

Tide's End Multibenefit Restoration Project

Final Supplemental Environmental Impact Report



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CHAPTER 1

Introduction and List of Commenters

1.1 Purpose of this Document

This Final Supplemental Environmental Impact Report (Final SEIR) has been prepared for the Tide's End Multibenefit Restoration Project (proposed Project) in accordance with the California Environmental Quality Act (CEQA) and, together with the Draft Supplemental Environmental Impact Report (Draft SEIR) (February 2026; State Clearinghouse No. 2024070944) and the Draft SEIR appendices, constitutes the Supplemental Environmental Impact Report (SEIR) for the proposed Project that will be reviewed and considered by the California Department of Water Resources (DWR) prior to approving the project.

Written comments on the Draft SEIR were received by DWR during the public comment period from February 10, 2026, through March 27, 2026. No verbal comments were received by DWR during three CEQA public meetings held February 23, 2026, in Sacramento (in person), February 24, 2026, in Davis CA (in person), and February 24, 2026 (virtual). (see **Appendix A** for the meeting transcripts).

This document includes all agency and public written comments received on the Draft SEIR and includes written responses to each comment received. Also included are changes to the of the Draft SEIR, either in response to written comments or initiated by DWR staff. The responses and text changes correct, clarify, and amplify text in the Draft SEIR, as appropriate. These changes do not alter the conclusions of the Draft SEIR.

The proposed Project Draft SEIR and related documents can be found on DWR's website:

<https://water.ca.gov/New/Public-Notices>

1.2 Summary of the Proposed Project

The proposed Project is being developed to restore and enhance tidal wetland and floodplain habitat, support multibenefit land uses (including managed wetlands and floodplain agriculture), and maintain or improve flood conveyance in the Yolo Bypass. Tidal inundation would be restored by hydrologically connecting the site to the Toe Drain via a series of berm openings, berm lowering, and channel excavation. The restored habitats would enhance aquatic production and export for food web support and would facilitate volitional fish passage of juvenile salmonids and other native fishes accessing the proposed Project area's floodplain during high-flow events. The proposed Project's restoration design elements include tidal wetland, transition zone habitat, floodplain habitat, managed wetlands, managed floodplain agriculture, site revegetation (including riparian communities), access improvements, as well as irrigation and drainage improvements.

1.3 Project Actions

Adoption of the proposed Project is anticipated to include, but may not be limited to, the following DWR actions:

- In accordance with CEQA Guidelines section 15090(a), certification of the SEIR to determine that the SEIR was completed in compliance with the requirements of CEQA, that the decision-making body has reviewed and considered the information in the SEIR, and that the SEIR reflects the independent judgment and analysis of DWR.
- Adoption of a Mitigation Monitoring and Reporting Program (MMRP), pursuant to CEQA Guidelines Section 15097 which specifies the methods for monitoring mitigation measures required to eliminate or reduce the proposed Project's significant effects on the environment.
- Adoption of Findings of Fact in accordance with CEQA Guidelines Section 15091.

1.4 Organization of the Final SEIR

The Final SEIR is organized as follows:

Chapter 1 – Introduction and List of Commenters: This chapter summarizes the project under consideration and describes the contents of the Final SEIR. This chapter also contains a list of all of the agencies and individuals who submitted comments on the Draft SEIR during the public review period, presented in order by date received.

Chapter 2 – Revisions to the Draft SEIR: This chapter summarizes staff initiated text changes made to the Draft SEIR. Changes to the text of the Draft SEIR are shown by either ~~striketrough~~ where text has been deleted, or double underline where new text has been inserted.

Chapter 3 – Comments and Responses: This chapter contains the comment letters received on the Draft SEIR, followed by responses to each individual comment. Each comment letter is presented with brackets indicating how the letter has been divided into individual comments. Each comment is given a binomial with the letter number appearing first, followed by the comment number. For example, comments in Letter S1 are numbered S1-1, S1-2, S1-3, and so on. Immediately following the letter are responses, each with binomials that correspond to the bracketed comments. No verbal comments were received during the public meetings.

Some comments that were submitted to DWR do not pertain to substantial environmental issues or do not address the adequacy of the analysis contained in the Draft SEIR. Responses to such comments, though not required, are included to provide additional information so that the public and decision makers can have a better understanding of these issues. Some comments express opinions about the merits or specific aspects of the proposed Project and these are included in the Final SEIR for consideration by the decision-makers.

Chapter 4 – Mitigation Monitoring and Reporting Program: This chapter contains the MMRP to guide DWR in its implementation and monitoring of measures adopted in the SEIR, and to comply with the requirements of Public Resources Code Section 21081.6(a).

1.5 Public Participation and Review

DWR has complied with all noticing and public review requirements of CEQA. This compliance included notification of all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft SEIR was available for review. The following list of actions took place during the preparation, distribution, and review of the Draft SEIR:

- A Notice of Preparation (NOP) of an SEIR was filed with the State Clearinghouse on July 23, 2024. The NOP was circulated to the public and to federal, State, and local agencies and other interested parties to solicit comments on the proposed Project. The 45-day public comment period for the NOP closed on September 7, 2024.
- Three public scoping meetings were held: in person with a virtual option on August 6, 2024, at California Natural Resources Agency Headquarters; virtually on August 7, 2024; and in person on August 8, 2024, at the Yolo Bypass Wildlife Area Headquarters.
- In support of required Native American consultation for the proposed Project pursuant to PRC Section 21080.3, and in accordance with the California Natural Resources Agency's (CNRA) *Final Tribal Consultation Policy (2012)* and DWR's *Tribal Engagement Policy (2016)*, DWR sent letters via certified mail on July 19, 2024, to the following California Native American Tribes: Ione Band of Miwok Indians, Shingle Springs Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, Wilton Rancheria and Yocha Dehe Wintun Nation. The Shingle Springs Band of Miwok Indians sent a letter to DWR stating that the Tribe is not aware of any cultural resources in the proposed Project area, but that the Tribe would like to be provided with updates through the life of the proposed Project. The letter from the Shingle Springs Band of Miwok Indians also requested the CHRIS records searches and cultural resources survey reports completed for the proposed Project. The Yocha Dehe Wintun Nation sent a letter to DWR stating that the Tribe would like to consult on the proposed Project. DWR hosted a consultation meeting with representatives of Yocha Dehe Wintun Nation on October 16, 2024. During this meeting, the Tribe did not identify any resources within the immediate Project area but shared an interest in heightened cultural sensitivity.
- A Notice of Availability (NOA) and the Draft SEIR were filed with the State Clearinghouse on February 10, 2026. A 46-day public review period for the Draft SEIR ended on March 27, 2026. The NOA was also published in the *Sacramento Bee*, sent to appropriate federal, State, and local agencies and other interested parties, published on DWR's website, and filed at the Yolo County Clerk's office.
- Copies of the Draft SEIR were available for review at the following locations:
 - California Department of Water Resources, 3500 Industrial Boulevard, West Sacramento CA 95691
 - Mary L. Stephens – Davis Branch Library, 315 E. 14th Street, Davis CA 95616
- Two in person public meetings were held on February 23, 2026, and February 24, 2026. A virtual public meeting was held on Tuesday February 24, 2026, to give the public an opportunity to hear information on the CEQA process and the Draft SEIR and provide verbal comments on the Draft SEIR. No verbal comments were received at the public meetings.

1.6 CEQA Certification and Project Approval

Before DWR makes a decision with regard to the Proposed Project, CEQA Guidelines Section 15090(a) requires that DWR first certify that the SEIR has been completed in compliance with CEQA, that DWR has reviewed and considered the information in the SEIR, and that the SEIR reflects the independent judgment and analysis of DWR.

In the event DWR approves the proposed Project, CEQA requires that it file a Notice of Determination (NOD) and adopt appropriate findings as set forth in CEQA Guidelines Section 15091. Under CEQA Guidelines Section 15092, a lead agency may approve or carry out a project subject to an environmental impact report only if it determines that: (1) the project will not have a significant effect, or (2) the agency has eliminated or substantially lessened all significant effects on the environment where feasible and any remaining significant effects on the environment that are found to be unavoidable are acceptable due to overriding considerations.

1.7 List of Commenters

The DWR received seven comment letters during the comment period on the Draft SEIR for the proposed Project. **Table 1-1** indicates if letters were sent by Tribes (T), State (S) or local (L) agencies. A numerical designation is provided for each comment letter, along with the author of the comment letter, and the date of the comment letter. No verbal comments were received at the three public meetings held during the Draft SEIR public review period.

TABLE 1-1
COMMENT LETTERS REGARDING THE DRAFT SEIR

Letter #	Entity	Author(s) of Comment Letter	Date of Comment Letter
T1	Yoche Dehe Wintun Nation	Yvonne Perkins	March 25, 2026
S1	California Department of Conservation Geologic Energy Management Division (CalGEM)	May Soe	March 10, 2026
S2	California Department of Fish and Wildlife (CDFW)	Erin Chappell	March 26, 2026
S3	Delta Stewardship Council (DSC)	Jeff Henderson	March 18, 2026
L1	Lower Sacramento River/Delta North Regional Flood Management Planning Team	Doug Brown	March 27, 2026
L2	Solano County Department of Resource Management	Misty Kaltreider	March 27, 2026
L3	Yolo County Office of County Administrator	Michael Webb	March 27, 2026

CHAPTER 2

Revisions to the Draft SEIR

2.1 Introduction

This chapter describes changes made to the proposed project since publication of the Draft SEIR, including any changes made in response to public comments received on the Draft SEIR.

The text changes described below are staff-initiated changes that refine, clarify, and amplify the project information presented in the Draft SEIR. No new significant impacts are identified, and no information is provided that would involve a substantial increase in severity of a significant impact that would not be mitigated by the Final Statewide Restoration General Order (SRGO) Program EIR general protection measures, species protection measures and mitigation measures agreed to by DWR. In addition, no new or considerably different project alternatives or mitigation measures have been identified. Therefore, there are no edits or new information that would reflect inadequacies in the Draft SEIR and therefore, recirculation of any part of the SEIR therefore is not required.

2.2 Text Changes to the Draft EIR

This section summarizes text changes made to the Draft SEIR. New text is indicated in double underline and text to be deleted is reflected by a ~~strike-through~~. Text changes are presented in the order in which they appear in the Draft SEIR.

The text revisions provide clarification, amplification, and negligible corrections that have been identified by DWR since publication of the Draft SEIR. These staff-initiated revisions do not result in a change in the conclusions or findings of the Draft SEIR.

Appendix A: General Protection Measures and Species Protection Measures Applicable to the Proposed Project

Table App. A-2 included in Appendix A, “General Protection Measures and Species Protection Measures Applicable to the Proposed Project,” to the Draft SEIR included some Final SRGO Program EIR SPMs that are not applicable to the proposed Project. To clarify, Appendix A has been revised to remove species protection measures that are not applicable to the proposed Project as presented in Chapter 3, “Environmental Setting, Impacts and Mitigation Measures”. The revised Appendix A is included at the end of this chapter.

3.9 Hazards and Hazardous Materials

The following text has been added to the last paragraph on page 3.9-5 and the first paragraph on page 3.9-6 to include specific information about mosquito species in the proposed Project area.

In California, the West Nile virus, St. Louis encephalitis, and western equine encephalomyelitis are the three most important viral mosquito-borne diseases. The viruses that cause these diseases are maintained in nature through a mosquito-bird-mosquito cycle. Typically, water bodies with poor circulation, continually slow-changing water levels, higher temperatures, and higher organic content produce greater numbers of mosquitoes. In the proposed Project area, mosquitoes could breed in existing agricultural irrigation and drainage ditches as well as managed wetlands. The primary mosquitos in the proposed Project area are the Aedes and Culex which reside in managed wetlands. Tidal wetland habitat can also support Aedes in ponded areas that are infrequently inundated during tidal action. The Culex mosquito transmits the West Nile virus. While most adult mosquitoes remain close to their point of origin, and their ability to travel is heavily dependent on physical phenomena such as wind, the Aedes mosquito is know to travel as far as Cortland and could reach inner areas of Sacramento County. Some mosquitoes feed on mammals and other animal hosts and others feed on fruits and plant nectars. ~~In the proposed Project area, mosquitoes could breed in existing agricultural irrigation and drainage ditches as well as managed wetlands.~~ County vector control districts provide mosquito and other vector control. The Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) provides and manages mosquito and other vector control in the proposed Project area. SYMVCD has not identified any confirmed positive samples of West Nile virus activity in the proposed Project area (SYMVCD 2025).

3.10 Hydrology and Water Quality

Figure 3.10-2 on page 3.10-9 has been revised to more precisely reflect the groundwater well location for the data provided in Figure 3.10-3 Groundwater Well Levels at an Observation Well near the Proposed Project Area (page 3.10-12). The revised Figure 3.10-2 is included at the end of this chapter.

The following text in the second paragraph on page 3.10-77 is revised to reflect the correct general protection measure.

Adherence to the NPDES regulations would ensure that construction of the proposed Project would not result in the release of pollutants into surface water and/or groundwater that could violate water quality standards or waste discharge requirements, substantially degrade water quality, or obstruct implementation of a water quality control plan. Additionally, the proposed Project would include implementation of general protection measures GPM-10, GPM-11, GPM-12, WQHM-1, WQHM-2, WQHM-3, WQHM-4, WQHM-5, WQHM-6, IWW-1, IWW-2, IWW-3, IWW-4, IWW-6, IWW-~~10~~¹¹, IWW-11, IWW-12, IWW-13, VHDR-2, VHDR-3, VHDR-4, VHDR-6, VHDR-7, and VHDR-8 included in the Final SRGO Program EIR to reduce construction impacts. See Appendix A to this Draft SEIR, “General Protection Measures and Species Protection Measures Applicable to the Proposed Project,” for a complete description of each general protection measure. Therefore, this impact would be less than significant with implementation of general protection measures.

4. Cumulative Impacts

The following text in the last paragraph on page 4-12 and first paragraph on page 4-13 has been revised to include the specific general protection and species protection measures that would be applied to reduce the proposed Project's contribution to significant cumulative impacts to terrestrial biological resources associated with construction activities to less than cumulatively considerable.

To reduce the proposed Project's contribution to this significant cumulative impact, the following general protection measures and species protection measures from the Final SRGO Program EIR would be implemented: GPM-1: Receipt and Copies of All Permits and Authorizations, GPM-2: Construction Work Windows, GPM-3: Construction Hours, GPM-4: Environmental Awareness Training, GPM-5: Environmental Monitoring, GPM-6: Work Area and Speed Limits, GPM-7: Environmentally Sensitive Areas, GPM-8: Prevent Spread of Invasive Exotic Plants, GPM-9: Practices to Prevent Pathogen Contamination, GPM-10: Equipment Maintenance and Materials Storage, GPM-11: Material Disposal, GPM-12: Fugitive Dust Reduction, GPM-13: Trash Containment and Removal, GPM-14: Project Cleanup after Completion, GPM-15: Revegetate Disturbed Areas, WQHM-1: Staging Areas and Stockpiling of Materials and Equipment, WQHM-2: Storm Water Pollution Prevention Plan, WQHM-3: Erosion and Sediment Control Measures, WQHM-4: Hazardous Materials Management and Spill Response Plan, WQHM-5: In-Water Concrete Use, WQHM-6: Accidental Discharge of Hazardous Materials, IWW-1: Appropriate In-Water Materials, IWW-2: In-Water Vehicle Selection and Work Access, IWW-3: In-Water Placement of Materials, Structures, and Operation of Equipment, IWW-6: Dewatering/Diversion~~IWW-8: Removal of Diversion and Barriers to Flow, IWW-11: Sediment Containment during In-Water Pile Driving, IWW-13: Dredging Operations and Dredging Materials Reuse Plan,~~ VHDR-1: Avoidance of Vegetation Disturbance, VHDR-2: Native and Invasive Vegetation Removal Materials and Methods, VHDR-3: Revegetation Materials and Methods, VHDR-4: Revegetation Erosion Control Materials and Methods, VHDR-5: Revegetation Monitoring and Reporting, SPM-1: Preconstruction Surveys, SPM-2: Environmentally Sensitive Areas and/or Wildlife Exclusion, SPM-3: Species Protection Construction Work Windows, SPM-4: Species Capture, Handling and Translocation, SPM-5: Special-Status Species Entrapment Prevention, SPM-6: Airborne Noise Reduction, ~~AMP-1: Wildlife Passage Design, AMP-2: Rain Event Limitations, AMP-3: Pre-Construction Survey, AMP-4: Disease Prevention and Decontamination, AMP-5: Lighting, AMP-6: Clearing and Grubbing Vegetation, AMP-7: Pump Screens, AMP-8: Removal of Non-native Invasive Species, AMP-9: Placement of Suitable Erosion Control Material, AMP-10: Encounters with Species, AMP-11: Species Observations and Handling Protocol,~~ REP-1: Pre-Construction Survey, REP-2: Environmentally Sensitive and Wildlife Exclusion Area, REP-3: Clearing and Grubbing Vegetation, REP-4: Prohibited Use of Rodenticides, REP-5: Species Observations and Encounters, REP-6: Species Handling and Relocation, BIRD-1: Habitat Assessment, BIRD-2: Nest Protection Work Window, BIRD-3: Work Area Limits, BIRD-4: Site Access Restrictions, BIRD-5: Monitoring, ~~MAM-1: Conduct Habitat Assessment, MAM-2: Avoidance Areas, MAM-3: Use of Handheld Tools, MAM-4: Species Trapping and Relocating, MAM-5: Reporting Requirements, INVERT-1: Implement California Freshwater Shrimp Measures, INVERT-2: Implement Vernal Pool Branchiopods Measures, INVERT-3: Implement Valley Elderberry Longhorn Beetle Protocol, and INVERT-4: Implement Butterfly Protection Measures.~~

The following text in the first full paragraph on page 4-15 has been revised to reflect the specific general protection and species protection measures that would be applied to reduce the proposed Project's contribution to significant cumulative impacts to terrestrial biological resources associated with constructed restoration elements and operations, monitoring, and maintenance activities to less than cumulatively considerable.

To reduce the proposed Project's contribution to this significant cumulative impact, the following general protection measures and species protection measures from the Final SRGO Program EIR would be implemented: GPM-2~~1~~ through GPM-4~~2~~13 and GPM-15, WQHM-1, WQHM-2, WQHM-4, WQHM-6, IWW-1 through IWW-3, IWW-8, IWW-13, VHDR-~~2~~1 ~~and through~~ VHDR-3, and VHDR-6 (all identified above under "Cumulative Effects of Construction Activities"), as well as VHDR-7: Herbicide Application Planning, VHDR-8: Herbicide Application Reporting, SPM-2 through SPM-6 (identified above), PLANT-1: Habitat Assessment and Surveys, PLANT-2: Seasonal Avoidance of Vernal Pool Plant Species and Other Annual and Perennial Species, PLANT-3: Exclusion Buffer Establishment, PLANT-4: Work Restrictions in the Exclusion Buffer, PLANT-6: Herbicide Application, Clearing and Ground Disturbance, and REP-1 through REP-6 and BIRD-1 through BIRD-5 (identified above). Additionally, the proposed Project would implement Final SRGO Program EIR Mitigation Measure TERR-1, which would require the proposed Project to coordinate with the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), and permittees regarding HCPs, NCCPs, and other conservation plans, which would ensure that there would be no conflict with such plans.

5. Alternatives

The following text in the second paragraph on page 5-4 is revised to reflect the correct title for Alternative 2.

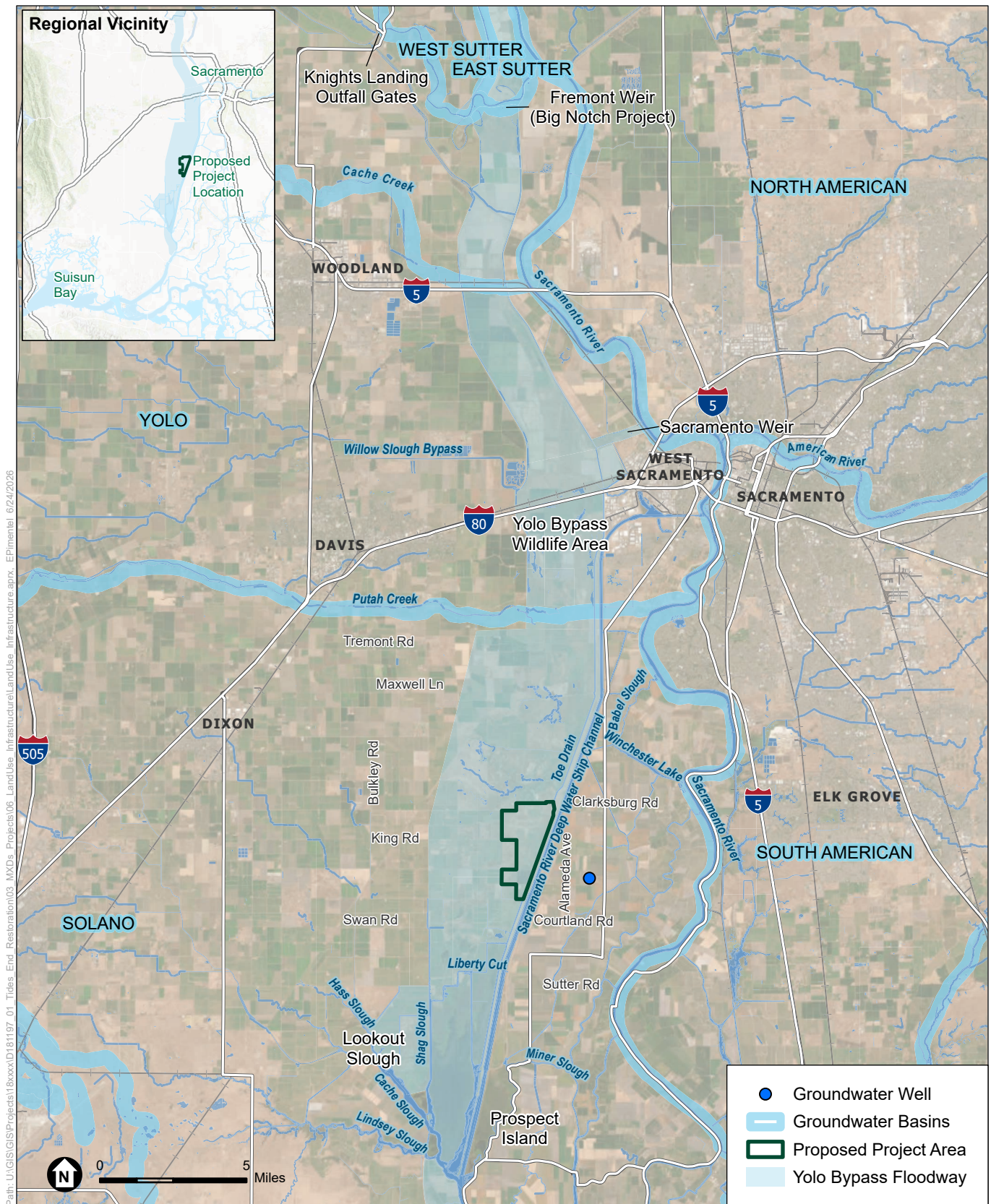
In addition, two comments received during the scoping period of this Draft SEIR were considered in the development of alternatives (see Appendix B to the Draft SEIR, "Tide's End Multibenefit Restoration Project Notice of Preparation and Comment Letters," for the comments received in response to the NOP). One comment suggested maximizing agricultural land uses rather than creating tidal wetland. An alternative with the goal of maximizing agricultural land uses rather than creating tidal wetlands would not meet Project Goal 1 (and related objectives): Restore tidal and floodplain habitats in the Yolo Bypass to support native fish and wildlife and would not meet Goal 3 (and related objectives): Reduce flood risk in in a manner compatible with tidal and floodplain habitats. However, as presented in Section 5.3.3, "Alternative 2: ~~Maximize Maintain~~ Multibenefit Land Uses/~~Minimize Construction~~," has been developed that includes maintaining multibenefit land uses, including agricultural uses. Another comment suggested consideration of an alternative focused on achieving the Yolo Bypass Cache Slough Partnership's six pillars of flood risk management, fisheries and wildlife habitat, water supply, water quality, agriculture, and recreation. As described in Chapter 2, "Project Description," the proposed Project's goals and objectives have been developed to support the HRL Program, help meet the objectives of the Central Valley Flood Protection Plan, provide benefits for native fish and wildlife species, and maintain existing recreational and agricultural land uses that are of regional importance in the Yolo Bypass. These goals and objectives are consistent with the Yolo Bypass Cache Slough Partnership's six pillars and each alternative evaluated in this chapter (see Section 5.3) was evaluated for its ability to feasibly attain most of the proposed Project's objectives.

The title of Section 5.3.3 on page 5-10 is revised to reflect the correct title for Alternative 2.

5.3.3 Alternative 2: Maximize Maintain Multibenefit Land Uses/~~Minimize Construction~~

The following text in the third paragraph under Section 5.5 on page 5-17 is revised to reflect the correct title for Alternative 2.

As shown in Table 5-1, and as discussed in the alternatives analysis above, Alternative 2 (Maximize Maintain Multibenefit Land Uses) would avoid or substantially lessen several potential impacts identified for the proposed Project, due to the reduced construction activities required. Decreased excavation would reduce potential impacts to subsurface resources and terrestrial biological resources and would minimize air quality impacts associated with excavation and hauling fill material.



Tide's End Multibenefit Restoration Project

Figure 3.10-2
Groundwater Setting

Prepared by:



SOURCE: NAIP 2024, Esri, 2026, EIP 2026, ESA 2026

Appendix A
**General Protection Measures and
Species Protection Measures
Applicable to the Proposed Project**
(Revised)

The following tables outline Protection Measures, included in the Final SRGO Program EIR (State Water Board 2022b), which are applicable to the Proposed Project as a supplemental document (see Chapter 1, *Introduction*). The measures can be broadly divided into two categories General Protection Measures (GPM) and Species Protection measures (SPM). The purpose of including GPMs is to incorporate best management practices (BMP) and to avoid and/or minimize the potential short-term, long-term, and cumulative adverse effects of a project's construction activities. Similarly, the purpose of including SPMs is to incorporate BMPs and to avoid and/or minimize the potential short-term, long-term, and cumulative adverse effects to species generally and specific guilds of species (i.e. Bird Protection Measures, Amphibian Protection Measures, etc.).

Table App. A-1 contains GPMs from the SRGO Final Program EIR which are applicable to the Proposed Project and the corresponding environmental resource topic to which they would apply.

