

CZMA CLIMATE CHANGE AND COASTAL HAZARDS E-NEWS UPDATE #21

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>.

In this Issue:**NOAA UPDATES**

- OCRM Releases Great Lakes Supplement to Adaption Planning Guide
- NOAA's Atlantic Hurricane Season Update Calls for Increase in Named Storms
- CSC Incorporates Visualization into Coastal Inundation Toolkit
- CO-OPS Researchers Find Strong El Niño Could Bring Increased Sea Levels, Storm Surges to U.S. East Coast
- NOAA and Western Governors Agree to Work Together to Improve Climate Services for the West
- NOAA Issues Request for Information for U.S. National Climate Assessment
- NCDC Releases 2010 State of the Climate Report

OTHER FEDERAL UPDATES

- U.S. EPA Climate Ready Estuaries Program Publication Shares Lessons Learned
- FEMA Model Ordinance Addresses Floodplain Management and Endangered Species Act in Washington State
- FEMA Seeks Comments on Proposed Changes to Community Rating System
- National Research Council Releases Summary of Resilience Workshop in Gulf
- DHS Publishes Compendium of Disaster Preparedness Programs
- Erosion Spike on West Coast Previews Likely Future as Climate Changes
- New Fact Sheets Highlight USGS Shoreline Change Research

ADDITIONAL UPDATES

- Hawaii Sea Grant Updates Publication to Help Homeowners Prepare for Natural Hazards
- Sarasota Bay Estuary Program Launches Sea Level Rise Viewer
- White Paper Explains Link between Extreme Weather and Climate Change
- NRDC Report Examines Water-Related Impacts of Climate Change on Cities
- Great Lakes National Parks Already Feeling Impacts of Climate Change

CONFERENCES, TRAININGS, EVENTS

- Webinar: Community Resilience, Part I: Assessing Vulnerabilities Using the Roadmap for Adapting to Coastal Risk
- Webinar: Infrastructure Adaptations to Address National Security Threats from a Changing Climate
- Webinar: Community Resilience, Part II: Ecosystem-Based Adaptation Case Studies
- American Shore & Beach Preservation Association 2011 National Coastal Conference: Expanding Coastal Horizons
- Coastal Management 2011: Innovative Coastal Zone Management: Sustainable Engineering for a Dynamic Coast

NOAA UPDATES

OCRM Releases Great Lakes Supplement to Adaption Planning Guide

<http://coastalmanagement.noaa.gov/climate/adaptation.html>

NOAA's Office of Ocean and Coastal Resource Management has released "Adapting to Climate Change: A Planning Guide for State Coastal Managers—A Great Lakes Supplement" (92 pp.). Intended to be used as a companion to the previously released planning guide, the supplement, which was developed with funding from the Great Lakes Restoration Initiative, provides more specificity on climate trends and potential climate change impacts and consequences affecting the Great Lakes region and includes numerous case examples of adaptation actions already being taken at the regional, state, and local levels.

NOAA's Atlantic Hurricane Season Update Calls for Increase in Named Storms

<http://www.cpc.ncep.noaa.gov/products/outlooks/hurricane.shtml>

<http://hurricane.atmos.colostate.edu/Forecasts/>

On August 4, NOAA's National Weather Service Climate Prediction Center issued an update to its 2011 outlook for hurricane activity in the Atlantic by raising the number of expected named storms from its pre-season outlook issued in May. Across the entire Atlantic Basin, for the whole season, there is a 70 percent chance of 14 to 19 named storms, of which 7 to 10 could become hurricanes, including 3 to 5 major hurricanes (Category 3, 4, or 5). These ranges are indicative of an active season and extend well above the long-term seasonal averages of 11 named storms, 6 hurricanes, and 2 major hurricanes. The researchers at Colorado State University's Tropical Meteorology Project are still estimating that the season will bring 16 named storms, 9 hurricanes, and 5 major hurricanes.

