Bi-weekly Wetland and Stream Corridor Restoration Update
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Welcome to the Bi-weekly Wetland and Stream Corridor Restoration Update. This web site

- Provides current information on wetland and river corridor restoration projects
- Recognizes outstanding restoration projects
- Offers a forum for information sharing

We welcome the submission of articles and announcements related to your restoration project. Just send your write-up to EPA's contractor at restorationupdate@tetratech-ffx.com or mail it to Rebecca Schmidt, Bi-weekly Restoration Update Coordinator, Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. We will carefully consider your submission for inclusion in a future update. If your submission is selected, please note that it might be edited for length or style before being posted. Because this web site is meant to be a public forum on restoration information, we cannot post any information that is copyrighted or information that advocates or lobbies for any political, business, or commercial purposes or has the appearance of doing so.

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Feature Article

Rivers Habitat Partnership Wins 2002 Pennsylvania Governor's Watershed Award

The Three Rivers Habitat Partnership (TRHP), a regional project of the Wildlife Habitat Council (WHC), was awarded the prestigious 2002 Governor's Award for Watershed Stewardship on April 16, 2002. Pennsylvania Governor Mark Schweiker and Pennsylvania Department of Environmental Protection Secretary Dave Hess recognized TRHP, one of only 24 organizations nominated from across Pennsylvania, for its commitment to watershed restoration and environmental protection.

TRHP works with corporations and employees to manage their properties for wildlife and watershed protection. Since the partnership's inception in 1997, 20 corporate sites, as well as six schools and other landowners in the Pittsburgh region, have voluntarily managed more than 2,500 acres with wildlife in mind. TRHP-sponsored activities such as native meadow plantings, brownfield restorations, riparian plantings, and reduced mowing agreements reduce nonpoint source pollution, sedimentation, and associated chemical use.

TRHP has reached more than 1,600 adults and children through workshops and presentations and nearly 5,000 more through web sites. In addition, eight of the corporate sites participating in the partnership have established outreach programs to local schools, reaching more than 1,000 students every year.

TRHP also works with schools to develop habitats that serve as outdoor classrooms, conducts Backyard Conservation workshops, and develops initiatives with diverse partners to achieve common conservation and education goals. The partnership implemented a schoolyard naturalization program with funding from the Pittsburgh Foundation and Pennsylvania Game Commission's Project Wild. Six schools created wildlife habitats on-site, including nest boxes, riparian plantings, pollinator gardens, wet meadow enhancements, and a sensory trail of woodland wildflowers.

The Backyard Buffers campaign, an important new project, will increase the general consciousness of riparian zone importance through corporate demonstration sites. Many homeowners unknowingly contribute to pollution and erosion problems by mowing their grass to the banks of streams. Riparian buffers can be grown instead of mowed lawns to improve water quality and wildlife habitat while creating a colorful, private landscape. In April TRHP helped Dominion employees plant the first buffer demonstration site at Dominion's Oakford Station in Delmont, Pennsylvania. The employees actively

participated by grading the stream, preparing the meadow, planting more than 250 shrubs, and building 20 bluebird boxes. The buffer includes a variety of native streamside shrubs and a wet meadow. The workshops at this and future demonstration sites will teach residents about the benefits of streamside buffer and encourage them create their own.

TRHP is inspiring and nurturing a strong corporate involvement in habitat restoration and conservation leadership. For more details, contact Marcia Maslonek, Pittsburgh Director, at mmaslonek@hotmail.com or by phone (412) 777-2464. Visit TRHP online at www.wildlifehc.org/threerivers.

If you'd like your project to appear as our next Featured Article, e-mail a short description to restorationupdate@tetratech-ffx.com.

Five-Star Restoration Projects Update

The goal of EPA's Five-Star Restoration Program is to bring together citizen groups, corporations, youth conservation corps, students, landowners, and government agencies to undertake projects that restore streambanks and wetlands. The program provides challenge grants, technical support, and peer information exchange to enable community-based restoration projects. A few Five-Star Restoration Program projects are being revisited to see if the modest amount of funding (between $5,000 and $20,000) has helped the local restoration partners achieve their goals.

Project Title: **Norton Creek Wildlife Area Riparian Restoration**
Five Star Grant: **$5,462**
Grant to: **McKinleyville Parks and Recreation**
Location: **McKinleyville, California**
Grant Year: **2000**

Original Project Description:
In Humbolt County a pilot project has been designed to integrate restored wildlife habitat into a suburban neighborhood setting while enhancing local school and community environmental education programs. McKinleyville Parks and Recreation, in partnership with the California Department of Fish and Game, McKinleyville High School, and others, will conduct on-the-ground restoration activities and create an outdoor classroom in the Norton Creek Wildlife Area, a 1.7-acre tract of emergent wetlands and riparian forest that provides critical habitat for coastal cutthroat trout and several species of neotropical migratory birds. The enhancement of the area will reinforce the attitudes of the residents of McKinleyville and surrounding communities concerning the significance of habitat restoration, community involvement, and the value of natural open space. The National Marine Fisheries Service's Community-based Restoration Program is providing the Five-Star portion of the funding for this project.

