

COASTAL CONSERVANCY

Staff Recommendation

May 27, 2021

PRAIRIE CREEK RESTORATION PROJECT: ELK MEADOWS REACH PLANNING & DESIGN

Project No. 21-008-01

Project Manager: Su Corbaley

RECOMMENDED ACTION: Authorization to disburse up to \$269,318 to the Yurok Tribe for planning and to prepare designs and permit applications for instream salmonid habitat enhancement projects in the Elk Meadows Cabin reach of lower Prairie Creek, a tributary to Redwood Creek, in Humboldt County.

LOCATION: 1.5 miles north of Orick, Humboldt County

EXHIBITS

Exhibit 1: [Project Location Map](#)

Exhibit 2: [Project Letters](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed two hundred sixty-nine thousand, three hundred eighteen dollars (\$269,318) to the Yurok Tribe (“the grantee”) for planning and to prepare designs and permit applications for instream salmonid habitat enhancement features in the Elk Meadows Cabin reach of lower Prairie Creek north of Orick in Humboldt County.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 6 of Division 21 of the Public Resources Code, regarding resource enhancement.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to \$269,318 to the Yurok Tribe to plan, design and prepare permit applications for instream large wood habitat enhancement features in a 3,000-foot reach of lower Prairie Creek located partly on the Elk Meadows Cabins (EMC) property north of Orick in Humboldt County. When installed, the large wood features will increase pool depth and complexity of the streams, thus providing increased shelter for salmonids. They will also aid in the retention of spawning gravel and provide drought resilience for endangered coho and Chinook salmon, and steelhead trout in Prairie Creek. The project area is surrounded by Redwood National and State Parks (RNSP), which encompasses Redwood National Park (RNP) and Prairie Creek State Park (PCSP) and runs 3,000 feet downstream from Little Lost Man Creek below PCSP. The project area is located on both the EMC property and RNP property for the entire 3000-foot length, with the property boundary located in the middle of the creek and is bounded on the east by a levee that protects the EMC property and Highway 101 (see Exhibit 1).

The project is a collaboration between the EMC landowner, National Oceanic and Atmospheric Administration (NOAA) and National Marine Fisheries Service (NMFS), RNSP, and Yurok Tribe restoration staff. The EMC owner, desiring to promote habitat restoration on its property, contacted NOAA and NMFS to discuss restoration options. The RNP joined the discussions as a neighboring landowner. The Yurok Tribe joined the project team to provide technical and design expertise and in recognition of the land being part of the Tribe's ancestral territory. California Department of Fish and Wildlife (CDFW) will participate in planning and design review.

Project objectives include: 1) characterize the 3,000-foot reach of Prairie Creek in terms of geomorphic and habitat conditions, levee stability, hydrology, and other factors; 2) design approximately 13 engineered large wood features; and 3) prepare permit applications in consultation with state and federal resource agencies. In order to achieve these objectives, the Yurok Tribe will conduct field assessments for aquatic and riparian habitat, species density, archaeological and cultural resources, prepare hydraulic models, complete permit applications, and prepare design documents.

The project site is located within the lower two miles of Prairie Creek, a tributary of Redwood Creek. The Redwood Creek watershed was once a highly functional coastal redwood ecosystem, with cool shaded stream channels and unimpaired stream flow to the ocean. Industrial scale timber harvesting, the construction of flood control levees, road and municipal infrastructure, and the conversion of wetlands and bottom lands to agricultural production have profoundly

impacted stream conditions and water quality within the Redwood Creek watershed. The widespread reduction of old-growth redwood forests has increased water temperatures. These land use changes, further compounded by the watershed's erosive geology, have led to elevated sediment delivery and storage in stream channels, simplified instream habitat and decreased connectivity with floodplains and tributaries. The resulting condition of the watershed is one of large-scale reduction in wetland and estuarine habitat, loss of floodplain interaction and an exposed channel, lowered groundwater levels, increased water temperatures, and limited rearing habitat for juvenile salmonids.