TABLE APP. A-1
GPMS APPLICABLE TO THE PROPOSED PROJECT

Measure Name	Description of Measure	Applicable Resource Topic
General Protection Measures (GPM)		
GPM-1: Receipt and Copies of All Permits and Authorizations	Work will not begin until all necessary permits and authorizations have been received (e.g., USACE, USFWS, NMFS, State and Regional Boards, CDFW). The project proponent will ensure that a readily available copy of the applicable agency permits and authorizations (e.g., USFWS Biological Opinion, NMFS Biological Opinion, Section 404 permit, etc.) is maintained by the construction foreman/manager on the project site for the duration of project activities.	Biological Resources-Terrestrial, Cumulative
GPM-2: Construction Work Windows	Construction work windows may be required in order to avoid impacts to aquatic resources and associated beneficial uses during the wet season. Project proponents must also follow the applicable Regional Board's construction work windows, unless otherwise approved.	Noise, Biological Resources-Terrestrial, Biological Resources-Aquatic, Cumulative
GPM-3: Construction Hours	Construction activities will generally be limited to daylight hours, to the extent feasible. If nighttime construction is necessary, including in tidally influenced waters where tides may limit daylight access and work schedules, all project lighting (e.g., staging areas, equipment storage sites, roadway, and construction footprint) will be selectively placed and directed onto the roadway or construction site and away from aquatic habitats. Light glare shields will be used to reduce the extent of illumination into aquatic habitats. If the work area is near surface waters, the lighting will be shielded so that it does not shine directly into the water.	Noise, Biological Resources-Terrestrial, Cumulative
GPM-4: Environmental Awareness Training	For projects occurring in aquatic resources (e.g., wetlands, riparian areas, etc.), prior to engaging existing or new personnel in construction activities, new construction personnel will participate in environmental awareness training conducted by an agency-approved biologist or resource specialist. Construction personnel will be informed regarding the identification, potential presence, legal protections, avoidance and minimization measures, and applicable general protection measures for all aquatic resources with the potential to occur within or immediately adjacent to the project site. Construction personnel will be informed of the procedures to follow should aquatic resources be disturbed during construction activities. For projects where the agency-approved biologist or resource specialist is not regularly on the project site, training may be provided via online/web-based meeting with an interactive portion (e.g., web-based or in-person discussion) to be included during remote training sessions. For projects that may continue over an extended duration and require excessive training events, a training video developed under the supervision of the FWS-approved biologist or resource specialist may be used to train new personnel, as long as an FWS-approved biologist or resource specialist is available via phone to answer questions about the training or that may arise during construction.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
GPM-5: Environmental Monitoring	As required in the NOA a resource specialist will ensure that all applicable protective measures are implemented during project construction. The resource specialist will have authority to stop any work if they determine that any permit requirement is not fully implemented. The resource specialist will prepare and maintain a monitoring log of construction site conditions and observations, which will be kept on file.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Cumulative
GPM-6: Work Area and Speed Limits	Construction work and materials staging will be restricted to designated work areas, routes, staging areas, temporary interior roads, or the limits of existing roadways. Prior to initiating construction or grading activities, brightly colored fencing or flagging or other practical means will be erected to demarcate the limits of the project activities, including the boundaries of designated staging areas; ingress and egress corridors; stockpile areas for spoils disposal, soil, and materials; and equipment exclusion zones. Flagging or fencing will be maintained in good repair for the duration of project activities. Vehicles will obey posted speed limits on public roadways and will limit speeds to 20 miles per hour (mph) within the project area on unpaved surfaces and unpaved roads (to reduce dust and soil erosion) or in areas where special-status species have the potential to occur. Speeds greater than 20 mph may be permitted in the project area where special-status species are not expected to occur (e.g., within areas from which special-status species have been excluded) and where there is no risk of generating excessive dust (e.g., surfaces are paved, saturated, or have been treated with other measures to prevent dust).	Noise, Transportation, Air Quality and Greenhouse Gas Emissions, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Cumulative
GPM-7: Environmentally Sensitive Areas	Monitoring, flagging, or fencing will be used, where appropriate, to minimize disturbance to environmentally sensitive areas (e.g., waters and wetlands). If fencing is used: - Fencing used must be approved by CDFW and/or USFWS for compatibility with species under their jurisdiction, as applicable, that may occur on site. - The agency-approved biologist or resource specialist will determine the location of fencing prior to the start of construction (e.g., between active work area(s) and sensitive resources). - Fencing will remain in place throughout the duration of the construction activities and will be inspected and maintained regularly by the agency-approved biologist or resource specialist until completion of the project. - Repairs to the fencing will be made within 24 hours of discovering any failure. - Fencing will be removed when all construction equipment is removed from the site, the area is cleared of debris and trash, and the area is returned to natural conditions.	Biological Resources-Terrestrial, Hazards and Hazardous Materials, Cumulative
GPM-8: Prevent Spread of Invasive Species	The spread or introduction of invasive exotic plant species by arriving vehicles, equipment, imported gravel, and other materials, will be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project areas will be removed and properly disposed of in a manner that will not promote their spread. Equipment will be cleaned of any sediment or vegetation at designated wash stations before entering or leaving the project area to avoid spreading pathogens or exotic/invasive species. Isolated infestations of noxious weeds identified in the project area will be treated with approved eradication methods at an appropriate time to prevent further formation of seed and destroy viable plant parts and seed. Wash sites must be in confined areas that limit run-off to any surrounding habitat and on a flat grade. Upland areas will use rice straw or invasive species-free local slash/mulch for erosion control, while the remainder of the project area will use certified, weed-free erosion control materials. Mulch must be certified weed-free. The project proponent will follow the guidelines in the CDFW's California Aquatic Invasive Species Management Plan (CDFW 2008) and Aquatic Invasive Species Disinfection/Decontamination Protocols (CDFW 2016), where relevant. Construction supervisors and managers will be educated on weed identification and the importance of controlling and preventing the spread of noxious weeds. The project proponent will follow any applicable local guidance to prevent the spread of invasive animal species. Construction supervisors and managers will be	Agriculture, Biological Resources-Terrestrial, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	responsible for implementation of appropriate protocols (e.g., disinfection of equipment and footwear) to prevent the spread of invasive animals.	
GPM-9: Practices to Prevent Pathogen Contamination	The project proponent will review and implement restoration design considerations and best management practices as published by the Working Group for Phytophthoras in Native Habitats (www.calphytos.org), when there is a risk of introduction and spread of plant pathogens in site plantings. (www.suddenoakdeath.org/welcome-to-calphytos-org-phytophthoras-in-native-habitats/resources/#restoration .)	Biological Resources-Terrestrial, Cumulative
GPM-10: Equipment Maintenance and Materials Storage	Vehicle traffic will be confined to existing roads and the proposed access route(s). All machinery must be in good working condition, showing no signs of fuel or oil leaks. Oil, grease, or other fluids will be washed off at designated wash stations prior to equipment entering the construction site. Inspection and evaluation for the potential for fluid leakage will be performed daily during construction. Where possible, and where it would not result in greater impact to aquatic resources, no equipment refueling, or fuel storage will take place within 100 feet of a body of water. All fuel and chemical storage, servicing, and refueling will be done in an upland staging area or other suitable location (e.g., barges) with secondary containment to prevent spills from traveling to surface water or drains. Project proponents will establish staging areas for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies. Staging areas will have a stabilized entrance and exit and will be located in upland areas to the extent possible and at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback or would result in further damage to sensitive resources, in which case the maximum setback possible will be used. Fluids will be stored in appropriate containers with covers and properly recycled or disposed of offsite. Machinery stored on site will have pans or absorbent mats placed underneath potential leak areas as a precautionary measure to further reduce the potential for impact from an unintended or previously undetectable leak.	Transportation, Agriculture, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
GPM-11: Material Disposal	All refuse, debris, unused materials, and supplies that cannot reasonably be secured will be removed daily from the project work area and deposited at an appropriate disposal or storage site. All construction debris will be removed from the project work area immediately upon project completion. The Water Quality and Hazardous Materials measures (below), will be implemented as applicable to ensure proper handling and disposal of hazardous materials.	Aesthetics, Agriculture, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
GPM-12: Fugitive Dust Reduction	To reduce dust, construction vehicles will be speed restricted as described in GPM-6, Work Area and Speed Limits when traveling on non-paved surfaces. Stockpiled materials susceptible to wind-blown dispersal will be covered with plastic sheeting or other suitable material to prevent movement of the material. During construction, water (e.g., trucks and portable pumps with hoses) or other approved methods will be used to control fugitive dust, as necessary. Dust suppression activities must not result in a discharge to waters of the state unless such discharges are approved by the State or Regional Board.	Agriculture, Air Quality and Greenhouse Gas Emissions, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
GPM-13: Trash Containment and Removal	During project activities all trash will be properly contained within sealed containers and removed from the work site and disposed of as necessary to maintain a trash-free work area (e.g., trash containers will not be used beyond capacity and fully close/seal).	Biological Resources-Terrestrial, Cumulative
GPM-14: Project Cleanup after Completion	Work pads, temporary falsework, and other construction items will be removed from the 100-year floodplain by the end of the construction window. Removal of materials must not result in discharge to waterbodies.	Aesthetics, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
GPM-15: Revegetate Disturbed Areas	All temporarily disturbed areas will be de-compacted and seeded/planted with an assemblage of native riparian, wetland, and/or upland plant species suitable for the area. The project proponent will develop a revegetation plan, including (as applicable) a schedule; plans for grading of disturbed areas to pre-project contours; planting palette with plant species native to the project area; invasive species management; performance standards; success criteria; and maintenance requirements (e.g., watering, weeding, and replanting). Plants for revegetation will come primarily from active seeding and planting; natural recruitment may also be proposed if site conditions allow for natural recruitment to reestablish vegetation and avoid potential negative risks associated with erosion and impacts to water quality. Plants imported to the restoration areas will come from local stock, and to the extent possible, local nurseries. Only native plants (genera) will be used for restoration efforts. Certified weed-free native mixes and mulch will be used for restoration planting or seeding. Revegetation activities within and adjacent to waters of the state will commence as soon as is practicable after construction activities at a site are complete.	Aesthetics, Geology and Soils, Agriculture, Biological Resources-Terrestrial, Cumulative
Water Quality and Hazardous Materials (WQHM)		
WQHM-1: Staging Areas and Stockpiling of Materials and Equipment	Staging, storage, and stockpile areas must be outside of waters of the state. To the extent feasible, staging will occur on access roads or other previously disturbed upland areas, such as developed areas, paved areas, parking lots, areas with bare ground or gravel, and areas clear of vegetation, to avoid aquatic habitats and limit disturbance to surrounding habitats. Similarly, all maintenance equipment and materials (e.g., road rock and project spoil) will be restricted to the existing service roads, paved roads, or other determined designated staging areas. See GPM-10 for more details regarding protection measures for materials storage. Staging areas will be established for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies. Staging areas will have a stabilized entrance and exit and will be located at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback, in such cases the maximum setback possible will be used. If an off-road site is chosen and if special-status species are potentially present, the Biological Monitor will survey the selected site to verify that no aquatic resources would be disturbed by staging activities. Stockpiling of materials, portable equipment, vehicles and supplies (e.g., chemicals), will be restricted to the designated construction staging areas. If rain is predicted in the forecast during the dry season, and stockpiled soils will remain exposed and unworked for more than 7 days, then erosion and sediment control measures must be used. If there is a high-wind scenario (to be defined by the approving Water Board as appropriate for an individual project site), then soils will be covered at all times. During the wet season, no stockpiled soils will remain exposed, unless properly installed and maintained erosion and sediment controls are in place on and around the stockpile. Temporary stockpiling of material onsite will be minimized. Stockpiled material will be placed in upland areas far enough away from aquatic habitats that these materials cannot discharge to a water of the state.	Geology and Soils, Transportation, Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
WQHM-2: Storm Water Pollution Prevention Plan	All projects covered by the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) will prepare and implement the required, site-specific, storm water pollution prevention plan (SWPPP).	Geology and Soils, Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
WQHM-3: Erosion and Sediment Control Measures	For projects that do not require coverage under a NPDES permit per GPM WQHM-2, the project proponent will develop and implement erosion and sediment control measures (or plan), which will include appropriate BMPs to reduce the potential release of water quality pollutants to receiving waters. BMPs may include the following measures: • Employ tackifiers, soil binders, or mulch as appropriate for erosion control.	Geology and Soils, Biological Resources-Terrestrial, Biological Resources-Aquatic, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	- Install sediment control measures, such as straw bales, silt fences, fiber rolls, or equally effective measures, at repair areas adjacent to stream channels, drainage canals, and wetlands, as needed. Sediment control measures will be monitored during and after each storm event for effectiveness. Modifications, repairs, and improvements to sediment control measures will be made as needed to protect water quality. - No sediment control products will be used that include synthetic or plastic monofilament or cross-joints in the netting that are bound/stitched (such as straw wattles, fiber rolls, or erosion control blankets), and which could trap snakes, amphibians, and other wildlife.	
WQHM-4: Hazardous Materials Management and Spill Response Plan	As part of the SWPPP or Erosion Control Plan (WQHM-2 and WQHM-3), project proponent will prepare and implement a hazardous materials management and spill response plan. Project proponent will ensure that any hazardous materials are stored at the staging area(s) with an impermeable membrane between the ground and hazardous material and that the staging area is designed to prevent the discharge of pollutants to groundwater and runoff water. Project proponent will stop work, follow the spill response plan, and arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills. (See WQHM-6. Accidental Discharge of Hazardous Materials for accidental discharges of a reportable quantity of a hazardous material, sewage, or an unknown material.) Project proponent will notify regulatory agencies within 24 hours of any leaks or spills. Project proponent will properly contain and dispose of any unused or leftover hazardous products off-site. Project proponent will use and store hazardous materials, such as vehicle fuels and lubricants, in designated staging areas located away from stream channels and wetlands, according to local, state, and federal regulations, as applicable. Also see GPM-10: Equipment Maintenance and Materials Storage for more detail on spill prevention.	Geology and Soils, Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
WQHM-5: In-Water Concrete Use.	A dewatering plan must be submitted and approved by State and/or Regional Boards for in-water concrete use. Where possible, poured concrete should be excluded from contact with surface or groundwater during initial curing, ideally for 30 days after it is poured. During that time, runoff from the concrete will not be allowed to enter surface or groundwater. If this is not feasible due to expected flows and site conditions, commercial sealants that are non-toxic to aquatic life may be applied before it comes into contact with flowing water. Only sealants that have been tested and found non-toxic to freshwater aquatic life, including benthic macro-invertebrates, may be used on concrete surfaces that could come into contact with flowing water. Concrete is considered to be cured when water poured over the surface of concrete consistently has a pH of less than 8.5. (Note: Demonstration of nontoxicity to aquatic life may be evaluated by measuring survival of test organisms in a 96-hour bioassay. The bioassay should be performed according to the most up-to-date protocols in 40 C.F.R. part 136, currently Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, 5th Edition (EPA-821-R-02-012), including sample collections, handling, and preservation per U.S. EPA protocols).	Biological Resources-Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
WQHM-6. Accidental Discharge of Hazardous Materials	Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271): As soon as (A) discharger has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then: - first call – 911 (to notify local response agency) - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911 - Lastly, follow the required OES procedures as set forth in: www.caloes.ca.gov/FireRescueSite/Documents/CalOESSpill_Booklet_Feb2014_FINAL_BW_Acc.pdf	Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	Following notification to OES, the discharger will notify the State or Regional Board (and other agencies requiring notification in their respective permits), as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.	
General In-Water Measures (IWW)		
IWW-1: Appropriate In-Water Materials	Selection and use of gravels, cobble, boulders, and instream woody materials in streams, and other materials (e.g., oyster shells, other substrates) for reef/bed restoration will be performed to avoid and/or minimize adverse impacts to aquatic resources, special-status aquatic species, and their habitats. On-site gravels will be screened and sorted; gravels imported from a commercial source will be clean-washed and of appropriate size. As necessary to protect aquatic species, placement will be overseen by an agency-approved Monitor; implementation timing will be determined based on the least amount of overlap, or impact on, all aquatic natural resources that may be affected and the timing of their use of the receiving area. Imported gravel from outside the project watershed will not be from a source known to contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings. Materials that may foul or degrade spawning gravels, such as sand or soil eroding from sand bag or earthen dams will be managed to avoid release and exposure in salmonid streams. Oyster shells or other substrates for reef/bed restoration will be cured and inspected to be free of pathogens and/or non-native species.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
IWW-2: In-Water Vehicle Selection and Work Access	If work requires that equipment enter wetlands or below the bank of a waters of the state, equipment with low ground-pressure (typically less than 13 to 20 pounds per square inch (psi)) should be selected where feasible to minimize soil compaction. Low ground-pressure heavy equipment mats should be used if needed to lessen soil compaction. Hydraulic fluids in mechanical equipment working in the waters of the state, will not contain organophosphate esters. Vegetable based hydraulic fluids are preferred, where feasible. The amount of time this equipment is stationed, working, or traveling in the waters of the state will be minimized. All equipment will be removed from the aquatic feature during non-work hours where appropriate or returned to the agency-approved staging area in the aquatic feature.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
IWW-3: In-Water Placement of Materials, Structures, and Operation of Equipment	Material used for bank stabilization or in-water restoration will minimize discharge sediment or other forms of waste to waters of the state. Where feasible, construction will occur from the top of the stream bank, or on a ground protection mat underlain with filter fabric, or a barge. All materials placed in streams, rivers or other waters will be nontoxic. Any combination of wood, plastic, cured concrete, steel pilings, or other materials used for in-channel structures will not contain coatings or treatments, or consist of substances toxic to aquatic organisms (e.g., zinc, arsenic, creosote, copper, other metals, pesticides, or petroleum-based products) that may leach into the surrounding environment in amounts harmful to aquatic organisms. Except for the following conditions, equipment must not be operated in standing or flowing waters without site-specific approval from State or Regional Board staff: • All construction activities must be effectively isolated from water flows to minimize the potential for runoff. This may be accomplished by working in the dry season or dewatering the work area in the wet season. • When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. • All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or divert the water flow (e.g., coffer dam or geotextile silt curtain) must not be removed until all disturbed areas are stabilized	Biological Resources-Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
IWW-4: In-Water Staging Areas and Use of Barges	Where appropriate and practical, barges will be used to stage equipment and construct the project, while reducing noise, traffic disturbances and effects to terrestrial vegetation. When barge use is not practical, construction equipment and project materials may be staged in designated agency-approved staging areas. Existing staging sites, maintenance toe roads, and crown roads will be used to the maximum extent possible for project staging and access to avoid affecting previously undisturbed areas. For projects that involve in-water work for which boats and/or temporary floating work platforms are necessary, buoys will be installed so that moored vessels will not beach on the shoreline and anchor lines will not drag. Moored vessels and buoys will not be within 25 feet of vegetated shallow waters.	<u>Biological Resources – Aquatic</u> , Hydrology and Water Quality, Cumulative
IWW-6: Dewatering/Diversion	The area to be dewatered will encompass the minimum area necessary to perform construction activities. The project proponent will provide a dewatering plan with a description of the proposed dewatering structures, and appropriate types of BMPs for the installation, operation, maintenance, and removal of those structures. The period of dewatering/diversion will extend only for the minimum amount of time needed to perform the restoration activity and to allow special-status species time to leave on their own before final clearance surveys and construction can begin. Where feasible and appropriate, dewatering/diversion will occur via gravity-driven systems, and where water is pumped from within the construction area, it should be pumped to upland areas (where feasible) and to a location where it can infiltrate without return flows to the watercourse. Dewatering/diversion will be designed to avoid direct and preventable indirect mortality of fish and other aquatic species. If special-status fish species may be present in the area to be dewatered, a fish capture and relocation plan will be developed and implemented for review and approval by appropriate agencies (e.g., CDFW, NMFS, USFWS, as applicable). Stream flows will be allowed to gravity-flow around or through the work site using temporary bypass pipes or culverts. Bypass pipes will be sized to accommodate, at a minimum, twice the expected construction-period flow, to not increase stream velocity, and will be placed at stream grade. Conveyance pipe outlet energy dissipaters will be installed to prevent scour and turbidity at the discharge location. When use of gravity-fed dewatering is not feasible and pumping is necessary to dewater a work site, a temporary siltation basin and/or use of silt bags may be required. Silt fences or mechanisms to avoid sediment input to the flowing channel will be installed adjacent to flowing water. Water pumped or removed from dewatered areas will be conducted in a manner that does not contribute turbidity to nearby receiving waters. Where possible, pumps will be refueled in an area well away from the stream channel. Fuel absorbent mats will be placed under the pumps while refueling. Equipment working in the stream channel or within 25 feet of a wetted channel will have a double (i.e., primary and secondary) containment system for diesel and oil fluids. All work will comply with the CDFW Fish Screening Criteria (CDFW 2001) and NMFS Fish Screening Criteria for Anadromous Salmonids (NMFS 1997). Pump intakes will be covered with mesh per the requirements of current fish screening criteria to prevent potential entrainment of fish or other aquatic species that could not be removed from the area to be dewatered. The pump intake will be checked periodically for impingement of fish or other aquatic species. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Pre-project flows must be restored to the affected surface water body upon completion of work at that location. Where diversions are planned, contingency plans will be developed that include oversight for breakdowns, fueling, maintenance, leaks, etc.	Biological Resources- Terrestrial, Biological Resources-Aquatic, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
IWW-7: Fish and Aquatic Species Exclusion While Installing Diversion Structures	Fish and other aquatic species will be excluded from occupying the area to be dewatered by blocking the stream channel above and below the area to be dewatered with fine-meshed block nets or screens while coffer dams and other diversion structures are being installed. Block net mesh will be sized to ensure aquatic species upstream or downstream do not enter the areas proposed for dewatering. Mesh will be no greater than 1/8-inch diameter. The bottom of the net must be completely secured to the channel bed. Block nets or screens must be checked at least twice daily at the beginning and end of the workday and cleaned of debris to permit free flow of water. Block nets or screens will be placed and maintained throughout the dewatering period at the upper and lower extent of the areas where aquatic species will be removed. Net placement is temporary and will be removed once dewatering has been accomplished or construction work is complete for the day.	Biological Resources-Aquatic
IWW-8: Removal of Diversion and Barriers to Flow	Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate and consideration of turbidity levels. Alteration of creek beds will be minimized to the maximum extent possible; any imported material that is not part of the project design will be removed from stream beds upon completion of the project.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Cumulative
IWW-9: In-Water Pile Driving Plan for Sound Exposure	Project proponents will develop a plan for pile-driving activities to minimize impacts to special-status species and submit it to relevant agencies for approval prior to the start of in-water pile driving activities. Measures will be implemented to minimize underwater sound pressure to levels below fish thresholds for peak pressure and accumulated sound exposure levels. Thresholds levels for special-status fish under NMFS jurisdiction are established in the Fisheries Acoustic Work Group's Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities (FAWG 2008) and may be used as a guideline for special-status fish. The plan will describe the least impactful method to aquatic organisms, and will identify the number, type, and size of piles, estimated sound levels caused by the driving, how many piles will be driven each day, qualifications of monitors, any other relevant details on the nature of the pile driving activity, and the actions that will be taken to ensure a project stays within the required sound exposure thresholds.	Noise, Biological Resources-Aquatic, Cumulative
IWW-10: In-Water Pile Driving Methods	Pile driving will occur during approved work windows with reduced currents and only during daylight hours. Pile driving will be conducted with vibratory or low/nonimpact methods (i.e., hydraulic) that result in sound pressures below threshold levels to the extent feasible. Applied energy and frequency will be gradually increased until necessary full force and frequency are achieved. If it is determined that impact hammers are required and/or underwater sound monitoring demonstrates that thresholds are being exceeded, the contractor will implement sound dampening or attenuation devices to reduce levels to the extent feasible; these may include the following: • A cushioning block used between the hammer and pile. • Use of a confined or unconfined air bubble curtain. • If feasible, pile driving could be done in the dry area (dewatered) behind the cofferdam. Pile driving will follow the criteria outlined in the most recent version of the California Department of Transportation's Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish (Caltrans 2015).	Biological Resources-Aquatic, Hydrology and Water Quality, Cumulative
IWW-11: Sediment Containment during In-Water Pile Driving	Caissons or a continuous length of silt curtain, fully surrounding the pile driving area and installed in close proximity to piers, must be used as necessary and as practicable to protect aquatic resources and to provide sediment containment while construction activities are occurring if working in a wetted channel. The silt curtain will prevent the release of a turbidity plume and trap sediment that may become suspended as a result of the pile driving. The bottom of the silt curtains must be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen its tendency to move in response to currents. Where feasible and applicable, the floating silt curtains must be anchored and deployed from the surface of	Biological Resources-Aquatic, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	the water to just above the substrate. The silt curtain must be monitored for damage, dislocation or gaps and must be immediately repaired where it is no longer continuous or where it has loosened. The silt curtain must restrict the surface visible turbidity plume to the area of pile construction and must control and contain the migration of re-suspended sediments at the water surface and at depth.	
IWW-12: Pile-driving Monitoring	An agency-approved biologist will be on site during pile-driving activities to minimize effects to special-status species that could be present. If any stranding, injury, or mortality to special-status species is observed, federal and state wildlife agencies will be notified in writing (e.g., via email) within 24 hours and in-water pile driving will cease until the applicable federal and/or state agencies provide guidance on how to proceed.	Biological Resources-Aquatic, Hydrology and Water Quality, Cumulative
IWW-13: Dredging Operations and Dredging Materials Reuse Plan	Project proponent will develop and implement a dredging operations and dredging materials management plan to minimize the effects that could occur during dredging operations and material reuse and disposal. If material is being imported from off-site or if there are specific concerns about residual contaminants in the soil from historic land use activities (which can be determined on a site-specific basis in collaboration with the approving Water Board), the plan will describe a sampling program for conducting physical and chemical analyses of sediments before import and/or disturbance. It will also describe BMPs to be implemented during dredging operations (e.g., using less intrusive dredging procedures, properly containing dredging spoils and water, using silt curtains, methods to minimize turbidity, and timing dredging activity to coincide with low flows). The plan also will describe methods to evaluate the suitability of dredged material for reuse and disposal.	Air Quality and Greenhouse Gas Emissions, Agriculture , Biological Resources-Terrestrial, <u>Biological Resources-Aquatic</u> , Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
Vegetation/Habitat Disturbance and Revegetation, and Herbicide Use (VHDR)		
VHDR-1: Avoidance of Vegetation Disturbance	The project proponent will minimize, to the greatest extent feasible, the amount of soil, terrestrial vegetation, emergent native vegetation, and submerged vegetation (e.g., eelgrass and kelp in marine areas, or submerged aquatic vegetation in brackish and freshwater areas) disturbed during project construction and completion and using methods creating the least disturbance to vegetation. Disturbance to existing grades and native vegetation, the number of access routes, the size of staging areas, and the total area disturbed by the project will be limited to the extent of all temporary and permanent impacts as defined by the final project design. All roads, staging areas, and other facilities will be placed to avoid and limit disturbance to waters of the state and other aquatic habitats (e.g., streambank or stream channel, riparian habitat) as much as possible. When possible, existing ingress or egress points will be used and/or work will be performed from the top of the creek banks or from barges on the waterside of the stream or levee bank, or dry gravel beds. Existing native vegetation will be retained as practicable, emphasizing the retention of shade-producing and bank stabilizing trees and brush with greater than 6-inch diameter branches or trunks. Where possible, vegetation disturbance and soil compaction will be minimized by using low ground-pressure (typically less than 13 to 20 pounds psi) equipment that exerts less pressure per square inch on the ground than other equipment. To minimize impacts to vegetation, select equipment with a greater reach.	Aesthetics, Geology and Soils, Agriculture, Biological Resources-Terrestrial, Cumulative
VHDR-2: Native and Invasive Vegetation Removal Materials and Methods	If riparian vegetation is to be removed with chainsaws or other power equipment, machines that operate with vegetable-based bar oil will be used, as practicable. All invasive plant species (e.g., those rated as invasive by the California Invasive Plant Council or local problem species) will, if feasible, be removed from the project site, using locally and routinely accepted agriculture practices. Invasive plant material will be destroyed using approved protocols and disposed of at an appropriate upland disposal or compost area. Invasive plant materials stockpiled at sites known to experience flash flooding outside the flood season will be removed within 15 days of the initial creation of the stockpile in order to contain the potential spread of invasive plant material. Stockpiling of invasive plant materials is prohibited during the flood season.	Agriculture, Biological Resources-Terrestrial, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
VHDR-3: Revegetation Materials and Methods	Upon completion of work, site contours will be returned to preconstruction conditions or to contours specified in a Water Board-approved project design that provides enhanced biological and hydrological functions. Where disturbed, topsoil will be conserved (and watered at an appropriate frequency) for reuse during restoration to the extent practicable. Native plant species comprising a diverse community structure (plantings of both woody and herbaceous species, if both are present) that follow an agency-approved plant palette will be used for revegetation of disturbed and compacted areas, as appropriate. See also GPM-15: Revegetate Disturbed Areas, which also allows for revegetation through natural recruitment (e.g., in tidal and managed wetlands and working landscapes where disturbed areas typically revegetate more quickly through natural recruitment than through seeding). Any area barren of vegetation as a result of project implementation will be restored to a natural state by mulching, seeding, planting, or other means with native trees, shrubs, willow stakes, erosion control native seed mixes, or herbaceous plant species following completion of project construction. Irrigation may also be required in order to ensure survival of containerized shrubs or trees or other vegetation, depending on rainfall. Soils that have been compacted by heavy equipment will be decompacted, as necessary, to allow for revegetation at project completion as heavy equipment exits the construction area.	Aesthetics, Geology and Soils, Agriculture, Biological Resources-Terrestrial, Hydrology and Water Quality, Cumulative
VHDR-4: Revegetation Erosion Control Materials and Methods	If erosion control fabrics are used in revegetated areas, they will be slit in appropriate locations as necessary to allow for plant root growth. Only non-monofilament, wildlife-safe fabrics will be used. All plastic exclusion netting placed around plantings will be removed after 2 years or sooner if practicable.	Aesthetics, Geology and Soils, Agriculture, Biological Resources-Terrestrial, Hydrology and Water Quality, Cumulative
VHDR-5: Revegetation Monitoring and Reporting	All revegetated areas will be maintained and monitored for a minimum of 2 years after replanting is complete and until success criteria are met, to ensure the revegetation effort is successful. The standard for success is at least 60% absolute cover compared to pre-project conditions at the project site or at least 60% cover compared to an intact, local reference site (or an available reference site accepted by the approving Water Board). If an appropriate reference site or pre-project conditions cannot be identified, success criteria will be developed for review and approval by the approving Water Board on a project-by-project basis based on the specific habitat impacted and known recovery times for that habitat and geography. The project proponent will prepare a summary report of the monitoring results and recommendations at the conclusion of each monitoring year.	Aesthetics, Agriculture, Biological Resources-Terrestrial, Cumulative
VHDR-6: General Herbicide Use	Chemical control of invasive plants and animals will only be used when consistent with water quality control plans (e.g., basin plans) and when other methods are determined to be ineffective or would create greater environmental impacts than chemical control. Chemical use will be evaluated on a project-by-project basis with consideration of (and preference given towards) integrated pest management (IPM) strategies wherever possible. See University of California Statewide IPM Program for guidance documents (http://ipm.ucanr.edu/index.html). Broadcast spraying, including the use of aerial drones, may be used if it provides greater application accuracy and access. Chemical use is restricted in accordance with approved application methods and best management practices designed to prevent exposure to non-target areas and organisms. Any chemical considered for control of invasive species must be approved for use in California, adhere to all regulations per the California Environmental Protection Agency (CEPA 2011 or most recent version), and be applied by a licensed applicator under all necessary state and local permits. Use herbicides only in a context where all treatments are considered, and various methods are used individually or in concert to maximize the benefits while reducing undesirable effects and applying the lowest legal effective application rate, unless site-specific analysis determines a lower rate is needed to reduce non-target impacts. Treat only the minimum area necessary for effective control. Within 25 feet of any water of the state, only formulations approved by EPA and State Water Board for aquatic use will be utilized. Soil-activated herbicides can be applied as long as directions on the label are followed. Aquatic pesticides will be applied in	Agriculture, Biological Resources-Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	compliance with NPDES order(s), where applicable (www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/) or with authorization from the approving Water Board.	
VHDR-7: Herbicide Application Planning	Written chemical application recommendations should be provided by each project proponent from a certified Pest Control Advisor (PCA) (CEPA 2011). The PCA can ensure that legal, appropriate, and effective chemicals are used with appropriate methodologies. Field scouting must be done before application, and the licensed Applicator (CEPA 2011) must be on-site to lead all applications and will adhere to standard protection measures for application. Prior to field scouting or application, the PCA or licensed applicator, will receive Environmental Awareness Training (see GPM-4) for the project so that they are aware of special status species and habitats present at the project site.	Biological Resources- Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative
VHDR-8 Herbicide Application Reporting	The licensed applicator will keep a record of all plants/areas treated, amounts and types of herbicide used, and dates of application, and pesticide application reports must be completed within 24 hours of application and submitted to applicable agencies for review. Wind and other weather data will be monitored and reported for all application reports.	Biological Resources- Terrestrial, Hazards and Hazardous Materials, Hydrology and Water Quality, Cumulative

Source: ESA 2025; State Water Board 2022b, Appendix E – Restoration Projects Statewide Order: Description and Eligibility (August 16, 2022)

Table App. A-2 contains SPMs from the SRGO Final Program EIR which are applicable to the Proposed Project and the corresponding environmental resource topics to which they would apply.

TABLE APP. A-2
SPMS APPLICABLE TO THE PROPOSED PROJECT

Measure Name	Description of Measure	Applicable Resource Topic
General Species Protection Measures (SPM)		
SPM-1: Preconstruction Surveys	If special-status plants are present and/or special-status terrestrial animal species habitat is present (e.g., stationary habitat such as burrows, bird nests, cavities for bats, etc.), where appropriate, based on project-specific requirements, a qualified, agency-approved biologist with experience on the identification of all applicable life stages of the special-status species will conduct reconnaissance-level preconstruction surveys and implement additional measures, as appropriate, to protect the species from construction-related disturbance before work begins. The intent of the survey is to assess current species habitat and use locations in the project area immediately prior to construction. Special-status plant species surveys shall be conducted in the appropriate blooming period, as applicable, prior to the start of construction for proper plant identification. If construction activities cease for more than five consecutive days, and there is potential for special-status species to re-occupy the site, the agency-approved biologist will re-survey the project area and implement measures, as appropriate. A project proponent can choose to assume animal species presence, forgo preconstruction surveys, and implement additional protection measures, as appropriate, to protect special status species from construction-related disturbance. Additional species guild-specific pre-construction requirements are described below and may supersede this general species protection measure, as applicable.	Biological Resources- Terrestrial, Cumulative
SPM-2: Environmentally Sensitive Areas and/or Wildlife Exclusion	Monitoring, flagging, and/or fencing will be used to minimize disturbance to environmentally sensitive areas (e.g., waters and wetlands). This measure augments GPM-7 (Appendix E), which applies to sensitive aquatic resources.	Biological Resources- Terrestrial, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	If fencing is used: - The agency-approved biologist or resource specialist will determine the location of the fencing prior to the start of construction (e.g., between active work area(s) and sensitive resources). - Fencing will remain in place throughout the duration of the construction activities, and will be inspected and maintained regularly by the agency-approved biologist or resource specialist until completion of the project. - Repairs to the fencing will be made within 24 hours of discovery. - Fencing will be removed when all construction equipment is removed from the site, and the area cleared of debris and trash, and returned to natural conditions.	
SPM-3: Species Protection Construction Work Windows	Construction work windows may be required, depending on whether or not the project involves in-water construction and/or whether special-status species have potential to occur onsite.	Biological Resources-Terrestrial, Biological Resources-Aquatic, Cumulative
SPM-4: Species Capture, Handling and Translocation	Special-status species capture, handling, and translocation will only be conducted by an agency-approved biologist(s). Required permitting will be needed prior to any capture, handling, and relocation. If translocation of special-status species is needed, the project proponent will prepare a special-status species translocation plan to be reviewed and approved by the agency(ies), as appropriate, prior to project implementation. The plan will include capture and translocation methods, translocation site, and post translocation monitoring, if applicable. If capture, handling, and translocation is necessary due to dewatering activities, refer to the protective measures for Dewatering Activities, under general protection measure IWW 6 and follow the agency-approved translocation plan.	Biological Resources-Terrestrial, Cumulative
SPM-5: Special-Status Species Entrapment Prevention	All excavated, steep-walled holes or trenches will be covered with appropriate covers (e.g., thick metal sheets or plywood) at the end of each workday. Covers will be placed so that trench edges are fully sealed with rock bags, sand, or other appropriate material. Alternatively, one or more escape ramps such as fill dirt or wood planking will be installed at an angle no greater than 30 degrees, to allow wildlife to escape. Before holes or trenches are filled, sealed, or collapsed, the holes or trenches will be thoroughly inspected for trapped animals. Any animals discovered will be allowed to escape voluntarily or will be relocated by an agency-approved biologist.	Biological Resources-Terrestrial, Cumulative
SPM-6: Airborne Noise Reduction	Equipment, including noise abatement systems, will be maintained in good working order. If construction noise has the potential to adversely affect special-status species, the project proponent will include site specific measures for construction activities to minimize impacts. Muffler (or spark arrester) damage must be promptly remedied, to the degree practicable, to meet sound attenuation standards.	Biological Resources-Terrestrial, Cumulative
Amphibians—Guild Protection Measures		
AMP 1: Wildlife Passage Design	For projects that include the installation, repair, or replacement of permanent or temporary fencing (e.g., security, landscape, or privacy fencing) fencing will be designed to allow for permeability; it will incorporate a minimum 6-inch gap with a one-way ramp or door at regular intervals to allow for special status amphibian species to disperse between upland and breeding habitat. This measure is not applicable to the Environmentally Sensitive and Wildlife Exclusion Area fencing/flagging specified as part of construction activities to protect habitats or exclude wildlife from the work areas (SPM-2, above). Facilities such as curbs, drainages, culverts, and fence “footers” will be designed with gradually sloped sides or intermittent gaps to facilitate wildlife movement.	Cumulative
AMP 2: Rain Event Limitations	To the maximum extent practicable, construction activities will be restricted to periods of low rainfall (less than 1" per 24-hour period) and periods of dry weather (with less than a 50% chance of rain). During these restricted periods, under no circumstances will construction activities occur between 30 minutes prior to sunset and 30 minutes after sunrise (i.e., no night work during rain events). If rain exceeds 0.5 inch during a 24-hour period, work will cease until no further rain is forecast. Construction activities halted due to precipitation may resume when	Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	precipitation ceases and the National Weather Service 72-hour weather forecast indicates less than a 50% chance of 0.5 inch of rain or less during a 24-hour period. Prior to construction activities resuming, an agency-approved biologist will inspect the project area and all equipment/materials for the presence of special status amphibians.	
AMP-3: Pre-Construction Survey	If covered amphibians are known or assumed to be present, no more than 24 hours prior to the date of initial ground disturbance and vegetation clearing, an agency-approved biologist will walk within the project site to investigate all potential areas that could be used by the special status amphibians for feeding, breeding, sheltering, movement, and other essential behaviors. If a special status amphibian species is encountered during the survey the project proponent will refer to and follow procedures described below in AMP-11 and AMP-12.1 for passively allowing the species to move out of the work area or actively relocating the species out of harm's way. Proposed projects that may need to actively relocate amphibians out of harm's way will require the project proponent to submit a project-specific species relocation plan for agency review and approval, as described in AMP-12.	Cumulative
AMP-4: Disease Prevention and Decontamination	To prevent disease conveyance among work sites during project implementation, the agency-approved biologist will ensure that the decontamination protocols described in CDFW, Aquatic Invasive Species Disinfection/Decontamination Protocols (CDFW 2016, or latest version) will be implemented prior to gear and equipment arriving at or moving between work sites and will be followed at all times. A copy of the code of practice must be available at the project site.	Cumulative
AMP-5: Lighting	In addition to GPM-3, Construction Hours (general protection measures in Appendix E), artificial lighting at a project site will be prohibited to the maximum extent practicable during the hours of darkness, except when necessary for driver or pedestrian safety.	Cumulative
AMP-6: Clearing and Grubbing Vegetation	The agency-approved biologist will be present during all vegetation clearing and grubbing activities in areas within the currently occupied range of special status amphibians where suitable habitat is present. Prior to vegetation removal, the agency-approved biologist will thoroughly survey the area for these species (measure AMP-3). Vegetation in sensitive areas will either be cleared with handheld motorized tools (e.g., weed eaters, chainsaws) or by hand pulling, or an agency-approved biologist will walk in front of vegetation clearing equipment. Where dense brush occurs (e.g., blackberry, periwinkle), the biologist may direct an equipment operator to lift and shake dense vegetation with an excavator or backhoe so that the biologist can look underneath and search for amphibians. Tree stumps and roots will be left in place where possible to avoid any ground disturbance and preserve refugia habitat, with the exception of non-native invasive plants that could propagate from remaining vegetative material. Native branches, leaf litter, mulch, woody debris, and other vegetative trimmings may be retained and spread on-site to enhance habitat as appropriate.	Cumulative
AMP-7: Pump Screens	If a water body is to be temporarily dewatered by pumping, intakes will be completely screened consistent with NMFS (1997) and CDFW (2001) screening guidelines, or latest updates to those guidelines. The intake will be placed in a perforated bucket or other method to attenuate suction to prevent special status amphibians from entering the pump system. Water will be returned to the water body when diversions or coffer dams are removed and flow is restored. If no diversion or coffer dams were used during dewatering, the water body will be allowed to refill naturally from precipitation, runoff, or hydrological processes refilling the water body naturally.	Cumulative
AMP-8: Removal of Non-native Invasive Species	Removal of any individuals of non-native invasive species (e.g., bullfrogs, non-native crayfish, non-native fishes) is encouraged as practicable to facilitate conditions for project success. The project proponent is responsible for ensuring that these activities comply with	Cumulative

¹ AMP-12 was removed from the Final SRGO Program EIR. However, reference to this measure was inadvertently left in the text for AMP-3. This measure is not applicable to the proposed project and is not part of the Final SRGO Program EIR.

Measure Name	Description of Measure	Applicable Resource Topic
	the California Fish and Game Code. Suspected hybrids will not be removed without specific authorization from appropriate agency(ies).	
AMP 9: Placement of Suitable Erosion Control Material	To prevent amphibians from becoming entangled, trapped, or injured, erosion control materials with plastic or synthetic monofilament netting will not be used. This includes products that use photodegradable or biodegradable synthetic netting, which can take several months to decompose. Acceptable materials include natural fibers such as jute, coconut, twine, or other similar fibers. Following site restoration, erosion control materials, such as straw wattles, will not block the movement of special status amphibians.	Cumulative
AMP 10: Encounters with Species	Each encounter with a special status amphibian will be treated on a case-by-case basis. If any life stage of the special status amphibian species is found and these individuals may potentially be killed or injured by work activities, the following will apply: • If a special status amphibian is detected in the project area, work activities within 50 feet of the individual that may potentially be harmed, injured, or killed will cease immediately and the agency-approved biologist will be notified. Based on the professional judgment of the agency-approved biologist, if project activities can be conducted without harming or injuring the species, it may be left at the location of discovery and monitored by the agency-approved biologist. All project personnel will be notified of the finding and at no time will work occur within 50 feet of a species without agency-approved biologist present. • Where practicable, contact with the special status amphibian will be avoided and it will be allowed to move out of the potentially hazardous situation of its own volition. Allowing a special status amphibian to move out of the potentially hazardous situation of its own volition may not be appropriate for multi-day projects because they could stay or move back into the project site. If there is an immediate hazard or if there is no suitable, accessible habitat nearby for the amphibian to relocate to, it will be moved following approved handling protocol (AMP 11).	Cumulative
AMP 11: Species Observations and Handling Protocol	If a special status species does not or cannot leave the work area, the agency-approved biologist will implement the species observation and handling protocols outlined below for the various species' guilds. Separate permits are needed prior to any capture, handling, and relocation of special status species. Only agency-approved biologists will participate in activities associated with the capture, handling, relocation, and monitoring of a special status amphibian. In addition to measures described in AMP 5 (which refers to CDFW [2016] decontamination protocols), to prevent the spread of pathogens among sites, special care should be taken to prevent transferring potential pathogens among individual animals.	Cumulative
Reptiles – Guild Protection Measures		
REP-1: Pre-Construction Survey	An agency-approved biologist will conduct pre-construction surveys for the target reptile species within 72 hours prior to any initial ground disturbance within all suitable habitat within or adjacent to the project site and accessible to the project proponent, to identify locations where special-status reptiles may be present, evaluate current activity status in the project area, and protect the species and its habitat from avoidable construction-related disturbance. The intent of this survey is to assess current special-status reptile habitat and use locations in the project area immediately prior to construction. Preconstruction surveys may be phased across a construction site if construction in different areas will occur at different times; only areas where disturbance is imminent need be surveyed. The project area will be re-inspected by the agency-approved biologist whenever a lapse in construction activity of 5 days or greater has occurred.	Biological Resources- Terrestrial, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
REP-2: Environmentally Sensitive and Wildlife Exclusion Area	Prior to the start of construction, SPM-2, Environmentally Sensitive and Wildlife Exclusion will be implemented. In addition, the following applies: For the giant garter snake, fencing and/or monitoring will be implemented in coordination with the agency-approved biologist prior to the start of ground-disturbing activities. If fencing is used the fencing will be inspected by the agency-approved biologist before the start of each work day and maintained by the project proponent until completion of the project. The fencing will be removed after all construction equipment is removed from those segments of the project. To prevent reptiles from becoming entangled, trapped, or injured, fencing materials that use plastic or synthetic monofilament netting will not be used. Acceptable materials include natural fibers such as jute, coconut, twine, or other similar fibers.	Biological Resources- Terrestrial, Cumulative
REP-3: Clearing and Grubbing Vegetation	An agency-approved biologist will be present during all vegetation clearing and grubbing activities in areas where the special status reptiles are confirmed to occur, or where measures are being implemented based on presence of suitable habitat. Prior to vegetation removal, the agency-approved biologist will thoroughly survey the area for these species. Vegetation in sensitive areas will be cleared by handheld motorized tools (e.g., weed eaters, chainsaws) or hand pulling unless alternate methods are proposed by the project proponent and approved by agency(ies). Tree stumps and roots will be left in place where possible to avoid any ground disturbance and preserve refugia habitat, with the exception of non-native invasive plants that could propagate from remaining vegetative material. Native branches, leaf litter, mulch, woody debris, and other vegetative trimmings may be retained and spread on site to enhance habitat as appropriate.	Biological Resources- Terrestrial, Cumulative
REP-4: Prohibited Use of Rodenticides	No rodenticides will be used at the project site during construction in areas that support suitable habitat for special-status reptiles.	Biological Resources- Terrestrial, Cumulative
REP-5: Species Observations and Encounters	Each proposed project with the potential to encounter a special-status reptile species will submit a rescue and relocation plan to agency(ies) for review and approval prior to initiating construction. General guidance to be considered during plan development is as follows: 1) leave the uninjured animal if it is not in danger, or 2) move the animal to a nearby location if it is in danger as described in REP-6, Species Handling and Relocation, below. These options are further described as follows: - When a special-status reptile is encountered in the project area, the priority is to stop all activities in the surrounding area that have the potential to result in the harm, injury, or death of the individual. The agency-approved biologist then needs to assess the situation to select the course of project that will minimize adverse effects to the individual. - Avoid contact with the animal and allow it to move out of the project footprint and hazardous situation on its own to a safe location. This guidance only applies to situations where an animal is encountered while moving through habitat and under conditions that will allow it to escape. This does not apply to animals that are uncovered or otherwise exposed or in areas where there is not enough adjacent habitat to support the life history of the special-status reptiles if they move outside the construction footprint. - Avoidance is the preferred option if the animal is not moving or is within some sort of burrow or other refugia. In this case, the area will be well marked for avoidance by construction and an agency-approved biologist will be assigned to the area when work is taking place nearby. If avoidance is not practicable or safe for the special-status reptile, the project proponent will implement REP-6, below.	Biological Resources- Terrestrial, Cumulative
REP-6: Species Handling and Relocation	A special-status reptile will only be captured and relocated when it is the only option to prevent its death or injury, and after all attempts to avoid interaction of the species have been exhausted as described in REP-6, Species Observation and Encounters. Project-specific rescue and relocation plans will be approved by the agency(ies) prior to starting construction. General guidance for handling and relocation is as follows:	Biological Resources- Terrestrial, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	- If appropriate habitat is located immediately adjacent to the capture location, then the preferred option is short distance relocation to that habitat. A snake will not be moved outside of the area where it could have traveled on its own. Captured snakes will be released in appropriate cover as close to their capture location as possible for their continued safety. Under no circumstances will an animal be relocated to another property without the owner's written permission. It is the project proponent's responsibility to arrange for that permission. - The release locations must be pre-identified in the project-specific rescue and relocation plan approved by the agency(ies); they will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow, other suitable refugia, or suitable habitat. - Only agency-approved biologists for the project can capture special-status reptiles.	
Birds – Guild Protection Measures		
BIRD-1: Habitat Assessment	A habitat assessment will be conducted by a qualified biologist to determine whether suitable habitat (e.g., including foraging, nesting, and dispersal habitat) for the special-status bird(s) occurs in the project area, as applicable. If suitable habitat for special-status species is identified in the project area and the proposed project may affect suitable habitat, the project proponent will implement measures BIRD-2 through 5 in areas with suitable habitat. Alternatively, the project proponent may propose to conduct surveys and/or monitoring to confirm presence or absence of the species.	Biological Resources-Terrestrial, Cumulative
BIRD-2: Nest Protection Work Window	Project activity in known or potentially occupied migratory bird habitat will be conducted outside of the nesting season to the maximum extent practicable. If project activities must occur during the nesting season see BIRD-5.	Biological Resources-Terrestrial, Cumulative
BIRD-3: Work Area Limits	Work site boundaries in suitable habitat will be clearly marked with flagging or other visible materials, which will be removed at the conclusion of the project.	Biological Resources-Terrestrial, Cumulative
BIRD-4: Site Access Restrictions	If the site conditions allow, access to work sites in occupied habitat will be by foot travel, otherwise heavy equipment will be allowed within suitable nesting habitats only with the presence of an agency-approved biologist. Access routes and work areas will be limited to the minimum amount necessary to achieve the project goals.	Biological Resources-Terrestrial, Cumulative
BIRD-5: Monitoring	If project activities must occur during the nesting season, pre-construction nest surveys will be conducted by an agency-approved biologist, buffers will be established to protect active nests, and disturbance in the vicinity of active nests will be monitored to ensure that it does not disrupt an active nest.	Biological Resources-Terrestrial, Cumulative
Mammals – Guild Protection Measures		
MAM-1: Conduct Habitat Assessment	Prior to construction, an agency-approved biologist will conduct a habitat assessment in potentially suitable habitat within the project footprint to determine presence of special status mammals or their sign (e.g., scat, guano, tail drags and tracks, skeletal remains in owl pellets, etc.). The habitat assessment surveys will be conducted within 2 years, and at least 14 days prior to the start of construction or ground disturbing activities. If no burrows or sign of special status mammals are detected, no further measures will be required.	Cumulative
MAM-2: Avoidance Areas	Based on the results of the habitat assessment, in areas where special-status mammals are believed to be present based on observations (e.g., signs of presence, burrows), non-disturbance zones will be established prior to construction or ground disturbing activities.	Cumulative
MAM-3: Use of Handheld Tools	If exclusion fencing will be installed, vegetation in active work areas outside of the exclusion areas will be trimmed and cleared to the ground using handheld tools (which can include handheld motorized equipment, such as weed whackers or mowers) to the maximum extent practicable,	Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	under the supervision of an agency-approved biologist, to discourage presence of species in the construction area.	
MAM-4: Species Trapping and Relocating	If the minimum avoidance zone cannot be maintained and the agency-approved biologist believes activities will disturb or destroy habitat (e.g., collapse burrows) or may otherwise adversely affect these special-status mammal species, then an agency-approved biologist may be required to implement a trap and release program at the agency's discretion. Project-specific guidance on trapping, temporary holding, release location, and release method will be required by the agency prior to the start of trapping.	Cumulative
MAM-5: Reporting Requirements	Agencies will be notified within 24 hours if any individual special-status species is captured. The date, time of capture, specific location (GPS coordinates), and approximate size, age, and health of the individual will be recorded and provided in both hard-copy and digital format to the agency(ies) within 2 weeks of the conclusion of the protective trap and release operation. The agency(ies) will be notified within 24 hours if any special-status mammal species is found injured or dead. A written notification will also be prepared by the project proponent after verbal notification to the agency(ies). The report will include the date, time, and location of the discovered animal/carcass; cause of injury or death; and any other pertinent information. All dead and preserved specimens will be submitted to the appropriate agency(ies) upon request. Salvaged animals will be kept cooled or frozen until delivered.	Cumulative
Invertebrates—Guild Protection Measures		
INVERT-1: Implement California Freshwater Shrimp Measures	Implement the following measures for projects that include suitable habitat that could be occupied by California freshwater shrimp, as applicable. • Work Window. No work is permitted during wet weather or where saturated ground conditions exist; if a 60 percent chance of a 0.5 inch of rain or more within a 24-hour period is forecast, then operations will cease until 24 hours after rain has ceased. • Site Restrictions. New access routes requiring tree removal and grading will be limited to the extent practicable. Access routes will not be along the top of the stream bank but relatively perpendicular (45 to 90 degrees is acceptable) to the bank. • Pre-Construction Survey. Agency-approved biologist will conduct surveys of suitable habitat in the project area for presence of the California freshwater shrimp in the work area 24 hours prior to any vegetative clearing work, dewatering, or ground-disturbing activities. • Capture and Relocation: If California freshwater shrimp must be temporarily excluded from portions of the project area during in-water work, a project-specific capture and relocation plan must be submitted to the agency(ies) for review and approval. • Habitat Protection: Design project to achieve no net loss of large woody debris in the active (wetted) channels. Trees may be removed for access routes for construction equipment. If trees need to be removed from other portions of the project site, willows over 3 inches in diameter at breast height will be left in place as is practicable and the canopy cover provided by hardwoods or conifers will not be reduced unless necessary for access or other unforeseen circumstance. • Rehabilitate Disturbed Habitat: The stream bank will be planted with species which will enhance the year-round habitat value of the stream edge by providing adequate shelter, stability, complexity and food production potential for California freshwater shrimp. • Dewatering: Minimize the potential for California freshwater shrimp to be entrained during dewatering activities. Pump intakes will be placed away from complex vegetated banks that may contain habitat for California freshwater shrimp. Screens will be used during dewatering in accordance with IWW-6, Dewatering/Diversion, following CDFW (2001) and NMFS (1997) criteria for fry-sized salmonids.	Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
INVERT 2: Implement Vernal Pool Branchiopods Measures	Implement the following measures for projects that are within or adjacent to suitable habitat that could be occupied by vernal pool branchiopods, as applicable. • Ground Disturbance Adjacent to Vernal Pools. Implement the following measures for project sites that include suitable habitat that could be occupied by vernal pool branchiopods, as applicable. ○ Work Window. Work within 250 feet of suitable special status vernal pool branchiopod habitat (e.g., vernal pools, seasonal wetlands) will be performed under dry site conditions, to the extent feasible. If project proponents believe projects must be conducted outside of these work windows due to site specific or other constraints, project proponents may propose alternate work periods for review and approval by the agency(ies). ○ Work Restrictions During Wet Season. Work should be planned for the dry season whenever possible. If the proponent determines that construction activities must occur outside of the dry season, Environmentally Sensitive Area fencing and erosion control materials will be placed around vernal pools and other seasonal wetlands, as determined by the agency-approved biologist, to avoid sedimentation into vernal pool habitat or altering site hydrology. If project proponents believe projects must be conducted outside of these work windows due to site specific or other constraints, project proponents may propose alternate work periods for review and approval by the agency(ies). ○ Biological Monitor. Agency-approved biologist will monitor construction activities. ○ Erosion Control. Any vernal pool, vernal pool grassland, or seasonal wetland will be protected from siltation and potentially contaminated runoff from construction equipment by use of erosion control measures. ○ Dust Control. Dust control measures will be implemented to prevent the transport of soil from exposed surfaces to vernal pool, swale, and rock pool habitat. • Ground Disturbance within Vernal Pools. If the intent of a proposed project is to improve habitat for special status vernal pool branchiopods (e.g., enlarge, deepen, repair, or otherwise modify suitable aquatic habitat), and would require ground disturbance within suitable habitat, the project proponent will submit detailed project design information for review and approval by the agency(ies). Any ground disturbing activities within 25 feet of the edge of the pool will be conducted consistent with a plan reviewed and approved by the agency(ies), and will be conducted during the dry season. The following measures may also apply and should be considered during development of the plan that will be submitted to the agency(ies): ○ If inoculum from an existing site will be used for restoration/enhancement, the plan will identify any proposed donor pools and include documentation that they are free of versatile fairy shrimp (<i>Branchinecta lindahli</i>). No more than 5 percent of the basin area of any donor pool will be used for collection of inoculum. ○ Restoration plans that include grading or re-grading of vernal pools will include all final specifications and topographic-based grading, planting, and watering plans for the vernal pools, watersheds and surrounding uplands (including adjacent mima mounds) at the restoration sites. The grading plans will also show the watersheds of extant vernal pools, and overflow pathways that hydrologically connect the restored pools in a way that mimics natural vernal pool complex topography/hydrology. ○ Restoration plans that include grading or re-grading of vernal pools will include a hydraulic analysis that shows each proposed vernal pool and its watershed, and a calculation showing vernal pool to watershed ratio. The vernal pool to watershed ratio will be similar to extant pools closest to the restoration area. ○ Prior to ground disturbance within suitable habitat, loose substrate, which may include branchiopod cysts, will be collected from the	Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	pool area to be disturbed by vacuum and stored in dry conditions until grading is complete. - Topsoil will be removed and stockpiled separately. - Disturbance of the less permeable, hardpan or claypan soil layer that often helps form vernal pools will be minimized. If the less permeable layer must be removed it will be stockpiled separately. - When grading is complete, layers will be replaced in the reverse order, relative to removal, beginning with subsoil, followed by the less permeable layer, then topsoil, and then loose material collected by vacuum. Subsoil and less permeable layers should each be compacted following placement to decrease permeability of restored or modified suitable habitat.	
INVERT-3: Implement Valley Elderberry Longhorn Beetle Protocol	Implement the following measures for projects that include suitable habitat that could be occupied by valley elderberry longhorn beetle (VELB), as applicable. For the VELB, the project proponent will be required to follow the Protection Measures presented in the May 2017 FWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle or the most updated version of this guideline document (USFWS 2017).	Cumulative
INVERT-4: Implement Butterfly Protection Measures	The following general butterfly protection measures apply to all special-status butterfly species and their habitat, as applicable. Site Restrictions: Access routes, staging areas, and total project footprint within butterfly habitat will be limited to the minimum necessary to achieve the project goal. Biological Monitor: Biological monitoring will be overseen by an agency-approved biologist. During the adult flight season of special-status butterfly species, an agency-approved biologist will be present when construction activities occur in or within 150 feet of suitable habitat (dispersal habitat as well as areas containing the larval host plant and adult food plants). Environmentally Sensitive Areas: Any larval food or host plants found within 300 feet of the project footprint will be clearly marked and will be avoided to the maximum extent practicable. Prior to any ground-disturbing or vegetation removal activities, the edge of the work area near any larval food or host plants will be clearly marked to prevent workers and vehicles from entering this area. Dust Control: The agency-approved biologist will ensure that dust is controlled by construction personnel by periodically watering down areas within 100 feet of special status butterfly habitat, as necessary. Watering down the construction area will prevent dirt from becoming air borne and accumulating on larval host plants and adult food source plants for special status butterflies.	Cumulative
Fish – Guild Protection Measures		
FISH-1: Habitat Disturbance Avoidance and Minimization	Disturbance to aquatic habitat for special-status fish species will be avoided and/or minimized to the maximum extent practicable unless the purpose of the project is to provide overall benefits to the species and the benefits are greater than any temporary impacts to habitat.	Biological Resources-Aquatic, Cumulative
FISH-2: Habitat Assessment and Surveys	For projects that may result in impacts to aquatic habitat within the range of special-status fish species, no less than 30 days prior to construction of the project, the project proponent will evaluate the potential for special-status fish species to be present in the project area. The evaluation may be based on existing information if sufficiently available, or the project proponent may conduct a habitat assessment or focused survey for those species, if appropriate. The habitat assessment and/or survey will be conducted in potentially suitable aquatic habitat within 300 feet of the project area. The agency-approved biologist will conduct the habitat assessment and/or fish survey and will adhere to the standards provided in the CDFW California Salmonid Stream Habitat Restoration Manual 4th Edition Volume I: Section IV (CDFW 2010) or most current regulatory agency guidance document. If special-status fish species are observed during the survey or the habitat is otherwise potentially occupied, based on the results of the habitat assessment or	Biological Resources-Aquatic, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	existing information, the project proponent will implement FISH-3, Fish Capture and Relocation, as described below.	
FISH-3: Fish Capture and Relocation	For projects that require dewatering or other work in suitable habitat for the special-status fish species, if fish capture and relocation would be the most protective approach to managing fish during construction, then a fish capture and relocation plan will be developed and submitted to NMFS, USFWS, and/or CDFW, as applicable, for approval. The plan will describe the biologist qualifications, capture methods, capture and relocation work areas, and reporting requirements including details in the list below. If capture and relocation is not feasible or would not be the most protective approach to managing fish in the work area (e.g., if dewatering is not needed or appropriate; or if fish are in a large, unconfined water body), other methods to protect covered fish species (e.g., timing restrictions around season and tide, or bubble curtains) should be detailed in a plan and submitted to FWS for approval. • This plan will incorporate the latest agency guidance relating to the capture and relocation of fish, as applicable. • Procedures for decontamination of any equipment used in the capture and relocation of fish will be identified. • Prior to the implementation of capture and relocation activities, relocation (or release) sites will be identified by the agency-approved biologist based on proximity, access, habitat suitability, and potential to be affected by construction-related disturbance. Suitable habitat for relocation site(s) will be within the same watershed/sub-watershed fish were originally captured. • Fish relocation will only be conducted (or led) by an agency-approved biologist. If an agency-approved biologist is needed, the project proponent will submit the biologist's qualifications to the appropriate agency office for approval 30 days prior to project construction. The biologist will have knowledge and experience in fish biology and ecology, fish/habitat relationships, and biological monitoring, and handling, collecting, and relocating fish or other relevant experience. • Residual surface water associated with the diverted or dewatered habitat will be monitored or sampled for the presence of fish by an agency-approved biologist as soon as the waters are isolated. If a special-status fish is observed in the isolated habitat, they will be immediately captured and relocated to the suitable habitat outside of the construction area, but within the same watershed/sub-watershed, by the agency-approved biologist in accordance with the approved fish capture and relocation plan. • The agency-approved biologist will relocate any special-status fish species that may become stranded to an appropriate place depending upon the life stage of the fish, consistent with the approved rescue and relocation plan. • The agency-approved biologist will note the number of individuals observed in the affected area, the number of individuals relocated, the approximate size of individuals, the location of capture and release, any instances of injury or mortality, and the date and time of the collection and relocation. The agency-approved biologist will also identify and record the species observed and relocated and the life stage for anadromous species. This information will be reported to the appropriate agency office within 7 days of completion of the fish capture and relocation effort. • One or more of the following methods will be used to capture protected fish species: electrofishing, dip net, seine, throw net, minnow trap, and hand capture.	Biological Resources-Aquatic, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
FISH-4: Reporting	An agency-approved biologist will provide a written summary of work performed (including biological survey and monitoring results), protection measures implemented (e.g., use of biological monitor, flagging of work areas, erosion and sedimentation controls) and supporting photographs of each stage to the appropriate agency office. Furthermore, the documentation describing surveys and relocation efforts (if appropriate) will be completed in accordance with the requirements of FISH-3: Fish Capture and Relocation.	Biological Resources-Aquatic, Cumulative
Plant Species Protection Measures		
PLANT-1: Habitat Assessment and Surveys	If the project area can potentially support special-status plant species, an agency-approved biologist will conduct a survey for special-status plant species within 1 year prior to commencement of ground disturbing activities. Surveys should follow USFWS's General Rare Plant Survey Guidelines (USFWS 2002); and CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (2018) or their most recent equivalents.	Biological Resources-Terrestrial, Cumulative
PLANT-2: Seasonal Avoidance of Vernal Pool Plant Species and Other Annual and Perennial Species	For Vernal Pool Plant Species: Work within 250 feet of suitable special-status vernal pool plant habitat (e.g., vernal pools, seasonal wetlands) will be performed under dry site conditions to the maximum extent possible, to minimize potential adverse impacts to aquatic habitats. If any construction activities must occur during the wet period, exclusion fencing and erosion control materials will be placed around vernal pools and other seasonal wetlands as determined by the agency-approved biologist to reduce sedimentation into vernal pool habitat. The fencing will provide a buffer between construction activities and the vernal pools and other seasonal wetlands. The agency-approved biologist will oversee, monitor, inspect and maintain the exclusion fencing. For Other Annual Plant Species: To avoid impacts to other annual species, schedule work to occur after plants have set seed and senesced, avoid soil disturbance, and avoid actions that have potential to reduce habitat quality.	Biological Resources-Terrestrial, Cumulative
PLANT-3: Exclusion Buffer Establishment	An agency-approved biologist will clearly delineate with flagging or other field markers a minimum 50-foot avoidance buffer around all special-status plants or their suitable habitat. A larger exclusion buffer may be established if determined by the agency-approved biologist to be necessary for the protection of the special-status plants. No work activity will occur within the exclusion buffer, except as permitted under Measure PLANT-4, Work Restrictions in the Exclusion Buffer. Additionally, a buffer of at least 300 feet from any vernal pool, vernal pool grassland, or seasonal wetland will be established for the protection of special status plants.	Biological Resources-Terrestrial, Cumulative
PLANT-4: Work Restrictions in the Exclusion Buffer	If agency-approved biologist determines that some work activities can take place within the exclusion buffer described in Measure PLANT-3 without causing any adverse direct or indirect impacts to special-status plants identified for avoidance, those approved work activities may be conducted within the exclusion buffer. Special-status vernal pool plants will be clearly marked by an agency-approved biologist prior to worker entry into the exclusion buffer. Workers may only enter the exclusion buffer when accompanied by an agency-approved biologist, and all work within the exclusion buffer will be monitored by an agency-approved biologist.	Biological Resources-Terrestrial, Cumulative
PLANT-6: Herbicide Application, Clearing, and Ground Disturbance	If mechanical removal is not effective, or could damage sensitive habitats, limited herbicide application may occur as noted below and in accordance with General Protection Measures VHDR-6 through VHDR-8 (Appendix E), wind speed limitations during herbicide application. - To avoid impacts to other special-status species (non-vernal pool species), the following protections will be applied: - Application of herbicide will occur during dry conditions (no precipitation), to the maximum extent practicable. - Backpack and hand-held herbicide application, if applied in dry conditions, is prohibited within 5 feet of any special-status plant. Protect special-status plants from herbicide drift (e.g., cover with plastic when spraying or use a wick applicator).	Biological Resources-Terrestrial, Hazards and Hazardous Materials, Cumulative

