113TH CONGRESS
2d Session
HOUSE OF REPRESENTATIVES
REPT. 113–471
Part 1

HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2014

JUNE 5, 2014.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SMITH of Texas, from the Committee on Science, Space, and Technology, submitted the following

R E P O R T

[To accompany S. 1254]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, Space, and Technology, to whom was referred the bill (S. 1254) to amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill, as amended, do pass.

CONTENTS

39–006

I. AMENDMENT

The amendment is as follows:
Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014".

SEC. 2. REFERENCES TO THE HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998.

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. 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 following:

"(12) the Centers for Disease Control and Prevention; and"; and

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

SEC. 4. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.

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

"SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.

"(a) ESTABLISHMENT.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Under Secretary, acting through the Task Force, shall maintain and enhance a national harmful algal bloom and hypoxia program, including—

"(1) a statement of objectives, including understanding, detecting, predicting, controlling, mitigating, and responding to marine and freshwater harmful algal bloom and hypoxia events; and

"(2) the comprehensive research plan and action strategy under section 603B.

"(b) PERIODIC REVISION.—The Task Force shall periodically review and revise the Program, as necessary.

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

"(1) coordinate interagency review of the objectives and activities of the Program;

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

"(3) support the implementation of the Action Strategy, including the coordination and integration of 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;

"(4) support the development of institutional mechanisms and financial instruments to further the objectives and activities of the Program;

"(5) review the Program's distribution of Federal funding to address the objectives and activities of the Program;

"(6) promote the development of new technologies for predicting, monitoring, and mitigating harmful algal bloom and hypoxia conditions; and

"(7) establish such interagency working groups as it considers necessary.

"(d) LEAD FEDERAL AGENCY.—Except as provided in subsection (h), 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) promote the Program;

"(2) prepare work and spending plans for implementing the research and activities identified under the Action Strategy;

"(3) administer peer-reviewed, merit-based, competitive grant funding—

"(A) to maintain and enhance baseline monitoring programs established by the Program;

"(B) to support the projects maintained and established by the Program; and

"(C) to address the research and management needs and priorities identified in the Action Strategy;

"(4) coordinate with 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, prediction, 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, preventing, 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 Action Strategy and maintenance of online data portals for other information about harmful algal blooms and hypoxia to State, tribal, and local stakeholders; and

"(B) overseeing the development, review, and periodic updating of the Action Strategy;

"(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 harmful algal blooms and hypoxia;

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

"(3) develop and enhance, including with respect to infrastructure as necessary, critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts relevant to harmful algal blooms and hypoxia events;

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

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

"(6) 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 nongovernmental organizations concerned with marine and freshwater issues to coordinate harmful algal bloom and hypoxia (and related) activities and research.

"(h) FRESHWATER.—With respect to the freshwater aspects of the Program, the Administrator, through the Task Force, shall carry out the duties otherwise assigned to the Under Secretary under this section, except the activities described in subsection (f).

"(1) PARTICIPATION.—The Administrator's participation under this section shall include—

"(A) research on the ecology and impacts of freshwater harmful algal blooms; and

"(B) forecasting and monitoring of and event response to freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs.

"(2) NONDUPLICATION.—The Administrator shall ensure that activities carried out under this title focus on new approaches to addressing freshwater harmful

algal blooms and are not duplicative of existing research and development programs authorized by this title or any other law.

"(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. 5. COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY.

The Act, as amended by section 4 of this Act, is further amended by inserting after section 603A the following:

"SEC. 603B. COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY.

"(a) IN GENERAL.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Under Secretary, through the Task Force, shall develop and submit to Congress a comprehensive research plan and action strategy to address marine and freshwater harmful algal blooms and hypoxia. The Action Strategy shall identify—

"(1) the specific activities to be carried out by the Program and the timeline for carrying out those activities;

"(2) the roles and responsibilities of each Federal agency in the Task Force in carrying out the activities under paragraph (1); and

"(3) the appropriate regions and subregions requiring specific research and activities to address harmful algal blooms and hypoxia.

"(b) REGIONAL FOCUS.—The regional and subregional parts of the Action Strategy shall identify—

"(1) regional priorities for ecological, economic, and social research on issues related to the impacts of harmful algal blooms and hypoxia;

"(2) research, development, and demonstration activities needed to develop and advance technologies and techniques for minimizing the occurrence of harmful algal blooms and hypoxia and improving capabilities to detect, predict, monitor, control, mitigate, respond to, and remediate harmful algal blooms and hypoxia;

"(3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including deployment of response technologies in a timely manner;

"(4) research and methods to address human health dimensions of harmful algal blooms and hypoxia;

"(5) mechanisms, including the potential costs and benefits of those mechanisms, to protect ecosystems that may be or have been affected by harmful algal bloom and hypoxia events;

"(6) mechanisms by which data, information, and products may be transferred between the Program and the State, tribal, and local governments and research entities;

"(7) communication and information dissemination methods that State, tribal, and local governments may undertake to educate and inform the public concerning harmful algal blooms and hypoxia; and

"(8) roles that Federal agencies may have to assist in the implementation of the Action Strategy, including efforts to support local and regional scientific assessments under section 603(e).

"(c) UTILIZING AVAILABLE STUDIES AND INFORMATION.—In developing the Action Strategy, the Under Secretary shall utilize existing research, assessments, reports, and program activities, including—

"(1) those carried out under existing law; and

"(2) other relevant peer-reviewed and published sources.

"(d) DEVELOPMENT OF THE ACTION STRATEGY.—In developing the Action Strategy, the Under Secretary shall, as appropriate—

"(1) coordinate with—

"(A) State coastal management and planning officials;

"(B) tribal resource management officials; and

"(C) water management and watershed officials from both coastal States and noncoastal States with water sources that drain into water bodies affected by harmful algal blooms and hypoxia; and

"(2) 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.

"(e) FEDERAL REGISTER.—The Under Secretary shall publish the Action Strategy in the Federal Register.

"(f) PERIODIC REVISION.—The Under Secretary, in coordination and consultation with the individuals and entities under subsection (d), shall periodically review and revise the Action Strategy prepared under this section, as necessary.".

SEC. 6. REPORTING.

Section 603 is amended by adding at the end the following:

"(j) REPORT.—Not later than 2 years after the date the Action Strategy is submitted under section 603B, the Under Secretary shall submit a report to Congress that describes—

"(1) the proceedings of the annual Task Force meetings;

"(2) the activities carried out under the Program, including the regional and subregional parts of the Action Strategy;

"(3) the budget related to the activities under paragraph (2);

"(4) the progress made on implementing the Action Strategy; and

"(5) any need to revise or terminate research and activities under the Program.".

SEC. 7. NORTHERN GULF OF MEXICO HYPOXIA.

Section 604 is amended to read as follows:

"SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

"(a) INITIAL PROGRESS REPORTS.—Beginning not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, and biennially thereafter, the Administrator, through the Mississippi 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 activities directed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force and carried out or funded by the Environmental Protection Agency and other State and Federal partners toward attainment of the goals of the Gulf Hypoxia Action Plan 2008.

"(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. 8. GREAT LAKES HYPOXIA AND HARMFUL ALGAL BLOOMS.

Section 605 is amended to read as follows:

"SEC. 605. GREAT LAKES HYPOXIA AND HARMFUL ALGAL BLOOMS.

"(a) INTEGRATED ASSESSMENT.—Not later than 18 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Task Force, in accordance with the authority under section 603, shall complete and submit to the Congress and the President an integrated assessment that examines the causes, consequences, and approaches to reduce hypoxia and harmful algal blooms in the Great Lakes, including the status of and gaps within current research, monitoring, management, prevention, response, and control activities by—

"(1) Federal agencies;

"(2) State agencies;

"(3) regional research consortia;

"(4) academia;

"(5) private industry; and

"(6) nongovernmental organizations.

"(b) PLAN.—

"(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Task Force shall develop and submit to the Congress a plan, based on the integrated assessment under subsection (a), for reducing, mitigating, and controlling hypoxia and harmful algal blooms in the Great Lakes.

"(2) CONTENTS.—The plan shall—

"(A) address the monitoring needs identified in the integrated assessment under subsection (a);

"(B) develop a timeline and budgetary requirements for deployment of future assets;

"(C) identify requirements for the development and verification of Great Lakes hypoxia and harmful algal bloom models, including—

"(i) all assumptions built into the models; and

"(ii) data quality methods used to ensure the best available data are utilized; and

"(D) describe efforts to improve the assessment of the impacts of hypoxia and harmful algal blooms by—

"(i) characterizing current and past biological conditions in ecosystems affected by hypoxia and harmful algal blooms; and

"(ii) quantifying effects, including economic effects, at the population and community levels.

"(3) REQUIREMENTS.—In developing the plan, the Task Force shall—

"(A) coordinate with State and local governments;

"(B) consult with representatives from academic, agricultural, industry, and other stakeholder groups, including relevant Canadian agencies;

"(C) ensure that the plan complements and does not duplicate activities conducted by other Federal or State agencies;

"(D) identify critical research for reducing, mitigating, and controlling hypoxia events and their effects;

"(E) evaluate cost-effective, incentive-based partnership approaches;

"(F) ensure that the plan is technically sound and cost effective;

"(G) utilize existing research, assessments, reports, and program activities;

"(H) publish a summary of the proposed plan in the Federal Register at least 180 days prior to submitting the completed plan to Congress; and

"(I) after submitting the completed plan to Congress, provide biennial progress reports on the activities toward achieving the objectives of the plan.".

SEC. 9. APPLICATION WITH OTHER LAWS.

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

"SEC. 607. EFFECT ON OTHER FEDERAL AUTHORITY.

