

State of California
Department of Fish and Wildlife



Memorandum

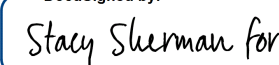
Date: August 5, 2022

To: John Seal
California Department of Transportation
District 4; Environmental Analysis
111 Grand Avenue
Oakland, CA 94612
John.Seal@dot.ca.gov

Governor's Office of Planning & Research

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STATE CLEARINGHOUSE

DocuSigned by:

Erin Chappell, Regional Manager
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California Department of Fish and Wildlife-Bay Delta Region, 2825 Cordelia Road, Suite 100, Fairfield, CA 94534

Subject: State Route 1 Multi-Asset Roadway Rehabilitation Project, Initial Study with Negative Declaration, SCH No. 2022070140, San Mateo County

The California Department of Fish and Wildlife (CDFW) has reviewed the draft Initial Study with Negative Declaration (IS/ND) for State Route 1 Multi-Asset Roadway Rehabilitation Project (Project), pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW is submitting comments on the draft IS/ND as a means to inform the California Department of Transportation (Caltrans) as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

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

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

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.

John Seal
California Department of Transportation

2

August 5, 2022

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 LOCATION AND DESCRIPTION

Caltrans, as the lead agency, proposes to implement the Project from Post-Mile (PM) 27.5 to 34.8 in San Mateo County and SR-92 at PM 0.2 in San Mateo County, California. The lead agency proposes to rehabilitate existing pavement, improve existing traffic facilities, install Complete Streets elements, and install traffic operations system elements along State Route (SR) 1 in San Mateo County. The Project also proposes to install traffic operation system elements at two locations on SR-92 in San Mateo County. The Project will include rehabilitating pavement; replacing existing drainage inlets, culverts, and dikes; replacing existing guardrails with Midwest guardrail systems; replacing existing crash cushions; upgrading curb ramps; implementing Complete Streets elements; upgrading signal poles; installing conduits; installing traffic operation system elements (intersection cameras, closed circuit television cameras, and traffic monitoring stations); and relocating and/or replacing utility cabinets.

Roadway Rehabilitation

To rehabilitate the roadway, Caltrans will cold plane (mill the roadway surface down to design depths to restore and smooth the roadway conditions) 0.40 feet of existing asphalt concrete pavement and replace it with a structural section composed of 0.20 feet of gap-graded rubberized hot mix asphalt, 0.25 feet of hot mix asphalt, a geosynthetic pavement interlayer, and 0.10 feet of hot mix asphalt. The roadway profile will be raised by 0.15 feet. Pavement rehabilitation will occur within the entire Project limits.

Guardrail Replacement

All guardrails within the SR-1 Project limits will be removed and replaced with standard Midwest guardrail systems. The Project will remove vegetation to access guardrails, and excavation will be necessary during construction. Wooden support posts will be installed in drilled holes to a depth of 4 feet below ground surface or deeper to address traffic safety standards at specific locations.

Crash Cushions Replacement and Signal Pole Upgrade

Nonstandard or damaged crash cushions in the Project limits will be replaced at the same locations with new crash cushions, meeting current Caltrans standards for design and safety. All nonstandard poles in the Project area will be replaced. The size of the poles will be determined during the Project's final design phase. Excavation will be required during replacement.

Conduits, and Traffic Operation System (TOS) Elements Installation

Caltrans proposes to upgrade and install new communication devices, such as closed-circuit television cameras, fixed intersection cameras, and traffic monitoring stations. Figure 1-3 through Figure 1-5 show the proposed locations for these TOS elements. New conduit installation to support these elements will require trenching during installation. Excavation limits would be determined by conduit size and location.

Drainage Inlet, Culvert, and Dike Replacement

Caltrans proposes the replacement of 12-inch-diameter pipes with 18-inch-diameter pipes and replacement of a headwall and 20-foot-long pipe with a 72-inch-diameter reinforced concrete pipe at PM 31.31. In addition, the Project would replace flared end sections at ends of pipes as needed; line the inside of 24-inch, 36-inch, and 60-inch pipes as needed; and clean and clear buried pipe ends to maintain flow pattern. The Project would also repair or replace damaged headwalls to improve flow into culverts and regrade certain unlined ditches to maintain original flow pattern. Typical culvert replacement work will require an excavation width that will be 2 feet wider than the culvert (one foot on each side); the excavation depth will be same as the depth of the existing culvert; and the excavation length will be about 2 feet longer than the existing culvert. Where culvert headwall installations are required, the facility will be increased for the length of excavation by a few feet, depending on final headwall design. Caltrans is completing survey work to refine its understanding of existing drainage elements.

