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Malisa Lieng, Senior Environmental Planner
California Department of Transportation, District 8
464 West Fourth Street, 6th Floor, MS 823
San Bernardino, CA 92401

Subject: Initial Study/Mitigated Negative Declaration, SBD-15 Pavement Rehab (Project), State Clearinghouse No. 2024050406, County of San Bernardino

Dear Ms. Lieng:

The California Department of Fish and Wildlife (CDFW) received an Initial Study/Mitigated Negative Declaration (IS/MND) from the California Department of Transportation, District 8 (Caltrans) 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, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

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.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: Caltrans District 8

Objective: The objective of the Project is to improve Interstate 15 (I-15) between post mile (PM) R121.0 and PM 144.0 to require minimal maintenance, extend the life of the highway, improve ride quality, and upgrade other highway features that are worn out or functionally obsolete. Primary Project activities include:

[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.

- Placing 0.15' mill and 0.25' overlay and 2' shoulder backing on each side of the roadway on the mainline, shoulders, and on/off ramps, from PM R124.4 to PM R137.2
- Upgrading the guardrails
- Replacing asphalt concrete (AC) dikes
- Restriping all lanes
- Sleeve-lining 6 culverts
- Installing rock slope protection (RSP) and guardrail at PM R137.67
- Upgrading 18 sign panels (Type 11)
- Rehabilitating 12 freeway lights (Type 10, 15, 30, and 31)
- Removing vegetation

Location: The Project site is in the Mojave Desert and located on I-15 near Baker, south of Basin Road to 7.4 miles north of Route 127 from PM R121.0 to PM 144.0 in San Bernardino County, California at latitude 35°16'3" N and longitude 116°4'26" W.

Timeframe: None provided.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Caltrans District 8 in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

I. Mitigation Measure or Alternative and Related Impact Shortcoming

COMMENT #1: Nesting Birds

Section 2.2.4 (d), Page 11, 14; Appendix B, Page 80

Issue: The Project may have impacts on nesting birds, including CESA-listed birds, CDFW Species of Special Concern (SSC), and common birds that are subject to Fish and Game Code Sections 3503, 3503.5, and 3513, and the Migratory Bird Treaty Act of 1918.

Specific impact: Project implementation could result in the loss of nesting and/or foraging habitat for (non-)passerine and raptor species.

Why impact would occur: Nesting avian species could be directly or indirectly impacted during construction and for the life of the Project through the removal of potential foraging habitat and loss of and/or modification of habitat features caused by pavement improvements, the installation of shoulder backing and guardrail, drainage improvements, sign panel replacements, freeway lighting rehabilitation, temporal changes in noise and vibration, and the removal of vegetation. Nest destruction, nest abandonment, behavioral disturbance, increased risk of predation, and degradation of suitable habitat could also lead to significant impacts to nesting avian species and local populations.

The timing of the bird nesting season varies greatly depending on several factors, such as the bird species, weather conditions in any given year, and long-term climate changes (e.g., drought, warming, etc.). CDFW staff have observed that changing climate conditions may result in the nesting bird season occurring earlier and/or later in the year than historical nesting season dates. CDFW recommends the completion of nesting bird survey regardless of time of year to ensure compliance with all applicable laws pertaining to nesting and to avoid take of nests.

Evidence impact would be significant: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory

Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure BIO-Avian 1: To address the above issues and help avoid unlawfully taking of nesting birds, CDFW requests Caltrans revise the following mitigation measure in the final IS/MND as follows (edits are in ~~strikethrough~~ and **bold**).

BIO-Avian 1: Preconstruction Nesting Bird Survey: **Project activities shall not result in impacts to nesting birds or result in the take or removal of nests or eggs unless as otherwise provided for under CDFW and USFWS regulations.** ~~If project activities cannot avoid the nesting bird season, February 1 – September 30, then~~ **P**~~p~~reconstruction nesting bird surveys must be conducted by a qualified biologist **experienced with: identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/ establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures** in areas of suitable habitat **including trees, shrubs, bare ground, burrows, cavities, and structures (e.g., bridges)** within the projects limits and up to the limit of the BSA, no more than 3 days prior to construction to locate and avoid nesting birds. If an active avian nest is located, a no-construction buffer ~~(100 feet for non-passerine, 300 feet for passerine, and 500 feet for raptors)~~ ~~would~~ **shall** be established and monitored ~~for~~ **by** a qualified biologist. **Buffers shall be delineated by temporary flagging or other means and remain in effect as long as construction is occurring or until the nest is no longer active. Any active nests shall be continuously monitored by a qualified biologist during Project activities that have the potential to cause disturbance to any nesting birds to ensure avoidance buffers are effective. Avoidance buffers shall be expanded and/or modified as needed by the qualified biologist if any nesting bird shows behavioral responses resulting from Project related activities. Concurrent and further surveys shall occur as Project construction progresses, as the nature of the Project is linear in fashion.**

COMMENT #2: Bighorn Sheep (*Ovis canadensis nelsoni*)

Section 2.2.4 (a), Page 11-12; Appendix B, Page 63-65

Issue: The Project may have impacts on fully protected species, including desert bighorn sheep. Unless otherwise authorized pursuant to Fish and Game Code section 2081.15, fully protected species may not be taken or possessed at any time.

Specific impact: The IS/MND does not adequately analyze Project impacts on desert bighorn sheep.

Why impact would occur: The Project as described in the IS/MND has the potential to adversely impact fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. Road construction and use thereof could result in bighorn sheep mortality and can cause shifts in home ranges and movement.[2] MacArthur et al. (1979) found that the energy expenditure, as well as heart and metabolic rates, of female bighorn sheep increased near roads regardless of how often they were used.[3] Additionally, roads can be used as corridors for predators

[2] Trombulak, S. C., and C. A. Frissell. 2000. Review of ecological effecewsazts of roads on terrestrial and aquatic communities. Conservation Biology 14:18–30.
[3] MacArthur, R. A., R. H. Johnston, and V. Geist. 1979. Factors influencing heart rate in free ranging bighorn sheep: a physiological approach to the study of wildlife harassment. Canadian Journal of Zoology 57:2010–2021.

of bighorn sheep. Noise from generators or other equipment can disrupt bighorn sheep and limit their ability to hear potential predators.[4] Further, exposure to artificial light has been shown to suppress the immune response in mammals resulting in increased pathogen and parasite infections[5,6]; as disease is a primary threat to bighorn sheep, this is of particular concern to CDFW.[7] Lastly, pathogen transmission in desert bighorn sheep is not well understood, therefore general sanitary practices are recommended.

Evidence impact would be significant: Fully protected species, such as desert bighorn sheep, may not be taken or possessed at any time and no licenses or permits may be issued for their take except as follows:

- Take is for necessary scientific research,
- Efforts to recover a fully protected, endangered, or threatened species,
- Live capture and relocation of a bird species for the protection of livestock, or
- They are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

Specified types of infrastructure projects may be eligible for an incidental take permit for unavoidable impacts to fully protected species if certain conditions are met (see Fish & G. Code §2081.15). Project proponents should consult with CDFW early in the project planning process.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure BIO-General-PSM 1, BIO-BHS 1 (NEW): To address the above issues and help avoid unlawfully taking of desert bighorn sheep, CDFW requests Caltrans revise and add the following mitigation measures in the final IS/MND as follows (edits are in ~~strikethrough~~ and **bold**).

