



Governor's Office of Planning & Research

**Feb 05 2021**

## STATE CLEARINGHOUSE

February 4, 2021

Michael Wegley  
Marina Coast Water District  
11 Reservation Road  
Marina, California 93933  
[MWegley@mcwd.org](mailto:MWegley@mcwd.org)

**Subject: A1/A2 Reservoirs and B/C Zones Booster Pump Station Project  
(Project)  
Mitigated Negative Declaration  
(MND) State Clearinghouse No.  
2021010030**

Dear Mr. Wegley:

The California Department of Fish and Wildlife (CDFW) received a Notice of Intent to Adopt a MND from the Marina Coast Water District for the above-referenced 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 exercise of our 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 the 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. For example, 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.

**Fully Protected Species:** CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and CDFW cannot authorize their incidental take.

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

**Water Pollution:** Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into “Waters of the State” any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures, implementation of the Project could result in pollution of Waters of the State from storm water runoff or construction -related erosion. Potential impacts to the wildlife resources that utilize these watercourses include the following: increased sediment input from road or structure runoff; toxic runoff associated with development activities and implementation; and/or impairment of wildlife movement along riparian corridors. The Regional Water Quality Control Board and United States Army Corps of Engineers (USACE) also have jurisdiction regarding discharge and pollution to Waters of the State.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** Marina Coast Water District (MCWD).

**Objective:** As part of the 2006 Marina Water System Master Plan (2006 Master Plan) and 2020 Water Master Plan (2020 Master Plan), the Project involves the relocation and replacement of the existing B/C Booster Pump Station (BPS) and Sand Tank with a new B/C BPS and two new A1/A2 Reservoirs. The A1/A2 Reservoirs would provide operational, fire, and emergency water storage for Zone A in Ord Community and Central Marina service areas. In addition, various associated infrastructure improvements would occur at the Intermediate Reservoir, F Booster Pump Station, and Ord Wellfield Chlorination Building. The Project would include two new potable water storage tanks (reservoirs) and a new B/C BPS to pump water from the new storage tanks to the existing B and C pressure zone reservoirs and distribution system. A portion of the C-Zone transmission main from the

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existing BPS would be converted to an A-Zone transmission main to supply the new reservoirs. This would require adding a new pipeline in Imjin Parkway and adjusting valves at the existing pump station to connect the wellfield transmission mains to the C-Z one transmission main.

The Project also includes various improvements at the existing Intermediate Reservoir, F Booster Pump Station, and Ord Wellfield Chlorination Building. The Project includes updating the Supervisory Control and Data Acquisition (SCADA) system, replace the altitude valve, replace the emergency generator, and recoat the Intermediate Reservoir. Improvements to the Ord Community wellfield disinfection system at the Chlorination Building include adding a flow meter on the wellfield main and variable speed drives on the dosing pumps. The existing B/C BPS is centrally located on the former Fort Ord and multiple pipelines radiate out from the B/C BPS site. The two 16-inch pipelines that connect the wellfield to the BPS converge at the Bermad valve, which is located outside the BPS easement. These wellfield pipelines are planned to be replaced in the future with a 24-inch pipeline located within California Avenue and Imjin Parkway.

**Location:** The Project is located at three distinct locations within the City of Marina limits on the former Fort Ord in Monterey County, California:

The two A1/A2 Reservoirs (reservoirs) and B/C Zones Booster Pump Station (B/C BPS) would be located within a 1.6-acre easement on the California State University Monterey Bay (CSUMB) campus. The Project site is situated on an existing paved parking lot on Assessor's Parcel Number (APN) 031-101-033-000 near 8th Street and 6th Avenue, east of the City's Public Works Corporation Yard. There is an additional 0.59-acre pipeline easement at this location, which connects the north end of the facility easement to 6th Avenue.

The Intermediate Reservoir, F Booster Pump Station, and Ord Wellfield Chlorination Building are co-located on a 0.63-acre easement along Old County Road. The 24-inch wellfield pipeline is located within a 15-foot (ft) wide easement owned by the MCWD. The City of Marina's (City's) General Plan Land Use Designation for this portion of the proposed Project area is Habitat Preserve and Other Open Space.

The existing B/C BPS is located within the Sea Haven (formerly Marina Heights) Specific Plan Area on 3.79-acre easement southeast of the intersection of California Avenue and Marina Heights Drive on APN 031-271-010-000 (owned by the City). A portion of the Project is also located within the Imjin Parkway right-of-way.