Measure Name	Description of Measure	Applicable Resource Topic
	- o Broadcast and power spray herbicide application is prohibited; and - o Ground disturbing activities are prohibited within 5 feet of senesced annual and perennial plants and within 10 feet of perennial plants. Ground disturbance should occur outside of the dripline of any woody species identified for avoidance.	

Notes:

a. ~~AMP~~ = Amphibians

b. ~~REP~~ = Reptiles

c. ~~MAM~~ = Mammals

d. ~~INVERT~~ = Invertebrates

Source: ESA, 2025, State Water Board 2022b Appendix F – Species Protection Measures (August 16, 2022)

CHAPTER 3

Comments and Responses

3.1 Introduction

This chapter contains the comment letters that were received on the Draft SEIR. Following each comment letter is a response by DWR intended to supplement, clarify, or amend information provided in the Draft SEIR or to refer the reader to the appropriate place in the document where the requested information can be found. Comments not directly related to environmental issues may be discussed or noted for the record. Where text changes in the Draft SEIR are warranted based upon comments on the Draft SEIR, those changes are included in Chapter 2, “Revisions to the Draft SEIR.”

Occasionally, a response to a comment provides a cross-reference to another response. This occurs when the same, or very similar, comment was made or question asked and an appropriate response was included elsewhere.

3.2 Comments and Responses

Each comment letter is presented with brackets indicating how the letter has been divided into individual comments. Each comment is given a binomial with the letter number appearing first, followed by the comment number. For example, comments in Letter S1 are numbered S1-1, S1-2, and so on. Immediately following the letter are responses, each with binomials that correspond to the bracketed comments.



YOCHA DEHE
CULTURAL RESOURCES

March 25, 2026

CA Department of Water Resources
Attn: Judah Grossman
P.O Box 942836
Sacramento, CA 94236

RE: Tide's End Multibenefit Restoration Project YD-07262024-01

Dear Mr. Grossman:

Thank you for the project notification dated February 17, 2026, regarding cultural information on or near the proposed Tide's End Multibenefit Restoration Project. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the study and concluded that the project is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, the Tribe has concerns that the project could impact known cultural resources. Yocha Dehe Wintun Nation highly recommends including cultural monitors during development and ground disturbance.

To setup a monitoring agreement, please contact:

Eric Hernandez, Site Protection Manager
Yocha Dehe Wintun Nation
Phone: (530) 723 - 3313
Email: ehernandez@yochadehe.gov

Please refer to identification number YD-07262024-01 in any correspondence concerning this project.

Thank you for providing us the opportunity to comment.

Sincerely,

Signed by:

8DD0BD089ED6438...

Tribal Historic Preservation Officer Yocha Dehe Wintun Nation

PO Box 18 Brooks, California 95606 p) 530.796.3400 f) 530.796.2143 www.yochadehe.gov

T1-1

T1-2

Letter T1 **Yvonne Perkins, Yocha Dehe Wintun Nation**
Response March 25, 2026

Response to Comment T1-1

The comment summarizes the Yocha Dehe Wintun Nation’s review of the Draft SEIR and is noted.

Response to Comment T1-2

The comment does not address the sufficiency of the Draft SEIR. However, DWR has provided the following information in response to this comment.

Based on field surveys conducted in preparation for the proposed Project, consultations with Native American Tribes and the California Native American Heritage Commission, as well as a review of applicable records and literature, no Tribal cultural resources as defined in PRC Section 21074 have been identified in the proposed Project area. (see Draft SEIR Section 3.12, “Tribal Cultural Resources,” pp. 3.12-1 through 3.12-6, 3.12-12).

Due to the lack of known cultural resources on-site, and the incorporation of programmatic mitigation measures from the SRGO, including MM TCR-2 and CUL-4, which require, among other things, immediate cessation of all activities within 100 feet of the discovery of a potential Tribal resource or human remains and further coordination with tribal entities (see Draft SEIR Section 3.12, “Tribal Cultural Resources,” pp. 3.12-13 through 14; 3.8-33), the proposed Project will have a less than significant impact upon Tribal cultural resources (see Draft SEIR Section 3.12, “Tribal Cultural Resources,” pp. 3.12-13 through 14, 3.12-16).

DWR will coordinate with the Yocha Dehe Wintun Nation Tribe on the use of Tribal monitors during construction of the proposed Project.



Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
 Jennifer Lucchesi, Director
 715 P Street, MS 1803
 Sacramento, CA. 95814
 T: (916) 445-5986

3/10/2026

VIA EMAIL

California Department of Water Resources
 Division of Multibenefit Initiatives
 Judah Grossman
 P.O Box 942836, Sacramento, CA 94236
Judah.grossman@water.ca.gov

Assessor Parcel Number(s): Multiple APNs
 Property Owner(s): N/A
 Project Location Address: County Road 155 and County Road 107,
 Yolo County

PROJECT TITLE: SCH 2024070944 – Tides End Multibenefit Restoration Project.

Public Resources Code (PRC) section 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated 2/6/2026. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, CalGEM provides a table in the attached enclosure of the wells within the parcel boundary or in its vicinity, based on CalGEM's Well Finder database (<https://maps.conservation.ca.gov/doggr/wellfinder/>).

CalGEM categorically advises against building over, or in any way impeding access to, oil, gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking at the landowner's expense if there is a need to access a well. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment (consisting of well servicing rig, pumping equipment, pipe trailer) to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure. Impermeable barriers such as

S1-1

State of California Natural Resources Agency | Department of Conservation

Northern District

Orcutt Office and Mail: 195 S. Broadway, Suite 101, Orcutt, CA 93455 | T: (805) 937-7246 | F: (805) 937-0673

Sacramento Office and Mail: 715 P Street, MS 1804, Sacramento, CA 95814 | T: (916) 322-1110 | F: (916) 445-3319

Ventura Office: 1000 S. Hill Road, Suite 116, Ventura, CA 93003 | T: (805) 937-7246 | F: (805) 654-4765

Ventura Mail: 195 S. Broadway, Suite 101, Orcutt, CA 93455

conservation.ca.gov

(3/10/2026)

asphalt, concrete, and plastic may trap hazardous gases and liquids underneath and could create a safety hazard if built over a well that later develops a leak.

CalGEM recommends that any well for which access is impeded or built over, against CalGEM's advice, should be evaluated by a qualified petroleum professional for compliance with the statutory objectives of isolating all hydrocarbon-bearing strata; protecting underground and surface waters; prevention of subsequent damage to life, health, property, and other resources; and prevention of loss of oil, gas, or reservoir energy. CalGEM recommends that wells that do not meet these standards are abandoned or re-abandoned prior to construction. The well information can be accessed through CalGEM's Well Finder database mentioned above. PRC section 3208, subdivision (a), provides the primary statutory authority for CalGEM to oversee adequate abandonment of wells. Additionally, CalGEM has developed the regulatory guidance for operators to be followed during well abandonment, which are listed within California Code of Regulation, title 14 (CCR) section 1723 and associated sub-sections (for onshore wells), and section 1745 and associated sub-sections (for offshore wells).

There is no guarantee that a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. Due to the inability to predict all subsurface conditions or changes, it always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. CalGEM acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantee that such abandoned wells will not leak.

CalGEM advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations in Latitude and Longitude, NAD 83 decimal format, and leak testing results should be provided to CalGEM. CalGEM expects any wells found leaking to be reported to CalGEM immediately.

PRC section 3208.1 gives CalGEM the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for re-abandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.
2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be re-abandoned, or to follow the advice of the supervisor or district deputy not to undertake construction that impedes access, then the person or entity causing the construction over or near the well shall obtain

S1-1
cont.

(3/10/2026)

all rights necessary to re-abandon the well and be responsible for the re-abandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the re-abandonment.

Should any wells require abandonment or re-abandonment, the responsible party must submit a Notice of Intention (NOI) to CalGEM through WellSTAR. The NOI form can be accessed in the 'Plugging and Abandonment' section of the following link:

https://www.conservation.ca.gov/calgem/for_operators.

No well work may be performed on any oil, gas, or geothermal well without written approval from CalGEM. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. CalGEM also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR section 1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from CalGEM is required before work can start.

CalGEM makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, CalGEM recommends that information regarding the below identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.
2. CalGEM recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

As indicated in PRC section 3106, CalGEM has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to CalGEM's authority to order work on wells pursuant to PRC sections 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC sections 3236, 3236.5, and 3359 for violations within CalGEM's jurisdictional authority. CalGEM does not regulate grading, excavations, or other land use issues.

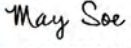
Should you have any questions, or if any wells are encountered that were not part of this letter, contact CalGEM at 916-322-1110 or via email at CalGemNorthern@conservation.ca.gov

S1-1
cont.

Docusign Envelope ID: 63B014EC-3D12-44B6-91BA-A289E405B41D

(3/10/2026)

Sincerely,

Signed by:

67F572FED79A4C8...

May Soe
Supervising Oil & Gas Engineer – Northern District – Sacramento

Enclosure

cc: N/A

(3/10/2026)

Enclosure: The wells listed below are reported to be located within and nearby the parcel boundary and may have future access impeded.

API No.	Well Name
0411320047	Swanston 1
0411321081	Capitol Fee 34-1
0411321258	CF 1
0411320654	Swanston 7
0411321051	Capitol Fee 33-1
0411320559	Swanston 3
0411320723	Swanston 3A
0411320097	H C-McCulloch Unit 1 2
0411320763	Swanston 6
0411320083	H&C-McCulloch Unit 1 1
0411320497	Capitol-Swanston 1
0411320797	Swanston 10
0411320510	Capitol-Swanston 2
0411320787	Swanston 9
0411320598	Swanston 4
0411320609	Swanston 5
0411320782	Swanston 8
0411320594	Laurel G. Ranch 3
0411320564	Venada-Laurel G Ranch 2
0411320537	Laurel G. Ranch 4
0411320933	Channel 1
0411300195	F.T. Swan 1
0411320141	Hilliard 1
0411320116	Tri-Valley Superior 1
0411320355	Venada W-1

Letter S1 **May Soe, California Department of Conservation Geologic Energy Management**
Response **Division (CalGEM)**
March 10, 2026

Response to Comment S1-1

The comments received from the Department of Conservation, Geologic Energy Management Division, regarding regulatory requirements related to abandoned gas wells are noted. The comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements do not address the sufficiency of the Draft SEIR. However, DWR has provided the following information in response to these comments.

As described in Draft SEIR Chapter 2, “Project Description,” page 2-20, the proposed Project would avoid construction directly over the 25 plugged and abandoned natural gas wells on-site, and there would be no construction activities within approximately 25 feet of any abandoned wells (see also Draft SEIR Appendix F, “Tide’s End Multibenefit Restoration Project Phase I Environmental Site Assessment [Phase I Environmental Site Assessment] and the Tide’s End Multibenefit Restoration Project Phase II Soil Sampling Investigation [Phase II Soil Sampling Investigation]”). As further described in Draft SEIR Section 3.9, “Hazards and Hazardous Materials,” page 3.9-14, because the proposed Project would avoid construction directly over any of the plugged and abandoned wells and would avoid construction within 25 feet of them, following Project completion, the plugged and abandoned wells would remain fully accessible to address any potential issues in the future. Furthermore, DWR and its contractors will comply with all applicable regulatory requirements.

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STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE



GAVIN NEWSOM, Governor
MEGHAN HERTEL, Director

Bay Delta Region
2825 Cordelia Road, Suite 100
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March 26, 2026

Judah Grossman, Senior Environmental Scientist
Division of Multibenefit Initiatives
Department of Water Resources
Post Office Box 942836
Sacramento, CA 94236
Judah.Grossman@water.ca.gov

Subject: Tide's End Multibenefit Restoration Project, Draft Supplemental Environmental Impact Report, SCH No. 2024070944, Yolo County

Dear Mr. Grossman:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Draft Supplemental Environmental Impact Report (EIR) from the California Department of Water Resources (DWR) for the Tide's End Multibenefit Restoration Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW previously submitted comments in response to the Notice of Preparation of the draft supplemental EIR.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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proponent may seek related take authorization as provided by the Fish and Game Code.

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PROJECT DESCRIPTION SUMMARY

Proponent: Department of Water Resources

Objective: The objective of the 2,212-acre Project is to restore tidal marsh and associated floodplain habitat while preserving and enhancing existing land uses (e.g., agriculture and managed wetlands). Located at the fluvial-tidal interface at the downstream end of the Yolo Bypass, adjacent to the Cache Slough Complex, the proposed Project would connect a ten-mile stretch of uninterrupted floodplain and wetland habitat. Primary Project activities include restoration of tidal connectivity to the Toe Drain for low-lying areas where the ground elevation is suitable to support tidal marsh habitat by opening an existing berm adjacent to the Toe Drain and excavating tidal channels, creation of managed seasonal wetlands in higher elevation areas, enhanced volitional fish passage by reductions and/or improvements to existing human-built obstructions, enhanced climate change resiliency by allowing for inland migration of tidal marsh habitat with sea-level rise.

Location: City of Dixon, Yolo County, County Road 155, and County Road 107, Latitude 38.386889, 121.638306.

Timeframe: Implementation expected over two construction seasons, starting in 2027.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist DWR in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, CDFW concludes that a Supplemental Environmental Impact Report is appropriate for the Project.

S2-2

COMMENT 1: Healthy Rivers and Landscapes (HRL) Program (formerly the Voluntary Agreements (VA) Program)

Issue: In multiple locations throughout the draft supplemental EIR, it is stated that the Project, "supports the framework outlined in the HRL Program" yet no details are provided as to how the Project will accomplish the planning, design, and monitoring tasks defined in the Healthy Rivers and Landscapes Final Draft Science Plan (Healthy Rivers and Landscapes Science Plan, Final Draft, August, 2024). CDFW previously provided this comment to DWR in response to the Notice of Preparation for the Project.

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Project proponents have largely completed the planning stage and intend to submit permit applications with a preferred design within weeks after the close of the public comment period on the draft supplemental EIR without following the necessary HRL processes. The elements that must compose an HRL project are described in the HRL Science Plan that outlines a process for all potential HRL projects. This process requires development of a project specific science team (i.e., Delta-specific Governance Entity) early in the planning phase who then develops a project science plan that is consistent with the HRL framework. The project science plan will then include applicable HRL hypothesis at multiple spatial/temporal scales. It will also include development of design objectives incorporated into the final design that are consistent with habitat suitability design standards for a given habitat type (e.g., tidal wetlands and floodplain) and design

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Judah Grossman, Senior Environmental Scientist
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criteria review and acceptance by the project science team and a Systemwide Governance Entity. The project specific science plan should also contain a monitoring and reporting plan that identifies how the relevant hypotheses will be addressed with the implementation of the monitoring plan. The monitoring plan should include the following components: accounting for non-flow (habitat) measures to assess progress toward achieving Memorandum of Understanding (MOU) commitments (2022, MOU), habitat suitability assessments to evaluate the ability of improved habitat to support species and habitat utilization and biological effectiveness assessments to evaluate target species usage and benefit from improved habitat.

HRL crediting in terms of meeting obligations under the HRL MOU could be impacted if the aforementioned HRL processes is not adhered to. In particular, this applies to the development of a multi-agency/stakeholder project specific science team (i.e., Delta-specific Governance Entity) and the re-initiation of the design criteria review process during the planning phase.

Recommendation 1: The draft supplemental EIR should describe and analyze any ongoing effectiveness monitoring and other ongoing activities that will be associated with the Project. CDFW recommends the draft supplemental EIR include a timeline of how and when the HRL framework will be implemented.

COMMENT 2: Project Description

Issue: The draft supplemental EIR does not provide clear and/or sufficient details on the project description.

Recommendation 2: The draft supplemental EIR should be revised to ensure conformity with the Healthy Rivers and Landscapes Final Draft Science Plan. To do so, the draft supplemental EIR should be revised to provide additional details with at least 30 percent design criteria. Examples of details include the following: number of breaches/berm lowering/channel excavations, approximate dimensions (linear feet and/or area), which infrastructure would be removed/retained, the local tidal datum and the elevational ranges of each habitat type (e.g. subtidal, intertidal or MLW, MHW, etc.).

Additionally, a map showing the proposed restoration features, infrastructure retained/installed/removed, areas impacted by construction activities would clarify what features are proposed. For new infrastructure proposed, please provide typical drawings and/or example photos of the fish screens, weirs, culverts, weir boxes, etc. The revised draft supplemental EIR should also identify elevations of excavated features in relation to tidal datums such as channels and identify whether individual channels or section will be subtidal, especially if they are designed to allow volitional fish egress.

COMMENT 3: Preconstruction surveys

Issue: Sufficient preconstruction surveying of the Project site has not been completed to determine impacts to special-status species.

Impacts to special-status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. CDFW considers plant communities, alliances, and associations with a statewide ranking of S1, S2, S3, and S4 as sensitive and declining at the local and regional level (Sawyer 2009). Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) of 1A, 1B, 2A, and 2B are rare throughout their range, endemic to California, and are seriously or moderately threatened in California. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA, as they meet the definition of rare or endangered (CEQA Guidelines, § 15380).

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S2-4

S2-5

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Additionally, burrowing owl (*Athene cunicularia*) is currently a candidate species under CESA and is afforded the same protection as a CESA-listed species (CEQA Guidelines, § 15380, subds.(b)). Unauthorized take of this species pursuant to CESA is a violation of Fish and Game Code section 2080 et seq.

Recommendation 3: Provide botanical survey data, as CDFW's Protocols for Surveys and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities states on page 7, "...botanical field surveys over a number of years may be necessary if the special status plant is an annual or short-lived plant having a persistent, long-lived seed bank and populations of the plant are known to not germinate every year. Visiting the project area in more than one year increases the likelihood of detecting special status plants, particularly if conditions change. To further substantiate negative findings for a known occurrence, a visit to a nearby reference site may help ensure that the timing of botanical field surveys was appropriate.". If subsequent surveys have not been completed, please plan at least an additional season of botanical surveys.

Recommendation 4: Western burrowing owl habitat assessments should be performed in accordance with Appendix C. Habitat Assessment and Reporting Details of the Staff Report on Burrowing Owl Mitigation (2012).

COMMENT 4: Fish entrainment and stranding

Issue: Chapter 2, "Effects on Entrainment" section states that larval smelt would have the potential to be entrained by the pump station and juvenile salmonids are expected to be excluded. These statements, without citations, do not provide support for "less than significant with general protection measures" findings. Chapter 2, Effects of Stranding, goes on to state, "[T]o further reduce juvenile stranding, the proposed Project features would be graded to allow volitional passage through the proposed Project area and reconnect with the Toe Drain." Without more clarity as to the specific design feature elevations, it is unclear how volitional passage will be maintained.

Recommendation 5: The draft supplemental EIR should be revised to include additional supporting evidence, such as citations to relevant literature to support statements made about effects on fish entrainment. The draft supplemental EIR should be revised to include project feature invert elevations. Additionally, to inform ongoing analysis about potential fish response to the Project, CDFW recommends incorporating fish monitoring data from Yolo Flyway Farms in the environmental impacts analysis of the draft supplemental EIR as this dataset is likely more representative when it comes to potential fish presence in the project area than the data sources currently cited.

COMMENT 5: Compatibility of Land Uses and Long-term Operations, Monitoring, and Maintenance.

Issue: Section 2.4 (Page 2-23 – 27) of the draft supplemental EIR describes a variety of ongoing operations and management activities within the managed wetlands, floodplain agriculture and the Project as a whole required to achieve the multi-benefit objectives. Specific management and operation tasks are identified, and a conceptual model timeline of seasonal management activities is provided. CDFW previously commented on the lack of specificity in identifying who will ultimately be responsible for carrying out the ongoing operations and management tasks, how those tasks will be funded, and that an adaptive management plan should be established with stakeholder involvement to ensure the compatibility of different land uses proposed under the project. Furthermore, CDFW requested more specificity as to what constitutes, "ecologically sensitive seasonal floodplain agriculture and fish-friendly waterfowl management" mentioned in the Notice of Preparation and on Page 2-13 of the draft supplemental EIR. The subsequent Section 2.4 (Page 2-26) goes on to say that

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S2-8

Judah Grossman, Senior Environmental Scientist
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"Managed floodplain agriculture in the proposed Project area would generally follow standard practices for rice production in the Yolo Bypass, consistent with current operations, with modifications targeted toward fish and waterfowl food production and juvenile salmonid rearing." Presumably these modifications are what constitute ecological sensitivity, but the draft supplemental EIR provides no details nor identifies any specific trade-offs in terms water or nutrient/herbicide management that will need to be implemented to achieve these benefits to fish and wildlife. Furthermore, the conceptual management timeline identifies potential conflict areas in the timing of flooded conditions and draw down required for floodplain agriculture and managed wetlands relative to juvenile salmonid rearing needs and the peak abundance period for smelt. Rice fields and managed wetlands are typically drawn down in March prior to the end of the rearing and peak abundance periods for the fish species the restoration is intended to benefit.

Evidence impact would be significant: Managed wetlands primarily managed for the benefit of waterfowl may or may not be compatible with fish food production depending on the specific management practices employed (Williamshen et al., 2021). Managed wetlands are recognized as novel ecosystems that support a mixture of native and non-native aquatic species (Moyle et al., 2014; Aguilar-Medrano et al., 2019), and management objectives may be at odds with the Project objective of solely benefiting native aquatic species.

It has been demonstrated that flooded rice fields can potentially support rapid growth for juvenile salmonids stocked into managed rice fields through elevated zooplankton production relative to channelized river habitats (Katz et al., 2017;). However, 15 years of studies investigating juvenile salmon rearing in rice fields have yet to show a consistent benefit to salmon beyond in situ growth (Corline et al. 2017, Katz et al. 2017; Jeffres et al. 2020; Sommer et al. 2020; Holmes et al. 2021). Evidence of a consistent positive effect of that experienced growth is missing. Studies are ongoing in both Yolo Bypass and Sutter Bypass on this subject and until further data is available this management action should not be assumed to provide a net benefit to salmon. Additionally, recent work (Sommer, 2020) with DWR staff as the lead authors, synthesized the results of 5 years of studies investigating salmonid response to rearing in flooded agricultural fields and one of their principal findings was that agricultural fields designed to be used for fish habitat: *"Need to have sufficient structural integrity to support deeper water and flow. Our observations suggest that typical production rice fields do not meet these criteria."*

In addition to the scientific uncertainties regarding benefits to salmon either stocked or entrained into rice fields, winter-flooded rice fields are often drawn down rapidly by late February or March to prepare for spring planting. In contrast, historical floodplain inundation in the Sacramento Valley frequently extended into April and May during wetter water years, overlapping with peak juvenile salmon floodplain rearing periods (Sommer et al., 2001; Opperman et al., 2017). The duration and onset of field inundation in rice agriculture may therefore not consistently align with peak juvenile salmon occupancy windows in floodplain habitats and can vary significantly from year to year based on hydrology, water allocations, and farm management decisions. Field studies conducted on rice fields in the Yolo Bypass indicate that duration of inundation and timing of drainage directly influence juvenile salmon growth, survival, and successful egress, and that altered drainage timing can affect stranding risk, prey availability, and habitat quality (Sommer, 2004; Takata, 2017).

While managed inundation of rice fields in the Yolo Bypass has demonstrated potential to provide rearing habitat and food resources for juvenile Chinook salmon (*Oncorhynchus tshawytscha*) under certain conditions, there remains substantial uncertainty about whether the timing and duration of inundation under

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standard agricultural management regimes and standard rice agricultural methods in the Yolo Bypass (see next comment) are consistently compatible with the ecological needs of these species throughout their critical life stages. Specifically, the seasonal timing of water inflows and drawdown in rice systems may not align with juvenile salmonid outmigration timing or with the habitat use windows of other native species such as Delta smelt (*Hypomesus transpacificus*) and longfin smelt (*Spirinchus thaleichthys*), whose life histories are closely linked to hydrologic variability and extended floodplain connectivity (Moyle et al., 2016; Sommer et al., 2007).

S2-8
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Recommendation 6: This potential temporal mismatch between water management optimized for rice production and waterfowl habitat, and hydrologic conditions that maximize juvenile native fish rearing, warrants more complete evaluation in the draft supplemental EIR analysis. Without such evaluation, it remains unclear whether proposed tidal wetland restoration and continued agricultural land uses are fully compatible in achieving native fish recovery objectives. As such, CDFW does not recommend incorporating the rice agriculture elements in the Project at this time. Water control infrastructure should be opened immediately before or after overtopping events so that fish can escape agricultural fields and managed wetlands. For more information on scientific uncertainties regarding managed floodplains see previous comments from CDFW on this Project and https://s42845.pcdn.co/wp-content/uploads/Floodplains-Regimagined_Clean_Uncertainty_TM_032524.pdf. If these elements are ultimately retained, some of the issues raised above (e.g., timing of water management relative to fish needs and banning or reducing the use of agricultural chemicals) could be addressed in a long-term adaptive management framework that establishes performance standards and monitoring triggers designed to optimize benefits for native fish species while balancing agricultural and waterfowl management objectives.

S2-9

At a minimum, the CEQA document should acknowledge and evaluate this potential temporal mismatch and should acknowledge and discuss the general scientific uncertainty regarding benefits of juvenile salmonid rearing in flooded rice fields as either a significant impact or a data gap requiring further study. Avoidance, minimization, and monitoring measures should be considered to ensure that floodplain agricultural and managed wetland practices support, rather than inadvertently constrain, ecological outcomes for listed fish species.

COMMENT 6: Potential Contaminant Exposure from Use of Rice Agricultural Runoff as Fish Food Source

Issue: The draft supplemental EIR discusses the use of agricultural drainage water from rice fields in the Sacramento–San Joaquin Delta as a potential food resource for fish species but provides limited evaluation of potential contaminant exposure associated with this practice. Flooded rice fields and associated agricultural drainage water can contain residues from pesticides, herbicides, nutrients, and other agricultural chemicals that may be transported into adjacent aquatic habitats used by fish and other aquatic organisms.

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Recent research indicates that pesticide contamination may occur not only in the water column but also through accumulation in aquatic food web components such as zooplankton. Because zooplankton and other invertebrates are primary prey for many fish species, including threatened and endangered fish, contaminants present in agricultural drainage water may be transferred through trophic pathways.

A growing body of literature indicates that rice agriculture and associated agricultural runoff can introduce pesticides into Delta aquatic ecosystems, potentially affecting both water quality and aquatic food webs. Studies have

Judah Grossman, Senior Environmental Scientist
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documented that Delta waters contain complex mixtures of current-use pesticides derived from both agricultural and urban runoff (Weston and Lydy 2010; Weston et al. 2014; De Parsia et al. 2018; Orlando et al. 2014).

Recent work by Orlando et al. (2025) provides further evidence that pesticide exposure in the Delta food web may be strongly influenced by flow conditions and agricultural drainage inputs. That study found that pesticide concentrations in both water and zooplankton increased in association with augmented flow pulses using agricultural tailwater in the Yolo Bypass and Sacramento River system. Zooplankton samples frequently contained multiple pesticides and showed particularly frequent detections of hydrophobic compounds that bioaccumulate in aquatic organisms. Because zooplankton are a primary food source for juvenile fish in the Delta, including species such as the Delta smelt, Chinook Salmon, and longfin smelt, this bioaccumulation pathway represents a potential mechanism for contaminant transfer through the aquatic food web (Orlando et al. 2025).

The study further documented that zooplankton samples frequently contained mixtures of multiple pesticides, with detections occurring in the vast majority of samples analyzed. Importantly, hydrophobic pesticides, including several insecticides commonly used in agricultural and urban settings, were detected more frequently in zooplankton than in water samples, consistent with bioaccumulation processes. Such accumulation can lead to trophic transfer and may affect fish growth, physiology, and survival (Fong et al. 2016; Orlando et al. 2025).

Additionally, Orlando et al. (2025) found that augmented flow pulses generated using agricultural tailwater were associated with increased pesticide concentrations in the Yolo Bypass and nearby Delta habitats. These findings suggest that management actions intended to enhance food web productivity—such as increasing flows or mobilizing agricultural drainage water—may also increase pesticide exposure within the food web, potentially offsetting some ecological benefits.

Beyond bioaccumulation, numerous studies have demonstrated that pesticides can adversely affect aquatic organisms through both lethal and sublethal mechanisms. Pesticides have been shown to alter zooplankton community composition, reduce survival, and impair growth and reproduction (Hanazato 2001; van Wijngaarden et al. 2014; Arenas-Sánchez et al. 2018). These effects may cascade through aquatic food webs by reducing the availability or nutritional quality of prey resources for fish species.

Given the importance of zooplankton as prey for pelagic fishes in the Delta and the documented presence of complex pesticide mixtures within this trophic pathway, the use of rice agricultural runoff to support fish food production may present a pathway for contaminant exposure that could affect sensitive fish species and aquatic food web dynamics.

Recommendation 7: To ensure compliance with the analytical requirements of CEQA, the draft supplemental EIR should be revised to clearly define the agricultural management practices that would be implemented if rice cultivation is incorporated into the proposed multi-benefit project. This should include a description of pesticide use practices, timing of chemical applications, water management strategies, drainage and tailwater management, and any best management practices intended to minimize the transport of agricultural chemicals into adjacent aquatic habitats used to support fish prey production. Providing this level of project detail would allow for a clearer evaluation of whether rice cultivation associated with the project could introduce pesticide residues or other contaminants into the aquatic food web. Where appropriate, the draft supplemental EIR should also identify monitoring or adaptive management

S2-10
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Judah Grossman, Senior Environmental Scientist
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measures to ensure that water quality and food web benefits associated with the project are not offset by unintended contaminant exposure associated with agricultural drainage inputs.

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cont.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link:

<https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

S2-11

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

S2-12

CONCLUSION

CDFW appreciates the opportunity to comment on the draft supplemental EIR to assist DWR in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Elijah Portugal, Senior Environmental Scientist, at (707) 428-2088 or Elijah.Portugal@wildlife.ca.gov; or Sara Kern, Senior Environmental Scientist, (Supervisory) at Sara.Kern@wildlife.ca.gov.

