March 2023



# WestFAST News

682 East Vine Street / Suite 7 / Murray, UT 84107 / (801) 685-2555/ www.westernstateswater.org/westfast

Chair – Roger Gorke; Federal Liaison Officer – Madeline Franklin

# California drought cut by half with more relief to come

Moderate to major spring flooding predicted along upper Mississippi River from Minneapolis to St. Louis

EPA 3/14/23



A man walks through floodwaters downstream from a levee break along the Pajaro River in Monterey County, California. Heavy rain from an atmospheric river caused the levee to fail. March 12, 2023. (Image credit: California Department of Water Resources)

Significant flooding is ongoing in the western U.S., especially in California, following another series of strong Pacific storms that battered the region and piled on to an already historic snowpack. According to NOAA's U.S. Spring Outlook, the abnormally wet winter will further improve drought across much of the western U.S. as the snowpack melts in the coming months. Winter precipitation, combined with recent storms, wiped out exceptional and extreme drought in California for the first time since 2020, and is expected to further improve drought conditions this spring. NOAA's U.S. Spring Outlook highlights temperature, precipitation, drought and flood predictions for April through June to help the nation prepare for potential weather and climate threats to lives and livelihoods.

"Climate change is driving both wet and dry extremes, as illustrated by NOAA's observations and data that inform this seasonal outlook," said NOAA Administrator Rick Spinrad, Ph.D. "Under the Bipartisan Infrastructure Law and Inflation Reduction Act, and in support of the Biden Administration's priority to tackle the climate crisis, NOAA will invest significant resources to build a Climate-Ready Nation that gives communities tailored information about changing conditions so that residents and economies are protected."



This map depicts where there is a greater than 50% chance of drought persistence, development, or improvement based on shortand long-range statistical and dynamical forecasts during March 16 through June 30, 2023. (Image credit: NOAA)

## Spring Outlook for drought, temperature and precipitation

On March 9, NOAA forecasters declared La Nina over. The El Nino-Southern Oscillation (ENSO) is a climate pattern, based on changes in rainfall and sea surface temperatures across the equatorial Pacific Ocean, that influences temperature and precipitation around the world. La Nina occurs when ocean temperatures are cooler than normal and rainfall is reduced in the eastern to central Pacific Ocean.

"La Nina has finally ended after being in place nearly continuously for more than two years," said Jon Gottschalck, chief of the operational prediction branch at NOAA's Climate Prediction Center, a division of the National Weather Service. "ENSOneutral — the transition period between El Nino and La Nina — is likely to continue into the early summer with elevated chances of El Nino developing thereafter. ENSO-neutral is factored into NOAA's Spring Outlook."

Moderate to exceptional drought coverage across the U.S. is at its lowest since August 2020 offsite and is likely to continue improving, or end entirely, across much of California and the Great Basin. The spring wet season is expected to improve drought conditions across parts of the northern and central Plains. Current drought conditions in Florida are expected to improve or go away during the next three months.

Areas of extreme to exceptional drought across parts of the southern High Plains are likely to persist through the spring season, with drought also expected to develop into parts of New Mexico. Across parts of the Northwest U.S. and northern Rockies, drought conditions are also expected to continue. Drought may develop into parts of Washington state.

Above-average temperatures are favored for much of the southern and eastern half of the U.S. For April through June, the greatest chance for aboveaverage temperatures exists from the southern High Plains eastward to Florida, and northward along the East Coast. Above-average temperatures are also likely for Hawaii and northern parts of Alaska. Below-average temperatures are predicted for the central Great Basin and the northern Plains. NOAA forecasters predict aboveaverage precipitation this spring across the Great Lakes, Ohio Valley, and into parts of the mid-Atlantic and Northeast. Below-average precipitation is most likely for the Southwest and parts of the Pacific Northwest.



This map depicts the locations where there is a greater than 50% chance of minor to major flooding during March through May 2023. (Image credit: NOAA)

#### Spring flood risk

There is a risk for flooding in most of the eastern half of the continental United States, including most of the Mississippi River Basin. Forecasters with the National Water Center, in concert with NWS River Forecast Centers, predict moderate to major flooding along the Mississippi River from Minneapolis, Minnesota, to St. Louis, Missouri.

An above normal to record snowpack in the Sierra Nevada mountains, combined with elevated soil moisture, increases the threat of spring flooding due to snowmelt, especially at high elevations.

