

(D) as appropriate, is developed in cooperation with, and is consistent with any comprehensive plan prepared by the Water Resources Council, any areawide waste management plans developed pursuant to section 1288 of this title, and any State plan developed pursuant to section 1313(e) of this title.

(3) For the purposes of this subsection the term “basin” includes, but is not limited to, rivers and their tributaries, streams, coastal waters, sounds, estuaries, bays, lakes, and portions thereof as well as the lands drained thereby.

(June 30, 1948, ch. 758, title I, § 102, as added Pub. L. 92-500, § 2, Oct. 18, 1972, 86 Stat. 817; amended Pub. L. 95-91, title IV, § 402(a)(1)(A), Aug. 4, 1977, 91 Stat. 583; Pub. L. 95-217, § 5(b), Dec. 27, 1977, 91 Stat. 1567; Pub. L. 104-66, title II, § 2021(a), Dec. 21, 1995, 109 Stat. 726.)

#### AMENDMENTS

1995—Subsec. (d). Pub. L. 104-66 struck out subsec. (d) which read as follows: “The Administrator, after consultation with the States, and River Basin Commissions established under the Water Resources Planning Act, shall submit a report to Congress on or before July 1, 1978, which analyzes the relationship between programs under this chapter, and the programs by which State and Federal agencies allocate quantities of water. Such report shall include recommendations concerning the policy in section 1251(g) of this title to improve coordination of efforts to reduce and eliminate pollution in concert with programs for managing water resources.”

1977—Subsec. (d). Pub. L. 95-217 added subsec. (d).

#### TRANSFER OF FUNCTIONS

“Federal Energy Regulatory Commission” substituted for “Federal Power Commission” in subsec. (b)(6) on authority of Pub. L. 95-91, title IV, § 402(a)(1)(A), Aug. 4, 1977, 91 Stat. 583, which is classified to section 7172(a)(1)(A) of Title 42, The Public Health and Welfare.

#### EXECUTIVE ORDER NO. 10014

Ex. Ord. No. 10014, Nov. 3, 1948, 13 F.R. 6601, which related to the cooperation of Federal and State agencies to prevent pollution of surface and underground waters, was superseded by Ex. Ord. No. 11258, Nov. 17, 1965, 30 F.R. 14483.

#### **§ 1252a. Reservoir projects, water storage; modification; storage for other than for water quality, opinion of Federal agency, committee resolutions of approval; provisions inapplicable to projects with certain prescribed water quality benefits in relation to total project benefits**

In the case of any reservoir project authorized for construction by the Corps of Engineers, Bureau of Reclamation, or other Federal agency when the Administrator of the Environmental Protection Agency determines pursuant to section 1252(b) of this title that any storage in such project for regulation of streamflow for water quality is not needed, or is needed in a different amount, such project may be modified accordingly by the head of the appropriate agency, and any storage no longer required for water quality may be utilized for other authorized purposes of the project when, in the opinion of the head of such agency, such use is justified. Any such modification of a project where the benefits attributable to water quality are 15 per centum or

more but not greater than 25 per centum of the total project benefits shall take effect only upon the adoption of resolutions approving such modification by the appropriate committees of the Senate and House of Representatives. The provisions of the section shall not apply to any project where the benefits attributable to water quality exceed 25 per centum of the total project benefits.

(Pub. L. 93-251, title I, § 65, Mar. 7, 1974, 88 Stat. 30.)

#### CODIFICATION

Section was not enacted as part of the Federal Water Pollution Control Act which comprises this chapter.

#### **§ 1253. Interstate cooperation and uniform laws**

(a) The Administrator shall encourage cooperative activities by the States for the prevention, reduction, and elimination of pollution, encourage the enactment of improved and, so far as practicable, uniform State laws relating to the prevention, reduction, and elimination of pollution; and encourage compacts between States for the prevention and control of pollution.

(b) The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements and compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by the Congress.

(June 30, 1948, ch. 758, title I, § 103, as added Pub. L. 92-500, § 2, Oct. 18, 1972, 86 Stat. 818.)

