Proposed Mitigated Negative Declaration

Project: Fremont Weir Adult Fish Passage Modification Project

Lead Agency: California Department of Water Resources (DWR) and United States Bureau of Reclamation (Reclamation)

Availability of Documents: The Draft Initial Study/Environmental Assessment (IS/EA) and Proposed Mitigated Negative Declaration (MND) are being recirculated pursuant to CEQA Guidelines 15073.5 to provide for public review and comment on substantial revisions. The Recirculated Draft IS/EA and Proposed MND are available for public review and comment from May 15 through June 13, 2017. Revisions are indicated by underline for new text and strikethrough for deleted text.

Reviewers should only provide comments on, and the lead agencies will only respond to comments on, the Biological Resources portion (Section 3.5) of the Recirculated Draft IS/EA and Proposed MND, which is the only portion of the document that contains substantial revisions. Additional, non-substantial revisions may be incorporated in the final version of the document.

The IS/EA for this Proposed MND is available for review at:

A printed copy is available to view during business hours (8:00 a.m. to 5:00 p.m.) at the DWR office located at 3500 Industrial Blvd. in West Sacramento.

Questions or comments regarding this recirculated Proposed MND and IS/EA may be addressed to:

Karen Enstrom
California Department of Water Resources
3500 Industrial Blvd.
West Sacramento, CA 95691
Karen.Enstrom@water.ca.gov
(916) 376-9778

Project Location: The project area is located in the northern half of the Yolo Bypass, near the towns of Woodland and West Sacramento in Yolo County, California (Figure 1). The project area includes Fremont Weir, a portion of the Fremont Weir Wildlife Area, two downstream agricultural road crossings in the Tule Canal, and an area within the northern Elkhorn Basin (Elkhorn Area). The northern boundary of the project area is the Sacramento River bank immediately north of the existing Fremont Weir fish ladder. The Fremont Weir fish ladder is located between River Mile (RM) 82 and RM 84 and is approximately 0.62 mile west of the Yolo Bypass east levee. The southern boundary of the project area is an existing agricultural road crossing located in the Tule Canal, approximately 2.8 miles south of Fremont Weir. The project area is located within the United States Geological Survey (USGS) 7.5-minute Knight’s Landing, Gray’s Bend, and Verona quadrangles.
**Figure 1** Proposed Fremont Weir Adult Fish Passage Modification Project Location
Project Description: DWR and Reclamation propose to:

- Modify the existing Fremont Weir fish ladder to provide improved upstream passage for salmonids and sturgeon when the Sacramento River overtops Fremont Weir and immediately after the Sacramento River recedes below Fremont Weir.
- Improve fish passage conditions in the channel that extends from the existing fish ladder upstream to the Sacramento River.
- Improve fish passage conditions in the scour channel that extends from the existing fish ladder downstream to an existing deep pond.
- Remove one earthen agricultural road crossing (Agricultural Road Crossing 3) and replace one earthen agricultural road crossing (Agricultural Road Crossing 2) with a structure that allows for improved fish passage through the Tule Canal and continued agricultural utility.

Findings: An Initial Study/Environmental Assessment was prepared to assess the proposed project’s potential effects on the environment and the significance of those impacts. Based on the Initial Study/Environmental Assessment, DWR has determined that the proposed project would not have a significant impact on the environment because mitigation measures would be implemented to reduce impacts to less-than-significant levels. This conclusion is supported by the following findings:

1. The proposed project would have no impact on:
   - Land use and planning.
   - Mineral resources.
   - Population and housing.
   - Public services.

2. The proposed project would result in a less-than-significant impact on:
   - Aesthetics.
   - Agricultural and forest resources.
   - Greenhouse gas emissions.
   - Noise.
   - Traffic and transportation.
   - Utilities and service systems.

3. Mitigation measures have been adopted by DWR and Reclamation to reduce potentially significant impacts to less-than-significant levels on:
   - Air quality.
   - Biological resources.
   - Cultural resources.
   - Geology and soils.
   - Hazards and hazardous materials.
   - Hydrology and water quality.
   - Recreation.
   - Tribal cultural resources.
Mitigation Measures

The following environmental commitments and mitigation measures will be implemented by DWR and Reclamation to avoid, minimize, and mitigate environmental impacts resulting from implementation of the proposed project. Implementation of these mitigation measures would reduce the environmental impacts of the proposed project to a less-than-significant level.

Air Quality

Mitigation Measure Air-1: Implement Yolo-Solano Air Quality Management District Feasible Mitigation Measures for Fugitive Dust Prevention and Control.

The construction contractor shall implement Yolo-Solano Air Quality Management District’s recommended construction best management practices (BMPs) for fugitive dust prevention and control. BMPs include the following:

- Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Haul trucks shall maintain at least 2 feet of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Sweep streets if visible soil material is carried out from the construction site.
- Treat accesses to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips, gravel, or mulch.

Biological Resources — Botanical Resources

Mitigation Measure AIR-1: Implement Yolo-Solano Air Quality Management District Feasible Mitigation Measures for Fugitive Dust Prevention and Control.

Refer to the “Air Quality” mitigation measures section.

Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.

Refer to the “Hydrology and Water Quality” mitigation measures section.

Mitigation Measure BOT-1: Conduct pre-construction surveys for special-status plant species and flag for avoidance.

A qualified botanist shall conduct surveys for special-status plant species with the potential to occur within the project area prior to construction activities. Specific survey timing shall be based on the bloom period for each special-status plant species. All special-status plant species found during such surveys shall be flagged and avoided to the extent practicable. If avoidance is not practicable, the responsible agency shall be consulted and additional measures to avoid or minimize impacts, such as transplantation,
shall be examined. Any additional mitigation measures shall be approved by the appropriate regulatory agencies before the project can proceed.

