COASTAL CONSERVANCY

Staff Recommendation

NAPA RIVER FISH BARRIER REMOVAL PLAN

File No. 08-111-01
Project Manager: Tom Gandesbery

RECOMMENDED ACTION: Authorization to disburse up to $82,700 to the Napa County Resource Conservation District to develop fish barrier removal options for the 21 highest priority sites currently impeding fish passage in the Napa River basin.

LOCATION: Twenty-one sites in the Napa River Basin (Exhibit 1 and 2).

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: Project Location and Site Map

Exhibit 2: Barrier Location Map and List

Exhibit 3: Project Letters

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 the disbursement of an amount not to exceed eighty-two thousand seven hundred dollars ($82,700) to the Napa County Resource Conservation District (RCD) to develop a fish barrier removal plan for the 21 highest priority sites currently impeding fish passage in the Napa River basin. This authorization is subject to the condition that prior to the disbursement of any funds, the RCD shall submit for review and approval of the Executive Officer of the Conservancy:

1. A work program, budget, and schedule;
2. The names and qualifications of any contractors or subcontractors that the RCD intends to employ to implement the project;
3. Evidence that all necessary permits and approvals to implement project have been obtained;
4. Evidence that all funds necessary to complete this phase of the project have been secured."

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 objectives of Chapter 4.5 of Division 21 of the Public Resources Code, Sections 31160-31165, regarding the San Francisco Bay Area Conservancy Program;
2. The proposed project is consistent with the Project Selection Criteria and Guidelines, last updated by the Conservancy on September 20, 2007."

PROJECT SUMMARY:

The proposed project will build on previous barrier inventory work and will result in a plan that includes barrier removal options for the 21 highest priority sites currently impeding anadromous fish passage in the Napa River basin (see Exhibit 1).

The Napa River basin currently supports two salmonid species: steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*), and has been identified as the most significant tributary to the San Francisco Estuary for maintaining and restoring salmonid populations (Leidy et. al., 2003). Artificial migration barriers constructed during the past century have contributed substantially to population declines of salmonids in Napa, especially steelhead, which rely on access to tributary streams for spawning and rearing. Until very recently, little was known about the full extent and distribution of these migration barriers.

In March of 2008, the RCD completed an inventory of all known and potential barrier sites using extensive stream survey data, current and historical records, and field verification. The resulting list is the most comprehensive and accurate description of passage sites ever compiled for the basin. In total, 99 current fish passage obstructions were identified on streams known to support salmonids. Nearly one third (30) of the sites are natural features and are generally not feasible for modification or removal. The remaining 69 artificial passage sites consist mostly of dams (26) and road crossings (e.g., bridges (9), and culverts (18)). All of the sites were ranked for severity using California Department of Fish and Game (DFG) screening guidelines. Approximately 75% of the artificial sites scored as severe under DFG guidelines. Of these barriers, twenty-one sites were determined to be "high priority" based on natural history and feasibility.

The proposed project will generate detailed information about location, size, and type of each artificial barrier/obstacle for the 21 high-priority sites. Information will be collected and analyzed with *FishXing* software (developed in conjunction with DFG). Using protocols outlined in the Californinia Salmonid Stream Habitat Restoration Manual, a hydraulic model for each passage site will be developed as necessary to inform possible alternatives to facilitate fish passage.

The RCD plans to collect field information and to prepare recommendations and options for barrier/obstacle remediation and future project implementation. The RCD will coordinate efforts with participating public and private landowners/managers and build support for implementing passage solutions. As an outcome of this grant, the RCD will complete a comprehensive report and plan that provides specific plans to address passage at each site. The report will include a

ranking for the high priority sites, a detailed description of conditions and preliminary cost estimates for remediation and features, and an assessment of the relative importance of each site within the context of the sub-watershed and Napa River basin. A GIS layer will also be generated and will include the *FishXing* rankings and other significant information about each site. The layer will be consistent with all of the Coastal Conservancy data requirements and will be coordinated with the Coastal Conservancy project manager.
The RCD is exceptionally qualified to provide the necessary leadership for this project. It has recent experience coordinating and administering multiple consultants and overseeing complex restoration planning projects in the Sulphur Creek and Carneros Creek watersheds, and is currently managing the planning phase of the Napa River Rutherford Reach restoration project. The RCD has long been involved with Napa River restoration issues, and has an excellent understanding of related agricultural and natural resource matters. The RCD has an excellent record of grant management and contract implementation.

Site Description: The Napa Valley was converted from its original natural state to cattle ranches and croplands in the 1840's. Until the 1960's, orchards, vineyards, field crops and small-scale urbanization were the primary land uses. Since that time, grape production has rapidly increased, and is currently the predominant land use throughout the valley bottom and foothills.

The main-stem of the river was disconnected from floodplain by numerous small-scale flood control projects and the tributary streams have been altered by dams, water diversions and development in the watersheds. The barriers identified are located on a variety of Napa River tributaries throughout the watershed and are man-made obstacles such as road crossings and culverts (see Exhibit 2).

Project History: The Napa River has long been a focus for restoration efforts by the Conservancy. In 1996, the Conservancy funded technical studies for the lower reach (between the City of Napa and the river mouth) which resulted in development of a multi-objective flood management plan. This plan replaced a US Army Corps of Engineers (COE) trapezoidal concrete channel design with one that generally follows the "living river" principle. The Conservancy has also funded property acquisitions to enable implementation of flood management and habitat improvements, and several watershed assessments focused on erosion and sedimentation. In 2004 the Conservancy granted funds to the RCD to plan and design the restoration of the 4.5-mile long Rutherford Reach of the Napa River. The planning and design phase of the project is concluding this fall and will be implemented by the county's flood control district. Lastly, the Conservancy is involved in large-scale restoration within the Napa marshes at the mouth of the river.

