WSWC Holds Spring Meeting
(WSWC/WestFAST 4/12-14/17)

The Western States Water Council (WSWC) held its 183rd meetings in Nebraska City, Nebraska. The WSWC revised and re-adopted five sunsetting positions that: (1) urge Congress and the Administration to develop a standardized, transparent process for determining the Bureau of Reclamation’s (BOR) up-to-date maintenance, repair and rehabilitation infrastructure needs; (2) urge Congress and the Administration to adequately fund the safe operation and maintenance of Reclamation’s dams; (3) support the careful evaluation of multiple purpose projects and protect appropriate interests in the transfer of federal water and power projects; (4) support the National Levee Safety Act insofar as water supply canals are excluded from the interpretation of levees; and (5) urge Congress and the Administration to ensure stable and continuing appropriations to the State Revolving Fund capitalization grants, as well as State and Tribal Assistance Grants.

Two new positions were considered, the first supporting weather research, including seasonal to sub-seasonal forecasting; and the second, adopted subject to review by the Western Governors’ Association (WGA), supporting U.S. Department of Agriculture (USDA) rural water and wastewater grants and loan programs.

One of the highlights of the meeting was Nebraska Governor Pete Ricketts addressing the WSWC. He emphasized the importance of attracting new business and jobs by being more effective, efficient and customer oriented. “I want to see Nebraskans at work.” Time is vital to companies, and Nebraska is committed to reducing regulatory burdens and the time required for permitting decisions, while continuing to protect the environment. Nebraska has created a Center for Operational Excellence to train state employees on process improvement to reduce costs and provide better government services, treating people as customers. Reducing regulatory overhead and eliminating useless complexity allows the state to better attract business. Nebraska is also undertaking major comprehensive tax relief, which has brought new jobs to Nebraska.

“After our people, water is our most precious natural resource,” Governor Ricketts declared. Nebraska is an agricultural state and irrigated agriculture is vital, providing $3.6 to $4.5B to the economy. Drought reduces the amount of water available for irrigation and has hurt the economy. “We continue to strive to conserve and grow more food with less water.” Carefully managing Nebraska’s water resources is critical to keeping farmers and ranchers on the land and allowing them to pass their land and water onto future generations. Water is also important for our cities and towns, for ethanol production, for recreation, and for fish and wildlife. Flood control and stormwater management are also important. The Nebraska Department of Natural Resources and Department of Environmental Quality have the task of bringing all these diverse interests and needs together and serving our citizens as customers. He recognized the WSWC for its role in promoting the wise use of water in the West.

Duane Smith, former WSWC Chairman, talked about the National Drought Resiliency Partnership (NDRP) pilot project in Altus, Oklahoma, where prolonged drought nearly dried up the reservoirs supplying local communities. Altus Air Force Base was so short that they considered flying water in to meet their needs. Despite initial frustrations and finger pointing, a grassroots water action plan started to come together, coordinating efforts between local water users. Through WestFAST, Oklahoma was able to communicate with the federal agencies and request technical assistance with the plan implementation. Within a month of emergency planning and relief efforts, rain began refilling the reservoirs, but the changes to the structure of water use and planning have continued.

The meeting also featured: Ward Scott, WGA Policy Advisor; Bob Swanson, USGS Nebraska Director; Doug Kluck,
NOAA, Central Region Climate Services Director; Danielle Wood, NASA Applied Sciences Manager, talked about tools to access NASA data; Dennis McQuillan, New Mexico Chief Scientist; Skip Feeney, Mine Impacted Stream Expert, Colorado Water Quality Control Division; Walt Baker, Director of the Utah Division of Water Quality; Roger Gorke, WestFAST Chair, with an update on EPA leadership, budget, and priorities; Jim Gebhardt, EPA Water Finance Center, and Peter Nichols, Special Assistant Attorney General to Colorado and New Mexico. Detailed information is available on the WSWC website.

The WSWC will meet next in Rohnert Park, California, in Sonoma County, on June 27-29.

Earth Day Participation
(WestFAST/Oregon NRCS 4/12/17)

“Earth Day is a time to reflect on the intricate connection we all share with natural resources, including the importance of agriculture to sustain our nation’s food and fiber production,” said State Conservationist Ron Alvarado. “Performing voluntary conservation on privately-owned agricultural, range and forested lands is a win-win for Oregon producers and for the environment. Natural Resources Conservation Service (NRCS) offers technical and financial incentives to help producers implement conservation practices to improve water quality and water-use efficiency, enhance wildlife habitat, reduce soil erosion, and more.”

