

NATIONAL LANDSLIDE PREPAREDNESS ACT

NOVEMBER 16, 2018.—Ordered to be printed

Mr. BISHOP of Utah, from the Committee on Natural Resources,
submitted the following

R E P O R T

[To accompany H.R. 1675]

[Including cost estimate of the Congressional Budget Office]

The Committee on Natural Resources, to whom was referred the bill (H.R. 1675) to establish a national program to identify and reduce losses from landslide hazards, to establish a national 3D Elevation Program, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “National Landslide Preparedness Act”.

SEC. 2. DEFINITIONS.

In this Act:

- (1) 3D.—The term “3D” means 3-dimensional.
- (2) 3D ELEVATION DATA.—
 - (A) IN GENERAL.—The term “3D elevation data” means 3D, high-resolution data obtained using lidar, ifsar, or other methods over the United States (including territories).
 - (B) INCLUSIONS.—The term “3D elevation data” includes terrestrial and bathymetric elevation data.
- (3) 3D ELEVATION PROGRAM.—The term “3D Elevation Program” means the 3D Elevation Program established under section 5(a).
- (4) IFSAR.—The term “ifsar” means interferometric synthetic aperture radar.
- (5) INDIAN TRIBE.—The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).
- (6) LIDAR.—The term “lidar” means light detection and ranging.
- (7) SECRETARY.—The term “Secretary” means the Secretary of the Interior, acting through the Director of the United States Geological Survey.
- (8) STATE.—The term “State” means any unit of State or Territorial government handling the identification, mapping, assessment, and research of landslide hazards or responding to landslide events, including—

- (A) a State geological survey office;
- (B) a State department of emergency response; and
- (C) a State department of transportation.

SEC. 3. NATIONAL LANDSLIDE HAZARDS REDUCTION PROGRAM.

(a) **ESTABLISHMENT.**—The Secretary shall establish a program, to be known as the “National Landslide Hazards Reduction Program” (referred to in this section as the “program”)—

- (1) to identify and understand landslide hazards and risks;
- (2) to reduce losses from landslides;
- (3) to protect communities at risk of landslide hazards; and
- (4) to help improve communication and emergency preparedness, including by coordinating with communities and entities responsible for infrastructure that are at risk of landslide hazards.

(b) **DESCRIPTION OF PROGRAM.**—

(1) **PROGRAM ACTIVITIES.**—The Secretary, in coordination with the Interagency Coordinating Committee on Landslide Hazards established by subsection (c)(1) (referred to in this section as the “Committee”) and in coordination with existing activities of the United States Geological Survey and other Federal agencies, shall—

- (A) identify, map, assess, and research landslide hazards;
- (B) respond to landslide events; and
- (C) in coordination with States and Indian tribes—
 - (i) establish working groups with States and Indian tribes to identify regional and local priorities for researching, identifying, mapping, and assessing landslide hazards; and
 - (ii) develop and implement landslide hazard guidelines for—
 - (I) geologists;
 - (II) geological and geotechnical engineers; and
 - (III) land use and other decisionmakers.

(2) **NATIONAL STRATEGY.**—Not later than 180 days after the date of enactment of this Act, and every 5 years thereafter, the Secretary, in coordination with the Committee, shall develop and publish a national strategy for landslide hazards and risk reduction in the United States, which shall include—

- (A) goals and priorities for the program;
- (B) priorities for data acquisition, research, communications, and risk management on landslides and landslide hazards across relevant Federal agencies; and
- (C) a detailed interagency plan to carry out the national strategy, including details about the programs, projects, and budgets that will be used to implement the national strategy.

(3) **NATIONAL LANDSLIDE HAZARDS DATABASE.**—In carrying out the program, the Secretary, in coordination with States and Indian tribes, shall develop and maintain a publicly accessible national landslide hazard and risk inventory database to compile, maintain, standardize, and evaluate data regarding—

- (A) landslide hazards and risks nationwide;
- (B) the nationwide impact of landslides on—
 - (i) health and safety;
 - (ii) the economy and infrastructure; and
 - (iii) the environment;
- (C) landslide hazard stabilization; and
- (D) reduction of losses from landslides.

