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November 4, 2024
Sent via email

Gita Tokhmafshan, Senior Environmental Planner
Division of Environmental
California Department of Transportation, District 8
464 W. 4th Street, 6th Floor - MS 824
San Bernardino, CA. 92401-1400

Subject: Environmental Assessment
SBD-127 Pavement Rehabilitation Project (08-1G200)

Dear Gita Tokhmafshan:

The California Department of Fish and Wildlife (CDFW) received an Environmental Assessment (EA) from the California Department of Transportation (Caltrans) as assigned by the Federal Highway Administration (FHWA) for the SBD-127 Pavement Rehabilitation Project (Project) pursuant to the National Environmental Policy Act (NEPA).

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. CDFW requests that Caltrans involves CDFW in the Project to evaluate impacts to state resources, review surveys, and comment on plans alongside the U.S. Fish and Wildlife Service (USFWS).

CDFW Role

CDFW is providing comments on the EA for the Project as a California State Agency which has the statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the state by CDFW (Fish and Game Code (FGC) §71 1.7). CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). CDFW's fish and wildlife management functions are implemented through its administration and enforcement of the Fish and Game Code (FGC §702). CDFW is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

Project Location and Description

The Project is located in the Mojave Desert near Baker in San Bernardino County, State of California (State). The Project proposes a multi-asset Capital Preventative

Maintenance (CAPM) project on State Route (SR) 127. The limits of work for the Project are along SR-127 at post mile (PM) L0.0 to 3.0 & 10.5 to 37.7, for a total of approximately 30 miles.

The scope of work includes the following: rehabilitate pavement, replace guardrail to concrete barrier, construct 3' shoulder backing and rumble strips, apply pavement delineation, replace sign panels, install warning signs and Rapid Rectangular Flashing Beacon (RRFB), replace existing guardrail with concrete barrier type 60 at the Amargosa River Bridge No. 54-1170, and construct pedestrian and bicycle infrastructure.

The Project will require thirty-seven federal and other private/county fee and one Temporary Construction Easement (TCE), as the width of the existing State right-of-way (ROW) varies from 50 feet to 100 feet between PM L0.0 and PM 3.0. Within PM 10.5/37.7, the land is owned by the Bureau of Land Management (BLM) and a Federal Land Transfer will be needed from PM 0.840 to PM 3.0 and PM 10.5 to PM 37.7. The Federal Land Transfer will account for the areas 50 ft to the left and right of the centerline of SR-127, which total approximately 355 acres. In addition, a land transfer of approximately 6.6 acres from the State Lands Commission will occur between PM 19.1 to PM 19.67.

The Project will cross the alluvial floodplains of Silurian Valley and Death Valley while crossing Salt Creek and Amargosa River. Shoulder backing will require fill materials in the alluvial floodplains. Project construction will involve the use of heavy earth-moving equipment within the ROW of the alluvial floodplains, and near the dry lakes of Silver Lake and Silurian Lake.

Timeframe: Unavailable

Comments and Recommendations

Based on desktop analyses, Caltrans determines in the EA that the Project will not result in a significant impact on the environment and as a result Caltrans does not intend to prepare an Environmental Impact Statement (EIS) nor an Initial Study (IS). However, CDFW is concerned that the EA did not adequately identify and disclose Project impacts (i.e., direct, indirect, and cumulative). Based on CDFW's review of the Project, CDFW believes that Caltrans did not conduct proper analysis (i.e., focused field surveys) to inform the determination that the Project's impacts are not significant. Based on the information provided, CDFW believes the Project impacts to biological resources are potentially significant and that an IS is appropriate.

The Project has the potential to impact sensitive habitats and special-status species protected and/or regulated by CDFW due to their importance as a biological resource and conservation status (Table 1. Special-status species with the potential to occur within the Project area). Special-status species are species that are rare, sensitive,

imperiled, fully protected, candidate, threatened, or endangered. CDFW herein prioritizes discussion of select species from Table 1, but all species on Table 1 have the potential to occur within the Project area and should be confirmed as absent/present in the Project site through protocol level surveys and evaluated for Project impacts.

