Public Law 102-285
102d Congress

An Act

May 18, 1992
[H.R. 2763]

To enhance geologic mapping of the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

National Geologic Mapping Act of 1992. Conservation. Environmental protection. 43 USC 31a note. 43 USC 31a.

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Geologic Mapping Act of 1992".

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds and declares that—

(1) during the past 2 decades, the production of geologic maps has been drastically curtailed;

(2) geologic maps are the primary data base for virtually all applied and basic earth-science investigations, including—

(A) exploration for and development of mineral, energy, and water resources;

(B) screening and characterizing sites for toxic and nuclear waste disposal;

(C) land use evaluation and planning for environmental protection;

(D) earthquake hazards reduction;

(E) predicting volcanic hazards;

(F) design and construction of infrastructure requirements such as utility lifelines, transportation corridors, and surface-water impoundments;

(G) reducing losses from landslides and other ground failures;

(H) mitigating effects of coastal and stream erosion;

(I) siting of critical facilities; and

(J) basic earth-science research;

(3) Federal agencies, State and local governments, private industry, and the general public depend on the information provided by geologic maps to determine the extent of potential environmental damage before embarking on projects that could lead to preventable, costly environmental problems or litigation;

(4) the combined capabilities of State, Federal, and academic groups to provide geologic mapping are not sufficient to meet the present and future needs of the United States for national security, environmental protection, and energy self-sufficiency of the Nation;

(5) States are willing to contribute 50 percent of the funding necessary to complete the mapping of the geology within the State;

(6) the lack of proper geologic maps has led to the poor design of such structures as dams and waste-disposal facilities;

(7) geologic maps have proven indispensable in the search for needed fossil-fuel and mineral resources; and

(8) a comprehensive nationwide program of geologic mapping is required in order to systematically build the Nation's geologic-map data base at a pace that responds to increasing demand.

(b) PURPOSE.—The purpose of this Act is to expedite the production of a geologic-map data base for the Nation, to be located within the United States Geological Survey, which can be applied to land-use management, assessment, and utilization, conservation of natural resources, groundwater management, and environmental protection.

SEC. 3. DEFINITIONS. 43 USC 31b.

As used in this Act:

(1) The term "advisory committee" means the advisory committee established under section 5.

(2) The term "Director" means the Director of the United States Geological Survey.

(3) The term "geologic mapping program" means the National Cooperative Geologic Mapping Program established by section 4(a).

(4) The term "Secretary" means the Secretary of the Interior.

(5) The term "Survey" means the United States Geological Survey.

SEC. 4. GEOLOGIC MAPPING PROGRAM. 43 USC 31c.

(a) ESTABLISHMENT.—There is established in the United States Geological Survey a National Cooperative Geologic Mapping Program. The geologic mapping program shall be developed in consultation with the advisory committee and shall be designed and administered to achieve the objectives set forth in subsection (c).

(b) RESPONSIBILITIES OF USGS.—(1) The Survey shall be the lead Federal agency responsible for planning, developing priorities, coordinating, and managing the geologic mapping program. In carrying out this paragraph, the Secretary, acting through the Director, shall—

(A) develop a geologic mapping program implementation plan in accordance with section 6, which plan shall be submitted to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate within 300 days after the date of enactment of this Act;

(B) appoint, with the advice and consultation of the State geological surveys, the advisory committee within 90 days after the date of enactment of this Act in accordance with section 5; and

(C) within 210 days after the date of enactment of this Act, submit a report to the Committee on Energy and Natural Resources of the United States Senate and to the Committee on Interior and Insular Affairs of the House of Representatives identifying— Reports.

(i) how the Survey will coordinate the development and implementation of the geologic mapping program;

(ii) how the Survey will establish goals, mapping priorities, and target dates for implementation of the geologic mapping program;

(iii) how long-term staffing plans for the various components of the geologic mapping program will lead to successful implementation of the geologic mapping program; and

(iv) the degree to which geologic mapping activities traditionally funded by the Survey, including the use of commercially available aerial photography, geodesy, professional land surveying, photogrammetric mapping, cartography, photographic processing, and related services, can be contracted to professional private mapping firms.

(2) In addition to paragraph (1), the Secretary, acting through the Director, shall be responsible for developing, as soon as practicable—

(A) in cooperation with the State geological surveys, other Federal and State agencies, public and private sector organizations and academia, the geologic-map data base; and

(B) maps and mapping techniques which achieve the objectives specified in subsection (c).

