

Western States Water

Addressing Water Needs and Strategies for a Sustainable Future

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ADMINISTRATION/CONGRESS NASA/House Science Space and Technology

On May 18, the House Science, Space and Technology Committee held a hearing titled, "NASA's Earth Science and Climate Change Activities: Current Roles and Future Opportunities," featuring testimony from Dr. Karen St. Germaine, Earth Sciences Division Director, Science Mission Directorate, National Aeronautics and Space Administration (NASA); Dr. Gavin Schmidt, Acting Senior Climate Advisor/Director, NASA Goddard Institute for Space Studies; Riley Duren, Research Scientist, Office of Research, Innovation and Impact, University of Arizona; and Robbie Schingler, Co-Founder and Chief Strategy Officer, Planet.

St. Germaine highlighted NASA's important role in deploying many of the instruments that observe Earth as a system from space, and in providing that data to the public. NASA manages 23 observing systems contributing data to improve water resource management, including: (1) launching OpenET later in 2021 that will measure water usage on farms; (2) launching the Surface Water and Ocean Topography (SWOT) mission in early 2022, in partnership with France, Canada and the UK, that will "provide the first global survey of Earth's surface water, including detailed observations of the ocean's surface topography, and measurements of how water bodies are changing over time;" (3) the NASA Soil Moisture Active Passive (SMAP) satellite mission, which collects soil moisture data that is valuable to farmers; (4) launching the Sentinel-6 Michael Freilich satellite, a U.S.-European effort, to better understand sea-level rise; and (5) providing data critical to decisionmakers to inform policy.

Looking ahead, St. Germaine mentioned NASA will look to improve scientific understanding of mass change, which can help in "providing drought assessment and forecasting, associated planning for water use for agriculture, as well as supporting natural hazard response;" and surface biology and geology, which will work to help understand "climate changes that impact food and agriculture, habitation, and natural resources, by answering open questions about the fluxes of carbon, water, nutrients, and energy within and between ecosystem and the atmosphere, the ocean, and the solid Earth." In addition, NASA is working to improve their

predictive models for the ocean, land, atmosphere, and cryosphere processes, and any interactions between them. This is possible through strategic partnerships with the private sector to rapidly develop tools to address the complex issues associated with climate change.

Schmidt focused on the breadth and depth of NASA's work on climate, covering pure scientific research, technology development, applied science, and education. NASA is legislatively mandated to perform climate-related research and development, and the backbone of their climate research is the observations they've been able to make from space since the 1960s. The data that have been derived from these observations supports the missions of several federal agencies, as well as the private sector.

Duren discussed a new public-private partnership called Carbon Mapper, and Schingler detailed the work of his company, Planet, which builds, deploys and manages a large array of small satellites that capture the entirety of Earth's landmass daily. He focused on the ways that NASA could better leverage the private sector to serve growing science and climate needs. https://science.house.gov/hearings

CONGRESS/ADMINISTRATION Nominations/Commerce/Interior

On May 18, the Senate Energy and Natural Resources Committee considered the nominations of Robert Anderson to be Solicitor of the Department of the Interior; Shannon Estenoz to be Assistant Secretary for Fish and Wildlife and Parks; and Tanya Trujillo to be Assistant Secretary of the Interior for Water and Science.

Several Senators asked questions about and requested cooperation on various projects and programs impacting their states, including rural water projects, endangered species delistings, protections for migratory birds, and the impact of oil and gas leases on economies and climate change.

Senator James Lankford (R-OK) asked Anderson about the future impact of the *McGirt v. Oklahoma* decision on both criminal and civil issues between tribes and states. Anderson agreed to work with tribes, local governments, and states on entering into jurisdictional

agreements so that courts do not need to make those determinations. He also acknowledged that federal district courts are already citing McGirt on civil issues, despite the Supreme Court's narrow decision on a criminal issue.

