



.....
(Original Signature of Member)

118TH CONGRESS
1ST SESSION

H. R. _____

To authorize the Administrator of the Environmental Protection Agency to award grants and contracts for projects that use emerging technologies to address threats to water quality, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. DONALDS introduced the following bill; which was referred to the
Committee on _____

A BILL

To authorize the Administrator of the Environmental Protection Agency to award grants and contracts for projects that use emerging technologies to address threats to water quality, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Water Quality and En-
5 vironmental Innovation Act”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

1 (1) Science, technology, and innovation are
2 major cornerstones of the economy of the United
3 States.

4 (2) Throughout the United States, there is a
5 growing momentum to address traditional and
6 emerging threats to the Nation's water resources
7 through innovative technological approaches.

8 (3) Water quality continues to negatively im-
9 pact communities in the United States in a variety
10 of ways.

11 (4) Water quality improvement and protection
12 efforts pose a unique opportunity for private and
13 public innovators to develop lasting market-based so-
14 lutions.

15 **SEC. 3. SENSE OF CONGRESS.**

16 It is the sense of Congress that—

17 (1) the Federal Government should support in-
18 novative solutions to address water quality in the
19 United States;

20 (2) forward-thinking applications of new and
21 existing technologies will be vital for the ability of
22 communities in the United States to treat and mon-
23 itor vital aquatic and environmental resources;

24 (3) supporting an innovative approach to ad-
25 dressing or avoiding water quality degradation will

1 ultimately result in positive changes pertaining to
2 water quality and environmental well-being;

3 (4) utilizing emerging technologies will spur
4 market-based innovation and will further amplify the
5 ongoing efforts to resolve water quality degradation;
6 and

7 (5) the Environmental Protection Agency and
8 State environmental agencies should prioritize the
9 use of emerging technologies, including artificial in-
10 telligence, quantum information science, distributed
11 ledger technology, mechanical harvesting, aquatic
12 muck dredging, living shorelines, living seawalls, ro-
13 botics, nanotechnology, environmental DNA
14 (eDNA), and cultivation of aquatic species, such as
15 seaweed, seagrass, kelp, clams, oysters, and mussels,
16 when creating programs and solutions to address
17 water quality.

18 **SEC. 4. ESTABLISHMENT OF THE WATER QUALITY AND EN-**
19 **VIRONMENTAL INNOVATION FUND.**

20 (a) IN GENERAL.—There is established a fund, to be
21 known as the Water Quality and Environmental Innova-
22 tion Fund.

23 (b) TRANSFERS TO THE FUND.—On October 1 of
24 each of fiscal years 2024 through 2028, there shall be
25 transferred from the special account described in section

1 6501(e) of the Omnibus Budget Reconciliation Act of
2 1990 (42 U.S.C. 4370c(e)) to the Water Quality and En-
3 vironmental Innovation Fund, an amount that is equal to
4 the amount that the Administrator of the Environmental
5 Protection Agency determines will be collected in such fis-
6 cal year from fees and charges under the Motor Vehicle
7 and Engine Compliance Program of the Environmental
8 Protection Agency.

9 (c) EXPENDITURES.—Amounts in the Water Quality
10 and Environmental Innovation Fund—

11 (1) shall be available, as provided in appropria-
12 tions Acts, for awarding grants and contracts, and
13 for other expenses associated with administering
14 such awards, under section 5; and

15 (2) shall remain available until September 30,
16 2028.

17 **SEC. 5. AWARDS FOR PROJECTS THAT USE EMERGING**
18 **TECHNOLOGIES TO ADDRESS THREATS TO**
19 **WATER QUALITY.**

20 (a) IN GENERAL.—The Administrator may award
21 grants and contracts to eligible entities in accordance with
22 this section.

23 (b) USE OF FUNDS.—

1 (1) IN GENERAL.—An eligible entity may use a
2 grant or contract awarded under this section to
3 carry out a project—

4 (A) that uses an emerging technology, in-
5 cluding artificial intelligence, quantum informa-
6 tion science, distributed ledger technology, me-
7 chanical harvesting, aquatic muck dredging, liv-
8 ing shorelines, living seawalls, robotics, nano-
9 technology, environmental DNA (eDNA), and
10 cultivation of aquatic species, such as seaweed,
11 seagrass, kelp, clams, oysters, and mussels, to
12 address threats to water quality; or

13 (B) for the research, development, or de-
14 sign of such an emerging technology to be used
15 to address threats to water quality.

