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CDP 1-20-0422 (CALTRANS DR. FINE BRIDGE)

JANUARY 13, 2021

APPENDICES

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APPENDIX A – Substantive File Documents

California Department of Transportation (Caltrans). 2020. Dr. Fine Bridge Replacement Final Environmental Impact Report/ Environmental Assessment with Finding of No Significant Impact. Project number 01-43640 / 0100000193. State Clearinghouse House Number: 2010102037

———. 2019. Western Pearlshell Mussel Impact Assessment.

———. 2017. Addendum to Preliminary Jurisdiction Determination for the Dr. Fine Bridge Replacement Project.

———. 2016. Final Hydraulic Report for Dr. Fine Bridge Replacement Project.

———. 2014. *Preliminary Jurisdictional Determination for the Smith River Bridge Replacement Project.*

_____. 2019. *Water Quality Assessment Report (Revised) for the Dr. Fine Bridge Replacement Project.*

_____. 2020. *Aquatic Resources Delineation Reverification for the Dr. Fine Bridge Replacement Project.*

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. *Classification of Wetlands and* Deepwater *Habitats of the United States.* U.S. Fish and Wildlife Service. FWS/OBS-79/31.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual.* (Technical Report Y-87-1.) Vicksburg, MS: U.S. Army Waterways Experiment Station.

Lichvar, R. W., D. L. Banks, W. N. Kirchner, and N. C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X. Available: http://wetland-plants.usace.army.mil/nwpl_static/home/home.html.

Coastal Development Permit Application No. 1-20-0422 and associated file documents.

Del Norte County Certified Local Coastal Program.

California Coastal Commission, July 1996. Adopted Findings in support of Coastal Development Permit No. 1-96-10.

APPENDIX B

RELEVANT DEL NORTE COUNTY LCP POLICIES

1. Del Norte County LCP Policies Regarding Visual Resources

The Visual Resources chapter, Policy V(C)(10) of the Del Norte County certified LCP requires that "New or relocated utility lines shall be placed underground, whenever feasible and when warranted in highly scenic coastal areas."

The County of Del Norte's certified LCP contains several policies relating to the protection of visual resources within those portions of the coastal zone meeting the criteria for designations as "highly scenic areas."

LUP *Visual Resources* Policy No. 1 states:

> *The County encourages the continuation of existing land uses, where appropriate, to maintain open views in highly scenic areas.*

LUP *Visual Resources* Policy No. 2 states:

> *Proposed development within established highly scenic areas shall be visually compatible with their scenic surroundings, by being reflective of the character of the existing land uses while conforming to the land use criteria. As set forth in the land use component and subsequent zoning ordinance.* [sic]

LUP *Visual Resources* Policy No. 5 states:

> *The alteration of natural landforms in highly scenic areas shall be minimized, where feasible, in construction projects by:*
>
> *a. Designing roadways, driveways and other corridors to blend with the natural contours of the landscape by avoiding excessive cuts and fills.*
>
> *b. Concentrating development on relatively level areas over steep hillsides. Provisions to be considered include: clustering; density exchange and open space dedication.*

With regard to areas qualifying for recognition as "highly scenic areas," Section II.A & B of the LUP's *Visual Resources* chapter state, in applicable parts:

> *…Criteria for designating highly scenic coastal areas in Del Norte County are proposed as follows:*
>
> *1. Views of special interest to the general public (e.g., Pacific Ocean; lighthouses, old growth forests);*
>
> *2. Visually distinctive scenes resulting from unique contrasts or diversity in landscape patterns (e.g., offshore rocks, forested uplands);*
>
> *3. Views with special integrity or unimpaired conditions (e.g., open space, nature preserves)…*

> *Views within the coastal region of Del Norte County with particular visual distinctiveness, integrity, harmony and/or of special interest to the general public include the following:*
>
> *1. View of water bodies (e.g., ocean, estuary, streams);*
>
> *2. Views of sensitive habitats and open space (e.g., wetland, rocky intertidal);*
>
> *3. View of expressive topographic features (i., offshore rocks, sea cliffs);*
>
> *4. View of special cultural features (e.g., historical, maritime settings).*
>
> *Areas identified as having present one or more of the above elements are enventoried* [sic] *and evaluated by this study for their value as significant visual resources.*

In addition, the visual inventory within LUP *Visual Resources* Section III.B identifies and described the following "view points" (alternately referred to as "vista points") and "view corridors," within the vicinity of the project site:

