



November-December 2008

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NOAA Gulf of Mexico News

The Gulf of Mexico at a Glance Report Released

Management and Budget's Special Projects Division, in support of the Gulf of Mexico Alliance, released a summary report presenting key attributes of the Gulf Coast region. One objective of the Gulf of Mexico Alliance is to build public awareness about the linkages between the Gulf region's ecological health, the high quality of residents' everyday lives, and the economic vitality of the region. To this end, *The Gulf of Mexico at a Glance* presents regional aggregations of selected economic activities that are focused in coastal and ocean areas, as well as selected social and environmental attributes of the region. Hopefully, these facts will inspire interested citizens to further explore these subjects and their linkages. The report is available at: http://gulfofmexicoalliance.org/pdfs/gulf_glance_1008.pdf. For information, contact [Kristen Crossett](#) or [Nancy Wallace](#).

Tour to Assess Hurricane-impacted Coastal Areas in Louisiana

The Office of Coast Survey (OCS) co-hosted a tour of coastal areas and barrier islands in south Terrebonne Parish (LA) in response to an invitation from the Louisiana Wildlife Federation for regional and headquarters staff of the National Wildlife Federation, National Audubon Society, and Environmental Defense Fund. After a briefing by NOAA, the Louisiana University Marine Consortium, the Coastal Conservation Association, and other state representatives in Cocodrie, LA, the group traveled by boat to Trinity Island, a barrier island in Terrebonne Parish that was significantly impacted by both Hurricanes Gustav and Ike. After the tour, the environmental organizations began planning for a joint campaign to advocate funding and support for the protection and restoration efforts of Louisiana's coast and coastal populations. For more information, contact [Tim Osborn](#).

Restoration of Texas Coastal Marshes Impacted by Oil Spills

On December 8, scientists from the Office of Response and Restoration (OR&R) accompanied Chevron scientists to survey a restoration site in the Lower Neches Wildlife Management Area outside of Port Arthur, TX. The restoration site is a part of a natural resource damage assessment settlement and demonstrates innovative restoration techniques for promoting primary and secondary production of marshes impacted by oil spills. OR&R and Chevron scientists are collaborating on best management practices for responding to spills in coastal marshes, particularly in respect to in-situ burning as a technique for minimizing damage from cleanup operations and enhancing recovery of marshes impacted by oil spills. For more information, contact [Amy Merten](#).

NOAA Aids Safe Navigation during Dangerous Fog Conditions

During dangerous fog conditions from December 18-22, the Office of Coast Survey (OCS) and the National Weather Service (NWS) participated in port coordination conference calls to help determine which NOAA tools could most effectively help alleviate port congestion along northern ports in the Gulf of Mexico. During this time period, fog conditions forced as many as 54 ships to wait in the Gulf before

moving into the Port of Houston/Galveston while as many as 28 ships waited to depart the Port. Other Gulf coast ports in the Lake Charles area were also affected. NOAA Electronic Navigational Charts, used in conjunction with NOAA weather forecasting and Physical Oceanographic Real-Time System data, proved critical in moving traffic efficiently and safely during the small windows of opportunity when visibility improved. For more information, contact [John Nyberg](#).

Mercury Action Plan Developed for Gulf of Mexico

A new action plan, developed by representatives of NOAA, other Federal sponsors, State agencies, and academic institutions, identifies research and management needs related to mercury in the Gulf of Mexico. The plan provides a framework for data integration, research, and management action to reduce the risk of mercury to humans and wildlife through mercury source reduction, landscape management, and targeted fish consumption advisories. By identifying future funding priorities and fostering partnerships, the plan will lead to an integrated effort to reduce or mitigate regional mercury pollution. For more information, contact [David Evans](#).

NOAA Approves Two CELCP Plans

NOS Assistant Administrator Jack Dunnigan recently approved Coastal and Estuarine Land Conservation Program (CELCP) plans for Florida and the Commonwealth of the Northern Mariana Islands. The plans consider the geographic area for eligible projects as well as the significant habitat types and values that need to be protected. The plans also provide an incentive to bring together the various State or territorial agencies, local entities, and Federal agencies involved in land conservation planning within the state or region. To date, NOAA has approved six plans. The remaining 28 states and territories eligible to participate in CELCP have plans in various stages of development. Draft and approved plans are [available online](#). For more information, contact [Roxanne Thomas](#) or [Elaine Vaudreuil](#).

Enhancing Collaboration on Key Coastal Issues

The 11th Annual Southern and Caribbean Coastal Zone Management (CZM) Regional Meeting, held October 28-30 in Austin, TX, included a new effort to support collaboration between CZM Programs and the U.S. Army Corps of Engineers (ACOE) for regional sediment management. ACOE representatives from two district offices and the Regional Sediment Management Research Program talked about ways to collaborate with CZM Programs to promote beneficial uses of sand and other dredged materials and also identified opportunities to share data and continue a regional dialogue on this key coastal issue. The meeting was also the first to hold a special session for Federal, State, and local decision makers to discuss hurricane recovery in a region that remains hampered by the after effects of Hurricanes Ike and Dolly. The successful session brought together a panel of experts to share insights on how to link Federal and State programs to local needs and ways to leverage resources to rebuild stronger and more resilient coastal communities. For more information, contact [Laurie Rounds](#).

NOS Participates in Mexican Workshop to Develop Gulf of Mexico State Alliance Summit

On November 13-14, NOS participated in the First Mexican Workshop to develop the Gulf of Mexico State Alliance Summit, which will take place in February 2009. During the workshop, Gulf of Mexico state representatives considered development of a long-term action plan for conservation and facilitated a dialog among governments, academia, and private and public sectors. Representatives of the United States and Cuba were part of discussions about the challenges and opportunities for the region. The creation of the Mexican Gulf of Mexico Alliance will allow the U.S. Gulf of Mexico Alliance to coordinate management and research activities more comprehensively with other major players of the Gulf. Sustainable development and marine resource protection require a regional management approach and support. For more information, contact [Gonzalo Cid](#).

NOAA Announces Up to \$47 Million for Hurricane Damage to Fisheries in Louisiana & Texas

November 18, 2008

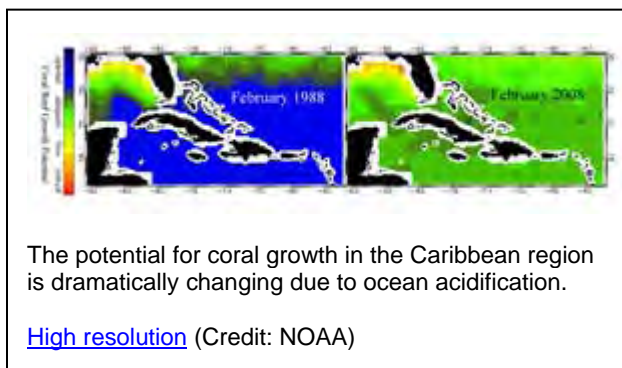
[NOAA's Fisheries Service](#) today announced the state of Louisiana will be eligible for up to \$40 million and Texas will be eligible for up to \$7 million in disaster aid to restore and rebuild the states' fish habitats and fishing industries devastated by hurricanes Gustav and Ike.

"These two hurricanes hit communities that had not yet recovered from the disastrous Katrina and Rita hurricanes in 2005," said [Jim Balsiger](#), acting NOAA assistant administrator for NOAA's Fisheries Service. "We are pleased that the states have shown a strong interest in using this aid to restore damaged oyster reefs, remove storm debris that hinders the shrimp industry, and to rebuild processing houses, docks, ice houses, and other parts of the fishing infrastructure destroyed by the hurricanes."

The states will now submit plans to NOAA's Fisheries Service outlining how the funds will be used. NOAA understands and predicts changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and conserves and manages our coastal and marine resources.

New Study Details Ocean Acidification in the Caribbean

November 21, 2008



A new study, which confirms significant ocean acidification across much of the Caribbean and Gulf of Mexico, reports strong natural variations in ocean chemistry in some parts of the Caribbean that could affect the way reefs respond to future ocean acidification. Such short-term variability has often been underappreciated and may prove an important consideration when predicting the long-term impacts of ocean acidification to coral reefs. Conducted by scientists from NOAA and the University of Miami's [Rosenstiel School of](#)

[Marine and Atmospheric Science](#), the study was published in the Oct. 31, 2008 issue of the Journal of Geophysical Research – Oceans.

Previous NOAA studies have shown that a quarter of the carbon dioxide that humans place in the atmosphere each year ends up being dissolved into the ocean. The result is the ocean becomes more acidic, making it harder for corals, clams, oysters, and other marine life to build their skeletons or shells. A number of recent studies demonstrate that ocean acidification is likely to harm coral reefs by slowing coral growth and making reefs more vulnerable to erosion and storms.

In the new study, NOAA scientists used four years of ocean chemistry measurements taken aboard the Royal Caribbean Cruise Line ship Explorer of the Seas together with daily satellite observations to estimate changes in ocean chemistry over the past two decades in the Caribbean region. The resulting new ocean acidification tracking products are available [online](#) along with animations of the changes since 1988.

"Ocean acidification has become an important issue to coral reef managers and researchers," said Tim Keeney, deputy assistant secretary for oceans and atmosphere and co-chair of the United States Coral Reef Task Force. "These new tools provide these communities with better information to guide future research. This is the first time that anyone has been able to track ocean acidification on a monthly basis."

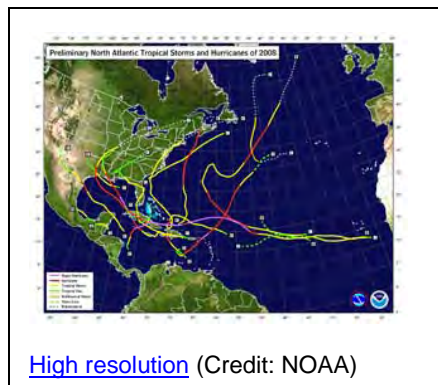
The study supports other findings that ocean acidification is likely to reduce coral reef growth to critical levels before the end of this century unless humans significantly reduce carbon dioxide emissions. While ocean chemistry across the region is currently deemed adequate to support coral reefs, it is rapidly changing as atmospheric carbon dioxide levels rise.

"The study demonstrates a strong natural seasonal variability in ocean chemistry in waters around the Florida Keys that could have important consequences for how these reefs respond to future ocean acidification," says NOAA's Dwight Gledhill, Ph.D., lead author of the study. C. Mark Eakin, Ph.D., coordinator of [NOAA's Coral Reef Watch](#), said "Organisms from highly variable environments are often better adapted to changes like we have seen in the last 20 years. The real question is how far corals can adapt and if this natural variability will be enough to protect them."

Co-authors of the paper are Rik Wanninkhof, Ph. D., [NOAA Research's Atlantic Oceanographic and Meteorological Laboratory](#), Frank J. Millero, Ph. D, University of Miami's Rosenstiel School of Marine and Atmospheric Science, and Eakin, [NOAA National Satellite and Information Service's](#) Coral Reef Watch.

Atlantic Hurricane Season Sets Records

November 26, 2008



The 2008 Atlantic Hurricane Season officially comes to a close on Sunday, marking the end of a season that produced a record number of consecutive storms to strike the United States and ranks as one of the more active seasons in the 64 years since comprehensive records began.

A total of 16 named storms formed this season, based on an operational estimate by [NOAA's National Hurricane Center](#). The storms included eight hurricanes, five of which were major hurricanes at Category 3 strength or higher.

These numbers fall within the ranges predicted in NOAA's pre- and mid-season outlooks issued in May and August. The August outlook called for 14 to 18 named storms, seven to 10 hurricanes and three to six major hurricanes. An average season has 11 named storms, six hurricanes and two major hurricanes.

"This year's hurricane season continues the current active hurricane era and is the tenth season to produce above-normal activity in the past 14 years," said Gerry Bell, Ph.D., lead seasonal hurricane forecaster at [NOAA's Climate Prediction Center](#).

Overall, the season is tied as the fourth most active in terms of named storms (16) and major hurricanes (five), and is tied as the fifth most active in terms of hurricanes (eight) since 1944, which was the first year aircraft missions flew into tropical storms and hurricanes.

