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EPA Climate Change and Water News is a bi-weekly newsletter from the U.S. Environmental Protection Agency (EPA) Office of Water that covers climate change and water-related news from EPA, other U.S. Federal agencies, and partners. To learn more about climate change impacts on water resources, visit our website at: http://www.epa.gov/water/climatechange*.*

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EPA Featured Tool

Storm Surge and Hurricane Strike Frequency Map

EPA's Storm Surge Inundation and Hurricane Strike Frequency Map provides easy access to critical flood-related information about your location, including: historical hurricane strike frequency, 100 and 500 year storm Federal Emergency Management (FEMA) flood plains, and worst-case storm surge inundation. With hurricane season underway, it serves as an important reminder of the dangers of flood damage from storm surge and extreme precipitation events. Use this tool to help identify which of your assets may be vulnerable to inundation.
Click here to view the map.

Other Federal News

NOAA Announces Fisheries Climate Science Strategy

The National Marine Fisheries Service has released the NOAA Fisheries Climate Science Strategy. The Strategy responds to growing demands for information and tools to prepare for and respond to climate impacts on marine and coastal resources – and the people, businesses and communities that depend on them. From warming oceans and rising seas, to droughts and ocean acidification, climate-related impacts are expected to increase with continued changes in the planet's climate system. The Strategy is part of a proactive approach to increase the production, delivery, and use of climate-related information to fulfill NOAA's mission. The document identifies seven objectives to provide decision-makers with information to reduce impacts and increase resilience in a changing climate.
Click here for the full Strategy, Highlights document, and other related information.

Landscape Conservation Cooperatives Develop New Region Map

The Landscape Conservation Cooperative (LCC) Network has revised its region map. A portion of the North Atlantic LCC was previously contained entirely within the Upper Midwest and Great Lakes LCC, and there were spaces of land without LCC identity between the California LCC and the Desert LCC. In addition, the South Atlantic LCC steering committee has adopted a 200 nautical mile boundary into the Atlantic Ocean.
Click here to view the new LCC region map.
Click here for the final data, metadata, and printable map products.

U.S. Fish and Wildlife Service Coastal Program Funding Available – Deadline: September 30, 2015

The U.S. Fish and Wildlife Service's Coastal Program is a voluntary, incentive-based program that provides direct technical assistance and financial assistance in the form of cooperative agreements to coastal communities and landowners to restore and protect fish and wildlife habitat on public and private lands. Projects should incorporate ecosystem adaptation to help coastal ecosystems and communities prepare for and adapt to the effects of sea-level rise and greenhouse gases. Applications are due by September 30, 2015. Eligible entities include local governments and individuals.
Click here for the funding opportunity description.

Study Shows Sea Level Rise to Threaten West Coast Tidal Wetlands over Next 100 Years

The U.S. Geological Survey (USGS) and Oregon State University have released a report examining Pacific Northwest tidal wetland vulnerability to sea level rise. Scientists found that, while vulnerability varies from marsh to marsh, most wetlands would likely be resilient to rising sea levels over the next 50-70 years. Beyond that time however, most wetlands might convert to intertidal mudflats as sea level rise outpaces the capacity of tidal marshes to adapt. Coastal wetlands provide economic and recreational benefits to local communities by creating critical habitat for important local fisheries. They also support a

wealth of ecosystem services such as water purification and flood protection. The vulnerability of these critical habitats to rising sea levels has not been well understood, leaving resource managers with little information for coastal adaptation planning or strategies. This research aims to inform tidal marsh management of vulnerabilities along the Washington and Oregon coasts and is part of a larger effort to examine tidal marshes from Washington to the border with Mexico.
Click here for the press release.
Click here for the final report.

Resilience AmeriCorps Announces Ten Cities for Pilot Program to Support Communities in Building Capacity and Technical Support for Climate Resilience

Building on the President's Climate Action Plan, the Corporation for National Community Service and federal partners (EPA, DOE, and NOAA), along with The Rockefeller Foundation and Cities of Service, have announced the selection of ten Resilience AmeriCorps cities. The announcement responds to a recommendation made by the President's State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience to enhance commitments to building resilience in vulnerable communities disproportionately affected by the impacts of climate change – many of which are already facing economic or health-related challenges. The two-year pilot program will recruit, train, and embed AmeriCorps VISTA members in ten communities across the country to increase civic engagement and community resilience in low-income areas and help those communities develop plans for becoming more resilient to any number of shocks and stresses, including better preparations for extreme weather events.
Click here to learn more about the program and the cities selected.

