



The Strand Line

Message from Our President

The July 23 meeting was a huge success in Surfside with 74 people in attendance. The facilities were a picture book of what you expect from a newly re-constructed Stahlman Park Reception and Conference Center, a beach side pavilion overlooking the Gulf Coast. We thank Brazoria County (www.brazoria-county.com) for hosting the meeting and the Port of Freeport (www.portfreeport.com) and LNG (www.freeportlng.com) for sponsoring an excellent lunch.

We learned a lot again about the shoreline restoration projects in Surfside, the GLO's beach nourishment program in Surfside and Galveston, their oil spill response program, and the projects going on in Louisiana to protect the barrier islands from the BP oil spill.

The next Texas Chapter ASBPA meeting will be in Corpus Christi October 29 at the Harte Research Institute on the Texas A&M University campus in Corpus Christi beginning at 11:30 AM. Our host for the meeting will be the Harte Research Institute (www.harteresearchinstitute.org and www.tamucc.edu), and the sponsor for our luncheon will be HDR, Inc. (www.hdrinc.com).

This will be one of our most important meetings for the Texas Chapter since we will be preparing a coastal agenda for the upcoming 82nd Texas Legislative Session. The State expects an \$18 billion deficit and funds for coastal projects will be difficult to obtain. We are requesting that our coastal members invite their lobbyists, local elected officials, legislators, and legislative aides to the meeting because we need their help.

Since the GLO will not champion funds for CEPRA, except their administrative portion, it's up to the coastal communities to request funds for it. The GLO shouldered the load in the past and will support any effort, but they will not spend the time, as in the past, in going after the funds. We need to ask the members to push the legislators on the importance of CEPRA for leverage, particularly CIAP.

Here are some ideas we have for funding sources for the upcoming legislative session:

- A transaction fee on the sale of real estate in the first two tier coastal counties along the Texas Coast, excluding Harris County. *We would request the members to nurture ground support form the various real estate firms to support the legislation. We need the ground support because the Texas Realtor Association usually fights these requests and have killed it in the past. This is how Florida and New Jersey obtain the largest portion of their funds. We suggest \$100*

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TEXAS CHAPTER MEETING

Date: Friday, October 29, 2010
Time: 11:30 a.m.
Place: Harte Research Institute
 Texas A&M University Corpus Christi
 6300 Ocean Drive
 Corpus Christi, Texas
Sponsored by:
 HDR, Inc.
Hosted by:
 Harte Research Institute

Message from Our President (Cont'd)

and classify as Shoreline Restoration Fee.

- A fee on rental of residential property rented less than 6 months from Spring Break to Labor Day possibly in the first two tier coastal counties with the exception of Harris County. *We suggest 1% of rental fee and classify as Shoreline Restoration Fee.*
- A special gas tax for the coastal counties. *Fee to be determined.*
- Request a portion of the environmental fees for the coast. *Fee to be determined.*
- A fee for people getting motor traffic violations. *Fee to be determined.*
- A fee added to Windstorm Insurance policy. *We suggest \$50 as Shoreline Restoration Fee.*

Please let me know your ideas about funding sources and any other ideas for the October 29 meeting. We need help so let's put our collective thinking caps on and come up with very imaginative and creative sources.

In addition, to show how important CEPRA funding is to the Texas coast, make a list of 2 to 4 major projects you would like to see for your area. Indicate the estimated cost, if you have local money to match, and if you are using different funding sources. We want to show the legislators the type of projects we need for CEPRA funding and how important it is to the Texas coast.

Many thanks and hope to see you in Corpus Christi on October 29.

—Jerry Mohn, President
Texas Chapter of the ASBPA

Letter From the Editors

Howdy, Coastal community. This is it, the latest edition of The Strand Line, the Texas Chapter of ASBPA newsletter. As always, I want to thank the newsletter committee and contributing authors. I greatly appreciate the work and effort everyone puts into publishing the newsletter.

Also, I want to encourage everyone to submit articles to the Newsletter committee members relating to your personal interests, professional projects, or general commentary regarding the coastal community. If you have ideas for an article, write them down and submit them for review. It is a group effort to make the Newsletter interesting and relevant. I look forward to reading your article submission.

