

111TH CONGRESS  
1ST SESSION

# S. 952

To develop and promote a comprehensive plan for a national strategy to address harmful algal blooms and hypoxia through baseline research, forecasting and monitoring, and mitigation and control while helping communities detect, control, and mitigate coastal and Great Lakes harmful algal blooms and hypoxia events.

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IN THE SENATE OF THE UNITED STATES

MAY 1, 2009

Ms. SNOWE (for herself, Mr. NELSON of Florida, Ms. CANTWELL, Mr. LEVIN, Mr. VITTER, Mr. CARDIN, Ms. LANDRIEU, and Mrs. BOXER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To develop and promote a comprehensive plan for a national strategy to address harmful algal blooms and hypoxia through baseline research, forecasting and monitoring, and mitigation and control while helping communities detect, control, and mitigate coastal and Great Lakes harmful algal blooms and hypoxia events.

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; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
3 “Harmful Algal Blooms and Hypoxia Research and Con-  
4 trol Amendments Act of 2009”.

5 (b) TABLE OF CONTENTS.—The table of contents for  
6 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Amendment of Harmful Algal Bloom and Hypoxia Research and Control Act of 1998.
- Sec. 3. Findings.
- Sec. 4. Purpose.
- Sec. 5. Interagency task force on harmful algal blooms and hypoxia.
- Sec. 6. National harmful algal bloom and hypoxia program.
- Sec. 7. Regional research and action plans.
- Sec. 8. Reporting.
- Sec. 9. Northern Gulf of Mexico Hypoxia.
- Sec. 10. Pilot program for freshwater harmful algal blooms and hypoxia.
- Sec. 11. Interagency financing.
- Sec. 12. Application with other laws.
- Sec. 13. Definitions.
- Sec. 14. Authorization of appropriations.

7 **SEC. 2. AMENDMENT OF HARMFUL ALGAL BLOOM AND HY-**  
8 **POXIA RESEARCH AND CONTROL ACT OF**  
9 **1998.**

10 Except as otherwise expressly provided, whenever in  
11 this title an amendment or repeal is expressed in terms  
12 of an amendment to, or repeal of, a section or other provi-  
13 sion, the reference shall be considered to be made to a  
14 section or other provision of the Harmful Algal Bloom and  
15 Hypoxia Research and Control Act of 1998 (16 U.S.C.  
16 1451 note).

17 **SEC. 3. FINDINGS.**

18 Section 602 is amended to read as follows:

1 **“SEC. 602. FINDINGS.**

2 The Congress finds the following:

3 “(1) Harmful algal blooms and hypoxia are in-  
4 creasing in frequency and intensity in the Nation’s  
5 coastal waters and Great Lakes and pose a threat  
6 to the health of coastal and Great Lakes ecosystems,  
7 are costly to coastal economies, and threaten the  
8 safety of seafood and human health.

9 “(2) Excessive nutrients in coastal waters have  
10 been linked to the increased intensity and frequency  
11 of hypoxia and some harmful algal blooms and there  
12 is a need to identify more workable and effective ac-  
13 tions to reduce the negative impacts of harmful algal  
14 blooms and hypoxia on coastal waters.

15 “(3) The National Oceanic and Atmospheric  
16 Administration, through its ongoing research, moni-  
17 toring, observing, education, grant, and coastal re-  
18 source management programs and in collaboration  
19 with the other Federal agencies, on the Interagency  
20 Task Force, along with States, Indian tribes, and  
21 local governments, possesses a full range of capabili-  
22 ties necessary to support a near and long-term com-  
23 prehensive effort to prevent, reduce, and control the  
24 human and environmental costs of harmful algal  
25 blooms and hypoxia.

1           “(4) Harmful algal blooms and hypoxia can be  
2 triggered and exacerbated by increases in nutrient  
3 loading from point and non-point sources, much of  
4 which originates in upland areas and is delivered to  
5 marine and freshwater bodies via river discharge,  
6 thereby requiring integrated and landscape-level re-  
7 search and control strategies.

8           “(5) Harmful algal blooms and hypoxia affect  
9 many sectors of the coastal economy, including tour-  
10 ism, public health, and recreational and commercial  
11 fisheries; and according to a recent report produced  
12 by NOAA, the United States seafood and tourism  
13 industries suffer annual losses of \$82 million due to  
14 economic impacts of harmful algal blooms.

