

USGS Coalition

Testimony of the
USGS Coalition
Dr. Robert Gropp, Chairman

Regarding the
U.S. Geological Survey
FY 2015 Budget

To the
Senate Committee on Appropriations
Subcommittee on Interior, Environment, and Related Agencies

May 23, 2014

Summary

The USGS Coalition appreciates the opportunity to provide testimony about the fiscal year (FY) 2015 budget for the United States Geological Survey (USGS). The Administration's budget requests \$1.073 billion for the USGS. This level represents an increase of \$41 million over the FY 2014 level. The request, however, also includes \$41 million in cuts to on-going programs and does not include \$75 million in important research and development initiatives that have been identified by the agency as priorities should funding be available. Thus, the USGS Coalition respectfully requests that Congress work to provide the USGS with \$1.189 billion for FY 2015, which would allow the agency to sustain current efforts and make strategic new investments that will produce the knowledge and decision-support tools needed by decision-makers across the country.

The USGS is uniquely positioned to provide information and inform responses to many of the nation's greatest challenges. Few modern problems can be addressed by a single scientific discipline. The USGS is an agency that has a unique capacity to deploy truly interdisciplinary teams of experts to gather data, conduct research, and develop integrated decision support tools that improve ecosystem management, ensure accurate assessments of our water quality and quantity, reduce risks from natural and human-induced hazards, deliver timely assessments of mineral and energy resources, and provide emergency responders with accurate geospatial data and maps.

The USGS Coalition is an alliance of over 70 organizations united by a commitment to the continued vitality of the United States Geological Survey to provide critical data and services. The Coalition supports increased federal investment in USGS programs that underpin responsible natural resource stewardship, improve resilience to natural and human-induced hazards, and contribute to the long-term health, security, and prosperity of the nation.

Essential Services for the Nation

Established by Congress as a branch of the Department of the Interior in 1879, the United States Geological Survey has a national mission that extends beyond the boundaries of the nation's public lands to positively impact the lives of all Americans. The agency plays a crucial role in protecting the public from natural hazards, assessing water quality and quantity, providing geospatial data, and conducting the science necessary to manage our nation's biological, mineral, and energy resources. Through its offices across the country, the USGS works with partners to provide high-quality research and data to policymakers, emergency responders, natural resource managers, civil and environmental engineers, educators, and the public. A few examples of the USGS' valuable work are provided below.

The Survey collects scientific information on water availability and quality to inform the public and decision makers about the status of freshwater resources and how they are changing over time. During the past 130 years, the USGS has collected streamflow data at over 21,000 sites, water-level data at over 1,000,000 wells, and chemical data at over 338,000 surface-water and groundwater sites. This information is needed to effectively manage freshwaters – both above and below the land surface – for domestic, public, agricultural, commercial, industrial, recreational, and ecological purposes.

The USGS plays an important role in reducing risks from floods, wildfires, earthquakes, tsunamis, volcanic eruptions, landslides, and other natural hazards that jeopardize human lives and cost billions of dollars in damages every year. Seismic networks and hazard analysis are used to formulate earthquake probabilities and to establish building codes. USGS monitors volcanoes and provides warnings about impending eruptions that are used by aviation officials to prevent planes from flying into volcanic ash clouds. Data from the USGS network of stream gages enable the National Weather Service to issue flood and drought warnings. The bureau and its federal partners monitor seasonal wildfires and provide maps of current fire locations and the potential spread of fires. USGS research on ecosystem structure informs fire risk forecasts.

USGS assessments of mineral and energy resources – including rare earth elements, coal, oil, unconventional natural gas, and geothermal – are essential for making decisions about the nation's future. The Survey identifies the location and quantity of domestic mineral and energy resources, and assesses the economic and environmental effects of resource extraction and use. The agency is mapping domestic supplies of rare earth elements necessary for widespread deployment of new energy technologies, which can reduce dependence on foreign oil. The USGS is the sole federal source of information on mineral potential, production, and consumption.