BIO-General-PSM 1: Vehicle Washing: ~~Comply with 2022 SSP or latest version. It would be required that~~ **T**~~t~~he contractor ~~would~~ **shall** wash equipment prior to entering the project site. The biologist ~~would~~ **shall** coordinate with the resident engineer and contractor in order to inspect the vehicles and equipment prior to the initiation **of** work to verify that they have been washed. **All equipment shall be free of materials including noxious and nuisance weeds, aquatic invasive species, oil, grease, hydraulic fluid, soil, and other debris The following shall be adhered to:**

- **Equipment Certification: All equipment shall be certified as decontaminated and require re-certification upon entry to the Project once equipment leaves the Project footprint.**

- **Decontamination of Project Equipment: All tools, waders and boots, vehicles, trailers, and other equipment shall be decontaminated. Project gear and equipment shall be decontaminated utilizing one of four methods: (1) drying, (2) using a hot water soak, (3) hot-water pressure washing, or (4) freezing, as appropriate to the type of gear or equipment. For all four methods, the decontamination process shall begin by thoroughly scrubbing equipment, paying close attention to hard-to-reach areas, and cleaning areas with a stiff-bristled brush to remove all plant, seeds, soil, and other organisms. To decontaminate by drying, equipment shall be allowed to dry thoroughly (i.e., until there is a complete absence of water and all plant, seeds, and soil), preferably in the sun, for a minimum of 48 hours. To decontaminate using hot water, equipment shall either be immersed in 140°F water (or hotter) and be**

[4] Francis, C. D., and J. R. Barber. 2013. A framework for understanding noise impacts on wildlife: An urgent conservation priority. Frontiers in Ecology and the Environment 11:305–313.
[5] Navara, K. J., and R. J. Nelson. 2007. The dark side of light at night: Physiological, epidemiological, and ecological consequences. Journal of Pineal Research 43:215–224.
[6] Bedrosian, T. A., L. K. Fonken, J. C. Walton, and R. J. Nelson. 2011. Chronic exposure to dim light at night suppresses immune responses in Siberian hamsters. Biology Letters 7:468–471.
[7] U.S. Fish and Wildlife Service [USFWS]. 2007. Recovery plan for the Sierra Nevada bighorn sheep. California/Nevada Operations Office, USFWS, Sacramento, CA, USA.

allowed to soak for a minimum of 5 minutes or shall be pressure washed with hot water that is at a minimum 140°F at the point of contact or 155°F at the nozzle. To decontaminate by freezing, equipment shall be placed in a freezer that is 32°F or colder for a minimum of 8 hours. Repeat decontamination is required only if the equipment/clothing is removed from the site, used in contact with water or wet soil within a different watershed, and returned to the Project site.

- **Decontamination Sites: Decontamination of vehicles and other Project gear and equipment shall be performed in a designated location where runoff can be contained and not allowed to pass into any river, lake, or stream and associated riparian areas and other sensitive habitat areas. Cleaning of equipment may occur at a location that contains and recycles resulting wastewater.**

BIO-BHS 1 (NEW) Decontamination of Pathogens: To prevent potential transmission of disease from domestic animals to wild desert bighorn sheep, Project proponent shall require all workers to decontaminate work boots prior to entering Project areas. Decontamination shall involve scrubbing of the soles of work boots with a 10% bleach solution to remove all organic matter and kill pathogens. Alternatively, footwear may be changed to ensure that potentially contaminated footwear does not enter Project areas. Heavy equipment previously used in livestock operations, including, but not limited to, sheep and goat livestock operations, or where roadside clearing has occurred through grazing shall not be utilized for Project activities.

COMMENT 3: Bats

Appendix B Page 63, 65

Issue: The Project has the potential to impact bat species, including but not limited to, pallid bat (*Antrozous pallidus*) (CDFW SSC), spotted bat (*Euderma maculatum*) (CDFW SSC), fringed myotis (*Myotis thysanodes*), and big-eared bat (*Corynorhinus townsendii*) (CDFW SSC).

Specific impact: The Project site contains suitable habitat for bats, including bridge structures and under road crossings. Project activities and construction, such as mill and overlay and shoulder backing activities occurring near or under bridges and crossings, artificial lighting, and noise and vibrations may impact and disrupt the behaviors of bats and result in possible abandonment of a roost (e.g., maternity roost).

Why impact would occur:

Pallid bats have records in the California Natural Diversity Database (CNNDB) as occurring near the Project location and are known to roost in bridges, such as that present within the Project site. Spotted bats are known to occur in the Mojave Desert and use crevices to roost. Fringed myotis have records on CNNDB near the Project extent and are known to use bridges as night and maternity roosts. Townsends big-eared bats use human made structures to roost and have occurrence records on CNDDB adjacent to the Project extent.

According to the IS/MND's Natural Environmental Study (Minimal Impact) (NESMI), suitable habitat occurs within the study area and Project area, and includes rock crevices, rock outcrops, bridges, and culverts. The Project will directly impact culverts and will occur near or at bridges. The Project also has the potential to occur adjacent to rock crevices and outcrops.

Evidence impact would be significant: Bat populations are declining throughout southern California due to loss of roosting habitat and low reproductive turnover. Fringed myotis, Townsend's big-eared bat, and pallid bat are easily disturbed and very sensitive to disturbances at roosting sites. The protection of bat roosting habitat, particularly habitat identified as maternity or nursery sites, is vitally important to prevent

adverse effects to, and further loss of remaining bat populations. Impacts to bat maternity colonies, could be considered potentially significant.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure BIO-General 4, and 5: CDFW appreciates the incorporation of BIO General 4, and 5 aimed to avoid and minimize impacts to bats. CDFW recommends the below revisions to BIO-General 4, and 5 (edits are ~~strikethrough~~ and **bold**) and the adoption of BIO-Bats 1.

BIO-General 4: Preconstruction Surveys: Preconstruction surveys for fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat**, and other bat species must be conducted by a qualified mammal and bat biologist within the Project Impact Area (PIA) within 14 days prior to the **initiation of** project activities and following a bat roosting habitat suitability assessment **as follows**. **During appropriate weather conditions and appropriate time of year for the species, a daytime assessment shall be conducted by a qualified bat biologist to examine areas that are suitable for bat use, including maternity roosts. During appropriate weather conditions and appropriate time of year for the species, nighttime bat visual surveys shall be conducted to confirm whether the areas with suitable habitat are utilized by bats. If bats are found roosting within and adjacent to the Project Impact Area, a qualified biologist shall conduct emergence surveys and perform exit counts to approximate the number of bats. Acoustic monitoring shall also be used during these surveys to identify the bat species present, surveys shall also identify roost type and roost status.** If one of the **bat** species listed above or other ~~special status~~ **bat** species **or sign thereof (e.g., occupied roosts, urine staining, guano masses, etc.)** is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and ~~/ or~~ agency coordination ~~may~~ **shall** be required. **Additional measures shall be included in a Bat Avoidance and Monitoring Plan submitted to CDFW at least seven days prior to the start of Project activities for review and written approval. Project activities may not start until CDFW's written approval of the Bat Avoidance and Monitoring Plan has been provided. The Bat Avoidance and Monitoring Plan shall include: (1) an assessment of all Project impacts to bats, including noise disturbance during construction; (2) effective avoidance and minimization measures to protect bats; (3) compensatory mitigation for permanent impacts to roosts if impacted, such as, but not limited to, constructing artificial bat roosting habitats (e.g., bat boxes or panels).**

BIO-General 5: Work Avoidance: To address impacts to fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat,** and other bat species, ~~avoid~~ project activities **shall be avoided** ~~from April 1 to august 31~~ within 300 feet of all ~~potential~~ roosting structures in the project impact area **from April 1 to August 31 and November to February to avoid the maternity and hibernation season, respectively**.

COMMENT #4: Burrowing Owl

Issue: The project has the potential to result in permanent and temporary loss, degradation, and impacts to burrowing owl habitat. The potential of direct take of burrowing owl may also occur during the course of the Project activities and life of Project. The IS/MND did not consider the potential presence of burrowing owl, a CDFW SCC that has potential to occur in the Project area.

Specific impact: The Project includes the potential to impact burrowing owl through the collapsing of burrows, entombment, displacement, direct take associated with vehicle and equipment strike, indirect take associated with Project activities such as attracting predators, reduction of habitat and habitat quality associated with road infrastructure activities. The Project as described will cause permanent and temporary impacts to burrowing owl foraging and nesting habitat.

Why impact would occur: Burrowing owl could be directly impacted during construction and for the life of the Project through the removal of potential foraging habitat, and loss of habitat features caused by the installation of shoulder backing. Nest

destruction, nest abandonment, disturbance from construction noise and activities, increased risk of predation and degradation of habitat could also all lead to significant impacts to burrowing owl individuals and local populations. Habitat conversion may occur indirectly through the introduction of invasive species, which could also negatively affect burrowing owls. The IS/MND does not disclose the potential for impacts to burrowing owl and their habitats as the species was not assessed in the Biological Resources section of the IS/MND. Burrowing owls are known to occur within a reasonable dispersal distance (27 kilometers) of the Project area and potential nesting and foraging habitat occurs within and adjacent to the Project Impact Area (PIA)[8]. Burrowing owls in California have been known to disperse from a range of up to 50-150 kilometers[9].

