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From: Morford, Samantha@Wildlife
Sent: Friday, March 27, 2026 3:40 PM
To: Patwary, Masum@DOT
Cc: Stanfield, Melissa@Wildlife; Wildlife R2 CEQA; Sheya, Tanya@Wildlife; Kilgour, Morgan@Wildlife
Subject: CDFW Comments on the ND for the I-5 Grade Raise Project (SCH No. 2026020314)

Dear Masum Patwary:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Intent to Adopt an ND from California Department of Transportation (Caltrans) for the Interstate 5 (I-5) Grade Raise Project (Project) pursuant to the California Environmental Quality Act (CEQA) statute and guidelines.^[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, native plants, and their habitat. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise 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. (Fish & G. Code, § 1802.) Similarly for purposes of CEQA, CDFW provides, 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 may also act 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

The Project site is located along 4.42 miles of I-5 between post mile (PM) 0.21 and 4.63, in Sacramento County, California.

The Project consists of pavement rehabilitation, raising the roadway profile by 0.5 to 1.5 feet between PM 0.21 and 3.9, removal and replacement of the Twin Cities Road overcrossing and Dierssen Road overcrossing structures, replacement or rehabilitation of existing drainage facilities, replacement or

modification of lighting system components, installation of Transportation Management System (TMS) elements, and installation of maintenance vehicle pullouts.

The Project description should include the whole action as defined in the CEQA Guidelines section 15070 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment staging areas, spoils areas, and access and haul roads if applicable.

COMMENTS AND RECOMMENDATIONS

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

COMMENT 1: *Bird Exclusion Plan, Standard Measures BR-2B, page 11*

Issue: Standard Measure BR-2B states that a bird exclusion plan would be prepared and exclusion devices would be installed outside of the breeding season (October 1 through January 31). This measure also states that "partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season." Exclusion through monitoring and partial nest removal during nesting season is not a recommended exclusion method. Species such as cliff swallows (*Petrochelidon pyrrhonota*) have high site fidelity, returning to the same bridge or cliff annually.

The structures proposed for replacement are overcrossings and not subject to typical work period restrictions included in Streambed Alteration Agreements or other regulatory approvals. This presents an opportunity for full avoidance of impacts to nesting birds at the overcrossings.

Recommendation: CDFW highly recommends that the Twin Cities Road and Dierssen Road overcrossing structures be removed outside of the nesting bird season. Removal of these structures outside of the nesting bird season would avoid impacts to nesting birds and negate the need to install and monitor exclusion devices. Exclusion devices should be a last resort if construction cannot be conducted outside of the nesting bird season.

CDFW also recommends that the following language be removed from BR-2B: "On structures or parts of structures where it is not feasible to install bird exclusion devices, partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the breeding season (February 1 through September 30, with biologist discretion) to prevent their occupation. Nest removal would be repeated weekly under guidance of a qualified biologist to ensure nests are inactive prior to removal".

COMMENT 2: *Lighting Systems and TMS Elements, Biological Resources, page 36-59*

Issue: On page 106 the ND states that work would be limited to nighttime off-peak hours. This would require the use of temporary artificial night lighting during construction. The Project will also include the replacement and modification of existing lighting systems and the installation of TMS elements. As the ND is currently written, it does not analyze impacts to biological resources resulting from an increase in temporary and permanent lighting on habitats and the wildlife species they support.

New lighting or increased lighting, especially in areas where no lighting or low levels of lighting currently exist, has potential for significant impacts to biological resources. Artificial light spillage

beyond the prism of the roadway into adjacent habitats may result in a potentially significant impact through substantial degradation of the quality of the habitat. Unlike the natural brightness created by the monthly cycle of the moon, permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.

Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). For nocturnally migrating birds, direct mortality resulting from collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018).

