

COASTAL CONSERVANCY

Staff Recommendation
September 29, 2016

HARVEY DIVERSION FISH PASSAGE RESTORATION PROJECT

Project No. 16-016-01
Project Manager: Christopher Kroll

RECOMMENDED ACTION: Authorization to disburse up to \$170,008 to California Trout to stabilize and regrade approximately 900 feet of streambed on Santa Paula Creek below the Harvey Diversion dam to restore fish passage.

LOCATION: Santa Paula Creek, City of Santa Paula, Ventura County

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: [Project Location Map](#)
 - Exhibit 2: [Project Area Map](#)
 - Exhibit 3: [Photos](#) (existing conditions and post-construction simulation)
 - Exhibit 4: [Project Letters](#)
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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 one hundred seventy thousand and eight dollars (\$170,008) to California Trout (Cal Trout) for the stabilization and regrading of approximately 900 feet of streambed below the Harvey Diversion dam to restore fish passage, subject to the following conditions:

1. Prior to the disbursement of funds, Cal Trout shall submit for review and approval by the Executive Officer of the Conservancy:
 - a. A work program including a schedule and budget for the project.
 - b. All contractors to be retained for the project.
 - c. Documentation that all funding required for the project has been secured
 - d. Written agreements with the underlying landowners sufficient to enable Cal Trout to implement and maintain the project.

- e. A plan for installing signs acknowledging Conservancy funding.
2. Prior to the commencement of construction of the project, Cal Trout shall submit for review and approval by the Executive Officer documentation that all necessary permits and approvals have been obtained.

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 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.
3. California Trout 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 that the Conservancy authorize disbursement of up to \$170,008 to California Trout (Cal Trout) to stabilize and regrade approximately 900 feet of eroded streambed below the Harvey Diversion dam to restore fish passage using the existing fish ladder.

The Harvey Diversion dam on Santa Paula Creek was constructed in 1910 to divert water from the creek for agricultural purposes. It has been a complete fish passage barrier for several years because the dam has caused serious downstream erosion of the streambed making the streambed elevation too low for fish to reach the diversion’s fish ladder. The result has been that the upper reaches of Santa Paula Creek, one of the most important southern steelhead spawning habitat areas in the Santa Clara River watershed, are not accessible for steelhead. This project will stabilize and restore approximately 900 feet of the streambed downstream of the dam by raising the grade of the streambed to the level of the fish ladder. Four H-beams will be installed approximately 150 feet apart downstream of the dam and sediment from behind the dam will be placed between the H-beams to re-establish a stream gradient of approximately 2.5%. The project incorporates a vegetation protection, restoration, and monitoring plan to restore areas of the creek impacted by the project. The plan calls for planting cuttings from onsite trees and shrubs and monitoring for three years following completion of the revegetation.

The proposed project is urgently needed to enable fish passage. However, the dam will continue to cause downstream erosion. The long-term solution to the streambed erosion problem is partial removal of the diversion, replacement with an infiltration gallery and extending the stabilization of the creek bed an additional 2100 feet. Cal Trout is currently working to identify funding for the long-term solution. However, the proposed project should provide immediate relief for the steelhead and should last the estimated 3-5 years before the long-term solution is constructed. The proposed project will eliminate the fish passage barrier at the Harvey Diversion, which will mean that approximately 10.3 miles of river above the dam will again be accessible to steelhead.

Cal Trout has secured two grants towards construction of the proposed project and is now requesting Conservancy funding to complete the funding for the proposed project.

Since 2005 the California Department of Fish and Wildlife (CDFW), the Santa Paula Fish Ladder Authority (owner of the diversion), and National Marine Fisheries Service (NMFS), have completed watershed studies and developed site-specific recommendations to restore fish passage at Harvey Diversion. Technical studies have included geotechnical investigations, sediment transport analysis, biological constraints assessments, feasibility analysis and preliminary design studies. Five passage alternatives were ultimately identified and alternative HD-3 was chosen as the preferred alternative. HD-3 provides for partial removal of the diversion and stabilization of the creek channel. This alternative was determined to be: 1) the most cost-effective; 2) lowest risk; 3) lowest impact to the floodplain; 4) successful in other similar situations; and 5) most likely alternative to be successful. Since the HD-3 alternative is a long term solution that will not be ready for implementation for 3-5 years, Cal Trout will implement the proposed project to provide immediate fish passage. Also, the proposed project will provide information that will be useful in refining the ultimate design of the HD-3 alternative.

