

CZMA CLIMATE CHANGE AND COASTAL HAZARDS E-NEWS UPDATE #24

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

New NHC Publication Provides Introduction to Storm Surge

http://www.nhc.noaa.gov/ssurge/surge_intro.pdf

NOAA's National Hurricane Center (NHC) has produced a new publication about storm surge. "Introduction to Storm Surge" (5 pp.) explains storm surge, what causes it, the factors that influence it, how it is observed and measured, and its contribution to total water level.

Active 2011 Hurricane Season Breaks Hurricane Amnesia

http://www.noaanews.noaa.gov/stories2011/20111128_endofhurricaneseason_2011.html

The 2011 Atlantic hurricane season produced 19 tropical storms, seven of which became hurricanes, including three major hurricanes (Category 3 or higher). This level of activity matched NOAA's predictions and continues the trend of active hurricane seasons that began in 1995. The 19 tropical storms represent the third-highest total (tied with 1887, 1995, and 2010) since records began in 1851 and is well above the average of 11. However, the number of hurricanes and major hurricanes is only slightly above the average of six and two, respectively. Irene was the lone hurricane to hit the United States in 2011 and was the most significant tropical cyclone to strike the Northeast since Hurricane Bob in 1991.

Extreme Weather in 2011 Sets U.S. Record

http://www.noaanews.noaa.gov/stories2011/20111207_novusstats.html

<http://www.noaa.gov/extreme2011/index.html>

In 2011, the United States set a record with 12 billion-dollar weather/climate disasters with an aggregate damage total of approximately \$52 billion and 646 lives lost. This breaks the previous record set in 2008 of nine billion-dollar weather/climate disasters in one year. "Extreme Weather 2011" highlights each disaster and provides links to tips from NOAA and FEMA on how to be weather-ready. (See also CoreLogic's "2011 Natural Hazard Risk Summary and Analysis Report" (12 pp.) at <http://www.corelogic.com/about-us/researchtrends/2011-natural-risk-summary-and-analysis-report.aspx>).

NGS Releases Report for Floodplain Mapping Pilot Project

http://www.ngs.noaa.gov/web/news/NGS_Releases_Floodplain_Report.shtml

To help prepare for the transition to new datums in 2022 (approximately), NOAA's National Geodetic Survey (NGS) partnered with FEMA, the North Carolina Floodplain Mapping Program, and the North Carolina Geodetic Survey on a pilot project to examine the effects of this transition on floodplain mapping. "The Effect of Modernizing the National Datums on Floodplain Mapping" (41 pp.) reports on the project.

CO-OPS Launches Inundation Analysis Tool

<http://tidesandcurrents.noaa.gov/inundation/>

The NOAA Center for Operational Oceanographic Products and Services (CO-OPS) has developed an inundation analysis tool that provides frequency and duration of inundation statistics for inundation events that exceed specified thresholds. Water level data from NOAA's National Water Level Observation Network and historical tide stations are used to generate these analyses. Initially developed for marsh restoration and planning, the tool is also applicable for coastal engineering and mapping.

New Study Examines Role of Land Use Policy in Mitigating Floods

<http://www.rff.org/News/Features/Pages/Green-Infrastructures-Role-in-Adaptation-to-Climate-Change.aspx>

“The Role of Land Use in Adaptation to Increased Precipitation and Flooding: A Case Study in Wisconsin’s Lower Fox River Basin” (83 pp.) from Resources for the Future examines how green infrastructure (i.e., strategically protected natural lands and open space) can be used to build resilience to flooding and offers an assessment of the strengths and weaknesses of alternative land use policy instruments. While specific to the Lower Fox River Basin, it provides a framework for other local governments to use in determining the costs and benefits of using land use policy to mitigate flood damage. This study was part of a project funded by the Great Lakes Restoration Initiative and managed by NOAA that provided climate change adaptation planning support to Great Lakes state and local coastal managers.

NOS Podcast Highlights Sea Level Rise

<http://oceanservice.noaa.gov/podcast.html>

The National Ocean Services’ (NOS) “Diving Deeper” is a monthly audio podcast featuring in-depth talks with NOS staff on a variety of ocean topics. Sea level rise is the subject of Episode 34 (24:22 minutes).

OTHER FEDERAL UPDATES

FEMA Holding Stakeholder Forums to Promote National Disaster Recovery Framework

<http://www.fema.gov/recoveryframework/stakeholder.shtm>

In September, FEMA released the National Disaster Recovery Framework. To further promote it, explain how it will be implemented in states and local communities, and help stakeholders understand its key concepts and how they can be used to help disaster recovery, FEMA is holding stakeholder forums throughout the country. Visit the website for information about dates and locations.