(c) PROGRAM OBJECTIVES.—The objectives of the geologic mapping program shall include—

(1) determining the Nation's geologic framework through systematic development of geologic maps at scales appropriate to the geologic setting and the perceived applications, such maps to be contributed to the national geologic map data base;

(2) development of a complementary national geophysical-map data base, geochemical-map data base, and a geochronologic and paleontologic data base that provide value-added descriptive and interpretive information to the geologic-map data base;

(3) application of cost-effective mapping techniques that assemble, produce, translate and disseminate geologic-map information and that render such information of greater application and benefit to the public; and

(4) development of public awareness for the role and application of geologic-map information to the resolution of national issues of land use management.

(d) PROGRAM COMPONENTS.—The geologic mapping program shall include the following components:

(1) A Federal geologic mapping component, whose objective shall be determining the geologic framework of areas determined to be vital to the economic, social, or scientific welfare of the Nation. Mapping priorities shall be based on—

(A) national requirements for geologic-map information in areas of multiple-issue need or areas of compelling single-issue need; and

(B) national requirements for geologic-map information in areas where mapping is required to solve critical earth-science problems.

(2) A geologic mapping support component, whose objective shall be providing interdisciplinary support for the Federal Geologic Mapping Component. Representative categories of interdisciplinary support shall include—

(A) establishment of a national geologic-map data base, established pursuant to section 7;

(B) studies that lead to the implementation of cost-effective digital methods for the acquisition, compilation, analysis, cartographic production, and dissemination of geologic-map information;

(C) paleontologic investigations that provide information critical to understanding the age and depositional environment of fossil-bearing geologic-map units, which investiga-

tions shall be contributed to a national paleontologic data base;

(D) geochronologic and isotopic investigations that (i) provide radiometric age dates for geologic-map units and (ii) fingerprint the geothermometry, geobarometry, and alteration history of geologic-map units, which investigations shall be contributed to a national geochronologic data base;

(E) geophysical investigations that assist in delineating and mapping the physical characteristics and three-dimensional distribution of geologic materials and geologic structures, which investigations shall be contributed to a national geophysical-map data base; and

(F) geochemical investigations and analytical operations that characterize the major- and minor-element composition of geologic-map units, and that lead to the recognition of stable and anomalous geochemical signatures for geologic terrains, which investigations shall be contributed to a national geochemical-map data base.

(3) A State geologic mapping component, whose objective shall be determining the geologic framework of areas that the State geological surveys determine to be vital to the economic, social, or scientific welfare of individual States. Mapping priorities shall be determined by multirepresentational State panels and shall be integrated with national priorities. Federal funding for the State component shall be matched on a one-to-one basis with non-Federal funds.

(4) A geologic mapping education component, whose objective shall be—

(A) to develop the academic programs that teach earth-science students the fundamental principles of geologic mapping and field analysis; and

(B) to provide for broad education in geologic mapping and field analysis through support of field teaching institutes.

Investigations conducted under the geologic mapping education component shall be integrated with the other mapping components of the geologic mapping program, and shall respond to priorities identified for those components.

SEC. 5. ADVISORY COMMITTEE. 43 USC 31d.

(a) ESTABLISHMENT.—There shall be established a sixteen member geologic mapping advisory committee to advise the Director on planning and implementation of the geologic mapping program. The President shall appoint one representative each from the Environmental Protection Agency, the Department of Energy, the Department of Agriculture, and the Office of Science and Technology Policy. Within 90 days and with the advice and consultation of the State Geological Surveys, the Secretary shall appoint to the advisory committee 2 representatives from the Survey (including the Chief Geologist, as Chairman), 4 representatives from the State geological surveys, 3 representatives from academia, and 3 representatives from the private sector. President.

(b) DUTIES.—The advisory committee shall—

(1) review and critique the draft implementation plan prepared by the Director pursuant to section 6;

(2) review the scientific progress of the geologic mapping program; and

Reports.

(3) submit an annual report to the Secretary that evaluates the progress of the Federal and State mapping activities and evaluates the progress made toward fulfilling the purposes of this Act.

43 USC 31e.

SEC. 6. GEOLOGIC MAPPING PROGRAM IMPLEMENTATION PLAN.