Regards,

Cris Weber
cris.weber@leapengineering.com

TGLO Reorganization

As most TSBPA members are aware, the General Land Office Coastal Resources division has been directly impacted by the recent reorganization, with the elimination of several positions and transfer of personnel. In an email from the TGLO to the newsletter committee, the TGLO explained that

"The Coastal Resources Division recently underwent a reorganization that reflects reduction in funds, changing priorities and strategies in dealing with the Texas coast. This reorganization resulted in a net reduction of 6 FTEs in the coastal division."

Restoring Estuarine Habitat in Galveston West Bay through Beneficial Placement of Dredged Sediments

Lauren N. Augustin¹, Daniel J. Heilman, and Dennis Rocha²

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The Galveston Bay system has lost over 30,000 acres of intertidal wetlands (almost 20%) since the 1950s, and nearly 90% of the bay's sea grasses have been lost (White *et al.* 1993). Historical aerial photographs and shoreline change data suggest that drowning due to subsidence and eustatic sea level rise is the primary cause of marsh loss. Beneficial use of sediment for restoration of wetlands and associated estuarine habitat within the Galveston Bay System is critical to the long-term sustainability and overall health of the bay. A number of cooperative marsh restoration efforts have recently been completed and/or are underway in Galveston West Bay to offset lack of natural sediment accretion and help combat wave-induced erosion and marsh fragmentation resulting from drowning due to relative sea level rise (RSLR). A recent example is the design and construction of 328 acres of marsh complex within Jumbile Cove and Carancahua Cove in West Bay at/adjacent to the Galveston Island State Park. In addition to upgrading previously-constructed marsh terraces in Carancahua Cove, dredged material is being placed to expand an existing complex of "marsh mounds" at Jumbile Cove.

Restoration of estuarine habitat requires identification of fill material suitable for habitat restoration, sediment analysis, quantification of immediate (elastic) and long-term (consolidation) settlements, and establishment of fill elevations that will support the targeted vegetation species. This restoration effort consists of hydraulic placement of fine sand dredged from the native bay bottom as fill material to create broad, gently-sloping emergent mounds. The constructed mounds have been designed to target the high range of intertidal marsh to accommodate future RSLR and provide longer life. Average dredged material placement slopes range from approximately 30:1 to 60:1.



Fig. 1. Dredged material being discharged for marsh mound creation.



Fig. 2. Sprigs of *Spartina alterniflora* planted at Jumbile Cove.

At each site, coalescing sand mounds and ridges have been constructed along the wave-exposed perimeter of the marsh complex in lieu of conventional "hard" shoreline protection structures such as rock breakwaters and geotextile tubes. The coalescing mounds will help increase wave-induced sediment supply into the marsh system while allowing vegetation to become densely established within the interior restoration site prior to direct wave exposure. Construction is scheduled to be complete later this fall.

The project is funded in part by the National Oceanic and Atmospheric Administration as one of the 50 high-priority coastal habitat restoration projects from the American Recovery and Reinvestment Act of 2009. Project partners include the Texas General Land Office and Texas Parks and Wildlife. Construction is being performed by Apollo Environmental Strategies, Inc.

Acknowledgments

Contributors to the technical work for this project include Ms. Cherie O'Brien at Texas Parks and Wildlife, Mr. Kris Benson at the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and Mr. Ben Au at the Texas General Land Office.



Cleaning Up the System

As demand for seafood grows, so does concern about the impact of fish farms on the marine environment. One aquaculture practice tries to soften this impact by turning farm waste into more profit.

It's called integrated multi-trophic aquaculture, or IMTA. The system starts with fish or shrimp and integrates them, or farms them alongside, other marine species such as kelp or filter-feeding shellfish. The "multitrophic" part of IMTA means the organisms involved are from different trophic levels, or places on the food chain of the marine ecosystem.

In one example of IMTA, researchers in New Brunswick grew blue mussels and kelp near existing salmon pens. Organic matter in the water column, such as uneaten food pellets from the fish cages, provided nutrients for the filter-feeding mussels. The kelp took up inorganic matter, such as nitrogen, from the fish waste.

Instead of leaving fish waste to accumulate in surrounding waters, where it could upset the ecosystem, an IMTA system uses the waste as nourishment for other species. And the shellfish and kelp do more than just clean up - they, too, can be harvested and sold, netting more profit for the farmer.

