



American River Group

1:30 PM – 3:30 PM

Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#

In-Person: 3310 El Camino Ave., Rm. 302, Sacramento, CA 95821

Webinar: [Join Microsoft Teams Meeting](#)

Thursday, October 17, 2023

Agenda

1. Introductions
2. Announcements
3. Housekeeping
 - a. Meeting will be recorded for notetaking purposes
4. Fisheries Update
 - a. CDFW
 - b. CFS
5. Operations Forecast
 - a. SMUD
 - b. PCWA
6. Central Valley Operations
7. Discussion
8. Next Meetings:
 - a. Thursday, November 21, 1:30-3:30pm



Fall-Run Chinook Salmon Carcass Survey

2002-2024 Steelhead Spawning and Stranding data published to EDI portal (including annual reports, [LAR Steelhead Spawning surveys](#), and [LAR Stranding surveys](#)).

Chinook Salmon ground surveys to begin at the end of October with coordination with CDFW.

Tentative survey dates:

- October 29-30
- November 19-21
- December 3-5
- December 17-19
- January 7-9

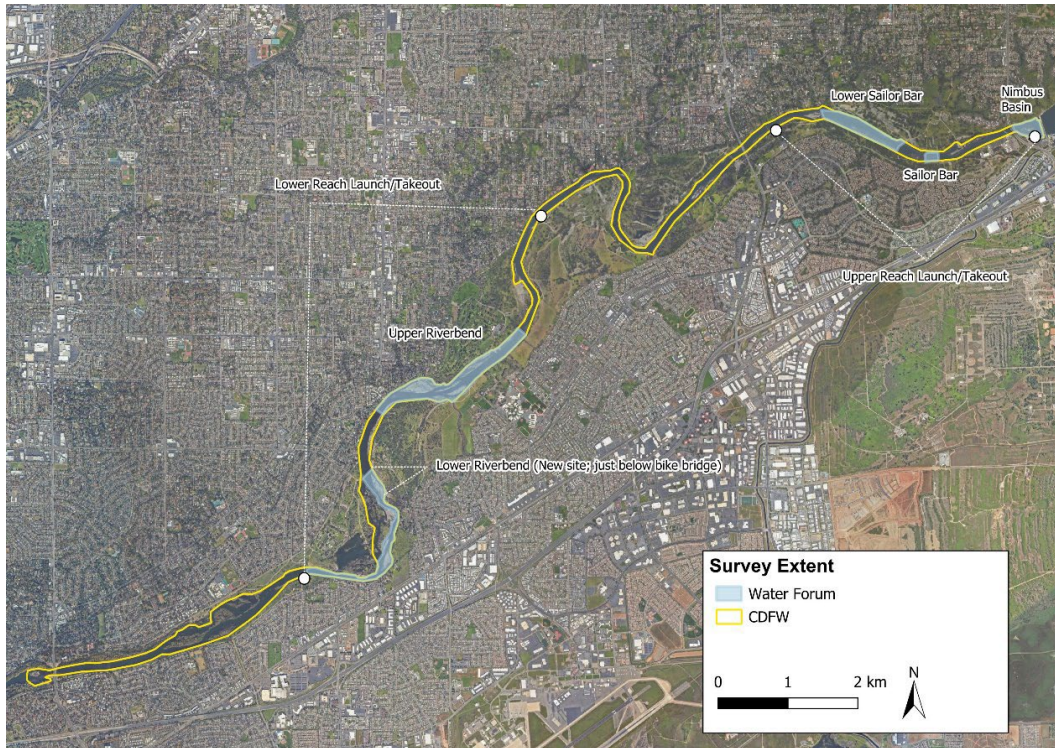


Figure 1. 2024-2025 Chinook Salmon ground survey reaches

Figure 1 is a satellite image of the 2024-2025 Chinook salmon ground survey reaches. The map shows the location of the Lower Riverbend, Upper Riverbend, Lower Sailor Bar, Sailor Bar, and Nimbus Basin. The Upper Reach and Lower Reach launch and takeout sections are identified. The survey extent for the Water Forum and California Department of Fish and Wildlife are highlighted.

Lower American River Dissolved Oxygen Summary

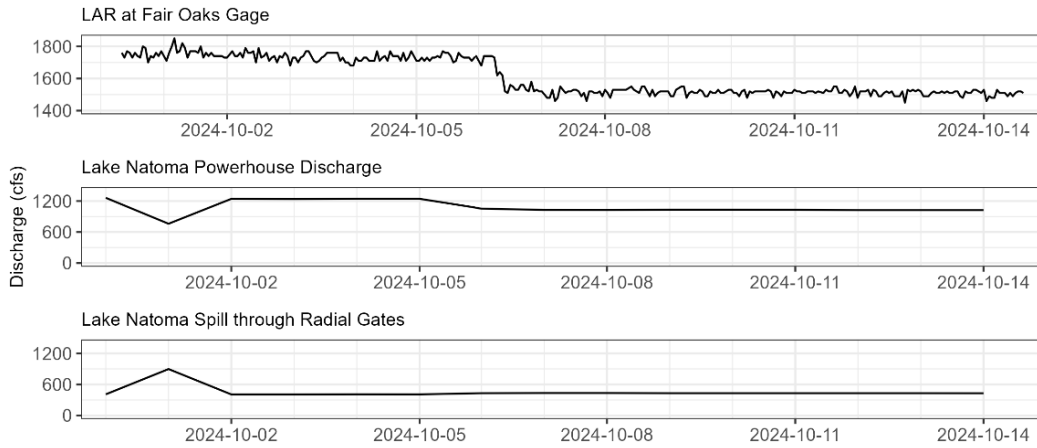


Figure 2. Lower American River at Fair Oaks Gage, Lake Natoma Powerhouse Discharge, and Lake Natoma Spill through Radial Gates beginning on September 30.

Figure 2 is three line graphs that look at discharge in cubic feet per second at different locations.

The first line graph shows discharge for the Lower American River at Fair Oaks Gage from September 30, 2024 through October 14, 2024.

The second line graph shows discharge for the Lake Natoma Powerhouse Discharge from September 30, 2024 until October 14, 2024.

The third line graph shows discharge for the Lake Natoma Spill through Radial Gates from September 30, 2024 until October 14, 2024.

