

CZMA CLIMATE CHANGE AND COASTAL HAZARDS E-NEWS UPDATE #30

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. For previous issues, see the E-News Update archive at <http://coastalmanagement.noaa.gov/news/climatenewsletter.html>.

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NOAA UPDATES

NOAA Summarizes Busy 2012 Atlantic Hurricane Season

http://www.noaanews.noaa.gov/stories2012/20121129_hurricanesseasonwrapup.html

The 2012 Atlantic hurricane season was above normal, producing 19 named storms, 10 of which became hurricanes, including one major hurricane (Category 3 or higher). Four of these storms (Beryl, Debby, Isaac, and Sandy) made landfall in the United States. The number of named storms and hurricanes was higher than predicted in NOAA's pre-season outlook, in large part because El Niño, which likely would have suppressed overall storm activity, never materialized as expected. The ongoing era of high activity for Atlantic hurricanes that began in 1995 continues, and since that time, more than 70 percent of seasons have been above normal.

CSC Redesigns Digital Coast, Adds Hurricane Sandy Resources

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

Prompted by user recommendations, the NOAA Coastal Services Center has redesigned the Digital Coast to make it easier to use. The Digital Coast provides the data, tools, and training most needed by coastal communities. A wide range of resources are available, from lidar data to guidance for local inundation mapping. Recent entries on the site's GeoZone blog provide information about and links to useful geospatial data related to recovery from Hurricane Sandy.

NOS Responds to Hurricane Sandy

<http://oceanservice.noaa.gov/hazards/hurricanes/NOAA-NOS-Hurricane-Sandy-Factsheet.pdf>

<http://storms.ngs.noaa.gov/storms/sandy/>

http://geodesy.noaa.gov/web/news/NGS_Responds_to_Hurricane_Sandy.shtml

"Responding to Hurricane Sandy" (4 pp.) highlights how NOAA's National Ocean Service (NOS) helps coastal communities prepare for and recover from storms like Hurricane Sandy. Among the efforts, the National Geodetic Survey, in coordination with federal, state, and local officials, conducted remote sensing operations. Available within hours of collection, the high-resolution imagery proved useful in search-and-rescue efforts and identification of hazards to navigation, HAZMAT spills, and errant vessels. FEMA used the photos to assess damage to more than 65,000 homes, allowing the agency to speed up the processing of loss claims and to project temporary housing and financial assistance requirements. Going forward, the imagery will help communities in their recovery efforts. Additional imagery documenting coastal change is available from the U.S. Geological Survey at <http://coastal.er.usgs.gov/hurricanes/sandy/>.

Study Explores Alternatives for Combatting Erosion in Southern Monterey Bay

<http://montereybay.noaa.gov/research/techreports/tresapwa2012.html>

"Evaluation of Erosion Mitigation Alternatives for Southern Monterey Bay" (216 pp.) from the Monterey Bay Sanctuary Foundation and the Southern Monterey Bay Coastal Erosion Working Group assesses a variety of erosion mitigation measures based on impacts, costs, and effectiveness and provides regional and subregional recommendations for addressing erosion. The findings suggest that the most promising approaches in Southern Monterey Bay (California) would be rolling easements, beach nourishment, and cessation of sand mining. Also among the findings: beach recreation and habitat values have higher long-term values than private property; land use planning tools have the highest net benefits over the long term when compared to other measures, and managed retreat is more-cost effective with higher net benefits over the long term than most of the traditional measures.

Experimental Tool Offers Customizable Views of Great Lakes Water Level Data

<http://www.glerl.noaa.gov/data/now/wlevels/dbd/>

Sponsored by the Great Lakes Restoration Initiative, NOAA's Cooperative Institute for Limnology and Ecosystems Research, and NOAA's Great Lakes Environmental Research Laboratory, the Great Lakes Water Level Dashboard offers interactive displays of any combination of historical, current, and projected water levels for the Great Lakes. Researchers plan to expand the dashboard by adding other agency water level forecasts and water budget data such as precipitation, evaporation, and runoff.