Future IMTA projects could add bottom-dwelling species to the mix to consume waste that settles on the sea floor, keeping things even cleaner. Sea cucumbers or urchins, which are marketable as food, could fill this role. Researchers are still tinkering with variables in the IMTA system - and hoping the practice catches on with farmers as well as with environmentally minded seafood consumers.

Sidney McClendon Memorial

At the July 23 meeting, we had a moment of silence for Sidney McClendon, who tragically passed away on June 12. He was an avid coastal advocate and never hesitated to help the Texas Chapter. In fact, he helped in the formation and development of the TX ASBPA by laws. For those of you that knew Sidney, you know he never hesitated to ask questions or give his opinion, and he was always such a contributor to the ASBPA.

Sidney was also one of the founders of the West Galveston Island Property Owners Association (WGIPOA) and of the Friends of Galveston Island State Park (FOGISP). Sidney really enjoyed the beach and bay, especially Galveston Island State Park. He was an avid kayaker and twice circumnavigated Galveston Island. His friends, family, and colleagues would like to place a memorial for Sidney at the kayak launch site in the Galveston Island State Park. A memorial fund had been setup through FOGISP, a 501©3 charitable donation organization. If you wish to give, please send your donations to

Friends of Galveston Island State Park
Attn: Sidney McClendon Memorial
5428 Jamaica Beach
Galveston, Texas 77554



Gulf Region Voters Far More Likely to Vote for Legislators Who Support Gulf Restoration Funding

Poll is timely day after Mabus report recommends BP fines be dedicated to Gulf restoration fund

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(Washington, DC—September 29) Nearly three out of four voters (72%) in Gulf region states (Alabama, Florida, Louisiana, Mississippi and Texas) say they'd be more likely to vote for federal legislators if they support funding to restore the environmental health of the Gulf, according to a new poll released today. The poll was funded by the Walton Family Foundation on behalf of a coalition of environmental, business, fishing, and anti-poverty groups dedicated to restoring the Gulf Coast.



Specifically, in Texas, over four of five voters (84%) believe that the state's economy is very or somewhat reliant upon the environmental health of the Gulf region. Almost eight in ten voters in Texas (79%) believe that restoring the health of the Gulf Region is an extremely high priority. And seven of ten voters in Texas (70%) say they are more likely to vote for leaders who support new investments in environmental restoration.

The poll is timely because yesterday a working group named by President Obama to create a long-term Gulf recovery plan—headed by Navy Secretary and former Mississippi Gov. Ray Mabus—recommended that a "significant amount" of the penalties collected from BP for this summer's oil spill should be dedicated to repairing the region's ecological, economic, public health and psychological damage. While the U.S. House of Representatives has passed an oil spill response bill that directs funding to Gulf Coast restoration, the Senate, even with the elections fast approaching, has yet to act on oil spill response legislation.

The poll by Democratic polling firm Lake Research Partners and GOP polling firm Bellwether Research and Consulting found that—regardless of political affiliation—voters across the Gulf region have a deep commitment to restoration and see it as key to the economic health of the region. In fact, majorities of Independents (67%), Democrats (82%) and Republicans (67%) said they are more likely to support federal legislators who will make new investments in restoration.

"This new polling confirms what common sense already told us. Voters overwhelmingly believe restoring the Gulf environment will also strengthen the region's economy, and make it more resilient when facing future storms or manmade disasters," said Scott Burns, director of the Walton Family Foundation's Environment and Conservation Program. "This is a clear message that restoration in the Gulf region is a high priority."

Across the Gulf region, more than two out of three voters (68%) recognize that degradation of the Gulf Coast as a result of man-made activities had occurred even before the recent oil spill, and more than three out of four voters (77%) believe it is important for the federal government to take steps to restore the health of the Gulf region, making this a strong voting issue in the upcoming elections.

"This poll shows Gulf Coast senators that restoring the environmental health of the Gulf's wetlands, marine and coastal areas is both good public policy and good politics," said Paul Harrison, senior director for the Mississippi River at the Environmental Defense Fund. "Gulf Coast voters recognize that it is critical to their economic future, especially for the region's huge fishing and tourism industries."

"There is widespread acknowledgement in Texas that we are intrinsically tied to our coast and it is important to continue to invest in the health of the Gulf and our local bays and estuaries," said Bob Stokes, President of the Galveston Bay Foundation. "Our economies and our culture are very much tied to a healthy coast."

