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Subject: Draft Environmental Impact Report (DEIR) for the CalAm Monterey Peninsula Water Supply Project (MPWSP), SCH No. 2006101004

Dear Mr. Barnsdale:

The Department of Fish and Wildlife (CDFW) is in receipt of the Draft Environmental Impact Report (EIR) for the California-American Water Company (CalAm) Monterey Peninsula Water Supply Project (Project). The purpose of the proposed Project is to develop up to 9,752 acre-feet per year (afy) of water supplies to meet, in conjunction with other existing sources of supply, a future average annual demand of 15,296 afy in CalAm's Monterey District service area (Monterey District). The Project would be constructed to replace those portions of CalAm's existing supplies that have been constrained by legal decisions regarding CalAm's diversions from the Carmel River and pumping from the Seaside Groundwater Basin. The proposed Project would produce desalinated water, convey it to the existing CalAm distribution system, and increase the system's use of storage capacity in the Seaside Groundwater Basin. The Project would consist of several components: a seawater intake system; a desalination plant; a brine discharge system; product water conveyance pipelines and storage facilities; and an aquifer storage and recovery (ASR) system. CalAm also proposed a variant to the proposed project that would combine a reduced-capacity desalination plant and all other facilities included in the proposed project, with a water purchase agreement from the Monterey Regional Water Pollution Control Agency's (MRWPCA) proposed Pure Water Monterey Groundwater Replenishment (GWR) project (See CDFW comments attached in reference to this project). The project area extends approximately 14 miles, from the MPWSP Desalination Plant site located in unincorporated Monterey County in the north to the western terminus of the proposed Monterey Pipeline in the City of Pacific Grove, and east approximately 8 miles to the unincorporated community of Hidden Hills along Highway 68.

Please be advised that the Project area includes habitat for State and federally listed species, State fully protected species, and State species of special concern including but not limited to the State endangered seaside bird's-beak (*Cordylanthus rigidus* var.

littoralis), beach layia (*Layia carnosa*), Tidestrom's lupine (*Lupinus tidestromii*), Menzies' wallflower (*Erysimum menziesii*); the State threatened Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*); the State Rare Pacific Grove clover (*Trifolium polyodon*) and Dudley's lousewort (*Pedicularis dudleyi*); and State Fully Protected southern sea otter (*Enhydra lutris*) and Guadalupe fur seal (*Arctocephalus townsendi*). Other State and federally listed species, State fully protected species, and State species of special concern have the potential to occur within the Project as well including sensitive plants, amphibians, marine mammals, and nesting bird species. Additionally, the Project area supports sensitive habitat types such as coastal wetlands, dune scrub, maritime chaparral, Monterey pine forest, and potentially other habitat types which are considered sensitive by CDFW. Please see CDFW's website for a complete listing of sensitive plant communities (<http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>).

CDFW has concerns about the Project-related impacts to these sensitive habitats that are adjacent to or within the Project alignment, as well as the associated impacts to species that utilize habitats found in the Project area. Project-related impacts to these special status biological resources should be evaluated and addressed prior to Project implementation, in order to comply with State laws described below.

Department Jurisdiction

Trustee Agency Role: CDFW is a Trustee Agency with the responsibility under the CEQA for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, CDFW is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.

Responsible Agency Role: CDFW is a Responsible Agency when a subsequent permit or other type of discretionary approval is required from CDFW, such as an Incidental Take Permit (ITP), pursuant to the California Endangered Species Act (CESA), or a Lake and Streambed Alteration Agreement (LSAA) issued under Fish and Game Code Sections 1600 *et seq.*

CDFW has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, or designated as a candidate for listing, pursuant to Fish and Game Code Section 2081. If the Project could result in the take of any species pursuant to CESA, CDFW may need to issue an ITP for the Project. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (Sections 21001(c), 21083, Guidelines Sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports Statement of Overriding Consideration (SOC).

The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with CESA. In other words, compliance with CESA does not automatically occur based on local agency project approvals or CEQA compliance; consultation with CDFW is warranted to ensure that Project implementation does not result in unauthorized take of a State-listed species.

