USGS Coalition

Testimony of the
USGS Coalition
Dr. Robert Gropp, Chairman

Regarding the
U.S. Geological Survey
FY 2014 Budget

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

April 16, 2013

Summary

The USGS Coalition appreciates the opportunity to provide testimony about the fiscal year (FY) 2014 budget for the United States Geological Survey (USGS).

The USGS is uniquely positioned to provide information and inform responses to many of the nation's greatest challenges. The USGS plays a crucial role in assessing water quality and quantity; reducing risks from earthquakes, tsunamis, floods, landslides, wildfires, and other natural hazards; providing emergency responders with geospatial data to improve homeland security; assessing mineral and energy resources (including rare earth elements and unconventional natural gas resources); and providing the science needed to manage our ecosystems and combat invasive species that can threaten natural and managed environmental systems and public health.

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 U.S. 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 USGS 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 living, 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 analyses 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 and mitigate climate change. 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. USGS 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 Shortfall

Over the years, Congress has worked in a bipartisan fashion to restore damaging budget cuts proposed by Administrations from both parties. These efforts have paid dividends and helped the USGS continue to provide answers to the challenging questions facing decision-makers across the country.

A major challenge currently facing the USGS is budget sequestration. Not only has the agency's budget been cut by $61 million, but the USGS faces further funding cuts as other federal agencies scale back reimbursable activities, which represent roughly $400 million of USGS' annual operating budget.

Among the sequestration-induced impacts to USGS science:

- In order to prevent the shutdown of 350 stream gauges, USGS will stop delivering stream flow information. This will hinder informed decision-making, but is less costly than turning off the stream gauges and losing data altogether.
- Maintenance of real time status of stream gauges and seismic networks will diminish, potentially resulting in data gaps.
- Decreased monitoring of volcanoes and delayed warnings about volcanic activity. The Federal Aviation Administration relies upon this information to route planes safely in Alaska and elsewhere.
- Fewer early warnings will be issued about emerging wildlife diseases. This could jeopardize natural resource managers' abilities to respond to threats in a timely manner.
- Energy assessments will take longer to be completed. These delays could slow economic development and the nation's efforts to utilize more domestic energy.

The USGS has also implemented a hiring freeze, disallowed overtime, and cancelled all training and non-essential travel. Contracts and grants are being reviewed internally to determine the feasibility of delay, re-scoping, or termination.

Employee furloughs of up to nine days are also possible. The employees of the USGS

are hardworking and committed individuals dedicated to serving the American public. They routinely work in harsh conditions and with limited resources. Unpaid furloughs threaten to further diminish employee morale.

In addition, USGS suspended employee attendance at twenty-seven conferences in February, March, and April. Although this may save money in the short term, scientists must be able to exchange ideas and information freely. Scientific conferences are a highly productive mechanism for the transfer of information among scientists and engineers.

USGS has identified ways to cope with its diminished budget in the short term, but the agency's ability to deliver science over the long-term is in jeopardy. We are especially concerned about long-term data sets, as information gaps cannot be filled later.

The USGS is a science agency. Much of its budget is dedicated to salaries and equipment that must be maintained and updated to ensure the continuity of data acquisition and to ensure 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. We are concerned, however, that agency managers have few options left and that the science will soon begin to suffer.

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 adequately support the USGS in fiscal year 2014 so that the agency can continue critical programs that improve the nation's environment, health, safety, quality of life, and future economic growth.

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