

Welcome to the Biweekly Restoration Information Update Page. This web site:

- Provides current information on wetland and river corridor restoration projects
- Recognizes outstanding restoration projects
- Provides 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@tetrattech-ffx.com or mail it to Kathryn Phillips, Biweekly 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 serves or has the appearance to serve as advocating or lobbying for any political, business, or commercial purposes.

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- [News and Announcements](#) - This section includes up-to-date information on regulatory issues affecting restoration, conference and workshop announcements, and other newsworthy tidbits.
- [Restoration-Related Web Sites](#) - Check out other groups on the web that are helping in the effort to restore wetlands and river corridors.
- [Information Resources](#) - Books, journals, fact sheets, videos, and other information resources to aid you in your restoration project.

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Feature Article

Old Subdivision Restored to Marshland

In 1996 the Brownwood subdivision, about 20 miles east of Houston in Baytown, Texas, was restored as a wetlands and wildlife sanctuary. A half-century earlier, in the 1940s and 1950s, the 400-home subdivision had been built on a low-lying peninsula jutting out into Galveston Bay. Although the subdivision was in a beautiful, serene location, it didn't take long for it to suffer a multitude of problems, caused by both people and nature. In 1961 Hurricane Carla flooded Brownwood. During the next two decades, overuse of groundwater supplies caused the area to sink 10 to 15 feet, leaving the previously low-lying peninsula even more vulnerable to storms and hurricanes. In 1983 Hurricane Alicia finally destroyed the subdivision completely, and its residents abandoned the area fearing future flooding and hurricane damage.

The city of Baytown decided to return the area to Mother Nature. Over the next 10 years, the city bought the lots from their former residents and began formulating plans to restore the coastal marshland area. With funding from the Federal Emergency Management Agency and other sources, the city removed the houses, utilities, and most of the roads; graded the land; dug channels to return flow to the wetlands and allow tidal exchange; and reestablished wetland plants. Now designated the Baytown Nature Center, the 400 acres of uplands and submerged land still show remnants of their history. Slabs of broken concrete from the once-thriving subdivision stand guard along the shoreline to prevent erosion. Many of the hiking and jogging trails are Brownwood's original roads.

The restoration project has been a great success. During the initial phase, the project cooperators focused not only on restoring the coastal marshland habitat but also on developing pockets of other types of habitat. For example, four small freshwater ponds and two forested island areas were designed to provide food, habitat, and protection for migrant birds, small mammals, and other types of wildlife. Once the subdivision was removed, other areas of the peninsula quickly began to revert to the original mosaic of forest and wetlands. As a result, the Nature Center has exploded with plant and animal life. The area is now home to 275 species of birds, including 5 endangered species. Alligators, deer, raccoons, foxes, bobcats, and other native wildlife have also returned.

The Baytown Nature Center restoration project continues to be a work in progress. Plans are under way for additional public recreation and wildlife observation areas such as boardwalks, new walking trails, fishing piers, picnic sites, a songbird habitat, and a butterfly garden. Through its efforts to make the area more publicly accessible, the city of Baytown is showcasing nature's remarkable ability to bounce back. For more information, contact the Baytown Nature Center at (281) 420-6697.

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

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Community-Based Restoration Partnerships Partnerships Nurture Ladd Marsh Expansion

Efforts by a diverse group of partners are transforming a corner of the Grande Ronde Valley near LaGrande, Oregon, into one of northeast Oregon's most important wetland complexes. Ten years ago, Oregon's 3,200-acre Ladd Marsh Wildlife Area consisted of a few small wetlands and one 400-acre marsh--the last remnant of a shallow lake that formerly sprawled across 10,000 acres at the south end of the valley. The remainder of the wildlife area's acreage was planted in corn and other crops to provide food for waterfowl during fall migration.

Since then, the Ladd Marsh Wildlife Area has been expanding and changing thanks to an ever-growing partnership involving a dozen agencies and organizations. The Nature Conservancy recently purchased three properties totaling 844 acres and plans to transfer ownership to the Oregon Department of Fish and Wildlife (ODFW), thereby expanding the Ladd Marsh Wildlife Area to more than 4,000 acres. Many other organizations, such as Ducks Unlimited, the City of LaGrande, Union County, and the U.S. Army Corps of Engineers, are implementing restoration projects throughout the wildlife area. To date, partners have restored more than 400 acres of wetlands and have contributed more than \$2.5 million to the restoration program. Because of their ongoing efforts, more than half of the 4,000-acre Ladd Marsh Wildlife Area will be restored as wetlands over the next few years.