Evapotranspiration Data Added to Rocky Mountains – High Plains Climate Dashboard

Through partnership with the CIRES Western Water Assessment (WWA) at the University of Colorado and the U.S. Geological Survey's Earth Resources Observation and Science Center, the North Central Climate Science Center recently added an Evapotranspiration (ET) Anomaly product to the Rocky Mountains – High Plains Climate Dashboard, which is a recent extension of the WWA's Intermountain West Climate Dashboard. The dashboard allows stakeholders and researchers to quickly view several dozen climate, drought, and water graphics, regularly updated by multiple providers, in one location. The USGS Evapotranspiration Anomaly product offers a unique dimension to the suite of environmental products currently supplied by the regional dashboard. Together, these products help to build consensus on the current and emerging climate impacts in the north-central region through the convergence of multiple lines of evidence.
Click here to learn more about the dashboard.

Online (Virtual) Course Announcement: Hydrologic Impacts under Climate Change – October 20-22, 2015

The COMET Program and the Climate Change and Water Working Group (CCAWWG) are pleased to announce a three-day, online, instructor-led course on "Hydrologic Impacts Under Climate Change" (HIUCC). The course is being developed with financial support from the Bureau of Reclamation and the U.S. Army Corps of Engineers. The HIUCC course is part of the Professional Development Series, "Assessing Natural Systems Impacts under Climate Change." Participants will work through hydrological models to explore and project impacts of a changing climate on surface water hydrology. HIUCC is designed for a broad range of technical participants including water resource professionals, environmental scientists, hydrologists, state and local planners, and university faculty. Course dates are: October 20- 22, 2015; 9:00am-4:00pm daily. Early registration deadline: September 15, 2015.
Click here for details and course registration information.

Researchers Work to Understand Climate Change Impacts to Vegetation in Northern Rockies

In an attempt to assess vulnerability of tree species and biome types in the Northern Rocky Mountains, partners of the North Central Climate Science Center are creating models that combine climate data and

scale-relevant land management options. According to their findings, subalpine species will substantially lose suitability, particularly whitebark pine, the decline of which could impact black bear habitat, soil stability, and snowmelt runoff. Climate suitability shifts also come alongside mountain pine beetle infestations and white pine blister rust, both of which alter whitebark pine's success as a species. Meanwhile, some vegetation types including Ponderosa pine and grand fir are projected to increase their suitability range significantly. Climate change will ultimately mean an upward elevation movement for species currently in the Greater Yellowstone Ecosystem. Through the use of vulnerability studies, an improved understanding of climate suitability, and the insertion of climate change data into future models, researchers hope to help prioritize tree species in line with climate adaptation strategies in the Greater Yellowstone region.
Click here to learn more about this research.

Other News

Pacific Institute Releases Study on Promises and Perils of Farming During California's Ongoing Drought

California's agriculture sector has exceeded expectations during the most severe drought in recorded history at the cost of massive but unsustainable groundwater pumping, which has shifted the burden to others, including current and future generations forced to dig deeper wells, find alternative drinking water sources, and repair infrastructure damaged by land subsidence. That is the conclusion of the Pacific Institute's new study, "Impacts of California's Ongoing Drought: Agriculture." The study finds that while last year farmers harvested 640,00 fewer acres, agricultural revenue from crop production in 2013 and 2014 were the highest and second highest, respectively, in California history. Statewide agriculture-related jobs also reached a record-high of 417,000 people in 2014. However, the drought is likely leading to serious job losses in communities with extensive fallowing. The study provides a critical insight into how the state can maintain a healthy agriculture sector in a future likely to see less water, more extreme weather, and greater uncertainty.
Click here for the press release.
Click here to download the full study.

This newsletter is produced by the U.S. Environmental Protection Agency, Office of Water (EPA). If you have questions related to the newsletter or want to submit an item, email the editor at water_climate_change@epa.gov