

COASTAL CONSERVANCY

Staff Recommendation
January 21, 2021

MATTOLE WATERSHED MID RIVER SALMONID HABITAT ENHANCEMENT PLANNING

Project No. 20-039-01
Project Manager: Su Corbaley

RECOMMENDED ACTION: Authorization to disburse up to \$170,575 to the Mattole Salmon Group to develop design documents for approximately 165 instream habitat enhancement projects in 9 tributaries to the mid Mattole River in Humboldt County and to prepare environmental compliance documents for selected high-priority reaches.

LOCATION: Between Petrolia and Thorn Junction, Humboldt County

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 a grant of an amount not to exceed one hundred seventy thousand, five hundred seventy-five dollars (\$170,575) to the Mattole Salmon Group (the grantee) to develop design documents for approximately 165 instream habitat enhancement projects in the mid Mattole River in Humboldt County and to prepare environmental compliance documents for selected high-priority reaches.

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. The names and qualifications of any contractors to be retained in carrying out the project.
3. A plan for acknowledgement of Conservancy funding and Proposition 1 as the source of that funding.”

Staff further recommends that the Conservancy adopt the following findings:

“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. The Mattole Salmon Group is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.”
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PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to \$170,575 to the Mattole Salmon Group (“MSG”) to plan and design approximately 165 instream habitat enhancement projects in the mid Mattole River watershed. The goal of this project is to plan, prioritize and design instream large wood habitat projects. These projects will increase pool depth and complexity of the streams, thus providing increased shelter for salmonids. The projects will also aid in the retention of spawning gravel, and provide drought resilience for Coho and Chinook salmon, and steelhead in the Mattole River and major tributaries downstream of the Mattole headwaters (Thorn Junction) and upstream of the Mattole estuary (Petrolia) (see Exhibit 1).

This project is an outgrowth of recent workshops and meetings with key partners (U.S. Bureau of Land Management (BLM), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Sanctuary Forest Inc. (SFI), and the Mattole Restoration Council (MRC) who have identified the need for planning and implementation of in-river habitat improvement projects in the mid-river area of the watershed.

Project objectives include: 1) characterize 27 miles of Mattole River and tributary streams in terms of geomorphic and habitat conditions, hillslope stability, hydrology and other factors; 2) develop a Large Wood Augmentation Plan for the reaches characterized; 3) design approximately 150 non-engineered large wood structures for a minimum cumulative reach length of seven miles, and design 15 engineered wood structures to treat approximately 3,000 feet of higher risk stream channel; and 4) prepare environmental analysis documents consistent with the National Environmental Policy Act (NEPA) process for selected high priority reaches located on BLM property to expedite implementation.

The Mattole River is listed under Section 303(d) of the federal Clean Water Act by the U.S. Environmental Protection Agency as an impaired water system due to excessive sediment and high temperatures. As a result of that listing, the California State Water Resources Control Board established Total Maximum Daily Load limits to reduce sediment and temperature in the Mattole River and improve the quality of the water that discharges to the sea. This area of the Pacific Ocean (Cape Mendocino) is recognized for its important coastal resources; the state has designated the area both an Area of Special Biological Significance and a Critical Coastal Area,

and the federal government has designated the area a Marine Protected Area. These designations require that special attention and care must be taken to protect the coastal resources. CDFW has listed the Mattole River as a habitat recovery unit in its Coho Salmon Recover Strategy (CA DFW, 2004) and an area necessary for maintaining critical habitat for coho salmon. NMFS has listed the Mattole River as a top priority for steelhead and Chinook and medium priority for Coho recovery efforts in its Final Coastal Multispecies Recovery Plan (NMFS, 2016).

The Coastal Conservancy has funded many planning and implementation projects to improve habitat in the main stem, tributaries and riparian zones in the headwaters and estuary areas. However, the 40-mile-long middle portion of the Mattole River has not received the level of habitat assessment or restoration as the upper and lower river. Yet, this area is critical for salmonid rearing and represents substantial spawning potential, especially for Chinook salmon and steelhead. The need for in-stream wood structures was identified in the 2005 Mattole Watershed Plan which was developed by MSG, MRC, SFI, BLM and the Conservancy. That plan specified re-creating the complex instream habitat historically created by abundant large instream wood as one of the elemental steps towards recovery of salmonid populations. The project area is located in a disadvantaged community that, when implemented, will provide direct benefit from improved water quality and habitat for salmonids, an important resource to the community.

Data collected from the targeted mid river streams in 2007 showed only four out of 21 reaches meeting CDFW targets for good habitat for instream wood frequency, and in four reaches there was no instream wood at all. A majority of reaches also rated “poor” for frequency of primary pools with depth greater than 2 feet. With most riparian forests comprised of small trees less than 50 years old, natural recruitment of wood will not occur in meaningful amounts for many decades. Without the manual addition of wood, habitat in these reaches will remain simplified and offer extremely limited habitat capacity for spawning and rearing for many years.