"The people of the Gulf want and deserve a comprehensive plan that creates new job opportunities as part of environmental restoration," said Minor Sinclair, Oxfam America's U.S. Regional Director. "The Federal Government needs

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Gulf Region Voters (Cont'd)

to invest in the Gulf, for the good of the people who live there and for the nation as a whole."

Additional key findings of the survey include:

More than three out of five voters (62%) in Gulf Coast states say they are less likely to vote for federal legislators who do not support funding Gulf restoration

Nearly nine out of 10 poll respondents (87%) across the five Gulf states agree that the environmental health of the Gulf Coast region affects their state's economy very much or somewhat.

Nearly eight out of 10 poll respondents (78%) favor creation of a separate fund for the Gulf region and the Mississippi River Delta that includes penalty payments from BP for violating the Clean Water Act and the Oil Pollution Act.

The full polling information is available at the Walton Foundation website: <http://www.waltonfamilyfoundation.org/gulf-region-poll-results/>

The telephone survey of 2,061 voters from all five Gulf region states (Alabama, Florida, Louisiana, Mississippi and Texas) was conducted between September 7 and September 13, 2010. The polling margin of error is +/-2.2%.

About the Walton Family Foundation

The Walton Family Foundation's environmental giving focuses on achieving lasting conservation in some of the world's most important ocean and river systems. Desired outcomes are designed to benefit both people and wildlife by aligning economic and conservation interests. Accordingly, the Foundation invests in projects that create new economic incentives for sustainability and biodiversity protection, and in projects utilizing other conservation tools where needed.

The Walton Family Foundation supports projects and organizations that are making a positive difference for individuals, communities and the environment in the areas in which we concentrate our efforts. During 2009, the Foundation invested more than \$378 million in charitable initiatives, including those within our core Focus Areas: Systemic K-12 Education Reform; Freshwater and Marine Conservation; Quality of Life Initiatives in our Home Region. For more information, visit www.waltonfamilyfoundation.org.

About the coalition

A coalition of environmental, business, fishing, and anti-poverty groups dedicated to restoring the Gulf Coast has formed to jointly present this poll. The groups include: The Walton Family Foundation; Oxfam; Alabama Coastal Foundation; America's WETLAND Foundation; Coalition to Restore Coastal Louisiana; Environmental Defense Fund; The Fishermen's Alliance; Florida Wildlife Federation; Franklin County Seafood Dealers Association; Galveston Bay Foundation; Gulf of Mexico Reef Fish Shareholder's Alliance; The Gulf Restoration Network; Lake Pontchartrain Basin Foundation; Mississippi Fish and Wildlife Foundation; Mobile Baykeeper; National Audubon Society; National Wildlife Federation; The Nature Conservancy; The Ocean Conservancy; Organized Fishermen of Florida; Reef Relief; Save our Gulf; and Theodore Roosevelt Conservation Partnership.

About Galveston Bay Foundation

The mission of the Galveston Bay Foundation is to preserve, protect, and enhance the natural resources of the Galveston Bay estuarine system and its tributaries for present users and for posterity. The Foundation was incorporated in 1987, and is a non-profit organization under Section 501(c)(3) of the Internal Revenue Code. GBF is located at 17330 Highway 3 in Webster, Texas. For further information contact GBF at 281-332-3381 or visit the website at www.galvbay.org.



Texas ASBPA Stance on Oil in the GOM

The Texas Chapter of the American Shore & Beach Preservation Association would like to address the press release issued by the national leadership of the American Shore and Beach Preservation Association (ASBPA) on May 3, 2010 to oppose new offshore drilling. We are extremely disappointed that ASBPA issued the press release without any input from Gulf Coast states that rely heavily on oil and gas revenue from drilling operations. The issue of offshore drilling, its impacts, and expansion are significant and sensitive. As a result, we expected there to be sufficient time and discussion followed by a vote of the Board before establishing an official Association position and moving forward.

First and foremost, the Texas Chapter regrets that lives were lost on the Deepwater Horizon. The workers from this and other offshore facilities come from our neighborhoods and this event has had a profound effect on our state and area. Our thoughts and prayers are with the families and friends of those lost in this tragedy. Additionally, we are deeply concerned about the potential environmental impacts on the beaches and coastal estuarine systems. The impacts of the spill are far reaching and will affect many regions and habitats across the Gulf, including Texas. As a result, we feel the most appropriate action at this time by ASBPA is to offer our expertise in the coastal sciences and to advocate for sufficient funding directed towards the management and cleanup of the spill impacts. The Deepwater Horizon incident is tragic and we should encourage government at every level and the petroleum industry to investigate the event so this doesn't happen again.