PROJECT FINANCING:

Coastal Conservancy	$82,700
Other Contributors[1]	$14,150
Total Project Cost	**$98,600**

[1] Natural Resources Conservation Service; Napa County Flood Control District; RWQCB; Citizen Volunteers: Department of Conservation

The expected source of funds for this project is anticipated to come from the FY 07/08 appropriation of the "Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006" (Proposition 84). Proposition 84 authorizes the Conservancy's use of these funds for the purposes of Chapter 4.5 of the Conservancy's enabling legislation (Pub. Res. Code § 75060(c)). This project is consistent with Chapter 4.5 in that it will assist in the restoration of habitat for salmonid and other native fish in high-priority streams located within the San Francisco Bay Area. This project is also appropriate for prioritization under the selection criteria set forth in Section 75071 of the Public Resources Code in that there are non-state matching contributions toward the restoration costs and the project will provide habitat linkages between the Napa River system and the Pacific Ocean, via San Francisco Bay.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

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

Section 31162 of the Public Resources Code authorizes the Conservancy to undertake projects and award grants in the nine-county San Francisco Bay Area, including Napa County. All of the proposed project area is within Napa County.

Under Section 31162(b), the Conservancy may act to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional significance. The RCD will seek to protect, restore and enhance numerous tributary waterways of the Napa River by examining, in detail, the feasibility of modifying or removing 21 barriers found to be a high priority, following DFG guidance. The creeks on which these 21 barriers are located are of regional importance given their potential for salmonid migration (see discussion in Project Selection Criteria, below).

Consistent with Section 31162(c), the Napa River Barrier Plan implements the policies and programs of the adopted plans of the local government, as described in greater detail in the "Consistency with the Local Government Plans" section of this staff recommendation, below.

Consistent with Section 31163(c), the Napa Fish Barrier Plan project is:

- supported by the adopted Napa County General Plan and associated ordinances,
- serves a regional constituency, in that the project is designed to improve water quality, riparian habitat, including for endangered and threatened species, and supports an important agricultural commodity of the state,
- can be implemented in a timely manner as all other funding for this phase of the project is currently assembled, and
- capitalizes on the momentum developed by previous work such as the RCD's barrier inventory; and
- includes matching funds from the RCD and other agencies.

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

Consistent with **Goal 10 Objective B**, the proposed project will result in detailed plans to modify or remove approximately 21 barriers to fish passage in riparian habitats through the removal of in-stream migration barriers for salmonids and other fishes.

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 September 20, 2007, 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:** Supporters of the project include the National Marine Fisheries Service, the State Department of Fish and Game, the Regional Water Quality Control Board (RWQCB), San Francisco Estuary Institute, Friends of Napa River, and the Napa County Board of Supervisors. Letters of support for the project have been received from State Senator Patricia Wiggins, Assemblywomen Noreen Evans and Congressman Mike Thompson, and the RWQCB (see Exhibit 3).
4. **Location:** This project will identify fish passage improvement projects in the streams of the San Francisco Estuary, part of the nine county jurisdiction of the San Francisco Bay Area Program.
5. **Need:** Conservancy participation is needed because financial, staffing, and jurisdictional limitations have prevented other agencies and nonprofits from undertaking or funding fish passage barrier modification projects. No other source of funding for this phase of work is available. The RCD is funded by grants.
6. **Greater-than-local interest:** The Napa River basin currently supports two salmonid species: steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*), and has been identified as the most significant tributary to the San Francisco Estuary for maintaining and restoring salmonid populations (Leidy et. al., 2003). Steelhead trout are an important historical, natural, and economic resource for the State's fishing industry as well as Bay Area residents.

Additional Criteria

7. **Urgency:** Chinook salmon and steelhead trout are threatened species yet funding for restoration projects is finite. By identifying restoration projects with the most potential benefit to salmonid fishes and by preparing design documents ready for permitting and environmental review, implementation of high priority restoration projects will be more likely to occur.

8. **Leverage:** See the "Project Financing" section above.
9. **Innovation:** The project is innovative in its reliance on scientific analysis of the steelhead resource, its focus on projects that have both scientific and political support, and its objective to create products that empower local agencies to obtain construction funding. The methods to be used in the project will provide a valuable example of well-engineered creek restoration efforts, as a counter to many existing projects that were constructed without proper consideration of hydrologic and engineering principles**.**
10. **Readiness:** The project applicant has demonstrated that it has the experience, expertise, local public support, and administrative capability necessary to commence and complete the project in a timely manner. The project can begin as soon as Conservancy funding is approved and is expected to be completed within one year.
11. **Realization of prior Conservancy goals:** The Conservancy's completion of the report "Assessment of Barriers to Fish Passage in California's Coastal Watersheds" signals the agency's focus on and commitment to the improvement of fish passage in coastal watersheds. Having identified numerous barriers to fish passage in the report, and having previously supported several fish passage improvement projects, this proposal will expand the Conservancy's efforts in this area. The project will expedite the completion of a greater number of fish passage projects in the near future.
12. **Cooperation:** The project is supported by a wide cross-section of agencies and organizations with experience in creek and fish restoration including the National Marine Fisheries Service, the State Department of Fish and Game; the Regional Water Quality Control Board; San Francisco Estuary Institute and the Friends of Napa River.

COMPLIANCE WITH CEQA:

The proposed project involves only data gathering, planning, and feasibility analyses for possible future actions not yet adopted or approved and is thus statutorily exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code of Regulations Section 15262. As required by this section, the study will give consideration of environmental factors in developing the report. Staff will file a Notice of Exemption upon approval.