In looking across WestFAST agencies news releases this month, virtually all member agencies participated in some way with Earth Day activities. Most were highlighting the work we do for America and its importance to better understanding and supporting earth’s natural resources.

First-of-its-kind Interactive Map Brings Together 40 Years of Water-Quality Data (USGS 04/04/17)

U.S. Geological Survey (USGS) provides a long-term look at changes in the quality of our nation’s rivers and streams. A new USGS interactive map provides a comprehensive, long-term look at changes in the quality of our nation’s rivers and streams over the last four decades. For the first time, monitoring data collected by the USGS and 73 other organizations at almost 1,400 sites have been combined to provide a nationwide look at changes in the quality of our rivers and streams between the 1972 passage of the Clean Water Act and 2012. Federal, state, and local agencies have invested billions of dollars since passage of the Act to reduce the amount of pollution entering rivers and streams that millions of Americans rely on for drinking water, recreation, and irrigation. Tracking changes in the quality of these waterways over multiple decades is crucial for evaluating the effectiveness of pollution control efforts and protecting the nation’s water resources into the future.

The interactive map can be used to see whether 51 water-quality constituents, like nutrients and pesticides, and 38 aquatic-life metrics, like the types and numbers of

A new USGS interactive map provides a long-term look at changes in the quality of our nation’s rivers and streams, using data from over 70 organizations. Go online and see how 51 water-quality metrics and 38 aquatic-life metrics at nearly 1,400 sites have changed over the last 40 years. (public domain.)
fish, macroinvertebrates, and algae, have increased, decreased, or remained the same at nearly 1,400 sites between 1972 and 2012. For example, the phase-out of the insecticide diazinon for residential and some agricultural uses was initiated in 2000 and has led to widespread reductions in concentrations in U.S. streams, which can be seen on the map during the trend period from 2002 to 2012.

The map summarizes the first phase of the study — in which the USGS identifies streams that have been monitored consistently for long periods and reports the trends in those streams. In the second phase, which will take place over the next several years, the USGS will assess whether and where billions in investments in pollution control have been effective, identify major causes of trends in U.S. stream quality, provide details on which chemicals are increasing or decreasing, and highlight whether any drinking water sources or aquatic ecosystems are at increased risk.

This map was developed by the USGS National Water-Quality Assessment Project, which conducts regional and national assessments of the nation’s water quality to provide an understanding of current water-quality conditions, whether conditions are getting better or worse over time, and how natural processes and human activities affect those conditions.

Explore other USGS interactive maps:
Status of the Nation’s Rivers and streams: https://cida.usgs.gov/quality/rivers/home

BOR Makes Water and Related Data Available - RWIS (BOR 04/27/17)

The BOR is making its water data publicly available and easily accessible through a new open data pilot project. The Reclamation Water Information System (RWIS) consolidates and publishes water and related data from throughout Reclamation, which makes it easier to locate and access. The information is available at RWIS.

"While Reclamation has always made this water data available, we are excited to move it into a one-stop-shop format that is accessible to everyone," Acting Commissioner David Murillo said. "This provides more transparency about our operations for the public." RWIS is designed to meet modern data standards allowing for anyone to view, access, and download Reclamation’s water data. Data in the pilot system is available from 2010 and enables users to track past and present streamflows, reservoir water releases, canal flows and other types of water data. RWIS also features a web service that allows data retrieval to be programmed and automated for use in models and applications. RWIS allows users to browse available data through an interactive map or search for data through a text-based query. Once the data query is complete, the user can use the data in a method that meets their needs, whether it is downloaded in a standardized format or a graphical or tabular display.

Water Supply Outlook
(WestFAST/NOAA/NRCS/COE 0430/17)

There continues to be excellent water supply news across the country with ample snowpack and precipitation. Taking a look at the map to the right (Link NRCS Snow Survey) a large portion of the Western United State is well above average for snow pack. Exceptions are parts of Arizona, New Mexico and parts of Montana, Wyoming and Colorado.
In looking at the U.S. Drought Monitor below, it shows the smallest areas with drought in recent memory, if not the length of time the modern monitor system has been in place providing information.

