

COASTAL CONSERVANCY

Staff Recommendation

August 2, 2012

**HAMILTON WETLAND RESTORATION PROJECT  
NATIVE PLANT RESTORATION**

Project No. 94-004-01

Project Manager: Tom Gandesbery

**RECOMMENDED ACTION:** Authorization to disburse up to \$200,000 to PRBO Conservation Science for its Students and Teachers Restoring a Watershed (STRAW) Program to undertake native plant restoration at the Hamilton Wetland Restoration Project in Marin County.

**LOCATION:** Hamilton Wetland Restoration Project, City of Novato, Marin County (Exhibit 1)

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

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**EXHIBITS**

Exhibit 1: [Project Location](#)

Exhibit 2: [Site Maps and Figures](#)

Exhibit 3: [Chronology of Board Actions](#)

Exhibit 4: [Project Letters](#)

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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 two hundred thousand dollars (\$200,000) to PRBO Conservation Science for its Students and Teachers Restoring a Watershed (STRAW) Project to implement native plant restoration at the Hamilton Wetland Restoration Project site in the City of Novato, Marin County, in cooperation with the U.S. Army Corps of Engineers, subject to the condition that no Conservancy funds shall be disbursed until the Executive Officer of the Conservancy has approved in writing:

1. A final work plan, including a budget and schedule.
  2. The name and qualifications of any contractors that PRBO Conservation Science intends to retain to carry out the project.”
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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 project is consistent with the current Project Selection Criteria and Guidelines.
2. The proposed authorization 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.
3. PRBO Conservation Science is a non-profit organization existing under 501(c)(3) of the U.S. Internal Revenue Code whose purposes are consistent with Division 21 of the Public Resources Code.”

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**PROJECT SUMMARY:**

This authorization would provide up to \$200,000 to PRBO Conservation Science (originally known as the Point Reyes Bird Observatory) to implement native plant restoration on portions of the Hamilton Wetland Restoration Project in Novato, Marin County through its Students and Teachers Restoring a Watershed (STRAW) Project (the Project). The proposed project is to re-establish native plants on the former Hamilton Army Airfield by engaging local schools in a student and teacher field experience. The planting of native plants on the Airfield is one element of the Hamilton Wetland Restoration Project (HWRP), which was approved by the Conservancy in April 1999. The U.S. Army Corps of Engineers (Corps) is carrying out the HWRP with some funding from the Conservancy. As part of the HWRP, the Corps has developed a native planting plan for the Airfield and is currently setting up a native plant nursery to generate the plants needed for the Airfield site. The Corps has agreed to allow the STRAW program to implement the planting of the Airfield component of the HWRP. STRAW will carry out the planting program with students and teachers from local schools. STRAW will follow the Corps’s native plant plan and will integrate its efforts with other re-vegetation efforts by the Corps and Conservancy on the site.

STRAW, which PRBO Conservation Science started in 1992, works with a network of teachers, students, restoration specialists and other community members to plan and implement habitat restoration projects in Marin, Sonoma, Solano and Napa counties. Its goals are to empower students, support teachers, restore the environment, and reconnect communities to the natural world.

STRAW will engage students, teachers and parents in the final stages of the large-scale restoration of the former Hamilton Army Airfield, which entailed the placement and sculpting of large volumes of dredged sediment to raise the elevation of the site and create a variety of wetland types. Native plantings will follow a plan drafted by the Corps. It is anticipated that STRAW will install native plants in the seasonal wetlands and in the upland transitional areas at the upper edges of the tidal wetlands, which total 150 acres. Plantings will not occur in the fully tidal regions of the site, which are expected to re-vegetate naturally once the levee is breached and the site is open to the tidal waters of San Pablo Bay.

