



**US Army Corps  
of Engineers**

Galveston District

# Environmental Outlook

A newsletter for and by people concerned about the environment



*Great Blue Herons and Roseate Spoonbills on Pelican Island*

## District hosts environmental forum

by Rick Medina  
Planning Division

The Galveston District hosts its first Environmental Forum on Jan. 23. The forum will be comprised of representatives from environmental groups along the Texas coast who are knowledgeable of and have an interest in the activities of the Galveston District. Thirty organizations, from the Armand

Bayou Nature Center to WHAT Ducks, have been invited to participate.

Historically, the federal and state resource agencies have been afforded a greater opportunity to participate in our programs. However, private environmental groups have not.

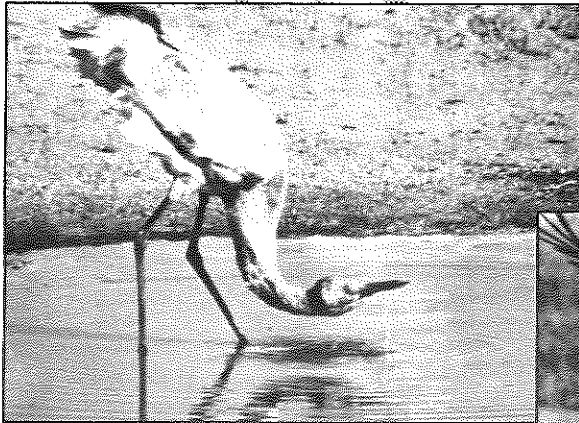
The goal of the forum is to establish a better dialogue with the envi-

ronmental community. For the Corps of Engineers to effectively perform its missions, a better understanding of the concerns and desires of the environmental community is essential.

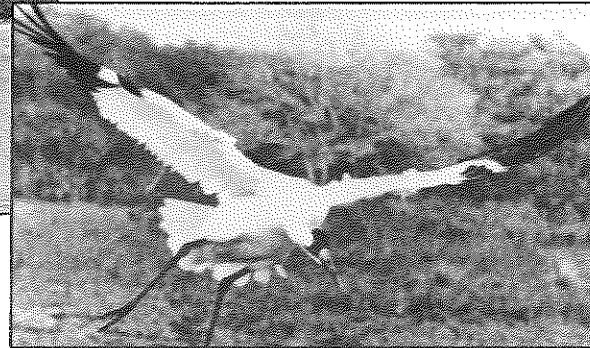
Specifically, the forum has the following goals: (1) provide a mechanism for the environmental community to express its concerns, needs, and op-

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# Erosion threatens wildlife refuge



*Whooping cranes  
Aransas National Wildlife Refuge*



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by Autumn Lowe  
Public Affairs Office

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Both vessel traffic in the Gulf Intracoastal Waterway (GIWW) and wind generated waves cause the loss of approximately two acres per year of whooping crane habitat. The critical wintering habitat of the rare and endangered whooping crane, including a 13.25 mile reach within the boundary of the Aransas National Wildlife Refuge is crossed by a 31-mile reach of the GIWW.

Ongoing investigation of erosion occurring along the GIWW and through the critical habitat of the whooping crane is authorized by the 1970 Flood Control Act. In section 216 of this act the Secretary of the Army, acting through the Corps of Engineers, is authorized to review completed Corps of Engineers' projects when significant physical or economic conditions have changed, and to make appropriate recommendations on the advisability of modifying the project or its operation.

The first phase of the investigation, reconnaissance, consists of preliminary problem evaluation, an analysis of at least one potential alternative solution that indicates the pos-

sibility of an economically feasible project, and recommendations. The second phase, feasibility, consists of economic and environmental criteria which must be satisfied. After which, a recommendation is made that ultimately will be forwarded to Congress for project authorization.

Reconnaissance studies which investigated rerouting the channel on a northerly route to avoid the critical habitat, as well as bank protection for the existing alignment were completed in November, 1989. A four-year feasibility study, initiated September 1990, evaluates additional realignment options, various beneficial uses of dredged material, and will develop a plan for implementation.

In May 1989, Galveston District requested formal consultation with the United States Fish and Wildlife Service under the Endangered Species Act for possible impacts to the whooping crane. Although the erosion problem is not a direct result of the maintenance dredging, Galveston District agreed to address the problem in the following manner.

First, to provide temporary pro-

tection for 2,000 feet of refuge shoreline each year, provided this effort is funded, to address the most critically eroding areas until implementation of the project proposed in the feasibility phase. Refuge personnel identify the locations to be protected each year.

Then, in cooperation with the Corps' Waterways Experiment Station (WES), a demonstration study will be done using various erosion control techniques, including beneficial uses of dredged material, within the critical habitat. Refuge personnel assist with the identification of locations for this effort as well.