Project Update:
McKinleyville Parks and Recreation worked with the California Conservation Corps and other local volunteers to transform Norton Creek Wildlife Area from a neglected area to a frequently visited neighborhood space. Volunteers, working together with the project director hired by McKinleyville

Parks and Recreation, removed nonnative plants, thinned existing trees to promote new growth, planted native trees and vegetation, and cleaned up debris in the pond. California Conservation Corps volunteers helped build a footpath through the area and constructed a footbridge over the natural drainage area near the pond.

The McKinleyville Parks and Recreation Department sponsored outreach programs to educate the community about the benefits of natural areas and to encourage them to report illegal activities in the area, including dumping. The Department also oversaw the removal of rundown signage in the area and construction of new signage that encourages users to report illegal activities.

Residents are happy with the improvements. The area is considered an asset to the neighborhood, and residents are petitioning to expand it in response to new subdivision construction nearby. The Norton Creek Wildlife Area now provides needed open space to the community and opportunities for local children to explore and learn about natural areas.

Project Name: **Pelican Landing Coastal Wetland Restoration**
Five-Star Grant: **$15,00**
Grant to: **City of Moss Point**
Project Location: **Moss Point, Mississippi**
Grant Year: **2000**

Original Project Description:
The City of Moss Point will work with the Crosby Arboretum, Moss Point High School, The Nature Conservancy, and others to restore a coastal wetland along the shoreline at Pelican Landing, a new conference facility that will serve as the focal point of an award-winning waterfront revitalization campaign. Students from Moss Point High School's Tiger Tales program, which provides educational and vocational training, will be involved in restoring native wetland plants to the site, which had previously been used as a dumping ground for junked cars and other debris. Interpretive signs will allow the area to be used as an outdoor classroom where local students and visitors can learn about the diversity and benefits of coastal Mississippi wetlands. The project is considered the first significant step in the city's efforts to enhance the local economy through the revitalization of its waterfront. Funding for this grant is being provided by the Gulf of Mexico Program, which is a partnership underwritten by EPA, and the National Marine Fisheries Service Community-based Restoration Program.

Project Update:
The City of Moss Point has made substantial progress with its coastal wetland planting program. The city involved youth from Moss Point High School's Tiger Tales program and also recruited volunteers from Moss Point High School's Greenhouse club. The students planted spider lilies and river oats along the shoreline at Pelican Landing.

In late November 2000 the city's grounds maintenance crew teamed up with Bob Brzuszek, a native plant expert from the Crosby Arboretum, Mississippi State University, to plant more native bushes and trees at the restoration site. This team experienced a pleasant surprise during the bidding process used to purchase plant material for the project. A lower-than-expected bid allowed the team to buy enough

plants for planting in both fall 2001 and spring 2002. Final revegetation efforts are expected to be completed in late May 2002. **[Updated April 2002.]**

Project Title: **Middlefork Savanna Wetland and Stream Habitat Project**
Five-Star Grant: **$10,250**
Grant to: **Youth Conservation Corps, Inc.**
Location: **Lake County, Illinois**
Grant Year: **1999**

Original Project Description:
The Youth Conservation Corps, in partnership with the Lake County Forest Preserves District, the Lake Forest Open Lands Association, the Friends of the Chicago River, and the City of Lake Forest, will engage local youth in restoring portions of the Middle Fork of the Chicago River and its wetlands. This project's efforts are part of a watershed-wide effort to improve the quality of this highly urban stream. Benefits of the program include providing work experience, on-the-job training, and conservation education to local youth; increased stream habitat; improved water quality; and flood risk reduction along the river.

Project Update:
The partners continued the restoration of the streambanks of the North Branch of the Chicago River and adjacent wetlands. The project included working on 800 feet of streambanks and the Savanna Wetlands located in the Middlefork Savanna Preserve.

Most of the results of this project are due to the efforts of two Youth Conservation Corps (YCC) crews from Lake County High Schools. Total accomplishments from YCC crews include:
- Planting of 6,000 upland/prairie plants
- Planting of 10,000 aquatic plants
- Installation of 10 carp exclosures
- Assisting in the removal of 13 acres of buckthorn
- Painting of a renovated train station that will be used as an education outpost
- Installation of four benches along a trail

Results of the crews' efforts are obvious. Replanting of the river and its streambanks with the native species has resulted in resurgence in the local flora and fauna. The aquatic and submerged plants were installed along a 2-mile stretch of the river. Carp exclosures were installed and will be removed once the new plant material is established. Great blue herons have been seen feeding in the area, and there has been an increase in the number of frogs making their home in the Chicago River. The major savanna work was done on 400 acres of Lake County Forest Preserve District property. YCC crews cleared the savannas of buckthorn and planted native upland and wetland plants.