Recommendation: CDFW recommends that new or replacement artificial lighting is not installed upon Project completion. If the installation of artificial lighting is unavoidable, CDFW recommends the ND analyzes and mitigates to a less-than-significant level the Project's temporary and post-construction lighting impacts to biological resources. At a minimum, the following mitigation measures should be incorporated into the ND:

Light Output Analysis: Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project will be included in the ND. If an increase in light output from current levels to the projected future levels is evident, additional avoidance, minimization or mitigation measures will be developed in coordination with the natural resource agencies to offset indirect impacts to biological resources including but not limited to special status species. Within 60 days of Project completion, Caltrans will conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered, additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies.

Light Output Limits: All LED's or bulbs installed as a result of the Project will be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Lighting Shields: All new lighting elements will be shielded and downward-facing to reduce lighting pollution and glare.

Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping shall be implemented throughout the Project to reduce the need for electrical lighting."

COMMENT 3: *Burrowing Owl, Biological Resources, page 48-49*

Issue: Burrowing owl (BUOW) (*Athene cunicularia*) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA

take authorization, should be obtained if the proposed Project has the potential to result in take of BUOW.

There are five CNDDDB and two research grade iNaturalist observations of BUOW within a 5-mile radius of the Project site. Grassland and agricultural land including but not limited to low growing vegetation with sparse shrubs and some tall vegetation (Green and Anthony 1989, Haug et al 1993) are considered BUOW roosting and nesting habitat. BUOW are also known to inhabit ditches, culverts, and roadsides that are surrounded by cropland. Because BUOW exhibit high fidelity to their nesting sites, their foraging habitat has significant overlap with their nesting habitat. The greatest threat to BUOW populations in California continues to be loss of suitable foraging and nesting habitat in portions of their breeding range due to urban development, incompatible agriculture, and fallow land (Gervais et al 2008).

The ND acknowledges that there is suitable habitat in and adjacent to the Project site for BUOW. The ND states that no mammal burrows were observed during the May and September 2024 surveys, therefore BUOW is unlikely to inhabit the Project area during Project activities. However, burrowing mammals, such as the California ground squirrel (*Otospermophilus beecheyi*) are very active and are known to disperse significant distances to establish new territories. Therefore, an absence of burrows in 2024, does not preclude the potential presence of BUOW during construction. Additionally, protocol-level surveys were not conducted to determine seasonal occupancy of the Project area by BUOW.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on BUOW and no take will occur. The Standard Special Provision included for BUOW states that one pre-construction survey will be conducted 15 days prior to the initiation of construction. This is not adequate to determine the seasonal residency status of any owls potentially occupying the site. The Standard Special Provision also states that if BUOW is detected within the Project area during the non-breeding season, an Exclusion Plan will be prepared and submitted to CDFW. However, eviction from an occupied burrow, regardless of the time of year, is considered take. Prior to performing burrow evictions Caltrans will need to demonstrate compliance with CESA. The ND, as written, does not sufficiently include mitigation to reduce potential impacts to BUOW to a level of less than-significant.

Recommendation: Project activities impacting BUOW and their nesting, foraging, wintering, and dispersal habitat should be mitigated to a less than significant level. To reduce the Project's impacts to BUOW to less than significant, CDFW recommends that the ND incorporate the following measures:

"Burrowing Owl Surveys. Project proponent will conduct a BUOW survey over all suitable habitat present within Project area. BUOW surveys will be conducted by a qualified biologist in accordance with the protocol described in the *Staff Report on Burrowing Owl Mitigation* (CDFW, March 7, 2012). The surveys will be conducted during both the breeding (February 1 – August 31) and non-breeding seasons (September 1 – January 31) immediately preceding the planned start of construction activities to ascertain the seasonal residency status of any owls occupying the site. The last survey will be conducted within 7 days prior to the initiation of construction activities. Additional surveys are necessary when initial site disturbance is followed by periods of inactivity or the construction is phased spatially and/or temporally over the Project site.

The presence of BUOW or their sign anywhere on the site or within a 500-foot accessible radius around the Project site will be recorded and mapped. Surveys will disclose all burrows and

occurrence of sign of BUOW on the Project site and within the 500-foot buffer. If occupied burrows are detected, the results of the survey will be submitted to CDFW.

