



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
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San Diego, CA 92123
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



June 2, 2025

Carmen Lo
California Department of Transportation
1750 East 4th Street
Santa Ana, CA 92705
carmen.lo@dot.ca.gov

Subject: Mitigated Negative Declaration for the SR-133/SR-241 Permanent Restoration Project, SCH No. 2025050142, Orange County, CA

Dear Carmen Lo:

The California Department of Fish and Wildlife (CDFW) reviewed the Mitigated Negative Declaration (MND) from California Department of Transportation (Caltrans) for the SR-133/SR-241 Permanent Restoration Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines¹.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under 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 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 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

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.

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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 law² of any species protected under the California Endangered Species Act (CESA; Fish & G. Code, § 2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

CDFW also administers the Natural Community Conservation Planning (NCCP) program, a California regional habitat conservation planning program (Fish and Game Code 2800 et seq.). CDFW issued Natural Community Conservation Plan approval and take authorization in 1996 for the Orange County Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The NCCP/HCP established a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. The Project area is located within the Planning Areas of NCCP/HCP. CDFW is providing the following comments as they relate to the Project's consistency with the NCCP/HCP and CEQA.

PROJECT DESCRIPTION SUMMARY

Proponent: Caltrans, District 12

Objective: The objective of the Project is to repair fire damage caused by the 2020 Silverado Fire and to upgrade culverts and other highway assets to current standards. Primary Project activities include repairing three culverts that were damaged by the fire, replacing 28 corrugated steel pipe culverts with reinforced concrete pipe, upgrading 35 traffic safety devices, and repairing fire damaged guardrails, roadway signs, and electrical systems.

Location: The Project area is located in Orange County, California, on State Route (SR) 133 from Post Mile (PM) 11.4 (33.690859, -117.740586) to PM 13.6 (33.717261, -117.720656), and on SR-241 from PM 24.5 (33.691380, -117.686035) to PM 35.7 (33.818875, -117.717357). The Project extends along SR-133 south of the Irvine Boulevard Over Crossing to the junction with SR-241, and continues on SR-241 south of the Portola Parkway Over Crossing to the northbound off-ramp at the Toll Plaza. The Project encompasses the city of Irvine and Orange, unincorporated areas of Orange County, and portions within the Planning Areas of the Orange County Central-Coastal NCCP/HCP and the OCTA M2 NCCP/HCP.

Timeframe: Construction will occur over a 16-month duration between December 2026 to April 2028.

² "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

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Biological Setting: The Biological Study Area (BSA) includes the Project area, Caltrans right-of-way (ROW), and a buffer of 200 feet around the ROW. The BSA includes developed urban areas, areas regularly disturbed for highway maintenance, and several vegetation communities. Vegetation communities noted in the BSA include, but are not limited to, disturbed scrub, chaparral, coastal sage scrub, willow riparian scrub, coast live oak woodland, annual grassland, and bare ground. The Project area is adjacent to the Santa Ana Mountains, and the areas of undeveloped open space provide linkages to areas within the Santa Ana Mountains. Streams in the BSA include the Agua Chion Wash, Hicks Canyon Wash, Peters Canyon Wash, Bee Canyon Wash, and Santiago Creek.

The following special-status species have the potential to occur in the Project area: coastal California gnatcatcher (*Polioptila californica californica*; Endangered Species Act (ESA)-listed threatened Species of Special Concern (SSC)), least Bell's vireo (*Vireo bellii pusillus*; ESA-listed endangered and CESA-listed endangered), Crotch's bumble bee (*Bombus crotchii*; CESA candidate), coastal western whiptail (*Aspidoscelis tigris stejnegeri*; SSC), red-diamond rattlesnake (*Crotalus ruber*; SSC), coast patch-nosed snake (*Salvadora hexalepis virgultea*; SSC), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*; SSC), San Diego desert woodrat (*Neotoma lepida intermedia*; SSC), southern grasshopper mouse (*Onychomys torridus ramona*; SSC), pallid bat (*Antrozous pallidus*; SSC), western mastiff bat (*Eumops perotis californicus*; SSC), western red bat (*Lasiurus frantzii*; SSC), and western yellow bat (*Lasiurus xanthinus*; SSC).

