

State of California
Department of Fish and Wildlife

Memorandum

Date: November 28, 2022

To: Zachary Larson
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California Department of Transportation
North Region Environmental
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From: Tina Bartlett, Regional Manager
Northern Region, California Department of Fish and Wildlife

Subject: Eel River Bridge Seismic Retrofit Project (SCH# [2022100650](#))

On October 28, 2022, the California Department of Fish and Wildlife (CDFW) received an Initial Study with Proposed Mitigated Negative Declaration (IS/MND) from the California Department of Transportation (Caltrans; Lead Agency) for the Eel River Bridge Seismic Retrofit Project (Project), Humboldt County, California. CDFW understands that the Lead Agency will accept comments on the Project through November 28, 2022.

As a Trustee Agency for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary to sustain their populations. As a Responsible Agency, CDFW administers the California Endangered Species Act (CESA) and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as Trustee and Responsible Agency pursuant to California Environmental Quality Act (CEQA; California Public Resource Code §21000 *et seq.*). CDFW participates in the regulatory process in its roles as Trustee and Responsible Agency to minimize Project impacts and avoid potential significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Projects impacts on public trust resources.

Project Description

As stated in the IS/MND, the Lead Agency proposes to partially replace and seismically retrofit the northbound Eel River Bridge of U.S. Highway 101 from post miles R53.7 to M54.2 in Humboldt County, California, about 250 miles north of San Francisco and 25 miles south of Eureka (lat/long 40.5096, -124.1199). The Project would replace Spans 1



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through 4 of the northbound Eel River Bridge with a cast-in-place prestressed box girder bridge. The remaining Spans 5 through 8 would be seismically retrofitted. Additional work would include constructing a retaining wall to realign the northbound bridge approach. The Project would require temporary access road construction, on-site staging areas, vegetation and tree removal, pile driving and drilling, cofferdams, and trestles. Access to the river bar below the bridge would likely be from the northern side of the river; however, it may be necessary to construct temporary access roads at both ends of the bridge. Once all work is completed, temporary access roads will be removed and the embankments will be restored and revegetated. All substructure work will be performed below the bridge deck from temporary trestles and temporary access roads. A permanent relocation of existing utilities will be required and a realignment of the roadway will be performed at Abutment 1.

Environmental Setting and Special Status Species

The Eel River is an important fish-bearing, major river system that provides spawning and rearing habitat for a variety of salmonids as well as habitat for other sensitive aquatic and terrestrial species including Southern Oregon / Northern California evolutionarily significant unit of coho salmon (*Oncorhynchus kisutch*; State Threatened), California Coast fall chinook salmon (*Oncorhynchus tshawytscha*; Federally Threatened [FT]), winter and summer runs of Northern California distinct population segment (DPS) of steelhead (*O. mykiss*; Species of Special Concern [SSC], State Endangered [SE] respectively), coastal cutthroat trout (*O. clarki clarki*; SSC), green sturgeon Southern DPS (*Acipenser medirostris*; FT), Pacific lamprey (*Entosphenus tridentatus*; SSC), Western brook lamprey (*Lampetra richardsoni*; SSC), Western pond turtle (*Emys marmorata*; SSC), foothill yellow-legged frog North Coast Clade (*Rana boylei*; SSC), northern red-legged frog (*Rana aurora*; SSC), obscure bumble bee (*Bombus caliginosus*; S1-Critically Imperiled /S2-Imperiled), Western bumble bee (*Bombus occidentalis*; S1, Candidate State Endangered), yellow warbler (*Setophaga petechia*; SSC), osprey (*Pandion haliaetus*; Watch List), bald eagle (*Haliaeetus leucocephalus*; SE), pallid bat (*Antrozous pallidus*; SSC), Townsend's big-eared bat (*Corynorhinus townsendii*; SSC), Western red bat (*Lasiurus blossevillii*; SSC), and other terrestrial and aquatic species.

CDFW Consultation History

CDFW provided Project specific consultation in May 2021, and October 2022. CDFW appreciates the level of communication and coordination by Caltrans staff.

