



Louisiana Wetlands News

December

1997

Coast 2050: Strategic Planning for Coastal Louisiana

According to current available estimates, coastal Louisiana is losing an average of 25 to 35 square miles of land annually. This drastic change in our landscape is already having noticeable effects in some areas on a broad range of important quality-of-life issues.

The good news is that the overall state and national economies are relatively healthy, and coastal wetland conservation and restoration efforts are moving faster than ever before. In fact, there is an average annual investment of approximately \$50 million in coastal restoration projects. While it is clear that we will not be able to maintain the amount of coast we have now, restoration projects should make a significant difference, and they should complement other coastal use objectives.

In an effort to address coastal land loss, DNR (in cooperation with the State Wetlands Authority and the Breaux Act Task Force) has

started a new initiative of strategic coastal ecosystem planning and management called *Coast 2050*, a planning process that anticipates conditions in the year 2050, and seeks to maximize the overall public support and the effectiveness of coastal restoration efforts.

Coast 2050 was jointly initiated as a collective effort among the Louisiana Wetland Conservation and Restoration Authority (Louisiana Wetland Authority), the Coastal Wetland Planning, Protection and Restoration Act (Breaux Act) Task Force and the Department of Natural Resources Coastal Zone Management Authority.

Coast 2050 is distinguished from other existing conservation and management plans in Louisiana by three important factors: (1) a Coastal Zone Management Work Group will join the planning process by providing an avenue for local input; (2) in addition to the current land loss issues, wetland restoration projects will also

address other coastal uses such as fisheries, navigation, flood protection and mineral resources; and (3) the program strategy will orchestrate the state's existing Coastal Management program, Strategic Coastal Conservation and Restoration Plan and the 1993 Breaux Act Restoration Plan, so that they all work in unison toward a common goal consistent with the welfare of the citizens of Louisiana.

For the purposes of *Coast 2050*, the coastal zone of Louisiana was divided into four regions (see illustration). The four regions represent reasonably distinct areas in terms of geology and hydrology, and provide a convenient framework to facilitate local input concerning regional planning strategies and objectives. The objectives for restoration efforts in each of these regions will be solicited from the public, special interest groups, academia and other

affected interests. The plan development process is based on an open forum where technical experts, agency representatives and public representatives ensure that restoration concepts are discussed openly and objectively.

The scientific and technical aspects of *Coast 2050* are conducted through the Strategic Work Group comprised of the Breaux Act Technical Committee members and the State Wetlands Authority members and co-chaired by Dr. Bill Good, administrator of the Department of Natural Resources Coastal Restoration Division, and Robert Schroeder Jr. of the U.S. Army Corps of Engineers.

The public input process is being handled through a Coastal Zone Management Work Group. The membership of this committee includes parish governments or their Coastal Zone Management Advisory Committees, and is co-chaired by Greg Ducote and Phil Pittman, also from DNR. They are responsible for soliciting and integrating public objectives for

coastal restoration efforts. The Coastal Zone Management Work Group will ensure that federal, state, local, private, academic and public involvement will be represented in the planning initiatives.

As part of the first step of soliciting input, *Coast 2050* planning meetings were held to solicit public input in each of the four coastal regions. The goals of these meetings were to: (1) obtain input on important coastal resources and uses from local governments, special interest groups and citizens; (2) solicit public opinion and recommendations on coastal planning and restoration objectives; and (3) interact with coastal scientists to help develop a technically sound strategic plan to sustain coastal resources and provide an integrated multiple use approach to ecosystem management.

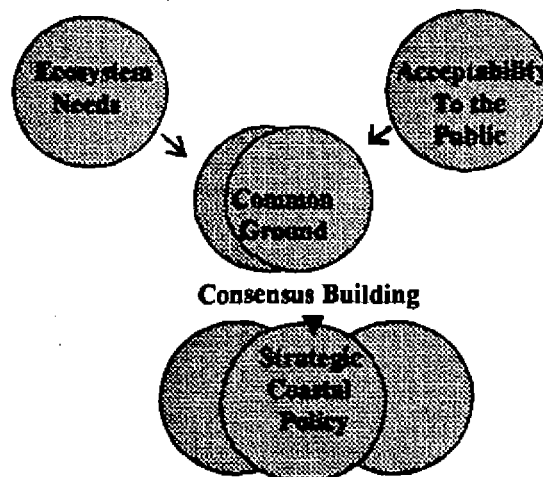
The *Coast 2050* Coastwide Ecosystem Management Plan will provide avenues for sustaining coastal resources and providing an integrated multiple

use approach to ecosystem management. This plan will include such site-specific factors as fish and wildlife productivity; transportation, navigation and utilities infrastructure; fresh water supplies; public safety; local economies, businesses, jobs and community stability. The plan will incorporate comments and recommendations submitted through the public meetings forum as well as those submitted directly to DNR, and will attempt to address concerns at the local, regional and coast-wide levels. The plan will be submitted to the Breaux Act Task Force, the State Wetlands Authority and the DNR Coastal Zone Management Authority in December 1998 for approval. □

Source: La Department of Natural Resources newsletter: Louisiana Coastlines, September 1997.

