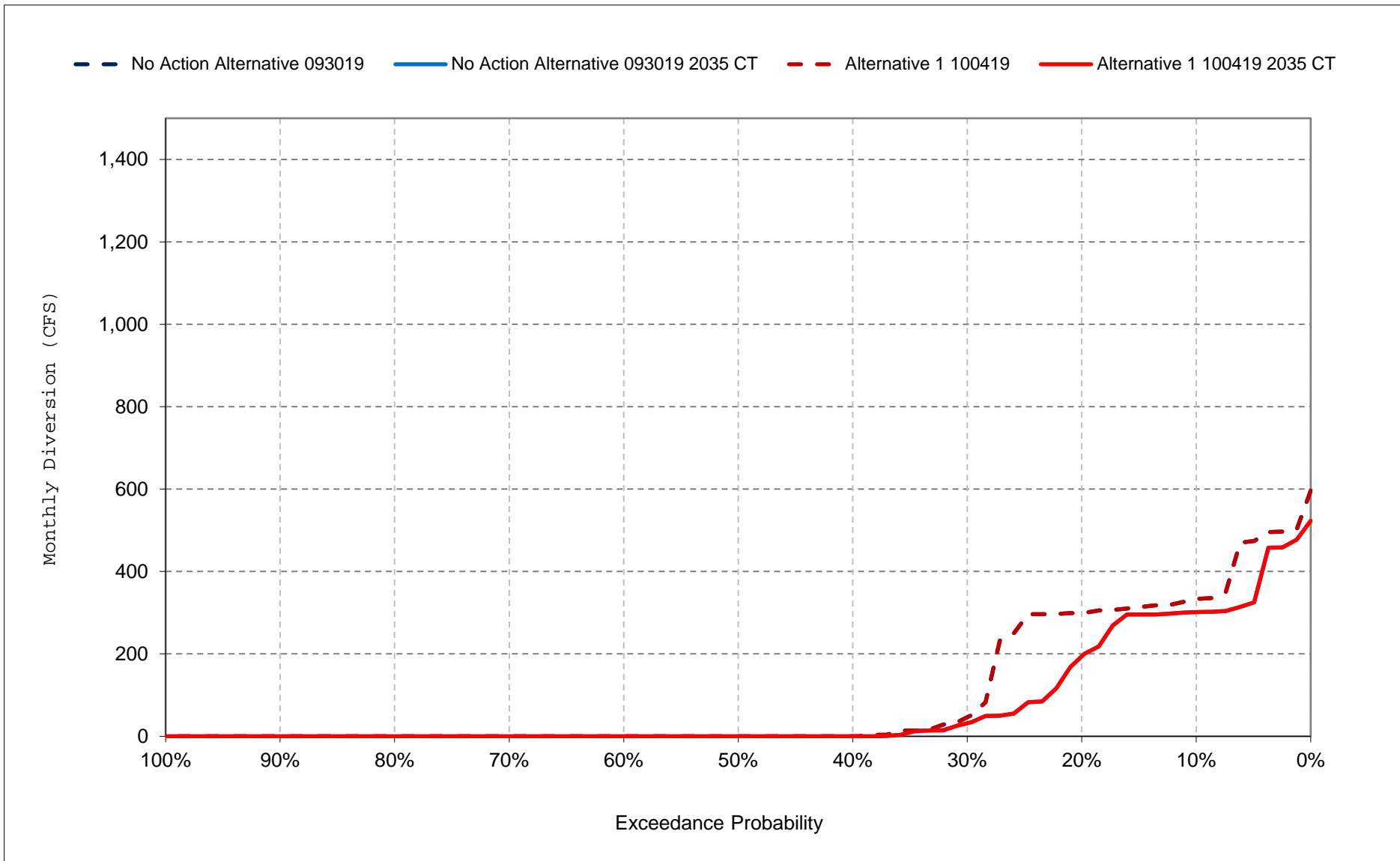
Figure 51-12. Madera Canal Diversion, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

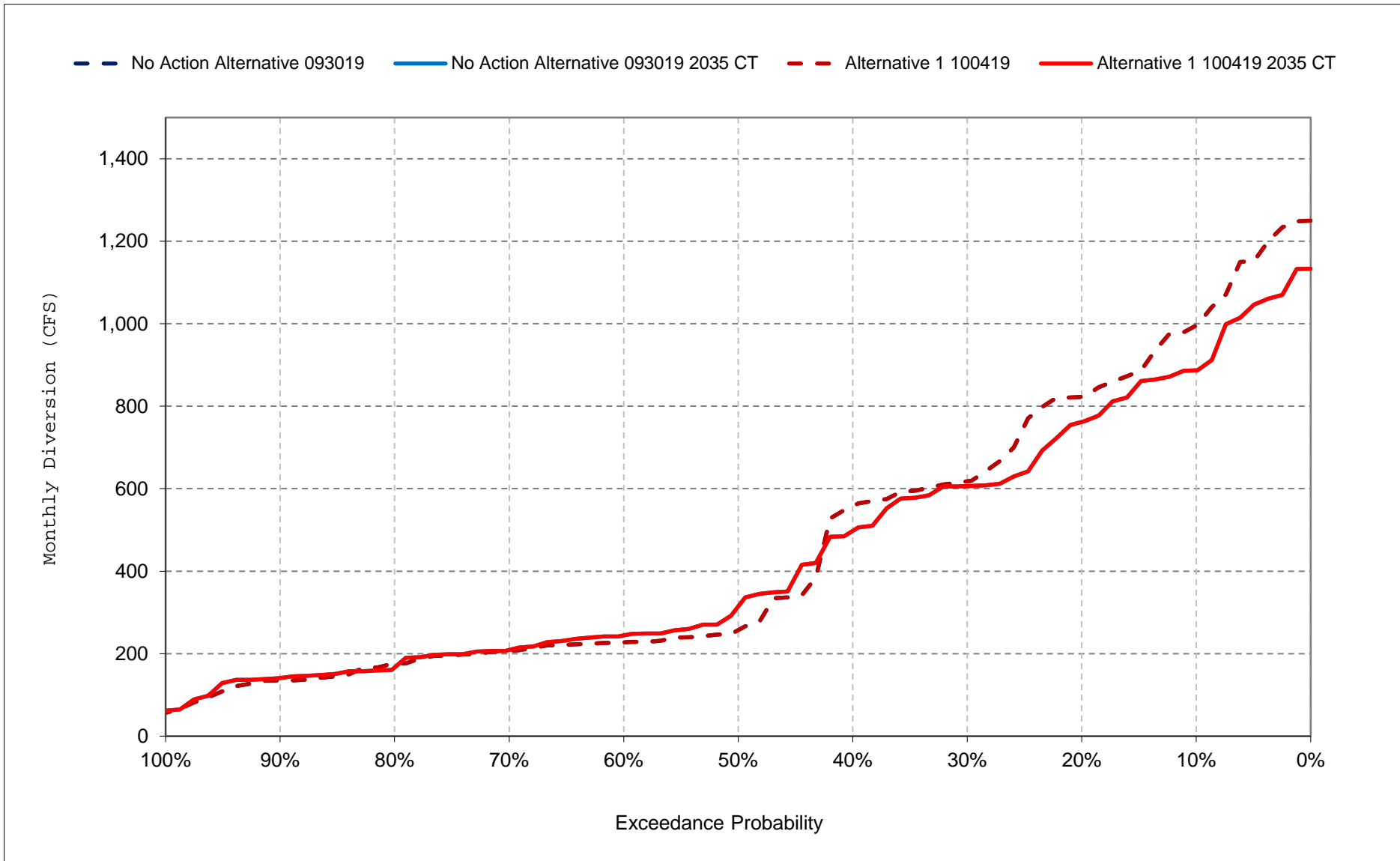
Figure 51-13. Madera Canal Diversion, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

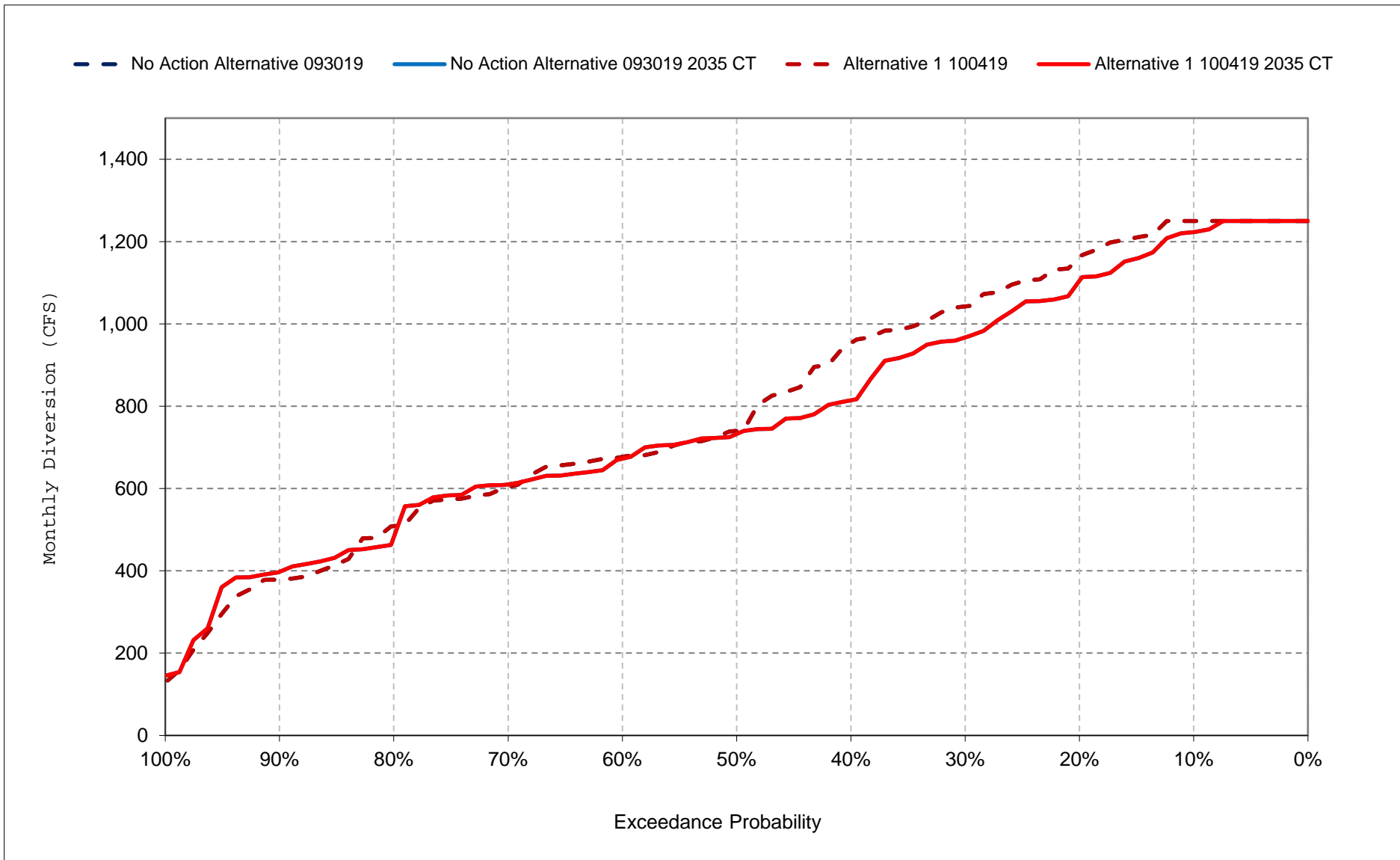
Figure 51-14. Madera Canal Diversion, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

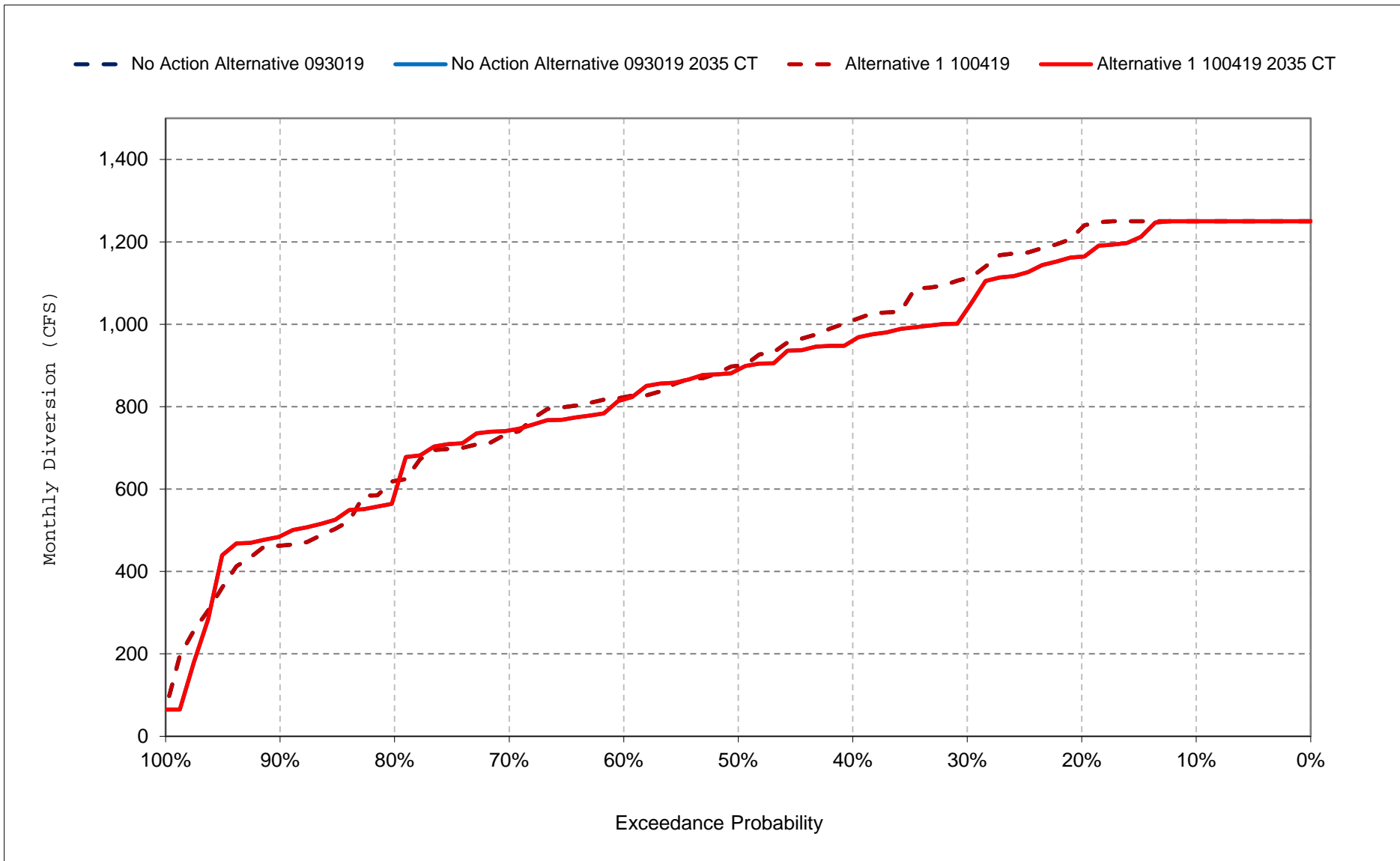
Figure 51-15. Madera Canal Diversion, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

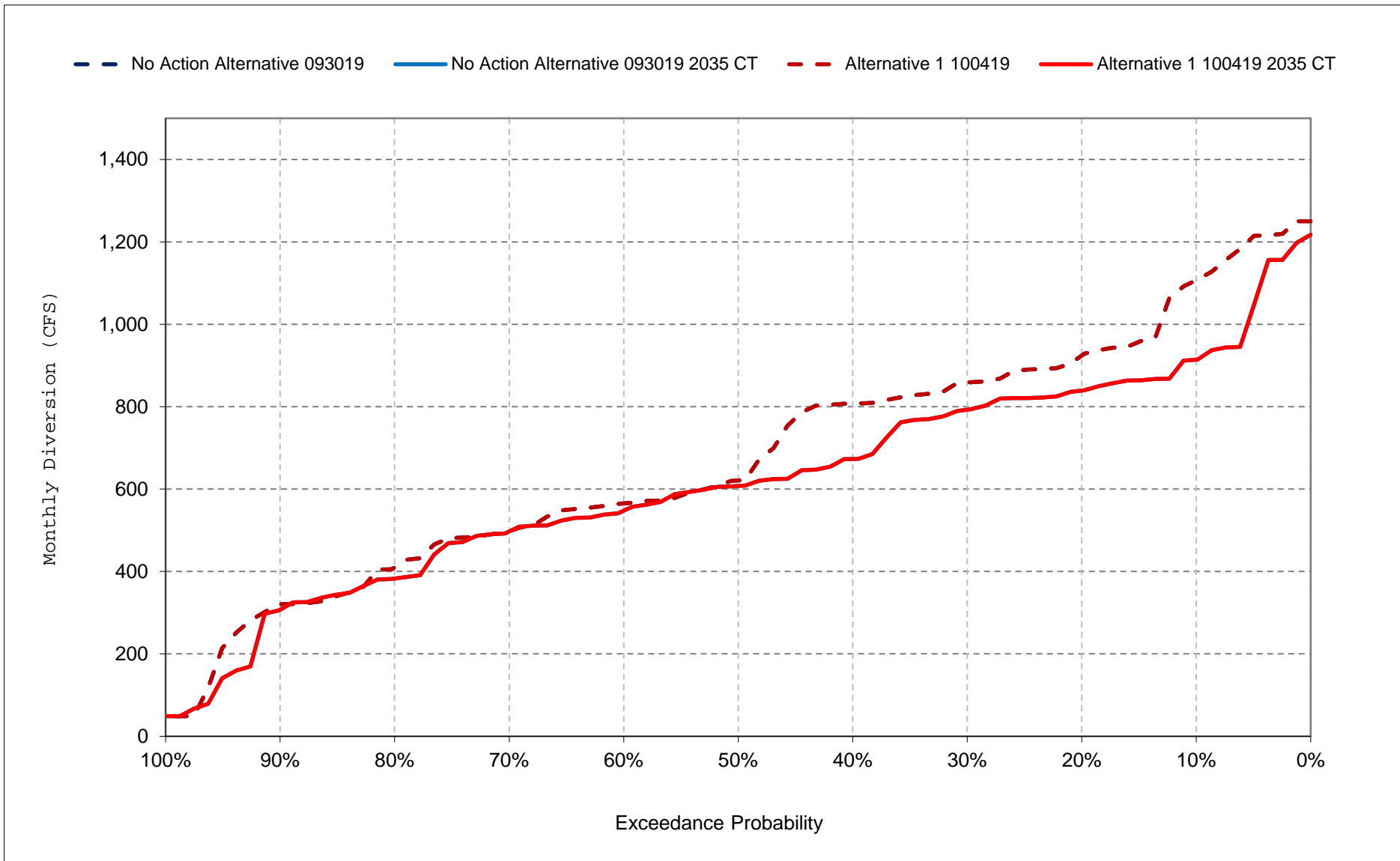
Figure 51-16. Madera Canal Diversion, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

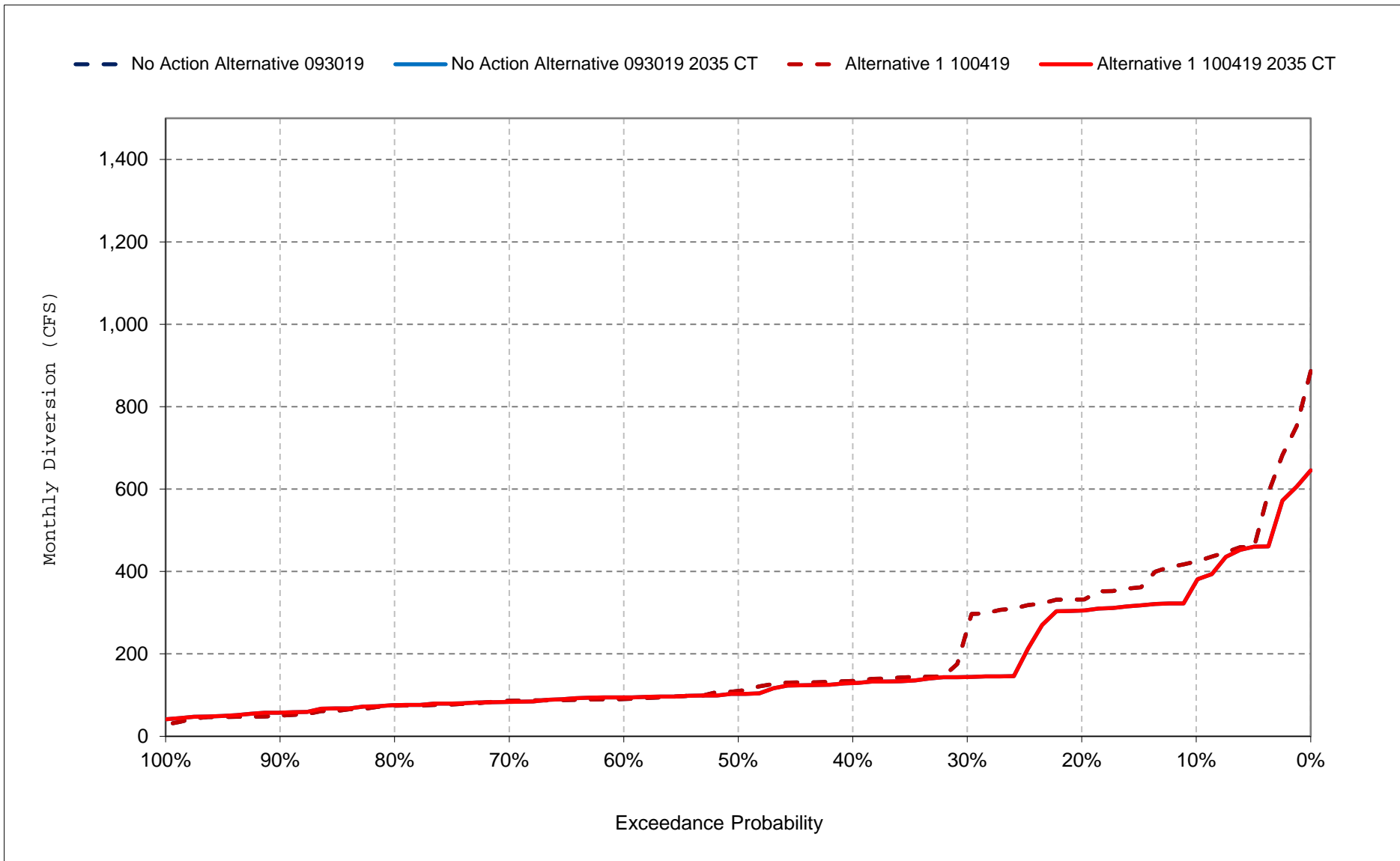
Figure 51-17. Madera Canal Diversion, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 51-18. Madera Canal Diversion, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-1. DCC Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,116	1,256	938	0	0	0	0	0	2,597	4,540	3,136	4,078
20%	1,869	1,094	832	0	0	0	0	0	2,273	4,513	3,067	3,662
30%	1,707	936	773	0	0	0	0	0	2,159	4,226	2,968	2,074
40%	1,614	866	698	0	0	0	0	0	2,095	3,628	2,915	1,849
50%	1,567	621	412	0	0	0	0	0	2,019	3,410	2,801	1,714
60%	1,390	335	0	0	0	0	0	0	1,920	3,140	2,419	1,517
70%	1,296	129	0	0	0	0	0	0	1,789	2,788	1,736	1,235
80%	1,133	0	0	0	0	0	0	0	1,632	2,494	1,586	0
90%	819	0	0	0	0	0	0	0	1,277	1,911	1,474	0
Long Term												
Full Simulation Period ^d	1,466	599	433	0	0	0	0	0	1,912	3,356	2,438	1,790
Water Year Types ^{b,c}												
Wet (32%)	1,433	198	510	0	0	0	0	0	1,724	3,749	2,965	669
Above Normal (16%)	1,600	569	465	0	0	0	0	0	2,147	4,249	3,104	4,046
Below Normal (13%)	1,519	1,016	449	0	0	0	0	0	2,065	3,996	2,721	2,175
Dry (24%)	1,516	739	272	0	0	0	0	0	2,089	2,855	1,756	1,796
Critical (15%)	1,260	887	483	0	0	0	0	0	1,631	1,785	1,452	1,414

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,888	1,667	1,046	0	0	0	0	0	2,761	4,419	3,251	2,846
20%	1,726	1,546	912	0	0	0	0	0	2,514	4,191	3,213	2,638
30%	1,638	1,354	775	0	0	0	0	0	2,468	3,908	3,131	2,559
40%	1,579	1,152	668	0	0	0	0	0	2,410	3,455	3,018	2,443
50%	1,533	1,059	445	0	0	0	0	0	2,346	3,318	2,859	2,256
60%	1,363	877	0	0	0	0	0	0	2,226	3,081	2,492	1,909
70%	1,297	859	0	0	0	0	0	0	2,022	2,845	1,767	1,767
80%	1,133	386	0	0	0	0	0	0	1,834	2,214	1,615	1,665
90%	519	0	0	0	0	0	0	0	1,284	1,732	1,410	1,450
Long Term												
Full Simulation Period ^d	1,374	977	441	0	0	0	0	0	2,115	3,222	2,516	2,187
Water Year Types ^{b,c}												
Wet (32%)	1,186	1,089	499	0	0	0	0	0	1,838	3,640	3,156	2,680
Above Normal (16%)	1,547	1,130	491	0	0	0	0	0	2,381	4,035	3,159	2,552
Below Normal (13%)	1,515	1,027	462	0	0	0	0	0	2,473	3,757	2,810	2,158
Dry (24%)	1,474	767	287	0	0	0	0	0	2,354	2,772	1,772	1,800
Critical (15%)	1,298	874	498	0	0	0	0	0	1,697	1,696	1,404	1,392

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-228	411	108	0	0	0	0	0	164	-121	116	-1,232
20%	-144	451	81	0	0	0	0	0	240	-321	146	-1,023
30%	-69	418	2	0	0	0	0	0	309	-317	163	484
40%	-35	286	-30	0	0	0	0	0	315	-173	102	594
50%	-34	438	32	0	0	0	0	0	326	-92	57	542
60%	-27	543	0	0	0	0	0	0	307	-58	73	392
70%	1	730	0	0	0	0	0	0	233	57	31	533
80%	0	386	0	0	0	0	0	0	201	-280	28	1,665
90%	-299	0	0	0	0	0	0	0	7	-179	-65	1,450
Long Term												
Full Simulation Period ^d	-92	378	8	0	0	0	0	0	202	-134	78	396
Water Year Types ^{b,c}												
Wet (32%)	-247	891	-11	0	0	0	0	0	115	-109	191	2,011
Above Normal (16%)	-54	562	27	0	0	0	0	0	235	-214	55	-1,494
Below Normal (13%)	-4	11	13	0	0	0	0	0	409	-240	89	-17
Dry (24%)	-42	29	16	0	0	0	0	0	265	-83	16	3
Critical (15%)	39	-13	14	0	0	0	0	0	66	-89	-48	-22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 52-2. DCC Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,123	1,287	907	0	0	0	0	0	2,477	4,540	3,118	4,074
20%	1,890	1,103	843	0	0	0	0	0	2,272	4,436	3,029	2,834
30%	1,735	1,033	749	0	0	0	0	0	2,144	4,342	2,955	2,143
40%	1,601	938	631	0	0	0	0	0	2,072	3,781	2,889	1,839
50%	1,566	858	316	0	0	0	0	0	1,985	3,621	2,798	1,746
60%	1,454	495	0	0	0	0	0	0	1,913	3,395	2,498	1,529
70%	1,290	134	0	0	0	0	0	0	1,849	2,988	1,824	1,231
80%	1,155	0	0	0	0	0	0	0	1,725	2,503	1,664	0
90%	814	0	0	0	0	0	0	0	1,498	1,734	1,461	0
Long Term												
Full Simulation Period ^d	1,492	657	406	0	0	0	0	0	2,020	3,401	2,448	1,803
Water Year Types ^{b,c}												
Wet (32%)	1,532	286	493	0	0	0	0	0	2,172	3,580	2,934	1,157
Above Normal (16%)	1,421	656	397	0	0	0	0	0	1,944	4,331	3,068	3,188
Below Normal (13%)	1,535	1,055	437	0	0	0	0	0	1,966	4,006	2,626	2,127
Dry (24%)	1,570	775	269	0	0	0	0	0	2,078	3,149	1,938	1,814
Critical (15%)	1,312	902	430	0	0	0	0	0	1,728	1,873	1,414	1,389

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,936	1,613	981	0	0	0	0	0	2,698	4,251	3,256	2,650
20%	1,790	1,506	833	0	0	0	0	0	2,592	4,038	3,164	2,579
30%	1,693	1,359	707	0	0	0	0	0	2,429	3,849	3,079	2,461
40%	1,619	1,225	605	0	0	0	0	0	2,379	3,606	2,844	2,310
50%	1,568	1,086	276	0	0	0	0	0	2,306	3,328	2,742	2,054
60%	1,534	1,007	0	0	0	0	0	0	2,194	3,151	2,571	1,879
70%	1,323	878	0	0	0	0	0	0	2,085	2,755	1,807	1,744
80%	1,282	649	0	0	0	0	0	0	1,915	2,363	1,594	1,596
90%	1,035	0	0	0	0	0	0	0	1,731	1,815	1,455	1,380
Long Term												
Full Simulation Period ^d	1,492	1,014	399	0	0	0	0	0	2,249	3,215	2,474	2,110
Water Year Types ^{b,c}												
Wet (32%)	1,482	1,091	443	0	0	0	0	0	2,347	3,503	3,075	2,564
Above Normal (16%)	1,563	1,180	419	0	0	0	0	0	2,238	3,975	3,080	2,449
Below Normal (13%)	1,546	1,053	448	0	0	0	0	0	2,366	3,686	2,581	2,032
Dry (24%)	1,536	847	274	0	0	0	0	0	2,315	2,951	1,887	1,779
Critical (15%)	1,316	909	444	0	0	0	0	0	1,836	1,776	1,399	1,382

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-187	327	74	0	0	0	0	0	221	-290	138	-1,424
20%	-100	403	-10	0	0	0	0	0	320	-398	135	-255
30%	-42	326	-42	0	0	0	0	0	285	-493	123	317
40%	18	287	-26	0	0	0	0	0	307	-175	-45	471
50%	2	228	-40	0	0	0	0	0	321	-293	-56	309
60%	80	512	0	0	0	0	0	0	281	-244	73	351
70%	33	744	0	0	0	0	0	0	235	-232	-17	512
80%	126	649	0	0	0	0	0	0	190	-140	-70	1,596
90%	220	0	0	0	0	0	0	0	233	81	-6	1,380
Long Term												
Full Simulation Period ^d	0	357	-7	0	0	0	0	0	229	-186	26	307
Water Year Types ^{b,c}												
Wet (32%)	-50	805	-49	0	0	0	0	0	175	-77	141	1,407
Above Normal (16%)	141	524	22	0	0	0	0	0	294	-356	12	-739
Below Normal (13%)	11	-2	12	0	0	0	0	0	400	-320	-45	-95
Dry (24%)	-34	72	5	0	0	0	0	0	237	-199	-51	-35
Critical (15%)	4	7	15	0	0	0	0	0	107	-96	-15	-7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-3. DCC Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,116	1,256	938	0	0	0	0	0	2,597	4,540	3,136	4,078
20%	1,869	1,094	832	0	0	0	0	0	2,273	4,513	3,067	3,662
30%	1,707	936	773	0	0	0	0	0	2,159	4,226	2,968	2,074
40%	1,614	866	698	0	0	0	0	0	2,095	3,628	2,915	1,849
50%	1,567	621	412	0	0	0	0	0	2,019	3,410	2,801	1,714
60%	1,390	335	0	0	0	0	0	0	1,920	3,140	2,419	1,517
70%	1,296	129	0	0	0	0	0	0	1,789	2,788	1,736	1,235
80%	1,133	0	0	0	0	0	0	0	1,632	2,494	1,586	0
90%	819	0	0	0	0	0	0	0	1,277	1,911	1,474	0
Long Term												
Full Simulation Period ^d	1,466	599	433	0	0	0	0	0	1,912	3,356	2,438	1,790
Water Year Types ^{b,c}												
Wet (32%)	1,433	198	510	0	0	0	0	0	1,724	3,749	2,965	669
Above Normal (16%)	1,600	569	465	0	0	0	0	0	2,147	4,249	3,104	4,046
Below Normal (13%)	1,519	1,016	449	0	0	0	0	0	2,065	3,996	2,721	2,175
Dry (24%)	1,516	739	272	0	0	0	0	0	2,089	2,855	1,756	1,796
Critical (15%)	1,260	887	483	0	0	0	0	0	1,631	1,785	1,452	1,414

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	2,123	1,287	907	0	0	0	0	0	2,477	4,540	3,118	4,074
20%	1,890	1,103	843	0	0	0	0	0	2,272	4,436	3,029	2,834
30%	1,735	1,033	749	0	0	0	0	0	2,144	4,342	2,955	2,143
40%	1,601	938	631	0	0	0	0	0	2,072	3,781	2,889	1,839
50%	1,566	858	316	0	0	0	0	0	1,985	3,621	2,798	1,746
60%	1,454	495	0	0	0	0	0	0	1,913	3,395	2,498	1,529
70%	1,290	134	0	0	0	0	0	0	1,849	2,988	1,824	1,231
80%	1,155	0	0	0	0	0	0	0	1,725	2,503	1,664	0
90%	814	0	0	0	0	0	0	0	1,498	1,734	1,461	0
Long Term												
Full Simulation Period ^d	1,492	657	406	0	0	0	0	0	2,020	3,401	2,448	1,803
Water Year Types ^{b,c}												
Wet (32%)	1,532	286	493	0	0	0	0	0	2,172	3,580	2,934	1,157
Above Normal (16%)	1,421	656	397	0	0	0	0	0	1,944	4,331	3,068	3,188
Below Normal (13%)	1,535	1,055	437	0	0	0	0	0	1,966	4,006	2,626	2,127
Dry (24%)	1,570	775	269	0	0	0	0	0	2,078	3,149	1,938	1,814
Critical (15%)	1,312	902	430	0	0	0	0	0	1,728	1,873	1,414	1,389

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7	31	-31	0	0	0	0	0	-120	0	-18	-4
20%	21	9	11	0	0	0	0	0	-1	-77	-38	-828
30%	28	97	-24	0	0	0	0	0	-15	116	-13	69
40%	-13	72	-67	0	0	0	0	0	-23	153	-26	-10
50%	-1	237	-96	0	0	0	0	0	-34	211	-4	32
60%	63	160	0	0	0	0	0	0	-7	256	79	11
70%	-5	5	0	0	0	0	0	0	60	200	88	-3
80%	22	0	0	0	0	0	0	0	93	9	77	0
90%	-4	0	0	0	0	0	0	0	221	-177	-13	0
Long Term												
Full Simulation Period ^d	26	58	-27	0	0	0	0	0	108	45	10	13
Water Year Types ^{b,c}												
Wet (32%)	99	88	-18	0	0	0	0	0	448	-169	-32	488
Above Normal (16%)	-179	87	-68	0	0	0	0	0	-203	82	-36	-858
Below Normal (13%)	16	40	-12	0	0	0	0	0	-99	10	-96	-47
Dry (24%)	54	37	-2	0	0	0	0	0	-11	294	182	18
Critical (15%)	53	15	-54	0	0	0	0	0	97	88	-38	-25

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 52-4. DCC Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,888	1,667	1,046	0	0	0	0	0	2,761	4,419	3,251	2,846
20%	1,726	1,546	912	0	0	0	0	0	2,514	4,191	3,213	2,638
30%	1,638	1,354	775	0	0	0	0	0	2,468	3,908	3,131	2,559
40%	1,579	1,152	668	0	0	0	0	0	2,410	3,455	3,018	2,443
50%	1,533	1,059	445	0	0	0	0	0	2,346	3,318	2,859	2,256
60%	1,363	877	0	0	0	0	0	0	2,226	3,081	2,492	1,909
70%	1,297	859	0	0	0	0	0	0	2,022	2,845	1,767	1,767
80%	1,133	386	0	0	0	0	0	0	1,834	2,214	1,615	1,665
90%	519	0	0	0	0	0	0	0	1,284	1,732	1,410	1,450
Long Term												
Full Simulation Period ^d	1,374	977	441	0	0	0	0	0	2,115	3,222	2,516	2,187
Water Year Types ^{b,c}												
Wet (32%)	1,186	1,089	499	0	0	0	0	0	1,838	3,640	3,156	2,680
Above Normal (16%)	1,547	1,130	491	0	0	0	0	0	2,381	4,035	3,159	2,552
Below Normal (13%)	1,515	1,027	462	0	0	0	0	0	2,473	3,757	2,810	2,158
Dry (24%)	1,474	767	287	0	0	0	0	0	2,354	2,772	1,772	1,800
Critical (15%)	1,298	874	498	0	0	0	0	0	1,697	1,696	1,404	1,392

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,936	1,613	981	0	0	0	0	0	2,698	4,251	3,256	2,650
20%	1,790	1,506	833	0	0	0	0	0	2,592	4,038	3,164	2,579
30%	1,693	1,359	707	0	0	0	0	0	2,429	3,849	3,079	2,461
40%	1,619	1,225	605	0	0	0	0	0	2,379	3,606	2,844	2,310
50%	1,568	1,086	276	0	0	0	0	0	2,306	3,328	2,742	2,054
60%	1,534	1,007	0	0	0	0	0	0	2,194	3,151	2,571	1,879
70%	1,323	878	0	0	0	0	0	0	2,085	2,755	1,807	1,744
80%	1,282	649	0	0	0	0	0	0	1,915	2,363	1,594	1,596
90%	1,035	0	0	0	0	0	0	0	1,731	1,815	1,455	1,380
Long Term												
Full Simulation Period ^d	1,492	1,014	399	0	0	0	0	0	2,249	3,215	2,474	2,110
Water Year Types ^{b,c}												
Wet (32%)	1,482	1,091	443	0	0	0	0	0	2,347	3,503	3,075	2,564
Above Normal (16%)	1,563	1,180	419	0	0	0	0	0	2,238	3,975	3,080	2,449
Below Normal (13%)	1,546	1,053	448	0	0	0	0	0	2,366	3,686	2,581	2,032
Dry (24%)	1,536	847	274	0	0	0	0	0	2,315	2,951	1,887	1,779
Critical (15%)	1,316	909	444	0	0	0	0	0	1,836	1,776	1,399	1,382

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	48	-53	-65	0	0	0	0	0	-63	-169	4	-196
20%	65	-40	-79	0	0	0	0	0	79	-153	-49	-59
30%	55	5	-69	0	0	0	0	0	-39	-59	-52	-98
40%	40	73	-63	0	0	0	0	0	-31	151	-174	-133
50%	35	27	-169	0	0	0	0	0	-40	10	-117	-202
60%	171	130	0	0	0	0	0	0	-32	70	79	-30
70%	26	19	0	0	0	0	0	0	63	-90	40	-24
80%	149	263	0	0	0	0	0	0	81	149	-21	-69
90%	515	0	0	0	0	0	0	0	447	83	45	-70
Long Term												
Full Simulation Period ^d	118	37	-42	0	0	0	0	0	135	-7	-42	-77
Water Year Types ^{b,c}												
Wet (32%)	295	2	-56	0	0	0	0	0	508	-137	-82	-116
Above Normal (16%)	16	50	-72	0	0	0	0	0	-144	-60	-78	-103
Below Normal (13%)	31	26	-13	0	0	0	0	0	-108	-71	-229	-126
Dry (24%)	61	80	-13	0	0	0	0	0	-39	179	115	-20
Critical (15%)	18	35	-53	0	0	0	0	0	139	80	-5	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

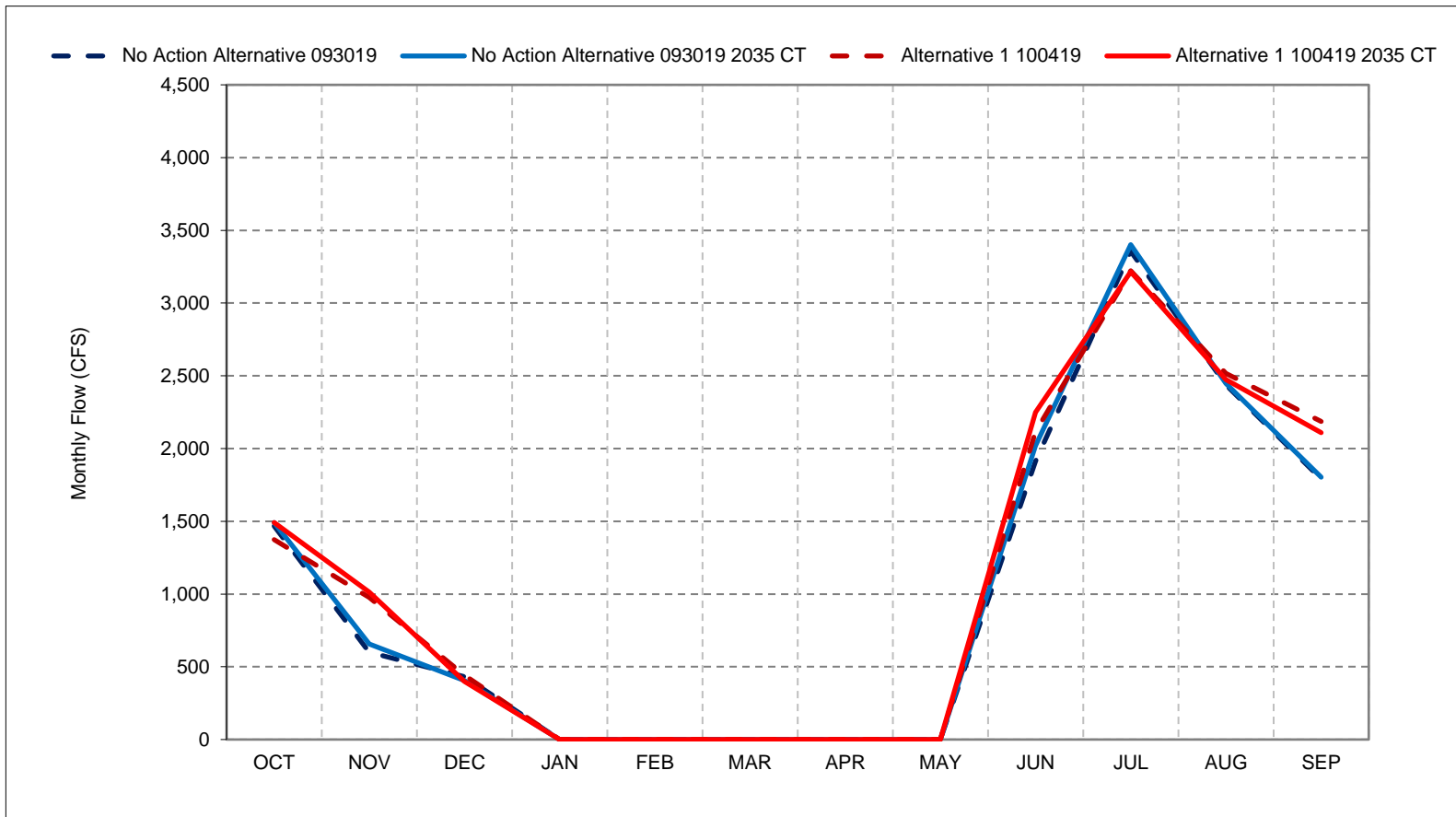
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 52-1. DCC Flow, Long-Term Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

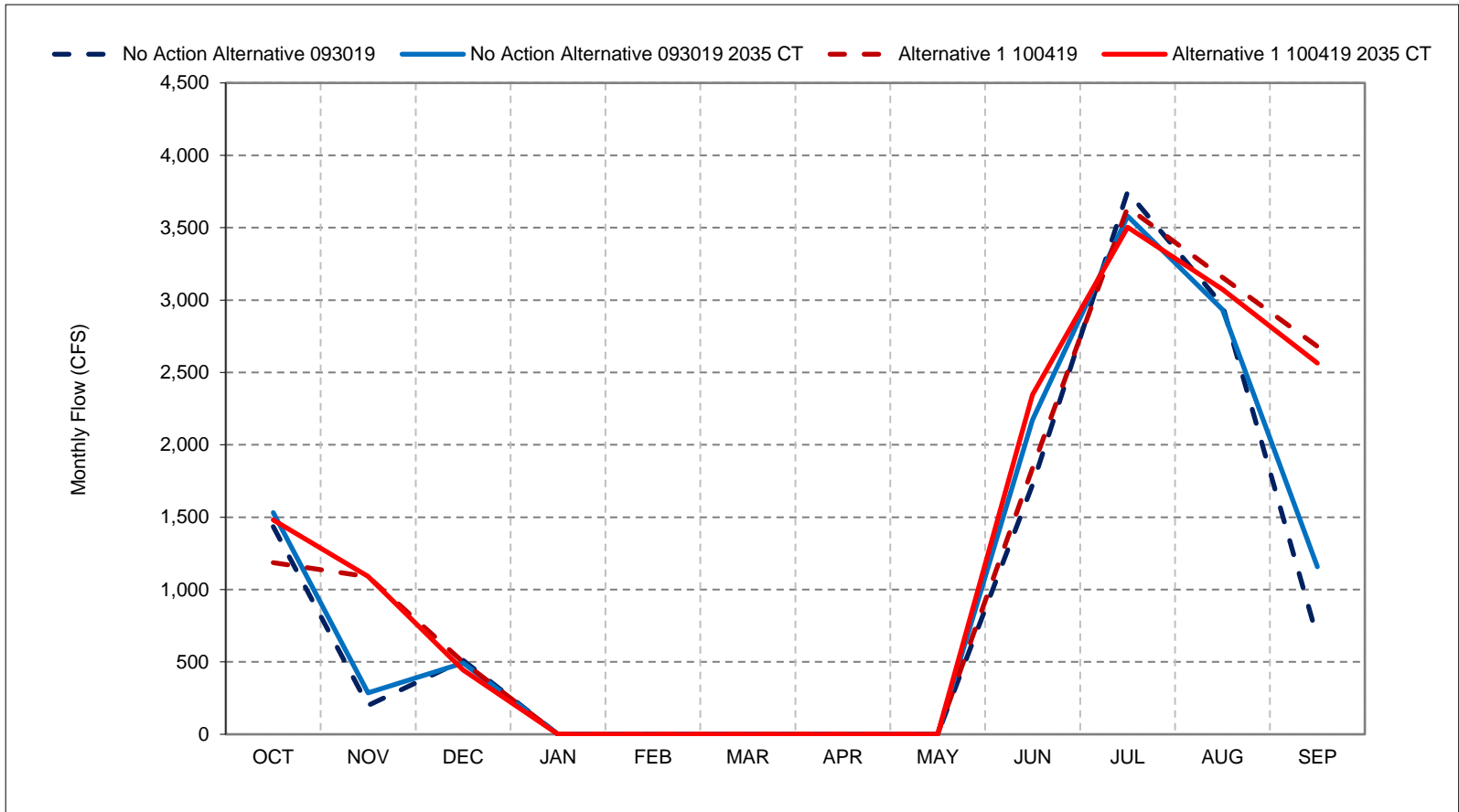
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-2. DCC Flow, Wet Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

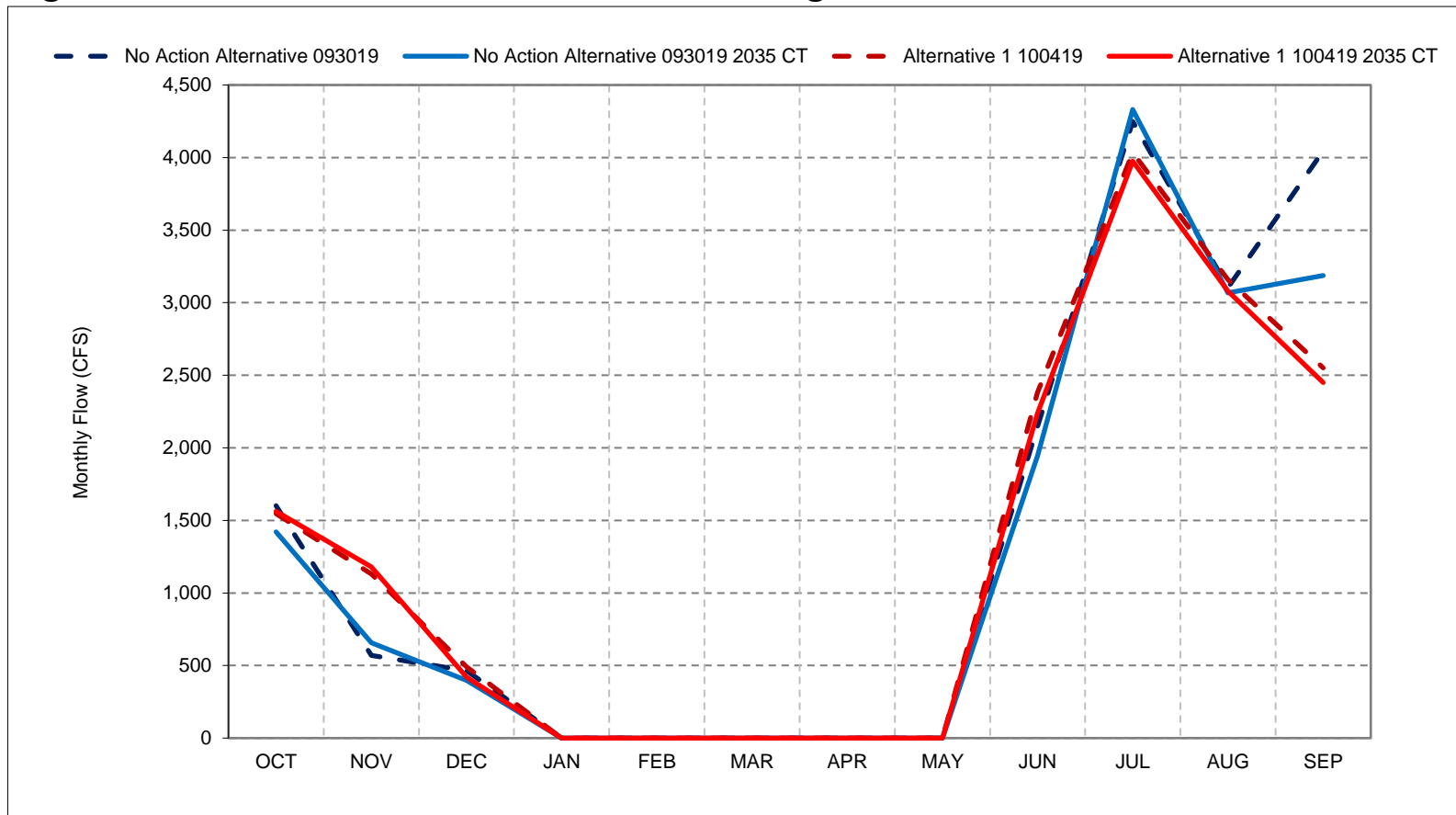
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-3. DCC Flow, Above Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

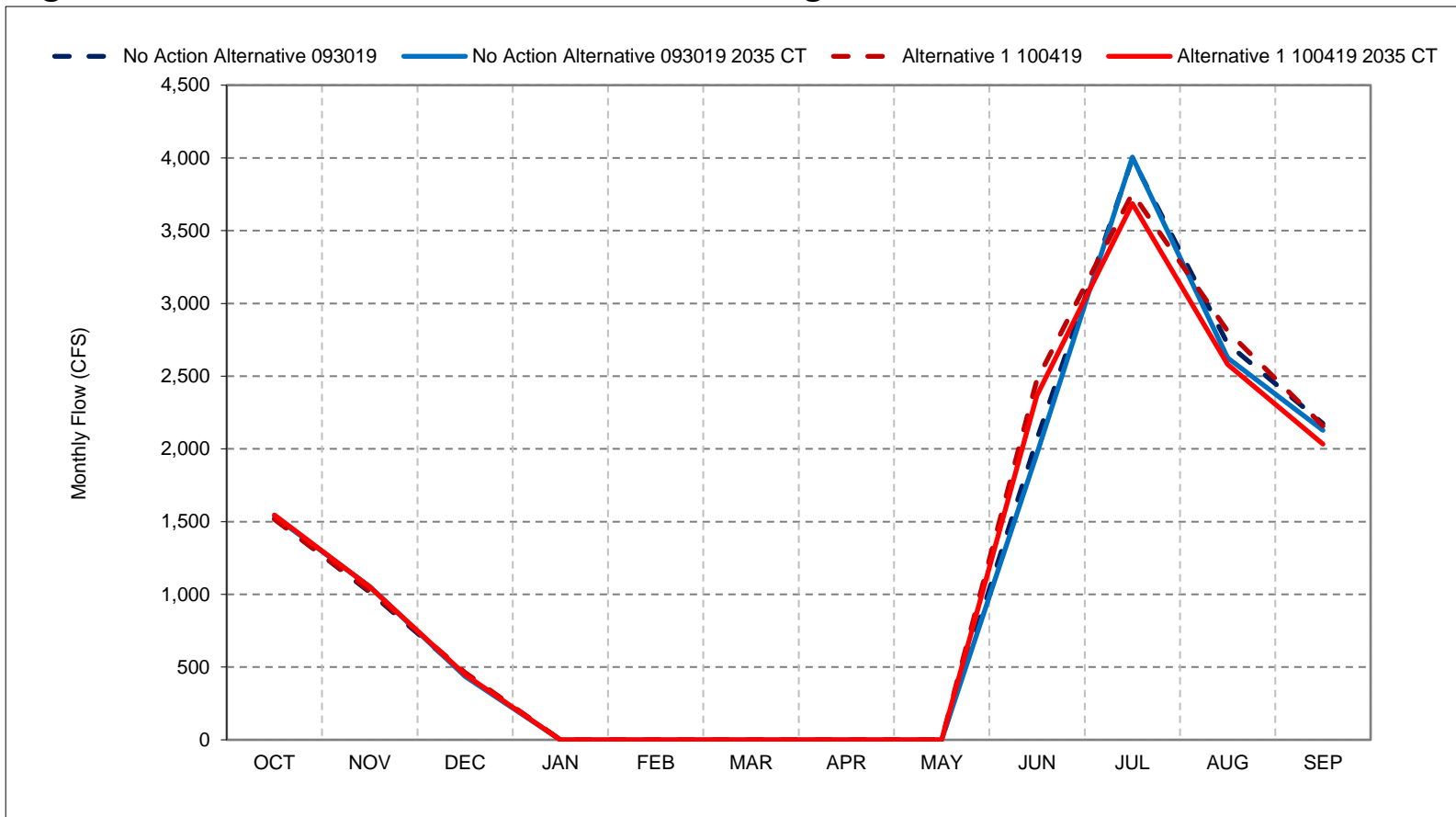
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-4. DCC Flow, Below Normal Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

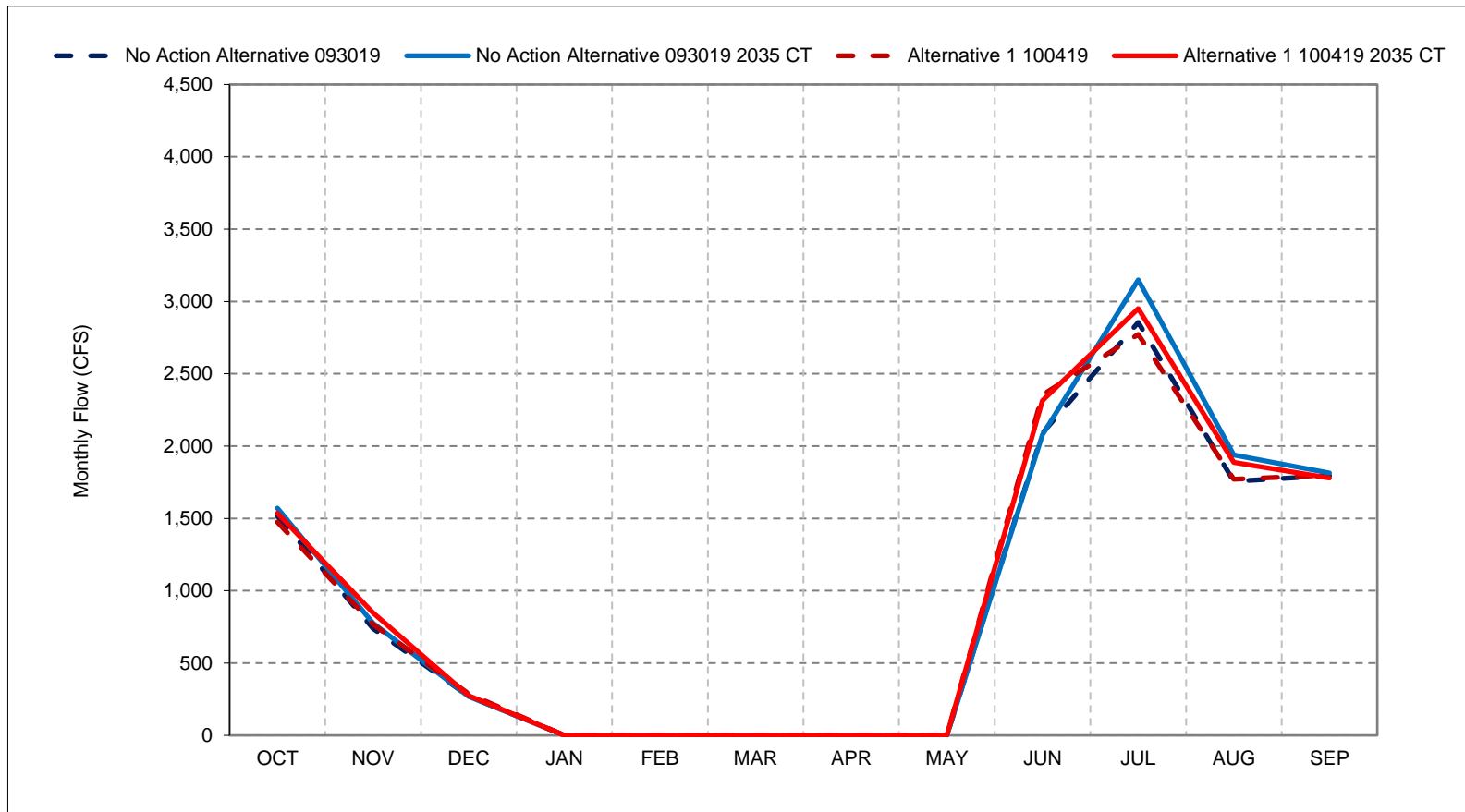
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-5. DCC Flow, Dry Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

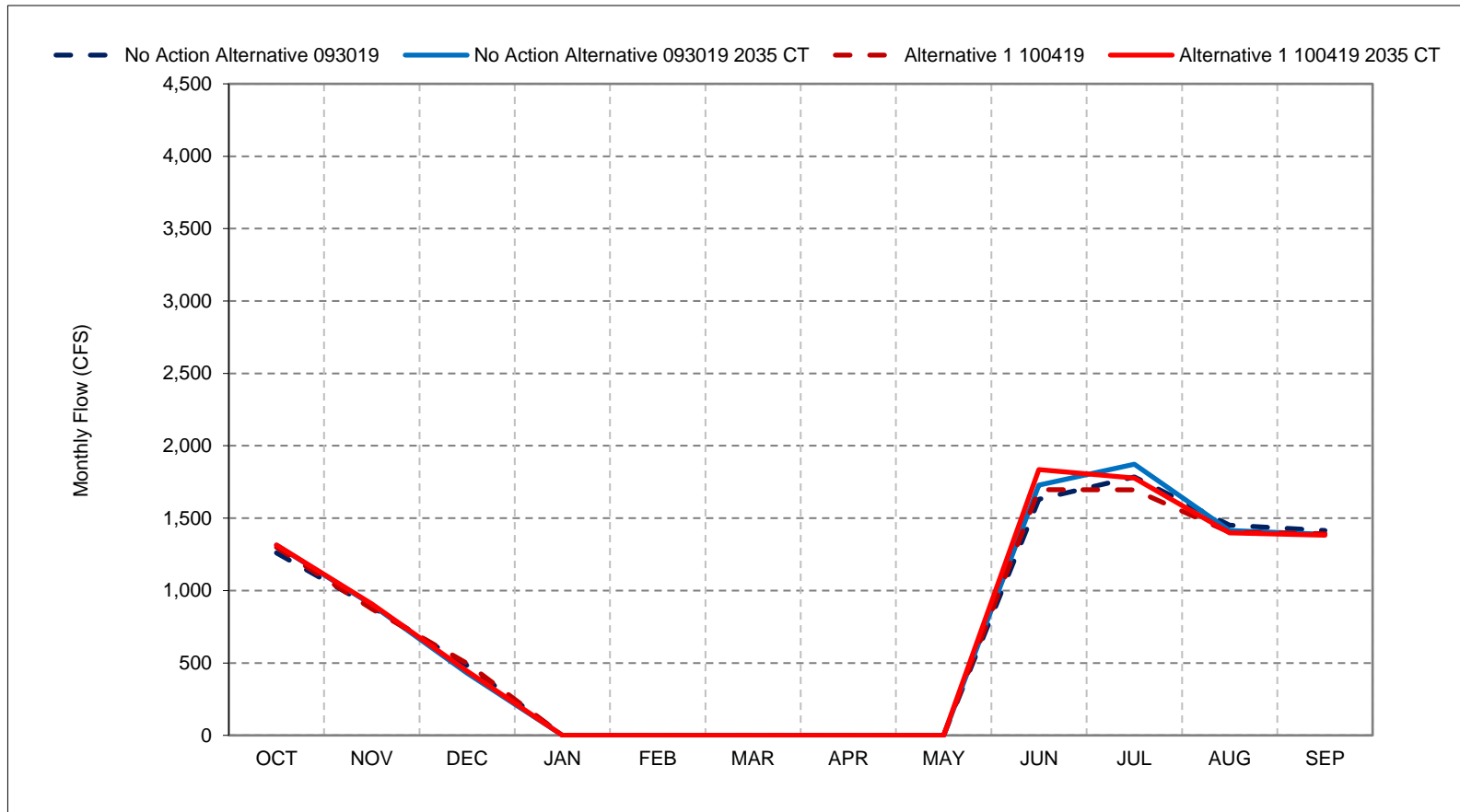
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 52-6. DCC Flow, Critical Year Average Flow



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

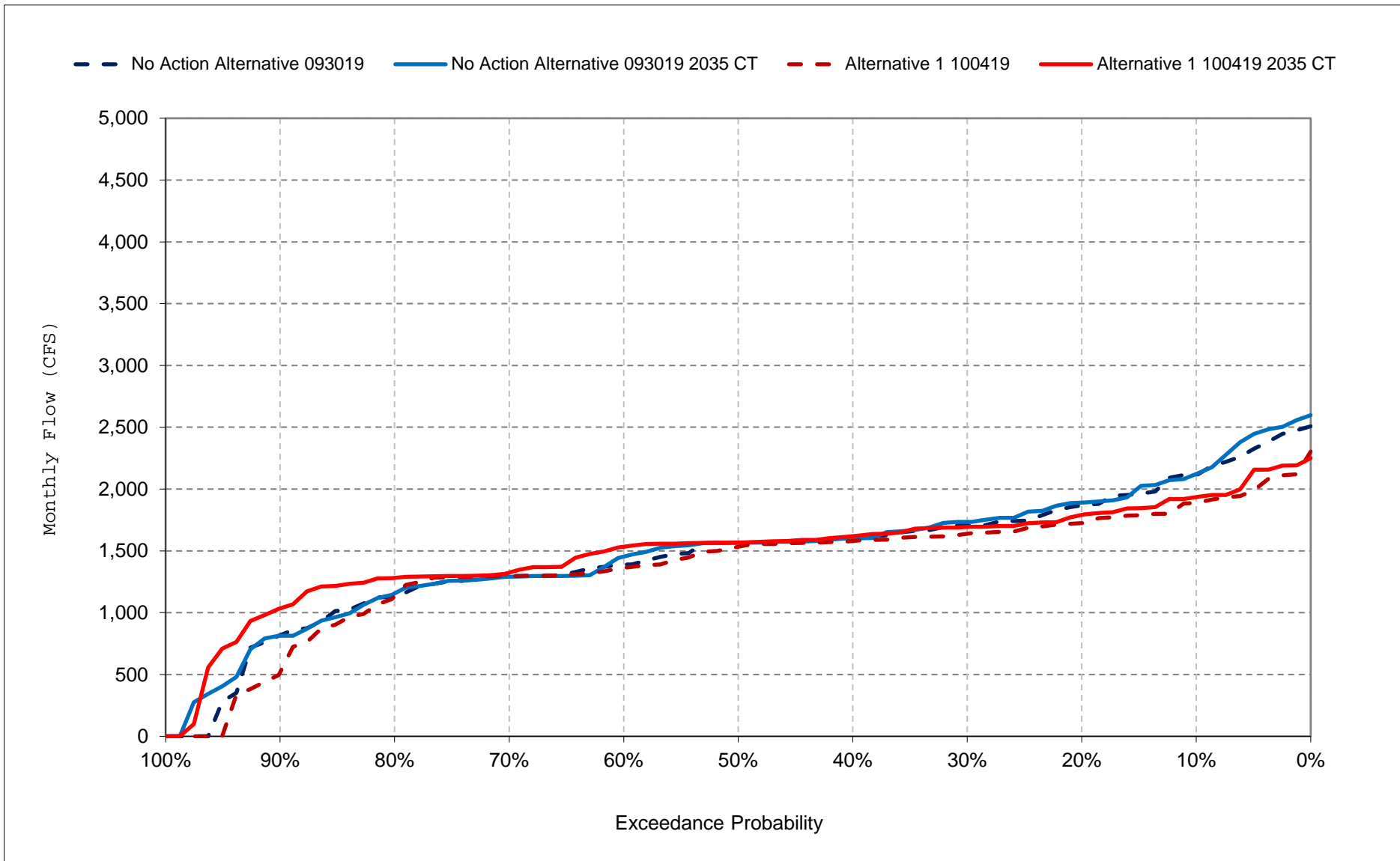
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

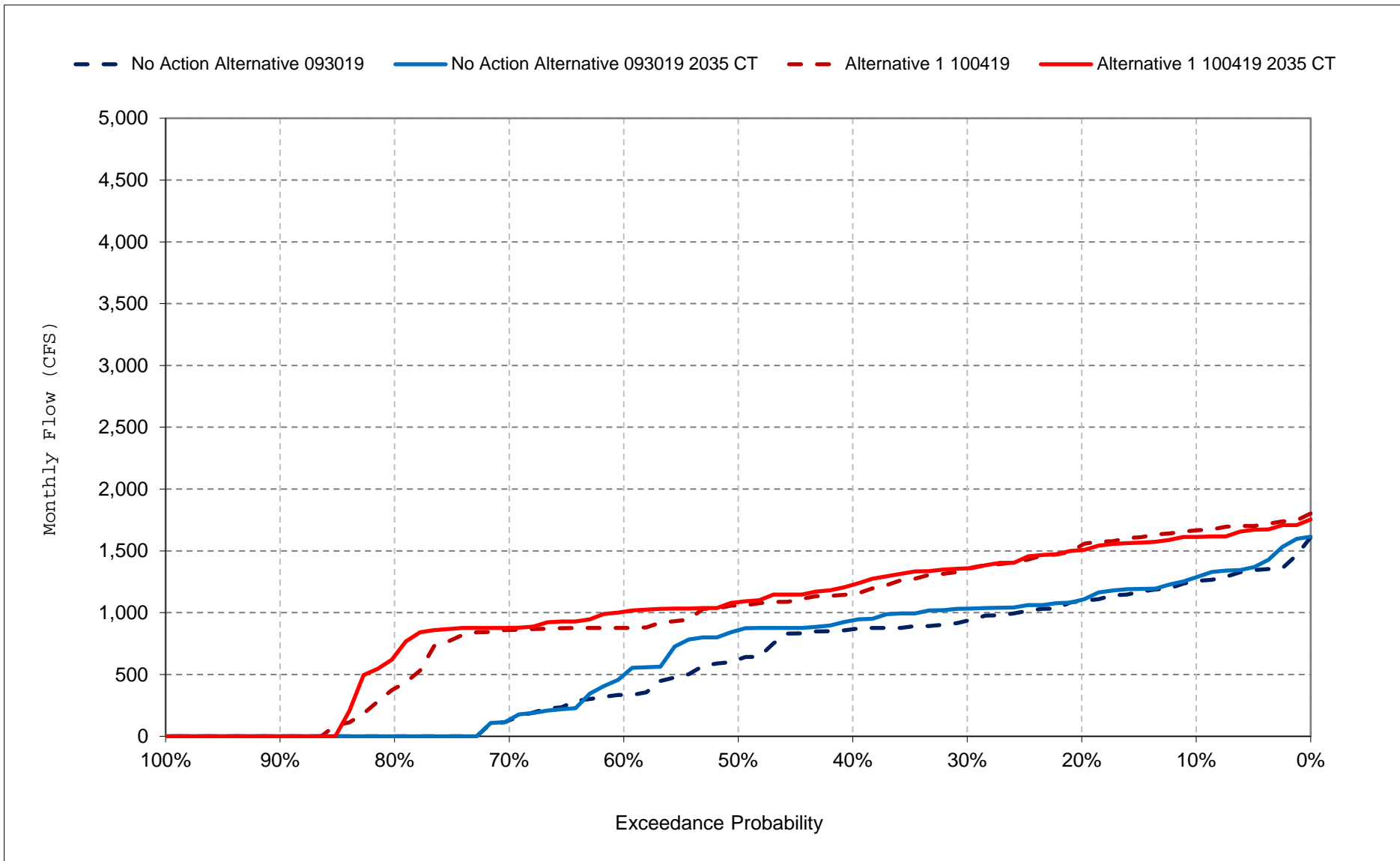
Figure 52-7. DCC Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

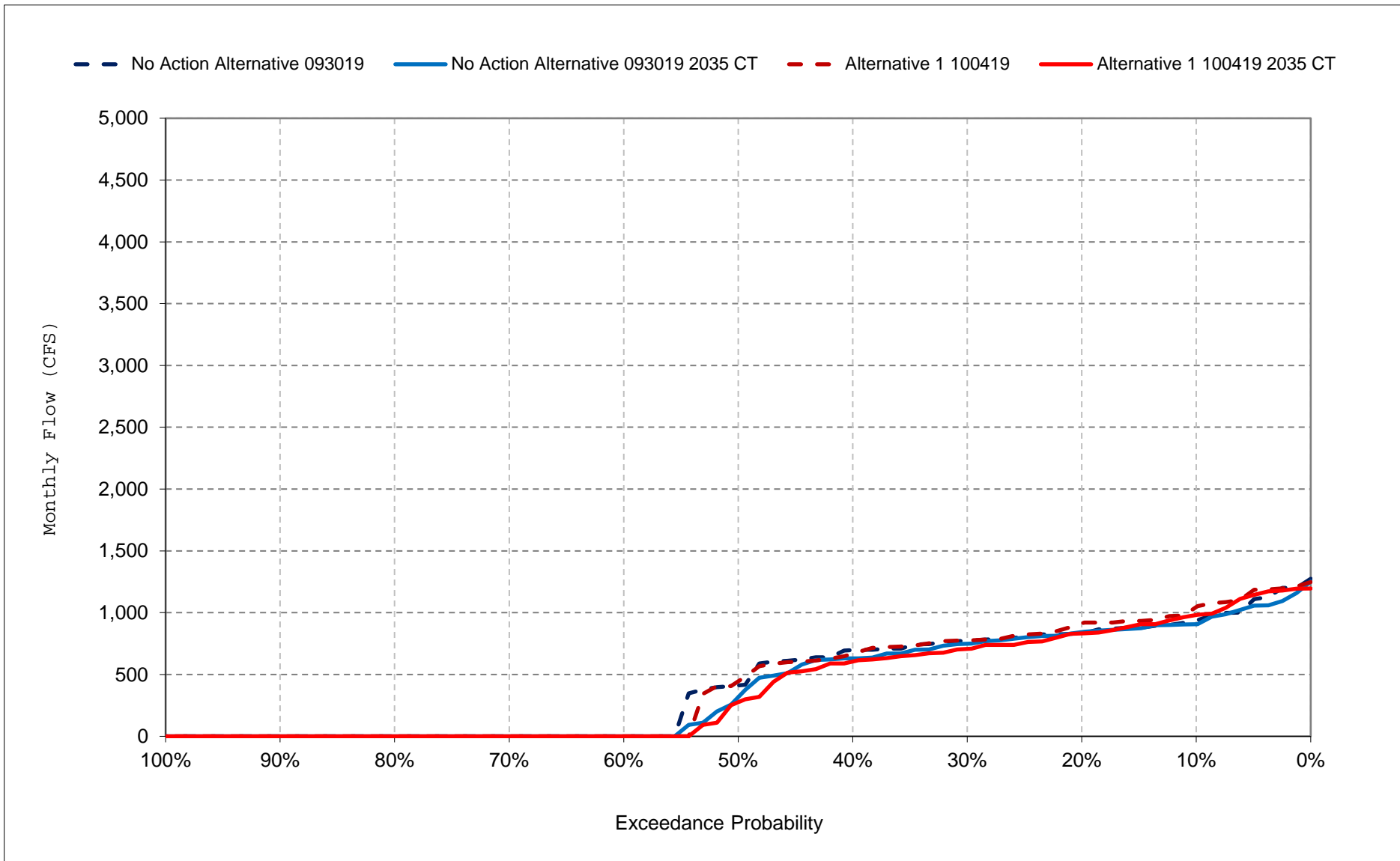
Figure 52-8. DCC Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

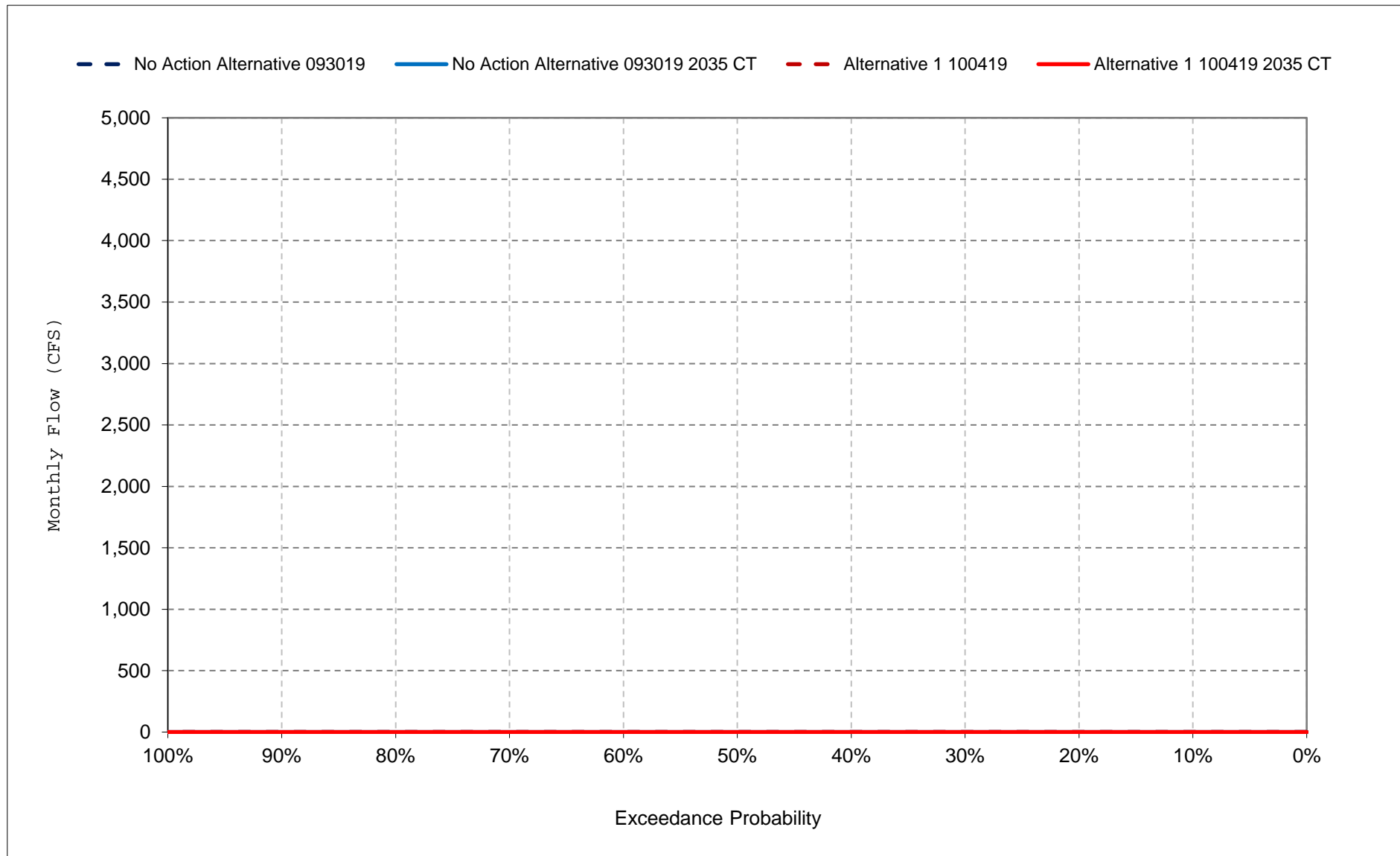
Figure 52-9. DCC Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

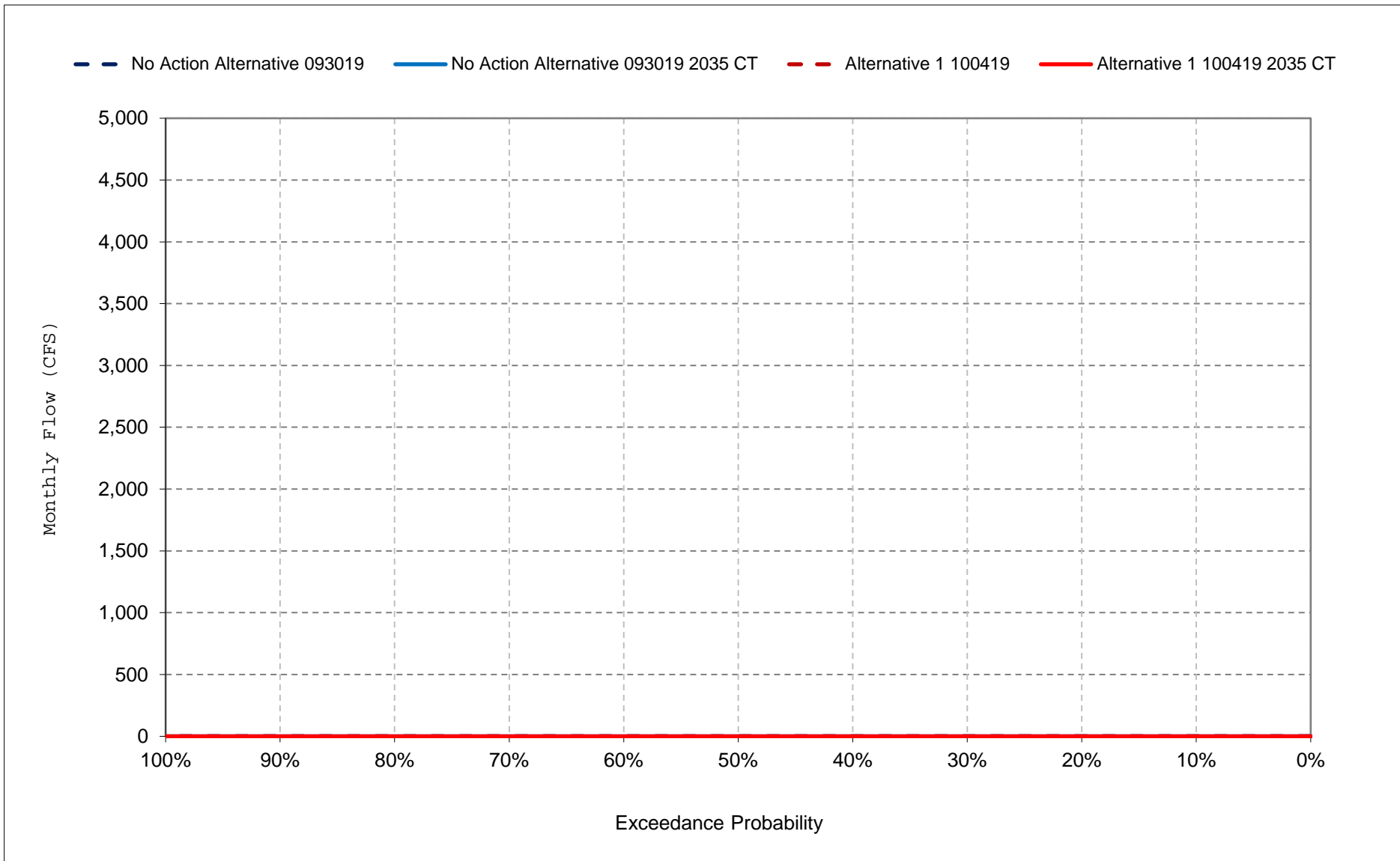
Figure 52-10. DCC Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