California Trout is a nonprofit organization whose mission is to protect and restore wild trout, steelhead, salmon and their waters throughout California. Cal Trout has been involved in fishery enhancement work in California since 1971. Cal Trout has received Conservancy funding for fish passage projects in many other coastal watersheds and is the chair of the Santa Clara River Steelhead Coalition.

Site Description: The Santa Clara River is one of the least altered river systems in all of California and is one of the only river systems in southern California that remains in its natural state without significant channelization. The river flows over 100 miles from the San Gabriel Mountains in Los Angeles County to the Pacific Ocean at the City of Ventura. The watershed provides habitat for numerous threatened and endangered species in addition to being a very significant agricultural area and a source of water for the surrounding communities. Major tributaries include Castaic Creek and San Francisquito Creek in Los Angeles County, and the Sespe, Piru, and Santa Paula Creeks in Ventura County. Approximately 40 percent of the watershed is located in Los Angeles County and 60 percent is in Ventura County.

Santa Paula Creek drains an area of more than 44 square miles. The upper portion of the Santa Paula Creek sub watershed is located within the Los Padres National Forest and the vegetation consists of chaparral, coastal sage scrub and riparian woodland. The agricultural and developed areas of the sub watershed are primarily located along lower Santa Paula Creek. Agriculture in the area is dominated by citrus and avocado orchards. Diversion of water from Santa Paula Creek for agriculture began in the 1860s. The current Harvey Diversion dam was constructed in 1910 and was rebuilt in 1923 and 1941. The dam is located on the lower portion of the creek approximately 3.6 miles upstream of the confluence of Santa Paula Creek and the Santa Clara River. Santa Paula Creek is one of three main historical spawning tributaries for the endangered southern steelhead. The creek holds approximately 18.5 miles of habitat that was once accessible to steelhead but is now blocked by in-stream structures that act as migration barriers. Southern California steelhead was listed by the National Marine Fisheries Service (NMFS) as an endangered species in 1997. The 2012 Southern California Steelhead Recovery Plan (recovery

plan) identifies the Santa Clara River watershed as a Core 1 or highest priority watershed for recovery of the steelhead population. The recovery plan lists fish passage barriers and inadequate instream flows as the critical limiting factors to the recovery of steelhead in the watershed. Dams and diversions built over the last century have significantly reduced the watershed's habitat availability. In order to restore the southern steelhead population, spawning and rearing areas like upper Santa Paula Creek must again be made accessible.

Project History: The current fish ladder on the Harvey Diversion was completed in 2000. Erosion has long been a problem downstream of the diversion structure. In 2005, a major storm damaged the fish ladder and greatly exacerbated channel incision and bank erosion along lower Santa Paula Creek. A jumpbox was installed below the fish ladder to allow fish to reach the ladder but continued erosion below the jumpbox has meant that even the jumpbox is now not accessible for fish. Currently with fish unable to reach the fish ladder due to the serious erosion of the channel, the Harvey Diversion is a complete fish passage barrier.

Since 2005, CDFW has been working with the Santa Paula Creek Fish Ladder Joint Powers Authority (Canyon Irrigation Company and the City of Santa Paula) and the National Marine Fisheries Service (NMFS) to study the Santa Paula Creek sub watershed. The Southern California Steelhead Recovery Plan (2012) identifies restoration of fish passage at the Harvey Diversion as a priority project. The recovery plan lists fish passage barriers and inadequate instream flows as the critical limiting factors to the recovery of steelhead in the Santa Clara River watershed.

In April 2014, Cal Trout was awarded two grants towards construction of the proposed project.

PROJECT FINANCING

Coastal Conservancy	\$170,008
Santa Clara River Trustee Council	\$188,215
CDFW Office of Spill Prevention and Response	<u>\$140,600</u>
Project Total	\$498,823

The expected source of Conservancy funds for this project is the fiscal year 2015-16 appropriation to the Conservancy from the "Water Quality, Supply, and Infrastructure Improvement Act of 2014" (Proposition 1, Division 26.7 of the Water Code, commencing with §79700). Funds appropriated to the Conservancy derive from Chapter 6 (commencing with § 79730) and may be used "for multibenefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state". (§ 79731) The purposes of Chapter 6 include: 1) protect and increase the economic benefits arising from healthy watersheds...; 6) remove barriers to fish passage; (Water Code § 79732.)