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Work by STRAW will be carried out over a two-year period and involve installing and maintaining over 2,000 native plants and the involvement of approximately 1,300 to 1,600 students and teachers. STRAW will also monitor success of the work, document wildlife use and prepare annual reports detailing the activities from the previous year. Staff from STRAW and PRBO Conservation Science will coordinate with local elementary schools using educational materials specific to Hamilton. STRAW will bring students and teachers from 5-7 schools to the site each year. Within each year, STRAW will carry out 8 to 10 field events with three elementary-level classes per event. Field work involves 4 to 6 hours on-site for students and teachers. STRAW will also follow-up with each teacher providing materials specific to the field experiences. During the summer and school breaks, STRAW will coordinate volunteer opportunities for adults. In addition to a program for elementary-aged children, STRAW will coordinate with the Novato High School to tailor a field experience that integrates appropriate science lessons on wetland ecology. A study plan with the Novato High School is currently under development.

The 150 acres of seasonal wetland and upland transitional areas must be re-vegetated in a timely fashion in order to establish native plants before invasive exotic plants (weeds) take over the site. STRAW's work will complement a larger effort by the Corps and Conservancy to establish a native plant nursery, contract a nursery manager, and re-establish native plants using community volunteers and Conservation Corps crews. It is expected that the native plant work will be ongoing for three to five years, though most of the effort will be in the first two years.

**Site Description:** The Hamilton Wetland Restoration Project site consists of three properties located along the western edge of San Pablo Bay totaling nearly 2,600 acres: the 644-acre former Hamilton Airfield (including the former 18-acre Navy ball-fields property), the 319-acre North Antenna Field (owned by the State Lands Commission) and the 1,585-acre Bel Marin Keys Unit V property. All of these properties are historic wetlands that were diked off from the Bay and have since subsided below sea level. Currently the Airfield has been covered with nearly six million cubic yards of sediment offloaded from 2007 to 2009, most of which came from the Port of Oakland's -50 foot Channel Deepening Project.

It is on portions of this dredged sediment fill, within the former Airfield, where the STRAW program would carry out its work (Exhibit 2). Large portions of the site were graded by the Corps in 2011 to mimic natural features, including areas which are now appropriate for native plant restoration. As a part of the previous grading, the soil was treated with a native grass hydro-seed, but no shrubs, forbs or trees were planted. STRAW would focus its planting in the upland transitional areas and seasonal wetlands, the higher elevation portions of the site.

**Project History:** A chronology of Conservancy actions is attached (Exhibit 3). The Water Resources Development Act (WRDA) of 1986 established a program within the Corps to undertake "ecosystem restoration" projects, giving the Corps the ability to include such projects in its civil works program. In 1996, the Conservancy began its role as the non-federal sponsor in developing a wetland restoration plan with the Corps for the former Hamilton Airfield and adjacent properties. The San Francisco Bay Conservation and Development Commission ("BCDC") staff has provided input to the implementation of the Project since its inception, especially as it relates to dredging projects.

In April 1999 the Conservancy adopted the Hamilton Wetlands Restoration plan and certified the EIR/EIS for the Project. The Hamilton Project was authorized by Congress in WRDA of 1999. The adjacent Bel Marin Keys Property (BMKV) was acquired by the Conservancy in 2001 for \$16

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million. In 2003, the Conservancy and Corps finalized a restoration plan for the BMKV property. While the Corps and Conservancy completed the planning documents for the BMK Expansion in 2003, the design and construction of this second phase is on hold until fiscal and policy issues can be resolved. The Corps first accepted dredged sediment, or “material” onto the Hamilton Airfield in 2006 and placed about 5.8 million cubic yards of dredged material to finish filling of the subsided land. The dredged material came from Corps and non-Corps dredging projects throughout the bay area, primarily from the Port of Oakland and was needed in order to fill the site up to average tidal elevations. In 2010 the Corps began final grading and levee raising. This year the Corps is planning to: complete the grading of the fill; construct a trail which will be a segment of the SF Bay Trail; begin native plant propagation; and begin work to breach the site to the bay. The Corps will most likely breach the site in the fall of 2013.

