

Redwood Creek Ecosystem Restoration, CAP 1135 Review Plan (Execution Sheet)

(using Template 3.12.18)

Project Title: Redwood Creek Ecosystem Restoration, Continuing Authorities Program (CAP) 1135

This study is being conducted under Section 1135 of the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662). Section 1135 projects are part of a larger Continuing Authorities Program (CAP) under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design, and implement certain types of water resources projects without additional project-specific authorization. The Section 1135 authority allows the United States Army Corps of Engineers (USACE) to modify existing USACE projects to restore the environment and construct new projects to restore areas degraded by existing USACE projects when it is determined that such modifications are feasible, consistent with the authorized project purpose, and will improve the quality of the environment in the public interest. Work under this authority can include modification to the structures and operations of water resources project constructed by USACE or undertake restoration projects at locations where a USACE project has contributed to environmental degradation.

The Section 1135 program is conducted in partnership with a non-federal sponsor (NFS). The USACE and the NFS share the study and implementation costs. The Federal share of planning, design and construction cannot exceed \$10,000,000 per project.

1. PROJECT INFORMATION

a. Project Description

The proposed study area is Lower Redwood Creek and Redwood Creek Estuary, where the 178,000-acre coastal watershed discharges into the Pacific Ocean. Located in North Humboldt County and the ancestral territory of the Yurok Tribe, Redwood Creek flows northwest from the North Coast Range to an alluvial agricultural valley containing the community of Orick and portions of Redwood National and State Parks. The final 3.4 miles of the creek are bound by two earthen embankment levees, the Redwood Creek Flood Control Project completed by the USACE in 1968 and authorized by Flood Control Act of 1962 (Public Law No. 87-874, 87th Congress, 2nd Session). The levees straightened and channelized lower Redwood Creek, constrained Redwood Creek Estuary, and disconnected the Redwood Creek from tributaries Sand Cache Creek and Strawberry Creek. The construction of the Redwood Creek Flood Control project shrank the area of the riparian corridor and estuarine environment along lower Redwood Creek resulting in loss of vegetation and habitat complexity. Impairments in the hydraulic and sediment transport systems of lower Redwood Creek also caused the propagation of invasive Reed Canary Grass in the North Slough and Sand Cache Creek area.

The study's draft planning objectives are to:

- 1) Reestablish hydraulic, sediment transport, and floodplain processes necessary to restore and sustain ecological function in lower Redwood Creek and,
- 2) Restore aquatic habitat utilized by the federally threatened salmonid species such as the

Southern Oregon/Northern California Coast coho salmon, California Coastal Chinook salmon, and Northern California steelhead

- 3) Improve function and productivity of surrounding agricultural land.

The study's planning constraints include:

- The project design, construction, and operations and maintenance plan must comply with applicable Federal laws, regulations, and policies such as the National Environmental Policy Act, Endangered Species Act (ESA), Fish and Wildlife Coordination Act (FWCA), Clean Water Act (CWA), Clean Air Act (CAA), National Historic Preservation Act (NHPA), Coastal Zone Management Act (CZMA) and all other applicable environmental laws and regulations.
- Any restoration project cannot unduly exacerbate flood risk in the project area.
- The NFS is unwilling to invoke eminent domain for restoration, thus any restoration project will only include property acquisition or standard estate if there is voluntary agreement of willing landowners.
- Any restoration project will be consistent with the resource protection and preservation responsibilities of the National Park Service for affected federal land in Redwood National Park.

