State of California – 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

August 7, 2024

Rochelle Amrhein
Manager, Habitat Conservation Planning Section
Department of Water Resources
Post Office Box 942836
Sacramento, California 94236-0001
Rochelle.Amrhein@water.ca.gov

Subject: State Water Project San Joaquin Field Division Operations and Maintenance Habitat Conservation Plan (Project)
Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)
State Clearinghouse No. 2024060958, Multiple Counties

Dear Rochelle Amrhein:

The California Department of Fish and Wildlife (CDFW) received a NOP for an Environmental Impact Report (EIR) from the Department of Water Resources (DWR), as Lead Agency for the Project pursuant 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 the exercise of its own regulatory authority under Fish and Game Code.

CDFW is providing DWR, as the lead agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation,

[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.

protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

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

REGULATORY REQUIREMENTS

California Endangered Species Act
A CESA Incidental Take Permit (ITP) must be obtained from CDFW if the Project has the potential to result in take of plants or animals listed under CESA, either during construction or over the life of the Project. Under CESA, take means "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (Fish & G. Code, § 86.) CDFW's issuance of an ITP is subject to CEQA and to facilitate permit issuance, any Project modifications and mitigation measures must be incorporated into the CEQA document analysis, discussion, and mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit.

CEQA requires a mandatory finding of significance if a project is likely to substantially impact threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064 & 15065). In addition, pursuant to CEQA, the lead agency cannot approve a project unless all impacts to the environment are avoided or mitigated to less-than-significant levels, or the lead agency makes and supports findings of overriding consideration for impacts that remain significant despite the implementation of all feasible mitigation. Findings of consideration under CEQA, however, do not eliminate the Project proponent's obligation to comply with the Fish and Game Code.

Fully protected species may not be taken or possessed at any time except in limited circumstances (Fish & G. Code, §§ 3511, 4700, 5050, & 5515). However, Senate Bill

(SB) 147 authorizes CDFW to issue an ITP under CESA that would authorize take of a fully protected species listed in subdivision (b) of Section 3511, subdivision (b) of Section 4700, subdivision (b) of Section 5050, and subdivision (b) of Section 5515 resulting from impacts attributable to the implementation of the projects identified in subdivision (b) if all of the listed conditions are satisfied (Fish and Game Code, § 2081.15). This includes ensuring that as to each species for which take is authorized, the project includes all further measures necessary to satisfy the conservation standard of Fish and Game Code section 2805, subdivision (d) and take is avoided to the maximum extent possible. The fully protected blunt-nosed leopard lizard (*Gambelia sila*), white-tailed kite (*Elanus leucurus*), California condor (*Gymnogyps californianus*), bald eagle (*Haliaeetus leucocephalus*), and golden eagle (*Aquila chrysaetos*) are known to occur in the Project area (CNDDB 2024).

Lake and Streambed Alteration
CDFW requires a Lake or Streambed Alteration (LSA) Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting rivers, lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, drainage ditches, washes, watercourses with a subsurface flow, and floodplains is generally subject to notification requirements. In addition, infrastructure installed beneath such aquatic features, such as through hydraulic directional drilling, is also generally subject to notification requirements**.** Therefore, any impact to the mainstems, tributaries, or floodplains or associated riparian habitat caused by the proposed Project will likely require an LSA Notification. CDFW may not execute a final LSA Agreement until it has considered the final EIR and complied with its responsibilities as a responsible agency under CEQA.

Migratory Birds and Raptors
CDFW has authority over actions that may result in the disturbance or destruction of active bird nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nests or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

Water Rights
CDFW, as Trustee Agency, is consulted by the State Water Resources Control Board during the water rights change petition process to provide terms and conditions designed to protect fish and wildlife prior to appropriation of the State's water resources. Certain fish and wildlife are reliant upon aquatic and riparian ecosystems, which in turn

are reliant upon adequate flows of water. CDFW therefore has a material interest in assuring that adequate water flows within streams for the protection, maintenance, and proper stewardship of those resources. CDFW provides biological expertise to review and comment on environmental documents and impacts arising from Project activities.

Other Special Status Species
Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened on any state or federal list pursuant to CESA nor the federal Endangered Species Act (ESA) to be considered Endangered, Rare, or Threatened under CEQA. If a species can be shown to meet the criteria specified in the CEQA Guidelines (Cal. Code Regs., tit. 14, Chapter 3, § 15380), it should be fully considered in the environmental analysis for the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: DWR is the Lead Agency under CEQA for the purpose of obtaining a State Incidental Take Permit for the Project.

Description: Routine maintenance of State Water Project (SWP) facilities is required to ensure its proper operation, which may result in incidental take of protected species. The Project consists of implementation of the San Joaquin Field Division Operations and Maintenance Habitat Conservation Plan (HCP) to comply with the permitting criteria of the Federal and State Endangered Species Acts and the permitting process for Fully Protected species established by California Senate Bill 147. The HCP is intended to fully mitigate the impact of incidental take of Covered Species associated with SWP maintenance, repair, and improvement activities identified as Covered Activities under the HCP through implementation of a Conservation Strategy. The HCP includes 17 Covered Species, including three plant species and 14 wildlife species.

Covered Activities under the HCP include routine maintenance, repair, and improvement activities; Conservation Actions implemented on nonoperational DWR lands or off-site Preserve lands under the HCP Conservation Program; and some emergency activities conducted by DWR. Activities conducted by third parties and coverage for other DWR activities are also included.

*Maintenance, repair, and improvement covered activ*ities include the following:

- Upland vegetation management.
- Road maintenance and construction.
- Conveyance, water storage, and drainage features maintenance.
- Miscellaneous erosion repairs.
- Animal abatement.
- Pumping plant maintenance.

- Subsidence repairs.
- Miscellaneous maintenance, repair, and improvement activities.
- Fire and security modernization.

Conservation Program Covered Activities include the following categories:

- Maintenance and monitoring.
- Habitat enhancement, restoration, and creation.
- Existing utility maintenance and repair.

