State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

December 30, 2019

Rachel Gaudoin, Public Outreach Coordinator
Monterey One Water
5 Harris Court, Building D
Monterey, California 93940

**Subject: Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Project)
Draft Supplemental Environmental Impact Report (DSEIR)
State Clearinghouse No. 2013051094**

Dear Ms. Gaudoin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability for a DSEIR from the Monterey One Water (formerly Monterey Regional Water Pollution Control Agency) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

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 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.

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

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.

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).

PROJECT DESCRIPTION SUMMARY

Proponent: Monterey One Water.

Objectives: The primary objectives of the Project are to reduce discharges of secondary effluent to Monterey Bay and to replenish the Seaside Groundwater Basin with 2,250 acre-feet per year (AFY) of additional purified recycled water to replace the California American Water Company (CalAm) use of existing water sources.

Summary of Proposed Modifications to Project Description:

The Project would expand the Advanced Water Purification Facility peak capacity from 5 million gallons per day (mgd) to 7.6 mgd and increase recharge of the Seaside Groundwater Basin by an additional 2,250 AFY for a total average yield of 5,750 AFY. The Project is considered a "back-up plan" to the Monterey Peninsula Water Storage Project, which is CalAm's proposed 6.4 mgd desalination project. The Project would be implemented if the Monterey Peninsula Water Storage Project encounters obstacles that prevent its timely, feasible implementation. The Project includes the following new or modified Monterey One Water facilities:

- **Modifications to the Advanced Water Purification Facility.** The Project includes expanding the facility capacity from 5.0 mgd to 7.6 mgd. This would require installation of additional treatment and pumping equipment, chemical storage, electrical hook-up, pipelines, and facility appurtenances within the 3.5-acre existing building area.

- **Modifications to Product Water Conveyance Pipeline.** These modifications include the construction of a new product water conveyance pipeline extending from the existing Blackhorse Reservoir to the Expanded Injection Well Area. In total, the proposed pipeline would be approximately one mile to the first injection well (Well Site #5) and an additional 2,000 feet from Well Site #5 to Well Site #7. An additional 2,000 feet of pipeline for backflushing wells will be located along the same general alignment as the product water pipeline between Well Site #5 and Well Site #7. The existing product water pump station at the Monterey One Water Regional Treatment Plant would need to be upgraded in order to convey water produced at the Advanced Water Purification Facility to the new portion of the Product Water Conveyance Pipeline.

- **Modifications to Injection Well Facilities.** Two injection well sites already approved in the original design would be relocated and an additional well site would be constructed. The Project also includes an increase in the amount of injection to achieve an additional 2,250 AFY of yield. Ninety percent of the Project yield would be injected into the confined Santa Margarita Aquifer of the Seaside Groundwater Basin using deep injection wells. Under the proposed modifications, 5,750 AFY on average would be injected into the Seaside Groundwater Basin, with a maximum of up to 5,950 AFY when the maximum drought reserve injections are occurring and less when the Castroville Seawater Intrusion Project area is using the drought reserve.

  The additional 2,250 AFY yield includes capture diversion of urban stormwater and dry weather runoff that is pumped into the Salinas River. This amount also includes two surface water diversion sites to provide new source waters for recycling. The first diversion is on the Reclamation Ditch, and a second diversion is on Blanco Drain, just upstream of its confluence with the Salinas River.

- **Modifications to CalAm Facilities – Extraction Wells.** The Project includes a total of four new extraction wells; two at the Seaside Middle School Property (Extraction Wells EW-1 and EW-2) and two near the Fitch Park Community (Extraction Wells EW-3 and EW-4), located southeast of the intersection of General Jim Moore Boulevard and Ardennes Circle. All extraction wells would be constructed with associated appurtenances, electrical works, pipeline tie-ins, access roads, and other site works including grading and fencing. Extracted raw water from all four new wells would be conveyed in new raw water pipelines within General Jim Moore Boulevard for treatment using new water treatment facilities, including disinfection, located at Extraction well EW-3. The treatment at EW-3 would include a building measuring approximately 24-feet by 30-feet and 15-feet tall with raw and treated water pipelines and appurtenances,

chemical delivery, storage, metering, feed/injection systems, electrical instrumentation and controls, and safety and climate control equipment.

- **Modifications to CalAm Facilities – Conveyance Facilities.** The Project would require construction of new segments of the CalAm Distribution System pipeline. It is anticipated that pipeline construction would occur using open trench construction methods.

