

COASTAL CONSERVANCY

Staff Recommendation
November 9, 2006

**SAN PEDRO CREEK FISH PASSAGE
AT ADOBE BRIDGE**

File No. 06-091
Project Manager: Janet Diehl

RECOMMENDED ACTION: Authorization to disburse up to \$282,000 to the City of Pacifica to improve fish passage by removing a box culvert where San Pedro Creek flows below the Adobe Road bridge in Pacifica, San Mateo County.

LOCATION: San Pedro Creek, approximately one mile upstream of Highway One, in the City of Pacifica, San Mateo County (Exhibit 1)

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection

EXHIBITS

- Exhibit 1: Project Location and Site Map
 - Exhibit 2: Photos
 - Exhibit 3: San Pedro Creek Restoration Project Funding Spreadsheet
 - Exhibit 4: Letters of Support
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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 the disbursement of an amount not to exceed two hundred eighty-two thousand dollars (\$282,000) to the City of Pacifica (City) for removing a box culvert where San Pedro Creek flows below the Adobe Road bridge, subject to the following conditions:

1. Prior to the City’s commencement of work, the Executive Officer of the Conservancy shall approve in writing a work program, schedule of completion, project budget, any contractors to be employed, and a signing plan acknowledging the Conservancy.
2. The City shall submit evidence that all necessary permits have been obtained.

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3. The City shall implement post-project effectiveness monitoring for three years following construction, according to a monitoring plan approved by the Executive Officer of the Conservancy.”

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 project is consistent with the purposes and criteria set forth in Chapter 5.5 of Division 21, section 31220 of the Public Resources Code, regarding integrated coastal and marine resources protection.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.”

PROJECT SUMMARY:

The City of Pacifica (City) seeks funding to replace an existing box culvert with a free-span bridge at Adobe Road as part of its master plan to restore the watershed of San Pedro Creek in its entirety. The 50-foot-long culvert currently presents a velocity and jump barrier to most fish at low flows and a velocity barrier at high flows, which greatly reduces access to the upper watershed’s spawning and rearing habitat (Exhibit 2, photos). This would be the fourth in a series of projects where the City has worked with the Conservancy and other agencies on San Pedro Creek to improve habitat for its native population of steelhead (*Oncorhynchus mykiss*).

The City would use Conservancy funds to build a new bridge, remove the culvert, and reconstruct a natural creek bed where the culvert had once been. The bridge and the new creek bed would be built around and under the old culvert while it is still in place, in order to minimize disturbance to the water flow.

New slurry walls on either side of the creek would be constructed to support the bridge and hold back the soil adjacent to the bridge. With the new walls in place, the dirt between them – which currently surrounds the culvert – would be excavated. A new creek channel would be dug below the culvert, and rock weirs would be constructed in that channel to provide deep pools and slow water velocity. The new bridge slab would then be installed on top of the walls. Finally, the old culvert and headwalls would be removed in sections with a crane, a process that the City expects to take approximately three hours. This would be done at a low-flow period, with a temporary sand bag dam installed at the upper headwall. Once the culvert is lifted out, the sand bags would be removed and the water would flow under the new bridge in the restored creekbed.

Although the project is in a residential neighborhood, it can be constructed entirely on City-owned property (road right-of-way). The City will provide long-term maintenance of the new bridge and the weirs, and would monitor for post-project effectiveness for three years following completion.

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The Conservancy would be the sole source of funds for this phase of restoration on San Pedro Creek. Almost two million dollars for the next phase of this project – bank and channel stabilization from the Adobe Road bridge downstream 2,000 linear feet to Peralta Street – will be provided by the Army Corps of Engineers and the City in 2007, with construction to take place in 2008.

In context of the entire \$14 million watershed enhancement project, the Conservancy's participation over the years would total \$2,477,000, or 17 percent. (See the spreadsheet attached as Exhibit 3.) By funding this project at this time, the Conservancy would enable the City to obtain permits and remove the culvert in the next dry season.

Site Description:

The proposed project site is about a mile up the main stem of San Pedro Creek, where the creek crosses under Adobe Road in the southern portion of the City of Pacifica. It is a suburban setting, surrounded by houses with mostly residential traffic.

Draining an area of eight square miles, San Pedro Creek empties into the ocean at Pacifica State Beach. The freshwater lagoon and tidally-influenced wetlands at the mouth of the creek have been impacted over the years by intensive agricultural use and urban development. The middle third of the watershed, the site of the proposed project, is heavily developed, with commercial and residential structures built very near the creek banks. The creek is highly constrained in this area and restoration efforts are circumscribed by concerns over flooding and the protection of private property.

