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**GAVIN NEWSOM, Governor**  
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February 25, 2022

Governor's Office of Planning & Research

**Feb 25 2022**

## **STATE CLEARING HOUSE**

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**Subject: Return Capacity Improvements for Regional Drought Resiliency Project (Project)**  
**JOINT MITIGATED NEGATIVE DECLARATION/ENVIRONMENTAL ASSESSMENT (MND/EA)**  
**State Clearinghouse No. 2022010548**

Dear Mr. Fenters:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt an MND/EA from the Central California Irrigation District (CCID) for the above-referenced Project pursuant 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, CDFW appreciates 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.

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<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.

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CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration 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.), related authorization as provided by the Fish and Game Code will be required.

**Bird Protection:** CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird).

**Water Rights:** The capture of unallocated stream flows to artificially recharge groundwater aquifers is subject to appropriation and approval by the State Water Resources Control Board (SWRCB) pursuant to Water Code § 1200 et seq. CDFW, as Trustee Agency, is consulted by SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Certain fish and wildlife are reliant upon aquatic and riparian ecosystems, which in turn are reliant upon adequate flows of water. CDFW therefore has a material interest in assuring that adequate water flows within streams for the protection, maintenance, and proper stewardship of those resources. CDFW provides, as available, biological expertise to review and comment on environmental documents and impacts arising from Project activities.

## **PROJECT DESCRIPTION SUMMARY**

CCID is the Lead Agency for the purpose of CEQA. Del Puerto Water District (DPWD) is a responsible agency. The U. S. Bureau of Reclamation (USBOR) will allow the use of its facilities to move water in and/or under the Delta-Mendota Canal.

Under the Proposed Action/Project, USBOR would issue a land use authorization to CCID for the installation, operation, and maintenance of facilities on USBOR land. In addition, CCID and DPWD propose to construct various infrastructure and recharge ponds.

The Proposed Action/Project includes five main components: (1) Securing temporary and permanent water rights from Orestimba Creek, (2) Constructing diversion facilities and pipelines between Orestimba Creek, the Delta-Mendota Canal, and the recharge

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ponds, (3) Constructing recharge ponds, (4) Developing recovery wells and associated pipelines, and (5) Conducting geotechnical and soil investigations to help determine the final design and delineate aquatic resources. In addition to the main components, staging areas for loading, unloading, and temporary storage of equipment and materials would be delineated within the work area boundaries. Maintenance would be done semi-annually. Maintenance activities include the removal of sediment, vegetation, and other materials to improve percolation capacity.

**Sources of Water:** CCID would generate up to 16,500 acre-feet per year (AFY) for recharge when supplies are available. The 16,500 AFY is composed of existing water rights and the potential water right being pursued as part of the Project. Supplies would consist of a combination of water from various sources such as conserved water, storm water, and flood flows from adjoining watersheds for placement in the recharge ponds.

DPWD is under contract with USBOR for its water supply, which is delivered from the Delta-Mendota Canal, a feature of the Central Valley Project. The contract provides for the delivery of up to 140,210 AFY, and DPWD will develop and provide up to 16,500 AFY for recharge when supplies are available. The 16,500 AFY will be made available from its contract supplies and will be generated through DPWD's use of various conservation and water resources projects to make the project water available in certain year types. In addition, diversion of up to 35 cfs of Orestimba Creek flows is a potential source of water to be captured and delivered into the recharge ponds, as well as flood flows (through exchange via the Delta-Mendota Canal) from both the San Joaquin and Kings Rivers.

**Project Proponents:** CCID, DPWD, and USBOR.

**Objectives:** The purpose of the Project is to provide a long-term solution to support regional agricultural operations by using excess storm and floodwaters with the objective to recharge groundwater supplies for future extraction with a 10% leave behind that would also help to prevent subsidence and reduce groundwater basin overdraft.

**Location:** The Project components will be implemented in Orestimba Creek and the surrounding area northwest of the City of Newman, Stanislaus County.

**Timeframe:** None given.

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist CCID in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (i.e., biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on a review

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of the Project description, a review of California Natural Diversity Database (CNDDDB) records, and a review of aerial photographs of the Project and surrounding habitat, several special status species could potentially be impacted by Project activities.

In particular, CDFW is concerned regarding potential impacts for the following special status wildlife species and habitats known to occupy the Project area: the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State endangered foothill yellow-legged frog (*Rana boylei*); the State endangered and fully-protected bald eagle (*Haliaeetus leucocephalus*); the State threatened and fully-protected golden eagle (*Aquila chrysaetos*); the State threatened Swainson's hawk (*Buteo swainsoni*) and tricolored blackbird (*Agelaius tricolor*); the State species of special concern American badger (*Taxidea taxus*), western red bat (*Lasiurus blossevillei*), pallid bat (*Antrozous palidus*), western pond turtle (*Emys marmorata*), and western spadefoot (*Spea hammondi*); and the California rare plant rank 1B.2 spiny-sepaled button celery (*Eryngium spinosepalum*). Other species of birds, amphibians, reptiles, mammals, fish, invertebrates, and plants also compose the local ecosystem within the Project boundary. Orestimba Creek and associated sycamore alluvial woodland habitat are located within and adjacent to the Project.

