

# COASTAL MANAGEMENT NEWS

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Coastal primary sand dunes and beaches above mean high water, like those shown in the foreground of the photo above, will now have extra protection in all coastal localities as a result of changes to the Coastal Primary Sand Dunes and Beaches Act. The house in the background is an example of the encroachment that will no longer be permitted. Photo courtesy Virginia Institute of Marine Science.

## Virginia CZM Efforts Result in Dune, Beach Protection

Virginia Governor Timothy Kaine signed legislation expanding the reach of the Virginia Coastal Primary Sand Dunes and Beaches Act to the entire coastal zone (roughly the area east of Interstate 95) on February 22nd. Passage of the legislation is the culmination of years of coordination and research by the Virginia Coastal Zone Management (CZM) Program. At the time of the original dune act legislation in 1980, it was known that coastal primary sand dunes existed in nine localities, but there was no comprehensive inventory of dune or beach resources.

A series of studies funded by the Virginia CZM Program and conducted by the Virginia Institute of Marine Science showed that extensive dune and beach resources were unprotected, especially from the effects of shoreline hardening

structures designed to control shoreline erosion. Based on this new information the Virginia CZM Program's Coastal Policy Team, consisting of representatives from the program's network of coastal agencies and localities, supported the idea of expanding the act, and Virginia State Delegate Harvey Morgan sponsored the bill. As a result of the expanded legislation, more localities have the ability to manage these critical resources by adopting ordinances that would be administered by local wetlands boards. If a coastal locality chooses not to adopt the ordinance, then the Virginia Marine Resources Commission will regulate development affecting dunes and beaches in that locality.

For more information, contact Shep Moon at [Shep.Moon@deq.virginia.gov](mailto:Shep.Moon@deq.virginia.gov).

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Coastal and Ocean Management Award recipients honored during Capital Hill reception in February. See Page 5.

## Marine Reserves, Wave Energy Subject of Oregon Executive Order

Oregon's Territorial Sea is big news. Governor Ted Kulongoski on March 27, 2008, issued an Executive Order aimed at clarifying the state's process for designating marine reserves in state waters and assuring fishermen and coastal communities that their concerns over wave energy siting are being taken seriously at the highest levels. The Governor's actions have received favorable response from local officials and fishermen.

The Executive Order directs the state's Department of Fish and Wildlife to lead the work of the Oregon Ocean Policy Advisory Council (OPAC) to nominate and designate a system of marine reserves in state waters. The Executive Order also directs the Department of Land Conservation and Development, Oregon's coastal management agency, to work with OPAC and others to prepare a comprehensive plan for siting wave energy projects along the Oregon coast.

Marine reserves have been a hot topic for coastal communities concerned with ocean area closures, loss of access to fisheries, and economic impacts. The Governor had previously requested the OPAC to conduct a public nomination process as a basis for recommending sites to comprise a "limited system" of marine reserves. Both local communities and scientific experts expressed concern that the pace was too fast to account for concerns and provide sound advice. The Executive Order directs the OPAC to move ahead with the public nomination process but slows the process to respond to stakeholder concern. No sites will be designated until the 2009 Oregon Legislature can discuss the sites and decide whether to support implementation with funding. The OPAC must submit a list of no more than nine sites for the legislature to consider by December 1, 2008.

Wave energy has only recently become controversial. Over the past three years, the Governor's advocacy for renewable, sustainable power from ocean waves and wind has generally found a receptive audience along the coast. But fishermen and others have grown alarmed as an

increasing number of nearshore ocean areas are claimed by private companies for potential wave energy generation, some right in the middle of prime crabbing grounds. The Executive Order responds to increasing calls for a "time out" and a comprehensive look at both wave energy development and marine reserves.

Oregon has experienced a bit of a "gold rush" by energy companies eager to stake claims to the prodigious wave energy potential along Oregon's 360 mile coast, which also has nearby on-shore transmission facilities. Seven proposed wave energy projects have been filed with the Federal Energy Regulatory Commission (FERC), although only one is on track for a full license through a FERC Settlement Process. Build-out of commercial wave energy facilities is thought to be years away but claims are being staked now with little or no public input.

The Executive Order carries out a provision of a recent Memorandum of Understanding between the State of Oregon and FERC. The MOU stipulates a number of ways that Oregon and FERC will coordinate and cooperate in the planning, review, and approval of "hydrokinetic" wave energy projects in state ocean waters. FERC and the state agree that Oregon will adopt a "comprehensive plan" for the siting of wave energy projects as a part of the Oregon Coastal Management Program and will seek NOAA approval as an amendment to the state's coastal management program. In turn, FERC agrees that it will consider whether a proposed wave energy project is consistent with that plan.