Incidental take authority is required prior to engaging in lawful take of any plant or animal species listed under CESA. Plants listed as threatened or endangered under CESA cannot be addressed by methods described in the Native Plant Protection Act. No direct or indirect disturbance, including translocation, may legally occur to State-listed species prior to the applicant obtaining incidental take authority in the form of an ITP.

Permit Streamlining: Issuance of an LSAA and/or an ITP by CDFW is considered a "project" (CEQA Guidelines Section 15378) and is subject to CEQA. CDFW typically relies on the Lead Agency's CEQA compliance to make our own findings. For the Lead Agency's CEQA document to suffice for permit/agreement issuance, it must commit to fully describing the potential Project-related impacts to stream/riparian resources and listed species, as well as measures to avoid, minimize, and mitigate impacts to these resources. Take of State-listed species must be "fully mitigated" in order to comply with CESA (California Fish and Game Code Section 2081(b)(2)). If the CEQA document issued by the California Public Utilities Commission (CPUC) for this Project does not adequately analyze impacts to resources that require permits issued by CDFW, CDFW may need to act as a Lead CEQA Agency and complete a subsequent CEQA document. This could significantly delay permit issuance and, subsequently, Project implementation. For that reason, it is very important that the EIR reflect suitable and feasible avoidance, minimization, and compensatory mitigation, such that we are able to make findings per CEQA necessary for ITP issuance. In addition, CEQA grants Responsible Agencies authority to require changes in a Project to lessen or avoid effects of that part of the Project which the Responsible Agency will be called on to approve (CEQA Guidelines Section 15041).

Bird Protection: CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Sections of the Fish and Game Code that protect birds, their 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).

Biological Information: As required by CEQA, the DEIR should clearly identify resources on the Project site and their potential to be impacted by the proposed Project; analyze potential impacts as to their significance; and identify measures to reduce all potentially significant impacts to a level of less-than-significant. Impact analysis should be predicated on complete biological surveys. Measures and alternatives that would

avoid and minimize potential impacts to resources of concern, as well as on-site conservation measures, should be considered prior to measures and alternatives that would provide for compensatory resources on or off-site.

State Fully Protected Species: Fully protected species may not be taken or possessed at any time and must be avoided by the Project. Please note that CDFW cannot authorize take of Fully Protected species (Fish and Game Code Sections 3511, 4700, 5050, and 5515). CDFW recommends the FEIR include measures to preclude take of Fully Protected species on the Project site during operations and maintenance of the Project to avoid violating Fish and Game Code. While the DEIR discusses Fully Protected species in Section 4.6 Terrestrial Biological Resources it fails to discuss Fully Protected marine species in 4.5.1.3 Special-Status Marine Species and Table 4.5-1 of the DEIR. The following marine Fully Protected species occur in the Project area: southern sea otter (*Enhydra lutris*), Guadalupe fur seal (*Arctocephalus townsendi*), Pacific right whale (*Eubalaena japonica*), Brown Pelican (*Pelecanus occidentalis*) and California Least Tern (*Sternula antillarum browni*) (FGC §4700(b) and §3511(a)). CDFW recommends including the Fully Protected status listing in the FEIR for Section 4.5.1.3 Special-Status Marine Species and Table 4.5-1.

Specific Biological Resources Comments and Recommendations

Botanical Inventory: There is the potential for sensitive plant species to occur within the Project area. Botanical surveys are recommended to be conducted prior to Project activities and be performed in accordance with guidelines developed by CDFW (DFG, 2000) and the United States Fish and Wildlife Service (USFWS) (USFWS, 2000). Botanical surveys are floristic in nature and must be timed appropriately and cover the entire project and may require multiple surveys in order to detect all species which could potentially be present on the property before impact analysis occurs. The above referenced guidelines instruct the use of reference sites to confirm appropriate survey timing, particularly for seasonably variable, often difficult to detect species. CDFW is aware that extensive botanical surveys have been conducted including analysis of reference populations. However, we would like to reiterate that environmental conditions have not been favorable towards plant species in the last few years and therefore sensitive plant populations may have not expressed themselves adequately for detection and identification during surveys.

