To amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 13, 2011

Ms. Snowe (for herself, Mr. Nelson of Florida, Mr. Begich, Mr. Rockefeller, Mr. Whitehouse, Mrs. Gillibrand, and Mr. Cardin) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998, and for other purposes.

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

2 SECTION 1. SHORT TITLE.

This Act may be cited as the “Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011”.


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

SEC. 3. FINDINGS.

Section 602 is amended to read as follows:

“§ 602. Findings

“Congress finds the following:

“(1) Harmful algal blooms and hypoxia—

“(A) are increasing in frequency and intensity in the Nation’s coastal waters and Great Lakes;

“(B) pose a threat to the health of coastal and Great Lakes ecosystems;

“(C) are costly to coastal economies; and

“(D) threaten the safety of seafood and human health.

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

“(3) The National Oceanic and Atmospheric
Administration, through its ongoing research, moni-
toring, observing, education, grant, and coastal re-
source management programs and in collaboration
with the other Federal agencies on the Inter-Agency
Task Force on Harmful Algal Blooms and Hypoxia,
along with States, Indian tribes, and local govern-
ments, possesses the capabilities necessary to sup-
port a near and long-term comprehensive effort to
prevent, reduce, and control the human and environ-
mental costs of harmful algal blooms and hypoxia.

“(4) Increases in nutrient loading from point
and nonpoint sources can trigger and exacerbate
harmful algal blooms and hypoxia. Since much of
the increases originate in upland areas and are deliv-
ered to marine and freshwater bodies via river dis-
charge, integrated and landscape-level research and
control strategies are required.

“(5) Harmful algal blooms and hypoxia affect
many sectors of the coastal economy, including tour-
ism, public health, and recreational and commercial
fisheries. According to a recent report produced by
the National Oceanic and Atmospheric Administration, the United States seafood, restaurant, and tourism industries suffer estimated annual losses of at least $82,000,000 due to the economic impacts of harmful algal blooms.

“(6) The proliferation of harmful and nuisance algae can occur in all United States waters, including coastal areas (such as estuaries), the Great Lakes, and inland waterways, crossing political boundaries and necessitating regional coordination for research, monitoring, mitigation, response, and prevention efforts.

“(7) Federally funded and other research has led to several technological advances, including remote sensing, molecular and optical tools, satellite imagery, and coastal and ocean observing systems, that—

“(A) provide data for forecast models;
“(B) improve the monitoring and prediction of these events; and
“(C) provide essential decision making tools for managers and stakeholders.”.

SEC. 4. PURPOSES.

The Act is amended by inserting after section 602 the following:
§ 602A. Purposes

The purposes of this title are—

“(1) to provide for the development and coordination of a comprehensive and integrated national program to address harmful algal blooms and hypoxia through baseline research, monitoring, prevention, mitigation, and control;

“(2) to provide for the assessment of environmental, socioeconomic, and human health impacts of harmful algal blooms and hypoxia on a regional and national scale, and to integrate this assessment into marine and freshwater resource decisions; and

“(3) to facilitate regional, State, tribal, and local efforts to develop and implement appropriate harmful algal bloom and hypoxia response plans, strategies, and tools, including outreach programs and information dissemination mechanisms.”.

SEC. 5. INTER-AGENCY TASK FORCE ON HARMFUL ALGAL BLOOMS AND HYPOXIA.

Section 603(a) is amended—

(1) by striking “the following representatives from” and inserting “a representative from”;

(2) in paragraph (11), by striking “and”;

(3) by redesignating paragraph (12) as paragraph (13);
(4) by inserting after paragraph (11) the fol-
lowing:

“(12) The Centers for Disease Control; and’’;

and

(5) in paragraph (13), as redesignated, by
striking “such”.

SEC. 6. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA
PROGRAM.

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

“§ 603A. National harmful algal bloom and hypoxia
program

“(a) Establishment.—Except as provided in sub-
section (d), the Under Secretary, acting through the Task
Force established under section 603, shall establish and
maintain a national harmful algal bloom and hypoxia pro-
gram.

“(b) Action Strategy.—

“(1) In general.—Not later than 1 year after
the date of enactment of the Harmful Algal Blooms
and Hypoxia Research and Control Amendments Act
of 2011, the Task Force shall develop a national
harmful algal blooms and hypoxia action strategy
that—
“(A) is consistent with the purposes under section 602A;

“(B) includes a statement of goals and objectives; and

“(C) includes an implementation plan.

