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IN FOCUS

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U.S. Geological Survey (USGS): Supplemental Appropriations

The U.S. Geological Survey (USGS) is a science agency in the Department of the Interior (DOI) that aims to provide scientific information about the geological processes of the Earth; to minimize loss of life and property from natural hazards; and to support the management of water, biological, energy, and mineral resources. Congress typically appropriates funds for the agency through annual Interior, Environment, and Related Agencies appropriations acts. For example, annual appropriations for the USGS in FY2022 totaled $1.4 billion (see CRS In Focus IF11850, *The U.S. Geological Survey (USGS): FY2022 Appropriations and Background*). This In Focus covers supplemental appropriations for the USGS that are in addition to annual appropriations.

Table 1 summarizes supplemental appropriations for the USGS for FY2018-FY2026. Supplemental appropriations over the nine-year period total $701.2 million. The Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) provided $510.7 million over the FY2022-FY2026 period for activities related to USGS's energy, mineral, and mapping activities. In addition, the Inflation Reduction Act of 2022 (IRA; P.L. 117-169) provided $23.5 million for FY2022 for USGS three-dimensional (3D) elevation data activities. Three other laws provided a total of $167.0 million for USGS natural hazard response, recovery, and related projects. Congress may consider how effectively the agency uses these funds, among other issues, as discussed below.

Table 1. Enacted USGS Supplemental Appropriations, FY2018-FY2026

Public Law	Total	Description
P.L. 117-169	$23.5M (FY2022)	• To produce, collect, disseminate, and use 3D elevation data (to remain available through FY2031).
P.L. 117-58	$510.7M (FY2022-FY2026)	• $64.0M for each of FY2022, FY2023, FY2024, FY2025, and FY2026 (to remain available for the fiscal year in which appropriated and two subsequent fiscal years) for the USGS Earth Mapping Resources Initiative (§40201 of Division D of P.L. 117-58). • $167.0M for FY2022 for the design, construction, and build-out of an energy and minerals research facility through a cooperative agreement with an academic partner (§40204 of Division D of P.L. 117-58). • $8.7M for FY2022 and $5.0M for each of FY2023-FY2025 (to remain available for the fiscal year in which appropriated and two subsequent fiscal years) for the National Geological and Geophysical Data Preservation Program (§41003(a) of Division D of P.L. 117-58. See also 42 U.S.C. §15908). • Transfer of 0.5% of these appropriations to DOI's Office of Inspector General for funding oversight.
P.L. 117-43	$26.3M (FY2022)	• For expenses related to the consequences of wildfires, hurricanes, and other natural disasters in 2019, 2020, and 2021.
P.L. 116-20	$98.5M (FY2019)	• For expenses related to the consequences of Hurricanes Florence and Michael and wildfires in 2018, earthquake damage associated with emergency declaration EM–3410, and those areas impacted by a major disaster declared pursuant to 42 U.S.C. §§5121 et seq. for 2018 wildfires or volcanic eruptions. • $72.3M of the total is designated for repair and replacement of equipment and facilities damaged by disasters in 2018.
P.L. 115-123	$42.2M (FY2018)	• For expenses related to the consequences of Hurricanes Harvey, Irma, and Maria, and those areas impacted by a major disaster declared (pursuant to 42 U.S.C. §§5121 et seq.) for 2017 wildfires.

Source: CRS, using referenced laws.

Notes: M = million. Nominal dollars. Appropriations are to remain available until expended unless otherwise stated. P.L. 117-58 also appropriated funding for DOI-wide activities, which also may provide funding for the USGS (e.g., $6.6 million to USGS for ecosystem restoration activities).

Natural Hazards Funding

The USGS, with support from nonfederal partners, collects scientific information for long-term data sets, such as streamflow and flood records, and monitors, assesses, and conducts research on natural hazards. To date, supplemental appropriations laws have included $167.0 million for FY2018 through FY2022 for the USGS to repair, replace, or upgrade monitoring equipment and facilities impacted by recent natural disasters and to improve natural hazard science capabilities. The USGS has released plans to allocate this funding (see https://www.usgs.gov/supplemental-appropriations-for-disaster-recovery-activities). The following sections highlight some of the funding and activities.

