

COASTAL CONSERVANCY

Staff Recommendation  
October 5, 2006

**MARSH CREEK FISH LADDER**

File No. 06-016  
Project Manager: Betsy Wilson

**RECOMMENDED ACTION:** Authorization to disburse up to \$100,000 to American Rivers to construct a fish ladder over a grade-control drop structure located approximately three miles from the mouth of Marsh Creek in the City of Brentwood.

**LOCATION:** Along Marsh Creek in the City of Brentwood, Contra Costa County

**PROGRAM CATEGORY:** San Francisco Bay Area Conservancy

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**EXHIBITS**

Exhibit 1: Project Location and Site Map

Exhibit 2: Photos

Exhibit 3: Letters of Support

Exhibit 4: Contra Costa County CEQA Determination

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes disbursement of an amount not to exceed one hundred thousand dollars (\$100,000) to American Rivers, a nonprofit organization, to construct a fish ladder over a grade-control drop structure located approximately three miles from the mouth of Marsh Creek in the City of Brentwood, subject to the following conditions:

1. The project shall not commence and no Conservancy funds shall be disbursed for the project until the Executive Officer of the Conservancy has reviewed and approved in writing:
  - a. A project work program, budget, and timeline.
  - b. The names of any contractors that American Rivers will retain to carry out all or part of the project.
  - c. A signing plan that acknowledges Conservancy funding.

- d. Documentation that American Rivers has obtained all permits and approvals required for the project under federal, state, and local law.
2. The Conservancy, American Rivers, and the owner of the property on which the project will be constructed shall enter into an agreement sufficient to protect the public interest in any improvement or development constructed as part of this proposed project, in accordance with Public Resources Codes Section 31116(c).”

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 Public Resources Code Sections 31160-31164, regarding the Conservancy’s mandate to address the resource goals of the San Francisco Bay Area.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. American Rivers is a nonprofit organization existing under provisions of U.S. Internal Revenue Code Section 501(c)(3), and whose purposes are consistent with Division 21 of the Public Resources Code.”

**PROJECT SUMMARY:**

The proposed project would provide grant funds to American Rivers to construct a fish ladder over a grade-control drop structure located approximately three miles from the mouth of Marsh Creek, in the City of Brentwood (see Exhibit 1 for project location map). Currently, the drop structure is completely impassable to fish, which is a concern because there is Chinook salmon spawning in lower Marsh Creek downstream from the drop structure. The proposed fish ladder will enable passage over this existing barrier and will provide access for Chinook salmon to an additional 7.5 miles of Marsh, Sand, and Deer Creeks, tripling the number of accessible stream miles in the watershed.

The U.S. Soil Conservation Service (SCS), a federal agency, installed the grade-control drop structure in the 1960s as part of a flood control project that straightened and channelized lower Marsh Creek. The flood control project cut off a 2,800-foot meander in the creek and reduced it to 900 feet. The reduction in natural channel length and corresponding increase in slope had the potential to increase erosion. To offset the potential for erosion, the SCS installed an approximately 6-foot high drop structure and a long concrete apron following downstream (see Exhibit 2 for photograph). The drop structure is currently owned, maintained, and operated by the Contra Costa County Flood Control and Water Conservation District (County Flood Control District).

In 2004, the Conservancy provided funding to the Natural Heritage Institute (NHI) to develop detailed engineering plans and complete environmental review for a fish passage project over the Marsh Creek drop structure. Following collaborative planning and hydraulic modeling of several alternatives, the planning team, comprising NHI, the County Flood Control District, the State Department of Water Resources (DWR), the City of Brentwood, and American Rivers,

determined that a fish ladder is the most cost effective manner to provide passage and still meet flood control and channel stability management objectives. The final design and construction documents for a fish ladder over the drop structure will be completed in October 2006.

American Rivers is proposing to construct the fish ladder designed by the NHI project. The project will include minor modifications to the existing drop structure including removing and saw-cutting portions of existing concrete and grouted rock riprap, adjusting the existing rock weir to direct low flows, constructing a concrete fish ladder on the existing drop structure that will be approximately 100 feet in length with five interval steps. The project includes slope protection, interpretive signage, and one season of passage and spawning monitoring. It is anticipated that the Marsh Creek fish ladder will be constructed in summer 2007.

American Rivers will be responsible for managing the funds for the Marsh Creek Fish Ladder project. The County Flood Control District and NHI will assist American Rivers in the selection and management of a contractor to construct the fish ladder. For the past four years, all three of these parties have been involved in the planning and design of the Marsh Creek fish passage project and all are committed to seeing the project completed.

