

COASTAL CONSERVANCY

Staff Recommendation

May 29, 2014

SAN FRANCISCO BAY ECOSYSTEMS CLIMATE ADAPTATION ASSESSMENT

File No. 10-027-01

Project Manager: Matthew Gerhart

RECOMMENDED ACTION: Authorization to augment the Conservancy's October 21, 2010 authorization with up to \$65,000 in additional funds to complete and disseminate the *Baylands Ecosystem Habitat Goals Technical Update*, a portion of which may be used to augment an existing technical assistance grant to Point Reyes Bird Observatory (dba Point Blue).

LOCATION: All nine San Francisco Bay Area counties (San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, Marin).

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: [Map of the San Francisco Bay Area](#)

Exhibit 2: [October 21, 2010 Staff Recommendation](#)

Exhibit 3: [Project Letters](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31000 *et seq.* of the Public Resources Code:

“The State Coastal Conservancy (“Conservancy”) hereby authorizes the augmentation of the Conservancy’s October 21, 2010 authorization with up to \$65,000 in additional funds to complete and disseminate the Baylands Ecosystem Habitat Goals Technical Update, a portion of which may be used to augment an existing technical assistance grant to Point Reyes Bird Observatory (PRBO). Prior to the disbursement of any of these funds to PRBO, PRBO shall submit for the review and written approval of the Executive Officer a revised detailed work program, budget and schedule; and the names and qualifications of any contractors and subcontractors that it intends to employ.”

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 Conservancy Project Selection Criteria and Guidelines.
2. The proposed authorization is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, regarding the resource and recreation goals of the San Francisco Bay Area, including the protection, restoration and enhancement of natural habitats and connecting corridors, scenic areas, and other open space resources of regional importance, and the ocean and bay.
3. PRBO is a nonprofit organization existing under Section 501(c)(3) of the United States Internal Revenue Code, and whose purposes are consistent with Division 21 of the California Public Resources Code.”

PROJECT SUMMARY:

Staff requests authorization to augment the Conservancy’s October 21, 2010 authorization with up to \$65,000 in additional funds to complete and disseminate the *Baylands Ecosystem Habitat Goals* (Baylands Goals) *Technical Update* (Update). Pursuant to that authorization, the Conservancy has coordinated the development of the Update over the past two years as part of a multi-agency effort to assess and address the likely effects of climate change on the region’s baylands habitats.

The Update has progressed well to date. The process began in fall 2011 with the contracting of a project coordinator, respected wetland scientist J. Letitia Grenier, Ph.D., to structure and lead scientific input to the project. A Steering Committee (chaired by staff of the Coastal Conservancy) of 21 agencies and non-profits was convened in spring 2012 and a plenary session pulled together over 100 regional scientists to kick off the development of the report. Five workgroups were convened focusing on key issues regarding the management of the region’s baylands under varying climate change scenarios. Over the next year the workgroups developed draft analyses and chapters on the following topics:

- A conceptual model of landscape change,
- the evolution of baylands habitats over time and space,
- the influence of a changing Bay on the baylands,
- the transition zone between baylands and terrestrial edge,
- risks to wildlife (animals and plants), and
- carbon accounting and greenhouse gas flux.

A science review panel including six national experts in climate and wetland science was also convened and met twice to review the draft outline and chapters. The draft was vetted throughout summer 2013 and extensive revisions and reorganization were identified by the fall.

The Update was originally anticipated to be completed in early 2014 but due to the extent of the comments received has undergone additional development over this past winter, and is now expected to be vetted as a fully revised draft this summer and completed in fall 2014. Under this authorization, the Conservancy would augment its existing grant to PRBO as well as its contracts for professional service providers to: 1) finalize the analytical components of the Update, in particular the development of regional, sub regional and shoreline segment-specific recommendations; 2) complete design, layout and printing of the report; and 3) develop the

project's web and outreach components for release in the fall. The Update will be released in several formats including limited print and electronic versions. It will be disseminated to targeted audiences including decision and policy makers, wetland resource managers and practitioners, technical and scientific professionals, and the interested public.

The proposed work remains part of the larger series of efforts previously authorized to develop climate change adaptation practices and pilot projects by the Bay Area Ecosystems Climate Change Consortium (BAECCC). BAECCC's work integrates with several of the Conservancy's current initiatives, including work with the Bay Area Open Space Council, the South Bay Salt Ponds Restoration Project, the Living Shorelines Project, and the San Francisco Bay Restoration Authority. The Consortium has to date leveraged approximately \$5 million in ecosystem-related climate adaptation funding for the region, focusing and aligning the efforts of diverse partners working in the near-shore ocean, the baylands and the terrestrial uplands.