CDFW is concerned that the EA only considers impacts to species pertaining to the Endangered Species Act (ESA) and coordination with the U.S. Fish Wildlife Service (USFWS) thereof. However, the Project may result in impacts (i.e., take) to species and habitat protected by the California Endangered Species Act (CESA), California Code of Regulations (CCR), and/or Fish and Game Code (FGC), which would elicit coordination with CDFW. California FGC Section 86 defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”.

Bureau of Land Management (BLM) Federal Land Transfer

CDFW is concerned with the expansive land transfer of BLM lands to Caltrans/FHWA, since no justification nor description of activities occurring within these lands was provided in the EA. These BLM lands contain special-status species and sensitive habitats, such as those provided in Table 1, that may be impacted by the Project and ongoing routine maintenance activities. CDFW is particularly concerned because the EA does not adequately identify the activities, analyze the cumulative impacts of routine maintenance and grading of the proposed additional 50’-100’ of ROW nor does it adequately address the need for the land transfer itself. It is unclear whether maintenance, such as repeated grading, which is typical in the ROW, is anticipated since Section 2.3 of the EA states, “because there are no current and reasonably foreseeable future actions or projects, there are no potential cumulative impacts,” and thus CDFW is concerned with repeated impacts to special-status species and sensitive habitats.

Candidate, Threatened, or Endangered Species

CESA is a California environmental law that conserves and protects plant and animal species at risk of extinction. Several State Candidate threatened/endangered (SCT/SCE), State-endangered (SE), or State-threatened (ST) species at risk of extinction are found within the Project boundary (Table 1). Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085) through appropriate authorization; for example, a CESA Incidental Take Permit (ITP) under FGC section 2081. CDFW recommends that Caltrans applies for an ITP for Project impacts to species designated as SC, SCT, SCE, SE, or ST (Table 1) if identified as present through focused surveys within the Project area.

Fully Protected Species

CDFW has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and

5515, respectively. Fully protected species have the potential to occur within the Project area (see Table 1).

Species of Special Concern

Species of Special Concern (SSC) status applies to animals generally not listed under the ESA or CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers, and known threats to their persistence currently exist. SSCs should be considered during the environmental review process. SSCs have the potential to occur within the Project area (see Table 1).

Table 1. Special-status species with the potential to occur within the Project area

Common Name	Scientific Name	Status	Protection
Mojave desert tortoise	*Gopherus agassizii*	ST, proposed SCE	CESA
Amargosa vole	*Microtus californicus scirpensis*	SE	CESA
Least's Bell vireo	*Vireo bellii pusillus*	SE	CESA
Mountain lion	*Puma concolor*	SCT	CESA
Burrowing owl	*Athene cunicularia*	SC	CESA
Long eared owl	*Asio otus*	SSC	N/A
California glossy snake	*Arizona elegans occidentalis*	SSC	N/A
American badger	*Taxidea taxus*	SSC	N/A
Pallid bat	*Antrozous pallidus*	SSC	FGC Section 4150
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC	FGC Section 4150
Golden eagle	*Aquila chrysaetos*	Fully Protected	FGC Section 3511
Southern bald eagle	*Haliaeetus leucocephalus*	Fully Protected	FGC Section 3511
Desert bighorn sheep	*Ovis canadensis nelson*	Fully Protected	FGC Section 4700
Desert kit fox	*Vulpes macrotis*	N/A	CCR, Title 14, Chapter 5, section 460
Mojave fringe-toed lizard	*Uma scoparia*	SSC	N/A
Coast horned lizard	*Phrynosoma blainvillii*	SSC	N/A
Coastal whiptail	*Aspidoscelis tigris stejnegeri*	SSC	N/A
Amargosa pupfish	*Cyprinodon nevadensis amargosae*	SSC	N/A
Amargosa speckled dace	*Rhinichthys nevadensis nevadensis*	SSC	N/A
Le Conte's thrasher	*Toxostoma lecontei*	SSC	N/A
Loggerhead shrike	*Lanius ludovicianus*	SSC	N/A
Vermillion flycatcher	*Pyrocephalus rubinus*	SSC	N/A

