

COASTAL MANAGEMENT NEWS

Volume 5, Issue 2, April 2010



The Deer Island Marsh Project pictured in the lower right corner is one of a number of restoration efforts on this island off the Mississippi coast. Credit: Mississippi Department of Marine Resources

Mississippi Restoration Focuses on Deer Island and Beneficial Use

Just off the Biloxi coast lies Deer Island, one of the most important properties in the Mississippi Coastal Program's Coastal Preserves system. Purchased by the state in 2003, with assistance from the Coastal and Estuarine Land Conservation Program, the 400-acre island is managed by the Mississippi Department of Marine Resources (MDMR) Office of Coastal Ecology. The narrow, four-mile long island is essentially a relic of the mainland, not a true barrier island, and was occupied from the early 1700s until its residents left after Hurricane Camille in 1969. A great asset for the Mississippi coast, the island now supports recreation, critical coastal habitats, and a base-level of storm protection for much of Biloxi's waterfront. Because of its accessibility, it is also an excellent site

for research and pilot projects using dredge material for marsh restoration.

Recent major storms (Ivan, Dennis, Katrina) rolled beaches into inland marshes, breached the core of the island, killed trees, and undercut forests, leaving numerous stumps standing in open water. They also heavily damaged the Deer Island Marsh Project, a joint U.S. Army Corps of Engineers/MDMR project, which was designed to restore the rapidly eroding east tip of the island. A large percentage of planted marsh grasses and underlying dredge material were lost, leaving elevations too low to support marsh vegetation throughout most of the project.

Currently, there are a variety of restoration and management needs

(Continued on pg. 2)

Page 1: MISSISSIPPI RESTORATION FOCUSES ON DEER ISLAND AND BENEFICIAL USE

Page 2: OCRM, NOS HOST PRIORITIES ROUNDTABLE FOR NGOS

Page 3: CONNECTICUT HELPS TOWN WITH CLIMATE CHANGE ADAPTATION

Page 4: NOAA LAUNCHES STATE OF THE COAST WEBSITE

Page 4: CLIMATE CHANGE ADAPTATION WORKSHOPS HELD IN SAN FRANCISCO BAY AREA

Page 5: OHIO GROUPS UNITE TO ADVANCE LAKE ERIE EDUCATION AND OUTREACH

Page 6: CELCP UPDATES

Page 7: MPA CENTER LAUNCHES NEW INTERACTIVE MAPPING TOOL, OCEAN USES ATLAS

Page 7: NEW JERSEY COASTAL NONPOINT PROGRAM RECEIVES FULL APPROVAL

Page 8: NEW NOAA INITIATIVES EMPHASIZE IMPORTANCE OF CLIMATE



COASTAL MANAGEMENT NEWS

Volume 5, Issue 2, April 2010

Mississippi Restoration (Continued from pg. 1)

on the island. The predominantly wooded island is riddled with the bleached snags of pines killed by Hurricane Katrina. For Deer Island, this massive tree die-off means loss of habitat and an eventual loss of the deep root systems that help hold the island together. In areas with almost no tree canopy, rapidly growing woody shrubs have prevented natural pine regeneration.

MDMR is using prescribed fire to reduce this shrub cover and promote natural regeneration. If pines do not begin regenerating as a result of the burn, seedlings may be planted.

Deer Island has lost much more than trees. In the mid 1800s, the island was nearly twice its current size. With an average loss of two acres per year and rising sea levels, land-loss is the island's greatest threat. Following Hurricane Katrina, a 3,200 foot breakwater was constructed with debris from the Biloxi-Ocean Springs bridge and placed south of a large breach in the island to slow erosion and enhance recreational fishing. A major priority for MDMR is to complete the Deer Island Marsh Project and place an oyster reef, funded by NOAA's Restoration Center, adjacent to the project to provide habitat and wave attenuation.

To restore and protect other parts of the island, an extensive Deer Island Ecosystem Restoration project is



Mississippi is using prescribed fires like this one to aid in the restoration of Deer Island. Credit: Mississippi Department of Marine Resources

pending as part of the Corps' Mississippi Coastal Improvements Program. Activities along the northern and southern shorelines will provide highly productive estuarine wetlands, restore beach and dune habitat, create hard-bottom habitat, reduce coastal erosion, and restore the coastal maritime forest.

