

Western States Federal Agency Support Team (WestFAST) is a collaboration between 13 Federal agencies with water management responsibilities in the West. WestFAST was established to support the Western States Water Council (WSWC) and the Western Governors' Association (WGA) in coordinating Federal efforts regarding water issues.

Membership:

Roger Gorke, (Chair), EPA
Gorke.roger@epa.gov

Kevin Werner, (Vice Chair), NOAA,
kevin.werner@noaa.gov

Becky Fulkerson, Reclamation
rfulkerson@usbr.gov

Anita Thompkins, Forest Service
anitathompkins@fs.fed.us

Dionne Thompson, Reclamation
dethompson@usbr.gov

John D'Antonio, USACE
John.R.D'Antonio@usace.army.mil

Pixie Hamilton, USGS
pahamilt@usgs.gov

Ronald McCormick, BLM
rmccormi@blm.gov

Andrew Hautzinger, FWS
Andrew_Hautzinger@fws.gov

Mike Strobel, NRCS
michael.strobel@por.usda.gov

Roger Pulwarty, NOAA
roger.pulwarty@noaa.gov

Brad Doorn, NASA
bradley.doorn@nasa.gov

Craig Zamuda, DOE
Craig_Zamuda@Hq.Doe.Gov

Marc Kodack, DOD
marc.d.kodack.civ@mail.mil

Ed Harvey, NPS
forrest_harvey@nps.gov

Patrick Lambert, Federal Liaison
patlambert@wswc.utah.gov



WestFAST News

December 2015

WSWC, NOAA, WestFAST Continue Discussion on Advancing Precipitation Forecasting

The Western States Water Council (WSWC), California Department of Water Resources (CDWR) and the National Oceanic and Atmospheric Administration (NOAA) held a workshop on December 15, in Las Vegas, Nevada to discuss the possibilities and paths forward for improving seasonal precipitation forecasting. The workshop was the second in a series of meetings to help water resources managers better understand current forecasting capabilities and the state of the science, as well as how to support efforts to improve future seasonal precipitation predictions in the western states. Western Federal and State water-resource managers attending the workshop also provided input to NOAA and the WSWC on their need for timely information and the potential value of improved seasonal forecasts to their programs and to the public they serve.

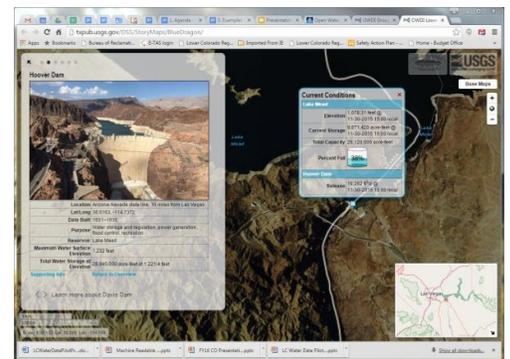
Kevin Werner, NOAA's Western Regional Climate Services Director, and WestFAST Vice-Chair, worked with the WSWC and CDWR to develop the workshop. Jeanine Jones, CDWR Interstate Resources Manager and WSWC member, and Mr. Werner moderated the meeting which included a presentation on the state of the science on seasonal precipitation forecasting by Dave Dewitt, Director of the NOAA Climate Prediction Center, and a presentation on the role of extreme precipitation events in seasonal and long-term forecasting by Marty Ralph from the University of California San Diego/Scripps Institute of Oceanography. Patrick Lambert (USGS), WestFAST Federal Liaison, discussed the value of improved seasonal forecasting to WestFAST agency programs and opportunities for support future research from WestFAST programs.

The overarching WSWC/CDWR goal for this workshop series is to help develop examples of regionally-specific opportunities for improving forecasts and associated information on economic benefits that could be used for supporting focused research efforts.

Interior Launches New, Interactive Web Tool to Show Effects of 16-Year Drought in the Colorado River Basin *(DOI, 12/16)*

On the heels of a White House Roundtable on Water Innovation, the U.S. Department of the Interior launched a new, interactive website on December 16th to show the dramatic effects of the 16-year drought in the Colorado River Basin. The specialized web tool, otherwise known as Drought in the Colorado River Basin – Insights Using Open Data, shows the interconnected results of a reduced water supply as reservoir levels have declined from nearly full to about 50 percent of capacity.

Launched as part of a broader effort by the Obama Administration to harness resources that help build drought resiliency, this web tool provides a visual depiction of the complexity of the nexus between water supply, water demand, and long-term drought in the Colorado River Basin by connecting data from a variety of sources affiliated with the Open Water Data Initiative, which is led by Interior's U.S. Geological Survey.