The four-year section 216 feasibility study was designed to allow ample time to incorporate the lessons learned from the WES studies in selecting the recommendation most compatible with the whooping crane habitat. Refuge personnel identified areas to be protected and the methods acceptable. In addition, environmental agency scoping meetings are held periodically to insure the acceptability of the alternatives examined during the feasibility phase. □



*Wetlands at Aransas National Wildlife Refuge*

## Wetland Delineators Certification Program underway to improve quality, consistency

A training program for certification of wetland delineators is being established by the U.S. Army Corps of Engineers. It begins March 1 in Washington, Maryland and Florida.

The Corps initiated the program with the intent of improving the quality and consistency of wetland descriptions submitted to Corps districts. This is done in conjunction with applications for authorization to perform activities in wetlands pursuant to Section 404 of the Clean Water Act. It also involves streamlining the regulatory process by developing procedures for expediting consideration and acceptance of delineations performed by certified delineators.

The demonstration projects of the Wetland Delineator Certification Program (WDCP) will include testing and provisional certification of individuals. Provisional certification will be issued to applicants based on successful completion of a written examination and field work.

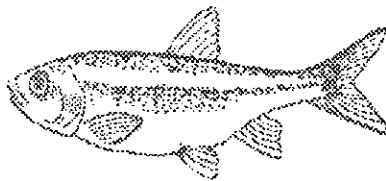
Certificates are valid during the demonstration phase and only in the certifying district. These projects will help refine procedures and address problems prior to adopting the WDCP nationwide.

The demonstration projects will be administered by the Seattle, Balti-

more and Jacksonville Districts. Applications for certification will be accepted as of Feb. 1. Prerequisites, although mandatory when the WDCP is implemented nationwide, will be waived for the demonstration phase.

Although no requirement exists for wetland delineators to be certified, permit applications accompanied by a wetland delineation performed by a certified delineator will be handled more expeditiously. However, the districts will retain discretion regarding acceptance of these delineations.

Application materials will be available from the Seattle, Baltimore and Jacksonville Districts in late January. The program is open to all, but participants must appear in person for the written and field tests. □



## New members appointed to Inland Waterways Users Board

Nancy P. Dorn, assistant secretary of the Army for Civil Works, has announced the appointment of new members to the Inland Waterways Users Board and the selection of Berdon Lawrence as board chairman. The board, which was established under the Water Resources Development Act of 1986, advises the Secretary of the Army and the Congress on priorities and makes funding recommendations for inland waterways projects. The U.S. Army Corps of Engineers serves as their federal sponsor.

Appointed to a two-year term beginning Jan. 1, 1993 were: Raymond Hickey, president, Tidewater Barge Lines, Vancouver, Wa.; William Morelli, general counsel, Ingram Barge Company, Nashville, Tenn.; and, John Pearson, president, Guthrie Corporation, Guthrie, Okla. Also, Berdon Lawrence, president, Hollywood Marine, Houston; and Daniel T. Dunn, vice-president, marketing, American River Transportation Company, Decatur, Ill., were reappointed to a second two-year term.

Currently serving on the 11-member board are: E.A. Drummond, vice-chairman, Drummond Company, Jasper, Ala.; John W. Hancock, consultant and retired president, Midland Enterprise, Cincinnati, Ohio; E.J. Katlic, senior vice-president, American Electric Power Service Corporation, Lancaster, Ohio; David W. Kreutzer, general manager, river division, Consol, Pittsburgh, Pa.; Steven J. Lucas, director logistics and operations, Louis Dreyfus Corporation, Wilton, Conn.; and W.N. Whitlock, senior vice-president, American Commercial Barge Lines, Jeffersonville, Ind. □

# ICT, BUG: Teams promote exchange of views

by Dr. Thomas H. Rennie  
Coastal Planning

To foster better coordination between Galveston District and the resource agencies concerning environmental issues relative to the deepening and widening of the Houston and Galveston Ship Channels (Houston-Galveston Navigation Channels, Texas Project), an Interagency Coordination Team (ICT) was formed and has met since January 1990.

The purpose of the ICT is to allow for full and complete exchange of views on project environmental issues and to develop necessary additional studies that could satisfy their environmental concerns. Team members include staff from the local sponsors (Port of Houston Authority and Port of Galveston), Environmental Protection Agency, U.S. Fish and Wildlife Services, National Marine Fisheries Service, Soil Conservation Service, Galveston National Estuary Program, Texas Parks and Wildlife Department, Texas Water Commission, Texas Water Development Board, Texas General Land Office, and the U.S. Army Corps of Engineers.

Meeting discussions are open to any item concerning the project and any decisions on the conduct of the environmental studies are by consensus vote. All draft reports and data resulting from these studies are provided to ICT members for review and comment. To date, the Scopes of Work for nine additional studies costing about \$7 million have been developed and agreed to by the ICT.