CSC Incorporates Visualization into Coastal Inundation Toolkit

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

The NOAA Coastal Services Center (CSC) has added the "Visualize" section to its Coastal Inundation Toolkit, which is part of the Digital Coastal. This new section contains resources that can help users turn data into visualizations. Resources include photos, map-viewing tools, data, and map-development guides. The "Picture It" and "Graph It" pages focus on resources to help create simulation photos and ready-made map-viewing products. For experienced GIS users and data analysts, the "Build It" page links to guidance and resources for obtaining and preparing data and generating custom maps.

CO-OPS Researchers Find Strong El Niño Could Bring Increased Sea Levels, Storm Surges to U.S. East Coast

<http://oceanservice.noaa.gov/news/weeklynews/july11/elnino.html>

<http://journals.ametsoc.org/doi/abs/10.1175/MWR-D-10-05043.1> (subscription required)

A new study led by NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) finds that coastal communities along the U.S. East Coast may be at risk to higher sea levels accompanied by more destructive storm surges in future El Niño years. "Cool-Season Sea Level Anomalies and Storm Surges along the U.S. East Coast: Climatology and Comparison with the 2009/10 El Niño" ("Monthly Weather Review" 139, 10 pp.) reports the results of the study, which entailed reviewing 50 years of data on cool-season water levels and storm surges at four East Coast sites: Boston, Massachusetts; Atlantic City, New Jersey; Norfolk, Virginia; and Charleston, South Carolina. At these sites, the researchers found that during strong El Niño years between 1961 and 2010, the average number of storm surges nearly tripled, and mean sea level rose an average of four-inches above predicted conditions.

NOAA and Western Governors Agree to Work Together to Improve Climate Services for the West

http://www.noaanews.noaa.gov/stories2011/20110630_westerngovenors.html

On June 30, NOAA and the Western Governors' Association (WGA) announced an agreement to improve the development, coordination, and dissemination of climate information to support important long-range hazard planning priorities and resource management decisions of WGA members. The agreement articulates two priority areas: disaster risk reduction and improved science and climate information to support the management of coastal, estuarine, and marine resources important to achieving resilient coastal communities and ecosystems.

NOAA Issues Request for Information for U.S. National Climate Assessment

<http://www.globalchange.gov/whats-new/623-federal-register-notice-for-national-climate-assessment-july-13-2011>

NOAA has issued a request for information, inviting the public to provide comments and expressions of interest in offering technical inputs and/or assessment capacity on topics related to the National Climate Assessment (NCA) regional, sectoral, and cross-cutting topics proposed for the 2013 NCA report and the ongoing NCA process. Expressions of interest are due by October 1, 2011. Final inputs are due by March 1, 2012.

NCDC Releases 2010 State of the Climate Report

<http://www.ncdc.noaa.gov/bams-state-of-the-climate/2010.php>

In June, NOAA's National Climatic Data Center (NCDC) released its annual report on the state of the climate. "State of the Climate in 2010" (218 pp.) is a peer-reviewed report, issued in coordination with the American Meteorological Society, that provides a detailed, yearly update on global climate indicators, notable climate events, and other climate information from every continent. While several well-known cyclical weather patterns had a significant influence on weather and climate events in 2010, the comprehensive analysis of indicators shows a continuation of the long-term trends scientists have seen over the last 50 years, consistent with global climate change. Notably, 2010 was one of the two warmest years on record, the average global sea surface temperature was third warmest on record, sea level continued to rise, and tropical cyclone activity was below normal in nearly all basins around the globe, except the Atlantic basin, which had near-record high North Atlantic basin hurricane activity.

OTHER FEDERAL UPDATES

U.S. EPA Climate Ready Estuaries Program Publication Shares Lessons Learned

<http://www.epa.gov/cre/downloads/CRE%20Lessons%20Learned%20508.pdf>

"Lessons Learned from the Climate Ready Estuaries Program" (4 pp.) is a compilation of best practices and lessons learned taken from the U.S. EPA's Climate Ready Estuaries annual progress report for 2010. Designed to help other communities or organizations planning responses for climate change impacts, the publication is organized around four themes: Vulnerability Assessment, Stakeholder Engagement, Climate Change Indicators and Monitoring, and Adaptation Planning.