The Project is anticipated to result in permanent impacts to annual grassland (0.11 acre), chaparral (0.15 acre), coastal sage scrub (0.56 acre), and disturbed scrub (0.05 acre). Additionally, the Project is anticipated to temporarily impact annual grassland (0.18 acre), chaparral (0.15 acre), coastal sage scrub (0.17 acre), disturbed scrub (0.16), and riparian willow scrub (0.01 acre). All other permanent (11.45 acres) and temporary (4.79 acres) impact areas are within bare ground, ornamental, or otherwise developed areas.

The Project proposes restoring the temporarily impacted areas by revegetating with native shrubs and grasses, following Caltrans landscape architecture guidelines and requirements. The Project also proposes coordination with the United States Fish and Wildlife Service (USFWS) to create a restoration plan for temporarily impacted areas and to compensate for permanent impacts to coastal sage scrub.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Caltrans in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions are also included to improve the document.

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COMMENT # 1: Impacts to Crotch's Bumble Bee

Issue: The Project may result in adverse impacts to Crotch's bumble bee.

Specific impact: Project activities, which include ground disturbance and vegetation disturbance could result in loss of foraging resources, loss of nesting habitat, burrow collapse, reduced nest success, and/or direct mortality of adults, eggs, and larva.

Why impact would occur: According to CDFW's [Crotch's Bumble Bee Range dataset](#)³, the Project area lies within the current home range for Crotch's bumble bee. The Project will result in permanent and temporary impacts to suitable nesting habitat for Crotch's bumble bee such as chaparral, coastal sage scrub, and grasslands. Crotch's bumble bee are generalists and have been documented to nest in abandoned small mammal burrows, perennial bunch grasses or thatched annual grasses, brush piles, old bird nests, and dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2012). This species may also utilize pristine or disturbed areas with soft, disturbed soil (Goulson 2010) and/or leaf litter or other debris (Williams et al. 2014) for overwintering sites. The MND states that Crotch's bumble bee was not observed during General Habitat Suitability Survey/Jurisdictional Delineation conducted March 6 and 26, 2025, and that there are no documented occurrences of the species near the Project vicinity or within the BSA (page 37). However, the MND does not indicate whether focused surveys were conducted specifically for this CESA candidate species. Additionally, the surveys took place outside the species' optimal detection window (April to August), increasing the risk of false negative results. Focused surveys conducted during the appropriate survey period are necessary to accurately determine presence and avoid potential unauthorized take.

Moreover, the MND does not discuss floral foraging opportunities within the Project area. In addition to loss of suitable nesting habitat, the Project may also result in additional permanent and temporary impacts of foraging resources that was not accounted for in the MND. Furthermore, Project implementation during the breeding season could result in the incidental loss of breeding success or otherwise lead to nest abandonment in areas adjacent to the Project site. Given that there is a potential to impact individual Crotch bumble and suitable habitat (i.e., nesting, overwintering sites, and floral resources), it is in the best interest of Caltrans to conduct focused surveys and confirm that habitat loss, as a result of the Project, will not contribute to the cumulative decrease of Crotch's bumble bee habitat on a regional scale.

Evidence impact may be significant: Crotch's bumble bee is CESA candidate species, and 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). CDFW considers impacts to species that are candidates for CESA listing to be significant under CEQA. Accordingly, the Project may have a substantial adverse effect, either directly or through

³ <https://data-cdfw.opendata.arcgis.com/datasets/CDFW::crotchs-bumble-bee-range-cdfw-ds3095/about>