**Mitigation Measure BOT-2: Prevent the introduction of invasive plant species.**

The construction contractor shall implement the following BMPs, to the extent feasible, to prevent the introduction of invasive plant species:

- Construction equipment with visible plant material or soil shall be washed prior to entering the project area.
- Straw bales and other vegetative materials used for erosion control shall also be certified weed free.
- All re-vegetation materials (e.g., mulches, seed mixtures) shall be certified weed free and come from locally adapted native plant materials, to the extent practicable.

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**Biological Resources — Wildlife Resources**

**Mitigation Measure AIR-1: Implement Yolo-Solano Air Quality Management District Feasible Mitigation Measures for Fugitive Dust Prevention and Control.**

Refer to the “Air Quality” mitigation measures section.

**Mitigation Measure BOT-2: Prevent the introduction of invasive plant species.**

Refer to the “Biological Resources – Botanical Resources” mitigation measure section.

**Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-3: Implement a stormwater pollution and prevention plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WILD-1: Conduct mandatory environmental awareness training for all construction personnel.**

Prior to the start of construction activities, all construction personnel shall participate in mandatory worker environmental awareness training conducted by a qualified biologist. Construction personnel shall be informed about the identification, potential presence, life history, habitat requirements, legal protections, avoidance and minimization measures, and applicable mitigation measures for all special-status species identified in this document as having potential to be adversely affected by this project. Construction personnel shall also be informed of the procedures to follow should a special-status species be encountered within the project area during construction.

**Mitigation Measure WILD-2: Implement general wildlife protection measures during construction.**

The construction contractor shall implement general wildlife protection measures during construction that shall include, but may not be limited to, the following:

- Limit construction activities to daylight hours, to the extent feasible.
- If work extends beyond daylight hours, use portable construction lighting to illuminate the area of construction activity.
• Confine clearing to the minimal area necessary to facilitate construction activities.
• Clearly delineate the project area limits by using fencing, flagging, or other means prior to the start of construction activities.
• Avoid wildlife entrapment by completely covering, or providing escape ramps for, all excavated steep-walled holes or trenches more than 1 foot deep at the end of each work day.
• Inspect the work area and any equipment or material left on-site overnight for special-status wildlife species prior to the start of construction activities each day.
• Observe posted speed limit signs on local roads and observe a 15-mile-per-hour speed limit along ingress/egress routes.
• Dispose of food-related garbage in wildlife-proof containers and remove the garbage from the construction area regularly during the construction period.
• Retain a qualified biological monitor to be present or on-call during construction activities with the potential to affect sensitive biological resources. The biological monitor shall be on-site during initial ground-disturbing activities. The biological monitor shall ensure that any construction or exclusion fencing is maintained. The biological monitor shall have the authority to stop work if a special-status wildlife species is encountered within the project area during construction, and the appropriate regulatory agency(ies) shall be notified. Construction activities shall cease until it is determined that the species will not be harmed or that it has left the construction area on its own.

**Mitigation Measure WILD-3: Conduct pre-construction elderberry shrub surveys.**

Prior to the start of construction activities, elderberry shrub surveys shall be conducted within the project area by a qualified biologist. All elderberry shrubs with stems greater than 1 inch in diameter at ground level shall be recorded and marked with flagging for avoidance.

**Mitigation Measure WILD-4: Establish and maintain a buffer zone for elderberry shrubs.**

Elderberry shrubs mapped during surveys shall be avoided to the extent practicable during construction activities. For all elderberry shrubs identified for avoidance, an avoidance buffer of 100 feet or more shall be established prior to construction activities. A 20-foot avoidance buffer shall be established from the dripline of all elderberry shrubs within 50 feet of construction activity. The avoidance buffer shall consist of a physical barrier, such as flagging, exclusion fencing, or K-Rail barriers, and shall be maintained for the duration of project construction. Signs alerting construction workers to the presence of elderberry shrubs shall be placed around the perimeter of the buffer. Signs and fencing shall be posted in accordance with the United States Fish and Wildlife Service’s (USFWS’s) Conservation Guidelines for the Valley Elderberry Longhorn Beetle (United States Fish and Wildlife Service 1999).

In areas where encroachment into the 100-foot buffer zone is necessary, a minimum setback distance from the dripline of the elderberry plant, to be determined during consultation with USFWS, shall be established. Any damage done within the buffer area during construction shall be restored by providing erosion control. Under this measure, no elderberry shrubs with one or more stems 1 inch or greater in diameter at ground level would be disturbed or removed.

**Mitigation Measure WILD-5: Mitigate for elderberry shrubs that cannot be avoided.**

DWR and Reclamation shall identify measures to relocate or replace elderberry shrubs with stems measuring 1 inch or greater in diameter at ground level, if an adequate buffer cannot be provided, if
trimming is required, or if a shrub cannot be avoided during construction and must be removed. The mitigation plan shall include transplantation procedures that comply with USFWS’s *Conservation Guidelines for the Elderberry Longhorn Beetle* (United States Fish and Wildlife Service 1999). If transplantation is not feasible, USFWS general guidelines require replacement of elderberry plants in designated mitigation areas, at a mitigation ratio determined during consultation with USFWS. Alternatively, mitigation credits may be purchased from an approved mitigation bank. The mitigation plan must be approved by USFWS during formal consultation and may include, but not necessarily be limited to, identified locations for transplanted or replacement elderberry shrubs and the appropriate replacement ratios. USFWS shall be consulted prior to removal, trimming, or thinning of any elderberry shrubs.