FEMA Model Ordinance Addresses Floodplain Management and Endangered Species Act in Washington State

<http://www.fema.gov/about/regions/regionx/nfipesa.shtm>

In response to a biological opinion from NOAA's National Marine Fisheries Service noting that continued implementation of the National Flood Insurance Program (NFIP) in the Puget Sound adversely affects the habitat of certain threatened and endangered species, FEMA's Region X developed a model ordinance to

improve floodplain management and help Washington communities meet the requirements of the Endangered Species Act. “Floodplain Management and the Endangered Species Act: A Model Ordinance” (87 pp.) provides a set of rules to protect human development from flooding and to minimize the impact of new development and redevelopment on public safety, public health, property, water quality, and aquatic and riparian habitat. It has four types of provisions: NFIP requirements, Washington State floodplain management laws, provisions to meet the requirements of the biological opinion, and strongly recommended provisions that go beyond the NFIP’s minimum requirements.

FEMA Seeks Comments on Proposed Changes to Community Rating System

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

FEMA is in the process of updating the coordinator manual for the National Flood Insurance Program’s Community Rating System (CRS). The 2012 edition of the manual will incorporate a number of changes, both large and small. These changes are the product of several years of effort by the CRS Task Force, FEMA, and CRS stakeholders who reviewed and evaluated the current program. FEMA has created a website to help educate communities about the proposed changes and to solicit comments. Among the proposed changes: an easier application process, a new approach to public information programs, more credit for preserving open space and protecting the natural functions of floodplains and coastal areas, and more emphasis on prohibiting fill in the floodplain. Comments are due by August 31, 2011.

National Research Council Releases Summary of Resilience Workshop in Gulf

http://www.nap.edu/catalog.php?record_id=13178

In January, the National Research Council’s Committee on Increasing National Resilience to Hazards and Disasters held the first of three site visits and workshops for its Increasing National Resilience to Hazards and Disasters project. “Assessing National Resilience to Hazards and Disasters: The Perspective from the Gulf Coast of Louisiana and Mississippi: Summary of a Workshop” (115 pp. prepublication .pdf) is a factual summary of what occurred during the visit to New Orleans and the Mississippi Gulf Coast and the subsequent workshop, which were designed to review the effects of Hurricane Katrina and other natural and human-induced disasters in the region and to learn more about the resilience of the region to future disasters. The summary provides a foundation for the committee’s consensus report that will identify ways to increase national resilience.

DHS Publishes Compendium of Disaster Preparedness Programs

http://www.dhs.gov/xoig/assets/mgmttrpts/OIG_11-88_Jun11.pdf

The Department of Homeland Security (DHS) Office of Inspector General has produced an inventory of federal programs that provide disaster preparedness assistance to individuals, states, localities, nonprofit organizations, and businesses to help ensure the preparedness of the nation to prevent, respond to, and recover from threatened and actual disasters and emergencies. The “Compendium of Disaster Preparedness Programs” (44 pp.) includes programs identified through a review of the “Catalog of Federal Domestic Assistance” website and a survey of the federal inspector general community. (Note: this resource is not exhaustive, additional programs are available that are not included.)

Erosion Spike on West Coast Previews Likely Future as Climate Changes

<http://www.usgs.gov/newsroom/article.asp?ID=2849&from=rss>

<http://www.agu.org/pubs/crossref/2011/2011GL047707.shtml> (subscription required)

“The Impact of the 2009-10 El Niño Modoki on U.S. West Coast Beaches” (“Geophysical Research Letters” Vol. 38, L13604, 7 pp.) reports the results of a study of the erosion along the West Coast caused by the 2009-10 El Niño. Led by the USGS in collaboration with the Oregon Department of Geology and Mineral

Industries, University of California–Santa Cruz, Washington Department of Ecology, Oregon State University, and Scripps Institution of Oceanography, the study will help coastal experts better understand, predict, and prepare for future changes that may be in store for the Pacific Coast as the climate changes.