**Timeframe:** Unspecified.

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the comments and recommendations below to assist MCWD in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and

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indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Based on aerial imagery, species occurrence records, and the land cover types that intersect and comprise the project alignment, the Project area is known to and/or has high potential to support numerous special-status species, including CESA-listed species (CDFW 2021, CNPS 2018, UC Davis 2018). Therefore, the Project has the potential to significantly impact these species. Specifically, CDFW is concerned about potential of the Project to significantly impact the State and federally threatened California tiger salamander (*Ambystoma californiense*); the State threatened, federally endangered, and California Rare Plant Ranked (CRPR) 1B.2 Monterey gilia (*Gilia tenuiflora arenaria*); the State endangered and CRPR 1B.1 seaside bird's-beak (*Cordylanthus rigidus littoralis*), the State fully-protected white-tailed kite; the federally threatened and State species of special concern California red-legged frog (*Rana draytonii*); the State species of special concern northern California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), burrowing owl (*Athene cunicularia*), Monterey ornate shrew (*Sorex ornatus salarii*), and American badger (*Taxidea taxus*); State Special Animal Rank S1S2 Crotch bumble bee (*Bombus crotchii*), State Special Animal Rank S1 Western bumbler bee (*Bombus occidentalis occidentalis*), and numerous CRPR plant species including, but not limited to, the federally threatened and CRPR 1B.2 Monterey spineflower (*Chorizanthe pungens* var. *pungens*); the CRPR 1B.1 Eastwood's goldenbush (*Ericameria fasciculata*), pink Johnny-nip (*Castilleja ambigua* var. *insalutata*), Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), Hooker's manzanita (*Arctostaphylos hookeri hookeri*), sand-loving wallflower (*Erysimum ammophilum*), sandmat manzanita (*Arctostaphylos pumila*), and Toro manzanita (*Arctostaphylos montereyensis*); and the CRPR 4 Monterey ceanothus (*Ceanothus cuneatus rigidus*). Many of these species occur in maritime chaparral, coastal scrub, coastal prairie, and grassland communities, which are present within and adjacent to the Project area. In addition, the Salinas River is in close proximity to the Project area and is known to support breeding populations of California red-legged frogs (CDFW 2021). Other natural areas where the species mentioned above are known or likely to occur also lie in the vicinity of the Project area including the Fort Ord Natural Reserve, lands managed by the University of California Natural Reserve System, and Fort Ord Dunes State Park.

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. Therefore, a lack of an occurrence record in the CNDDDB is not tantamount to a negative species finding. 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 evaluations, mitigation measure modifications, and/or edits be incorporated into the MND.

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## I. Environmental Setting and Related Impact

**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: California tiger salamander (CTS)**

**Issue:** CTS are known to occur in close proximity of the Project area (CDFW 2021). Review of aerial imagery indicates the presence of several wetland features in the Project's vicinity that have the potential to support breeding CTS. In addition, the Project area or its immediate surroundings may support small mammal burrows, a requisite upland habitat feature for CTS.

**Specific impact:** Without appropriate avoidance and minimization measures for CTS, potential significant impacts associated with the Project's construction include burrow collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs, larvae and/or young, and direct mortality of individuals. In addition, depending on Project design, the Project has the potential to result in creation of barriers to dispersal.

**Evidence impact would be significant:** Up to 75% of historic CTS habitat has been lost to development (Shaffer et al. 2013). Loss, degradation, and fragmentation of habitat are among the primary threats to CTS (CDFW 2015, USFWS 2017a). The Project area is within the range of CTS and is both composed of and bordered by suitable upland habitat. As a result, there is potential for CTS to occupy or colonize the Project area and for the Project to impact CTS.

### **Recommended Mitigation Measure 1: CTS 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 vicinity contains suitable habitat for CTS.

### **Recommended Mitigation Measure 2: Focused CTS Surveys**

If the Project area does contain suitable habitat for CTS, CDFW recommends that a qualified biologist evaluate potential Project-related impacts to CTS prior to ground-disturbing activities using the USFWS's "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander" (2003). CDFW advises that the survey include a 100-foot buffer around the Project area in all areas of wetland and upland habitat that could support CTS.