Please note that the CNDDDB is populated by and records voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. In order to adequately assess any potential Project related impacts to biological resources, surveys conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present at or near the Project area.

CDFW recommends that the following modifications and/or edits be incorporated into the MND/EA, including proposed avoidance, minimization, and compensatory measures, prior to its adoption by CCID.

**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 United States Fish and Wildlife Service (USFWS)?**

**COMMENT 1: San Joaquin kit fox (SJKF)**

**Issues and Impacts:** SJKF occurrences have been documented within the Project area including the vicinity of Orestimba Creek (CDFW 2022). Habitat loss and fragmentation resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). The Project area

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provides medium suitability SJKF habitat (Cypher et al. 2013) and is bordered by highly suitable habitat in an area that is otherwise under intensive agriculture.

SJKF den in rights-of-way, agricultural and fallow/ruderal habitat, dry stream channels, and canal levees, and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). SJKF may be attracted to project areas due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. SJKF will forage in fallow and agricultural fields and utilize streams and canals as dispersal corridors. As a result, there is potential for SJKF to occupy all suitable habitat within the Project boundary and surrounding area. Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with construction include habitat loss, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

**Recommended Mitigation Measure 1: SJKF Habitat Assessment**

For all Project-specific components including construction, staging, and land conversion, CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if the Project area or its immediate vicinity contains suitable habitat for SJKF.

**Recommended Mitigation Measure 2: SJKF Surveys and Minimization**

CDFW recommends assessing presence/absence of SJKF by having qualified biologists conducting surveys of Project areas and a 500-foot buffer of Project areas to detect SJKF and their sign. CDFW also recommends following the USFWS (2011) *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* during Project implementation.

**Recommended Mitigation Measure 3: SJKF Take Authorization**

SJKF activity or detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) for SJKF prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b).

**COMMENT 2: Swainson's Hawk (SWHA)**

**Issues and Impacts:** The MND/EA acknowledges that SWHA are known to the Project area and have the potential to nest in riparian habitat and other mature trees located within the Project site and within ½ mile of the Project. Suitable foraging habitat for these species exists within the vicinity of the Project site, including annual grassland, alfalfa or grain fields, and livestock pasture. In addition, conversion of undeveloped and agricultural land can directly influence distribution and abundance of SWHA, due to the reduction in foraging habitat. Groundwater pumping, surface

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water diversion, and habitat conversion may result in degradation or loss of riparian habitat and subsequent loss of nesting habitat. Without appropriate avoidance and minimization measures for SWHA, potential significant impacts include nest abandonment and reduced reproductive success, including mortality of young and reduced health and vigor of eggs and/or young.

Mitigation Measure (Surveys) in Table 1 (page 7) of the MND/EA states that a qualified biologist will conduct surveys of potential SWHA within ½ mile using the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SWHA TAC 2000). Mitigation Measure (Avoidance) states that if an active nest is observed, the biologist would establish a suitable construction-free buffer around the nest. The MND/EA analysis does not provide a biological basis of how a no-disturbance buffer will be determined as adequate to avoid significant impacts, including but not limited to take of individuals through nest failure or other means, as a result of Project implementation.

The trees and riparian habitat within the Project area represent some of the only remaining suitable nesting habitat in the local vicinity. Depending on the timing of construction, activities including noise, vibration, and movement of workers or equipment could affect nests and have the potential to result in nest abandonment, significantly impacting local nesting SWHA. In addition, agricultural cropping patterns can directly influence distribution and abundance of SWHA. For example, SWHA can forage in grasslands, pasture, hay crops, and low growing irrigated crops; however, other agricultural crops such as orchards and vineyards are incompatible with SWHA foraging (Estep 2009, Swolgaard et al. 2008).

In the San Joaquin Valley, suitable nest trees may be a limiting factor for SWHA productivity. The loss of suitable nest trees, particularly in proximity to foraging habitat, has the potential to significantly impact local SWHA (CDFW 2016). CDFW considers removal of known bird-of-prey nest trees, even outside of the nesting season, a potentially significant impact under CEQA, and, in the case of SWHA, it could also result in take under CESA. Project activities near the nest that differ from baseline disturbance regimes in type, timing, and/or magnitude can affect adults caring for eggs and young in the nest, and can affect nestling behavior. Project activities including noise, vibration, odors, visual disturbance, and movement of workers or equipment could affect nesting individuals and have the potential to result in nest abandonment or reduced nesting success, significantly impacting local nesting SWHA.