15           “(6) Global climate change and its effect on  
16 oceans and the Great Lakes may ultimately play a  
17 role in the increase or decrease of harmful algal  
18 bloom and hypoxic events.

19           “(7) Proliferations of harmful and nuisance  
20 algae can occur in all United States waters, includ-  
21 ing coastal areas and estuaries, the Great Lakes,  
22 and inland waterways, crossing political boundaries  
23 and necessitating regional coordination for research,  
24 monitoring, mitigation, response, and prevention ef-  
25 forts.

1           “(8) Following passage of the Harmful Algal  
2 Bloom and Hypoxia Research and Control Act of  
3 1998, federally funded and other research has led to  
4 several technological advances, including remote  
5 sensing, molecular and optical tools, satellite im-  
6 agery, and coastal and ocean observing systems, that  
7 provide data for forecast models, improve the moni-  
8 toring and prediction of these events, and provide es-  
9 sential decisionmaking tools for managers and stake-  
10 holders.”.

11 **SEC. 4. PURPOSE.**

12       The Act is amended by inserting after section 602  
13 the following:

14 **“SEC. 602A. PURPOSES.**

15       “The purposes of this Act are—

16           “(1) to provide for the development and coordi-  
17 nation of a comprehensive and integrated national  
18 program to address harmful algal blooms and hy-  
19 poxia through baseline research, monitoring, preven-  
20 tion, mitigation, and control;

21           “(2) to provide for the assessment of environ-  
22 mental, socio-economic, and human health impacts  
23 of harmful algal blooms and hypoxia on a regional  
24 and national scale, and to integrate that assessment  
25 into marine and freshwater resource decisions; and

1           “(3) to facilitate regional, State, and local ef-  
 2           forts to develop and implement appropriate harmful  
 3           algal bloom and hypoxia response plans, strategies,  
 4           and tools including outreach programs and informa-  
 5           tion dissemination mechanisms.”.

6 **SEC. 5. INTERAGENCY TASK FORCE ON HARMFUL ALGAL**  
 7                                   **BLOOMS AND HYPOXIA.**

8           (a) FEDERAL REPRESENTATIVES.—Section 603(a) is  
 9           amended—

10           (1) by striking “The Task Force shall consist  
 11           of the following representatives from—” and insert-  
 12           ing “The Task Force shall consist of representatives  
 13           of the Office of the Secretary from each of the fol-  
 14           lowing departments and of the office of the head of  
 15           each of the following Federal agencies:”;

16           (2) by striking “the” in paragraphs (1) through  
 17           (11) and inserting “The”;

18           (3) by striking the semicolon in paragraphs (1)  
 19           through (10) and inserting a period;

20           (4) by striking “Quality; and” in paragraph  
 21           (11) and inserting “Quality.”; and

22           (5) by striking “such other” in paragraph (12)  
 23           and inserting “Other”.

24           (b) STATE REPRESENTATIVES.—Section 603 is  
 25           amended—

1 (1) by striking subsections (b) through (i); and  
2 (2) by inserting after subsection (a) the fol-  
3 lowing:

4 “(b) STATE REPRESENTATIVES.—The Secretary  
5 shall establish criteria for determining appropriate States  
6 to serve on the Task Force and establish and implement  
7 a nominations process to select representatives from 2 ap-  
8 propriate States in different regions, on a rotating basis,  
9 to serve 2-year terms on the Task Force.”.

10 **SEC. 6. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA**  
11 **PROGRAM.**

12 The Act is amended by inserting after section 603  
13 the following:

14 **“SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HY-**  
15 **POXIA PROGRAM.**

16 “(a) ESTABLISHMENT.—The President, acting  
17 through NOAA, shall establish and maintain a national  
18 program for integrating efforts to address harmful algal  
19 bloom and hypoxia research, monitoring, prediction, con-  
20 trol, mitigation, prevention, and outreach.