> *VIEWPOINTS:* (**V**)
>
> *1. <u>Smith River Public Fishing Access</u>: The Smith River public fishing access is a significant viewpoint in the area. A parking facility on a terrace above the Smith River presents river, riparian vegetation and waterfowl scenes as well as views of distant upland forest.*
>
> *VIEW CORRIDORS:* (**—**)
>
> 1. *Ocean View Drive*
> 2. *Highway 101*
> 3. *Fred Haight Drive*
> 4. *Moseley Road*
> 5. *Lower Lake Road*
> 6. *Lake Earl Drive*

LUP's *Visual Resources* Policy No. 6 also directs that:

> *Activities which significantly and permanently alter natural landforms, such as mining and excavation, shall be required to restore disturbed areas to, close as possible, a natural appearance.*

<u>2. Del Norte County LCP Policies Regarding Public Access</u>

The Del Norte County LUP includes a number of policies regarding standards for providing and maintaining public access:

Section III.C.1 of the LUP's *Public Access* chapter states that:

> *The County shall work actively towards the attainment of maximum coastal access for the public, where it is consistent with public safety, property owner rights and the protection of fragile coastal resources.*

Section III.C.8 of the LUP's *Public Access* chapter states that:

> *The County encourages the continued maintenance of existing recreational boating facilities by private operators and public agencies.*

However, much of the focus of the LCP's policies and standards address the protection, acquisition, and improvement of lateral and vertical accessways in immediate shoreline settings, rather than in more inland locales such as where the subject property is situated.

3. Del Norte County LCP Policies Regarding Wetlands and Other ESHAs

Section VI.A of the County of Del Norte LUP's *Marine and Water Resources* chapter describes the overarching legal impetus for its policies and standards, stating in applicable part:

> *A major objective of the Coastal Act is to maintain and enhance the quality of coastal waters and marine resources and to mitigate potential adverse impacts of land uses adjacent to sensitive coastal habitats. To this end the following policies were enacted by the legislature:…*
>
> *30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.*

Designation Criteria Section IV.B of the County of Del Norte LUP *Marine and Water Resources* chapter provides that:

> *The following criteria are proposed for designating biologically sensitive habitats in the marine and coastal water environments and related terrestrial habitats of Del Norte County:*
>
> *1. Biologically productive areas important to the maintenance of sport and commercial fisheries.*
> *2. Habitat areas vital to the maintenance and enhancement of rare and/or endangered species.*
> *3. Fragile communities requiring protective management to insure their biological productivity, species diversity and/or continued maintenance.*
> *4. Areas of outstanding scientific or educational value that require protection to insure their viability for future inquiry and study.*
>
> *Coastal habitat areas meeting one or more of these criteria may be considered biologically sensitive and therefore given particular attention in the planning process.*

Section IV.D.1.f of the LUP's *Marine and Water Resources* chapter's *Specific Area Policies and Recommendations* sub-section establishes other standards for buffers, stating that:

> *Natural vegetation buffer strips may be incorporated to protect habitat areas from the possible impacts of adjacent land uses. These protective zones should be sufficient along water courses and around sensitive habitat areas to adequately minimize the potential impacts of adjacent land uses.*

APPENDIX C
Proposed Mitigation Measures (from adopted CEQA document)

Environmental Commitments for the Dr. Fine Bridge Replacement Project, Caltrans District 1

Task and Brief Description	Responsible Branch / Staff	Timing / Phase
Measures to Avoid or Minimize Non-significant Impacts		
Access-1: River Access and Signage. Existing pedestrian access to the Smith River at the south side of the Dr. Fine Bridge will continue after project completion. Vehicular access will be prohibited to prevent illicit dumping and restore vegetation. A sign will be posted at this location providing information about nearby vehicular access and boat launching points. Additionally, Caltrans will work with CDFW to improve signage along Fred D. Haight Drive directing recreation users to the existing CDFW Smith River Public Fishing Access, located less than 1 mile downstream of the bridge. Caltrans will fund part of the enhancements at the CDFW Smith River Public Fishing Access (Fred Haight Boat Launch) to compensate for loss of informal access under the Coastal Act.	Resident Engineer (RE), Environmental Construction Liaison (ECL)	During/ Post Construction
Visual-1: Boulders on South Bank Road. Boulders placed on the south bank to inhibit vehicular access from South Bank Road would match the color of existing stone within the project area to blend with the natural surrounding environment.	RE	During/ Post Construction
Visual-2: Screen Nearby Residences. Nearby residences would be screened from views of the highway and retaining walls by planting native trees and shrubs. The traveling public would be screened from views of the quarry by planting native trees and shrubs.	Landscape Architect	During/ Post Construction
Visual-3: Color galvanized steel bridge railings. Consider a unique color that would enhance visual character and memorability of the bridge or a color that blends in with the surrounding scenic landscape.	RE	During/ Post Construction
Visual-4: Retaining Walls. For Alternative 3, include architectural treatment, such as a relief pattern, on any solid concrete barrier in front of the retaining walls. The treatment should be context sensitive and take into consideration public input.	RE	During/ Post Construction
Chapel-1: Coordinate with Calvary Chapel. To avoid construction-related noise impacts on the Calvary Chapel during church services on Sundays, there would be no construction in close vicinity of the church that could cause noise disturbance to services. The Resident Engineer will coordinate with the church on their service schedule.	RE	During Construction
Species-1: Biological Monitor during In-stream Work. A qualified biologist would monitor in-stream construction activities to ensure adherence to all environmental permit conditions.	RE, Qualified Biologist	During Construction