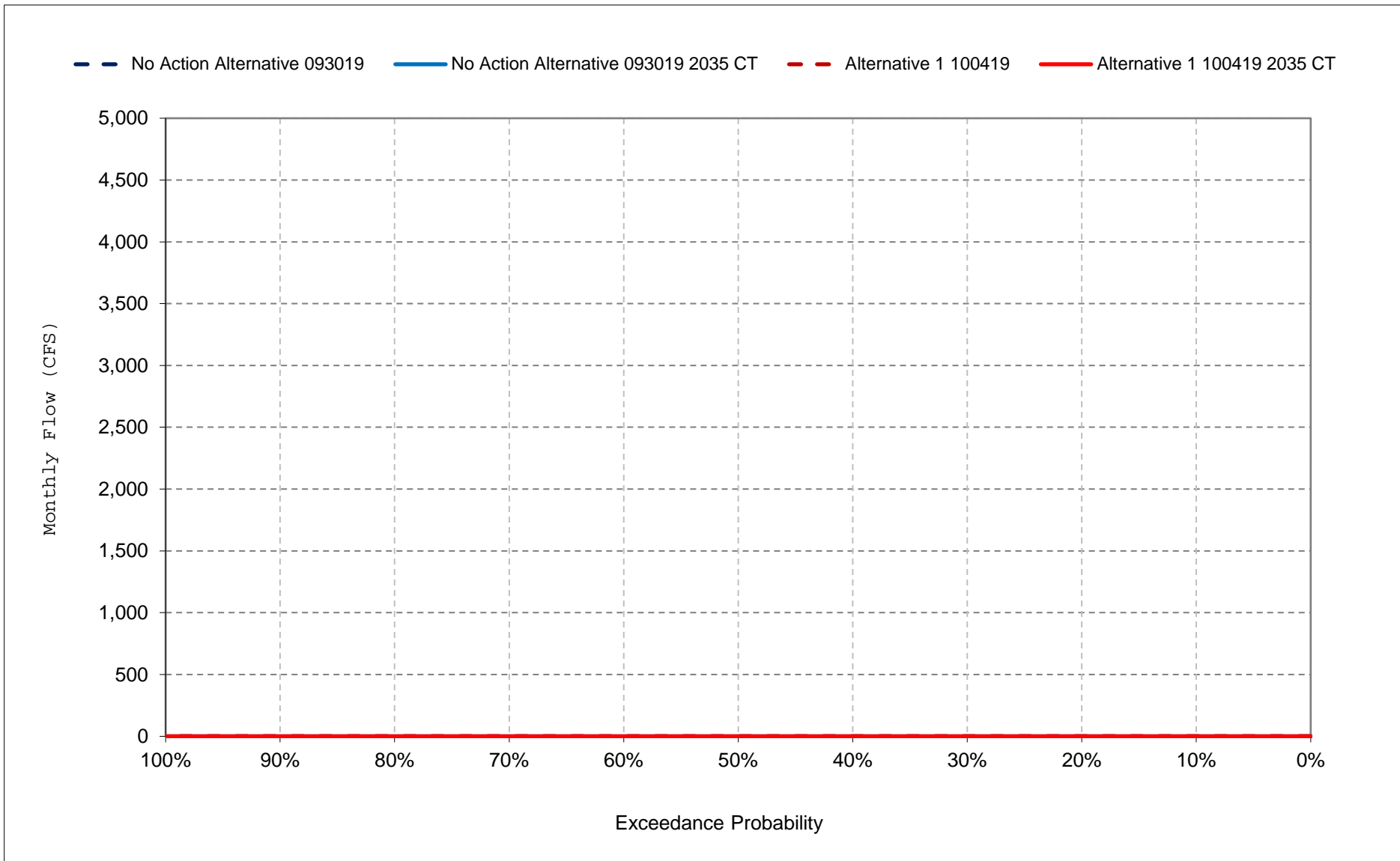
Figure 52-11. DCC Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

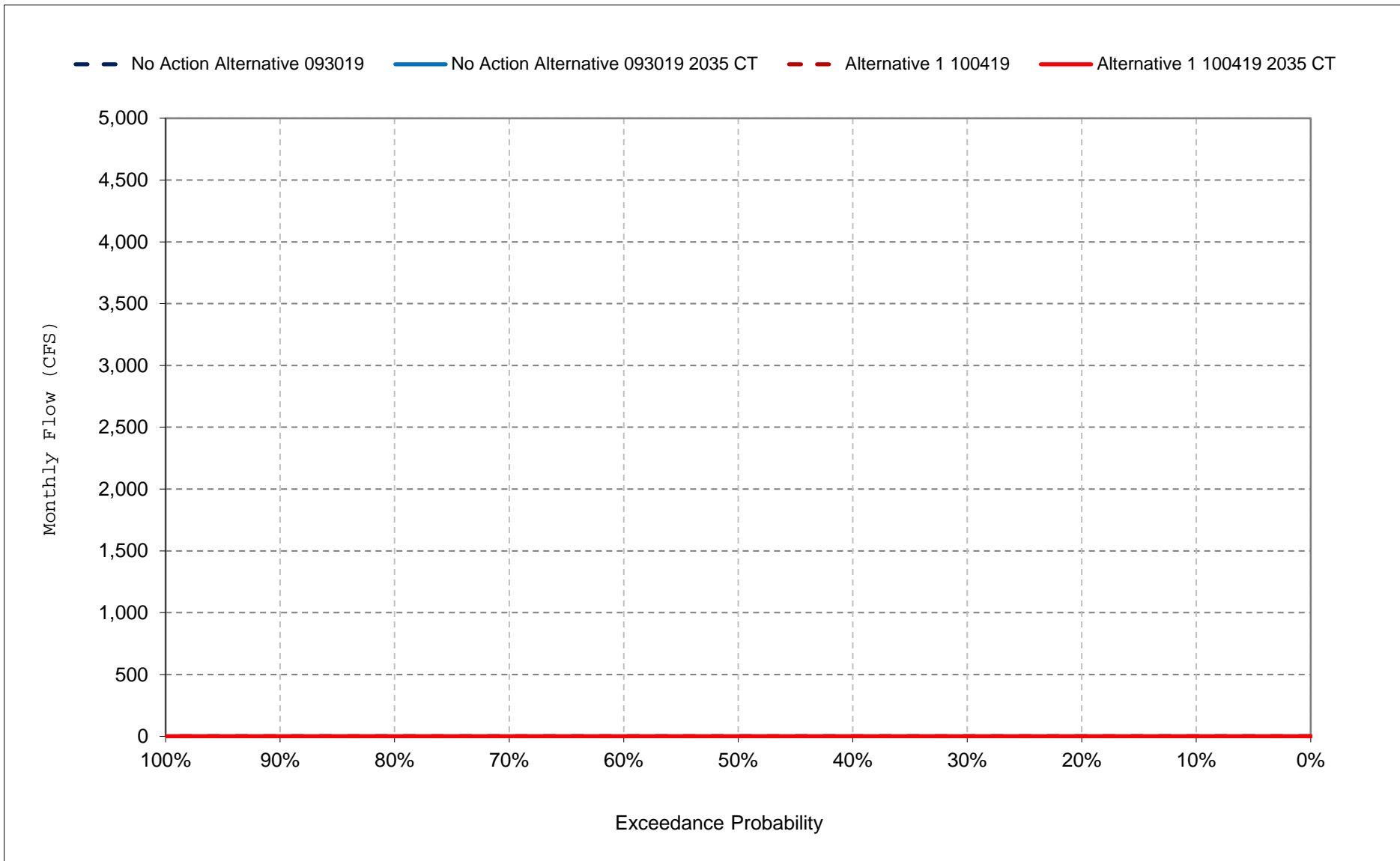
Figure 52-12. DCC Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

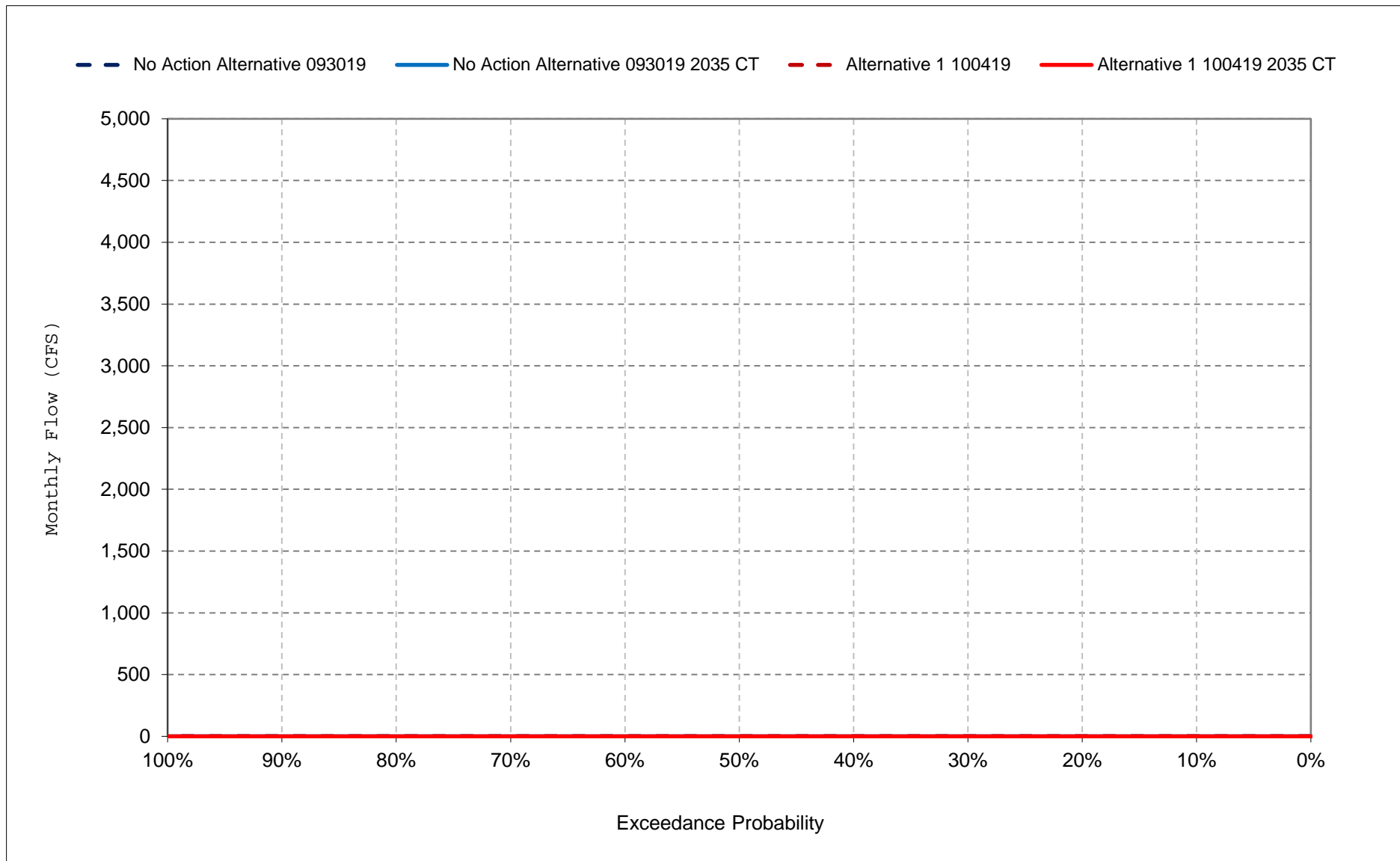
Figure 52-13. DCC Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

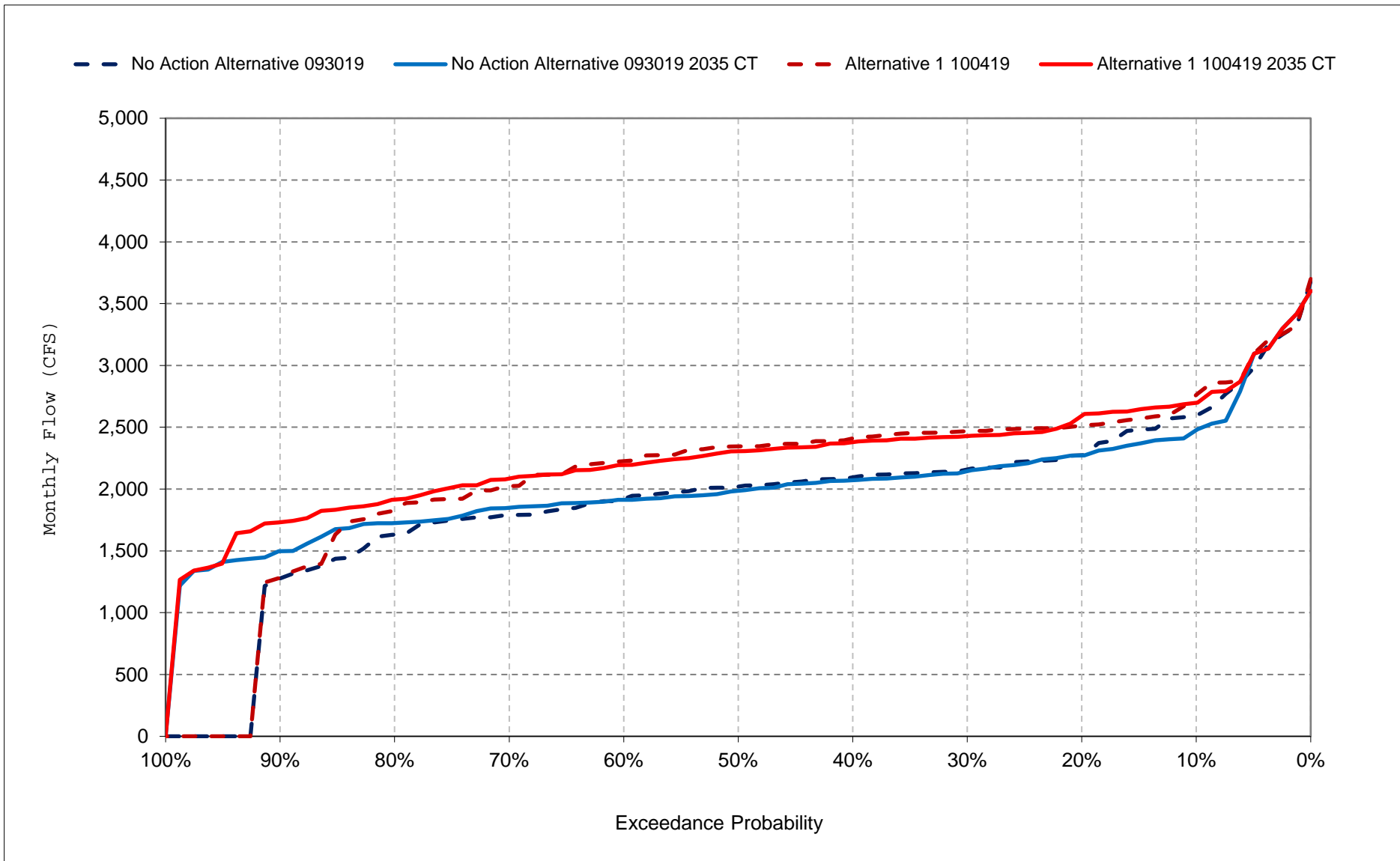
Figure 52-14. DCC Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

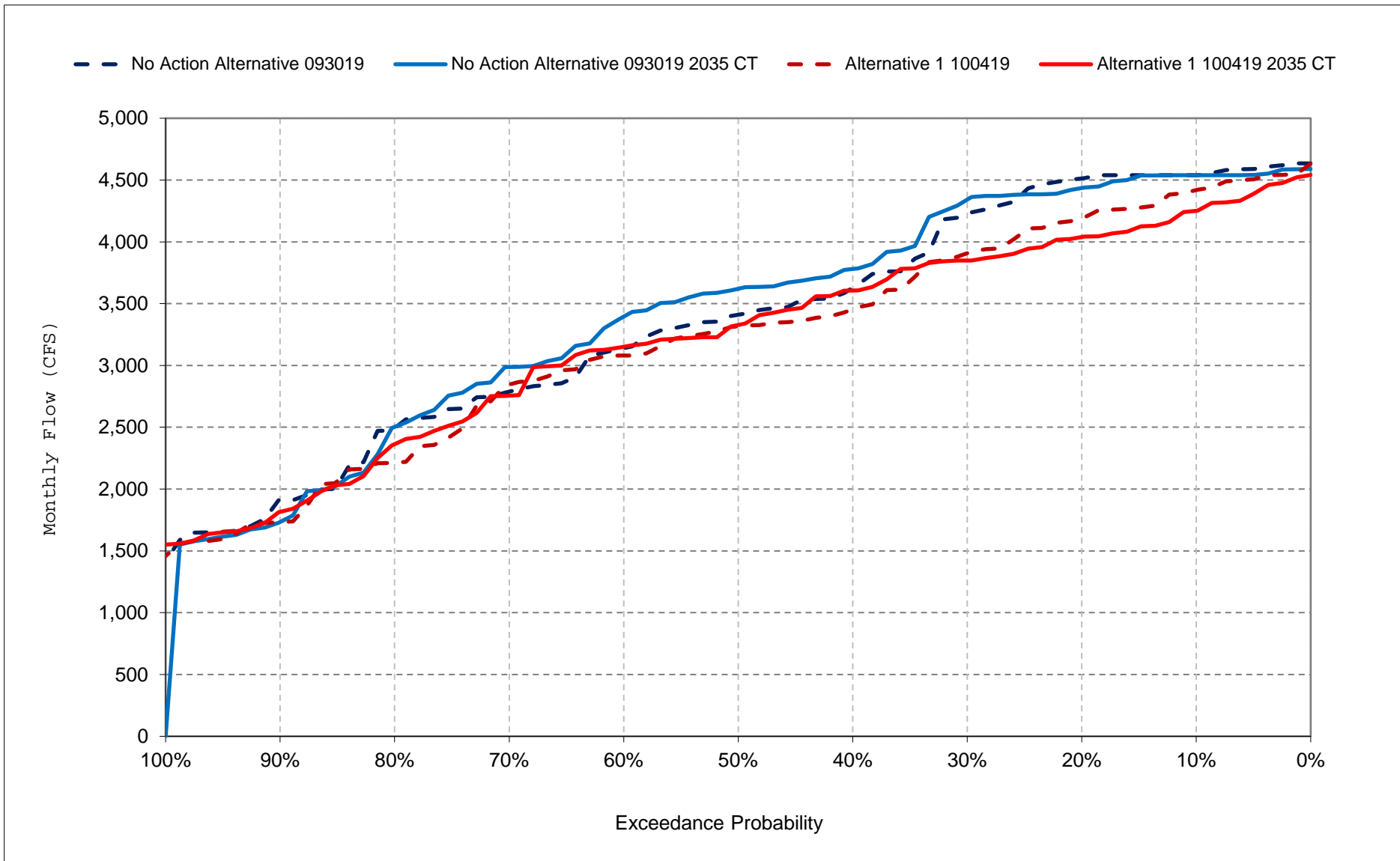
Figure 52-15. DCC Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

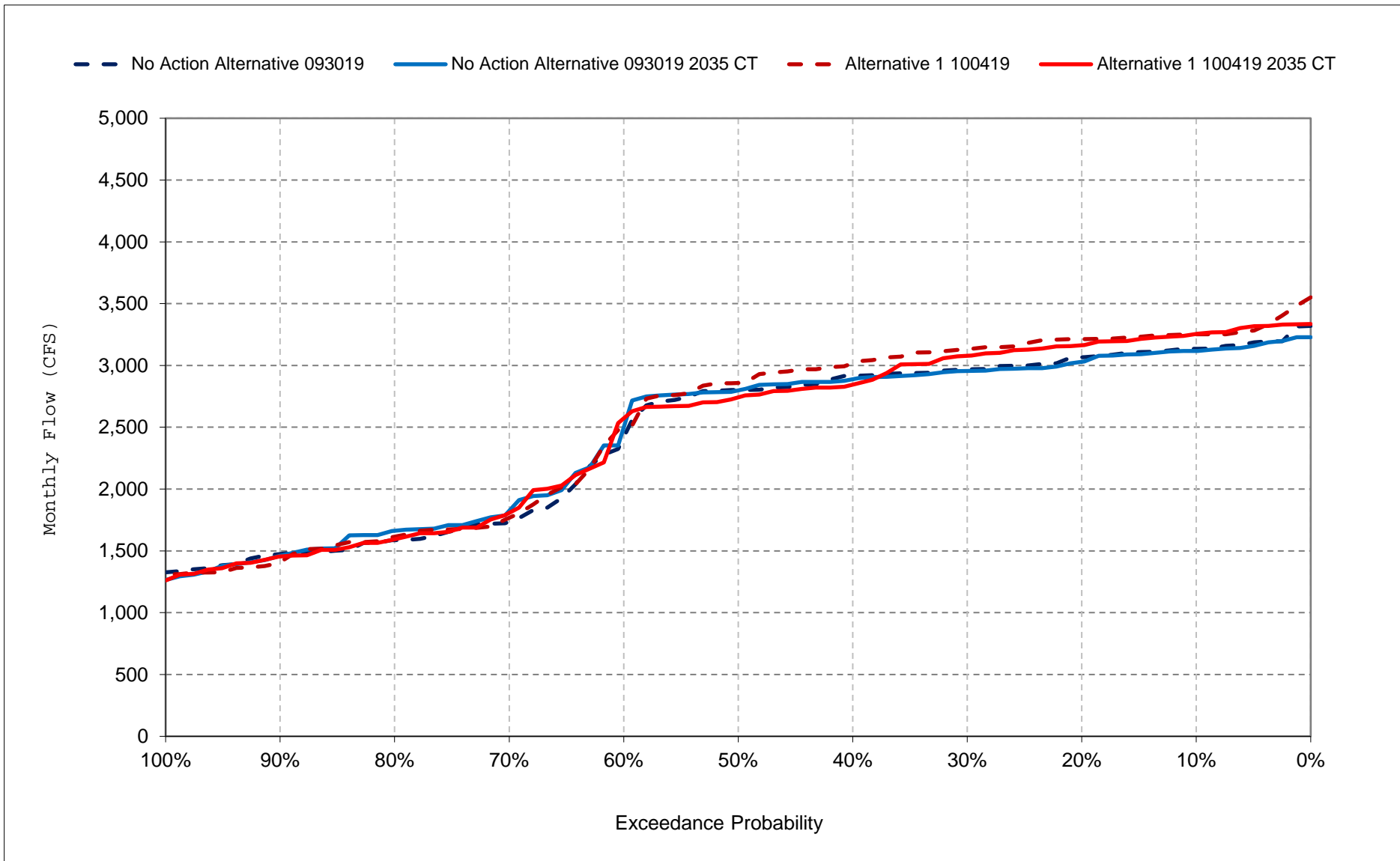
Figure 52-16. DCC Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

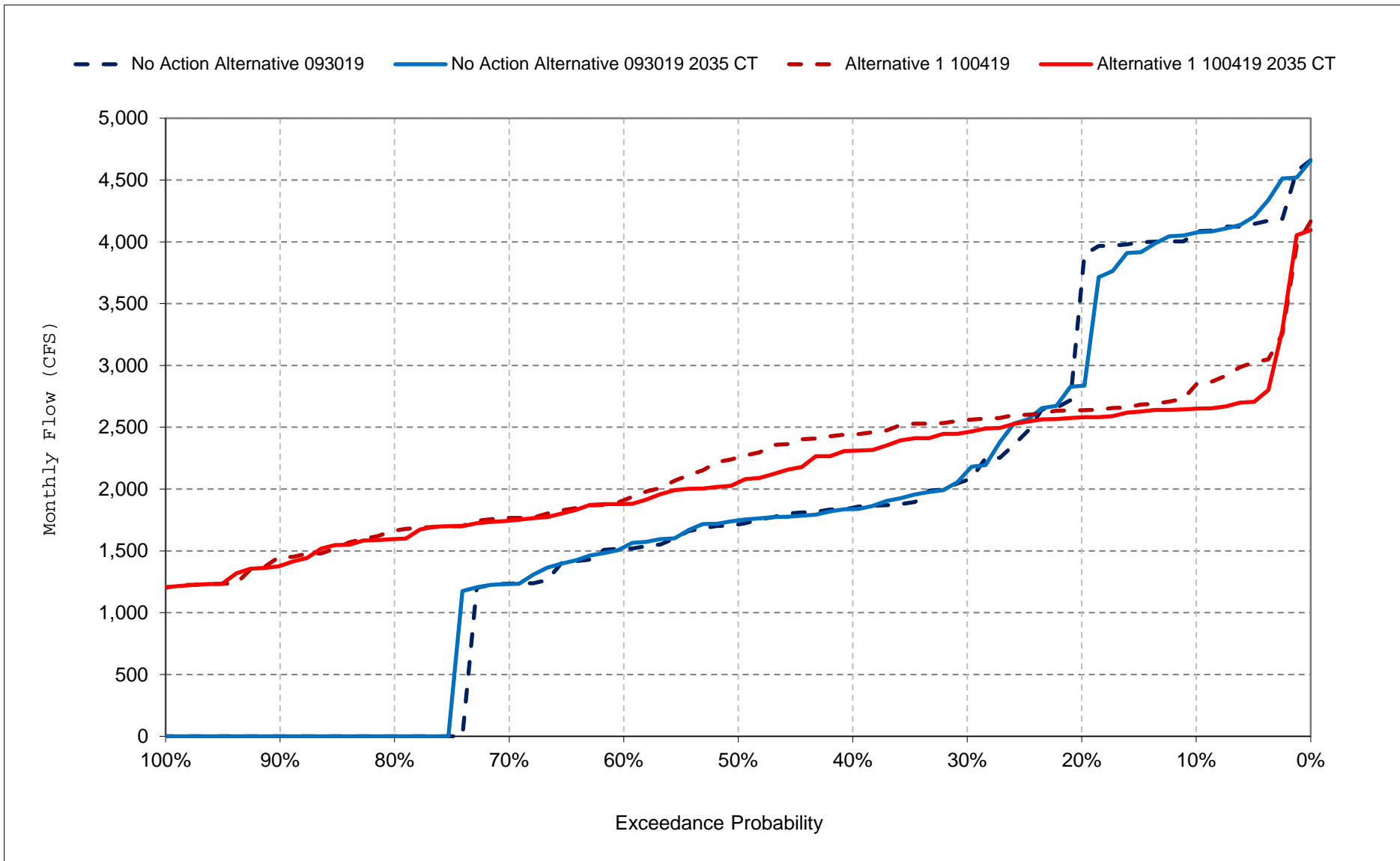
Figure 52-17. DCC Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 52-18. DCC Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-1. Total Delta Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,752	11,250	11,710	9,868	12,026	10,933	4,070	3,934	8,587	11,513	11,780	11,280
20%	7,260	9,216	11,647	7,990	9,937	10,077	2,958	2,488	6,033	11,280	11,780	11,280
30%	6,643	7,925	9,991	6,909	8,446	8,966	2,654	2,116	5,707	10,903	11,630	11,280
40%	6,220	7,618	8,511	6,794	7,372	7,598	2,336	1,720	5,344	10,168	11,280	11,122
50%	5,670	7,030	7,877	6,615	6,717	6,893	2,168	1,576	4,420	9,704	10,255	10,058
60%	5,434	6,676	7,536	6,519	6,376	6,262	2,099	1,500	3,562	8,359	8,007	7,819
70%	5,109	6,308	6,845	6,178	5,829	5,210	1,936	1,500	3,257	7,013	4,543	6,918
80%	4,744	5,507	5,826	5,476	4,643	4,679	1,849	1,500	2,125	5,518	3,007	6,099
90%	4,120	4,593	4,759	4,670	3,249	2,611	1,531	1,500	1,600	2,500	2,313	4,592
Long Term												
Full Simulation Period ^d	6,029	7,306	8,257	7,024	7,328	7,121	2,641	2,345	4,777	8,320	8,071	8,705
Water Year Types ^{b,c}												
Wet (32%)	6,791	7,739	10,275	8,526	9,806	9,928	3,433	3,518	7,533	10,677	11,674	10,990
Above Normal (16%)	6,581	8,594	9,635	6,630	7,892	8,004	2,193	1,713	5,248	9,227	11,463	11,063
Below Normal (13%)	6,828	7,171	7,468	6,310	6,516	6,552	2,271	1,633	3,635	10,177	9,202	8,814
Dry (24%)	5,464	7,598	7,177	6,483	5,679	5,732	2,713	2,069	3,375	7,223	4,037	6,773
Critical (15%)	3,990	4,607	4,912	5,756	4,843	2,921	1,626	1,604	1,682	2,357	2,276	4,318

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,953	11,280	11,700	9,655	11,557	9,968	9,430	9,366	8,587	11,280	11,554	10,038
20%	7,097	11,280	11,596	7,793	9,454	8,537	8,392	7,475	6,209	10,635	11,280	7,413
30%	6,262	11,280	10,365	7,260	8,461	7,718	7,809	6,108	5,422	9,896	11,100	6,783
40%	5,899	10,801	8,693	7,086	7,671	6,038	7,298	5,641	5,271	9,586	10,338	6,080
50%	5,498	9,939	7,457	6,874	7,048	5,696	6,267	5,301	5,088	8,761	9,908	4,930
60%	5,229	8,047	7,075	6,726	6,648	5,406	5,115	4,247	4,935	7,955	8,311	4,318
70%	5,050	6,274	6,665	6,448	6,536	5,133	3,500	3,719	4,809	6,488	4,363	3,878
80%	4,501	5,241	5,886	5,884	6,257	4,909	3,168	3,125	4,520	4,172	2,981	3,575
90%	4,099	4,629	4,732	5,317	5,994	4,687	2,606	2,319	1,869	1,914	2,166	3,208
Long Term												
Full Simulation Period ^d	5,943	8,588	8,214	7,214	7,952	6,552	5,948	5,346	5,416	7,705	7,831	5,612
Water Year Types ^{b,c}												
Wet (32%)	6,869	10,943	10,374	8,672	9,868	8,876	8,434	7,766	7,653	10,282	11,277	5,110
Above Normal (16%)	5,115	10,559	9,827	7,339	7,724	6,519	7,047	5,837	5,540	8,471	10,463	3,634
Below Normal (13%)	7,016	7,471	6,884	6,722	7,596	5,673	5,325	4,551	5,069	9,025	9,590	8,637
Dry (24%)	5,732	7,308	7,043	6,398	6,960	5,403	4,407	4,113	4,705	6,656	4,173	6,724
Critical (15%)	4,198	4,506	4,957	5,728	6,029	4,273	2,510	2,358	1,938	1,833	1,999	4,215

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	201	30	-11	-213	-470	-965	5,361	5,431	0	-233	-226	-1,242
20%	-163	2,064	-51	-197	-483	-1,540	5,434	4,988	176	-645	-500	-3,867
30%	-381	3,355	374	351	15	-1,247	5,154	3,992	-285	-1,007	-530	-4,497
40%	-321	3,183	182	292	299	-1,559	4,963	3,921	-73	-581	-942	-5,042
50%	-171	2,909	-420	260	330	-1,198	4,099	3,726	668	-943	-347	-5,128
60%	-205	1,371	-460	207	272	-856	3,016	2,747	1,372	-404	304	-3,501
70%	-59	-33	-181	271	707	-77	1,564	2,219	1,551	-524	-180	-3,040
80%	-244	-265	60	407	1,614	230	1,318	1,625	2,395	-1,346	-26	-2,524
90%	-21	36	-27	647	2,745	2,076	1,074	819	270	-586	-147	-1,384
Long Term												
Full Simulation Period ^d	-86	1,282	-43	189	624	-569	3,308	3,001	639	-615	-240	-3,093
Water Year Types ^{b,c}												
Wet (32%)	78	3,203	99	146	62	-1,052	5,001	4,248	120	-394	-398	-5,880
Above Normal (16%)	-1,465	1,965	192	708	-168	-1,486	4,854	4,125	292	-756	-999	-7,429
Below Normal (13%)	188	301	-584	411	1,079	-878	3,054	2,918	1,433	-1,153	388	-177
Dry (24%)	268	-290	-134	-85	1,282	-329	1,694	2,044	1,331	-567	135	-50
Critical (15%)	208	-101	45	-27	1,187	1,353	884	754	256	-524	-277	-103

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 53-2. Total Delta Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,795	10,906	11,710	10,556	13,305	11,965	4,271	3,796	7,929	11,280	11,451	11,280
20%	7,196	8,860	11,292	8,959	10,665	10,484	3,405	2,651	5,851	11,011	11,391	11,280
30%	6,728	8,000	9,480	7,005	8,798	9,183	2,893	2,112	5,502	10,623	11,322	11,161
40%	6,071	7,353	8,225	6,708	7,870	8,216	2,456	1,834	5,057	10,048	11,169	10,469
50%	5,666	6,507	7,823	6,567	6,873	7,056	2,258	1,594	4,480	9,307	9,920	9,012
60%	5,350	6,128	7,434	6,270	6,440	6,483	2,171	1,510	3,732	8,533	8,916	7,301
70%	5,020	5,816	7,145	5,370	5,076	5,442	2,039	1,500	3,290	7,695	4,527	6,520
80%	4,536	5,063	5,840	4,748	4,573	4,771	1,799	1,500	1,976	5,595	3,274	5,803
90%	4,073	4,365	5,426	4,406	3,172	3,080	1,500	1,500	1,500	2,830	2,399	4,545
Long Term												
Full Simulation Period ^d	5,904	7,019	8,228	7,058	7,467	7,414	2,796	2,372	4,668	8,309	8,011	8,439
Water Year Types ^{b,c}												
Wet (32%)	6,617	7,302	9,957	9,295	10,370	10,196	3,856	3,589	7,171	9,726	11,218	10,333
Above Normal (16%)	5,374	7,833	9,397	6,849	8,003	8,592	2,444	1,740	4,907	9,104	11,231	10,936
Below Normal (13%)	6,876	7,359	7,219	5,712	7,345	6,850	2,937	1,928	3,535	10,160	8,627	8,525
Dry (24%)	5,756	7,374	7,462	6,114	5,084	5,800	2,270	1,905	3,608	8,248	4,982	6,816
Critical (15%)	4,291	4,618	5,419	5,245	4,681	3,320	1,630	1,605	1,789	2,782	2,056	4,259

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,941	11,280	11,667	11,623	13,177	10,746	9,413	9,694	8,004	10,383	11,391	9,592
20%	6,838	11,280	11,340	8,810	10,450	8,987	8,557	7,057	6,014	9,579	11,270	7,432
30%	6,156	11,280	9,307	7,435	8,649	8,001	7,972	5,818	5,482	9,281	10,658	6,761
40%	5,786	10,344	8,253	7,136	7,630	6,385	7,344	5,499	5,300	8,976	9,803	5,750
50%	5,562	9,223	7,540	6,762	7,179	5,894	6,300	5,216	5,088	8,374	8,758	4,491
60%	5,221	8,166	7,021	6,431	6,651	5,544	5,027	4,233	4,957	7,523	7,703	4,279
70%	4,974	6,508	6,793	6,097	6,391	5,134	3,524	3,526	4,817	5,919	4,483	3,732
80%	4,496	5,213	6,222	5,506	6,130	4,876	3,170	3,131	4,522	3,871	3,075	3,304
90%	4,025	4,648	5,248	5,288	5,919	4,496	2,586	2,569	2,001	1,862	2,316	2,202
Long Term												
Full Simulation Period ^d	5,783	8,516	8,143	7,415	8,080	6,752	6,010	5,283	5,357	7,201	7,562	5,380
Water Year Types ^{b,c}												
Wet (32%)	6,482	10,714	9,988	9,525	10,206	8,946	8,390	7,633	7,464	8,659	10,551	4,412
Above Normal (16%)	4,454	10,269	9,289	7,557	7,809	7,087	7,289	5,751	5,417	7,750	10,489	4,135
Below Normal (13%)	7,056	7,656	6,999	6,344	8,232	5,966	5,398	4,422	4,934	8,936	8,329	8,078
Dry (24%)	5,887	7,312	7,441	6,246	6,661	5,487	4,491	4,102	4,661	6,980	4,689	6,655
Critical (15%)	4,365	4,648	5,125	5,620	5,994	4,463	2,561	2,444	2,274	2,226	2,000	4,224

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	146	374	-44	1,066	-128	-1,219	5,142	5,898	75	-897	-60	-1,688
20%	-358	2,420	48	-150	-216	-1,497	5,152	4,407	163	-1,432	-121	-3,848
30%	-573	3,280	-173	430	-149	-1,182	5,079	3,706	-20	-1,343	-664	-4,400
40%	-284	2,991	28	428	-240	-1,830	4,888	3,666	243	-1,072	-1,366	-4,718
50%	-104	2,717	-283	195	306	-1,161	4,042	3,623	607	-934	-1,162	-4,521
60%	-129	2,038	-413	161	211	-939	2,856	2,724	1,225	-1,009	-1,213	-3,021
70%	-46	692	-353	727	1,316	-308	1,485	2,026	1,527	-1,775	-44	-2,787
80%	-40	150	382	758	1,557	104	1,371	1,631	2,546	-1,724	-199	-2,499
90%	-47	283	-178	883	2,747	1,416	1,086	1,069	501	-969	-83	-2,343
Long Term												
Full Simulation Period ^d	-122	1,497	-85	357	613	-662	3,214	2,911	689	-1,108	-449	-3,060
Water Year Types ^{b,c}												
Wet (32%)	-135	3,412	31	230	-164	-1,250	4,534	4,043	292	-1,067	-668	-5,920
Above Normal (16%)	-919	2,436	-107	708	-194	-1,505	4,845	4,011	510	-1,355	-742	-6,801
Below Normal (13%)	180	296	-220	632	887	-883	2,461	2,494	1,399	-1,224	-297	-446
Dry (24%)	131	-63	-21	133	1,577	-313	2,221	2,197	1,053	-1,268	-293	-161
Critical (15%)	75	31	-294	375	1,313	1,144	932	839	485	-556	-57	-35

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-3. Total Delta Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,752	11,250	11,710	9,868	12,026	10,933	4,070	3,934	8,587	11,513	11,780	11,280
20%	7,260	9,216	11,647	7,990	9,937	10,077	2,958	2,488	6,033	11,280	11,780	11,280
30%	6,643	7,925	9,991	6,909	8,446	8,966	2,654	2,116	5,707	10,903	11,630	11,280
40%	6,220	7,618	8,511	6,794	7,372	7,598	2,336	1,720	5,344	10,168	11,280	11,122
50%	5,670	7,030	7,877	6,615	6,717	6,893	2,168	1,576	4,420	9,704	10,255	10,058
60%	5,434	6,676	7,536	6,519	6,376	6,262	2,099	1,500	3,562	8,359	8,007	7,819
70%	5,109	6,308	6,845	6,178	5,829	5,210	1,936	1,500	3,257	7,013	4,543	6,918
80%	4,744	5,507	5,826	5,476	4,643	4,679	1,849	1,500	2,125	5,518	3,007	6,099
90%	4,120	4,593	4,759	4,670	3,249	2,611	1,531	1,500	1,600	2,500	2,313	4,592
Long Term												
Full Simulation Period ^d	6,029	7,306	8,257	7,024	7,328	7,121	2,641	2,345	4,777	8,320	8,071	8,705
Water Year Types ^{b,c}												
Wet (32%)	6,791	7,739	10,275	8,526	9,806	9,928	3,433	3,518	7,533	10,677	11,674	10,990
Above Normal (16%)	6,581	8,594	9,635	6,630	7,892	8,004	2,193	1,713	5,248	9,227	11,463	11,063
Below Normal (13%)	6,828	7,171	7,468	6,310	6,516	6,552	2,271	1,633	3,635	10,177	9,202	8,814
Dry (24%)	5,464	7,598	7,177	6,483	5,679	5,732	2,713	2,069	3,375	7,223	4,037	6,773
Critical (15%)	3,990	4,607	4,912	5,756	4,843	2,921	1,626	1,604	1,682	2,357	2,276	4,318

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,795	10,906	11,710	10,556	13,305	11,965	4,271	3,796	7,929	11,280	11,451	11,280
20%	7,196	8,860	11,292	8,959	10,665	10,484	3,405	2,651	5,851	11,011	11,391	11,280
30%	6,728	8,000	9,480	7,005	8,798	9,183	2,893	2,112	5,502	10,623	11,322	11,161
40%	6,071	7,353	8,225	6,708	7,870	8,216	2,456	1,834	5,057	10,048	11,169	10,469
50%	5,666	6,507	7,823	6,567	6,873	7,056	2,258	1,594	4,480	9,307	9,920	9,012
60%	5,350	6,128	7,434	6,270	6,440	6,483	2,171	1,510	3,732	8,533	8,916	7,301
70%	5,020	5,816	7,145	5,370	5,076	5,442	2,039	1,500	3,290	7,695	4,527	6,520
80%	4,536	5,063	5,840	4,748	4,573	4,771	1,799	1,500	1,976	5,595	3,274	5,803
90%	4,073	4,365	5,426	4,406	3,172	3,080	1,500	1,500	1,500	2,830	2,399	4,545
Long Term												
Full Simulation Period ^d	5,904	7,019	8,228	7,058	7,467	7,414	2,796	2,372	4,668	8,309	8,011	8,439
Water Year Types ^{b,c}												
Wet (32%)	6,617	7,302	9,957	9,295	10,370	10,196	3,856	3,589	7,171	9,726	11,218	10,333
Above Normal (16%)	5,374	7,833	9,397	6,849	8,003	8,592	2,444	1,740	4,907	9,104	11,231	10,936
Below Normal (13%)	6,876	7,359	7,219	5,712	7,345	6,850	2,937	1,928	3,535	10,160	8,627	8,525
Dry (24%)	5,756	7,374	7,462	6,114	5,084	5,800	2,270	1,905	3,608	8,248	4,982	6,816
Critical (15%)	4,291	4,618	5,419	5,245	4,681	3,320	1,630	1,605	1,789	2,782	2,056	4,259

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	43	-344	0	688	1,279	1,032	201	-138	-657	-233	-329	0
20%	-64	-356	-355	969	729	407	447	163	-182	-269	-389	0
30%	85	75	-510	96	352	217	239	-4	-205	-280	-308	-119
40%	-149	-265	-287	-86	498	618	120	114	-287	-119	-111	-653
50%	-3	-523	-54	-48	156	162	90	18	61	-397	-334	-1,046
60%	-84	-548	-102	-249	63	221	73	10	169	174	908	-518
70%	-89	-491	300	-808	-753	232	103	0	33	682	-16	-398
80%	-208	-444	13	-728	-70	93	-50	0	-149	76	267	-296
90%	-47	-228	668	-264	-77	469	-31	0	-100	330	86	-47
Long Term												
Full Simulation Period ^d	-125	-287	-28	33	139	293	156	27	-110	-11	-60	-266
Water Year Types ^{b,c}												
Wet (32%)	-174	-437	-318	769	564	268	423	72	-362	-951	-456	-657
Above Normal (16%)	-1,207	-762	-238	218	111	588	250	27	-342	-123	-231	-127
Below Normal (13%)	48	189	-248	-598	828	298	666	295	-100	-17	-575	-289
Dry (24%)	292	-224	285	-370	-594	68	-443	-164	233	1,024	945	43
Critical (15%)	301	11	507	-511	-162	399	4	1	107	425	-220	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT O5 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) O5 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 53-4. Total Delta Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,953	11,280	11,700	9,655	11,557	9,968	9,430	9,366	8,587	11,280	11,554	10,038
20%	7,097	11,280	11,596	7,793	9,454	8,537	8,392	7,475	6,209	10,635	11,280	7,413
30%	6,262	11,280	10,365	7,260	8,461	7,718	7,809	6,108	5,422	9,896	11,100	6,783
40%	5,899	10,801	8,693	7,086	7,671	6,038	7,298	5,641	5,271	9,586	10,338	6,080
50%	5,498	9,939	7,457	6,874	7,048	5,696	6,267	5,301	5,088	8,761	9,908	4,930
60%	5,229	8,047	7,075	6,726	6,648	5,406	5,115	4,247	4,935	7,955	8,311	4,318
70%	5,050	6,274	6,665	6,448	6,536	5,133	3,500	3,719	4,809	6,488	4,363	3,878
80%	4,501	5,241	5,886	5,884	6,257	4,909	3,168	3,125	4,520	4,172	2,981	3,575
90%	4,099	4,629	4,732	5,317	5,994	4,687	2,606	2,319	1,869	1,914	2,166	3,208
Long Term												
Full Simulation Period ^d	5,943	8,588	8,214	7,214	7,952	6,552	5,948	5,346	5,416	7,705	7,831	5,612
Water Year Types ^{b,c}												
Wet (32%)	6,869	10,943	10,374	8,672	9,868	8,876	8,434	7,766	7,653	10,282	11,277	5,110
Above Normal (16%)	5,115	10,559	9,827	7,339	7,724	6,519	7,047	5,837	5,540	8,471	10,463	3,634
Below Normal (13%)	7,016	7,471	6,884	6,722	7,596	5,673	5,325	4,551	5,069	9,025	9,590	8,637
Dry (24%)	5,732	7,308	7,043	6,398	6,960	5,403	4,407	4,113	4,705	6,656	4,173	6,724
Critical (15%)	4,198	4,506	4,957	5,728	6,029	4,273	2,510	2,358	1,938	1,833	1,999	4,215

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	7,941	11,280	11,667	11,623	13,177	10,746	9,413	9,694	8,004	10,383	11,391	9,592
20%	6,838	11,280	11,340	8,810	10,450	8,987	8,557	7,057	6,014	9,579	11,270	7,432
30%	6,156	11,280	9,307	7,435	8,649	8,001	7,972	5,818	5,482	9,281	10,658	6,761
40%	5,786	10,344	8,253	7,136	7,630	6,385	7,344	5,499	5,300	8,976	9,803	5,750
50%	5,562	9,223	7,540	6,762	7,179	5,894	6,300	5,216	5,088	8,374	8,758	4,491
60%	5,221	8,166	7,021	6,431	6,651	5,544	5,027	4,233	4,957	7,523	7,703	4,279
70%	4,974	6,508	6,793	6,097	6,391	5,134	3,524	3,526	4,817	5,919	4,483	3,732
80%	4,496	5,213	6,222	5,506	6,130	4,876	3,170	3,131	4,522	3,871	3,075	3,304
90%	4,025	4,648	5,248	5,288	5,919	4,496	2,586	2,569	2,001	1,862	2,316	2,202
Long Term												
Full Simulation Period ^d	5,783	8,516	8,143	7,415	8,080	6,752	6,010	5,283	5,357	7,201	7,562	5,380
Water Year Types ^{b,c}												
Wet (32%)	6,482	10,714	9,988	9,525	10,206	8,946	8,390	7,633	7,464	8,659	10,551	4,412
Above Normal (16%)	4,454	10,269	9,289	7,557	7,809	7,087	7,289	5,751	5,417	7,750	10,489	4,135
Below Normal (13%)	7,056	7,656	6,999	6,344	8,232	5,966	5,398	4,422	4,934	8,936	8,329	8,078
Dry (24%)	5,887	7,312	7,441	6,246	6,661	5,487	4,491	4,102	4,661	6,980	4,689	6,655
Critical (15%)	4,365	4,648	5,125	5,620	5,994	4,463	2,561	2,444	2,274	2,226	2,000	4,224

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-12	0	-33	1,968	1,621	778	-17	329	-583	-897	-163	-446
20%	-259	0	-256	1,017	996	450	165	-418	-195	-1,055	-10	19
30%	-106	0	-1,057	175	188	283	163	-290	60	-615	-441	-22
40%	-112	-458	-440	50	-41	347	46	-142	29	-610	-535	-330
50%	63	-715	83	-113	131	199	33	-85	0	-388	-1,150	-439
60%	-8	119	-54	-295	3	138	-88	-14	22	-432	-609	-38
70%	-76	234	128	-352	-145	1	24	-193	8	-569	120	-146
80%	-5	-28	336	-378	-127	-33	3	6	2	-302	94	-271
90%	-74	19	517	-29	-75	-191	-19	250	132	-53	150	-1,006
Long Term												
Full Simulation Period ^d	-160	-72	-71	202	128	200	62	-63	-59	-504	-269	-232
Water Year Types ^{b,c}												
Wet (32%)	-387	-229	-386	853	339	70	-45	-133	-189	-1,623	-726	-698
Above Normal (16%)	-661	-290	-538	218	84	569	242	-87	-124	-721	26	501
Below Normal (13%)	40	184	115	-377	636	293	73	-129	-135	-88	-1,261	-559
Dry (24%)	155	3	398	-152	-299	84	83	-11	-45	324	516	-68
Critical (15%)	167	142	167	-108	-35	190	52	86	336	393	1	9

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

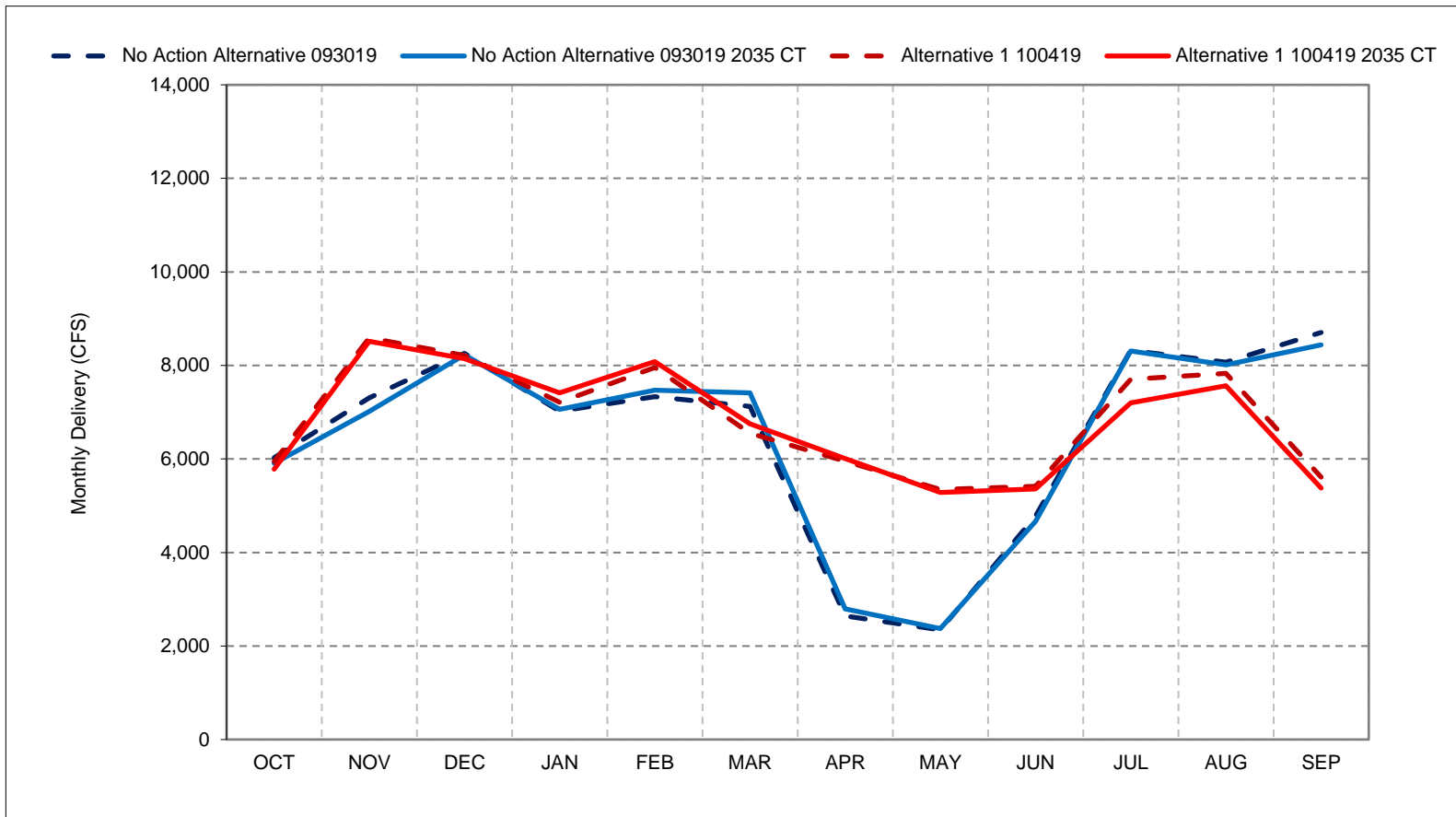
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 53-1. Total Delta Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

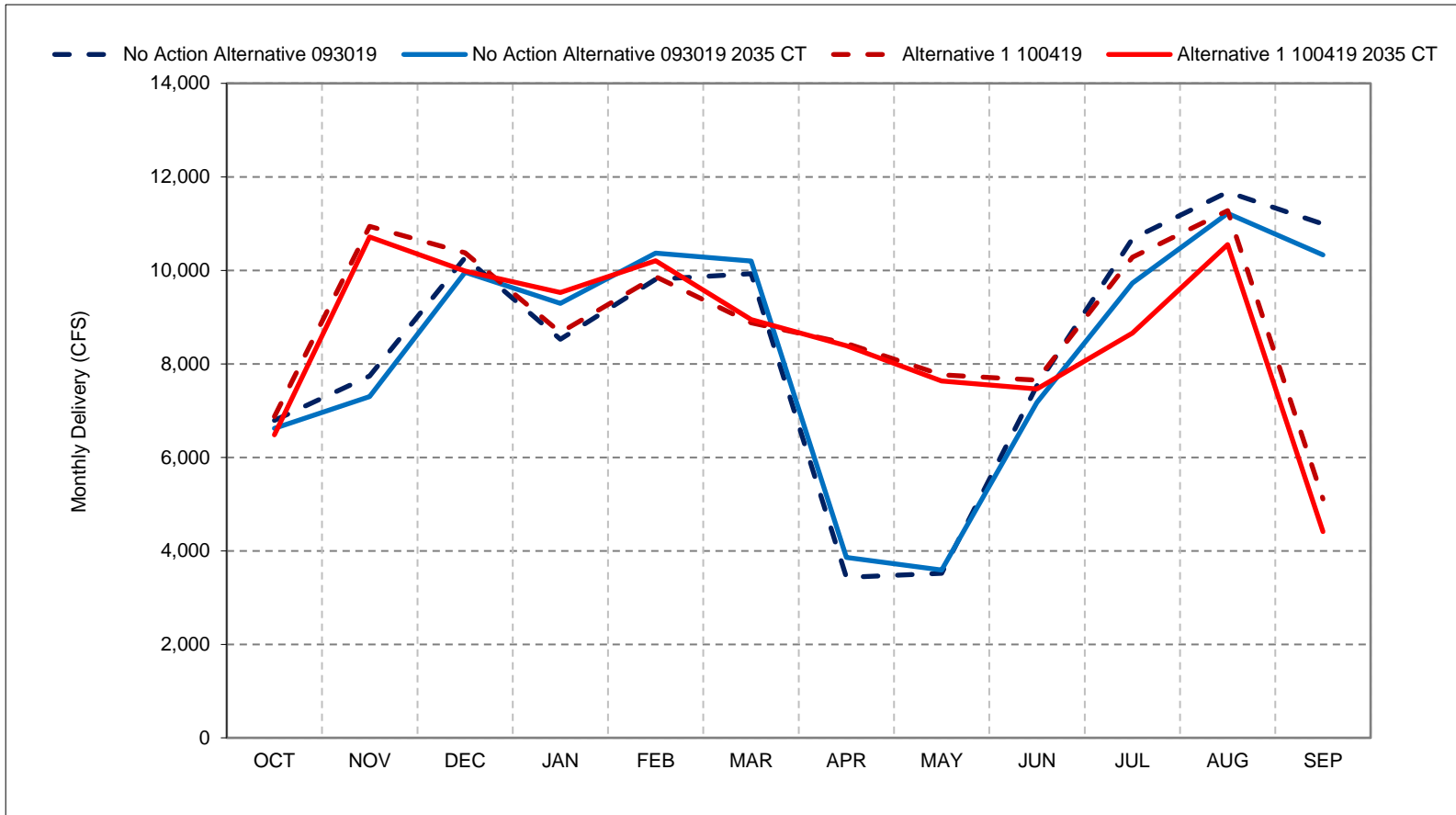
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-2. Total Delta Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

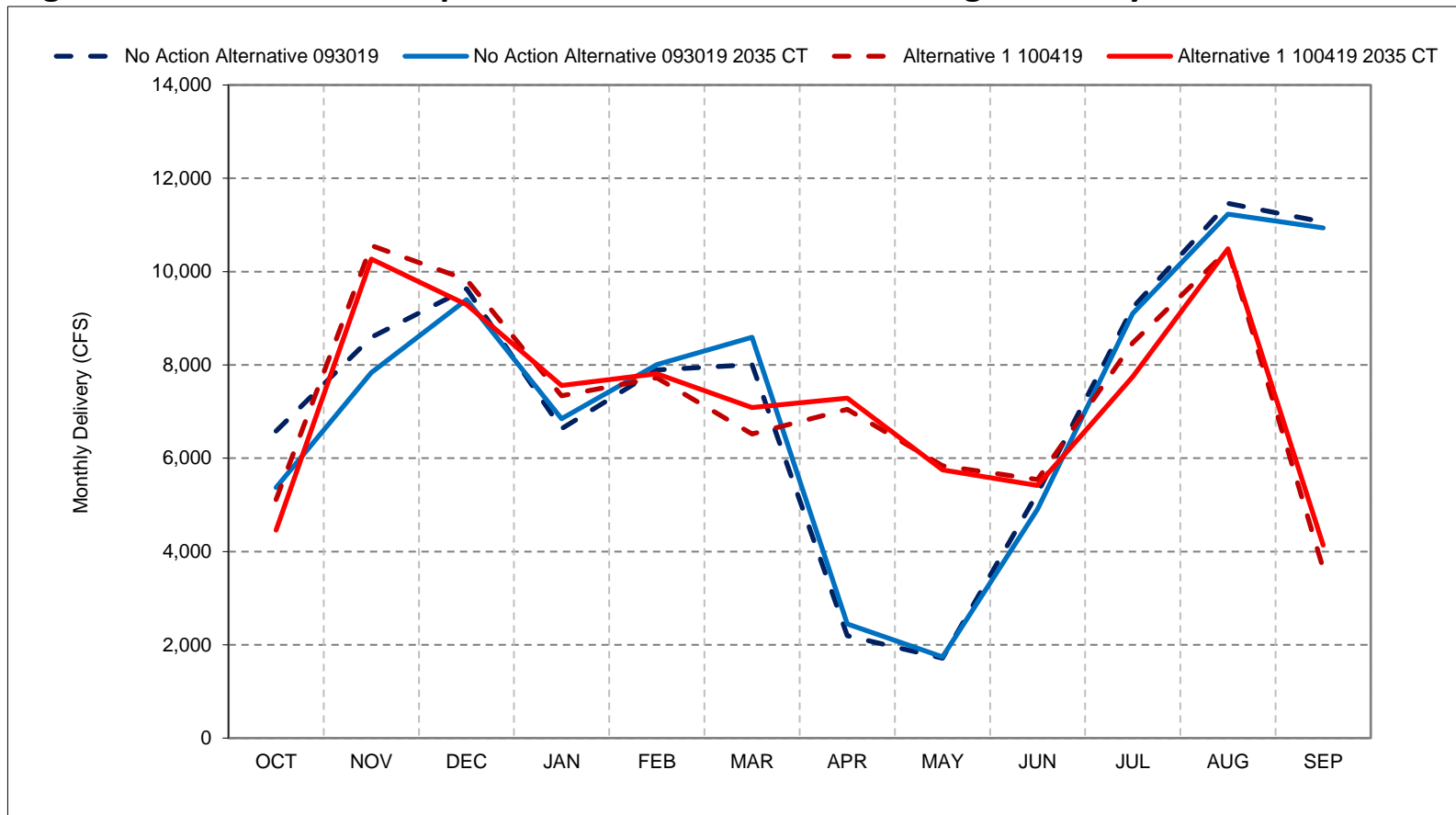
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-3. Total Delta Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

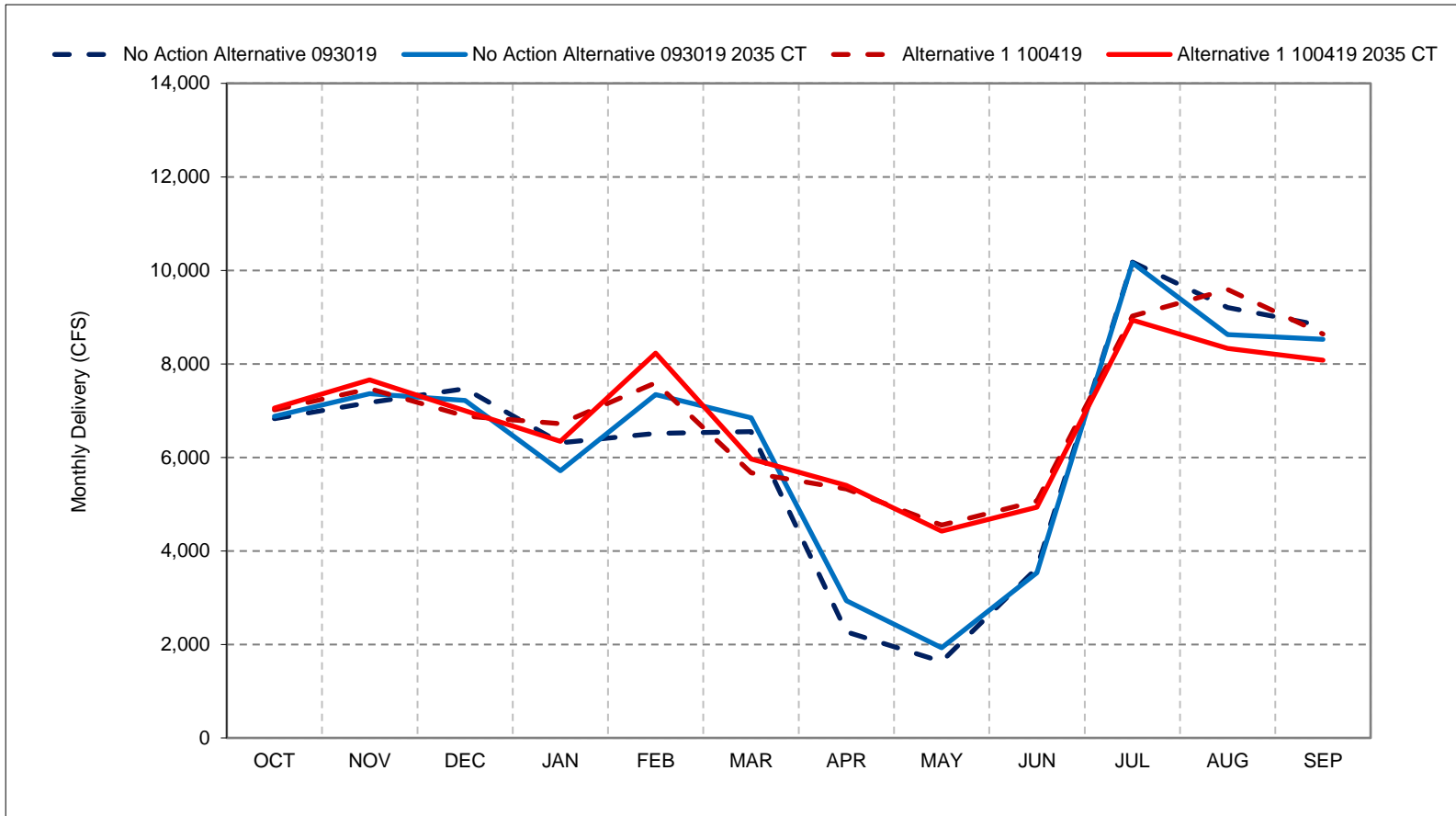
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-4. Total Delta Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

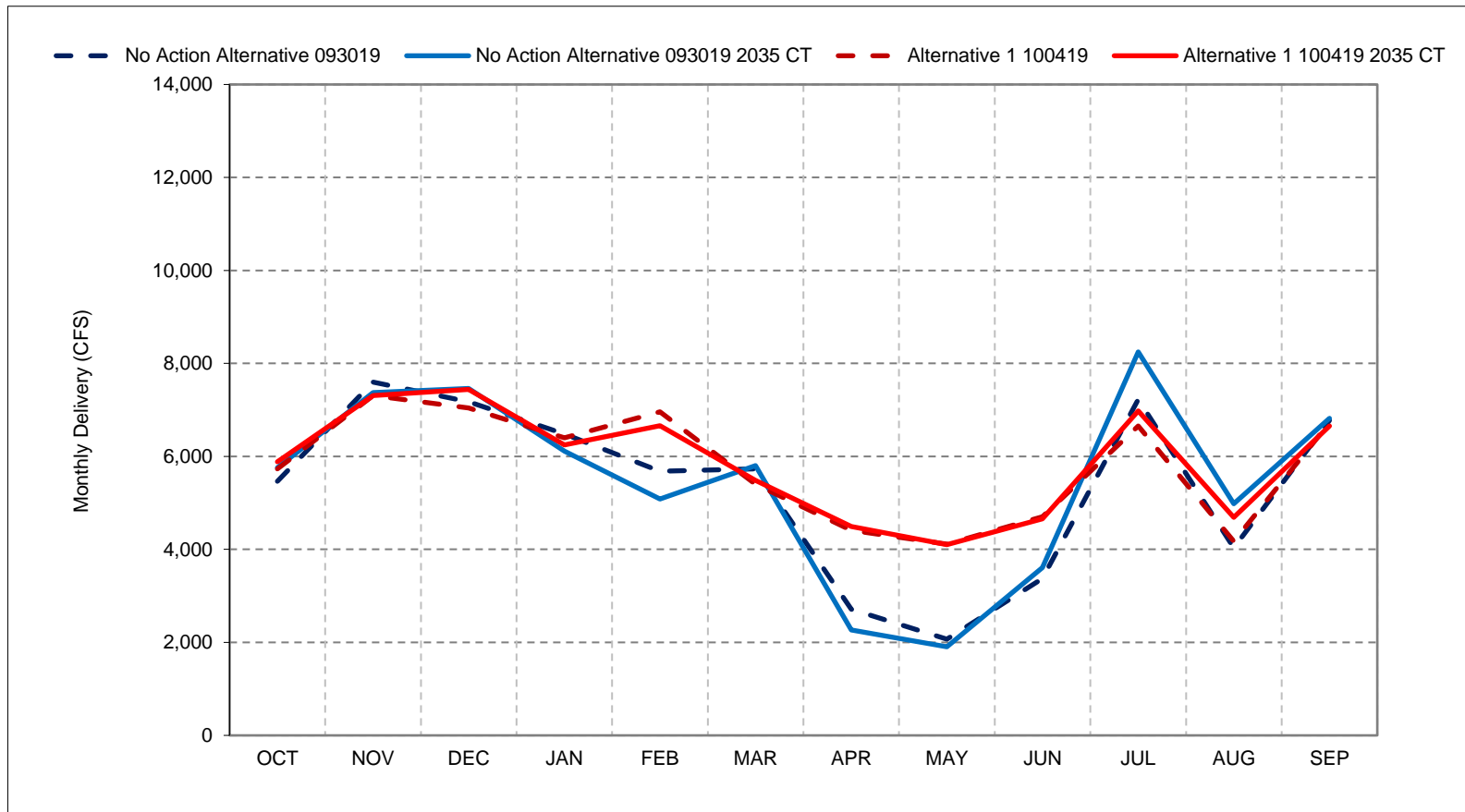
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-5. Total Delta Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

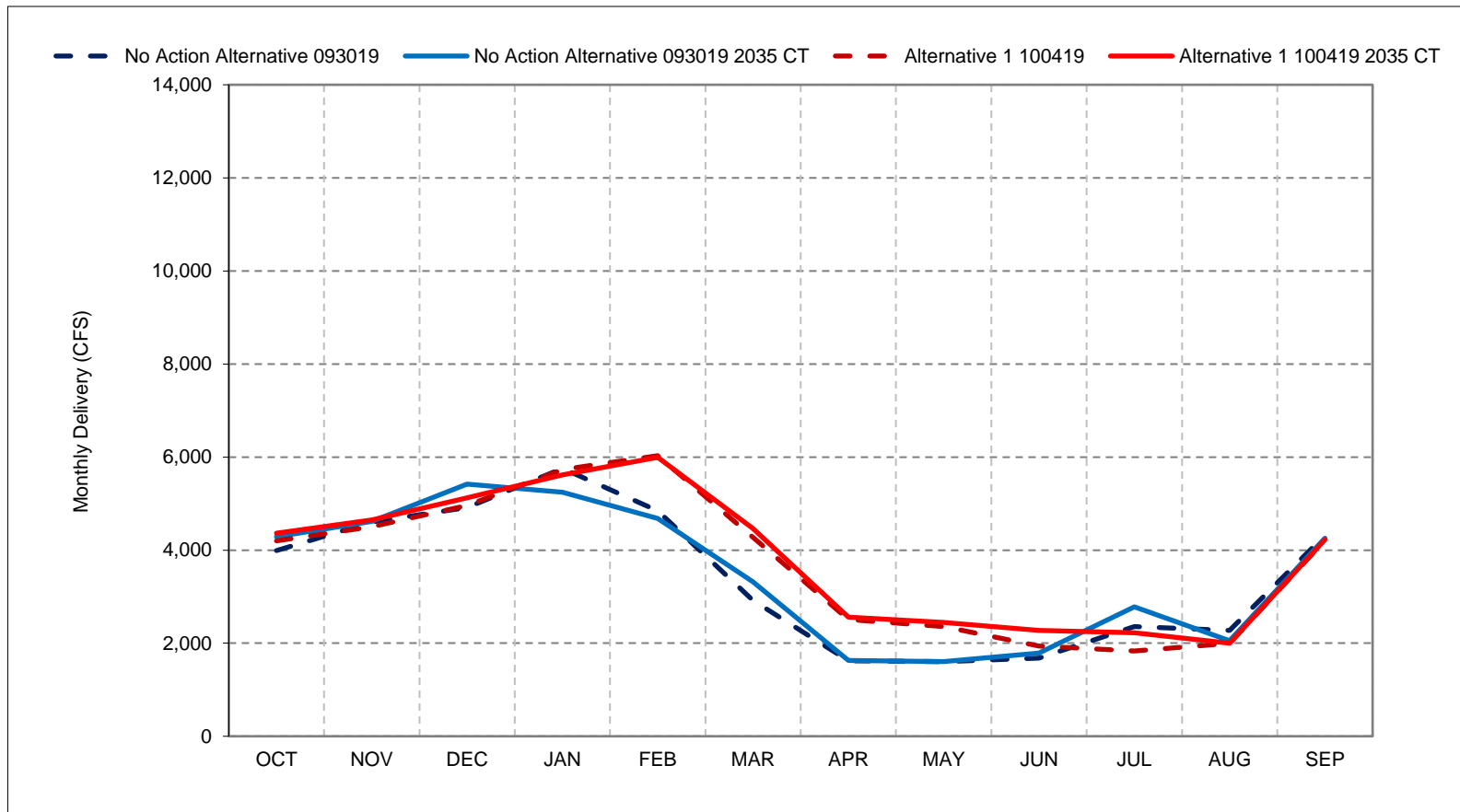
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 53-6. Total Delta Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

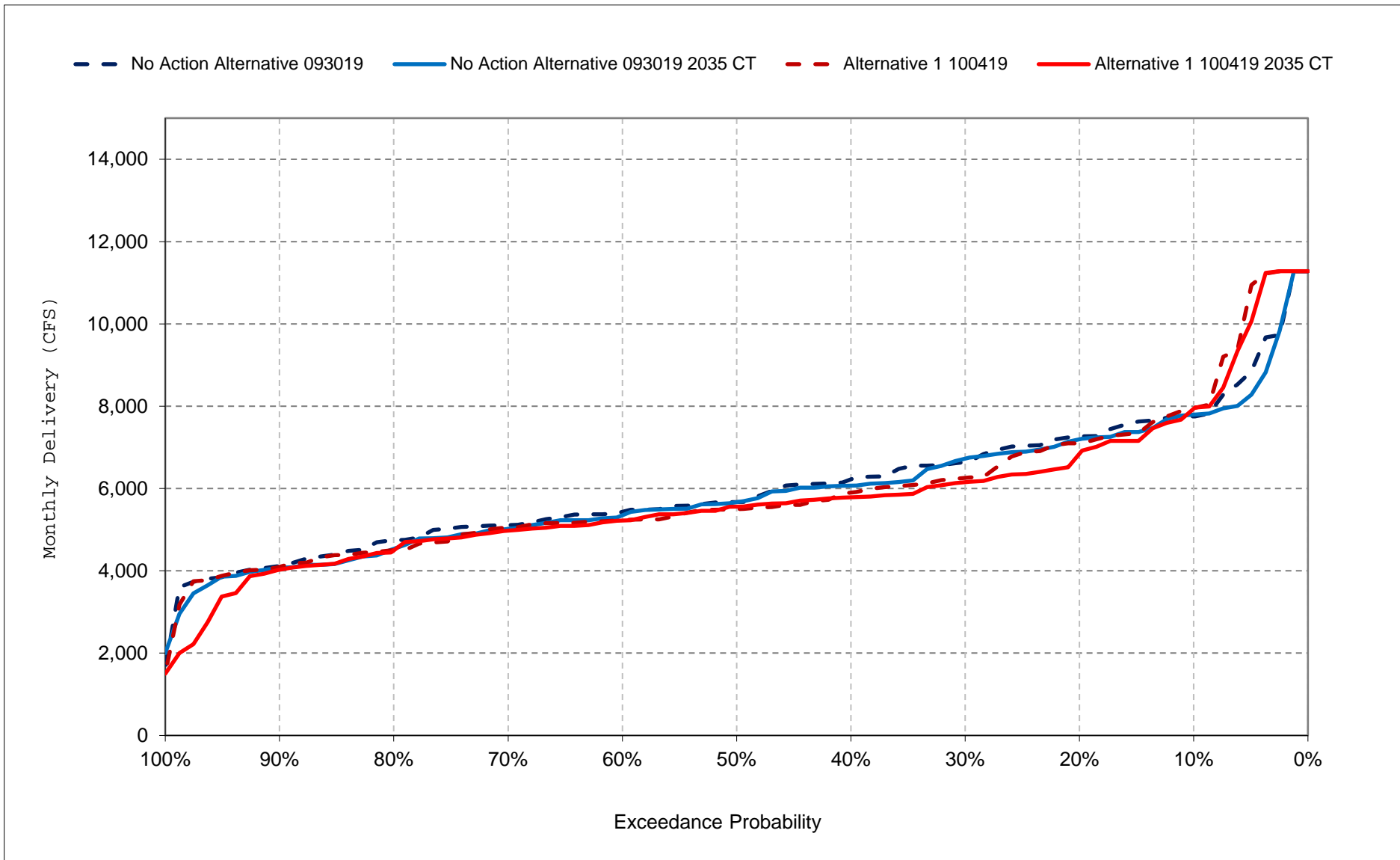
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

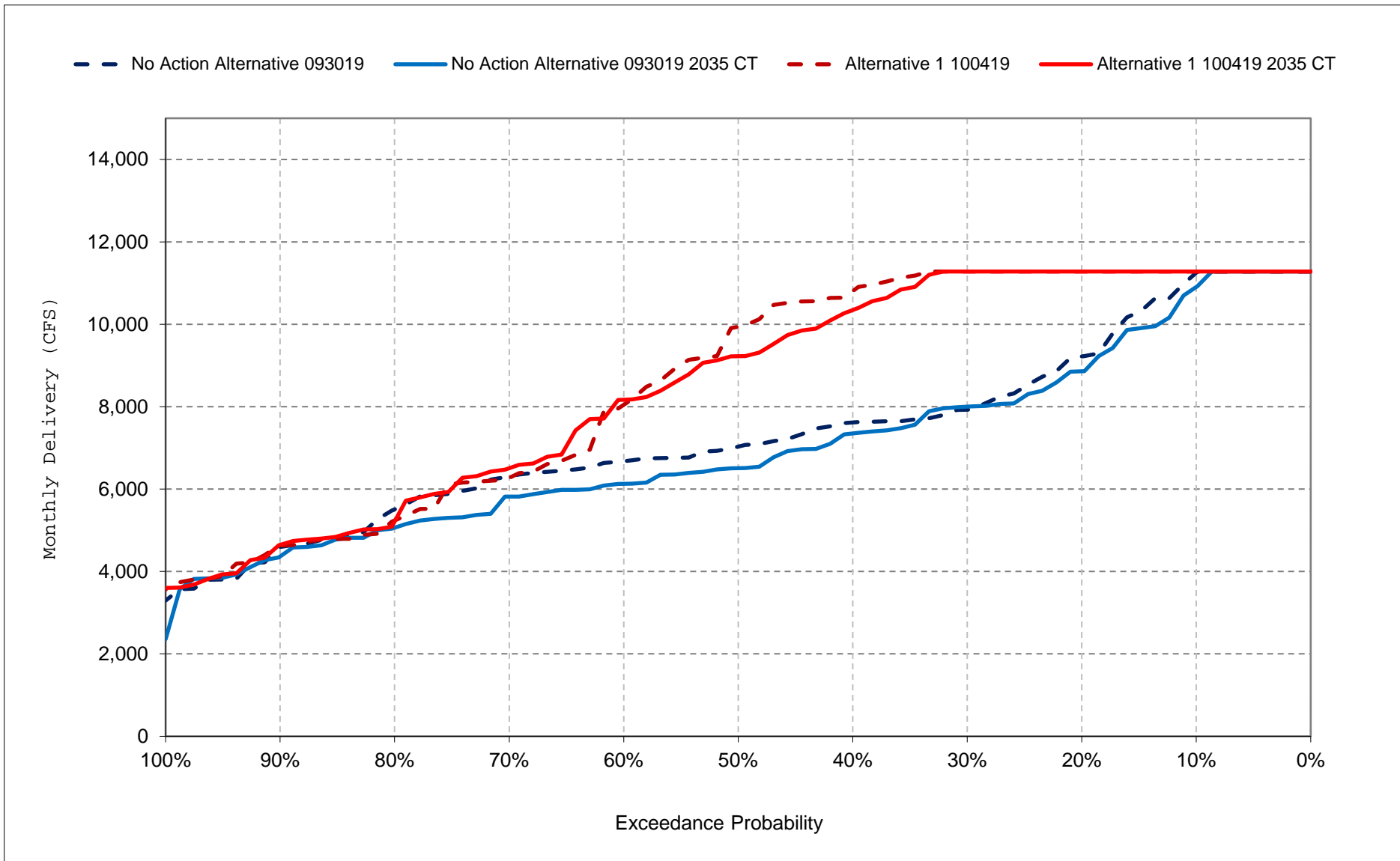
Figure 53-7. Total Delta Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

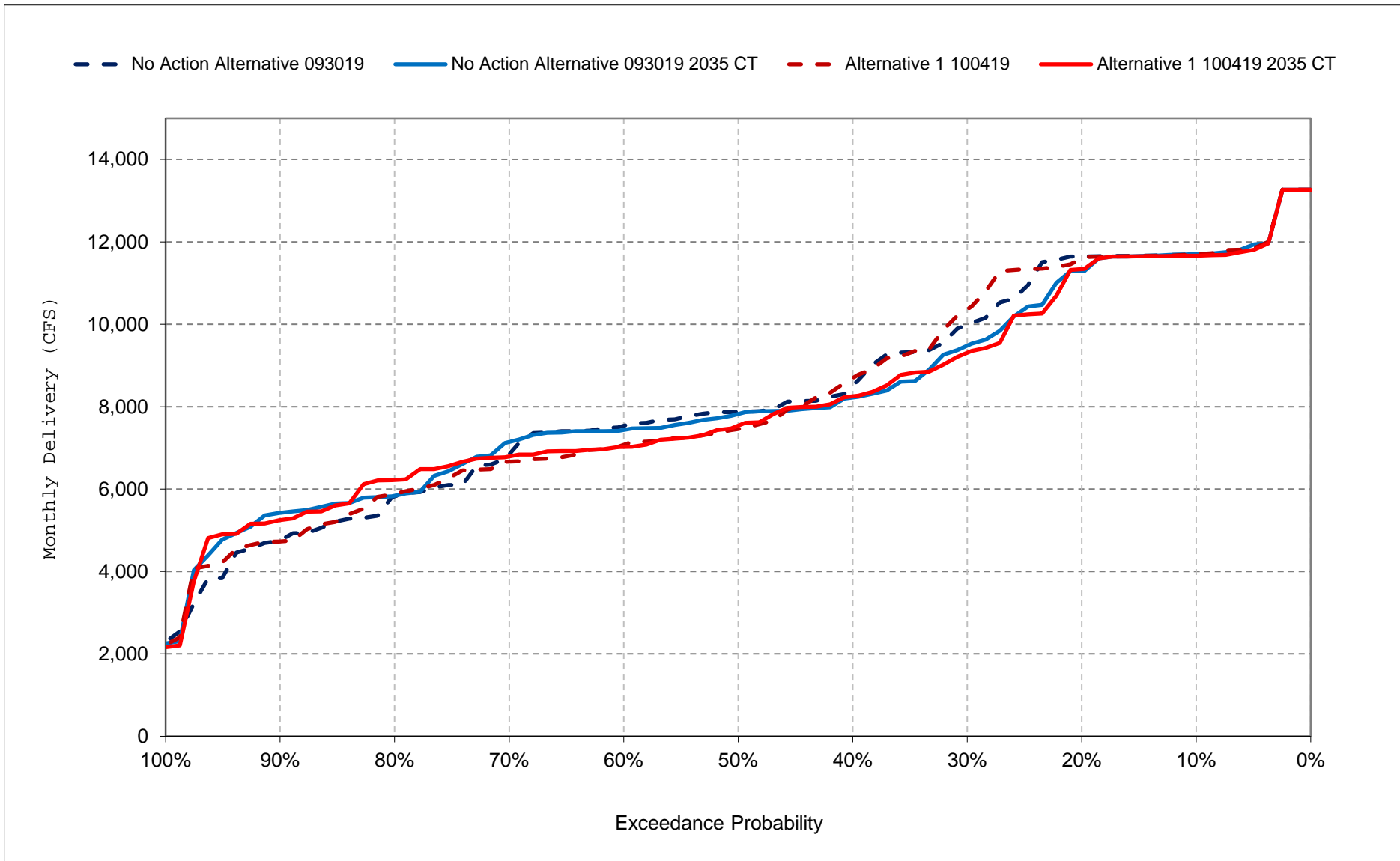
Figure 53-8. Total Delta Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