Special Status Plants: As previously mentioned State listed plant species are known to occur within the Project Area and may occur within the Project alignment including seaside bird's-beak (*Cordylanthus rigidus*), Menzies' wallflower (*Erysimum menziesii*) (two subspecies), Monterey gilia (*Gilia achilleifolia*), beach layia (*Layia carnosa*), Pacific Grove clover (*Trifolium variegatum*) and Tidestrom's lupine (*Lupinus tidestromii*). Based on botanical surveys the DEIR discloses the potential impacts that the Project may have on listed plants and provides measures to mitigate for potential impacts to those plants. Due to the potential for State listed plants to occur within the Project alignment, consultation with CDFW may be warranted to determine if the Project can avoid take.

If take cannot be avoided, acquisition of a State Incidental Take Permit (ITP) from CDFW prior to Project implementation is warranted to comply with CESA.

For information regarding ITPs please see the following link: <http://www.dfg.ca.gov/habcon/cesa/>. Included in the ITP would be measures required to avoid and/or minimize direct take of State listed plants on the Project site, as well as measures to fully mitigate the impact of the take. We would like to work with the CPUC, CalAm and USFWS to identify measures which could be included as conditions of approval prior to CEQA certification.

Mitigation Measure 4.6-1e(d) & (e) in the DEIR discuss the restoration and reintroduction of sensitive plants as a result of Project impacts including the development of a Habitat Mitigation and Monitoring Plan (Mitigation Measure 4.6-1n). Please be advised that reintroduction of sensitive plant species that may be impacted by the Project is typically not recommended for species associated with the sensitive habitats found in the Project area. Rare plants are restricted to a specific micro habitat that is suitable for their establishment and persistence. Reintroducing sensitive plant species outside of their existing habitat will likely not be successful; and relocation into habitat which is already occupied by these species would ultimately be detrimental to the existing (recipient) population. There is no evidence that shows that such measures would actually be successful. Studies which followed the success or failure of permits issued by CDFW for various plant species have shown that success (including partial success) is less than 15% overall, for all species. Success for annual plant species is even lower over the long term. With no information regarding the potential for success of reintroduction and relocation of these sensitive plants, reliance on reintroduction and relocation as the primary measure which would mitigate for the impact of the take of the populations on the Project site would not meet ITP issuance criteria to fully mitigate the take of these species and may not be sufficient to reduce the impact to less than significant if the restoration and reintroduction fails. CDFW recommends the Project be designed to substantially avoid impacts to sensitive plant species, and any residual impacts mitigated by conservation of an appropriate amount of occupied habitat in addition to habitat restoration. We recommend Restoration success criteria include the restored population having greater than the number of individuals of the impacted population(s), in an area greater than or equal to the size of the impacted population(s), for at least 3 consecutive years without irrigation, weeding, or other manipulation of the restoration site.

State Listed Rare Plants: Section 4.6.2.2 State Regulations of the DEIR discusses information regarding State rare plants. Previously, State rare plants were similar to Fully Protected species because CDFW had no method to authorize their take. Recent legislation has included take of State rare plant species under the incidental take authority of CDFW, and CDFW now has the mechanism to permit take of State rare plants under CCR Title 14, Section 786.9(b) using the same procedures and under the same conditions as take authorizations issued pursuant to Section 2081(a) and (b) of Fish & Game Code (please see CCR Title 14, Section 786.9) effective January 1, 2015

(<http://www.fgc.ca.gov/regulations/2014/index.aspx#786> 9). If take of the State Rare Pacific Grove clover is proposed as a result of the Project, acquisition of an ITP from the CDFW to authorize take is warranted.

Table 4.6-1 and Table F-1 (Appendix F), special status-species considered for the Project; list the State Rare Pacific Grove clover under the sub-heading Other Special-Status Species. This species should be listed under the sub-heading Federal or State Listed Species due to its State Rare listing.