#### **§ 1254. Research, investigations, training, and information**

##### **(a) Establishment of national programs; cooperation; investigations; water quality surveillance system; reports**

The Administrator shall establish national programs for the prevention, reduction, and elimination of pollution and as part of such programs shall—

(1) in cooperation with other Federal, State, and local agencies, conduct and promote the coordination and acceleration of, research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of pollution;

(2) encourage, cooperate with, and render technical services to pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals, including the general public, in the conduct of activities referred to in paragraph (1) of this subsection;

(3) conduct, in cooperation with State water pollution control agencies and other interested agencies, organizations and persons, public investigations concerning the pollution

of any navigable waters, and report on the results of such investigations;

(4) establish advisory committees composed of recognized experts in various aspects of pollution and representatives of the public to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research;

(5) in cooperation with the States, and their political subdivisions, and other Federal agencies establish, equip, and maintain a water quality surveillance system for the purpose of monitoring the quality of the navigable waters and ground waters and the contiguous zone and the oceans and the Administrator shall, to the extent practicable, conduct such surveillance by utilizing the resources of the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the Coast Guard, and shall report on such quality in the report required under subsection (a) of section 1375 of this title; and

(6) initiate and promote the coordination and acceleration of research designed to develop the most effective practicable tools and techniques for measuring the social and economic costs and benefits of activities which are subject to regulation under this chapter; and shall transmit a report on the results of such research to the Congress not later than January 1, 1974.

**(b) Authorized activities of Administrator**

In carrying out the provisions of subsection (a) of this section the Administrator is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities referred to in paragraph (1) of subsection (a) of this section;

(2) cooperate with other Federal departments and agencies, State water pollution control agencies, interstate agencies, other public and private agencies, institutions, organizations, industries involved, and individuals, in the preparation and conduct of such research and other activities referred to in paragraph (1) of subsection (a) of this section;

(3) make grants to State water pollution control agencies, interstate agencies, other public or nonprofit private agencies, institutions, organizations, and individuals, for purposes stated in paragraph (1) of subsection (a) of this section;

(4) contract with public or private agencies, institutions, organizations, and individuals, without regard to section 3324(a) and (b) of title 31 and section 6101 of title 41, referred to in paragraph (1) of subsection (a) of this section;

(5) establish and maintain research fellowships at public or nonprofit private educational institutions or research organizations;

(6) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, in-

stitutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying water quality and other information pertaining to pollution and the prevention, reduction, and elimination thereof; and

(7) develop effective and practical processes, methods, and prototype devices for the prevention, reduction, and elimination of pollution.

**(c) Research and studies on harmful effects of pollutants; cooperation with Secretary of Health and Human Services**

In carrying out the provisions of subsection (a) of this section the Administrator shall conduct research on, and survey the results of other scientific studies on, the harmful effects on the health or welfare of persons caused by pollutants. In order to avoid duplication of effort, the Administrator shall, to the extent practicable, conduct such research in cooperation with and through the facilities of the Secretary of Health and Human Services.

**(d) Sewage treatment; identification and measurement of effects of pollutants; augmented streamflow**

In carrying out the provisions of this section the Administrator shall develop and demonstrate under varied conditions (including conducting such basic and applied research, studies, and experiments as may be necessary):

(1) Practicable means of treating municipal sewage, and other waterborne wastes to implement the requirements of section 1281 of this title;

(2) Improved methods and procedures to identify and measure the effects of pollutants, including those pollutants created by new technological developments; and

(3) Methods and procedures for evaluating the effects on water quality of augmented streamflows to control pollution not susceptible to other means of prevention, reduction, or elimination.

**(e) Field laboratory and research facilities**

The Administrator shall establish, equip, and maintain field laboratory and research facilities, including, but not limited to, one to be located in the northeastern area of the United States, one in the Middle Atlantic area, one in the southeastern area, one in the midwestern area, one in the southwestern area, one in the Pacific Northwest, and one in the State of Alaska, for the conduct of research, investigations, experiments, field demonstrations and studies, and training relating to the prevention, reduction and elimination of pollution. Insofar as practicable, each such facility shall be located near institutions of higher learning in which graduate training in such research might be carried out. In conjunction with the development of criteria under section 1343 of this title, the Administrator shall construct the facilities authorized for the National Marine Water Quality Laboratory established under this subsection.

**(f) Great Lakes water quality research**

The Administrator shall conduct research and technical development work, and make studies, with respect to the quality of the waters of the

Great Lakes, including an analysis of the present and projected future water quality of the Great Lakes under varying conditions of waste treatment and disposal, an evaluation of the water quality needs of those to be served by such waters, an evaluation of municipal, industrial, and vessel waste treatment and disposal practices with respect to such waters, and a study of alternate means of solving pollution problems (including additional waste treatment measures) with respect to such waters.