Beneficial use plays a key role in many efforts to restore Deer Island. It is guided by the Long-Term Comprehensive Master Plan for Beneficial Uses of Dredged Material along Coastal Mississippi, a collaborative effort between the Corps and MDMR. The goal of the Mississippi Beneficial Use Group is to ensure complete ecologically beneficial use of all dredge material taken from Mississippi waters. In support of this goal, the passage of Mississippi

House Bill 1440 in March 2010 mandates beneficial use of dredge materials in most situations.

Efforts to restore and maintain terrestrial and marine habitats at Deer Island are likely to increase in the coming years with greater public awareness of sea level rise and the benefits of beneficial use. These efforts will be expanded across Mississippi's coast to help mitigate land and habitat loss. For more information, contact George Ramseur at george.ramseur@dmr.ms.gov.

OCRM, NOS Host Priorities Roundtable for NGOs

In March 2010, NOAA's Office of Ocean and Coastal Resource Management (OCRM) and National Ocean Service (NOS) leadership hosted a roundtable to brief nongovernmental organizations on NOAA, NOS, and OCRM FY 2011 priorities and resources at NOAA's Silver Spring campus. Acting assistant administrator for NOAA Oceans and Coasts, David Kennedy; NOS' chief financial officer, Chris Cartwright; and OCRM acting director, Donna Wieting discussed priorities and FY 2011 budgets with 15 representatives from nongovernmental organizations with interest in coastal and ocean issues. Groups attending were the Coastal States Organization, National Estuarine Research Reserves Association, National Governors Association, Nature Conservancy, American Petroleum Institute, American Sportfishing

Association, Coastal Ocean Values Center, Environmental Law Institute, Global Fish Alliance, Joint Ocean Commission Initiative, National Marine Sanctuary Foundation, National Fish and Wildlife Foundation, Ocean Conservancy, Trust for Public Lands, and the Wildlife Conservation Society.

There was significant interest among the group in coastal and marine spatial planning, Coastal Zone Management Act reauthorization, regional ocean governance, and the Coastal and Estuarine Land Conservation Program. For additional information, contact Ellen Ternes at ellen.ternes@noaa.gov.

Connecticut Helps Town with Climate Change Adaptation

Leaders for the Town of Groton, Connecticut, situated along the northeastern shore of Long Island Sound, recognize climate change will significantly impact their community. Rising sea levels will likely damage existing infrastructure and could render emergency evacuation routes inaccessible during severe storm events, putting its citizens at risk and resulting in significant cost to the town. To help tackle this issue, Groton established a climate taskforce.

At the same time, with funding from the U.S. Environmental Protection Agency Climate Ready Estuaries Program, the Connecticut Department of Environmental Protection's Office of Long Island Sound Programs, the state's coastal management program,

partnered with the ICLEI-Local Government for Sustainability and the Long Island Sound Study to host a series of coastal climate change adaptation workshops for Groton. The three-part series was designed to engage representatives from federal, state, and local governments in climate change adaptation efforts and provide them with the understanding and tools needed to effectively adapt to climate change.

The first workshop, which was rescheduled due to a nor'easter, was held on January 27, 2010, and oriented 80 participants to the adaptation planning process. The workshop provided an overview of projected regional climate impacts and started a dialog among the attendees on how different political sectors are vulnerable to forecasted climate change impacts, especially sea level rise. As if to illustrate the point, the second workshop, on March 31, 2010, was almost cancelled due to flooding that caused many coastal towns to declare states of emergency. Despite the transportation issues, over 60 people attended to further

flesh out Groton's vulnerabilities to climate change and appropriate adaptation actions. During the final workshop, slated for June 18, 2010, participants will develop strategies for implementing the identified adaptation actions across political boundaries.

As part of the series, the New England Environmental Finance Center is modeling the cost of various sea level rise and storm surge scenarios and the cost of taking specific adaptation strategies, including the cost of not taking any action. The results of the workshops, including an adaptation report with recommendations for future actions, will be presented to town officials and other agency leaders in fall 2010.



Participants at the Groton Workshop learn about how they can adapt to climate change.

Credit: ICLEI-Local Governments for Sustainability

The town is mindful of the concerns raised through these workshops while revising its Plan of Conservation and Development, which guides land use policies for the community. Incorporating climate change into this plan will be a valuable way to help Groton minimize the future damage and costs associated with climate change impacts.

Towns like Groton typically lack sufficient knowledge and training on how to

plan for and adapt to climate change at the local level. Thus, bringing together all levels of government is a powerful tool for communication and collaboration that will help Groton be a model for maximizing resilience to climate change throughout Connecticut and the Northeast.