Emergency Covered Activities include potential foreseeable emergency projects that are likely to occur but for which the times and locations are unpredictable.

Third-Party Covered Activities: Third parties whose facilities or activities may be covered by the HCP are divided into the following four categories: (1) owners of existing facilities, (2) water contractors, (3) easement holders, and (4) encroachment permit holders. Third parties are responsible for their own compliance and mitigation, including the costs for planning, permitting, and implementing any requirements. Third-Party Covered Activities include access, construction, operation and maintenance, repair, improvement, and replacement of the following:

- Vehicle and equipment use.
- Fencing installation and repair.
- Access and use of turnout areas.
- Herbicide spraying and burrowing rodent control.
- Upland vegetation removal.
- Pipeline, turn in, and turnout facilities.
- Electric and communication line facilities.
- Drainage channel access.
- Road and livestock crossing.
- Emergency actions.

Other Covered Activities: A new type of activity not specifically identified in the HCP might be covered under the HCP ITPs if DWR determines adequate take coverage remains available and if the activity has not already been considered but rejected for coverage under the HCP. These other activities could potentially be covered by the ITPs through a minor amendment to the HCP Implementing Agreement without requiring an ITP amendment.

Location: The Project location encompasses the HCP Area, which includes the Permit Area and other areas where Conservation Actions would be implemented under the HCP. The HCP area is generally within the southern half of the Central Valley, extending

from Kings County south to Los Angeles County, just south of the Tehachapi Mountains, spanning portions of multiple counties, including Kings, Monterey, San Luis Obispo, Kern, Ventura, and Los Angeles. The 13,882-acre Permit Area covers a portion of the HCP Area and consists of the existing open water of the DWR aqueducts, and hardscape associated with the DWR aqueducts, pumping plants, and other existing infrastructure; the DWR SWP right-of-way (ROW) for portions of the California Aqueduct; and underground pipeline section of the Coastal Branch Aqueduct ; the San Joaquin Field Division Operations and Maintenance Center; the underground ROW associated with the underground pipeline section of the California Aqueduct through the Tehachapi Mountains; and nine associated pumping plants within the Permit Area along the California Aqueduct and the Coastal Branch Aqueduct; DWR nonoperational lands within the ROW where Conservation Actions may be implemented. Specific locations for Conservation Actions are not known at this time but all Conservation Actions would occur within the HCP Area.

Timeframe: DWR is seeking State and Federal ITPs that remain in effect for 50 years.

The CEQA Guidelines (§§15124 & 15378) require that the DEIR incorporate a full Project description, including reasonably foreseeable future phases of the Project, and that contains sufficient information to evaluate and review the Project's environmental impact. Please include a complete description of the following Project components in the Project description of the DEIR including, but not limited to, the below information.

- Footprints of existing SWP facilities such as aqueducts, open-air canals, reservoirs, dams, pumping plants, diversion structures, pipelines (above and below ground), pumps, wells, local water agency infrastructure, staging areas, and access routes within the SWP San Joaquin Field Division service area, and proposed permanent Project features such as new road construction as well as other permanently or temporarily impacted areas, such as vegetation control and removal, pond, reservoir and drainage maintenance, conveyance structure and erosion repairs, pumping plant and dam maintenance, conservation actions and other Project components.
- Specific sites of any proposed buildings/structures, including design plans as well as a description of associated ground disturbing activities, fencing, paving, stationary machinery, and restoration activities.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- A detailed description of all Project-related water rights and entitlements, contractual obligations and potentially vested rights associated with the Project and existing infrastructure within the SWP San Joaquin Field Division service area including all local water agencies and anticipated diversions. This

information is important in establishing the water demands of the SWP and the potential impacts associated with the proposed operations and maintenance activities.

- A description of all third-party facility owners, water contractors, encroachment permit and easement holders, and proposed activities conducted by third-party entities.
- Construction schedules, activities, equipment, and crew sizes.
- Potential foreseeable emergency projects such as canal or pipeline breaks or leaks.
- A detailed description of *Other Covered Activities* that are not specifically identified in the HCP but would be considered for minor amendments to the HCP ITPs.

ENVIRONMENTAL SETTING

Sufficient information regarding the environmental setting is necessary to understand any potentially significant impacts on the environment of the proposed Project and any alternatives identified in the DEIR (CEQA Guidelines, §§15125 & 15360). CDFW recommends the DEIR provide baseline habitat assessments for special-status plant, fish, and wildlife species located and potentially located within the Project area and surrounding lands, including all rare, threatened, and endangered species (CEQA Guidelines, §15380). The DEIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to Project sites (for sensitive natural communities see:https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities), and any stream or wetland set back distances associated cities or counties may require. Fully protected, threatened or endangered, candidate, and other special-status species or sensitive natural communities that are known to occur, or have the potential to occur in or near Project sites, include, but are not limited to the species listed in Attachment 1.

Habitat descriptions and species profiles included in the DEIR should include information from multiple sources including all relevant CDFW owned and operated lands within and adjacent to the Project area that may be impacted including but not limited to: CDFW conservation easements including Elk Hills Conservation Easement, Coles Levee Conservation Easement, and other CDFW unnamed easements; CDFW Ecological Reserves including Semitropic Ecological Reserve, Lokern Ecological Reserve (CDFW 2024a); water banks including the Kern Water Bank; Regional Conservation Investment Strategies (RCIS) within or adjacent to the Project area, Regional Conservation Investment Strategies (ca.gov); as well as aerial imagery; historical and recent survey data; field reconnaissance; scientific literature and reports;

U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System; California Aquatic Resources Inventory; and findings from "positive occurrence" databases such as California Natural Diversity Database (CNDDB). Only with sufficient data and information can DWR adequately assess which special-status species are likely to occur in the Project vicinity.

CDFW recommends surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at: https://www.wildlife.ca.gov/Conservation/Survey-Protocol.

