

(2) describes and evaluates the progress achieved during the preceding 2 years in developing the national geologic map database; and (3) includes any recommendations that the Secretary may have for legislative or other action to achieve the purposes of sections 31c through 31f of this title.

(Pub. L. 102–285, § 8, as added Pub. L. 106–148, § 8, Dec. 9, 1999, 113 Stat. 1724; amended Pub. L. 111–11, title XI, § 11001(h), Mar. 30, 2009, 123 Stat. 1415.)

Editorial Notes

PRIOR PROVISIONS

A prior section 31g, Pub. L. 102–285, § 8, May 18, 1992, 106 Stat. 171; Pub. L. 103–437, § 16(a)(1), Nov. 2, 1994, 108 Stat. 4594; Pub. L. 105–36, § 3(f), Aug. 5, 1997, 111 Stat. 1111; Pub. L. 105–362, title IX, § 902(b), Nov. 10, 1998, 112 Stat. 3291, directed the Secretary to submit a biennial report to Congress describing the status of the nationwide geologic mapping program and evaluating the progress achieved during the preceding fiscal year in developing the national geologic-map data base, prior to repeal by Pub. L. 106–148, § 8, Dec. 9, 1999, 113 Stat. 1724.

AMENDMENTS

2009—Pub. L. 111–11 substituted “Not later than 3 years after March 30, 2009, and biennially” for “Not later 3 years after December 9, 1999, and biennially”.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Resources of House of Representatives changed to Committee on Natural Resources of House of Representatives by House Resolution No. 6, One Hundred Tenth Congress, Jan. 5, 2007.

§ 31h. Authorization of appropriations

(a) In general

There is authorized to be appropriated to carry out sections 31a to 31h of this title \$64,000,000 for each of fiscal years 2009 through 2031.

(b) Allocation of appropriations

Of any amounts appropriated for any fiscal year in excess of the amount appropriated for fiscal year 2005—

- (1) 50 percent shall be available for the State component; and
- (2) 4 percent shall be available for the education component.

(Pub. L. 102–285, § 9, as added Pub. L. 106–148, § 9, Dec. 9, 1999, 113 Stat. 1724; amended Pub. L. 111–11, title XI, § 11001(i), Mar. 30, 2009, 123 Stat. 1416; Pub. L. 116–9, title V, § 5002(a)(1), Mar. 12, 2019, 133 Stat. 768; Pub. L. 117–58, div. D, title II, § 40202(b), Nov. 15, 2021, 135 Stat. 959.)

Editorial Notes

REFERENCES IN TEXT

Sections 31a to 31h of this title, referred to in subsec. (a), was in the original “this Act”, meaning Pub. L. 102–285, known as the National Geologic Mapping Act of 1992, which is classified principally to sections 31a to 31h of this title. For complete classification of this Act to the Code, see Short Title note set out under section 31a of this title and Tables.

PRIOR PROVISIONS

A prior section 31h, Pub. L. 102–285, § 9, May 18, 1992, 106 Stat. 171; Pub. L. 105–36, § 3(g), Aug. 5, 1997, 111 Stat.

1111, authorized appropriations for the national cooperative geologic mapping program, prior to repeal by Pub. L. 106–148, § 9, Dec. 9, 1999, 113 Stat. 1724.

AMENDMENTS

2021—Subsec. (a). Pub. L. 117–58 substituted “2031” for “2023”.

2019—Subsec. (a). Pub. L. 116–9 substituted “2023” for “2018”.

2009—Subsec. (a). Pub. L. 111–11, § 11001(i)(1), added subsec. (a) and struck out former subsec. (a) which appropriated funds to carry out sections 31a to 31h of this title for fiscal years 1999 to 2005.

Subsec. (b). Pub. L. 111–11, § 11001(i)(2)(A), substituted “2005” for “2000” in introductory provisions.

Subsec. (b)(1). Pub. L. 111–11, § 11001(i)(2)(B), substituted “50” for “48”.

Subsec. (b)(2). Pub. L. 111–11, § 11001(i)(2)(C), which directed amendment of par. (2) “by striking 2 and inserting ‘4’”, was executed by substituting “4” for “2”, to reflect the probable intent of Congress.

Statutory Notes and Related Subsidiaries

WAGE RATE REQUIREMENTS

For provisions relating to rates of wages to be paid to laborers and mechanics on projects for construction, alteration, or repair work funded under div. D or an amendment by div. D of Pub. L. 117–58, including authority of Secretary of Labor, see section 18851 of Title 42, The Public Health and Welfare.

§ 31i. Report on resource research activities

Once every five years the National Academy of Sciences shall review and report on the resource research activities of the Survey.