Eviction of Burrowing Owls. If after all applicable avoidance and minimization measures are implemented and Project proponent needs to evict BUOW, an incidental take permit (ITP) will be obtained for the activity and a BUOW eviction plan will be developed by a qualified biologist for the CDFW's review and approval. This plan, including its proposed mitigation, will be consistent with the most recent available guidelines (e.g., *2012 Staff Report on Burrowing Owl Mitigation*). Burrow eviction will only be conducted during the non-breeding season for burrows located in the Project footprint, and in limited instances within a buffer zone around the Project site, as determined by CDFW after all avoidance and minimization measures have been exhausted."

COMMENT 4: *Giant Garter Snake, Biological Resources, page 49-52*

Issue: Giant garter snake (GGS) (*Thamnophis gigas*) is listed as a threatened species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of GGS.

GGS typically occur in slow-moving, warm aquatic environments like marshes, sloughs, and ponds and have adapted to using irrigation canals and rice fields as wetlands have been reduced in the Central Valley (Halstead et al. 2010). Small mammal burrows in upland habitat are generally used for cover and retreat during the active season and for refuge from flood waters during the dormant season (Halstead et al. 2015). Causes of decline are largely related to habitat loss and fragmentation of wetland habitat. Up to 98% of historic giant garter snake habitat in the Central Valley has been lost to development, including agricultural lands (Ellis 1987). The Project site and adjacent area contain both suitable aquatic and upland habitat. There are five CNDDDB occurrences of GGS in a 5-mile radius of the Project site.

The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for GGS but does not analyze the potential upland habitat in the Project area. The ND states that no GGS were observed with the Project area during the reconnaissance-level biological survey and that the Caltrans' right-of-way fence would act as a barrier to GGS' ability to emerge onto the shoulders of I-5. GGS are a cryptic species and difficult to detect without protocol-level surveys. The wire fencing that occurs along Caltrans' right-of-way is not an effective exclusion device as individuals could move through the openings in the fence.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on GGS and no take will occur. Standard Measure BR-2F states a limited operating period would be observed, where all construction activities would occur between October 1 and April 1. This time period is the inactive season for GGS when they cannot move out of harms ways on their own, increasing the potential for take. This measure also directly conflicts with the statement in the Environmental Consequences section that all construction activities would occur during the GGS active period (May 1 to October 1). The Standard Special Provision included for GGS states that a pre-construction survey would be conducted 24 hours prior to construction activities and on-site monitoring would occur during initial ground disturbance. The Project is over 4 miles long and it is assumed work would be phased spatially and temporally. Additionally, the Project would be conducted during GGS active season, meaning they could move throughout the Project site at any time. Conducting one pre-construction survey for the Project site as a whole would not be adequate to detect GGS and prevent take. Similarly, on-site

monitoring during initial ground disturbance activities would not be adequate to detect GGS and prevent take. The ND, as written, does not sufficiently disclose impacts to GGS nor does it include mitigation to reduce potential impacts to GGS to a level of less than-significant.

Recommendation: Project activities impacting GGS and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project's impacts to GGS to less than significant, CDFW recommends that the ND incorporate the following measures:

Work Period. Ground disturbing Project activities within 200-feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.

Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).

- If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.

If it is determined that the proposed Project may result in "take," as defined in the Fish & G. Code, section 86, of GGS, a CESA ITP may be obtained to provide coverage in the event that take occurs.

COMMENT 5: *Northwestern Pond Turtle, Biological Resources, page 52-54*

Issue: Northwestern pond turtle (NWPT) (*Actinemys marmorata*) is a California Species of Special Concern. There are seven CNDDDB occurrences and over 40 research grade iNaturalist occurrences of NWPT within a 5-mile radius of the Project site.

NWPT requires terrestrial habitat for nesting, basking, migration or dispersal, overwintering and aestivation. Oviposition typically occurs from May through July. Females travel an average of 51 meters from water to excavate nests in upland areas with sparse vegetation and direct sunlight exposure. The nesting depth generally occurs between 9 to 12 centimeters below the surface. The incubation period for eggs typically ranges from 80 to 126 days. (USFWS 2023). Between September and December, NWPT have been found to migrate an average distance of 203 meters (666 feet) from water bodies to overwintering habitats (Reese & Welsh, 1997).

