Appendix V

Mitigation Monitoring and Reporting Plan

This page left blank intentionally.

Appendix V
Mitigation Monitoring and Reporting Program

V.1 Introduction

The proposed Long-Term Water Transfers (Project) would result in the potential for significant environmental impacts associated with water supply, air quality, groundwater resources, and agricultural land use. Mitigation measures have been incorporated into the Project to reduce impacts to less than significant levels. The mitigation measures for the Project must be adopted by Reclamation and the San Luis & Delta-Mendota Water Authority (SLDMWA), in conjunction with adoption of the Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

Section 21081.6 of the Public Resources Code (PRC) and California Environmental Quality Act (CEQA) Guidelines section 15097 require the Lead Agency for each project that is subject to CEQA to monitor performance of the mitigation measures included in any environmental document to ensure that implementation does, in fact, take place. The PRC requires the Lead Agency to adopt a monitoring and reporting program for assessing and ensuring the implementation of required mitigation measures.

In accordance with PRC Section 21081.6, SLDMWA has developed this Mitigation Monitoring and Reporting Program (MMRP) for the Project. The purpose of the MMRP is to ensure activities associated with transferring water comply with all applicable environmental mitigation requirements.

V.2 Mitigation and Monitoring

Table V-1 lists the mitigation measures identified, responsible parties, the time frame for implementation, and the monitoring parties. A column is provided for the monitoring party to sign-off on the implementation of each mitigation measure.

Table V-1.
Mitigation Measures

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
WS-1	The purpose of Mitigation Measure WS-1 is to address potential streamflow depletion effects to Central Valley Project (CVP) and State Water Project (SWP) water supply. Reclamation will apply a streamflow depletion factor to mitigate potential water supply impacts from the additional groundwater pumping due to groundwater substitution transfers. The streamflow depletion factor equates to a percentage of the total groundwater substitution transfer that will not be credited to the transferor and is intended to offset the streamflow effects of the added groundwater pumping due to transfer. As described in the impact analysis, the magnitude of the potential water supply impact depends on hydrologic conditions surrounding the transfer period (both before and after). The exact percentage of the streamflow depletion factor will be assessed and determined on a regular basis by Reclamation and California Department of Water Resources (DWR), in consultation with buyers and sellers, based on the best technical information available at that time. The percentage will be determined based on hydrologic conditions, groundwater and surface water modeling, monitoring information, and past transfer data. Application of the streamflow depletion factor will offset potential water supply effects and reduce them to a less than significant level. The streamflow depletion factor may not change every year, but will be refined as new information becomes available and may become more site specific as better data and groundwater modeling becomes available. The minimum streamflow depletion factor (based on modeling completed for this EIS/EIR) will be 13	Reclamation	Reclamation and DWR	CVP and SWP operations reporting.	Ongoing.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	percent, but this factor may be adjusted based on additional information on local conditions. Reclamation and DWR require the imposition of a streamflow depletion factor because they will not move transfer water if doing so will violate the no injury rule. This process to evaluate and determine the streamflow depletion factor will help verify that the factor reduces potential impacts to avoid legal injury to CVP or SWP water supplies and a substantial impact or injury.						
GW-1	The objective of Mitigation Measure GW-1 is to avoid potentially significant adverse environmental effects from groundwater level declines such as (1) impacts to other legal users of water; (2) land subsidence; (3) adverse effects to groundwater-dependent vegetation and or (4) migration of reduced quality groundwater. The mitigation measure also requires prompt corrective action so that impacts discussed previously will be reduced to less than significant in the event unanticipated effects occur. The measure accomplishes this by monitoring groundwater levels and land subsidence in the period during which groundwater is being pumped in lieu of diverting the surface water. Additionally, the mitigation plan identifies necessary preventative action measures if monitoring shows that identified trigger points are reached during transfer-related pumping Reclamation will verify that sellers implement the monitoring program and mitigation plan to avoid potentially significant adverse effects of transfer-related groundwater extraction. In addition, each entity making surface water available for transfer through groundwater substitution actions must confirm that the proposed groundwater pumping will be compatible with state and local regulations and Groundwater Management Plans (GMPs). As	Participating Sellers	Reclamation	Seller transfer application package.	Prior to water transfers.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	Groundwater Sustainability Plans (GSPs) are developed by Groundwater Sustainability Agencies, potential sellers must confirm that the proposed pumping and the following Monitoring Program and Mitigation Plan verified by Reclamation is compatible with applicable GSPs.						
GW-1	Well Review Process Potential sellers must submit well data for Reclamation and, where appropriate, DWR review, as part of the transfer approval process. Required information will be detailed in the most current version of the *DRAFT Technical Information for Preparing Water Transfer Proposals* (Reclamation and DWR 2014).	Participating sellers	Reclamation	Seller transfer application package.	Prior to water transfers.		
GW-1	Monitoring Program Potential sellers must complete and implement a monitoring program subject to Reclamation's approval that shall include, at a minimum, the following components:	Participating sellers	Reclamation	Seller transfer application package and monitoring reports.	Prior to, during, and after water transfers.		
GW-1	*Monitoring Well Network* The monitoring program shall incorporate a sufficient number of monitoring wells, as determined by Reclamation, to accurately characterize groundwater levels from the appropriate aquifers and their response in the area before, during, and after transfer pumping takes place. Depending on local conditions, additional groundwater level monitoring may be required near ecological resource areas. It should be noted that monitoring well networks have been established for some of the participating pumping wells that have participated in water transfers in previous years. For wells that have not participated in water transfers previously, the sellers would identify suitable monitoring wells as defined below for review and approval by Reclamation prior to transfer. If a suitable monitoring well(s) is not identified for a participating pumping well, the participating	Participating sellers	Reclamation	Seller transfer application package and monitoring data.	Plan submitted prior to water transfers; monitoring information submitted during and after transfer.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	pumping well will not be allowed to participate in water transfer until a suitable monitoring well(s) is identified. The monitoring well network would include the participating pumping well and a suitable groundwater level monitoring well(s) in the vicinity of the participating pumping well(s). Suitable monitoring well(s) would: (1) be within a two-mile radius of the seller's transfer pumping well; (2) be located within the same Bulletin 118 subbasin as the pumping well; and (3) have a screen depth(s) in the same aquifer level (shallow, intermediate, or deep) as the pumping well. Wells with short historic records could be considered, but short records (that do not extend to 2014 or earlier) could limit the transfer because the historic low would not reflect the persistent dry weather from 2011 to 2015. In this situation, the lowest groundwater level for the short period of record would be used, but because the groundwater level would likely be higher than the historic low during the prior drought period, the groundwater level triggers (described below) would be more restrictive (i.e., the lowest recorded groundwater level could be reached more quickly during transfer-related pumping than occurred in the short period of record when groundwater levels were higher. Monitoring requirements at the participating pumping well and suitable monitoring well(s) would detect impacts to third parties and land subsidence. Monitoring and mitigation for impacts to groundwater dependent deep-rooted vegetation and migration of reduced quality groundwater are discussed below under Other Monitoring.						

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Date
GW-1	*Groundwater Level Monitoring* Sellers will collect measurements of groundwater levels in both the participating wells (those wells being used in lieu of diverting surface water that is being made available for transfer) and monitoring wells. Groundwater level measurements will be used to identify potential concerns for both third party impacts and irreversible subsidence based on the identified trigger points. Groundwater level monitoring will include measurements before, during, and after transfer-related substitution pumping. The seller will measure groundwater levels as follows: • Prior to transfer: Groundwater levels will be measured in both the participating pumping well(s) and the monitoring well(s) monthly from March in the year of the proposed transfer-related substitution pumping until the start of the transfer. Monitoring will also be conducted on the day that the transfer-related substitution pumping begins, prior to the pump being turned on. • During transfer-related substitution pumping: Groundwater levels will be measured in both the participating pumping well(s) and the monitoring well(s) weekly throughout the transfer-related substitution pumping period. • Post-transfer pumping: Groundwater levels will be measured in both the participating well(s) and the monitoring well(s) weekly for one month after the end of transfer-related substitution pumping, after which groundwater levels will be measured monthly through March of the year following the transfer.	Participating sellers	Reclamation	Seller transfer application package with field spot-checks and monitoring data.	Prior to, during, and after water transfers.		
GW-1	*Groundwater Level Triggers* The primary criteria used to identify potentially significant impacts to groundwater levels are the BMOs set by GMPs. In the Sacramento Valley,	Participating sellers	Reclamation	Regular inspection, monitoring data, and report if triggers are	Plan submitted prior to water transfers; monitoring		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	Shasta, Tehama, Glenn, Butte, Colusa, Sutter, Yuba, Nevada, Placer, Sacramento and Yolo counties have established GMPs to provide guidance in managing the resource. In areas where quantitative BMO groundwater level triggers exist, sellers will manage groundwater levels to these triggers and initiate the mitigation plan (discussed below) if groundwater levels reach the trigger. In areas where quantitative BMOs do not exist, sellers will manage groundwater levels to maintain them above the identified historic low groundwater level (trigger) and will initiate the mitigation plan (discussed below) if groundwater levels reach the trigger. Most of the quantitative BMOs within the Seller Service Area are tied to historic low groundwater levels. Therefore, the use of historic low groundwater levels in areas without quantitative BMOs is consistent with the approach for areas with quantitative BMOs. As part of a seller's transfer proposal subject to Reclamation's review and approval, the seller will need to identify the monitoring wells and the specific groundwater level trigger for each well (established through the local BMO or the historic low groundwater level for that well). Groundwater level declines due to pumping occur initially at the pumping well and then propagate outward from that location. The magnitude of groundwater level decline caused by pumping also decreases with increasing distance from the pumping well. Therefore, groundwater level declines caused by transfer pumping would be measured first at the pumping well and subsequently at the monitoring well. The decline would be greatest at the pumping well and lower at the monitoring well. Therefore, it is likely that groundwater levels in the pumping well would decline to the historic low level sooner than at the			exceeded, if necessary.	information submitted during and after transfer.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Date
	monitoring well(s). The monitoring well(s) would provide information surrounding the well to avoid potential cumulative impacts.						
GW-1	*Groundwater Quality* For municipal sellers, the comprehensive water quality testing requirements of Title 22 are considered sufficient for the water transfer monitoring program. Agricultural sellers shall measure specific conductance in samples from each participating production well. Samples shall be collected when the seller first initiates pumping, monthly during the transfer pumping period, and at the termination of transfer pumping.	Municipal sellers	Reclamation	Inspections during transfer period and monitoring data.	Prior to, during, and after water transfers.		
GW-1	*Groundwater Pumping Measurements* All wells pumping to replace surface water made available for transfer shall be configured with a permanent instantaneous and totalizing flow meter capable of accurately measuring well discharge rates and volumes. Flow meter readings will be recorded just prior to initiation of transfer related pumping and no less than monthly throughout the duration of the transfer, as close as practical to the last day of the month. Readings will also be recorded just after cessation of transfer-related pumping. Flow meter installation and calibration, in accordance with recommendation by manufacturer, will be submitted by the seller.	Participating sellers	Reclamation	Inspections during transfer period and monitoring data.	Prior to, during, and after water transfers.		
GW-1	*Shallow Groundwater Level Monitoring for Deep Rooted Vegetation* To avoid significant effects to vegetation and allow sellers to modify actions before significant effects occur, sellers will monitor groundwater level data to verify that significant adverse effects to deep-rooted vegetation are avoided. This monitoring is only required in areas with deep-rooted vegetation (i.e. oak trees and riparian trees that would have tap roots greater than 10 feet deep) within a one-half mile radius of the participating pumping well and	Participating sellers	Reclamation	Inspection, monitoring data, and report if deep rooted vegetation are impacted (only required in areas with deep-rooted vegetation).	Plan submitted prior to water transfers; monitoring information submitted during and after transfer.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	areas where groundwater levels are between 10 to 25 feet below ground surface prior to starting the transfer of surface water made available from groundwater substitution actions. This monitoring is not required in areas with no deep-rooted vegetation (i.e., areas without oak trees and riparian trees that would have tap roots greater than 10 feet deep) within one-half mile of the participating wells or in areas where vegetation is located along waterways or irrigated fields that will continue to have water during the period of transfer. The seller would be required to identify if monitoring for deep rooted vegetation is required in their transfer proposal to Reclamation and DWR. Existing resources such as DWR's groundwater dependent ecosystem maps (https://gis.water.ca.gov/app/NCDatasetViewer/) or any existing biological survey data in the area could be used to identify deep rooted vegetation near the participating pumping well. If deep rooted vegetation is identified near the participating pumping well, a groundwater level monitoring well with the following requirements would need to be identified and monitored: (1) monitoring well is within a one-half mile radius of the deep-rooted vegetation; (2) monitoring well would measure shallow groundwater level changes (within the interval between 10 to 25 feet below ground surface). The participating production well can function as the monitoring well if previously mentioned requirements are met. If monitoring data at the well indicate that groundwater levels have dropped below root zones (i.e., more than 10 feet, where groundwater was 10 to 25 feet below ground surface prior to starting the transfer of surface water made available from groundwater substitution actions), the seller must implement actions set forth in the mitigation plan. If historic data show that						

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	groundwater levels in the area where actions are being taken to make water available for transfer have typically varied by more than this amount annually during the proposed transfer period, then the transfer may be allowed to proceed. The seller must submit historic data showing groundwater variances to Reclamation prior to transfer pumping. If no monitoring wells with the requirements discussed in the previous paragraph exist, monitoring would be based on visual observations by a qualified plant ecologist/certified arborist of the health of these areas of deep-rooted vegetation until it is feasible to obtain or install shallow groundwater monitoring. Monitoring of these areas would include a pre-pumping vegetation assessment within a half-mile radius of the pumping well followed by an assessment near the end of the pumping season but prior to fall/autumn leaf-drop. The assessment of post-pumping impacts on deep-rooted vegetation will be conducted by a qualified plant ecologist/arborist and will take into account the existing health conditions of the vegetation prior to pumping, species present, size-class of trees, and rainfall data from the previous water years. If Reclamation the qualified plant ecologist/certified arborist determines, based on site-specific circumstances in consultation with a plant ecologist/arborist, that groundwater pumping has caused significant adverse impacts to deep-rooted vegetation (that is, any loss of the deep-rooted vegetation), the seller must implement restoration actions set forth in the mitigation plan . Findings from the pre-pumping and post pumping assessment will be reported to Reclamation.						
GW-1	*Coordination Plan* The monitoring program will include a plan to coordinate the collection and organization of monitoring data. This plan will describe how input from third parties (i.e. groundwater wells not	Participating sellers	Reclamation	Seller transfer application package with Coordination Plan.	Prior to water transfers.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	participating in water transfers) will be incorporated into the monitoring program and will include a plan for communication with Reclamation as well as other decision makers and third parties. Additionally, Reclamation, SLDMWA, and potential seller(s) will coordinate closely with potentially affected third parties to collect and monitor groundwater data. If a third party expects that it may be affected by a proposed transfer, that party should contact Reclamation and the seller with its concern. The burden of collecting groundwater data will not be the responsibility of the third party. If warranted, additional groundwater level monitoring to address the third-party's concern may be incorporated in the monitoring and mitigation plans required by Mitigation Measure GW-1.						
GW-1	*Evaluation and Reporting* The monitoring program will describe the method of reporting monitoring data. At a minimum, sellers will provide data summary tables to Reclamation, both during and after transfer-related substitution pumping. Post-transfer reporting will continue through March of the year following the transfer. Sellers will provide a final summary report to Reclamation evaluating the effects of the water transfer. The final report will identify transfer-related effects on groundwater and surface water (both during and after pumping), and the extent of effects, if any, on local groundwater users. It shall include groundwater level contour maps for the area in which transfer related pumping action is located, showing pre-transfer groundwater levels, groundwater levels at the end of the transfer period, and recovered groundwater levels in March of the year following the transfer. Groundwater level contour maps for different aquifer depths should also be included where data is available. The summary report shall also identify the extent of	Participating sellers	Reclamation	Seller transfer application package and monitoring data and report.	Plan submitted prior to water transfers; monitoring information submitted during and after transfer.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Date
	transfer-related effects, if any, to ecological resources such as fish, wildlife, and vegetation resources.						
GW-1	Mitigation Plan Potential sellers must complete and implement a mitigation plan to avoid potentially significant groundwater impacts and ensure prompt corrective action in the event unanticipated effects occur. This plan must document the planned actions if there are unanticipated impacts to groundwater resources or groundwater-dependent vegetation. This plan must be submitted to Reclamation as part of the transfer approval process.	Participating sellers	Reclamation	Mitigation plan, monitoring data for mitigation activities, and regular inspections of mitigation activities.	Submit Mitigation Plan to Reclamation prior to water transfers.		
GW-1	*Groundwater Resource Mitigation* If groundwater level triggers are reached at the participating pumping well(s) or the suitable monitoring well (s) (either BMO triggers or historic low groundwater levels), transfer-related pumping would stop from the participating pumping well that reached the trigger. Transfer related pumping would be stopped when the trigger is first reached at either the participating pumping well(s) or the suitable monitoring well(s). Transfer-related pumping could not continue from this well (in the same year or a future year) until groundwater levels recovered to above the groundwater level trigger. Implementation of the mitigation plan thus avoids any potentially significant groundwater impacts. Other corrective actions could include: • Lowering of pumping bowls in non-transferring wells affected by substitution pumping. • Reimbursement to non-transferring third parties for significant increases in their groundwater pumping costs due to the groundwater substitution pumping action, as compared with their costs absent the transfer.	Participating sellers	Reclamation	Mitigation plan, monitoring data for mitigation activities, and regular inspections of mitigation activities.	Prior to, during and after water transfers		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	• Reimbursement to non-transferring third parties for modifications to infrastructure that may be affected. • Other appropriate actions based on local conditions.						
	Groundwater-Dependent Vegetation Mitigation If shallow groundwater levels monitoring suggests that groundwater levels have dropped below root zones, the seller must stop transfer-related pumping at the participating pumping well. Transfer-related pumping from the participating pumping well would be stopped until groundwater levels have recovered to levels above the root zones. If historic data at the location indicates shallow groundwater levels typically dropped and remained below the root zones (i.e., more than 10 feet, where groundwater was 10 to 25 feet below ground surface prior to starting the transfer of surface water made available from groundwater substitution actions) over the proposed transfer period, then the transfer may be allowed to proceed. In areas where visual monitoring is conducted to monitor health of deep-rooted vegetation, the seller must stop transfer-related pumping at the participating well if the qualified plant ecologist/arborist, determines a loss or substantial risk of loss of vegetation. If adverse impacts to deep-rooted vegetation occur, the seller will perform restoration activities by replanting similar vegetation at a 1:1 ratio (for every 1 inch diameter at breast height (dbh) lost, 1 inch in dbh will be planted. For example if 12-inch dbh of oak is lost then the seller would have to plant 12 gallon oak sapling at around 1-inch dbh. Therefore, the seller would plant more trees than lost.). The seller will plant, irrigate, maintain, and monitor restoration of vegetation for 3 years to replace the losses. All plantings will be fitted with exclusion	Participating sellers	Reclamation	Mitigation plan, monitoring data for mitigation activities, and regular inspections of mitigation activities.	Prior to, during and after water transfers		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	cages or other suitable protection from herbivores. Plantings will be irrigated for 3 years or until the survival criterion is met. If 75% of the plants survive at the end of the 3-year monitoring period, the revegetation will be considered successful. If the survival criterion is not met at the end of the monitoring period, planting and monitoring will be repeated after mortality causes have been identified and corrected. Annual monitoring reports, prepared by a qualified plant ecologist/arborist, will document the status of the plantings and recommendations for remediation as necessary. The monitoring reports will be provided to the seller and Reclamation by August 31 following each year of monitoring (generally July 1 through June 30) to allow time for additional planting activities, if necessary. Transfer-related pumping could not continue at the subject well while vegetation restoration activities consistent with the requirements above are ongoing (i.e. 3 years or until the survival criterion is met). Transfer-related pumping at the subject well could not resume after restoration unless the seller provides evidence that resuming pumping will not affect deep-rooted vegetation (such as data from the installation of a new shallow groundwater level monitoring well within a one-half mile radius of the deep-rooted vegetation that indicates stable shallow groundwater levels at less than 10 feet).						

