

**STATEMENT OF DON CLINE,  
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OF THE UNITED STATES GEOLOGICAL SURVEY  
BEFORE THE SUBCOMMITTEE ON WATER, OCEANS AND WILDLIFE  
HOUSE COMMITTEE ON NATURAL RESOURCES  
ON THE 2020 PRESIDENT'S BUDGET REQUEST  
MAY 16, 2019**

Chairman Huffman, Ranking Member McClintock, and members of the Subcommittee, thank you for the invitation to deliver this testimony regarding the FY 2020 Budget Request for the Water Resources Mission Area (WMA) of the United States Geological Survey (USGS).

The overall 2020 budget request for the USGS is \$983.5 million. It advances several Departmental priorities by supporting strategic investments in research, assessments, mapping, and land imaging.

The budget maintains efforts to develop high-fidelity water forecasts and early warning systems for invasive species, wildlife disease, and adaptation planning. This work supports the management responsibilities of the Bureau of Reclamation (BOR), National Park Service (NPS), Fish and Wildlife Service (FWS), Bureau of Land Management (BLM), Bureau of Ocean Energy Management (BOEM), National Oceanic and Atmospheric Administration (NOAA), United States Department of Agriculture (USDA), United States Department of Defense (DOD), State, Tribes, local water resource management agencies, and the International Boundary and Water Commission.

**Water Resources Mission Area**

The USGS monitors and assesses the amount and characteristics of the Nation's water resources, assesses sources and behavior of contaminants in the water environment, and develops tools to improve management and understanding of water resources. The information and tools provided by the USGS allow first responders, the public, water managers and planners, policy makers, and other decision makers to: 1) minimize loss of life and property as a result of water-related hazards, such as floods, droughts, landslides, and chemical spills; 2) manage freshwater for domestic, public, agricultural, commercial, industrial, recreational, and ecological uses; 3) protect and enhance water resources for human health, aquatic health, and environmental quality; 4) and contribute to the effective development and conservation of the Nation's water resources for the benefit of present and future generations. Through cooperative matching funds (CMF), the USGS partners with nearly 1,600 local, State, regional, and Tribal agencies to monitor and assess water in every State, protectorate, and territory.

The 2020 budget request for the WMA is \$179,922,000. This includes a total of \$57,710,000 in CMF. The budget sustains the National Streamgaging Network, provides capacity to research quantity and quality limits on water availability, and supports the development of regional and National-scale models and model-based decision support tools. In 2020, the WMA will focus on: delivering integrated water availability assessments (IWAAs) at national and regional scales; upgrading the USGS water observing systems to better couple USGS data with the National Water Model and other advanced modeling tools; modernizing the National Water Information System (NWIS); and building prediction capabilities for water quality.

In addition, the budget proposes a restructure of the WMA's budget programs to achieve more integrated observation, understanding, prediction, and delivery of water science information to the Nation. The budget restructure proposes to move from having three programs (Water Availability and Use Science, Groundwater and Streamflow Information, and National Water Quality) to two programs: 1) the Water Observing Systems Program, focused on water resources monitoring and data, and 2) the Water Resources Availability Program, focused on scientific assessment of the quantity and quality of the Nation's water resources.

### ***Water Observing Systems Program***

The Water Observing Systems Program (WOSP) encompasses the WMA's objectives to collect, manage, and disseminate consistently high-quality and reliable water information in real-time and over the long-term. The WOSP would continue to serve as the world's largest water data holder and partner with more than 1,600 Federal, regional, State, Tribal, and local agencies to operate and maintain its surface water, groundwater, and water quality monitoring networks.

In 2020, the WOSP would work with partners to maintain the more than 8,200 real-time streamgages in the National Streamflow Network, which includes approximately 3,600 Federal Priority Streamgages. Further, monitoring of sediment, nutrients, and pesticides will continue through the National Water Quality Network for Streams and Rivers and groundwater monitoring will continue through the USGS-supported sites in the Climate Response Network and several Groundwater Quality Monitoring networks. In addition to these monitoring networks, the WOSP would continue efforts to enhance monitoring network infrastructure, with work initially focused on two areas: 1) the Delaware River Basin, as a pilot watershed for implementing the USGS Next-Generation Water Observing System, and 2) along U.S. coastlines, as the USGS continues installation of housing units for storm tide sensors and Rapidly Deployable Gages (RDGs) to facilitate more efficient instrument deployment prior to major storms and tsunamis.

### ***Water Resources Availability Program***

The Water Resources Availability Program (WRAP) fulfills the goals established by Congress in the SECURE Water Act (Public Law 111-11, Section 9508) by investing in research and assessments that improve the Nation's understanding of water availability (water quantity and quality in the context of human and ecological water needs). The WRAP would focus on conducting national and regional IWAAAs, inclusive of both water quantity and water quality; developing new techniques to evaluate factors that limit water availability; evaluating trends in water availability; and, developing models and infrastructure to support assessments and tools that resource managers can use to support planning activities.

In 2020, the WRAP would deliver a near-real time census of water quantity as part of the National IWAA and begin implementing models that will allow for the inclusion of water quality by 2021. At the regional scale, the USGS will continue work on a Regional IWAA pilot in the Delaware River Basin, evaluating the impact of severe drought under current water supply and demand restrictions. This pilot, leveraging the enhanced water data collection through the Next-Generation Water Observing System pilot, will serve as a proof-of-concept and will help to refine the Regional IWAA framework for future pilot basins. In addition, the WRAP will continue work focused on understanding the factors that influence both the quantity and quality of water available for human and ecological uses. For example, the USGS will continue studies that examine the processes and water-quality conditions that precipitate harmful algal blooms (HABs).

Fundamental to all this work will be USGS efforts to develop comprehensive and consistent hydrologic modeling frameworks for the U.S. In 2020, the USGS will continue to collaborate with partners, including the National Weather Service and National Center for Atmospheric Research (NCAR), to develop and improve national-scale prediction capabilities for hydrologic characteristics and processes. Ultimately, model development efforts will be focused on integrating disparate data modeling systems, and tools into one coordinated National water prediction framework.

### **Conclusion**

On behalf of the USGS, I thank the Committee for its interest in USGS water programs and appreciate the opportunity to testify today. I am happy to answer any questions you may have.