"Approximately 44% of the U.S. is at risk for flooding this spring," said Ed Clark, director of NOAA's National Water Center. "California's historic snowpack, coupled with spring rain, is heightening the potential for spring floods." Spring snowmelt will bring welcomed water supply benefits to much of California and the Great Basin. Reservoirs in the Colorado River Basin, such as Lake Powell and Lake Mead, are currently at record low water levels following years of drought.

Produced by the National Water Center, NOAA's National Hydrologic Assessment evaluates current conditions of snowpack, drought, soil saturation levels, frost depth, streamflow and precipitation. Flood risk can change rapidly during the spring season. Stay informed about local flood forecasts and warnings at weather.gov. For more detailed information on flood conditions, visit water.weather.gov.

### **Biden-Harris Administration Proposes First-Ever National Standard to Protect Communities from PFAS in Drinking Water**

#### EPA 3/14/23

Today, the Biden-Harris Administration announced it is proposing the first-ever national drinking water standard for six per- and polyfluoroalkyl substances (PFAS) in the latest action under President Biden's plan to combat PFAS pollution and Administrator Regan's PFAS Strategic Roadmap. Through this action, the U.S. Environmental Protection Agency (EPA) is taking a major step to protect public health from PFAS pollution, leveraging the latest science and complementing state efforts to limit PFAS by proposing to establish legally enforceable levels for six PFAS known to occur in drinking water.

This proposal builds on other key milestones to combat PFAS, including EPA's proposal to designate two PFAS as CERCLA hazardous substances; enhancing data on PFAS under EPA's National PFAS Testing Strategy and through nationwide sampling for 29 PFAS in public drinking water systems; using EPA's Clean Water Act permitting and regulatory programs to reduce PFAS pollution in the environment from industry; and initiating the distribution of \$10 billion in funding to address emerging contaminants under the Bipartisan Infrastructure Law (BIL).

"Communities across this country have suffered far too long from the ever-present threat of PFAS pollution. That's why President Biden launched a whole-of-government approach to aggressively confront these harmful chemicals, and EPA is leading the way forward," **said EPA Administrator Michael S. Regan**. "EPA's proposal to establish a national standard for PFAS in drinking water is informed by the best available science, and would help provide states with the guidance they need to make decisions that best protect their communities. This action has the potential to prevent tens of thousands of PFASrelated illnesses and marks a major step toward safeguarding all our communities from these dangerous contaminants."

The proposal, if finalized, would regulate PFOA and PFOS as individual contaminants, and will regulate four other PFAS – PFNA, PFHxS, PFBS, and GenX Chemicals – as a mixture.

- PFOA and PFOS: EPA is proposing to regulate PFOA and PFOS at a level they can be reliably measured at 4 parts per trillion.
- PFNA, PFHxS, PFBS, and GenX Chemicals: EPA is also proposing a regulation to limit any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. For these PFAS, water systems would use an established approach called a hazard index calculation, defined in the proposed rule, to determine if the **combined** levels of these PFAS pose a potential risk.

If finalized, the proposed regulation will require public water systems to monitor for these chemicals. It will also require systems to notify the public and reduce PFAS contamination if levels exceed the proposed regulatory standards. EPA anticipates that if fully implemented, the rule will, over time, prevent thousands of deaths and reduce tens of thousands of serious PFAS-attributable illnesses. This action establishes nationwide protection from PFAS pollution for all people, including environmental justice communities.

"I applaud Administrator Regan and President Biden for taking this bold step forward that will help ensure our water is safe for New Hampshire families and that parents have the peace of mind they deserve when they turn on the tap," **said New Hampshire Senator Jeanne Shaheen**. "This has long been a top concern for me and is why as a lead negotiator of the water provisions in the bipartisan infrastructure bill, I fought to include a historic level of funding – \$10 billion – to combat PFAS exposure. These dollars will be crucial in providing our municipalities with the resources they will need to comply with these new regulations so that together we can prioritize clean water for our communities. As this process moves forward and with the anticipation of the rule being finalized, I urge the Biden administration to move swiftly and ensure timely allocation of funds from the infrastructure bill to assist public water operators as they begin work to meet these new enforceable drinking water levels."