For more information, or to submit comments or suggestions, please contact DNR *Coast 2050* coordinator Steve Gammill at (504) 342-7308 or e-mail him at Steveng@dnr.state.la.us.

**COAST 2050
GOAL**
*In partnership
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December 22, 1998,
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Coastal Land Loss Projection Model

Dr. Joseph Suhayda, professor in the LSU Civil and Environmental Engineering Department, has recently developed and fine-tuned a land loss prediction model for coastal Louisiana. Land loss prediction maps covering 50 years (year 2040) and 100 years (year 2090) have been developed for southeast Louisiana, and his projections show an additional loss of almost 500,000 acres if no additional restoration action is taken.

With no action, the consequences of this loss could be devastating: (1) Louisiana Highway 1 south of Golden Meadow would eventually become impassable, adversely affecting Port Fourchon's ability to meet expanding deepwater oil and gas exploration and production; (2) surface marsh uses such as hunting, fishing, trapping and eco-tourism would decline in value and lead to reduced parish property tax collections; and (3) the storm buffering benefits associated with vegetated marshes south of coastal towns and cities (such as Thibodaux, Houma, Lafitte and New Orleans) would decline and expose more people to flooding from hurricanes and tropical storms.

If anyone would like to receive the 2040 and/or 2090 land loss prediction color maps, please contact my office in Baton Rouge. □

Wetland = Fisheries

Louisiana ranks second only to Alaska in total pounds of commercial fish and shellfish landed, accounting for approximately 20% of the nation's commercial landings. The dockside value of commercial fish landings in Louisiana exceeded \$290 million in 1995. According to a 1991 study, Louisiana's commercial fishing industry creates 90,000 jobs in the state and has an economic impact of \$1.5 billion. Recreational fisheries also play an important role in the state's economy. In 1991, approximately 900,000 people spent more than \$600 million fishing in Louisiana's waters, generating almost \$25 million in state sales tax, resulting in \$330 million in earnings and supporting more than 18,000 jobs. Approximately one-third of the recreational fishing occurs in coastal waters. Communities such as Cameron, Empire, Venice, Dulac and Chauvin all depend on fishing to support their local economies.

An estimated 98% of the commercial fishery landings in the Gulf of Mexico are estuaries-dependent, (dependent on estuaries for reproduction, nursery areas, food production or migrations). Considering the important role of wetlands in the estuaries of Louisiana, it is evident that Louisiana's coastal wetlands are essential for supporting the state's fishing industry. Hundreds of millions of dollars are being spent by federal, state and local agencies in the restoration of coastal wetlands in Louisiana. For these restoration efforts to be meaningful, they must be complemented by strong wetland conservation.

The relationship between a fishery and wetlands has been very effectively demonstrated for the shrimp fishery. Research has shown that the productivity of

shrimp fisheries is directly related to the amount of vegetated area in an estuary. In other words, more wetlands will produce more shrimp. Unfortunately, the converse is also true, which is why shrimp fishermen, facing declining harvests in some areas, have become some of the strongest supporters of efforts to conserve and restore coastal wetlands in Louisiana. Another example of a fishery's dependence on wetlands is the menhaden fishery, whose total landings (Atlantic and Gulf of Mexico) have decreased by 26% in the last decade. Menhaden depend on wetlands for nursery habitat and the detrital food chain. The regional management plan for Gulf menhaden cites the loss of coastal wetlands as one of the principal threats to that fishery.

Louisiana is losing wetlands at an estimated rate of between 16,000 and 22,000 acres a year. Causes of loss are both natural and human-induced. The loss of wetlands in Louisiana affects not only Louisiana's fisheries, but also the fisheries of all of the Gulf of Mexico states, from Texas to Florida. The future of Louisiana's wetlands, the fisheries that depend on them and the communities that depend on the fishing industry all depend on continuing wetland conservation and restoration efforts in Louisiana. □

Source: NOAA Habitat Connections: Vol 1 (4), 1997.