The upper watershed, however, consists almost entirely of undeveloped public lands in near natural condition. Thanks to the near-pristine nature of the protected upper watershed, San Pedro Creek is remarkably healthy for a creek in such an urbanized setting.

San Pedro Creek has historically supported a sustaining native steelhead population. City staff and members of the San Pedro Creek Watershed Coalition have been carefully monitoring its steelhead population for the past several years, and have counted thousands of juveniles and nearly 300 adult fish in the stream during the spring run. The fact that so many individuals persist in returning to this creek year after year, in spite of numerous obstacles, is of great interest to fisheries biologists from the National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (DFG). NMFS has designated San Pedro Creek as one of nine critical habitat areas for steelhead within the "Central California Coast Evolutionary Significant Unit," or ESU.

The San Pedro Creek riparian corridor is an important resource for other wildlife as well, providing excellent habitat for belted kingfisher, black-crowned night heron, green-backed heron, and snowy egret. The creek also provides habitat for populations of two federally listed endangered species: the San Francisco garter snake and the California red-legged frog. All of these species require wetland or aquatic habitat for at least a portion of their life cycle, and would benefit from the restoration of the wetlands and riparian zones of San Pedro Creek.

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Project History:

The proposed project is part of a larger effort by the City to transform this degraded watershed to a more natural and healthy state. The Coastal Conservancy has been working with the City on developing and implementing this master plan since the early 1990s.

In 1993, the Conservancy helped to fund the City's plan and initial design studies for a 10-acre wetland restoration near the mouth of the creek that was part of an alternative flood control project design proposed by the City to the U.S. Army Corps of Engineers. This design was innovative in that it incorporated wetlands as an intrinsic element of flood control. The Conservancy made another grant to the City in 1998 to construct the flood control wetland, located on the east side of Highway 1. The City completed the project in 2001.

Building on that project, the City broadened its focus to the entire creek, and developed the *San Pedro Creek Watershed Assessment and Enhancement Plan* with a grant from DFG. Working with the San Pedro Creek Coalition, the City completed the plan in 2002. The next year, the Conservancy granted the City \$750,000 to implement the initial phase of the plan. The City used the grant to carry out the restoration of the tidal wetlands at the mouth of the creek on Pacifica State Beach. This project involved the acquisition, demolition and removal of two residential structures on the beach, the reconfiguration of the lower channel and creek mouth to restore a more natural geomorphology, and the restoration of native plant communities.

Most recently, the Conservancy granted the City \$545,000 two years ago to remove a failed fish ladder where San Pedro Creek passes under Capistrano bridge. Thirteen-hundred linear feet of channel were re-graded and a series of step pools were constructed to give migrating fish resting areas between jumps. The creek banks were re-graded, covered with erosion control materials, and replanted with native riparian vegetation.

PROJECT FINANCING

Phase 1. Adobe Bridge Culvert Removal

Coastal Conservancy	\$ 282,000*
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Phase 2. Bank and Channel Stabilization (Adobe to Peralta Roads)

Army Corps of Engineers	1,500,000
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City of Pacifica	<u>400,000</u>
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Total Project Cost	<u>\$2,182,000</u>
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*The anticipated source of Conservancy funds for the proposed project is a 2004 appropriation from the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50). These particular funds are to be used for coastal watershed projects consistent with Section 31220 of the Public Resources Code (see next section).

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CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project would be undertaken pursuant to Chapter 5.5 (Section 31220) of the Conservancy's enabling legislation, Division 21 of the Public Resources Code, regarding Integrated Coastal and Marine Resources Protection.

Section 31220(a) authorizes the Conservancy to undertake and award grants for projects that meet one or more criteria of Section 31220(b). Consistent with Section 31220(a), staff has consulted with the State Water Resources Control Board to ensure consistency with Chapter 3 of Division 20.4 of the Public Resources Code [Watershed, Clean Beaches and Water Quality Act].

Consistent with Section 31220(b), the project will restore fish habitat within coastal watersheds and reduce the threats to coastal anadromous fish by removing a significant barrier to fish migration and improving access to two miles of spawning and rearing habitat.

Consistent with Section 31220(c), the project includes a monitoring component for three years following construction to evaluate project effectiveness. The project also complies with Section 31220(c)(1) because it is consistent with a local watershed management plan (the *San Pedro Creek Watershed Assessment and Enhancement Plan*). See "Consistency with Local Watershed Management Plans" section, below.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5, Objective B** of the Conservancy's Strategic Plan, the project will restore a corridor from the coast to inland habitat areas, improving habitat for significant populations of various species.