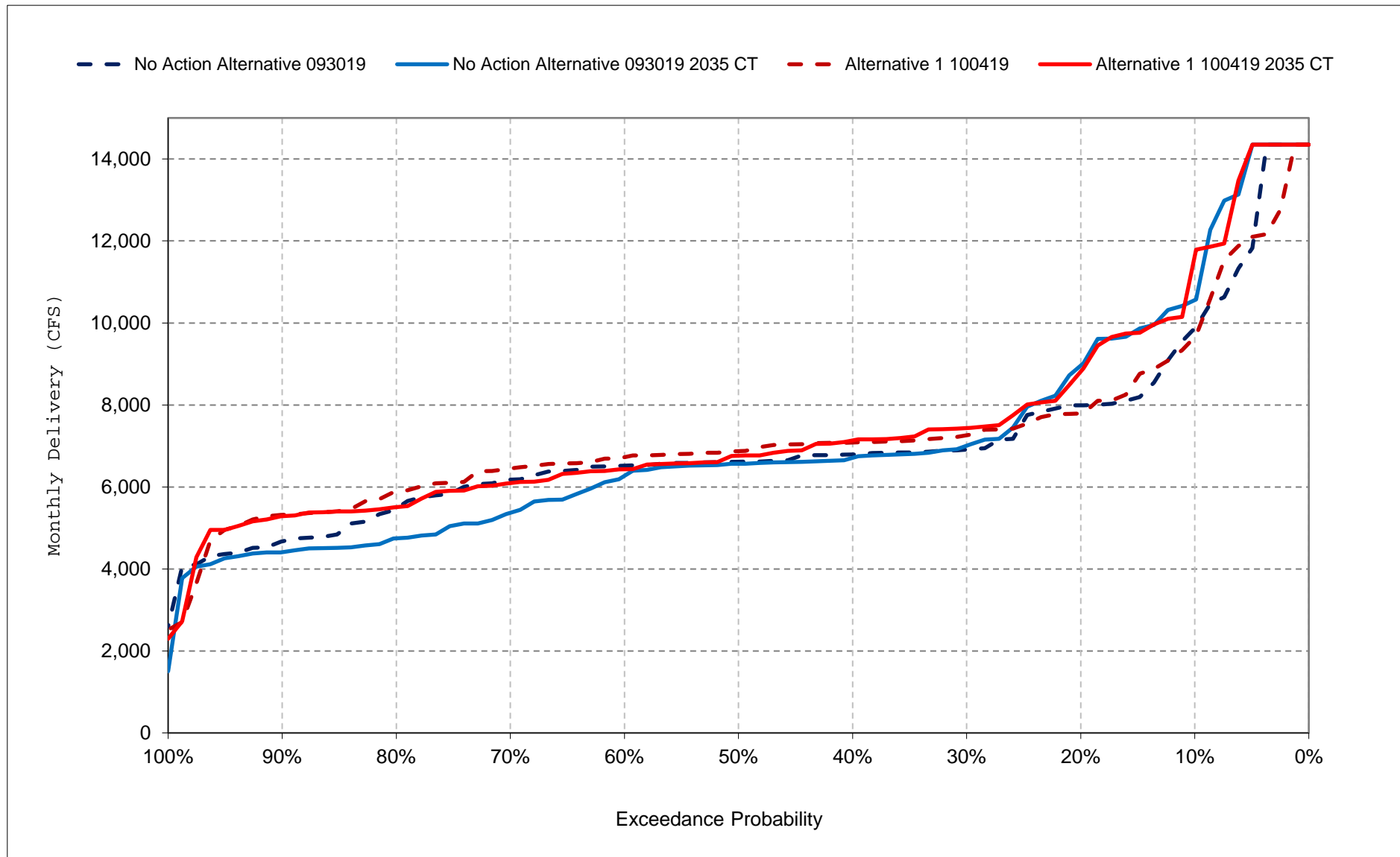
Figure 53-9. Total Delta Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

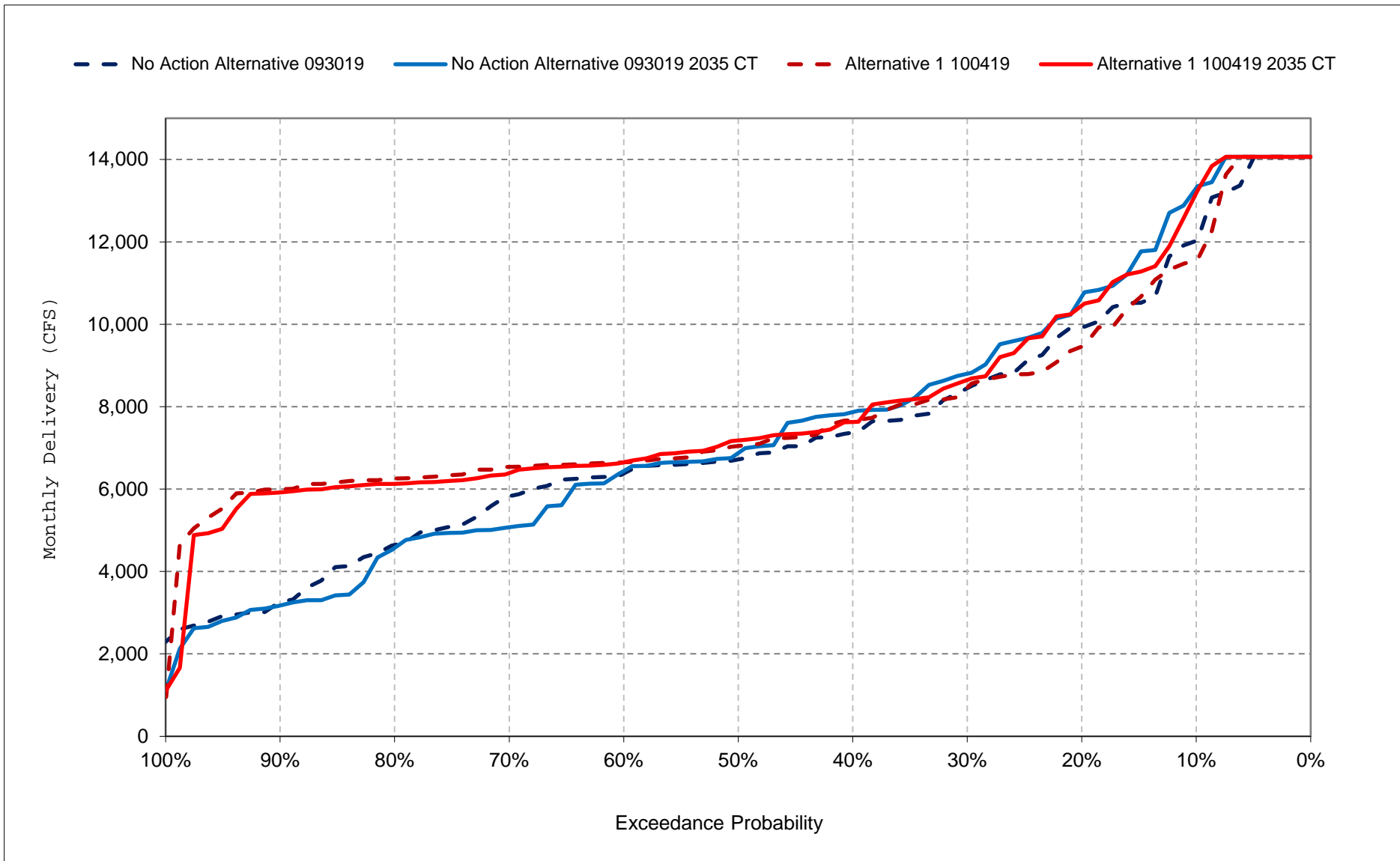
Figure 53-10. Total Delta Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

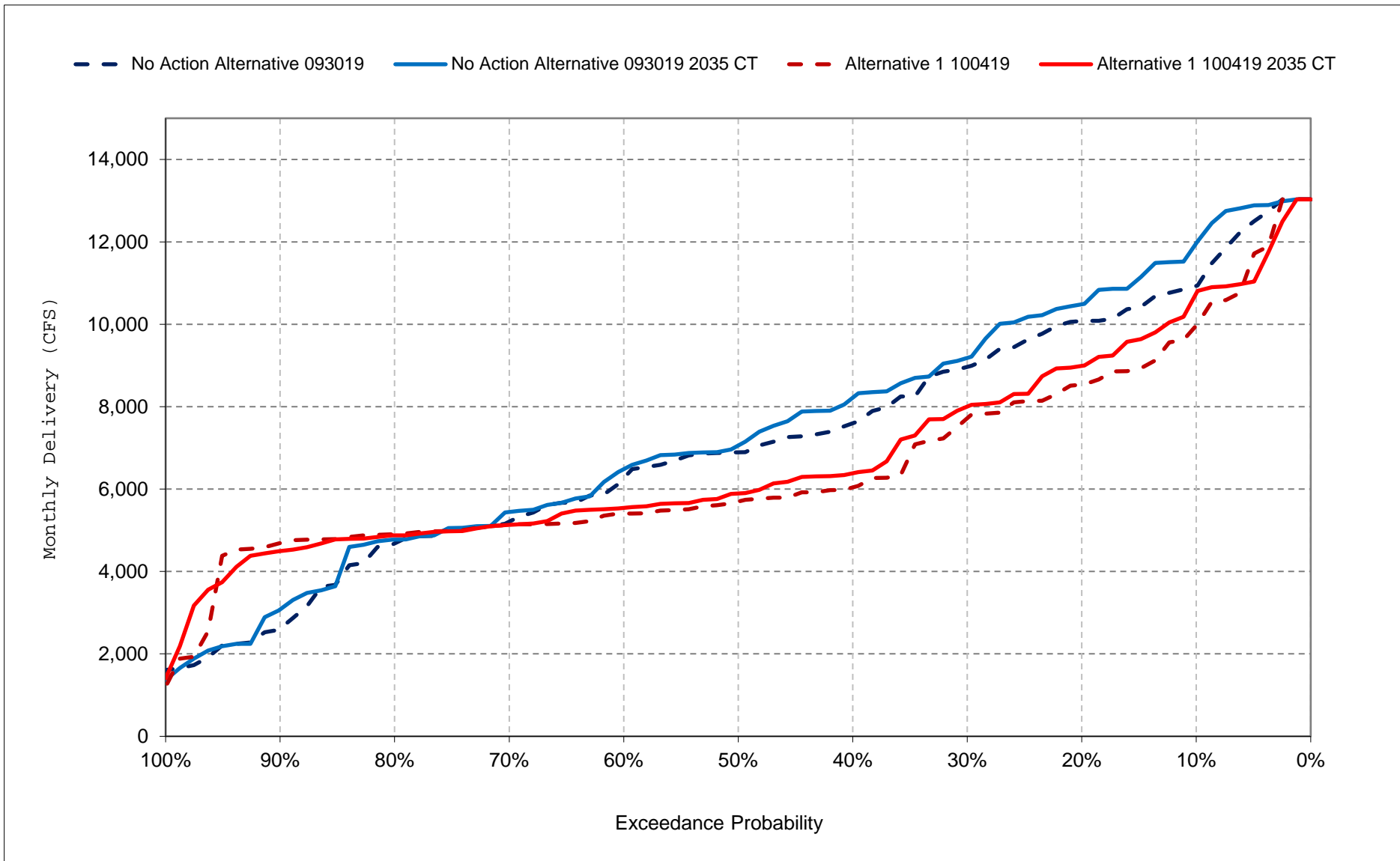
Figure 53-11. Total Delta Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

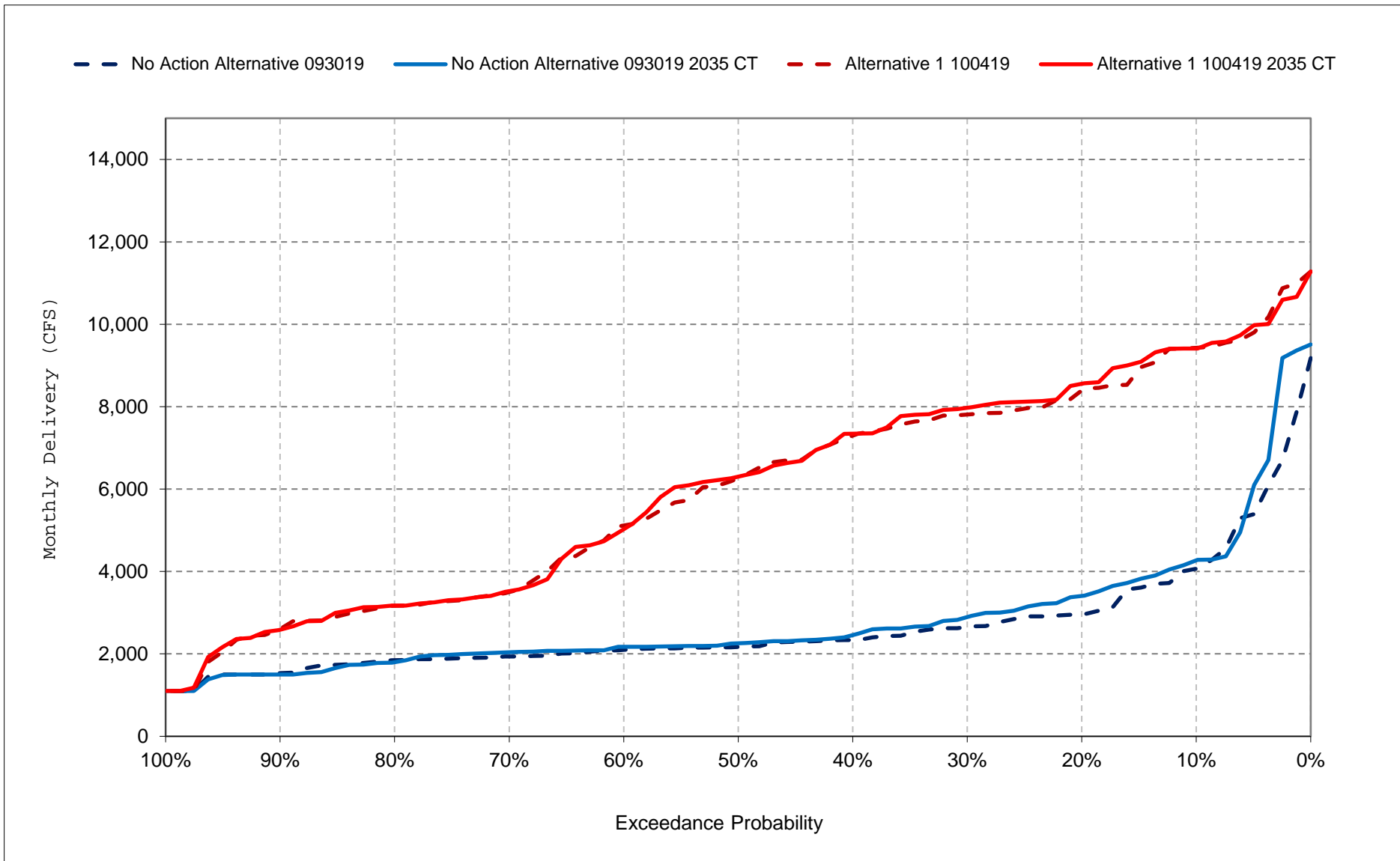
Figure 53-12. Total Delta Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

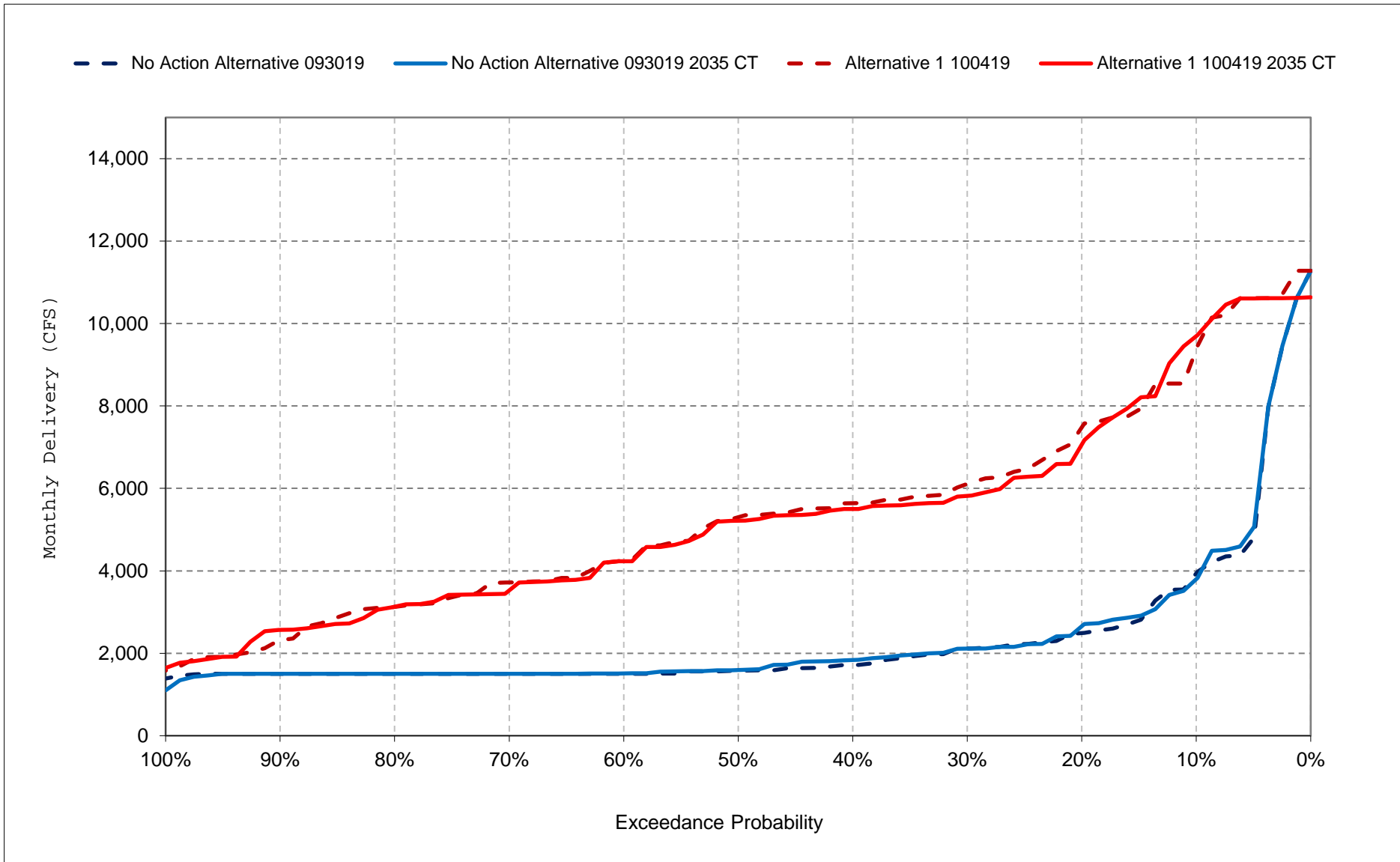
Figure 53-13. Total Delta Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

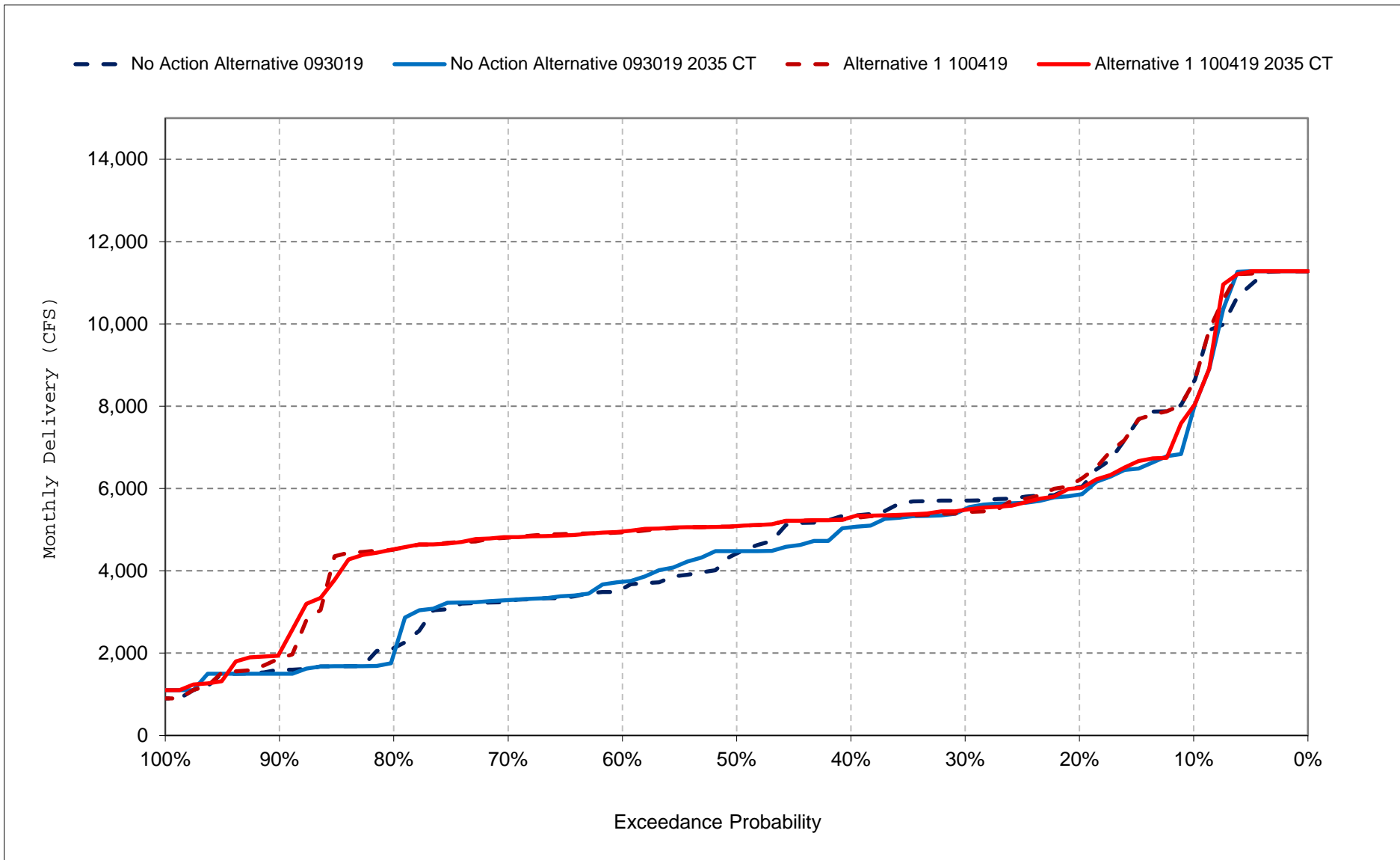
Figure 53-14. Total Delta Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

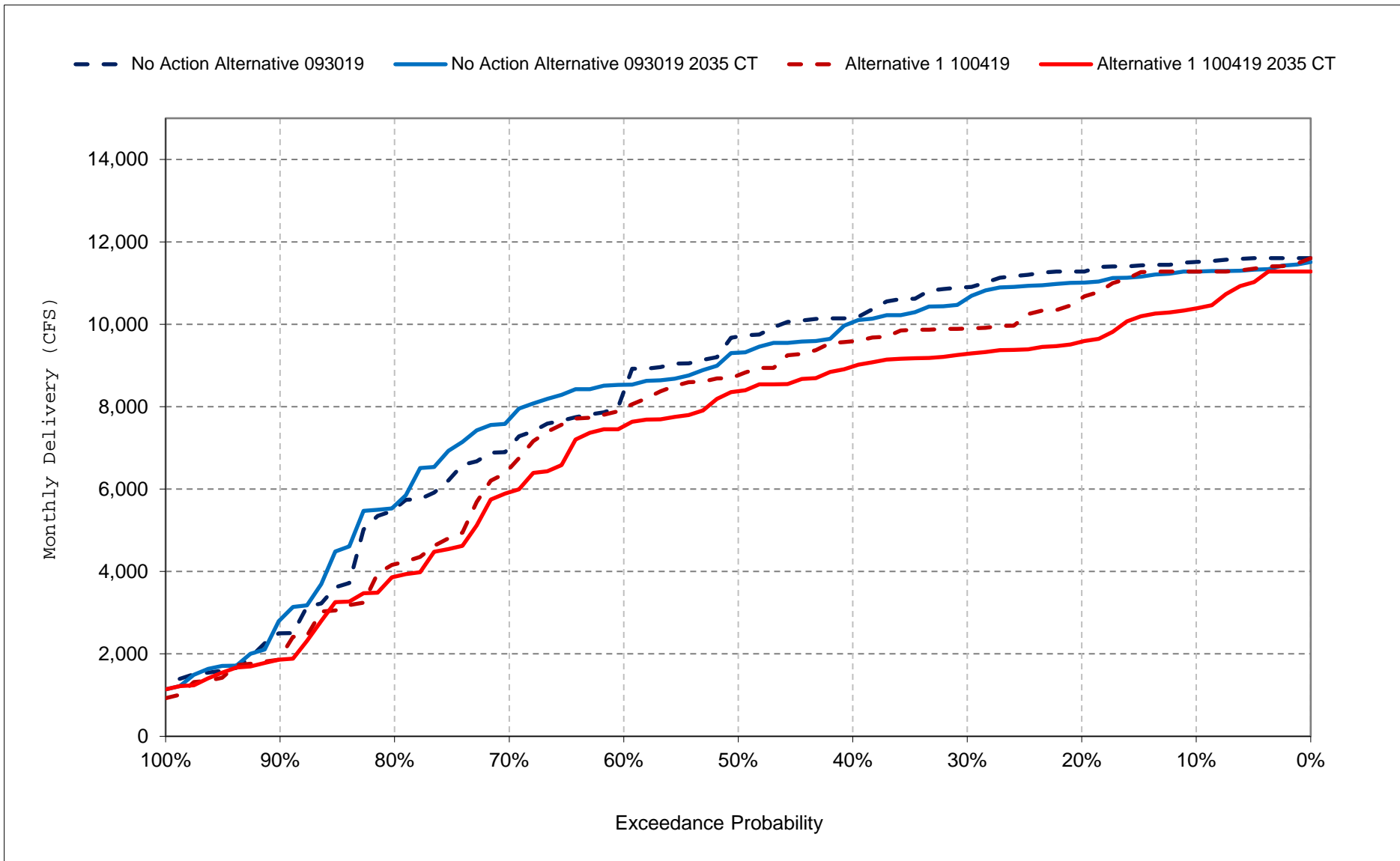
Figure 53-15. Total Delta Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

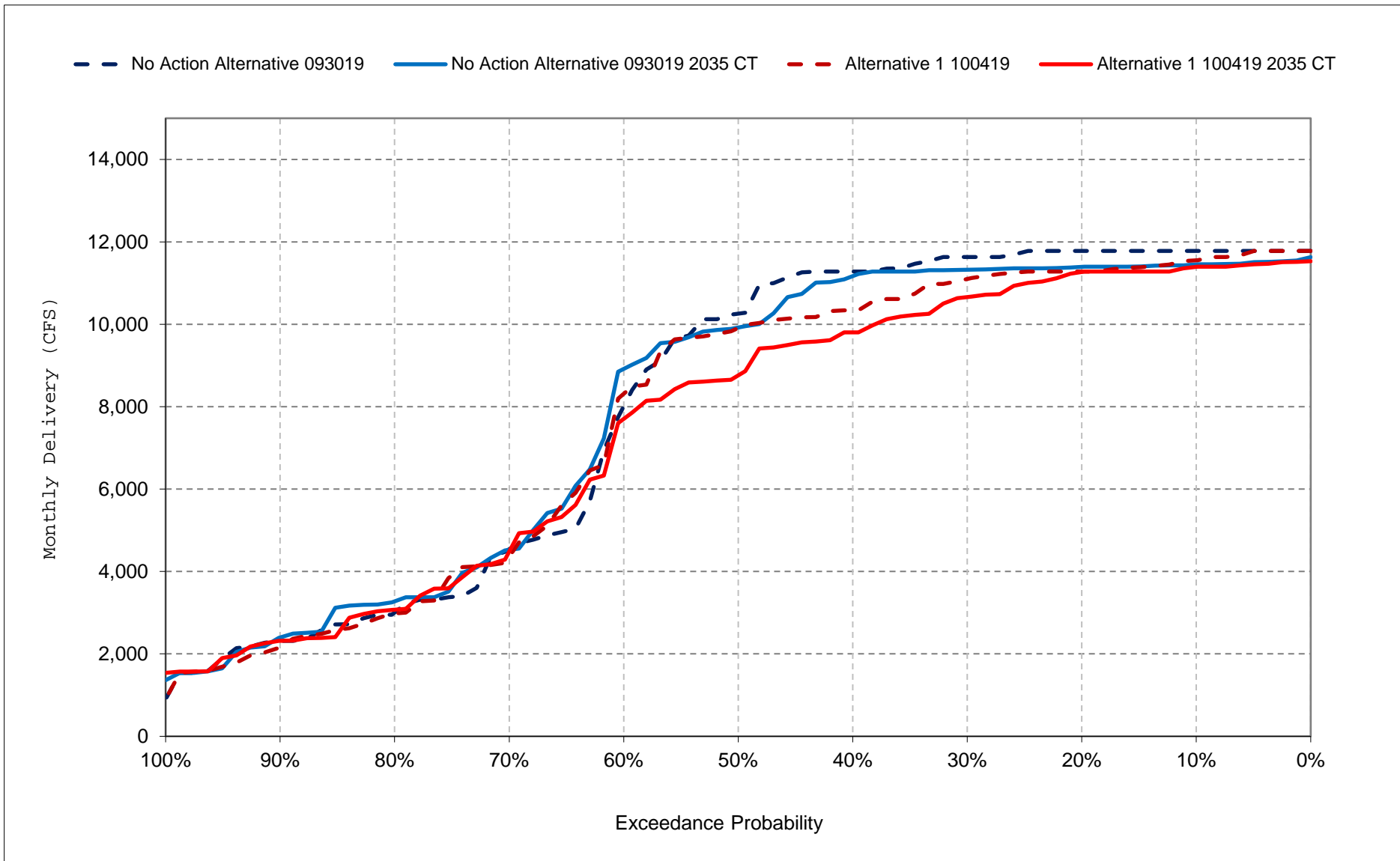
Figure 53-16. Total Delta Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

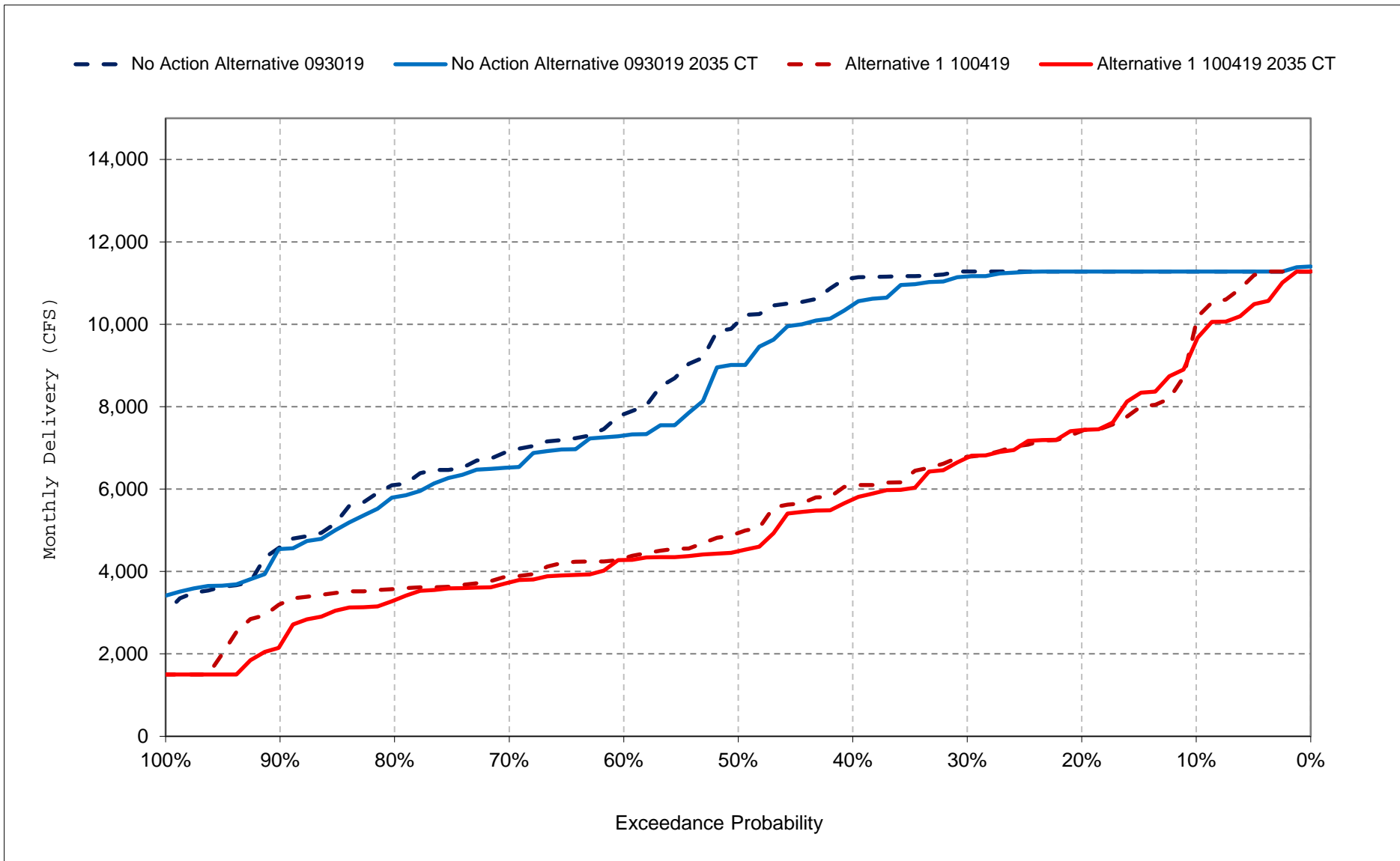
Figure 53-17. Total Delta Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 53-18. Total Delta Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-1. Jones PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	2,442	2,361	4,600	4,600	4,600	4,600
20%	4,265	4,600	4,600	4,600	4,600	4,470	1,831	1,493	3,976	4,600	4,600	4,600
30%	3,553	4,405	4,600	4,134	4,600	4,212	1,572	1,291	3,709	4,524	4,600	4,600
40%	3,409	3,953	4,600	4,077	4,299	4,002	1,401	1,176	3,336	4,171	4,591	4,600
50%	3,309	3,522	4,442	3,965	3,974	3,421	1,301	1,047	2,557	3,826	4,138	4,490
60%	3,005	3,039	3,917	3,859	3,742	3,095	1,241	962	2,206	3,150	3,727	4,230
70%	2,898	2,562	3,398	3,556	3,193	2,666	1,129	900	2,087	2,187	2,931	3,770
80%	2,641	2,134	2,716	3,070	2,620	2,220	973	900	1,427	1,796	2,381	3,281
90%	2,225	1,770	1,466	2,694	1,807	1,551	805	900	900	1,191	1,726	2,922
Long Term												
Full Simulation Period ^d	3,272	3,348	3,690	3,787	3,617	3,319	1,469	1,357	2,760	3,262	3,604	4,018
Water Year Types^{b,c}												
Wet (32%)	3,725	3,770	4,333	4,012	4,186	3,716	1,822	1,834	4,028	4,153	4,573	4,432
Above Normal (16%)	3,293	3,714	4,468	3,656	3,917	3,958	1,316	1,039	3,462	2,855	4,459	4,509
Below Normal (13%)	3,236	3,088	3,327	3,748	3,604	3,655	1,239	1,001	2,290	3,814	3,560	4,193
Dry (24%)	3,120	3,285	3,424	3,890	3,198	3,234	1,559	1,269	1,892	3,018	2,871	3,762
Critical (15%)	2,556	2,377	2,228	3,304	2,767	1,600	932	1,138	1,127	1,674	1,844	2,855

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	4,436	4,081	4,600	4,583	4,600	4,600
20%	3,752	4,600	4,600	4,586	4,600	4,581	3,913	3,881	3,904	3,964	4,600	4,557
30%	3,475	4,600	4,600	4,277	4,600	3,579	3,481	3,377	3,474	3,098	4,250	4,160
40%	3,257	4,600	4,396	4,216	4,279	3,301	3,253	3,217	3,205	2,893	3,823	3,620
50%	3,092	4,091	4,234	4,062	4,045	3,171	2,753	2,857	3,104	2,409	3,314	3,185
60%	2,980	3,327	4,015	3,938	3,943	3,009	2,354	2,568	2,885	2,003	3,029	3,018
70%	2,802	2,888	3,349	3,659	3,759	2,860	2,062	2,177	2,423	1,658	2,622	2,721
80%	2,491	2,499	2,780	3,206	3,597	2,580	1,487	1,887	2,006	1,181	2,294	2,170
90%	2,051	2,186	1,604	2,378	2,805	1,914	800	1,627	1,166	800	1,744	1,705
Long Term												
Full Simulation Period ^d	3,138	3,620	3,683	3,781	3,908	3,219	2,744	2,861	2,957	2,541	3,304	3,237
Water Year Types^{b,c}												
Wet (32%)	3,656	4,496	4,355	3,971	3,915	3,630	3,632	3,741	4,021	3,903	4,315	3,298
Above Normal (16%)	2,550	4,349	4,394	3,980	3,976	3,399	3,649	3,341	3,455	2,145	3,657	2,087
Below Normal (13%)	3,274	3,000	3,200	3,700	4,057	3,215	2,266	2,647	3,005	2,400	3,187	3,943
Dry (24%)	3,135	3,084	3,454	3,764	4,022	3,046	2,218	2,278	2,252	1,996	2,825	3,781
Critical (15%)	2,535	2,390	2,280	3,256	3,490	2,424	1,158	1,604	1,241	1,060	1,637	2,796

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	0	1,995	1,721	0	-17	0	0
20%	-513	0	0	-14	0	111	2,082	2,388	-72	-636	0	-43
30%	-78	195	0	143	0	-634	1,909	2,086	-235	-1,426	-350	-440
40%	-152	647	-204	139	-20	-701	1,852	2,041	-131	-1,278	-768	-980
50%	-217	569	-208	97	70	-250	1,453	1,810	548	-1,417	-824	-1,306
60%	-25	288	98	80	201	-86	1,112	1,607	679	-1,147	-698	-1,212
70%	-95	326	-50	103	566	195	934	1,277	337	-529	-309	-1,049
80%	-150	366	64	136	978	360	513	987	579	-615	-87	-1,110
90%	-174	415	139	-317	997	363	-5	727	266	-391	18	-1,217
Long Term												
Full Simulation Period ^d	-134	272	-7	-6	291	-100	1,275	1,505	197	-721	-300	-781
Water Year Types^{b,c}												
Wet (32%)	-69	726	22	-41	-271	-86	1,810	1,907	-7	-250	-258	-1,134
Above Normal (16%)	-743	636	-74	325	59	-559	2,333	2,302	-6	-710	-802	-2,422
Below Normal (13%)	37	-88	-128	-48	454	-441	1,027	1,646	715	-1,414	-373	-250
Dry (24%)	15	-201	31	-126	824	-188	658	1,009	360	-1,023	-46	19
Critical (15%)	-21	12	52	-48	722	824	226	466	113	-614	-207	-59

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT Q5 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 54-2. Jones PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,599	4,600	4,600	4,600	4,600	4,600	2,564	2,278	4,597	4,600	4,600	4,600
20%	4,236	4,364	4,600	4,600	4,600	4,600	1,937	1,632	3,900	4,595	4,600	4,600
30%	3,689	4,116	4,600	4,126	4,600	4,331	1,602	1,293	3,616	4,311	4,600	4,600
40%	3,482	3,856	4,600	3,979	4,469	4,078	1,434	1,164	3,279	3,973	4,480	4,575
50%	3,325	3,325	4,359	3,918	4,010	3,763	1,334	1,090	2,898	3,378	3,934	4,365
60%	3,196	2,988	4,112	3,484	3,520	3,167	1,247	975	2,397	2,877	3,110	3,877
70%	3,070	2,568	3,320	3,064	3,016	2,810	1,183	915	2,126	2,507	2,901	3,633
80%	2,920	2,278	2,822	2,820	2,389	2,140	1,041	900	1,484	1,773	2,389	3,307
90%	2,610	1,804	1,982	2,643	1,870	1,488	800	900	992	1,159	1,893	2,998
Long Term												
Full Simulation Period ^d	3,391	3,244	3,730	3,651	3,595	3,365	1,494	1,376	2,793	3,162	3,525	3,987
Water Year Types^{b,c}												
Wet (32%)	3,582	3,466	4,214	4,112	4,289	3,715	1,889	1,885	3,952	3,572	4,527	4,473
Above Normal (16%)	3,257	3,245	4,404	3,603	3,966	3,949	1,466	1,050	3,274	2,714	4,373	4,465
Below Normal (13%)	3,371	3,464	3,355	3,293	3,877	3,786	1,466	1,202	2,283	3,916	3,392	4,067
Dry (24%)	3,373	3,279	3,607	3,590	2,771	3,223	1,312	1,161	2,249	3,408	2,876	3,749
Critical (15%)	3,167	2,500	2,498	3,133	2,806	1,828	999	1,146	1,138	1,660	1,641	2,736

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,303	4,600	4,600	4,600	4,600	4,600	4,419	3,935	4,577	4,069	4,600	4,448
20%	3,744	4,600	4,600	4,600	4,600	4,537	3,913	3,616	3,623	3,451	4,600	3,938
30%	3,409	4,600	4,600	4,445	4,600	3,829	3,346	3,337	3,380	3,062	4,202	3,695
40%	3,206	4,600	4,429	4,191	4,395	3,514	3,032	3,116	3,246	2,708	3,613	3,365
50%	3,077	3,871	4,219	3,981	4,086	3,296	2,747	2,756	2,900	2,287	3,167	3,102
60%	3,013	3,462	4,058	3,821	3,908	3,040	2,577	2,472	2,526	2,093	2,947	2,925
70%	2,868	3,100	3,646	3,612	3,707	2,875	1,905	2,242	2,350	1,618	2,606	2,709
80%	2,737	2,603	2,909	3,241	3,621	2,607	1,492	1,984	1,843	1,164	2,146	1,798
90%	2,358	2,208	1,708	2,973	3,252	1,990	800	1,621	1,527	800	1,767	1,109
Long Term												
Full Simulation Period ^d	3,181	3,676	3,759	3,849	3,943	3,287	2,703	2,787	2,855	2,412	3,261	2,965
Water Year Types^{b,c}												
Wet (32%)	3,436	4,486	4,360	4,166	4,180	3,578	3,441	3,554	3,836	3,304	4,256	2,662
Above Normal (16%)	2,476	4,200	4,298	4,022	3,895	3,518	3,574	3,194	3,158	2,045	3,891	2,057
Below Normal (13%)	3,344	3,354	3,203	3,802	4,183	3,344	2,443	2,479	2,714	2,623	2,917	3,806
Dry (24%)	3,303	3,169	3,747	3,726	3,755	3,143	2,205	2,363	2,387	2,161	2,718	3,629
Critical (15%)	3,043	2,494	2,401	3,220	3,575	2,596	1,228	1,676	1,313	1,100	1,641	2,725

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-296	0	0	0	0	0	1,855	1,658	-19	-531	0	-152
20%	-493	236	0	0	0	-63	1,976	1,984	-276	-1,144	0	-662
30%	-280	484	0	319	0	-502	1,744	2,044	-236	-1,248	-398	-905
40%	-276	744	-171	212	-74	-564	1,598	1,952	-33	-1,265	-867	-1,210
50%	-248	547	-140	63	75	-467	1,413	1,666	2	-1,091	-768	-1,264
60%	-184	474	-54	336	388	-127	1,330	1,497	129	-784	-163	-952
70%	-202	532	326	548	692	65	722	1,327	224	-888	-294	-924
80%	-183	325	87	421	1,231	468	451	1,084	359	-609	-243	-1,509
90%	-252	405	-275	329	1,382	502	0	721	535	-359	-126	-1,889
Long Term												
Full Simulation Period ^d	-209	432	29	198	347	-78	1,209	1,411	62	-751	-265	-1,022
Water Year Types^{b,c}												
Wet (32%)	-147	1,020	146	54	-110	-137	1,552	1,668	-115	-268	-271	-1,810
Above Normal (16%)	-781	955	-106	419	-71	-430	2,107	2,144	-116	-669	-482	-2,408
Below Normal (13%)	-27	-110	-153	509	306	-442	977	1,277	430	-1,294	-474	-261
Dry (24%)	-70	-111	140	136	984	-81	893	1,201	137	-1,246	-158	-120
Critical (15%)	-124	-5	-96	86	770	767	229	530	175	-560	0	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-3. Jones PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	2,442	2,361	4,600	4,600	4,600	4,600
20%	4,265	4,600	4,600	4,600	4,600	4,470	1,831	1,493	3,976	4,600	4,600	4,600
30%	3,553	4,405	4,600	4,134	4,600	4,212	1,572	1,291	3,709	4,524	4,600	4,600
40%	3,409	3,953	4,600	4,077	4,299	4,002	1,401	1,176	3,336	4,171	4,591	4,600
50%	3,309	3,522	4,442	3,965	3,974	3,421	1,301	1,047	2,557	3,826	4,138	4,490
60%	3,005	3,039	3,917	3,859	3,742	3,095	1,241	962	2,206	3,150	3,727	4,230
70%	2,898	2,562	3,398	3,556	3,193	2,666	1,129	900	2,087	2,187	2,931	3,770
80%	2,641	2,134	2,716	3,070	2,620	2,220	973	900	1,427	1,796	2,381	3,281
90%	2,225	1,770	1,466	2,694	1,807	1,551	805	900	900	1,191	1,726	2,922
Long Term												
Full Simulation Period ^d	3,272	3,348	3,690	3,787	3,617	3,319	1,469	1,357	2,760	3,262	3,604	4,018
Water Year Types ^{b,c}												
Wet (32%)	3,725	3,770	4,333	4,012	4,186	3,716	1,822	1,834	4,028	4,153	4,573	4,432
Above Normal (16%)	3,293	3,714	4,468	3,656	3,917	3,958	1,316	1,039	3,462	2,855	4,459	4,509
Below Normal (13%)	3,236	3,088	3,327	3,748	3,604	3,655	1,239	1,001	2,290	3,814	3,560	4,193
Dry (24%)	3,120	3,285	3,424	3,890	3,198	3,234	1,559	1,269	1,892	3,018	2,871	3,762
Critical (15%)	2,556	2,377	2,228	3,304	2,767	1,600	932	1,138	1,127	1,674	1,844	2,855

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,599	4,600	4,600	4,600	4,600	4,600	2,564	2,278	4,597	4,600	4,600	4,600
20%	4,236	4,364	4,600	4,600	4,600	4,600	1,937	1,632	3,900	4,595	4,600	4,600
30%	3,689	4,116	4,600	4,126	4,600	4,331	1,602	1,293	3,616	4,311	4,600	4,600
40%	3,482	3,856	4,600	3,979	4,469	4,078	1,434	1,164	3,279	3,973	4,480	4,575
50%	3,325	3,325	4,359	3,918	4,010	3,763	1,334	1,090	2,898	3,378	3,934	4,365
60%	3,196	2,988	4,112	3,484	3,520	3,167	1,247	975	2,397	2,877	3,110	3,877
70%	3,070	2,568	3,320	3,064	3,016	2,810	1,183	915	2,126	2,507	2,901	3,633
80%	2,920	2,278	2,822	2,820	2,389	2,140	1,041	900	1,484	1,773	2,389	3,307
90%	2,610	1,804	1,982	2,643	1,870	1,488	800	900	992	1,159	1,893	2,998
Long Term												
Full Simulation Period ^d	3,391	3,244	3,730	3,651	3,595	3,365	1,494	1,376	2,793	3,162	3,525	3,987
Water Year Types ^{b,c}												
Wet (32%)	3,582	3,466	4,214	4,112	4,289	3,715	1,889	1,885	3,952	3,572	4,527	4,473
Above Normal (16%)	3,257	3,245	4,404	3,603	3,966	3,949	1,466	1,050	3,274	2,714	4,373	4,465
Below Normal (13%)	3,371	3,464	3,355	3,293	3,877	3,786	1,466	1,202	2,283	3,916	3,392	4,067
Dry (24%)	3,373	3,279	3,607	3,590	2,771	3,223	1,312	1,161	2,249	3,408	2,876	3,749
Critical (15%)	3,167	2,500	2,498	3,133	2,806	1,828	999	1,146	1,138	1,660	1,641	2,736

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-1	0	0	0	0	0	122	-83	-3	0	0	0
20%	-29	-236	0	0	0	130	106	139	-77	-5	0	0
30%	136	-289	0	-8	0	119	30	2	-93	-214	0	0
40%	73	-97	0	-98	170	76	33	-12	-58	-198	-112	-25
50%	16	-197	-84	-47	36	342	33	42	341	-449	-203	-125
60%	191	-51	195	-374	-222	72	6	13	191	-274	-617	-353
70%	172	7	-78	-492	-178	144	54	15	39	320	-31	-137
80%	280	145	106	-250	-230	-80	68	0	57	-23	8	26
90%	385	33	516	-51	63	-63	-5	0	92	-32	167	76
Long Term												
Full Simulation Period ^d	118	-104	40	-136	-21	46	25	20	34	-100	-79	-32
Water Year Types ^{b,c}												
Wet (32%)	-142	-305	-119	100	103	-1	67	51	-77	-581	-45	40
Above Normal (16%)	-36	-469	-64	-53	50	-10	150	11	-188	-140	-86	-44
Below Normal (13%)	135	377	28	-455	274	131	228	201	-7	102	-168	-126
Dry (24%)	253	-6	183	-300	-427	-11	-248	-107	357	389	5	-13
Critical (15%)	611	122	270	-170	38	229	67	8	11	-14	-203	-119

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 54-4. Jones PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,600	4,600	4,600	4,600	4,600	4,600	4,436	4,081	4,600	4,583	4,600	4,600
20%	3,752	4,600	4,600	4,586	4,600	4,581	3,913	3,881	3,904	3,964	4,600	4,557
30%	3,475	4,600	4,600	4,277	4,600	3,579	3,481	3,377	3,474	3,098	4,250	4,160
40%	3,257	4,600	4,396	4,216	4,279	3,301	3,253	3,217	3,205	2,893	3,823	3,620
50%	3,092	4,091	4,234	4,062	4,045	3,171	2,753	2,857	3,104	2,409	3,314	3,185
60%	2,980	3,327	4,015	3,938	3,943	3,009	2,354	2,568	2,885	2,003	3,029	3,018
70%	2,802	2,888	3,349	3,659	3,759	2,860	2,062	2,177	2,423	1,658	2,622	2,721
80%	2,491	2,499	2,780	3,206	3,597	2,580	1,487	1,887	2,006	1,181	2,294	2,170
90%	2,051	2,186	1,604	2,378	2,805	1,914	800	1,627	1,166	800	1,744	1,705
Long Term												
Full Simulation Period ^d	3,138	3,620	3,683	3,781	3,908	3,219	2,744	2,861	2,957	2,541	3,304	3,237
Water Year Types ^{b,c}												
Wet (32%)	3,656	4,496	4,355	3,971	3,915	3,630	3,632	3,741	4,021	3,903	4,315	3,298
Above Normal (16%)	2,550	4,349	4,394	3,980	3,976	3,399	3,649	3,341	3,455	2,145	3,657	2,087
Below Normal (13%)	3,274	3,000	3,200	3,700	4,057	3,215	2,266	2,647	3,005	2,400	3,187	3,943
Dry (24%)	3,135	3,084	3,454	3,764	4,022	3,046	2,218	2,278	2,252	1,996	2,825	3,781
Critical (15%)	2,535	2,390	2,280	3,256	3,490	2,424	1,158	1,604	1,241	1,060	1,637	2,796

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,303	4,600	4,600	4,600	4,600	4,600	4,419	3,935	4,577	4,069	4,600	4,448
20%	3,744	4,600	4,600	4,600	4,600	4,537	3,913	3,616	3,623	3,451	4,600	3,938
30%	3,409	4,600	4,600	4,445	4,600	3,829	3,346	3,337	3,380	3,062	4,202	3,695
40%	3,206	4,600	4,429	4,191	4,395	3,514	3,032	3,116	3,246	2,708	3,613	3,365
50%	3,077	3,871	4,219	3,981	4,086	3,296	2,747	2,756	2,900	2,287	3,167	3,102
60%	3,013	3,462	4,058	3,821	3,908	3,040	2,577	2,472	2,526	2,093	2,947	2,925
70%	2,868	3,100	3,646	3,612	3,707	2,875	1,905	2,242	2,350	1,618	2,606	2,709
80%	2,737	2,603	2,909	3,241	3,621	2,607	1,492	1,984	1,843	1,164	2,146	1,798
90%	2,358	2,208	1,708	2,973	3,252	1,990	800	1,621	1,527	800	1,767	1,109
Long Term												
Full Simulation Period ^d	3,181	3,676	3,759	3,849	3,943	3,287	2,703	2,787	2,855	2,412	3,261	2,965
Water Year Types ^{b,c}												
Wet (32%)	3,436	4,486	4,360	4,166	4,180	3,578	3,441	3,554	3,836	3,304	4,256	2,662
Above Normal (16%)	2,476	4,200	4,298	4,022	3,895	3,518	3,574	3,194	3,158	2,045	3,891	2,057
Below Normal (13%)	3,344	3,354	3,203	3,802	4,183	3,344	2,443	2,479	2,714	2,623	2,917	3,806
Dry (24%)	3,303	3,169	3,747	3,726	3,755	3,143	2,205	2,363	2,387	2,161	2,718	3,629
Critical (15%)	3,043	2,494	2,401	3,220	3,575	2,596	1,228	1,676	1,313	1,100	1,641	2,725

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-297	0	0	0	0	0	-18	-146	-23	-514	0	-152
20%	-8	0	0	14	0	-44	0	-265	-281	-514	0	-619
30%	-66	0	0	168	0	250	-135	-40	-93	-36	-48	-465
40%	-50	0	32	-25	116	213	-222	-101	40	-184	-210	-256
50%	-15	-219	-15	-81	41	125	-6	-102	-205	-123	-147	-83
60%	33	135	43	-118	-35	31	224	-96	-359	90	-82	-93
70%	66	213	297	-47	-52	14	-157	65	-73	-39	-16	-13
80%	246	104	129	35	23	27	6	98	-163	-17	-149	-372
90%	307	23	103	595	447	76	0	-6	361	0	23	-596
Long Term												
Full Simulation Period ^d	43	56	76	68	35	68	-42	-74	-102	-130	-43	-272
Water Year Types ^{b,c}												
Wet (32%)	-220	-11	5	195	264	-53	-191	-188	-185	-599	-59	-636
Above Normal (16%)	-74	-150	-96	42	-81	119	-76	-147	-298	-100	234	-30
Below Normal (13%)	71	354	3	102	126	130	177	-168	-292	223	-269	-137
Dry (24%)	168	85	292	-37	-267	97	-13	85	134	166	-107	-152
Critical (15%)	507	104	122	-36	86	172	70	72	72	40	4	-71

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

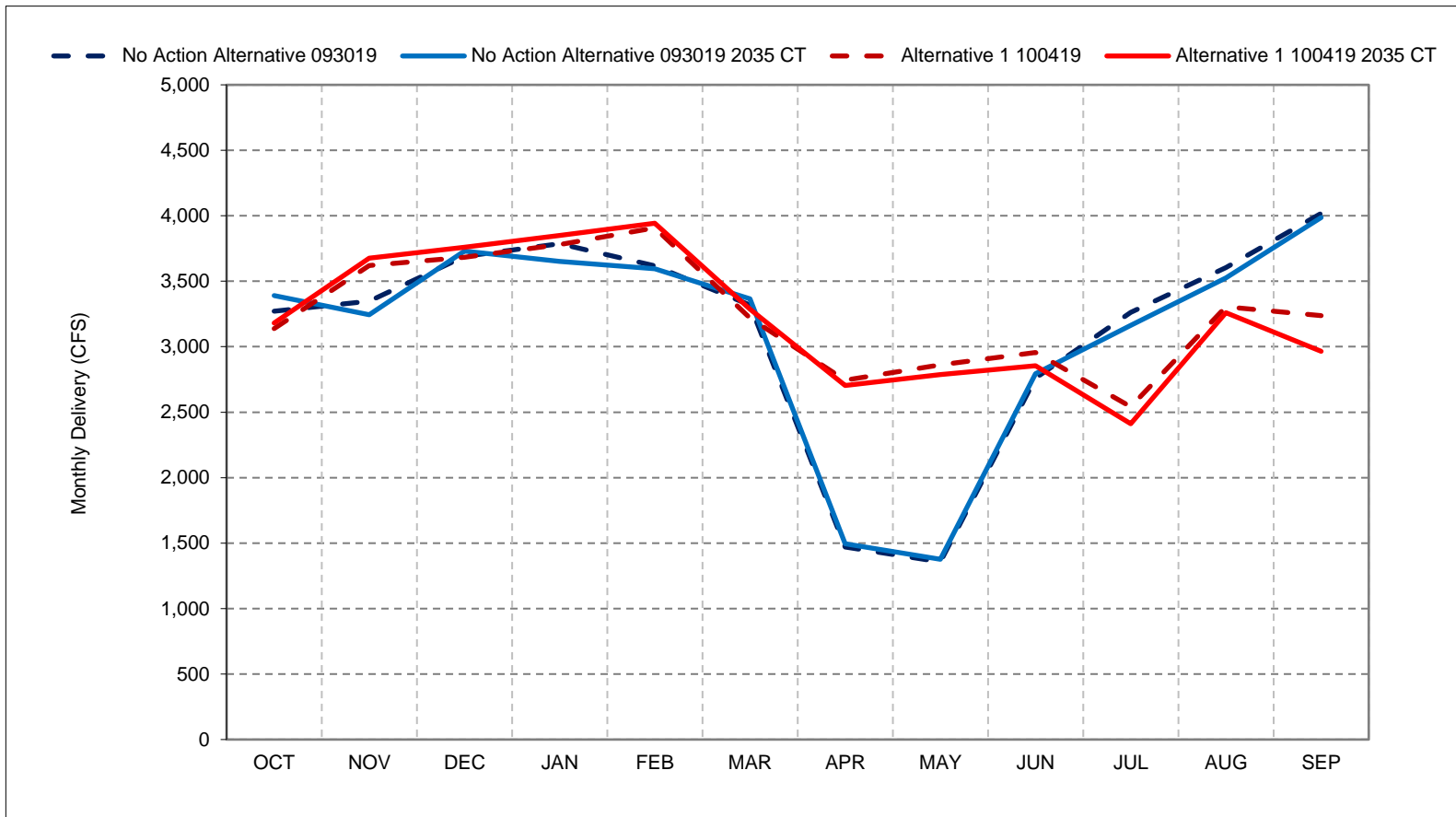
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 54-1. Jones PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

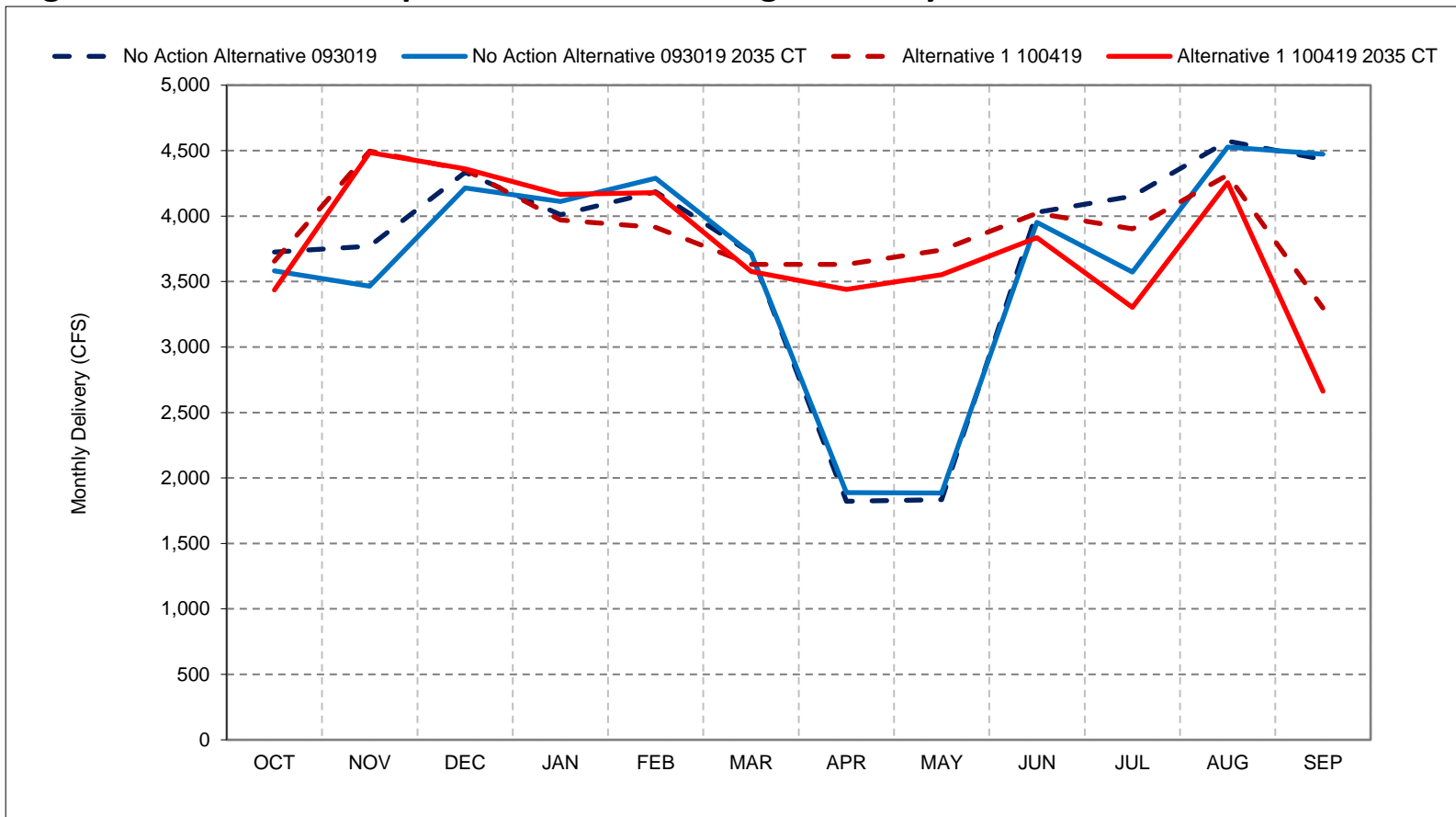
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-2. Jones PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

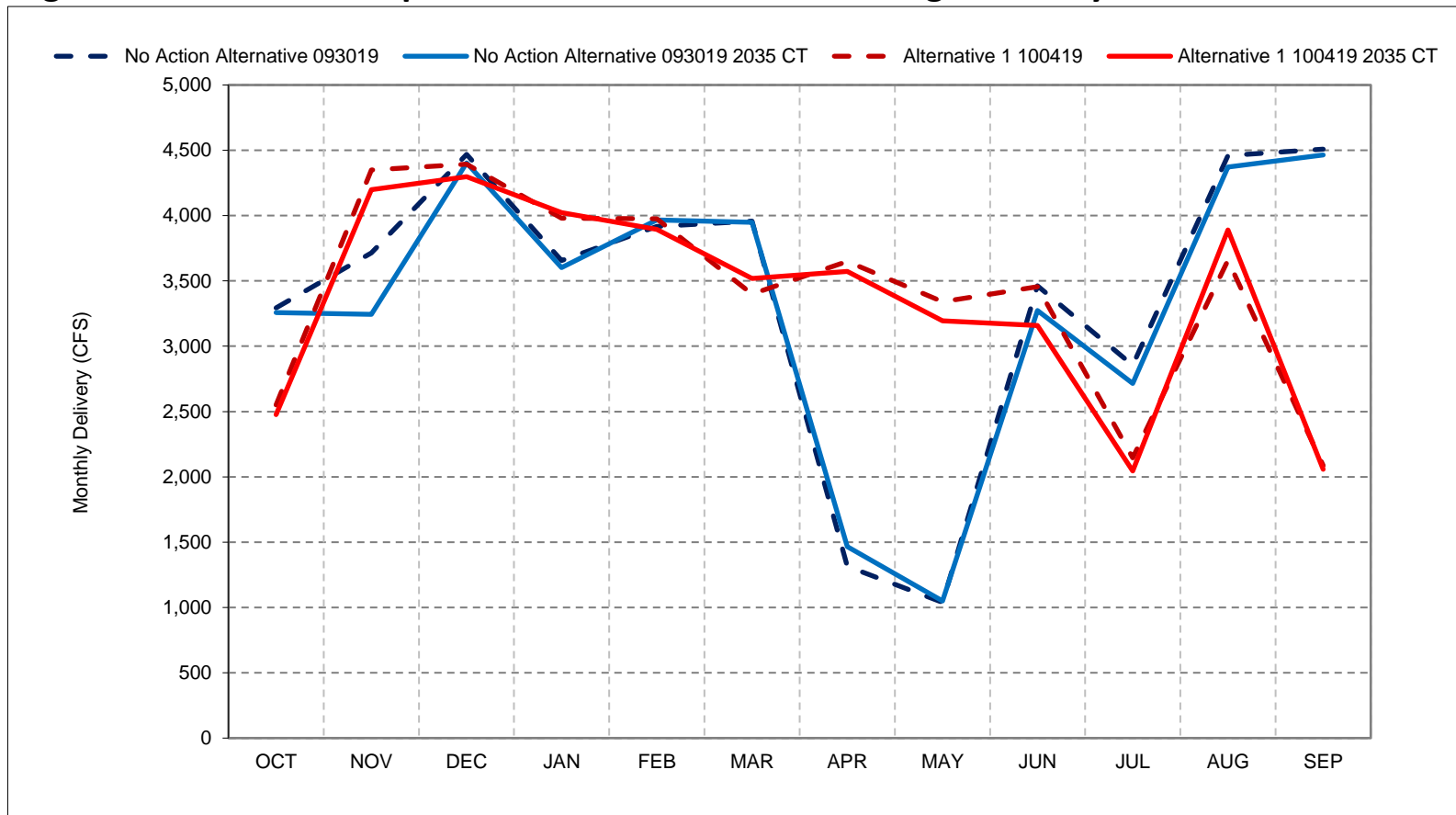
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-3. Jones PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

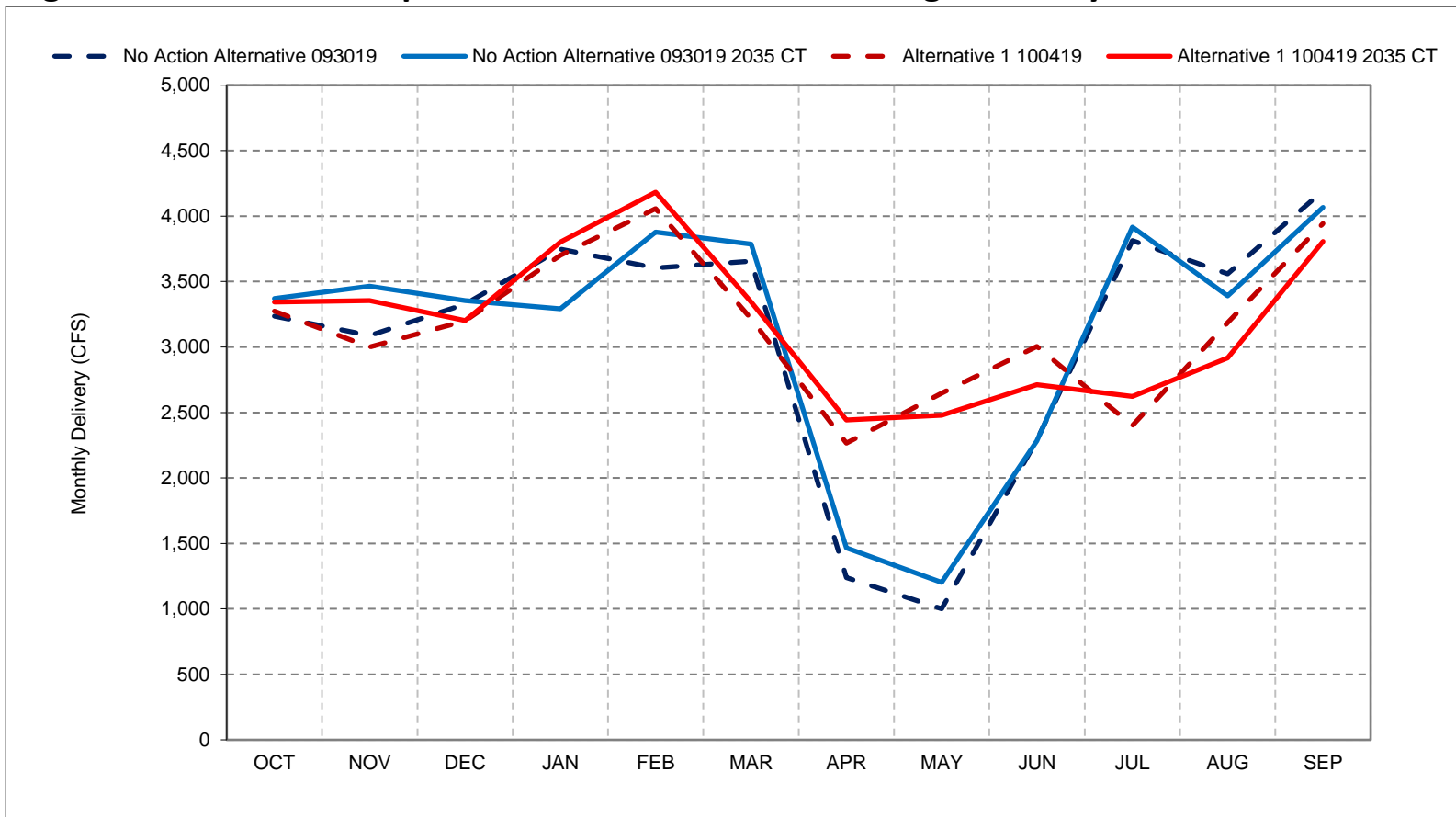
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-4. Jones PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

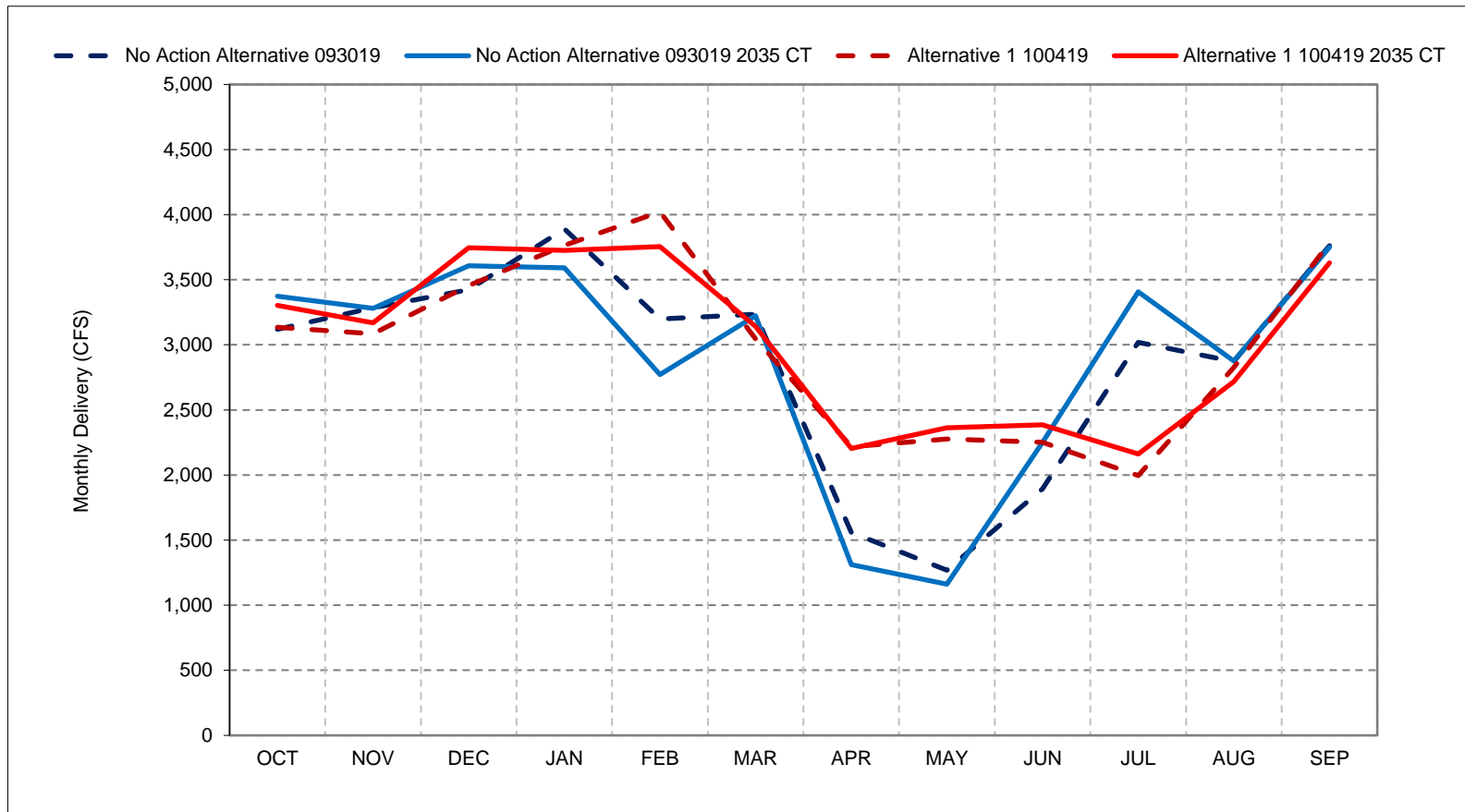
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-5. Jones PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

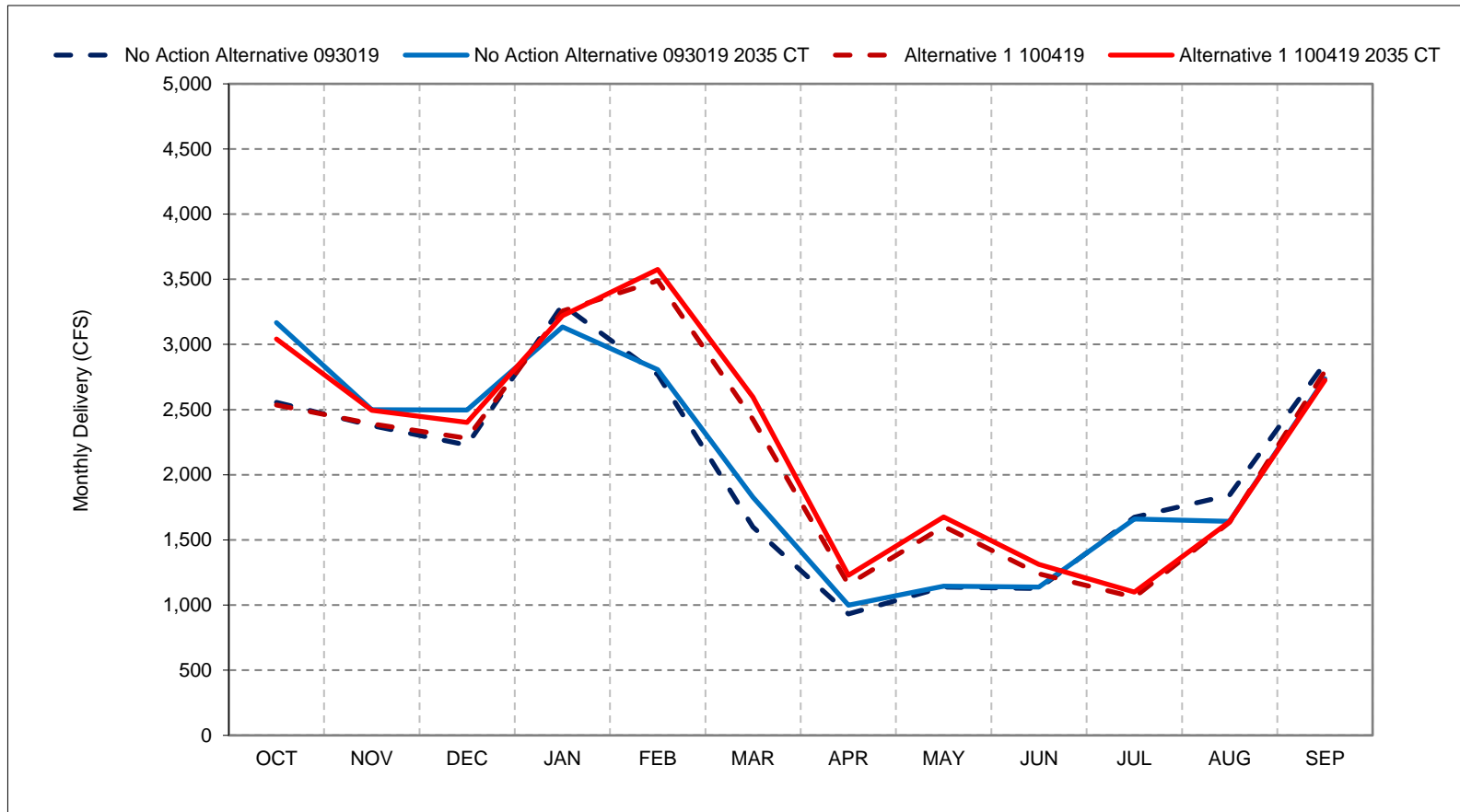
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 54-6. Jones PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

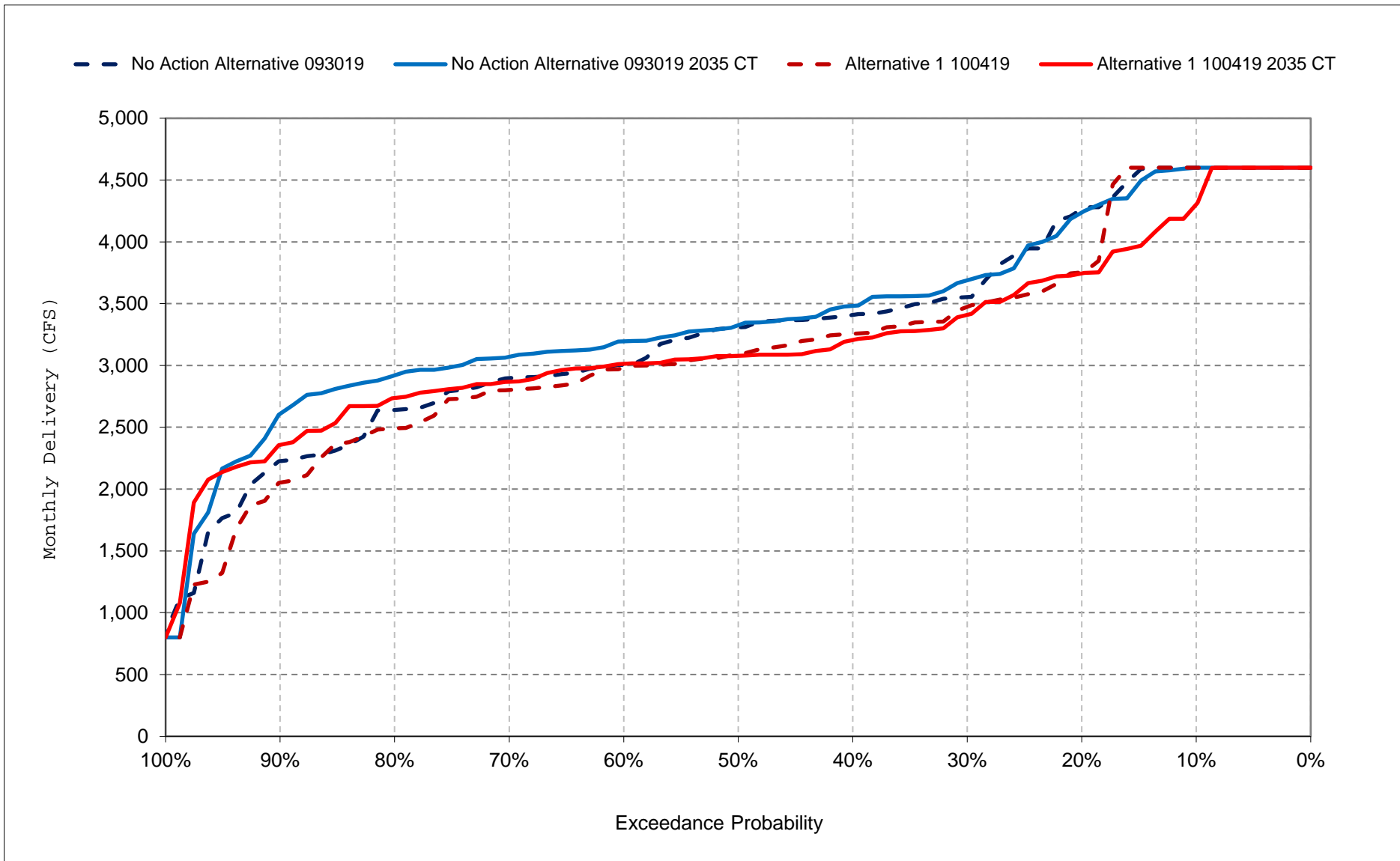
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

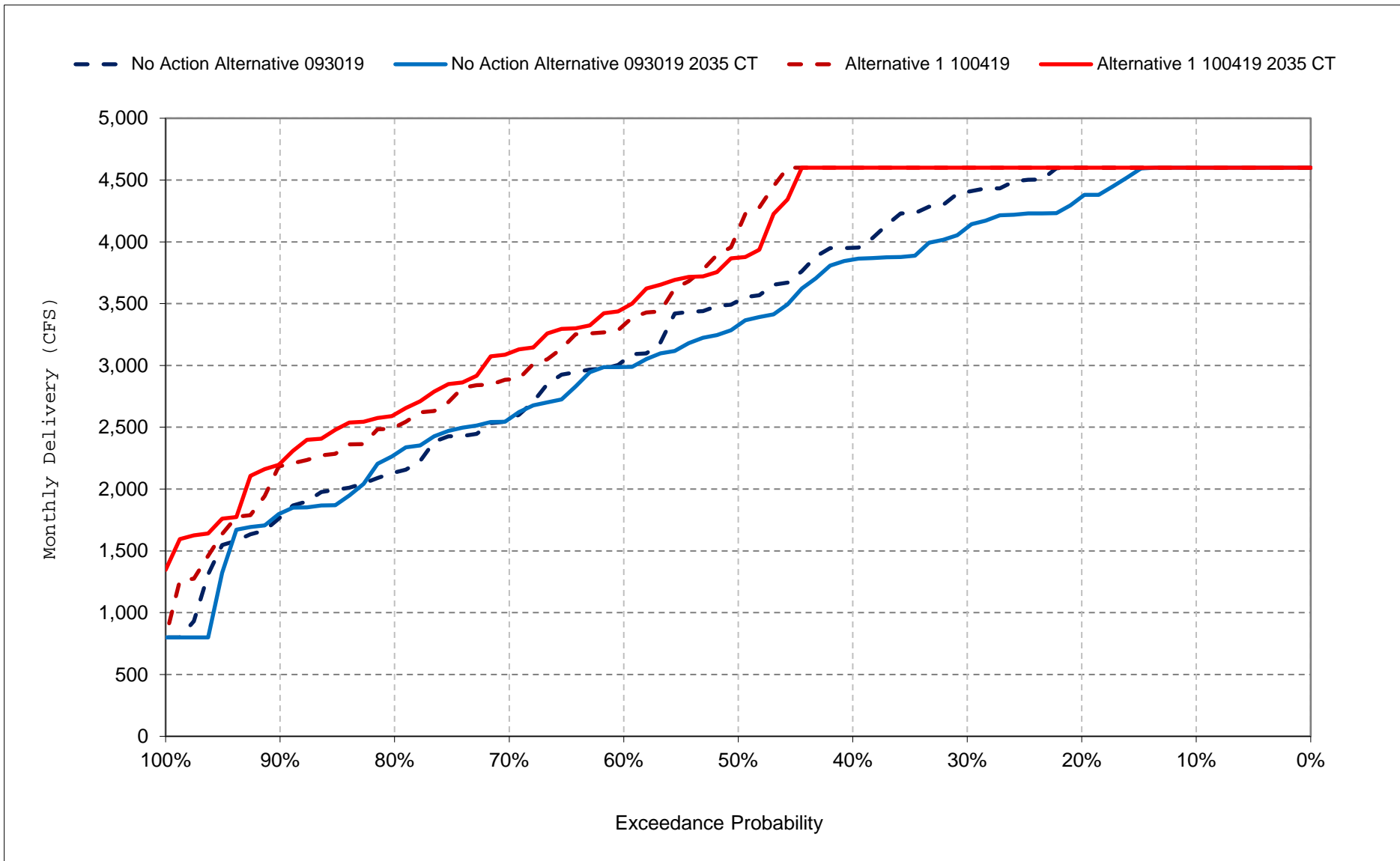
Figure 54-7. Jones PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

