

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:

Becky Fulkerson (Chair),
Reclamation rfulkerson@usbr.gov

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

Jean Thomas, Forest Service
jathomas02@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

Larisa Ford, BLM
laford@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@swc.utah.gov



WestFAST News

February 2015

WestFAST Principals Schedule March DC Meeting

WestFAST and the WSWC will hold their annual "Principals Meeting" March 17th in Washington DC, hosted by the Department of the Interior (DOI).

The purpose of this meeting is to update the Federal Agency Principals on the activities of WestFAST and the WSWC over the past year, and to give the Principals an opportunity to discuss emerging issues. Jennifer Gimbel, DOI Principal Deputy Assistant Secretary, Water and Science, in her invitation to WestFAST agency leads noted "We have seen great value in the close working relationship between the WSWC and the WestFAST agencies." Ms. Gimbel reminded that "collaboration and development of positive working relationships remains a priority goal of both the WSWC and WestFAST agencies." Ms. Gimbel also told invitees that "the continuing work of WestFAST to improve those relationships becomes even more vital when we consider the increasing challenges associated with water resource preservation and management in the west."

During the meeting WestFAST Agency leadership will discuss WestFAST issues and priority tasks and the WestFAST 2015-16 Work Plan. They will then join WSWC members and staff in a combined meeting which will provide an important opportunity for WestFAST Principals to meet and discuss federal collaboration on western water issues, as well as to address emerging issues with the WSWC officers, members, and staff. Topics of discussion highlighted for this year's Principals Meeting agenda include:

- Proactive Federal/State collaboration,
- Cooperation on regulatory issues,
- Response to western drought, and
- Activities and new initiatives in the collection and sharing of basic water-related data

WSWC and U.S. Forest Service Meet on Groundwater Management Directive

At the invitation of the WSWC, officials from the U.S. Forest Service (USFS) met

February 13th with WSWC representatives to discuss the USFS's Proposed Directive on Groundwater Resource Management and the WSWC's related concerns and comments, as set forth in the [WSWC's October 3 letter to the USFS](#). The meeting also served as an opportunity for the WSWC and the USFS to identify areas of possible common ground regarding the directive.

On February 26th, the head of the U.S. Forest Service reported that the agency's Proposed Directive on Groundwater Resource Management had been put on hold to enable more engagement with Western states. USFS Chief Tom Tidwell made the announcement during a hearing on the Forest Service's fiscal 2016 budget before the Senate Energy and Natural Resources Committee in response to questioning from Sen. Cory Gardner (R-Colo.).

"Where we are today is we've stopped," Tidwell said, according to a story by Phil Taylor of E&E News and reported in a [Western Governors Association news release](#). "We're going to go back, and we're going to sit down with -- primarily with the states, the state water engineers -- to really sit down with them and get their ideas about how we can do this, and ideally how we can do it together."

During the February meeting, the USFS and the WSWC jointly reviewed concepts in the directive and identified areas where consensus may be possible. Both the USFS and the WSWC also agreed that the meeting represented the first in what will become a series of conversations and further review in advance of the re-publication of the directive for public comment.

Go to this [link](#) to read more about the U.S. Forest Service Groundwater Program. Click [here](#) to link to a Western Governors Association news release on the USFS engagement with Western States.

WaterSMART Assessment Reveals Climate Change Impacts on Irrigation Demand in the West

Reflecting current climate projections for the western United States, a new report issued by the Bureau of Reclamation reveals a projected shift in demand for crop irrigation across eight major western river basins. The study evaluated irrigation water requirements for the second



half of the 20th century and, as compared to projected demand for the second half of the 21st century, found that net irrigation water requirements in the West may be six percent higher. Another area of study revealed in the report - based on a projected temperature increase of approximately 5 degrees Fahrenheit in the region - estimates that annual evaporation at most of the 12 reservoirs modeled by the study could increase 2 to 6 inches by 2080.

