



# Louisiana Wetland News

Winter 1999

## New Wetland Educational Materials

The Louisiana Cooperative Extension Service recently completed work on three diverse educational products that will help Louisiana citizens become more informed about our state's coastal and wetland resources. This wetlands educational package includes an interactive CD-ROM, a video and a series of lesson plans produced by LCES in conjunction with various funding agencies.

*Louisiana Wetland Functions and Values* is an interactive CD-ROM that includes a variety of educational presentations and ideas on the benefits and utility of our wetland resources. The CD also includes full-length versions of three videos that cover a range of topics from introductory wetland information to more in-depth discussions of wetland policy and programs. An entertaining and educational wetlands quiz is also included and should prove extremely useful as an educational tool for students in the 6<sup>th</sup>-12<sup>th</sup> grade range. Students and adults alike will find this CD a valuable reference tool for general information on Louisiana wetlands. The CD was developed by LCES in conjunction with the USGS-National Wetlands Center and the Louisiana Department of Natural Resources.

*America's Vanishing Treasure* is a 30-minute video that examines the current techniques and plans under way to restore coastal Louisiana. Our state contains 40% of the coastal wetlands in the United States, yet accounts for over 80% of the nation's coastal wetland loss. This video focuses specifically on the importance these wetlands play in the state and national economy and provides insight on the costs that will be required to preserve these fragile lands. The video was produced in cooperation with the Barataria-Terrebonne National Estuary Program and debuted on the Louisiana Public Broadcasting Network on October 5, 1999.

Three wetlands-based lesson plans has also been developed by LCES under contract with the Barataria-

Terrebonne National Estuary Program. While these curricula focus primarily on the Barataria-Terrebonne estuarine system, the concepts and information have application statewide, and the plans are currently being disseminated throughout the LCES network of 4-H agents. Designed primarily for high school students, the three topics include: *Wetland Functions, Values & Economic Resources in Barataria-Terrebonne*; *Non-Point Source Water Pollution in the Barataria-Terrebonne Watersheds*; and *Coastal Land Loss and Restoration Options in the Barataria-Terrebonne Basin*.

For additional information regarding these products, please contact Dr. Rex H. Caffey, Assistant Specialist, Coastal and Wetland Resources, Louisiana Cooperative Extension Service, 202A Knapp Hall, LSU, Baton Rouge, LA 70894-5100, (225) 388-2266, rcaffey@agctr.lsu.edu.



***America's Vanishing Treasure is a newly released video and one of three new LCES educational products focusing on Louisiana wetlands.***



## EPA Award and Web Site for Marsh Maneuvers

We are proud to announce that Marsh Maneuvers was selected as one of two LCES programs to receive the U.S. Environmental Protection Agency (EPA) Region 6 Administrator's Environmental Excellence Award for Environmental Education in 1999. Although continued success of the program hinges on the time and resources of many people, this award recognizes the efforts of all those who have contributed to the program in past years and enriched the lives of hundreds of Louisiana children.



***Participating in a beach re-vegetation project on Grande Terre Island is one way students at Marsh Maneuvers learn about coastal restoration.***

For over 10 years, Marsh Maneuvers has provided an innovative learning adventure for high school 4-H students through hands-on environmental education activities. This wetland educational camping program is sponsored by the LSU Agricultural Center's Cooperative Extension Service with financial and logistical support from the Louisiana Department of Wildlife and Fisheries, the Louisiana Sea Grant College Program and the Barataria-Terrebonne National Estuary Program.

The Marsh Maneuvers curriculum is updated annually to improve lessons on coastal ecology, wetland loss and key social issues affecting the health and economic well-being of Louisiana's coastal communities. In 1999 a new web site was developed to provide descriptive information on the Marsh Maneuvers program as well as a resource for past and future participants. The address for the new Marsh Maneuvers web site is:  
<http://www.agctr.lsu.edu/wwwac/wetlands/MMcamp.htm>



## LSU Agricultural Center Hosts Coastal Revegetation Research Program

On October 14, the LSU Agricultural Center, in partnership with the Natural Resources Conservation Service, hosted a one-day seminar to highlight recent work in the area of coastal revegetation research. The program's focus was to describe the modern agricultural and biotechnological applications for developing superior coastal plants, dependable seed sources and innovative "artificial seed" techniques for use in Louisiana's coastal reclamation programs.

