



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Bay Delta Region  
2825 Cordelia Road, Suite 100  
Fairfield, CA 94534  
(707) 428-2002  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



January 25, 2024

Michael Kynett., District Engineer  
Reclamation District No. 2060  
1143 Crane Street, Suite 200  
Menlo Park, CA 94025  
[Kynett@mbkengineers.com](mailto:Kynett@mbkengineers.com)



Subject: Hastings Tract Pipe Replacement Project, Initial Study/Mitigated Negative Declaration, SCH2023120404, Solano County

Dear Mr. Kynett:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an Initial Study/Mitigated Negative Declaration (IS/MND) from Reclamation District No. 2060 (District) for the Hastings Tract Pipe Replacement Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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

---

<sup>1</sup> 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.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 2

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

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** Reclamation District No. 2060

**Project Description:** The objective of the Project is to relocate twin 48-inch diameter tide gates along Hastings Cut from the Unit 3 Cache Slough levee at its northeastern end to the Unit 1 Lindsey Slough levee at its southwestern end to maintain levee integrity and provide long-term flood protection to Hastings Tract. The existing pipes provide both drainage and irrigation flow between Hastings Cut and Cache Slough but show signs of significant, irreparable distress in their current configuration. Pipe failure would cause damage to the Unit 3 Cache Slough levee and, depending on water surface elevation, could lead to a levee breach or flooding of the tract.

### ***Site Preparation of Cache Slough and Hastings Cut***

Primary Project activities first include site preparation activities, such as stripping, clearing, and grubbing the upland vegetation within the construction footprint and staging area. Temporary ramps will also be constructed to connect the staging area to the levee crown road along Hastings Cut. The proponent will install cofferdams in Hastings Cut and Cache Slough to provide a dry work area for pipe removal and abandonment. Cofferdams are anticipated to be constructed by driving sheet pile wall. Pumps will be used to dewater the areas enclosed by the cofferdams and will ground-discharge the water or filter it through sediment separation tanks before releasing it into the waterways outside the cofferdams.

### ***Pipe Removal and Abandonment on Cache Slough***

The levee will then be degraded to at least six inches below the existing pipes. Accessible components of the existing pipe structure will be removed and disposed of off-site, and any inaccessible materials will be abandoned and cemented or grouted in place. Excavations will be backfilled with levee embankment fill and reconstructed to its original grade, which varies between approximately 6:1 (horizontal to vertical) near its toe and 3:1 (horizontal to vertical) near its crown. Following its reconstruction, the levee will be seeded with a native seed mix.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 3

### ***Pipe Installation on Lindsey Slough***

Cofferdams will be installed in Hastings Cut and Lindsey Slough in preparation for pipe installation. Cofferdams are anticipated to be constructed by driving sheet pile wall. The area within the cofferdams will be dewatered, and the levee will be degraded to at least two feet below the proposed pipes. The new 48-inch welded-steel gravity pipes and associated appurtenances, such as gates, risers, valves, will be installed with headwalls and gate structures at each end. Rock slope protection two feet-in-depth will extend 17 and 10 feet from the inlet/outlet structures in Hastings Cut and Lindsey Slough, respectively, to minimize the potential for erosion. The levee surrounding the pipes will be backfilled with levee embankment fill and reconstructed to its original grade, which varies between approximately 6:1 (horizontal to vertical) near its toe and 3:1 (horizontal to vertical) near its crown. Following its reconstruction, the levee will be seeded with a California native plant seed mix.

### ***Staging Area***

During pipe removal along the Cache Slough levee, equipment, vehicles, and construction materials will be staged on the levee within the construction footprint. During pipe installation along Lindsey Slough, a staging area will be located along the landside levee toe east of the construction footprint. The staging area will be accessed via temporary ramps at its northern and southern ends.

### ***Project Impact Areas***

Cache Slough and Lindsey Slough levee work requires removal of approximately 0.07-acre of Freshwater Marsh, 0.15-acre of Riparian Forest (including 0.02-acre of Oregon ash groves, and 0.05-acre of valley oak riparian forest and woodland), and 0.18-acre of Scrub-shrub vegetation.

**Location:** The Project locations are at the Unit 3 Cache Slough levee at its northeastern end and the Unit 1 Lindsey Slough levee at its southwestern end along Hastings Cut, in Hastings Tract, Solano County. Approximate GPS coordinates: 38.27854, -121.76037.

**Timeframe:** Project construction is expected to take approximately 66 working days between May and November 2025, with in-water work planned between August and November.

According to Biogeographic Information and Observation System (BIOS) records, the Project site contains positive detections of several special-status species and has the potential to support numerous special-status species and their associated habitat. Species with potential to occur on-site include, but are not limited to:

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 4

American white pelican (*Pelecanus erythrorhynchos*, SSC), black rail (*Laterallus jamaicensis*; ST, SFP); burrowing owl (*Athene cunicularia*; SSC), loggerhead shrike (*Lanius ludovicianus*; SSC), mountain plover (*Charadrius montanus*; SSC), northern harrier (*Circus hudsonius*; SSC), song sparrow (*Melospiza melodia*; SSC) Swainson's hawk (*Buteo swainsonii*; ST), tri-colored blackbird (*Agelaius tricolor*, ST), Chinook salmon - Central Valley DPS (*Oncorhynchus tshawytscha*; FT; ST), Chinook salmon - Sacramento River winter-run ESU (*Oncorhynchus tshawytscha*; FE; SE), Delta smelt (*Hypomesus transpacificus*; FT; SE), longfin smelt (*Spirnichus thaleichthys*; FPE; ST), North American green sturgeon (*Acipenser medirostris*; FT), Sacramento splittail (*Pogonichthys macrolepidotus*; SSC), steelhead - Central Valley DPS (*Oncorhynchus mykiss irideus*; FT), California tiger salamander – Central Valley DPS (*Ambystoma californiense*; FT; ST), giant garter snake (*Thamnophis gigas*; FT, ST), western pond turtle (*Actinemys marmorata*; FPT; SSC), Baker's navarretia (*Navarretia Leucocephala* subsp. *bakeri*; 1B.1), bearded popcorn flower (*Plagiobothrys hystriculus*; 1B.1), Ferris' milk-vetch (*Astragalus tener* var. *ferrisiae*; 1B.1), heartscale (*Atriplex cordulata* var. *cordulata*; 1B.2), Mason's Lilaepsis (*Lilaepsis masonii*; 1B.2), pappose tarplant (*Centromadia parryi* subsp. *parryi*; 1B.2), soft salty bird's-beak (*Chloropyron molle* subsp. *molle*; 1B.2, FE), Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*; 2B.1), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*; 1B.2), Suisun marsh aster (*Symphotrichum lentum*; 1B.2), Crotch's bumblebee (*Bombus crotchii*; SC)

DPS = Distinct Population Segment, FE = Federally Endangered; FT = Federally Threatened; FPT = Federally proposed as Threatened; SE = State Endangered; ST = State Threatened; SFP = State Fully Protected; SC = State Candidate; SSC = State Species of Special Concern

#### California Native Plant Society (CNPS) Plant Ranks

- 1A = Presumed extinct in California
- 1B = Rare, Threatened, or Endangered in California and Elsewhere

#### CNPS Threat Ranks

- 0.1-Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80 percent of occurrences threatened/moderate degree and immediacy of threat).

### COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Reclamation District No. 2060 in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological)

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 5

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 MND is appropriate for the Project.

### **Lake and Streambed Alteration**

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting lakes or streams and associated riparian habitat. The IS/MND states that impacts to streams would occur on-site and the District will submit a 1602 notification.

Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement (or Incidental Take Permit [ITP]) until it has complied with CEQA as a Responsible Agency.

### **California Endangered Species Act**

Please be advised that a CESA ITP must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP. CESA-listed species that CDFW recommends the Project seek an ITP for are: Swainson's hawk, giant garter snake, longfin smelt and Delta smelt.

### **Fully Protected Species**

Fully Protected species, such as white-tailed kite (*Elanus leucurus*) and black rail (*Laterallus jamaicensis*), may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research, relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 6

## I. Project Description and Related Impact Shortcoming

**Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS)?**

### **COMMENT 1: Species Surveys and Timing**

Pre-construction surveys for special-status species should be conducted by qualified biologists at the Project site prior to any Project-related construction no earlier than seven days prior to start of work, unless otherwise specified in this comment letter. Once construction has commenced, pre-construction clearance surveys should be conducted by a qualified biologist each day prior to start of construction.

### **COMMENT 2: General Nesting Bird Survey Requirements**

**Issue:** Measure MM-4 would not adequately reduce impacts to nesting birds to a level of less-than-significant. The IS/MND does not discuss nesting bird survey requirements for all bird species; it only includes information about bird nest survey focusing on raptor species.

Additionally, MM-4 does not include an adequate survey radius relative to nest sites or nest trees that could prevent potential impacts to raptors. The measure does not provide adequate details about nest monitoring timeline and requirements to ensure the qualified biologist does not miss signs of disturbance and/or distress. Without an adequate protocol specified, Project related impacts to nesting birds could lead to significant impacts to nesting birds including, but not limited to, nest abandonment, nest failure, impacts to availability of forage, chick mortality and resultant population decline.

**Recommendations:** CDFW recommends the IS/MND incorporate the following revisions to language in Measures MM-4 to ensure that significant impacts to bird species resulting from the Project are mitigated to a level of less-than-significant.

*Construction work should take place outside of the February 15 to September 15 bird nesting seasonal window to the maximum extent practicable. If construction is to be conducted during the nesting season, the Project Applicant is responsible for ensuring that the Project does not result in any violation of the Migratory Bird Treaty Act (MBTA) or Fish and Game Code. A qualified biologist will conduct focused pre-construction nesting bird surveys throughout the Project area no more than five days prior to the initiation of on-site Project-related activities. Surveys will be conducted in all potential habitat located at, and adjacent to, Project work sites and in staging and storage areas. The minimum survey radii surrounding the work area will be the following: (1) 250 feet for Passerines; (2) and 1,000 feet for raptors such as Buteo spp. In the event that there*

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 7

*is a lapse in construction activities for seven days or more, a qualified biologist will conduct additional focused pre-construction nesting bird surveys in areas of potential habitat again before Project activities can be reinitiated. If an active nest is found, the qualified biologist may consult with CDFW if needed regarding appropriate action to comply with Fish and Game Code.*

- *Active Nest Buffers. Active nest sites and protective buffer zones will be designated as “ecologically sensitive areas” where no Project-related activities or personnel may enter (while occupied or in use for the season in the case of multi clutch bearing species) during the course of nesting bird season with the establishment of a fence barrier or flagging surrounding the nest site. The qualified biologist will determine the necessary buffer, in consultation with CDFW if needed, to protect nesting birds based on existing site conditions, such as construction activity, topography, and line of sight, and will increase buffers as needed to provide sufficient protection of nesting birds and their natural behaviors.*
- *Active Nests. A qualified biologist will observe any identified active nests prior to the start of any Project-related activities to establish a behavioral baseline of the adults and any nestlings. Once Project activities commence, all active nests will be continuously monitored by a qualified biologist to detect any signs of disturbance and behavioral changes as a result of the Project. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. If signs of disturbance and behavioral changes are observed, the qualified biologist will halt Project activities causing that change until the nestlings have fledged, and the nest is determined to be inactive.*

### **COMMENT 3: Swainson’s Hawk**

**Issue:** MM-4 of the IS/MND may not be sufficient to avoid potentially significant impacts to Swainson’s hawk, a state threatened species. The California Natural Diversity Database (CNDDDB) indicates multiple occurrences within a 5-mile radius of the Project site and one occurrence is within the 0.5-mile avoidance buffer as well as potentially suitable nest trees. MM-4 does not sufficiently avoid potentially significant impacts to Swainson’s Hawk.

The estimated historical population of Swainson’s hawk was nearly 17,000 pairs; however, in the late 20<sup>th</sup> century, Bloom (1980) estimated a population of only 375 pairs. The decline was primarily a result of habitat loss from development (CDFW 2016). The most recent survey conducted in 2009 estimated the population at 941 breeding pairs. The breeding population of Swainson’s hawks in California has declined by an estimated 91 percent since 1900 (CDFW 2016). The species is currently threatened by loss of nesting and foraging habitat (e.g., from agricultural shifts to less crops that

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 8

provide less suitable habitat), urban development, environmental contaminants (e.g., pesticides), and climate change (CDFW 2016).