Presentations and video recordings from the first workshop are available at www.icleiusa.org/action-center/planning/climate-adaptation-planning-resources/. For additional information, contact Jennifer Pagach at jennifer.pagach@ct.gov.

NOAA Launches State of the Coast Website

On March 10, 2010, the National Ocean Service launched NOAA's State of the Coast website. The website is a source for quick facts and more detailed statistics offered through 14 interactive indicator visualizations presented across four themes: Communities, Economy, Ecology, and Climate. Collectively, this information highlights the crucial importance of a healthy coastal ecosystem to a robust U.S. economy, a safe population, and a sustainable quality of life for coastal residents.

Visit <http://stateofthecoast.noaa.gov> to investigate changes in coastal population from 1970 to 2040, explore the impact coastal areas have on the U.S. economy, survey the overall health of the U.S. coast, explore the vulnerability of our coasts to long-term sea level rise, and more. Case studies help bring the data to life. For more information, contact Kristen Crossett at kristen.crossett@noaa.gov.

Climate Change Adaptation Workshops Held in San Francisco Bay Area

In September 2009 and February 2010, a diverse and overlapping coalition of state, federal, and private organizations held two different climate change adaptation workshops for coastal managers in the San Francisco Bay area.

During the September meeting, staff from the Bay Conservation and Development Commission, NOAA Coastal Services Center, San Francisco Bay National Estuarine Research Reserve, and Association of Bay Area Governments organized and conducted two one-day workshops for city and county planners and public works staff in the San Francisco Bay area. The primary objective of the *Planning for Climate Change* workshops was to inform local managers about how to approach planning for climate change impacts in Bay area communities. Attendance was diverse, including representatives from cities, counties, state and federal governments, as well as local consulting firms and nonprofit organizations.

Participants were provided with detailed climate change adaptation information, tools, and resources supplied on a USB drive. This virtual resource binder provided participants with a range of information on the science and impacts of climate change, examples of adaptation plans, and tools and data sets to assist with adaptation planning. Class materials can be found at www.sfbaynerr.org/ctp/programs/program_detail.php?PROGID=PlGDWR2.

Participant feedback indicates that these workshops were highly successful in improving understanding of the climate change adaptation planning process and providing tools and resources to enable local planners to begin adaptation planning efforts. Attendees also voiced their desire for more precise examples of model language and ordinances that have been successful in other locales and more detailed local case studies.

In February, 25 managers from 19 local, state, and federal agencies and organizations attended a five-day training on coastal adaptation to climate change held near Tomales Bay, California. *Adapting to Climate*

Change: A Training for Coastal and Marine Resource Managers was the first domestic version of what was originally a 10-day international course taught by NOAA's Office of National Marine Sanctuaries (ONMS). Stanford's Center for Ocean Solutions worked with staff from ONMS, the NOAA Coastal Services Center and National Marine Protected Areas Center, the Bay Conservation and Development Commission, and the California Coastal Commission to customize this training for California managers.

The week-long training highlighted local projected impacts of climate change on coastal and marine ecosystems, coastal infrastructure, and social systems. As they worked through a rigorous process to develop and implement specific adaptation strategies that can be integrated into local, regional, state, and federal management plans, the participants became familiar with options designed to bolster both ecosystem and human community resilience to climate change. For more information, contact Matt Gove at matt.gove@noaa.gov.



Recent workshops are helping decision makers plan for and adapt to climate change in the San Francisco Bay area. Credit: NOAA Coastal Programs Division

Ohio Groups Unite to Advance Lake Erie Education and Outreach

Improving a water body and its watershed can be a monumental task for any one group to tackle. That's why Ohio's Coastal Management Program teamed up with the Old Woman Creek National Estuarine Research Reserve (NERR), Ohio Sea Grant, and the Ohio Lake Erie Commission to form the Lake Erie Partnership for Education and Outreach.

The partnership seeks to actively engage coastal citizens to enhance their understanding of Ohio's role in the Lake Erie ecosystem. This is being accomplished through improved coordination and collaboration on Lake Erie education and outreach activities. As a first step, the group developed a unified strategic plan for education and outreach to leverage each other's strengths and capabilities and avoid duplicating efforts.