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### **Recommended Mitigation Measure 3: CTS Avoidance**

CDFW advises avoidance for CTS include a minimum 50-foot no disturbance buffer delineated around all small mammal burrows and a minimum 250-foot no disturbance buffer around potential breeding pools within and/or adjacent to the Project area. CDFW also recommends avoiding any impacts that could alter the hydrology or result in sedimentation of breeding pools. If avoidance is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

### **Recommended Mitigation Measure 4: CTS Take Authorization**

If through surveys it is determined that CTS are occupying the Project area and take cannot be avoided, take authorization may be warranted prior to initiating ground disturbing activities by securing the acquisition of a state Incidental Take Permit (ITP) pursuant to Fish and Game Code section 2081 subdivision (b) before Project ground or vegetation disturbing activities occur. Alternatively, in the absence of protocol surveys, the applicant can assume presence of CTS within the Project area and obtain an ITP from CDFW at any time.

### **COMMENT 2: Monterey gilia, Seaside birdbeak, and CRPR plant species**

**Issue:** Monterey gilia and the CRPR plant species mentioned above are known to occur on and in the vicinity Project area (USFWS 2008, CDFW 2021). Lands designated for development that were transferred from the Department of the Army's former Fort Ord, as is the case with portions of the Project site, contain high quality habitat for the CESA-listed Monterey gilia (USFWS 2008). In addition, the sandy soils and maritime chaparral vegetation community present within portions of the Project area are suitable to support CESA-listed seaside bird's-beak (CDFW 2021, CNPS 2019, UC Davis 2018). The Project area also supports coastal scrub, which has the potential to support numerous CRPR-species such as Monterey spineflower, Eastwood's goldenbush, pink Johnny-nip, Kellogg's horkelia, Hooker's manzanita, Jolon clarkia, sand-loving wallflower, sandmat manzanita, Toro manzanita, and Monterey ceanothus. Grading and development associated with the Project have the potential to impact special-status plant species.

**Specific impact:** Without appropriate avoidance and minimization measures, potential impacts to special-status plant species include inability to reproduce and direct mortality. Unauthorized take of species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code.

**Evidence impact would be significant:** Monterey gilia, seaside bird's-beak, and many of the CRPR-listed plant species above are narrowly distributed endemic species with specific habitat requirements. These species are threatened with habitat loss and habitat fragmentation resulting from development, vehicle and foot traffic, and non-native plant species (CNPS 2019), all of which may be unintended impacts of the Project.

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### **Recommended Mitigation Measure 5: Special-Status Plant 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 vicinity contains suitable habitat for special-status plant species.

### **Recommended Mitigation Measure 6: Focused Surveys**

CDFW recommends that the Project area 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 Sensitive Natural Communities” (CDFW 2018). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

### **Recommended Mitigation Measure 7: Special-Status Plant Avoidance**

CDFW recommends special-status plant species be avoided whenever possible by delineation 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 is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

### **Recommended Mitigation Measure 8: Special-Status Plant 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. CDFW is aware that efforts are underway to finalize the Fort Ord HCP and to secure companion acquisition of an ITP pursuant to Fish and Game Code section 2081 subdivision (b) for activities described in the HCP; however, if take cannot be avoided, absent securing take coverage through these efforts, separate take authorization would need to occur through issuance of an ITP by CDFW.

### **COMMENT 3: California Red-Legged Frog (CRLF)**

**Issue:** CRLF have been documented to occur within the Salinas River, which is adjacent to a portion of the Project Area (CDFW 2019). CRLF primarily inhabit ponds but can also be found in other waterways including marshes, streams, and lagoons. The species will also breed in ephemeral waters (Thomson et al. 2016). Review of aerial imagery indicates the presence of several ponded wetland features within the vicinity of the Project Area that may be suitable to support CRLF. As a result, the Project has the potential to impact CRLF.

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**Specific impact:** Without appropriate avoidance and minimization measures for CRLF, 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.

**Evidence impact is potentially significant:** CRLF populations throughout the State have experienced ongoing and drastic declines and many have been extirpated (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 CRLF (Thomson et al. 2016, USFWS 2017b). All of these impacts have the potential to result from the Project.

#### **Recommended Mitigation Measure 9: CRLF Habitat Assessment**

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 contain suitable habitat for CRLF.

#### **Recommended Mitigation Measure 10: CRLF Surveys**

If suitable habitat is present, CDFW recommends that a qualified wildlife biologist conduct surveys for CRLF within 48 hours prior to commencing work (two-night surveys immediately prior to construction or as otherwise required by the USFWS) in accordance with the USFWS *"Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog"* (USFWS 2005) to determine if CRLF are within or adjacent to the Project area.