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
AQ-1	Selling agency would reduce pumping at diesel or natural gas wells to reduce emissions to below the thresholds. If an agency is transferring water through cropland idling and groundwater substitution in the same year, the reduction in vehicle emissions can partially offset groundwater substitution pumping at a rate of 4.25 acre-feet (AF) of water produced by idling to one acre-foot of groundwater pumped. Agencies may also decide to replace old diesel or natural gas wells to reduce emission below the thresholds. Any selling agencies with potentially significant emissions, as determined by this EIS/EIR, will be required to maintain daily recordkeeping logs that document the specific engine to be used for groundwater substitution transfers, the power rating (hp), and applicable emission factors. Emission calculations will be completed daily for comparison to the significance thresholds determined for each selling agency. The recordkeeping logs will be sent to Reclamation monthly for verification that emissions are within the allowable limits. Reclamation will also work with the water agencies to inform individual growers of incentive funding available through the Natural Resources Conservation Service's Environmental Quality Incentives Program. Funded conservation practices including the replacement of internal combustion engines in irrigation pumps; therefore, the program may be used by growers to further reduce criteria pollutant emissions.	Selling agency	Reclamation	Daily recordkeeping logs specifying the engines operated by each selling agency with potentially significant emissions and calculated criteria pollutant emissions.	Monthly during transfer.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Date
AQ-2	Any engines operating in the area of analysis that are capable of operating as either electric or natural gas engines would only operate with electricity during any groundwater transfers. Any selling agencies with these engines will be required to maintain daily recordkeeping logs that document the engines used for groundwater substitution transfers and the type of fuel used. The recordkeeping logs will be sent to Reclamation monthly for verification that the engines are operating in compliance with the mitigation measure.	Selling agency	Reclamation	Daily recordkeeping logs documenting the engines used for groundwater substitution transfers and the fuel type used.	Monthly during transfer.		
LU-1	Water would not be acquired from a particular parcel of land if idling the land would result in a lower classification of Important Farmland as defined under the Farmland Mapping and Monitoring Program (FMMP). The selling agency will provide cropping history of specific parcels to be idled for the transfer to Reclamation to determine if idling will result in a change in classification from Important Farmland.	Selling agency	Reclamation	Maps of fields to be idled with land classification and past cropping patterns for field to be idled.	Prior to water transfer.		
VEG and WILD-1	Mitigation Measure VEG and WILD-1 includes measures to avoid potentially significant impacts to terrestrial species associated with cropland idling transfers and reduce any potential impacts to less than significant: As part of the review and approval process for proposed water transfers, Reclamation will have access to the land to verify how the water for transfer is being made available and to verify that actions to protect the giant garter snake are being implemented.	Participating Sellers	Reclamation	Seller transfer package with maps of fields to be idled.	Ongoing during transfer season.		
VEG and WILD-1	Movement corridors for aquatic species (including pond turtle and giant garter snake) include major irrigation and drainage canals. The water seller will keep adequate water in major irrigation and drainage canals. Canal water depths should be similar to years when transfers do not occur or, where information on existing water depths is	Participating Sellers	Reclamation	Seller transfer application package with field spot-checks.	Ongoing during transfer season.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Date
	limited, at least two feet of water will be considered sufficient.						
VEG and WILD-1	Maintaining water in smaller drains and conveyance infrastructure supports key habitat attributes such as emergent vegetation for giant garter snake escape cover and foraging habitat. If cropland idling/shifting occurs, Reclamation will work with sellers to document that adequate water remains in drains and canals. Documentation may include flow records, photo documentation, or other means of documentation subject to approval by Reclamation and USFWS.	Participating Sellers	Reclamation	Seller transfer application package with field spot-checks.	Ongoing during transfer season.		
VEG and WILD-1	Fields abutting or immediately adjacent to areas with known important giant garter snake populations (Appendix N) will not be permitted to participate in cropland idling/shifting transfers. Important giant garter snake populations are defined for purposes of this mitigation measure as populations previously identified by biologists from USFWS, USGS, and possibly contract biologists. These populations of giant garter snakes were identified early on as identified in previous consultations and are in, or connected to, areas that are considered public or protected. Most of these areas have specific management plans for giant garter snakes either for mitigation or as wildlife refuges. One factor influencing the importance of these areas is that they can provide a refuge for snakes independent of rice production. Fields abutting or immediately adjacent to the following areas are considered important giant garter snake populations:	Participating Sellers	Reclamation	Seller transfer application package, maps of fields to be idled, and field spot-checks of land idled.	Prior to and during water transfers.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	• Little Butte Creek between Llano Seco and Upper Butte Basin Wildlife Area • Butte Creek between Upper Butte Basin and Gray Lodge Wildlife areas • Colusa Basin drainage canal between Delevan and Colusa National Wildlife Refuges • Gilsizer Slough • Colusa Drainage Canal • Land side of the Toe Drain along the Sutter Bypass • Willow Slough and Willow Slough Bypass in Yolo County • Hunters and Logan Creeks between Sacramento and Delevan National Wildlife Refuges • Lands in the Natomas Basin						
VEG and WILD-1	At the end of the water transfer year, Reclamation will prepare an annual monitoring report that contains the following: • Maps of rice production and all cropland idling actions within the seller district that occurred within the range of potential transfer methods analyzed in this EIS/EIR. • Results of current scientific research, summary of monitoring pertinent to water transfer actions, and new giant garter snake detections. • Discussion of conservation measure effectiveness.	Reclamation	Reclamation	Review of monitoring report and annual meeting with USFWS	After water transfers.		

Measure No.	Mitigation Measure	Responsible Party	Monitoring Party	Method of Verification	Timing of Verification	Verification of Completion Initials	Verification of Completion Date
	• Cumulative history of crop idling and crop shifting specifically to make water available for transfers within the sellers area. The report will be submitted to the USFWS and CDFW no later than January 31, prior to the next year of potential transfers.						
VEG and WILD-1	Reclamation will establish annual meetings with the Service to discuss the contents and findings of the annual report. These meetings will be scheduled following the distribution of the monitoring report and prior to February 28.	Reclamation	Reclamation	Distribution of monitoring report to USFWS and occurrence of annual meeting.	Meeting occurs prior to the next transfer season.		
VEG and WILD-1	If, upon Reclamation's review of monitoring reports or other scientific literature, it appears that the Project is having unanticipated effects on the giant garter snake, Reclamation will contact the Service to discuss the information available and effectiveness of Project conservation measures.	Reclamation	Reclamation	Review of monitoring report by Reclamation and occurrence of annual meeting with USFWS.	Meeting occurs prior to the next transfer season.		
VEG and WILD-1	Reclamation will monitor the effectiveness of the conservation measures by funding giant garter snake distribution and occupancy research. The research, conducted by USGS, includes annual sampling of giant garter snake within the action area and focuses on their distribution and occupancy dynamics. The research is designed to evaluate the effectiveness of the conservation measures to maintain giant garter snake occupancy at sites transferring water via this program.	Reclamation	Reclamation	Reclamation funding of giant garter snake research.	Ongoing.		

V.3 List of Acronyms

AF – Acre-feet

BMOs – Basin Management Objectives

CDFW – California Department of Fish and Game

CEQA – California Environmental Quality Act

CVP – Central Valley Project

DWR – California Department of Water Resources

EIR – Environmental Impact Report

EIS – Environmental Impact Statement

FMMP – Farmland Mapping and Monitoring Program

GIS – Geographic Information System

GMP – Groundwater Management Plan

GSP – Groundwater Sustainability Plan

GPS – Global Positioning System

MMRP – Mitigation and Monitoring Program

PRC – Public Resources Code

Reclamation – Bureau of Reclamation

SLDMWA – San Luis & Delta–Mendota Water Authority

SWP – State Water Project

USFWS – United States Fish and Wildlife Service

V.4 References

Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR). 2014. *DRAFT Technical Information for Preparing Water Transfer Proposals- Information to Parties Interested In Making Water Available for Water Transfers in 2014*. October 2013. Accessed on 08 02 2019. Available at: https://water.ca.gov/LegacyFiles/watertransfers/docs/DTIWT_2014_Final_Draft.pdf

Appendix W

Index

This page left blank intentionally.

Appendix W
Index

agricultural land… ... ES-28, ES-29, 2-25, 2-39, 3.3-38, 3.4-4, 3.4-17, 3.4-20, 3.4-23, 3.4-25, 3.4-26, 3.5-20, 3.5-44, 3.5-53, 3.8-30, 3.9-1, 3.9-3, 3.9-4, 3.9-7, 3.9-8, 3.9-9, 3.9-10, 3.9-11, 3.9-22, 3.9-23, 3.9-24, 3.9-25, 3.9-26, 3.9-27, 3.9-28, 3.9-29, 3.9-30, 3.9-31, 3.9-34, 3.9-36, 3.9-39, 3.9-41, 3.9-42, 3.9-43, 3.9-44, 3.9-47, 3.9-48, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.10-56, 3.10-58, 3.10-61, 3.11-1, 3.11-29, 3.11-30, 3.14-6, 3.14-10, 3.14-11, 3.14-12, 3.15-9, 3.17-7, 3.17-9, 3.17-10, 5-2
air basin 3.5-3, 3.5-20
air quality ..…...3.5-1, 3.5-3, 3.5-13, 3.5-14, 3.5-15, 3.5-18, 3.5-28, 3.5-29, 3.5-30, 3.5-31, 3.5-32, 3.5-33, 3.5-36, 3.5-37, 3.5-47, 3.5-51, 3.5-54, 3.5-56, 3.5-57, 3.5-60, 3.6-7, 3.6-14, 3.6-21, 5-2
air quality management district..... 3.5-15, 3.6-7
Alameda County 3.6-20, 3.7-3, 3.8-3, 3.12-5, 4-6
alfalfa……. ES-8, ES-35, 2-6, 2-7, 3.2-29, 3.4-4, 3.4-5, 3.4-18, 3.4-21, 3.4-23, 3.4-25, 3.8-25, 3.10-11, 3.10-33, 3.10-36, 3.10-38, 3.10-39, 3.10-41, 3.10-42, 3.10-52, 3.11-21
American River…..….ES-7, 2-7, 2-11, 2-15, 2-20, 2-21, 2-33, 2-37, 3.1-11, 3.1-12, 3.1-14, 3.2-2, 3.2-5, 3.2-8, 3.2-17, 3.2-18, 3.2-19, 3.2-35, 3.2-38, 3.2-49, 3.2-57, 3.2-59, 3.2-70, 3.3-19, 3.7-3, 3.7-14, 3.7-32, 3.7-33, 3.7-48, 3.7-73, 3.8-2, 3.10-28, 3.12-4, 3.13-7, 3.13-9, 3.13-10, 3.13-14, 3.14-2, 3.14-3, 3.14-6, 3.14-7, 3.14-9, 3.14-17, 3.14-21, 3.14-24, 3.14-29, 3.15-4, 3.15-5, 3.15-6, 3.15-27, 3.16-5, 3.16-6, 3.16-19, 3.17-1, 3.17-8, 3.17-9, 3.17-15, 3.17-19, 3.17-22, 3.17-26
Anderson-Cottonwood Irrigation District..... …ES-6, 2-10, 2-13, 2-32, 2-36, 3.1-6, 3.3-4, 3.3-14, 3.3-16, 3.3-39, 3.5-34, 3.5-34, 3.5-36, 3.6-23
aquatic habitat ES-27, 3.7-26, 3.8-20, 3.8-22, 3.8-23, 3.8-36, 3.8-40, 3.8-42, 3.8-49
aquatic resources 3.2-7, 3.7-32, 3.7-39, 3.7-52, 3.7-60, 3.7-67
attainment.....…..3.2-3, 3.5-3, 3.5-5, 3.5-9, 3.5-12, 3.5-13, 3.5-14, 3.5-18, 3.5-20, 3.5-21, 3.5-22, 3.5-47, 3.5-49, 3.5-50
Auburn Rancheria 3.12-4, 3.12-6, 3.12-7, 3.12-16
Banks Pumping Plant... ….ES-13, 2-18, 2-23, 2-24, 2-28, 2-29, 3.1-1, 3.1-14, 3.1-15, 3.1-21, 3.1-23, 3.2-22, 3.2-23, 3.2-24, 3.2-26, 3.7-39, 3.7-51, 3.16-8, 3.17-10, 4-6
basin management objective 3.3-31, 3.3-34
Bay Area…. ES-2, ES-3, ES-4, 1-2, 1-5, 2-2, 2-4, 3.1-13, 3.5-15, 3.5-17, 3.6-7, 3.6-20, 3.6-34, 3.9-42, 5-1
Bear River. ….2-23, 3.1-10, 3.2-1, 3.2-4, 3.2-8, 3.2-16, 3.2-35, 3.2-38, 3.2-49, 3.2-57, 3.7-3, 3.7-11, 3.7-14, 3.7-31, 3.7-33, 3.7-36, 3.7-37, 3.7-38, 3.7-47, 3.7-48, 3.7-49, 3.7-50, 3.7-56, 3.7-57, 3.7-58, 3.8-1, 3.8-2, 3.8-11, 3.8-12, 3.8-14, 3.8-15, 3.8-22, 3.8-31, 3.8-35, 3.8-37, 3.8-38, 3.15-8, 3.15-27, 3.17-6, 3.17-7, 3.17-8
Bend Bridge 3.17-5
beneficial uses……. 1-5, 2-8, 3.1-4, 3.1-15, 3.1-16, 3.1-20, 3.2-1, 3.2-3, 3.2-6, 3.2-7, 3.2-15, 3.2-28, 3.2-33, 3.2-36, 3.2-45, 3.2-47, 3.2-51, 3.2-53, 3.2-54, 3.2-59, 3.2-64, 3.3-12, 3.7-39, 3.7-52, 3.7-60
Berry Creek Rancheria..... 3.12-4

biological opinion ES-2, ES-8, 1-3, 2-4, 2-12, 3.1-3, 3.7-4, 4-4
black tern..... 3.8-24, 3.8-25, 3.8-27, 3.8-28
boat launch 3.14-5, 3.15-2, 3.15-4, 3.15-7, 3.15-16
Browns Valley Irrigation District ES-7, ES-11, 2-11, 2-16, 2-21, 2-30, 2-31, 2-34, 2-37, 2-39, 3.1-11, 3.2-15, 3.2-68, 3.6-18, 3.15-7, 3.15-14, 3.15-25, 3.17-7, 3.17-28
Bureau of Indian Affairs 3.12-1, 3.12-12, 3.12-14
Bureau of Indian Affairs Management 3.12-1
Bureau of Land Management.....3.14-1, 3.15-3, 3.15-8, 3.15-25, 3.15-26
Bureau of Reclamation ……ES-1, ES-2, ES-6, ES-7, ES-8, ES-9, ES-10, ES-40, 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-9, 2-2, 2-5, 2-6, 2-7, 2-10, 2-11, 2-14, 2-17, 2-18, 2-19, 2-20, 2-24, 2-27, 2-28, 2-33, 2-35, 2-37, 2-38, 2-39, 3.1-3, 3.1-4, 3.1-5, 3.1-6, 3.1-7, 3.1-8, 3.1-11, 3.1-12, 3.1-14, 3.1-16, 3.1-19, 3.1-22, 3.1-23, 3.1-24, 3.1-25, 3.2-10, 3.2-11, 3.2-12, 3.2-13, 3.2-18, 3.2-19, 3.2-27, 3.2-35, 3.2-44, 3.2-66, 3.2-68, 3.2-69, 3.2-72, 3.3-8, 3.3-18, 3.3-29, 3.3-30, 3.3-32, 3.3-33, 3.3-34, 3.3-35, 3.3-39, 3.3-40, 3.5-9, 3.5-31, 3.5-55, 3.5-56, 3.6-1, 3.6-3, 3.6-17, 3.6-23, 3.6-25, 3.6-37, 3.6-38, 3.7-5, 3.7-35, 3.7-40, 3.7-52, 3.7-61, 3.7-66, 3.7-67, 3.7-74, 3.8-5, 3.8-18, 3.8-21, 3.8-30, 3.8-32, 3.8-43, 3.8-44, 3.8-45, 3.8-47, 3.8-48, 3.9-31, 3.10-22, 3.10-25, 3.10-27, 3.10-30, 3.10-55, 3.10-64, 3.12-1, 3.12-3, 3.12-4, 3.12-5, 3.12-12, 3.12-15, 3.12-16, 3.15-3, 3.15-11, 3.15-28, 3.16-4, 3.16-5, 3.16-8, 3.16-10, 3.16-20, 3.17-4, 3.17-5, 3.17-7, 3.17-8, 3.17-9, 3.17-10, 3.17-11, 3.17-29, 4-7, 4-8, 4-11, 4-12, 4-14, 5-3, 5-4, 6-1, 6-2, 7-1, 7-2, 7-3
Burroughs Farms..... ES-6, 2-10, 2-13, 2-32, 3.3-16
Butte Basin.....3.8-44, 3.17-5
Butte County…… ..3.1-9, 3.3-37, 3.4-11, 3.4-25, 3.4-26, 3.5-11, 3.5-12, 3.5-15, 3.5-17, 3.5-20, 3.5-30, 3.5-31, 3.5-34, 3.5-37, 3.5-56, 3.5-58, 3.6-7, 3.6-19, 3.9-9, 3.9-13, 3.9-14, 3.9-37, 3.9-38, 3.9-49, 3.9-53, 3.9-54, 3.10-7, 3.10-8, 3.10-37, 3.11-29, 3.12-4, 3.12-15, 3.13-9
Butte Water District ... …….ES-7, 2-11, 2-16, 2-22, 2-34, 2-37, 3.1-9, 3.3-16, 3.3-19, 3.5-30, 3.5-31, 3.5-37, 3.5-38, 3.5-41, 3.5-42, 3.5-45, 3.5-46, 3.6-23, 3.6-24, 3.10-25
Buyer Service Area.... ……ES-16, ES-19, ES-20, ES-22, ES-23, ES-26, ES-29, ES-36, ES-37, 3.1-18, 3.1-20, 3.1-21, 3.1-24, 3.1-25, 3.2-1, 3.2-3, 3.2-7, 3.2-10, 3.2-26, 3.2-27, 3.2-28, 3.2-29, 3.2-43, 3.2-44, 3.2-53, 3.2-61, 3.2-62, 3.2-64, 3.2-65, 3.2-68, 3.3-2, 3.3-12, 3.3-13, 3.3-14, 3.3-27, 3.3-28, 3.3-29, 3.3-36, 3.3-38, 3.3-39, 3.4-1, 3.4-11, 3.4-13, 3.4-14, 3.4-16, 3.4-17, 3.4-20, 3.4-21, 3.4-22, 3.4-23, 3.4-24, 3.4-25, 3.4-26, 3.5-1, 3.5-15, 3.5-35, 3.5-47, 3.5-53, 3.6-1, 3.6-2, 3.6-8, 3.6-21, 3.6-22, 3.6-26, 3.6-30, 3.6-31, 3.6-32, 3.7-1, 3.7-3, 3.7-4, 3.7-64, 3.7-65, 3.7-69, 3.8-1, 3.8-3, 3.8-5, 3.8-8, 3.8-17, 3.8-18, 3.8-28, 3.8-30, 3.8-32, 3.8-33, 3.8-34, 3.8-36, 3.8-40, 3.8-41, 3.8-42, 3.8-43, 3.8-45, 3.8-46, 3.8-48, 3.9-1, 3.9-5, 3.9-16, 3.9-23, 3.9-26, 3.9-28, 3.9-29, 3.9-30, 3.9-44, 3.9-50, 3.9-51, 3.9-53, 3.10-30, 3.10-31, 3.10-32, 3.10-42, 3.10-50, 3.10-51, 3.10-53, 3.10-54, 3.10-55, 3.10-59, 3.10-60, 3.10-61, 3.10-62, 3.11-4, 3.11-6, 3.11-7, 3.11-9, 3.11-11, 3.11-12, 3.11-14, 3.11-16, 3.11-18, 3.11-20, 3.11-21, 3.11-22, 3.11-23, 3.11-25, 3.11-26, 3.11-27, 3.11-30, 3.11-31, 3.12-2, 3.12-3, 3.12-4, 3.12-6, 3.12-10, 3.12-11, 3.12-12, 3.12-13, 3.12-14, 3.13-13, 3.14-1, 3.14-10, 3.14-14, 3.14-15, 3.14-18, 3.14-22, 3.14-24, 3.14-25, 3.15-1, 3.15-11, 3.15-13, 3.15-17, 3.15-19, 3.15-22, 3.16-1, 3.16-3, 3.16-4, 3.16-8, 3.17-1, 3.17-10, 3.17-11, 3.17-13, 3.17-16, 3.17-20, 3.17-23, 3.17-27, 5-2
California Air Resources Board...…….3.5-4, 3.5-5, 3.5-8, 3.5-11, 3.5-14, 3.5-16, 3.5-17, 3.5-18, 3.5-20, 3.5-21, 3.5-22, 3.5-27, 3.5-30, 3.5-44, 3.5-58, 3.5-59, 3.6-6, 3.6-15, 3.6-16, 3.6-17, 3.6-20, 3.6-35
California Ambient Air Quality Standards……. 3.5-5, 3.5-13, 3.5-14, 3.5-20, 3.5-22, 3.5-56, 3.5-57