Curb Ramp Upgrade

All nonstandard curb ramps in the Project area will be replaced with curb ramps that meet current Caltrans standards. The type and design of curb ramps will be determined based on location specific conditions during the Project's final design phase. Excavation for curb ramps would be necessary during construction.

Complete Streets

Sidewalks, curb ramps, and markings will be constructed throughout the Project area to provide access for pedestrians and cyclists. Appendix A provides the locations of proposed Complete Streets elements. The following street elements will be included as part of the Project: Class II bike lanes with striped buffers will be created on SR-1 in the Project area. Pedestrian facilities will be installed along the western side of SR-1, from Kelly Avenue to San Mateo Road (SR-92). Caltrans will investigate the possibility of a Class I facility on the west side from Kelly Avenue up to the SR-1 Pilarcitos Creek Bridge during the final design phase. A Class I facility would complete a continuous connection to existing facilities. If a Class I facility is not feasible, a sidewalk will be constructed across this portion instead.

John Seal
California Department of Transportation

4

August 5, 2022

Utility Relocation

Existing utilities may need to be relocated during construction. Specific utilities that will need relocation will be determined during the Project's final design phase. Some utilities may require vegetation clearance and excavation during construction.

Construction Staging

Caltrans would locate staging for construction within its right-of-way, outside environmentally sensitive areas (ESAs). At all staging locations, appropriate measures will be implemented to avoid and minimize impacts on environmental resources to the greatest extent feasible. Staging locations will be determined during the Project's final design phase.

REGULATORY REQUIREMENTS

Lake and Streambed Alteration

The Project has the potential to impact stream resources including mainstems, tributaries, drainages and floodplains associated with varied aquatic resource types within the Biological Study Area (BSA). If work is proposed that will impact the bed, bank, channel, or riparian habitat, including the trimming or removal of trees and riparian vegetation, please be advised that the proposed Project may be subject to LSA notification. CDFW requires an LSA notification, pursuant to Fish and Game Code § 1600 et. seq., for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, bank, or channel; or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

Fish and Game Code § 5901

Except as otherwise provided in this code, it is unlawful to construct or maintain in any stream in Districts 1, 1^{3/8}, 1^{1/2}, 1^{7/8}, 2, 2^{1/4}, 2^{1/2}, 2^{3/4}, 3, 3^{1/2}, 4, 4^{1/8}, 4^{1/2}, 4^{3/4}, 11, 12, 13, 23, and 25, any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.

Fish are defined as a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals (Fish & G. Code, § 45).

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a

John Seal
California Department of Transportation

5

August 5, 2022

mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA Guidelines §§ 21001 subd. (c), 21083, 15380, 15064 and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code, § 2080. More information on the CESA permitting process can be found on the CDFW website at <https://www.wildlife.ca.gov/Conservation/CESA>.

Raptors and Other Nesting Birds

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

Fully Protected Species

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research and relocation of a fully protected bird species for the protection of livestock. Take of any fully protected species is prohibited, and CDFW cannot authorize their take in association with a general project except under the provisions of a Natural Community Conservation Plan (NCCP), 2081.7 or a Memorandum of Understanding for scientific research purposes. "Scientific Research" does not include an action taken as part of specified mitigation for a project, as defined in section 21065 of the Public Resources Code.

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. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those recommended by CDFW below, Caltrans should consider **a Mitigated Negative Declaration may be appropriate** for the Project.

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS)?