#### **Recommended Mitigation Measure 11: CRLF Avoidance**

If any CRLF are found during preconstruction surveys or at any time during construction, CDFW recommends that construction cease and that CDFW be contacted to discuss a relocation plan for CRLF with relocation conducted by a qualified biologist, holding a Scientific Collecting Permit for the species. CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (November 1 and 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 CRLF.

#### **COMMENT 4: Northern California Legless Lizard and Coast Horned Lizard**

**Issue:** Northern California legless lizards and coast horned lizards are known to occur in the vicinity of the Project area (CDFW 2019). Northern California legless lizards are fossorial and inhabit chaparral habitat with sandy or loose loamy soils (Thomson et al. 2016). Coast horned lizards occur in a wide variety of habitat types but require loose, fine soils for burrowing, open areas for thermoregulation, and shrub cover for refugia

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(Thomson et al. 2016). Review of aerial imagery and soil characteristics indicates that portions of the Project area include and surrounded by these requisite habitat features (CDFW 2019, UC Davis 2018).

**Specific impact:** Without appropriate avoidance and minimization measures for Northern California legless lizard and coast horned lizards, potentially significant impacts associated with ground disturbance include burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

**Evidence impact is potentially significant:** Habitat loss and fragmentation resulting from development is the primary threat to Northern California legless lizard and coast horned lizard (Thomson et al. 2016). The Project area is within the range of Northern California legless lizard and coast horned lizard and portions of it are comprised of and bordered by suitable habitat (i.e., chaparral with friable soils). Ground-disturbing activities associated with development of the Project area have the potential to significantly impact local populations of this species.

#### **Recommended Mitigation Measure 12: Habitat Assessment**

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 contain suitable habitat for Northern California legless lizard.

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

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

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

Avoidance whenever possible is encouraged via delineation and observance of a 50-foot no-disturbance buffer around burrows.

### **COMMENT 6: Burrowing Owl (BUOW)**

**Issue:** The Special Status Species Table of the Biological Resources Report in Appendix A of the MND states that poor quality habitat is present within the existing BPS study areas and in ruderal areas, and the nearest CNDDDB occurrence is an unspecified location adjacent to the existing BPS study area.

BUOW have been documented to occur in the vicinity of the Project area (CDFW 2021). Review of aerial imagery reveals that suitable habitat for BUOW is present both within and in the vicinity of the Project area. BUOW inhabit open, treeless areas containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover (Poulin et al. 2011). Habitat both within and bordering portions of the Project area has

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the potential to support these features. Therefore, there is potential for BUOW to occupy or colonize the Project area or its vicinity.

**Specific impact:** Potentially significant direct impacts associated with Project construction include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

**Evidence impact is potentially significant:** BUOW rely on burrow habitat year-round- for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California (Gervais et al. 2008). Ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

#### **Recommended Mitigation Measure 15: BUOW Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat for BUOW.

#### **Recommended Mitigation Measure 16: BUOW Surveys**

If suitable habitat for BUOW is present, CDFW recommends assessing presence or absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's (CBOC) "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" (CBOC 1993) and CDFW's "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season of April 15 to July 15, when BUOW are most detectable. In addition, CDFW advises that surveys include a 500-foot buffer around the Project area.

#### **Recommended Mitigation Measure 17: BUOW Avoidance**

Should a BUOW be detected, CDFW recommends that no-disturbance buffers, as outlined in the "*Staff Report on Burrowing Owl Mitigation*" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

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Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

\* meters (m)

### **Recommended Mitigation Measure 18: BUOW Passive Relocation and Mitigation**

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of one burrow collapsed to one artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. Because BUOW may attempt to colonize or re-colonize an area that will be impacted, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

### **COMMENT 7: Nesting White-Tailed Kite (WTKI)**

**Issue:** The Special Status Species Table of the Biological Resources Report in Appendix A of the MND states that nesting WTKI have a high potential to occur in the Project area and its vicinity, and WTKI were observed within 0.8 mile of the Project area. MM Bio 4 requires focused surveys for presence or absence of raptor species within 500 feet of the Project site, and requires a 500-foot no-disturbance buffer for all raptors. The MND does not justify how this buffer distance is sufficiently protective for nesting WTKI.