#### **Recommended Mitigation Measure 4: SWHA Nest Tree Avoidance and Mitigation**

In addition to avoiding occupied nest trees, CDFW recommends that impacts to known nest trees be avoided at all times of year, or that mitigation occurs for these impacts. Regardless of nesting status, if potential or known SWHA nesting trees are

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removed, CDFW recommends they be replaced with an appropriate native tree species, planted at a ratio of 3:1 (replaced to removed), in an area that will be protected in perpetuity. This mitigation will offset potential impacts of the loss of nesting habitat.

**Recommended Mitigation Measure 5: Focused SWHA Surveys**

To reduce potential Project-related impacts to SWHA, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting birds of prey, including SWHA, following the survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) during the nesting season of or prior to Project initiation, within the Project area and a ½-mile buffer around the Project area. In addition, if Project activities will take place during the species nesting season (i.e., March 1 through September 15), CDFW recommends that additional preconstruction surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of construction.

**Recommended Mitigation Measure 6: SWHA Buffers**

If an active SWHA nest is found during preconstruction surveys, CDFW recommends implementing a minimum ½-mile no-disturbance buffer until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest site or parental care for survival.

**Recommended Mitigation Measure 7: SWHA Take Authorization**

If a ½-mile no-disturbance nest buffer is not feasible, consultation with CDFW is warranted, and an ITP for SWHA may be necessary prior to project implementation to avoid unauthorized take, pursuant to Fish and Game Code section 2081, subdivision (b).

**COMMENT 3: Nesting Bald Eagle (BAEA) and Golden Eagle (GOEA)**

**Issues and Impacts:** BAEA and GOEA occurrences have been documented within the vicinity of the Project boundary (CDFW 2022). Nesting BAEA and GOEA have the potential to occur in the Project area and its vicinity, including the Orestimba Creek corridor. Without appropriate avoidance and minimization measures, potentially significant impacts associated with the Project's construction include loss of foraging and/or nesting habitat, nest abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Without appropriate survey methods, eagles nesting in the vicinity of a project can remain undetected resulting in avoidance and minimization measures not being effectively implemented (American Eagle Research Institute 2010). In addition, human activity near nest sites can cause reduced provisioning rates of GOEA chicks by adults (Steidl et al. 1993). Depending on the timing of construction, Project

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activities including noise, vibration, odors, and movement of workers or equipment could affect nests and also have the potential to result in nest abandonment, significantly impacting local nesting raptors.

**Recommended Mitigation Measure 8: Focused Surveys for Nesting Eagles**

CDFW recommends that a qualified wildlife biologist conduct surveys for nesting raptors following the *Protocol for Golden Eagle Occupancy, Reproduction, and Prey Population Assessment* (Driscoll 2010), and the *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004). If ground-disturbing activities take place during the typical bird breeding season of February 1 through September 15, CDFW recommends that additional pre-construction surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of construction.

**Recommended Mitigation Measure 9: Eagle Avoidance**

If an active eagle nest is found, CDFW recommends implementation of a minimum ½-mile no-disturbance buffer until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. If nesting eagles are detected and the ½-mile no-disturbance nest buffer is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

Please note that BAEA and GOEA are State fully protected species and pursuant to Fish and Game Code section 3511, CDFW cannot authorize their incidental take. CDFW recommends implementation of a minimum ½-mile no-disturbance buffer around identified BAEO and GOEA nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest site for survival.

**COMMENT 4: Tricolored Blackbird (TRBL)**

**Issues and Impacts:** TRBL have been documented within and adjacent to the Project area, and in the surrounding area (CDFW 2022, UC Davis 2021). The MND/EA acknowledges a large breeding colony of TRBL in Orestimba Creek within a ½ mile of the Project. Review of aerial imagery indicates that the Project area includes suitable habitat types including wetlands, ponds, and flood-irrigated agricultural land, which is an increasingly important nesting habitat type for TRBL (Meese et al. 2017). TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014), and approximately 86% of the global population is found in the San Joaquin Valley (Kelsey 2008, Weintraub et al. 2016). In addition, TRBL have been forming larger colonies that contain progressively larger proportions of the species' total population (Kelsey 2008). In 2008, 55% of the species' global population nested in only two colonies in silage fields (Kelsey 2008). Nesting can occur synchronously, with all eggs laid within one week (Orians 1961).

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For these reasons, disturbance to nesting colonies can cause entire nest colony site abandonment and loss of all unfledged nests, significantly impacting TRBL populations (Meese et al. 2014). Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with subsequent development include nesting habitat loss, nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

**Recommended Mitigation Measure 10: TRBL Surveys**

CDFW recommends that the Project activities be timed to avoid the typical bird-breeding season of February 1 through September 15. If Project activity that could disrupt nesting must take place during that time, CDFW recommends that a qualified biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence or absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

**Recommended Mitigation Measure 11: TRBL Colony Avoidance**

If an active TRBL nesting colony is found during surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer, in accordance with CDFW's (2015) *Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 2015*, until the breeding season has ended or until a qualified biologist has determined that nesting has ceased and the young have fledged and are no longer reliant upon the colony or its nest site for survival.