Consistent with **Goal 6, Objective A** of the Conservancy's Strategic Plan, the project will help implement the San Pedro Creek Watershed Enhancement Plan.

Consistent with **Goal 10, Objective A** of the Conservancy's Strategic Plan, the project will implement a watershed restoration project in an area identified as a priority, by improving anadromous fish passage to two miles of spawning and rearing habitat.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, 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.

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3. **Support of the public:** Supporters of this project include State Senator Jackie Speier, and Assemblymember Gene Mullin, as well as a number of organizations, including the San Pedro Creek Flood Control Committee and the San Pedro Watershed Coalition. Letters of support are included in Exhibit 4.
4. **Location:** The project is located on San Pedro Creek, about a mile upstream from the mouth, in the City of Pacifica. By removing a significant fish passage barrier to the upper watershed's spawning and rearing habitat, the project will benefit anadromous fish.
5. **Need:** The City has expended about \$1.5 million on projects in the San Pedro Creek watershed over the past several years, and plans to invest more in 2007. These expenditures have drained the City's funds available for the project at this time. The City needs to secure outside funding if the project is to proceed, and no other funding sources are available to allow the project to be constructed next dry season.
6. **Greater-than-local interest:** The biological resources in San Pedro Creek are of statewide significance. NMFS has designated San Pedro Creek as one of nine critical habitat areas for steelhead within the Central California Coast Evolutionary Significant Unit, or ESU. Both the U.S. Fish and Wildlife Service and DFG have listed the steelhead as threatened. The creek also supports the state and federally listed endangered California red-legged frog and the San Francisco garter snake.

Additional Criteria

7. **Urgency:** The removal of fish impediments at bridge culverts were identified in the San Pedro Creek Watershed Assessment and Enhancement Plan as the highest priority work. It is critical for this barrier to be modified in a timely manner in order to improve access to the best habitat in the creek for the threatened steelhead.
8. **Resolution of more than one issue:** In addition to improving fish passage, this project would lessen the threat of flooding in the residential neighborhood that surrounds the project.
9. **Leverage:** See the "Project Financing" section above.
12. **Readiness:** The City has completed the project designs and environmental review, and is in the final stages of obtaining the permits and approvals necessary to construct the project. If the City is able to secure the funding, it will proceed to construction in the summer of 2007.
13. **Realization of prior Conservancy goals:** See "Project History" above.
15. **Cooperation:** This project concept was developed cooperatively among many agencies and nonprofits, including the City, the Conservancy, the Department of Fish and Game, the Army Corps of Engineers and the San Pedro Creek Watershed Coalition. The project design will be prepared by the City of Pacifica.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project is consistent with policies contained in the March 1981 certified Pacifica Local Coastal Program, which provides in its Land Use Plan for the protection and enhancement of wetlands and year-round creek environments. Specifically, the Land Use Plan states that:

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"Wetlands and year-round creek environments . . . shall be protected and enhanced. . . ." In addition, the Land Use Plan states that: "Riparian vegetation along all intermittent and year-round creeks shall be protected, enhanced and restored where feasible." Pacifica's Coastal Zoning Ordinance also contains specific provisions intended to "protect, maintain, enhance and restore . . . environmentally sensitive habitat," including wetlands and creeks.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN(S):

Projects undertaken pursuant to Chapter 5.5 of Public Resources Code Division 21 (Section 31220) must be consistent with local watershed management plans, if available, and with water quality control plans, adopted by the state and regional water boards. The proposed project is consistent with the Water Quality Control Plan for the San Francisco Bay Basin adopted by the Regional Water Quality Control Board because the project will remove a barrier to fish migration, addressing a goal of the plan, which states: ". . . particular attention must be paid to maintaining zones of passage. Any barrier to migration or free movement of migratory fish is harmful."

The proposed project is also consistent with the local watershed management plan, consistent with Section 31220(c)(2). The San Pedro Creek Watershed Coalition, in cooperation with the City of Pacifica, completed a San Pedro Creek Watershed Assessment and Enhancement Plan (SPCWC and Pacifica 2002), for California Department of Fish and Game, in which steelhead habitat restoration goals were prioritized according to information gathered in a three-year study. Four volumes comprise this work, interpreting (1) Geomorphology, (2) Riparian Vegetation, (3) Water Quality, and (4) Fish Habitat. The plan identified the removal of fish impediments at bridge culverts as the highest priority work. The plan can be found on the SPCWC website at <http://www.pedrocreek.org/research.html>.

COMPLIANCE WITH CEQA:

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 Game 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. Conservancy staff will file a Notice of Exemption after approval.