**Recommendations to minimize significant impacts:** To avoid “take” or adverse impacts, CDFW recommends replacing MM-4 with the following measure into the IS/MND:

- 1. Recommended Mitigation Measure 1 – Swainson’s Hawk Protocol Surveys:** *If Project work will occur during the breeding season for nesting birds (February 15 to September 15), CDFW recommends surveys be conducted according to the Swainson’s Hawk Technical Advisory Committee’s (TAC) Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (CDFW, 2010) found at <https://wildlife.ca.gov/Conservation/Survey-Protocols>. CDFW recommends that the TAC survey method be strictly followed by starting early in the nesting season (late March to early April) in order to maximize the likelihood of detecting an active nest. Surveys should be conducted within a minimum five-mile radius of the proposed Project area and should be completed for at least the two survey periods immediately prior to initiating any Project-related construction work. Raptor nests may be very difficult to locate during egg-laying or incubation, or chick brooding periods (late April to early June) if earlier surveys have not been conducted. These full-season surveys may assist with Project planning, development of appropriate avoidance, minimization and mitigation measures, and may help avoid any Project delays.*
- 2. Recommended Mitigation Measure 2 – Swainson’s Hawk Nests:** *CDFW recommends avoiding all Project-related disturbance within a minimum of 0.5 miles of an active Swainson’s hawk nest during the nesting season. Please refer to the CDFW guidance document on Swainson’s hawk (CDFW, 1994, 2010) take avoidance, minimization and mitigation measures. Early consultation with CDFW and other natural resource agencies on Swainson’s hawk take avoidance, minimization and mitigation measures is strongly recommended.*
- 3. Recommended Mitigation Measure 2 – Swainson’s Hawk Take Prohibition:** *If “take” of Swainson’s hawk or any other species listed under CESA cannot be avoided either during Project activities or over the life of the Project, a CESA Permit must be obtained (pursuant to Fish and Game Code Section 2080 et seq.). If an active nest is identified within the Project’s no-disturbance buffer up to 0.5 miles, the Permittee should seek a CESA permit prior to commencing the Project if work is planned during nesting season. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may*



Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 9

*be required in order to obtain a CESA Permit. More information on the CESA permitting process can be found on the CDFW website at <https://wildlife.ca.gov/Conservation/CESA>.*

#### **COMMENT 4: Burrowing Owls**

**Issues:** The IS/MND acknowledges that Project has the potential to impact burrowing owl. However, the IS/MND does not include measures addressing impacts to this species. If burrowing owls that may be impacted by the Project are not detected, the Project may result in reduced health and vigor, or mortality, of owls from direct impacts to occupied wintering habitat or from wintering burrow abandonment caused by auditory and visual disturbances (Klute et. al 2003). Burrowing owl is a California SSC and protected under Fish and Game Code sections 3503 and 3503.5 and the federal MBTA. Therefore, if wintering burrowing owls are present on or within 1,640 feet of the Project site, Project impacts to burrowing owl would be *potentially significant*.

**Recommendation:** For an adequate environmental setting evaluation and to reduce impacts to burrowing owl to less-than-significant, CDFW recommends incorporating the following mitigation measure to address impacts to burrowing owl:

*A qualified biologist shall conduct a habitat assessment for wintering burrowing owl, and surveys if habitat is present. The qualified biologist shall follow the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012 Staff Report) habitat assessment and survey methodology prior to Project activities occurring during the burrowing owl wintering season from September 1 to January 31. The habitat assessment and surveys shall encompass a sufficient buffer zone to detect owls nearby that may be impacted, which shall be a minimum of 1,640 feet unless otherwise approved in writing by CDFW. Surveys shall include four non-breeding season surveys spread evenly throughout the nonbreeding season pursuant to the CDFW 2012 Staff Report. Time lapses between surveys or Project activities shall trigger subsequent surveys, as determined by a qualified biologist, including, but not limited to, a final survey within 24 hours prior to ground disturbance and before construction equipment mobilizes to the Project area. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.*

*Detected burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report, unless otherwise approved in writing by CDFW, and any eviction plan shall be subject to CDFW review. Please be advised that CDFW does not consider eviction of burrowing owls (i.e., passive removal of an owl from its burrow or other shelter) as a "take" avoidance, minimization, or mitigation measure; therefore, off-site habitat compensation shall be included in the eviction plan. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site-specific*

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 10

*conditions, and completed before Project construction unless otherwise approved in writing by CDFW. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan prior to Project construction.*

#### **COMMENT 5: California Black Rails**

**Issue:** The IS/MND acknowledges California black rail has been observed within 0.5 miles of the Project site, however, IS/MND states that it does not include measures due to the Project site having “minimal intact tidal marsh”. Even if there is limited available marsh habitat, this does not prevent the potential for black rail to occur on-site. Operation of heavy equipment and associated activities may cause breeding rails to temporarily or permanently leave the site. Construction activities may include the temporary or permanent installation of fencing, posts, poles, or other structures that may provide perching opportunities for avian predators of California black rail. Nest abandonment or reduced frequency or duration of care for young, as well as decreased time spent foraging and roosting, resulting in reduced health or vigor of all life stages may occur as a result of Project construction activities.

California black rail is listed as a state threatened species under CESA, as well as state fully protected. Injury or mortality to state listed fish species directly or indirectly from Project activities may further the population decline of a species already at risk. Loss of emergent saline wetland habitat and upland refugia in and adjacent to the San Francisco Bay has contributed to declines in local populations of both rail species. Project impacts may further population declines of these species, including cumulative impacts resulting in the restriction of their range.

**Recommendations:** For an adequate environmental setting evaluation and to reduce impacts to black rails to less-than-significant, CDFW recommends incorporating the following mitigation measures to address impacts to black rails:

#### ***Recommendation #1: Rail Surveys***

California black rail protection should be modified to specify that appropriately timed rail surveys using the 2015 *California Clapper Rail Survey Protocol* will be conducted in each year of construction in all suitable habitat within the Project. This protocol is recommended for conducting presence/absence surveys of California Ridgway's rail prior to Project construction (as opposed to other available protocols that may be more suitable for long-term monitoring purposes). CDFW staff are available to work with you to incorporate calls of California black rail into the 2015 protocol to ensure that both species are sufficiently surveyed.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 11

***Recommendation #2: Rail Buffers***

The IS/MND should include a measure requiring a 700-foot no-work buffer to be implemented between the location of construction activities and any current-year breeding rail detections if construction cannot be avoided during the rail breeding season. The 700-foot no-work buffers should be clearly marked with fencing or flagging to exclude workers from entering the no-work zone. If establishing a 700-foot buffer around breeding rail detections is not feasible, noise reducing modifications to equipment as well as portable acoustic barriers/blankets placed near noise sources may be appropriate to reduce auditory and visual impacts to breeding rails. Note that these features may be appropriate regardless of time of year to minimize impacts to foraging rails as well.