These studies include: a 3-D Hydrodynamics and Salinity Model Study; a Ship Handling Simulation Model Study; a Contaminants Study; a Oyster Model Study; procedures and methodology for developing a plan for beneficial uses of project dredged ma-

terial, assessing cumulative impacts, and locating and designing mitigation oyster reefs; and a Disposal Site Selection Study. Results of these studies will be included in the project Limited Reevaluation Report and Supplement to the Environmental Impact Statement scheduled for public release in June 1993. To date, the ICT has met 25 times and will continue to function through project construction.

The ICT has proven to be a successful coordination vehicle and many of the views and ideas of ICT members have been adopted into the project plan. The ICT has offered the opportunity for the Corps, resource agencies, and the local sponsors to work together to seek an acceptable project that both protects Galveston Bay resources and provides for environmentally sustainable development. The ICT can serve as a guide for future interagency coordination efforts on complex coastal projects.

Six ICT subcommittees were formed during the study to provide specialized input into the additional environmental studies. The Beneficial Uses Group (BUG) is one of the most important interagency subcommittees because its purpose is to develop a locally preferred beneficial uses disposal plan for Galveston Bay that utilizes new work construction material and maintenance dredged material from the project in an environmentally sound and economically acceptable manner.

The purpose of the BUG was developed from the recognition that: 1) dredged material is a potential valuable resource and should be considered and treated as such, 2) development of an environmentally acceptable dis-

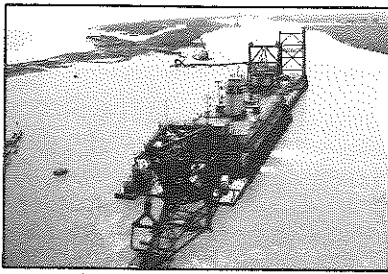
posal plan is intrinsic to the eventual approval of the project, and 3) any disposal plan developed must have long-term and net positive environmental benefits to the Galveston Bay System.

Chaired by the Port of Houston Authority, the BUG includes staff members from the Environmental Protection Agency, U.S. Fish and Wildlife Services, National Marine Fisheries Service, Texas Parks and Wildlife Department, Texas General Land Office, and U.S. Army Corps of Engineers.

To date, the BUG has met 25 times. It has solicited and reviewed ideas and plans from the public about the uses of project dredged material. An information packet soliciting input was mailed to a list of interested bay users. Groups showing an interest were offered the chance of hosting a BUG workshop. Fourteen workshops were held.

Based on input from these workshops, letters, and conversations, the BUG initially consolidated all ideas into 40 beneficial uses disposal sites for Galveston Bay, including marsh creation sites, bird island sites, boater destination sites, shoreline enhancement sites, and oyster reef creation sites. These 40 sites were then ranked based on their net environmental benefit to Galveston Bay; further screening produced a conceptual disposal plan of 18 beneficial uses sites.

To better refine the number, size and location of the sites in the conceptual plan, the BUG sought additional information that: 1) located existing oyster reefs, 2) considered the potential of replacing open bay habitat with marsh habitat, 3) located existing and



*At work in the Gulf Intracoastal Waterway*

planned exploration and production of oil and gas, and pipelines, 4) considered potentials for sediment contamination, 5) considered bottom sediment types and distribution, and 6) considered dredged material pumping distances, dredging equipment requirements, and the effects of movement of dredged materials through pipelines.

**T**he final disposal plan for Galveston Bay, resulting from these investigations, was adopted by the BUG and approved by the ICT and will be incorporated into the project plan. This disposal plan consists of: 1) five marsh creation sites (approximately 4900 acres of new marsh) - Bolivar Peninsula, Dollar Point, Disposal Area 15-16, Disposal Area 10-12, and Goat Island, 2) one bird island creation (25 acres) - western end of East Bay, 3) two boater destination sites incorporated into Bolivar Peninsula marsh and DA 10-12 marsh, and 4) oyster reef sites created at the fringes of the marsh creation sites. Still being considered by Galveston District is the restoration of Vingt-et-uns Island (bird island), Red Fish Island (boater destination island), and additional oyster reef creation sites as project mitigation.

The successful development of a beneficial uses disposal plan for the largest channel enlargement project in the United States, places Galveston District in the forefront of the Corps of Engineers efforts to champion innovative uses of dredged materials as a valuable resource. Like the ICT, the BUG has functioned as a unique interagency group and may be a model for development of future disposal plans for major navigation projects. □



*Brown Pelican Island near Corpus Christi*

## Corpus Christi Bay selected for five year \$5 million EPA National Estuary Program

Corpus Christi Bay will be the focus of an extensive five-year, \$5 million project to learn more about problems facing the estuary and ways to solve them.

