

COASTAL CONSERVANCY

Staff Recommendation

May 24, 2007

**KENT CANYON FISH PASSAGE IMPROVEMENT**

File No. 07-035-01

Project Manager: Michael Bowen

**RECOMMENDED ACTION:** Authorization to disburse up to \$100,000 to the County of Marin to fund the construction of a fish passage improvement facility in Redwood Creek at its intersection with Muir Woods Road.

**LOCATION:** Redwood Creek, tributary to the Pacific Ocean, near Muir Beach, Marin County (Exhibit 1).

**PROGRAM CATEGORY:** Resource Enhancement

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**EXHIBITS**

Exhibit 1: [Project Location and Site Maps](#)

Exhibit 2: [Letters of Support](#)

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**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 the disbursement of up to \$100,000 (one hundred thousand dollars) to the County of Marin to fund the construction of a fish-passage facility in Redwood Creek at Muir Woods Road, subject to the following conditions:

1. Prior to the disbursement of funds for the project, the County shall submit for the review and written approval of the Executive Officer of the Conservancy:
  - a. A work program, including schedule, budget and detailed site plans for the project and a plan for post-implementation monitoring to evaluate the success of the project.
  - b. The names and qualifications of any contractors to be employed on the project.

- c. Documentation that all permits and approvals necessary to the completion of the project 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 projects are consistent with the purposes and criteria set forth in Chapter 6 of Division 21 (sections 31251 – 31270) of the Public Resources Code, regarding the enhancement of coastal resources.
2. The proposed authorization is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. The project area has been identified in the certified Local Coastal Plan of Marin as requiring public action to resolve existing or potential resource protection problems.
4. The project will have no adverse effect on fish and wildlife as that term is defined in Fish and Game Code §711.2. ”

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**PROJECT SUMMARY:**

The proposed authorization would enable Marin County (“the County”) to build an important fish passage improvement project on Redwood Creek, a coho salmon bearing stream, at the intersection of Muir Woods Road. Doing so would improve access for spawning and rearing to one mile of former habitat. The purpose of this project is to improve fish passage in Redwood Creek where barriers to fish passage have resulted from the inappropriate design and construction of road crossings.

Redwood Creek, a tributary to the Pacific Ocean, in Marin County, sustains a remnant though regionally important population of coho salmon and steelhead trout. The declines of coho salmon and steelhead trout in this watershed are largely the result of migration barriers. A county-wide assessment of barriers to fish passage found this site to pose a complete barrier to adult coho and all juvenile salmonid species. That report ranked this project 17<sup>th</sup> in order of importance relative to more than one hundred other sites assessed during the survey. The proposed project would restore a natural stream channel in the project area, and thereby improve salmonid access to nearly one mile of the highest quality habitat within the watershed, thus facilitating the recovery of salmonids within the watershed. The proposed project would replace the existing culvert with an open-bottom culvert consisting of an aluminum arch set on concrete footings with an aluminum headwall and wingwall structures.

Like many such fish passage barrier structures, the Kent Canyon structure has fragmented stream habitat, and prevented fish from ascending streams due to excessive heights between culvert outlets and plunge pools below, or impassably high flow velocities within the culverts

themselves. Fish capable of ascending barriers are often too fatigued to spawn. Fish prevented from ascending such structures typically congregate in discharge pools or other areas below the structure, where they may fall prey to predators or poachers. Moreover, culvert failures often result in road failure, mass failure of slopes, resultant erosion, property damage, and the degradation of waters and salmonid habitat downstream.

Barriers to fish passage have been identified, and are cited in the Conservancy's report, "Inventory of Barriers to Fish Passage in California's Coastal Watersheds." The opportunity to recover fish populations while improving local roads and infrastructure and diminishing future maintenance costs has made some county governments keen participants in fish passage improvement projects. However, the ability of county governments or private entities to implement fish passage improvement projects is limited. This grant would implement a high priority fish passage improvement project, thereby expediting the recovery of habitat for anadromous fish and other aquatic species found in coastal watersheds.

**Site Description:** Redwood Creek drains an 8.9 square-mile watershed from the west peak of Mt. Tamalpais to its mouth at Muir Beach. Approximately seven miles of Redwood Creek provide accessible habitat for anadromous salmonids, and this basin is considered one of the most productive and restorable basins for anadromous salmonid habitat in Marin County. It is largely undeveloped, and most of its area and resources are protected in perpetuity as State and Federal parkland.