Evidence impact would be significant: Burrowing owls are regulated under Fish and Game Code section 3503.5, are a CDFW SSC, and have recently been petitioned for consideration to be listed as Endangered or Threatened under CESA. The Project, as described, may result in injury, direct mortality, indirect mortality, disruption of breeding behavior, and/or may reduce reproductive capacity of the species. However, because the IS/MND does not include mitigation measures specific to burrowing owl, the IS/MND may not adequately mitigate the potential impacts to burrowing owl to a level of less than significant. CDFW considers the direct and indirect take of burrowing owl, and the loss of the species' habitat as a significant impact, unless mitigated to a level of less than significant and in compliance with State (i.e., Fish and Game Code sections 3503.5, etc.) and Federal laws (i.e., Migratory Bird Treaty Act).

Recommended Potentially Feasible Mitigation Measure: CDFW recommends the adoption of Bio-Avian-2 below in the final IS/MND to ensure impacts to burrowing owl, and their habitats are mitigated to a level of less than significant.

Bio-Avian-2 Pre-construction Burrowing Owl Surveys (New):The following burrowing owl preconstruction surveys must be performed by a qualified biologist: one survey 14 to 30 days prior to Project activities; one survey 24 hours prior to Project activities; and burrowing owl preconstruction surveys shall be conducted in accordance with the 2012 Staff Report on Burrowing Owl Mitigation (Staff Report) (See: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline) prior to vegetation removal or ground disturbing activities. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities and implementing the measures of the Burrowing Owl Plan.

The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrows cannot be avoided, the Burrowing Owl Plan shall also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion (i.e., passive relocation) and closure shall only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Plan shall identify

[8] Arnold, R., & Moore, P. (2006, October 11). Burrowing owl [ds45]. Calif. Dept. of Fish and Wildlife. Biogeographic Information and Observation System (BIOS). Retrieved May 19, 2024, from https://wildlife.ca.gov/Data/BIOS.
[9] Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the 2012 Staff Report and Caltrans shall implement CDFW approved mitigation prior to the initiation of Project activities. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to burrowing owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated burrowing owls shall also be included in the Burrowing Owl Plan.

COMMENT #5: Desert Tortoise

Section 1.1, Page 5; Section 2.2.4 (a), Page 11, 12; Appendix B

Issue: The Project has the potential to result in take of desert tortoise, a CESA-listed species, as well as impact wildlife connectivity for the species.

Specific impact: Project implementation could result in direct and/or indirect take of desert tortoise including but not limited to collapsing of desert tortoise burrows, entombment, vehicle and equipment strike, degradation of habitat, and reduction of species movement. The Project also has the potential to result in loss of connectivity across the highway from the installation of RSP.

Why impact would occur: The IS/MND indicates that the Project would have a less than significant effect on desert tortoise with mitigation incorporated and includes several measures to avoid, minimize, and/or mitigate impacts to desert tortoise. However, the IS/MND does not include measures to survey for desert tortoise in the Project area prior to construction. Without these surveys, the Project may not be able to appropriately identify and therefore avoid, minimize, and/or mitigate impacts to desert tortoise. BIO-Reptile 1 requires attaching surveyor flagging to equipment as a reminder to construction personnel to check under equipment for special status reptiles that may be present, such as desert tortoise and Mojave fringe-toed lizard, prior to operating the equipment. CDFW also recommends that all cars and trucks be checked prior to operation. BIO-Reptile 6 requires installation of temporary desert tortoise fencing to exclude desert tortoise from specific Project areas. However, suitable habitat for desert tortoise is present throughout the Project area and installation of temporary desert tortoise fencing is limited to within drainages and any equipment staging, storing, and borrow sites. Thus, additional temporary fencing from that proposed in BIO-Reptile 6 may be needed. BIO-Reptile 6 also considers a 50-foot avoidance buffer, please note that absent take authorization, impacts to desert tortoise must be fully avoided.

Desert tortoises have been documented utilizing culverts for connectivity and it is known that RSP presents a trapping hazard for desert tortoise.[Error! Bookmark not defined.,Error! Bookmark not defined.] BIO-Reptile 8 considers partially filling interstitial spaces within RSP with grout or sand, however, absent additional design information, hydraulic analysis, and best available science in the IS/MND, CDFW is unclear whether the methods proposed are suitable to avoid or minimize impacts to desert tortoise. In conclusion, the IS/MND inadequately discloses the potentially significant impacts of the Project to desert tortoise including the impacts associated with the final designs, such as migratory impediments associated with RSP in the stream channel bed, in addition to identifying ways these impacts could be avoided, significantly reduced, and/or mitigated for through the inclusion of feasible mitigation measures.

Evidence impact would be significant: Desert tortoise was recently uplisted from threatened to endangered under CESA through a unanimous vote by the Fish and Game Commission in April 2024, highlighting the importance and necessity to avoid impacts to desert tortoise, its habitat, and connectivity thereof.

The IS/MND does not provide any information relative to desert tortoise including baseline data or field surveys, and only mentions that "due to the presence of desert tortoise Designated Critical Habitat adjacent to the project site, and the existence of primary constituent elements for desert tortoise within the BSA and parts of the PIA, a

presence/absence survey must be conducted in the PA&ED phase to determine if desert tortoise is active in the project area." CDFW records indicate that desert tortoise was observed and documented on CNDDB's unprocessed data layer north of Baker and within a half-mile from the Project Area[10]. All of these records occur within a continuous band of unimpeded habitat for which desert tortoise has the potential to move freely throughout the Project site in search for mates, food, water, or habitat. In addition, the Project, as described, would remove potential habitat for desert tortoise. CDFW considers the take of desert tortoise and the loss of the species' habitat as a significant impact, unless mitigated to a level of less than significant.

The IS/MND includes a measure for desert tortoise translocation (BIO-DT-2); however, does not consider that handling of CESA-listed species constitutes take under CESA in the form of catch, pursue, capture, and/or attempting to catch, pursue, and/or capture. Further, the IS/MND, under Table 1-1 "Permits and Approvals", considers obtaining take authorization for desert tortoise with the U.S. Fish and Wildlife Service through the approved Programmatic Biological Opinion, but does not consider take authorization from CDFW.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure # BIO-General 8, BIO-General 10, BIO-Reptile 1, BIO-Reptile 5, BIO-Reptile 6, BIO-Reptile 8, BIO-DT 2, BIO-DT 6, and 4 NEW Measures: To address the above issues and help avoid unlawfully taking of desert tortoise, CDFW requests Caltrans revise the following mitigation measures in the final IS/MND as follows (edits are in ~~strikethrough~~ and **bold**).

BIO-General 8 Biological Monitor: A qualified biologist must monitor project activities **and provide reports to CDFW weekly** to ensure that measures intended to protect desert tortoise, Mojave fringe-toed lizard, and other special status species during construction are being implemented and documented.

BIO-General 10 Environmentally Sensitive Area (ESA) Fence Monitoring: Integrity inspections of Environmentally Sensitive Area (ESA) fencing, desert tortoise temporary fencing, and rare or special status plant fencing and enclosures must occur throughout the duration of the project prior to commencing project activities and after activities are completed. If during construction the fence fails, work must stop until it is repaired, and the qualified Biologist inspects (and clears) **the** ~~at~~ job site **of any special status reptiles**.

BIO-Reptile 1 Equipment Flagging: Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for special status reptile species desert tortoise and Mojave fringe-toed lizard before operating equipment at any time. Prior to operation, personnel shall inspect under vehicles for the presence of special status species. **If a desert tortoise or Mojave fringe-toed lizard (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and agency coordination are required.**

BIO-Reptile 5 Trash/Predation: Caltrans must implement measures to reduce the attractiveness of job sites to common raven, and other predators and scavengers by controlling trash **in raven proof receptacles** and educating workers.