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habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: Crotch’s Bumble Bee Habitat and Resource Assessment. Prior to Project implementation, a qualified biologist shall conduct a habitat assessment to determine if the Project area or its immediate vicinity contains habitat suitable to support Crotch’s bumble bee. The habitat assessment shall observe and document plant diversity and potential habitat including potential foraging, nesting, and/or overwintering resources. The habitat assessment shall quantify which plant species are in bloom and determine the percent cover of that species. Foraging resources should be quantified across multiple site visits, corresponding with the colony active season (April - August). Recorded foraging resources should not be limited to the preferred plant species known to be favored by Crotch’s bumble bee but should include all flowering plants, including non-natives and invasives. Nesting resources can include bare ground, rodent burrows, and other potential nesting sites that may support bumble bee colonies should be quantified. Leaf litter and woody forest edge that could provide overwintering habitat should also be described. The assessment shall include data regarding historical and current species occurrences as well as the Project’s proximity to the last known sighting. The results of the assessment shall be provided to CDFW prior to initiating Project activities.

Mitigation Measure #2: Focused Surveys. Caltrans shall obtain a qualified biologist familiar with the species’ behavior and life history shall conduct focused surveys within one year prior to vegetation removal and/or ground disturbance to determine the presence/absence of Crotch’s bumble bee. Caltrans shall consult [Survey Considerations for California Endangered Species Act \(CESA\) Candidate Bumble Bee Species](#)⁴ when making their survey plan and shall send the plan to CDFW for approval before conducting focused surveys. If Crotch’s bumble bee is detected, the qualified biologist shall notify CDFW immediately as further coordination will be required to avoid significant impacts. Caltrans shall conduct surveys each year that project activities will occur.

Mitigation Measure #3: Seasonal Avoidance. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:

Vegetation removal will occur between September 1 and January 31, outside of the Colony Active Period, to avoid impacts to active nests. ~~If vegetation removal must occur during the Crotch’s bumble bee potential nesting period, focused pre-construction surveys will be conducted.~~ All cleared areas will shall be monitored to ensure that vegetation does not become reestablished so that Crotch’s bumble bee will be

⁴ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>

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discouraged from nesting on the project site. If vegetation removal must occur during the Crotch's bumble bee potential nesting period, at least two focused pre-construction surveys shall be conducted between 7 and 14 days prior to start of construction. Survey report shall be submitted for CDFW review and approval within 48 hours of survey completion.

Mitigation Measure #4: Incidental Take Permit. Crotch's bumble bee is not covered by the Orange County Central-Coastal NCCP/HCP or the OCTA M2 NCCP/HCP. If Crotch's bumble bee is detected, the Project proponent shall coordinate with CDFW to determine if take authorization from CDFW is warranted (pursuant to Fish & Game Code, § 2080 et seq).

Recommendation #1: Disclosure of Impacts. The MND should include a discussion regarding the Project's impact on floral resources, nesting habitat, and overwintering habitat for Crotch's bumble bee. The MND should also provide full disclosure of the presence of Crotch's bumble bee within the Project area. The discussion should be of a depth and scope that a CESA Incidental Take Permit can be issued based on the analysis provided in the MND.

ADDITIONAL COMMENTS

Lake and Streambed Alteration Agreement. CDFW acknowledges that Caltrans will obtain a Lake and Streambed Alteration Agreement (page 22). CDFW recommends that all 68 culverts in this Project are included in the notification for that agreement.

Revisions to Proposed Measures. The following measures were included in the MND. CDFW has revised the measures for clarity and conciseness and for better protection of fish and wildlife resources. and recommends that the following revisions are incorporated into the measures in the final MND. CDFW recommends that the language in strikethrough is omitted and the language underlined is added to the measure.

Mitigation Measure #5: Avoidance of Breeding Season and Nesting Bird Surveys.