S2-13

Sincerely,

DocuSigned by:

Erin Chappell

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Erin Chappell

Regional Manager

Bay Delta Region

ec: Office of Land Use and Climate Innovation SCH No. 2024070944
 Melissa Farinha, CDFW Bay Delta Region – Melissa.Farinha@wildlife.ca.gov

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**Letter S2
Response****Erin Chappell, California Department of Fish and Wildlife**
March 26, 2026

Response to Comment S2-1

This comment summarizes CDFW’s role as a trustee agency for fish and wildlife resources and as a responsible agency under CEQA. The comment also states that CDFW previously submitted comments in response to the Notice of Preparation (NOP); all comments submitted in response to the NOP were considered during preparation of the Draft SEIR. The NOP comments were included in Appendix B, “NOP and Letters,” of the Draft SEIR.

Response to Comment S2-2

Comment noted. See responses to S2-3 through S2-10.

Response to Comment S2-3

As discussed further in Comment S2-4 below, the Draft SEIR provides a clear, accurate, and stable project description that provides an appropriate basis for determining impacts associated with the construction and operation of the proposed Project. Comments outlining regional plans and programs related to the proposed Project that are not otherwise tied to a project’s impacts or analysis of such are not comments relating to the adequacy of the environmental impact analysis under CEQA. Nevertheless, the proposed Project’s support for and consistency with the Healthy Rivers and Landscapes Program are discussed further below.

As part of the proposed Project planning and development phase, DWR initiated a Design Criteria and Justification for the Healthy Rivers and Landscapes (HRL) Non-flow Measures process consistent with the HRL Draft Strategic Plan to ensure that the planning, design, and monitoring elements of the proposed Project align with the HRL framework. This included development of objectives to address limiting factors (stressors) that were identified from the *Final Draft Scientific Basis Report Supplement in Support of Proposed Voluntary Agreements for the Sacramento River, Delta, and Tributaries Update to the San Francisco Bay/Sacramento–San Joaquin Delta Water Quality Control Plan* (State Water Board 2023), which were incorporated into the design and are consistent with habitat suitability design standards for a given habitat type (e.g., tidal wetlands and managed floodplain) and design criteria review.

As part of this effort, in the fall of 2024, and following the release of the NOP, DWR convened and met with a HRL Non-Flow Design Criteria Workshop on October 24, and November 13 (Working Group) for the proposed Project, which included representatives from the State Water Resources Control Board (State Water Board), the commenting agency here: California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS).

The meetings included review and input from the Working Group on the following aspects of the proposed Project:

- The proposed Project’s purpose, including its intended contribution to restoration commitments established under the HRL program, consistency with other existing programs, and its specific goals and objectives.

- Information that has been reviewed to support the development of non-flow design criteria, including technical studies prepared for the proposed Project, technical papers, published literature, and data sets from monitoring programs.
- The framework for identifying HRL program restoration commitments and associated non-flow design criteria for the proposed Project, including limiting factors (stressors) and HRL measures, HRL program regions, benefits associated with HRL program targets for Non-flow Measures, and draft design criteria.
- Preliminary analysis of HRL benefits that are anticipated to achieve Memorandum of Understanding (MOU) commitments; habitat achieved by implementing the proposed Project organized by Non-flow Measure targets. This included a description of the approach to analysis (methodology) for each Non-flow Measure target to quantify anticipated benefits and verify the consistency of the proposed Project with the HRL program and presents preliminary results. The preliminary analysis presented demonstrated how the proposed Project, based on preliminary designs, is anticipated to support achieving the Non-flow Measure targets established under the HRL program.

Thus, DWR addressed the CDFW comment on the NOP regarding the HRL Framework process by engaging in the HRL Working Group meetings, which included CDFW.

- Further, an operations, monitoring, and adaptive management plan is being developed consistent with the HRL Science Plan and will include the following components: accounting for non-flow (habitat) measures to assess progress to suitability assessments to evaluate the ability of improved habitat to support species; and habitat utilization and biological effectiveness assessments to evaluate target species usage and benefit from improved habitat.

Regarding Recommendation 1 stating that the Draft SEIR should describe and analyze any ongoing effectiveness monitoring and other ongoing activities that will be associated with the proposed Project, the Draft SEIR outlines operations, monitoring, and maintenance in Chapter 2, “Project Description,” pages 2-23 through 2-28. Impacts associated with operations, monitoring and maintenance are evaluated in the resource sections of Chapter 3 of the Draft SEIR. See also Response to Comment S2-7 and L2-6 for additional information.

Response to Comment S2-4

CEQA requires that a project description includes the precise location and boundaries of the project, its objectives, a general overview of its technical, economic, and environmental characteristics, as well as the intended uses of the EIR (see CEQA Guidelines Section 15124, subds. (a-d)). Draft SEIR Chapter 2, “Project Description,” provides this information and presents a clear, accurate, and stable project description that provides the appropriate basis to determine impacts related to the construction and operation of the proposed Project (see CEQA Guidelines Section 15124). Specifically, the proposed restoration elements and facility improvements outlined in the Draft SEIR constitute a 30% project design, as requested by the comment, and are described in sufficient detail in Chapter 2 “Project Description,” pages 2-8 through 2-17, and elsewhere in the Draft SEIR.

While the comment states that the draft SEIR does not provide a clear project description, or sufficient details on specific project elements, the requested information already exists in the Draft SEIR and is

provided at a sufficient level of detail to support the evaluation of the proposed Project in Draft SEIR Chapter 3, “Environmental Setting, Impacts, and Mitigation Measures.” For example:

- Figure 2-4 (p. 2-9) shows the restoration elements and facility improvements, including the Project’s proposed culverts, spills, fish screens, berms, and drainage and irrigation channels.
- The location of berms on the proposed Project area is shown on Figure 2-4 (p. 2-9), and the berms are described under the proposed Project elements, as applicable, on pages 2-10 through 2-14 and is at a sufficient level of detail to adequately evaluate impacts associated with the construction and operation of these berms.
- Infrastructure to be retained/installed/removed is described on pages 2-14 through 2-15 and in Section 3.13, “Utilities and Service Systems,” pages 3.13-11 through 3.13-13, and is shown on Figures 2-2 and 2-6 (pp. 2-15 and 2-16, respectively).
- Local tidal datum and elevation ranges information and the potential hydrologic and hydraulic effects of the proposed Project is included in Draft SEIR Appendix H, “CEQA Hydraulic Impact Assessment.” The results are presented and evaluated in Draft SEIR Section 3.10, “Hydrology and Water Quality, pages 3.10-62 through 3.10-71. Potential impacts on habitat types are presented in Section 3.6, “Biological Resources – Terrestrial,” pages 3.6-55 through 3.6-60.

The additional details suggested in the comment, including the number of breaches/berm lowering/channel excavations, and approximate dimensions, and typical drawings and/or example photos of fish screens, weirs, culverts, weir boxes are not required for a legally adequate CEQA analysis and would not change the analysis or conclusion in the Draft SEIR (see CEQA Guidelines Section 15124 [providing that the project description need “not supply extensive detail beyond that needed for evaluation and review of the environmental impact”]). The Project details are at a sufficient level of detail to adequately evaluate impacts associated with the construction and operation of the Project.

See also Response to Comment S2-3 which describes the HRL Design Criteria and Justification development process.

Response to Comment S2-5

The SEIR adequately establishes the biological baseline through extensive habitat identification, descriptions, and species surveys conducted by qualified biologists to document vegetation communities, wildlife assemblages, and special-status species potentially present on and adjacent to the proposed Project area (see Draft SEIR Section 3.6, “Biological Resources – Terrestrial,” pp. 3.6-3 through 3.6-20).

During early planning, nine special-status plant species were determined to have a potential to occur within the proposed Project area because those species have less-specific habitat requirements and either tolerate some soil disturbance and altered hydrology or may spread relatively easily into managed lands (see Section 3.6, “Biological Resources – Terrestrial,” p. 3.6-11). As described in Draft SEIR Section 3.6, “Biological Resources—Terrestrial,” page 3.6-12, based on botanical surveys conducted by ESA in 2020, 2021, and 2023, none of these nine species were observed. Furthermore, as documented in Draft SEIR Table 3-1 and on page 3-4, in Appendix C, “Tides End Multibenefit Restoration Project Preliminary Biological Resources Report,” and in Table 3.6-2, page 3.6-12, no plants with a California Rare Plant Rank “CRPR” rank of 1A, 1B, 2A, and 2B were detected during these surveys in 2020, 2021, or 2023. Given these

consistent results of negative findings over multiple years, further focused botanical surveys are not required.

DWR recognizes that western burrowing owl is currently a candidate species under the California Endangered Species Act (CESA). As shown in Draft SEIR Section 3.6, “Biological Resources—Terrestrial,” Table 3.6-3, pages 3.1-14 through 3.6-15, biological surveys found that the proposed Project area lacks suitable natural breeding habitat for western burrowing owl as small mammal burrows were absent; these observations were used to support the impact analysis and less than significant conclusion (with implementation of applicable GPMs and SPMs) in Draft SEIR Section 3.6, “Biological Resources—Terrestrial,” pages 3.6-41 through 3.6-43. Nonetheless, the Draft SEIR includes protective measures for western burrowing owl, which are listed in Draft SEIR Section 3.6, “Biological Resources—Terrestrial,” p. 3.6-41. These measures include general and bird species protection measures SPM-1, SPM-2, SPM-3, SPM-5, SPM-6, BIRD-1, BIRD-2, BIRD-3, BIRD-4, and BIRD-5. (*Id.*) Effectively, the species protective measures identified in the Draft SEIR assume western burrowing owl presence, thereby obviating the need for further habitat assessment. As described in the Draft SEIR Section 3.6, “Biological Resources—Terrestrial,” page 3.6-43, the impact of construction on special-status wildlife, such as burrowing owl, would be less than significant with implementation of general protection measures and applicable wildlife species protection measures when assuming species presence.

Response to Comment S2-6

Regarding the comment on potential for fish entrainment at the pump station, as described in Draft SEIR Chapter 2, “Project Description,” page 2-14, and Draft SEIR Section 3.7, “Biological Resources – Aquatic,” pages 3.7-28 through 3.7-29, proposed new intakes would be designed to meet standards in accordance with CDFW (2000)¹ and NMFS (1996)² fish screening criteria. The screens would be designed to have an approach velocity equal to or less than 0.2 foot per second to meet the USFWS screening criteria when delta smelt are present. (*Id.*) As described in Draft SEIR Section 3.7, “Biological Resources—Aquatic,” page 3.7-29, calculations suggest that a 1.75-millimeter (mm) screen opening size would be effective at excluding juvenile salmonids of 22 mm standard length and greater (ICF International 2016),³ which is the equivalent of around 25 mm fork length. Therefore, this would be expected to exclude all juvenile salmonids occurring in the vicinity of the pump station. This evidence, already present in the Draft SEIR, informed the analysis regarding effects on entrainment to special-status fish species, referenced in this comment, and supports the beneficial impact conclusion as it relates to constructed restoration elements of the proposed Project. (See Draft SEIR Section 3.7, “Biological Resources – Aquatic,” pp. 3.7-28 through 3.7-30.)

Regarding the comment on fish passage and stranding, existing conditions are described in Draft SEIR Section 3.7, “Biological Resources – Aquatic,” page 3.7-4. This includes a description of the existing potential floodplain rearing habitats in the proposed Project area being constrained by barriers to fish passage. In particular, the existing berm and high ground along the west bank of the Toe Drain channel present a barrier for fish egress from the fields and ponds within the proposed Project area during floodplain drawdown (when water stage elevation is at or below the elevation of the berm crest). (*Id.*)

¹ See Draft SEIR Chapter 7, “References,” page 7-11.

² See Draft SEIR Chapter 7, “References,” page 7-14.

³ See Draft SEIR Chapter 7, “References,” page 7-12.

Existing drainage structures (e.g., flap-gate style tide gates and/or sluice gate type water control structures) within the site represent impediments to fish egress during some or all floodplain flow conditions. (*Id.*) In addition, numerous internal berms and road embankments subdivide the proposed Project area to support managed ponds for waterfowl and agriculture fields (primarily for rice cultivation). (*Id.*) The presence of these berms and embankments results in numerous impounded basins in the interior of the proposed Project area that present hazards for fish stranding as water levels recede after inundation. (*Id.*)

Draft SEIR Chapter 2, “Project Description,” Section 2.2 “Proposed Project Restoration Elements,” pages 2-8 through 2-16, provides details on how the proposed Project will address these existing fish passage issues. For example, the existing berm and high ground along the west bank of the Toe Drain channel will be degraded in multiple locations creating connectivity to the Toe Drain, and volitional fish passage on and off the floodplain would be enhanced by reconfiguring irrigation and drainage ditches and installing fish-passable structures, such as culverts and modified weir boxes (see Draft SEIR Chapter 2, “Project Description,” pp. 2-10 through 2-11, 2-23; see also Draft SEIR, Section 3.7, “Biological Resources – Aquatic,” p. 3.7-29). Irrigation and drainage ditches would be excavated and compacted to the desired channel geometry, and fish-passable water control devices would be installed manually (see Draft SEIR Chapter 2, “Project Description,” p. 2-23).

In addition, as described in Draft SEIR Chapter 2, “Project Description,” page 2-4, the proposed Project was sited to take advantage of existing land elevations and amplify the habitat benefits of seasonal flows through the Yolo Bypass (see Figure 2-3, p. 2-5, for existing elevations in the proposed Project area). With the restoration and enhancement of tidal wetland and floodplain habitats, conditions would be expected to more closely mimic the historic shallow, long-duration flood patterns of the region that support underlying ecological processes necessary for productive aquatic ecosystems (ESA 2025).

Regarding the recommendation to incorporate fish monitoring data from Yolo Flyway Farms to inform ongoing analysis about potential fish response to the proposed Project, the Project team has obtained and reviewed the Fish Restoration Program, Effectiveness Monitoring Report, Calendar Year 2024 (CDFW 2025). The data presented in the Monitoring Report are generally consistent with the characterization and analysis included in the Draft SEIR and include documentation of a mixture of native and non-native species in the results. See Draft SEIR Section 3.7, “Biological Resources – Aquatic,” Section 3.7.2, “Environmental Setting,” for a discussion of baseline conditions in relation to aquatic biological resources. In order to characterize existing conditions and support analysis of the proposed Project, a comprehensive analysis of the Interagency Ecological Program (IEP) Yolo Bypass Fish Monitoring Program database and published literature review was conducted and described in the Draft SEIR on pages 3.7-1, 3.7-2, 3.7-10, 3.7-12, and 3.7-16. This included a review and discussion of fish species life history requirements, habitat suitability requirements, and seasonal presence in the vicinity of the proposed Project across several years (e.g., p. 3.7-16). The information from the IEP Yolo Bypass Fish Monitoring Program database and published literature review provides substantial evidence regarding existing conditions and supports analysis of potential proposed Project. Data presented in the Fish Restoration Program, Effectiveness Monitoring Report do not change the characterization of existing conditions or analysis of the proposed Project.

Response to Comment S2-7

Draft SEIR Chapter 2, “Project Description,” provides the appropriate basis and sufficient detail to determine impacts related to the operation, monitoring, and maintenance of the proposed Project (Draft SEIR pp. 2-23 to 2-28), and additional details regarding management tasks, funding, and adaptive management would not change the Draft SEIR conclusions or findings.

Regarding the comment on lack of specificity in identifying who will be responsible for carrying out operations and management tasks, how these tasks will be funded, and how adaptive management will be established, DWR would develop a Long-Term Management Plan and an Adaptive Management Plan identifying roles for operations and maintenance of project features and management of habitat if a project is approved and/or a project alternative is selected. As described in Response to Comment L2-6, these plans would be developed with input from regulatory and other agencies to reflect applicable requirements. For further discussion of the level of specificity required in the Draft SEIR to address long-term operations and management, adaptive management, and funding please see Response to Comment L2-6, and Response to Comment L1-7 for a discussion on economic impacts analysis under CEQA.

Response to Comment S2-8

Analysis of the proposed Project in the Draft SEIR Section 3.7, “Biological Resources – Aquatic,” describes how existing conditions with respect to fisheries would be improved and potential impacts to fisheries have been disclosed.

Ecologically Sensitive Seasonal Floodplain Agriculture and Waterfowl Management that Allows for Fish Passage

As discussed below (see Response to Comment S2-9), general agricultural practices (e.g., disking, mowing, and grading) would be implemented to minimize the need for application of pesticides and herbicides but would not preclude their use. Given the reduction in agricultural lands for constructed restoration elements, applications of pesticides and herbicides would be consistent with or less than historical amounts applied in the proposed Project area compared to baseline conditions (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-86).

Floodplain Agriculture and Managed Wetlands

Although managed wetlands and floodplain agriculture in the proposed Project area are not managed exclusively for fish rearing, such water management regimes are compatible with juvenile salmon rearing (see Draft SEIR, Chapter 2 “Project Description,” pp. 2-25 to 2-27; Chapter 3.11 “Recreation,” p. 3.11-19). References cited in the Draft SEIR (see p. 3.11-20) support that seasonal flooding and drawdown associated with duck habitat management (i.e., managed wetlands) can promote high primary and secondary productivity, resulting in abundant zooplankton that serve as a key food resource for juvenile salmon (Phillips et al. 2024). Similarly, Aha et al. (2021) found that managed wetlands in Suisun Marsh supported rapid juvenile Chinook salmon growth, with growth rates closely linked to elevated zooplankton abundance generated by wetland food webs. These studies demonstrate that managed wetlands operated primarily for waterfowl can simultaneously enhance aquatic food-web productivity and provide high-quality rearing habitat for juvenile salmon, particularly when periodic hydrologic connectivity allows fish access to productive wetland outflows.

Supplemental water and management of drainage through the outlets in the proposed Project area could be utilized within an adaptive management framework to extend inundation through April. See Draft SEIR, Chapter 2 “Project Description,” page 2-13, which covers the full salmonid floodplain rearing season (NMFS 2021)⁴ and periods when delta smelt are present in the lower Yolo Bypass (Interagency Ecological Program 2023);⁵ however, there is no CEQA requirement to optimize management for native fish (as opposed to mitigating project impacts to native fish) relative to achieving other benefits (e.g., floodplain agriculture). While the extent and/or duration of benefits may vary year-to-year based on Yolo Bypass hydrology (e.g., inundation timing, extent, and duration) and operating/management conditions, those benefits would not be eliminated with changing management actions during periods of overlap (e.g., managed fish food production and rearing overlapping with draining field for agricultural activities). Food web production and export from the proposed Project area would be assessed via monitoring of primary and secondary productivity and water quality using biological sampling and water quality sondes. Further, qualitative assessment of the proposed Project design would include, as feasible, visual survey for stranded native fish species following high-flow events as floodwaters recede (i.e., inundation on the Property is decreasing). These surveys would occur across inundated areas of the Property, as hydrologic conditions allow. Proposed monitoring and adaptive management of the Project would be described in Long-term Management and Adaptive Management and Monitoring plans.

The preservation and improvement of managed wetlands in the proposed Project area is intended to benefit a variety of native species, including not just waterfowl but other species such as native aquatic species (see analysis in Draft SEIR Section 3.7, “Biological Resources – Aquatic,” under Impact 3.7-1, p. 3.7-30). The goals of the proposed Project include restoring tidal wetlands and floodplains in the Yolo Bypass to support native fish and wildlife while also supporting compatible land uses within the Yolo Bypass and reducing flood risk (see Chapter 2 “Project Description,” p. 2-6).

Fish Passage

The potential for fish stranding in both the managed and unmanaged proposed Project features would be reduced from existing conditions (see Section 3.7, “Biological Resources-Aquatic,” p. 3.7-29). When flooding within the Yolo Bypass recedes and water stage drops below the berm elevations, fish that have not receded with the outgoing water would remain in the wetlands within the managed floodplains. (*Id.*) Fish could escape the managed floodplain through weirs outfitted with flashboards with orifices connected to channels/drainage and irrigation channels that drain to the Toe Drain. (*Id.*) Demolition of existing water control structures in addition to installation of weir structures that allow for fish passage would enable the previously managed agriculture habitat to become a floodplain habitat more conducive to fish passage, increasing suitable rearing habitat for fish. (*Id.*) See also Response to Comment S2-6 for additional details.

Benefits of Managed Floodplains

Regarding potential benefits associated with managed floodplains for food production and fish rearing, multiple studies have indicated that managed inundation of floodplains, including managed floodplains used for agriculture, provides important rearing habitat for fish, and that properly managed floodplains are

⁴ See Draft SEIR Chapter 7, “References,” page 7-15

⁵ See Draft SEIR Chapter 7, “References,” page 7-12

beneficial (Holmes et al. 2021, Jeffres et al. 2020,⁶ Katz et al. 2017⁷). It is acknowledged that many of the studies that have been conducted to date have been experimental pilots, and as a result, uncertainties remain regarding benefits associated with full-scale projects. Nevertheless, these studies (Holmes et al. 2021, Jeffres et al. 2020, Katz et al. 2017) have shown results that benefits can be achieved. The Draft SEIR provides substantial evidence to support the analysis and conclusions regarding potential fish benefits associated with the managed floodplain elements (see CEQA Guidelines Section 15384, subd. (a)).

The proposed Project's design and restoration elements were considered in relation to the Project area's baseline conditions, and based on the analysis cited above, the proposed Project was determined to be beneficial over existing conditions (see Section 3.7, "Biological Resources-Aquatic," pp. 3.7-27 through 3.7-30 and 3.7-33). It is not a requirement of CEQA, nor of the Draft SEIR, to analyze every ecological process representative of historic conditions of the Sacramento River for juvenile native fish rearing in relation to the proposed Project; rather, it is to analyze the proposed Project in relation to baseline conditions, disclosing any Project impacts (see CEQA Guidelines Section 15125, subds. (a), (a)(1) [providing that the lead agency should generally describe physical environmental conditions as they exist when the notice of preparation is published, and that this environmental setting normally constitutes the baseline physical conditions for determining significance]).

Response to Comment S2-9

At the outset, the comment's characterization of CEQA is incorrect. Among other things, the Draft SEIR is required to analyze potential environmental impacts of the proposed Project compared to baseline conditions. The Draft SEIR analyzes potential impact to aquatic biological resources in Section 3.7, "Biological Resources-Aquatic," under Section 3.7.5, "Impact Analysis and Mitigation Measures." For example, as discussed above (see Response to Comment S2-8) and below, general agricultural practices (e.g., disking, mowing, and grading) would be implemented to minimize the need for application of pesticides and herbicides but would not preclude their use. Given the reduction in agricultural lands for constructed restoration elements, applications of pesticides and herbicides would be consistent with or less than historical amounts applied in the proposed Project area compared to baseline conditions (see Draft SEIR Section 3.10, "Hydrology and Water Quality, p. 3.10-86), and operations, monitoring, and maintenance, including for agricultural activities was determined to be less than significant with general protection measures with respect to water quality. (see Draft SEIR Section 3.10, "Hydrology and Water Quality, p. 3.10-91).

The Draft SEIR is not required to analyze the proposed Project's ability to "reach native fish recovery objectives." Nor does the commenter's disagreement regarding the level of *benefits* of the proposed Project automatically constitute a "significant impact." As presented in Draft SEIR Chapter 2, "Project Description," under Goals and Objectives, page 2-6, the proposed Project's goals and objectives have been developed to support the HRL Program, help meet the objectives of the Central Valley Flood Protection Plan (CVFPP), provide benefits for native fish and wildlife species, and maintain existing recreational and agricultural land uses that are of regional importance in the Yolo Bypass. The goal of the proposed Project is not to maximize every ecological process representative of historic conditions of the Sacramento River for juvenile native fish rearing. Assertions raised in this comment regarding the compatibility of managed

⁶ See Draft SEIR Chapter 7, "References," page 7-12.

⁷ See Draft SEIR Chapter 7, "References," page 7-12.

floodplain agriculture, its benefits to native fish species, and “scientific uncertainties” constitute, at most, disagreements among experts, which does not make the Draft SEIR inadequate.

In regard to juvenile stranding and allegations of temporal mismatch, as described in Draft SEIR Section 3.7, “Biological Resources – Aquatic,” pages 3.7-29 and 3.7-30, to reduce the potential for stranding, implementation of the proposed Project would convert highly disconnected managed agricultural land and marshland to a simplified, connected mosaic of tidal wetland habitat, floodplain habitat, and managed agriculture and wetlands with infrastructure elements that allow for fish passage. The proposed Project features would be graded to allow volitional passage through the proposed Project area and reconnect with the Toe Drain (see Draft SEIR Section 3.7, “Biological Resources – Aquatic,” p. 3.7-29). Multiple existing berms and other features that pose a potential risk for fish stranding would be removed, and canals, ditches, and other irrigation and drainage features would be reconfigured to provide connection and volitional passage between the restored floodplain and the Toe Drain (see Draft SEIR Section 3.7, “Biological Resources – Aquatic,” pp. 3.7-29 through 3.7-30).

The Long-Term Management Plan and an Adaptive Management Plan being developed for the proposed Project (see Response to Comment L2-6) includes intervention thresholds and responses related to objectives to reduce impediments to fish passage on and off the floodplain. The expected outcome of the restoration design is that the new water control structures and newly constructed channels will improve passage for native fish species from the proposed Project area to the Toe Drain (see description on Draft SEIR p. 3.7-29). Potential intervention thresholds identified in the adaptive management plan include an obstruction, such as when debris becomes lodged in a water control structure, resulting in restricted passage for salmonids. The potential management response includes removal of obstruction or maintenance of water control structures, with a list of actions documented as part of an Annual Report.

See Response to Comment S2-7 for discussion of how the proposed Project optimizes benefits for fish relative to other beneficial uses (e.g., floodplain agriculture) and associated impact conclusions.

Response to Comment S2-10

Contaminant Exposure from Rice Agricultural Runoff

As described in the Draft SEIR, Section 3.4, “Agriculture,” page 3.4-16, the proposed Project would convert permanently-irrigated farmland to tidal wetland and associated floodplain or nontidal habitat. Thereby, the spatial extent of proposed agriculture is a reduction compared to baseline conditions and what historically occurred on-site, and this reduction would reduce overall drainage into the Toe Drain, adjacent to the Project (see Chapter 2, “Project Description,” p. 2-11 and Chapter 3.4, “Agriculture,” p. 3.4-18). General agricultural practices (e.g., disking, mowing, and grading) would be implemented to minimize the need for application of pesticides and herbicides but would not preclude their use. Given the reduction in agricultural lands for constructed restoration elements, applications of pesticides and herbicides would be consistent with or less than historical amounts applied in the proposed Project area (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-86).

Toe Drain water is currently diverted into the proposed Project area and managed for both agriculture and seasonal wetlands habitat for waterfowl (see Chapter 2, “Project Description,” p. 2-14). A portion of this water, in the form of agricultural runoff, along with drainage from properties to the west and north ultimately flows back to the Toe Drain (see Section 3.10 “Hydrology and Water Quality,” p. 3.10-86).

This drainage water conveys some volume of sediment bound and dissolved organic chemicals. (*Id.*) Under the proposed Project, such practices would continue, but the proposed reduction in agricultural acreage would lead to less agricultural runoff and an associated reduction in organic chemical delivery into the Toe Drain (see Section 3.10 “Hydrology and Water Quality,” p. 3.10-86; see also Chapter 2, “Project Description,” p. 2-11).

The Draft SEIR adequately discloses potential impacts regarding effects of the proposed Project relating to pesticides. As described in the Draft SEIR, Section 3.4, “Agriculture,” page 3.4-19, the proposed Project was designed to increase water flow to floodplain wetlands, transition zones, and tidal wetlands which would filter out pollutants from agricultural runoff before they reach waterways (Draft SEIR, Chapter 1, “Introduction,” p. 1-4), improving water quality in the floodplain and downstream ecosystems. The Draft SEIR analyzed the proposed Project’s constructed elements’ effects on water quality, including its proposed agricultural operations, specifically in relation to organic chemicals (e.g., pesticides and herbicides) in Section 3.10 “Hydrology and Water Quality,” under Impact 3.10-3. Given the overall reduction in agricultural use and drainage into the Toe Drain due to the proposed Project, and the fact that the Phase II Soil Sampling Investigation Report for the proposed Project (see Draft SEIR Appendix F, “Tide’s End Multibenefit Restoration Project Phase I Environmental Site Assessment [Phase I Environmental Site Assessment] and the Tide’s End Multibenefit Restoration Project Phase II Soil Sampling Investigation [Phase II Soil Sampling Investigation]”) did not detect pesticides from the Project area’s historical agricultural use above reporting limits, potential increases in the production and transport of organic chemicals, if any, were determined to be negligible (see Section 3.10 “Hydrology and Water Quality,” pp. 3.10-86 through 3.10-87).

In addition, as noted in the comment, recent studies conducted in the Sacramento River–Yolo Bypass system provide important context for further evaluating the potential contaminant risks associated with managed floodplain and rice field habitats intended to enhance juvenile Chinook salmon growth and food-web production. These studies, as well as those cited in the Draft SEIR, indicate that floodplain habitats support increased zooplankton and macroinvertebrate production, enhanced growth rates, and improved rearing opportunities for juvenile salmon (see Draft SEIR Section 3.7, “Biological Resources – Aquatic,” p. 3.7-3), while also highlighting the presence of legacy and current-use pesticides within the watershed (Orlando et al. 2025; Anzalone et al. 2022, Anzalone et al. 2024).

The comment specifically references Orlando et al. (2025), which evaluated pesticide concentrations in zooplankton in the Yolo Bypass during the summer–fall of 2017, 2018, and 2019, which included periods of augmented pulse flows from agriculture tailwater, and across a full seasonal cycle from May 2019 to March 2020. The study suggests that augmented flows—particularly those using agricultural tailwater—may have unintended negative ecological effects that could partially offset benefits to the food web and fishes. While the proposed Project includes options for using agricultural tailwater from the Toe Drain as a water source for flooding rice fields for purposes of fish food production, it is secondary to the more directed use of managed and unmanaged Sacramento River flows that are conveyed through or overtop Fremont Weir, which was shown to have decreased pesticide concentrations in zooplankton likely due to effects of dilution (Orlando et al. 2025).

Additional research comparing the Yolo Bypass floodplain and Sacramento River habitats found that legacy organochlorine pesticides, particularly DDT degradation products (DDX), were commonly

detected in sediments, prey organisms, and juvenile Chinook salmon (Anzalone et al. 2022; Fuller et al. 2022). Floodplain habitats generally exhibited higher concentrations of organochlorines than riverine habitats, particularly during years with extensive flooding, likely due to the resuspension of historically contaminated sediments and organic matter (Fuller et al. 2022; Anzalone et al. 2022). Stable isotope and fatty acid analyses further demonstrated that dietary exposure is an important pathway for accumulation of DDX in juvenile salmon and that zooplankton and chironomid larvae may serve as important vectors for trophic transfer of contaminants through floodplain food webs (Anzalone et al. 2024). At the same time, these prey resources are also responsible for the increased food availability and growth benefits that make managed floodplain habitats valuable for salmon conservation and recovery.

Importantly, the occurrence of pesticides in Yolo Bypass sediments, aquatic food webs, and juvenile salmon tissues represent an existing environmental condition (Anzalone et al. 2022; Fuller et al. 2022; Anzalone et al. 2024) rather than a condition created by the proposed Project. Studies conducted under existing conditions have documented contaminant exposure pathways throughout the Yolo Bypass ecosystem, demonstrating that salmon currently encounter these contaminants during floodplain rearing. The proposed Project would not introduce new sources of pesticides to the environment, nor would the proposed Project alter regional pesticide use practices. Rather, the primary consideration is whether extending the duration of salmon access to managed rice field habitats could increase the duration of exposure to contaminants already present in the environment.

Recent toxicological studies using critical body residue and response spectrum model approaches provide additional context for evaluating risk. These studies found that pesticide residues measured in field-collected juvenile salmon from the Yolo Bypass and Sacramento River were well below acute mortality thresholds for bifenthrin, fipronil, and evaluated pesticide mixtures (Huff Hartz et al. 2025a; Huff Hartz et al. 2025b). However, the bifenthrin response spectrum model indicated that environmentally observed residues may overlap with thresholds associated with some of the most sensitive behavioral endpoints, including locomotion, shoaling behavior, and anxiety-related responses (Knaub et al., 2025). Consequently, while available evidence suggests that acute toxicity and mortality are unlikely under observed (existing) field conditions, the potential for subtle behavioral or other sublethal effects cannot be entirely ruled out.

Overall, the scientific literature indicates that managed floodplain habitats in the Yolo Bypass provide substantial ecological benefits for juvenile Chinook salmon through increased prey production and enhanced growth opportunities (see Draft SEIR Section 3.7, “Biological Resources – Aquatic,” p. 3.7-30). Available evidence further indicates that elevated pesticide concentrations are associated with agricultural tailwater, and residues measured in field-collected juvenile salmon have remained below acute toxicity thresholds, although some studies suggest that environmentally relevant exposures may overlap with thresholds associated with sensitive behavioral responses. Because these contaminants represent existing baseline conditions rather than impacts introduced by the proposed Project, the available scientific evidence supports the conclusion that extending the duration of salmon access to managed rice field habitats is expected to provide substantial rearing benefits while posing a low risk of adverse effects from pesticide bioaccumulation under the proposed Project relative to current environmental conditions. Further, as described above in this response to comment, the proposed Project would convert existing managed floodplain (e.g., seasonal wetlands) to unmanaged floodplain and tidal wetlands with improved hydrological connectivity (e.g., retrofitted water control structures and removal of berms throughout the Project area, including along the west bank of the Toe Drain), which would represent proposed Project net benefits.

CDFW Recommendation to Define Agricultural Management Practices

Within the proposed Project area, farming is limited to the Capitol Oil property, which was historically farmed for rice, corn, and other general field crops and is currently managed for rice production (see Draft SEIR p. 3.4 -2). Farming would continue on the Capitol Oil property after Project construction but to a lesser extent than current conditions. (see Draft SEIR pp. 3.4 -16 through 2.4-18). Rice in particular thrives in the area due to this seasonal flooding; the Yolo Bypass experiences high-flow events in approximately 70% of years in winter and early spring as part of the floodplain management strategy (see Draft SEIR, p. 3.4-2).

Managed floodplain agriculture in the proposed Project area would generally follow standard practices for rice production in the Yolo Bypass (see Draft SEIR, p. 2-26). The Draft SEIR outlines operations, monitoring, and maintenance in Chapter 2, “Project Description,” Section 2.4 “Operation, Monitoring, and Maintenance.” These elements of the proposed Project were analyzed in the Draft SEIR. As described under subsection 2.4.1, “Managed Floodplains,” page 2-25, “agricultural practices related to flood-up and drawdown, irrigation, vegetation management (e.g., disking, mowing), grading, fertilizing, and planting” are expected to be used. Furthermore, as described in Draft SEIR Section 3.10, “Hydrology and Water Quality,” pages 3.10-90 through 3.10-91, with the scope of operations, monitoring, and maintenance that would occur under the proposed Project, and assuming that herbicide application would be needed as part of long-term vegetation management, General Protection Measures VHDR-2: Native and Invasive Vegetation Removal Materials and Methods, VHDR-3: Revegetation Materials and Methods, VHDR-4: Revegetation Erosion Control Materials and Methods, VHDR-6: General Herbicide Use, VHDR-7: Herbicide Application Planning, and VHDR-8: Herbicide Application Reporting would be implemented and would result in a less than significant impact.

As described in Response L2-6, if a Project is approved, DWR will develop a Long-Term Management Plan and an Adaptive Management Plan that will identify roles for operations and maintenance of project features and management of habitat, including considering the comment’s recommendation to include a description of pesticide use practices, timing of chemical applications, water management strategies, drainage and tailwater management, and additional best management practices intended to minimize the transport of agricultural chemicals into adjacent aquatic habitats used to support fish prey production. These plans would be developed with input from permitting and other agencies to reflect applicable requirements. The specific protocols for monitoring to be conducted under the Adaptive Management Plan are not yet defined but would include monitoring of primary and secondary production from the proposed Project area. The methodology for sampling and analysis would be conducted in a manner so that the proposed Project data are comparable to those collected for similar regional monitoring programs.

Response to Comment S2-11

Any special-status species and natural communities detected during proposed Project surveys will be reported to the California Natural Diversity Data Base (CNDDB).

Response to Comment S2-12

Applicable fees will be filed at the time the Notice of Determination (NOD) is posted.

Response to Comment S2-13

Comment noted. DWR will continue to coordinate with CDFW.



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March 18, 2026

Judah Grossman
Department of Water Resources
Division of Multibenefit Initiatives
P.O. Box 942836
Sacramento, CA 94236-0001

Delivered via email: tidesendmbp@water.ca.gov

RE: Comments on the Draft Supplemental Environmental Impact Report for the Tide's End Multibenefit Restoration Project, SCH# 2024070944

Dear Judah Grossman:

Thank you for the opportunity to review and comment on the Tide's End Multibenefit Restoration Project (Tide's End project) Draft Supplemental Environmental Impact Report (Draft SEIR).¹ The Delta Stewardship Council (Council) recognizes the objective of the Tide's End project to "restore and enhance tidal wetland and floodplain habitat, support multibenefit land uses (including managed

¹ According to the State Water Resources Control Board's program environmental impact report for the Statewide Order for Restoration Projects: "The State Water Resources Control Board ... developed an Order for Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Restoration Projects Statewide (Order) to improve the efficiency of regulatory reviews for projects throughout the state that would restore aquatic or riparian resource functions and/or services. The Order establishes an authorization process for environmentally beneficial restoration project types and associated measures to protect species and the environment." The Tide's End project's Draft SEIR is prepared pursuant to that authorization process.



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¹ According to the State Water Resources Control Board's program environmental impact report for the Statewide Order for Restoration Projects: "The State Water Resources Control Board ... developed an Order for Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Restoration Projects Statewide (Order) to improve the efficiency of regulatory reviews for projects throughout the state that would restore aquatic or riparian resource functions and/or services. The Order establishes an authorization process for environmentally beneficial restoration project types and associated measures to protect species and the environment." The Tide's End project's Draft SEIR is prepared pursuant to that authorization process.

Tide's End Multibenefit Restoration Project

Judah Grossman

March 18, 2026

wetlands and floodplain agriculture), and maintain or improve flood conveyance in the Yolo Bypass" (Draft SEIR, p. 1-1). The Tide's End project is identified as an early action project as part of a voluntary agreement to support the Healthy Rivers and Landscapes (HRL) Program, which Council staff understand can proceed independent of pending approval of the HRL Program by the State Water Resources Control Board as part of the ongoing update to the Sacramento-San Joaquin Bay Delta Water Quality Control Plan (Bay-Delta Plan).

The Council is an independent state agency established by the Sacramento-San Joaquin Delta Reform Act of 2009. (Wat. Code, § 85000 et seq.; Delta Reform Act) The Delta Reform Act charges the Council with furthering California's coequal goals of providing a more reliable water supply and protecting, restoring, and enhancing the Sacramento-San Joaquin River Delta and Suisun Marsh (Delta) ecosystem. (Wat. Code, § 85054.) The Delta Reform Act further states that the coequal goals are to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. (Wat. Code, § 85054.) The Council is charged with furthering California's coequal goals for the Delta through the adoption and implementation of the Delta Plan. (Wat. Code, § 85300.)

The Delta Plan contains regulatory policies, which are set forth in California Code of Regulations, title 23, sections 5001 et seq. Through the Delta Reform Act, the Council was granted specific regulatory and appellate authority over certain actions of state or local public agencies that take place in whole or in part in the Delta. (Wat. Code, §§ 85210, 85225, 85225.10.) A state or local agency that proposes to undertake a covered action is required to prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with the Delta Plan and submit that certification to the Council prior to initiation of the implementation of the action. (Wat. Code, § 85225.)

COVERED ACTION DETERMINATION AND CERTIFICATION OF CONSISTENCY WITH THE DELTA PLAN

Based on the Tide's End project location and scope provided in the Draft SEIR, the Tide's End project appears to meet the definition of a covered action. Water Code section 85057.5, subdivision (a), states that a covered action is a plan, program, or project, as defined pursuant to the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.; CEQA) in Public Resources Code section 21065, that meets all of the following conditions:

S3-1

- (1) Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh*
- (2) Will be carried out, approved, or funded by a state or a local public agency*
- (3) Is covered by one of the provisions of the Delta Plan*
- (4) Will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interests in the Delta²*

S3-1
cont.

As the agency approving, funding, or carrying out the Tide's End project, the Department of Water Resources (DWR) must determine if it is a covered action (Cal. Code Regs., tit. 23, § 5001, subd. (o)(3).) and, if so, file a certification of consistency with the Council prior to implementation. (Wat. Code, § 85225.)

Delta Plan Policies that May Apply to the Tide's End Project

The following section describes regulatory Delta Plan policies that may cover the Tide's End project based on materials provided in the Draft SEIR. (Wat. Code § 85057.5, subd. (a)(1).) This information could be used to support a future filing of a certification of consistency with the Council.

Ecosystem Restoration Policy 1: Delta Flow Objectives

Delta Plan Policy **ER P1** (Cal. Code Regs., tit. 23, § 5005.) requires the State Water Resources Control Board's Bay-Delta Plan flow objectives to be used to determine consistency with the Delta Plan. The location of the Tide's End project within the Yolo Bypass as well as the proposed changes in existing land use, roughness, and geometry of the site establish that the Tide's End project has the potential to affect flow in the Delta.

S3-2

A future certification of consistency should include an analysis and document how the Tide's End project may impact or alter Delta flows that are subject to meeting the Bay-Delta Plan flow objectives in place at the time of the filing a certification of consistency. The Draft SEIR includes descriptions and analysis of water quality

² For purposes of Water Code section 85057.5, subdivision (a)(4), "significant impact" means "a substantial positive or negative impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta, that is directly or indirectly caused by a project on its own or when the project's incremental effect is considered together with the impacts of other closely related past, present, or reasonably foreseeable future projects." (Cal. Code Regs., tit. 23, § 5001, subd. (ss).)