(4) **LANDSLIDE HAZARD AND RISK PREPAREDNESS FOR COMMUNITIES.**—In carrying out the program, the Secretary, in coordination with the Secretary of the Army, the Secretary of Commerce, the Secretary of Homeland Security, the Secretary of Transportation, and the heads of other relevant Federal agencies, and in consultation with States and Indian tribes, shall develop and disseminate—

- (A) landslide planning and risk reduction guidance, guidelines, maps, tools, and training materials to help inform State, local, and tribal governments and decisionmakers with respect to—
 - (i) the use and implementation of landslide hazard assessments;
 - (ii) the applied use of the database developed under paragraph (3);
 - (iii) reducing losses from landslides; and
 - (iv) resources available for communities working to improve landslide hazard preparedness; and
- (B) landslide preparedness curricula and training modules for—
 - (i) State, local, and tribal officials;
 - (ii) Federal, State, local, and tribal emergency managers; and
 - (iii) the National Guard.

(5) FLASH FLOOD AND DEBRIS FLOW EARLY WARNING SYSTEM.—In carrying out the program, the Secretary, in coordination with the Secretary of Commerce and Secretary of Agriculture, shall expand the early warning system for flash floods and debris flow by—

(A) expanding the early warning system for post-wildfire debris flow to include recently burned areas across the western United States;

(B) developing procedures with State, local, and tribal governments to monitor stormwater drainage in areas with high flash flood and debris flow risk;

(C) identifying high-risk debris flow areas, such as recently burned land and potential lahar hazard areas; and

(D) identifying areas susceptible to post-wildfire landslides.

(6) EMERGENCY RESPONSE ACTIVITIES.—In carrying out the program, the Secretary, in coordination with the Secretary of Commerce, the Secretary of Homeland Security, the heads of other relevant Federal agencies, States, and Indian tribes, shall establish emergency response procedures for the rapid deployment of Federal scientists, equipment, and services to areas impacted by a significant landslide event—

(A) to support emergency response efforts and improve the safety of emergency responders;

(B) to improve data collection; and

(C) to conduct research to advance the understanding of the causes, impacts, and reduction of landslide hazards and risks.

(c) INTERAGENCY COORDINATING COMMITTEE ON LANDSLIDE HAZARDS.—

(1) IN GENERAL.—There is established a committee, to be known as the “Interagency Coordinating Committee on Landslide Hazards”.

(2) MEMBERSHIP.—The Committee shall be composed of the following members (or their designees):

(A) The Secretary, who shall serve as Chairperson of the Committee.

(B) The Secretary of the Army.

(C) The Secretary of Commerce.

(D) The Secretary of Homeland Security.

(E) The Secretary of Transportation.

(F) The Director of the National Science Foundation.

(G) The Director of the Office of Science and Technology Policy.

(H) The Director of the Office of Management and Budget.

(I) The Secretary of Agriculture.

(3) MEETINGS.—The Committee shall meet at the call of the Chairperson.

(4) PURPOSE AND DUTIES.—The Committee shall—

(A) advise and oversee the program;

(B) facilitate communication and coordination across Federal agencies in the planning, management, budgeting, and execution of landslide activities; and

(C) support the development and execution of the national strategy under subsection (b)(2), including by—

(i) supporting the development of national goals and priorities for the national strategy;

(ii) articulating Federal agency roles, responsibilities, and resources for carrying out the national strategy; and

(iii) overseeing the implementation of the national strategy.

(d) ADVISORY COMMITTEE.—

(1) IN GENERAL.—The Secretary shall establish an advisory committee, to be known as the “Advisory Committee on Landslides” (referred to in this subsection as the “Advisory Committee”).

(2) MEMBERSHIP.—The Advisory Committee shall be composed of not fewer than 11 members—

(A) of whom none may be an individual described in any of subparagraphs (A) through (F) of section 7342(a)(1) of title 5, United States Code; and

(B) who shall be representatives of—

(i) States, including State geological organizations;

(ii) Indian tribes, including tribal geological organizations;

(iii) research institutions and institutions of higher education that are qualified—

(I) to provide advice regarding landslide hazard and risk reduction; and

(II) to represent related scientific, architectural, engineering, and planning disciplines;