**(g) Treatment works pilot training programs; employment needs forecasting; training projects and grants; research fellowships; technical training; report to the President and transmittal to Congress**

(1) For the purpose of providing an adequate supply of trained personnel to operate and maintain existing and future treatment works and related activities, and for the purpose of enhancing substantially the proficiency of those engaged in such activities, the Administrator shall finance pilot programs, in cooperation with State and interstate agencies, municipalities, educational institutions, and other organizations and individuals, of manpower development and training and retraining of persons in, on entering into, the field of operation and maintenance of treatment works and related activities. Such program and any funds expended for such a program shall supplement, not supplant, other manpower and training programs and funds available for the purposes of this paragraph. The Administrator is authorized, under such terms and conditions as he deems appropriate, to enter into agreements with one or more States, acting jointly or severally, or with other public or private agencies or institutions for the development and implementation of such a program.

(2) The Administrator is authorized to enter into agreements with public and private agencies and institutions, and individuals to develop and maintain an effective system for forecasting the supply of, and demand for, various professional and other occupational categories needed for the prevention, reduction, and elimination of pollution in each region, State, or area of the United States and, from time to time, to publish the results of such forecasts.

(3) In furtherance of the purposes of this chapter, the Administrator is authorized to—

(A) make grants to public or private agencies and institutions and to individuals for training projects, and provide for the conduct of training by contract with public or private agencies and institutions and with individuals without regard to section 3324(a) and (b) of title 31 and section 6101 of title 41;

(B) establish and maintain research fellowships in the Environmental Protection Agency with such stipends and allowances, including traveling and subsistence expenses, as he may deem necessary to procure the assistance of the most promising research fellows; and

(C) provide, in addition to the program established under paragraph (1) of this subsection, training in technical matters relating to the causes, prevention, reduction, and elimination of pollution for personnel of public agencies and other persons with suitable qualifications.

(4) The Administrator shall submit, through the President, a report to the Congress not later than December 31, 1973, summarizing the actions taken under this subsection and the effectiveness of such actions, and setting forth the number of persons trained, the occupational categories for which training was provided, the effectiveness of other Federal, State, and local training programs in this field, together with estimates of future needs, recommendations on improving training programs, and such other information and recommendations, including legislative recommendations, as he deems appropriate.

**(h) Lake pollution**

The Administrator is authorized to enter into contracts with, or make grants to, public or private agencies and organizations and individuals for (A) the purpose of developing and demonstrating new or improved methods for the prevention, removal, reduction, and elimination of pollution in lakes, including the undesirable effects of nutrients and vegetation, and (B) the construction of publicly owned research facilities for such purpose.

**(i) Oil pollution control studies**

The Administrator, in cooperation with the Secretary of the Department in which the Coast Guard is operating, shall—

(1) engage in such research, studies, experiments, and demonstrations as he deems appropriate, relative to the removal of oil from any waters and to the prevention, control, and elimination of oil and hazardous substances pollution;

(2) publish from time to time the results of such activities; and

(3) from time to time, develop and publish in the Federal Register specifications and other technical information on the various chemical compounds used in the control of oil and hazardous substances spills.

In carrying out this subsection, the Administrator may enter into contracts with, or make grants to, public or private agencies and organizations and individuals.

**(j) Solid waste disposal equipment for vessels**

The Secretary of the department in which the Coast Guard is operating shall engage in such research, studies, experiments, and demonstrations as he deems appropriate relative to equipment which is to be installed on board a vessel and is designed to receive, retain, treat, or discharge human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes with particular emphasis on equipment to be installed on small recreational vessels. The Secretary of the department in which the Coast Guard is operating shall report to Congress the results of such research, studies, experiments, and demonstrations prior to the effective date of any regulations established under section 1322 of this title. In carrying out this subsection the Secretary of the department in which the Coast Guard is operating may enter into contracts with, or make grants to, public or private organizations and individuals.

**(k) Land acquisition**

In carrying out the provisions of this section relating to the conduct by the Administrator of demonstration projects and the development of field laboratories and research facilities, the Administrator may acquire land and interests therein by purchase, with appropriated or donated funds, by donation, or by exchange for acquired or public lands under his jurisdiction which he classifies as suitable for disposition. The values of the properties so exchanged either shall be approximately equal, or if they are not approximately equal, the values shall be equalized by the payment of cash to the grantor or to the Administrator as the circumstances require.