FEMA Seeks Comment on New Levee Mapping Process

<http://federalregister.gov/a/2011-32128>

As part of ongoing efforts to reform the National Flood Insurance Program, FEMA has been working to revise their process for mapping flood risk with respect to levees. They have explored a number of scenarios to address the one percent-annual-chance flood risk in the vicinity of levees and evaluated multiple approaches through extensive stakeholder, independent, technical, and public input. As a result, the agency is proposing a new levee mapping process and is seeking comment. Comments are due by January 30, 2012.

FEMA Provides Access to National Flood Hazard Layer in Google Earth

<https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload>

<http://www.fema.gov/library/viewRecord.do?id=3289>

FEMA offers two applications that allow users to access information from the National Flood Hazard Layer (NFHL) in Google Earth. FEMA NFHL allows users to view custom combinations of flood hazard information, including flood hazard zones, floodways, Coastal Barrier Resources System and Otherwise Protected Area units, community boundaries and names, base flood elevations, and more. Stay Dry is a simpler, focused application that provides basic flood hazard map information from the NFHL for an address.

FEMA Publication Introduces Whole Community Approach to Emergency Management

<http://www.fema.gov/library/viewRecord.do?id=4941>

As a concept, “whole community” is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the

needs of their communities and determine the best ways to organize and strengthen their assets, capacities, and interests. To promote greater understanding of the approach and provide a strategic framework to guide implementation, FEMA produced “Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action” (28 pp.).

DHS Publishes Description of National Preparedness System

http://www.fema.gov/pdf/prepared/nps_description.pdf

To further the National Preparedness Goal, the U.S. Department of Homeland Security (DHS) has produced “National Preparedness System” (10 pp.), which describes the National Preparedness System’s components and how they interact to improve national preparedness. The components are identifying and assessing risks, estimating capability requirements, building or sustaining capabilities, developing and implementing plans to deliver those capabilities, validating and monitoring progress made towards achieving the National Preparedness Goal, and reviewing and updating efforts to promote continuous improvement.

New Guidelines Aim to Strengthen Tsunami Preparedness

<http://nthmp.tsunami.gov/publications.html> (may need to download documents to view)

The National Tsunami Hazard Mitigation Program (NTHMP) has released two new guidelines for preparing for tsunamis. The objectives of “Guidelines and Best Practices for Tsunami Evacuation Mapping” (8 pp.) are to promote a consistent look and feel to tsunami evacuation maps, facilitate emergency management planning, and create viable maps incorporating a thorough assessment of local risks. “Guidelines and Best Practices to Establish Areas of Tsunami Inundation for Non-Modeled or Low-Hazard Regions” (3 pp.) help determine tsunami inundation zones in communities where there is a low hazard or risk or where there is an interest in initiating planning and preparedness efforts in the absence of inundation and evacuation maps.

White Paper Aims to Clarify Use of Inundation Maps

<http://www.iwr.usace.army.mil/nhp/index.cfm?pageid=123&navid=41>

Storm Surge Inundation Maps and Flood Insurance Rate Maps both identify areas subject to inundation from coastal storm surge. A new white paper explains the differences between these products. “Two Coastal Flood Inundation Maps—Which Should I Use? Hurricane Evacuation Study–Storm Surge Inundation Mapping vs. National Flood Insurance Program–Flood Insurance Rate Map: An Overview and Comparison” (5 pp.) is a collaborative product of the U.S. Army Corps of Engineers, FEMA, NOAA, and the Maryland Silver Jackets partnership.

Corps Updates Sea Level Change Circular

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

“Sea-Level Change Considerations for Civil Works Programs” (32 pp.) from the U.S. Army Corps of Engineers is an update to the scenario-based sea level change guidance circular issued in 2009. This 2011 update includes additional references and discussion reflecting recent advances and understanding of sea level change since 2008-2009.

EPA and Partners Release Climate Change Handbook for Regional Watershed Planning

<http://www.water.ca.gov/climatechange/CCHandbook.cfm>

Developed cooperatively by the EPA, U.S. Army Corps of Engineers, California Department of Water Resources (DWR), and Resources Legacy Fund, the “Climate Change Handbook for Regional Watershed Planning” (246 pp.) provides a framework for considering climate change in water management planning. The handbook uses the DWR’s integrated regional water management planning framework as a model into which analysis of climate change impacts and planning for adaptation and mitigation can be integrated.