**Mitigation Measure WILD-6: Implement avoidance and minimization measures for valley elderberry longhorn beetle during maintenance activities.**

The following measures shall be implemented to avoid or minimize valley elderberry longhorn beetle impacts during maintenance activities:

- Prior to the start of maintenance activities, elderberry shrub surveys shall be conducted within the maintenance area by a qualified biologist. All elderberry shrubs with stems greater than 1 inch in diameter at ground level shall be marked with flagging and a 20-foot avoidance buffer shall be established. These areas will be avoided by all maintenance personnel and maintenance activities.
- Insecticides, herbicides, or other chemicals that might harm the beetle or its host plant shall not be used within the established buffers (20 feet) around elderberry shrubs. Inside established buffers grass and ground cover may be mowed from July to April to reduce fire hazard. Mowing will not occur within 5 feet of any elderberry stem 1-inch in diameter or greater. Vegetation within 5 feet of any elderberry stem 1-inch in diameter or greater will be removed by hand only.

**Mitigation Measure WILD-67: Implement standard avoidance and minimization measures during construction activities in giant garter snake habitat.**

The following measures shall be implemented to avoid or minimize giant garter snake impacts:

- To the extent possible, work shall be conducted during the giant garter snake active period (May 1 to October 1). Only construction phases that have started prior to October 1 shall continue outside the active season, with California Department of Fish and Wildlife (CDFW) and USFWS approval. No new construction work phases shall be started after October 1.
- A qualified biological monitor shall be onsite during vegetation removal in giant garter snake habitat and during construction activities adjacent to aquatic habitat at the deep pond.
- Prior to the start of construction activities and during the active period for giant garter snakes, the construction contractor shall install exclusion fencing along the edge of construction areas that are within 200 feet of suitable giant garter snake aquatic habitat. The exclusion fencing material shall consist of a material that snakes cannot get through or become entangled in and buried at least six inches below ground to prevent animals from entering below the fence. The exclusion fence shall be regularly inspected and maintained throughout project construction. If work extends beyond October 1, the exclusion fencing shall be maintained to prevent giant garter snakes from entering the construction limit and utilizing upland areas for overwintering.
- Vegetation clearing within 200 feet of the banks of suitable giant garter snake aquatic habitat shall be confined to the minimal area necessary to facilitate construction activities. Movement
of heavy equipment shall be confined to existing roadways, to the maximum extent possible or temporary construction access roads established during construction.

- A USFWS- and CDFW-approved biologist shall conduct pre-construction surveys in suitable giant garter snake habitat a maximum of 24 hours prior to the start of construction activities. If there is a lapse in construction activities of two weeks or greater, the construction area shall be resurveyed a maximum of 24 hours prior to recommencement of work.

- If a giant garter snake is encountered during construction, USFWS and CDFW shall be notified and activities shall cease until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. If possible the snake should be allowed to leave on its own and activities shall not resume until the snake has moved out of the area on its own. Alternatively, the qualified biologist may capture and relocate the snake unharmed to suitable habitat at least 200 feet from the construction area. If the snake does not leave on its own and cannot be relocated unharmed, construction activities within approximately 200 feet of the snake will stop to prevent harm to the snake, and USFWS and CDFW will be consulted to identify next steps. USFWS and CDFW will be notified by telephone or email within 24 hours of a giant garter snake observation during construction activities.

- After April 15, any dewatered habitat shall be allowed to dry (no standing water) for at least 15 consecutive days prior to excavating or filling of the dewatered habitat.

**Mitigation Measure WILD-78: Restore temporarily disturbed giant garter snake aquatic and upland habitat after construction completion.**

After completion of construction activities, the construction contractor shall remove any temporary fill and construction debris from the channel. Temporarily disturbed upland areas shall be reseeded with native seed mix, and channel vegetation shall be allowed to recolonize. Under this measure, temporary construction activities would not result in the permanent loss of giant garter snake aquatic and upland habitat.

**Mitigation Measure WILD-9: Compensate for permanent loss of giant garter snake habitat.**

The permanent loss of giant garter snake habitat shall be compensated for by purchasing credits at a USFWS- and CDFW-approved conservation or mitigation bank. Mitigation ratios shall be determined in coordination with USFWS and CDFW during the permitting process to mitigate for adverse habitat alteration or loss of giant garter snake habitat.

**Mitigation Measure WILD-10: Implement avoidance and minimization measure during maintenance activities in giant garter snake habitat.**

The following measures shall be implemented to avoid or minimize giant garter snake impacts during maintenance activities:

- Prior to the start of maintenance activities, all personnel shall participate in mandatory worker environmental awareness training conducted by a qualified biologist. Personnel will be informed about the identification, potential presence, life history, habitat requirements, legal protections, and avoidance and minimization measures for giant garter snake.

- To the extent possible, work shall be conducted during the giant garter snake active period (May 1 to October 1). Only maintenance phases that have started prior to October 1 shall continue
outside the active season, with CDFW and USFWS approval. No new maintenance work phases shall be started after October 1.

- A 15-mile-per-hour speed limit shall be observed on the Fremont Weir maintenance road, levee access roads, and at Agricultural Road Crossing 2. Observing a 15 mile-per-hour speed limit will allow personnel in vehicles to see and avoid giant garter snakes that may be present on the roads.

- A qualified biologist shall be available on an on-call basis during project-related maintenance activities with the potential to affect giant garter snake. If needed, a qualified biologist shall be maintained on-site during maintenance activities to ensure the protection of giant garter snake. The biological monitor shall have the authority to stop work if a giant garter snake is encountered within the project area during maintenance.