**Recommended Mitigation Measure 12: TRBL Take Authorization**

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss whether the Project can avoid take and, if take avoidance is not feasible, to acquire an ITP for TRBL pursuant to Fish and Game Code section 2081, subdivision (b), prior to any Project activities.

**COMMENT 5: Foothill Yellow-Legged Frog (FYLF)**

**Issue and Impacts:** FYLF are primarily stream-dwelling and require shallow, flowing water in streams and rivers with at least some cobble-sized substrate (Thomson et al. 2016). FYLF have been documented to occur east of the Project site in Orestimba Creek (CDFW 2022), and the Project site contains habitat that may support this species. Without appropriate avoidance and minimization measures for FYLF, potentially significant impacts associated with the Project's activities include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs, larvae and/or young, and direct mortality of individuals.

FYLF populations throughout the state have experienced ongoing and drastic declines and many have been extirpated. FYLF occurred in mountain streams from the San Gabriel River in Los Angeles County to southern Oregon west of the Sierra-

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Cascade crest (Thomson et al. 2016). Habitat loss from growth of cities and suburbs, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators such as bullfrogs are the primary threats to FYLF (Thomson et al. 2016, USFWS 2017). Project activities have the potential to significantly impact the species.

#### **Recommended Mitigation Measure 13: FYLF Surveys**

CDFW recommends that a qualified biologist conduct surveys for FYLF in accordance with the *Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog* (USFWS 2005) to determine if FYLF are within or adjacent to the Project area; while this survey is designed for California red-legged frog (*Rana draytonii*), it may be used for FYLF with a focus on stream/river habitat.

#### **Recommended Mitigation Measure 14: FYLF Avoidance**

If any FYLF are found during preconstruction surveys or at any time during construction, consultation with CDFW is warranted to determine if the Project can avoid take. CDFW recommends that initial ground-disturbing activities be timed to avoid the period when FYLF are most likely to be moving through upland areas (i.e., November 1 to March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends that a qualified biologist monitor construction activity daily for FYLF.

#### **Recommended Mitigation Measure 15: FYLF Take Authorization**

FYLF detection warrants consultation with CDFW to discuss how the Project can avoid take and, if take avoidance is not feasible, to acquire an ITP for FYLF pursuant to Fish and Game Code section 2081, subdivision (b), prior to any Project activities.

### **COMMENT 6: Special-Status Bat Species**

**Issues and Impacts:** The MND/EA acknowledges that habitat features are present that have the potential to support pallid bat and western red bat. Pallid bat is known to roost in buildings, caves, tunnels, cliffs, crevices, and trees. (Lewis 1994). Western red bat is highly associated with riparian habitat (Peirson et al. 2006). Project activities have the potential to affect habitat upon which special-status bat species depend for successful breeding and have the potential to impact individuals and local populations. Without appropriate avoidance and minimization measures for special-status bat species, potential significant impacts resulting from ground- and vegetation-disturbing activities associated with Project activities include habitat loss, inadvertent entrapment, roost abandonment, reduced reproductive success, reduction in health and vigor of young, and direct mortality of individuals.

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**Recommended Mitigation Measure 16: Bat Roost Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment well in advance of Project implementation to determine if the Project area or its immediate vicinity contains suitable roosting habitat for special-status bat species.

**Recommended Mitigation Measure 17: Bat Surveys**

If suitable habitat is present, CDFW recommends assessing presence/absence of special-status bat roosts by conducting surveys during the appropriate seasonal period of bat activity. CDFW recommends methods such as evening emergence surveys or bat detectors to determine whether bats are present.

**Recommended Mitigation Measure 18: Bat Roost Disturbance Minimization and Avoidance**

If bats are present, CDFW recommends that a 100-foot no-disturbance buffer be placed around the roost and that a qualified biologist who is experienced with bats monitor the roost for signs of disturbance to bats from Project activity. If a bat roost is identified and work is planned to occur during the breeding season, CDFW recommends that no disturbance to maternity roosts occurs and that CDFW be consulted to determine measures to prevent breeding disruption or failure.

**COMMENT 7: Western Pond Turtle (WPT)**

**Issues and Impacts:** WPT are documented in the Project area (CDFW 2022), and a review of aerial imagery shows requisite habitat features that WPT utilize for nesting, overwintering, dispersal, and basking occur in the Project area. These features include aquatic and terrestrial habitats such as streams, ponded areas, irrigation canals, riparian and upland habitat. WPT are known to nest in the spring or early summer within 100 meters of a water body, although nest sites as far away as 500 meters have also been reported (Thomson et al. 2016). Noise, vegetation removal, movement of workers, construction and ground disturbance as a result of Project activities have the potential to significantly impact WPT populations. Without appropriate avoidance and minimization measures for WPT, potentially significant impacts associated with Project activities could include nest reduction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

**Recommended Mitigation Measure 19: WPT Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for WPT within 10 days prior to Project implementation. In addition, CDFW recommends that focused surveys for nests occur during the egg-laying season of March through August.

