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INSIGHT

Landslide Hazards Legislation in the 115th Congress

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Authorizing a Landslide Hazards Program

Two nearly identical bills, S. 698 and H.R. 1675, both titled the National Landslide Preparedness Act, would authorize a national landslide hazards reduction program within the U.S. Geological Survey (USGS). 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 $3.5 million in FY2018) within its Natural Hazards Program. Section 3 of both bills would broaden USGS's current activities and require coordination with other federal agencies.

The purpose of the legislation would be to identify landslide 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 states and Indian tribes to identify regional and local priorities; and develop and implement landslide hazard guidelines for geologists, engineers, and land-use decisionmakers. USGS estimates that landslides kill an average of 25-50 people each year in the United States and account for $1-$2 billion annually in damages.

Managing the Program

Section 3 of S. 698 and H.R. 1675 would structure the program with elements roughly parallel to the National Earthquake Hazards Reduction Program (NEHRP), reauthorized on December 11, 2018 (P.L. 115-307). Similar to NEHRP, an interagency committee chaired by the Department of the Interior (DOI) would oversee and coordinate the landslide program and would support the development and execution of

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a national strategy for landslide hazards and risk reduction. The national strategy would include an interagency plan for carrying out the national strategy.

Advisory Committee

The bills would establish an advisory committee on landslides, similar to the advisory committee on earthquake hazards reduction in NEHRP. The advisory committee would provide advice and recommendations to the interagency committee on implementing the program. It would include members from states, 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 state, local, and tribal governments and decisionmakers to assist their efforts in reducing landslide risks. The legislation would expand the early warning system for flash floods and debris flows, particularly for increased risk following wildfires. In addition, the bills would establish emergency response procedures for rapid deployment of federal assets to areas affected by a landslide event.

Cooperative Grants

Section 3 of S. 698 and H.R. 1675 also would authorize landslide-related grant programs. DOI would administer a cooperative grant program, available to state, local, and tribal governments for landslide research, mapping, assessment, and data collection. The cooperative grant program would prioritize projects that would achieve the greatest hazard and risk reduction, reflect goals of the national strategy, and have a maximum 50% 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

Both S. 698 and H.R. 1675 would authorize—in Section 5—a 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 "3-dimensional, high-resolution data obtained using lidar, ifsar, or other methods over the United States (including territories)." Section 5 of the bills would authorize a 3D elevation program that is currently an initiative at USGS and "is being developed to respond to growing needs for high-quality topographic data and other 3-dimensional representations of the Nation's natural and constructed features." 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, in addition to other features.

Goals

Section 5 of 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 departments and agencies and nonfederal entities (such as state, local, and

tribal governments, communities, institutions of higher education, and the private sector); 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 of the Interior, to oversee planning, management, and coordination of the 3D elevation program. Within a year of enactment, 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

Similar to the landslide hazards program, the 3D elevation program would be authorized to make grants and enter into cooperative agreements with other federal departments and agencies, as well as with tribal, state, and local governments, institutions of higher education, nonprofit research organizations, and other organizations. The objectives 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.

The bills would not authorize any specific appropriations amount for the landslide hazards or 3D elevation program.