The partnership also recognized that to effectively improve stewardship of the Lake Erie watershed, the members needed to develop and communicate a consistent message. To help with their messaging, the group is developing *Lake Erie Literacy Principles and Concepts* by adapting NOAA's *Ocean Literacy: The Essential Principles and Fundamental Concepts* to Lake Erie. The partnership first introduced the principles for public comment in May 2009 at a Great Lakes research conference and has continued to solicit feedback through an online survey. The group sought feedback from researchers, educators, coastal managers, nongovernmental agencies, and others involved with and interested in Lake Erie protection, restoration, research, education, and outreach.

The Lake Erie Literacy Principles and Concepts, the first of their kind for the Great Lakes, are not only improving coordination and messaging within the Lake Erie watershed, but have sparked the development of additional outreach and messaging efforts for the Great Lakes ecosystem. The Centers for Ocean Sciences

Education Excellence Great Lakes is creating broader *Great Lakes Literacy Principles* modeled strongly after those created for Lake Erie. In addition, the Lake Erie principles will also serve as a model for literacy principles for the other Great Lakes.

In the coming year, the partnership will be working with WGTE Public Media to develop a set of video vignettes focusing on the eight Lake Erie literacy principles. These videos, funded in part with a Coastal Management Program grant, will "humanize" current Lake Erie research by breaking down complicated science concepts into practical real-world applications that will inform

viewers about actions they can take to help protect and restore Lake Erie. When completed, the videos will be featured on video kiosks at the Old Woman Creek NERR visitor center and will also be broadcast on local television and available for download via WGTE's KnowledgeStream and Ohio on iTunes U.

What began as a simple conversation between staff has blossomed into a

concept that can empower people with knowledge and help them take action to create a healthier lake and watershed. By working together, the partnership agencies are unifying the message to the public that Lake Erie, and the Great Lakes, are important to the environment, economy, and future of the region and the nation.

For additional information on the Lake Erie Partnership, visit <http://ohiodnr.com/tabid/21178/Default.aspx>.

For a copy of the Lake Erie literacy principles, visit <http://ohiodnr.com/LakeErieLiteracy> or contact Brenda Culler at brenda.culler@dnr.state.oh.us.



The Lake Erie Literacy Principles are used to teach kids about the importance of the Lake Erie ecosystem. Credit: Ohio Department of Natural Resources Office of Coastal Management

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CELCP Updates NOAA's Coastal and Estuarine Land Conservation Program

FY 2011 President's Request – for CELCP and GLRI

The FY 2011 President's budget request is \$25 million, which is \$10 million over the FY 2010 request. This represents a significant increase for CELCP projects. In addition, the President's budget again requests funding for the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative (GLRI), although at a reduced level from last year. Specific allocations within the GLRI request (e.g., the amount targeted for CELCP) have not been determined.

CELCP FY 2010 Competition Projects Selected

Fifteen projects have been selected for FY 2010 funding from the CELCP ranked list – out of a total of 57 considered to be eligible. Twenty-eight coastal states and territories submitted applications through this competition. Of those projects selected, 10 will be funded under the CELCP appropriation; 5 projects will be supported with U.S. Environmental Protection Agency's GLRI funds. The 15 projects selected to submit final grant applications for FY 2010 CELCP and GLRI funding can be found at [http://coastalmanagement.noaa.gov/land/ celcp_fundingop.html](http://coastalmanagement.noaa.gov/land/celcp_fundingop.html).



Three parcels of land acquired through a Merrymeeting Bay CELCP award will be added to the Merrymeeting Bay Wildlife Management Area in Maine. Credit: Maine Department of Inland Fisheries and Wildlife

CELCP FY 2011 Competition

The FY 2011 CELCP competition closed April 9, 2010. In total, NOAA received 43 proposals from 24 states requesting just over \$71M. Merit reviewers, including representatives from the coastal zone management and estuarine reserve community, NOAA coastal and habitat-related programs, other federal land conservation programs, and nongovernmental organizations will begin evaluating applications soon. NOAA expects to finalize a ranked list of "ready and eligible" projects by September 2010.

Climate Change and Land Acquisition Workshop Rescheduled

NOAA's Office of Ocean and Coastal Resource Management will be hosting a roundtable meeting on May 20, 2010, for federal land acquisition programs, state partners and nongovernmental organizations to share information about how their various agencies, programs, and organizations are considering climate change within their land acquisition efforts. The goals of the meeting will be to increase awareness within the land protection community of federal agency directives related to climate change and to discuss the need for federal leadership and coordination regarding climate change and land conservation. This meeting was originally scheduled for February, but was rescheduled due to heavy snowfall.