The consulting team, PRBO, BAECCC members and the Update Steering Committee have broad experience in assessing climate change impacts at a regional scale; conducting scientific research and monitoring; developing predictive models to understand possible future changes and prioritize conservation actions; employing, testing, and improving adaptive management strategies; and conducting outreach to local and regional stakeholders, policymakers and the public. PRBO provides valuable administrative experience in organizing and preparing technical reports. These entities, in working with Conservancy staff, continue to be highly qualified to bring a comprehensive, proactive and science-based approach to the Bay Area conservation community's evolving response to climate change.

Project History: The *Baylands Goals* project began in 1995 and was completed in 1999. It involved more than 100 participants representing local, state and federal agencies, academia and the private sector over four years. The project galvanized significant support for acquisition and restoration of former baylands, with a goal of adding 60,000 acres of tidal marsh to the 40,000 acres that existed in San Francisco Bay in 1999.

The *Baylands Goals* report has been a guiding document for wetlands restoration and enhancement around the Bay for the past decade, having contributed to the protection of 40,000 additional acres of baylands to date and having attracted significant funding for implementation of acquisition, protection, and restoration projects. These projects include the former salt ponds in the Napa-Sonoma Marshes, the South Bay Salt Ponds, Hamilton Airfield and Bel Marin Keys Unit V, Cullinan Ranch, Skaggs Island, Bahia, Bair Island, and Sears Point, among others.

Over the past decade, the Bay Area has also emerged as one of the key centers nationally in the development of regional climate science, ecological management strategies, and adaptation policy. Since forming in 2009, BAECCC has worked to coordinate the vast range of federal, state and local efforts pursuing climate change adaptation. The Conservancy has also taken a lead in this regard, recognizing the need to address vulnerabilities of projects to sea level rise and other effects of climate change and supporting adaptation planning and pilot project implementation. The 1999 Baylands Goals report had not initially addressed climate change, and shortly after its formation, BAECCC recognized the need to update the report to reflect current science.

In 2010, the Conservancy authorized disbursement of \$657,000 to administer BAECCC's initial program of activities, \$357,000 of which originated in a grant from the Gordon and Betty Moore

Foundation (Moore Foundation). The Conservancy has, through that authorization and subsequent augmentation by the Executive Officer, designated \$387,860 of its own funding to update the *Baylands Goals*, which has been matched by at least \$160,000 in Moore Foundation and Steering Committee contributions plus thousands of hours of contributed science staff time. Conservancy staff has played a lead role in contract management and coordination expertise for the Update. In June 2013, the Conservancy authorized the acceptance and disbursement of an additional \$315,000 in Moore Foundation contributions for continuing support of BAECCC activities; however this did not include further funding for the Update.

PROJECT FINANCING:

Coastal Conservancy (this authorization)	\$65,000
Previous Conservancy Authorizations	\$387,860
Gordon and Betty Moore Foundation	\$73,308
Baylands Goals Steering Committee, Partners*	<u>\$85,900</u>
Total Project Cost**	\$612,068

**Includes contributions by the U.S. Army Corps of Engineers, San Francisco Bay Joint Venture, San Francisco Estuary Partnership, San Francisco Estuary Institute, PRBO, San Francisco Estuary Partnership, and the California Landscape Conservation Cooperative.*

***Totals for the Baylands Goals Update component of BAECCC work.*

The funding under this authorization is expected to come from the Conservancy’s 2009/2010 appropriation of the “Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006” (Proposition 84). Public Resources Code section 75001, et seq. This funding source may be used for projects that protect and restore the natural habitat values of coastal waters and lands and are consistent with Chapter 4.5 (the San Francisco Bay Area Program) of the Conservancy’s enabling legislation. Public Resources Code Section 75060(c). In addition, Proposition 84 funds may be used to finance planning necessary for the successful design, selection, and implementation of such projects. Public Resources Code Section 75072. This authorization is consistent with the funding source because the project will serve to protect the baylands of the San Francisco estuary for future generations by identifying, evaluating, and interpreting resource data and information relevant to the establishment of long-term goals and guidance that consider climate change.

The project is also an appropriate funding priority under Public Resources Code section 75071(e) because it includes a significant commitment of matching funds. In addition to the funds listed above, it is estimated that several thousand hours of in-kind science staff time, valued at several hundred thousand dollars, have been contributed to the project by participating partners.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The Conservancy is authorized under Section 31111 of the Public Resources Code to fund and undertake plans and feasibility studies in order to implement Division 21.