Project activities shall occur outside the nesting season (February 1–September 30) to the fullest extent practicable. If project activities with potential to indirectly disturb suitable avian nesting habitat within 300 feet of the work area would occur during the nesting season (as determined by a qualified biologist), a qualified biologist with experience in conducting breeding bird surveys will conduct a nesting bird survey no more than 3 days prior to the initiation of project activities to detect the presence or absence of migratory and resident bird species occurring in suitable nesting habitat. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active. Once the buffer is established, the qualified biologist shall document baseline behavior, stage of reproduction, expected fledge date, and existing site conditions, including

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vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. The qualified biologist shall monitor the nest daily at the onset of Project activities, and at the onset of any changes in Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the qualified biologist determines that Project activities may be causing an adverse reaction, the qualified biologist shall adjust the buffer accordingly. Work may only occur during the breeding season if nesting bird surveys indicate the absence of any active nests within the work area. Without the written approval of ~~the CDFW and/or~~ the USFWS, no vegetation clearing, or work deemed by the biologist to have potential to disturb an active nest shall occur if listed or fully protected bird species are found to be actively nesting within 300 feet of construction activities.

Mitigation Measure #6: Restoration of Temporary and Permanent Impacts to Native Vegetation.

Areas of natural habitat that are temporarily affected by construction activities will be restored with native shrubs and grasses vegetation. The restoration effort will emulate surrounding vegetation characteristics, and it shall not plant, seed, or otherwise introduce invasive plant species to the Project area and the landscaped areas adjacent to the Project area. Invasive plants not to be used include those species listed on the California Invasive Plant Council Inventory⁵. This list includes species such as hottentot fig/ice plant (*Carpobrotus edulis*). For State highway construction projects, revegetation plans will be part of the project design following California Department of Transportation (Caltrans) landscape architecture guidelines and requirements. During Section 7 Consultation with the USFWS, a restoration plan for the temporary and permanent impact areas will be prepared. Caltrans shall also coordinate with CDFW on the restoration plan. In addition to temporary impact areas, mitigation for all the permanent Coastal Sage Scrub impacts within the CHA will be mitigated in coordination with USFWS and CDFW.

Mitigation Measure #7: On-Site Training.

All personnel involved in on-site project construction will be required to participate in a pre-construction environmental training program to ensure they understand the avoidance and minimization measures and environmental regulations pertinent to the project. Interpretation shall be provided for non-English-speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site.

⁵ <https://www.cal-ipc.org/plants/inventory/>

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Mitigation Measure #8: Focused Daytime Bat Roosting Habitat Assessment.

At least 1 year prior to project construction, a qualified bat biologist will conduct a focused daytime bat roosting habitat assessment to identify suitable bat roosting habitat within the drainage structures and vegetation.

Mitigation Measure #9: Focused Nighttime Acoustic and Emergence Survey.

If suitable bat roosting habitat is identified during the daytime bat roosting habitat assessment, a qualified bat biologist will conduct a focused nighttime acoustic and emergence survey at the locations where suitable bat roosting habitat has been identified. The focused nighttime emergence survey(s) will occur at least 1 year prior to project construction and will be conducted cover both during the bat hibernation season and the maternity season (June through August) to assess potential for use as a hibernacula and/or maternity roost. The appropriate time of year for these surveys will be determined in consultation with a qualified bat biologist. The survey(s) will occur from 30 minutes prior to sunset to 1 hour after sunset. Upon completion of the survey, if impacts to occupied habitat will occur, additional avoidance and minimization measures will be ~~included~~ developed and implemented in the project. These measures shall consult [Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions](#)⁶.

Mitigation Measure #10: Night Lighting During Construction.

During nighttime work for project construction, night lighting shall be used only in the area actively being worked on and shall be focused on the direct area of work. Lighting will be of the lowest illumination necessary for safety and will be directed toward the roadway and away from sensitive habitats and wildlife crossing areas. The lighting used at should be that which emits longer wavelengths, specifically amber, orange or red hue with peak wavelengths above 560 nanometers, which are less disruptive to wildlife. Ideally, lighting should have correlated color temperature of 3,000 Kelvin or lower to reduce blue light emissions. Additionally, all exterior lighting should be directed downward and away from adjacent vacant land and habitat areas, the duration and extent of night lighting use should be the minimum needed for safety and operations, and lighting fixtures should be properly shielded to reduce light spill and glare into sensitive habitat.