(iv) industry standards development organizations; and

- (v) State, local, and tribal emergency management agencies.
- (3) RECOMMENDATIONS.—
 - (A) IN GENERAL.—The Advisory Committee shall submit to the Committee recommendations for the implementation of the program, including recommendations regarding—
 - (i) landslide hazard and risk reduction and planning;
 - (ii) tools for communities;
 - (iii) research; and
 - (iv) such other topics as the Advisory Committee determines appropriate.
 - (B) CONSIDERATION.—The Secretary and the agency heads described in subparagraphs (A) through (H) of subsection (c)(2) shall take into consideration any recommendation of the Advisory Committee submitted under subparagraph (A).
- (e) GRANT PROGRAMS.—
 - (1) COOPERATIVE LANDSLIDE HAZARD MAPPING AND ASSESSMENT PROGRAM.—
 - (A) IN GENERAL.—Subject to appropriations, the Secretary may—
 - (i) provide grants, on a competitive basis, to State, local, and tribal governments to research, map, assess, and collect data on landslide hazards and identify areas susceptible to post-wildfire landslides within the jurisdictions of those governments; and
 - (ii) accept and use funds received from other Federal and non-Federal partners to advance the purposes of the program.
 - (B) PRIORITY.—
 - (i) IN GENERAL.—The Secretary shall consult annually with the Committee, States, and Indian tribes to establish priorities for the grant program under this paragraph.
 - (ii) FUNDING PRIORITIZATION.—In providing grants under this paragraph, the Secretary shall give priority to projects that—
 - (I) will achieve the greatest landslide hazard and risk reduction;
 - (II) reflect the goals and priorities of the national strategy established under subsection (b)(2)(A);
 - (III) are matched at least 50 percent of the total cost of the project from non-Federal sources; and
 - (IV) include acquisition of enhanced elevation data consistent with the 3D Elevation Program.
 - (2) NATIONAL LANDSLIDE RESEARCH GRANTS.—In providing grants for landslide research and development, the Director of the National Science Foundation, in consultation with the Secretary and the Committee, shall ensure that the grants are provided on a competitive basis to State, local, and tribal governments, institutions of higher education, and nongovernmental entities to advance the goals and priorities of the national strategy established under subsection (b)(2)(A), including for research and development on—
 - (A) the causes, mechanisms, triggers, hydrology, and geology of landslides;
 - (B) ways to reduce landslide hazards and risks to minimize loss of life and property, including landslide hazard and risk communication, perception, decisionmaking, tools, and technologies; and
 - (C) other goals and priorities of the national strategy established under subsection (b)(2)(A).
- (f) ANNUAL REPORT.—The Secretary shall submit to Congress an annual report, including a description of, with respect to the preceding calendar year—
 - (1) the goals and accomplishments of the Secretary and the agency heads described in subparagraphs (A) through (H) of subsection (c)(2) in carrying out the national strategy developed under subsection (b)(2), expressed—
 - (A) by agency, program, and budgetary resource; and
 - (B) by the goals and priorities of the national strategy established under subsection (b)(2)(A);
 - (2) the results of the activities of the Committee under this section;
 - (3) the extent to which any recommendations of the Advisory Committee under subsection (d)(3)(A) have been implemented;
 - (4) the grants provided under this section during that preceding calendar year, including a description of—
 - (A) each activity carried out using such a grant; and
 - (B) the results of those activities; and
 - (5) for each significant landslide event in the United States during that preceding calendar year—
 - (A) a description of the landslide event and the implications of the event on communities, including life and property;

(B) recommendations on how the identification of the landslide risk could have been improved prior to the event;

(C) a description of the effectiveness of any warning and risk communication, including the dissemination of warnings by State, local, and tribal partners in the affected area;

(D) recommendations to improve risk identification, reduction, and communication to landowners and local governments;

(E) recommendations to improve landslide hazard preparedness and emergency response activities under this section; and

(F) such other findings as the Secretary determines appropriate.

(g) SUNSET.—This program, including any reporting requirements, shall sunset on the date that is seven years after the date of enactment.

SEC. 4. GROUND SUBSIDENCE.

As the Secretary determines to be appropriate, the Secretary shall support the identification, mapping, research, and monitoring of subsidence and groundwater resource accounting.

SEC. 5. 3D ELEVATION PROGRAM.