Task and Brief Description	Responsible Branch / Staff	Timing / Phase
Measures to Avoid or Minimize Non-significant Impacts		
Species-2: Roosting Bat Protection. The following would be implemented to protect night roosting bats: • Work activities would be limited to one portion of the bridge structure at a time between the hours of 10:00 PM and sunrise. No impact pile driving or hoe-ramming would occur during these hours; • Airspace access to the structures would not be eliminated—as long as suitable roost (resting) habitat remains on site; • Lighting used for night work would be focused specifically on the portion of the bridge actively under construction, and/or traffic control and staging, as needed; • Personnel would not be present under the bridge during the evening and night in non-active work areas.The following would be implemented to protect maternal or day roosting bats, if encountered:• A preconstruction bat survey for maternity roosts (April 1 to August 31) or day roosts (year-round) shall be conducted by a qualified biologist and done within 14 days prior to activities that remove vegetation or structures. • In the unlikely event that evidence of a day roost or maternity roost is discovered anywhere within the project footprint, Caltrans shall develop a plan in consultation with CDFW to safely exclude bats in accordance with Fish and Game Code and the SAA. • Bats shall not be evicted during the coldest winter months (December through February) if there is evidence that they could be in torpor or hibernating in a day roost within the bridge during that period; and bats shall not be evicted during the maternity season (March 1 to August 31) unless the colony can be safely evaluated by a qualified biologist and the biologist determines that it is no longer active. • Appropriate measures to safely exclude bats from day roosts may include sealing cavities (if bats are no longer using them) or using one-way doors (if colony locations are still in use) during periods when bats can readily and safely move to other locations without harming adults or young. To avoid harm to bats, exclusion devices would be set up 2 hours after sunset, between September 15 and October 31 and/or between March 15 and April 15.	RE, Qualified Biologist	During Construction
Species-3: Marine Mammal Monitoring. A biological monitor will be present to monitor for marine mammals during all construction activities that have the potential to produce impulsive hammering sounds within the Smith River, including any pile installation, hoe-ramming, or jackhammering. A Marine Mammal Monitoring Plan will be prepared prior to construction that includes adaptive measures, such as defining a safety zone around in-river activities. To minimize exposure to marine mammals and possible harm from construction activities, no impact pile driving would be initiated when marine mammals are detected within these safety zones. In addition, during impact driving, when a marine mammal is detected through on-site monitoring within the respective safety zones, or is about to enter the safety zones, impact pile driving would be halted and not resumed until the animal was seen to leave the safety zone on its own, or 30 minutes elapsed since the animal was last seen.	RE, Qualified Biologist	During Construction
Species-4: Pre-construction Survey for Amphibians and Reptiles. A pre-construction survey for amphibians and reptiles would be completed by a qualified biologist prior to any ground disturbing activities. Any reptiles, frogs, tadpoles, and egg masses found during the initial survey would be relocated to suitable habitat outside of the project area by the biologist prior to conducting in-stream work in suitable habitat or electrofishing for salmonids or lamprey. The biologist would be present during all phases of in-stream construction to	RE, Qualified Biologist	Pre-Construction

