

censing of inventions made or conceived in the course of work performed, or under any contract or grant made, pursuant to this chapter. Subject to such patent policy, all research or development contracted for, sponsored, cosponsored, or authorized under authority of this chapter shall be provided in such manner that all information, data, and know-how, regardless of their nature or mediums, resulting from such research and development shall (with such exceptions and limitations, if any, as the Secretary may find to be necessary in the interest of national defense) be usefully available for practice by the general public.

(Pub. L. 98-242, title I, §109, Mar. 22, 1984, 98 Stat. 101.)

REFERENCES IN TEXT

This chapter, referred to in text, was in the original “this Act”, meaning Pub. L. 98-242, Mar. 22, 1984, 98 Stat. 97, known as the Water Resources Research Act of 1984, which is classified principally to this chapter. For complete classification of this Act to the Code, see Short Title note set out under section 10301 of this title and Tables.

§ 10309. New spending authority; amounts provided in advance

Any new spending authority described in subsection (c)(2)(A) or (B) of section 651¹ of title 2 which is provided under this chapter shall be effective for any fiscal year only to such extent or in such amounts as are provided in advance in appropriations Acts.

(Pub. L. 98-242, title I, §111, Mar. 22, 1984, 98 Stat. 101.)

REFERENCES IN TEXT

Section 651 of title 2, referred to in text, was amended by Pub. L. 105-33, title X, §10116(a)(3), (5), Aug. 5, 1997, 111 Stat. 691, by striking out subsec. (c) and redesignating former subsec. (d) as (c).

This chapter, referred to in text, was in the original “this Act”, meaning Pub. L. 98-242, Mar. 22, 1984, 98 Stat. 97, known as the Water Resources Research Act of 1984, which is classified principally to this chapter. For complete classification of this Act to the Code, see Short Title note set out under section 10301 of this title and Tables.

§ 10310. Produced water research and development

(a) Establishment

As soon as possible after December 27, 2020, the Secretary of Energy (in this section referred to as the “Secretary”) shall establish a research and development program on produced water to develop—

(1) new technologies and practices to reduce the environmental impact; and

(2) opportunities for reprocessing of produced water at natural gas or oil development sites.

(b) Prioritization

In carrying out the program established under subsection (a), the Secretary shall give priority to projects that develop and bring to market—

(1) effective systems for on-site management or repurposing of produced water; and

(2) new technologies or approaches to reduce the environmental impact of produced water on local water sources and the environment.

(c) Conduct of program

In carrying out the program established under subsection (a), the Secretary shall carry out science-based research and development activities to pursue—

(1) improved efficiency, technologies, and techniques for produced water recycling stations; and

(2) alternative approaches to treating, reusing, storing, or decontaminating produced water.

(d) Authorization of appropriations

There are authorized to be appropriated to carry out this section \$10,000,000 for each of fiscal years 2021 through 2025.

(Pub. L. 116-260, div. Z, title IV, §4008, Dec. 27, 2020, 134 Stat. 2546.)

CODIFICATION

Section was enacted as part of the Energy Act of 2020, and not as part of the Water Resources Research Act of 1984 which comprises this chapter.

CHAPTER 109A—MEMBRANE PROCESSES RESEARCH

Sec.	
10341.	Findings.
10342.	Research program.
10343.	Goals of research program.
10344.	Coordination with other research.
10345.	Authorization of appropriations.

§ 10341. Findings

The Congress finds that—

(1) there is an increasing threat of impairment to the quantity and quality of the Nation’s water resources due to, among other things, growing national needs, recurring drought in the Western States, point and nonpoint source pollution, and saltwater intrusion into existing groundwater supplies;

(2) many communities in the United States have water supplies containing high salinity levels or contaminants which pose health risks;

(3) the Nation needs to develop economical processes to treat existing water supplies that are contaminated;

(4) it is necessary to provide for research into new techniques to reclaim waste water and to convert saline and other contaminated waters to a quality suitable for municipal, industrial, agricultural, recreational, and other beneficial uses;

(5) there is very little Federal funding being applied to basic research in the field of treatment of contaminated water through membrane processes; and

(6) the treatment of contaminated water through membrane processes will solve a wide variety of water treatment problems, including compliance with the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.] and the Safe Drinking Water Act [42 U.S.C. 300f et seq.].

(Pub. L. 102-490, §2, Oct. 24, 1992, 106 Stat. 3142.)

¹ See References in Text note below.

