

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.

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WestFAST News

March 2016

White House Water Summit, Presidential Memorandum focus on Sustainable Water Future, Drought Resilience

On March 22, 2016, in conjunction with the United Nations World Water Day, the Administration hosted a White House Water Summit to raise awareness of water issues and potential solutions in the United States, and to catalyze ideas and actions to help build a sustainable and secure water future through innovative science and technology.



John Holdren, Assistant to the President for Science and Technology, discusses NOAA's role in drought resilience with NOAA Administrator Kathryn Sullivan. (Click to view the White House YouTube video)

Topics addressed during the summit included water science, building resilience to extreme weather events, agriculture and forestry, urban infrastructure, innovative infrastructure finance, and integrated watershed management. The White House also announced commitments to action by federal, state and local agencies, academic institutions, non-governmental organizations, corporations and others. The White House reported that 150 external institutions are joining the Federal government in new efforts and commitments to enhance the sustainability of water in the United States by managing our water resources and infrastructure for the long term. Click [here](#) to view the report on Commitments to Action on Building a Sustainable Water Future.

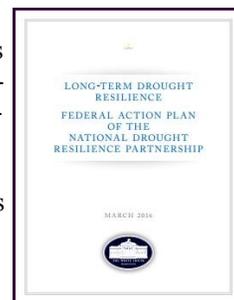
The Water Summit also provided a platform for discussion of the [Presidential Memorandum: Building National Capabilities for Long-Term Drought Resilience](#) released on March 21. The Presidential Memorandum directs the expansion of efforts to reduce the vulnerability of communities to the impacts of drought.

Among other actions, the Presidential Memorandum institutionalizes the National Drought Resilience Partnership (NDRP), which builds upon the National Integrated Drought Information System, an interagency

program led by the Department of Commerce. The NDRP was outlined in the President's Climate Action Plan to better coordinate Federal support for drought-related efforts, help communities reduce the impact of current drought events, and prepare for future droughts. The NDRP will provide a lasting platform that enables locally and regionally driven priorities and needs to guide coordinated Federal activities.

A new [Federal Action Plan for the NDRP](#) was also released in accordance with the Presidential Memorandum.

The Action Plan lays out a series of activities to fulfill the President's drought resilience goals. It also outlines the ways in which the member departments and agencies of the NDRP can use existing resources to take additional steps to work with State, regional, Tribal, and local partners to respond to drought and lay the foundation for long-term resilience within existing authorities.



WestFAST Principals Meet with WSWC Members

The [WestFAST Agency Principals](#) and [WestFAST team members](#) met with WSWC leadership and Council members on March 24, 2016 in Washington, DC. The meeting, hosted by the Department of the Interior (DOI) and conducted by Jennifer Gimbel, DOI Principal Deputy Assistant Secretary for Water and Science, focused mainly on collaboration opportunities toward drought resilience in the west, and on priority actions outlined in the Presidential Memorandum: Building National Capabilities for Long-Term Drought Resilience and the associated NDRP Federal Action Plan.

During the meeting WestFAST Principals expressed their desire to receive feedback from the WSWC on interest, priority, and collaboration opportunities for actions laid out in the NDRP Action Plan. Among other comments, John Tubbs, Director of the Montana Department of Natural Resources and Conservation, commented on the urgent need to facilitate funding mechanisms and investment in rural water infrastructure that support efficient irrigation and also provide co-benefits in areas of water supply. J.D Strong, Executive Director of the Oklahoma Water Resources Board, em-



phasized WSWC's interest in pursuing new processes in water-storage and reservoir management including review of USACE Water Control Plan deviations under certain circumstances to alleviate drought impacts. Patrick Tyrrell, Wyoming State Engineer and Chair of the WSWC Executive Committee, suggested that the Council conduct a "crosswalk" between the new action plan and WSWC positions and "water vision." Jennifer Gimbel suggested that WestFAST assist with that review.

WestFAST Takes Large Role in Spring WSWC Meeting in DC

The WSWC held spring council meeting in Washington D.C. on March 22. It was the 180th meeting of the council and include briefings from WestFAST agencies to the WSWC Water Resources and Water Quality Committees.