CDFW Permitting

The proposed Project will have substantial impacts to the bed, bank and channel of the Eel River and Caltrans should notify CDFW for a Lake or Streambed Alteration (LSA)

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Agreement and Caltrans may need incidental take¹ authorization for summer steelhead, coho salmon, and Western bumble bee pursuant to CESA. CDFW looks forward to continuing to coordinate with Caltrans to ensure that mitigation approaches will be compatible with state permitting requirements, including further coordination on mitigation approaches for impacts to onsite habitat.

CDFW Comments on the IS/MND:

1. Seasonal Work Limitations

The IS/MND states in the Construction Scenario section it is presumed that a construction season for work below ordinary high water will be from June 15 to October 15 of any year. It is also presumed that bridge work can proceed during the off-season if work is performed above the banks of the river channel and outside of waters and riparian vegetation (IS/MND page 6; 26/319). The IS/MND also states construction activities performed above the ordinary high water mark of a watercourse that could potentially directly impact surface waters (i.e., soil disturbance that could lead to turbidity) would be performed during the dry season, typically between June through October, or as weather permits per the authorized contractor-prepared Storm Water Pollution Prevention Plan, Water Pollution Control Program, and/or Project permit requirements (IS/MND page 21, 41/319).

CDFW recommends Caltrans prepare a more detailed seasonal work plan for submittal in the Project's pending LSA Notification if ground disturbing activities or other Project elements are proposed between the Eel River top of bank between October 16 and June 14 of any year (Recommendation 1). It would be helpful to have Project figures containing percent slope as well as contour lines for relevant river flow scenarios (e.g., ordinary high water, 2-year, 10-year flow, 50-year flow and 100-year flood elevations).

2. Utility Relocation

The IS/MND states that utilities (water and gas lines) on the bridge will be relocated in Caltrans' right-of-way by directional boring under the Eel River (IS/MND page 8, 28/319).

CDFW recommends more detail on the directional drilling element of the Project be included in the pending LSA Notification, including seasonal/weather work restrictions, enter/exit locations, minimum depth of directional drilling under the Eel River streambed, maximum drilling fluid pressure thresholds to prevent frac-outs, and a frac-out contingency plan (Recommendation 2).

¹ Take is defined as hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (Fish and Game Code 86).

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3. Bumble Bee Surveys

The IS/MND discloses there is suitable habitat for two special status bumble bee species, obscure bumble bee and Western bumble bee (IS/MND Table 6). The IS/MND also states there are historical records of these bumble bee species near the Project; however, no species-specific surveys were conducted for bumble bees (IS/MND page 100, 120/319).

The Western bumble bee is a candidate for CESA listing and take is now prohibited unless an incidental take permit authorizes the take. Given there is potentially suitable habitat in the Project area, a seasonally appropriate survey for the Western bumble bee is needed to better evaluate potential presence within the Project area as well as potential Project impacts. Therefore, CDFW recommends the IS/MND contain a project condition for developing a bumble bee survey plan and implementation, as well as feasible mitigation (including avoidance and minimization) if impacts may occur (Recommendation 3). Survey methods may utilize elements of existing protocols, such as the Bumble Bee Atlas Program (Xerces, 2022), if it can be demonstrated the Project's bumble bee survey methods are adequate to determine potential presence in the Project's environmental study area as well as potential Project impacts.

4. Sensitive Natural Communities and Riparian Habitat

The IS/MND states the proposed Project will result in impacts to several Natural Communities (NC). NCs are vegetation types categorized by CDFW's Vegetation Classification and Mapping Program (VegCAMP) using the National Vegetation Classification Standard (CDFW, 2022a). NCs have been part of the Natural Heritage conservation triad, along with plant and animal species since the 1979 inception of the California Natural Diversity Data Base (CDFW, 2022b). VegCAMP evaluates NCs for their conservation status by using NatureServe's Heritage Methodology (Nature Serve, 2022), the same system used to assign global and state rarity ranks for plant and animal species in CNDDDB. NCs with a State Rank of S1-Critically Imperiled through S3-Vulnerable have been determined by CDFW to be Sensitive Natural Communities (SNC) (CDFW, 2022a; CDFW, 2022c). Most SNCs in California occur at the association level of classification. Adverse effects on SNCs, in addition to riparian habitat, should be analyzed in CEQA documents (CEQA Guideline Environmental Checklist IV(b)).