The Secretary, acting through the Director, shall, with the advice and review of the advisory committee, prepare an implementation plan for the geologic mapping program. The plan shall identify the overall management structure and operation of the geologic mapping program and shall provide for—

(1) the role of the Survey in its capacity as overall management lead, including the responsibility for developing the national geologic mapping program that meets Federal needs while simultaneously fostering State needs;

(2) the responsibilities accruing to the State geological surveys, with particular emphasis on mechanisms that incorporate their needs, missions, capabilities, and requirements into the nationwide geologic mapping program;

(3) mechanisms for identifying short- and long-term priorities for each component of the geologic mapping program, including—

(A) for the Federal geologic mapping component, a priority-setting mechanism that responds both to (i) Federal mission requirements for geologic-map information, and (ii) critical scientific problems that require geologic-map control for their resolution;

(B) for the geologic mapping support component, a strong interdisciplinary research program plan in isotopic and paleontologic geochronology, geophysical mapping, and process studies to provide data to and interpret results from geologic mapping;

(C) for the State geologic mapping component, a priority-setting mechanism that responds to (i) specific intrastate needs for geologic-map information, and (ii) interstate needs shared by adjacent entities that have common requirements; and

(D) for the geologic mapping education component, a priority-setting mechanism that responds to requirements for geologic-map information that are driven by Federal and State mission requirements;

(4) a description of the degree to which the Survey can acquire, archive, and use Side-Looking Airborne Radar (SLAR) or Interferometric Synthetic Aperture Radar (IFSAR) data in a manner that is technically appropriate for geologic or related mapping studies;

(5) a mechanism for adopting scientific and technical map standards for preparing and publishing general-purpose and special-purpose geologic maps to (A) assure uniformity of cartographic and scientific conventions, and (B) provide a basis for judgment as to the comparability and quality of map products; and

(6) a mechanism for monitoring the inventory of published and current mapping investigations nationwide in order to

facilitate planning and information exchange and to avoid redundancy.

SEC. 7. NATIONAL GEOLOGIC-MAP DATA BASE.

Historic preservation. 43 USC 31f.

(a) ESTABLISHMENT.—The Survey shall establish a national geologic-map data base. Such data base shall be a national archive that includes all maps developed pursuant to this Act, the data bases developed pursuant to the investigations under sections (4)(d)(2) (C), (D), (E), and (F), and other maps and data as the Survey deems appropriate.

(b) STANDARDIZATION.—Geologic maps contributed to the national archives should have standardized format, symbols, and technical attributes so that archival information can be assimilated, manipulated, accessed, exchanged, and compared efficiently and accurately.

SEC. 8. ANNUAL REPORT.

43 USC 31g.

The Secretary shall, within 90 days after the end of each fiscal year, submit an annual report to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate describing the status of the nationwide geologic mapping program, and describing and evaluating progress achieved during the preceding fiscal year in developing the national geologic-map data base. Each report shall include any recommendations for legislative or other action as the Secretary deems necessary and appropriate to fulfill the purposes of this Act.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

43 USC 31h.

There is authorized to be appropriated to carry out this Act the following:

(1) For Federal mapping activities under this Act, $12,500,000 for fiscal year 1993, $14,000,000 for fiscal year 1994, $16,000,000 for fiscal year 1995, and $18,000,000 for fiscal year 1996.

(2) For Federal support activities under this Act, $9,500,000 for fiscal year 1993, $10,000,000 for fiscal year 1994, $10,500,000 for fiscal year 1995, and $11,000,000 for fiscal year 1996.

(3) For State mapping activities under this Act, $15,000,000 for fiscal year 1993, $18,000,000 for fiscal year 1994, $21,000,000 for fiscal year 1995, and $25,000,000 for fiscal year 1996.

(4) For educational support activities under this Act, $500,000 for fiscal year 1993, $750,000 for fiscal year 1994, $1,000,000 for fiscal year 1995, and $1,500,000 for fiscal year 1996.

SEC. 10. UNITED STATES GEOLOGICAL SURVEY AND UNITED STATES BUREAU OF MINES.

(a) UNITED STATES GEOLOGICAL SURVEY.—The Geological Survey established by the Act of March 3, 1879 (43 U.S.C. 31(a)), is des-

43 USC 31 note.

ignated as and shall hereafter be known as the United States Geological Survey.

30 USC 1 note.

(b) UNITED STATES BUREAU OF MINES.—The Bureau of Mines established by the Act of May 16, 1910 (30 U.S.C. 1), is designated as and shall hereafter be known as the United States Bureau of Mines.

Approved May 18, 1992.

LEGISLATIVE HISTORY—H.R. 2763 (S. 1179):

HOUSE REPORTS: No. 102-333 (Comm. on Interior and Insular Affairs).
SENATE REPORTS: No. 102-217 accompanying S. 1179 (Comm. on Energy and Natural Resources).
CONGRESSIONAL RECORD:
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