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Updated January 4, 2021

# The U.S. Geological Survey (USGS): FY2021 Appropriations Process 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:

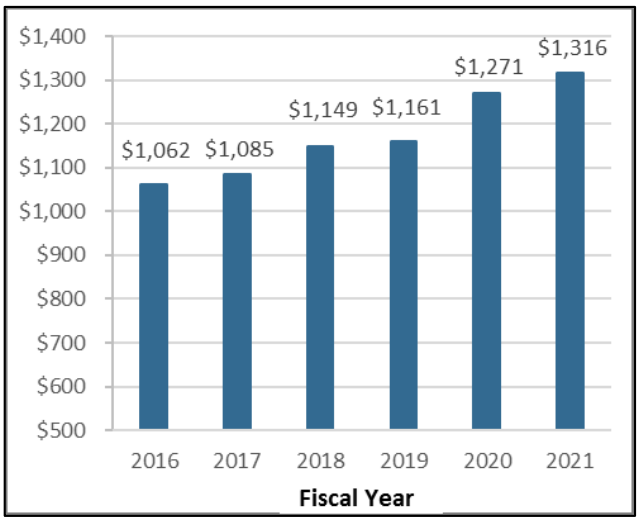
> [The Director of the USGS] shall have the direction of the United States Geological Survey, and the classification of the public lands and examination of the geological structure, mineral resources, and products of the national domain.

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.

## Appropriations

Through P.L. 116-260, Congress appropriated $1.316 billion to the USGS for FY2021 under Division G, the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2021. FY2021 appropriations were $344 million above the FY2021 President's budget request of $971.2 million and $45 million above the FY2020 enacted level of $1.271 billion (a 3.5% increase; see **Figure 1**). The FY2021 President's budget request proposed restructuring mission areas (see **Table 1**) and reorganizing programs under mission areas. In the FY2021 appropriations act, 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. Congress also created new programs in Ecosystems and retained the organization of some of the mission areas (e.g., Water Resources). Compared with FY2020 funding, the act increased funding for all mission areas except Energy and Mineral Resources. (The act funded the Environmental Health Program under Ecosystems instead of under Energy and Mineral Resources, as in previous acts.) The act decreased funding for Science Support and Facilities compared with FY2020 levels.

**Figure 1. USGS Annual Appropriations**
(FY2016-FY2021; nominal $, in millions)




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

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

| Mission Area or Budget Line | FY2020 Enacted | FY2021 Request | FY2021 Enacted |
|---|---|---|---|
| Ecosystems | 170.5 | 127.3 | 259.1 |
| Land Resources | 166.3 | 0.0 | 0.0 |
| Energy and Mineral Resources | 113.5 | 91.2 | 90.0 |
| Natural Hazards | 170.9 | 138.0 | 175.5 |
| Water Resources | 234.1 | 180.8 | 263.1 |
| Core Science Systems | 137.9 | 212.0 | 252.7 |
| Science Support | 96.8 | 94.2 | 95.7 |
| Facilities | 180.9 | 127.6 | 179.4 |
| **Total** | **1,271.0** | **971.2** | **1,315.5** |

**Sources:** FY2021 U.S. Geological Survey Budget Justification; P.L. 116-94; and P.L. 116-260.

**Note:** 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 enacted FY2021 appropriations.

### Ecosystems Mission Area

The Ecosystems Mission Area conducts biological and ecological science to inform natural resource management decisions. The budget request proposed consolidating research spread across five Ecosystem programs into three new programs and one new center, and it proposed eliminating the USGS's Cooperative Research Units (CRUs). Congress funded five reorganized programs and the CRUs. Congress adopted the proposal to create a Species Management Research program and a Land Management Research program. Deviating from the budget request's proposed reorganization, Congress created a Biological Threats and Invasive Species Research program to conduct science for managing significant invasive species and wildlife diseases and a Climate Adaptation Science Center and Land Change Science program, which incorporates activities previously funded under Land Resources. Congress rejected eliminating the Environmental Health program, which supports studies of the effect of contaminants and pathogens on humans and other organisms, and funded the program at $24.7 million under Ecosystems. Congress also rejected the request to eliminate CRUs and instead funded them at $25.0 million.