"I have long supported the implementation of a national drinking water standard to ensure that the water in our communities is clean and safe for consumption," said Congressman Brian Fitzpatrick, Co-Chair of the Bipartisan Congressional PFAS Taskforce. "Today's announcement is a step in the right direction as we work to prevent the future contamination of PFAS 'forever chemicals' in our water and I look forward to continuing to work with the Administration to enforce a high standard of water quality."

"After decades of delay, President Biden's EPA has delivered a drinking water standard for PFOA and PFOS which, when finalized, will be the toughest in the nation," said activist and actor Mark Ruffalo. "By proposing to regulate four other PFAS as a mixture, the Biden EPA is also putting our communities ahead of the polluters. President Biden and his team pledged to make PFAS a priority and he has delivered. No Administration has done more to address the urgent threat posed by these toxic forever chemicals than the Biden Administration. My message to polluters is simple: after poisoning your workers and neighbors for decades, it is time to make our public health, not your profits, our top priority. My message to communities devastated by PFAS pollution is equally simple: help is finally on the way."

"No one should ever wonder if the PFAS in their tap water will one day make them sick," **said Clean Cape Fear co-founder Emily Donovan**. "We all deserve access to health-protective drinking water. It's a basic human right. We applaud the Biden EPA for having the courage to do what multiple administrations could not. Today, prayers were answered."

Today's actions represent a significant milestone for the Biden-Harris Administration's commitments to combat PFAS pollution and safeguard drinking water. President Biden has secured historic funding to address emerging contaminants like PFAS, including \$10 billion from the Bipartisan Infrastructure Law. In February 2023, EPA announced the availability of \$2 billion from President Biden's Bipartisan Infrastructure Law to address emerging contaminants, including PFAS, in drinking water across the country. These funds will promote access to safe and clean water in small, rural, and disadvantaged communities while supporting local economies.

EPA requests input on the proposal from all stakeholders, including the public, water system managers, and public health professionals. Comments may be submitted through the public docket, identified by Docket ID No. EPA-HQ-OW-2022-0114, at www.regulations.gov.

For more information on this proposal, please visit EPA's Per- and Polyfluoroalkyl Substances (PFAS) webpage.

#### Background

PFAS are a category of manufactured chemicals that can cause serious health problems, including cancer, if people are exposed to them over a long period of time. Since EPA Administrator Michael S. Regan announced the Agency's PFAS Strategic Roadmap in October 2021, EPA has continued to implement a whole-of-agency approach by advancing science and following the law to safeguard public health, protect the environment, and hold polluters accountable. The actions described in the PFAS Roadmap each represent important and meaningful steps to safeguard communities from PFAS contamination. Cumulatively, these actions will build upon one another and lead to more enduring and protective solutions. In November 2022, EPA released "A Year of Progress Under EPA's PFAS Strategic Roadmap," which underscores key actions taken by the agency during the first year of implementing the PFAS Roadmap.

EPA will continue to work with federal, state, territorial, and Tribal governments and drinking water systems to address PFAS in drinking water and implement solutions to reduce human health risks. And EPA is committed to taking broader actions to help reduce Americans' exposure to PFAS, including:

- Monitoring thousands of drinking water systems across the country for dozens of PFAS, beginning this year;
- Taking final action on a proposal to designate two PFAS as "hazardous substances" to help hold polluters accountable;
- Restricting PFAS discharges to our waterways by strengthening Clean Water Act standards;
- Finalizing chemical data and safety rules that will increase our knowledge about PFAS, allow us to act faster and more strategically, and restrict legacy PFAS from reentering production; and
- Considering public comments submitted on today's proposed rule toward taking final action on nationwide PFAS drinking water standards.

### Secretary Vilsack Convenes State Agriculture Leaders from the Colorado River Basin as Part of the Biden-Harris Administration's Comprehensive Approach to Address Unprecedented Drought in the Region

USDA Highlights Resources and Programs Available to Producers Impacted by Drought in the Colorado River Basin

#### USDA 3/23/23

Agriculture Secretary Tom Vilsack today met with the leaders of the state Departments of Agriculture for the seven Colorado River Basin states (Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming) to discuss the challenges faced by farmers and ranchers as a result of the historic and ongoing drought affecting the region. During the meeting, Secretary Vilsack highlighted the Biden-Harris Administration's investments in the seven states and U.S. Department of Agriculture (USDA) resources and programs available to mitigate the impact of historic megadrought, as well as other natural disasters exacerbated by climate change such as flooding, on agricultural and rural communities across the region.