Botanical surveys for special-status plant species, including those listed by the California Native Plant Society (http://www.cnps.org/cnps/rareplants/inventory/), should also be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and include the identification of reference populations. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants available at: https://www.wildlife.ca.gov/Conservation/Plants.

IMPACT ANALYSIS AND MITIGATION MEASURES

The CEQA Guidelines (§15126.2) necessitate the DEIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the proposed Project. This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;
- Changes in hydrological conditions that could alter the timing and magnitude of streamflows both during construction and operation of the Project;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence;
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features;
- Water quality impacts in waterbodies both within the Project area and downstream resulting from construction and operation of the Project; and
- Impacts to bed, channel, bank and riparian habitat, and the direct and indirect effects to fish, wildlife, and their habitat.

The CEQA document also should identify existing and reasonably foreseeable future projects in the Project vicinity (including third party activities), disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the proposed Project's contribution to each impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact (e.g., reduction of available habitat for a listed species) should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

The CEQA Guidelines direct DWR, as the lead agency, to consider and describe in the DEIR all feasible mitigation measures to avoid and/or mitigate potentially significant impacts of the Project on the environment based on comprehensive analysis of the potential direct, indirect, and cumulative impacts of the Project. (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370.) This should include a discussion of take avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and CDFW. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

COMMENTS AND RECOMMENDATIONS

Based on the information provided in the NOP, CDFW offers the comments and recommendations below to assist DWR in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and/or indirect impacts on fish and wildlife (biological) resources. These comments and recommendations are not an exhaustive list and CDFW may provide additional recommendations as more Project specific information is disclosed. The DEIR must include a full Project Description, Environmental Setting, and Impact Analysis and Mitigation Measures as outlined above. Editorial comments or other suggestions may also be included to improve the document.

Comment 1: Complete Inventory of Fully Protected, Threatened or Endangered, Candidate, and Other Special-Status Species

Issue: The Project encompasses the 13,882-acre permit area and HCP area and has potential to impact a variety of special-status plant and wildlife species. The NOP, in Table 1, identifies 17 covered species to be included in the HCP, however CDFW recommends additional species be considered as potentially present within the Project area and further assessed in the DEIR.

Evidence impact would be significant: Primary covered activities consist of routine maintenance, repair and improvement activities such as upland vegetation management, road construction and maintenance, maintenance of conveyance, water storage and drainage features, subsidence repairs and monitoring, erosion repairs, animal abatement, pumping plant maintenance, other miscellaneous maintenance, repair and improvement activities and fire and security modernization. Implementation of these activities has potential to result in impacts to special-status species and degradation of sensitive habitat.

Recommendation 1: CDFW recommends the DEIR establish a complete inventory of special-status species with the potential to occur within the proposed Project area. Please see Attachment 1 to this letter for additional species that should be added to Table 1 in the NOP for further assessment. Detailed habitat assessments should be performed by a qualified biologist at each proposed Project site within the Project area to determine the presence of suitable habitat for individual plant and wildlife species. If it is determined suitable habitat exists, protocol-level surveys should be performed to determine the presence or absence of special-status species. Survey results may be considered valid for approximately two years. If special-status species are documented within the Project area, the DEIR should provide appropriate avoidance or minimization measures to ensure impacts to these species are reduced to less-than-significant levels. If impacts to CESA-listed species cannot be avoided, CDFW recommends the species be included for take coverage in the Project's anticipated ITP.

Comment 2: Detailed Area Map

Issue: Figure 1, titled the HCP Area, provided in the NOP shows existing infrastructure related to the SWP as well as the scope of the HCP area. The map legend also includes the "permit area" however, the exact boundaries of the Project area are not clear.

Evidence impact would be significant: Without clearly established boundaries over such an extensive Project area it is not possible for CDFW to effectively review and evaluate potential impacts to sensitive species and their habitats.

Recommendation 2: CDFW recommends the DEIR provide a detailed map or map book(s) clearly showing the boundaries of the Project area, including the proposed HCP and conservation strategy areas. The DEIR should include detailed maps and representative cross-sections showing the location of existing Project features such as O & M facilities, pumping plants, aqueducts, monitoring wells, and other SWP infrastructure where Project activities are expected to be conducted. Additionally, CDFW recommends the DEIR includes a clear and detailed map showing all habitat and watersheds that may be impacted by proposed Project activities, and boundaries for CDFW owned and operated lands including conservation easements and ecological reserves.

Comment 3: Sensitive Habitat Setbacks

Issue: The Project has the potential to encroach into various habitat types including, but not limited to, riparian vegetation and wetlands, oak woodlands, native grassland, wildlflower fields, Valley sink and saltbush scrub, Great Valley mesquite scrub, and vernal pool (CDFW 2024a) (see Attachment 1). Encroachment into these habitat types can adversely impact sensitive species through reduction of habitat, reduced reproductive success; reduced health and vigor; nest abandonment; loss of nest trees, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young); burrow/den collapse; crushing as a result of burrow collapse; inadvertent entrapment or entrainment; impingement; habitat loss; turbidity; introduction of debris and/or deleterious materials into stream habitats; direct mortality; loss of wildlife connectivity, and more.

Evidence impact would be significant: Upland and riparian habitat types in the Project area provide many essential benefits to terrestrial, avian, and aquatic species, including but not limited to thermal protection, cover, foraging areas, breeding and rearing sites, pollution and contamination buffers, and connectivity. Project activities adjacent to these habitats can result in fragmentation of habitat and decreases in native species abundance and biodiversity.

Recommendation 3: CDFW recommends the Project establish, and the DEIR incorporate, buffer zones to limit Project activities to areas outside of, and away from, sensitive habitats. CDFW is available to consult with DWR to determine appropriate site-specific buffers to reduce impacts to sensitive species and habitat to less-than-significant levels.

