



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
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Redding, CA 96001
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GAVIN NEWSOM, Governor
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August 8, 2025

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SUBJECT: EUREKA SLOUGH BRIDGES REPLACEMENT PROJECT. SCH# [2023090430](#)

Dear Felicia Zimmerman:

On June 26, 2025, the California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report (DEIR) from the California Department of Transportation (Caltrans; Lead Agency) for the Eureka Slough Bridges Replacement Project (Project), Humboldt County, California. CDFW understands that the Lead Agency will accept comments on the Project through August 8, 2025.

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 (Fish & G. Code) 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 the 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 potentially significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Projects impacts on public trust resources.

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Project Description

As stated in the DEIR, the Project is located on U.S. Highway 101 between post miles 79.5 and 80.2 within the City of Eureka, Humboldt County, California. Caltrans proposes replacing the existing northbound and southbound Eureka Slough bridges (Caltrans Bridge Nos. 04-0022L&R) with two new structures that meet geometric and seismic standards while providing safe multimodal access. The DEIR evaluates two Build Alternatives (Alternatives 2A and 2B) and a No Build Alternative. Build Alternative 2A would replace both bridges on the existing alignment utilizing a temporary bridge to facilitate vehicle traffic during construction. Bicycle/pedestrian lanes would be included in the final design and connections from the bridge structures to nearby trails would be included. Bridge construction and demolition would require two temporary trestles. Build Alternative 2B would replace the northbound bridge on the existing alignment and the southbound bridge would be replaced immediately to the north of the existing southbound bridge location. Construction phasing utilizing the existing and replacement bridges would facilitate vehicle traffic during construction. Bicycle/pedestrian lanes would be included in the final design and connections from the bridge structures to nearby trails would be included. Bridge construction and demolition would require two temporary trestles.

As summarized in DEIR Table S-1, the Project includes many Standard Measures and Best Management Practices to avoid or minimize impacts to biological and other resources. Additionally, the DEIR contains four biological resources mitigation measures for potentially significant impacts as well as four other measures the Lead Agency anticipates as being permit-driven mitigation.

Environmental Setting and Special Status Species

Eureka Slough receives streamflow from over 50 square miles of the Freshwater Creek and Humboldt Bay hydrologic units. These streams are important spawning and rearing habitat for salmonids and other aquatic species. Eureka Slough is a transitional zone between these streams and Humboldt Bay. The marine and estuarine habitats of Humboldt Bay provide refuge and nursery habitat for more than 300 fish and invertebrate species, many with important commercial and recreational fisheries. Humboldt Bay and its wetlands and dunes are habitat for at least 20 State- and federally listed species and

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numerous California Species of Special Concern. Habitat for special status plant species occur within saltmarshes, freshwater wetlands, and areas adjacent to the Project area. The Eureka and surrounding USGS quadrangles contain potential habitat for at least 127 special status species and four sensitive natural communities, including four bryophytes and lichens, 47 vascular plants, five insects, five amphibians and reptiles, 16 fishes, three mollusks, 33 birds, and 14 mammals (CDFW 2025). Additionally, the Project's Biological Study Area contains 15.0 acres of wetlands, 31.9 acres of other waters, and 0.9 acres of riparian habitat (DEIR table 43).

CDFW Consultation History

CDFW consultation for this Project began in 2020, with CDFW staff participating in discussions on potential project impacts, survey needs, and mitigation opportunities. Several additional meetings occurred in 2022 and 2023 within the context of Assembly Bill 1282's early engagement process for permitting transportation projects. On October 19, 2023, CDFW provided comments on the Project's Notice of Preparation. CDFW appreciates the level of communication and coordination by the Lead Agency. While potential Project impacts, and potential mitigation for those impacts have been discussed since 2020, the Final Environmental Impact Report (FEIR) should include additional analyses and clarifications. CDFW looks forward to continued communication and coordination by the Lead Agency regarding specific Project components, impacts, and proposed mitigation strategies.

