

COASTAL CONSERVANCY

Staff Recommendation
January 21, 2021

McKINNEY CREEK FISH PASSAGE IMPROVEMENT

Project No. 20-045-01
Project Manager: Michael Bowen

RECOMMENDED ACTION: Authorization to disburse up to \$199,525 to the Northwest California Resource Conservation and Development Council to construct the McKinney Creek Fish Passage Improvement Project on McKinney Creek, Siskiyou County, CA.

LOCATION: McKinney Creek at confluence of the Upper Klamath River, upstream of the town of Hamburg, Siskiyou County.

EXHIBITS

- Exhibit 1: [Project Location Map](#)
Exhibit 2: [Project Plans](#)
Exhibit 3: [Project Letters](#)
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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 ninety-nine thousand five hundred twenty-five dollars (\$199,525) to Northwest California Resource Conservation and Development Council (“the Council”) to replace two culverts that block fish passage with a bridge (“project”) on McKinney Creek, Siskiyou County.

Prior to commencement of the project, the Council 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 with Proposition 1 as the source of that funding.
4. Evidence that all permits and approvals required to implement the project have been obtained.

5. Evidence that the grantee has entered into agreements sufficient to enable the Council to implement, operate, and maintain the project.”

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.”
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PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to \$199,525 to the Northwest California Resource Conservation and Development Council (“Council”) to construct fish habitat improvements by replacing two culverts with a bridge on McKinney Creek, a tributary to the Klamath river, in Siskiyou County (Exhibit 1). McKinney Creek has the potential to significantly improve salmon habitat along the Klamath river corridor.

The project will remove two existing undersized culverts (48” and 42” CMP culverts) which overtop on ten-year frequency and larger floods. The culverts will be replaced with a 34-foot precast bridge that will allow the natural channel width to be maintained through the structure (Exhibit 2). This structure will decrease overall maintenance costs for the Siskiyou County Department of Public Works as well as provide better safety for drivers on the roadway during times of high flows. The entire footprint of the project is less than two acres. It will open-up spawning and rearing habitat for coho, steelhead and Chinook, while also providing a coldwater refuge when water temperatures or water quality degrades along the Klamath in summer months. The new crossing will have an increased flow capacity beyond that of the existing culvert and is designed to provide for the 100-year flood event of 1,908 cubic feet per second while maintaining the natural streambed.

The current crossing of McKinney Creek at Walker Road is a depth and velocity barrier to all life stages of salmonids and other important species, blocking access to 2 miles of good quality habitat upstream of the crossing. Some fish do ascend and spawn above the barrier, but their offspring do not fare well. The crossing, when overtopped by flood flows, forces fish onto the adjacent floodplain where they become trapped and perish on receding flows.

Tributaries downstream of the Klamath dams, such as McKinney, will provide important escape routes and coldwater refugia for aquatic life now and in the future. This is particularly true for the impending period of high sediment mobilization following the proposed removal of four major dams on the Upper Klamath River, a project now scheduled for 2024. McKinney Creek, clear and accessible, will provide an area of refuge for aquatic species avoiding the high levels of mobilized sediment flowing downstream following removal.

Site Description: McKinney Creek is a tributary to the upper Klamath River and is located downstream of Highway 5 along the upper Highway 96 corridor in the Beaver Creek sub-watershed area in remote Siskiyou County. It is located in the Southern Oregon-Northern California Coast evolutionarily significant unit (SONCC ESU) for coho salmon. Land use immediately surrounding the project area is rural residential.

Walker Road provides access to the southern banks of the Klamath River and is reached from Highway 96. It is a two lane, surfaced county road maintained by the Siskiyou County Department of Public Works. The Walker Creek Road/McKinney Creek Road intersection is approximately 350 feet west of the crossing site. The Walker Road crossing provides access to approximately nine private properties and forest service lands. The development is currently a mix of full-time and seasonal residents and includes undeveloped properties.

The project site is just above a former river floodplain terrace in a relatively broad stream valley. The area is characterized by grasslands to the east, and mixed conifer-hardwood forests within the riparian band of McKinney Creek

Grantee Qualifications: The Council has an extensive and impressive record of implementing habitat improvement projects throughout California, and particularly on the North Coast. Prior grants to the Council have resulted in the reopening of more than 100 miles of high-quality salmon and steelhead habitat formerly blocked by poorly constructed road-stream crossings. These projects have resulted in numerous observations of salmon in previously inaccessible areas such as in Ryan Creek (Eel River) and Lindsay Creek (Mad River).

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 the following plans and policies:
 - a. The proposed project is consistent with the themes for habitat restoration identified in the "**Steelhead Restoration and Management Plan for California**" (California Department of Fish and Wildlife, 1996). Specifically, that plan advises that "(h)abitat improvement projects should be focused on the many areas throughout the State where steelhead habitat is severely degraded and restoration work is sorely needed" (p. 74). Providing unimpeded access to support the reproduction, growth and survival of salmonids is one of the highest priority habitat improvement actions known.