In addition to the 0.86 acres (ac) of impacts to SNCs disclosed in the IS/MND (0.54-ac black cottonwood forest and woodland [*Populus trichocarpa*], 0.32-ac Sitka willow thickets [*Salix sitchensis*]), the Project's Natural Environment Study (NES) discusses several other NCs within the study area but concluded only four of 12 NCs are SNCs (Caltrans, 2022 [NES page 114]). After CDFW review of the IS/MND, NES, and a site visit, CDFW determined the red alder forest (*Alnus*

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rubra), salal-berry brambles (*Gaultheria shallon*, *Rubus* spp.), and arroyo willow thickets (*Salix lasiolepis*) alliances have S1-3 state ranks or contain associations designated as SNCs by VegCAMP. These NCs comprise 7.86 ac within the Project Environmental Study Limit but were not categorized as SNCs and were not addressed in the IS/MND. Additionally, the IS/MND presents adverse effects on all SNCs as temporary (or temporal) impacts; however, the temporal loss of habitat during the three years of construction may add to the significance of these impacts. Furthermore, the IS/MND discloses many of the trees within SNCs impact areas exceed 12-inches in diameter with some as large as 34-inches diameter (MND table 11).

For these reasons, there may be sufficient evidence to support that impacts to SNCs by the Project are potentially significant. If Caltrans re-evaluates these NCs and SNCs and concludes there are potentially significant impacts, CDFW typically recommends that impacts to SNCs and mature riparian habitat that require greater than one year to re-establish to baseline conditions be mitigated at a 3:1 or greater ratio to account for temporal losses. Mitigation ratios should typically occur on a per unit area basis, such as three acres of mitigation for each acre of impact.

Because of the amount and type of habitat that will be impacted, and the biological resources onsite, CDFW disagrees with the assessment that Project impacts to Sensitive Natural Communities are less than significant. The impacts as described would create a “substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service,” as described in the CEQA Guidelines Appendix G, and should therefore be considered a potentially significant impact.

Therefore, CDFW recommends a re-evaluation of impacts to SNCs and riparian habitat (Recommendation 4). Impacts that cannot be avoided and cannot be restored to baseline conditions within one year should be mitigated at a 3:1 ratio per unit area. An IS/MND mitigation measure should, at minimum, commit to performance standards such as revegetation ratios and success criteria, and should provide location(s) of off-site revegetation areas, including information regarding land ownership and future proposed management plans.

5. Removal of Concrete in River Channel

CDFW observed large areas of what appears to be a concrete apron on top of the river gravels/cobbles where the Project proposes to retrofit bridge footings. CDFW assumes this legacy construction material is associated with previous infrastructure configurations. If so, prior failure to remove debris may be inconsistent with FGC sections 5650 (pollution) and 5652 (refuse, waste, debris

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within 150-feet of Waters of the State). This concrete is adversely impacting riverine processes by artificially stabilizing and consolidating river gravels and cobbles and does not appear to serve a current purpose.

CDFW recommends the Project description be revised to include characterization and removal of this concrete, rebar, and other discarded materials (Recommendation 5).

6. Mitigation, Monitoring, and Reporting

When preparing an IS/MND, the Lead Agency must include feasible mitigation measures to reduce impacts to a less than significant level (CEQA section 21002), with sufficient details and performance standards to avoid improperly deferring mitigation until some future time (CEQA Guidelines section 15126.4 (a)(1)(B)). To ensure the mitigation measures and Project revisions in the IS/MND are implemented, the Lead Agency shall adopt a mitigation monitoring or reporting program/plan (MMRP; CEQA Guidelines section 15097). Monitoring ensures Project compliance is checked on a regular basis to evaluate the measurable success of mitigation measures. Reporting on monitoring will ensure compliance with mitigation requirements. An adequate MMRP should, at a minimum, describe (1) roles and responsibilities for various aspects of monitoring; (2) timing/implementation; (3) reporting and support responsibilities; (4) other responsibilities of the Project proponent; (5) general standards for determining Project compliance with the mitigation measures or revisions and related conditions of approval; and (6) enforcement procedures for noncompliance or adaptive management.

The IS/MND contains a brief description of mitigation measures (IS/MND page 152, 172/319), with more detail in the Draft Mitigation Plan Summary (IS/MND Appendix F, 302/319). However, the Draft Mitigation Plan Summary should be revised to include additional, sufficient details for MMRP standards as well as additional mitigation measures recommended by CDFW in this letter (Recommendation 7).

