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The U.S. Geological Survey (USGS): Background and FY2023 Appropriations

Background

The U.S. Geological Survey (USGS), in the Department of the Interior (DOI), provides scientific information about geologic processes to mitigate risks from natural hazards and to support the management of water, energy, mineral, ecosystem, and land resources. The USGS also collects long-term Earth observations to understand geologic processes, using satellite imagery, mapping, and ground-based instruments to measure water and other ecosystem changes. In contrast to some other DOI bureaus, the USGS has no regulatory authority and does not manage lands.

Congress created the USGS in 1879 in the USGS Organic Act (43 U.S.C. §31) and defined the agency’s initial scope. Since 1879, Congress has expanded the USGS’s statutory authorities to include activities related to ecosystems and natural hazards. The USGS conducts scientific activities under interdisciplinary mission areas, and each mission area has its own budget line. The USGS also has budget lines for Science Support (administrative activities and information) and Facilities. Congress typically appropriates funds for the agency through annual Interior, Environment, and Related Agencies appropriations acts.

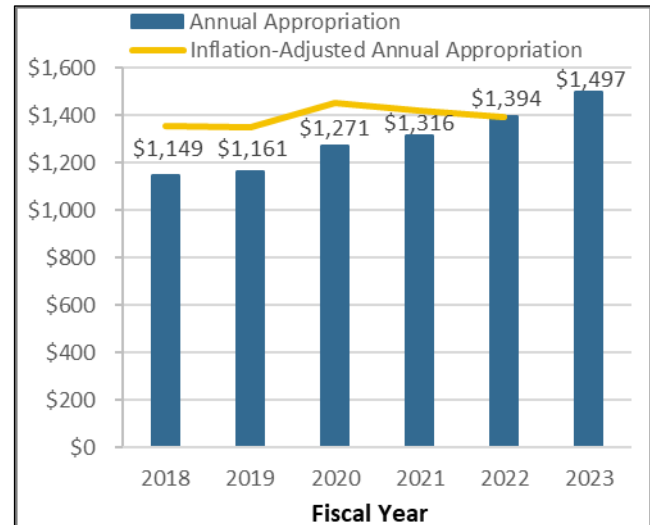
FY2023 Annual Appropriations

In P.L. 117-328, Congress appropriated \$1.497 billion to the USGS for FY2023 under Division G, the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2023. FY2023 annual appropriations were \$214.2 million below the FY2023 President’s budget request of \$1.711 billion and \$102.8 million above the FY2022 enacted level of \$1.394 billion (a 7% increase; **Figure 1**). For FY2023 annual appropriations, Congress increased funding for all mission areas compared with the FY2022 enacted level but provided less funding than the President requested for FY2023, except for Water Resources (**Table 1**). Congress included three congressionally directed spending items for the USGS totaling \$2.1 million under a “Special Initiatives” line item.

Congress also provided the USGS with supplemental appropriations for FY2023. Division N of P.L. 117-328 provided emergency appropriations of \$41.0 million for USGS expenses related to natural disasters occurring in and prior to 2023. In addition, the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) provided emergency advance appropriations of \$64.0 million for the USGS Earth Mapping Resources Initiative (MRI) and \$5.0 million for the National Geological and Geophysical Data Preservation Program. The IIJA funding is to support gathering scientific information on mineral resources.

Figure 1. USGS Annual Appropriations, FY2018-FY2023

(in millions)



Source: Congressional Research Service (CRS), using enacted legislation. Amounts except FY2023 adjusted to FY2022 dollars using U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts, Table I.1.9.

Table 1. USGS Funding: FY2022 and FY2023 Annual Appropriations and FY2023 Budget Request
(nominal \$, in millions)

Mission Area or Budget Line	FY2022 Enacted	FY2023 Requested	FY2023 Enacted
Ecosystems	\$277.9	\$375.7	\$307.2
Energy and Mineral Resources	\$95.2	\$147.0	\$104.2
Natural Hazards	\$186.0	\$219.8	\$200.3
Water Resources	\$285.9	\$302.7	\$304.4
Core Science Systems	\$263.8	\$348.8	\$284.6
Science Support	\$99.7	\$129.2	\$106.3
Facilities	\$184.8	\$188.1	\$188.1
Total	\$1,394.4	\$1,711.3	\$1,497.2

Sources: FY2023 U.S. Geological Survey Budget Justification, P.L. 117-103, and P.L. 117-328.

Notes: Table figures may not sum to totals shown due to rounding and congressionally directed spending items under Special Initiatives (\$1.0 million in FY2022 and \$2.1 million in FY2023).

The following sections summarize FY2023 annual appropriations for USGS mission areas.