CDFW Permitting

Based on information provided in the DEIR, the proposed Project will likely have substantial impacts to the bed, bank or channel of Eureka Slough. Caltrans should notify CDFW for a Lake or Streambed Alteration (LSA) Agreement. Additionally, CDFW agrees with the Lead Agency that the Project may result in

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take¹ of species listed as threatened or endangered pursuant to Fish and Game Code and take authorization from CDFW will be needed. For more information, please visit the Department's LSA webpage:

<https://wildlife.ca.gov/Conservation/Environmental-Review/LSA> and CESA permitting webpage: <https://wildlife.ca.gov/Conservation/CESA/Permitting>.

CDFW looks forward to continuing coordination 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 DEIR:

1. Eelgrass Habitat

Eelgrass (*Zostera marina*) beds, are protected under state and federal "no-net-loss" policies, highlighting their high conservation priority (NMFS 2014). In California, eelgrass is classified as a Sensitive Natural Community with a State Rank of S3, indicating it is vulnerable due to its limited distribution and sensitivity to environmental impacts. The DEIR estimates both temporary and permanent impacts to eelgrass habitat for Alternatives 2A and 2B. Temporary impacts are attributed to the installation of temporary piles (0.0015 acre) and shading from the temporary detour bridge and construction trestles (0.21 acre). However, according to the California Eelgrass Mitigation Policy (CEMP) (NMFS 2014), localized temporary impacts are defined as those affecting less than 100 square meters (0.025) and fully restored within one year of the initial disturbance.

Because the detour bridge and trestles will remain in place for 3 years, and the affected eelgrass areas which are >0.025 acres, would not be fully restored within the required timeframe, these impacts do not meet

¹ Take means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (Fish & G. Code, § 86).

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the CEMP definition of "temporary" and must be treated as permanent. In accordance with the CEMP, any eelgrass impacts identified during post-construction surveys will require compensatory mitigation. CDFW recommends that the FEIR remove references to "temporary" eelgrass impacts unless the Project meets the specific criteria outlined in the CEMP.

If eelgrass transplanting is required as part of the mitigation, a Scientific Collecting Permit (SCP) must be obtained from CDFW prior to any harvest or transplant activities. SCP conditions may include requirements for donor bed surveys, limits on turion collection, approved methods for harvest and transplant, advance notification, and reporting obligations. For more information, please visit the Department's SCP webpage: <https://wildlife.ca.gov/Licensing/Scientific-Collecting>.

Eelgrass impacts analyses as well as the pending mitigation and monitoring plan should adhere to the CEMP and be developed in advance of or concurrent with Project permitting in consultation with CDFW, the National Marine Fisheries Service (NMFS), and other relevant agencies (**Recommendation 1**).

2. Temporal Impacts on Eureka Slough Habitat

In addition to eelgrass impacts, the Project will impact additional habitat types necessary for aquatic life to reproduce, feed, transit, or grow to maturity (e.g., deep and shallow slough waters, intertidal mudflats, salt marsh, etc.). The DEIR states Alternative 2A would have 0.30 acres of temporary and 0.16 acres of permanent aquatic resources impacts, and Alternative 2B would have 0.52 acres of temporary and 0.60 acres of permanent aquatic resources impacts. It is unclear in the DEIR how these impact acreages were determined. Based on DEIR figures 75-77, it appears the contiguous Project areas for either Project alternative would have at least temporal impacts to roughly five acres within the Eureka Slough channel over the course of the 4-5 years of construction.

The FEIR should contain a more detailed explanation of how temporary and permanent impacts to Eureka Slough habitats are calculated, including effects of construction-related footprints as well as shading,

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vibration, and other direct and indirect impacts to pelagic, benthic, intertidal, and freshwater species and habitats (**Recommendation 2**).

3. Hydroacoustic Impacts

Hydroacoustic impacts from pile driving and other construction activities have the potential to impact salmonids and other aquatic species that inhabit Eureka Slough and surrounding waters. CDFW recommends that a vibratory hammer is used for pile driving to the greatest extent possible to minimize hydroacoustic impacts. CDFW also recommends that sound attenuation, sound dampening methods, and a “soft start” procedure be required during pile driving activities. The DEIR discusses bubble curtains and isolation casings as sound attenuation systems that may be implemented. Additionally, sound dampening devices such as wooden blocks, pile cushions, and/or caps should be used during impact pile driving.