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**Recommended Mitigation Measure 20: WPT Avoidance and Minimization**

CDFW recommends that any WPT nests that are discovered remain undisturbed with a no-disturbance buffer maintained around the nest until the eggs have hatched and neonates are no longer in the nest or Project areas. If WPT individuals are discovered at the site during surveys or Project activities, CDFW recommends that they be allowed to move out of the area of their own volition without disturbance.

**COMMENT 8: Other State Species of Special Concern**

**Issues and Impacts:** American badger and western spadefoot are known to inhabit grassland and upland shrub areas with friable soils (Williams 1986, Thomson et al. 2016). These species have been documented to occur in the vicinity of the Project, which supports requisite habitat elements for these species (CDFW 2022), and habitat loss threatens these species (Williams 1986, Thomson et al. 2016). Habitat within and adjacent to the Project represents some of the only remaining undeveloped land in the vicinity, which is otherwise intensively managed for agriculture. Without appropriate avoidance and minimization measures for these species, potentially significant impacts associated with ground disturbance include habitat loss, nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

**Recommended Mitigation Measure 21: Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if Project areas or their immediate vicinity contain suitable habitat for the species mentioned above.

**Recommended Mitigation Measure 22: Surveys**

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for the species and their requisite habitat features to evaluate potential impacts resulting from ground and vegetation disturbance.

**Recommended Mitigation Measure 23: Avoidance**

Avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around dens of mammals like the American badger as well as the entrances of burrows that can provide refuge for small mammals, reptiles, and amphibians.

**COMMENT 9: Special-Status Plants**

**Issues and Impacts:** Spiny-sepaled button celery is a special-status plant species meeting the definition of rare or endangered under CEQA section 15380, and is known to occur within the Project boundary and surrounding area. This plant species is threatened by grazing, road maintenance, hydrological alterations, and agriculture (CNPS 2022). Impacts to existing populations have the potential to

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significantly impact populations of plant species. Without appropriate avoidance and minimization measures for special-status plants, potential significant impacts associated with subsequent Project-specific activities include loss of habitat, loss or reduction of productivity, and direct mortality.

**Recommended Mitigation Measure 24: Special-Status Plant Surveys**

CDFW recommends that individual Project sites be surveyed for special-status plants by a qualified botanist following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

**Recommended Mitigation Measure 25: Special-Status Plant Avoidance**

CDFW recommends that special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW may be warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

**Recommended Mitigation Measure 26: Listed Plant Species Take Authorization**

If a State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization is warranted. Take authorization would occur through issuance of an ITP, pursuant to Fish and Game Code section 2081, subdivision (b).

**Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?**

**COMMENT 10: Wetland and Riparian Habitats**

**Issues and Impacts:** The Project area includes Orestimba Creek and associated riparian, wetland, and sycamore alluvial woodland habitat. Project activities such as water recharge and any associated ground disturbances have the potential to involve temporary and permanent impacts to these habitat features. Project activities have the potential to result in temporary and permanent impacts to these features through groundwater pumping, habitat conversion, grading, fill, and related development. Riparian and associated floodplain and wetland areas are valuable for their ecosystem processes such as protecting water quality by filtering pollutants and transforming nutrients, stabilizing stream banks to prevent erosion and sedimentation/siltation, and dissipating flow energy during flood conditions, thereby

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spreading the volume of surface water, reducing peak flows downstream, and increasing the duration of low flows by slowly releasing stored water into the channel through subsurface flow. The Fish and Game Commission policy regarding wetland resources discourages development or conversion of wetlands that results in any net loss of wetland acreage or habitat value. Habitat conversion, construction, grading, and fill activities within these features also has the potential to impact downstream waters as a result of Project site impacts leading to erosion, scour, and changes in stream morphology.

**Recommended Mitigation Measure 27: Stream and Wetland Mapping**

CDFW recommends that formal stream mapping and wetland delineation be conducted by a qualified biologist or hydrologist, as warranted, to determine the baseline location, extent, and condition of streams (including any floodplain) and wetlands within and adjacent to the Project area. Please note that while there is overlap, State and Federal definitions of wetlands differ, and complete stream mapping commonly differs from delineations used by the U.S. Army Corps of Engineers specifically to identify the extent of Waters of the U.S. Therefore, it is advised that the wetland delineation identify both State and Federal wetlands in the Project area as well as the full extent of all streams including floodplains, if present, within the Project area. CDFW advises that site map(s) depicting the extent of any activities that may affect wetlands, lakes, or streams be included with any Project site evaluations, to clearly identify areas where stream/riparian and wetland habitats could be impacted from Project activities.

