

**Statement of David Raff, Ph.D., Chief Engineer,
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**Before the Natural Resources Committee Subcommittee on Water, Oceans, and Wildlife
on**

H.R. 6238, WaterSMART Access for Tribes Act; H.R. 7632, Tribal Access to Clean Water Act; H.R. 7612, Desalination Research Advancement Act; and H.R. 3081, To make certain irrigation districts eligible for Pick-Sloan Missouri Basin Program pumping power, and for other purposes.

May 12, 2022

Chairman Huffman, Ranking Member Bentz, and members of the Subcommittee, I am David Raff, PhD, Chief Engineer for the Bureau of Reclamation (Reclamation) within the Department of the Interior (Department). Thank you for the opportunity to discuss these bills.

H.R. 6238, WaterSMART Access for Tribes Act

The American West faces serious water challenges. Widespread drought, increased populations, aging infrastructure, and environmental requirements all strain existing water and hydropower resources. Adequate and safe water supplies are fundamental to the health, economy, and security of the country.

Through WaterSMART, Reclamation seeks to address the water challenges of the West by investing in activities that expand and stretch limited water supplies to reduce conflict, facilitate solutions to complex water issues, and meet the growing needs of expanding municipalities, domestic energy development, the environment, and agriculture.

The WaterSMART Program includes funding for cost-shared grants for water management improvement projects; efforts within the Basin Study Program to evaluate and address imbalances between supply and demand in river basins throughout the West; Title XVI Water Reclamation and Reuse projects; establishment and development of collaborative watershed groups and funding of watershed management projects through the Cooperative Watershed Management Program; planning and design activities through the Water Conservation Field Services Program; and a comprehensive approach to drought planning and implementation actions to proactively address water shortages. Together, these programs form an important part of Reclamation's implementation of the Science and Engineering to Comprehensively Understand and Responsibly Enhance (SECURE) Water Act (Subtitle F of Title IX of P.L. 111-11, the Omnibus Public Land Management Act of 2009).

The programs included in WaterSMART are collaborative in nature and work is done in partnership and cooperation with non-Federal entities and other Federal agencies. For example, WaterSMART supports investments in existing infrastructure to increase water and energy sustainability by leveraging Federal and non-Federal funding. Funding provided through WaterSMART grants is used for projects such as installing automation and water measurement technologies and lining and piping canals. Drought Response Program funding is used for infrastructure and water management improvements that increase flexibility during times of

drought, such as lowering intakes and installing interties to connect water distribution systems. WaterSMART also supports collaboration with multiple partners to reduce conflict and address complex water issues. For example, Water Marketing Strategy grants support the development of water markets, consistent with State law, as a tool to increase available supplies. Likewise, the Basin Study Program and the Cooperative Watershed Management Program incorporate a regional or watershed approach to address water management on a larger scale, and both programs require participation by diverse stakeholders. Reclamation also makes funding available for water management improvements that are focused on ecological benefits, consistent with amendments to the SECURE Water Act.

Since January 2021, Reclamation has selected 255 projects to be funded with \$93 million in WaterSMART grant funding, in conjunction with \$314.3 million in non-Federal funding, across the western states.

The WaterSMART Access for Tribes Act, H.R. 6238, would amend the Omnibus Public Lands Management Act of 2009 and increase Tribal access to water conservation and efficiency grants. The WaterSMART Access for Tribes Act would give the Secretary of the Interior authority to waive or reduce the cost-share requirements under Reclamation's WaterSMART program, in instances where a Tribe does not have sufficient funds to pay the cost share. Reclamation has existing analogous cost-share waiver processes focused on "financial hardship."

Reclamation has provided technical assistance on this legislation, and we support the goals of the bill and improving Tribal water conservation and efficiency efforts. We would be willing to continue to work with the Subcommittee and bill sponsors on technical corrections.

