

COASTAL CONSERVANCY

Staff Recommendation  
June 20, 2013

**CALIFORNIA WETLAND CARBON SEQUESTRATION  
PROTOCOL DEVELOPMENT**

Project No.13-024-01  
Project Manager: Mary Small

**RECOMMENDED ACTION:** Authorization to disburse up to fifty thousand dollars to Winrock International to develop a wetland carbon sequestration protocol for coastal and delta wetlands in California.

**LOCATION:** Statewide

**PROGRAM CATEGORY:** Climate Change

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**EXHIBITS**

Exhibit 1: [Project Letters](#)

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31113 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed fifty thousand dollars (\$50,000) to Winrock International to prepare a wetland carbon sequestration protocol that includes both coastal and delta wetlands in California. Prior to disbursement of any funds, Winrock International shall submit for the review and approval of the Executive Officer of the Conservancy a work plan, schedule, budget, and the names of any contractors to be employed.”

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 Section 31113, regarding climate change.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. Winrock International is a nonprofit organization existing under section 501(c)(3) of the Internal Revenue Service, and whose purposes are consistent with Division 21 of the Public Resources Code.”

**PROJECT SUMMARY:**

This project would provide funding to develop a wetland carbon sequestration protocol specific to coastal and delta wetlands in California. The goal of this project is to develop a formal mechanism for quantifying the amount of carbon sequestered by wetlands. This information will be valuable for demonstrating the value of wetlands in achieving greenhouse gas (GHG) emission reductions. The proposed protocol will include an accounting methodology for wetlands, including carbon sequestration and avoided emissions, allowing wetland restoration projects to become eligible for carbon funding through the voluntary carbon market. Ultimately, the protocol could be used by the California Air Resources Board (ARB) to adopt a compliance offset protocol which could allow wetland restoration projects to be funded through the compliance market as well.

The goal of this project is to complete technical work needed to connect wetland restoration efforts in California to the state's emerging carbon market, creating a funding mechanism for implementation and management of coastal and delta wetland restoration projects. The Coastal Conservancy has long supported restoration of coastal and delta wetlands because these projects provide critical habitat, flood protection and improved water quality. Faced with a changing climate and rising sea levels, these projects are especially important because they can improve flood protection while providing valuable habitat. During the last five years, Conservancy helped restore more than 10,000 acres of wetlands and is currently planning for the restoration of more than 40,000 additional acres. As funds becomes increasingly scarce, carbon funding could play an important role in the implementation and management of these projects.

According to recent studies by San Francisco State University and USGS, California's coastal and delta wetlands store a significant amount of carbon both in the biomass of the wetland plants and in the soil as buried dead plant material. Both coastal and delta wetlands sequester carbon to varying degrees, but there is variability and complexity that must be considered for different types of wetlands. The protocol will allow for quantification of a project's net increase in carbon sequestration in aboveground biomass, belowground biomass, and soil organic carbon. The protocol will also quantify any GHG emissions from a project (could include CO<sub>2</sub>, methane or nitrous oxide) because these emissions have to be deducted to calculate a project's net benefit. The proposed protocol will have a modular format providing flexibility for different types of wetland projects that have varying rates of carbon sequestration, different baselines and varying GHG emissions.

Winrock International (Winrock) has already developed a methodology for quantifying GHG emission reductions from restoration of degraded Mississippi Delta wetlands. This project will build off of that work to develop methodologies specific to California's coastal and delta wetlands. Winrock will guide the development of the required methodology modules, contributing to and coordinating review of the modules as they are developed. Specific activities will include, but are not limited to:

- Identifying direct and indirect (secondary) GHG emissions, removals and sinks
- Identifying and quantifying baseline scenarios, including data requirements and data availability for these scenarios
- Identifying legal requirements with respect to project activities and baseline scenarios

- Identifying appropriate models for including in the quantification methodology and data requirements
- Identifying monitoring requirements
- Reviewing calculation procedures, including uncertainty assessment
- Identifying mechanisms to account for leakage

The final protocol will include modules for California coastal and delta wetlands, and will be submitted to the American Carbon Registry (ACR) and taken through ACR's internal review and rigorous peer review process before being published.

Winrock will coordinate a working group comprising scientists and stakeholders (including but not limited to government agencies, landowners, academics, and nonprofit organizations) to guide methodology development. Winrock will coordinate focus group meetings to get input from additional stakeholders and will conduct outreach to both potential buyers of wetland credits (regulated entities) and potential suppliers of credits (landowners and public agencies). Throughout this project, Winrock will communicate frequently with the ARB about the details of the methodology as it is being developed. The ultimate goal is to develop a methodology that could be adopted by the ARB under California's cap-and-trade program. Under governing law, offset credits (needed for regulatory compliance) can only be quantified using an ARB-approved compliance offset protocols. To date, ARB has adopted four compliance offset protocols related to: forests, urban forests, livestock projects and ozone depleting substances. Several other protocols, also initially developed by third parties, are currently under consideration by the ARB.

Winrock International is a nonprofit organization with a broad mission of working in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources. The nonprofit American Carbon Registry (ACR) is an enterprise of Winrock International. ACR is uniquely qualified to implement this project as an internationally recognized carbon offset program with over fifteen years of experience in development of rigorous, science-based carbon offset standards and methodologies. ACR also has extensive experience in the voluntary carbon market and was recently approved as an Offset Project Registry (OPR) for California's cap-and-trade program. This allows ACR to work with the ARB to oversee the registration and issuance of compliance-eligible Registry Offset Credits.

### **Site Description:**

The proposed project would benefit coastal wetlands as well as the tidal and delta wetlands of the San Francisco Bay region.