USGS science plays a critical role in informing sound management of natural resources on federal and state lands. The USGS conducts research and monitoring of fish, wildlife, and vegetation – data that informs management decisions by other Interior bureaus regarding protected species and land use. Ecosystems science is also used to control invasive species and wildlife diseases that can cause billions of dollars in economic losses. The Survey provides information for resource managers as they develop adaptive management strategies for

restoration and long-term use of the nation's natural resources in the face of environmental change.

Research conducted by the USGS is vital to predicting the impacts of land use and climate change on water resources, wildfires, and ecosystems. The Landsat satellites have collected the largest archive of remotely sensed land data in the world, allowing for access to current and historical images that are used to assess the impact of natural disasters and monitor global agriculture production. The USGS also assesses the nation's potential for carbon sequestration. Other Interior bureaus use USGS research on how climate variability affects fish, wildlife, and ecological processes to inform natural resource management decisions.

Funding

Over the years, Congress has worked in a bipartisan fashion to provide essential funding to the USGS. These efforts have paid dividends and helped the USGS provide answers to the challenging questions facing decision-makers across the country.

Through careful management and deferring staff travel and training, the USGS has survived the recent budget cuts resulting from sequestration. Staff training and participation in scientific meetings, however, are necessary investments that help USGS maintain its technical capacity. It is through exchanges at scientific meetings and workshops that new ideas emerge and scientific analyses are shared, challenged by colleagues, and honed prior to submitting research for publication in peer-reviewed journals. We encourage Congress to work with the USGS to ensure that scientists are able to fully participate in scientific meetings.

As a science agency, much of the USGS budget is dedicated to salaries and equipment that must be maintained and updated to ensure the continuity of data acquisition and that the data gathered are reliable and available for future scientific investigations. We believe that the leadership of the USGS is doing all it can, and has been for a number of years, to contain costs while continuing to deliver high quality science. The budget request for FY 2015 includes cuts to scientific support, which includes information technology and administration and management functions. Although efficiencies can often be found through innovation in these areas, we encourage Congress to ensure that these cuts do not hinder the provision of services and support that agency personnel require to complete research, gather data, and provide the information needed by the public for informed decision-making.

The USGS has offset some new investments by eliminating a significant number of full time equivalent positions. Research progress and the communication of research findings to end-users will be slowed or disrupted as a result of the reduction in staffing. Rebuilding scientific and technical expertise can be challenging. Thus, the loss of any positions can have long-term implications for USGS programs.

Among the programmatic reductions the scientific community is concerned about are:

- \$13.0 million in cuts to Core Science Systems, such as the Bio-Science Data synthesis, Urban Area assessments, National Atlas, and other programs.
- \$11.3 million in cuts to various water research and monitoring programs.

- \$4.5 million in cuts to Administrative Services.
- \$2.5 million in cuts to the National Civil Applications Program.
- \$1.0 million in cuts to the Coastal Vulnerability program.
- \$5.4 million in cuts to Fisheries, Wildlife and Environments Research.
- \$1.9 million in cuts to Energy Research, Oil and Gas Assessments, and Wastewater contaminants research.

We recognize and appreciate that budget conditions remain challenging and the work before the subcommittee is not easy. Yet, we believe that sustained and strategic new investments in the USGS promise significant long-term benefits. Should funds be available, we hope that Congress will restore proposed cuts and provide new funds for research and development priorities that USGS has identified but lacks resources to pursue. The agency has identified at least \$75 million in research and development opportunities in the areas of 1) energy and mineral development; 2) climate resilience; 3) landscape scale ecosystem management, restoration and protection; 4) water resources management; and 5) species protection and health.

Conclusion

We recognize the financial challenges facing the nation, but losing irreplaceable data can increase costs to society today and in the future. Data not collected and analyzed today is data lost forever. This is particularly significant for environmental monitoring systems, where the loss of a year's data can limit the scope and reliability of long-term dataset analysis. The USGS Coalition requests that Congress work to provide \$1.189 billion for FY 2015.

The USGS Coalition appreciates the subcommittee's past leadership in strengthening the United States Geological Survey. Thank you for your thoughtful consideration of this request.