BIO-Reptile 6 Temporary Demarcation: Temporary demarcation in the form of temporary desert tortoise fencing must be installed following the most recent USFWS guidelines for construction fencing, to delineate ~~both sides of the PIA at the culvert and RSP work locations (PM R122.23, R126.11, R130.31, R133.27, R133.94, 142.97, and R137.67), with a 50-foot buffer~~ **the Project footprint** ~~as shown on the plans and/or described in the specifications,~~ to exclude desert tortoise from these areas. Temporary desert tortoise fencing must also be installed at any equipment staging, storage, and

[10] California Department of Fish and Wildlife, California Natural Diversity Database (2024, May). Desert tortoise [ds1354]. Calif. Dept. of Fish and Wildlife. Biogeographic Information and Observation System (BIOS). Retrieved May 20, 2024, from https://wildlife.ca.gov/Data/BIOS.

borrow sites prior to construction, as shown on the plans, to exclude desert tortoise from these areas. All temporary demarcation materials must be removed once construction has been completed.

BIO-Reptile 8 Rock Slope Protection: To prevent trapping of desert tortoise, interstitial spaces within rock slope protection must be ~~partially~~ filled with ~~concrete grout or sand~~ **material suitable to maintain connectivity throughout the service life of the facility. Additional coordination with CDFW is recommended in the design phase.**

BIO-DT 2 Desert Tortoise Translocation: If determined necessary for this project, desert tortoise translocation must **be authorized through appropriate** ~~follow the~~ **CESA authorization,** ~~current USFWS Biological Opinion guidelines and BLM guidelines as applicable~~. Due to the presence of desert tortoise Designated Critical Habitat adjacent to the project site, and the existence of primary constituent elements for desert tortoise within the BSA and parts of the PIA, a presence/absence survey must be conducted in **accordance with Measure BIO-DT 7** ~~the PA&ED phase~~ to determine if desert tortoise is **present** ~~active~~ in the project area. Measures will be needed to avoid and minimize any impact on desert tortoise and Desert Tortoise Designated Critical Habitat. If the presence of desert tortoise is confirmed, additional measures **will** ~~may~~ be needed.

BIO-DT 6 Biological Monitoring: A~~n Acceptable~~ **Qualified** Biologist must monitor project activities ~~shall oversee construction activities~~ to ensure compliance with the protective stipulations for desert tortoise and Mojave fringe-toed lizard.

BIO-DT 7 Mitigation Measure (NEW)

Desert Tortoise Preconstruction Surveys: Desert tortoise preconstruction surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service's 2019 desert tortoise survey methodology (see: https://www.fws.gov/sites/default/files/documents/Mojave%20Desert%se_Pre-project%20Survey%20Protocol_2019.pdf). The survey shall utilize "Linear Project Surveys" for desert tortoise and their sign. Results of the survey shall be submitted to CDFW prior to the start of Project activities. If the survey confirms desert tortoise absence, the CDFW-approved biologist shall ensure desert tortoise does not enter the Project area. A CDFW-approved biologist shall be present to monitor construction at all times when and where desert tortoise has the potential to enter an active construction area of the Project. If the survey confirms presence of desert tortoise, or if a desert tortoise is observed at any time, Caltrans shall submit to CDFW for review and approval a desert tortoise specific avoidance plan detailing the protective avoidance measures to be implemented to ensure complete avoidance of take to desert tortoise. If complete avoidance of desert tortoise cannot be achieved, CDFW recommends that Project activities be postponed until appropriate authorization (i.e., a finalized CESA ITP under Fish and Game Code section 2081) is obtained.

BIO-DT 8 Mitigation Measure (NEW)

Desert Tortoise Clearance Surveys: Clearance desert tortoise surveys must be conducted by a USFWS authorized and CDFW approved qualified biologist immediately prior to Project activities. Daily construction monitoring for desert tortoise shall occur, when applicable, in accordance with the species-specific measures of this document. If a desert tortoise (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and coordination with USFWS and CDFW is required. Additional measures and/or CESA authorization may be required.

BIO-DT 9 Mitigation Measure (NEW)

Animal Entrapment: To prevent inadvertent entrapment of desert tortoise during Project activities, all excavated steep-walled holes or trenches more than six inches must be covered at the close of each working day by plywood (or similar

material) or equipped with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. If a desert tortoise (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and agency coordination are required. Desert tortoise may be removed from work areas and out of harm's way to the nearest suitable habitat or translocated, following the most recent CDFW and USFWS guidelines, if authorized, and in accordance with a CDFW ITP. A CDFW ITP will be required and shall be obtained prior to any desert tortoise being handled.

BIO-DT 10 Mitigation Measure (NEW)

Permanent impacts to desert tortoise habitats shall be mitigated at a minimum 3:1 (mitigated to impacted) ratio by acreage area. Temporary impacts to desert tortoise habitats shall be restored onsite at a 1:1 (mitigated to impacted) ratio by acreage area. If impacts occur and habitat does not recover to pre-project conditions within 5 years, additional compensatory mitigation shall be provided to offset temporal losses. Compensatory mitigation for desert tortoise habitat impacts by total area (i.e., the combined total acreage of permanent and temporary impacts calculated post-ratios) shall be conducted either on-site through restoration activities, or through purchase of mitigation credits from a CDFW-approved bank and/or land acquisition, conservation, and management, or a combination of both, in coordination with CDFW.

COMMENT #6: Special-status and Sensitive Plants, and Sensitive Natural Communities

Section Appendix B Page 70

Issue: The Project has the potential to result in permanent and temporary impacts to special-status plants such as, but not limited to, Booth's evening-primrose (*Eremothera boothii ssp. Boothii*) (California Rare Plant Rank (CRPR) 2B.3), Crucifixion thorn (Castela *emoryi*) (CRPR 2B.2), Desert pincushion (Coryphantha *chlorantha*) (CRPR 2B.1), and Wright's Jaffueliobryum moss (Jaffueliobryum *wrightii*) (CRPR 2B.3)

Specific impact: The Project as described has the potential to occur in areas where special-status plants are potentially present. The Project mentions the need for vegetation removal throughout the Project, placement of fencing, and installation of RSP at various drainage systems. Through these activities, the Project has potential to impact special-status plants through mortality, modification of hydrology, compaction of soil, and introduction of invasive species.

Why impact would occur: In reference to plants, the IS/MND mentions, "There are significant areas of habitat within the BSA suitable for many of the species listed on the Federal and State threatened and endangered species lists as potentially present in the project area, as well as species on the CNPS and BLM lists", however, the IS/MND concludes that there would be no impact to rare, sensitive, or special status plants. According to the NESMI, multiple listed species have the potential and were seen within the PIA. For example, Booth's evening primrose (*Eremothera boothii ssp boothii*, CNPS 2B.3) was seen roughly 40 feet from PM 137.67 within the Project site, where RSP will be installed. The IS/MND also mentions removing vegetation as an activity that would occur but does not go into specifics as to the extent of removal or where it would occur.

Evidence impact would be significant: Special-status plants with a CNPS CRPR ranking of series 3 and 4 warrant the consideration of impacts and mitigation thereof under CEQA on the basis that these species are declining in abundance, hold limited taxonomic information, and/or hold other factors

which require that they be tracked by CDFW through CNDDB. Furthermore, Special-status plants with a CNPSCRPR ranking of series 1B and 2B meet the definition for CESA listing as rare,threatened, and/or endangered. Many of the CNPS CRPR listed plants have not been reassessed from the time of their listing and said listing ranks may not currently reflect their status in a manner that is up to date with stochastic weather events, extreme heat, and anthropogenic impacts. The Project as described may result in direct take of special-status plants and parts thereof, and would result in the loss of the habitats on which they depend on.

Based on CNDDB records, Booth's evening primrose, Crucifixion thorn, Desert pincushion, and Wright's Jaffueliobryum moss have all been observed within the Project area. Furthermore, the NESMI for the Project indicates that Crucifixion thorn, Desert pincushion, Wright's Jaffueliobryum moss, and Booth's evening primrose are all present on-site.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measures # BIO-Plant 1: CDFW appreciates the incorporation of BIO-Plant 1 and BIO-Plant 2 aimed to avoid and minimize impacts to special-status plants. CDFW recommends the below revisions to BIO-Plant 1 (edits are ~~strikethrough~~ and **bold**) and the adoption of **BIO-Plant 3**.