The U.S. Environmental Protection Agency announced in October that the bay had been added to its National Estuary Program (NEP). Galveston Bay was previously the only bay in Texas that was being studied under this program.

The goal of the program is to produce a long-range planning and management program for the bay. This often involves utilizing university scientists to investigate specific problems facing the area.

Alan Berkebile, the head of the department at Corpus Christi State University (CCSU), says the selection of Corpus Christi Bay for the NEP should increase the opportunities for

research at CCSU and other Texas universities.

"Many of our researchers at CCSU have been investigating facets of the bay including real-time data on water levels and water quality. Aquatic biology has been a major thrust. The exciting thing about the NEP is that it will provide opportunities for intense and expanded studies in many of these areas and should help us gather more data about the bay than ever before," says Berkebile.

Corpus Christi Bay was selected because of concerns about freshwater diversions, shoreline erosion, and declining water quality. In addition to Corpus Christi, neighboring areas including parts of Kenedy, Brooks, Duval, Jim Wells, San Patricio, McMullen, Live Oak, Bee, Refugio, and Aransas counties will be included in the study. □



# Quality Management Boards formed to implement TAQ

by Sidney Tanner  
Planning Division

In an era of "doing more with less," the Galveston District is implementing a technique, known as Total Quality Management or TQM, that has proven successful for a number of years in the private industrial sector. The TQM methodology is being tailored to meet the various quality control applications in the governmental arena particularly in the Department of Defense.

The Department of the Army's version of TQM is referred to as Total Army Quality (TAQ). The operative concept of TQM and TAQ is "continuous process improvement." This philosophy involves a comprehensive method to improve quality by examining the way work gets done in a systematic, structured approach, using fundamental management techniques, existing improvement efforts, and various technical tools.

The TAQ approach employs the use of Quality Management Boards (QMBs) to identify areas where existing processes are to be examined. One such QMB in the Galveston District is the QMB for the Environment. This QMB is composed of management and middle-management level representatives from Planning, Construction-Operations, Project Management, Regulatory, Engineering Design, Operations and Maintenance, and Environmental Resources.

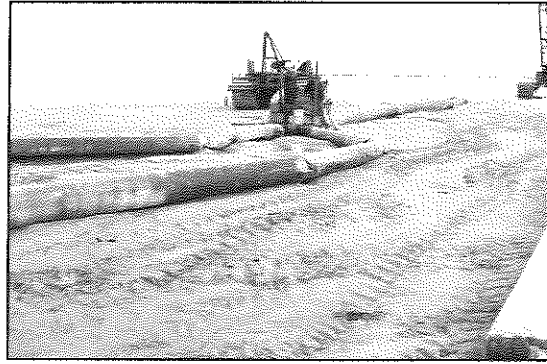
The function of the Environmental QMB is to identify major mission areas where repetitive processes are routinely used and could be improved. An underlying premise of TAQ is that all processes can be improved. Although implementation of TAQ in the Galveston District is still in the initial stages, several major topics are embodied within the Environmental QMB.

These include the regulatory function, communication with private environmental groups, environmental engineering, and beneficial uses of dredged material. There are others which could be identified as sub-sets within each one, but until the fundamental techniques of the overall TAQ process have been implemented by the district, the list will not be expanded. However, we will remain open to opportunities to improve specific processes as they become evident as application of this method evolves.

The initial output from the Environmental QMB has been to identify a "process" to be analyzed in detail. This "process" is within the major topic of beneficial uses of dredged material and specifically, is the procedure used to determine if material obtained from a given reach of channel can be used beneficially and if so, how.

The Environmental QMB will appoint a Process Action Team (PAT) to analyze, in detail, the current process that is being used and to make appropriate recommendations for implementation back to the QMB. The PAT will be composed primarily of staff-level personnel from the Operations and Maintenance, Project Management, Environmental Resources, and Engineering Division elements. Input from external sources will also be likely.

This PAT, as well as all other PATs formed in connection with TAQ, is formed on an ad hoc basis, and will be dissolved upon completion of the analysis and reporting the results to the QMB. Other PATs will be organized



*The reconstruction of Port O'Connor Beach with dredged material is just one example of how Galveston District is "doing more with less."*

to address other processes. In addressing the beneficial uses of dredged material, the PAT will analyze how material removed from each dredging operation is assessed as to its potential use for beneficial purposes as opposed to just disposal.

There are many potential uses of dredged material. The challenge is to match the type of material from a particular segment of channel to a beneficial use for the material within practical pumping distances. There is a great deal of excitement and anticipation as to the potential benefits from employing the TAQ approach to beneficial uses of dredged material in the Galveston District. This is particularly noteworthy when considering the potential for beneficially using a much greater percentage of the 40 million cubic yards of material dredged on an annual basis from the 760 miles of shallow draft channels and 240 miles of deep draft channels that is within the responsibility of the Galveston District.

