State of California – Natural Resources Agency
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February 13, 2024

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SUBJECT: LAST CHANCE GRADE PERMANENT RESTORATION PROJECT DRAFT EIR/EIS AND DRAFT SECTION 4(f) EVALUATION. SCH# 2021110050

Dear Steve Croteau:

On December 15, 2023, 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 Last Chance Grade Permanent Restoration Project (Project), Del Norte County, California. CDFW understands that the Lead Agency will accept comments on the Project through February 13, 2024.

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.

Project Description

As stated in the DEIR, the Last Chance Grade (LCG) Permanent Restoration Project is located on a section of U.S. Highway 101 (U.S. 101) in southern Del Norte County, California. LCG is approximately 10 miles south of Crescent City, between post miles 12.7 and 16.5. For many years, one-way traffic controls have been in place through this section of highway due to geologic instability. The purpose of the Project is to develop a long-term solution to the instability and potential roadway failure at LCG. The Project considers alternatives that would provide a more reliable connection, reduce maintenance costs, and protect the economy, natural resources, and cultural landscapes.

The Project proposes two build alternatives (Alternative X and Alternative F) and a No Build Alternative. Alternative X would involve reengineering and partially realigning a 1.6-mile-long section of the existing highway to minimize the risk of landslides. The main Project components would include 1.6 miles of retaining walls along the roadway, an underground drainage system to help reduce landslide risk by capturing groundwater, and strategic eastward retreats from the existing roadway. Alternative F would involve constructing a 6,000-foot (1.1-mile) tunnel east of the existing highway, to avoid the most intense areas of known landslides and geologic instability. The main components would include a tunnel and associated portals, a bridge at the northern portal to connect the tunnel alignment to the existing highway, and an on-site Operations and Maintenance Center for tunnel support. Geotechnical investigations would be needed for both Alternative X and Alternative F to fully inform final Project design. Under the No-Build Alternative, no Project work would be done on the existing highway. Existing conditions would persist, including the indefinite continuation of emergency repairs and enhanced maintenance, which have been ongoing for more than a decade.

As summarized in DEIR Appendix D, the Project includes many Standard Measures and Best Management Practices to avoid or minimize impacts to biological and other resources. Additionally, the DEIR contains nine biological resources mitigation measures for significant impacts to special status species, late successional forest habitat, and aquatic habitats.

Environmental Setting and Special Status Species

LCG is located just east of the Pacific Ocean, within Del Norte Coast Redwoods State Park and Redwood National Park. These two parks are cooperatively managed as Redwood National and State Parks (RNSP) by the National Park Service and the California Department of Parks and Recreation. RNSP was designated a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site in 1980. The coastal waters adjacent to the Project are designated by the State Water Resources Control Board (SWRCB) as one of 32 Areas of Special Biological Significance within California. Additionally, this portion of U.S. 101 also serves as the Pacific Coast Bike Route and is designated a State Scenic Highway.

The Project's biological study area contains potential habitat for at least 77 special status species, including nine bryophytes and lichens, 52 vascular plants, four amphibians and reptiles, five birds, and seven mammals (DEIR Appendix H, I). Additionally, the study area contains four Sensitive Natural Communities, 2.4 acres of Waters of the State[1], and 4.41 acres of riparian habitat (DEIR table 3-20).

CDFW Consultation History

CDFW consultation for this Project began in 2015, with several CDFW staff participating in a variety of working groups and related meetings. On December 3, 2021, CDFW provided comments on the Project's Notice of Preparation. CDFW appreciates the level of communication and coordination by the Lead Agency. While many Project alternatives, potential Project impacts, and potential mitigation for those impacts have been discussed since 2015, the Final Environmental Impact Report (FEIR) should include additional analyses and clarifications.

[1] "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state (Cal. Wat. Code, § 13050).

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 tributaries to Wilson Creek and the Pacific Ocean. Caltrans should notify CDFW for a Lake or Streambed Alteration (LSA) Agreement. Based on information provided in the DEIR (including impact avoidance and minimization measures) CDFW agrees with the Lead Agency that the Project, with avoidance and minimizations measures, is unlikely to result in take[2] of species listed as fully protected, threatened, or endangered pursuant to Fish and Game Code. However, given the likelihood for Project changes as the design advances, coupled with marbled murrelet (*Brachyramphus marmoratus*[3]) nest site fidelity and their potential for scouting nest tree locations outside the breading season, Caltrans should reconsider the need for CESA take authorization for marbled murrelet. 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. **Late Successional Forest and Marbled Murrelet Habitat Mitigation**

   The DEIR states the Project would have significant and unavoidable impacts (even after inclusion of avoidance, minimization, and mitigation measures) on late successional forests and marbled murrelet habitat. As a

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[2] Take means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (Fish & G. Code, § 86).
[3] Marbled murrelet are listed as endangered pursuant to the California Endangered Species Act (Fish & G. Code, § 2050 et seq.).

result, the Lead Agency will prepare a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance. CDFW appreciates the DEIR acknowledgement of the significant loss or habitat conversion of up to 4.17 acres of late successional forest and endangered species habitat in the RNSP UNESCO World Heritage Site (DEIR Table 3-14). Although the age of these trees is currently not known, some of the larger trees are likely many hundreds of years old, if not close to one thousand years in age. Attempts to mitigate unavoidable impacts are also appreciated and these mitigations should reflect the significance of the impact.