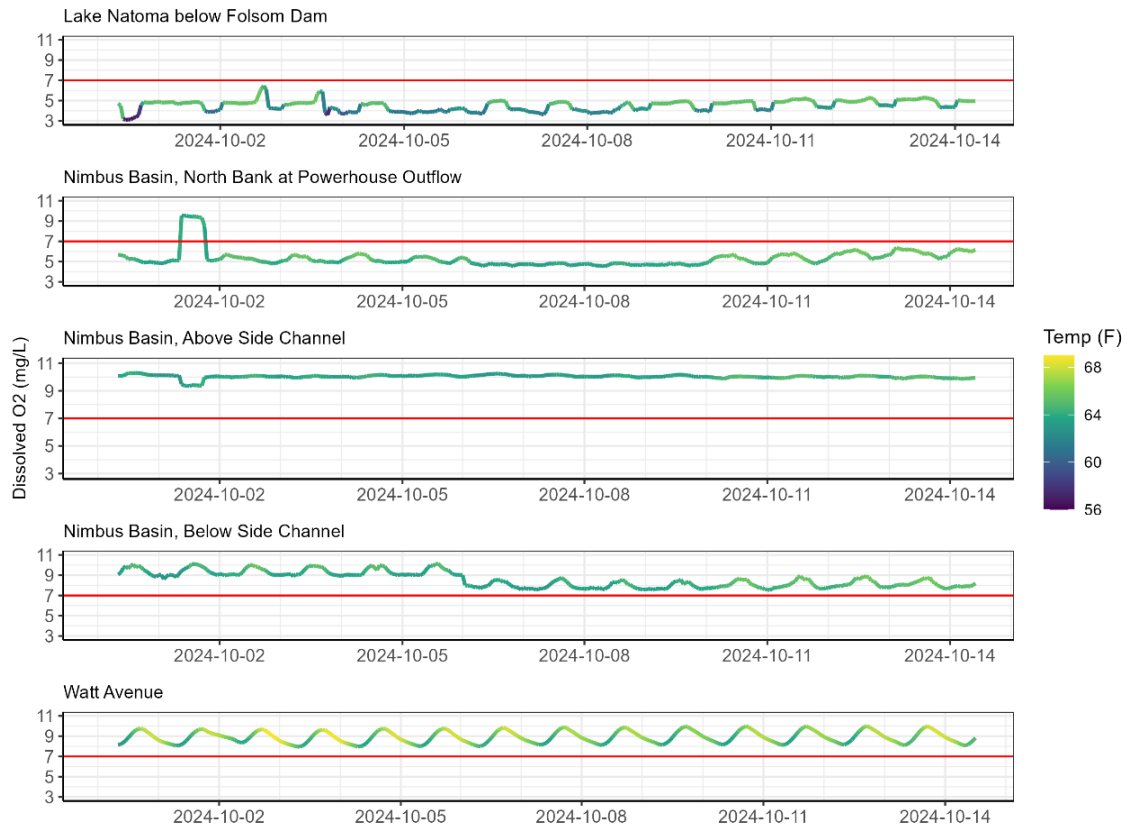


Figure 3. Dissolved oxygen levels at Lake Natoma, Nimbus Basin, and Watt Avenue.

Figure 3 is five line graphs that show dissolved oxygen levels, in milligrams per liter, at five locations beginning on September 30. The CVRWQCB Basin Plan lower dissolved oxygen limit for the American River is 7 milligrams per liter.

The first line graph shows dissolved oxygen levels at Lake Natoma below Folsom Dam from September 30 through October 14.

The second line graph shows dissolved oxygen levels at Nimbus Basin, North Bank at Powerhouse Outflow from September 30 through October 14.

The third line graph shows dissolved oxygen levels at Nimbus Basin, Above Slide Channel from September 30 through October 14.

The fourth line graph shows dissolved oxygen levels at Nimbus Basin, Below Side Channel from September 30 through October 14.

The fifth line graph shows dissolved oxygen levels at Watt Avenue from September 30 through October 14.

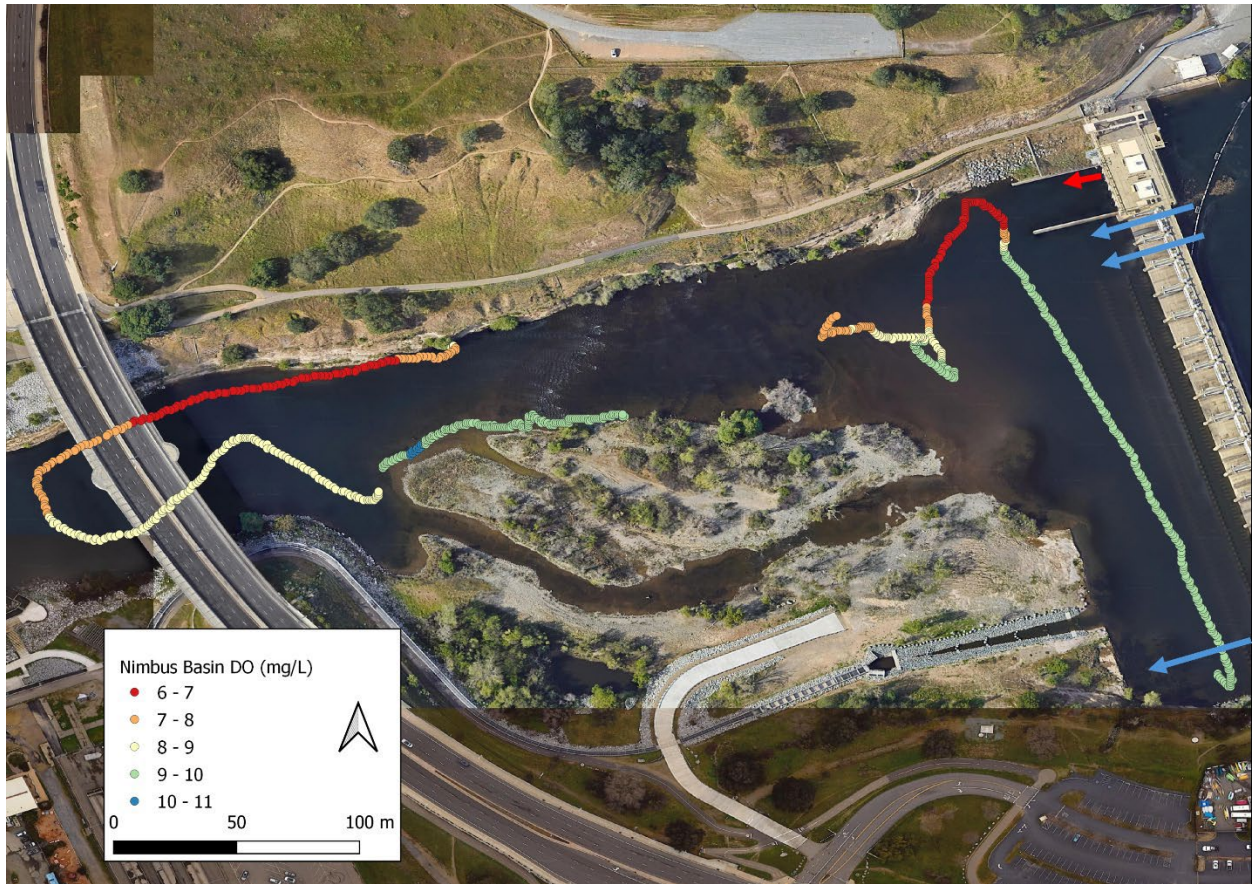


Figure 4. Dissolved oxygen transect on October 14, 2024 in the Nimbus Basin.