The Executive Order may be read at [http://governor.oregon.gov/Gov/docs/executive\\_orders/eo0807.pdf](http://governor.oregon.gov/Gov/docs/executive_orders/eo0807.pdf). The Memorandum of Understanding may be read at <http://www.ferc.gov/legal/maj-ord-reg/mou/mou-or-final.pdf>.

For additional information, contact Bob Bailey at [Bob.Bailey@state.or.us](mailto:Bob.Bailey@state.or.us).

## Full Approval for South Carolina and Florida Nonpoint Programs

On March 27<sup>th</sup>, NOAA's Office of Ocean and Coastal Resource Management, in partnership with the Environmental Protection Agency, fully approved Florida's and South Carolina's Coastal Nonpoint Pollution Control Programs.

The Coastal Nonpoint Pollution Control Program was established by Congress in 1990 to encourage better coordination between state coastal zone managers and water quality experts to reduce polluted runoff in the coastal zone. Coastal states must develop programs,

backed by enforceable authorities, to implement a suite of management measures that will control runoff from six main sources: forestry, agriculture, urban areas, marinas, hydromodification (shoreline and stream channel modification), and the loss of wetlands and riparian areas. South Carolina and Florida become the 20<sup>th</sup> and 21<sup>st</sup> coastal states to receive full approval for their Coastal Nonpoint Programs.

Congratulations to South Carolina and Florida!

## Managing South Carolina's Changing Shorelines

Twenty years ago, the South Carolina Coastal Zone Management Program (now administered by the South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management, SCHEC-ORCM) convened a "blue ribbon panel" to address the threats of chronic erosion, gradual sea level rise, increased shoreline development, and a lack of comprehensive beachfront planning and

become equally desirable for development. These shorelines face similar threats from erosion, sea level rise and storm events, and create an increasing demand for erosion control structures.

In 2007, SCDHEC-OCRM launched a Shoreline Change Initiative to help guide the long-term sustainability of South Carolina's shoreline communities and natural resources. As an integral part of the Initiative, a Shore-



South Carolina's Shoreline Change Initiative will help address the long-term sustainability of its shoreline communities in the face of erosion. Photo credit Bill Eiser.

management. The panel offered guidance to state regulators and legislators in developing state beach management policies, and most of their recommendations were adopted into law through the state's "Beachfront Management Act" in 1988. The law established a state policy of shoreline retreat, and significantly limited the use of hard erosion control structures.

Over the past two decades, the South Carolina Beachfront Management Act and associated regulations have significantly limited development and hard stabilization of the beachfront in many areas. Even with the prohibition on new oceanfront seawalls and restrictions on the size of homes within the beachfront "setback area," shoreline development has continued to expand at a rapid pace, and the issues originally addressed twenty years ago by the 1987 Blue Ribbon Committee remain critical. As beachfront lots have become increasingly scarce, estuarine shorelines along rivers and creeks have

line Change Advisory Committee was formed and includes a broad cross-section of coastal stakeholders, including scientists, coastal managers, municipal officials, developers, conservationists, and legal professionals. The Committee was charged with identifying research and information priorities, and identifying and exploring options for improved management and planning for shoreline change.

After monthly meetings focusing on beach armoring, renourishment,

shoreline retreat policy, local and state beachfront planning, and estuarine shoreline management, the Committee will produce a final report of related research needs and policy options (anticipated in spring, 2009).

SCDHEC-OCRM is also sponsoring parallel research and data collection efforts related to shoreline change, including a policy analysis of beachfront management options and a "meta-analysis" of past renourishment projects. In addition, to further lesson sharing among neighboring states, SCHEC-OCRM will be meeting with staff from North Carolina's Coastal Program in May 2008 to discuss lessons learned and emerging shoreline management issues shared by both states.

For more information, visit the project's website: [http://www.scdhec.gov/environment/ocrm/science/shoreline\\_comm.htm](http://www.scdhec.gov/environment/ocrm/science/shoreline_comm.htm) or contact Braxton Davis at [davisbc@dhec.sc.gov](mailto:davisbc@dhec.sc.gov).

## Green Infrastructure: Reducing Stormwater in Coastal Georgia

Georgia's coastal population is estimated to increase 51% by 2030, placing significant pressure on the state's coastal aquatic resources. To provide coastal communities with the tools they need to minimize stormwater impacts from future development, the Georgia Department of Natural Resources is partnering with the Chatham County-Savannah Metropolitan Planning Commission and the Center for Watershed Protection to develop a Coastal Stormwater Supplement to the Georgia Stormwater Management Manual.

