



Western States Water

Addressing Water Needs and Strategies for a Sustainable Future

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ADMINISTRATION/WATER QUALITY **EPA/WOTUS**

On October 20, the Environmental Protection Agency (EPA) and U.S. Department of the Army hosted a western regional dialogue with state coregulators regarding forthcoming rulemaking on revisions to the definition of “waters of the United States.” Previous meetings were held for eastern (September 29) and central (October 6) states. The federal agencies provided a brief overview of the rulemaking, then listened to states as they shared their experiences implementing different regulatory regimes.

The first proposed rule to reinstate a modified version of the pre-2015 guidance was sent to the Office of Management and Budget last week, and the agencies anticipate that state feedback may inform modifications before the first proposed rule is published in the *Federal Register* for public comment. The second, separate rulemaking process will build on this regulatory foundation and offer further opportunities for engagement with coregulators and stakeholders.

Discussion topics included: (1) concerns with implementation of or support for the “significant nexus” approach, including the need for criteria to provide clarity and consistency, and concerns with the appropriateness of the 2014 water connectivity report; (2) the need for mapping, tools for implementation and training on how to use those tools, transparency in the reasoning behind jurisdictional determinations, and opportunities for states to review and ensure the accuracy of data input into various tools; (3) the potential for a more regional approach to implementation of the rule, taking into consideration the diverse hydrology, geology, and microclimates among states, including a potential minimum national standard and opt-in provisions for states with regional concerns, or regional implementation manuals; (4) concerns with including or excluding wetlands and subsurface groundwater flow; and (5) the potential merits of the “typical year” approach, but lack of necessary antecedent precipitation tools to implement that approach. Several states provided concrete examples of challenges they have faced under the different regulatory regimes, and the practical impact of those problems. Invariably, each state noted that the uncertainty of regulatory whiplash needed to end.

The federal agencies express appreciation for the back-and-forth discussion among the states on approaches that worked or didn’t, noting that the discussion was very illuminating and helpful, including the differences and similarities between the states’ primary concerns. They indicated that they were open to further opportunities for coregulator consultation and receiving written information from the states, as this was information the agencies need to make decisions about the pending rulemakings.

CONGRESS/WATER RESOURCES **House Science Committee/NWS**

On October 14, the House Science, Space and Technology Committee, Chaired by Rep. Eddie Bernice Johnson (D-TX) held a hearing on the Future of Forecasting: Building a Weather-Ready Nation. In her opening remarks she noted the stark differences in National Weather Service (NWS) tornado forecasting between 2011 and 2019 that reduced lives lost. The ability of forecasters to communicate risks to communities is called Impact-Based Decision Support Services (IDSS). She added that NWS built important relationships with emergency managers, academia, the private sector, and state, local, and tribal governments to provide the public with critical and actionable weather and climate information. The hearing examined how to best position NWS to provide robust IDSS across the country and what additional resources NWS needed.

Dr. Louis Uccellini said the NWS mission to save lives and property and enhance the national economy is critical at a time of extreme weather and water events. NWS provides weather, water, and climate information, forecasts, and warnings to enable informed decisions on a range of issues. He quoted a June 1993 Allan H. Murphy article in *Weather and Forecasting*: “First, it should be understood that forecasts possess no intrinsic value. They acquire value through their ability to influence the decisions made by users of the forecasts.’ It was true then and it is still true today.” He referred to the vision codified in the Weather Research and Forecast Innovation Act of 2017, and stated: “We are excited about the ideas and actions generated [to] implement the directives of the Weather Act, and continuously improve the NWS as we connect our forecasts and warnings to decision makers at every

government level.... We are improving an integrated weather-water approach to advance environmental predictions, especially along our coasts, so we can continue supporting an active and engaged collaboration across the entire weather, water, and climate enterprise.”