Several western senators mentioned the need to construct new and maintain aging water infrastructure in their respective states, as well as the importance of dealing with drought, climate change, and extreme weather events. There was some discussion on the interagency working group on drought, as well as interagency decisions on biological opinions and environmental impact statements, and the impacts those decisions (or absence of them) have on states. The critical importance of completing tribal water settlements was raised multiple times. Regarding President Biden's plan to conserve 30% of the nation's land and water by 2030, emphasis was given to voluntary efforts, and working with stakeholders including farmers and tribes to address their concerns.

On May 20, the Senate Committee on Commerce, Science, and Transportation considered the nominations of Eric Lander to be the Director of the Office of Science and Technology Policy; Pamela Melroy to be Deputy Administrator of the National Aeronautics and Space Administration (NASA); and Richard Spinrad to be Under Secretary of Commerce for Oceans and Atmosphere and Administrator of the National Oceanic and Atmospheric Administration (NOAA).

Chair Maria Cantwell (D-WA) said of Lander's nomination: "This position of Director of Office of Science and Technology Policy is charged with advising the president on a broad range of scientific and technical policies to address the nation's problems.... For the first time in our country's history, President Biden has elevated this position to a cabinet level post, underscoring its significance and importance of the role that science will play in decision-making."

Melroy said: "NASA's role is collecting data about the Earth system and understanding the effects of climate change will be essential to those tasked with determining policy. If confirmed as Deputy Administrator, I will work closely with NOAA and ensure a robust program of Earth data collection and dissemination."

Spinrad emphasized the need to strengthen relationships between NOAA and the private sector, academia, other federal agencies, and non-governmental organizations to address climate change and to enhance products and services for all. He promised to "take a fully integrated perspective to ensure the agency is imparting the best-in-class earth system intelligence, providing, for example, climate services and products in fisheries, weather, and oceans...."

CONGRESS/WATER QUALITY Infrastructure/Wastewater

On May 13, Rep. David Rouzer (R-NC) introduced the Wastewater Infrastructure Improvement Act (H.R. 3218). The press release stated the bill will "help states and local communities - including small and rural communities - address their wastewater infrastructure needs. The bill improves the wastewater infrastructure permitting process and provides flexibility communities often need to take on complex projects." Rouzer said, "In many communities...water and wastewater infrastructure is long past its design life and in need of urgent repair, replacement, and upgrading. This is especially the case for many of our small and rural communities."

The legislation would reauthorize the Clean Water State Revolving Fund (CWSRF) for the first time since 1994 at \$14B to be spent over the next five years. It would allow States to use up to 2% of their CWSRF funds to provide technical assistance to small and rural communities, and up to 0.5% of their annual capitalization grant to promote workforce development and utility worker training and education programs. Additionally, it modifies §104(g) of the Clean Water Act (CWA) to require the Environmental Protection Agency (EPA) Administrator to report to Congress on the current and future workforce needs of public wastewater treatment utilities and on actions, including federal investments, that be taken to promote workforce development.

It reauthorizes CWA §106 for EPA to provide grants to states to assist them in implementing state water quality improvement programs (\$1.3B over 5 years), and sewer overflow and stormwater management projects (\$1.2B over 5 years). The legislation expands the type of projects eligible to receive funding under CWA §220 to include projects that reclaim or recycle wastewater and stormwater, and also requires that utilities that receiving CWSRF funds consider projects that promote energy and water use efficiency. It also extends the permit duration for National Pollutant Discharge Elimination System (NPDES) permits from five years to 10 years.

The bill would codify provisions from annual congressional appropriations legislation that direct how the EPA is to use the annual reservation of funds from the CWSRF for grants for project and technical assistance to tribes.

Co-sponsor Rep. Don Young (R-AK) said, "The [CWSRF] program is critical for securing funding for water, sewage, and solid waste system upgrades in Alaska and across the country. The COVID-19 pandemic has highlighted the importance of this issue; without reliable water infrastructure, it is that much harder to promote public sanitation and keep families healthy." https://rouzer.house.gov/press-releases

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