Without the help of the YCC crews on painting the converted train station and installing four benches on the trail, this project would not have been completed in time for its dedication. **[Updated May 2002.]**

For more information on EPA's Five-Star grant program, visit www.epa.gov/owow/wetlands/restore/5star.

Community-Based Restoration Partnerships

National Park Service Rivers & Trails Program

The Rivers, Trails, and Conservation Assistance Program, also known as the Rivers & Trails Program or RTCA, is a community resource of the National Park Service. Rivers & Trails staff work with community groups and local and state governments to conserve rivers, preserve open space, and develop trails and greenways. Rivers & Trails projects often include multiple aspects such as river conservation, watershed planning, trails and greenway planning, open space protection, rail-trail conversions, and urban greening.

Rivers & Trails provides assistance to nonprofit organizations, community groups, tribes or tribal governments, and local or state government agencies. This assistance includes building partnerships to achieve community-set goals, assessing resources, developing concept plans, engaging public participation, and identifying potential sources of funding. National Park Service staff for the program are based in 35 field locations to make them more readily accessible to nonprofit organizations and local and state governments in all 50 states.

The Rivers & Trails program has achieved many successes across the United States, including the following:

- ***Lazybrook Park in Tunkhannock Township, Pennsylvania.*** A community partnership created the park on land formerly occupied by a 75-unit housing development that was destroyed by the flooding in January 1996. The 40-acre park includes an amphitheater, playing fields, trails accessible to persons with disabilities, and fishing and wetlands restoration areas.

- ***Westernport Floodplain Park in Westernport, Maryland.*** The park is located on land reclaimed by the town under a voluntary buyout program instituted after catastrophic flooding in 1995 and 1996. The town integrated stream restoration, land acquisition, and park planning to limit future flood losses, improve stream health, and increase recreation opportunities. The park includes riparian and upland meadow plantings as well as a quarter-mile walking trail and handicapped-accessible picnic area.

- ***Paradise Creek Educational Park, National City, California.*** This community partnership reconstructed a tidal wetland adjacent to an elementary school in an underserved residential and industrial neighborhood in National City. RTCA helped with the project by working to gain the support of key stakeholders for the concept plan.

- ***San Joaquin River, Firebaugh, California.*** Cooperators in this project included the Bureau of Reclamation, the Friant Dam Water Users Authority, and the City of Firebaugh. RTCA worked

with local partners to develop implementation plans for the restoration and recreation projects within the corridor. This project made the development of a 12-mile continuious riparian corridor along the San Joaquin River possible.

- ***Delaware River Floodplain Park, Bucks County, Pennsylvania.*** Partners worked together to protect a 22-acre tract of open space within the 100-year floodplain along the Delaware River. The land, located between the Delaware Canal State Park and Washington Crossing Historic Park, includes wetland habitat for red-bellied turtles. The Wildlands Conservancy received a $1.05 million grant from the state of Pennsylvania along with additional funding from Upper Makefield Township and Bucks County for the land acquisition. The National Park Service provided assistance with the acquisition project.

The Rivers & Trails program continues to work with communities throughout the United States to support their open space and trail conversion projects. For more information about the Rivers & Trails Program, contact David Lange at (215) 597-6477 or davidlange@hotmail.com or Robert Potter, RTCA Program Manager, at (215) 597-1787 or robert_potter@nps.gov. Also, visit the web site at www.ncrc.nps.gov/programs/rtca.

Red River Basin Riparian Project

The Red River Basin Riparian Project has brought together land managers from throughout North Dakota and Minnesota to address flooding issues in the river basin. Partners for this project include local landowners and corporations; state agencies, including the North Dakota Forest Service, Department of Health, Department of Game and Fish, Water Commission, and Minnesota Department of Natural Resources and Pollution Control Agency; and federal agencies, including the Army Corps of Engineers, US Fish and Wildlife Service, and National Resources Conservation Service.

The agencies joined together to improve forest condition, protect water resources, and improve water quality by influencing the land management choices in the watersheds of the basin. More specifically, they hoped to restore at least 100 miles of the Red River and produce management plans representing 30,000 acres in priority areas. To accomplish this, the partnership provided direct assistance to landowners and communities in managing riparian areas, delivered multiple riparian management programs drawing on resources from the various project sponsors, and used existing GIS technology and capabilities for assessing needs and planning management techniques.

To date the project has made a dramatic change in 8 sites throughout the Red River Basin. The restoration team has worked together to

- Reshape the stream channel and plant riparian vegetation at the Park River Bible Camp after high water in spring 2001 destroyed most of the riparian vegetation.

- Install exclusion fencing to manage grazing livestock along the Tounge River. At this site vegetation is returning to the streambank, and sedimentation is being reduced.

- Restore a wetland outside Hailock, North Dakota, and install buffer strips along the river to reduce nutrient runoff from farmland.