Under Section 31113, the Conservancy may undertake projects to address the impacts and potential impacts of climate change on resources within its jurisdiction. In enacting this provision, the legislature declared that the economic and environmental health of the coast depends on its resilience; that cooperation between governmental and private entities is needed

to respond to the effects of climate change; and that the Conservancy's participation in addressing the adverse effects of climate change can help maintain property values, aid tourism, protect commercial and visitor facilities, and contribute to the resiliency of the natural and built environments. The proposed authorization will help ensure that government and private efforts to address climate change effects on the baylands ecosystems in the nine county San Francisco Bay Area are aligned and coordinated to the greatest extent possible, thereby improving the resilience of the economy and environment of the region to climate change.

This authorization would be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31165, to address resource and recreational goals in the San Francisco Bay Area. Under Section 31162(b), the Conservancy may undertake projects and award grants to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional significance. The proposed authorization will assist the Conservancy and its project partners in meeting these goals by facilitating the identification of significant climate vulnerabilities and development of strategies to address them. Consistent with Section 31163(b), the Conservancy will be supporting public/private partnerships in the San Francisco Bay Area.

This project is appropriate for prioritization under the selection criteria set forth in Section 31163(c) in that: (1) it will inform the incorporation of climate change considerations into projects supported in adopted local and regional plans, (2) it is multijurisdictional, involving all nine Bay Area counties, (3) it can be implemented in a timely way because Conservancy staff and PRBO are ready to proceed with the work proposed, (4) it provides potential benefits (and avoids impacts) that need to be quickly implemented, and (5) it includes matching funds from the Gordon and Betty Moore Foundation as well as partnering agencies.

Finally, consistent with Section 31165, the Conservancy will be supporting activities that are compatible with the preservation, restoration and enhancement of ocean, coastal and bay resources in order to benefit the San Francisco Bay region.

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

Consistent with **Goal 7, Objective A** of the Conservancy's Strategic Plan, the proposed project will, in cooperation with public agencies, universities and non-governmental organizations, identify significant climate-related threats, management challenges and priority technical assistance needed to maintain resilient coastal communities and natural resources, thereby enhancing the resiliency of coastal communities and ecosystems to the impacts of climate change.

Consistent with **Goal 10, Objective A** of the Conservancy's Strategic Plan, the proposed project will help identify and prioritize long-term resource and recreational goals for the San Francisco Bay Area, including projects that protect and enhance natural habitats and other open-space land of regional significance, through the incorporation of climate change considerations into natural resource conservation goals and restoration priorities.

**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 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.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** This project is supported by the Update Steering Committee and the membership of the BAECCC, both consortiums of public land conservation agencies and non-profit organizations (Exhibit 3).
4. **Location:** The proposed project area is the baylands of the nine-county San Francisco Bay Area.
5. **Need:** Resource professionals from around the San Francisco Bay Area are donating extensive hours to complete this project, but Conservancy funding, staff direction and contracting expertise is needed to lead the effort in a timely and efficient way.
6. **Greater-than-local interest:** In creating the San Francisco Bay Area Conservancy Program, the legislature designated the San Francisco Bay Area as an area of statewide concern. The assessment and adaptation techniques being developed in the project are intended to become models statewide and nationally in the growing field of climate change adaptation.
7. **Sea level rise vulnerability:** The project is designed to specifically assess the vulnerability of bayland ecosystems to sea-level rise, and incorporate those concerns into planning for future acquisition, restoration, and management.

Additional Criteria

8. **Urgency:** Climate change is already affecting the bay resources of the nine-county Bay Area, and effective management solutions and adaptation strategies are needed as soon as possible. This proposed project will help guide future land protection and restoration efforts.
9. **Resolution of more than one issue:** The project is specifically designed to assess multiple and simultaneous climate challenges to bay ecosystems and provide comprehensive adaptation strategies. The collaborative development undertaken in this project will provide capacity for addressing other climate-related concerns in the region, such as issues of habitat connectivity, water supply and quality, and terrestrial-marine linkages.
10. **Leverage:** See the "Project Financing" section above.
12. **Innovation:** BAECCC and the Update project represent unique and evolving strategies in collaborative multi-jurisdictional response to climate change.
13. **Readiness:** Conservancy staff is prepared to move forward immediately.

14. **Realization of prior Conservancy goals:** See “Project History” above.
16. **Cooperation:** The Update represents a remarkable collaboration among state, federal and local organizations on how to confront the challenges of climate change through innovative, regional efforts.
17. **Vulnerability from climate change impacts other than sea level rise:** The project will assess multiple climate impacts beyond sea level rise, including changes in hydrology, sediment supply, and habitat viability.

COMPLIANCE WITH CEQA: As a planning activity for possible future actions that have not been approved, adopted, or funded, this project is exempt from California Environmental Quality Act (CEQA) review under 14 California Code of Regulations Section 15262. Similarly, the project is exempt from CEQA review under Section 15306, which exempts basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.

Upon Conservancy approval of the proposed project, staff will file a Notice of Exemption.