**Recommended Mitigation Measure 28: Stream and Wetland Habitat Mitigation**

CDFW recommends that the potential direct and indirect impacts to stream/riparian and wetland habitat be analyzed according to each Project activity. Based on those potential impacts, CDFW recommends that the MND/EA include measures to avoid, minimize, and/or mitigate those impacts. CDFW recommends that impacts to riparian habitat (i.e., biotic and abiotic features) take into account the effects to stream function and hydrology from riparian habitat loss or damage, as well as potential effects from the loss of riparian habitat to special-status species already identified herein. CDFW recommends that losses to wetland or riparian habitats be offset with corresponding habitat restoration incorporating native vegetation to replace the value to fish and wildlife provided by the habitats lost from Project implementation. If on-site restoration to replace habitats is not feasible, CDFW recommends offsite mitigation by restoring or enhancing in-kind riparian or wetland habitat and providing for the long-term management and protection of the mitigation area, to ensure its persistence.

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## **COMMENT 11: Sustainable Groundwater Management Act (SGMA) and Groundwater Dependent Ecosystems**

**Issues and Impacts:** Many sensitive ecosystems and public trust resources such as streams, springs, riparian areas, and wetlands are dependent on groundwater and interconnected surface waters. The Project boundary overlaps the boundary for the Delta-Mendota Subbasin located in the northern San Joaquin Valley Groundwater Basin (Groundwater Basin Number 5-022.07) and is within the Northern & Central Delta-Mendota Groundwater Sustainability Plan. The Delta-Mendota Subbasin is listed as a high priority Subbasin by the California Department of Water Resources. SGMA defines sustainable groundwater management as “management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results (Water Code, § 10721 (v)).” Significant and undesirable results that may result from Project related activities and have adverse impacts to groundwater dependent ecosystems include chronic lowering of groundwater levels, reduction of groundwater storage, degraded water quality, land subsidence, and depletions of interconnected surface water that have an adverse impact on beneficial uses of surface water.

Project-related activities may result in significant and adverse impacts to groundwater dependent ecosystems including wetland and riparian habitats and the species dependent upon these habitats.

### **Analysis Recommendations:**

- CDFW recommends that the MND/EA include an analysis of Project-related activities in relation to the Northern & Central Delta-Mendota Groundwater Sustainability Plan including analysis of potential undesirable results and adverse impacts to groundwater dependent ecosystems including the biological resources listed above.
- CDFW recommends that the MND/EA analyze how the Project may affect surface and subsurface water levels, including drawdown from confined aquifers.
- CDFW recommends a hydrologic study or other information that identifies and analyzes the impacts to the aquatic ecosystems and fisheries of the Orestimba and San Joaquin River that may result from Project implementation.
- CDFW recommends that the MND/EA include specific triggers for evaluating changes to surface and ground water levels and monitoring wetland and riparian habitats that would be affected by these changes.

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**Recommended Mitigation Measure 29: Groundwater Dependent Ecosystem Monitoring and Mitigation**

CDFW recommends that the MND/EA include requirements to identify, evaluate, and monitor all groundwater dependent ecosystems that would be affected by Project activities, and develop a plan to offset losses of groundwater dependent ecosystems caused by changes in hydrology associated with the Project. The plan should address mitigation for impacted habitat value and function, to achieve a minimum no net loss of these habitats, consistent with California Fish and Game Commission policy on Wetlands Resources.

**COMMENT 12: Water Rights and Impacts from Surface Water Diversion:**

**Issues and Impacts:** The MND/EA states that CCID and DPWD are jointly and simultaneously pursuing a Streamlined Standard Water Right Permit to divert and recharge available and unappropriated flood water supplies from Orestimba Creek, during high flow flood events. As stated previously, the capture of unallocated stream flows to artificially recharge groundwater aquifers is subject to appropriation and approval by the SWRCB pursuant to Water Code section 1200 et seq. CDFW recommends that the MND/EA include a detailed description of the water rights and water entitlements that would pertain to the Project and address any applications or change petitions that may be filed. CDFW, as Trustee Agency, is consulted by the SWRCB during the water rights process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Given the potential for impacts to sensitive species and their habitats, it is advised that required consultation with CDFW occur well in advance of the SWRCB water right application process.

**Analysis Recommendations:**

- CDFW recommends that the MND/EA analyze how the Project may affect surface and subsurface water levels.
- CDFW recommends a hydrologic study, water availability analysis, or other information that identifies and analyzes the impacts to aquatic ecosystems and fish and wildlife resources of the Orestimba Creek and San Joaquin River that may result from Project-related surface water diversion, including diversion for groundwater storage.
- CDFW recommends that the MND/EA include specific triggers for evaluating changes to surface flow and subsurface water levels, and monitoring wetland and riparian habitats that would be affected by these changes.

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### **Recommended Mitigation Measure 30: Aquatic Ecosystem Monitoring and Mitigation**

CDFW recommends that the MND/EA include requirements to identify, evaluate, and monitor all aquatic ecosystems and fish and wildlife resources therein that would be affected by Project activities related to surface water diversion, and develop a plan to offset losses caused by changes in hydrology associated with the Project. The plan should address mitigation for impacted habitat value and function, to achieve a minimum no net loss of these habitats, consistent with California Fish and Game Commission policy on Wetlands Resources.