American Rivers is a national nonprofit conservation organization dedicated to protecting and restoring healthy natural rivers and the variety of life they sustain for people, fish, and wildlife. The American Rivers California field office has provided technical assistance and other guidance on several fish passage projects in the San Francisco Bay Area, including Marsh Creek, San Francisquito Creek, and Alameda Creek. In addition to participating in the planning and design of the Marsh Creek fish passage project, American Rivers provided financial assistance through the American Rivers/NOAA Community-Based Restoration Program, which provides financial and technical assistance for dam removal and fish passage projects in the Northeast, Mid-Atlantic and California.

**Site Description:** The project site is located approximately three miles from the mouth of Marsh Creek, near the Brentwood wastewater treatment plant. The fish ladder will provide passage over this existing barrier and will allow access to approximately seven miles of lower Marsh Creek, Deer Creek, and Sand Creek, including over two miles of suitable spawning gravels and shaded riparian habitat.

The Marsh Creek watershed is located in eastern Contra Costa County, extending from Mount Diablo to the Delta. Much of the upper watershed is protected land, including Cowell Ranch State Park and East Bay Regional Park District's Morgan Territory Preserve. A flood control reservoir, owned by the County Flood Control District, is located upstream from the city of Brentwood and the lower section of the creek is a levied flood control channel. Marsh Creek enters the Delta between the East Bay Regional Park District's Big Break Regional Shoreline and the DWR's Dutch Slough property.

As with most watersheds in the San Francisco Bay Area, Marsh Creek has been modified extensively during the past 200 years. The volume and the timing of water flowing down the creek have been altered and the quality of that water degraded. Historically, it is possible that the creek dried up completely in the summer, while it now flows all year. As a result, the creek may have more value for fall run Chinook salmon today than it did historically. The shape and position of the creek have also been changed. Today, the creek is confined to a linear flood control channel in its lower section. However, compared to other urban creeks, Marsh Creek still

provides habitat for a number of native species, including river otters, western pond turtles, and Chinook salmon.

There have been repeated observations of Chinook salmon in lower Marsh Creek in recent years. In November 2001, NHI and local science teacher Tom Lindemuth identified fall-run Chinook salmon congregating below the drop structure. The following spring, a State Department of Fish and Game (DFG) survey positively identified juvenile salmon downstream of the drop structure, indicating that the adults had likely spawned in Marsh Creek. In 2003, a University of California study surveyed habitat upstream of the drop structure and identified over two miles of shaded riverine habitat with abundant and suitably sized gravel for salmon spawning.

**Project History:** The Conservancy has previously provided grants to several projects in the Marsh Creek Watershed. In December 1999, the Coastal Conservancy authorized a grant to NHI to help fund planning of the Delta Science Center and to identify restoration opportunities in the Marsh Creek Watershed. Several projects developed by this planning effort are now being implemented. The State Department of Parks and Recreation (DPR) and DWR have awarded two separate grants to fund restoration along Marsh Creek in Brentwood.

In 2003, the Conservancy received a grant from the California Bay-Delta Authority to implement a public outreach program in the Marsh Creek Watershed and to develop plans for floodplain restoration along lower Marsh Creek. The Conservancy contracted with NHI, the Contra Costa County Resource Conservation District (Contra Costa RCD), and the Delta Science Center to implement the outreach program. Through this program, the Friends of Marsh Creek Watershed, a community group focused on protecting and restoring the Marsh Creek Watershed, was formed. The Friends of Marsh Creek group has identified the fish passage project as their top priority for the past two years and seeing the project completed would build the momentum the group has built for overall restoration efforts in the watershed.

In 2004, as mentioned above, the Conservancy authorized funding to NHI to develop detailed engineering plans and complete environmental review for a fish passage project in Marsh Creek. The project will complete final designs for the construction of a fish ladder over the drop structure in October 2006; American Rivers is proposing to construct the fish ladder as designed.

The proposed fish ladder would allow fish to access existing riparian habitat in Cowell Ranch State Park, which was acquired by DPR in 2002. The Conservancy was a major contributor to the acquisition, which protected nearly 4,000 acres in the Marsh Creek watershed.

**PROJECT FINANCING:**

|   |                  |
|---|------------------|
| Coastal Conservancy                       | \$100,000        |
| American Rivers/NOAA Fish Passage Program | 25,000           |
| Other Sources TBD*                        | <u>125,000</u>   |
| <b>Total Project Cost</b>                 | <b>\$250,000</b> |

The expected source of the proposed grant is a FY 04/05 appropriation made to the Conservancy pursuant to the California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002 (Proposition 40), which allocates bond funds to the Conservancy, in part, to protect, restore, and enhance natural habitats of regional importance in the San Francisco Bay

Area consistent with the Conservancy's enabling legislation. The proposed project would achieve these purposes by assisting in the enhancement of the natural habitats of the Chinook salmon, a species of special concern.

