

Calendar No. 512

118TH CONGRESS
2D SESSION**S. 3348**

To amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 to address harmful algal blooms, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 27, 2023

Mr. SULLIVAN (for himself, Ms. BALDWIN, Mr. BLUMENTHAL, Mr. KING, Mr. PETERS, Ms. MURKOWSKI, Mr. KENNEDY, Mr. MERKLEY, Mr. WICKER, Ms. COLLINS, Mr. PADILLA, Ms. BUTLER, Mr. WHITEHOUSE, Mr. CASSIDY, Mr. CORNYN, and Mr. COONS) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

SEPTEMBER 17, 2024

Reported by Ms. CANTWELL, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italie*]

A BILL

To amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 to address harmful algal blooms, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Harmful Algal Bloom
3 and Hypoxia Research and Control Amendments Act of
4 2023”.

5 **SEC. 2. AMENDMENTS TO THE HARMFUL ALGAL BLOOMS**
6 **AND HYPOXIA RESEARCH AND CONTROL ACT**
7 **OF 1998.**

8 ~~(a) ASSESSMENTS.—~~

9 (1) IN GENERAL.—Section 603 of the Harmful
10 Algal Blooms and Hypoxia Research and Control
11 Act of 1998 (33 U.S.C. 4001) is amended—

12 (A) in the section heading, by striking
13 “ASSESSMENTS” and inserting “**TASK**
14 **FORCE, ASSESSMENTS, AND ACTION**
15 **STRATEGY**”;

16 (B) in subsection (a)—

17 (i) by redesignating paragraphs (13)
18 and (14) as paragraphs (14) and (15), re-
19 spectively; and

20 (ii) by inserting after paragraph (12)
21 the following:

22 “(13) the Department of Energy;”;

23 (C) by striking subsections (b), (c), (d),
24 (e), (g), (h), and (i) and redesignating sub-
25 section (f) as subsection (b);

26 (D) in subsection (b), as so redesignated—

1 (i) in paragraph (1), in the first sen-
 2 tence, by striking “coastal waters including
 3 the Great Lakes” and inserting “marine,
 4 estuarine, and freshwater systems”; and

5 (ii) in paragraph (2)—

6 (I) by amending subparagraph
 7 (A) to read as follows:

8 “(A) examine—

9 “(i) the causes and ecological consequences
 10 of hypoxia on marine and aquatic species in
 11 their natural environments; and

12 “(ii) the socio-cultural or economic costs of
 13 hypoxia, including impacts on food safety and
 14 security;”;

15 (II) by redesignating subpara-
 16 graphs (B), (C), and (D) as subpara-
 17 graphs (D), (E), and (F), respectively;

18 (III) by inserting after subpara-
 19 graph (A) the following:

20 “(B) examine the effect of other environmental
 21 stressors on hypoxia;

22 “(C) evaluate alternatives for reducing, miti-
 23 gating, and controlling hypoxia and its environ-
 24 mental impacts;”;

1 (IV) in subparagraph (D), as re-
 2 designated by subelause (H), by in-
 3 serting “, social,” after “ecological”;
 4 and

5 (V) in subparagraph (E), as re-
 6 designated by subelause (H), by strik-
 7 ing “hypoxia modeling and monitoring
 8 data” and inserting “hypoxia mod-
 9 eling, forecasting, and monitoring and
 10 observation data”; and

11 (E) by adding at the end the following:

12 “(e) ACTION STRATEGY AND SCIENTIFIC ASSESS-
 13 MENT FOR MARINE AND FRESHWATER HARMFUL ALGAL
 14 BLOOMS.—

15 “(1) IN GENERAL.—Not less frequently than
 16 once every 5 years, the Task Force shall complete
 17 and submit to Congress an action strategy for harm-
 18 ful algal blooms in the United States.

19 “(2) ELEMENTS.—Each Action Strategy
 20 shall—

21 “(A) examine, and include a scientific as-
 22 sessment of, marine and freshwater harmful
 23 algal blooms, including such blooms—

24 “(i) in the Great Lakes and upper
 25 reaches of estuaries;

1 “(ii) in freshwater lakes and rivers;
2 and

3 “(iii) that originate in freshwater
4 lakes or rivers and migrate to coastal
5 waters;

6 “(B) examine the causes, ecological con-
7 sequences, and economic or socio-cultural im-
8 pacts, including food safety and security, of
9 harmful algal blooms;

10 “(C) examine the effect of other environ-
11 mental stressors on harmful algal blooms;

12 “(D) examine potential methods to pre-
13 vent, control, and mitigate harmful algal blooms
14 and the potential ecological, social, cultural, and
15 economic costs and benefits of such methods;

16 “(E) identify priorities for research needed
17 to advance techniques and technologies to de-
18 tect, predict, monitor, respond to, and minimize
19 the occurrence, duration, and severity of harm-
20 ful algal blooms, including recommendations to
21 eliminate significant gaps in harmful algal
22 bloom forecasting, monitoring, and observation
23 data;

24 “(F) evaluate progress made by, and the
25 needs of, activities and actions of the Task

1 Force to prevent, control, and mitigate harmful
2 algal blooms;

3 “(G) identify ways to improve coordination
4 and prevent unnecessary duplication of effort
5 among Federal agencies with respect to re-
6 search on harmful algal blooms; and

7 “(H) include regional chapters relating to
8 the requirements described in this paragraph in
9 order to highlight geographically and eco-
10 logically diverse locations with significant eco-
11 logical, social, cultural, and economic impacts
12 from harmful algal blooms.

13 “(d) CONSULTATION.—In carrying out subsections
14 (b) and (c), the Task Force shall consult with—

15 “(1) States, Indian tribes, and local govern-
16 ments; and

17 “(2) appropriate industries (including fisheries,
18 agriculture, and fertilizer), academic institutions,
19 and nongovernmental organizations with relevant ex-
20 pertise.”.

21 (2) CLERICAL AMENDMENT.—The table of con-
22 tents in section 2 of the Coast Guard Authorization
23 Act of 1998 (Public Law 105–383; 112 Stat. 3412;
24 136 Stat. 1268) is amended by striking the item re-
25 lating to section 603 and inserting the following:

“Sec. 603. Task Force, assessments, and Action Strategy.”.

1 ~~(3)~~ CONFORMING AMENDMENT.—Section 102
 2 of the Harmful Algal Bloom and Hypoxia Amend-
 3 ments Act of 2004 (~~33~~ U.S.C. 4001a) is amended
 4 by striking “In developing” and all that follows
 5 through “management.”.