Comment 4: Candidate Species Under CESA

Issue: Several species currently designated as candidate species under CESA are indicated in the NOP, Table 1, as proposed to be covered under the HCP. The NOP includes Crotch's bumblebee (*Bombus crotchii*) which currently listed as a State candidate for listing. However, please be advised that the California Fish and Game Commission approved western bumblebee (*Bombus occidentalis*) and Temblor legless lizard (*Anniella alexanderae*) as a candidate species for listing under CESA, and these species may be impacted by the Project. Additionally, on March 5, 2024, the California Fish and Game Commission received a petition to list burrowing owl, (*Athene cunicularia*) as a threatened or endangered species under CESA. At the time Project activities commence, burrowing owl may be formally considered a candidate species.

Evidence impact would be significant: Project activities could result in significant impacts to CESA candidate species without appropriate avoidance or minimization measures.

Recommendation 4: The DEIR should fully analyze all potential impacts of the Project to western bumble bee, Temblor legless lizard, burrowing owl, and Crotch's bumblebee as candidate species under CESA. As candidate species, they receive the same legal protections afforded to endangered or threatened species. Any potential take of the species resulting from the operations and management activities described in the NOP could constitute a potentially significant impact under CEQA. Without appropriate avoidance or minimization measures for these species and their associated habitat, Project-related activities involving water infrastructure operations and maintenance could result in significant impacts. CDFW recommends the DEIR include a detailed assessment for potential presence of each candidate species and thorough analysis of all temporary and permanent impacts to the species that are known to occur or could potentially be present within the Project area. If it is determined that the proposed Project is expected to result in take (Fish & G. Code § 86 defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") as defined under CESA, CDFW recommends coverage of CESA candidate and listed species in an ITP before starting any Project activities.

Comment 5: Fully Protected Species

Issue: The NOP states that SB 147 allows CDFW to issue a take permit for fully protected species. SB 147 does allow CDFW to issue permits authorizing take of fully protected species in certain specified circumstances. Projects or categories of projects eligible for a take authorization permit pursuant to this section include "A maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources" therefore the Project appears to meet the criteria to qualify under SB 147. While the NOP describes activities with the potential to result in take of blunt-nosed leopard lizard, a fully protected species, other fully protected species with potential to occur within the Project area are not identified in the NOP.

Evidence impact would be significant: Fully protected species with the potential to occur within the Project area but not considered in the NOP include white-tailed kite, bald eagle, golden eagle, and California condor. Project activities could result in significant impacts to these fully protected species without appropriate avoidance and minimization measures.

Recommendation 5: CDFW recommends the DEIR include an impacts analysis for each fully protected species with known occurrences or potential to occur within the proposed Project area. CDFW may authorize take for fully protected species, however the Project should include all feasible avoidance and mitigation measures, and compensatory mitigation for all impacts that cannot be completely avoided. Mitigation measures should satisfy the conservation standard of subdivision (d) of Fish and Game Code Section 2081.15. CDFW recommends early consultation if DWR may submit an ITP application for fully protected species.

Comment 6: Consistency with Existing Conservation Plans

Issue and Impacts: Conservation plans within the Project area provide conservation, protection, restoration, and management for fish, plants, animals, and their habitats while allowing compatible and appropriate economic activity and development while preserving and restoring the ecosystems they depend on. If proposed Project activities or associated mitigation measures conflict with existing conservation plans, significant impacts to biological resources could occur.

Recommendation 6: The Project should be consistent or more protective than existing conservation plans. DWR should consult with the implementing entities of the existing conservation plans within the Project area during preparation of the DEIR to ensure the Project does not conflict with policies, strategies, and goals of the associated plans. Special focus should be given to mitigation lands. Mitigation lands for the proposed Project should be identified as early in the planning process as possible, and early consultation with CDFW is advised.

Comment 7: Habitat Connectivity and Wildlife Passage

Issue: The Project area has numerous wildlife corridors and habitat linkages (ACE 2024)(CDFW 2024b). Some of these areas provide moderate to high landscape intactness for upland habitat (Data Basin 2024). The NOP does not clearly state whether the proposed Project activities could result in short-term or long-term impacts to wildlife connectivity. The NOP also does not describe existing conditions regarding connectivity across the Project's infrastructure. Species vary in their mobility and ability to pass over and under various types of infrastructure, so species-specific data are necessary to implement designs that will not impact those species.

The proposed Project includes components such as vegetation removal and management; road maintenance and construction; maintenance of conveyance, water storage, and drainage features; pipeline construction and maintenance; and fencing repair or maintenance, stream/channel crossings, installation of electric lines, and construction of road and livestock crossings. Implementation of these and other components of the proposed Project could prevent, decrease, or otherwise alter use of existing wildlife movement corridors for the aquatic and terrestrial species listed in the NOP as present or potentially present within the Project area.

The Project could result in direct mortality, reduced reproductive success, reduced frequency of care for young resulting in reduced health or vigor of young, reduced movement between habitats needed for various life stages (e.g. aquatic and uplands) and reduced genetic exchange affecting intra-species diversity.

Evidence the impact would be significant: California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat

and cut off migration corridors. SB 790 and Assembly Bill 2344 both address wildlife connectivity in California and assert authority and responsibility to CDFW and/or local and state transportation agencies to implement wildlife connectivity actions by identifying where they are needed, coordinate and implement those actions, and establish compensatory mitigation credits for actions taken. SB 790 allows for the creation of Wildlife Connectivity Actions that enhance wildlife movement across any linear barriers, including, but not limited to roads, rail lines, and canals. The Project area contains habitat that could support connectivity actions across the Project.

Roads, railways, and canals can act as filters and barriers to wildlife movement through a landscape. Crossings such as overpasses, chutes, and siphons can promote wildlife movement across canals. While canals in the Project area serve as barriers to wildlife movement, proposed conservation actions could promote wildlife movement for a range of species in the Project area, including, but not limited to, San Joaquin kit fox, Tule elk, pronghorn, coyote, bobcat, American badger, and rabbit.

No information is provided in the NOP to adequately determine impacts and/or benefits for wildlife connectivity from the Project.