Yellow-breasted chat	*Icteria virens*	SSC	N/A

Protected Non-game Mammals

The Project has the potential to impact two special-status bats (Table 1). Bats are a non-game mammal protected under FGC section 4150.

Special-status Bats

Bats are important for pest management as the primary predators of nocturnal flying insects, but bat populations are declining throughout southern California due to the loss of roosting habitat from development and a low reproductive turnover. Most bat species only have one young per year and juvenile mortality is very high. It can take many years for a bat colony to recover from any impacts that result in mortality or a decrease in reproductive ability. 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.

The Project has the potential to impact two bat species of special concern, pallid bat and Townsend's big-eared bat, through modifications (e.g., bridge barrier replacement) of existing infrastructure and impacts to desert riparian and riverine habitat within the alluvial floodplain. Pallid and Townsend's big eared bat may use crevices, expansion joints, or hollow cavities in bridges and culverts as day roosts and/or the open spaces between bridge beams or girders for night roosting. CDFW is concerned bridge and culvert construction, or replacement could be a risk to these species because there are relatively few roosts in California.

The EA does not consider suitable roosting or foraging habitat for bats in its impact analysis. CDFW recommends a qualified bat biologist perform pre-construction bat surveys prior to construction within suitable habitat to avoid impacts to bats. If evidence of bat occupation is identified during surveys, the qualified bat biologist should provide additional measures to avoid impacts to roosting bats which should include replacing existing bat roosts with new roosting habitat in conjunction with monitoring of the replacement roost. If a maternity colony is identified, CDFW recommends postponement of Project activities to outside of the bat maternity season.

Desert Kit Fox and American Badger

The EA does not recognize the possibility of desert kit fox or American badger being present within the Project area and potentially being impacted by the Project activities. Desert kit foxes are uncommon to rare, permanent residents of arid regions of southern California (Grinnell et al. 1937, Wilson and Ruff 1999). They live in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. Desert kit foxes play important roles in their respective ecosystems as "architects of

subterranean burrows", which in turn provide cover for many other species (Thacker and Flinders 1999). They are vulnerable to many human activities such as hunting, use of rodenticides and other poisons, off-road vehicles, and trapping.

American badgers are widely distributed throughout California, but they are comparatively uncommon or absent from some areas where they historically occurred. They are most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. American badgers are highly specialized fossorial mustelids that help control small mammal populations. They are somewhat tolerant of human activities, however, predator control using indiscriminate trapping and persistent poisons causes extensive loses. Due to their similar life history, desert kit fox and American badger are frequently surveyed together.

Desert kit fox is addressed in Title 14 of the California Code of Regulations. California Code of Regulations, Title 14, section 460 states that "Fisher, marten, river otter, desert kit fox and red fox may not be taken at any time". Desert kit fox and American badger are fur-bearing mammals and are protected under FGC section 4000 et seq. CDFW recommends the following actions be taken to avoid impacts to desert kit fox and/or American badger:

A qualified biologist should visually survey the Project area prior to construction to identify any feature/habitats suitable to support American badger and desert kit fox (i.e., burrows, dens). Where an identifiable feature is present, the qualified biologist should mark the potentially occupied feature for avoidance. If avoidance is infeasible, the qualified biologist should determine whether the burrow or den is inactive or active. If the burrow or den is inactive, the qualified biologist should excavate the burrow or den by hand and backfill to prevent reuse by American badger or desert kit fox. If American badger or desert kit fox is present, Caltrans should coordinate with CDFW on avoidance and mitigation measures.