Recent CELCP Property Closings

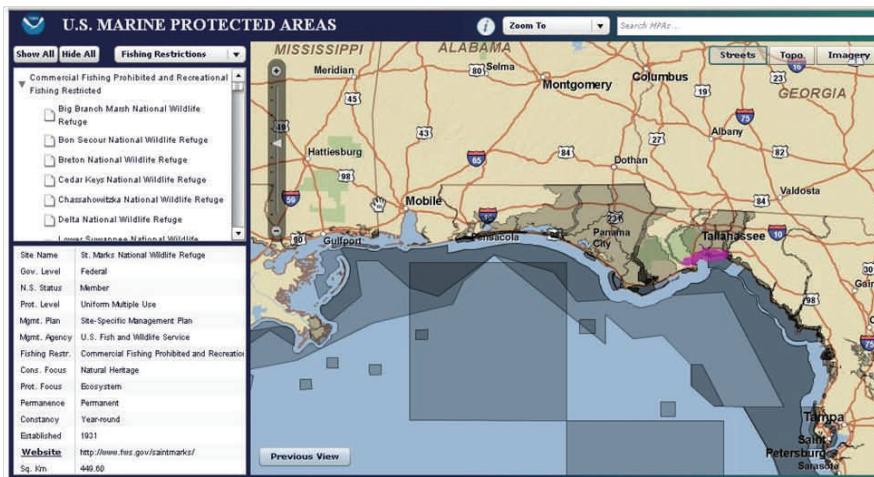
With the help of CELCP funding, the Town of Stockton Springs, Maine, recently acquired a one-acre parcel located on Stockton Harbor, a small protected harbor on the west shore of Penobscot Bay in mid-coastal Maine. This acquisition will protect shorelands that are classified as Significant Wildlife Habitat by the Maine Department of Inland Fisheries and Wildlife. It will also preserve and expand access to the water from the village area of Stockton Springs.

Over 150 acres situated along the Cathance and Androscoggin Rivers in Maine, within the heart of Merrymeeting Bay, have been acquired by the Maine Department of Inland Fisheries and Wildlife with the help of CELCP funding. Protection of this land will have enormous benefits for endangered and threatened species, wetland-dependent birds, and plant, mammal, and fish communities. It will also provide significant recreational opportunities for the local community.

MPA Center Launches New Interactive Mapping Tool, Ocean Uses Atlas

The National Marine Protected Areas Center, within NOAA's Office of Ocean and Coastal Resource Management, has launched a new online interactive mapping tool that for the first time allows users to view boundaries and access data for more than 1,000 marine protected areas (MPAs) in the United States. The new MPA mapping tool provides a user-friendly online interface to explore MPA information that was previously limited to expert GIS users. It includes simple functions to visualize MPA boundaries, review MPA classification information (e.g., level of protection, managing agency, fishing restrictions, etc.), and explore all MPAs in a given location. Additional functions allow users to filter sites by certain attributes (e.g., show only sites that prohibit commercial fishing or that are managed by a certain agency).

Data for the mapping tool is from the newly updated MPA Inventory, a comprehensive database on existing U.S. MPAs. Originally launched in June 2008, the inventory contains a range of information on each of the 1,619 protected areas established or managed by federal, state, or territorial agencies or programs. Data was collected from most management agencies and programs and is current as of January 2010.



The Interactive MPA mapping tool provides the locations and other information for marine protected areas in the United States. Here, some MPAs that place restrictions for fishing in the Northeast Gulf of Mexico are highlighted.

The launch of the MPA mapping tool is part of a broader update of the MPA Center's website. Comprehensive information on ocean uses for the entire California coast is also available on the website. That data was collected through a series of workshops that brought together resource managers, stakeholders, and scientists to map patterns of human uses of the ocean in California. The MPA Center has begun working with the Coastal Response Research Center at the University of New Hampshire to develop a similar ocean uses atlas for New Hampshire and Southern Maine. Data, maps, and

analytical products from the New England atlas will be used in emergency response planning and made available to state and federal ocean management agencies and all other interested parties.

The mapping tool can be accessed at www.mpa.gov/mpaviewer. To view the MPA Inventory or the California Ocean Uses Atlas, visit www.mpa.gov/dataanalysis/

[mpainventory/](http://www.mpa.gov/mpainventory/) and www.mpa.gov/atlas, respectively.

For additional information on these tools, contact Mimi Diorio at mimi.diorio@noaa.gov.