“(2) PUBLICATION.—Not later than 30 days after the date that the action strategy is developed, the Task Force shall—

“(A) submit the action strategy to Congress; and

“(B) publish the action strategy in the Federal Register.

“(3) PERIODIC REVISION.—The Task Force shall periodically review and revise the action strategy, as necessary.

“(c) TASK FORCE FUNCTIONS.—The Task Force shall—

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

“(2) assess interagency work and spending plans for implementing the activities of the Program;

“(3) review the Program’s distribution of Federal grants and funding to address research priorities;
“(4) support the implementation of the actions and strategies identified in the regional research and action plans under section 603B;

“(5) support the development of institutional mechanisms and financial instruments to further the goals of the Program;

“(6) coordinate and integrate the research of all Federal programs, including ocean and Great Lakes science and management programs and centers, that address the chemical, biological, and physical components of marine and freshwater harmful algal blooms and hypoxia;

“(7) expedite the interagency review process by ensuring timely review and dispersal of required reports and assessments under this title;

“(8) promote the development of new technologies for predicting, monitoring, and mitigating harmful algal blooms and hypoxia conditions; and

“(9) establish such interagency working groups as it considers necessary.

“(d) LEAD FEDERAL AGENCY.—The National Oceanic and Atmospheric Administration shall have primary responsibility for administering the Program.

“(e) PROGRAM DUTIES.—In administering the Program, the Under Secretary shall—
“(1) develop and promote a national strategy to understand, detect, predict, control, mitigate, and respond to marine and freshwater harmful algal bloom and hypoxia events;

“(2) prepare work and spending plans for implementing the activities of the Program and developing and implementing the regional research and action plans;

“(3) administer merit-based, competitive grant funding—

“(A) to support the projects maintained and established by the Program; and

“(B) to address the research and management needs and priorities identified in the regional research and action plans;

“(4) coordinate and work cooperatively with regional, State, tribal, and local government agencies and programs that address marine and freshwater harmful algal blooms and hypoxia;

“(5) coordinate with the Secretary of State to support international efforts on marine and freshwater harmful algal bloom and hypoxia information sharing, research, mitigation, control, and response activities;
“(6) identify additional research, development, and demonstration needs and priorities relating to monitoring, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia, including methods and technologies to protect the ecosystems affected by marine and freshwater harmful algal blooms and hypoxia;

“(7) integrate, coordinate, and augment existing education programs to improve public understanding and awareness of the causes, impacts, and mitigation efforts for marine and freshwater harmful algal blooms and hypoxia;

“(8) facilitate and provide resources to train State and local coastal and water resource managers in the methods and technologies for monitoring, controlling, and mitigating marine and freshwater harmful algal blooms and hypoxia;

“(9) support regional efforts to control and mitigate outbreaks through—

“(A) communication of the contents of the regional research and action plans and maintenance of online data portals for other information about harmful algal blooms and hypoxia to
State and local stakeholders within the region for which each plan is developed; and

“(B) overseeing the development, review, and periodic updating of regional research and action plans;

“(10) convene at least 1 meeting of the Task Force each year; and

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

“(f) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ACTIVITIES.—The Under Secretary shall—

“(1) maintain and enhance the existing competitive programs at the National Oceanic and Atmospheric Administration relating to marine and freshwater algal blooms and hypoxia;

“(2) carry out marine and Great Lakes harmful algal bloom and hypoxia events response activities;

“(3) establish new programs and infrastructure, as necessary, to develop and enhance the critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts required to meet the purposes under section 602A;

“(4) enhance communication and coordination among Federal agencies carrying out marine and
freshwater harmful algal bloom and hypoxia activities; and

“(5) increase the availability to appropriate public and private entities of—

“(A) analytical facilities and technologies;
“(B) operational forecasts; and
“(C) reference and research materials.

“(g) COOPERATIVE EFFORTS.—The Under Secretary shall work cooperatively and avoid duplication of effort with other offices, centers, and programs within the National Oceanic and Atmospheric Administration, other agencies on the Task Force, and States, tribes, and non-governmental organizations concerned with marine and freshwater issues to coordinate harmful algal blooms and hypoxia (and related) activities and research.