Location: Northwestern Monterey County.

Timeframe: By the end of 2021 or as necessary to meet CalAm's replacement water needs.

COMMENTS AND RECOMMENDATIONS

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

Based on aerial imagery, species occurrence records, and the land cover types that intersect and compose the project alignment, the Project area is known to or has high potential to support numerous special-status species, including CESA-listed species (CDFW 2019, CNPS 2019, U.C. Davis 2018). Therefore, the Project has the potential to significantly impact these species. Specifically, CDFW is concerned about the 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* ssp. *arenaria*); the State endangered and CRPR 1B.1 seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*); the federally threatened and State species of special concern California red-legged frog (*Rana draytonii*); the federally threatened and CRPR 1B.2 Monterey spineflower (*Chorizanthe pungens* var. *pungens*); the State species of special concern northern California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), western pond turtle (*Emys marmorata*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*); and numerous CRPR plant species including but not limited to the CRPR 1B.1 Eastwood's goldenbush (*Ericameria fasciculata*), Pajaro manzanita (*Arctostaphylos pajroensis*), pink Johnny-nip (*Castilleja ambigua* var. *insalutata*), Kellogg's horkelia (*Horkelia cuneata* var. *sericea*), Monterey pine (*Pinus radiata*); and the CRPR 1B.2 Hickman's onion (*Allium hickmanii*), Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*), Jolon clarkia (*Clarkia jolonensis*), northern curly-leaved monardella (*Monardella sinuata* ssp. *nigrescens*), sand-loving wallflower (*Erysimum ammophilum*), sandmat manzanita (*Arctostaphylos*

pumila), and Toro manzanita (*Artostaphylos montereyensis*). 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 adjacent to the Project area and is known to support breeding populations of California red-legged frogs (CDFW 2019). Other natural areas where the species mentioned above are known or likely to occur also lie adjacent to the Project area including the Fort Ord Natural Reserve, lands managed by the University of California Natural Reserve System, Fort Ord Dunes State Park, and the Frog Pond Wetland Preserve.

To evaluate impacts of the Project on these species, CDFW recommends that a qualified biologist conduct species-specific focused habitat assessments and, if suitable habitat is present, protocol-level surveys. CDFW further recommends that the results of these surveys be summarized and used to evaluate Project impacts and potential permitting needs in the Project's CEQA document.

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: The DSEIR does not evaluate impacts to CTS, and Table 4.5-1 (on page 4.5-1 of DSEIR) states that construction impacts from the proposed modifications will not affect special status species or their movement. CTS are known to occur in the vicinity of the Project area (CDFW 2019). 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, potentially 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 the creation of barriers to CTS dispersal and other movements.

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 Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to CTS associated with the Project, CDFW recommends conducting the following evaluation of the Project area and including the following mitigation measures as conditions of Project approval in the CEQA document.

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 (2003) "Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander". 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.

Recommended Mitigation Measure 3: CTS Avoidance

CDFW advises that avoidance for CTS include a minimum 50-foot no-disturbance buffer delineated around all small mammal burrows in suitable habitat and a minimum 250-foot no-disturbance buffer around potential breeding pools within the Project area and a 250-foot radius. 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. Alternately, in the absence of protocol surveys, the

applicant may assume presence of CTS within the Project area and obtain an Incidental Take Permit from CDFW at any time.

COMMENT 2: Listed and other special status plant species

Issue: Monterey gilia, seaside bird's-beak, and the other CRPR plant species mentioned above are known to occur on and in the vicinity Project area (USFWS 2008, CDFW 2019). Monterey gilia, sandmat manzanita, Monterey ceanothus, Monterey spineflower, Eastwood's goldenbush, Kellogg's horkelia, and sand gilia were identified within the Project's biological survey area during focused surveys conducted by Denise Duffy and Associates during the spring and summer of 2019. Known occurrences of Monterey gilia and other CRPR plant species are summarized and mapped in Appendix G: Terrestrial Biological Resources Technical Memorandum prepared for the SDEIR in October 2019.

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 the CESA-listed seaside bird's-beak (CDFW 2019, CNPS 2019, UC Davis 2018). The Project area also supports coastal scrub and coastal prairie communities, which have the potential to support numerous CRPR-species including, but not limited to, Monterey spineflower, Eastwood's goldenbush, Pajaro manzanita, pink Johnny-nip, Kellogg's horkelia, Monterey pine, Hickman's onion, Hooker's manzanita, Jolon clarkia, northern curly-leaved monardella, sand-loving wallflower, sandmat manzanita, and Toro manzanita. Therefore, grading and development associated with the Project have the potential to impact special-status plant species.