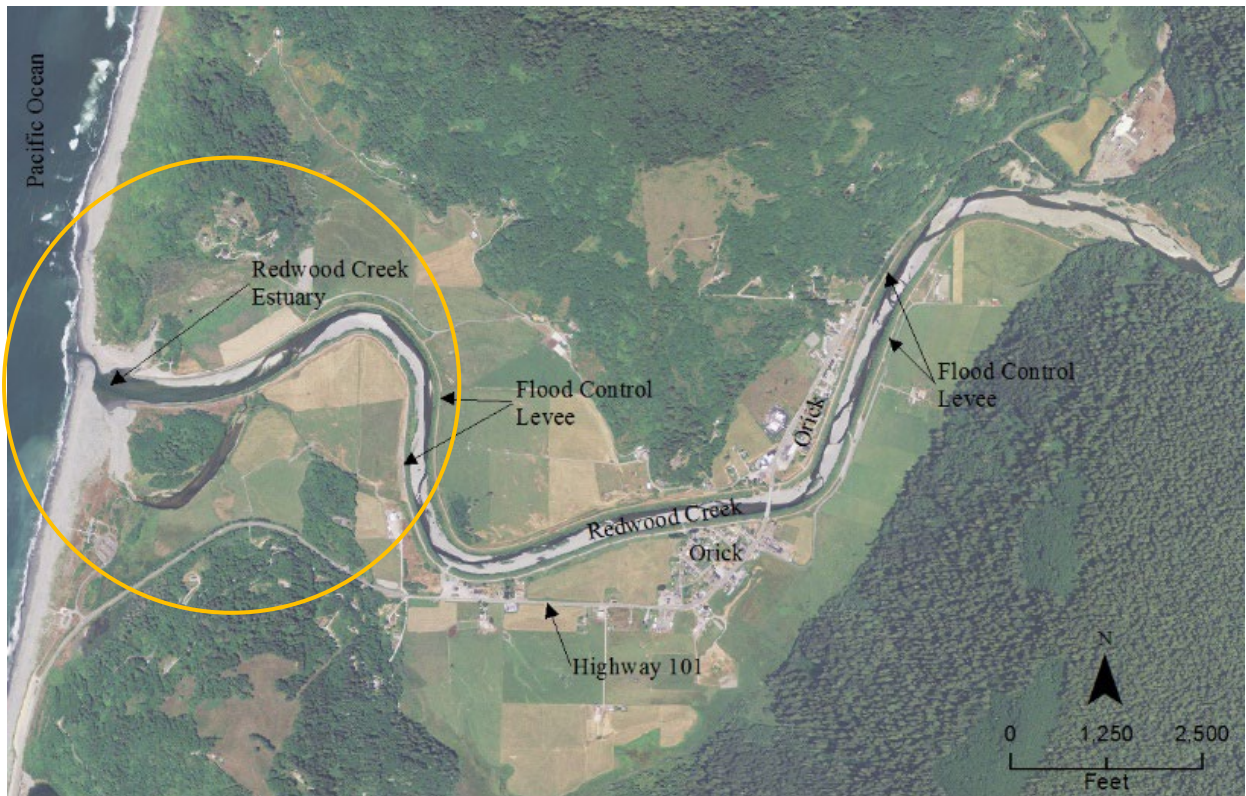


Figure 1. Redwood Creek and CAP 1135 Redwood Creek Ecosystem Restoration Study Area (circled in yellow).

b. Factors Affecting the Scope and Level of Review.

- Comprehensive Benefits: The project delivery team (PDT) is completing a comprehensive benefits evaluation to ensure the effects of alternatives are documented regarding Other

Social Effects (OSE), Environmental Quality (EQ), Regional Economic Development (RED) and National Economic Development (NED).

- Ecosystem Restoration Benefit Modeling: The PDT will coordinate with the ecosystem restoration planning center of expertise (Eco-PCX), U.S. Fish and Wildlife Service, NOAA, and SPD planning to develop an ecosystem benefit modeling strategy that is appropriate for this project. This will likely include modeling on how alternatives influence rearing habitat by measuring factors like area of lagoon habitat, depth, velocity, cover, refugia, shoreline length, and shoreline quality.
- Modification of an existing USACE project: The CAP 1135 authority is intended to improve existing USACE structures, that have degraded the environment, for the purpose of the ecosystem. For Redwood Creek, this will likely include measures that modify and setback federal levees to allow for a more natural estuary ecosystem. The study's plan formulation will be in alignment with the levee setback guidance issued in Assistant Secretary of the Army, Civil works (ASA(CW)) memorandum dated 16 May 2016, Subject: Puget Sound Nearshore Ecosystem Restoration Project (PSNERP- Nooksack River Delta Setback Levees – Policy concurrence).