"(a) AUTHORITY PRESERVED.—Nothing in this title supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

"(b) REGULATORY AUTHORITY.—Nothing in this title may be construed as establishing new regulatory authority for any agency.".

SEC. 10. DEFINITIONS; CONFORMING AMENDMENT.

(a) IN GENERAL.—The Act, as amended by section 9 of this Act, is further amended by adding after section 607 the following:

"SEC. 608. DEFINITIONS.

"In this title:

"(1) ACTION STRATEGY.—The term 'Action Strategy' means the comprehensive research plan and action strategy established under section 603B.

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

"(3) 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.

"(4) HYPOXIA.—The term 'hypoxia' means a condition where low dissolved oxygen in aquatic systems causes stress or death to resident organisms.

"(5) PROGRAM.—The term 'Program' means the national harmful algal bloom and hypoxia program established under section 603A.

"(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 on Harmful Algal Blooms and Hypoxia under 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. 11. AUTHORIZATION OF APPROPRIATIONS.

The Act is further amended by adding after section 608 the following:

"SEC. 609. AUTHORIZATION OF APPROPRIATIONS.

"(a) IN GENERAL.—There is authorized to be appropriated to the Under Secretary to carry out sections 603A and 603B $20,500,000 for each of fiscal years 2014 through 2018.

"(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. For each fiscal year, the Under Secretary shall publish a list of all grant recipients and the amounts for all of the funds allocated for research purposes, specifying those allocated for extramural research activities.".

II. PURPOSE AND SUMMARY

The purpose of S. 1254 is to reauthorize and amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 (HABHRCA) to promote and coordinate a national research strategy for improving the understanding and prevention of marine and freshwater harmful algal blooms (HABs) and hypoxia events.

III. BACKGROUND AND NEED FOR THE LEGISLATION

Harmful algal blooms are composed of phytoplankton known to naturally produce biotoxins. These outbreaks are commonly referred to as "red" or "brown" tides. Blooms can kill fish and other aquatic life by decreasing sunlight in the water column and by depleting the available oxygen causing anaerobic conditions and hypoxia. The produced toxins accumulate in shellfish, fish, or through the accumulation of biomass that affect other organisms and alter food webs. In recent years, many of the Nation's coastlines, near shore marine waters, and freshwaters have experienced an increase in the number, frequency, duration, and type of HABs.

HABs can have devastating environmental, economic, and human health impacts. Impacts may include serious human illness following direct consumption or indirect exposure to toxic shellfish or toxins in the environment; economic hardship for coastal economies, many of which are highly dependent on tourism or harvest of local seafood; and potential fish, bird, and mammal mortalities. There is also the potential to reduce the ability of ecosystems to sustain species because of habitat degradation and long-term alterations to community structure.

In 1998, Congress passed the Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA, Public Law 105–83), which established an Interagency Task Force to develop a national HABs assessment and authorized funding for existing and new research programs on HABs. These programs involve federal, state, and academic partners and support interdisciplinary extramural research studies to address the issues of HABs in an ecosystem context.

In 2004, HABHRCA was reauthorized in Public Law 108–456. The reauthorized Act required assessments of HABs in different coastal regions and in the Great Lakes and included plans to expand research to address the impacts of HABs. The law also authorized research, education, and monitoring activities related to the prevention, reduction, and control of harmful algal blooms and hypoxia. The 2004 HABHRCA authorized funds to conduct re-

search and reduce HABs and hypoxia in U.S. marine waters, estuaries, and the Great Lakes. In its role as a task force participant, the Environmental Protection Agency (EPA) has signed memorandums of understanding to fund competitive research in these areas.

The reauthorization expired in 2008, however, the Consolidated Appropriations Act of 2008 (P.L. 110–161) provided an authorization of appropriations through FY2010. NOAA continues these activities under existing general authorities.

IV. Hearing Summary

In the 112th Congress, the Subcommittee on Energy & Environment held a hearing on June 1, 2011, entitled, *Harmful Algal Blooms: Action Plans for Scientific Solutions*. The purpose of the hearing was to examine HABs and hypoxia research and response needs and the development and implementation of action plans to monitor, prevent, mitigate and control both marine and fresh water bloom and hypoxia events.

The Subcommittee heard from 6 witnesses: Dr. Robert Magnien, Director of the Center for Sponsored Coastal Ocean Research, National Oceanic and Atmospheric Administration; Dr. Richard Greene, Chief, Ecosystems Dynamics and Effects Branch, Gulf Ecology Division, Office of Research and Development, U.S. Environmental Protection Agency; Dr. Donald Anderson, Senior Scientist and Director of the Coastal Ocean Institute, Woods Hole Oceanographic Institution; Dr. Kevin Sellner, Executive Director, Chesapeake Research Consortium; Dr. Stephanie Smith, Chief Scientist, Algaeventure Systems; and Dr. Beth McGee, Senior Water Quality Scientist, Chesapeake Bay Foundation.

Based on the hearing in the 112th Congress, H.R. 2484, the "Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011" was introduced on July 11, 2011. It was ordered reported favorably, as amended, by a vote of 20–15.

V. Committee Consideration

S. 1254 was reported, without amendment, out of the Senate Committee on Commerce, Science, and Transportation on July 30, 2013. The bill passed the Senate, with amendment, by Unanimous Consent on February 12, 2014.

On May 21, 2014, the Committee on Science, Space, and Technology met in open markup session and adopted S.1254, as amended, by voice vote. The Committee ordered S. 1254, as amended, favorably reported to the House.

VI. Committee Votes

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires the Committee to list the record votes on the motion to report legislation and amendments thereto. A motion to order S. 1254, as amended, favorably reported to the House, was agreed to by voice vote.

During Full Committee consideration of S. 1254, the following amendments were considered:

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

Full Committee Markup
May 21, 2014

AMENDMENT ROSTER

S. 1254, the "Harmful Algal Bloom and Hypoxia Research and Control Act of 2014"

No.	Amendment	Summary	
1	Amendment Offered by Rep. Posey (FL) and Rep. Bonamici (OR) (067)	Amends the program language to focus on enhancing and maintaining existing research and activities; directs consultation and coordination activities; requires that the task force action plan be technically sound and cost effective; and eliminates the section on interagency financing.	Agreed to by Voice Vote

VII. Summary of Major Provisions of the Bill

The Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2014 streamlines and coordinates existing HAB/Hypoxia activities at NOAA and at other Federal agencies, provides for development of Comprehensive Research and Action Plans to identify regional, state, and local needs, promotes the transition of research products into actions for regional, State, and local governments, and provides for research and monitoring of freshwater HABs, including the Great Lakes.

VIII. Committee Views

S. 1254, as amended, authorizes scientific research and activities to address HABs and hypoxia. The Committee regards this legislation as the next necessary step in formulating the national and regional action strategies, building upon the findings and results of various reports and assessments required under the previous Harmful Algal Blooms and Hypoxia Research and Control Acts (1998 and 2004). Addressing the many dimensions of HABs requires a coordinated multi-agency approach, and there are presently a number of programs and agencies that address the various aspects of HABs. The amended version specifies that the Under Secretary shall maintain and enhance the national Harmful Algal Bloom and Hypoxia program, delineates specific coordination and consultation requirements, and directs that the plan for reducing, mitigating, and controlling HABs and hypoxia events in the Great Lakes shall be technically sound as well as cost-effective. The amended S.1254 makes clear that nothing in the Act shall be construed as establishing new regulatory authority for any agency. In coordinating activities required in the Act, federal agencies should work cooperatively and transparently with state and local officials. The Committee intends for this program to continue and expand cooperation with extramural research partners.

The Committee recognizes the success of the national HABs program as a highly successful federal/academic/private partnership that has been based on the balanced support provided for the continuum of science through management activities. This includes support for basic research, observations and monitoring, modeling and forecasting, and management and response. Maintaining funding support for this integrated strategy of science through response is essential to the continuing success and effectiveness of the HAB program.

The Committee views continuation of competitive extramural grant funding to support this highly effective partnership as critical to the long-term success of the national HABs program. It also recognizes the importance of NOAA using these funds to maintain support for mission-driven basic and applied research to help advance science and technology that will support improved management and responses to future HAB events. Therefore, the Committee expects the Agency to provide sustained support for core HAB research programs including: the ecology and oceanography of harmful algal blooms, the monitoring and event response for harmful algal blooms, and the prevention, control, and mitigation of harmful algal blooms.

The Committee eliminated language allowing the task force participants to transfer appropriated funds between agencies, as this language is inconsistent with Congressional oversight and robust stewardship of limited taxpayer dollars. While NOAA has been a lead agency in the country's HABs and hypoxia research activities, it is the intent of the Committee that in this role, NOAA does not bear the burden of the entire program and the Committee considers the full and active participation of all task force members as essential to achieving the goals of the program. In administering the national Harmful Algal Bloom and Hypoxia Program, the undersecretary should promote the program among participating agencies and entities. In developing activities to understand, detect, predict, control, mitigate, and respond to HABs and hypoxia events, participating agencies should look at both natural and human contributions.

IX. Committee Oversight Findings

Pursuant to clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee held an oversight hearing and made findings that are reflected in the descriptive portions of this report.

X. Statement on General Performance Goals and Objectives

In accordance with clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goals and objectives of the Committee are reflected in the descriptive portions of this report, including the goal to reauthorize and amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 (HABHRCA) to promote and coordinate a national research strategy for improving the understanding and prevention of marine and freshwater harmful algal blooms (HABs) and hypoxia events.

XI. New Budget Authority, Entitlement Authority, and Tax Expenditures

In compliance with clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, the Committee adopts as its own the estimate of new budget authority, entitlement authority, or tax expenditures or revenues contained in the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

XII. Advisory on Earmarks

In compliance with clause 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that S. 1254, the "Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013," contains no earmarks.

