

COASTAL CONSERVANCY

Staff Recommendation
December 1, 2016

SCOTTS CREEK LAGOON RESTORATION

Project No. 16-040-01
Project Manager: Tom Gandesbery

RECOMMENDED ACTION: Authorization to disburse up to \$104,000 to the Resource Conservation District of Santa Cruz County to undertake technical studies and develop conceptual restoration designs for Scotts Creek Lagoon, in Northern Santa Cruz County.

LOCATION: Coastal Santa Cruz County

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

Exhibit 1: [Location Maps](#)

Exhibit 2: [Figures](#)

Exhibit 3: [Letters](#)

RESOLUTION AND FINDINGS:

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

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed one hundred and four thousand dollars (\$104,000) to Resource Conservation District of Santa Cruz County (RCD), to undertake technical studies and develop conceptual restoration designs for the Scotts Creek Lagoon, subject to the condition that, prior to the disbursement of funds, RCD shall submit for review and approval by the Executive Officer of the Conservancy all of the following:

1. A work program, including tasks, schedule and budget.
2. All contractors to be employed for the project.
3. Evidence that all necessary landowner access agreements have been secured.
4. A plan for acknowledging Conservancy funding of the project and acknowledging Proposition 1 as the source of the funding, including signs, to the extent practicable.”

Staff further recommends that the Conservancy adopt the following findings:

SCOTTS CREEK LAGOON RESTORATION

“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 enhancement of coastal resources.
 2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.”
-

PROJECT SUMMARY:

The proposed authorization is to provide up to \$104,000 to the Resource Conservation District of Santa Cruz County (RCD) in order to undertake technical studies and develop conceptual restoration designs for the Scotts Creek Lagoon. The proposed project is a collaborative effort of RCD, the Regional Transportation Commission of Santa Cruz County (RTC), Caltrans, and the Integrated Watershed Restoration Program (IWRP).

Scotts Creek Lagoon is a vital resource for coho and steelhead salmon, tidewater goby, California red-legged frog, and many other aquatic species, but the habitat quality has been seriously degraded by the construction of the Highway 1 bridge and causeway and levees along the river. Built in 1938, Highway 1 constrains the size and function of the Lagoon and the man-made levees severely limit the natural floodplain functions. These constraints have substantially reduced the quantity and quality of the Lagoon, marsh plain, and its associated tidal habitats. A lack of tidal exchange with the former Lagoon wetlands has resulted in poor water quality.

The highway bridge is nearing the end of its serviceable life and, according to modeling conducted for the Monterey Bay Sea-Level Rise Vulnerability Assessment, is likely to be heavily impacted by the effects of rising sea-levels and resultant hazards of coastal erosion. Replacement of the bridge presents an opportunity to also improve the Lagoon by revising the bridge alignment and design. To address these issues, RCD is collaborating with the RTC, Caltrans, and IWRP to develop a clear understanding of the ecological processes (both physical and biological) that govern the function of the Scotts Creek Lagoon and marsh system. This understanding will be used to build a restoration plan focused on restoring key physical processes to create a self-sustaining mosaic of habitat types within the Lagoon, marsh and dune ecosystems. These systems will, in turn, support an array of special status species already present within the system, although limited in number and constrained by current conditions.

Once the ecological processes are clearly understood, various bridge alignments will be evaluated based on their respective effects on these critical processes to determine the best infrastructure “fit” with a restored ecosystem. This design approach is unique in that instead of Caltrans designing a new crossing and then evaluating impacts to the ecological resources, RCD and other collaborating agencies are working to first understand how to restore the ecological resources and then to design infrastructure that is compatible with that understanding. This project represents an opportunity to cooperate with Caltrans and all other involved state and federal resource agencies to successfully implement a new planning paradigm.

The IWRP Technical Advisory Committee (TAC) will assist RCD with the studies and restoration design. RCD will develop new data and modeling tools to enable scenario planning

SCOTTS CREEK LAGOON RESTORATION

and consensus based decision-making and prepare ecological restoration designs that focus on restoring the physical processes that govern habitat development. Together, the tools and designs will be used to develop an ecologically appropriate design for the new Highway 1 crossing that maximizes the ecological capacity of the system, while anticipating impacts of climate change on both the highway and the coastal resources. Restoration designs will be advanced to the 30% completion level.

RCD is well qualified to carry out this work, as it has taken a leadership role implementing numerous creek restoration projects, including projects on Scotts Creek, San Vicente Creek, the San Lorenzo River, and Valencia Creek. In addition, RCD has facilitated IWRP since 2003, bringing together federal, state and local resource and funding agencies to select and oversee the design and implementation of high priority projects to restore watersheds and improve water quality.