Rob Harper, U.S. Forest Service (USFS) National Director for Watershed, Fish, Wildlife, Air, and Rare Plants, discussed USFS water resources stewardship and reviewed the status of the USFS activities to develop a new USFS "groundwater directive" assuring members that there are no plans for the foreseeable future to republish its groundwater directive and any future action will be preceded by full stakeholder involvement. Rob Sampson, Natural Resources Conservation Service (NRCS) National Water management Engineer, previewed various NRCS water-related programs and available assistance. Sonya Jones, Coordinator for the U.S. Geological Survey (USGS) Water Availability and Use Science Program, reported on progress towards a National Water Availability and Use Assessment, including funding for state agencies under a Water Use Data and Research (WUDR) Program. Diana Bauer, Department of Energy's (DOE) Director of the Office of Energy Policy Analysis and Integration, described the water and energy nexus, drought and related DOE activities. Dave DeWitt, Director of NOAA's Climate Prediction Center, addressed NOAA efforts to better forecast sub-seasonal precipitation. Becky Patton, U.S. Department of Defense (DOD) Program Manager for Climate Change Adaptation Integration, addressed DOD water needs assessments for existing installations, and their natural resources program. Tina Laidlaw, Environmental Protection Agency (EPA) Region 8, summarized the Upper Missouri River Demonstration Project, under the National Drought Resiliency Partnership (NDRP). Lastly, Brad Doorn, National Atmospheric and Space Administration (NASA) Water Resources Program Manager, presented on the status of Landsat and other missions under the NASA's direction related to water and soil moisture.

Roger Gorke, EPA Senior Policy Advisor and WestFAST Chair, and Patrick Lambert, WestFAST Feder-

al Liaison, briefed the WSWC in their combined Council meeting on WestFAST activities and plans. Mr. Gorke reviewed the continued benefits of the WestFAST approach citing as an example the influence of western states communicated positions and needs in the development and detail of the Presidential Memorandum on Drought Resilience and associated Federal Work Plan for the NDRP.

Reclamation Releases Report Underscoring Impacts of Climate Change on Western Water Resources (USBR, 3/22)

The Bureau of Reclamation has released a basin-by-basin report that characterizes the impacts of climate change and details adaptation strategies to better protect major river basins in the West that are fundamental to the health, economy, security and ecology of 17 western states.

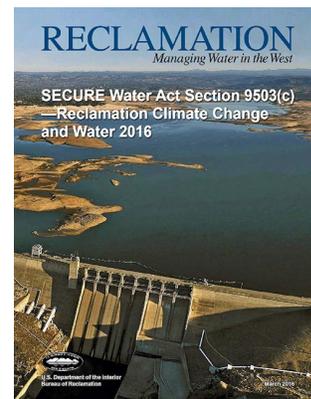
The SECURE Water Act Report, produced by Interior's Bureau of Reclamation and its state and local partners, was released March 22nd, following the first White House Summit on Water in observance of World Water Day.

"One of the greatest challenges we face is dealing with the impacts of climate change on our nation's water, which is really the lifeblood of our economy," said Interior's Deputy Secretary Michael L. Connor. "We need to continue to develop collaborative strategies across each river basin to ensure that our nation's water and power supplies, agricultural activities, ecosystems, and other resources all have sustainable paths forward."

The report identifies climate change as a growing risk to western water management and cites warmer temperatures, changes to precipitation, snowpack and the timing and quality of streamflow runoff across major river basins as threats to water sustainability. Water supply, quality and operations; hydropower; groundwater resources; flood control; recreation; and fish, wildlife and other ecological resources in the western states remain at risk.

The report, which responds to requirements under the SECURE Water Act of 2009, shows several increased risks to western United States water resources during the 21st century. Specific projections include:

- A temperature increase of 5-7 degrees Fahrenheit by the end of the century;
- A precipitation increase over the north-western and north-central portions of the western United States and a decrease over the south-western and south-central areas;
- A decrease for almost all of the April 1st snowpack, a standard benchmark measurement used to project river basin runoff; and



WestFAST Chair Roger Gorke (EPA) addresses WSWC members in their combined Council Meeting



– A 7 to 27 percent decrease in April to July stream flow in several river basins, including the Colorado, the Rio Grande, and the San Joaquin.

While climate change poses significant risks to western water resources management, Reclamation is already addressing vulnerabilities through adaptation strategies being developed with water managers across the West. For example, under the WaterSMART Program, collaborative basin studies evaluate the impacts of climate change and identify a broad range of potential options to resolve current and future water supply and demand imbalances.

