



SACRAMENTO - SAN JOAQUIN  
**DELTA CONSERVANCY**  
A California State Agency



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## Milestone Partnership Announced for Development of Carbon Offset Methodology for California Wetland Restoration

**SACRAMENTO, Calif., Dec. 12, 2013** – Today a high-profile group of partners - the Sacramento-San Joaquin Delta Conservancy, the California Coastal Conservancy, the California Department of Water Resources (DWR), the American Carbon Registry (ACR), The Nature Conservancy, HydroFocus and Tierra Resources – announce the kick-off meetings for development of a new carbon offset methodology to scientifically quantify greenhouse gas (GHG) emissions reductions from the restoration of California deltaic and coastal wetlands. Funding for methodology development was provided by the Sacramento Municipal Utility District (SMUD) the California Coastal Conservancy, Metropolitan Water District and DWR.

Opportunities are abundant to enhance current land-use practices by restoring wetlands in the Sacramento-San Joaquin Delta, Suisun Marsh, and California coastal areas. Restoration activities that rebuild subsided lands are critical to long-term sustainability of these ecosystems as well as a significant source of GHG emissions reductions.

In the San Francisco Bay Area, more than 80 percent of historic tidal wetlands disappeared in the last 150 years. Over 2.5 billion cubic meters of organic soils have disappeared since delta islands were first diked and drained for agriculture in the late 1800s, resulting in land subsidence up to 25 feet below sea level. Drained and cultivated organic soils continue to oxidize, subside and emit an estimated 1.5 to 2 million metric tons of CO<sub>2</sub>-equivalent annually - equal to annual emissions from approximately 310,000 passenger vehicles.

*“Demonstrating that the critical restoration work we need to accomplish throughout the state is also part of the solution to climate change will be crucial to meeting the state’s coastal management goals in the years to come,”* said Sam Schuchat, Executive Officer of the State Coastal Conservancy.

Providing options for landowners to convert their most subsided and marginal lands from current farming practices to either wetlands managed for carbon enhancements or to production of wetland crops such as rice could substantially reduce these annual emissions while reducing risks such as levy failure.

*“Having an approved methodology will allow for trading carbon credits, giving Delta growers opportunities to put low-productivity wet areas back into economic production, while simultaneously starting to reverse the subsidence that threatens their long-term viability,”* said Campbell Ingram, Executive Officer of the Sacramento-San Joaquin Delta Conservancy.

Over the past decade, state and federal initiatives have raised over \$100 million for wetland restoration, resulting in tens of thousands of acres of active restoration projects, however, the funding remains insufficient to meet established restoration goals of up to 100,000 acres of marsh. Carbon market revenues could help fill the funding gap for wetland restoration and provide landowners with new incentives. Once approved, the methodology will facilitate the generation of carbon offsets from California wetland restoration projects that reduce GHG emissions. Carbon offsets can be sold to corporations to meet their voluntary emissions-reduction goals. Additional sources of offsets are also being considered by California regulators for eligibility in the state’s Cap-and-Trade Program, under which power plants and oil refineries are mandated to reduce or offset their emissions.

Obadiah Bartholomy, SMUD Project Manager for Energy Efficiency, R&D and Climate Change said, *“We see this as an excellent opportunity all around for the region, helping reduce greenhouse gas emissions, delivering economic and environmental co-benefits, and building resilience to climate change driven sea level rise in the Sacramento-San Joaquin Delta.”*

Building on ACR’s approved methodology for quantifying GHG emissions reductions from Restoration of Degraded Deltaic Wetlands of the Mississippi Delta, authored by Tierra Resources, the partnership will integrate California data and restoration techniques to create a rigorous scientific framework for carbon offset project development. Research in freshwater emergent wetlands on delta organic soils shows that carbon capture wetlands are the most carbon-rich landscape per acre. The U.S. Geological Survey (USGS), DWR, HydroFocus and the University of California at Berkeley have been studying subsidence, GHG emissions, rice and managed wetlands in the delta since the 1980s and have documented very high rates of primary productivity and carbon sequestration in wetlands.