BIO-Plant 1:
Rare and **Special-status** Plant Surveys, Flagging and Fencing: Within ~~30 days~~ ***the appropriate identification periods for special-status plants and Sensitive Natural Communities***, ***surveys shall be conducted according to the CDFW 2018 Protocols for Surveying and Evaluating Impacts to Special-status Plant Populations and Sensitive Natural Communities (found at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959).*** **In addition 3 days** prior to construction, ~~a~~ preconstruction surveys must be conducted by a **CDFW approved** qualified biologist **with a minimum of five years of professional experience surveying for special-status plant species, for plants such as but not limited to,** ~~for~~ Booth's evening primrose, desert pincushion, Emory's crucifixionthorn, flatseeded spurge, Harwood's eriastrum, and Wright's jaffueliobryum moss**, and Sensitive Natural Communities in California desert environments** ~~in areas of suitable habitat,~~**. Surveys shall be conducted** within **1**50 feet of the PIA. Any rare **and special-status** plant species identified must be flagged for visual identification to construction personnel for work avoidance. Any rare **and special-status** plant species detected that feature multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) temporary fencing. **If non CESA-listed special status plants and/or Sensitive Natural Communities are impacted by Project activities, or if protocol level surveys are not able to be conducted due to Project contracting constraints, cyclical weather constraints (i.e., drought, flooding, etc.), or other reasons conflicting with the Project's build timeline, non CESA-listed special-status plants shall be assumed present in the Project area, and mitigated by acreage in accordance with BIO-Plant-3. If CESA-listed plants are present and impacts cannot be fully avoided, a CESA ITP shall be obtained.**

BIO-Plant 3: Permanent impacts (i.e., areas slated RSP, or areas that will not return to their baseline ecological state and form within one calendar-year of occurring impacts) (hereafter as, 'permanent impacts') to non CESA-listed special-status plants, shall be mitigated at a minimum 3:1 (mitigated to impacted) ratio by acreage area. Temporary impacts (i.e., areas that will return to their baseline ecological state and form within one-calendar year of occurring impacts) (hereafter as, 'temporary impacts') to non CESA listed special-status plants and their habitats, and Sensitive Natural Communities, shall be restored onsite at a 1:1 (mitigated to impacted) ratio by acreage area. Compensatory mitigation for non CESA-listed special-status plant species and Sensitive Natural Communities impacts by total area (i.e., the combined total acreage of permanent and temporary impacts calculated post-ratios) shall be conducted either on-site through restoration activities, or through purchase of mitigation credits from a

CDFW-approved bank and/or land acquisition, or a combination of both, in coordination with CDFW.

COMMENT #7: Lake and Streambed Alteration (LSA)

Page iii; Section 1.6, Page 5; Section 2.2.4 (c), Pages 11, 13-14; Appendix B, Pages 60-61

Issue: The IS/MND does not fully consider all areas on-site that may be subject to Fish and Game Code section 1602.

Specific impact: The Project as described includes substantial diversion or obstruction of natural flow of a stream; substantial change in the bed, bank, and channel of a stream; and the potential for deposition of debris or other materials containing ground pavement to occur where they may pass into a stream.

Why impact would occur: Based on the review of the materials submitted with the IS/MND, review of aerial photography, and available hydrological information, the Project as described has the potential to impact fish and wildlife resources subject to Fish and Game Code section 1602 et seq. The IS/MND identified “seven drainages as potentially impacted by the Project” and “determined that the remaining minor drainages were determined not to be Waters of the State as they have no significant nexus to a Traditional Navigable Waterway”. There is no analysis or evaluation of the “minor drainages” regarding Fish and Game Code section 1602 or whether they will be avoided or temporarily/permanently impacted by the construction activities. The IS/MND further states “these results are subject to modification following a formal jurisdictional delineation and agency verification.”

Evidence impact would be significant: Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: 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 debris, waste or other materials that could pass into any river, stream, or lake. Please note that "any river, stream, or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with subsurface flow, and the hyporheic zones thereof. The Project, as described in the IS/MND will be subject to Notification under Fish and Game Code section 1602. CDFW considers substantial adverse impacts and the deposition of materials where they may pass into streams as a significant impact, unless mitigated to a level of less than significant.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure # BIO-LSA 1 (NEW): To address the above issues and help avoid impacting Fish and Game Code section 1602 resources, CDFW requests Caltrans add the following mitigation measure in the final IS/MND.

BIO-LSA 1: Caltrans shall notify CDFW under Fish and Game Code section 1600 et seq. for all portions of the Project that will substantially divert or obstruct the natural flow of, or 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, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Shoulder backing that is planned to be placed in or near channel areas that are subject to Fish and Game Code section 1600 notification shall not consist of asphalt, bitumen, or any other substance or material that is deleterious to fish, plant life, mammals, or birdlife in accordance with Fish and Game Code 5650 et seq.

To minimize significant impacts: To ensure that any LSA notification will meet the threshold of completeness review and not generate an incomplete letter, CDFW recommends Caltrans conduct a new analysis of the Project area for where Fish and

Game Code section 1602 resources could be affected by the Project, including the placement of materials where they have the potential to pass into channel areas. This includes where paving and shoulder backing activities may have the potential to be within Fish and Game Code section 1602 regulated areas. CDFW is available for coordination and review of areas where Fish and Game Code section 1602 resources occur within the Project area. This may include site visits and analysis prior to the submittal of any LSA notification.

COMMENT #8: Permanent Artificial Lighting/Wildlife Connectivity

Page iii, Section 1.1 Page 1, Section 1.4.2 Page 3

Issue: California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure fragments habitat and cuts off migration corridors.

Specific impact: Project implementation of artificial lighting could result in the permanent alteration of wildlife connectivity across the landscape in addition to affecting future proposed wildlife crossings.

Why impact would occur: As proposed, the Project will result in modifications to permanent artificial nighttime lighting. Page 3 of the IS/MND indicates that the Project will "rehabilitate 12 freeway lighting Type 10, 15, 30, and 31", but does not include lighting plans and lighting specifications or avoidance and minimization measures associated with permanent artificial nighttime lighting. Additionally, the Project does not analyze any impacts from artificial lighting to the natural landscape or effects thereof, even though the Project limits are within the proposed I-15 Mojave Wildlife Crossing Restoration Project, specifically Soda Mountain Wildlife Crossing (PM R129.75).[11] The Project is also located adjacent to open-space areas—areas that provide suitable nesting, roosting, foraging, refugia, and wildlife connectivity for birds, including migratory birds that fly at night, bats, bighorn sheep, mountain lions, and other nocturnal and crepuscular wildlife.

The Project's proposed permanent artificial lighting has the potential to significantly and adversely affect wildlife in the open-space areas adjacent to the Project footprint. Artificial lighting alters ecological processes including, but not limited to, the temporal niches of species; the repair and recovery of physiological function; the measurement of time through interference with the detection of circadian and seasonal cycles[12]; the detection of resources and natural enemies; habitat selection[13]; and navigation[14].

Artificial lighting is increasingly being recognized as an important source of disturbance for wildlife on transportation facilities and has been found to reduce the use of wildlife crossings by sensitive species.[15] Artificial light can function as a barrier to connectivity, which may contribute to isolated populations, reduced genetic diversity, increased species' susceptibility to disease, and limited access to resources.[16]

CDFW recommends the final IS/MND includes an analysis of the direct, indirect, and cumulative impacts of permanent artificial nighttime lighting on biological resources within open-space and wildlife connectivity areas adjacent to the Project. CDFW also recommends the final IS/MND includes lightning design plans and lighting specifications.

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[11] Caltrans. 2024. I-15 Mojave Wildlife Crossing Restoration Project. https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects/i-15-wildlife-crossings
[12] Russart, K., Nelson, R. J. 2018. Artificial light at night alters behavior in laboratory and wild animals. J. Exp. Zool. 329:401-408.
[13] R. Barrientos et al. 2023. Nearby night lighting, rather than sky glow, is associated with habitat selection by a top predator in human-dominated landscapes. Philosophical Transactions of the Royal Society B: Biological Sciences, vol. 378, no. 1892.
[14] Gatson, K. J., Bennie, J., Davies, T., Hopkins, J. 2013. The ecological impacts of nighttime light pollution: a mechanistic appraisal. Biological Reviews, 88.4: 912-927.
[15] Shilling, F., et al. 2022. Improving Light and Soundscapes for Wildlife Use of Highway Crossing Structures. The University of California Institute of Transportation Studies.
[16] Rich, L. N., et al. 2020. A review of the potential impacts of artificial lights on fish and wildlife and how this may apply to cannabis cultivation. California Fish and Wildlife, Cannabis Special Issue, 75-90.