Restoration and enhancement of salmonid habitat in lower Prairie Creek is particularly desirable. Despite its setting in the Redwood Creek watershed, and its degraded condition with incised channels and disconnected flood plains, Prairie Creek provides some of the highest quality salmon habitat on the west coast; all three listed anadromous species utilize lower Prairie Creek. Its upstream spawning habitat is protected in RNSP ownership, and even though the encompassing Redwood Creek basin suffers high water temperatures, lower Prairie Creek is a cool water refuge that remains at an adequate year-round temperature for salmonids. According to a 2006 CDFW assessment of the Redwood Creek watershed, including the Prairie Creek sub-watershed, the coho population found in Prairie Creek constitutes the majority of the coho found in the entire Redwood Creek system. The survey also found that Prairie Creek provides forage and habitat for Chinook salmon and steelhead trout. The proposed project, when implemented, will restore critical habitat for salmon and steelhead species, and improve Pacific salmon Essential Fish Habitat.

The EMC reach of Prairie Creek has been significantly altered by the development of the floodplain as a (former) mill site where the cabins now stand, the construction of Highway 101, and the construction of a levee to protect the infrastructure from flooding. It is constrained by the levee and has long straight sections that are devoid of instream complexity, with deeply incised banks and lacking sufficient riparian cover. Following a 2017 assessment of the stream and habitat conditions on lower Prairie Creek, RNSP identified large wood additions and riparian vegetation restoration as the most needed actions to immediately improve habitat for listed salmon.

The project is catalyzed by other ongoing restoration projects on lower Prairie Creek including the downstream adjacent RNSP-led Redwoods Rising project to add large wood and revegetate riparian cover, and the Conservancy-funded Redwood National and State Park Visitor Center and Restoration Project two miles downstream at the confluence of Prairie Creek and Redwood Creek to enhance stream habitat and restore flood plains and wetlands. When considered together, these three projects will greatly enhance Prairie Creek as a wildlife corridor and help anchor it as a salmon stronghold. The project is in the severely disadvantaged community of Orick and, when implemented, will provide direct benefit of improved water quality and habitat for salmonids, an important economic resource to the community. The NPS will support the effort by providing data collection and report preparation in support of federal environmental analysis review and consultations with resource agencies. NPS data will directly support the planning efforts.

Site Description: The EMC property is a privately-owned commercial lodging facility located on the site of a former mill operation, on what was once active floodplain connected to Prairie Creek. The project focuses on the 3,000-foot EMC reach of Prairie Creek downstream of Little Lost Creek, below PCSP, and owned in part by EMC and by RNP with a common property boundary in mid-creek. It has low gradients and high habitat potential but is currently characterized by a simplified and straightened channel, a lack of instream wood, and limited cover and velocity refuge, loss of pools and loss of channel-pool connectivity, and increased sedimentation and water temperatures. It is banked by sparse riparian vegetation dominated by even-aged alders with few conifers being recruited. Several areas are infested with highly invasive non-native plants including reed canary grass, English Ivy, European Thistle, and Himalayan blackberry. The channel is constrained on the left bank (looking downstream) by a levee that protects Highway 101, the cabins, and the EMC property from flooding.

Grant Applicant Qualifications: The Yurok Tribe is the largest federally recognized Native American Indian Tribe in the State of California and has successfully managed multiple grants per year from various Federal, State, and local clients. The Tribe's fiscal and operations staff has experience successfully administering similar projects that require extensive budget tracking, reporting, progress invoicing, and other administrative requirements. The Yurok Tribe's services and expertise include engineering, design, surveying and restoration construction services. The Yurok Tribe has completed or is working on many projects from over the last 5 years ranging in scope and scale between 3 to 5 million dollars including projects for, among others, the Bureau of Reclamation, Mid-Klamath Watershed Council, River Partners and California Department of Water Resources, US Forest Service, and the Conservancy.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on October 2, 2014, in the following respects:

Required Criteria

- 1. Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section below.
- 2. Consistency with purposes of the funding source:** See the "Project Financing" section below.
- 3. Promotion and implementation of state plans and policies:** The proposed project is consistent with several state plans and policies, as follows:

California @ 50 Million: The Environmental Goals and Policy Report. The project supports the State's Plan to "Steward and Protect Natural and Working Landscapes." As noted by the Plan, key ecosystems that provide essential habitat for native species must be protected. The Project will enhance spawning and rearing habitat for Federally listed coho and Chinook Salmon, steelhead, as well as lamprey.