Dave Larson, ODFW's manager, notes that although they have not set any specific wildlife production goals, they expect the ongoing wetland restoration to dramatically increase the amount of wildlife present. For example, "We expect to see waterfowl production in the wildlife area triple over time." Public recreational opportunities such as hunting and wildlife viewing will increase accordingly. For more information, contact Dave Larson, Oregon Department of Fish and Wildlife, 591 16 Pierce Road, LaGrande, OR 97850. Phone: (541) 963-4954; e-mail: dlarson@oregontrail.net.

Restoration Project Fights the Invasive Buckthorn

Conservation groups in St. Paul, Minnesota, are restoring the natural ecology on the river bluffs above the Mississippi River. The area's ecological diversity has been seriously compromised by an explosion of invasive exotic plants, primarily the buckthorn shrub and the tartarian honeysuckle vine. "In many areas visitors cannot see the river below because an impenetrable wall of unnatural vegetation exists," said Cindy Schwie, project manager for the Mississippi River Bluff Restoration Project. "Our fragile, diverse river bluff is slowly giving way to an emerging monoculture dominated by aggressive exotic species."

To help address the problem, the Friends of Parks and Trails of St. Paul and Ramsey County have formed a partnership with Great River Greening and the city of St. Paul to create the Bluff Restoration Project. Using grant funds from the Legislative Commission on Minnesota Resources, the partners will cooperate to remove the invasive species, replenish the bluffs with native plant life, educate the community about the impacts of invasive species, and develop a

long-term management plan for a 5-mile stretch of river bluff in the city of St. Paul. The partners plan to recruit hundreds of community volunteers to help with the restoration project. Fortunately, the state of Minnesota recently prohibited the sale and transport of buckthorn, thereby reducing the risk of reintroduction of invasive plants once the restoration project is complete. For more information, visit www.friendsoftheparks.org/MRBR.html exit epa or contact Cindy Schwie at (651) 266-6416 or e-mail buckthorn@email.com.

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@tetrattech-ffx.com.

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Funding for Restoration Projects

American Greenways Awards Program Now Accepting Applications

The Conservation Fund and Eastman Kodak Company are accepting applications for the 2001 Kodak American Greenways Awards program through June 1, 2001. Award recipients will receive between \$500 and \$2,500 to help plan and design greenways that link recreational, cultural, and natural features; provide pathways for people and wildlife; and protect forests, wetlands, and grasslands. To learn more about the program, visit

www.conservationfund.org/conservation/amgreen/index.html exit epa and click on Kodak Awards Program or contact Leigh Anne McDonald, American Greenways Coordinator, The Conservation Fund, 1800 North Kent Street, Ste. 1120, Arlington, VA 22209. Phone: (703) 526-6300; e-mail: lmcdonald@conservationfund.org.

Wetlands Challenge Grants Deadline Nears

The National Fish and Wildlife Foundation (NFWF), a nonprofit organization established by Congress in 1984, operates a grant program that awards challenge grants, on a competitive basis, to eligible grant recipients, including federal, state, and local governments; educational institutions; and nonprofit conservation organizations. The Foundation awards challenge grants using federal matching funds provided by annual congressional appropriations and agreements with federal agencies. The Foundation also receives and awards contributions from select foundations, corporations, and other nonfederal entities.

NFWF awards challenge grants to projects that address priority actions promoting conservation of fish and wildlife and the habitats on which they depend, work proactively to involve other conservation and community interests, leverage Foundation-provided funding, and evaluate project outcomes. Grants range from \$10,000 to \$150,000 and are awarded only if applicants can raise \$2 in challenge funds for every federal matching dollar requested.

Project proposals are received on a year-round, revolving basis with three decision cycles per year. Two decision cycles remain in 2001: preproposals are due on June 1 or October 15, and full proposals are due on July 15 or December 1, respectively. Challenge grant instructions can be accessed through the NFWF home page at www.nfwf.org/programs/guidelines.htm. exit epa

The site also answers frequently asked questions about the grant process and the grants themselves and provides other useful information. For more information, contact the National Fish and Wildlife Foundation, 1120 Connecticut Avenue, NW, Suite 900, Washington, DC 20036.

Phone: (202) 857-0166.

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

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News and Announcements

May is American Wetlands Month!

This year is the 10th anniversary of American Wetlands Month. The theme for this year's American Wetlands Month campaign is "American Wetlands: Keep 'Em Native." The Izaak Walton League's American Wetlands Month is a national campaign to raise public awareness of the importance of wetlands and to help local activists conserve wetlands by providing training opportunities, publications, technical and networking assistance, and publicity. Each year the celebration is kicked off with the *Communities Working for Wetlands Conference*, a national training and networking opportunity for wetland enthusiasts. This year's conference will be held

May 16-18, 2001, in Orlando, Florida. The purpose of the conference is to educate people and inspire them to initiate and sustain on-the-ground conservation and education projects. The theme for the 2001 conference is "You Can Make a Difference" - and the knowledge gained and contacts made over the two and one-half days will help people make a difference in their communities by protecting wetlands. For more information on American Wetlands Month activities or the conference, visit the Izaak Walton League web site at www.iwla.org/sos/awm.