Evidence impact would be significant: The Project's proposed permanent artificial lighting has the potential to adversely affect wildlife connectivity in the open spaces adjacent to the Project footprint. Several laws and regulations identify the importance of wildlife connectivity and promote interagency collaboration to improve wildlife connectivity in these open spaces. In 2018, the U.S. Secretary of the Interior issued Secretarial Order No. 3362 (SO 3362) directing the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), and National Park Service (NPS) to work with western state wildlife agencies to enhance the quality of big-game winter habitat and migration corridors on and adjacent to federal lands, which I-15 is adjacent to BLM and NPS lands. Further, the State of California, with the passage of AB 2344, added a requirement to the Streets and Highway Code Section 158 requiring Caltrans to consider wildlife connectivity areas identified by CDFW. CDFW released a 2022 update to the Wildlife Barrier Priorities report, which identifies the top wildlife barriers in each CDFW region of the state including the I-15 Mojave Wildlife Crossings. Effective January 1, 2022 via Senate Bill 790, Fish and Game Code §1955 -1958, titled "Wildlife Connectivity Actions," allows CDFW to adopt guidelines to promote habitat connectivity projects in California.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure BIO-Light 1 (NEW): To address the above issues, CDFW recommends Caltrans add the following mitigation measures in the final IS/MND:

BIO-Light 1: Permanent Artificial Nighttime Lighting: Caltrans shall ensure that all proposed permanent artificial nighttime lighting for the Project is fully shielded, cast downward and directed away from surrounding open-space, reduced in intensity to the greatest extent possible, and does not result in lighting trespass including glare into surrounding areas or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). Caltrans shall ensure use of LED lighting with a correlated color temperature of 2,700 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler. Photometric studies are recommended to ensure the parameters of this measure are adhered to.

ADDITONAL COMMENTS

COMMENT # 9: Bio General Measures 2, 6, and 7

The Project proposed several general biological general measures to ensure minimization and avoidance of special status species. CDFW offers the following edits to BIO General 2, 6 and 7.

BIO-General 2: Temporary Artificial Lighting Restrictions: To address potential impacts to ~~fringed myotis, pallid bat, spotted bat, and other bat~~ **crepuscular and nocturnal** species, artificial lighting must be **shielded and** directed **downward** at the job site to minimize light spillover onto ~~potential bat roosting areas~~ **adjacent habitat**, if project activities occur ~~at night~~ **between dusk and dawn**. **Caltrans shall ensure that all proposed artificial lighting for the Project is fully shielded, cast downward and directed away from suitable habitat within and adjacent to the Project footprint.**

BIO-General 6 Species Avoidance: If during project activities a bighorn sheep, desert tortoise, or special status plant species is discovered within or adjacent to the project site, all construction activities must stop within 100 feet for bighorn sheep, 100 feet for birds, 50 feet for desert tortoise, and 20 feet for special status plants, **or greater distance if the project buffer is determined by the qualified biologist to be ineffective at avoiding impacts. All no-disturbance buffers shall be monitored by the qualified biologist and adjusted as necessary to protect the sensitive resources, based on the professional judgement of the qualified biologist**. **The** ~~and the~~ Caltrans biologist and Resident Engineer must be notified. Coordination with CDFW and USFWS ~~may~~ **will** be required prior to restarting activities.

BIO-General 7 Worker Environmental Awareness Program (WEAP): A Qualified Biologist must present a biological resource information program/WEAP for desert bighorn sheep, mountain lion, fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat**, vermilion flycatcher, desert tortoise, Mojave fringe-toed lizard, monarch butterfly, and special status plant species **and nesting birds with the potential to occur on the Project site**, prior to project activities to all personnel that would be present within the project limits for longer than 30 minutes at any given time. **The WEAP shall include, but not limited to: (1) information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations, and mitigation measures and (2) best practices for managing waste and reducing activities that can lead to increased occurrences of opportunistic species and the impacts these species can have on wildlife in the area. Interpretation shall be provided for any non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing any work on-site.**

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which 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 CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would 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 IS/MND to assist Caltrans in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to CDFW staff Steven Recinos, Environmental Scientist, at (909) 484-0167 or steven.recinos@wildlife.ca.gov and Alisha Curtis, Senior Environmental Scientist (Specialist), at (909) 544-2522 or alisha.curtis@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Kim Freeburn
84F92FFEEFD24C8...

Kim Freeburn
Environmental Program Manager

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

Attachment A: Mitigation and Monitoring Reporting Plan

CDFW recommends the following language to be incorporated into the final IS/MND for the Project.

Biological Resources (BIO)			
Mitigation Measure (MM)		**Timing**	**Responsible Party**
BIO-Avian 1	**Project activities shall not result in impacts to nesting birds or result in the take or removal of nests or eggs unless as otherwise provided for under CDFW and USFWS regulations.** ~~If project activities cannot avoid the nesting bird season, February 1 – September 30, then~~ **P**~~p~~reconstruction nesting bird surveys must be conducted by a qualified biologist **experienced with: identifying local and migratory bird species; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures** in areas of suitable habitat **including trees, shrubs, bare ground, burrows, cavities, and structures (e.g., bridges)** within the projects limits and up to the limit of the BSA, no more than 3 days prior to construction to locate and avoid nesting birds. If an active avian nest is located, a no-construction buffer ~~(100 feet for non-passerine, 300 feet for passerine, and 500 feet for raptors)~~ ~~would~~ **shall** be established and monitored ~~for~~ **by** a qualified biologist. **Buffers shall be delineated by temporary flagging or other means and remain in effect as long as construction is occurring or until the nest is no longer active. Any active nests shall be continuously monitored by a qualified biologist during Project activities that have the potential to cause disturbance to any nesting birds to ensure avoidance buffers are effective. Avoidance buffers shall be expanded and/or modified as needed by the qualified biologist if any nesting bird shows behavioral responses resulting from Project related activities. Concurrent and further surveys shall occur as Project construction progresses, as the nature of the Project is linear in fashion.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-General-PSM 1	Vehicle Washing: ~~Comply with 2022 SSP or latest version. It would be required that~~ **T**~~t~~he contractor ~~would~~ **shall** wash equipment prior to entering the project site. The biologist	Prior to commencing ground- or	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	~~would~~ **shall** coordinate with the resident engineer and contractor in order to inspect the vehicles and equipment prior to the initiation **of** work to verify that they have been washed. **All equipment shall be free of materials including noxious and nuisance weeds, aquatic invasive species, oil, grease, hydraulic fluid, soil, and other debris The following shall be adhered to:** • **Equipment Certification: All equipment shall be certified as decontaminated and require re-certification upon entry to the Project once equipment leaves the Project footprint.** • **Decontamination of Project Equipment: All tools, waders and boots, vehicles, trailers, and other equipment shall be decontaminated. Project gear and equipment shall be decontaminated utilizing one of four methods: (1) drying, (2) using a hot water soak, (3) hot-water pressure washing, or (4) freezing, as appropriate to the type of gear or equipment. For all four methods, the decontamination process shall begin by thoroughly scrubbing equipment, paying close attention to hard-to-reach areas, and cleaning areas with a stiff-bristled brush to remove all plant, seeds, soil, and other organisms. To decontaminate by drying, equipment shall be allowed to dry thoroughly (i.e., until there is a complete absence of water and all plant, seeds, and soil), preferably in the sun, for a minimum of 48 hours. To decontaminate using hot water, equipment shall either be immersed in 140°F water (or hotter) and be allowed to soak for a minimum of 5 minutes or shall be pressure washed with hot water that is at a minimum 140°F at the point of contact or 155°F at the nozzle. To decontaminate by freezing, equipment shall be placed in a freezer that is 32°F or colder for a minimum of 8 hours. Repeat decontamination is required only if the equipment/clothing is**	vegetation disturbing activities	

