

COASTAL CONSERVANCY

Staff Recommendation

May 27, 2004

**SAN PEDRO CREEK WATERSHED ENHANCEMENT:
CAPISTRANO BRIDGE FISH PASSAGE IMPROVEMENTS**

File No. 03-061

Project Manager: Prentiss F. Williams

RECOMMENDED ACTION: Authorization to disburse up to \$545,000 to the City of Pacifica to implement a series of habitat improvements of the San Pedro Creek corridor near the Capistrano Bridge to facilitate fish passage as the second phase of an ongoing effort to restore and enhance the San Pedro Creek Watershed within the city limits.

LOCATION: San Pedro Creek, City of Pacifica, San Mateo County (Exhibit 1)

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: Project Location and Site Map
 - Exhibit 2: CEQA Initial Study and Mitigated Negative Declaration
 - Exhibit 3: Mitigation Monitoring Program
 - Exhibit 4: Photos of Existing Conditions: Failed Fish Ladder
 - Exhibit 5: Step Pool Design
 - Exhibit 6: Riparian Restoration Plans
 - Exhibit 7: Photo of Restored Flood Control Wetland
 - Exhibit 8: Photos of Beach House Demolition
 - Exhibit 9: Photos of Restored Creek Mouth
 - Exhibit 10: Letters of support
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31000 *et seq.* of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed five hundred forty-five thousand dollars (\$545,000) to implement a series of habitat improve-

ments to San Pedro Creek corridor near the Capistrano Bridge to facilitate fish passage, subject to the following conditions:

1. Prior to the disbursement of funds:
 - a. The Executive Officer of the Conservancy shall approve in writing a final work program, schedule and budget, a signing program acknowledging assistance from the Conservancy and from Proposition 12, and any contractors to be employed in implementation of the project.
 - b. The City shall provide evidence to the Executive Officer of the Conservancy that the City has obtained all necessary permits and approvals.
2. The City shall implement, or shall cause to be implemented, the mitigation measures contained in the City's May 2003 Mitigated Negative Declaration for the project prepared under the California Environmental Quality Act and attached to the accompanying staff recommendation as Exhibit 2.
3. Upon completion of the project, the City shall provide to the Conservancy a written report indicating the implementation of all applicable mitigation measures required in the Mitigation Monitoring and Reporting Program for the Capistrano Bridge Fish Passage Improvement Project, attached to the accompanying staff recommendation as Exhibit 3.
4. The City shall monitor the project for no less than five years after the completion of 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 project is consistent with the purposes and criteria set forth in Chapter 6 of the Public Resources Code (Sections 31251 *et seq.*) regarding the enhancement of coastal resources.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. The Coastal Conservancy has independently reviewed the Mitigated Negative Declaration adopted by the City on May 5, 2003 (attached as Exhibit 2 to the accompanying staff recommendation) for the project pursuant to California Environmental Quality Act, and finds that there is no substantial evidence that the project, as mitigated, may have a significant effect on the environment as defined in 14 Cal. Code of Regulations Section 15382."

PROJECT SUMMARY:

Staff is recommending that the Conservancy authorize the disbursement of an amount not to exceed \$545,000 to the City of Pacifica (the City) in order to implement a series of habitat enhancements to the middle corridor of San Pedro Creek as part of an ongoing effort to restore and enhance the San Pedro Creek Watershed within the city limits. The proposed project would result in the elimination of an existing barrier to fish passage at Capistrano Bridge, and the enhancement of nearly 2,000 linear feet of riparian habitat along the creek banks. The restoration of

San Pedro Creek is especially important because it is one of the few coastal streams in San Mateo County that supports a native population of steelhead (*Oncorhynchus mykiss*).

The City would use the Conservancy funds to remove a failed fish ladder from beneath Capistrano Bridge that presents a barrier to the upstream passage of steelhead (Exhibit 4) and to replace it with a series of step pools that gradually rise in elevation from immediately downstream of the bridge to about 100 feet upstream of the bridge (Exhibit 5). These pools would be large enough to provide “dead zones” that give migrating fish resting areas between jumps and would also be deep enough to allow fish to jump to the next pool. The step pool complex is designed to allow juvenile fish to move up the channel in a variety of stream flow conditions and minimizes the height of the jumps that juveniles will have to negotiate in order to facilitate upstream passage. The spacing between the pools would range from 10 feet to 100 feet, depending on the size and depth of the pools. The proposed project would also result in improved hydrologic function and habitat/faunal support function to this reach of San Pedro Creek through the removal of approximately 669 feet of concrete box channel and other debris from the streambed and the restoration of the native plant community in the riparian corridor (Exhibit 6). The City expects to complete the construction and plantings by December 2004 and would maintain and monitor the site for another five years to ensure successful establishment of the wetland ecosystem and the restored creek banks.

City staff and members of the San Pedro Creek Watershed Coalition have been carefully monitoring the steelhead population in San Pedro Creek 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. San Pedro Creek is one of the southernmost steelhead migratory routes on the central coast.

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 the above species require wetland or aquatic habitat for all or a portion of their life cycle and would benefit from the restoration of the wetlands and riparian zones of San Pedro Creek.