The report on irrigation demand and reservoir evaporation projections is the latest in a series of West-Wide Climate Risk Assessments - analyses of overall impacts from climate change on water resources in the West through the Department of the Interior's WaterSMART Program. In announcing the report, Reclamation Commissioner Estevan López said the study was an important piece of information about climate change imposing stresses on water resources and will ultimately help inform water planners and stakeholders in confronting future climate-related supply and demand challenges.

"Reclamation and its partners are engaged in critical work to confront a future with increasing disparity between water supply and demand in basins throughout the West," Commissioner López said.

"Understanding how climate change will impact crop irrigation demand and reservoir evaporation

provides vital information for the development of alternatives and solutions to meet those challenges and support the nation's economy."

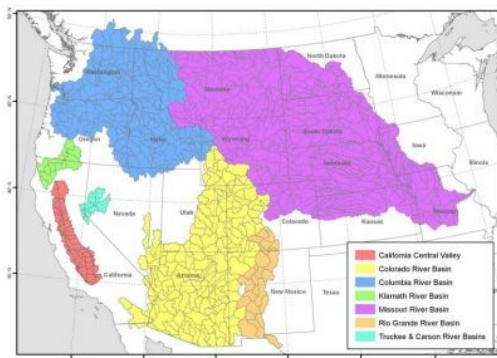
The report notes that projected future irrigation demands are only estimates and provide a starting point for further analyses and discussions with customers and stakeholders.

"Through these studies, Reclamation is highlighting climate change impacts and encouraging a collaborative dialogue on the effective management of our water and power resources," López said.

"Facing the challenge in meeting future irrigation demands is one way we are working to underscore our commitment to a strong agricultural economy and national food security."

Reclamation's West-Wide Climate Risk Assessment is part of the Department of the Interior's WaterSMART Program, which focuses on improving water conservation and sustainability, while helping water resource managers make sound decisions about water use.

Click [here](#) to read more about Reclamation West-Wide Climate Risk Assessments.



Locations of study basins. (Click [here](#) to see detailed image and study report)

USGS Looks at Earthquakes Induced by Waste-Water Disposal

A paper published in February in *Science* provides a case for increasing transparency and data collection to enable strategies for mitigating the effects of human-induced earthquakes caused by wastewater injection associated with oil and gas production in the United States. The [paper](#) is the result of a series of workshops led by scientists at the U.S. Geological Survey (USGS) in collaboration with the University of Colorado, Oklahoma Geological Survey and Lawrence Berkeley National Laboratory, suggests that it is possible to reduce the hazard of induced seismicity through management of injection activities.

Large areas of the United States that used to experience few or no earthquakes have, in recent years, experienced a remarkable increase in earthquake activity that has caused considerable public concern as well as damage to structures. This rise in seismic activity, especially in the central United States, is not the result of natural processes.

Instead, the increased seismicity is due to fluid injection associated with new technologies that enable the extraction of oil and gas from previously unproductive reservoirs. These modern extraction techniques result in large quantities of wastewater produced along with the oil and gas. The disposal of this wastewater by deep injection occasionally results in earthquakes that are large enough to be felt, and are sometimes damaging. Deep injection of wastewater is the primary cause of the dramatic rise in detected earthquakes and the corresponding increase in seismic hazard in the central U.S.

"The science of induced earthquakes is ready for application, and a main goal of our study was to motivate more cooperation among the stakeholders — including the energy resources industry, government agencies, the earth science community, and the public at large — for the common purpose of reducing the consequences of earthquakes induced by fluid injection," said coauthor Dr. William Ellsworth, a USGS geophysicist.

The USGS is currently collaborating with interested stakeholders to develop a hazard model for induced earthquakes in the U.S. that can be updated frequently in response to changing trends in energy production.

"In addition to determining the hazard from induced earthquakes, there are other questions that need to be answered in the course of coping with fluid-induced seismicity," said lead author of the study, USGS geophysicist Dr. Art McGarr. "In contrast to natural earthquake hazard, over which humans have no control, the hazard from induced seismicity can be reduced. Improved seismic networks and public access to fluid injection data will allow us to detect induced earthquake problems at an early stage, when seismic events are typically very small, so as to avoid larger and potentially more damaging earthquakes later on."

