

COASTAL CONSERVANCY

Staff Recommendation

May 18, 2005

**NAPA RIVER SALT MARSH RESTORATION PROJECT  
FINAL DESIGN FOR PHASE 2**

File No. 01-022

Project Manager: Amy Hutzal

**RECOMMENDED ACTION:** Authorization to: (1) enter into a Cost Share Agreement with the U.S. Army Corps of Engineers for Preconstruction Engineering and Design for the Napa River Salt Marsh Restoration Project; and (2) disburse up to \$250,000 of project costs (25% of the total cost of Preconstruction Engineering and Design) to the U.S. Army Corps of Engineers as called for in the Cost Share Agreement.

**LOCATION:** The northern edge of San Pablo Bay, bounded in the east by the Napa River and the west by Sonoma Creek, in Napa and Solano Counties (Exhibit 1).

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

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**EXHIBITS**

Exhibit 1: Project Location and Site Map

Exhibit 2: Conceptual Design for Ponds 6-8

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31160-31164 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes:

1. Execution of a Cost Share Agreement with the U.S. Army Corps of Engineers (“Corps”) for Preconstruction Engineering and Design of the Napa River Salt Marsh Restoration.
2. Disbursement of an amount not to exceed two hundred fifty thousand dollars (\$250,000) through the provision cash payments to the Corps, in order to complete tasks identified in the Project Management Plan for Preconstruction Engineering and Design of the Napa River Salt Marsh Restoration Project and to satisfy non-federal cost-share requirements.”

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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 *et seq.*, regarding the Conservancy’s mandate to address the resource and recreational 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.”

### **PROJECT SUMMARY:**

This authorization would enable the Conservancy to enter into a cost-sharing agreement with the U.S. Army Corps of Engineers (“Corps”) for Preconstruction Engineering and Design (“PED”) of a portion of the Napa River Salt Marsh Restoration Project, and to expend up to \$250,000 for engineering and design. Prior to commencing construction, the Corps must complete PED, whose costs are shared at a ratio of 75% federal to 25% non-federal.

The Napa River Salt Marsh, which consists of nearly 10,000 acres of wetlands (7,200 acres of salt ponds and levees and 2,300 acres of fringing marsh and sloughs) within the former Cargill salt pond complex in the North Bay, was acquired in 1994 and is owned and managed by California Department of Fish and Game (“DFG”). The Napa River Salt Marsh is within the 38,000 acre Napa-Sonoma Marsh Complex, a resource of national importance due to its size and because it provides habitat for migratory waterfowl and shorebirds as well as threatened and endangered species, such as the California clapper rail and salt marsh harvest mouse.

The Conservancy, Corps, and DFG have completed a Feasibility Study for the Napa River Salt Marsh Restoration Project. The Feasibility Report was completed and signed by the Chief of Engineers on December 22, 2004 and includes:

- a summary of the physical, cultural, and environmental characteristics of the project area,
- analysis of alternatives for salinity reduction (including use of recycled water from nearby sanitation districts),
- analysis of alternatives for habitat restoration in Ponds 1-8,
- preliminary civil and geotechnical design,
- cost estimates of alternatives, and
- an incremental cost analysis.

The Corps’ “Chief’s Report” found that there is a national interest in cost-sharing the work on Ponds 4, 5, 6/6A, 7/7A, and 8, but not Ponds 1/1A, 2, and 3 nor the recycled water pipeline. Upon completion of a Chief’s Report for a project, Congress decides whether to authorize the project in the Water Resources Development Act (“WRDA”), which would allow for the Corps to construct the project. The Corps is able to conduct

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PED prior to authorization of a project, allowing for implementation of the project once it has been authorized and construction funds have been appropriated.

Now that the Napa River Salt Marsh Restoration Project Chief's Report has been signed and Congress is considering authorization in WRDA, the project is being designed, permitted, and constructed in two phases.