The reduced pollutant removal efficiencies and operational challenges associated with coastal stormwater best management practices (BMPs) suggest that BMP design must be adapted to the physiographic features and water quality concerns of the coastal zone. The practices included in the Coastal Stormwater Supplement will help ensure that stormwater BMPs along the coast are designed to effectively protect coastal resources.

Georgia's Coastal Stormwater Supplement will stress the need for comprehensive stormwater management, integrating both structural BMPs and innovative "Green Infrastructure" approaches to mitigate the impacts of urbanization. Green Infrastructure emphasizes the prevention and mitigation of impacts at the site level through the use of Better Site Design techniques and sustainable, Low Impact Development practices. Specifically the approach includes:

- Using better site planning and design techniques to develop the land in a way that minimizes impacts to natural resources and reduces the amount of stormwater runoff generated at development sites.
- Using low impact development practices to manage stormwater runoff closer to its source.

- Using structural stormwater practices, as necessary, to treat stormwater runoff before it is discharged to a receiving waterbody.
- Using structural stormwater practices, as necessary, to manage stormwater runoff volumes and prevent downstream flooding and streambank erosion.
- Maintaining groundwater recharge.



A site plan for a Planned Unit Development in Darien, GA using the Green Infrastructure process.

The Coastal Stormwater Supplement will also include a credit system to provide developers and site designers with an incentive to use Green Infrastructure techniques that will reduce both the amount of runoff and pollutants generated at a development site.

The Coastal Supplement is anticipated to be completed by fall 2008 and will include a model coastal ordinance, a "How-To" guide on developing a local stormwater utility, as well as practical and cost-effective monitoring protocols to further assist local governments in implementing Green

### Infrastructure practices.

The project will also assist the state in gaining full approval for its Coastal Nonpoint Program and is supported by grants from EPA's Nonpoint Source Program and NOAA's Coastal Zone Management Program. Local communities and the engineering industry also contributed significant time and services.

For current information, project component drafts, and powerpoint presentations, please see the Metropolitan Planning Commissions website: <http://www.mpcnaturalresources.org/water-resources/georgia-storm-water.html> or contact Jeannie Butler at [Jeannie.Butler@dnr.state.ga.us](mailto:Jeannie.Butler@dnr.state.ga.us).

## New Bluff Vegetation Management Manual for Pennsylvania

The majority of Pennsylvania's Lake Erie shoreline consists of glacial bluffs that rise as much as 180 feet above the lake. The bluff stratigraphy consisting of highly permeable and erodible soils tends to increase the instability of the bluff. Shoreline erosion and bluff recession are considered the most significant Lake Erie coastal hazard. The average recession rates for Pennsylvania's Lake Erie coastal municipalities ranges from 0.36 – 1.27 ft/year.

Good vegetation management along the bluff face plays an important role in improving bluff stability and slowing erosion. To better educate coastal bluff property owners on how to maintain and use vegetation to help stabilize eroding bluffs, the Pennsylvania Coastal Resource Management Program recently partnered with Pennsylvania Sea Grant to significantly update its coastal property owner's guidebook, *Vegetative Best*

*Management Practices—A Manual for Pennsylvania Lake Erie Bluff Landowners*. Although the manual was widely used not only by Pennsylvania Coastal Program field staff but also by neighboring state coastal management programs with similar eroding bluffs, the document, originally developed in 1986, had not been updated since 1994. Also, the earlier editions of the manual recommended several plant species that have since been found to be invasive. The new, more comprehensive manual includes the latest information on shoreline erosion, bluff recession, and vegetative stabilization techniques, including an updated list of native plants suitable for the Lake Erie bluff environment. The guidebook also provides an overview of relevant municipal regulations and local contacts relating to construction along the bluff.

Since its 2007 release, the updated *Vegetative Best Management Practices* manual has received positive reviews from the targeted coastal community. While designed for property owners along Lake Erie bluffs, other property owners within Pennsylvania's Great Lakes watershed are also finding it useful—primarily those along steep walled coastal stream ravines and riparian areas. Coastal erosion may be more dramatic along the shoreline and bluffs of Lake Erie, but negative impacts from erosion happen throughout the watershed.

The new manual, *Vegetative Best Management Practices - A Manual For Pennsylvania/Lake Erie Bluff Landowners*, can be downloaded at <http://www.seagrant.psu.edu/publications/erosion.htm>. For additional information, contact Shamus Malone at [smalone@state.pa.us](mailto:smalone@state.pa.us).



An eroding bluff face along Pennsylvania's Lake Erie coast.