XIII. Committee Cost Estimate

The Committee adopts as its own the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

XIV. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Pursuant to clause 3(c)(3) of rule XIII of the Rules of the House of Representatives, the following is the cost estimate provided by the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, May 23, 2014.

Hon. LAMAR SMITH,
Chairman, Committee on Science, Space, and Technology,
House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Jeff LaFave.

Sincerely,

DOUGLAS W. ELMENDORF.

Enclosure.

S. 1254—Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2014

Summary: S. 1254 would reauthorize and modify the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998. The act would authorize the appropriation of $20.5 million annually through 2018 period for the National Oceanic and Atmospheric Administration (NOAA) to mitigate the harmful effects of algal blooms and hypoxia (reduced oxygen level) in certain bodies of water.

Assuming appropriation of the authorized amounts, CBO estimates that implementing the legislation would cost $78 million over the 2015–2019 period and $4 million after 2019. Enacting S. 1254 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

S. 1254 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Estimated cost to the Federal Government: The estimated budgetary impact of S. 1254 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By fiscal year, in millions of dollars—					
	2015	2016	2017	2018	2019	2015–2019
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Authorization Level	21	21	21	21	0	82
Estimated Outlays	13	17	20	21	7	78

Note. Amounts may not sum to totals because of rounding.

Basis of estimate: For this estimate, CBO assumes that the legislation will be enacted near the end of fiscal year 2014 and that the authorized amounts will be appropriated for each fiscal year. Esti-

mated outlays are based on historical spending patterns for similar NOAA activities.

S. 1254 would authorize the appropriation of about $21 million a year through 2018 for certain NOAA activities related to mitigating the harmful effects of algal blooms and hypoxia in coastal waters and the Great Lakes. Those activities include providing grants, conducting research, preparing reports, and overseeing an interagency task force. In 2013, NOAA spent $11 million on similar activities. Assuming appropriation of the authorized amounts, CBO estimates that implementing the legislation would cost $78 million over the 2015–2019 period and $4 million after 2019.

Pay-As-You-Go considerations: None.

Intergovernmental and private-sector impact: S. 1254 contains no intergovernmental or private-sector mandates as defined in UMRA. State and local governments could benefit from programs and cooperative agreements authorized in the bill. Any costs they incur would result from participation in voluntary federal programs.

Previous CBO estimate: On August 22, 2013, CBO transmitted a cost estimate for S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, as ordered reported by the Senate Committee on Commerce, Science, and Transportation on July 30, 2013. The two versions of the legislation are similar; however, because the Senate version was reported last year, CBO assumed that $20.5 million also would be appropriated in 2014. The CBO cost estimates reflect that difference.

Estimate prepared by: Federal costs: Jeff LaFave; Impact on State, local, and tribal governments: Jon Sperl; Impact on the private sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

XV. Federal Mandates Statement

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

XVI. Compliance with H. Res. 5

A. Directed Rule Making. This bill does not direct any executive branch official to conduct any specific rule-making proceedings.

B. Duplication of Existing Programs. This bill does not establish or reauthorize a program of the Federal Government known to be duplicative of another program. Such program was not included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111–139 or identified in the most recent Catalog of Federal Domestic Assistance published pursuant to the Federal Program Information Act (Public Law 95–220, as amended by Public Law 98–169) as relating to other programs.

XVII. Federal Advisory Committee Statement

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act were created by this legislation.

XVIII. Applicability to Legislative Branch

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3)(f) the Congressional Accountability Act.

XIX. Section-by-Section Analysis of the Legislation

Section 1. Short title

This section establishes the short title as the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2014.*

Section 2. References to the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998

Section 2 clarifies that any reference in this Act to an amendment or repeal is to the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, unless otherwise specified.

Section 3. Interagency Task Force on harmful algal blooms and hypoxia

This section adds the Centers for Disease Control (CDC) to the Task Force.

Section 4. National Harmful Algal Bloom and Hypoxia Program

This section requires NOAA to develop and implement a comprehensive research plan and action strategy under the National Harmful Algal Bloom and Hypoxia Program. This section directs the Task Force to periodically review and revise the program and specifies the Task Force's role with respect to the program, which includes expediting the interagency review processes, reviewing funding distribution, and promoting the development of new technologies to address HABs and hypoxia.

This section assigns NOAA, through the Task Force, primary responsibility for administering the program, except for the freshwater aspects of the program, which are to be carried out in coordination with the Administrator of the EPA. Section 4 requires the Under Secretary of Commerce for Oceans and Atmosphere (Under Secretary) to:

(1) promote the program;

(2) prepare work and spending plans;

(3) administer peer-reviewed, merit-based, competitive grant funding;

(4) coordinate with regional, State, tribal, and local government agencies and programs;

(5) coordinate with the Secretary of State on international efforts;

(6) identify additional research, development and demonstration needs;

(7) integrate, coordinate and augment existing education programs;

(8) facilitate and provide resources for training State and local coastal and water resource managers;

(9) support regional efforts to control and mitigate outbreaks;

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

(11) perform other tasks delegated by the Task Force.

This section also directs the Under Secretary to: maintain and enhance existing competitive programs at NOAA relating to HABs and hypoxia; carry out marine and Great Lakes HABs and hypoxia response activities; develop and enhance infrastructure as necessary; enhance communication and coordination among Federal agencies carrying out marine and freshwater HAB and hypoxia activities and research; leverage existing resources and expertise; and increase availability of resources to appropriate public and private entities. Section 4 directs the Under Secretary to work cooperatively and avoid duplication with other programs, agencies, and entities.

Finally, this section requires that all data collection and monitoring under this title comply with the data standards and protocols of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.) and be made available through the integrated ocean observing system.

Section 5. Comprehensive research plan and action strategy

This section directs the Under Secretary, via the Task Force, to develop a comprehensive research plan and action strategy to address marine and freshwater HABs and hypoxia, and to submit the plan and action strategy to Congress within one year of the date of enactment of this Act. It requires the Action Strategy to identify: specific program activities associated with a timeline; roles and responsibilities for each Federal agency in the Task Force; and region- and subregion-specific research needs. With respect to the regional focus of the Action Strategy, this section also requires that the Action Strategy identify: regional research priorities; needed research, development, and demonstration activities; methods for reducing the duration and intensity of HABs and hypoxia; ways to address the human health impacts of HABs and hypoxia; mechanisms to protect affected ecosystems; ways to better share data among government and non-government entities; ways to improve public dissemination of information about HABs and hypoxia; and roles for Federal Agencies to play in implementing the Action Strategy.

Section 5 specifies that, in developing the Action Strategy, the Under Secretary must use existing research, assessments, reports, and program activities, and that the Under Secretary must coordinate with State, tribal, and regional officials, including water managers, public health officials, economists, industries, and other stakeholders.

This section requires publication of the Action Strategy in the Federal Register, with revisions as necessary.

Section 6. Reporting

This section requires that, two years after the submission of the Action Strategy, the Under Secretary must report to Congress on the proceedings of the Task Force meetings, activities carried out under the program and the budget for those activities, progress made under the Action Strategy, and any need to revise or terminate program activities.

Section 7. Northern Gulf of Mexico hypoxia

Section 7 directs the Administrator of the EPA and the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to submit a progress report to Congress describing the progress toward attainment of the goals of the Gulf Hypoxia Action Plan 2008. The initial progress report is due within one year of the date of enactment of this Act, and updates are required every two years thereafter.

Section 8. Great Lakes hypoxia and harmful algal blooms

Section 8 requires the Task Force to submit to Congress and the President, within 18 months of the date of enactment, an integrated assessment of the causes, consequences, and approaches for reducing HABs and hypoxia in the Great Lakes. This section also requires, within two years of the date of enactment, the Task Force to develop and submit to Congress a research plan based on the aforementioned integrated assessment. This section requires the research plan to address issues such as monitoring needs, budgetary requirements and timelines, model development and verification, and quantification of the ecological and economic effects of HABs and hypoxia in the Great Lakes. Finally, this section requires that the research plan be developed in consultation with a number of stakeholders, leverage existing activities and information, and be published in the Federal Register, and requires biennial progress reports on the research plan.

Section 9. Application with other laws

This section clarifies that nothing in this Act supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

Section 10. Definitions; conforming amendment

This section provides definitions for the following terms: "Action Strategy" means the comprehensive research plan and action strategy established under section 603B of HABHRCA; "Administrator" means the Administrator of the EPA; "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 breakout; "Hypoxia" means a condition where low dissolved oxygen in aquatic systems causes stress or death to resident organisms; "Program" means the national harmful algal bloom and hypoxia program established under section 603A of HABHRCA; "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, and any other territory or possession of the United States, and any Indian tribe; "Task Force" means the Interagency Task Force established by section 603(a) of HABHRCA; "Under Secretary" means the Under Secretary of Commerce for Oceans and Atmosphere (i.e., Administrator of NOAA); and "United States Coastal Waters" includes the Great Lakes.

Section 11. Authorization of appropriations

Section 12 authorizes $20.5 million to be appropriated for each of the fiscal years 2014 through 2018 to implement the program and the action strategy. Of these appropriations, this section requires the Under Secretary to ensure a "substantial portion" is allocated to extramural research activities.

XX. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998

TITLE VI—HARMFUL ALGAL BLOOMS AND HYPOXIA

* * * * * * *

SEC. 603. ASSESSMENTS.

(a) ESTABLISHMENT OF INTER-AGENCY TASK FORCE.—The President, through the Committee on Environment and Natural Resources of the National Science and Technology Council, shall establish an Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia [(hereinafter referred to as the "Task Force")]. The Task Force shall consist of [the following representatives from] *a representative from—*

(1) * * *

* * * * * * *

(11) the Council on Environmental Quality; [and]

(12) the Centers for Disease Control and Prevention; and

[(12) such] *(13)* other Federal agencies as the President considers appropriate.

