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The U.S. Geological Survey (USGS): FY2022 Appropriations and Background

Background

The U.S. Geological Survey (USGS)—a scientific agency housed with the Department of the Interior (DOI)—aims to provide unbiased scientific information to describe and understand the geological processes of the Earth; minimize loss of life and property from natural disasters; and support the management of water, biological, energy, and mineral resources. The USGS also collects scientific information for long-term data sets. These data sets range from satellite imagery of land and ecosystem features to streamflow and groundwater data. In contrast to other DOI bureaus, USGS has no regulatory authority and does not manage any major federal lands.

Congress created the USGS in 1879 in the USGS Organic Act (43 U.S.C. §31). The USGS Organic Act defined the initial scope of the USGS:

[The Director of the USGS] shall have the direction of the United States Geological Survey, and the classification of the public lands and examination of the geological structure, mineral resources, and products of the national domain.

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 the annual Interior, Environment, and Related Agencies appropriations acts.

FY2022 Annual Appropriations

In P.L. 117-103, Congress appropriated \$1.394 billion to the USGS for FY2022 under Division G, the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2022. FY2022 appropriations were \$248 million below the FY2022 President's budget request of \$1.642 billion and \$79 million above the FY2021 enacted level of \$1.316 billion (a 6% increase; **Figure 1**).

In FY2021 appropriations, Congress reduced USGS mission areas from six to five by eliminating the Land Resources mission area and transferring its programs and funding to other mission areas, among other restructuring. FY2022 enacted appropriations reflected the FY2021 USGS restructuring. For FY2022, Congress increased funding for all mission areas compared to FY2021, but provided less funding than the President requested (see **Table 1**). Congress also included a \$1 million Congressionally Directed Spending (CDS) item for the USGS under a "Special Initiatives" line item.

Figure 1. USGS Annual Appropriations, FY2017 to FY2022

(nominal \$, in millions)



Source: Congressional Research Service (CRS).

Table I. USGS Funding: FY2021 and FY2022 AnnualAppropriations and FY2022 Budget Request

(nominal \$, in millions)

Mission Area or Budget Line	FY2021 Enacted	FY2022 Requested	FY2022 Enacted
Ecosystems	259.1	358.2	277.9
Energy and Mineral Resources	90.0	140.0	95.2
Natural Hazards	175.5	207.7	186.0
Water Resources	263.1	288.4	285.9
Core Science Systems	252.7	341.9	263.8
Science Support	95.7	121.4	99.7
Facilities	179.4	184.8	184.8
Total	1,315.5	1,642.4	1,394.4

Sources: FY2022 U.S. Geological Survey Budget Justification, P.L. 116-260, and P.L. 117-103.

Notes: P.L. 117-103 also included a \$1 million Congressionally Directed Spending (CDS) item labeled as "Special Initiatives." Table figures may not add to totals shown due to rounding and the FY2022 CDS item.

The following sections summarize USGS mission areas and selected programs in FY2022 annual appropriations.

Ecosystems Mission Area

The Ecosystems mission area conducts biological and ecological science to inform natural resource management decisions. Following FY2021 restructuring, Ecosystems now houses five programs, including the Environmental Health Program previously administered under the Energy and Mineral mission area. Congress increased FY2022 appropriations for Ecosystems by \$18.8 million compared to FY2021. Of this amount, Congress increased funding for the National and Regional Climate Adaptation Science Centers by \$10.6 million above the FY2021 enacted level of \$41.3 million (the FY2022 budget request was for an increase of \$43.1 million). These university-based centers conduct research with the aim of helping resource managers understand the impacts of climate change and develop climate adaptation strategies.

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 FY2022 appropriations for Energy and Minerals by \$5.2 million compared to FY2021. Under the Mineral Resources Program, Congress maintained Earth Mapping Resources Initiative (MRI) funding at \$10.6 million (to be used along with funding provided by P.L. 117-58, see "FY2022 Supplemental Appropriations") and \$3.8 million for mine waste research and to characterize mine waste as a potential source for critical minerals (the FY2022 budget request was for \$16.3 million). Under the Energy Resources Program, Congress provided \$2.0 million for geologic carbon sequestration research, which allows for the capture and storage of carbon in geologic formations (the FY2022 budget request was for \$6.0 million).