California Aqueduct 3.1-14, 3.2-10, 3.2-11, 3.2-26, 3.7-4, 3.17-10
California Climate Change Center 3.6-8, 3.6-35
California Code of Regulations 3.5-6, 3.5-7, 3.5-17, 3.5-18, 3.5-19, 3.5-22, 3.5-27, 3.5-58, 3.5-59, 3.6-7, 3.6-36, 3.7-27, 3.8-6
California Data Exchange Center 3.2-12, 3.2-69, 3.7-25, 3.7-70
California Department of Finance 3.10-58, 3.10-61, 3.10-62, 3.11-31
California Department of Fish and Wildlife 3.7-21, 3.7-22, 3.7-27, 3.7-40, 3.7-42, 3.7-43, 3.7-52, 3.7-60, 3.7-70, 3.8-4, 3.8-6, 3.8-18, 3.8-28, 3.8-31, 3.8-45, 3.8-48, 3.15-3, 4-11, 6-2
California Department of Food and Agriculture 3.10-3, 3.10-62
California Department Parks and Recreation 3.2-14, 3.2-27, 3.2-68, 3.2-69, 3.2-72, 3.14-5, 3.14-10, 3.14-29, 3.15-3, 3.15-6, 3.15-7, 3.15-9, 3.15-11, 3.15-26, 3.15-28, 3.17-9, 3.17-11, 3.17-29
California Endangered Species Act 3.7-4, 3.7-10, 3.7-21, 3.7-45
California Energy Commission 3.6-8, 3.6-10, 3.6-11, 3.6-12, 3.6-35, 3.6-36
California Environmental Quality Act ES-1, ES-2, ES-7, ES-11, ES-13, 1-1, 1-2, 1-3, 1-5, 1-6, 1-7, 2-1, 2-2, 2-30, 2-31, 3-1, 3-2, 3.1-4, 3.1-15, 3.5-29, 3.5-30, 3.5-31, 3.5-32, 3.5-34, 3.5-41, 3.5-47, 3.5-55, 3.5-58, 3.5-60, 3.5-61, 3.6-7, 3.6-8, 3.6-19, 3.6-20, 3.6-34, 3.6-36, 3.6-37, 3.7-10, 3.7-27, 3.7-28, 3.8-6, 3.8-7, 3.11-19, 3.13-3, 3.13-15, 3.16-9, 4-1, 4-2, 4-3, 4-4, 4-5, 5-1, 5-2, 5-3, 6-1, 7-3, 7-5
California Farmland Conservancy Program 3.9-4, 3.9-6, 3.9-25, 3.9-28
California Fish and Game Code 3.8-7
California Native Plant Society 3.8-5
California Natural Community Conservation Planning Act 3.7-5
California Natural Diversity Database 3.7-22, 3.7-26, 3.8-4, 3.8-5, 3.8-48
California Porter-Cologne Water Quality Act 3.2-6
California Public Utilities Commission 3.16-3
California State Park 3.15-4, 3.15-26
California Water Code 3.1-4, 3.2-7, 3.7-5, 3.10-1
California Wild and Scenic Rivers 3.14-2
CalSim II 3.6-18, 3.6-19, 3.7-23
Camp Far West Reservoir 2-23, 3.1-10, 3.1-11, 3.2-1, 3.2-4, 3.2-8, 3.2-16, 3.2-33, 3.2-35, 3.2-70, 3.7-3, 3.7-12, 3.7-37, 3.7-49, 3.7-58, 3.8-1, 3.8-10, 3.8-14, 3.8-18, 3.8-38, 3.15-8, 3.15-14, 3.15-15, 3.15-17, 3.15-18, 3.15-20, 3.15-21, 3.15-27, 3.16-7, 3.17-1, 3.17-7, 3.17-8
carbon dioxide 3.6-4, 3.6-15, 3.6-24, 3.6-25
carbon monoxide 3.5-3, 3.5-12, 3.5-19, 3.5-20, 3.5-38, 3.5-39, 3.5-40, 3.5-42, 3.5-43, 3.5-50, 3.5-55
Central Valley ES-1, ES-4, ES-5, ES-40, 1-1, 1-5, 2-2, 2-4, 2-40, 3.1-3, 3.1-5, 3.1-13, 3.1-24, 3.1-25, 3.2-10, 3.2-65, 3.2-66, 3.2-68, 3.2-69, 3.2-70, 3.3-2, 3.3-5, 3.3-6, 3.3-39, 3.3-40, 3.4-5, 3.4-16, 3.5-9, 3.6-21, 3.7-4, 3.7-5, 3.7-6, 3.7-7, 3.7-8, 3.7-9, 3.7-10, 3.7-12, 3.7-15, 3.7-17, 3.7-18, 3.7-19, 3.7-20, 3.7-25, 3.7-35, 3.7-45, 3.7-70, 3.7-71, 3.7-72, 3.7-74, 3.8-1, 3.8-20, 3.8-25, 3.8-26, 3.8-27, 3.8-33, 3.8-49, 3.9-23, 3.10-1, 3.11-23, 3.12-4, 3.12-6, 3.13-1, 3.13-3, 3.13-4, 3.13-6, 3.13-7, 3.13-8, 3.13-9, 3.13-11, 3.13-12, 3.13-13, 3.13-24, 3.14-3, 3.14-12, 3.14-15, 3.16-1, 3.16-20, 3.17-4, 3.17-9, 3.17-25, 3.17-26, 3.17-28, 3.17-30, 4-6, 4-11, 4-14, 5-1, 5-3, 7-2
Central Valley Flood Protection Board 3.17-4

Central Valley Project. …….ES-1, ES-2, ES-3, ES-4, ES-5, ES-8, ES-9, ES-10, ES-13, ES-14, ES-30, ES-33, ES-37, ES-39, ES-40, 1-1, 1-2, 1-3, 1-5, 1-6, 2-2, 2-4, 2-5, 2-6, 2-18, 2-19, 2-23, 2-24, 2-26, 2-27, 2-28, 2-29, 2-30, 2-40, 3.1-3, 3.1-5, 3.1-6, 3.1-11, 3.1-13, 3.1-14, 3.1-15, 3.1-17, 3.1-18, 3.1-21, 3.1-22, 3.1-23, 3.1-24, 3.1-25, 3.2-10, 3.2-22, 3.2-23, 3.2-27, 3.2-31, 3.2-32, 3.2-40, 3.2-41, 3.2-42, 3.2-43, 3.2-44, 3.2-45, 3.2-46, 3.2-47, 3.2-52, 3.2-53, 3.2-54, 3.2-55, 3.2-60, 3.2-61, 3.2-63, 3.2-65, 3.2-66, 3.2-67, 3.2-68, 3.2-69, 3.3-36, 3.3-39, 3.4-5, 3.4-16, 3.4-17, 3.4-22, 3.4-23, 3.4-24, 3.4-26, 3.5-9, 3.5-35, 3.6-18, 3.6-19, 3.6-21, 3.6-22, 3.6-26, 3.6-27, 3.6-32, 3.7-4, 3.7-5, 3.7-8, 3.7-9, 3.7-17, 3.7-22, 3.7-39, 3.7-41, 3.7-51, 3.7-52, 3.7-53, 3.7-59, 3.7-60, 3.7-61, 3.7-64, 3.7-65, 3.7-66, 3.7-67, 3.7-72, 3.8-17, 3.8-18, 3.8-40, 3.8-42, 3.8-45, 3.8-46, 3.8-47, 3.8-48, 3.9-23, 3.9-28, 3.9-29, 3.9-31, 3.9-49, 3.9-50, 3.9-51, 3.9-53, 3.10-1, 3.10-17, 3.10-20, 3.10-24, 3.10-30, 3.10-31, 3.10-32, 3.10-53, 3.10-55, 3.10-56, 3.10-58, 3.10-59, 3.10-61, 3.11-23, 3.11-29, 3.12-6, 3.12-11, 3.14-15, 3.14-19, 3.14-22, 3.14-25, 3.16-1, 3.16-3, 3.16-4, 3.16-5, 3.16-8, 3.16-9, 3.16-11, 3.16-12, 3.16-14, 3.16-15, 3.16-16, 3.16-17, 3.16-18, 3.16-19, 3.16-20, 3.17-4, 3.17-8, 3.17-10, 3.17-11, 3.17-13, 3.17-14, 3.17-16, 3.17-17, 3.17-20, 3.17-21, 3.17-24, 3.17-26, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-14, 5-3, 7-2
Central Valley Project Improvement Act …….ES-5, 1-5, 2-8, 3.1-3, 3.1-24, 3.3-39, 3.7-5, 4-7, 4-11
Chico.....……..1-6, 3.3-19, 3.5-11, 3.5-12, 3.5-20, 3.7-14, 3.7-19, 3.7-31, 3.7-32, 3.7-33, 3.7-36, 3.7-48, 3.8-12, 3.8-13, 3.8-14, 3.8-22, 3.8-31, 3.9-37, 3.10-37, 3.12-4, 3.12-6, 3.12-7, 3.12-8, 3.12-15, 3.13-7, 6-1
Chico Rancheria.....3.12-4, 3.12-6, 3.12-7, 3.12-8
City of Biggs.....3.9-38, 3.9-56
City of Colusa.....3.9-36, 3.9-56
City of Gridley.....3.9-38, 3.9-57
City of Live Oak.....3.9-39, 3.9-40, 3.9-57
City of Orland.....3.9-32, 3.9-33, 3.9-34, 3.9-57
City of Sacramento ... ……..ES-7, 2-11, 2-15, 2-33, 3.1-11, 3.1-12, 3.3-17, 3.5-33, 3.5-39, 3.6-23, 3.14-6
City of Williams.....3.9-34, 3.9-35, 3.9-57
City of Woodland.....3.3-37, 3.9-42, 3.9-43, 3.9-57
Clean Air Act.....3.5-3, 3.5-9, 3.5-28, 3.5-31, 3.6-21
Clean Water Act.....3.2-3, 3.2-6, 3.2-7, 3.2-71, 3.5-3, 3.5-9, 3.5-28, 3.5-31
climate change …….ES-23, 1-4, 3.6-1, 3.6-2, 3.6-3, 3.6-4, 3.6-5, 3.6-8, 3.6-9, 3.6-10, 3.6-13, 3.6-14, 3.6-17, 3.6-18, 3.6-19, 3.6-21, 3.6-22, 3.6-25, 3.6-26, 3.6-27, 3.6-30, 3.6-31, 3.6-32, 3.6-33, 3.7-28, 3.7-29
Coast Ranges.....3.3-9, 3.4-15, 3.14-3
Colfax-Iowa Hill Bridge.....3.15-6
Colusa County……3.1-9, 3.3-7, 3.4-7, 3.4-27, 3.4-28, 3.5-15, 3.5-17, 3.5-31, 3.5-33, 3.5-35, 3.5-37, 3.5-40, 3.5-51, 3.6-7, 3.6-19, 3.7-11, 3.9-8, 3.9-12, 3.9-13, 3.9-35, 3.9-54, 3.9-55, 3.9-57, 3.9-58, 3.10-2, 3.10-5, 3.10-7, 3.11-3, 3.12-4
Conaway Preservation Group ……ES-6, 2-10, 2-13, 2-32, 2-36, 3.1-6, 3.3-17, 3.3-37, 3.5-35, 3.5-40, 3.5-41, 3.5-42, 3.5-45, 3.5-46, 3.6-23, 3.6-24, 3.10-25
Conservation Reserve Program.....3.9-1, 3.9-60
Contra Costa County.....2-27, 3.1-14, 3.7-3, 3.8-3, 3.10-18, 3.12-5, 3.14-5

Contra Costa Water District.. …….ES-5, 1-6, 2-18, 2-25, 2-27, 2-30, 3.1-1, 3.1-13, 3.1-14, 3.3-2, 3.3-13, 3.3-40, 3.6-26, 3.7-4, 3.7-23, 3.7-39, 3.7-41, 3.7-51, 3.7-53, 3.7-60, 3.7-61, 3.10-17, 3.10-18, 3.10-20, 3.10-61, 3.10-63, 3.12-5, 3.16-8, 3.17-11
Coordination Operations Agreement 2-6, 2-18
Cordua Irrigation District……. ES-7, 2-11, 2-16, 2-21, 2-22, 2-34, 3.1-11, 3.3-17, 3.3-19, 3.5-32, 3.5-38, 3.6-23
Cortina Rancheria 3.12-4
Council on Environmental Quality ……..3.6-4, 3.6-5, 3.11-3, 3.11-11, 3.11-19, 3.11-20, 3.11-31, 4-14, 5-2
Cranmore Farms... …….ES-6, 2-10, 2-13, 2-32, 2-36, 3.1-6, 3.1-7, 3.3-17, 3.5-32, 3.5-38, 3.5-41, 3.5-43, 3.5-45, 3.5-46, 3.5-47, 3.5-50, 3.6-23, 3.6-24, 3.10-25
critical habitat..... 3.1-3, 3.7-15, 3.7-17, 3.7-28, 3.8-6, 3.11-25
critical year……..... ES-8, 2-4, 2-8, 3.1-15, 3.2-31, 3.2-32, 3.2-34, 3.2-35, 3.2-40, 3.2-43, 3.2-45, 3.2-46, 3.2-51, 3.2-54, 3.2-60, 3.4-19, 3.4-20, 3.4-22, 3.4-25, 3.6-19, 3.7-37, 3.7-40, 3.7-44, 3.7-45, 3.7-49, 3.7-52, 3.7-57, 3.7-61, 3.8-10, 3.8-14, 3.8-17, 3.8-23, 3.8-38, 3.10-50, 3.10-61, 3.12-6, 3.12-12, 3.17-13, 3.17-16, 3.17-20, 3.17-23, 3.17-27
crop shifting ...…….ES-10, ES-11, ES-38, ES-40, 2-7, 2-12, 2-19, 2-22, 2-31, 3.1-6, 3.1-7, 3.1-8, 3.1-9, 3.1-10, 3.1-13, 3.2-1, 3.2-30, 3.2-47, 3.2-54, 3.3-1, 3.4-23, 3.5-1, 3.5-37, 3.5-51, 3.5-53, 3.6-1, 3.6-33, 3.7-46, 3.7-56, 3.8-1, 3.8-21, 3.8-25, 3.8-27, 3.8-30, 3.8-33, 3.8-34, 3.8-36, 3.8-44, 3.9-1, 3.10-1, 3.10-29, 3.10-31, 3.10-42, 3.10-50, 3.10-53, 3.10-54, 3.10-55, 3.11-1, 3.11-11, 3.11-21, 3.11-22, 3.11-24, 3.11-26, 3.11-28, 3.11-30, 3.11-31, 3.12-1, 3.14-1, 5-2
cropland idling……..ES-11, ES-18, ES-21, ES-22, ES-23, ES-35, ES-36, ES-38, ES-40, 2-6, 2-7, 2-12, 2-17, 2-19, 2-22, 2-28, 2-30, 2-31, 2-39, 3.1-6, 3.1-15, 3.1-21, 3.2-1, 3.2-29, 3.2-30, 3.2-47, 3.2-54, 3.2-65, 3.3-1, 3.3-11, 3.3-14, 3.3-25, 3.3-26, 3.3-27, 3.3-29, 3.3-36, 3.4-1, 3.4-2, 3.4-4, 3.4-6, 3.4-16, 3.4-17, 3.4-18, 3.4-19, 3.4-20, 3.4-21, 3.4-23, 3.4-24, 3.4-25, 3.4-26, 3.5-1, 3.5-27, 3.5-28, 3.5-30, 3.5-31, 3.5-36, 3.5-37, 3.5-41, 3.5-43, 3.5-44, 3.5-47, 3.5-51, 3.5-52, 3.5-53, 3.5-54, 3.5-55, 3.5-57, 3.5-58, 3.6-1, 3.6-2, 3.6-16, 3.6-17, 3.6-18, 3.6-21, 3.6-24, 3.6-25, 3.6-30, 3.6-31, 3.6-32, 3.6-33, 3.6-34, 3.7-1, 3.7-46, 3.7-56, 3.7-65, 3.8-1, 3.8-8, 3.8-15, 3.8-16, 3.8-18, 3.8-19, 3.8-20, 3.8-21, 3.8-22, 3.8-23, 3.8-24, 3.8-26, 3.8-27, 3.8-28, 3.8-29, 3.8-30, 3.8-32, 3.8-33, 3.8-34, 3.8-36, 3.8-41, 3.8-42, 3.8-43, 3.8-44, 3.8-46, 3.8-48, 3.9-1, 3.9-22, 3.9-24, 3.9-25, 3.9-26, 3.9-27, 3.9-28, 3.9-30, 3.9-31, 3.9-43, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.10-1, 3.10-4, 3.10-5, 3.10-8, 3.10-9, 3.10-11, 3.10-12, 3.10-13, 3.10-14, 3.10-15, 3.10-16, 3.10-22, 3.10-24, 3.10-25, 3.10-26, 3.10-27, 3.10-28, 3.10-29, 3.10-30, 3.10-31, 3.10-32, 3.10-34, 3.10-36, 3.10-38, 3.10-39, 3.10-40, 3.10-42, 3.10-43, 3.10-45, 3.10-51, 3.10-52, 3.10-53, 3.10-54, 3.10-55, 3.10-56, 3.10-57, 3.10-58, 3.10-61, 3.11-1, 3.11-8, 3.11-11, 3.11-21, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-30, 3.14-1, 3.14-13, 3.14-15, 3.14-24, 3.14-26, 3.16-9, 3.16-12, 3.16-15, 3.17-1, 5-2
cultural resources ...…….ES-29, 3.13-1, 3.13-2, 3.13-3, 3.13-4, 3.13-5, 3.13-13, 3.13-14, 3.13-15, 3.13-16, 3.13-17, 3.13-18, 3.13-19, 3.13-20, 3.13-21, 3.13-22
cumulative effects…….1-6, 3.1-15, 3.1-23, 3.2-65, 3.3-16, 3.3-36, 3.3-37, 3.3-38, 3.3-39, 3.4-24, 3.7-1, 3.7-66, 3.7-69, 3.8-45, 3.8-46, 3.8-47, 3.8-48, 3.9-31, 3.9-49, 3.9-50, 3.9-51, 3.9-53, 3.10-44, 3.10-55, 3.10-56, 3.10-59, 3.10-61, 3.11-28, 3.11-29, 3.11-30, 3.12-14, 3.14-27, 3.15-24, 3.16-18, 3.17-25, 4-1, 4-3, 4-4, 4-5, 5-4
Del Puerto Water District..... ES-5, 2-18
Delta Cross Channel 3.17-10
Delta Levees System Integrity Program 3.17-26

