

COASTAL CONSERVANCY

Staff Recommendation
October 17, 2019

MATTOLE HEADWATERS ENHANCEMENT PLANNING PROJECT

Project No. 19-026-01
Project Manager: Michael Bowen

RECOMMENDED ACTION: Consideration and possible authorization to disburse up to \$202,528 to Sanctuary Forest to develop design and environmental compliance documents for 185 instream habitat enhancement projects in the upper Mattole River in Humboldt County.

LOCATION: Whitethorn, Humboldt County.

PROGRAM CATEGORY: Integrated Coastal and Marine Resource Protection

EXHIBITS

Exhibit 1: [Project Location Map](#)

Exhibit 2: [Support Letters](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed two hundred and two thousand five hundred twenty eight dollars (\$202,528) to Sanctuary Forest (“the grantee”) to develop design and environmental compliance documents for 185 instream habitat enhancement projects in the upper Mattole River 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 retained to carry out the project.
3. A plan for acknowledgement of Conservancy funding.”

Staff further recommends that the Conservancy adopt the following findings:

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

1. The proposed authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. Sanctuary Forest is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to \$202,528 to Sanctuary Forest (“Grantee”) to plan and design 185 instream habitat enhancement projects intended to enhance instream and riparian habitat in the upper Mattole River watershed. The project primarily involves planning for the placement of large woody debris in streams, but also includes planning for structures intended to activate floodplain habitat, recharge groundwater and enhance riparian canopy. (See Exhibit 1: Project Location).

This project will address a significant cause of anadromous fish habitat degradation in the Mattole Headwaters - the lack of instream wood. Natural recruitment could take decades due to historic land use decisions that have left a wood “recruitment” gap. This gap is evident in the lack of primary pools and wood debris documented in habitat surveys conducted in 21 stream reaches in the Mattole’s Southern Sub-basin in 2005. Compared to target habitat values from the *Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (Oncorhynchus kisutch)* (NOAA, 2014), a majority of these reaches rate poor in average pool depth and the frequency of key pieces of wood. Only three out of the 21 reaches contained sufficient large wood to be rated good or very good for large wood frequency; Of these, two achieved this satisfactory rating due to past wood placement by the Mattole Salmon Group. This project will continue this success by planning for installation of woody debris in numerous stream reaches within the sub-basin.

Project objectives include: 1) perform habitat and geomorphic assessments, topographic surveys and hydraulic modeling on specific reaches of the Mattole headwaters and four tributary streams; 2) perform preliminary planning with proposed treatments and expected benefits; 3) prepare an options analysis and basis of design reports for the California Department of Fish and Wildlife (CDFW) and Technical Advisory Committee review of each phase and; 4) conduct necessary environmental impacts analysis pursuant to the California Environmental Quality Act (CEQA).

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Site Description: Located in remote parts of the Mattole River watershed, the project focuses on the southern sub-basin of the Mattole River, near Whitethorn, Humboldt County. The region is steep, heavily forested and highly erosive. The area was heavily impacted by extensive timber harvest between 1945 and 1970. Since that time, the area has been further impacted by the expansive growth of the cannabis industry, and associated road building and water diversions.

Most of the project sites are located on conserved lands including lands currently owned by State Parks, Sanctuary Forest and Lost Coast Forestlands. All of the conserved lands were owned by industrial timber companies prior to conservation.

Grantee Qualifications: Sanctuary Forest has worked toward the recovery of native Mattole salmonids since 1987, in collaboration with partners, agencies and the community. Water Program Director, Tasha McKee McCorkle has over 15 years of experience managing restoration projects and budgets, and working closely with agencies, contractors, funders, partners and landowners.

Project History: The Conservancy has provided a series of grants to Sanctuary Forest, with a specific focus on assessing and protecting instream flows in the upper Mattole River through hydrologic studies, water storage projects and diversion forbearance agreements with landowners. Following an assessment of the upper watershed, the grantee determined that restoration action is a priority for the headwaters.

The Conservancy funded streamflow enhancement projects through the grantee on Baker Creek and Lost River in 2018. These projects will improve stream flows in downstream proposed project areas on the same tributaries. The Baker Creek tributary reaches included in this project are adjacent to the BLM property that was purchased in 2002 by the Coastal Conservancy and known as Vista Ridge, Virgin Grove and Vista Ridge Grove.

The Coastal Conservancy funded the first hydrology assessment of low flows in the Mattole River. The assessment was performed by hydrology consultant Randy Klein and Sanctuary Forest and culminated in the report "Options and Obstacles, Living with Low Water Flows in the Mattole River Headwaters", 2004. The report is still relevant today and the hydrology assessment includes the project area of this planning grant.

The Coastal Conservancy contributed funding to water storage and diversion forbearance projects that are related to the project as a necessary streamflow enhancement strategy where water diversions are impacting streamflow and include Sanctuary Forest's first storage and forbearance project implemented in 2007. The project was the first of its kind in the state of California and forged a new restoration strategy for improving streamflow as well as water security for local communities. The Coastal Conservancy also contributed funding to the Whitethorn School storage and forbearance project implemented in collaboration with Trout Unlimited in 2013. The project is inspiring the community by directly educating families about the importance of water conservation and storage.