- b. More recently, the proposed project is consistent with the **“Recovery Strategy for California Coho Salmon”** (California Department of Fish and Wildlife, 2004) in that the removal of structural barriers is highlighted as a high priority activity for recovery of Coho salmon in the upper Klamath river (KR-IG-03, pg. 9.45).
 - c. The project is consistent with federal National Marine Fisheries Service 2014 **“Final Recovery Plan for the Southern Oregon/Northern California Coast (SONCC) Evolutionarily Significant Unit of Coho Salmon (Oncorhynchus kisutch)”** in that the removal of structural barriers is highlighted as a priority activity for recovery of Coho salmon in the upper Klamath River (SONCC, UKR.5.1.21.1,2 and 5.1.80.1,2, pg. 34-33). On Table 34-5 of that plan, McKinney Creek is listed as a High Priority Barrier (pg. 34-25).
 - d. Finally, the project is consistent with the **“California Water Action Plan”**, a collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture, issued in 2014. This plan was developed to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. It lays out the state’s challenges, goals and actions needed to put California’s water resources on a safer, more sustainable path. The plan identifies ten overarching strategies to protect our resources, include two particular to this project that the Conservancy can help implement: 4) Protect and restore important ecosystems (restore coastal watersheds and strategic coastal estuaries to restore ecological health and nature system connectivity to benefit local water systems and help defend against sea level rise, eliminate barriers to fish migration) and 7) Increase flood protection (encourage flood projects that plan for climate change and achieve multiple benefits). By implementing an improved road-stream crossing, a project that improves ecological function and increases flood routing through the project area, the project is consistent with this report.
4. **Support of the public:** The project is an effort by the Five Counties Salmonid Conservation Program, a regional and widely supported effort to reverse the decline of Pacific salmon in five northern California counties. The inter-governmental Five Counties Program is widely supported in that region. Support letters have been received from the County of Siskiyou and State Senator Brian Dahle.
 5. **Location:** See the “Site Description”.
 6. **Need:** Despite the substantial contribution to the project from an extremely poor rural county, the project will not take place without Conservancy assistance.
 7. **Greater-than-local interest:** The project helps fulfill the objectives of state and federal species recovery plans, and is therefore of greater-than-local interest
 8. **Sea level rise vulnerability:** Located in Siskiyou County, the project has no vulnerability to sea level rise.

Additional Criteria

- 9. **Urgency:** Flooding at this site presents a continued threat to ecological health and human safety.
- 10. **Resolution of more than one issue:** The proposed remediation of a longstanding fish passage barrier will be completed in a manner that improves ecological health, reduces flood risk, increases public safety and relieves the County of high maintenance obligations at the site.
- 11. **Leverage:** See the “Project Financing” section below.
- 12. **Readiness:** The Council is prepared to finish the project timely.
- 13. **Realization of prior Conservancy goals:** The Conservancy has invested significantly in the Five Counties Program to ensure that they establish a pipeline of projects to improve fish passage for Pacific salmon. A prior Conservancy planning grant helped advance the design of this project.
- 14. **Cooperation:** The Conservancy initiated the design of the project under a prior planning grant. The US Fish and Wildlife Service National Fish Passage Program has approved \$150,000 to complete design (\$15,000) and to implement the project (\$135,000). The Siskiyou County Department of Public Works has allocated funding (\$51,129) to complete the design and construction. Additional implementation funding from the Conservancy is needed for the project to proceed. The adjacent landowner supports the project.
- 15. **Vulnerability from climate change impacts other than sea level rise:** Stream crossings are vulnerable to flood events of increasing frequency and intensity. Expanding the conveyance capacity at this site will provide the creek and infrastructure with a new lease on life.
- 16. **Minimization of greenhouse gas emissions:** The project will utilize small amounts of diesel fuel to construct the project. Assuming the project requires 1,600 gallons of diesel for all operations, the CO2 emissions will be 22.2 lbs of Co2 per gallon diesel consumed x 1,600 gallons= 16 tonnes of CO2 emission. The project will plant ~100 conifer and hardwood trees within disturbed areas as part of its revegetation program. A Douglas-fir is expected to sequester 12.7 tonnes of carbon in the first 100 years. Assuming that 10% of planted trees survive 100 years, the trees will absorb 8 times the CO2 emitted during construction. A higher survival rate is anticipated.

PROJECT FINANCING

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| Coastal Conservancy | \$199,525 |
| U.S. Fish and Wildlife Service | \$150,000 |
| Siskiyou County Public Works | \$51,129 |
| Project Total | \$400,654 |

The expected source of Conservancy funds for this project are funds appropriated 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 and includes: protect and restore aquatic, wetland and migratory bird ecosystems, including fish and wildlife corridors; protect and restore coastal watersheds, 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.