Biological Resources (BIO)			
Mitigation Measure (MM)		**Timing**	**Responsible Party**
	removed from the site, used in contact with water or wet soil within a different watershed, and returned to the Project site. • **Decontamination Sites: Decontamination of vehicles and other Project gear and equipment shall be performed in a designated location where runoff can be contained and not allowed to pass into any river, lake, or stream and associated riparian areas and other sensitive habitat areas. Cleaning of equipment may occur at a location that contains and recycles resulting wastewater.**		
BIO-General 2	Temporary Artificial Lighting Restrictions: To address potential impacts to ~~fringed myotis, pallid bat, spotted bat, and other bat~~ **crepuscular and nocturnal** species, artificial lighting must be **shielded and** directed **downward** at the job site to minimize light spillover onto ~~potential bat roosting areas~~ **adjacent habitat**, if project activities occur ~~at night~~ **between dusk and dawn**. **Caltrans shall ensure that all proposed artificial lighting for the Project is fully shielded, cast downward and directed away from suitable habitat within and adjacent to the Project footprint.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-General 4	Preconstruction Surveys: Preconstruction surveys for fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat**, and other bat species must be conducted by a qualified mammal and bat biologist within the Project Impact Area (PIA) within 14 days prior to the **initiation of** project activities and following a bat roosting habitat suitability assessment **as follows**. **During appropriate weather conditions and appropriate time of year for the species, a daytime assessment shall be conducted by a qualified bat biologist to examine areas that are suitable for bat use, including maternity roosts. During appropriate weather conditions and appropriate time of year for the species, nighttime bat visual surveys shall be conducted to confirm whether the areas with suitable habitat are utilized by bats. If bats are found roosting within and adjacent to the Project Impact Area, a qualified biologist shall conduct emergence surveys and perform exit counts to approximate the number of bats. Acoustic monitoring shall also be used**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		**Timing**	**Responsible Party**
	during these surveys to identify the bat species present, surveys shall also identify roost type and roost status. If one of the **bat** species listed above or other ~~special status~~ **bat** species **or sign thereof (e.g., occupied roosts, urine staining, guano masses, etc.)** is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and ~~/ or~~ agency coordination ~~may~~ **shall** be required. **Additional measures shall be included in a Bat Avoidance and Monitoring Plan submitted to CDFW at least seven days prior to the start of Project activities for review and written approval. Project activities may not start until CDFW's written approval of the Bat Avoidance and Monitoring Plan has been provided. The Bat Avoidance and Monitoring Plan shall include: (1) an assessment of all Project impacts to bats, including noise disturbance during construction; (2) effective avoidance and minimization measures to protect bats; (3) compensatory mitigation for permanent impacts to roosts if impacted, such as, but not limited to, constructing artificial bat roosting habitats (e.g., bat boxes or panels).**		
BIO-General 5	Work Avoidance: To address impacts to fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat,** and other bat species, ~~avoid~~ project activities **shall be avoided** ~~from April 1 to august 31~~ within 300 feet of all ~~potential~~ roosting structures in the project impact area **from April 1 to August 31 and November to February to avoid the maternity and hibernation season, respectively**.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-BHS 1 (New)	**Decontamination of Pathogens. To prevent potential transmission of disease from domestic animals to wild desert bighorn sheep, Project proponent shall require all workers to decontaminate work boots prior to entering Project areas. Decontamination shall involve scrubbing of the soles of work boots with a 10% bleach solution to remove all organic matter and kill pathogens. Alternatively, footwear may be changed to ensure that potentially contaminated footwear does not enter Project areas. Heavy equipment previously used in livestock operations, including, but not limited to, sheep and**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	goat livestock operations, or where roadside clearing has occurred through grazing shall not be utilized for Project activities.		
BIO-Avian 2	**The following burrowing owl preconstruction surveys must be performed by a qualified biologist: one survey 14 to 30 days prior to Project activities; one survey 24 hours prior to Project activities; and burrowing owl preconstruction surveys shall be conducted in accordance with the 2012 Staff Report on Burrowing Owl Mitigation (Staff Report) (See: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline) prior to vegetation removal or ground disturbing activities. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and prepare a Burrowing Owl Plan that shall be submitted to CDFW for review and approval prior to commencing Project activities and implementing the measures of the Burrowing Owl Plan.** **The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrows cannot be avoided, the Burrowing Owl Plan shall also describe minimization and compensatory mitigation actions that will be implemented. Proposed implementation of burrow exclusion (i.e., passive relocation) and closure shall only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. The Burrowing Owl Plan shall identify compensatory mitigation for the temporary or permanent loss of occupied burrow(s) and habitat consistent with the "Mitigation Impacts" section of the 2012 Staff Report and Caltrans shall implement CDFW approved mitigation prior to the initiation of Project activities. If**		