21 “(b) TASK FORCE FUNCTIONS.—The Task Force  
22 shall be the oversight body for the development and imple-  
23 mentation of the national harmful algal bloom and hypoxia  
24 program and shall—

1           “(1) coordinate interagency review of plans and  
2 policies of the Program;

3           “(2) assess interagency work and spending  
4 plans for implementing the activities of the Pro-  
5 gram;

6           “(3) review the Program’s distribution of Fed-  
7 eral grants and funding to address research prior-  
8 ities;

9           “(4) support implementation of the actions and  
10 strategies identified in the regional research and ac-  
11 tion plans under subsection (d);

12           “(5) support the development of institutional  
13 mechanisms and financial instruments to further the  
14 goals of the program;

15           “(6) expedite the interagency review process  
16 and ensure timely review and dispersal of required  
17 reports and assessments under this Act; and

18           “(7) promote the development of new tech-  
19 nologies for predicting, monitoring, and mitigating  
20 harmful algal blooms and hypoxia conditions.

21           “(c) LEAD FEDERAL AGENCY.—NOAA shall be the  
22 lead Federal agency for implementing and administering  
23 the National Harmful Algal Bloom and Hypoxia Program.

24           “(d) RESPONSIBILITIES.—The Program shall—

1           “(1) promote a national strategy to help com-  
2           munities understand, detect, predict, control, and  
3           mitigate freshwater and marine harmful algal bloom  
4           and hypoxia events;

5           “(2) plan, coordinate, and implement the Na-  
6           tional Harmful Algal Bloom and Hypoxia Program;  
7           and

8           “(3) report to the Task Force via the Adminis-  
9           trator.

10          “(e) DUTIES.—

11           “(1) ADMINISTRATIVE DUTIES.—The Program  
12          shall—

13           “(A) prepare work and spending plans for  
14           implementing the activities of the Program and  
15           developing and implementing the Regional Re-  
16           search and Action Plans;

17           “(B) administer merit-based, competitive  
18           grant funding to support the projects main-  
19           tained and established by the Program, and to  
20           address the research and management needs  
21           and priorities identified in the Regional Re-  
22           search and Action Plans;

23           “(C) coordinate NOAA programs that ad-  
24           dress harmful algal blooms and hypoxia and  
25           other ocean and Great Lakes science and man-

1           agement programs and centers that address the  
2           chemical, biological, and physical components of  
3           harmful algal blooms and hypoxia;

4           “(D) coordinate and work cooperatively  
5           with other Federal, State, and local government  
6           agencies and programs that address harmful  
7           algal blooms and hypoxia;

8           “(E) coordinate with the State Department  
9           to support international efforts on harmful  
10          algal bloom and hypoxia information sharing,  
11          research, mitigation, and control;

12          “(F) coordinate an outreach, education,  
13          and training program that integrates and aug-  
14          ments existing programs to improve public edu-  
15          cation about and awareness of the causes, im-  
16          pacts, and mitigation efforts for harmful algal  
17          blooms and hypoxia;

18          “(G) facilitate and provide resources for  
19          training of State and local coastal and water re-  
20          source managers in the methods and tech-  
21          nologies for monitoring, controlling, and miti-  
22          gating harmful algal blooms and hypoxia;

23          “(H) support regional efforts to control  
24          and mitigate outbreaks through—

1           “(i) communication of the contents of  
2           the Regional Research and Action Plans  
3           and maintenance of online data portals for  
4           other information about harmful algal  
5           blooms and hypoxia to State and local  
6           stakeholders within the region for which  
7           each plan is developed; and

8           “(ii) overseeing the development, re-  
9           view, and periodic updating of Regional  
10          Research and Action Plans established  
11          under section 602C(b);

12          “(I) convene an annual meeting of the  
13          Task Force; and

14          “(J) perform such other tasks as may be  
15          delegated by the Task Force.

16          “(2) NOAA DUTIES.—NOAA shall maintain  
17          and enhance—

18                 “(A) the Ecology and Oceanography of  
19                 Harmful Algal Blooms Program;

20                 “(B) the Monitoring and Event Response  
21                 for Harmful Algal Blooms Program;

22                 “(C) the Northern Gulf of Mexico Eco-  
23                 systems and Hypoxia Assessment Program; and

24                 “(D) the Coastal Hypoxia Research Pro-  
25                 gram.