(Pub. L. 104–134, title I, § 101(c) [title I], Apr. 26, 1996, 110 Stat. 1321–156, 1321–165; renumbered title I, Pub. L. 104–140, § 1(a), May 2, 1996, 110 Stat. 1327.)

§ 31j. Biological research activity of Survey; review and report by National Academy of Sciences

Beginning in fiscal year 1998 and once every five years thereafter, the National Academy of Sciences shall review and report on the biological research activity of the Survey.

(Pub. L. 104–208, div. A, title I, § 101(d) [title I], Sept. 30, 1996, 110 Stat. 3009–181, 3009–189.)

§ 31k. National Volcano Early Warning and Monitoring System

(a) Definitions

In this section:

(1) Secretary

The term “Secretary” means the Secretary, acting through the Director of the United States Geological Survey.

(2) Secretary of Commerce

The term “Secretary of Commerce” means the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere.

(3) System

The term “System” means the National Volcano Early Warning and Monitoring System established under subsection (b)(1)(A).

(4) Volcanic Ash Advisory Center

The term “Volcanic Ash Advisory Center” means an entity designated by the Inter-

national Civil Aviation Organization that is responsible for informing aviation interests about the presence of volcanic ash in the air-space.

(b) National Volcano Early Warning and Monitoring System

(1) Establishment

(A) In general

The Secretary shall establish within the United States Geological Survey a system, to be known as the “National Volcano Early Warning and Monitoring System”, to monitor, warn, and protect citizens of the United States from undue and avoidable harm from volcanic activity.

(B) Purposes

The purposes of the System are—

(i) to organize, modernize, standardize, and stabilize the monitoring systems of the volcano observatories in the United States, which includes the Alaska Volcano Observatory, California Volcano Observatory, Cascades Volcano Observatory, Hawaiian Volcano Observatory, and Yellowstone Volcano Observatory;

(ii) to unify the monitoring systems of volcano observatories in the United States into a single interoperative system; and

(iii) to strengthen the warning and monitoring systems of volcano observatories in the United States by integrating relevant capacities of the National Oceanic and Atmospheric Administration, including with the Volcanic Ash Advisory Centers located in Anchorage, Alaska, and Washington, D.C., to observe and model emissions of gases, aerosols, and ash, atmospheric dynamics and chemistry, and ocean chemistry resulting from volcanic eruptions.

(C) Objective

The objective of the System is to monitor all the volcanoes in the United States at a level commensurate with the threat posed by the volcanoes by—

(i) upgrading existing networks on monitored volcanoes;

(ii) installing new networks on unmonitored volcanoes; and

(iii) employing geodetic and other components when applicable.

(2) System components

(A) In general

The System shall include—

(i) a national volcano watch office that is operational 24 hours a day and 7 days a week;

(ii) a national volcano data center; and

(iii) an external grants program to support research in volcano monitoring science and technology.

(B) Modernization activities

Modernization activities under the System shall include the comprehensive application of emerging technologies, including digital broadband seismometers, real-time continuous Global Positioning System receivers, satellite and airborne radar interferometry,

acoustic pressure sensors, spectrometry to measure gas emissions, and unoccupied aerial vehicles.

(C) Memorandum of understanding

The Secretary and the Secretary of Commerce shall develop and execute a memorandum of understanding to establish cooperative support for the activities of the System from the National Oceanic and Atmospheric Administration, including environmental observations, modeling, and temporary duty assignments of personnel to support emergency activities, as necessary or appropriate.

(3) Management

(A) Management plan

(i) In general

Not later than 180 days after March 12, 2019, the Secretary shall submit to Congress a 5-year management plan for establishing and operating the System.

(ii) Inclusions

The management plan submitted under clause (i) shall include—

(I) annual cost estimates for modernization activities and operation of the System;

(II) annual milestones, standards, and performance goals; and

(III) recommendations for, and progress towards, establishing new, or enhancing existing, partnerships to leverage resources.

(iii) Update

(I) National Oceanic and Atmospheric Administration cost estimates

The Secretary of Commerce shall submit to the Secretary annual cost estimates for modernization activities and support of the System for the National Oceanic and Atmospheric Administration.

(II) Update of management plan

The Secretary shall update the management plan submitted under clause (i) to include the cost estimates submitted under subclause (I).

(B) Advisory committee

The Secretary shall establish an advisory committee to assist the Secretary in implementing the System, to be comprised of representatives of relevant agencies and members of the scientific community, to be appointed by the Secretary.

(C) Partnerships

The Secretary may enter into cooperative agreements with institutions of higher education and State agencies designating the institutions of higher education and State agencies as volcano observatory partners for the System.

(D) Coordination

The Secretary shall coordinate the activities under this section with the heads of relevant Federal agencies, including—

- (i) the Secretary of Transportation;
- (ii) the Administrator of the Federal Aviation Administration;
- (iii) the Administrator of the National Oceanic and Atmospheric Administration;
- and
- (iv) the Administrator of the Federal Emergency Management Agency.