**Project History:** Staff believes that long term prospects for statewide fish passage improvement depend upon the development of a new mindset within county governments and the California Department of Transportation. If coastal streams are to remain viable habitat for Pacific salmon, protecting or defragmenting aquatic habitat must evolve as coequal priority with infrastructure development and repair.

The County of Marin has demonstrated the willingness to make this transition away from a solitary focus on infrastructure that is constructed and maintained in a fashion that adversely affects aquatic resources. For many years the County of Marin has been an active partner in developing a reliable and ambitious fish passage improvement program housed within the Department of Public Works.

This effort has succeeded in part due to the provision of Conservancy funding both to the County and to other entities. The Coastal Conservancy has made substantial commitments over the years to protecting and enhancing the coastal watersheds of Marin County. The Conservancy has been especially active in Tomales Bay and its 232 square mile watershed, an area noted for its beauty and diversity of wildlife.

The Conservancy granted \$35,000 to the Urban Creeks Council on August 2, 2001 to design a fish passage improvement project at the Woodacre Creek Improvement Club. With assistance from the County, that project has now been built. The Conservancy granted sixty-five thousand dollars to the County of Marin to conduct an assessment of barriers obstructing passage of anadromous fish within the coastal watersheds of Marin County. Some of the barriers identified in the 2002 report are those now proposed for further analysis prior to modification or removal.

Kent Canyon was ranked high in order of importance of sites assessed throughout the County.

In June 2005 the Conservancy disbursed \$196,500 to the County of Marin to fund a Marin Fish Passage Improvement Program for engineering and design of seven high priority fish passage improvement projects in the Woodacre and Redwood creek watersheds. Kent Canyon was one of the projects designed under this grant, so it is fitting and encouraging that implementation of this earlier planned project will proceed expeditiously.

At its May 18, 2005 meeting, the Conservancy authorized \$225,000 to the Point Reyes National Seashore Association to conduct a similar fish passage improvement program for nearby Bear Valley Creek, also a tributary of Lagunitas Creek. Two of seven barriers in that watershed have been repaired, plans for five are complete, and the County is now examining their role in ameliorating a county barrier at the downstream end of this watershed.

County staff initially contacted Conservancy staff in March 2007 regarding the proposed project. Despite this short notice, Conservancy staff has worked swiftly with the County and other co-funders to assess the project and determine its suitability for Conservancy funding. Staff concludes that the project is worthy of funding, and, if funded, would be constructed this summer. NOAA funding assigned to the project must be expended this year, and without Conservancy participation, the project will not proceed, and the federal funding will be lost.

**PROJECT FINANCING:**

Coastal Conservancy	\$100,000
NOAA Coastal Services Center	\$183,149
County of Marin	\$166,851
<b>Total</b>	<b>\$450,000</b>

The expected source of Conservancy funds for the Kent Canyon project is the Conservancy's fiscal year 2002-2003 appropriation from Proposition 50. This project is consistent with this funding source because it will restore coastal watersheds by improving hydraulic connectivity and habitat quality in a coastal watershed, in accordance with Division 21 of the Public Resources Code and will protect watershed resources within the project area consistent with the basin plan adopted by the regional water quality control board. See Water Code § 79507.

The County will ensure the provision of adequate matching funds and in-kind contributions to ensure project completion at both sites.

**CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The proposed projects are undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code Sections 31251-31270.

Under Section 31251, the Conservancy may award grants to local public agencies and non-profit organizations for the purpose of enhancement of coastal resources which, because of human-

induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the proposed authorization provides funds to the County to enhance coastal fishery resources disturbed by incompatible land uses, such as inappropriate culvert installation.

Under §31251.2(a), “In order to enhance the natural or scenic character of coastal resources within the coastal zone, the Conservancy may undertake a project or award a grant...to enhance a watershed resource that is partly outside of the coastal zone....” Consistent with this section, the County requested Conservancy assistance with projects located within and outside the coastal zone. This assistance was sought in order to benefit salmon populations known to travel many miles upstream of the coastal zone boundary in order to fulfill their life history patterns. Indeed, salmon depend on unimpeded access to high quality habitat both within and outside of the coastal zone in order to survive. If salmon and other highly prized aquatic resources are to be maintained and restored to historic levels, funding must be provided to improve salmon habitat. This section also requires the approval of the California Department of Fish and Game. The Department is highly supportive of these projects, and a letter of support for this authorization from the Department is included in Exhibit 2.