Figure 4 is a satellite image that shows the dissolved oxygen transect in the Nimbus Basin on October 14, 2024. The red arrow indicates flow from the powerhouse, blue arrows indicate which radial gates were spilling at the time of the transect.

SMUD Upper American River Project Update 10/14/24

Fresh Pond Precipitation

October precipitation through 10/14/2024 is 0.00 inches, which is 0.0% of the October average of 3.30 inches. Precipitation for the water year to date is 0 inches which is 0.0% of average to date (1.50 inches) and 0.0% of the entire water year average of 57.32 inches.

Runoff and Snowpack Water Content

Runoff into storage reservoir basins is 64.8% of median to date through 10/14/2024. The snowpack is 0.0% of average at selected snow sensors: Robbs PH, Robbs Saddle, Van Vleck, Alpha, and Schneider.

Table 1. Fresh Pond Precipitation

Month	Current Water Year	Historical Average	% of Historical Average
October	0.00	3.30	0%
November	0.00	6.87	0%
December	0.00	9.14	0%
January	0.00	9.55	0%
February	0.00	9.29	0%
March	0.00	9.27	0%
April	0.00	4.84	0%
May	0.00	2.97	0%
June	0.00	0.79	0%
July	0.00	0.08	0%
August	0.00	0.20	0%
September	0.00	1.02	0%
Total	2.60	57.32	5%

* Month to date total, full month historical average.

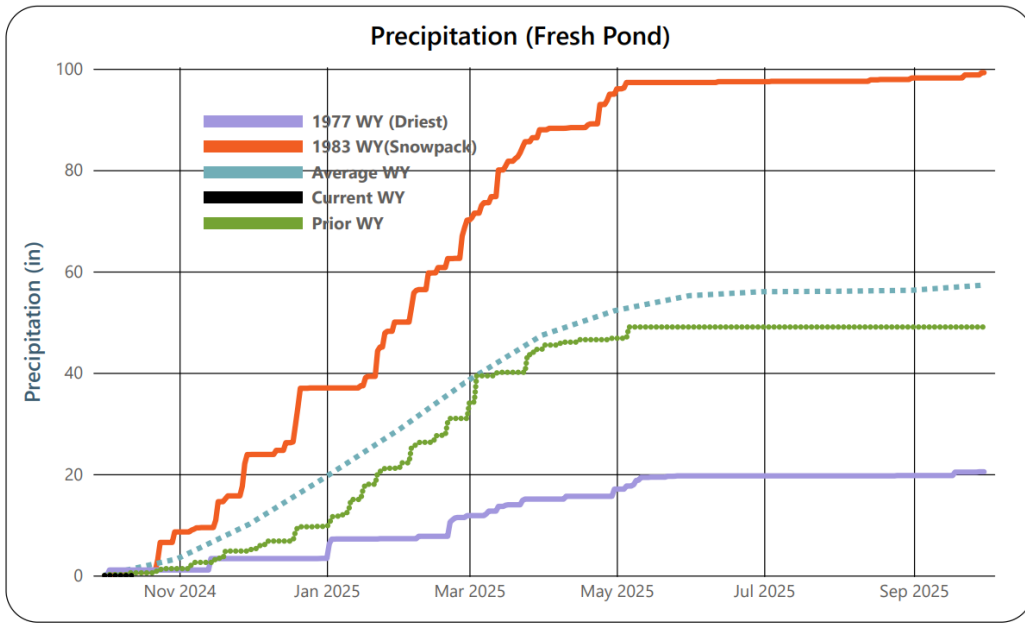


Figure 5. Fresh Pond Precipitation

Figure 5 is a line graph of fresh pond precipitation in inches for November 2024 – September 2025. It includes precipitation data from the driest water year (1977), 1983’s water year snowpack, average, current, and prior water year. October precipitation through 10/14/2024 is 0.00 inches, which is 0.0% of the October average of 3.30 inches.

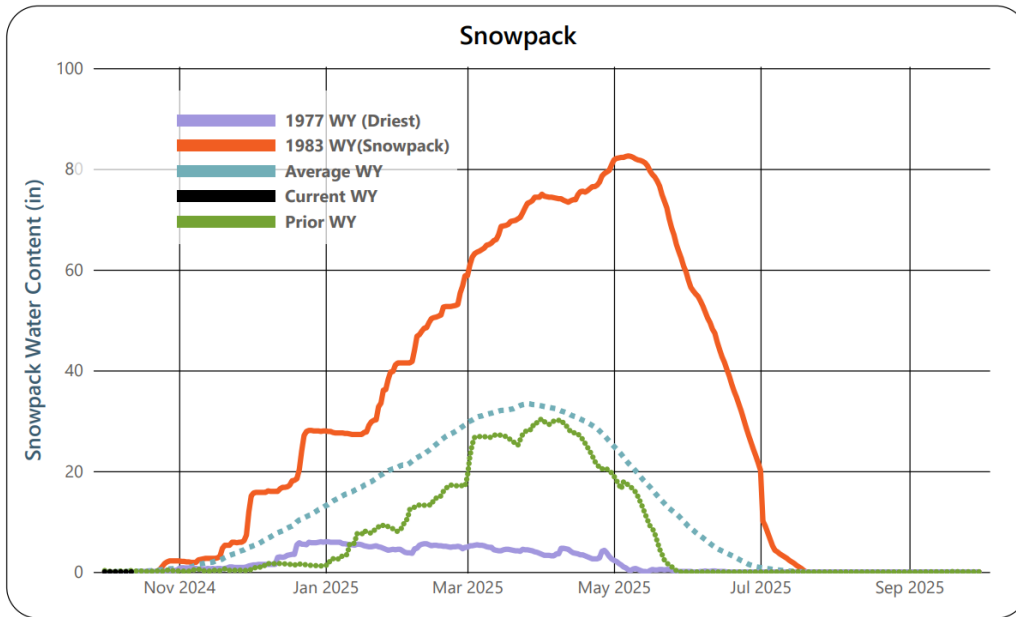


Figure 6. October 14, 2024 snowpack

Figure 6 is a line graph of snowpack water content in inches for November 2024 - September 2025. It includes data from the driest water year (1977), 1983’s water year snowpack, average, current, and prior water year. Runoff into the storage reservoir basins is 64.8% of median to date through 10/14/2024.