6 ~~(b)~~ NATIONAL HARMFUL ALGAL BLOOM AND HY-
 7 POXIA PROGRAM.—Section 603A of the Harmful Algal
 8 Blooms and Hypoxia Research and Control Act of 1998
 9 (~~33~~ U.S.C. 4002) is amended—

10 (1) in subsection (a)—

11 (A) in paragraph (1)—

12 (i) by striking “predicting,” and in-
 13 serting “monitoring, observing, fore-
 14 casting,”; and

15 (ii) by striking “and” after the semi-
 16 colon; and

17 (B) by striking paragraph (2) and insert-
 18 ing the following:

19 “~~(2)~~ the scientific assessment submitted under
 20 section 603(b); and

21 “~~(3)~~ the Action Strategy.”;

22 (2) in subsection (c)—

23 (A) in paragraph (3), by striking “ocean
 24 and Great Lakes science and management pro-
 25 grams and centers” and inserting “programs

and centers relating to the science and management of marine, estuarine, and freshwater systems"; and

(B) in paragraph (5), by inserting "while recognizing each agency is acting under its own independent mission and authority" before the semicolon;

(3) in subsection (d), by striking "Except as provided in subsection (h), the" and inserting "The";

(4) in subsection (e)—

(A) in the matter preceding paragraph (1), by inserting "(or the Administrator, as provided under subsection (g))" after "Under Secretary";

(B) by amending paragraph (2) to read as follows:

"(2) examine, in collaboration with State and local entities and Indian tribes, including island communities, low-population rural communities, Indigenous communities, subsistence communities, fisheries, and recreation industries that are most dependent on coastal and water resources that may be impacted by marine and freshwater harmful algal blooms and hypoxia, the causes, ecological con-

1 sequences, cultural impacts, and social and economic
 2 costs of harmful algal blooms and hypoxia;”;

3 (C) by striking paragraph (3);

4 (D) by redesignating paragraphs (4), (5),
 5 and (6) as paragraphs (3), (4), and (5), respec-
 6 tively;

7 (E) in paragraph (3), as so redesignated,
 8 by striking “agencies” and inserting “entities,
 9 regional coastal observing systems (as defined
 10 in section 12303 of the Integrated Coastal and
 11 Ocean Observation System Act of 2009 (33
 12 U.S.C. 3602)),”;

13 (F) in paragraph (5), as redesignated by
 14 subparagraph (D), by inserting “and commu-
 15 nities” after “ecosystems”;

16 (G) by inserting after paragraph (5), as re-
 17 designated by subparagraph (D), the following:

18 “(6) support sustained observations, including
 19 through peer-reviewed, merit-based, competitive
 20 grant funding, to provide State and local entities,
 21 Indian tribes, and other entities access to real-time
 22 or near real-time observation data for decision-mak-
 23 ing to protect human and ecological health and local
 24 economies;”;

1 (H) in paragraph (8), by inserting “and
2 Indian tribes” after “managers”; and

3 (I) in paragraph (9)(A), by striking “, trib-
4 al, and local stakeholders” and inserting “and
5 local stakeholders and Indian tribes”;

6 (5) by amending subsections (f), (g), and (h) to
7 read as follows:

8 “(f) COOPERATION AND COORDINATION.—The
9 Under Secretary shall—

10 “(1) work cooperatively with and avoid duplica-
11 tion of effort of other agencies on the Task Force
12 and States, Indian tribes, and nongovernmental or-
13 ganizations concerned with marine and freshwater
14 issues; and

15 “(2) coordinate harmful algal bloom and hy-
16 poxia and related activities and research with those
17 entities.

18 “(g) FRESHWATER AND ESTUARINE PROGRAM DU-
19 TIES.—The Administrator, in coordination with the Task
20 Force, shall—

21 “(1) carry out the duties under the Administra-
22 tor’s purview under subsection (e) for freshwater as-
23 pects of the Program through the activities required
24 under section 603C; and

1 “(2) coordinate with the Under Secretary on es-
 2 tuarine aspects of the Program through the activi-
 3 ties required under this section.

4 “(h) ANTI-DEFICIENCY ACT APPLIED TO HARMFUL
 5 ALGAL BLOOM SERVICES.—Any services accepted by an
 6 officer or employee of the United States Government
 7 under this title relating to the development and dissemina-
 8 tion of forecasts and bulletins through the Harmful Algal
 9 Bloom Operational Forecast System of the National Cen-
 10 ters for Coastal Ocean Science and the National Oceanic
 11 and Atmospheric Administration shall be considered, for
 12 purposes of section 1342 of title 31, United States Code,
 13 services for an emergency involving the safety of human
 14 life or the protection of property. Such consideration shall
 15 apply only to services performed for areas with active
 16 harmful algal blooms during any lapse in appropriations
 17 beginning on or after the date of the enactment of the
 18 Harmful Algal Bloom and Hypoxia Research and Control
 19 Amendments Act of 2023.”; and

20 (6) by striking subsection (i).

21 “(c) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
 22 ISTRATION ACTIVITIES.—

23 “(1) IN GENERAL.—Section 603B of the Harm-
 24 ful Algal Blooms and Hypoxia Research and Control

1 Act of 1998 (~~33~~ U.S.C. 4003) is amended to read
 2 as follows:

3 **“SEC. 603B. NATIONAL OCEANIC AND ATMOSPHERIC AD-**
 4 **MINISTRATION ACTIVITIES.**

5 “(a) IN GENERAL.—The Under Secretary shall—

6 “(1) carry out response activities for marine,
 7 coastal, and Great Lakes harmful algal bloom and
 8 hypoxia events;

9 “(2) develop and enhance operational harmful
 10 algal bloom observing and forecasting programs, in-
 11 cluding operational observations and forecasting,
 12 monitoring, modeling, data management, and infor-
 13 mation dissemination;

14 “(3) maintain and enhance peer-reviewed,
 15 merit-based, competitive grant funding relating to
 16 harmful algal blooms and hypoxia—

17 “(A) to maintain and enhance baseline
 18 monitoring programs established by the Pro-
 19 gram;

20 “(B) to support the projects maintained
 21 and established by the Program;

22 “(C) to address the research and manage-
 23 ment needs and priorities identified in the Ac-
 24 tion Strategy;

1 “(D) to accelerate the utilization of effective
2 methods of intervention and mitigation to
3 reduce the frequency, severity, and impacts of
4 harmful algal bloom and hypoxia events;

5 “(E) to identify opportunities to improve
6 monitoring of harmful algal bloom and hypoxia,
7 with a particular focus on coastal waters that
8 may affect fisheries, public health, or subsistence
9 harvest;

10 “(F) to examine the effects of other environmental
11 stressors on harmful algal blooms
12 and hypoxia;

13 “(G) to assess the effects of multiple environmental
14 stressors on living marine resources
15 and coastal ecosystems; and

16 “(H) to evaluate adaptation and mitigation
17 strategies to address the impacts of harmful
18 algal blooms and hypoxia;

19 “(4) enhance communication and coordination
20 among Federal agencies carrying out activities and
21 research relating to marine and freshwater harmful
22 algal bloom and hypoxia;

23 “(5) to the greatest extent practicable, leverage
24 existing resources and expertise available from local
25 research universities and institutions; and

1 “(6) use cost effective methods in carrying out
2 this section.

3 ~~“(b) INTEGRATED COASTAL AND OCEAN OBSERVA-~~
4 ~~TION SYSTEM.—~~The collection of monitoring and observ-
5 ing data under this section shall comply with all data
6 standards and protocols developed pursuant to the Inte-
7 grated Coastal and Ocean Observation System Act of
8 2009 (33 U.S.C. 3601 et seq.). Such data shall be made
9 available through the National Integrated Coastal and
10 Ocean Observation System established under section
11 12304 of that Act (33 U.S.C. 3603).”.

