Statement of

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before

the House Committee on Natural Resources, Subcommittee on Energy and Mineral Resources

on the President's Fiscal Year 2025 Budget

May 22, 2024

Chairman Stauber and Ranking Member Ocasio-Cortez, thank you for inviting me here today to discuss the Biden-Harris Administration's Budget request for the U.S. Geological Survey (USGS) for Fiscal Year (FY) 2025. The budget request for the USGS is $1.6 billion, supporting the advancement of scientifically sound and useful tools and information to support effective and efficient decision-making on our Nation's lands, waters, and biological resources. The Budget also supports additional science and analysis to support national security, natural-resource management, and infrastructure decisions. Together, these investments will help USGS better support the economic growth and well-being of the Nation.

Established in 1879, the USGS is the science arm of the Department of the Interior. The USGS does not promulgate regulations or make land-management or policy decisions. Instead, the USGS brings an array of earth, water, biological, and mapping data and expertise to deliver objective, policy-neutral, actionable scientific information that informs decision-making on environmental, natural-resource, and public-safety issues. As the Director of the USGS, I am committed to building on this remarkable institution's 145 years of scientific excellence focused on the needs of the Nation and ensuring that our science reaches those who need it the most. I am grateful for your continued interest in and support for USGS science.

One very important part of this Budget is its investment in protecting USGS scientific quality and integrity. This Budget includes a $1.7 million increase for an integrated laboratory support, training, and oversight program that will strengthen safety, bio-risk management, and animal welfare best practices in USGS laboratories. I know that this is of particular interest to many Members of Congress.

Another significant priority in this Budget is science to address drought. As those in the West can attest, changing weather patterns and decreased rainfall mean that now, more than ever, there is an increased need for drought science. The 2025 budget invests an additional $7 million to develop state-of-the-art tools and actionable science to inform near-term land- and water management while also providing science to help guide longer-term management planning and decision-making efforts. These efforts will include the build-out of a Colorado River Basin Science Hub to improve partners' access to scientific data and tools. These efforts will lead to an improved understanding of gains and losses of water as it moves through the Basin from one Colorado River reservoir to another.

Our science is overseen by Mission Areas, and I will highlight a few priorities supported by this Budget for each.

Core Science Systems
The President's Budget includes $313 million for Core Science Systems programs, an increase of $39.8 million over the FY 2024 enacted level. The Budget increase supports several investments to strengthen the Nation's hydrographic, biogeographic, and remotely sensed data and supercomputing power.

The Landsat satellite program, a joint USGS-NASA venture, is the world's longest running space-based Earth observation program. The Budget provides a $12.0 million increase to fund the development of Landsat Next while simultaneously operating the Landsat 8 and 9 satellites. This investment is critically important to keep Landsat Next ground station development on track, thus ensuring we maintain the unparalleled 52-year record of Landsat Earth observation into the next decade and beyond.

The USGS will enable new partnerships to systematically remap the Nation's surface water by acquiring high-accuracy 3D hydrography data derived from lidar produced by the 3D Elevation Program. The Budget also supports next-generation supercomputer capacity, expanded collaboration with partners in scientific computing methods and technology, and enhanced data and analysis underpinning the American Conservation and Stewardship Atlas.

Energy and Mineral Resources
The President's Budget includes $120.3 million for Energy and Mineral Resources programs, an increase of $19.2 million over the FY 2024 enacted level.

The Budget supports some exciting new science activities that strengthen our Nation's economic growth and security. For example, the USGS will develop the first inventory of subsurface pore spaces. This will advance the management of extraction and injection practices, but it is also essential to advance the cutting-edge efforts to make economic use of waste waters associated with oil and gas development and to develop storage of carbon dioxide in geologic formations. Both will contribute to meeting our carbon-emission reduction goals. Other priorities that support energy development include new assessments of geothermal resources, including in Alaska and Hawai‘i, and continued support for existing collaborations with coal-mine operators to capture methane.

Regarding mineral resources, the Budget includes an additional $5.6 million to expand our critical minerals and supply-chain analysis and forecasting which currently informs billions of dollars in Federal and private-sector investments. This expansion will accelerate our ability to identify mineral supply-chain disruptions in advance of economic impacts for events ranging from earthquakes to pandemics. We are also restructuring our mineral research programs to support the formal designation of the USGS National Minerals Information Center as a unit of the Federal Statistical System of the United States, coordinated by the Chief Statistician. The Biden-Harris Administration announced last November that the USGS would seek Congressional endorsement for this designation.

Natural Hazards
The President's Budget includes $210.6 million for Natural Hazards programs, an increase of $12 million over the FY 2024 enacted level.

USGS research builds on decades of science to understand the natural hazards that pose risks to life and property. This work is the foundation of more resilient communities that strengthen our economic security. The USGS has deployed the Nation's first earthquake early-warning system, *ShakeAlert*, improved the timeliness of lava-flow forecasts at Kīlauea volcano from hours to minutes, and collaborates with the National Oceanographic and Atmospheric Administration's National Weather Service (NWS) to improve warnings for volcanic ash, debris-flows in recently burned areas, and landslides in Alaska's

Prince William Sound. We cannot prevent natural hazards from occurring, but USGS science helps reduce their impacts.

