

CLIMATE NEWS

From Sheldon Whitehouse, Barbara Boxer, and Jeff Merkley

DPCC Meeting | July 24, 2014 | Issue #86

Lake Mead Reservoir Drops to Record Low



Lake Mead, the nation's largest reservoir, has dropped to its lowest level since it was filled after the completion of Hoover Dam in 1936. About 25 million people and vast areas of farmland in Nevada, Arizona, California, and Mexico depend on the reservoir. Two weeks ago, the level of Lake Mead slipped below the 2010 record of 1,081.85 feet above sea level. Earlier this week, the water level stood at about 1,081.2 feet and is expected to continue declining for several months. Lake Mead is then projected to rise somewhat by the end of the year, boosted by flows released from Lake Powell after a year with normal snowpack. But that's just one year in a larger drought, and the U.S. Bureau of Reclamation has estimated that by 2017, there will be a 50-50 chance of water levels dropping below 1,075 feet, which would trigger a shortage declaration and result in cutbacks to water deliveries. By 2018, the likelihood rises to 60 percent. Scientists have determined that the dry spell since 2000 in the Colorado River Basin is one of the most severe in over 1,200 years, and they predict climate change will worsen droughts in the region. They also report that hotter average temperatures already have begun to exacerbate strains on water supplies by diminishing mountain snowpack and triggering earlier melting of snow in the spring. (*The Desert Sun*)

Last Month was Earth's Warmest June on Record

NOAA reports that June was the world's warmest in 134 years of recordkeeping, following its report that May was also the hottest on record. June 2014 was the 38th consecutive June and 352nd straight month of above-average temperature. This was due primarily to the oceans, as this June was the first time the monthly global ocean temperature difference from average was higher than 1.08°F. This record warmth was achieved prior to the declaration of El Niño, a global weather event that would signal substantial warming of the tropical Pacific. Should the Pacific achieve El Niño conditions, it would push ocean temperatures even higher. Compared to the top five warmest years on record, 2014 ranks third year-to-date and is on an upward trajectory. If El Niño kicks in, it would likely increase the global temperature average toward the end of the year and make 2014 a viable candidate for warmest on record. The Climate Prediction Center is maintaining a 70 percent chance that an El Niño will develop in 2014. (*WaPo*)

U.S., China Sign Series of Climate Change Agreements

The U.S. and China have signed a series of pacts to boost cooperation on clean energy development and the reduction of greenhouse gas (GHG) emissions. The U.S.-China Climate Change Working Group announcement hails eight demonstration projects—four on carbon capture, utilization, and storage; and four on smart grids. Both countries also agreed to adopt tougher efficiency and GHG emission standards for light- and heavy-duty vehicles, and launched an initiative on climate change and forests. Among the projects is a pilot to switch industrial boilers from coal to natural gas. The Huaneng Clean Energy Research Institute will also share information about clean coal, carbon capture, and enhanced oil recovery with the Seattle-based Summit Power Group. "The significance of our coming together like this really can't be understated," said Secretary of State John Kerry. "If we are working hard to find a solution together, that can have an impact on the rest of the world." Even though China has been relying on coal to meet dramatic increases in electricity use, the country has announced steps to curb emissions from its coal-fired power plants. (*Greenwire*)

Millions of Homes Vulnerable to Storm Surge, Rising Seas

More than 6.5 million U.S. homes are threatened by storm surge as exposure to loss is increasing from rising seas and expanded development on coastlines vulnerable to hurricanes, according to a new study by CoreLogic, a company that analyzes property values for insurers. Those homes represent \$1.5 trillion in potential rebuilding costs, with the highest costs possible in Florida, which faces up to \$490 billion in damages. New York, Louisiana, and New Jersey each carry exposures above \$130 billion. The firm says that sea-level rise is a looming contributor to increasing damage from storm surge, but its experts aren't sure where losses will occur or how large they'll be. "As that [sea-level rise] occurs, we're going to see areas that were currently and previously not in a storm surge risk area, those are increasingly going to become risk areas," said CoreLogic senior hazard scientist Thomas Jeffery. Storm surge occurs when hurricane-strength winds pile a huge mound of ocean water at the front of a storm. It generally moves at the same speed of a hurricane and can overtake a shoreline with devastating force. Each cubic yard of seawater weighs nearly one ton, and a one-foot surge can wash cars off a roadway. (*ClimateWire*)