Project Description and Related Impact Shortcoming

COMMENT 1: Project Impact Analysis

Issue: The IS/ND does not sufficiently disclose impacts to fish and wildlife resources that may arise from the Project including proposed impacts to bed, bank, channel, riparian habitat, and habitat capable of supporting salmonids and other State listed species. The information provided in the IS/ND does not appear to meet CEQA's requirements for a stable and finite project description, as no specific details are given on acres of impacts to fish and wildlife resources at specific locations. The Project does not provide information on dimensions of proposed facilities at specific locations nor specific information on the potential impacts to creeks, streams, rivers, or potential suitable habitat for state listed or special status species. The only impact information provided is for San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), discussed in detail below (See **Comment 3**). The remaining information provided in this document does not appear to meet CEQA's requirements for a stable and finite Project description. For example, the IS/ND does not provide details on specific Project locations, nor does it provide dimensions of proposed facilities at specific locations. To clarify these Project details, CDFW recommends including detailed text descriptions of each activity and a table that can be easily correlated to the Appendix A maps. In addition, other elements such as Class I bike paths and complete streets are not fully described in terms of confirmed locations and Project elements that may have potentially significant impacts on fish and wildlife resources. This includes elements like path alignments, artificial light sources, as well as direct and indirect impacts to stream habitat. The impacts should be fully described in text format noting the acres or linear feet of impacts to creeks, streams, rivers, or potential suitable habitat for state listed or special-status species.

Furthermore, the IS/ND does not provide detailed information on the impact acreage that will occur from the installation of guard rails, culverts, inlets, and dike replacements. Specific information on areas of impact for conduit excavation trenches, traffic operation systems elements and utility relocations have not been included in the IS/ND. None of the sections provide a finite analysis of the potential vegetation proposed for removal from all of the previously described elements. The lead agency relies on Appendix A, which only contains zoomed out, landscape level map figures of aerial locations that lack impact acres, habitat types, and the information necessary to fully disclose impacts to natural resource agencies and the public. Furthermore, site-specific locations and designs are needed to ensure culverts are designed to meet the flow capacity of a given system, protect fish passage in fish bearing systems, and to ensure potential barriers are remediated and wildlife connectivity is addressed appropriately.

Evidence this is significant: CEQA requires that an Environmental Impact Report (EIR), or other environmental review document, must describe and analyze the impacts of a project – and the project itself must be consistently described, throughout the process of local agency consideration, in terms that are “accurate,” “stable” and “finite.” On July 31, in <https://www.courts.ca.gov/opinions/documents/B282319.PDF>, the Second Appellate District added to the growing body of recent case law that guides what constitutes accurate, stable and finite. *Millennium* follows and expands upon the guidance provided in *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277 (“*Washoe Meadows*”) and *South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321 (“*South of Market*”). Together, these three cases assist local agencies and developers in understanding what is and is not adequate or permissible for a project description under CEQA.

Recommendation: To reduce potential impacts to less-than-significant, the IS/ND should disclose all potential locations where Project work may occur and specifically describe the dimensions of the proposed elements and impacts of each element. To clarify these Project details, CDFW recommends including detailed text descriptions of each activity and a table that can be easily correlated to the Appendix A maps. The following should also be included as conditions of approval in the IS/ND, or as mitigation measures in an MND:

Recommendation 1 – Design Coordination: Early coordination with Habitat Conservation and the CDFW Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection. Then, Caltrans should reinitiate design consultation at 30% design, at minimum, and through the permitting process for review and comment, as identified in the Interagency Agreement (Agreement Number 43A0398).

Recommendation for Project Impacts to Fish and Wildlife Resources 2 – Project Impacts: The updated IS/ND should provide detailed information for all temporary and permanent Project impacts to the bed, bank, channel, riparian habitat, and any associated tributaries, quantified by acres and linear feet.

Recommendation for Project Impacts to Fish and Wildlife Resources 3 – Night-Work Analysis: The updated IS/ND should identify the proposed number of nights necessary to complete work in order to adequately describe the potentially significant impacts that night work may have on surrounding fish and wildlife resources.

Recommendation for Project Impacts to Fish and Wildlife Resources 4 – Project Restoration/Enhancement Plan: An updated IS/ND should identify a site-specific

restoration and enhancement plan for temporary Project impacts subject to LSA permitting in early coordination with the natural resource agencies.

Recommendation for Project Impacts to Fish and Wildlife Resources 5 – Mitigation Planning: CDFW strongly recommends that the lead agency develop a mitigation plan in coordination with CDFW for any permanent Project impacts that cannot be avoided that will be subject to LSA permitting and include that plan as part of the updated IS/ND. The mitigation plan should include in detail any proposed on and/or off-site mitigation needs necessary to compensate for net-loss of river or stream resources including but not limited to hardscape materials and geo-textile fabric within the bed, bank or channel of a stream, loss of riparian vegetation and mature trees, and expansion of existing infrastructure footprint(s). CDFW recommends proposed mitigation plan(s) include details such as mitigation location(s), proposed actions, monitoring, success criteria and any corrective actions.

