

**CZMA CLIMATE CHANGE AND COASTAL HAZARDS E-NEWS UPDATE #23**

The Coastal Programs Division of NOAA's Office of Ocean and Coastal Resource Management distributes the CZMA Climate Change and Coastal Hazards E-News Update to keep state and territory coastal program managers and climate change/coastal hazards staff informed about climate change (as it pertains to coastal hazards) and coastal hazards activities. If you would like to receive the Climate Change and Coastal Hazards E-News Update, please e-mail [christa.rabenold@noaa.gov](mailto:christa.rabenold@noaa.gov). For previous issues, see the E-News Update archive at <http://coastalmanagement.noaa.gov/news/climatenewsletter.html>.

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## **NOAA UPDATES**

### **Website Tracks Assessment of NOAA Coastal Resilience Activities**

[http://stateofthecoast.noaa.gov/pop100yr/resilience\\_gpra.html](http://stateofthecoast.noaa.gov/pop100yr/resilience_gpra.html)

NOAA activities assessed through a Government Performance and Results Act coastal hazard resilience measure are available through an interactive map on NOAA's State of the Coast website. This measure assesses the collective annual efforts of three NOAA offices: the Office of Ocean and Coastal Resource Management, the Coastal Services Center, and the National Sea Grant College Program. Efforts include training to increase the knowledge, skills, and capabilities of state and local officials; technical assistance to improve community understanding and consideration of coastal hazard and climate risks; and local outcomes as evidenced by the development and implementation of effective community-based hazard and climate resilience plans, policies, and actions.

### **CSC Adds Social Vulnerability Information to Digital Coast**

<http://www.csc.noaa.gov/digitalcoast/data/sovi/>

The NOAA Coastal Services Center (CSC) has added the Social Vulnerability Index (SOVI) to the Digital Coast. SOVI, developed by the University of South Carolina Hazards and Vulnerability Research Institute, measures the social vulnerability of U.S. counties to environmental hazards and graphically illustrates the geographic variation in social vulnerability among counties. It shows differences in capacity for preparedness and response and areas where resources are most needed to reduce vulnerability. Thanks to funding from South Carolina Sea Grant and CSC, social vulnerability data is available at the census-block level (2000) for all coastal states.

### **CSC Expands Coverage of Sea Level Rise and Coastal Flooding Impacts Viewer**

<http://www.csc.noaa.gov/digitalcoast/tools/slrviewer/>

NOAA's Coastal Services Center (CSC) has added new Gulf Coast geography to its Sea Level Rise and Coastal Flooding Impacts Viewer. The viewer now contains all coastal counties along Florida's Gulf Coast and in Texas, Mississippi, and Alabama. It displays potential future sea levels, simulates sea level rise at local landmarks, communicates spatial uncertainty, models potential marsh migration due to sea level rise, overlays social and economic data onto potential sea level rise, and examines how tidal flooding will be more frequent as sea levels rise. Additional coastal counties in the Gulf and beyond will be added in the near future.

### **CSC Guide Helps Managers Understand and Use Sea Level Rise Models**

<http://www.csc.noaa.gov/publications/marshesonthemove.html>

"Marshes on the Move: A Manager's Guide to Understanding and Using Model Results Depicting Potential Impacts of Sea Level Rise on Coastal Wetlands" (24 pp.) from the NOAA Coastal Services Center (CSC) and the Nature Conservancy provides a basic understanding of the parameters and uncertainties involved in modeling the future impacts of sea level rise on coastal wetlands. It is written for people who use model outputs for decision making but do not build models themselves.

### **CO-OPS Reports on Irene Water Level and Meteorological Data**

[http://tidesandcurrents.noaa.gov/publications/Hurricane\\_Irene\\_Water\\_Level\\_and\\_Meteorological\\_Data\\_Report.pdf](http://tidesandcurrents.noaa.gov/publications/Hurricane_Irene_Water_Level_and_Meteorological_Data_Report.pdf)

A water level and meteorological data report for Hurricane Irene (68 pp.) is now available from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS). This report highlights verified water level measurements at 85 locations affected by Hurricane Irene. In addition to time series plots of affected stations, tables highlighting the maximum storm surge/residual, maximum storm tide, maximum winds, and minimum barometric pressure are also included.