**(l) Collection and dissemination of scientific knowledge on effects and control of pesticides in water**

(1) The Administrator shall, after consultation with appropriate local, State, and Federal agencies, public and private organizations, and interested individuals, as soon as practicable but not later than January 1, 1973, develop and issue to the States for the purpose of carrying out this chapter the latest scientific knowledge available in indicating the kind and extent of effects on health and welfare which may be expected from the presence of pesticides in the water in varying quantities. He shall revise and add to such information whenever necessary to reflect developing scientific knowledge.

(2) The President shall, in consultation with appropriate local, State, and Federal agencies, public and private organizations, and interested individuals, conduct studies and investigations of methods to control the release of pesticides into the environment which study shall include examination of the persistency of pesticides in the water environment and alternatives thereto. The President shall submit reports, from time to time, on such investigations to Congress together with his recommendations for any necessary legislation.

**(m) Waste oil disposal study**

(1) The Administrator shall, in an effort to prevent degradation of the environment from the disposal of waste oil, conduct a study of (A) the generation of used engine, machine, cooling, and similar waste oil, including quantities generated, the nature and quality of such oil, present collecting methods and disposal practices, and alternate uses of such oil; (B) the long-term, chronic biological effects of the disposal of such waste oil; and (C) the potential market for such oils, including the economic and legal factors relating to the sale of products made from such oils, the level of subsidy, if any, needed to encourage the purchase by public and private nonprofit agencies of products from such oil, and the practicability of Federal procurement, on a priority basis, of products made from such oil. In conducting such study, the Administrator shall consult with affected industries and other persons.

(2) The Administrator shall report the preliminary results of such study to Congress within six months after October 18, 1972, and shall submit a final report to Congress within 18 months after such date.

**(n) Comprehensive studies of effects of pollution on estuaries and estuarine zones**

(1) The Administrator shall, in cooperation with the Secretary of the Army, the Secretary of Agriculture, the Water Resources Council, and with other appropriate Federal, State, interstate, or local public bodies and private organizations, institutions, and individuals, conduct and promote, and encourage contributions to, continuing comprehensive studies of the effects of pollution, including sedimentation, in the estuaries and estuarine zones of the United States on fish and wildlife, on sport and commercial fishing, on recreation, on water supply and water power, and on other beneficial purposes. Such studies shall also consider the effect of demographic trends, the exploitation of mineral resources and fossil fuels, land and industrial development, navigation, flood and erosion control, and other uses of estuaries and estuarine zones upon the pollution of the waters therein.

(2) In conducting such studies, the Administrator shall assemble, coordinate, and organize all existing pertinent information on the Nation's estuaries and estuarine zones; carry out a program of investigations and surveys to supplement existing information in representative estuaries and estuarine zones; and identify the problems and areas where further research and study are required.

(3) The Administrator shall submit to Congress, from time to time, reports of the studies authorized by this subsection but at least one such report during any six-year period. Copies of each such report shall be made available to all interested parties, public and private.

(4) For the purpose of this subsection, the term "estuaries and estuarine zones" means an environmental system consisting of an estuary and those transitional areas which are consistently influenced or affected by water from an estuary such as, but not limited to, salt marshes, coastal and intertidal areas, bays, harbors, lagoons, inshore waters, and channels, and the term "estuary" means all or part of the mouth of a river or stream or other body of water having unimpaired natural connection with open sea and within which the sea water is measurably diluted with fresh water derived from land drainage.

**(o) Methods of reducing total flow of sewage and unnecessary water consumption; reports**

(1) The Administrator shall conduct research and investigations on devices, systems, incentives, pricing policy, and other methods of reducing the total flow of sewage, including, but not limited to, unnecessary water consumption in order to reduce the requirements for, and the costs of, sewage and waste treatment services. Such research and investigations shall be directed to develop devices, systems, policies, and methods capable of achieving the maximum reduction of unnecessary water consumption.

(2) The Administrator shall report the preliminary results of such studies and investigations to the Congress within one year after October 18, 1972, and annually thereafter in the report required under subsection (a) of section 1375 of this title. Such report shall include recom-

mendations for any legislation that may be required to provide for the adoption and use of devices, systems, policies, or other methods of reducing water consumption and reducing the total flow of sewage. Such report shall include an estimate of the benefits to be derived from adoption and use of such devices, systems, policies, or other methods and also shall reflect estimates of any increase in private, public, or other cost that would be occasioned thereby.