***Recommendation #3: Authority to Stop Work***

The IS/MND should include language that specifies that the qualified biologist will have authority to stop work any time construction activities appear to cause disturbance to nesting rails (e.g., rails vocalize or fly away from a nest) or an active rail nest is found.

***Recommendation #4: Avoid Predator Perching Structures***

The IS/MND should include language that strives to avoid the temporary or permanent construction of features that may provide perching opportunities for avian predators. If needed for the Project, such features may be retrofitted with anti-perching devices to reduce the likelihood that avian predators will use them to perch.

**COMMENT 6: Special-Status Plants**

**Issue:** CDFW recognizes that two botanical surveys have occurred on this Project site on April 21, 2023 and June 5, 2023. It is understood that three special-status plant species were identified on the Project site; Delta tule pea, Mason's lilaepsis, and Suisun marsh aster. Though these species were identified on-site during the two days of surveys conducted, these surveys were conducted within the same year, which may not capture the year-to-year variation in special-status plant species presence within a Project area. There are many special-status plant species with the potential to occur on this Project site based on CNDDDB records. To better ensure that special-status plants are documented on-site, two years of surveys are recommended.

**Recommendation:** For an adequate environmental setting and to reduce impacts to CESA and federally listed plants to less-than-significant, CDFW recommends adding the following information to MM-2:

*The Project shall complete two years of protocol-level botanical surveys and incorporate the results into a revised IS/MND. The botanical survey results shall follow CDFW's*

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 12

*2018 Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities, including, but not limited to, conducting surveys during appropriate conditions, utilizing appropriate reference sites, and evaluating all direct and indirect impacts such as altering offsite hydrological conditions where the above species may be present. Surveys conducted during drought conditions may not be acceptable. If the botanical surveys result in the detection of the above CESA listed plants that may be impacted by the Project, or the presence of these species is assumed, the Project applicant shall obtain a CESA ITP from CDFW prior to construction and comply with all requirements of the ITP.*

CDFW agrees that a Mitigation and Monitoring Plan should be prepared and implemented prior to Project implementation for all special-status plants found during surveys. The IS/MND should outline which species of special-status plants will be impacted and should provide a well-developed, robust proposal for how the Project would be re-designed to avoid, minimize and/or mitigate impacts to those special-status plants. The applicant should provide a copy of the special-status plant survey results to CDFW for review and acceptance.

#### **COMMENT 7: Crotch's Bumblebee**

**Issue:** The IS/MND states there is potential of Crotch's bumblebee, a candidate endangered species under CESA, occurring on-site. The Project area is within the current known range of the Crotch's bumble bee and suitable nesting habitat for the species is present in the Project area. However, due to the assessment of having low potential for occurrence, the IS/MND does not include measures to reduce potential impacts, including any survey protocols or limitations on removing floral resources in suitable habitat areas within the Project footprint. As discussed in the prior section, the Project site contains floristic resources, including three special-status flowering plants that have already been documented on-site. There is potential for encountering Crotch's bumblebee on-site that rely on floral resources during pollination.

Potential adverse effects to this species from mechanical and hand labor treatments include direct mortality through crushing or filling of active bee colonies and hibernating bee cavities, reduced reproductive success, loss of suitable breeding and foraging habitats, and loss of native vegetation that may support essential foraging habitat.

Bumblebees are critically important because they pollinate a wide range of plants over the lifecycles of their colonies, which typically live longer than most native solitary bee species. Crotch's bumble bee are a candidate species under CESA (CEQA Guidelines, §15380, subds. (c)(1)). Unauthorized take of this species pursuant to CESA is a violation of California Fish and Game Code section 2080 et. seq.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 13

**Recommendation:** To reduce impacts to less-than-significant, CDFW recommends including a mitigation measure for focused surveys to be conducted during the colony active period (i.e., April through August) and when floral resources are in peak bloom. Bumble bees move nests sites each year, therefore, surveys should be conducted each year that Project work activities will occur. Further guidance on presence surveys can be found within *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (<https://wildlife.ca.gov/Conservation/CESA>).

### **COMMENT 8: Fish Species**

**Issue:** CDFW acknowledges and appreciates the incorporated measures MM-6, MM-7, and MM-8 to minimize impacts to fish species during Project activities. However, CDFW recommends several additions/modifications to the measures to better ensure successful relocation results and address impacts to fish.

#### ***Recommendations #1: Take Coverage***

CDFW recommends obtaining take coverage through an ITP issued by CDFW due to the need for handling listed fish species during relocation efforts. An ITP should be obtained prior to any activities that may result in take of the species, including capture and relocation, in addition to mortality.

#### ***Recommendation #2: Fish Capture and Relocation Plan***

MM-6 indicates that “a qualified 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.” While these are effective data to collect, the focus of the rescue effort should be to catch and release fish while keenly identifying listed species to prioritize their release. Attempting to measure and identify all fish species risks slowing down the rescue attempts and may lead to more mortality than necessary.

Additionally, CDFW recommends approving a biologist particularly versed in identification of Delta smelt and Wakasagi smelt. Wakasagi smelt are difficult to distinguish from Delta smelt and are commonly found within agricultural channels. If Delta smelt or longfin smelt are identified, they should be separated to a recovery tank in an attempt to save them due to their overall fragility during recovery efforts.

As described in MM-6, CDFW looks forward to reviewing the Fish Capture and Relocation Plan in coordination with USFWS and National Marine Fisheries Service (NMFS). CDFW recommends submitting this Plan at least 90 days prior to the start of proposed work to provide adequate time for interagency coordination and providing comments.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 14

### ***Recommendation 3: Fish Entrainment Impacts***

The IS/MND does not analyze impacts associated with the ongoing operation of the Project, specifically entrainment of special-status fish species that have been documented to utilize the area. CDFW recommends the IS/MND be revised and recirculated to analyze this potentially significant impact for evaluation as part of the CEQA public disclosure process.

CDFW also recommends that the IS/MND be revised to require the Project incorporate and follow CDFW's Fish Screen Policy and Fish Screening Criteria where applicable. Both of which can be found in the California Salmonid Stream Habitat Restoration Manual, available online at <https://wildlife.ca.gov/Grants/FRGP/Guidance#580983477-guidance-documents>.

