

CZMA CLIMATE CHANGE AND COASTAL HAZARDS E-NEWS UPDATE #16

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/climateneutralletter.html>.

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NOAA UPDATES

NAPA Releases Report on Proposed NOAA Climate Service

<http://www.napawash.org/publications-reports/building-strong-for-tomorrow-an-independent-assessment-and-recommendation-for-the-organizational-design-of-the-national-oceanic-and-atmospheric-administration-noaa-climate-service/>

Last fall, Congress asked the National Academy of Public Administration (NAPA) to assist NOAA with a study and analysis of the organizational options for a National Climate Service within NOAA. In September, NAPA released the report, “Building Strong for Tomorrow: Recommendations for the Organizational Design of the NOAA Climate Service” (124 pp.), which “strongly supports the creation of a NOAA Climate Service to be established as a line office in NOAA.” The report calls on NOAA to play a leadership role in the coordination and delivery of climate science and services across the federal family and provides guidance on internal reorganization options and specific strategies to ensure successful implementation.

NHC Updates Storm Surge Website with Interactive Risk Maps

<http://www.nhc.noaa.gov/ssurge/risk/index.shtml?gm>

NOAA’s National Hurricane Center (NHC) has updated its storm surge website to include educational storm surge risk maps that provide a national snapshot of maximum potential storm surge from hurricanes of varying strengths. The maps are based on model simulations taking into account hypothetical storms with different combinations of storm forward speeds, landfall locations, storm tracks, storm sizes, storm intensities, and astronomical tides. They should be used for outreach, education, and awareness, but are not appropriate for planning, mitigation, or real-time applications. Additional site content includes an overview of storm surge and the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model, which is used to estimate storm surge heights, and an educational storm surge video.

CSC Publication Highlights Climate Change Management Activities

<http://www.csc.noaa.gov/magazine/climatechangestrategiesVol2.pdf>

The NOAA Coastal Services Center (CSC) has released “Local Strategies for Addressing Climate Change: Volume Two” (44 pp.), a compilation of 12 articles recently published in Coastal Services, the center’s trade journal for coastal resource managers. The publication focuses on what coastal resource managers around the country are already doing, directly and indirectly, to address the impacts of climate change.

NOAA Announces Six New Regional Climate Science Collaborations

http://www.climate.noaa.gov/cpo_pa/risa/

In September, NOAA announced six new Regional Integrated Sciences and Assessments (RISA) awards totaling \$23.6 million over five years. The regional teams will work closely with natural resource managers and land planners, nongovernmental organizations, and the private sector within each region to advance research on how climate variability and change will impact the environment, economy, and society and develop innovative ways to integrate climate information into decision making. The awards went to (leads in parentheses) the Consortium on Climate Risk in the Urban Northeast (Columbia University), Pacific Northwest Climate Decision Support Consortium (Oregon State University), Great Lakes Regional Integrated Sciences and Assessments Center (University of Michigan and Michigan State University), Pacific RISA: Climate Adaptation Partnership for the Pacific (East-West Center in Hawaii), Southeast Climate Consortium (University of Florida), and Western Water Assessment (University of Colorado).

Report Finds U.S. Tsunami Detection Improved, But Coastal Communities Still Vulnerable

http://www.nap.edu/catalog.php?record_id=12628

The National Research Council has issued a congressionally requested report on the nation's tsunami efforts. "Tsunami Warning and Preparedness" (350 pp.) explores the advances made in tsunami detection and preparedness since the 2004 tsunami in the Indian Ocean and identifies challenges that still remain. It finds that progress has been made in the ability to detect and forecast tsunamis, and various federal and state activities have increased tsunami safety, but work remains to be done to minimize future losses. Specifically, it calls for persistent progress across the broad spectrum of efforts, including risk assessment, public education, government coordination, detection and forecasting, and warning center operations. The report can be purchased or read for free online.

OTHER FEDERAL UPDATES

Interagency Climate Change Adaptation Task Force Releases Report

<http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

On October 14, the Interagency Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality, the Office of Science and Technology Policy, and NOAA, released its report to President Obama for how federal agency policies and programs can better prepare the United States to respond to the impacts of climate change. The recommendations include ensuring scientific information about the impacts of climate change is easily accessible and building strong partnerships to support local, state, and tribal decision makers in improving management of places and infrastructure most likely to be affected by climate change.