ADDITIONAL UPDATES

Delaware Engages Public in Sea Level Rise Discussion

<http://www.dnrec.delaware.gov/coastal/Pages/SLRAC-Public-Engagement-Sessions.aspx>

In November, Delaware's Sea Level Rise Advisory Committee held five public engagement sessions throughout the state to present on the committee's work and educate residents about the causes of sea level rise and potential impacts to homes, infrastructure, natural resources, and the economy. Each session featured presentations, displays staffed by subject matter experts and committee members, and opportunities for participants to provide feedback, which will help guide the committee's work. Materials from the engagement sessions and "Preparing for Tomorrow's High Tide: A Progress Report of the Delaware Sea Level Rise Advisory Committee" (16 pp.) are available online.

New Hampshire Joins StormSmart Coasts Network

<http://nh.stormsmart.org/>

StormSmart Coasts is a web resource designed for local officials whose towns face risks from storms, flooding, and sea level rise. New Hampshire is the eighth state and the third in New England to launch a state-specific site. The StormSmart Coasts Network of state and local sites gives coastal decision makers a place to find and share resilience-related resources and provides tools for collaboration.

New York Releases Summary of Statewide Climate Change Assessment

http://nyserda.ny.gov/~media/Files/Publications/Research/Environmental/EMEP/climaid/responding-to-climate-change-synthesis.ashx?sc_database=web

"Responding to Climate Change in New York State: Synthesis Report" (60 pp.) from the New York State Energy Research and Development Authority summarizes a state-level assessment of climate change impacts that was undertaken to provide decision makers with information on New York's vulnerability to climate change and to facilitate adaptation planning informed by local experience and scientific knowledge. The synthesis report includes chapters for each of the following sectors: water resources, coastal zones, ecosystems, agriculture, energy, transportation, telecommunications, and public health. The full report is forthcoming.

Santa Cruz Plans for Climate Change

<http://www.cityofsantacruz.com/index.aspx?page=1680>

In its 2007 hazard mitigation plan, Santa Cruz, California, identified climate change adaptation planning as a critical action item. As a result, the City applied for and received FEMA hazard mitigation planning funds to create a climate adaptation plan. The plan (57 pp.) identifies the City's most significant potential climate change risks and vulnerabilities and creates an action plan to guide current and future decision makers in protecting the City's natural and built environment, residents and visitors, economic base, and quality of life. It is an update to the City's hazard mitigation plan and is also consistent with its general (comprehensive) plan.

IPCC Releases Summary Report on Extreme Events and Disasters

<http://www.ipcc-wg2.gov/SREX/>

In November, the Intergovernmental Panel on Climate Change (IPCC) released a summary of its "Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation" (30 pp.). The report is an assessment of the scientific literature on issues such as the relationship between climate change and extreme weather and climate events and the implications of these events for society and sustainable development. It discusses the interaction of climatic, environmental, and human factors that can

lead to impacts and disasters, options for managing risk, and the important role that nonclimatic factors play in determining impacts. The full report is scheduled to be released in February.

Tsunami Community Preparedness Training Available Online

https://www.meted.ucar.edu/training_module.php?id=897

“Community Tsunami Preparedness” (6 hours) is a free online training developed by the University Corporation for Atmospheric Research’s Cooperative Program for Operational Meteorology, Education and Training with funding from the National Tsunami Hazard Mitigation Program. Designed for emergency managers and others helping communities prepare for tsunamis, lessons include basic tsunami science, tsunami hazards, the tsunami warning system, the importance of public education, and how to craft good emergency messages and develop tsunami response plans. Resources include PowerPoint presentations for each major U.S. region (Atlantic Coast, Gulf Coast, West Coast, Hawaii and Pacific Islands, Alaska, and Caribbean) that can be downloaded and customized.

New ICLEI Resource Focuses on Climate Communication

http://www.icleiusa.org/action-center/engaging-your-community/ICLEI_Climate_Communication_Local_Governments.pdf

“Climate Communication for Local Governments” (26 pp.) from ICLEI-Local Governments for Sustainability distills climate communication into five guidelines for how to engage more people in dialog and solutions around climate action. Following a discussion of each guideline are takeaway points and additional resources.

CONFERENCES, TRAININGS, EVENTS

Digital Coast Webinar: Coastal County Snapshots: An Issue-Specific Data Communication Tool

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

February 1, 2012

Hurricanes: Science and Society Webinar: Basic Hurricane Science

<http://www.hurricanesociety.org/resources/webinar2012/>

February 28, 2012

American Shore & Beach Preservation Association 2012 Coastal Summit

http://www.asbpa.org/conferences/sum_12.htm

February 28-March 1, 2012

Washington, DC

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.

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