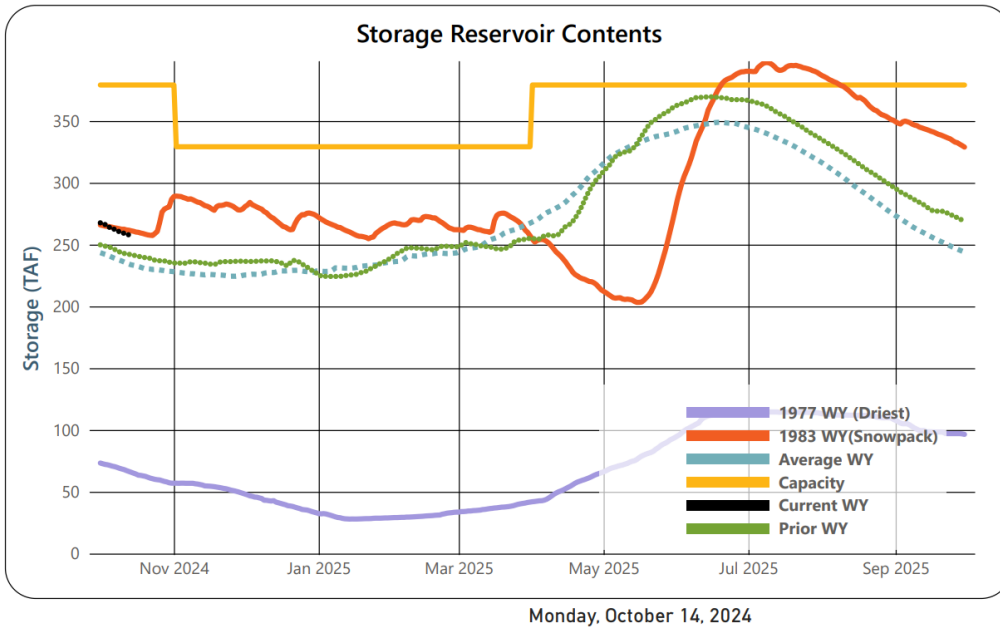


Figure 7. Storage Reservoir Contents

Figure 7 is a line graph of SMUD storage reservoir contents for November 2023 to September 2024. It includes data from the driest water year (1977), 1983's water year snowpack, average, current, and prior water year. The total capacity of the reservoir network is also shown.

Table 2. SMUD Storage Reservoirs

Reservoir	Hist. Avg (Acre-ft)	Hist. Avg (% full)	Current Acre-ft	Current % Full	Prior Year Acre-ft	Prior Year % Full	Capacity Acre-ft	Winter Acre-ft
Loon Lake	42,103	61%	46,080	66.5%	44,795	65%	69,310	69,310
Union Valley	163,523	61%	178,708	67.1%	166,792	63%	266,370	255,046
Ice House	28,678	66%	31,815	73.1%	30,526	70%	43,500	34,855
Total Reservoir Storage	234,305	62%	256,603	67.7%	242,113	64%	379,180	329,211

Chili Bar Releases into the South Fork American River

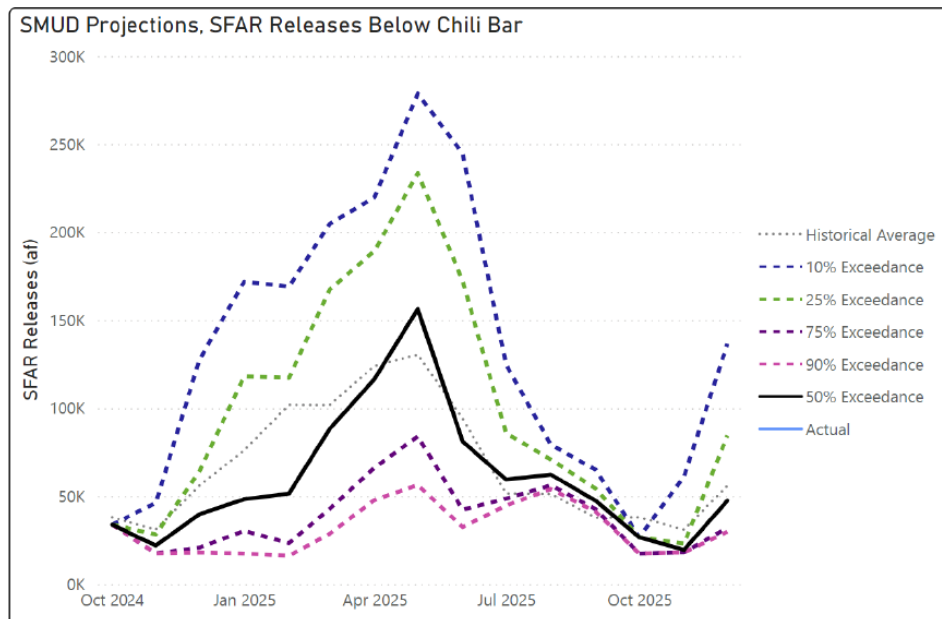


Figure 8. Chili Bar releases into the South Fork American River. Projections based on forecast from October 14, 2024.

Figure 8 is a line graph of observed and projected releases below Chili Bar from October 2024 to October 2025. The graph includes a historical average, actuals, and projections of 90%, 75%, 50%, 25%, and 10% exceedance likelihood.

Table 3. Chili Bar releases into the South Fork American River

Observation	Year	Month	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Forecast	2024	October	551	33,797	33,797	33,797
Forecast	2024	November	370	21,951	17,471	46,082
Forecast	2024	December	646	39,659	17,898	127,320
Forecast	2025	January	786	48,237	17,409	171,853
Forecast	2025	February	928	51,469	16,099	169,132
Forecast	2025	March	1,435	88,066	28,571	204,660
Forecast	2025	April	1,960	116,447	47,766	219,715
Forecast	2025	May	2,546	156,301	56,291	278,765
Forecast	2025	June	1,366	81,117	32,411	244,605
Forecast	2025	July	969	59,456	44,636	124,684
Forecast	2025	August	1,013	62,164	54,020	79,184

Observation	Year	Month	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Forecast	2025	September	797	47,329	41,056	64,912
Forecast	2025	October	434	26,667	17,378	26,667
Forecast	2025	November	328	19,467	17,991	61,126
Forecast	2025	December	773	47,459	29,776	136,611

PCWA MFP Operations Overview for American River Operations Group (Real Time Data as of October 16, 2024)

- French Meadows Storage = 72,000 AF of 136,405 AF = 53% Capacity
 - MFAR above FM Inflow (R24) = 7-day AVG ~2 cfs
- Hell Hole Storage = 81,000 AF of 207,590 AF = 39% Capacity
 - Five Lakes Inflow (R23) = 7-day AVG ~2 cfs
 - Rubicon Inflow (R22) = 7-day AVG ~2 cfs
- Combined Storage (FM+HH) = 153,000 AF/342,590 AF = 45% Capacity; ~89% of 15 YR AVG
- MFAR @ R11: 7-day AVG ~230 cfs
- NFAR @ ARPS: 7-day AVG ~300 cfs
- 2024 MFP Annual Maintenance Outage [October 1 through November 15] – Middle Fork/Ralston Powerhouses offline – the FERC minimum streamflow for the Middle Form American River below Oxbow Powerhouse will be maintained at or above 165 cfs for the duration of outage – current flow at R11 is 215 cfs.