1           “(3) PROGRAM DUTIES.—The Program shall—  
2           “(A) establish—  
3           “(i) a Mitigation and Control of  
4           Harmful Algal Blooms Program—  
5           “(I) to develop and promote  
6           strategies for the prevention, mitiga-  
7           tion, and control of harmful algal  
8           blooms;  
9           “(II) to fund research that may  
10          facilitate the prevention, mitigation,  
11          and control of harmful algal blooms;  
12          and  
13          “(III) to develop and dem-  
14          onstrate technology that may mitigate  
15          and control harmful algal blooms; and  
16          “(ii) other programs as necessary; and  
17          “(B) work cooperatively with other offices,  
18          centers, and programs within NOAA and other  
19          agencies represented on the Task Force, States,  
20          and nongovernmental organizations concerned  
21          with marine and aquatic issues to manage data,  
22          products, and infrastructure, including—  
23          “(i) compiling, managing, and  
24          archiving data from relevant programs in  
25          Task Force member agencies;

1           “(ii) creating data portals for general  
2           education and data dissemination on cen-  
3           tralized, publicly available databases; and

4           “(iii) establishing communication  
5           routes for data, predictions, and manage-  
6           ment tools both to and from the regions,  
7           states, and local communities.”.

8 **SEC. 7. REGIONAL RESEARCH AND ACTION PLANS.**

9           The Act, as amended by section 6, is amended by in-  
10          serting after section 602A the following:

11 **“SEC. 602B. REGIONAL RESEARCH AND ACTION PLANS.**

12          “(a) IN GENERAL.—The Program shall—

13               “(1) oversee the development and implementa-  
14               tion of Regional Research and Action Plans; and

15               “(2) identify appropriate regions and sub-re-  
16               gions to be addressed by each Regional Research  
17               and Action Plan.

18          “(b) REGIONAL PANELS OF EXPERTS.—

19               “(1) IN GENERAL.—In accordance with the  
20               schedule set forth in paragraph (2), the Program  
21               shall convene a panel of experts for each region  
22               identified under subsection (a)(2) from among—

23                       “(A) State coastal management and plan-  
24                       ning officials;

1           “(B) water management and watershed of-  
2           ficials from both coastal states and noncoastal  
3           states with water sources that drain into water  
4           bodies affected by harmful algal blooms and hy-  
5           poxia;

6           “(C) public health officials;

7           “(D) emergency management officials;

8           “(E) nongovernmental organizations con-  
9           cerned with marine and aquatic issues;

10          “(F) science and technology development  
11          institutions;

12          “(G) economists;

13          “(H) industries and businesses affected by  
14          coastal and freshwater harmful algal blooms  
15          and hypoxia;

16          “(I) scientists, with expertise concerning  
17          harmful algal blooms or hypoxia, from academic  
18          or research institutions; and

19          “(J) other stakeholders as appropriate.

20          “(2) SCHEDULE.—The Program shall—

21                 “(A) convene panels in at least  $\frac{1}{3}$  of the  
22                 regions within 9 months after the date of enact-  
23                 ment of the Harmful Algal Blooms and Hy-  
24                 poxia Research and Control Amendments Act of  
25                 2009;

1           “(B) convene panels in at least  $\frac{2}{3}$  of the  
2 regions within 21 months after such date;

3           “(C) convene panels in the remaining re-  
4 gions within 33 months after such date; and

5           “(D) reconvene each panel at least every 5  
6 years after the date on which it was initially  
7 convened.

8           “(c) PLAN DEVELOPMENT.—Each regional panel of  
9 experts shall develop a Regional Research and Action Plan  
10 for its respective region and submit it to the Program for  
11 approval and to the Task Force. The Plan shall identify  
12 appropriate elements for the region, including—

13           “(1) baseline ecological, social, and economic re-  
14 search needed to understand the biological, physical,  
15 and chemical conditions that cause, exacerbate, and  
16 result from harmful algal blooms and hypoxia;

17           “(2) regional priorities for ecological and socio-  
18 economic research on issues related to, and impacts  
19 of, harmful algal blooms and hypoxia;

20           “(3) research needed to develop and advance  
21 technologies for improving capabilities to predict,  
22 monitor, prevent, control, and mitigate harmful algal  
23 blooms and hypoxia;

24           “(4) State and local government actions that  
25 may be implemented—

1           “(A) to support long-term monitoring ef-  
2           forts and emergency monitoring as needed;

3           “(B) to minimize the occurrence of harm-  
4           ful algal blooms and hypoxia;

5           “(C) to reduce the duration and intensity  
6           of harmful algal blooms and hypoxia in times of  
7           emergency;

8           “(D) to address human health dimensions  
9           of harmful algal blooms and hypoxia; and

10          “(E) to identify and protect vulnerable eco-  
11          systems that could be, or have been, affected by  
12          harmful algal blooms and hypoxia;

13          “(5) mechanisms by which data and products  
14          are transferred between the Program and State and  
15          local governments and research entities;

16          “(6) communication, outreach and information  
17          dissemination efforts that State and local govern-  
18          ments and nongovernmental organizations can un-  
19          dertake to educate and inform the public concerning  
20          harmful algal blooms and hypoxia and alternative  
21          coastal resource-utilization opportunities that are  
22          available; and

23          “(7) pilot projects, if appropriate, that may be  
24          implemented on local, State, and regional scales to

1 address the research priorities and response actions  
2 identified in the Plan.