Ecosystems Mission Area

The Ecosystems mission area houses five programs and the agency's cooperative research units, which conduct biological and ecological science to inform natural resource management decisions. Congress increased FY2023 annual appropriations for Ecosystems by \$29.3 million compared with FY2022. Of this amount, Congress increased funding for the National and Regional Climate Adaptation Science Centers by \$11.2 million above the FY2022 enacted level of \$51.9 million. (The FY2023 budget request was for an increase of \$33.8 million.) These university-based centers conduct research to help resource managers understand the impacts of climate change and develop climate adaptation strategies. Also, cooperative research units received an increase of \$2.2 million, to be used in part to establish a new research unit. Only the Land Management Research program received decreased appropriations (by \$3.3 million) compared with FY2022.

Energy and Mineral Resources Mission Area

The Energy and Mineral Resources mission area includes scientific research and assessments related to energy and minerals. Congress increased FY2023 annual appropriations for Energy and Minerals Resources by \$9.0 million compared with FY2022 annual appropriations. Under the Mineral Resources Program, Congress provided Earth MRI with \$10.8 million (to be used along with funding provided by P.L. 117-58) and \$5.0 million for research on mine waste as a potential critical mineral source. Under the Energy Resources Program, Congress provided \$3.0 million for geologic carbon sequestration research (i.e., researching the capture and storage of carbon in geologic formations).

Natural Hazards Mission Area

The Natural Hazards mission area provides scientific information to understand natural hazards and to help mitigate, respond, and reduce risks. Congress increased FY2023 annual appropriations for Natural Hazards by \$14.3 million compared with the FY2022 enacted level. This increase reflected an additional \$5.5 million for landslide hazards, including funds to establish a landslide hazards and assessment competitive grant program, and an additional \$4.2 million for volcano hazards, including increased funding for the National Volcano Early Warning and Monitoring System. Out of the \$92.7 million that Congress provided for earthquake hazards, \$28.6 million is to be used for continued development and expansion of the ShakeAlert West Coast Earthquake Early Warning system (same as FY2022). Congress increased Coastal and Marine Hazards and Resources Program funding by \$1.3 million above the FY2022 enacted level, less than the \$19.1 million increase requested by the President's budget.

Water Resources Mission Area

The Water Resources mission area monitors water resources and conducts research and assessments to improve water management. Congress increased FY2023 annual appropriations for Water Resources by \$18.5 million compared with the FY2022 enacted level, including an

additional \$9.8 million for the Water Availability and Use Science Program. Funding for this program included \$13.5 million for integrated water prediction to develop advanced modeling tools, state-of-the-art forecasts, and decision support systems to inform daily water operations. The Next Generation Water Observing System, initiated in FY2018 to pilot technology in selected watersheds, received \$29.5 million compared with \$29.0 million in FY2022. Federal Priority Streamgages, the "backbone" network of federal streamgages, received \$25.7 million compared with \$25.2 million in FY2022. Cooperative Matching Funds for activities across Water Resources received \$66.5 million, a \$1.0 million increase from FY2022.

Core Science Systems Mission Area

The Core Science Systems mission area focuses on geologic, topographic, hydrographic, and biogeographic mapping activities and supports science across the agency. The mission area also includes the National Land Imaging Program, which operates Landsat satellites, among other activities. Congress increased FY2023 annual appropriations for the mission area by \$20.8 million compared with FY2022 annual appropriations. Within this overall increase, the National Geospatial Program increased by \$6.1 million, of which \$3.0 million was for the 3D Elevation Program to fund high-resolution topographic elevation data on western federal lands, and National Land Imaging increased by \$8.4 million, mostly for satellite operations. The explanatory statement accompanying Division G of P.L. 117-328 did not specify what, if any, increase was provided for certain activities requested by the Administration. For example, the FY2023 President's budget requested an increase of \$85.0 million compared with FY2022 annual appropriations, which mainly comprised funding for three initiatives: (1) decision support tools for land management decisions regarding climate response and resilience; (2) creation of an American Conservation and Stewardship Atlas, using the Protected Areas Database, to inform the Administration's America the Beautiful Initiative; and (3) creation of a federal climate data portal by the Federal Geographic Data Committee.

Science Support and Facilities Budget Lines

The Science Support budget line includes funding to provide business services and information technology management. Congress increased FY2023 annual appropriations for Science Support by \$6.6 million compared with FY2022. This included a \$1.5 million increase for cloud and high-performance computing.

The Facilities budget line includes funding for rent, facility operations and maintenance, and deferred maintenance and repair. For FY2023, Congress provided the amount requested, an increase of \$3.2 million from FY2022 annual appropriations. Under this budget line, \$29.0 million was for continued construction of a laboratory in Hilo, HI, and a field station at Hawaii Volcanoes National Park, and \$38.0 million (in addition to the \$167.0 million provided by the IJA) was for construction of the USGS Energy and Minerals Research Facility in Golden, CO.

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