New Fact Sheets Highlight USGS Shoreline Change Research

<http://pubs.usgs.gov/fs/2011/3073/>

<http://pubs.usgs.gov/fs/2011/3074/>

“USGS Science for the Nation’s Changing Coasts: Shoreline Change Research” and “USGS Science for the Nation’s Changing Coasts: Shoreline Change Assessment” (both 2 pp.) from the USGS highlight the agency’s work to measure, report on, and interpret historical shoreline change along open-ocean coasts of the conterminous United States, parts of Alaska and Hawaii, and the coasts of the Great Lakes.

ADDITIONAL UPDATES

Hawaii Sea Grant Updates Publication to Help Homeowners Prepare for Natural Hazards

<http://seagrant.soest.hawaii.edu/announcements/second-edition-homeowners-handbook-prepare-natural-hazards-now-available>

The University of Hawaii Sea Grant College Program, with support from the Hawaii Coastal Zone Management Program, has published a second edition of their “Homeowner’s Handbook to Prepare for Natural Hazards” (116 pp.). Updates include information on evacuation for local tsunamis, recent tsunami events, and determining flood risk and more options for home strengthening. An Apple iTunes application version of the handbook is in the works.

Sarasota Bay Estuary Program Launches Sea Level Rise Viewer

<http://www.sarasotabay.org/sealevelrise.html>

As part of an effort to plan for the potential impacts of sea level rise, the Sarasota Bay Estuary Program, one of the U.S. EPA National Estuary Programs, in collaboration with Mote Marine Laboratory, has created a sea level rise web map tool for residents and planners in Sarasota and Manatee counties. The sea level rise viewer allows users to see which lands are vulnerable to sea level rise (one, three, and six feet) and storm surge (six-feet, equivalent to that of Hurricane Charley).

White Paper Explains Link between Extreme Weather and Climate Change

<http://www.pewclimate.org/publications/extreme-weather-and-climate-change>

“Extreme Weather and Climate Change: Understanding the Link, Managing the Risk” (13 pp.) from the Pew Center on Global Climate Change explains the connection between extreme weather and climate change, while highlighting the need to address U.S. vulnerabilities to extreme events. The white paper asserts that the recent surplus of extreme weather events is part of a longer trend of rising extremes, which reveals a pattern of increasing risk as the planet warms.

NRDC Report Examines Water-Related Impacts of Climate Change on Cities

<http://www.nrdc.org/water/thirstyforanswers.asp>

The Natural Resources Defense Council (NRDC) has produced “Thirsty for Answers: Preparing for the Water-Related Impacts of Climate Change in American Cities” (132 pp.) to help cities become more resilient to the rising threats of climate change. This report is a compilation of local and regional research on the water-related impacts facing 12 U.S. cities (mostly coastal) due to climate change and the efforts these cities are taking to increase their resilience.

Great Lakes National Parks Already Feeling Impacts of Climate Change

http://rockymountainclimate.org/programs_13.htm

According to a report by the Rocky Mountain Climate Organization and Natural Resources Defense Council, five major Great Lakes national parks are already feeling the impacts of climate change in the forms of rising temperatures, decreased winter ice, eroding shorelines, spreading disease, and a crowding out of key wildlife and plant life. "Great Lakes National Parks in Peril: The Threats of Climate Disruption" (61 pp.) examines these key impacts and their associated losses (both current and future) and what they mean for the Great Lakes regional economy.

CONFERENCES, TRAININGS, EVENTS

Webinar: Community Resilience, Part I: Assessing Vulnerabilities Using the Roadmap for Adapting to Coastal Risk

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

September 7, 2011

Webinar: Infrastructure Adaptations to Address National Security Threats from a Changing Climate

<http://securityandsustainabilityforum.org/new/events/infrastructure-and-adaptation/>

September 28, 2011

Webinar: Community Resilience, Part II: Ecosystem-Based Adaptation Case Studies

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

October 5, 2011

American Shore & Beach Preservation Association 2011 National Coastal Conference: Expanding Coastal Horizons

http://www.asbpa.org/conferences/conf_fall_11.htm

New Orleans, Louisiana

October 18-21, 2011

Coastal Management 2011: Innovative Coastal Zone Management: Sustainable Engineering for a Dynamic Coast

<http://www.ice-coastalmanagement.com/>

Belfast, United Kingdom

November 15-16, 2011

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.

August 15, 2011