Drive to Halt Erosion Puts Nutria Back on Menu

The Department of Wildlife and Fisheries and the National Marine Fisheries Service proposed an imaginative new program earlier this month to combat marshland damage by nutria. Its purpose is to determine if a system can be developed that facilitates and encourages nutria harvest by increasing demand for their meat. This project is intended to control exploding nutria populations by creating an industry to sustain long-term harvest. The ultimate goal is to reduce permanent damage these voracious vegetarians are doing to Louisiana's fragile marshland.

The five-year project will match funds from the Coastal Wetlands Planning, Protection and Restoration Act (Breaux Bill) with those of participating processing plants to increase the value of nutria and promote their harvest. Processors participating in the project would receive a supply of nutria meat at a unit cost significantly lower than other meats. Cost savings could be transferred to retail outlets and then to consumers, encouraging consumption.

Processors will purchase nutria from trappers at current market price. Through Breaux Bill funding, LDWF will pay trappers an extra dollar for each nutria deemed suitable for human consumption. Other nutria will be purchased at current market price and processed for alligator food.

The proposed program would

be administered and monitored by LDWF through a regulatory process involving licensed trappers and meat processors. The program will conduct various nutria meat marketing activities, identify coastal areas impacted by nutria damage, record statewide nutria harvest and meat sales and monitor the recovery of impacted marsh areas. Other key project components include recipe research and publication and development of advertising and marketing strategies.

The proposal comes after a 1996 survey reported damaged acreage along transects in the Barataria and Terrebonne basins had increased from 15,476 acres in December 1993 to a total of 20,642 acres. A basin-wide estimate of nutria impact is likely to be three to four times larger than the area identified in this survey. The 1996 survey, conducted by Greg Linscombe and Noel Kinler of LDWF's Fur and Refuge Division, identified 61 new damage sites in the Barataria and Terrebonne basins.

The survey strongly advocated the need for developing a trapping system which would facilitate significantly higher nutria harvest. Results also suggest that additional economic incentives are now needed.

In 1995, rules and regulations were developed for processing nutria for human consumption. Nutria meat is extremely healthy. It is lower in fat and

higher in protein than many other commonly consumed game and domestic animals. Unfortunately, processing plants did not process nutria for human consumption because of a lack of investment capital and general knowledge of processing cost and price structure for products. All of these obstacles will be addressed with this project.

Vegetation removal by nutria constitutes permanent loss of vegetated wetlands. A major concern is that only a fraction of damaged sites have recovered since the initial surveys in 1993. These fragile wetlands may not be able to withstand this continued stress in years to come.

Total funds requested for the project are \$2,070,000. Only \$400,000 is available now, and it will be spent on marketing activities, establishment of program protocols and procedures and a coast-wide habitat damage survey. The remaining funds will be allocated next spring, and incentive payments to meat processors and trappers are scheduled to begin in November 1998. □

For more information, contact Noel Kinler at (318) 373-0032 (kinler_n@wlf.state.la.us).

Source: LDWF Newsletter, November 14, 1997.

3-D Seismic in Louisiana's Coastal Zone

South Louisiana marshes and swamps are a vitally important transition zone between high land and the Gulf of Mexico. These highly sensitive lands have, however, experienced much increased oil and gas exploration related to seismic activities in recent years. Industry and governmental agencies are striving to minimize the impacts associated with these activities.

The Louisiana Department of Wildlife and Fisheries has a seismic section that monitors and regulates seismic activity throughout the state. The Fur and Refuges Division of the Department manages about 500,000 wetland acres in coastal Louisiana. Thirteen 3-D projects have been completed on these lands. Experience gained from these projects, combined with ongoing research projects at Rockefeller Refuge, have provided the basis for the various environmental requirements and provisions used on coastal refuges and WMAs.

Seismic operators are issued a Geophysical Permit from the State Mineral Board and must follow regulations set forth in State of Louisiana Title 76; subchapter A. Seismic exploration. Additionally, Fur and Refuges Division staff develop individual seismic permits and regulations for each project located on coastal refuges and wildlife management areas. Rockefeller Refuge regulations include a pre-planning meeting before operations begin, weekly operations meetings and a post-cleanup meeting of refuge staff, Seismic Section staff and field staff. Seismic operators at Rockefeller and other refuges are required to hire an independent compliance inspector to oversee daily field operations and provide pre- and post-operation aerial photography.