Phase 1 includes over half of the project area (Ponds 1/1A, 2, 3, 4, and 5). Ponds 1/1A and 2, totaling approximately 1,600 acres, will be managed as ponds. Construction activities will include new and repaired water control structures and levee repairs. Ponds 3, 4, and 5, totaling approximately 3,000 acres, will be restored to tidal habitats via levee breaches. Construction will entail setting a template for natural evolution of the site using levee breaching and lowering, starter channel excavation and creation of wind-wave berms inside the ponds, and creation of ditch blocks in the borrow ditches created when the levees were constructed. Phase 1 will be constructed by Ducks Unlimited, using approximately \$15 million of California Bay-Delta Authority and Wildlife Conservation Board grant funds, in close coordination with DFG. Design and permitting for Phase 1 is nearing completion and construction will begin in the summer of 2005. This phase of the project is moving forward entirely without the Corps.

Phase 2 is the subject of this authorization and includes the remaining ponds (Ponds 6/6A, 7/7A, and 8), which total 1,870 acres. Under the proposed authorization, Conservancy funds will be provided to the Corps and used for final design for Ponds 6/6A, 7/7A, and 8. The Corps will conduct final design and eventually construct the Phase 2 work. This authorization would allow for the Conservancy to be the non-federal sponsor for PED and provide the 25% of non-federal funds required as part of the cost-sharing agreement. Once design is completed and once the project is authorized by Congress in the WRDA, DFG plans to be the non-federal sponsor for construction, whose costs will be shared at a ratio of 35% non-federal to 65% federal. The Conservancy, DFG, and others are working with members of Congress on the project authorization in WRDA to ensure that: 1) the advance Phase 1 work is credited towards the non-federal cost share of the overall project, 2) Ponds 1/1A, 2, and 3 are included in the authorized project, and 3) the recycled water pipeline is included in the authorized project. The first two additions would significantly reduce the total amount of funds contributed by DFG in construction and the third addition would allow for local interests to cost-share a recycled water pipeline with the Corps.

It is anticipated that PED for Ponds 6/6A, 7/7A, and 8 will be completed by the Corps in the fall of 2006, allowing construction to potentially begin in 2007. Approval of this recommendation does not commit the Conservancy to participate as the non-federal sponsor with the Corps during construction and Conservancy staff does not foresee any Conservancy financial contributions during the construction phase. DFG is planning to be the non-federal sponsor during construction. The non-federal share of funds required for implementation of a Corps Ecosystem Restoration Project is 35 percent of the total project cost. The value of DFG's land counts towards the non-federal share. The state funds (California Bay-Delta Authority and Wildlife Conservation Board grants) used to construct Phase 1 will be counted toward this match if provided for by Congress in WRDA. Phase 2 is expected to cost approximately \$40 million to construct, with DFG contributing approximately \$5,000,000 (or approximately \$500,000 if Congress provides for crediting of the Phase 1

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work in Ponds 1-5). If the recycled water pipeline is included in WRDA, it would add approximately \$25 million to the budget, but costs would be shared by local interests, not by the State.

The Napa River Salt Marsh Restoration Project is supported by scientists, resource managers, and environmentalists representing over 15 public agencies and non-governmental organizations involved in this project, and by State and Federal legislators representing this area, and is a recommendation of the *San Francisco Baylands Ecosystem Habitat Goals Report*, prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. The project is expected to serve as a model for restoration of commercial salt ponds in the South San Francisco Bay, acquired by the state and federal governments in 2003.

**Site Description:** The Napa River Salt Marsh Restoration Project includes approximately 10,000 acres of the Napa-Sonoma Marsh Complex. The Napa River Salt Marsh was first diked off from the San Pablo Bay during the 1850s for hay production and cattle grazing. Much of the land was later converted to salt ponds, for salt production by the solar evaporation of bay water. In the early 1990s, the Cargill Salt Company ceased the production of salt and sold 9,850 acres of evaporator ponds and associated remnant sloughs and wetlands on the west side of the Napa River to the State of California for \$10 million. These ponds and remnant marshes and sloughs are now managed by DFG as the Napa River Unit of the Napa-Sonoma Marshes State Wildlife Area.