“(h) FRESHWATER PROGRAM.—With respect to the freshwater aspects of the Program, except for those aspects occurring in the Great Lakes, the Administrator of the Environmental Protection Agency, in consultation with the Under Secretary, through the Task Force, shall—

“(1) carry out the duties assigned to the Under Secretary under this section and section 603B, including the activities under subsection (g);
“(2) research the ecology of freshwater harmful algal blooms;

“(3) monitor and respond to freshwater harmful algal blooms events in lakes (except for the Great Lakes), rivers, and reservoirs;

“(4) mitigate and control freshwater harmful algal blooms; and

“(5) recommend the amount of funding required to carry out subsection (g) for inclusion in the President’s annual budget request to Congress.

“(i) INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM.—The collection of monitoring and observation data under this title shall comply with all data standards and protocols developed pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.). Such data shall be made available through the system established under that Act.”.

SEC. 7. REGIONAL RESEARCH AND ACTION PLANS.

The Act, as amended by section 6 of this Act, is further amended by inserting after section 603A the following:

“§ 603B. Regional research and action plans

“(a) IN GENERAL.—In administering the Program, the Under Secretary shall—
“(1) identify appropriate regions and sub-regions to be addressed by each regional research and action plan; and

“(2) oversee the development and implementation of the regional research and action plans.

“(b) PLAN DEVELOPMENT.—The Under Secretary shall—

“(1) develop and submit to the Task Force for approval a regional research and action plan for each region, that builds upon any existing State or regional plans the Under Secretary considers appropriate; and

“(2) identify appropriate elements for each region, including—

“(A) baseline ecological, social, and economic research needed to understand the biological, physical, and chemical conditions that cause, exacerbate, and result from harmful algal blooms and hypoxia;

“(B) regional priorities for ecological and socio-economic research on issues related to and impacts of harmful algal blooms and hypoxia;

“(C) research, development, and demonstration activities needed to develop and advance technologies and techniques—
“(i) for minimizing the occurrence of harmful algal blooms and hypoxia; and

“(ii) for improving capabilities to predict, monitor, prevent, control, and mitigate harmful algal blooms and hypoxia;

“(D) State, tribal, and local government actions that may be implemented—

“(i) to support long-term monitoring efforts and emergency monitoring as needed;

“(ii) to minimize the occurrence of harmful algal blooms and hypoxia;

“(iii) to reduce the duration and intensity of harmful algal blooms and hypoxia in times of emergency;

“(iv) to address human health dimensions of harmful algal blooms and hypoxia; and

“(v) to identify and protect vulnerable ecosystems that could be, or have been, affected by harmful algal blooms and hypoxia;

“(E) mechanisms by which data, information, and products are transferred between the
Program and State, tribal, and local governments and research entities;

“(F) communication, outreach and information dissemination efforts that State, tribal, and local governments and stakeholder organizations can take to educate and inform the public about harmful algal blooms and hypoxia and alternative coastal resource-utilization opportunities that are available; and

“(G) the roles that Federal agencies can play to facilitate implementation of the regional research and action plan for that region.

“(c) CONSULTATION.—In developing a regional research and action plan under this section, the Under Secretary shall—

“(1) coordinate with State coastal management and planning officials;

“(2) coordinate with tribal resource management officials;

“(3) coordinate with water management and watershed officials from coastal States and non-coastal States with water sources that drain into water bodies affected by harmful algal blooms and hypoxia;
“(4) coordinate with the Administrator and other Federal agencies as the Under Secretary considers appropriate; and

“(5) consult with—

“(A) public health officials;

“(B) emergency management officials;

“(C) science and technology development institutions;

“(D) economists;

“(E) industries and businesses affected by marine and freshwater harmful algal blooms and hypoxia;

“(F) scientists, with expertise concerning harmful algal blooms or hypoxia, from academic or research institutions; and

“(G) other stakeholders.

“(d) BUILDING ON AVAILABLE STUDIES AND INFORMATION.—In developing a regional research and action plan under this section, the Under Secretary shall—

“(1) utilize and build on existing research, assessments, reports, including those carried out under existing law, and other relevant sources; and

“(2) consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great

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Lakes, the Chesapeake Bay, estuaries, and tributaries.