As the various processes for the beneficial uses of dredged material are refined, the time required for implementing recommendations is expected to be shortened; a better understanding between the Corps of Engineers, other agencies, and environmental groups as to the expected results; and overall net positive benefits to the environment will result. The primary goal is to improve the process so that savings in time and funds will occur during coordination and, more importantly, the overall environment will be the ultimate winner. □

## Making progress in the West Bay

The West Bay Demonstration Project, one example of the beneficial uses of dredged material, is progressing. In early October, the initial planting of grasses on the levee was completed.

The levee was constructed in spring 1992 with dredged material to protect the Gulf Intracoastal Waterway and Halls Lake from erosive action.

A 1,000 foot barrier was also erected in October to protect the three to five acres of young plants, which will ultimately be part of a wetland.



*West Bay Demonstration Project*

The next major planting will take place in spring 1993. Until then, the corps will be monitoring sediment, depths and elevations.

Neil McLellan, project engi-

neer, reports the project is also fulfilling its purpose as a testing ground for experimental erosion control techniques. □

# Guidelines in the making for mitigation banking...

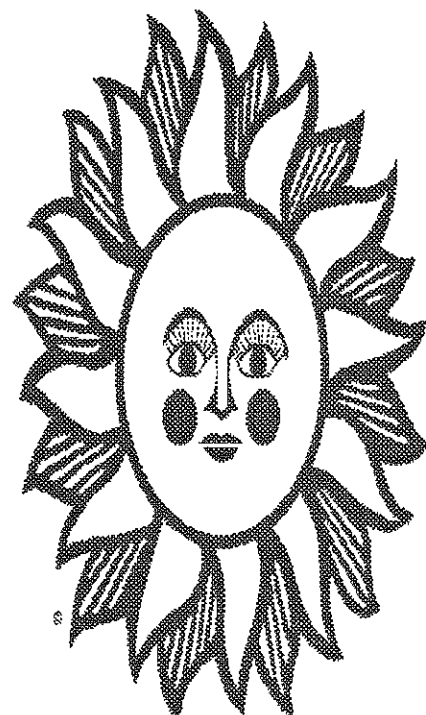
by Cynthia Wood  
Regulatory Branch

As more people learn about Mitigation Banking, more are buying into the concept of advanced mitigation, creating wetlands before the impact. Mitigation banking has been identified by the Corps as a useful tool for the regulatory program.

By requiring the wetlands to be functioning before they can be used to offset the wetland impacts of a permitted project, the Corps can be in a better position to insure a no net loss of wetlands.

On a national level, a draft Corps regulatory guidance letter on mitigation banking has been prepared and is being reviewed by the Corps divisions and districts for comments. It's also being coordinated with U.S. Environmental Protection Agency for their concurrence and signature.

The Galveston District, along with a number of federal and state resource agencies, is moving ahead with district level mitigation banking guidelines. □



# Corps puts dredged material to beneficial use

by Neil McLellan  
Operations/Maintenance

What do New York's LaGuardia Airport, the Meadowlands, Miami Beach, Los Angeles-Long Beach Harbor, oyster beds in Chesapeake Bay and Goose Island, Texas have in common? Dredged material. All of these locations have either been constructed or enhanced by the beneficial use of dredged material. What many consider a waste, has been turned into a valuable resource.

As the largest dredging organization in the United States, the Corps of Engineers has spearheaded a drive to use dredged material beneficially. Through programs such as the Dredged Material Research Program, Dredging Research Program and Wetlands Research Program, the Corps' Waterways Experiment Station has spent in excess of \$100 million researching dredging and dredged material placement.

Much of the effort has been in developing methods to use dredged material beneficially. The Corps removes approximately 250 million cubic yards of dredged material each year. Over 95 percent of this material is clean and available for beneficial uses, such as beach nourishment, wetland creation, land reclamation, environmental enhancement and fish habitat creation. Beneficial use can take any form which sediment can be used for.

For many years the value of dredged material as fill has been known and used such as the creation of emergent land sites for recreation or commercial use, such as creation of Goose Island in Texas and the runways of LaGuardia Airport, dock space in Los Angeles-Long Beach Harbor or stabilizing areas such as the Meadowlands in New York for development. Other beneficial fills include beach

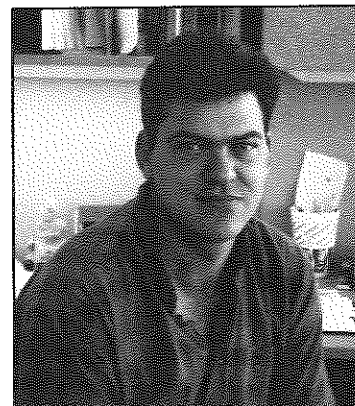
nourishment, Miami Beach, Fla. and Tacoma, Wash. where a sediment contaminated by a sewer outfall was covered, or capped, with several feet of clean dredged material from the navigation channel, thus isolating the contaminants from the marine community.

