

IN FOCUS

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The U.S. Geological Survey: FY2019 Appropriations 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; it has no regulatory authority and does not manage any significant area of federal land. 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 data of major rivers and streams.

Congress authorized the creation of USGS in an appropriations bill that passed on March 3, 1879, and became known as the USGS Organic Act (43 U.S.C. §31). Specifically, the Organic Act states that 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 program areas: (1) Ecosystems, (2) Land Resources, (3) Energy and Minerals, (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.

Congress may be interested in USGS because many USGS activities have both nationwide 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. This In Focus will cover FY2019 appropriations for USGS and present selected issues Congress might consider.

Appropriations

The President's budget request for FY2019 USGS appropriations is \$859.7 million, which is \$225 million less than the FY2018-enacted level of \$1,148.5 million (a 25% reduction). The USGS budget request for FY2019 and FY2017- and FY2018-enacted appropriations are in **Table 1.**

Table I. USGS Funding F	Y2017-FY2019 Request
(in 9	tmillions)

(in \$millions)				
Program Area	FY2017 Enacted	FY2018 Enacted	FY2019 Request	
Ecosystems	159.7	157.7	96.1	
Land Resources	149.3	152.5	103.2	
Energy and Minerals	94.3	102.8	84.I	
Natural Hazards	145.0	178.6	117.3	
Water Resources	214.7	217.6	164.9	
Core Science Systems	116.0	116.3	92.3	
Science Support	105.6	102.8	89.2	
Facilities	100.4	120.1	112.4	
Total	1,085.2	1,148.5	859.7	

Sources: U.S. Department of Interior Budget Justifications and Performance Information, FY2019, U.S. Geological Survey; P.L. 115-141; and P.L. 115-31.

The FY2019 request, if enacted, would be the lowest funding amount for USGS in the last several years (**Figure 1**). All program areas under USGS would receive reductions in funding from FY2018-enacted levels if the budget request were enacted. The largest reductions would be for the Ecosystems Program Area (approximately 40%) and the Land Resources Program Area (approximately 34%). The budget request also proposes to eliminate or reduce funding in several programs and increase funding to others. The Administration stated that these reductions were proposed to address higher-priority funding needs. The following sections discuss selected changes to some USGS program areas.

Ecosystems Program Area

The Cooperative Research Units (CRU) Program is one of the activities proposed for elimination under the Ecosystems Program Area (CRUs received \$17.3 million in FY2018). CRUs are intended to enhance graduate education in fisheries and wildlife science through research partnerships with the USGS, a state natural resource agency, a university, and other stakeholders. The Administration's request also would reduce \$12.6 million from the Environments Program (a 34.6% reduction from FY2018). This program supports research on large-scale ecosystems, such as in the Chesapeake Bay and the Everglades.

Land Resources Program Area

Under the Land Resources Program Area, the National Land Imaging Program would receive a reduction of \$17.6 million compared to FY2018 (an 18.9% reduction). This program prepares Landsat 9 for launch. Landsat 9 would be the latest land remote sensing satellite of a continuous series stretching over 40 years. The Administration proposes to reduce funding for activities in the Land Change Science Program (a 57% reduction from FY2018). Included in these cuts are a reduction of \$8.9 million for carbon sequestration research, \$9.8 million for climate research and development, and \$12.4 million for Climate Adaptation Science Centers.

Energy and Mineral Resources Program Area

The Environmental Health Program of the Energy and Mineral Resources Program Area would be largely eliminated under the FY2019 request. This program studies contaminants and pathogens to determine their effect on humans and other organisms. In contrast, there is a proposed increase in funding for mapping and surveying critical minerals.

Critical minerals, according to USGS, are "mineral commodities that have important uses and no viable substitutes, yet face potential disruption in supply, are defined as critical to the Nation's economic and national security."

Surveying for critical minerals is proposed to be done in Alaska and the Western United States through publicprivate partnerships. One justification for this increase, according to the Administration, is to reduce foreign dependence on supplying critical minerals.

Figure I. USGS Annual Appropriations



Source: CRS.

Water Resources Program Area

The largest proposed reduction in the Water Resources Program Area is for the National Water Quality Program (down 23% compared to FY2018 appropriations). This would include reductions to research aiming to advance water science and status and trends assessments, including a study to measure Lower Mississippi River water quality.

Natural Hazards Program Area

Under the Natural Hazards Program Area, the Administration proposes to reduce funding for the Earthquake Hazards Program and the Volcano Hazards Program by 20% compared to FY2018. Most of the reduction would be for Earthquakes Early Warning activities.

Potential Issues for Congress

In FY2018, the Administration proposed to reduce funding overall for the USGS, but Congress chose to increase funding by nearly 6% compared to FY2017 (**Figure 1**). The issues of how Congress might address the Administration's proposed changes to funding and whether Congress may alter the priorities for USGS research and data collection have arisen again this year.

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 ecosystem restoration research, environmental health, and species research, 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 in USGS. This opinion is potentially shared by the Administration, which proposes to reduce funding from ecological and land-use 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 is a proposal by the Administration to realign USGS's management. The proposal would keep intact the program areas but would change the Associate Directors; the Associate Director for Environmental Health would be removed and a new Associate Director for Alaska would be created. Five fieldbased Assistant Director positions would be created supporting Associate directors for Ecosystems, Energy and Minerals, Natural Hazards, and Water Program Areas. The intent of these field positions is to oversee management of science centers, according to the Administration. The proposal is being done pursuant to E.O. 13781, a "Comprehensive Plan for Reorganizing the Executive Branch." It is unclear if these proposed changes run parallel to proposed changes that would reorganize the structure of DOI into 13 regions throughout the country.

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