The proposed enhancements to the reach of San Pedro Creek are part of a larger effort by the City to transform this degraded riverine system to a more natural and healthy state. In 2000, the City completed the construction and planting of a 10-acre wetland located just east of Highway 1 in conjunction with the San Pedro Creek Flood Control project. Most recently, the City initiated the restoration of the wetlands at the mouth of San Pedro Creek (see the “Project History” section below for more details).

Site Description: San Pedro Creek is located in the southern portion of the City and drains an area of approximately eight square miles. The mouth of San Pedro Creek was once the site of a freshwater lagoon and tidally-influenced wetlands, but intensive agricultural use and urban development eliminated the marsh. The middle one-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. However, the upper watershed consists almost entirely of undeveloped public lands in near natural condition. Due to this lack of development in the upper watershed, San Pedro Creek is remarkably healthy for a creek in such an urbanized setting and still supports a healthy riparian corridor in many places and provides important wildlife habitat. However, the integrity of this ecosystem is threatened by increasing urban runoff, continued development in the riparian corridor, and plans for flood control improvements. The proposed project, combined with the implementation of past and future phases of the watershed enhancement plan, will help restore and protect this system.

Project History: The Coastal Conservancy has been involved with the City's efforts to enhance and restore the ecological integrity of San Pedro Creek since the early 1990s. In 1993, the Conservancy authorized a grant to the City of Pacifica for the preparation of the wetland enhancement plan and initial design studies for a 10-acre wetland restoration 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 to provide 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 (Exhibit 7). In March 2002, the City completed the *San Pedro Creek Watershed Assessment and Enhancement Plan* (the Plan) using a grant from DFG and working in cooperation with the San Pedro Creek Coalition. In August 2003, the Conservancy granted \$750,000 to the City in order 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 demolition and removal of two residential structures (Exhibit 8), the reconfiguration of the lower channel and creek mouth to restore a more natural geomorphology, and the restoration of native plant communities (Exhibit 9).

PROJECT FINANCING:

Coastal Conservancy	\$ 545,000
Department of Water Resources	400,000
Department of Fish and Game	250,000
City of Pacifica	200,000
American Rivers Foundation	<u>30,000</u>
Total Project Cost	\$1,425,000

The anticipated source of Conservancy funds would be the Conservancy's FY 2001/02 appropriation from the Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000 (Proposition 12) for coastal salmonid recovery (the "Salmon Habitat Restoration Program").

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation (California Public Resources Code Sections 31251-31270). Consistent with § 31251, the project would enhance the natural and scenic character of San Pedro Creek by restoring the riparian corridor and wetlands. Consistent with § 31252, the proposed project would be consistent with policies contained in the Pacifica Local Coastal Program Land Use Plan as described in the

“Consistency with Local Coastal Program Policies” section below. Under § 31253, the Conservancy may provide up to the total cost of any coastal resource enhancement project. Consistent with § 31253, the level of Conservancy funding recommended for this project has been determined through consideration of the total amount of funding available for coastal resource enhancement projects and the relative urgency of the project.

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

Consistent with **Goal 5, Objective A** the proposed project would increase biological diversity in a coastal area by restoring approximately 2,000 longitudinal feet of riparian wetlands, which represent a key regional habitat.

Consistent with **Goal 5, Objective B**, the proposed project would help enhance and restore longitudinal connectivity to the San Pedro Creek riparian corridor.

Consistent with **Goal 6, Objective A** the proposed project would help implement the San Pedro Creek Watershed Enhancement Plan.

Consistent with **Goal 6, Objective B**, the proposed project would improve water quality by reducing urban runoff and sedimentation of the San Pedro Creek ecosystem.

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.
3. **Support of the public:** The proposed project is supported by State Senator Jackie Speier and Assemblyman Gene Mullin, as well as a number of organizations, including the San Pedro Creek Flood Control Committee and the San Pedro Watershed Coalition. See letters of support in Exhibit 10.
4. **Location:** The proposed project would be located within the coastal zone of the City of Pacifica.
5. **Need:** Due to ongoing and severe budget shortfalls, the City does not have funds available to complete the proposed project. The City needs to secure outside sources of funding, including the proposed Conservancy grant, if the project is to proceed.
6. **Greater-than-local interest:** The biological resources in San Pedro Creek are of statewide significance. NMFS has designated San Pedro Creek 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.