### **COMMENT 9: Giant Garter Snake Surveys and Habitat Assessment**

**Issue:** MM-5 of the IS/MND may not be sufficient to avoid potentially significant impacts to giant garter snake, a state threatened species. Ground disturbing activities and burrow destruction have the potential to result in collapse of giant garter snake refugia and may result in take of giant garter snake if present. MM-5 does not describe how impacts to giant garter snake would be avoided, aside from limiting the work window to the active period for the snake to lessen the likelihood of impacts.

Giant garter snake is a highly aquatic snake endemic to the Central Valley of California. The species became threatened several decades ago primarily due to habitat loss from agriculture (Hansen et al, 2015). The species relies on wetland habitats that have been destroyed, fragmented, or degraded by urbanization and agricultural development. Only 5 percent of the species' historic wetland habitat acreage remains. Additionally, giant garter snake are threatened by invasive predatory fish and bullfrogs as well as pesticides, herbicides, fertilizers, and heavy metals, which not only impact giant garter snake directly but are cause declines in their native prey (e.g., Sierran treefrogs and Sacramento blackfish). Water diversions, dams, canal and levee maintenance, and rodent abatement also threaten the species. Plastic erosion control or bird netting can entangle and kill snakes as well (Kapfer and Paloski 2011).

Currently, giant garter snake are isolated to only nine disjunct populations. At the time of the species listing in 1993 under the federal Endangered Species Act (ESA), the USFWS (USFWS 2017) recognized 13 populations. Since then, two populations have been determined extirpated (USFWS 2017). In addition, giant garter snake are also susceptible to roads, vehicular traffic, and non-native species impacts (USFWS 2017). Road use can result in snake mortality as they congregate on roads due to the increased temperature that creates a heat island on and near the road for

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 15

thermoregulation (Trombulak and Frissell 2000). Reptile diversity has been shown to decline relative to the density of roads (Findlay and Houlihan 1997).

The species has specific seasonal habitat requirements. During summer months, giant garter snake require aquatic habitat for foraging and adjacent upland areas with emergent vegetation for basking (USFWS 2017). During periods of inactivity, giant garter snake require burrows in upland habitat as refugia for summer shelter and cracks and burrows in uplands for winter estivation (Hansen et al. 2015).

**Recommendations:** To avoid “take” or adverse impacts to giant garter snake, CDFW recommends incorporation of the following mitigation measures into the IS/MND or be required as conditions of approval in permits the Port of Stockton issues for the Project:

***Recommendation #1: Giant Garter Snake Habitat Assessment***

*CDFW recommends that a qualified biologist conduct a habitat assessment of Project areas in advance of Project activities, to determine if the Project area or its vicinity contains usable habitat for giant garter snake.*

- *Due to the presence of giant garter snake habitat on the Project site, CDFW recommends, no more than 30 days prior to ground-disturbing activities, a qualified biologist with giant garter snake experience, survey the work area and a minimum 50-foot radius of the work area for burrows and crevices in which giant garter snake could be present. It is advised that all potentially suitable burrows and crevices be flagged and avoided by a minimum 50-foot no-disturbance buffer. If a 50-foot radius buffer isn't feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take of the species.*

***Recommendation #2: Giant Garter Snake Habitat Buffer***

*If potential aquatic habitat for giant garter snake has been identified in or within 200 feet of the Project area by the qualified biologist, a qualified biologist should be present on-site to monitor all project activities.*

***Recommendation #3: Giant Garter Snake Observation***

*If a snake species of any kind is observed within the Project site, then all Project activities shall halt, and work shall not continue until the snake species is identified by a qualified biologist. If giant garter snake is discovered at any time within the Project site and staging areas, then all Project activities shall halt until CDFW has been notified and the Project proponent can demonstrate compliance with CESA to CDFW's satisfaction. CDFW reserves the right to provide additional giant garter snake protection measures in the event of a giant garter snake detection.*

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 16

**Recommendation #4: Giant Garter Snake Take Prohibition**

*If “take” of giant garter snake or any other species listed under CESA cannot be avoided either during Project activities or over the life of the Project, a CESA Permit should be obtained (pursuant to Fish and Game Code Section 2080 et seq.).*

**COMMENT 10: Western Pond Turtle**

**Issue:** The draft IS/MND, page 30, states “the Project Area contains suitable aquatic habitat for Western pond turtle in Hastings Cut and Lindsey and Cache sloughs. Additionally, the Project Area may be used as upland dispersal between suitable aquatic habitats. A Western pond turtle was observed in Barker Slough, less than 1 mile upstream of the Project Area in 2020”. However, the draft IS/MND does not include specific avoidance and minimization measures addressing western pond turtle. For instance, MM-3 requires a pre-construction survey to address species including western pond turtle, but the measure does not provide species specific parameters.

Without appropriate avoidance and minimization measures for western pond turtle, potentially significant impacts associated with Project activities include nest destruction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

**Recommendations:** CDFW recommends that the draft IS/MND include a measure requiring a qualified biologist to conduct focused surveys for potential western pond turtle nesting habitat prior to each phase of the Project. If nesting habitat is identified then to exclude any female western pond turtle from laying eggs within a development phase of the Project, exclusion fencing should be placed prior to the egg-laying season (March through August). Exclusion fencing should be designed to encompass each development phase and maintained weekly until construction activities have been completed.

Additionally, CDFW recommends that if any western pond turtle are discovered at the site immediately prior to or during Project activities, they should be allowed to move out of the area of their own accord. If a western pond turtle is unable to independently move out of the Project area, a qualified biologist should relocate it out of harm’s way to habitat similar to where it was found.

**COMMENT 11: California Tiger Salamander**

The IS/MND states there is potential for the Project site containing California tiger salamander, but does not include avoidance, minimization, or mitigation measures to address this potential. The Project site is located within the known range for Central Valley DPS California tiger salamander. According to CNDDB, there are several extant California tiger salamander observations approximately 0.5 to 0.7 miles North of the



Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 17

proposed Project activities (CNDDDB Accessed January 2023). The IS/MND acknowledges there is potentially suitable breeding habitat to the northwest of the site, but states it is marginal due to ponds being scattered in agricultural grazing lands. Agricultural activities often coexist on sites with abundant California tiger salamander populations. Appropriate grazing management practices can be a benefit to the species by reducing dense, tall vegetation around breeding ponds, which allows California tiger salamander to migrate and access breeding habitat more easily. If there is burrow habitat within the open landscape and California tiger salamander inhabits breeding habitat within 1.3 miles of the Project site, the Project site is potentially aestivation habitat. Therefore, the evaluation for California tiger salamander in the IS/MND is inadequate as written and measures should be incorporated to mitigate for impacts.