The ND acknowledges that the canals conveyed under I-5 within the Project area may provide habitat for NWPT but does not analyze the potential upland habitat in the Project area. The ND states that there are no recent NWPT occurrences in the Project area and that the Caltrans right-of-way fencing would act as a barrier to NWPT's ability to access the culverts in the Project area. As stated above, there are many recent iNaturalist occurrences within a 5-mile radius of the Project, including several that were recorded in 2026. The wire fencing that occurs along Caltrans' right-of-way is not an effective exclusion device for NWPT as small individuals could fit through the openings in the fencing, and NWPT are known to burrow under fencing. Additionally, the ND states that Bureau of Land Management staff mentioned that there have been sightings of NWPT in the culverts within the Project area.

The ND states that with the implementation of the Caltrans Standard Measures and Standard Special Provisions, the Project will have a less than significant impact on NWPT. Standard Special Provision 14.603D(1) states that "a contractor-supplied biologist would monitor work activities that could

potentially impact sensitive biological resources”. This measure is too vague to be enforceable or effective. In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions. As currently written, the ND does not provide adequate and enforceable measures to reduce potential impacts to NWPT to a level of less than significant.

Recommendation: Project activities impacting NWPT and their aquatic and upland habitat should be mitigated to a less than significant level. To reduce the Project’s impacts to NWPT to less than significant, CDFW recommends that the ND incorporate the following measures:

Work Period. Ground disturbing Project activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches) will be confined to the period between May 1 and October 1.

Special-Status Reptile Clearance Survey and Monitoring. Immediately prior to the start of ground disturbance or vegetation clearing each day, a qualified biologist will survey the section of the Project area that will be disturbed that day for giant garter snake and northwestern pond turtle. The qualified biologist will remain on-site to monitor all ground disturbing activities within 200 feet of aquatic habitat (i.e., agricultural canals and ditches).

- If special-status reptiles are identified during surveys or Project activities, work will be suspended, CDFW notified, and conservation measures will be developed in coordination with CDFW prior to re-initiating the activity.

COMMENT 6: *Swainson’s Hawk, Biological Resources, page 36-59*

Issue: Swainson’s Hawk (SWHA) (*Buteo swainsoni*) is listed as a threatened species under CESA and as such it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as “hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill” (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of SWHA.

SWHA are generally found in scattered trees or along riparian systems adjacent to open fields such as annual grasslands, agricultural fields including but not limited to low growing crops and fallow land, dry wetland, and pastures, which are all considered Swainson’s hawk foraging habitat (CDFG 1994). SWHA have also been documented to have a 10-mile foraging radius from their nests (CDFG 1994). The primary threat to SWHA population in California continues to be habitat loss, especially the loss of suitable foraging habitat (CDFW 2016). If prey resources are not sufficient, SWHA adults will need to hunt longer distances from their nest site, which would increase their foraging effort and may result in reduced nestling vigor with an increased likelihood of disease, starvation, and nest/young abandonment (CDFG 1994).

Table 5 on page 46 states that there is no suitable habitat present within the Project area for SWHA and that the Project will not result in take. There are over 200 CNDDDB occurrences of SHWA within 10 miles of the Project site and approximately 120 research grade iNaturalist observations of SWHA within a 5-mile radius of the Project site. The annual grassland and agricultural fields in and adjacent to the Project site provide suitable foraging habitat. Unmitigated loss of foraging habitat for a CESA listed threatened species is a significant impact.