By far the greatest potential for dredged material is the creation of wildlife habitat in emergent, intertidal and submerged areas. Created upland areas have benefitted bird populations across the country. An island created from dredged material in Mobile Bay, Gaillard Island, is the first nesting location this century for the endangered brown pelican in the state of Alabama.

In the Carolinas, the Wilmington District manages some of the leveed upland areas to create duck habitat. Local land owners can lease these areas to generate income. The New Orleans District is frantically working with the local state and federal agencies in Louisiana to counteract the loss of 25 square miles per year to erosion.

Not only is the erosion rate being reduced, but enormous fish and waterfowl habitats are being created. Of all the habitat creations, submerged areas are currently the most difficult to monitor and evaluate. The transitory nature of fish from different areas because of season, pH, rainfall, salinity and several other factors, makes it difficult to evaluate success.

Several projects, such as the Baltimore District's creation of habitat for oysters and seagrasses, and the Mobile District's stable berm have shown subaqueous placement can be used to enhance fisheries resources. Within the Chesapeake



Neil McLellan

Bay different areas were elevated using dredged material and created suitable habitat for oysters or seagrasses.

A berm was created off of Dauphin, Ala. using 16 million cubic yards of dredged material from the Mobile Ship Channel. This material created a mound 20 feet high and 2.5 miles long. It's the largest man-made submerged feature in the world. The berm created habitat for several reef dwelling fish, such as the red snapper where there was none before.

Within the Galveston District, there are several ongoing and continuing beneficial use projects. The district has a long history of using dredged material beneficially, including raising much of the upland area the city of Galveston sits upon. After the devastating storm of 1900, several sections of the city of Galveston were elevated using dredged material which was pumped directly onto the island. In addition, much of the existing portions of Pelican Island and Pelican Spit were created by the placement of dredged materials.

In more recent times the Galveston District has used dredged material in many innovative and creative ways. Beginning in 1978 the district began creating and monitoring wetland areas on Bolivar Peninsula. Although normal disposal operations had created wetland areas, the Bolivar experiment was one of the first in the district, as well as in the country, to document wetland creation.

The site exists today and remains a lush stand of marsh grasses along an

(continued on page 10)



# Corps protects Piping Plover

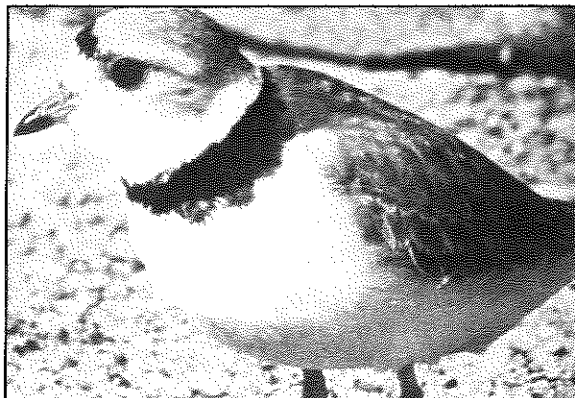
by Don Nanninga  
Regulatory Branch

In 1985, the Piping Plover (*Charadrius melodus*) was listed as endangered in the Great Lakes watershed and listed as threatened throughout the remainder of its range. The Piping Plover is a small migratory shorebird which breeds on the northern Great Plains and along the Atlantic coast from Newfoundland to Virginia.

It winters on the Atlantic and Gulf of Mexico coasts from North Carolina to Mexico, including coastal Texas. Since the Galveston District encompasses the entire Texas coast from Louisiana to Mexico, the Piping Plover is of concern to the District for federal projects and for those requiring a Department of the Army permit.

The Corps has been delegated authority by the Congress to regulate private construction activities in waters and wetlands of the United States. This is done through the permit program. The purpose is to ensure a proper balance between environmental values and development needs. The Galveston District currently processes about 800 permits and 1100 jurisdictional determinations each year.

One of the Corps' environmental review factors is for endangered species. As the Piping Plover is located along the Texas coast, some permit decisions have been delayed in an attempt to gather data on this species. The operation and maintenance of



*Charadrius melodus* is listed as a threatened species for Texas.

Federal navigation projects are affected by the presence of the Piping Plover. Several of these projects have existed for years prior to the listing of the Piping Plover as a threatened species. Many dredged material disposal areas may be located immediately adjacent to, or may constitute Piping Plover habitat.

Since the listing of the species, some maintenance activities have been restricted to a period when Piping Plovers are not present in order to avoid adversely affecting the species. The use of some dredged material disposal areas in or near Piping Plover habitat, has also been curtailed or otherwise affected.