- If a giant garter snake is observed in the maintenance area, all activities shall cease and a qualified biologist shall be notified immediately. If possible the snake shall be allowed to leave on its own and activities shall not resume until the snake has moved out of the area on its own. Alternatively, the qualified biologist may capture and relocate the snake unharmed to suitable habitat at least 200 feet from the maintenance area. If the snake does not leave on its own and cannot be relocated unharmed, maintenance activities within approximately 200 feet of the snake shall stop to prevent harm to the snake, and USFWS and CDFW shall be consulted to identify next steps. USFWS and CDFW shall be notified by telephone or email within 24 hours of a giant garter snake observation during maintenance activities.

**Mitigation Measure WILD-811: Conduct pre-construction surveys for western pond turtle.**

A qualified biologist shall conduct pre-construction surveys for western pond turtle in suitable upland and aquatic habitat within 48 hours prior to the start of construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 24 hours prior to recommencement of work.

**Mitigation Measure WILD-912: Relocate western pond turtles observed within the project area during construction.**

If western pond turtles are observed within the project area during project construction, CDFW shall be notified and construction activities in the vicinity shall cease until protective measures are implemented or it is determined that the pond turtle will not be harmed. If it is determined that the pond turtle would be harmed by continued construction activities, a qualified biologist shall move the western pond turtle to a suitable location outside of the project area.

**Mitigation Measure WILD-1013: Conduct pre-construction surveys for western red bat and pallid bat.**

A qualified biologist shall conduct pre-construction surveys for western red bat, pallid bat, and roosts within 48 hours prior to the start of construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 24 hours prior to recommencement of work.

**Mitigation Measure WILD-1114: Establish and maintain a buffer zone for known bat roosts in trees that do not need to be removed.**

If a bat roost is present in a tree that does not need to be removed from within the project area, a qualified bat biologist shall establish a no-disturbance buffer (typically 100 feet) and that buffer shall be maintained...
throughout project activities. If a maternity roost is identified, a no-disturbance buffer shall be established and maintained until a qualified biologist determines that the roost is no longer active.

Mitigation Measure WILD-1215: Implement protective measures during removal of trees with that provide suitable bat roosting habitat.

All removal of trees that provide suitable with bat roosting habitat (such as trees with deep bark crevices, snags, or holes) shall be conducted between September 1 August 15 and October 30, or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit and/or more than ½” of rainfall occurs within 24 hours. If the pre-construction surveys, as mentioned in WILD-13, identify a tree with bats that could potentially be a nursery roost, that tree shall be removed between August 30 and October 30. These dates correspond to a time period when bats would not be caring for non-volant young and have not yet entered torpor. If a non-maternity roost is found in a tree that must be removed or trimmed between September 1 and October 30, aA qualified biologist shall monitor tree removal/trimming of trees that provide suitable bat roosting habitat. Tree removal/trimming shall occur over two consecutive days. On the first day in the afternoon, limbs and branches shall be removed using chainsaws only. Limbs with cavities, crevices, or deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. On the second day, the entire tree shall be removed. Prior to tree removal/trimming, each tree shall be shaken gently and several minutes shall pass before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist shall search downed vegetation for dead or injured bat species and report any dead or injured special-status bat species to CDFW.

Mitigation Measure WILD-1316: Implement protective measures for work during non-daylight hours in bat habitat.

If project activities must occur during non-daylight hours, a qualified biologist shall establish monitoring measures, including frequency and duration, based on species, individual behavior, and type of construction activities. Night lighting should be used only within the portion of the project actively being worked on, and focused directly on the work area. This measure would minimize visual disturbance and allow bats to continue to utilize the remainder of the area for foraging and night roosting. If bats are showing signs of distress, work activities shall be modified to prevent bats from abandoning their roost or altering their feeding behavior. At any time, the biologist shall have the authority to halt work if there are any signs of distress or disturbance that may lead to roost abandonment. Work shall not resume until corrective measures have been taken or it is determined that continued activity would not adversely affect roost success.

Mitigation Measure WILD-1417: Conduct pre-construction surveys for American badger.

A qualified biologist shall conduct pre-construction surveys for American badger and dens in suitable habitat at least 48 hours prior to the start of construction activities. If there is a lapse in construction activities of two weeks or greater, the area shall be resurveyed within 24 hours prior to recommencement of work. Potential American badger dens identified in the project area shall be monitored to determine current use. Potentially inactive dens shall be blocked with a one-way door or excavated to prevent use during construction. Blocking with one-way doors, where feasible, is preferable to excavation; potential dens blocked with doors shall be made available to badgers after construction.

Mitigation Measure WILD 1518: Establish and maintain a den buffer for American badger.
American badger dens determined to be occupied during the breeding season (February 15 through June 30) shall be flagged, and ground-disturbing activities avoided, within 100 feet to protect adults and nursing young. Buffers may be modified by the qualified biologist, provided the badgers are protected, and shall not be removed until the qualified biologist has determined that the den is no longer in use. If the den is occupied during the non-maternity period and avoidance is not feasible, badgers shall be relocated by first incrementally blocking the den over a three-day period, followed by slowly excavating the den before or after the rearing season (February 15 through June 30). This slow excavation shall be performed either by hand or with mechanized equipment under the direct supervision of a qualified biologist; no more than 4 inches in depth shall be excavated at a time. Any passive relocation of American badgers shall occur only under the direction of a qualified biologist.

Mitigation Measures WILD-1619: Conduct pre-construction nesting bird surveys for western yellow-billed cuckoo, least Bell’s vireo, and migratory birds prior to construction and maintenance activities.