Site Description: Scotts Creek is located just north of the town of Davenport in Santa Cruz County, approximately 12 miles north of the City of Santa Cruz. The project site is the 35-acre Lagoon and marsh complex at the mouth of Scotts Creek. The property is owned by the Cal-Poly State University Foundation. The land immediately surrounding most of the Lagoon and lower Creek is home to Swanton Pacific Ranch, a 3,200- acre living laboratory affiliated with California Polytechnic State University, San Luis Obispo (Cal Poly) (see Exhibit 2). The Ranch is a teaching and research facility for agriculture, including silvaculture and ranching. Cal Poly graduate students have conducted research on Scotts Creek and have collaborated with RCD on several recent habitat restoration projects funded through the IWRP, as discussed below.

While salmonid habitat Scott Creek upstream of the lagoon is in excellent condition, and supports coho and steelhead spawning, the Lagoon suffers from poor water quality. The channelization of the Lagoon substantially decreased the total volume of water stored during, what would otherwise be normal, annual filling and breaching cycles. It is estimated that the wet surface of the Lagoon is three to four times smaller than it was historically. These changes have had a deleterious effect on juvenile salmonids and other aquatic species that rely on the Lagoon for feeding and refuge. Fisheries experts from the U.S. National Oceanic and Atmospheric Administration (NOAA) and the California Department of Fish and Wildlife (CDFW) agree that restoration of the Lagoon is the final step in restoring this watershed and critical to the survival of southern coho.

Despite the decreased size and quality of the Lagoon, it provides habitat for several species of concern including the federally-endangered Central California Coast (CCC) coho salmon and tidewater goby, and federally-threatened CCC steelhead, California red legged frogs, and western pond turtles. Federally threatened snowy plovers that use the beach areas. The Lagoon has been designated as critical habitat for both coho and CCC steelhead. Research efforts within the last decade have highlighted the importance of the freshwater Lagoon habitat at the site to its endemic salmonids, which use the Lagoon for rearing during the summer.

Scotts Creek drains a 29 square mile watershed. Principal land uses in the watershed include agriculture and timber, rural residential and recreation. Most of the watershed is owned by Big Creek Lumber Company, which practices sustainable forestry throughout the Santa Cruz Mountains.

Project History: Since 2003, RCD has been successfully coordinating with the IWRP Technical Advisory Committee to identify and implement high priority restoration projects in Santa Cruz

SCOTTS CREEK LAGOON RESTORATION

County. Much of the IWRP design funding has been from the Conservancy and several restoration projects in the middle portion of Scotts Creek were recently completed by RCD working with Cal Poly. The Scotts Creek watershed has been a focal point of research on natural resource management, hydrology, and fisheries for decades. The NOAA Southwest Fisheries Science Center Steelhead program based in Santa Cruz has been intensively studying steelhead and coho in Scotts Creek since 2004. Restoration of the creek and the collaboration of the agencies which are working together to undertake the restoration are highlighted in the recent NOAA Fisheries' publication, *Species in the Spotlight: Priority Actions 2016-2020 for CCC Coho Salmon*.

In 2010, a Technical Advisory Committee (TAC) was formed to address issues in the Lagoon. TAC participants include the Conservancy, RCD, RTC, CDFW, NOAA National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Central Coast Regional Water Quality Control Board, the County of Santa Cruz, Cal Poly, Caltrans, Moss Landing Marine Labs, University of California, Santa Cruz, and the Coastal Commission.

In 2012, through the development of a Memorandum of Understanding (MOU) between Caltrans, RCD, RTC, the Conservancy and the County, Caltrans indicated its commitment to supporting development of the restoration concept while exploring approaches to replacing the Highway 1 bridge. In 2013, the TAC held a workshop on restoration of the Lagoon. An outcome of that effort was that Caltrans Region 5 office, RCD, RTC, Cal Poly and the Conservancy agreed to make bridge replacement a reality by working through the steps required to implement a self-mitigating bridge replacement project. This group now makes up the Steering Team and collectively is striving to ensure the safety and resilience of the transportation corridor and to restore the functions and values of these critical lagoon and marsh systems.