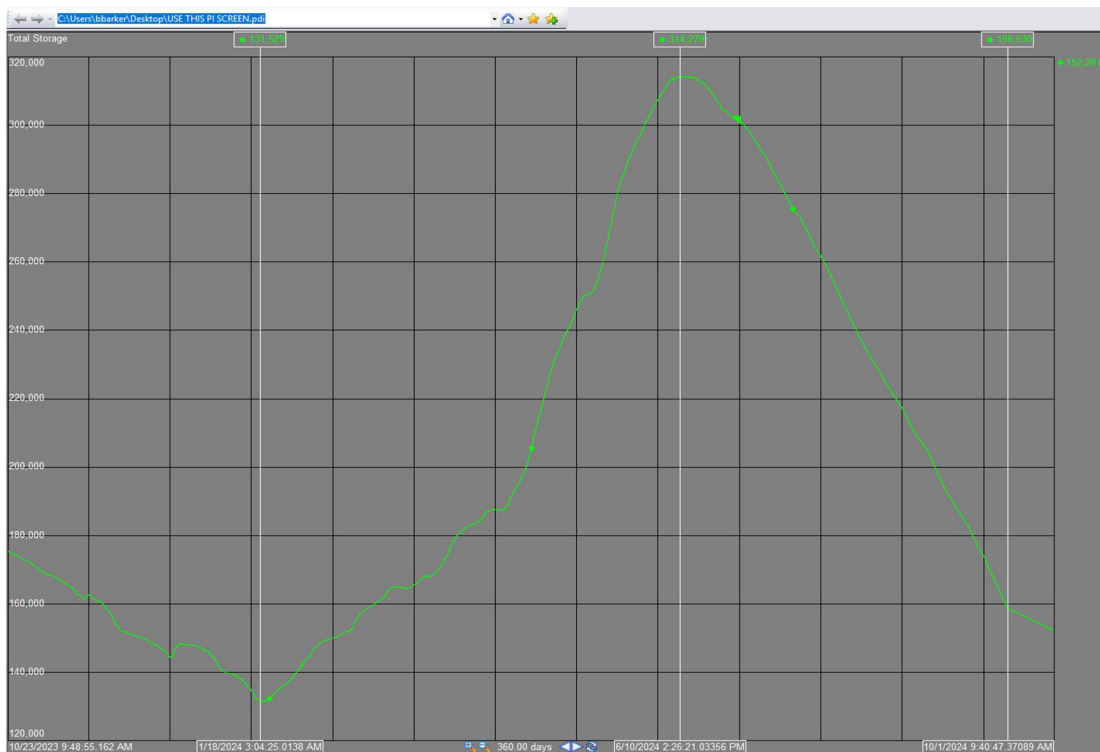


Figure 9. Combined storage at French Meadows and Hell Hole.

Figure 9 is a line graph showing combined storage at French Meadows and Hell Hole. The graph shows the 2024 low on January 18, and the 2024 peak on June 10, with the graph ending in early October 2024.

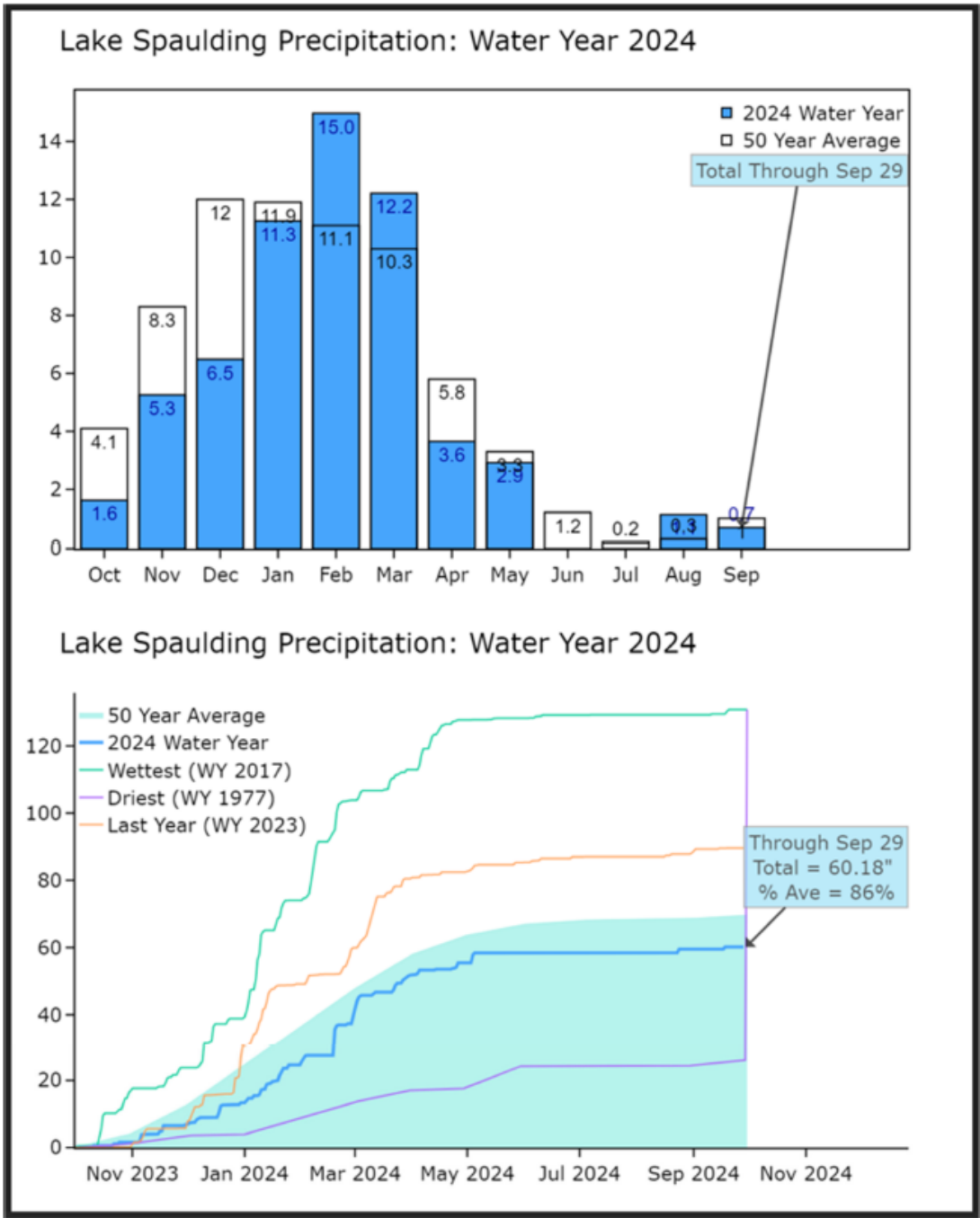


Figure 10. Lake Spaulding Precipitation: Water Year 2024

Figure 10 has two graphs. The first is a bar graph showing total precipitation over time compared with the 50-year average. Totals through September 29 are 1 with a 50-year average of 1.7 inches.

The second is a line graph comparing the total precipitation with the 50-year average, the 2024 water year, the wettest water year, the driest water year, and the last water year. The 2024 water year total through September 29 is 60.18 inches and 86% of the 50-year average.