## NOAA Recognizes Winners of Coastal and Ocean Management Awards

On February 27th, NOAA honored the recipients of the 2008 Walter B. Jones Awards and NOAA Awards for Excellence in Coastal and Ocean Management during a ceremony in Washington D.C. These biennial awards recognize coastal stewards, graduate students, state and local government, and non-governmental organizations for their outstanding efforts in coastal and ocean management.

The awards were created to honor the late 11-term Rep. Walter B. Jones of North Carolina. As chairman of the House Merchant Marine and Fisheries Committee, the Congressman was a strong supporter of the National Marine Fisheries Service and coastal zone management.

The NOAA Excellence Awards recognize exceptional work in ocean and coastal resource management, business leadership and efforts by a non-governmental organization. (Continued on pg. 6)



2008 recipients of the Walter B. Jones Awards and NOAA Awards for Excellence in Coastal and Ocean Management pose for a group picture.

*Awards, continued from pg. 5*

The winners of the 2008 Walter B. Jones Awards and NOAA Awards for Excellence in Coastal and Ocean Management are:

Walter B. Jones Awards:

- Coastal Steward: Lynne Z. Hale, The Nature Conservancy
- Local Government: Nueces County, Texas; and Carteret County, North Carolina, Shore Protection Office
- Coastal and Marine Graduate Study: Jill Hendon, University of Mississippi; Catherine McNally, University of Rhode Island; Anirudh Ullal, North Carolina State University, and Heather Ward, East Carolina University.

NOAA Excellence Awards:

- Susan Snow-Cotter Award for Excellence in Ocean and Coastal Resource Management: Kathleen Leyden, Maine State Planning Office; Brian Baird, California Resources Agency
- Excellence in Business Leadership: J&B Aquafood, North Carolina
- Non-Governmental Organization of the Year: Island Institute, Maine

For more information on the Walter B. Jones Memorial and NOAA Excellence Awards visit <http://oceanservice.noaa.gov/programs/ocrm/jones-noaa-awards.html>.

## Summary of Coastal Program Efforts to Address Sea Level Rise

The Rhode Island Sea Grant Program and the Coastal Resources Center at the University of Rhode Island collaborated with NOAA's Office of Ocean and Coastal Resource Management to conduct a desktop review of state coastal management programs that have incorporated, or are in the process of incorporating, anticipated sea level rise into planning and regulatory processes. The review also looked at what state coastal management programs are engaging in initiatives regarding sea level rise, climate change, or other relevant hazards. A summary of the review was recently released as a report, *Summary of*

*Coastal Program Initiatives that Address Sea Level Rise as a Result of Global Climate Change*, which is available online at <http://seagrant.gso.uri.edu/ccd/haz.html>.

The review was done on behalf of the Rhode Island Coastal Resource Management Council who recently adopted regulations addressing sea level rise and climate change (See story in January 2008 edition of Coastal Management News).

For additional information, contact Pam Rubinoff, at [rubi@gso.uri.edu](mailto:rubi@gso.uri.edu).

## – Spotlight on NOAA Resources –

### Sea Grant Regional Research Initiatives

The National Sea Grant College Program has embarked on a regional research and information planning initiative to more effectively respond to coastal needs spanning multiple states. The initiative will also advance NOAA's commitment to adopting ecosystem-based approaches to management. Sea Grant divided the United States' coastal areas into eleven regions for its planning purposes. Sea Grant programs in each region were then awarded competitive grants to identify research and information gaps, and to develop prioritized regional research and information plans.

Regional coordinators from Sea Grant programs are facilitating these planning efforts. Sea Grant is engaging a wide array of stakeholders to develop a "bottom-up" needs assessment by identifying research and information gaps, developing prioritized management-

based regional research and information plans, coordinating technology and information transfer to appropriate end users, and providing an ongoing platform for coordination, collaboration and resource-sharing among participants.

The regional research plans will include clear statements of the major regional, ocean and coastal management issues, outlines of existing scientific and informational resources, analyses of the information necessary to address the critical issues, and a prioritized list of actions to be taken. The final plans will include a prioritized list of forecast products that would aid in the transition toward regional ecosystem-based management. Each region must also include an outreach component in their plan, ensuring timely delivery of pertinent technologies and tools to the appropriate users.