(E) Collaboration

The Secretary of Commerce shall collaborate with the Secretary to implement activities carried out under this section related to the expertise of the National Oceanic and Atmospheric Administration, including observations and modeling of emissions of gases, aerosols, and ash, atmospheric dynamics and chemistry, and ocean chemistry resulting from volcanic eruptions.

(4) Annual report

Annually, the Secretary shall submit to Congress a report that describes the activities carried out under this section.

(c) Funding

(1) Authorization of appropriations, United States Geological Survey

There is authorized to be appropriated to the United States Geological Survey to carry out this section \$55,000,000 for the period of fiscal years 2019 through 2023.

(2) Authorization of appropriations, National Oceanic and Atmospheric Administration

There is authorized to be appropriated to the National Oceanic and Atmospheric Administration to carry out this section such sums as may be necessary for the period of fiscal years 2023 through 2024.

(3) Effect on other sources of Federal funding

Amounts made available under this subsection shall supplement, and not supplant, Federal funds made available for other hazards activities and programs of the United States Geological Survey and the National Oceanic and Atmospheric Administration.

(Pub. L. 116–9, title V, §5001, Mar. 12, 2019, 133 Stat. 766; Pub. L. 117–263, div. J, title CV, §10501(a)–(e), Dec. 23, 2022, 136 Stat. 3993, 3994.)

Editorial Notes

AMENDMENTS

2022—Subsec. (a)(2) to (4). Pub. L. 117–263, §10501(a), added pars. (2) and (4) and redesignated former par. (2) as (3).

Subsec. (b)(1)(B)(iii). Pub. L. 117–263, §10501(b), added cl. (iii).

Subsec. (b)(2)(B). Pub. L. 117–263, §10501(c)(1), struck out “and” before “spectrometry” and inserted “, and unoccupied aerial vehicles” after “emissions”.

Subsec. (b)(2)(C). Pub. L. 117–263, §10501(c)(2), added subpar. (C).

Subsec. (b)(3)(A)(iii). Pub. L. 117–263, §10501(d)(1), added cl. (iii).

Subsec. (b)(3)(E). Pub. L. 117–263, §10501(d)(2), added subpar. (E).

Subsec. (c)(1). Pub. L. 117–263, §10501(e)(1), inserted “, United States Geological Survey” after “appropriations” in heading and “to the United States Geological Survey” after “appropriated” in text.

Subsec. (c)(2). Pub. L. 117–263, §10501(e)(3), added par. (2). Former par. (2) redesignated (3).

Subsec. (c)(3). Pub. L. 117–263, §10501(e)(2), (4), redesignated par. (2) as (3), struck out “United States Geological Survey” before “hazards activities”, and inserted “of the United States Geological Survey and the National Oceanic and Atmospheric Administration” after “programs”.

Statutory Notes and Related Subsidiaries

DEFINITION OF “SECRETARY”

Secretary means the Secretary of the Interior, see section 2 of Pub. L. 116–9, set out as a note under section 1 of this title.

§ 311. Earth Mapping Resources Initiative

(a) Definition of critical mineral

In this section, the term “critical mineral” has the meaning given the term in section 1606(a) of title 30.

(b) Establishment

There is established within the United States Geological Survey an initiative, to be known as the “Earth Mapping Resources Initiative” (referred to in this section as the “Initiative”).

(c) Purpose

The purpose of the Initiative shall be to accelerate efforts to carry out the fundamental resources and mapping mission of the United States Geological Survey by—

- (1) providing integrated topographic, geologic, geochemical, and geophysical mapping;
- (2) accelerating the integration and consolidation of geospatial and resource data; and
- (3) providing interpretation of subsurface and above-ground mineral resources data.

(d) Cooperative agreements

(1) In general

In carrying out the Initiative, the Director of the United States Geological Survey may enter into cooperative agreements with State geological surveys.

(2) Effect

Nothing in paragraph (1) precludes the Director of the United States Geological Survey from using existing contracting authorities in carrying out the Initiative.

(e) Comprehensive mapping modernization

(1) In general

Not later than 10 years after November 15, 2021, the Initiative shall complete an initial comprehensive national modern surface and subsurface mapping and data integration effort.

(2) Approach

In carrying out paragraph (1) with regard to minerals, mineralization, and mineral deposits, the Initiative shall focus on the full range of minerals, using a whole ore body approach rather than a single commodity approach, to emphasize all of the recoverable critical minerals in a given surface or subsurface deposit.

(3) Priority

In carrying out paragraph (1) with regard to minerals, mineralization, and mineral deposits, the Initiative shall prioritize mapping and assessing critical minerals.