Pre-construction nesting bird surveys shall be conducted by a qualified biologist. For construction and maintenance activities conducted between April 1 and August 31, a USFWS-approved biologist in all suitable nesting habitats within the project area shall conduct passive surveys within a minimum of 500 feet of proposed activities to determine the presence of cuckoos and vireos. Nesting surveys shall be conducted in accordance with the recommended timing, methodology, and or/protocol for each bird species: western yellow-billed cuckoo, least Bell’s vireo, and migratory birds, including but not limited to *A Natural History Summary and Survey Protocol for the Western Yellow-billed Cuckoo Population* (Halterman et al. 2015), and *Least Bell’s Vireo Survey Guidelines* (United States Fish and Wildlife Service 2001). Surveys shall also include a 0.25-mile radius outside of the project area for other nesting migratory birds such as Swainson’s hawk and western yellow-billed cuckoo, and a 500-foot radius outside of the project area for other nesting migratory birds. Surveys shall be conducted within 14 days prior to the start of construction or maintenance activities, or as prescribed by established survey protocols. If there is a break in construction of one week or more, surveys shall be conducted prior to the re-initiation of construction. If birds or nests are located within this buffer, USFWS will be contacted for further guidance to ensure birds or nests are not disturbed.

Mitigation Measures WILD-1720: Establish nest protection buffers for active bird nests.

If an active bird nest is located in the survey area, an appropriate nest protection buffer shall be established by a qualified biologist based on the species, type of construction activities, and line of sight to the work area. Under this measure, nesting birds and offspring would not be disturbed or killed, and nests and eggs would not be destroyed. Work shall be conducted no less than 500 feet from an active raptor nest and 100 feet from an active migratory bird nest, though buffer distances for all nesting birds may differ based on consultation with CDFW and USFWS. To prevent encroachment, the established buffer(s) shall be clearly marked by high-visibility material if it has been determined by the qualified biologist that high-visibility material would not attract predators to the nest site. No construction activities, including tree removal, shall occur within the buffer zone until the young have fledged or the nest is no longer active, as confirmed by the qualified biologist.

Mitigation Measure WILD-1821: Monitor active nests within nest protection buffer.

If project activities must occur within established buffer zones, a qualified biologist shall establish monitoring measures, including frequency and duration, based on species, individual behavior, and type
of construction activities. If birds are showing signs of distress within the established buffer(s), work activities shall be modified or the buffer(s) shall be expanded to prevent birds from abandoning their nest. At any time the biologist shall have the authority to halt work if there are any signs of distress or disturbance that may lead to nest abandonment. Work shall not resume until corrective measures have been taken or it is determined that continued activity would not adversely affect nest success.

**Mitigation Measure WILD-1922: Compensate for permanent loss of riparian habitat.**

The permanent loss of riparian habitat shall be compensated for by purchasing riparian credits from a USFWS- and CDFW-approved conservation or mitigation bank in compliance with CDFW Lake and Streambed Alteration (Fish and Game Code Section 1600-1603) requirements. Since the project design allows some riparian trees to be avoided, a portion of the impacts will be mitigated before construction begins and the remainder will be mitigated after full impacts are known. Mitigation ratios shall be determined in coordination with CDFW and United States Army Corps of Engineers (USACE) during the permitting process.

**Biological Resources — Fisheries Resources**

**Mitigation Measure WILD-1: Conduct mandatory environmental awareness training for all construction personnel.**

Refer to the “Biological Resources – Wildlife Resources” mitigation measure section.

**Mitigation Measure WILD-22: Compensate for permanent loss of riparian habitat.**

Refer to the “Biological Resources – Wildlife Resources” mitigation measure section.

**Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-3: Implement of a stormwater pollution and prevention plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-4: Develop turbidity monitoring program.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-5: Place signage and warning signals.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure FISH-1: No work shall be done during a Fremont Weir overtopping event.**

Though unlikely to occur during the May 1 through November 1 work window, work shall be suspended in the event that a Fremont Weir overtopping is forecast to occur, to reduce the likelihood of encountering special-status fish species that may be drawn into the Yolo Bypass during an overtopping event.
Mitigation Measure FISH-2: Conduct fish rescues in conjunction with dewatering efforts.
DWR shall submit a dewatering and fish rescue plan to National Marine Fisheries Service (NMFS) and CDFW for approval prior to construction. After earthen dams are installed, and in conjunction with dewatering, a fish rescue shall be conducted by NMFS- and CDFW-approved fish biologists. As the work site is being dewatered, all fish shall be captured and immediately released to a suitable downstream habitat near the project site. NMFS and CDFW shall be contacted in the event sensitive fish species are encountered during the dewatering effort. Dewatering pumps shall be screened according to NMFS fish-screening criteria for anadromous salmonids (National Marine Fisheries Service 1997).

Mitigation Measure FISH-3: Compensate for Loss of Essential Fish Habitat
The permanent loss of EFH shall be compensated for by purchasing mitigation credits from an approved mitigation bank. Mitigation ratios shall be determined in coordination with NMFS and USACE during the permitting process.

Mitigation Measure FISH-4: Implement protective measures for work during non-daylight hours near ESA-listed fish habitat.
If project activities must occur during non-daylight hours, a qualified biologist shall establish monitoring measures, including frequency and duration, based on species presence, individual behavior, and type of construction activities. When night work cannot be avoided, night lighting shall be used only within the portion of the project actively being worked on, and focused directly on the work area. Lights on work areas shall be shielded and focused to minimize lighting of ESA-listed fish species habitat, if ESA-listed fish species are expected to be present. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water. If ESA-listed fish species are showing signs of distress or are attracted to the lighted areas, work activities shall be modified to prevent ESA-listed fish species from altering their migration or feeding behavior. At any time, the biologist shall have the authority to halt work if there are any signs of distress or disturbance that may lead to delayed migrations or increased predation. Work shall not resume until corrective measures have been taken or it is determined that continued activity would not adversely affect ESA-listed fish species.
Biological Resources — Waters of the United States

Mitigation Measure WILD-2: Implement general wildlife protection measures during construction.
Refer to the “Biological Resources – Wildlife Resources” mitigation measure section.

Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.
Refer to the “Hydrology and Water Quality” mitigation measures section.

Mitigation Measure WQ-3: Implement of a stormwater pollution and prevention plan.
Refer to the “Hydrology and Water Quality” mitigation measures section.

Mitigation Measure WET-1: Compensate for the loss of federally protected wetlands.
Construction and placement of project features shall be limited to the smallest area necessary to meet the project purpose Final determination of jurisdictional status and associated project impacts on such jurisdictional wetlands and waters shall be decided by USACE. If as a result of a wetland delineation and jurisdictional determination, the USACE determines that the proposed Project would impact jurisdictional waters and wetlands, avoidance, minimization, and mitigation measures, such as the purchase of mitigation bank credits at an accredited bank, shall be implemented pursuant to USACE guidance to ensure that the project would result in no-net-loss of waters of the U.S.

Cultural Resources

Mitigation Measure CUL-1: Conduct cultural resources awareness training.
The following mitigation measure shall be implemented before the start of ground-disturbing activities.
  • DWR staff shall conduct cultural resources awareness training for construction contractors and staff prior to the start of construction and as new personnel arrive on the work site.

Mitigation Measure CUL-2: Retain Native American monitors before conducting ground-disturbing activities.
Native American monitors provided by the Yocha Dehe Wintun Nation and the United Auburn Indian Community shall be retained to monitor ground-disturbing activities in the project footprint.

Mitigation Measure CUL-3: If archaeological resources are discovered, cease construction activities and implement appropriate treatment measures.
The following mitigation measures shall be implemented before the start of ground-disturbing activities.
  • If historical or unique archaeological resources/historic properties are discovered during construction, work must be halted within 100 feet of the find until a qualified archaeologist meeting the Secretary of the Interior’s Standards for archaeologists (62 Code of Federal Regulations [CFR] 33708) visits the site and assesses the significance of the resource. The federal agency official must follow 36 CFR 800.13(b)(3) and notify the State Historic Preservation Officer (SHPO), tribes, and Advisory Council on Historic Preservation (ACHP) within 48 hours of discovery. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section15064.5 [f]). After the assessment is completed, the archaeologist shall submit a report describing the significance of
the discovery with cultural resource management recommendations. If the find is determined to be an historical or unique archaeological resource/historic property, time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available.

- Should significant archaeological resources be found, the resources shall be treated in compliance with Public Resources Code (PRC) Section 21083.2. If the project can be modified to accommodate avoidance, preservation of the site is the preferred alternative. Data recovery of the damaged portion of the site also shall be performed pursuant to PRC Section 21083.2(d).

Mitigation Measure CUL-4: If human remains are found, cease construction activities and implement appropriate procedures for the treatment of remains.

If human remains are found, such remains are subject to the provisions of Health and Safety Code Sections 7050.5–7055. The requirements and procedures shall be implemented, including immediately stopping work in the vicinity of the find and notifying the Yolo County Coroner. The process for notification of the California Native American Heritage Commission (NAHC) and consultation with the individual(s) identified by the NAHC as the most likely descendent is set forth in Section 5097.98 of the California PRC. The federal agency official must follow 36 CFR 800.13(b)(3) and notify the SHPO, tribes, and ACHP within 48 hours of discovery. Work can restart after the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains.

Geology and Soils

Mitigation Measure WQ-3: Implement of a stormwater pollution and prevention plan.

Refer to the “Hydrology and Water Quality” mitigation measures section.

Mitigation Measure WQ-4: Develop turbidity monitoring program.

Refer to the “Hydrology and Water Quality” mitigation measures section.

Mitigation Measure GEO-1: Incorporate findings from the site-specific geotechnical investigation into project design.

Design of the fish passage structure and the agricultural road crossing designs shall incorporate California Building Code seismic design criteria and levee design criteria used by the United States Army Corps of Engineers (USACE). DWR’s Division of Engineering shall use these parameters in the project evaluation and design, and shall incorporate findings from the site-specific geotechnical investigation conducted for the project as part of the preliminary design through final design.

Greenhouse Gas Emissions

As an environmental commitment, the proposed project will implement the following DWR project-level GHG emissions-reduction BMPs for construction activities:

- GHG 1. Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high-efficiency technologies are appropriate and feasible for the project or specific elements of the project.

- GHG 2. Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.
• GHG 3. Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.

• GHG 4. Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.

• GHG 5. Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.

• GHG 6. Limit deliveries of materials and equipment to the site to off-peak traffic congestion hours. Construction BMPs apply to all construction and maintenance projects that DWR completes or for which DWR issues contracts. All projects are expected to implement all construction BMPs unless a variance is granted by the Division of Engineering Chief, Division of Operation and Maintenance Chief, or Division of Flood Management Chief (as applicable) and the variance is approved by the DWR CEQA Climate 18 Change Committee. Variances will be granted when specific project conditions or characteristics make implementation of the BMP infeasible and where omitting the BMP will not be detrimental to the project’s consistency with the Climate Action Plan Phase 1: Greenhouse Gas Emission Reduction Plan (GGERP).

• GHG 7. Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by California Code of Regulations, Title 13, Section 2485, the State’s airborne toxics control measure). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement.