### **Editorial Comments and/or Suggestions**

**Lake and Streambed Alteration:** Project activities that have the potential to substantially change the bed, bank, and channel of streams and associated wetlands may be subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration (LSA) Agreement; therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for LSA Agreement issuance. Additional information on notification requirements is available through the Central Region LSA Program at (559) 243-4593 or [R4LSA@wildlife.ca.gov](mailto:R4LSA@wildlife.ca.gov), and the CDFW website: <https://wildlife.ca.gov/Conservation/LSA> .

**Nesting birds:** CDFW encourages that Project implementation occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e. nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral

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baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends that the work causing that change cease and that CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers.

**Endangered Species Act Consultation:** CDFW recommends consultation with the USFWS prior to Project ground disturbance, due to potential impacts to Federal listed species. Take under the Federal Endangered Species Act (FESA) is more stringently defined than under CESA; take under FESA may also include significant habitat modification or degradation that could result in death or injury to a listed species, by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of Project implementation.

## ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database that may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be obtained at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>

## FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of 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

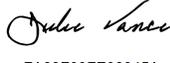
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CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

## CONCLUSION

CDFW appreciates the opportunity to comment on the MND/EA to assist CCID in identifying and mitigating Project impacts on biological resources. If you have questions regarding this letter, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 580-3202 or by email at [Annette.Tenneboe@wildlife.ca.gov](mailto:Annette.Tenneboe@wildlife.ca.gov).

Sincerely,

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## REFERENCES

- California Department of Fish and Wildlife (CDFW). 2015. Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 2015. March 19, 2015.
- CDFW. 2016. Status Review: Swainson's hawk (*Buteo swainsoni*) in California. Reported to California Fish and Game Commission. Five years status report.
- CDFW. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. California Department of Fish and Wildlife. March 20, 2018.
- CDFW. 2022. Biogeographic Information and Observation System (BIOS). <https://www.wildlife.ca.gov/Data/BIOS>. Accessed 18 February 2022.
- California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). <https://www.rareplants.cnps.org>. Accessed 18 February 2022.
- Cypher, B. and N. Frost. 1999. Condition of San Joaquin kit foxes in urban and exurban habitats. *Journal of Wildlife Management* 63: 930–938.
- Cypher, B.L., S.E. Phillips, and P.A. Kelly. 2013. Quantity and distribution of suitable habitat for endangered San Joaquin kit foxes: conservation implications. *Canid Biology & Conservation* 16(7): 25-31.  
[http://www.canids.org/CBC/16/San\\_Joaquin\\_kit\\_fox\\_habitat\\_suitability.pdf](http://www.canids.org/CBC/16/San_Joaquin_kit_fox_habitat_suitability.pdf)
- Driscoll, D.E. 2010. Protocol for Golden Eagle Occupancy, Reproduction, and Prey Population Assessment. American Eagle Research Institute, Apache Jct., AZ. 55pp.
- Estep, J. 2009. The influence of vegetation structure on Swainson's hawk (*Buteo swainsoni*) foraging habitat suitability in Yolo County, California. Prepared for the Yolo Natural Heritage Program, Woodland, CA.
- Jackman, R.E. and J.M. Jenkins. 2004. Protocol for Evaluating Bald Eagle Habitat and Populations in California. Prepared for U.S. Fish and Wildlife Service Endangered Species Division, Sacramento, CA, USA.
- Kelsey, R. 2008. Results of the tricolored blackbird 2008 census. Report submitted to U.S. Fish and Wildlife Service, Portland, OR, USA.

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Lewis, S. E., 1994. Night roosting ecology of pallid bats (*Antrozous pallidus*) in Oregon. The American Midland Naturalist, Vol. 132, pp. 219-226.

Meese, R.J., E.C. Beedy, and W.J. Hamilton, III. 2014. Tricolored blackbird (*Agelaius tricolor*), The Birds of North America (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna-org.bnaproxy.birds.cornell.edu/Species-Account/bna/species/tribla>. Accessed December 15, 2017.

Meese, R.J. 2017. Results of the 2017 Tricolored Blackbird Statewide Survey. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report 2017-04, Sacramento, CA. 27 pp. + appendices.

Orians, G.H. 1961. The ecology of blackbird (*Agelaius*) social systems. Ecological Monographs 31(3): 285–312.

Pierson, E.D., W.E. Rainey, and C. Corben. 2006. Distribution and status of Western red bats (*Lasiurus blossevillii*) in California. Calif. Dept. Fish and Game, Habitat Conservation Planning Branch, Species Conservation and Recovery Program Report 2006-04, Sacramento, CA 45 pp.

Steidl, R.J., K.D. Kozie, G.J. Dodge, T. Pehovski, and E.R. Hogan. 1993. Effects of human activity on breeding behavior of golden eagles in Wrangell-St. Elias National Park and Preserve; a preliminary assessment. Copper Center, AK: National Park Service, Wrangell-St. Elias National Park Preserve.

Swainson's Hawk Technical Advisory Committee (SWHA TAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley of California. Swainson's Hawk Technical Advisory Committee. May 31, 2000.