Mitigation and Monitoring Reporting Plan.

CDFW recommends the Project's environmental document include mitigation measures recommended in this letter. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15126.4(a)(2)]. CDFW has provided comments

⁶ <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/caltrans-bat-mitigation-guide-a11y.pdf>

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via a mitigation monitoring and reporting plan to assist in the development of feasible, specific, detailed (i.e., responsible party, timing, specific actions, location), and fully enforceable mitigation measures (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). Caltrans is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code section 21081.6(a)(1), CDFW has provided a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation Monitoring and Reporting Plan (Attachment A).

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 website](#)⁷ provides direction regarding the types of information that should be reported and allows on-line submittal of field survey forms.

In addition, information on special status native plant populations and sensitive natural communities, should be submitted to CDFW's Vegetation Classification and Mapping Program using the [Combined Rapid Assessment and Relevé Form](#)⁸.

Caltrans should ensure data collected for the preparation of the MND is properly submitted.

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 MND to assist Caltrans in identifying and mitigating Project impacts on biological resources. CDFW requests an opportunity to review and comment on any response that Caltrans has to our comments

⁷ <https://wildlife.ca.gov/Data/CNDDDB>


⁸ <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Submit>

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prior to adoption of the environmental document and to receive notification of any forthcoming hearing date(s) for the Project (CEQA Guidelines, § 15073(e)).

Questions regarding this letter or further coordination should be directed to [Andrew Domingos](#),⁹ Senior Environmental Scientist .

Sincerely,

DocuSigned by:

DF423498814B441...

Heather A. Pert
Environmental Program Manager
South Coast Region

ATTACHMENTS

Attachment A: Draft Mitigation, Monitoring, and Reporting Program

cc: [California Department of Fish and Wildlife](#)
Heather A. Pert, Environmental Program Manager
Erika Cleugh, Senior Environmental Scientist (Supervisor)
Julisa Portugal, Senior Environmental Scientist (Specialist)
Victor Torres, Environmental Scientist

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REFERENCES

Goulson, D. (2010). Bumblebees: behaviour, ecology, and conservation. Oxford University Press, New York, New York.

Hatfield, R., S. Jepsen, E. Mader, S. H. Black, and M. Shepherd. (2012). Conserving Bumble Bees Guidelines for Creating and Managing Habitat for America's Declining Pollinators. Portland, OR: The Xerces Society for Invertebrate Conservation.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. (2014). Bumble Bees of North America: An Identification Guide. Princeton University Press.

⁹ Phone: 858-354-9919; Email: andrew.domingos@wildlife.ca.gov

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ATTACHMENT A: DRAFT MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Mitigation Measure	Timing	Responsible Party
<p>Mitigation Measure #1: Crotch’s Bumble Bee Habitat and Resource Assessment. Prior to Project implementation, a qualified biologist shall conduct a habitat assessment to determine if the Project area or its immediate vicinity contains habitat suitable to support Crotch’s bumble bee. The habitat assessment shall observe and document plant diversity and potential habitat including potential foraging, nesting, and/or overwintering resources. The habitat assessment shall quantify which plant species are in bloom and determine the percent cover of that species. Foraging resources should be quantified across multiple site visits, corresponding with the colony active season (April - August). Recorded foraging resources should not be limited to the preferred plant species known to be favored by Crotch’s bumble bee but should include all flowering plants, including non-natives and invasives. Nesting resources can include bare ground, rodent burrows, and other potential nesting sites that may support bumble bee colonies should be quantified. Leaf litter and woody forest edge that could provide overwintering habitat should also be described. The assessment shall include data regarding historical and current species occurrences as well as the Project’s proximity to the last known sighting. The results of the assessment shall be provided to CDFW prior to initiating Project activities.</p>	<p>Prior to Project Initiation</p>	<p>Qualified Biologist</p>
<p>Mitigation Measure #2: Focused Surveys. Caltrans shall obtain a qualified biologist familiar with the species’ behavior and life history shall conduct focused surveys within one year prior to vegetation removal and/or ground disturbance to determine the presence/absence of Crotch’s bumble bee. Caltrans shall consult Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee</p>	<p>Prior to Project Initiation</p>	<p>Lead Agency and Qualified Biologist</p>