Mitigation Measure BT-1f states that a qualified biologist will be retained to conduct protocol-level botanical surveys for those areas where impacts are anticipated, but surveys were not conducted in 2019.

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. Therefore, impacts of the Project have the potential to significantly impact populations of the species mentioned above.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure BT-1f states that a qualified biologist will be retained to conduct protocol-level botanical surveys for those areas where impacts are anticipated. Because biological surveys were not conducted prior to the circulation of the DSEIR, a complete analysis of biological impacts may not yet be available. To evaluate all potential impacts to special-status plants associated with the Project, CDFW recommends conducting an evaluation that includes the entire Project area and incorporating the following mitigation measures as conditions of Project approval in the Project's CEQA document.

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 entire 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 that 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 established 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

The State threatened sand gilia was identified during botanical surveys. Consultation with CDFW is warranted to determine if the Project can avoid take during implementation. If take cannot be avoided, take authorization would need to occur through issuance of an Incidental Take Permit by CDFW pursuant to Fish and Game Code section 2081(b).

COMMENT 3: California Red-Legged Frog (CRLF)

Issue: CRLF have been documented to occur within the Salinas River, which is immediately 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). As a result, the Project has the potential to impact CRLF.

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. Therefore, Project activities have the potential to significantly impact CRLF.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to CRLF associated with the Project, CDFW recommends conducting the following evaluation of the Project Area and including the following mitigation measures as conditions of Project approval in the Project's CEQA document.

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 (i.e., two night surveys immediately prior to construction or as otherwise required by 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 with any required approvals or permits to handle 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 (i.e., November 1 and March 31). When ground-disturbing activities must take place between November 1 and March 31, CDFW recommends a that qualified biologist monitor construction activity daily for CRLF.

COMMENT 4: Western Pond Turtle (WPT)

Issue: Portions of the Project area lie adjacent to the Salinas River, which may provide suitable aquatic habitat for WPT. Upland areas adjacent to the Salinas River may provide overwintering and nesting habitat for WPT, which are known to overwinter terrestrially, and which require loose soils and/or leaf litter (Thomson et al. 2016). In addition, several occurrence records of WPT are reported within the vicinity of the Project area (CDFW 2019). The presence of these requisite habitat features increases the likelihood of WPT occurrence and the potential for the Project to significantly impact the local WPT population.

Specific impact: Without appropriate avoidance and minimization measures for WPT, potential significant impacts associated with development of the Project include nest abandonment, reduced reproductive success, reduced health and vigor of eggs and/or young, and direct mortality.

Evidence impact would be significant: WPT are capable of nesting up to 1,600 feet away from waterbodies. Nesting occurs in spring or early summer and hatching occurs in fall. Hatchlings can remain in the nest throughout the first winter, emerging the following spring. In addition, WPT are slow to reach sexual maturity, which naturally reduces the number of WPT that are recruited into a population each year (Thomson et al. 2016). Threats to WPT include land use changes and habitat

fragmentation associated with development, road mortality, as well as a decrease in suitable upland nesting/overwintering habitat (Thomson et al. 2016), all of which are potential impacts of the Project. As a result, Project development has the potential to significantly impact the local population of WPT.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate the potential for the Project to impact WPT, CDFW recommends conducting the following evaluation of the Project area and including the following measures as conditions of approval in the Project's CEQA document.

Recommended Mitigation Measure 12: Preconstruction Surveys

CDFW recommends that a qualified wildlife biologist conduct focused surveys for WPT during the nesting season (i.e., March through August). If any nests are discovered, CDFW recommends that they remain undisturbed until the eggs have hatched, and the nestlings are capable of independent survival. In addition, CDFW recommends conducting pre-construction surveys for WPT immediately prior to initiation of construction activities.

Recommended Mitigation Measure 13: Avoidance

WPT detection during surveys warrants consultation with CDFW to discuss how to implement ground-disturbing activities and avoid take. However, CDFW recommends that if any WPT are discovered immediately prior to or during Project activities, they be allowed to move out of the Project area of their own volition. If this is not feasible, CDFW recommends that a qualified biologist capture and relocate the turtle(s) out of harm's way to the nearest suitable habitat immediately upstream or downstream from the Project Area.