FEMA Study Estimates Coastal Population Subject to 100-Year Coastal Flooding

http://www.floods.org/PDF/JCR_Est_US_Pop_100y_CFHA_2010.pdf

The Federal Emergency Management Agency (FEMA) recently completed a coastal demographics study of the United States and its territories that estimated the population subject to the 100-year coastal flood. The results are published in "An Estimate of the U.S. Population Living in 100-Year Coastal Flood Hazard Areas" (11 pp.) in the March 2010 issue of the Journal of Coastal Research. The findings suggest that approximately 8,651,000 people (3% of the U.S. population) live in areas subject to the 100-year coastal flood and about 24,662,000 people (8.6% of the U.S. population) live in census block groups that border the open ocean coast or that contain 100-year coastal flood hazard areas. Excluding the territories, the Atlantic coast has the greatest density of population living in areas subject to the 100-year coastal flood (433 persons/sq mi), followed by the Great Lakes (372 persons/sq mi), Gulf (145 persons/sq mi), and Pacific (23 persons/sq mi) coasts.

FEMA Examines Green Building in Context of Natural Hazards Resistance

<http://www.fema.gov/library/viewRecord.do?id=4347>

"Natural Hazards and Sustainability for Residential Buildings" (48 pp.) from the Federal Emergency Management Agency (FEMA) examines current green building rating systems in a broader context. It identifies green building practices that are different from historical residential building practices and that, unless implemented with an understanding of their interactions with the rest of the structure, have the potential to compromise a building's resistance to natural hazard events. This document discusses how to retain or improve natural hazard resistance while incorporating green building practices.

Corps Releases Report on National Water Resources Challenges

<http://building-collaboration-for-water.org/>

The U.S. Army Corps of Engineers (Corps) recently released the “National Report: Responding to National Water Resources Challenges” (104 pp.), which documents the results of their two-year assessment of national water resources needs and critical priorities. The goal of the assessment was to identify and leverage opportunities for collaborative efforts and to create a joint national dialog for water priorities between states, tribes, and federal resource agencies. The report provides general recommendations and suggested actions in nine overarching themes, which include integrated water resources management and managing extreme events.

New Circular Guides Corps’ NFIP Levee System Evaluations

<http://140.194.76.129/publications/eng-circulars/>

“Engineering and Design: USACE Process for the National Flood Insurance Program (NFIP) Levee System Evaluation” (104 pp.) guides U.S. Army Corps of Engineers’ (Corps) procedures for levee system evaluations in support of the National Flood Insurance program (NFIP) as administered by the Federal Emergency Management Agency. The purpose of an NFIP levee system evaluation is to determine how flood hazard areas behind levees are mapped on flood insurance rate maps, which are used to determine flood insurance rates; federal, state, and local floodplain management requirements; and other floodplain management decisions.

ADDITIONAL UPDATES

Florida Releases Guide on Post-Disaster Redevelopment Planning

<http://www.dca.state.fl.us/fdcp/dcp/PDRP/>

Florida requires coastal counties and communities to produce post-disaster redevelopment plans. In response to this requirement, the Florida Department of Community Affairs and Division of Community Planning, in partnership with the Florida Division of Emergency Management, initiated a post-disaster redevelopment plan pilot planning initiative to create planning guidance. The initiative was funded by the Florida Coastal Management Program and the Federal Emergency Management Agency’s Hazard Mitigation Grant Program. The purpose of the initiative and the “Post-Disaster Redevelopment Planning: A Guide for Florida Communities” (152 pp.) is to encourage vulnerable communities to undertake the preparation needed to ensure long-term sustainability and guide them through pre-disaster planning and post-disaster implementation.

Decision Tree Guides Shoreline Management in Virginia

<http://ccrm.vims.edu/decisiontree/index.html>

With funding from the Virginia Coastal Zone Management Program, the Center for Coastal Resources Management at the Virginia Institute of Marine Science is developing tools to help regulators, property owners, and others make decisions regarding coastal resources. The first component is a shoreline management decision tree for undefended shorelines and those with failed shoreline structures (such as bulkheads and riprap revetments). A tree-like graph of questions and answers about shoreline characteristics leads the user to the environmentally preferable approach for management of that shoreline. Comparable tools are in development for other activities/actions affecting tidal shorelines and waters, such as shorelines that are already defended, dredging projects, boat ramps, and marinas.

Massachusetts StormSmart Coast Community Adopts New Floodplain Bylaw and Regulations

<http://ma.stormsmartcoasts.org/2010/05/05/stormsmart-coast-community-adopts-new-floodplain-bylaw/>

http://www.mass.gov/czm/stormsmart/resources/oak_bluffs_regs.pdf

As part of the Massachusetts Office of Coastal Zone Management's StormSmart Coasts program, Oak Bluffs has adopted a new floodplain overlay district bylaw. The new bylaw prohibits new residential development and expansion of existing development in V, VE, and AO zones as depicted on flood insurance rate maps. The bylaw also establishes a special permitting process for new development in other areas of the mapped special flood hazard area. New regulations clarify the process and parameters for development within the district.