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Mitigation Measure	Timing	Responsible Party
<p>Species¹⁰ when making their survey plan and shall send the plan to CDFW for approval before conducting focused surveys. If Crotch’s bumble bee is detected, the qualified biologist shall notify CDFW immediately as further coordination will be required to avoid significant impacts. Caltrans shall conduct surveys each year that project activities will occur.</p>		
<p>Mitigation Measure #3: Seasonal Avoidance. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>Vegetation removal will occur between September 1 and January 31, outside of the Colony Active Period, to avoid impacts to active nests. If vegetation removal must occur during the Crotch’s bumble bee potential nesting period, focused pre-construction surveys will be conducted. All cleared areas will <u>shall</u> be monitored to ensure that vegetation does not become reestablished so that Crotch’s bumble bee will be discouraged from nesting on the project site. <u>If vegetation removal must occur during the Crotch’s bumble bee potential nesting period, at least two focused pre-construction surveys shall be conducted between 7 and 14 days prior to start of construction. Survey report shall be submitted for CDFW review and approval within 48 hours of survey completion.</u></p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>
<p>Mitigation Measure #4: Incidental Take Permit. Crotch’s bumble bee is not covered by the Orange County Central-Coastal NCCP/HCP or the OCTA M2 NCCP/HCP. If Crotch’s bumble bee is detected, the Project proponent shall coordinate with CDFW to</p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>

¹⁰ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline>

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Mitigation Measure	Timing	Responsible Party
determine if take authorization from CDFW is warranted (pursuant to Fish & Game Code, § 2080 et seq).		
<p>Recommendation #1: Disclosure of Impacts. The MND should include a discussion regarding the Project’s impact on floral resources, nesting habitat, and overwintering habitat for Crotch’s bumble bee. The MND should also provide full disclosure of the presence of Crotch’s bumble bee within the Project area. The discussion should be of a depth and scope that a CESA Incidental Take Permit can be issued based on the analysis provided in the MND.</p>	Prior to Project Initiation	Lead Agency
<p>Mitigation Measure #5: Avoidance of Breeding Season and Nesting Bird Surveys. CDFW recommends Caltrans revise the following mitigation measure by adding the underlined language:</p> <p>Project activities shall occur outside the nesting season (February 1–September 30) to the fullest extent practicable. If project activities with potential to indirectly disturb suitable avian nesting habitat within 300 feet of the work area would occur during the nesting season (as determined by a qualified biologist), a qualified biologist with experience in conducting breeding bird surveys will conduct a nesting bird survey no more than 3 days prior to the initiation of project activities to detect the presence or absence of migratory and resident bird species occurring in suitable nesting habitat. Should nesting birds be found, an exclusionary buffer will be established by the qualified biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active. <u>Once the buffer is established, the qualified biologist shall document baseline behavior, stage of reproduction, expected fledge date, and existing site</u></p>	Prior to Project Initiation	Lead Agency

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Mitigation Measure	Timing	Responsible Party
<p><u>conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. The qualified biologist shall monitor the nest daily at the onset of Project activities, and at the onset of any changes in Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the qualified biologist determines that Project activities may be causing an adverse reaction, the qualified biologist shall adjust the buffer accordingly. Work may only occur during the breeding season if nesting bird surveys indicate the absence of any active nests within the work area. Without the written approval of the CDFW and/or the USFWS, no vegetation clearing, or work deemed by the biologist to have potential to disturb an active nest shall occur if listed or fully protected bird species are found to be actively nesting within 300 feet of construction activities.</u></p>		
<p>Mitigation Measure #6: Restoration of Temporary and Permanent Impacts to Native Vegetation. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>Areas of natural habitat that are temporarily affected by construction activities will be restored with native shrubs and grasses <u>vegetation</u>. The restoration effort will emulate surrounding vegetation characteristics, <u>and it shall not plant, seed, or otherwise introduce invasive plant species to the Project area and the landscaped areas adjacent to the Project area. Invasive plants not to be used include those species listed on the California Invasive Plant Council Inventory¹¹. This list includes species such as hottentot fig/ice plant (<i>Carpobrotus edulis</i>).</u> For State highway construction projects, revegetation plans will be part of the project design following California Department of</p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>