New Report Shows Reduced Wetland Losses Due in Part to Restoration Efforts

In early 2001 the U.S. Fish and Wildlife Service (FWS) released a report showing that between the years 1986 and 1997, the United States lost about 58,500 acres of wetland per year (net loss of 644,000 acres). Although losses continue, the number of acres lost annually has declined dramatically since the 1970s and 1980s (290,000-acre net loss each year) and even more since the 1950s to the 1970s (458,000-acre net loss each year). At the time of European settlement of what is now the lower 48 states, wetlands covered about 11 percent of the land. By 1997, 105 million acres of wetlands covered less than 5 percent of the land area. Of this total wetland acreage, 100.5 million acres (95 percent) were freshwater wetlands and 5 million acres (5 percent) were saltwater wetlands.

Between 1986 and 1997 wetland losses were attributed to urban development (30 percent), commercial forestry (23 percent), rural development (21 percent), and agriculture (20 percent). These figures represent a shift from prior studies that showed a higher percentage of wetland loss due to agriculture. Forested and freshwater wetlands suffered the greatest percentage of loss (1.2 million acres, or a 2.4 percent change). For the first time in the nation's history, there are fewer than 50 million acres of forested wetlands in the conterminous United States. Freshwater emergent wetlands declined by 1 million acres (4.6 percent change) during the study period. "This is an improved report card on the state of the nation's wetlands," said FWS Director Jamie Rappaport Clark. "It shows continued progress in stemming wetland loss, but it also shows we must continue our efforts to protect forested and freshwater wetlands."

According to the FWS, much of the overall decline in the rate of wetland loss is due to federal, state, local, and tribal wetland policies and programs enacted in the 1990s, which have increased wetland restoration, creation, and enhancement while also reducing the draining and filling of wetlands. Although freshwater vegetated wetlands continued to decline, freshwater ponds increased by nearly 13 percent in the last decade. Ponds include water traps on golf courses, recreational or decorative ponds in residential areas, storm water retention ponds, fish ponds, and other similar water areas. Trends indicate that the acreage of ponds is now about equal to that of all estuarine wetlands. The complete report, *Status and Trends of Wetlands in the Conterminous United States 1986 to 1997*, is available for download at <http://wetlands.fws.gov>.



"Tulloch Rule" Moves Forward

The U.S. Environmental Protection Agency is moving forward with a final regulation (commonly called the "Tulloch Rule") that strengthens wetland protection. On April 16, 2001, acting on behalf of the Bush administration, EPA Administrator Christine Todd Whitman endorsed the entry into force of the "Tulloch Rule," which revises the regulatory definition of "discharge of dredged material." The new rule, issued jointly with the U.S. Army Corps of Engineers, will help stem the loss of the nation's wetlands by clarifying the types of activities likely to result in a discharge of dredged material regulated under the Clean Water Act. The agencies estimate that since 1998 at least 20,000 wetland acres have been targeted for ditching, draining, and destruction and 150 miles of streams have been channelized because of a regulatory loophole. Although the new rule is an important step to protect the nation's wetlands, no regulatory action can fully close the Clean Water Act loophole that has led to this type of wetland destruction. Congress will need to strengthen the Clean Water Act to close this loophole completely.

In endorsing the new rule, EPA Administrator Whitman noted, "The protection of America's vanishing wetlands is a vital step toward ensuring cleaner water for everyone. In addition to serving as habitat for wildlife, wetlands help filter and protect our country's water supply." When the rule becomes effective, the Administrator continued, it "will help preserve our wetlands for ourselves and for future generations."

For more information, see the EPA Fact Sheet at <http://www.epa.gov/owow/wetlands/dredgedmat/dredmat.html>. To view the final rule, visit www.epa.gov/fedrgstr/EPA-WATER/.

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**Upcoming Conferences and Events:
Wetlands Law and Regulation Course**

May 31-June 1, 2001
Washington, DC

Presented by the American Law Institute - American Bar Association, this course covers in depth the Clean Water Act's section 404 regulatory program. Special attention is paid to the newly revised nationwide permits as well as to regional conditions that are still evolving. The professionals making the law address recent regulatory changes and case decisions in this complex arena. The course includes science and policy perspectives, including the latest information on wetland restoration and mitigation. Enforcement actions for regulatory violations and defenses, as well as Fifth Amendment and Commerce Clause challenges to federal regulatory power, are covered in depth. Professional responsibility issues and ethics concerns in the wetlands law practice context are addressed. A special panel highlights the regional law and policy issues and developments in several key U.S. regions. Time is reserved throughout the program to address registrants' questions.