This project is being implemented together with other state agencies, including the Delta Conservancy and Department of Water Resources. Together these three agencies are promoting the development of a California specific wetland carbon sequestration protocol out of recognition of the importance of this project to future wetland restoration efforts in the state.

### **Project History:**

In 2006, in Assembly Bill 32, the Global Warming Solutions Act, the legislature tasked the California Air Resources Board (ARB) with developing mechanisms to help reduce California's

greenhouse gas (GHG) emissions to 1990 levels by 2020. Included in ARB’s scoping plan is a cap-and-trade program, which includes the potential for capped industries to offset part of the emission reduction obligation by paying uncapped entities to reduce their emissions.

The Coastal Conservancy has been involved in and has supported the development of a wetland carbon sequestration protocol for the past four years. Beginning in 2009, Conservancy staff supported the *California Wetland Carbon Sequestration Initiative* which sought to identify data gaps and support the ultimate development of a tidal wetland carbon offset protocol. In addition, Conservancy staff also participated in the National Center for Ecological Analysis and Synthesis scientific working group on *Tidal Wetland Carbon Sequestration and Greenhouse Gas Emissions Model*.

During the last five years, Conservancy helped restore more than 10,000 acres of wetlands and is currently planning for the restoration of more than 40,000 additional acres. As funds becomes increasingly scarce, carbon funding could play an important role in the implementation and management of these projects.

**PROJECT FINANCING**

<b>Coastal Conservancy</b>	<b>\$50,000</b>
Department of Water Resources	\$50,000
Metropolitan Water District, tentative	\$50,000
Sacramento Municipal Utility District, tentative	<u>\$50,000</u>
<b>Project Total</b>	<b>\$200,000</b>

Funding from MWD and SMUD has not been formally committed yet; however, both entities have expressed interest in supporting this project.

The anticipated source of Conservancy funds for this grant is the fiscal year 2010-11 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 Resources Code § 75001 et seq.). Under Public Resources Code Section 75060, Proposition 84 funds can be used for protection, restoration, and enjoyment of beaches, bays and coastal waters and watersheds. Public Resources Code Section 75060(b) allocates funds to the Conservancy for purposes of its enabling legislation, Division 21 of the Public Resources Code. Section 75074 expresses the “intent of the people” that funding for a program or project may be used to the full extent authorized by the implementing agency’s enabling legislation. As discussed below, the proposed authorization is consistent with Public Resources Code Section 31113, a provision of Division 21 pertaining to climate change.

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

The proposed project is undertaken pursuant to Public Resources Code Section 31113. Under this provision, the Conservancy may undertake projects to reduce greenhouse gas emissions and may award grants to nonprofit organizations that reduce the emissions of GHG and enhance

coastal wetlands. Consistent with this section, the proposed authorization will support efforts to formally quantify GHG reductions from wetland restoration. The purpose of this protocol is to develop incentives to encourage additional wetland restoration and associated GHG emission reductions. In adopting Section 31113, the legislature declared the importance of wetlands and other coastal resources to the state's ecology, tourism, the economy, and property values; and the value of the Conservancy's role in addressing climate change with respect to these resources.

**CONSISTENCY WITH CONSERVANCY'S 2013  
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 7, Objective F** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will improve our understanding of carbon sequestration associated with wetland restoration in California. Consistent with **Goal 14**, the proposed project seeks to develop a sustainable funding source for Conservancy wetland projects.

**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:** The project is supported by the Delta Conservancy, the San Francisco Bay National Wildlife Refuge, the Santa Monica Bay Restoration Commission and others. Letters of support are provided in Exhibit 1.
4. **Location:** The proposed project would benefit coastal wetlands as well as the coastal and delta wetlands of the San Francisco Bay region.
5. **Need:** Winrock does not have the funding to develop a California wetland carbon protocol at this time. The Conservancy funds are needed to complete this work.
6. **Greater-than-local interest:** This project is of statewide significance as it will benefit coastal wetlands, the San Francisco Bay wetlands and the wetlands of the Sacramento and San Joaquin Delta.
7. **Sea level rise vulnerability:** Not applicable.

**Additional Criteria**

8. **Urgency:** California has begun implementing its carbon cap-and-trade program, with the initial auctions of carbon credits. Simultaneously, data collection and research into the carbon

sequestration benefits of wetlands has advanced so that there is now adequate information to develop a wetland protocol for California. Because wetland projects will not be eligible for funding from either the voluntary or regulatory carbon markets until a protocol is developed, it is important to begin this work as soon as possible.

9. **Resolution of more than one issue:** The proposed project will promote GHG emission and reduction wetland restoration by creating a financial mechanism to fund wetland restoration projects that result in reduced GHG emissions.
10. **Leverage:** See the “Project Financing” section above.
11. **Innovation:** California is recognized as an international leader for its market approach to GHG emission reductions. This project will link wetland restoration efforts in California with the carbon market, creating a funding mechanism for implementation and management of coastal and delta wetland restoration projects.
12. **Readiness:** Winrock is prepared to initiate this project immediately and expects to complete the protocol development in 18 months.
13. **Realization of prior Conservancy goals:** “See “Project History” above.”
14. **Return to Conservancy:** The proposed project seeks to improve quantification of carbon sequestration from wetland restoration projects. Developing a quantification methodology is critical in order to obtain project funding for wetland restoration from sources focused on GHG reduction.
15. **Cooperation:** This project involves cooperation of state agencies, local utilities, scientists, and nongovernmental organizations.

#### **COMPLIANCE WITH CEQA:**

The proposed project is categorically exempt from the California Environmental Quality Act (CEQA), pursuant to 14 California Code of Regulations Section 15306 in that it consists of basic data collection and resource evaluation activities which will not result in a serious or major disturbance to an environmental resource. Upon approval, staff will file a Notice of Exemption for this project.