**Specific impact:** 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.

**Evidence impact would be significant:** Without appropriate surveys, WTKI nesting in the vicinity of a project can remain undetected resulting in avoidance and minimization measures not being effectively implemented. In addition, human activity near nest sites can cause reduced provisioning rates of chicks by adults (Steidl et al. 1993 *in* Kochert et al. 2002). Depending on the timing of construction, Project 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 (Hayward et al. 2011).

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### **Recommended Mitigation Measure 19: Focused Surveys for WTKI**

CDFW recommends that a qualified wildlife biologist conduct surveys for nesting WTKI and other nesting raptors. If ground disturbing activities take place during the typical bird breeding season (February 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 20: Avoidance**

If an active WTKI raptor nest is found, CDFW recommends that the MND require 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 raptors 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 WTKI are State fully protected species and no take, incidental or otherwise, of those species can be authorized by CDFW.

### **Recommended Mitigation Measure 21: Tree Removal**

CDFW recommends that the removal of known raptor nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at a ratio of 3:1 at or near the Project area or in another area that will be protected in perpetuity. This mitigation would offset the temporal impacts of nesting habitat loss.

### **COMMENT 8: American Badger**

**Issue:** American badger have been documented to occur in the vicinity of the Project area (CDFW 2021). Badgers occupy sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover, and that support fossorial rodent prey populations (i.e., ground squirrels, pocket gophers, etc.) (Zeiner et al. 1990). The Project area may support these requisite habitat features and, therefore, badgers.

**Specific impact:** Without appropriate avoidance and minimization measures for American badger, potentially significant impacts associated with ground disturbance include direct mortality or natal den abandonment, which may result in reduced health or vigor of young.

**Evidence impact is potentially significant:** Habitat loss is a primary threat to American badger (Gittleman et al. 2001). Ground-disturbing activities have the potential to significantly impact local populations of American badger.

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### **Recommended Mitigation Measure 22: American Badger Habitat Assessment**

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 contain suitable habitat for American badger.

### **Recommended Mitigation Measure 23: American Badger Surveys**

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for American badger and their requisite habitat features (dens) to evaluate potential impacts resulting from ground- and vegetation-disturbance.

### **Recommended Mitigation Measure 24: American Badger Avoidance**

Avoidance whenever possible is encouraged via delineation and observation of a 50-foot no-disturbance buffer around dens until it is determined through non-invasive means that individuals occupying the den have dispersed.

## **COMMENT 9: Crotch Bumble Bee (CBB) and Western Bumble Bee (WBB)**

**Issue:** The CBB is listed as S1S2 on the CDFW Special Animals List (CDFW 2021) and is included as Endangered on the International Union for the Conservation of Nature (“IUCN”) Red List (Hatfield et al. 2015a). The WBB is listed as S1 on the CDFW Special Animals List (CDFW 2021), which may encourage its consideration in review of projects under CEQA. The subspecies of WBB has a NatureServe Global Status rank of T1T3, its status is in the range between “Vulnerable” and “Critically Imperiled” is not secure” (NatureServe 2018). An IUCN Red List category has not yet been formally assigned for *B. o. occidentalis*, but the full species (*B. occidentalis*) is listed as Vulnerable to extinction (Hatfield et al. 2015b). The species is listed as a “Sensitive Species” by the U.S. Forest Service in California (USFS 2013).

Suitable CBB and WBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late February through late October underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). WBB primarily nest in underground cavities such as old squirrel burrows or other animal nests. Little is known about the hibernacula or overwintering sites of WBB, although WBB hibernacula were reported two inches deep in a steep west slope of a mound of earth (Hobbs 1968). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB and WBB populations.

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**Specific impact:** Without appropriate avoidance and minimization measures for CBB and WBB, potentially significant impacts associated with ground- and vegetation-disturbing activities associated with construction of the Project include loss of foraging plants, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young and/or queens, in addition to direct mortality.

**Evidence impact is potentially significant:** CBB was once common throughout most of the central and southern California; however, it now appears to be absent from most of it, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). WBB was once common throughout the western United States, including the coastal and Sierra Nevada ranges in California. Analyses by the Xerces Society et al. (2018) suggest there have been sharp declines in relative abundance by 98% and persistence by 80% over the last ten years.