Task and Brief Description	Responsible Branch / Staff	Timing / Phase
Measures to Avoid or Minimize Non-significant Impacts		
assist with relocation efforts as they arise. The specific requirements for surveys and relocation would be identified in the project's Aquatic Species Relocation Plan.		
Species-5: Aquatic Species Relocation. Prior to any dewatering, diversions, or stream crossings, the contractor would be required to provide to Caltrans for approval an Aquatic Species Relocation Plan as part of the Construction Site Dewatering and Diversion Plan. Electrofishing for salmonids must comply with the Guidelines for Electrofishing Waters Containing Salmonids listed under the Endangered Species Act published by NMFS. The plan would include provisions for amphibians, reptiles, and lamprey, as well as salmonids.	RE, Qualified Biologist	During Construction
Species-6. Seasonal In-stream Restrictions. To protect the most vulnerable life stages of sensitive fish species that occur within the Smith River, in-stream work would be restricted to the period between June 15th and October 15th. Construction activities restricted to this period include any work within the bed, bank, or channel of the Smith River.	RE	During Construction
Species-7: Hydroacoustic Monitoring. Hydroacoustic monitoring would be conducted during all construction activities that have the potential to produce impulsive sound waves, including, but not limited to, pile driving, hoe-ramming, or jackhammering. Hydroacoustic monitoring would ensure compliance with the terms and conditions resulting from Section 7 Endangered Species Act Consultation with NMFS and Consistency Determination with CDFW. Where impact pile driving is required, hydroacoustic monitoring would be performed to determine compliance with established objectives (e.g., distances to cumulative noise thresholds) and identify corrective actions to be taken should the thresholds be exceeded. A Hydroacoustic Monitoring Plan would be prepared prior to construction that addresses the frequency of monitoring, positions that hydrophones would be deployed, and techniques for gathering and analyzing acoustic data, quality control measures, and reporting activities.	RE, Qualified Biologist	During Construction
Species-8: Pile-driving Methods. The following measures would be implemented to minimize potential impacts from pile driving. • Installation of the permanent piles, which will occur within cofferdams, is proposed to occur using an oscillation technique, avoiding or minimizing the risk of injury of fish from pile driving. • Vibratory pile driving will be used in lieu of impact pile driving whenever feasible. Impact driving and hoe-ram operations will be minimized to the extent practicable. • All in-channel pile driving activities will be conducted between July 1 and October 15th to avoid the primary salmon migration seasons. • Impact driving and hoe ram operations will be limited to daylight hours only. • Attenuation methods (e.g., bubble curtains) will be applied where feasible.	RE	During Construction

Task and Brief Description	Responsible Branch / Staff	Timing / Phase
Measures to Avoid or Minimize Non-significant Impacts		
Species-9: Lamprey Protection. Because lamprey ammocoetes may not emerge from dewatered substrates until they begin to desiccate, which often occurs at night after other fish salvage operations have ceased (USFWS 2010), dewatering and relocation efforts for lamprey would be performed in accordance with Best Management Practices to Minimize Adverse Effects to Pacific Lamprey (*Entosphenus tridentatus*) (USFWS 2010), which include the following measures:• A pre-construction survey conducted by a professional fisheries biologist prior to construction to identify lamprey presence.• If detected, electrofishing would be performed to capture and relocate ammocoetes within the work zone to a safe area away from the construction site.• Any lamprey captured within cofferdams during dewatering and fish relocation efforts would be relocated to a safe area away from the construction site.• The orientation, siting and type of fish screens used for dewatering operations should be selected to minimize potential entrainment of lamprey.• A professional fisheries biologist would be present during channel excavations to sift through removed substrate to salvage any remaining ammocoetes, returning them to the river a safe distance away from the construction site.	RE, Qualified Biologist	During Construction

Project Features, Standard Measures, and Best Management Practices for the Dr. Fine (Smith River) Bridge Replacement Project

Land Use – Wild and Scenic Rivers

LU-1: **New Bridge Design.** Compared to the existing bridge, the new bridge would have fewer piers in the river channel and would provide a less obtrusive and more visually appealing structure.

LU-2: **Aesthetic Elements**. The new bridge would have aesthetic elements added, including tribal designs incorporated into the railing and retaining walls. Retaining walls would be stained an earthen color that blends with the surrounding environment.

LU-3: Public Outreach. Outreach would be conducted to ensure the public is aware that river access would be limited during construction activities. Outreach to the boating community would be conducted before and during construction to notify users of river closures (See public outreach plan).

Farmlands/Timberlands

FT-1: **Construction Staging.** Construction staging areas would be limited to the minimum area necessary.

FT-2: **Restore Temporarily Disturbed Agricultural Areas.** Temporarily disturbed agricultural areas would be protected using temporary construction entrances and roadways to protect soils (standard specifications sections 13-7.03 and 13-4.03C) and by preventing the spread of invasive species (standard specification section 14-6.05). Soils that may have been compacted would be loosened upon project completion.

Utilities and Emergency Services

UE-1: Notify Emergency Response Providers. All emergency response agencies in the project area would be notified of the project construction schedule. Access to U.S. 101 throughout the construction period would be available apart from the temporary closure proposed under Alternative 3A.