[It is the policy of the Army to encourage floodplain restoration, as it encourages community resilience and provides benefits to both the ecosystem and human wellbeing. The use of levee set-backs, along with other measures to increase and enhance floodplains, is encouraged in aquatic ecosystem restoration projects. It is also the policy of the Army not to increase flood risks or decrease life safety without sufficient justification. When formulating restoration projects that propose restoring floodplains, the Corps should use the existing level of flood risk as the formulation baseline. If any changes to the baseline are recommended, then the Corps should demonstrate the rationale for the increase or decrease in the level of flood risk management. If the level of flood risk associated with an ecosystem restoration project is decreased, then the risk reduction increment above the baseline must be cost effective and incrementally justified. If the level of flood risk is increased as a result of ecosystem restoration, then the Corps must mitigate any induced damages as part of the restoration project. This policy shall be added to ER 1105-2-100 during its next update.]

- As a follow-up to the FID meeting on 23 May, 2022, SPD and SPN OC will research the authority of the CAP 1135 program to modify the 1962 authorized project. A meeting is being held with SPD OC on 1 Feb 2023 to discuss this topic.
- SPN will perform a scaled risk analysis during the feasibility study per the requirements laid out in ECB 2022-7. The scaled risk analysis will evaluate the projects risks to life safety relative to the tolerable risk guidelines laid out in the ECB.
- Sea Level Rise: The project area is subject to sea level rise. The engineering technical modeling approach for the study follows USACE guidance related to sea level rise and climate change impacts to inland hydrology (ER 1100-2-8162 and ECB 2018-14, respectively).
- Sensitive Species: The Redwood Creek is home to Federally listed and endangered species and therefore it will be important to coordinate closely with regulatory agencies. An Environmental Assessment is being prepared in accordance with the National Environmental Policy Act and all other applicable federal laws will be followed.
- Stakeholder Engagement: The Redwood Creek Estuary Stakeholder group is comprised of local landowners, Tribal, local government and state and federal agencies with intergenerational knowledge and local expertise. Consistent engagement of the stakeholder

group by the PDT is critical for project formulation, inform development, modeling and evaluation of measures and alternatives.

- Real Estate: This project has three primary landowners: two agricultural/private landowners and the National Park Service. Successful restoration will require participation by all three landowners through the Corps’ real estate acquisition process. These landowners are intimately involved in the project through Federal, Tribal, and NFS representation and the project’s project management plan (PMP) accounts for the work necessary to secure these lands. The standard estate for ecosystem restoration projects is fee simple in accordance with ER 405-1-12, 12-9 b(6)) and the project has requested a real estate team member with experience with standard and non-standard estates.

c. In-Kind Contributions.

- The NFS may contribute work in kind to the project. Products and analyses provided by the NFS as in-kind contributions and are subject to DQC and ATR.

2. DISTRICT QUALITY CONTROL (DQC)

a. Required DQC Team Expertise.

DQC Disciplines	Expertise Required
Planning	The plan formulation reviewer should have specialized expertise in USACE plan formulation, CAP project planning for ecosystem restoration projects, and be familiar with the “Planning Guidance Notebook” (ER-1105-2-100), CAP planning guidance (EP-1105-2-58) , the Water Resources Council’s Principals and Guidelines, SMART Planning guidance, CE/ICA, and recent planning updates.
Economics	The economics reviewer should be either from the certified list by business line, or for exceptions, be approved as developmental reviewer by the Economics Sub-Community of Practice. The economics reviewer should be a senior economist with experience in ecosystem restoration planning and CE/ICA.
Culture Resources	The cultural resources reviewer should have experience in completing ecosystem restoration and flood risk management studies. An understanding on the significance of the region's precontact archaeological sites, such as shell middens, is needed due to this cultural resource type being situated throughout the study area. The reviewer should also have years of experience in complying with federal environmental and historic preservation law, specifically Section 106 of the National Historic Preservation Act and its implementing regulations under 36 CFR 800 as well as NEPA. Knowledge on USACE’s tribal trust responsibilities and any other regulations tied to coordination with tribes and historic organizations is needed.
Environmental Resources	The environmental reviewer should have demonstrated experience in the field of ecosystem restoration, environmental effects analysis of coastal restoration projects, preferably in and around west coast estuaries. The reviewer should be familiar with threatened and endangered species in the area, be up to date on requirements of NEPA, joint NEPA/CEQA documents; Coastal Zone Management Act,

