

New Opportunities for Conservation Districts

Markets, Trading and Credits

As humans rely on natural ecosystems for multiple benefits that are both tangible and intangible. Natural ecosystems provide an abundance of food, fuel and fiber. Natural ecosystems also provide many benefits known as ecosystems services, including clean water, clean air, wildlife habitat, recreational value and aesthetic beauty. In the past, these services have been readily available and therefore had not been assigned a value. As our activities on the land have an increasing impact on ecosystems, and as demand increases for the services that ecosystems provide, value systems such as market-based conservation are beginning to emerge.

Market-based conservation quantifies economic values for natural resource conservation and utilizes an economic driver for implementation of conservation practices. Many of these emerging markets involve conservation practices that conservation districts have been helping landowners implement for years—practices that provide clean water, clean air and wildlife habitat. These practices include providing technical assistance, best-management practices and monitoring of implemented practices. The work of conservation districts will continue to be vital as markets for ecosystems services organize and provide benefits to landowners.

Markets for Wetlands – Wetlands Mitigation Banking

Wetlands are valuable natural systems that provide numerous ecosystems services, including clean water, floodwater mitigation, carbon sequestration and wildlife habitat. They also have aesthetic value and provide opportunities for recreation and wildlife viewing.

The U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) maintain primary jurisdiction of

wetlands through the Clean Water Act. The agencies maintain a “no net loss” policy regarding wetlands activities. As a result, any activity that results in loss of wetlands requires a permit and also requires compensation through wetland mitigation. Mitigation can be done by the permittee, or through a third party.

One method of mitigating loss of wetlands is through wetlands mitigation banking. Under wetlands mitigation banking, a permittee needing to compensate for loss of wetlands due to development activities can purchase credits that provide funding to a third party to compensate for the loss of wetlands in another location. Mitigation activities can involve restoration, establishment or preservation of wetlands.

In 2008, EPA and the Corps announced a new wetlands compensatory mitigation rule that creates new standards to improve wetland restoration and protection. The new standards clarify the mitigation sequence of “avoid, minimize and compensate.” The rule emphasizes site selection; watershed needs assessments; ecological performance standards and monitoring; and aquatic ecosystem science in compensation measures.

District Spotlight



Collier Soil and Water Conservation District, Florida

Collier Soil and Water Conservation District (SWCD) in Naples, Fla. has been working in agreement with the Florida Department of Environmental Protection and the Florida Department of Agriculture Division of Forestry to engage landowners in establishing Regional Offset Mitigation Areas. The District works with landowners to provide assessment services and easement purchases for wetlands and wildlife habitat, including habitat for the endangered Florida Panther, to offset the impact of residential construction in the local area. More information on Collier SWCD’s efforts is available on their website at www.collierswcd.org.

Collier SWCD in Naples, Fla. works with area landowners to provide assessment services and easement purchases for wetlands and wildlife habitat mitigation, including habitat for the endangered Florida Panther.

Markets for Wildlife Habitat – Conservation Banking

Healthy ecosystems provide habitat for wildlife. Species of flora and fauna depend upon and contribute to the functions of an ecosystem. Loss of ecosystems and species habitat has resulted in many species being listed as endangered or at risk of extinction. Emphasis is placed on protecting or restoring habitat for these species through the Endangered Species Act. A solution that is gaining momentum involves working with landowners to provide wildlife habitat through conservation banking.

The U.S. Fish and Wildlife Service (FWS) issued the first federal guidelines for conservation banks in May 2003. The FWS guidelines standardized establishment and operational criteria for mitigation of wildlife habitat. Under these criteria, FWS utilizes conservation banks as a system of tradable credits based on desired species habitat, especially for at-risk and endangered species.

Similar to wetlands mitigation banking, conservation banking works when developers or others are required to compensate for activities that adversely impact wildlife habitat. Lands used for ranching, farming and timber can offset adverse impacts by selling habitat or species credits to those who need to compensate for impacts in return for an easement establishing specific wildlife

management goals. Credits can be based on different sizes of land depending on the habitat needs of the species in consideration, but large tracts of land work best because of their ability to provide a functioning ecosystem and greater biodiversity.

Conservation banking can create a win-win-win situation where developers are able to offset the impact of their activities with regulatory certainty, landowners gain income for managing land for the impacted wildlife, and wildlife benefit from protected open space and habitat.

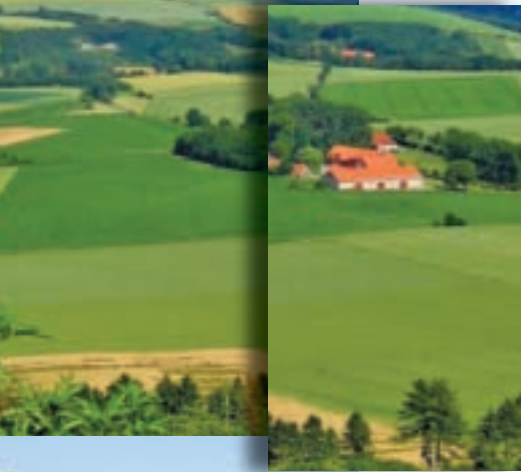
Markets for Clean Water – Water Quality Credit Trading

Clean water is a critical resource for most everything we do. It is utilized as a resource for

District Spotlight

Kalamazoo River Trading Project

The Allegan Conservation District in Allegan, Mich. has created a partnership with the Gun Lake Tribe of Pottawatomi Indians to cost share with landowners to install agricultural best management practices in the Kalamazoo River Watershed. Through the trading project, producers can offset the cost of implementing practices that reduce soil and phosphorous. More information is available on the District's website at www.allegandc.org/programs/kalamazoo-watershed.



drinking and irrigation of crops; it is essential for wildlife species; and it provides countless recreational opportunities. Pollution from a variety of sources finds its way into waterways and can impair water quality, which in turn can impact wildlife and downstream water users. Because pollution can enter waterways from many sources, a variety of strategies to maintain or improve water quality are required.