Recommendation: CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to SWHA foraging habitat to a less than significant level. Mitigation measures could include, but are not limited to:

“Compensatory Mitigation for Permanent Impacts to SWHA Foraging Habitat: Caltrans will quantify the total acreage of Project impacts to Swainson’s hawk foraging habitat. Two seasons of temporary impacts to foraging habitat will be considered and mitigated for as permanent impacts. To mitigate impacts to Swainson’s hawk foraging habitat to a less than significant level, CDFW recommends Caltrans mitigate impacts at an appropriate ratio by either purchasing SWHA foraging habitat credits from a CDFW-approved conservation bank OR providing for both the permanent protection and management of Habitat Management (HM) lands including calculation and deposit of management funds as approved by CDFW. Prior to transfer of SWHA foraging credits, Caltrans will coordinate with CDFW to ensure the conservation bank and mitigation ratio is appropriate to compensate for the impacts of the Project. Caltrans will submit to CDFW a copy of the executed Credit Transfer Agreement prior to initiating construction activities.

Swainsons’ Hawk Protocol Level Surveys. Protocol-level surveys will be conducted by a CDFW-approved Designated Biologist within a minimum 1/2-mile radius around the Project area in accordance with Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee [TAC], 2000) as follows:

- January to March 20- One (1) Survey, All Day
- March 20 to April 5- Three (3) Surveys, Sunrise to 1000 / 1600 to Sunset
- April 5 to April 20- Three (3) Surveys, Sunrise to 1200 / 1630 to Sunset
- April 21 to June 10- Monitoring
- June 10 to July 30- Three (3) Surveys, Sunrise to 1200 / 1600 to Sunset

Results of the protocol-level surveys shall be submitted to CDFW a minimum of 10 days prior to the start of construction. Based on the survey results, additional mitigation measures may be required.

Survey methods shall be closely followed by starting early in the nesting season to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases). Surveys shall occur annually for the duration of the Project. The qualified biologist shall have a minimum of two years of experience implementing the TAC survey methodology. If an active nest is identified, a 0.25-mile protective buffer shall be maintained around the nest until the young fledge. The protective buffer shall be clearly marked and be an area where no Project-related activities or personnel are allowed while in place.

If it is determined that the proposed Project may result in “take,” as defined in the Fish & G. Code, section 86, of SWHA, a CESA ITP may be obtained to provide coverage in the event that take occurs.”

COMMENT 7: *Bats, Biological Resources, page 36-59*

Issue: Bats are considered non-game mammals and are protected by state law from take and/or harassment (California Fish and Game Code §4150, §2126, §3007; California Code of Regulation, Title 14, §251.1). Several bat species are also considered species of special concern, which meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines §15065). The ND does not mention surveying for bat roosting habitat or potential nursery colonies and does not analyze the potential impacts on bat roosting habitat and potential nursery colonies. Bat species that are known to occur in the Project vicinity, such as Townsend’s big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), Mexican free-tailed bat (*Tadarid brasiliensis*), Yuma myotis (*Myotis yumanensis*), and big brown bat (*Eptesicus fuscus*) could utilize the weep holes on the Twin Cities Road and Dierssen Road overcrossing as day roosting habitat.

Without an analysis of the type, quality, and quantity of roosting bat habitat within the Project site and appropriate surveys for presence/absence, it is unclear if there are bats present. The presence of bats in the overcrossing structures during construction could result in direct mortality. Additionally, if the overcrossing structures provide suitable bat habitat, the Project could result in the permanent loss of that roosting habitat when the structures are replaced. If there are bats present in any of the bridges or overcrossings in the Project site during construction, the increased noise, lighting, and vibrations from the bridge widening could impact them. This impact could result in roost abandonment, potentially resulting in a reduction in bat survivability from increased susceptibility to predation, reduced quality of thermal and social environments, and decreased foraging efficiencies. This can be particularly detrimental if the construction activities are conducted during maternity season (typically April 15 to August 31) or torpor season (typically October 15 to March 1). As currently proposed, the Project has potential to have significant and unmitigated impacts to bats. The ND, as written, does not sufficiently disclose impacts to bats nor does it include mitigation to reduce potential impacts to bats to a level of less than-significant.