Reclamation has forged collaborative relationships in 15 of the 17 western states with a diverse group of non-Federal partners, including state water resource agencies, tribal governments, regional water authorities, local planning agencies, water districts, agricultural associations, environmental interests, cities and counties. These partnerships focus on identifying and developing adaptation strategies to address the vulnerabilities related to drought and climate change.

In addition to the new Report, the Department of the Interior launched an [online tool](#) enabling the public to visualize the regional impacts and potential adaptation options. Fact sheets on projected climate change impacts on the eight western river basins, and the visualization tool are available [here](#).

NOAA Researchers Ride Atmospheric River to Help Improve Forecasts *(NOAA, 3/11)*

NOAA researchers in the air over the Pacific have given weather forecasters the most detailed look ever at an atmospheric river as it drenched the west coast of the United States with badly needed precipitation.

On March 10th, researchers in NOAA's G-IV jet covered more than 3,500 miles from Honolulu to Ontario, California, dropping 42 small tubes packed with weather instruments as it crisscrossed the dense stream of water vapor that they had been tracking from the central Pacific. A second NASA research plane captured more data just as the plume was making landfall.

"This is huge" said Rob Cifelli, a NOAA meteorologist in Boulder, Colorado. "We've never been able to follow an atmospheric river from inception in the tropics to landfall before. It's also the first time we've been able to provide real-time data from an atmospheric river to help local National Weather Service offices better interpret precipitation forecasts."

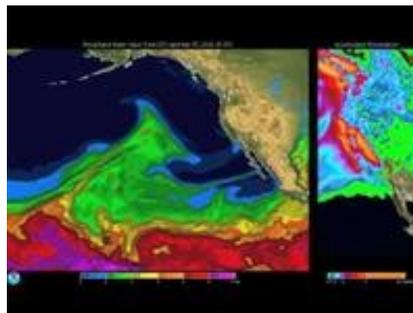
Atmospheric rivers are long, narrow atmospheric currents that can carry extraordinary volumes of water vapor thousands of miles, depositing them in highly localized areas. While atmospheric rivers can cause serious flooding, they're also a critical water supply for the west coast. On average, between 30 and 50 percent of annual precipitation in the west coast states occurs in just a few of these events.

Thursday was the wrap-up flight for NOAA's El Niño Rapid Response field campaign, which has provided researchers an unprece-

dent look at the heart of a strong El Niño in the remote Pacific since late January. All told, the G-IV, NASA's Global Hawk unmanned aircraft and the research ship the Ronald H. Brown covered well over 115,000 miles, launching more than 700 instrument packages into the atmosphere to study El Niño-spawned weather from its inception over the warm ocean to landfall in the U.S. thousands of miles away.

Researchers on Kiritimati (Christmas) Island will continue to launch weather balloons twice a day through March.

NOAA researchers anticipate that when analyzed, the vast amount of data gathered by weather balloons and small instrument-laden



Click the above photo to view an animation of the an atmospheric river striking the western United States

tubes dropped from aircraft during the research mission will improve the models that are used to support weather forecasts. The data will also provide insights that researchers hope will improve year-to-year El Niño-Southern Oscillation forecasts, as well as the accuracy of models predicting longer-term effects of climate change.

U.S. EPA Releases Monitoring Plan to Evaluate Conditions in the Animas and San Juan Rivers *(EPA, 3/24)*

The U.S. Environmental Protection Agency has released its final monitoring plan for the Animas and San Juan rivers following the August 5, 2015, Gold King Mine incident. The agency also posted on its Gold King Mine website the results of surface water and sediment sampling collected as part of its yearlong effort to gather a robust set of scientific data to evaluate ongoing river conditions.

The conceptual monitoring plan is designed to gather a robust set of scientific data to consistently evaluate river conditions over time and evaluate impacts to public health and the environment. In September 2015, EPA released the draft conceptual monitoring plan, Post Gold King Mine Release Incident: Conceptual Monitoring Plan for Surface Water, Sediment and Biology for comment. Since then, EPA has been working with state, local and tribal partners to develop a consistent monitoring approach to gather scientific data to assess conditions in the Animas and San Juan rivers. The final conceptual monitoring plan is available on EPA's website. EPA continues to work with states and tribes on any additional monitoring needs and federal funding to support their activities. States and tribes are also designing complementary jurisdiction-specific monitoring plans. EPA has made \$2 million in initial funding available to launch these monitoring efforts.