Natural Hazards Mission Area

The Natural Hazards mission area provides scientific information to reduce losses from natural hazards. Congress increased FY2022 appropriations for Natural Hazards by \$10.5 million compared to FY2021, including a \$4.6 million increase for earthquake hazards and a \$3.0 million increase for volcano hazards. Congress provided \$28.6 million for continued development and expansion of the ShakeAlert West Coast Earthquake Early Warning system and \$2.2 million to begin implementation of the National Volcano Early Warning and Monitoring System. Congress provided \$15.7 million less than the FY2022 request for Coastal/Marine hazards and resources, but \$1.4 million above the FY2021 enacted level of \$40.5 million.

Water Resources Mission Area

The Water Resources mission area monitors water resources and conducts research to improve water management. Congress increased FY2022 appropriations for Water Resources by \$22.8 million compared to FY2021, including \$10.0 million for the Groundwater and Streamflow Information Program and \$6.5 million for the Water Availability and Use Science Program. Of the funding provided for these programs, \$4.0 million was allocated for the USGS to pursue cooperative agreements to foster a pipeline for hydrological sciences workforce.

Core Science Systems Mission Area

The Core Science Systems mission area generally focuses on the USGS's mapping activities and supports science across the agency. The mission also includes the National Land Imaging Program, which operates Landsat satellites. Congress increased FY2022 appropriations for the mission area by \$11.1 million compared to the FY2021 level of \$252.7 million. Congress increased funding for the National Geospatial Program by \$8.1 million compared to the FY2021 enacted level of \$79.5 million. Of this increase, \$4.3 million was for the 3D Elevation Program (3DEP) to fund high-resolution topographic elevation data on tribal and federal lands in western states. Congress did not fund the request of \$60.0 million for activities related to the proposed Department of Energy's Advanced Research Projects Agency for Climate, which would have funded efforts to research potentially high-reward climate adaptation and resilience efforts.

Science Support

The Science Support budget line includes funding to provide business services and information technology management to operate USGS science programs. Congress increased FY2022 appropriations for Science Support by \$5.4 million compared to FY2021 enacted level of \$95.7 million, of which \$0.8 million was a requested increase for diversity initiatives and \$0.2 million was for fleet-related infrastructure (the FY2022 budget request contained a \$7.2 million increase to initiate the transition of USGS's sedan fleet to zero-emission vehicles). The FY2022 budget request also contained an increase of \$8.0 million for Information Services to increase cloud and highperformance computing; Congress provided an additional \$0.3 million in funding.

Facilities

The Facilities budget line includes funding for rent, facility operations and maintenance, and deferred maintenance and repair activities. Congress provided the amount requested in the FY2022 budget request, an increase of \$5.4 million.

FY2022 Supplemental Appropriations

In 2021, Congress provided the USGS with \$537.0 million in supplemental appropriations in P.L. 117-43 and P.L. 117-58. Of these supplemental funds, Congress made \$266.0 million available for FY2022, with the remainder available from FY2023 through FY2026. In P.L. 117-43, Congress provided \$26.3 million for FY2022 to cover expenses related to the effects of wildfires, hurricanes and other natural disasters in 2019, 2020, and 2021. As of early May 2022, the USGS has not published how the agency plans to use those funds. In P.L. 117-58, Congress provided \$239.7 million for FY2022, including \$167.0 million for an energy and minerals research facility in Colorado; \$64.0 million for the USGS Earth MRI; and \$8.7 million for the National Geological and Geophysical Data Preservation Program. The USGS has provided information on how the agency plans to spend this funding, which is to support scientific information and data for infrastructure investments, particularly those using mineral resources.

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