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The U.S. Geological Survey (USGS): FY2020 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; manage water, biological, energy, and mineral resources; and enhance and protect the nation’s quality of life. USGS is a scientific agency that is housed within the Department of the Interior (DOI). Its primary mission is conducting science; in contrast to other DOI bureaus, it has no regulatory authority and does not manage any major federal land areas. USGS also collects and stores scientific information in long-term continuous data sets. These data sets range from satellite imagery of land and ecosystem features to streamflow and groundwater data.

USGS was created in 1879 in a portion of a law that is known as the USGS Organic Act (43 U.S.C. §31). The USGS Organic Act defines 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.”

The USGS’s scope has expanded over time from its early activities of studying mineral deposits and mapping. Presently, USGS conducts scientific activities under six interdisciplinary mission areas: (1) Ecosystems, (2) Land Resources, (3) Energy, Minerals, and Environmental Health (4) Natural Hazards, (5) Water Resources, and (6) Core Science Systems. USGS also has budget lines for Science Support (administrative activities and information) and Facilities (sites where USGS activities are housed). The agency generally is funded through the Interior, Environment, and Related Agencies appropriations laws.

USGS activities have both national and regional policy implications. USGS often partners with stakeholders in its monitoring and scientific endeavors and contributes scientific knowledge to seminal policy decisions, such as the listing of species under the Endangered Species Act.

Appropriations

The President’s budget request for FY2020 USGS appropriations is \$983.5 million, which is \$177.1 million less than the FY2019-enacted level of \$1,160.6 million (a 15.3% reduction; see **Table 1**). The FY2020 request, if enacted, would be the lowest funding amount for USGS since 2007 (**Figure 1**). The request proposes restructuring USGS from six to five mission areas and reorganizing mission areas with new programs.

Table 1. USGS Funding FY2018-FY2020 Request
(nominal \$ in millions)

Mission Area	FY2018 Enacted	FY2019 Enacted	FY2020 Request
Ecosystems	157.7	156.9	141.0
Land Resources	152.5	158.3	0.0
Energy, Minerals, and Environmental Health	102.8	111.7	86.1
Natural Hazards	178.6	166.3	145.0
Water Resources	217.6	226.3	179.9
Core Science Systems	116.3	117.9	207.2
Science Support	102.8	102.8	102.9
Facilities	120.1	120.4	121.3
Total	1,148.5	1,160.6	983.5

Sources: U.S. Department of Interior Budget Justifications and Performance Information, FY2020, U.S. Geological Survey; P.L. 116-6; and P.L. 115-141.

All mission areas would receive reductions in funding from FY2019 levels under the FY2020 request. (Core Science Systems would receive a reduction when discounting the addition of the National Land Imaging Program.) The largest reductions would be for the Energy, Minerals, and Environmental Health Mission Area (approximately 23%) and the Water Resources Mission Area (approximately 21%). The Administration stated that these reductions are needed to address higher-priority needs in other areas. The mission areas as proposed with new changes are discussed below.

Ecosystems Mission Area

The Ecosystems Mission Area conducts biological and ecological science to inform natural resource management decisions. The budget proposes consolidating research spread across five existing Ecosystem programs into three new programs and one new center: Species Management Research Program, Land Management Research Program, Biological Threats Research Program, and Climate Adaptation Science Center. The request also proposes eliminating the Cooperative Research Units (CRU) Program (CRUs received \$18.4 million in FY2019). CRUs are intended to enhance graduate education in fisheries and wildlife science through research partnerships with the

USGS, state natural resource agencies, universities, and other stakeholders. Elimination of CRUs and the Contaminants Biology Program, coupled with other program reductions, would lead to a total decrease of approximately \$77 million to the Ecosystems mission area under the new structure.

Core Science Systems Mission Area

The Core Science Systems Mission Area focuses on the mapping mission of USGS. Under the proposed restructuring, the National Land Imaging Program and some components of the Land Change Science Program would transfer to Core Science Systems. The National Land Imaging Program operates the Landsat land remote sensing satellite system, including two active satellites; it is preparing Landsat 9, the latest satellite in the series, for a 2021 launch.