H.R. 7632, Tribal Access to Clean Water Act of 2022

The Tribal Access to Clean Water Act of 2022 seeks to help fund water infrastructure projects in tribal communities and provide clean water to Native American households who currently lack access by increasing funding through the Indian Health Service (IHS), Bureau of Reclamation, United States Department of Agriculture (USDA), and the Environmental Protection Agency (EPA). The bill also provides \$90 million for Reclamation's Native American Affairs Technical Assistance Program.

Reclamation has various programs which provide technical assistance to a broad range of entities, primarily in the areas of water conservation. Tribes are eligible for most of these programs, and, through them, assistance has been provided to Tribes for several years. One program is available only to federally recognized Tribes—the Native American Affairs Technical Assistance Program (TAP).

Reclamation's Native American Affairs TAP provides technical assistance to assist Tribes in developing, managing, and protecting their water and related resources. The program has supported a broad range of activities in each year since its inception in the early 1990s. Such activities have included water needs assessments, improved water management studies, water quality data collection and assessments, and water measurement studies. Total annual funding for the Native American Affairs TAP ranged between \$2 million and \$3 million and increased in FY22 to \$8 million. Section 6 of the Tribal Access to Clean Water Act reauthorizes the Rural Water Supply Act of 2006, which expired in 2016, through 2032 and provides mandatory appropriations of \$1 billion for a competitive grant program for Tribal clean water access

projects. Tribes would be eligible to compete under this new grant program, which would fund 100 percent of the cost of planning, design, and construction of a project approved by the Secretary of the Interior.

The Department supports the goals of improving access to clean water on Tribal lands and we would be happy to work with the sponsor to address technical changes to help clarify some sections of the bill.

H.R. 7612, Desalination Research Advancement Act

Reclamation's Desalination and Water Purification Research (DWPR) Program provides financial assistance for water treatment research and development, research facilities to host technology developers, and financial assistance for the construction of desalination plants. These efforts lead to improved technologies for converting previously unusable water resources into usable water supplies. The program funds development of climate-resilient, water treatment-based solutions for water supply augmentation via financial assistance for externally led research. Developing more cost-effective and low-impact treatment technologies bolsters the ability of Reclamation, its customers, stakeholders, tribal and rural communities to cope with stresses of climate change, including drought.

Program priorities include development of improved methods of desalination, incorporating energy efficiency into desalination processes, and reducing the costs and environmental impacts of converting previously unusable waters, including, but not limited to, sea water, inland brackish groundwater, municipal wastewater, and produced waters from oil and gas extraction activities, into usable water supplies. The program also:

- addresses goals of the Department of the Interior Strategic Plan, using scientific and engineering innovation to promote economic growth and job creation, sustain reliable water and power delivery to our customers, and ensure environmental compliance responsibilities
- contributes to the National Water Reuse Action Plan, developed in partnership between federal, state, local, and public sectors
- contributes and participates with the National Alliance for Water Innovation, U.S. Department of Energy's Desalination Hub
- aligns with the Presidential Memorandum, "Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking," by publishing research data
- facilitates collaborative technology research, development, and demonstration with federal partners in water treatment technology, including U.S. Department of Energy, EPA, Department of the Army, and others.

Through the program's competitive funding opportunities, Reclamation awards cooperative agreements with non-Federal recipients for technology research and development. The program leverages investment from other Federal and non-Federal entities to facilitate the advancement and deployment of new technologies. Knowledge generated from this investment is made available to communities, organizations, industry, and the public.

A large majority of the western United States is experiencing severe or extreme drought conditions. The only way to address these challenges and climate change is to utilize the best

available science to develop innovative solutions and to work cooperatively across the landscapes and communities that rely on our western rivers. Investing in the DWPR through an increased cap to the program at this critical time will help us rise to that challenge.

The Desalination Research Advancement Act would amend the Water Desalination Act of 1996 (P.L. 104–298) by reauthorizing the Act to operate research financial assistance through 2026 and increasing the research funding limit to \$20 million per year. The Desalination Research Advancement Act would further amend P.L. 104-298 by increasing the research funding limit for applicants from institutions of higher education and binational entities from \$1,000,000 to \$15,000,000 per year.