3 “(d) PLAN TIMELINES; UPDATES.—The Program  
4 shall ensure that Regional Research and Action Plans de-  
5 veloped under this section are—

6 “(1) completed and approved by the Program  
7 within 12 months after the date on which a regional  
8 panel is convened or reconvened under subsection  
9 (b)(2); and

10 “(2) updated no less frequently than once every  
11 5 years.

12 “(e) FUNDING.—

13 “(1) IN GENERAL.—Subject to available appro-  
14 priations, the Program shall make funding available  
15 to eligible organizations to implement the research,  
16 monitoring, forecasting, modeling, and response ac-  
17 tions included under each approved Regional Re-  
18 search and Action Plan. The Program shall select  
19 recipients through a merit-based, competitive process  
20 and seek to fund research proposals that most effec-  
21 tively align with the research priorities identified in  
22 the relevant Regional Research and Action Plan.

23 “(2) APPLICATION; ASSURANCES.—Any organi-  
24 zation seeking funding under this subsection shall  
25 submit an application to the Program at such time,

1 in such form and manner, and containing such in-  
2 formation and assurances as the Program may re-  
3 quire. The Program shall require any organization  
4 receiving funds under this subsection to utilize the  
5 mechanisms described in subsection (e)(5) to ensure  
6 the transfer of data and products developed under  
7 the Plan.

8 “(3) ELIGIBLE ORGANIZATION.—In this sub-  
9 section, the term ‘eligible organization’ means—

10 “(A) a nongovernmental researcher or or-  
11 ganization; or

12 “(B) any other entity that applies for  
13 funding to implement the State, local, and non-  
14 governmental control, mitigation, and preven-  
15 tion strategies identified in the relevant Re-  
16 gional Research and Action Plan.

17 “(f) INTERMEDIATE REVIEWS.—If the Program de-  
18 termines that an intermediate review is necessary to ad-  
19 dress emergent needs in harmful algal blooms and hypoxia  
20 under a Regional Research and Action Plan, it shall notify  
21 the Task Force and reconvene the relevant regional panel  
22 of experts for the purpose of revising the Regional Re-  
23 search and Action Plan so as to address the emergent  
24 threat or need.”.

1 **SEC. 8. REPORTING.**

2 Section 603, as amended by section 5, is amended  
3 by adding at the end thereof the following:

4 “(c) BIENNIAL REPORTS.—Every 2 years the Pro-  
5 gram shall prepare a report for the Senate Committee on  
6 Commerce, Science, and Transportation and the House of  
7 Representatives Committees on Science and Technology  
8 and on Natural Resources that describe—

9 “(1) activities, budgets, and progress on imple-  
10 menting the national harmful algal bloom and hy-  
11 poxia program;

12 “(2) the proceedings of the annual Task Force  
13 meetings; and

14 “(3) the status, activities, and funding for im-  
15 plementation of the Regional Research and Action  
16 Plans, including a description of research funded  
17 under the program and actions and outcomes of  
18 Plan response strategies carried out by States.

19 “(d) QUINQUENNIAL REPORTS.—Not less than once  
20 every 5 years after the date of enactment of the Harmful  
21 Algal Blooms and Hypoxia Research and Control Amend-  
22 ments Act of 2009, the Task Force shall complete and  
23 submit a report on harmful algal blooms and hypoxia in  
24 marine and freshwater systems to the Senate Committee  
25 on Commerce, Science, and Transportation and the House

1 of Representatives Committees on Science and Technology  
2 and on Natural Resources. The report shall—

3           “(1) evaluate the state of scientific knowledge  
4           of harmful algal blooms and hypoxia in marine and  
5           freshwater systems, including their causes and eco-  
6           logical consequences;