The proposed project helps achieve the above-identified Chapter 6 purposes and provides multiple benefits. By restoring channel form and function, the project will restore historic access to spawning and rearing habitat, improve water quality by preventing and reducing erosion and reduce flooding. The proposed project was selected through a competitive grant process under the Conservancy’s Proposition 1 Grant Program Guidelines adopted in June 2015 (“Prop 1 Guidelines”). (See § 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, the “Project Summary” section and in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section of this report.

The project is also receiving design and implementation funding from the U.S. Fish and Wildlife Service’s National Fish Passage Program, as well as the County of Siskiyou’s Department of Public Works.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The project is authorized pursuant to Chapter 5.5 of the Conservancy’s enabling legislation, Public Resource Code section 31220. 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 coho salmon and will improve water quality in a coastal watershed by restoring natural hydrologic function and increased fish passage opportunity while also reducing nuisance flooding and associated water quality impacts. 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 Klamath River. Finally, consistent with section 31220(c), the project will establish 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 E** of the Conservancy's 2018-2022 Strategic Plan, the proposed project will implement a project to restore fish habitat and fish passage to superior habitat upstream.

Consistent with **Goal 6, Objective G** of the Conservancy's 2018-2022 Strategic Plan, the proposed project will implement a project to improve water quality to benefit coastal and ocean resources.

Consistent with **Goal 8, Objective C**, the project will implement one project to increase resilience to climate change impacts by using a nature-based solution. Specifically, by replacing a deficient culvert with a natural bottom stream channel, capable of passing a 100-year flood ("Q-100") event, the project will provide greater resilience, ecological integrity and flood protection in the future. In addition, and as described under number 16, above, the revegetation will provide a net carbon sequestration benefit for the project.

Consistent with **Goal 16, Objective A**, the project is located in, and will benefit, a disadvantaged community.

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

Under Public Resources Code section 31220(c), projects funded under Chapter 5.5 of Division 21, the Conservancy's enabling legislation, must be consistent with the Integrated Watershed Management Program established pursuant to PRC Section 30947 and local watershed management plans, "if available and relevant to the project." The proposed project is consistent with the relevant plan and program described below.

Integrated Watershed Management Program. The North Coast Integrated Regional Water Management Plan, Phase III (NCIRWMP, prepared by North Coast Resource Partnership, August 2014) was developed pursuant to PRC § 30947. The NCIRWMP identifies six primary integrated water management goals and twelve associated objectives for the North Coast region, relevant at both the local and regional scale, of which the following apply to the proposed project: (Goal 3) Ecosystem Conservation and Enhancement and (Goal 5) Climate Adaptation and Energy Independence. As discussed immediately below, the proposed project is consistent with applicable objectives of the NCIRWMP, and thus with the Integrated Watershed Management Program.

- Goal 3, Objective 5 – "Ecosystem Conservation and Enhancement. Conserve, enhance and restore watershed and aquatic ecosystems, including functions, habitats and elements that support biological diversity". The proposed project will ensure fish passage to and watershed health within McKinney Creek.
- Goal 3, Objective 6 – "Ecosystem Conservation and Enhancement. Enhance salmonid populations by conserving, enhancing, and restoring required habitats and

watershed processes”. The proposed project will reduce nuisance flooding and improve fish passage into and stream function within the McKinney Creek watershed.

Finally, the project will enhance the beneficial uses, such as coldwater fisheries, identified in the “Final Staff Report for the Klamath River TMDL Addressing Temperature, Dissolved Oxygen, Nutrient, and Microcystin Impairments in California, the Proposed Site-Specific Dissolved Oxygen Objectives for the Klamath River in California, and the Klamath River and Lost River Implementation Plans.” McKinney Creek is cited in that report as a thermal refugia within an impaired system. Providing access to that habitat is therefore of critical importance and will help enhance the beneficial uses, such as cold-water fisheries.

CEQA COMPLIANCE:

Small habitat restoration projects are categorically exempt from the California Environmental Quality Act, under 14 California Code of Regulations, Section 15333. This project complies with the requirements for this exemption in that the project is less than five acres in size. Consistent with Section 15333(a), Conservancy staff has consulted with staff from the Department of Fish and Wildlife and has determined that there would be no significant adverse impact on endangered, rare or threatened species or their habitat. Consistent with Section 15333(b), there are no hazardous materials at or around the project site that may be disturbed or removed. The project will not result in impacts that are significant when viewed in connection with the effects of past, current or probable future projects, consistent with Section 15333(c). And consistent with Section 15333(d), this type of project is specifically mentioned in subsection (6), which cites culvert replacement as an example of projects intended to be exempt under this section. Consistent with this subsection, the proposed project will be conducted in accordance with published guidelines of the Department of Fish and Game and NOAA Fisheries regarding improving habitat and/or reducing sedimentation.

Staff will file a notice of exemption upon approval of the project.