Under the conceptual monitoring plan, EPA is examining water quality, sediment quality, biological community and fish tissue at 30 locations under a variety of flow and seasonal river conditions.



The sampling locations are located within Colorado, Southern Ute Indian Reservation, New Mexico, Ute Mountain Ute Reservation, the Navajo Nation and Utah, spanning Cement Creek, the Animas and San Juan rivers, and the upper section of the San Juan arm of Lake Powell.

When fully implemented, the conceptual monitoring plan will provide EPA, state, local governments and tribes a robust set of scientific data about water quality in the rivers and will help to explain the fluctuations over time and location based on seasonal factors that influence river flow, such as precipitation and snow melt. Initial monitoring data collected from 27 locations during the fall are below risk-based recreational screening levels and consistent with pre-event data which are limited in many areas outside the upper Animas. The spring sampling event is currently taking place, and will be followed by additional sampling planned in June and in the fall. EPA will also coordinate with local jurisdictions and tribes to sample the rivers during heavy rain events in the summer.

WestFAST to Review WSWC Water Data Exchange (WaDE) Portal in April Special Topics Webinar

WestFAST representatives collaborate among themselves to improve efficiency in carrying out their agencies' water-related missions. In this role, WestFAST initiated a "Special Topics" Webinar Series to present, and allow discussion on a range of WestFAST federal agency water-resource activities with the objective of improving awareness of and collaboration in water programs.

On April 7th WestFAST will be briefed on progress in the development of the WSWC Water Data Exchange (WaDE). WaDE is a framework developed to allow various groups better ability to share state water data including information on water allocation, supply, and water demand data. WaDE is a cooperative effort between the WSWC, the Western Governors' Association (WGA), the Department of Energy (DOE), and WestFAST. To view presentation material from past WestFAST webinars and to find information on future webinars click [here](#).

Federal News

3/15: [Reclamation Initiates 2016 WaterSMART Basin Study Selection Process](#)

3/15: [Bureau of Reclamation's Sacramento and San Joaquin Rivers Basin Study Predicts How Climate Change Will Impact the Sacramento and San Joaquin Delta](#)

3/15: [U.S. EPA Honors California Department of Water Resources for Helping Fight Climate Change \(CA\)](#)

3/15: [Agencies to Work Together on Combating Harmful Algal Blooms](#)

3/16: [Republican River Basin Study Informs Colorado, Kansas and Nebraska about Future Water Management](#)

3/17: [February Global Temperature Anomaly Sets New Record for the Globe](#)

3/22: [EPA Announces \\$3.3 Million in Funding for Water Reuse and Conservation Research/Research Will Measure Health and Ecological Impacts of Water Conservation Practices \(HQ, CA, IL, NV, UT, VA\)](#)

3/22: [Experts Launch Project to Assess Drought Effects on Ecosystems and How Communities Can Adapt](#)

3/22: [Drought and Management Actions Affect World Waterway--the Rio Grande](#)

3/22: [USGS Innovation in Inundation Mapping - Flood Information to Power Community Decisions](#)

3/28: [Induced Earthquakes Raise Chances of Damaging Shaking in 2016](#)

3/30: [NRCS to Invest \\$1.2 Million to Aid Ogallala Aquifer](#)

3/31: [Bureau of Reclamation Launches Two Prize Competitions to Solve Issues About Downstream Fish Passage and Detecting Soil Movement within Earthen Dams, Canals and Levees](#)

State News

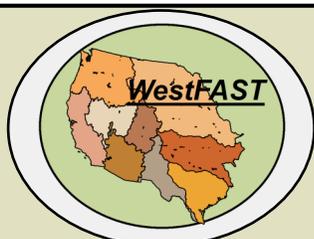
3/1: [Species Spotlight: Recovering the Oregon Chub Through Conservation Partnerships](#)

3/15: [Drought Update: California Water Concerns Continue Despite Filling Reservoirs](#)

3/20: [WSWC - Cooperative Federalism and State Implementation of EPA Programs](#)

Upcoming WSWC Meetings & Events

- April 28-29, Seasonal Precipitation Forecasting Workshop, NOAA Center for Weather and Climate Prediction, College Park, MD



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