**Recommendations:** Due to the Project location containing appropriate breeding and aestivation habitat and being directly adjacent to a California tiger salamander observation, CDFW advises that the Project proponent obtain a CESA Permit (pursuant to Fish and Game Code Section 2080 et seq.) in advance of Project implementation. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document should specify impacts; mitigation, and should fully describe a mitigation, monitoring and reporting program. As mentioned above, if the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. More information on the CESA Permitting process and protocol survey procedures can be found on the CDFW website at <https://www.wildlife.ca.gov/Conservation/CESA> or <https://www.wildlife.ca.gov/Conservation/Survey-Protocols>.

CDFW recommends consulting with USFWS to comply with federal ESA requirements.

## **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 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>.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 18

## 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).

## CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist Reclamation District No. 2060 in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Mia Bianchi, Senior Environmental Scientist (Specialist), at (707) 815-8722 or [Mia.Bianchi@wildlife.ca.gov](mailto:Mia.Bianchi@wildlife.ca.gov); or Michelle Battaglia, Senior Environmental Scientist (Supervisory), at (707) 339-6052 or [Michelle.Battaglia@wildlife.ca.gov](mailto:Michelle.Battaglia@wildlife.ca.gov).

Sincerely,

DocuSigned by:

*Erin Chappell*

B77E9A6211EF486

Erin Chappell  
Regional Manager  
Bay Delta Region

Attachment: Draft Mitigation Monitoring and Reporting Program

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2023120404)

## REFERENCES

Bloom, P. H. 1980. The status of the Swainson's hawk in California, 1979. Bureau of Land Management, Sacramento, CA, USA.

California Department of Fish and Wildlife (formerly California Department of Fish and Game). 2012. Staff Report on Burrowing Owl Mitigation. Available online at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline>

California Department of Fish and Wildlife [CDFW]. 2016. Status review: Swainson's hawk (*Buteo swainsoni*) in California. Report to the California Fish and Game Commission, Sacramento, CA, USA.

Michael Kynett  
Reclamation District No. 2060  
January 25, 2024  
Page 19

California Department of Fish & Wildlife. 2021. California Natural Diversity Database (CNDDDB) Rarefind Electronic database. Sacramento, CA. Search of U.S. Geological Survey 7.5-minute quadrangles. Clifton Court Forebay. Accessed September 2023.

Findlay, C. S., and J. Houlahan. 1997. Anthropogenic correlates of species richness in southeastern Ontario wetlands. *Conservation Biology* 11:1000–1009.

Hansen, E.C., R.D. Scherer, G.C. White, B.G. Dickson, and E. Fleishman. 2015. Estimates of survival probability from two populations of giant garter snakes in California's Great Central Valley. *Copeia* 103: 1026-1036.

Kapfer, J. M., and R. A. Paloski. 2011. On the threat to snakes of mesh deployed for erosion control and wildlife exclusion. *Herpetological Conservation and Biology* 6:1–9.

Klute, D. S., L. W. Ayers, M. T. Green, W. H. Howe, S. L. Jones, J. A. Shaffer, S. R. Sheffield, and T. S. Zimmerman. 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTPR6001-2003, Washington, D.C.

Trombulak, S. C., and C. A. Frissell. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology* 14:18–30.

U.S. Fish and Wildlife Service [USFWS]. 2017. Recovery plan for the giant garter snake (*Thamnophis gigas*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, CA, USA.

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 20

## ATTACHMENT

### Draft Mitigation Monitoring and Reporting Program

Biological Resources (BIO)		
Mitigation Measure Description	Implementation Schedule	Responsible Party
<p><b>Additional Measure - Species Survey Timing and Results:</b></p> <p>Pre-construction surveys for special-status species should be conducted by qualified biologists at the Project site prior to any Project-related construction no earlier than seven (7) days prior to start of work, unless otherwise specified in this comment letter. Once construction has commenced, pre-construction clearance surveys should be conducted by a qualified biologist each day prior to start of construction.</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>
<p><b>MM-4 General Nesting Bird Survey Requirements:</b></p> <p>Construction work should take place outside of the February 15 to September 15 bird nesting seasonal window to the maximum extent practicable. If construction is to be conducted during the nesting season, the Project Applicant is responsible for ensuring that the Project does not result in any violation of the MBTA or Fish and Game Code. A qualified biologist will conduct focused pre-construction nesting bird surveys throughout the Project area no more than five days prior to the initiation of on-site Project-related activities. Surveys will be conducted in all potential habitat located at, and adjacent to, Project work sites and in staging and storage areas. The minimum survey radii surrounding the work area will be the following: (1) 250 feet for Passerines; (2) and 1,000 feet for raptors such as Buteo spp. In the event that there is a lapse in construction activities for seven days or more, a qualified biologist will conduct additional focused pre-construction nesting bird surveys in areas of potential habitat again before Project activities can be reinitiated. If an active nest is found, the qualified biologist may consult with CDFW if needed regarding appropriate action to comply with Fish and Game Code.</p> <ul style="list-style-type: none"> <li>• Active Nest Buffers. Active nest sites and protective buffer zones will be designated as “ecologically sensitive areas” where no Project-related activities or personnel may enter (while occupied or in use for the season in the case of multi clutch bearing species) during the course of nesting bird season with the establishment of a fence barrier or flagging surrounding the nest site. The qualified biologist will determine the necessary buffer, in consultation with CDFW if needed, to protect nesting birds based on existing site conditions, such as construction activity, topography, and line of sight, and will</li> </ul>	<p>Prior to Ground Disturbance</p>	<p>Project Applicant</p>