The Budget includes an increase of $2.8 million for our coastal and marine hazards work that supports climate-related risk assessments under Executive Order 14030. It also includes an increase of $1.5 million to support science in subduction zones, which cause the largest and most damaging earthquakes and associated hazards.

Bureau Infrastructure and Cross-Cutting Initiatives

In addition to the support for our science Mission Areas, the Budget includes funding to modernize our facilities, including the construction of new biosafety level 3 labs at the National Wildlife Health Center in Madison, WI, mitigation of PFAS (per-and polyfluoroalkyl substances) impacts at the Upper Midwest Environmental Science Center in La Crosse, WI, and planning for the consolidation of our facilities at the Woods Hole Coastal and Marine Science Center in Falmouth, MA. This is in addition to ongoing work to relocate facilities to Moffett Field in Santa Clara, CA, to complete the construction of a new Hydrological Instrumentation Facility in Tuscaloosa, AL, to construct the Energy and Minerals Research Facility in Golden, CO, and to re-establish the Hawaiian Volcano Observatory outside Hilo, HI.

I note that the Water, Wildlife, and Fisheries Subcommittee has jurisdiction over two other USGS science Mission Areas.

Ecosystems

The President's Budget includes $326.1 million for Ecosystems programs, an increase of $26.7 million over the FY 2024 enacted level.

The Budget includes an increase of $3.5 million for migration science for huntable big-game populations. Thanks to unique USGS expertise and technical capacity, we have been able to lead a national effort to advance this science. The USGS and our partners have already discovered previously unrecorded migration patterns, and this information is being used to identify effective and efficient opportunities to improve the management of big-game resources. Under this Budget, the USGS will provide a full inventory of existing ungulate migrations and develop the technology needed to make these data publicly available and useful. Migration is required for abundant big-game herds, which sustain hunting, subsistence, and tourism economies across the West; a clearer understanding of such migration patterns across large landscapes will improve Federal, state, Tribal, local, and private conservation efforts.

This Budget also includes an additional $5.7 million increase for the National and Regional Climate Adaptation Science Centers program, or CASCs. This funding will support the CASCs' work, in partnership with their host institutions at research universities, to update publicly available climate information and to provide tools to support the U.S. Global Change Research Program's first-ever National Nature Assessment.

Water Resources

The President's Budget includes $309.6 million for USGS Water Resources programs, an increase of $20.8 million over the FY 2024 enacted level.

The USGS works with partners to monitor, assess, conduct targeted research, and deliver information on a wide range of water resources and conditions including streamflow, groundwater, water quality, and water use and availability. The Budget will allow the USGS to continue providing the critical data and science needed to help address the current and future water-resource issues that confront the Nation, such

as managing water availability in drought-stricken regions of the country to balance our societal and ecological needs.

Under this Budget, the USGS will expand capacities to develop and deliver the next 5-year National Water Availability Assessment. The assessment will include historic trends and current status of freshwater availability. The increased investment will also advance models of future projections of water availability and quality in the Nation's streams and groundwater storage. Modeling advancements will account for needs within human and ecological use which will benefit decisions on infrastructure, water security, and economic optimization.

Supporting the national assessment capabilities are advances in water-monitoring capabilities. The Budget provides funding to continue deployment of the pilot Next Generation Water Observing System, or NGWOS. Started in 2018, NGWOS designs and implements very dense observational networks in targeted basins, five of which are underway (the Delaware, Illinois, upper Colorado, Trinity-San Jacinto, and Willamette rivers). In addition, the budget will allow continued partnerships with academia and the private sector to develop innovative water monitoring technologies that are scalable to regional and national monitoring networks, which is necessary to expand the availability of water data for the Nation. These pilots are developing the innovative equipment and techniques that will eventually be integrated into our nationwide monitoring networks, such as automated underwater drones, machine-learning models, and the latest advances in sensor technology developed by our industry partners. There is a revolution happening in water data that will transform management of this most fundamental natural resource. I invite you to visit one of our NGWOS basins to see these transformative new approaches for yourself.

The Federal Priority Streamgage network (FPS; previously called the National Streamflow Information Program) and the National Groundwater-Quality Network are the foundational national-scale monitoring networks that make the national assessments possible and which are continuously improving using lessons and results from NGWOS. FPS serves as the backbone of the larger National Streamgaging Network, which incorporates sites supported by partners. The Budget increase includes funding to support the continued operation of approximately 3,460 active streamgages in the FPS network, with an additional 30 flood-hardened streamgages to fill gaps and support data needs for better water-model predictions. Furthermore, the USGS will enhance several existing FPS sites by hardening them against flooding and improving the communications that connects them to the network. Through the National Groundwater-Quality Network, the USGS monitors groundwater-quality conditions in more than 80 long-term regional aquifer networks spanning the Nation. This is an important capability because groundwater is the source of drinking water for more than 130 million Americans each day. Increased funding will support a variety of improvements, such as increased sampling at public-supply wells and expanded collection of water-level measurements in addition to water-quality measurements.

Conclusion

On behalf of the more than 8,000 employees of the USGS, thank you again for the opportunity to testify. I will be happy to answer any questions.