NOAA Reports Provide Input to National Climate Assessment

<http://www.globalchange.gov/what-we-do/assessment/nca-activities/available-technical-inputs>

NOAA played significant roles in two recently released inputs to the U.S. National Climate Assessment. "Coastal Impacts, Adaptation and Vulnerability: A Technical Input to the 2012 National Climate Assessment" (230 pp.), led by NOAA and the U.S. Geological Survey, examines the known effects and relationships of climate change variables on U.S. coasts and describes impacts on natural and human systems, including several major sectors of the U.S. economy, and the progress and challenges to planning and implementing adaptation options. "Global Sea Level Rise Scenarios for the United States National Climate Assessment" (33 pp.), led by NOAA's Climate Program Office, provides a synthesis of the scientific literature on global sea level rise and a set of four scenarios of future global sea level rise (8 inches, 1.6 feet, 3.9 feet, and 6.6 feet). (See information about webinar below.) Numerous other technical input reports are also available.

CO-OPS Reports on Isaac Water Level and Meteorological Data

[http://tidesandcurrents.noaa.gov/publications/Hurricane Isaac 2012 Water Level and Meteorological Data Report.pdf](http://tidesandcurrents.noaa.gov/publications/Hurricane_Isaac_2012_Water_Level_and_Meteorological_Data_Report.pdf)

A water level and meteorological data report for Hurricane Isaac (48 pp.) is now available from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS). This report documents the elevated water levels, high winds, and reduced barometric pressures recorded at stations along the coast of Puerto Rico and the U.S. Virgin Islands as well as the Gulf Coast from Florida to Louisiana during Hurricane Isaac.

OTHER FEDERAL UPDATES

FEMA Provides Information to Help Communities Recover

<http://www.region2coastal.com/sandy>

FEMA's Region II has dedicated space on its Coastal Analysis and Mapping website to provide links to general information to support rebuilding efforts following Hurricane Sandy. The site includes information about Advisory Base Flood Elevations (ABFEs), including an "ABFE Toolkit for Community Officials," to help guide reconstruction. ABFEs will show a more current picture of flood risk for several communities in New Jersey and New York than the maps now in effect. ABFEs for New Jersey are available now. New York's ABFEs will be available soon. Other resources include a link to a webpage from FEMA's Building Science Branch that features information to help communities and homeowners as they undertake reconstruction and "Changes in the Flood Insurance Program: Preliminary Considerations for Rebuilding" (4 pp.). A brochure about managing future risk that emphasizes how building back safer and stronger influences flood insurance premiums can be downloaded at <http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=6712>

Best Practices Publication Highlights Post-Katrina Mitigation in Louisiana

<http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=6722>

“Best Practices: Promoting Successful Mitigation in Louisiana, Post Hurricane Katrina” (56 pp.) contains a sampling of mitigation activities undertaken in Louisiana to rebuild safer and stronger after 2005’s Hurricane Katrina. The intent of the publication is to communicate the importance of identifying hazard risks and ways to minimize risks, identify mitigation activities that are effective and affordable, and demonstrate how mitigation makes communities more stable and productive.

FEMA Guide Compares NFIP and Building Code Requirements

<http://www.fema.gov/library/viewRecord.do?id=5701>

“Quick Reference Guide: Comparison of Select NFIP and Building Code Requirements for Special Flood Hazard Areas” (8 pp.) from FEMA illustrates the similarities and highlights the differences between the National Flood Insurance Program’s (NFIP) minimum requirements and the requirements of the International Code Series (I-Codes) and ASCE 24 Flood Resistant Design and Construction, a standard referenced by the I-Codes.

USFWS Accelerates Release of CBRS Mapper

<http://www.fws.gov/CBRA/>

In response to Hurricane Sandy, the U.S. Fish and Wildlife Service (USFWS) has accelerated the release of an interactive Coastal Barrier Resources System (CBRS) Mapper (beta version). This online tool can help property owners, project proponents, government officials, and other stakeholders determine whether properties or project sites may be affected by the Coastal Barrier Resources Act (CBRA), which limits most federal funding and restricts the availability of federal flood insurance within the CBRS. The CBRA website has also been updated with additional guidance on project consultations for federally funded actions within or affecting the CBRS (see the “Project Consultations” tab).

