Gulf of Maine Council on the Marine Environment
Celebrating 25 years of action for a healthy environment

March 2015

Climate Network Bulletin and Outlook

This e-bulletin accompanies the March edition of the Gulf of Maine Region Quarterly Climate Impacts and Outlook, a seasonal snapshot of significant weather events, temperature and precipitation trends, and climatic impacts. The *Outlook*—designed to get better regional information to all those who live and work in the states and provinces that border the Gulf of Maine—is collaboratively produced by Canadian and US scientists.

Please Note: While the *Gulf of Maine Quarterly Impacts and Outlook* will continue to be distributed every March, June, September and December, the *Climate Network Bulletin* is being suspended due to funding cutbacks. Please sign up at http://www.gulfofmaine.org/2/climate-network-climate-outlook/ to keep receiving the *Outlook*, and look for additional regional climate resources in the following helpful e-bulletins:

- *The ACZISC Coastal Update e-newsletter,* produced by the Atlantic Coastal Zone Information Steering Committee, provides abundant resources related to the coastal zone —many of them climate-related. View the current issue, or subscribe by e-mailing aczisc@dal.ca.

- Northeast Climate Science Center news and events listing: To subscribe, go to http://necsc.umass.edu/content/join-our-mailing-list

- Massachusetts Office of Coastal Zone Management distributes a monthly *C-Z Mail e-newsletter* with many resources and events related to coastal climate impacts and challenges relevant to the region. To sign up, visit *http://www.mass.gov/eea/agencies/czm/program-areas/communications/cz-mail/cz-mail.html*

New Resources

The Gulf of Maine King Tides Project, a collaboration of more than a dozen organizations seeking to raise awareness of sea-level rise impacts, is planning a second regional King Tides Photo Contest on October 28, 2015 (around midday—check local tide charts for the time of highest tide). If your organization or agency is interested in helping publicize this year's King Tides Photo Contest, please use the site's contact form. The Project site also has many inundation images from last year's contest (which can be reused for educational purposes as long as credit is given to the photographers).

Snow-packed New England, a webinar collaboratively produced by NOAA and the Northeast Regional Climate Center, provides a 40-minute overview about this past winter's snowfall. Another webinar being held March 26 at 9:30 EDT, coinciding with the release of the latest Gulf of Maine Region Quarterly Climate Impacts and Outlook, will discuss the flooding potential from all the melting snow.

The Natural Resources Canada's Regional Adaptation Collaborative (and Tools for Adaptation Programs) now offers a library of resources that can be browsed by region, target audience, climate impacts or type of product.

Connecting on Climate: A Guide to Effective Climate Change Communication is designed to help a wide variety of community leaders—in religion, health care, business, journalism, science, education and politics—better communicate with and engage the American public in talking about climate change.

Forecasting a Sea of Change: Lessons from Atlantic Canada, an issue paper released by the Canadian Climate Forum, describes the challenges of forecasting storm surge and coastal flooding in Atlantic Canada, as well as other climate impacts like ocean acidification. By 2100, sea levels in Atlantic Canada are expected to be between 70 and 140 cm higher than today's levels (with much higher water levels possible during storm surges).

In addition to the new US Climate Resilience Toolkit, Sea Grant has launched a National Sea Grant Resilience Toolkit, a compilation of more than 100 tools and resources to help homeowners and communities become more resilient to a range of natural hazards, climate impacts, and water-quality challenges. Tools from across the Sea Grant network can be searched by type or topical area.

The Storm Surge Inundation Map recently released by US EPA's Climate Ready Water Utilities Initiative is an interactive map that illustrates the current worst-case storm surge and inundation scenarios along the Atlantic coast. The map combines data layers from the Federal Emergency Management Agency 100- and 500-year flood maps as well as NOAA's SLOSH (Sea, Lake, and Overland Surge from Hurricanes), and the National Hurricane Center's coastal county hurricane strike maps.

US EPA's Climate Ready Water Utilities Initiative has released an online Scenario-Based Projected Changes Map that provides easy access to localized scenarios of projected changes in annual total precipitation, precipitation intensity, annual average temperature,100-year storm events, and sea-level rise from EPA's Climate Resilience Evaluation and Awareness Tool. To explore local climate change projection data across the United States, zoom in on a location of interest or type a location into the search field.

Rising Waters, Rising Threat: How Climate Change Endangers America's Neglected Wastewater Infrastructure, a report from the Center for American Progress, recommends actions to keep waters clean and protect public health from disruptions and overflows in wastewater treatment systems. These steps include integrating methods to address climate risk into all new wastewater infrastructure; financing resilience improvements through state infrastructure banks; prioritizing resilience in state revolving-fund investments; and investing in green infrastructure and the protection and restoration of wetlands and coastal ecosystems.

The January 2015 report of the *Commission to Study the Effects of Coastal and Ocean Acidification and Its Existing and Potential Effects on Species that Are Commercially Harvested and Grown along the Maine Coast* summarizes recommendations for Maine—from identifying land-based nutrient sources and reducing carbon dioxide emissions to mitigating impacts and investing in futher research on ocean acidification.

Evaluating the Coastal Landscape Response to Sea-level Rise is a collaborative study that looks at sea-level effects on the northeastern US. Supported by the supported by the Northeast Climate Science Center, US Geological Survey and Columbia University, it provides "spatially explicit predictions at 30 m resolution for the 2020s, 2030s, 2050s and 2080s."

Conservation Decision-Making in the Face of Sea-Level Rise, a research project underway at the Northeast Climate Science Center, helps wildlife refuge managers face the complex array of decisions involving loss of shoreline to sea-level rise.

Massachusetts Homeowner's Handbook to Prepare for Coastal Hazards, recently updated to include details on flood insurance regulations, includes practical measures to stay safe and minimize damage in the face of coastal storms like nor'easters.

Inclusion of items in this bulletin does not imply endorsement by the Gulf of Maine Council on the Marine Environment or by those entities that help distribute this update. Please visit the Council's Climate Network web pages for more resources on regional climate concerns.

The Gulf of Maine Council on the Marine Environment, a US-Canadian partnership, works to sustain the environmental quality and well-being of the Gulf's watershed—which encompasses much of Massachusetts, New Hampshire, Maine, New Brunswick and Nova Scotia. Its Climate Network brings together planners and scientists from around the Gulf of Maine to raise awareness about climate impacts and inspire effective action in local communities—where residents experience first-hand the effects of changing conditions.

Recent Regional Climate News Stories

Climate Progress, 'A Harbinger of the Future': Climate Scientists Respond to Boston's Record-breaking Snow Season (3/18/15)

Portland Press Herald, Ocean Scientists Report 'Unprecedented' Spike in Sea Level off Portland Several Years Ago (2/26/15)

National Public Radio, Acidifying Waters are Endangering Your Oysters and Mussels (2/23/15)

For more regional news stories, visit the Climate News section of the Climate Network web pages.

This bulletin was prepared with support from Environment Canada.