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INSIGHT

Landslide Hazards Legislation in the 116th Congress

Updated December 4, 2020

Authorizing a Landslide Hazards Program

The U.S. Geological Survey (USGS) estimates that landslides kill an average of 25-50 people each year in the United States and account for $1 billion to $2 billion annually in damages. Three nearly identical bills, S. 529, H.R. 1261, and H.R. 8810, titled the National Landslide Preparedness Act, would authorize a national landslide hazards reduction program within the USGS. The USGS currently operates, under its Organic Act of 1879 and other authorities, such as the Disaster Relief Act of 1974 (P.L. 93-288), a Landslide Hazards Program (funding level of $4.0 million in FY2020) within its Natural Hazards Program. The bills would broaden the USGS's current activities and require coordination with other federal agencies.

The legislation would direct the Secretary of the Interior (Secretary), acting through the Director of the USGS, to establish a program to identify risks and hazards from landslides, reduce losses, protect communities at risk, and improve communication and emergency preparedness. The bills would require the program to map and assess landslide hazards; respond to landslide events; coordinate with nonfederal entities to identify regional and local priorities; and develop and implement landslide hazard guidelines for geologists, engineers, emergency managers, and land-use decisionmakers.

The House passed H.R. 1261 on June 3, 2019, the Senate passed S. 529 on July 30, 2020, and the House passed H.R. 8810 on December 3, 2020. Congress must reconcile differences in the bills (e.g., reporting, authorization of appropriations, and technical terminology) to enact the legislation.

Managing the Program

Section 3 of the bills would structure the program with elements roughly parallel to the National Earthquake Hazards Reduction Program (NEHRP; P.L. 115-307). An interagency committee chaired by the Department of the Interior (DOI) would oversee and coordinate the landslide program and support the development and execution of a national strategy for landslide hazards and risk reduction. The national strategy would include an interagency plan for carrying out the national strategy.

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IN11008

Advisory Committee

The bills would establish an advisory committee on landslides that would provide advice and recommendations to the interagency committee on implementing the program. It would include members from states, territories, Indian tribes, research and academic institutions, industry standards development organizations, and emergency management agencies.

Data, Early Warning, and Emergency Response

The program would develop a publicly accessible national landslide hazards database. It also would develop planning and risk-reduction guidance, maps, tools, and training materials for nonfederal governments and decisionmakers to assist their efforts in reducing landslide risks. The legislation would direct the Secretary, in coordination with the Secretaries of Commerce and of Homeland Security, to expand the early warning system for flash floods and debris flows, particularly for increased risk following wildfires. In addition, the bills call for the program to establish emergency response procedures for rapid deployment of federal assets to areas affected by a landslide event.

Cooperative Grants

Section 3 of the bills would authorize landslide-related grant programs. DOI, acting through the USGS, would administer a cooperative grant program, available to nonfederal governments for landslide research, mapping, assessment, and data collection. The cooperative grant program would prioritize projects that would achieve the greatest hazard risk reduction, reflect goals of the national strategy, and have a minimum 50% nonfederal cost share. The National Science Foundation would administer a separate research grant program to fund studies reflecting the goals and priorities of the national strategy.

3D Elevation Program

The bills would authorize—in Section 5—a three-dimensional (3D) elevation program that could be viewed as complementary to, and providing data that would be important for, the landslide hazards program authorized in Section 3. The bills define 3D elevation data as "3D, high-resolution data obtained using LiDAR, IfSAR, or other methods over the United States." Section 5 would authorize what is currently an initiative at the USGS. High-quality, precise, and accurate elevation data generally are considered important to better understand landslide hazards, flood hazards, and changes to the Earth's land surface, such as land subsidence from groundwater pumping.

Both bills would establish a program with three broad goals:

1. Provide 3D elevation data coverage for the United States;
2. Coordinate and facilitate the collection, dissemination, and use of 3D elevation data among federal agencies and nonfederal entities; and
3. Produce standard, publicly accessible 3D elevation products.

To achieve these goals, the legislation would enable the use of cooperative agreements and promote the development and maintenance of spatial data infrastructure; the development of standards and guidelines; and the identification, assessment, and adoption of emerging technology.

Managing and Advising the Program

Similar to the landslide program and NEHRP, the legislation would authorize an interagency coordinating committee, chaired by the Secretary. The coordinating committee also would develop a strategic plan and a management plan to implement the strategic plan.

Section 5 would create a subcommittee of the National Geospatial Advisory Committee, an entity authorized under the National Geospatial Data Act of 2018 (P.L. 115-307), to advise the 3D elevation program interagency coordinating committee. The advisory committee would assess trends in 3D data collection and in science and technology, and it would assess effectiveness; the need to revise; and management, implementation, and activities of the 3D elevation program.

Grants and Cooperative Agreements

The 3D elevation program would be authorized to make grants and enter into cooperative agreements with other federal agencies, as well as with nonfederal governments; institutions of higher education; nonprofit research organizations; and other organizations. The objective would be to improve nationwide coverage of 3D elevation data, and the agreements would require making data publicly available and interoperable with other federal datasets, as determined by the Secretary of the Interior.

For the Landslide Hazards Program, H.R. 1261 would authorize $37 million annually from FY2020 to FY2023, whereas S. 529 and H.R. 8810 would authorize $37 million annually from FY2021 to FY2024. For the 3D elevation program, H.R. 1261 would authorize $40 million annually from FY2020 to FY2023, S. 529 would authorize $20 million annually from FY2021 to FY2024, and H.R. 8810 would authorize $40 million annually from FY2021 to FY2024.

Author Information

Anna E. Normand
Analyst in Natural Resources Policy

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