"It is important that all information of this sort be publicly accessible, because only in this way can it be used to provide the timely guidance needed to reduce the hazard and consequences of induced earthquakes," said USGS hydrologist and co-author of the paper,



Dr. Barbara Bekins.

Go to this [link](#) to read more about man-made earthquakes.

USDA/NRCS Report Slow Snowpack Development for Much of the West (Feb. 9)

An unusually warm, dry January slowed snowpack accumulation in much of the West, according to data from the second 2015 forecast by the United States Department of Agriculture's National Water and Climate Center (NWCC). California, Arizona and New Mexico, as well as parts of Colorado, Utah, Oregon and Nevada, remain in prolonged drought.

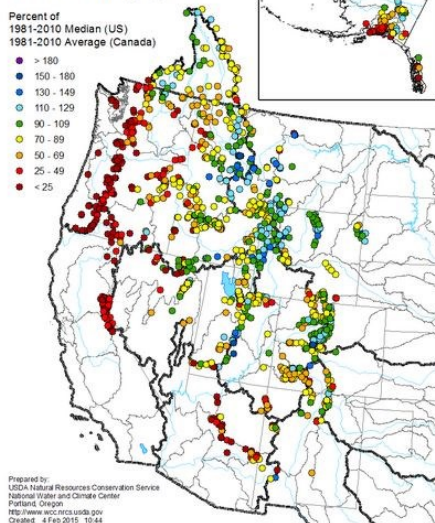
"January is usually a big month for snowpack accumulation," NWCC hydrologist Cara McCarthy said. "But most of the West didn't see significant gains this month. With isolated exceptions, only Arizona, New Mexico, Utah and Montana received near average precipitation last month."

"This is as low a snowpack as I've seen across the Sierra Nevada and Cascades for many locations at this time of year," said NWCC Director Mike Strobel. Several Snow Telemetry (SNOTEL) sites in those ranges are snowless, which is very unusual for this time of year.

Even the precipitation in the Southwest wasn't enough to take these regions out of drought conditions. In Western states where snowmelt accounts for the majority of seasonal water supply, information about snowpack serves as an indicator of future water availability. Streamflow in the West consists largely of accumulated mountain snow that melts and flows into streams as temperatures warm in spring and summer. NWCC scientists analyze the snowpack, air temperature, soil moisture and other measurements taken from remote sites to develop the water supply forecasts.

The Cascades of Oregon and Washington have received normal levels of precipitation this water year, but it's mostly fallen as rain instead of snow. California's Sierra Nevada has seen little rain or snow. The extreme drought in California may be further aggravated by reduced streamflow in other parts of the West.

Mountain Snowpack as of February 1, 2015



Click on the image to see a detailed map of February snow pack levels in the west. Click [this link](#) to explore the most recent [NRCS Weekly Water and Climate Update](#)

"This month the inflow forecast for Lake Powell fell from 90 to 70 percent of normal," said McCarthy. "Because southern California draws water from the Colorado River, this may impact their water supply. This is only the second forecast of the season, and there's still time for conditions to change. We'll keep watching conditions and updating our forecasts as the year continues."

The NWCC, part of USDA's Natural Resources Conservation Service, monitors conditions year-round and issues monthly forecasts until June. The water supply forecast is part of several USDA efforts to improve public awareness and mitigate the impacts of climate change, including drought and other extreme weather events.

Secretary Jewell Announces \$50 Million for Western Drought Response

Secretary of the Interior Sally Jewell announced on February 6th that the Bureau of Reclamation is making \$50 million in funds available immediately for drought relief projects throughout the West—including nearly \$20 million for California's Central Valley Project.

"California's ongoing drought is wreaking havoc on farmers, ranchers, municipalities, tribes and the environment," said Secretary Jewell. "With climate change, droughts are projected to become more intense and frequent in many parts of the West, so we need to pursue every measure to provide relief and support to communities who are feeling the impacts."