- Replant the riparian area along the Turtle River with the help of Manvel High School students.

- Recontour and replant the banks of Grand Forks Elm Coulee, a small coulee that drains into the Red River.

- Replant three channels along the Turtle River. After severe flooding in spring 2000, the replanted bank areas showed no signs of erosion.

The Red River Riparian Project is in the middle of a 5-year project to restore land along the river. For more information, visit the web site at www.health.state.nd.us/rrbrp or contact Dave Rush, project manager, at Red River Regional Council, Chase Building, 516 Cooper Avenue, Suite 101, Grafton, ND 58237. Phone: (701) 352-3550, e-mail: drush@state.nd.us.

If you are part of an innovative community-based partnership that is working to restore river corridors or wetlands, we'd like to hear from you. Please send a short description of your partnership to restorationupdate@tetratech-ffx.com.

Achieving Restoration Results

Wetland Restoration at the Santa Fe Botanical Gardens

The Santa Fe Botanical Gardens and El Rancho de las Golondrinas recently completed the restoration of a pond and adjacent wetlands with funds from a 3-year grant from the state of New Mexico. The restoration site is located at Leonora Curtin Natural History Area (LCNHA) in Sante Fe.

Sedimentation from eroding upland slopes and accumulating organic debris had filled large portions of the pond and degraded aquatic habitat. The 319 Grant was used to deepen the pond and restore its species diversity. The sediment and organic material removed from the pond were then used to restore wetland areas surrounding the pond. Funds from additional sources were used to construct a boardwalk to protect wetland areas from trampling, which disturbs native vegetation and compacts soils. In addition, a monitoring well was installed near the pond so that local ground water quality and water levels can be checked and protected against degradation from surrounding development and ground water pumping.

Restoration work began in March 2002. First the partners brought in goats to clear Russian olive trees from the dam and spillway. Next, contractors dug two test pits in the drained pond to test the consistency of the material targeted for dredging. In the meantime, workers began shaping the adobe pit, an area adjacent to the pond that would receive the material dredged from the pond in an effort to restore it to wetland habitat.

As luck would have it, the soil removed from the adobe pit in preparation for it to receive the material dredged from the pond was perfect for building platforms that supported excavating equipment and made it possible to dredge material from all parts of the pond. The next challenge was to keep the pond drained. Springs continually filled the pond on the north and south sides, and water continually flowed into the pond from La Ciengea Creek. The area was kept dry enough to work by dividing the pond into three sections using soil platforms, installing a culvert, and using pumps. The water entering the pond was diverted into one section, leaving the other two sections dry while allowing sediment to settle out before the water flowed into La Cienega Creek.

Then came the artwork, and the new pond's look took shape. Contractors installed a small submerged island and created submerged terraces for fish habitat. They shaped the pond's perimeter with varying slopes to create microhabitats for plants and aquatic fauna. Dredged material was then placed along the pond's edges and in the adobe pit to jumpstart the wetland restoration process by providing a seed bank of local wetland plants. Contractors also identified a shaded area next to an arroyo and the spillway where students could sit and view the pond during outdoor classroom instruction.

The Los Lunas Plant Materials Center is donating a number of native wetland plants collected locally and propagated at their greenhouses to continue planting, seeding, and other restoration activities at the wetland site. This article can be found in *Clearing the Waters,* Volume 7, Number 2, written by the Watershed Protection Division of the New Mexico Surface Water Quality Bureau. For more information, visit their web site at www.nmenv.state.nm.us/swqb/wpstop.html.

Partners Restore Rouge River Oxbow Wetland

The Wayne County, Michigan, Department of the Environment (DOE) is a leader in local river and wetland restoration efforts. In 1992 the Department initiated the Rouge River National Wet Weather Demonstration Project, a comprehensive program to manage wet weather pollution to restore the water quality of the Rouge River, a tributary to the Detroit River. This cooperative watershed management effort between federal, state, and local agencies is supported by congressional line items through EPA and additional funding from local communities. As part of this project, DOE is implementing the Rouge Oxbow Restoration Project adjacent to the Lower Branch of the Rouge River in Dearborn, Michigan. The main objective of the Oxbow Restoration project is to restore valuable fish and wildlife habitat within the Rouge River and to restore functioning riverine wetlands that have been lost due to channelization of the river. Secondary objectives include improvement of water quality, increased floodplain storage, educational/interpretative opportunities, and improved aesthetics.