The project promotes the goal of restoration of important species and habitat in support of the **California Water Action Plan**. The project supports the goals of the

following actions: protect and restore important ecosystems, providing assistance to disadvantaged communities, encouraging State focus on projects with multiple benefits, and managing headwaters for multiple benefits.

CA Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan:

Goal B-3 “Increase restoration and enhancement activities to increase climate resiliency of natural and working lands.”

CA Wildlife Action Plan: Goal 1 – Abundance and Richness: Maintain and increase ecosystem and native species distributions in California, while sustaining and enhancing species abundance and richness; Goal 2– Enhance Ecosystem Conditions: Maintain and improve ecological conditions vital for sustaining ecosystems in California; Goal 3 – Enhance Ecosystem Functions and Processes: Maintain and improve ecological conditions vital for sustaining ecosystems in California.

NOAA Coastal Multispecies Recovery Plan: National Marine Fisheries Service. 2016. Final Coastal Multispecies Recovery Plan (NMFS, West Coast Region, Santa Rosa, California). This plan states, “Instream Habitat Complexity” that “Addition of wood to the river and its tributaries will provide much-needed complexity to the stream channel until riparian areas reach maturity and begin to recruit naturally to channels. Large wood will improve instream habitat attributes, e.g., pool and riffle frequency and habitat complexity; provide important refuge from high flow events; and increase growth and survival of juveniles during winter and summer”.

The Recovery Strategy for Coho Salmon (CDFW 2004) also recommends restoration of needed habitat in Prairie and Redwood creeks and emphasizes the importance of Prairie Creek for coho salmon.

4. **Support of the public:** The proposed project is supported by several partner and resource agencies and elected officials including NOAA, CDFW, RNSP, Humboldt County Board of Supervisors, U.S. Congressman Jared Huffman, State Assemblymember Jim Wood, and State Senator Mike McGuire (see Exhibit 2).
5. **Location:** The proposed project location is outside of the coastal zone. However, the project will benefit coastal salmon resources by improving spawning and rearing habitat for ocean and freshwater dependent species.
6. **Need:** If funds are not available from the Coastal Conservancy, design and eventual implementation of the project would be postponed. Conservancy funds will support planning and designs, setting the stage for the landowner to complete designs and apply for implementation funding from CDFW in spring 2022. Lack of funding would result in continued poor habitat conditions and would delay the recovery of endangered and threatened anadromous salmonid populations.
7. **Greater-than-local interest:** The proposed project will restore stream function and provide critical salmon habitat on Prairie Creek that will benefit the northern California populations of coho salmon, chinook, and steelhead trout.
8. **Sea level rise vulnerability:** Vulnerability to sea level rise is minimal on the project site as it is above the current 100-year sea level rise projections.

Additional Criteria

- 9. **Urgency:** Redwood Creek system salmon are under duress. According to the NOAA Coastal Multiple Species Recovery Plan, coho salmon are at high risk of extinction, and in need of urgent action to plan for and implement recovery actions.
- 10. **Leverage:** See the “Project Financing” section below.
- 11. **Readiness:** The grantee and project partners are ready to begin work in July 2021 as soon as funding is secured.
- 12. **Realization of prior Conservancy goals:** The project is located upstream of, and will directly augment the benefits derived from, the Conservancy-funded Prairie Creek Restoration project, funded in part by the Conservancy since 2015 to enhance and increase high quality salmonid spawning and rearing habitat on lower Prairie Creek at the former Orick Mill A site.
- 13. **Cooperation:** The project has been developed through cooperation between the private landowner, the Yurok Tribe, NOAA, NMFS, NPS and CDFW.
- 14. **Vulnerability from climate change impacts other than sea level rise:** The project will provide resilience to climate change and will be designed to enhance pool and riffle formation, which will increase cool water refugia.
- 15. **Minimization of greenhouse gas emissions:** The project involves only planning and design and will not result in significant emissions of greenhouse gas.