The Mattole headwaters are the key spawning and rearing habitat for endangered salmonids in the river system. Land use impacts combined with climate change have impacted winter and summer rearing habitat for steelhead, coho and Chinook. Most of the headwater area is characterized by simplified incised channels, lack of instream wood, disconnected floodplains,

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lack of off-channel habitat, limited or no presence of cover and velocity refuge, and low nutrient retention and food availability.

While instream habitat projects have been implemented in some parts of the headwaters, there are many tributaries and mainstem reaches that have not been addressed, primarily due to landowner access. However, three of the four tributaries involved in this planning project have recently transitioned from industrial timber management to sustainable forestry and conservation for fish and wildlife, so access for restoration and habitat enhancement is now available. This project also includes State Parks mainstem and tributary reaches where little to no wood has been placed in the past. In order to address this need, the grantee sought funds through the Conservancy's Proposition 1 Round 11 grant solicitation.

PROJECT FINANCING

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| Coastal Conservancy | \$202,528 |
| Cal Department of Fish and Wildlife (pending) | \$182,280 |
| Project Total | \$384,808 |

The expected source of Conservancy funds for this project is an appropriation to the Conservancy from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1, Water Code § 79700 et seq.). Funds appropriated to the Conservancy derive from Chapter 6 (commencing with § 79730) and may be used "for multi benefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state" (Section 79731). Section 79732 identifies specific purposes of Chapter 6. The proposed project will achieve several of these purposes, including: protect and restore aquatic, wetland and migratory bird ecosystems (section 79732(a)(4)), protect and restore coastal watersheds (79732(a)(10)), and assist in the recovery of endangered, threatened or migratory species by improving watershed health, instream flows, fish passage and coastal or inland wetland restoration (79732(a)(12)). The proposed project will lead to the restoration of stream function benefitting each of these goals.

As required by Proposition 1, the proposed project provides multiple benefits. By preparing to restore habitat complexity and restore hydrologic connectivity between the river and its floodplain, the project, when implemented, will restore historic access to juvenile salmonid rearing habitat, help restore a healthy riparian forest that benefits many aquatic and terrestrial species. The project would also improve water quality in a coastal watershed by creating the important shading and filtering function that healthy riparian zones provide.

The proposed project was selected through a competitive grant process under the Conservancy's Proposition 1 Grant Program Guidelines adopted in December 2018 ("Prop 1 Guidelines"). (See section 79706(a)). The proposed project meets each of the evaluation criteria in the Prop 1 Guidelines as described in further detail in this "Project Financing" section,

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the “Project Summary” section and in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section of this report.

In accordance with Section 79707(b) which requires agencies to prioritize “projects that leverage private, federal, or local funding or produce the greatest public benefit”, the proposed project leverages local in-kind contributions and CDFW funding. The grantee will provide \$50,150 of in-kind value in technical services to the project which has already been shown as match towards the proposed application to CDFW, cited above.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The project will be undertaken pursuant to Chapter 5.5 of the Conservancy’s enabling legislation, Public Resource Code section 31220, as follows: Pursuant to section 31220(b), the Conservancy may award grants to nonprofit organizations in order to improve and protect coastal, coastal watershed and marine water quality and habitat, including projects that restore fish habitat within coastal watersheds (§ 31220(b)(2)), and projects that protect and restore floodplains and other sensitive watershed lands, especially watershed lands draining to sensitive coastal or marine areas (§ 31220(b)(6)). As discussed above, the project will benefit anadromous salmonids and enhance coastal watershed habitat.

As required by Section 31220(a), staff has consulted with the Northcoast Regional Water Quality Control Board about the project and established that the project will help enhance the beneficial uses, such as cold-water fisheries, identified in the basin plan for the Mattole River. Finally, consistent with section 31220(c), the plans produced under the proposed project will identify criteria to be used to monitor and evaluate the restoration, once implemented.

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. The Conservancy’s numeric goal for the North Coast is 3 plans. While this is one planning project, the grantee asserts that it could result in 6-8 habitat restoration phases of construction, each encompassing multiple specific and discrete habitat enhancement project sites, resulting in 185 individual implementation projects.

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:

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Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Promotion and implementation of state plans and policies:** The Mattole River has received a tremendous amount of attention in both federal and state planning documents:

The project advances the recommendations and guidance published in the **Northcoast Watershed Assessment Program (NCWAP 2003) Mattole Basin Assessment Implementation Summary**. The NCWAP was a cooperative, inter-agency effort that extensively analyzed the geological, biological and silvicultural status of three Northcoast rivers (Gualala, Mattole, Redwood Creek), with the Mattole receiving the most focus and attention. The final report specifically identifies the targeted tributaries as "high potential refugia tributaries," and identifies pool shelter and in-channel habitat as "somewhat unsuitable," therefore warranting restoration action to address these deficiencies.