The project, which is under way, is being completed in three phases: Phase I—Oxbow Wetland Restoration (just being completed); Phase II—Combined Sewer Overflow (CSO) Modifications; and Phase III—Open Connection to the Rouge River. An existing storm sewer provides river water to the oxbow during Phase I, and a siphon connects the wetlands on both sides of the existing CSO until Phase II or III. Phase I (excavated and planted in spring 2002) restored the oxbow channel and wetlands to simulate riverine wetlands common in Southeast Michigan rivers. The restoration provides a 2,200-foot channel that varies in width from 15 to 105 feet and depth from 3 to 8 feet. The channel is surrounded by 3 acres of submergent and emergent wetland systems (0- to 3-foot depths) that provide habitat for various wildlife species. The wetlands transition to 10 acres of existing and restored upland woodlands and

meadow. Uplands are planted with various tree, shrub, grass and wildflower species. Bioengineering (planted slope stabilization) techniques also provide shrub areas. In spring 2003 native fish species, including bass, channel catfish, and bowfin, will be introduced to the oxbow wetlands.

Various wildlife have already begun to use these habitat areas including macroinvertebrates, amphibians, reptiles, and waterfowl and small mammals such as herons, migratory songbirds, wood ducks, frogs, turtles, raccoons, and coyotes. The island created in the middle of the oxbow will serve as an interpretive area for many educational and public programs, including summer camps, classes, information about a Native American village that originally occupied the area, and stories of innovative naturalists like John Burroughs. For more information, see www.wcdoe.org/rougeriver/pdfs/wetlands/Oxbow.pdf.

If you are part of an innovative restoration project that has had positive results, we'd like to hear from you. Please send a short description of your project to restorationupdate@tetratech-ffx.com.

Funding for Restoration Projects

EPA Grant-Writing Tutorial Available
EPA maintains a web site that offers grant writing tips, a glossary, a mock grant writing activity, and examples of how to write grants. This easy-to-follow tutorial guides you through the entire grant writing process. It can be viewed at www.epa.gov/seahome/grants/src/grant.htm.

Ben & Jerry's Foundation
The Ben & Jerry's Foundation offers competitive grants to not-for-profit, grassroots organizations throughout the United States that facilitate progressive social change by addressing the underlying conditions of societal and environmental problems. All of the Foundation's funding decisions are made by a team of Ben & Jerry's employees that meets three times a year to review proposals. Although the Ben & Jerry's Foundation doesn't prioritize any particular issue area for funding, they focus on the types of activities and strategies organizations use for creating social change. The Foundation supports programs and projects that are examples of creative problem-solving. Grants range from $1,000 to $15,000. For details, visit www.benjerry.com/foundation/guidelines.html.

Community-Based Collaborative Research Consortium
The Community-Based Collaborative Research Consortium is requesting proposals for funding for research and evaluation of community-based collaborative efforts concerned with management of natural resources. Eligible groups include those convened voluntarily from within the local community to focus on resource management issues that involve public lands or resources; groups whose membership includes local community members, even traditional adversaries; groups brought together by a shared desire to influence the protection and use of natural resources through recommendations or direct actions; and groups using a decision-making process that requires participation by local stakeholders. A total of $157,000 will be distributed in grants ranging from $10,000 to $35,000. To learn more about the grants program or to apply, visit www.cbcrc.org/grants.html.

Please send any news you have on funding mechanisms available to local community organizations to restorationupdate@tetratech-ffx.com.

News and Announcements

Gulf Sturgeon Could Get Huge Critical Habitat
The following article was published on June 6, 2002 by the *Environmental News Service*. It can be viewed at http://ens-news.com/ens/jun2002/2002-06-06-09.asp.

Two federal agencies are proposing to designate critical habitat for the Gulf sturgeon along about 1,580 miles of rivers that empty into the Gulf of Mexico.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) are considering designating critical habitat for the Gulf sturgeon along portions of rivers, estuaries, and marine coastline in Florida, Alabama, Mississippi, and Louisiana.

"This proposed critical habitat designation will provide nonregulatory benefits to the Gulf sturgeon by informing the public of areas that are important to the species' recovery and identifying where conservation actions would be most effective," said Sam Hamilton, southeast regional director for the USFWS.

In a lawsuit brought by conservation groups, a federal court in Louisiana ordered the agencies to propose critical habitat. The same court order requires a final critical habitat determination by February 28, 2003.

The agencies' proposal includes portions of the Pearl and Bogue Chitto Rivers in Louisiana and Mississippi; Pascagoula, Leaf, Bowie, Big Black Creek, and Chickasawhay Rivers in Mississippi; Escambia, Conecuh, and Sepulga Rivers in Alabama and Florida; Yellow, Blackwater, and Shoal Rivers in Alabama and Florida; Choctawhatchee and Pea Rivers in Florida and Alabama; Apalachicola and Brothers Rivers in Florida; and Suwannee and Withlacoochee Rivers in Florida.

The proposal also includes portions of several estuaries and bays, including the Mississippi Sound; Apalachicola, Choctawhatchee, and Pensacola bays in Florida; and Suwannee Sound and adjacent state waters within the Gulf of Mexico in Florida.

The proposed critical habitat area covers about 1,580 river miles and 2,333 square miles of estuarine and marine habitat.