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 21

<p>increase buffers as needed to provide sufficient protection of nesting birds and their natural behaviors.</p> <p>Active Nests. A qualified biologist will observe any identified active nests prior to the start of any Project-related activities to establish a behavioral baseline of the adults and any nestlings. Once Project activities commence, all active nests will be continuously monitored by a qualified biologist to detect any signs of disturbance and behavioral changes as a result of the Project. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. If signs of disturbance and behavioral changes are observed, the qualified biologist will halt Project activities causing that change until the nestlings have fledged, and the nest is determined to be inactive.</p>		
<p><b>MM-4 Swainson’s Hawk:</b></p> <p><b>Recommended Mitigation Measure 1 – Swainson’s Hawk Protocol Surveys:</b></p> <p>If Project work will occur during the breeding season for nesting birds (February 15 to September 15), CDFW recommends surveys be conducted according to the Swainson’s Hawk Technical Advisory Committee’s (TAC) Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (CDFW, 2010) found at <a href="https://wildlife.ca.gov/Conservation/Survey-Protocols">https://wildlife.ca.gov/Conservation/Survey-Protocols</a>. CDFW recommends that the TAC survey method be strictly followed by starting early in the nesting season (late March to early April) in order to maximize the likelihood of detecting an active nest. Surveys should be conducted within a minimum 5-mile radius of the proposed Project area and should be completed for at least the two survey periods immediately prior to initiating any Project-related construction work. Raptor nests may be very difficult to locate during egg-laying or incubation, or chick brooding periods (late April to early June) if earlier surveys have not been conducted. These full-season surveys may assist with Project planning, development of appropriate avoidance, minimization and mitigation measures, and may help avoid any Project delays.</p> <p><b>Recommended Mitigation Measure 2 – Swainson’s Hawk Nests:</b></p> <p>CDFW recommends avoiding all Project-related disturbance within a minimum of 0.5 miles of an active Swainson’s hawk nest during the nesting season. Please refer to the CDFW guidance document on Swainson’s hawk (CDFW, 1994, 2010) take avoidance, minimization and mitigation measures. Early consultation with CDFW and other natural resource agencies on Swainson’s hawk take avoidance, minimization and mitigation measures is strongly recommended.</p> <p><b>Recommended Mitigation Measure 3 – Swainson’s Hawk Take Prohibition:</b></p> <p>If “take” of Swainson’s hawk or any other species listed under CESA cannot be avoided either during Project activities or over the life of</p>	<p>Prior to Ground Disturbance</p>	<p>Project Applicant</p>

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 22

<p>the Project, a CESA Permit must be obtained (pursuant to Fish and Game Code Section 2080 et seq.). If an active nest is identified within the Project’s no-disturbance buffer up to 0.5 miles, the Permittee should seek a CESA Permit prior to commencing the Project if work is planned during nesting season. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. More information on the CESA Permitting process can be found on the CDFW website at <a href="https://wildlife.ca.gov/Conservation/CESA">https://wildlife.ca.gov/Conservation/CESA</a>.</p>		
<p><b>Additional Measure - Burrowing Owls:</b></p> <p>A qualified biologist shall conduct a habitat assessment for wintering burrowing owl, and surveys if habitat is present. The qualified biologist shall follow the California Department of Fish and Game (now CDFW) 2012 Staff Report on Burrowing Owl Mitigation (CDFW 2012 Staff Report) habitat assessment and survey methodology prior to Project activities occurring during the burrowing owl wintering season from September 1 to January 31. The habitat assessment and surveys shall encompass a sufficient buffer zone to detect owls nearby that may be impacted, which shall be a minimum of 1,640 feet unless otherwise approved in writing by CDFW. Surveys shall include four non-breeding season surveys spread evenly throughout the nonbreeding season pursuant to the CDFW 2012 Staff Report. Time lapses between surveys or Project activities shall trigger subsequent surveys, as determined by a qualified biologist, including, but not limited to, a final survey within 24 hours prior to ground disturbance and before construction equipment mobilizes to the Project area. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections.</p> <p>Detected burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report, unless otherwise approved in writing by CDFW, and any eviction plan shall be subject to CDFW review. Please be advised that CDFW does not consider eviction of burrowing owls (i.e., passive removal of an owl from its burrow or other shelter) as a “take” avoidance, minimization, or mitigation measure; therefore, off-site habitat compensation shall be included in the eviction plan. Habitat compensation acreages shall be approved by CDFW, as the amount depends on site specific conditions, and completed before Project construction unless otherwise approved in writing by CDFW. It shall also include placement of a conservation easement and preparation and implementation of a long-term management plan prior to Project construction.</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 23

<p><b>Additional Measure – California Black Rails:</b></p> <p><b>Recommendation #1: Rail Surveys</b></p> <p>California black rail protection should be modified to specify that appropriately timed rail surveys using the 2015 California Clapper Rail Survey Protocol will be conducted in each year of construction in all suitable habitat within the Project. This protocol is recommended for conducting presence/absence surveys of California Ridgway’s rail prior to Project construction (as opposed to other available protocols that may be more suitable for long-term monitoring purposes). CDFW staff are available to work with you to incorporate calls of California black rail into the 2015 protocol to ensure that both species are sufficiently surveyed.</p> <p><b>Recommendation #2: Rail Buffers</b></p> <p>The IS/MND should include a measure requiring a 700-foot no-work buffer to be implemented between the location of construction activities and any current-year breeding rail detections, if construction cannot be avoided during the rail breeding season. The 700-foot no-work buffers should be clearly marked with fencing or flagging to exclude workers from entering the no-work zone. If establishing a 700-foot buffer around breeding rail detections is not feasible, noise reducing modifications to equipment as well as portable acoustic barriers/blankets placed near noise sources may be appropriate to reduce auditory and visual impacts to breeding rails. Note that these features may be appropriate regardless of time of year to minimize impacts to foraging rails as well.</p> <p><b>Recommendation #3: Authority to Stop Work</b></p> <p>The IS/MND should include language that specifies that the qualified biologist will have authority to stop work any time construction activities appear to cause disturbance to nesting rails (e.g., rails vocalize or fly away from a nest) or an active rail nest is found.</p> <p><b>Recommendation #4: Avoid Predator Perching Structures</b></p> <p>The IS/MND should include language that strives to avoid the temporary or permanent construction of features that may provide perching opportunities for avian predators. If needed for the Project, such features may be retrofitted with anti-perching devices to reduce the likelihood that avian predators will use them to perch.</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>
<p><b>MM-2 Special-Status Plants:</b></p> <p>The Project shall complete two years of protocol-level botanical surveys and incorporate the results into a revised IS/MND. The botanical survey results shall follow CDFW’s 2018 Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities, including, but not limited to, conducting surveys during appropriate conditions, utilizing appropriate reference sites, and evaluating all direct and indirect impacts such as altering offsite hydrological conditions where the</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 24