Nesting Birds: The trees, shrubs, and grasses within and in the vicinity of the Project site likely provide nesting habitat for songbirds and raptors. CDFW encourages Project implementation to occur during the non-nesting bird season. However, if ground-disturbing activities must occur during the breeding season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in any violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above. Prior to work commencing; including staging, clearing, and grubbing, CDFW recommends surveys for active nests be conducted by a qualified wildlife biologist no more than 10 days prior to the start of the Project commencing and that the surveys be conducted in a sufficient area around the work site to identify any nests that are present and to determine their status. A sufficient area means any nest within an area that could potentially be affected by the Project. In addition to direct impacts, such as nest destruction, nests might be affected by noise, vibration, odors, and movement of workers or equipment. Identified nests should be continuously surveyed for the first 24 hours prior to any construction related activities to establish a behavioral baseline. Once work commences, all nests should be continuously monitored to detect any behavioral changes as a result of the Project. If behavioral changes are observed, the work causing that change should cease and CDFW 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 the nests of unlisted raptors 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 may be implemented when there is compelling biological or ecological reason to do so, such as when the Project area would be concealed from a nest site by topography. Any variance from these buffers is advised to be supported by a qualified wildlife biologist and it is recommended CDFW be notified in advance of implementation of a no-disturbance buffer variance.

Burrowing Owl: The Project site may be occupied by burrowing owls. CDFW recommends following the preconstruction survey methodology developed by the California Burrowing Owl Consortium (CBOC, 1993)

(<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83842>) if the site contains burrows that could be used by burrowing owls. We recommend that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by the Department 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. The below table can be found from the Burrowing Owl Staff Report (CDFG 2012).

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)

The Staff Report recommends that foraging habitat be acquired and permanently protected to offset the loss of foraging and burrow habitat. The Department also 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 a burrowing owl if a biologist knowledgeable with the biology and natural history of the species determines that suitable burrows are a potential limiting factor for burrowing owl. If the Project proposes to evict burrowing owls that may be present, CDFW recommends passive relocation during the non-breeding season. The CEQA document prepared for this Project should describe methods that would be used to evict owls from burrows, including a monitoring program to ensure that evicted individuals are using a relocation site.

California Tiger Salamander (CTS): CTS are known to occur within the Planning Area and may occur within the Project alignment. The DEIR is advised to clearly disclose the potential impacts that the Project may have on CTS and provide measures to mitigate for all potential impacts to CTS. CDFW recommends that a site assessment and protocol level surveys be conducted for CTS because of known occurrences of CTS in the Project vicinity and aquatic features that may be CTS breeding habitat identified adjacent to the Project site. Surveys for this species should follow current United States Fish and Wildlife Service (USFWS) protocol methods. Survey guidance can be found at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83915>.

The results of the site assessment and protocol level surveys can then be utilized to evaluate the potential for impacts to the species which would be analyzed by the CPUC in the CEQA document, as well as to determine the potential for take to occur. If the Project has the potential to result in take of this species, take authorization from CDFW in the form of an ITP, pursuant to Fish and Game Code Section 2081(b), would be required prior to Project implementation to comply with Fish and Game Code. In the absence of protocol surveys, the applicant can assume presence of CTS within the

Project area and obtain an ITP. Impacts related to the permitted taking of CTS must be minimized and fully mitigated to issue an ITP.

Mitigation Measure 4.6-1o provides avoidance and minimization measures for CTS and California red-legged frog (CRLF). The mitigation measure discusses options to relocate CTS and CRLF if identified during preconstruction surveys or ground disturbing activities. It also discusses installation of exclusion fencing where there is a moderate to high potential for CTS and CRLF to occur as specified in Mitigation Measure 4.6-1c. Please be advised that preconstruction surveys are not an appropriate time to detect presence/absence of CTS for which an ITP may be warranted. Also, handling and relocating CTS and installation of exclusion fencing in occupied CTS habitat without an ITP would be a violation of Fish and Game Code and the California Endangered Species Act (CESA). If the Project does not complete the above recommended CTS surveys and chooses not to acquire an ITP, the Department recommends all small mammal burrows within dispersal distance of a known or potential breeding pond be avoided by a minimum buffer of 50 feet to avoid take of CTS. However, absent having an ITP, relocation could not lawfully occur.