16 (2) WATER QUALITY THREATS.—Threats to
17 water quality that may be addressed under a project
18 carried out using a grant or contract awarded under
19 this section include—

20 (A) acidification;

21 (B) the accumulation of plastics, trash,
22 and microplastics;

23 (C) hydrologic alterations, such as restrict-
24 ing tidal flow;

- 1 (D) nutrient release and eutrophication,
2 including harmful algal blooms;
3 (E) sea-level rise;
4 (F) waste carbon dioxide accumulations;
5 (G) adverse soil health conditions;
6 (H) erosion and sedimentation; and
7 (I) karst, sinkholes, and land subsidence.

8 (c) ELIGIBLE ENTITIES.—The Administrator may—

9 (1) award grants under this section to any in-
10 stitution of higher education, nonprofit organization,
11 or any other entity located or headquartered in the
12 United States that the Administrator determines ap-
13 propriate; and

14 (2) award contracts under this section to indi-
15 viduals or private for-profit companies that the Ad-
16 ministrator determines appropriate.

17 (d) REQUIREMENT.—Any results, including data and
18 statistics, from a project carried out using a grant or con-
19 tract awarded under this section shall be freely accessible
20 and useable by the public, including local, State, and Fed-
21 eral government entities.

22 **SEC. 6. REPORT.**

23 Not later than one year after the date of the enact-
24 ment of this Act, and annually thereafter, the Adminis-
25 trator shall submit to the Committee on Environment and

1 Public Works of the Senate, the Committee on Commerce,
2 Science, and Transportation of the Senate, the Committee
3 on Energy and Commerce of the House of Representa-
4 tives, the Committee on Transportation and Infrastruc-
5 ture of the House of Representatives, and the Committee
6 on Science, Space, and Technology of the House of Rep-
7 resentatives a report describing—

8 (1) additional benefits that may result from the
9 use of emerging technologies, including emerging
10 technologies described in section 5(b)(1)(A), to ad-
11 dress threats to water quality, compared to use of
12 existing technologies to address threats to water
13 quality;

14 (2) the recipients of the grants and contracts
15 awarded under this Act;

16 (3) the types and goals of projects carried out
17 using the grants and contracts awarded under this
18 Act;

19 (4) the effectiveness of such projects in achiev-
20 ing such goals; and

21 (5) any other information that the Adminis-
22 trator determines necessary.

23 **SEC. 7. DEFINITIONS.**

24 In this Act:

1 (1) ADMINISTRATOR.—The term “Adminis-
2 trator” means the Administrator of the Environ-
3 mental Protection Agency.

4 (2) ARTIFICIAL INTELLIGENCE.—The term “ar-
5 tificial intelligence” has the meaning given such
6 term in section 5002 of the National Artificial Intel-
7 ligence Initiative Act of 2020 (15 U.S.C. 9401).

8 (3) DISTRIBUTED LEDGER TECHNOLOGY.—The
9 term “distributed ledger technology” means tech-
10 nology that enables the operation and use of distrib-
11 uted ledgers that—

12 (A) are shared across a set of distributed
13 nodes, including devices or processes, that par-
14 ticipate in a network and store a complete or
15 partial replica of the ledger;

16 (B) are synchronized between the nodes;

17 (C) have data appended to it by following
18 the ledger’s specified consensus mechanism;

19 (D) may be accessible to anyone (public)
20 or restricted to a subset of participants (pri-
21 vate); and

22 (E) may require participants to have au-
23 thorization to perform certain actions
24 (permissioned) or require no authorization
25 (permissionless).

1 (4) ELIGIBLE ENTITY.—The term “eligible enti-
2 ty” means an entity described in section 5(e).

3 (5) QUANTUM INFORMATION SCIENCE.—The
4 term “quantum information science” has the mean-
5 ing given such term in section 2 of the National
6 Quantum Initiative Act (15 U.S.C. 8801).