“(e) SCHEDULE.—The Under Secretary shall—

“(1) begin developing the regional research and action plans for at least a third of the regions not later than 9 months after the date of the enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011;

“(2) begin developing the regional research and action plans for at least another third of the regions not later than 21 months after the date of the enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011;

“(3) begin developing the regional research and action plans for the remaining regions not later than 33 months after the date of the enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011; and

“(4) ensure that each regional research and action plan developed under this section is—

“(A) completed and approved by the Task Force not later than 12 months after the date that development of the regional research and action plan begins; and
“(B) updated not less than once every 5 years after the completion of the regional research and action plan.

“(f) FUNDING.—

“(1) IN GENERAL.—Subject to available appropriations, the Under Secretary shall make funding available to eligible organizations to implement the research, monitoring, forecasting, modeling, and response actions included under each approved regional research and action plan. The Program shall select recipients through a merit-based, competitive process and seek to fund research proposals that most effectively align with the research priorities identified in the relevant regional research and action plan.

“(2) APPLICATION; ASSURANCES.—An organization seeking funding under this subsection shall submit an application to the Program at such time, in such form and manner, and containing such information and assurances as the Program may require. The Program shall require each eligible organization receiving funds under this subsection to utilize the mechanisms under subsection (b)(2)(E) to ensure the transfer of data and products developed under the regional research and action plan.
“(3) ELIGIBLE ORGANIZATION.—In this sub-
section, the term ‘eligible organization’ means—

“(A) an institution of higher education,
other non-profit organization, State, tribal, or
local government, commercial organization, or
Federal agency that meets the requirements of
this section and such other requirements as
may be established by the Under Secretary; and

“(B) with respect to nongovernmental or-
ganizations, an organization that is subject to
regulations promulgated or guidelines issued to
carry out this section, including United States
audit requirements that are applicable to non-
governmental organizations.”.

SEC. 8. REPORTING.

Section 603 is amended by adding at the end the fol-
lowing:

“(j) REPORT.—Not later than 2 years after the sub-
mission of the action strategy under section 603A, the
Under Secretary shall submit a report to the appropriate
congressional committees that describes—

“(1) the proceedings of the annual Task Force
meetings;
“(2) the activities carried out under the Program and the regional research and action plans, and the budget related to the activities;

“(3) the progress made on implementing the action strategy; and

“(4) any need to revise or terminate activities or projects under the Program.

“(k) PROGRAM REPORT.—Not later than 5 years after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011, the Task Force shall submit a report on harmful algal blooms and hypoxia in marine and freshwater systems to Congress that—

“(1) evaluates the state of scientific knowledge of harmful algal blooms and hypoxia in marine and freshwater systems, including their causes and ecological consequences;

“(2) evaluates the social and economic impacts of harmful algal blooms and hypoxia, including their impacts on coastal communities, and reviews those communities’ efforts and associated economic costs related to event forecasting, planning, mitigation, response, public outreach, and education;
“(3) examines and evaluates the human health impacts of harmful algal blooms and hypoxia, including any gaps in existing research;

“(4) describes advances in capabilities for monitoring, forecasting, modeling, control, mitigation, and prevention of harmful algal blooms and hypoxia, including techniques for integrating landscape- and watershed-level water quality information into marine and freshwater harmful algal bloom and hypoxia prevention and mitigation strategies at Federal and regional levels;

“(5) evaluates progress made by, and the needs of, Federal, regional, State, tribal, and local policies and strategies for forecasting, planning, mitigating, preventing, and responding to harmful algal blooms and hypoxia, including the economic costs and benefits of the policies and strategies;

“(6) includes recommendations for integrating, improving, and funding future Federal, regional, State, tribal, and local policies and strategies for preventing and mitigating the occurrence and impacts of harmful algal blooms and hypoxia;

“(7) describes communication, outreach, and education efforts to raise public awareness of harm-
ful algal blooms and hypoxia, their impacts, and the
methods for mitigation and prevention;
“(8) describes extramural research activities
carried out under section 605(b); and
“(9) specifies how resources were allocated be-
tween intramural and extramural research and man-
agement activities, including a justification for each
allocation.”.

SEC. 9. NORTHERN GULF OF MEXICO HYPOXIA.