Reservoir Releases in Cubic Feet/Second

Reservoir	Dam	WY 2022	WY 2023	15 Yr Median
Trinity	Lewiston	444	460	427
Sacramento	Keswick	6,093	6,892	6,510
Feather	Oroville (SWP)	2,450	2,450	2,400
American	Nimbus	2,464	1,521	1,511
Stanislaus	Goodwin	860	344	787
San Joaquin	Friant	384	409	384

Storage in Major Reservoirs in Thousands of Acre-Feet

Reservoir	Capacity	15 Yr Avg	WY 2024	WY 2025	% of 15 Yr Avg
Trinity	2,448	1,291	1,248	1,668	129
Shasta	4,552	2,379	3,243	2,686	113
Folsom	977	432	610	435	101
New Melones	2,420	1,309	1,892	1,811	138
Fed. San Luis	966	350	757	340	97
Total North CVP	11,363	5,760	7,750	6,940	120
Millerton	521	259	165	225	87
Oroville (SWP)	3,538	1,614	2,495	1,785	111

Accumulated Inflow for Water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2023	WY 1977	WY 1983	15 Yr Avg	% of 15 Yr Avg
Trinity	2	6	11	3	71
Shasta	81	117	135	84	97
Folsom	31	9	73	27	114
New Melones	15	N/A	24	20	77
Millerton	29	4	51	32	90

Accumulated Precipitation for Water Year to Date in Inches

Reservoir	Current WY 2023	WY 1977	WY 1983	Average (N Years)	% of Average	Last 24 Hours
Trinity at Fish Hatchery	0.07	0.00	0.09	0.49 (64)	14	0.00
Sacramento at Shasta Dam	0.02	0.00	0.06	0.99 (69)	2	0.00
American at Blue Canyon	0.00	N/A	N/A	0.95 (50)	0	0.00
Stanislaus at New Melones	0.00	N/A	0.24	0.38 (47)	0	0.00
San Joaquin at Huntington Lk	0.01	0.30	0.20	0.71 (51)	1	0.00

November 2023 | Folsom Lake Daily Operations | Run Date: 11/15/2023

Day	Elev	Storage (1000 Acre-Feet) in Lake	Storage (1000 Acre-Feet) Change	Computed* Inflow C.F.S.	Release - C.F.S. River Power	Release - C.F.S. River Spill	Release - C.F.S. River Outlet	Pumping Plant	Evap. - C.F.S.	Evap. - Inches	Precip Inches
N/A	N/A	460.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	411.19	458.7	-1.4	1,361	1,759	0	0	249	76	0.30	0.00
2	410.98	457.1	-1.6	1,342	1,860	0	0	206	76	0.30	0.00
3	410.81	455.9	-1.3	1,252	1,599	0	0	221	73	0.29	0.00
4	410.60	454.3	-1.6	1,261	1,768	0	0	222	63	0.25	0.00
5	410.33	452.3	-2.0	1,048	1,752	0	0	229	85	0.34	0.00
6	410.11	450.6	-1.6	1,101	1,625	0	0	228	78	0.31	0.00
7	409.89	449.0	-1.6	1,208	1,733	0	0	225	75	0.30	0.00
8	409.67	447.4	-1.6	891	1,419	0	0	223	70	0.28	0.00
9	409.46	445.8	-1.6	1,008	1,519	0	0	216	57	0.23	0.00
10	409.20	443.9	-1.9	730	1,454	0	0	200	47	0.19	0.00
11	408.95	442.0	-1.8	970	1,640	0	0	214	47	0.19	0.00
12	408.72	440.4	-1.7	997	1,579	0	0	225	42	0.17	0.00
13	408.51	438.8	-1.5	956	1,477	0	0	217	37	0.15	0.00
14	408.30	437.3	-1.5	971	1,498	0	0	214	34	0.14	0.00
15	407.97	434.9	-2.4	650	1,627	0	0	201	39	0.16	0.00
Totals	N/A	N/A	-25.1	15,746	24,309	0	0	3,290	899	3.60	0.00
Acre-Feet	N/A	N/A	-25,100	31,2323	48,217	0	14,222	6,526	1,783	N/A	N/A

* Computed inflow is the sum of change in storage, releases, pumping, and evaporation

Summary: Release (acre-feet)

Power	48217
Spill	0
Outlet	0
Pumping Plant	6526
Total Releases	54473

Summary: Precipitation (Month/Inches)

This month	0.00
October 1, 2024 to date	0.00

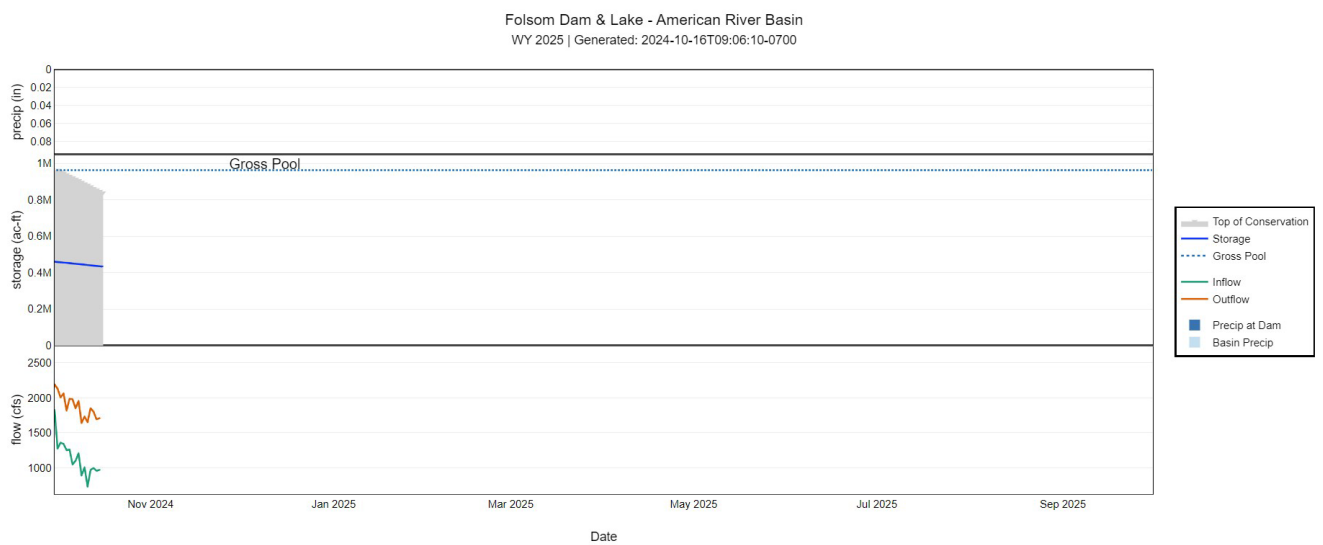


Figure 11. Folsom Dam & Lake – American River Basin for WY2024.

Figure 11 is a graph that compares the flow, storage, and precipitation over time for the American River Basin.

