COASTAL CONSERVANCY

Staff Recommendation
February 2, 2017

SANTA MARGARITA RIVER
FISH PASSAGE DESIGN

Project No. 16-045-01
Project Manager: Greg Gauthier

RECOMMENDED ACTION: Authorization to disburse up to $442,000 to Trout Unlimited for preparation of designs and environmental review for two fish passage and habitat improvement projects on the Santa Margarita River in San Diego County.

LOCATION: Santa Margarita River watershed in San Diego County. (Exhibit 1)

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Area Map and Aerial View

Exhibit 3: Photos (fish passage barriers and upstream habitat)

Exhibit 4: Project Letters

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251 through 31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of up to four hundred forty two thousand dollars ($442,000) to Trout Unlimited for preparation of designs and environmental review for two fish passage and habitat improvement projects on the Santa Margarita River in San Diego County, subject to the following conditions:

1. Prior to the disbursement of funds, Trout Unlimited shall submit for the review and approval of the Conservancy's Executive Officer, a final work program, schedule, budget, and the names and qualifications of any contractors."

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. Trout Unlimited is a nonprofit organization existing 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 disburse up to $442,000 to Trout Unlimited for preparation of designs and environmental review for two fish passage and habitat improvement projects on the Santa Margarita River in San Diego County.

The proposed project, also referred to as the Santa Margarita Fish Passage Design project, addresses one of the most significant impediments to Southern California steelhead recovery. Removal of fish passage barriers will allow steelhead to access 20 miles of upstream spawning and rearing habitat through hydrologic reconnection.

The project sites comprise an abandoned river crossing of the Santa Margareta River (SMR01) and the nearby Sandia Creek concrete river crossing (SMR02) about 300 yards upstream. The SMR01 barrier is an Arizona-style crossing that has been partially disrupted. The SMR02 barrier is a low-flow river crossing comprising a concrete slab atop 10 concrete box culverts (see Exhibit 3). These barriers are the only barriers to steelhead passage in the Santa Margarita River mainstem up to its headwaters near Temecula, save another downstream barrier on Camp Pendleton which is also scheduled for removal.

The design plans will allow for completing removal of the SMR01 barrier and for modification or structure replacement for the SMR02 low-flow bridge crossing, along with environmental review for acquiring permits for project construction. Additionally, more than one acre of riparian habitat will be restored at one of the project sites. This will provide cover and resting areas for steelhead migrating upstream to spawning and rearing sites that are undergoing restoration in preparation for their passage. The fish passage barriers addressed in this proposal are the two highest priority barriers identified on the Santa Margarita River mainstem in the Trout Unlimited/Cardno-ENTRIX Santa Margarita River Steelhead Habitat Assessment and Enhancement Plan.

One of the principal threats to recovery of endangered Southern California steelhead is the presence of fish passage barriers. Anadromous fish are particularly sensitive to these barriers that impede or totally block their migration between fresh water spawning and rearing areas, and the estuary and ocean where they mature for up to three years before returning to their natal streams. Previously considered to have been extirpated from the river, recent observations and

genetic analysis indicate that steelhead are sporadically present in the river. The barriers addressed in this project are located where Sandia Creek Drive crosses the Santa Margarita River, about two miles due north of Fallbrook, CA (see Exhibit 2).

The proposed project consists of site assessment, stakeholder meetings, longitudinal profile and detailed topographic surveys, flood flow assessment, hydraulic analysis, fish passage analysis, sediment transport and scour analyses, and a geotechnical study culminating in a 40 percent basis of design report for review by National Marine Fisheries Service, California Department of Fish and Wildlife, Coastal Conservancy, San Diego County Public Works Department and other stakeholders. The proposed project also includes evaluation of the comments and input from the above listed agencies and stakeholders followed by preparation of more complete design plans and documentation required by the California Environmental Quality Act (CEQA).