Recommendation 7a: The DEIR should thoroughly assess existing wildlife movement corridors and habitat connectivity throughout the SWP structures. The DEIR should also assess opportunities for enhancement of existing corridors or creation of new corridors where they may be lacking. The DEIR should provide detailed maps of specific locations where wildlife connectivity could be impacted, such as native habitat corridors, canals, culverts, roads, fencing, and spillways.

The DEIR should include the results of past connectivity studies within the Project area in the assessment and, where data are lacking, undertake a Project-specific wildlife movement study that evaluates the potential for the Project to significantly impact wildlife connectivity to guide the development of measures to encourage connectivity.

The DEIR should also include a robust analysis of potential impacts of Project operations and future flooding or lower water periods on wildlife movement and connectivity under and around existing structures. During this process, CDFW recommends DWR identify if any of the proposed Project activities are within state or regional linkage design areas, species core recovery areas or sensitive habitat, or in locations with high vehicle-animal collisions, and consider measures to incorporate movement of both aquatic and terrestrial species to allow for safe passage over or under and determination of broader impacts on connectivity.

CDFW recommends the connectivity study occur over a period of at least 24 months prior to the development of designs so they may be incorporated into the Project and include an assessment of intra- and interannual changes in species movement and changes in hydrology and climate. The study should also include a broad range of

operational conditions, such as for canals, where the water level may affect connectivity. The study should occur within the limits of the proposed Project area to develop a baseline understanding of the areas where wildlife movement and crossings are most prevalent. The study should monitor and evaluate wildlife movement adjacent to and through structures, and include an evaluation of existing infrastructure for passage of native and non-native terrestrial/aquatic species.

The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should, at a minimum, follow the protocols outlined in the California Department of Transportation (Caltrans), Wildlife Crossings Design Manual (Caltrans 2009), CDFW's Transportation Planning Companion Plan, associated with the State Wildlife Action Plan (CDFW 2016), and the Federal Highway Administration Wildlife Crossing Structure Handbook (FHWA 2011). CDFW recommends that monitoring data be analyzed, summarized, and results discussed in reports that may be posted to the Project webpage and be submitted to CDFW and other agencies or organizations that have a responsibility or interest in the effectiveness of wildlife movement corridors.

Recommendation 7b: Habitat connectivity requires space for wildlife to move through a matrix of high- and low-quality habitat. The DEIR should include an analysis of potential indirect impacts of the Project on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands, open space, natural habitats, riparian ecosystems, and wildlife corridors especially as they relate to connectivity. The DEIR should also include an evaluation of potential indirect impacts of the Project on any designated and/or proposed reserve or mitigation lands such as preserved lands associated with a conservation or recovery plan, or other conserved lands.

DWR should keep in mind that SB 790 is not only focused on establishing mitigation credits for improving aquatic or terrestrial habitat connectivity or wildlife migration, but also includes recolonization, and breeding opportunities inhibited by built infrastructure or habitat fragmentation. Wildlife connectivity actions may include, but are not limited to, road or canal overpasses or underpasses solely for use by wildlife and actions to connect fragmented habitat. Therefore, CDFW recommends that DWR analyze and consider wildlife connectivity actions in the DEIR that can improve conditions for a variety of species including bats, small mammals, birds, fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

Recommendation 7c: The DEIR should provide mitigation measures for any covered activities that impact aquatic or terrestrial connectivity and movement, such as, but not limited to, vegetation removal; road maintenance and construction; maintenance of conveyance, water storage, and drainage features; pipeline construction and maintenance; fencing repair or maintenance, stream/channel crossings and culverts; and installation of electric lines, and construction of road and livestock crossings.

The DEIR should establish measures for wildlife friendly designs for covered activities, including but not limited to:

- Wildlife-friendly fencing, including restrictions on placement of fencing at the opening to culverts. Fencing should also be designed to deter wildlife from crossing over roads and other infrastructure, and to reduce wildlife-vehicle collisions, during both dry and wet seasons.

- Culvert improvements to support passage during wet and dry years, including but not limited to maintaining culverts to be free of sediments and vegetation; terracing to allow passage of terrestrial species where space allows; and upsizing to support passage of impacted species.

- Consideration of design features for features that can support wildlife movement such as minimize lengths (entry to exit) of dedicated wildlife crossings for certain species guilds, designs (grates, shelving, terracing, etc.) that still allow light penetration; maximize heights of crossings or add bridges for larger species guilds; natural cover types to encourage use; bench designs to allow use of the crossings during flooding; and smaller animal escape areas within or adjacent to the dedicated wildlife crossings.

Comment 8: Incidental Take Permit - Term

Issue: The NOP states that DWR is seeking State and federal ITPs that each remain in effect for a permit term of 50 years.

Evidence impact would be significant: CESA is a California environmental law that conserves and protects plant and animal species at risk of extinction. CDFW ITPs allow a permittee to take a CESA-listed species if such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Due to the unpredictable future of many CESA-listed species, it is very difficult to know how Project activities may impact certain species within a 50-year period. Additionally, changes in conservation practices, adaptive management actions, monitoring requirements, and general scientific protocols are likely to evolve over a 50-year timeline.

Recommendation 8: CDFW recommends DWR request a reduced term in the proposed ITP application. Please be advised that CDFW typically issues ITPs for periods of 10 years with the possibility of renewal at the end of the 10-year term. CDFW recommends early consultation to further discuss an appropriate ITP term.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to prepare

subsequent CEQA documents or to make supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (d) & (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDB. The CNNDB field survey form can be filled out and submitted online here: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found here: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

CDFW anticipates the proposed Project will have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP in order to assist DWR in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 580-3202 or Annette.Tenneboe@wildlife.ca.gov. Questions regarding Incidental Take Permitting should be directed to Sarah Bahm, Senior Environmental Scientist (Specialist), at (559) 580-3195 or Sarah.Bahm@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Gerald Hatler
37BF80A1646F41C...

for Julie A. Vance
Regional Manager
Central Region

Attachment 1

ec: See Page Eighteen

ec: Office of Planning and Research, State Clearinghouse, Sacramento

California Department of Fish and Wildlife:
Annette Tenneboe
Sarah Bahm
Craig Bailey
John Riedel

Justin Sloan
Division Chief, San Joaquin Valley Division
United States Fish and Wildlife Service
Justin_Sloan@fws.gov

Karen Dulik
Environmental Program Manager
California Department of Water Resources- South Central Region Office
Karen.Dulik@water.ca.gov

REFERENCES

Areas of Conservation Emphasis (ACE) Terrestrial Connectivity (2024). https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835&inline. Accessed: 05 August 2024.