Hurricanes and Floods

The USGS continues to use supplemental appropriations to conduct work in states and territories impacted by hurricanes and severe storms: AR, FL, GA, HI, LA, NC, NJ, NY, PA, PR, SC, TN, TX, and USVI. This includes spending of around $10 million to replace or harden (i.e., improve structures to withstand hazards) hundreds of streamgages and to update post-storm conditions in streams and rivers. The USGS is spending $15.5 million to update lidar surveys and conduct coastal assessments and risk forecasts in affected areas. Further, the agency is spending $8.1 million to upgrade the Puerto Rico Seismic Network and the Puerto Rico Strong Motion Program, which were impacted by Hurricane Maria.

Volcanoes and Earthquakes

The USGS is spending $73.4 million of FY2019 supplemental appropriations for activities related to the intense eruptions at Kilauea Volcano in Hawaii in 2018, which damaged at least 724 structures. Of the total, $10.8 million is for rebuilding and hardening the Hawaiian Volcano Observatory monitoring network, $3.0 million is for investigations, and $59.6 million is for construction of a new facility in Hilo to replace facilities at the summit of Kilauea Volcano that were damaged beyond repair in 2018. The USGS also is spending $4.3 million in FY2019 supplemental appropriations to harden and improve Alaska Volcano Observatory facilities and monitor network infrastructure after the 2018 magnitude 7.1 earthquake that struck north of Anchorage. Upgrades to facilities and network infrastructure are to ensure volcano monitoring capabilities and hazard communications in emergencies. With FY2022 supplemental appropriations, the USGS is upgrading portable seismic equipment in California, Puerto Rico, and Utah.

Wildfires and Landslides

The USGS is spending about $20 million provided in FY2018, FY2019, and FY2022 supplemental appropriations to assess post-wildfire landslide hazards and to conduct lidar studies in California and Washington, and for assessment and updates to models of fire behavior and their impacts on DOI land. The USGS also is spending about $5 million to repair, replace, or harden the seismic network in California for earthquake monitoring after parts of the network were damaged in wildfires. In response to landslides associated with Hurricane Maria, the USGS spent $5.8 million for post-landslide assessments and lidar studies to identify landslide hazards, which contributed to a landslide susceptibility map for Puerto Rico.

Mapping, Energy, and Minerals Funding

The IRA, a budget reconciliation measure pursuant to the FY2022 budget resolution (S.Con.Res. 14), provided $23.5 million for FY2022 to remain available through FY2031 for USGS 3D elevation data activities. The USGS carries out many of these activities through its 3D Elevation Program (3DEP; 43 U.S.C. §3104). As of August 2022, the USGS has not released plans for its IRA funding.

The IIJA funded $510.7 million for activities authorized in Division D of the act that aim to bolster supply chains for clean energy technologies. For example, the IIJA provided $320.0 million for the USGS Earth Mapping Resources Initiative, which aims to complete a national surface and subsurface mapping and data integration effort that prioritizes mapping (e.g., topographic, geologic, geochemical, and geophysical mapping). This initiative was first funded in FY2019 and received $10.6 million in FY2022 annual appropriations. The IIJA also included $23.7 million to augment existing efforts to characterize, digitally document, and preserve physical geologic samples that may relate to mineral exploration. The USGS released a spend plan for its IIJA activities on February 16, 2022 (see https://www.usgs.gov/media/files/usgs-bipartisan-infrastructure-law-spend-plan).

The IIJA also provided $167.0 million for a USGS Energy and Minerals Research Facility in Golden, CO, to replace an outdated facility. In May 2022, the USGS signed a memorandum for a cooperative agreement with the Colorado School of Mines for the design of the facility.

Issues for Congress

As previously noted, the USGS released details on its spending plans for most of its supplemental appropriations. Specific issues for Congress may include how quickly these funds are being spent, what activities have been funded, and what sorts of output and/or performance measures are being tracked by the USGS and other observers. Congress also may wish to consider broader questions, such as how effective the funding is in accomplishing specific purposes set out by Congress; such purposes include reducing hazard impacts and identifying mineral resources to improve supply chains. Another question may be if and how Congress wishes to adjust funding in future years.

Congress may consider how to ensure reliable, robust hazard monitoring for short-term hazardous events as well as long-term observations, both of which contribute to scientific understanding, risk assessment, hazard mitigation, warnings, and hazard response. Monitoring infrastructure may be damaged in a hazardous event. Funding for maintaining, repairing, and replacing monitoring infrastructure to allow for continuous monitoring could be a congressional issue.

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