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

Background

The U.S. Geological Survey (USGS) 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 is a scientific agency housed within the Department of the Interior (DOI). In contrast to other DOI bureaus, it has no regulatory authority and does not manage any major federal lands. 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.

Congress created the USGS in 1879 in a portion of a law known as 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.

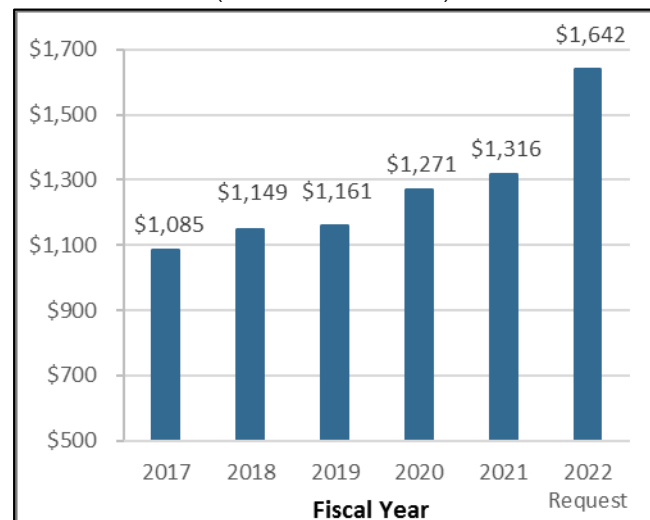
Since 1879, Congress has expanded the USGS's statutory authorities to include activities related to ecosystems and natural hazards. The USGS conducts scientific activities under interdisciplinary mission areas, and each mission area has its own budget line. The USGS also has budget lines for Science Support (administrative activities and information) and Facilities. Congress appropriates funds for the agency through the annual Interior, Environment, and Related Agencies appropriations acts.

FY2022 Budget Request

The President's budget request for FY2022 USGS appropriations is \$1.624 billion, which is \$327 million more than the FY2021 enacted level of \$1.316 billion (a 23.4% increase; **Figure 1**). The FY2022 request, if enacted, would be the highest funding amount ever for the USGS.

In FY2021 appropriations (Division G of P.L. 116-260), 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 (see **Table 1**). Congress also created new programs in the Ecosystems mission area and retained the organization of some of the mission areas (e.g., Water Resources). The FY2022 request reflects this new USGS restructuring, and all mission areas would see increased funding under the budget request.

Figure 1. USGS Annual Appropriations from FY2017 to FY2021 and FY2022 Budget Request
(nominal \$, in millions)



Source: Congressional Research Service (CRS) with public law data.

Table 1. USGS Funding: FY2020 and FY2021 Enacted and FY2022 Budget Request
(nominal \$, in millions)

Mission Area or Budget Line	FY2020 Enacted	FY2021 Enacted	FY2022 Requested
Ecosystems	170.5	259.1	358.2
Land Resources	166.3	0.0	0.0
Energy and Mineral Resources	113.5	90.0	140.0
Natural Hazards	170.9	175.5	207.7
Water Resources	234.1	263.1	288.4
Core Science Systems	137.9	252.7	341.9
Science Support	96.8	95.7	121.4
Facilities	180.9	179.4	184.8
Total	1,271.0	1,315.5	1,642.4

Sources: FY2022 U.S. Geological Survey Budget Justification, P.L. 116-94, and P.L. 116-260.

Notes: P.L. 116-260 eliminated Land Resources and transferred funding for those activities to Core Science Systems and Ecosystems. Table figures may not add to totals shown due to rounding.

The following sections summarize USGS mission areas and selected programs from the FY2022 budget request.

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. The FY2022 budget requests an increase of \$99.1 million above the FY2021 enacted level of \$249.1 million for Ecosystems. Specifically, the budget request proposes an increase of \$43.1 million above the FY2021 enacted level of \$41.3 million for the National and Regional Climate Adaptation Science Centers. These university-based centers conduct research with the aim of helping resource managers understand the impacts of climate change and develop climate adaptation strategies. Other requested funding increases across the mission area include activities to support conservation science and adaptive management of DOI land, quantify ecosystem services, reduce threats of invasive species and wildlife diseases, and understand climate impacts on tribes.