**(p) Agricultural pollution**

In carrying out the provisions of subsection (a) of this section the Administrator shall, in cooperation with the Secretary of Agriculture, other Federal agencies, and the States, carry out a comprehensive study and research program to determine new and improved methods and the better application of existing methods of preventing, reducing, and eliminating pollution from agriculture, including the legal, economic, and other implications of the use of such methods.

**(q) Sewage in rural areas; national clearinghouse for alternative treatment information; clearinghouse on small flows**

(1) The Administrator shall conduct a comprehensive program of research and investigation and pilot project implementation into new and improved methods of preventing, reducing, storing, collecting, treating, or otherwise eliminating pollution from sewage in rural and other areas where collection of sewage in conventional, communitywide sewage collection systems is impractical, uneconomical, or otherwise infeasible, or where soil conditions or other factors preclude the use of septic tank and drainage field systems.

(2) The Administrator shall conduct a comprehensive program of research and investigation and pilot project implementation into new and improved methods for the collection and treatment of sewage and other liquid wastes combined with the treatment and disposal of solid wastes.

(3) The Administrator shall establish, either within the Environmental Protection Agency, or through contract with an appropriate public or private non-profit organization, a national clearinghouse which shall (A) receive reports and information resulting from research, demonstrations, and other projects funded under this chapter related to paragraph (1) of this subsection and to subsection (e)(2) of section 1255 of this title; (B) coordinate and disseminate such reports and information for use by Federal and State agencies, municipalities, institutions, and persons in developing new and improved methods pursuant to this subsection; and (C) provide for the collection and dissemination of reports and information relevant to this subsection from other Federal and State agencies, institutions, universities, and persons.

(4) **SMALL FLOWS CLEARINGHOUSE.**—Notwithstanding section 1285(d) of this title, from amounts that are set aside for a fiscal year under section 1285(i) of this title and are not obligated by the end of the 24-month period of availability for such amounts under section 1285(d) of this title, the Administrator shall make available \$1,000,000 or such unobligated

amount, whichever is less, to support a national clearinghouse within the Environmental Protection Agency to collect and disseminate information on small flows of sewage and innovative or alternative wastewater treatment processes and techniques, consistent with paragraph (3). This paragraph shall apply with respect to amounts set aside under section 1285(i) of this title for which the 24-month period of availability referred to in the preceding sentence ends on or after September 30, 1986.

**(r) Research grants to colleges and universities**

The Administrator is authorized to make grants to colleges and universities to conduct basic research into the structure and function of freshwater aquatic ecosystems, and to improve understanding of the ecological characteristics necessary to the maintenance of the chemical, physical, and biological integrity of freshwater aquatic ecosystems.

**(s) River Study Centers**

The Administrator is authorized to make grants to one or more institutions of higher education (regionally located and to be designated as "River Study Centers") for the purpose of conducting and reporting on interdisciplinary studies on the nature of river systems, including hydrology, biology, ecology, economics, the relationship between river uses and land uses, and the effects of development within river basins on river systems and on the value of water resources and water related activities. No such grant in any fiscal year shall exceed \$1,000,000.

**(t) Thermal discharges**

The Administrator shall, in cooperation with State and Federal agencies and public and private organizations, conduct continuing comprehensive studies of the effects and methods of control of thermal discharges. In evaluating alternative methods of control the studies shall consider (1) such data as are available on the latest available technology, economic feasibility including cost-effectiveness analysis, and (2) the total impact on the environment, considering not only water quality but also air quality, land use, and effective utilization and conservation of freshwater and other natural resources. Such studies shall consider methods of minimizing adverse effects and maximizing beneficial effects of thermal discharges. The results of these studies shall be reported by the Administrator as soon as practicable, but not later than 270 days after October 18, 1972, and shall be made available to the public and the States, and considered as they become available by the Administrator in carrying out section 1326 of this title and by the States in proposing thermal water quality standards.

**(u) Authorization of appropriations**

There is authorized to be appropriated (1) not to exceed \$100,000,000 per fiscal year for the fiscal year ending June 30, 1973, the fiscal year ending June 30, 1974, and the fiscal year ending June 30, 1975, not to exceed \$14,039,000 for the fiscal year ending September 30, 1980, not to exceed \$20,697,000 for the fiscal year ending September 30, 1981, not to exceed \$22,770,000 for the fiscal year ending September 30, 1982, such sums as