Additional Criteria

7. **Urgency:** The continued existence of the barrier to upstream fish migration presents a threat to the long-term viability of the steelhead fishery in San Pedro Creek. The City has implemented a series of temporary measures to facilitate upstream fish passage; however, these measures cannot provide a permanent solution and do not provide ideal conditions to maximize upstream passage of spawning steelhead. The proposed project would provide a permanent, greatly improved solution to fish passage problems in San Pedro Creek.
9. **Leverage:** See the "Project Financing" section above.
11. **Innovation:** The primary component of the proposed project, the step pool complex, is a custom design that draws on recent developments in fisheries science and represents a distinct break with previous approaches that involved the installation of prefabricated fish ladders. It is expected that this design can serve as an example for other watersheds in need of a novel approach to improving conditions for fish passage.
12. **Readiness:** The City of Pacifica has completed the project designs and environmental review and is in the final stages of obtaining the permits and approvals necessary to construct the proposed project. If the City is able to secure the remainder of the funding, it will proceed to construction this summer.
13. **Realization of prior Conservancy goals:** See the "Project History" section above.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed project is consistent with policies contained in the Pacifica Local Coastal Program Land Use Plan that provide for the protection and enhancement of wetlands and year-round creek environments. Specifically, the Land Use Plan states that: "Wetlands and year-round creek environments . . . shall be protected and enhanced by regulations in grading, setbacks, impervious surface coverage and other appropriate measures." 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.

COMPLIANCE WITH CEQA:

Pursuant to California Environmental Quality Act (CEQA), the City of Pacifica, as lead agency, undertook environmental assessment of the proposed Capistrano Bridge Fish Passage Project through an Initial Study. The City incorporated several mitigations into the project plans in order to avoid or minimize adverse impacts. Nevertheless, the Initial Study determined that the proposed project could have possible significant effects on the environment in two areas: air quality, and hydrology/water quality. Based on that Initial Study, the City adopted several mitigation measures to reduce these impacts to levels of insignificance. The City adopted a Mitigated Negative Declaration (attached as Exhibit 2) by resolution of its City Council on May 5, 2003. The City filed a Notice of Determination with the State Clearinghouse and the County of San Mateo on April 20, 2004.

The potential environmental impacts of the proposed project and the corresponding mitigations, are identified and discussed in detail in Exhibit 2, and are summarized below:

Air Quality

Impact: The repairs to the Capistrano Street Bridge, removal of the failed fish ladder, and construction of the step pools may expose sensitive receptors to potentially significant increases in hydrocarbon emissions and locally elevated levels of particulate matter downwind from construction activities. This impact would be temporary, persisting only during construction activities.

Mitigation: The Bay Area Air Quality Management District has identified a set of feasible Basic Control Measures for the control of dust and particulate matter on construction sites. These measures, which are discussed in detail in Exhibit 2, pages 2, S 1, and IV 3-4, will be followed at all times on the construction site and will reduce air quality impacts to less-than-significant levels.

Hydrology/Water Quality

Impact: Temporary degradation of habitat during project construction, including the possible introduction of increased sediments into the creek, temporary elevation of water temperature, and temporary dewatering of the portion of the creek bed within the reach under construction. These impacts, should they occur, may persist for a short time beyond the construction interval, but are not expected to persist beyond the first two growing seasons following project completion.

Mitigation: Appropriate Best Management Practices as part of the Storm Water Pollution Prevention Plan will be enforced throughout the construction process to avoid or minimize any water quality degradation as a result of grading operations on the site. Specifically:

1. The portion of the creek within the construction zone will be dewatered during construction.
2. Stream flows will be restored to the creek in a manner that avoids soil erosion.
3. The City will implement the erosion control measures described in the project design documents, *Capistrano Bridge Fish Passage Project 75% Basis of Design* during the course of the project.
4. Any sediments removed from the project site will be stored and transported in a manner that minimizes impacts to water quality.

These measures, which are discussed in detail in Exhibit 2, pages 2-4, S 1-2 and IV 14-16, be followed at all times on the construction site and will reduce hydrology/water quality impacts to less-than-significant levels.

The City also incorporated a number of conservation measures into the project to avoid or minimize potential impacts to environment. These are discussed in detail in Exhibit 2, pages II 7-9 and IV 8-9, and are listed below:

1. Timing project construction to take place during the low water period specified by NMFS and DFG.
2. Design of the creek by-pass culvert to prevent entrainment of fish during construction.
3. Exclusion of steelhead from the construction zone prior to and during construction.
4. Exclusion of reptiles and amphibians from the construction zone prior to and during construction.
5. Design of the restored riparian corridor to provide sufficient shade for fish within two growing seasons.
6. Control of bullfrog populations throughout the watershed.

7. Education of all workers involved in project construction regarding the environmentally sensitive nature of the project site, as well as specific instruction on how to avoid impacts.
8. Monitoring of the project for five years following construction to document the success of the fish passage system and the progress of the wetland and riparian ecosystem restoration.

In its May 3, 2003 action, the City found, in accordance with Fish and Game Code § 711.2, that the project will not have an adverse effect on wildlife resources.

Conclusion

Conservancy staff has independently reviewed the Final Initial Study/Mitigated Negative Declaration for the Capistrano Bridge Fish Passage Project and concurs that the proposed project, as mitigated, will not have a significant adverse effect on the environment. Therefore, based on the review of this document, staff recommends that the Conservancy find that the proposed project, as mitigated, will not have a significant effect on the environment as defined in 14 Cal. Code of Regulations Section 15382. Staff has prepared a mitigation monitoring program for the project, attached as Exhibit 3, and recommends that the Conservancy adopt this program to ensure that the City's proposed mitigation measures are implemented. Staff will file a Notice of Determination upon the Conservancy's authorization of the project.