"Through the strategic deployment of financial resources, technical assistance, and cutting-edge research, we are working with communities to help them adapt to the challenges brought on by a changing climate and water scarcity," said Agriculture Secretary Tom Vilsack. "USDA is acting to support producers, forest landowners, and rural communities throughout the Colorado River Basin with a comprehensive approach that will assist impacted producers with conserving water and becoming less reliant on the Colorado River, promoting irrigation and water-use efficiency, and recovering from economic damages incurred from the unprecedented and ongoing drought."

The convening was part of the Biden-Harris Administration's comprehensive approach to addressing Western drought and making communities more resilient to the impacts of climate change.

#### USDA's Drought Recovery and Mitigation Efforts throughout the Colorado River Basin

#### Western Water Framework

Last month, as part of the Biden-Harris Administration's commitment to making Western communities more resilient to the impacts of drought and climate change, Secretary Vilsack and the USDA announced the Western Water and Working Lands Framework for Conservation Action, a comprehensive, multi-state strategy under USDA's Natural Resources Conservation Service (NRCS) to address key water and land management challenges across 17 Western States. The Framework includes guidelines for identifying vulnerable agricultural landscapes and 13 strategies to help NRCS state leaders, water resource managers, and producers respond to priority challenges.

#### WaterSMART Initiative

In February 2023, Secretary Vilsack announced a \$25 million investment in three new priority areas and 37 existing priority areas in the West as the result of a collaboration with NRCS and the Department of the Interior's (DOI) WaterSMART Initiative to help farmers and ranchers conserve water and build drought resilience in their communities. These investments complement projects led by irrigation districts, water suppliers and other organizations receiving WaterSMART program funds from the Department of the Interior's Bureau of Reclamation. NRCS works with the Bureau of Reclamation to coordinate investments in the same community to accelerate water conservation and drought resilience and make a bigger impact where it is needed most.

# Investments from the Bipartisan Infrastructure Law

President Biden's Bipartisan Infrastructure Law is making critical investments for NRCS's watershed programs, which provide much needed assistance for drought-stricken communities. That includes \$500 million in additional funding for the Watershed and Flood Prevention Operations (WFPO) program, which supports federal, state, local, and tribal governments in protecting and restoring watersheds. Importantly for drought mitigation efforts, these projects help further the conservation, development, and use of water. Additionally, the Bipartisan Infrastructure Law invests \$118 million for the Watershed Rehabilitation Program. This program helps project sponsors rehabilitate aging dams that are reaching the end of their design lives. Watershed Rehab projects in drought-stricken states can take advantage of additional water supply to increase storage capacity and have more water stored for droughts. Finally, the Bipartisan Infrastructure Law also invests \$300 million in the Emergency Watershed Protection Program (EWPP), which provides much needed assistance for communities after wildfire damage - an important component of drought response efforts in many Western states.

#### **Investments from the Inflation Reduction Act**

President Biden's Inflation Reduction Act is supporting critical investments in climate-smart conversation practices that will help build resilience to climate-change impacts such as drought, wildfire, and floods. USDA has announced \$850 million in fiscal year 2023 funding opportunities for producers in Western states and across the nation who want to participate in NRCS conservation programs and adopt these climate-smart practices. This is part of a \$19.5 billion investment through the Inflation Reduction Act for climate-smart agriculture. These investments can increase storage of carbon and reduce greenhouse gas emissions and may also help to address drought and other climate-related stressors.

#### **USDA Climate Hubs**

USDA's ten regional Climate Hubs develop and deliver science-based, region-specific information and technologies, with USDA agencies and partners, to agricultural and natural resource managers that enable climate-informed decisionmaking and provide access to assistance to implement those decisions. During times of drought, the Hubs work closely with their regional partners to ensure the latest information, resources, and tools are shared with stakeholders and land managers so that they can mitigate the acute and chronic effects of drought on their land.