UE-2: Coordinate with Utility Providers. Caltrans would coordinate with utility providers before relocation of any utilities to ensure potentially affected utility customers would be notified of possible short-term service disruptions before relocations.

UE-3: **Street Lights and Bridge Bike Warning Systems during Construction**. Power to the Pacific Power poles would be rerouted for the project duration and maintained around the structure to service street lights and bridge bike warning systems.

UE-4: Relocate USGS Gage Station. Caltrans would coordinate with the USGS to relocate the gage station.

Traffic and Transportation

TT-1: **Maintain Pedestrian and Bicycle Access.** Pedestrian and bicycle access would be maintained during construction.

TT-2: **Maintain Access to Driveways and Public Roads**. The contractor would be required to minimize any access delays to driveways or public roadways within or near the work zones.

TT-3: Transportation Management Plan. A Transportation Management Plan would be applied to the project and would include the following measures:

- Bicycles and pedestrians would be accommodated through the work zone at all times. Signage would be used to alert vehicles of the possible presence of bicyclists. During reversing traffic control, bicyclists would be instructed to join the vehicle queue.
- The public would be notified of any route closures and/or detours.
- Any emergency service agency whose ability to respond to incidents would be affected by any lane closure would be notified prior to the closure.
- Construction activities would be coordinated with the local busing system (including school buses and public systems) to minimize impact on bus schedules.
- Access to businesses, side roads, and residences would be maintained at all times.

Visual/Aesthetics

VA-1: **Bridge Aesthetic Treatment.** Aesthetic treatment to the bridge would be included, such as Tolowa Dee-Ni' Nation and Elk Valley Rancheria Tribal patterns, to address context sensitivity.

VA-2: Revegetate Riparian and Wetland Areas. Riparian and wetland areas affected would be revegetated with regionally appropriate native plants (see revegetation plan).

VA-3: Restore Temporary Access and Staging Areas. Any temporary access roads, removed roadway, or staging areas would be restored to a natural contour and revegetated with appropriate native plants. Plant species and methods for installation has been developed by the

project landscape architect and revegetation specialist (please see Revegetation and On-site Mitigation Plan for the project).

VA-4: **Bridge Railing Design.** See-through railing would be installed to provide more visibility to the surrounding natural elements. Railings would be painted or stained with a color that enhances visual character and memorability of the bridge.

VA-5: Avoid and Minimize Tree Removal. The removal of established trees and vegetation would be avoided and minimized, where feasible. Existing trees of significant size and maturity would be preserved and protected during construction, where feasible. Environmentally sensitive areas (ESA) would have Temporary High Visibility Fencing (THVF) installed to demarcate areas where vegetation would be preserved, and root systems of trees would be protected.

VA-6: Retaining Wall Design. Design and aesthetic elements would be incorporated into the retaining walls, such as Tolowa Dee-Ni' Nation and Elk Valley Rancheria Tribal patterns and be colorized or painted with earthen hues to blend with the natural surrounding environment.

VA-7: Guardrail Terminals. Bury guardrail terminals when feasible, otherwise use in-line end-section if appropriate.

VA- 8: Construction Lighting. Limit construction lighting within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

Cultural Resources

CR-1: **Unexpected Discovery of Cultural Materials.** If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be stopped until a qualified archaeologist can assess the nature and significance of the find in consultation with the State Historic Preservation Officer. If significant, the provisions outlined in 36 CFR800.13 would then be followed.

CR-2: Procedures for Human Remains. If human remains are discovered, State Health and Safety Code 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resource Code (PRC) 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission (NAHC) which would then notify the Most Likely Descendent (MLD). Further provisions of PRC 5097.98 are to be followed as applicable.

CR-3. Tribal and Archaeological Monitoring. An archaeological and tribal monitor will be present during all ground-disturbing construction activities, consistent with the Monitoring Plan adopted by Caltrans (Caltrans 2019b).

CR-4: **Shipwrecks.** If a shipwreck is discovered during construction, Caltrans would consult with the State Lands Commission, as the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the State Lands Commission (PRC 6313). The final disposition of archaeological, historical, and paleontological resources recovered on state land under the jurisdiction of the State Lands Commission must be approved by the State Lands Commission.

Hydrology and Floodplain

HF-1: **Remove Gravel Berms and Construction Trestle Decks.** Temporary construction trestle decks and gravel berms would be removed from the river prior to October 15 each year.

HF-2: **Debris Management Plan.** Caltrans will require the contractor to prepare and implement a Debris Management Plan. This plan would require the contractor to conduct inspections of the construction site on a regular basis as well as after major storm events to monitor debris loading and implement measures, as determined feasible, to remove debris that poses a threat to temporary and permanent infrastructure and channel/bank stability. Measures would include the use of onsite equipment (e.g., cranes) to dislodge or remove debris caught on project-related structures in the river, when site conditions allow the safe removal of debris.