\*American Rivers and NHI are still working on obtaining the remaining financing for the project. The fish ladder is included as part of the Contra Costa Water District's East Contra Costa County Integrated Regional Water Management Program (IRWMP) \$25 million implementation grant proposal. Applications have been or will be submitted to the USFWS fish passage program, several NOAA programs, and the Contra Costa County Fish and Wildlife Propagation Fund.

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

The project is undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31165, to address resource goals in the San Francisco Bay Area.

The Marsh Creek fish ladder will be located in Contra Costa County, one of the nine San Francisco Bay Area counties in which the Conservancy is authorized, under Sections 31160 and 31162 of the Public Resources Code, to undertake projects and award grants to address resource and recreational goals for the region.

Under Section 31162(b), the Conservancy may provide grants to protect, restore, and enhance natural habitats of regional significance. The proposed project would assist in the enhancement of the natural habitat of the Chinook salmon, a species of special concern.

The Marsh Creek Fish Ladder project satisfies all of the criteria for determining project priority under 31163(c), since the project: 1) is supported by adopted regional plans including the City of Brentwood's General Plan, the City's Park and Recreation Master Plan, and the Contra Costa RCD's Marsh Creek Watershed Issues Catalog; 2) serves a regional constituency by creating access to habitat for Chinook salmon, a species of statewide concern; 3) can be implemented in a timely manner; 4) provides benefits that would be lost if the project is not quickly implemented; and 5) will include significant matching funds.

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

Consistent with **Goal 10, Objective A**, the proposed project will construct a fish ladder, thereby enhancing riparian habitat through the removal of an instream migration barrier for salmonids. The project will make 7.5 mile of previously inaccessible upstream habitat available to fish, including over two miles of shaded riparian habitat suitable for salmon spawning.

**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 project has received significant public support from the early concept and design phases, including the City of Brentwood, the County Flood Control District, the Contra Costa RCD, the Delta Science Center, DWR, and DFG. See letters of support in Exhibit 3.
4. **Location:** The project is located in the City of Brentwood in Contra Costa County, within the jurisdiction of the San Francisco Bay Area Conservancy Program.
5. **Need:** American Rivers has requested funding from several other sources, but the Conservancy is the largest proposed funder and the project could not proceed without financial support from the Conservancy. Conservancy funds would also serve as a non-federal match to the NOAA/American Rivers grant funds.
6. **Greater-than-local interest:** The recovery of California's salmon populations is of regional significance. Moreover, sport and commercial fishing provides an important economic benefit to California.

**Additional Criteria**

7. **Urgency:** Failure to implement the project in the near future will mean not providing access to spawning habitat for more runs of salmon in Marsh Creek. Implementing the project will also build on the momentum created by the Friends of Marsh Creek and the City of Brentwood for overall restoration efforts in the Marsh Creek watershed.
8. **Leverage:** See the "Project Financing" section above.
9. **Readiness:** The fish ladder is scheduled to be constructed in summer 2007 provided the necessary funding can be obtained.
10. **Realization of prior Conservancy goals:** See the "Project History" section above.
11. **Cooperation:** The conceptual plan for modifying the fish passage barrier was developed with significant input from many organizations, including the City of Brentwood, the County Flood Control District, the Contra Costa RCD, the Delta Science Center, American Rivers, DWR, and NHI. American Rivers, the County Flood Control District, and NHI will work together to select and manage a contractor to construct the fish ladder.

**COMPLIANCE WITH CEQA AND NEPA:**

Contra Costa County is the lead agency under the California Environmental Quality Act (CEQA) for the Marsh Creek Fish Ladder project. On July 11, 2006, the Contra Costa County Board of Supervisors determined that the project is categorically exempt under 14 Cal. Code of Regulations Section 15333 (Exhibit 4).

Conservancy staff concur that the Marsh Creek Fish Ladder project is categorically exempt from CEQA in that the project consists of small habitat restoration, enhancement, maintenance, and protection for fish, plants, or wildlife (14 Cal. Code of Regulations Section 15333). The project satisfies all of the criteria under Section 15333 as follows: 1) the project does not exceed five acres in size, 2) there will be no significant adverse impact on endangered, rare, or threatened species or their habitat, 3) there are no hazardous materials at or around the project site that may be disturbed or removed, and 4) the project will not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

The Marsh Creek Fish Ladder project has applied for and will likely receive funding from the NOAA Fisheries' Community Based Restoration Program. On February 7, 2002, based on an environmental review and evaluation of an Environmental Assessment for the Community Based Restoration Program under the National Environmental Policy Act (NEPA), NOAA determined that the Program does not constitute a major federal action significantly affecting the quality of the human environment, and issued a Finding of No Significant Impact.

Staff will file a Notice of Exemption from CEQA upon Conservancy approval of the project.