may be necessary for fiscal years 1983 through 1985, and not to exceed \$22,770,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of this section, other than subsections (g)(1) and (2), (p), (r), and (t) of this section, except that such authorizations are not for any research, development, or demonstration activity pursuant to such provisions; (2) not to exceed \$7,500,000 for fiscal years 1973, 1974, and 1975, \$2,000,000 for fiscal year 1977, \$3,000,000 for fiscal year 1978, \$3,000,000 for fiscal year 1979, \$3,000,000 for fiscal year 1980, \$3,000,000 for fiscal year 1981, \$3,000,000 for fiscal year 1982, such sums as may be necessary for fiscal years 1983 through 1985, and \$3,000,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of subsection (g)(1) of this section; (3) not to exceed \$2,500,000 for fiscal years 1973, 1974, and 1975, \$1,000,000 for fiscal year 1977, \$1,500,000 for fiscal year 1978, \$1,500,000 for fiscal year 1979, \$1,500,000 for fiscal year 1980, \$1,500,000 for fiscal year 1981, \$1,500,000 for fiscal year 1982, such sums as may be necessary for fiscal years 1983 through 1985, and \$1,500,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of subsection (g)(2) of this section; (4) not to exceed \$10,000,000 for each of the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (p) of this section; (5) not to exceed \$15,000,000 per fiscal year for the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (r) of this section; and (6) not to exceed \$10,000,000 per fiscal year for the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (t) of this section.

**(v) Studies concerning pathogen indicators in coastal recreation waters**

Not later than 18 months after October 10, 2000, after consultation and in cooperation with appropriate Federal, State, tribal, and local officials (including local health officials), the Administrator shall initiate, and, not later than 3 years after October 10, 2000, shall complete, in cooperation with the heads of other Federal agencies, studies to provide additional information for use in developing—

- (1) an assessment of potential human health risks resulting from exposure to pathogens in coastal recreation waters, including non-gastrointestinal effects;
- (2) appropriate and effective indicators for improving detection in a timely manner in coastal recreation waters of the presence of pathogens that are harmful to human health;
- (3) appropriate, accurate, expeditious, and cost-effective methods (including predictive models) for detecting in a timely manner in coastal recreation waters the presence of pathogens that are harmful to human health; and
- (4) guidance for State application of the criteria for pathogens and pathogen indicators to be published under section 1314(a)(9) of this title to account for the diversity of geographic and aquatic conditions.

(June 30, 1948, ch. 758, title I, § 104, as added Pub. L. 92-500, § 2, Oct. 18, 1972, 86 Stat. 819; amended

Pub. L. 93-207, § 1(1), Dec. 28, 1973, 87 Stat. 906; Pub. L. 93-592, § 1, Jan. 2, 1975, 88 Stat. 1924; Pub. L. 95-217, §§ 4(a), (b), 6, 7, Dec. 27, 1977, 91 Stat. 1566, 1567; Pub. L. 95-576, § 1(a), Nov. 2, 1978, 92 Stat. 2467; Pub. L. 96-88, title V, § 509(b), Oct. 17, 1979, 93 Stat. 695; Pub. L. 96-483, § 1(a), Oct. 21, 1980, 94 Stat. 2360; Pub. L. 100-4, title I, §§ 101(a), 102, Feb. 4, 1987, 101 Stat. 8, 9; Pub. L. 102-154, title I, Nov. 13, 1991, 105 Stat. 1000; Pub. L. 105-362, title V, § 501(a)(1), (d)(2)(A), Nov. 10, 1998, 112 Stat. 3283; Pub. L. 106-284, § 3(a), Oct. 10, 2000, 114 Stat. 871; Pub. L. 107-303, title III, § 302(b)(1), Nov. 27, 2002, 116 Stat. 2361.)

**CODIFICATION**

In subssecs. (b)(4) and (g)(3)(A), “section 3324(a) and (b) of title 31 and section 6101 of title 41” substituted for references to sections 3648 and 3709 of the Revised Statutes on authority of Pub. L. 97-258, § 4(b), Sept. 13, 1982, 96 Stat. 1067, which Act enacted Title 31, Money and Finance, and Pub. L. 111-350, § 6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

**AMENDMENTS**

2002—Subsecs. (a)(5), (n)(3), (4), (o)(2). Pub. L. 107-303 repealed Pub. L. 105-362, § 501(a), (d). See 1998 Amendment notes below.

2000—Subsec. (v). Pub. L. 106-284 added subsec. (v).

1998—Subsec. (a)(5). Pub. L. 105-362, § 501(d)(2)(A)(i), which directed the substitution of “not later than 90 days after the date of convening of each session of Congress” for “in the report required under subsection (a) of section 1375 of this title”, was repealed by Pub. L. 107-303. See Effective Date of 2002 Amendment note below.