* * * * * * *

(j) REPORT.—Not later than 2 years after the date the Action Strategy is submitted under section 603B, the Under Secretary shall submit a report to Congress that describes—

(1) the proceedings of the annual Task Force meetings;

(2) the activities carried out under the Program, including the regional and subregional parts of the Action Strategy;

(3) the budget related to the activities under paragraph (2);

(4) the progress made on implementing the Action Strategy; and

(5) any need to revise or terminate research and activities under the Program.

SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.

(a) ESTABLISHMENT.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Under Secretary, acting

through the Task Force, shall maintain and enhance a national harmful algal bloom and hypoxia program, including—

(1) a statement of objectives, including understanding, detecting, predicting, controlling, mitigating, and responding to marine and freshwater harmful algal bloom and hypoxia events; and

(2) the comprehensive research plan and action strategy under section 603B.

(b) PERIODIC REVISION.—The Task Force shall periodically review and revise the Program, as necessary.

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

(1) coordinate interagency review of the objectives and activities of the Program;

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

(3) support the implementation of the Action Strategy, including the coordination and integration of 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;

(4) support the development of institutional mechanisms and financial instruments to further the objectives and activities of the Program;

(5) review the Program's distribution of Federal funding to address the objectives and activities of the Program;

(6) promote the development of new technologies for predicting, monitoring, and mitigating harmful algal bloom and hypoxia conditions; and

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

(d) LEAD FEDERAL AGENCY.—Except as provided in subsection (h), 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) promote the Program;

(2) prepare work and spending plans for implementing the research and activities identified under the Action Strategy;

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

(A) to maintain and enhance baseline monitoring programs established by the Program;

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

(C) to address the research and management needs and priorities identified in the Action Strategy;

(4) coordinate with 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, prediction, 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, preventing, 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 Action Strategy and maintenance of online data portals for other information about harmful algal blooms and hypoxia to State, tribal, and local stakeholders; and

(B) overseeing the development, review, and periodic updating of the Action Strategy;

(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 harmful algal blooms and hypoxia;

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

(3) develop and enhance, including with respect to infrastructure as necessary, critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts relevant to harmful algal blooms and hypoxia events;

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

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

(6) 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 nongovernmental organizations concerned with marine

and freshwater issues to coordinate harmful algal bloom and hypoxia (and related) activities and research.

(h) FRESHWATER.—With respect to the freshwater aspects of the Program, the Administrator, through the Task Force, shall carry out the duties otherwise assigned to the Under Secretary under this section, except the activities described in subsection (f).

(1) PARTICIPATION.—The Administrator's participation under this section shall include—

(A) research on the ecology and impacts of freshwater harmful algal blooms; and

(B) forecasting and monitoring of and event response to freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs.

(2) NONDUPLICATION.—The Administrator shall ensure that activities carried out under this title focus on new approaches to addressing freshwater harmful algal blooms and are not duplicative of existing research and development programs authorized by this title or any other law.

(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. 603B. COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Under Secretary, through the Task Force, shall develop and submit to Congress a comprehensive research plan and action strategy to address marine and freshwater harmful algal blooms and hypoxia. The Action Strategy shall identify—

(1) the specific activities to be carried out by the Program and the timeline for carrying out those activities;

(2) the roles and responsibilities of each Federal agency in the Task Force in carrying out the activities under paragraph (1); and

(3) the appropriate regions and subregions requiring specific research and activities to address harmful algal blooms and hypoxia.

(b) REGIONAL FOCUS.—The regional and subregional parts of the Action Strategy shall identify—

(1) regional priorities for ecological, economic, and social research on issues related to the impacts of harmful algal blooms and hypoxia;

(2) research, development, and demonstration activities needed to develop and advance technologies and techniques for minimizing the occurrence of harmful algal blooms and hypoxia and improving capabilities to detect, predict, monitor, control, mitigate, respond to, and remediate harmful algal blooms and hypoxia;

(3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including deployment of response technologies in a timely manner;

(4) research and methods to address human health dimensions of harmful algal blooms and hypoxia;

(5) mechanisms, including the potential costs and benefits of those mechanisms, to protect ecosystems that may be or have been affected by harmful algal bloom and hypoxia events;

(6) mechanisms by which data, information, and products may be transferred between the Program and the State, tribal, and local governments and research entities;

(7) communication and information dissemination methods that State, tribal, and local governments may undertake to educate and inform the public concerning harmful algal blooms and hypoxia; and

(8) roles that Federal agencies may have to assist in the implementation of the Action Strategy, including efforts to support local and regional scientific assessments under section 603(e).

(c) UTILIZING AVAILABLE STUDIES AND INFORMATION.—In developing the Action Strategy, the Under Secretary shall utilize existing research, assessments, reports, and program activities, including—

(1) those carried out under existing law; and

(2) other relevant peer-reviewed and published sources.

(d) DEVELOPMENT OF THE ACTION STRATEGY.—In developing the Action Strategy, the Under Secretary shall, as appropriate—

(1) coordinate with—

(A) State coastal management and planning officials;

(B) tribal resource management officials; and

(C) water management and watershed officials from both coastal States and noncoastal States with water sources that drain into water bodies affected by harmful algal blooms and hypoxia; and

(2) 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.

(e) FEDERAL REGISTER.—The Under Secretary shall publish the Action Strategy in the Federal Register.

(f) PERIODIC REVISION.—The Under Secretary, in coordination and consultation with the individuals and entities under subsection (d), shall periodically review and revise the Action Strategy prepared under this section, as necessary.

[SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

[(a) ASSESSMENT REPORT.—Not later than May 30, 1999, the Task Force shall complete and submit to Congress and the President an integrated assessment of hypoxia in the northern Gulf of Mexico that examines: the distribution, dynamics, and causes; ecological and economic consequences; sources and loads of nutrients transported by the Mississippi River to the Gulf of Mexico; effects of reducing nutrient loads; methods for reducing nutrient loads; and the social and economic costs and benefits of such methods.

[(b) SUBMISSION OF A PLAN.—No later than March 30, 2000, the President, in conjunction with the chief executive officers of the States, shall develop and submit to Congress a plan, based on the integrated assessment submitted under subsection (a), for reducing, mitigating, and controlling hypoxia in the northern Gulf of Mexico. In developing such plan, the President shall consult with State, Indian tribe, and local governments, academic, agricultural, industry, and environmental groups and representatives. Such plan shall include incentive-based partnership approaches. The plan shall also include the social and economic costs and benefits of the measures for reducing, mitigating, and controlling hypoxia. At least 90 days before the President submits such plan to the Congress, a summary of the proposed plan shall be published in the Federal Register for a public comment period of not less than 60 days.

[SEC. 605. AUTHORIZATION OF APPROPRIATIONS.

[There are authorized to be appropriated to the Secretary of Commerce for research, education, and monitoring activities related to the prevention, reduction, and control of harmful algal blooms and hypoxia, $15,000,000 for fiscal year 1999, $18,250,000 for fiscal year 2000, $19,000,000 for fiscal year 2001, $23,500,000 for fiscal year 2005, $24,500,000 for fiscal year 2006, $25,000,000 for fiscal year 2007, and $30,000,000 for each of fiscal years 2008 through 2010, to remain available until expended. The Secretary shall consult with the States on a regular basis regarding the development and implementation of the activities authorized under this section. Of such amounts for each fiscal year—

[(1) $1,500,000 for fiscal year 1999, $1,500,000 for fiscal year 2000, $2,000,000 for fiscal year 2001, and $2,500,000 for each of fiscal years 2005 through 2010 may be used to enable the National Oceanic and Atmospheric Administration to carry out research and assessment activities, including procurement of necessary research equipment, at research laboratories of the National Ocean Service and the National Marine Fisheries Service;

[(2) $4,000,000 for fiscal year 1999, $5,500,000 for fiscal year 2000, $5,500,000 for fiscal year 2001, and $6,500,000, of which $1,000,000 shall be used for the research program described in section 603(f)(2)(B), for each of fiscal years 2005 through 2010 may be used to carry out the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) project under the Coastal Ocean Program established under section 201(c) of Public Law 102–567;

[(3) $1,000,000 for fiscal year 1999, $2,000,000 for fiscal year 2000, $2,000,000 for fiscal year 2001, and $3,000,000 for each of fiscal years 2005 through 2010 may be used by the National Ocean Service of the National Oceanic and Atmospheric Administration to carry out a peer-reviewed research project on management measures that can be taken to prevent, reduce, control, and mitigate harmful algal blooms and to carry out section 603(d);

[(4) $5,500,000 for each of the fiscal years 1999, 2000, 2001, and $6,000,000 for each of fiscal years 2005 through 2010 may be used to carry out Federal and State annual monitoring and analysis activities for harmful algal blooms administered by

the National Ocean Service of the National Oceanic and Atmospheric Administration;

[(5) $3,000,000 for fiscal year 1999, $3,750,000 for fiscal year 2000, $4,000,000 for fiscal year 2001, $4,000,000 for fiscal year 2005, $5,000,000 for fiscal year 2006, $5,500,000 for fiscal year 2007, and $6,000,000 for each of fiscal years 2008 through 2010 may be used for activities related to research and monitoring on hypoxia by the National Ocean Service and the Office of Oceanic and Atmospheric Research of the National Oceanic and Atmospheric Administration; and

[(6) $1,500,000 for each of fiscal years 2005 through 2010 to carry out section 603(e).]

SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

(a) INITIAL PROGRESS REPORTS.—Beginning not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, and biennially thereafter, the Administrator, through the Mississippi 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 activities directed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force and carried out or funded by the Environmental Protection Agency and other State and Federal partners toward attainment of the goals of the Gulf Hypoxia Action Plan 2008.