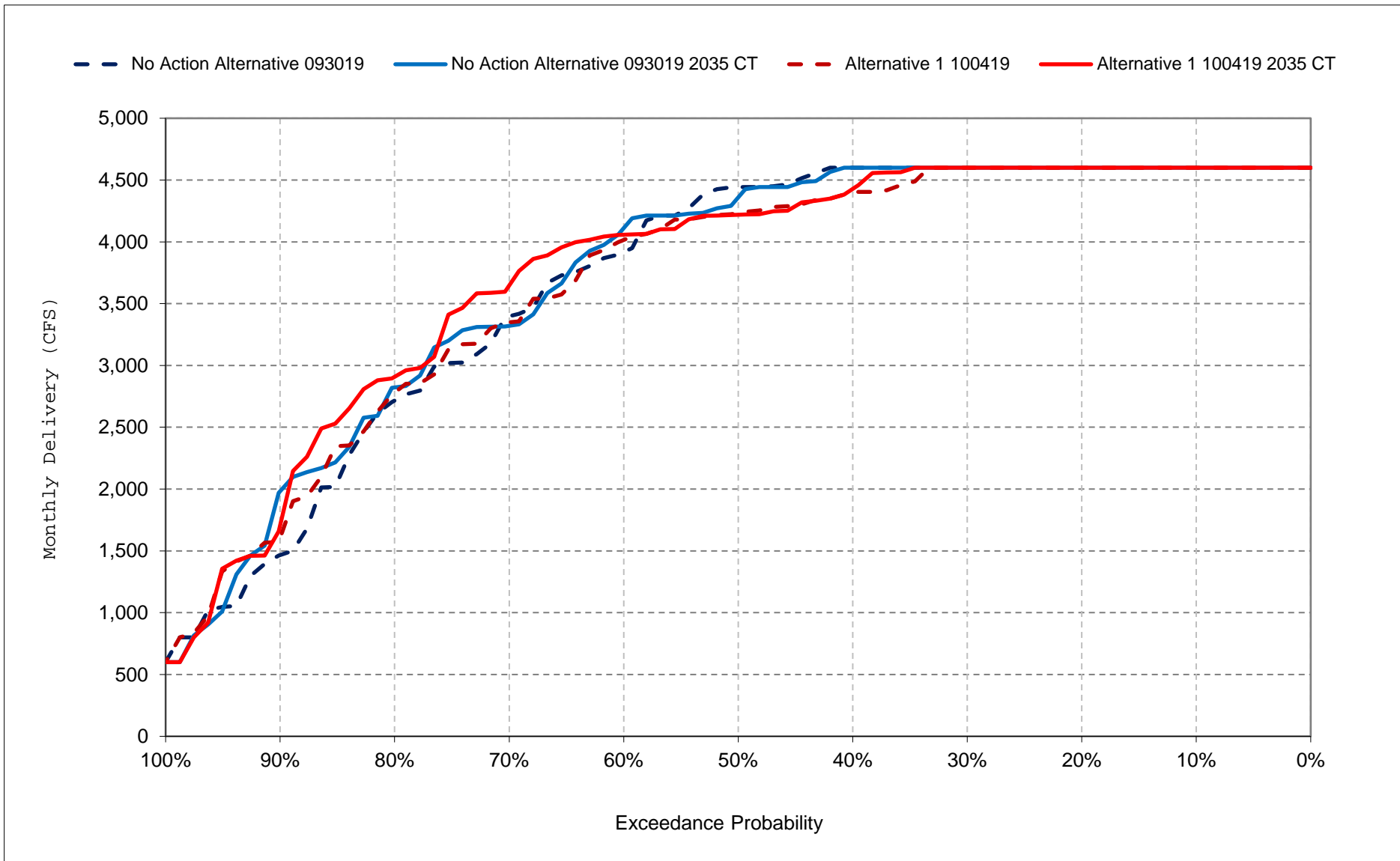
Figure 54-8. Jones PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

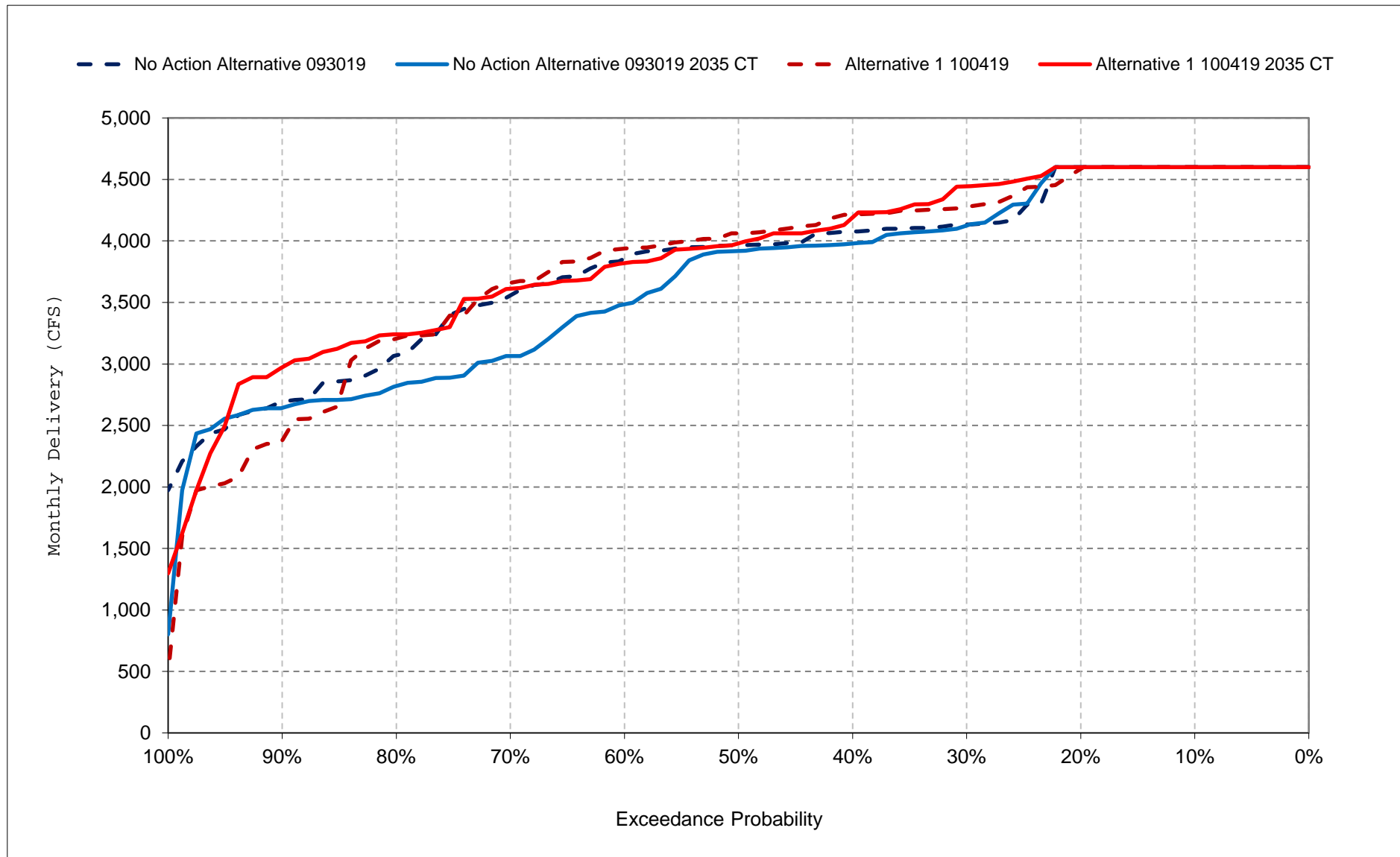
Figure 54-9. Jones PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

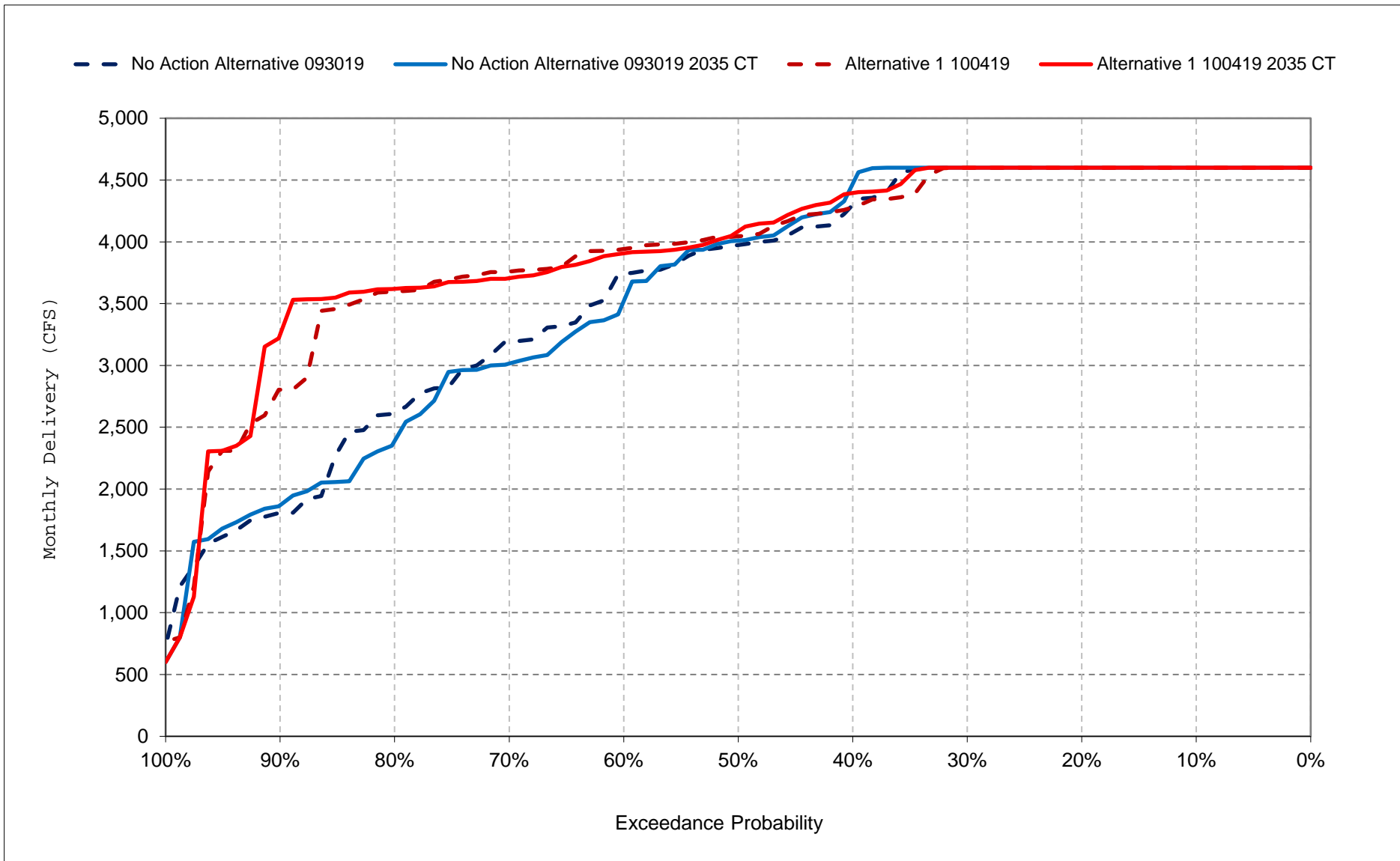
Figure 54-10. Jones PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

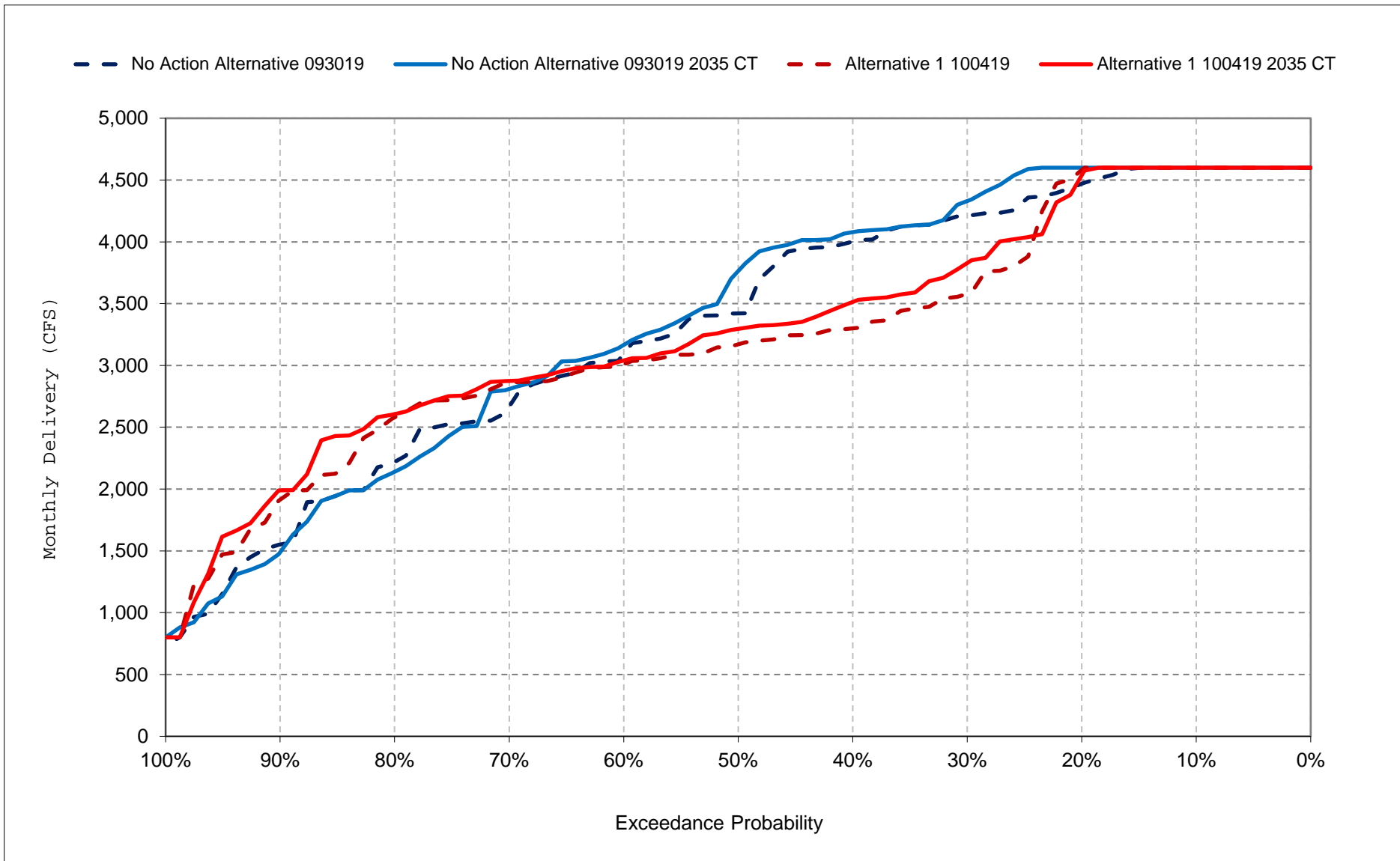
Figure 54-11. Jones PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

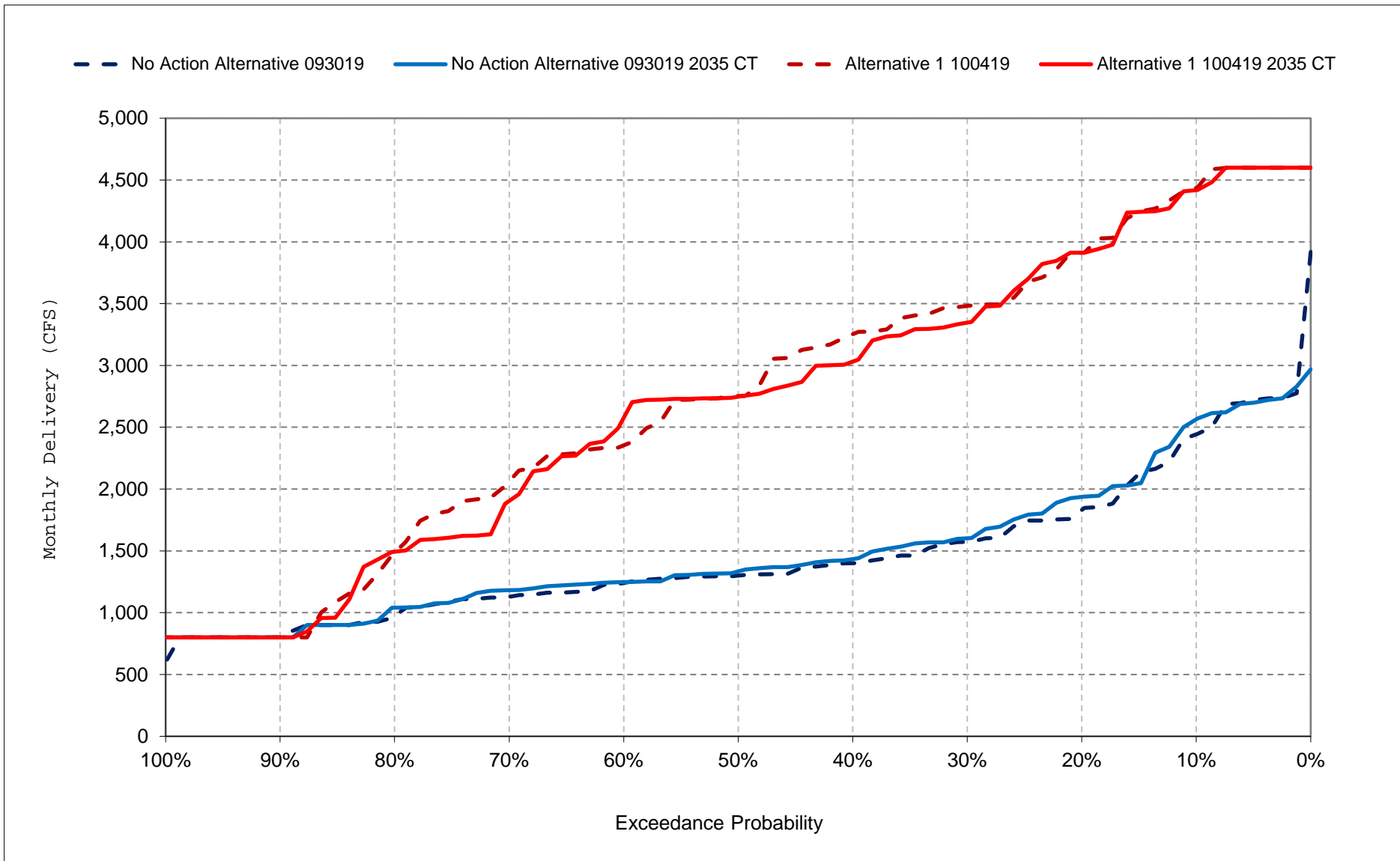
Figure 54-12. Jones PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

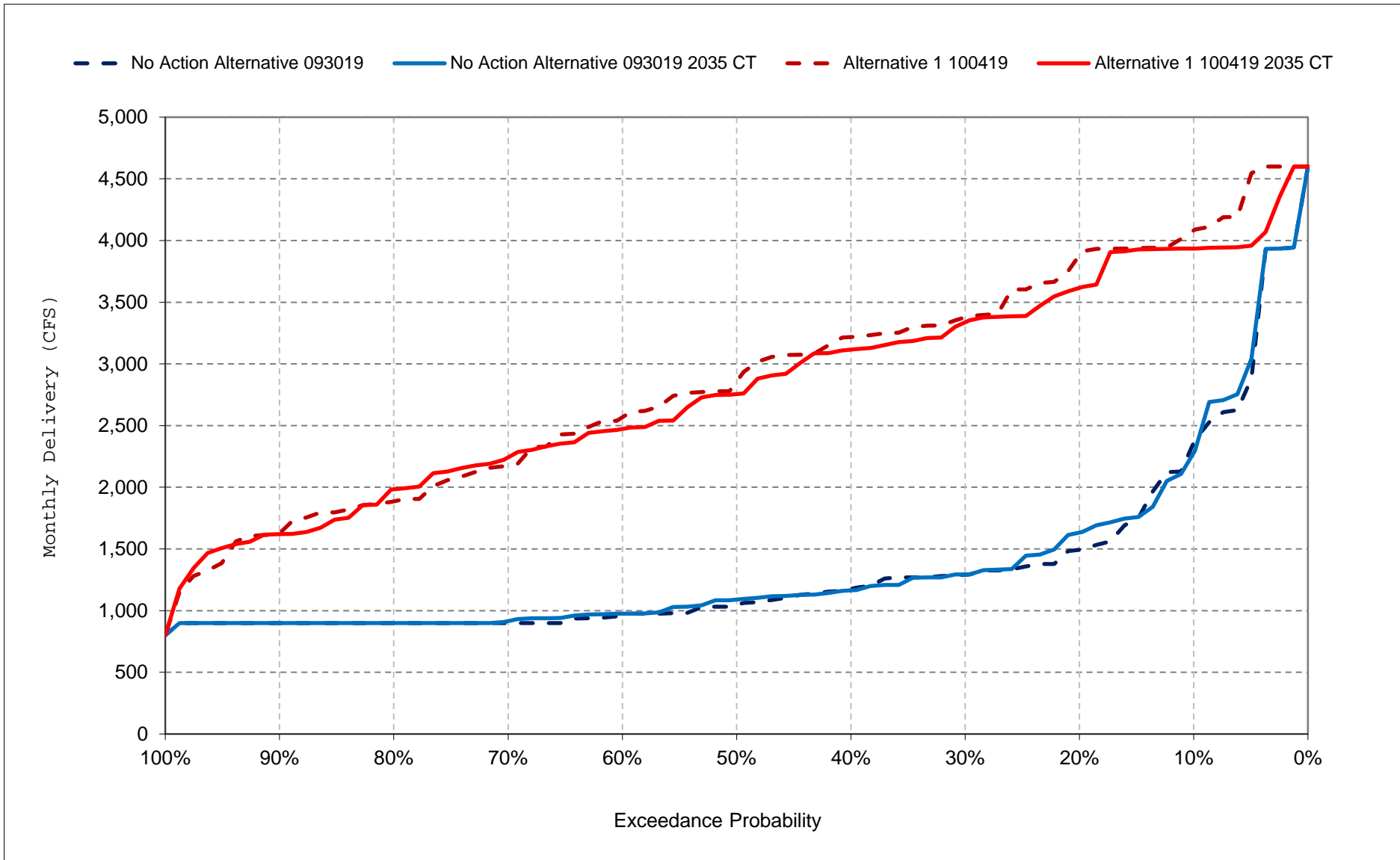
Figure 54-13. Jones PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

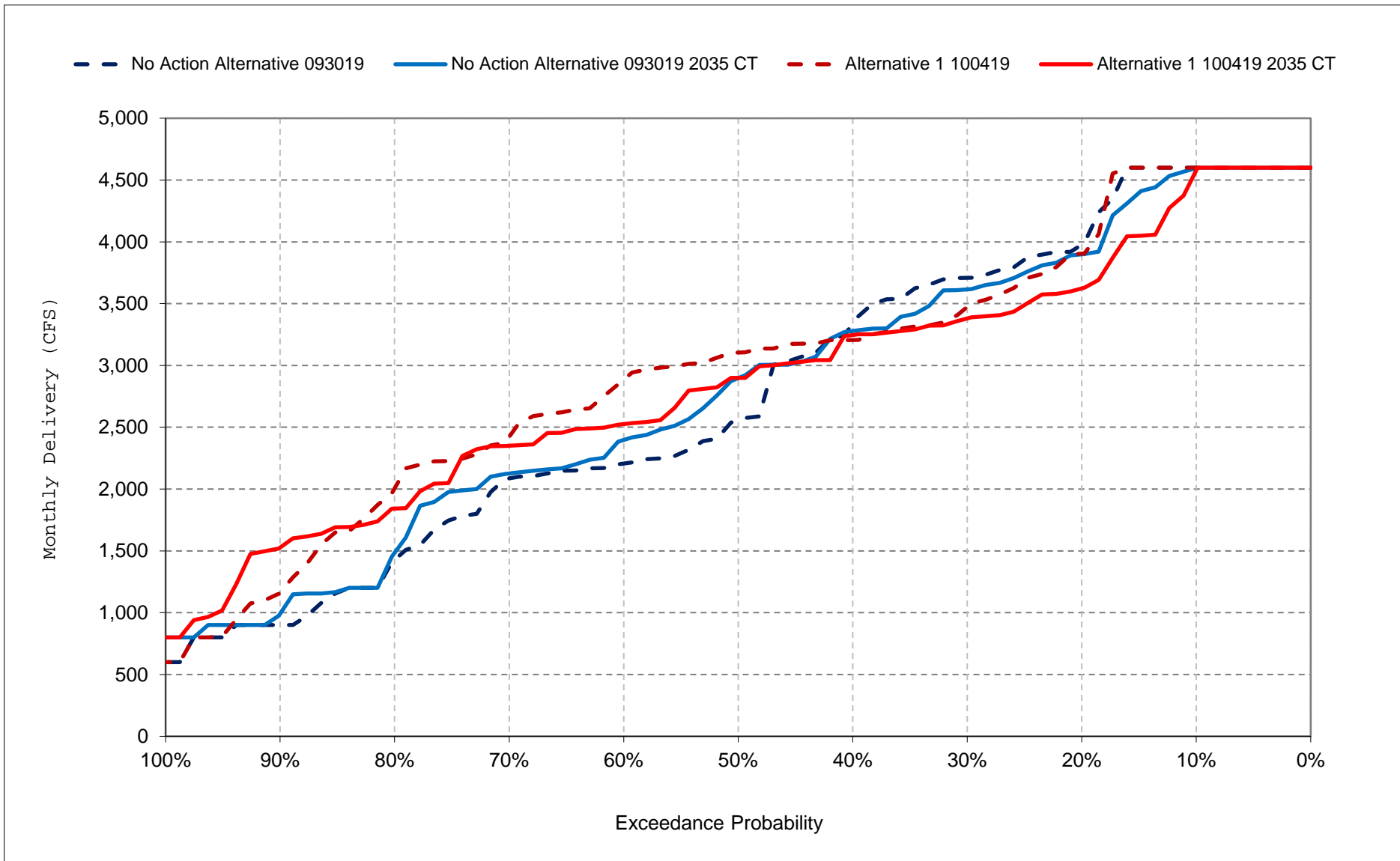
Figure 54-14. Jones PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

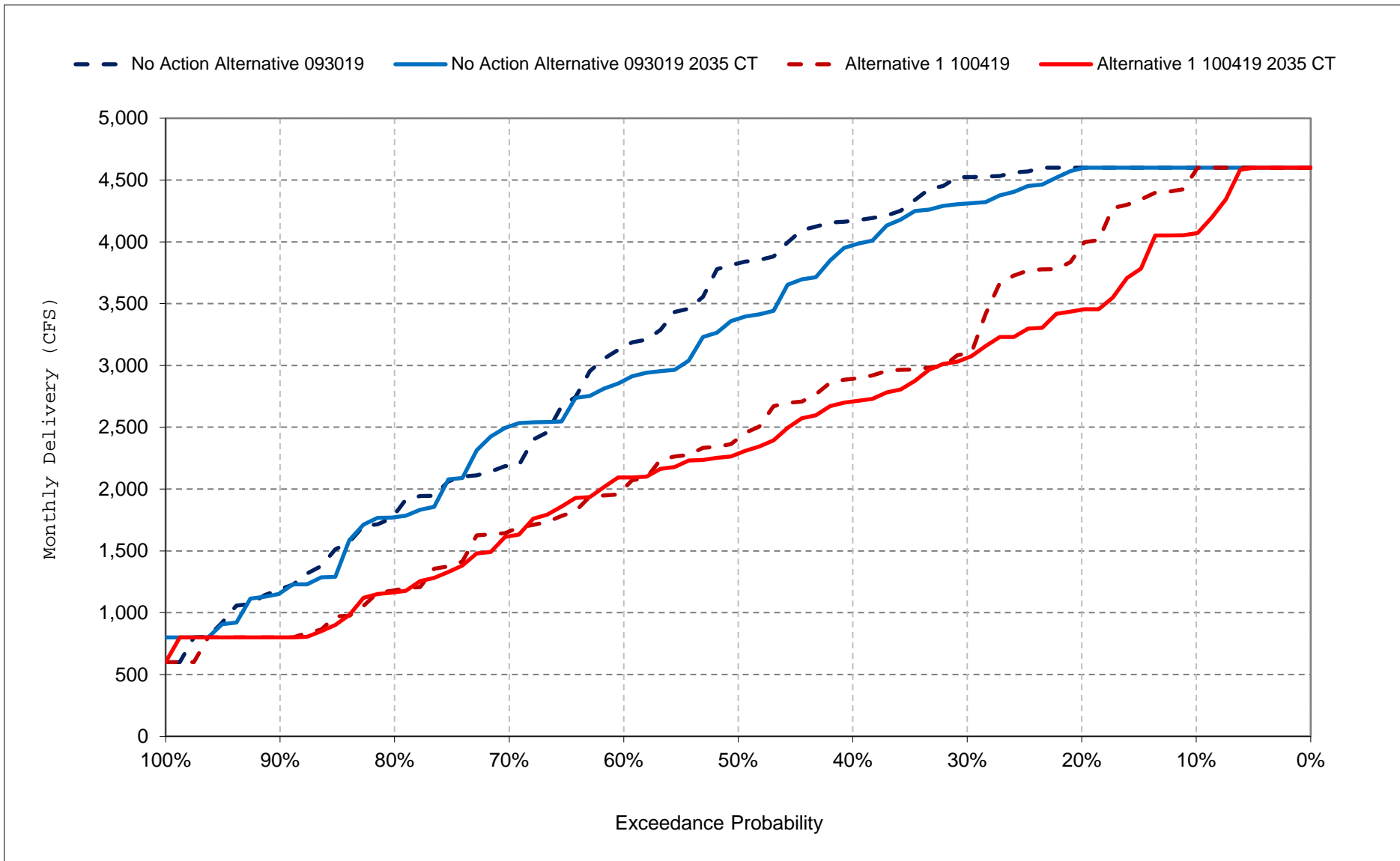
Figure 54-15. Jones PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

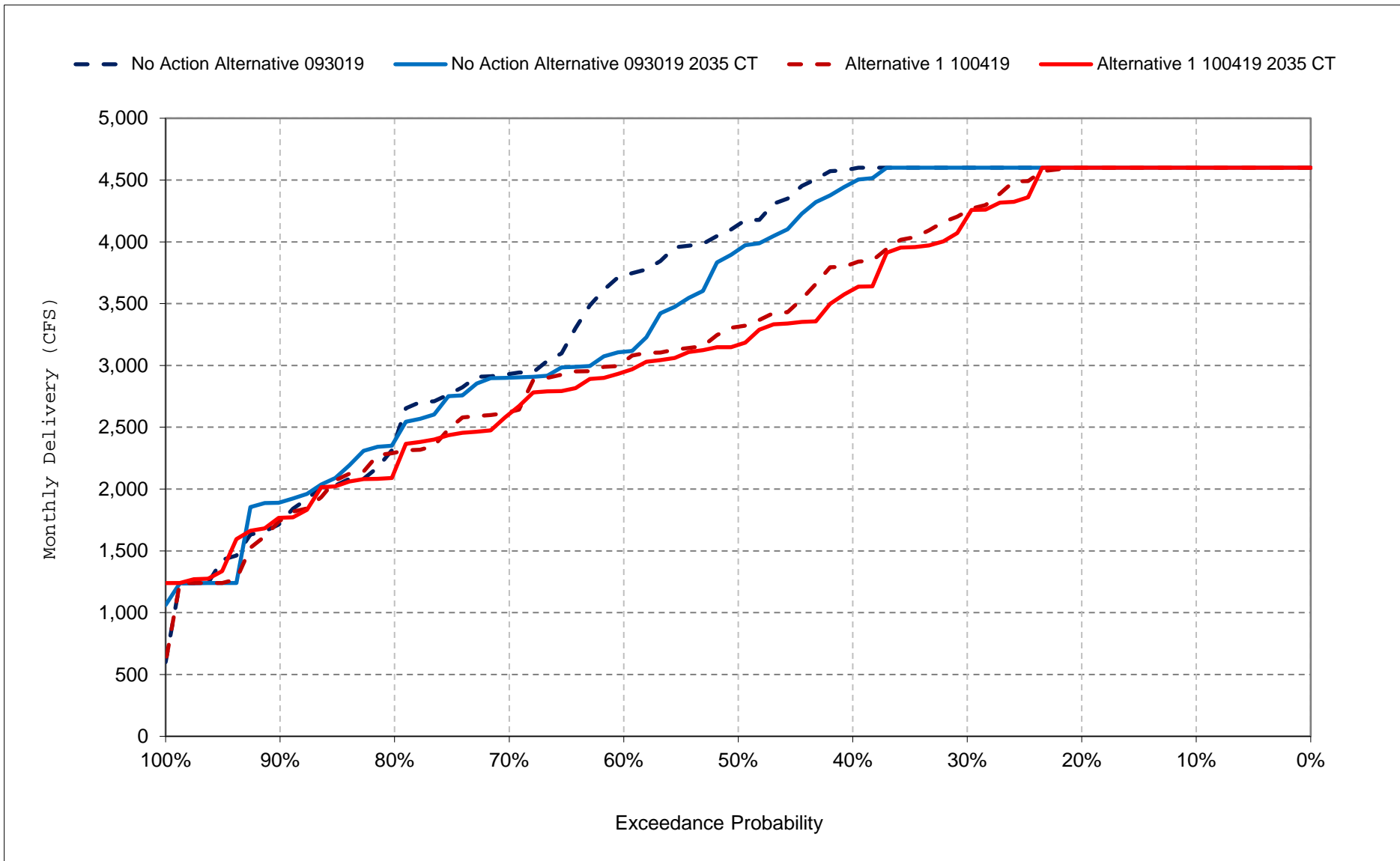
Figure 54-16. Jones PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

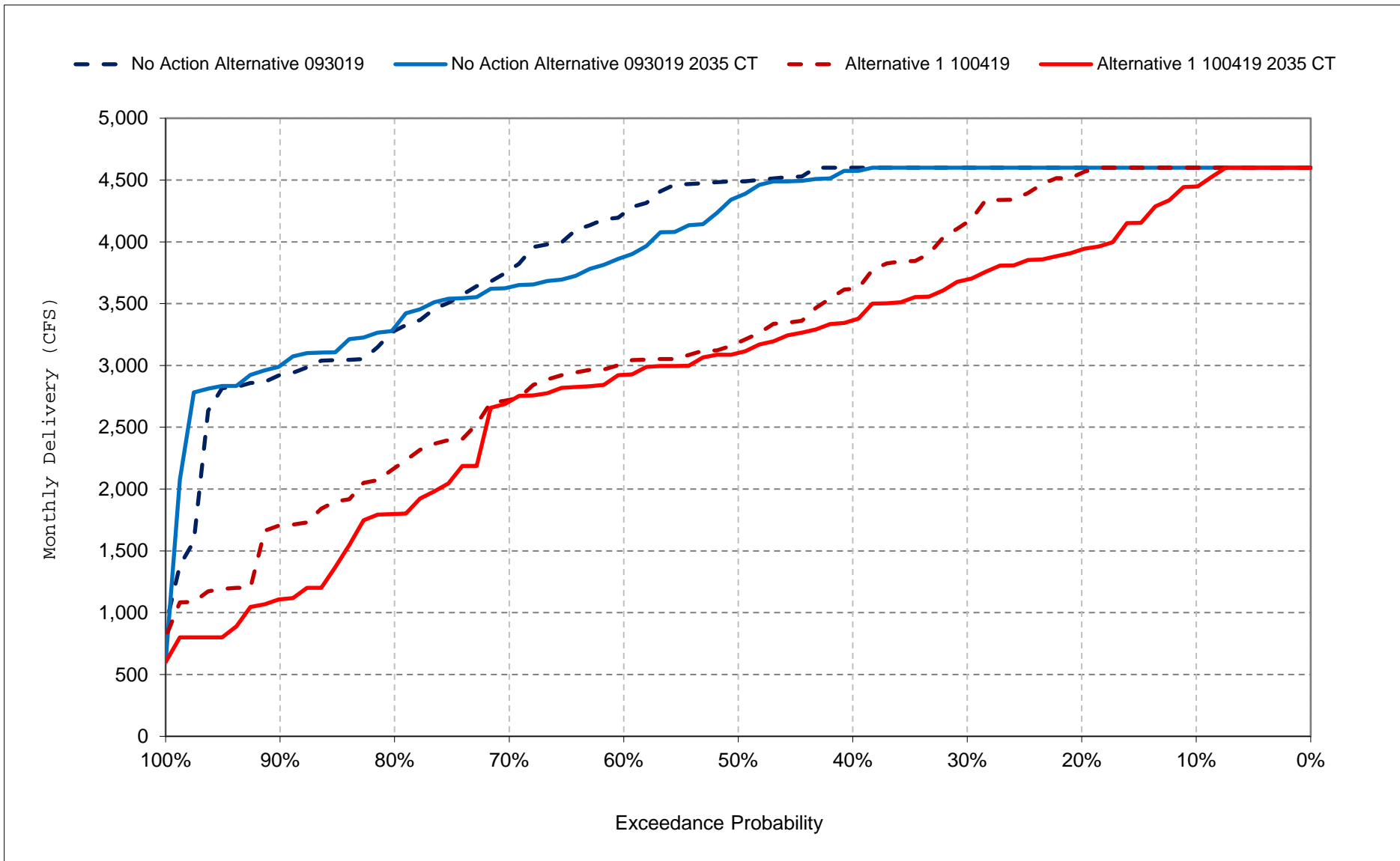
Figure 54-17. Jones PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 54-18. Jones PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-1. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,885	0	0	0	0	0	0	0	743	512	0
20%	0	1,716	0	0	0	0	0	0	0	444	0	0
30%	0	1,243	0	0	0	0	0	0	0	154	0	0
40%	0	541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	655	15	13	38	13	0	0	19	237	107	43
Water Year Types ^{b,c}												
Wet (32%)	0	1,426	39	40	119	4	0	0	60	50	0	0
Above Normal (16%)	0	1,268	18	0	0	0	0	0	0	0	0	0
Below Normal (13%)	161	0	0	0	0	0	0	0	0	27	549	324
Dry (24%)	0	7	0	0	0	49	0	0	0	737	138	0
Critical (15%)	0	0	0	0	0	0	0	0	0	258	0	0

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,805	0	0	0	0	0	0	0	836	789	0
20%	0	747	0	0	0	0	0	0	0	479	491	0
30%	0	0	0	0	0	0	0	0	0	102	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	21	405	105	10	9	46	0	0	19	211	217	57
Water Year Types ^{b,c}												
Wet (32%)	0	768	277	31	26	146	0	0	60	52	177	0
Above Normal (16%)	0	1,016	108	0	0	0	0	0	0	94	188	0
Below Normal (13%)	155	0	0	0	0	0	0	0	0	80	442	422
Dry (24%)	0	0	0	0	0	0	0	0	0	484	294	0
Critical (15%)	0	0	0	0	6	0	0	0	0	344	0	0

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-80	0	0	0	0	0	0	0	93	277	0
20%	0	-969	0	0	0	0	0	0	0	35	491	0
30%	0	-1,243	0	0	0	0	0	0	0	-52	0	0
40%	0	-541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-1	-250	90	-3	-29	33	0	0	0	-26	109	13
Water Year Types ^{b,c}												
Wet (32%)	0	-658	238	-9	-93	142	0	0	0	1	177	0
Above Normal (16%)	0	-252	90	0	0	0	0	0	0	94	188	0
Below Normal (13%)	-6	0	0	0	0	0	0	0	0	53	-107	99
Dry (24%)	0	-7	0	0	0	-49	0	0	0	-253	156	0
Critical (15%)	0	0	0	0	6	0	0	0	0	87	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT Q5 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 55-2. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,845	0	0	0	0	0	0	0	905	487	67
20%	0	1,552	0	0	0	0	0	0	0	462	0	0
30%	0	1,021	0	0	0	0	0	0	0	157	0	0
40%	0	0	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	51	570	15	0	39	47	0	0	19	252	118	44
Water Year Types ^{b,c}												
Wet (32%)	0	1,235	46	0	113	148	0	0	60	88	74	0
Above Normal (16%)	106	1,127	0	0	21	0	0	0	0	0	33	20
Below Normal (13%)	212	0	0	0	0	0	0	0	0	128	443	214
Dry (24%)	24	0	0	0	0	0	0	0	0	690	120	51
Critical (15%)	0	0	0	0	0	0	0	0	0	265	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,687	0	0	0	0	0	0	0	830	989	60
20%	0	766	0	0	0	0	0	0	0	597	602	0
30%	0	0	0	0	0	0	0	0	0	334	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	17	388	68	47	39	30	0	0	19	260	265	72
Water Year Types ^{b,c}												
Wet (32%)	0	722	145	121	122	96	0	0	60	131	337	0
Above Normal (16%)	0	1,007	98	52	0	0	0	0	0	40	257	145
Below Normal (13%)	128	0	0	0	0	0	0	0	0	191	392	299
Dry (24%)	0	0	27	0	0	0	0	0	0	520	267	37
Critical (15%)	0	0	0	0	0	0	0	0	0	408	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-158	0	0	0	0	0	0	0	-75	502	-7
20%	0	-786	0	0	0	0	0	0	0	135	602	0
30%	0	-1,021	0	0	0	0	0	0	0	177	0	0
40%	0	0	0	0	0	0	0	0	0	11	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-34	-182	53	47	-1	-16	0	0	0	8	148	28
Water Year Types ^{b,c}												
Wet (32%)	0	-513	99	121	9	-52	0	0	0	44	262	0
Above Normal (16%)	-106	-120	98	52	-21	0	0	0	0	40	224	125
Below Normal (13%)	-84	0	0	0	0	0	0	0	0	63	-51	86
Dry (24%)	-24	0	27	0	0	0	0	0	0	-170	146	-13
Critical (15%)	0	0	0	0	0	0	0	0	0	143	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-3. CVP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,885	0	0	0	0	0	0	0	743	512	0
20%	0	1,716	0	0	0	0	0	0	0	444	0	0
30%	0	1,243	0	0	0	0	0	0	0	154	0	0
40%	0	541	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	655	15	13	38	13	0	0	19	237	107	43
Water Year Types ^{b,c}												
Wet (32%)	0	1,426	39	40	119	4	0	0	60	50	0	0
Above Normal (16%)	0	1,268	18	0	0	0	0	0	0	0	0	0
Below Normal (13%)	161	0	0	0	0	0	0	0	0	27	549	324
Dry (24%)	0	7	0	0	0	49	0	0	0	737	138	0
Critical (15%)	0	0	0	0	0	0	0	0	0	258	0	0

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,845	0	0	0	0	0	0	0	905	487	67
20%	0	1,552	0	0	0	0	0	0	0	462	0	0
30%	0	1,021	0	0	0	0	0	0	0	157	0	0
40%	0	0	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	51	570	15	0	39	47	0	0	19	252	118	44
Water Year Types ^{b,c}												
Wet (32%)	0	1,235	46	0	113	148	0	0	60	88	74	0
Above Normal (16%)	106	1,127	0	0	21	0	0	0	0	0	33	20
Below Normal (13%)	212	0	0	0	0	0	0	0	0	128	443	214
Dry (24%)	24	0	0	0	0	0	0	0	0	690	120	51
Critical (15%)	0	0	0	0	0	0	0	0	0	265	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-40	0	0	0	0	0	0	0	162	-25	67
20%	0	-164	0	0	0	0	0	0	0	18	0	0
30%	0	-222	0	0	0	0	0	0	0	4	0	0
40%	0	-541	0	0	0	0	0	0	0	17	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	30	-85	0	-13	1	34	0	0	0	15	10	1
Water Year Types ^{b,c}												
Wet (32%)	0	-191	7	-40	-6	143	0	0	0	37	74	0
Above Normal (16%)	106	-141	-18	0	21	0	0	0	0	0	33	20
Below Normal (13%)	51	0	0	0	0	0	0	0	0	101	-106	-110
Dry (24%)	24	-7	0	0	0	-49	0	0	0	-47	-18	51
Critical (15%)	0	0	0	0	0	0	0	0	0	7	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 55-4. CVP Banks PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,805	0	0	0	0	0	0	0	836	789	0
20%	0	747	0	0	0	0	0	0	0	479	491	0
30%	0	0	0	0	0	0	0	0	0	102	0	0
40%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	21	405	105	10	9	46	0	0	19	211	217	57
Water Year Types ^{b,c}												
Wet (32%)	0	768	277	31	26	146	0	0	60	52	177	0
Above Normal (16%)	0	1,016	108	0	0	0	0	0	0	94	188	0
Below Normal (13%)	155	0	0	0	0	0	0	0	0	80	442	422
Dry (24%)	0	0	0	0	0	0	0	0	0	484	294	0
Critical (15%)	0	0	0	0	6	0	0	0	0	344	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	1,687	0	0	0	0	0	0	0	830	989	60
20%	0	766	0	0	0	0	0	0	0	597	602	0
30%	0	0	0	0	0	0	0	0	0	334	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	17	388	68	47	39	30	0	0	19	260	265	72
Water Year Types ^{b,c}												
Wet (32%)	0	722	145	121	122	96	0	0	60	131	337	0
Above Normal (16%)	0	1,007	98	52	0	0	0	0	0	40	257	145
Below Normal (13%)	128	0	0	0	0	0	0	0	0	191	392	299
Dry (24%)	0	0	27	0	0	0	0	0	0	520	267	37
Critical (15%)	0	0	0	0	0	0	0	0	0	408	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-118	0	0	0	0	0	0	0	-6	201	60
20%	0	19	0	0	0	0	0	0	0	118	110	0
30%	0	0	0	0	0	0	0	0	0	232	0	0
40%	0	0	0	0	0	0	0	0	0	28	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-4	-16	-37	37	30	-16	0	0	0	50	49	16
Water Year Types ^{b,c}												
Wet (32%)	0	-46	-132	91	96	-50	0	0	0	80	160	0
Above Normal (16%)	0	-9	-10	52	0	0	0	0	0	-54	69	145
Below Normal (13%)	-26	0	0	0	0	0	0	0	0	111	-49	-123
Dry (24%)	0	0	27	0	0	0	0	0	0	36	-27	37
Critical (15%)	0	0	0	0	-6	0	0	0	0	64	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

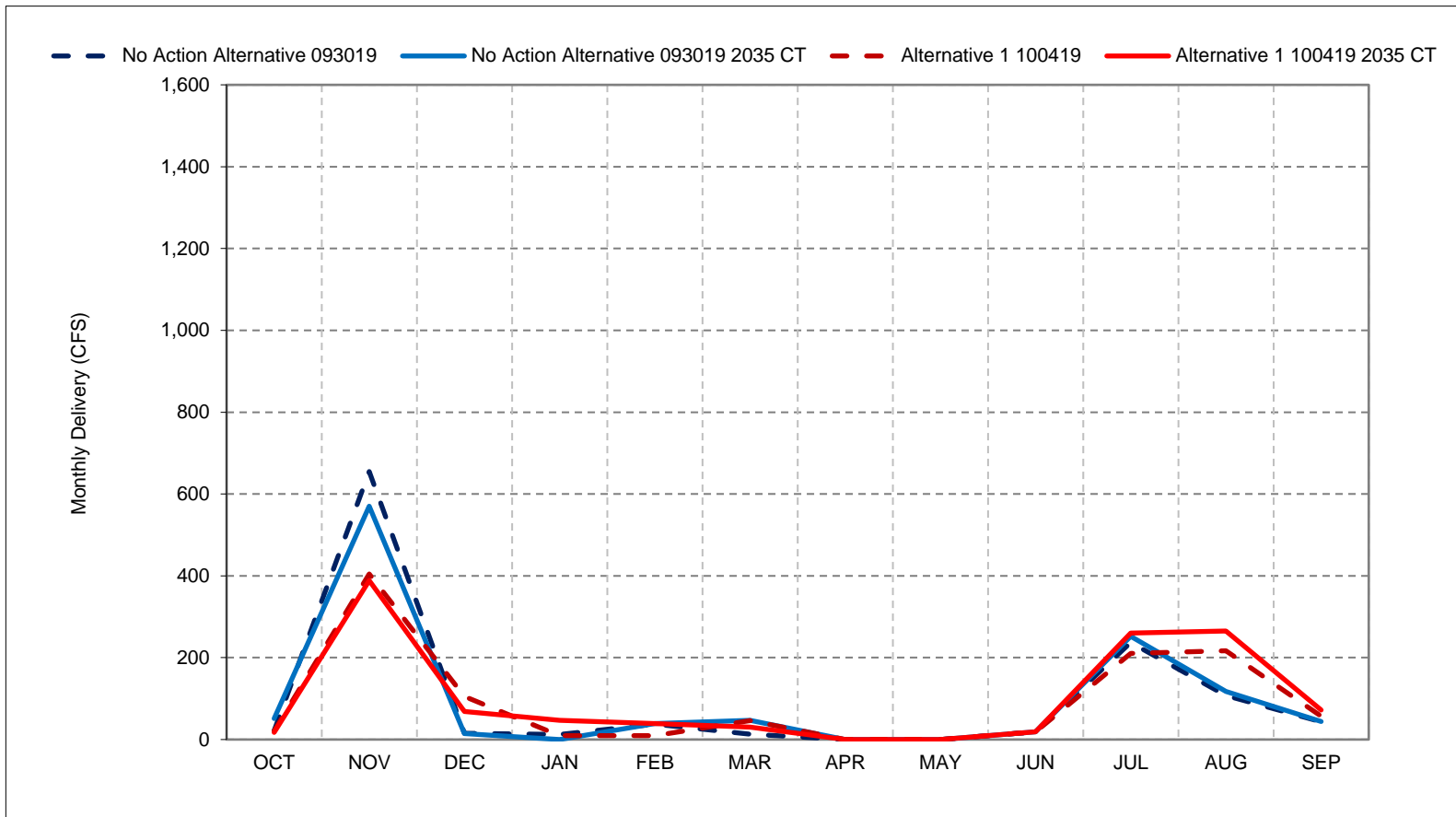
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 55-1. CVP Banks PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

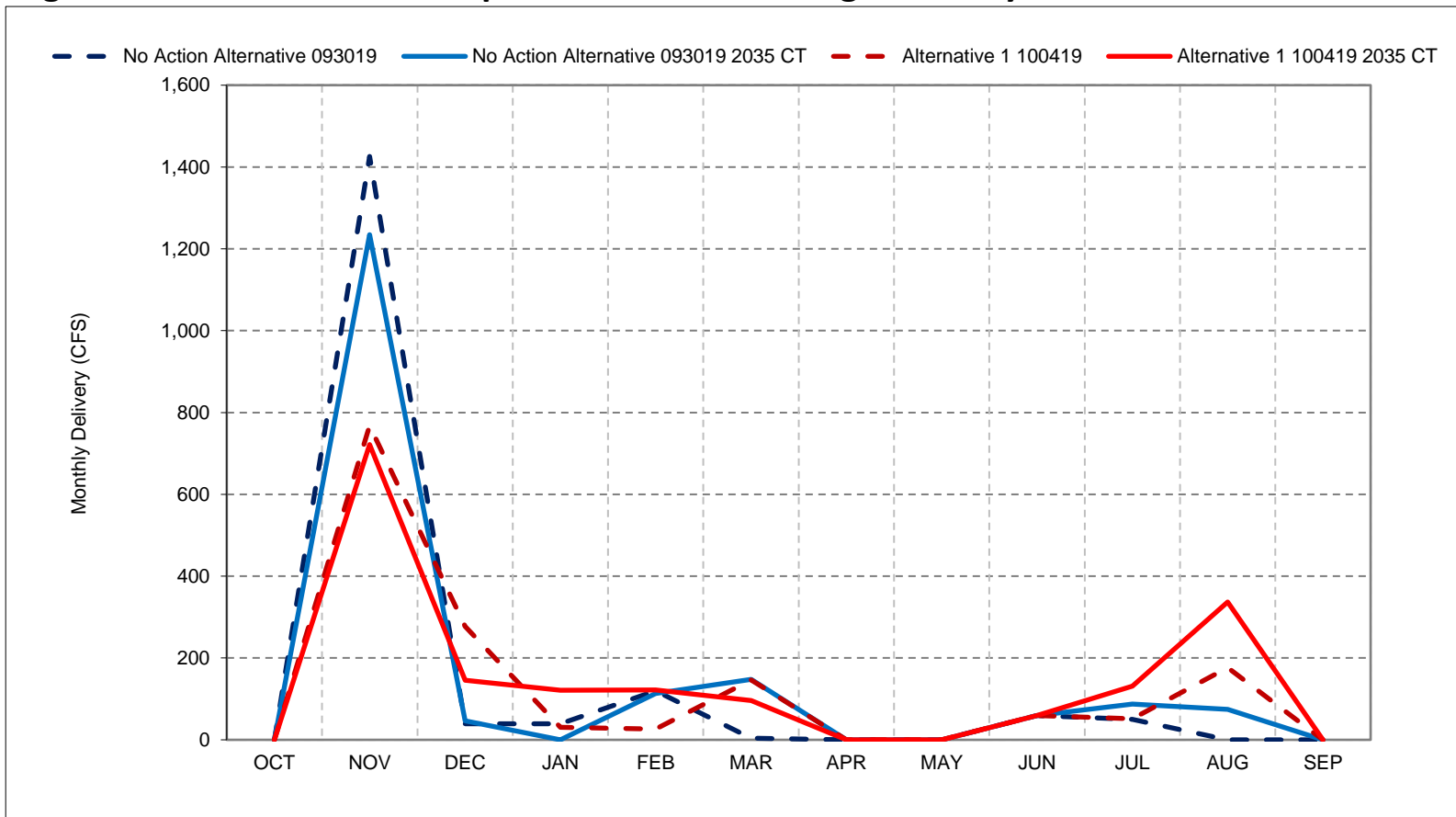
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-2. CVP Banks PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

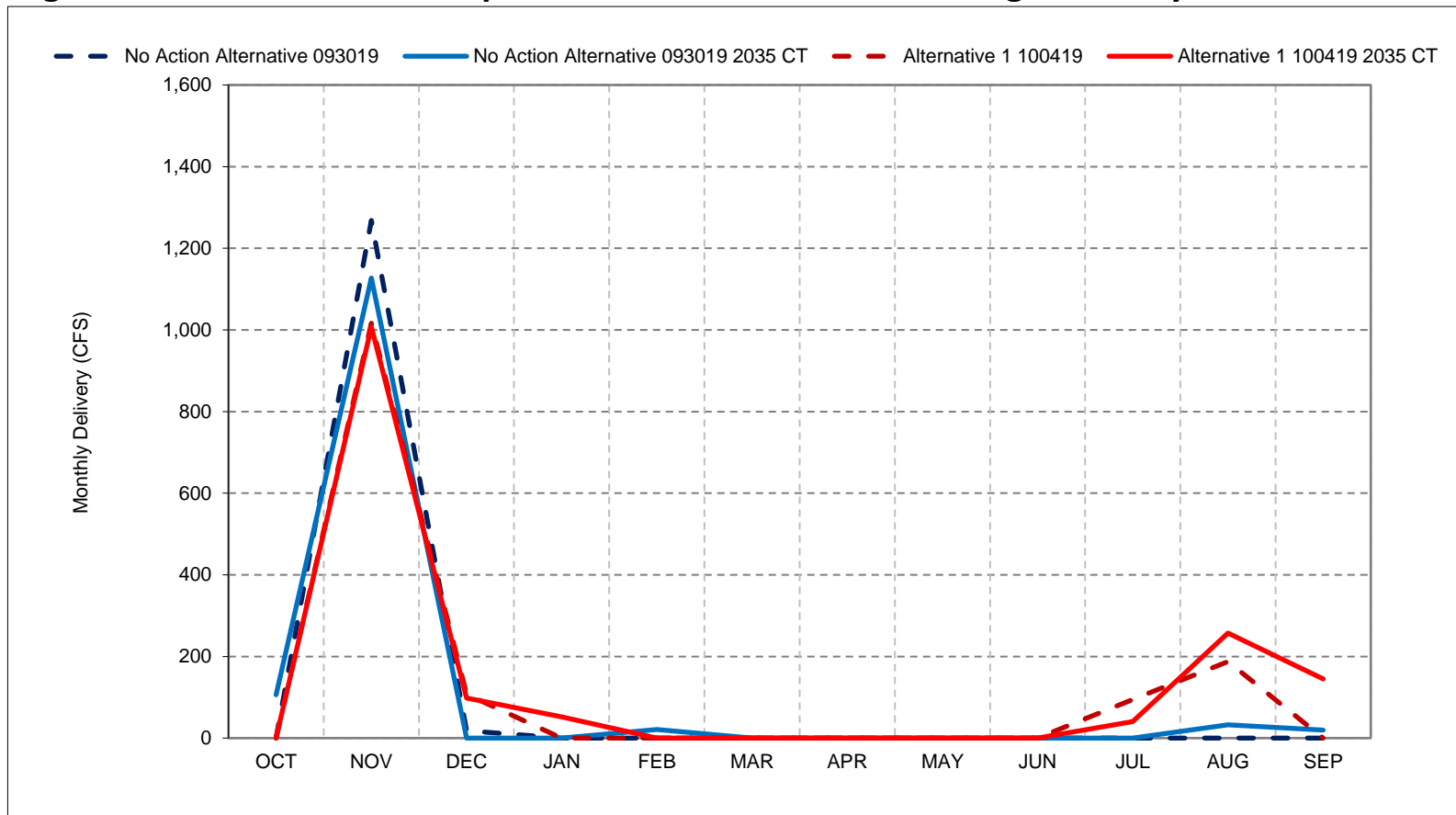
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-3. CVP Banks PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

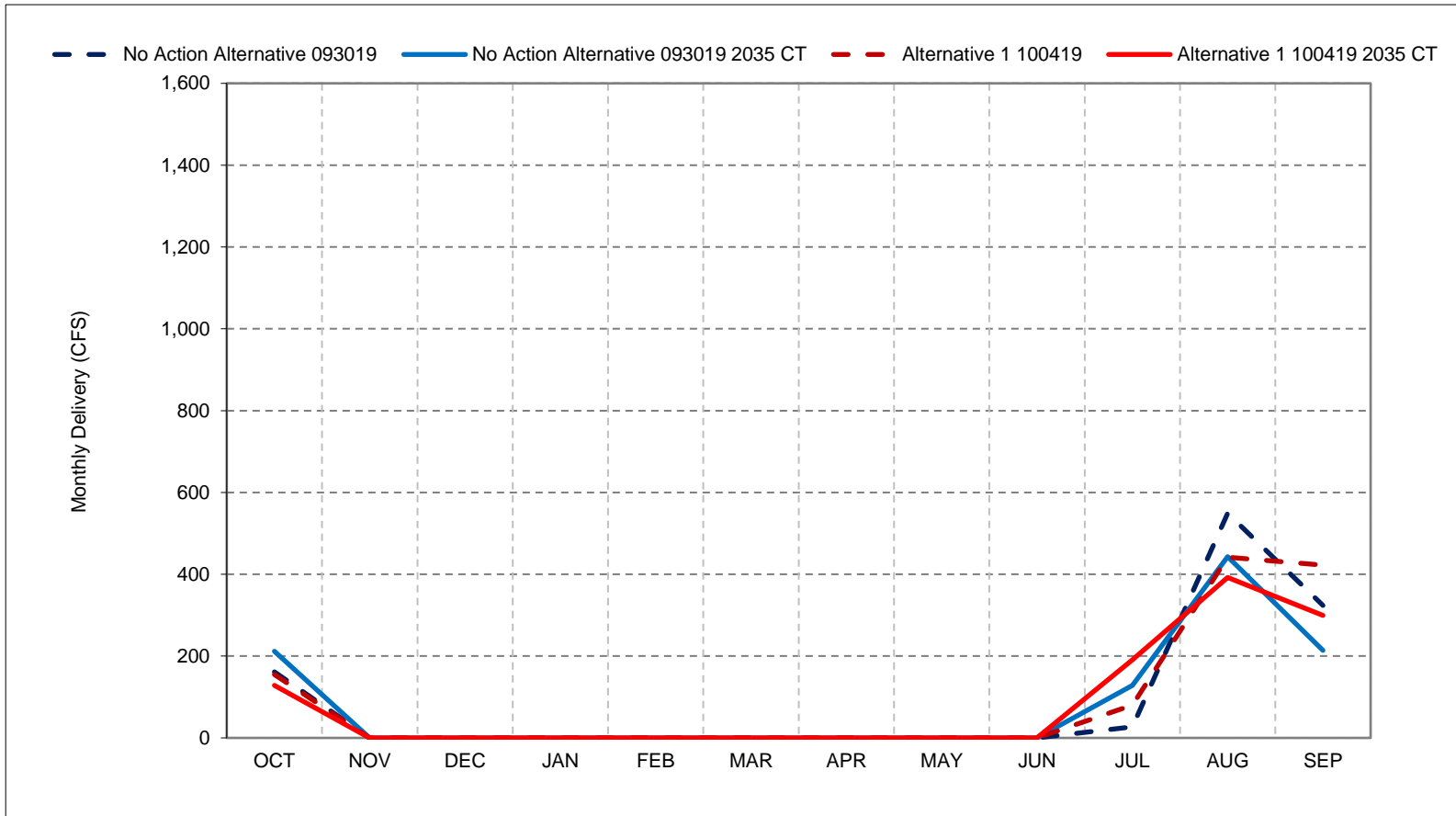
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-4. CVP Banks PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

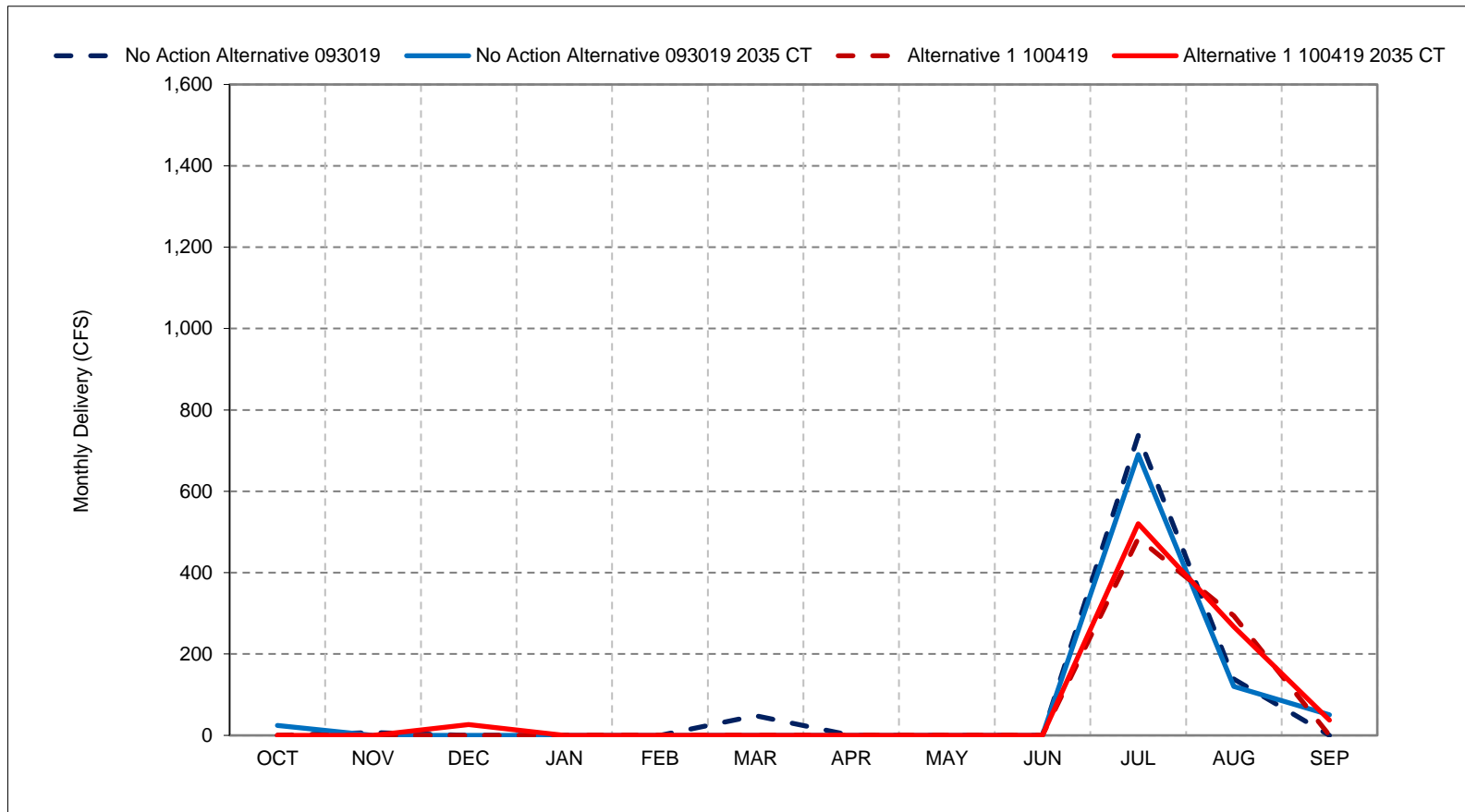
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-5. CVP Banks PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

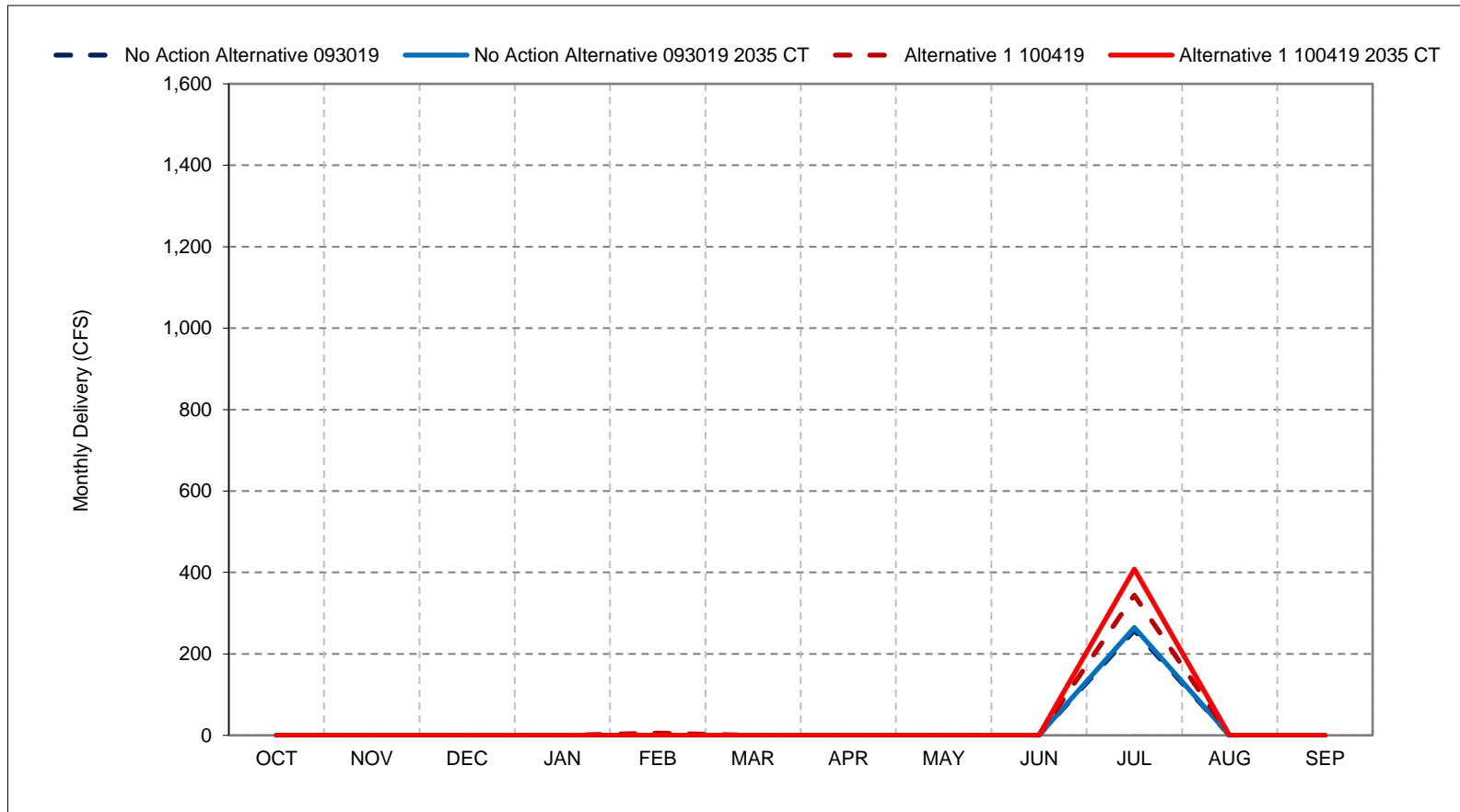
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 55-6. CVP Banks PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

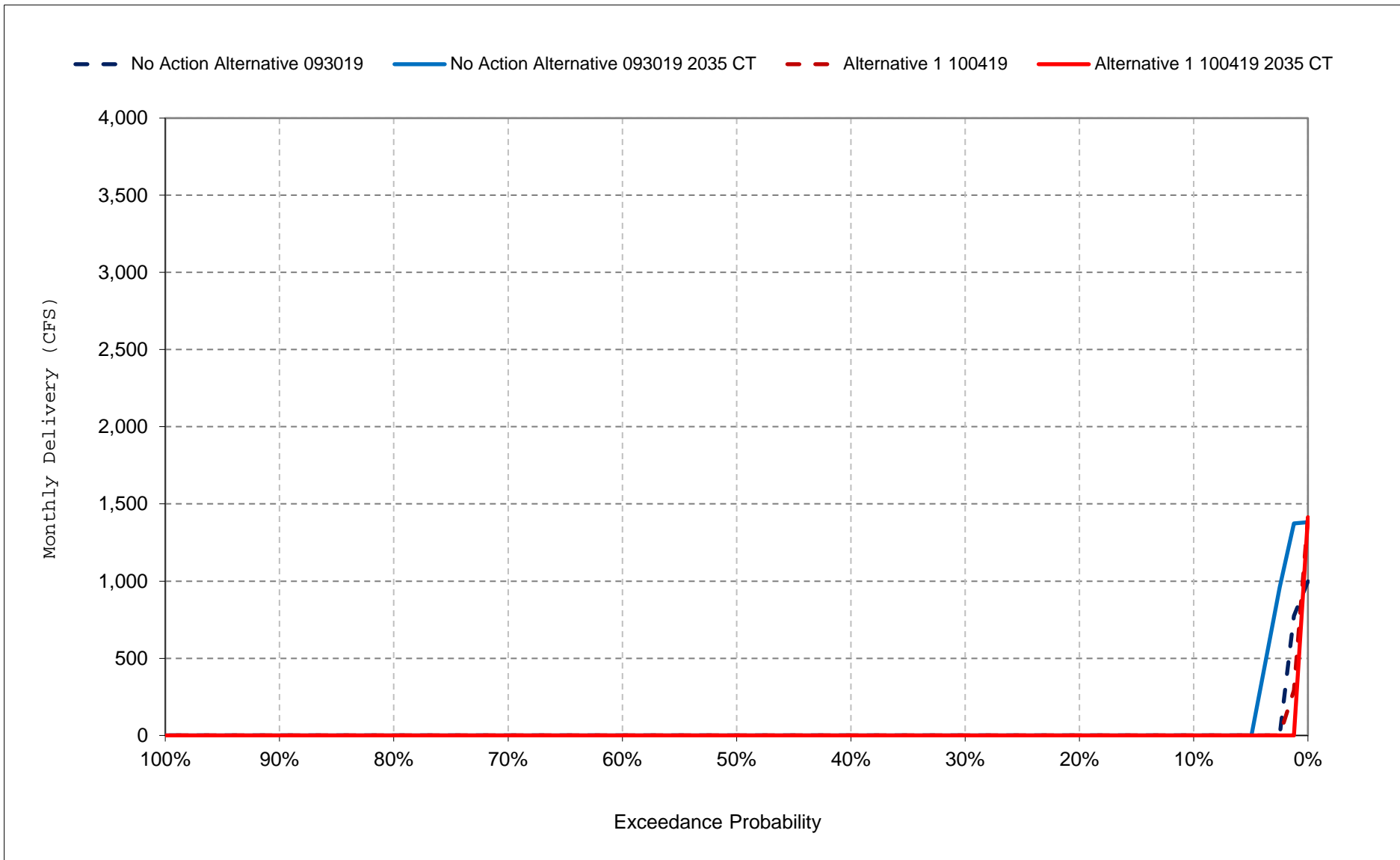
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

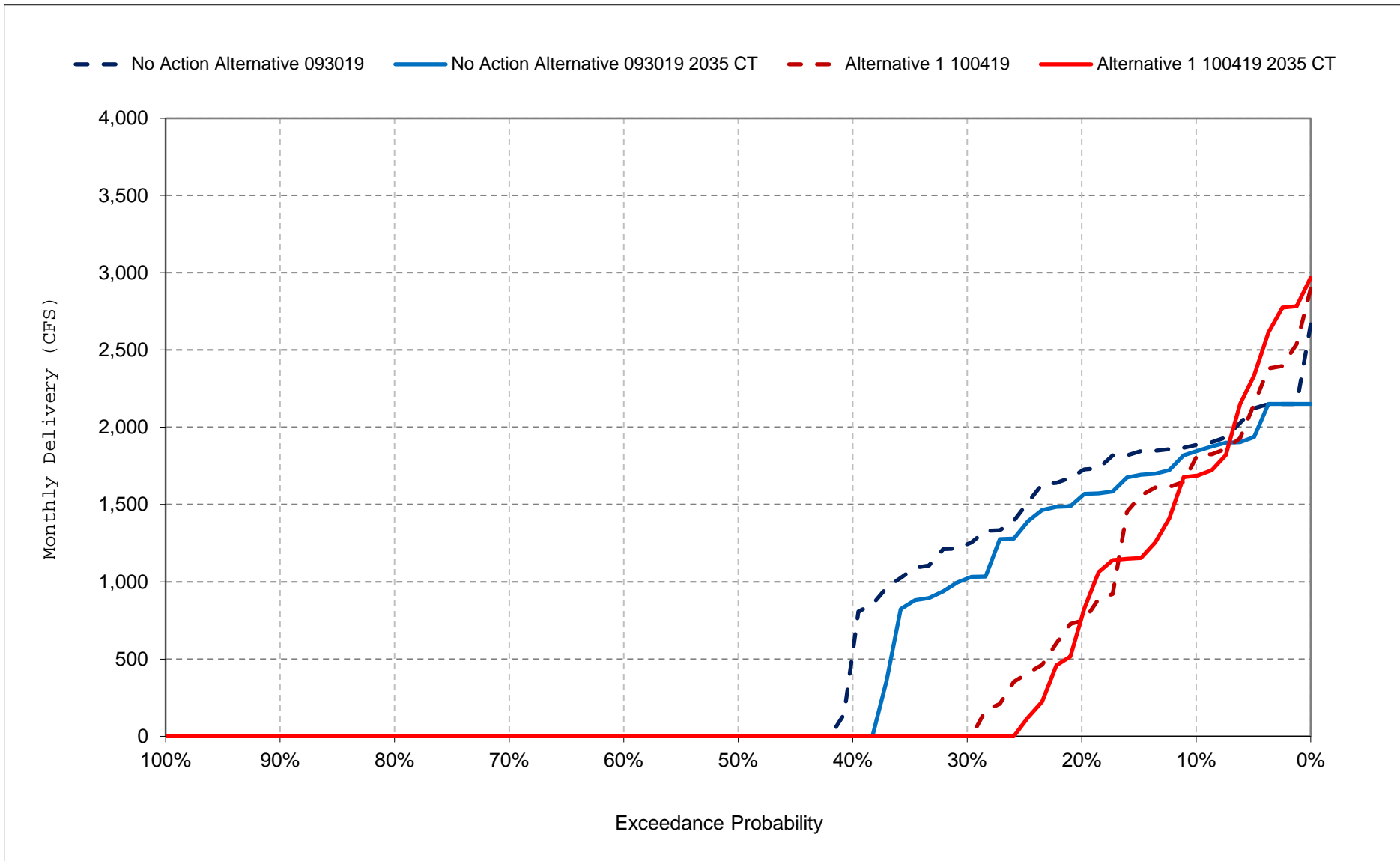
Figure 55-7. CVP Banks PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

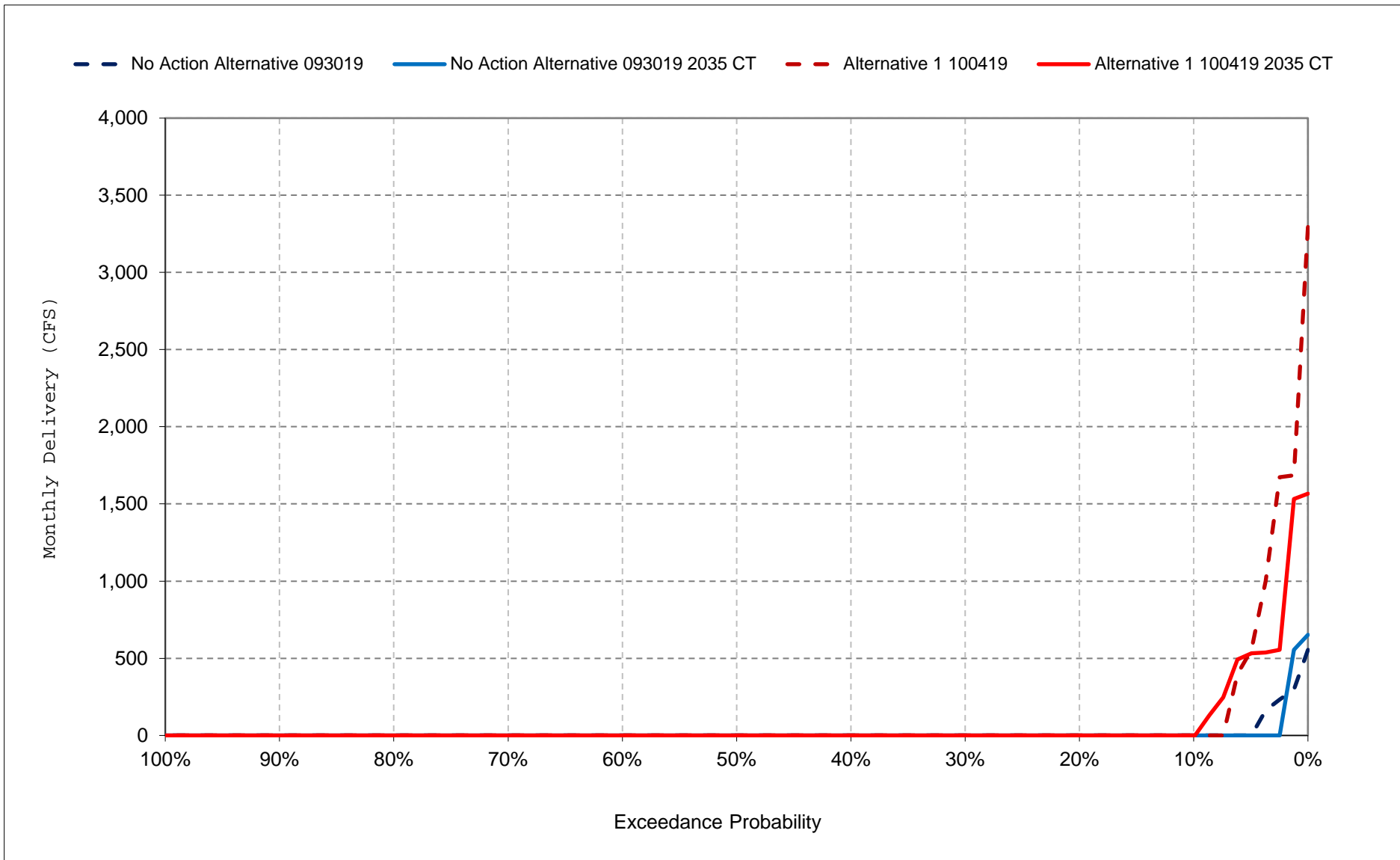
Figure 55-8. CVP Banks PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