View of interactive map within the Colorado River Basin Drought visualization tool. Click on the map to view the web tool.

“Innovation is absolutely critical to helping us deal with the severe threats to water supply posed by drought and climate change,” said Interior Deputy Secretary Michael L. Connor, who moderated a discussion on innovation and technology at the December 15th Roundtable. “Projects like this one show the power of open data to help us better understand our resource challenges. By enabling us to see the complex challenges in the Colorado River Basin visually, use of this website will help us devise timely actions to build resilience to the drought,



spurring innovation along the way.”

Projections developed by the Bureau of Reclamation, the federal agency responsible for managing the Colorado River, indicate that if drought continues, the lower Colorado River Basin (Arizona, Nevada, Southern California) could see its first reductions in water deliveries – with an 18 percent chance of a shortage of legally mandated water delivery – as early as 2017. In response, federal agencies are collaborating with stakeholders, states, tribes and local agencies to develop creative strategies to reduce the impacts of drought and increase reservoir storage at Lake Powell and Lake Mead. At the Roundtable, Interior also announced its Natural Resource Investment Center, which will use market-based tools and innovative public-private collaborations to increase investment in water conservation and critical water infrastructure.

The anticipated outcome of improved access to real-time data is that more people can engage in developing more complex automated data processing tools. A public “marketplace” is also envisioned where innovators inside and outside government can feature open source tools that are based on data liberated through the Open Water Data Initiative.

The Initiative builds on previous data-related efforts, including a 2013 Presidential Executive Order to make government data more open and machine readable and the 2014 Climate Data Initiative. This multi-year initiative will build upon existing geospatial and observed data and use tools to explore the feasibility and demonstrate the utility of integrating water data. It supports current trends in application of big data while advancing the White House Open Data Policy (data.gov) by using recognized standards and web service technologies to spur innovation.

Suzette Kimball Confirmed as Director of the U.S. Geological Survey

The U.S. Senate confirmed Dr. Suzette M. Kimball as Director of the U.S. Geological Survey. President Obama announced his intent to nominate Kimball as Director in January 2014, and she has been leading the agency in an acting capacity since February 2013.

U.S. Secretary of the Interior Sally Jewell released the following statement; “I am pleased the Senate voted to confirm Dr. Suzette Kimball to this important leadership post in the Administration. As a geophysicist and veteran of decades in public service, Dr. Kimball is eminently qualified to lead the USGS. From mapping and LANDSAT satellite images used by people around the world, to helping communities understand and prepare for natural events such as flooding, earthquakes and volcanic eruptions, USGS plays a critical role for our Nation and the world. Dr. Kimball’s commitment to providing impartial information on some of the Earth’s most complex scientific systems will ensure that this important work continues. During her time at USGS, she has proven to be a collaborative leader as well as an effective



advocate for science in guiding smart decision-making.”

For more information on the nomination of Kimball, click [here](#).

Interior Department Announces Initiative to Spur Innovation & Investments that Support Water, Conservation Solutions (DOI, 12/15)

U.S. Secretary of the Interior Sally Jewell announced on December 15th that the Department will establish a Natural Resource Investment Center to spur partnerships with the private sector to develop creative financing opportunities that support economic development goals while advancing the Department’s resource stewardship mission.

At a White House Roundtable on Water Innovation, Jewell outlined that the Center will use market-based tools and innovative public-private collaborations to increase investment in water conservation and critical water infrastructure, as well as promote investments that conserve important habitat in a manner that advances efficient permitting and meaningful landscape-level conservation.

“Given increased development pressures, climate impacts and constrained budgets, Interior is pursuing innovative approaches with private sector organizations to help accomplish our balanced land management and conservation mission,” Secretary Jewell said. “As a former CEO, I am confident the private sector can play a meaningful role in working with us to advance the goals of smart development alongside thoughtful conservation. The Natural Resource Investment Center will facilitate this effort by building on current activity to incent private investments in the infrastructure and conservation of water, species, habitat, and other natural resources.”

The Center will work closely with the private sector and others to identify innovative ideas and financing options for projects that conserve scarce Western water resources and protect species habitat.

The Center will focus on three objectives:

Increase investment in water conservation and build up water supply resilience by facilitating water exchanges or transfers in the Western U.S.;

Increase investment in critical water infrastructure – both major rehabilitation and replacement of existing infrastructure and new infrastructure needs – by developing new financing approaches and helping to execute project ideas; and

Foster private investment and support well-structured markets that advance efficient permitting and effective landscape-level conservation for species, habitat and other natural resources.

