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118TH CONGRESS
1ST SESSION

H. R. 873

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

FEBRUARY 8, 2023

Mr. DONALDS (for himself and Mr. GOTTHEIMER) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure, and in addition to the Committees on Energy and Commerce, and Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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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.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Water Quality and Environmental Innovation Act''.

SEC. 2. FINDINGS.

Congress finds the following:

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

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

(3) Water quality continues to negatively impact communities in the United States in a variety of ways.

(4) Water quality improvement and protection efforts pose a unique opportunity for private and public innovators to develop lasting market-based solutions.

SEC. 3. SENSE OF CONGRESS.

It is the sense of Congress that—

(1) the Federal Government should support innovative solutions to address water quality in the United States;

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

(3) supporting an innovative approach to addressing or avoiding water quality degradation will ultimately result in positive changes pertaining to water quality and environmental well-being;

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

(5) the Environmental Protection Agency and State environmental agencies should prioritize the use of emerging technologies, including artificial intelligence, quantum information science, distributed ledger technology, mechanical harvesting, aquatic muck dredging, living shorelines, living seawalls, robotics, nanotechnology, environmental DNA (eDNA), and cultivation of aquatic species, such as seaweed, seagrass, kelp, clams, oysters, and mussels, when creating programs and solutions to address water quality.

SEC. 4. ESTABLISHMENT OF THE WATER QUALITY AND ENVIRONMENTAL INNOVATION FUND.

(a) IN GENERAL.—There is established a fund, to be known as the Water Quality and Environmental Innovation Fund.

(b) TRANSFERS TO THE FUND.—On October 1 of each of fiscal years 2024 through 2028, there shall be transferred from the special account described in section 6501(e) of the Omnibus Budget Reconciliation Act of 1990 (42 U.S.C. 4370c(e)) to the Water Quality and Environmental Innovation Fund, an amount that is equal to the amount that the Administrator of the Environmental Protection Agency determines will be collected in such fiscal year from fees and charges under the Motor Vehicle and Engine Compliance Program of the Environmental Protection Agency.

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

(1) shall be available, as provided in appropriations Acts, for awarding grants and contracts, and for other expenses associated with administering such awards, under section 5; and

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

SEC. 5. AWARDS FOR PROJECTS THAT USE EMERGING TECHNOLOGIES TO ADDRESS THREATS TO WATER QUALITY.

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

(b) USE OF FUNDS.—

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

(A) that uses an emerging technology, including artificial intelligence, quantum information science, distributed ledger technology, mechanical harvesting, aquatic muck dredging, living shorelines, living seawalls, robotics, nanotechnology, environmental DNA (eDNA), and cultivation of aquatic species, such as seaweed, seagrass, kelp, clams, oysters, and mussels, to address threats to water quality; or

(B) for the research, development, or design of such an emerging technology to be used to address threats to water quality.

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

(A) acidification;

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

(C) hydrologic alterations, such as restricting tidal flow;

(D) nutrient release and eutrophication, including harmful algal blooms;

(E) sea-level rise;

(F) waste carbon dioxide accumulations;

(G) adverse soil health conditions;

(H) erosion and sedimentation; and

(I) karst, sinkholes, and land subsidence.

(c) ELIGIBLE ENTITIES.—The Administrator may—

(1) award grants under this section to any institution of higher education, nonprofit organization, or any other entity located or headquartered in the United States that the Administrator determines appropriate; and

(2) award contracts under this section to individuals or private for-profit companies that the Administrator determines appropriate.

(d) REQUIREMENT.—Any results, including data and statistics, from a project carried out using a grant or contract awarded under this section shall be freely accessible and useable by the public, including local, State, and Federal government entities.

SEC. 6. REPORT.

Not later than one year after the date of the enactment of this Act, and annually thereafter, the Administrator shall submit to the Committee on Environment and

Public Works of the Senate, the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Energy and Commerce of the House of Representatives, the Committee on Transportation and Infrastructure of the House of Representatives, and the Committee on Science, Space, and Technology of the House of Representatives a report describing—

(1) additional benefits that may result from the use of emerging technologies, including emerging technologies described in section 5(b)(1)(A), to address threats to water quality, compared to use of existing technologies to address threats to water quality;

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

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

(4) the effectiveness of such projects in achieving such goals; and

(5) any other information that the Administrator determines necessary.

SEC. 7. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) ARTIFICIAL INTELLIGENCE.—The term ''artificial intelligence'' has the meaning given such term in section 5002 of the National Artificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401).

(3) DISTRIBUTED LEDGER TECHNOLOGY.—The term ''distributed ledger technology'' means technology that enables the operation and use of distributed ledgers that—

(A) are shared across a set of distributed nodes, including devices or processes, that participate in a network and store a complete or partial replica of the ledger;

(B) are synchronized between the nodes;

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

(D) may be accessible to anyone (public) or restricted to a subset of participants (private); and

(E) may require participants to have authorization to perform certain actions (permissioned) or require no authorization (permissionless).

(4) ELIGIBLE ENTITY.—The term ''eligible entity'' means an entity described in section 5(c).

(5) QUANTUM INFORMATION SCIENCE.—The term ''quantum information science'' has the meaning given such term in section 2 of the National Quantum Initiative Act (15 U.S.C. 8801).

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