Recommendation: To reduce Project impacts to bats and native nursery sites to a less-than-significant level, CDFW recommends that a qualified biologist survey the Project site for potentially suitable bat roosting habitat. The minimum qualifications for the biologist should include experience in conducting bat habitat assessments, nighttime emergence surveys, and acoustic monitoring. The biologist should have adequate experience identifying local bat species (visual and acoustic identification), type of habitat, and differences in roosting behavior and types (i.e., day, night, maternity). The habitat assessment should include a visual inspection of suitable habitat features (i.e., structure joints and weep holes) for bat roosting habitat within the Project. Suitable roosting sites should be mapped, photographed, and evidence of bat presence noted (i.e., bat guano or urine staining). The methodology and results of the bat habitat assessment should be incorporated into the ND. If bat roosting habitat is present, mitigation measures should be included in the ND to mitigate potential impacts to bats and nursery sites. These measures could include, but are not limited to:

- Implementing work windows within suitable bat roosting habitat to avoid critical life stages (maternity season - April 15 to August 31 and torpor season - October 15 to March 1);
- Bat habitat assessment, pre-construction and nighttime emergence surveys conducted by a biologist with education and experience in bat biology and identification prior to the initiation of construction activities; and
- The development of a bat avoidance or exclusion plan by a biologist with education and experience in bat biology and identification if bats are detected. CDFW recommends this plan be developed well in advance of the Project so that avoidance or exclusion could be appropriately timed in coordination with scheduled construction, if necessary.

Additionally, CDFW recommends the following language be incorporated into the ND to help reduce impacts to bats and native nursery sites to a less-than-significant level:

“Replacement Structures. If bat roosts cannot be avoided, replacement roost structures will be designed to accommodate the bat species they are intended for. Replacement roost structures will be designed and installed in close coordination with a qualified bat biologist. The size of suitable roosting habitat to be removed will be quantified by the bat biologist and a minimum of twice the roosting habitat will be installed in close proximity to the removed roost habitat. Replacement roost habitat will be monitored by a qualified bat biologist for a minimum of two years to document bat use and monitoring reports will be submitted to CDFW. On-site temporary roosting habitat (e.g., bat houses, wooden backed signs) shall be installed prior to overcrossing removal and maintained until construction of the new overcrossing is complete.”

COMMENT 8: *Crotch’s Bumble Bee, Biological Resources, page 36-59*

Issue: Crotch's bumble bee (CBB) (*Bombus crotchii*) is a state candidate species for listing under CESA and as such, it is afforded full protection under the act. It is unlawful to take a State-listed endangered or threatened species (Fish & G. Code §2050 et seq.). Take is defined as "hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture or kill" (Fish & G. Code §86). CESA take authorization, should be obtained if the proposed Project has the potential to result in take of CBB.

This species of bumble bee is nearly endemic to California, and historically occupied grassland and shrubland in southern to central California. This species requires floral resources, underground nest sites, and overwintering sites. CBB are generalist foragers and are best suited to forage at open flowers with short corollas. CBB commonly visit the following plant families: Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Hydrophyllaceae, Asclepiadaceae, and Boraginaceae. CBB queen's flight period in California is from late February to late October. The flight period for the males and the workers of this species is from late March through September (CDFW 2019).

Table 5 on page 46 states that there is no suitable habitat present within the Project area for CBB and that the Project will not result in take. However, there are six CNDDDB occurrences within a 5-mile radius of the Project, including one approximately 700 feet east of the Project site. There are annual grasslands and open woodland habitat in the Project area with potential to provide habitat for CBB. For example, the habitat adjacent to I-5 between PM 0.68 and 1.02 and between PM 1.25 and 2.10. There is potential for CBB to be directly impacted by the proposed culvert replacement work at PM 1.60 on the east side of the road. As currently proposed, the Project has potential to have significant and unmitigated impacts to CBB. The ND, as written, does not sufficiently disclose impacts to CBB nor does it include mitigation to reduce potential impacts to CBB to a level of less than-significant.