Corps’ Climate Change Pilots Support Mainstreaming Adaptation

<http://www.corpsclimate.us/rccpad.cfm>

As part of an effort to mainstream climate change adaptation across activities, the U.S. Army Corps of Engineers (Corps) is conducting pilot studies to test new ideas and advance knowledge needed to develop policy and guidance. “Climate Change Adaptation Pilots” (37 pp.) highlights current pilots through which the Corps is developing and testing alternative adaptation strategies to achieve specific business management decisions; identify new policies, methods, and tools to support adaptation; learn how to incorporate new and changing climate information throughout the project lifecycle; develop, test, and improve an agency-level adaptation implementation framework; and implement lessons learned.

EPA Releases Report on U.S. Climate Change Indicators

<http://www.epa.gov/climatechange/science/indicators/>

EPA has released “Climate Change Indicators in the United States 2012” (84 pp.), which updates the agency’s initial climate-indicators report published in 2010. The report presents 26 indicators, each describing trends related to the causes and effects of climate change. For each indicator, the report includes graphics depicting changes over time, key points about what the graphics show, background on how the indicator relates to climate change, and information about how the indicator was developed. The online version will be updated periodically as new data become available. A summary brochure (4 pp.) is also available.

AmeriCorps Funding Opportunity Targets Resilience

http://www.americorps.gov/for_organizations/funding/nofa_detail.asp?tbl_nofa_id=98

The Corporation for National and Community Service (CNCS) is accepting applications for its FY2013 AmeriCorps grant competition. Organizations interested in using national service to solve critical problems are encouraged to apply. CNCS is focusing 2013 AmeriCorps investments in six focus areas, including disaster services (helping individuals and communities mitigate, prepare for, respond to, and recover from disasters) and environmental stewardship. Applications are due February 6, 2013.

ADDITIONAL UPDATES

Florida Provides Guidance on Incorporating Sea Level Rise into Post-Disaster Recovery

<http://www.floridajobs.org/fdcp/dcp/PDRP/Files/PDRPSeaLeveRiseAddendum.pdf>

With support from the Florida Coastal Management Program, the state's Department of Economic Opportunity and Division of Emergency Management have released "Post-Disaster Redevelopment Planning: Addressing Adaptation during Long-Term Recovery" (68 pp.). This addendum to "Post-Disaster Redevelopment Planning: A Guide for Florida Communities" provides guidance for communities to enhance their redevelopment plans by including adaptation measures to address the impacts of sea level rise.

Report Highlights Loss Avoidance Benefits of Hazard Mitigation in Florida

<http://www.floridadisaster.org/Mitigation/SMF/Index.htm>

"Loss Avoidance Assessment: Tropical Storm Debby" (43 pp.) from the Florida Division of Emergency Management presents the results of a loss avoidance assessment of flood mitigation projects in Florida funded through FEMA Hazard Mitigation Assistance grants. Results show a 116 percent return on investment and \$3 billion in losses avoided based on 50 projects (mostly acquisition, elevation, and drainage) that met assessment criteria. The report provides an introduction to hazard mitigation and loss avoidance assessment, detailed results, project highlights, conclusions, lessons learned, and information about Florida's loss avoidance assessment system and strategy.

Rhode Island Releases Climate Change Adaptation Report

<http://www.rilin.state.ri.us/Pages/Reports.aspx>

The Rhode Island Climate Change Commission has released a progress report that summarizes its work since its inaugural meeting in 2011. "Adapting to Climate Change in the Ocean State: A Starting Point" (38 pp.) summarizes key climate risks and social, economic, and environmental vulnerabilities to them, as well as current and projected impacts upon human health and welfare, public and private infrastructure, and the natural environment; identifies current private and public climate change adaptation initiatives; highlights adaptation needs yet to be addressed; and outlines the commission's next steps.

Hawaii Sea Grant Helps Counties Plan for Sea Level Rise

http://seagrant.soest.hawaii.edu/sites/seagrant.soest.hawaii.edu/files/publications/adaptive_planning.pdf

"Facing Our Future: Adaptive Planning for Sea-Level Rise in Maui and Hawaii Counties" (65 pp.) reports the results of a project from the University of Hawaii Sea Grant College Program to examine the existing regulatory frameworks and develop policies or rule changes to support planning for and adapting to sea level rise in Maui and Hawaii counties. Recommendations include: encourage setback determination in early planning stages, strengthen the shoreline setback policy, clarify the purpose and applicability of shoreline rules, refine criteria for minor structures and activities, and review the permitting process for emergency repairs to seawalls.

