

\$64,000,000 for each of fiscal years 2009 through 2023.

**(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.)

**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

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.

**§ 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) System**

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

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

**(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, and spectrometry to measure gas emissions.

**(3) Management**

**(A) Management plan**

**(i) In general**

Not later than 180 days after March 12, 2019, the Secretary shall submit to Con-