• GHG 8. Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer’s recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an air quality control plan prior to commencement of construction.

• GHG 9. Implement a tire inflation program on the job site to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an air quality management plan prior to commencement of construction.

• GHG 10. Develop a project-specific ride share program to encourage carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes.

• GHG 11. Reduce electricity use in temporary construction offices by using high-efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.

• GHG 12. For deliveries to project sites where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box-type trailer is used for hauling, a SmartWay2 certified truck will be used to the maximum extent feasible.

• GHG 13. Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength, where appropriate.
• **GHG 14.** Develop a project-specific construction debris recycling and diversion program to achieve a documented 50-percent diversion of construction waste.

• **GHG 15.** Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution, minimize, to the extent possible, uses of public roadways that would increase traffic congestion.

**Hazards and Hazardous Materials**

**Mitigation Measure WQ-1: Implement a hazardous materials management plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Mitigation Measure WQ-3: Implement of a stormwater pollution and prevention plan.**

Refer to the “Hydrology and Water Quality” mitigation measures section.

**Hydrology and Water Quality**

**Mitigation Measure WQ-1: Implement a hazardous materials management plan.**

Prior to the start of any construction activities, a hazardous materials management plan (HMMP) shall be developed and implemented to ensure that all staff transport, store, handle, notify, and dispose of construction-related hazardous materials in a manner consistent with federal, State, and local laws and regulations. At a minimum, this plan shall include those methods recommended by the California Department of Transportation, the Central Valley Regional Water Quality Control Board (CVRWQCB), and the Yolo County Department of Environmental Health. The HMMP shall ensure that staff is trained in the proper method of spill containment and notification of all appropriate jurisdictional agencies, including the local certified unified program agency and the Governor’s Office of Emergency Services.

**Mitigation Measure WQ-2: Implement a spill prevention, control, and countermeasure plan.**

DWR, or its construction contractor, shall develop and implement a spill prevention, control, and countermeasure plan (SPCCP) to minimize the potential for, and effects from, spills of hazardous, toxic, and petroleum substances during construction and operation activities, as well as minimize the effects of unearthing previously undocumented hazardous materials. The SPCCP shall be completed before any construction activities begin. Implementation of this measure shall comply with State and federal water quality regulations. The SPCCP shall describe spill sources and spill pathways in addition to the actions that shall be taken in the event of a spill (e.g., an oil spill from engine refueling shall be cleaned up immediately with oil absorbents) or the exposure of an undocumented hazard. The SPCCP shall outline descriptions of containment facilities and practices, such as double-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures, and spill response kits. It shall also describe how and when employees are trained in proper handling procedures, as well as spill prevention and response procedures.

DWR shall review and approve the SPCCP before onset of construction activities and routinely inspect the construction area to verify that the measures specified in the SPCCP are properly implemented and
maintained. DWR shall notify its contractors immediately if there is a non-compliance issue and shall require compliance.

If a spill is reportable, the construction contractor’s superintendent shall notify DWR, and DWR shall take action to contact the appropriate safety and cleanup crews to ensure that the SPCCP is followed. A written description of reportable releases shall be submitted to the CVRWQCB and the California Department of Toxic Substances Control. This submittal shall contain a description of the release, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases shall be documented on a spill report form.

**Mitigation Measure WQ-3: Implement of a stormwater pollution and prevention plan.**

The National Pollutant Discharge Elimination System Program (NPDES) requires projects that would result in ground disturbance of greater than 1 acre to obtain a general construction activity stormwater permit. The NPDES general construction activity stormwater permit generally requires the project applicant to prepare a stormwater pollution prevention plan (SWPPP) that describes the BMPs that shall be implemented to control accelerated erosion, sedimentation, and other pollutants during and after project construction. The SWPPP shall be prepared by the construction contractor prior to initiating construction activities. Specific BMPs that shall be incorporated into the SWPPP shall be site-specific and shall be prepared in accordance with the regional water quality control board field manual. The SWPPP shall include, but not be limited to, the following standard erosion and sediment control BMPs:

- **Timing of construction.** All construction activities shall occur from May 1 through October 31 to avoid ground disturbance in the rainy season.
- **Stabilize grading spoils.** Grading spoils generated during construction may be temporarily stockpiled in staging areas. Silt fences, fiber rolls, or similar devices shall be installed around the base of the temporary stockpiles to intercept runoff and sediment during storm events. If necessary, temporary stockpiles may be covered with a geotextile material to increase protection from wind and water erosion.
- **Permanent site stabilization.** The construction contractor shall install structural or vegetative methods to permanently stabilize all graded or disturbed areas once construction is complete. Structural methods may include the installation of biodegradable fiber rolls or erosion control blankets. Vegetative methods may include the application of organic mulch and tackifiers and/or an erosion control native seed mix.
- **Staging of construction equipment and materials.** Equipment and materials shall be staged in designated staging areas.
- **Minimize soil and vegetation disturbance.** The construction contractor shall minimize ground disturbance and the disturbance/destruction of existing vegetation. This shall be accomplished, in part, through establishing designated equipment staging areas, ingress and egress corridors, equipment exclusion zones prior to the commencement of any grading operations, and protection of existing trees.
- **Install sediment barriers.** The construction contractor shall install silt fences, fiber rolls, or similar devices to prevent sediment-laden water from leaving the construction area.
Mitigation Measure WQ-4: Develop turbidity monitoring program.