Delta-Mendota Canal……..ES-16, 2-23, 2-24, 3.1-14, 3.2-10, 3.2-26, 3.2-43, 3.2-53, 3.2-61, 3.2-63, 3.2-68, 3.7-4, 3.16-8, 3.17-11
Department of Conservation. …….3.9-3, 3.9-4, 3.9-6, 3.9-11, 3.9-12, 3.9-13, 3.9-14, 3.9-15, 3.9-16, 3.9-17, 3.9-18, 3.9-19, 3.9-20, 3.9-21, 3.9-22, 3.9-25, 3.9-32, 3.9-36, 3.9-37, 3.9-39, 3.9-44, 3.9-45, 3.9-46, 3.9-47, 3.9-48, 3.9-54, 3.9-55
Department of Water Resources…….. ...ES-2, ES-8, ES-40, 1-2, 1-5, 2-2, 2-6, 2-7, 2-18, 2-22, 2-28, 2-39, 3.1-9, 3.1-10, 3.1-17, 3.1-19, 3.1-22, 3.1-23, 3.1-24, 3.2-10, 3.2-11, 3.2-12, 3.2-13, 3.2-14, 3.2-15, 3.2-16, 3.2-17, 3.2-19, 3.2-20, 3.2-21, 3.2-22, 3.2-23, 3.2-24, 3.2-25, 3.2-26, 3.2-66, 3.2-69, 3.3-4, 3.3-5, 3.3-6, 3.3-7, 3.3-8, 3.3-9, 3.3-10, 3.3-11, 3.3-24, 3.3-30, 3.3-33, 3.3-39, 3.3-40, 3.6-2, 3.6-35, 3.7-5, 3.7-32, 3.7-40, 3.7-44, 3.7-52, 3.7-53, 3.7-61, 3.7-62, 3.7-66, 3.7-67, 3.7-70, 3.8-18, 3.8-47, 3.8-48, 3.10-27, 3.10-63, 3.12-9, 3.12-14, 3.12-15, 3.13-11, 3.13-22, 3.14-13, 3.14-29, 3.15-8, 3.15-26, 3.16-5, 3.16-10, 3.16-19, 3.17-4, 3.17-5, 3.17-6, 3.17-7, 3.17-8, 3.17-10, 3.17-11, 3.17-25, 3.17-26, 3.17-28, 3.17-29, 3.17-30, 4-9, 4-11, 6-2
diesel ES-39, 3.5-17, 3.5-18, 3.5-19, 3.5-36, 3.5-37, 3.5-55, 3.6-21, 3.6-30, 3.6-31, 5-1
Dinosaur Point 3.15-11
Division of Land Resource Protection 3.9-4
drought ..…….3.1-15, 3.2-26, 3.3-4, 3.3-7, 3.3-9, 3.3-11, 3.3-12, 3.3-16, 3.3-30, 3.6-12, 3.6-13, 3.6-14, 3.8-7, 3.8-16, 3.10-23, 3.10-50, 3.10-61, 3.13-21, 4-7
Dry Creek..... 2-21, 3.2-1, 3.2-4, 3.2-15, 3.7-11, 3.8-12, 3.15-7, 3.15-25, 3.17-7
Eagle Field Water District ES-5, 2-18
East Bay Municipal Utility District……. 1-6, 2-25, 2-27, 2-30, 3.1-1, 3.1-13, 3.1-14, 3.2-32, 3.2-46, 3.3-2, 3.4-19, 3.4-20, 3.4-21, 3.6-26, 3.7-23, 3.7-39, 3.7-41, 3.7-51, 3.7-52, 3.7-60, 3.7-61, 3.10-19, 3.10-20, 3.10-61, 3.10-63, 3.12-4, 3.12-5, 3.12-6, 3.12-10, 3.12-11, 3.12-12, 3.12-14, 3.17-14, 3.17-18, 3.17-21
Eastside Mutual Water Company .... ……ES-6, 2-10, 2-13, 2-32, 2-36, 3.1-7, 3.3-17, 3.5-31, 3.5-37, 3.6-23
electrical conductivity..... 3.2-14
emissions……..... ES-21, ES-22, ES-23, ES-39, 3.4-4, 3.5-9, 3.5-12, 3.5-13, 3.5-14, 3.5-17, 3.5-20, 3.5-27, 3.5-28, 3.5-30, 3.5-32, 3.5-33, 3.5-34, 3.5-35, 3.5-36, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-43, 3.5-44, 3.5-47, 3.5-48, 3.5-49, 3.5-50, 3.5-51, 3.5-52, 3.5-53, 3.5-54, 3.5-55, 3.5-56, 3.5-57, 3.6-1, 3.6-3, 3.6-4, 3.6-5, 3.6-6, 3.6-7, 3.6-8, 3.6-9, 3.6-11, 3.6-15, 3.6-16, 3.6-17, 3.6-19, 3.6-20, 3.6-21, 3.6-22, 3.6-24, 3.6-25, 3.6-30, 3.6-31, 3.6-32, 3.6-33, 3.6-34, 4-4
employment……..ES-35, ES-36, ES-38, 3.9-38, 3.9-42, 3.9-50, 3.10-3, 3.10-5, 3.10-7, 3.10-8, 3.10-10, 3.10-11, 3.10-13, 3.10-14, 3.10-15, 3.10-16, 3.10-17, 3.10-21, 3.10-26, 3.10-31, 3.10-34, 3.10-35, 3.10-36, 3.10-37, 3.10-38, 3.10-39, 3.10-40, 3.10-41, 3.10-42, 3.10-50, 3.10-52, 3.10-53, 3.10-54, 3.10-56, 3.10-57, 3.10-58, 3.10-59, 3.10-60, 3.10-61, 3.10-62, 3.11-1, 3.11-8, 3.11-9, 3.11-10, 3.11-11, 3.11-21, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-27, 3.11-28, 3.11-29, 3.11-30, 5-3
Employment Development Department .. ……3.10-56, 3.10-59, 3.10-63, 3.11-8, 3.11-9, 3.11-10, 3.11-11, 3.11-17, 3.11-18, 3.11-24, 3.11-31
Endangered Species Act…….. ....ES-40, 2-12, 2-40, 3.7-4, 3.7-10, 3.7-17, 3.7-20, 3.7-21, 3.7-28, 3.7-39, 3.7-45, 3.7-51, 3.7-60, 3.7-68, 3.7-69, 3.8-6, 4-11, 6-2
Englebright Dam..... 3.7-3, 3.17-7
Enterprise Rancheria..... 3.12-4, 3.12-14

environmental justice ..……..3.11-1, 3.11-2, 3.11-3, 3.11-11, 3.11-12, 3.11-19, 3.11-20, 3.11-21, 3.11-27, 3.11-28
erosion....…….ES-19, ES-20, ES-22, 3.2-11, 3.2-14, 3.2-28, 3.2-29, 3.2-30, 3.2-54, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-11, 3.4-12, 3.4-15, 3.4-16, 3.4-17, 3.4-18, 3.4-19, 3.4-20, 3.4-21, 3.4-22, 3.4-23, 3.4-24, 3.4-25, 3.4-26, 3.5-36, 3.5-43, 3.5-52, 3.5-53, 3.5-57, 3.6-14, 3.13-4, 3.13-15, 3.13-16, 3.13-17, 3.13-18, 3.13-20, 5-2
essential fish habitat 3.7-28
evapotranspiration of applied water……..... ES-10, 2-6, 2-7, 2-25, 3.10-27, 3.10-28, 3.10-29, 3.10-34, 3.10-35, 3.10-36, 3.10-37, 3.10-39
Executive Order 3.6-5, 3.7-4, 3.11-2, 3.11-32, 3.13-2
expansive soils ES-19, 3.4-6, 3.4-17, 3.4-19, 3.4-21, 3.4-22, 3.4-23, 3.4-25, 3.4-26
farm worker.. ES-36, 3.10-34, 3.10-42, 3.10-50, 3.10-58, 3.10-60, 3.11-9, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-27, 3.11-28, 3.11-29, 3.11-30
Farmland Mapping and Monitoring Program ... ……..ES-27, ES-28, ES-38, 3.9-4, 3.9-16, 3.9-23, 3.9-24, 3.9-25, 3.9-27, 3.9-29, 3.9-30, 3.9-31, 3.9-36, 3.9-37, 3.9-39, 3.9-44, 3.9-45, 3.9-46, 3.9-47, 3.9-48, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.9-54, 3.9-55, 3.9-56
Farmland Security Zone.....3.9-3, 3.11-29
Feather River..……ES-7, ES-39, 2-11, 2-12, 2-16, 2-22, 2-23, 2-34, 2-37, 3.1-8, 3.1-9, 3.1-10, 3.1-11, 3.2-1, 3.2-4, 3.2-8, 3.2-13, 3.2-14, 3.2-15, 3.2-16, 3.2-34, 3.2-35, 3.2-37, 3.2-38, 3.2-48, 3.2-49, 3.2-56, 3.2-57, 3.2-59, 3.3-19, 3.4-17, 3.4-18, 3.4-21, 3.5-15, 3.5-17, 3.5-31, 3.5-32, 3.5-37, 3.5-38, 3.5-40, 3.5-51, 3.5-53, 3.5-54, 3.5-59, 3.6-7, 3.7-3, 3.7-14, 3.7-17, 3.7-18, 3.7-20, 3.7-32, 3.7-33, 3.7-48, 3.8-1, 3.8-2, 3.8-46, 3.11-28, 3.12-4, 3.13-7, 3.13-9, 3.13-10, 3.13-11, 3.14-2, 3.14-5, 3.14-6, 3.14-17, 3.14-21, 3.14-23, 3.15-7, 3.15-8, 3.15-28, 3.16-1, 3.16-5, 3.16-10, 3.16-13, 3.16-15, 3.17-1, 3.17-5, 3.17-6, 3.17-7, 3.17-15, 3.17-19, 3.17-22, 4-5
Federal Emergency Management Agency 3.17-2, 3.17-3, 3.17-4
Federal Energy Regulatory Commission..... ……3.2-69, 3.7-45, 3.7-54, 3.7-62, 3.7-73, 3.8-11, 3.14-14, 3.15-26, 3.15-27, 3.16-3, 3.16-5, 3.16-6, 3.16-7, 3.16-8, 3.16-19, 4-10
Fish and Wildlife Coordination Act.....3.7-4
fisheries....……..ES-24, 1-4, 2-39, 3.1-9, 3.1-11, 3.2-15, 3.7-1, 3.7-4, 3.7-5, 3.7-8, 3.7-22, 3.7-25, 3.7-26, 3.7-27, 3.7-28, 3.7-29, 3.7-30, 3.7-31, 3.7-32, 3.7-33, 3.7-34, 3.7-35, 3.7-36, 3.7-37, 3.7-38, 3.7-39, 3.7-40, 3.7-44, 3.7-45, 3.7-47, 3.7-48, 3.7-50, 3.7-51, 3.7-52, 3.7-53, 3.7-55, 3.7-56, 3.7-57, 3.7-58, 3.7-59, 3.7-60, 3.7-61, 3.7-62, 3.7-64, 3.7-65, 3.7-66, 3.7-67, 3.7-68, 3.8-47, 4-9
flood control. ……..ES-33, ES-34, 2-6, 2-20, 3.1-5, 3.1-6, 3.1-11, 3.1-19, 3.7-8, 3.14-14, 3.16-3, 3.16-5, 3.17-1, 3.17-3, 3.17-4, 3.17-6, 3.17-7, 3.17-8, 3.17-11, 3.17-12, 3.17-13, 3.17-14, 3.17-16, 3.17-17, 3.17-20, 3.17-21, 3.17-23, 3.17-24, 3.17-25, 3.17-26, 3.17-27
Flood Disaster Protection Act.....3.17-3
Flood Hazard Mapping 3.17-2
Floodplain Management 3.17-2
Folsom Dam..……..2-20, 3.2-19, 3.2-68, 3.13-14, 3.14-8, 3.15-5, 3.16-5, 3.17-8, 3.17-9, 3.17-26, 3.17-29
Folsom Powerplant 3.16-4, 3.16-5, 3.16-20
Folsom Reservoir…….2-20, 2-21, 3.1-11, 3.1-12, 3.2-2, 3.2-5, 3.2-8, 3.2-18, 3.2-32, 3.2-35, 3.2-46, 3.2-54, 3.2-55, 3.7-3, 3.7-12, 3.8-2, 3.13-9, 3.13-16, 3.13-18, 3.13-19, 3.14-6, 3.14-8,

3.14-16, 3.14-19, 3.14-23, 3.15-4, 3.15-5, 3.15-6, 3.15-15, 3.15-18, 3.15-20, 3.16-12, 3.16-14, 3.16-16, 3.17-1, 3.17-8, 3.17-14, 3.17-17, 3.17-21, 3.17-29
Fremont Weir 3.17-5
French Meadow Reservoir 3.14-7, 3.17-1
Fresno County……..3.4-12, 3.4-28, 3.4-29, 3.5-11, 3.7-3, 3.8-3, 3.9-20, 3.9-21, 3.9-47, 3.9-48, 3.9-55, 3.9-56, 3.9-58, 3.10-22
fugitive dust ..... …….ES-22, 3.4-4, 3.5-27, 3.5-35, 3.5-36, 3.5-43, 3.5-44, 3.5-47, 3.5-52, 3.5-53, 3.5-57, 5-2
Garden Highway Mutual Water Company …….ES-7, 2-11, 2-16, 2-22, 2-34, 3.1-10, 3.3-17, 3.5-32, 3.5-38, 3.5-47, 3.5-50, 3.6-23
general conformity ES-22, 3.5-9, 3.5-12, 3.5-28, 3.5-47, 3.5-48, 3.5-49, 3.5-51, 3.5-53
General Plan..... …….3.2-26, 3.2-68, 3.2-69, 3.5-34, 3.5-60, 3.9-7, 3.9-8, 3.9-9, 3.9-10, 3.9-11, 3.9-13, 3.9-32, 3.9-33, 3.9-34, 3.9-35, 3.9-36, 3.9-38, 3.9-39, 3.9-40, 3.9-41, 3.9-42, 3.9-43, 3.9-48, 3.9-53, 3.9-56, 3.9-57, 3.9-58, 3.9-59, 3.9-60, 3.10-2, 3.10-30, 3.10-43, 3.11-3, 3.12-15, 3.15-28, 3.17-29, 4-4
geology 3.3-7, 3.4-1, 3.4-11, 3.4-15, 3.4-16, 3.4-23, 3.4-24, 3.7-33
giant garter snake …….ES-27, ES-38, 1-7, 2-39, 3.8-17, 3.8-20, 3.8-21, 3.8-22, 3.8-23, 3.8-27, 3.8-29, 3.8-30, 3.8-42, 3.8-43, 3.8-44, 3.8-45
Gilroy-Hollister Valley Groundwater Basin 3.3-1, 3.3-10
Gilsizer Slough Ranch . …….ES-7, 2-11, 2-16, 2-22, 2-34, 3.1-10, 3.3-17, 3.5-32, 3.5-38, 3.5-40, 3.5-47, 3.5-50, 3.5-54, 3.6-23
Giusti Farms ES-6, 2-10, 2-13, 2-32, 3.3-17
Glenn County.... ……3.4-7, 3.4-27, 3.5-15, 3.5-17, 3.5-31, 3.5-32, 3.5-33, 3.5-37, 3.5-39, 3.5-40, 3.5-51, 3.6-7, 3.6-20, 3.7-71, 3.9-7, 3.9-8, 3.9-12, 3.9-31, 3.9-32, 3.9-54, 3.9-55, 3.9-58, 3.9-59, 3.10-3, 3.10-4, 3.10-5, 3.12-4, 3.15-4
Glenn-Colusa Irrigation District ...……ES-6, 2-10, 2-13, 2-32, 2-36, 3.5-31, 3.6-23, 3.6-24, 3.10-25, 3.12-3, 3.12-15
Goose Club Farms and Teichert Aggregates ... …..ES-7, 2-11, 2-16, 2-22, 2-34, 2-37, 3.1-10, 3.3-17, 3.5-32, 3.5-38, 3.5-42, 3.5-43, 3.5-45, 3.5-46, 3.6-23, 3.6-24, 3.10-25
greater sandhill crane 3.8-24, 3.8-25, 3.8-26, 3.8-27
greenhouse gas ES-23, 3.6-1, 4-4
Grindstone Creek Rancheria 3.12-4
groundwater level. ……ES-17, ES-18, ES-19, ES-25, ES-36, ES-37, ES-39, 1-6, 2-39, 3.3-1, 3.3-4, 3.3-6, 3.3-9, 3.3-10, 3.3-11, 3.3-12, 3.3-13, 3.3-14, 3.3-15, 3.3-16, 3.3-18, 3.3-22, 3.3-23, 3.3-24, 3.3-25, 3.3-26, 3.3-27, 3.3-28, 3.3-29, 3.3-30, 3.3-31, 3.3-32, 3.3-33, 3.3-34, 3.3-35, 3.3-36, 3.3-38, 3.8-7, 3.8-9, 3.8-23, 3.8-29, 3.8-31, 3.8-32, 3.8-40, 3.10-30, 3.10-32, 3.10-44, 3.10-45, 3.10-53, 3.10-54, 3.10-59, 3.12-6, 3.12-7, 3.12-8, 3.12-11, 3.12-13, 5-2, 5-4
Groundwater Management Act 3.2-11
Groundwater Management Plan 3.3-30, 3.3-40, 3.3-41
groundwater quality…….. ... ES-17, ES-18, ES-19, 3.2-31, 3.2-45, 3.3-1, 3.3-8, 3.3-10, 3.3-12, 3.3-13, 3.3-15, 3.3-24, 3.3-26, 3.3-27, 3.3-28, 3.3-29, 3.3-38, 5-2
groundwater substitution…….. ES-9, ES-11, ES-21, ES-22, ES-23, ES-33, ES-36, ES-37, ES-38, ES-39, ES-40, 2-5, 2-12, 2-17, 2-19, 2-20, 2-21, 2-22, 2-25, 2-28, 2-30, 2-31, 2-39, 3.1-6, 3.1-7, 3.1-8, 3.1-9, 3.1-10, 3.1-11, 3.1-12, 3.1-13, 3.1-15, 3.1-18, 3.1-21, 3.1-22, 3.1-23, 3.2-1, 3.2-31, 3.2-32, 3.2-34, 3.2-44, 3.2-45, 3.2-47, 3.2-59, 3.3-1, 3.3-2, 3.3-11, 3.3-12, 3.3-14, 3.3-15, 3.3-16, 3.3-18, 3.3-22, 3.3-23, 3.3-24, 3.3-27, 3.3-28, 3.3-30, 3.3-32, 3.3-33, 3.3-35, 3.3-

36, 3.3-37, 3.3-38, 3.3-39, 3.4-1, 3.5-1, 3.5-17, 3.5-19, 3.5-28, 3.5-30, 3.5-31, 3.5-36, 3.5-47, 3.5-50, 3.5-51, 3.5-52, 3.5-53, 3.5-54, 3.5-55, 3.5-56, 3.6-1, 3.6-2, 3.6-16, 3.6-17, 3.6-18, 3.6-21, 3.6-22, 3.6-25, 3.6-30, 3.6-31, 3.6-32, 3.6-33, 3.7-1, 3.7-22, 3.7-23, 3.7-32, 3.7-46, 3.7-47, 3.7-55, 3.7-56, 3.7-63, 3.7-65, 3.7-67, 3.7-69, 3.8-1, 3.8-8, 3.8-9, 3.8-11, 3.8-12, 3.8-13, 3.8-14, 3.8-15, 3.8-18, 3.8-19, 3.8-20, 3.8-22, 3.8-24, 3.8-29, 3.8-31, 3.8-32, 3.8-34, 3.8-35, 3.8-36, 3.8-37, 3.8-40, 3.8-41, 3.8-42, 3.8-43, 3.8-45, 3.8-46, 3.9-1, 3.9-27, 3.10-1, 3.10-44, 3.10-45, 3.10-50, 3.10-53, 3.10-54, 3.10-55, 3.10-59, 3.11-25, 3.12-2, 3.12-5, 3.12-6, 3.12-7, 3.12-8, 3.12-10, 3.12-11, 3.12-13, 3.12-14, 3.14-1, 3.14-27, 3.16-9, 3.16-10, 3.16-12, 3.16-15, 3.16-17, 3.16-18, 3.16-19, 3.17-1, 3.17-13, 3.17-14, 3.17-16, 3.17-18, 3.17-20, 3.17-21, 3.17-25, 3.17-27, 4-8, 5-2

growth-inducing impacts 5-2, 5-3

Habitat Conservation Plans.....3.7-5, 3.7-27, 3.7-28, 3.8-4, 3.8-6, 3.8-7, 4-4

Hamilton Bend.....3.17-6

Hell Hole Reservoir 3.2-5, 3.2-17, 3.2-33, 3.2-71, 3.7-8, 3.7-12, 3.14-7, 3.14-8, 3.15-4, 3.16-6