**Recommended Mitigation Measure 25: CBB and WBB Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for CBB and WBB and their requisite habitat features to evaluate potential impacts resulting from ground- and vegetation-disturbance associated with Project.

**Recommended Mitigation Measure 26: CBB and WBB Avoidance**

If surveys cannot be completed, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet.

**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: Lake and Streambed Alteration (LSA)**

**Issue:** The MND states that Project construction activities have the potential to release sediment. The MND does not specify whether the Project area was surveyed for impacts to streams or wetlands. Project activities conducted within these features are subject to CDFW's LSA regulatory authority, pursuant Fish and Game Code section 1600 et seq.

**Specific impact:** Work within stream channels has the potential to result in substantial diversion or obstruction of natural flows; substantial change or use of material from the bed, bank, or channel (including removal of riparian vegetation); deposition of debris, waste, sediment, toxic runoff or other materials into water causing water pollution and degradation of water quality.

**Evidence impact is potentially significant:**

Construction activities within stream features have the potential to impact downstream waters. Streams function in the collection of water from rainfall, storage of various amounts of water and sediment, discharge of water as runoff and the transport of

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sediment, and they provide diverse sites and pathways in which chemical reactions take place and provide habitat for fish and wildlife species. Disruption of stream systems such as these can have significant physical, biological, and chemical impacts that can extend into the adjacent uplands adversely affecting not only the fish and wildlife species dependent on the stream itself, but also the flora and fauna dependent on the adjacent upland habitat for feeding, reproduction, and shelter.

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

CDFW recommends that formal stream mapping and wetland delineation be conducted by a qualified biologist to determine the location and extent 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 as well as what activities require Notification pursuant to Fish and Game Code section 1602 differ. Therefore, it is advised that the wetland delineation identify both State and Federal wetlands in the Project area as well as what activities may require Notification to comply with Fish and Game Code. Fish and Game Code section 2785(g) defines wetlands; further, section 1600 et seq. applies to any area within the bed, channel, or bank of any river, stream, or lake. It is important to note that while accurate wetland delineations by qualified individuals have resulted in more rapid review and response from USACE and CDFW, substandard or inaccurate delineations have resulted in unnecessary time delays for applicants due to insufficient, incomplete, or conflicting data. CDFW advises that site map(s) designating wetlands as well as the location of any activities that may affect a lake or stream be included with any Project site evaluations.

### **Recommended Mitigation Measure 28: Stream and Wetland Impact Minimization and Mitigation**

CDFW recommends that the potential direct and indirect impacts to streams and wetlands be analyzed according to each Project activity. Based on those potential impacts, CDFW recommends that the MND include measures to avoid, minimize, and/or mitigate those impacts. CDFW recommends that impacts to streams and riparian habitat (i.e., biotic and abiotic features) take into account the effects to stream function and hydrology from the effects of erosion, riparian habitat loss or damage, and potential effects from the loss of riparian habitat to special-status species already identified herein. CDFW recommends that impacts and losses to stream and wetland habitats be minimized through Project design or offset with corresponding riparian and wetland restoration that incorporates native vegetation, as warranted, to replace the value to fish and wildlife provided by any habitats lost or degraded 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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## II. Editorial Comments and/or Suggestions

**MM Bio-2 - Construction Biological Monitor:** The MND states that after ground disturbing project activities are complete, the qualified biologist will train an individual from the construction crew to act as the on-site construction biological monitor, to be the contact for any special-status wildlife species encounters, conduct daily inspections of equipment and materials stored on site and any holes or trenches prior to the commencement of work, and ensure that all installed fencing stays in place throughout the construction period. The qualified biologist will then conduct regular scheduled and unscheduled visits to ensure the construction biological monitor is satisfactorily implementing all appropriate mitigation protocols. Both the qualified biologist and the construction biological monitor must work through the State Inspector to cease construction contractor work and/or redirect project activities to ensure protection of resources and compliance with all environmental permits and conditions of the project.

Given the numerous known locations in the Project area for special status species, and the potential for presence of State and Federally listed species, CDFW does not concur with assigning biological monitoring to individuals other than a qualified biologist. CDFW recommends that MM Bio-2 require all biological monitoring to be conducted by a qualified, experienced biologist.

**Nesting Birds:** CDFW encourages Project implementation to occur during the bird non-nesting season. However, if ground-disturbing activities must occur during the breeding season (February through mid-September), the Project proponent 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 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 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 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-

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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 and notify CDFW in advance of implementing a variance.