Trout Unlimited has successfully completed close to $10 million in restoration projects in California within the past 10 years and more than $2.5 million in projects in Southern California including oversight and administration of similar fish passage projects. They work with other NGOs, government agencies, tribal nations, corporations and water utilities, and coalitions including the Southern Coast Steelhead Coalition to re-establish steelhead populations in high priority watersheds in San Diego and Orange counties. They do this through providing access to high quality spawning and rearing habitat by removing fish passage barriers, and mitigating threats to steelhead recovery through non-native species removal and projects to improve water quality and habitat.

Site Description: The Santa Margarita River offers one of the best opportunities to re-establish a steelhead population in coastal Southern California. The Santa Margarita River is designated a high priority population in the National Marine Fisheries Service (2012) Southern California Steelhead Recovery Plan, and is unique in coastal Southern California for its undeveloped state and perennial flow. It is relatively lightly impacted by urbanization throughout its length of 27 miles, has perennial flow greater than 5 cubic feet per second, and has a spring-fed character in the upper watershed protected in the Santa Margarita Ecological Preserve. The Santa Margarita River historically supported steelhead and still has natural channel characteristics for migration and propagation of steelhead. The presence of fish passage barriers in the form of water diversion structures, fords and bridges has prevented steelhead from accessing upper reaches of the river that contain good spawning and rearing habitat.

Project History: The Santa Margarita Fish Passage Design project was recently added to the Southern California Wetlands Recovery Project (WRP) Work Plan, and members of the Wetlands Managers Group from the WRP, representing numerous federal and state agencies, attended a site visit in February 2016 at the SMR01 and SMR02 project sites.

This project also was prioritized in the Santa Margarita River Steelhead Habitat Assessment and Enhancement Plan (Prepared by Cardno-ENTRIX and Trout Unlimited for CDFW, 2013) in which the barriers SMR01 and SMR02 were placed at the top of the list for barrier remediation.

This project is also listed in the Santa Margarita Watershed Management Plan (Anchor, 2005), section 4.5.3: Habitat Preservation and Restoration. Long-term action recommendations of this

plan include determining the feasibility of fish passage barriers, vegetated causeways or dam removal; modifying road crossings; restoring natural buffers for streams and rivers to reduce erosion; and assessing the feasibility and benefits of converting existing channelized or concrete areas back to more natural riparian channels. A final recommendation is to develop an education and outreach program to communicate the links between watershed processes and elements such as habitat loss and degradation. This project includes this community outreach component in the development of the redesign of the channel area.

This project could not move forward until the one downstream fish passage barrier was addressed. The Marine Corps Base Camp Pendleton (MCBCP), Rancho California Water District and others developed a plan for the management of surface water and groundwater storage in the lower Santa Margarita River. As part of this plan, removal and replacement of the downstream fish passage barrier on MCBCP is a recommended action. Design alternatives were detailed in the draft EIS/EIR published in May 2014. The design is nearing completion and final evaluation by the National Marine Fisheries Service.

The Santa Margarita River Fish Passage Design project commenced in 2016 using a grant from CDFW's Fisheries Restoration Grant Program. Most of the activities leading to preparation of the 40% designs have been completed with the CDFW grant, and Trout Unlimited will soon be ready to move on to full design specifications planning and completion of CEQA documentation.

PROJECT FINANCING

Coastal Conservancy	$442,000
CDFW	$163,395
Project Total	**$605,395**

The expected source of Conservancy funds for the proposed project is an appropriation to the Conservancy from the "Water Quality, Supply, and Infrastructure Improvement Act of 2014" (Proposition 1, Division 26.7 of the 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(a) identifies the specific purposes of Chapter 6, of which the following pertain to this project: protect and increase the economic benefits arising from healthy watersheds, fishery resources and in-stream flows (subsection (a)(1)); protect and restore aquatic, wetland and migratory bird ecosystems including fish and wildlife corridors (subsection (a)(4)); remove barriers to fish passage (subsection (a)(6)); protect and restore coastal watersheds (subsection (a)(10)); protect or restore natural system functions that contribute to water supply, water quality, or flood management (subsection (a)(11)); and assist in the recovery of endangered species by improving watershed health, instream flows, and fish passage (subsection (a)(12)).