Uccellini said, “Much of the NWS success comes from scientific and technological breakthroughs made by [National Oceanic and Atmospheric Administration] NOAA and external research that spans across disciplines, time, and space scales. The dynamic systems of this planet are interconnected in rich and complex ways, and success in forecast improvement comes by looking broadly across those linkages. NWS has evolved to provide more than just short-term weather forecasts and warnings.... The NWS achieves this by applying both the physical and social sciences to the provision of forecasts, warnings and IDSS. We use an Earth systems approach that examines the atmosphere, oceans, land, ice, and space.”

He added that precipitation forecasts have come a long way since the foundation of the Weather Research Program established in the 1990s under the Weather Act, but extreme rainfall rates and impacts from climate change pose enormous forecasting challenges. This points to the need “for additional research in both the physical and social sciences to improve our understanding, related precipitation forecast process, and the provision of IDSS in the face of these increasingly severe and frequent extreme weather and water events.” Precipitation forecasts support NOAA’s testbed activities. “To accelerate progress, NOAA has developed a strategy - the Precipitation Prediction Grand Challenge. While there is no silver bullet to dramatically improve precipitation prediction for the 21st Century climate, we can deliver a portfolio of coordinated efforts across the value chain – scientific understanding, observations, models, forecasters, services, social science, user engagement – culminating in improved IDSS and people understanding the potential impacts and taking appropriate action.”

He concluded, “The NWS mission has never been more crucial.... It all starts with a commitment to enhance environmental observations; research and improve forecasts and warnings; increase IDSS delivered through a robust dissemination system; and support our people – forecasters, modelers, technicians and managers. The end state is a Weather-Ready Nation in which businesses, governments, and the public are prepared to use forecasts to mitigate impacts.”

ORGANIZATIONS/MEETINGS

Interstate Council on Water Policy

On October 12-14, the Interstate Council on Water Policy (ICWP) met in Philadelphia, PA for their annual meeting. Topics included: (1) water security challenges

and water resilience under extreme conditions, such as loss of snowpack in the headwaters and rise in sea level at the terminus of rivers; (2) stormwater management and use of green infrastructure; (3) forecast informed reservoir operations in eastern states; (4) updates on the National Water Model and forecasting; (5) updates on U.S. Geological Survey mapping and other water mission area programs; and (6) updates on the status of water infrastructure legislation and other bills of interest.

Notably, Geoff Bowman said that Congress had plans to combine the Infrastructure Investment and Jobs Act (H.R. 3684) (currently resolving bicameral differences) and the Build Back Better Act (H.R. 5376) by the end of October. He also said the Senate Environment and Public Works Committee set a deadline of December 17 for Senator requests for Corps projects to include in the 2022 Water Resources Development Act. Recordings of the presentations and additional materials are available at <https://icwp.org/>

WestFAST/Drought/Wildfires

On October 20, the Western States Federal Agency Support Team (WestFAST) hosted a webinar on beaver-based restoration. Dr. Emily Fairfax, Assistant Professor of Environmental Science and Resource Management at California State University Channel Islands, discussed how beaver dams build areas of resilience against drought and wildfires.

Fairfax published a study, Smokey the Beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western United States (2020), that used remote sensing from satellite data to look at five large wildfires in California, Colorado, Idaho, Oregon and Wyoming.

Beaver activities develop water storage and create areas of hydrated vegetation that are resilient to drought and wildfires. Even in megafires (>100,000 acres) with extreme, self-sustaining behaviors, the unburnt areas of refuge around beaver complexes protect about 2.7-2.9 acres per beaver dam. Fairfax noted that for water rights purposes, the beaver dams tend to delay but not divert flow, such as reducing hydrograph peaks in spring runoff and enabling more sustainable late summer flows. A recording of the webinar is available at: <https://westernstateswater.org/events/droughts-and-wildfires-be-dammed-beavers/>

PEOPLE

California Governor Gavin Newsom has appointed **Karla Nemeth**, Director, Department of Water Resources and **E. Joaquin Esquivel**, Chair, State Water Resources Control Board to the Western States Water Council. We congratulate them on their appointments and look forward to working with them.

The WESTERN STATES WATER COUNCIL is a government entity of representatives appointed by the Governors of Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.