7           “(2) evaluate the social and economic impacts  
8           of harmful algal blooms and hypoxia, including their  
9           impacts on coastal communities, and review those  
10          communities’ efforts and associated economic costs  
11          related to event forecasting, planning, mitigation, re-  
12          sponse, and public outreach and education;

13          “(3) examine and evaluate the human health  
14          impacts of harmful algal blooms and hypoxia, includ-  
15          ing any gaps in existing research;

16          “(4) describe advances in capabilities for moni-  
17          toring, forecasting, modeling, control, mitigation,  
18          and prevention of harmful algal blooms and hypoxia,  
19          including techniques for, integrating landscape- and  
20          watershed-level water quality information into ma-  
21          rine and freshwater harmful algal bloom and hy-  
22          poxia prevention and mitigation strategies at Fed-  
23          eral and regional levels;

24          “(5) evaluate progress made by, and the needs  
25          of, Federal, regional, State, and local policies and

1 strategies for forecasting, planning, mitigating, pre-  
2 venting, and responding to harmful algal blooms and  
3 hypoxia, including the economic costs and benefits of  
4 such policies and strategies;

5 “(6) make recommendations for integrating,  
6 improving, and funding future Federal, regional,  
7 State, and local policies and strategies for pre-  
8 venting and mitigating the occurrence and impacts  
9 of harmful algal blooms and hypoxia; and

10 “(7) describe communication, outreach, and  
11 education efforts to raise public awareness of harm-  
12 ful algal blooms and hypoxia, their impacts, and the  
13 methods for mitigation and prevention.”

14 **SEC. 9. NORTHERN GULF OF MEXICO HYPOXIA.**

15 Section 604 is amended to read as follows:

16 **“SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.**

17 (a) **TASK FORCE ANNUAL PROGRESS REPORTS.**—  
18 For each of the years from 2009 through 2013, the Mis-  
19 sissippi River/Gulf of Mexico Watershed Nutrient Task  
20 Force shall complete and submit to the Congress and the  
21 President an annual report on the progress made by Task  
22 Force-directed activities toward attainment of the Coastal  
23 Goal of the Gulf Hypoxia Action Plan 2008.

24 (b) **TASK FORCE 5-YEAR PROGRESS REPORT.**—In  
25 2013, that Task Force shall complete and submit to Con-

1 gress and the President a 5-year report on the progress  
2 made by Task Force-directed activities toward attainment  
3 of the Coastal Goal of the Gulf Hypoxia Action Plan 2008.  
4 The report shall assess progress made toward nutrient  
5 load reductions, the response of the hypoxic zone and  
6 water quality throughout the Mississippi/Atchafalaya  
7 River Basin, and the economic and social effects. The re-  
8 port shall include an evaluation of how current policies  
9 and programs affect management decisions, including  
10 those made by municipalities and industrial and agricul-  
11 tural producers, evaluate lessons learned, and recommend  
12 appropriate actions to continue to implement or, if nec-  
13 essary, revise this strategy.

14 **SEC. 10. PILOT PROGRAM FOR FRESHWATER HARMFUL**  
15 **ALGAL BLOOMS AND HYPOXIA.**

16 The Act, as amended by section 7, is amended by in-  
17 serting after section 603B the following:

18 **“SEC. 603C. PILOT PROGRAM FOR FRESHWATER HARMFUL**  
19 **ALGAL BLOOMS AND HYPOXIA.**

20 “(a) PILOT PROGRAM.—The Secretary shall establish  
21 a collaborative pilot program with the Environmental Pro-  
22 tection Agency and other appropriate Federal agencies to  
23 examine harmful algal blooms and hypoxia occurring in  
24 freshwater systems, including the Great Lakes. The pilot  
25 program shall—

1           “(1) assess the issues associated with, and im-  
2           pacts of, harmful algal blooms and hypoxia in fresh-  
3           water ecosystems;

4           “(2) research the efficacy of mitigation meas-  
5           ures, including measures to reduce nutrient loading;  
6           and

7           “(3) recommend potential management solu-  
8           tions.

9           “(b) REPORT.—The Secretary of Commerce, in con-  
10          sultation with other participating Federal agencies, shall  
11          conduct an assessment of the effectiveness of the pilot pro-  
12          gram in improving freshwater habitat quality and publish  
13          a report, available to the public, of the results of the as-  
14          sessment.”.