Water Quality and Storm Water Runoff

WQ-1: Prepare and Implement SWPPP. The project was initiated prior to the issuance of the current Caltrans Statewide National Pollution Discharge Elimination System (NPDES) Permit (Order 2012-0011-DWQ), but would comply with the Provisions of the 1999 Caltrans NPDES Permit (Order 99-06-DWQ) and the Construction General Permit (Order 2009-0009-DWQ, as amended). Before any ground-disturbing activities, the contractor would prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes erosion-control measures and construction waste containment measures so that waters of the State are protected during and after project construction. The SWPPP would identify the sources of pollutants that may affect the quality of storm water; include construction site BMPs to control sedimentation, erosion, and potential chemical pollutants; provide for construction materials management; include non-storm water BMPs; and include routine inspections and a monitoring and reporting plan. All construction site BMPs would follow the latest edition of the Storm Water Quality Handbooks: Construction Site BMPs Manual to manage construction-related activities, materials, and pollutants in the

watershed. The project SWPPP would be continuously updated to adapt to changing site conditions during the construction phase.

WQ-2: Pollution Prevention and Design Measures. The project would incorporate pollution prevention and design measures consistent with the 2016 Caltrans Storm Water Management Plan to meet Water Quality Objectives (WQOs). This Plan complies with the requirements of the Caltrans Statewide NPDES Permit (Order 2012-0011-DWQ).

WQ-3: Prepare and Implement Dewatering Construction and Management Plan. A Dewatering Construction and Management Plan would be prepared to ensure the dewatering area is appropriately sized and managed for the volume of water generated and discharged.

WQ-4: Permanent BMPs to Treat Operational Stormwater Runoff. To treat storm water runoff, permanent treatment BMPs would be incorporated into the project design during the final project design phase to the maximum extent practicable. For example, bioswales and/or bio-filtration strips and vegetated slopes (VS) are proposed to be incorporated to promote retention and treat runoff prior to discharge. Of these three, bio-filtration strips and vegetated buffer strips both meet the State Water Resources Control Board (SWRCB) Low Impact Development (LID) design requirements. The design requirements for these features include side slopes equal to or less than 4:1; 70 percent vegetative cover; and placement in areas that receive sheet flow from paved surfaces.

WQ-5: Implement Debris Containment System. Under all build alternatives, construction and demolition debris would be prevented from falling or otherwise entering the river. The contractor shall prepare a Debris Containment Plan, detailing proposed temporary containment systems that would be used to prevent falling debris from entering the river during bridge demolition and bridge construction. The containment system may include steel or timber posts and girders, timber decking, and heavy tarps. Should any construction debris enter the river, material would be removed as soon as possible.

Geology/Soils/Seismic/Topography

GS-1: Erosion Control BMPs. The project would be designed to minimize slope failure, settlement, and erosion using recommended construction techniques and BMPs.

GS-2: Seismic Design Elements. To address potential seismic movement, isolation bearings would be used for CIP bridge.

GS-3: Retaining Walls and Soldier Pile Walls. Retaining walls and soldier pile walls would be incorporated into project design to avoid large volumes of fill or cut banks.

Paleontology

PA-1: Unexpected Discovery of Paleontological Resources. If paleontological resources are discovered during excavation, earth-moving activity within and around the immediate discovery area would be diverted until a qualified professional paleontologist can assess the nature and significance of the find. If the resource is determined to be significant, monitoring and mitigation would be required.

Hazardous Waste and Material

HW-1: Lead Compliance Plan. The contractor(s) would prepare a project-specific Lead Compliance Plan (8 CCR 1532.1, the "Lead in Construction" standard) to reduce worker exposure to lead-impacted soil and lead-containing paint. The plan would include protocols for environmental and personnel monitoring, requirements for personal protective equipment, other health and safety protocols and procedures for the handling of lead impacted soil, and requirements for addressing and disposal of lead-containing paint in traffic striping and on the existing bridge.

HW-2: Hazardous Air Pollutants Permit. A National Emissions Standards for Hazardous Air Pollutants permit is required from the North Coast Unified Air Quality Management District for bridge demolitions.

HW-3: Dust Control Plan. A Dust Control Plan would be required and provided by the contractor to address naturally occurring asbestos (NOA).

HW-4: Asbestos Compliance Plan. An Asbestos Compliance Plan would be required and would be provided by the contractor.