(a) ESTABLISHMENT OF 3D ELEVATION PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a program, to be known as the “3D Elevation Program”—

(A) to provide 3D elevation data coverage for the United States;

(B) to coordinate and facilitate the collection, dissemination, and use of 3D elevation data among Federal departments and agencies and non-Federal entities;

(C) to produce standard, publicly accessible 3D elevation data products for the United States; and

(D) to promote the collection, dissemination, and use of 3D elevation data among Federal, State, local, and tribal governments, communities, institutions of higher education, and the private sector through—

(i) cooperative agreements;

(ii) the development and maintenance of spatial data infrastructure to provide quality control and deliver to the public 3D elevation data products;

(iii) the development of standards and guidelines for 3D elevation data acquisition to increase accessibility to 3D elevation data in a standard, easy-to-use format; and

(iv) the identification, assessment, and adoption of emerging technologies to improve the accuracy and efficiency of the 3D Elevation Program.

(2) MANAGEMENT.—

(A) IN GENERAL.—The Secretary shall manage the 3D Elevation Program—

(i) to ensure efficiency with respect to related activities of the Department of the Interior and other participating Federal departments and agencies; and

(ii) to meet the needs of Department of the Interior programs, stakeholders, and the public.

(B) OTHER FEDERAL DEPARTMENTS AND AGENCIES.—The head of each Federal department and agency involved in the acquisition, production, distribution, or application of 3D elevation data shall—

(i) coordinate with the 3D Elevation Federal Interagency Coordinating Committee established under subsection (b) to acquire additional, enhanced 3D elevation data;

(ii) submit to the Secretary a description of priority areas of interest for 3D elevation data collection for use in providing grants and cooperative agreements under subsection (d);

(iii) implement policies and procedures for data acquisition and sharing that are consistent with standards and guidelines developed under the 3D Elevation Program;

(iv) participate in, and share the results and benefits of, the 3D Elevation Program, in accordance with standards and guidelines developed under the 3D Elevation Program; and

(v) ensure that any 3D elevation data acquired with Federal grant funding—

(I) meets 3D Elevation Program standards; and

(II) is included in the national holdings of those data.

(b) 3D ELEVATION FEDERAL INTERAGENCY COORDINATING COMMITTEE.—

(1) **ESTABLISHMENT.**—The Secretary, in coordination with the Secretary of Commerce, shall establish an interagency coordinating committee, to be known as the “3D Elevation Federal Interagency Coordinating Committee” (referred to in this subsection as the “Committee”), to better coordinate 3D elevation data management across the Federal Government.

(2) **MEMBERSHIP.**—The Committee shall be composed of the following members (or their designees):

- (A) The Secretary, who shall serve as Chairperson of the Committee.
- (B) The Secretary of Agriculture.
- (C) The Secretary of Commerce.
- (D) The Secretary of Homeland Security.
- (E) The Director of the National Science Foundation.
- (F) The Director of the Office of Science and Technology Policy.
- (G) The Director of the Office of Management and Budget.
- (H) The head of any other Federal department or agency, at the request of the Secretary.

(3) **COORDINATION.**—The Committee shall coordinate, as appropriate, with the existing activities of—

- (A) the 3D Elevation Program Executive Forum;
- (B) the Alaska Mapping Executive Committee;
- (C) the 3D Elevation Working Group; and
- (D) the 3D National Elevation Subcommittee.

(4) **MEETINGS.**—The Committee shall meet at the call of the Chairperson.

(5) **DUTIES.**—The Committee shall—

- (A) oversee the planning, management, and coordination of the 3D Elevation Program; and
- (B) develop, by not later than 1 year after the date of enactment of this Act, and update periodically thereafter—
 - (i) a strategic plan that establishes goals and priorities for activities carried out under the 3D Elevation Program; and
 - (ii) a detailed management plan to implement the strategic plan.

(c) **SUBCOMMITTEE OF NATIONAL GEOSPATIAL ADVISORY COMMITTEE.**—

(1) **ESTABLISHMENT.**—

(A) **IN GENERAL.**—The Secretary shall establish, within the National Geospatial Advisory Committee, a subcommittee (referred to in this subsection as the “Subcommittee”).

(B) **MEMBERSHIP.**—The Subcommittee shall—

- (i) consist of not fewer than 11 members, of whom none may be a Federal officer or employee; and
- (ii) include representatives of—
 - (I) research and academic institutions;
 - (II) industry standards development organizations;
 - (III) units of State and local government; and
 - (IV) the private sector.