Mojave Desert Tortoise

The EA recognizes the potential presence of Mojave desert tortoise and incorporated biological (BIO) mitigation measures (MM) MM Bio-General-1, MM Bio-General-7, MM Bio-General-8, MM Bio-General-12 to avoid and minimize impacts to the species which include: biologist approval for staging and storing (MM Bio-General-1), worker's environmental awareness training (MM Bio-General-7), biological monitors to implement measures (MM Bio-General-8), and prevention of animal entrapment (MM Bio-General-12). However, the mitigation measures do not include preconstruction surveys, exclusionary fencing, reporting of dead or injured species, such as Mojave desert tortoise, or a cease work order if Mojave desert tortoise is encountered. Nonetheless, the EA states, that Mojave desert tortoise has minimal potential or probability to occur within the Project limits because "the project impact area does not feature physical or biological features or suitable habitat for burrowing, foraging, or sheltering; nor does the PIA does not contain water features or vegetation to support foraging or burrowing", yet

it was determined the Project May Affect and is Likely to Adversely Affect federally threatened desert tortoise pursuant to the Federal Endangered Species Act.

CDFW is not clear on what basis the EA determines that the Project does not contain physical or biological features or suitable habitat for Mojave desert tortoise, but it is likely to be affected, absent a habitat assessment and focused presence/absence surveys. CDFW is concerned with impacts to potential desert tortoise habitat considering that the EA on Appendix A depicts limits of grading as 26 feet from centerline, which is not only a much larger footprint than is written in the Project description but is likely to encroach onto habitat for Mojave desert tortoise. Based on the California Natural Diversity Database (CNDDB), CDFW is aware of Mojave desert tortoise occurrence within a few miles from the I-15 where the Project begins and along the SR-127 where the Project continues (CNDDB 2024).

Mojave desert tortoise is federally, and state threatened, and a state candidate endangered species. Desert tortoises have inhabited the region of the southwestern United States for an estimated 15 to 20 million years, but the Mojave desert tortoise population has declined significantly since the early 1980's due to human activity in the desert, predation by ravens, and Upper Respiratory Tract Disease. The population of Mojave desert tortoise has declined more acutely in the past several decades. Because the diet of Mojave desert tortoise consists primarily of desert wildflowers, grasses, and cacti, they are important indicators of desert health.

CDFW recommends that pre-construction surveys for Mojave desert tortoise be conducted prior to construction in accordance with the USFWS 2019 Mojave desert tortoise survey methodology to avoid direct and indirect impacts to Mojave desert tortoise (USFWS 2019). If Mojave desert tortoise is found present, individuals should be fully avoided. If full avoidance is infeasible, CDFW recommends Caltrans obtains an CESA Incidental Take Permit (ITP) and mitigates impacts to Mojave desert tortoise through the purchase of credits from a mitigation/conservation bank, and/or land acquisition and perpetual management and conservation thereof.

Nesting Birds

The EA includes the following mitigation measures to avoid impacts to birds:

- MM Bio General-1: Equipment Staging and Storing Approvals
- MM Bio General-2: Temporary Artificial Lighting Restrictions
- MM Bio General-7: Worker Environmental Awareness Program
- MM Bio General-8: Biological Monitor

CDFW is concerned that mitigation measures for birds in the EA are not appropriate to avoid and minimize impacts to birds, as they neglect common avoidance and minimization measures, such as pre-construction nesting bird surveys, monitoring, and avoidance buffers. Birds are essential pollinators and seed dispersers, especially of

native plants and serve to control populations of insects and rodents. It is Caltrans's responsibility to comply with all applicable laws related to nesting birds and birds of prey.