For each seismic operation, working windows are developed to minimize effects to wildlife and protect research programs, which include alligator egg collection, alligator nest research, marshland fire research, seismic research and oil spill research. In 1996, seismic operations were suspended on October 15 to avoid disturbance of wintering waterfowl using the refuge. Refuge biologists have initiated two seismic research projects to evaluate vegetative recovery and vehicular traffic impacts to marsh elevations. □

Reference: LWBA July 1997 Newsletter: authors - T. Hess, B. Wilson and M. Windham.

Just a Little Oil Can Have a Big Impact

You may not think that a couple of gallons of used motor oil poured down a neighborhood storm drain or dumped from a boat can cause an environmental problem, but used oil is the single largest source of water pollution. People who change their own oil discard 180 million gallons in the U.S. environment every year—15 times as much as the Exxon *Valdez* spill. The heavy metals and other contaminants contained in the oil can be toxic to people, wildlife, fish, shellfish and plants.

The good news is there is an alternative—recycling. Recycling used oil can keep it out of the environment, save crude oil, and result in valuable products. About 80% of the recycled oil collected in the U.S. is blended with virgin stock to be used as industrial heating oil. The rest is used as industrial fuel or re-refined into motor oil. It takes only one gallon of used oil to produce 2.5 quarts of motor oil, but 42 gallons of virgin crude oil are needed to produce the same amount. As a result of recycling, each automotive oil change can save over 80 gallons of crude oil. Studies show that re-refined oil performs as well as oil refined from crude oil. Motor oil doesn't wear out, but additives that prevent rust and corrosion must be replaced.

The used oil coordinator in the Louisiana Department of Environmental Quality can provide more information on oil recycling: Solid Waste Division, Louisiana Department of Environmental Quality, P. O. Box 82178, Baton Rouge, LA 70884-2178 or contact the Louisiana Sea Grant College Program at (504) 388-6343. □



Monies Available for Marinas To Improve Water Quality

Human waste in recreational waters is unsightly and can be toxic to marine life as well as swimmers and skiers. This public health problem is growing as the number of people participating in water-related activities increases.

As a partial response, the United States Congress passed the Clean Vessel Act (CVA) in 1992 to reduce water pollution caused by disposal of human waste by recreational boaters. The CVA provides grants for reimbursement of up to 75% of expenses for construction and renovation of sewage pumpout and dump stations. Goals under the CVA are to increase availability of waste reception facilities and their use by recreational boaters. This will reduce water pollution by giving boaters an alternative to overboard discharge of sewage.

Vessel sewage discharged into waterways allows dangerous micro-organisms, chemicals and damaging nutrients to escape into the environment. Swimming and other recreational activities, as well as the commercial harvest of shellfish and other marine life, can be negatively affected by human waste.

Many Louisiana waterways are critically lacking in disposal facilities while the number of recreational boats steadily increases. Some areas, such as those frequented by large boats with installed toilets or houseboats, need pumpout stations to empty boat holding tanks. Other waterways used by smaller boats with portable toilets need additional dump stations.

In 1994 the Socioeconomic Research and Development Section of the Louisiana Department of Wildlife and Fisheries surveyed recreational boaters and marina operators to develop a plan for the Louisiana CVA grant program. Based on results of the surveys, water bodies across the state were ranked according to the need for additional sewage disposal locations. It was estimated that 37 new dump stations and 16 new pumpouts are needed to meet the needs of recreational boaters and to help prevent sewage discharges into Louisiana waters. To date, five pumpout stations and two dump stations have been installed or are under construction.

LDWF is stepping up its efforts to educate boaters about environmental effects of boat sewage discharges and is encouraging marina owners in areas with critical needs to install disposal stations. Boat owners can help by letting marina operators know they need sewage disposal facilities and will patronize marinas that install them.

Marina owners can help by contacting LDWF to learn about installing pumpout and dump stations. Installment of both types of disposal facilities qualify for up to 75% reimbursement under the Louisiana CVA grant program. Funds are available. For more information or to request an application packet, call (504) 765-2708. □

Source: LDWF News Release

Tourism and Clean Environment Drive Coastal Economies

A study recently released by the National Oceanic and Atmospheric Administration showed that coastal states, counties and cities rely heavily on tourism for employment and tax revenue. Sixty-six percent of state officials ranked tourism either first or second as an industry and economic force in their state. Fifty-five percent of city officials also ranked tourism as first or second, and fully 30% ranked tourism among the top three industry and economic forces. Most of the states and cities that ranked tourism as the top industry are in the mid-south Atlantic and Gulf coasts.

According to the 13 coastal states responding with tourism figures, the tourism industry supports more than 2.6 million jobs, with business revenues exceeding \$64 billion. In Florida alone, tourism provides an estimated 719,000 jobs. Local communities also reported relying heavily on tourism. In Gulf Shores, Alabama, for example, tourism reportedly supports 80% of the local budget.