## **NOAA Announces Three New Regional Climate Science Collaborations**

[http://www.climate.noaa.gov/cpo\\_pa/risa/](http://www.climate.noaa.gov/cpo_pa/risa/)

In October, NOAA announced three new Regional Integrated Sciences and Assessments (RISA) awards totaling \$11 million over five years. The new teams join eight ongoing RISAs and will collaborate with other universities and research organizations and work with natural resource managers and land planners, nongovernmental organizations, and the private sector to advance research on the impacts of climate variability and change and develop innovative ways to integrate climate information into decision making. The awards went to the Alaska Center for Climate Assessments and Policy (University of Alaska–Fairbanks), the California–Nevada Applications Program (Scripps Institution of Oceanography), and the Carolinas Integrated Science and Assessments program (University of South Carolina).

## **OTHER FEDERAL UPDATES**

### **AmeriCorps Funding Opportunities Target Resilience**

[http://www.americorps.gov/for\\_organizations/funding/nofa.asp](http://www.americorps.gov/for_organizations/funding/nofa.asp)

The Corporation for National and Community Service (CNCS) is accepting applications for its 2012 AmeriCorps grant competitions. Organizations interested in using national service to solve critical problems are encouraged to apply. CNCS is focusing 2012 AmeriCorps investments in three areas, including increasing community resilience through disaster preparation, response, recovery, and mitigation. Letters of intent are due December 15, 2011. Applications are due January 18, 2012.

### **Report Updates Progress on Federal Government Adaptation**

[http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011\\_adaptation\\_progress\\_report.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ceq/2011_adaptation_progress_report.pdf)

In October, the Interagency Climate Change Adaptation Task Force released “Federal Actions for a Climate Resilient Nation: Progress Report of the Interagency Climate Change Adaptation Task Force” (32 pp.). This report outlines the federal government’s progress in expanding and strengthening the nation’s capacity to understand, prepare for, and respond to extreme events and other climate change impacts. Updates are provided for five key areas of federal adaptation: integrating adaptation into federal government planning and activities, building resilience to climate change in communities, improving accessibility and coordination of science for decision making, developing strategies to safeguard natural resources in a changing climate, and enhancing efforts to lead and support international adaptation.

### **DHS Releases National Preparedness Goal**

<http://www.fema.gov/pdf/prepared/npg.pdf>

In response to Presidential Policy Directive 8: National Preparedness, the U.S. Department of Homeland Security (DHS) has released the “National Preparedness Goal” (26 pp.). The goal sets the vision for preparedness nationwide and identifies the core capabilities and capability targets necessary to achieve that vision across five mission areas: prevention, protection, mitigation, response, and recovery.

### **FEMA Updates Paper on Community Rating System Changes**

<http://www.crs2012.org/>

As previously noted, FEMA is updating the coordinator manual for the National Flood Insurance Program’s Community Rating System (CRS). The paper, “2012 CRS Coordinator’s Manual Changes” (48 pp.), was recently updated to include final recommendations of the CRS Task Force following the public comment period. Among the activities that receive more emphasis are open space preservation, protection of natural floodplain functions, incorporation of low-impact development into regulatory standards, prohibitions/

restrictions on floodplain fill, and protection of human life and safety. Webinars are being held in November and December to explain the changes.

### **FWS Releases National Wetlands Inventory Status and Trends Report**

<http://www.fws.gov/wetlands/StatusAndTrends2009/>

“Status and Trends of Wetlands in the Conterminous United States 2004-2009” (112 pp.) from the U.S. Fish and Wildlife Service (FWS) examines recent trends in wetland extent and habitat type. It reports that wetland area in the conterminous United States declined by approximately 62,300 acres between 2004 and 2009. Potential reasons include economic conditions, land use trends, changing wetland regulation and enforcement, and climatic changes. Collectively, marine and estuarine intertidal wetlands declined by an estimated 84,100 acres (1.4 percent). Most of these losses were to deepwater bay bottoms or open ocean. Losses of estuarine emergent wetlands and changes in marine and estuarine nonvegetated wetlands were due to coastal storms and relative sea level rise along Atlantic and Gulf of Mexico coastlines. Almost all estuarine emergent wetland losses were associated with marine environment-related processes such as saltwater inundation and/or coastal storms.