12 ~~(2) CLERICAL AMENDMENT.—~~The table of con-
13 tents in section 2 of the Coast Guard Authorization
14 Act of 1998 (Public Law 105–383; 112 Stat. 3412;
15 136 Stat. 1268) is amended by striking the item re-
16 lating to section 603B and inserting the following:

“Sec. 603B. National Oceanic and Atmospheric Administration activities.”.

17 ~~(d) ENVIRONMENTAL PROTECTION AGENCY ACTIVI-~~
18 ~~TIES.—~~

19 ~~(1) IN GENERAL.—~~The Harmful Algal Bloom
20 and Hypoxia Research and Control Act of 1998 is
21 amended by inserting after section 603B (33 U.S.C.
22 4003) the following:

23 **“SEC. 603C. ENVIRONMENTAL PROTECTION AGENCY AC-**
24 **TIVITIES.**

25 “(a) IN GENERAL.—The Administrator shall—

1 “(1) carry out research on the ecology and
2 human health impacts of freshwater harmful algal
3 blooms and hypoxia events;

4 “(2) develop and maintain forecasting and mon-
5 itoring of, and event response to, freshwater harmful
6 algal blooms in lakes, rivers, estuaries (including
7 tributaries thereof), and reservoirs;

8 “(3) enhance communication and coordination
9 among Federal agencies carrying out freshwater
10 harmful algal bloom and hypoxia activities and re-
11 search;

12 “(4) to the greatest extent practicable, leverage
13 existing resources and expertise available at local re-
14 search universities and institutions; and

15 “(5) use cost-effective methods in carrying out
16 this section.

17 “(b) NONDUPLICATION.—The Administrator shall
18 ensure that activities carried out under subsection (a)
19 focus on new approaches to addressing freshwater harmful
20 algal blooms and are not duplicative of existing research
21 and development programs authorized by this title or any
22 other law.”.

23 (2) CLERICAL AMENDMENT.—The table of con-
24 tents in section 2 of the Coast Guard Authorization
25 Act of 1998 (Public Law 105–383, 112 Stat. 3412;

1 136 Stat. 1268) is amended by inserting after the
 2 item relating to section 603B the following:

“Sec. 603C. Environmental Protection Agency activities.”.

3 (e) NATIONAL HARMFUL ALGAL BLOOM AND HY-
 4 POXIA OBSERVING NETWORK.—

5 (1) IN GENERAL.—Section 606 of the Harmful
 6 Algal Blooms and Hypoxia Research and Control
 7 Act of 1998 (33 U.S.C. 4005) is amended to read
 8 as follows:

9 **“SEC. 606. NATIONAL HARMFUL ALGAL BLOOM OBSERVING**
 10 **NETWORK.**

11 “(a) IN GENERAL.—The Under Secretary, acting
 12 through the National Centers for Coastal Ocean Science
 13 and the Integrated Ocean Observing System of the Na-
 14 tional Oceanic and Atmospheric Administration, shall in-
 15 tegrate Federal, State, regional, and local observing capa-
 16 bilities to establish a national network of observing sys-
 17 tems for the monitoring, detection, and forecasting of
 18 harmful algal blooms by leveraging the capacity of re-
 19 gional associations of the Integrated Ocean Observing Sys-
 20 tem, including through the incorporation of emerging tech-
 21 nologies and new data integration methods, such as artifi-
 22 cial intelligence.

23 “(b) COORDINATION AND DATA ASSEMBLY.—In car-
 24 rying out subsection (a), the Program Office of the Inte-
 25 grated Ocean Observing System shall—

1 “(1) coordinate with the National Centers for
2 Coastal Ocean Science regarding observations, data
3 integration, and information dissemination; and

4 “(2) establish a center for the assembly of data
5 on harmful algal blooms to integrate, disseminate,
6 and provide a central architecture to support ecologi-
7 cal forecasting.”.

8 (2) CLERICAL AMENDMENT.—The table of con-
9 tents in section 2 of the Coast Guard Authorization
10 Act of 1998 (Public Law 105–383; 112 Stat. 3412;
11 136 Stat. 1268) is amended by striking the item re-
12 lating to section 606 and inserting the following:

“Sec. 606. National harmful algal bloom observing network.”.

13 (f) NATIONAL-LEVEL INCUBATOR PROGRAM.—

14 (1) IN GENERAL.—The Harmful Algal Blooms
15 and Hypoxia Research and Control Act of 1998 is
16 amended by inserting after section 606 (33 U.S.C.
17 4005) the following:

18 **“SEC. 606A. NATIONAL-LEVEL INCUBATOR PROGRAM.**

19 “(a) IN GENERAL.—The Under Secretary, in collabo-
20 ration with the Administrator and research universities
21 and institutions, shall establish a national-level incubator
22 program (in this section referred to as the ‘program’) to
23 increase the number of strategies, technologies, and meas-
24 ures available to prevent, mitigate, and control harmful
25 algal blooms.

1 “(b) FRAMEWORK.—The program shall establish a
 2 framework for preliminary assessments of novel strategies,
 3 technologies, and measures to prevent, mitigate, and con-
 4 trol harmful algal blooms in order to determine the poten-
 5 tial effectiveness and scalability of such technologies.

6 “(c) FUNDING.—The program shall provide merit-
 7 based funding, using amounts otherwise available to the
 8 Under Secretary for the award of grants, for strategies,
 9 technologies, and measures that eliminate or reduce,
 10 through biological, chemical, or physical means, the levels
 11 of harmful algae and associated toxins resulting from
 12 harmful algal blooms.

13 “(d) DATABASE.—The program shall include a data-
 14 base for cataloging the licensing and permitting require-
 15 ments, economic costs, feasibility, effectiveness, and
 16 scalability of novel and established strategies, tech-
 17 nologies, and measures to prevent, mitigate, and control
 18 harmful algal blooms.

19 “(e) PRIORITIZATION.—In carrying out the program,
 20 the Under Secretary shall prioritize proposed strategies,
 21 technologies, and measures that would, to the maximum
 22 extent practicable—

- 23 “(1) protect key habitats for fish and wildlife;
- 24 “(2) maintain biodiversity;
- 25 “(3) protect public health;

1 ~~“(4) protect coastal resources of national, his-~~
 2 ~~torical, and cultural significance; or~~

3 ~~“(5) benefit low-income communities, Indian~~
 4 ~~tribes or Indigenous communities, and rural commu-~~
 5 ~~nities.”.~~

6 ~~(2) CLERICAL AMENDMENT.—~~The table of con-
 7 ~~tents in section 2 of the Coast Guard Authorization~~
 8 ~~Act of 1998 (Public Law 105–383; 112 Stat. 3412;~~
 9 ~~136 Stat. 1268) is amended by inserting after the~~
 10 ~~item relating to section 606 the following:~~

~~“Sec. 606A. National-level incubator program.”.~~

11 ~~(g) DEFINITIONS.—~~Section 609 of the Harmful Algal
 12 ~~Blooms and Hypoxia Research and Control Act of 1998~~
 13 ~~(33 U.S.C. 4008) is amended—~~