Mitigation Measure Bio-1 proposes to undertake one or more mitigation projects to compensate for impacts to Sensitive Natural Communities, marbled murrelet habitat, and greenhouse gas emissions (DEIR Table S-1). More specifically, Bio-1 mitigates for the loss of late successional (mature to old-growth) redwood, Douglas-fir, and Sitka spruce conifer forest and associated large trees, as well as greenhouse gas impacts related to tree removal, construction emissions, and the Alternative F Operations Maintenance Center. Although a mitigation plan is not provided in the DEIR, Bio-1 discusses two mitigation options, including 1) funding a forest restoration project and/or 2) preserving existing late successional forest habitat currently threatened by logging or development. The DEIR states the mitigation project(s) would attempt to offset late successional forest impacts based on acreage/functional loss and suggests forest restoration projects (e.g. Redwoods Rising[4]) mitigating at ratios ranging from 100:1 for late successional Sitka spruce forest to 200:1 for late successional coast redwood forest. Bio-1 states the final strategy for mitigating for late successional forest would be outlined in a Habitat Mitigation and Monitoring Plan that would be established prior to application of Project permits.

Although CDFW generally supports the proposed mitigation objectives

[4] https://www.savetheredwoods.org/project/redwoods-rising/

and mitigation management endowments proposed in Bio-1 (Option 1), there is concern about the proposed mitigation ratios and uncertainty of how they would be applied. For example, Bio-1 proposes a 200:1 mitigation ratio for impacts to late successional coast redwood forest habitat, suggesting off-site thinning of early successional forests will put it on a faster trajectory to late successional characteristics suitable for species like marbled murrelet. This mitigation ratio does not appear to consider the temporal loss of habitat during the approximately 200 years it would take restored forests to develop late successional characteristics. Additionally, the intrinsic value of ancient trees and endangered species habitat in the RNSP UNESCO World Heritage Site is difficult, if not impossible, to apply mitigation ratios to. Therefore, CDFW recommends the Lead Agency exhaustively determine if there is existing old growth habitat of equal or greater habitat value (see the habitat ranking criteria in ODFW 2021) and can be protected in perpetuity as mitigation (Bio-1 Option 2). For these reasons, the FEIR should consider implementing both Options 1 and 2 of mitigation measure Bio-1. Bio-1 should prioritize Option 2 of mitigation measure BIO-1(**Recommendation 1**).

2. Whole of the Action

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)). CDFW has identified two Project elements that merit analysis and disclosure in the FEIR; 1) potential impacts associated with spoils placement locations and 2) future removal of hazard trees.

Off-site Disposal of Spoils. The DEIR states Alternative X excavations to realign the existing highway and construct retaining walls would remove approximately 270,000 cubic yards of material, resulting in 15,000 to 20,000 truck trips to and from the Project site to dispose of excess material at legally permitted off-site location. Alternative F would require excavation

for the tunnel and associated features, generating approximately 1.1 million cubic yards of material, resulting in approximately 70,000 truck trips to and from the Project site. The DEIR assumes hauling distances would likely be somewhere between 70- and 200-miles round trip, with multiple disposal locations at various distances being used.

The DEIR does not discuss potential off-site disposal locations or clarify if they are currently permitted to receive this material. It is unclear if feasible receiving locations with sufficient capacity currently exist. For context, 1.1 million cubic yards of material would be an approximately 135-acre area filled over five feet deep. Given the DEIR must consider the whole of Project actions when determining the significance of environmental impacts, the FEIR should include a discussion regarding availability of currently permitted off-site disposal locations. If there is a potential likelihood that new or expanded spoils disposal locations will need to be created, the environmental impacts associated with new or expanded locations should be analyzed and disclosed in the FEIR (**Recommendation 2a**).

Future Removal of Hazard Trees. The DEIR does not address the foreseeable removal of additional late successional trees that may be deemed by Caltrans in the future to be hazardous and a threat to the safety of traveled way on U.S. Highway 101. As the roadway alignment shifts from implementation of either Project alternative, trees within the necessary work area will be removed and hillside slopes will be cut or filled. This may result in trees adjacent to the Project (intended to be preserved) being exposed to increased wind exposure, potential post-Project slope settling, and altered hydrology causing soil drying. These and other factors could result in trees intended to be preserved showing hazard characteristics (e.g., damaged canopy, leaning towards the road, etc.) that may require Caltrans to remove them in the future.

