

Being Smart with Water Resources

FY 2015 President's Proposed Budget

Total request is \$210.4 million (\$3.1 million above FY 2014 enacted level)

The USGS is the largest supplier of hydrologic information in the world. As competition for water resources grows, so does the need for better information about water quantity and quality. The proposed budget increases would allow the USGS to meet the challenges of providing cutting-edge, up-to-date water information for the Nation and would facilitate partnering with other Federal, state, and local agencies to leverage USGS' 8,000-strong streamgage network for strategic decision-making.

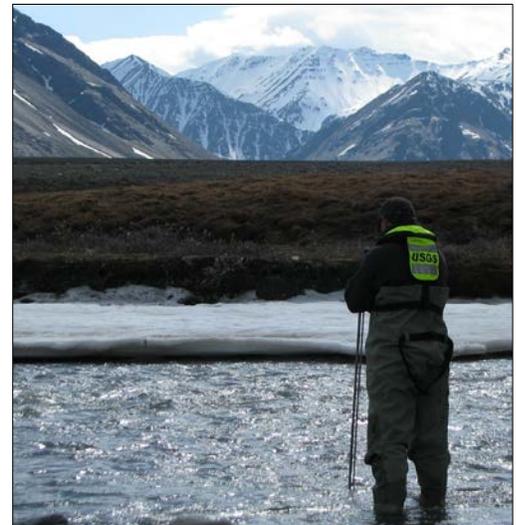
Increases for USGS water resources are within two categories: (1) support for DOI's WaterSMART initiative and (2) water resource data collection and research.

WaterSMART

WaterSMART is a multidisciplinary effort designed to further clarify the complex linkages among water quantity, water quality, and the environment, resulting in improved management of this vital but finite resource. Through the combined efforts of the Bureau of Reclamation in the West and the USGS throughout the Nation, WaterSMART provides the foundation for a sustainable water strategy. Proposed increases for WaterSMART support water quality assessments, groundwater infrastructure, and effective modeling for decision makers.

Groundwater

Current USGS water-level networks do not provide adequate monitoring for the Nation's major aquifers, which is critical information for determining availability. To address this national need, a framework was developed for a National Groundwater Monitoring Network (NGWMN) in response to the SECURE Water Act, to provide a systematic groundwater monitoring program for each aquifer system in the United States. To date, the Advisory Committee on Water Information - Subcommittee on Groundwater, through a successful pilot program developed by the USGS Groundwater Resources Program, has demonstrated that a collaborative NGWMN can be successfully implemented by taking advantage of existing Federal, State, and local monitoring. In FY2015, the USGS will continue to monitor and conduct research to generate a more precise estimate of water availability and use for meeting current and future human, environmental, and wildlife requirements. These research and monitoring activities will help identify water resources for use by humans and the environment while also developing tools to forecast likely outcomes for landscape-level planning needs, including water use and quality, and aquatic ecosystem health affected by changes in land use and land cover, natural and engineered infrastructure, water use, and climate. State and local governments rely heavily on the monitoring data provided by USGS monitoring systems that operate across the Nation.



State Water Use Grants

Water managers across the United States require more complete, timely, and accurate water availability information to support decision making. Data concerning human water use (e.g., water withdrawals and consumptive use) needs improvement, as decision-makers require accurate water use data to establish local and regional water budgets. State water resource agencies are vital entities and primarily responsible for collecting data on water supplies, water allocations and water rights. Water budgets, which account for the water inputs, outputs and changes in storage within a watershed, have been widely referred to as the foundation for effective water resources management. This initiative

will provide financial resources, through grants to State water resource agencies, to improve the availability and quality of water use data that they collect and integrate that data with the USGS Water Census.

Water Resource Data Collection and Research

The USGS collects information needed to understand the Nation's water resources and provides access to water data, publications, and maps, as well as to recent water projects and events. The 2015 Budget increases for water resources supports the USGS streamgauge network and water management strategies.