Henle Family Limited Partnership.....ES-6, 2-10

Honcut Creek 3.7-11, 3.8-11, 3.8-12, 3.17-6

IMPLAN 3.10-25, 3.10-26, 3.10-27, 3.10-43, 3.11-22

income..……..ES-35, ES-38, 3.10-3, 3.10-5, 3.10-7, 3.10-8, 3.10-9, 3.10-10, 3.10-11, 3.10-12, 3.10-13, 3.10-14, 3.10-15, 3.10-16, 3.10-17, 3.10-18, 3.10-21, 3.10-24, 3.10-26, 3.10-31, 3.10-34, 3.10-35, 3.10-36, 3.10-37, 3.10-38, 3.10-39, 3.10-40, 3.10-41, 3.10-43, 3.10-45, 3.10-52, 3.10-54, 3.10-56, 3.10-60, 3.11-1, 3.11-4, 3.11-7, 3.11-11, 3.11-12, 3.11-19, 3.11-20, 3.11-21, 3.11-22, 3.11-23, 3.11-25, 3.11-26, 3.11-28, 3.11-29, 3.11-30

Indian Trust Assets ……ES-37, 3-1, 3.11-19, 3.12-1, 3.12-2, 3.12-3, 3.12-5, 3.12-6, 3.12-7, 3.12-8, 3.12-9, 3.12-10, 3.12-11, 3.12-12, 3.12-13, 3.12-14, 7-2, 7-4

Intergovernmental Panel on Climate Change 3.6-1, 3.6-9, 3.6-17, 3.6-36

invasive species.....3.6-12

irrigation..……ES-10, ES-14, ES-16, ES-19, ES-26, 2-2, 2-5, 2-6, 2-7, 2-19, 2-22, 2-24, 2-26, 3.1-5, 3.1-8, 3.1-15, 3.2-15, 3.2-28, 3.2-30, 3.2-31, 3.2-43, 3.2-44, 3.2-45, 3.2-53, 3.2-62, 3.2-64, 3.3-6, 3.3-8, 3.3-9, 3.3-22, 3.3-24, 3.3-25, 3.4-5, 3.4-15, 3.4-17, 3.4-18, 3.4-19, 3.4-21, 3.4-22, 3.5-20, 3.5-31, 3.5-36, 3.5-56, 3.6-14, 3.6-15, 3.6-21, 3.6-22, 3.6-30, 3.6-31, 3.8-16, 3.8-19, 3.8-22, 3.8-23, 3.8-27, 3.8-29, 3.8-30, 3.8-31, 3.8-32, 3.8-33, 3.8-34, 3.8-41, 3.8-43, 3.9-4, 3.9-12, 3.9-13, 3.9-19, 3.9-28, 3.10-4, 3.10-19, 3.10-23, 3.10-24, 3.10-29, 3.10-32, 3.10-45, 3.10-50, 3.10-54, 3.11-30, 3.13-9, 3.13-10, 3.13-11, 3.13-12, 3.13-13, 3.13-15, 3.13-16, 3.13-17, 3.13-18, 3.15-14, 3.17-4, 3.17-9, 3.17-13, 4-10, 5-2

Judge Francis Carr Powerplant 3.16-4

Keswick Dam.....2-19, 3.2-4, 3.7-16, 3.17-5

Keswick Powerplant 3.16-4, 3.16-5, 3.16-20

Kettleman City.....3.17-11

Kings County…….3.3-1, 3.4-15, 3.4-28, 3.7-3, 3.8-3, 3.9-21, 3.9-22, 3.9-48, 3.9-54, 3.9-56, 3.9-58, 3.10-22, 3.13-1

labor .....……ES-35, 3.10-3, 3.10-5, 3.10-7, 3.10-8, 3.10-10, 3.10-11, 3.10-13, 3.10-14, 3.10-15, 3.10-16, 3.10-17, 3.10-21, 3.10-26, 3.10-27, 3.10-28, 3.10-31, 3.10-32, 3.10-34, 3.10-35, 3.10-36, 3.10-37, 3.10-38, 3.10-39, 3.10-40, 3.10-41, 3.10-42, 3.10-43, 3.10-52, 3.10-54, 3.10-56, 3.10-60, 3.11-1, 3.11-8, 3.11-9, 3.11-11, 3.11-21, 3.11-22, 3.11-23, 3.11-24, 3.11-26, 3.11-27, 3.11-30, 3.13-10

Lake McClure ... ……..ES-31, 2-23, 2-24, 2-25, 3.2-2, 3.2-5, 3.2-8, 3.2-20, 3.2-33, 3.2-34, 3.6-18, 3.7-3, 3.7-12, 3.8-3, 3.8-9, 3.8-10, 3.8-35, 3.8-37, 3.14-9, 3.14-10, 3.15-8, 3.15-9, 3.15-13, 3.15-14, 3.15-15, 3.15-17, 3.15-18, 3.15-19, 3.15-20, 3.15-21, 3.15-23, 3.16-7, 3.17-1, 3.17-9
Lake Natoma 3.2-18, 3.2-19, 3.7-3, 3.7-12, 3.8-2, 3.14-9, 3.15-5, 3.16-5, 3.17-9
lead..……..ES-18, 1-3, 3.2-28, 3.2-30, 3.3-13, 3.3-14, 3.3-26, 3.5-3, 3.5-56, 3.6-7, 3.6-12, 3.6-13, 3.8-10, 3.9-36, 3.12-12, 3.13-3, 4-2, 4-4
levee stability ES-34, 3.17-12, 3.17-14, 3.17-18, 3.17-21, 3.17-24, 3.17-27
Lewis Ranch..... ES-6, 2-10, 2-13, 2-36
Lewiston Powerplant 3.16-4
liquefaction 3.4-1
Livingston 3.9-45, 3.17-9
long-billed curlew 3.8-24, 3.8-25, 3.8-26
Los Banos..... 1-6, 3.3-9, 3.9-45, 3.9-46, 3.15-11, 6-1
Los Banos Creek Reservoir 3.15-11
low-income…….ES-36, 3.11-1, 3.11-3, 3.11-4, 3.11-11, 3.11-19, 3.11-20, 3.11-21, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-27, 3.11-28, 3.11-29, 3.11-30, 3.11-31
Lower Yuba River Accord... …….3.1-23, 3.2-65, 3.2-69, 3.7-66, 3.8-45, 3.8-47, 3.16-18, 3.17-26, 3.17-29, 4-8, 4-14
Lytton Rancheria.....3.12-5, 3.12-10
Mariposa County..... 3.17-9
Marysville 3.2-35, 3.5-11, 3.5-29, 3.5-50, 3.10-13, 3.13-9, 3.13-11, 3.14-6, 3.17-6, 3.17-7
maximum contaminant level..... 3.2-3, 3.2-23, 3.2-24, 3.3-8
McSwain Dam 3.16-7, 3.17-9
McSwain Lake 3.17-9
McSwain Powerhouse..... 3.16-7
Mendota Pool 3.17-11
Merced County……..... 3.2-3, 3.4-12, 3.4-28, 3.5-29, 3.7-3, 3.8-3, 3.9-18, 3.9-19, 3.9-45, 3.9-46, 3.9-55, 3.9-56, 3.9-58, 3.10-16, 3.10-17, 3.10-22, 3.17-11
Merced Irrigation District ... ……ES-7, 2-11, 2-17, 2-23, 2-24, 2-34, 2-38, 3.1-1, 3.1-5, 3.1-13, 3.1-14, 3.2-43, 3.5-34, 3.5-36, 3.6-18, 3.8-47, 3.15-8, 3.15-26, 3.16-1, 3.16-7, 3.16-8, 3.16-19, 3.17-9, 3.17-28, 4-12, 4-13
Merced River ……ES-7, 2-11, 2-17, 2-23, 2-25, 2-34, 2-38, 3.1-13, 3.2-2, 3.2-3, 3.2-5, 3.2-8, 3.2-20, 3.2-21, 3.2-36, 3.2-38, 3.2-49, 3.2-57, 3.7-3, 3.7-15, 3.7-18, 3.7-38, 3.7-39, 3.7-50, 3.7-51, 3.7-59, 3.8-3, 3.8-15, 3.8-39, 3.13-12, 3.14-9, 3.14-10, 3.14-21, 3.14-24, 3.15-8, 3.15-9, 3.15-25, 3.15-26, 3.16-7, 3.16-8, 3.17-1, 3.17-4, 3.17-9, 3.17-10, 3.17-15, 3.17-19, 3.17-23, 4-10
Mercy Springs Water District ES-5, 2-18
Merle Collins Reservoir....……..2-21, 3.1-11, 3.8-9, 3.8-10, 3.15-7, 3.15-14, 3.15-15, 3.15-18, 3.15-21, 3.17-1, 3.17-7
migratory birds ……..ES-26, ES-27, 3.8-7, 3.8-8, 3.8-12, 3.8-13, 3.8-17, 3.8-24, 3.8-25, 3.8-29, 3.8-33, 3.8-41, 3.8-42
minority.....……..ES-36, 3.11-1, 3.11-3, 3.11-4, 3.11-5, 3.11-6, 3.11-11, 3.11-15, 3.11-16, 3.11-19, 3.11-20, 3.11-21, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-27, 3.11-28, 3.11-29, 3.11-30, 3.11-31

mitigation measures .. …….1-4, 1-5, 3.4-24, 3.5-41, 3.5-47, 3.5-51, 3.5-54, 3.5-57, 3.6-33, 3.7-66, 3.8-24, 3.8-27, 3.9-30, 3.11-19, 3.12-12, 3.12-13, 3.13-1, 3.13-21, 3.14-26, 3.15-24, 3.16-18, 3.17-25, 4-5, 5-3, 6-2
Municipal and Industrial Water Shortage Policy. …….3.1-24, 3.4-24, 3.7-66, 3.8-45, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.10-55, 3.10-56, 3.10-61, 3.16-18, 3.17-26, 4-7, 4-8
National Ambient Air Quality Standards... ……..3.5-3, 3.5-4, 3.5-5, 3.5-9, 3.5-13, 3.5-18, 3.5-20, 3.5-47, 3.5-50, 3.5-56, 3.5-57
National Environmental Policy Act ... …….ES-1, ES-2, ES-7, ES-9, ES-11, ES-12, ES-35, 1-1, 1-2, 1-3, 1-5, 1-6, 1-7, 2-1, 2-2, 2-4, 2-30, 3-1, 3-2, 3.1-15, 3.5-12, 3.5-30, 3.6-1, 3.6-3, 3.6-4, 3.6-5, 3.6-37, 3.7-28, 3.8-7, 3.11-19, 3.11-20, 3.11-31, 3.11-32, 3.12-16, 3.16-9, 4-1, 4-3, 4-4, 4-11, 4-14, 5-1, 5-2, 5-3, 6-1, 7-1, 7-3, 7-5
National Flood Insurance Program 3.17-2, 3.17-3, 3.17-4, 3.17-28
National Forest..... 3.9-35, 3.14-4, 3.15-2
National Historic Preservation Act 3.13-2, 3.13-3, 3.13-15, 4-1, 4-2, 4-3
National Oceanic and Atmospheric Administration ... ……..ES-8, ES-40, 2-4, 2-19, 2-24, 2-29, 2-40, 3.1-3, 3.1-25, 3.6-8, 3.7-5, 3.7-16, 3.7-17, 3.7-19, 3.7-20, 3.7-22, 3.7-27, 3.7-40, 3.7-45, 3.7-52, 3.7-54, 3.7-61, 3.7-62, 3.7-67, 3.7-70, 3.7-71, 3.7-72, 4-11, 4-12, 4-14
National Recreation Area.....3.15-2, 3.15-28
National Wild and Scenic River 3.14-1, 3.14-2, 3.15-6, 3.15-8, 3.15-27
National Wildlife Refuge …….3.8-27, 3.8-31, 3.8-33, 3.8-34, 3.8-44, 3.9-35, 3.15-9, 3.15-28, 4-11, 4-12, 4-13
Natomas Central Mutual Water Company…….. ES-6, 2-10, 2-14, 2-32, 2-36, 3.1-7, 3.3-17, 3.5-32, 3.5-33, 3.5-38, 3.5-39, 3.6-23
natural gas ES-39, 3.5-36, 3.5-55, 3.5-56, 3.6-16, 3.9-48, 5-1
Natural Community Conservation Plans 3.7-5, 3.7-27, 3.7-28, 3.8-6, 3.8-7, 3.9-3, 3.9-24
Natural Resources Conservation Service.... ……..3.2-30, 3.2-71, 3.4-2, 3.4-3, 3.4-6, 3.4-7, 3.4-11, 3.4-12, 3.4-15, 3.4-16, 3.4-19, 3.4-26, 3.4-27, 3.4-29, 3.5-55
New Bullards Bar Dam..... 3.17-6, 3.17-7, 3.17-28
New Bullards Bar Reservoir 3.7-3, 3.7-12, 3.8-1, 3.17-6, 3.17-7
New Melones Powerplant.....3.16-4
Nevada Irrigation District ES-7, 2-11, 2-16, 2-34, 2-38
Nimbus Dam 2-20, 3.2-35, 3.7-3, 3.7-14, 3.14-9, 3.15-6, 3.16-5, 3.17-8, 3.17-29
Nimbus Powerplant..... 3.16-4, 3.16-5, 3.16-20
nitrogen dioxide 3.5-3, 3.5-4, 3.5-11, 3.5-12, 3.5-13, 3.5-14, 3.5-20
nitrogen oxides ……...3.5-3, 3.5-10, 3.5-11, 3.5-12, 3.5-30, 3.5-32, 3.5-33, 3.5-34, 3.5-35, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-42, 3.5-43, 3.5-49, 3.5-50, 3.5-51, 3.5-54, 3.5-55, 3.5-56
No Action/ No Project Alternative 3.8-10
No Cropland Modification Alternative.....3.1-21, 3.4-23, 3.5-53, 3.6-33, 3.9-26, 3.9-30, 3.12-12
No Groundwater Substitution Alternative ...3.1-21, 3.5-54, 3.6-33, 3.7-55, 3.7-56, 3.7-57, 3.7-58, 3.7-59, 3.7-60, 3.7-61, 3.7-62, 3.7-63, 3.7-65, 3.8-36, 3.8-37, 3.8-38, 3.8-39, 3.8-40, 3.8-43, 3.9-27, 3.9-30, 3.9-52, 3.10-29, 3.11-26, 3.12-10, 3.14-22, 3.15-20
no injury rule.....3.1-4, 3.1-23
nonattainment....3.5-3, 3.5-5, 3.5-9, 3.5-12, 3.5-13, 3.5-15, 3.5-20, 3.5-21, 3.5-22, 3.5-28, 3.5-30, 3.5-47, 3.5-49, 3.5-50, 3.5-56, 3.5-57
Northern California Water Association 3.17-7, 3.17-28
Notice of Intent 3.12-14, 6-1

Old River.....2-27, 3.1-19, 3.1-20, 3.2-23, 3.2-41, 3.2-52, 3.2-61, 3.17-10
Office of Environmental Health Hazard Assessment 3.2-16, 3.2-70
Ord Ferry.....3.17-5
Oroville Dam 3.1-9, 3.13-11, 3.14-5, 3.17-6
Oroville Reservoir.....3.16-11, 3.16-14, 3.16-16, 3.17-6, 3.17-13, 3.17-17, 3.17-21
Oxbow Powerhouse 3.16-6
ozone 3.5-3, 3.5-12, 3.5-21, 3.5-22
Pacheco Water District ES-5, 2-18
Pacific pond turtle ES-27, 3.8-22, 3.8-23, 3.8-29, 3.8-30, 3.8-42
Panoche Water District ES-5, 2-18
Paradise Cut 3.17-10
Pelger Mutual Water Company …….ES-6, 2-10, 2-14, 2-32, 2-36, 3.1-7, 3.1-8, 3.3-17, 3.5-28, 3.5-32, 3.5-38, 3.5-42, 3.5-43, 3.5-45, 3.5-46, 3.5-47, 3.5-50, 3.6-23, 3.6-25, 3.10-25
Placer County……ES-7, 2-11, 2-15, 2-20, 2-21, 2-33, 2-37, 3.1-12, 3.2-32, 3.2-46, 3.5-6, 3.5-7, 3.5-15, 3.5-17, 3.5-21, 3.5-36, 3.5-51, 3.5-60, 3.6-7, 3.6-18, 3.7-8, 3.7-73, 3.10-16, 3.12-4, 3.14-7, 3.15-4, 3.15-5, 3.15-27, 3.16-1, 3.16-6, 3.16-19, 3.17-8, 3.17-28
Placer County Water Agency... ……ES-7, 2-11, 2-15, 2-20, 2-21, 2-33, 2-37, 3.1-12, 3.2-32, 3.2-46, 3.5-36, 3.7-8, 3.7-73, 3.15-4, 3.15-5, 3.15-27, 3.16-1, 3.16-6, 3.16-19
Pleasant Grove-Verona Mutual Water Company ES-6, 2-10, 2-14, 2-32, 2-36, 3.6-23, 3.6-25
PM_{10} ……3.5-3, 3.5-4, 3.5-11, 3.5-12, 3.5-14, 3.5-15, 3.5-20, 3.5-21, 3.5-22, 3.5-26, 3.5-29, 3.5-30, 3.5-32, 3.5-34, 3.5-35, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-42, 3.5-43, 3.5-44, 3.5-45, 3.5-46, 3.5-49, 3.5-50, 3.5-52, 3.5-54, 3.5-55, 3.5-56, 3.5-57, 3.5-58
$PM_{2.5}$ ……..3.5-3, 3.5-4, 3.5-11, 3.5-12, 3.5-14, 3.5-15, 3.5-20, 3.5-21, 3.5-22, 3.5-25, 3.5-29, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-42, 3.5-43, 3.5-44, 3.5-45, 3.5-46, 3.5-49, 3.5-50, 3.5-52, 3.5-54, 3.5-55, 3.5-56, 3.5-57
Pope Ranch ES-7, 2-11, 2-17, 2-35, 3.1-13, 3.3-17, 3.5-35, 3.5-40, 3.6-23
potentially significant and unavoidable impacts.....3.13-21, 3.17-25
power..... ……ES-33, ES-39, 2-21, 3.1-5, 3.1-9, 3.2-7, 3.5-19, 3.5-55, 3.6-12, 3.7-8, 3.9-32, 3.9-48, 3.10-23, 3.10-30, 3.13-10, 3.13-11, 3.14-9, 3.15-3, 3.15-7, 3.15-16, 3.15-19, 3.15-22, 3.16-1, 3.16-3, 3.16-4, 3.16-5, 3.16-6, 3.16-7, 3.16-8, 3.16-9, 3.16-10, 3.16-11, 3.16-12, 3.16-13, 3.16-14, 3.16-15, 3.16-16, 3.16-17, 3.16-18, 3.16-19, 3.17-5
Prevention of Significant Deterioration 3.6-4, 3.6-37
Princeton-Codora-Glenn Irrigation District.....ES-6, 2-10, 2-14, 2-33, 2-36
Provident Irrigation District.....ES-6, 2-10, 2-14, 2-33, 2-36
pumping ... ……ES-1, ES-8, ES-9, ES-10, ES-13, ES-19, ES-21, ES-23, ES-36, ES-38, ES-39, 1-1, 1-6, 2-2, 2-4, 2-5, 2-8, 2-18, 2-26, 2-27, 2-28, 2-29, 2-30, 3.1-14, 3.1-15, 3.1-17, 3.1-19, 3.1-21, 3.1-22, 3.1-23, 3.2-11, 3.2-27, 3.2-36, 3.2-43, 3.2-45, 3.3-2, 3.3-4, 3.3-5, 3.3-7, 3.3-8, 3.3-9, 3.3-10, 3.3-11, 3.3-12, 3.3-13, 3.3-14, 3.3-15, 3.3-16, 3.3-18, 3.3-19, 3.3-22, 3.3-23, 3.3-24, 3.3-26, 3.3-27, 3.3-28, 3.3-29, 3.3-30, 3.3-31, 3.3-32, 3.3-33, 3.3-34, 3.3-35, 3.3-36, 3.3-37, 3.3-38, 3.3-39, 3.5-19, 3.5-27, 3.5-28, 3.5-35, 3.5-36, 3.5-37, 3.5-40, 3.5-41, 3.5-51, 3.5-52, 3.5-53, 3.5-54, 3.5-55, 3.5-56, 3.5-58, 3.6-15, 3.6-17, 3.6-21, 3.6-22, 3.6-30, 3.6-32, 3.6-33, 3.6-34, 3.7-4, 3.7-22, 3.7-23, 3.7-30, 3.7-59, 3.7-67, 3.8-8, 3.8-9, 3.8-19, 3.8-24, 3.8-29, 3.8-31, 3.8-34, 3.8-35, 3.8-36, 3.8-45, 3.10-23, 3.10-30, 3.10-31, 3.10-32, 3.10-44, 3.10-45, 3.10-51, 3.10-53, 3.10-54, 3.10-55, 3.10-59, 3.11-27, 3.12-1, 3.12-6, 3.12-7, 3.12-12, 3.12-13, 3.16-1, 3.16-3, 3.16-8, 3.17-10, 4-12, 5-1, 5-2, 5-4
Ralston Powerhouse.....3.16-6