New Jersey Coastal Nonpoint Program Receives Full Approval

On January 28, 2010, NOAA's Office of Ocean and Coastal Resource Management, in partnership with the Environmental Protection Agency, fully approved New Jersey's Coastal Nonpoint Pollution Control Program. 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.

New Jersey is the 22nd coastal state to receive full approval for its Coastal Nonpoint Program. Congratulations to New Jersey!

For more information, contact Tali MacArthur at Tali.MacArthur@dep.state.nj.us.

- Spotlight on NOAA Resources -

New NOAA Initiatives Emphasize Importance of Climate

NOAA is one of the leading government agencies monitoring the state of the climate system worldwide, conducting climate science research, producing models to better understand and predict future climate scenarios, and assessing the impacts of climate variability and climate change on global, national, and regional scales. Individuals and decision-makers across widely diverse sectors—from the coast to agriculture to energy to transportation—increasingly are asking NOAA for information about climate change in order to make the best choices for their communities, businesses, and families.

To meet the rising tide of these requests, on February 8, 2010, the U.S. Department of Commerce announced the intent to create a NOAA Climate Service line office dedicated to bringing together the agency's strong climate science and service delivery capabilities. Unifying NOAA's climate capabilities under a single office will integrate the agency's climate science and services and make them more accessible to NOAA partners and other users. The climate research, observations, modeling, predictions, and assessments generated by NOAA's top scientists will continue to provide the scientific foundation for extensive on-the-ground climate services that respond to millions of requests annually.

In conjunction with this announcement, NOAA unveiled a new web site to serve as a single point-of-entry for its extensive climate information, data, products, and services. The Climate Portal addresses the needs of five broadly defined user groups: decision makers and policy leaders, scientists and applications-oriented data users, educators, business users, and the public.

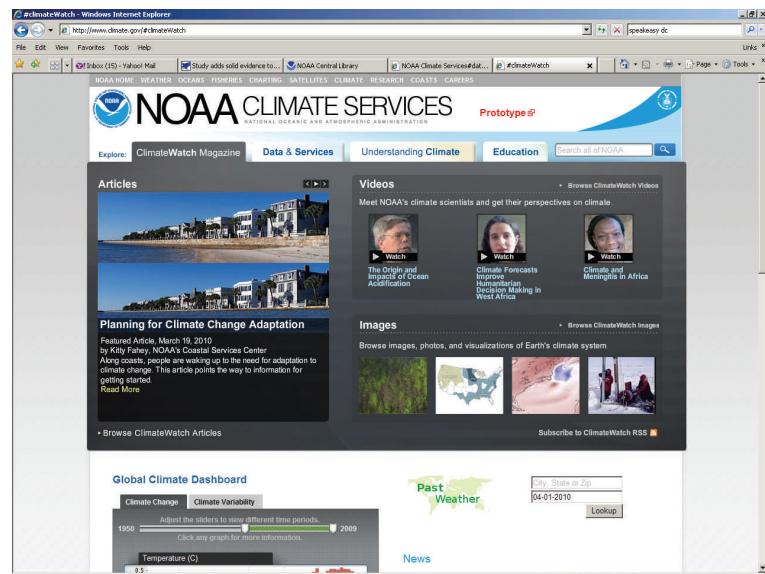
Highlights of the portal include:

- An interactive “climate dashboard” that lets users see a range of constantly updating climate datasets (e.g., temperature, sea level, and carbon dioxide concentration) over adjustable time scales;
- A new web-based climate science magazine called *ClimateWatch*, featuring videos and articles of

scientists discussing their recent climate research and topics that cannot be relayed in charts and graphs;

- Explanations and exploration of data products available from NOAA and partner agencies with direct links to the sources of the comprehensive datasets;
- Educational resources for students and teachers, including lesson plans for the classroom and laboratory, educational games, and interactive media; and
- Easy-to-understand fact sheets and presentations for professionals and the public about climate science, research, and climate impacts.

To learn more about the NOAA Climate Service, visit www.noaa.gov/climate.html. Access the Climate Portal at www.climate.gov/.



The Climate Portal provides extensive information, data, tools, products, and educational resources to help user groups with their climatic needs.



Newsletter contact:

Allison Castellan
Coastal Programs Division, NOAA
1305 East West Highway, NORM3
Silver Spring, MD 20910
301.713.3155 ext. 125

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. The submission deadline for the next newsletter is July 1, 2010.