On the opposite side of the spectrum, in looking at news releases from many of the U.S. Army Corps of Engineers facilities the eastern part of the "West" are experiencing very high flows and devastating floods from spring rains. This is especially the case for WSWC states of Kansas, Oklahoma, and Texas, where near record flooding has occurred.

USACE and many other state and Federal agencies across all of the western United States stand ready with for floods from the snow melt as it develops. So far, most states have only experience minor flooding. But a few days of very warm temperatures and major problems can arise. Additional information is available from USGS, NOAA and USACE, for the extreme high flows - Kansas City, Omaha, Tulsa, and Ft. Worth District Offices.

Healthy Culverts Make for Healthy Drinking Water
(USFS 4/10/17)

Culverts provide an abundance of benefits to us every day. They allow us to pass over water, fish and wildlife to pass beneath us, and they allow us to go about our daily lives. But when they’re badly designed, the results can be disastrous for people, communities, and the environment.

Between 2008 and 2015 U.S. Forest Service (USFS) partnered with more than 200 organizations in the Legacy Roads and Trails Program, which replaced more than 1,000 culverts across the U.S. The aim of the program was to upgrade culverts to emulate natural streams, and to allow fish and wildlife to pass more naturally both upstream and downstream. These culverts are called stream simulation culverts and consist of an arch above an open bottom, allowing the stream to continue beneath as if the culvert was not there at all. Badly designed culverts come with a host of problems. They can cause devastating infrastructure property and infrastructure damage if they become blocked with debris or become overwhelmed with water.

Beyond the human cost, they can have a profound effect on the health of the watershed and the fish and wildlife that de-
pend upon them. Badly designed or badly maintained culverts can cause bank slumping, erosion, and scouring—severely degrading water quality and habitat. Worse yet, the consequences of bad culvert design don’t stay localized. “What happens upstream, affects everything downstream,” said Nathaniel Gillespie, Assistant Fisheries Program Manager at the USFS.

Streams, like all waterways, are complex ecosystems. Streams flow in and out of one another, affecting their surrounding environments, and the fish and wildlife that depend on them. “Fish depend on a sizeable enough habitat to live and grow,” said Gillespie, “but they also depend on access to other bodies of water to breed and thrive.”

Gillespie said when that travel is restricted, it can effect fish populations and restrict the size of the fish living in the waterways. Countless rural communities around the country depend on the $10 billion spent every year in and around National Forests and Grasslands. Much of the appeal in these areas can be attributed to clean, abundant water and healthy fish and wildlife.

Because water systems are so interconnected, and because of the cascading effect of badly designed culverts, the role of well-designed culverts becomes clear.

### Federal News (control click to links)

- 4/4: Hybridization between Native and Invasive Trout is Increasing in the West
- 4/4: USDA Offers Renewal Options for Expiring Conservation Stewardship Program Contracts
- 4/6: “ShakeAlert” Earthquake Early Warning System Goes West Coast Wide
- 4/6: USGS Assessment of Brackish Water Could Help National Stretch Limited Freshwater Supplies
- 4/6: Coordinated Action Prevents Worst of Wildfire Outbreak Impacts in Southern Great Plains
- 4/10: NRCS Invites Proposals for Conservation Innovation Grants
- 4/10: Healthy Culverts Make for Healthy Drinking Water
- 4/10: Study: Parts of central and Southern California had worst 4-year dry spell in 450 years
- 4/12: NRCS Helps Predict Colorado’s 2017 Summer Water Supply and Availability
- 4/17: Protecting the Marten with Citizen Science
- 4/17: Conservation Volunteers Honored During National Volunteer Week
- 4/18: Reclamation Awards $568,662 for WaterSMART Small-Scale Water Efficiency Projects
- 4/18: Sierra Snowpack Bigger Than Last Four Years Combined: NASA
- 4/18: ‘Detergent’ Molecules May Drive Recent Methane Changes
- 4/19: March and Year to Date March toward 2nd Warmest on Record
- 4/21: Albuquerque Area Office Prepares for the Runoff
- 4/21: Every Day is Earth Day for NOAA Scholars
- 4/24: Spring 2017 Runoff Increased on the Rio Grande and Rio Chama
- 4/25: Reclamation Seeks Information on Water Infrastructure Alternative Financing and Public-Private Partnerships
- 4/25: 2017 U.S. tornado season off to a whirlwind start
- 4/26: Administrator Pruitt and Nevada Governor Sandoval Discuss Key Environmental and Economic Issues