Environmental Setting and Related Impact Shortcoming

COMMENT 2: Coastal Oak Woodlands, Vegetation Impacts, and Riparian Trees

Issue: The IS/ND has not sufficiently disclosed or adequately analyzed the potentially significant impacts to Coastal Oak Woodlands, vegetation, and individual riparian trees that may be impacted by the Project. Specifically, the potential age, size, species, and number of trees proposed for impact, trimming, or removal within the Project limits has not been adequately described or provided in detail.

Evidence the impact would be significant: Oak woodlands and riparian corridors provide important ecosystem functions including habitat for numerous species of wildlife, reductions in soil erosion rates, and preservation of water quality. The rapid and extensive land conversions in oak woodlands and riparian areas coupled with an apparent lack of regeneration of several species draws concern about the long-term survival of native oaks. Fragmentation of oak habitats reduces their ability to provide the full range of ecological benefits, including maintenance of species diversity, as well as soil and watershed protection. Coast live oak (*Quercus agrifolia*) and old-growth oak trees (native oak tree that is greater than 15 inches in diameter at breast height (DBH)) are of particular importance due to increased biological values and increased temporal loss (Tyler et. al., 2002). Loss of large diameter oak trees can have potentially immitigable impacts but also can result in cumulatively significant impacts on fish and wildlife resources that rely on those habitat types to sustain their populations.

Recommendation 1: The individual DBH of each tree proposed for removal should be disclosed to the natural resource agencies and general public.

Recommendation Measure 2: Off-Site Conservation of Oak and Riparian Trees: If the Project cannot avoid impacts to heritage oak and riparian trees (15 DBH or greater) the lead agency shall permanently preserve oak and riparian trees at an off-site location. The off-site location may be lands with habitats that may be rehabilitated,

John Seal
California Department of Transportation

9

August 5, 2022

restored, or preserved and maintained to fully mitigate for the potentially significant impacts. The lands must be protected through fee title, transfer, or conservation easement to an appropriate conservation entity to ensure long-term preservation and successful implementation of the mitigation. The fish and wildlife resources or environments replaced or substituted for those impacted must be maintained in perpetuity.

Recommendation 3: Individual Tree Inventory Report: The updated IS/ND shall include a tree inventory that includes map key information, species name, common name, DBH, and overall health status for each individual tree on-site.

MANDATORY FINDINGS OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare or threatened species?

Mitigation Measures and Related Impact Shortcoming

COMMENT 3: San Francisco Garter Snake

Issue: The Project has the potential to result in potentially significant impacts to fish and wildlife resources that support the San Francisco garter snake (SFGS), a State and federally listed as endangered and a State fully protected species known to occur within the vicinity of the Project and within the proposed Project limits. Take of a fully protected species is prohibited, and CDFW cannot authorize take of a fully protected species in association with a Project, except under the provisions of an NCCP or a Memorandum of Understanding (MOU) for scientific purposes only. As lead agency, Caltrans must adopt the appropriate avoidance and minimization measures as conditions of approval to avoid take of a fully protected species in the subsequent IS/ND, or as mitigation measures in an MND, and design the Project to avoid impact to SFGS and their habitat. On page 2-13, Table 2-2 temporary and permanent impacts are described to SFGS habitat. These proposed impacts do not align with the adoption of the appropriate avoidance and minimization measures as conditions of approval to avoid take of a fully protected species and to avoid impacts to SFGS habitat. Therefore, impacts to any habitat for this species represents a potentially significant impact to the recovery of the species. If permanent impacts are proposed within SFGS habitat it may not be feasible to incorporate conditions of approval that can reduce the impacts below a level of significance.

Evidence the impact would be significant: The Project proposes temporary and permanent impacts to upland dispersal and aquatic breeding habitat for SFGS. SFGS is endemic to California, the San Francisco garter snake is only found on the San Francisco Peninsula from the edge of the San Francisco/San Mateo County lines south to the northern portion of Santa Cruz County.

Recommendation: CDFW recommends the following are incorporated into the subsequent IS/ND as conditions of approval, or as mitigation measures in an MND:

John Seal
California Department of Transportation

10

August 5, 2022

Recommended Mitigation Measure 1: SFGS Avoidance and Minimization: The Project shall be designed to avoid impacts and Project related activity within suitable SFGS habitat including but not limited to wetlands, streams, and waterways, as well as associated upland habitat capable of providing dens and basking habitat as determined by a Qualified Biologist, experienced with SFGS, in coordination with CDFW. This can be accomplished by designing the Project to not expand or create any new structures within suitable SFGS habitat.