The timing of the nesting bird 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.). It has been observed that changing climate conditions may result in the nesting bird season occurring earlier and later in the year than historical nesting season dates. In addition, the duration of a pair to build a nest and incubate eggs varies considerably. Birds have been documented nesting outside of the nesting bird period generally identified (i.e., February 15 to September 30). For example, raptors may nest as early as January and hummingbirds may nest year-round. Given this, CDFW recommends the completion of pre-construction nesting bird surveys regardless of time of year to avoid Project impacts on nesting birds. CDFW recommends pre-constructions nesting bird surveys be completed no more than three (3) days prior to vegetation clearing or ground disturbance activities for all bird species with the potential to occur on the Project site.

Burrowing Owl

The Project site has the potential to provide suitable foraging and/or nesting habitat for Western Burrowing Owl (*Athene cunicularia hypugaea*). On October 10, 2024, the California Fish and Game Commission accepted a petition to list Western Burrowing Owl as endangered under CESA, determining the listing "may be warranted" and advancing the species to the candidacy stage of the CESA listing process. As a candidate species, Western Burrowing Owl is granted full protection of a threatened species under CESA. Take of any endangered, threatened, or candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5 and 3513. Take is defined in Fish and Game Code section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill."

CDFW recommends that Caltrans consults the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012); available for download from CDFW's website: https://www.wildlife.ca.gov/conservation/survey-protocols. The Staff Report on Burrowing Owl Mitigation, specifies three steps for Project impact evaluations:

1. A habitat assessment;

2. Surveys; and

3. An impact assessment

As stated in the Staff Report on Burrowing Owl Mitigation, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with Fish and Game Code sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls, and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed project activity.

Within the 2012 Staff Report, the minimum habitat replacement recommendation was purposely excluded as it was shown to serve as a default, replacing any site-specific analysis and discounting the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area. It hypothesized that mitigation for permanent impacts to nesting, occupied, and satellite burrows and burrowing owl habitat should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present. If mitigation occurs offsite, it should include (a) permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) be sufficiently large acreage with the presence of fossorial mammals. Furthermore, the report noted that suitable mitigation lands should be based on a comparison of the habitat attributes of the impacted and conserved lands, including but not limited to: type and structure of habitat being impacted or conserved; density of burrowing owls in impacted and conserved habitat; and significance of impacted or conserved habitat to the species range-wide.

Stream Resources

The Project does not account for any temporary or permanent impacts to the alluvial floodplain resulting from additional shoulder backing or grading activities. The Project indicates the existing facility consists of a 12’ lane and 1’ shoulder and the Project description indicates the placement of 3’ shoulder backing. Furthermore, Project plans in Appendix A depict grading 26’ from centerline, which would indicate an additional 13’ of impacts from the existing conditions. Based on the Project limits and scope of work, this could equate up to approximately 50 acres of impacts.

The EA only analyzed wetlands and waters subject to regulation by the U.S. Army Corps of Engineers and the Regional Water Quality Control Board and did not consider CDFW’s regulatory authority over rivers, streams, and lakes (Fish and Game Code § 1602). The EA based the analysis on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey Geographic Information System and the USFWS National Wetlands Inventory (NWI) Wetlands

Mapper, cross referencing hydric soils and potential water features. Furthermore, the EA concluded that the Project does not have hydric soils nor defined bed, bank, or channels. CDFW agrees that these databases are a useful tool for desktop analyses; however, they should not take the place of a field visit for verification and delineation. This is particularly important, because alluvial flood waters can alter riverine features leading to seasonal changes.

The EA proposes to avoid and minimize impacts to stream resources through best management practices which Caltrans anticipates to include in a Water Pollution Control Plan, and no measures are included in the EA to avoid, minimize, and mitigate impacts to rivers, lakes, or streams.