Reclamation District …….ES-6, ES-7, 2-10, 2-11, 2-14, 2-17, 2-33, 2-35, 2-37, 2-38, 3.1-8, 3.1-13, 3.3-17, 3.3-18, 3.5-31, 3.5-32, 3.5-33, 3.5-35, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-42, 3.5-43, 3.5-45, 3.5-46, 3.5-50, 3.6-23, 3.6-25, 3.10-25, 3.10-39
Record of Decision 1-3, 3.7-25
recreation.. ……..ES-31, ES-32, 3.1-5, 3.2-7, 3.2-12, 3.2-27, 3.6-14, 3.9-34, 3.9-36, 3.9-46, 3.10-23, 3.10-41, 3.14-11, 3.14-12, 3.15-1, 3.15-2, 3.15-4, 3.15-5, 3.15-6, 3.15-7, 3.15-9, 3.15-11, 3.15-12, 3.15-13, 3.15-14, 3.15-16, 3.15-17, 3.15-19, 3.15-20, 3.15-21, 3.15-22, 3.15-23, 3.15-24, 3.15-25, 3.15-26
Red Bluff.....3.7-13, 3.7-16, 3.10-14, 3.15-3
Redding Area Groundwater Basin 3.3-1, 3.3-4, 3.3-14, 3.3-15, 3.3-16
Redding Rancheria.....3.12-3, 3.12-15
Regional Water Quality Control Board 3.2-6, 3.2-10, 3.2-70
reservoir release……ES-11, ES-15, ES-29, ES-30, ES-38, ES-39, ES-40, 2-6, 2-21, 2-22, 2-23, 2-24, 2-28, 2-30, 2-31, 3.1-11, 3.1-13, 3.1-18, 3.1-19, 3.1-21, 3.1-22, 3.2-32, 3.2-33, 3.2-35, 3.2-36, 3.2-46, 3.2-47, 3.2-55, 3.2-59, 3.2-60, 3.2-63, 3.3-1, 3.4-1, 3.6-18, 3.6-25, 3.7-18, 3.7-20, 3.7-22, 3.7-46, 3.7-56, 3.7-65, 3.7-67, 3.8-1, 3.8-9, 3.8-11, 3.8-14, 3.8-20, 3.8-34, 3.8-35, 3.8-36, 3.8-37, 3.10-45, 3.10-51, 3.10-54, 3.10-59, 3.11-1, 3.12-1, 3.13-17, 3.13-18, 3.13-19, 3.13-20, 3.14-1, 3.14-18, 3.14-22, 3.14-24, 3.14-25, 3.16-9, 3.16-11, 3.16-12, 3.16-13, 3.16-15, 3.16-16, 3.17-1, 5-2
rice…….....ES-8, ES-38, 2-12, 2-39, 3.2-29, 3.3-25, 3.4-4, 3.4-17, 3.4-18, 3.4-21, 3.4-23, 3.4-25, 3.6-16, 3.6-24, 3.8-8, 3.8-16, 3.8-17, 3.8-19, 3.8-20, 3.8-21, 3.8-22, 3.8-23, 3.8-24, 3.8-25, 3.8-26, 3.8-27, 3.8-28, 3.8-29, 3.8-30, 3.8-31, 3.8-32, 3.8-33, 3.8-44, 3.8-49, 3.9-49, 3.10-4, 3.10-5, 3.10-8, 3.10-9, 3.10-11, 3.10-26, 3.10-28, 3.10-32, 3.10-33, 3.10-35, 3.10-36, 3.10-37, 3.10-38, 3.10-39, 3.10-40, 3.10-56, 3.11-21, 3.11-28, 3.13-10, 3.14-6, 5-4
riparian ES-39, 3.3-26, 3.3-32, 3.6-13, 3.7-6, 3.7-7, 3.7-23, 3.7-25, 3.7-27, 3.8-6, 3.8-7, 3.8-9, 3.8-12, 3.8-13, 3.8-14, 3.8-18, 3.8-19, 3.8-20, 3.8-22, 3.8-24, 3.8-28, 3.8-29, 3.8-31, 3.8-32, 3.8-34, 3.8-38, 3.9-2, 3.14-3, 3.14-9, 3.14-13, 3.14-14, 3.14-27, 3.15-25
River Garden Farms..... ES-6, 2-10, 2-14, 2-33, 2-37, 3.1-8, 3.3-17, 3.5-35, 3.5-40, 3.6-23
Rock Creek.....3.17-8
Rock Slough.....2-27, 3.2-22, 3.2-41, 3.2-52, 3.2-61
Rumsey Rancheria 3.12-4
Sacramento Area Council of Governments 3.17-8, 3.17-30
Sacramento Bypass 3.17-5
Sacramento County.. ……ES-7, 2-11, 2-15, 2-33, 3.1-7, 3.1-12, 3.3-18, 3.3-19, 3.5-11, 3.5-21, 3.5-29, 3.5-32, 3.5-33, 3.5-39, 3.5-41, 3.5-49, 3.5-60, 3.6-24, 3.6-37, 3.8-26, 3.10-15, 3.12-4, 3.14-5, 3.14-9, 3.14-29, 3.15-4
Sacramento County Water Agency... ……..ES-7, 2-11, 2-15, 2-33, 3.1-12, 3.3-18, 3.3-19, 3.5-33, 3.5-39, 3.6-24
Sacramento River……..ES-6, ES-9, 1-2, 2-4, 2-10, 2-12, 2-13, 2-19, 2-20, 2-22, 2-23, 2-27, 2-32, 2-36, 3.1-1, 3.1-5, 3.1-6, 3.1-7, 3.1-8, 3.1-9, 3.1-10, 3.1-11, 3.1-12, 3.1-13, 3.1-14, 3.1-17, 3.1-25, 3.2-1, 3.2-2, 3.2-4, 3.2-8, 3.2-10, 3.2-11, 3.2-12, 3.2-13, 3.2-14, 3.2-15, 3.2-19, 3.2-22, 3.2-23, 3.2-24, 3.2-25, 3.2-34, 3.2-37, 3.2-40, 3.2-48, 3.2-51, 3.2-56, 3.2-59, 3.2-65, 3.2-67, 3.2-70, 3.2-71, 3.2-72, 3.3-14, 3.3-15, 3.3-18, 3.3-19, 3.3-36, 3.3-37, 3.3-40, 3.4-17, 3.4-18, 3.4-21, 3.6-9, 3.6-26, 3.7-1, 3.7-3, 3.7-12, 3.7-13, 3.7-16, 3.7-17, 3.7-18, 3.7-19, 3.7-20, 3.7-21, 3.7-24, 3.7-30, 3.7-31, 3.7-32, 3.7-33, 3.7-39, 3.7-45, 3.7-46, 3.7-47, 3.7-48, 3.7-51, 3.7-55, 3.7-56, 3.7-57, 3.7-60, 3.7-63, 3.7-67, 3.7-70, 3.7-72, 3.7-73, 3.8-1, 3.8-2, 3.8-11, 3.8-16,

3.8-35, 3.8-37, 3.8-38, 3.8-46, 3.8-47, 3.13-7, 3.13-9, 3.13-14, 3.14-4, 3.14-5, 3.14-6, 3.14-17, 3.14-18, 3.14-21, 3.14-23, 3.14-27, 3.15-2, 3.15-3, 3.15-4, 3.15-6, 3.15-8, 3.15-25, 3.15-27, 3.16-4, 3.16-5, 3.16-8, 3.17-1, 3.17-4, 3.17-5, 3.17-6, 3.17-9, 3.17-15, 3.17-19, 3.17-22
Sacramento Suburban Water District……... ES-7, 2-11, 2-15, 2-33, 3.1-12, 3.1-13, 3.3-18, 3.5-33, 3.5-39, 3.5-54, 3.6-24
Sacramento Valley.... …….ES-10, ES-39, 1-6, 2-2, 2-6, 2-7, 2-19, 3.1-8, 3.1-9, 3.1-11, 3.1-13, 3.3-1, 3.3-4, 3.3-6, 3.3-8, 3.3-9, 3.3-12, 3.3-15, 3.3-16, 3.3-18, 3.3-22, 3.3-23, 3.3-24, 3.3-25, 3.3-31, 3.3-36, 3.3-37, 3.4-25, 3.4-29, 3.5-6, 3.5-7, 3.5-10, 3.5-11, 3.5-21, 3.5-22, 3.6-22, 3.7-23, 3.8-1, 3.8-2, 3.8-11, 3.8-16, 3.8-21, 3.8-25, 3.8-26, 3.8-33, 3.8-49, 3.10-15, 3.10-23, 3.10-28, 3.10-30, 3.10-44, 3.10-58, 3.10-61, 3.10-64, 3.11-8, 3.11-9, 3.11-33, 3.12-2, 3.12-3, 3.12-5, 3.12-6, 3.12-7, 3.12-8, 3.12-13, 3.13-1, 3.13-4, 3.13-5, 3.13-6, 3.13-7, 3.13-8, 3.13-9, 3.13-10, 3.13-11, 3.14-3, 3.14-4, 4-12, 4-13, 6-2
Sacramento Valley Air Basin..... 3.5-6, 3.5-7, 3.5-10, 3.5-11
Sacramento Valley Finite Element Groundwater Model...…….3.3-12, 3.3-14, 3.3-15, 3.3-16, 3.3-24, 3.7-23, 3.8-11, 6-2
Sacramento Valley Groundwater Basin..... ……..3.3-1, 3.3-4, 3.3-6, 3.3-8, 3.3-15, 3.3-16, 3.3-22, 3.3-23, 3.3-24, 3.3-25, 3.8-1, 3.8-2, 3.10-15, 3.10-23, 3.10-30, 3.10-44, 3.12-2, 3.12-5, 3.12-6, 3.12-7, 3.12-8, 3.12-13
Safe Drinking Water Act 3.2-3
salinity... …….ES-16, 3.1-5, 3.2-11, 3.2-21, 3.2-22, 3.2-23, 3.2-24, 3.2-40, 3.2-42, 3.2-51, 3.2-60, 3.2-63, 3.2-65, 3.2-67, 3.2-69, 3.3-4, 3.7-21, 3.7-26, 3.7-40, 3.7-42, 3.7-52, 3.7-61
salmon .....……..3.7-7, 3.7-8, 3.7-9, 3.7-10, 3.7-16, 3.7-17, 3.7-18, 3.7-33, 3.7-34, 3.7-36, 3.7-40, 3.7-45, 3.7-48, 3.7-49, 3.7-52, 3.7-61, 3.7-66, 3.7-71, 3.7-72, 3.7-73, 3.8-47, 3.15-7, 3.15-11, 3.17-5, 4-9, 4-10
salmonids 3.2-15, 3.7-7, 3.7-34, 3.7-35, 3.7-74
San Benito County ……ES-5, 2-18, 3.4-15, 3.7-3, 3.8-3, 3.9-19, 3.9-20, 3.9-46, 3.9-47, 3.9-54, 3.9-56, 3.9-59, 3.10-20, 3.10-22, 3.11-4, 3.11-9
San Benito County Water District ES-5, 2-18
San Francisco Bay Air Basin 3.5-10, 3.5-11, 3.5-56
San Joaquin County3.4-12, 3.4-27, 3.9-17, 3.9-18, 3.9-44, 3.9-45, 3.9-55, 3.9-56, 3.9-59, 3.10-22
San Joaquin kit fox..... ES-27, 3.8-42
San Joaquin River…….. ... ES-20, ES-25, ES-32, 1-2, 2-23, 2-25, 3.1-1, 3.1-13, 3.1-14, 3.1-23, 3.1-24, 3.2-2, 3.2-3, 3.2-5, 3.2-8, 3.2-10, 3.2-14, 3.2-19, 3.2-21, 3.2-22, 3.2-23, 3.2-24, 3.2-25, 3.2-36, 3.2-38, 3.2-39, 3.2-42, 3.2-43, 3.2-49, 3.2-57, 3.2-65, 3.2-70, 3.3-8, 3.4-12, 3.4-15, 3.4-19, 3.4-20, 3.4-21, 3.4-23, 3.6-9, 3.6-11, 3.6-12, 3.6-17, 3.6-37, 3.6-38, 3.7-3, 3.7-14, 3.7-15, 3.7-17, 3.7-18, 3.7-19, 3.7-20, 3.7-21, 3.7-24, 3.7-25, 3.7-38, 3.7-50, 3.7-58, 3.7-66, 3.8-1, 3.8-3, 3.8-14, 3.8-36, 3.8-38, 3.8-39, 3.8-41, 3.8-45, 3.8-47, 3.10-61, 3.13-7, 3.13-12, 3.14-10, 3.14-17, 3.14-21, 3.14-24, 3.15-9, 3.15-11, 3.15-23, 3.15-27, 3.15-28, 3.16-7, 3.16-18, 3.17-1, 3.17-4, 3.17-9, 3.17-10, 3.17-11, 3.17-15, 3.17-19, 3.17-23, 3.17-26, 3.17-29, 3.17-30, 4-10, 4-11, 4-13
San Joaquin River Restoration Program……3.1-23, 3.2-65, 3.7-17, 3.7-66, 3.8-45, 3.16-18, 3.17-26, 3.17-29, 4-10
San Joaquin Valley……. . ES-1, ES-2, 1-1, 1-2, 2-19, 2-25, 3.1-14, 3.2-43, 3.2-53, 3.2-62, 3.2-65, 3.3-1, 3.3-8, 3.3-9, 3.3-38, 3.4-24, 3.5-6, 3.5-10, 3.5-11, 3.5-15, 3.5-18, 3.5-21, 3.5-22, 3.5-29, 3.5-33, 3.5-34, 3.5-36, 3.5-51, 3.5-56, 3.5-60, 3.6-8, 3.6-9, 3.6-11, 3.6-20, 3.6-35, 3.6-

37, 3.8-8, 3.8-26, 3.9-26, 3.9-51, 3.9-53, 3.10-30, 3.10-61, 3.11-8, 3.11-9, 3.11-10, 3.11-11, 3.11-30, 3.13-1, 3.13-4, 3.13-6, 3.13-7, 3.13-11, 3.13-12, 3.13-13, 3.14-10, 3.17-11, 4-6
San Joaquin Valley Air Basin 3.5-10, 3.5-11, 3.5-33, 3.5-56
San Joaquin Valley Groundwater Basin 3.3-1, 3.3-8, 3.3-9
San Jose Water Company 3.10-19
San Luis & Delta-Mendota Water Authority.. ……..ES-1, ES-2, ES-3, ES-5, 1-1, 1-2, 1-3, 1-4, 1-6, 1-7, 2-18, 2-25, 2-26, 3.1-1, 3.1-13, 3.1-14, 3.3-2, 3.3-34, 3.6-26, 3.10-33, 3.12-5, 3.14-10, 4-9, 5-3, 5-4, 6-1, 6-2, 7-3
San Luis Creek 3.17-11
San Luis Dam 3.17-11
San Luis Reservoir ..... ……..ES-17, ES-26, ES-32, ES-34, 2-26, 2-28, 3.2-3, 3.2-10, 3.2-26, 3.2-27, 3.2-29, 3.2-44, 3.2-45, 3.2-53, 3.2-62, 3.2-64, 3.2-68, 3.7-4, 3.8-3, 3.8-8, 3.8-17, 3.8-18, 3.8-36, 3.8-40, 3.8-41, 3.13-1, 3.14-1, 3.14-3, 3.14-10, 3.14-29, 3.15-1, 3.15-11, 3.15-12, 3.15-17, 3.15-19, 3.15-22, 3.15-23, 3.15-28, 3.16-3, 3.16-8, 3.17-1, 3.17-10, 3.17-11, 3.17-13, 3.17-16, 3.17-20, 3.17-23, 3.17-24, 3.17-27, 3.17-29, 5-4
San Luis Water District ES-5, 2-18
Santa Clara County 3.3-1, 3.3-10, 3.3-11, 3.3-40, 3.7-3, 3.8-3, 3.10-19
Santa Clara Valley Groundwater Basin 3.3-1, 3.3-9
Santa Clara Valley Water District.. …….ES-5, 2-18, 2-26, 3.2-27, 3.2-44, 3.3-9, 3.3-10, 3.3-11, 3.3-40, 3.3-41, 3.10-17, 3.10-19, 3.10-20, 3.10-61, 3.10-64, 4-6, 4-12, 4-13
scenic ……..ES-30, ES-31, 3.14-1, 3.14-2, 3.14-3, 3.14-4, 3.14-5, 3.14-10, 3.14-11, 3.14-12, 3.14-13, 3.14-14, 3.14-15, 3.14-16, 3.14-18, 3.14-19, 3.14-22, 3.14-23, 3.14-24, 3.14-25, 3.14-26, 3.14-27, 3.14-29
scoping ES-8, 1-6, 2-1, 3.6-35, 5-3, 5-4, 6-1
seismicity 3.4-1
Seller Service Area .... ……ES-8, ES-15, ES-17, ES-18, ES-19, ES-35, ES-36, ES-39, 3.1-5, 3.1-15, 3.1-23, 3.2-1, 3.2-2, 3.2-7, 3.2-8, 3.2-10, 3.2-11, 3.2-28, 3.2-29, 3.2-31, 3.2-32, 3.2-34, 3.2-36, 3.2-45, 3.2-47, 3.2-54, 3.2-55, 3.2-59, 3.2-62, 3.2-63, 3.2-65, 3.3-2, 3.3-12, 3.3-13, 3.3-14, 3.3-15, 3.3-23, 3.3-25, 3.3-26, 3.3-28, 3.3-29, 3.3-31, 3.3-36, 3.3-38, 3.4-1, 3.4-5, 3.4-6, 3.4-8, 3.4-9, 3.4-10, 3.4-16, 3.4-17, 3.4-18, 3.4-19, 3.4-20, 3.4-21, 3.4-22, 3.4-23, 3.4-24, 3.4-25, 3.4-26, 3.5-1, 3.5-27, 3.5-53, 3.6-2, 3.6-21, 3.6-22, 3.6-25, 3.6-30, 3.6-31, 3.6-32, 3.7-1, 3.7-3, 3.7-6, 3.7-7, 3.7-17, 3.7-19, 3.7-22, 3.7-24, 3.7-64, 3.7-69, 3.8-1, 3.8-3, 3.8-5, 3.8-7, 3.8-8, 3.8-16, 3.8-18, 3.8-21, 3.8-22, 3.8-23, 3.8-24, 3.8-27, 3.8-28, 3.8-30, 3.8-31, 3.8-33, 3.8-34, 3.8-35, 3.8-36, 3.8-42, 3.8-45, 3.8-46, 3.8-48, 3.9-1, 3.9-5, 3.9-7, 3.9-12, 3.9-24, 3.9-25, 3.9-26, 3.9-27, 3.9-28, 3.9-30, 3.9-31, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.10-3, 3.10-24, 3.10-27, 3.10-31, 3.10-32, 3.10-34, 3.10-40, 3.10-42, 3.10-43, 3.10-50, 3.10-51, 3.10-52, 3.10-53, 3.10-55, 3.10-56, 3.10-57, 3.10-58, 3.10-59, 3.10-61, 3.11-3, 3.11-4, 3.11-5, 3.11-7, 3.11-8, 3.11-13, 3.11-15, 3.11-17, 3.11-20, 3.11-22, 3.11-23, 3.11-24, 3.11-25, 3.11-26, 3.11-27, 3.11-28, 3.11-29, 3.11-30, 3.11-31, 3.12-3, 3.12-6, 3.12-7, 3.12-8, 3.12-10, 3.12-11, 3.12-12, 3.12-13, 3.12-14, 3.13-1, 3.14-1, 3.14-3, 3.14-14, 3.14-15, 3.14-18, 3.14-22, 3.14-25, 3.14-27, 3.15-1, 3.15-2, 3.15-17, 3.15-20, 3.15-25, 3.16-3, 3.16-4, 3.17-1, 3.17-4, 3.17-11, 3.17-12, 3.17-13, 3.17-14, 3.17-16, 3.17-18, 3.17-20, 3.17-22, 3.17-23, 3.17-26
Senate Bill 3.2-11
sensitive receptor 3.5-18, 3.5-30
Shasta County ……3.3-1, 3.3-4, 3.3-41, 3.5-15, 3.5-18, 3.5-34, 3.5-34, 3.5-36, 3.5-51, 3.5-60, 3.6-8, 3.6-20, 3.10-14, 3.12-3, 3.14-4