Subsec. (n)(3), (4). Pub. L. 105-362, § 501(a)(1), which directed the redesignation of par. (4) as (3) and striking out of former par. (3), was repealed by Pub. L. 107-303. See Effective Date of 2002 Amendment note below.

Subsec. (o)(2). Pub. L. 105-362, § 501(d)(2)(A)(ii), which directed the substitution of “not later than 90 days after the date of convening of each session of Congress” for “in the report required under subsection (a) of section 1375 of this title”, was repealed by Pub. L. 107-303. See Effective Date of 2002 Amendment note below.

1987—Subsec. (q)(4). Pub. L. 100-4, § 102, added par. (4).

Subsec. (u). Pub. L. 100-4, § 101(a), in cl. (1) struck out “and” after “1975,” “1980,” and “1981,” and inserted “such sums as may be necessary for fiscal years 1983 through 1985, and not to exceed \$22,770,000 per fiscal year for each of the fiscal years 1986 through 1990,” in cl. (2) struck out “and” after “1981,” and inserted “such sums as may be necessary for fiscal years 1983 through 1985, and \$3,000,000 per fiscal year for each of the fiscal years 1986 through 1990,” and in cl. (3) struck out “and” after “1981,” and inserted “such sums as may be necessary for fiscal years 1983 through 1985, and \$1,500,000 per fiscal year for each of the fiscal years 1986 through 1990,”.

1980—Subsec. (u). Pub. L. 96-483 in par. (1) inserted authorization of not to exceed \$20,697,000 and \$22,770,000 for fiscal years ending Sept. 30, 1981, and 1982, respectively; in par. (2) inserted authorization of the sum of \$3,000,000 for each of fiscal years 1981 and 1982; and in par. (3) inserted authorization of the sum of \$1,500,000 for each of fiscal years 1981 and 1982.

1978—Subsec. (u)(1). Pub. L. 95-576 authorized appropriation of not to exceed \$14,039,000 for fiscal year ending Sept. 30, 1980 and prohibited use of authorizations for any research, development, or demonstration activity pursuant to provisions of this section.

1977—Subsec. (n)(3). Pub. L. 95-217, § 6, substituted “any six-year period” for “any three year period”.

Subsec. (q)(3). Pub. L. 95-217, § 7, added par. (3).

Subsec. (u)(2). Pub. L. 95-217, § 4(a), substituted “1975, \$2,000,000 for fiscal year 1977, \$3,000,000 for fiscal year 1978, \$3,000,000 for fiscal year 1979, and \$3,000,000 for fiscal year 1980,” for “1975”.

Subsec. (u)(3). Pub. L. 95-217, §4(b), substituted “1975, \$1,000,000 for fiscal year 1977, \$1,500,000 for fiscal year 1978, \$1,500,000 for fiscal year 1979, and \$1,500,000 for fiscal year 1980,” for “1975”.

1975—Subsec. (u)(1). Pub. L. 93-592, §1(a), substituted “the fiscal year ending June 30, 1974, and the fiscal year ending June 30, 1975,” for “and the fiscal year ending June 30, 1974.”

Subsec. (u)(2). Pub. L. 93-592, §1(b), substituted “fiscal years 1973, 1974, and 1975” for “fiscal years 1973 and 1974”.

Subsec. (u)(3). Pub. L. 93-592, §1(c), substituted “fiscal years 1973, 1974, and 1975” for “fiscal year 1973”.

Subsec. (u)(4), (5), (6). Pub. L. 93-592, §1(d)-(f), substituted “June 30, 1974, and June 30, 1975,” for “and June 30, 1974.”

1973—Subsec. (u)(2). Pub. L. 93-207 substituted “fiscal years 1973 and 1974” for “fiscal year 1973”.

#### CHANGE OF NAME

“United States Geological Survey” substituted for “Geological Survey” in subsec. (a)(5) pursuant to provision of title I of Pub. L. 102-154, set out as a note under section 31 of Title 43, Public Lands.

“Secretary of Health and Human Services” substituted for “Secretary of Health, Education, and Welfare” in subsec. (c) pursuant to section 509(b) of Pub. L. 96-88 which is classified to section 3508(b) of Title 20, Education.