### **Corps Opens National Levee Database to Public**

<http://nld.usace.army.mil/>

The National Levee Database, developed by the U.S. Army Corps of Engineers, is the focal point for comprehensive information about levees in the United States. It contains information to facilitate and link activities, such as flood risk communication, levee system evaluation for the National Flood Insurance Program, levee system inspections, floodplain management, and risk assessments. Currently, it includes information on more than 14,700 miles of levee systems in the Corps’ program. The ultimate goal is to expand the database to include other federal agency and nonfederal levees.

### **DOT Publishes Framework for Considering Climate Change in Transportation and Land Use Planning**

<http://www.volpe.dot.gov/publiclands/projects/interagencyproject.html>

“A Framework for Considering Climate Change in Transportation and Land Use Scenario Planning: Final Report” (68 pp. + appendices) from the U.S. Department of Transportation (DOT) reports on lessons learned from an interagency pilot project on Cape Cod, Massachusetts. Specifically, it provides a framework for agencies at all levels to use scenario planning and work collaboratively to reduce greenhouse gas emissions and to assess, mitigate, and adapt to sea level rise and other climate change impacts on transportation and land use planning.

### **DOI Announces Three New Climate Science Centers**

<http://nccwsc.usgs.gov/>

The U.S. Department of the Interior (DOI) has announced the locations for the Northeast, South Central, and Pacific Islands Climate Science Centers. These centers complete the national network of eight Climate Science Centers that will provide land managers with access to the best science available regarding climate change and other landscape-scale stressors. The University of Massachusetts–Amherst will host the Northeast Climate Science Center, the University of Oklahoma will host the South Central Climate Science Center, and the University of Hawaii–Manoa in Honolulu will host the Pacific Islands Climate Science Center.

## **ADDITIONAL UPDATES**

### **San Francisco Bay Commission Amends Plan to Better Address Climate Change**

[http://www.bcdc.ca.gov/proposed\\_bay\\_plan/bp\\_amend\\_1-08.shtml](http://www.bcdc.ca.gov/proposed_bay_plan/bp_amend_1-08.shtml)

The San Francisco Bay Conservation and Development Commission (BCDC) has amended the San Francisco Bay Plan, which contains the policies that the BCDC uses to make permit decisions, to update the 22-year-old sea level rise findings and policies and more broadly address climate change adaptation. The amended plan includes a new Climate Change section and revisions to four existing sections: Tidal Marshes and Tidal Flats, Safety of Fills, Protection of the Shoreline, and Public Access. Climate change provisions call for project-based risk assessments that incorporate future sea level rise and a regional sea level rise adaptation strategy and encourage innovative sea level rise adaptation and habitat preservation and enhancement in undeveloped areas vulnerable to future flooding.

### **Maryland Factsheets Encourage Hazard-Resilient Building**

<http://dnr.maryland.gov/ccp/publications.asp>

To help communities minimize their vulnerability to coastal hazards and adapt to climate change, Maryland's Chesapeake and Coastal Program created two factsheets about hazard-resilient building practices. "CoastSmart Recovery" highlights changes in building design that can be made during rebuilding to minimize the impacts of future coastal flooding. "What is Freeboard?" (based on a factsheet from the Massachusetts Office of Coastal Zone Management) explains the benefits of elevating a building above the 100-year flood level, which include greater protection and reduced flood insurance.