As required by Proposition 1, the proposed project will help achieve the above-identified purposes and provide multiple benefits. By completing designs for removing barriers to fish passage, the project will eventually help restore the watershed health of the Santa Margarita

River, aid in the recovery of an endangered species, and aid in the restoration of the local fishery which will provide economic benefit to the coastal communities around the Santa Margarita watershed.

The proposed project was selected through a competitive grant process under the Conservancy's *Proposition 1 Grant Program Guidelines* adopted in June 2015, (see § 79706(a)). The proposed project meets each of the evaluation criteria in the Proposition 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-kind contributions from Trout Unlimited for project management have been valued at $7,920.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is undertaken pursuant to Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220), as follows: Consistent with 31220(b), the proposed project will achieve the following objectives: 1) protect or restore fish and wildlife habitat within coastal and marine waters and coastal watersheds by reducing an impediment to fish passage; 2) reduce threats to coastal and marine fish and wildlife; and 3) reduce unnatural erosion and sedimentation of coastal watersheds through stream bank stabilization. Consistent with Section 31220(a), Conservancy staff has consulted with the State Water Quality Control Board in developing this project. As Section 31220(c) requires, the proposed project is consistent with local and state watershed plans. This is discussed in detail below under "Consistency with Local Watershed Management Plan/State Water Quality Control Plan." Section 31220(c) requires that the project include a monitoring and evaluation component. Extensive monitoring and evaluation will be integrated into the design of the project.

CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:

Consistent with Goal 5, Objective C of the Conservancy's 2013-2018 Strategic Plan the proposed project will develop a plan for the restoration and enhancement of coastal aquatic and riparian habitat in the Santa Margarita River watershed.

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 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 proposed project would serve to promote and implement several state plans, including:

   - *California Water Action Plan* (2014). The California Natural Resources Agency, California Environmental Protection Agency, and California Department of Food and Agriculture developed this Water Action Plan to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. This project will advance the following goal of the Plan: #4 *protect and restore important ecosystems*, as follows: Restore Coastal Watersheds; the project will complete designs to restore access to 20 miles of anadromous fish spawning habitat upstream of the barriers. Eliminate Barriers to Fish Migration; the project will create designs for the removal of two fish passage barriers on the Santa Margarita River.

   - *California @ 50 Million: The Environmental Goals and Policy Report* (Governor's Office of Planning and Research, 2013 Draft). By completing designs for removing barriers to fish passage, the proposed project will promote this policy under the following action: Key Action #3 of the "Preserve and Steward State Lands and Natural Resources" calls for building resilience in natural systems and specifically calls out the need to maintain intact ecosystems and necessary habitat for the state's native species and provide migration corridors.

   - *California State Wildlife Action Plan2015 Update.* The California Department of Fish and Wildlife developed this Wildlife Action Plan as mandated by Congress to provide a comprehensive wildlife conservation strategy for the state. This project will support this plan under the following actions: Section 6.7.4 "Addressing key barriers and suites of barriers will be needed to conserve Southern California and South-Central ecoregion steelhead trout." This project will complete designs for the eventual removal of the final two fish passage barriers in the Santa Margarita River.

   - *National Marine Fisheries Service Southern California Steelhead Recovery Plan*. Although not a state plan, the National Marine Fisheries Service (2012) federal recovery plan for the endangered Southern California steelhead identifies the priority action to "Develop and implement a plan to physically modify or remove fish passage barriers at debris basins, diversions, roads, and highways to allow adult and juvenile *O. mykiss* natural rates of migration between the estuary and upstream spawning and rearing habitats, and passage of smolts and kelts downstream to the estuary and ocean." This project supports implementation of this priority action by completing designs for the removal and modification of the final two fish passage barriers on the Santa Margarita River.