Brine Disposal: CDFW understands that an existing 2.1-mile-long outfall pipeline, operated by MRWPCA, will be used for the discharge of brine. The current outfall terminates at a 1,100-foot-long diffuser resting above the ocean floor at approximately 90 to 110 feet below sea level. The diffuser is equipped with 172 ports (120 ports are open and 52 are closed), each 2 inches in diameter and spaced 8 feet apart. The diffuser would disperse the brine stream at the discharge point, thereby minimizing differences in salinity and other water quality parameters between the discharged brine and the surrounding seawater. In addition, during the non-irrigation season (November through March), when the Castroville Seawater Intrusion Project is not in operation, the brine stream would be mixed with treated wastewater from the MRWPCA Regional Wastewater Treatment Plant prior to being discharged to the ocean. At all other times, the brine stream would be discharged to Monterey Bay without dilution.

CDFW has concerns with the disposal of brine waste to Monterey Bay. In particular, CDFW is concerned with alternating between mixing the brine with treated wastewater and discharging brine without dilution. Alternating between two different discharge salinities may be problematic for biological communities in the vicinity of the discharge and at the edges of the Zone of Initial Dilution (ZID). The ZID size and buoyancy of the effluent will change based on whether mixing with treated wastewater will be occurring. Based on modeling included in the DEIR (Appendix D2 Brine Discharge Diffuser Analysis), a non-mixed discharge will be negatively buoyant and sink while a mixed discharge will be positively buoyant and float with a larger ZID. This will result in two different water quality regimes for marine species to adapt to in the vicinity of the ZID not allowing for a steady state of conditions for marine species living near, in or near the ZID.

CDFW recommends a robust monitoring plan for the outfall that should include, but not be limited to: 1) monitoring of the ZID and the extent of elevated salinity, 2) monitoring of biological communities within the vicinity of the outfall, 3) monitoring of commercially and recreationally important species that forage or use the area in the vicinity of the discharge for nursery habitat, 4) monitoring of additional contaminants that may be associated with the discharge and Water Quality Objectives in the Ocean Plan.

CDFW is concerned about the potential for shear stress and lethal damage to larval fish that may be caused by the discharge diffusers as described in the DEIR. Higher strain rates and shear stresses are contained in the smaller turbulent eddies from the diffusers, the size of the turbulent eddies have been modeled at velocities close to those proposed for the Project. CDFW is concerned by the DEIR assessment that the larval fish mortality will be low without any sampling or modeling effort. CDFW recommends that modeling of the potential mortality to larval fish due to discharge shear stress be included in the Final EIR.

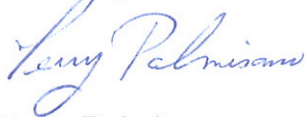
Avoidable Wildlife Impacts from Erosion Control Mesh Products: Due to this Project site's extensive wildlife habitat interface, the Department requests that erosion control and landscaping specifications allow only natural-fiber, biodegradable meshes and coir rolls. "Photodegradable" and other plastic mesh products have been found to persist in the environment, ensnaring and killing terrestrial wildlife. Reptile and amphibian deaths resulting from the use of plastic mesh products are well-documented. Plastic mesh erosion control products would likely cause unanticipated, avoidable impacts, including take of special status species. We believe requiring the use of biodegradable products would be a feasible mitigation measure to reduce impacts to wildlife species.

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

Thank you for the opportunity to comment on the DEIR for the MPWSP. CDFW is available to consult with the CPUC regarding potential effects to fish and wildlife resources, as well as specific measures which would mitigate potential effects of the project. Depending upon the results of the actual Project site configuration, and other details which should be disclosed in the DEIR, we may have additional comments and recommendations regarding avoidance, minimization, and mitigation of Project impacts to habitat and special status species. If you have any questions regarding these comments, please contact Brandon Sanderson, Environmental Scientist, at 3196 Higuera Street, Suite A, San Luis Obispo, California 93401, by telephone at

(805) 594-6141, or by email at brandon.sanderson@wildlife.ca.gov. You may also contact Craig Bailey, Senior Environmental Scientist, by telephone at (559) 243-4014, ext. 227 or by e-mail at craig.bailey@wildlife.ca.gov. If you have specific questions in regards to marine biological resources please contact Marine Region staff Eric Wilkins, Environmental Scientist, by telephone at (831) 649-2813, or by email at Eric.Wilkins@wildlife.ca.gov.

Sincerely,



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