Recommended Mitigation Measure 2: Early Coordination with CDFW: The lead agency should engage in early coordination with CDFW at the regional and administrative level in CDFW Headquarters to focus on coordination efforts to ensure the Project is designed to avoid take of a fully protected species. Early coordination is also recommended so the lead agency can explore all potential program options within CDFW. These include but are not limited to; the CDFW Advanced Mitigation Program and Natural Community Conservation Planning Program.

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Environmental Setting and Related Impact Shortcoming

COMMENT 4: Fish Passage Assessment

Issue: Multiple potential fish passage barriers and unassessed locations exist within the identified Project limits, as described in the recommendations section below. Senate Bill 857 (SB-857), which amended Fish and Game Code § 5901 and added § 156 to the Streets and Highways Code states in § 156.3, “For any project using state or federal transportation funds programmed after January 1, 2006, [Caltrans] shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing project design. [Caltrans] shall submit the assessment to the [CDFW] and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the [CDFW].”

In addition, Measure PF-BIO-13 does not accurately reflect the process necessary to fulfill the requirements of SB-857. CDFW recommends it is replaced with

Recommended Mitigation Measure 1: Fish Passage Assessment. The specific language of SB-857 can also be found here for reference: http://leginfo.ca.gov/pub/05-06/bill/sen/sb_0851-0900/sb_857_bill_20051006_chaptered.pdf.

Evidence the impact would be significant: The Project contains stream crossings within areas mapped as current anadromous fish watersheds, including Central

California Coast Evolutionarily Significant Unit (ESU), Coho salmon (*Oncorhynchus kisutch*) CNDDDB BIOS; DS-804), State and federally listed as endangered. Additional species also include, but are not limited to, steelhead trout (*Oncorhynchus mykiss irideus*), Central California Coast Distinct Population Segment (DPS) (CNDDDB BIOS; DS-45), federally listed as threatened. In addition, page 2-8 of the IS/ND confirms that those species are known to occur within the Project limits. The decline of naturally spawning salmon and steelhead trout is primarily a result of the loss of appropriate stream habitat and the inability of fish to get access to habitat, according to reports to the Fish and Game Commission and by the CDFW (CDFW, 1996). Restoration of access to historical spawning and rearing areas should be incorporated into the Project design through barrier modification, fishway installation, or other means (CDFW, 1996). These findings provide a fair argument to compel the lead agency to conduct first and second pass assessments and adhere to the requirements of SB-857.

Recommendations: If barriers or unassessed barriers noted within the Project limits identified below are found to be a barrier to fish passage, remediation of the problem should be designed into the Project by the implementing agency as a Project feature in consultation with CDFW and other natural resource agencies. CDFW recommends discussing the following locations as they pertain to fish passage:

Location 1, San Vicente Creek, PM 34.75; SR-1, (Latitude: 37.5227; Longitude: -122.5087; San Mateo County), Fish Passage Assessment Database ID# 712363, fish barrier status: Partial Barrier, requires further investigation (Second Pass and Upstream evaluation of habitat).

Location 2, Denniston Creek, PM 33.3, SR-1, (Latitude: 37.5098; Longitude: -122.4879; San Mateo County), Fish Passage Assessment Database ID# 712366, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 3, Unnamed tributary to Pacific Ocean, PM 32.9; SR-1, (Latitude: 37.5056; Longitude: -122.4822; San Mateo County), Fish Passage Assessment Database ID# 733880, fish barrier status: unknown.

Location 4, Deer Creek, PM 32.7; SR-1, (Latitude: 37.5039; Longitude: -122.4780; San Mateo County), Fish Passage Assessment Database ID# 761161, fish barrier status: unknown.

Location 5, Unnamed Tributary to Pacific Ocean, PM 32.2; SR-1, (Latitude: 37.4716; Longitude: -122.5014; San Mateo County), Fish Passage Assessment Database ID# 733878, fish barrier status: unknown.

Location 6, Unnamed Tributary to Pacific Ocean, PM 32.1; SR-1, (Latitude: 37.4705; Longitude: -122.5011; San Mateo County), Fish Passage Assessment Database ID# 733877, fish barrier status: unknown.