Site Description: The project focuses on the Mattole River and its tributaries between Petrolia and Thorn Junction. The reaches under consideration in the Mid-River area have low gradients and high habitat potential, but are currently characterized by simplified incised channels, lack of instream wood, disconnected floodplains, lack of off-channel habitat, and limited or no presence of cover and velocity refuge. They are surrounded by steep, highly erosive and largely forested terrain. Like other areas in the watershed, the area was heavily impacted by wide-scale logging and associated road building between 1945 and 1970, with over 90% of the coniferous forest cover harvested at least once during that time. Past efforts to remove barriers to fish passage through “stream cleaning” resulted in loss of cover, loss of pools and loss of channel-pool connectivity, leading to increased sedimentation and water temperatures.

Nearly half of the of the project sites are located on public lands owned by the BLM in the Kings Range National Conservation Area. One of the reaches is owned by the Humboldt Redwoods Company which is now participating in a habitat improvement implementation project with MSG. Other lands are held by private individuals, some containing conservation easements.

Grantee Qualifications: The Mattole Salmon Group has worked toward the recovery of native Mattole salmonids since 1980, working collaboratively with area nonprofit organizations to

carry out habitat enhancement activities in the Mattole watershed. MSG enjoys an excellent working relationship with BLM, having carried out several enhancement projects on BLM property in the Mattole estuary including but not limited to installing large wood, planting native vegetation, removing invasive vegetation, and enhancing estuary function through backwater habitat creation.

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 Mattole River watershed is identified as a high priority for restoration in several state and federal plans with a regional focus:

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.

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; Goal 3: Enhance the function of critical ecosystem processes to increase watershed resiliency and health to improve water and habitat quality.

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 on page 244, section "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 project also addresses goals and objectives of several statewide plans:

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

4. **Support of the public:** The proposed project is supported by the several agencies and organizations and elected officials including NMFS, BLM, MRC, Humboldt County Board of Supervisors and U.S. Congressman Jared Huffman (see Exhibit 2).
5. **Location:** The proposed project locations are 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 ~ 40% 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 and would delay the recovery of endangered and threatened anadromous salmonid populations.
7. **Greater-than-local interest:** Coastal salmon is an anchor commercial and recreational industry and there therefore important to the entire State.
8. **Sea level rise vulnerability:** The project sites are located in the middle Mattole River watershed upstream from tidally influenced flows are not vulnerable to sea level rise.

Additional Criteria

9. **Urgency:** Mattole salmon are under duress, with Coho being at high risk of extinction according to the NOAA Recovery Plan, cited above, and in need of urgent action to plan for and implement recovery actions.
10. **Leverage:** See the “Project Financing” section below.
11. **Readiness:** MSG is ready to complete the project as scheduled, as soon as funding is secured.

12. **Realization of prior Conservancy goals:** The Conservancy has funded many restoration planning and implementation projects in the Mattole River watershed estuary and headwaters over the past 30 years. This project would fill a gap in the Mattole River restoration efforts by addressing needs in the middle portion of the watershed to fully address the needs of the entire watershed.
13. **Cooperation:** This project is an outgrowth of recent workshops and meetings with key partners including BLM, CDFW, NMFS, USFWS, Sanctuary Forest Inc, and the Mattole Restoration Council. MSG has secured landowner agreements with BLM and Humboldt Redwoods Company. USFWS will provide extensive technical assistance for project design.
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 habitat to create deep cool pools and promote riparian recruitment will help to cool flows and sustain stream connectivity, MSG 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.

PROJECT FINANCING

Coastal Conservancy	\$170,575
CA Department of Fish and Wildlife	\$158,998
Project Total	\$329,573

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 the evaluation criteria in the Prop 1 Guidelines as described in further detail in this "Project Financing" section, 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 CDFW Fisheries Restoration Grant Program (federal source) funding and private and federal in-kind staff time contributions including those from Humboldt Redwood Company, BLM and the US Fish and Wildlife Services together valued at \$50,000.

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 North Coast 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.

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.

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.

The project is also consistent with the North Coast Integrated Regional Water Management Plan Goal 3: Ecosystem Restoration and Enhancement, Objectives 5) Restore watershed function, 6) Conserve, enhance, and restore watersheds and aquatic ecosystems, 7) Enhance salmonid populations, and 11) Address climate change effects.

CEQA COMPLIANCE:

Staff has determined that the proposed project is exempt from the California Environmental Quality Act (CEQA) under Title 14 of the California Code of Regulations, sections 15262 and 15306 because it involves only data collection, resource evaluation, and preparation of designs and environmental review documents for restoration projects that the Conservancy has not approved, adopted, or funded and will include consideration of environmental factors.

The project involves information collection and resource evaluation for possible future action. The project will not result in disturbance to an environmental resource. Therefore, the project is categorically exempt under Section 15306. The project is also statutorily exempt from preparation of a CEQA document under Section 15262, which exempts feasibility and planning studies.

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