Tide's End Multibenefit Restoration Project

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objectives (e.g., Chapter 3, pps. 3.10-38 and 3.10-39). It is advisable to also address physical flow objectives either as part of these analyses in the Final SEIR, or elsewhere in the record supporting a future certification of consistency.

↑
S3-2
cont.

Ecosystem Restoration Policy A: Disclose Contributions to Restoring Ecosystem Function and Providing Social Benefits

Delta Plan Policy **ER PA** (Cal. Code Regs., tit. 23, § 5005.1.) applies to a covered action that includes the protection, enhancement, or restoration of the ecosystem and requires the submission of a completed Appendix 3A (Cal. Code Regs., tit. 23, app. 3A.) identifying contributions to restoring ecosystem function and social benefits associated with the covered action. The Draft SEIR describes several areas of potential contributions in these areas. In a future certification of consistency, DWR should review ER PA and Appendix 3A and include information supporting consistency with these regulatory requirements.

↑
S3-3

Ecosystem Restoration Policy 2: Restore Habitats at Appropriate Elevations

Delta Plan Policy **ER P2** (Cal. Code Regs., tit. 23, § 5006.) requires for projects that filed a Notice of Preparation (NOP) prior to April 1, 2025, habitat restoration be carried out consistent with Appendix 3 (Cal. Code Regs, tit. 23, app. 3).³ The elevation map in Appendix 4 (Cal. Code Regs, tit. 23, app. 4) also is included as Figure 4-6 in the Delta Plan (<https://deltacouncil.ca.gov/pdf/delta-plan/figure-4-6-habitat-types-based-on-elevation.pdf>) and should be used as a guide for determining appropriate habitat restoration actions based on an area's elevation. If a proposed habitat restoration project is not consistent with Appendix 4, the certification of consistency is required to provide the rationale for the deviation based on best available science.

↑
S3-4

Based on the Tide's End project description and maps included in the Draft SEIR (Figure ES-3, Figure 2-3), much of the Tide's End project site appears to be located at intertidal elevation as defined under this policy. This aligns with the Tide's End project design and objectives. In a certification of consistency, DWR should describe how the Tide's End project elevation aligns with ER P2.

³ The NOP for the Tide's End project was released in July 2024, prior to the effective date for the most recent amendment to this policy, which was April 1, 2025. For this reason, the version of this policy that applies is the regulatory language that was in effect beginning September 1, 2013.

Ecosystem Restoration Policy 3: Protect Opportunities to Restore Habitat

Delta Plan Policy **ER P3** (Cal. Code Regs., tit. 23, § 5007.) requires for projects that filed a NOP prior to April 1, 2025, that, within the priority habitat restoration areas depicted in Appendix 5 (Cal. Code Regs., tit. 23, app. 5), significant adverse impacts to the opportunity to restore habitat at appropriate elevations as described in ER P2 (Cal. Code Regs., tit. 23, § 5006.) are required to be avoided or mitigated.⁴ Subsection (c) of this policy, as effective prior to April 1, 2025, requires in part that impacts identified in subsection (a) “be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat as described in section 5006.” The Tide’s End project is proposed to be located within the Yolo Bypass priority habitat restoration area.

S3-5

In a future certification of consistency DWR should cite to the Draft SEIR (e.g., Chapter 2, Section 2.2) and describe how the Tide’s End project could improve the opportunity to restore native species at various elevations, including species that make use of tidal and floodplain habitat, and explicitly connect this to Yolo Bypass priority habitat restoration area.

Ecosystem Restoration Policy 5: Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species

Delta Plan Policy **ER P5** (Cal. Code Regs., tit. 23, § 5009.) requires that covered actions fully consider and avoid or mitigate the potential for new introductions of, or improved habitat conditions for, nonnative invasive species, striped bass, or bass in a way that appropriately protects the ecosystem.

S3-6

The Delta has been significantly altered by invasive species. Golden mussel is of note because the NOP for the Tide’s End project was released in July 2024, before golden mussel was identified in the region (October 2024).

A future certification of consistency should describe efforts to fully consider, avoid, or mitigate the introduction of, or the improvement of habitat conditions for nonnative invasive species during and after construction, including, but not limited to, emerging species of concern, such as nutria and golden mussel. This could

⁴ The NOP for the Tide’s End project was released in July 2024, prior to the effective date for the most recent amendment to this policy, which was April 1, 2025. For this reason, the version of this policy that applies is the regulatory language that was in effect beginning September 1, 2013.

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include development of a dedicated invasive species management plan and relevant linkages to an adaptive management plan.

In the event DWR determines mitigation is warranted, mitigation and minimization measures should include Mitigation Measure 4-1(e) (available in [Delta Plan Appendix O](#)) or equally or more effective measures.

S3-6
cont.

Delta as Place Policy 2: Respect Local Land Use when Siting Water or Flood Facilities or Restoring Habitats

Delta Plan Policy **DP P2** (Cal. Code Regs., tit. 23, § 5011.) reflects one of the Delta Plan's charges to protect the Delta as an evolving place by siting water management facilities, ecosystem restoration, and flood management infrastructure to avoid or reduce conflicts with existing uses, or those uses described or depicted in city and county general plans for their jurisdictions or spheres of influence, when feasible, considering comments from local agencies and the Delta Protection Commission.

DP P2 also requires plans for ecosystem restoration to consider sites on existing public lands, when feasible and consistent with a project's purpose, before privately owned sites are purchased, and specifies that measures to mitigate conflicts with adjacent uses may include, but are not limited to, buffers to prevent adverse effects on adjacent farmland. Council staff note that the Tide's End project design features and mitigation measures include establishing buffers between restoration components and adjacent agricultural lands.

S3-7

In a future certification of consistency DWR should describe the analysis included in the Draft SEIR of current and planned land uses, any potential conflicts, and how those would be avoided or reduced. In particular, it would be advisable to highlight how the Tide's End project reduces impacts to agricultural land uses and land enrolled in the Williamson Act (Gov. Code, § 51200 et seq.) (Chapter 3, Section 3.4).

The following policies also apply because the preceding policies cover the Tide's End project.

General Policy 1: Detailed Findings to Establish Consistency with the Delta Plan

Delta Plan Policy **G P1** (Cal. Code Regs., tit. 23, § 5002.) specifies what is required to be addressed in a certification of consistency. The following is a subset of policy requirements that a covered action is required to fulfill to be considered consistent with the Delta Plan.

S3-8

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Mitigation Measures

Delta Plan Policy **G P1(b)(2)** (Cal. Code Regs., tit. 23, § 5002, subd. (b)(2).) requires covered actions not exempt from CEQA to include all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as amended June 23, 2022, unless the measures are within the exclusive jurisdiction of an agency other than the agency that files the certification of consistency, or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective. These mitigation measures are identified in Delta Plan regulations as [Appendix O](#). DWR should review Appendix O and ensure that the mitigation measures included in the Draft SEIR (Chapter 3 and Appendix A) for the Tide's End project are equally or more effective than the Delta Plan mitigation measures.^{5,6}

S3-8
cont.*Best Available Science*

Delta Plan Policy **G P1(b)(3)** (Cal. Code Regs., tit. 23, § 5002, subd. (b)(3).) states that actions subject to Delta Plan regulations are required to document the use of best available science as relevant to the purpose and nature of the covered action. The Delta Plan defines best available science as “the best scientific information and data for informing management and policy decisions.” (Cal. Code Regs, tit. 23, § 5001, subd. (g).) Best available science is also required to be consistent with the guidelines and criteria in Delta Plan [Appendix 1A](#). (Cal. Code Regs, tit. 23, div., 6 ch. 2, app. 1A.)

In a future certification of consistency, DWR should identify how the Tide's End project addresses each Appendix 1A criterion.

S3-9

Adaptive Management

Delta Plan Policy **G P1(b)(4)** (Cal. Code Regs., tit. 23, § 5002, sub. (b)(4).) requires that ecosystem restoration and water management covered actions include adequate provisions to ensure the continued implementation of adaptive management, appropriate to the scope of the project. This requirement is satisfied through both a) the development of an adaptive management plan that is consistent with the framework described in Appendix 1B (Cal. Code Regs, tit. 23, app. 1B) and also found in the Delta Plan

S3-10

⁵ Appendix A of the Draft SEIR includes General Protection Measures and Species Protection Measures from the program environmental impact report for the Statewide Order for Restoration Projects that DWR determined are applicable to the Tide's End project.

⁶ Please note specific mitigation requirements related to nonnative invasive species described under Ecosystem Restoration Policy 5 (ER P5) above.

Tide's End Multibenefit Restoration Project

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(<https://deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1b.pdf>), and b) documentation of adequate resources to implement the proposed adaptive management plan.

In the Council's August 2024 comment letter on the NOP for the Tide's End project, Council staff noted that the ecosystem restoration components of the Tide's End project would require the preparation of an adaptive management plan. The Department of Fish and Wildlife also included comments on the NOP that reference the importance of adaptive management. The Draft SEIR does not include an adaptive management plan. In a future certification of consistency, DWR should include an adaptive management plan and describe how this would be implemented.

S3-10
cont.

CLOSING COMMENTS

The Council invites DWR to engage Council staff in early consultation prior to the submittal of a certification of consistency to promote consistency with the Delta Plan. More information on covered actions, early consultation, and the certification process can be found on the Council website <https://deltacouncil.ca.gov/covered-actions/>.

Council staff are available to discuss issues outlined in this letter as DWR proceeds with the next stages of the Tide's End project. Please contact Daniel Constable at daniel.constable@deltacouncil.ca.gov with any questions.

S3-11

Sincerely,



Jeff Henderson
Deputy Executive Officer

Letter S3 **Jeff Henderson, Delta Stewardship Council (DSC)**
Response March 18, 2026

Response to Comment S3-1

If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-2

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-3

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-4

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Response to Comment S3-5

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-6

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

However, it should be noted that the Draft SEIR did identify that the proposed Project would apply general protection measure GPM-8: *Prevent Spread of Invasive Species* (see Table 1-5, p. 1-10, and Draft SEIR Section 3.6, “Biological Resources – Terrestrial,” Table 3.6-6, p. 3.6-33) to reduce the spread or introduction of invasive exotic plant and animal species to the maximum extent possible. When practicable, invasive exotic species in the project areas will be removed and properly disposed of in a manner that will not promote their spread. Equipment will be cleaned of any sediment or vegetation at designated wash stations before entering or leaving the project area to avoid spreading pathogens or exotic/invasive species (see Appendix A to this Draft SEIR, “General Protection Measures and Species Protection Measures Applicable to the Proposed Project,” p. A-2). Construction supervisors and managers will be educated on identification and the importance of controlling and preventing the spread of invasive species. (*Id.*) As described in Draft SEIR Chapter 2, “Project Description,” page 2-20, site preparation activities would include invasive species management.

Per general protection measure GPM-8, DWR will follow any applicable local guidance to prevent the spread of invasive animal species, including the golden mussel. Construction supervisors and managers will be responsible for implementation of appropriate protocols (e.g., disinfection of equipment and footwear) to prevent their spread. See Appendix A to this Draft SEIR, “General Protection Measures and Species Protection Measures Applicable to the Proposed Project,” page A-2. DWR will ensure that the guidelines in CDFW’s California Aquatic Invasive Species Management Plan (CDFW 2008) and Aquatic Invasive Species Disinfection/Decontamination Protocols (CDFW 2016) are followed where applicable, as required by GPM-8. (*Id.*) Regarding nutria, DWR will follow any applicable local guidance for this species as per general protection measure GPM-8. (*Id.*) Nutria, if found, may be removed from the area by any legal means necessary under Fish and Game Code Section 4152. Such removal activities are expected to be conducted in coordination with CDFW’s Nutria Eradication Program.

Response to Comment S3-7

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR’s environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-8

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR’s environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable. If DWR determines that Delta Plan Policy G P1(b)(2) (Cal. Code Regs., tit. 23, Section 5002, subd. (b)(2)) is applicable, then DWR will prepare a crosswalk table which will demonstrate how the Project’s mitigation measures are equally or more effective than those identified in Delta Plan regulations as Appendix O to the Delta Plan.

Response to Comment S3-9

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not a comment relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

Response to Comment S3-10

Comments outlining applicable regulatory requirements and/or agency recommendations based on such requirements are not comments relating to the adequacy of the Draft SEIR or DWR's environmental impact analysis under CEQA. If DWR decides to proceed with the proposed Project, then DWR will determine if the proposed Project is a covered action and, if so, file a certification of consistency with the Council that addresses all Policies that DWR determines are applicable.

The comment also states that the Council and CDFW submitted comments in response to the Notice of Preparation (NOP) regarding the preparation of adaptive management plan; all comments submitted in response to the NOP were considered during preparation of the Draft SEIR. The NOP comments were included in Appendix B, "NOP and Letters," of the Draft SEIR. See Response to Comment S2-3 which describes that an operations, monitoring, and adaptive management plan is being developed for the proposed Project consistent with the HRL Science Plan.

Response to Comment S3-11

The comment regarding early consultation is noted.

MEMORANDUM

To: Judah Grossman, California Department of Water Resources, Division of Multibenefit Initiatives (tidesendmbp@water.ca.gov)

From: Lower Sacramento River/Delta North Regional Flood Management Planning Team

Date: March 27, 2026

Re: Comments on the Tide’s End Multibenefit Restoration Project Draft Supplemental Environmental Impact Report (Draft SEIR)

The Lower Sacramento River/Delta North Regional Flood Management Planning Team (LS/DN RFMP) appreciates the early outreach conducted by California Department of Water Resources (DWR) staff through the Yolo Bypass/Cache Slough Partnership’s Projects Work Group for the Tide’s End Multibenefit Restoration Project. This outreach provided the LS/DN RFMP with the opportunity to identify concerns early in the project planning process and to beneficially influence project design. As a result, many of our concerns have been addressed in the project design and mitigation measures included in the Draft SEIR. However, we have some remaining comments for your consideration identified below.

- 1. Page ES-1: The Executive Summary identifies three reasons why the project is being developed, including to restore and enhance tidal wetland and floodplain habitat, to support multibenefit land uses, and to maintain or improve flood conveyance in the Yolo Bypass. Regarding improving flood conveyance in the Yolo Bypass, the hydraulic modeling conducted for the project, as summarized in Chapter 3.10 – Hydrology and Water Quality (Table 3.10-7), indicates that negligible localized decreases in water levels (between 0 and -0.02 foot) were simulated upstream of the project area during the 100-year design storm and no other changes in water levels were identified in the Yolo Bypass or the larger region. Therefore, it seems somewhat misleading to state that the project would improve flood conveyance. The Final SEIR should clarify that the project’s flood conveyance benefits are negligible and would have relatively no effect during large flood events.
- 2. Page 1-4: Table 1-1 identifies one of the benefits of establishing freshwater tidal wetland vegetation as including the recharging of groundwater supplies. However, the Draft SEIR does not include any analysis that supports this claim. Considering the very low percolation rates that typically occur in the Yolo Bypass, it isn’t clear that the project would result in any measurable increase in groundwater supplies.

L1-1

L1-2

The Final SEIR should either include documentation that supports the groundwater recharge conclusion or remove reference to it.

↑ L1-2
cont.

3. Page 3.6-68: Mitigation Measure TERR-1 from the Final SRGO Program EIR directs DWR to consult with plan permittee(s), CDFW, and/or USFWS for any adopted HCP, NCCP, or similar conservation plan, as applicable, to identify any potential conflicts with the plan's goals, objectives, or conservation measures. As part of this consultation, Mitigation Measure TERR-1 requires DWR to seek input regarding potential design features, conservation measures, or other mitigation strategies to avoid potential conflicts and achieve substantial conformance with the objectives of the HCP, NCCP, or similar conservation plan. To ensure any potential design features, conservation measures, or other mitigation strategies are implemented into the project design, this consultation would need to occur prior to releasing the Draft SEIR. However, the Draft SEIR does not indicate whether consultation has occurred with the Yolo Habitat Conservancy, CDFW, and/or USFWS or whether any specific design changes or mitigation strategies were incorporated based on this consultation. The Final SEIR should clarify if and when this consultation did or would occur and what effect that consultation could have on the project design and applicable mitigation measures.

L1-3

4. Page 3.10-7: The Hydrology and Water Quality Chapter identifies the operations and maintenance activities required for the proposed project as including the following: ongoing water management and agricultural practices related to flood-up and drawdown, irrigation, vegetation management (e.g., disking, mowing), grading, fertilizing, and planting. Although the document acknowledges that these activities would be ongoing, it does not identify how their implementation will be funded in perpetuity. To ensure the project's required operations and maintenance activities continue to be implemented over the long-term, the Final SEIR should include a long-term operations and maintenance plan that identifies a responsible party, a viable long-term funding source, a description and anticipated schedule of maintenance activities, and adaptive management strategies that may be necessary if conditions change. The Final SEIR should also describe any potential impacts related to insufficient operations and maintenance activities that may be caused by a loss of designated funding.

L1-4

5. Page 3.11-9: The Recreation Chapter suggests that the CDFW SHARE Program, which currently operates on the project site and provides public wildlife hunting opportunities on private land, could be expanded with project implementation. To

L1-5
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ensure the recreational opportunities provided by the proposed project are not limited to private uses, the LS/DN RFMP encourages DWR to include an expansion of the CDFW SHARE Program on the site as a component of the project's long-term management plan.

L1-5
cont.

6. Page 4-7: The Cumulative Chapter states that the project would permanently convert 481.4 acres of Special Designation Farmland to a nonagricultural use and identifies acreage for four other restoration projects in the region that would convert a total of 2,599 acres of Special Designation Farmland to nonagricultural uses. These include Lower Elkhorn Basin Levee Setback Project (conversion of 494 acres of Prime and Unique Farmland), Lower Yolo Ranch Restoration Project (conversion of 270 acres of Unique Farmland), Sacramento Weir Widening Project (conversion of 375 acres of Prime Farmland), and Lookout Slough Tidal Habitat Restoration and Flood Improvement Project (conversion of 1,460 acres of Prime Farmland). Although the Draft EIR acknowledges that the project would make a considerable contribution to the permanent cumulative conversion of Special Designation Farmland, it concludes that this significant impact would be reduced to less than cumulatively considerable with implementation of Mitigation Measures AG-1 and AG-2. However, these mitigation measures do not include any components that offset the cumulative loss of agricultural land in Yolo County. Following implementation of these measures, the project would continue to result in a permanent loss of 481.4 acres of Special Designation Farmland and the cumulative projects in the region would continue to contribute additional acreage to this loss. Therefore, it is unclear how this significant cumulative impact can be assumed to be less than significant. The Final SEIR should acknowledge that this cumulative loss of Special Designation Farmland represents a significant and unavoidable cumulative impact in the region and DWR should work directly with Yolo County staff to identify feasible measures to offset this loss. Such measures could include implementing the project consistent with Yolo County's agricultural mitigation policies.

L1-6

Additionally, the Draft EIR does not include any discussion of the anticipated reduction in County services associated with the ongoing loss of property taxes due to the cumulative conversion of agricultural land in the County. The Final SEIR should quantify the cumulative property tax reduction and assess whether any physical impacts would occur due to this loss in revenue and associated public services. In addition, DWR should work closely with Yolo County to identify ways to offset this loss in property tax revenues prior to approving the proposed project.

L1-7

7. Page 5-17: Alternative 2 is identified as the environmentally superior alternative because it would achieve the project objectives but with a smaller overall construction effort (including an approximately 40 percent reduction in earthwork, and associated reduction in construction duration and total vehicle operations), resulting in substantially less environmental impacts associated with construction activities compared to the proposed project. Based on this conclusion, it is unclear why the proposed project would be selected over Alternative 2. The Final SEIR should clarify the project selection process following completion of the CEQA process.

L1-8

**Letter L1
Response****Doug Brown, Lower Sacramento River/Delta North Regional Flood Management
Planning Team
March 27, 2026**

Response to Comment L1-1

As described in the Draft SEIR “Executive Summary,” page ES-1, the proposed Project is being designed to maintain or improve flood conveyance in the Yolo Bypass. More specifically, as described in Draft SEIR Chapter 2, “Project Description,” page 2-6, the proposed Project includes flood risk reduction goals and objectives focused on maintaining compatibility with existing flood conveyance functions, reducing localized flood stages and flood encroachments, maintaining or reducing hydraulic roughness, and reducing wind-wave erosion and other localized erosion effects within the Yolo Bypass. These objectives are consistent with regional flood management planning, including the CVFPP. Accordingly, the phrase “maintain or improve flood conveyance” describes the Project’s overall flood management objectives and performance criteria and is not intended to rely solely on measurable reductions in modeled water surface elevations during extreme flood events.

As described in Draft SEIR Chapter 2, “Project Description,” pages 2-6 through 2-7, the proposed Project has been designed to further the goals of the CVFPP by managing floodway roughness, avoiding impedance of flood flows, and helping maintain long-term conveyance capacity of the Yolo Bypass floodway through active management of vegetation and land cover, while maintaining compatibility with existing flood conveyance functions. See Draft SEIR Chapter 2, “Project Description,” page 2-11, pages 2-12 through 2-14, and Section 3.10 “Hydrology and Water Quality,” page 3.10-69, for a description of proposed Project components and how these components support these flood management objectives.

In addition, the proposed Project includes site design features intended to improve localized drainage and internal water movement within the proposed Project area. As described in Chapter 2, “Project Description,” pages 2-8 through 2-17, and Section 3.10, “Hydrology and Water Quality,” pages 3.10-67 through 3.10-70, the proposed Project would reconfigure portions of the existing landscape through grading, channel creation, drainage infrastructure modifications, and managed tidal connectivity to support efficient site drainage, internal hydraulic connectivity, and drainage following inundation events. Specifically, the proposed Project would expand tidal channels and adjacent tidal wetland and transition zone areas; create floodplain habitat with proper drainage and flow pathways; reconfigure local irrigation canals and drainage ditches; modify berms to reconnect the proposed Project area to tidal waters; and improve irrigation and drainage infrastructure, including installation of fish-passable culverts, weir boxes, pumps, and drainage and irrigation channels.

Draft SEIR Appendix H, “CEQA Hydraulic Impacts Assessment,” further explains that the proposed Project would use excavation, channel construction, berm lowering, grading, and hydrologic reconnection to support habitat function, irrigation supply, drainage, and tidal inundation while minimizing impacts to hydraulic conveyance during flood operations (see Appendix H, Section 5.1, pp. 12 through 13). These features are intended to support the proposed Project’s ecological restoration objectives while also maintaining compatibility with adjacent land uses, including agricultural operations and recreational uses in the surrounding area. As described in Section 3.10, “Hydrology and Water Quality,” page 3.10-69,

changes in grading and land cover associated with restoration of tidal wetlands, active management of managed wetlands and agricultural floodplain areas, and the lowering of existing berms are intended to support long-term management of floodway roughness and maintain compatibility with existing flood conveyance functions, while also facilitating more efficient drainage during receding flood conditions.

As presented in Draft SEIR Section 3.10, “Hydrology and Water Quality,” hydraulic modeling results indicate negligible changes in water surface elevations in the Yolo Bypass during modeled flood events (100-year design storm), including minor localized decreases upstream of the proposed Project area on the order of 0 to -0.02 foot (see Table 3.10-7, p. 3.10-51). These results demonstrate that the proposed Project would not adversely affect flood conveyance. In this context, the modeling results confirm that the proposed Project maintains existing flood conveyance capacity, and that small, localized reductions in modeled water surface elevations are consistent with the Project’s flood management objectives or where feasible, incrementally improve flood conveyance while avoiding adverse impacts to flood operations. Accordingly, implementation of the proposed Project would maintain compatibility with existing flood conveyance functions in the Yolo Bypass.

Response to Comment L1-2

Table 1-1 in Draft SEIR Chapter 1, “Introduction,” pages 1-4 through 1-5, identifies groundwater recharge as a potential benefit associated with establishment of freshwater tidal wetland vegetation. This reference is intended to describe a generalized ecological function of tidal wetlands and is not presented as a quantified or primary benefit of the proposed Project. The reference to groundwater recharge in Table 1-1, (p. 1-4), is informational in nature and, as described on page 1-3, supporting documentation of the proposed Project benefits presented in Table 1-1 are included in Chapter 2, “Project Description,” Section 3.7, “Biological Resources – Aquatic,” and Section 3.10, Hydrology and Water Quality.” Accordingly, the reference to groundwater recharge in Table 1-1 is informational in nature and does not affect the analysis or conclusions of the Draft SEIR.

The analysis in Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-73, clearly describes that the proposed Project’s constructed restoration elements impact on groundwater supplies and recharge would be neutral or potentially beneficial. This analysis is consistent with the analysis from the already approved and certified SRGO Program EIR, from which this Draft SEIR tiers (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-72). The Draft SEIR does not conclude that the proposed Project would result in a “measurable increase in groundwater supplies.” While tidal wetlands can facilitate localized infiltration under certain conditions, the extent of such processes is site-specific and may be limited in areas such as the Yolo Bypass where low percolation rates occur.

Response to Comment L1-3

Consultation required in a mitigation measure is not required to occur prior to release of the Draft SEIR (see CEQA Guidelines Section 15097 [mitigation-monitoring or reporting program to be adopted after SEIR certification and required CEQA findings are made]). As the lead agency, DWR, has not taken action to certify the SEIR and adopt the mitigation measures. The implementation of mitigation measures, including timing of actions, are included in the Mitigation, Monitoring and Reporting Program (MMRP), that will be approved at the time the SEIR is certified as described under CEQA Guidelines Section 15090.

Regarding consultation that has occurred with the Yolo Habitat Conservancy, on March 10, 2025, DWR met with Chris Alford (Interim Executive Director) from the Yolo Habitat Conservancy and Charlie Tschudin at Yolo County to discuss the proposed Project in the context of the Yolo HCP/NCCP.

DWR has also engaged CDFW and USFWS in discussion about the proposed Project. DWR met with CDFW on February 18, 2025, October 17, 2025, March 20, 2026, and April 20, 2026. In addition, DWR attended an interagency meeting that included the USFWS, Central Valley Flood Protection Board, and US Army Corps of Engineers on February 6, 2025, to discuss the proposed project. Coordination meetings between DWR and responsible and trustee agencies will continue, as appropriate.

Response to Comment L1-4

This is not a comment on the adequacy or conclusions of the Draft SEIR. Long-term roles and specific responsibilities, funding mechanisms, coordination, etc. are not generally CEQA-required topics and neither is “comprehensive understanding of ongoing stewardship.” Lead agencies are only required to analyze potentially significant adverse impacts of a project to the physical environment (see CEQA Guidelines Sections 15131, 15360).

As described in Response L2-6, the Draft SEIR outlines operations, monitoring, and maintenance in Chapter 2, “Project Description” pages 2-23 through 2-27, impacts associated with operations, monitoring and maintenance are evaluated in the resource sections of Chapter 3 of the Draft SEIR. If a Project is approved, DWR will develop a Long-Term Management Plan and an Adaptive Management Plan that will identify roles for operations and maintenance of project features and management of habitat. These plans would be developed with input from permitting and other agencies to reflect applicable requirements.

Response to Comment L1-5

The comment encouraging DWR to expand the CDFW SHARE Program on the proposed Project site is noted. This is not a comment on the adequacy or conclusions of the Draft SEIR. As noted in Draft SEIR Chapter 3.11, “Recreation,” if the project is approved, the CDFW SHARE Program would continue to be managed by CDFW following completion of the proposed Project.

Response to Comment L1-6

As presented in Chapter 4, “Cumulative Impacts” pages 4-5 through 4-6, a three-step process was followed to determine the significance of the proposed Project’s cumulative impacts:

- First, the extent of the cumulative impacts without the proposed Project was evaluated to determine whether a significant cumulative impact on a resource would exist in the future. To do so, the combined effects of past, present, and probable future projects listed in Table 4-1 were evaluated to determine whether there would be a significant cumulative impact.
- Second, a determination was made regarding whether the incremental contribution of the proposed Project to any significant cumulative impact would be cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines Section 15065[a][3]).

- Third, a determination was made as to whether mitigation measures identified in this Draft SEIR would reduce the contribution of the proposed Project to the cumulative impact to a less-than-considerable level. If not, then the cumulative impact would remain significant and unavoidable.

Consistent with this process and CEQA, and as described in subsection 4.3-1 “Agriculture,” pages 4-6 through 4-9, it was determined that cumulative projects presented in Table 4-1, pages 4-3 through 4-4, in combination with the proposed Project would result in a cumulatively significant impact. It was also determined that implementation of SRGO Mitigation Measures AG-1 and AG-2 would reduce the proposed Project’s impact to conversion of Special Designation Farmland to less than significant (see Draft SEIR Chapter 4 “Cumulative,” pp. 4-8 through 4-9).

As described in Response L3-2, approximately 671.6 acres of on-site agricultural lands currently designated as Unique Farmland and 38.3 acres of on-site Grazing Land used for operations and staging of farm equipment (which are not currently under a conservation easement) would be retained and would be placed under agricultural conservation easement in perpetuity, which satisfies more than the 1:1 mitigation ratio required by Mitigation Measure AG-1. As further described, the proposed Project has been designed to retain and improve Unique Farmland to the extent possible while maintaining the purpose and goals of the restoration project, in keeping with State law and consistent with Mitigation Measure AG-1.

Therefore, as presented in the cumulative impact analysis, the proposed Project’s contribution to significant cumulative impacts associated with conversion of Special Designation Farmland and Williamson Act lands would be less than cumulatively considerable.

Response to Comment L1-7

Comments relating to social and economic impacts are generally not comments on the adequacy of a Draft EIR. Under CEQA, economic or social effects of a project are not treated as significant effects on the environment unless those effects cause a physical effect on the environment (see CEQA Guidelines, Section 15131, subd (a)). CEQA’s environmental review likewise focuses on physical changes to the environment, including land, air, water, minerals, flora, fauna, ambient noise, and historical or aesthetic resources (see CEQA Guidelines, Section 15360). Loss of property tax revenue without a direct connection to a physical impact is a purely economic issue that CEQA does not consider a significant environmental effect, thus no further analysis on the subject is required. Any generalized effects on County services arising from a loss of property tax revenue are too attenuated and speculative to constitute substantial evidence of a significant environmental impact under CEQA, particularly where the comment’s alleged impacts are unsupported by evidence of a connection to physical environmental changes (see CEQA Guidelines, Section 15384, subds. (a-b)).

The Draft SEIR analyzed the proposed Project’s effects on public services and determined those impacts to be less than significant (see Draft SEIR Section 3.3, “Environmental Resource Areas Not Requiring Further Analysis,” subsection 3.3.9, “Public Services”; see also Draft SEIR Section 3.13, “Utilities and Service Systems”). The Draft SEIR analyzed the proposed Project’s existing environmental setting, the Final SRGO Program EIR’s analysis and conclusions, and the proposed Project’s effects on public services (see Draft SEIR, p. 3-18). Since the proposed Project, as contemplated by the SRGO, is an environmental restoration project and would not include new land development, induce substantial

population increases, or increase demand for public services over existing conditions, the proposed Project's impacts were determined to be less than significant (see Draft SEIR, pp. 3-18 through 3-19).

Furthermore, the Draft SEIR evaluated the proposed Project's effect on the cumulative conversion of agricultural land within Yolo Bypass and determined impacts to be less than significant (see Draft SEIR Chapter 4, "Cumulative Impacts," pp. 4-6 through 4-9). Please see Response to Comment L1-6 for a more thorough discussion on the Project's less than cumulatively considerable effects on agriculture.

Response to Comment L1-8

As described in Draft SEIR Chapter 1, "Introduction," page 1-18, following completion of the Final SEIR, DWR will review the proposed Project and its potential environmental impacts, as identified in the SEIR (Draft SEIR and Final SEIR), and will decide whether or not to certify the SEIR and whether or not to approve the proposed Project or project alternative. As part of the process, DWR will not approve the proposed Project unless the proposed Project's significant environmental effects have been "eliminated or substantially lessened," and specific findings (Findings of Fact) are made (see CEQA Guidelines Section 15092). Consideration of feasible mitigation measures and/or alternative project designs, such as Alternative 2 are considered in this process (see Pub. Resources Code, Section 21002.) Furthermore, DWR, if applicable, will also prepare a Statement of Overriding Considerations for any significant adverse impacts that cannot be mitigated to less-than-significant levels that will be included in the record of project approval (see CEQA Guidelines Section 15093).

DEPARTMENT OF RESOURCE MANAGEMENT

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Water & Natural Resources Division

March 27, 2026

California Department of Water Resources
Division of Multibenefit Initiatives
Attn: Judah Grossman
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RE: Comments on the Draft Supplemental Environmental Impact Report (DSEIR) for the Tide's End Multibenefit Restoration Project

Dear Mr. Grossman,

Thank you for the opportunity to comment on the Draft Supplemental Environmental Impact Report (DSEIR) for the Tide's End Multibenefit Restoration Project (Project).

Although the proposed Project is located in Yolo County, its proximity to Solano County (County), along with hydrologic and tidal connections extending into the county may directly affect County infrastructure, water supply, and ongoing conservation planning. These cross-boundary linkages warrant a more robust evaluation of potential cumulative and long-term impacts.

The County supports multi-benefit restoration efforts in the Delta and offers the following comments to support successful, coordinated, and regionally consistent implementation.

Groundwater Levels, Sea Level Rise (SLR), and Regional Drainage

The Draft SEIR reports that tidal exchange will increase the tidal prism in the Toe Drain and that sea level rise (SLR) will elevate tidal conditions over the Project's design life (Section 2.2.4). However, the analysis does not evaluate whether the Project, in combination with anticipated SLR, could increase shallow groundwater levels in adjacent irrigated agricultural lands, including Reclamation District 2068 (RD 2068).

The groundwater analysis is limited to the Yolo Subbasin GSP area and does not extend to the Solano Subbasin, within which RD 2068 is located. Although the Solano Subbasin is identified as part of the regional setting, the Draft SEIR does not evaluate how changes in surface hydrology may affect groundwater conditions within this subbasin.

RD 2068 consists of levee-protected farmland in Solano County immediately west of the Project within the Cache Slough Complex. These are low-lying irrigated lands depend on maintaining adequate separation between the groundwater table and the soil surface. Elevated groundwater levels resulting from tidal recharge and SLR-driven increases in tidal elevations could:

L2-1

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Building Official
Building & Safety

ALLAN CALDER
Program Manager
Planning Services

EDMOND STRICKLAND
Manager
Environmental Health

NATALIA SMITH
Administrative Services
Manager

(VACANT)
Engineering Manager
Public Works Engineering

MATTHEW HARDY
Operations Manager
Public Works
Operations

CHRIS DRAKE
Parts Services
Manager
Parts

(VACANT)
Water & Natural
Resources Program
Manager

- Impede drainage from irrigated fields, resulting in waterlogging, root zone saturation, and crop loss;
- Increase operational pumping costs for drainage within the reclamation district;
- Compromise levee integrity through increases seepage and hydrostatic pressure; and
- Reduce the effectiveness of drainage infrastructure designed for historical (pre-project, pre-SLR) conditions.

Recommendation

The Final SEIR should include a quantitative analysis of potential increases in shallow groundwater levels in adjacent agricultural lands, including RD 2068, under existing and projected SLR conditions. The analysis should assess impacts on agricultural drainage, levee stability, and agricultural productivity. If significant impacts are identified, mitigation measures should be clearly defined and enforceable, and consultant with RD 2068 should be documented.

L2-1
cont.

Inland Flooding of Agricultural Lands Resulting from Altered Drainage Patterns

The Project proposes substantial modifications to drainage infrastructure, including installation of new weir boxes and culverts and reconfiguration of drainage ditches (Section 2.4). While the Draft SEIR states these changes would improve drainage capacity (Section 3.4.2), it does not evaluate whether altered drainage patterns and increased tidal connectivity could exacerbate inland flooding in adjacent agricultural lands, including RD 2068.

Flooding at the lower end of the RD 2068 drainage system is an existing concern. Under high-tide conditions, storm surges, or SLR-driven increases in tidal elevations, tidally influenced areas may facilitate inland water movement through groundwater pathways, overtopping of drainage structures, or backflow through shared drainage systems.

L2-2

The hydraulic modeling presented in Appendix H evaluates water surface elevations within the Yolo Bypass under a 100-year storm event but does not assess inland flooding risks in adjacent Solano County lands under combined tidal and storm surge conditions.

Recommendation

The Final SEIR should evaluate whether the proposed Project, under both existing and future SLR scenarios, could contribute to inland flooding in adjacent agricultural lands, including RD 2068. This analysis should include expanded hydraulic modeling within the Cache Slough Complex, analysis of tidal backflow and drainage impedance, and assessment of cumulative effects in combination with the Lookout Slough Restoration Project and the Little Egbert Multi-Benefit Project.

North Bay Aqueduct (NBA) Intake at Barker Slough and Water Quality

The Draft SEIR presents salinity modeling results indicating minor increases in electrical conductivity (EC) at the Barker Slough NBA intake (up to 0.29 percent) and concludes that these changes remain within D-1641 compliance (Section 3.10.4).

L2-3

However, the analysis does not fully evaluate potential water quality impacts:

- SLR is not incorporated into the water quality modeling, despite acknowledgment that SLR will influence tidal elevations and salinity intrusion (Section 3.10.2);
- The dissolved organic carbon (DOC) analysis relies on analogies to other projects rather than project-specific modeling;
- Cumulative DOC loading from multiple Cache Slough Complex restoration projects is not assessed; and
- No site-specific DOC monitoring data are presented, despite known rapid increases in DOC concentrations at Barker Slough during wet conditions that affect water treatment.

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L2-3
cont.

Recommendation

The Final SEIR should incorporate SLR into water quality modeling at the Barker Slough NBA intake and evaluate the cumulative DOC loading from the Project in combination with other restoration projects in the Cache Slough Complex.

Cumulative Impacts with Nearby Restoration Projects

The Project is located in close hydrologic proximity to the Lookout Slough Tidal Habitat Restoration Project and the Little Egbert Multi-Benefit Project. While these projects are included in the cumulative analysis (Table 4-1), the Draft SEIR does not clearly evaluate how the Project may interact with or influence their performance (Section 4.3.7).

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L2-4

Recommendation

The Final SEIR should include a more robust cumulative analysis addressing hydrologic and ecological interactions among these projects. This analysis should evaluate effects on habitat performance, consistency with flood conveyance objectives, and whether project designs are mutually supportive.

Alignment with County Planning Efforts (Cache Slough Complex Habitat Conservation Plan (HCP) and Healthy Rivers and Landscapes Program (HRL))

The County is currently developing the Cache Slough Complex Habitat Conservation Plan (HCP), a landscape-scale framework for habitat restoration and regulatory compliance. The Project area is hydrologically connected to this planning effort; however, the Draft SEIR does not address coordination with the County.

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L2-5

Given the regional nature of water supply and habitat management within the Cache Slough Complex, early and ongoing coordination with the County is essential.

The Draft SEIR also states that the Project supports the Healthy Rivers and Landscapes (HRL) Program (Sections 2.1.2 and 2.1.3) but does not clearly define the Project's specific contribution.

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Recommendation

The Final SEIR should:

- Describe coordination with the County's HCP planning effort; and
- Clearly explain how the Project contributes to HRL Program goals, including measurable performance metrics and expected outcomes.

If such information cannot be provided, the document should clarify the Project's role within the HRL Program.

L2-5
cont.

Long-Term Operations and Responsibility

The Draft SEIR does not clearly identify long-term ownership, operations, maintenance responsibilities, or funding mechanisms for Project features that may influence regional hydrology, drainage, and water quality.

Given the potential for long-term and cross-jurisdictional effects, clarity regarding these responsibilities is important to ensure that potential impacts are properly managed over the Project's lifespan.

L2-6

Recommendation

The Final SEIR should describe long-term governance, operational responsibilities, and funding mechanisms for Project features, including those affecting drainage, groundwater, and water quality.

Conclusion

While the Draft SEIR concludes that the Project provides ecological benefits and results in less-than-significant impacts in many areas, the County respectfully requests additional analysis and clarification of the issues outlined above. These considerations are critical to ensure that cross-jurisdictional, cumulative, and long-term hydrologic and water quality effects—particularly those related to sea level rise and regional infrastructure—are fully evaluated.

L2-7

Thank you again for the opportunity to comment. The County looks forward to continued coordination with this important effort.

Sincerely,



Misty Kaltreider,
 Solano County Assistant Director of Resource Management

Cc: James Bezek, RM Director (JBezek@SolanoCounty.gov)
 Ian Goldberg, CAO (IMGoldberg@SolanoCounty.gov)
 Debbie Vaughn, Assistant CAO (DLVaughn@SolanoCounty.gov)

**Letter L2
Response****Misty Kaltreider, Solano County Department of Resource Management**
March 27, 2026**Response to Comment L2-1**

The Draft SEIR is a supplemental environmental document that tiers from the analysis relating to potentially significant impacts to hydrology and water quality identified in the Final SRGO Program EIR (see Section 3.10, “Hydrology and Water Quality,” p. 3.10-1). Consistent with the SRGO, the SEIR analyzes the proposed Project’s potential effects on the subbasin where the proposed Project area is located, which is in the Yolo Subbasin. (*Id.* at p. 3.10-11). As discussed below, the Draft SEIR appropriately evaluates groundwater conditions within the area of proposed Project influence, namely the Yolo Subbasin. As documented in the Yolo Subbasin Groundwater Sustainability Plan (GSP) (2022), regional groundwater flow is generally toward the Sacramento River and Delta and away from adjacent levee-protected lands within Reclamation District (RD) 2068. (Yolo Subbasin GSP, Section 2.2.1.1, pp. 2-43 through 2-48). The GSPs also indicate that groundwater flow patterns vary locally in response to pumping and recharge conditions. Available data indicate that groundwater flow in the region generally trends from upland areas toward the Sacramento River and Delta, with localized gradients influenced by historical groundwater pumping, including in the vicinity of Vacaville, Dixon, and Davis (Solano Subbasin GSP, Section 3, p. 7). These patterns reflect a dynamic groundwater system with locally variable gradients rather than a single uniform regional flow direction towards a particular subbasin.