The potential need to remove hazard trees within the Project area is reasonable foreseeably due to recent examples of Caltrans removal of large diameter hazard trees along highways at other locations within Del Norte Coast Redwoods State Park, Jedediah Smith Redwoods State Park, Humboldt Redwoods State Park, and Redwood National Park. It is CDFW's

understanding Caltrans has removed over 100 hazard trees over the past three years that were at least three feet diameter at breast height (DBH), some as large as 8ftDBH. Many of these trees were over 150ft tall and over 150ft from the roadway. The recent removal of these large hazard trees occurred through Caltrans' use of a CEQA Statutory Exemption for Emergency Projects (CEQA Guidelines, § 15269). The use of this exemption does not include a CEQA impact analysis that considers cumulative effects (e.g., edge effects such as changes in temperature and wind, higher predation and fragmentation of habitat for special status species), or mitigation for the loss of these trees. Given the potential for removal of additional trees adjacent to the Project that may be deemed by Caltrans in the future to be hazardous, the FEIR should include and disclose an estimate of potential future hazard tree removal needs and include that in the FEIR with environmental impact and mitigation analyses (**Recommendation 2b**). Alternatively, if appropriate, Caltrans could analyze the environmental impacts of their overall hazard tree program in a separate CEQA document that addresses potential and cumulative impacts to late successional forests and dependent species.

3. Alternative X Drainage Gallery Effects on Aquatic Habitat

Project Alternative X includes a complex underground drainage system to capture and drain groundwater away from the Project area to reduce landslide risk. The drainage system includes three 12-ft diameter drainage tunnels, each between 6,700 and 7,200 feet long, and 200ft below ground. To minimize groundwater drawdown on wetlands and other aquatic habitat within the Project study area, the DEIR states the Project design may include measures such as having fewer or no perforated drainage pipes at certain locations, sealing a portion of the drainage tunnels, or reducing the extent of drainage galleries.

The DEIR addresses these groundwater drawdown effects on vegetation and concludes groundwater is located far below the rooting depths of vegetation within the Project area, and that alterations to groundwater are unlikely to cause negative effects. However, the DEIR also states modeling done for the Project shows the potential that groundwater drainage for Alternative X could negatively affect isolated seeps situated

at the base of west-facing slopes. These seeps are located at the toe of the ocean bluff within the State Water Quality Protection Area of Special Biological Significance, and are not clearly identified in the Project aquatic resources delineation figures. Given California's No-Net-Loss Wetland Policy[5] and the Area of Special Biological Significance designation (SWRCB, 2024), the FEIR should give more consideration to groundwater drawdown effects on seeps located at the toe of the ocean bluff (**Recommendation 3**).

4. **Roadway Stormwater Run-off**

The DEIR contains Water Quality and Stormwater Runoff Standard Measures and Best Management Practices for construction activities, but does not specifically address post-Project, on-going roadway stormwater run-off to tributaries. Given the increased awareness of impacts associated with deleterious substances in roadway stormwater run-off (e.g., 6PPD-quinone[6]) reaching waterbodies with aquatic life, the Project should include stormwater-management approaches to treat road run-off before it reaches streams (**Recommendation 4**). This is of particular concern for tributaries within the Project area that flow into Wilson Creek, which contains coho salmon (*Oncorhynchus kisutch*[7]) and other special status fish species.

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[5] Executive Order W-59-93.
[6] 6PPD stands for the chemical N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine. This chemical prevents car tires from breaking down. When exposed to air, 6PPD reacts with ozone to create 6PPD-quinone, which can contaminate waters and is lethal to coho salmon (WA Dept. Ecology, 2024)
[7] The Southern Oregon/Northern California Coast coho salmon evolutionarily significant unit within Wilson Creek are listed a threatened pursuant to the California Endangered Species Act.

Summary of Recommendations

1. The Lead Agency should exhaustively determine if there is existing old growth habitat of equal or greater habitat value and can be protected in perpetuity as mitigation (Bio-1 Option 2). FEIR should consider implementing both Options 1 and 2 of mitigation measure Bio-1. Bio-1 should prioritize Option 2 of mitigation measure BIO-1.

2a. The FEIR should include a discussion regarding the availability of currently permitted off-site disposal locations. If there is a potential likelihood that new or expanded spoils disposal locations will need to be created, the environmental impacts associated with new or expanded locations should be analyzed in the FEIR.

2b. The FEIR should include an estimate of potential future hazard tree removal needs and include that in the FEIR with environmental impact and mitigation analyses (Recommendation 3b). Alternatively, if appropriate, Caltrans could analyze the environmental impacts of their overall hazard tree program in a separate CEQA document that addresses potential and cumulative impacts to late successional forests and dependent species.

3. Given California's No-Net-Loss Wetland Policy and the coastal Area of Special Biological Significance designation, the FEIR should give more consideration to groundwater drawdown effects on seeps located at the toe of the ocean bluff.

4. The Project should include stormwater-management approaches to treat road run-off before it reaches streams. This is of particular concern for tributaries within the Project area that flow into Wilson Creek, which contains coho salmon and other special status fish species.

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,

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Citations

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