COMMENT 5: Burrowing Owl (BUOW)

Issue: BUOW have been documented to occur in the vicinity of the Project area (CDFW 2019). 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 that is present both within and bordering portions of the Project area has the potential to support these habitat features. Therefore, there is potential for BUOW to occupy or colonize the Project area.

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). Therefore, 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 Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to BUOW associated with the Project, CDFW recommends conducting the following evaluation of the Project area and including the following mitigation measures as conditions of Project approval in the Project's CEQA document.

Recommended Mitigation Measure 14: 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 15: BUOW Surveys

If suitable habitat for BUOW is present, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium (1993) "*Burrowing Owl Survey Protocol and Mitigation Guidelines*" and the CDFW (2012) *Staff Report on Burrowing Owl Mitigation*". Specifically, these documents suggest three or more surveillance surveys conducted during daylight with each visit, occurring at least three weeks apart during the peak breeding season (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 16: 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, this

document 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.

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 17: 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 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. Since 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.

II. Editorial Comments and/or Suggestions

Fisheries: Section 4.4-2, Summary of Biological Impacts to Fisheries, does not include an analysis of the potential impacts to fisheries, including steelhead from a potential reduction of 2,250 AFY of source water to the Salinas River. CDFW recommends including an analysis of impacts to anadromous and other fisheries, red-legged frog, and western pond turtle based on the Project-related diversion of source flows to the Salinas River.

Climate Change: CDFW recommends an analysis of the long-term effects of climate change on sea level rise and subsequent saltwater intrusion. CDFW also recommends an analysis of the long-term effects of sea level rise on the ability of infrastructure to

sustain such a change. CDFW recommends including in any such analysis the latest projections on the inland migration of sand and marsh locations due to climate change.

Nesting Birds: CDFW encourages that Project implementation occur during the bird non-nesting season. However, if ground-disturbing 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 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-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: CDFW has regulatory authority over certain activities affecting rivers, streams and lakes, pursuant to Fish and Game Code sections 1600 *et seq*. If the Project would substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, sediment, or other material containing crumbled, flaked, or ground pavement where it may pass into any

river, stream, or lake, then notification to CDFW is required. Portions of the Project area are immediately adjacent to the Salinas River, and Project work may require notification.

In addition to on-site, direct impacts, construction activities also 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 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 effecting 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.

In addition, water diversions can impact flow regimes. Prolonged low flows can cause streams to become degraded and cause channels to become disconnected from floodplains (Poff et al. 1997). This process decreases available habitat for aquatic species including fish that utilize floodplains for nursery grounds. Prolonged low flows can also increase mortality for species that rely on specific flow regimes, such as endangered salmonids (Moyle 2002). Amphibians can be sensitive to decreased flows, and Kupferberg et al. (2012) reported that low flows were strongly correlated with early life stage mortality and decreased adult densities of California red-legged frogs. In addition, alterations to flows can affect the health of riparian vegetation, reducing habitat quality for wildlife species.

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (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 Agreement issuance. For additional information on notification requirements, please contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, CTS, CRLF, sand 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 (CNDDB). The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be emailed to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

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 Monterey One Water 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). If 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, by telephone at (559) 243-4014 extension 231, or by email at Annette.Tenneboe@wildlife.ca.gov.

Sincerely,

Julie A. Vance
Regional Manager

ec: Rachel Gaudoin
purewatermontereyinfo@my1water.org

Office of Planning and Research, State Clearinghouse
State.Clearinghouse@opr.ca.gov

Dave Feliz
Annette Tenneboe
California Department of Fish and Wildlife

REFERENCES

California Burrowing Owl Consortium. 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 Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game. March 7, 2012.

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. 2019. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed 8 July 2019.

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 8 July 2019.

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.

Kupferberg, S. J., W. J. Palen, A. J. Lind, S. Bobzien, A. Catenazzi, J. Drennan, and M. E. Power. 2012. Effects of flow regimes altered by dams on survival, population declines, and range-wide losses of California river-breeding frogs.

Moyle, P. B. 2002. Inland fishes of California. University of California Press, Berkeley, CA, USA.

Poff, N. L., J. D. Allan, M. B. Bain, J. R. Karr, K. L. Prestegarrd, B. D. Richter, R. E. Sparks, and J. C. Stromberg. 1997. The natural flow regime: a paradigm for river conservation and restoration. BioScience 47:769–784.

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.

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 11 December 2018.

United States 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

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.