The Center is part of President Obama’s Build America Investment Initiative, which calls on federal agencies to find new ways to increase investment in ports, roads, water and sewer systems, bridges, broadband networks, and other 21st-century infrastructure pro-



jects; and Pay for Success, an initiative that seeks to employ innovative new strategies to help ensure that the essential services of government produce their intended outcomes. The infrastructure improvements are facilitated by building partnerships among federal, state, local and tribal governments and private-sector investors. The U.S. Departments of Transportation and Agriculture and the Environmental Protection Agency also have centers initiated in response to these Initiatives.

Interior's Natural Resource Investment Center will harness the expertise of the Department's bureaus, including the Bureau of Reclamation, U.S. Fish and Wildlife Service, Bureau of Land Management, National Park Service, Bureau of Indian Affairs and U.S. Geological Survey, and will tap external private sector experience to deliver on its objectives.

The Center will model its water efficiency and transfer efforts in part on the successful initiatives of the Central Valley Project (CVP) in California. The CVP improves operational flexibility and water supply reliability through expanded use of voluntary water transfers. Individuals or water districts receiving CVP water can transfer all or a portion of their water to other California water users or a water agency, state or federal agency, tribes, or private non-profit organizations. Through this program, between 300,000 and 400,000 acre-feet of water is transferred in a typical year, allowing high-value agriculture and cities to maintain deliveries through scarcity.

To promote increased investment in critical water infrastructure, the Center will also work to develop new financing approaches and engage with non-federal partners to make investments that build water supply resilience. These could include storage, pipelines, canals, and investments in efficiency that help to stretch and better manage scarce water supplies and sustain river ecosystems. One recent example of this approach is the Warren H. Brock Reservoir in California. To respond more effectively to the changing conditions on the river, Reclamation and stakeholders in Nevada, Arizona, and California collaboratively constructed this storage facility to conserve water and maximize the use of available water supplies. The Bureau of Reclamation conducted environmental compliance, oversaw construction, and integrated the project into its operations in the Lower Colorado River system, and the project was completed in roughly two years.

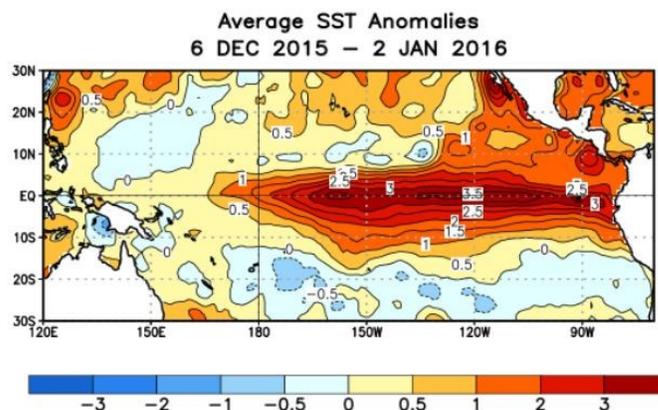
The Center will also identify opportunities for private sector investments in important habitat conservation needs on public and private lands. One creative example is demonstrated in a partnership between Interior, Barrick Gold of North America and The Nature Conservancy to enhance habitat in Nevada for the greater sage grouse. The agreement allowed Barrick to accumulate credits for successful habitat improvement projects on its private ranchlands. In return, the company receives assurance from Interior that the credits can be used to offset impact to habitat from planned future mine expansion on public lands.

The Department of the Interior manages approximately 20 percent of the land in the United States, and is the largest wholesale water provider in the country. The Department is establishing the Center under its existing authorities.

NOAA: El Niño expected to remain strong through the Northern Hemisphere winter 2015-16 *(NOAA, 12/10)*

A strong El Niño continued during November as indicated by well above-average sea surface temperatures (SSTs) across the central and eastern equatorial Pacific Ocean. Most models indicate that a strong El Niño will continue through the Northern Hemisphere winter 2015-16, followed by weakening and a transition to ENSO-neutral during the late spring or early summer. The forecaster consensus remains nearly unchanged from November, with the expectation that this El Niño will rank among the three strongest episodes as measured by the 3-month SST departures.

El Niño has already produced significant global impacts and is expected to affect temperature and precipitation patterns across the United States during the upcoming months. Seasonal outlooks indicate an increased likelihood of above-median precipitation across



Sea surface temperature (SST) Departures (°C) in the Tropical Pacific During the Last Four Weeks (NOAA Climate Prediction Center / NCEP 4 January 2016)

the southern tier of the United States, and below-median precipitation over the northern tier of the United States. Above-average temperatures are favored in the West and northern half of the country with below-average favored in the southern Plains and along the Gulf Coast.