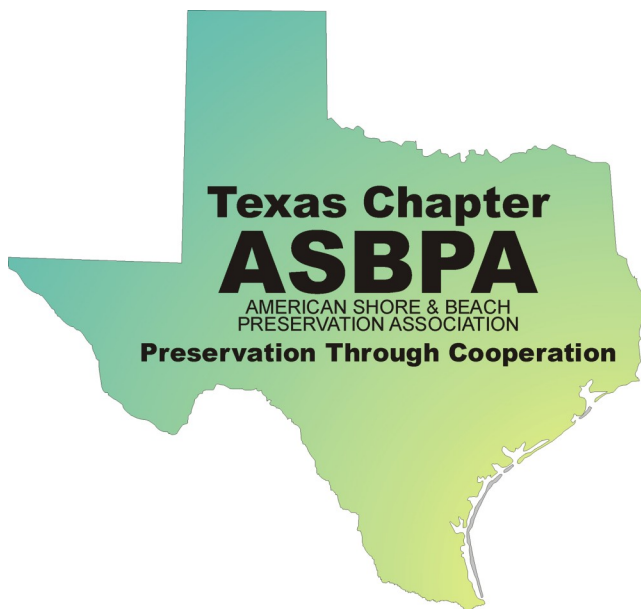
Regarding the issue of offshore oil and gas production, the United States benefits greatly from this industry, which support our national and local economies along with helping the U.S. achieve energy independence from foreign producers. The offshore energy industry has made significant strides and improvements in the last 30 years in finding oil and gas reserves where it was thought impossible to drill. These improvements were performed while also making significant efforts to protect the environment and limit impacts. The energy industry continues to make advancements in technology, safety, and environmental areas along with immediately responding to unforeseen accidents and spills.

ASBPA has built a solid reputation of balancing development and environmental interests at our nation's coasts – through science and consensus building. Use of our coastal areas for recreation, housing, and other purposes has been and will remain controversial as development, shoreline erosion mitigation methodologies, and property ownership/public access issues meet the challenges of maintenance of the ecosystem services of the coast. While sometimes bitter, the debate is fundamental and necessary. We hope this debate will lead to a sustainable coastal policy that allows a cooperative use of America's coasts while preserving them for future generations.

ASBPA regularly emphasizes the importance of beaches to the nation's economy and we advocate for greater state and federal investment to protect our beaches and shorelines. ASBPA also takes positions on actions and activities that affect the beaches, whether those actions are natural or human induced. Healthy beaches, dunes and estuaries drive much of the coastal economy and protect our homes and businesses. Texas, along with six other states are participating in a four year program that returns a portion of the royalties generated from outer-continental shelf oil and gas production to local communities that have been historically impacted by offshore production. This program, called the Coastal Impact Assistance Program (CIAP) is intended to be used for shoreline and environmental restoration projects. This is a direct benefit to coastal communities from off shore drilling and as a national association we should encourage the Federal Government to continue the CIAP program.

The impact of offshore drilling on our coasts is an area which has always attracted less attention from the ASBPA and there have been very different approaches to this question historically between the members from Gulf, East, and West coasts. Texas members have acknowledged there are differences in the approach to this issue and have been more than willing to work with other areas on this issue. The recent press release indicates that other areas may not be so inclined, but we hope this

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Texas ASBPA Stance on Oil in the GOM (Cont'd)

does not continue to be the case. Texas takes coastal protection and access seriously as evidenced by the Texas Open Beach Act that guarantees public access to all beaches. We have also worked to promote sustainable beaches while supporting a robust oil and gas industry. It is a partnership and balance that has worked for many years. At the request of some of our fellow ASBPA members we have supported the issue of extending the life span of federal projects beyond their original 50 year authorization even though we don't have any projects that qualify and in fact could be viewed as increasing the competition for the very limited funds available in the federal program. The Texas chapter of the ASBPA, therefore, is understandably concerned about the lack of opportunity to provide substantial input into the development of that release and that a simplistic "no offshore drilling" policy will emerge based on the recent oil blowout disaster in the Gulf. We believe that the balance of science and a consensus building approach of the ASBPA will be successful in this controversial area as it has been in countering the simplistic "just move back" approach voiced by others who condemn any development near the coast.