**Lake and Streambed Alteration:** Project activities have the potential to substantially change the bed, bank, and channel of lakes, streams, and associated wetlands onsite and/or substantially extract or divert the flow of any such feature that is 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 Agreement (LSAA); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for LSAA issuance. For information on notification requirements, please refer to CDFW's website (<https://wildlife.ca.gov/Conservation/LSA>) or contact the Central Region Lake and Streambed Alteration Program at (559) 243-4593 or [R4LSA@wildlife.ca.gov](mailto:R4LSA@wildlife.ca.gov).

**Federally Listed Species:** CDFW recommends consulting with the USFWS on potential impacts to federally listed species including but not limited to CTS, CRLF, Monterey gilia, and Monterey spineflower. Take under the federal Endangered Species Act (ESA) is more broadly defined than CESA; take under ESA also includes 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 ESA, is advised well in advance of any ground disturbing activities.

## 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 found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be emailed 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>.

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## FILING FEES

If it is determined that the Project will impact fish and/or wildlife, an 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 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 Project to assist MCWD in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). Should you have questions regarding this letter or for further coordination please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at the address provided on this letterhead or by email at [Annette.Tenneboe@wildlife.ca.gov](mailto:Annette.Tenneboe@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
FA83F09FE08945A...

Julie A. Vance  
Regional Manager

Attachment

ec: Office of Planning and Research, State Clearinghouse, Sacramento  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

California Department of Fish and Wildlife:  
Aimee Braddock, [Aimee.Braddock@wildlife.ca.gov](mailto:Aimee.Braddock@wildlife.ca.gov)

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## REFERENCES

- California Burrowing Owl Consortium (CBOC). 1993. Burrowing owl survey protocol and mitigation guidelines. Pages 171-177 in Lincer, J. L. and K. Steenhof (editors). 1993. The burrowing owl, its biology and management. Raptor Research Report Number 9.
- California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game. March 7, 2012.
- California Department of Fish and Wildlife (CDFW). 2015. California Tiger Salamander Technical Review – Habitat, Impacts and Conservation. California Department of Fish and Wildlife, October 2015.
- 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. 2021. Biogeographic Information and Observation System (BIOS). <https://www.wildlife.ca.gov/Data/BIOS>. Accessed 28 January 2021.
- California Native Plant Society, Rare Plant Program (CNPS). 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org>. Accessed 27 January 2021.
- Gervais, J. A., D. K. Rosenberg, and L. A. Comrack, 2008. Burrowing Owl (*Athene cunicularia*) In California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California (W. D. Shuford and T. Gardali, editors). Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Gittleman, J. L., S. M. Funk, D. MacDonald, and R. K. Wayne. 2001. Carnivore conservation. Cambridge University Press, Cambridge, United Kingdom.
- Goulson, D. 2010. Bumblebees: behaviour, ecology, and conservation. Oxford University Press, New York. 317pp.
- Hatfield, R, S. Colla, S. Jepsen, L. Richardson, R. Thorp, and S. Foltz Jordan. 2014. Draft IUCN Assessments for North American *Bombus* spp. for the North American IUCN Bumble Bee Specialist Group. The Xerces Society for Invertebrate Conservation, [www.xerces.org](http://www.xerces.org), Portland, OR.
- Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. & Colla, S. 2015a. *Bombus crotchii*. The IUCN Red List of Threatened Species. <http://dx.doi.org/10.2305/IUCN.UK.2015--2.RLTS.T44937582A46440211.en>.