#### **Recovery and Loss Support**

Producers in the seven basin states have received over \$1.8 billion in Federal crop insurance indemnity payments due to drought and drought-related impacts. USDA has provided nearly \$680 million in Emergency Relief Program (ERP) funding for producers impacted by natural disasters, including drought, in 2020 and 2021. Through the Emergency Livestock Relief Program, USDA has provided nearly \$180.9 million in payments for livestock producers impacted by drought in 2020 and 2021. USDA's Farm Service Agency and Risk Management Agency are also working to implement an additional \$3.7 billion in disaster relief for 2022 disasters, which includes drought impacts. Farm Service Agency administers additional relief programs such as Emergency Assistance for Livestock, Honeybees, and Farm Raised Fish as well as the Livestock Forage Disaster Program to support producers in the Basin.

#### **More Information**

On farmers.gov, the Disaster Assistance Discovery Tool, Disaster-at-a-Glance fact sheet, and Farm Loan Discovery Tool can help producers and landowners determine program or loan options. For assistance with a crop insurance claim, producers and landowners should contact their crop insurance agent. For FSA and NRCS programs, they should contact their local USDA Service Center.

# The Past, Present and Future of USGS Streamgages

U.S. Geological Survey streamgages provide vital information to the public and decision-makers for a diverse set of needs.

#### USGS 3/16/23

#### The First USGS Streamgage

In the late 1800s, John Wesley Powell, second Director of the U.S. Geological Survey, had a vision for the Western United States. After exploring the West, Powell recognized that the availability of water was key to the settlement of the region.

Powell proposed to inventory all streams in the West to evaluate the potential for irrigation in the region. The essential first step in this process was to gage the flow of those streams.



Sources/Usage: Public Domain. A hydrographer taking a cableway streamflow measurement at the first USGS streamgage in Embudo, New Mexico.

A few cities in the Eastern United States had already begun using streamgages, as early as the 1870s, to collect data needed for the design of their water supply systems. Their methods generally involved constructing channels and dams to enable accurate gaging; however, these methods were not feasible in the West.

In January 1889, the first USGS streamgage was established along the Rio Grande near Embudo, New Mexico. The Rio Grande at Embudo streamgage was developed to handle the unique challenges of the Rio Grande: shallow, fast-moving water and soft, mobile channel beds.

The equipment and techniques developed at the Embudo site became the foundation of USGS streamgaging methods.

#### The USGS Streamgaging Network

Today, the USGS operates one of the largest streamgaging enterprises in the world, with more than 11,800 streamgages operating in all 50 states, the District of Columbia, Puerto Rico and Guam. Most USGS streamgages are funded in partnership with one or more of about 1,500 Federal, state, local and Tribal agencies and organizations. Each streamgage provides vital information that can help protect lives and property, as well as ensure adequate water supply for the future.

A streamgage contains equipment that measures, stores and transmits data on water levels and streamflows. Most USGS streamgages transmit data via satellite to USGS computers on an hourly basis, or more frequently during emergency situations. The data are then made available online in near real-time through the USGS National Water Dashboard. Customizable updates about water conditions can also be received on the go by subscribing to USGS WaterAlert.



Sources/Usage: Public Domain. A USGS streamgage on the Mississippi River in Baton Rouge, Louisiana.

USGS streamgage information can be used to meet diverse needs, including uses for water supply and management, monitoring floods and droughts, bridge and road design, determination of flood risk and many recreational activities.

#### During the flooding that occurred in

California between late December 2022 and January 2023, USGS streamgages provided vital information to the public and decision-makers. Multiple atmospheric rivers swept across California, causing periods of heavy rainfall for most of the state. During this time, the San Francisco Public Utilities Commission utilized USGS streamgage data to plan flood response activities.

"The SFPUC relies on accurate and real-time hydrology information for our water supply system and watershed land operations, particularly during storm events," said Tim Ramirez with the San Francisco Public Utilities Commission. "Information regarding reservoir levels, and streams flowing into and from the reservoirs are critical data we use to make operational decisions, and we are grateful for the USGS staff out in the field during these storm events who are an important part of our team."

While the current streamgage network provides vital information, the network covers less than 1% of rivers and streams across the country. Additionally, while this information is useful to many, the current spatial and temporal resolution of streamgages are not sufficient to address challenging questions, such as the long-term and short-term risks of floods and droughts.

#### Looking to the Future

USGS scientists are currently working on the next generation of streamflow monitoring technologies.

The USGS's Next Generation Water Observing System is a new initiative aimed at developing innovative water monitoring instruments and techniques. NGWOS provides enhanced real-time water quantity, quality and use data that are necessary to support modern water prediction, emergency and water management decision-making and daily water operations.