(2) **DUTIES.**—

(A) **ASSESSMENT.**—The Subcommittee shall conduct an assessment of—

- (i) trends and developments in—
 - (I) the collection, dissemination, and use of 3D elevation data; and
 - (II) science and technology relating to 3D elevation data;
- (ii) the effectiveness of the 3D Elevation Program in carrying out the activities described in subsection (a)(1);
- (iii) the need to revise or reorganize the 3D Elevation Program; and
- (iv) the management, coordination, implementation, and activities of the 3D Elevation Program.

(B) **REPORT.**—Not later than 1 year after the date of enactment of this Act, and not less frequently than once every 2 years thereafter, the Subcommittee shall submit to the Secretary and the 3D Elevation Federal Interagency Coordinating Committee established under subsection (b) a report that includes—

- (i) the findings of the assessment under subparagraph (A); and
- (ii) recommendations of the Subcommittee based on those findings, if any.

(d) **GRANTS AND COOPERATIVE AGREEMENTS.**—

(1) **IN GENERAL.**—The Secretary may make grants and enter into cooperative agreements with other Federal departments and agencies, units of tribal, State, or local government, institutions of higher education, nonprofit research institutions, or other organizations to facilitate the improvement of nationwide coverage of 3D elevation data.

(2) APPLICATIONS.—To be eligible to receive a grant or enter into a cooperative agreement under this subsection, an entity described in paragraph (1) shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(3) TERMS AND CONDITIONS.—A grant or cooperative agreement under this subsection shall be subject to such terms and conditions as the Secretary determines to be appropriate, including making data publicly available and interoperable with other Federal datasets.

(e) SUNSET.—This program, including any reporting requirements, shall sunset on the date that is seven years after the date of enactment.

PURPOSE OF THE BILL

The purpose of H.R. 1675 is to establish a national program to identify and reduce losses from landslide hazards, and to establish a national 3-D Elevation Program.

BACKGROUND AND NEED FOR LEGISLATION

Landslides are geologic hazards that exist throughout the United States. The U.S. Geological Survey (USGS) estimates that landslides account for \$1 billion to \$2 billion in damages and, on average, 25 fatalities every year.¹ As expansion of urban and recreational development occurs, people are exposed to potential impacts from landslide hazards. Landslides are often triggered by other events like heavy storms, earthquakes, volcanic activities, and wildfires.

A core mission of the USGS is the Landslides Hazards Program (LHP) which has existed since the 1970s. The purpose of this program is to provide scientific information to minimize loss of life and property from landslides.² The LHP conducts landslide hazard assessments, conducts landslide investigations and forecasts, and provides assistance in response to landslide events. The LHP partners with States and other Federal agencies in these activities. Local public decision makers depend on the LHP for information before, during, and after landslide triggering disasters to better inform their actions. Since fiscal year 2014, the LHP has been funded at \$3.5 million annually.³

H.R. 1675 directs the Secretary of the Interior to bolster the LHP's activities by creating a National Landslide Hazards Reduction Program to identify and understand risks and reduce losses from landslide hazards, and to help improve communication and emergency preparedness.

The bill also establishes a national 3D Elevation Program (3DEP) to update and produce standard, publicly accessible 3D elevation data for the United States, in coordination with other federal agencies and nonfederal entities. 3DEP would have value not only for assessing landslide hazards but for also identifying energy, mineral and water resources, geologic and environmental hazards such as active faults and seismic areas, unstable ground subject to landslides, swelling soils, floodplains and abandoned mine lands.

The bill establishes two committees to oversee and coordinate the activities of the National Landslide Hazards Reduction Program and the 3DEP Program. These committees are the Interagency Co-

¹ U.S. Geological Survey's Landslides Hazards Program, <https://landslides.usgs.gov/aboutus/>.

² *Id.*

³ U.S. Department of the Interior, Office of Budget, <https://www.doi.gov/budget/appropriations/>.

ordinating Committee on Landslide Hazards, and the 3D Elevation Federal Interagency Coordinating Committee, respectively.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

The short title of the bill is the “National Landslide Preparedness Act”.

Section 2. Definitions

This section defines terms used in the bill.