Streamgages and Streamgauge R&D

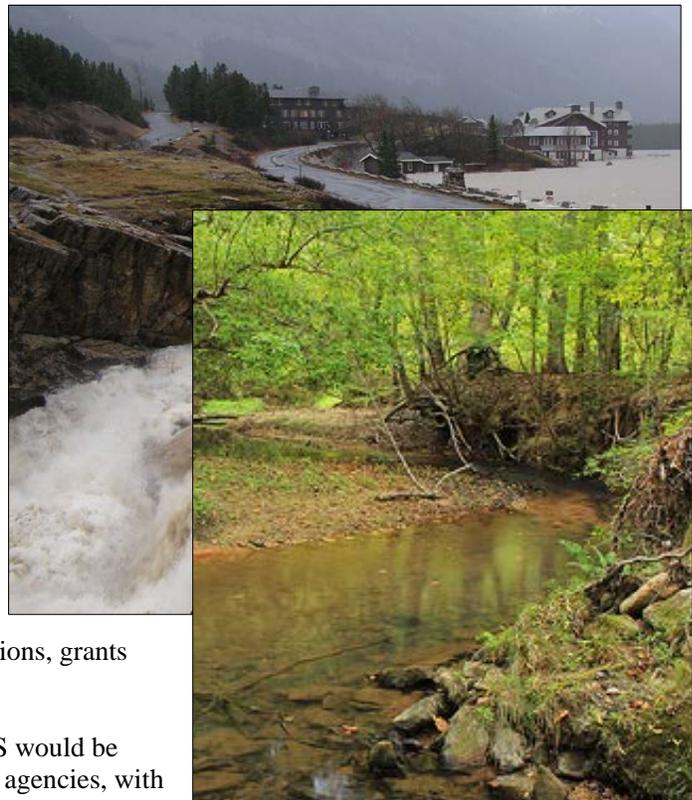
With the proposed budget increases, the USGS National Streamflow Information Program (NSIP) would enhance the stability of the streamgauge network by retaining streamgages that would otherwise be discontinued. It is expected that the NSIP would be able to fully fund about 50 additional NSIP streamgages. With the proposed increase, the program can help support a highly reliable system for real-time and historic streamflow information delivery to customers that includes data processing, quality assurance, storage, and easy data access. These funds would help ensure that the National Water Information System (NWIS) database, critical to the success of NSIP, is operated and maintained at peak efficiency and effectiveness.

The USGS will also continue to develop and improve hydroacoustic measurement and monitoring techniques. These techniques have greatly improved the efficiency of the USGS streamgauge network and offer additional opportunities to more efficiently collect and share streamflow information in the near term. The USGS will also expand research and development on the next generation of streamflow and bathymetric measurement techniques, which could achieve cost efficiencies in existing monitoring networks and improve capabilities for measuring discharge and depth profiles at ungaged sites. In addition, the proposed funding increase for the NSIP will allow for continuing activities to better understand and predict flood and droughts, and trends in streamflow.

Water Resource Management

It is essential that water management decisions are made using the best available data and modeling tools, suggesting the need for a National Hydrologic Modeling Framework or community modeling system like that currently used by the international climate modeling community. The increase in funding in 2015 will allow for a series of workshops that will assess the feasibility of such a new framework or modeling community in the U.S. Further, targeted investments in Federal science and technology as well as identification of cost-effective policy options could enhance groundwater sustainability in regions where depletion is already occurring or expected in the near future. Through a series of workshops, the USGS will identify and describe specific investments and strategies that will provide a path forward for significantly improving management of the Nation's important groundwater resources based on changes in existing Federal programs, partnerships, regulations, grants and management strategies.

In addition, under the proposed budget increases, the USGS would be able to provide reports and data to Federal, State, and local agencies, with particular emphasis on tribal relations. The USGS would enhance its ability to address water availability issues, such as water rights, water use, hydrologic conditions, and water-quality issues. This would allow partner and tribal river managers to develop effective strategies to maintain and restore critical habitats and healthy ecosystems.



To learn more, visit the USGS Office of Budget, Planning and Integration website: www.usgs.gov/budget