REFERENCES IN TEXT

The Federal Water Pollution Control Act, referred to in par. (6), is act June 30, 1948, ch. 758, as amended generally by Pub. L. 92-500, § 2, Oct. 18, 1972, 86 Stat. 816, which is classified generally to chapter 26 (§1251 et seq.) of Title 33, Navigation and Navigable Waters. For complete classification of this Act to the Code, see Short Title note set out under section 1251 of Title 33 and Tables.

The Safe Drinking Water Act, referred to in par. (6), is title XIV of act July 1, 1944, as added Dec. 16, 1974, Pub. L. 93-523, §2(a), 88 Stat. 1660, as amended, which is classified generally to subchapter XII (§300f et seq.) of chapter 6A of this title. For complete classification of this Act to the Code, see Short Title note set out under section 201 of this title and Tables.

SHORT TITLE

Pub. L. 102-490, §1, Oct. 24, 1992, 106 Stat. 3142, provided that: "This Act [enacting this chapter] may be cited as the 'Membrane Processes Research Act of 1992'."

§ 10342. Research program

The Director of the National Science Foundation shall establish a basic research program on membranes and membrane processes. Such program may be carried out through awarding grants, entering into contracts or cooperative agreements, or direct research.

(Pub. L. 102-490, §3, Oct. 24, 1992, 106 Stat. 3142.)

§ 10343. Goals of research program

The goals of the research program established under section 10342 of this title shall be—

- (1) the development of membranes resistant to degradation, bacterial or otherwise, thereby extending the life of such membranes;
- (2) the development of membranes useful for the efficient and cost effective treatment of contaminated water; and
- (3) the development of innovative technologies for membrane processes.

(Pub. L. 102-490, §4, Oct. 24, 1992, 106 Stat. 3142.)

§ 10344. Coordination with other research

The research program established under section 10342 of this title shall be carried out in coordination with any other related Federal research efforts.

(Pub. L. 102-490, §5, Oct. 24, 1992, 106 Stat. 3143.)

§ 10345. Authorization of appropriations

There are authorized to be appropriated to the Director of the National Science Foundation, from sums otherwise authorized to be appropriated, \$2,500,000 for fiscal year 1993, for carrying out this chapter.

(Pub. L. 102-490, §6, Oct. 24, 1992, 106 Stat. 3143.)

CHAPTER 109B—SECURE WATER

Sec.	
10361.	Findings.
10362.	Definitions.
10363.	Reclamation climate change and water program.
10364.	Water management improvement.
10365.	Hydroelectric power assessment.
10366.	Climate change and water intragovernmental panel.

Sec.	
10367.	Water data enhancement by United States Geological Survey.
10368.	National water availability and use assessment program.
10369.	Research agreement authority.
10370.	Effect.
10371.	Water prediction and forecasting.

§ 10361. Findings

Congress finds that—

(1) adequate and safe supplies of water are fundamental to the health, economy, security, and ecology of the United States;

(2) systematic data-gathering with respect to, and research and development of, the water resources of the United States will help ensure the continued existence of sufficient quantities of water to support—

- (A) increasing populations;
- (B) economic growth;
- (C) irrigated agriculture;
- (D) energy production; and
- (E) the protection of aquatic ecosystems;

(3) global climate change poses a significant challenge to the protection and use of the water resources of the United States due to an increased uncertainty with respect to the timing, form, and geographical distribution of precipitation, which may have a substantial effect on the supplies of water for agricultural, hydroelectric power, industrial, domestic supply, and environmental needs;

(4) although States bear the primary responsibility and authority for managing the water resources of the United States, the Federal Government should support the States, as well as regional, local, and tribal governments, by carrying out—

- (A) nationwide data collection and monitoring activities;
- (B) relevant research; and
- (C) activities to increase the efficiency of the use of water in the United States;

(5) Federal agencies that conduct water management and related activities have a responsibility—

- (A) to take a lead role in assessing risks to the water resources of the United States (including risks posed by global climate change); and
- (B) to develop strategies—

- (i) to mitigate the potential impacts of each risk described in subparagraph (A); and
- (ii) to help ensure that the long-term water resources management of the United States is sustainable and will ensure sustainable quantities of water;

(6) it is critical to continue and expand research and monitoring efforts—

- (A) to improve the understanding of the variability of the water cycle; and
- (B) to provide basic information necessary—

- (i) to manage and efficiently use the water resources of the United States; and
- (ii) to identify new supplies of water that are capable of being reclaimed; and

(7) the study of water use is vital—