Respectfully Submitted on behalf of the Board of Directors of the Texas Chapter of the ASBPA

—Jerry Mohn, President
Texas ASBPA Chapter

Bald Eagle Spotted on Burnet Bay Wetlands Restoration Site

Baytown – The Galveston Bay Foundation (GBF) spotted a bald eagle using the recently restored wetlands in Burnet Bay, located off of Crosby-Lynchburg Road (North Independence Parkway). The wetlands restoration project began in the summer of 2009, and has since created intertidal marsh mounds that have been planted with smooth cordgrass by over 200 community and corporate volunteers. Historically, this area consisted of uplands and intertidal marsh habitat before it submerged and was lost due to subsidence. In addition to the bald eagle, the new habitat mounds are utilized by several species of birds including terns and white and brown pelicans, as well as flounder and other aquatic species.

The wetlands can easily be seen from Crosby-Lynchburg Road (North Independence Parkway). Take a trip to San Jacinto State Historical Park, enjoy a ferry ride across the Houston Ship Channel, and you might catch a glimpse of a bald eagle at the Burnet Bay wetlands restoration site.

About Galveston Bay Foundation

The mission of the Galveston Bay Foundation is to preserve, protect, and enhance the natural resources of the Galveston Bay estuarine system and its tributaries for present users and for posterity. The Foundation was incorporated in 1987, and is a non-profit organization under Section 501(c)(3) of the Internal Revenue Code. GBF is located at 17330 Highway 3 in Webster, Texas. For further information contact GBF at 281-332-3381 or visit the website at www.galvbay.org.



Eagle on mound in Burnet Bay



Eagle in flight from Burnet Bay



Realizing the Potential of Geographic Information Systems

Jene Adler

LEAP Engineering - Galveston, TX

Numerous advancements utilizing Geographical Information System (GIS) tools for environmental assessment, management techniques and modeling have been developed in the last decade. These GIS tools help us visualize the intertwined nature of the world around us. Engineers, urban planners, architects, ecologists, and biologists, just to name a few, use GIS to bring in datasets that illustrate the possibilities and constraints of a project in order to help formulate the most informed and comprehensive decision. The following article touches on some of the recent advancements of GIS and how these advancements are used to influence our planning efforts, offer sophisticated modeling integrations and provide a powerful tool to help us minimize environmental impacts.

As proven by recent events, the Gulf of Mexico is the most vulnerable coastal area in the continental U.S. when it comes to oil spills. In 1997, the Minerals Management Service (MMS) began working on the Gulf-Wide Information System (G-WIS) in reaction to the frustration of Gulf states, oil companies, and the federal government as they tried to develop oil spill response planning. This project became known as the G-WIS Environmental Sensitivity Index, not only a tool for oil spill planning but also a comprehensive environmental database for the entire Gulf Coast. The project was an amazing collaboration of local, state, and federal representatives as well as representatives from the private sector. An unexpected benefit of the G-WIS effort was that many other GIS projects evolved from the original dataset. One of the roles the National Oceanic and Atmospheric Administration (NOAA) played in building G-WIS was to provide spatial information on the distribution and abundance of fish and invertebrates in thirty-one estuaries along the Gulf Coast. Since the inception of G-WIS, NOAA has collected and synthesized data on the spatial distribution and numerical abundance of about forty-four species of fish and invertebrates. This database is now known as NOAA's Estuarine Living Marine Resource (ELMR) and is being used in the natural resource damage assessment resulting from the recent BP Oil Spill.

Hydrological models typically deal with the quality and quantity of water. Spatial elements are important to marine systems, lake models and groundwater problems. Watershed parameters such as slope, soils, land cover, and channel characteristics can be used for terrain models and simple flow descriptions. Recent hydrological applications for GIS include runoff and erosion models, river basin management, surface water modeling, groundwater modeling, and coastal flood modeling.