Isobath 10/01–10/31 (Mean Daily Temperature, Release, Storage, Unit Shutter Position/Load Percentage)

MDT = Mean Daily Temperature (°F)

USP/LP = Unit Shutter Position/Load Percentage

Date	MDT, Water NFA	MDT, Water ARP	MDT, Water AFD ¹	MDT, Water AFO	MDT, Water AWP	MDT, Water AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/LP Unit 2	USP/LP Unit 3
Aug	61.5	64.6	62.5	64.2	65.7	66.2	75.2	553	N/A	T	M	B
9/01	63.5	61.6	60.7	62.3	64.3	65.2	72.4	2212	504	T 0	M 99	B 1
9/02	64.2	61.7	61.0	62.6	64.3	64.9	71.0	2213	501	T 0	M 99	B 1
9/03	64.0	61.2	61.3	63.3	64.8	65.4	76.0	2215	499	T !	M !	B 1
9/04	63.6	62.4	61.4	63.3	65.5	66.4	82.4	2194	497	T 0	M 99	B 1
9/05	62.4	62.2	61.7	63.4	65.2	66.1	82.0	2219	496	T 0	M 99	B 1
9/06	62.1	62.4	61.9	63.6	65.5	66.3	83.1	2233	494	T 0	M 99	B 1
9/07	62.2	61.8	62.1	63.6	65.6	66.4	81.9	2233	493	T 0	M 99	B 1
9/08	62.2	62.0	62.3	64.2	65.7	66.3	79.8	2233	491	T 0	M 99	B 1
9/09	62.5	61.8	62.6	64.1	66.1	66.9	80.4	2231	489	T 0	M 99	B 1
9/10	62.2	62.9	62.8	63.9	65.4	66.0	67.4	2233	488	T 0.3	M 99.1	B 1
9/11	62.3	63.7	63.0	64.5	65.7	65.8	69.3	2000	485	T 0.4	M 99.1	B 1
9/12	62.6	63.2	62.3	64.7	66.1	66.6	70.4	1990	483	T 0.3	M 86.8	B 13
9/13	62.7	62.6	63.3	64.7	66.4	66.8	73.9	1956	480	T 0.3	M 99.0	B 1
9/14	62.2	62.5	63.5	64.1	65.9	66.5	73.7	1963	479	T 0.3	M 99.1	B 1
9/15	62.2	61.6	63.8	64.0	65.0	65.3	65.4	1777	478	T 0.4	M 98.9	B 1
9/16	61.9	61.3	64.0	64.6	65.3	65.0	63.1	1779	476	T 0.4	M 98.9	B 1
9/17	61.1	62.4	63.9	64.8	66.0	66.1	65.3	1786	474	T 0.4	M 98.9	B 1
9/18	61.2	62.2	64.1	64.9	65.8	65.9	65.9	1784	472	T 0.4	M 99.0	B 1
9/19	60.9	61.8	64.3	64.9	66.4	66.6	69.2	1782	471	T 0.4	M 98.9	B 1
9/20	61.8	61.7	64.3	65.2	66.6	67.0	68.8	1774	471	T 0.4	M 98.9	B 1
9/21	62.7	61.6	64.3	65.4	67.0	67.4	71.5	1757	470	T 0.4	M 99.0	B 1
9/22	63.3	61.6	61.7	65.6	67.2	67.8	73.8	1744	468	T 0.4	M 70.1	B 30
9/23	63.9	62.5	62.4	65.6	67.3	67.8	76.3	1748	467	T 0.4	M 71.5	B 28
9/24	63.4	63.9	60.1	64.3	66.6	67.6	79.5	1724	466	T 0.4	M 44.8	A 55
9/25	63.7	64.2	61.5	63.2	65.3	66.2	68.1	1722	465	T 0.4	M 62.4	A 37
9/26	63.4	62.1	62.0	63.3	64.6	64.9	67.8	1721	464	T 0.4	M 65.9	A 34
9/27	63.1	61.7	62.2	63.5	65.0	65.4	73.0	1723	464	T 0.4	M 67.2	A 32
9/28	63.3	60.9	62.3	63.2	64.7	65.3	72.1	1719	463	T 0.4	M 69.0	A 31
9/29	63.3	60.8	62.5	63.4	64.7	65.1	67.8	1720	462	T 0.4	M 67.9	A 32

Date	MDT, Water NFA	MDT, Water ARP	MDT, Water AFD ¹	MDT, Water AFO	MDT, Water AWP	MDT, Water AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/ LP Unit 1	USP/ LP Unit 2	USP/ LP Unit 3
9/30	63.5	61.3	62.2	63.6	65.1	65.5	72.5	1730	460	T 0.4	M 63.5	B 36
Sep Avg.	62.7	62.1	62.5	64.1	65.6	66.2	72.8	479	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	Total	AF	115269	N/A	N/A	N/A	N/A

Legend:

? = 1-9 hours of data missing

! = 10 or more hours of data missing

= Station out of service

Monthly Averages

A = All Shutters Lowered

T = Top Shutter Raised

M = Middle Shutter Raised

B = Bottom Shutter Raised

O = Unit Outage

Notes:

¹ AFD is a weighted average based on hourly flow values, including generation, bypass and spill

Isobath Plot

- >70
- 68-70
- 66-68
- 64-66
- 62-64
- 60-62
- 58-60
- 56-58
- 54-56
- 52-54
- 50-52
- 48-50
- 46-48
- 44-46

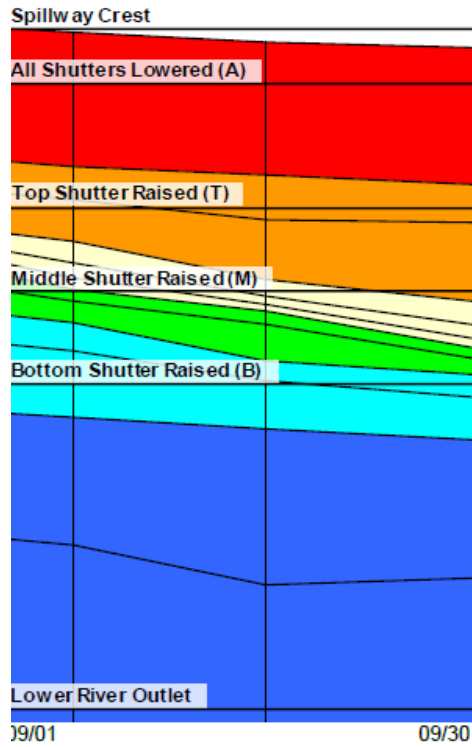


Figure 12. Isobath Plot 9/01-9/30

Figure 12 is an Isobath Plot for the month of September showing Spillway Crest, All Shutters Lowered (A), Top Shutter Raised (T), Middle Shutter Raised (M), Bottom Shutter Raised (B), and Lower River Outlet.