Swolgaard, C.A., K.A. Reeves, and D.A. Bell. 2008. Foraging by Swainson's hawks in a vineyard-dominated landscape. Journal of Raptor Research 42(3): 188-196.

Thomson, R.C., A.N. Wright, and H. B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. California Department of Fish and Wildlife and University of California Press: 84-92.

United States Fish and Wildlife Service (USFWS). 2005. Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog. March 2005. 26 pp.

USFWS. 2011. Standard Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance. United States Fish and Wildlife Service. January 2011.

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USFWS. 2017. Species Account for California Red-legged frog. March 2017. 1 pp.

University of California, Davis (UC Davis). 2021. Tricolored blackbird portal.  
<https://tricolor.ice.ucdavis.edu/>

Weintraub, K., T.L. George, and S.J. Dinsmore. 2016. Nest survival of tricolored blackbirds in California's Central Valley. *Condor* 118(4): 850–861.

Williams, D.F. 1986. Mammalian species of special concern in California. Calif. Dept. Fish and Game, Sacramento. Admin. Rep. 86-1. 112pp.

Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM  
(MMRP)**

**PROJECT: Orestimba Creek Recharge Recovery Expansion Project**

**STATE CLEARINGHOUSE No.: 2022010548**

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Project Activity</i>	
<b>Recommended Mitigation Measure 1: SJKF Habitat Assessment</b>	
<b>Recommended Mitigation Measure 2: SJKF Surveys and Minimization</b>	
<b>Recommended Mitigation Measure 3: SJKF Take Authorization</b>	
<b>Recommended Mitigation Measure 4: SWHA Nest Tree Avoidance and Mitigation</b>	
<b>Recommended Mitigation Measure 5: Focused SWHA Surveys</b>	
<b>Recommended Mitigation Measure 6: SWHA Buffers</b>	
<b>Recommended Mitigation Measure 7: SWHA Take Authorization</b>	
<b>Recommended Mitigation Measure 8: Focused Surveys for Nesting Eagles</b>	
<b>Recommended Mitigation Measure 9: Eagle Avoidance</b>	
<b>Recommended Mitigation Measure 10: TRBL Surveys</b>	
<b>Recommended Mitigation Measure 11: TRBL Colony Avoidance</b>	
<b>Recommended Mitigation Measure 12: TRBL Take Authorization</b>	
<b>Recommended Mitigation Measure 13: FYLF Surveys.</b>	
<b>Recommended Mitigation Measure 14: FYLT Avoidance</b>	
<b>Recommended Mitigation Measure 15: FYLF Take Authorization</b>	
<b>Recommended Mitigation Measure 16: Bat Roost Habitat Assessment</b>	

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<b>Recommended Mitigation Measure 17: Bat Surveys</b>	
<b>Recommended Mitigation Measure 18: Bat Roost Disturbance Minimization and Avoidance</b>	
<b>Recommended Mitigation Measure 19: WPT Surveys</b>	
<b>Recommended Mitigation Measure 20: WPT Avoidance and Minimization</b>	
<b>Recommended Mitigation Measure 21: Habitat Assessment – American badger and western spadefoot.</b>	
<b>Recommended Mitigation Measure 22: Surveys – American badger and western spadefoot.</b>	
<b>Recommended Mitigation Measure 23: Avoidance – American badger and western spadefoot.</b>	
<b>Recommended Mitigation Measure 24: Special-Status Plant Surveys</b>	
<b>Recommended Mitigation Measure 25: Special-Status Plant Avoidance</b>	
<b>Recommended Mitigation Measure 26: Listed Plant Species Take Authorization</b>	
<b>Recommended Mitigation Measure 27: Stream and Wetland Mapping</b>	
<b>Recommended Mitigation Measure 28: Stream and Wetland Habitat Mitigation</b>	
<b>Recommended Mitigation Measure 29: Groundwater Dependent Ecosystem Monitoring and Mitigation</b>	
<b>Recommended Mitigation Measure 30: Aquatic Ecosystem Monitoring and Mitigation</b>	
<i>During Project Activity</i>	
<b>Recommended Mitigation Measure 2: SJKF Surveys and Minimization</b>	
<b>Recommended Mitigation Measure 4: SWHA Nest Tree Avoidance and Mitigation</b>	
<b>Recommended Mitigation Measure 6: SWHA Buffers</b>	
<b>Recommended Mitigation Measure 9: Eagle Avoidance</b>	

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<b>Recommended Mitigation Measure 11: TRBL Colony Avoidance</b>	
<b>Recommended Mitigation Measure 14: FYLF Avoidance</b>	
<b>Recommended Mitigation Measure 18: Bat Roost disturbance Minimization and Avoidance</b>	
<b>Recommended Mitigation Measure 20: WPT Avoidance and Minimization</b>	
<b>Recommended Mitigation Measure 23: Avoidance – American badger and western spadefoot.</b>	
<b>Recommended Mitigation Measure 25: Special-Status Plant Avoidance</b>	