	Sections 404 (b)(1) Alternatives Analysis under Clean Water Act; Marine Mammal Protection Act; Clean Air Act. The reviewer should have expertise with ecosystem benefit modeling and its contribution to CE/ICA in the development and evaluation of alternatives. Model inputs and outputs should be reviewed.
Hydraulics and Hydrology and Coastal Engineering	The hydraulic engineering reviewer will be an expert in the field of hydrology and hydraulics and have experience in completing hydraulic modeling and analysis for a coastal and inland flood risk management projects. They should have a thorough understanding of coastal flooding processes, fluvial and coastal geomorphology, sediment transport, open channel dynamics, application of flood walls, non-structural solutions involving flood warning systems and flood proofing, application of the USACE sea level rise curves, and operating 2D HEC-RAS hydraulic modeling software.
Sedimentation	If the H&H and coastal reviewer does not have adequate expertise to review fluvial geomorphology and sediment transport, this is a placeholder for an additional reviewer with the expertise necessary. The reviewer should have expertise in fluvial geomorphology.
Climate Change	The climate reviewer should have expertise in sea level rise and climate change impacts to inland hydrology (ER 1100-2-8162 and ECB 2018-14, respectively).
Cost Engineering	The reviewer should be a cost estimating specialist competent in cost estimating for both construction and ecosystem restoration using MCACES/MII; working knowledge of construction and environmental restoration; capable of making professional determinations based on experience.
Geotechnical Engineering and Levee Safety	The reviewer should have recent experience in the Corps' design requirements and levee safety. This person should also have experience in wetland restoration and the geotechnical design aspects of such project.
Civil Engineering	The reviewer should have experience in the design of coastal wetland restoration features, river structures (including levees and grade control), including road crossing design, channel design, and associated design aspects.
Construction Management	The reviewer should have expertise in fluvial and coastal ecosystem restoration wetland construction project management.
Real Estate	Real Estate reviewers should be senior real estate specialist with experience in standard and non-standard estates common to ecosystem restoration projects.

- b. DQC Documentation.** DQC reviewers will record substantive comments in DrChecks. Editorial comments are appreciated using tracked changed in the document being reviewed or a separate MSWord or MSEXcel document. Reviewers will be requested to review the Tentatively Selected Plan read-ahead, the draft Integrated Report, Technical Appendices, as well as the Draft-Final version of all documents. Once comments are addressed and back-checked, USACE management certifies that DQC is complete. DQC documentation will be available for Agency Technical Reviewers (ATR).

3. AGENCY TECHNICAL REVIEW (ATR)

a. Required ATR Team Expertise:

ATR Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. It is preferred that the ATR lead also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Plan Formulation	The plan formulation reviewer should have experience in USACE plan formulation, CAP project planning for ecosystem restoration projects, and be familiar with the "Planning Guidance Notebook" (ER-1105-2-100), "Continuing Authorities Program" guidance (EP-1105-2-58), the Water Resources Council's Principals and Guidelines, SMART Planning guidance, and recent planning updates.
Economics	The economics reviewer should be a senior economist and certified to review ecosystem restoration planning projects.
Environmental Resources	The environmental reviewer should have demonstrated experience in the field of ecosystem restoration, environmental effects analysis of coastal projects, preferably in and around west coast estuaries. The reviewer should be familiar with threatened and endangered species in the area, as well as up to date requirements of NEPA, Joint NEPA/CEQA documents; Coastal Zone Management Act, Sections 404 (b)(1) Alternatives Analysis under Clean Water Act; Marine Mammal Protection Act; Clean Air Act. The reviewer should have expertise with ecosystem benefit modeling and its contribution to CE/ICA in the development and evaluation of alternatives. Model inputs and outputs should be reviewed.
Cultural Resources	The cultural resources reviewer should have experience in completing ecosystem restoration and flood risk management studies. An understanding on the significance of the region's precontact archaeological sites, such as shell middens, is needed due to this cultural resource type being situated throughout the study area. The reviewer should also have years of experience in complying with federal environmental and historic preservation law, specifically Section 106 of the National Historic Preservation Act and its implementing regulations under 36 CFR 800 as well as NEPA. Knowledge on USACE's tribal trust responsibilities and any other regulations tied to coordination with tribes and historic organizations is needed.
Geotechnical Engineering and Levee Safety	The reviewer should have recent experience in the Corps' design requirements and levee safety. This person should also have