Pursuant to Section 31252, all areas proposed for resource enhancement should be identified in a certified local coastal plan or program as requiring public action to resolve existing or potential resource problems. Redwood creek meets the criteria of coastal streams established within the Unit II LCP for Marin County, and is therefore subject to the protections, goals, and objectives afforded by the LCP. In particular, the LCP cites Section 30231 of the Coastal Act which establishes that “the biological productivity and the quality of coastal waters...shall be maintained and, where feasible, restored....” (LCP II-II, p. 56).

Finally, pursuant to Section 31253, “(the) Conservancy may provide up to the total of the cost of any coastal resource enhancement project....” and the amount of the Conservancy contribution shall be determined only after an assessment of funding generally available and other factors. The proposed contribution by the Conservancy was determined based on application of priority criteria, as discussed below, and after taking into account other available resources and the matching contributions to the project by other funding sources.

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

Consistent with **Goal 6 Objective A(4)** of the Conservancy's Strategic Plan, the proposed authorization will implement projects that improve habitat for anadromous fish through the removal of an existing 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 adopted January 24, 2001, as detailed in the March 6, 2006 staff recommendation (Exhibit 2).

**CONSISTENCY WITH COASTAL ACT AND LOCAL COASTAL PROGRAM POLICIES:**

The Kent Canyon project will result in the completion of a fish passage improvement project for the Redwood Creek watershed. This project will enhance the scenic values and wildlife habitat values of the watershed. The proposed project is therefore consistent with the Coastal Act, sections 30231 and 30251, as follows.

Coastal Act Section 30231 states that “(t)he biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of groundwater supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.” By reversing inappropriate land use practices, the proposed project will expand, protect and enhance the aquatic and riparian habitat of Redwood creek for the benefit of federally listed salmonids. The propose project is therefore consistent with this section.

Section 30251 of the Act states, in part, that “(t)he scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance.” The proposed project will provide plans for the protection and enhancement of an already scenic coastal area by restoring hydraulic connectivity and fish passage to Redwood Creek.

The Marin County Local Coastal Program Unit 1 and 2 Land Use Plans identify Marin’s numerous coastal zone streams and creeks as sensitive habitats for many species of birds and fish. Redwood Creek contains runs of coho and steelhead, and is specifically highlighted (The Marin County Local Coastal Program Unit 1 Land Use Plan, Pg. 17).

Freshwater inflows, sedimentation, water pollution, and protection of riparian habitats are identified as the key concerns for protecting the aquatic resources of Redwood Creek (pp. 15-21). Because the proposed project will restore salmonid access to and hydraulic connectivity for the Redwood Creek watersheds, re-create riparian habitat where it has been lost, restore the natural meander and in stream habitat of the project areas, improve sediment flushing by restoring natural geomorphologic processes, and open up previously unavailable habitat, the proposed project is entirely consistent with the Local Coastal Program Policies.

**COMPLIANCE WITH CEQA:**

The County of Marin analyzed the proposed project and determined that the project is categorically exempt from review under CEQA as a project that falls within Class 33, *Small Habitat Restoration Projects*, that do not exceed five acres in size (CEQA Guidelines, Title 14, California Code of Regulations, Section 15333(a-d).). The County filed a Notice of Exemption on April 3, 2007.

Staff concurs with this conclusion. The project, which seeks to replace an outdated, fish-blocking culvert with an arched, natural bottom culvert, falls within the description of small scale, restoration projects that are exempt under Section 15333. In addition, as required by subsection (a), the project will not have significant adverse impact on endangered, rare or threatened salmonid species or their habitat because the project construction will largely adhere to the same set of standards and guidelines outlined in the Department's Mitigated Negative Declaration for "major action items." Erosion control measures, careful selection of field season to avoid presence of listed species, and other measures will ensure adequate protection of listed species in the project area.

For similar reasons, the project is also categorically exempt from CEQA review under Guidelines Section 15302, relating to the replacement or reconstruction of existing structures and facilities "where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced". The culvert at Kent Canyon will replace an existing culvert that has deteriorated. The culvert will be in the same general location, will serve the same purpose, but will create more favorable environmental condition than currently exists. In particular, the replacement will result in diminished environmental impacts to threatened salmonid species.

Upon Conservancy approval, staff will file a Notice of Exemption for the Kent Canyon project.