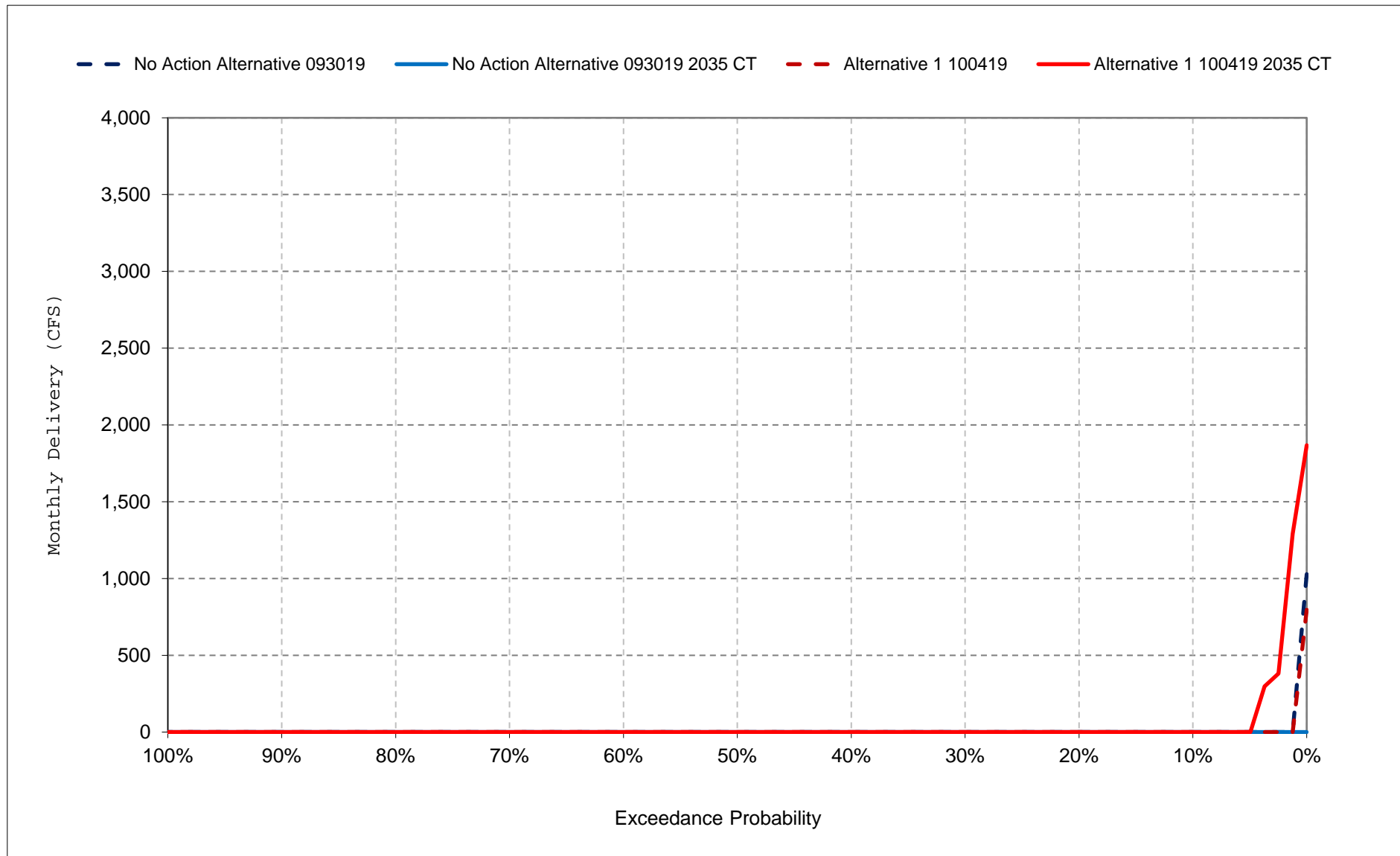
Figure 55-9. CVP Banks PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

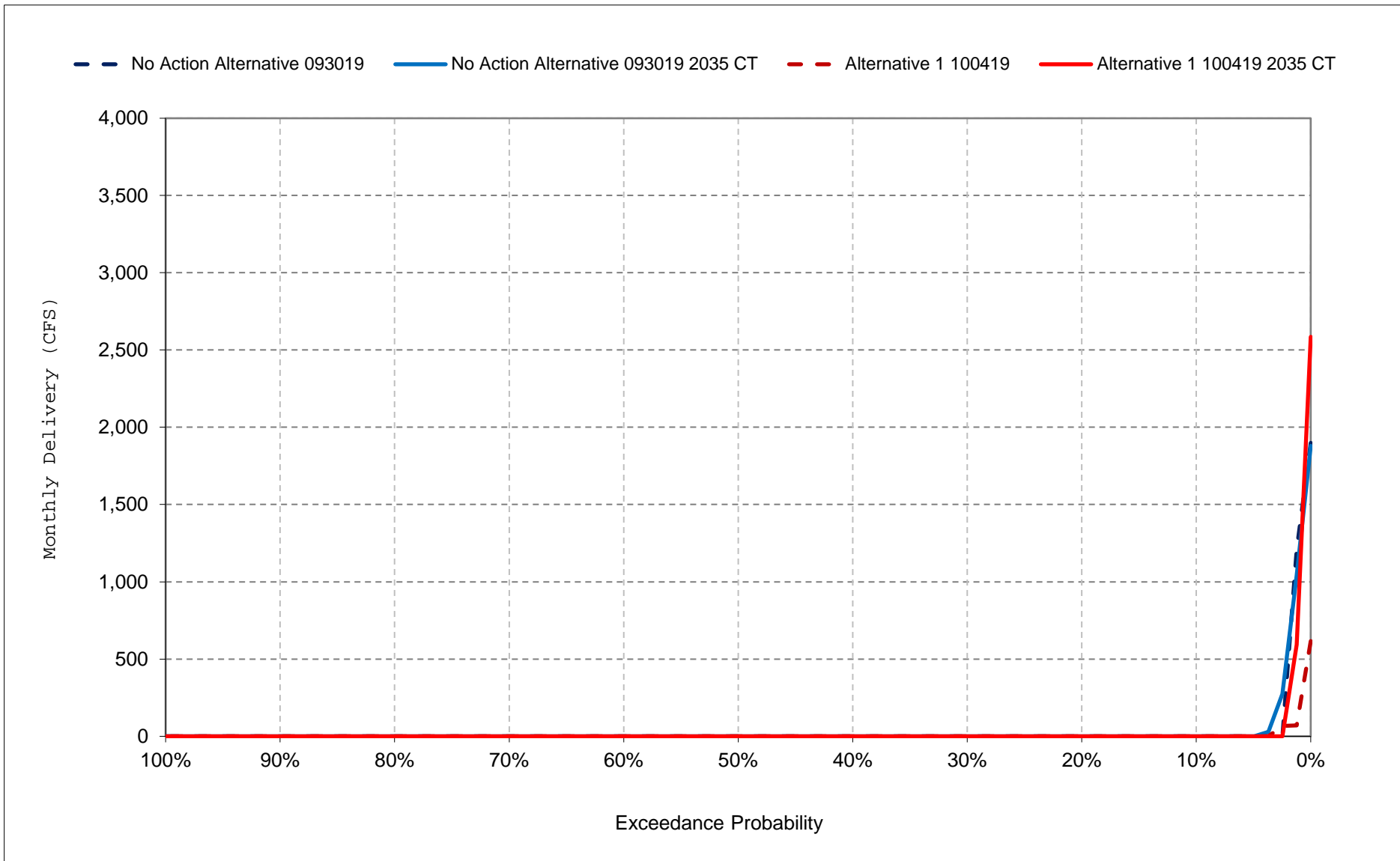
Figure 55-10. CVP Banks PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

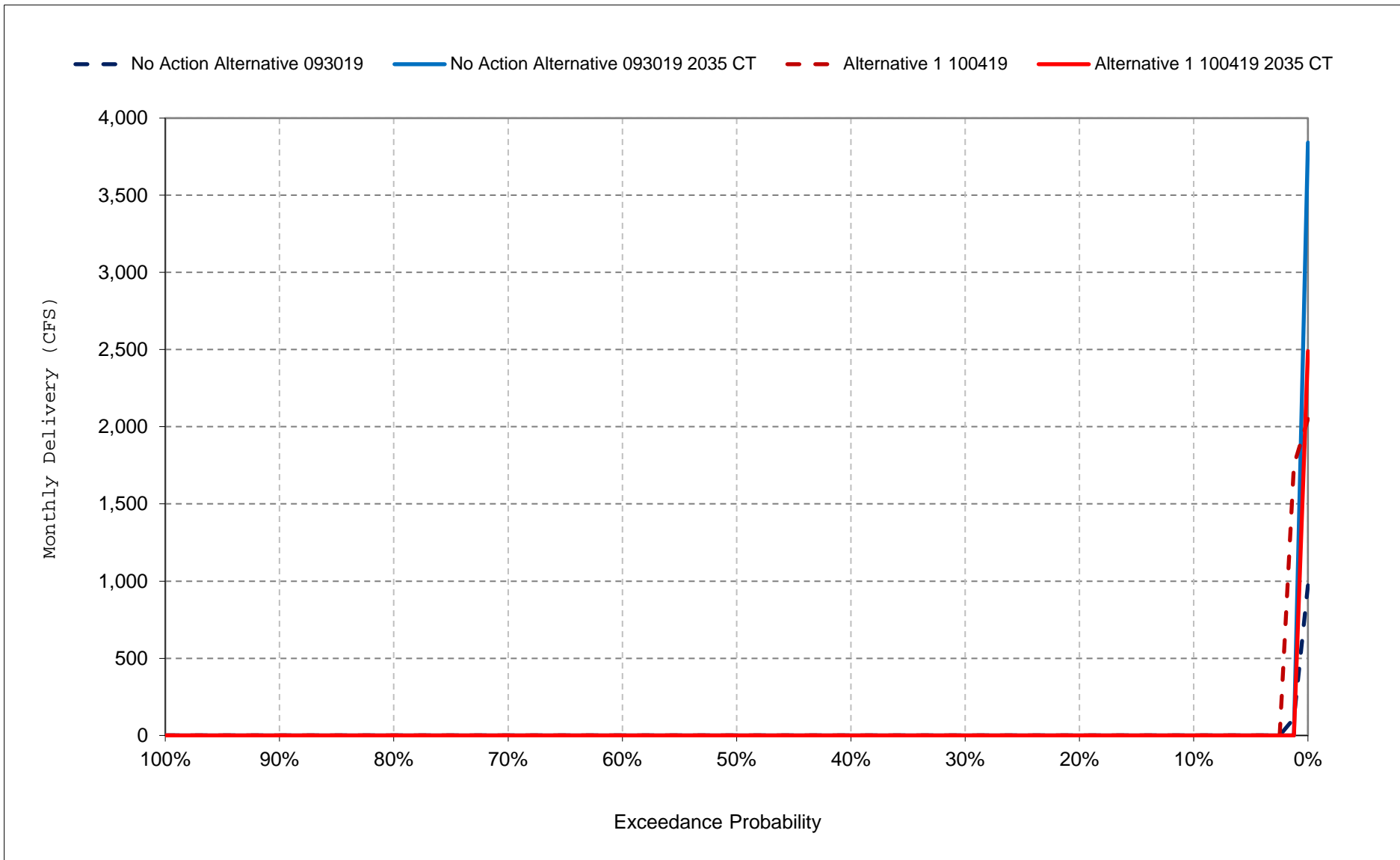
Figure 55-11. CVP Banks PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

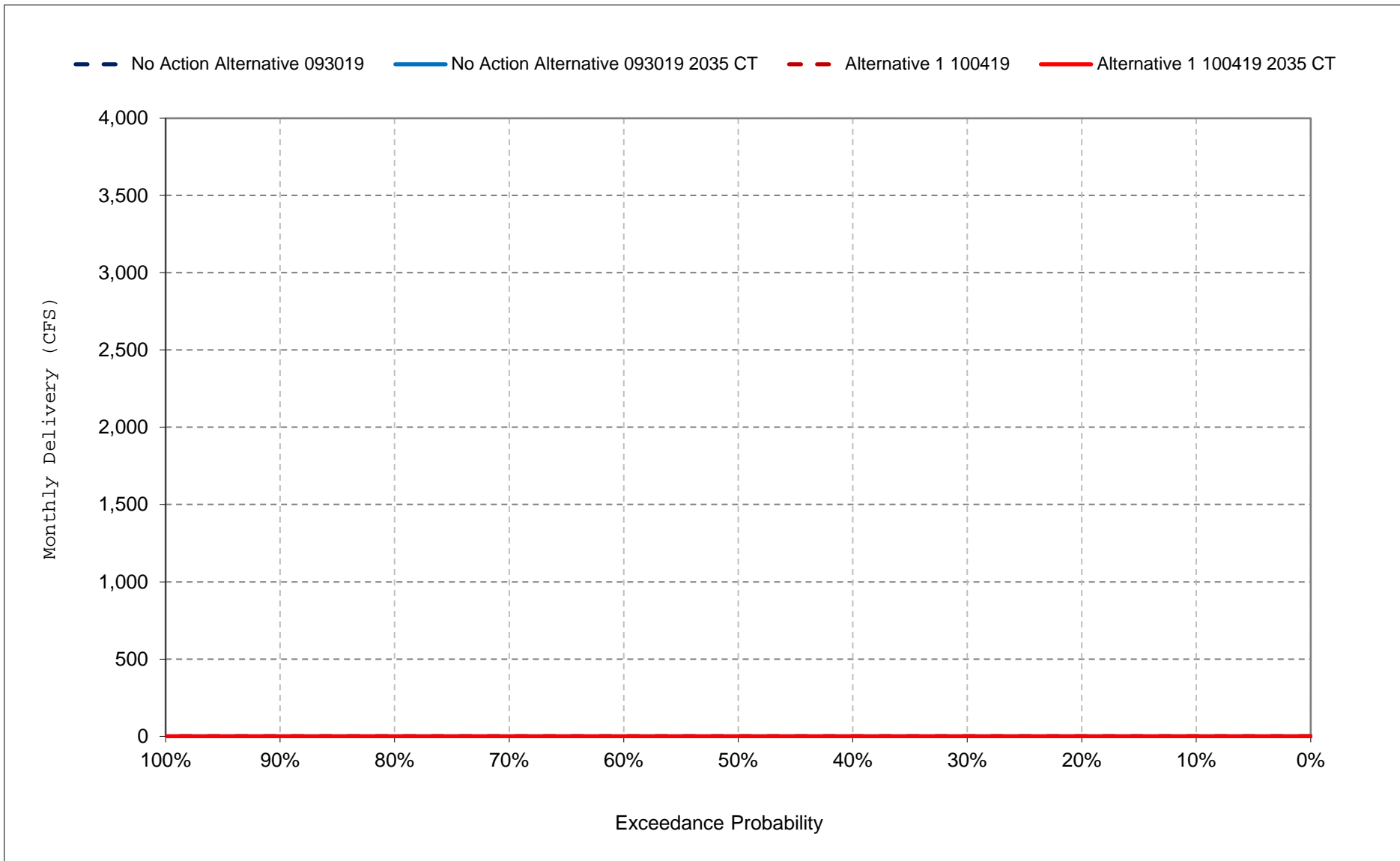
Figure 55-12. CVP Banks PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

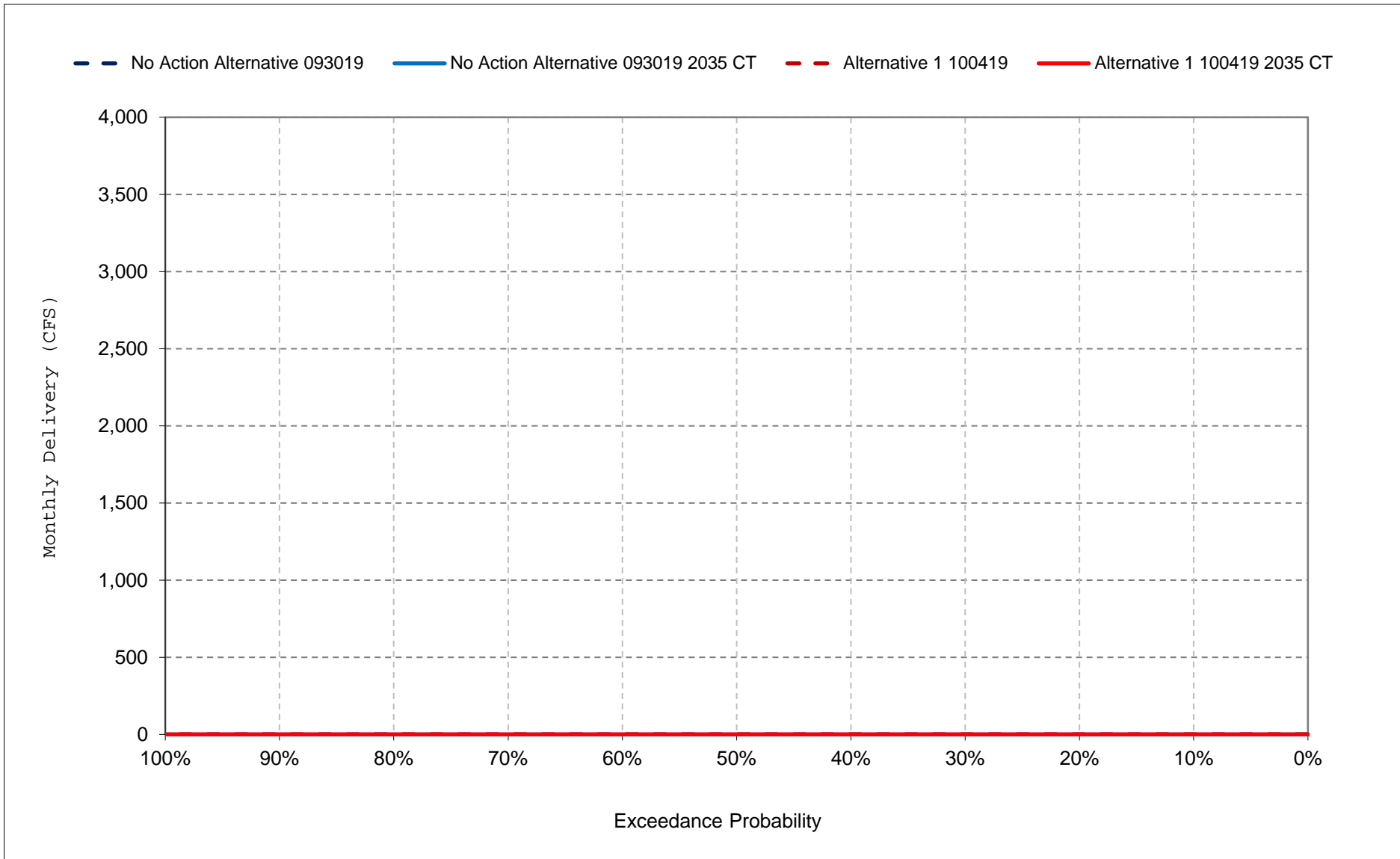
Figure 55-13. CVP Banks PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

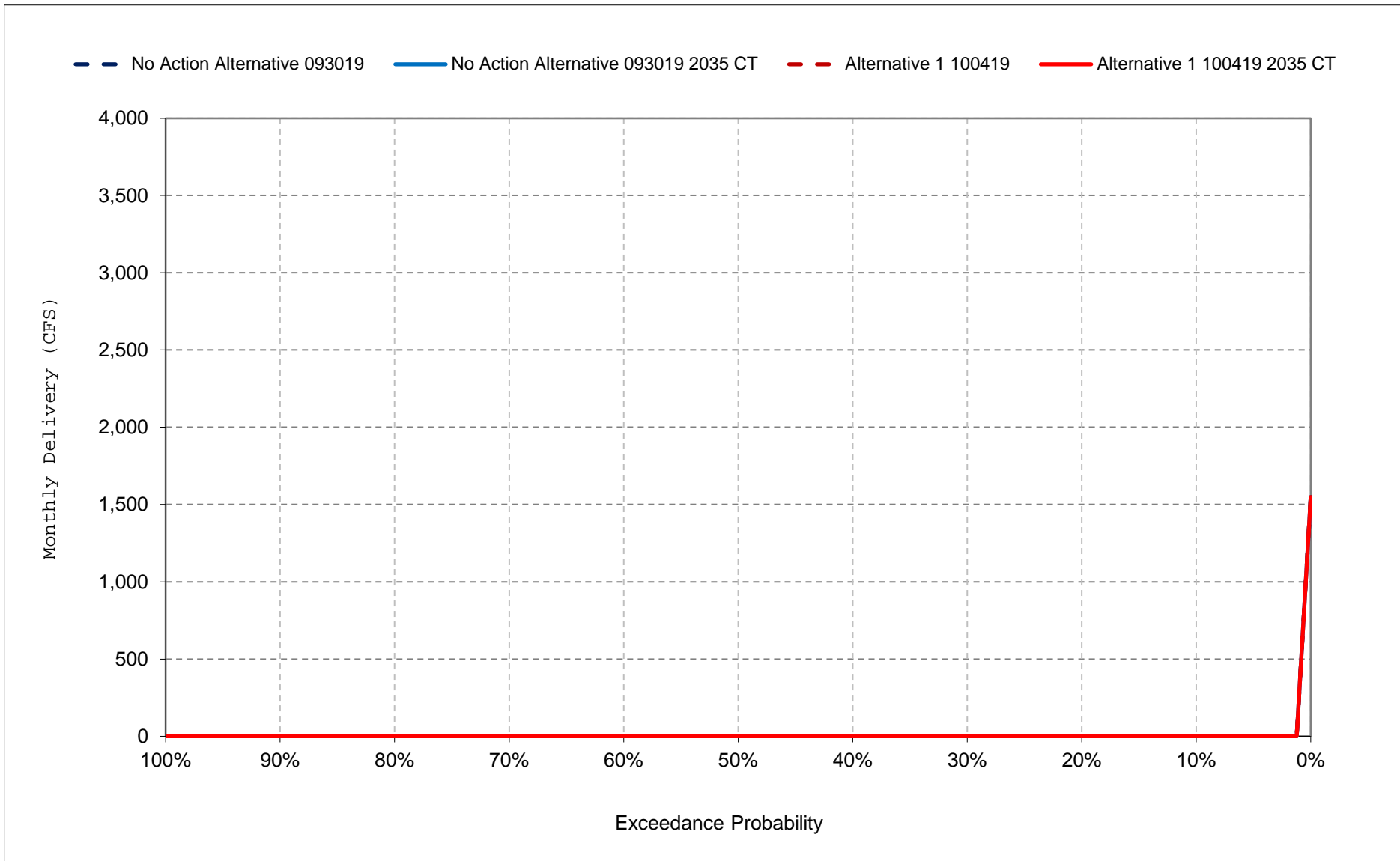
Figure 55-14. CVP Banks PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

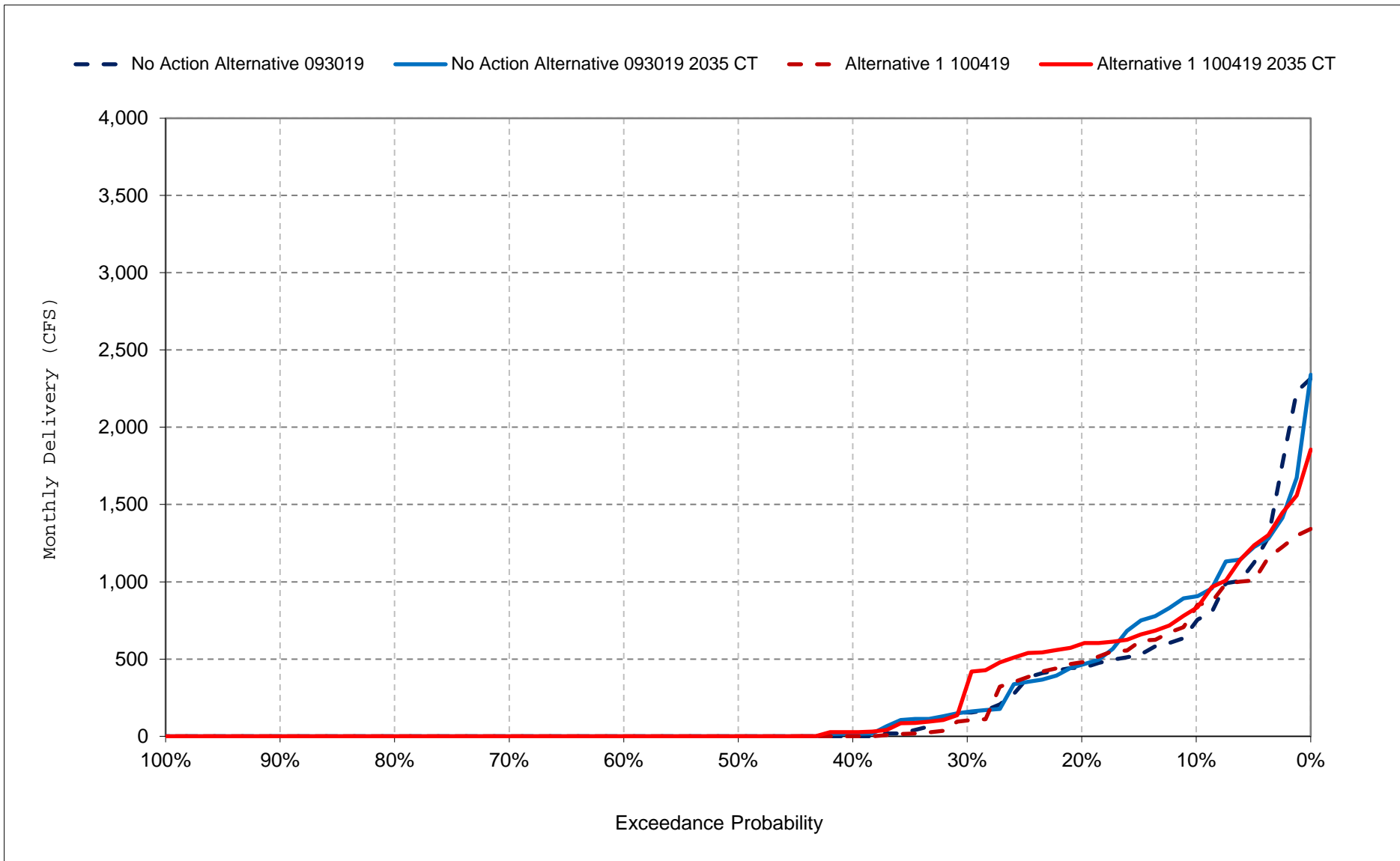
Figure 55-15. CVP Banks PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

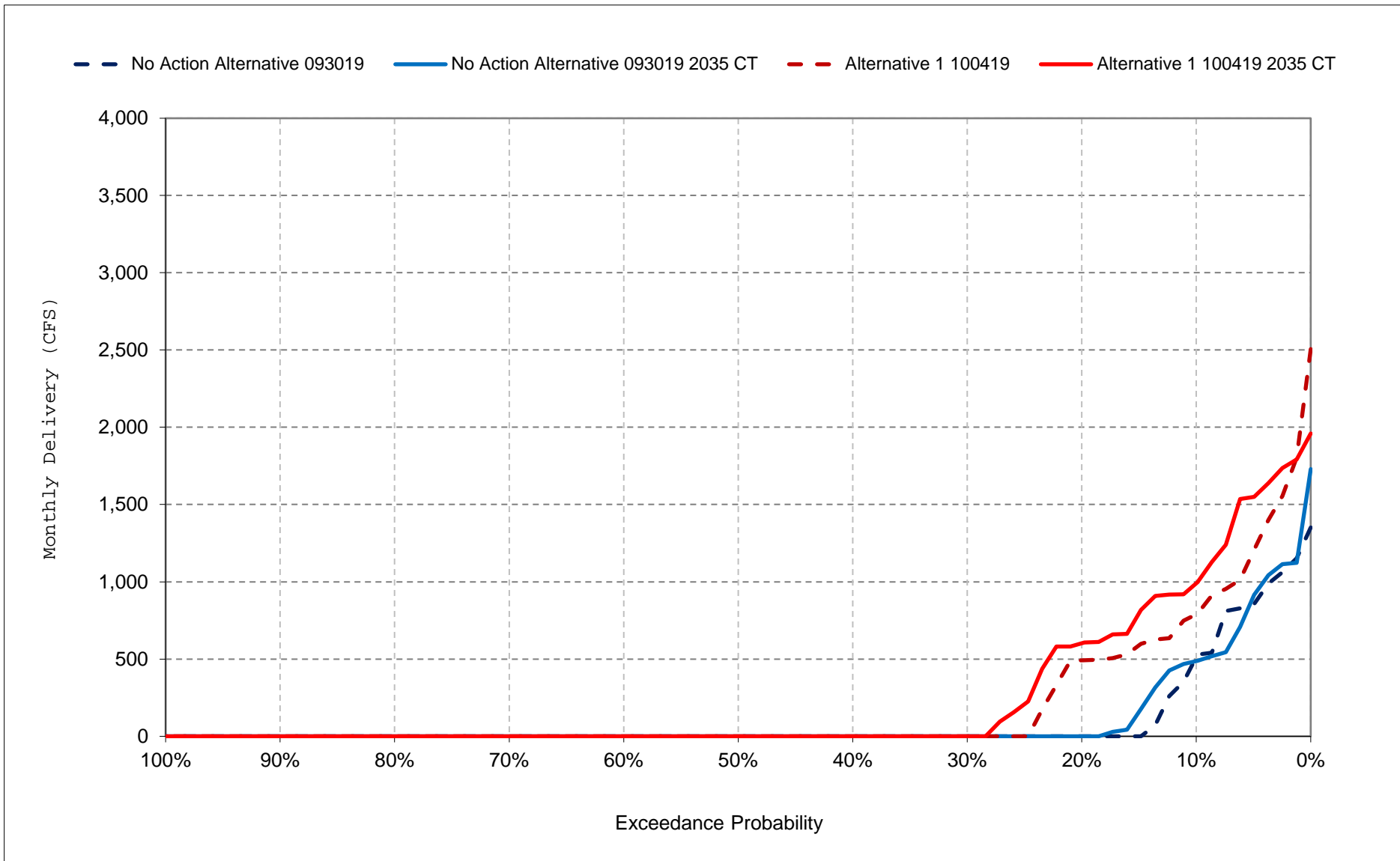
Figure 55-16. CVP Banks PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

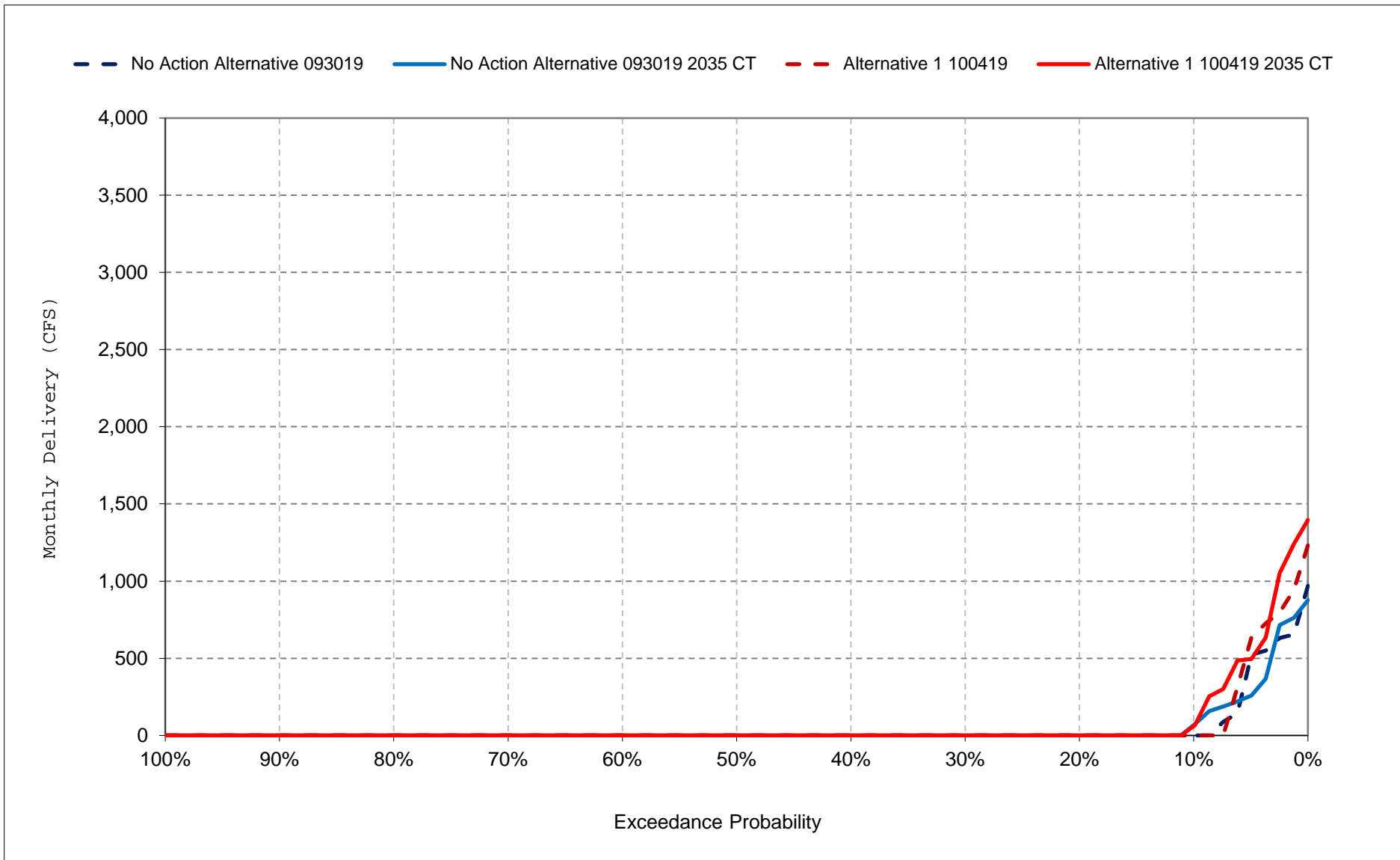
Figure 55-17. CVP Banks PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 55-18. CVP Banks PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-1. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,199	6,680	7,112	5,812	8,363	7,459	1,812	1,574	4,948	6,680	6,680	6,680
20%	3,284	5,514	7,058	3,400	5,869	6,297	1,408	995	2,583	6,680	6,680	6,680
30%	3,054	4,446	5,870	2,838	3,846	5,461	1,136	851	2,062	6,680	6,680	6,680
40%	2,940	3,409	4,618	2,735	3,116	3,608	969	654	1,903	6,662	6,680	6,680
50%	2,647	2,779	3,875	2,658	2,775	2,921	891	600	1,532	6,134	6,654	5,725
60%	2,543	2,199	3,539	2,629	2,605	2,652	847	600	1,226	5,396	2,200	3,241
70%	2,240	1,771	3,269	2,446	2,202	2,137	764	600	1,140	4,005	310	2,638
80%	1,847	1,279	2,962	2,270	1,792	1,675	715	600	600	326	300	2,396
90%	1,152	701	2,337	1,899	1,215	1,056	600	525	300	300	300	1,620
Long Term												
Full Simulation Period ^d	2,734	3,230	4,548	3,225	3,673	3,789	1,171	989	1,984	4,607	3,994	4,565
Water Year Types^{b,c}												
Wet (32%)	3,067	2,466	5,898	4,474	5,500	6,207	1,611	1,684	3,437	6,287	6,678	6,558
Above Normal (16%)	3,288	3,306	5,138	2,975	3,975	4,046	877	673	1,777	6,239	6,679	6,554
Below Normal (13%)	3,424	4,083	4,140	2,562	2,906	2,896	1,032	632	1,345	6,059	4,595	4,203
Dry (24%)	2,344	4,306	3,754	2,593	2,481	2,449	1,153	800	1,466	3,147	644	2,813
Critical (15%)	1,434	2,230	2,684	2,452	2,075	1,321	694	466	510	300	300	1,343

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,512	6,680	7,123	6,280	8,970	5,985	6,339	6,148	4,393	6,680	6,680	4,839
20%	3,437	6,680	7,054	4,153	5,851	4,529	4,802	3,431	3,064	6,680	6,680	2,845
30%	3,176	6,254	5,441	3,096	4,098	3,928	4,300	2,727	2,633	6,680	6,680	2,578
40%	2,808	5,101	4,459	2,898	3,320	3,125	3,378	2,230	2,234	6,674	6,680	2,389
50%	2,682	4,854	3,899	2,831	2,917	2,381	2,904	2,114	2,118	6,441	6,088	2,020
60%	2,472	3,795	3,306	2,728	2,703	2,175	2,510	1,672	2,002	5,514	2,589	1,622
70%	2,188	3,432	2,929	2,625	2,627	2,044	2,020	1,422	1,845	4,337	436	1,304
80%	1,904	2,786	2,720	2,386	2,489	1,912	1,522	1,185	1,710	701	300	800
90%	1,186	1,868	2,593	2,127	2,316	1,725	973	868	300	300	300	421
Long Term												
Full Simulation Period ^d	2,783	4,537	4,423	3,423	4,035	3,287	3,204	2,485	2,430	4,750	4,025	2,263
Water Year Types^{b,c}												
Wet (32%)	3,213	5,658	5,735	4,671	5,926	5,099	4,802	4,024	3,572	6,184	6,487	1,812
Above Normal (16%)	2,565	5,065	5,319	3,359	3,748	3,119	3,398	2,496	2,075	6,100	6,371	1,547
Below Normal (13%)	3,581	4,471	3,684	3,021	3,538	2,459	3,059	1,904	2,057	6,255	5,539	4,126
Dry (24%)	2,597	4,224	3,589	2,634	2,938	2,357	2,190	1,836	2,441	3,849	702	2,859
Critical (15%)	1,663	2,116	2,678	2,473	2,534	1,850	1,352	754	666	304	300	1,312

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	313	0	11	468	607	-1,474	4,527	4,575	-555	0	0	-1,841
20%	153	1,166	-3	753	-18	-1,768	3,394	2,436	481	0	0	-3,835
30%	122	1,808	-428	259	252	-1,533	3,165	1,876	571	0	0	-4,102
40%	-132	1,692	-160	163	204	-483	2,409	1,576	332	12	0	-4,291
50%	36	2,075	23	173	142	-539	2,012	1,514	585	307	-566	-3,705
60%	-71	1,597	-233	99	98	-478	1,663	1,072	775	118	389	-1,619
70%	-52	1,661	-340	179	426	-93	1,256	822	705	332	127	-1,334
80%	57	1,507	-243	116	697	237	807	585	1,110	375	0	-1,596
90%	34	1,167	256	228	1,101	670	373	343	0	0	0	-1,198
Long Term												
Full Simulation Period ^d	48	1,306	-125	198	363	-502	2,032	1,496	446	144	32	-2,302
Water Year Types^{b,c}												
Wet (32%)	147	3,192	-163	196	426	-1,108	3,191	2,341	135	-103	-191	-4,746
Above Normal (16%)	-722	1,759	181	384	-227	-927	2,520	1,823	299	-139	-307	-5,007
Below Normal (13%)	157	388	-456	459	633	-438	2,027	1,272	712	196	944	-77
Dry (24%)	253	-82	-165	41	458	-92	1,036	1,035	976	702	59	46
Critical (15%)	229	-113	-6	21	459	529	658	288	156	4	0	-31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 56-2. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,605	6,680	7,117	6,319	9,376	8,162	2,085	1,519	3,897	6,680	6,680	6,680
20%	3,167	5,425	7,052	4,892	6,152	6,512	1,485	968	2,313	6,680	6,680	6,680
30%	2,941	4,533	5,379	2,947	4,198	5,928	1,208	833	1,940	6,664	6,680	6,680
40%	2,667	3,377	4,267	2,722	3,316	3,893	1,046	723	1,754	6,553	6,680	6,402
50%	2,482	2,628	3,823	2,643	2,807	3,099	919	613	1,391	5,869	6,666	4,571
60%	2,186	2,069	3,390	2,599	2,576	2,740	849	600	1,194	5,538	3,698	2,910
70%	1,972	1,561	3,266	2,095	2,047	2,316	811	600	1,135	4,667	461	2,559
80%	1,266	1,167	2,968	1,899	1,752	1,924	707	600	600	1,407	300	2,306
90%	856	615	2,495	1,762	1,301	1,184	600	525	310	300	300	1,487
Long Term												
Full Simulation Period ^d	2,461	3,149	4,481	3,407	3,832	4,000	1,302	996	1,854	4,784	4,222	4,332
Water Year Types ^{b,c}												
Wet (32%)	3,034	2,535	5,689	5,183	5,967	6,333	1,967	1,704	3,160	6,036	6,512	5,860
Above Normal (16%)	2,011	3,244	4,993	3,246	4,016	4,644	977	690	1,633	6,327	6,647	6,436
Below Normal (13%)	3,284	3,895	3,864	2,419	3,467	3,046	1,471	726	1,241	5,983	4,614	4,121
Dry (24%)	2,359	4,095	3,855	2,523	2,313	2,577	958	744	1,358	3,930	1,808	2,849
Critical (15%)	1,123	2,118	2,921	2,112	1,875	1,491	631	459	651	724	300	1,411

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,792	6,680	7,092	6,952	9,183	6,321	6,245	6,130	3,991	6,680	6,680	4,933
20%	3,241	6,680	6,944	4,763	6,164	5,086	4,935	3,627	3,043	6,680	6,680	3,224
30%	2,940	5,623	5,010	3,134	4,951	4,269	4,264	2,831	2,661	6,653	6,680	2,804
40%	2,723	5,049	4,209	2,933	3,530	3,138	3,598	2,290	2,419	6,351	6,680	2,492
50%	2,482	4,569	3,568	2,787	2,901	2,549	3,116	2,108	2,229	5,678	4,561	2,052
60%	2,202	3,822	3,237	2,621	2,660	2,275	2,581	1,712	2,096	4,493	2,344	1,602
70%	2,082	3,395	2,856	2,439	2,535	2,072	2,097	1,413	1,929	3,129	1,114	1,248
80%	1,524	2,726	2,711	2,172	2,450	1,942	1,692	1,003	1,796	449	300	797
90%	922	1,839	2,510	2,067	2,354	1,811	965	572	300	300	300	396
Long Term												
Full Simulation Period ^d	2,582	4,434	4,314	3,520	4,098	3,426	3,307	2,496	2,482	4,433	3,908	2,279
Water Year Types ^{b,c}												
Wet (32%)	3,046	5,497	5,476	5,237	5,904	5,273	4,949	4,079	3,568	5,184	5,874	1,750
Above Normal (16%)	1,978	4,971	4,894	3,482	3,913	3,569	3,715	2,557	2,259	5,620	6,189	1,913
Below Normal (13%)	3,572	4,302	3,797	2,542	4,049	2,622	2,955	1,943	2,220	5,983	4,851	3,842
Dry (24%)	2,584	4,143	3,667	2,520	2,906	2,310	2,286	1,740	2,271	4,139	1,518	2,869
Critical (15%)	1,322	2,154	2,724	2,401	2,418	1,868	1,334	768	961	589	300	1,405

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	187	0	-25	632	-193	-1,842	4,160	4,611	94	0	0	-1,747
20%	73	1,255	-109	-129	13	-1,427	3,450	2,659	730	0	0	-3,456
30%	-2	1,091	-369	187	753	-1,660	3,056	1,997	720	-11	0	-3,876
40%	56	1,671	-58	212	215	-755	2,552	1,567	665	-202	0	-3,910
50%	1	1,941	-255	144	94	-550	2,197	1,495	838	-191	-2,105	-2,519
60%	16	1,753	-153	22	85	-465	1,732	1,112	902	-1,045	-1,354	-1,308
70%	111	1,834	-410	344	488	-244	1,286	813	795	-1,537	653	-1,311
80%	258	1,559	-257	273	698	18	985	403	1,196	-959	0	-1,509
90%	67	1,224	15	305	1,053	628	365	47	-10	0	0	-1,091
Long Term												
Full Simulation Period ^d	121	1,284	-167	113	266	-574	2,005	1,500	628	-351	-314	-2,053
Water Year Types ^{b,c}												
Wet (32%)	12	2,961	-213	55	-63	-1,061	2,981	2,375	408	-852	-638	-4,110
Above Normal (16%)	-32	1,728	-99	236	-102	-1,075	2,738	1,866	626	-708	-458	-4,523
Below Normal (13%)	288	406	-68	123	582	-424	1,484	1,217	980	0	236	-278
Dry (24%)	225	48	-188	-3	593	-266	1,328	996	912	209	-290	21
Critical (15%)	199	36	-197	289	543	376	703	308	310	-135	0	-6

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-3. SWP Banks PP Exports, Monthly Delivery

No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,199	6,680	7,112	5,812	8,363	7,459	1,812	1,574	4,948	6,680	6,680	6,680
20%	3,284	5,514	7,058	3,400	5,869	6,297	1,408	995	2,583	6,680	6,680	6,680
30%	3,054	4,446	5,870	2,838	3,846	5,461	1,136	851	2,062	6,680	6,680	6,680
40%	2,940	3,409	4,618	2,735	3,116	3,608	969	654	1,903	6,662	6,680	6,680
50%	2,647	2,779	3,875	2,658	2,775	2,921	891	600	1,532	6,134	6,654	5,725
60%	2,543	2,199	3,539	2,629	2,605	2,652	847	600	1,226	5,396	2,200	3,241
70%	2,240	1,771	3,269	2,446	2,202	2,137	764	600	1,140	4,005	310	2,638
80%	1,847	1,279	2,962	2,270	1,792	1,675	715	600	600	326	300	2,396
90%	1,152	701	2,337	1,899	1,215	1,056	600	525	300	300	300	1,620
Long Term												
Full Simulation Period ^d	2,734	3,230	4,548	3,225	3,673	3,789	1,171	989	1,984	4,607	3,994	4,565
Water Year Types ^{b,c}												
Wet (32%)	3,067	2,466	5,898	4,474	5,500	6,207	1,611	1,684	3,437	6,287	6,678	6,558
Above Normal (16%)	3,288	3,306	5,138	2,975	3,975	4,046	877	673	1,777	6,239	6,679	6,554
Below Normal (13%)	3,424	4,083	4,140	2,562	2,906	2,896	1,032	632	1,345	6,059	4,595	4,203
Dry (24%)	2,344	4,306	3,754	2,593	2,481	2,449	1,153	800	1,466	3,147	644	2,813
Critical (15%)	1,434	2,230	2,684	2,452	2,075	1,321	694	466	510	300	300	1,343

No Action Alternative 093019 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,605	6,680	7,117	6,319	9,376	8,162	2,085	1,519	3,897	6,680	6,680	6,680
20%	3,167	5,425	7,052	4,892	6,152	6,512	1,485	968	2,313	6,680	6,680	6,680
30%	2,941	4,533	5,379	2,947	4,198	5,928	1,208	833	1,940	6,664	6,680	6,680
40%	2,667	3,377	4,267	2,722	3,316	3,893	1,046	723	1,754	6,553	6,680	6,402
50%	2,482	2,628	3,823	2,643	2,807	3,099	919	613	1,391	5,869	6,666	4,571
60%	2,186	2,069	3,390	2,599	2,576	2,740	849	600	1,194	5,538	3,698	2,910
70%	1,972	1,561	3,266	2,095	2,047	2,316	811	600	1,135	4,667	461	2,559
80%	1,266	1,167	2,968	1,899	1,752	1,924	707	600	600	1,407	300	2,306
90%	856	615	2,495	1,762	1,301	1,184	600	525	310	300	300	1,487
Long Term												
Full Simulation Period ^d	2,461	3,149	4,481	3,407	3,832	4,000	1,302	996	1,854	4,784	4,222	4,332
Water Year Types ^{b,c}												
Wet (32%)	3,034	2,535	5,689	5,183	5,967	6,333	1,967	1,704	3,160	6,036	6,512	5,860
Above Normal (16%)	2,011	3,244	4,993	3,246	4,016	4,644	977	690	1,633	6,327	6,647	6,436
Below Normal (13%)	3,284	3,895	3,864	2,419	3,467	3,046	1,471	726	1,241	5,983	4,614	4,121
Dry (24%)	2,359	4,095	3,855	2,523	2,313	2,577	958	744	1,358	3,930	1,808	2,849
Critical (15%)	1,123	2,118	2,921	2,112	1,875	1,491	631	459	651	724	300	1,411

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-594	0	5	507	1,013	703	273	-55	-1,051	0	0	0
20%	-117	-89	-5	1,493	283	215	77	-27	-270	0	0	0
30%	-113	86	-491	109	352	467	72	-18	-121	-16	0	0
40%	-273	-31	-351	-14	200	285	77	68	-149	-110	0	-278
50%	-165	-151	-53	-15	32	179	27	13	-142	-264	12	-1,154
60%	-357	-129	-149	-30	-29	88	2	0	-32	143	1,498	-331
70%	-268	-210	-3	-351	-155	179	47	0	-6	662	152	-79
80%	-581	-112	6	-371	-40	248	-8	0	0	1,081	0	-91
90%	-297	-86	158	-136	86	128	0	0	10	0	0	-133
Long Term												
Full Simulation Period ^d	-273	-81	-67	182	160	211	131	7	-130	177	229	-233
Water Year Types ^{b,c}												
Wet (32%)	-32	69	-209	708	467	126	356	21	-277	-251	-166	-698
Above Normal (16%)	-1,277	-62	-145	271	40	598	100	17	-144	89	-31	-118
Below Normal (13%)	-140	-188	-276	-143	562	150	439	94	-104	-77	19	-82
Dry (24%)	15	-211	102	-70	-168	127	-195	-56	-107	783	1,164	35
Critical (15%)	-310	-112	237	-340	-200	170	-63	-6	141	424	0	68

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 56-4. SWP Banks PP Exports, Monthly Delivery

Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	4,512	6,680	7,123	6,280	8,970	5,985	6,339	6,148	4,393	6,680	6,680	4,839
20%	3,437	6,680	7,054	4,153	5,851	4,529	4,802	3,431	3,064	6,680	6,680	2,845
30%	3,176	6,254	5,441	3,096	4,098	3,928	4,300	2,727	2,633	6,680	6,680	2,578
40%	2,808	5,101	4,459	2,898	3,320	3,125	3,378	2,230	2,234	6,674	6,680	2,389
50%	2,682	4,854	3,899	2,831	2,917	2,381	2,904	2,114	2,118	6,441	6,088	2,020
60%	2,472	3,795	3,306	2,728	2,703	2,175	2,510	1,672	2,002	5,514	2,589	1,622
70%	2,188	3,432	2,929	2,625	2,627	2,044	2,020	1,422	1,845	4,337	436	1,304
80%	1,904	2,786	2,720	2,386	2,489	1,912	1,522	1,185	1,710	701	300	800
90%	1,186	1,868	2,593	2,127	2,316	1,725	973	868	300	300	300	421
Long Term												
Full Simulation Period ^d	2,783	4,537	4,423	3,423	4,035	3,287	3,204	2,485	2,430	4,750	4,025	2,263
Water Year Types ^{b,c}												
Wet (32%)	3,213	5,658	5,735	4,671	5,926	5,099	4,802	4,024	3,572	6,184	6,487	1,812
Above Normal (16%)	2,565	5,065	5,319	3,359	3,748	3,119	3,398	2,496	2,075	6,100	6,371	1,547
Below Normal (13%)	3,581	4,471	3,684	3,021	3,538	2,459	3,059	1,904	2,057	6,255	5,539	4,126
Dry (24%)	2,597	4,224	3,589	2,634	2,938	2,357	2,190	1,836	2,441	3,849	702	2,859
Critical (15%)	1,663	2,116	2,678	2,473	2,534	1,850	1,352	754	666	304	300	1,312

Alternative 1 100419 2035 CT

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3,792	6,680	7,092	6,952	9,183	6,321	6,245	6,130	3,991	6,680	6,680	4,933
20%	3,241	6,680	6,944	4,763	6,164	5,086	4,935	3,627	3,043	6,680	6,680	3,224
30%	2,940	5,623	5,010	3,134	4,951	4,269	4,264	2,831	2,661	6,653	6,680	2,804
40%	2,723	5,049	4,209	2,933	3,530	3,138	3,598	2,290	2,419	6,351	6,680	2,492
50%	2,482	4,569	3,568	2,787	2,901	2,549	3,116	2,108	2,229	5,678	4,561	2,052
60%	2,202	3,822	3,237	2,621	2,660	2,275	2,581	1,712	2,096	4,493	2,344	1,602
70%	2,082	3,395	2,856	2,439	2,535	2,072	2,097	1,413	1,929	3,129	1,114	1,248
80%	1,524	2,726	2,711	2,172	2,450	1,942	1,692	1,003	1,796	449	300	797
90%	922	1,839	2,510	2,067	2,354	1,811	965	572	300	300	300	396
Long Term												
Full Simulation Period ^d	2,582	4,434	4,314	3,520	4,098	3,426	3,307	2,496	2,482	4,433	3,908	2,279
Water Year Types ^{b,c}												
Wet (32%)	3,046	5,497	5,476	5,237	5,904	5,273	4,949	4,079	3,568	5,184	5,874	1,750
Above Normal (16%)	1,978	4,971	4,894	3,482	3,913	3,569	3,715	2,557	2,259	5,620	6,189	1,913
Below Normal (13%)	3,572	4,302	3,797	2,542	4,049	2,622	2,955	1,943	2,220	5,983	4,851	3,842
Dry (24%)	2,584	4,143	3,667	2,520	2,906	2,310	2,286	1,740	2,271	4,139	1,518	2,869
Critical (15%)	1,322	2,154	2,724	2,401	2,418	1,868	1,334	768	961	589	300	1,405

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Delivery (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-720	0	-31	671	213	335	-94	-18	-402	0	0	95
20%	-196	0	-111	610	314	556	133	196	-21	0	0	379
30%	-236	-631	-432	37	853	340	-37	103	27	-27	0	225
40%	-85	-52	-250	35	210	13	220	60	184	-323	0	103
50%	-200	-285	-331	-44	-16	168	212	-5	111	-763	-1,528	32
60%	-270	27	-69	-108	-43	101	71	40	95	-1,021	-245	-19
70%	-105	-37	-73	-186	-93	28	76	-10	84	-1,208	678	-56
80%	-380	-60	-8	-214	-39	29	171	-182	86	-253	0	-3
90%	-264	-28	-83	-60	38	86	-7	-297	0	0	0	-26
Long Term												
Full Simulation Period ^d	-200	-103	-109	97	63	139	104	11	51	-317	-117	16
Water Year Types ^{b,c}												
Wet (32%)	-167	-161	-259	567	-22	173	146	55	-4	-999	-613	-62
Above Normal (16%)	-587	-93	-425	124	165	450	317	60	184	-480	-182	365
Below Normal (13%)	-9	-170	113	-479	511	164	-104	39	164	-273	-689	-284
Dry (24%)	-13	-81	78	-114	-32	-47	96	-96	-170	290	816	10
Critical (15%)	-340	38	46	-72	-115	18	-19	14	295	285	0	93

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

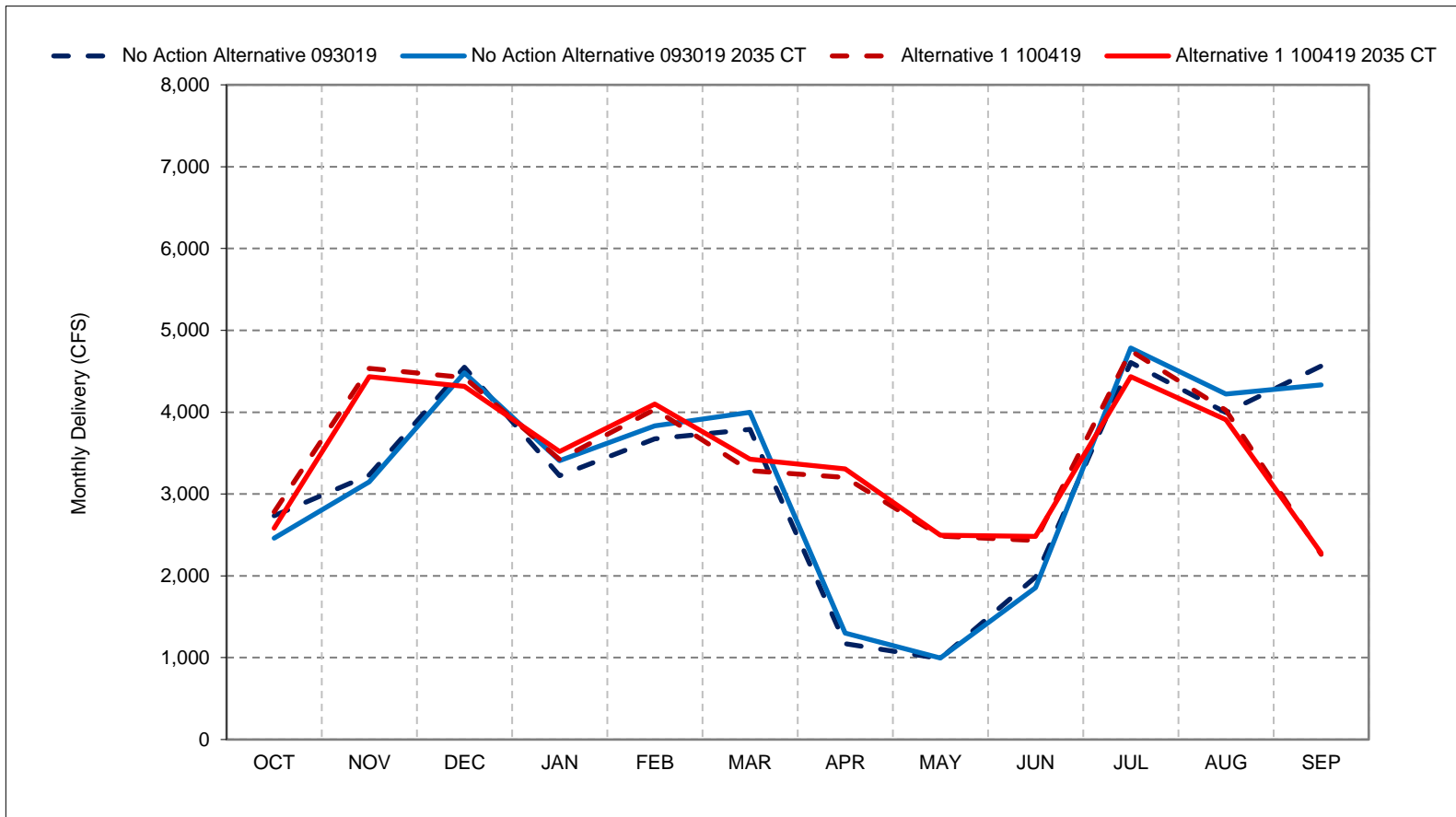
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 56-1. SWP Banks PP Exports, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

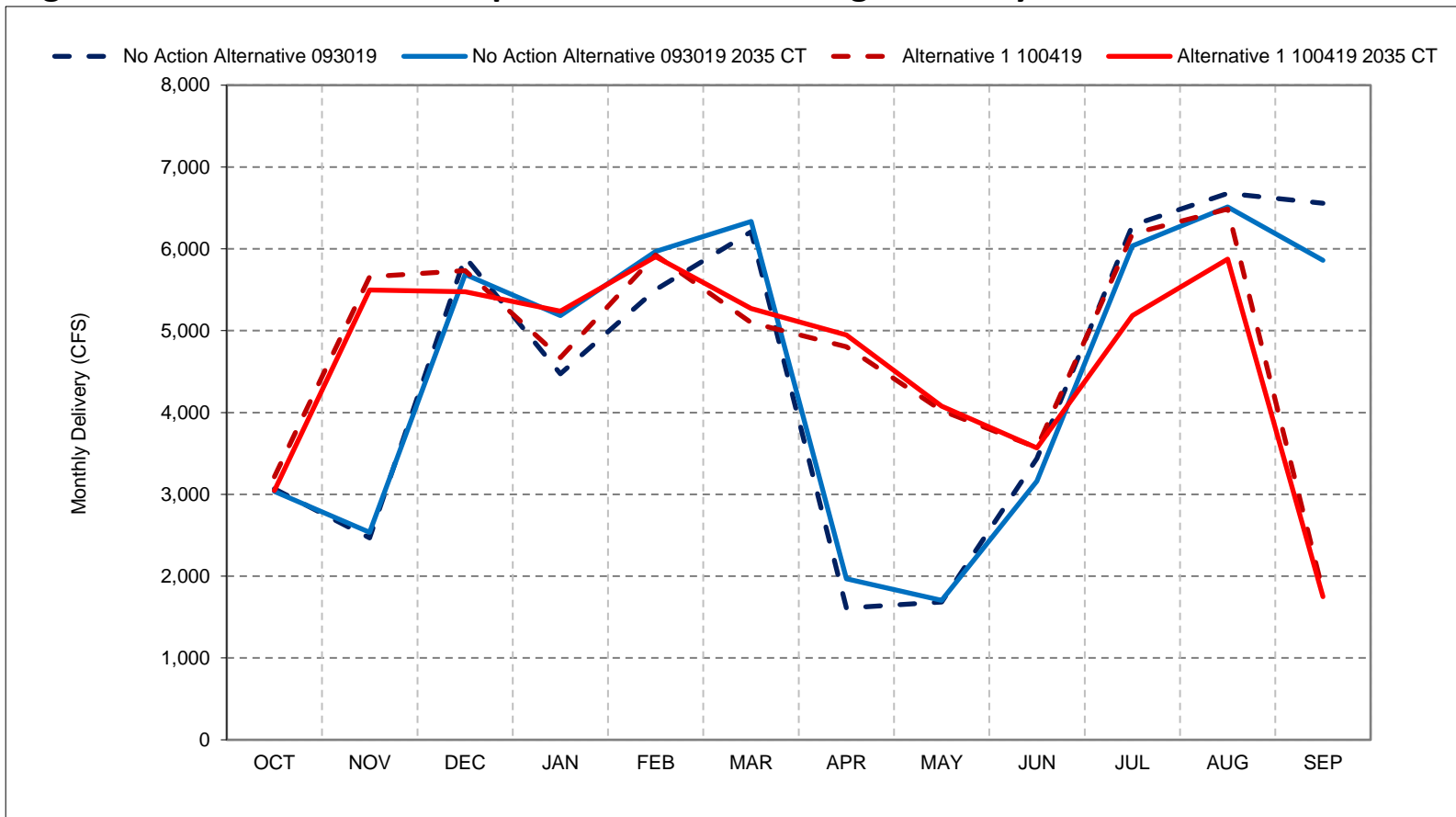
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-2. SWP Banks PP Exports, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

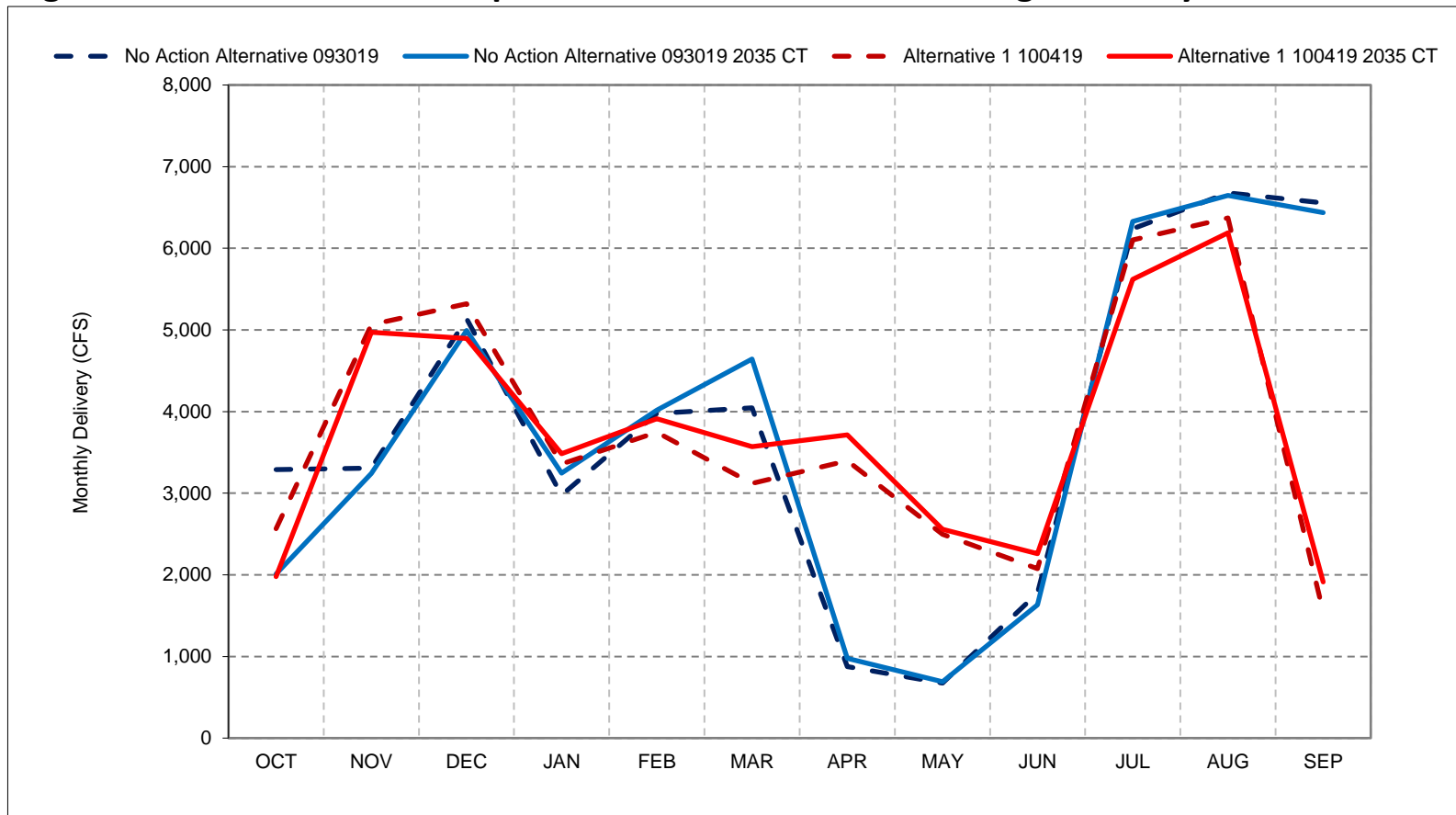
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-3. SWP Banks PP Exports, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

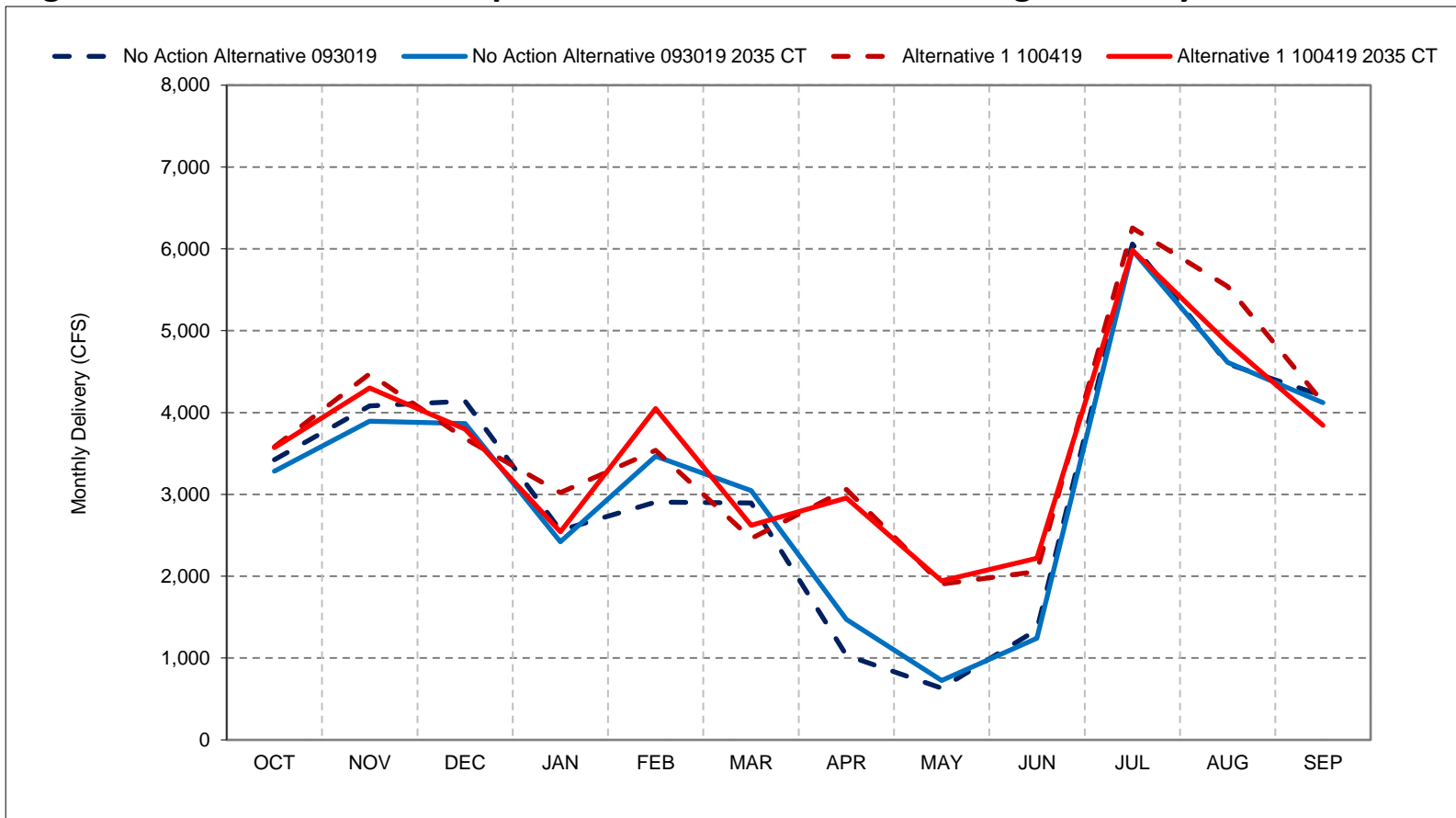
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-4. SWP Banks PP Exports, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

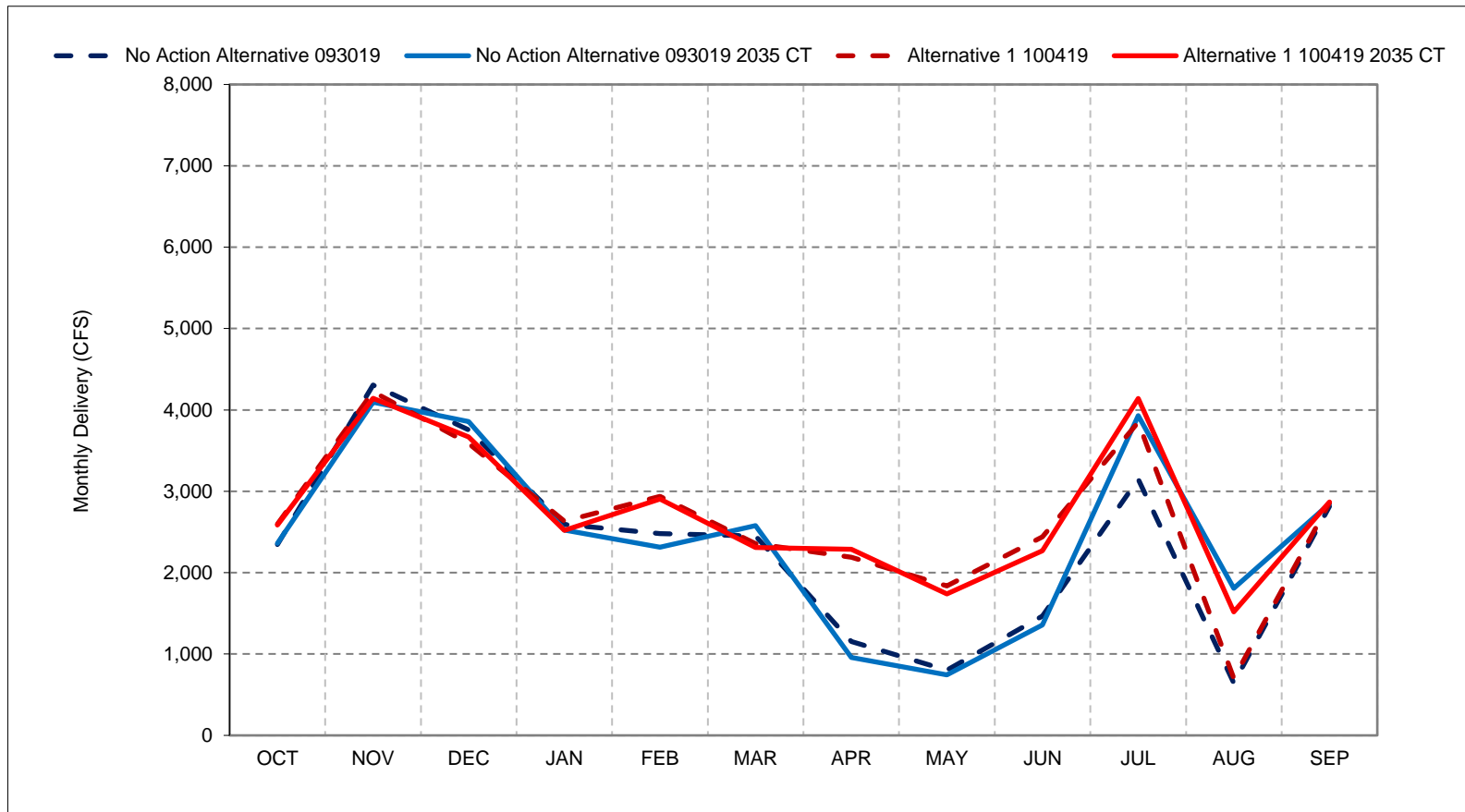
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-5. SWP Banks PP Exports, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

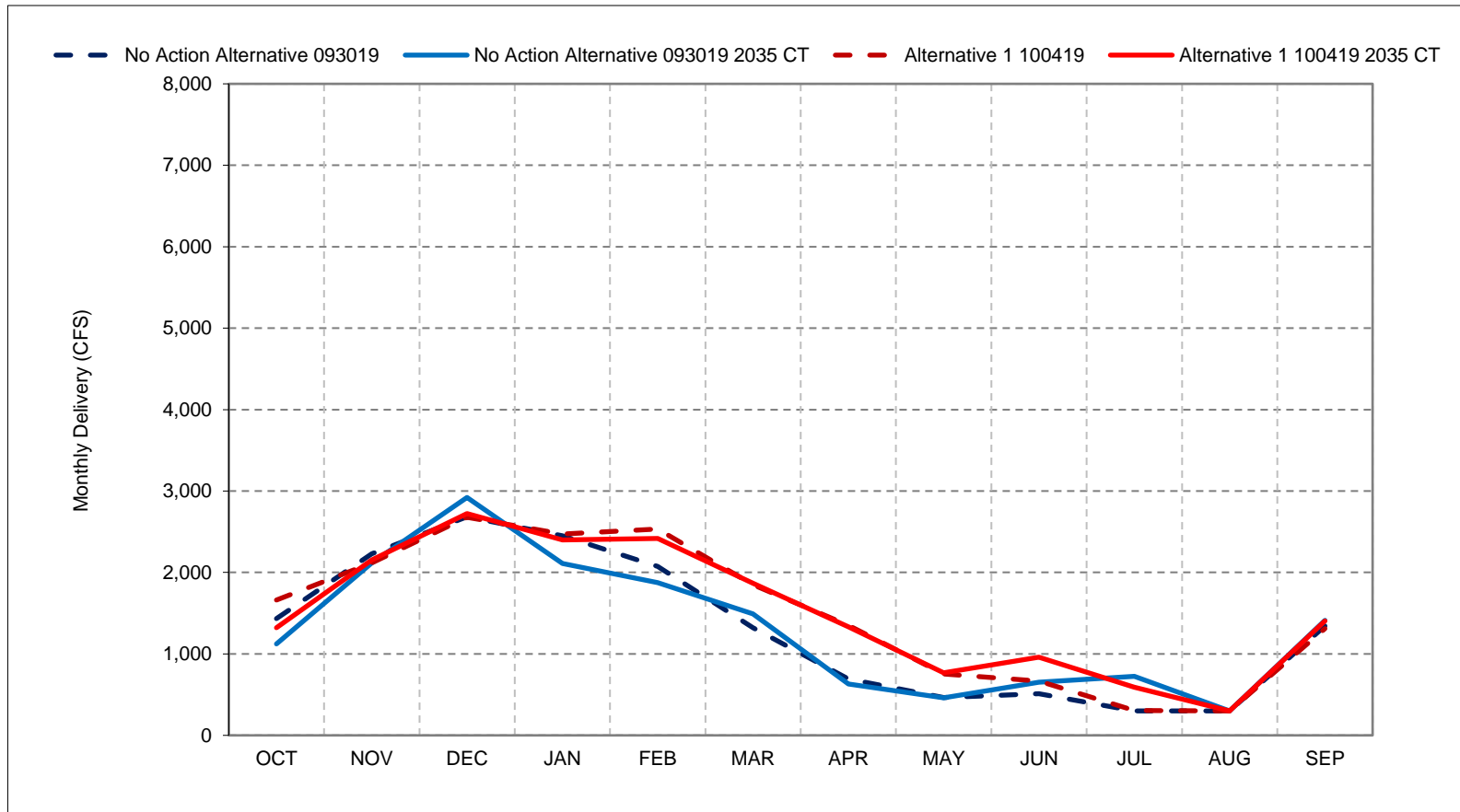
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 56-6. SWP Banks PP Exports, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

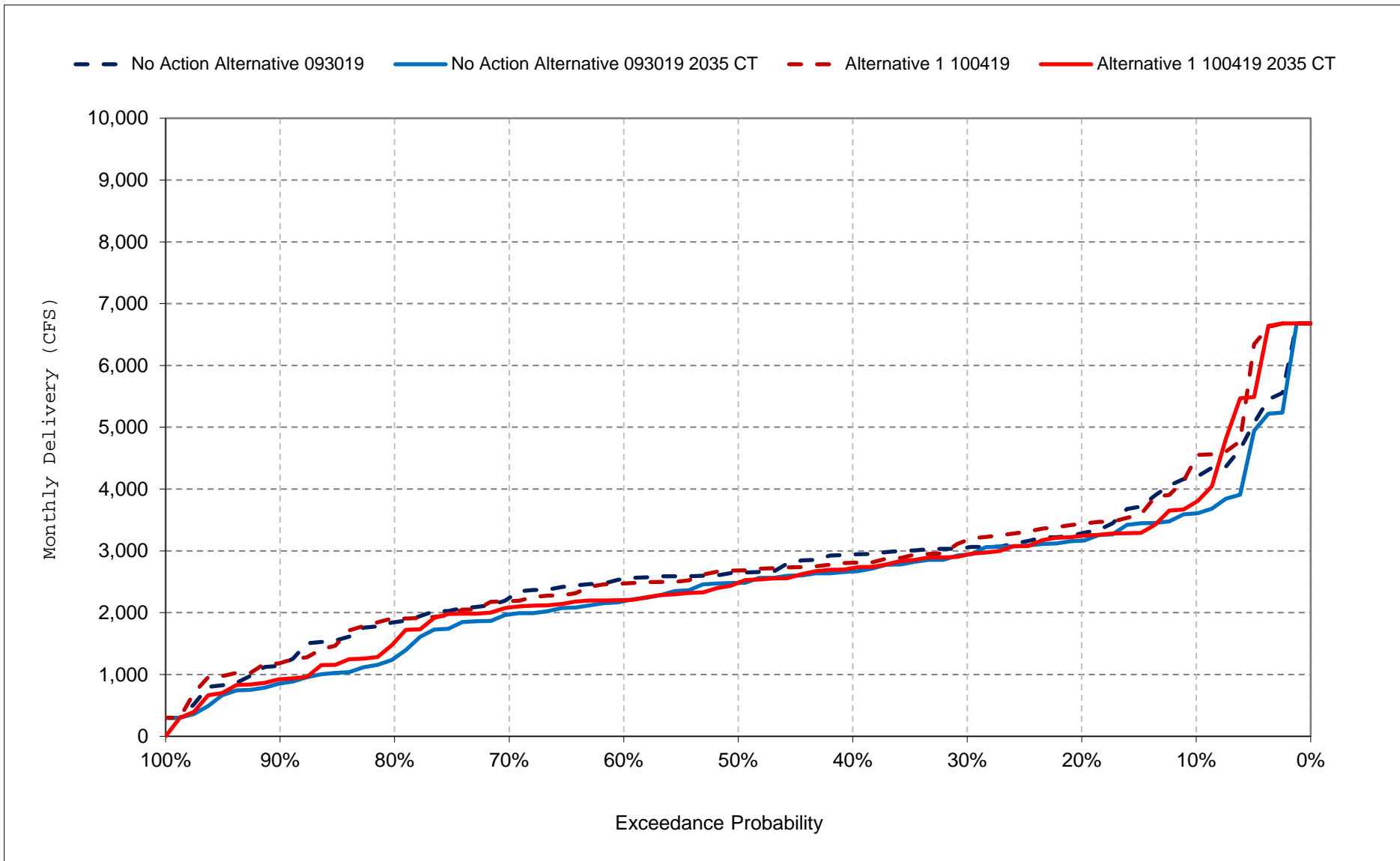
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