*“Development of this greenhouse gas quantification protocol is an important milestone to advance the critical role that wetlands and natural resource restoration should play in climate solutions, while providing new economic incentives to landowners,”* said Michelle Passaro, Senior Policy Representative for Climate Change at The Nature Conservancy.

The ACR approval process for the methodology, which includes stakeholder workshops, a public comment period and a scientific peer review process, is expected to be completed in December 2014. The first stakeholder workshop was held yesterday in Oakland and another will be held today in West Sacramento. For more information, contact Kyle Hemes at [khemes@winrock.org](mailto:khemes@winrock.org).

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## **About the Partners**

**The American Carbon Registry (ACR)**, a nonprofit enterprise of Winrock International, is a leading carbon offset program recognized for its strong standards for environmental integrity. Founded in 1996 as the first private greenhouse gas registry in the world, ACR has over 18 years of unparalleled experience in the voluntary carbon market. In addition, ACR is an approved Offset Project Registry (OPR) for the California Cap-and-Trade Program. In this role,

ACR works with the state regulatory agency to oversee the registration and issuance of Offset Credits, which can be converted to compliance credits and used by California entities to help meet their emissions reductions obligations. Visit [www.americancarbonregistry.org](http://www.americancarbonregistry.org).

**The California Coastal Conservancy** acts with others to preserve, protect, and restore the resources of the California coast, ocean, and the San Francisco Bay Area. Our vision is of a beautiful, restored, and accessible coastline, ocean and San Francisco Bay Area. Visit [www.scc.ca.gov](http://www.scc.ca.gov)

**The California Department of Water Resources** is responsible for managing and protecting California's water. DWR works with other agencies to benefit the state's people, and to protect, restore and enhance the natural and human environments.

**HydroFocus** Principal Steve Deverel has worked on subsidence and carbon issues in the delta since the 1980s. HydroFocus will play a lead role in developing the scientific underpinnings for methodology development and play a major role in writing and adapting the Mississippi Delta protocol to California conditions. HydroFocus will develop and provide guidance and data requirements for use of models for estimation and baseline carbon emissions and project GHG benefits.

**The Sacramento-SanJoaquin Delta Conservancy's** primary purpose is to help implement projects that will result in integrated environmental, economic and social benefits. To reach that goal, the Conservancy works in collaboration with local communities, interested groups and state and federal agencies to seek creative opportunities to address challenges and reach agreement for moving these efforts forward. The Delta Conservancy in coordination with ACR will help interface with stakeholders and ARB.

**The Sacramento Municipal Utility District (SMUD)** is the nation's sixth largest community-owned electric service provider and has been providing low-cost, reliable electricity for more than 67 years to Sacramento County as well as a small portion of Placer County. SMUD is a recognized industry leader and award winner for its innovative energy efficiency programs, renewable power technologies, and for its sustainable solutions for a healthier environment. SMUD is the first large California utility to receive more than 20 percent of its energy from renewable resources. For more information visit <http://smud.org>.

**The Nature Conservancy** is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. The Conservancy and its more than one million members have protected nearly 120 million acres worldwide. Visit The Nature Conservancy on the Web at [www.nature.org](http://www.nature.org).

**Tierra Resources**, was founded in New Orleans in 2007 with a mission to conserve, protect, and restore coastal wetland ecosystems by creating innovative solutions that support investment into blue carbon contained in coastal wetland ecosystems, such as estuaries, mangroves, and salt marshes. Tierra Resources' services enable landowners, corporations, nonprofits, and government clients to understand the regulatory, financial, and scientific landscape to preserve and restore wetlands and monetize wetland offsets. Tierra Resources President and CEO Dr. Sarah Mack was the lead author of the original Mississippi Delta methodology. Dr. Mack will serve as advisor and reviewer for the development of the California modules. Visit [www.tierraresourcesllc.com](http://www.tierraresourcesllc.com).