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to burrowing owls. If no suitable habitat is available nearby, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated burrowing owls shall also be included in the Burrowing Owl Plan.		
BIO-General 6	If during project activities a bighorn sheep, desert tortoise, or special status plant species is discovered within or adjacent to the project site, all construction activities must stop within 100 feet for bighorn sheep, 100 feet for birds, 50 feet for desert tortoise, and 20 feet for special status plants, **or greater distance if the project buffer is determined by the qualified biologist to be ineffective at avoiding impacts. All no-disturbance buffers shall be monitored by the qualified biologist and adjusted as necessary to protect the sensitive resources, based on the professional judgement of the qualified biologist**. **The** ~~and the~~ Caltrans biologist and Resident Engineer must be notified. Coordination with CDFW and USFWS ~~may~~ **will** be required prior to restarting activities.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-General 7	A Qualified Biologist must present a biological resource information program/WEAP for desert bighorn sheep, mountain lion, fringed myotis, pallid bat, spotted bat, **Townsend's big-eared bat**, vermilion flycatcher, desert tortoise, Mojave fringe-toed lizard, monarch butterfly, and special status plant species **and nesting birds with the potential to occur on the Project site**, prior to project activities to all personnel that would be present within the project limits for longer than 30 minutes at any given time. **The WEAP shall include, but not limited to: (1) information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations, and mitigation measures and (2) best practices for managing waste and reducing activities that can lead to increased occurrences of opportunistic species and the impacts these species can**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	have on wildlife in the area. Interpretation shall be provided for any non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing any work on-site.		
BIO-General 8	Biological Monitor: A qualified biologist must monitor project activities **and provide reports to CDFW weekly** to ensure that measures intended to protect desert tortoise, Mojave fringe-toed lizard, and other special status species during construction are being implemented and documented.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-General 10	Environmentally Sensitive Area (ESA) Fence Monitoring: Integrity inspections of Environmentally Sensitive Area (ESA) fencing, desert tortoise temporary fencing, and rare or special status plant fencing and enclosures must occur throughout the duration of the project prior to commencing project activities and after activities are completed. If during construction the fence fails, work must stop until it is repaired, and the qualified Biologist inspects (and clears) **the** ~~at~~ job site **of any special status reptiles**.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-Reptile 1	Equipment Flagging: Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for special status reptile species desert tortoise and Mojave fringe-toed lizard before operating equipment at any time. Prior to operation, personnel shall inspect under vehicles for the presence of special status species. **If a desert tortoise or Mojave fringe-toed lizard (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and agency coordination are required.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-Reptile 5	Trash/Predation: Caltrans must implement measures to reduce the attractiveness of job sites to common raven, and other predators and scavengers by controlling trash **in raven proof receptacles** and educating workers.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-Reptile 6	Temporary Demarcation: Temporary demarcation in the form of temporary desert tortoise fencing must be installed following the most recent USFWS guidelines for construction fencing, to delineate ~~both sides of the PIA at the culvert and RSP work~~	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		**Timing**	**Responsible Party**
	~~locations (PM R122.23, R126.11, R130.31, R133.27, R133.94, 142.97, and R137.67), with a 50-foot buffer~~ **the Project footprint** ~~as shown on the plans and/or described in the specifications,~~ to exclude desert tortoise from these areas. Temporary desert tortoise fencing must also be installed at any equipment staging, storage, and borrow sites prior to construction, as shown on the plans, to exclude desert tortoise from these areas. All temporary demarcation materials must be removed once construction has been completed.		
BIO-Reptile 8	Rock Slope Protection: To prevent trapping of desert tortoise, interstitial spaces within rock slope protection must be ~~partially~~ filled with ~~concrete grout or sand~~ **material suitable to maintain connectivity throughout the service life of the facility. Additional coordination with CDFW is recommended in the design phase.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-DT 2	Desert Tortoise Translocation: If determined necessary for this project, desert tortoise translocation **must be authorized through appropriate CESA authorization** ~~follow the current USFWS Biological Opinion guidelines and BLM guidelines as applicable~~. Due to the presence of desert tortoise Designated Critical Habitat adjacent to the project site, and the existence of primary constituent elements for desert tortoise within the BSA and parts of the PIA, a presence/absence survey must be conducted in **accordance with Measure BIO-DT 7** ~~the PA&ED phase~~ to determine if desert tortoise is **present** ~~active~~ in the project area. Measures will be needed to avoid and minimize any impact on desert tortoise and Desert Tortoise Designated Critical Habitat. If the presence of desert tortoise is confirmed, additional measures **will** ~~may~~ be needed.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-DT 6	Biological Monitoring: A~~n Acceptable~~ **Qualified** Biologist must monitor project activities ~~shall oversee construction activities~~ to ensure compliance with the protective stipulations for desert tortoise and Mojave fringe-toed lizard.	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-DT 7 (New)	**Desert Tortoise Preconstruction Surveys. Desert tortoise preconstruction surveys shall be conducted in accordance with the**	Prior to commencing ground- or vegetation	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	U.S. Fish and Wildlife Service's 2019 desert tortoise survey methodology (see: https://www.fws.gov/sites/default/files/documents/Mojave%20Desert%se_Pre-project%20Survey%20Protocol_2019.pdf). The survey shall utilize "Linear Project Surveys" for desert tortoise and their sign. Results of the survey shall be submitted to CDFW prior to the start of Project activities. If the survey confirms desert tortoise absence, the CDFW-approved biologist shall ensure desert tortoise does not enter the Project area. A CDFW-approved biologist shall be present to monitor construction at all times when and where desert tortoise has the potential to enter an active construction area of the Project. If the survey confirms presence of desert tortoise, or if a desert tortoise is observed at any time, Caltrans shall submit to CDFW for review and approval a desert tortoise specific avoidance plan detailing the protective avoidance measures to be implemented to ensure complete avoidance of take to desert tortoise. If complete avoidance of desert tortoise cannot be achieved, CDFW recommends that Project activities be postponed until appropriate authorization (i.e., a finalized CESA ITP under Fish and Game Code section 2081) is obtained.	disturbing activities	
BIO-DT 8 (New)	**Desert Tortoise Clearance Surveys: Clearance desert tortoise surveys must be conducted by a USFWS authorized and CDFW approved qualified biologist immediately prior to Project activities. Daily construction monitoring for desert tortoise shall occur, when applicable, in accordance with the species-specific measures of this document. If a desert tortoise (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and coordination with USFWS and CDFW is required. Additional measures and/or CESA authorization may be required.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-DT 9 (New)	**Animal Entrapment: To prevent inadvertent entrapment of desert tortoise during Project activities, all excavated steep-walled holes or trenches more than six inches must be covered at the close of each working day by plywood (or similar material) or equipped with one or more escape ramps constructed of earth fill or**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. If a desert tortoise (dead or alive) is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and agency coordination are required. Desert tortoise may be removed from work areas and out of harm's way to the nearest suitable habitat or translocated, following the most recent CDFW and USFWS guidelines, if authorized, and in accordance with a CDFW ITP. A CDFW ITP will be required and shall be obtained prior to any desert tortoise being handled.		
BIO-DT 10 (New)	**Permanent impacts to desert tortoise habitats shall be mitigated at a minimum 3:1 (mitigated to impacted) ratio by acreage area. Temporary impacts to desert tortoise habitats shall be restored onsite at a 1:1 (mitigated to impacted) ratio by acreage area. If impacts occur and habitat does not recover to pre-project conditions within 5 years, additional compensatory mitigation shall be provided to offset temporal losses. Compensatory mitigation for desert tortoise habitat impacts by total area (i.e., the combined total acreage of permanent and temporary impacts calculated post-ratios) shall be conducted either on-site through restoration activities, or through purchase of mitigation credits from a CDFW-approved bank and/or land acquisition, conservation, and management, or a combination of both, in coordination with CDFW.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-Plant 1	Within ~~30 days~~ ***the appropriate identification periods for special-status plants and Sensitive Natural Communities***, ***surveys shall be conducted according to the CDFW 2018 Protocols for Surveying and Evaluating Impacts to Special-status Plant Populations and Sensitive Natural Communities (found at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959).*** **In addition 3 days** prior to construction, ~~a~~ preconstruction surveys		

Biological Resources (BIO)			
Mitigation Measure (MM)		**Timing**	**Responsible Party**
	must be conducted by a **CDFW approved** qualified biologist **with a minimum of five years of professional experience surveying for special-status plant species, for plants such as but not limited to,** ~~for~~ Booth's evening primrose, desert pincushion, Emory's crucifixionthorn, flatseeded spurge, Harwood's eriastrum, and Wright's jaffueliobryum moss**, and Sensitive Natural Communities in California desert environments** ~~in areas of suitable habitat,~~**. Surveys shall be conducted** within **1**50 feet of the PIA. Any rare **and special-status** plant species identified must be flagged for visual identification to construction personnel for work avoidance. Any rare **and special-status** plant species detected that feature multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) temporary fencing. **If non CESA-listed special status plants and/or Sensitive Natural Communities are impacted by Project activities, or if protocol level surveys are not able to be conducted due to Project contracting constraints, cyclical weather constraints (i.e., drought, flooding, etc.), or other reasons conflicting with the Project's build timeline, non CESA-listed special-status plants shall be assumed present in the Project area, and mitigated by acreage in accordance with BIO-Plant-3. If CESA-listed plants are present and impacts cannot be fully avoided, a CESA ITP shall be obtained.**		
BIO-Plant 3	**Permanent impacts (i.e., areas slated RSP, or areas that will not return to their baseline ecological state and form within one calendar-year of occurring impacts) (hereafter as, 'permanent impacts') to non CESA-listed special-status plants, shall be mitigated at a minimum 3:1 (mitigated to impacted) ratio by acreage area. Temporary impacts (i.e., areas that will return to their baseline ecological state and form within one-calendar year of occurring impacts) (hereafter as, 'temporary impacts') to non CESA listed special-status plants and their habitats, and Sensitive Natural Communities, shall be restored onsite at a 1:1 (mitigated to impacted) ratio by acreage area. Compensatory mitigation for non CESA-listed special-status plant species and Sensitive Natural Communities impacts by total area (i.e., the combined total acreage of permanent and temporary impacts calculated post-ratios) shall be conducted either on-site through restoration activities, or through purchase of**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent

Biological Resources (BIO)			
Mitigation Measure (MM)		Timing	Responsible Party
	mitigation credits from a CDFW-approved bank and/or land acquisition, or a combination of both, in coordination with CDFW.		
BIO-LSA-1 (New)	**Caltrans shall notify CDFW under Fish and Game Code section 1600 et seq. for all portions of the Project that will substantially divert or obstruct the natural flow of, or 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, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Shoulder backing that is planned to be placed in or near channel areas that are subject to Fish and Game Code section 1600 notification shall not consist of asphalt, bitumen, or any other substance or material that is deleterious to fish, plant life, mammals, or birdlife in accordance with Fish and Game Code 5650 et seq.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent
BIO-Light-1 (New)	**Permanent Artificial Nighttime Lighting: Caltrans shall ensure that all proposed permanent artificial nighttime lighting for the Project is fully shielded, cast downward and directed away from surrounding open-space, reduced in intensity to the greatest extent possible, and does not result in lighting trespass including glare into surrounding areas or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). Caltrans shall ensure use of LED lighting with a correlated color temperature of 2,700 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler. Photometric studies are recommended to ensure the parameters of this measure are adhered to.**	Prior to commencing ground- or vegetation disturbing activities	Project Proponent