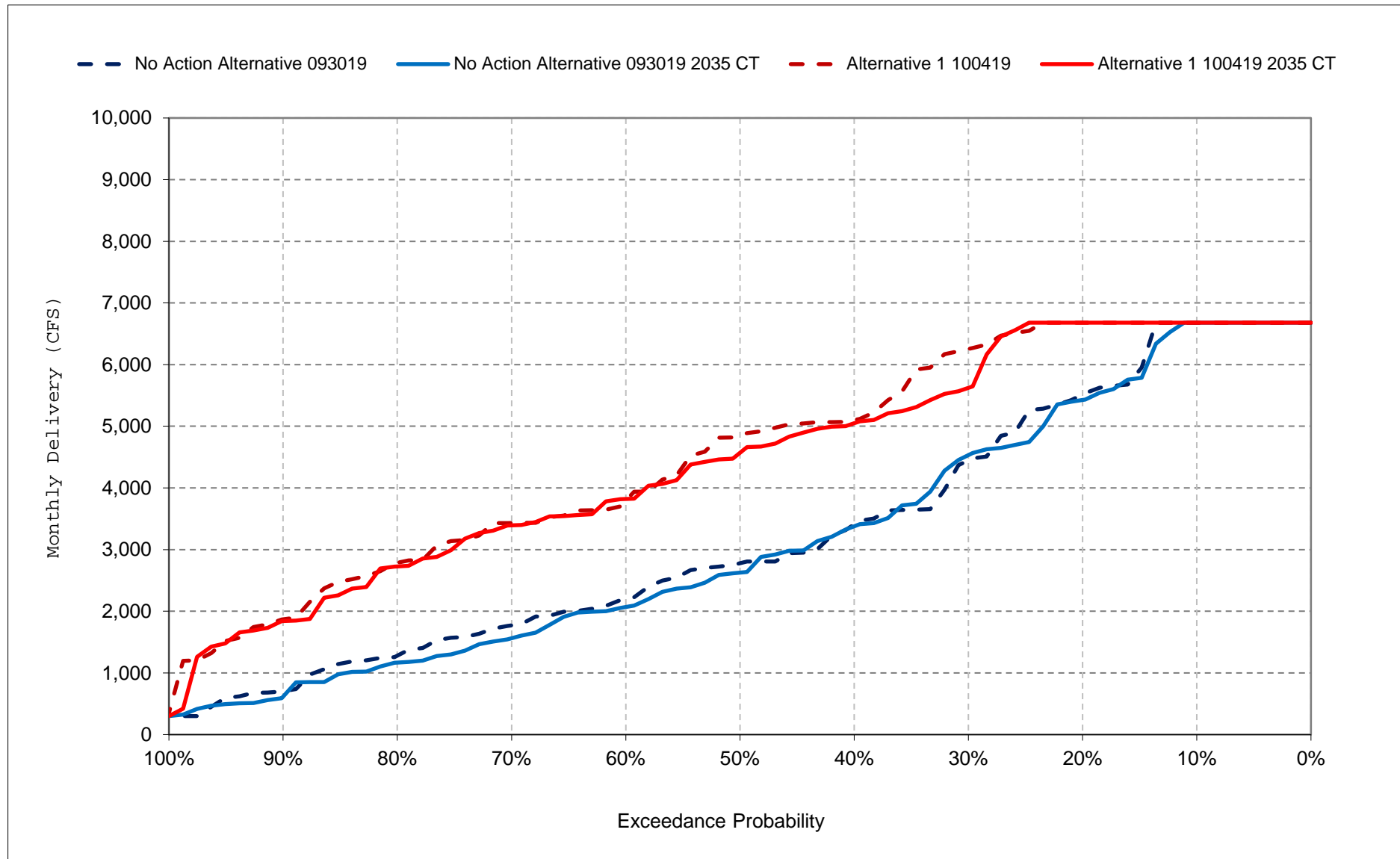
Figure 56-7. SWP Banks PP Exports, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

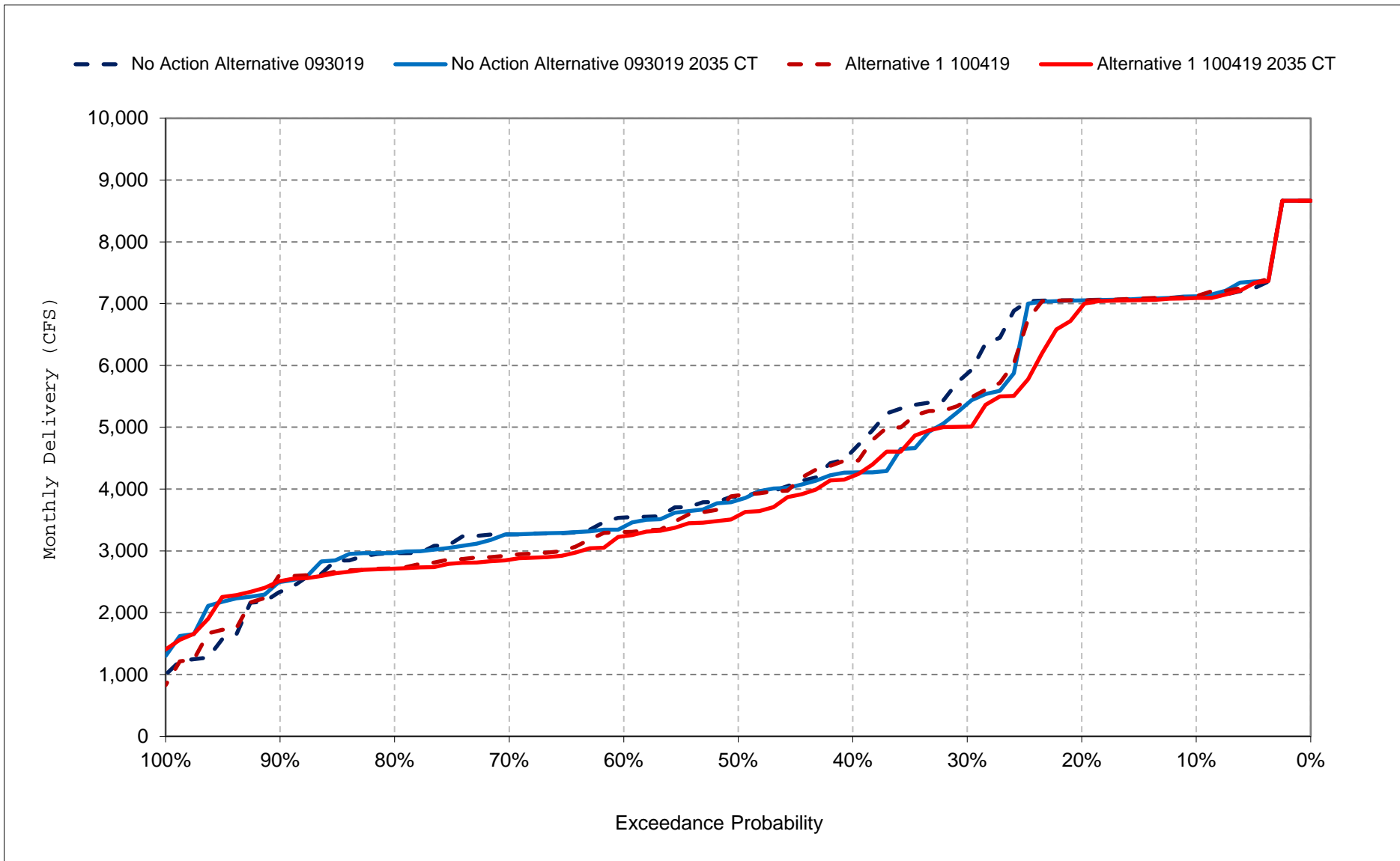
Figure 56-8. SWP Banks PP Exports, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

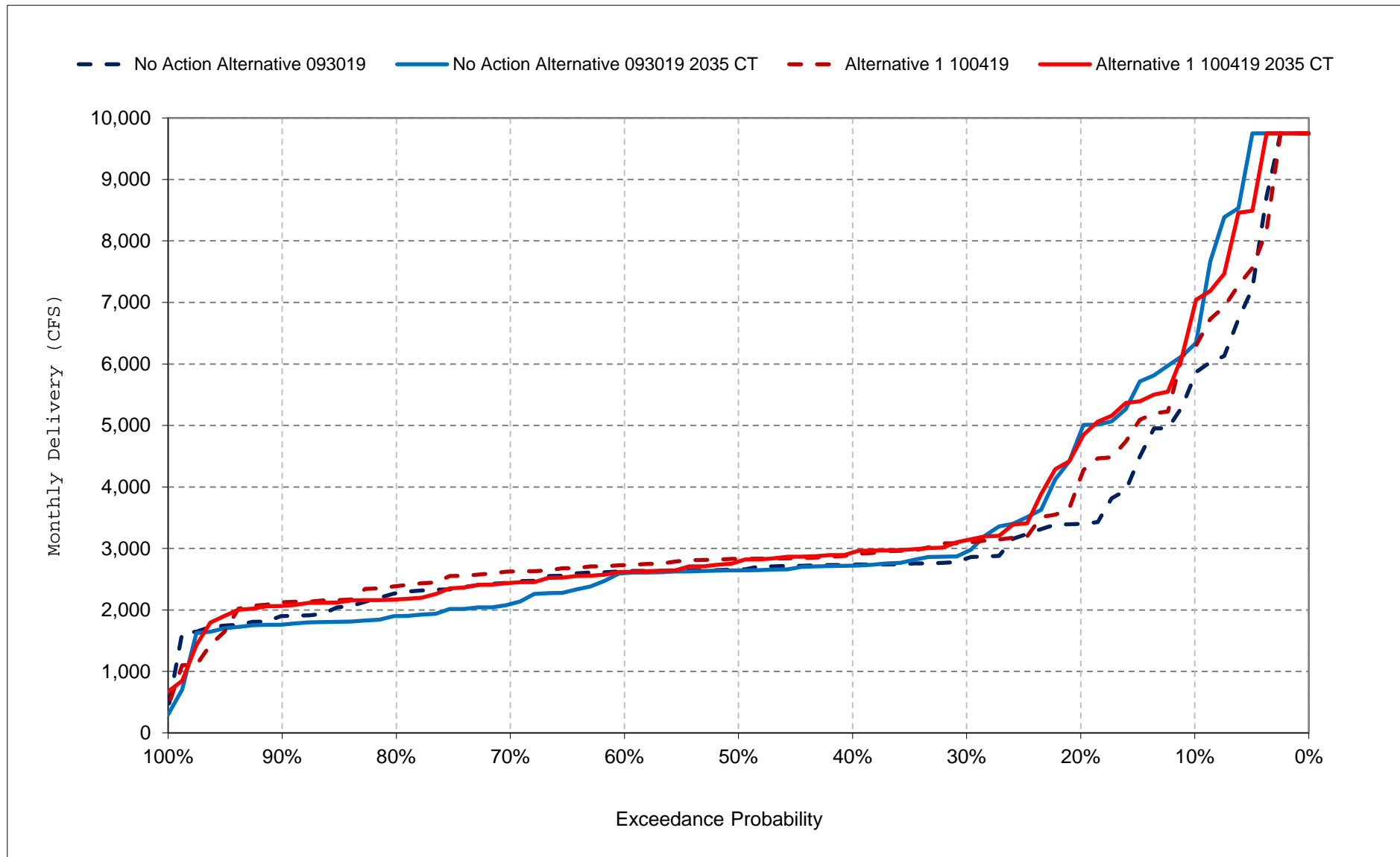
Figure 56-9. SWP Banks PP Exports, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

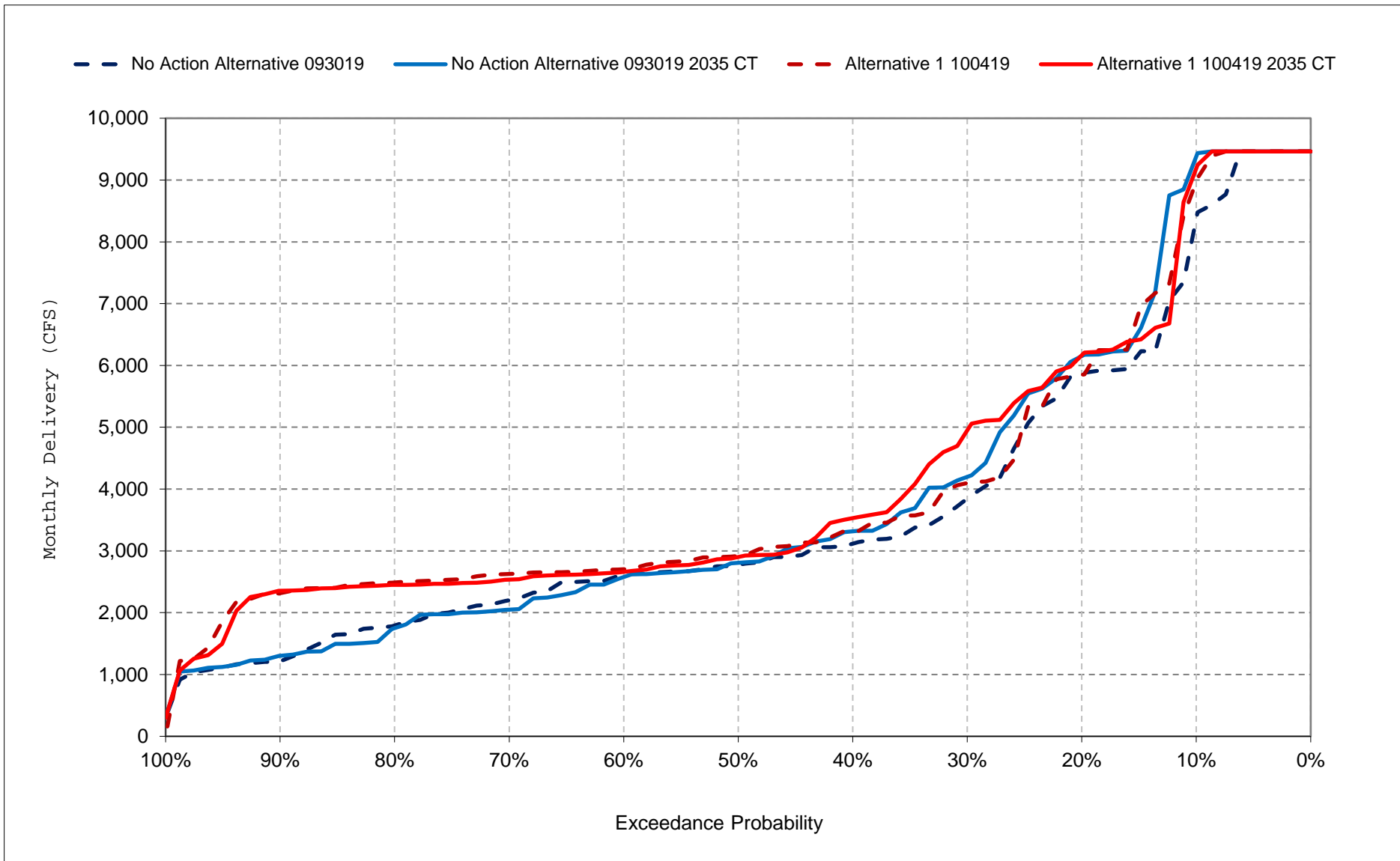
Figure 56-10. SWP Banks PP Exports, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

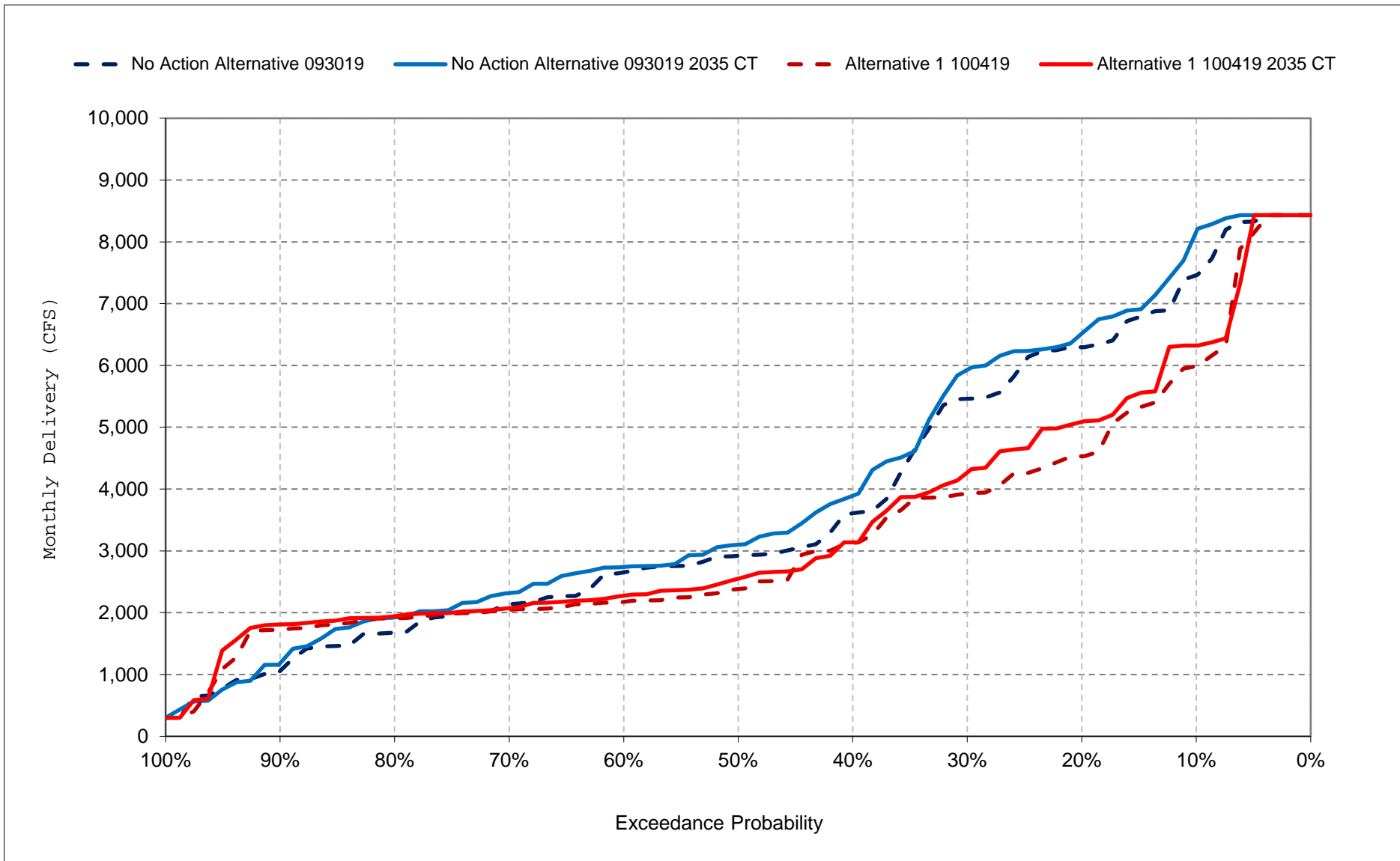
Figure 56-11. SWP Banks PP Exports, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

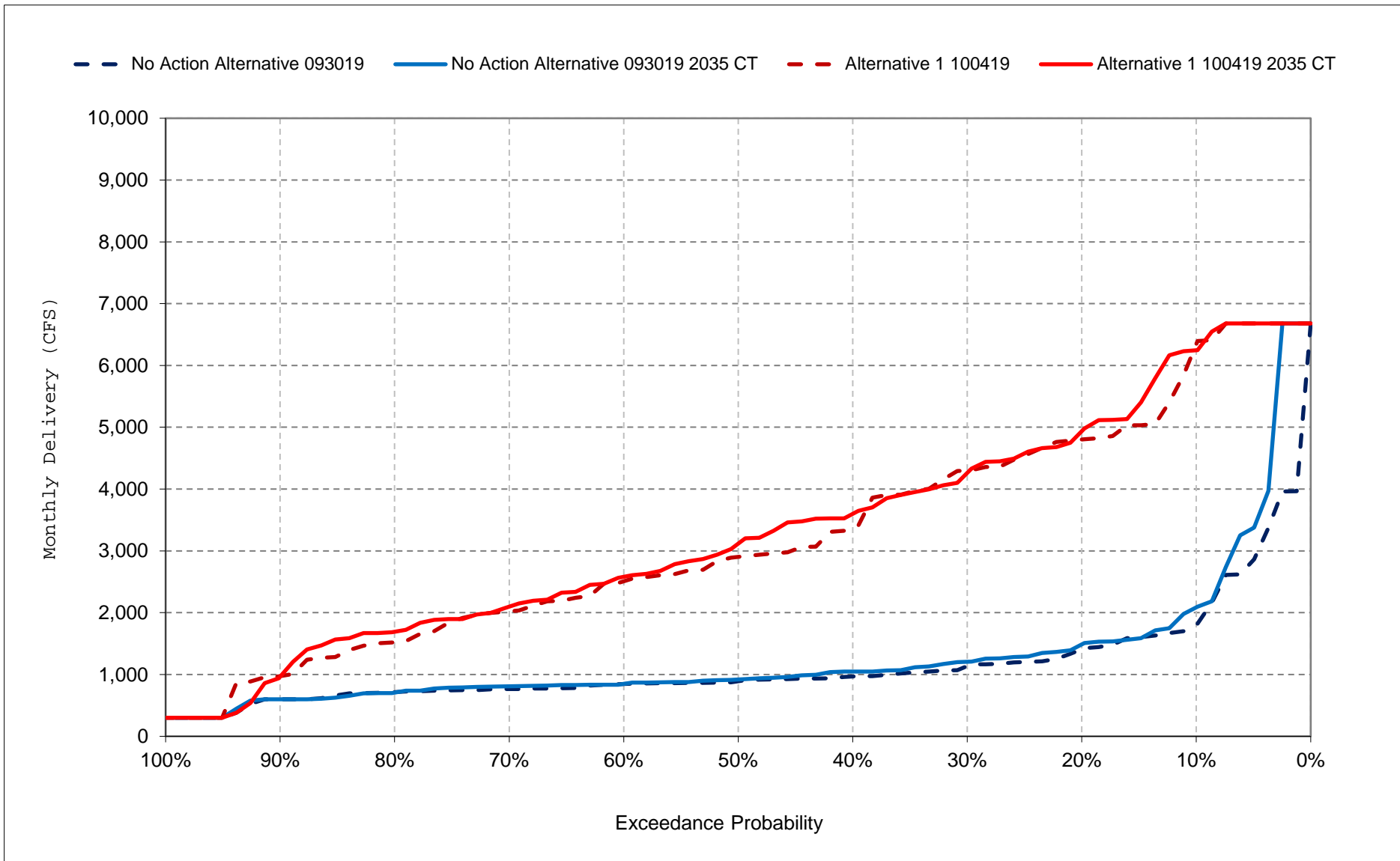
Figure 56-12. SWP Banks PP Exports, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

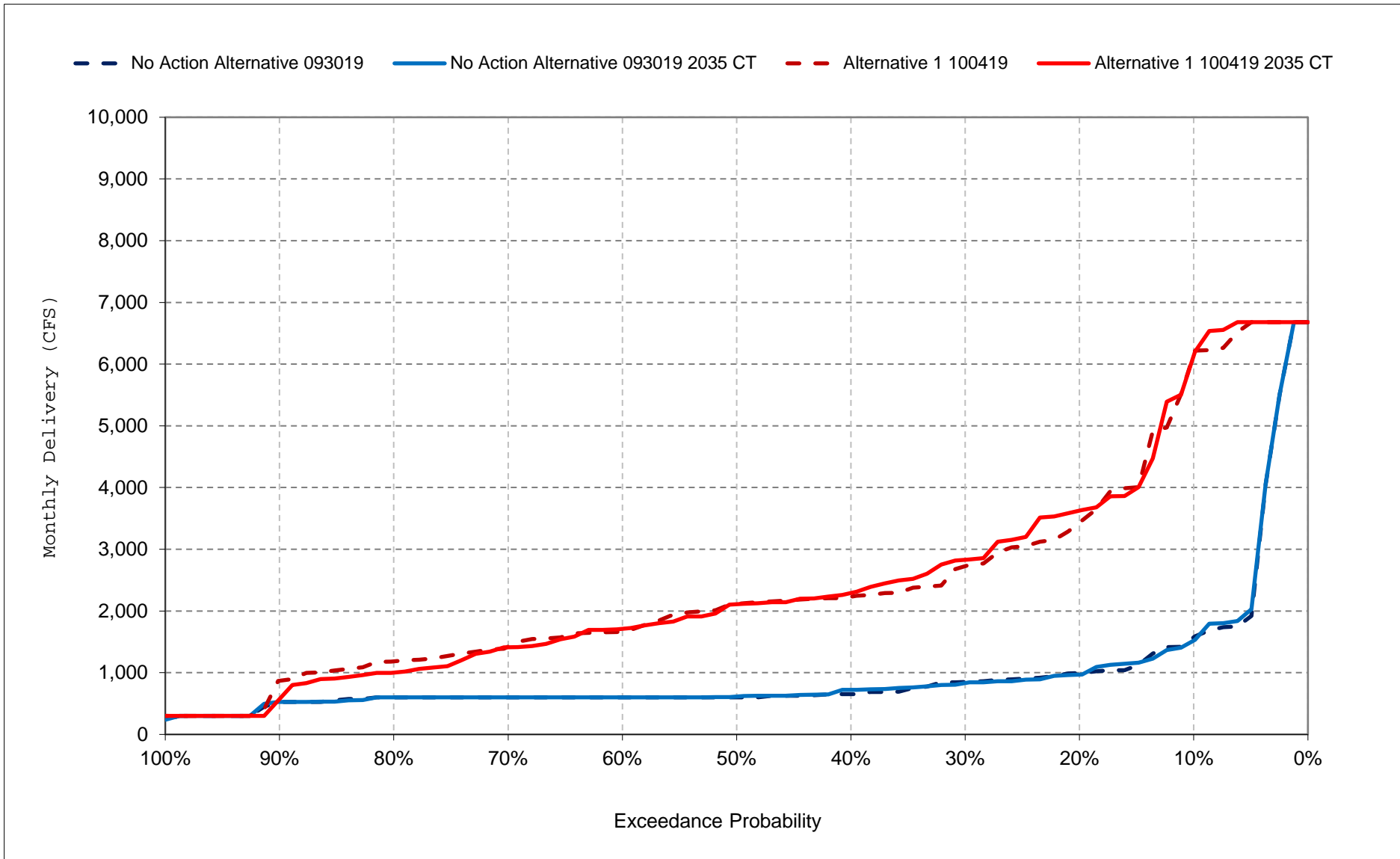
Figure 56-13. SWP Banks PP Exports, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

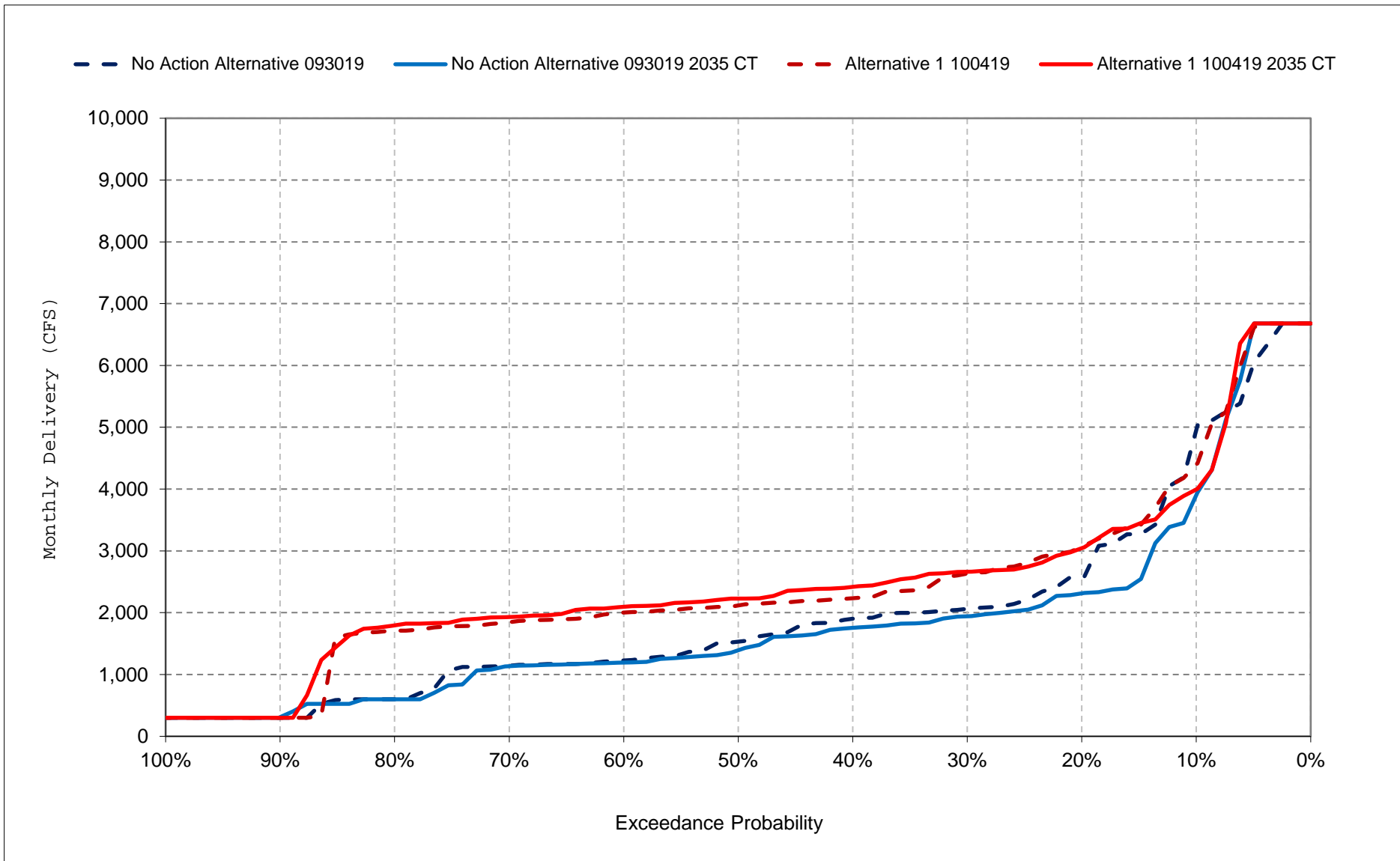
Figure 56-14. SWP Banks PP Exports, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

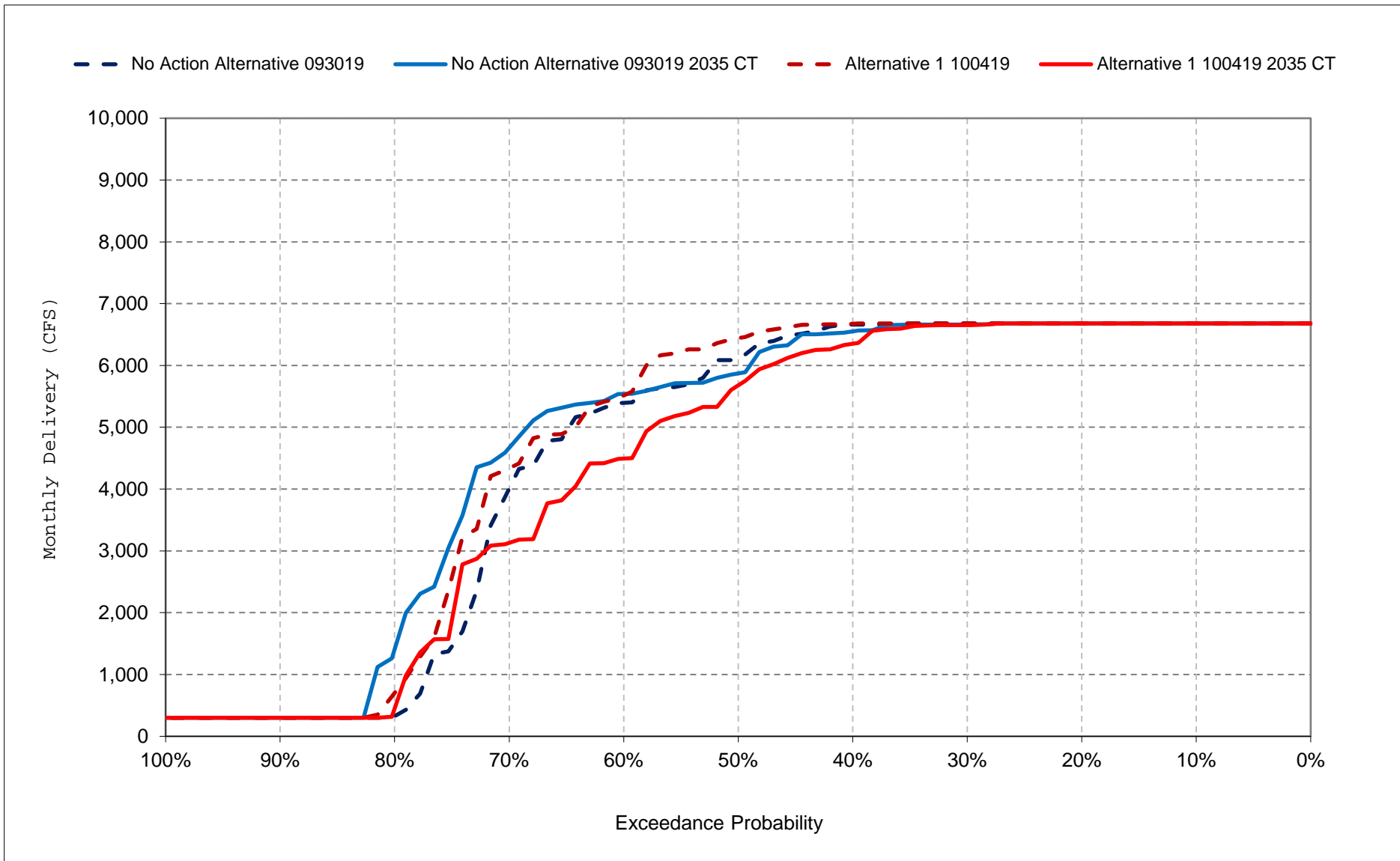
Figure 56-15. SWP Banks PP Exports, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

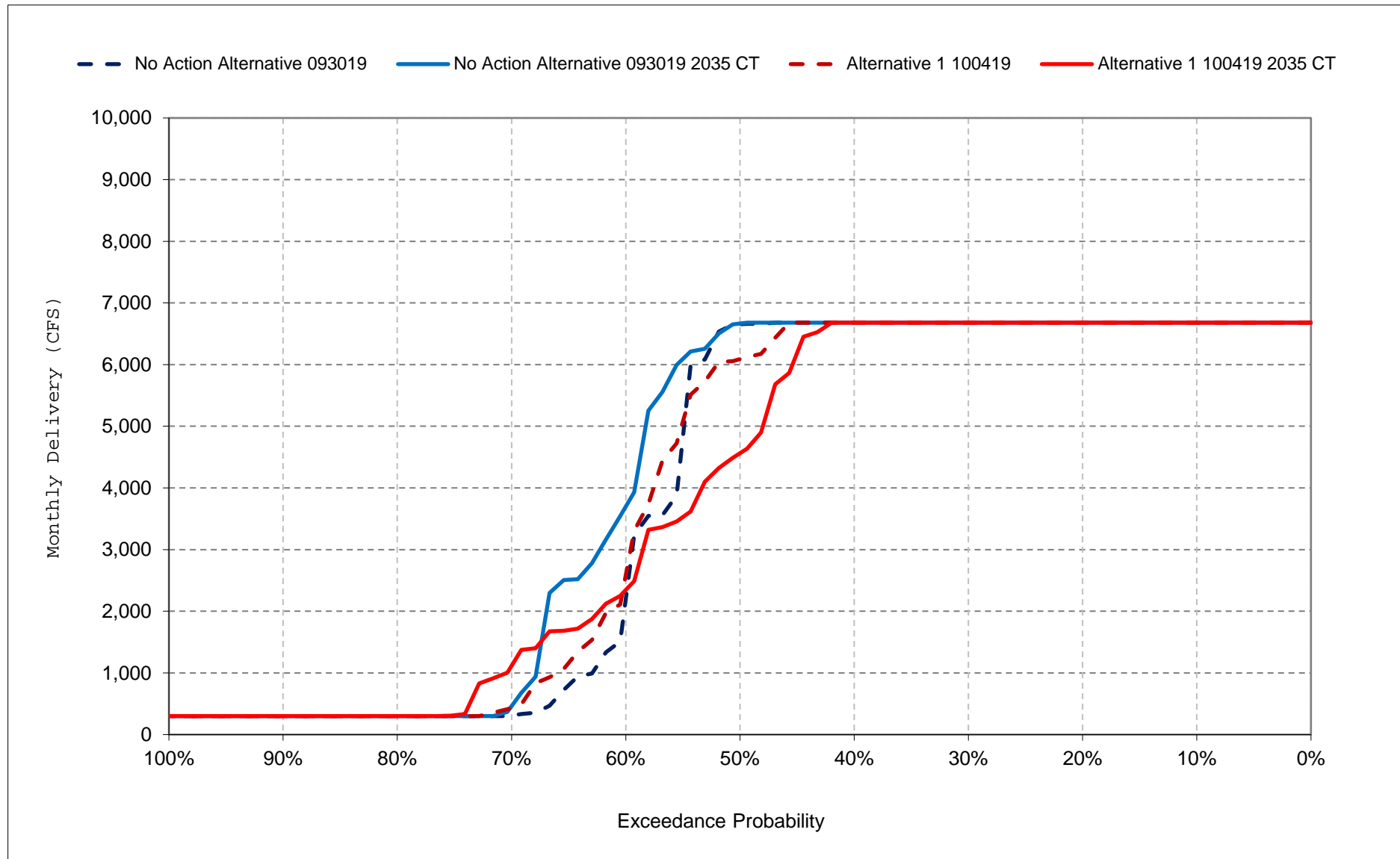
Figure 56-16. SWP Banks PP Exports, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

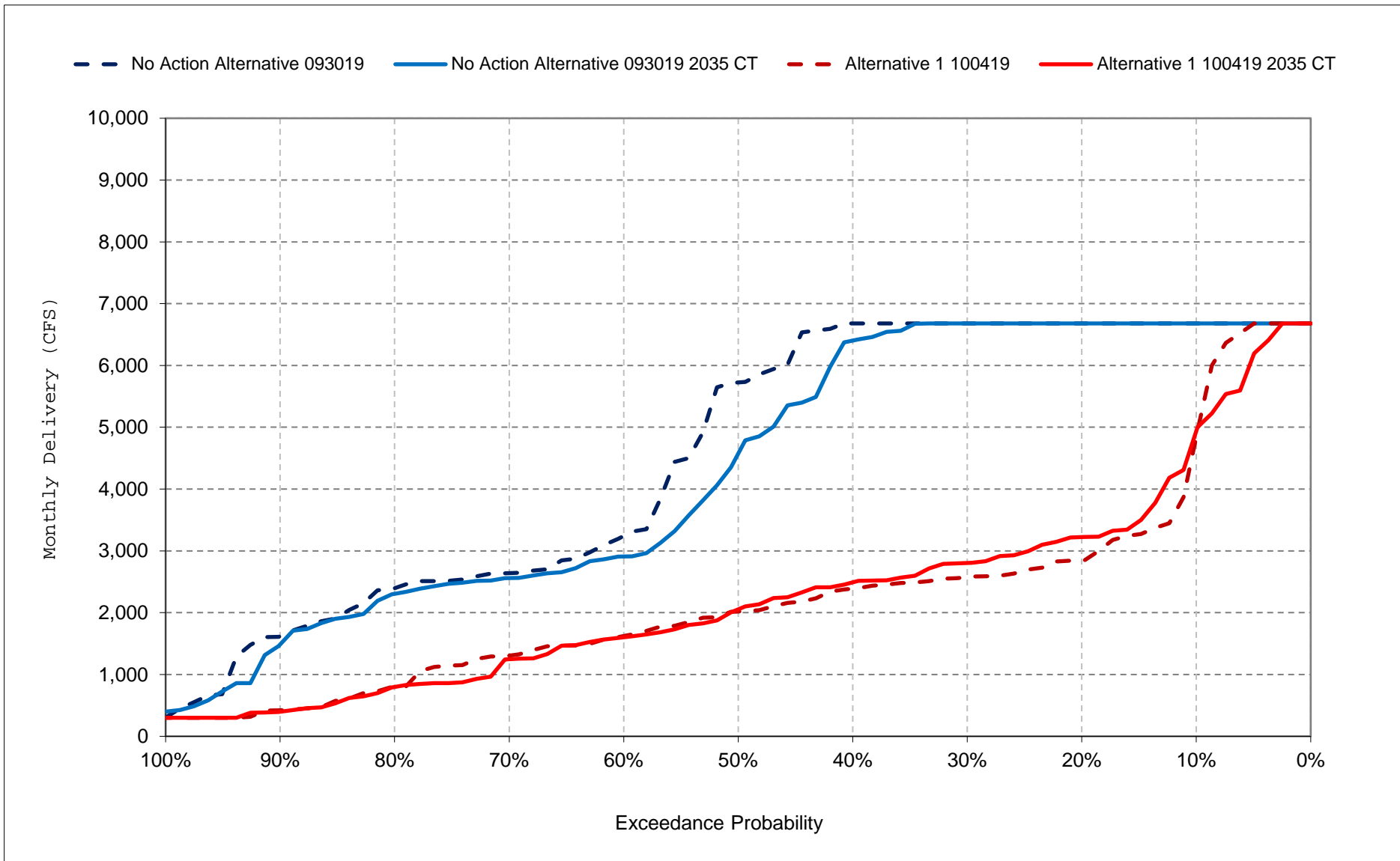
Figure 56-17. SWP Banks PP Exports, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 56-18. SWP Banks PP Exports, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-1. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	233	354	382	375	369	333	0	0	36	48	83	162
20%	0	339	379	369	360	219	0	0	0	2	65	138
30%	0	157	376	0	350	0	0	0	0	0	48	128
40%	0	0	374	0	64	0	0	0	0	0	29	110
50%	0	0	219	0	0	0	0	0	0	0	0	31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	41	101	188	89	137	73	0	1	8	11	28	74
Water Year Types ^{b,c}												
Wet (32%)	106	153	280	190	241	110	0	3	23	10	48	95
Above Normal (16%)	19	126	296	88	199	126	0	0	5	3	59	119
Below Normal (13%)	31	58	130	68	99	76	0	0	0	28	15	93
Dry (24%)	1	103	145	23	44	32	0	0	0	17	6	35
Critical (15%)	0	0	0	0	32	0	0	0	0	0	0	32

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	213	359	379	374	368	323	37	0	36	0	50	123
20%	0	347	376	356	353	279	0	0	0	0	29	105
30%	0	342	374	61	347	0	0	0	0	0	0	0
40%	0	336	172	0	36	0	0	0	0	0	0	0
50%	0	0	12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	43	164	150	96	129	72	15	4	7	0	12	36
Water Year Types ^{b,c}												
Wet (32%)	88	316	246	170	190	153	25	12	20	0	22	43
Above Normal (16%)	22	234	269	113	177	79	39	0	5	0	11	0
Below Normal (13%)	59	67	41	74	145	31	0	0	0	0	5	44
Dry (24%)	14	74	99	38	49	18	2	0	0	0	12	50
Critical (15%)	0	0	0	34	63	20	0	0	0	0	0	31

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-20	6	-3	-1	0	-11	37	0	0	-48	-33	-38
20%	0	7	-2	-12	-7	60	0	0	0	-2	-37	-33
30%	0	184	-2	61	-4	0	0	0	0	0	-48	-128
40%	0	336	-201	0	-29	0	0	0	0	0	-29	-110
50%	0	0	-207	0	0	0	0	0	0	0	0	-31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	2	63	-38	7	-7	0	15	3	-1	-11	-16	-38
Water Year Types ^{b,c}												
Wet (32%)	-18	163	-34	-20	-51	43	25	9	-3	-9	-26	-51
Above Normal (16%)	3	108	-27	26	-22	-47	39	0	0	-3	-48	-119
Below Normal (13%)	28	9	-89	6	46	-45	0	0	0	-28	-9	-49
Dry (24%)	13	-29	-46	15	5	-14	2	0	0	-17	6	15
Critical (15%)	0	0	0	34	31	20	0	0	0	0	0	-1

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 57-2. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	228	353	382	377	368	346	0	0	36	50	75	161
20%	0	124	378	369	363	321	0	0	0	0	64	134
30%	0	0	376	0	354	91	0	0	0	0	29	124
40%	0	0	374	0	233	0	0	0	0	0	0	110
50%	0	0	145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	39	66	181	92	146	95	0	1	5	10	25	62
Water Year Types ^{b,c}												
Wet (32%)	88	73	251	219	261	147	0	3	16	3	49	103
Above Normal (16%)	38	109	277	88	199	134	0	0	0	4	58	110
Below Normal (13%)	30	48	120	34	133	160	0	0	0	14	0	44
Dry (24%)	3	81	149	17	41	24	0	0	0	29	0	26
Critical (15%)	0	0	33	0	32	0	0	0	0	0	0	0

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	360	379	375	370	324	23	0	33	0	64	32
20%	0	348	377	369	356	258	0	0	0	0	29	0
30%	0	342	374	215	347	0	0	0	0	0	0	0
40%	0	336	213	3	159	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	159	156	112	140	70	15	2	4	0	14	16
Water Year Types ^{b,c}												
Wet (32%)	59	308	264	235	251	147	20	6	14	0	27	18
Above Normal (16%)	0	217	238	126	166	88	16	0	0	0	32	0
Below Normal (13%)	27	67	45	68	170	6	15	0	0	0	0	24
Dry (24%)	0	73	115	35	46	17	16	0	0	0	0	29
Critical (15%)	0	0	3	1	0	28	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-228	7	-3	-2	2	-22	23	0	-4	-50	-11	-128
20%	0	224	-2	0	-8	-63	0	0	0	0	-35	-134
30%	0	342	-2	215	-6	-91	0	0	0	0	-29	-124
40%	0	336	-161	3	-74	0	0	0	0	0	0	-110
50%	0	0	-145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-16	92	-25	21	-7	-26	15	1	-1	-10	-11	-46
Water Year Types ^{b,c}												
Wet (32%)	-29	235	14	16	-9	-1	20	3	-2	-3	-22	-85
Above Normal (16%)	-38	108	-39	38	-33	-45	16	0	0	-4	-26	-110
Below Normal (13%)	-4	19	-75	34	37	-154	15	0	0	-14	0	-20
Dry (24%)	-3	-8	-34	18	5	-7	16	0	0	-29	0	3
Critical (15%)	0	0	-29	1	-32	28	0	0	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-3. DMC - CA Intertie Flow, Monthly Flow

No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	233	354	382	375	369	333	0	0	36	48	83	162
20%	0	339	379	369	360	219	0	0	0	2	65	138
30%	0	157	376	0	350	0	0	0	0	0	48	128
40%	0	0	374	0	64	0	0	0	0	0	29	110
50%	0	0	219	0	0	0	0	0	0	0	0	31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	41	101	188	89	137	73	0	1	8	11	28	74
Water Year Types ^{b,c}												
Wet (32%)	106	153	280	190	241	110	0	3	23	10	48	95
Above Normal (16%)	19	126	296	88	199	126	0	0	5	3	59	119
Below Normal (13%)	31	58	130	68	99	76	0	0	0	28	15	93
Dry (24%)	1	103	145	23	44	32	0	0	0	17	6	35
Critical (15%)	0	0	0	0	32	0	0	0	0	0	0	32

No Action Alternative 093019 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	228	353	382	377	368	346	0	0	36	50	75	161
20%	0	124	378	369	363	321	0	0	0	0	64	134
30%	0	0	376	0	354	91	0	0	0	0	29	124
40%	0	0	374	0	233	0	0	0	0	0	0	110
50%	0	0	145	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	39	66	181	92	146	95	0	1	5	10	25	62
Water Year Types ^{b,c}												
Wet (32%)	88	73	251	219	261	147	0	3	16	3	49	103
Above Normal (16%)	38	109	277	88	199	134	0	0	0	4	58	110
Below Normal (13%)	30	48	120	34	133	160	0	0	0	14	0	44
Dry (24%)	3	81	149	17	41	24	0	0	0	29	0	26
Critical (15%)	0	0	33	0	32	0	0	0	0	0	0	0

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-1	-1	2	-1	12	0	0	0	2	-7	-1
20%	0	-215	0	0	3	102	0	0	0	-2	-1	-4
30%	0	-157	0	0	3	91	0	0	0	0	-19	-4
40%	0	0	0	0	169	0	0	0	0	0	-29	-1
50%	0	0	-75	0	0	0	0	0	0	0	0	-31
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-2	-35	-8	3	10	22	0	0	-3	-1	-3	-12
Water Year Types ^{b,c}												
Wet (32%)	-18	-80	-29	29	20	37	0	0	-8	-7	0	8
Above Normal (16%)	18	-17	-19	0	0	8	0	0	-5	1	-1	-9
Below Normal (13%)	0	-10	-10	-34	33	84	0	0	0	-13	-15	-49
Dry (24%)	1	-22	4	-6	-3	-8	0	0	0	12	-6	-9
Critical (15%)	0	0	33	0	0	0	0	0	0	0	0	-32

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 57-4. DMC - CA Intertie Flow, Monthly Flow

Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	213	359	379	374	368	323	37	0	36	0	50	123
20%	0	347	376	356	353	279	0	0	0	0	29	105
30%	0	342	374	61	347	0	0	0	0	0	0	0
40%	0	336	172	0	36	0	0	0	0	0	0	0
50%	0	0	12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	43	164	150	96	129	72	15	4	7	0	12	36
Water Year Types ^{b,c}												
Wet (32%)	88	316	246	170	190	153	25	12	20	0	22	43
Above Normal (16%)	22	234	269	113	177	79	39	0	5	0	11	0
Below Normal (13%)	59	67	41	74	145	31	0	0	0	0	5	44
Dry (24%)	14	74	99	38	49	18	2	0	0	0	12	50
Critical (15%)	0	0	0	34	63	20	0	0	0	0	0	31

Alternative 1 100419 2035 CT

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	360	379	375	370	324	23	0	33	0	64	32
20%	0	348	377	369	356	258	0	0	0	0	29	0
30%	0	342	374	215	347	0	0	0	0	0	0	0
40%	0	336	213	3	159	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	22	159	156	112	140	70	15	2	4	0	14	16
Water Year Types ^{b,c}												
Wet (32%)	59	308	264	235	251	147	20	6	14	0	27	18
Above Normal (16%)	0	217	238	126	166	88	16	0	0	0	32	0
Below Normal (13%)	27	67	45	68	170	6	15	0	0	0	0	24
Dry (24%)	0	73	115	35	46	17	16	0	0	0	0	29
Critical (15%)	0	0	3	1	0	28	0	0	0	0	0	0

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Flow (CFS)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-213	1	-1	1	2	1	-14	0	-4	0	14	-91
20%	0	1	0	12	2	-21	0	0	0	0	0	-105
30%	0	1	0	154	1	0	0	0	0	0	0	0
40%	0	0	40	3	123	0	0	0	0	0	0	0
50%	0	0	-12	0	0	0	0	0	0	0	0	0
60%	0	0	0	0	0	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0	0	0	0	0	0
80%	0	0	0	0	0	0	0	0	0	0	0	0
90%	0	0	0	0	0	0	0	0	0	0	0	0
Long Term												
Full Simulation Period ^d	-20	-5	6	16	11	-3	0	-2	-3	0	1	-20
Water Year Types ^{b,c}												
Wet (32%)	-29	-8	18	65	61	-6	-5	-6	-7	0	5	-25
Above Normal (16%)	-22	-17	-31	13	-12	10	-23	0	-5	0	21	0
Below Normal (13%)	-32	0	4	-6	24	-25	15	0	0	0	-5	-20
Dry (24%)	-14	-1	16	-3	-3	0	14	0	0	0	-12	-21
Critical (15%)	0	0	3	-33	-63	9	0	0	0	0	0	-31

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

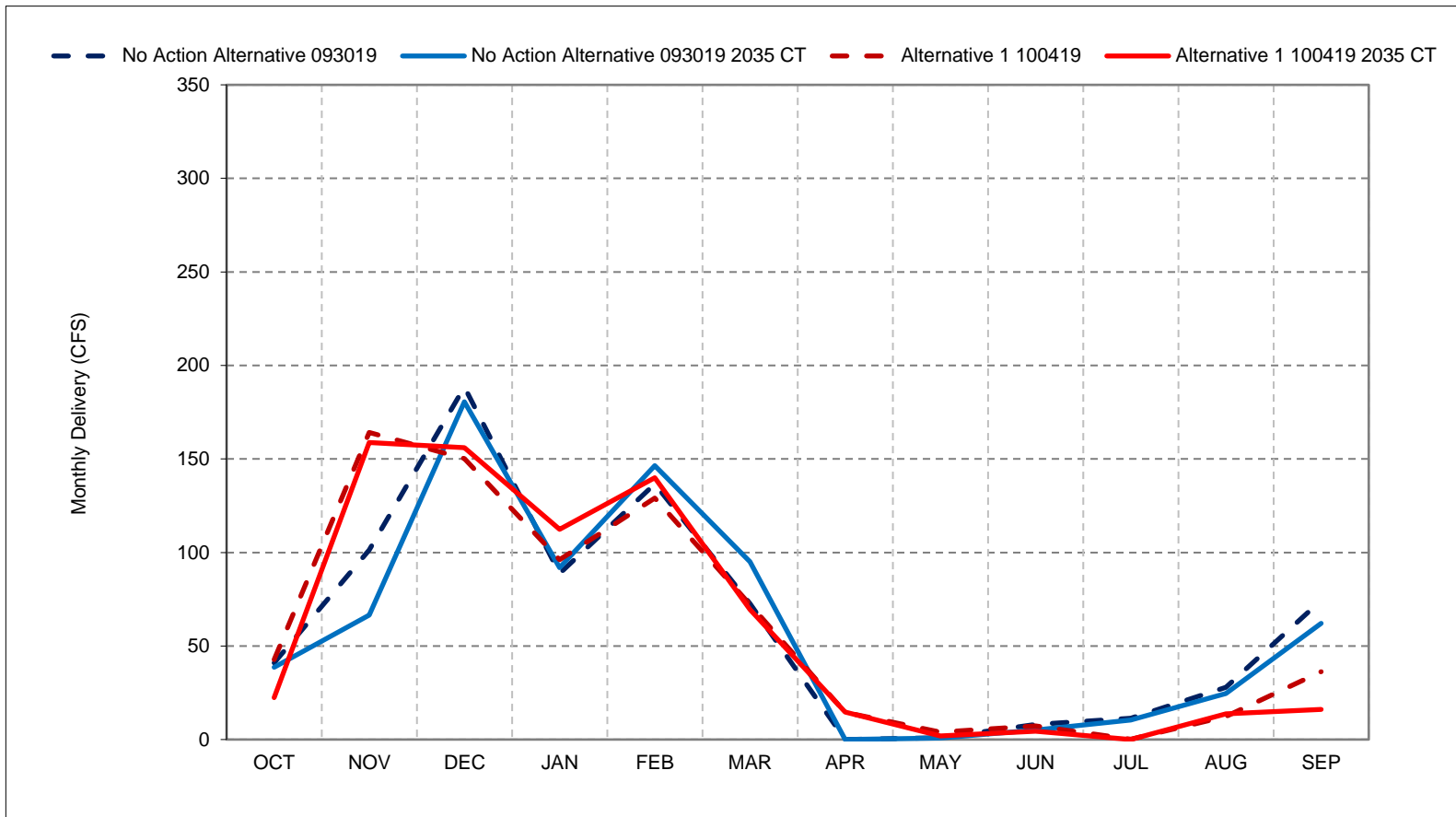
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 57-1. DMC - CA Intertie Flow, Long-Term Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

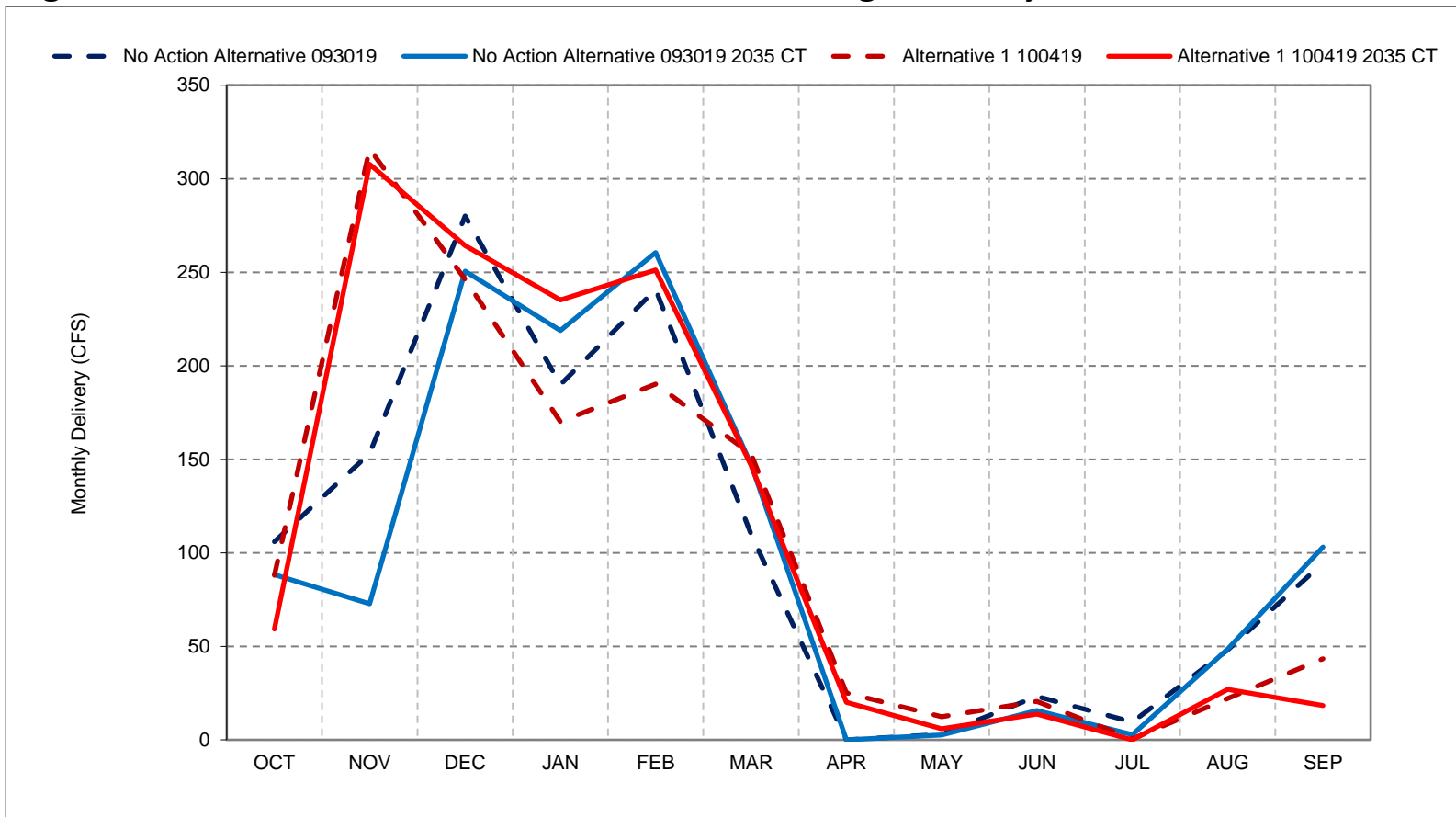
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-2. DMC - CA Intertie Flow, Wet Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

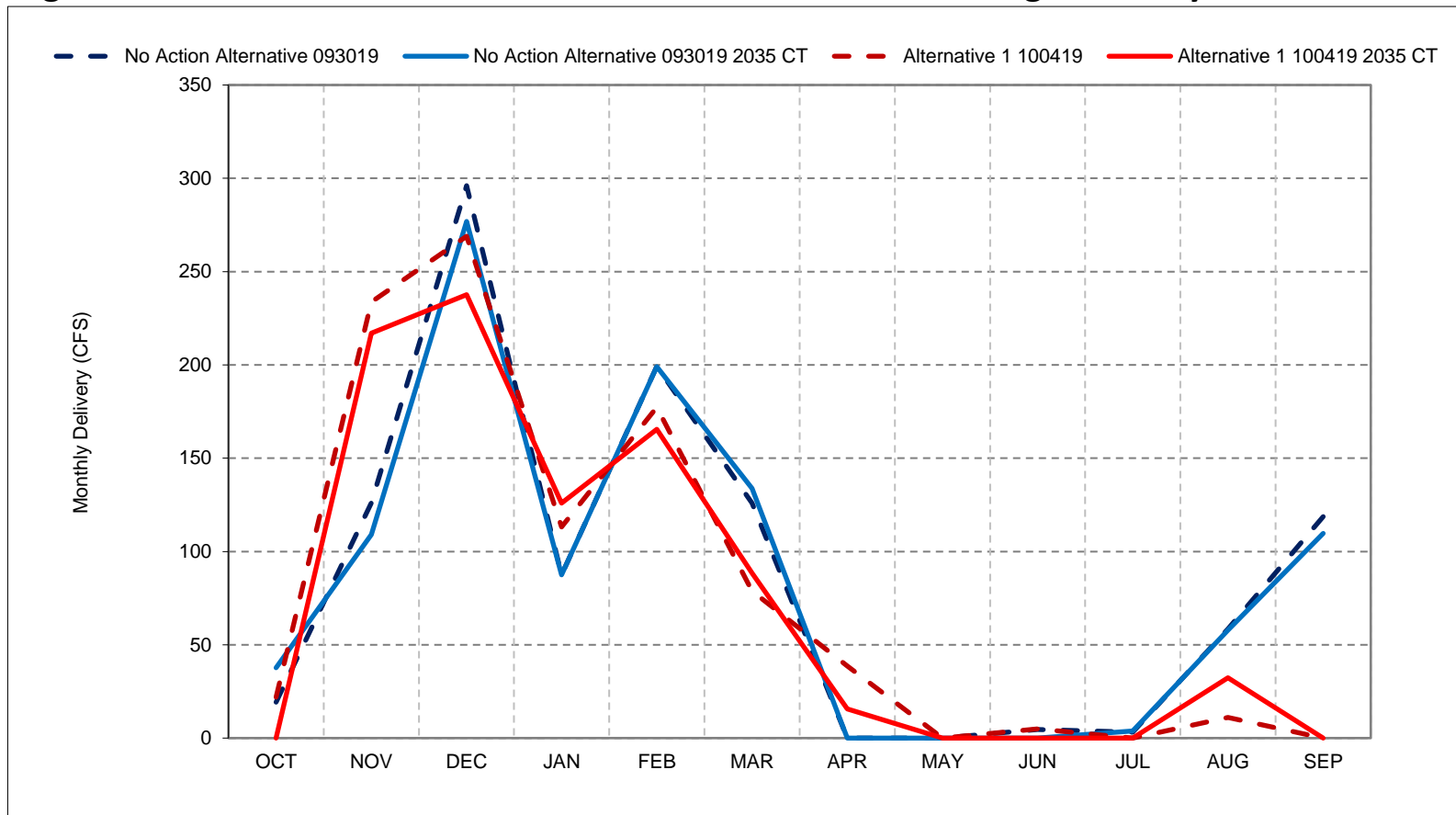
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-3. DMC - CA Intertie Flow, Above Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

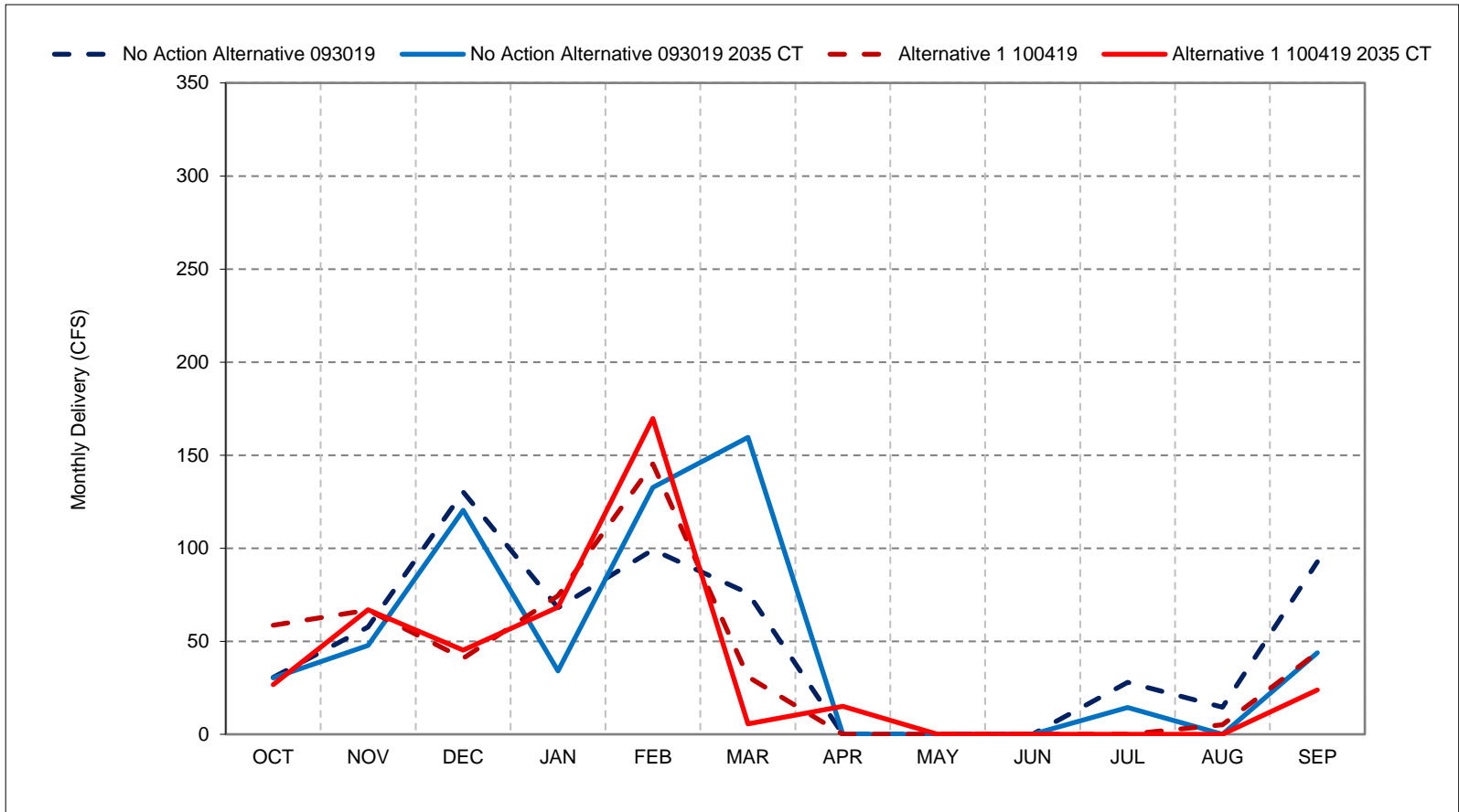
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-4. DMC - CA Intertie Flow, Below Normal Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

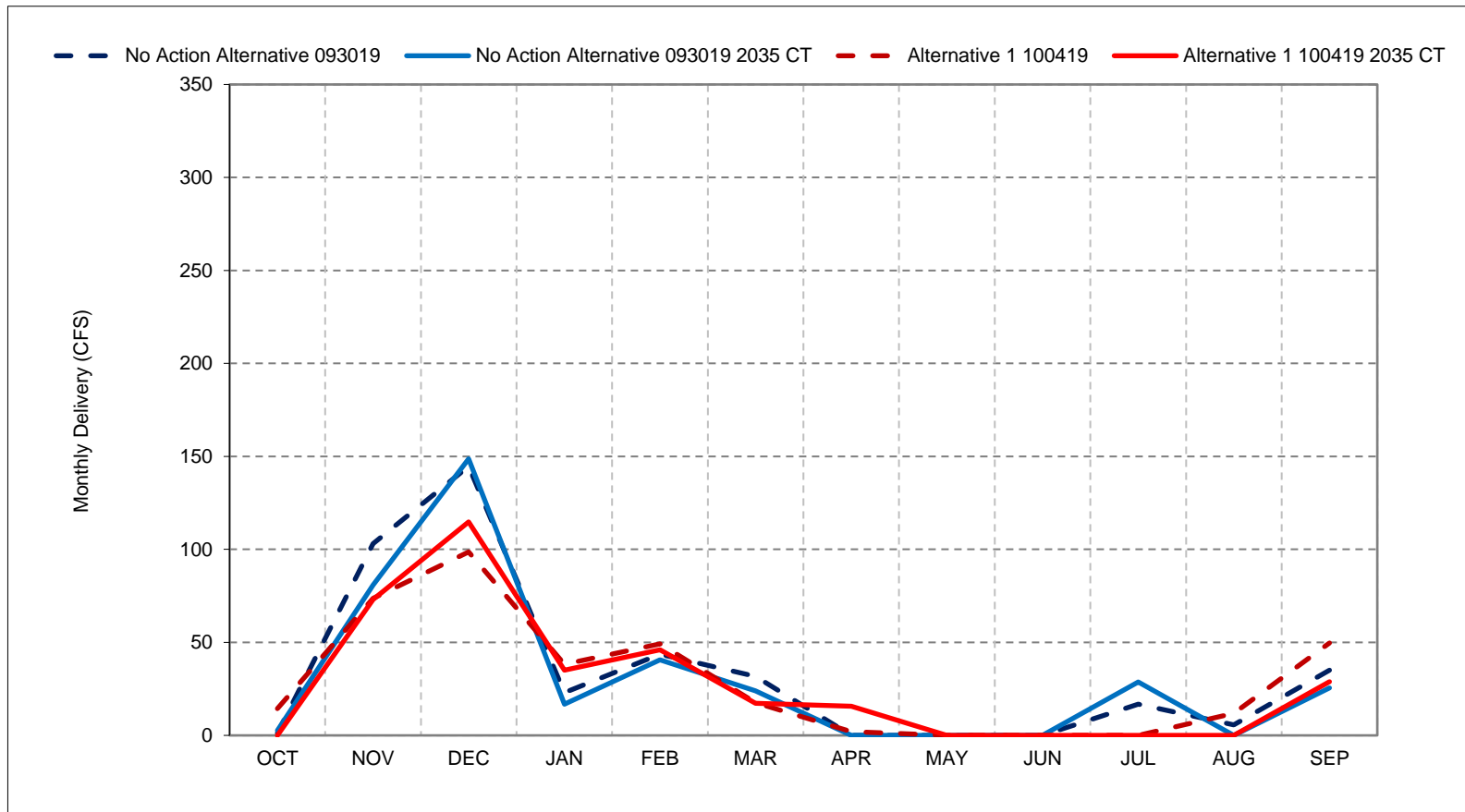
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-5. DMC - CA Intertie Flow, Dry Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

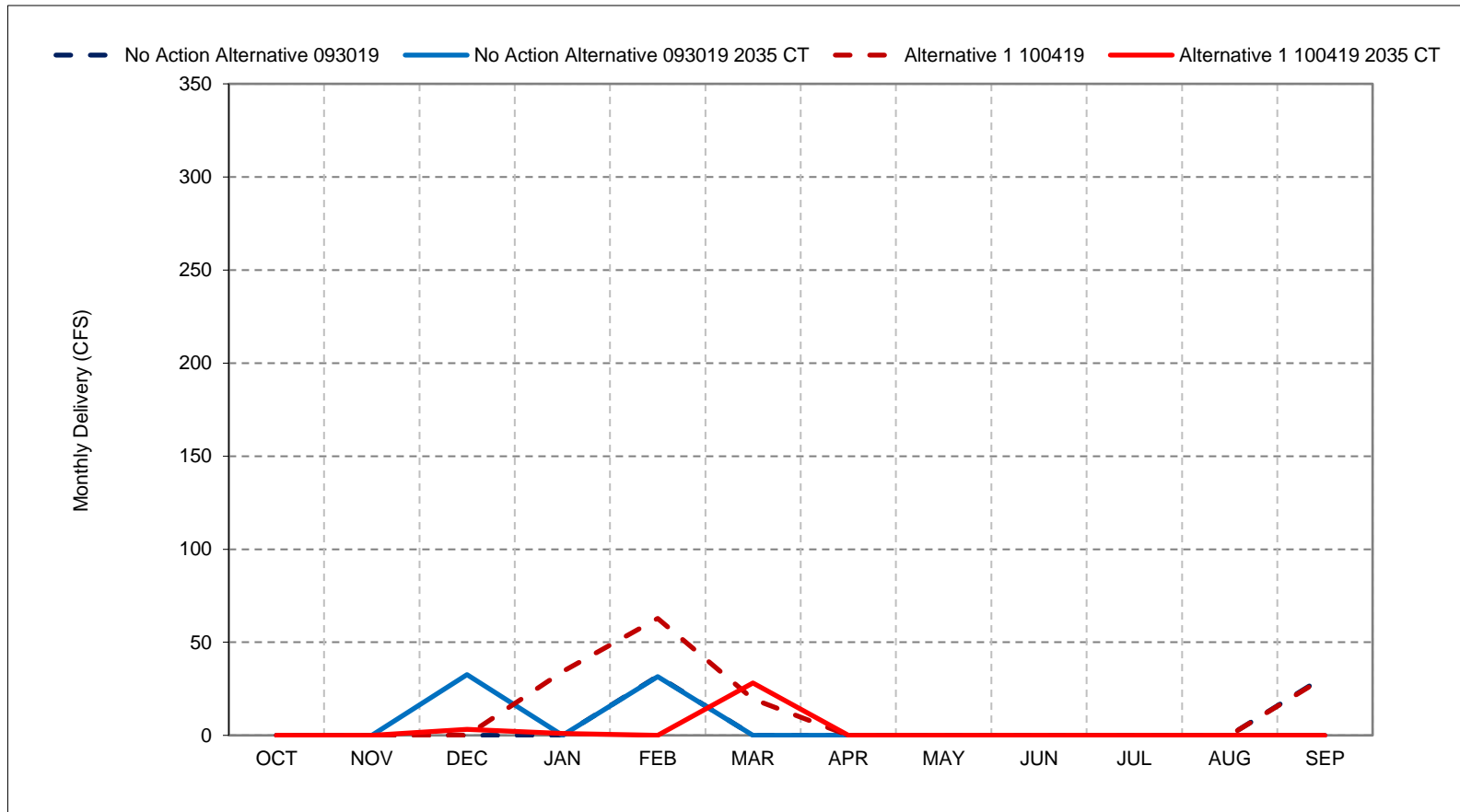
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 57-6. DMC - CA Intertie Flow, Critical Year Average Delivery



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

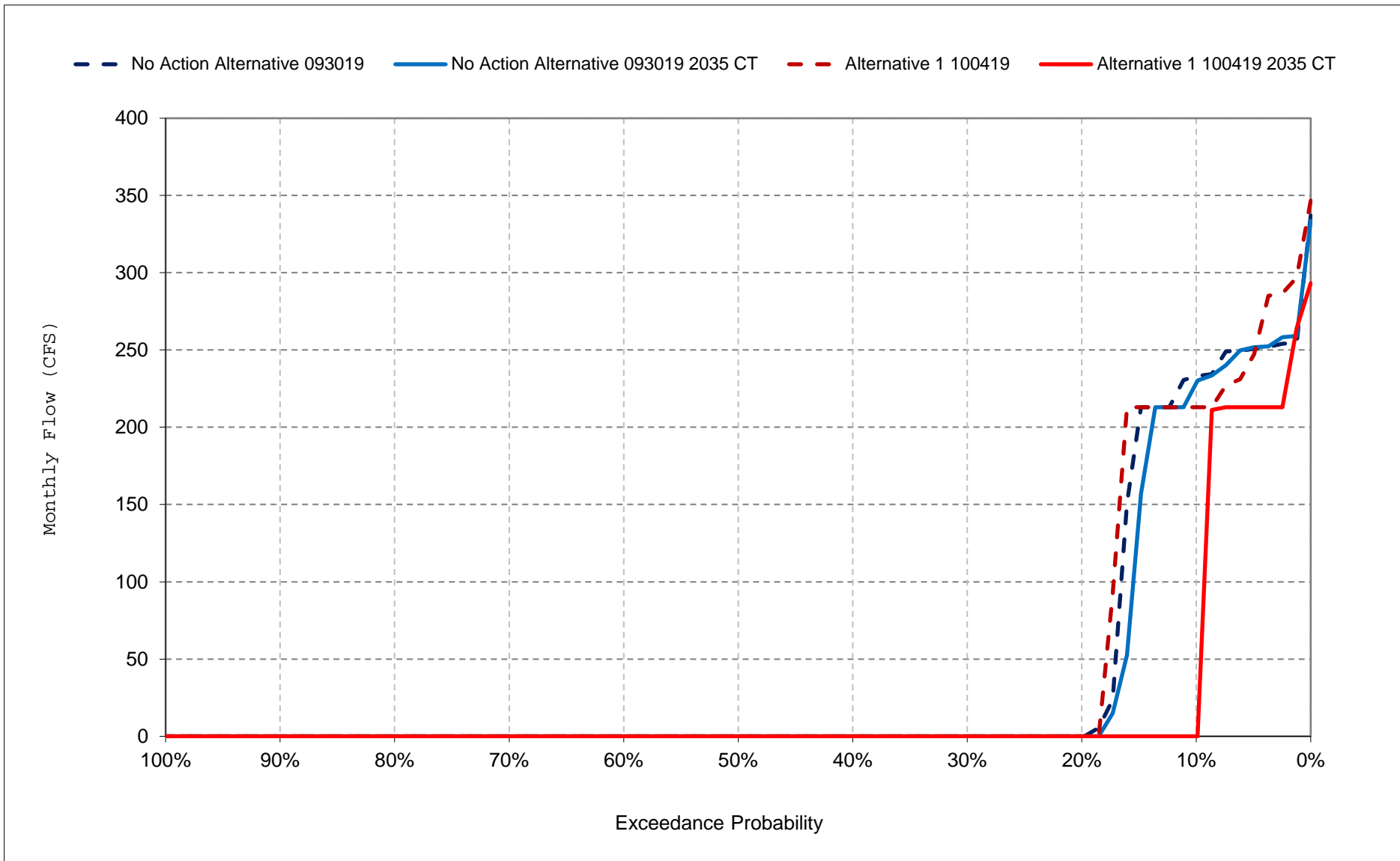
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

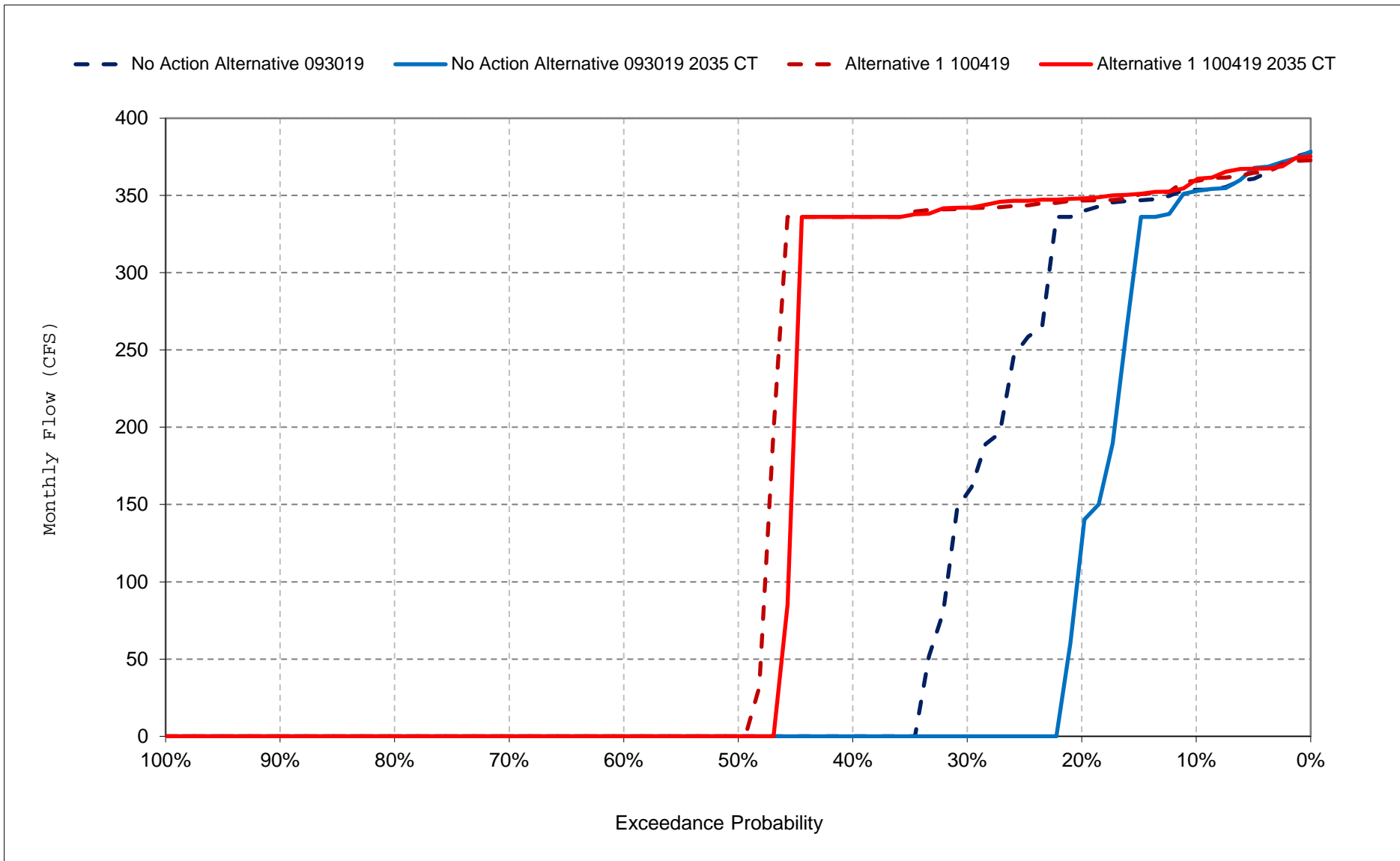
Figure 57-7. DMC - CA Intertie Flow, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