Sources/Usage: Public Domain. The USGS is advancing the use of large-scale particle-image velocimetry (LSPIV), a method that uses innovative video analyzation techniques to measure streamflow.

One example of an innovative streamflow monitoring technology includes the utilization of Large-Scale Particle Image Velocimetry. With LSPIV technology, downward-facing video of moving water can be processed to estimate the velocity of water in the stream. This technology is beneficial for collecting measurements at sites where flow conditions are rapidly changing or difficult for standard streamgaging techniques.

NGWOS technologies will be primarily tested in USGS's Integrated Water Science basins, which are medium-sized watersheds (10,000-20,000 square miles) and underlying aquifers that are representative of larger hydrologic regions across the country. The most promising technologies tested in the IWS basins will be transitioned into USGS national network operations to improve the efficiency and accuracy of data collection.

To date, NGWOS activities are underway in the Delaware, Upper Colorado and Illinois River Basins. USGS began planning for NGWOS activities in the Willamette River Basin in 2022 and will begin implementing new monitoring assets in the basin later this year. USGS will begin planning for NGWOS implementation in a fifth IWS basin, the Trinity-San Jacinto River Basin, later this year.

The development of new streamgaging technologies and methods through the NGWOS program continues the USGS's 134-year legacy of providing reliable and relevant scientific information to decision-makers and the public. Learn more about NGWOS: https://www.usgs.gov/missionareas/water-resources/science/next-generationwater-observing-system-ngwos#overview.

### **Upcoming Meetings and Webinars**

WestFAST Webinar: Overview of Permitting and Processes for New Pumped Storage Hydropower Systems Planned April 12, 2023, 10:00 am – 11:00 am MT

WSWC 2023 Spring (201st) Meetings May 22-24, 2023, Reno, Nevada

### **Other Federal News**

DOI 3/17/23. Secretary Haaland Announces Nearly \$50 Million for Wildfire Mitigation and Resilience from Bipartisan Infrastructure Law

DOI 3/22/23. Secretary Haaland Highlights Collaborative Conservation in the Face of the Climate Crisis at United Nations 2023 Water Conference

DOI 3/30/23. Interior Department Releases Proposed Plan to Guide the Balanced Management of Public Lands

EPA 3/1/23. Biden-Harris Administration Announces Over \$250 Million to Fund Innovative Projects That Tackle Climate Pollution

EPA 3/3/23. EPA Takes Action to Improve Cybersecurity Resilience for Public Water Systems

EPA 3/8/23. Biden-Harris Administration Proposes Stronger Limits on Water Pollution from Power Plants

EPA 3/28/23. EPA Announces Proposal to Improve Public Awareness of Drinking Water Quality

FWS 3/20/23. Biden-Harris Administration Announces \$20 Million in Grants to Support Boating Infrastructure, Local Communities and Outdoor Recreation NOAA 3/29/23. NOAA Science Report features new data-gathering drones, advances in wind, weather and water forecasts

NPS 3/16/23. National Park Service and Maritime Administration announce \$2 million in maritime heritage preservation grants

NRCS 3/16/23. NRCS Refines Nutrient Management Strategies to Improve Conservation Outcomes

Reclamation 3/13/23. Reclamation announces funding opportunity for Snow Water Supply Forecasting Program

Reclamation 3/14/23. Biden-Harris Administration makes \$30 million in Bipartisan Infrastructure Law funds available to restore and protect aquatic ecosystems

USACE 3/9/23. Statement by Assistant Secretary of the Army for Civil Works on the President's Fiscal Year 2024 Budget

USDA 3/20/23. Biden-Harris Administration Invests Nearly \$200M from the Bipartisan Infrastructure Law to Reduce Wildfire Risk to Communities across State, Private and Tribal Lands

USDA 3/31/23. Biden-Harris Administration Announces Availability of \$1 Billion to Help Farmers, Ranchers and Rural Businesses Invest in Renewable Energy Systems and Energy-Efficiency Improvements

USGS 3/2/23. Climate Warming is Likely to Cause Large Increases in Wetland Methane Emissions

USGS 3/16/23. New Research Informs Dredging Efforts at Columbia River Mouth, Conserving Valuable Resource

USGS 3/22/23. 2023 Lidar Partnership Awards Announced

The 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 in coordinating Federal efforts regarding water resources.