John Seal
California Department of Transportation

12

August 5, 2022

Location 7, Unnamed Tributary to Pacific Ocean, PM 32; SR-1, (Latitude: 37.4615; Longitude: -122.4976; San Mateo County), Fish Passage Assessment Database ID# 733876, fish barrier status: unknown.

Location 8, Unnamed Tributary to Pacific Ocean, PM 31.6; SR-1, (Latitude: 37.4690; Longitude: -122.4953; San Mateo County), Fish Passage Assessment Database ID# 733874, fish barrier status: unknown.

Location 9, Arroyo De En Medio, PM 31.31; SR-1, (Latitude: 37.4953; Longitude: -122.4559; San Mateo County), Fish Passage Assessment Database ID# 733874, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 10, Unnamed tributary to Pacific Ocean, PM 30.9; SR-1, (Latitude: 37.4917; Longitude: -122.4521; San Mateo County), Fish Passage Assessment Database ID# 733873, fish barrier status: unknown, requires a detailed (Second Pass) survey.

Location 11, Unnamed tributary to Pacific Ocean, PM 30.8; SR-1, (Latitude: 37.4898; Longitude: -122.4507; San Mateo County), Fish Passage Assessment Database ID# 733872, fish barrier status: unknown.

Location 12, Frenchman's Creek, PM 30.29; SR-1, (Latitude: 37.4829; Longitude: -122.4462; San Mateo County), Fish Passage Assessment Database ID# 707274, fish barrier status: Partial Barrier.

Location 13, Arroyo Leon, PM 29.6; SR-1, (Latitude: 37.4760; Longitude: -122.4389; San Mateo County), Fish Passage Assessment Database ID# 733870, fish barrier status: Partial Barrier.

The fish passage section should discuss the current status of the crossing location noted in the California Fish Passage Assessment Database, conduct first pass and or second pass fish assessments, as necessary, as well as provide images of the upstream and downstream ends of water conveyance structure. CDFW requests a fish passage discussion section is included to address this potentially significant impact through the following avoidance and minimization measures, which should be made conditions of approval by the lead agency, or mitigation measures in an MND.

Recommended Mitigation Measure 1: Fish Passage Assessment: To evaluate potential impacts to native fish species and fisheries resources, Caltrans shall conduct fish passage assessments as described above and provide the results to CDFW and the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the Project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the CDFW. CDFW shall be engaged prior to design in early coordination and at 30% design, at minimum, and through the permitting process for

John Seal
California Department of Transportation

13

August 5, 2022

review and comment as identified in the Interagency Agreement (Agreement Number 43A0398).

In accordance with Caltrans policy and Senate Bill 857, Caltrans will conduct first-pass fish passage surveys of all unassessed stream crossings in the Project Footprint. The survey results will be provided to the Passage Assessment Database maintained by CDFW.

COMMENT 5: Wildlife Connectivity

Issue: California wildlife is losing the ability to move and migrate as habitat conversion and built infrastructure disrupt species habitat and cut off migration corridors (Senate Bill 790; SB-790). This Project location occurs within an irreplaceable and essential connectivity corridor. The current baseline condition of the SR-1 corridor represents a semi-permeable to permeable location for terrestrial wildlife connectivity. The proposal to construct alternatives that result in highway lane expansions have the potential to create a non-permeable barrier to terrestrial wildlife connectivity. The proposed increase in the number of travel lanes, proposal for extensive median barriers, edge of pavement barriers, vehicle pullouts and access roads will all significantly expand the width and complexity of the corridor.

Recommendations: CDFW recommends the lead agency utilize terrestrial connectivity elements such as wildlife friendly culverts, directional fencing, strategically placed median barriers, under-crossings, over-crossings, and elevated causeways into the Project as design features or conditions of approval. CDFW recommends the following considerations and information be incorporated into the Project IS/ND based on California Department of Fish and Wildlife's 2020 wildlife movement barrier priorities:

Recommendation 1 - Wildlife Connectivity: The IS/ND should include the results of a wildlife movement study. CDFW recommends the study occur over a period of at least 12 months prior to the development of designs so terrestrial connectivity structures can be programmed into the Project. The study should occur within the limits of the proposed Project to develop a baseline understanding of the areas where wildlife movement, crossings, and mortalities are most prevalent. The study should also be utilized to inform Project design with areas where wildlife crossing structure installation(s) would result in the largest benefit to rare, threatened, and endangered species as well as special-status species and non-special-status species for wildlife connectivity. Analysis during the 12-month study should be utilized to determine the type, size, and number of structures that would be most beneficial to facilitate wildlife connectivity (new wildlife crossing culverts, modification of existing culverts, elevated causeways, etc.). Upon completion of the Project, wildlife connectivity structures and movement corridors should be studied for an additional 6 to 12 month period, at minimum, to determine the effectiveness of the designs. The protocol for the baseline survey, post-construction surveys, site selection criteria and design criteria for the development of the wildlife connectivity structures should follow the protocols outlined in *The California Department*

John Seal
California Department of Transportation

14

August 5, 2022

of Transportation (Caltrans), Wildlife Crossings Design Manual (Caltrans, 2009) and the Federal Highway Administration Wildlife Crossing Structure Handbook – Design and Evaluation in North America, Publication No. FHWA-CFL/TD-11-003 (FHWA, 2011).

COMMENT 6: Western Monarch Butterfly Roosting and Over-Wintering Sites

Issue: The Project is proposed to occur within known overwintering sites for western monarch butterfly populations according to findings in Monarch Butterfly modeling habitat (BIOS; DS-2861) and The Western Monarch Count Organization. Five overwintering sites occur within the vicinity of the Project, three of the sites occur directly within the Project limits. The Sites are designated with the following ID's 3111 (37.5107, -122.4801), 3112 (37.5077, -122.4684), 3113 (37.4826, -122.4485), 3114 (37.5052, -122.4816) and 3108 (37.4843, -122.4419) (<https://www.westernmonarchcount.org/find-an-overwintering-site-near-you/>).

Evidence the Impact Would be Significant: The western monarch has been identified in the California's State Wildlife Action Plan as a Species of Greatest Conservation Need. Western monarch butterfly populations declined by more than 99 percent since the 1980s. An estimated 4.5 million monarchs overwintered on the California coast in the 1980s, whereas in 2020, the population estimate for migratory overwintering monarchs was less than 2,000 butterflies. This extreme population decline is due to multiple stressors across the monarch's range, including the loss and degradation of overwintering groves; pesticide use, loss of breeding and migratory habitat; climate change; parasites and disease. In recent years, monarchs have not clustered in the southern-most part of their overwintering range, and they are likely year-round residents in some areas of the coast (Xerces, 2021; <https://xerces.org/monarchs>). This drastic decline of the species makes each roosting or overwintering site critical to the recovery of the species. Assembly Bill-559 (AB-559) promotes initiatives to protect and restore monarch habitat within transportation corridors, such as SR-1, and encourage public entities such as Caltrans to create, enhance, and restore monarch butterfly habitat throughout its native range in cooperation with CDFW. Development of a monarch butterfly conservation plan and incorporation of that plan into the Project features or conditions of approval to avoid potentially significant impacts should be included in the draft IS/ND.

Recommendations: To reduce impacts to western monarch butterfly to less-than-significant, the Project should incorporate the following mitigation measure for western monarch butterflies:

Recommended Mitigation Measure 1: Protect, Manage, Enhance and Restore Monarch Butterfly Overwintering Sites: Conduct overwintering grove habitat assessment(s) and develop and implement long-term grove management plans (<https://www.westernmonarchcount.org/>). Management plan actions for groves may include, but are not limited to:

- Enhance roosting trees within overwintering groves and within 1/2 mile of groves by planting native insecticide-free trees (e.g., Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), coast redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), Douglas-fir (*Pseudotsuga menziesii*), Torrey pine (*Pinus torreyana*), western sycamore (*Platanus racemosa*), Bishop pine (*Pinus radiata*) and others, as appropriate for location).
- Avoid the removal of trees or shrubs within 1/2 mile of overwintering groves, except for specific grove management purposes, and/or for human health and safety concerns. The maintenance of trees and shrubs within a 1/2 mile of these sites provides a buffer to preserve the microclimate conditions of the winter habitat.
- Conduct management activities in groves from March 16-September 14, in coordination with a monarch biologist, such as tree trimming, mowing, burning, and grazing in monarch overwintering habitat outside of the estimated timeframe when monarchs are likely present.
- Enhance native, insecticide-free nectar sources by planting fall/winter blooming forbs or shrubs within overwintering groves and within one mile of the groves (https://xerces.org/sites/default/files/publications/18-003_02_Monarch-Nectar-Plant-Lists-FS_web%20-%20Jessa%20Kay%20Cruz.pdf).
- Avoid the use of pesticides within one mile of overwintering groves, particularly when monarchs may be present. If pesticides are used, then conduct applications from March 16-September 14, when possible. Avoid the use of neonicotinoids or other systemic insecticides, including coated seeds, any time of the year in monarch habitat due to their ecosystem persistence, systemic nature, and toxicity. Avoid the use of soil fumigants.
- Consider non-chemical weed control techniques, when possible (<https://www.cal-ipc.org/resources/library/publications/non-chem/>).
- Remove tropical milkweed that is detected, and replace it with native, insecticide-free nectar plants suitable for the location (https://xerces.org/sites/default/files/publications/18-003_02_Monarch-Nectar-Plant-Lists-FS_web%20-%20Jessa%20Kay%20Cruz.pdf).
- To assist in maintaining normal migration behavior, do not plant any type of milkweed within five miles of the coast from Mendocino County south through Santa Barbara County, and within one mile of the coast south of Santa Barbara County, unless the species of milkweed is native to the local area.

- Conduct grove monitoring for butterflies during the Western Monarch Counts each fall and winter. When possible, report when monarchs arrive and depart the groves each year (<https://www.westernmonarchcount.org/>).

COMMENT 7: Light Impact Analysis and Discussion

Issue: A significant portion of the proposed Project within the SR-1 corridor does not contain any overhead or artificial light sources. The Project proposes Class I Bike Paths, complete streets, utility relocations and traffic operations system elements that may include overhead lights, informational travel sign systems, warning beacons and a variety of other luminaries that have not been fully described or analyzed within the current IS/ND. Artificial light spillage beyond the prism of the roadway into natural areas may result in potentially significant impacts through substantial degradation of the quality of the environment. Artificial light pollution also has the potential to significantly and adversely affect biological resources and the habitat that supports them. Unlike the natural brightness created by the monthly cycle of the moon, the 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.

Evidence the impact would be significant: Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). Artificial night lighting has also been found to impact juvenile salmonid overwintering success by delaying the emergence of salmonids from benthic refugia and reducing their ability to feed during the winter (Contor and Griffith 1995). For nocturnally migrating birds, direct mortality as a result of 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). There is a high potential for songbirds, migratory birds, salmonids, and other special-status species to occur within or in the vicinity of the Project. Therefore, the Project's artificial light may significantly impact the movement and natural behaviors of fish and wildlife.

Recommendation: To reduce impacts to less-than-significant, CDFW recommends no new or replacement lighting is installed as part of or as a result of the Project. In addition, the current light output regime should be fully analyzed alongside any future potential light output regime.

Recommended Measure 1 – Habitat Compensation: For Project elements that require artificial lighting, compensatory mitigation shall be provided for all areas supporting fish and wildlife affected by new or increased light output.

Recommended Measure 2 – 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 shall be included in the IS/ND. If an increase in light output from current levels to the projected future levels would occur, additional avoidance, minimization or mitigation measures shall be developed in coordination with the natural resource agencies to offset indirect impacts to special status-species and those measures shall be included in the Project IS/ND. Within 60 days of Project completion the lead agency shall 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. This analysis should be conducted across all potential alternatives and compared in table and map format.

Recommended Measure 3 – Light Output Limits: All LEDs or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Recommended Measure 4 – Vehicle Light Barriers: Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway.

Recommended Measure 5 – Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping should be implemented throughout the Project to reduce the need for electrical lighting.

Recommended Measure 6 – Light Pole Modifications and Shielding: All new or replacement light poles or sources of illumination shall be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project corridor in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat the lead agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce the potential for excessive light pollution caused by decreasing the number of light output sources in sensitive areas.

John Seal
California Department of Transportation

18

August 5, 2022

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 CNDDDB. The CNDDDB online field survey form and other methods for submitting data can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: [https://wildlife.ca.gov/Data/CNDDDB/Plants and-Animals](https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals).

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 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

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

Questions regarding this letter or further coordination should be directed to Robert Stanley, Senior Environmental Scientist (Specialist), at (707) 339-6534 or Robert.Stanley@wildlife.ca.gov or Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

cc: State Clearinghouse #2022070140

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John Seal
California Department of Transportation

19

August 5, 2022

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