For the first time on record, six consecutive tropical cyclones (Dolly, Edouard, Fay, Gustav, Hanna and Ike) made landfall on the U.S. mainland and a record three major hurricanes (Gustav, Ike and Paloma) struck Cuba. This is also the first Atlantic season to have a major hurricane (Category 3) form in five consecutive months (July: Bertha, August: Gustav, September: Ike, October: Omar, November: Paloma). Bell attributes this year's above-normal season to conditions that include:

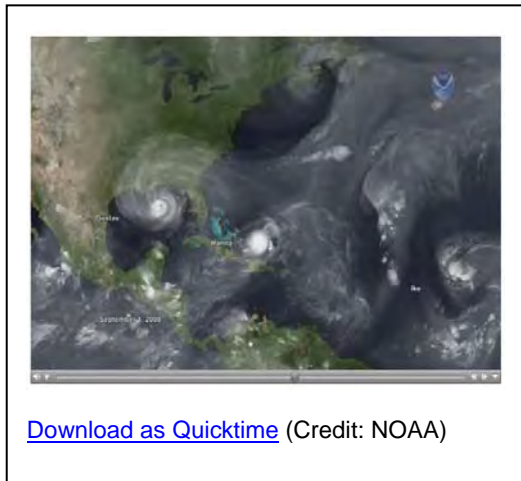
- An ongoing multi-decadal signal. This combination of ocean and atmospheric conditions has spawned increased hurricane activity since 1995.
- Lingering La Niña effects. Although the La Niña that began in the Fall of 2007 ended in June, its influence of light wind shear lingered.

Warmer tropical Atlantic Ocean temperatures. On average, the tropical Atlantic was about 1.0 degree Fahrenheit above normal during the peak of the season.

NOAA's National Hurricane Center is conducting comprehensive post-event assessments of each named storm of the season. Some of the early noteworthy findings include:

- Bertha was a tropical cyclone for 17 days (July 3-20), making it the longest-lived July storm on record in the Atlantic Basin.
- Fay is the only storm on record to make landfall four times in the state of Florida, and to prompt tropical storm and hurricane watches and warnings for the state's entire coastline (at various times during its August lifespan).
- Paloma, reaching Category 4 status with top winds of 145 mph, is the second strongest November hurricane on record behind Lenny in 1999 with top winds of 155 mph).

Much of the storm-specific information is based on operational estimates and some changes could be made during the review process that is underway. "The information we'll gain by assessing the events from the 2008 hurricane season will help us do an even better job in the future," said Bill Read, director of NOAA's National Hurricane Center. "With this season behind us, it's time to prepare for the one that lies ahead." NOAA will issue its initial 2009 Atlantic Hurricane Outlook in May, prior to the official start of the season on June 1.



GIS Technologies Help Prioritize Restoration Sites

National Centers for Coastal Ocean Science (NCCOS) researchers are using geographic information system (GIS) technologies to help prioritize restoration of seagrass habitats injured by vessel groundings in the Florida Keys National Marine Sanctuary (FKNMS). The accuracy of GIS technologies enables researchers to relocate vessel groundings in FKNMS and to gather critical data on the size, shape, and volume of injuries. By establishing relationships between physical data and observations of natural recovery at a site, researchers can determine if, and when, a site will recover naturally. These guidelines will help managers set restoration priorities for recent grounding events. Each year, more than 600 motorized vessel groundings are reported in the FKNMS, primarily within seagrass beds. As a government trustee, NOAA is authorized to seek restitution from responsible parties to restore these areas. The ability to set restoration priorities will greatly enhance the efficiency of litigation and restitution processes by targeting those sites most at risk of expanding over time. For more information, contact [Amy V. Uhrin](mailto:Amy.V.Uhrin).

Technical Report Assists NERR Managers to Protect Resources

A new NOAA technical report, *Support for Integrated Ecosystem Assessments of NOAA's National Estuarine Research Reserves System (NERRS), Volume I*, assists NERR managers in understanding how small tidal creeks in the southeastern U.S. respond to changes in land use. The results demonstrate that tidal creeks are sensitive to watershed-level land use changes and can provide an early warning of any ensuing harm to the larger coastal ecosystem, information that can assist environmental managers and local governments in making decisions. This report supports the National Centers for Coastal Ocean Science and NERRS long-term agreement to conduct collaborative ecosystem research and assessments. For more information, download the report at <http://www.hml.noaa.gov/>, or contact Susan White at Susan.White@noaa.gov, or Anne Blair at Anne.Blair@noaa.gov.

Gulf of Mexico Marine Debris Project Launches Revised Public Service Announcement

The Gulf of Mexico Marine Debris Project revised and updated a Public Service Announcement (PSA) being aired on radio stations in Louisiana. The PSA will run on a popular local broadcast, Louisiana Sportsman radio (station WGSO 990), and will provide listeners with more information on the project and the associated [Web site](#). Developed in partnership with Louisiana Sea Grant, the PSA is part of an extensive outreach campaign for the GOMMDP that also includes a short television spot on The Pelican KPBN, which airs in several parishes in southeastern Louisiana. For more information, contact [Megan Forbes](#).

Manta Photo Catalog Now Online at Flower Garden Banks NMS

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December 2008 - Manta rays are popular visitors to the Flower Garden Banks National Marine Sanctuary. They can be seen by divers at almost any time during the year, as they gracefully glide over the reefs consuming plankton.

Even so, there is so much we don't know about them ... How many are there? Do they stay at one bank or visit several? Do they travel to other reefs in the Gulf of Mexico or Caribbean?

The first step in answering these questions is to identify individual manta rays. This is done by observing markings on their undersides, which are unique to each animal. By combing through sanctuary photo archives, we've been able to successfully identify about 60 individuals and assign them identification numbers. Photos coupled with ID numbers were then combined to create a Manta Catalog.

The catalog is available at the sanctuary offices and on board the M/V Spree and M/V Fling that regularly take divers to the sanctuary. This information is also available electronically on the [FGBNMS web site](#). Please check out the online catalog and keep it in mind if you are ever diving in the sanctuary. Information on additional sightings is always welcome!



High-Resolution, High-Accuracy Elevation Data Available for Hurricane Response

The NOAA Coastal Services Center recently added topographic and bathymetric LIDAR data sets to the [Digital Coast Web site](#). These data cover an area from the southern coast of Texas to Maryland and will be used by the U.S. Army in mobile geographic information system units to assist with hurricane response efforts. Collected by many Federal, State, and local organizations, these data sets highlight the utility of a central coastal LIDAR repository and the ability to customize data for specific users. Efficiently serving data to the coastal community is an important aspect of managing recovery efforts and other coastal issues. For more information, contact [Keil Schmid](#).

Seminar for Surveyors in Post-Hurricane Ike Impacted Area

The National Geodetic Survey (NGS) and the Harris Galveston Subsidence District in Friendswood, TX, hosted a seminar for surveyors in the Houston/Galveston area on November 6. In the aftermath of Hurricane Ike, many businesses and homeowners face difficult decisions regarding whether to rebuild or relocate, and they need accurate data to assess costs and future risk. To address this need, the seminar focused on determining accurate heights in locations affected by the hurricane. Topics included understanding vertical datums, Federal Emergency Management Agency requirements, local building codes, land subsidence, and NOAA's Height Modernization Program. For more information, contact [Cliff Middleton](#).

Flower Garden Banks Condition Report Released

On November 12, the Office of National Marine Sanctuaries (ONMS) released the [2008 Condition Report for the Flower Garden Banks National Marine Sanctuary](#). This report summarizes the conditions and trends for the sanctuary's water, habitat, and living resources. Located in the northwestern Gulf of Mexico, the sanctuary includes three separate areas, known as East Flower Garden, West Flower Garden, and Stetson Banks. The banks support several of the most productive and unique habitats in the Gulf of Mexico, including the northernmost coral reefs in the continental U.S. Sanctuary condition reports are the latest in a new series of publications by ONMS to inform the public about the general condition of each sanctuary every five years. For more information, contact [George Schmahl](#).

Other NOAA News

First “Teachers Under the Sea” Bring Marine Science to Classroom

November 7, 2008

High school teachers [Mark Tohulka](#) of Miami, Fla., and [Stephen Houwen](#) of Longmont, Colo., will have an unusual experience this fall when they take part in the 100th mission to NOAA's Aquarius Reef Base, becoming the first teachers to live and work from the world's only permanent undersea laboratory.



Inside the 81-ton, 43 x 20 x 16.5-foot underwater laboratory are six bunks, shower and toilet, hot water, microwave, trash compactor, refrigerator and even air conditioning and computers linked back to shore.

[High resolution](#) (Credit: Aquarius Reef Base/NOAA)

After training to live 60 feet below the sea-surface for 10 days, the teachers will join a team of two habitat technicians and three science aquanauts led by [James Lindholm](#), assistant professor of Marine Science and Policy at California State University-Monterey Bay. By studying fish movements at Conch Reef, the team hopes to better understand the habitat and spatial scale needs for marine reserves.

While assisting with research, the teachers will participate in live on-line communications from the [Aquarius undersea habitat](#) that include three live and archived [broadcasts](#), [blogs](#), [video](#) conferencing with classrooms, and interacting [online](#) with the public.

“Teachers Under the Sea provides an exceptional inner-space experience to teach from

the ocean floor via the Internet,” said [Richard Spinrad](#), NOAA assistant administrator for oceanic and atmospheric research. “Aquarius brings the experience of living and working underwater to classrooms around the world, and encourages students to become interested in marine biology and oceanographic studies.”

Aquarius, located within the [Florida Keys National Marine Sanctuary](#), is owned by NOAA and operated out of Key Largo, Fla., by the University of North Carolina Wilmington allows scientists to live and work

underwater 24/7 during one to two week missions. This unique capability enables them to conduct research, surveys, or undertake experiments that would be difficult, if not cost and time prohibitive, if diving from the surface.

For this “Teachers Under the Sea” mission, Tohulka will be the on-board aquanaut. Houwen will serve as the alternate aquanaut and will be part of the surface-based science team at the Aquarius base station located in Key Largo, Fla. With 23 years of teaching experience, Tohulka teaches grades 10 through 12 honors marine biology, grade 9 biology, and grades 11 through 12 Marine Research at the Maritime and Science Technology Academy High School in Miami.

His awards include the Presidential Award for Excellence in Science Teaching, Milken Foundation National Educator Award, Dade County Science Teacher of the Year, and the Target National Teacher Award. He has extensive diving experience and numerous certifications, including advanced open water rescue and nitrox used for extended dive times. He has designed classroom activities for students about undersea habitats and been involved in several marine research projects requiring fieldwork.

Houwen teaches grades 10 through 12 in advanced placement biology and honors marine biology, along with anatomy and physiology. He has 26 years of experience and teaches at Alameda High School in Longmont, Colo. He has been listed twice amongst the Who’s Who Among American High School Teachers and has logged more than 200 dives and holds a current advanced open water certification. Houwen has conducted numerous field expeditions with his students, has been a speaker at the Colorado Science Teacher’s Convention, and has worked to implement real-time data use into his classroom.

Funding for the “Teachers Under the Sea” mission is being provided by grants to UNCW from Fish Florida, the Guy Harvey Foundation, Wal-Mart, and NOAA.

Scientific Assessment Finds Expanding Use of Climate Forecasts Could Mean Better Water Management

November 17, 2008

Expanding the use of seasonal to interannual climate forecasts, especially in drought-prone and semi-arid parts of the United States, can assist decision makers in the management of water resources, according to a new NOAA-led scientific assessment. The assessment is one in a series of synthesis and assessment reports coordinated by the U.S. Climate Change Science Program.

“Reducing our vulnerability to changes in climate depends upon our ability to bridge the gap between climate science and using that scientific understanding in our management of critical resources,” said Helen Ingram, lead author, and a research fellow at the University of Arizona. “For instance, our water resources depend on how much rain and snow we get. Climate forecasts can help us plan how we store and use our water.”

The report focuses on expanding the use of climate forecasts which are now used by a small number of decision makers. Through closer cooperation between climate scientists and water resources managers, these forecasts can become more useful to a wider group of decision makers.

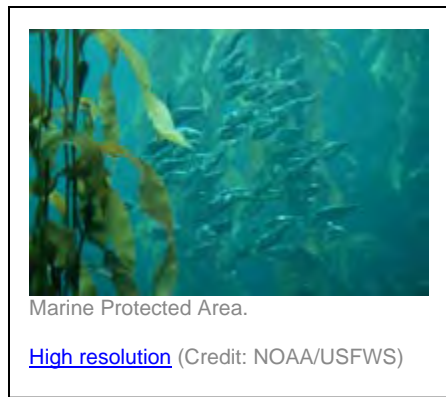
There has been some success in using seasonal and yearly climate information already, according to the report, such as managing Lake Okeechobee in Florida, running Seattle’s public utilities, and water and wildfire planning in the West. But the report also notes that this success can be expanded by building more credibility, legitimacy, and trust of climate forecasts.

The report also suggests a better balance between physical science and social science research to improve decision support; improving climate and hydrological forecasts; and enhanced monitoring to strengthen links between climate and hydrologic forecasts.

The Climate Change Science Program report, Decision Support Experiments and Evaluations Using Seasonal to Interannual Forecasts and Observational Data: A Focus on Water Resources, and a summary brochure are available [online](#).