HW-5: Treated Wood Waste. Caltrans Treated Wood Waste Standard Specification would be used which includes requirements for handling, storing, transporting, and disposing of treated wood waste.

Air Quality

AQ-1: Air Pollution Control. Air Pollution Control would be implemented per Caltrans Standard Specification 14-9.02 which requires compliance with all air pollution control rules, regulations, ordinances, and statutes that apply to work performed under contract, including the North Coast Unified Air Quality Management District regulations and local ordinances.

AQ-2: Dust Control Measures. Dust Control would be implemented per Caltrans Standard Specification 14-9.03 which prevents and alleviates dust by applying water, dust palliative, or

both, and by covering active and inactive stockpiles. A Dust Control Plan will be developed documenting sprinkling, temporary paving, speed limits, and timely re-vegetation of disturbed slopes as needed to minimize construction impacts on existing communities. Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used. All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize emission of dust during transportation. Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce dust emissions.

AQ-3. Construction Equipment. Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by 17 CCR 93114. To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

Noise

NO-1: Minimize Construction Noise. In order to avoid exceeding 86 A-weighted decibel (dBA) maximum sound level (LMax) at 50 feet from the job site activities during nighttime hours, the following could be implemented to minimize noise under direction from the Resident Engineer: changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

Natural Communities

NC-1: ESA Fencing. The contractor would be required to place temporary ESA fencing along the boundaries of all riparian, wetland, or other environmentally sensitive areas at the direction of the Resident Engineer and biologist to avoid impacts on sensitive habitats adjacent to the project footprint. The removal of established trees and vegetation would be avoided and minimized, where feasible. Where it is possible to save and preserve existing trees (of significant size and maturity), extreme care and caution would be implemented during the construction phase. ESA fencing would be installed to demarcate areas where vegetation would be preserved, and root systems of trees would be protected.

NC-2: Restoration of Temporary Impact Areas. After all construction materials are removed, the project area would be revegetated with native vegetation. All temporarily affected wetland and riparian areas would be restored to pre-existing conditions. Native vegetation will be replaced in-kind to reestablish the area to pre-project conditions. Replanting would be subject to

a plant establishment period as defined by project permits, which would require Caltrans to adequately water plants, replace invasive and otherwise unsuitable plants, and control pests. Caltrans would implement a program of invasive weed control in all areas of soil disturbance caused by construction to improve habitat for native species in and adjacent to disturbed soil areas within the project limits.

NC-3: Minimize Project Footprint. The project footprint would be reduced to the maximum extent feasible.

NC-4: Worker Environmental Awareness Training. The pre-construction meeting with the contractor would consist of a briefing on environmental permit conditions and requirements relative to each stage of the proposed project, including, but not limited to, work windows, construction site management, and how to identify and report regulated species within the project areas. This will include a discussion of biology, identification, and habitat for sensitive species, including western yellow-billed cuckoo, coho salmon, western pearlshell mussel, and other protected species.

Animal Species

AS -1: Minimize Nighttime Lighting. Night work during certain activities is anticipated for all build alternatives. The use of artificial lighting at nighttime would be minimized to the extent practicable by limiting nighttime construction activities in or near the river, directing light to only those locations that are actively under construction and/or satisfy safety requirements.

AS -2: Nesting Bird Protection. The following would be implemented to protect nesting birds:

- Vegetation removal would occur outside the bird nesting season (February 1 through September 15).
- Prior to project activities during the bird breeding season (February through September), a qualified biologist would conduct a nesting bird and raptor survey, as described below.
    - The preconstruction nesting bird and raptor surveys would be conducted between February 1 1 and September 15, no more than 7 days before the initiation of project activities.
    - If a lapse in project activities for 7 days or longer occurs, another pre-construction survey will be performed.
    - Surveys will be completed within any suitable habitat within the project work limits, plus a 250-foot buffer for passerine nests and a quarter mile buffer for raptor nests.

- For surveys in inaccessible areas, the surveying biologist will use binoculars to scan any suitable nesting substrate for potential nests.
- If an active bird nest is identified within 250 feet of the project work limits or a raptor nest is identified within a quarter mile of the project work limits, a no-disturbance buffer shall be established around the nest to avoid disturbance of the nesting birds until a qualified biologist determines that the young have fledged and are foraging on their own. The extent of these buffers shall be determined by the biologist (coordinating with Caltrans and/or CDFW) and shall depend on the species identified, level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers (such as a slope or bridge abutment).
- In addition to the establishment of buffers, other measures (determined during agency coordination) may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site.
- If no active nests are found during the preconstruction surveys, then no additional measures are required.
- If a western yellow-billed cuckoo or cuckoo nest is discovered in or adjacent to the project, work shall cease and the United States Fish and Wildlife Service (USFWS) and CDFW shall be contacted immediately.