The St. Johns River Water Management District (SJRWMD) helped develop the Analytical Framework for Coastal and Estuarine Studies (ACES) GIS tool, one of the first comprehensive coastal and estuarine tools. ACES helps scientists monitor and manage the health of a complex estuary. ACES is composed of spatial and temporal data that assists the scientists in building a virtual model of the estuary using topographic, bathymetric, and tidal datum data. ACES can determine parameters related to the shape of the estuary, such as total area, high and low tide, volume, depth, and tidal flow. Using this information, the relative importance of tidal versus land-based flow on estuarine hydrodynamics can be assessed, as well as relationships between estuarine water quality and flow rates. ACES is also capable of regression modeling which is used to formulate correlative relationships between other influential factors such as upstream river drainage, coastal drainage, and estuarine non-point source pollution.

Computer-based, mathematical models that realistically simulate spatially distributed, time-dependent environmental processes in nature are increasingly recognized as fundamental requirements for the assessment of complex environmental issues. These environmental simulation models provide diagnostic and predictive outputs that can be combined with socioeconomic data for environmental risk assessment or natural resource management issues. GIS modeling is becoming increasingly advanced with the ability to integrate terrestrial and atmospheric systems to prove their role in shaping weather and climate, influencing the hydrological cycle, and as sources and sinks of greenhouse gases. More and more complex modeling programs are being developed.

GIS plays a key role in assessing and managing natural resources. Wetlands in the continental U.S. are disappearing at a rate of about 117,000 acres annually. The North Carolina Division of Coastal Management utilizes a watershed-based wetlands functional assessment model that uses GIS software to assess the level of water quality, wildlife habitat, and hydrologic functions of individual wetlands. The primary objective is to provide users with information about the relative ecological importance of wetlands for use in planning and the overall management of wetlands. Using GIS data integration can significantly improve avoidance and minimization of adverse impacts to valuable wetland ecosystems.

GIS has helped improve the effective management of marine preserves. The coastal kelp beds are one of California's most important coastal resources. They are vital habitats for sea life and play an important role in the life cycle of

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Realizing the Potential of Geographic Information Systems (Cont'd)

several fish species, including rockfish and lobster. Kelp is also harvested commercially for additives in salad dressings, lotions, cleaners, and paints. The California Department of Fish and Game uses GIS to help manage these kelp beds. Data sources include aerial photography, satellite imagery, scanning, and field georeferencing as well as custom GIS programming and documentation.

Historical value of spatial and distribution patterns have provided the opportunity to integrate GIS into biological and ecological patterns. The Missouri Botanical Garden has 25 years worth of data relating to the flora of Madagascar. Much of this data is managed within a GIS system. This data was integrated into a species distribution model to predict the location of the biodiversity on Madagascar. Climatic layers, such as length of dry season, annual mean temperature, and annual precipitation, were used to create potential distribution maps for species of conservation concern. This GIS integration helped scientists discover the locations where various unique plants were likely to grow and therefore assist Malagasy scientists with restoration and preservation efforts on Madagascar.

The value of environmental management and GIS modeling is most apparent in the specific ability to communicate effectively and provide information-based maps that are more easily understood. The abstract concept of risk assessment has become much easier to communicate with the integration of GIS modeling. Base maps typically consist of sources and receptors with overlays of exposure analysis, such as flooding risks, fire hazards, earthquake impacts, and drought effects. Since computer technology and spatial distribution information is becoming more accessible, GIS capabilities have become more feasible. We must keep in mind that GIS is only a way to manipulate information, it is not a source of information. However, GIS applications provide tools that can be useful in many environmental applications with simple modeling efforts. The applications that are available to most of us can change the way we effectively perform our jobs as well as provide opportunities for more creative and efficient planning of our projects.

BP and the Gulf of Mexico Alliance Announce Research Initiative Plans

Coastal and Marine Resource News
Rhonda Cummins, Coastal & Marine Resource Agent
Texas Sea Grant Extension Program
<http://calhoun-tx.tamu.edu>

In a press release issued on September 29, 2010, BP and the Gulf of Mexico Alliance announced plans for the implementation of BP's Gulf of Mexico Research Initiative (GRI) to study the effects of the Deepwater Horizon spill and any potential associated impact on the environment and public health. On May 24, 2010, BP committed \$500 million over 10 years for scientific research under the GRI. The Gulf of Mexico Alliance will administer the GRI, executing contracts and providing the required program management support. Details of the announcement are available at www.bp.com.



