

USGS COALITION

Testimony of the USGS Coalition
Elizabeth Duffy, Chair
Regarding the U.S. Geological Survey FY 2020 Budget

To the
House Committee on Appropriations
Subcommittee on Interior, Environment, and Related Agencies
March 15, 2019

The USGS Coalition appreciates the opportunity to provide testimony about fiscal year (FY) 2020 appropriations for the United States Geological Survey (USGS). **The USGS Coalition requests that Congress fund the USGS at \$1.2 billion in FY 2020.** The requested funding would allow the agency to sustain current efforts in scientific discovery and innovation and to make strategic investments that will produce the impartial knowledge and decision support tools needed by decision-makers across the country. The President's budget request represents a more than a 15% cut to the FY2019 enacted budget.

The USGS is uniquely positioned to provide information and inform responses to many of the nation's greatest challenges. The USGS is an agency that has a distinctive 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 more than 80 organizations united by a commitment to the continued vitality of the United States Geological Survey to provide critical data and services. Coalition members include scientific organizations, universities, businesses, and natural resource managers.

Essential Services for the Nation

Established by Congress as a branch of the Department of the Interior in 1879, the USGS 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 unique role within the Department of the Interior, conducting research across a broad array of scientific disciplines and providing data that informs responses to many of the nation's greatest challenges. To highlight just a few examples, USGS scientists:

- Reduce risks from **natural hazards** – including earthquakes, tsunamis, landslides, volcanic eruptions, flooding, drought, and wildfires – that jeopardize human lives and

result in billions of dollars in damages annually. USGS not only works to improve the scientific understanding of these hazards, but also works to relay these findings to federal, state, and local decision makers in order to better adapt response protocols in the event of an emergency. Recent disasters, such as the Camp, Carr and Woolsey wildfires and Hurricanes Michael and Florence, highlight the Nation's continued vulnerability to natural disasters and their catastrophic economic losses.

- Inform management of **freshwater resources** – both above and below the land surface – for drinking water, agriculture, and commercial, industrial, recreational, and ecological purposes.
- Inform sound management of **natural resources** on federal and state lands, including control of invasive species and wildlife diseases that cause billions of dollars in economic losses. This information is shared with other Interior bureaus and state agencies to allow for adequate monitoring and management.
- Provide vital **geospatial and mapping data** used in economic development, environmental management, infrastructure projects, and scientific applications by states, federal agencies, and the private sector.
- Help predict the impacts of **land use** and climatic conditions on the availability of water resources and the frequency of **wildfires**. The Landsat satellites have collected the largest archive of remotely sensed land data in the world, which informs **agriculture production** and our nation's response to and mitigation of natural hazards.
- Help make decisions about the nation's economic and energy future by assessing **mineral and energy resources** – including rare earth elements, coal, oil, unconventional natural gas, and geothermal. The USGS is the sole federal source of information on mineral potential, production, and consumption.

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. 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 they can to contain costs while continuing to deliver high quality science. Any cuts in FY 2020 or beyond would come at the expense of scientific programs.

One strength of the USGS is its partnerships with many other federal agencies, states, local governments, educational institutions and private entities. These relationships, however, should not be mistaken as a means to transfer federal activities to other entities. The work of the USGS is uniquely tied to the agency, as shown in the following examples:

- Expected losses from natural hazards in the U.S. have averaged more than \$20 billion per year over the past 2 decades. These losses can be significantly reduced through informed decisions guided by the most current and thoroughly-researched understanding of the hazards, risks, and cost of mitigation. The USGS Science Application for Risk Reduction Project was created to innovate the application of hazard science for the safety, security,

and economic well-being of the nation by directing new and existing scientific research toward addressing gaps in vulnerability to help communities build resilience to natural hazards.

- Precise elevation data is needed for a variety of applications, including farming, infrastructure construction, flood mitigation, and aviation safety. The U.S., however, does not yet have national coverage of high-quality topographic data. Given its expertise in mapping, the USGS is the lead entity for the 3D Elevation Program, which will acquire precise national elevation data coverage within eight years. The program is estimated to provide benefits worth \$1.1 billion a year to government and private entities.
- Nearly half of America's drinking water comes from underground aquifers. The large size of some aquifers, which can span the boundaries of multiple states, puts them beyond the scope of local water authorities. The USGS is evaluating water quality in 20 principal aquifers as part of the National Water-Quality Assessment Project. The program is testing for contaminants, such as pesticides, pharmaceuticals, and other pollutants that threaten human health.
- The Landsat satellites have accumulated the largest archive of remotely sensed land data in the world, providing an important resource of land use planning, agriculture, assessing water resources and addressing the impacts from natural hazards.
- According to analysis completed by USGS, state fish and wildlife agencies have identified more than 16,000 species as at risk or in need of additional monitoring. USGS Cooperative Research Unit scientists work to bring state agency and US Fish and Wildlife Service scientists and decision makers together on cooperative research projects, trainings, and workshops before these species reach the point of Endangered Species Act listing.
- Recent research by the USGS identified the potential for avian flu to move between Europe and North America when migratory birds congregate in Iceland during their migration. Wildlife diseases threaten not only the ecosystem and economic values of wild animals, but can also jeopardize human health. The USGS has unique technical expertise for surveillance and diagnosis of wildlife disease, such as identifying a potential transmission route of a deadly disease.

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 – resulting in a cascading effect for private and public partners that rely on this information to make regulatory and financial decisions. Moreover, 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. For these reasons, the USGS Coalition requests that Congress provide **\$1.2 billion for USGS in FY 2020**.

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.