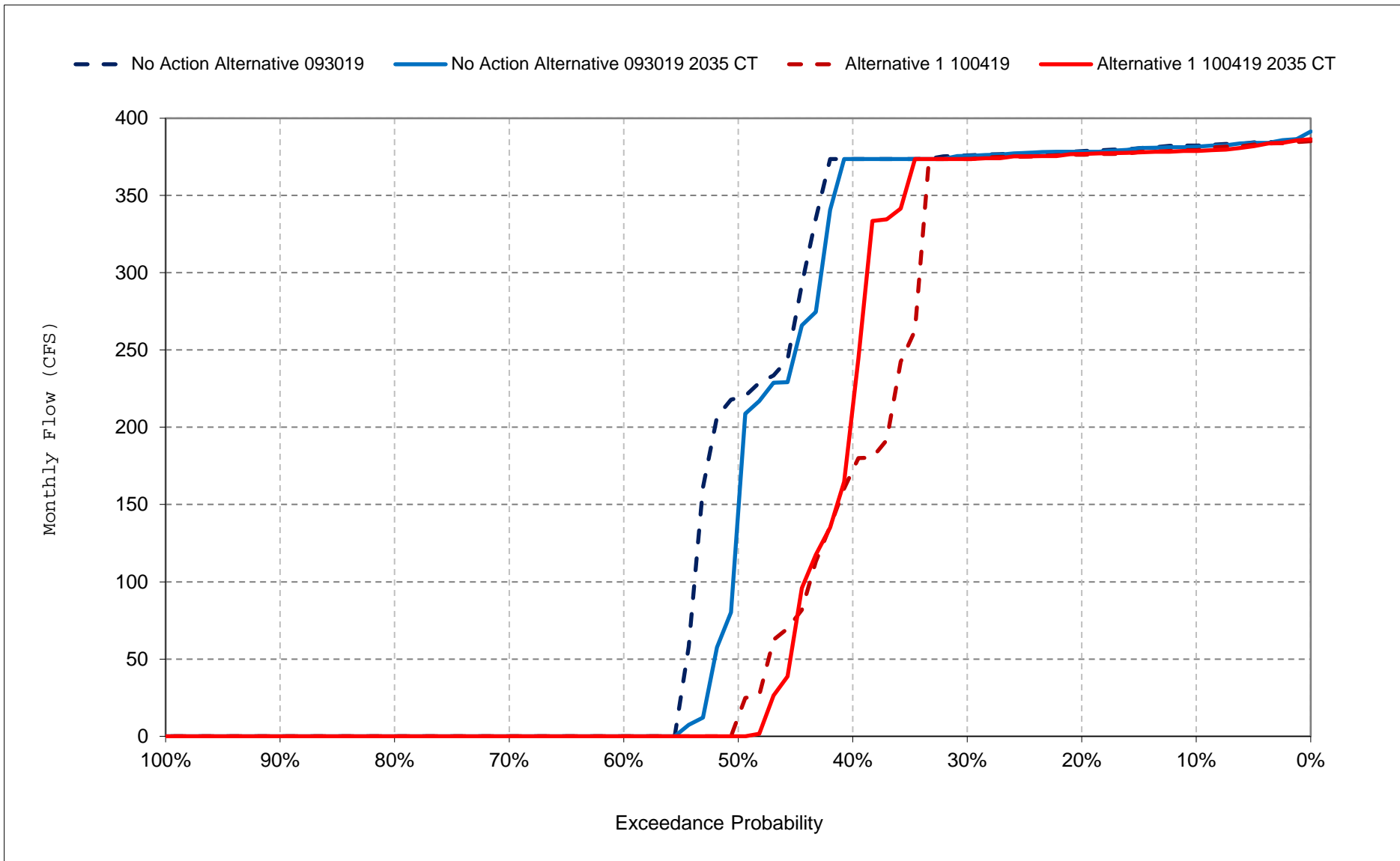
Figure 57-8. DMC - CA Intertie Flow, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

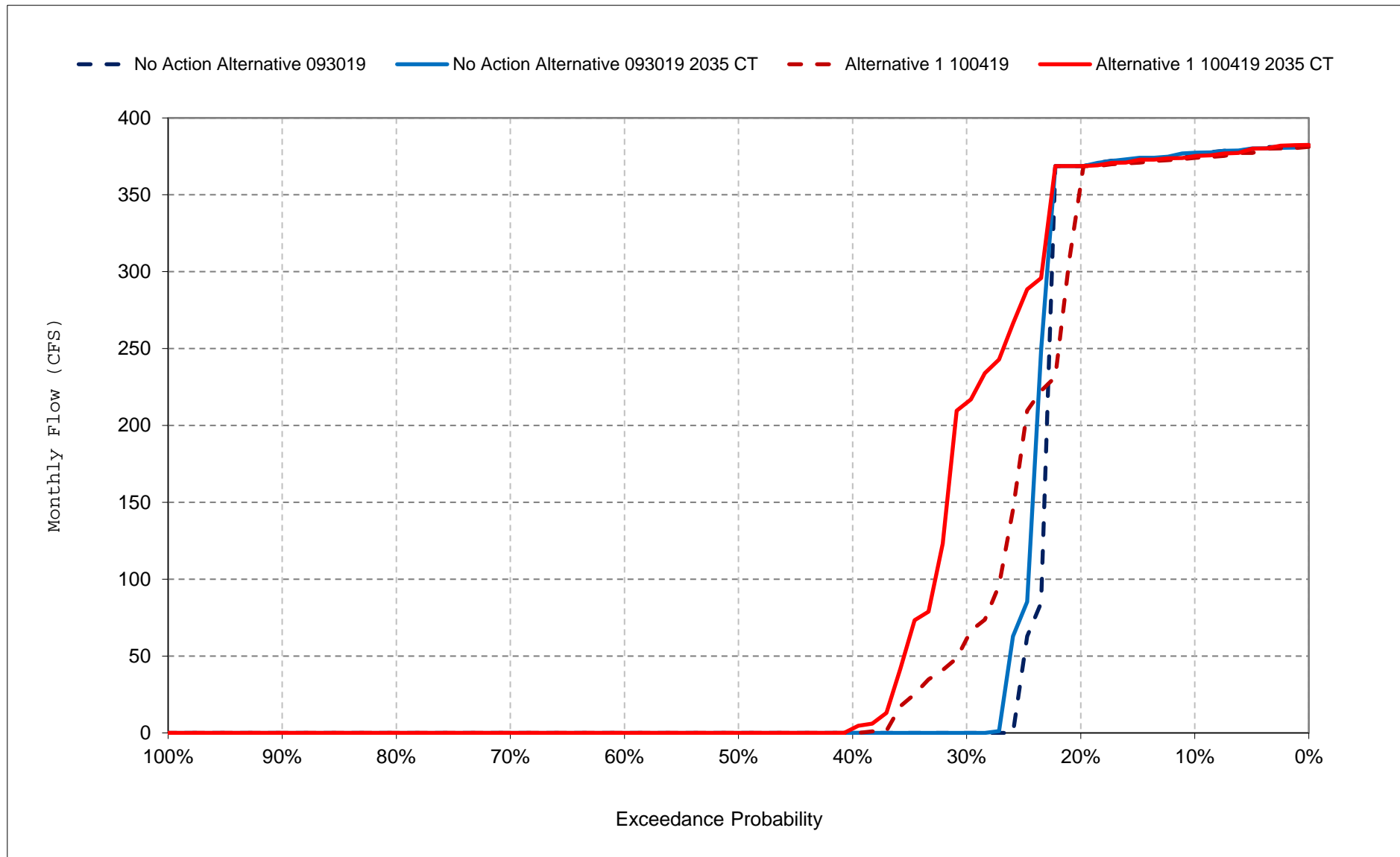
Figure 57-9. DMC - CA Intertie Flow, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

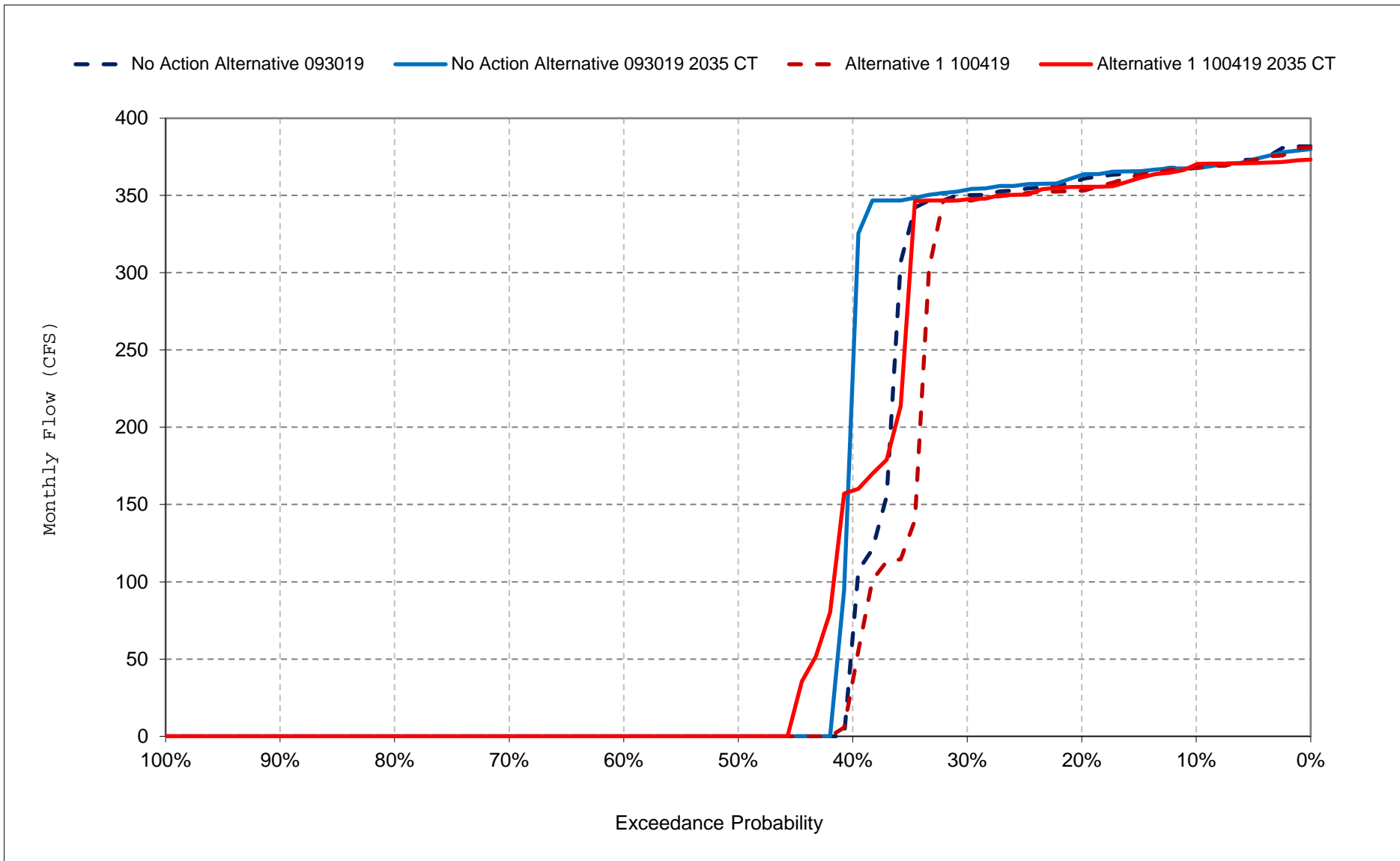
Figure 57-10. DMC - CA Intertie Flow, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

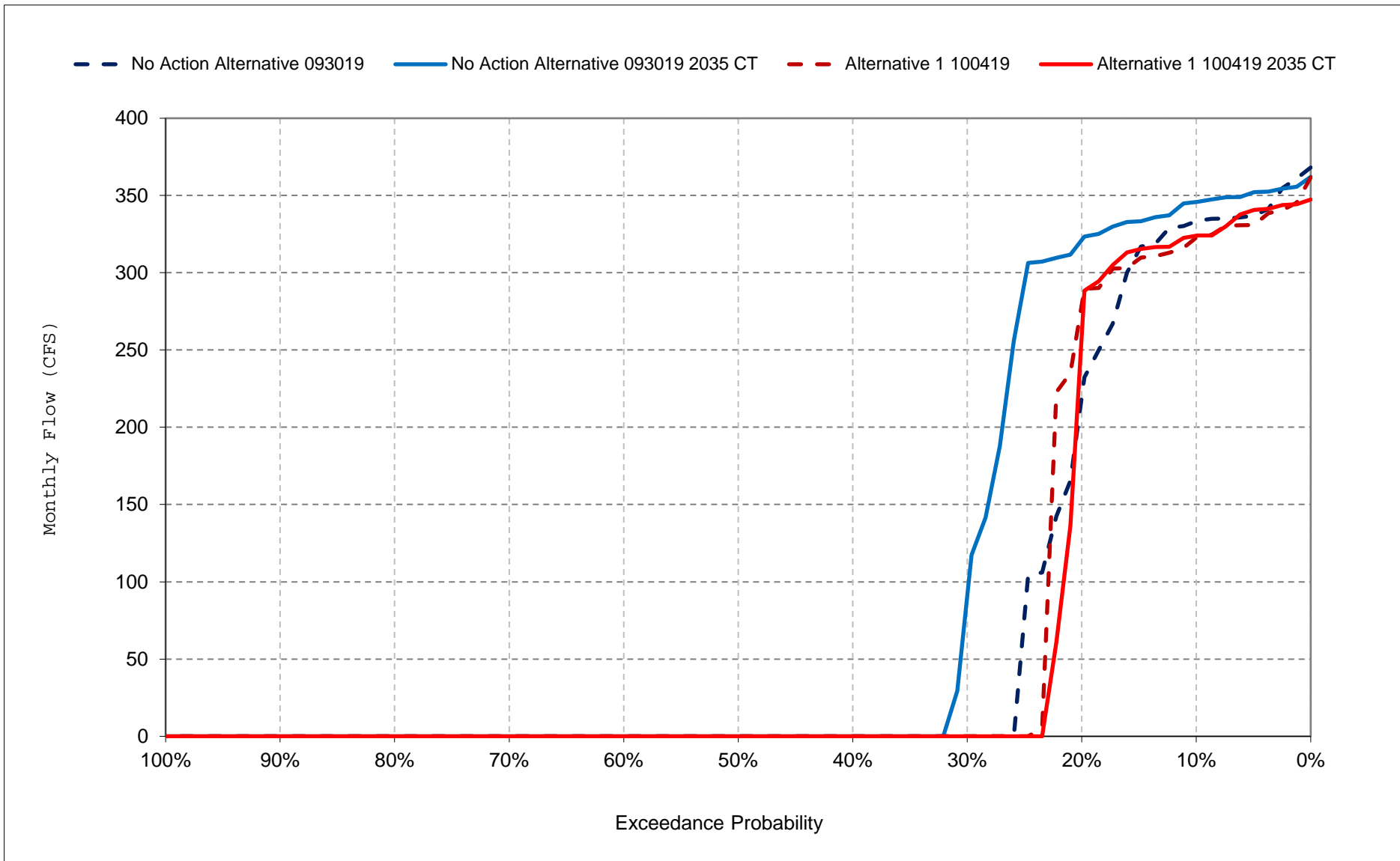
Figure 57-11. DMC - CA Intertie Flow, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

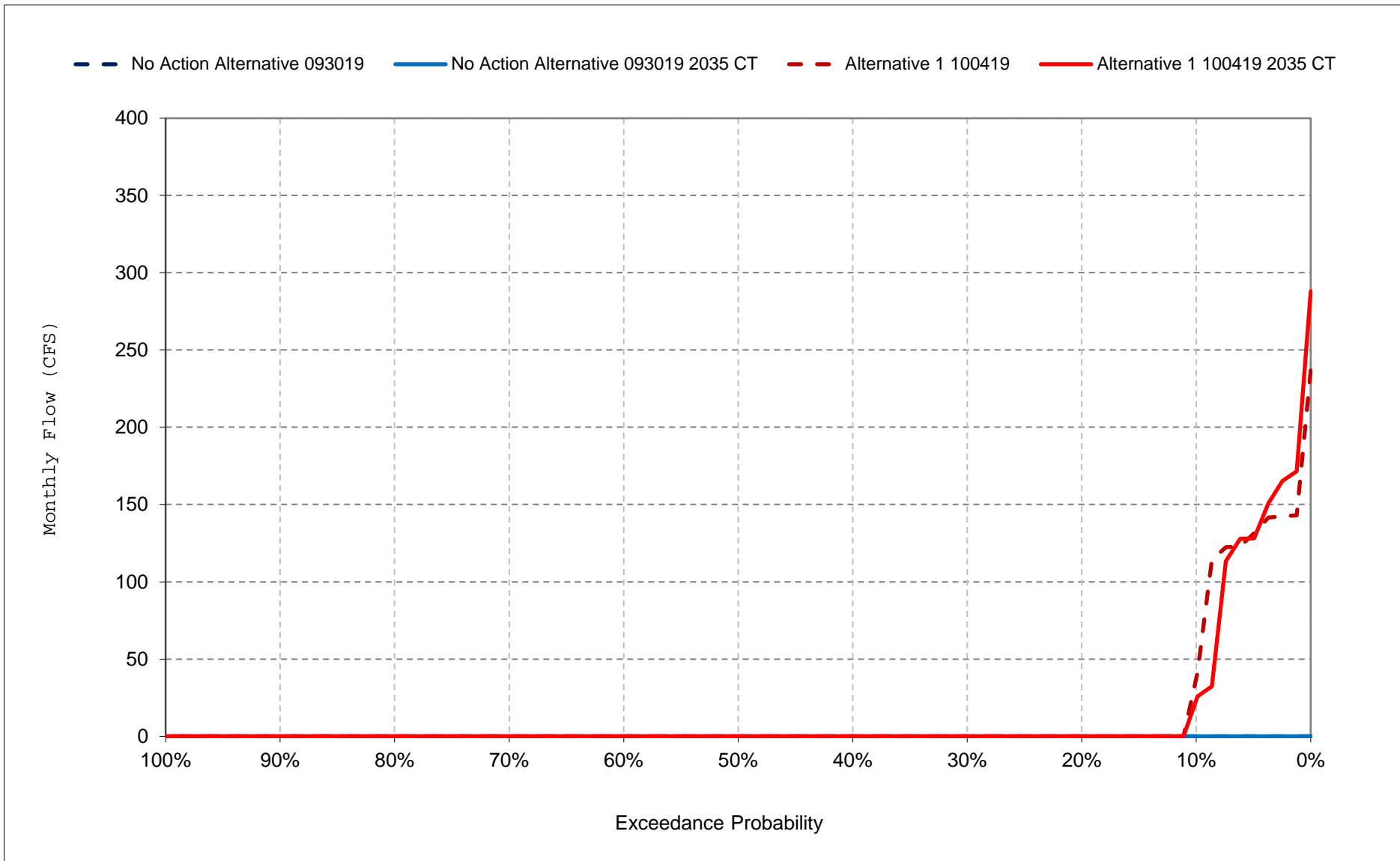
Figure 57-12. DMC - CA Intertie Flow, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

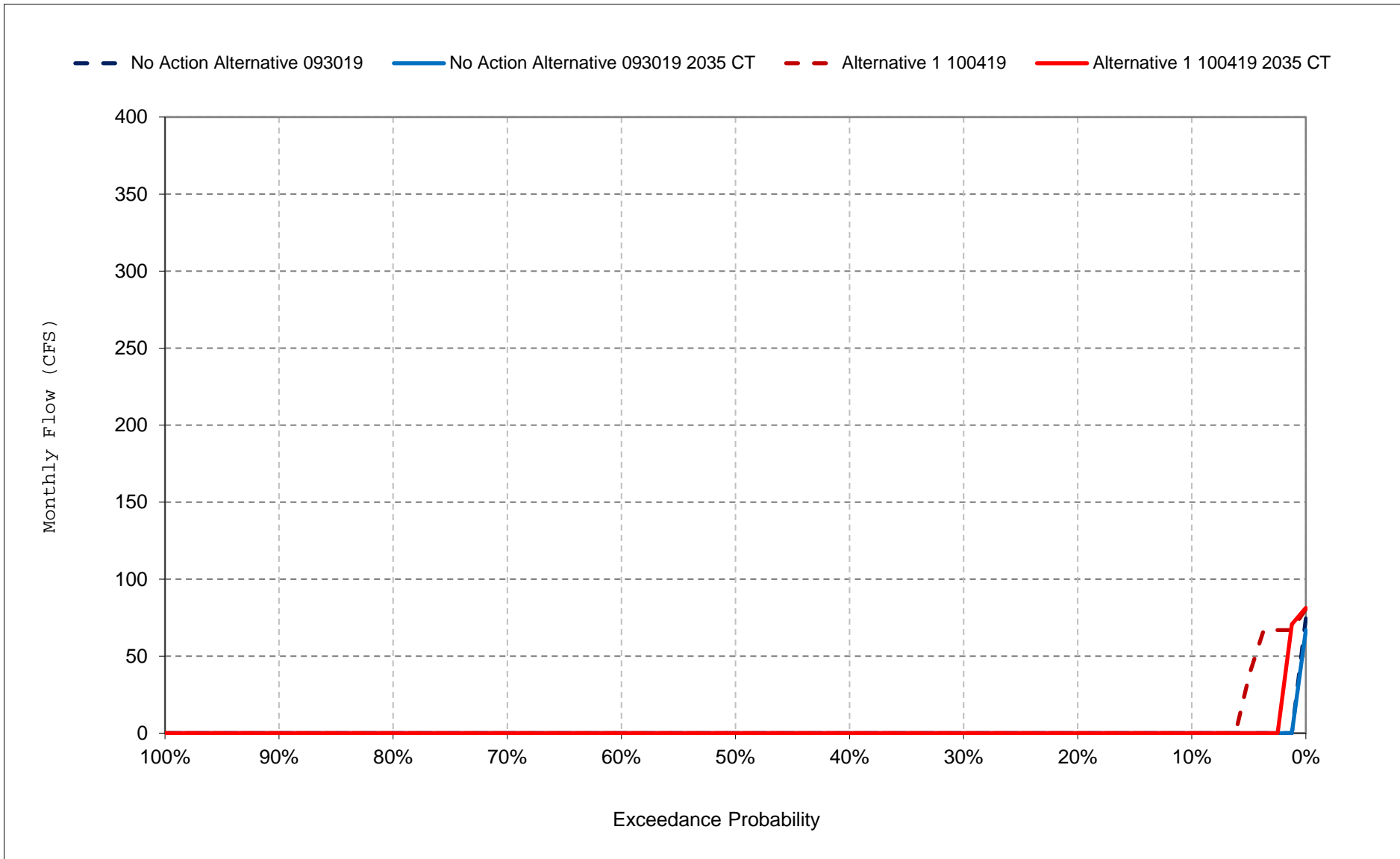
Figure 57-13. DMC - CA Intertie Flow, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

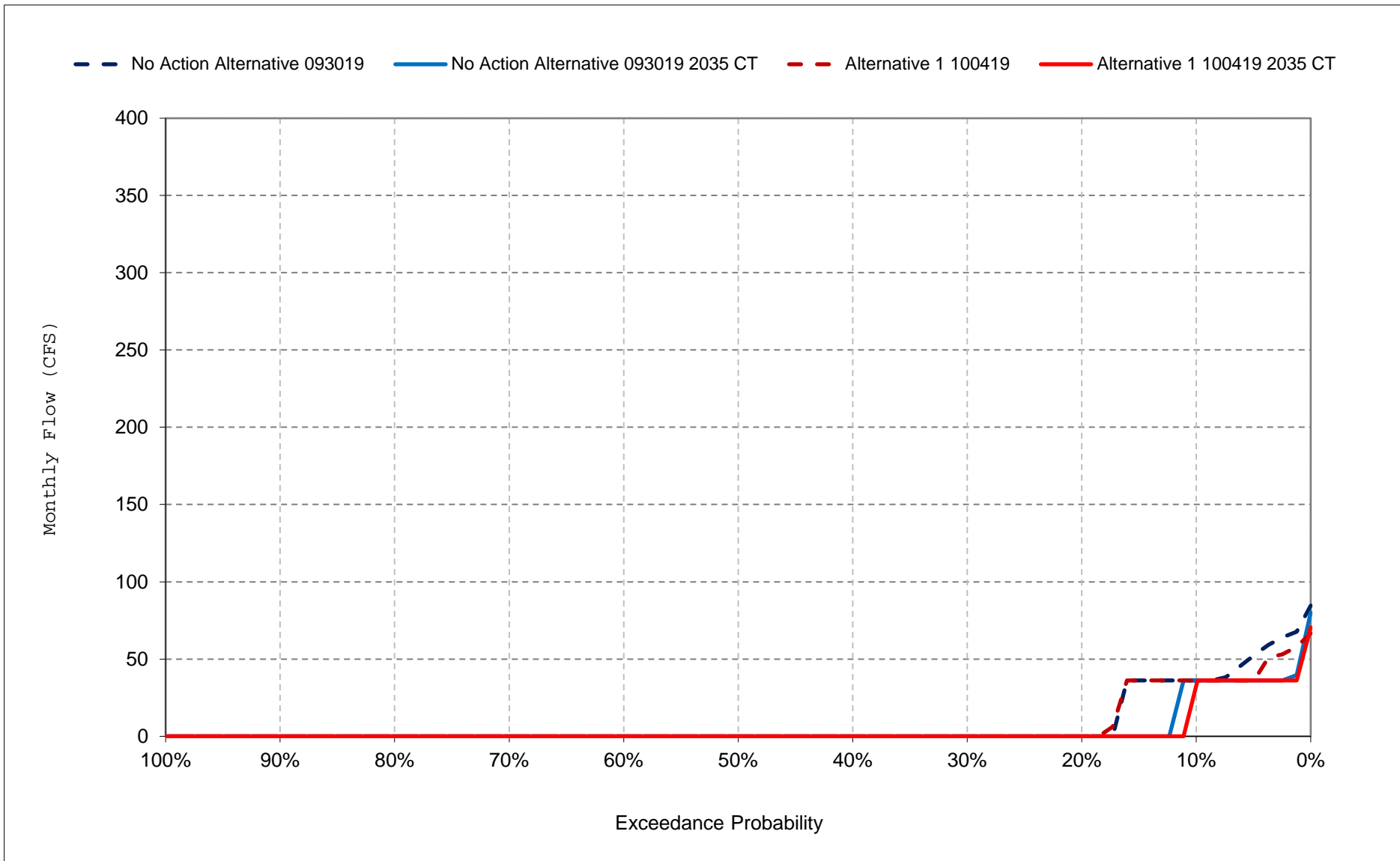
Figure 57-14. DMC - CA Intertie Flow, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

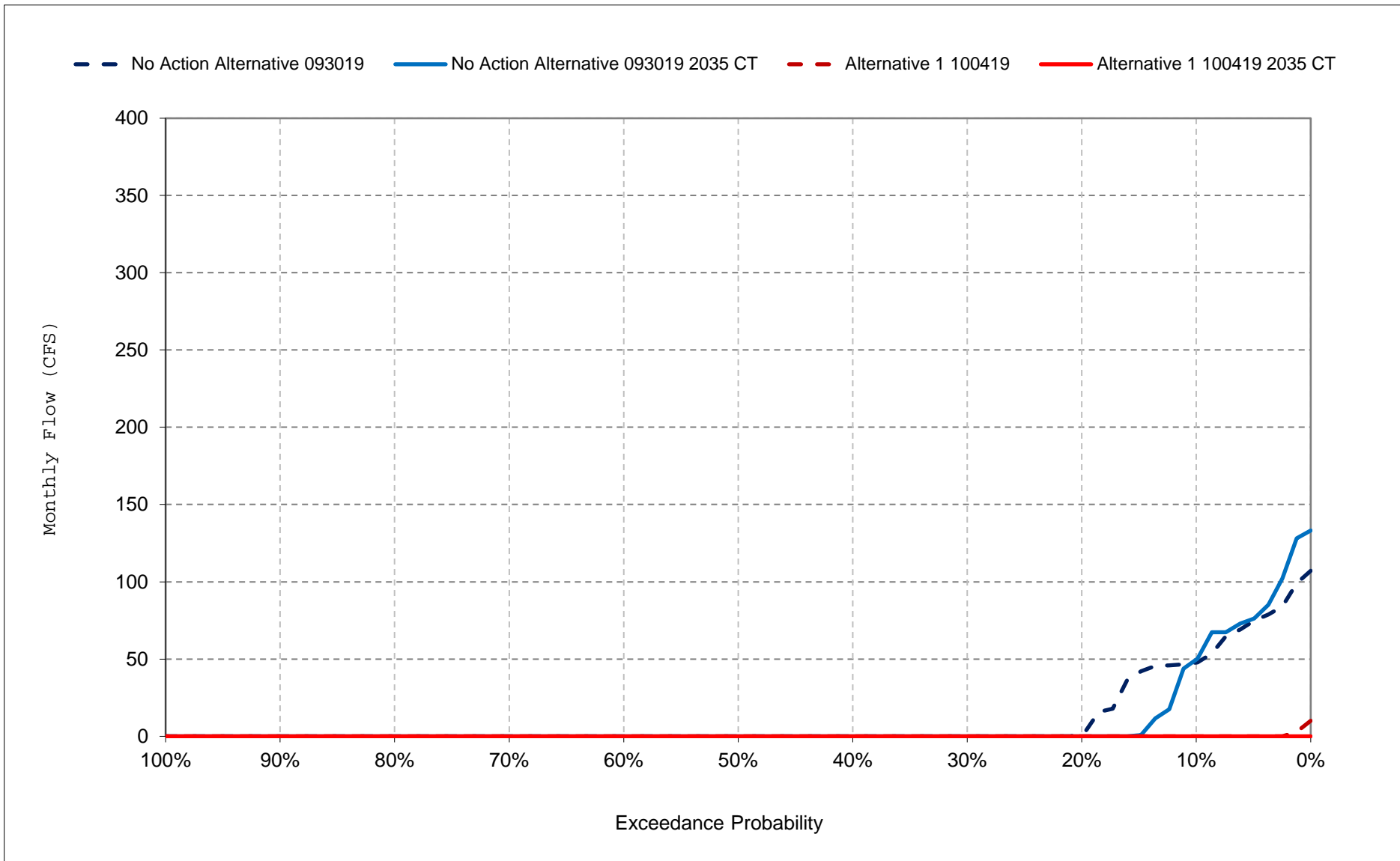
Figure 57-15. DMC - CA Intertie Flow, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

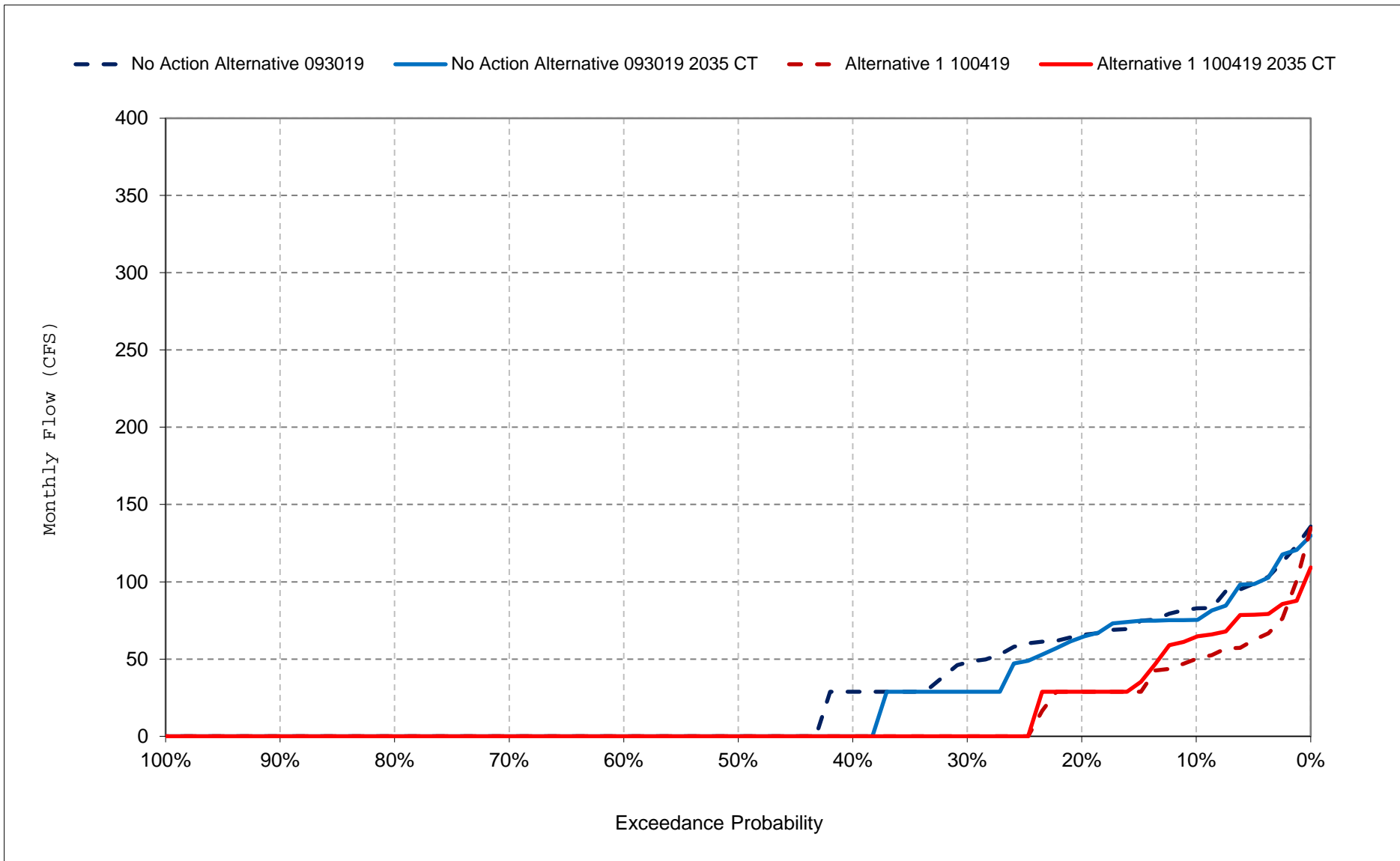
Figure 57-16. DMC - CA Intertie Flow, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

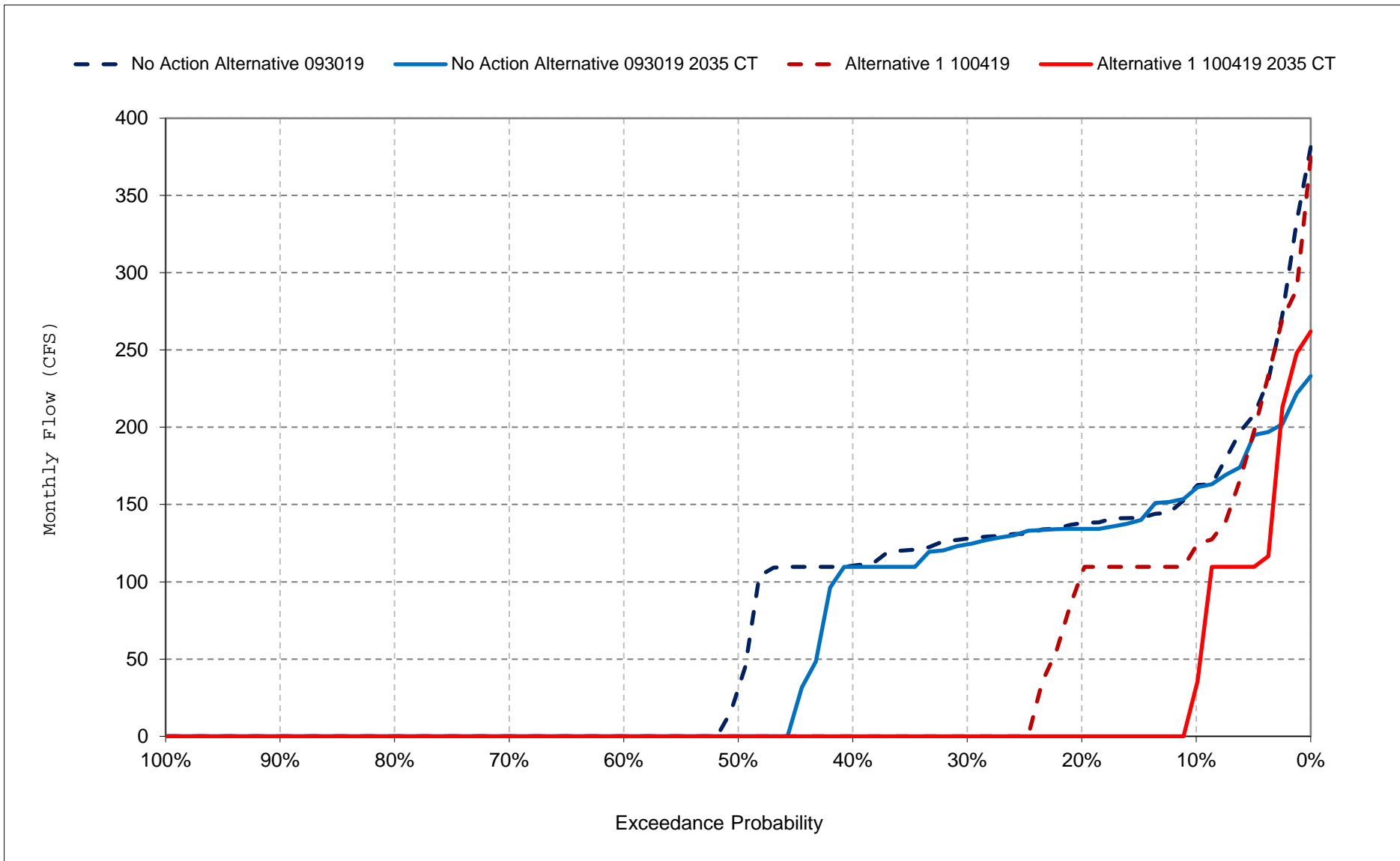
Figure 57-17. DMC - CA Intertie Flow, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 57-18. DMC - CA Intertie Flow, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.4 – Water Supply Results (CalSim II)

The following results of the CalSim II model are included for diversions at key project locations for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
CalSim II Water Supply Summary Report	NA	1-1 to 1-8	1-1 to 1-9
Total Delta Exports	TOTAL_EXP		2-1

Report formats

- Tables comparing water supply of two scenarios (water supply by region and type, and water supply by type)
- Annual exceedance charts including all scenarios

Table 1-1. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 011519	No Action Alternative 011319	Alternative 1 011519 minus No Action Alternative 011319
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,608 1,589	1,608 1,587	0 1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 144	156 140	4 3
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	222 192	218 189	4 3
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	256 146	239 126	17 20
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	937 873	936 870	1 3
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 20	29 19	1 1
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 825	852 825	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	256 252	260 250	-4 2
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	16 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	343 176	315 160	28 16
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 301	281 299	2 3
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	42 22	39 20	3 2
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	207 128	197 121	10 7
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	42 24	39 22	3 2
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	696 370	641 336	55 34
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	80 45	75 42	6 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	623 353	568 308	55 45
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	270 162	251 146	19 15
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,282 794	1,196 715	87 78
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	7 4	1 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,230 6,446	7,938 6,207	292 239

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 1-2. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 011519	No Action Alternative 011319	Alternative 1 011519 minus No Action Alternative 011319
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	256 146	239 126	17 20
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 403	397 400	4 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 67	99 67	1 1
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	657 549	635 526	21 23
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 67	99 67	1 1
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	757 616	734 592	22 24
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,081 568	995 516	86 52
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	122 105	119 102	3 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	634 359	579 314	55 45
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,811 1,105	1,687 999	124 106
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,203 673	1,114 618	88 55
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,445 1,464	2,265 1,313	180 151
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,648 2,136	3,379 1,931	268 206

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

Table 1-3. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	No Action Alternative 093019 2035 CT	Alternative 1 100419 2035 CT minus No Action Alternative
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,611 1,592	1,612 1,592	-1 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 145	157 141	4 4
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	223 197	218 192	5 5
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	257 161	239 135	19 25
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	938 875	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	29 20	1 2
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	854 824	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	257 251	261 251	-5 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 15	16 14	0 1
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	340 191	314 162	26 29
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 302	280 297	3 5
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 24	38 20	3 4
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	206 134	198 125	8 9
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	39 22	2 3
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 12	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	694 401	639 339	54 62
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 48	74 42	5 7
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	618 367	576 315	43 52
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	265 169	250 149	16 19
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,256 817	1,186 726	69 91
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 5	7 4	1 1
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,194 6,577	7,942 6,259	252 318

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	No Action Alternative 093019 2035 CT	Alternative 1 100419 2035 CT minus No Action Alternative
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	257 161	239 135	19 25
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 406	396 401	5 5
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 70	1 0
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	658 567	635 537	23 30
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 70	1 0
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	759 637	735 607	24 30
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,075 616	992 521	83 95
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	121 107	119 102	3 6
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	630 373	586 320	43 53
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,777 1,144	1,676 1,013	101 131
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,197 724	1,110 623	86 101
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,406 1,517	2,262 1,334	144 183
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,603 2,241	3,373 1,957	230 284

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-5. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				No Action Alternative 093019 2035 CT	No Action Alternative 011319	No Action Alternative 093019 2035 CT minus No Action
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,612 1,592	1,608 1,587	4 5
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	157 141	156 140	1 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	218 192	218 189	0 3
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	239 135	239 126	0 10
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	936 870	2 5
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	29 20	29 19	0 0
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	852 825	2 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	261 251	260 250	1 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	16 14	16 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	314 162	315 160	-1 2
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	280 297	281 299	-1 -2
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	38 20	39 20	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	198 125	197 121	1 4
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	39 22	39 22	-1 0
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	639 339	641 336	-2 3
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	74 42	75 42	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	576 315	568 308	8 7
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	250 149	251 146	-1 3
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,186 726	1,196 715	-9 11
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	7 4	7 4	0 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	7,942 6,259	7,938 6,207	4 52

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. NAA 011319 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-6. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				No Action Alternative 093019 2035 CT	No Action Alternative 011319	No Action Alternative 093019 2035 CT minus No Action
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	239 135	239 126	0 10
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	396 401	397 400	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 70	99 67	1 4
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	635 537	635 526	0 11
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 70	99 67	1 4
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	735 607	734 592	1 15
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	992 521	995 516	-3 5
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	119 102	119 102	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	586 320	579 314	8 7
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,676 1,013	1,687 999	-11 14
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,110 623	1,114 618	-4 5
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,262 1,334	2,265 1,313	-3 21
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,373 1,957	3,379 1,931	-7 26

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. NAA 011319 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-7. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	Alternative 1 011519	Alternative 1 100419 2035 CT minus Alternative 1 011519
Water Supply Reliability						
Sacramento River Hydrologic Region						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,611 1,592	1,608 1,589	3 3
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	161 145	161 144	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	223 197	222 192	0 4
CVP Ag	Contract Delivery (annual average - does not include Settlement contractors)	(TAF/year)	Long Term Dry and Critical	257 161	256 146	1 15
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	938 875	937 873	1 2
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	30 20	0 1
San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	854 824	852 825	2 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	257 251	256 252	0 -1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 15	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	340 191	343 176	-3 15
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
San Francisco Bay Hydrologic Region						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	283 302	283 301	0 1
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 24	42 22	0 2
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	206 134	207 128	-1 6
Central Coast Hydrologic Region						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	42 24	-1 2
Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 12	12 12	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	694 401	696 370	-2 32
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 48	80 45	-1 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	618 367	623 353	-4 14
South Lahontan Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	265 169	270 162	-4 7
South Coast Hydrologic Region						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,256 817	1,282 794	-27 23
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 5	8 4	0 0
Total For All Regions						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,194 6,577	8,230 6,446	-36 131

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. ALT1 011519 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-8. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages

				Alternative 1 100419 2035 CT	Alternative 1 011519	Alternative 1 100419 2035 CT minus Alternative 1 011519
Water Supply Reliability						
North of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	257 161	256 146	1 15
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	401 406	401 403	0 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 67	1 3
Total CVP North of Delta						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	658 567	657 549	2 18
Total SWP North of Delta						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	101 71	100 67	1 3
Total North of Delta						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	759 637	757 616	2 21
South of Delta						
CVP Ag	Contract Delivery (annual average; does not include Exchange contractors)	(TAF/year)	Long Term Dry and Critical	1,075 616	1,081 568	-6 49
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	121 107	122 105	0 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	630 373	634 359	-5 14
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,777 1,144	1,811 1,105	-34 39
Total CVP South of Delta						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,197 724	1,203 673	-6 51
Total SWP South of Delta						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,406 1,517	2,445 1,464	-39 54
Total South of Delta						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,603 2,241	3,648 2,136	-45 105

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. ALT1 011519 is simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
4. ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. CVP North of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)

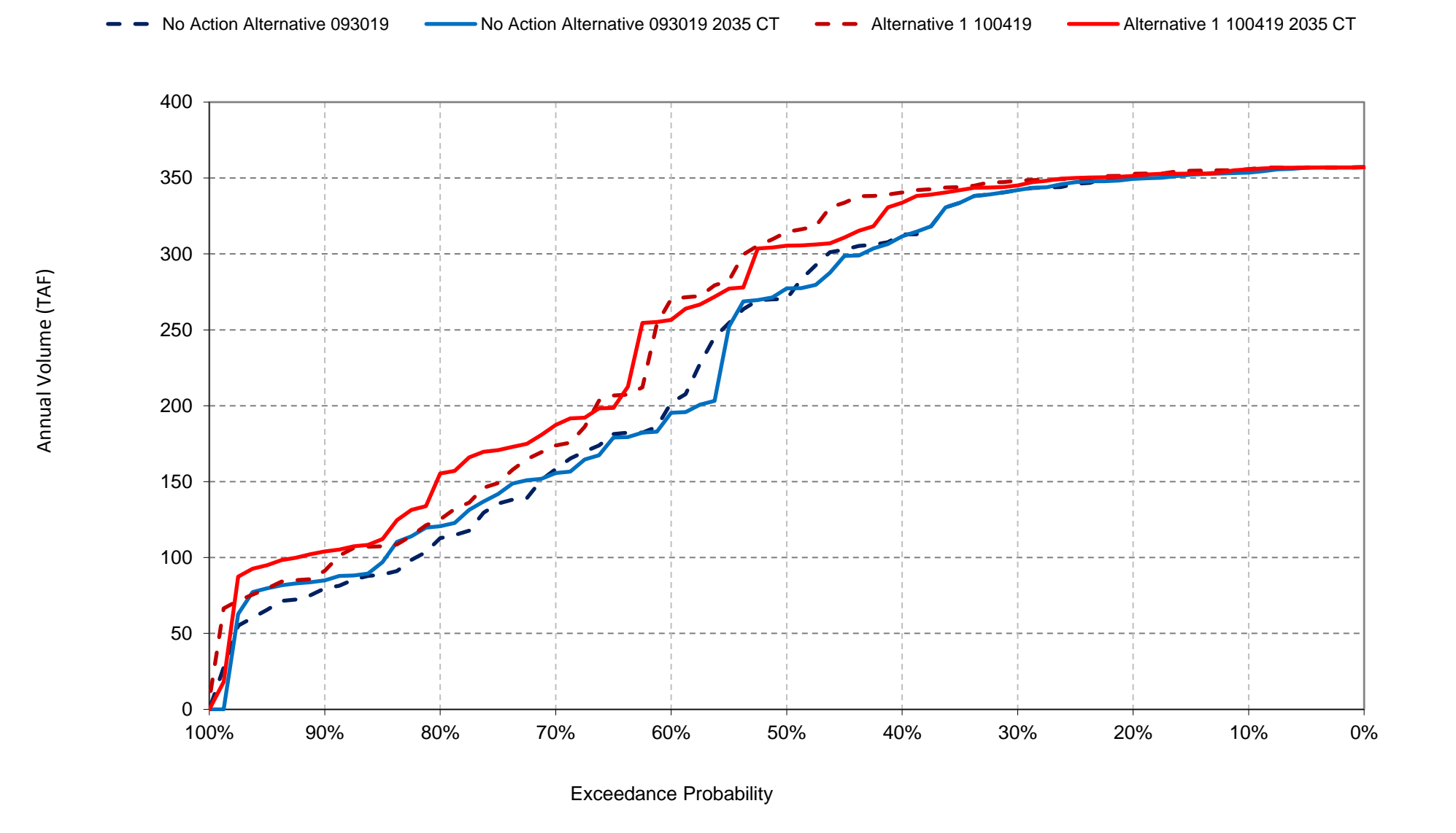


Figure 1-2. CVP South of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)

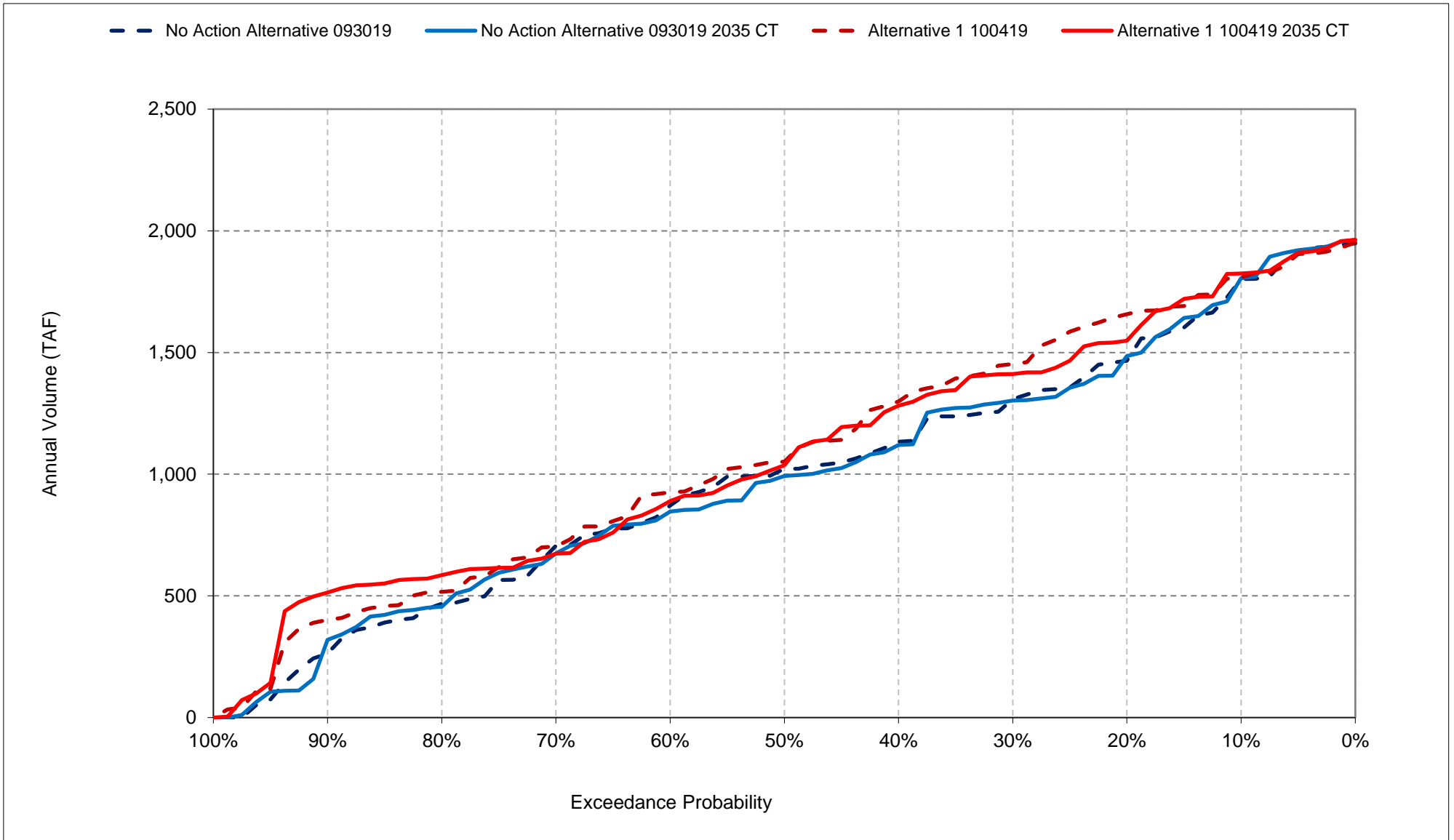


Figure 1-3. CVP North of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)

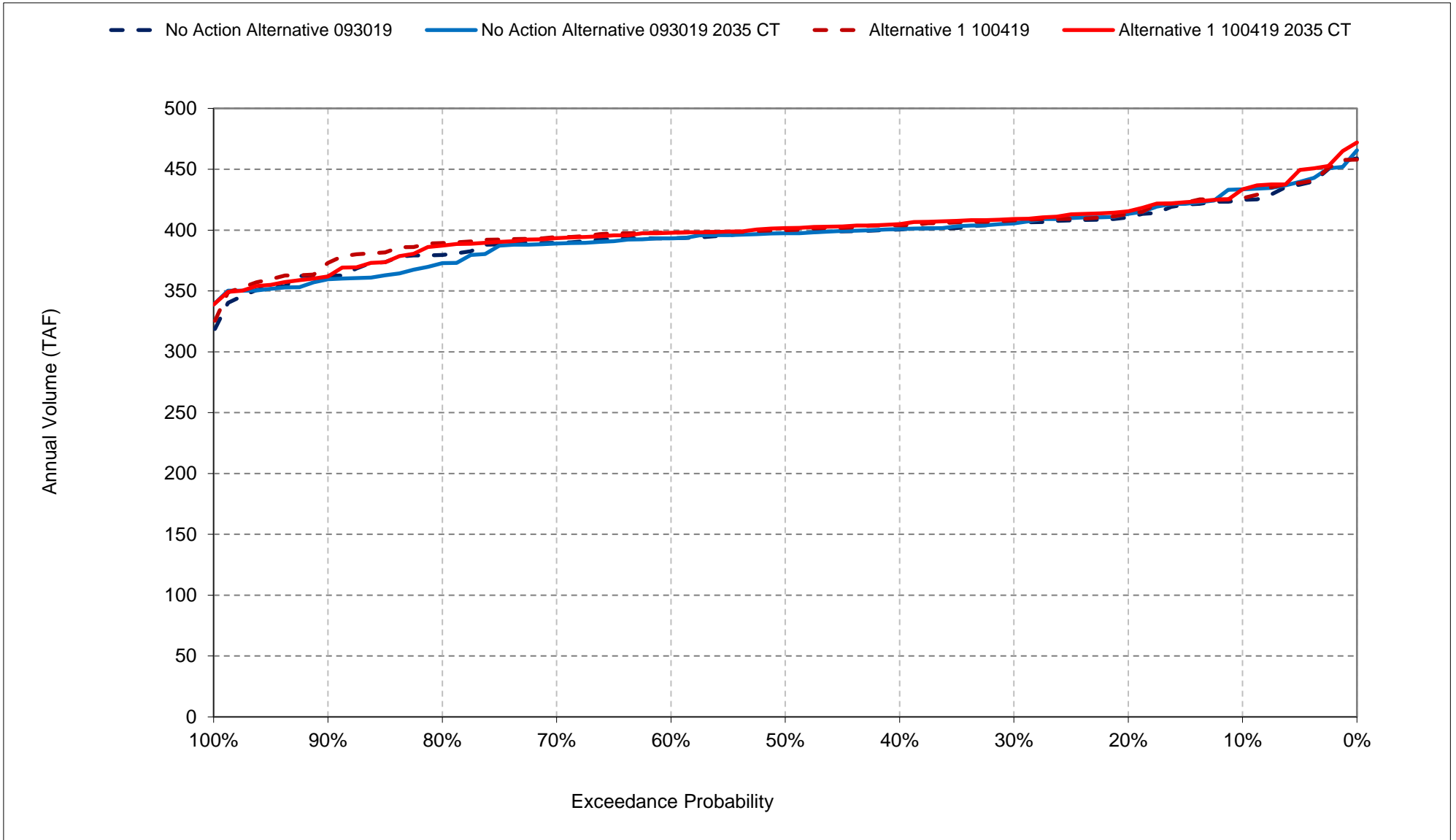


Figure 1-4. CVP South of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)

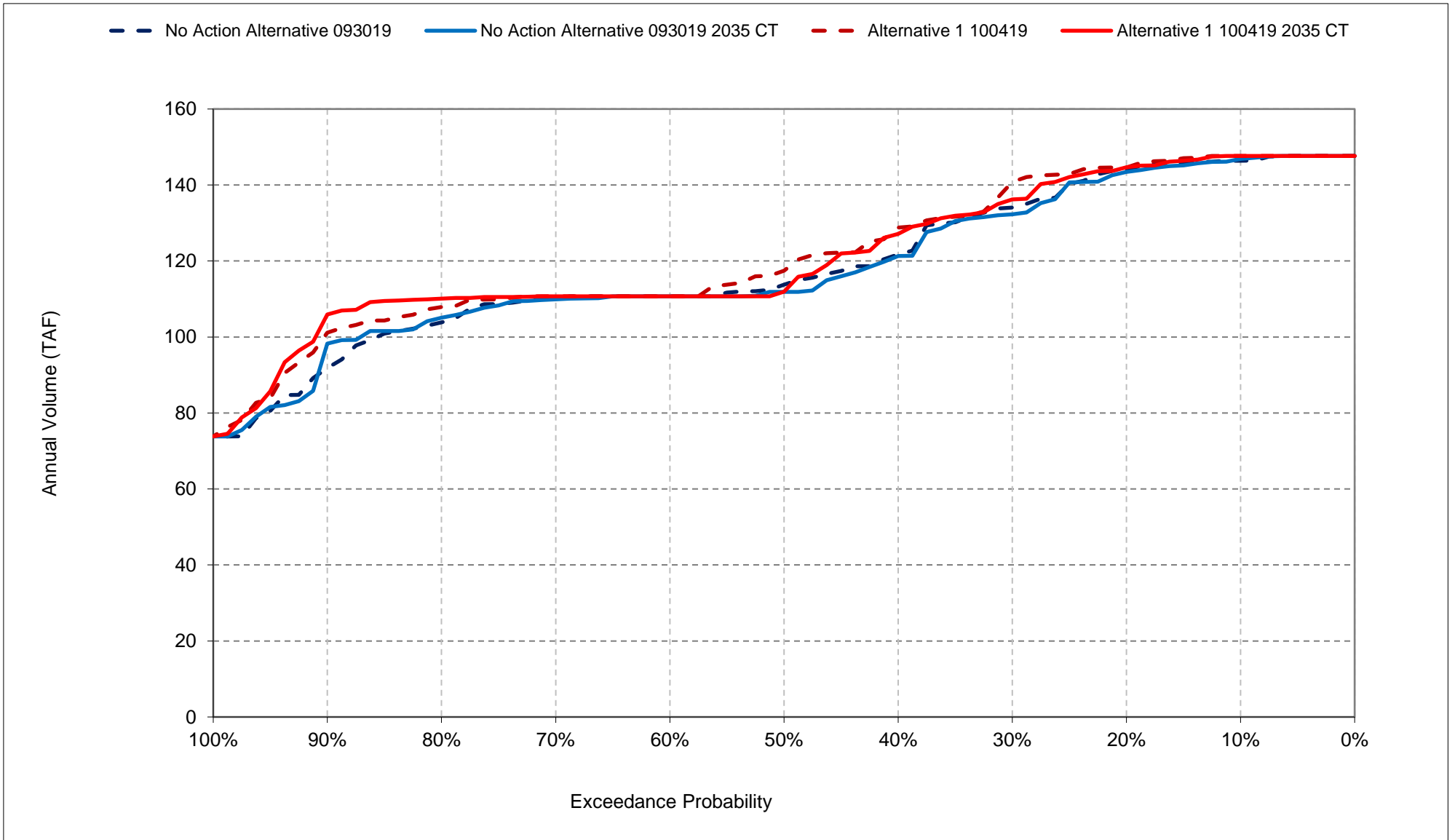


Figure 1-5. Total SWP Deliveries, Annual (Jan-Dec)

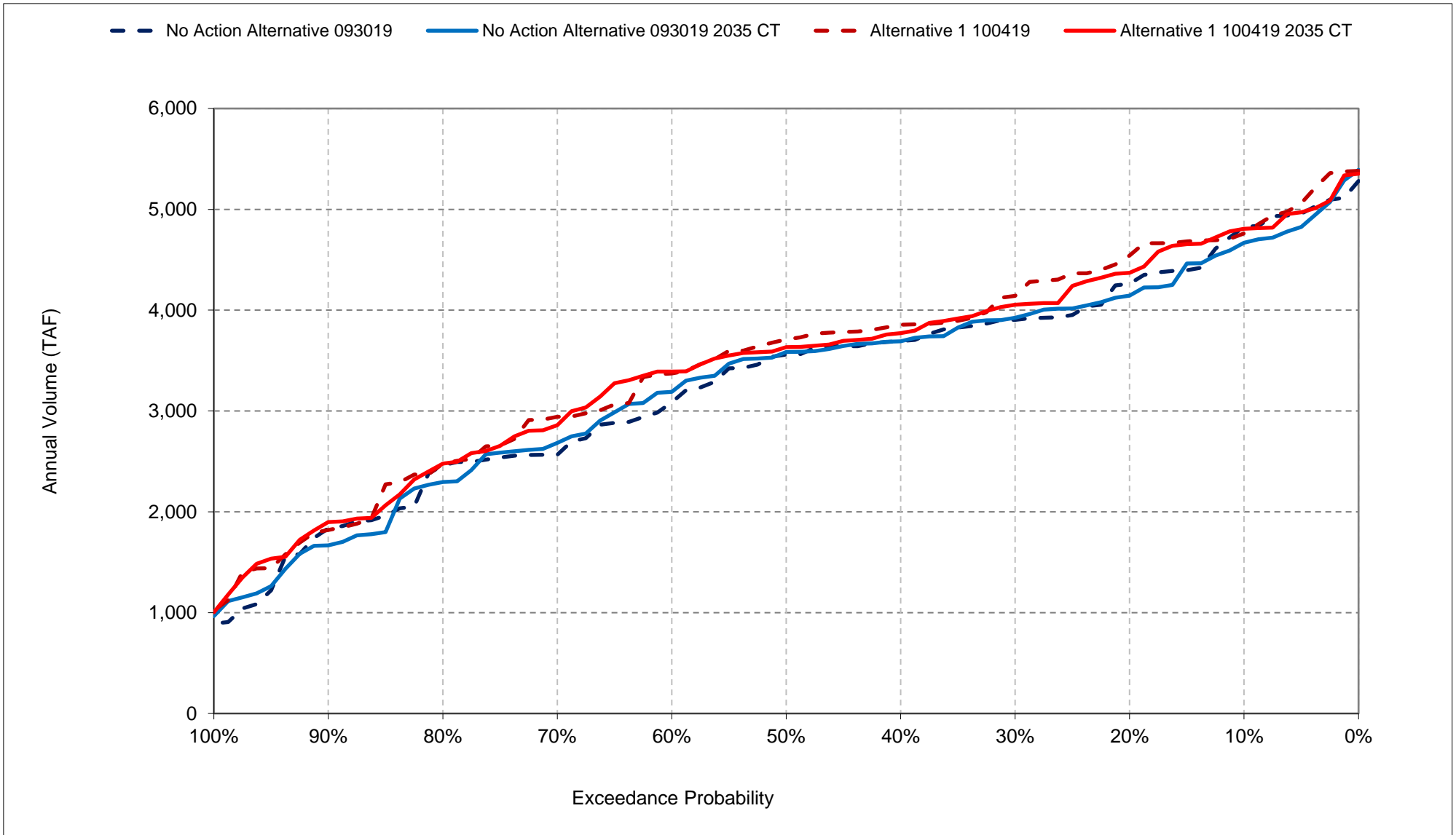


Figure 1-6. Total SWP South of Delta Deliveries including Article 21 and 56, Annual (Jan-Dec)

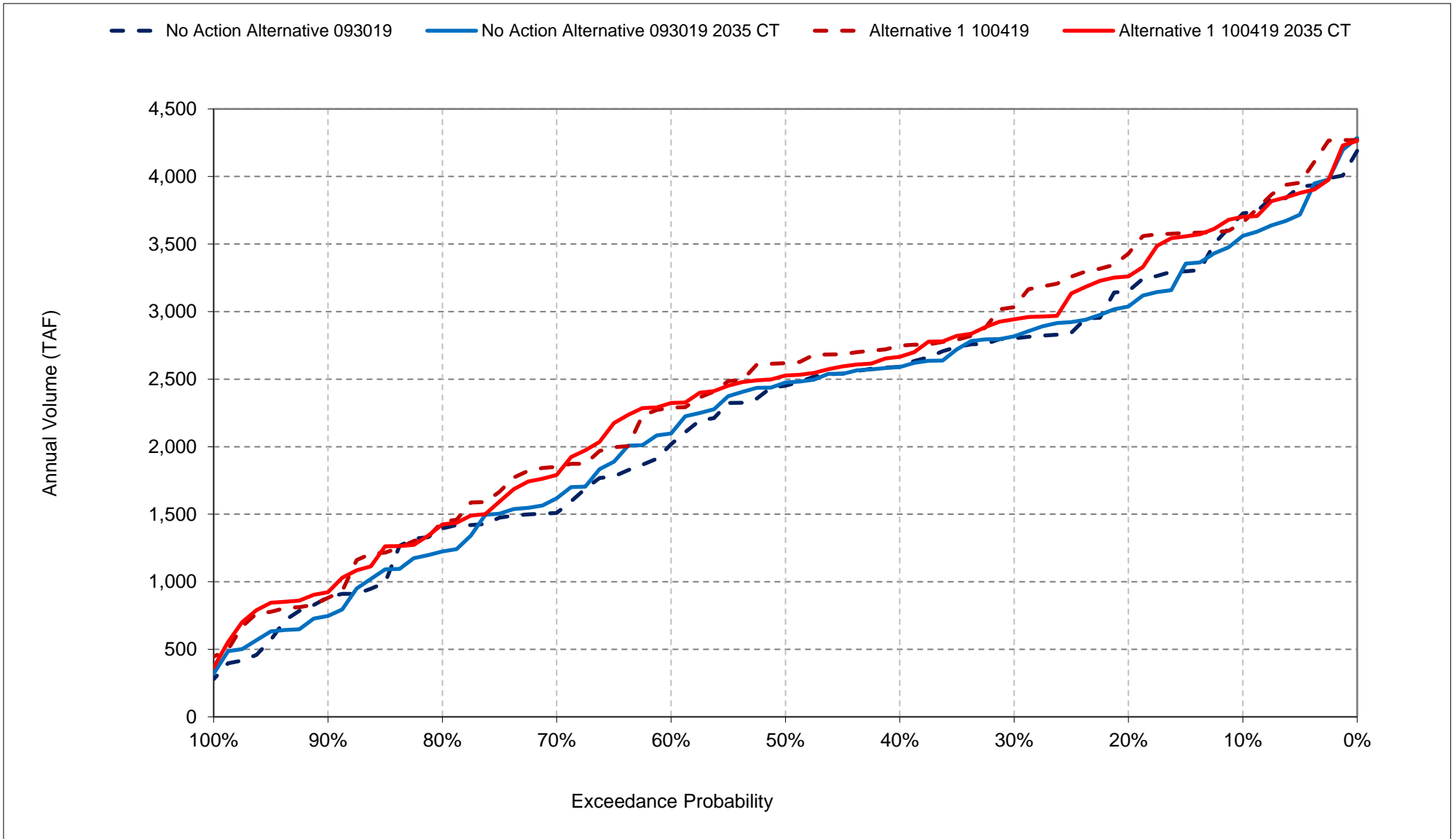


Figure 1-7. SWP Table A Deliveries with Article 56, Annual (Jan-Dec)

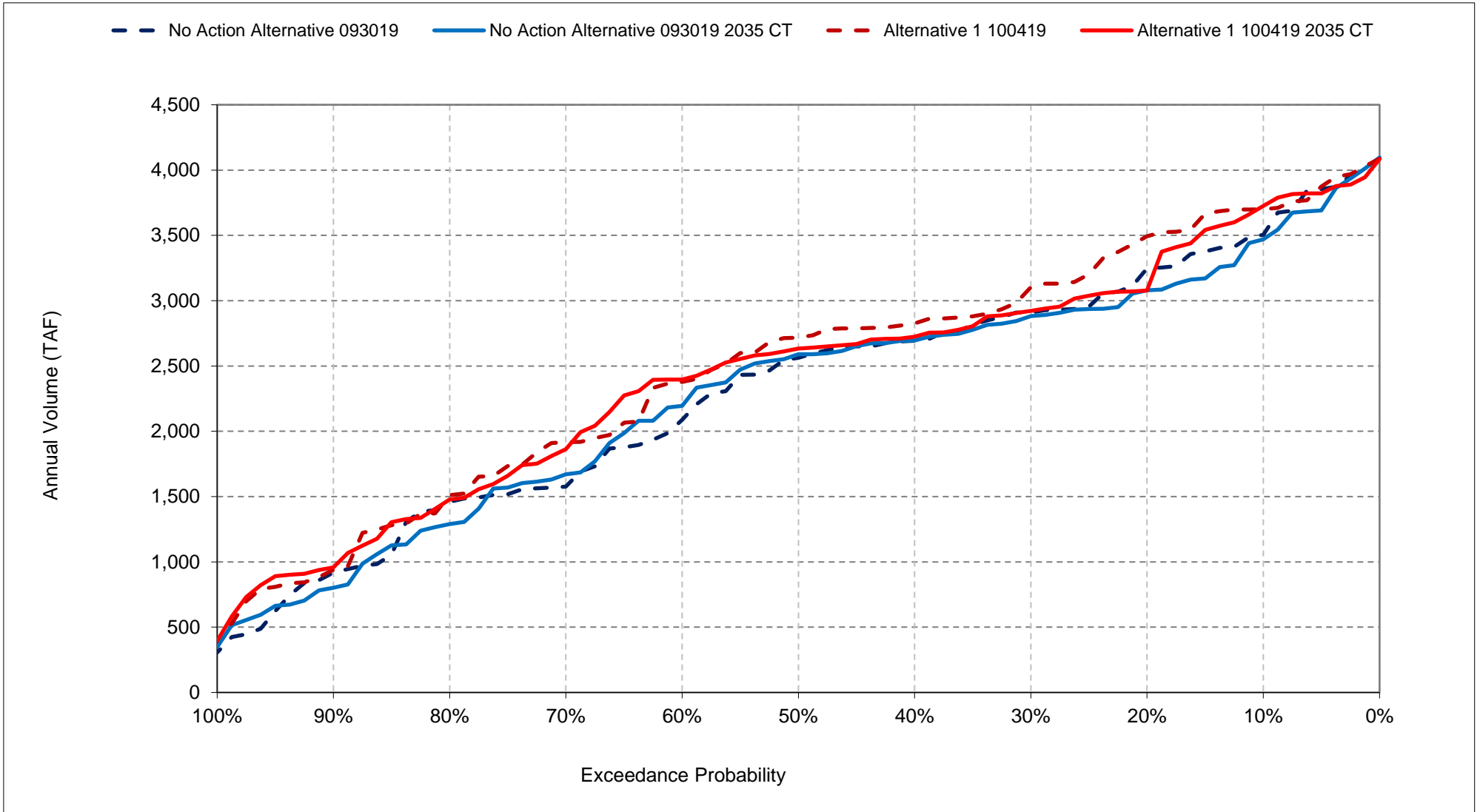


Figure 1-8. SWP South of Delta Table A Deliveries with Article 56, Annual (Jan-Dec)

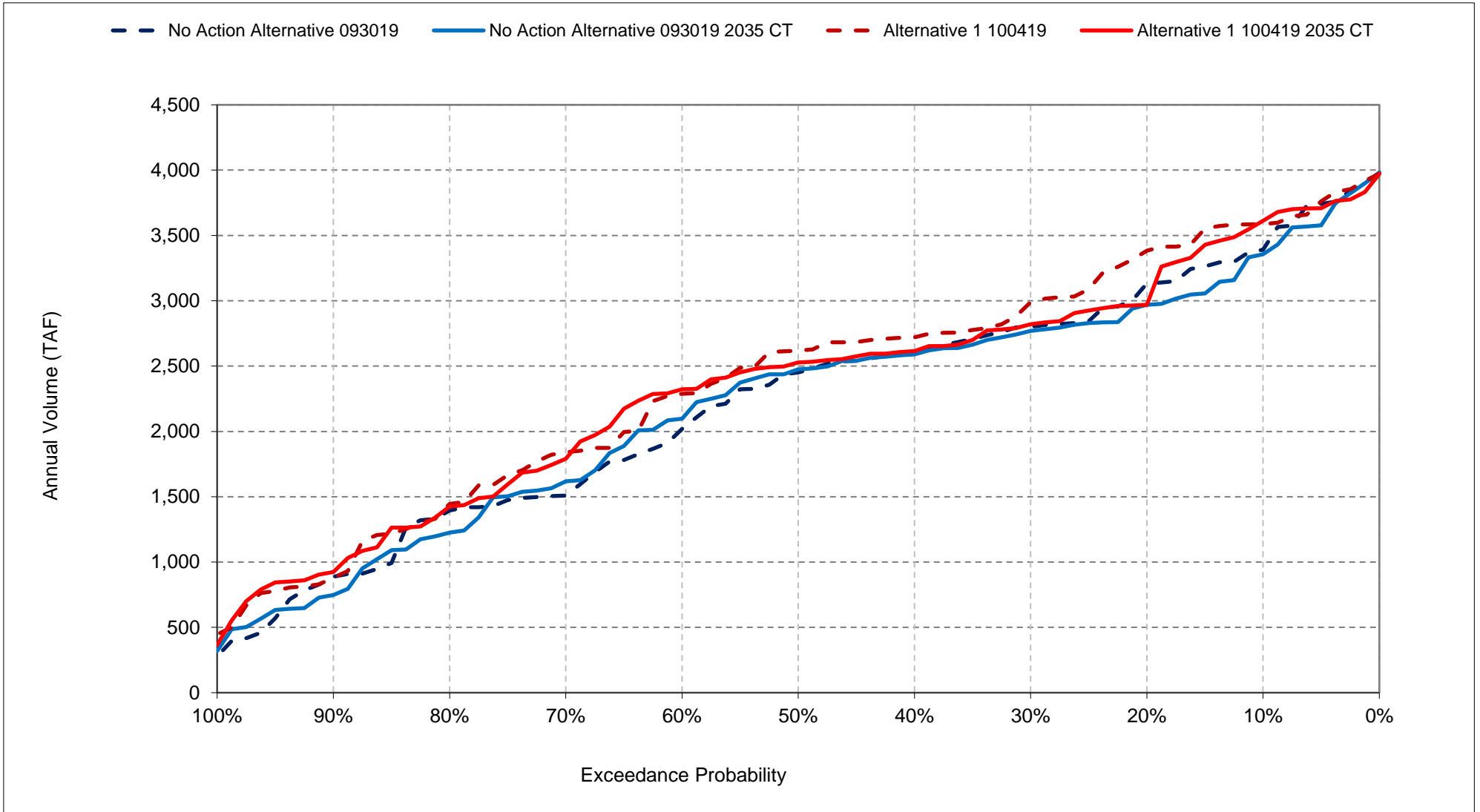


Figure 1-9. SWP Article 21 Deliveries, Annual (Jan-Dec)

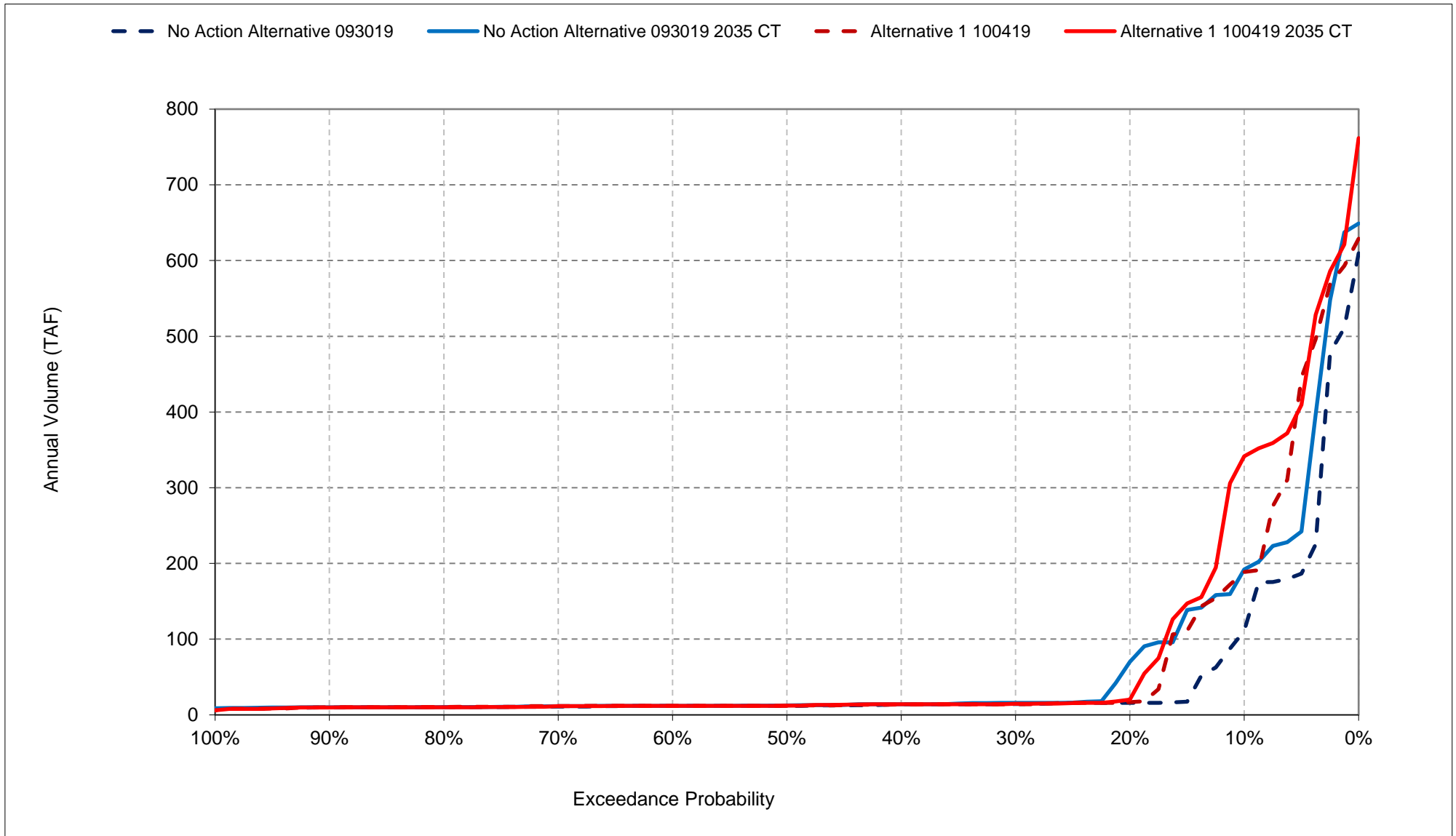
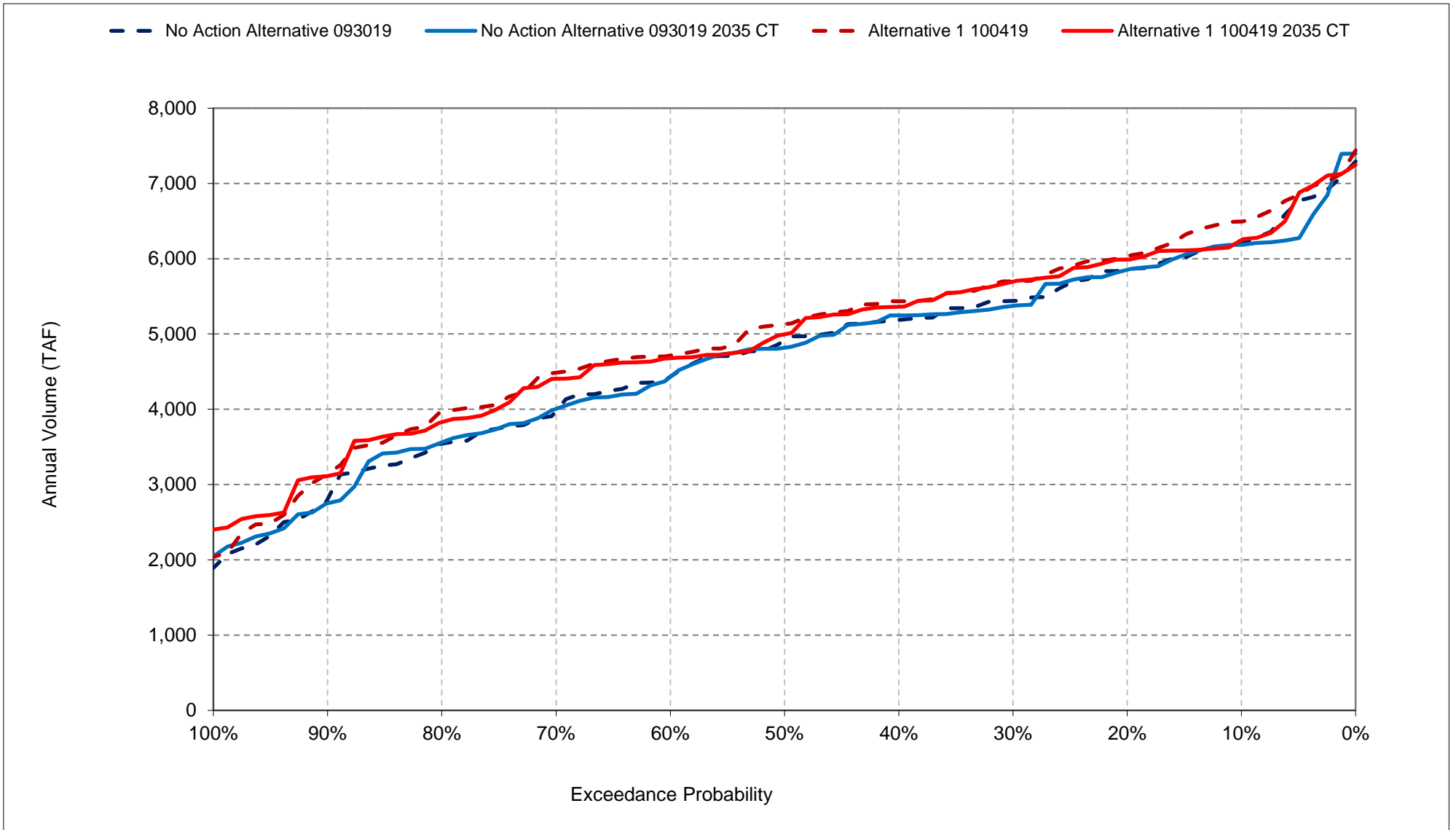


Figure 2-1. Total Delta Exports, Annual (Oct-Sep)



Appendix F, Attachment 2 – Additional Climate Scenario Sensitivity Analysis

Section F2.2.5 – X2 Position Results (CalSim II)

X2 position results of the CalSim II model are included for the following alternatives:

- No Action Alternative 093019
- No Action Alternative 093019 2035 CT
- Alternative 1 100419
- Alternative 1 100419 2035 CT

Title	Model Parameter	Table Numbers	Figure Numbers
X2 Position	X2_PRV_MOD	1-1 to 1-4	1-1 to 1-18

Report formats

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type)
- Monthly pattern charts (long-term average and average by water year type) including all scenarios
- Monthly exceedance charts (all months) including all scenarios