14 ~~(1) in paragraph (1), by striking “means the~~
 15 ~~comprehensive research plan and action strategy es-~~
 16 ~~tablished under section 603B” and inserting “means~~
 17 ~~the action strategy for harmful algal blooms in the~~
 18 ~~United States most recently submitted under section~~
 19 ~~603(e)”;~~

20 ~~(2) by amending paragraph (3) to read as fol-~~
 21 ~~lows:~~

22 ~~“(3) HARMFUL ALGAL BLOOM.—~~The term
 23 ~~‘harmful algal bloom’ means a high concentration of~~
 24 ~~marine or freshwater algae or macroalgae, including~~
 25 ~~Sargassum, resulting in nuisance conditions or~~

1 harmful impacts on marine and freshwater eco-
 2 systems, communities, or human health through the
 3 production of toxic compounds or other biological,
 4 chemical, or physical impacts of the algae out-
 5 break.”;

6 (3) by striking paragraph (9);

7 (4) by redesignating paragraphs (4), (5), (6),
 8 (7), and (8) as paragraphs (6), (7), (8), (10), and
 9 (11), respectively;

10 (5) by inserting after paragraph (3) the fol-
 11 lowing:

12 “(4) HARMFUL ALGAL BLOOM AND HYPOXIA
 13 EVENT.—The term ‘harmful algal bloom and hy-
 14 poxia event’ means the occurrence of a harmful algal
 15 bloom or hypoxia as a result of a natural, anthropo-
 16 genic, or undetermined cause.

17 “(5) INDIAN TRIBE.—The term ‘Indian tribe’
 18 has the meaning given that term in section 4 of the
 19 Indian Self-Determination and Education Assistance
 20 Act (25 U.S.C. 5304).”;

21 (6) in paragraph (6), as redesignated by para-
 22 graph (4)—

23 (A) by striking “aquatic” and inserting
 24 “marine or freshwater”; and

1 (B) by striking “resident” and inserting
2 “marine or freshwater”; and

3 (7) by inserting after paragraph (8), as redesign-
4 nated by paragraph (4), the following:

5 “(9) SUBSISTENCE USE.—The term ‘subsist-
6 ence use’ means the customary and traditional use
7 of fish, wildlife, or other freshwater, coastal, or ma-
8 rine resources by any individual or community to
9 meet personal or family needs, including essential
10 economic, nutritional, or cultural applications.”.

11 (h) AUTHORIZATION OF APPROPRIATIONS.—Sub-
12 section (a) of section 610 of the Harmful Algal Blooms
13 and Hypoxia Research and Control Act of 1998 (33
14 U.S.C. 4009) is amended to read as follows:

15 “(a) IN GENERAL.—There is authorized to be appro-
16 priated to carry out this title, for each of fiscal years 2024
17 through 2028—

18 “(1) \$19,500,000 to the Under Secretary; and

19 “(2) \$8,000,000 to the Administrator.”.

20 **SEC. 3. OTHER HARMFUL ALGAL BLOOM MATTERS.**

21 (a) HARMFUL ALGAL BLOOM OR HYPOXIA EVENT OF
22 NATIONAL SIGNIFICANCE.—Section 9(g) of the National
23 Integrated Drought Information System Reauthorization
24 Act of 2018 (33 U.S.C. 4010(g)) is amended—

(1) in paragraph (1), by adding at the end the following:

“(D) CONTRACT, GRANT, AND COOPERATIVE AGREEMENT AUTHORITY.—The Under Secretary of Commerce for Oceans and Atmosphere may enter into agreements and grants with States, Indian Tribes, local governments, or other entities to pay for or reimburse costs incurred by such entities for the purposes of supporting the determination of, and assessing the environmental, economic, social, subsistence use, and public health effects of, a harmful algal bloom or hypoxia event of national significance.”;

(2) in paragraph (2)(A), by inserting “, a leadership official of an affected Indian Tribe, the executive official of the District of Columbia, or the executive official of an affected territory or possession of the United States,” after “State”; and

(3) by adding at the end the following:

“(4) AUTHORIZATION OF APPROPRIATIONS.—

There is authorized to be appropriated to carry out this subsection \$2,000,000 for each of fiscal years 2024 through 2028, to remain available until expended.”.

1 (b) PROTECT FAMILIES FROM TOXIC ALGAL
 2 BLOOMS.—Section 128 of the Water Resources Develop-
 3 ment Act of 2020 (33 U.S.C. 610 note; division AA of
 4 Public Law 116–260) is amended—

5 (1) by redesignating subsection (e) as sub-
 6 section (f); and

7 (2) by inserting after subsection (d) the fol-
 8 lowing:

9 “(e) HARMFUL ALGAL BLOOM TECHNOLOGIES.—In
 10 carrying out the demonstration program under subsection
 11 (a), the Secretary may enter into agreements with water
 12 and irrigation districts located in the focus areas described
 13 in subsections (c) and (d) for the use or sale of any new
 14 technologies developed under the demonstration program
 15 to expedite the removal of harmful algal blooms in those
 16 areas.”.

17 **SECTION 1. SHORT TITLE.**

18 *This Act may be cited as the “Harmful Algal Bloom*
 19 *and Hypoxia Research and Control Amendments Act of*
 20 *2024”.*

21 **SEC. 2. AMENDMENTS TO THE HARMFUL ALGAL BLOOMS**
 22 **AND HYPOXIA RESEARCH AND CONTROL ACT**
 23 **OF 1998.**

24 (a) ASSESSMENTS.—

(1) *IN GENERAL.*—Section 603 of the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 (33 U.S.C. 4001) is amended—

(A) in the section heading, by striking “**ASSESSMENTS**” and inserting “**TASK FORCE, ASSESSMENTS, AND ACTION STRATEGY**”;

(B) in subsection (a)—

(i) by redesignating paragraphs (13) and (14) as paragraphs (14) and (15), respectively; and

(ii) by inserting after paragraph (12) the following:

“(13) the Department of Energy;”;

(C) by striking subsections (b), (c), (d), (e), (g), (h), and (i) and redesignating subsection (f) as subsection (b);

(D) in subsection (b), as so redesignated—

(i) in paragraph (1), in the first sentence, by striking “coastal waters including the Great Lakes” and inserting “marine, estuarine, and freshwater systems”; and

(ii) in paragraph (2)—

(I) by amending subparagraph

(A) to read as follows:

“(A) examine—

1 “(i) the causes and ecological con-
 2 sequences of hypoxia on marine and aquatic
 3 species in their environments; and

4 “(ii) the costs of hypoxia, including
 5 impacts on food safety and security;”;

6 (II) by redesignating subpara-
 7 graphs (B), (C), and (D) as subpara-
 8 graphs (D), (E), and (F), respectively;

9 (III) by inserting after subpara-
 10 graph (A) the following:

11 “(B) examine the effect of other environ-
 12 mental stressors on hypoxia;

13 “(C) evaluate alternatives for reducing,
 14 mitigating, and controlling hypoxia and its en-
 15 vironmental impacts;”;

16 (IV) in subparagraph (D), as re-
 17 designated by subclause (II), by insert-
 18 ing “, social,” after “ecological”; and

19 (V) in subparagraph (E), as re-
 20 designated by subclause (II), by strik-
 21 ing “hypoxia modeling and monitoring
 22 data” and inserting “hypoxia mod-
 23 eling, forecasting, and monitoring and
 24 observation data”; and