### **Delaware City Integrates Hazard Mitigation and Climate Adaptation Planning**

<http://www.ci.lewes.de.us/Hazard-Mitigation-Climate-Adaptation-Action-Plan/>

Recognizing the threat climate change poses to its hazard mitigation efforts, the City of Lewes, Delaware, in conjunction with the Delaware Sea Grant College Program, ICLEI Local Governments for Sustainability, and the University of Delaware Sustainable Coastal Communities Program, has integrated climate change adaptation into its hazard mitigation planning. "The City of Lewes Hazard Mitigation and Climate Adaptation Action Plan" (171 pp.) summarizes the planning process and results, identifying two key vulnerabilities and six initial actions, along with implementation plans, to address them.

### **ASWM Report Examines Assessing Natural and Beneficial Functions of Floodplains**

[http://aswm.org/pdf\\_lib/nbf.pdf](http://aswm.org/pdf_lib/nbf.pdf)

Based on public comments, the Association of State Wetland Managers (ASWM) has released a revised "Assessing the Natural and Beneficial Functions of Floodplains: Issues and Approaches; Future Directions" (129 pp.). The report was prepared to help floodplain and wetland managers, water planners, and others assess, protect, and restore floodplain natural and beneficial functions. It identifies and explores user needs for assessment of the natural and beneficial functions, describes selected methods and techniques that have been developed to assess such functions, describes lessons learned in the application of these techniques, and suggests directions for future assessment efforts.

### **ASFPM Publishes Update on State of Floodplain Management Programs**

<http://www.floods.org/index.asp?menuID=732&firstlevelmenuID=186&siteID=1>

The Association of State Floodplain Managers (ASFPM) has published "Floodplain Management 2010: State and Local Programs" (73 pp.). This report updates and supplements previous reports and is the most complete national summary of floodplain management at state and local levels.

## **SHELDUS Update Captures Losses through 2010**

<http://webra.cas.sc.edu/hvri/products/sheldus.aspx>

SHELDUS (Spatial Hazard Events and Losses Database for the United States) is a county-level hazard dataset for the United States (excluding the territories) compiled by the University of South Carolina's Hazards and Vulnerability Research Institute. The database includes historical data for 18 types of natural hazard events. Data include property and crop losses, injuries, and fatalities. SHELDUS 9.0 includes every loss causing and/or deadly event between 1960 and 1984 and from 1995 to 2010. (Data between 1985 and 1995 are limited. Future releases will contain more detailed information for this time period.)

## **Georgetown Climate Center Launches Climate Change Adaptation Clearinghouse**

<http://www.georgetownclimate.org/adaptation/clearinghouse>

The Georgetown Climate Center has launched "Adaptation Clearinghouse," an online database that seeks to help communities adapt to climate change. Included in the clearinghouse is "Adaptation Tool Kit: Sea-Level Rise and Coastal Land Use" (100 pp.), a report that explores 18 tools for responding to the threats posed by rising sea levels to both public and private coastal development and infrastructure. These tools are categorized as planning, regulatory, spending, and tax and market-based tools.

## **CONFERENCES, TRAININGS, EVENTS**

### **Gulf of Mexico Climate Community of Practice Webinar: Climate Change: Impact on Bangladesh and Climate Justice**

<https://masgc.webex.com/masgc/j.php?ED=164099162&UID=1224354077&PW=NNWY4NDFkZDUx&RT=MiM3>

November 30, 2011, 3pm EST

### **Digital Coast Webinar: Marshes on the Move: A Manager's Guide to Understanding and Using Model Results Depicting Potential Sea Level Rise Impacts on Coastal Wetlands**

<http://www.csc.noaa.gov/digitalcoast/webinar/index.html>

December 7, 2011, 2pm EST

### **Recorded Gulf of Mexico Climate Community of Practice Webinar: Legal Implications of Climate Change: Regulatory Takings**

<https://masgc.webex.com/masgc/ldr.php?AT=pb&SP=MC&rID=21511187&rKey=ee333e92c20f2ac8>

### **Share Your Thoughts**

If you have news that you would like to include in future updates or suggestions about the type of information you would like to see here, please e-mail [christa.rabenold@noaa.gov](mailto:christa.rabenold@noaa.gov).

November 18, 2011