The salt ponds contain various concentration and types of salts. Some of the inactive salt ponds provide significant habitat for fish and wildlife, while the salinity levels in others exceed that which is beneficial to wildlife. One pond contains bittern, a byproduct of salt production that is toxic to aquatic life if not diluted. The annual evaporative water loss from the salt ponds exceeds the amount of water replaced by annual rainfall. Several of the salt ponds have become increasingly saline and periodically turn into seasonally wet salt flats, resulting in the loss of their habitat value for waterbirds and other wildlife species. DFG's ability to maintain the levee system and to control water levels and salinities by drawing in water from San Pablo Bay and the lower Napa River is limited due to infrastructure constraints and high operating costs. The Feasibility Report and EIR/EIS evaluated alternatives for salinity reduction and habitat restoration and enhancement and identified a preferred alternative.

The entire Napa-Sonoma Marsh Complex is spread over an area of approximately 38,000 acres. It includes more than nine miles of shoreline between the Napa River and Tolay Creek in Sonoma County. Its northern boundary is the upper limit of the historic tidelands. Most of the former tidal wetlands in the Napa-Sonoma Marsh Complex have been converted to salt ponds or diked agricultural grazing lands.

Although the marsh complex is degraded, it provides habitat for a number of threatened or endangered species including the California clapper rail, California black rail, salt marsh harvest mouse, San Pablo song sparrow, Sacramento River winter-run chinook salmon, Steelhead trout, Sacramento splittail (fish), Delta smelt (fish), and Mason's lilaeopsis (plant). The former salt ponds in the Napa-Sonoma Marsh Complex provides habitat for large populations of waterfowl and shorebirds.

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### **Project History:**

An estimated 85 percent of the historic tidal marshes in the San Francisco Bay-Delta Estuary have been filled or significantly altered over the past two centuries. The San Pablo Bay's diked baylands provide an opportunity for large-scale restoration of tidal marsh, and over the last decade, state and federal resource and regulatory agencies have purchased a number of properties within the Napa-Sonoma Marsh Complex, with the intent to restore much of the land to tidal marsh. Acquisitions include: U.S. Fish and Wildlife acquisition of the 1,400-acre Cullinan Ranch, DFG's acquisition of nearly 10,000 acres of former Cargill Salt Ponds and 62 acres along Huichica Creek, DFG's acquisition of the 1,400 acres Cargill Napa Plant Site, and the potential future transfer or sale of Skagg's Island to the U.S. Fish and Wildlife Service or DFG. In March, 1994, the Conservancy disbursed \$1 million to assist in the \$10 million DFG acquisition of Cargill salt ponds (Napa River Salt Marsh). DFG has managed these ponds for over 10 years, and habitat values and management capability have declined due to infrastructure and funding constraints.

In September of 1994, the Corps was authorized by Congress to prepare a Reconnaissance Study on restoration of the lower Napa River. Following an initial inquiry, the Corps decided to focus the study on the DFG-owned former salt pond complex because the land is publicly owned, and because the restoration is sufficiently complex and urgent to warrant a focused Feasibility Study. A draft Reconnaissance Study was finalized in 1997. The study concluded the following:

1. There is a Federal interest in conducting a Feasibility Study for the project;
2. There are engineering solutions to the restoration of the former salt ponds that produce environmental benefits significantly exceeding project costs; and
3. The proposed Feasibility Study would likely result in the design of a project that meets the criteria for Federal participation in project implementation.

On July 24, 1997, the Conservancy agreed to serve as the non-federal sponsor in the Corps' Feasibility Study, and to expend funds and provide in-kind services to complete work elements in the Project Management Plan for the Feasibility Study. On June 25, 2001, the Conservancy agreed to continue as the non-federal sponsor through the Feasibility Study and expend additional funds in order to complete the work elements in the Project Management Plan. The total cost of the Feasibility Study, including federal and non-federal funds and staff time, was approximately \$5 million, of which the Conservancy contributed funding in the amount of \$1,529,682, which included cash payments to the Corps and in-kind services (technical and environmental work by Conservancy consultants), as well as staff time. Several other agencies contributed to the Feasibility Study, with cash or in-kind services, including DFG (over \$350,000 in cash plus staff time), Sonoma County Water Agency (over \$200,000 in cash plus staff time), U.S. Fish and Wildlife Service, U.C. Davis, and U.S. Geological Survey.