25 (E) by adding at the end the following:

1 “(c) *ACTION STRATEGY AND SCIENTIFIC ASSESSMENT*
 2 *FOR MARINE AND FRESHWATER HARMFUL ALGAL*
 3 *BLOOMS.*—

4 “(1) *IN GENERAL.*—*Not less frequently than once*
 5 *every 5 years, the Task Force shall complete and sub-*
 6 *mit to Congress an action strategy for harmful algal*
 7 *blooms in the United States.*

8 “(2) *ELEMENTS.*—*Each Action Strategy shall—*

9 “(A) *examine, and include a scientific as-*
 10 *essment of, marine and freshwater harmful*
 11 *algal blooms, including such blooms—*

12 “(i) *in the Great Lakes;*

13 “(ii) *in the upper reaches of estuaries;*

14 “(iii) *in freshwater lakes and rivers;*

15 “(iv) *in coastal and marine waters;*

16 *and*

17 “(v) *that originate in freshwater lakes*
 18 *or rivers and migrate to coastal waters;*

19 “(B) *examine the causes, ecological con-*
 20 *sequences or physiological consequences on fish*
 21 *function, and economic or socio-cultural impacts,*
 22 *including food safety and security, of harmful*
 23 *algal blooms;*

24 “(C) *examine the effect of other environ-*
 25 *mental stressors on harmful algal blooms;*

1 “(D) examine potential methods to prevent,
2 control, and mitigate harmful algal blooms and
3 the potential ecological, social, cultural, and eco-
4 nomic costs and benefits of such methods;

5 “(E) identify priorities for research needed
6 to advance techniques and technologies to detect,
7 predict, monitor, respond to, and minimize the
8 occurrence, duration, and severity of harmful
9 algal blooms, including recommendations to
10 eliminate significant gaps in harmful algal
11 bloom forecasting, monitoring, and observation
12 data;

13 “(F) evaluate progress made by, and the
14 needs of, activities and actions of the Task Force
15 to prevent, control, and mitigate harmful algal
16 blooms;

17 “(G) identify ways to improve coordination
18 and prevent unnecessary duplication of effort
19 among Federal agencies with respect to research
20 on harmful algal blooms; and

21 “(H) include regional chapters relating to
22 the requirements described in this paragraph in
23 order to highlight geographically and ecologically
24 diverse locations with significant ecological, so-

1 *cial, cultural, and economic impacts from harm-*
 2 *ful algal blooms.*

3 “(d) *CONSULTATION.*—*In carrying out subsections (b)*
 4 *and (c), the Task Force shall consult with—*

5 “(1) *States, Indian tribes, and local govern-*
 6 *ments; and*

7 “(2) *appropriate industries (including fisheries,*
 8 *agriculture, and fertilizer), academic institutions, and*
 9 *nongovernmental organizations with relevant exper-*
 10 *tise.”.*

11 (2) *CLERICAL AMENDMENT.*—*The table of con-*
 12 *tents in section 2 of the Coast Guard Authorization*
 13 *Act of 1998 (Public Law 105–383; 112 Stat. 3412;*
 14 *136 Stat. 1268) is amended by striking the item re-*
 15 *lating to section 603 and inserting the following:*

“*Sec. 603. Task Force, assessments, and Action Strategy.*”.

16 (3) *CONFORMING AMENDMENT.*—*Section 102 of*
 17 *the Harmful Algal Bloom and Hypoxia Amendments*
 18 *Act of 2004 (33 U.S.C. 4001a) is amended by striking*
 19 *“In developing” and all that follows through “man-*
 20 *agement.”.*

21 (b) *NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA*
 22 *PROGRAM.*—*Section 603A of the Harmful Algal Blooms*
 23 *and Hypoxia Research and Control Act of 1998 (33 U.S.C.*
 24 *4002) is amended—*

25 (1) *in subsection (a)—*

1 (A) in paragraph (1)—

2 (i) by striking “predicting,” and in-
3 serting “monitoring, observing, fore-
4 casting,”; and

5 (ii) by striking “and” after the semi-
6 colon; and

7 (B) by striking paragraph (2) and inserting
8 the following:

9 “(2) the scientific assessment submitted under
10 section 603(b); and

11 “(3) the Action Strategy.”;

12 (2) in subsection (c)—

13 (A) in paragraph (3), by striking “ocean
14 and Great Lakes science and management pro-
15 grams and centers” and inserting “programs
16 and centers relating to the science and manage-
17 ment of marine, estuarine, and freshwater sys-
18 tems”; and

19 (B) in paragraph (5), by inserting “while
20 recognizing each agency is acting under its own
21 independent mission and authority” before the
22 semicolon;

23 (3) in subsection (d), by striking “Except as pro-
24 vided in subsection (h), the” and inserting “The”;

25 (4) in subsection (e)—

1 (A) by striking paragraph (2) and inserting
2 the following:

3 “(2) examine the causes, ecological consequences,
4 and costs of harmful algal blooms and hypoxia;”;

5 (B) in paragraph (3)—

6 (i) in subparagraph (B), by inserting
7 “, including the annual Gulf of Mexico hy-
8 poxia zone mapping cruise” after “Pro-
9 gram”;

10 (ii) in subparagraph (C), by striking
11 “and” after the semicolon; and

12 (iii) by adding at the end the fol-
13 lowing:

14 “(E) to identify opportunities to improve
15 monitoring of harmful algal blooms and hy-
16 poxia, with a particular focus on waters that
17 may affect fisheries, public health, or subsistence
18 harvest;

19 “(F) to evaluate adaptation and mitigation
20 strategies to address the impacts of harmful algal
21 blooms and hypoxia;

22 “(G) to support the resilience of the seafood
23 industry to harmful algal blooms and to expand
24 access to testing for harmful algal bloom toxins,
25 including for subsistence and recreational har-

1 *vesters, through innovative methods that increase*
 2 *the efficiency and effectiveness of such testing in*
 3 *rural and remote areas;*

4 *“(H) to support sustained observations to*
 5 *provide State and local entities, Indian tribes,*
 6 *and other entities access to real-time or near*
 7 *real-time observations data for decision-making*
 8 *to protect human and ecological health and local*
 9 *economies; and*

10 *“(I) to assess the combined effects of harm-*
 11 *ful algal blooms, hypoxia, and stressors such as*
 12 *runoff and infrastructure changes on marine,*
 13 *freshwater, or estuarine ecosystems and living re-*
 14 *sources;”;*

15 *(C) in paragraph (4), by striking “agen-*
 16 *cies” and inserting “entities, regional coastal ob-*
 17 *servicing systems (as defined in section 12303 of*
 18 *the Integrated Coastal and Ocean Observation*
 19 *System Act of 2009 (33 U.S.C. 3602)),”;*

20 *(D) in paragraph (6), by inserting “and*
 21 *communities” after “ecosystems”;*

22 *(E) in paragraph (8), by inserting “and In-*
 23 *dian tribes” after “managers”;*

24 *(F) in paragraph (9)(A), by striking “,*
 25 *tribal, and local stakeholders” and inserting*