RD 2068 is located within the Solano Subbasin, which is managed separately from the Yolo Subbasin under SGMA (Solano Subbasin GSP [2021], Section 2, p. 4). While these subbasin boundaries are not impermeable hydrogeologic barriers, the Solano Subbasin GSP identifies regional groundwater flow within the shallow aquifer system as generally toward the Sacramento River and Delta, with local variability influenced by pumping, recharge, and infrastructure (Solano Subbasin GSP, Section 3, p. 7). In addition, the area between the proposed Project and RD 2068 includes levees, channels, managed waterways, and drainage infrastructure influence groundwater gradients. Accordingly, available information does not indicate a direct or substantial Project-related hydraulic pathway between the proposed Project area and RD 2068.

Groundwater conditions in RD 2068 and similar Delta reclamation districts are actively managed through pumping and drainage infrastructure designed to maintain groundwater elevations below land surface for agricultural use. The Solano Subbasin GSP indicates that groundwater levels are generally stable, with seasonal and interannual fluctuations driven primarily by irrigation demand, precipitation, and pumping rather than tidal forcing (Solano Subbasin GSP, Section 3, p. 7). Monitoring programs further reflect the role of local agencies in actively managing groundwater conditions within these areas (Solano Subbasin GSP, Section 2, p. 5).

In the proposed Project vicinity and surrounding Yolo Bypass/Delta margin areas, groundwater levels in the shallow aquifer exhibit substantial seasonal and interannual variability, on the order of approximately 5 to 20 feet, reflecting large changes in regional groundwater storage associated with precipitation, Yolo Bypass flooding, and irrigation practices. (See Draft SEIR Section 3.10, “Hydrology and Water Quality,” pp. 3.10-10 through 3.10-11). As described in Response to Comment L1-2, the analysis in Draft SEIR Section 3.10, “Hydrology and Water Quality,” page 3.10-73, clearly describes that the proposed Project’s

constructed restoration elements impact on groundwater supplies and recharge would be neutral or potentially beneficial. This analysis is consistent with the analysis from the already approved and certified SRGO Program EIR, from which this Draft SEIR tiers (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-72). The Draft SEIR does not conclude that the proposed Project would result in a “measurable increase in groundwater supplies.” While tidal wetlands can facilitate localized infiltration under certain conditions, the extent of such processes is site-specific and may be localized in areas such as the Yolo Bypass where low percolation rates occur.

The proposed Project would not introduce a new source of surface water to the site or increase groundwater pumping. Existing agricultural operations in the proposed Project site rely primarily on seasonal surface water management, rather than groundwater extraction, and implementation of the proposed Project would reduce active agricultural water application and associated irrigation demand within the site. In addition, publicly available statewide datasets consistent with GSP findings indicate that the Project area has low recharge potential due to fine-grained soils and limited permeability, as reflected in the Soil Agricultural Groundwater Banking Index (SAGBI) (U.C. Davis 2015), DWR Aquifer Recharge Potential (ARP) mapping (DWR 2026a), and DWR Airborne Electromagnetic (AEM) mapping (DWR 2026b) of electrical resistivity. Collectively, these datasets consistently indicate low infiltration capacity and limited recharge potential at the proposed Project area.

In addition, the proposed Project could result in minor localized increases in infiltration and shallow groundwater recharge in limited portions of the site relative to existing conditions. However, any such increases would occur over a relatively small area and would represent a negligible contribution when considered in the context of broader regional groundwater fluxes in the Yolo and Solano Subbasins, including seasonal flooding of the Yolo Bypass, precipitation-driven recharge, regional groundwater movement, and existing agricultural water management practices (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” pp. 3.10-10 through 3.10-11; Yolo Subbasin GSP, Section 2.3, pp. 2-148 through 2-169; Solano Subbasin GSP, Section 5, pp. 11 through 12). The proposed Project would not introduce a substantial new source of water to the region or increase groundwater extraction, and implementation of the proposed Project would reduce active agricultural irrigation and associated irrigation conveyance features within the proposed Project area (see Draft SEIR Chapter 2, “Project Description,” pp. 2-20 through 2-24; Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-73). Any localized recharge benefit to nearby agricultural lands would therefore be expected to be small and diffuse, and any resulting changes in groundwater levels would not be expected to be measurable relative to normal seasonal and interannual groundwater variability (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” pp. 3.10-10 through 3.10-11). In addition, localized infiltration would be constrained by the low-permeability soils present in the proposed Project area, as reflected in SAGBI, DWR ARP, and DWR AEM mapping datasets.

Sea-level rise was considered as part of the future environmental setting and hydraulic modeling assumptions for the proposed Project (see Draft SEIR Appendix H, “CEQA Hydraulic Impacts Assessment,” p. 1). While future sea-level rise may influence regional tidal elevations, it would not alter the low-permeability soil conditions at the site or create a preferential pathway for groundwater transmission (see Draft SEIR Appendix H, “CEQA Hydraulic Impacts Assessment,” pp. 3 and 9; Yolo Subbasin GSP, Section 2.1.5.3, pp. 2-27 through 2-33; Solano Subbasin GSP, Section 3, p. 7). Accordingly,

it would not be expected to measurably increase recharge or groundwater levels in adjacent managed areas such as RD 2068.

Based on the factors described above, including locally variable groundwater gradients, low recharge potential, substantial regional groundwater variability, and active groundwater management, there is no substantial evidence that proposed Project-related changes in tidal conditions, including in combination with sea-level rise, would result in measurable changes to groundwater levels, agricultural drainage, levee stability, or agricultural productivity in RD 2068. Therefore, the Draft SEIR provides sufficient analysis of groundwater conditions, and additional quantitative analysis of groundwater levels in RD 2068 is not required and would not change the results or conclusions of the Draft SEIR.

Response to Comment L2-2

Regional Drainage Patterns

RD 2068 facilities and managed drainage infrastructure are located outside the proposed Project boundary, and drainage originating within and adjacent to the proposed Project area is conveyed away from RD 2068 lands and toward the Toe Drain under existing conditions. As shown by the existing site topography (see Draft SEIR Figure 2-3) and documented water conveyance system (see Draft SEIR Appendix D, “Tide’s End Multibenefit Restoration Project Land Use Constraints Analysis” and Draft SEIR Appendix K, “Tide’s End Multibenefit Restoration Project Inventory of Existing Water Conveyance and Distribution Infrastructure Report”), the Project area and adjacent upstream properties drain generally from west to east toward the Toe Drain through an established network of canals, drain ditches, culverts, and spill structures. The proposed Project is designed to maintain these existing regional drainage pathways and would not redirect drainage flows toward RD 2068 or other adjacent managed agricultural lands.

As described in Draft SEIR Chapter 2, “Project Description,” subsection 2.2.6, “Facilities Improvements,” the proposed Project includes reconfiguration of irrigation and drainage infrastructure to manage wetland water levels and floodplain agriculture irrigation effectively while maintaining compatibility with existing drainage objectives. In addition, the proposed Project would increase the capacity of existing east-west drainage conveyance features traversing the proposed Project area, which currently convey drainage water from properties located west of the site toward the Toe Drain. Accordingly, implementation of the proposed Project would maintain and potentially improve regional drainage conveyance conditions for adjacent upstream properties that rely on the site for eastward drainage conveyance.

Flooding within RD 2068

RD 2068 represents a levee-protected and actively managed drainage system within the Solano Subbasin (see Wilson, 2014). As discussed above, the proposed Project maintains the existing west-to-east drainage pattern toward the Toe Drain and does not redirect drainage toward RD 2068. Because RD 2068 is a levee-protected and actively managed storm drainage system, flooding within the district is primarily influenced by local factors, including internal drainage capacity, pump operations, levee configuration, and regional tidal and storm surge conditions, rather than by drainage features within the proposed Project area. As demonstrated by the hydraulic impact analysis (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” Table 3.10-7, p. 3.10-51), the Project does not increase water surface elevations or backwater conditions within the Yolo Bypass. Accordingly, the Project does not create drainage modifications that would induce inland flooding in adjacent areas such as RD 2068.

The Draft SEIR evaluates potential flooding and hydrologic effects within the proposed Project area using established hydraulic modeling methods appropriate for the Yolo Bypass flood system (see Draft SEIR Section 3.10, “Hydrology and Water Quality” and Appendix H, “CEQA Hydraulic Impacts Assessment”). This analysis assesses water surface elevations and flood conveyance under applicable design conditions, including a 100-year storm event, and demonstrates that the proposed Project would not result in adverse changes to flood behavior within the modeled domain (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” Impact 3.10-1).

The Project’s proposed drainage features, including weir boxes, culverts, and reconfigured ditches, are designed to maintain or improve existing drainage and hydraulic conditions within the Project footprint. As described in Draft SEIR Chapter 2, “Project Description,” subsection 2.2.6, “Facilities Improvements,” the proposed Project would reconfigure irrigation and drainage infrastructure to manage wetland water levels and floodplain agriculture irrigation effectively, consistent with flood management objectives for the Yolo Bypass. As described in Response to Comment L1-1, hydraulic modeling results presented in Section 3.10, “Hydrology and Water Quality,” indicate negligible changes in water surface elevations in the Yolo Bypass during modeled flood events (100-year design storm), including minor localized decreases upstream of the proposed Project area on the order of 0 to -0.02 foot (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” Table 3.10-7, p. 3.10-51). These results demonstrate that the proposed Project would not adversely affect flood conveyance. Implementation of the proposed Project would maintain and, in limited circumstances, incrementally improve flood conveyance in the Yolo Bypass but would not adversely affect drainage or flooding conditions within RD 2068.

Sea-Level Rise and Inland Climate Change

With respect to tidal influence and sea-level rise, the Draft SEIR acknowledges these factors as part of the environmental setting and Project design considerations (see Draft SEIR, Chapter 2, “Project Description,” pp. 2-11 through 2-12). In addition, Appendix H, “CEQA Hydraulic Impacts Assessment,” explains that hydraulic modeling evaluated future climate scenarios, including associated effects of sea-level rise and inland climate change conditions (Appendix H, p. 1-1, and Appendix A to Appendix H). RD 2068 facilities are located outside the Project boundary, and drainage conditions within RD 2068 are controlled by local infrastructure, regional water levels, and managed drainage operations, not by proposed Project-specific drainage features. The proposed Project would maintain existing drainage patterns toward the Toe Drain and would not redirect drainage toward RD 2068. As demonstrated by the hydraulic modeling (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” Table 3.10-7 p. 3.10-51) and tidal range analysis (see Section “Hydrology and Water Quality,” p. 3.10-53) the proposed Project does not measurably increase water surface elevations or substantially alter tidal range under modeled conditions, including future climate conditions that incorporate sea-level rise assumptions. Accordingly, the proposed Project would not materially alter the regional hydraulic conditions that govern drainage or flooding in adjacent areas, including RD 2068.

Cumulative Hydrology

Cumulative hydrologic effects, including those associated with other restoration projects (including the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project and the Little Egbert Multi-Benefit Project) in the Cache Slough Complex, are addressed in Draft SEIR Chapter 4, “Cumulative Impacts,” subsection 4.3.7, “Hydrology and Water Quality.” The Draft SEIR evaluates whether the

proposed Project's incremental contribution to cumulative conditions would be cumulatively considerable and concludes that it would not (see Draft SEIR pp. 4-22 through 4-27). Based on hydraulic modeling, which indicates the proposed Project would result in negligible changes to water levels and velocity across the proposed Project area and within the Yolo Bypass itself, the proposed Project was determined to be less than cumulatively considerable to hydraulic conditions (see Draft SEIR Chapter 4, "Cumulative Impacts," pp. 4-25 through 4-26.) Expansion of the hydraulic modeling domain to include adjacent areas is not required to evaluate the proposed Project's impact.

Conclusion

Accordingly, the Draft SEIR provides a reasonable and legally sufficient evaluation of flooding and hydrologic effects, and additional offsite hydraulic modeling is not warranted. No revisions to the Draft SEIR are required.

Response to Comment L2-3

Salinity and Hydrodynamic Modeling

The Draft SEIR evaluates the potential water quality effects of tidal restoration and cumulative restoration conditions on water quality at the Barker Slough North Bay Aqueduct (NBA) intake through a calibrated regional hydrodynamic and water quality model (Draft SEIR Appendix I, "Tide's End Multibenefit Restoration Project Modeling Evaluation of Stage and Water Quality Impacts") and a weight-of-evidence assessment appropriate to the scale of the proposed Project. The Appendix I analysis evaluates salinity and tidal hydrodynamics under both Baseline and Future conditions, including cumulative restoration projects within the Cache Slough Complex, and therefore addresses the proposed Project's incremental contribution to regional tidal exchange and salinity conditions.

Draft SEIR Appendix I "Tide's End Multibenefit Restoration Project Modeling Evaluation of Stage and Water Quality Impacts," models tidal hydrodynamics and salinity under Baseline and Future conditions, including cumulative restoration projects in the Cache Slough Complex. The model simulates tidal inundation, interior channels, and wetting and drying processes, thereby capturing changes in tidal prism and constituent transport. Results show that Project-related changes in tidal range, mean higher high water (MHHW), and mean lower low water (MLLW) are small and localized (generally 0.1 to 0.3 foot near the proposed Project area and less than 0.05 foot elsewhere). Consistent with these findings, modeled increases in electrical conductivity (EC) at the Barker Slough NBA intake are minimal (approximately 0.3% or less) and remain within applicable water quality objectives. As summarized in Draft SEIR Section 3.10, "Hydrology and Water Quality," pages 3.10-59 through 3.10-61, and as shown in Table 3.10-9 (pp. 3.10-60 through 3.10-61), the salinity modeling results demonstrate that the proposed Project would not materially alter hydrodynamic processes and the resultant salinity distribution.

The Draft SEIR acknowledges sea-level rise (SLR) as being considered and accommodated for in the project design (see Chapter 2, "Project Description," p. 2-12). In addition, Draft SEIR Appendix H, "CEQA Hydraulic Impacts Assessment," states that the hydraulic modeling incorporated future climate scenarios and associated effects of sea-level rise, and Appendix A to Appendix H provides sea-level rise and inland climate change boundary conditions used for modeling. While sea-level rise may affect regional salinity conditions in the Delta, the proposed Project is not a controlling driver of regional salinity dynamics. The Draft SEIR, as summarized in Table 3.10-9, and detailed in Draft SEIR

Appendix I, “Tide’s End Multibenefit Restoration Project Proposed Project Modeling Evaluation of Stage and Water Quality Impacts,” demonstrates that proposed Project-related changes in tidal exchange and salinity are very small under the modeled conditions. Accordingly, because the Project’s incremental effect on tidal exchange and salinity is very small, consideration of future SLR would not be expected to materially alter the difference between Project and No Project conditions or the conclusion of less-than-significant impacts.

Dissolved Organic Carbon (DOC)

The Draft SEIR evaluates DOC effects using available monitoring information, scientific literature, and data related to comparable restoration projects. With respect to DOC, the Draft SEIR recognizes that tidal wetland restoration can generate organic carbon (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-81). The Cache Slough Complex already contains extensive tidal wetlands, managed wetlands, agricultural lands, and organic-rich aquatic environments that contribute DOC to the regional system. As a result, the proposed Project would represent a relatively small incremental addition to existing regional DOC sources. However, whether changes in DOC at its source affects downstream water supply also depend on transport, dilution, and regional hydrodynamics. The Barker Slough NBA intake is the nearest drinking water supply intake to the proposed Project and more than 15 river miles away from the proposed Project area, with several thousand acres of tidal marsh and wetlands fringing the water route between the two (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-20). Because the modeling demonstrates minimal changes in tidal exchange and hydrodynamic processes (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” pp. 3.10-79 through 3.10-82), any additional DOC generated within the proposed Project area would be substantially diluted and attenuated before reaching the Barker Slough NBA intake.

The Draft SEIR further relies on empirical evidence from comparable projects. Larger and closer restoration projects to the Barker Slough NBA intake, including Lookout Slough, have been evaluated and found to have less-than-significant DOC impacts at the Barker Slough NBA intake (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-81). Similarly, long-term monitoring following the Liberty Island breach shows no substantial increase in DOC at the intake. These projects represent conservative bounding cases, as they involve greater tidal exchange, larger tidal marsh area, and/or closer proximity to the Barker Slough NBA intake than the proposed Project.

DOC concentrations at Barker Slough are also dominated by regional watershed inputs to the west of the slough (whereas the proposed Project is northeast of the slough) and seasonal hydrology, particularly during high-flow events (see Draft SEIR Section 3.10, “Hydrology and Water Quality,” p. 3.10-22). Any proposed Project-related DOC contribution would therefore represent a small component of overall variability, and any initial release associated with wetland establishment would be temporary and further attenuated by mixing and distance.

Cumulative Conditions

Cumulative effects are addressed in Draft SEIR Appendix I “Tide’s End Multibenefit Restoration Project Modeling Evaluation of Stage and Water Quality Impacts,” and Chapter 4, “Cumulative Impacts,” which evaluate the proposed Project’s incremental contribution under future restoration conditions. Even under these scenarios, changes in tidal dynamics and salinity remain minimal (see Draft SEIR Section 4.3.7, “Hydrology and Water Quality,” p. 4-23). Given the limited hydrodynamic changes and available

empirical evidence, there is no substantial evidence that the Project would result in a cumulatively considerable contribution to DOC-related impacts.

Conclusion

Accordingly, the Draft SEIR analyzes information regarding DOC effects from multiple sources, providing substantial evidence supporting the conclusion that water quality impacts at the Barker Slough NBA intake would be less than significant (see CEQA Guidelines Section 15384, subd. (a) [substantial evidence means “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion”]).

Response to Comment L2-4

The Draft SEIR evaluates cumulative hydrologic and ecological conditions in the Cache Slough Complex using a future conditions scenario that includes other planned and approved restoration projects, including the Lookout Slough Tidal Habitat Restoration Project and the Little Egbert Multi-Benefit Project (see Chapter 4, “Cumulative Impacts,” p. 4-3). This approach is consistent with CEQA requirements to evaluate whether the proposed Project would make a cumulatively considerable contribution to impacts when combined with other reasonably foreseeable projects (see CEQA Guidelines Section 15130, subd. (a)). Because the future conditions scenario incorporates these nearby restoration projects, the modeling evaluates the incremental effect of the proposed Project on hydrodynamic conditions in conjunction with those projects.

As described in Draft SEIR Chapter 4, “Cumulative Impacts,” pages 4-22 through 4-23, the hydraulic modeling compares future conditions with and without the proposed Project, where the future conditions scenario incorporates anticipated restoration projects in the region (including the Lookout Slough and Little Egbert projects). Results of this analysis indicate that changes in water surface elevations under cumulative conditions are minor and localized, with no substantial changes at downstream, near the aforementioned projects or adjacent index locations and no adverse effects on flow velocities or flood conveyance (see Draft SEIR Chapter 4, “Cumulative Impacts,” p. 4-26). Because the modeling shows no measurable increase in water surface elevations or backwater conditions under cumulative scenarios, the proposed Project does not alter the hydrodynamic conditions that would influence flood conveyance performance at nearby restoration projects.

With respect to tidal hydrology and habitat performance, the Draft SEIR’s tidal modeling evaluates the incremental effect of the proposed Project under future cumulative conditions (see Chapter 4, “Cumulative Impacts,” p. 4-23). That analysis indicates that Project-related changes in tidal range and tidal datums are minimal in the vicinity of the proposed Project area and negligible elsewhere in the Delta. (*Id.*) These modeled changes are small relative to the existing tidal variability that governs wetland habitat zonation and function and therefore would not be expected to measurably affect habitat performance at nearby restoration sites.

The Draft SEIR also evaluates biological and ecological conditions at a regional scale. The proposed Project would restore tidal wetland and floodplain habitats and contribute to increased volitional fish passage and aquatic habitat connectivity within the Cache Slough Complex (see Draft SEIR Chapter 2, “Project Description,” pp. 2-10 through 2-14; Section 3.6 Biological Resources – Terrestrial,” p. 3.6-64; Section 3.7, “Biological Resources – Aquatic,” pp. 3.7-2 through 3.7-4, 3.7-27 and 3.7-28). The Draft

SEIR further explains that the proposed Project, together with other restoration efforts such as Lookout Slough and Lower Yolo Ranch, would contribute to a larger, contiguous assemblage of tidal and floodplain habitats in the region (see Section 3.7, “Biological Resources – Aquatic,” p. 3.7-4). In this context, the proposed Project is consistent with and supportive of regional restoration objectives and would not interfere with the intended ecological functions of nearby habitat restoration projects.

The Draft SEIR also evaluates the proposed Project’s consistency with regional restoration planning objectives applicable to the Cache Slough Complex, including the Sacramento River Basinwide Salmonid Restoration Goals. As discussed in Section 3.7, “Biological Resources – Aquatic,” the Sacramento River Basinwide Salmonid Restoration Goals identifies restoration of interconnected tidal wetland and floodplain habitats within the Cache Slough Complex as beneficial to salmonid migration, rearing habitat, and overall aquatic ecosystem function under cumulative regional restoration conditions (see Draft SEIR pp. 3.7-4, 3.7-5, 3.7-27 and 3.7-28). The proposed Project would contribute to these regional restoration objectives through restoration of tidal wetland and floodplain habitat, increased aquatic habitat connectivity, and improved volitional fish passage within the Cache Slough Complex. Accordingly, the proposed Project’s contribution to cumulative biological conditions is consistent with the regional restoration framework evaluated in the Draft SEIR and would not result in a cumulatively considerable impact to biological resources.

Consistent with CEQA, the Draft SEIR evaluates whether the proposed Project’s incremental contribution to cumulative hydrologic conditions would be cumulatively considerable and concludes that it would not (see Chapter 4, “Cumulative Impacts,” p. 4-23). The analysis demonstrates that the Project does not adversely affect flood conveyance, does not materially alter tidal hydrology, and does not interfere with habitat function at nearby restoration sites under cumulative conditions.

Accordingly, the Draft SEIR provides a reasonable and legally sufficient cumulative analysis of hydrologic and ecological interactions with nearby restoration projects.

Response to Comment L2-5

The comment notes that Solano County is developing an HCP. As the HCP is currently being developed, Environmental Impact Reports, such as the SEIR, are not required to engage in speculation and analyze a project’s effects in relation to a draft habitat conservation plan that has not been finalized and approved. As it relates to describing coordination with Solano County and the Cache Slough Habitat Conservation Project (HCP), DWR, in collaboration with Solano County and the HCP Steering Committee, is leading the development of the HCP and Incidental Take Permits (ITP) on behalf of participating intake owners and operators (Solano County 2026).

The proposed Project will create new tidal wetland habitat and enhance floodplain rearing habitat to benefit native fish. Those new and improved habitat acres are intended to contribute to HRL’s North Delta Arc and Valley Floor tidal and floodplain restoration acreage commitments as defined in the 2022 MOU. In addition, see Response to Comment S2-3 which describes the HRL Design Criteria and Justification development process.

Response to Comment L2-6

This is not a comment on the adequacy or conclusions of the Draft SEIR. Long-term roles and specific responsibilities, funding mechanisms, coordination, etc., are not generally CEQA-required topics and neither is “comprehensive understanding of ongoing stewardship.”

The Draft SEIR outlines operations, monitoring, and maintenance in Chapter 2, “Project Description,” pages 2-23 through 2-28. Impacts associated with operations, monitoring and maintenance are evaluated in the resource sections of Chapter 3 of the Draft SEIR. If a Project is approved, DWR will develop a Long-Term Management Plan and an Adaptive Management Plan that will identify roles for operations and maintenance of project features and management of habitat. These plans will be developed with input from permitting and other agencies to reflect applicable requirements.

Questions about how programs will be funded and managed are not a comment on the adequacy or conclusions of the Draft SEIR and do not implicate an impact to the physical environment.

Response to Comment L2-7

Comment noted. See responses to L2-1 through L2-6.



COUNTY OF YOLO

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March 27, 2026

Department of Water Resources
Division of Multibenefit Initiatives

Attn: Judah Grossman

Via email only to tidesendmbp@water.ca.gov

Re: Tides End Multibenefit Restoration Project Comments of Yolo County
on Draft Supplemental Environmental Impact Report

Dear Mr. Grossman:

The County of Yolo (“County”) submits this letter to comment on the Draft Supplemental Environmental Impact Report (“Draft SEIR”) released by the California Department of Water Resources (“DWR”) on February 6, 2026 for the Tides End Multibenefit Restoration Project (“Project”).

The following comments are organized by resource topic and correspond to relevant sections of the Draft SEIR. The County recognizes the effort to address prior comments and provide additional detail and offers the following input to support further clarification and continued coordination.

Baseline:

The County’s comments on the Notice of Preparation (“NOP”) encouraged DWR to “use a baseline that includes planned operations of the Big Notch Project” with the expectation that such a baseline would provide the most realistic picture of the Project’s likely effects. We acknowledge and appreciate the discussion at Section 3.2.1 of the Draft SEIR and elsewhere reflecting DWR’s consideration of this suggestion, as well as the basis of your decision to mostly use the NOP baseline as described in Section 3.2.1. We appreciate your consideration of our suggestion and the information provided in response.

L3-1

Agricultural Resources:

We appreciate your consideration of how to integrate agriculture into the Project and ensure that it continues on portions of the Project site. Our specific comments on certain mitigation proposed in the Draft SEIR are as follows:

L3-2

Mitigation Measure AG-1 [Minimize and Avoid Loss of Special Designation Farmland]

addresses the conversion of Special Designated Farmland. The measure establishes a target 1:1 mitigation ratio, with flexibility based on feasibility factors such as cost and land availability and identifies programs such as the California Farmland Conservancy Program as a potential implementation pathway.

Yolo County acknowledges the inclusion of mitigation measures addressing the permanent conversion of Special Designated Farmland, as well as the discussion of feasibility considerations related to cost, availability, and project-specific conditions. While State-led projects are not required to comply with local ordinances, the County maintains a longstanding policy requiring a minimum 1:1 mitigation ratio to ensure no net loss of important agricultural land resources over time. We are concerned, however, that the commitment to mitigate is expressed in uncertain terms. For example, the 1:1 mitigation ratio is expressed as a “target” and its implementation is dependent on a host of factors that are identified for future consideration by DWR. (Draft SEIR at p. 3.4-17.) The County strongly encourages DWR to resolve the approach to mitigation concurrently with certification of the Final SEIR and Project approval.

Regarding the implementation of mitigation, the County also encourages continued coordination to identify implementation pathways that align with local priorities, including opportunities for a qualified local entity to hold and manage agricultural conservation easements. Early coordination with the County may help identify effective and locally supported approaches that meet the intent of the mitigation measure and regional agricultural conservation goals.

L3-2
cont.

Mitigation Measure AG-2 [Minimize Impacts on Lands Protected by Agricultural Zoning or Williamson Act Contract] addresses potential conflicts with lands protected under agricultural zoning and Williamson Act contracts. It requires restoration projects to be designed to avoid or minimize inconsistencies with applicable zoning and contract provisions to the greatest extent feasible, supporting continued alignment with existing agricultural land use protections.

Consistent with the mitigation measure, the County notes that the existing contracts do not allow for conversion of these lands to tidal wetlands or other non-agricultural uses.

For any property under a Williamson Act contract where the Project proposes land use changes beyond agricultural or open space uses, the contracts will need to be amended. The County is available to consult with the Department of Water Resources in the preparation of such amendments, consistent with coordination undertaken for similar projects (e.g., Yolo Ranch and Flyway Farms).

L3-3

Long Term Project site operations and management:

The Draft SEIR includes expanded discussion of operations, monitoring, and maintenance activities, including managed floodplain agriculture, wetlands management, water management, vegetation management, and sediment removal. This information helps clarify how Project objectives, such as habitat function, flood conveyance, and agricultural activity may be supported over time.

Long-term Project success will depend on sustained and coordinated management. The County encourages additional details in the Final EIR (or in any companion documents, such as a management plan) regarding how these activities will be implemented, including long-term roles and responsibilities, funding mechanisms, and coordination with adjacent land uses. Additional discussion of agricultural leasing, waterfowl habitat management, public access, site security, and infrastructure maintenance (including sediment removal and “periodic

L3-4

dredging” referenced in the Draft SEIR) would support a more comprehensive understanding of ongoing stewardship. Clarification of how these activities may evolve over time, and any associated environmental considerations, would further support alignment with Project objectives. Finally, information on the long-term financial feasibility of the proposed management of floodplain features and agriculture would also be helpful to the County’s ongoing assessment of the proposed Project and its compatibility with surrounding land uses, among other things.

L3-4
cont.

Public Access:

The County encourages additional consideration of public access and educational opportunities over private clubs as part of the Project’s long-term vision. As a multi-benefit project supported by public investment, the site presents opportunities for public access beyond the Project areas current 100-acre enrollment in the California Department of Fish and Wildlife’s SHARE Program, which provides a single four-person hunting blind for seasonal public use.

Given the Project’s proximity to the Yolo Bypass Wildlife Area and surrounding communities, the site is well positioned to support educational and interpretive opportunities related to tidal influence, floodplain processes, and managed wetlands in conjunction with agricultural use.

Consideration of managed public access, educational programming, and interpretive features in a manner compatible with site operations and resource protection is strongly encouraged. Additional detail in the Final EIR regarding how equitable public access may be accommodated over time would support coordination with regional recreation and education efforts and enhance the overall public value of the Project.

L3-5

Local Water Supply Needs:

The Draft SEIR provides additional detail regarding the reconfiguration and improvement of irrigation and drainage infrastructure, including relocation of facilities, new conveyance features, and installation of fish screens. This information helps clarify how water delivery would be maintained within the Project area and for adjacent landowners, while also addressing aquatic species protection.

As noted in the County’s comments on the Project’s Notice of Preparation, the County encourages consultation with local agencies, such as Solano County, to address potential impacts on downstream water supply intakes where the Project proposes to support protected aquatic species. More specifically, the County recommends coordination with Solano County and its Cache Slough Habitat Conservation Plan, which includes provisions to protect existing private diversions within the Cache Slough Complex and to support the continued operation and maintenance of these facilities in the context of neighboring restoration projects aimed at enhancing aquatic habitat, including projects with objectives similar to those of this Project.

L3-6

Conservation Easements:

The Draft SEIR identifies potential interactions with conservation plans, including the Yolo HCP/NCCP, and incorporates **Mitigation Measure TERR-1 [Coordinate with CDFW, USFWS, and Permittees Regarding HCPs, NCCPs, and Other Conservation Plans]** to support coordination with resource agencies and plan permittees. Identification of overlap with priority acquisition areas and the commitment to consultation are important steps toward maintaining consistency with local conservation objectives.

L3-7

The County encourages continued coordination with the Yolo Habitat Conservancy, in addition to plan permittees, to identify opportunities for alignment between the Project and the Yolo HCP/NCCP, including potential mutual benefits related to habitat conservation, agricultural compatibility, and efficient implementation of mitigation strategies.

Separately, the County looks forward to additional detail in the Final EIR on how habitat outcomes will be managed, particularly how the quality and functionality of waterfowl habitat will be maintained. This will help ensure consistency with existing easement purposes and conservation goals and support a coordinated approach to Project implementation.

County Roads:

The County notes that the Draft SEIR does not consider impacts of off-hauling materials from the Project site—mentioned in many places throughout the document—to public infrastructure such as County roads. This omission is apparently due to reliance on the Final SRGO Program EIR, which the Draft SEIR references to support its conclusion that “no further analysis is required in this document” of impacts to Public Services or Transportation, among various other resource topic areas. The County disagrees that impacts to County roads can be omitted based on general discussion appearing in the Final SRGO Program EIR. At the very least, and as is customary in most CEQA documents involving construction traffic and off-hauling, DWR should analyze how the number of truck trips could affect County roads and other infrastructure, the nature of mitigation (if needed) and impacts of its implementation, and related matters. If this is not practical, the County is receptive to discussing the issue separately with DWR to determine if any arrangements on mitigation (similar to those DWR has approved for past projects in Yolo County) are necessary.

The County appreciates the opportunity to comment on the Draft SEIR and looks forward to continuing to engage and coordinate with DWR and EIP regarding this Project.

Sincerely,



Michael Webb
County Administrative Officer

CC:

Philip J. Pogledich, County Counsel
Alex Tengolics, Director of Strategic Operations
Sabrina Snyder, Senior Management Analyst

L3-7
cont.

L3-8

**Letter L3
Response****Michael Webb, Yolo County Office of County Administrator**
March 27, 2026

Response to Comment L3-1

Comment noted. This comment does not raise any specific issues related to the adequacy of the Draft EIR.

Response to Comment L3-2

As described in Draft SEIR Section 3.4, “Agriculture,” under Impact 3.4-1 on page 3.4-18, approximately 671.6 acres of on-site agricultural lands currently designated as Unique Farmland and 38.3 acres of on-site Grazing Land used for operations and staging of farm equipment (which are not currently under a conservation easement) would be retained and would be placed under agricultural conservation easement in perpetuity, which satisfies more than the 1:1 mitigation ratio required by Mitigation Measure AG-1. Therefore, achieving the 1:1 mitigation ratio is not expressed in uncertain terms. As further described, the proposed Project has been designed to retain and improve Unique Farmland to the extent possible while maintaining the purpose and goals of the restoration project, in keeping with State law and consistent with Mitigation Measure AG-1, which requires that projects minimize fragmentation or isolation of Special Designation Farmland and that said farmland be of a size that can sustain viable farming activities (see Draft SEIR, pp. 3.4-18 through 3.4-19). Finally, the proposed Project includes improvements to the irrigation and drainage network within the Project site that will benefit agricultural lands both within the proposed Project area and in the vicinity (see Draft SEIR pp. 3.4-16 through 3.4-19).

Response to Comment L3-3

As presented in Draft SEIR Section 3.4, “Agriculture,” page 3.4-7, lands under these Williamson Act contracts may be used for managed wetlands, wildlife habitat areas, recreation, and open space (see California Government Code, Section 51205). Consistent with the Williamson Act, the proposed Project’s contracted land providing open space and habitat for wildlife is a compatible use under both the specific terms of the contracts and the Williamson Act itself (see Draft SEIR p. 3.4-23).

In addition, the proposed Project has been designed to minimize impacts on lands protected by agricultural zoning (see Response to Comment L3-2), and is consistent with existing Williamson Act contracts, and consistent with Mitigation Measure AG-2 (see Draft SEIR, p. 3.4-23.) The agricultural facilities improvements facilitated by the Project and described in Draft SEIR Chapter 2, “Project Description,” pages 2-14 through 2-17, would improve the efficiency of the irrigation and drainage network to the benefit of agricultural lands within the proposed Project area and in the vicinity. (*Id.*)

Response to Comment L3-4

As described in Response to Comment L2-6, long-term roles and specific responsibilities, funding mechanisms, coordination, etc. are not generally CEQA-required topics, as they do not constitute environmental impacts of the Project. DWR will develop a Long-Term Management Plan and an Adaptive Management Plan identifying roles for operations and maintenance of project features and management of habitat if a project is approved and/or a project alternative is selected. These plans will be developed with input from permitting and other agencies to reflect applicable requirements.

Response to Comment L3-5

The request for consideration of public access and education opportunities over private clubs as part of the proposed Project is not a comment on the adequacy of the Draft SEIR.

The Draft SEIR analyzed existing recreational opportunities on the Project area and within the larger Yolo Bypass (see Draft SEIR, Section 3.11, “Recreation,” p. 3.11-21). The proposed Project would allow for public access to tidal channels accessed from the Toe Drain via small boat, kayak, or paddle board allowing for additional recreational opportunities (see Draft SEIR p. 3.11-22).

Response to Comment L3-6

The comment has not alleged any project impact or inadequacy of the Draft SEIR analysis; however, the comment is noted and the following information is provided. As described in Draft SEIR Section 3.13, “Utilities and Services,” page 3.13-14, the proposed Project anticipates facilities improvements to irrigation and drainage ditches and installation of fish-passable structures such as culverts and modified weir boxes. Operations, monitoring, and maintenance of these facilities would be similar to existing conditions and would not create a substantial additional water demand or any impacts to existing downstream supply intakes or diversions. In addition, implementation of the proposed Project would not change water use at the clubhouse. (*Id.*) As also described, implementation of the proposed Project would benefit neighboring agricultural production by improving the irrigation and drainage systems that serve agricultural properties in the vicinity of the proposed Project area (*Id.*; see also Draft SEIR Section 3.4, “Agriculture,” pp. 3.4-16 through 3.4-17 and 3.4-25). Therefore, implementation of the proposed Project would not result in insufficient water supplies available to serve the proposed Project, result in an adverse effect to adjacent landowners or cause any impact to downstream water supply intakes or private diversions (see Draft SEIR pp. 3.13-14 through 3.13-15).

As described in Response to Comment L2-5, DWR in collaboration with Solano County and the HCP Steering Committee, is leading the development of the HCP and ITP on behalf of participating intake owners and operators.

Response to Comment L3-7

The comment is noted. DWR will continue to coordinate with resource agencies regarding conservation plans as required in Mitigation Measure TERR-1.

As described in Response to Comment L2-6, long-term roles and specific responsibilities are not generally CEQA-required topics. DWR will develop a Long-Term Management Plan and an Adaptive Management Plan identifying roles for operations and maintenance of project features and management of habitat if a project is approved and/or a project alternative is selected. These plans will be developed with input from permitting and other agencies to reflect applicable requirements.

Response to Comment L3-8

As described in Draft SEIR Chapter 2, “Project Description,” page 2-20, woody material would be stockpiled and placed on-site to create brush piles and woody debris habitat structures or would be processed (chipped and buried) on-site. Leaves and other small vegetation debris for species that do not require special handling would be mixed into nonstructural fill material, including fill for floodplain

habitat slopes and habitat mounds, or would be processed on-site (see Draft SEIR, p. 2-20). Other debris would either be buried on-site or hauled to an appropriate off-site waste disposal facility. (*Id.*)

CEQA allows a project-specific EIR to tier from a program EIR. (see Cal. Code Regs., tit. 14, Section 15385(a)). Tiering allows a site-specific EIR to incorporate by reference the general discussions of the program EIR and concentrate solely on the issues specific to the project-specific EIR (see Cal. Code Regs., tit. 14, Section 15385).

As described in Draft SEIR Section 3.3, “Environmental Resource Areas Not Requiring Further Analysis,” subsection 3.3.10 “Transportation,” pages 3-20 and 3-21, Final SRGO Program EIR Mitigation Measure TRA-7: Conduct Routine Inspections and Mitigation Measure TRA-8: Repair Damaged Roadways and Trails Following Construction were determined to not be applicable based on the limited amount of material to be hauled off-site and the short-term use of roads during construction. As disclosed by the Draft SEIR, the proposed Project would not result in an amount and duration of vehicle use that would result in accelerated road deterioration (see Draft SEIR, p. 3-21). Furthermore, haul routes to and from construction sites would be installed on top of temporary berms within the proposed Project area alongside CR 107 further limiting roadway use. (*Id.*). Construction equipment would remain on-site for the duration of construction, further reducing traffic and use of County roads. (*Id.*) The proposed Project is therefore consistent with and would not result in new or more severe potentially significant impacts than identified in the Final SRGO Program EIR. (*Id.*) Therefore, potential impacts to County Roads during construction would be less than significant and would not require implementation of Final SRGO Program EIR Mitigation Measures TRA-7 and TRA-8.

CHAPTER 4

Mitigation Monitoring and Reporting Program

4.1 Introduction

Public Resources Code Section 21081.6 and California Environmental Quality Act (CEQA) Guidelines Section 15097 require public agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a mitigated negative declaration or specified environmental findings related to Environmental Impact Reports (EIR).

This mitigation monitoring and reporting program (MMRP) has been developed to help ensure that the Department of Water Resources (DWR) carries out the adopted measures to mitigate and/or avoid significant environmental impacts associated with implementation of the Tide's End Multibenefit Restoration Project (proposed Project).

This MMRP is intended to be used by DWR to ensure compliance with mitigation measures during Project construction and implementation. Mitigation measures identified in this MMRP were developed as part of the Supplemental EIR (SEIR) process for the proposed Project and its alternatives.

The SEIR identifies the No Project Alternative and three alternatives (Alternative 1: Maximize Tidal Habitat Restoration; Alternative 2: Maximize Multibenefit Land Uses; and Alternative 3: Maximize Flood Benefits) in addition to the proposed Project. The SEIR determined Alternative 2 was the environmentally superior alternative. After reviewing public comments and considering the impacts and benefits of the Alternatives identified in the SEIR, DWR has decided to move forward with Alternative 2. Therefore, this MMRP, and the mitigation measures identified within, relate to Alternative 2 as described in the SEIR.