¹¹ <https://www.cal-ipc.org/plants/inventory/>

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Mitigation Measure	Timing	Responsible Party
<p>Transportation (Caltrans) landscape architecture guidelines and requirements. During Section 7 Consultation with the USFWS, a restoration plan for the temporary and permanent impact areas will be prepared. <u>Caltrans shall also coordinate with CDFW on the restoration plan.</u> In addition to temporary impact areas, mitigation for <u>all</u> the permanent Coastal Sage Scrub impacts within the CHA will be mitigated in coordination with USFWS <u>and CDFW.</u></p>		
<p>Mitigation Measure #7: On-Site Training. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>All personnel involved in on-site project construction will be required to participate in a pre-construction environmental training program to ensure they understand the avoidance and minimization measures and environmental regulations pertinent to the project. <u>Interpretation shall be provided for non-English-speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site.</u></p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>
<p>Mitigation Measure #8: Focused Daytime Bat Roosting Habitat Assessment. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>At least 1 year prior to project construction, a qualified bat biologist will conduct a focused daytime bat roosting habitat assessment to identify suitable bat roosting habitat within the drainage structures <u>and vegetation.</u></p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>

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Mitigation Measure	Timing	Responsible Party
<p>Mitigation Measure #9: Focused Nighttime Acoustic and Emergence Survey. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>If suitable bat roosting habitat is identified during the daytime bat roosting habitat assessment, a qualified bat biologist will conduct a focused nighttime acoustic and emergence survey at the locations where suitable bat roosting habitat has been identified. The focused nighttime emergence survey(s) will occur at least 1 year prior to project construction and will be conducted <u>cover both</u> during the bat <u>hibernation season and the maternity season (June through August)</u> to assess potential for use as a <u>hibernacula and/or maternity roost</u>. <u>The appropriate time of year for these surveys will be determined in consultation with a qualified bat biologist.</u> The survey(s) will occur from 30 minutes prior to sunset to 1 hour after sunset. Upon completion of the survey, if impacts to occupied habitat will occur, additional avoidance and minimization measures will be included <u>developed and implemented</u> in the project. <u>These measures shall consult Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions¹².</u></p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>
<p>Mitigation Measure #10: Night Lighting During Construction. CDFW recommends Caltrans revise the following mitigation measure by removing the language in strikethrough and adding the underlined language:</p> <p>During nighttime work for project construction, night lighting shall be used only in the area actively being worked on and shall be focused on the direct area of work. <u>Lighting will be of the lowest illumination necessary for safety and will be directed toward the</u></p>	<p>Prior to Project Initiation</p>	<p>Lead Agency</p>

¹² <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/caltrans-bat-mitigation-guide-a11y.pdf>

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Mitigation Measure	Timing	Responsible Party
<p><u>roadway and away from sensitive habitats and wildlife crossing areas. The lighting used at should be that which emits longer wavelengths, specifically amber, orange or red hue with peak wavelengths above 560 nanometers, which are less disruptive to wildlife. Ideally, lighting should have correlated color temperature of 3,000 Kelvin or lower to reduce blue light emissions. Additionally, all exterior lighting should be directed downward and away from adjacent vacant land and habitat areas, the duration and extent of night lighting use should be the minimum needed for safety and operations, and lighting fixtures should be properly shielded to reduce light spill and glare into sensitive habitat.</u></p>		