Commerce and Interior Departments Announce Launch of National System of Marine Protected Areas

November 19, 2008



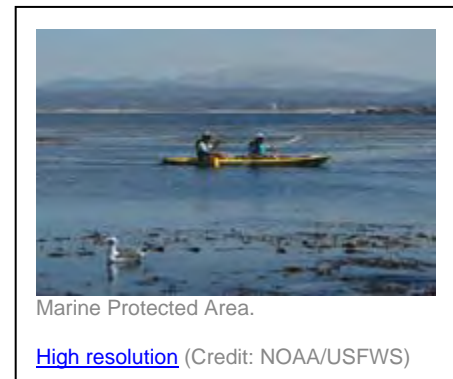
The U.S. departments of Interior and Commerce today jointly announced the availability of the final Framework for the National System of [Marine Protected Areas](#) of the United States, completing a cooperative, multi-year effort to provide a comprehensive approach to the protection of the nation's natural and cultural marine treasures.

The National System of Marine Protected Areas is the first formal mechanism for coordinating MPAs across all levels of government. The agencies also announced the nomination process for federal, state, territorial, tribal and local sites to join the National System of Marine Protected Areas.

MPAs are defined areas where natural or cultural resources are given greater protection than the surrounding waters. In the U.S., these areas may span a range of habitats including the open ocean, coastal areas, inter-tidal zones, estuaries, and the Great Lakes.

“Today’s announcement highlights a new focus on working together across jurisdictions to conserve our common ocean heritage,” said [Timothy Keeney](#), deputy assistant secretary for oceans and atmosphere. “Through the national system of MPAs, we will have a more efficient, effective approach to conservation of the nation’s important natural and cultural marine resources.”

The publication of the Framework for the National System of Marine Protected Areas of the United States of America provides a blueprint for building the national system of MPAs. The framework outlines key components of the national system, including overarching national system goals and priority conservation objectives; MPA eligibility criteria; a nomination process for existing MPAs to be included in the national system; and a science-based, public process for identifying conservation gaps in existing protection efforts where new MPAs may be needed.



“This lays the groundwork for a national system of MPAs that will ensure that our ocean’s resources are conserved for future generations,” said Kaush Arha, deputy assistant secretary for fish, wildlife and parks. “Our nation as a whole will benefit from this

comprehensive and representative system that not only enhances conservation and collaboration, but also will identify biologically or culturally important areas that are currently not adequately protected to ensure their long-term viability.”

In addition to public comments, extensive advice on the development of the national system and the Framework came from the 30-member [MPA Federal Advisory Committee](#) (MPA FAC) – a group composed of natural and social scientists, state and tribal resource managers, commercial fishermen, anglers, energy and tourism industry representatives, divers, and environmentalists. The MPA FAC was created in 2003 and has been working since then to develop recommendations for designing and implementing the national system.

Mark Hixon, MPA FAC Chair and Professor of Zoology at Oregon State University, notes that “Marine Protected Areas can be a controversial topic, yet the process we announce today is evidence that people with different views and interests can collaborate on the management of our valuable ocean resources.” MPA FAC Vice-Chair Bob Zales II, owner of Bob Zales Charters in Panama City, Fla., and President of the National Association of Charterboat Operators, added, “The national system provides a science-based and transparent process for identifying areas where new protection efforts may be needed. This is the type of open process that ocean users want to see.”

Presidential Executive Order 13158 of May 2000, calls for a scientifically based, comprehensive national system of MPAs that represents the nation’s diverse marine ecosystems and natural and cultural resources. NOAA’s National Marine Protected Areas Center led its development on behalf of the departments of Commerce and Interior, and in consultation with federal agencies, coastal states and territories, tribes, federal Fishery Management Councils, and the public. The national system does not establish any new legal authorities to designate MPAs, but provides a mechanism for MPAs across all levels of government to work together more effectively to achieve common goals.

The Department of Commerce, through NOAA, and the Department of the Interior will build the national system gradually over time. Priority conservation objectives, identified in the Framework document, will guide the development of the national system and identify existing MPAs to be included, as well as conservation gaps which might be addressed through the establishment of new MPAs.

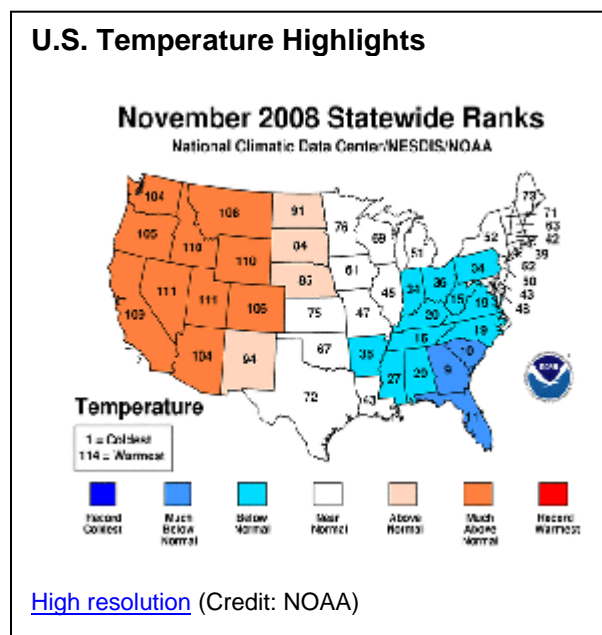
Today also marks the start of the nomination process for sites to join the national system. MPAs meeting the eligibility criteria defined in the Framework are invited to nominate themselves through their federal or state managing agency. All nominated sites will be available for [public comment](#).

MPAs that are accepted into the national system will be the focus of cooperative efforts to address common resource management challenges and will be placed on the official List of National System MPAs, which will be available to the public via the Federal Register and on the [Marine Protected Areas Web site](#). NOAA expects the final Framework document to be published in the Federal Register on Nov. 19. The Framework document is available for [download](#).

NOAA: November Warmer than Average in U.S., January-November Temperature Near Average for U.S.

December 11, 2008

The November 2008 temperature for the contiguous United States was warmer than the long-term average, according to [NOAA's National Climatic Data Center](#) in Asheville, N.C. The January-November 2008 temperature was near average.



The average November temperature of 44.5 degrees F was 2.0 degrees F above the 20th Century average. Precipitation across the contiguous United States in November averaged 1.93 inches, which is 0.20 inch below the 1901-2000 average.

For the January-November period, the average temperature of 54.9 degrees F was 0.3 degree above the 20th Century average. The nation's January-November temperature has increased at a rate of 0.12 degrees per decade since 1895, and at a faster rate of 0.41 degrees each decade during the last 50 years. All findings are based on a preliminary analysis of data based on records dating back to 1895.

November temperatures were cooler than average across the Southeast and Central regions, and much warmer than average in the Southwest, Northwest and West regions. The West region had its fourth

warmest November on record. This contrasted with the Southeast, which was much below normal.

Persistent above-average temperatures for the last six months have resulted in a record warm June-November period for the West region. California set a record for its warmest June-November, while both Nevada and Utah had their fifth warmest June-November period. Based on NOAA's Residential Energy Demand Temperature Index, the contiguous U.S. temperature-related energy demand was 0.6 percent below average in November.

The United States measured above-normal precipitation across the northern Great Plains from eastern Montana to western Minnesota. However, November was drier than normal across much of the South and Central regions.

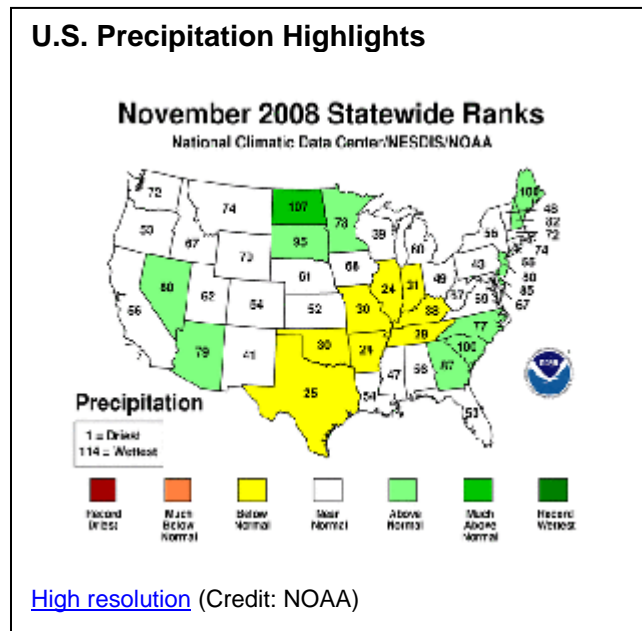
Precipitation across most of the Midwest was only 50-75 percent of normal and some areas from southern Missouri through central Illinois received less than 50 percent of normal precipitation.

The January-November period has been persistently wet across much of the country from the central Plains to the Northeast. The 11-month period was the wettest on record for New Hampshire and Massachusetts, second wettest for Missouri, third wettest for Vermont and Illinois, and fifth wettest for Maine and Iowa.

At the end of November, 22 percent of the contiguous United States was in moderate-to-exceptional drought, about the same as October. Meanwhile, extreme-to-exceptional drought conditions continued in

the western Carolinas, northeast Georgia, eastern Tennessee, southern Texas, and Hawai'i. About 26 percent of the contiguous United States was in moderately-to-extremely wet conditions at the end of November, according to the Palmer Index. This was a decrease of about three percent compared to October.

Other Highlights



It was the wettest November on record in Yuma, Ariz., with 2.2 inches (5.6 cm) of precipitation – all of it falling on November 26. This was more than five times the November average. An early November blizzard forced more than 100 businesses and schools, and Interstate 90, to close in western South Dakota on Nov. 5 and 6. The blizzard brought total snow accumulations of 3 to 4 feet and drifts up to 20 feet in places.

Several periods of strong northwesterly winds during the month resulted in mountain-enhanced snowfalls across the mountains of western Virginia, North Carolina, and extreme northern Georgia. Banner Elk, N.C. recorded 6.2 inches (15.7 cm) of snow during the month making it the snowiest November since 1983. Three separate wildfires, which scorched 41,000 acres in Southern California, destroyed 1,000 homes

and prompted 15,000 people to evacuate from November 13-17.

NCDC's preliminary reports, which assess the current state of the climate, are released soon after the end of each month. These analyses are based on preliminary data, which are subject to revision. Additional quality control is applied to the data when late reports are received several weeks after the end of the month and as increased scientific methods improve NCDC's processing algorithms.

NOAA to Create Saltwater Angler Registry in 2010

Final rule gives states more time to implement local data gathering

December 23, 2008

[NOAA's Fisheries Service](#) released its final rule today to create a national saltwater angler registry of all marine recreational fishermen to help the nation better protect our shared marine resources. A requirement to establish a registry was included in a statute approved by Congress in 2007. "Better national surveys of the more than 15 million saltwater anglers will help us demonstrate the important contributions of recreational anglers to both local economies and to the nation's," said Jim Balsiger, NOAA acting assistant administrator for NOAA's Fisheries Service. "The registry will help us gather comprehensive data to ensure sustainable fisheries built on the best available science."

The improved quality of recreational fishing data achieved through a national saltwater angler registry will help demonstrate the economic value of saltwater recreational fishing, and will provide a more complete picture of how recreational fishing is affecting fish stocks. This kind of information is essential to NOAA's goal to end overfishing as required under the [Magnuson-Stevens Fishery Conservation and](#)

[Management Act](#). All recreational anglers who fish in federal waters will be required to participate, with some exemptions for those already registered in their states.

The registry is the product of a major recommendation to NOAA in a 2006 independent scientific review by the National Research Council of the National Academy of Sciences. The NRC found that NOAA needed a comprehensive list of everyone who fishes recreationally in marine waters to improve surveys of saltwater anglers used to help manage and rebuild fish stocks. The NRC recommendation became law in 2007 with the reauthorization of the Magnuson-Stevens Act, the primary federal law that enables NOAA to manage ocean fish stocks.

The final rule requires anglers and spearfishers who fish recreationally in federal ocean waters to be included in the national saltwater angler registry by Jan. 1, 2010. Beginning January 2009, NOAA will exempt anglers from the federal registration rule if they are licensed in states that have a system to provide complete information on their saltwater anglers to the national registry.

“NOAA wants to work closely with the states and anglers to better capture the contributions and effects of sportfishing,” said Balsiger. “We expect that this additional year will allow a number of states to put in place systems to register their anglers annually and provide this information to NOAA.”

NOAA had originally proposed that registration be required beginning Jan. 1, 2009, but based on public input decided to give states another year to put in place their own data collection systems. If anglers are not licensed or registered by a state that has been exempted and want to fish in federal waters, they will be required to register with NOAA. They also must register if they fish in tidal waters for migratory fish such as striped bass and salmon that spawn in rivers and spend their adult lives in estuaries and oceans. However, those who fish recreationally for these migratory species inland of tidal waters need not register, according to the final rule.