**PROJECT FINANCING**

**Hamilton Army Airfield Restoration (existing project maximum)**

U.S. Army Corps of Engineers	\$82,640,000
Coastal Conservancy	<u>\$27,560,000</u>
Total	\$110,190,000

**This Grant**

Conservancy	<u><b>\$200,000</b></u>
Total	\$200,000

The anticipated source of Conservancy funds is the fiscal year 2010 appropriation to the Conservancy from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84) (Public Resource Code Sections 75001 *et seq.*). Consistent with Public Resources Code Section 75060, the proposed project will protect and restore natural habitat values of San Francisco Bay and is consistent with Chapter 4.5 of Division 21, as discussed below.

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

This project, which is a component of the HWRP, would be undertaken pursuant to Chapter 4.5 of Division 21 of the Public Resources Code (sections 31160-31165), which established the San Francisco Bay Area Conservancy Program. The Conservancy has previously found the HWRP to be consistent with Chapter 4.5 (See Exhibit 3). The following explains how a grant for the STRAW program to carry out the planting on the Airfield component of the HWRP is consistent with Chapter 4.5.

Under Section 31162, the Conservancy may award grants for projects located within the nine-county San Francisco Bay Area. This project is in Marin County, one of the nine-counties making up the Bay Area.

Under Section 31162(b), the Conservancy may award grants to “protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open space resources of regional importance.” The proposed project will involve the restoration and

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enhancement of natural wetland habitats. The project will involve the installation of over 2,000 plants on up to 150 acres of seasonal wetland habitat and upland transitional habitat at the upper edge of the tidal wetlands, atop dredged sediment placed at the former Hamilton Army Airfield.

Under Section 31162(d), the Conservancy may award grants to “promote, assist, and enhance projects that provide open space and natural areas that are accessible to urban populations for recreational and education purposes.” Under Section 31165, the Conservancy may award grants for activities that facilitate environmental education related to the ocean, coastal, bay or watershed resources. The proposed project will engage students and teachers from the San Francisco Bay Area in hands-on, educational programs concerning restoration of wetlands on San Pablo Bay. Thus, the proposed project will make a natural area accessible to an urban population for education purposes and will facilitate environmental education relating to the bay and watershed resources.

This project meets the criteria set forth in Section 31163(c), in that it would: (1) be consistent with the Marin County Countywide Plan – Baylands Corridor; (2) serve the San Francisco Bay Area; (3) be implemented and completed in a timely manner; (4) provide benefits that would be lost if the project is not implemented quickly as the nascent populations of invasive plant species on site can be more easily controlled at their current levels; and (5) include significant matching funds from the Corps.

**CONSISTENCY WITH CONSERVANCY’S 2007  
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

The Conservancy has previously found the HWRP to be consistent with the Conservancy’s 2007 Strategic Plan, in particular, Goal 10, Objectives C and K because the HWRP will result 150 acres of seasonal wetlands and upland transitional habitat at the edges of the tidal wetland restored atop dredged sediment placed at the 700-acre former Hamilton Army Airfield.

Consistent with **Goal 10, Objective K** of the Conservancy’s 2007 Strategic Plan, the proposed project will implement one project or program to control or eradicate non-native invasive species within 150 acres of the 700-acre former Hamilton Army Airfield.

Providing a grant for STRAW to carry out the planting on the Airfield component of the HWRP is consistent with **Goal 11, Objective M** of the Conservancy’s 2007 Strategic Plan, the proposed project will implement one project to provide an educational program that is tied to on-the-ground restoration work.

**CONSISTENCY WITH CONSERVANCY’S  
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project by STRAW is consistent with the Conservancy’s Project Selection Criteria and Guidelines, last updated on November 10, 2011, 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.