California Department of Fish and Wildlife (CDFW). 2016. California State Wildlife Action Plan, Transportation Planning Companion Plan. Prepared by Blue Earth Consultants, LLC., Sacramento, CA.

CDFW 2024a. Biogeographic Information and Observation System (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed 05 August 2024.

CDFW 2024b. BIOS Habitat Connectivity Viewer bios6app (ca.gov). Accessed 05 August 2024.

California Department of Transportation (Caltrans). 2009. Wildlife Crossings Design Manual.

Data Basin 2024. Landscape Intactness California https://databasin.org/maps/new/#datasets=e3ee00e8d94a4de58082fdbc91248a65 Accessed 05 August 2024.

FHWA. 2011. Wildlife Crossing Structure Handbook: Design and Evaluation in North America.

Attachment 1: Inventory of Fully Protected, Threatened or Endangered, Candidate, and Other Special-Status Species within the Project and HCP Area

*Species and sensitive terrestrial communities in blue were not included the NOP but should be evaluated in the EIR.

** Species arranged by Status hierarchy.

Common Name	Scientific Name	Status (Federal/State)
Invertebrates		
Crotch's bumblebee	*Bombus crotchii*	None/SC
monarch butterfly	*Danaus plexippus*	FC/None
western bumblebee	*Bombus occidentalis*	Under Review/SC
obscure bumblebee	*Bombus caliginosus*	None/None
longhorn fairy shrimp	*Branchinecta longiantenna*	FE/None
vernal pool fairy shrimp	*Branchinecta lynchi*	FT/None
vernal pool tadpole shrimp	*Lepidurus packardi*	FE/None
Conservancy fairy shrimp	*Branchinecta conservatio*	FE/None
pocket pouch fairy shrimp	*Branchinecta campestris*	None/None
valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT/None
San Joaquin dune beetle	*Coelus gracilis*	None/None
molestan blister beetle	*Lytta molesta*	None/None
Kern primrose sphinx moth	*Euproserpinus euterpe*	FT/None
San Emigdio blue butterfly	*Plebulina emigdionis*	None/None
Grapevine shoulderband	*Helminthoglypta uvasana*	None/None
Kern shoulderband	*Helminthoglypta callistoderma*	None/None
western ridged mussel	*Gonidea angulata*	None/None
Fish		
Monterey hitch	*Lavinia exilicauda harengus*	None/SSC
southern coastal roach	*Hesperoleucus venustus subditus*	None/SSC
Amphibians and Reptiles		
California red-legged frog	*Rana draytonii*	FT/SSC
western spadefoot	*Spea hammondii*	PT/SSC
California tiger salamander pop.1	*Ambystoma californiense* – central California DPS	FT/ST/WL
foothill yellow-legged frog	*Rana boylii*	FT/SE
Tehachapi slender salamander	*Batrachoseps stebbinsi*	None/ST
yellow-blotched salamander	*Ensatina eschscholtzii croceater*	None/WL
northwestern pond turtle	*Emys marmorata*	FC/SSC
blunt-nosed leopard lizard	*Gambelia sila*	FE/SE, FP
giant gartersnake	*Thamnophis gigas*	FT/ST
Southern rubber boa	*Charina umbratical*	None/ST

Common Name	Scientific Name	Status (Federal/State)
two-striped gartersnake	*Thamnophis hammondii*	None/SSC
California glossy snake	*Arizona elegans occidentalis*	None/SSC
Temblor legless lizard	*Anniella alexanderae*	FCE/SC
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	None/SSC
Northern California legless lizard	*Anniella pulchra*	None/SSC
California legless lizard	*Anniella* ssp.	None/SSC
coast horned lizard	*Phrynosoma blainvillii*	None/SSC
Bakersfield legless lizard	*Anniella grinnelli*	None/SSC
Birds		
tricolored blackbird	*Agelaius tricolor*	BCC/ST, SSC
burrowing owl	*Athene cunicularia*	BCC/SSC
Swainson's hawk	*Buteo swainsoni*	None/ST
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE/SE
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FT/SE
willow flycatcher	*Empidonax traillii*	None/SE
western snowy plover	*Charadrius nivosus*	FT/SSC
California spotted owl	*Strix occidentalis*	PE/SSC
white-tailed kite	*Elanus leucurus*	None/FP
golden eagle	*Aquila chrysaetos*	None/FP
bald eagle	*Haliaeetus leucocephalus*	None/SE, FP
California condor	*Gymnogyps californianus*	FE/SE/FP
least Bell's vireo	*Vireo bellii pusillus*	FE/SE
American peregrine falcon	*Falco peregrinus anatum*	None/None
prairie falcon	*Falco mexicanus*	None/WL
merlin	*Falco mexicanus*	None/WL
osprey	*Pandion haliaetus*	None/WL
white-faced ibis	*Plegadis chihi*	None/WL
California horned lark	*Eremophila alpestris actia*	None/WL
long-billed curlew	*Numenius americanus*	None/SSC
Bell's sparrow	*Artemisiospiza belli belli*	None/WL
grasshopper sparrow	*Ammodramus savannarum*	None/SSC
Le Contes thrasher	*Toxostoma lecontei*	None/SSC
American goshawk	*Accipiter atricapillus*	None/SSC
purple martin	*Progne subis*	None/SSC
long-eared owl	*Asio otus*	None/SSC
Short-eared owl	*Asio flammeus*	None/SSC
Mount Pinos sooty grouse	*Dendragapus fuliginosus howardi*	None/SSC
fulvous whistling-duck	*Dendrocygna bicolor*	None/SSC
American white pelican	*Pelecanus erythrorhynchos*	None/SSC
least bittern	*Ixobrychus exilis*	None/SSC