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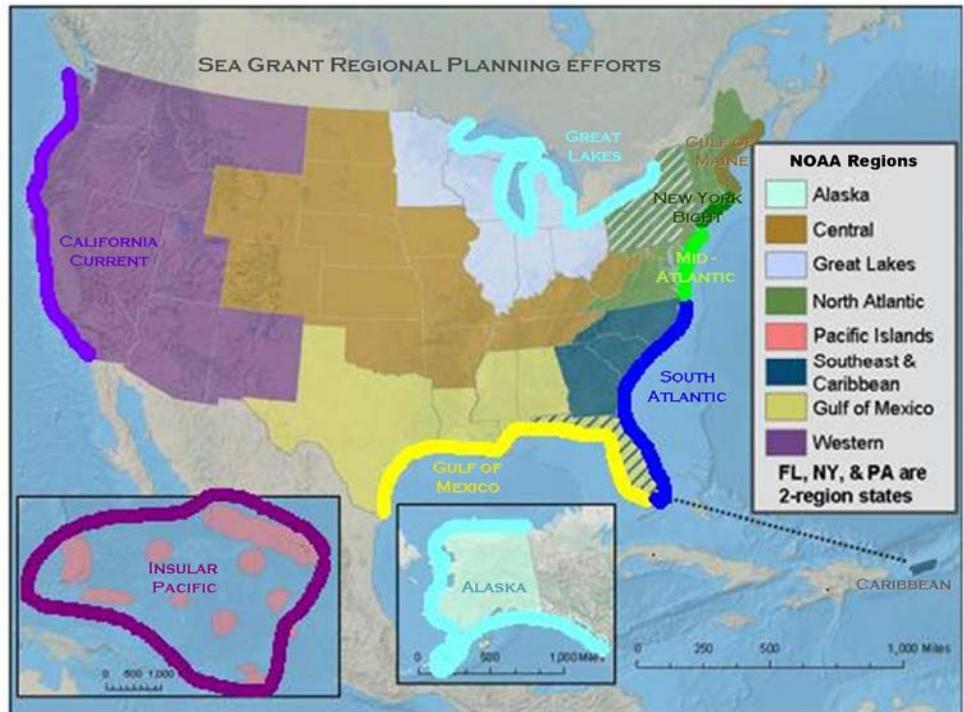
*Sea Grant, continued from pg. 6*

Eight regions are currently participating in this planning process (Gulf of Maine, Great Lakes, Insular Pacific, Alaska, Pacific Northwest, Pacific Southwest, Gulf of Mexico, and the South Atlantic). Their plans will be completed by the end of FY 2008. The remaining three regions (New York Bight, Mid-Atlantic and the Caribbean) are beginning the process in FY 2008, with plans scheduled for completion by the end of FY 2010.

Although the planning process is not complete, every region has preliminarily identified climate change impacts as a top priority for research. Identified climate change research needs include refining predictive models to regional and local scales, and considering socioeconomic and ecological effects climate change. Other preliminary priorities are as diverse as the different regions' geological and ecological environs. The Insular Pacific region prioritizes beach and reef restoration research. In the Great Lakes, the priority is aquatic invasive species, while storm safety is a priority in the Northeast. Along the Pacific coast, the priority is ocean observation systems for better assessing the land-sea connection.

Although regional planning activities are being facilitated by Sea Grant, the initiative includes a broad array of partners including state and federal agencies, universities, scientists, local government, industry, and non-governmental organizations, existing regional organizations such as the Regional Fishery Management Councils, and other NOAA programs and laboratories. Sea Grant welcomes and encourages feedback and participation from the coastal zone management community or any other interested stakeholders.

The National Sea Grant College Program is a partnership between universities and NOAA. The Sea Grant network



*Sea Grant Regional Planning Efforts. The thick colored lines denote regional boundaries for their regional research planning initiative.*

includes 32 programs based at universities in every coastal and Great Lakes state, Puerto Rico, and Guam. Sea Grant is dedicated to providing sound science to further the environmental stewardship, long-term economic development and responsible use of America's coastal, ocean and Great Lakes resources. Through these partnerships, Sea Grant provides integrated research, outreach and education programs aimed at creating tangible benefits for ocean, coastal and Great Lakes environments and communities.

More information about these regional initiatives, and region-specific contacts can be found at <http://www.seagrant.noaa.gov/regional> or by contacting Dorn Carlson at [Dorn.Carlson@noaa.gov](mailto:Dorn.Carlson@noaa.gov).



The quarterly *Coastal Management Program Newsletter* was developed in response to state requests for assistance in improved communication/lesson sharing among the state and territory coastal management programs. Please let us know about interesting things going on in your coastal zone you would like to share with others. If you have any projects that you would like to highlight, please send a brief description to [Allison.Castellan@noaa.gov](mailto:Allison.Castellan@noaa.gov). The submission deadline for the next newsletter is July 1, 2008.

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