Federal saltwater angler registrations will include an angler’s name, date of birth, address, telephone number, and the regions where they intend to fish. This information will be used by NOAA to conduct surveys on fishing effort and amounts of fish caught. Once anglers have registered, they may fish anywhere in U.S. federal waters, or in tidal waters for anadromous species, regardless of the region or regions they specified in their registration. The registration will be valid for one year from its date of issue. Anglers must comply with applicable state licensing requirements when fishing in state waters.

Saltwater anglers will be able to register online or by calling a toll-free telephone number that will be publicized, and will receive a registration certificate. Anglers will need to carry this certificate (or their state license from an exempt state) and produce it to an authorized enforcement officer if requested. No fee will be charged in 2010. An estimated fee of \$15 to \$25 per angler will be charged starting in 2011.

Anglers who fish only on licensed party, charter, or guide boats would not be required to register with NOAA since these vessels are surveyed separately from angler surveys. Those who hold angler permits to fish for highly migratory species, such as tunas or swordfish, and those fishing under commercial fishing licenses will also be exempt. Anglers registered or permitted to fish in a formal state or federal subsistence fishery will also be exempt, as will anglers under 16. NOAA received nearly 500 comments from anglers, state officials, and fishing and environmental organizations on its proposed national registry rule during the comment period from June 12 until Aug. 21. The registry is one component of the agency's new Marine Recreational Information Program, an initiative to enhance data collection on recreational catch and effort.

To read the final registry rule and other information about the [Marine Recreational Information Program](#), visit the Program's Web site.

MPA Center Contributes to Protect Planet Ocean Web Portal

Protect Planet Ocean, a new global collaborative web portal supported by leading ocean conservation organizations, features MPA content from the MPA Center's MPA Virtual Library. Launched October 7, 2008, at the IUCN World Conservation Congress in Barcelona, Spain, Protect Planet Ocean provides an array of the latest information on marine protected areas to a global audience. With the click of a mouse, interested parties can now learn more about their local MPA, including marine life that exists there and how it is managed. This innovative outreach tool is aimed at informing people about marine conservation, and inspiring them to take action to help conserve our ocean's resources.

The web portal features introductory information on MPAs, field work resources, topical and regional resources, tips on how to get involved with protecting MPAs, interactive MPA pages of videos, photos and stories about specific MPAs, and links to partner organizations, including the MPA Center. Protect Planet Ocean is sponsored by several international environmental organizations and supported by several Google technologies, including Google Earth. For more information, visit <http://www.protectplanetocean.org>.

New Model to Help in Prediction and Mitigation of Ecosystem-disruptive Algal Blooms

A new ecosystem-based model will help environmental managers and scientists to identify factors that promote harmful algal bloom (HAB) formation, and will provide for the development of effective strategies for bloom prevention and mitigation. The conceptual model outlines the role of interactions among several environmental processes that together regulate the development and severity of ecosystem-disruptive algal blooms. These processes include the input and cycling of nutrients such as nitrogen, growth competition between HAB species and beneficial algae, and grazing (predation) by marine animals on HAB and non-HAB species. The new model provides a theoretical basis for constructing predictive numerical ecosystem models for bloom development and harmful effects. It was presented in a keynote talk, titled "Positive feedback and the development of ecosystem disruptive algal blooms," at the 17th Annual Meeting of the North Pacific Marine Science Organization, held in Dalian, China, from Oct. 24 to Nov. 2, 2008. For more information, contact Bill Sunda at Bill.Sunda@noaa.gov.

'Shrimp on a Treadmill' Featured on NBC 'Today' Show

On November 25, NOAA's Internet sensation, the shrimp on a treadmill, appeared on NBC's Today show. Accompanied by two human colleagues from NOAA's Hollings Marine Laboratory (HML) in Charleston, South Carolina, the shrimp completed an aerobic workout on its specially designed treadmill to illustrate the effects that stress can have on marine creatures. A video of the HML scientists' experiment is extremely popular on YouTube, and "Today" showed a few clips of the exercising shrimp that YouTube users have put to music, including one featuring the compelling theme from the movie "Rocky." A link to the "Today" show segment is online at <http://www.hml.noaa.gov>. For more information, contact Susan Lovelace at Susan.Lovelace@noaa.gov

In the Gulf States

Mobile Bay Oyster Garden Volunteers "Grew" 59,000 Oysters This Year

According to the Mississippi-Alabama Sea Grant Consortium, this year, thirty-four (34) volunteers in Alabama participating in the Mobile Bay Oyster Gardening Program grew more than 59,000 oysters at restoration sites in Mobile Bay. The project will help filter water and provide habitat for a variety of estuarine organisms.

Planted off wharves in locations classified as conditionally open for shellfish harvesting, Mobile's Bay Oyster Gardening Program grew an average of more than 1700 oysters per volunteer. The successful program is made possible when volunteers receive juvenile oysters (also known as spat) set on whole shell from the Auburn University Shellfish Laboratory. Then, they place the oyster spat in special cages at the beginning of the summer and hang them from piers in the middle of the water column. Oysters are held off the bottom to help water flow through the cage and bring needed food while protecting them from predators, such as blue crabs and oyster drills.

According to Alabama Cooperative Extension Specialist PJ Waters, who works with the volunteers, there are plans to try to extend the growing season for gardeners where possible to increase the size of the oysters ultimately planting on restoration reef sites. For more information about the Mobile Bay Oyster Gardening Program, contact the Auburn Marine Center at 251-438-5690.

Hundreds Share Information about Coastal Issues, Resources

More than 400 people attended the Mississippi-Alabama Bays and Bayous Symposium on Oct. 28-29 at the Mississippi Coast Coliseum and Convention Center in Biloxi to share information about coastal resources, natural hazards, fish stocks, water quality, land-use, education and community action programs.

People from 10 states and 128 affiliations attended two days of presentations. More than 150 presenters shared their research and case studies with scientists, extension agents, community activists and educators. Some topics covered included hurricane intensity scales, oyster reef and marsh grass restoration efforts, engineering principles for living shorelines, population trends of sea life and issues related to hypoxia (which causes dead zones and jubilees).

Keynote speakers included Steve Murawski, director of scientific programs and chief science advisor for NOAA Fisheries, and Virginia Burkett, chief scientist for global change research for the U.S. Geological Survey. For the first time, the symposium included sessions about educating students and the public about marine sciences and highlighting innovative community efforts that benefit coastal ecosystems.

To find out more about the topics covered, go to <http://masgc.org/baysandbayous> and click on agenda (for oral presentations) or posters (for poster presentations). The Bays and Bayous Symposium was sponsored by the National Oceanic and Atmospheric Administration (NOAA) Mississippi-Alabama Sea Grant Consortium, Chevron Pascagoula Refinery, Alabama Department of Conservation and Natural Resources State Lands Division, Mobile Bay National Estuary Program, NOAA Coastal Services Center, Northern

Gulf Institute, The Forum, Mississippi Department of Marine Resources, U.S. Environmental Protection Agency's Gulf of Mexico Program, NASA, Alabama State Port Authority and Volkert & Associates, Inc.

These Shells Don't Clam Up: Innovative technique to record human impact on coastal waters

With their sedentary lifestyles and filter-feeding habits, clams have been silent witnesses to the changes that humans have inflicted upon their waters. These clams are silent no more, as Dr. Ruth H. Carmichael of the Dauphin Island Sea Lab and her colleagues have reported in their recent paper in the prestigious journal *Aquatic Biology*. Using stable isotope techniques, Carmichael demonstrated it is possible to identify and trace wastewater inputs to estuaries and coastal food webs by studying the organic matrix in the shell of the hard clam *Mercenaria mercenaria*.

This work presents a novel application of established biochemical techniques that can be applied to refine diet analyses for shellfish, trace nitrogen entry to coastal waters relative to changes in urbanization or climate, and help discern natural from human-driven influences on coastal ecosystems.

Using this new technique will allow coastal researchers and managers to document increases in waste loadings to coastal waters over longer periods of environmental change.

³This technique is exciting because it gives scientists and coastal managers a way to look into the past and trace human influences, in this case wastewater pollution, into local waters and ultimately into the organisms living there,² said Dr. Carmichael. ³Tools that help us define and trace specific sources of human-influence on our coastal waters are essential to inform management and future research efforts. Dr. Carmichael's article can be downloaded at: <http://www.int-res.com/abstracts/ab/v4/n2/>

Florida DEP Grant Funds Largest Green Roof in the State

ESCAMBIA COUNTY– The Florida Department of Environmental Protection (DEP) today continued support of innovative land use and stormwater best management practices (BMPs) by awarding a \$1.4 million Urban BMP Research and Demonstration grant to Escambia County. The county will use the funding for construction of a green roof as well as for a pervious pavement parking lot with recessed landscape islands at its One Stop Permitting Center, where all county development applications and building permits will be processed. When complete, the green roof will total 33,160 square feet, the largest in Florida.

“Investing in new ‘green’ technologies to reduce stormwater pollution, conserve energy and protect our rivers, lakes and springs will further water quality protection and provide clean water to meet future water supply needs,” according to Eric Livingston, chief of the DEP Bureau of Watershed Restoration. “This project is a great example of how local governments can adopt environmentally-sustainable practices that not only protect natural resources but help reduce the potential for some of the harmful effects of climate change.”

Green roofs use waterproofing, drainage systems that allow a layer of vegetation to grow on flat or sloping roofs, and a cistern to store stormwater. The stormwater filtrate is then used to irrigate the green roof. The environmentally-friendly design reduces energy transfer through a roof, decreases stormwater pollutants, and lessens stormwater volume by naturally evaporating the runoff through the plants.

Additionally, the pervious parking lot with recessed landscape islands will reduce stormwater volume and pollution, demonstrating how this innovative technology can be used to beautify parking lots compared to traditional methods.

DEP's grant funds represent the amount of the increase in costs for implementation of the low impact design above what it would have cost for installation of a conventional roof and parking lot. The county will be responsible for conducting stormwater monitoring at the site to document the differences in stormwater volume and pollutant loading between the traditional and pervious pavement parking lot as part of a multi-year research project to study low-impact best management practices.

“The funding from this DEP grant and partnership is making it possible for Escambia County to construct our new low impact office building with additional pollution reduction and energy conservation measures,” said Taylor “Chips” Kirschenfeld, Escambia County marine biologist and Environmental Programs Manager. “In addition, this LEED (Leadership in Energy and Environmental Design) certified building will serve as a demonstration project for northwest Florida builders and contractors who want to touch and feel these low impact green building practices, such as the green roof and pervious pavement, before hopefully incorporating these ideas into their new projects.”

This is the third, and final, green roof research and demonstration project DEP has helped to fund in the past five years. The first project was done in cooperation with the Bonita Bay Group at the Shadow Wood Preserve project near Ft. Myers. The project demonstrated the need for a cistern and irrigation system for the green roof to maintain the plants. It also helped determine which plants can be used successfully on a green roof in a tropical climate. The second project was at the University of Central Florida's Student Union. This project generated several master's theses which documented the stormwater quantity and quality benefits of a greenroof/cistern system. Additionally, energy monitoring revealed that the green roof reduces heat transfer through the roof by 40 percent in the summer and 50 percent in the winter when compared to an Energy Star roof.

The TMDL Urban BMP Research and Demonstration program is a sub-element of the Water Quality Restoration Grant Program established by the Florida Legislature in 2005 as part of Senate Bill 444. Funds can be used to reduce urban nonpoint source pollution, primarily untreated urban stormwater, discharged to water bodies on the state's verified list of impaired waters. The Department's funds are used primarily for the construction of the stormwater treatment system and for monitoring to determine the actual pollutant load reductions from the treatment system. The 50-percent matching funds provided by local governments or water management districts typically pay for land acquisition, design, permitting, and maintenance. For more information on the TMDL Water Quality Restoration Grant Program, visit www.dep.state.fl.us/water/watersheds/tmdl_grant.htm

DEP Provides Assistance to St. Marks Wildlife Refuge in Whooping Crane Reintroduction Project

ST. MARKS – Today the Florida Department of Environmental Protection (DEP) announced the anticipated arrival of a flock of endangered whooping cranes to the region in January. The cranes' arrival is a part of the Whooping Crane Eastern Partnership's (WCEP) Whooping Crane Reintroduction Project at the St. Marks National Wildlife Refuge. An international partnership of public and private organizations, WCEP is conducting the reintroduction project in an effort to return this endangered species to its historic range in eastern North America.

To prepare for the cranes, the wildlife refuge constructed a three-acre pen with two ponds to provide protective habitat. The permit for enclosure construction was issued by DEP in September and the enclosures were constructed and completed in October with the assistance of local volunteers and the Wakulla High School Navy Junior Reserve Officer Training Corps.