	experience in wetland restoration projects, flood risk management projects, and the geotechnical design aspects of such project.
Coastal Engineering/ Hydrologic & Hydraulic Engineering	The hydraulic engineering reviewer will be an expert in the field of hydrology and hydraulics and have experience in completing hydraulic modeling and analysis for a coastal storm, flood risk management, and ecosystem restoration project. They should also have expertise in hydrology, fluvial and coastal geomorphology, sediment transport, lagoon and estuary processes, open channel dynamics, application of the USACE sea level rise curves, and operating 2D HEC-RAS hydraulic modeling software.
Sedimentation	If the H&H and coastal reviewer does not have adequate expertise to review fluvial geomorphology and sediment transport, this is a placeholder for an additional reviewer with the expertise necessary. The reviewer should have expertise in fluvial geomorphology.
Climate Change	The climate reviewer should be a senior level scientist or engineer and have expertise in sea level rise and climate change impacts to inland hydrology (ER 1100-2-8162 and ECB 2018-14, respectively).
Civil Engineering	The civil reviewer should be a senior water resources civil engineer with experience in Civil Works planning and the design of coastal wetland restoration features, river structures (including levees and grade control), including road crossing design, channel design, and associated design aspects.
Cost Engineering	The cost engineering reviewer should be a senior water resources cost engineer with experience in Civil Works planning including Cost Mandatory Center of Expertise (MCX) Staff or Cost MCX Pre-Certified Professional with experience preparing cost estimates for ecosystem restoration projects.
Real Estate	The real estate reviewer should be a senior water resources real estate specialist with experience in Civil Works planning and have a thorough understanding of easements, right of ways, and land acquisition.

4. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. Decision on Type I IEPR.

In accordance with Director of Civil Works Memorandum (05 APR 2019), Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery, the three mandatory conditions determining whether Type I IEPR is undertaken are as follows:

- When the estimated total cost of the project, including mitigation costs, is greater than \$200 million. *Not applicable here.*
- When the Governor of an affected state requests a peer review by independent experts. *Not applicable here.*

- When the Chief of Engineers determines the project study is controversial due to significant public dispute over the size, nature, or effects of the project or the economic or environmental costs or benefits of the project (including but not limited to projects requiring an environmental impact statement (EIS)). *Not applicable here.*

The decision to forgo Type I IEPR will be reviewed at the TSP Milestone and the TSP MFR will document the MSC’s risk-informed assessment of the expected contribution of IEPR and determination that Type I IEPR is not required. Due to the limited scope of this study, it is anticipated that Type I IEPR would not provide substantial benefit to the project. The project is not expected to have significant environmental impacts and will therefore be completing an EA, not an EIS. There is also a low potential for public controversy and complexity. The consequences of non-performance or project failure on project economics, the environmental and social well-being (public safety and social justice) is akin to the Without Project Condition and will be evaluated as part of the Feasibility Study. Additionally, the outcomes of the study are not anticipated to contain influential scientific information or highly influential scientific assessment. No additional action to exclude the study from IEPR is necessary.

b. Required Type I IEPR Panel Expertise.

IEPR Panel Disciplines	Expertise Required
N/A	N/A

c. Anticipated Type II IEPR (Safety Assurance Review (SAR)).

IEPR is divided into two parts: Type I and Type II. Type I is for decision documents and Type II is for implementation documents. Type II IEPR, also known as a Safety Assurance Review (SAR), is required for any project where potential hazards pose a significant threat to human life.

None of the foreseeable project alternatives are anticipated to result in impacts to population or infrastructure posing significant threat to human life and safety. The project area is rural, with two sides grazing lands and one side connects to a lagoon, beach and the Pacific Ocean. The upstream side of the project will connect to the existing Federal project levees (figure 1), with the town of Orick being approximately 1.5 miles upstream from this project site. Any potential ecosystem restoration alternative in the project area will not impact human life and safety. The risk assessment performed on the project will reassess if a Safety Assurance Review is needed.