"This critical habitat designation incorporates both historic and recent data to best describe areas occupied and utilized by the Gulf sturgeon," said Georgia Cranmore, assistant administrator for NMFS southeast region. "We continue to work with the latest information and just incorporated a May 2002 sighting into the proposed rule."

More information about the Gulf sturgeon is available at http://alabama.fws.gov/gs. The agencies will accept comments on the proposal until September 23, 2002, by fax at (850) 763-2177 by e-mail gulfsturgeon@fws.gov.

EPA Clean Watershed Demonstration Program Extends Application Deadline

The deadline for application for the Clean Water Partners for the 21st Century program has been extended to July 15, 2002. The program is intended to recognize extraordinary efforts, beyond the requirements of the Clean Water Act, that local governments are making to protect and improve the overall health of waterbodies in a specific watershed. The program is intended to give local governments (not simply wastewater treatment agencies) the opportunity to be recognized.

Governments will be recognized for:

- Extraordinary Achievement in Watershed Protection.
- Extraordinary Achievement in Increasing Public Access to and Understanding of Water Resources to Promote Watershed Health.
- Extraordinary Achievement in Water Quality and Environmental Science to Benefit the Local Watershed.
- Extraordinary Achievement in Local Government Management Programs to Improve Watershed Health.
- Extraordinary Achievement in Design or Engineering to Achieve Watershed Goals.

For more information and for an online application, visit www.cleanwaterpartners.org/recog.html.

Great Lakes Revolving Fund Protects Forests and Wetlands

The recently established Great Lakes Revolving Loan Fund, administered by The Conservation Fund (TCF), has made its second loan and received its second large gift. A $1.07 million loan to The Nature Conservancy will aid in protecting of more than 6,000 acres of pristine forest and wetlands on Michigan's Keweenaw Peninsula. And the revolving loan fund, launched in late 2001 with a $3.75-million grant from the Charles Stewart Mott Foundation, has received another $2 million grant from Mott.

The lands, located in Copper Country, were acquired by The Nature Conservancy from Lake Superior Land Company, a subsidiary of International Paper Company. They represent some of the richest and most unusual habitat in the Upper Peninsula. Unspoiled natural systems abound, including glacial lakes, peatlands, wetlands, Montreal River frontage, hardwood and boreal forests, and Lake Superior shoreline containing cliffs and bluffs.

The Nature Conservancy, which negotiated the purchase, will transfer the property to the Michigan Department of Natural Resources (DNR) by August 2003. The lands will link with nearly 2,500 acres

currently owned by the DNR and another 1,500 acres owned by The Nature Conservancy. Together, they will encompass 14 miles of protected Lake Superior shoreline and provide a significant area of land protection.

The area will be opened for recreational uses, allowing the public to enjoy its natural beauty. Skiing, fishing, hunting, boating and kayaking, hiking, camping, and mountain biking will all be available.

"It is very important to the entire Great Lakes ecosystem to have the Keweenaw lands protected," said Peg Kohring, TCF Midwest director. "Massive changes in the landscape due to shifts in land ownership are a significant factor in conservation right now. The revolving loan fund is a key tool in working with large timber companies. It helps us step up to a new level for land conservation, providing us with the opportunity to look at large landscape projects."

"The Mott Foundation played a vital role in helping protect this piece of property," said Jeff Knoop, Upper Peninsula director of land protection for the Nature Conservancy. "They've also played a major role throughout the Great Lakes region by helping identify ecologically significant areas and supporting groups that work to protect them."

This is the second loan made by TCF from the revolving loan fund. The first grant went to the North Woods Conservancy to help in the purchase of Seven Mile Point, also on the Keweenaw Peninsula. In addition to the $5.75 million in grants for the revolving loan fund, Mott also granted $225,000 to underwrite administrative and technical costs associated with operating the fund. Together, these represent Mott's largest commitment to a single environmental project.

For more information, see the press release at www.conservationfund.org/?article=2528 or contact Peg Kohring at (616) 426-8825.

Upcoming Conferences and Events

New Listings

6th Annual Wings Over Water Festival
Eastern North Carolina
October 15–20, 2002

This festival is a celebration of wildlife and wetlands in eastern North Carolina. Wings Over Water offers programs for the amateur-to-serious birder, nature enthusiast, wildlife photographer, or paddler, as well as others who enjoy experiencing nature up close. Participants have the opportunity to explore fascinating ecological settings through field trips, workshops, and interpretive programs. Offered at a modest cost, programs include:

- Venturing into areas with combined bird lists of nearly 400 species.

- Visiting North Pond on the Pea Island National Wildlife Refuge on Hatteras Island, the hottest spot for fall birding in North Carolina.
- Traveling to the Cape Hatteras Lighthouse area to search for a variety of shore and water birds.
- Taking a ferry to the pirate Blackbeard's hangout on Ocracoke Island to enjoy the quaint fishing village and check out the birds.
- Visiting the ancient maritime forests at Buxton Woods and Nags Head Woods for a look at these rare ecosystems.
- Traveling to Mattamuskeet National Wildlife Refuge, where eagles and other raptors are likely to be spotted near the causeway and entrance road.