#### EFFECTIVE DATE OF 2002 AMENDMENT

Pub. L. 107-303, title III, §302(b), Nov. 27, 2002, 116 Stat. 2361, provided that:

“(1) IN GENERAL.—Effective November 10, 1998, section 501 of the Federal Reports Elimination Act of 1998 (Public Law 105-362; 112 Stat. 3283) is amended by striking subsections (a) [amending this section and section 1330 of this title], (b) [amending section 1324 of this title], (c) [amending section 1329 of this title], and (d) [amending this section and sections 1266, 1285, 1290, and 1375 of this title].

“(2) APPLICABILITY.—The Federal Water Pollution Control Act (33 U.S.C. 1254(n)(3)) [33 U.S.C. 1251 et seq.] shall be applied and administered on and after the date of enactment of this Act [Nov. 27, 2002] as if the amendments made by subsections (a), (b), (c), and (d) of section 501 of the Federal Reports Elimination Act of 1998 (Public Law 105-362; 112 Stat. 3283) had not been enacted.”

#### TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

Enforcement functions of Secretary or other official in Department of Agriculture, insofar as they involve lands and programs under jurisdiction of that Department, related to compliance with this chapter with respect to pre-construction, construction, and initial operation of transportation system for Canadian and Alaskan natural gas were transferred to the Federal Inspector, Office of Federal Inspector for the Alaska Natural Gas Transportation System, until the first anniversary of date of initial operation of the Alaska Natural Gas Transportation System, see Reorg. Plan No. 1 of 1979, §§102(f), 203(a), 44 F.R. 33663, 33666, 93 Stat. 1373, 1376, effective July 1, 1979, set out in the Appendix to Title 5, Government Organization and Employees. Office of Federal Inspector for the Alaska Natural Gas Transportation System abolished and functions and authority vested in Inspector transferred to Secretary of Energy by section 3012(b) of Pub. L. 102-486, set out as an Abolition of Office of Federal Inspector note under

section 719e of Title 15, Commerce and Trade. Functions and authority vested in Secretary of Energy subsequently transferred to Federal Coordinator for Alaska Natural Gas Transportation Projects by section 720d(f) of Title 15.

COLUMBIA RIVER BASIN SYSTEM; PROTECTION FROM OIL SPILLS AND DISCHARGES; CRITERIA FOR EVALUATION AND REPORT TO CONGRESS BY COMMANDANT OF COAST GUARD IN CONSULTATION WITH FEDERAL, ETC., AGENCIES

Pub. L. 95-308, §8, June 30, 1978, 92 Stat. 359, set forth Congressional findings and declarations and evaluation criteria with respect to protection from oil spills and discharges and betterment of the Columbia River Basin system, with such evaluation by the Commandant of the Coast Guard to begin within 180 days after June 30, 1978, and immediate submission of the evaluation to appropriate Congressional committees.

#### CONTIGUOUS ZONE OF UNITED STATES

For extension of contiguous zone of United States, see Proc. No. 7219, set out as a note under section 1331 of Title 43, Public Lands.

#### § 1254a. Research on effects of pollutants

In carrying out the provisions of section 1254(a) of this title, the Administrator shall conduct research on the harmful effects on the health and welfare of persons caused by pollutants in water, in conjunction with the United States Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and other Federal, State, and interstate agencies carrying on such research. Such research shall include, and shall place special emphasis on, the effect that bioaccumulation of these pollutants in aquatic species has upon reducing the value of aquatic commercial and sport industries. Such research shall further study methods to reduce and remove these pollutants from the relevant affected aquatic species so as to restore and enhance these valuable resources.

(Pub. L. 100-4, title I, §105, Feb. 4, 1987, 101 Stat. 15.)

#### CODIFICATION

Section was enacted as part of the Water Quality Act of 1987, and not as part of the Federal Water Pollution Control Act which comprises this chapter.

#### DEFINITION

Administrator means the Administrator of the Environmental Protection Agency, see section 1(d) of Pub. L. 100-4, set out as a note under section 1251 of this title.

#### § 1255. Grants for research and development

##### (a) Demonstration projects covering storm waters, advanced waste treatment and water purification methods, and joint treatment systems for municipal and industrial wastes

The Administrator is authorized to conduct in the Environmental Protection Agency, and to make grants to any State, municipality, or intermunicipal or interstate agency for the purpose of assisting in the development of—

- (1) any project which will demonstrate a new or improved method of preventing, reducing, and eliminating the discharge into any waters of pollutants from sewers which carry storm water or both storm water and pollutants; or
- (2) any project which will demonstrate advanced waste treatment and water purifi-