For the reasons stated above, the SPN Chief of Engineering has made a risk-informed decision (Attachment 2) per PB 2019-4 and ECB 2022-7 that this project does not pose a significant threat to human life (public safety); therefore, a SAR will not be performed. This determination was discussed with the Risk Management Center. This decision may be re-evaluated during the scaled risk analysis that will be performed during the feasibility study.

5. MODEL CERTIFICATION AND APPROVAL

a. Planning Models.

The following planning models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status	Peer Review Anticipated
Ecological Benefits Models	The ecological benefit model will illustrate the improvements to the ecosystem due to the restoration of more natural estuary hydrology. The team will determine what model to use during the early feasibility phase. The PDT intends to review the library of approved/certified models during the early feasibility phase. An existing approved/certified model will be used if a suitable model is available. If a suitable approved/certified model is not identified, the use of any new planning models will undergo appropriate review as part of the DQC and ATR process	Not necessary for CAP projects	The use of the model will undergo DQC and ATR will be conducted as part of the regular planning process.
IWR CE/ICA	A cost effectiveness incremental cost analysis is completed through the IWR-Planning Suite to compare the alternatives (or measures) under consideration for the project site. The analysis evaluates the effectiveness and efficiency of the site alternatives at producing environmental outputs in relation to the alternative (or measure) cost and determines the most effective and efficient alternative (or measure) to recommend as the NER plan	Certified for National use	Input and outputs will be reviewed during the DQC and ATR reviews.

b. Engineering Models.

The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status	Peer Review Anticipated
HEC-RAS 6.0	Hydraulic Engineering Center’s River Analysis System (HEC-RAS) will be used to create a 2-D model of the project area. This model will evaluate water levels and depths, velocities, inundation extents and patterns under no-project and future project conditions.	Certified	No
HEC-RAS 6.3 for sediment transport modeling	HEC-RAS 6.3 has new sediment transport modeling capabilities that could potentially be used in the 2D modeling of the restoration alternatives; as these tools are in beta version, we will consult with HEC as to how to best apply these tools to the project.	Beta version available—not certified.	Yes, but not project funded.
Coastal Modeling System (CMS)	The Coastal Modeling System is an integrated 2D numerical modeling system for simulating waves, current, water level, sediment transport, and morphology change at coastal inlets and entrances. CMS will be used to model the coastal and sediment processes at the mouth of Redwood Creek lagoon for existing conditions, future without	Certified	No

	project and future with project conditions. The model will be used to inform the restoration alternative design at a conceptual level and evaluate hydraulic and environmental outcomes at the shore associated with the alternatives.		
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6. REVIEW SCHEDULE AND COST

The study is scheduled to initiate in June 2023, although the timing is uncertain due to the need for the NFS to secure the local costshare. Dates below are based on the best available information as of 2QFY2023.

Feasibility Cost Sharing Agreement: June 2023

Pre-TSP IPR: May 2024

TSP Milestone: July 2024

Release Draft Report: September 2024

a. DQC Schedule and Cost.

- Estimated cost is \$55,000.
- Hydrology Certification: December 2024
- TSP RAH including Fact Sheet and Presentation: May – June 2024
- Draft Detailed Project Report and Environmental Assessment: Sept-Oct 2024

b. ATR Schedule and Cost.

- Estimated cost is \$70k.
- Hydrology Certification: December 2023
- Draft Detailed Project Report and Environmental Assessment: Sept-Oct 2024

c. Planning and Engineering Model Peer Review Schedule and Cost

- Estimated cost is \$20k. The PDT intends to review the library of approved/certified models during the early feasibility phase. An existing approved/certified model will be used if a suitable model is available. If a suitable approved/certified model is not identified, the use of any new planning models will undergo appropriate review as part of the DQC and ATR process

d. Type I IEPR Schedule and Cost. N/A

e. Type II IEPR (SAR) Schedule and Cost. N/A

7. PUBLIC AND PARTNER ENGAGEMENT

The PDT coordinates engagement of Redwood Creek stakeholders in collaboration with the Redwood Creek Stakeholder Group. The Redwood Creek Stakeholder Group includes Humboldt County, CalTrout, California Department of Fish and Wildlife (CDFW), Yurok Tribe, National Marine Fisheries Services (NOAA Fisheries), US Fish and Wildlife Service (USFWS), the National Park Service (NPS), North Coast Regional Land Trust (NCRLT), and landowning Hufford and Zuber Families.