For more information, visit www.wingsoverwater.org or call the Outer Banks Chamber of Commerce at (252) 441-8144.

Stream Health and Aquatic Invertebrates
July 13–14 and 20–21, 2002 (Program offered over 2 weekends)
Amherst, Massachusetts

The Massachusetts Water Watch Partnership is hosting a workshop to teach citizen volunteers how to assess stream health by sampling bottom-dwelling bugs. The cost is $25. For more information and to register, contact Francoise Walk, Outreach Coordinator, Massachusetts Water Watch Partnership, Blaisdell House, University of Massachusetts, Amherst, MA 01003; phone: (413) 545-5531; e-mail mfwalk@tei.umass.edu; Internet: www.umass.edu/tei/mwwp/wkshdes.html#bmi.

2002 Plains & Prairie Forestry Association Conference
July 30–August 1, 2002
Grand Junction, Colorado

The Plains and Prairie Forestry Association (PPFA) is sponsoring this 3-day conference. Technical sessions will include Using Shelters to Enhance Riparian Tree Establishment, The New Farm Bill, and Service Forestry in Western Colorado. The cost is $160 per person; the cost for only the Wednesday Field Trip is $60 per person. Lodging arrangements can be made by calling the Adams Mark Hotel & Resort—Grand Junction; phone: (970) 241-8888, fax (970) 245-8198. Be sure to mention the PPFA Meeting to receive the special rate. For more information, visit www.colostate.edu/Depts/CSFS/plains.html.

Previous Listings

Soil and Water Conservation Society: 2002 Annual Meeting
Indianapolis, Indiana
July 13–17, 2002

The 2002 annual conference of the Soil and Water Conservation Society will offer an opportunity for integrated learning and sharing across key natural resource topic areas. The conference will focus on how conservation of natural resources is linked to local, regional, national, and global concerns. Three topic areas will be explored in-depth: reconciling land use with economics, ethics, and ecology; managing nonpoint source water pollution; and measuring conservation progress. For more information, see www.swcs.org/t_what2002conffrontpage.htm or e-mail Pat Mulligan at patm@swcs.org.

Riparian and Aquatic Ecosystem Monitoring
Two sessions: July 29–August 2, 2002, and August 5–9, 2002
Forest Grove, Oregon

This 5-day intensive technical training workshop includes both lab and field components. Participants work with scientists and Student Watershed Research Project (SWRP) staff to learn programmatic and technical methodologies for teaching and conducting stream and watershed monitoring. The workshop is designed for anyone with a reasonable science background interested in technical aquatic and riparian ecosystem monitoring programs, including educators, agency resource professionals, volunteer monitoring coordinators, watershed council representatives, and representatives from environmental organizations. For more information see www.swrp.org or contact SWRP at (503) 748-1363 or renfro@pdx.edu.

To post your restoration news and announcements, please send information to restorationupdate@tetratech-ffx.com.

Restoration-Related Web Sites

www.altamahariverkeeper.org
Altamaha Riverkeeper. The Altamaha Riverkeeper is a grassroots organization dedicated to the protection, defense, and restoration of Georgia's biggest river, the Altamaha, including its tributaries the Ocmulgee, the Oconee, and the Ohoopee. The web site offers a listing of river news and events. It also offers an opportunity to sign up for the Altamaha Riverkeeper's newsletter. *This web site is a good example of how a community organization can protect and restore wetlands and riparian areas.*

www.sosva.com/virtualsosdemonstration/vasostraining.htm
Virginia Save Our Streams Virtual Training Page. Virginia Save our Streams (VA SOS) offers a virtual training session through its web site. The training covers general information about water quality monitoring, macroinvertebrates, VA SOS field methods, and VA SOS habitat forms and scoring

guidelines. *This site would be useful for anyone seeking information on using macroinvertebrates to monitor stream health.*

www.stream.fs.fed.us
Stream Systems Technology Center. The Stream Systems Technology Center is a national technical center designed to stimulate research; link research, field specialists, and management; promote efficient technology transfer; and satisfy ecosystem needs efficiently. *This site provides links to software tools useful for anyone who works with riparian stream buffers or in-stream flow conditions.*

www.nps.ars.usda.gov/programs/programs.htm?docid=325&npnumber=201&page=5
Agriculture Water Quality and Management: Riparian, Stream, and Wetland Ecosystems. This page, maintained by the USDA Agricultural Research Service, provides background information, goals, and impact information on the installation of riparian buffers. *This site is useful for anyone seeking information on the uses for and function of riparian buffers.*

www.buffercouncil.org
National Conservation Buffer Council. The National Conservation Buffer Council was established by seven of the nation's largest agribusiness firms to promote buffers and other conservation measures. This site contains information on the types of buffers, along with current environmental challenges and benefits and the economics and incentives associated with buffer installation. *This site provides useful information about promoting and installing riparian buffers.*