Shasta Dam 3.2-12, 3.2-18, 3.14-3, 3.14-5, 3.16-4, 3.16-5, 3.17-4, 3.17-5
Shasta Powerplant.....3.16-4, 3.16-20
Shasta Reservoir.... …….2-19, 2-20, 3.1-5, 3.2-1, 3.2-4, 3.2-8, 3.2-11, 3.2-12, 3.2-31, 3.2-46, 3.2-54, 3.2-55, 3.7-1, 3.7-12, 3.7-16, 3.7-17, 3.8-1, 3.13-1, 3.13-16, 3.13-17, 3.13-19, 3.14-4, 3.14-5, 3.14-13, 3.14-15, 3.14-19, 3.14-22, 3.15-2, 3.15-3, 3.15-14, 3.15-18, 3.15-20, 3.16-4, 3.16-11, 3.16-14, 3.16-16, 3.17-1, 3.17-4, 3.17-5, 3.17-6, 3.17-13, 3.17-17, 3.17-20
Sherman Island.....3.17-5
Sierra Nevada..... …….2-27, 3.1-5, 3.3-8, 3.3-37, 3.7-74, 3.10-16, 3.12-4, 3.13-4, 3.13-5, 3.13-7, 3.14-3, 3.14-5, 3.14-6, 3.14-9, 3.17-7, 3.17-8, 3.17-9
significance criteria…….... 3.1-15, 3.4-16, 3.5-27, 3.5-30, 3.5-40, 3.5-41, 3.6-8, 3.6-19, 3.7-28, 3.8-7, 3.16-9
smelt..... …….3.7-9, 3.7-10, 3.7-15, 3.7-20, 3.7-21, 3.7-40, 3.7-42, 3.7-43, 3.7-45, 3.7-52, 3.7-54, 3.7-60, 3.7-61, 3.7-63, 3.7-69
soils. ……3.2-23, 3.2-29, 3.2-30, 3.3-25, 3.3-38, 3.4-1, 3.4-2, 3.4-3, 3.4-4, 3.4-5, 3.4-6, 3.4-7, 3.4-11, 3.4-12, 3.4-15, 3.4-16, 3.4-17, 3.4-18, 3.4-19, 3.4-20, 3.4-21, 3.4-23, 3.4-24, 3.4-25, 3.4-26, 3.5-35, 3.6-15, 3.8-20, 3.9-7, 3.9-11, 3.9-13, 3.9-15, 3.9-24, 3.10-27
Solano County…… ES-35, 3.4-11, 3.4-18, 3.4-28, 3.4-29, 3.5-7, 3.5-35, 3.8-16, 3.9-11, 3.9-15, 3.9-16, 3.9-25, 3.9-43, 3.9-44, 3.9-56, 3.9-59, 3.10-11, 3.10-12, 3.10-13, 3.10-25, 3.10-39, 3.10-52, 3.11-4, 3.11-23
South Sacramento County Streams Program.....3.17-26
South Sutter Water District..... ES-7, 2-11, 2-16, 2-23, 2-34, 2-38, 3.1-10, 3.1-11, 3.5-36, 3.6-18, 3.16-1, 3.16-6, 3.16-7
Spring Creek Powerplant 3.16-4
Stanislaus County..... …….3.4-12, 3.4-27, 3.5-11, 3.9-16, 3.9-17, 3.9-44, 3.9-54, 3.9-56, 3.9-59, 3.10-22
Stanislaus River 3.2-21, 3.17-10
State Implementation Plan 3.5-3, 3.5-9, 3.5-12, 3.5-13
State Recreation Area …….3.2-26, 3.2-68, 3.2-69, 3.2-72, 3.14-5, 3.14-8, 3.14-10, 3.14-29, 3.15-4, 3.15-5, 3.15-7, 3.15-9, 3.15-11, 3.15-12, 3.15-17, 3.15-26, 3.15-28, 3.17-29, 5-4
State Scenic Highways.....3.14-3
State Water Project ……ES-2, ES-8, ES-9, ES-14, ES-30, ES-33, ES-39, ES-40, 1-2, 1-5, 1-6, 2-4, 2-5, 2-19, 2-23, 2-26, 2-27, 2-28, 2-29, 2-30, 2-40, 3.1-3, 3.1-9, 3.1-13, 3.1-14, 3.1-17, 3.1-18, 3.1-22, 3.1-23, 3.1-24, 3.1-25, 3.2-10, 3.2-11, 3.2-22, 3.2-23, 3.2-27, 3.2-31, 3.2-32, 3.2-40, 3.2-41, 3.2-42, 3.2-43, 3.2-44, 3.2-45, 3.2-46, 3.2-47, 3.2-52, 3.2-54, 3.2-55, 3.2-60, 3.2-63, 3.2-65, 3.2-66, 3.2-67, 3.2-69, 3.3-36, 3.3-38, 3.4-5, 3.4-24, 3.4-25, 3.4-26, 3.6-18, 3.6-19, 3.6-26, 3.6-27, 3.7-4, 3.7-5, 3.7-8, 3.7-9, 3.7-17, 3.7-23, 3.7-39, 3.7-41, 3.7-51, 3.7-52, 3.7-53, 3.7-59, 3.7-60, 3.7-61, 3.7-66, 3.7-67, 3.7-68, 3.7-72, 3.8-18, 3.8-40, 3.8-45, 3.8-46, 3.8-47, 3.9-31, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.10-55, 3.10-56, 3.10-61, 3.11-28, 3.11-29, 3.12-13, 3.13-11, 3.13-15, 3.13-16, 3.13-17, 3.13-18, 3.13-20, 3.13-21, 3.13-22, 3.14-15, 3.14-19, 3.14-22, 3.14-25, 3.14-27, 3.15-25, 3.16-1, 3.16-3, 3.16-5, 3.16-8, 3.16-9, 3.16-11, 3.16-12, 3.16-14, 3.16-15, 3.16-16, 3.16-17, 3.16-18, 3.16-19, 3.17-6, 3.17-10, 3.17-11, 3.17-13, 3.17-14, 3.17-16, 3.17-17, 3.17-20, 3.17-21, 3.17-24, 3.17-26, 3.17-28, 4-5, 4-6, 4-9, 4-12, 4-14, 6-2
State Water Resources Control Board .....……2-5, 2-20, 2-25, 2-29, 3.1-3, 3.1-4, 3.2-6, 3.2-10, 3.2-16, 3.2-18, 3.2-23, 3.2-27, 3.2-42, 3.2-65, 3.2-70, 3.2-71, 3.3-8, 3.3-41, 3.7-39, 3.7-45, 3.7-51, 3.7-54, 3.7-60, 3.7-62, 3.7-67, 3.7-73, 3.8-11, 3.14-14, 4-11

steelhead..... ……3.7-7, 3.7-9, 3.7-10, 3.7-15, 3.7-18, 3.7-19, 3.7-20, 3.7-33, 3.7-34, 3.7-36, 3.7-40, 3.7-45, 3.7-52, 3.7-61, 3.7-66, 3.7-71, 3.8-47, 4-9
storage…….. .... ES-1, ES-8, ES-9, ES-14, ES-15, ES-17, ES-24, ES-25, ES-26, ES-33, ES-34, ES-38, ES-39, 1-1, 2-4, 2-5, 2-12, 2-19, 2-20, 2-21, 2-23, 2-27, 3.1-10, 3.1-17, 3.1-18, 3.1-19, 3.1-22, 3.1-23, 3.1-24, 3.2-15, 3.2-27, 3.2-28, 3.2-29, 3.2-31, 3.2-32, 3.2-33, 3.2-34, 3.2-35, 3.2-40, 3.2-44, 3.2-45, 3.2-46, 3.2-47, 3.2-51, 3.2-53, 3.2-54, 3.2-55, 3.2-59, 3.2-62, 3.2-63, 3.2-64, 3.2-66, 3.3-4, 3.3-5, 3.3-9, 3.3-10, 3.3-11, 3.6-18, 3.7-8, 3.7-24, 3.7-28, 3.7-30, 3.7-47, 3.7-55, 3.7-64, 3.7-65, 3.7-67, 3.8-7, 3.8-8, 3.8-9, 3.8-10, 3.8-11, 3.8-17, 3.8-18, 3.8-23, 3.8-35, 3.8-36, 3.8-37, 3.8-40, 3.8-41, 3.8-42, 3.8-43, 3.8-47, 3.10-40, 3.13-10, 3.14-13, 3.15-11, 3.15-12, 3.15-20, 3.15-22, 3.16-1, 3.16-4, 3.16-5, 3.16-6, 3.16-7, 3.16-8, 3.16-11, 3.16-13, 3.16-15, 3.16-16, 3.17-1, 3.17-3, 3.17-4, 3.17-5, 3.17-7, 3.17-11, 3.17-12, 3.17-13, 3.17-14, 3.17-16, 3.17-17, 3.17-20, 3.17-21, 3.17-23, 3.17-24, 3.17-25, 3.17-26, 3.17-27, 4-6, 4-9
sturgeon……..3.7-7, 3.7-9, 3.7-10, 3.7-12, 3.7-20, 3.7-36, 3.7-37, 3.7-40, 3.7-45, 3.7-48, 3.7-49, 3.7-52, 3.7-57, 3.7-61, 3.15-11
subsidence… ……ES-17, ES-18, ES-19, ES-39, 1-6, 2-39, 3.3-1, 3.3-4, 3.3-7, 3.3-9, 3.3-10, 3.3-11, 3.3-12, 3.3-13, 3.3-14, 3.3-15, 3.3-23, 3.3-24, 3.3-26, 3.3-27, 3.3-28, 3.3-29, 3.3-31, 3.3-38, 3.3-40, 3.3-41, 3.4-1, 3.6-14, 5-2
sulfur dioxide 3.5-3, 3.5-4, 3.5-5, 3.5-11, 3.5-12, 3.5-14, 3.5-20, 3.5-49, 3.5-50, 3.5-58
sulfur oxide….3.5-3, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-42, 3.5-43, 3.5-49, 3.5-54, 3.5-55
Sutter Bypass 2-20, 2-22, 3.1-11, 3.8-44, 3.17-5
Sutter County ……..3.1-7, 3.1-9, 3.3-36, 3.4-11, 3.4-25, 3.4-28, 3.5-11, 3.5-21, 3.5-29, 3.5-30, 3.5-31, 3.5-32, 3.5-33, 3.5-37, 3.5-38, 3.5-47, 3.5-50, 3.9-9, 3.9-14, 3.9-38, 3.9-39, 3.9-40, 3.9-49, 3.9-54, 3.9-55, 3.9-60, 3.10-8, 3.10-9, 3.10-10, 3.10-56, 3.11-11, 3.12-4, 3.13-14, 3.15-3
Sutter Mutual Water Company ES-6, 2-10, 2-15, 2-37
Sycamore Mutual Water Company... ……ES-6, 2-10, 2-15, 2-33, 2-37, 3.1-9, 3.3-18, 3.5-31, 3.5-37, 3.5-42, 3.5-43, 3.5-45, 3.5-46, 3.6-24, 3.6-25, 3.10-25
Te Velde Revocable Family Trust…….. ES-6, 2-10, 2-15, 2-33, 2-37, 3.1-9, 3.5-35, 3.5-40, 3.5-42, 3.5-43, 3.5-45, 3.5-46, 3.6-24, 3.6-25, 3.10-25
Tehama County…….3.5-15, 3.5-18, 3.5-22, 3.5-34, 3.5-35, 3.5-34, 3.5-36, 3.5-51, 3.5-60, 3.6-8, 3.6-20, 3.7-13, 3.7-31, 3.7-32, 3.7-33, 3.7-48, 3.8-11, 3.10-14, 3.10-15, 3.11-17, 3.12-4, 3.15-4
temperature … …….2-19, 3.2-4, 3.2-13, 3.2-32, 3.2-46, 3.6-8, 3.6-10, 3.6-12, 3.6-13, 3.6-14, 3.7-6, 3.7-7, 3.7-8, 3.7-24, 3.7-31, 3.7-35, 3.7-36, 3.7-40, 3.7-43, 3.7-45, 3.7-47, 3.7-49, 3.7-52, 3.7-54, 3.7-56, 3.7-61, 3.7-62, 3.8-9, 3.8-11, 3.8-35, 3.8-37, 3.16-1, 3.17-5
terrestrial resources 3.8-9, 3.8-37, 3.12-8
threatened species 3.7-15, 3.7-20, 3.7-27, 3.8-6
Thermalito Afterbay.....2-22, 3.1-9, 3.2-34, 3.2-37, 3.2-48, 3.2-56, 3.2-59, 3.17-6
Tisdale Weir.....3.17-5
Title V 3.6-4, 3.6-37
total dissolved solids.....3.2-11, 3.2-15, 3.2-19, 3.2-22, 3.2-23, 3.2-26, 3.3-4
Total Maximum Daily Loads.....3.2-3, 3.2-4, 3.2-17, 3.2-65, 3.2-71
total organic carbon.....3.2-26
Tracy Pumping Plant.....3.17-11
tribes..... 3.2-3, 3.11-19, 3.12-1, 3.12-2, 3.12-3, 3.12-6, 3.12-12, 3.12-13, 3.13-12
tricolored blackbird.....3.8-24, 3.8-25, 3.8-26, 3.8-27

turbidity..... 3.2-15, 3.2-22, 3.2-26, 3.2-29, 3.6-13, 3.7-18, 3.7-21, 3.7-40, 3.7-52, 3.7-60
Tule Basin Farms ..... ……ES-7, 2-11, 2-16, 2-22, 2-34, 2-38, 3.1-11, 3.3-18, 3.5-32, 3.5-38, 3.5-40, 3.5-47, 3.5-54, 3.6-24
Tuolumne River 3.17-10
U.S. Census Bureau . ……3.11-3, 3.11-4, 3.11-5, 3.11-6, 3.11-7, 3.11-11, 3.11-15, 3.11-16, 3.11-20, 3.11-32, 3.12-4, 3.12-5, 3.12-9, 3.12-16
United States Department of the Interior ES-1, 1-1
United States Fish and Wildlife Service ES-8, ES-40, 2-4, 2-18, 2-19, 2-24, 2-29, 2-40, 3.1-3, 3.7-5, 3.7-17, 3.7-21, 3.7-22, 3.7-26, 3.7-27, 3.7-35, 3.7-37, 3.7-41, 3.7-45, 3.7-49, 3.7-53, 3.7-54, 3.7-57, 3.7-61, 3.7-62, 3.7-67, 3.7-69, 3.7-74, 3.8-4, 3.8-5, 3.8-6, 3.8-18, 3.8-30, 3.8-31, 3.8-44, 3.8-45, 3.15-3, 3.15-9, 3.15-28, 3.15-3, 3.15-9, 3.15-28, 4-11, 4-14, 6-2
University of California Cooperative Extension.... 3.4-4, 3.4-5, 3.4-29, 3.10-25, 3.10-28, 3.10-30, 3.10-33, 3.10-64, 3.11-21, 3.11-22, 3.11-32
vegetation and wildlife.....2-39, 3.7-26, 3.8-3, 3.8-45, 3.8-46, 3.8-47, 3.8-48, 3.15-13
visual resources.....ES-30, ES-31, 3.14-1, 3.14-3, 3.14-4, 3.14-5, 3.14-6, 3.14-7, 3.14-9, 3.14-10, 3.14-11, 3.14-12, 3.14-13, 3.14-14, 3.14-15, 3.14-16, 3.14-18, 3.14-19, 3.14-22, 3.14-23, 3.14-24, 3.14-25, 3.14-26, 3.14-27, 3.14-28, 3.15-17, 3.15-20
volatile organic compounds 3.3-8, 3.5-3, 3.5-10, 3.5-11, 3.5-12, 3.5-30, 3.5-32, 3.5-37, 3.5-38, 3.5-39, 3.5-40, 3.5-41, 3.5-42, 3.5-43, 3.5-49, 3.5-50, 3.5-51, 3.5-54, 3.5-55, 3.5-56, 3.5-59
Water Code 2-7, 3.2-7, 3.10-29
Water Control Plan 3.17-6
water conservation ES-38, ES-40, 3.2-44, 3.6-25, 3.8-20, 4-7
water quality....…….ES-10, ES-14, ES-15, ES-16, ES-17, ES-39, 1-4, 2-6, 2-19, 3.1-9, 3.1-11, 3.1-17, 3.2-1, 3.2-3, 3.2-6, 3.2-7, 3.2-10, 3.2-11, 3.2-12, 3.2-13, 3.2-15, 3.2-16, 3.2-17, 3.2-18, 3.2-19, 3.2-20, 3.2-21, 3.2-22, 3.2-26, 3.2-27, 3.2-28, 3.2-29, 3.2-30, 3.2-31, 3.2-32, 3.2-33, 3.2-34, 3.2-35, 3.2-36, 3.2-40, 3.2-42, 3.2-43, 3.2-44, 3.2-45, 3.2-47, 3.2-51, 3.2-53, 3.2-54, 3.2-55, 3.2-59, 3.2-60, 3.2-61, 3.2-62, 3.2-63, 3.2-64, 3.2-65, 3.2-66, 3.2-67, 3.2-68, 3.3-4, 3.3-8, 3.3-12, 3.3-24, 3.3-32, 3.6-13, 3.7-6, 3.7-24, 3.7-31, 3.7-33, 3.7-39, 3.7-47, 3.7-48, 3.7-51, 3.7-56, 3.7-60, 3.7-67, 3.8-9, 3.8-11, 3.8-35, 3.8-37, 3.9-11, 3.12-5, 3.13-21, 3.14-16, 3.14-27, 3.15-25, 3.16-3, 4-11, 5-4
Water Quality Control Plan 3.2-7, 3.2-10, 3.2-66, 3.2-70, 3.7-5, 3.7-67
water rights... ……ES-8, 2-4, 2-25, 2-27, 3.1-1, 3.1-3, 3.1-4, 3.1-5, 3.1-6, 3.1-7, 3.1-10, 3.1-11, 3.1-12, 3.1-13, 3.1-14, 3.3-37, 3.6-26, 3.12-1, 3.12-3, 3.12-7, 3.12-8
water supply……ES-1, ES-3, ES-10, 1-1, 1-2, 1-3, 2-5, 2-22, 2-26, 2-27, 2-39, 3.1-1, 3.1-5, 3.1-8, 3.1-11, 3.1-15, 3.1-17, 3.1-18, 3.1-20, 3.1-21, 3.1-22, 3.1-23, 3.1-24, 3.2-3, 3.2-11, 3.2-26, 3.2-28, 3.2-44, 3.2-68, 3.3-12, 3.3-27, 3.3-37, 3.4-25, 3.4-26, 3.6-2, 3.6-5, 3.6-12, 3.6-18, 3.6-22, 3.7-8, 3.7-23, 3.8-9, 3.8-19, 3.8-20, 3.8-25, 3.9-23, 3.9-26, 3.9-28, 3.9-49, 3.9-51, 3.9-53, 3.10-29, 3.10-50, 3.10-56, 3.10-59, 3.10-61, 3.12-10, 3.13-21, 3.13-22, 3.14-15, 3.14-19, 3.14-22, 3.15-13, 3.16-5, 3.16-6, 3.16-7, 3.17-8, 4-7, 4-9, 4-10, 5-3
Westlands Water District ES-5, 2-18, 3.3-41
wetlands .... ……..ES-26, 3.2-11, 3.6-12, 3.7-7, 3.7-9, 3.8-6, 3.8-9, 3.8-19, 3.8-20, 3.8-22, 3.8-24, 3.8-27, 3.8-28, 3.8-34, 3.8-41, 3.9-37, 3.14-3, 3.14-12, 5-4
white-faced ibis 3.8-24, 3.8-25, 3.8-27
Wilkins Slough.....…….3.2-34, 3.2-37, 3.2-48, 3.2-56, 3.2-59, 3.7-11, 3.8-12, 3.14-17, 3.14-21, 3.14-23, 3.17-15, 3.17-19, 3.17-22
William R. Gianelli Pumping-Generating Plant 3.16-4