The proposed project provides multiple benefits and will help achieve each of the above-cited Chapter 6 purposes by helping to restore the steelhead population in the Santa Clara River watershed that could eventually result in a restored steelhead fishery and will eliminate the fish passage barrier that now exists at the Harvey Diversion.

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.

In-kind contributions from Cal Trout for project management have been valued at \$4997.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resources Code Sections 31251-31270, as follows:

Section 31251 provides that the Conservancy may award grants to nonprofit organizations to enhance coastal resources that have suffered loss of natural and scenic values. The proposed project will restore fish passage to an area that has been closed to fish passage for several years due to human actions (installation of the dam). Santa Paula Creek is a tributary of the Santa Clara River, a coastal river, and is one of the three main historical spawning tributaries for the endangered southern steelhead. The proposed project will restore the eroded grade of the streambed below Harvey Diversion such that steelhead can once again use the fish ladder to get an additional 10.3 miles upstream.

Section 31251.2 states that the Conservancy may award a grant to enhance a watershed resource that is partly outside of the coastal zone in order to enhance the natural or scenic character of coastal resources within the coastal zone. Also the Conservancy may only undertake a project affecting an area partly inside and partly outside the coastal zone if requested by a local public agency or agencies with jurisdiction over the entire project area. The Santa Clara River watershed is a coastal watershed that is partly outside of the coastal zone. The proposed project site on Santa Paula Creek is located outside the coastal zone but the proposed project would address what is now a complete fish passage barrier that prevents steelhead coming from the ocean reaching spawning grounds in the upper reaches of the creek. This will benefit steelhead populations on the Santa Clara River within the coastal zone. The County of Ventura and the City of Santa Paula have expressly requested Conservancy assistance to fund restoration of the Santa Clara River Parkway. Section 31252.2 also requires that any projects involving the management of fish be approved by CDFW. CDFW has stated that this project is a high priority and is providing funding for the project.

Section 31252 requires that all areas proposed for enhancement are identified in a certified local coastal plan/program or other local plans as requiring public action to resolve existing or potential resource protection problems. Although the proposed project is located outside the coast zone, the proposed project will beneficially affect the habitat value of the downstream coastal resources, which lies under the jurisdiction of the City of San Buenaventura. The proposed project is consistent with its Local Coastal Program, which contains the following policy: Policy 13.1 encourages "preservation of the Ventura and Santa Clara Rivers in their present semi-natural state, and possible restoration to natural conditions."

The proposed project is consistent with Section 31253 as described in the "Consistency with Conservancy's Project Selection Criteria & Guidelines."

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

Consistent with **Goal 5, Objective E** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will implement a project to improve fish habitat by removing a barrier to fish passage.

**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:**

By funding elimination of a major fish passage barrier and restoration of access for southern steelhead to critically important spawning and rearing habitat, the proposed project will implement the following state plans:

- *California @ 50 Million: The Environmental Goals and Policy Report* (Governor's Office of Planning and Research, 2013 Draft). The "Preserve and Steward State Lands and Natural Resources" section calls for working to increase biodiversity and helping natural systems recover from disruption. Action #3 calls for building resilience in natural systems and specifically calls out the need for well-maintained watersheds and floodplains.
- *California Water Action Plan* (California Natural Resources Agency, 2014). Goal #4, "Protect and Restore Important Ecosystems," identifies restoration of coastal watersheds as a priority action.
- *California Wildlife Action Plan* (California State Department of Fish and Game, 2005). The proposed project will further the following statewide recommended actions: d) the state should increase efforts to restore coastal watersheds; and g) federal, state, and local agencies and nongovernmental conservation organizations, working with private landowners and public land managers, should expand efforts to restore and conserve riparian communities.

4. **Support of the public:** Project letters are attached (Exhibit 3)