The Project promotes the policies and objectives of the California Fish and Game issued **Recovery Strategy For California Coho Salmon** of February 2004 in that most sections pertaining to the southern sub-basin of the Mattole River focus on the relatively good condition of that portion of the watershed, as well as the need to protect its value to migrating and rearing salmonids. The Strategy states that "(t)his subbasin supports coho salmon in more tributaries than the other Mattole River subbasins," and advises the reader to protect "high quality habitat found in the South Fork of Vanauken..." and other tributaries subject to this grant. (CM-MS-02 (b).)

The project advances the goals of the **Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (Oncorhynchus kisutch)** (National Marine Fisheries Service 2014). Although a federal plan, the State of California is required under federal policy and federal funding requirements to assist in the implementation of the plan. Mattole Coho are listed as being at a high risk of extinction. Key Limiting Stresses are 'Lack of Floodplain and Channel Structure' and 'Altered Hydrologic Function.' The report states that "(a)ctivities that reduce the instances of low or no flow conditions, decrease sediment delivery, improve stream temperatures, improve long term prospects for large wood recruitment, and promote increased floodplain and channel structure should be a priority in the basin." (SONCC, 29-17).

4. **Support of the public:** The project enjoys the support of numerous State, federal and non-governmental organizations. 2nd District Assembly Member Jim Wood supports the project due to the importance of salmon recovery and the application of best available science and natural processes restoration to the planning and design of instream habitat. Humboldt County Supervisor Estelle Fennell supports the goals of the project and Sanctuary Forest's engagement of the community, collaboration with other groups and scientific approach. (See Exhibit 2).

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5. **Location:** The proposed project locations are well 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. Most likely the funding application to CDFW for ~ 50% of the planning project cost would not be funded because the Coastal Conservancy cost share makes the project more competitive. Lack of funding would result in continued poor habitat conditions in the Mattole headwaters and would delay the recovery of endangered and threatened anadromous salmonid populations.
7. **Greater-than-local interest:** Coastal salmon resources support sport, commercial and tribal fisheries, and are therefore of importance to the entire State.
8. **Sea level rise vulnerability:** The project sites are located in the upper Mattole River watershed, so they are not vulnerable to sea level rise.

Additional Criteria

9. **Urgency:** Mattole Coho salmon are at “high risk of extinction” according to the NOAA Recovery Plan, cited above. Priority recovery actions are therefore of great urgency.
10. **Leverage:** See the “Project Financing” section above.
11. **Readiness:** The grantee is fully ready to complete the project as proposed and scheduled.
12. **Realization of prior Conservancy goals:** The grantee and the Conservancy share the broader goal of promoting landscape restoration, water conservation and salmon population recovery. Some of these investments are described in “Project History,” above.
13. **Cooperation:** The grantee will receive extensive technical assistance from the U.S. Fish and Wildlife Service Habitat Restoration Program.
14. **Vulnerability from climate change impacts other than sea level rise:** A literature review by Pete Bisson of the U.S. Forest Service’s Pacific Northwest Research Station (2011) determined that climate change is one of the most important long-term threats to fish habitat resilience, that “most climate change models project long-term increases in winter precipitation and decreases in summer precipitation.” Measures that will reduce vulnerability to climate change include conservation ownership and associated active stewardship of forests to reduce threat of fire as well as adjacent wetland enhancement and groundwater recharge projects that will provide wet corridors and groundwater storage needed for drought resilience. In planning to improve headwaters habitat where instream flow tends to be coolest, the grantee will promote the resilience of the Mattole River, buffering it from climate change impacts other than sea level rise.
15. **Minimization of greenhouse gas emissions:** The project involves only planning and design and will not result in significant emissions of greenhouse gas.

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CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project is located entirely outside of the Coastal Zone and is not subject to Local Coastal Program policies. However, all Humboldt County LCPs acknowledge the importance of protecting and enhancing coastal salmon habitat throughout coastal watersheds. The project is therefore consistent with Humboldt County LCP policies.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/ STATE WATER QUALITY CONTROL PLAN:

The project is consistent with the **Mattole Watershed Plan** (Mattole River and Range Partnership, 2010) Goal 2: Improve in stream habitat conditions for listed salmonids throughout the basin, and increase the overall salmonid population; and Goal 3: Enhance the function of critical ecosystem processes to increase watershed resiliency and health to improve water and habitat quality.

CEQA COMPLIANCE:

The project involves only information collection and planning and resource evaluation for possible future action. The projects will not result in disturbance to an environmental resource. Therefore, the project is categorically exempt under California Environmental Quality Act (CEQA) 14 Cal. Code of Regulations Section 15306. The project is also statutorily exempt from preparation of a CEQA document under section 15262, , which exempts feasibility and planning studies, because it involves only preparation of the project designs and environmental review documents for restoration projects that the Conservancy has not approved, adopted, or funded and will include consideration of environmental factors.

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