http://nfwf.org/programs/programs.htm
National Fish and Wildlife Foundation Grant Programs. The National Fish and Wildlife Foundation, a nonprofit organization established by Congress in 1984, provides grants to organizations working to protect and restore fish, wildlife, and native plants. This page provides links to the grant application, projects funded in the past, information on current grantees, and frequently asked questions. *This page would be useful for anyone seeking funding from the National Fish and Wildlife Foundation.*

www.nal.usda.gov/wqic/wqdb/esearch.html
Database of Online Documents Covering Water and Agriculture. The Water Quality Information Center at the USDA's Natural Agricultural Library maintains this searchable database of on-line documents. Documents about riparian buffers and streambank and wetland restoration can be found through the database. *This site would be useful for anyone looking for articles or papers on streambank or wetland restoration.*

www.codoruscreek.com
Codorus Creek Improvement Partnership. The partnership is a nonprofit group that works to promote educational events and cleanup and planting days along Codorus Creek in York, Pennsylvania. The site contains current news on the state of the creek, a list of sponsors, and details about upcoming creek events. *This site provides a good example of an effective community-based cleanup effort and also contains some ideas on how to recruit additional sponsors and resources.*

http://biology.usgs.gov/luhna
USGS Land Use History of North America. This web site examines land use patterns, expanding populations, and plant diversity in the United States. Multiple graphs and maps are used in the analysis of these patterns. *This site would be useful for anyone researching the past land use of a possible restoration site.*

www.ies.wisc.edu/cre
Center for Restoration Ecology at the University of Wisconsin. The Center for Restoration Ecology supports a comprehensive, interdisciplinary research team assembled to advance the science and technology of ecosystem restoration. The Center seeks to incorporate science-based, experimental approaches into ecosystem restoration efforts to predict courses of ecosystem development, to identify attributes that sustain restored ecosystems, to provide new restoration technologies, to transfer knowledge to users (governmental agencies, industry, and nongovernmental land stewards), and to increase public awareness and understanding of restoration. The Center's web site describes its research efforts, including many wetland restoration efforts around Wisconsin. *This site would be useful for anyone seeking current research on ecosystem restoration.*

Let us know about your restoration-related web site. Please send relevant URLs to restorationupdate@tetratech-ffx.com.

Information Resources

Check Your Success: A Community Guide to Developing Indicators
by the Department of Urban Affairs & Planning and Virginia Tech, in conjunction with EPA

This manual is designed for use by organizations and groups of all sizes working on environmental protection at the community level. It will assist efforts to improve your community by helping your organization develop indicators that measure success. The manual also will help your group move beyond a narrow focus and start thinking about how your activities can be used to address the connections between the environment, economy, and society. The full text of the guide can be read on-line at www.uap.vt.edu/checkyoursuccess.

Agroforestry Notes
by the National Agroforestry Center

Agroforestry is the practice of combining agriculture and forestry technologies to create more integrated, diverse, productive, profitable, healthy, and sustainable land-use systems. Two new Agroforestry Notes—*Planning Biotechnical Streambank Protection* and *Biotechnical Streambank Protection—The Use of Plants to Stabilize Streambanks*—have just been released. Other streambank notes and riparian buffer notes and flyers can be downloaded from the web site at www.unl.edu/nac or ordered from the National Agroforestry Center.

Bioassessment Training Manual
by the Sustainable Land Stewardship Institute

The *Bioassessment Training Manual* discusses the importance of citizen involvement in volunteer monitoring, introduces benthic macroinvertebrates, and explains watershed hydrology and stream chemistry. It also discusses water quality regulation and problems that arise from common pollutants. Manuals can be ordered for $35 from SLSI, PO Box 161585, Sacramento, CA 96816 or from the web site www.slsii.org/ordermanual.htm.

Report on Isolated Wetlands
by the U.S. Fish and Wildlife Service

On June 11, the U.S. Fish and Wildlife Service released a Web-based report titled *Geographically Isolated Wetlands: A Preliminary Assessment of Their Characteristics and Status in Selected Areas of the United States*. The report is the first in a series of ecological reports about important types of wetlands. Geographically isolated wetlands are wetlands that are surrounded by upland (not connected to surface waters such as perennial rivers and streams, estuaries, or the ocean). Although they lack a surface water outlet, many of these wetlands are hydrologically connected to other wetlands and waters through subsurface connections. They are particularly important for much wildlife. The report describes 19 types of geographically isolated wetlands and presents information (including maps) on the potential extent of such wetlands in each of 72 selected study areas. The report and maps are available at http://wetlands.fws.gov/Pubs_Reports/isolated/geoisolated.htm.

If you'd like to publicize the availability of relevant information resources, please send information to restorationupdate@tetratech-ffx.com.