The project, designed by the U.S. Fish and Wildlife Service, also included placing oyster shell in the two ponds to provide a roosting area. Within the ponds, reefs were built with sandbags and oyster shells, which will be used to teach the cranes to sleep in the water to avoid predators. To aid in the construction, DEP's Big Bend Seagrasses Aquatic Preserve donated much of the oyster shells for the project which was also completed in October. To fully protect the birds, the final authorization to close portions of Mensler Creek, Cow Creek and the surrounding marshes to the public has been granted by DEP.

“To protect the whooping cranes and enhance their chances of success, a protected roosting environment and seasonal closure of two creeks leading to the site was approved,” said DEP Northwest District Director Dick Fancher. “We are honored to be part of this innovative partnership to bring back a special endangered species.”

In 1950 there were estimated to be only 16 birds remaining in the wild. Presently there are approximately 525 birds in existence, 375 in the wild. The only wild migratory population winters in the Aransas National Wildlife Refuge in Texas and summers in Wood Buffalo National Park in Canada. Because the birds are concentrated in one area of the country, the Whooping Crane Recovery Team (WCRT), which is comprised of ten members, plans actions to protect the Aransas/Wood Buffalo natural flock and is charged with establishing two additional flocks in efforts to safeguard the whooping crane from possible extinction.

The team's efforts to establish a non-migratory whooping crane flock began in Florida in 1993, using cranes hatched in captivity. In September, 1999, after searching for the best possible location to establish a second migratory flock, the team recommended that the flock be taught a route with central Wisconsin as the summer location and the west coast of Florida as the wintering location. The WCRT sanctioned Operation Migration's ultralight-led migration technique as the main reintroduction method.

The most recent effort began on October 17, when 14 ultralight-led cranes left from central Wisconsin's Necedah National Wildlife Refuge on their migration route. Upon arriving in Florida after traveling more than 1,100-miles, the cranes will be split into two groups. One group will winter at Chassahowitzka National Wildlife Refuge and one group will spend the winter at St. Marks National Wildlife Refuge to increase the chances of success for the project.

Currently, the cranes are in Franklin County, Tennessee and are expected to resume their journey and arrive at the St. Marks National Wildlife Refuge after the first of the year. The cranes will remain at the refuge until they are ready to migrate back to Wisconsin and it is anticipated that they will return sometime around the end of March.

“The St. Marks National Wildlife Refuge is honored to have been designated one of only three whooping crane sites in the program,” said Terry Peacock, St. Marks Wildlife Refuge Manager. “We are overwhelmed with the community support there has been for bringing this significant program to Wakulla County.”

The St. Marks National Wildlife Refuge, established in 1931 to provide wintering habitat for migratory birds, is one of the oldest refuges in the National Wildlife Refuge System. The refuge encompasses 68,000 acres spread out between Wakulla, Jefferson, and Taylor counties along the Gulf Coast of northwest Florida.

For more information on the Whooping Crane Reintroduction Project, go to WCEP's Web site at www.bringbackthecranes.org. Monitor the crane's daily progress at: www.operationmigration.org. For more information on the St. Marks National Wildlife Refuge or to find out how to help purchase a crane cam at: www.stmarksrefuge.org. Additional information on DEP can be found at www.dep.state.fl.us.

Tampa Bay NEP Board Endorses Model Fertilizer Ordinance

TBEP's Policy Board in November approved a model ordinance regulating urban fertilizer use in the Tampa Bay region. The ordinance is intended to reduce nitrogen pollution from stormwater flowing into the bay and other surface waters.

Local governments are encouraged, but not required to adopt the ordinance, which:

- Restricts application of Nitrogen and Phosphorous on lawn and landscape plants from June 1-September 30, the summer rainy season.
- Prohibits application of Nitrogen or Phosphorous fertilizer within 10 feet of a water body.
- Restricts the retail sale of lawn fertilizers containing Nitrogen and Phosphorous during the summer.
- Establishes a licensing and certification program for lawn care professionals.
- Urges local governments to provide information about the nitrogen content of reclaimed water to customers using reclaimed for lawn irrigation.

Nitrogen is the primary pollutant in Tampa Bay. Residential runoff, including fertilizer residues, accounts for about 32% of the total amount of nitrogen carried in stormwater to the bay. TBEP research indicates that a compliance level of 50% with the ordinance could reduce the bay's nitrogen burden by 84 tons per year. The model ordinance, and supporting documents, can be viewed at <http://www.tbep.tech.org/Fertilizer/FertilizerHomePage.html>.

Florida DEP'S Compliance Assistance Program Aids Florida Marine Contractors in Protecting the Environment

JACKSONVILLE - The Florida Department of Environmental Protection's (DEP) Northeast District Office today hosted a workshop for members of the Florida Marine Contractors Association (FMCA) and local environmental consultants. The workshop is the first in a series of workshops to marine contractors. The workshop, which is offered at no-cost, provides an accessible forum in which attendees can easily obtain information about Department rules, project requirements and expectations as well as the permitting process associated with the DEP's Submerged Lands and Environmental Resource Permitting (SLERP) program.

The SLERP program regulates activities in wetlands, such as construction dredging and filling. The program also regulates stormwater and surface water management systems in uplands which can prevent flooding and provide other environmental functions. Among other activities, this covers the construction of seawalls, installation of riprap and other shoreline stabilization structures to protect Florida's fragile waterways, the beach and dune system, and upland property along the shoreline. Additionally, the state owns the submerged lands on which many of these structures are built. Therefore, prior to construction,

permits from DEP to build a seawall or install riprap, as well as authorization from DEP to use the state's submerged lands may be necessary.

“We are dedicated to delivering exceptional customer service and saving taxpayer money – the workshop is an example of that commitment,” said DEP Northeast District Director Greg Strong. “Quite simply, our goal with this is to continue to assist the contractors in finding innovative and environmentally beneficial solutions, such as natural shorelines, for their projects.”

The Department believes that educating and assisting the industry about the SLERP program will increase environmental compliance and protection in this important area. This workshop will help marine contractors and consultants who assist property owners through the permitting process. This will reduce processing time by minimizing the need for additional information, thus making the permitting process quicker, more effective and efficient, ultimately saving the property owner time and money.

Objectives of the initiative include:

- Providing updates on rules and regulations and other useful information;
- Improving the level of understanding regarding various environmental issues;
- Enhancing communications between our office and the industry; and
- Developing a partnership with the FMCA.

For more information about DEP's Compliance Assistance Program, and the dates, locations and registration information for the workshops, visit: <http://www.dep.state.fl.us/northeast/>.

Gov. Jindal Declares Portion of Elmer's Island Open for Public Access

December 16, 2008

Governor Bobby Jindal announced today at a press conference in Grand Isle that Elmer's Island, a once popular destination for coastal fishermen, campers and other outdoor enthusiasts is open again for public recreational use. The state is opening up 250 acres of Elmer's Island for public use after extensive title research found that this portion of the island is the property of Louisiana.

Governor Jindal was joined by Department of Wildlife and Fisheries (LDWF) Secretary Robert Barham as well as Governor's Office of Coastal Activities Director and Coastal Protection and Restoration Authority Chairman Garret Graves, who highlighted several coastal restoration projects both on and near Elmer's Island that will work to restore beaches and marshes severely damaged by four hurricanes in the last three years.

“Louisiana is Sportsman's Paradise – and Elmer's Island is certainly one of our state's jewels – and we are excited to announce that it is now open to the public,” said Governor Jindal. “The state will keep this area as a recreation spot and a wildlife sanctuary – while also allowing fishing and bird watching. Louisiana is committed to making sure the beaches and marshes of Elmer's and surrounding areas are restored and enhanced.”

Governor Jindal declared that LDWF will manage Elmer's Island as a Wildlife Refuge with boat access to the beach allowed immediately. Efforts will continue to negotiate a right-of-way for a road that will connect the beach to LA Highway 1 to allow vehicular access to the beach in the future.

“After exhaustive legal research, it has been determined that the Goat Island property, which is the barrier island portion of the property generally referred to as Elmer's Island, is state land,” said LWDF Secretary Barham. “By designating it a wildlife refuge, the property will be available for fishing and outdoor

activities including bird watching, shell collection and nature photography. The only permit needed for site use will be a fishing license for those who choose to do so.”

Elmer’s was a commercial campground and fishing area from 1970-2000. For a small daily fee, fishermen, campers and other outdoor enthusiasts were allowed access to the beach on a narrow road through marsh from Hwy. 1. However, that access was closed following the death of the owner of the access road.

Efforts have been made over the last five years by the state legislature and past administrations to purchase Elmer's Island to allow for public fishing and recreation with no success. The state will continue working with the various property owners in the Elmer's Island vicinity to acquire much of the area for coastal restoration efforts and recreational use.

In addition to opening up Elmer’s Island for recreational use, the Louisiana Office of Coastal Protection and Restoration is also working to restore the beach and wetlands in the area to repair significant damage caused by the four hurricanes that have impacted the area over the past three years.

Hurricanes Katrina, Rita, Gustav and Ike have all battered the beach, dunes and wetlands of the area known as the Caminada Headlands, a 12-mile stretch of beach and marsh from Grand Isle west to Fourchon.

The Louisiana Office of Coastal Protection and Restoration is dedicating \$71 million over the next two years to a large-scale restoration effort for the area. “Restoring our islands and beaches is of the utmost importance,” said Coastal Activities Director Garret Graves. “These areas serve as our first line of defense for approaching tropical storms and hurricanes and they also provide essential habitat for bird and marine life.”

A \$27 million restoration project on East Grand Terre Island, located less than five miles from the eastern end of Grand Isle, is scheduled to begin in April 2009. In all, state coastal restoration and protection officials have dedicated over \$400 million to the restoration of marshes and beaches in this area of Louisiana over the next two years.

Coastal Hazards Mitigation Topic of Workshop

December 1, 2008

Building to mitigate the impacts of coastal hazards – such as hurricane storm surge and subsidence – will be the focus of a public workshop scheduled for Dec. 8 from 9:30 a.m. to 12:30 p.m. at the Carnegie Memorial Library, 411 Pujoe Street, Lake Charles. The workshop is open to the public and hosted by the Louisiana Sea Grant College Program.

“It is up to us, as individuals and local governments, to take the lead in protecting our lives and property and to establish resilient and sustainable communities through our decisions on where and how to build,” said Jim Wilkins, director of the Louisiana Sea Grant Law & Policy program. “The techniques to be discussed at the workshops can be implemented by local governments as well as individuals without dependence on state or federal governments. In other words, we’re talking about taking a ‘self-help’ approach,” said Wilkins, who will be leading the meetings.

Copies of the Louisiana Coastal Hazard Mitigation Guidebook, on which the workshops are based, will be available at both meetings. The 250-page book – which examines issues from zoning and building siting to construction methods and legal issues – is free.

An electronic copy of the book can be downloaded from the Sea Grant Law & Policy Program Web site (www.lsu.edu/sglegal), or a copy can be ordered by contacting Jessica Schexnayder, 105 Sea Grant Building, Louisiana State University, Baton Rouge, LA 70803. Please include a check or money order for \$5 when ordering a printed copy to cover shipping and handling. Free printed copies can be picked-up at the Louisiana Sea Grant building on LSU's Baton Rouge campus. For general information about obtaining a book, e-mail jsche15@lsu.edu.

The strategies outlined in the guidebook reduce the risks from coastal natural hazards such as storm surge, other flooding, subsidence and sea level rise, and are meant to serve as an extra layer of protection or an additional line of defense. The guidebook also demonstrates how communities can adopt a flexible approach to hazard planning and accommodate a wide range of attitudes toward restrictions on the use of property to mitigate hazards.

“The intent of the guidebook is to present basic strategies that can help planners, managers and property owners in coastal communities better prepare for and recover from hurricanes,” said Wilkins. Since its establishment in 1968, the Louisiana Sea Grant College Program has worked to promote stewardship of the state's coastal resources through a combination of research, education and outreach programs critical to the cultural, economic and environmental health of Louisiana's coastal zone.

Louisiana Sea Grant, based at Louisiana State University, is part of the National Sea Grant College Program, a network of 32 programs in each of the U.S. coastal and Great Lakes states and Puerto Rico.

Secretary of State Returns \$7.3 Million to Gulf Coast from Tidelands Leases and New Assessment Collections

BILOXI, Miss. – Secretary of State Delbert Hosemann presented a check for \$7,321,138 to the Commission on Marine Resources (CMR) at a ceremony held Dec. 15, 2008. The dollars are generated from Tidelands leases and assessments. The Tidelands lease revenue was collected on tidelands leases on the Mississippi Gulf Coast in the fiscal year that ended June 30, 2008. The Tidelands Assessment revenue is a result of House Bill 44, passed in the 2005 Fifth Extraordinary Session. That bill allowed land-based casinos on the Coast and required them to pay a tidelands assessment, which is based on the casino's capital investment.