(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. 605. GREAT LAKES HYPOXIA AND HARMFUL ALGAL BLOOMS.

(a) INTEGRATED ASSESSMENT.—Not later than 18 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Task Force, in accordance with the authority under section 603, shall complete and submit to the Congress and the President an integrated assessment that examines the causes, consequences, and approaches to reduce hypoxia and harmful algal blooms in the Great Lakes, including the status of and gaps within current research, monitoring, management, prevention, response, and control activities by—

(1) Federal agencies;

(2) State agencies;

(3) regional research consortia;

(4) academia;

(5) private industry; and

(6) nongovernmental organizations.

(b) PLAN.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014, the Task Force shall develop and submit to the Congress a plan, based on the inte-

grated assessment under subsection (a), for reducing, mitigating, and controlling hypoxia and harmful algal blooms in the Great Lakes.

(2) CONTENTS.—The plan shall—

(A) address the monitoring needs identified in the integrated assessment under subsection (a);

(B) develop a timeline and budgetary requirements for deployment of future assets;

(C) identify requirements for the development and verification of Great Lakes hypoxia and harmful algal bloom models, including—

(i) all assumptions built into the models; and

(ii) data quality methods used to ensure the best available data are utilized; and

(D) describe efforts to improve the assessment of the impacts of hypoxia and harmful algal blooms by—

(i) characterizing current and past biological conditions in ecosystems affected by hypoxia and harmful algal blooms; and

(ii) quantifying effects, including economic effects, at the population and community levels.

(3) REQUIREMENTS.—In developing the plan, the Task Force shall—

(A) coordinate with State and local governments;

(B) consult with representatives from academic, agricultural, industry, and other stakeholder groups, including relevant Canadian agencies;

(C) ensure that the plan complements and does not duplicate activities conducted by other Federal or State agencies;

(D) identify critical research for reducing, mitigating, and controlling hypoxia events and their effects;

(E) evaluate cost-effective, incentive-based partnership approaches;

(F) ensure that the plan is technically sound and cost effective;

(G) utilize existing research, assessments, reports, and program activities;

(H) publish a summary of the proposed plan in the Federal Register at least 180 days prior to submitting the completed plan to Congress; and

(I) after submitting the completed plan to Congress, provide biennial progress reports on the activities toward achieving the objectives of the plan.

* * * * * * *

SEC. 607. EFFECT ON OTHER FEDERAL AUTHORITY.

(a) AUTHORITY PRESERVED.—Nothing in this title supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

(b) REGULATORY AUTHORITY.—Nothing in this title may be construed as establishing new regulatory authority for any agency.

SEC. 608. DEFINITIONS.

In this title:

(1) ACTION STRATEGY.—The term "Action Strategy" means the comprehensive research plan and action strategy established under section 603B.

(2) ADMINISTRATOR.—The term "Administrator" means the Administrator of the Environmental Protection Agency.

(3) 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.

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

(5) PROGRAM.—The term "Program" means the national harmful algal bloom and hypoxia program established under section 603A.

(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 on Harmful Algal Blooms and Hypoxia under 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.

SEC. 609. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There is authorized to be appropriated to the Under Secretary to carry out sections 603A and 603B $20,500,000 for each of fiscal years 2014 through 2018.

(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. For each fiscal year, the Under Secretary shall publish a list of all grant recipients and the amounts for all of the funds allocated for research purposes, specifying those allocated for extramural research activities.

XXI. EXCHANGE OF COMMITTEE CORRESPONDENCE

U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

May 22, 2014

The Honorable Lamar Smith
Chairman
Committee on Science, Space, and Technology
2321 Rayburn HOB
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for the opportunity to review the relevant provisions of the text of S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013. As you are aware, the bill was primarily referred to the Committee on Science, Space, and Technology, while the Committee on Natural Resources received an additional referral.

I recognize and appreciate your desire to bring this legislation before the House in an expeditious manner, and, accordingly, I agree to discharge S. 1254 from further consideration by the Committee on Natural Resources. I do so with the understanding that by discharging the bill, the Committee on Natural Resources does not waive any future jurisdictional claim on this or similar matters. Further, the Committee on Natural Resources reserves the right to seek the appointment of conferees, if it should become necessary.

I ask that you insert a copy of our exchange of letters into the bill report filed by the Committee on Science, Space, and Technology, as well as in the *Congressional Record* during consideration of this measure on the House floor.

Thank you for your courtesy in this matter and I look forward to continued cooperation between our respective committees.

Sincerely,

Doc Hastings
Chairman

cc: The Honorable John A. Boehner, Speaker
The Honorable Peter A. DeFazio
The Honorable Eddie Bernice Johnson
The Honorable Thomas J. Wickham, Parliamentarian

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
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May 22, 2014

The Honorable Doc Hastings
Chairman, Committee on Natural Resources
1324 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Hastings,

Thank you for agreeing to be discharged from further consideration of S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013.

I agree that forgoing further action on this bill does not in any way diminish or alter the jurisdiction of your Committee, or prejudice its jurisdictional prerogatives on this bill or similar legislation in the future. I would support your effort to seek appointment of an appropriate number of conferees to any House-Senate conference involving this legislation.

I will include our letters into the report filed on S. 1254. I appreciate your cooperation regarding this legislation and look forward to continuing to work with the Committee on Natural Resources as the bill moves through the legislative process.

Sincerely,

Lamar Smith

Lamar Smith
Chairman

CC: The Honorable John Boehner, Speaker
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology
The Honorable Peter DeFazio, Ranking Member, Committee on Natural Resources
Mr. Thomas J. Wickham, Parliamentarian

Committee on Transportation and Infrastructure
U.S. House of Representatives

Bill Shuster
Chairman

Washington, DC 20515

Nick J. Rahall, II
Ranking Member

Christopher P. Bertram, Staff Director

James H. Zoia, Democrat Staff Director

June 4, 2014

The Honorable Lamar Smith
Chairman
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

I write concerning S. 1254, *Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013*, as ordered reported by the Committee on Science, Space, and Technology on May 21, 2014. S. 1254 contains provisions that fall within the Rule X jurisdiction of the Committee on Transportation and Infrastructure.

I recognize and appreciate your desire to bring S. 1254 before the House in an expeditious manner and, accordingly, I will not seek a sequential referral of the bill. However, this is conditional on our mutual understanding that forgoing consideration of the bill does not prejudice the Committee with respect to the appointment of conferees or to any future jurisdictional claim over the subject matters contained in the bill or similar legislation that fall within the Committee's Rule X jurisdiction. I request you urge the Speaker to name members of the Committee to any conference committee named to consider such provisions.

I would appreciate your response to this letter, confirming this understanding, and would request that you insert our exchange of letters on this matter into the committee report on S. 1254.

Sincerely,

Bill Shuster
Chairman

cc The Honorable John A. Boehner
The Honorable Nick J. Rahall, II
The Honorable Eddie Bernice Johnson
Mr. Thomas J. Wickham, Jr., Parliamentarian

LAMAR S. SMITH, Texas
CHAIRMAN

EDDIE BERNICE JOHNSON, Texas
RANKING MEMBER

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
2321 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6301
(202) 225–6371
www.science.house.gov

June 4, 2014

The Honorable Bill Shuster
Chairman, Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Shuster,

Thank you for agreeing to be discharged from further consideration of S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013.

I agree that forgoing further action on this bill does not in any way diminish or alter the jurisdiction of your Committee, or prejudice its jurisdictional prerogatives on this bill or similar legislation in the future. I would support your effort to seek appointment of an appropriate number of conferees to any House-Senate conference involving this legislation.

I will insert this exchange into the report filed on S. 1254. I appreciate your cooperation regarding this matter.

Sincerely,

Lamar Smith

Lamar Smith
Chairman

cc: The Honorable John Boehner, Speaker
The Hon. Eric Cantor, Majority Leader
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology
The Honorable Nick J. Rahall II, Ranking Member, Committee on Transportation and Infrastructure
Mr. Thomas J. Wickham, Parliamentarian

XXII. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON S. 1254, HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2013

WEDNESDAY, MAY 21, 201

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
WASHINGTON, DC.

The Committee met, pursuant to call, at 2:02 p.m., in Room 2318 of the Rayburn House Office Building, Hon. Lamar Smith [Chairman of the Committee] presiding.

Chairman SMITH. The Committee on Science, Space, and Technology will come to order. Without objection, the Chair is authorized to declare recesses of the Committee at any time. Pursuant to Committee Rule II(f) and House Rule XI(2)(h)(4), the Chair announces that he may postpone roll call votes.

Today we meet to consider two bills: S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, and H.R. 4186, the Frontiers in Innovation, Research, Science, and Technology Act of 2014.

S. 1254 is a bill that passed the Senate by unanimous consent. This Committee has considered similar bills in the past, and this one seems to have broad support on both sides of the aisle.

[The prepared statement of Mr. Smith follows:]

PREPARED STATEMENT OF CHAIRMAN LAMAR S. SMITH

The first bill for today's mark-up is S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act.

This legislation was introduced by Senator Bill Nelson, chairman of the Senate's Science and Space Subcommittee.

Harmful algal blooms are a significant problem that affects rivers, lakes, and tidal areas around the country. Known most often as "red tide," harmful algae hurts local economies that are dependent on fishing, recreation and tourism.

Sometimes referred to as "dead zones," Hypoxia harms ecosystems and fish populations by decreasing oxygen levels in the water. Our current understanding and response to these problems is inadequate.

In my home state of Texas, red and brown tides often affect our bays and coastlines. This damages tourism, harms our fishing industry, and impacts public health.

The bill before us today strengthens scientific research about these phenomena, fosters collaboration between federal agencies, states, and localities, and advances technological solutions to better understand and respond to outbreaks when they occur.