CDFW is concerned with potential impacts to Fish and Game Code section 1602 resources. The ecosystems within the Silurian and Death Valley are unique due to their sensitive species composition and natural processes (e.g., ephemeral, alluvia depositing, scouring). Stream resources within the Project area support important populations of special-status species, such as Mojave fringe-toed lizard, coast horned lizard, Amargosa pupfish, and Amargosa speckled dace. As such, Caltrans should notify CDFW pursuant to Fish and Game Code section 1602, obtain a Lake and Streambed Alteration Agreement, and avoid, minimize, and mitigate for impacts to any stream, river, or lake and their associated habitat.

Invasive Species

The EA does not adequately analyze the potential introduction or spread of invasive species that may result from the Project. The EA states that the Project limit “consists of the paved travelled way and previously disturbed and maintained areas with compacted or barren soils or areas dominated by nonnative ruderal species” and for this reason “No avoidance, minimization, and/or mitigation measures [are] required.”

Since the Project is approximately 30 miles in length with grading limits up to 26’ from centerline, and includes installation of 3’ shoulder backing, CDFW recommends the inclusion of appropriate avoidance and minimization measures to avoid proliferation and introduction of invasive species, including restoring site topography to pre-construction contours, surveying for invasive weeds prior to construction, performing weekly inspections and weed removal/control, and monitoring invasive plant species after construction within temporary disturbed areas and operational areas.

Habitat Restoration

Scrub/desert wash habitats are slow to recover following disturbance and restoration is difficult. For this reason, impacts to desert habitat is often considered permanent, necessitating permanent mitigation (see Mitigation section below).

Restoration is not proposed for the Project. CDFW recommends restoration of habitat when feasible and offers the following guidance for restoration. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Plans should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a local seed and cuttings planting schedule; (d) a description of the irrigation methodology; (e) measures to control exotic vegetation on site; (f) specific success criteria; (g) a detailed monitoring program; (h) contingency measures should the success criteria not be met; and (i) identification of the party responsible for meeting the success criteria. Monitoring of restoration areas should extend across a sufficient time frame (i.e., 5 years or until success criteria are met) to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes, with the appropriate permits (e.g., CESA ITP). Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

Moving Out of Harm's Way

To avoid impact to any non-listed special-status terrestrial wildlife species, CDFW recommends that a qualified biologist inspects the Project area for non-listed special-status terrestrial wildlife species present prior to any Project activities. Any individuals found should not be harassed and should be allowed to leave the Project area unharmed. If needed, a qualified biologist may guide, handle, or capture an individual non-listed wildlife species to move it to a nearby safe location within nearby refugium, or it shall be allowed to leave the Project site of its own volition. Capture methods may include hand, dip net, lizard lasso, snake tongs, and snake hook. If the wildlife species is discovered or is caught in any pits, ditches, or other types of excavations, a qualified biologist shall release it into the most suitable habitat nearby the site of capture. For any species listed under CESA, Caltrans should obtain a CESA ITP to move species out of harm's way.

Noise

Project construction is likely to result in a substantial amount of noise. This may adversely affect wildlife species within the Project area in several ways as wildlife

responses to noise can occur at exposure levels of only 55 to 60 decibels (Barber et al. 2009). (For reference, normal conversation is approximately 60 decibels, and natural ambient noise levels [e.g., forest habitat] are generally measured at less than 50 decibels.). Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cues (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011).

Caltrans will reduce noise from Project construction and adhere to the noise control measures within the Caltrans Standard Special Provisions and comply with local noise regulations (MM NOI-1), and employ noise suppression devices such as mufflers and enclosures for generators (MM NOI-2). Land uses that are considered sensitive to noise impacts are referred to as “sensitive receptors”. Noise sensitive receptors consist of, but are not limited to, schools, residences, libraries, hospitals, and other care facilities. MM NOI-1 address noise to sensitive receptors. However, Project construction will be adjacent to large areas of vacant land, and a few sensitive receptors, thus mitigation for impacts to wildlife from noise is dependent on MM NOI-2. While MM NOI-2 includes noise suppression devices such as mufflers or enclosures for generators, which CDFW typically recommends, CDFW suggests that to further reduce impacts to wildlife from noise, construction be restricted to hours least likely to disrupt wildlife (e.g., not at night or in the early morning).