Reclamation Collaborative Study Finds Shift in Timing of Water Availability in Oregon's Hood River Basin *(USBR, 12/14)*

The Bureau of Reclamation has released the Hood River Basin Study, which assesses current and future water supply and demand in the Hood River Basin in Oregon and adjacent areas. This study identifies a range of potential strategies to address current and projected imbalances within the basin, options to move towards resilience in the face of water shortages, and will help to improve water management while sustaining the watershed's environmental quality over the next 30 years. The basin study is among the latest of a



West-wide series of studies produced by Reclamation and non-federal partners.

Currently, there is a lack of adequate streamflow in the basin during the summer months to meet the competing demands for water. The basin relies heavily on snowmelt at the beginning of the summer and glacial melt from Mount Hood during August and September.

Demands for water are also expected to increase as climate change and population increase. The report found that warming temperatures in future years will accelerate the speed of snowpack and glacial melting. This will exacerbate the shortages experienced in the summer months since water from snowmelt will be available earlier in the year. Accelerated glacial melt will result in a short-term increase in water supply but will result in a long-term loss of supply and storage when the glaciers melt. The report also cites the Hood River County Population Forecast Study that projects a 30 percent growth in the area's population between 2010 and 2040. The basin study also identifies alternatives that may mitigate current imbalances between water supply and demand while establishing a framework for resilience in the face of persistent water shortages.

The Hood River Basin is located in Oregon, approximately 60 miles east of Portland and covers approximately 340 square miles, lying entirely within Hood River County. The Hood River Basin Study was developed in partnership between the Bureau of Reclamation, Hood River County and the Hood River County Water Planning Group. The study is available to download from the [WaterSMART basin studies website](#).

Federal News

12/1: [U.S. Government and Companies Reiterate Commitment to Forest and Climate Programs](#)

12/2: [USGS Projects Large Loss of Alaska Permafrost by 2100](#)

12/9: [Autumn 2015 was Record Warm for Contiguous U.S.](#)

12/15: [Climate the Main Cause of Increasing Streamflow in Eastern South Dakota](#)

12/10: [New Tool Can Determine the Sources of Mercury Found in the Great Lakes](#)

12/15: [Reclamation Seeks Proposals for Water Treatment Research, Laboratory Studies and Pilot-Scale Projects for Desalination and Water Purification](#)

12/21: [Secretary Jewell Statement on Congressional Failure to Act on Klamath Agreement](#)

12/21: [San Joaquin River Restoration Program Releases Draft Assessment on One-Year Recapture of Restoration Flows](#)

12/22: [First-ever Groundwater Project Breaks Ground for San Joaquin River Restoration Program](#)

12/22: [EPA Announces \\$19 Million for Drinking Water and Wastewater Infrastructure Projects in Nevada](#)

12/22: [EPA: Oklahoma Drinking Water Rule Approved](#)

12/22: [EPA: \\$25 Million to Improve Arizona Water Quality](#)

12/24: [Southeast California Regional Basin Study Evaluates Water Supply and Demand in Borrego, Coachella and Imperial Valleys](#)

12/29: [Increased Numbers of Lost River and Shortnose Sucker Fish Found in the Klamath Project](#)

12/30: [USGS Continuous Water-Quality Monitoring During December 2015-January 2016 Flood Events](#)

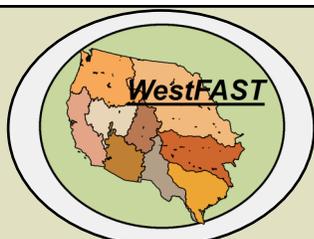
12/31: [Reclamation Releases Draft Environmental Documents for Delta Salinity Stations Refurbishment Project](#)

State News

12/29: [Executive Director's Notebook: WGA's 'Top 10 Bipartisan Policy Efforts in 2015'](#)

Upcoming WSWC Meetings & Events

- February 2/17-19: WSWC/CDWR/California Irrigation Management Information System Workshop, Palm Desert, California.
- March 21-24 WSWC 180th (Spring) Council Meeting, Washington.



WestFAST News is published monthly. To get an Agency Announcement published or to get added to the WestFAST News distribution list contact:
Patrick M. Lambert, WestFAST Federal Liaison
Email: patlambert@wswc.utah.gov
Phone: 801-685-2555

Check out the WestFAST Web Site: <http://www.westernstateswater.org/westfast>