I want to commend our counterparts in the Senate, especially Senator Nelson, for bringing this important issue to us today.

I would also like to thank the gentleman from Florida, Mr. Posey, and Environment Subcommittee Ranking Member, Ms. Bonamici, for the bipartisan amendment they will offer.

The bill before us is a good bill that incorporates input from Members on both sides of the aisle. I urge Members to support it.

Chairman SMITH. Pursuant to notice, I now call up S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, and the clerk will report the bill.

The CLERK. S. 1254, an act to amend the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998 and for other purposes. Being enacted by the Senate and House of Representatives——

[S. 1254 appears in Appendix I]

Chairman SMITH. Without objection, the bill will be considered as read, and I will recognize myself for a brief opening statement.

This legislation was introduced by Senator Bill Nelson, Chairman of the Senate Science and Space Subcommittee. Harmful algal blooms are a significant problem that affects rivers, lakes and tidal areas around the country. Known most often as red tide, harmful algae hurts local economies that are dependent on fishing, recreation and tourism. Sometimes referred to as dead zones, hypoxia harms ecosystems and fish populations by decreasing oxygen levels in the water. Our current understanding and response to these problems is inadequate.

In my home State of Texas, I might say representing the Ranking Member in our home State of Texas, red and brown tides often affect our bays and coastlines. This damages tourism, harms our fishing industry and impacts public health.

The bill before us today strengthens scientific research about these phenomena, fosters collaboration between Federal agencies, states and localities, and advances technological solutions to better understand and respond to outbreaks when they occur.

I want to compliment our counterparts in the Senate, especially Senator Nelson, for bringing this important issue to our attention. I would also like to thank the gentleman from Florida, Mr. Posey, and Environment Subcommittee Ranking Member Ms. Bonamici for the bipartisan amendment that they will shortly offer.

The bill before us is a good bill that incorporates input from Members on both sides of the aisle, and I urge my colleagues to support it, and I now will recognize the Ranking Member, Ms. Johnson, the gentlewoman from Texas, for her opening statement on the bill.

Ms. JOHNSON. Thank you very much, Mr. Chairman. I will make my opening statement pretty short and put my entire statement in the record, if there is no objection.

I want to commend the Subcommittee Ranking Member, Ms. Bonamici, and Congressman Posey for working together to advance this important piece of legislation.

Today, nearly every state is threatened by toxic algae, and it is clear that both factors that contribute to the development of blooms as well as solutions to control blooms vary widely by region, and while I am very supportive of this legislation and the bipartisan amendment we are discussing next, I would be remiss if I did not

note my disappointment that this bill was not considered through regular order. While some of us have worked on this topic for a number of years, more than half of the Members of the Committee have never participated in a hearing on harmful algal blooms. Mr. Chairman, I think it is important that we do our best to build a legislative record and engage both our Subcommittees as well as the full membership of this Committee before we mark up any legislation within our jurisdiction.

Nevertheless, I am supportive of the legislation and the bipartisan Manager's Amendment, and I yield back.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF RANKING MEMBER EDDIE BERNICE JOHNSON

Thank you, Chairman Smith. The first bill we are marking up today is S. 1254, the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act. I want to commend Subcommittee Ranking Member Bonamici and Congressman Posey for working together to advance this important issue. S. 1254 is very similar to legislation passed by the Committee and the House in both the 111th and the 112th Congress.

I am hopeful that the third time will be the charm and we can finally get this bill signed by the President.

While NOAA and the research community have made great strides in advancing our understanding of harmful algal blooms and hypoxia, the need for continued research and public awareness is greater than ever before. The distribution and frequency of harmful algal blooms has increased dramatically in recent years.

Today, nearly every state is threatened by toxic algae, and it is clear that both the factors that contribute to the development of blooms as well as the solutions to control blooms vary widely by region.

Scientific discoveries made under the program reauthorized by this bill will improve coastal and inland water management practices as well as our forecasting and early warning capabilities.

While I am very supportive of the legislation and the bipartisan amendment we will discussing next, I would be remiss if I didn't note my disappointment that this bill was not considered through regular order.

While some of us have worked on this topic for a number of years, more than half of the Members of the Committee have never even participated in a hearing on harmful algal blooms. Mr. Chairman, I think it is important that we do our best to build a legislative record and engage both our Subcommittees as well as the full membership of this Committee before we mark up any legislation within our jurisdiction.

Nonetheless, I am supportive of the legislation and the bipartisan manager's amendment and I yield back.

Chairman SMITH. Thank you, Ms. Johnson, and we will now proceed with the only amendment listed on the roster. This is an amendment to be offered by Mr. Posey and Ms. Bonamici, and the clerk will report the amendment.

The CLERK. Amendment to S. 1254 offered by Mr. Posey of Florida and Ms. Bonamici of Oregon.

[The amendment of Mr. Posey and Ms. Bonamici appears in Appendix I]

Chairman SMITH. Without objection, the amendment will be considered as read and the gentleman from Florida is recognized to explain the amendment.

Mr. POSEY. Thank you, Mr. Chairman.

The amendment amends the program language to focus on enhancing and maintaining the existing research activities, directs consultation and coordination activities, requires that the task force action plan be technically sound and cost-effective, and eliminates the section on interagency financing.

Chairman SMITH. Has the gentleman concluded his statement?

Mr. POSEY. Of course, I would like to thank you and the Ranking Member and colleagues and the Committee for working with the co-author, Ms. Bonamici, on this amendment.

We saw the importance of advancing this important legislation in the important research that is funded through this program. I want to thank the majority and minority staff for working closely to make a few perfecting changes so that we can move this bipartisan legislation through the Committee and to the Floor.

There continues to be a need for important research so that we can better understand, anticipate, control and mitigate harmful algal blooms and hypoxia events.

There are many factors that contribute to these harmful events, nutrient loading and light and temperatures changes to name a few. The National Oceanic and Atmospheric Administration has listed the economic impact of harmful algal blooms at close to $82 million a year for coastal communities alone. I think it is likely that the economic impact is significantly larger than that. This includes impacts to commercial fisheries, public health costs, recreational and tourism impacts, and monitoring and management costs.

In Florida, the Indian River Lagoon experienced an algae superbloom in 2011 with reoccurrences in 2012 and 2013. This led to a drastic loss of more than half the sea grasses in the lagoon. We just had devastating consequences. The lagoon is an important environmental and economic asset for the Treasure Coast and the Space Coast and spans 156 miles through several counties. This is of great interest to several members of the Florida delegation, and we have been working to address these concerns.

This legislation before us will serve as one more tool in our arsenal to better understand and effectively address the underlying contributing factors to the lagoon's degradation. The Indian River Lagoon provides an overall estimated $3.5 billion in overall value and countless hours of recreational opportunity. I speak from experience as having raised a family on the lagoon.

This amendment is a bipartisan effort to improve Senate Bill 1254 with revisions and clarifications that will authorize research and development activities to address harmful algal blooms and hypoxia to better understand the causes of superblooms like the ones that occurred in Florida in recent years.

Importantly, our bipartisan amendment provides for better coordination so that we get the most for each research dollar and it clarifies that the bill provides no new regulatory authority to participating agencies. By working together through better coordination, the bill will make sure the Federal agencies work closely with local and state governments to avoid duplication. This will stretch research dollars even further.

In an effort to follow the principles of good government and protecting taxpayer dollars, we also removed the provisions that were included in a Senate bill that would have allowed for more significant transferring of funding between agencies but we retain the emphasis on collaborative research.

Again, I appreciate the efforts of the Committee in marking this up today, and Mrs. Bonamici for working with us together on this

amendment. This is a step forward to improve research and development activities to address harmful algal blooms and hypoxia events throughout the country.

And with that, Mr. Chairman, I yield back the balance of my time.

[The prepared statement of Mr. Posey follows:]

REPRESENTATIVE BILL POSEY'S PREPARED REMARKS ON MANAGER'S AMENDMENT TO S. 1254

We saw the importance of advancing this important legislation and the important research that is funded through this program.

I want to thank the majority and minority staff for working closely with our offices to make a few perfecting changes so that we can move this bipartisan legislation through the committee and to the floor.

There continues to be a need for important research and so that we can better understand, anticipate, control, and mitigate harmful algal bloom and hypoxia events. There are many factors that contribute to these harmful events, nutrient loading and light and temperature changes to name a few.

The National Oceanic and Atmospheric Administration (NOAA) has listed the economic impact of harmful algal blooms at close to $82 million dollars a year for coastal communities. I think it is likely that the economic impact is significantly larger than that. This includes impacts to commercial fisheries, public health costs, recreational and tourism impacts, and monitoring and management costs.

In Florida, the Indian River Lagoon experienced an algal superbloom in 2011 with re-occurrences in 2012 and 2013. This led to a drastic loss of more than half of the sea grasses in the lagon, which has had devastating consequences.

The Lagoon is an important environmental and economic asset for the Treasure Coast and the Space Coast and spans 156 miles through several counties. This is of great interest to several members of the Florida delegation and we have been working to address these concerns. The legislation before us will serve as one more tool in our arsenal to better understand and effectively address the underlying contributing factors to the lagoon's degradation.

The Indian River Lagoon provides an overall estimated $3.5 billion dollars in overall value and countless hours of recreational opportunity. I speak from experience, as having raised a family on the lagoon.

This amendment is a bipartisan effort to improve S.1254 with revisions and clarifications that will reauthorize research and development activities to address harmful algal blooms and hypoxia to help better understand the causes of superblooms like the ones that occurred in Florida in recent years.

Importantly, our bipartisan amendment provides for better coordination so that we get the most for each research dollar and it clarifies that the bill provides no new regulatory authority to participating agencies. By working together through better coordination, the bill will make sure that federal agencies work closely with local and state governments to avoid duplication. This will stretch research dollars further.