The Basin Plan for the Sacramento River and San Joaquin River basins (Fourth Edition) (Central Valley Regional Water Quality Control Board 2011) contains turbidity objectives. Specifically, the plan states that where natural turbidity is less than 1 nephelometric turbidity unit (NTU), controllable factors shall not cause downstream turbidity to exceed 2 NTUs; where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU; where natural turbidity is between 5 and 50 NTUs, turbidity levels may not be elevated by 20 percent above ambient conditions; where ambient conditions are between 50 and 100 NTUs, conditions may not be increased by more than 10 NTUs; and where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

When water is flowing through the project area, DWR or its construction contractor shall monitor turbidity approximately 500 feet downstream of construction activities to determine whether turbidity is being affected by construction. Grab samples shall be collected at a downstream location that is representative of the flow near the construction site. If there is a visible sediment plume being created from construction, the sample shall represent this plume. A sampling plan shall be developed and implemented based on specific site conditions and in consultation with the CVRWQCB.

If turbidity limits exceed basin plan standards, construction-related earth-disturbing activities shall slow to a point that would alleviate the problem. DWR shall notify the regional water quality control board of the issue immediately and provide an explanation of the cause.

Mitigation Measure WQ-5: Place signage and warning signals.

DWR and its construction contractor, in coordination with the CDFW Fremont Weir Wildlife Area (FWWA) manager, shall at minimum place visual warning signage in the FWWA, around the fish passage structure, and at key access points, such as parking lots. If deemed necessary, audible signals, such as alarms or sirens, shall also be installed to signal when the fish passage structure is about to open.

Noise


The construction contractor shall implement BMPs to minimize traffic-related noise in the vicinity of sensitive receptors. BMPs shall include, but not be limited to the following measures.

- All construction equipment shall be stored in a designated staging area during the construction phase to eliminate daily heavy-duty truck trips on local roadways.
- To achieve an hourly average noise level below 60 dBA (weighted decibel), speed limits and limits on the number of passbys per hour shall be established and enforced for construction vehicle traffic on local roads adjacent to sensitive receptors to minimize traffic noise.
- Construction activities shall be limited to the daytime weekday hours of 7:00 a.m. and 7:00 p.m., to the extent feasible. Construction-related activities outside of these construction hours shall be minimized when located adjacent to sensitive receptors. The construction contractor shall notify Yolo County and/or immediate residents when work is scheduled to extend outside of normal construction times.
Recreation

Mitigation Measure REC-1: Post Notices of Scheduled Closures and Coordinate Closures with Fremont Weir Wildlife Area Manager

The construction contractor shall post and distribute notifications at the main FWWA entrance parking area, and at any other local access points, notifying of any scheduled closure of FWWA lands or features at least 30 days in advance of the construction work. Additionally, the construction contractor, in coordination with DWR, shall notify any affected private property owners or lessees if there will be a closure, or other conditions imposed upon entry of their respective private property, in the vicinity of project activities.

The construction contractor shall coordinate with the CDFW FWWA manager at least one week prior to construction, and weekly during construction periods, to ensure that construction closure areas, signage, and non-construction periods are arranged to avoid most hunting or other access conflicts in the FWWA. Construction shall not occur during the first two days and first two weekends of the following hunting seasons (dates represent opening day): archery deer season (August 19), dove season (September 1), regular deer season (September 23), quail season (October 14), and fall upland game season (November 11). The construction contractor shall construct and maintain a temporary no-hunting barrier fence extending 150 yards away from the construction area and provide “no-hunting” signage around the fence, indicating the periods of construction and associated hunting restrictions. The construction contractor shall coordinate with the CDFW FWWA manager regarding periods of construction so the manager can provide CDFW website notifications.

Internal route closures and detours shall be established by the construction contractor during construction at Fremont Weir, as necessary, to ensure public and worker safety.

Traffic and Transportation

Mitigation Measure TRAFFIC-1: Enter into a Road Repair Agreement with Yolo County.

DWR, Reclamation, and the construction contractor shall enter into a road repair agreement with the Yolo County Public Works Division. The agreement shall include post-construction road repair measures to return County roads adversely affected by project-related traffic to pre-project conditions. Pre-project conditions shall be documented by DWR, Reclamation, and the construction contractor prior to the start of construction. Road repair measures may include, but not be limited to, chip sealing and reconstruction of any disturbed road shoulders.

Tribal Cultural Resources

Mitigation Measure CUL-1: Conduct cultural resources awareness training.

Refer to the “Cultural Resources” mitigation measures section.

Mitigation Measure CUL-2: Retain Native American monitors before conducting ground-disturbing activities.

Refer to the “Cultural Resources” mitigation measures section.
Mitigation Measure CUL-3: If archaeological resources are discovered, cease construction activities and implement appropriate treatment measures.
Refer to the “Cultural Resources” mitigation measures section.

Mitigation Measure CUL-4: If human remains are found, cease construction activities and implement appropriate procedures for the treatment of remains.
Refer to the “Cultural Resources” mitigation measures section.

MANDATORY FINDINGS OF SIGNIFICANCE

- No substantial evidence exists that the proposed project would have a negative or adverse effect on the environment.
- The project would not substantially degrade the quality of the environment, significantly reduce the habitat for fish and wildlife species, result in fish or wildlife populations below a self-sustaining level, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.
- The project would not have environmental effects that would cause substantial direct or indirect adverse effects on humans.
- The project would not have environmental effects that are individually limited but cumulatively considerable.
In accordance with Section 21082.1 of the California Environmental Quality Act, DWR staff have independently reviewed and analyzed the Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration for the proposed project and find that the Initial Study/Environmental Assessment and Proposed Mitigated Negative Declaration reflect the independent judgment of DWR staff.

_________________________________________  _________________________________
Dean Messer, Chief, Division of Environmental Services  Date
California Department of Water Resources