Dr. Tim Croughan, a plant physiologist and biotechnologist, Dr. Steve Harrison and Dr. Brad Venuto, both plant geneticists, have teamed up with Mr. Mike Materne, an NRCS plant materials specialist, to embark on an ambitious wetland vegetation research program. Among their progress to date, seed from 126 *Spartina* populations coast-wide have been collected for evaluation, and a 2-acre shallow pond test site has been established at the Agricultural center's Ben Hur Farm. In addition, the NRCS's Plant Materials Center in Golden Meadow is also playing a key role in the propagation, outfield testing and evaluation of promising selections. This USDA-funded research project continues to improve the availability and efficacy of plant materials for cost-effective revegetation in critical eroding wetlands.

***A shallow pond testing site was recently established at***



***the Agricultural Center's Ben Hur Farm. Plastic swimming pools allow researchers to segregate treatments in salinity tolerance trials with *Spartina* spp.***



# Mitigation Banking Basics

According to the federal government, mitigation banking is defined as: "...wetland restoration, creation, enhancement, and, in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for unavoidable wetland losses in advance of development actions, when such compensation cannot be achieved at the development site or would not be as environmentally beneficial."

In layman terms, the "bank" is a restored wetland and its functions and values, called "credits," are sold to developers whose proposed construction projects would damage or destroy wetlands elsewhere. This industry began about seven years ago as a market-based alternative to the wetland regulations outlined under the Clean Water Act (CWA). The compensatory requirements outlined in Section 404 of the CWA involve a sequential mitigation process that first requires that developers *avoid* any impacts on wetlands. If such impacts are unavoidable, then the impacts are to be *minimized*, and developers must compensate for the damage to the wetland. Such compensatory mitigation involves creating or restoring wetlands either *on-site* or *off-site* in an area with similar values and functions. However, when suitable off-site mitigation sites are unavailable, the developer may purchase credits from an approved mitigation bank.

Wetland mitigation banks are typically large tracts of land upon on which restoration, creation, enhancement and/or preservation investments have been undertaken for the sole purpose of creating a fully functional wetland system. Acreage within the bank is measured as credits, which are sold to end-users (developers or governmental agencies) to offset impacts resulting from development activity. To qualify, the land must be officially determined to be a wetland, by its hydrology, vegetation and soils. Prior converted wetlands with the potential for enhancement or restoration are prime candidates. There must also be reasonable certainty that the process will restore wetland functions, for example, fish and wildlife habitat, water treatment and waste assimilation, groundwater recharge and flood control.

The process of establishing a bank begins with the development of a Mitigation Banking Instrument (MBI), a type of feasibility study that outlines the ownership, objectives, and obligations of the bank's investors. The MBI is submitted for review to an appointed Mitigation Area Review Team (MART) combank's investors. The MIB is submitted for review to an appointed Mitigation Area Review Team (MART) composed of state and federal natural resource agencies. In Louisiana, a MART will typically include representatives from the state departments of Natural Resources, Wildlife and Fisheries, and Environmental Quality, as well as the federal U.S. Army Corps of Engineers (COE), Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS) and sometimes National Marine Fisheries Service (NMFS). The Corps of Engineers and the Louisiana Department of Natural Resources have regulatory oversight of the state's mitigation program, and the process from application to approval can take up to three years. Approved banks can sell mitigation credits only within a limited market, or "service area" determined by the hydrology of the surrounding watershed.

According to Jim Holcomb of the Louisiana Department of Natural Resources, the price of a mitigation credit in coastal Louisiana ranges from \$3000 to \$5000, though in the northern part of the state, prices may be somewhat lower. However, caution is advised for investors lured by potential profits. Mitigation banks are at best long-term undertakings and often require a perpetual commitment. Prospective investors should be aware of all technicalities and the environmental, economic and regulatory risks associated with mitigation banking. For additional information on wetland mitigation banks, see:

Coleman, E. (1999) Wetlands in the Marketplace, Coast and Sea, Louisiana Sea Grant College Program, Vol 7, No. 2, Fall 1999.

Federal Guidance for the Establishment, Use and Operation of Mitigation Banks, 60 Fed. Reg.58,606 (November 28, 1995).