Recommendation: CDFW recommends the ND include an analysis and appropriate mitigation measures to reduce Project impacts to CBB to a less than significant level. Mitigation measures could include, but are not limited to:

"Crotch's Bumble Bee Protocol Survey. If Project activities are proposed to occur during the active season for CBB, Project Proponent will develop a Pre-Construction Survey Plan for CBB, developed in coordination with CDFW (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>). A total of three surveys will be conducted prior to any ground-disturbing Project activities or vegetation removal that will take place during the active season for CBB (March 1 through October 31), or until all flowering vegetation is largely desiccated, to determine if any active nests are within the Project area. Each survey will be spaced two to four weeks apart, with the last survey taking place within 72 hours prior to construction activity. A qualified biologist will perform meandering transects through the planned construction footprint, plus a 50-foot buffer where accessible, between 9:00 am and 1:00 pm where feasible and at least one hour after sunrise and at least two hours before sunset, to visually survey the area for CBB activity. The duration of the survey will be the minimum amount of time necessary to adequately survey the area, typically at least one hour of surveying per three acres of potential habitat, excluding photo and identification time. For each sampling event, the qualified biologist will survey suitable habitat using visual encounter and non-lethal photo methods, developed in coordination with CDFW. If a suspected or confirmed CBB is identified during any of these surveys, the qualified biologist will notify CDFW within 48 hours.

If only foraging CBB is observed (i.e., no nest is found), construction activities may proceed without the additional monitoring requirements; however, if there is a lapse in initial construction disturbance greater than two weeks, an additional clearance survey will be repeated prior to ground disturbance.

If a CBB nest is found, one or more qualified biologists will provide biological construction monitoring as long as needed to implement applicable measures below.

If a CBB nest is discovered within the Project area and avoidance is feasible, a non-disturbance buffer of 50 feet will be established around the nest until the nest senesces or becomes inactive and is no longer in use, as determined by the qualified biologist or until Project activities in the Project area are complete, whichever is first. The buffer will be delineated using high-visibility fencing, flagging, or similar materials along with appropriate signage. The nest location will be recorded with global positioning system (GPS). The qualified biologist could modify the nest buffer in coordination with CDFW.

If it is determined that the proposed Project may result in “take,” as defined in the Fish & G. Code, section 86, of CBB, a CESA ITP may be obtained to provide coverage in the event that take occurs.”

COMMENT 9: *Wildlife Connectivity, Biological Resources, page 59*

Issue: The ND states that the proposed Project would have no impact on wildlife connectivity. However, this stretch of I-5 is four lanes wide and is a highly impermeable barrier to movement for wildlife species. I-5 bisects suitable habitat for aquatic species such as GGS and NWPT.

Recommendation: CDFW recommends that Caltrans use this Project as an opportunity to mitigate aquatic wildlife connectivity issues caused by I-5. CDFW recommends that improvements be made to the culverts at PM 1.60 and 3.55. Making improvements to these culverts would allow for species such as GGS and NWPT to successfully move between the habitats on either side of the road. These two locations are recommended because a review of aerial imagery and public data including the South Sacramento Habitat Conservation Plan habitat modeling for GGS and NWPT shows that these canals contain high value aquatic habitat for both species. Additionally, making connectivity improvements to these two locations would increase the permeability within a Natural Landscape Block and improve connectivity between two Essential Connectivity Areas identified by the California Essential Habitat Connectivity Project.

Possible improvements may include, but are not limited to, 1) replacing the existing culvert with one of the same diameter or larger, preferably a box culvert with an open bottom or engineered streambed material; 2) removing any existing barriers that may prevent or reduce species access to the culvert from the canal (i.e., fencing in the canal or woody debris build up).

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 (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov.

FILING FEES

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

CONCLUSION

Pursuant to Public Resources Code § 21092 and § 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications will be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the ND for the I-5 Grade Raise Project to assist Caltrans in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this letter or further coordination should be directed to Sammi Morford, Environmental Scientist at (916) 880-8324 or samantha.morford@wildlife.ca.gov.

Sincerely,

Sammi Morford

Environmental Scientist (Caltrans Liaison)

Habitat Conservation Program | North Central Region (R2)

1701 Nimbus Rd., Suite A

Rancho Cordova, CA 95670



^[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.