"Today's funding will help boost immediate and long-term efforts to improve water efficiencies and increase resilience in high-risk communities, including in California's Central Valley," added Jewell. "I appreciate the support of Congress, especially that of Senator Feinstein and the California delegation, in helping make these much needed funds available."

Secretary Jewell made the announcement after a meeting with Governor Edmund G. Brown Jr. to discuss the Obama Administration's 'all-in' approach to the drought in California. These efforts include strategic investments in science and monitoring, operational flexibility to help manage limited water supplies and other efforts to ensure that public health and safety are not compromised.

"This important investment will help us improve how we save and move water, while continuing to protect sensitive habitat and wildlife," said Governor Brown. "Even with recent storms, we have a long, dry trek ahead and a close partnership with the federal government is crucial."

Click [here](#) to read highlights of Western Drought Response funding:

Federal News

2/2: [President's 2016 Budget Proposes \\$1.2 Billion for the USGS](#)



[2/5: Compliance with environmental laws protects air, land, and water in communities across Alaska, Idaho, Oregon, Washington \(AK, ID, OR, WA\)](#)

[2/5: Reclamation Issues Snowmelt Forecast for North Platte](#)

[2/10: USGS—Predicting Plant Responses to Drought](#)

[2/10: Reclamation's Proposed Drought Response Program Evaluation Criteria is Open for Public Comment](#)

[2/12: Reclamation Announces Funding for Bay Delta Restoration Program Grants](#)

[2/12: Reclamation Releases Environmental Documents for Folsom Dam Safety and Flood Damage Reduction Project](#)

[2/13: Climate Action Plan Toolkit: EPA Releases Stormwater Climate Change Tool](#)

[2/17: Secretary Jewell Signs Historic Water Rights Agreement with Shoshone-Paiute Tribes and State of Nevada](#)

[2/17: Largest Dam Removal in U.S. History Scientifically Characterized](#)

[2/18: San Joaquin River Restoration Program to Release Juvenile Spring-run Chinook Salmon into the San Joaquin River](#)

[2/20: Dionne E. Thompson Named Bureau of Reclamation's Deputy Commissioner for External and Intergovernmental Affairs](#)

[2/25: New Social Media Channel for Reclamation's Central Valley Project](#)

[2/25: Reclamation Releases Environmental Document on the Carson River and Derby Diversion Dam Tender Houses Project](#)

[2/26: Reclamation Releases Draft Environmental Documents; Public Meeting on Trinity River Channel Rehabilitation Project](#)

[2/27: Reclamation Announces Initial Water Supply Allocation for Central Valley Project](#)

State News

[2/9: Drought Update: Federal drought relief in California and](#)

[new satellite data in Texas](#)

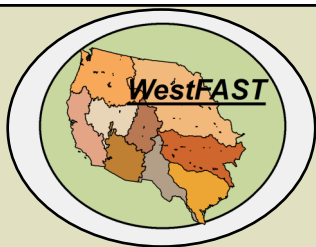
[2/10: Western Governors' Drought Forum in Santa Fe illustrates drought's impact on recreation, tourism](#)

[2/13: Drought Forum Webinar: Once Marginal, Now Crucial: The Growing Demand for Re-used, Produced, and Brackish Water](#)

[2/14: Watch Drought Forum case study videos on agriculture, water supply, river restoration, state & federal collaboration](#)

Upcoming WSWC Meetings & Events

- **March 17, WSWC/WestFAST Principals Meeting**, Department of the Interior Building, Washington, DC
- **April 15-17 2015, Spring (177th) Council Meeting**, Tulsa, Oklahoma, The Hard Rock Hotel and Casino, Tulsa
- **May 27-29, 2015, WSWC/CDWR Drought Workshop**, San Diego, California, Doubletree San Diego Downtown
- **June 24-26, 2015, WGA Annual Meeting**, Lake Tahoe, Nevada



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>