PROJECT FINANCING

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|----------------------------|------------------|
| Coastal Conservancy | \$269,318 |
| Landowner | \$7,500 |
| Project Total | \$276,818 |

The anticipated source of Conservancy funds for this project is an appropriation from the Habitat Conservation Fund (HCF), which was created by the California Wildlife Protection Act of 1990 (Proposition 117, Fish and Game Code Sections 2780-2799.6). Pursuant to Fish and Game Code Section 2786, HCF funds may be used for the acquisition, restoration, or enhancement of aquatic habitat for spawning and rearing of anadromous salmonids (subsection e) or riparian habitat (subsection f). The project will fund planning and preparation of designs and permit applications necessary to enhance the Elk Meadows Cabins reach of lower Prairie Creek, which is sensitive habitat for state and federally listed endangered coho, Chinook and steelhead trout.

The project leverages \$7,500 of staff time from the EMC landowner to prepare permit applications, and approximately \$115,000 of federal in-kind staff time from the NPS for data collection and report preparation that supports the design process.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The project will be undertaken pursuant to Chapter 6 of the Conservancy’s enabling legislation, Public Resource Code Sections 31251-31270, as follows: Pursuant to Section 31251, the

Conservancy may award grants to public agencies for the purpose of enhancement of coastal resources, which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. This project will produce designs and permit applications that are needed to enhance the function of Prairie Creek, which has been altered by construction of levees and conversion of floodplains to meadows reducing habitat complexity, thereby improving water quality, and enhancing habitat for salmonids and other coastal and marine resources.

Pursuant to Section 31252, the proposed project is located within an area identified in the Humboldt County Local Coastal Plan (“LCP”) (1982) as requiring public action to resolve existing or potential resource protection problems. The LCP identifies the need for restoration of sensitive habitats affecting coastal resources, including Redwood Creek and its habitat.

Chapter 3.41, Sections A.1.d. and A.1.g. of the LCP defines environmentally sensitive habitats as “[R]ivers, creeks, and associated riparian habitats including Redwood Creek,...” and “[O]ther critical habitats for rare and endangered species listed on State or Federal lists”, respectively. Chapter 3.41, Section G requires that “the biological productivity and quality of coastal streams...appropriate to maintain optimum populations of marine organisms shall be maintained and restored” and identifies Redwood Creek among these streams. Prairie Creek is a critical tributary to Redwood Creek and supports the vast majority of state and federally listed endangered coho, Chinook and steelhead trout in the Redwood Creek system. The project site is located on Prairie Creek, approximately one and a half miles feet upstream of the confluence of Prairie and Redwood Creeks. Enhancing habitat in Prairie Creek benefits salmonids of Redwood Creek and is thus consistent with the LCP.

Pursuant to § 31253, the Conservancy may provide up to the total cost of any coastal resource enhancement project taking into consideration the total cost of the project, the fiscal resources of the grantee, the urgency of the project and other factors as determined by the Conservancy. Consistent with this section, the proposed Conservancy contribution, intended for the conceptual design of a significant coastal habitat enhancement project, represents most of the project cost. The grantee does not have fiscal resources to contribute funds for design.

CONSISTENCY WITH CONSERVANCY’S 2018-2022 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with Goal 6, Objective A of the Conservancy’s 2018-2022 Strategic Plan, the proposed project will complete a plan to enhance fish habitat and improve water quality to benefit coastal and ocean resources, notably anadromous fish species that depend on suitable water temperatures and habitat complexity to survive.

Consistent with Goal 16, Objective 16A of the Conservancy’s 2018-2022 Strategic Plan, the proposed project prioritizes funding for a project that is located in a disadvantaged community and that directly benefits disadvantaged communities. Orick is a severely disadvantaged community.

CEQA COMPLIANCE:

Staff has determined that the proposed project is statutorily exempt from the California Environmental Quality Act (CEQA) under Title 14 of the California Code of Regulations, Section 15262 because it involves planning studies and feasibility analyses for possible future actions that the Conservancy has not approved, adopted, or funded and will include consideration of environmental factors.

The project is also categorically exempt under Section 15306 because it involves information collection and resource evaluation for possible future action. The project will not result in disturbance to an environmental resource.

Upon approval of the project, Conservancy staff will file a Notice of Exemption.