AS -3: Bird Nesting Prevention. Partially constructed and unoccupied nests within the construction area would be removed and disposed of on a regular basis throughout the bird nesting season to prevent their occupation. Nest removal would be repeated weekly, or more frequently, as needed, under guidance of a qualified biologist to ensure nests are inactive prior to removal. Removed nest material would be prevented from falling into waterways to the maximum extent possible. Exclusionary devices may be used to prevent birds from nesting on the existing bridge under the guidance of a qualified biologist and where application does not have the potential to entrap or harm night roosting bats.

Invasive Species

IS-1: Reseed Disturbed Areas with Native Species. To prevent the spread of invasive plant species in disturbed soil after construction, all disturbed areas would be seeded with native herbaceous species and weed-free mulch would be applied.

IS-2: Wash Invasive Species and Pathogens from Equipment. Construction equipment would be inspected and cleaned to remove invasive species and/or pathogens before being brought to the project site and prior to removal from the project area.

IS-3: Equipment Decontamination. Equipment used in the river (i.e., sheetpiles for cofferdams, drill rigs, etc.) would be decontaminated per CDFW protocol for removal of New Zealand mudsnails (NZMS) before entering the river and after being used in the river.

IS-4: Avoid Spreading Sudden Oak Death (SOD) Pathogen. To minimize the opportunity of spreading the SOD pathogen, all California bay and tan oak trees that would be cut down, and any trimmed branches, would be chipped and left onsite.

Task and Brief Description	Responsible Branch / Staff	Timing / Phase
Mitigation for Significant Impacts under CEQA.		
Visual-5: Screen Nearby Residences and Traveling Public. Plant trees and shrubs to screen residences from the highway and retaining walls, as well as the traveling public from the quarry.	Landscape Architect	During/ Post Construction
Coho-1: Coho Salmon. To fully mitigate for take of coho salmon that may result from this project, Caltrans would improve fish passage at Dominie Creek and fund a portion of the Rowdy Creek Fish Passage Improvement Project that will be executed by the Tolowa Dee-ni' Nation (see descriptions in Mitigation Projects). Remediation of the culvert that carries Dominie Creek under Highway 101 at Post Mile 39.8 and work at Rowdy Creek has been deemed as sufficient mitigation for Coho *(pending CD).* Prior to any project activities that could incidentally take SONCC coho salmon, Caltrans will provide CDFW with written documentation that Caltrans has allocated sufficient funds, acceptable to and approved by CDFW, in the Expenditure Authorization for the project to ensure implementation of all measures to minimize and fully mitigate the incidental take of SONCC coho salmon.	Project Biologist	During Construction
Mussel-1: Western Pearlshell Mussel. The following measures would be implemented to minimize impacts on western pearlshell mussels. -Conduct monitoring per the Mussel Monitoring Plan for the project (includes mussel population monitoring and physical elements such as velocities onsite and in reference locations pre- during and post- construction; as well as an Emergency Relocation Plan that would be executed if deemed necessary) -Establish a mussel bed ESA with the use of highly visible buoys prior to the start of in-channel work. -Normalize summer flow to the extent practicable. - Implement standard BMPs to avoid hazardous material spills or leaks, reduce the potential for sedimentation, and avoid other impacts on water quality. -Minimize erosion impacts. -Monitor and remove racked debris. -Discourage recreational boat access at the mussel bed.	Qualified Biologist, RE	Pre/ During/ Post Const
Riparian-1: Riparian Habitat. Compensatory mitigation would be required to offset permanent and temporary impacts on riparian habitat. Caltrans proposes restoration and replanting of temporarily disturbed areas to enhance riparian habitat. Native vegetation will be planted. On-site riparian restoration areas include restoring the unvegetated disturbed area along the Smith River's south bank. Part of the mitigation package includes removing invasive species at the Hambro Parcel (see description above under "Mitigation Projects") located northwest of and directly adjacent to Caltrans' Crescent City Marsh Wildlife Area.	Revegetation and mitigation specialist, Project Biologist	Pre/ During/ Post Const
Wetlands-1: Wetlands. While the standard measures built into the project would help offset potential effects, Caltrans is pursuing compensatory mitigation for impacts on wetlands and other waters. Mitigation includes on-site revegetation, on-site wetland creation, and off-site wetland enhancement at the Hambro property (e.g., invasive species removal).	Revegetation and mitigation specialist, Project Biologist	Pre/ During/ Post Const