In an effort to follow the principles of good government and protecting taxpayer dollars, we also remove the provisions that were included in the Senate bill that would have allowed for more significant transferring of funding between participating agencies but we retain the emphasis on collaborative research.

Again, I appreciate the efforts of the committee in marking up this bill and Ms. Bonamici [Bona-Mee-chee] for working with me on this amendment. This is a step forward to improve research and development activities to address harmful algal blooms and hypoxia events throughout the country. And with that Mr. Chairman, I yield back the balance of my time.

Chairman SMITH. Thank you, Mr. Posey, and again thank you and Ms. Bonamici for offering this amendment, and the gentlewoman from Oregon, Ms. Bonamici, is recognized for her statement on the amendment.

Ms. BONAMICI. Thank you very much, Mr. Chairman, for holding this markup.

Before I speak in support of the amendment and the legislation, I would like to echo the comments of Ranking Member Johnson.

Because of the importance of establishing a legislative record, I would have preferred to have considered this legislation through regular order.

Despite that, I am pleased that we are moving this important bill forward. I would like to thank the gentleman from Florida, Mr. Posey, for his willingness to work with me on an amendment that makes some minor modifications to the legislation we are considering today. Authorization for the programs under the Harmful Algal Bloom Research and Control Act expired in 2010, so the passage of this reauthorization is long overdue.

The rapid overproduction of algae can have devastating effects on aquatic plants and animals as well as on human health. These effects can translate into negative outcomes for coastal and Great Lakes ecosystems in communities that depend on fishing, shellfish harvesting and tourism to sustain their economies.

A conservative estimate is that harmful algal blooms cost the U.S. coastal communities at least $82 million each year. However, the impacts of harmful algal blooms are not confined to coastal communities. In fact, last year in Oregon, lakes, ponds and reservoirs experienced harmful algal bloom events and they were closed to protect human health for a combined total of more than 700 days.

While research has helped advance our understanding of and response to harmful algal blooms, the frequency and duration of these events and subsequent hypoxic conditions are on the rise. This bill directs NOAA to develop and implement a national strategy that takes a regional approach to helping communities understand, predict, control and mitigate harmful algal blooms and hypoxia events. It will not only improve coordination but also assess the program's activities to ensure that we are prepared for these events and we are able to respond in an effective manner.

This will become increasingly important as coastal populations increase and changes in the environment such as warmer water temperatures have the potential to alter the growth, toxicity and geographic distribution of algal blooms.

Senate Bill 1254 is similar to legislation passed by this Committee and the House in a bipartisan manner in the 111th Congress. The stakeholder community has been calling for the reauthorization of this critical program and the continuation of the good work being undertaken by NOAA.

I am pleased that Congressman Posey and I were able to come together to advance this bill today by offering this bipartisan amendment. The amendment provides clarification and response to a number of suggestions offered by our colleagues on the Natural Resources Committee, which has joint jurisdiction over these programs. I also want to recognize Ocean Champions for their assistance in drafting this legislation.

Specifically, this amendment clarifies that the bill does not establish any new programs or regulatory authority and that research grants awarded under the program must be peer-reviewed. The amendment also ensures that state and local governments along with other stakeholder groups are involved in efforts to reduce harmful algal blooms and hypoxia. Because freshwater ecosystems are also susceptible to HABs, the amendment makes certain that

the plan to address harmful algal blooms and hypoxia events in the Great Lakes is cost-effective and technically feasible.

And finally, the amendment addresses concerns about the transfer of funds between Federal agencies involved in the program's task force without Congressional approval by striking the section authorizing interagency funding.

This amendment is the product of discussions between the majority and the minority and between Mr. Posey's office and my office, and I appreciate the staff for their hard work on this. It is a good bipartisan amendment that improves the bill and ensures an effective program. I urge my colleagues to support the amendment and the underlying bill. The more we fully understand when and where harmful algal blooms occur and how they respond to a changing environment, the better equipped we will be to manage these events and reduce the environmental and economic harm they cause.

Thank you very much, Mr. Chairman, and I yield back the balance of my time.

[The prepared statement of Ms. Bonamici follows:]

REPRESENTATIVE SUZANNE BONAMICI'S PREPARED REMARKS ON MANAGER'S AMENDMENT TO S. 1254

Thank you, Mr. Chairman for holding this markup. Before I speak in support of the amendment and the legislation, I'd like to echo the comments of the Ranking Member. I would have preferred to have considered this legislation through regular order, but despite that I am pleased we are moving this important bill forward. I'd like to thank the gentleman from Florida, Mr. Posey, for his willingness to work with me on an amendment that makes some minor modifications to the legislation we are considering today. Authorization for the programs under the Harmful Algal Bloom Research and Control Act expired in 2010, so the passage of this to reauthorize those programs is long overdue.

As many of you are aware, the rapid overproduction of algae can have devastating effects on aquatic plants and animals as well as on human health. These effects can translate into negative outcomes for coastal and Great Lakes ecosystems and communities that depend on fishing, shellfish harvesting, and tourism to sustain their economies. A conservative estimate is that harmful algal blooms cost U.S. coastal communities at least $82 million dollars each year. However, the impacts of harmful algal blooms are not confined to coastal communities in my state. In fact, last year in Oregon, lakes, ponds, and reservoirs experiencing HABs events were closed to protect public health for a combined total of 731 days.

While research has helped advance our understanding of and response to harmful algal blooms, the frequency and duration of these events and subsequent hypoxic conditions are on the rise.

This bill directs NOAA to develop and implement a national strategy that takes a regional approach to helping communities understand, predict, control, and mitigate harmful algal bloom and hypoxia events. It will not only improve coordination, but also assess the program's activities to ensure we are prepared for these events and are able to respond in an effective manner. This will become increasingly important as coastal populations increase and changes in the environment, such as warmer water temperatures, have the potential to alter the growth, toxicity, and geographic distribution of algal blooms.

S.1254 is very similar to legislation passed by this Committee and the House in a bipartisan manner in the 111th Congress. The stakeholder community has been calling for the reauthorization of this critical program and the continuation of the good work being undertaken by NOAA. I am pleased that Congressman Posey and I were able to come together to advance this bill today by offering this bipartisan amendment. The amendment provides clarification and responds to a number of suggestions offered by our colleagues on the Natural Resources Committee, who have joint jurisdiction over these programs.

Specifically, the amendment clarifies that the bill does not establish any new programs or regulatory authority and that research grants awarded under the program must be peer-reviewed. The amendment also ensures that State and local governments, along with other stakeholder groups, are involved in efforts to reduce harm-

ful algal blooms and hypoxia. Because freshwater ecosystems are also susceptible to HABs, the amendment makes certain that the plan to address harmful algal blooms and hypoxia events in the Great Lakes is cost-effective and technically feasible. And finally, the amendment addresses concerns about the transfer of funds between federal agencies involved in the Program's task force without Congressional approval by striking the section authorizing interagency financing.

This amendment is the product of discussions between the majority and the minority, and between my office and Mr. Posey's office. It is a good bipartisan amendment that improves the bill and ensures an effective program. I urge my colleagues to support the amendment and the underlying bill.

The more fully we understand when and where harmful algal blooms occur and how they respond to a changing environment, the better equipped we will be to manage these events and reduce the environmental and economic harm they cause.

Thank you, Mr. Chairman and I yield back the balance of my time.

Chairman SMITH. Thank you, Ms. Bonamici.

Are there any other discussion on this amendment?

If not, the question is on agreeing to the amendment offered by Mr. Posey and Ms. Bonamici.

All in favor say aye.

All opposed, no.

In the Chair's opinion, the ayes have it and the amendment is agreed to.

If there are no further amendments, a reporting quorum being present, the question is on the bill S. 1254 as amended.

Those in favor, say aye.

Opposed, nay.

The ayes have it. The bill is amended is ordered reported favorably.

Without objection, the motion to reconsider is laid upon the table, and I move that the bill S. 1254 as amended be favorably reported to the House and the staff be authorized to make any necessary technical and conforming changes. Without objection, so ordered.

Appendix I

S. 1254, HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2013

SECTION-BY-SECTION ANALYSIS, AMENDMENTS

AMENDMENT ROSTER

IC

113TH CONGRESS
2D SESSION

S. 1254

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 18, 2014

Referred to the Committee on Science, Space, and Technology, and in addition to the Committee on Natural Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

AN ACT

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

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013''.

SEC. 2. REFERENCES TO THE HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998.

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. 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 following:

''(12) the Centers for Disease Control and Prevention; and''; and

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

SEC. 4. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.

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

''SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.

''(a) ESTABLISHMENT.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, the Under Secretary, acting through the Task Force, shall establish and maintain a national harmful algal bloom and hypoxia program, including—

''(1) a statement of objectives, including understanding, detecting, predicting, controlling, mitigating, and responding to marine and freshwater harmful algal bloom and hypoxia events; and

''(2) the comprehensive research plan and action strategy under section 603B.

''(b) PERIODIC REVISION.—The Task Force shall periodically review and revise the Program, as necessary.

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

''(1) coordinate interagency review of the objectives and activities of the Program;

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

''(3) support the implementation of the Action Strategy, including the coordination and integration of 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;

''(4) support the development of institutional mechanisms and financial instruments to further the objectives and activities of the Program;

''(5) review the Program's distribution of Federal funding to address the objectives and activities of the Program;

''(6) promote the development of new technologies for predicting, monitoring, and mitigating harmful algal bloom and hypoxia conditions; and

''(7) establish such interagency working groups as it considers necessary.

