WETLANDS CONSERVATION | At A Glance

Wetlands are our first line of defense against hurricanes and their protection and restoration are vital to both the economic and environmental sustainability of the Gulf Coast.

Restoring the Mississippi River Delta is a pressing national priority. The Delta's wetlands and waterways contribute tens of billions of dollars to the national economy every year and support millions of jobs. Much of the U.S. depends on sustaining the navigation, flood control, energy production, and seafood production functions of the Mississippi Delta and river system. Each of those functions is currently at severe risk due to coastal wetland loss that happens at a rate of one football field every hour.

In addition to their well-known ability to buffer against storms, wetlands also remove harmful greenhouse gases from the air. Wetland plants capture atmospheric CO_2 through photosynthesis. As the plants die and decay, their root mats and other material build up in the soil, permanently storing carbon due to compaction over time. Rising sea levels and erosion place these vast reservoirs of stored carbon at risk, with real environmental and economic consequences.

To help fund critical wetland restoration projects, Tierra Resources developed a first-of-its-kind methodology tailored for carbon markets. The methodology allows wetland restoration projects to receive carbon credits that can be sold in the global carbon market, allowing more restoration to occur at a faster pace than traditional government programs. Tierra Resources is committed to putting the carbon market to work for wetlands by using and rewarding the best available science and restoration practices.

BACKGROUND ON CARBON MARKETS

Emissions trading, also known as cap-and-trade, is a market-based approach that provides economic incentives for reducing pollution. For example, from 1990 through 2007, the U.S. successfully used cap-and-trade to reduce the emissions from power plants that were causing acid rain. The program was so successful that acid rain is no longer such a large environmental problem.

Similar to the U.S. Acid Rain Program, which put a price on the emissions of sulfur dioxide and nitrogen oxides, carbon markets are designed to work by assigning a price to greenhouse gas emissions. Under a cap-and-trade system, regulators establish a 'cap' on the total amount of emissions that will be allowed, and carbon emitters must acquire permits covering each ton of greenhouse gases they produce. The exchange of permits on an open market allows emitters to choose whether it is more cost-effective to purchase these permits at market prices or reduce their own emissions internally by retrofitting their facility. In addition, most carbon markets also allow individual projects that reduce greenhouse gas emissions to generate carbon credits that are interchangeable with permits and can be sold into the same marketplace.

California is beginning a cap-and-trade program in 2013 that includes the opportunity for projects that generate and sell carbon credits to enter into the market. A smaller program has also existed since 2003 among 10 northeastern states known as the *Regional Greenhouse Gas Initiative*. In addition to these regulatory markets, several independent carbon standards have developed that allow voluntary buyers who are not regulated to purchase carbon credits to offset their emissions.

In 2011, many types of projects across the U.S. created and sold roughly 30 million carbon credits, worth $180 million to voluntary buyers. In addition, the regulatory market in California – starting in 2013 – is on course to demand 12-13 million more credits per year through 2014 (and about 30 million per year from 2015 onward). These growing marketplaces offer a valuable source of new funding for critical wetland restoration projects.

TIERRA RESOURCES

ABOUT TIERRA RESOURCES

Based in New Orleans, Louisiana, Tierra Resources was founded in 2007 with a mission to conserve, protect, and restore coastal wetland ecosystems by creating innovative solutions that support investment into wetland restoration activities. Tierra Resources provides scientific, financial, regulatory, project development, and advisory services for landowners, corporations, nonprofits, and government entities. We provide technical analysis on carbon impacts of wetland restoration, sustainable infrastructure, climate change adaptation, and opportunities for climate mitigation.

See www.tierraresourcesllc.com for more details, or info@tierraresourcesllc.com.

The ClimateTrust®

WETLANDS CONSERVATION | Getting Involved

HOW DO WETLAND CARBON PROJECTS WORK?

By partnering with local landowners, Tierra Resources is now planning and implementing projects to restore degraded wetlands. The Climate Trust, a non-profit organization that has funded and contracted more than 3 million carbon credits since 2001, is working together with Tierra Resources to design, implement, and market these carbon projects.

To ensure that carbon projects produce real environmental benefits, several independent standards have evolved to certify projects and the credits that they produce. Tierra Resources developed a methodology under the American Carbon Registry for restoring degraded wetlands in the Mississippi Delta. This first-of-its-kind system opens a new way to fund restoration of the Gulf of Mexico's disappearing wetlands – essentially providing a means to generate carbon credits for Mississippi Delta wetland restoration that can be sold in the global carbon market. The methodology provides a certified framework for how to develop a wetland carbon project, monitor its impacts, and quantify its carbon benefits.

Basic Eligibility | Approximately 4 million acres of fresh-to-saline wetlands in the Mississippi River Delta are eligible for restoration under the new wetland carbon credit methodology. Most of these acres are in Louisiana, but wetlands in the Mississippi River Delta that extend into Mississippi and Texas also qualify. Projects must apply active management to restore wetlands in order to be eligible. Wetland restoration projects already underway may also be eligible for carbon crediting, but all projects must be voluntary — that is, the restoration work cannot be required by existing laws or regulations. All projects will measure carbon benefits based on the methodology and must undergo third-party verification in order to receive credits.

Landowner Guidelines | Landowners commit to a specific restoration activity for a period of 40 years. During this time period, a landowner must agree not to participate in activities that will damage the restored wetlands. Activities that involve the use of natural resources within the project boundary that do not lead to degradation are permitted, such as hunting, fishing, and the harvesting of alligators and their eggs. Landowners retain all mineral rights. Controlled burning is allowed, however, timber harvesting for wood products is not.

To learn if your property meets the eligibility criteria or find out how to participate in a project, contact us at info@tierraresourcesllc.com.

Project Development Process

- Landowners can schedule a one-on-one meeting with Tierra Resources to determine pre-eligibility
  - a) If the property meets eligibility criteria, landowners interested in considering a wetland carbon project can partner with Tierra Resources to identify priority restoration practices and evaluate the project's financial feasibility
  - b) If feasible, the landowner commits to a 40 year project term to begin the carbon project
- Tierra Resources manages the implementation of wetland restoration practices leading to the removal of CO_2 from the atmosphere and other environmental benefits
- Wetland carbon sequestration will be monitored over time and periodically verified by a third party certifier, which includes several site visits for measurements
- Following each successful verification, carbon credits are issued to the project and can be sold in the marketplace
- Revenue from carbon sales covers costs of project development and is shared between Tierra Resources and landowner

Landowner Benefits

- Professional input on the potential to restore your wetland property
- Wetland restoration of your land at little or no cost to you
- Revenue from the sale of wetland carbon credits
- Additional environmental and potential economic benefits from wetland restoration such as improved wildlife habitat and property value
- A better understanding of environmental crediting policies for wetlands and steps for developing a commercial carbon project
- Improving your wetland property increases the sustainability of the region at large

ABOUT THE CLIMATE TRUST

The Climate Trust (TCT) is a 501(c)(3) nonprofit organization with over 15 years of carbon financing experience. Our mission is to provide expertise, financing, and inspiration to accelerate innovative climate solutions that endure. In order to arrest the rise in greenhouse gas emissions and to avoid the most dangerous impacts of climate change, TCT works to accelerate project implementation, develop financing solutions, and establish a supportive policy environment in the renewable energy, agriculture, forestry, energy efficiency and transportation sectors.

The ClimateTrust®