Energy, Minerals, and Environmental Health Mission Area

The Energy, Minerals, and Environmental Health Mission Area includes scientific research and assessments related to energy and minerals. The FY2020 request proposes to eliminate the Environmental Health Program, which supports studies of the effect of contaminants and pathogens on humans and other organisms. In contrast, there is a proposed increase of \$10.6 million for mapping and surveying critical minerals through the Earth Mapping Resources Initiative.

Critical minerals, according to 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.”

Surveying for critical minerals is proposed in Alaska, the midcontinent, and the Western United States through public-private partnerships. The Administration has justified the proposed increase as helping to reduce U.S. dependence on foreign nations for critical mineral supplies.

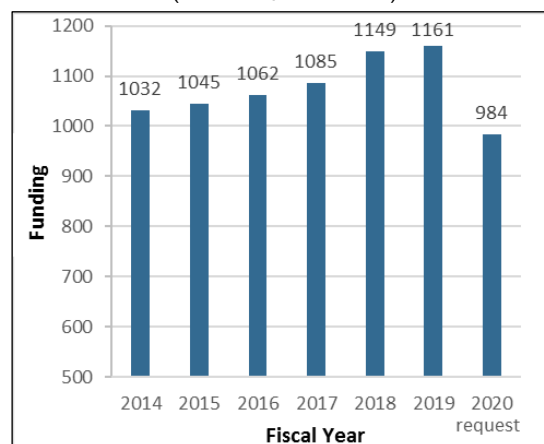
Water Resources Mission Area

The Water Resources Mission Area monitors water resources and conducts research to improve water management. The budget request proposes restructuring the mission area to create two new programs and eliminating the Water Resources Research Act Program. The proposed Water Observing Systems program would combine the current Groundwater and Streamflow Information Program, which encompasses over 10,000 streamgages, and some water quality monitoring.

Natural Hazards Mission Area

The Natural Hazards Mission Area provides scientific information to reduce losses from natural hazards. For FY2020, The Administration proposes to reduce funding for the Earthquake Hazards Program by 23% compared to FY2019. Most of the reduction would be for Earthquake Early Warning activities.

Figure 1. USGS Annual Appropriations
(nominal \$ in millions)



Source: Congressional Research Service (CRS).

Potential Issues for Congress

The Administration has requested less funding for the USGS compared to FY2019. Since FY2017, Congress has increased funding levels for the USGS as compared to the Administration’s request. For example in FY2019, Congress provided a 1% increase over prior year funding levels, despite the Administration’s request for a 25% decrease. The Administration justified its proposed reductions for FY2020 by stating that the request reduces overall program costs and reduces duplication of activities carried out by USGS partners. In previous budget increases, Congress has in some cases targeted specific mission areas.

The priorities and scope of the USGS’s activities and mission also are potential issues for Congress. Some contend that USGS activities have expanded beyond the scope of the USGS Organic Act. They note that USGS involvement in researching ecosystem restoration, species, and environmental health, for example, strays from the USGS’s primary mandate to be a geological survey. These observers would like to see more effort given to geological and energy-related work by USGS. This opinion may be reflected in the Administration’s proposals to reduce funding for these programs and provide greater funding to mineral assessments. Some stakeholders counter this claim by noting that USGS has expanded its scope in response to congressional authorizations and direction. Further, they contend that USGS’s mission has changed over time to reflect the scientific needs of DOI and the country.

A third potential issue for Congress relates to a proposal to relocate some USGS management. The Administration has proposed establishing a headquarters presence in Lakewood, CO, in support of the proposed larger DOI reorganization. The Administration justifies the changes by stating that co-location of USGS leadership with other natural resource agencies will increase efficiency and improve stakeholder engagement. Some stakeholders suggest that the move would decentralize USGS leadership and disrupt the continuity of the agency’s work.

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