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2. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
3. **Support of the public:** The Project has the support of the partnering public agencies, the Corps, City of Novato, and Marin County Flood Control and Water Conservation District, as well as local environmental and conservation groups. Support letters from State Senator Mark Leno and Assemblyman Jared Huffman are attached as Exhibit 4.
4. **Location:** The Proposed project is in Marin County, which is within the jurisdiction of the San Francisco Bay Area Conservancy Program.
5. **Need:** Without the Conservancy’s support, native plant restoration work would not involve students and teachers from local schools, and the opportunity for environmental education and access to this resource would be lost.
6. **Greater-than-local interest:** The Hamilton Wetland Restoration Project is the largest wetland restoration project in the United States to beneficially reuse dredged sediment and is contributing to a regional goal of more than doubling the amount of tidal marsh in San Francisco Bay. This grant will engage students and teachers in this large-scale restoration effort and help establish native vegetation on the site which will in turn support species of special concern.
7. **Sea level rise vulnerability:** The Project involves restoration of tidal marshes, which are known to buffer wave action adding an additional measure of protection to inland communities. It is assumed that the tidal wetlands will adjust and respond to changing sea level, though this phenomenon is dependent on the supply of suspended sediment in San Pablo Bay and the rate of sea level rise.

**Additional Criteria**

8. **Urgency:** The Hamilton Wetland Restoration project is urgent because the site was recently covered with dredged sediment and the surface soils have only nascent populations of invasive plant species. This condition makes it possible to establish native plants before invasive have become well established. Implementing STRAW’s native plant work now, will build upon the investment that has already been made in this project.
9. **Leverage:** See the “Project Financing” section above.
10. **Innovation:** The Hamilton Wetland Restoration project features restoration of seasonally flooded tidal wetlands including tidal “pannes”, which are rare in the existing baylands. These habitats are valuable resting areas for shore birds during storms and may also function as nesting areas for several special status species. The project also includes restoration of upland transitional habitat at the edges of the tidal wetlands, another rare habitat in the San Francisco Bay and especially valuable for endangered species seeking refuge during high tides. While the tidal wetland portions of the site are expected to revegetate naturally, the seasonal wetlands and upland transitional habitats need to be planted with natives or will likely be dominated by weeds. Lessons learned in the restoration of these two habitat types will be of value to wetland restoration projects elsewhere in San Francisco Bay.
11. **Readiness:** The Hamilton Wetland Restoration project is nearing the end of construction of the former Hamilton Army Airfield with one of the last steps being native plant restoration.

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12. **Realization of prior Conservancy goals:** “See “Project History” above.”
13. **Cooperation:** The grantee is accomplished at cooperating with multiple stakeholders and educational organizations. In addition to coordinating with local school systems, the grantee will work closely with the Corps of Engineer and plans to work with local crews from the Conservation Corps and other training and volunteer groups.
14. **Vulnerability from climate change impacts other than sea level rise:** The vegetation to be planted is thought to be largely resilient to changes in climate because these plant species are also found in the wetlands of Southern California and Baja Mexico.
15. **Minimization of Greenhouse Gas Emissions:** The project has the potential to generate short-term greenhouse gas emissions associated with vehicles (e.g., personal vehicles, pick-up truck and ATV) used to shuttle work groups to and from the work sites, but these emissions would be mitigated by use of carpools and chartered buses. There will be no mechanized equipment used for the planting and there will be no operational greenhouse gas emissions once the restoration is complete. In addition, the restoration plan includes the planting of native perennial grasses, shrubs and forbs, including oaks. Oaks have a very high density of carbon compared to other trees and may sequester almost double the amount of soil carbon underneath their canopy than places where there are no oaks. Furthermore, the salt grasses that will inhabit the tidal portions of the site will sequester carbon as they form peat sediments. Thus, the proposed project includes measures to minimize greenhouse gas emissions to the extent feasible.

**COMPLIANCE WITH CEQA:**

On April 22, 1999, the Conservancy certified the Hamilton Wetland Restoration Plan Final EIR/EIS (EIR/EIS) and approved the HWRP. On June 16, 2005, the Conservancy certified the Final Supplemental Environmental Impact Report / Environmental Impact Statement for the Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project and approved modifications to the HWRP to incorporate Bel Marin Keys Unit V. The planting of native plants on the Airfield is a component of the HWRP as analyzed in the EIR/EIS. Accordingly, no additional environmental review pursuant to the California Environmental Quality Act (CEQA) is necessary.