Ah! Texas Shrimp

Coastal and Marine Resource News
Rhonda Cummins, Coastal & Marine Resource Agent
Texas Sea Grant Extension Program
<http://calhoun-tx.tamu.edu>

According to the Texas Department of Agriculture, Texas shrimp is high in protein, low in fat and packed with essential amino acids. A moderate portion (9 to 12 medium-sized shrimp) contains about 150 milligrams of cholesterol, still well under standard dietary recommendations of less than 300 milligrams of cholesterol per day.¹ And here's a recipe from S. DiPaula & Sons Seafood, Inc. to help serve up your next batch:

SAUTÉ SHRIMP²

4 oz. Butter
1 lb Peeled & Deveined shrimp
½ lb sliced Mushrooms
2 tbs Chopped Green Onions
½ tsp Basil ½ cup White Wine
1 tsp Celery Salt
1 tsp Worchester Sauce



Heat 4 ounces butter in skillet. Add 1 pound peeled and deveined shrimp. Saute over medium heat about 5 minutes or until opaque. Add 1/2 pound sliced mushrooms, 2 tbs chopped green onion, ½ tsp. Basil. ½ cup white wine, 1 tsp. Celery salt, 1 tsp Worchester sauce. Saute 5 minutes more. Serve with steamed rice

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1. Texas Department of Agriculture. Texas Shrimp. Accessed Oct. 8, 2010 (http://www.txshrimp.org/vgn/tda/texasshrimp/render/channel/0,1145,602_608_0_36095,00.html)
 2. S. DiPaula & Sons Seafood, Inc. Saute Shrimp. Accessed Oct. 8, 2010 (<http://www.dipaula.com/recipes/sauteshrimp.asp>)

Upcoming Events

October 2010

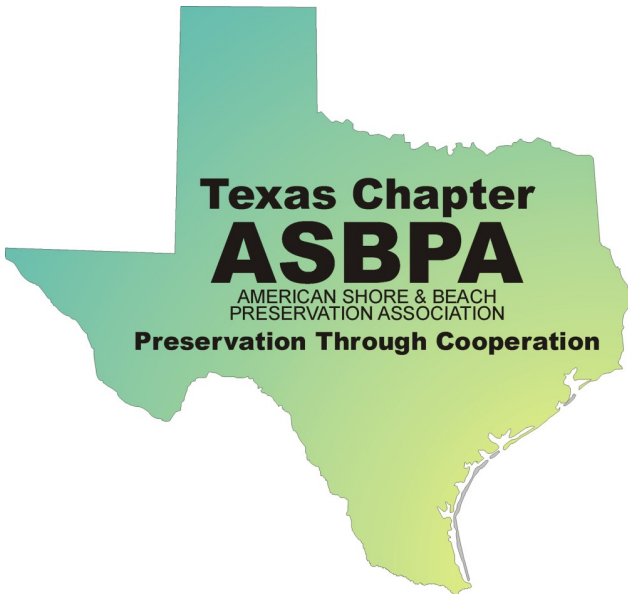
- *October 13-15: ASBPA National Conference. Charleston, SC*
- *October 29: Texas ASBPA Chapter Meeting. Corpus Christi, TX*
- *October 29: TBoPE P.E. Exam*

November 2010

- *November 13-17: Restore America's Estuaries (RAE)--Preparing for Climate Change: Science, Practice, and Policy. Galveston, TX*
- *November 14-17: COPRI Coasts, Oceans, Ports, and Rivers Institute. Memphis, TN*

December 2010

- *December 13-17: American Geophysical Union (AGU). San Francisco, CA*



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The American Shore & Beach Preservation Association recognizes that the shores, beaches and other coastal resources of America provide important quality-of-life assets within the reach of the largest possible number of people in accordance with the ideals of a democratic nation. This Association is dedicated to preserving, protecting and enhancing the beaches, shores and other coastal resources of America.

The Texas Chapter of ASBPA is dedicated to fulfilling this mission in the State of Texas. We are a member based advocacy organization. For more information on becoming a member, becoming a corporate sponsor, or becoming more active with the organization, please contact Jerry Mohn at the address to the left.

Please remember to visit our website at www.texasasbpa.org for more frequent updates on coastal happenings and the Texas Chapter of ASBPA. If you have information to submit for the website or newsletter please contact Jerry Mohn.

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GUIDELINES:

- 500 to 1000 word articles (pictures welcomed)
- Word format (Garamond @ 10 font)
- Ensure permission to publish is granted.