Section 3. National Landslide Hazards Reduction Program

Section 3 directs the Secretary of the Interior to establish the National Landslide Hazards Reduction Program. This program will:

- Develop and publish a national strategy for landslide hazards and risk reduction in the United States
- Develop and maintain a publicly accessible national landslide hazard and risk inventory database
- Disseminate landslide planning and risk reduction materials
- Expand the early warning system for flash floods and debris flow
- Establish emergency response procedures for the rapid deployment of federal scientists, equipment, and services to areas impacted by a significant landslide event
- Support emergency response efforts and improve the safety of emergency responders
- Establish the Advisory Committee on Landslides
- Advance the identification, mapping, research, and monitoring of subsidence and groundwater resource accounting

The Secretary may provide competitive grants to state, local, and tribal governments to research, map, assess, and collect data on landslide hazards.

The National Science Foundation shall ensure that landslide research grants are provided on a competitive basis to advance the goals and priorities of the national strategy.

Section 4. Ground subsidence

This section allows the Secretary to support the identification, mapping, research, and monitoring of subsidence and groundwater resource accounting.

Section 5. 3D Elevation Program

This section directs the Secretary of the Interior to establish a 3D Elevation Program and the 3D Elevation Federal Interagency Coordinating Committee. This program will:

- Provide 3D elevation data coverage for the United States
- Coordinate and facilitate the collection, dissemination, and use of 3D elevation data among federal agencies and non-federal entities
- Produce standard, publicly accessible 3D elevation data products for the United States

- Promote the collection, dissemination, and use of 3D elevation data among federal, state, local, and tribal governments, communities, institutions of higher education, and the private sector

USGS may make grants and enter into cooperative agreements to facilitate the improvement of nationwide coverage of 3D elevation data.

COMMITTEE ACTION

H.R. 1675 was introduced on March 22, 2017, by Congresswoman Suzan K. DelBene (D-WA). The bill was referred primarily to the Committee on Natural Resources, and additionally to the Committee on Science, Space and Technology. Within the Natural Resources Committee, the bill was referred to the Subcommittee on Energy and Mineral Resources. The Subcommittee held a hearing on the bill on November 30, 2017. On December 12, 2017, the Natural Resources Committee met to consider the bill. The Subcommittee was discharged by unanimous consent. Congressman Paul A. Gosar (R-AZ) offered an amendment designated #1; it was adopted by unanimous consent. Resident Commissioner Jenniffer González-Colón (R-PR) offered an undesignated amendment; it was adopted by unanimous consent. Congresswoman Norma J. Torres (D-CA) offered an amendment designated (073); it was adopted by unanimous consent. No additional amendments were offered, and the bill, as amended, was ordered favorably reported to the House of Representatives by unanimous consent on December 13, 2017.

COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Regarding clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on Natural Resources' oversight findings and recommendations are reflected in the body of this report.

COMPLIANCE WITH HOUSE RULE XIII AND CONGRESSIONAL BUDGET ACT

1. Cost of Legislation and the Congressional Budget Act. With respect to the requirements of clause 3(c)(2) and (3) of rule XIII of the Rules of the House of Representatives and sections 308(a) and 402 of the Congressional Budget Act of 1974, the Committee has received the following estimate for the bill from the Director of the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, February 21, 2018.

Hon. ROB BISHOP,
*Chairman, Committee on Natural Resources,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 1675, the National Landslide Preparedness Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Robert Reese.

Sincerely,

KEITH HALL,
Director.

Enclosure.

H.R. 1675—National Landslide Preparedness Act

Summary: H.R. 1675 would authorize the United States Geological Survey (USGS) to create the National Landslide Hazards Reduction Program to better respond to and reduce the risk of landslides. The bill also would authorize USGS to create the 3D Elevation Program to develop three-dimensional elevation data for the United States. The authority for each program would expire seven years after enactment. Using information from USGS, CBO estimates that implementing the bill would cost \$297 million over the 2019–2022 period. Such spending would be subject to appropriation.

Enacting H.R. 1675 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting H.R. 1675 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 1675 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Estimated cost to the Federal Government: The estimated budgetary effect of H.R. 1675 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By fiscal year, in millions of dollars—					
	2018	2019	2020	2021	2022	2018–2022
INCREASES IN SPENDING SUBJECT TO APPROPRIATION						
National Landslide Hazards:						
Reduction Program:						
Estimated Authorization Level	0	33	67	69	70	240
Estimated Outlays	0	21	54	67	70	213
3D Elevation Program:						
Estimated Authorization Level	0	25	26	26	27	104
Estimated Outlays	0	10	22	26	27	84
Total Changes:						
Estimated Authorization Level	0	58	93	95	97	344
Estimated Outlays	0	32	76	93	96	297

Numbers do not sum to totals because of rounding.