### Energy and Mineral Resources Mission Area

The Energy and Minerals Mission Area includes scientific research and assessments related to energy and minerals. Previously, it also included the Environmental Health program, which Congress transferred to Ecosystems in FY2021. Congress provided level funding for both the Energy Resources program and the Mineral Resources program, including $10.6 million for mapping and surveying critical minerals. Critical minerals, according to the USGS, are "mineral commodities that have important uses and no viable substitutes, yet face potential disruption in supply, and are defined as critical to the Nation's economic and national security." Congress also directed the USGS to provide a report to the Committees on Appropriations on potential initiatives to increase domestic critical mineral supply.

### Natural Hazards Mission Area

The Natural Hazards Mission Area provides scientific information to reduce losses from natural hazards. For FY2021, Congress funded programs in the mission area at level or increased funding, compared with FY2020. The Landslides Hazards program received an additional $4 million above FY2020 levels to study potential landslides and resulting tsunamis in Alaska. Under the Earthquake Hazards program, Congress provided $25.7 million for continued development and expansion of the ShakeAlert West Coast earthquake early warning system.

### Water Resources Mission Area

The Water Resources Mission Area monitors water resources and conducts research to improve water management. The budget request proposed restructuring the mission area to create two new programs and eliminate the Water Resources Research Act Program. Congress rejected the proposal by retaining all programs and increased funding for the mission area by $29 million for FY2021 compared with FY2020. Congress directed $64.5 million as Cooperative Matching Funds for activities across Water Resources. Congress funded the Next Generation Water Observing System (NGWOS), initiated in FY2018, at $24.5 million. According to the USGS, NGWOS will support more accurate national modern water prediction and response by developing dense networks of water monitoring systems in medium-sized watersheds representative of larger water-resource regions.

### Core Science Systems Mission Area

The Core Science Systems Mission Area generally focuses on the USGS's mapping mission. The budget request proposed transferring the National Land Imaging program and some components of the Land Change Science program from Land Resources to Core Science Systems; Congress transferred only the National Land Imaging program to Cores Science Systems. Under the National Land Imaging program, Landsat satellite system operations received $84.3 million for FY2021, in part to support Landsat 9 (scheduled to launch in 2021). Under the National Geospatial Program, Congress provided no less than $46 million for the 3D Elevation program, which aims to acquire high-resolution elevation data over the entire country.

### Facilities

The Facilities budget line includes funding for rent, facility operations and maintenance, and deferred maintenance and repair activities. Under deferred maintenance and capital improvement, Congress provided $55.5 million for renovation of the National Wildlife Health Center, which conducts research for detecting novel zoonotic pathogens and emerging infectious diseases, developing rapid diagnostic tests, conducting disease surveillance, and designing vaccines to control these diseases. Congress also directed the USGS to obligate necessary funds for the new Hydrologic Instrumentation Facility, which first received appropriations in FY2020 to improve hydrologic capabilities through a research-to-operations framework.

## Congressional Oversight

The President's FY2021 budget request proposed restructuring and reorganizing the USGS mission areas, stating that the realignment would ensures programs with similar objectives and themes are managed within the same mission areas (e.g., land imaging programs with other mapping programs; adaptation and landscape science with biological science programs) and existing staff are leveraged more effectively. Through P.L. 116-260, Congress reduced the mission areas by eliminating Land Resources, per the request, and moving its programs to other mission areas. Overall, Congress directed reorganization of some programs and rejected reorganizing and eliminating other programs. Congress may consider oversight on whether changes (1) improve efficiencies and better utilize resources and expertise, as the Administration suggested, and (2) result in funding levels that enable the USGS to accomplish its mission.

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