In coordination with the NFS and Stakeholder Group, the PDT has developed a communication plan and public involvement plan to ensure there is transparent and consistent communication between the PDT, the Stakeholder Group and other local agencies, Tribes, landowners regarding the study process, project formulation and any known project impacts. Coordination to date has included consistent attendance by USACE PDT members in stakeholder meetings convened by CalTrout and the inclusion of federal agencies working in the area, in PDT meetings. The NFS Humboldt County is leading engagement of the

unincorporated community of Orick. The team is continuing to meet with local stakeholders to support formulation prior the TSP. The draft report will be released for public comment after the TSP milestone.

8. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the project following point of contact: Joél Flannery at Joel.R.Flannery@usace.army.mil.

9. TEAM ROSTER

Redacted. Please direct public comments to the Project Manager, see paragraph 8.

10. PROJECT FACTSHEET REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

12. DISTRICT CONCURRENCE / DISTRICT QUALITY CONTROL CERTIFICATION

District Quality Control (DQC) of the Redwood Creek CAP 1135 Programmatic Review Plan Execution Sheet has been completed. All comments resulting from DQC review have been resolved.

General Findings

Compliance with clearly established policy principles and procedures, utilizing clearly justified and valid assumptions, has been verified. The undersigned recommend certification of the quality control process for this product.

Certification of District Quality Control Review and Coordination

Certification is hereby given that all quality control activities and coordination appropriate to the level of risk and complexity inherent with the completed product have been completed. All concerns resulting from District Quality Control Review of the project have been fully resolved.

We the undersigned concur in the review plan execution sheet, dated 3 April 2023, for the Redwood Creek CAP 1135 project.

Tessa Beach, PhD.
San Francisco District Planning Chief

Date

Son Ha, PE
San Francisco District Engineering Chief

Date

ATTACHMENT 1

Sample Statements of Completion and Certification of ATR for Decision Documents

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the review plan for the Redwood Creek Ecosystem Restoration CAP 1135 project located near Orick, CA. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-217. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager (home district)

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Firm Project Manager¹

Company, location

Date

SIGNATURE

Name

Review Management Office Representative

Office Symbol

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: [Describe the major technical concerns and their resolution.](#)

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Name

Chief, Engineering Division (home district)

Office Symbol

Date

SIGNATURE

Name

Chief, Planning Division (home district)

Office Symbol

Date

¹ Only needed if some portion of the ATR was contracted

ATTACHMENT 2

INDEPENDENT EXTERNAL PEER REVIEW (IEPR) TYPE II ASSESSMENT AND AGENCY TECHNICAL REVIEW (ATR) ASSESSMENT

INDEPENDENT EXTERNAL PEER REVIEW (IEPR) TYPE II ASSESSMENT AND AGENCY TECHNICAL REVIEW (ATR) ASSESSMENT

I have assessed the conditions in the Review Plan for the Redwood Creek CAP 1135 project, near Orick, CA to verify if there is a significant threat to human life or public safety. I concur with the project delivery team's life safety and project performance risk assessment presented in section 4 of this Review Plan. This project was discussed with the Risk Management Center. There is no impact to population or infrastructure to pose a high level of life safety risk. For this reason, my recommendation is that IEPR Type II Safety Assurance Review is not required. The project will have a risk assessment performed in the design and will reevaluate the need of a Safety Assurance Review. The district will perform a District Quality Control (DQC) review for all products. The district will coordinate ATR appropriate to the scope of each product described in this Review Plan.

Son Ha Digitally signed by Son Ha
Date: 2023.03.22
18:27:09 -07'00'

Son Ha, P.E.
Chief of Engineering
San Francisco District

3/22/22

Date