COAST Enhances Adaptation Planning in Coastal Maine and New Hampshire

http://efc.muskie.usm.maine.edu/docs/cre_coast_final_report.pdf

“COAST in Action: 2012 Projects from Maine and New Hampshire” (95 pp.) reports on the application of the New England Environmental Finance Center’s Coastal Adaptation to Sea Level Rise Tool (COAST) in the sea level rise adaptation planning processes for the Casco Bay Estuary Partnership (Maine) and the Piscataqua Region Estuaries Partnership (New Hampshire). The report describes the context and methodology for each project, provides information about the potential economic impacts of sea level rise and storm surge (based on agreed upon thresholds/intensities), with and without adaptation, in the study areas and describes how stakeholders were engaged in the process.

TNC Launches Sea Level Rise and Surge Visualization Tool for Florida Keys

<http://www.coastalresilience.org/geographies/florida-keys>

The Nature Conservancy (TNC) recently released a future scenarios mapper for the Florida Keys that enables decision makers to visualize individual and combined impacts of storm surge and sea level rise and helps facilitate the risk reduction discussion. It can also help identify green infrastructure, such as mangrove wetlands and dunes, which provide protection against erosion and flooding as well as benefits for wildlife, fisheries, and ecotourism. Similar mappers are available for other geographies.

UNC Releases State Disaster Recovery Planning Guide

http://coastalhazardscenter.org/dev/wp-content/uploads/2012/05/State-Disaster-Recovery-Planning-Guide_2012.pdf

The Center for the Study of Natural Hazards and Disasters at the University of North Carolina at Chapel Hill has produced a guide to assist with the development, maintenance, and implementation of a state disaster recovery plan. “State Disaster Recovery Planning Guide” (87 pp.) is intended to serve as an evaluative guidebook based on widely accepted planning processes, best practices adopted in other states, federal policy, and the latest research in the planning field.

EcoAdapt Reports on Climate Change Adaptation in the Great Lakes Region

<http://ecoadapt.org/programs/state-of-adaptation/great-lakes-region>

“The State of Climate Change Adaptation in the Great Lakes Region” (246 pp.) reports on an effort to survey, inventory, and assess climate change adaptation efforts for freshwater resources in the Great Lakes. The report provides an overview of key climate change impacts and a review of the prevalent work occurring on climate change adaptation in the Great Lakes region, focusing on activities in the natural and built environments as they relate to freshwater resources (and, in some cases, at the freshwater/terrestrial interface).

Journal Article Examines Climate Adaptation in the United States

<http://www.springerlink.com/content/k3v6136011984711/>

“A Comprehensive Review of Climate Adaptation in the United States: More than Before, but Less than Needed” (“Mitigation and Adaptation Strategies for Global Change,” October 2012, 46 pp.) examines adaptation activities of federal, tribal, state, and local governments and the private sector in the United States. The purpose of the review was to understand the types of activities underway, barriers to adaptation, and research, development, and deployment needs. It found that while substantial adaptation planning is occurring, few measures have been implemented and even fewer have been evaluated and that most adaptation actions to date appear to be incremental changes, not the transformational changes that may be needed.

CONFERENCES, TRAININGS, EVENTS

Webinar: Sea Level Rise—Scenario Planning for Coastal Adaptation

<https://www1.gotomeeting.com/register/457938089>

December 18, 2012

Webinar: Bridging the Gap between Hazard Mitigation and Climate Adaptation

<http://ccap.org/event/bridging-the-gap-between-hazard-mitigation-and-climate-adaptation-webinar/>

December 18, 2012

Coastal Services Center Online Training: CanVis

<http://csc.noaa.gov/training/calendar/>

January 16, 2013

Coastal Services Center Online Training: Roadmap for Adapting to Coastal Risk

<http://csc.noaa.gov/training/calendar/>

February 13, 2013

American Shore & Beach Preservation Association 2013 Coastal Summit

http://www.asbpa.org/conferences/sum_13.htm

February 26-28, 2013

Washington, DC

CoastGIS 2013

<http://www.coastGIS2013.ca>

June 18-21, 2013

Victoria, British Columbia, Canada

Extended abstracts are due by January 15, 2013

Recorded Webinar: Floodplain Regulation—Challenges and Opportunities in Preparing for Climate Changes

<http://www.georgetownclimate.org/floodplain-regulations>

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.

December 17, 2012