Isobath 11/01–11/30 (Mean Daily Temperature, Release, Storage, Unit Shutter Position/Load Percentage)

MDT = Mean Daily Temperature (°F)

USP/LP = Unit Shutter Position/Load Percentage

Date	MDT, Water, NFA	MDT, Water, ARP	MDT, Water, AFD1	MDT, Water, AFO	MDT, Water, AWP	MDT, Water, AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/LP Unit 2	USP/LP Unit 3
Sep	62.7	62.1	62.5	64.1	65.6	66.2	72.8	479	N/A	T	M	B
10/01	63.6	62.4	63.6	63.4	65.0	65.7	76.7	1717	459	M 0.4	M 79.1	B 20
10/02	64.6	60.8	63.6	64.4	65.9	66.2	79.2	1708	457	M 0	M 70	B 30
10/03	65.9	59.6	62.8	64.3	65.9	66.5	80.3	1705	456	M 0	M 61	B 38
10/04	65.6	58.7	62.3	64.3	65.6	66.0	80.2	1711	454	M 1	M 59	B 40
10/05	65.6	59.5	61.9	64.0	65.5	66.0	78.5	1710	452	M 0	M 56	B 44
10/06	66.3	60.0	62.4	63.5	65.4	66.2	79.2	1542	451	M 0	M 60	B 40
10/07	66.5	59.1	62.7	63.3	64.9	65.6	79.5	1521	449	M 2	M 59	B 39
10/08	66.0	60.3	62.6	63.5	65.1	65.6	78.7	1520	447	M 0	M 62	B 37
10/09	65.1	58.9	63.7	63.5	64.8	65.2	71.3	1521	446	M 0	M 72	B 27
10/10	64.3	60.0	63.6	64.6	65.4	65.4	70.3	1521	444	A 0.5	M 69.6	B 30
10/11	63.3	59.5	64.3	64.7	65.5	65.4	67.2	1520	442	A 0.4	M 79.0	B 21
10/12	62.6	58.7	64.4	64.9	65.6	65.5	65.1	1514	440	A 0.4	M 79.6	B 20
10/13	62.9	59.3	64.3	65.2	66.2	66.4	69.3	1514	439	A 0.5	M 78.1	B 21
10/14	63.3	59.2	64.2	65.3	66.3	66.6	70.0	1513	437	A 3.3	M 74.6	B 22
10/15	63.4	59.6	64.4	65.1	66.2	66.4	69.8	1521	435	A 16.4	M 80.5	B 3
10/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Date	MDT, Water, NFA	MDT, Water, ARP	MDT, Water, AFD1	MDT, Water, AFO	MDT, Water, AWP	MDT, Water, AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/LP Unit 2	USP/LP Unit 3
10/31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oct Avg.	64.6	59.7	63.4	64.3	65.6	65.9	74.3	447	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	Total	AF	47123	N/A	N/A	N/A	N/A

Legend:

? = 1-9 hours of data missing

! = 10 or more hours of data missing

= Station out of service

Monthly Averages

A = All Shutters Lowered

T = Top Shutter Raised

M = Middle Shutter Raised

B = Bottom Shutter Raised

O = Unit Outage

Notes:

¹ AFD is a weighted average based on hourly flow values, including generation, bypass and spill

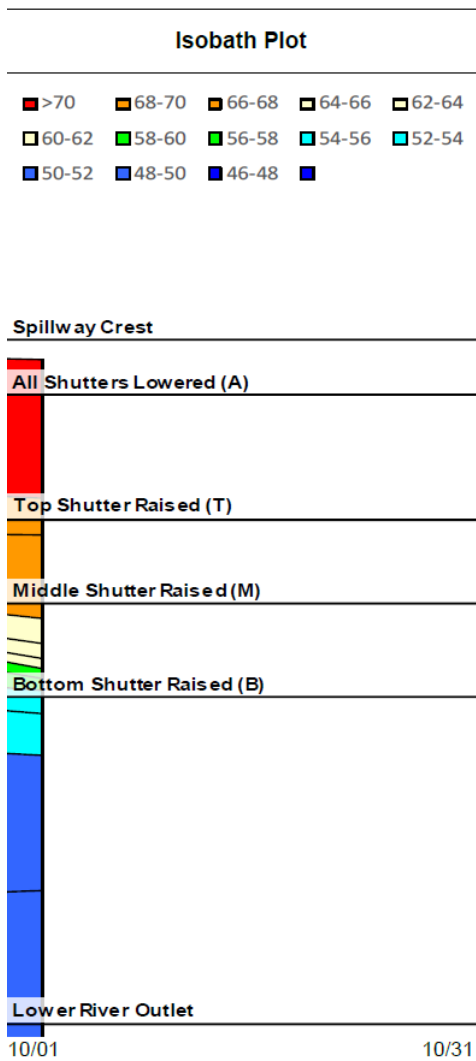


Figure 13. Isobath Plot 10/01-10/31

Figure 13 is an Isobath Plot for the month of October showing Spillway Crest, All Shutters Lowered (A), Top Shutter Raised (T), Middle Shutter Raised (M), Bottom Shutter Raised (B), and Lower River Outlet.

American River Summary Conditions – October (On-going)

Release Management Conditions

- Releases are currently at 1,500 cfs

Temperature Management

Top Shutters: Units 1, 2, and 3 – raised

Middle Shutters: Units 1,2, and 3 – raised

Bottom Shutters: Units 1, 2, and 3 – raised

Folsom Shutter Configuration and Changes

October 16 – Unit 2 Bottom Shutters raised. October 4 Unit 1 Bottom Shutters raised.

September 50% Exceedance – DRAFT Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Sep	Oct	Nov	Dec	Jan
Folsom Storage	460	448	422	412	457
Folsom Elevation	N/A	410	406	405	411

Monthly River Release (TAF/cfs)

Facility	Sep	Oct	Nov	Dec	Jan
American TAF	N/A	93	119	123	108
American cfs	N/A	1506	2007	2000	1750

September 90% Exceedance – DRAFT Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Sep	Oct	Nov	Dec	Jan
Folsom Storage	460	408	332	262	263
Folsom Elevation	N/A	404	393	380	380

Monthly River Release (TAF/cfs)

Facility	Sep	Oct	Nov	Dec	Jan
American TAF	N/A	93	119	123	61
American cfs	N/A	1505	2007	2000	1000

American River Baseflow Table

Month	Index Used for Index-based MRR	Index Based MRR	RDPB-based MRR for fall-run Chinook salmon (applicable in Jun and Feb)	RDPB-based MRR for steelhead (applicable Feb to May)	Controlling MRR	Actual Average Monthly Nimbus releases ¹
September	May ARI ² (50% exceedance)	1,750 cfs	Not applicable	Not applicable	1,750 cfs	1,937 cfs
October	May ARI ² (50% exceedance)	2,500 cfs	Not applicable	Not applicable	1,500 cfs	Not applicable

MRR= Minimum Release Requirements; RDPA= Redd Dewatering Protective Adjustment; ARI= American River Index; SRI= Sacramento River Index

¹ Average of daily release over the month from NAT station on CDEC.

² Since new forecasts are usually provided January through May, the May ARI would also be used for June–September of the current water year and October–December of the next water year unless there is an update to the ARI after May.