4. Support of the public: The project has received support from the California Department of Fish and Wildlife, and National Marine Fisheries Service. This project is supported by the Southern California Wetlands Recovery Project, and is on their work plan. This project is also part of a support network including Fallbrook Public Utility District, Western Rivers Conservancy, San Diego County Department of Public Works, CalTrout and the South Coast Steelhead Coalition, Fish and Wildlife Service, and the local trail use groups that are an integral part of project area. The South Coast Steelhead Coalition focuses on restoration of Santa Margarita River watershed and three other rivers nearby based on the NMFS Southern California

Steelhead Recovery Plan. The Coalition mobilizes over 20 participants including federal, state and local agencies, tribal nations, NGOs and other organizations in support of steelhead recovery and other watershed beneficial uses.

5. Location: The proposed project would be located within the Santa Margarita River coastal watershed of San Diego County.

6. Need: Without Conservancy funding, the project will not move forward and Trout Unlimited will miss the opportunity to leverage secured funding to complete designs for removal of fish barriers to 20 miles of new spawning and rearing habitat for federally listed anadromous fish.

7. Greater-than-local interest: Steelhead populations are endangered throughout the South Coast region. Southern California steelhead were listed as an endangered species under the Endangered Species Act (ESA) on August 18, 1997. The Santa Margarita River represents one of the southernmost best opportunities for recovery of this species.

8. Sea level rise vulnerability: The proposed project is located far enough inland to not be affected by sea level rise.

Additional Criteria

9. Urgency: Initial design is underway through a grant from California Department of Fish and Wildlife. Approval of this proposed project will allow design work to continue uninterrupted resulting in cost and time savings and ensure that work completed to date does not become outdated.

10. Resolution of more than one issue: By completing designs for removing fish passage barriers in the Santa Margarita River, this project will help restore degraded habitat for an endangered species, improve watershed health as well as provide a boost to the local fishing stocks if successful.

11. Leverage: See the "Project Financing" section above.

14. Readiness: The design process is already underway to the 40 percent design level and the grantee is ready to continue the design process to allow for CEQA review and final design.

17. Cooperation: Trout Unlimited has been and will continue to work closely with regulatory and resource agencies, tribal nations, and NGOs with an interest in restoring Santa Margarita River salmonid populations.

18. Vulnerability from climate change impacts other than sea level rise: The effects of changes in precipitation and runoff as a result of increasing global temperatures will likely affect the Santa Margarita River watershed. Eliminating fish passage barriers and restoring access to critical spawning and rearing habitat will improve the resiliency of the endangered southern steelhead population to climate change and stressors such as increased stream temperatures, altered flood frequency, and reduced instream flows.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed project is consistent with the following specific Coastal Act policies:

Public Resources Code Section 30231 states that the "biological productivity and the quality of coastal waters, streams, wetlands, estuaries and lakes appropriate to maintain optimum

populations of marine organisms…shall be maintained and, where feasible, restored…" Design for removal of significant fish passage barriers on the Santa Margarita River will help restore the biological productivity of steelhead trout in this coastal watershed. Public Resources Code Section 30240 states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." The proposed project will produce designs to restore environmentally sensitive habitat areas by removing and modifying two fish passage barriers that have significantly disrupted habitat values on the Santa Margarita River.

The coastal area of the Santa Margarita River lies within the federal lands of the Marine Corps Base Camp Pendleton.

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

Because the project will facilitate the restoration of fish and wildlife habitat in coastal watersheds and wetlands, the project is consistent with the Santa Margarita Watershed Management Plan (2005) in that it will determine the feasibility of creating fish passage on the River and "assess the feasibility and benefits of converting existing channelized or concrete areas back to more natural riparian channels."

COMPLIANCE WITH CEQA:

The proposed project is statutorily exempt from the California Environmental Quality Act (CEQA), pursuant to 14 California Code of Regulations Section 15262. Consistent with Section 15262, the project will only involve preparation of planning documents, and will consider environmental factors in the preparation of an environmental document which is also part of this project. The project is also categorically exempt by the Secretary of Resources pursuant to 14 California Code of Regulations Section § 15306, as it requires only data collection, research and resource evaluation activities which do not result in serious or major disturbance to the environment. Upon approval, staff will file a Notice of Exemption for this project.