Since 2017, the DWPR program has received appropriations to support both desalination research and construction of desalination plants. Focusing on research investments since 2017, the program received research proposal requests amounting to \$18 million to \$35 million per year, with a significant portion being from academia. During that five-year period, the program was unable to fund a total of \$33 million having technical merit, of which \$28.15 million were projects proposed by academia. By raising the funding limits for both total research and that carried out by institutions of higher education and binational entities, the Desalination Research Advancement Act provides greater flexibility to fund such proposals having technical merit and potential to advance desalination efficiency, cost-effectiveness, and environmental sustainability.

DWPR also supports the operations and maintenance for Brackish Groundwater National Desalination Research Facility in Alamogordo, New Mexico, where researchers can carry out demonstrations. This state-of-the-art research facility provides access to various types of brackish groundwater and renewable energy for laboratory and pilot-scale research into concentrate management, renewable energy, and desalination technologies. This facility has been operating at full capacity since 2017 and, even though the pandemic, Reclamation has found ways to work with the clients to ensure critical research continued.

The Department supports the goal of advancing desalination research and is willing to work with the sponsor and the Subcommittee on any technical changes that might be required.

H.R. 3081, To make certain irrigation districts eligible for Pick-Sloan Missouri Basin Program pumping power, and for other purposes

The Pick-Sloan Missouri Basin Program (P-SMBP) was initially authorized by the Flood Control Act of December 22, 1944 (P.L. 78–534). Since 1944, the P-SMBP has been amended by several bills including the Dakota Water Resources Act (DWRA) of 2000, which authorized the Secretary to develop up to 28,000 acres of irrigation in areas of North Dakota not located within the Hudson Bay and James River drainage basins and to provide project use power to districts federally developed under DWRA.

The power systems of the Colorado-Big Thompson, Kendrick, Shoshone, and North Platte Projects have been integrated within the P-SMBP for the purpose of marketing the power produced from these projects through the Western Area Power Administration and the Rural Electric Cooperatives. From the power generated that is surplus to project needs, power revenues

cover the annual operating expenses for each project, a reserve for replacement of facilities, and funds to help repay the power and irrigation construction costs based on local irrigation districts' ability to pay.

Project use power is the electrical capacity, energy, and associated ancillary service components required to provide the minimum electrical service needed to operate and maintain Reclamation Project facilities in conformance with project authorization. Various Congressional authorizations give Reclamation the ability to develop, generate, and use electrical power for the benefit of Reclamation project lands and other purposes. The power can be used for various functions, such as pumping water associated with irrigating Reclamation project lands.

Congressional authorizations for project use power vary across Reclamation projects. Within the P-SMBP, Reclamation does not have authority to provide project use power to non-Reclamation Project districts or to acreage that was developed with non-federal funds without specific authorization.

H.R. 3081 would make certain privately developed, non-Reclamation Project districts in North Dakota eligible to receive project use power from the P-SMBP, subject to the terms and rates established by the Bureau of Reclamation and as documented in a contract that an irrigation district must enter with Reclamation. The legislation does not provide these districts any additional benefits, such as an ability-to-pay relief, and therefore the eligible districts would pay the existing project use rate, which is currently 13.70 mills per kilowatt hour.

Under H.R. 3081, power generated within the P-SMBP would be allocated to new non-Reclamation Project uses at a project use power rate. This additional requirement will limit the amount of power surplus available to existing power customers who are responsible for covering a share of the operating expenses and, in some cases, construction expenses for the P-SMBP. This could result in a rate increase to power customers to sufficiently meet statutory requirements for cost-recovery. Should Congress determine to extend the benefit of project-use power to the North Dakota districts by enacting H.R. 3081, Reclamation will implement its provisions and seek to integrate with existing P-SMBP power demands.

Conclusion

The Department appreciates the opportunity to discuss these bills and looks forward to working with the sponsors of the bills as well as the Subcommittee on any necessary technical modifications. Thank you.