## CWPPRA Extended One Year

On October 15, 1999, the United States Senate granted a one-year extension of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA). Commonly known as the "Breux Act," this legislation was established in 1990 to fund restoration programs solely through user fees, and remains one of the most significant federal programs to preserve coastal wetlands. The Breux Act provides nearly \$40 million a year in federal funding to protect and restore Louisiana's wetlands. Since the Breux Act was implemented, Louisiana has received more than \$273 million in federal funds, with the state sharing in the cost and implementation. *Source: Senator John Breux Press Release*



## Tulloch Rule Reversal

Earlier this year, the Louisiana Cooperative Extension Service received several requests for information regarding the latest interpretation of the Tulloch Rule. The Tulloch Rule is a 1993 court decision that stated incidental fall-back of soil from the excavation equipment working in wetlands constituted the discharge of fill material and thus needed a Section 404 permit. In January 1997, a federal district court ruled that there was no statutory authority under the Clean Water Act to take such action based on the premise that mere excavation of a wetland, without the actual deposition of solid material into a wetland, does not constitute "the discharge of dredged or fill material in a water of the U.S.," which is the activity actually regulated under Section 404 of the Clean water Act. Last fall, the U.S. Court of Appeals for the District of Columbia unanimously rejected the most recent in a series of appeals to the Tulloch reversal.

Enforcement officials of the New Orleans District COE recently informed LCES that the ruling has required them to back off of requiring any 404 permits for the removal of dredge or spoil material from a wetland, if the excavated material is placed on a non-wetland nearby or hauled off to another site that is also not a wetland. The Corps did reiterate the fact that irregular wetland patterns exist on many sites, as determined by the three-tiered criteria of soil, vegetation and hydrology. It is therefore important that landowners know what parts of their site are

wetlands and what parts are not (where to place excavated material). However, the ruling does not change the need for 404 permits to conduct land-clearing activities (tree removal and wetlands conversion). Furthermore, while many news releases have stated that land clearing would now be allowed (without a COE permit) with this ruling – this is not the Corps' interpretation.

Any excavation involving the uprooting of trees, and not just soil with non-woody vegetation, will generally require a 404 permit. For example, the channelization and deepening of a natural drain lined with trees would require a permit according to the Corps. Conversely, a farmer wanting to deepen a drainage ditch to enhance drainage capability on the farm could excavate the material from the ditch (even if it is classified as a wetland) without the need for a 404 permit. However, site variations and the issue of determining the non-wetland status of deposition areas can quickly confound such assessments. Thus, we suggest that producers/landowners contact the COE if further guidance is needed on specific cases.



***Reversal of the Tulloch Rule has eliminated 404 permit requirements for incidental fall-back of soil during ditching operations with non-woody vegetation. However, any excavated soil must be deposited in a non wetland area.***



# Wetland Delineator Directory to be Updated in 2000

The Louisiana Cooperative Extension Service is frequently called upon by the private sector to provide a list of professionals or companies conducting wetland delineation on private lands throughout the state. To better respond to these requests, LCES in conjunction with the Department of Wetland Biogeochemistry publishes a directory of Louisiana Wetland Delineators. This directory will be updated in the spring of 2000. If you are now providing this service and would like to be included in this directory, please contact this office by phone or complete and mail in the form below. You will need to provide the needed information no later than January 1, 2000. When the revised edition of the directory is printed, you will automatically receive a copy by responding. Copies of the directory can also be obtained by calling (504-388-2266) or e-mailing (rcaffey@agctr.lsu.edu) my office in Baton Rouge. We appreciate your cooperation and interest.

(Fill out the form below and mail it to: 202-A Knapp Hall, LSU, P.O. Box 25100, Baton Rouge, LA 70894-5100)

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## Wetland Delineator Information

Name: \_\_\_\_\_

Business name (optional): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Fax: \_\_\_\_\_

Geographic area of coverage in Louisiana (circle all that apply):

Southwest   South-central   Southeast   Florida Parishes   Northwest   Northeast



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For additional information on any topic covered in this newsletter, or to obtain wetlands or coastal resource-related educational information, please contact your parish Louisiana Cooperative Extension Service office. Have a merry Christmas and a prosperous New Year - see you in 2000!

Sincerely,

Rex H. Caffey  
Assistant Specialist  
(Wetlands and Coastal Resources)

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