Lighting

CDFW appreciates the inclusion of MM-Bio-General-2, subsection **“**Temporary Artificial Lighting Restrictions”, to minimize the effects of artificial lighting during construction. Artificial lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife. Night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., birdsong; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavioral thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). Phototaxis, a phenomenon that results in attraction and movement toward light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Effects of artificial lighting are particularly impactful to bat and small mammal species.

CDFW is concerned that the impacts from artificial lighting during construction are not adequately addressed in the EA. CDFW recommends the following actions be taken to minimize Project impacts from lighting on wildlife species during construction:

1. Construction should be restricted to hours least likely to disrupt wildlife (e.g., not at night or in the early morning).
2. If construction at night or in the early morning is unavoidable, a qualified biologist should monitor the adjacent habitats during construction and implement shielding techniques such as the use of fence slats, netting, mesh, or tarps.

Further, CDFW recommends the following to minimize Project impacts from lighting on wildlife species after construction for proposed permanent lighting along new sidewalks and bike lanes:

1. All lighting shall be designed and installed to prevent light spillover into adjacent habitat.
2. Caltrans should not install lighting (e.g., street lighting, sports lighting, trail lighting, pedestrian lighting, cyclist lighting, etc.) that produces illuminance (lux) outside of the Project area, onto adjacent habitat.
3. Caltrans should ensure any new lighting installations use wildlife friendly lighting (e.g., amber LEDs or low-pressure sodium, correlated color temperature of 3,000 Kelvins or less) and incorporates shielding so that lighting can be directed onto the Project site and away from the adjacent habitat. Proposed lighting may incorporate newer technologies associated with lower brightness levels, user activation (motion sensing), and/or designated hours of operation.
4. Wildlife friendly lighting (e.g., amber LEDs, low-pressure sodium bulbs, solar powered pavement markers, and/or other technology that diminishes blue-light emissions) should be considered to additionally reduce impacts to wildlife in adjacent natural areas.

Mitigation

CDFW considers Project-related impacts to sensitive species and habitats to be adverse and significant to both local and regional ecosystems, and the Project should appropriately offset project-induced qualitative and quantitative losses of biological values.

The EA did not analyze Project impacts to biological resources adequately and thus the proposed measures may be insufficient to offset the impacts. CDFW recommends that the Project reconsiders its mitigation strategy and implements mitigation that is roughly proportional to the level of impacts once a proper assessment (i.e., focused surveys) of biological resources has been conducted. Considering that restoration of slow recovering habitat within the Project is infeasible and impacts may occur to several special-status species identified above, mitigation should include purchase of mitigation bank credits and/or offsite land acquisition and perpetual conservation and management thereof. When considering mitigation, it is important that the land conserved for mitigation has the same or better resource value than the resource value

being impacted. Mitigation lands should be enhanced and managed in perpetuity to mitigate for the impact and loss of habitat. Mitigation lands should meet species requirements for some or all of the species requiring mitigation, the mitigation may be co-located on a single property (i.e., separate mitigation parcels for each requirement may not be necessary).

Conclusion

CDFW appreciates the opportunity to comment on the SBD-127 Pavement Rehabilitation Project and hopes our comments will assist Caltrans in identifying, avoiding, minimizing, and mitigating Project impacts on fish and wildlife resources. CDFW hopes Caltrans will involve CDFW in the Project to evaluate impacts to state resources, review surveys, and comment on plans alongside USFWS. CDFW recommends the preparation of an IS to assess the Project impacts identified above that were not appropriately assessed.

If you should have any questions pertaining to the comments provided in this letter, please contact Alisha Curtis, Senior Environmental Scientist Specialist at Alisha.Curtis@wildlife.ca.gov and Cindy Castaneda, Senior Environmental Scientist Supervisor at Cindy.Castaneda@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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