PROJECT FINANCING

Coastal Conservancy	\$104,000
Caltrans	\$84,000
WCB (Pending)	<u>\$338,000</u>
Project Total	\$526,000

Funding for the habitat design portion of the proposed project is expected to come from the Conservancy's FY 2013 appropriation from the Habitat Conservation Fund (HCF) established by the California Wildlife Protection Act of 1990, Fish & Game Code Section 2780 et seq. (Proposition 117). The Conservancy may use HCF funds for the restoration or enhancement of aquatic habitat for spawning and rearing of anadromous salmonids and trout resources and for restoration or enhancement of riparian habitat and wetlands. (Fish & Game Code Section 2786(d), (e) and (f)). The proposed project will serve to develop conceptual designs and to undertake technical studies in support of these enhancement and restoration objectives.

SCOTTS CREEK LAGOON RESTORATION

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project will be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Division 21 of the Public Resources Code (Sections 31251-31270), regarding enhancement of coastal resources.

Section 31251 authorizes the Conservancy to award grants to public agencies for the purpose of enhancement of coastal resources that, because of natural or human-induced events or incompatible land uses have suffered loss of natural values. Construction of a causeway and bridge over the Lagoon, as well as past timber and ranching operations within the watershed have had severe detrimental impacts on the Lagoon. The proposed project will develop a science-based restoration plan to restore fish habitat and aid in the recovery of salmon and steelhead populations. Thus, this grant will be used to plan and develop the corrective measures that will enhance the natural character of the area, consistent with Section 31251.

As required in Section 31252, the area of the proposed project is identified in the Santa Cruz County Local Coastal Program (LCP) as requiring public action and assistance to resolve existing resource protection problems, as detailed in the "Consistency with Local Coastal Program Policies", below.

Section 31253 states that the Conservancy may provide up to the total cost of any coastal resource enhancement project. Consistent with Section 31253, the following factors were considered in determining the amount of Conservancy funding for this project: the total amount of funding available for coastal resource enhancement projects, the fiscal resources of the applicant, the urgency of the project, and the Conservancy's project selection criteria, as described in detail below, under the heading "Consistency with Conservancy's Project Selection Criteria & Guidelines." The Conservancy's financial contribution toward this project will be approximately 20 percent.

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

Consistent with **Goal 5, Objective A** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will develop plans for the "restoration and enhancement of coastal habitats including coastal wetlands and intertidal areas, stream corridors, dunes,..." in the coastal Scotts Creek watershed.

Consistent with **Goal 5, Objective F**, the proposed project will complete plans to improve the water quality of Scotts Creek Lagoon and thereby benefit salmonid populations in the watershed, a coastal and ocean resource.

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:

SCOTTS CREEK LAGOON RESTORATION

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:**

RCD’s restoration planning of the Lagoon would serve to promote and implement several state plans, including:

 - *California Water Action Plan* (2014). California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture developed the 2014 California Water Action Plan (CWAP) to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. The proposed project advances CWAP Goal #4: Protect and Restore Important Ecosystems by improving rearing habitat for SCCC steelhead and coho salmon.
 - *California Wildlife Action Plan* (California Department of Fish and Wildlife (CDFW), 2005). The CWAP sets forth goals for the Central Coast region that include protecting sensitive species and important wildlife habitat and restoring anadromous fish populations.
 - *The California Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan* (California Natural Resources Agency, July 2014). The proposed project will support a number of strategies in the *Safeguarding California* plan, including requiring that climate risk considerations be incorporated into state infrastructure planning; conduct additional research to fill informational gaps about California’s climate vulnerabilities and additional research on the scope, timing, cost and feasibility of management options to address climate change; and encourage Innovative Design of New Structures/Infrastructure in Areas Vulnerable to Sea- level Rise
 - *Final Central California Coast Coho Salmon ESU Recovery Plan* (National Marine Fisheries Service 2012) The recovery actions identified for watersheds in the Santa Cruz Mountains include Action 5.1.1.2: “Continue working with Santa Cruz RCD and Coastal Conservancy to identify willing landowners to implement restoration projects in Core and Phase I areas.”
4. **Support of the public:** This Project is strongly supported by the local community as well as neighboring land owners Cal-Poly, Big Creek Lumber Company, the Scotts Creek Watershed Council, and the Scotts Creek Hatchery. RTC, County Board of Supervisors and Caltrans have also been active participants in the project. Support letters from State Senator Bill Monning, Assemblyman Mark Stone and U.S. House Representative Anna Eshoo are attached (Exhibit 3).
5. **Location:** Scotts Creek Lagoon is within the Coastal Zone of Santa Cruz County.