The Feasibility Study was completed in December of 2005 with the signing of the Feasibility Report by the Corps' Chief of Engineers. The Conservancy and DFG are now seeking authorization for the project in WRDA. Authorization would allow the Corps to construct the restoration project, at a 65% federal to 35% non-federal cost-share ratio. The Conservancy and DFG have been seeking non-federal funds to serve as matching

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funds for construction. The California Bay-Delta Authority and the Wildlife Conservation Board have provided over \$15 million to design and construct Phase 1. If provided for by Congress, these funds would be credited towards the Phase 2 cost-sharing requirements.

### **PROJECT FINANCING:**

Conservancy	\$250,000
U.S. Army Corps of Engineers	<u>750,000</u>
<b>Total Project Cost</b>	<b>\$1,000,000</b>

The expected source of the proposed grant is the FY 03/04 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 for the purposes of Division 21 of the Public Resources Code. Consistent with the purposes of this funding source, the proposed project would be carried out in accordance with the provisions of Division 21 (see "Consistency with Conservancy's Enabling Legislation" section below). Proposition 40 also gives priority to projects that include a commitment for a matching contribution, such as that being provided by the U.S. Army Corps of Engineers.

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

This project is undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31163, to address resource goals in the San Francisco Bay Area.

The Napa River Salt Marsh is located in Napa and Solano Counties, consistent with Section 31162 of the Public Resources Code, which authorizes the Conservancy to undertake projects and award grants in the nine-county San Francisco Bay Area.

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 ultimate implementation of the Napa River Salt Marsh restoration project would restore and enhance nearly 10,000 acres of wetlands, and would be a habitat restoration project of regional and national significance.

Consistent with Section 31162(c), the Napa River Salt Marsh Restoration Project would implement the policies and programs of the *San Francisco Bay Plan*, as described in the "Consistency with the San Francisco Bay Plan" section of this staff recommendation.

Under Section 31162(d), the Conservancy may act to promote, assist, and enhance projects that provide open space and natural areas that are accessible to urban populations for recreational and educational purposes. Napa River Salt Marsh provides an important open space resource for recreational purposes. The Napa River Salt Marsh Restoration Project includes a recreational component, which focuses on hunting, fishing, birdwatching, and boating.

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Consistent with Section 31163(d), the Napa River Salt Marsh Restoration Project is: (1) supported by adopted regional plans (*San Francisco Bay Plan*), (2) serves a regional constituency, as the Napa River Salt Marsh is a hunting, fishing, birdwatching, and boating destination for the Bay Area, (3) can be implemented immediately, (4) provides benefits that would be lost if the project is not quickly implemented; and (5) includes significant matching funds.

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

Consistent with **Goal 10 Objective B**, the proposed project will result in design documents for 1,870 acres of wetlands enhancement.

### **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 "Consistency with Conservancy's Enabling Legislation" above.
  2. **Consistency with purposes of the funding source:** See "Project Financing" above.
  3. **Support from the Public:** In addition to widespread support within the Bay Area Congressional Delegation and by State Senators and Assemblymembers, restoration of the Napa-Sonoma Marshes is supported by Sonoma County Water Agency, the San Francisco Bay Joint Venture, The Bay Institute, Ducks Unlimited, Save The Bay, and National Audubon Society. In addition, staff from the U.S. Fish and Wildlife Service, NOAA Fisheries, U.S. Geological Survey, the San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission support the project and are participating in the restoration design process. Participants at several public meetings have indicated strong support for the project.
  4. **Location:** The Napa-Sonoma Marsh lies in the nine-county San Francisco Bay Area, consistent with Section 31162 of the Public Resources Code.
  5. **Need:** Non-federal funding is needed to share costs for the final design of Ponds 6/6A, 7/7A, and 8 with the Corps. Proceeding with final design work will allow construction to potentially begin in 2007, which will improve habitat conditions for migratory birds in the Napa-Sonoma Marsh.
  6. **Greater-Than-Local Interest:** Restoration of this area is of national interest and will result in the largest tidal wetland restoration project on the west coast of the United
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States. The entire Napa-Sonoma Marsh Complex consists of approximately 38,000 acres of tidelands and diked historic baylands. The proposed project will allow for final design for a portion of the 10,000 acres of former salt ponds along the Napa River. Restoration or enhancement of the salt ponds will provide numerous direct and indirect benefits to a large number of species and habitats. These include anadromous and Delta-dependent fish species, including the federally-endangered Delta Smelt and Steelhead Trout, along with numerous species of waterfowl and shorebirds, and several threatened or endangered species, including the California clapper rail, California black rail, salt marsh harvest mouse, and San Pablo song sparrow.