1 *“and local stakeholders and Indian tribes, Tribal*
 2 *organizations, and Native Hawaiian organiza-*
 3 *tions”;*

4 *(G) by redesignating paragraphs (3), (4),*
 5 *(5), (6), (7), (8), (9), (10), and (11) as para-*
 6 *graphs (4), (5), (6), (7), (8), (9), (10), (12), and*
 7 *(13), respectively;*

8 *(H) by inserting after paragraph (2) the*
 9 *following:*

10 *“(3) consult with entities that are most depend-*
 11 *ent on coastal and water resources that may be im-*
 12 *pacted by marine and freshwater harmful algal*
 13 *blooms and hypoxia, including—*

14 *“(A) State and local entities;*

15 *“(B) Indian tribes, Tribal organizations,*
 16 *and Native Hawaiians organizations;*

17 *“(C) island communities;*

18 *“(D) low-population rural communities;*

19 *“(E) subsistence communities; and*

20 *“(F) fisheries and recreation industries;”;*

21 *and*

22 *(I) by inserting after paragraph (10), as re-*
 23 *designated by subparagraph (G), the following:*

24 *“(11) expand access to testing for harmful algal*
 25 *bloom toxins, including for subsistence and rec-*

1 *reational harvesters, through innovative methods that*
 2 *increase the efficiency and effectiveness of such testing*
 3 *in rural and remote areas;”;*

4 *(5) by amending subsections (f) to read as fol-*
 5 *lows:*

6 *“(f) COOPERATION; DUPLICATION OF EFFORT.—The*
 7 *Under Secretary shall work cooperatively with and avoid*
 8 *duplication of effort of other agencies on the Task Force and*
 9 *States, Indian tribes, Tribal organizations, Native Hawai-*
 10 *ian organizations, and nongovernmental organizations con-*
 11 *cerned with marine and freshwater issues.”; and*

12 *(6) by striking subsection (g), (h), and (i).*

13 *(c) NATIONAL OCEANIC AND ATMOSPHERIC ADMINIS-*
 14 *TRATION ACTIVITIES.—*

15 *(1) IN GENERAL.—Section 603B of the Harmful*
 16 *Algal Blooms and Hypoxia Research and Control Act*
 17 *of 1998 (33 U.S.C. 4003) is amended to read as fol-*
 18 *lows:*

19 **“SEC. 603B. NATIONAL OCEANIC AND ATMOSPHERIC AD-**
 20 **MINISTRATION ACTIVITIES.**

21 *“(a) IN GENERAL.—The Under Secretary shall—*

22 *“(1) carry out response activities for marine,*
 23 *coastal, and Great Lakes harmful algal bloom and hy-*
 24 *poxia events;*

1 “(2) develop and enhance operational harmful
 2 algal bloom observing and forecasting programs, in-
 3 cluding operational observations and forecasting,
 4 monitoring, modeling, data management, and infor-
 5 mation dissemination;

6 “(3) develop forecast modeling that includes the
 7 effect of hurricanes and other weather events on the
 8 resuspension of bioavailable nutrients in sediments
 9 and related interactions with harmful algal blooms;

10 “(4) enhance communication and coordination
 11 among Federal agencies carrying out activities and
 12 research relating to marine and freshwater harmful
 13 algal bloom and hypoxia;

14 “(5) leverage existing resources and expertise
 15 available from local research universities and institu-
 16 tions; and

17 “(6) use cost effective methods in carrying out
 18 this section.

19 “(b) *INTEGRATED COASTAL AND OCEAN OBSERVATION*
 20 *SYSTEM.*—The collection of monitoring and observing data
 21 under this section shall comply with all data standards and
 22 protocols developed pursuant to the Integrated Coastal and
 23 Ocean Observation System Act of 2009 (33 U.S.C. 3601 et
 24 seq.). Such data shall be made available through the Na-
 25 tional Integrated Coastal and Ocean Observation System

1 *established under section 12304 of that Act (33 U.S.C.*
 2 *3603).”.*

3 (2) *CLERICAL AMENDMENT.—The table of con-*
 4 *tents in section 2 of the Coast Guard Authorization*
 5 *Act of 1998 (Public Law 105–383; 112 Stat. 3412;*
 6 *136 Stat. 1268) is amended by striking the item re-*
 7 *lating to section 603B and inserting the following:*

“Sec. 603B. National Oceanic and Atmospheric Administration activities.”.

8 (d) *ENVIRONMENTAL PROTECTION AGENCY ACTIVI-*
 9 *TIES.—*

10 (1) *IN GENERAL.—The Harmful Algal Bloom*
 11 *and Hypoxia Research and Control Act of 1998 is*
 12 *amended by inserting after section 603B (33 U.S.C.*
 13 *4003) the following:*

14 **“SEC. 603C. ENVIRONMENTAL PROTECTION AGENCY AC-**
 15 **TIVITIES.**

16 “(a) *IN GENERAL.—The Administrator shall—*

17 “(1) *carry out research on the ecology and*
 18 *human health impacts of freshwater harmful algal*
 19 *blooms and hypoxia events;*

20 “(2) *develop and enhance operational freshwater*
 21 *harmful algal bloom monitoring, observing, and fore-*
 22 *casting programs in lakes, rivers, and reservoirs, and*
 23 *coordinate with the National Oceanic and Atmos-*
 24 *pheric Administration on such programs in the Great*
 25 *Lakes and estuaries (including tributaries thereof),*

1 *including operational observations and forecasting,*
 2 *monitoring, modeling, data management, and infor-*
 3 *mation dissemination, to support event response,*
 4 *prioritization, prevention, adaptation, and mitiga-*
 5 *tion activities;*

6 *“(3) enhance communication and coordination*
 7 *among Federal agencies carrying out freshwater*
 8 *harmful algal bloom and hypoxia activities and re-*
 9 *search;*

10 *“(4) to the greatest extent practicable, leverage*
 11 *existing resources and expertise available from Fed-*
 12 *eral and State partners and local research univer-*
 13 *sities and institutions; and*

14 *“(5) use cost-effective methods in carrying out*
 15 *this section.*

16 *“(b) NONDUPLICATION.—The Administrator shall en-*
 17 *sure that activities carried out under subsection (a) focus*
 18 *on new approaches to addressing freshwater harmful algal*
 19 *blooms and are not duplicative of existing research and de-*
 20 *velopment programs authorized by this title or any other*
 21 *law.”.*

22 *(2) CLERICAL AMENDMENT.—The table of con-*
 23 *tents in section 2 of the Coast Guard Authorization*
 24 *Act of 1998 (Public Law 105–383; 112 Stat. 3412;*

1 136 Stat. 1268) is amended by inserting after the
2 item relating to section 603B the following:

“Sec. 603C. Environmental Protection Agency activities.”.