Many proposed federal flood control and navigation projects along the coast are also affected by the presence of the Piping Plover. If it is determined that the project may adversely affect any federally listed threatened or endangered species, the Corps works with the appropriate agency to modify the project. This occasionally causes delays.

The Corps is currently working with the U.S. Fish and Wildlife Service and the Piping Plover Recovery Team in an effort to properly assess the Piping Plover and its habitat. The recovery team has developed guidelines in determining the presence of this species for sites along the Texas coast. The Corps is currently reviewing these draft guidelines.

The Galveston District is committed to assure that any action taken will not likely jeopardize the continued existence of any listed species or result

in the destruction or adverse modification of habitat of those species. □

## ORGANIZATIONS ATTENDING ENVIRONMENTAL FORUM

Audubon Society - Corpus Christi  
Armand Bayou Nature Center  
Bayou Preservation Association  
Brays Bayou Association  
Buffalo Bayou Coalition  
Coastal Bend Environmental Coalition  
Ducks Unlimited  
Galveston Bay Conservation and Preservation Association  
Galveston Bay Foundation  
Gulf Coast Conservation Association  
Houston Audubon Society  
League of Women Voters  
Lower Laguna Madre Foundation  
OPUS  
PISCES  
Sierra Club - Galveston  
Sierra Club - Houston  
Sierra Club - Lower Rio Grande Valley  
Sims Bayou Coalition  
Sportsmen's Conservationists of Texas  
Texas Committee on Natural Resources  
Texas Environmental Coalition  
Texas Nature Conservancy  
Texas Shrimp Association  
Valley Proud Environmental Council  
Valley Sportsman's Club of the Lower Rio Grande Valley  
WHAT Ducks  
White Oak Bayou Association

# Shoreline breach threatens economic and environmental impacts

by Autumn Lowe  
Public Affairs Office

The Sargent Beach project, which is still in the planning and design stages, involves a 10-mile segment of the Gulf Intracoastal Waterway (GIWW) approximately 20 miles southwest of Freeport, Texas. This segment of the GIWW is more vulnerable to breaching than any other segment of the waterway on the Texas Gulf Coast.

The shoreline is eroding at an average rate of 33 feet per year and threatens future operations. The Corps

proposes to build a concrete-block revetment to stop the erosion. Investigations into real estate and the design of the revetment are taking place at this time.

Major environmental impacts, as well as economic impacts from shipping delays and alternative modes of transportation, would result from an extended breach.

If this segment of the Gulf shoreline continues to erode at its current rate, large areas of fresh, brackish and salt marshes in and around the San Bernard National Wildlife Refuge



*Sargent beach project site*

would be destroyed. Fish and wildlife depend upon these coastal marshes for sustenance.

These types of habitats are also suffering high rates of loss from both national and regional perspectives. More than half the original coastal wetlands in the lower 48 states have been destroyed.

Since Texas is the only coastal state in the nation which has not passed special laws to protect coastal wetlands, they are under particularly heavy threat from development. This is more of a reason to protect them where possible. □

## Beneficial Use

(continued from page 8)

otherwise nonvegetated shoreline. Other marsh creation sites are located in Matagorda Bay, Pelican Spit and Chocolate Bayou. All of the sites have demonstrated the excellent potential for wetland creation using dredged material.

Shoreline erosion is one of the major problems facing many areas within Texas. Much of the erosion is occurring along the waterways that Galveston District maintains. Several areas can be enhanced by the controlled placement of dredged materials. A recent project in West Galveston Bay created 22 acres of intertidal wetland while providing shoreline protection for the mainland and valuable juvenile fish habitat of Halls Lake. Port O'Connor, Texas has

a new beach, thanks to dredged sand from the Gulf Intracoastal Waterway.

Two current projects are reviewing long term beneficial use of dredged material within the district. One involves the Aransas National Wildlife Refuge, the winter home of the endangered whooping crane. Erosion within the refuge has reduced the habitat available for the whooping cranes. By beneficially using dredged material much of this habitat can be restored and provide for long term maintenance of the Gulf Intracoastal Waterway.

The deepening of the Houston-Galveston Navigation Channels may generate over 100 million cubic yards of new work material. A beneficial uses plan has been developed to use

this material to create wetlands, bird habitat and boater destination islands. This plan was developed in cooperation with several other federal and state agencies and will help to make Galveston Bay more productive while providing a deeper draft channel. The complexity and sheer size of the project will make it the standard for beneficial uses for the rest of the nation and the world.

Land subsidence and erosion has robbed many of Texas' coastal areas of their lands, wetlands and bird habitat. By taking what was once considered a waste and using it to construct viable habitat for many marine organisms, those in the Galveston District are indeed fulfilling their mission as Custodians of the Coast. □

# Highlights of the National Biennial Regulatory Conference

## "The Corps: Reasonable and Decisive in Changing Times"

Representatives from all levels of the Corps Regulatory staff attended the The 1992 Biennial Regulatory Conference, including the Assistant Secretary of the Army's Office (ASA), Office of the Chief of Engineers (OCE), Division and District Offices. Representatives from several of the federal resource agencies were also in attendance.