Handbook Helps Mississippi Homeowners Prepare for Hazard Events

<http://ms.stormsmartcoasts.org/handbook/>

Developed by the Gulf of Mexico Alliance's Coastal Community Resilience Team, the Mississippi "Homeowners' Handbook to Prepare for Natural Hazards" (84 pp.) was created to help homeowners reduce risks to people and property from natural hazard events. Handbooks are currently in the works for other Gulf of Mexico states. For information about developing handbooks for coastal states outside of the Gulf, contact Dennis Hwang, University of Hawaii Sea Grant, at djh@opglaw.com.

Maryland DNR Issues Climate Change Policy

http://dnr.maryland.gov/dnrnews/pdfs/climate_change.pdf

The Maryland Department of Natural Resources (DNR) is actively engaged in advancing the scientific understanding of Maryland's vulnerability to climate change and in advocating for sound planning to avoid or minimize the anticipated impacts. A new policy, "Building Resilience to Climate Change," guides the department's investments in and management of land, resources, and assets in the context of climate change. It establishes practices and procedures related to new land investments, facility siting and design, habitat restoration, government operations, research and monitoring, resource planning, and advocacy.

Michigan and Wisconsin Form Climate Cooperation Partnership

http://www.icleiusa.org/library/documents/dnre-climatechange-MI-WI_MOU_Climate_Change_332449_7.pdf

In September, Wisconsin and Michigan announced an agreement to cooperate on climate change adaptation and mitigation. In the memorandum of understanding between the Michigan Department of Natural Resources and Environment and the Wisconsin Department of Natural Resources, the states agree to exchange information and data; enhance coordination and cooperation along state borders, within watersheds and the Great Lakes; communicate opportunities for joint projects and programs; share research results; provide technical assistance for environmental and engineering evaluations; and propose action plans and explore funding options to address global warming and climate change adaptations.

Interdisciplinary Team Maps Sea Level Rise and Storm Surge in Chesapeake Bay

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

In 2008, with funding from NOAA's Sectoral Application Research Program, the Conservation Fund assembled and coordinated the interdisciplinary Chesapeake Sea Level Rise and Storm Surge Awareness and Response team to develop prototype tools and products that visualize the effects of sea level rise and storm surge inundation in the Chesapeake Bay region. Specifically, innovative computer modeling techniques were used to demonstrate how sea level rise and storm surge in the Chesapeake Bay will affect natural resources, such as wetlands and coastal forests, and public infrastructure, such as roads, emergency services, hospitals, schools, and residential structures. The results have been used in visually oriented education tools that include

a website and a printed map, which was distributed to schools in Maryland, Virginia, and the District of Columbia.

Report Quantifies Climate Risks along U.S. Gulf Coast

<http://www.energy.com/gulfcoastadaptation/>

Entergy Corp. has released the results of a study to quantify climate risks along the U.S. Gulf Coast (Texas to Alabama) and help inform economically sensible approaches for addressing this risk and building a resilient Gulf Coast. The study found that by 2030 economic losses, driven by economic growth, subsidence, and the impacts of climate change, will increase by 50-65 percent and cumulative economic damages could approximate \$350 billion. Given these potential losses, the report, "Building a Resilient Energy Gulf Coast: Executive Summary" (11 pp.), reinforces the financial benefits and opportunities provided by investments in climate change adaptation.

National Climate Adaptation Summit Committee Releases Report

http://www.joss.ucar.edu/events/2010/ncas/summit_report.html

In September, the University Corporation for Atmospheric Research released a report about national and regional preparations for adapting to a changing climate. Based on the National Climate Adaptation Summit, the report (26 pp.) states that the United States must adapt to a changing climate now and prepare for increasing impacts on urban infrastructure, food, water, human health, and ecosystems. It urges local, regional, and federal decision makers to develop and coordinate climate change adaptation measures across levels of government and with the private sector. The report includes seven high priority near-term actions that can help prepare the nation for climate change.

CONFERENCES, TRAININGS, EVENTS

Webinar: Creating Resilient Communities EBM Tool Demonstration Project

November 17, 2010

<https://www1.gotomeeting.com/register/796010449>

Webinar Series: Change Adaptation for State and Local Governments

November 18, 2010—Climate Impacts and Risk Communication

December 9, 2010—Adaptation Planning and Implementation

January 13, 2011—Federal Resources and Support for Climate Change Adaptation

<http://www.epa.gov/statelocalclimate/web-podcasts/local-webcasts-by-date.html>

Webinar: CanVis Visual Simulation Tool Demonstration

December 14, 2010

<https://www1.gotomeeting.com/register/863446240>

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.

November 9, 2010