Participants in the study further indicated that a clean environment is very important in recruiting new residents and businesses. Eight-four percent of state officials described a clean environment and the availability of recreational opportunities as very important in recruiting new industries and attracting new residents. Seventy-six percent of city officials surveyed also found these factors to be very important. □

Source: Mississippi Cooperative Extension Service/Sea Grant

1998 Coastal Stewardship Awards

Do you know someone who deserves recognition for his/her efforts on behalf of coastal Louisiana? Now is your opportunity to recognize such an individual.

The Coalition to Restore Coastal Louisiana is accepting nominations for the third annual Coastal Stewardship Awards. These awards are given in recognition of outstanding contributions to restore and preserve Louisiana's coast.

Competition is limited to eight categories: Citizen Advocate (Adult), Citizen Advocate (Youth), Professional, Media Educator, Organization, Distinguished Achievement and Director.

Each nomination must contain a nomination form, a letter stating the nominees' specific contributions and documentation of those contributions. All entries must be received by February 1, 1998.

For more information or a nomination form, call Dina Boucher in Baton Rouge @ (504) 344-6555 or toll free at 1-888-LA-COAST. □

Caernarvon Project Update

After five years in operations, the Caernarvon freshwater diversion project is beginning to show preliminary results. The project diverts freshwater nutrients and sediment from the Mississippi River into Breton Sound estuary to restore the ecological balance that was lost when the area was cut off from the river by flood control levees.

The Caernarvon freshwater diversion project, located about 10 miles southeast of New Orleans, was completed by the U.S. Army Corps of Engineers in 1991. The state sponsor of the project is the Department of Natural Resources. Monitoring data have shown that the marsh has increased in sampled areas at an annual average rate of 5.9%. The project has enhanced emergent marsh vegetation growth, reduced marsh loss, and increased some important fisheries species. Wildlife productivity in the Breton Sound estuary has also increased, particularly in the number of waterfowl and the number of alligator nests. The statistical significance of these results, however, will not be completed until more monitoring data are collected.

The structure consists of five 15 x 15 foot gated culverts and, at maximum discharge, is capable of delivering fresh water into Breton Sound at a rate 8,000 cubic feet per second. Caernarvon cost \$25,900,000 to build. The project was funded by the Water Resources Development Act and has a minimum life of 50 years. During its lifetime, the U.S. Army Corps of Engineers estimates that it will yield over \$9 million per year in benefits.

Since 1988, a rigorous monitoring process by DNR's coastal restoration staff has shown that freshwater marsh plants increased over seven times and brackish marsh plants increased by almost half since operation of the structure began; the amount of salt marsh vegetation has decreased by more than half. Caernarvon has actually restored lost marsh, as well. Results show a net increase in marshland of 406 acres within the sampled area, which originally contained 2,289 acres of marsh. This comparison represents a three-year operation from 1992 through 1994, which translates to an annual increase of 5.9% per year.

For more information on this topic, please contact DNR's CRD Project Manager Chuck Villarrubia or Dr. Bill Good at (504) 342-7308. Information also at website at <http://www.lacoast.gov>. □

Source: LDNR News Release

Rescuing The Treasure Video

Copies of the Barataria-Terrebonne National Estuary Program (BTNEP) sequel documentary video, *Rescuing The Treasure*, are now available free to the public.

This video is a companion piece to the highly successful, national award-winning *Haunted Waters, Fragile Lands-Oh, What Tales to Tell!* video documentary produced in 1994 by Louisiana native Glen Pitre. Its sequel, *Rescuing The Treasure*, addresses the historical trends and current status of the estuary's priority problems by focusing on

the four BTNEP Status & Trends Reports and the Characterization Report.

Rescuing The Treasure has received rave reviews, and producer Glen Pitre was awarded the 1997 Coastal Stewardship Award from the Coalition to Restore Coastal Louisiana for both BTNEP documentaries.

If you would like a copy of either video, contact BTNEP in Thibodaux at 1-800-259-0868.

For more information about any topic discussed in this newsletter, or to obtain wetland or coastal resource-related educational information, contact your parish Louisiana Cooperative Extension Service office.

I would like to wish all of you a very merry Christmas and a happy and prosperous New Year.

Sincerely,



Paul Coreil, Associate Specialist
(Wetlands and Coastal Resources)

Visit our website at: <http://www.agctr.lsu.edu/wwwac>

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
Louisiana Cooperative Extension Service, Jack Bagent, Vice Chancellor and Director

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.