Regulated point sources of pollution such as factories or wastewater treatment facilities often require expensive technology to control pollution. Non-point sources of pollution such as agriculture operations and urban stormwater utilize less costly best management practices that promote or enhance natural systems to prevent pollutants from entering waterways and to keep water clean. Water quality credit trading is an emerging market mechanism that leverages value from these different types of pollution management.

Water quality credit trading is a voluntary system for the creation and exchange of pollution reduction credits to improve an impaired stream or to maintain water quality. Under a water quality trading system, impaired streams or watersheds are identified and targets are set for the amount of allowable pollution or a Total Maximum Daily Load (TMDL). Landowners can generate credits by implementing best management practices (BMPs) to reduce nonpoint source pollution in the impaired stream. Regulated point source entities needing to reduce pollution levels for such pollutants as phosphorus, nitrogen or sediment can purchase the credits generated by the landowner as an alternative to costly technology upgrades to their facility.

Water quality credit trading offers an innovative strategy with great potential to improve water quality and natural systems in both urban and rural settings.

Markets for Clean Air – Carbon Credit Trading

Clean air is the product of natural cycles within the environment. Carbon dioxide is removed from the air and stored by plant materials, and in return oxygen is released. Ecosystems such as forests, wetlands and oceans are known as carbon sinks because of their large capacity for



Point sources of water pollution can trade credits with other point or non-point sources to meet water quality standards.



District Spotlight

District Spotlight: Idaho OnePlan

The Idaho Association of Conservation Districts, working in partnership with the Idaho Conservation Commission and a variety of other state and federal agencies, has developed a web-based service called Idaho OnePlan. The website provides data and software to help producers create conservation plans and to provide information on best management practices. Idaho OnePlan maintains extensive information for producers on preparing conservation and forestry management planning for participation in carbon credit markets. More information is available online at www.oneplan.org.



Forest management practices can promote carbon sequestration and storage, generating tradable carbon credits.



Many conservation practices promote healthy soils, which can store large amounts of carbon, in turn improving air quality.



removing and storing carbon dioxide from the atmosphere. Many conservation practices also promote healthy soils, which can store large amounts of carbon as well.

Greenhouse gas emissions markets are in early stages of development, but momentum is growing. Already, conservation practices are providing markets for carbon sequestration. The Chicago Climate Exchange was established in 2002 and provides a legally binding system for the sale or purchase of carbon credits. Climate change legislation appears to be on the horizon, with potential for even more opportunities for agriculture and forestry to derive economic benefits from conservation practices that promote ecosystems services and carbon sequestration.

Producers utilizing conservation practices that sequester carbon such as no-till farming or sustainable forestry can receive carbon credit payments. Under a cap and trade system that is being considered in proposed climate change legislation, polluting entities that are regulated in the amount of carbon they can emit can pay for credits generated by producers or landowners who utilize carbon sequestering practices. This market mechanism removes carbon from the atmosphere by offsetting the release of carbon.

Conservation districts are well positioned to facilitate carbon credit trading under a cap and trade system. Carbon credit trading will require working with and educating landowners on conservation practices that store carbon through soil quality or forest health. Another key aspect of carbon trading will involve verification and aggregation of carbon credits, ensuring that quantities of carbon are sequestered through these various practices and compiling eligible acres into tradable units. Conservation districts in many states including Idaho, Illinois, Michigan, North Dakota and Oklahoma are currently working in these areas. Keep tabs on these issues and many more on NACD's website at www.nacdnet.org.

New Resource from NACD – White Paper on Market-Based Conservation Initiatives

NACD recently developed a white paper under a cooperative agreement with the Natural Resources Conservation Service (NRCS) outlining principles behind market-based conservation initiatives and related roles for conservation districts. The white paper offers insights on market-based opportunities for conservation districts, NRCS field staff and other interested conservation practitioners. For more information on market-based conservation and case-studies on the work of conservation districts, download the white paper from NACD's website at www.nacdnet.org/resources/reports/.

Carbon Credits Auctioned in the Northeast and Mid-Atlantic

Several Northeast and Mid-Atlantic states cooperatively participate in a carbon credit market through the Regional Greenhouse Gas Initiative (RGGI). The participating states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New Hampshire, New York, Rhode Island and Vermont. Each have regulations in place to cap and then reduce the amount of carbon dioxide that power plants in their region are allowed to emit. The RGGI currently has five categories of offsets, including carbon sequestration from afforestation and avoided methane emissions from manure management systems. The RGGI recently completed its third auction of carbon credits, with a fourth auction scheduled for June 2009.

This restored wetland was once a rice field. The area was restored to wetland under the Wetlands Reserve Program.

PHOTO COURTESY OF NRCS.



509 Capitol Court, NE
Washington, DC 20002
(202) 547-6223
www.nacdnet.org