Energy and Mineral Resources Mission Area

The Energy and Minerals mission area includes scientific research and assessments related to energy and minerals. The FY2022 budget requests an increase of \$49.9 million above the FY2021 enacted level of \$90.0 million for the mission area. Under the Energy Resources Program, the request includes an additional \$23.6 million to support activities related to geologic carbon sequestration, greenhouse gas inventory, and tools for greenhouse gas reduction on federal lands. Under the Mineral Resources Program, the request includes an additional \$26.4 million to support supply chain research related to critical minerals, mine waste research and assessment in support of reclamation and potential mineral recovery, and assessments of potential new sources of critical minerals.

Natural Hazards Mission Area

The Natural Hazards mission area provides scientific information to reduce losses from natural hazards. The FY2022 budget requests an increase of \$32.3 million above the FY2021 enacted level of \$175.5 million for the mission area, including a \$17.0 million increase for the Coastal and Marine Hazards and Resources Program to improve coastal resilience and risk reduction. Increased funding in other Natural Hazard programs would support subduction zone and seismicity science, landslide hazard data and science, national volcano center improvements, and expansion of observatories measuring space weather.

Water Resources Mission Area

The Water Resources mission area monitors water resources and conducts research to improve water management. The FY2022 budget requests an increase of \$25.3 million above the FY2021 enacted level of \$263.1 million for the mission area, including increased funding for the Water Availability and Use Science Program and for the Groundwater and Streamflow Information Program (GSIP). Under GSIP, the Next Generation Water Observing System, initiated in FY2018, would receive \$30.9 million to

pilot technology in selected watersheds; Federal Priority Streamgages, the backbone network of federal streamgages, would receive \$28.3 million. The budget request includes \$64.5 million of Cooperative Matching Funds for activities across Water Resources—the same as FY2021 funding.

Core Science Systems Mission Area

The Core Science Systems mission area generally focuses on the USGS's mapping mission and supporting science across the agency. In FY2021, Congress transferred the National Land Imaging Program, which includes operations for the Landsat satellite constellation, to Core Science Systems. The FY2022 budget requests an increase of \$89.2 million above the FY2021 enacted level of \$252.7 million for the mission area. The request includes an increase of \$60.0 million for collaborative research in climate adaptation and resilience as part of the Department of Energy's proposed Advanced Research Projects Agency for Climate (ARPA-C) effort to invest in high-risk, and potentially high-reward, research on climate adaptation and resilience and achieving a net zero emission economy by 2050. Other requested funding increases across the mission area include activities to support conservation planning and monitoring (i.e., through the U.S. Protected Areas Database), collect geospatial data on tribal lands, monitor land cover and changes, and quantify biologic carbon sequestration in ecosystems.

Science Support

The Science Support budget line includes funding to provide business services and information technology management to operate USGS science programs. The FY2022 budget requests an increase of \$25.7 million above the FY2021 enacted level of \$95.7 million for the budget line, which would fund initiatives that aim to strengthen scientific integrity and diversity, invest in cloud and high-performance computing advances, and initiate the transition of USGS's sedan fleet to zero-emission vehicles.

Facilities

The Facilities budget line includes funding for rent, facility operations and maintenance, and deferred maintenance and repair activities. The FY2022 budget requests an increase of \$5.4 million above the FY2021 enacted level of \$179.4 million for Facilities.

Issues for Congress

The Biden Administration requested \$327 million more for the USGS FY2022 budget than the FY2021 enacted level of \$1.316 billion. This contrasts with the Trump Administration, which requested overall cuts to the USGS budget. Congress countered these requests by repeatedly funding the USGS at higher levels than requested in previous fiscal years. Congress may choose to continue this trend by increasing funding for the USGS in FY2022, either at the requested level or another amount, or it may provide level or reduced funding for the agency compared with FY2021.

Anna E. Normand, Analyst in Natural Resources Policy

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