The main purpose of the conference was to discuss policy issues as well as the current state of the Regulatory Program.

One of the main priorities of Regulatory is to protect the environment in a way that allows economic development. Activities of informational workshops spotlighting three key subjects are summarized in the following report.

### Protect the Environment

○ A total of 6,100 comments were received on the new regulations covering excavation and ditching. The final rule is being drafted with Environmental Protection Agency (EPA) and must go to the Office of Management and Budget. The components will include the modification of the definition of fill to include excavation and ditching, piling as 404 fill, and the Prior Converted Cropland regulatory guidance letter.

○ Mitigation banking was discussed as a useful tool for the Regulatory program and should be promoted. By requiring the wetlands to be functioning before they can be used to offset the wetland impacts of a permitted project, the Corps can be in a better position to ensure a no net loss of wetlands. A draft regulatory guidance letter on mitigation banking was distributed for review and comments.

○ EPA received 100,000 comments on the wetland delineation manual and has \$400,000 to conduct a manual study with National Academy of Science. Academy findings are not expected for two years. It is the general feeling of the Corps that the 1987 manual, with improvements, will be the accepted version.

### Enhance Program Efficiency

○ Districts were urged to use the easiest or most efficient permit available for a given project. Districts should develop general permits and State Program General Permits (SPGP). In addition to making our program more efficient, SPGPs were presented as a better alternative to the state assumption program.

○ Although the new federal regulation 404(q) memorandums of agreement (MOA) with EPA, National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS) have only been in effect for a few months, it was the Corps consensus that the revised MOAs will be more efficient.

○ A draft flexibility guidance letter has been agreed to by the Corps and EPA at the Washington level. It has just been sent to EPA regional offices for review. The Corps districts/divisions recently obtained the guidance letter. It reinforces the exception provision in the 1990 EPA/Corps mitigation MOA allowing the foregoing of sequencing when the impacts of the project to the aquatic environment are minimal. It also provides fairness and reasonableness when conducting alternative analysis for small projects.

### Make Fair/Reasonable Decisions

○ Public perception of the Regulatory program is very instrumental in directing changes which occur in the program. When perceived as not doing the job, overstepping jurisdiction, being unfair, unreasonable, or untimely, it is often brought to the attention of Congress. It is best when the public perceives the Corps as fair, reasonable and able to make timely decisions. An active public communication effort is encouraged in all districts to accomplish this.

○ Uniform guidance on organizational standardization and upgrading of positions within Regulatory will be coming down from the COE in the near future.

○ The fiscal year 93 budget for Regulatory, Corps wide, is \$86 million, down \$6 million from the \$92 million that was requested. Given this shortfall, the highest priority should be to fund existing labor.

○ Comments from ASA, the Corps and other federal resource agencies indicate that no major changes in policy are immediately expected as a result of the new administration.

○ The conference was attended by regulatory managers from around the nation. This provided a forum for the exchange of new ideas and current information which is vital to the accomplishment of our mission. □



# Environmental Outlook

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## Environmental Forum

(Continued from page 1)

portunities in relation to our civil works missions and; (2) inform and educate the forum as to how we do business, our existing missions and responsibilities, and our existing environmental initiatives.

The forum will meet several times a year at various locations. The first topic for the forum will be the regulatory program. Agenda items include an overview of the regulatory program, the permitting process, the enforcement program, and current issues, including the wetland delineation manual.

Other topics for future forums include: Dredging and Beneficial Uses of Dredged Material, Environmental Engineering Initiatives, the Corps Planning Process - How a Project is Developed, and specific project discussions such as the Houston-Galveston and Wallisville projects.

It is hoped that through this forum the Galveston District will gain a better understanding of the concerns and desires of the environmental community. And in turn, keep them informed of our missions, capabilities, and environmental programs. The potential exists to provide meaningful improvements to our activities and projects. □

## Agenda Environmental Forum

Saturday, January 23, 1993

Galveston District Office

9:30 am	Registration	
10:00	Introduction	Col. Basilotto
10:30	Update of GI, CO, & O&M	George Rothen
11:00	Regulatory Program Overview	F. Anthamatten
11:30	WORKING LUNCH (Video & Survey Feedback)	
12:15 pm	Permitting Process	Dolan Dunn
12:45	Enforcement Program	F. Anthamatten
1:15	Current Issues	Regulatory Staff
1:45	Questions & Answers	Regulatory Staff
2:45	BREAK	
3:00	Future Forum Topics	Col. Basilotto
3:30	Adjourn, Tour of Facilities (optional)	

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