5. **Location:** The Harvey Diversion is located approximately 19 miles from the coast on Santa Paula Creek, a tributary of the Santa Clara River. The Santa Clara River watershed is a major southern California coastal watershed. The proposed project site is located outside the coastal zone but the proposed project would eliminate a major fish passage barrier preventing southern steelhead trout from reaching spawning grounds in upper Santa Paula Creek.
6. **Need:** It is critically important that southern steelhead regain access to the upper reaches of Santa Paula Creek and the eroded streambed below the Harvey Diversion dam must be restored in order for the existing fish ladder to once again be accessible to the steelhead. Sisar Creek is a tributary to Santa Paula Creek and hosts some of the most productive steelhead habitat in the entire watershed. Access to these rearing and spawning habitats is imperative to increase recruitment of young into the population and bolster numbers locally and regionally.
7. **Greater-than-local interest:** The proposed project helps fulfill the objectives of the federal Southern California Steelhead Recovery Plan. Removal of barriers to historic spawning areas for steelhead trout is of regional, statewide, and national interest. Santa Clara River is identified as the Salmonid Stronghold for southern California, helping recovery in the watershed is vital to protecting the species regionally.
8. **Sea level rise vulnerability:** The proposed project is located approximately 19 miles from the coast and so is not vulnerable to sea level rise.

Additional Criteria

9. **Urgency:** The Harvey Diversion currently acts as a complete barrier to fish passage preventing steelhead from reaching spawning grounds in the upper watershed of Santa Paula Creek. A restoration alternative has been identified and funding is needed to restore fish passage on Santa Paula Creek. The federal Southern California Steelhead Recovery Plan classifies the Santa Clara River watershed as being among the highest priority watersheds for recovery of the endangered southern California steelhead. Santa Paula Creek and its tributary Sisar Creek, together host the most productive steelhead habitat in the Santa Clara River watershed.
10. **Leverage:** See the “Project Financing” section above.
11. **Conflict resolution:** The proposed project will resolve a major fish passage barrier in the Santa Clara River watershed. It is a priority action in the Southern California Steelhead Recovery Plan.
12. **Readiness:** Cal Trout is prepared to begin construction in September 2016 as all other funding has already been secured for the proposed project.
13. **Cooperation:** Cal Trout has taken the lead in pursuing funding for this project. The project builds on years of study and planning led by CDFW, NMFS, and the Santa Paula Fish Ladder Authority.
14. **Vulnerability from climate change impacts other than sea level rise:** Eliminating fish passage barriers and restoring access to critical spawning/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.

15. **Minimization of greenhouse gas emissions:** The project would use local contractors to reduce travel associated with the project. Rock material for the project will come from the site eliminating the need to get material from other areas. A revegetation plan for the project area will also help capture greenhouse gas emissions.

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...” Removal of a significant fish passage barrier on Santa Paula Creek will help restore the biological productivity of steelhead trout in the Santa Clara River, a coastal stream.

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 restore environmentally sensitive habitat areas by removing a major fish passage barrier that has significantly disrupted habitat values on the Santa Clara River, a coastal stream.

The certified Local Coastal Programs of the cities of San Buenaventura and Oxnard and the County of Ventura identify the Santa Clara River as an environmentally sensitive resource that should be protected and restored.

COMPLIANCE WITH CEQA:

The proposed project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to the CEQA Guidelines at 14 Cal. Code Regs. sections 15301 and 15333. Section 15301 exempts the repair and maintenance of existing public facilities and topographical features, involving negligible or no expansion of use. The examples include maintenance of fish ladders, stream flows and stream channels to protect fish and wildlife resources. 14 Cal. Code Regs. section 15301(i). The proposed project consists of maintenance of a stream channel by relocating sediment from behind a dam to the eroded streambed below the dam, thereby restoring the elevation of the stream channel to the level of the jump box so that fish can reach the existing fish ladder. Accordingly, the proposed project constitutes maintenance of an existing topographical feature to protect fish, and is exempt under section 15301.

The proposed project is also exempt from CEQA under Section 15333, which exempts small habitat restoration projects that do not exceed five acres in size and that assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife provided that the project meets the additional criteria specified in section 15333. The proposed project will maintain habitat for fish by restoring the elevation of Santa Paula Creek to the level of the existing jump box so that fish can reach the existing fish ladder at the Harvey Diversion. The project has been reviewed and endorsed by the California Department of Fish and Wildlife (“CDFW”) and is intended and designed to have beneficial effects on endangered species. The project will improve habitat for endangered steelhead and reduce sedimentation within the

watershed. Riparian planting and restoration along the stream will also measurably improve habitat with no material risk of adverse effect to the environment. The project meets the additional conditions of section 15333 in that there would be no significant adverse impact on endangered, rare or threatened species or their habitat pursuant to CEQA Guidelines section 15065; there are no hazardous materials at or around the site; and the project will not result in significant impacts when viewed in connection with the effects of past, present, or probable future projects.

Staff will file a Notice of Exemption upon approval.