SCOTTS CREEK LAGOON RESTORATION

6. **Need:** RCD is seeking funding from several potential funders but grant funding for restoration planning is very difficult to obtain at this time. Funding from the Conservancy will be critical to ensure that this work is completed.
7. **Greater-than-local interest:** Scotts Creek lies at the southern extent of the CCC Coho Salmon range and is the only watershed in the Santa Cruz Mountains Diversity Strata that still supports all three age cohorts of coho salmon. The watershed, designated by National Marine Fisheries Service (NMFS) as critical to the recovery of both coho and steelhead, contains a relatively undisturbed watershed and a native fish hatchery. In addition to the opportunities for recovery of salmonids, the Lagoon complex also supports a number of other listed species including California red-legged frogs, nesting sites for snowy plover, and a population of tidewater goby. If successful, the physical functioning and habitat of this critical lagoon as well as improved resilience of this key state highway transportation corridor will be significantly improved.
8. **Sea level rise vulnerability:** The Lagoon, especially the beach and sand bar are very vulnerable to sea level rise, as is the stability of the Highway 1 bridge and causeway. The proposed project will address sea-level rise scenarios in developing conceptual restoration designs. In the longer term, the Lagoon has the potential to migrate landward, as the surrounding lands are currently used for farming.

Additional Criteria

11. **Resolution of more than one issue:** When implemented, the ecological restoration along with the bridge replacement will result in a hydrologically functioning lagoon and marsh complex that is far less impacted by the highway corridor both of which are designed to have multiple benefits and to respond to climate change. \
12. **Leverage:** See the “Project Financing” section above
13. **Innovation:** The proposed project approach focuses on restoration first so that the habitat restoration project can guide the reconstruction of the highway. This approach is unique in California and can serve as a statewide demonstration for Caltrans projects. Caltrans managers in Region 5 as well as in Sacramento Headquarters are strongly supportive of this innovative approach (see Exhibit 3).
14. **Readiness:** RCD has successfully implemented projects on Scotts Creek and in nearby watersheds and is immediately prepared to carry out the project. In 2012, through the MOU, Caltrans and all other involved parties indicated an equal commitment to carrying out the project as proposed.
17. **Cooperation:** This project will be a unique opportunity for a collaborative process involving Caltrans, the Coastal Commission, Cal Poly and RTC to replace a critical piece of highway infrastructure and restore a wetland.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The 1994 *General Plan and Local Coastal Program for the County of Santa Cruz, California* (General Plan and LCP) identifies the project area, Scott Creek Lagoon, as requiring public action and assistance to resolve existing resource protection problems and to restore the resource. The Local Coastal Program (LCP) for Santa Cruz County is not an independent document, but

SCOTTS CREEK LAGOON RESTORATION

instead is incorporated into the General Plan. Chapter 5: Conservation and Open Space details the goals, objectives, policies, and programs supporting the LCP.

LCP Objective 5.3, Aquatic and Marine Habitats, generally requires that aquatic and marine habitats be identified, protected and restored. Under this Objective, Program (h) more precisely requires that aquatic and marine habitats which had been damaged by human activities be identified and restored. Program (h) places the responsibility for identifying such locations on CDFW. CDFW staff participates as a member of Technical Advisory Committee for the proposed project. In that capacity, CDFW staff have identified the Scotts Creek Lagoon as a degraded area which requires corrective action to restore this important habitat for endangered fish species.

In addition, the proposed project is consistent with other LCP goals, objectives, policies, and programs, as follows:

- Objective 5.1 Biological Diversity. The policies in this section focus on maintaining biological diversity within the County. Policies 15.12 through 15.15 address restoration of resources damaged from past development.
- Objective 5.2 Riparian Corridors and Wetlands. This objective calls for preserving, protecting, and restoring all riparian corridors and wetlands for the protection of the wildlife and aquatic habitat, water quality, erosion control, open space, aesthetic and recreational values.

COMPLIANCE WITH CEQA:

The proposed project involves only planning, data gathering and technical analysis for possible future actions that have not yet been approved or funded and is thus statutorily and categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to 14 California Code of Regulations Sections 15262 and 15306. Section 15262 exempts feasibility and planning for actions that have not yet been approved or funded. As required by section 15262, the proposed project will encompass consideration of environmental factors associated with the proposed enhancement of the Lagoon. Section 15305 exempts basic data collection, research and resource evaluation activities that will not result in serious or major disturbance to an environmental resource.

Staff will file a Notice of Exemption upon Conservancy approval.

SCOTTS CREEK LAGOON RESTORATION