

# EPA Climate Change and Water News

## September 21, 2012

The *EPA Climate Change and Water News* is a bi-weekly newsletter from the U.S. Environmental Protection Agency (EPA) Office of Water that features news and information about EPA and other federal activities related to climate change and water. Partner activities, as well as related events and publications, are also included.

For more information on climate change and water, please visit our website:  
<http://www.epa.gov/water/climatechange>.

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### **U.S. EPA News**

#### **EPA to Hold Webinar on Solar Energy for Water and Wastewater Utilities on October 11, 2012 from 1:00 p.m. - 2:30 p.m.**

Improving energy efficiency is an ongoing challenge for water utilities. This webcast will focus on solar energy and will assist utilities in understanding how solar energy can be used effectively at water and wastewater utilities. The first part of this webcast will detail the process of implementing solar energy projects at water or wastewater utilities, the various types of solar technologies available, and where they can be most appropriately used. The webcast will also highlight innovative funding approaches, including those with no up-front capital requirements, that result in long-term energy cost savings and stability. Finally, this webcast will present the case study of a successful solar installation at a small wastewater utility in Grafton, Massachusetts. To register, visit: <https://www3.gotomeeting.com/register/567834686>.

## **EPA Releases Enhanced Version of AQUATOX**

EPA recently released an enhanced version of AQUATOX, which predicts the fate of nutrients and organic chemicals in water bodies, as well as their direct and indirect effects on fish, invertebrates, and aquatic plants. AQUATOX version 3.1 includes numerous enhancements over version 3.0 that improve model performance, more closely match data requirements with generally available data, improve data manipulation and analysis, and increase user-friendliness. AQUATOX version 3.1 can help address many complex water management issues such as developing and evaluating numeric nutrient targets based on desired biological endpoints, evaluating which of several stressors is causing observed biological impairment, predicting effects of pesticides and other toxic substances on aquatic life, predicting changes in the ecosystem due to climate change, predicting effects of land use on aquatic life by linking to the watershed models in BASINS, and estimating the time to recovery of contaminated fish tissues to safe levels after reducing pollutant loads. Directions for downloading the model and its associated documentation, as well as additional information, can be found on EPA's AQUATOX website: <http://water.epa.gov/scitech/datait/models/aquatox/index.cfm>.

## **Other Federal Agency News**

### **U.S. Fish and Wildlife Service Announces Online Climate Change Courses**

The U.S. Fish and Wildlife Service has announced two new online climate change courses. The first course "Climate Academy" is a 10-month pilot course that will be offered beginning in early October 2012. This online course is designed to cover the fundamentals of climate science, provide tools and resources for climate adaptation, and increase climate literacy and communication through online lectures, webinars, and discussions. Participants will also have the option to develop a final product (such as a report or presentation) addressing climate change in their management of natural resources. The second course "Decision Analysis for Climate Change" is an 8-week online course that provides participants with the skills to address climate change impacts in making decisions about natural resource management. This course highlights principles from *Informing Decisions in a Changing Climate*, a 2009 National Research Council report. Participants will work in teams on actual decision problems and develop a final report and presentation for their decision problem. There is no tuition or registration fee associated with either course. For more information about these courses and enrollment, visit: [http://training.fws.gov/CSP/Resources/climate\\_change/training.html](http://training.fws.gov/CSP/Resources/climate_change/training.html).

### **NOAA Climate Program Office Offers Second Informational Session for FY 2013 Funding Opportunity**

In FY 2013, NOAA will be accepting individual applications for seven competitions organized around the following programs: Earth System Science; Modeling, Analysis, Predictions, and Projections; and Climate and Societal Interactions. The deadline for final applications is November 6, 2012. The program managers of the NOAA Sectoral Applications Research Program and the Coastal and Ocean Climate Applications Programs will hold the second informational session for those applying to the FY 2013 NOAA Climate Program Office funding opportunity on October 11, 2012 from 1:00 p.m. - 2:00 p.m. eastern time. During this session, NOAA staff will highlight the proposal process and answer questions directly related to it. For more information on how to participate, visit: [http://www.cpo.noaa.gov/index.jsp?pg=./news/news\\_index.jsp&news=2012/9-15.html](http://www.cpo.noaa.gov/index.jsp?pg=./news/news_index.jsp&news=2012/9-15.html).

## **Other News**

### **Report Released: "Preparing for Tomorrow's High Tide: Sea Level Rise Vulnerability Assessment for the State of Delaware"**

This recent report was developed by the Delaware State Department of Natural Resources and Environmental Control with input, advice, and guidance from members of Delaware's Sea Level Rise Advisory Committee. The report contains background information about sea level rise, methods used to

determine vulnerability, and a comprehensive accounting of the extent and impacts that sea level rise will have on resources in the state. The information contained within this document and its appendices will be used by the Delaware Sea Level Rise Advisory Committee and other stakeholders to guide development of sea level rise adaptation strategies. Users of this document should read the introductory materials and methods to understand the assumptions and trade-offs that have been made in order to describe and depict vulnerability information at a statewide scale. For more information about the report, visit: <http://www.dnrec.delaware.gov/coastal/Pages/SLR/DelawareSLRVulnerabilityAssessment.aspx>.