Proposed mitigation for impacts to salmonids includes partial funding for either Sacramento pikeminnow (*Ptychocheilus grandis*) suppression or a fish passage project on a tributary to Chadd Creek. Although CDFW is interested in strategies for suppression of invasive Sacramento pikeminnow, concepts and feasibility for proposed release of Trojan Y chromosome Sacramento pikeminnow into the Eel River have not yet been fully vetted by CDFW and is not a good mitigation fit for this Project. The Chadd Creek fish passage mitigation is likely a better fit for Project mitigation, but sufficient detail is not provided in the IS/MND (CEQA Guidelines section 15364). More information on Chadd Creek fish passage mitigation is needed, including precise location, existing conditions, benefits to

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salmonid species (e.g., number of miles of new fish access), performance criteria, roles and responsibilities, and others. This additional information should be summarized in an MMRP.

Lastly, the IS/MND contains several “Standard Measures and Best Management Practices” that are stated to be prescriptive and sufficiently standardized to be generally applicable, and do not require special tailoring for a project (IS/MND page 16, 36/319). The IS/MND states these measures and practices are not considered “mitigation” pursuant to CEQA; rather, they are included as part of the Project description. However, CDFW has determined several of these measures do require site specific details for the Project. Additionally, the location/biological context of the Eel River (a major river system) and the impacts that are being avoided or minimized are potentially significant. Therefore, CDFW recommends the Lead Agency re-evaluate the Project’s Standard Measures and Best Management Practices for inclusion as formal CEQA mitigation measures and incorporation into an MMRP (Recommendation 7). Examples include bird and bat exclusion, hydroacoustic monitoring, aquatic species relocation, river diversion around the work site, and others.

Summary of Recommendations

1. CDFW recommends the Project prepare a more detailed seasonal work plan for submittal in the Project’s pending LSA Notification if ground disturbing activities or other Project elements are proposed between the Eel River top of bank between Oct 16 and June 14 of any year. It would be helpful to have Project figures containing percent slope as well as contour lines for relevant river flow scenarios (e.g., ordinary high water, 2-year, 10-year flow, 50-year flow and 100-year flood elevations).
2. CDFW recommends more detail on the directional drilling element of the Project be included in the pending LSA Notification, including seasonal/weather work restrictions, enter/exit locations, minimum depth of directional drilling under the Eel River, maximum drilling fluid pressure thresholds to prevent frac-outs, and a frac-out contingency plan.
3. CDFW recommends the IS/MND contain a mitigation measure for development of a bumble bee survey plan and implementation, as well as feasible mitigation (including avoidance and minimization) if impacts may occur. Survey methods may utilize elements of existing protocols, such as the Bumble Bee Atlas Program, if it can be demonstrated the Project’s bumble bee survey methods are

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adequate to determine potential presence in the Project's environmental study area as well as potential Project impacts.

4. CDFW recommends a re-evaluation of impacts to SNCs and riparian habitat. If Caltrans concludes impacts are potentially significant, cannot be avoided, and cannot be restored to baseline conditions within one year, these impacts should be mitigated at a 3:1 ratio per unit area. An IS/MND mitigation measure should, at minimum, commit to performance standards such as revegetation ratios and success criteria, and should provide location(s) of off-site revegetation areas, including information regarding land ownership and future proposed management plans.
5. CDFW recommends the Project description be revised to include characterization and removal of legacy concrete, rebar, and other discarded materials within the riverbed of the Project area.
6. CDFW recommends the Draft Mitigation Plan Summary be revised to include additional, sufficient details for MMRP standards as well as additional mitigation measures recommended by CDFW in this letter.
7. CDFW recommends the Lead Agency re-evaluate the Project's Standard Measures and Best Management Practices for inclusion as formal CEQA mitigation measures and incorporation into an MMRP. Examples include bird and bat exclusion, hydroacoustic monitoring, aquatic species relocation, river diversion around the work site, and others.

Thank you for the opportunity to comment on this draft IS/MND. CDFW staff are available to meet with you to consult with or address the contents of this letter in greater depth. If you have questions on this matter or would like to discuss these recommendations, please contact Senior Environmental Scientist Specialist Greg O'Connell at Gregory.OConnell@Wildlife.ca.gov.

Sincerely,

DocuSigned by:


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Citations

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