Common Name	Scientific Name	Status (Federal/State)
yellow-headed blackbird	*Xanthocephalus xanthocephalus*	None/SSC
yellow-breasted chat	*Icteria virens*	None/SSC
yellow warbler	*Setophaga petechia*	None/SSC
black tern	*Chlidonias niger*	None/SSC
loggerhead shrike	*Lanius ludovicianus*	None/SSC
mountain plover	*Charadrius montanus*	None/SSC
black-crowned night heron	*Nycticorax nycticorax*	None/None
Mammals		
San Joaquin kit fox	*Vulpes macrotis mutica*	FE/ST
giant kangaroo rat	*Dipodomys ingens*	FE/SE
Tipton kangaroo rat	*Dipodomys nitratoides nitratoides*	FE/SE
Buena Vista Lake ornate shrew	*Sorex ornatus relictus*	FE/SSC
San Joaquin antelope squirrel	*Ammospermophilus nelsoni*	None/ST
short-nosed kangaroo rat	*Dipodomys nitratoides nitratoides*	None/SSC
Tulare grasshopper mouse	*Onychomys torridus tularensis*	None/SSC
Tehachapi pocket mouse	*Perognathus alticola inexpectatus*	None/SSC
San Joaquin pocket mouse	*Perognathus inornatus*	None/None
American badger	*Taxidea taxus*	None/SSC
western mastiff bat	*Eumops perotis californicus*	None/SSC
pallid bat	*Antrozous pallidus*	None/SSC
western red bat	*Lasiurus frantzii*	None/SSC
Townsend's big-eared bat	*Corynorhinus townsendii*	None/SSC
hoary bat	*Lasiurus conereus*	None/None
Yuma myotis	*Myotis yumanensis*	None/None
long-legged myotis	*Myotis Volans*	None/None
fringed myotis	*Myotis thysanodes*	None/None
silver-haired bat	*Lasionycteris noctivagans*	None/None
western small-footed myotis	*Myotis ciliolabrum*	None/None
pronghorn	*Antilocpra americana*	None/None
Tule elk	*Cervus canadensis nannodes*	None/None
Plants		
Kern mallow	*Eremalche parri* ssp. *kernensis*	FE/CRPR 1B.2
San Joaquin woollythreads	*Monolopia congdonii*	FE
Bakersfield cactus	*Opuntia basilaris* var. *treleasei*	FE/SE/CRPR 1B.1
California jewelflower	*Caulanthus californicus*	FE/SE
San Joaquin adobe sunburst	*Pseudobahia peirsonii*	FT/SE/CRPR 1B.1

Common Name	Scientific Name	Status (Federal/State)
Bakersfield smallscale	*Atriplex tularensis*	None/SE/CRPR 1A
western Joshua tree	*Yucca brevifolia*	None/ST/CRPR CBR
Tracy's eriastrum	*Eriastrum tracyi*	None/Rare/CRPR 3.2
slough thistle	*Cirsium crassicaule*	CRPR 1B.1
alkali-sink goldfields	*Lasthenia chrysantha*	CRPR 1B.1
Coulter's goldfields	*Lasthenia glabrata* ssp. *coulteri*	CRPR 1B.1
Comanche Point layia	*Layia leucopappa*	CRPR 1B.1
pale-yellow layia	*Layia heterotricha*	CRPR 1B.1
hispid salty birds-beak	*Chloropyron molle* ssp. *hispidum*	CRPR 1B.1
oil neststraw	*Stylocline citroleum*	CRPR 1B.1
Fort Tejon woolly sunflower	*Eriophyllum lanatum* var. *hallii*	CRPR 1B.1
Tejon poppy	*Eschscholzia lemmonii* ssp. *kernensis*	CRPR 1B.1
Kings gold	*Tropidocarpum californicum*	CRPR 1B.1
Piute Mountains navarretia	*Navarretia setiloba*	CRPR 1B.1
Tejon jewelflower	*Streptanthus medeirosii*	CRPR 1B.1
Horn's milk-vetch	*Atragalus hornii* var. *hornii*	CRPR 1B.1
Tehachapi buckwheat	*Eriogonum callistum*	CRPR 1B.1
showy golden madia	*Madia radiata*	CRPR 1B.1
slough thisle	*Cirsium crassicaule*	CRPR 1B.1
lesser saltscale	*Atriplex minuscula*	CRPR 1B.1
recurved larkspur	*Delphinium recurvatum*	CRPR 1B.2
California screw moss	*Tortula californica*	CRPR 1B.2
alkali mariposa-lily	*Calochortus striatus*	CRPR 1B.2
calico monkeyflower	*Diplacus pictus*	CRPR 1B.2
heartscale	*Atriplex cordulata* var. *cordulata*	CRPR 1B.2
Earlimart orache	*Atriplex cordulata* var. *erecticaulis*	CRPR 1B.2
subtle orache	*Atriplex subtilis*	CRPR 1B.2
California alkali grass	*Puccinellia simplex*	CRPR 1B.2
Hall's tarplant	*Deinandra halliana*	CRPR 1B.2
Lost Hills crownscale	*Atriplex coronata* var. *vallicola*	CRPR 1B.2
aromatic canyon gooseberry	*Ribes menziesii* var. *ixoderme*	CRPR 1B.2
Munz's tidy-tips	*Layia munzii*	CRPR 1B.2
Lemmon's jewelflower	*Caulanthus lemmonii*	CRPR 1B.2
Palmer's mariposa-lily	*Calochortus palmeri* var. *palmeri*	CRPR 1B.2
Temblor buckwheat	*Eriogonum temblorense*	CRPR 1B.2
Jared's pepper-grass	*Lepidium jaredii* ssp. *jaredii*	CRPR 1B.2