4.2 MMRP Components

The components of **Table 4-1**, which contains applicable mitigation measures, are addressed briefly below.

Issue Area: This column lists the resource topics, as identified in the CEQA Guidelines, to which the respective impact and mitigation measures apply.

Impact: This column summarizes the impact stated in the Draft SEIR.

Mitigation Measure/General Protection Measure: All mitigation measures identified in the Draft SEIR are presented and numbered accordingly. The general protection measures, species protection measures, and mitigation measures from the Final Statewide Restoration General Order (SRGO) Program EIR that are applicable to the proposed Project are referenced in **Table 4-1** and are included in Section 4.3.

Timing for Implementation: Implementation of the action must occur before or during some part of project approval, project design or construction, or on an ongoing basis. This column identifies when each measure identified would be implemented.

Responsible Party: This column identifies the entity that would undertake each required mitigation measure. DWR is primarily responsible for ensuring that these measures are successfully implemented. Within DWR, a number of departments and divisions would have responsibility for monitoring some aspect of the overall project. DWR may contract out for these services and/or make them part of the construction specifications, and other agencies may also be responsible for monitoring the implementation of these measures. As a result, more than one monitoring party may be identified.

Verification Date: This column is left blank to allow DWR to identify the date(s) on which each measure has been successfully implemented.

TABLE 4-1
TIDE'S END MULTIBENEFIT RESTORATION PROJECT, MITIGATION MONITORING AND REPORTING PROGRAM

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
3.3.1 Aesthetics	Impacts on aesthetics from construction activities.	General Protection Measures GPM-11, GPM-14, GPM-15, VHDR-1, VHDR-3 through VHDR-5. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
		Final SRGO Mitigation Measure AES-2. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
3.3.4 Geology and Soils	Impacts on geology and soils from construction activities.	General Protection Measures GPM-15; WQHM-1 through WQHM-4; and VHDR-1, VHDR-3, and VHDR-4. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
		Final SRGO Mitigation Measures GEO-1, GEO-3 through GEO-10. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor	
3.3.7 Noise	Impacts on noise from construction activities.	General Protection Measures GPM-2, GPM-3, GPM-6, and IWW-9. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
		Final SRGO Mitigation Measure NOISE-1. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
3.3.10 Transportation	Impacts on transportation from construction activities	General Protection Measures GPM-6 and GPM-10; and WQHM-1. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
3.4 Agriculture	Impact 3.4-1: Implementation of the proposed Project could convert Special Designation Farmland to nonagricultural use.	Final SRGO Mitigation Measure AG-1. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor	
		Final SRGO Mitigation Measure GEO-6. (See Section 4.3.)	After construction	DWR	
	Impact 3.4-2: Implementation of the proposed Project could conflict with existing zoning for agricultural use or a Williamson Act contract.	Final SRGO Mitigation Measure AG-2. (See Section 4.3.)	Prior to construction	DWR, EIP,	
	Impact 3.4-3: Implementation of the proposed Project could involve other changes in the existing environment which, due to their location or nature, could result in conversion of Special Designation Farmland to nonagricultural use.	General Protection Measures GPM-8, GPM-10 through GPM-12, GPM-15, and VHDR-1 through VHDR-6. (See Section 4.3.)	During and after construction	DWR, EIP, construction contractor	

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
3.5 Air Quality and Greenhouse Gas Emissions	Impact 3.5-1: Implementation of the proposed Project could conflict with or obstruct implementation of an applicable air quality plan.	General Protection Measures GPM-6 and GPM-12. (See Section 4.3.)	During and after construction	DWR, EIP, construction contractor	
	Impact 3.5-2: Implementation of the proposed Project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.	General Protection Measures GPM-6 and GPM-12. (See Section 4.3.)	During and after construction	DWR, EIP, construction contractor	
	Impact 3.5-3: Implementation of the proposed Project could expose sensitive receptors to substantial pollutant concentrations.	General Protection Measures GPM-6 and GPM-12. (See Section 4.3.)	During and after construction	DWR, EIP, construction contractor	
	Impact 3.5-4: Implementation of the proposed Project could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	General Protection Measure IWW-13. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor	
3.6 Biological Resources—Terrestrial	Impact 3.6-1: Implementation of the proposed Project could adversely affect habitat for special-status plant species.	General Protection Measures GPM-5, GPM-7 through GPM-9, VHDR-1, VHDR-2, and VHDR-6 through VHDR-8. (See Section 4.3.)	After construction	DWR	
		Species Protection Measures PLANT-1 through PLANT-4, and PLANT-6. (See Section 4.3.)	After construction	DWR qualified biologist	
	Impact 3.6-2: Implementation of the proposed Project could adversely affect habitat for special-status wildlife species.	General Protection Measures GPM-1 through GPM-7, GPM-10, GPM-13, GPM-15, WQHM-1, WQHM-2, WQHM-4 through WQHM-6, and VHDR-1 through VHDR-5. (See Section 4.3.) Species Protection Measures SPM-1 through SPM-6, REP-1 through REP-6, and BIRD-1 through BIRD-5. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor, qualified contractor	
		General Protection Measures GPM-2 through GPM-7, GPM-10, GPM-13, GPM-15, WQHM-1, WQHM-2, WQHM-4 and WQHM-6. (See Section 4.3.) Species Protection Measures SPM-3 through SPM-6, REP-1 through REP-6, and BIRD-1 through BIRD-5. (See Section 4.3.)	After construction	DWR qualified biologist	

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
	Impact 3.6-3: Implementation of the proposed Project could result in adverse effects on riparian habitat or sensitive natural communities.	General Protection Measures GPM-5, GPM-7, GPM-8, GPM-12, GPM-15, WQHM-4, VHDR-2, and VHDR-3. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor	
		General Protection Measures GPM-1, GPM-4, GPM-7, GPM-9, GPM-10, GPM-12, GPM-15, WQHM-4, WQHM-6, VHDR-2, and VHDR-3. (See Section 4.3.)	After Construction	DWR	
	Impact 3.6-4: Implementation of the proposed Project could result in adverse effects on State and federally protected wetlands through direct removal, hydrological interruption, or other means.	General Protection Measures GPM-1, GPM-5, GPM-7 through GPM-11, GPM 14, GPM-15, WQHM-1 through WQHM-6, and IWW-6. (See Section 4.3.)	Prior to, and during, construction	DWR, EIP, construction contractor	
		General Protection Measures GPM-5, GPM-7, GPM-9 through GPM-11, WQHM-1, WQHM-4, WQHM-6, IWW-1 through IWW-3, IWW-8, IWW-11, IWW-13, and VHDR-6 through VHDR-8. (See Section 4.3.)	After construction	DWR	
		Species Protection Measure PLANT-6. (See Section 4.3.)			
	Impact 3.6-5: Implementation of the proposed Project could interfere with the movement of native resident and migratory wildlife species.	General Protection Measures GPM-1 through GPM-7. (See Section 4.3.) Species Protection Measures SPM-3 through SPM-6, REP-4 through REP-6, and BIRD-2 through BIRD-5. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor, qualified biologist	
		General Protection Measures GPM-2 through GPM-7. (See Section 4.3.) Species Protection Measures SPM-3 through SPM-6, REP-4 through REP-6, and BIRD-2 through BIRD-5. (See Section 4.3.)	After construction	DWR, qualified biologist	
	Impact 3.6-7: Implementation of the proposed Project could conflict with the provisions of an adopted habitat conservation plan or natural community conservation plan.	Final SRGO Mitigation Measure TERR-1. (See Section 4.3.)	During and after construction	DWR, EIP	
3.7 Biological Resources–Aquatic	Impact 3.7-1: Implementation of the proposed Project could result in substantial adverse effects on special-status fish species directly, or indirectly through habitat modifications.	General Protection Measures GPM-2, GPM-4, GPM-5, WQHM-1 through WQHM-4, WQHM-6, IWW-1 through IWW-3, and IWW-6 through IWW-12. (See Section 4.3.) Species Protection Measures SPM-3, and FISH-1 through FISH-4. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor, qualified biologist	

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
		General Protection Measures GPM-2, GPM-4, GPM-5, WQHM-1 through WQHM-4, WQHM-6, IWW-1 through IWW-4, and IWW-13. (See Section 4.3.) Species Protection Measures SPM-3, and FISH-1 through FISH-4. (See Section 4.3.)	After construction	DWR, qualified biologist	
3.8 Cultural Resources	Impact 3.8-2: Implementation of the proposed Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Final SRGO Program EIR Mitigation Measure CUL-3. (See Section 4.3.)	During and after construction	DWR, EIP, qualified archaeologist	
	Impact 3.8-3: Implementation of the proposed Project could disturb human remains, including those interred outside of dedicated cemeteries.	Final SRGO Program EIR Mitigation Measure CUL-4. (See Section 4.3.)	During and after construction	DWR, EIP, qualified archaeologist	
3.9 Hazards and Hazardous Materials	Impact 3.9-1: Implementation of the proposed Project could involve the routine transport, use, or disposal of hazardous materials that, if accidentally released, could create a significant hazard to the public or the environment.	General Protection Measures GPM-6, GPM-7, GPM-10 through GPM-12, GPM-14, WQHM-1, WQHM-2, WQHM-4 through WQHM-6, IWW-1 through IWW-3, IWW-6, IWW-13, and VHDR-6. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
		General Protection Measures GPM-6, GPM-7, GPM-10 through GPM-12, GPM-14; WQHM-1, WQHM-2, WQHM-4 through WQHM-6, IWW-1 through IWW-3, IWW-6, IWW-13, and VHDR-6 through VHDR-8. (See Section 4.3.) Species Protection Measure PLANT-6. (See Section 4.3.)	After construction	DWR,	
	Impact 3.9-2: Ground-disturbing activities for construction of the proposed Project could encounter previously unidentified contaminated soil and/or groundwater, potentially exposing construction workers, the public, and the environment to risks associated with hazardous materials.	General Protection Measures GPM-6, GPM-7, GPM-10 through GPM-12, GPM-14; WQHM-1, WQHM-2, WQHM-4 through WQHM-6, IWW-1 through IWW-3, IWW-6, IWW-13, and VHDR-6. (See Section 4.3.) Final SRGO Program EIR Mitigation Measures HAZ-1 through HAZ-3. (See Section 4.3.)	Prior to and during construction	DWR, EIP, construction contractor	

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
		General Protection Measures GPM-6, GPM-7, GPM-10 through GPM-12, GPM-14; WQHM-1, WQHM-2, WQHM-4 through WQHM-6, IWW-1 through IWW-3, IWW-6, IWW-13, and VHDR-6 through VHDR-8. (See Section 4.3.) Species Protection Measure PLANT-6. (See Section 4.3.)	After construction	DWR	
3.10 Hydrology and Water Quality	Impact 3.10-1: Implementation of the proposed Project could substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that could result in substantial on- or off-site erosion or siltation; substantially increase the rate or amount of surface runoff in a manner which would result in on- or off site flooding; create or contribute runoff water which would exceed the capacity of the existing or planned irrigation drainage system or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	General Protection Measures WQHM-1 through WQHM-3, IWW-11, and VHDR-4. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
	Impact 3.10-2: Implementation of the proposed Project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the proposed Project may impede sustainable groundwater management of the basin or obstruct implementation of a sustainable groundwater management plan.	General Protection Measure IWW-6. (See Section 4.3.)	During construction	DWR, EIP, construction contractor	
	Impact 3.10-3: Implementation of the proposed Project could result in the release of pollutants into surface water and/or groundwater that could violate water quality standards or waste discharge requirements, substantially degrade water quality, or obstruct implementation of a water quality control plan.	General Protection Measures GPM-10 through GPM-12, WQHM-1 through WQHM-6, IWW-1 through IWW-4, IWW-6, IWW-10 through IWW-13, VHDR-2 through VHDR-4, and VHDR-6 through VHDR-8. (See Section 4.3.)	During and after construction	DWR, EIP, construction contractor	

Issue Area	Impact	Mitigation Measure/General Protection Measure	Timing for Implementation	Responsible Party	Verification Date
3.12 Tribal Cultural Resources	Impact 3.12-1: Implementation of the proposed Project could cause a substantial adverse change in the significance of a Tribal cultural resource, as defined in PRC Section 21074.	Final SRGO Program EIR Mitigation Measures TCR-2 and CUL-4. (See Section 4.3.)	During and after construction	DWR, EIP, qualified archeologist	
Notes: AMP = Amphibians; DWR = California Department of Water Resources; EIP = Ecosystem Investment Partners; EIR = environmental impact report; GHG = greenhouse gas; GPM = General Protection Measure; INVERT = Invertebrate; IWW = General In-Water Measures; MAM = Mammal; proposed Project = Tide's End Multibenefit Restoration Project; REP = Reptile; SPM = Species Protection Measure; SRGO = Statewide Restoration General Order; VHDR = Vegetation/Habitat Disturbance and Revegetation, and Herbicide Use; WQHM = Water Quality Hazardous Materials Source: Data compiled by Environmental Science Associates in 2026					

4.3 Final SRGO Program EIR General Protection Measures, Species Protection Measures, and Mitigation Measures Incorporated into the Proposed Project

4.3.1 Final SRGO Program EIR General Protection Measures Applicable to the Proposed Project

- ◆ **GPM-1: Receipt and Copies of All Permits and Authorizations:** Work will not begin until all necessary permits and authorizations have been received (e.g., USACE, USFWS, NMFS, State and Regional Boards, CDFW). The project proponent will ensure that a readily available copy of the applicable agency permits and authorizations (e.g., USFWS Biological Opinion, NMFS Biological Opinion, Section 404 permit, etc.) is maintained by the construction foreman/manager on the project site for the duration of project activities.
- ◆ **GPM-2: Construction Work Windows.** Construction work windows may be required in order to avoid impacts to aquatic resources and associated beneficial uses during the wet season. Project proponents must also follow the applicable Regional Board's construction work windows, unless otherwise approved.
- ◆ **GPM-3: Construction Hours.** Construction activities will generally be limited to daylight hours, to the extent feasible. If nighttime construction is necessary, including in tidally influenced waters where tides may limit daylight access and work schedules, all project lighting (e.g., staging areas, equipment storage sites, roadway, and construction footprint) will be selectively placed and directed onto the roadway or construction site and away from aquatic habitats. Light glare shields will be used to reduce the extent of illumination into aquatic habitats. If the work area is near surface waters, the lighting will be shielded so that it does not shine directly into the water.
- ◆ **GPM-4: Environmental Awareness Training.** For projects occurring in aquatic resources (e.g., wetlands, riparian areas, etc.), prior to engaging existing or new personnel in construction activities, new construction personnel will participate in environmental awareness training conducted by an agency-approved biologist or resource specialist. Construction personnel will be informed regarding the identification, potential presence, legal protections, avoidance and minimization measures, and applicable general protection measures for all aquatic resources with the potential to occur within or immediately adjacent to the project site. Construction personnel will be informed of the procedures to follow should aquatic resources be disturbed during construction activities. For projects where the agency-approved biologist or resource specialist is not regularly on the project site, training may be provided via online/web-based meeting with an interactive portion (e.g., web-based or in-person discussion) to be included during remote training sessions. For projects that may continue over an extended duration and require excessive training events, a training video developed under the supervision of the FWS-approved biologist or resource specialist may be used to train new personnel, as long as an FWS-approved biologist or resource specialist is available via phone to answer questions about the training or that may arise during construction.
- ◆ **GPM-5: Environmental Monitoring.** As required in the NOA a resource specialist will ensure that all applicable protective measures are implemented during project construction. The resource specialist will have authority to stop any work if they determine that any permit requirement is not fully implemented. The resource specialist will prepare and maintain a monitoring log of construction site conditions and observations, which will be kept on file.

- ◆ **GPM-6: Work Area and Speed Limits.** Construction work and materials staging will be restricted to designated work areas, routes, staging areas, temporary interior roads, or the limits of existing roadways. Prior to initiating construction or grading activities, brightly colored fencing or flagging or other practical means will be erected to demarcate the limits of the project activities, including the boundaries of designated staging areas; ingress and egress corridors; stockpile areas for spoils disposal, soil, and materials; and equipment exclusion zones. Flagging or fencing will be maintained in good repair for the duration of project activities. Vehicles will obey posted speed limits on public roadways and will limit speeds to 20 miles per hour (mph) within the project area on unpaved surfaces and unpaved roads (to reduce dust and soil erosion) or in areas where special-status species have the potential to occur. Speeds greater than 20 mph may be permitted in the project area where special-status species are not expected to occur (e.g., within areas from which special-status species have been excluded) and where there is no risk of generating excessive dust (e.g., surfaces are paved, saturated, or have been treated with other measures to prevent dust).

- ◆ **GPM-7: Environmentally Sensitive Areas.** Monitoring, flagging, or fencing will be used, where appropriate, to minimize disturbance to environmentally sensitive areas (e.g., waters and wetlands).

If fencing is used:

- Fencing used must be approved by CDFW and/or USFWS for compatibility with species under their jurisdiction, as applicable, that may occur on site.
 - The agency-approved biologist or resource specialist will determine the location of fencing prior to the start of construction (e.g., between active work area(s) and sensitive resources).
 - Fencing will remain in place throughout the duration of the construction activities and will be inspected regularly by the agency-approved biologist or resource specialist and maintained by Project Proponent until completion of the project.
 - Repairs to the fencing will be made within 24 hours of discovering any failure.
 - Fencing will be removed when all construction equipment is removed from the site, the area is cleared of debris and trash, and the area is returned to natural conditions.
- ◆ **GPM-8: Prevent Spread of Invasive Species.** The spread or introduction of invasive exotic plant species by arriving vehicles, equipment, imported gravel, and other materials, will be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project areas will be removed and properly disposed of in a manner that will not promote their spread. Equipment will be cleaned of any sediment or vegetation at designated wash stations before entering or leaving the project area to avoid spreading pathogens or exotic/invasive species. Isolated infestations of noxious weeds identified in the project area will be treated with approved eradication methods at an appropriate time to prevent further formation of seed and destroy viable plant parts and seed. Wash sites must be in confined areas that limit run-off to any surrounding habitat and on a flat grade. Upland areas will use rice straw or invasive species-free local slash/mulch for erosion control, while the remainder of the project area will use certified, weed-free erosion control materials. Mulch must be certified weed-free. The project proponent will follow the guidelines in the CDFW's California Aquatic Invasive Species Management Plan (CDFW 2008) and Aquatic Invasive Species Disinfection/Decontamination Protocols (CDFW 2016), where relevant. Construction supervisors and managers will be educated on weed identification and the importance of controlling and preventing the spread of noxious weeds. The project proponent will follow any applicable local guidance to prevent the spread of invasive animal species. Construction supervisors and managers will be responsible for implementation of

appropriate protocols (e.g., disinfection of equipment and footwear) to prevent the spread of invasive animals.

- ◆ **GPM-9: Practices to Prevent Pathogen Contamination.** The project proponent will review and implement restoration design considerations and best management practices as published by the Working Group for *Phytophthoras* in Native Habitats (www.calphytos.org), when there is a risk of introduction and spread of plant pathogens in site plantings. (<http://www.suddenoakdeath.org/welcome-to-calphytos-org-phytophthoras-in-native-habitats/resources/#restoration>.)
- ◆ **GPM-10: Equipment Maintenance and Materials Storage.** Vehicle traffic will be confined to existing roads and the proposed access route(s). All machinery must be in good working condition, showing no signs of fuel or oil leaks. Oil, grease, or other fluids will be washed off at designated wash stations prior to equipment entering the construction site. Inspection and evaluation for the potential for fluid leakage will be performed daily during construction. Where possible, and where it would not result in greater impact to aquatic resources, no equipment refueling, or fuel storage will take place within 100 feet of a body of water. All fuel and chemical storage, servicing, and refueling will be done in an upland staging area or other suitable location (e.g., barges) with secondary containment to prevent spills from traveling to surface water or drains. Project proponents will establish staging areas for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies. Staging areas will have a stabilized entrance and exit and will be located in upland areas to the extent possible and at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback or would result in further damage to sensitive resources, in which case the maximum setback possible will be used. Fluids will be stored in appropriate containers with covers and properly recycled or disposed of offsite. Machinery stored on site will have pans or absorbent mats placed underneath potential leak areas as a precautionary measure to further reduce the potential for impact from an unintended or previously undetectable leak.
- ◆ **GPM-11: Material Disposal.** All refuse, debris, unused materials, and supplies that cannot reasonably be secured will be removed daily from the project work area and deposited at an appropriate disposal or storage site. All construction debris will be removed from the project work area immediately upon project completion. The Water Quality and Hazardous Materials measures (below), will be implemented as applicable to ensure proper handling and disposal of hazardous materials.
- ◆ **GPM-12: Fugitive Dust Reduction.** To reduce dust, construction vehicles will be speed restricted as described in GPM-6, *Work Area and Speed Limits* when traveling on non-paved surfaces. Stockpiled materials susceptible to wind-blown dispersal will be covered with plastic sheeting or other suitable material to prevent movement of the material. During construction, water (e.g., trucks and portable pumps with hoses) or other approved methods will be used to control fugitive dust, as necessary. Dust suppression activities must not result in a discharge to waters of the state unless such discharges are approved by the State or Regional Board.
- ◆ **GPM-13: Trash Containment and Removal.** During project activities all trash will be properly contained within sealed containers and removed from the work site and disposed of as necessary to maintain a trash-free work area (e.g., trash containers will not be used beyond capacity and fully close/seal).
- ◆ **GPM-14: Project Cleanup after Completion.** Work pads, temporary falsework, and other construction items will be removed from the 100-year floodplain by the end of the construction window. Removal of materials must not result in discharge to waterbodies.

- ◆ **GPM-15: Revegetate Disturbed Areas.** All temporary disturbed areas will be de-compacted and seeded/planted with an assemblage of native riparian, wetland, and/or upland plant species suitable for the area. The project proponent will develop a revegetation plan, including (as applicable) a schedule; plans for grading of disturbed areas to pre-project contours; planting palette with plant species native to the project area; invasive species management; performance standards; success criteria; and maintenance requirements (e.g., watering, weeding, and replanting). Plants for revegetation will come primarily from active seeding and planting; natural recruitment may also be proposed if site conditions allow for natural recruitment to reestablish vegetation and avoid potential negative risks associated with erosion and impacts to water quality. Plants imported to the restoration areas will come from local stock, and to the extent possible, local nurseries. Only native plants (genera) will be used for restoration efforts. Certified weed-free native mixes and mulch will be used for restoration planting or seeding. Revegetation activities within and adjacent to waters of the state will commence as soon as is practicable after construction activities at a site are complete.

Staging and Stockpiling of Materials

- ◆ **WQHM-1: Staging Areas and Stockpiling of Materials and Equipment.** Staging, storage, and stockpile areas must be outside of waters of the state. To the extent feasible, staging will occur on access roads or other previously disturbed upland areas, such as developed areas, paved areas, parking lots, areas with bare ground or gravel, and areas clear of vegetation, to avoid aquatic habitats and limit disturbance to surrounding habitats. Similarly, all maintenance equipment and materials (e.g., road rock and project spoil) will be restricted to the existing service roads, paved roads, or other determined designated staging areas. See GPM-10 for more details regarding protection measures for materials storage.

Staging areas will be established for equipment storage and maintenance, construction materials, fuels, lubricants, solvents, and other possible contaminants in coordination with resource agencies. Staging areas will have a stabilized entrance and exit and will be located at least 100 feet from bodies of water unless site-specific circumstances do not provide such a setback, in such cases the maximum setback possible will be used. If an off-road site is chosen and if special-status species are potentially present, the Biological Monitor will survey the selected site to verify that no aquatic resources would be disturbed by staging activities.

Stockpiling of materials, portable equipment, vehicles and supplies (e.g., chemicals), will be restricted to the designated construction staging areas. If rain is predicted in the forecast during the dry season, and stockpiled soils will remain exposed and unworked for more than 7 days, then erosion and sediment control measures must be used. If there is a high-wind scenario (to be defined by the approving Water Board as appropriate for an individual project site), then soils will be covered at all times. During the wet season, no stockpiled soils will remain exposed, unless properly installed and maintained erosion and sediment controls are in place on and around the stockpile. Temporary stockpiling of material onsite will be minimized. Stockpiled material will be placed in upland areas far enough away from aquatic habitats that these materials cannot discharge to a water of the state.

Erosion and Sedimentation Control Measures

- ◆ **WQHM-2: Storm Water Pollution Prevention Plan.** All projects covered by the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) will prepare and implement the required, site-specific, storm water pollution prevention plan (SWPPP).

- ◆ **WQHM-3: Erosion and Sediment Control Measures.** For projects that do not require coverage under a NPDES permit per GPM WQHM-2, the project proponent will develop and implement erosion and sediment control measures (or plan), which will include appropriate BMPs to reduce the potential release of water quality pollutants to receiving waters. BMPs may include the following measures:
 - Employ tackifiers, soil binders, or mulch as appropriate for erosion control.
 - Install sediment control measures, such as straw bales, silt fences, fiber rolls, or equally effective measures, at repair areas adjacent to stream channels, drainage canals, and wetlands, as needed. Sediment control measures will be monitored during and after each storm event for effectiveness. Modifications, repairs, and improvements to sediment control measures will be made as needed to protect water quality.
 - No sediment control products will be used that include synthetic or plastic monofilament or cross-joints in the netting that are bound/stitched (such as straw wattles, fiber rolls, or erosion control blankets), and which could trap snakes, amphibians, and other wildlife.

Other Water Quality Measures

- ◆ **WQHM-4: Hazardous Materials Management and Spill Response Plan.** As part of the SWPPP or Erosion Control Plan (WQHM-2 and WQHM-3), project proponent will prepare and implement a hazardous materials management and spill response plan. Project proponent will ensure that any hazardous materials are stored at the staging area(s) with an impermeable membrane between the ground and hazardous material and that the staging area is designed to prevent the discharge of pollutants to groundwater and runoff water. Project proponent will stop work, follow the spill response plan, and arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills. (See WQHM-6. *Accidental Discharge of Hazardous Materials* for accidental discharges of a reportable quantity of a hazardous material, sewage, or an unknown material.) Project proponent will notify regulatory agencies within 24 hours of any leaks or spills. Project proponent will properly contain and dispose of any unused or leftover hazardous products off-site. Project proponent will use and store hazardous materials, such as vehicle fuels and lubricants, in designated staging areas located away from stream channels and wetlands, according to local, state, and federal regulations, as applicable. Also see GPM-10: *Equipment Maintenance and Materials Storage* for more detail on spill prevention.
- ◆ **WQHM-5: In-Water Concrete Use.** A dewatering plan must be submitted and approved by State and/or Regional Boards for in-water concrete use. Where possible, poured concrete should be excluded from contact with surface or groundwater during initial curing, ideally for 30 days after it is poured. During that time, runoff from the concrete will not be allowed to enter surface or groundwater. If this is not feasible due to expected flows and site conditions, commercial sealants that are non-toxic to aquatic life may be applied before it comes into contact with flowing water. Only sealants that have been tested and found non-toxic to freshwater aquatic life, including benthic macro-invertebrates, may be used on concrete surfaces that could come into contact with flowing water. Concrete is considered to be cured when water poured over the surface of concrete consistently has a pH of less than 8.5. (Note: Demonstration of nontoxicity to aquatic life may be evaluated by measuring survival of test organisms in a 96-hour bioassay. The bioassay should be performed according to the most up-to-date protocols in 40 C.F.R. part 136, currently *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms*, 5th Edition (EPA-821-R-02-012), including sample collections, handling, and preservation per U.S. EPA protocols).

- ◆ **WQHM-6: Accidental Discharge of Hazardous Materials.** Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

As soon as (A) discharger has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:

- first call – 911 (to notify local response agency)
- then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
- Lastly, follow the required OES procedures as set forth in:
http://www.caloes.ca.gov/FireRescueSite/Documents/CalOESSpill_Booklet_Feb2014_FINAL_BW_Acc.pdf

Following notification to OES, the discharger will notify the State or Regional Board (and other agencies requiring notification in their respective permits), as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

General In-Water Measures

- ◆ **IWW-1: Appropriate In-Water Materials.** Selection and use of gravels, cobble, boulders, and instream woody materials in streams, and other materials (e.g., oyster shells, other substrates) for reef/bed restoration will be performed to avoid and/or minimize adverse impacts to aquatic resources, special-status aquatic species, and their habitats. On-site gravels will be screened and sorted; gravels imported from a commercial source will be clean-washed and of appropriate size. As necessary to protect aquatic species, placement will be overseen by an agency-approved Monitor; implementation timing will be determined based on the least amount of overlap, or impact on, all aquatic natural resources that may be affected and the timing of their use of the receiving area. Imported gravel from outside the project watershed will not be from a source known to contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings. Materials that may foul or degrade spawning gravels, such as sand or soil eroding from sand bag or earthen dams will be managed to avoid release and exposure in salmonid streams. Oyster shells or other substrates for reef/bed restoration will be cured and inspected to be free of pathogens and/or non-native species.
- ◆ **IWW-2: In-Water Vehicle Selection and Work Access.** If work requires that equipment enter wetlands or below the bank of a waters of the state, equipment with low ground-pressure (typically less than 13 to 20 pounds per square inch (psi)) should be selected where feasible to minimize soil compaction. Low ground-pressure heavy equipment mats should be used if needed to lessen soil compaction. Hydraulic fluids in mechanical equipment working in the waters of the state, will not contain organophosphate esters. Vegetable based hydraulic fluids are preferred, where feasible. The amount of time this equipment is stationed, working, or traveling in the waters of the state will be minimized. All equipment will be removed from the aquatic feature during non-work hours where appropriate or returned to the agency-approved staging area in the aquatic feature.
- ◆ **IWW-3: In-Water Placement of Materials, Structures, and Operation of Equipment.** Material used for bank stabilization or in-water restoration will minimize discharge sediment or other forms of waste to waters of the state. Where feasible, construction will occur from the top

of the stream bank, or on a ground protection mat underlain with filter fabric, or a barge. All materials placed in streams, rivers or other waters will be nontoxic. Any combination of wood, plastic, cured concrete, steel pilings, or other materials used for in-channel structures will not contain coatings or treatments, or consist of substances toxic to aquatic organisms (e.g., zinc, arsenic, creosote, copper, other metals, pesticides, or petroleum-based products) that may leach into the surrounding environment in amounts harmful to aquatic organisms. Except for the following conditions, equipment must not be operated in standing or flowing waters without site-specific approval from State or Regional Board staff:

- All construction activities must be effectively isolated from water flows to minimize the potential for runoff. This may be accomplished by working in the dry season or dewatering the work area in the wet season.
- When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities.
- All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or divert the water flow (e.g., coffer dam or geotextile silt curtain) must not be removed until all disturbed areas are stabilized.
- ♦ **IWW-4: In-Water Staging Areas and Use of Barges.** Where appropriate and practical, barges will be used to stage equipment and construct the project, while reducing noise, traffic disturbances and effects to terrestrial vegetation. When barge use is not practical, construction equipment and project materials may be staged in designated agency-approved staging areas. Existing staging sites, maintenance toe roads, and crown roads will be used to the maximum extent possible for project staging and access to avoid affecting previously undisturbed areas. For projects that involve in-water work for which boats and/or temporary floating work platforms are necessary, buoys will be installed so that moored vessels will not beach on the shoreline and anchor lines will not drag. Moored vessels and buoys will not be within 25 feet of vegetated shallow waters.

Dewatering Activities and Aquatic Species Relocation

- ♦ **IWW-6: Dewatering/Diversion.** The area to be dewatered will encompass the minimum area necessary to perform construction activities. The project proponent will provide a dewatering plan with a description of the proposed dewatering structures, and appropriate types of BMPs for the installation, operation, maintenance, and removal of those structures. The period of dewatering/diversion will extend only for the minimum amount of time needed to perform the restoration activity and to allow special-status species time to leave on their own before final clearance surveys and construction can begin. Where feasible and appropriate, dewatering/diversion will occur via gravity-driven systems, and where water is pumped from within the construction area, it should be pumped to upland areas (where feasible) and to a location where it can infiltrate without return flows to the watercourse. Dewatering/diversion will be designed to avoid direct and preventable indirect mortality of fish and other aquatic species. If special-status fish species may be present in the area to be dewatered, a fish capture and relocation plan will be developed and implemented for review and approval by appropriate agencies (e.g., CDFW, NMFS, USFWS, as applicable). Stream flows will be allowed to gravity flow around or through the work site using temporary bypass pipes or culverts. Bypass pipes will be sized to accommodate, at a minimum, twice the expected construction-period flow, to not increase stream velocity, and will be placed at stream grade. Conveyance pipe outlet energy dissipaters will be installed to prevent scour and turbidity at the discharge location. When use of gravity-fed

dewatering is not feasible and pumping is necessary to dewater a work site, a temporary siltation basin and/or use of silt bags may be required. Silt fences or mechanisms to avoid sediment input to the flowing channel will be installed adjacent to flowing water. Water pumped or removed from dewatered areas will be conducted in a manner that does not contribute turbidity to nearby receiving waters. Where possible, pumps will be refueled in an area well away from the stream channel. Fuel absorbent mats will be placed under the pumps while refueling. Equipment working in the stream channel or within 25 feet of a wetted channel will have a double (i.e., primary and secondary) containment system for diesel and oil fluids.

All work will comply with the CDFW Fish Screening Criteria (CDFW 2001) and NMFS Fish Screening Criteria for Anadromous Salmonids (NMFS 1997). Pump intakes will be covered with mesh per the requirements of current fish screening criteria to prevent potential entrainment of fish or other aquatic species that could not be removed from the area to be dewatered. The pump intake will be checked periodically for impingement of fish or other aquatic species. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Pre-project flows must be restored to the affected surface water body upon completion of work at that location. Where diversions are planned, contingency plans will be developed that include oversight for breakdowns, fueling, maintenance, leaks, etc.

- ◆ **IWW-7: Fish and Aquatic Species Exclusion While Installing Diversion Structures.** Fish and other aquatic species will be excluded from occupying the area to be dewatered by blocking the stream channel above and below the area to be dewatered with fine-meshed block nets or screens while coffer dams and other diversion structures are being installed. Block net mesh will be sized to ensure aquatic species upstream or downstream do not enter the areas proposed for dewatering. Mesh will be no greater than 1/8-inch diameter. The bottom of the net must be completely secured to the channel bed. Block nets or screens must be checked at least twice daily at the beginning and end of the workday and cleaned of debris to permit free flow of water. Block nets or screens will be placed and maintained throughout the dewatering period at the upper and lower extent of the areas where aquatic species will be removed. Net placement is temporary and will be removed once dewatering has been accomplished or construction work is complete for the day.
- ◆ **IWW-8: Removal of Diversion and Barriers to Flow.** Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance to the substrate and consideration of turbidity levels. Alteration of creek beds will be minimized to the maximum extent possible; any imported material that is not part of the project design will be removed from stream beds upon completion of the project.

In-water Pile Driving and Pile Replacement

- ◆ **IWW-9: In-Water Pile Driving Plan for Sound Exposure.** Project proponents will develop a plan for pile-driving activities to minimize impacts to special-status species and submit it to relevant agencies for approval prior to the start of in-water pile driving activities. Measures will be implemented to minimize underwater sound pressure to levels below fish thresholds for peak pressure and accumulated sound exposure levels. Thresholds levels for special-status fish under NMFS jurisdiction are established in the Fisheries Acoustic Work Group's Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities (FAWG 2008) and may be used as a guideline for special-status fish. The plan will describe the least impactful method to aquatic organisms, and will identify the number, type, and size of piles, estimated sound levels caused by the driving, how many piles will be driven each day, qualifications of monitors, any other relevant details on the nature of the pile driving activity, and the actions that will be taken to ensure a project stays within the required sound exposure thresholds.

- ◆ **IWW-10: In-Water Pile Driving Methods.** Pile driving will occur during approved work windows with reduced currents and only during daylight hours. Pile driving will be conducted with vibratory or low/nonimpact methods (i.e., hydraulic) that result in sound pressures below threshold levels to the extent feasible. Applied energy and frequency will be gradually increased until necessary full force and frequency are achieved. If it is determined that impact hammers are required and/or underwater sound monitoring demonstrates that thresholds are being exceeded, the contractor will implement sound dampening or attenuation devices to reduce levels to the extent feasible; these may include the following:

- A cushioning block used between the hammer and pile.
- Use of a confined or unconfined air bubble curtain.
- If feasible, pile driving could be done in the dry area (dewatered) behind the cofferdam.

Pile driving will follow the criteria outlined in the most recent version of the California Department of Transportation's *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish* (Caltrans 2015).

- ◆ **IWW-11: Sediment Containment during In-Water Pile Driving.** Caissons or a continuous length of silt curtain, fully surrounding the pile driving area and installed in close proximity to piers, must be used as necessary and as practicable to protect aquatic resources and to provide sediment containment while construction activities are occurring if working in a wetted channel. The silt curtain will prevent the release of a turbidity plume and trap sediment that may become suspended as a result of the pile driving. The bottom of the silt curtains must be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen its tendency to move in response to currents. Where feasible and applicable, the floating silt curtains must be anchored and deployed from the surface of the water to just above the substrate. The silt curtain must be monitored for damage, dislocation or gaps and must be immediately repaired where it is no longer continuous or where it has loosened. The silt curtain must restrict the surface visible turbidity plume to the area of pile construction and must control and contain the migration of re-suspended sediments at the water surface and at depth.
- ◆ **IWW-12: Pile-driving Monitoring.** An agency-approved biologist will be on site during pile-driving activities to minimize effects to special-status species that could be present. If any stranding, injury, or mortality to special-status species is observed, federal and state wildlife agencies will be notified in writing (e.g., via email) within 24 hours and in-water pile driving will cease until the applicable federal and/or state agencies provide guidance on how to proceed.

Dredging Operations and Dredge Materials Reuse

- ◆ **IWW-13: Dredging Operations and Dredging Materials Reuse Plan.** Project proponent will develop and implement a dredging operations and dredging materials management plan to minimize the effects that could occur during dredging operations and material reuse and disposal. If material is being imported from off-site or if there are specific concerns about residual contaminants in the soil from historic land use activities (which can be determined on a site-specific basis in collaboration with the approving Water Board), the plan will describe a sampling program for conducting physical and chemical analyses of sediments before import and/or disturbance. It will also describe BMPs to be implemented during dredging operations (e.g., using less intrusive dredging procedures, properly containing dredging spoils and water, using silt curtains, methods to minimize turbidity, and timing dredging activity to coincide with low flows). The plan also will describe methods to evaluate the suitability of dredged material for reuse and disposal.

Vegetation/Habitat Disturbance and Revegetation

- ◆ **VHDR-1: Avoidance of Vegetation Disturbance.** The project proponent will minimize, to the greatest extent feasible, the amount of soil, terrestrial vegetation, emergent native vegetation, and submerged vegetation (e.g., submerged aquatic vegetation in brackish and freshwater areas) disturbed during project construction and completion and using methods creating the least disturbance to vegetation. Disturbance to existing grades and native vegetation, the number of access routes, the size of staging areas, and the total area disturbed by the project will be limited to the extent of all temporary and permanent impacts as defined by the final project design. All roads, staging areas, and other facilities will be placed to avoid and limit disturbance to waters of the state and other aquatic habitats (e.g., streambank or stream channel, riparian habitat) as much as possible. When possible, existing ingress or egress points will be used and/or work will be performed from the top of the creek banks or from barges on the waterside of the stream or levee bank, or dry gravel beds. Existing native vegetation will be retained as practicable, emphasizing the retention of shade-producing and bank stabilizing trees and brush with greater than 6-inch diameter branches or trunks. Where possible, vegetation disturbance and soil compaction will be minimized by using low ground-pressure (typically less than 13 to 20 pounds psi) equipment that exerts less pressure per square inch on the ground than other equipment. To minimize impacts to vegetation, select equipment with a greater reach.
- ◆ **VHDR-2: Native and Invasive Vegetation Removal Materials and Methods.** If riparian vegetation is to be removed with chainsaws or other power equipment, machines that operate with vegetable-based bar oil will be used, as practicable. All invasive plant species (e.g., those rated as invasive by the California Invasive Plant Council or local problem species) will, if feasible, be removed from the project site, using locally and routinely accepted agriculture practices. Invasive plant material will be destroyed using approved protocols and disposed of at an appropriate upland disposal or compost area. Invasive plant materials stockpiled at sites known to experience flash flooding outside the flood season will be removed within 15 days of the initial creation of the stockpile in order to contain the potential spread of invasive plant material. Stockpiling of invasive plant materials is prohibited during the flood season.
- ◆ **VHDR-3: Revegetation Materials and Methods.** Upon completion of work, site contours will be returned to preconstruction conditions or to contours specified in a Water Board-approved project design that provides enhanced biological and hydrological functions. Where disturbed, topsoil will be conserved (and watered at an appropriate frequency) for reuse during restoration to the extent practicable. Native plant species comprising a diverse community structure (plantings of both woody and herbaceous species, if both are present) that follow an agency-approved plant palette will be used for revegetation of disturbed and compacted areas, as appropriate. See also GPM-15: Revegetate Disturbed Areas, which also allows for revegetation through natural recruitment (e.g., in tidal and managed wetlands and working landscapes where disturbed areas typically revegetate more quickly through natural recruitment than through seeding). Any area barren of vegetation as a result of project implementation will be restored to a natural state by mulching, seeding, planting, or other means with native trees, shrubs, willow stakes, erosion control native seed mixes, or herbaceous plant species following completion of project construction. Irrigation may also be required in order to ensure survival of containerized shrubs or trees or other vegetation, depending on rainfall. Soils that have been compacted by heavy equipment will be decompacted, as necessary, to allow for revegetation at project completion as heavy equipment exits the construction area.