15          **SEC. 11. INTERAGENCY FINANCING.**

16          The Act is amended by inserting after section 604  
17          the following:

18          **“SEC. 604A. INTERAGENCY FINANCING.**

19          “The departments and agencies represented on the  
20          Task Force are authorized to participate in interagency  
21          financing and share, transfer, receive, obligate, and ex-  
22          pend funds appropriated to any member of the Task Force  
23          for the purposes of carrying out any administrative or pro-  
24          grammatic project or activity under this Act, including  
25          support for the Program, a common infrastructure, infor-

1 mation sharing, and system integration for harmful algal  
 2 bloom and hypoxia research, monitoring, forecasting, pre-  
 3 vention, and control. Funds may be transferred among  
 4 such departments and agencies through an appropriate in-  
 5 strument that specifies the goods, services, or space being  
 6 acquired from another Task Force member and the costs  
 7 of the same.”.

8 **SEC. 12. APPLICATION WITH OTHER LAWS.**

9 The Act is amended by inserting after section 606  
 10 the following:

11 **“SEC. 607. EFFECT ON OTHER FEDERAL AUTHORITY.**

12 “Nothing in this title supersedes or limits the author-  
 13 ity of any agency to carry out its responsibilities and mis-  
 14 sions under other laws.”.

15 **SEC. 13. DEFINITIONS.**

16 (a) IN GENERAL.—The Act is amended by inserting  
 17 after section 605 the following:

18 **“SEC. 605A. DEFINITIONS.**

19 “In this Act:

20 “(1) ADMINISTRATOR.—The term ‘Adminis-  
 21 trator’ means the Administrator of the NOAA.

22 “(2) HARMFUL ALGAL BLOOM.—The term  
 23 ‘harmful algal bloom’ means marine and freshwater  
 24 phytoplankton that proliferate to high concentra-  
 25 tions, resulting in nuisance conditions or harmful

1 impacts on marine and aquatic ecosystems, coastal  
2 communities, and human health through the produc-  
3 tion of toxic compounds or other biological, chemical,  
4 and physical impacts of the algae outbreak.

5 “(3) HYPOXIA.—The term ‘hypoxia’ means a  
6 condition where low dissolved oxygen in aquatic sys-  
7 tems causes stress or death to resident organisms.

8 “(4) NOAA.—The term ‘NOAA’ means the Na-  
9 tional Oceanic and Atmospheric Administration.

10 “(5) PROGRAM.—The term ‘Program’ means  
11 the Integrated Harmful Algal Bloom and Hypoxia  
12 Program established under section 603A.

13 “(6) REGIONAL RESEARCH AND ACTION  
14 PLAN.—The term ‘Regional Research and Action  
15 Plan’ means a plan established under section 602B.

16 “(7) SECRETARY.—The term ‘Secretary’ means  
17 the Secretary of Commerce, acting through  
18 NOAA.”.

19 “(8) TASK FORCE.—The term ‘Task Force’  
20 means the Interagency Task Force established by  
21 section 603(a).

22 “(9) UNITED STATES COASTAL WATERS.—The  
23 term ‘United States coastal waters’ includes the  
24 Great Lakes.”.

1 (b) CONFORMING AMENDMENT.—Section 603(a) is  
2 amended by striking “Hypoxia (hereinafter referred to as  
3 the ‘Task force’).” and inserting “Hypoxia.”.

4 **SEC. 14. AUTHORIZATION OF APPROPRIATIONS.**

5 Section 605 is amended to read as follows:—

6 **“SEC. 605. AUTHORIZATION OF APPROPRIATIONS.**

7 “(a) IN GENERAL.—There are authorized to be ap-  
8 propriated to NOAA to implement the Program under this  
9 title \$40,000,000 for each of fiscal years 2010 through  
10 2014, of which up to \$10,000,000 shall be allocated each  
11 fiscal year to the creation of Regional Research and Action  
12 Plans required by section 602B.

13 “(b) EXTRAMURAL RESEARCH ACTIVITIES.—The  
14 Secretary shall ensure that a substantial portion of funds  
15 appropriated pursuant to subsection (a) that are used for  
16 research purposes are allocated to extramural research ac-  
17 tivities.

18 “(c) PILOT PROGRAM.—In addition to any amounts  
19 appropriated pursuant to subsection (a), there are author-  
20 ized to be appropriated to NOAA such sums as may be  
21 necessary to carry out the pilot program established under  
22 section 603C.”.

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