### **Report Released: "When It Rains, It Pours: Global Warming and the Increase in Extreme Precipitation from 1948-2011"**

The Frontier Group has released a report indicating that the effects from global warming are being felt in the United States and globally. The report's analysis of more than 80 million daily precipitation records from across the contiguous United States reveals that intense rainstorms and snowstorms have already become more frequent and more severe. The report indicates that extreme downpours are now happening 30 percent more often nationwide than in 1948. In other words, large rain events or snowstorms that occurred once every 12 months, on average, in the middle of the 20th century now occur every nine months. The report also states that the largest annual storms now produce 10 percent more precipitation, on average. To view this report, visit: <http://www.frontiergroup.org/reports/fg/when-it-rains-it-pours-0>.

### **First Ocean Energy Delivered to the U.S. Grid**

The first grid-connected tidal power project in the United States project is now delivering electricity to the utility grid from an underwater power system in Cobscook Bay, Maine. Bangor Hydro Electric Company verified on September 13, 2012 that electricity generated by an underwater turbine generator is flowing to their power grid from Ocean Renewable Power Company's (ORPC) Cobscook Bay Tidal Energy Project. The project is funded by a \$10 million investment from the U.S. Department of Energy, as well as the Maine Technology Institute and private investors. The device, called a TidGen, is designed to operate in shallow tidal or deep river sites at depths of 50 to 100 feet, and has a peak output of 180 kilowatts. That amount is enough electricity to power 25 to 30 homes annually. In April, the Maine Public Utilities Commission approved a 20-year power purchase agreement for ORPC's Maine Tidal Energy Project (which includes the Cobscook Bay Project) with three utilities: Central Maine Power, Bangor Hydro Electric, and Maine Public Service. Two additional TidGen devices will be installed at ORPC's Cobscook Bay Project site in the fall of 2013, and together, the three-device power system will generate enough energy to power 75 to 100 homes. The devices connect directly to an onshore substation through a single underwater transmission line. For more information, visit: [http://www1.eere.energy.gov/water/news\\_detail.html?news\\_id=18510](http://www1.eere.energy.gov/water/news_detail.html?news_id=18510).

### **Workshop Synthesis Report Published: "Defense, National Security, and Climate Change: Building Resilience and Identifying Opportunities Related to Water, Energy and Extreme Events"**

On June 25-26, 2012, over 130 leaders working in the climate and defense nexus gathered to share insights in roundtable sessions and listen to leaders representing a broad range of organizations and perspectives. The workshop aimed to present a variety of perspectives from the defense and associated communities on the national security and defense implications of climate change. By bringing together the leading minds in the field, the workshop sparked conversations and allowed participants to learn and share insights on the state of climate change work in the defense community. The purpose of this report is to distill some of the main themes and ideas derived from the workshop and synthesize what was learned. To view the report, visit: <http://www.acconline.org/downloads/ACCO-CCLS-June2012-Report.pdf>.

## **Conference Announced: "50 Years of Watershed Modeling" on September 24-26, 2012 in Boulder, Colorado**

Engineering Conferences International is hosting a conference in Boulder, Colorado on September 24-26, 2012. The overall goal of this conference is to bring experts and students together to discuss and explore the evolution and future developments of watershed modeling. The objectives are to recognize the building blocks and honor the early developers of watershed modeling codes, tell the story lines of advancements and failures over the past five decades, acknowledge and establish the current state of the science/technology, and project future trends and initiatives for watershed modeling over the next ten years. The conference is suited for practicing professionals, academics, regulatory agencies and students working in the field of watershed resources by offering a broad perception of the evolution and future developments of watershed modeling. For more information, visit the conference website: <http://www.engconfintl.org/12ao.html>.

## **Call for Abstracts: American Water Resources Association Spring 2013 Conference**

The American Water Resources Association (AWRA) is pleased to announce its spring specialty conference "Agricultural Hydrology and Water Quality II". The conference will be held March 25-27, 2013 in St. Louis, Missouri, and will examine emerging issues in agricultural sustainability in the context of a growing global population, diminishing resources, and a changing climate. The agenda will cover a wide range of topics in agricultural hydrology and water quality. If an abstract is accepted, the author will be given the opportunity to publish a short paper in the conference proceedings. Abstracts are being sought for oral presentations, panels, and posters covering a wide range of topics. Abstracts must be received via website submission on or before October 9, 2012. For more information about the conference and abstract submission guidelines, visit: <http://www.awra.org/meetings/Spring2013/abstracts.html>.