“This tidelands check is crucial to Mississippi Gulf Coast citizens,” says Hosemann. “And I am happy to report the amount of this check is more than double the check from 2007.”

The people of Mississippi own the public trust tidelands, the land covered by water at high tide. Rent is collected by the Secretary of State's Office from tidelands leaseholders, including casinos. As Secretary of State, Hosemann negotiates tidelands leases on behalf of the state. Traditionally, the Mississippi Legislature appropriates the lease revenue for specific projects. Rent is collected from tidelands leaseholders by the Secretary of State and then returned to the Department of Marine Resources (DMR) at the end of the fiscal year.

The Tidelands Trust Fund Program consists of funds derived from the lease rentals of tidelands and submerged lands. Revenues collected by the Secretary of State's Office are appropriated by the state

legislature and administered by the CMR. Since 1990, the Secretary of State's Office has collected more than \$67 million in tidelands leases.

"It's great to see the return of pre-Katrina levels of Tidelands funding," says DMR Executive Director Dr. William Walker, who accepted the check on behalf of the CMR. "These funds are all spent in coastal Mississippi, and they go a long way in helping to move our recovery effort forward. On behalf of the residents of coastal Mississippi, I'd like to genuinely thank the Mississippi Legislature for making these funds available."

The Mississippi Department of Marine Resources is dedicated to enhancing, protecting and conserving marine interests of the state by managing all marine life, public trust wetlands, adjacent uplands and waterfront areas to provide for the optimal commercial, recreational, educational and economic uses of these resources consistent with environmental concerns and social changes. Visit the DMR online at dmr.ms.gov.

Mississippi DMR Wins Two Gulf Guardian Awards

BILOXI, MS –The Environmental Protection Agency Gulf of Mexico Program presented the Mississippi Department of Marine Resources (DMR) with first- and second-place Gulf Guardian Awards in the government category at a ceremony held Oct. 29 in New Orleans. All five Gulf states participated in the award application process. The first- place award was given to the Shrimp and Crab Bureau for the Mississippi Derelict Crab Trap Removal Program, and the second-place award was presented to the Office of Coastal Management and Planning for the Coastal Development Strategies (Smart Growth) Conference.

"Since the start of the Mississippi Derelict Crab Trap Removal Program, over 17,000 derelict traps have been removed from the waters of the Mississippi Sound by agency efforts, through the help of volunteers and, after Hurricane Katrina, the overwhelming cooperation of Mississippi's commercial fishermen," said Traci Floyd, DMR Shrimp & Crab Bureau director. "This program owes much of its success to Mississippi's storm-affected commercial fishermen, who while recovering from personal devastation following Hurricane Katrina in 2005, have cooperatively recovered over 12,000 derelict crab traps. Once collected, the derelict traps were recycled at a local scrap metal facility."

The Mississippi Derelict Crab Trap Removal Program was initiated in 1999, when the DMR Shrimp & Crab Bureau and with the Gulf Coast Research Laboratory (GCRL) made a cooperative effort to address the problem of derelict crab traps in Mississippi waters. A derelict trap can be defined as a lost trap, which may be un-buoyed, unmarked and not actively fished, but may continue to trap crabs as well as non-target species (such as finfish and diamondback terrapins) and pose a navigational hazard. A substantial number of crab traps are lost due to uncontrollable environmental factors (i.e., tides, currents and storm surges); inadvertent clipping of float lines by boat propellers; shrimp and oyster trawl entanglement; and theft.

The Smart Growth Conference has been held annually since 1999. The conference was initiated as a forum for community leaders and citizens to learn and share ideas about preserving the rich cultural heritage and environmental resources of the Mississippi Gulf Coast while still allowing for the region to grow its economy. The conference provides knowledge and skills necessary to address the challenges and to identify issues associated with environmental protection and economic development in the six lower counties of Mississippi. The 10th annual conference will be held May 12-13, 2009, at the IP Casino Resort Spa in Biloxi.

“The conference benefits the future of our Gulf Coast by educating its attendees through sessions on Smart Growth, sustainability and environmental stewardship,” said Tina Shumate, DMR Office of Coastal Management and Planning director. “It brings together entities who might not meet or work together otherwise, in a common forum to discuss pertinent issues to the community as a whole.”

The Gulf Guardian Awards were created in 2000 by the partnership of the Gulf of Mexico Program to recognize environmental excellence in Florida, Alabama, Mississippi, Louisiana and Texas. In 2005, the Gulf of Mexico Program partnership added a new Bi-national category to recognize successful cooperative projects between the United States, Mexico and the Caribbean. First-, second- and third-place winners are awarded in seven categories.

The Mississippi Department of Marine Resources is dedicated to enhancing, protecting and conserving marine interests of the state by managing all marine life, public trust wetlands, adjacent uplands and waterfront areas to provide for the optimal commercial, recreational, educational and economic uses of these resources consistent with environmental concerns and social changes. Visit the DMR online at dmr.ms.gov.

Logan Respass New Associate Director at Texas Sea Grant

COLLEGE STATION, TX — Logan Respass, a former Texas Sea Grant College Program marine agent with 10 years’ experience in two coastal Texas counties, today was named the program’s new Associate Director and Extension Program Leader. “Logan brings extensive knowledge of not only Texas Sea Grant and AgriLife Extension, but also of issues facing the state,” said Dr. Robert Stickney, Texas Sea Grant Director. “I look forward to working with him as we move forward with meeting the opportunities and challenges that lie ahead for our extension and outreach activities.”

Respass is scheduled to begin his new duties at the College Station program headquarters in mid-December. “I’m honored to be working with such an excellent group of people as we address the changing needs of Texans and their coast,” Respass said. “I plan to meet individually with all our staff to discuss ways I can best provide them the resources they need as we transition our program to meet future challenges.”

Respass has been Extension Agent-Horticulture with Texas AgriLife Extension Service for Travis County since August of this year. Previously, he was the Natural Resource Agent in Aransas County, a dual position with Texas AgriLife Extension and Texas Sea Grant, for more than six years, managing a large volunteer base and addressing issues related to coastal growth, economic development and nonpoint source pollution. He also served as the Marine Extension Agent in Matagorda County for almost four years and has worked as a contract research diver for the National Oceanic and Atmospheric Administration (NOAA) and as an engineering technician, contract field biologist and marine technician.

He holds a bachelor of science degree in marine biology from Texas A&M University and a master of science in educational technology from Texas A&M University-Corpus Christi. The position of Texas Sea Grant’s Associate Director and Extension Program Leader became available with the sudden death in late January of Ralph Rayburn, who had held the position since 1999. Texas Sea Grant has established the Ralph Rayburn Texas Sea Grant Scholarship (<http://texas-sea-grant.tamu.edu/scholarship.php>) for deserving graduate students in oceanography.

Texas Sea Grant is a component of NOAA's National Sea Grant College Program and a part of the College of Geosciences of Texas A&M University. It is one of a network of 32 university-based programs in coastal and Great Lakes states modeled after the Land Grant College concept. Texas Sea Grant funds research focused on coastal and marine issues, conducts community and industry outreach through six county-based extension agents and seven extension specialists, and operates a variety of other communication, outreach and education projects.

Hurricane Ike Rebuilding Effort Gets Boost with Mobile GLO Office

AUSTIN — Coastal homeowners with questions about the 4.5-foot line of elevation, FEMA buyouts or other permitting issues can get answers at the General Land Office's mobile Hurricane Response Information Unit, which will be on scene in Galveston December 4, 5 and 6 at Jamaica Beach City Hall, 16628 San Luis Pass Road, Jamaica Beach.

"Having this mobile command post pull up in the neighborhood means help is on the way for coastal home owners," said Jerry Patterson, Commissioner of the Texas General Land Office. "It will be as if the Land Office has set up shop in their backyard, ready to answer questions about permits and rebuilding."

The Land Office's Hurricane Response Information Unit will set up shop from 9 a.m. to 4 p.m. each day. The unit will be staffed with Land Office coastal experts ready to answer questions and armed with handouts, maps and other valuable information.

Crews, Heavy Equipment Prepare for Beach Cleanup

AUSTIN — Work crews and heavy equipment will begin this week to clear debris Texas beaches left a mess by Hurricane Ike. Jerry Patterson, Commissioner of the Texas General Land Office, said the goal is to bring the beaches back to their pre-Ike condition. "Crews will begin staging on Tuesday and should be on the beaches and working by the end of the week," Patterson said. "This is a big step forward in the recovery of this region."

Patterson signed contracts Monday with Phillips & Jordan, Inc. and Crowder Gulf to clear debris from the beaches in Brazoria and Galveston counties. The scope of the work includes removing things such as old septic systems and concrete pilings from washed away beach houses and screening the sand to remove even small traces of debris. The work is expected to take until March.

The Texas General Land Office is the state agency responsible for overseeing the Texas coast, erosion control and response as well as oil spill prevention and recovery. The Land Office also oversees enforcement of the Texas Open Beaches Act, the Dune Protection Act and works to maintain healthy beaches. Since Hurricane Ike struck the Texas Coast, the Land Office has been a leader in the coast's recovery. Before the storm even struck, Patterson established emergency rules that allow property owners to make immediate repairs. Patterson has also decided to wait a full year to allow the natural recovery of the beach before considering enforcement actions under the Texas Open Beaches Act. For more on the Texas General Land Office's response to Hurricane Ike, visit www.GLO.state.tx.us.

Work Begins to Protect Galveston Seawall with Big Beach Project

AUSTIN — Work on an emergency beach renourishment to protect the Galveston Seawall starts today, as dump trucks begin hauling more than 400,000 cubic yards of sand onto Galveston beaches.

Hurricane Ike's storm surge devastated Galveston and, in some places, threatened to undermine the timber underpinnings of older sections of the Galveston Seawall. The emergency beach project, which will stretch from 61st Street to 10th Street, will protect the future stability of the historic seawall.

"This emergency project will protect what has protected Galveston for all these years," Patterson said. "Since Ike struck, this project has become the top priority for the Land Office's coastal erosion response efforts."

The project is expected to cost as much as \$14.5 million. The Land Office has partnered with the Park Board of Trustees of the City of Galveston for the project, which is on a fast-track. Work began today with trucks hauling in sand from a source adjacent to Apffel Park, and is set to finish with the start of turtle nesting season in March.

"By the time the next storm season hits, the seawall will be protected," Patterson said. The first phase of the work, from 61st Street to 43rd Street, will be done with \$4.5 million the Land Office has on-hand along with \$1.5 million from the Park Board of Trustees, will put about 300,000 cubic yards of sand on the beach. Patterson is seeking additional funding to continue the project to 27th Street before turtle-nesting season begins in March. Work is then expected to continue after nesting season to extend the beach renourishment project all the way to 10th Street. The goal of the project is to add 70-feet of additional beach the entire way.

Patterson said the seawall project will protect hundreds of millions of dollars worth of public infrastructure; from roads, water and sewer systems to the homes and businesses that make up the Galveston tax base.

South Padre Island's Beaches Get Much Needed Sand

AUSTIN — Jerry Patterson, Commissioner of the Texas General Land Office, today announced a massive beach-building project for South Padre Island. "More than 400,000 cubic yards of sand — or enough to add about 60 feet of width to South Padre Island's most eroded beaches — is on the way," Patterson said. "Work is set to begin in December and the beaches will be ready for tourists by March."

Patterson said the project is the result of a partnership between the Land Office, the U.S. Army Corps of Engineers and the Town of South Padre Island. "By working together, we're able to get the sand the Corps would have dredged up anyway and put it on the beaches, where it belongs, rather than pump it out to sea," Patterson said.

The total cost of the dredging project is \$7,565,750. The Land Office will pay \$419,812 and the town of South Padre Island will pay \$139,937 to have contractors dredge sand from the entrance of the Brownsville Ship Channel and pump it four to five miles north to the most eroded areas of beach on South Padre Island.

The project should extend those beaches by about 60 feet. Without Patterson's efforts to partner with the U.S. Army Corps of Engineers on its dredging project, this sand would have been pumped offshore to dispose of it. "Because we're all working together on this, South Padre Island is getting sand on the beach

for close to \$1 per cubic yard, that's all this costs the state," Patterson said. "That same amount of sand would normally cost around \$15 to \$20 per cubic yard." The Land Office's share of funding comes from the state's Coastal Erosion Planning and Response Act.