3 (e) NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA
4 OBSERVING NETWORK.—

5 (1) IN GENERAL.—Section 606 of the Harmful
6 Algal Blooms and Hypoxia Research and Control Act
7 of 1998 (33 U.S.C. 4005) is amended to read as fol-
8 lows:

9 **“SEC. 606. NATIONAL HARMFUL ALGAL BLOOM OBSERVING**
10 **NETWORK.**

11 “(a) IN GENERAL.—The Under Secretary, acting
12 through the National Centers for Coastal Ocean Science and
13 the Integrated Ocean Observing System of the National Oce-
14 anic and Atmospheric Administration, shall integrate Fed-
15 eral, State, regional, and local observing capabilities to es-
16 tablish a national network of observing systems for the mon-
17 itoring, detection, and forecasting of harmful algal blooms
18 by leveraging the capacity of regional associations of the
19 Integrated Ocean Observing System, including through the
20 incorporation of emerging technologies and new data inte-
21 gration methods.

22 “(b) COORDINATION AND DATA ASSEMBLY.—In car-
23 rying out subsection (a), the Program Office of the Inte-
24 grated Ocean Observing System shall—

1 “(1) coordinate with the National Centers for
2 Coastal Ocean Science regarding observations, data
3 integration, and information dissemination;

4 “(2) organize, integrate, disseminate, and pro-
5 vide a central architecture to support ecological fore-
6 casting of harmful algal blooms; and

7 “(3) coordinate with the Water Quality Portal to
8 store and serve discrete data related to the monitoring
9 of freshwater, estuarine, and coastal harmful algal
10 blooms.”.

11 (2) *CLERICAL AMENDMENT.*—*The table of con-*
12 *tents in section 2 of the Coast Guard Authorization*
13 *Act of 1998 (Public Law 105–383; 112 Stat. 3412;*
14 *136 Stat. 1268) is amended by striking the item re-*
15 *lating to section 606 and inserting the following:*

“Sec. 606. National harmful algal bloom observing network.”.

16 (f) *NATIONAL-LEVEL INCUBATOR PROGRAM.*—

17 (1) *IN GENERAL.*—*The Harmful Algal Blooms*
18 *and Hypoxia Research and Control Act of 1998 is*
19 *amended by inserting after section 606 (33 U.S.C.*
20 *4005) the following:*

21 **“SEC. 606A. NATIONAL-LEVEL INCUBATOR PROGRAM.**

22 “(a) *IN GENERAL.*—*The Under Secretary, in collabo-*
23 *ration with the Administrator and research universities*
24 *and institutions, shall establish a national-level incubator*
25 *program (in this section referred to as the ‘program’) to*

1 *increase the number of strategies, technologies, and meas-*
2 *ures available to prevent, mitigate, and control harmful*
3 *algal blooms.*

4 “(b) *FRAMEWORK.*—*The program shall establish a*
5 *framework for preliminary assessments of novel strategies,*
6 *technologies, and measures to prevent, mitigate, and control*
7 *harmful algal blooms in order to determine the potential*
8 *effectiveness and scalability of such technologies.*

9 “(c) *FUNDING.*—*The program shall provide merit-*
10 *based funding, using amounts otherwise available to the*
11 *Under Secretary for the award of grants, for strategies,*
12 *technologies, and measures that eliminate or reduce,*
13 *through biological, chemical, or physical means, the levels*
14 *of harmful algae and associated toxins resulting from harm-*
15 *ful algal blooms.*

16 “(d) *DATABASE.*—*The program shall include a data-*
17 *base for cataloging the licensing and permitting require-*
18 *ments, economic costs, feasibility, effectiveness, and*
19 *scalability of novel and established strategies, technologies,*
20 *and measures to prevent, mitigate, and control harmful*
21 *algal blooms.*

22 “(e) *PRIORITIZATION.*—*In carrying out the program,*
23 *the Under Secretary shall prioritize proposed strategies,*
24 *technologies, and measures that would, to the maximum ex-*
25 *tent practicable—*

- 1 “(1) protect key habitats for fish and wildlife;
- 2 “(2) maintain biodiversity;
- 3 “(3) protect public health;
- 4 “(4) protect coastal resources of national, histor-
- 5 ical, and cultural significance; or
- 6 “(5) benefit low-income communities, Indian
- 7 tribes, and rural communities.”.

8 (2) CLERICAL AMENDMENT.—*The table of con-*
 9 *tents in section 2 of the Coast Guard Authorization*
 10 *Act of 1998 (Public Law 105–383; 112 Stat. 3412;*
 11 *136 Stat. 1268) is amended by inserting after the*
 12 *item relating to section 606 the following:*

“Sec. 606A. National-level incubator program.”.

13 (g) DEFINITIONS.—*Section 609 of the Harmful Algal*
 14 *Blooms and Hypoxia Research and Control Act of 1998 (33*
 15 *U.S.C. 4008) is amended—*

16 (1) in paragraph (1), by striking “means the
 17 comprehensive research plan and action strategy es-
 18 tablished under section 603B” and inserting “means
 19 the action strategy for harmful algal blooms in the
 20 United States most recently submitted under section
 21 603(c)”;

22 (2) by amending paragraph (3) to read as fol-
 23 lows:

24 “(3) HARMFUL ALGAL BLOOM.—*The term ‘harm-*
 25 *ful algal bloom’ means a high concentration of ma-*

rine or freshwater algae (including diatoms),
 macroalgae (including *Sargassum*), or cyanobacteria
 resulting in nuisance conditions or harmful impacts
 on marine and freshwater ecosystems, subsistence re-
 sources, communities, or human health through the
 production of toxic compounds or other biological,
 chemical, or physical impacts of the bloom.”;

(3) by striking paragraph (9);

(4) by redesignating paragraphs (4), (5), (6),
 (7), and (8) as paragraphs (5), (8), (9), (11), and
 (13), respectively;

(5) by inserting after paragraph (3) the fol-
 lowing:

“(4) *HARMFUL ALGAL BLOOM AND HYPOXIA
 EVENT.*—The term ‘harmful algal bloom and hypoxia
 event’ means the occurrence of a harmful algal bloom
 or hypoxia as a result of a natural, anthropogenic, or
 undetermined cause.”;

(6) in paragraph (5), as redesignated by para-
 graph (4)—

(A) by striking “aquatic” and inserting
 “marine or freshwater”; and

(B) by striking “resident” and inserting
 “marine or freshwater”;

1 (7) by inserting after paragraph (5), as redesign-
 2 nated by paragraph (4), the following:

3 “(6) *INDIAN TRIBE*.—The term ‘Indian tribe’ has
 4 the meaning given that term in section 4 of the In-
 5 dian Self-Determination and Education Assistance
 6 Act (25 U.S.C. 5304).