Table 1-1. X2 Position, Monthly Position

No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	85	78	76	78	81	83	87	90	92
20%	92	92	88	83	73	73	72	79	82	85	88	91
30%	92	91	85	80	68	66	70	77	81	84	88	91
40%	91	89	83	75	64	64	67	72	80	82	86	90
50%	88	81	81	72	59	60	64	69	78	80	85	89
60%	81	81	79	65	55	58	60	66	77	78	85	81
70%	74	75	73	55	52	54	57	64	74	77	84	74
80%	74	74	62	51	49	51	54	58	69	77	83	74
90%	74	74	52	49	48	49	50	53	63	74	82	74
Long Term												
Full Simulation Period ^d	84	82	77	68	61	61	64	69	76	80	85	84
Water Year Types^{b,c}												
Wet (32%)	74	73	71	55	51	53	55	58	67	75	83	74
Above Normal (16%)	81	80	77	61	55	55	59	65	75	78	83	75
Below Normal (13%)	89	88	79	75	65	67	69	72	79	81	85	90
Dry (24%)	92	87	75	78	68	66	68	74	80	85	88	91
Critical (15%)	94	94	87	82	75	74	77	82	85	88	90	92

Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	94	94	91	86	79	77	79	82	83	87	90	92
20%	92	92	89	83	73	72	75	80	82	85	88	91
30%	92	91	88	80	67	65	70	79	81	84	88	91
40%	92	90	87	75	65	64	68	75	80	82	87	91
50%	88	86	85	72	59	60	66	71	79	81	85	89
60%	80	85	81	65	55	57	62	70	78	79	83	81
70%	80	85	73	54	52	54	59	67	75	78	83	81
80%	80	85	62	51	49	50	54	60	71	77	82	81
90%	80	76	52	49	48	49	50	55	63	74	82	80
Long Term												
Full Simulation Period ^d	86	86	78	68	61	61	65	70	76	81	85	86
Water Year Types^{b,c}												
Wet (32%)	80	81	75	55	51	53	56	60	68	75	82	80
Above Normal (16%)	80	83	79	61	55	54	60	68	76	78	82	75
Below Normal (13%)	89	88	79	75	64	66	70	75	80	82	86	90
Dry (24%)	92	87	75	78	68	65	69	75	81	84	88	91
Critical (15%)	94	94	87	82	76	76	78	83	86	88	91	92

Alternative 1 100419 minus No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	1	1	1	0	0	0	0	0
20%	0	0	0	0	0	0	2	0	0	0	0	0
30%	0	0	4	0	0	-1	0	1	0	0	0	0
40%	0	0	4	0	1	0	2	4	0	0	0	0
50%	-1	4	3	0	0	0	2	2	1	0	0	0
60%	-1	4	2	0	0	-1	2	4	1	0	-2	0
70%	6	10	0	0	0	-1	1	3	1	1	-2	7
80%	6	11	0	0	0	0	1	2	2	1	0	7
90%	6	2	0	0	0	0	1	2	0	0	0	6
Long Term												
Full Simulation Period ^d	2	3	1	0	0	0	1	2	0	0	0	2
Water Year Types^{b,c}												
Wet (32%)	6	8	3	0	0	0	1	2	1	0	-1	6
Above Normal (16%)	-1	4	2	0	0	-1	1	3	1	1	0	0
Below Normal (13%)	0	1	0	0	0	-1	1	3	1	0	0	0
Dry (24%)	0	0	0	0	0	0	1	1	0	0	0	0
Critical (15%)	0	0	0	0	1	1	1	1	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

Table 1-2: X2 Position, Monthly Position

No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	74	76	81	83	86	90	92
20%	92	92	88	83	69	68	71	79	82	85	88	91
30%	92	91	84	80	65	65	70	77	81	85	88	91
40%	91	90	82	71	62	63	66	73	81	81	85	90
50%	90	81	81	67	56	59	63	70	79	81	85	89
60%	81	80	77	62	54	56	60	68	79	79	84	81
70%	74	75	71	54	51	53	56	65	76	78	84	74
80%	74	74	62	50	49	50	53	60	73	77	82	74
90%	74	74	53	49	48	49	50	56	68	75	82	74
Long Term												
Full Simulation Period ^d	84	83	76	67	60	60	63	70	78	81	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	70	54	51	52	55	60	71	76	83	74
Above Normal (16%)	81	79	76	60	54	54	58	67	77	78	83	75
Below Normal (13%)	90	89	78	72	62	65	68	73	80	82	85	90
Dry (24%)	92	87	75	77	65	64	67	75	81	84	88	91
Critical (15%)	93	93	87	80	73	73	77	82	85	87	90	92

Alternative 1 100419 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	75	78	81	83	86	90	92
20%	92	92	89	83	70	68	74	80	83	85	89	92
30%	92	91	88	79	66	64	70	79	81	85	88	91
40%	92	91	86	71	62	62	68	76	81	82	86	90
50%	91	86	83	67	57	59	65	73	80	81	85	90
60%	80	86	80	61	54	55	61	70	79	80	83	82
70%	80	85	72	53	51	52	57	67	78	78	83	81
80%	80	85	62	50	49	50	54	62	74	78	82	81
90%	80	79	53	49	48	49	50	58	69	76	82	80
Long Term												
Full Simulation Period ^d	86	86	77	67	60	60	64	71	78	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	74	54	51	52	55	62	71	77	82	80
Above Normal (16%)	81	84	78	60	54	53	59	69	78	79	83	76
Below Normal (13%)	90	89	78	71	62	64	69	75	80	82	86	90
Dry (24%)	92	87	75	77	66	63	68	76	81	84	88	91
Critical (15%)	94	94	87	81	74	74	78	83	85	87	90	92

Alternative 1 100419 2035 CT minus No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	0	0	1	2	0	0	0	0	0
20%	0	0	1	0	1	0	2	0	0	0	0	0
30%	0	0	4	-1	1	-1	0	2	0	0	0	0
40%	0	0	5	-1	0	0	2	3	0	0	1	0
50%	1	4	2	0	0	0	2	3	0	1	0	1
60%	-1	6	2	-1	0	-1	1	2	0	1	-1	1
70%	6	11	1	0	0	-1	1	2	2	1	-1	7
80%	6	11	0	0	0	0	1	2	0	1	0	7
90%	6	5	0	0	0	0	0	2	1	0	0	6
Long Term												
Full Simulation Period ^d	2	3	1	0	0	0	1	2	0	0	0	2
Water Year Types ^{b,c}												
Wet (32%)	6	8	3	0	0	0	1	2	0	1	-1	6
Above Normal (16%)	1	4	2	0	0	-1	1	3	1	1	0	1
Below Normal (13%)	0	1	0	-1	0	-1	1	2	0	1	1	0
Dry (24%)	0	0	0	0	1	0	1	1	0	0	0	0
Critical (15%)	0	0	0	1	1	1	1	1	0	0	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e Scenarios are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-3. X2 Position, Monthly Position

No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	85	78	76	78	81	83	87	90	92
20%	92	92	88	83	73	73	72	79	82	85	88	91
30%	92	91	85	80	68	66	70	77	81	84	88	91
40%	91	89	83	75	64	64	67	72	80	82	86	90
50%	88	81	81	72	59	60	64	69	78	80	85	89
60%	81	81	79	65	55	58	60	66	77	78	85	81
70%	74	75	73	55	52	54	57	64	74	77	84	74
80%	74	74	62	51	49	51	54	58	69	77	83	74
90%	74	74	52	49	48	49	50	53	63	74	82	74
Long Term												
Full Simulation Period ^d	84	82	77	68	61	61	64	69	76	80	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	71	55	51	53	55	58	67	75	83	74
Above Normal (16%)	81	80	77	61	55	55	59	65	75	78	83	75
Below Normal (13%)	89	88	79	75	65	67	69	72	79	81	85	90
Dry (24%)	92	87	75	78	68	66	68	74	80	85	88	91
Critical (15%)	94	94	87	82	75	74	77	82	85	88	90	92

No Action Alternative 093019 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	74	76	81	83	86	90	92
20%	92	92	88	83	69	68	71	79	82	85	88	91
30%	92	91	84	80	65	65	70	77	81	85	88	91
40%	91	90	82	71	62	63	66	73	81	81	85	90
50%	90	81	81	67	56	59	63	70	79	81	85	89
60%	81	80	77	62	54	56	60	68	79	79	84	81
70%	74	75	71	54	51	53	56	65	76	78	84	74
80%	74	74	62	50	49	50	53	60	73	77	82	74
90%	74	74	53	49	48	49	50	56	68	75	82	74
Long Term												
Full Simulation Period ^d	84	83	76	67	60	60	63	70	78	81	85	84
Water Year Types ^{b,c}												
Wet (32%)	74	73	70	54	51	52	55	60	71	76	83	74
Above Normal (16%)	81	79	76	60	54	54	58	67	77	78	83	75
Below Normal (13%)	90	89	78	72	62	65	68	73	80	82	85	90
Dry (24%)	92	87	75	77	65	64	67	75	81	84	88	91
Critical (15%)	93	93	87	80	73	73	77	82	85	87	90	92

No Action Alternative 093019 2035 CT minus No Action Alternative 093019

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-1	-1	-2	-2	0	0	0	0	0
20%	0	0	-1	0	-4	-4	-1	0	1	0	0	0
30%	0	0	0	0	-3	-1	0	0	0	0	0	0
40%	0	1	-1	-4	-1	-2	0	1	1	-1	-1	0
50%	2	0	0	-5	-3	-1	-1	1	2	0	0	0
60%	0	-1	-2	-3	-1	-2	0	1	2	1	0	0
70%	0	0	-2	-1	-1	-2	-1	2	2	0	0	0
80%	0	0	0	-1	0	-1	-1	2	4	0	0	0
90%	0	0	0	0	0	0	0	3	6	1	0	0
Long Term												
Full Simulation Period ^d	0	0	-1	-2	-1	-1	-1	1	2	0	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	-1	-1	-1	-1	0	2	4	1	0	0
Above Normal (16%)	0	0	0	-2	-1	-1	-1	2	2	0	0	0
Below Normal (13%)	1	1	-1	-3	-2	-2	-1	1	1	0	0	0
Dry (24%)	0	0	0	-2	-2	-2	-1	0	1	0	0	0
Critical (15%)	0	0	-1	-2	-2	-1	-1	0	-1	-1	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e NAA 093019 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f NAA 093019 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Table 1-4. X2 Position, Monthly Position

Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	94	94	91	86	79	77	79	82	83	87	90	92
20%	92	92	89	83	73	72	75	80	82	85	88	91
30%	92	91	88	80	67	65	70	79	81	84	88	91
40%	92	90	87	75	65	64	68	75	80	82	87	91
50%	88	86	85	72	59	60	66	71	79	81	85	89
60%	80	85	81	65	55	57	62	70	78	79	83	81
70%	80	85	73	54	52	54	59	67	75	78	83	81
80%	80	85	62	51	49	50	54	60	71	77	82	81
90%	80	76	52	49	48	49	50	55	63	74	82	80
Long Term												
Full Simulation Period ^d	86	86	78	68	61	61	65	70	76	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	75	55	51	53	56	60	68	75	82	80
Above Normal (16%)	80	83	79	61	55	54	60	68	76	78	82	75
Below Normal (13%)	89	88	79	75	64	66	70	75	80	82	86	90
Dry (24%)	92	87	75	78	68	65	69	75	81	84	88	91
Critical (15%)	94	94	87	82	76	76	78	83	86	88	91	92

Alternative 1 100419 2035 CT

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	93	94	91	84	77	75	78	81	83	86	90	92
20%	92	92	89	83	70	68	74	80	83	85	89	92
30%	92	91	88	79	66	64	70	79	81	85	88	91
40%	92	91	86	71	62	62	68	76	81	82	86	90
50%	91	86	83	67	57	59	65	73	80	81	85	90
60%	80	86	80	61	54	55	61	70	79	80	83	82
70%	80	85	72	53	51	52	57	67	78	78	83	81
80%	80	85	62	50	49	50	54	62	74	78	82	81
90%	80	79	53	49	48	49	50	58	69	76	82	80
Long Term												
Full Simulation Period ^d	86	86	77	67	60	60	64	71	78	81	85	86
Water Year Types ^{b,c}												
Wet (32%)	80	81	74	54	51	52	55	62	71	77	82	80
Above Normal (16%)	81	84	78	60	54	53	59	69	78	79	83	76
Below Normal (13%)	90	89	78	71	62	64	69	75	80	82	86	90
Dry (24%)	92	87	75	77	66	63	68	76	81	84	88	91
Critical (15%)	94	94	87	81	74	74	78	83	85	87	90	92

Alternative 1 100419 2035 CT minus Alternative 1 100419

Statistic	Monthly Position (KM)											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	0	0	-2	-2	-2	-1	0	0	0	0	0
20%	0	0	0	0	-3	-4	-1	0	0	0	0	0
30%	0	0	0	-2	-1	-1	0	0	0	0	0	0
40%	0	1	-1	-4	-2	-2	0	1	0	0	-1	0
50%	3	0	-1	-5	-2	-1	-1	2	1	0	0	1
60%	0	0	-2	-4	-1	-2	-1	0	2	1	0	1
70%	0	0	-1	-1	-1	-1	-1	0	3	1	0	0
80%	0	0	0	-1	0	-1	0	3	3	0	0	0
90%	0	3	0	0	0	0	0	3	6	1	0	0
Long Term												
Full Simulation Period ^d	0	0	-1	-2	-1	-1	-1	1	2	1	0	0
Water Year Types ^{b,c}												
Wet (32%)	0	0	-1	-1	-1	-1	0	2	4	2	0	0
Above Normal (16%)	1	0	-1	-2	-1	-1	-1	2	2	0	0	1
Below Normal (13%)	1	1	-1	-4	-2	-2	-1	0	1	1	0	0
Dry (24%)	0	0	0	-2	-2	-2	-1	0	1	0	0	0
Critical (15%)	0	0	-1	0	-1	-2	-1	-1	-1	-1	0	0

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

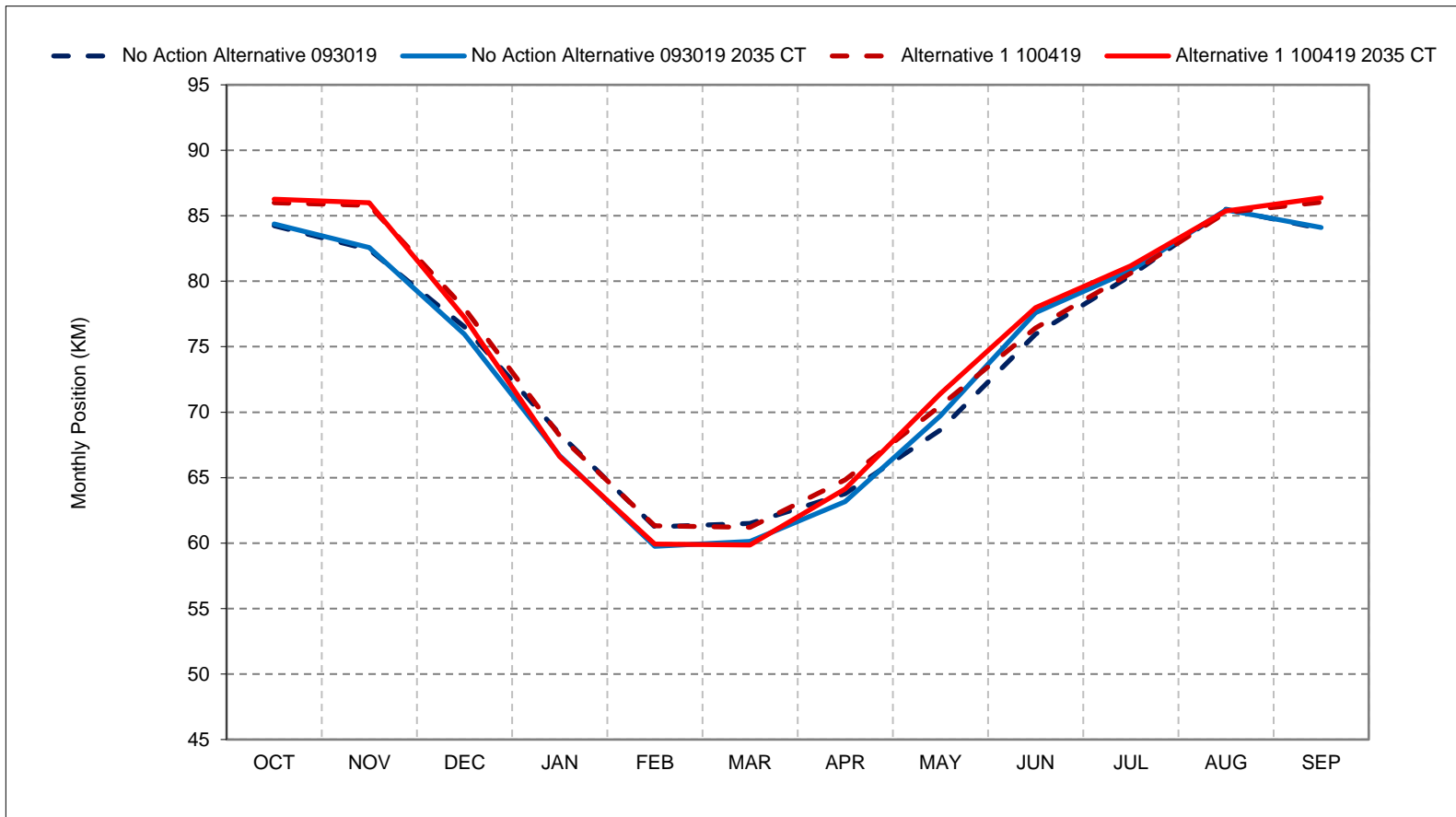
c These results are displayed with calendar year - year type sorting.

d All year type sorting uses ELT 05 climate scenario indices.

e ALT1 100419 is simulated at ELT (Early Long-Term) 05 with 2025 climate change and 15 cm sea level rise.

f ALT1 100419 2035 CT is simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-1. X2 Position, Long-Term Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

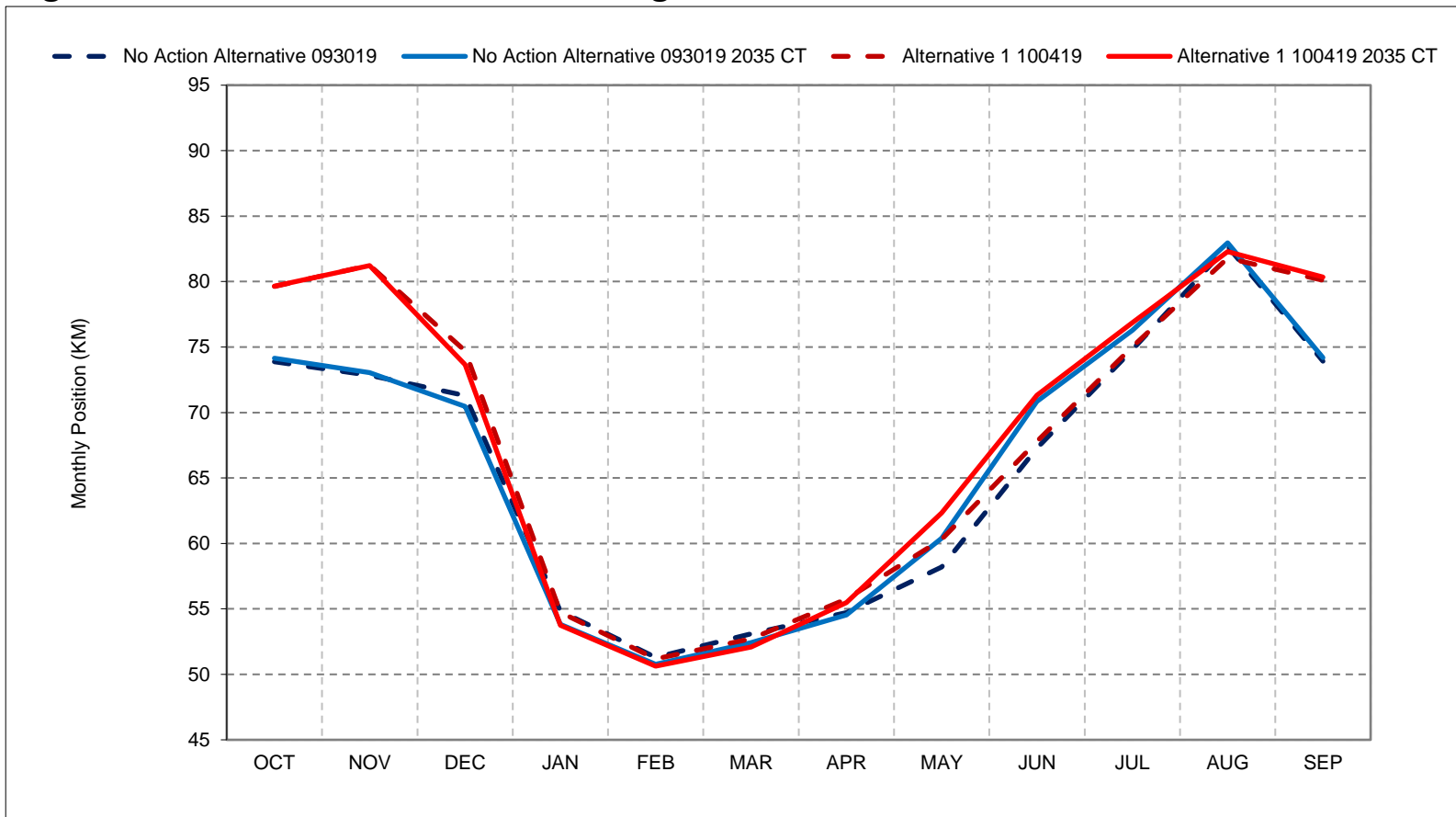
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-2. X2 Position, Wet Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

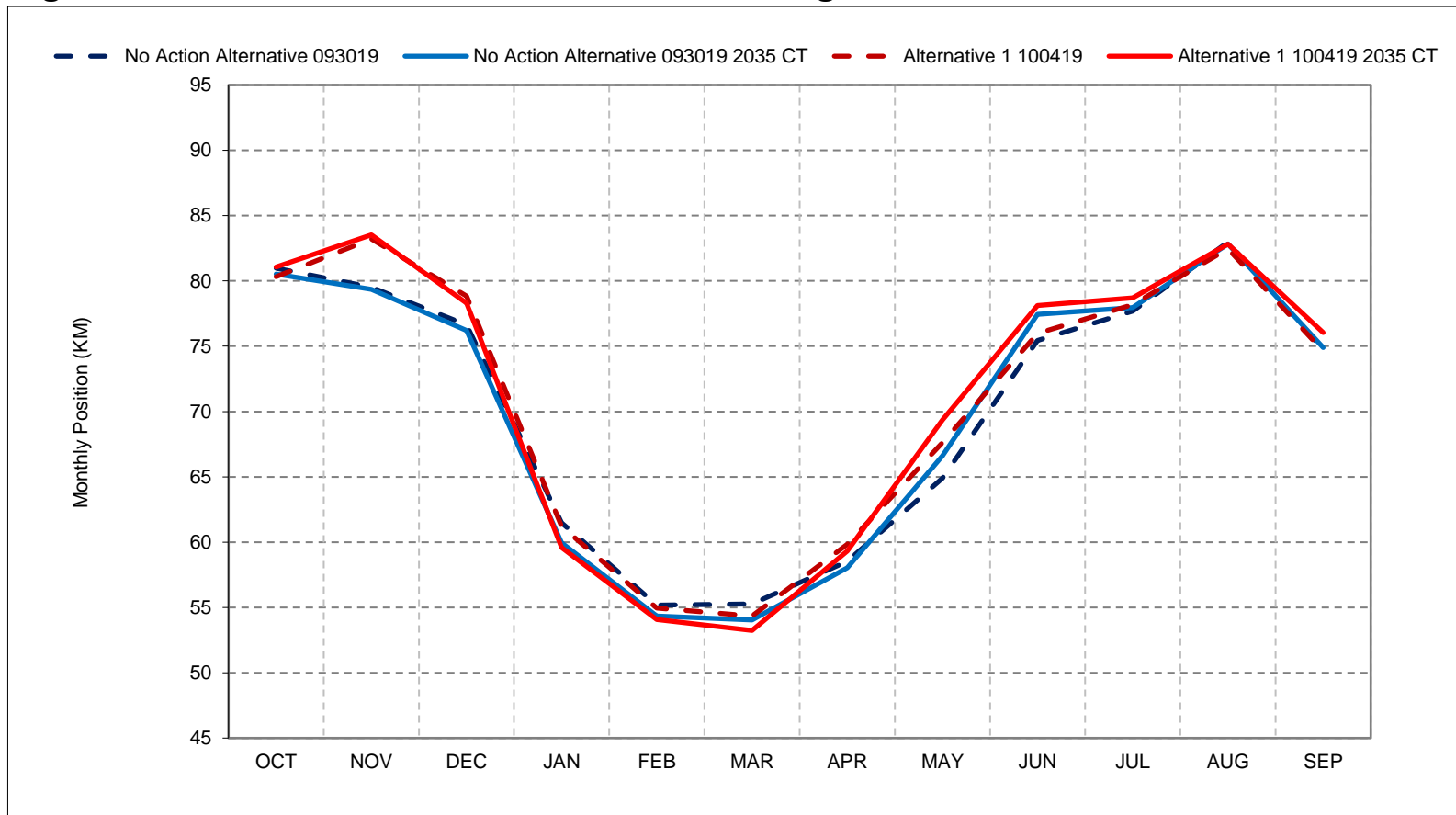
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-3. X2 Position, Above Normal Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

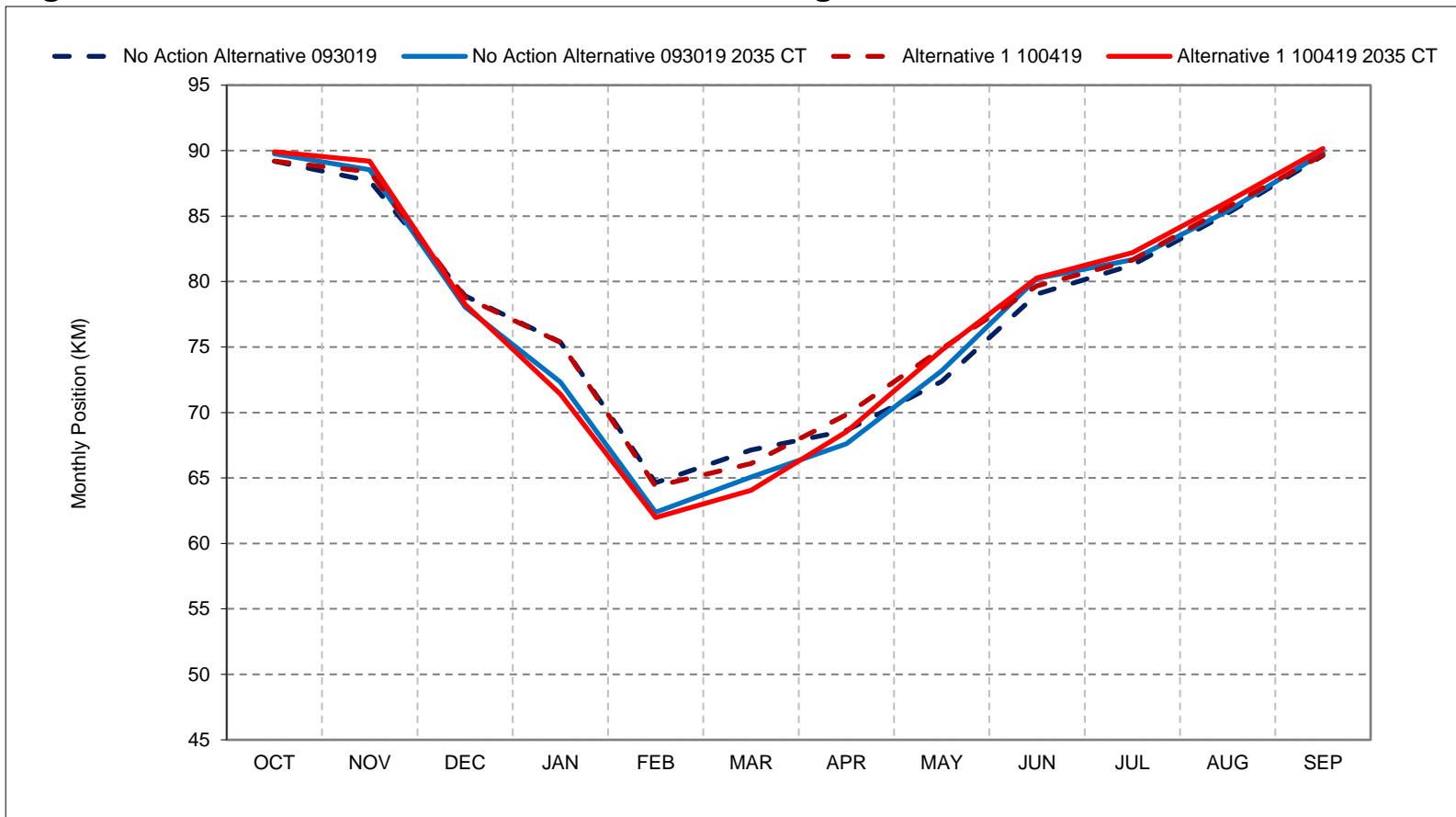
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-4. X2 Position, Below Normal Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

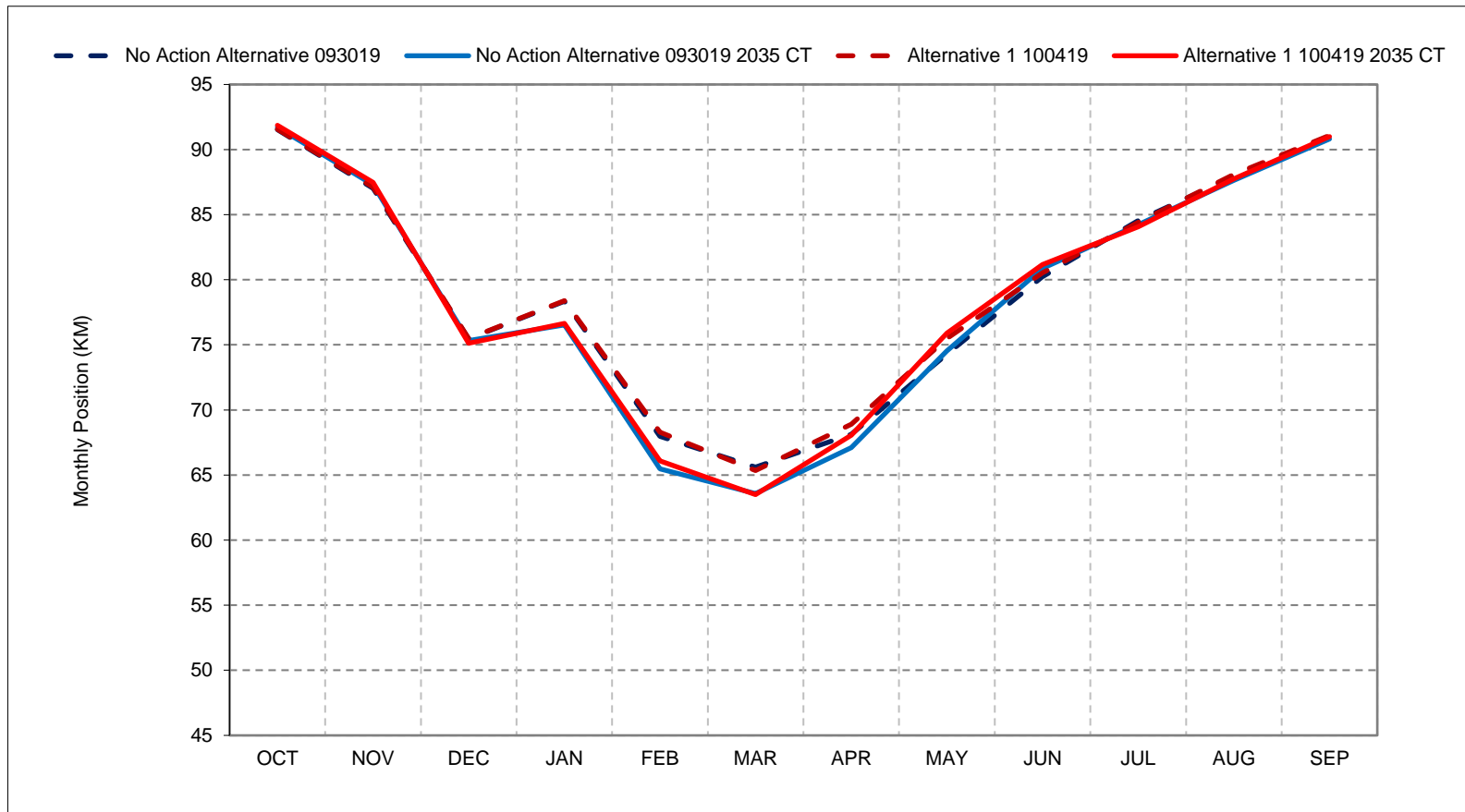
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-5. X2 Position, Dry Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

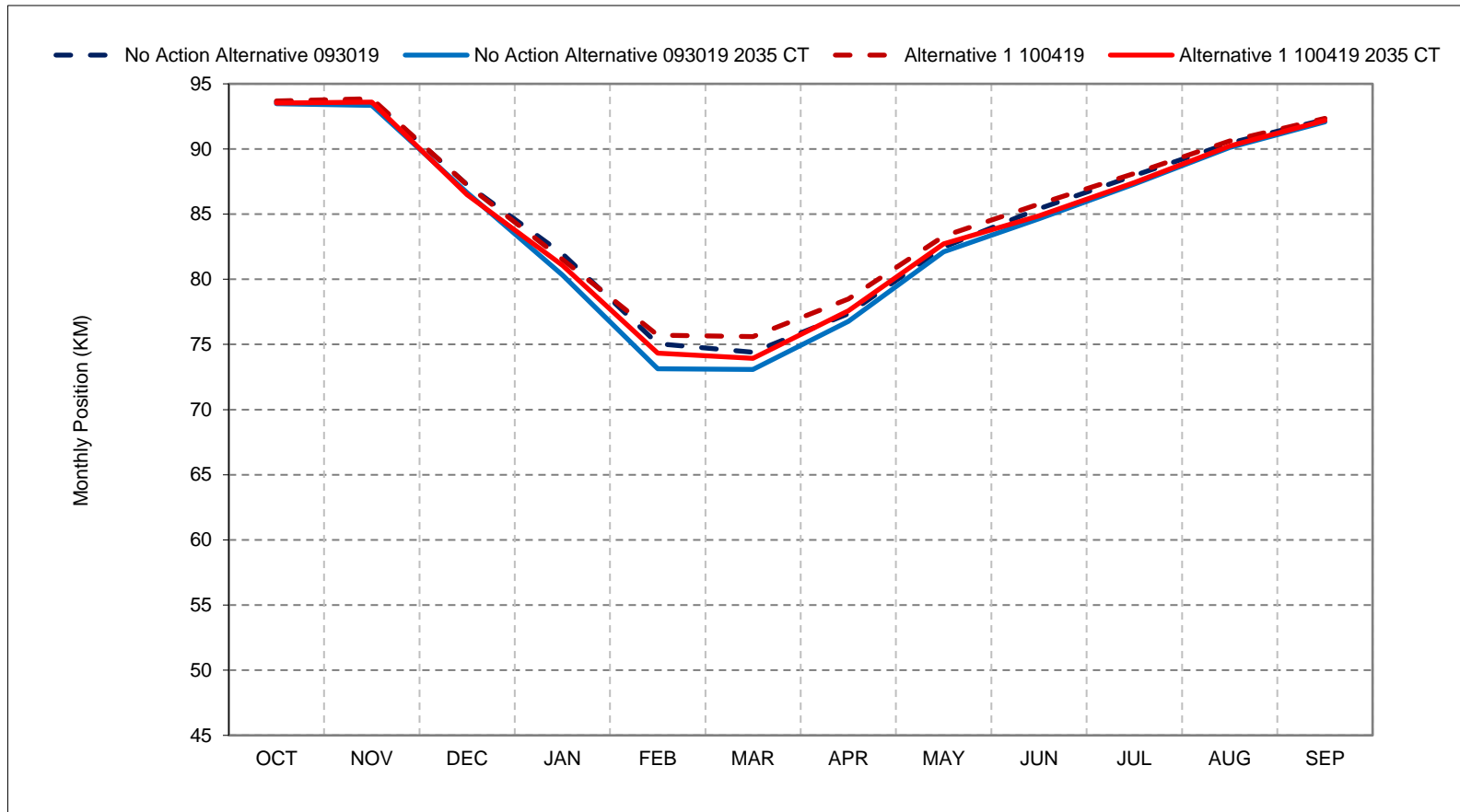
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

Figure 1-6. X2 Position, Critical Year Average Position



*As defined by the Sac Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

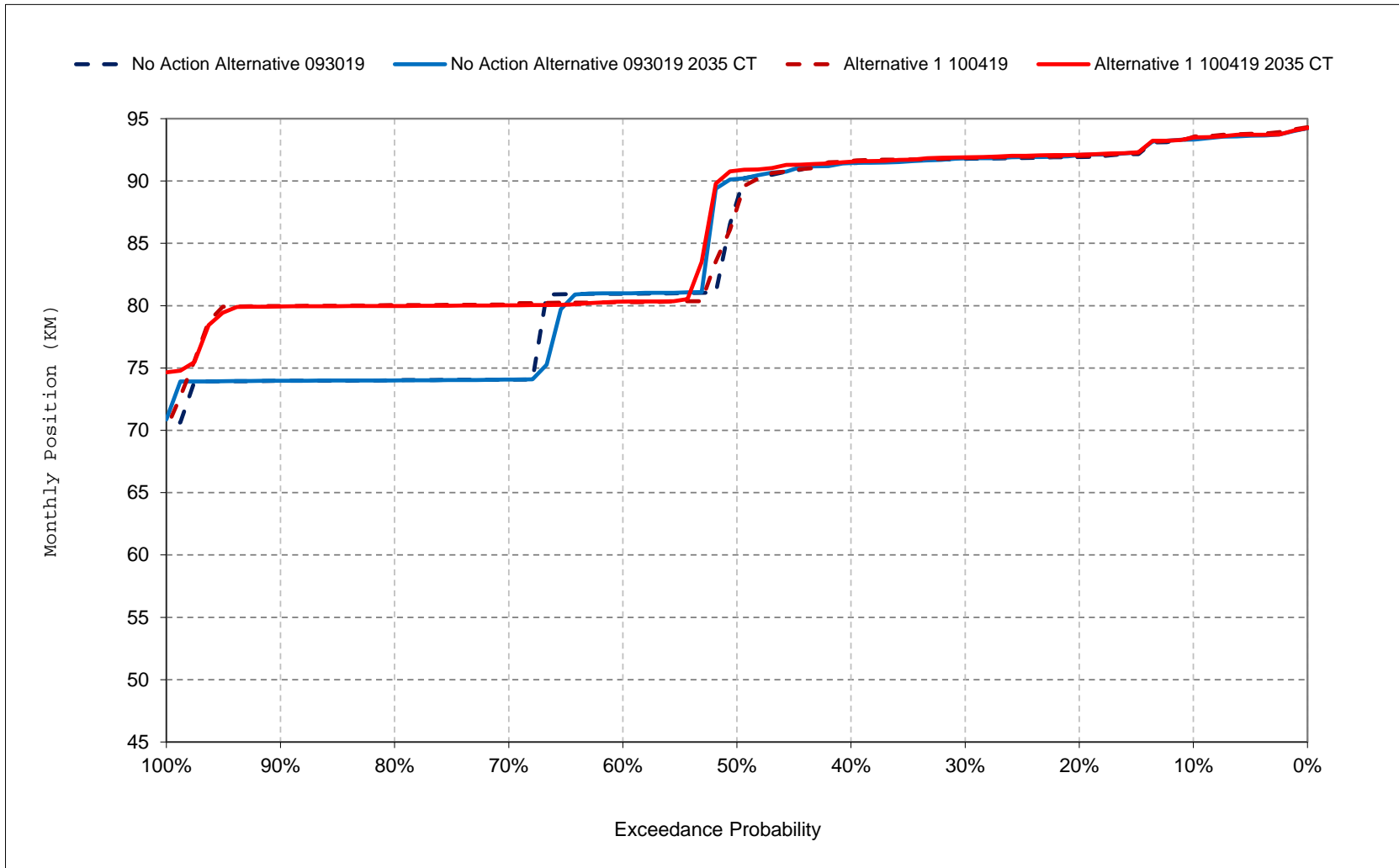
*These results are displayed with calendar year - year type sorting.

*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

*All year type sorting uses ELT Q5 climate scenario indices.

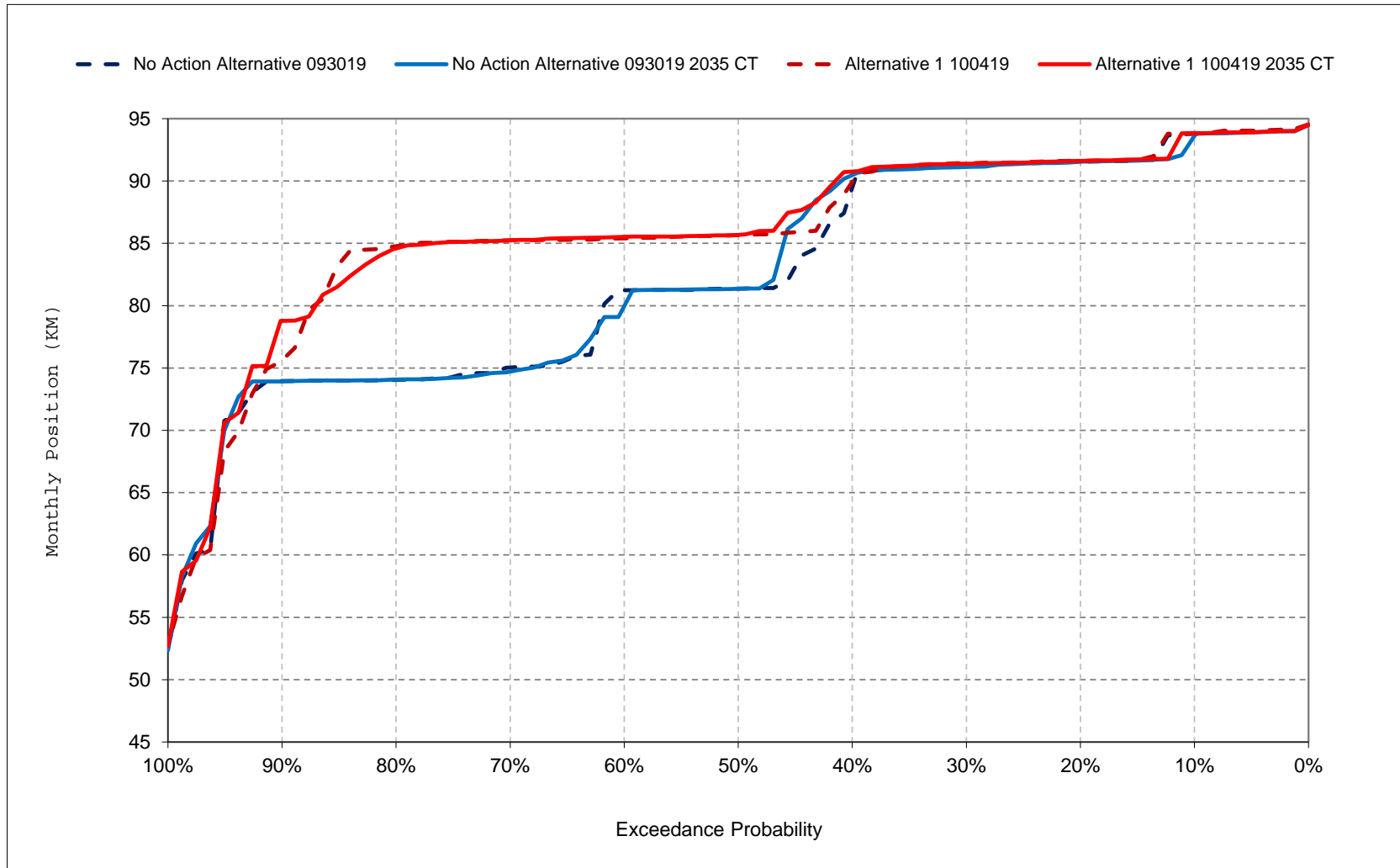
Figure 1-7. X2 Position, October



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

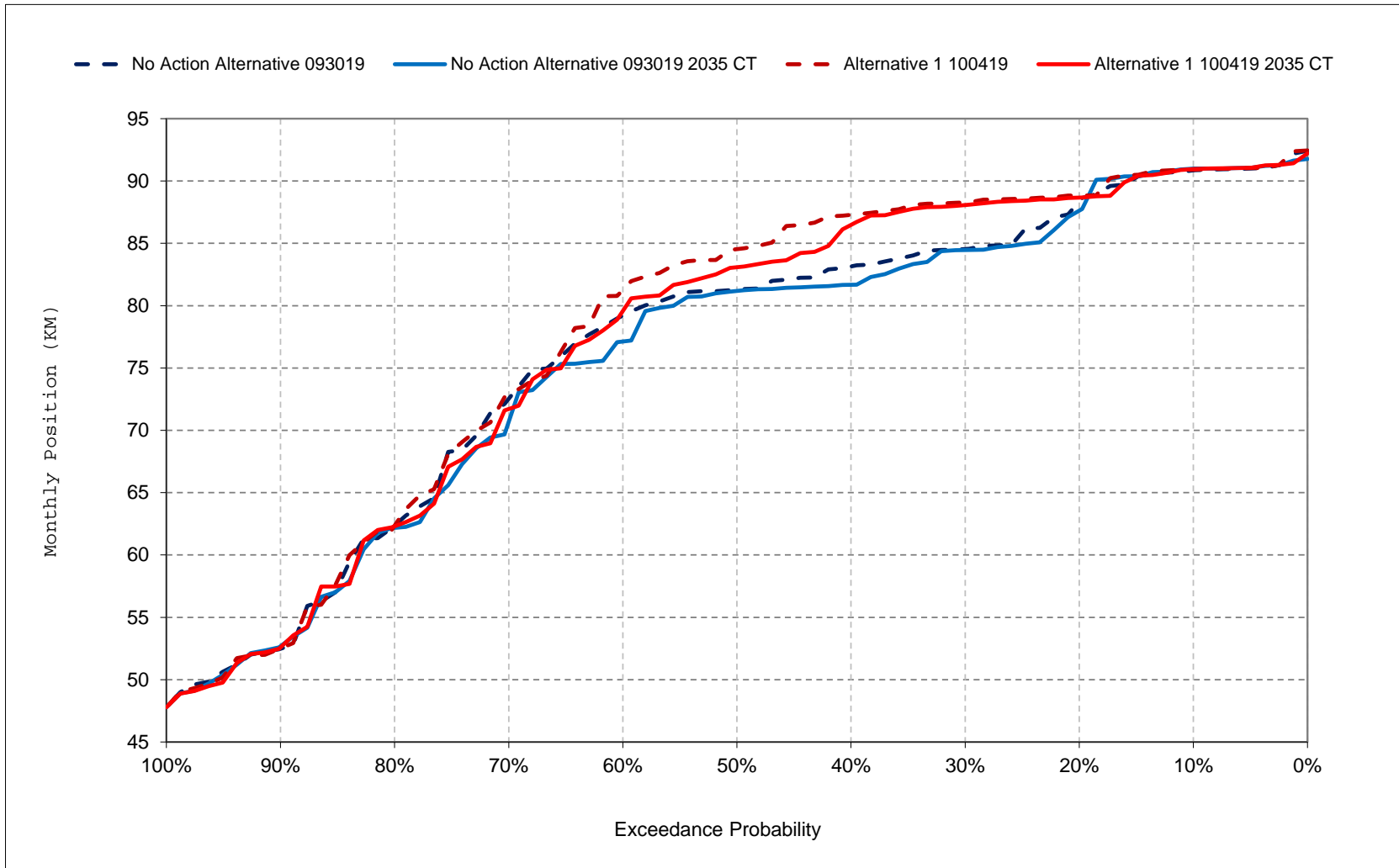
Figure 1-8. X2 Position, November



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

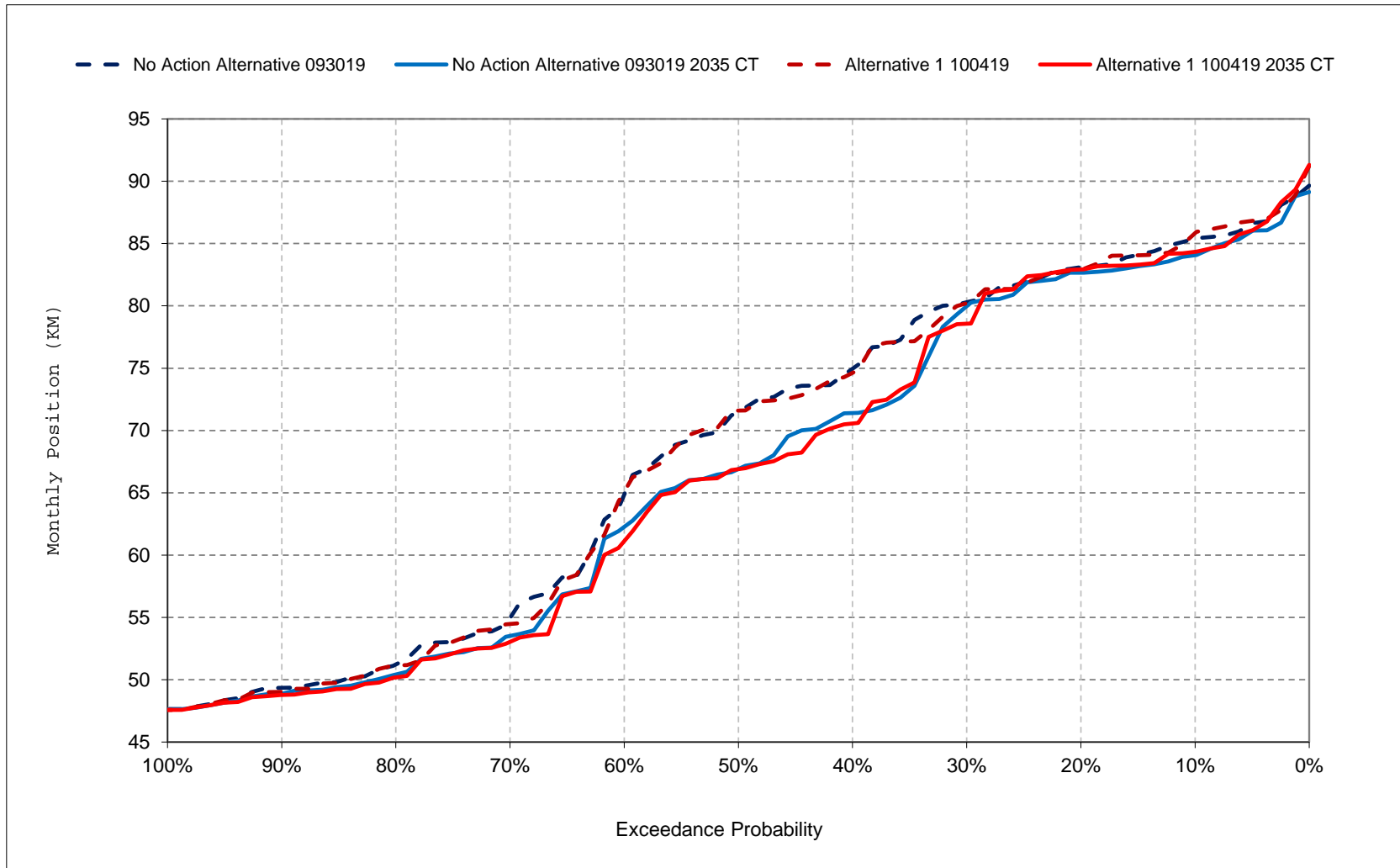
Figure 1-9. X2 Position, December



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

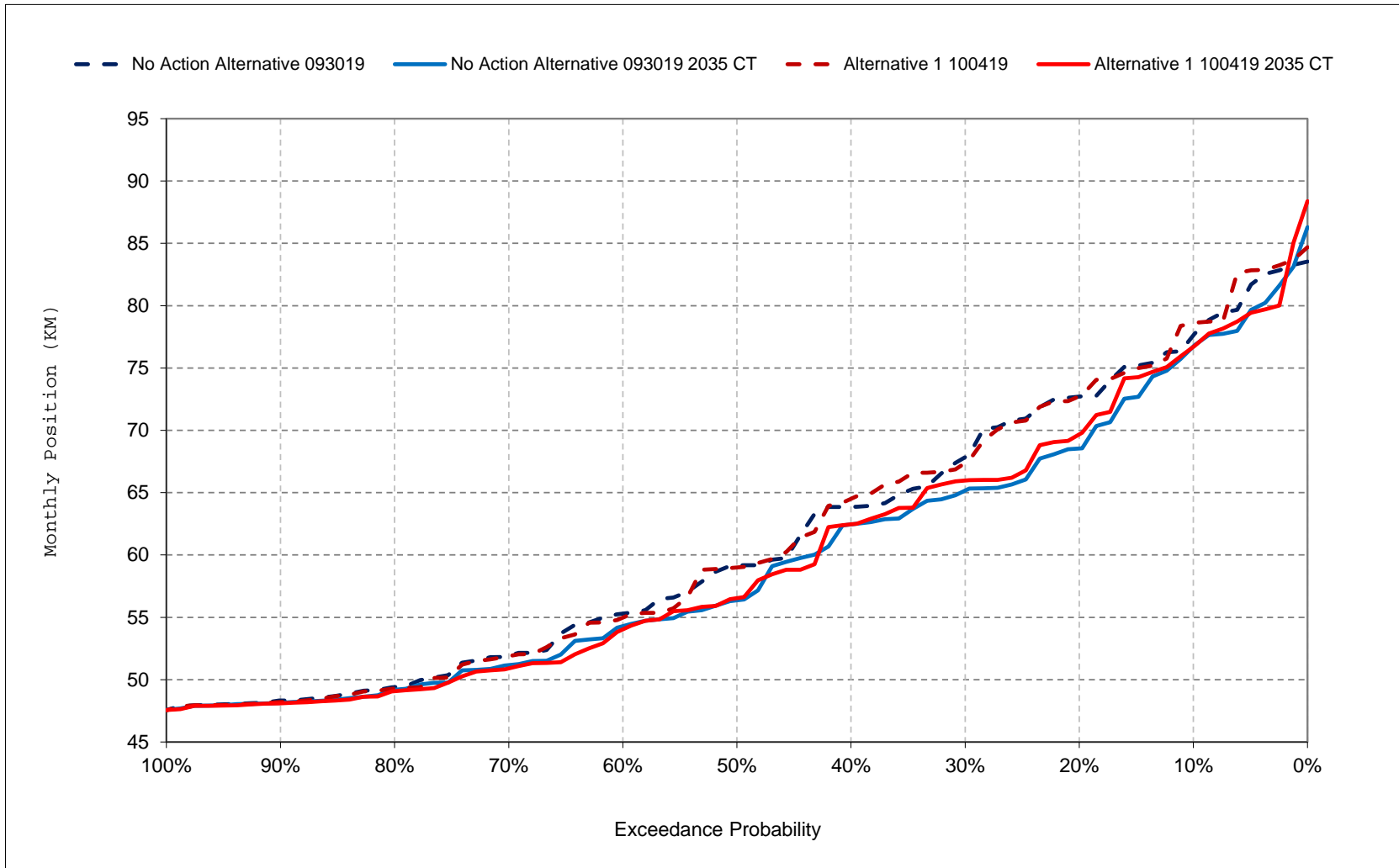
Figure 1-10. X2 Position, January



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

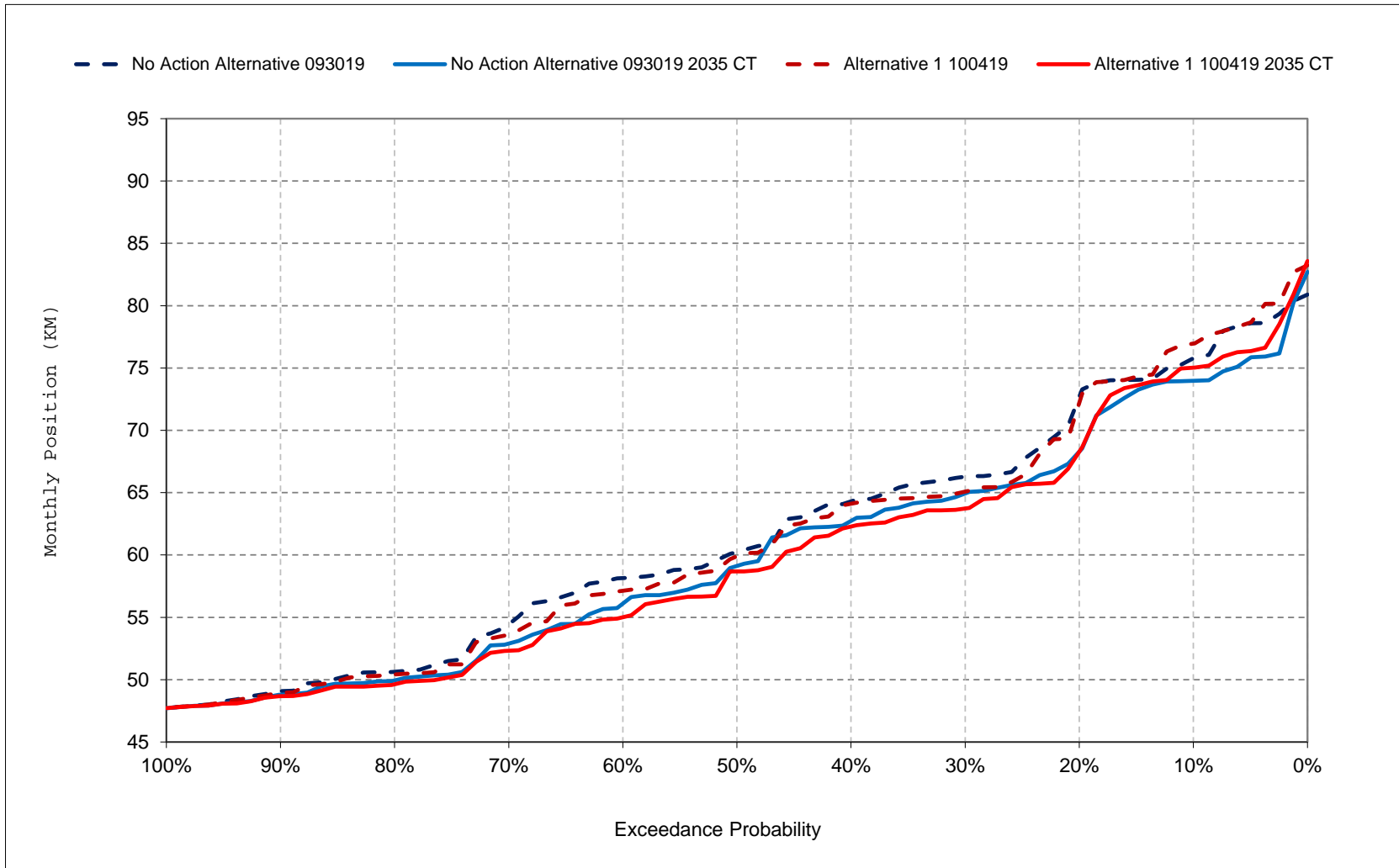
Figure 1-11. X2 Position, February



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

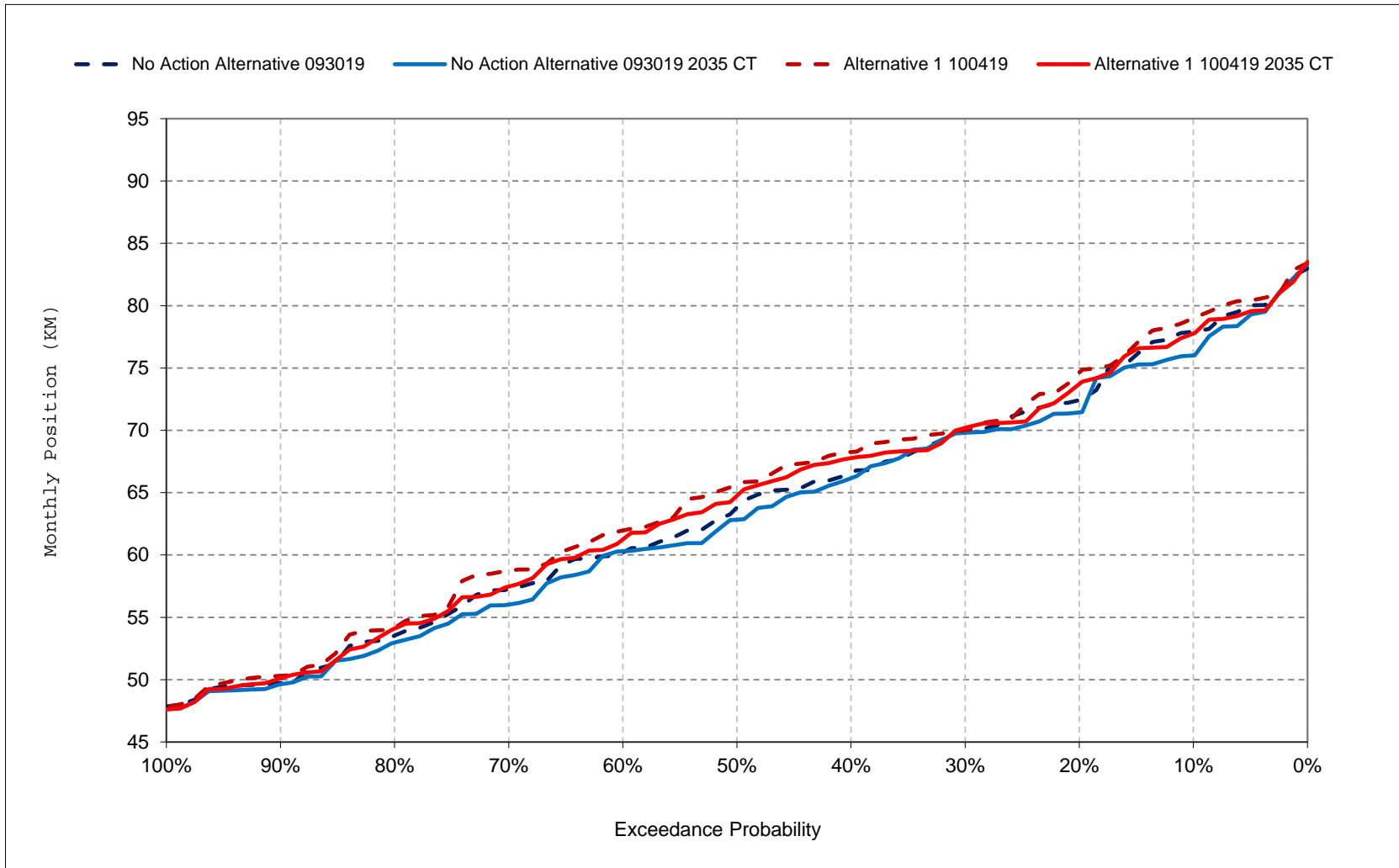
Figure 1-12. X2 Position, March



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

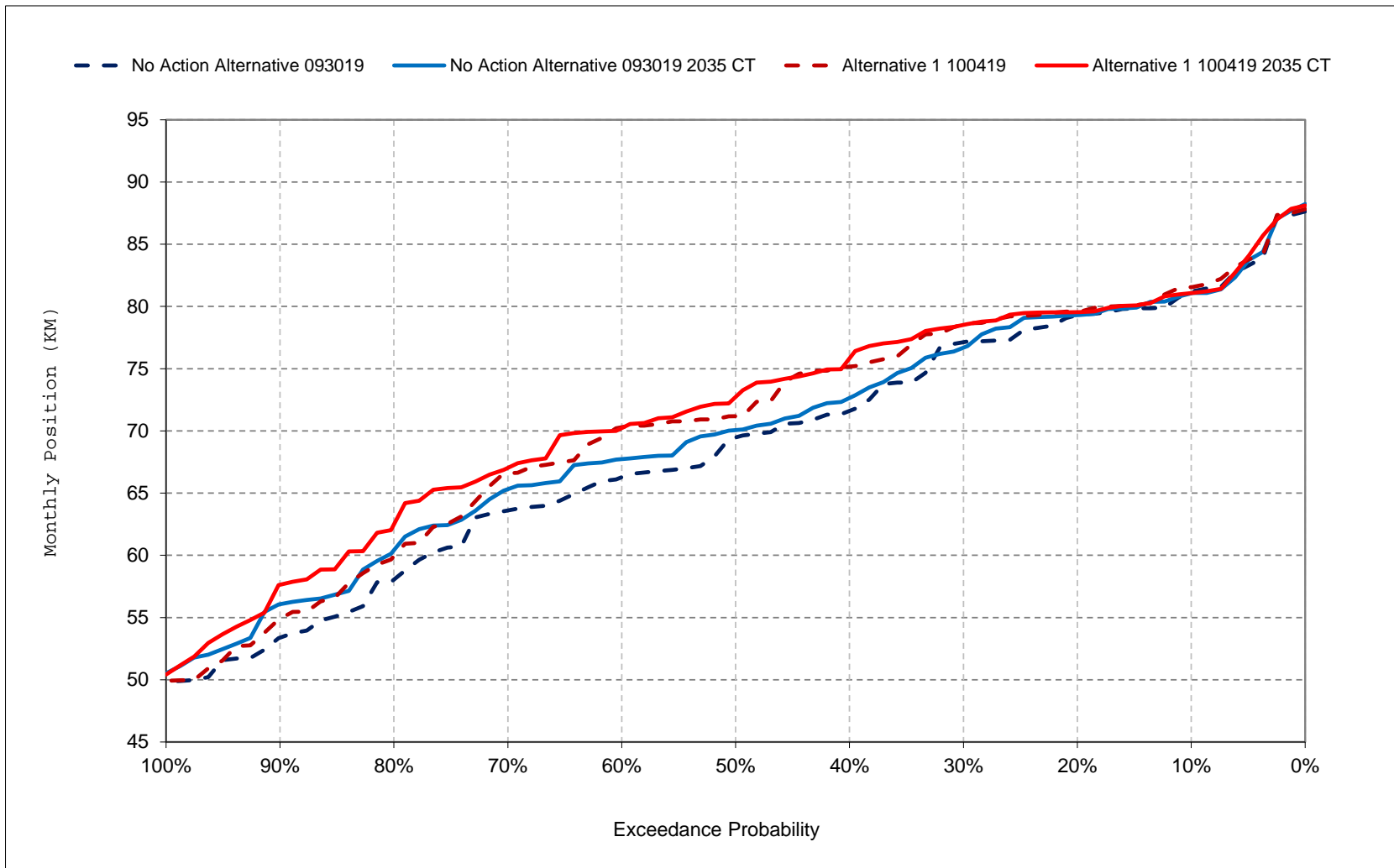
Figure 1-13. X2 Position, April



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

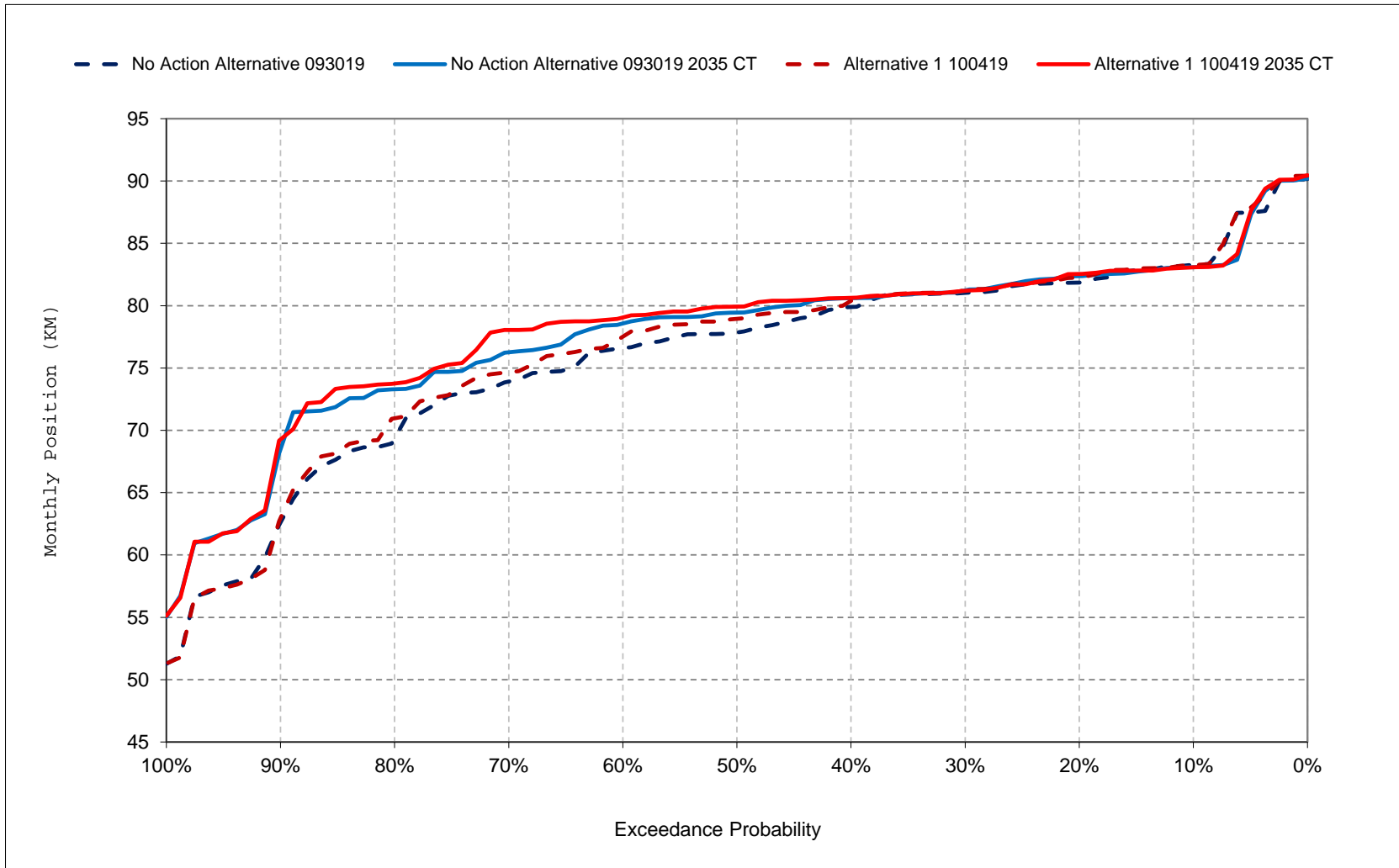
Figure 1-14. X2 Position, May



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

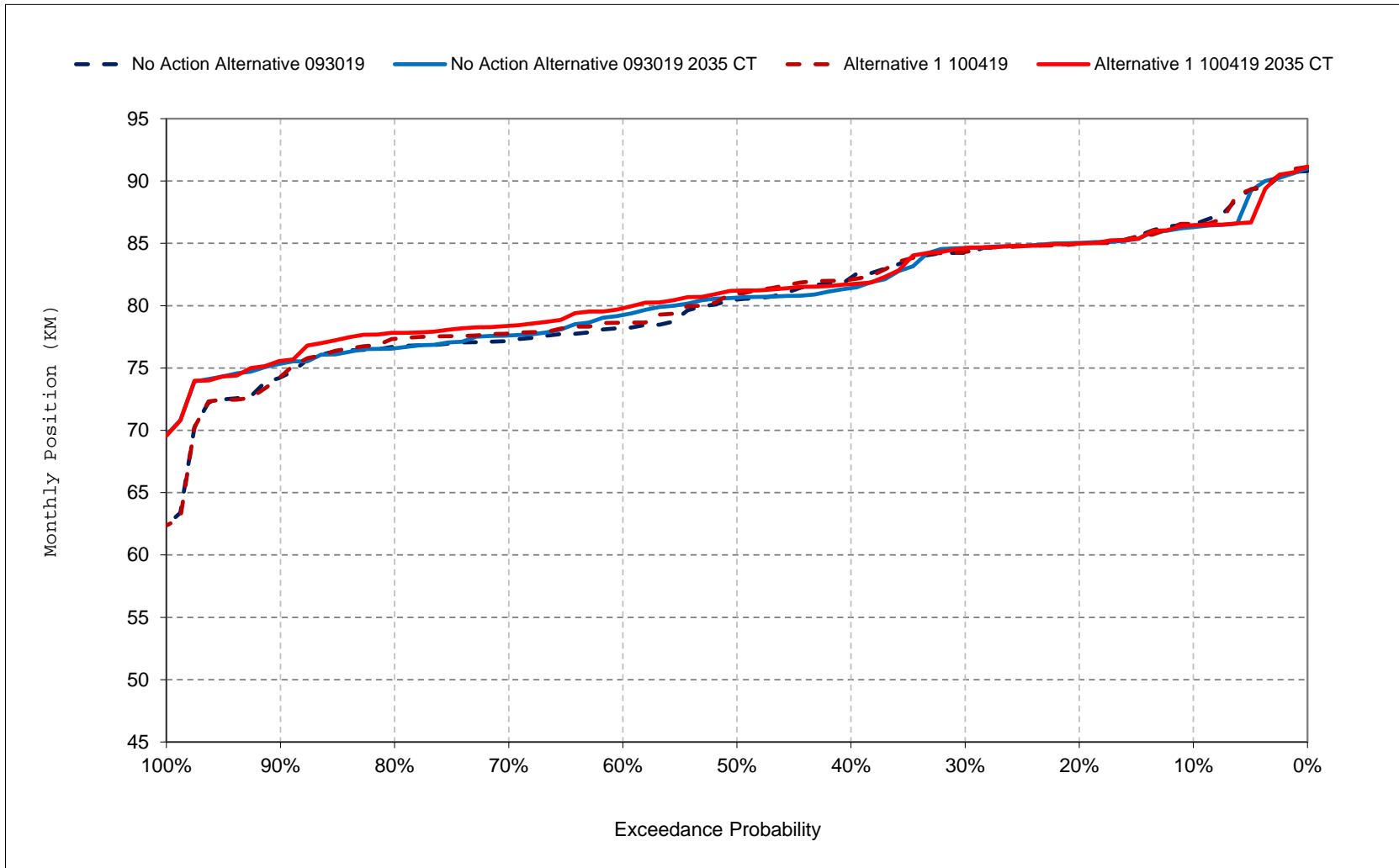
Figure 1-15. X2 Position, June



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

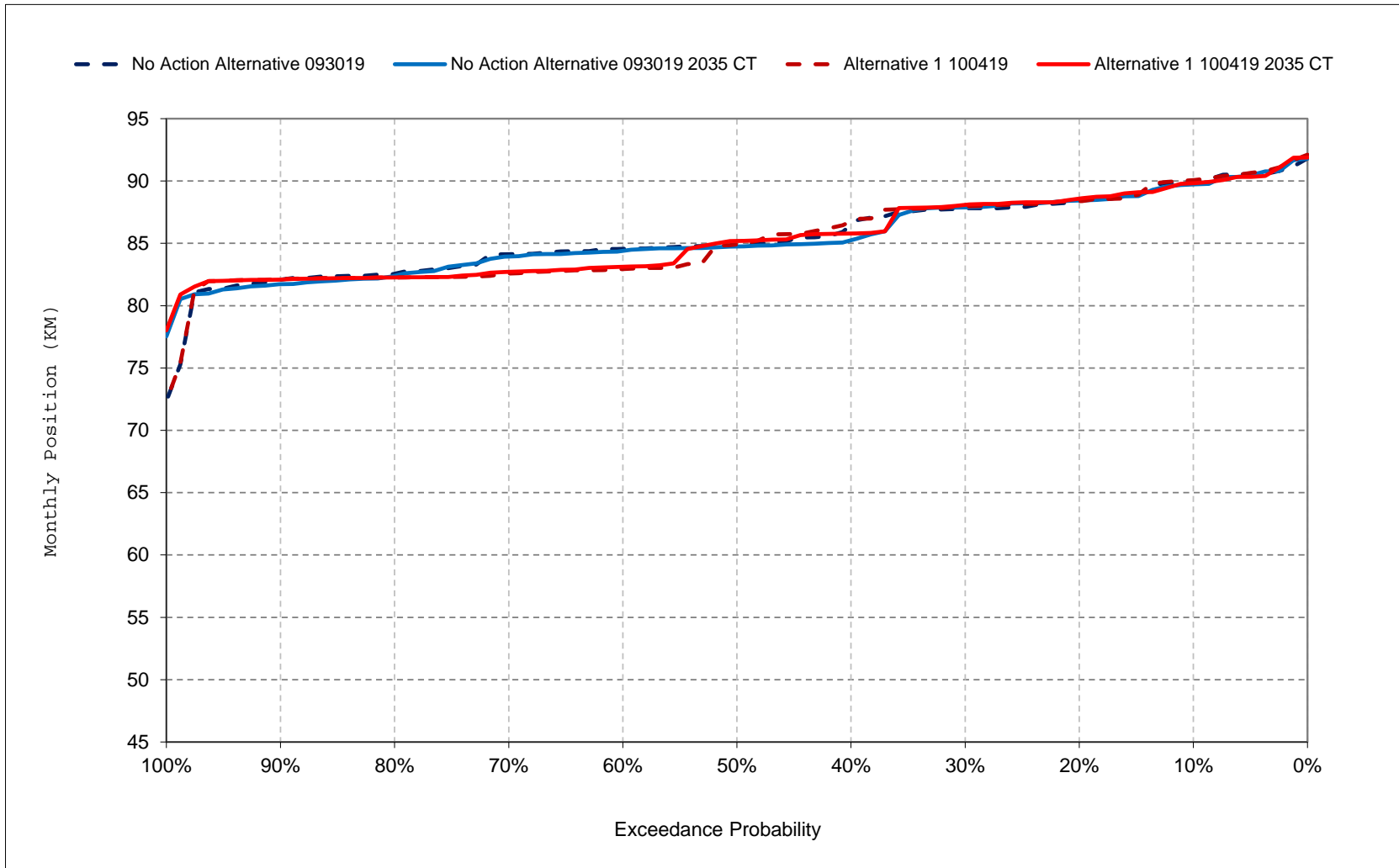
Figure 1-16. X2 Position, July



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

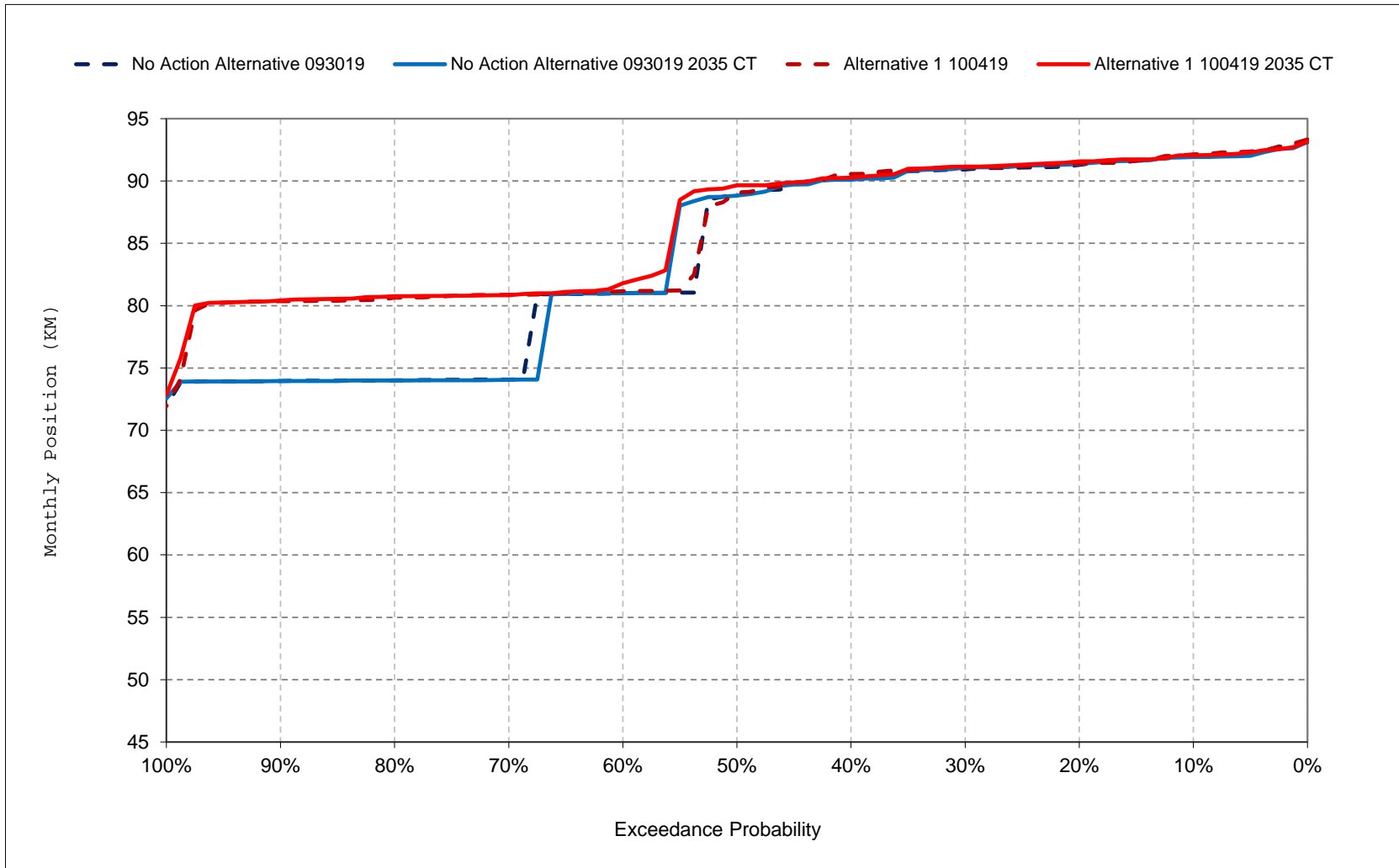
Figure 1-17. X2 Position, August



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.

Figure 1-18. X2 Position, September



*Scenarios represented with dashed lines are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*Scenarios represented with solid lines are simulated with DWR SWP LTO DEIR 2035 Central Tendency climate change and 15 cm sea level rise.