Basis of estimate: CBO assumes that H.R. 1675 will be enacted late in 2018 and that the necessary amounts will be appropriated for each year beginning in 2019.

National Landslide Hazards Reduction Program

H.R. 1675 would require USGS to establish the National Landslide Hazards Reduction Program. To that end, the bill would require USGS to develop a national strategy to reduce landslide risks, create and maintain a publicly accessible database on landslide hazards, create an early warning system for flash floods and debris flows, and lead an interagency coordinating committee on

landslide hazards. The bill also would authorize two new grant programs. The program's authorization would expire seven years after enactment.

Using information from USGS, CBO estimates that when fully implemented the program would cost about \$65 million a year. Of that annual amount, \$25 million would provide salaries and benefits to support 175 additional full-time employees. Another \$20 million would be for grants to localities and for cooperative agreements with nonprofits and universities. The remaining \$20 million would cover contracting and equipment costs to monitor, survey, map, and analyze landslide hazards. CBO expects that the program would be phased in during 2019 and that full implementation of the program would not occur until 2020. Accounting for anticipated inflation and based on historical spending patterns for similar programs, CBO estimates that outlays for the National Landslide Hazards Reduction Program would total \$213 million over the 2019–2022 period.

3D Elevation Program

H.R. 1675 also would direct USGS to create the 3D Elevation Program to develop elevation data for the United States and to produce elevation data products that are publicly accessible. In implementing the program USGS would be authorized to make grants and enter into cooperative agreements. The bill would direct USGS to head an interagency coordinating committee for the 3D Elevation Program. The program's authorization would expire seven years after enactment.

Currently, USGS operates a program that meets some of the requirements outlined under H.R. 1675. In 2017, USGS allocated \$25 million to that program. Using information from USGS, CBO estimates that implementing the 3D Elevation Program as required under H.R. 1675 would cost an additional \$25 million a year. Of that amount, \$3 million would provide salaries and benefits to support 20 additional full-time employees. Another \$2 million would cover grants to localities and cooperative agreements with nonprofits and universities. The remaining \$20 million would be devoted to contractor support costs and to updating computer systems and other infrastructure. Accounting for anticipated inflation and based on historical spending patterns for the current program, CBO estimates that additional outlays for the 3D Elevation Program would total \$84 million over the 2019–2022 period.

Pay-As-You-Go considerations: None.

Increase in long-term direct spending and deficits: CBO estimates that enacting H.R. 1675 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

Mandates: H.R. 1675 contains no intergovernmental or private-sector mandates as defined in UMRA.

Estimate prepared by: Federal costs: Robert Reese; Mandates: Zach Byrum.

Estimate approved by: H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

2. General Performance Goals and Objectives. As required by clause 3(c)(4) of rule XIII, the general performance goal or objective of this bill is to establish a national program to identify and reduce

losses from landslide hazards, and to establish a national 3-D Elevation Program.

EARMARK STATEMENT

This bill does not contain any Congressional earmarks, limited tax benefits, or limited tariff benefits as defined under clause 9(e), 9(f), and 9(g) of rule XXI of the Rules of the House of Representatives.

COMPLIANCE WITH PUBLIC LAW 104-4

This bill contains no unfunded mandates.

FEDERAL ADVISORY COMMITTEE STATEMENT

The functions of the proposed advisory committees authorized in this bill are not currently being nor could they be performed by one of more agencies, an advisory group already in existence, or by enlarging the mandate of an existing advisory group.

COMPLIANCE WITH H. RES. 5

Directed Rule Making. This bill does not contain any directed rule makings.

Duplication of Existing Programs. This bill does not establish or reauthorize a program of the federal government known to be duplicative of another program. Such program was not included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111-139 or identified in the most recent Catalog of Federal Domestic Assistance published pursuant to the Federal Program Information Act (Public Law 95-220, as amended by Public Law 98-169) as relating to other programs.

PREEMPTION OF STATE, LOCAL OR TRIBAL LAW

This bill is not intended to preempt any State, local or tribal law.

CHANGES IN EXISTING LAW

If enacted, this bill would make no changes to existing law.

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