Williamson Act. …….ES-28, 3.9-2, 3.9-3, 3.9-4, 3.9-5, 3.9-6, 3.9-7, 3.9-8, 3.9-23, 3.9-24, 3.9-25, 3.9-28, 3.9-29, 3.9-32, 3.9-36, 3.9-42, 3.9-49, 3.9-50, 3.9-51, 3.9-52, 3.9-53, 3.9-54, 3.9-55, 3.11-29
Wind Erodibility Group 3.4-26, 3.4-27, 3.4-29
X2 ……3.2-42, 3.2-51, 3.2-60, 3.2-68, 3.7-26, 3.7-40, 3.7-44, 3.7-45, 3.7-52, 3.7-53, 3.7-54, 3.7-61, 3.7-62, 3.7-63, 3.7-67, 3.7-68, 3.8-15, 3.8-36, 3.8-39
yellow-headed blackbird..... 3.8-24, 3.8-25, 3.8-28, 3.8-29
Yolo Bypass 3.1-6, 3.7-7, 3.8-27, 3.17-5, 3.17-10
Yolo County.....3.1-6, 3.1-9, 3.3-7, 3.3-14, 3.3-23, 3.3-41, 3.4-11, 3.4-27, 3.5-11, 3.5-20, 3.5-21, 3.5-31, 3.5-35, 3.7-74, 3.8-44, 3.9-10, 3.9-11, 3.9-15, 3.9-26, 3.9-28, 3.9-41, 3.9-42, 3.9-56, 3.9-60, 3.10-2, 3.10-10, 3.10-11, 3.10-25, 3.10-35, 3.11-4, 3.11-8, 3.12-4, 3.15-4
Yolo Ranch ES-7, 2-11, 2-17, 2-38
Yuba City ……3.5-11, 3.5-29, 3.5-49, 3.5-50, 3.9-39, 3.9-40, 3.9-41, 3.9-57, 3.10-8, 3.13-11, 3.17-6, 3.17-7, 3.17-26
Yuba Feather Flood Protection Program 3.17-26
Yuba River……..ES-7, 2-11, 2-16, 2-21, 2-22, 2-34, 2-37, 3.1-10, 3.1-11, 3.2-1, 3.2-8, 3.2-15, 3.2-16, 3.2-35, 3.2-38, 3.2-49, 3.2-57, 3.2-65, 3.3-19, 3.7-3, 3.7-14, 3.7-32, 3.7-33, 3.7-48, 3.7-66, 3.8-1, 3.8-2, 3.8-47, 3.13-7, 3.13-9, 3.13-10, 3.14-6, 3.15-6, 3.15-7, 3.17-1, 3.17-6, 3.17-7, 4-8, 4-9

This page intentionally left blank.

Appendix X

Distribution List

This page left blank intentionally.

Appendix X
Distribution List

This appendix includes the distribution list for the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Only names and affiliations, if applicable, are shown on this list. This list has been in development since the Notice of Intent and scoping meetings in 2011. [1]

The Final EIS/EIR is available at https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=18361.

Copies of the Final EIS/EIR are available for public review at the following locations:

(1) Bureau of Reclamation, Mid-Pacific Region, Regional Library, 2800 Cottage Way, Sacramento, CA 95825,

(2) Natural Resources Library, U.S. Department of the Interior, 1849 C Street NW, Main Interior Building, Washington, DC 20240-0001, and

(3) San Luis & Delta-Mendota Water Authority (SLDMWA), 842 6th Street, Los Banos, CA 93635.

The distribution list includes the following:

- Representatives from participating buyers and sellers.
- Representatives from other Federal, State, and local agencies that commented or expressed interest in the project.
- Representatives from non-governmental organizations that attended public meetings, provided comments, or expressed interest in the project.
- Interested members of the public that attended public meetings, provided comments, or expressed interest in the project.

X.1 Buyers and Sellers

Table X-1. Buyers and Sellers Distribution List

[1] Reclamation and SLDMWA used scoping meeting and public hearing sign in sheets to help develop the distribution list. Some individuals that signed in did not provide email addresses or the handwriting was illegible. If a name or email address was missed, Reclamation and SLDMWA have made the EIS/EIR available at identified locations and on Reclamation's website listed above.

Name	Agency
Al Montna	Garden Highway Mutual Water Company
Andrea Clark	Downey Brand
Andrew Hitchings	Somach, Simmons, Dunn
Benjamin Bray	East Bay Municipal Utility District
Bradley Arnold	South Sutter Water District
Brett Ewart	City of Sacramento
Brett Gray	Natomas Central Mutual Water Company
Brett Scheidel	Pleasant Grove-Verona Mutual Water Company
Bryan Busch	Reclamation District 108
Christy Chung	Santa Clara Valley Water District
Dan Sherry	City of Sacramento
Dan York	Sacramento Suburban Water District
Daniel Griffith	Sycamore Mutual Water Company
Darren Cordova	MBK Engineers
Dave Underwood	Sacramento County Water Agency
David and Alice Te Velde Revocable Family Trust	Te Velde Revocable Trust
David Guy	Nor Cal Water Association
Dee Swearingen	Natomas Central Mutual Water Company
Dennis Falaschi	Pacheco Water District, Panoche Water District
Devin Mody	Santa Clara Valley Water District
Dustin Cooper	Anderson-Cottonwood Irrigation District, Butte Water District, Cordua Irrigation District
Edward Formosa	Sacramento Suburban Water District
Einar Maisch	Placer County Water Agency
Frances Mizuno	SLDMWA
Garth Hall	East Bay Municipal Utility District
Geoff Rabone	Merced Irrigation District
H.E. Niederberger, Jr.	Sacramento County Water Agency
Jan Lee	East Bay Municipal Utility District
Jeff Cattaneo	San Benito County Water District
Jeff Quimby	Contra Costa Water District
John Bennett	Eagle Field Water District
John Brennan	Goose Club Farms, Tule Basin Farms
John Sweigard	Merced Irrigation District
Jose Gutierrez	Westlands Water District
Kerry Schmitz	Sacramento County Water Agency
Leah Orloff	Contra Costa Water District
Lewis Bair	Reclamation District 108
Lucinda Shih	Contra Costa Water District
Marc Van Camp	MBK Engineers
Marcos Hedrick	Mercy Springs Water District
Mark Orme	Butte Water District
Martin McIntyre	San Luis Water District
Marty Stripling	River Garden Farms
Max Sakato	Sutter Mutual Water Company
Mike Hardesty	Reclamation District 2068
Mike Tognolini	East Bay Municipal Utility District
Nicole Van Vleck	Garden Highway Mutual Water Company

Name	Agency
Nicoli Nicholas	Pleasant Grove-Verona Mutual Water Company
Phil McMurray	Merced Irrigation District
Robert Roscoe	Sacramento Suburban Water District
Ryan Fong	Conaway Preservation Group
Scott Morris	Placer County Water Agency
Scott Tucker	Pelger Mutual Water Company
Stan Wangberg	Anderson-Cottonwood Irrigation District
Steve Bayley	City of Tracy
Steve Fausone	Laguna Water District
Steve Gidaro	Cranmore Farms
Steven Sloan	Oro Loma Water District
Thad Bettner	Glenn-Colusa Irrigation District
Todd Manley	Nor Cal Water Association (NCWA)
Tom Birmingham	Broadview Water District, Westlands Water District
Tom Glover	Westlands Water District
Walter Cotter	Browns Valley Irrigation District

X.2 Federal, State and Local Agencies

Table X-2. Federal, State, and Local Agencies Distribution List

Name	Agency
Barbara Sachs	Reclamation District 1004
Bill Skinner	City of Coalinga
Bobby Pierce	West Stanislaus Irrigation District
Brad Matson	Richvale Irrigation District
Brendan Vieg	City of Chico
Candace Williams	Thomes Creek Water District
Carrie Rohr	Proberta Water District
Charles Orwick	Ash Creek Watershed, Battle Creek Watershed
Cindy Messer	Delta Stewardship Council
Connell Dunning	United States Environmental Protection Agency
Curt Aikens	Yuba County Water Agency
Dale Melville	Dudley Ridge Water District
Dan Peterson	Sutter County
Daniel Ruiz	Maxwell Irrigation District, Meridian Farms
Danny Wade	Tranquility Irrigation District
David Coxey	Bella Vista Water District
David Luker	Desert Water Authority
David Weisenberger	Banta Carbona Irrigation District
Dennis Bentz	Kirkwood Water District
Dennis Westcot	San Joaquin River Group Authority
Diane Riddle	State Water Resources Control Board
Don Ridenhour	Napa County Flood Control and Water Conservation District
Donita Hendrix	Dunnigan Water District
Doug Headrick	San Bernardino Valley Municipal Water District
Doug Teeter	Butte County Board of Supervisors

Name	Agency
Ed Kriz	City of Roseville
e-PUR	South Delta Water Agency, Central Delta Water Agency
Eric Chapman	State Water Contractors
Eric Wedemeyer	Shasta County
Erick H Johnson	The Water Agency, Inc
Ernie Ohlin	Tehama County
Frank Apgar	Kings County
Fritz Grimmer	Cortina Water District
Garwin Yip	National Oceanic Atmospheric Association (NOAA)
Gina Darin	California Department of Water Resources (DWR)
Glenn Mathis	4M Water District
Greg Norby	City of Redding
Guillermo Santillan	Meridian Farms
Helen Birss	California Department of Fish and Wildlife (CDFW)
Jaime Traynham	Davis Water District
James D. Hartley	Avenal State Prison
James Lowden	Corning Water District
James M. Beck	Kern County Water Agency
Jane Carter	Carter Mutual Water Company
Jeff Ford	Castaic Lake Water Agency
Jeff Kightlinger	The Metropolitan Water District of Southern California
Jeff McLain	NOAA
Jeff Shields	South San Joaquin Irrigation District
Jeff Sutton	Tehama-Colusa Canal Authority
Jennifer Buckman	Friant Water Authority
Jim Wallace	Colusa Drain Mutual Water Company
John Beam	Grasslands Water District
John Herrick	South Delta Water Agency, Central Delta Water Agency
John Mallyon	James Irrigation District, RD 1606
Karen Huss	Sacramento Metropolitan Air Quality Management District
Nicole Goi	Sacramento Municipal Utility District
Kathleen Martyn Goforth	United States Environmental Protection Agency
Kim Forrest	United States Fish and Wildlife Service (USFWS)
Kirby Brill	Mojave Water Agency
Lance Boyd	Princeton-Codora-Glenn ID, Provident Irrigation District
Larry Rodriguez	Kern County Water Agency
Laurie Mikkelson	Colusa Indian Community
Lester Messina	Glenn County
Linda Bond	DWR
Lynn Phillips	Sutter Extension Water District
Mark Gilkey	Tulare Lake Basin Water Storage District
Maureen Kirk	Butte County
Michael Alves	Glide Water District, Kanawha Water District
Mike Wade	California Farm Water Coalition
Nancy Quan	DWR
Nina Bicknese	USFWS
Osha Meserve	Local Agencies of the North Delta
Patrick Blacklock	Yolo County
Paul Bartkiewicz	Yuba County Water Agency

Name	Agency
Paul D. Forsberg	CDFW
Paul Gosselin	Butte County
Paul Piraino	Alameda County Water District
Pedro Villalobos	California Department of Water Resources
Peter Rietkirk	Patterson Irrigation District
Ralph Bennett	San Joaquin National Cemetery (Department of Veteran Affairs)
Ric Ortega	Grasslands Water District
Ricardo Ortega	Grassland Water District
Richard Macedo	California Department of Fish and Wildlife
Rick Gillmore	Byron Bethany Irrigation District
Rick Massa	Orland Unit Water Users Association
Robert Harper	Westside Water District
Robert Toone	Palmdale Water District
Roger Jaegel	Trinity County
Ron La Grande	La Grande Water District
Ron Lee	Hothouse Water District
Russell Fuller	Antelope Valley-East Kern Water Agency
Scott Cantrell	CDFW
Scott Matyac	Yuba County Water Agency
Shauna Lorance	San Juan Water District
Shelly Murphy	Colusa County Water District
Steve Hackney	Colusa County
Steve Hirsch	The Metropolitan Water District of Southern California
Steve Kaiser	West Side Irrigation District
Steve Knell	Oakdale Irrigation District
Susan King	Orland-Artois Water District
Ted Trimble	Western Canal Water District
Terry Erlewine	State Water Contractors
Tom Filler	DWR
Vickie Newlin	Butte County
Walter Sadler	City of Folsom
William Brennan	Central Coast Water Agency
William Harrison	Del Puerto Water District, Oak Flat Water District

X.3 Non-Governmental Organizations

Table X-3. Non-Governmental Organizations Distribution List

Name	Group
Barbara Vlamis	AquAlliance
Barbara Barrigan-Parrilla	Restore the Delta
Bill Jennings	California Sportfishing Protection Alliance
Carol Perkins	Butte Environmental Council (BEC)
Carolee Krieger	California Water Impact Network
Carolyn Short	Butte Valley Coalition
Celeste Garcia	Sierra Club

Name	Group
Charles Center	Friends of the River
Chelsea Tu	Center for Biological Diversity
Christine Nelson	Southwest Chico Toxics Task Force
Conner Everts	Environmental Water Caucus
Dave Garcia	Frack Free Butte
Don Hankins	California Indian Water Commission
ECONorthwest	AquAlliance, California Sportfishing Protection Alliance, Aqua Terra Aeris Law Group
EJ Burkett	AquAlliance
Elizabeth Devereaux	AquAlliance
Grace Marvin	Sierra Club
James Brobeck	AquAlliance
Jason Flanders	Aqua Terra Aeris Law Group
Jay Ziegler	The Nature Conservancy, California Chapter
Jeffrey Volberg	California Waterfowl
Jeff Henderson	Delta Stewardship Council
John Scott	Butte Valley Coalition
Jonas Minton	Planning and Conservation League
Joni Stellar	Frack-Free Butte County
Julian Zener	Sierra Club
Kathryn Phillips	Sierra Club
Kit Custis	AquAlliance, California Sportfishing Protection Alliance, Aqua Terra Aeris Law Group
Kyran Mish	AquAlliance, California Sportfishing Protection Alliance, Aqua Terra Aeris Law Group
Mark Biddlecomb	Ducks Unlimited
Michael Billiou	Billiou Farming Company
Nani Teves	BEC
Nelson Parmerter	Sierra Club
Patrick Soluri	Soluri Meserve
Rachel Zwillinger	Defenders of Wildlife
Robyn DiFalco	BEC
Sharon Fritsch	Sierra Club
Suzette Welch	Sierra Club
Tom Cannon	AquAlliance, California Sportfishing Protection Alliance, Aqua Terra Aeris Law Group

X.4 Individuals

Table X-1. Individuals Distribution List

Name
Aaron Ferguson
Allen Carrier
Amalie Sorenson
Andrew McClure

Name
Barbara Hennigan
Bob Adams
Bob Hennigan
Bruce Smith
C. Wesley Strickland
Carl Schuhr
Cathy Busch
Cathy Webster
Charlie Yarbrough
Chuck Greenwood
Cliff De Tar
Dan Everhart
Dan Frisk
Dave Walker
David Frankel
DeAnne Lory
Debbie Kick
Debbie MacTavish
Denise McNeil
Dennis Boyd
Diana Sue Good
Diane Monson
Douglas Wylie
Edwin Roland McNutt
Elena Middleton
Ellen Walker
Eric Miller
Eric Robinson
Fawnna Montgomery
Frank Prentice
Gary Kienlen
Gary Middleton
GeneAnna McMillan
Geoffrey Baugher
George McArthur
Greg Amaral
Greg Young
H. Elena Middleton
Heather Gray
Idie Adams
J Barton
Jack Baber
Jain Redond
James Bennet
Jason Flanders
Jeanne Shelsky
Jeanne Zolezzi
Jill Pedrozo
John Dizzal

Name
John Gray
John Johnson
John MacTavish
John Scott
Joshua M. Horowitz
Judy Vickrey
Julian Zener
Karen Stinson
Keith Landrum
Ken Fleming
Kevin O' Brien
Kristi Bennett
Lance Wirtanen
Les Butler
Lieg Garton
Lila Prentice
Liliana Scarafia
Lily Rothrock
Linda Calbreath
Linda Lohjse
Lloyd Cleghorn
Lynne Elhardt
Marcell Gareis
Margaret Rader
Margaret Swick
Maria LaRocca
Marianna Love
Mark Montgomery
Mary McCluskey
Mat Bacior
Melinda Teves
Misty Stewart
Nancy Praizler
Nancy Schleiger
Nevada Smith
Norma Samra
O.J. McMillan
Paul Johnson
Paula Sunn
Peter Jodaitis
Peter Rather
Peter Samra
Raul Morales
Ray Varlinsky
Richard Hauer
Richard Thieriot
Rob Montogomery
Rob Swartz
Robin Keehn

Name
Ruthann Christensen
Sally Wallace
Sandy Boyd
Scott Lape
Seamus Yeo
Sherri Scott
Stephen Sayre
Steve O'Bryan
Steven Hammond
Susan Schuhr
Susan Sullivan
Susie Lawing
Suzette Welch
Theodore A. Chester
Thom Shelsky
Tony St. Amant
Virginia Freeman
Walter Wangsgard
Wes Heitman
William Funke
William Tefteller
Zach Peek

1

1

2 *This page left blank intentionally.*
3

4