Tuition for this 2-day course is \$795. Tuition entitles registrants to admission to all sessions, a set of study materials, continental breakfasts daily, and a reception. To register, call 800-CLE-NEWS (800-253-6397) or visit the web site at www.ali-aba.org.  Registrations will be accepted at the door if space is available, but please call in advance to avoid disappointment.

Assessing the Health of Wetland Life: Policy, Science and Practice

May 14-16, 2001
Orlando, Florida

This conference, cohosted by EPA's Biological Assessment of Wetlands Workgroup and the Izaak Walton League of America, is targeted to wetland scientists, water quality specialists, environmental planners, ecologists, and others that wish to learn about how the quality and integrity of our nation's wetlands can be determined through the assessment of diverse life-forms. State, tribal, county, and federal government representatives will discuss their wetland programs, including wetland restoration efforts, standards, assessment, and other issues. For more information, visit www.epa.gov/owow/wetlands/bawwg/announ2001.html, call (202) 260-7717, or e-mail hoskins.doug@epa.gov.

Wetland Conservation and Sustainability Workshop

June 3, 2001
Rome, New York

This introductory wetland workshop will focus on wetland ecology, functions and values, and stewardship. Participants will learn about regulations affecting wetland conservation and will experience wetland monitoring in the field. All volunteers, nonprofit organizations, government agency personnel, and consultants with an interest in wetland conservation are encouraged to attend. For more information, contact Robert Ragazzo, President, Rome Chapter Izaak Walton League, 1311 North James Street, Rome, NY 13440. Phone: (315) 337-1703.

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

Restoration-Related Web Sites 

www.npwr.usgs.gov/resource/literatr/wetresto/wetresto.htm

Bibliography on Wetland Restoration. Developed cooperatively by the Northern Prairie Science Center and the Midcontinent Ecological Science Center, this on-line bibliography is intended to provide scientists, managers, educational institutions (or students), and policy-makers with ready access to current information on wetland restoration.

www.ramsar.org/strp_rest_index.htm

The STRP Expert Working Group on Wetland Restoration. The Ramsar Convention's wetland restoration mini-site was created by the Expert Working Group on Wetland Restoration of the Convention's Scientific and Technical Review Panel (STRP). This site provides basic information about wetland restoration, examples of approaches to restoration drawn from projects around the world, a link to a Web-based searchable wetland restoration bibliography, and other information that might be valuable to anyone interested in wetland restoration.

www.ballona-wetlands.org

Ballona Wetlands Foundation

The Ballona Wetlands Foundation was created by a court action to preserve and protect the remaining Ballona Wetlands, on California's coast near Los Angeles. Foundation members offer educational programs for children and adults and coordinate volunteer efforts to protect and restore the wetlands.

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

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Information Resources

Wetlands and Urbanization: Implications for the Future

By Amanda L. Azous and Richard R. Horner
Published by Lewis Publishers in 2000

This 360-page book presents an integrated watershed approach to the scientific evaluation of the impact of landscape urbanization on wetland functions. It associates the source of impact (the landscape) with the sink (the wetland), relates findings to implications for future planning and management of watersheds, and provides a model for future comprehensive investigations of wetland impacts from urbanization. The book is available for \$89.95. To order online, visit www.crcpress.com. 

California's Wetlands: A Briefing

By the Water Education Foundation

This 28-page publication is designed to provide an overview that both defines wetlands and discusses how they have been transformed through reclamation, preservation, and mitigation. The guide also includes case studies of preservation and restoration efforts. A portion of the briefing is available on the Foundation's web site at www.watereducation.org.  Copies of the briefing are available from the Foundation for \$6 each; to order, visit the web site or call (916) 444-6240.

The Layperson's Guide to California Wetlands

By the Water Education Foundation

This 24-page publication provides an overview of the history of water development and use in California from the 1700s through today. Updated in 2000, this document now includes information on the Colorado River Water Use Plan, water conservation best management practices, nonpoint source pollution, and Total Maximum Daily Loads. Copies are available from the Foundation for \$6 each; to order, visit www.watereducation.org exit epa or call (916) 444-6240.

The Layperson's Guide to Environmental Restoration

By the Water Education Foundation

This 24-page publication describes the movement to return California's wetlands, rivers, and wildlife to their original natural condition. In addition to a background section and chronology on the environmental movement, the guide explains restoration goals, explores the importance of wetlands, and discusses watershed management through 10 regional case studies. Copies of the guide are available from the Foundation for \$6 each; to order, visit www.watereducation.org exit epa or call (916) 444-6240.

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