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Page 20

- Hatfield, R., S. Jepsen, R. Thorp, L. Richardson, S. Colla, and S. Foltz Jordan. 2015b. *Bombus occidentalis*. The IUCN Red List of Threatened Species 2015: e.T44937492A46440201, [cited 2018 Feb 9]. Available from: <http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937492A46440201.en>
- Hayward, L. S., A. E. Bowles, J. C. Ha, and S. K. Wasser. 2011. Impacts of acute and long-term vehicle exposure on physiology and reproductive success of the northern spotted owl. *Ecosphere* 2:art65.
- Hobbs, G. A. 1968. Ecology of species of *Bombus* (Hymenoptera: Apidae) in southern Alberta. VII. Subgenus *Bombus*. *Canadian Entomologist* 100: 156-164.
- NatureServe. 2018. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia, USA; [Accessed 2018 Feb 13]. Available from:<http://explorer.natureserve.org>
- Poulin, R. G., L. D. Todd, E. A. Haug, B. A. Millsap, and M. S. Martell. 2011. Burrowing owl (*Athene cunicularia*), version 2.0. In *The Birds of North America* (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.61>. Accessed June 14, 2019.
- Shaffer, H. B., J. R. Johnson, and I. J. Wang. 2013. Conservation Genetics of California tiger salamanders. Final Report prepared for Central Valley Project Conservation Program, Bureau of Reclamation, Sacramento, California.
- 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.
- 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.
- University of California, Davis (UC Davis). 2018. California Soil Resources Lab. <https://casoilresource.lawr.ucdavis.edu/>. Accessed 26 January 2021.
- U. S. Fish and Wildlife Service (USFWS). 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander, October 2003.
- USFWS. 2005. Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog. March 2005. 26 pp.
- USFWS. 2008. Monterey Gilia Five-Year Review: Summary and Evaluation. March 2008

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USFWS. 2017a. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U. S. Fish and Wildlife Service, Region 8, Sacramento, California. June 2017.

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

USFS] U.S. Department of Agriculture Forest Service. 2013. Region 5 Forester's 2013 Sensitive Animal Species List; [cited 2018 Feb 13]. Available from:<https://www.fs.usda.gov/main/r5/plants-animals/wildlife>

Williams, P. H., R. W. Thorp, L. L. Richardson, and S .R. Colla. 2014. Bumble bees of North America: An Identification guide. Princeton University Press, Princeton, New Jersey. 208pp.

Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of california fish and game commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October 2018.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White. 1990. California's Wildlife Volume I-III. California Department of Fish and Game, editor. Sacramento, CA, USA.

**Attachment 1**

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

**PROJECT: A1/A2 Reservoirs and B/C Zones Booster Pump Station  
Project**

<b>RECOMMENDED MITIGATION MEASURES</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Disturbing Soil or Vegetation</i>	
<b>Recommended Mitigation Measure 1: CTS Habitat Assessment</b>	
<b>Recommended Mitigation Measure 2: Focused CTS Surveys</b>	
<b>Recommended Mitigation Measure 4: CTS Take Authorization</b>	
<b>Recommended Mitigation Measure 5: Special-Status Plant Habitat</b>	
<b>Recommended Mitigation Measure 6: Special Status Plant Focused Surveys</b>	
<b>Recommended Mitigation Measure 8: Special-Status Plant Take Authorization</b>	
<b>Recommended Mitigation Measure 9: CRLF Habitat Assessment</b>	
<b>Recommended Mitigation Measure 10: CRLF Surveys</b>	
<b>Recommended Mitigation Measure 12: Northern California Legless Lizard and Coast Horned Lizard Habitat Assessment</b>	
<b>Recommended Mitigation Measure 13: Northern California Legless Lizard and Coast Horned Lizard Focused Surveys</b>	
<b>Recommended Mitigation Measure 15: BUOW Habitat Assessment</b>	
<b>Recommended Mitigation Measure 16: BUOW Surveys</b>	
<b>Recommended Mitigation Measure 18: BUOW Passive Relocation and Mitigation</b>	
<b>Recommended Mitigation Measure 19:</b>	

RECOMMENDED MITIGATION MEASURES	STATUS/DATE/INITIALS
Focused WTKI Surveys	
Recommended Mitigation Measure 21: Tree Removal	
Recommended Mitigation Measure 22: American Badger Habitat Assessment	
Recommended Mitigation Measure 23: American Badger Surveys	
Recommended Mitigation Measure 25: CBB and WBB Surveys	
Recommended Mitigation Measure 27: Stream and Wetland Mapping	
Recommended Mitigation Measure 28: Stream and Wetland Impact Minimization and Mitigation	
<i>During Construction</i>	
Recommended Mitigation Measure 3: CTS Avoidance	
Recommended Mitigation Measure 7: Special-Status Plant Avoidance	
Recommended Mitigation Measure 11: CRLF Avoidance	
Recommended Mitigation Measure 14: Northern California Legless Lizard and Coast Horned Lizard Avoidance	
Recommended Mitigation Measure 17: BUOW Avoidance	
Recommended Mitigation Measure 20: WTKI Avoidance	
Recommended Mitigation Measure 24: American Badger Avoidance	
Recommended Mitigation Measure 26: CBB and WBB Avoidance	