At the commencement of pile driving activities each day, or after pile driving has been paused for 30 minutes or more, a “soft start” procedure (i.e., ramp-up period) should be implemented to allow species that may be present to vacate the area before injury occurs. For impact pile driving, the “soft start” should consist of an initial set of three strikes at 40 percent energy, followed by one minute of inactivity, followed by two additional three-strike sets, before starting full-energy, continuous pile driving. For vibratory pile driving, the “soft start” should consist of a gradual increase of intensity to full-intensity driving (**Recommendation 3**).

4. White Sturgeon

On June 19, 2024, the California Fish and Game Commission (FGC) designated White Sturgeon (*Acipenser transmontanus*) as a candidate species for listing as threatened pursuant to CESA. As a candidate species, White Sturgeon are now afforded the same legal protections as if they were formally listed as threatened or endangered under CESA, pursuant to Fish and Game Code section 2085. White Sturgeon are known to occur in Humboldt Bay (CDFW 2025) but were not evaluated in the DEIR. Given their protected status and potential vulnerability to in-water

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construction activities, CDFW recommends that the FEIR include an evaluation of potential Project-related impacts to White Sturgeon **(Recommendation 4)**. This evaluation should also identify and incorporate any appropriate avoidance, minimization, and/or mitigation measures necessary to prevent take under CESA.

5. Seasonal Work Window for Coho Take Avoidance

The DEIR specifies an in-water work window from June 15 to October 15. Coho salmon (*Oncorhynchus kisutch*) juvenile outmigration from Freshwater Creek typically peaks in May, though timing can vary depending on environmental conditions. In high-water years, outmigration may extend into June. To minimize impacts on coho salmon, CDFW recommends the FEIR adjust the in-water work window to July 1 through October 15 **(Recommendation 5)**.

6. Early Coordination for CESA Take Authorization

The DEIR states that Caltrans will coordinate with CDFW to obtain a Fish and Game Code section 2081 Incidental Take Permit for take of CESA-listed Coho Salmon and Longfin Smelt (*Spirinchus thaleichthys*). CDFW recommends Caltrans engage in early consultation to determine Project impacts to these or other CESA-listed species and their habitats, and adequate mitigation **(Recommendation 6)**. Any requests to conduct in-water work outside of the recommended work window could result in increased impacts to listed fishes. If Caltrans anticipates in-water work window extension requests, these should be addressed early on to evaluate increased impacts to listed fishes and mitigation options.

7. Staging and Stockpile Areas

The DEIR states the location of staging areas would be determined after a preferred alternative is identified, and that staging areas could be constructed on native ground with appropriate road base materials, on existing improved surfaces, and on trestles or trestle-type structures. The DEIR additionally states there may be areas associated with the Project that are outside of the Project limits, such as staging and disposal

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locations.

Within the context of CEQA, "Project" means the "whole of an action," which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (Cal. Code Regs., tit. 14, § 15378(a) [hereafter, CEQA Guidelines]). The Lead Agency must consider the whole of an action, not simply its constituent parts, when determining the significance of environmental impacts (CEQA Guidelines, § 15003(h)). Given the majority of the Project's Environmental Study Limits (ESL) are composed of wetlands or other aquatic habitat, and that the DEIR must consider the whole of Project actions when evaluating environmental impacts, the FEIR should include a figure with staging areas as well as stockpile or disposal areas and these locations should be included in the Project's impact analyses (**Recommendation 7**).

8. Utility Relocation

The DEIR states all the Build Alternatives would require any overhead and underground utilities within the Project footprint and any utilities attached to the bridge to be permanently or temporarily relocated. Utilities within the Project area include electricity, communications, sewer, and water lines.

The FEIR should include the effects of utility relocations in the Project's impact analysis when considering the whole of Project actions (CEQA Guidelines, § 15003(h), 15378(a)) (**Recommendation 8**). Additionally, if utility relocation actions could alter the bed, bank or channel of Eureka Slough or result in take of CESA-listed species, these actions should be included in LSA and/or CESA Project permitting through CDFW.