7 “(7) *NATIVE HAWAIIAN ORGANIZATION*.—The
 8 term ‘Native Hawaiian organization’ has the mean-
 9 ing given that term in section 6207 of the Elementary
 10 and Secondary Education Act of 1965 (20 U.S.C.
 11 7517) and includes the Department of Hawaiian
 12 Home Lands and the Office of Hawaiian Affairs.”;

13 (8) by inserting after paragraph (9), as redesign-
 14 nated by paragraph (4), the following:

15 “(10) *SUBSISTENCE USE*.—The term ‘subsistence
 16 use’ means the customary and traditional use of fish,
 17 wildlife, or other freshwater, coastal, or marine re-
 18 sources by any individual or community to meet per-
 19 sonal or family needs, including essential economic,
 20 nutritional, or cultural applications.”; and

21 (9) by inserting after paragraph (11), as redesign-
 22 nated by paragraph (4), the following:

23 “(12) *TRIBAL ORGANIZATION*.—The term ‘Tribal
 24 organization’ has the meaning given that term in sec-

1 *tion 4 of the Indian Self-Determination and Edu-*
 2 *cation Assistance Act (25 U.S.C. 5304).”.*

3 *(h) AUTHORIZATION OF APPROPRIATIONS.—Section*
 4 *610 of the Harmful Algal Blooms and Hypoxia Research*
 5 *and Control Act of 1998 (33 U.S.C. 4009) is amended—*

6 *(1) by amending subsection (a) to read as fol-*
 7 *lows:*

8 *“(a) IN GENERAL.—There is authorized to be appro-*
 9 *priated to carry out this title, for each of fiscal years 2025*
 10 *through 2029—*

11 *“(1) \$19,500,000 to the Under Secretary; and*

12 *“(2) \$8,000,000 to the Administrator.”; and*

13 *(2) by adding at the end the following:*

14 *“(c) TRANSFER AUTHORITY.—The Under Secretary or*
 15 *the Administrator may make a direct non-expenditure*
 16 *transfer of funds authorized to be appropriated pursuant*
 17 *to subsection (a) to the head of any Federal department or*
 18 *agency, with the concurrence of such head, to carry out,*
 19 *as appropriate, relevant provisions of this title and section*
 20 *9(g) of the National Integrated Drought Information Sys-*
 21 *tem Reauthorization Act of 2018 (33 U.S.C. 4010).”.*

22 **SEC. 3. OTHER HARMFUL ALGAL BLOOM MATTERS.**

23 *Section 9(g) of the National Integrated Drought Infor-*
 24 *mation System Reauthorization Act of 2018 (33 U.S.C.*
 25 *4010) is amended—*

1 (1) in paragraph (1)—

2 (A) in subparagraph (B), by adding at the
3 end the following new sentence: “The appropriate
4 Federal official may waive the non-Federal share
5 requirements of the preceding sentence if such of-
6 ficial determines no reasonable means are avail-
7 able through which the recipient of the Federal
8 share can meet the non-Federal share require-
9 ment.”; and

10 (B) by adding at the end the following:

11 “(D) CONTRACT, COOPERATIVE AGREEMENT,
12 AND GRANT AUTHORITY.—The appropriate Fed-
13 eral official may enter into contracts, cooperative
14 agreements, and grants with States, Indian
15 Tribes, Tribal organizations, Native Hawaiian
16 organizations, local governments, or other enti-
17 ties to pay for or reimburse costs incurred by
18 such entities for the purposes of supporting the
19 determination of, and assessing the environ-
20 mental, economic, social, subsistence use, and
21 public health effects of, a harmful algal bloom or
22 hypoxia event of national significance.”;

23 (2) in paragraph (2)—

24 (A) in subparagraph (A), by inserting “a
25 leadership official of an affected Indian Tribe,

1 *the executive official of the District of Columbia,*
2 *or the executive official of an affected territory or*
3 *possession of the United States,” after “State,”;*
4 *and*

5 *(B) in subparagraph (B), by striking “con-*
6 *sider” and all that follows through “boundary.”*
7 *and inserting “consider factors such as—*

8 *“(i) the risk to public health and the*
9 *potential severity of the detrimental envi-*
10 *ronmental effects of the harmful algal bloom*
11 *or hypoxia event, as indicated by—*

12 *“(I) data on shellfish or water*
13 *quality obtained through sampling*
14 *programs, including baseline data, and*
15 *regulatory or advisory thresholds estab-*
16 *lished to explain management actions*
17 *related to the event;*

18 *“(II) toxin levels in fish, marine*
19 *mammals, seabirds, shellfish, or water*
20 *during the event;*

21 *“(III) toxic aerosols produced dur-*
22 *ing the event, including potential*
23 *human exposures to toxic aerosols;*

1 “(IV) reports of human or animal
2 illnesses or mortalities during the
3 event;

4 “(V) any closures of fishing or
5 shellfish harvesting locations or rec-
6 reational public waters, including
7 beaches, during the event;

8 “(VI) the duration and spatial ex-
9 tent of the event; or

10 “(VII) impacts to habitats or eco-
11 systems associated with the event;

12 “(ii) the potential economic, social,
13 and subsistence impacts associated with the
14 harmful algal bloom or hypoxia event, in-
15 cluding to fisheries and aquaculture, recre-
16 ation and tourism, monitoring and man-
17 agement, social or cultural resource use, and
18 event response activities, assessed in com-
19 parison with historical data from when a
20 State or region did not experience such an
21 event, as possible, as indicated by—

22 “(I) increases in public health ex-
23 penditures;

24 “(II) losses to commercial fisheries
25 and aquaculture industries, recreation

1 *and tourism, real estate, and other im-*
 2 *acted industries or businesses;*

3 “(III) increases in monitoring
 4 *and management expenditures, includ-*
 5 *ing costs incurred for event response*
 6 *and clean-up (such as for beach clean-*
 7 *up following an influx of biomass or a*
 8 *fish-kill) by public or private sectors;*
 9 *or*

10 “(IV) impacts to subsistence re-
 11 *sources, including nutritional, cultural,*
 12 *and economic effects on subsistence*
 13 *communities;*

14 “(iii) the relative magnitude of those
 15 *impacts in relation to past occurrences of*
 16 *harmful algal bloom or hypoxia events that*
 17 *occur on a recurrent or annual basis; and*

18 “(iv) the geographic scope of the harm-
 19 *ful algal bloom or hypoxia event, including*
 20 *the potential of the event to affect several*
 21 *municipalities, to affect more than 1 State,*
 22 *or to cross an international boundary.”;*

23 (3) in paragraph (3), by adding at the end the
 24 *following:*

1 “(D) *INDIAN TRIBE*.—The term ‘Indian
2 Tribe’ has the meaning given that term in sec-
3 tion 4 of the Indian Self-Determination and
4 Education Assistance Act (25 U.S.C. 5304).

5 “(E) *NATIVE HAWAIIAN ORGANIZATION*.—
6 The term ‘Native Hawaiian organization’ has
7 the meaning given that term in section 6207 of
8 the Elementary and Secondary Education Act of
9 1965 (20 U.S.C. 7517) and includes the Depart-
10 ment of Hawaiian Home Lands and the Office
11 of Hawaiian Affairs.

12 “(F) *TRIBAL ORGANIZATION*.—The term
13 ‘Tribal organization’ has the meaning given that
14 term in section 4 of the Indian Self-Determina-
15 tion and Education Assistance Act (25 U.S.C.
16 5304).”; and

17 (4) by adding at the end the following:

18 “(4) *AUTHORIZATION OF APPROPRIATIONS*.—
19 There is authorized to be appropriated to carry out
20 this subsection \$2,000,000 for each of fiscal years
21 2025 through 2029, to remain available until ex-
22 pended.”.

Calendar No. 512

118TH CONGRESS
2D Session
S. 3348

A BILL

To amend the Harmful Algal Blooms and Hypoxia
Research and Control Act of 1998 to address
harmful algal blooms, and for other purposes.

SEPTEMBER 17, 2024
Reported with an amendment