- ◆ **VHDR-4: Revegetation Erosion Control Materials and Methods.** If erosion control fabrics are used in revegetated areas, they will be slit in appropriate locations as necessary to allow for plant root growth. Only non-monofilament, wildlife-safe fabrics will be used. All plastic exclusion netting placed around plantings will be removed after 2 years or sooner if practicable.
- ◆ **VHDR-5: Revegetation Monitoring and Reporting.** All revegetated areas will be maintained and monitored for a minimum of 2 years after replanting is complete and until success criteria are met, to ensure the revegetation effort is successful. The standard for success is at least 60% absolute cover compared to pre-project conditions at the project site or at least 60% cover compared to an intact, local reference site (or an available reference site accepted by the approving Water Board). If an appropriate reference site or pre-project conditions cannot be identified, success criteria will be developed for review and approval by the approving Water Board on a project-by-project basis based on the specific habitat impacted and known recovery times for that habitat and geography. The project proponent will prepare a summary report of the monitoring results and recommendations at the conclusion of each monitoring year.

Herbicide Use

- ◆ **VHDR-6: General Herbicide Use.** Chemical control of invasive plants and animals will only be used when consistent with water quality control plans (e.g., basin plans) and when other methods are determined to be ineffective or would create greater environmental impacts than chemical control. Chemical use will be evaluated on a project-by-project basis with consideration of (and preference given towards) integrated pest management (IPM) strategies wherever possible. See University of California Statewide IPM Program for guidance documents (<http://ipm.ucanr.edu/index.html>). Broadcast spraying, including the use of aerial drones, may be used if it provides greater application accuracy and access.

Chemical use is restricted in accordance with approved application methods and best management practices designed to prevent exposure to non-target areas and organisms. Any chemical considered for control of invasive species must be approved for use in California, adhere to all regulations per the California Environmental Protection Agency (CEPA 2011 or most recent version), and be applied by a licensed applicator under all necessary state and local permits. Use herbicides only in a context where all treatments are considered, and various methods are used individually or in concert to maximize the benefits while reducing undesirable effects and applying the lowest legal effective application rate, unless site-specific analysis determines a lower rate is needed to reduce non-target impacts. Treat only the minimum area necessary for effective control. Within 25 feet of any water of the state, only formulations approved by EPA and State Water Board for aquatic use will be utilized. Soil-activated herbicides can be applied as long as directions on the label are followed. Aquatic pesticides will be applied in compliance with NPDES order(s), where applicable (https://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/) or with authorization from the approving Water Board.

- ◆ **VHDR-7: Herbicide Application Planning.** Written chemical application recommendations should be provided by each project proponent from a certified Pest Control Advisor (PCA) (CEPA 2011). The PCA can ensure that legal, appropriate, and effective chemicals are used with appropriate methodologies. Field scouting must be done before application, and the licensed Applicator (CEPA 2011) must be on-site to lead all applications and will adhere to standard protection measures for application. Prior to field scouting or application, the PCA or licensed applicator, will receive Environmental Awareness Training (see GPM-4) for the project so that they are aware of special status species and habitats present at the project site.

- ◆ **VHDR-8: Herbicide Application Reporting.** The licensed applicator will keep a record of all plants/areas treated, amounts and types of herbicide used, and dates of application, and pesticide application reports must be completed within 24 hours of application and submitted to applicable agencies for review. Wind and other weather data will be monitored and reported for all application reports.

4.3.2 Final SRGO Program EIR Species Protection Measures Applicable to the Proposed Project

- ◆ **SPM-1: Preconstruction Surveys.** If special-status plants are present and/or special-status terrestrial animal species habitat is present (e.g., stationary habitat such as burrows, bird nests, cavities for bats, etc.), where appropriate, based on project-specific requirements, a qualified, agency-approved biologist with experience on the identification of all applicable life stages of the special-status species will conduct reconnaissance-level preconstruction surveys and implement additional measures, as appropriate, to protect the species from construction-related disturbance before work begins. The intent of the survey is to assess current species habitat and use locations in the project area immediately prior to construction. Special-status plant species surveys shall be conducted in the appropriate blooming period, as applicable, prior to the start of construction for proper plant identification. If construction activities cease for more than five consecutive days, and there is potential for special-status species to re-occupy the site, the agency-approved biologist will re-survey the project area and implement measures, as appropriate. A project proponent can choose to assume animal species presence, forgo preconstruction surveys, and implement additional protection measures, as appropriate, to protect special status species from construction-related disturbance. Additional species guild-specific pre-construction requirements are described below and may supersede this general species protection measure, as applicable.
- ◆ **SPM-2: Environmentally Sensitive Areas and/or Wildlife Exclusion.** Monitoring, flagging, and/or fencing will be used to minimize disturbance to environmentally sensitive areas (e.g., waters and wetlands). This measure augments GPM-7 (Appendix E), which applies to sensitive aquatic resources.

If fencing is used:

- The agency-approved biologist or resource specialist will determine the location of the fencing prior to the start of construction (e.g., between active work area(s) and sensitive resources).
 - Fencing will remain in place throughout the duration of the construction activities, and will be inspected and maintained regularly by the agency-approved biologist or resource specialist until completion of the project.
 - Repairs to the fencing will be made within 24 hours of discovery.
 - Fencing will be removed when all construction equipment is removed from the site, and the area cleared of debris and trash, and returned to natural conditions.
- ◆ **SPM-3: Species Protection Construction Work Windows.** Construction work windows may be required, depending on whether or not the project involves in-water construction and/or whether special-status species have potential to occur onsite.
 - ◆ **SPM-4: Species Capture, Handling and Translocation.** Special-status species capture, handling, and translocation will only be conducted by an agency-approved biologist(s). Required

permitting will be needed prior to any capture, handling, and relocation. If translocation of special-status species is needed, the project proponent will prepare a special-status species translocation plan to be reviewed and approved by the agency(ies), as appropriate, prior to project implementation. The plan will include capture and translocation methods, translocation site, and post translocation monitoring, if applicable. If capture, handling, and translocation is necessary due to dewatering activities, refer to the protective measures for Dewatering Activities, under general protection measure IWW 6 and follow the agency-approved translocation plan.

- ◆ **SPM-5: Special-Status Species Entrapment Prevention.** All excavated, steep-walled holes or trenches will be covered with appropriate covers (e.g., thick metal sheets or plywood) at the end of each workday. Covers will be placed so that trench edges are fully sealed with rock bags, sand, or other appropriate material. Alternatively, one or more escape ramps such as fill dirt or wood planking will be installed at an angle no greater than 30 degrees, to allow wildlife to escape. Before holes or trenches are filled, sealed, or collapsed, the holes or trenches will be thoroughly inspected for trapped animals. Any animals discovered will be allowed to escape voluntarily or will be relocated by an agency-approved biologist.
- ◆ **SPM-6: Airborne Noise Reduction.** Equipment, including noise abatement systems, will be maintained in good working order. If construction noise has the potential to adversely affect special-status species, the project proponent will include site specific measures for construction activities to minimize impacts. Muffler (or spark arrester) damage must be promptly remedied, to the degree practicable, to meet sound attenuation standards.
- ◆ **REP-1: Pre-Construction Survey.** An agency-approved biologist will conduct pre-construction surveys for the target reptile species within 72 hours prior to any initial ground disturbance within all suitable habitat within or adjacent to the project site and accessible to the project proponent, to identify locations where special-status reptiles may be present, evaluate current activity status in the project area, and protect the species and its habitat from avoidable construction-related disturbance. The intent of this survey is to assess current special-status reptile habitat and use locations in the project area immediately prior to construction. Preconstruction surveys may be phased across a construction site if construction in different areas will occur at different times; only areas where disturbance is imminent need be surveyed. The project area will be re-inspected by the agency-approved biologist whenever a lapse in construction activity of 5 days or greater has occurred.
- ◆ **REP-2: Environmentally Sensitive and Wildlife Exclusion Area.** Prior to the start of construction, SPM-2, *Environmentally Sensitive and Wildlife Exclusion* will be implemented. In addition, the following applies:
 - For the giant garter snake, fencing and/or monitoring will be implemented in coordination with the agency-approved biologist prior to the start of ground-disturbing activities.

If fencing is used the fencing will be inspected by the agency-approved biologist before the start of each work day and maintained by the project proponent until completion of the project. The fencing will be removed after all construction equipment is removed from those segments of the project. To prevent reptiles from becoming entangled, trapped, or injured, fencing materials that use plastic or synthetic monofilament netting will not be used. Acceptable materials include natural fibers such as jute, coconut, twine, or other similar fibers.

- ◆ **REP-3: Clearing and Grubbing Vegetation.** An agency-approved biologist will be present during all vegetation clearing and grubbing activities in areas where the special status reptiles are confirmed to occur, or where measures are being implemented based on presence of suitable

habitat. Prior to vegetation removal, the agency-approved biologist will thoroughly survey the area for these species. Vegetation in sensitive areas will be cleared by handheld motorized tools (e.g., weed eaters, chainsaws) or hand pulling unless alternate methods are proposed by the project proponent and approved by agency(ies). Tree stumps and roots will be left in place where possible to avoid any ground disturbance and preserve refugia habitat, with the exception of non-native invasive plants that could propagate from remaining vegetative material. Native branches, leaf litter, mulch, woody debris, and other vegetative trimmings may be retained and spread on site to enhance habitat as appropriate.

- ◆ **REP-4: Prohibited Use of Rodenticides.** No rodenticides will be used at the project site during construction in areas that support suitable habitat for special-status reptiles.
- ◆ **REP-5: Species Observations and Encounters.** Each proposed project with the potential to encounter a special-status reptile species will submit a rescue and relocation plan to agency(ies) for review and approval prior to initiating construction. General guidance to be considered during plan development is as follows: 1) leave the uninjured animal if it is not in danger, or 2) move the animal to a nearby location if it is in danger as described in REP-6, *Species Handling and Relocation*, below. These options are further described as follows:
 - When a special-status reptile is encountered in the project area, the priority is to stop all activities in the surrounding area that have the potential to result in the harm, injury, or death of the individual. The agency-approved biologist then needs to assess the situation to select the course of project that will minimize adverse effects to the individual.
 - Avoid contact with the animal and allow it to move out of the project footprint and hazardous situation on its own to a safe location. This guidance only applies to situations where an animal is encountered while moving through habitat and under conditions that will allow it to escape. This does not apply to animals that are uncovered or otherwise exposed or in areas where there is not enough adjacent habitat to support the life history of the special-status reptiles if they move outside the construction footprint.
 - Avoidance is the preferred option if the animal is not moving or is within some sort of burrow or other refugia. In this case, the area will be well marked for avoidance by construction and an agency-approved biologist will be assigned to the area when work is taking place nearby. If avoidance is not practicable or safe for the special-status reptile, the project proponent will implement REP-6, below.
- ◆ **REP-6: Species Handling and Relocation.** A special-status reptile will only be captured and relocated when it is the only option to prevent its death or injury, and after all attempts to avoid interaction of the species have been exhausted as described in REP-6, *Species Observation and Encounters*. Project-specific rescue and relocation plans will be approved by the agency(ies) prior to starting construction. General guidance for handling and relocation is as follows:
 - If appropriate habitat is located immediately adjacent to the capture location, then the preferred option is short distance relocation to that habitat. A snake will not be moved outside of the area where it could have traveled on its own. Captured snakes will be released in appropriate cover as close to their capture location as possible for their continued safety. Under no circumstances will an animal be relocated to another property without the owner's written permission. It is the project proponent's responsibility to arrange for that permission.

- The release locations must be pre-identified in the project-specific rescue and relocation plan approved by the agency(ies); they will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow, other suitable refugia, or suitable habitat.
- Only agency-approved biologists for the project can capture special-status reptiles.
- ◆ **BIRD-1: Habitat Assessment.** A habitat assessment will be conducted by a qualified biologist to determine whether suitable habitat (e.g., including foraging, nesting, and dispersal habitat) for the special-status bird(s) occurs in the project area, as applicable. If suitable habitat for special-status species is identified in the project area and the proposed project may affect suitable habitat, the project proponent will implement measures BIRD-2 through 5 in areas with suitable habitat. Alternatively, the project proponent may propose to conduct surveys and/or monitoring to confirm presence or absence of the species.
- ◆ **BIRD-2: Nest Protection Work Window.** Project activity in known or potentially occupied migratory bird habitat will be conducted outside of the nesting season to the maximum extent practicable. If project activities must occur during the nesting season see BIRD-5.
- ◆ **BIRD-3: Work Area Limits.** Work site boundaries in suitable habitat will be clearly marked with flagging or other visible materials, which will be removed at the conclusion of the project.
- ◆ **BIRD-4: Site Access Restrictions.** If the site conditions allow, access to work sites in occupied habitat will be by foot travel, otherwise heavy equipment will be allowed within suitable nesting habitats only with the presence of an agency-approved biologist. Access routes and work areas will be limited to the minimum amount necessary to achieve the project goals.
- ◆ **BIRD-5: Monitoring.** If project activities must occur during the nesting season, pre-construction nest surveys will be conducted by an agency-approved biologist, buffers will be established to protect active nests, and disturbance in the vicinity of active nests will be monitored to ensure that it does not disrupt an active nest.
- ◆ **FISH-1: Habitat Disturbance Avoidance and Minimization.** Disturbance to aquatic habitat for special-status fish species will be avoided and/or minimized to the maximum extent practicable unless the purpose of the project is to provide overall benefits to the species and the benefits are greater than any temporary impacts to habitat.
- ◆ **FISH-2: Habitat Assessment and Surveys.** For projects that may result in impacts to aquatic habitat within the range of special-status fish species, no less than 30 days prior to construction of the project, the project proponent will evaluate the potential for special-status fish species to be present in the project area. The evaluation may be based on existing information if sufficiently available, or the project proponent may conduct a habitat assessment or focused survey for those species, if appropriate. The habitat assessment and/or survey will be conducted in potentially suitable aquatic habitat within 300 feet of the project area. The agency-approved biologist will conduct the habitat assessment and/or fish survey and will adhere to the standards provided in the CDFW *California Salmonid Stream Habitat Restoration Manual 4th Edition Volume I: Section IV* (CDFW 2010) or most current regulatory agency guidance document. If special-status fish species are observed during the survey or the habitat is otherwise potentially occupied, based on the results of the habitat assessment or existing information, the project proponent will implement FISH-3, *Fish Capture and Relocation*, as described below.

- ◆ **FISH-3: Fish Capture and Relocation.** For projects that require dewatering or other work in suitable habitat for the special-status fish species, if fish capture and relocation would be the most protective approach to managing fish during construction, then a fish capture and relocation plan will be developed and submitted to NMFS, USFWS, and/or CDFW, as applicable, for approval. The plan will describe the biologist qualifications, capture methods, capture and relocation work areas, and reporting requirements including details in the list below. If capture and relocation is not feasible or would not be the most protective approach to managing fish in the work area (e.g., if dewatering is not needed or appropriate; or if fish are in a large, unconfined water body), other methods to protect covered fish species (e.g., timing restrictions around season and tide, or bubble curtains) should be detailed in a plan and submitted to FWS for approval.
 - This plan will incorporate the latest agency guidance relating to the capture and relocation of fish, as applicable.
 - Procedures for decontamination of any equipment used in the capture and relocation of fish will be identified.
 - Prior to the implementation of capture and relocation activities, relocation (or release) sites will be identified by the agency-approved biologist based on proximity, access, habitat suitability, and potential to be affected by construction-related disturbance. Suitable habitat for relocation site(s) will be within the same watershed/sub-watershed fish were originally captured.
 - Fish relocation will only be conducted (or led) by an agency-approved biologist. If an agency-approved biologist is needed, the project proponent will submit the biologist's qualifications to the appropriate agency office for approval 30 days prior to project construction. The biologist will have knowledge and experience in fish biology and ecology, fish/habitat relationships, and biological monitoring, and handling, collecting, and relocating fish or other relevant experience.
 - Residual surface water associated with the diverted or dewatered habitat will be monitored or sampled for the presence of fish by an agency-approved biologist as soon as the waters are isolated. If a special-status fish is observed in the isolated habitat, they will be immediately captured and relocated to the suitable habitat outside of the construction area, but within the same watershed/sub-watershed, by the agency-approved biologist in accordance with the approved fish capture and relocation plan.
 - The agency-approved biologist will relocate any special-status fish species that may become stranded to an appropriate place depending upon the life stage of the fish, consistent with the approved rescue and relocation plan.
 - The agency-approved biologist will note the number of individuals observed in the affected area, the number of individuals relocated, the approximate size of individuals, the location of capture and release, any instances of injury or mortality, and the date and time of the collection and relocation. The agency-approved biologist will also identify and record the species observed and relocated and the life stage for anadromous species. This information will be reported to the appropriate agency office within 7 days of completion of the fish capture and relocation effort.
 - One or more of the following methods will be used to capture protected fish species: electrofishing, dip net, seine, throw net, minnow trap, and hand capture.

- ◆ **FISH-4: Reporting.** An agency-approved biologist will provide a written summary of work performed (including biological survey and monitoring results), protection measures implemented (e.g., use of biological monitor, flagging of work areas, erosion and sedimentation controls) and supporting photographs of each stage to the appropriate agency office. Furthermore, the documentation describing surveys and relocation efforts (if appropriate) will be completed in accordance with the requirements of FISH-3: *Fish Capture and Relocation*.
- ◆ **PLANT-1: Habitat Assessment and Surveys.** If the project area can potentially support special-status plant species, an agency-approved biologist will conduct a survey for special-status plant species within 1 year prior to commencement of ground disturbing activities. Surveys should follow USFWS's *General Rare Plant Survey Guidelines* (USFWS 2002); and CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (2018) or their most recent equivalents.
- ◆ **PLANT-2: Seasonal Avoidance of Vernal Pool Plant Species and Other Annual and Perennial Species:**

For Vernal Pool Plant Species: Work within 250 feet of suitable special-status vernal pool plant habitat (e.g., vernal pools, seasonal wetlands) will be performed under dry site conditions to the maximum extent possible, to minimize potential adverse impacts to aquatic habitats. If any construction activities must occur during the wet period, exclusion fencing and erosion control materials will be placed around vernal pools and other seasonal wetlands as determined by the agency-approved biologist to reduce sedimentation into vernal pool habitat. The fencing will provide a buffer between construction activities and the vernal pools and other seasonal wetlands. The agency-approved biologist will oversee, monitor, inspect and maintain the exclusion fencing.

For Other Annual Plant Species: To avoid impacts to other annual species, schedule work to occur after plants have set seed and senesced, avoid soil disturbance, and avoid actions that have potential to reduce habitat quality.

- ◆ **PLANT-3: Exclusion Buffer Establishment.** An agency-approved biologist will clearly delineate with flagging or other field markers a minimum 50-foot avoidance buffer around all special-status plants or their suitable habitat. A larger exclusion buffer may be established if determined by the agency-approved biologist to be necessary for the protection of the special-status plants. No work activity will occur within the exclusion buffer, except as permitted under Measure PLANT-4, *Work Restrictions in the Exclusion Buffer*. Additionally, a buffer of at least 300 feet from any vernal pool, vernal pool grassland, or seasonal wetland will be established for the protection of special status plants.
- ◆ **PLANT-4: Work Restrictions in the Exclusion Buffer.** If agency-approved biologist determines that some work activities can take place within the exclusion buffer described in Measure PLANT-3 without causing any adverse direct or indirect impacts to special-status plants identified for avoidance, those approved work activities may be conducted within the exclusion buffer. Special-status vernal pool plants will be clearly marked by an agency-approved biologist prior to worker entry into the exclusion buffer. Workers may only enter the exclusion buffer when accompanied by an agency-approved biologist, and all work within the exclusion buffer will be monitored by an agency-approved biologist.
- ◆ **PLANT-6: Herbicide Application, Clearing, and Ground Disturbance.** If mechanical removal is not effective, or could damage sensitive habitats, limited herbicide application may occur as noted below and in accordance with General Protection Measures VHDR-6 through VHDR-8 (Appendix E), wind speed limitations during herbicide application.

- To avoid impacts to other special-status species (non-vernal pool species), the following protections will be applied:
 - Application of herbicide will occur during dry conditions (no precipitation), to the maximum extent practicable.
 - Backpack and hand-held herbicide application, if applied in dry conditions, is prohibited within 5 feet of any special-status plant. Protect special-status plants from herbicide drift (e.g., cover with plastic when spraying or use a wick applicator).
 - Broadcast and power spray herbicide application is prohibited; and
 - Ground disturbing activities are prohibited within 5 feet of senesced annual and perennial plants and within 10 feet of perennial plants. Ground disturbance should occur outside of the dripline of any woody species identified for avoidance.

4.3.3 Final SRGO Program EIR Mitigation Measures Applicable to the Proposed Project

◆ **Mitigation Measure AES-2: Avoid Effects of Project Lighting.**

Proposed lighting facilities shall use shields, and lighting shall be directed downward and inward toward the facilities.

◆ **Mitigation Measure AG-1: Minimize and Avoid Loss of Special Designation Farmland.**

The following measures shall be implemented before and during construction of restoration projects permitted under the Order to minimize and avoid loss of Special Designation Farmland, as applicable:

- Restoration projects shall be designed to minimize, to the greatest extent feasible, the loss of agricultural land with the highest values.
- Restoration projects that will result in permanent conversion of Special Designated Farmland shall preserve other Special Designation Farmland in perpetuity by acquiring an agricultural conservation easement, or by contributing funds to a land trust or other entity qualified to preserve Special Designation Farmland in perpetuity (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Special Designated Farmland to be converted, to compensate for the permanent loss).

Based upon the cost and availability of farmland, whether the landowner is sponsoring the project, recent (within 5 years) and ongoing farmland viability, and other factors, the CEQA lead agency for the individual restoration project should consider whether a 1:1 ratio is appropriate and feasible on a case-by-case basis. For example, contributions to a program such as the California Farmland Conservancy Program, which establishes conservation easements to preserve existing farmland in California, may be prohibitively expensive at a 1:1 ratio where there is a significant amount of affected Special Designated Farmland because it is based on a farm real estate average value per acre. For example, the farm real estate average value per acre in 2019 was \$10,000 (USDA 2019).

- Restoration project features shall be designed to minimize fragmentation or isolation of Special Designation Farmland. Where a project involves acquiring land or easements, the remaining non-project area shall be of a size sufficient to allow viable farming operations.

The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management.

- Any utility or infrastructure serving agricultural uses shall be reconnected if it is disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted.
- Where applicable to a project site, buffer areas shall be established between restoration projects and adjacent agricultural land. The buffers shall be sufficient to protect and maintain land capability and flexibility in agricultural operations. Buffers shall be designed to protect the feasibility of ongoing agricultural operations and reduce the effects of construction related or operational activities (including the potential to introduce special-status species in the agricultural areas) on adjacent or nearby properties. Buffers shall also serve to protect restoration areas from noise, dust, and the application of agricultural chemicals. The width of each buffer shall be determined on a project-by-project basis to account for variations in prevailing winds, crop types, agricultural practices, ecological restoration, or infrastructure. Buffers can function as drainage swales, trails, roads, linear parkways, or other uses compatible with ongoing agricultural operations.

◆ **Mitigation Measure AG-2: Minimize Impacts on Lands Protected by Agricultural Zoning or Williamson Act Contract.**

Restoration projects shall be designed to minimize, to the greatest extent feasible, conflicts and inconsistencies with land protected by agricultural zoning or a Williamson Act contract and the terms of the applicable zoning/contract.

◆ **Mitigation Measure CUL-3: Implement Measures to Protect Archaeological Resources during Project Construction or Operations.**

If archaeological resources are encountered during project construction or operations of any project permitted under the Order, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The lead agency and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the lead agency of their initial assessment. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, the lead agency shall consult with culturally affiliated California Native American Tribes to assess the find and determine whether it is potentially a tribal cultural resource.

If the lead agency determines, based on recommendations from the qualified archaeologist and culturally affiliated California Native American Tribes, that the resource is indigenous, that the resource may qualify as a historical resource (per CEQA Guidelines Section 15064.5), unique archaeological resource (per PRC Section 21083.2), or tribal cultural resource (per PRC Section 21074), then the resource shall be avoided if feasible. If avoidance of an identified indigenous resource is not feasible, the lead agency shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes, and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts on the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4. If any such resources are on or in the tide and submerged lands of California, this process shall also include coordination with the

California State Lands Commission. Once treatment measures have been determined, the lead agency shall prepare and implement an archaeological (and/or tribal cultural) resources management plan that outlines the treatment measures for the resource. Treatment measures typically consist of the following steps:

- Determine whether the resource qualifies as a historical resource (per CEQA Guidelines Section 15064.5), unique archaeological resource (per PRC Section 21083.2), or tribal cultural resource (per PRC Section 21074) through analysis that could include additional historical or ethnographic research, evaluative testing (excavation), or laboratory analysis.
- If it qualifies as a historical resource (per CEQA Guidelines Section 15064.5) and/or unique archaeological resource (per PRC Section 21083.2), implement measures for avoiding or reducing impacts such as the following:
 - Modify the project to avoid impacts on resources.
 - Plan parks, green space, or other open space to incorporate resources.
 - Recover the scientifically consequential information from the archaeological resource before any excavation at the resource’s location. This typically consists of (but is not necessarily limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the resource to be affected by the project.
 - Develop and implement interpretive programs or displays.
- If it qualifies as a tribal cultural resource (per PRC Section 21074) implement measures for avoiding or reducing impacts such as the following:
 - Avoid and preserve the resource in place through measures that include but are not limited to the following:
 - Plan and construct the project to avoid the resource and protect the cultural and natural context.
 - Plan greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria.
 - Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, through measures that include but are not limited to the following:
 - Protect the cultural character and integrity of the resource.
 - Protect the traditional use of the resource.
 - Protect the confidentiality of the resource.
 - Implement permanent conservation easements or other interests in real property, with cultural appropriate management criteria for the purposes of preserving or using the resource or place.

◆ **Mitigation Measure CUL-4: Implement Measures to Protect Human Remains during Project Construction or Operations.**

If human remains are encountered during construction or operations and maintenance of any project permitted under the Order, all work shall immediately halt within 100 feet of the find and the lead agency shall contact the appropriate county coroner to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If human remains encountered are on or in the tide and submerged lands of California, the lead agency shall also contact the California State Lands Commission. If the coroner determines that the remains are Native American in origin, the appropriate county shall contact the California Native American Heritage Commission, in accordance with California Health and Safety Code Section 7050.5(c) and PRC Section 5097.98. Per PRC Section 5097.98, the project's lead agency shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the lead agency has discussed and conferred, as prescribed PRC Section 5097.98, with the most likely descendants and the property owner regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

◆ **Mitigation Measure GEO-1: Include Geotechnical Design Recommendations.**

To minimize potential impacts from seismic events and the presence of adverse soil conditions, lead agencies shall ensure that geotechnical design recommendations are included in the design of facilities and construction specifications. Recommended measures to address adverse conditions shall conform to applicable design codes, guidelines, and standards.

◆ **Mitigation Measure GEO-3: Conduct Individual Restoration Project Geotechnical Investigation and Report.**

When a restoration project involves and warrants consideration of geotechnical factors and/or constraints (e.g., work on flood control levees, work in areas with certain soil types subject to liquefaction), the project proponent shall conduct and prepare a geotechnical report to address potential issues and concerns. The geotechnical report shall include a quantitative analysis to determine whether excavation or fill placement would result in a potential for damage due to soil subsidence during and/or after construction. Project designs shall incorporate measures to reduce the potential damage to a less-than-significant level. Measures shall include but not be limited to:

- Removal and recompaction of existing soils susceptible to subsidence.
- Ground improvement (such as densification by compaction or grouting, soil cementation).
- Reinforcement of structural components to resist deformation due to subsidence.

The assessment of subsidence for specific projects shall analyze the individual restoration projects potential for and severity of cyclic seismic loading. A geotechnical investigation shall also be performed by an appropriately licensed professional engineer and/or geologist to determine the presence and thickness of potentially liquefiable sands that could result in loss of bearing value during seismic shaking events. Project designs shall incorporate measures to mitigate potential damage to a less-than-significant level. Measures shall include but not be limited to:

- Ground improvement (such as grouting or soil cementation).

- Surcharge loading by placement of fill, excavation, soil mixing with non-liquefiable finer grained materials, and replacement of liquefiable materials at shallow depths.
- Reinforcement of structural components to resist deformation due to liquefaction.

An analysis of individual restoration projects' probable and credible seismic acceleration values, conducted in accordance with current applicable standards of care, shall be performed to provide for a suitable project design. Geotechnical investigations shall be performed, and geotechnical reports shall be prepared in the responsible care of California licensed geotechnical professionals including professional civil engineers, certified geotechnical engineers, professional geologists, certified engineering geologists, and certified hydrogeologists, all of whom practice within the current standards of care for such work.

◆ **Mitigation Measure GEO-4: Adhere to International Building Code.**

Constructed facilities shall be required to adhere to the current approved version of the International Building Code (IBC), and to comply with the IBC for critical structures (e.g., levees).

◆ **Mitigation Measure GEO-5: Conduct Expansive Clay Investigation.**

In areas where expansive clays exist, a licensed professional engineer or geologist shall perform a hydrogeological/geotechnical investigation to identify and quantify the potential for expansion, particularly differential expansion of clayey soils caused by leakage and saturation beneath new improvements. Measures could include but are not limited to removing and recompacting problematic expansive soils, stabilizing soils, and/or reinforcing the constructed improvements to resist deformation from expansion of subsurface soils.

◆ **Mitigation Measure GEO-6: Implement Measures for Waterway Construction Activities.**

For projects that involve the engineered subsurface structural components (e.g., of surface impoundments, levees, bridge footings/abutments) project design shall provide for protection from leakage to the subsurface. Measures could include but are not limited to rendering concrete less permeable by specifying concrete additives such as bentonite, designing impermeable liner systems, designing leakage collection and recovery systems, and constructing impermeable subsurface cutoff walls.

For restoration projects that could cause subsurface seepage of nuisance water onto adjacent lands, the following measures shall be implemented:

- Perform seepage monitoring studies by measuring the level of shallow groundwater in the adjacent soils, to evaluate baseline conditions. Continue monitoring for seepage during and after project implementation.
- Develop a seepage monitoring plan if subsurface seepage constitutes nuisance water on the adjacent land.
- If it is determined that seepage from the restoration project is responsible for making adjacent lands not usable, implement seepage control measures, such as installing subsurface agricultural drainage systems to avoid raising water levels into crop root zones. Cutoff walls and pumping wells can also be used to mitigate the occurrence of subsurface nuisance water.

◆ **Mitigation Measure GEO-7: Implement Measures for Levee Construction and Other Fill Embankment Designs.**

For projects that involve the construction of setback levees, surface impoundments, and other fill embankments, the project design shall place fill in accordance with State and local regulations and the prevailing standards of care for such work. Measures could include but are not limited to blending the soils most susceptible to landsliding with soils that have higher cohesion characteristics; installing slope stabilization measures; designing top-of-slope berms or v-ditches, terrace drains, and other surface runoff control measures; and designing slopes at lower inclinations.

◆ **Mitigation Measure GEO-8: Assess the Presence of Highly Organic Soils.**

For projects that would result in a significant or potentially significant risk to structures because of the presence of highly organic soils, the lead agencies shall require a geotechnical evaluation before construction to identify measures to mitigate organic soils. The following measures may be considered:

- Over-excavation and import of suitable fill material.
- Structural reinforcement of constructed works to resist deformation.
- Construction of structural supports below the depth of highly organic soils into materials with suitable bearing strength.

◆ **Mitigation Measure GEO-9: Conduct a General Project-Level Analysis.**

During project development and project-level analysis, a paleontological resource monitoring and recovery plan shall be developed and implemented for all actions determined by the project proponent to be located on a paleontological sensitive unit. The plan shall include protocols for paleontological resources monitoring in areas where construction-related excavation would affect sediment with moderate to high paleontological sensitivity.

The paleontological resource monitoring and recovery plan shall provide guidelines for the establishment of a yearly or biannual monitoring program led by a qualified paleontologist to determine the extent of fossiliferous sediment being exposed and affected by erosion, and determine whether paleontological resources are being lost. If the loss of scientifically significant paleontological resources is documented, then a recovery program should be implemented.

◆ **Mitigation Measure GEO-10: Conduct Worker Training.**

For projects that are determined to have moderate to high paleontological sensitivity, before the start of any ground-disturbing activity (e.g., excavation or clearing), a qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during project worker environmental training or equivalent. This training shall be conducted by a qualified environmental trainer under the supervision of the qualified paleontologist. For restoration projects that involve construction crew phases, additional trainings shall be conducted for new construction personnel. The paleontological resource sensitivity training shall focus on the types of resources that could be encountered within the individual restoration project site and the procedures to follow if they are found. Project proponents and/or project contractors shall retain documentation demonstrating that all construction personnel attended the paleontological resource sensitivity training before the start of work on the site, and shall provide documentation to the project manager upon request.

◆ **Mitigation Measure HAZ-1: Prepare and Implement a Health and Safety Plan and Provide Qualified Oversight of Fill Removal Related to Earthmoving Activities.**

The following measures shall be implemented before and during construction of the proposed Project:

- A health and safety plan for the project shall be developed and implemented. This plan shall clearly notify all workers of the potential to encounter hazardous materials during ground disturbing work and other construction activities. The plan shall identify proper handling and disposal procedures for contaminants expected to be on-site and shall provide maps and phone numbers for local hospitals and other emergency contacts. Construction workers shall comply with all protocols outlined in the health and safety plan throughout project implementation.
- Any hazardous materials being stored in the project area and not needed for construction activities shall be removed and disposed of at appropriately permitted locations before construction. A qualified professional (e.g., geologist or engineer) shall oversee fill excavation activities and work in potential project areas that contain abandoned underground storage tanks requiring removal, to properly identify any contaminated soils that may be present. Excavation of underground storage tanks must comply with county ordinances and policies. If contaminated soils are found, Mitigation Measure HAZ-2 shall be implemented.
- Removal of underground storage tanks associated with the restoration project shall include measures to ensure their safe transport and disposal. Remediation actions, if necessary, shall be defined in consultation with the local regional water board and implemented during construction.

◆ **Mitigation Measure HAZ-2: Notify Appropriate Federal, State, and Local Agencies If Contaminated Soils Are Identified, and Complete Recommended Remediation Activities.**

The following measures shall be implemented before construction of the proposed Project if contaminated soils are found in the proposed Project area:

- The appropriate federal, State, and local agencies shall be notified if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas shall be cleaned up in accordance with the recommendations of the regional water board, DTSC, or other appropriate federal, State, or local regulatory agencies.
- A site plan shall be prepared for the remediation activities appropriate for the proposed land uses, including excavation and removal of on-site contaminated soils, and needed redistributions of clean fill material in the study area. The plan shall include measures to ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. If ground-disturbing activities encounter contaminated groundwater, the construction contractor shall report the contamination to the appropriate agencies, dewater the area, and treat the groundwater to remove the contaminants before discharge into the sanitary sewer system. The construction contractor shall comply with the plan and applicable federal, State, and local laws. The plan shall outline specific procedures for handling and reporting of hazardous materials, and for disposing of hazardous materials removed from the site at an appropriate off-site facility.

◆ **Mitigation Measure HAZ-3: Notify Appropriate Federal, State, and Local Agencies If Accidental Discharges of Hazardous Materials.**

Following an accidental discharge of a reportable quantity of a hazardous material or an unknown material, the appropriate federal, State, and local agencies shall be notified. Any contaminated areas shall be cleaned up in accordance with the recommendations of a regional water board, DTSC, or other appropriate federal, State, or local regulatory agencies.

◆ **Mitigation Measure NOISE-1: Minimize Noise Conflicts**

The following measures shall be implemented during construction of any restoration project permitted under the Order:

- Noise-generating activities shall follow the applicable general plan and/or noise ordinances for the jurisdiction located within the vicinity of the project.
- Construction equipment shall be located away from sensitive receptors to the extent feasible, to reduce noise levels below applicable local standards.
- Construction equipment shall be maintained to manufacturers' recommended specifications, and all construction vehicles and equipment shall be equipped with appropriate mufflers and other approved noise-control devices.
- Idling of construction equipment shall be limited to the extent feasible to reduce the time that noise is emitted.
- An individual traffic noise analysis of identified haul routes shall be conducted and mitigation, such as reduced speed limits, shall be provided at locations where noise standards cannot be maintained for sensitive receptors.
- The project shall incorporate the use of temporary noise barriers, such as acoustical panel systems, between construction activities and sensitive receptors if it is concluded that they would be effective in reducing noise exposure to sensitive receptors.

◆ **Mitigation Measure TCR-2: Implement Measures to Protect Tribal Cultural Resources during Project Construction or Operation.**

These measures include but are not limited to those outlined in PRC Section 21084.3. If tribal cultural resources or indigenous archaeological resources that may qualify as tribal cultural resources are encountered during project construction or operation of any project permitted under the Order, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The lead agency, a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, and California Native American Tribes that are traditionally and culturally affiliated to a project area shall be immediately informed of the discovery. The qualified archaeologist and representatives from the notified Native American Tribes shall inspect the discovery and notify the lead agency of their initial assessment.

- a) If the lead agency determines, based on recommendations from the qualified archaeologist and California Native American Tribes that are traditionally and culturally affiliated to a project area, that the resource may qualify as a tribal cultural resource (per PRC Section 21074), then the resource shall be avoided if feasible. If avoidance of the resource is not feasible, the lead agency shall consult California Native American Tribes that are traditionally and culturally affiliated to a project area to determine treatment measures to minimize or mitigate any

potential impacts on the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4. If any such resources are on or in the tide and submerged lands of California, this process shall also include coordination with the California State Lands Commission. Once treatment measures have been determined, the lead agency shall prepare and implement a tribal cultural resources management plan that outlines the treatment measures for the resource. Treatment measures typically consist of the following steps:

- Determine whether the resource qualifies as a tribal cultural resource (per PRC Section 21074) through analysis that could include additional ethnographic research, archaeological investigations, or laboratory analysis.
- If it qualifies as a tribal cultural resource (per PRC Section 21074) implement measures for avoiding or reducing impacts such as the following:
 - Avoid and preserve the resource in place through measures that include but are not limited to the following:
 - Plan and construct the project to avoid the resource and protect the cultural and natural context.
 - Plan greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, through measures that include but are not limited to the following:
 - Protect the cultural character and integrity of the resource.
 - Protect the traditional use of the resource.
 - Protect the confidentiality of the resource.
- Implement permanent conservation easements or other interests in real property, with cultural appropriate management criteria for the purposes of preserving or using the resource or place.

◆ **Mitigation Measure TERR-1: Coordinate with CDFW, USFWS, and Permittees Regarding HCPs, NCCPs, and Other Conservation Plans**

If the site for a restoration project permitted under the Order is within the planning area for any adopted HCP, NCCP, or similar conservation plan, the CEQA lead agency for the project shall consult with the plan permittee(s), CDFW, and/or USFWS, as applicable, to identify any potential conflicts with the plan's goals, objectives, or conservation measures. As part of this consultation, the CEQA lead agency shall seek input regarding potential design features, conservation measures, or other mitigation strategies to avoid potential conflicts and achieve substantial conformance with the objectives of the HCP, NCCP, or similar conservation plan. The CEQA lead agency shall implement these elements as applicable to ensure that the restoration project conforms to applicable goals and policies set forth in the adopted conservation plan.

CHAPTER 5

References

5.1 Chapter 1: “Introduction”

5.2 No references cited in this section.

5.3 Chapter 2: “Revisions to the Draft SEIR”

No references cited in this section.

5.4 Chapter 3: “Responses and Comments”

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5.5 Chapter 4: “Mitigation Monitoring and Reporting Program”

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March 27, 2026

Department of Water Resources
Division of Multibenefit Initiatives

Attn: Judah Grossman

Via email only to tidesendmbp@water.ca.gov

Re: Tides End Multibenefit Restoration Project Comments of Yolo County
on Draft Supplemental Environmental Impact Report

Dear Mr. Grossman:

The County of Yolo (“County”) submits this letter to comment on the Draft Supplemental Environmental Impact Report (“Draft SEIR”) released by the California Department of Water Resources (“DWR”) on February 6, 2026 for the Tides End Multibenefit Restoration Project (“Project”).

The following comments are organized by resource topic and correspond to relevant sections of the Draft SEIR. The County recognizes the effort to address prior comments and provide additional detail and offers the following input to support further clarification and continued coordination.

Baseline:

The County’s comments on the Notice of Preparation (“NOP”) encouraged DWR to “use a baseline that includes planned operations of the Big Notch Project” with the expectation that such a baseline would provide the most realistic picture of the Project’s likely effects. We acknowledge and appreciate the discussion at Section 3.2.1 of the Draft SEIR and elsewhere reflecting DWR’s consideration of this suggestion, as well as the basis of your decision to mostly use the NOP baseline as described in Section 3.2.1. We appreciate your consideration of our suggestion and the information provided in response.

L3-1

Agricultural Resources:

We appreciate your consideration of how to integrate agriculture into the Project and ensure that it continues on portions of the Project site. Our specific comments on certain mitigation proposed in the Draft SEIR are as follows:

L3-2