9. Compensatory Mitigation

The DEIR's Environmental Commitment Record in DEIR Appendix C appears to serve the purpose of a mitigation monitoring or reporting program/plan (MMRP) (CEQA Guidelines 15097). MMRP measures should include specific details on implementation unless the DEIR explains why it's

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impractical or infeasible to provide those details at this time. If specific details are not included and compliance with a regulatory permit is identified as mitigation, the DEIR mitigation measures should include specific performance standards the mitigation will achieve so there is substantial evidence in the record that the mitigation will reduce the significant impacts to the specified performance standards (CEQA Guidelines 15126.4(a)(1)(B)). Additionally, the impacts associated with mitigation implementation, as well as mitigation permitting, should be addressed in the DEIR when considering the Project's "whole of the action" (CEQA Guidelines 15003(h), 15063(a)(1), 15378(a), and 15126.4(a)(1)(D)).

Therefore, the FEIR should include specific details regarding mitigation measure performance standards as well as potential impacts and permitting requirements associated with mitigation implementation **(Recommendation 9)**.

10. Special Status Species Observations

CEQA requires that information developed in projects be incorporated into a database (Public Resources Code section 21003(e)). Please report any special status species or natural communities detected during Project surveys or construction monitoring to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.

(Recommendation 10).

Summary of Recommendations

1. Eelgrass impacts analyses as well as the pending mitigation and monitoring plan should adhere to the CEMP and be developed in advance of or concurrent with Project permitting in consultation with CDFW, the NMFS, and other relevant agencies.

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2. The FEIR should contain a more detailed explanation of how temporary and permanent impacts to Eureka Slough habitats are calculated, including effects of construction-related footprints as well as shading, vibration, and other direct and indirect impacts to pelagic, benthic, intertidal, and freshwater species and habitats.
3. A vibratory hammer should be used for pile driving to the greatest extent possible to minimize hydroacoustic impacts. CDFW also recommends that sound attenuation, sound dampening methods, and a "soft start" procedure be required during pile driving activities.
4. The FEIR should include an evaluation of potential Project-related impacts to White Sturgeon. This evaluation should also identify and incorporate any appropriate avoidance, minimization, and/or mitigation measures necessary to prevent take under CESA.
5. To minimize impacts on coho salmon, CDFW recommends the FEIR adjust the in-water work window to July 1 through October 15.
6. CDFW recommends Caltrans engage in early consultation to determine Project impacts to Coho Salmon, Longfin Smelt, or other CESA-listed species and their habitats, and adequate mitigation.
7. The FEIR should include a figure with staging areas as well as stockpile or disposal areas and these locations should be included in the Project's impact analyses.
8. The FEIR should include the effects of utility relocations in the Project's impact analysis when considering the whole of Project actions. If utility relocation actions could alter the bed, bank or channel of Eureka Slough or result in take of CESA-listed species, these actions should be included in LSA and/or CESA Project permitting through CDFW.
9. The FEIR should include specific details regarding mitigation measure performance standards as well as potential impacts and permitting requirements associated with mitigation implementation.
10. The Lead Agency or a designated representative should report any special status species or natural communities detected during Project surveys or construction monitoring to the California Natural Diversity Database.

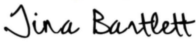
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Thank you for the opportunity to comment on this DEIR. CDFW staff are available to meet with you to consult with or address the contents of this letter in greater depth. If you have questions on this matter or would like to discuss these recommendations,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

Sincerely,

DocuSigned by:

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Citations

- CDFW. (2025). California Natural Diversity Database CNDDDB, CNDDDB QuickView Tool. Biogeographic Data Branch, Sacramento, California. Results of a 9-quad search centered on the Eureka USGS quadrangle. Retrieved October 21, 2022, from <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>.
- NMFS. (2014). California Eelgrass Mitigation Policy and Implementing Guidelines. West Coast Region. October 2014. 48 pp.