Section 604 is amended to read as follows:

“SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

“(a) Task Force Initial Progress Reports.—
Beginning not later than 12 months after the date of en-
actment of the Harmful Algal Blooms and Hypoxia Re-
search and Control Amendments Act of 2011, and every
2 years thereafter, the Administrator, through the Mis-
sissippi River/Gulf of Mexico Watershed Nutrient Task
Force, shall submit a progress report to the appropriate
congressional committees and the President that describes
the progress made by Task Force-directed activities car-
rried out or funded by the Environmental Protection Agen-
cy and other State and Federal partners toward attain-
“(b) Contents.—Each report required under this
section shall—
“(1) assess the progress made toward nutrient load reductions, the response of the hypoxic zone and water quality throughout the Mississippi/Atchafalaya River Basin, and the economic and social effects;

“(2) evaluate lessons learned; and

“(3) recommend appropriate actions to continue to implement or, if necessary, revise the strategy set forth in the Gulf Hypoxia Action Plan 2008.”.

SEC. 10. INTERAGENCY FINANCING.

The Act, as amended by section 9 of this Act, is further amended by inserting after section 604 the following:

“SEC. 604A. INTERAGENCY FINANCING.

“The departments and agencies represented on the Task Force may participate in interagency financing and share, transfer, receive, obligate, and expend funds appropriated to any member of the Task Force for the purposes of carrying out any administrative or programmatic project or activity under this title, including support for the Program, a common infrastructure, information sharing, and system integration for harmful algal bloom and hypoxia research, monitoring, forecasting, prevention, and control. Funds may be transferred among such departments and agencies through an appropriate instrument that specifies the goods, services, or space being acquired
from another Task Force member and the costs of the goods, services, and space. The amount of funds transferrable under this section for any fiscal year may not exceed 5 percent of the account from which such transfer was made.”.

SEC. 11. AUTHORIZATION OF APPROPRIATIONS.

Section 605 is amended to read as follows:

“§ 605. Authorization of appropriations

“(a) In general.—There are authorized to be ap-
propriated, for each of the fiscal years 2011 through 2015 to the Under Secretary to carry out sections 603A and 603B, $30,000,000, of which—

“(1) $2,000,000 may be used for the develop-
ment of regional research and action plans and the reports required under section 603B;

“(2) $3,000,000 may be used for the research and assessment activities related to marine and freshwater harmful algal blooms at the National Oceanic and Atmospheric Administration research laboratories;

“(3) $7,000,000 may be used to carry out the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB);
“(4) $4,500,000 may be used to carry out the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB);

“(5) $1,500,000 may be used to carry out the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX);

“(6) $4,000,000 may be used to carry out the Coastal Hypoxia Research Program (CHRP);

“(7) $4,000,000 may be used to carry out the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM);

“(8) $1,000,000 may be used to carry out the Event Response Program; and

“(9) $3,000,000 may be used to carry out the Infrastructure Program.

“(b) EXTRAMURAL RESEARCH ACTIVITIES.—The Under Secretary shall ensure that a substantial portion of funds appropriated pursuant to subsection (a) that are used for research purposes are allocated to extramural research activities.”.

SEC. 12. DEFINITIONS; CONFORMING AMENDMENT.

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

“§ 605A. Definitions

“In this title:
“(1) ADMINISTRATOR.—The term ‘Administrator’ means the Administrator of the National Oceanic and Atmospheric Administration.

“(2) HARMFUL ALGAL BLOOM.—The term ‘harmful algal bloom’ means marine and freshwater phytoplankton that proliferate to high concentrations, resulting in nuisance conditions or harmful impacts on marine and aquatic ecosystems, coastal communities, and human health through the production of toxic compounds or other biological, chemical, and physical impacts of the algae outbreak.

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

“(4) PROGRAM.—The term ‘Program’ means the National Harmful Algal Bloom and Hypoxia Program established under section 603A.

“(5) REGIONAL RESEARCH AND ACTION PLAN.—The term ‘regional research and action plan’ means a plan established under section 603B.

“(6) STATE.—The term ‘State’ means each of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, any
other territory or possession of the United States, and any Indian tribe.

“(7) TASK FORCE.—The term ‘Task Force’ means the Inter-Agency Task Force established by section 603(a).

“(8) UNDER SECRETARY.—The term ‘Under Secretary’ means the Under Secretary of Commerce for Oceans and Atmosphere.

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

(b) CONFORMING AMENDMENT.—Section 603(a) is amended by striking “(hereinafter referred to as the ‘Task Force’)”.

SEC. 13. APPLICATION WITH OTHER LAWS.

The Act is amended by adding after section 606 the following:

“SEC. 607. EFFECT ON OTHER FEDERAL AUTHORITY.

“Nothing in this title supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.”.