Solar Showcase Selected as Texas Renewable Project of the Year

AUSTIN — The border solar showcase developed in the city of San Benito has been selected as the Texas renewable energy project of the year. The award was presented at the annual meeting of the Texas Renewable Energy Industries Association (TREIA) in Austin. The Texas General Land Office worked with the U.S. Environmental Protection Agency and San Benito city officials to install the 45 kW project, the largest solar-powered project on the Texas-Mexico border, at the city's new water treatment facility. The \$325,000 solar array will provide about 10 percent of the total power needed to filter up to 6 million gallons of water daily.

"It's about time we put this hot Texas sun to work for us," said Jerry Patterson, Commissioner of the Texas General Land Office. "If this project works as well as we think it will, it will stand as a practical example of the potential of solar energy in Texas."

The award citation said the project serves as a model for the region, both from a technical standpoint and a project development standpoint. San Benito Mayor Joe H. Hernandez said he is proud his community was chosen for the visionary project. "In this day of skyrocketing energy costs, it is good to know that research and development of sustainable, renewable energy sources are being pursued," Hernandez said. "It will take continued public interest and support to help this technology evolve into a more abundantly available clean energy source to serve all of our needs into the future."

The North American Development Bank, which finances water and wastewater projects in the border region of the United States and Mexico, also was recognized for its part in the project, as was Worldwater & Solar Technologies Corporation. "This project represents the convergence of various technologies, and the work of various entities, in order to deliver a project that is environmentally and economically sustainable, for the benefit of the citizens of San Benito," said Jorge C. Garcés, the bank's managing director.

The EPA chose the Land Office's Renewable Energy Program for the grant because of its expertise in renewable energy issues and long experience with border energy issues. "Texas is rich with energy, be it oil and gas or wind, solar or geothermal," Patterson said. "It just makes good sense to develop energy sources that aren't imported."

Texas Unveils GLO Earth

AUSTIN — Jerry Patterson, Commissioner of the Texas General Land Office, today released GLO Earth, a Google-based application that brings clarity to the mess that Hurricane Ike left of the Upper Texas Coast. "For nearly 50 years now, the Land Office has served as steward of the Texas coast," Patterson said. "This tool gives us clarity, and makes sure the Land Office — and everyone else — has the best information available."

Perhaps the most important feature on GLO Earth for coastal property owners is the 4.5-foot elevation line it shows for the Galveston area, with Brazoria County soon to follow. This line — which marks where the elevation is 4.5-feet above mean sea level — will be used to determine where new construction

is allowed on the coast. As additional surveys are done on the ground, this 4.5-foot elevation line will be shown on GLO Earth for the rest of the Upper Texas Coast that was impacted by Ike.

This 4.5-foot elevation line will determine the landward boundary of the public beach and will be reassessed over the next 12 months. “This is simply a starting point in determining a boundary, since Hurricane Ike wiped out the line of vegetation,” Patterson said.

According to the Texas Open Beaches Act, beach is a public easement and no private structures may be built there to obstruct public access. The line of vegetation, or where grasses and other natural vegetation starts to grow in the dunes, usually determines the landward boundary of the beach. Hurricane Ike destroyed the line of vegetation on the Upper Texas Coast. Research shows vegetation won’t re-establish itself below 4.5 feet above mean sea level. Therefore, the Land Office will use this 4.5-foot elevation line as a temporary placeholder for the line of vegetation in determining where the public beach begins.

Based on the popular and easy-to-use Google Earth, GLO Earth layers post-Ike photos of the coast over pre-Hurricane Ike satellite photos of the Upper Texas Coast. “With a click of a mouse, GLO Earth allows anyone, anywhere to select a pinpoint on the map and zoom in for a closer look at how it was before Ike, as well as how it looked in the days after Ike,” Patterson said.

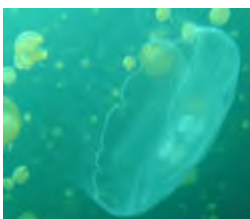
The National Oceanic and Atmospheric Administration shot all four post-Ike images available on GLO Earth on four separate flights on September 14 through September 17. In the weeks following the storm, Land Office staff also took multiple photographs from each property along the coast and loaded that data into the GLO Earth application. This will allow coastal property owners all over the state to pinpoint their individual property or properties along the coast, and will serve as a valuable tool for state, local and federal officials overseeing the responsible redevelopment of the Upper Texas Coast.

While the Texas Open Beaches Act prohibits private structures on the public beach, Commissioner Patterson will not enforce this state law for at least a year after September 13. This will allow the beaches to recover to their new, post Hurricane Ike profile over a period of four seasons. Only permits for emergency repairs may be given for properties below the 4.5-foot elevation line. That means the elevation of each property along the coast will be important information for any local governmental authority issuing building permits over the next year.

“Having this information available to public helps everyone make informed decisions,” Patterson said. “This will bring clarity to a messy situation and assist coastal property owners in making some important decisions over the next year.” GLO Earth is available on CD or on-line on the GLO Hurricane Response page at www.GLO.state.tx.us at the Hurricane Ike Shoreline Assessment link.

Other News

New Online Report on Massive Jellyfish Swarms Released



Millions of jellyfish gather in a marine lake in Palau in the Pacific. Credit: Michael Dawson, University of California, Merced
[Credit and Larger Version](#)

Massive swarms of stinging jellyfish and jellyfish-like animals are transforming many world-class fisheries and tourist destinations into veritable jellytatoriums that are intermittently jammed with pulsating, gelatinous creatures. Areas that are currently particularly hard-hit by these squishy animals include Hawaii, the Gulf of Mexico, the east coast of the U.S., the Bering Sea, the Mediterranean Sea, Australia, the Black Sea and other European seas, the Sea of Japan, the North Sea and Namibia.

Massive jellyfish swarms--some of which cover hundreds of square miles--have caused injuries and even occasional deaths to water enthusiasts, and have caused serious damage to fisheries, fish farms, marine mines, desalination plants, ships and nuclear power plants. Since the 1980s, jellyfish swarms have cost the world's fishing and tourism industries alone hundreds of millions of dollars and perhaps even billions of dollars.

From large swarms of potentially deadly, peanut-sized jellyfish in Australia to swarms of hundreds of millions of refrigerator-sized jellyfish in the Sea of Japan, suspicion is growing that population explosions of jellyfish are being generated by human activities. Human activities that have been suggested by media reports and scientists as possible causes of some jellyfish swarms include pollution, climate change, introductions of non-native species, overfishing and the presence of artificial structures, such as oil and gas rigs. But which of these human activities, if any of them, are really to blame?

Surprising insights about the causes and character of jellyfish blooms are revealed in a new online multimedia report by the National Science Foundation. Titled *Jellyfish Gone Wild: Environmental Change and Jellyfish Swarms*, the report is posted at: http://www.nsf.gov/news/special_reports/jellyfish/index.jsp. *Jellyfish Gone Wild* features eye-popping photos and videos of jellyfish, stinging statistics about jellyfish swarms and thought-provoking explanations of how and why jellyfish swarms form. This reader-friendly report provides a serious overview of the science of jellyfish swarms that is nevertheless tinged with the kind of humor (jelly jollies) demanded by such intrinsically creepy creatures. *Jellyfish Gone Wild* is ideal for reporters, general readers, beach-goers, fishermen, teachers, students, researchers and conservation organizations. View videos of a [researcher swimming with a giant jellyfish](#) and the tangled tentacles of a [lionel's mane jellyfish](#).

Register Today for National Environmental Education Week April 12-18, 2009 and Be Water Wise!

National Environmental Education Week (EE Week) is the nation's largest organized environmental education event. Held each April, EE Week promotes understanding and protection of the natural world by actively engaging K-12th grade students and educators of all subjects in an inspired week of environmental learning and service before Earth Day. Join the thousands of schools, nature centers, zoos, museums, and aquariums nationwide who have made a commitment to engage students in environmental learning through participation in EE Week!

This year's EE Week theme is Be Water Wise! Registered partners will have access to a wide variety of FREE environmental education resources, including:

- Standards-based environmental education lessons and activities, including water conservation, watershed, and water quality curricula,
- Access to EE Week's school water audit tool in which students "find the leaks" in water usage at school,
- Opportunities for online communication and knowledge-sharing with educators from across the country, including participation in the EE Week Photo Blog contest,
- Monthly electronic newsletters highlighting the latest EE curricula, professional development, and funding opportunities,
- Certificates of participation for themselves and their students,
- A coupon for \$10 off your purchase at Acorn Naturalists, offering over 8,000 science and nature resources for the trail and classroom, and
- A free issue of National Geographic Explorer magazine for those registering before January 30, 2009!

You can join a national network of educators dedicated to increasing environmental literacy, promote environmental learning, and gain national exposure for your school or organization by registering today at www.EEWeek.org. Questions? Contact Jessica Culverhouse at culverhouse@neefusa.org or call 202-261-6484.

2009 National Wetlands Awards – Nomination Deadline Extended

The deadline to submit nominations for the 2009 National Wetlands Awards has been extended to January 15, 2009. The National Wetlands Awards program, administered by the Environmental Law Institute, and supported by NOAA Fisheries, and five other Federal agencies will celebrate its 20th anniversary in May 2009. This is an excellent opportunity to nominate someone who has demonstrated extraordinary contributions to wetland conservation. There are six award categories offered: education and outreach, science research, conservation and restoration, landowner stewardship, state, tribal and local program development, and wetland community leadership. Nominations may be entered for work at the regional, state or local levels. Award winners will be honored in a ceremony held on Capitol Hill held in May 2009. Nomination forms and guidelines are available at website: www.nationalwetlandsawards.org. Also available is information about prior award winners, and the upcoming 20th Anniversary celebration. For questions, please contact either Brenda Rupli at Brenda.Rupli@noaa.gov or the Environmental Law Institute at wetlandsawards@eli.org.

Finalist for Grants to Improve the Gulf of Mexico

A total of \$3.7 million is available to help selected organizations reduce pollutants that contribute to the oxygen-depleted zone in the northern Gulf of Mexico. The 10 finalists will support agricultural conservation measures, restore wetlands and riverbanks, monitor water quality, and create a variety of innovative, market-based programs to improve water quality.

"This seed money will grow innovative, cost-effective solutions to speed up the cleanup of impaired watersheds in the Mississippi River Watershed and cut the size of the Dead Zone in the Gulf of Mexico, said Benjamin H. Grumbles, EPA's assistant administrator for water.

These projects under the EPA's Targeted Watersheds Grants Program will reduce the sources of pollutants, including runoff from developed land, soil erosion, agricultural fertilizers, and sewage and industrial discharges. Parts or all of 31 states drain into the watershed that flows into the Gulf of Mexico.

The organizations are:

- Conservation Technology and Information Center (West Lafayette, Ind.) for the Wabash River Watershed
- Electric Power Research Institute (Palo Alto, Calif.) for the Ohio River Basin
- Iowa State University (Ames, Iowa) for the Raccoon River Watershed, Walnut Creek Watershed, and Boone River Watershed
- The Miami Conservancy District (Dayton, Ohio) for the Great Miami River Watershed
- The Nature Conservancy (Nashville, Tenn.) for the Lower Hatchie River Watershed, Loosahatchie River Watershed, and Wolf River Watershed
- The Ohio State University (Columbus, Ohio) for the Upper Scioto Watershed
- The Wetlands Initiative (Chicago) for the Lower Illinois River-Lake Senachwine Watershed
- University of Kentucky (Lexington, Ky.) for the Green River Watershed and Kentucky River Watershed
- West Virginia University (Morgantown, W. Va.) for the Kanawha River Watershed
- World Resource Institute (Washington, D.C.) for the Ohio River Basin, Upper Mississippi River Basin and Lower Mississippi River Basin

Since its establishment in 2002, EPA's Targeted Watersheds Grant Program has encouraged successful community-based approaches to protect and restore the nation's watersheds. Watershed health is important to providing clean, safe water where Americans live, work and play. To date, more than \$55 million has been provided through targeted watersheds grants.

More information on EPA's Targeted Watersheds Grant Program:

<http://epa.gov/owow/watershed/trading/twg/>. More information on the Gulf of Mexico:

<http://epa.gov/msbasin/>.

Mitigation Pays Off In Cameron Parish

CAMERON PARISH, La. -- After Hurricane Rita, the Johnson Bayou Multi-Purpose Building was rebuilt significantly higher off the ground than before. The result was that it survived Hurricane Ike unscathed and was able to serve as a base camp for first responders to conduct essential response work during the storm's aftermath.

Three years earlier, following Hurricane Rita, the Johnson Bayou Multi-Purpose Building had a very different hurricane experience. Rita's high winds and storm surge severely damaged the facility to the extent that the Federal Emergency Management Agency (FEMA) found it eligible for replacement.

"Having provided nearly \$1 million for a replacement facility, FEMA is proud not only of our funding assistance, but of our mitigation efforts to rebuild the facility smarter than before," said Jim Stark, director of the Louisiana Transitional Recovery Office. "We're happy that these mitigation improvements proved successful during the recent storm."