### **Additional Criteria**

7. **Urgency:** There is an urgent need to protect existing wildlife habitat from uncontrolled salt or bittern releases and improve pond management for migratory shorebirds and waterfowl.
8. **Resolution of more than one issue:** The Napa River Salt Marsh Restoration Project is intended to solve DFG management problems, improve managed pond habitat for migratory birds, restore large areas of tidal marsh for endangered species and migratory birds, and enhance public access and recreational opportunities.
9. **Leverage:** See “Project Financing” above.
10. **Innovation:** The proposed project is expected to be a model for how to coordinate a scientifically sound, complex restoration project. The experience gained with the North Bay salt pond restoration will be invaluable as restoration planning proceeds in the South Bay. The lessons learned can also be applied to smaller scale restorations throughout the Bay Area.
11. **Realization of prior Conservancy goals:** “See “Project History” above.”
12. **Cooperation:** The Napa River Salt Marsh Restoration Project involves numerous public agencies, nongovernmental organizations, landowners, and funders. The Napa Sonoma Marsh Restoration Group meets regularly to coordinate work and cooperate on restoration projects within the 38,000 acre Napa-Sonoma Marshes.

### **CONSISTENCY WITH SAN FRANCISCO BAY PLAN:**

The salt ponds that make up the Napa River Salt Marsh Restoration Project are within the permit jurisdiction of the San Francisco Bay Conservation and Development Commission. Prior to construction, a permit will be needed from the San Francisco Bay Conservation and Development Commission.

The project is consistent with the following policies of BCDC's San Francisco Bay Plan:

#### **Part III: The Bay as a Resource**

##### **Water Quality in the Bay**

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1. ... The Bay's tidal marshes, tidal flats, and water surface area and volume should be conserved and, whenever possible, restored and increased to protect and improve water quality. ...

### Tidal Marshes and Tidal Flats

4. Where and whenever possible, former tidal marshes and tidal flats that have been diked from the Bay should be restored to tidal action in order to replace lost historic wetlands or should be managed to provide important Bay habitat functions, such as resting, foraging and breeding habitat for fish, other aquatic organisms and wildlife. As recommended in the Baylands Ecosystem Habitat Goals report, around 65,000 acres of areas diked from the Bay should be restored to tidal action. ...

### **Part IV: Development of the Bay and Shoreline**

#### Salt Ponds and Other Managed Wetlands Around the Bay

2. If...the owner of the salt ponds or the owner of any managed wetland desires to withdraw any of the ponds or marshes from their present uses, the public should make every effort to buy these lands, breach the existing dikes, and reopen these areas to the Bay. This type of purchase should have a high priority for any public funds available, because opening ponds and managed wetlands to the Bay represents man's last substantial opportunity to enlarge the Bay rather than shrink it. (In some cases, if salt ponds are opened to the Bay, new dikes will have to be built on the landward side of the ponds to provide the flood control protection now being provided by the salt pond dikes.)

### **COMPLIANCE WITH CEQA:**

Under 14 California Code of Regulations (CCR) Section 15262, feasibility and planning activities are statutorily exempt from California Environmental Quality Act (CEQA) review. Similarly, 14 CCR Section 15306 categorically exempts basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. Upon approval, staff will file a Notice of Exemption for the project.