<p>above species may be present. Surveys conducted during drought conditions may not be acceptable. If the botanical surveys result in the detection of the above CESA listed plants that may be impacted by the Project, or the presence of these species is assumed, the Project applicant shall obtain a CESA ITP from CDFW prior to construction and comply with all requirements of the ITP.</p>		
<p><b>Additional Measure – Crotch’s bumblebee:</b></p> <p>To reduce impacts to less-than-significant, CDFW recommends including a mitigation measure for focused surveys to be conducted during the colony active period (i.e., April through August) and when floral resources are in peak bloom. Bumble bees move nests sites each year, therefore, surveys should be conducted each year that Project work activities will occur. Further guidance on presence surveys can be found within Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (<a href="https://wildlife.ca.gov/Conservation/CESA">https://wildlife.ca.gov/Conservation/CESA</a>).</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>
<p><b>MM-6 Fish Species Impacts:</b></p> <p><b>Recommendations #1: Take Coverage</b></p> <p>CDFW recommends obtaining take coverage through an ITP issued by CDFW due to the need for handling listed fish species during relocation efforts. An ITP should be obtained prior to any activities that may result in take of the species, including capture and relocation, in addition to mortality.</p> <p><b>Recommendation #2: Fish Capture and Relocation Plan</b></p> <p>MM-6 indicates that “a qualified 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.” While these are effective data to collect, the focus of the rescue effort should be to catch and release fish while keenly identifying listed species to prioritize their release. Attempting to measure and identify all fish species risks slowing down the rescue attempts and may lead to more mortality than necessary.</p> <p>Additionally, CDFW recommends approving a biologist particularly versed in identification of Delta smelt and Wakasagi smelt. Wakasagi smelt are difficult to distinguish from Delta smelt and are commonly found within agricultural channels. If Delta smelt or longfin smelt are identified, they should be separated to a recovery tank in an attempt to save them due to their overall fragility during recovery efforts.</p> <p>As described in MM-6, CDFW looks forward to reviewing the Fish Capture and Relocation Plan in coordination with USFWS and NMFS. CDFW recommends submitting this Plan at least 90 days</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>



Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 25

<p>prior to the start of proposed work to provide adequate time for interagency coordination and providing comments.</p> <p><b>Recommendation 3: Fish Entrainment Impacts</b></p> <p>The IS/MND does not analyze impacts associated with the ongoing operation of the Project, specifically entrainment of special-status fish species that have been documented to utilize the area. CDFW recommends the IS/MND be revised and recirculated to analyze this potentially significant impact for evaluation as part of the CEQA public disclosure process.</p> <p>CDFW also recommends that the IS/MND be revised to require the Project incorporate and follow CDFW’s Fish Screen Policy and Fish Screening Criteria where applicable. Both of which can be found in the California Salmonid Stream Habitat Restoration Manual, available online at <a href="https://wildlife.ca.gov/Grants/FRGP/Guidance#580983477-guidance-documents">https://wildlife.ca.gov/Grants/FRGP/Guidance#580983477-guidance-documents</a>.</p>		
<p><b>MM-5 Giant Garter Snake Surveys and Habitat Assessment:</b></p> <p><b>Recommendation #1: Giant Garter Snake Habitat Assessment</b></p> <p>CDFW recommends that a qualified biologist conduct a habitat assessment of Project areas in advance of Project activities, to determine if the Project area or its vicinity contains usable habitat for giant garter snake.</p> <ul style="list-style-type: none"> <li>• Due to the presence of giant garter snake habitat on the Project site, CDFW recommends, no more than 30 days prior to ground disturbing activities, a qualified biologist with giant garter snake experience, survey the work area and a minimum 50-foot radius of the work area for burrows and crevices in which giant garter snake could be present. It is advised that all potentially suitable burrows and crevices be flagged and avoided by a minimum 50-foot no-disturbance buffer. If a 50-foot radius buffer isn’t feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take of the species.</li> </ul> <p><b>Recommendation #2: Giant Garter Snake Habitat Buffer</b></p> <p>If potential aquatic habitat for giant garter snake has been identified in or within 200 feet of the Project area by the qualified biologist, a qualified biologist should be present onsite to monitor all project activities.</p> <p><b>Recommendation #3: Giant Garter Snake Observation</b></p> <p>If a snake species of any kind is observed within the Project site, then all Project activities shall halt and work shall not continue until the snake species is identified by a qualified biologist. If giant garter snake is discovered at any time within the Project site and staging areas, then all Project activities shall halt until CDFW has been notified and the Project proponent can demonstrate compliance with</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>

Michael Kynett  
 Reclamation District No. 2060  
 January 25, 2024  
 Page 26

<p>CESA to CDFW's satisfaction. CDFW reserves the right to provide additional giant garter snake protection measures in the event of a giant garter snake detection.</p> <p><b>Recommendation #4: Giant Garter Snake Take Prohibition</b></p> <p>If "take" of giant garter snake or any other species listed under CESA cannot be avoided either during Project activities or over the life of the Project, a CESA Permit should be obtained (pursuant to Fish and Game Code Section 2080 et seq.).</p>		
<p><b>Additional Measure – Western Pond Turtle:</b></p> <p>CDFW recommends that the draft IS/MND include a measure requiring a qualified biologist to conduct focused surveys for potential western pond turtle nesting habitat prior to each phase of the Project. If nesting habitat is identified then to exclude any female western pond turtle from laying eggs within a development phase of the Project, exclusion fencing should be placed prior to the egg-laying season (March through August). Exclusion fencing should be designed to encompass each development phase and maintained weekly until construction activities have been completed.</p> <p>Additionally, CDFW recommends that if any western pond turtle are discovered at the site immediately prior to or during Project activities, they should be allowed to move out of the area of their own accord. If a western pond turtle is unable to independently move out of the Project area, a qualified biologist should relocate it out of harm's way to habitat similar to where it was found.</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>
<p><b>Additional Measure - California Tiger Salamander:</b></p> <p>Due to the Project location containing appropriate breeding and aestivation habitat and being directly adjacent to a California tiger salamander observation, CDFW advises that the Project proponent obtain a CESA Permit (pursuant to Fish and Game Code Section 2080 et seq.) in advance of Project implementation. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document should specify impacts; mitigation, and should fully describe a mitigation, monitoring and reporting program. As mentioned above, if the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. More information on the CESA permitting process and protocol survey procedures can be found on the CDFW website at <a href="https://www.wildlife.ca.gov/Conservation/CESA">https://www.wildlife.ca.gov/Conservation/CESA</a> or <a href="https://www.wildlife.ca.gov/Conservation/Survey-Protocols">https://www.wildlife.ca.gov/Conservation/Survey-Protocols</a>.</p> <p>CDFW recommends consulting with USFWS to comply with Federal ESA requirements.</p>	<p>Prior to ground disturbance</p>	<p>Project Applicant</p>