In accordance with the Cameron Parish floodplain code, FEMA's Public Assistance Program funded these mitigation efforts to elevate the new facility approximately 10 feet above ground. FEMA's Public Assistance Program allows for replacements to be built to codes and standards in place during the 2005 hurricanes. Additionally, applicants are required to rebuild to the Advisory Base Flood Elevation.

"As a result of these elevation measures, the Johnson Bayou Multi-Purpose Building withstood Ike's storm surge and was able to open its doors and serve as a hub for response and recovery efforts in the Cameron community - a great mitigation success story," added Stark.

After Hurricane Ike, first responders including firefighters, ambulance services and Cameron Parish Office of Emergency Preparedness personnel utilized the Johnson Bayou Multi-Purpose Building as a base camp for response work. Today, the facility is being utilized as a recovery staging point, serving as a distribution point for emergency commodities throughout the parish.

Previously, the facility was used as a community center, hosting weddings, receptions, graduations and birthday parties. It also provided the Cameron Parish community a central location to hold meetings. FEMA obligated \$987,899 for replacement of the facility after floodwaters significantly damaged its interior and exterior walls. High winds also damaged the roof of a covered pavilion located near the building. When project funds are obligated by FEMA through its supplemental Public Assistance grant, the funds are transferred to a federal Smartlink account. Once the funds have reached this account the applicant can request reimbursement from GOHSEP for eligible work completed. Obligated funds may change over time as the project worksheet is a living grant that is often adjusted as bids come in and scope of work is aligned.

The Public Assistance program works with state and local officials to fund recovery measures and the rebuilding of government and certain private nonprofit organizations' buildings, as well as roads, bridges and water and sewer plants. In order for the process to be successful, federal, state and local partners coordinate to draw up project plans, fund these projects and oversee their completion.

FEMA coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including acts of terror.

Grant Opportunities

B-WET Grant Competitions Announced

The NOAA Office of Education and Bay Watershed Education and Training (B-WET) Program are pleased to announce that the 2009 B-WET grant competitions in New England, the Gulf of Mexico, and the Pacific Northwest are now open!

NOAA B-WET provides grants in support of locally relevant experiential learning through meaningful watershed educational experiences in the K-12 environment. Funded projects will provide meaningful watershed educational experiences for students and related professional development for teachers in support of regional priorities in the Pacific Northwest, the Gulf of Mexico, and New England. These geographic areas build on the successes of the B-WET Programs in the Chesapeake Bay, California, and Hawai'i. Annual project funding ranges from \$50,000-\$100,000. Applications are due January 26, 2009.

For more information about this funding opportunity and resources for applicants please visit: http://www.oesd.noaa.gov/BWET/BWET_funding.html or Grants.gov (Funding Opportunity Number SEC-OED-2009-2001648). For more information about the B-WET program please visit: <http://www.oesd.noaa.gov/BWET/>.

Regional Effort Offers Funding for Natural Hazard, Climate Change Resilience Research

The Gulf of Mexico Sea Grant college programs, the U.S. EPA's Gulf of Mexico Program, the NOAA Northern Gulf Institute and the U.S. Geological Survey are inviting pre-proposals for funding for one- or two-year projects dealing with natural hazard and climate change resilience.

The goal of the funding initiative is to develop information, tools, technologies, products, policies or public decision processes that coastal communities can use to increase resilience to coastal natural hazards and sea level rise. Projects should address at least one of the priorities outlined in the request for proposals.

Federal funds for each selected project will not exceed \$200,000 per year for two years. Non-federal matching funds are required at 50 percent of the federal amount. Interdisciplinary projects are encouraged, and projects must be regional in scope. Projects must include investigators from states associated with at least two of the four Gulf of Mexico Sea Grant programs (Florida, Mississippi-Alabama, Louisiana and Texas). Collaboration with faculty from Mexican universities is encouraged.

For more information, including the six resilience priorities, go to <http://flseagrant.org/funding/GOM>. The submission deadline is Feb. 23, 2009.

Sea Grant Requests Pre-proposals for 2010-11 Research Funding Cycle

The Mississippi-Alabama Sea Grant Consortium (MASGC) is accepting pre-proposals for one- or two-year innovative research projects that address coastal issues. Proposals in the 2010-11 research funding competition must apply to at least one MASGC focus area (healthy coastal ecosystems, sustainable coastal development or a safe, sustainable seafood supply). There are two levels of maximum funding: \$50,000 per year and \$150,000 per year. A 50-percent non-federal match is required for all projects.

The deadline for pre-proposals is 3 p.m. Feb. 23, 2009. For more information, including submission guidelines, funding levels and MASGC focus areas, go to <http://masgc.org/researchrpf>. Contact MASGC Director LaDon Swann with additional inquiries at 251-648-5877 or swannld@auburn.edu.

DHS Announces Fiscal Year 2009 Grant Guidance for over \$3 Billion in Preparedness Grant Programs

Release Date: November 5, 2008

In Fiscal Year 2009, the Department of Homeland Security (DHS) will award more than \$3 billion in grants to states, urban areas and transportation authorities under 14 programs to bolster national preparedness capabilities and protect critical infrastructure. Fiscal Year 2009 grant programs provide \$24 million more than last year to enhance the nation's ability to prevent, protect against, respond to and recover from terrorist attacks, major disasters and other emergencies. This includes the department's two largest grant programs: the Homeland Security Grant Program (HSGP) which totals more than \$1.7 billion, and multiple infrastructure protection programs, totaling more than \$845 million.

What's New for FY 2009

- FY 2009 HSGP funding focuses on six priorities, tailored to either states or urban areas:
 - measuring progress against the National Preparedness Guidelines
 - strengthening preparedness planning, training and exercises
 - strengthening improvised explosive devices (IEDS), IED deterrence, prevention, protection and response capabilities
 - emphasizing information sharing capabilities
 - strengthening medical readiness
 - strengthening preventive radiological/nuclear detection capabilities
- DHS is announcing targeted grant allocations up front for the State Homeland Security Program (SHSP) and the Urban Areas Security Initiative (UASI), enabling states and urban areas to write investment justifications that reflect available resources.
- The Department is providing grant funding where it is needed most. Under the FY 2009 HSGP, states will be able to apply for funding for critical emergency supplies such as shelf stable meals and water.
- The Department has made personnel cost changes in the Homeland Security Grant Program, removing further restrictions on allowable personnel expenses up to 50 percent established by the 9/11 Act and the PRICE Act. In addition, the three-year limit on funding intelligence analysts has been removed under the HSGP.

- States bordering Canada (including Alaska), southern states bordering Mexico, and states and territories with International water borders are eligible for funding under the FY 2009 Operation Stonegarden. Previous grants were restricted to states located on a land border.
- Emergency Operation Center construction and renovation are now allowable expenses under the FY 2009 Emergency Management Performance Grant Program.
- The requirement for cash or in-kind matches for grants has been removed from the FY 2009 Transit Security Grant Program, the Freight Rail Security Grant Program and the Intercity Passenger Rail (Amtrak) program.
- The requirement for cash matches have been removed in the Port Security Grant Program and grantees may now use in-kind contributions.
- The Port Security Grant Program will allow for the development of eight new group II port areas. Seven port areas move up from Group III to Group II, and one port area moves up from All Other Port Areas to Group II. There are 21 new port areas in Group III.

For further information on Preparedness Grant Programs see the DHS Web site at www.dhs.gov.

FY2010 Coastal and Estuarine Land Conservation Program Funding Opportunity

The Coastal and Estuarine Land Conservation Program (CELCP) provides grants to eligible state agencies and local governments to acquire property or conservation easements from willing sellers within a state's coastal zone or coastal watershed boundary. Coastal states with a coastal management program or national estuarine research reserve approved under the Coastal Zone Management Act may participate in the CELCP. According to the CELCP [guidelines](#), a state must have an approved CELCP plan in order to compete for funding. Most coastal states are currently developing CELCP plans. To find out if your state is participating in the CELCP, contact your [state CELCP lead](#). State CELCP leads run the state selection process and eligible state and local governments should contact their state CELCP lead for more information on the state's selection process.

The Fiscal Year 2010 CELCP funding opportunity notice, which contains the details of the competition, project narrative and budget templates, and the CELCP checklist, is now available on the Funding Opportunities page of the CELCP website at http://www.coastalmanagement.noaa.gov/land/celcp_fundingop.html and will soon be posted on Grants.gov.

NOAA requests proposals to develop a prioritized list of projects ready and eligible for funding in fiscal year (FY) 2010 under the CELCP (similar to FY 2007-09). Each eligible state or territory may submit up to 3 project proposals, with a maximum request of \$3 million in federal funding per proposal. The deadline for submission of proposals is 6pm EST March 31, 2009. For additional information or to provide feedback on the competitive process, please contact: [Elaine Vaudreuil](#) or [Roxanne Thomas](#).

Training and Conferences

Gulf of Mexico Alliance Nutrient Criteria Research Framework Workshop

March 10-12, 2009

New Orleans, LA

The workshop will examine the state of our understanding of nutrient flux and the corresponding ecological response in estuaries and near shore coastal waters of the Gulf of Mexico using a shared outline for presentations:

- Introduction of Nutrient Research
- Overview of Physical and Hydrologic Characteristics
- Overview of the Nutrient Regime
- Overview of Biological Resources and Response
- Current Research Activities Addressing Nutrient Flux and Ecological Response

Workshop Purpose:

A common problem in the Gulf of Mexico region is excessive nutrients in coastal waters. The Gulf of Mexico Alliance (GOMA) is developing a Nutrients Criteria Research Framework for nutrient studies to provide the information needed to understand the transport, fate, and effects of nutrients and inform the process of developing estuarine nutrient criteria. The following goals will guide the development of a monitoring framework:

- Standardize a nutrient study design using a regional approach that can be used at locations around the Gulf of Mexico, in a range of conditions and types of coastal waters. This design will be able to accommodate modifications that address local conditions and needs;
- Identify the core monitoring needed to characterize and better understand nutrient sources, fate, transport, and effects;
- Provide sufficient understanding of the relationships between nutrients, water quality, physical processes, and biological communities to develop protective nutrient criteria for coastal ecosystems;

Workshop presentations will focus on Gulf estuaries and near shore coastal waters, the ecological attributes of each system, and the documented effects of nutrients on altering food webs or responses in community structure and function. A call for presentation abstracts will be issued in January. More information will be posted to <http://www2.nos.noaa.gov/gomex/nutrients/welcome.html> or contact Laurie.Rounds@noaa.gov.

Ninth Biennial State of the Bay Symposium

Jan 12-14, 2009 - Galveston, Texas

[The Galveston Bay Estuary Program](#) is pleased to announce that the Ninth Biennial State of the Bay Symposium will be held January 12-14, 2009 at the Galveston Island Convention Center at the San Luis Resort in Galveston, Texas.

The Estuary Program, a non-regulatory program administered by the Texas Commission on Environmental Quality, and its partners work together to implement The Galveston Bay Plan (The Plan), a 20-year, science-based plan designed to protect and restore the bay.



The Estuary Program hosts the biennial symposium to provide an opportunity for stakeholders to interact and share environmental policy and management successes, report the latest monitoring and research findings, and to illuminate the challenges facing Galveston Bay.

The theme of this year's symposium is "What is Needed to Sustain Our Estuary?"

The symposium audience is comprised of representatives from citizen and environmental groups; business and industry; commercial and recreational fishing; ecotourism and recreation; K-12 education and academia; and local, state, federal and regional government. Presentations and panel sessions will cover all aspects of The Plan.

Information about the symposium will be posted to www.gbep.state.tx.us.



Coastal GeoTools Conference
Kingston Plantation
9800 Queensway Blvd.
Myrtle Beach, SC 29572
March 2-5, 2009

GeoTools Registration Deadline is January 31, 2009

and the Preliminary Program is now online!

GeoTools is where coastal professionals go to learn about technology and coastal management. This conference usually sells out before the registration deadline, so please don't delay.

www.csc.noaa.gov/geotools/

Gulf Coast Regional Diamondback Terrapin Working Group Meeting

February 5, 2009

9:00 AM – 4:30 PM

Mississippi Gulf Coast Community College
Estuarine Education Center
Gautier, MS 39553

This meeting is designed to highlight terrapin research, management, and education activities in the five Gulf States and to provide a forum for terrapin researchers, managers, and educators to exchange information and new ideas.

Target audiences for this event include researchers, educators, regulators, conservation commissioners, marine enforcement personnel, fishermen (both commercial and recreational), and those who have an interest in diamondback terrapin research and conservation. For questions please contact Marian Hanisko at marian.hanisko@dmr.ms.gov or 228-475-7047.

Did you find this edition useful? Please send suggestions, comments, and new items for publication to Laurie.Rounds@noaa.gov.