Common Name	Scientific Name	Status (Federal/State)
spiny-sepaled button-celery	*Eryngium spinosepalum*	CRPR 1B.2
Robbin's nemacladus	*Nemacladus secundiflorus* var. robbinsii	CRPR 1B.2
Baja navarretia	*Navarretia peninsularis*	CRPR 1B.2
grey-leaved violet	*Viola pinetorum* ssp. *grisea*	CRPR 1B.2
crownscale	*Atriplex coronata* var. coronata	CRPR 1B.2
Hernandez spineflower	*Chorizanthe biloba* var.immemora	CRPR 1B.2
delicate bluecup	*Githopsis tenella*	CRPR 1B.3
southern alpine buckwheat	*Eriogonum kennedyi*	CRPR 1B.3
Carrizo Plain crownscale	*Atriplex flavida*	CRPR 1B.3
Tehachapi monardella	*Monardella linoides* ssp. *oblonga*	CRPR 1B.3
Mt. Pinos onion	*Allium howellii* var. *clokeyi*	CRPR 1B.3
California satintail	*Imperata brevifolia*	CRPR 2B.1
salt spring checkerbloom	*Sidalcea Neomexicana*	CRPR 2B.2
vernal barley	*Hordeum intercedens*	CRPR 3.2
Mexican mosquito fern	*Azolla microphylla*	CRPR 4.2
large-flowered leptosiphon	*Leptosiphon grandifloras*	CRPR 4.2
golden goodmania	*Goodmania luteola*	CRPR 4.2
Ferris goldfields	*Lasthenia ferrisiae*	CRPR 4.2
small-flowered morning glory	*Convolvulus simulans*	CRPR 4.2
San Joaquin bluecurls	*Trichostema ovatum*	CRPR 4.2
cottony buckwheat	*Eriogonum gossypinum*	CRPR 4.2
solitary blazing star	*Mentzelia eremophila*	CRPR 4.2
California androsace	*Androsace elongata* ssp. *acuta*	CRPR 4.2
paniculate tarplant	*Deinandra paniculata*	CRPR 4.2
sylvan microseris	*Microseris sylvatica*	CRPR 4.2
oval-leaved snapdragon	*Antirrhinum ovatum*	CRPR 4.2
heart-leaved thornmint	*Acanthomintha obovata* ssp. *cordata*	CRPR 4.2
protruding buckwheat	*Eriogonum nudum* var. *indictum*	CRPR 4.2
Plummer's mariposa-lily	*Calochortus plummerae*	CRPR 4.2
Torrey's box-thorn	*Lyceum torreyi*	CRPR 4.2
stinkbells	*Fritillaria agrestis*	CRPR 4.2
Douglas fiddleneck	*Amsinckia douglasiana*	CRPR 4.2
Hoover's eriastrum	*Eriastrum hooveri*	Delisted/CRPR 4.2
Salinas milk-vetch	*Astragalus macrodon*	CRPR 4.3
spring lessingia	*Lessingia tenuis*	CRPR 4.3
Lemmon's syntrichopappus	*Syntrichopappus lemmonii*	CRPR 4.3
silky lupine	*Lupinus elatus*	CRPR 4.3

Common Name	Scientific Name	Status (Federal/State)
club-haired mariposa lily	*Calochortus clavatus* var. *clavatus*	CRPR 4.3
pine green-gentian	*Frasera neglecta*	CRPR 4.3
pine fritillary	*Fritillaria pinetorum*	CRPR 4.3
limestone dudleya	*Dudleya abramsii* ssp. *calcicole*	CRPR 4.3
Mojave phacelia	*Phacelia mohavensis*	CRPR 4.3
spring lessingia	*Lessingia tenuis*	CRPR 4.3
oak-leaved nemophila	*Nemophila parviflora* var. *quercifolia*	CRPR 4.3
Howell's onion	*Allium howellii* var. *howellii*	CRPR 4.3
adobe yampah	*Perideridia pringlei*	CRPR 4.3
small-flowered monkeyflower	*Erythranthe inconspicua*	CRPR 4.3
Mt. Pinos larkspur	*Delphinium parryi* ssp. *purpureum*	CRPR 4.3
Cuyama gilia	*Gilia latiflora* ssp. *cuyamensis*	CRPR 4.3
inland gilia	*Gilia interior*	CRPR 4.3
pine gilia	*Bilia leptantha* ssp. *pinetorum*	CRPR 4.3
Mt. Pinos larkspur	*Delphinium parryi* ssp. *purpureum*	CRPR 4.3
urn-flowered alumroot	*Heuchera caespitosa*	CRPR 4.3
tansy-flowered woolly sunflower	*Eriophyllum confertiflorum* var. *tanacetiflorum*	CRPR 4.3
slender clarkia	*Clarkia exilis*	CRPR 4.3
Mojave paintbrush	*Castilleja plagiotoma*	CRPR 4.3
San Benito poppy	*Eschscholzia hypecoides*	CRPR 4.3
Jones bushmallow	*Malacothamnus jonesii*	CRPR 4.3
Sensitive Communities - Terrestrial		
Valley oak woodland, Southern cottonwood willow riparian forest, Valley Needlegrass Grassland, Wildflower Field; Valley sink scrub, Great Valley mesquite scrub, Valley sacaton grassland, Valley saltbush scrub, Great Valley cottonwood riparian forest, and northern claypan vernal pool.		

Notes: DPS = Distinct Population Segment; pop. = population status.

Federal Endangered Species Act: PT = Proposed Threatened; PE = Proposed Endangered; FC = Candidate; FT = Threatened; FE = Endangered.

Other Federal Status: BCC = Bird of Conservation Concern.

California Endangered Species Act: SC = State Candidate for Listing; ST = Threatened; SE = Endangered; FP = Fully Protected.

Other State Status: SSC = CDFW Species of Special Concern; WL = CDFW Watch List; CRPR = California Rare Plant Rank.