''(d) LEAD FEDERAL AGENCY.—Except as provided in subsection (h), 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) promote the Program;

''(2) prepare work and spending plans for implementing the research and activities identified under the Action Strategy;

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

''(A) to maintain and enhance baseline monitoring programs established by the Program;

''(B) to support the projects maintained and established by the Program; and

''(C) to address the research and management needs and priorities identified in the Action Strategy;

''(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, prediction, 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, preventing, 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 Action Strategy and maintenance of online data portals for other information about harmful

algal blooms and hypoxia to State, tribal, and local stakeholders; and

"(B) overseeing the development, review, and periodic updating of the Action Strategy;

"(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 harmful 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 critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts relevant to harmful algal blooms and hypoxia events;

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

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

''(6) 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 nongovernmental organizations concerned with marine and freshwater issues to coordinate harmful algal bloom and hypoxia (and related) activities and research.

''(h) FRESHWATER.—With respect to the freshwater aspects of the Program, the Administrator, through the Task Force, shall carry out the duties otherwise assigned to the Under Secretary under this section, except the activities described in subsection (f).

''(1) PARTICIPATION.—The Administrator's participation under this section shall include—

''(A) research on the ecology and impacts of freshwater harmful algal blooms; and

"(B) forecasting and monitoring of and event response to freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs.

"(2) NONDUPLICATION.—The Administrator shall ensure that activities carried out under this title focus on new approaches to addressing freshwater harmful algal blooms and are not duplicative of existing research and development programs authorized by this title or any other law.

"(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. 5. COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY.

The Act, as amended by section 4 of this Act, is further amended by inserting after section 603A the following:

"SEC. 603B. COMPREHENSIVE RESEARCH PLAN AND ACTION STRATEGY.

"(a) IN GENERAL.—Not later than 1 year after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, the Under Secretary, through the Task Force, shall develop and submit to Congress a comprehensive research plan and action strategy to address marine and freshwater harmful algal blooms and hypoxia. The Action Strategy shall identify—

"(1) the specific activities to be carried out by the Program and the timeline for carrying out those activities;

"(2) the roles and responsibilities of each Federal agency in the Task Force in carrying out the activities under paragraph (1); and

"(3) the appropriate regions and subregions requiring specific research and activities to address local, State, and regional harmful algal blooms and hypoxia.

"(b) REGIONAL FOCUS.—The regional and subregional parts of the Action Strategy shall identify—

"(1) regional priorities for ecological, economic, and social research on issues related to the impacts of harmful algal blooms and hypoxia;

''(2) research, development, and demonstration activities needed to develop and advance technologies and techniques for minimizing the occurrence of harmful algal blooms and hypoxia and improving capabilities to detect, predict, monitor, control, mitigate, respond to, and remediate harmful algal blooms and hypoxia;

''(3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including deployment of response technologies in a timely manner;

''(4) research and methods to address human health dimensions of harmful algal blooms and hypoxia;

''(5) mechanisms, including the potential costs and benefits of those mechanisms, to protect ecosystems that may be or have been affected by harmful algal bloom and hypoxia events;

''(6) mechanisms by which data, information, and products may be transferred between the Program and the State, tribal, and local governments and research entities;

''(7) communication and information dissemination methods that State, tribal, and local governments may undertake to educate and inform the

public concerning harmful algal blooms and hypoxia; and

"(8) roles that Federal agencies may have to assist in the implementation of the Action Strategy, including efforts to support local and regional scientific assessments under section 603(e).

"(c) UTILIZING AVAILABLE STUDIES AND INFORMATION.—In developing the Action Strategy, the Under Secretary shall utilize existing research, assessments, reports, and program activities, including—

"(1) those carried out under existing law; and

"(2) other relevant peer-reviewed and published sources.

"(d) DEVELOPMENT OF THE ACTION STRATEGY.—In developing the Action Strategy, the Under Secretary shall, as appropriate—

"(1) coordinate with—

"(A) State coastal management and planning officials;

"(B) tribal resource management officials; and

"(C) water management and watershed officials from both coastal States and noncoastal States with water sources that drain into water

bodies affected by harmful algal blooms and hypoxia; and

"(2) 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.

"(e) FEDERAL REGISTER.—The Under Secretary shall publish the Action Strategy in the Federal Register.

"(f) PERIODIC REVISION.—The Under Secretary, in coordination and consultation with the individuals and entities under subsection (d), shall periodically review and revise the Action Strategy prepared under this section, as necessary.".

SEC. 6. REPORTING.

Section 603 is amended by adding at the end the following:

''(j) REPORT.—Not later than 2 years after the date the Action Strategy is submitted under section 603B, the Under Secretary shall submit a report to Congress that describes—

''(1) the proceedings of the annual Task Force meetings;

''(2) the activities carried out under the Program, including the regional and subregional parts of the Action Strategy;

''(3) the budget related to the activities under paragraph (2);

''(4) the progress made on implementing the Action Strategy; and

''(5) any need to revise or terminate research and activities under the Program.''.

SEC. 7. NORTHERN GULF OF MEXICO HYPOXIA.

Section 604 is amended to read as follows:

''SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

''(a) INITIAL PROGRESS REPORTS.—Beginning not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, and biennially thereafter, the Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, shall submit a progress report to the appropriate congressional commit-

tees and the President that describes the progress made by activities directed by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force and carried out or funded by the Environmental Protection Agency and other State and Federal partners toward attainment of the goals of the Gulf Hypoxia Action Plan 2008.

''(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. 8. GREAT LAKES HYPOXIA AND HARMFUL ALGAL BLOOMS.

Section 605 is amended to read as follows:

''SEC. 605. GREAT LAKES HYPOXIA AND HARMFUL ALGAL BLOOMS.

''(a) INTEGRATED ASSESSMENT.—Not later than 18 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments

Act of 2013, the Task Force, in accordance with the authority under section 603, shall complete and submit to the Congress and the President an integrated assessment that examines the causes, consequences, and approaches to reduce hypoxia and harmful algal blooms in the Great Lakes, including the status of and gaps within current research, monitoring, management, prevention, response, and control activities by—

"(1) Federal agencies;

"(2) State agencies;

"(3) regional research consortia;

"(4) academia;

"(5) private industry; and

"(6) nongovernmental organizations.

"(b) PLAN.—

"(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2013, the Task Force shall develop and submit to the Congress a plan, based on the integrated assessment under subsection (a), for reducing, mitigating, and controlling hypoxia and harmful algal blooms in the Great Lakes.

"(2) CONTENTS.—The plan shall—

"(A) address the monitoring needs identified in the integrated assessment under subsection (a);

"(B) develop a timeline and budgetary requirements for deployment of future assets;

"(C) identify requirements for the development and verification of Great Lakes hypoxia and harmful algal bloom models, including—

"(i) all assumptions built into the models; and

"(ii) data quality methods used to ensure the best available data are utilized; and

"(D) describe efforts to improve the assessment of the impacts of hypoxia and harmful algal blooms by—

"(i) characterizing current and past biological conditions in ecosystems affected by hypoxia and harmful algal blooms; and

"(ii) quantifying effects, including economic effects, at the population and community levels.

"(3) REQUIREMENTS.—In developing the plan, the Task Force shall—

''(A) consult with State and local governments and representatives from academic, agricultural, industry, and other stakeholder groups;

''(B) consult with relevant Canadian agencies;

''(C) ensure that the plan complements and does not duplicate activities conducted by other Federal or State agencies;

''(D) identify critical research for reducing, mitigating, and controlling hypoxia events and their effects;

''(E) evaluate cost-effective, incentive-based partnership approaches;

''(F) utilize existing research, assessments, reports, and program activities;

''(G) publish a summary of the proposed plan in the Federal Register at least 180 days prior to submitting the completed plan to Congress; and

''(H) after submitting the completed plan to Congress, provide biennial progress reports on the activities toward achieving the objectives of the plan.''.

SEC. 9. 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.''.

SEC. 10. DEFINITIONS; CONFORMING AMENDMENT.

(a) IN GENERAL.—The Act, as amended by section 9 of this Act, is further amended by adding after section 607 the following:

"SEC. 608. DEFINITIONS.

''In this title:

''(1) ACTION STRATEGY.—The term 'Action Strategy' means the comprehensive research plan and action strategy established under section 603B.

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

''(3) 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 produc-

tion of toxic compounds or other biological, chemical, and physical impacts of the algae outbreak.

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

''(5) PROGRAM.—The term 'Program' means the national harmful algal bloom and hypoxia program established under section 603A.

''(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 on Harmful Algal Blooms and Hypoxia under 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. 11. INTERAGENCY FINANCING.

The Act, as amended by section 10 of this Act, is further amended by adding after section 608 the following:

''SEC. 609. 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 the 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 the transfer was made.''.

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

The Act, as amended by section 11 of this Act, is further amended by adding after section 609 the following:

"SEC. 610. AUTHORIZATION OF APPROPRIATIONS.

"(a) IN GENERAL.—There is authorized to be appropriated to the Under Secretary to carry out sections 603A and 603B $20,500,000 for each of fiscal years 2014 through 2018.

"(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. For each fiscal year, the Under Secretary shall publish a list of all grant recipients and the amounts for all of the funds allocated for research purposes, specifying those allocated for extramural research activities.".

Passed the Senate February 12, 2014.

Attest: NANCY ERICKSON,
Secretary.

SECTION-BY-SECTION ANALYSIS OF THE LEGISLATION

S. 1254, THE HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2013

Section 1. Short Title.

This section establishes the short title as the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2013.

Section 2. References to the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998.

Section 2 clarifies that any reference in this Act to an amendment or repeal is to the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, unless otherwise specified.

Section 3. Interagency Task Force on Harmful Algal Blooms and Hypoxia.

This section adds the Centers for Disease Control (CDC) to the Task Force.

Section 4. National Harmful Algal Bloom and Hypoxia Program.

This section requires NOAA to develop and implement a comprehensive research plan and action strategy under the National Harmful Algal Bloom and Hypoxia Program.

This section directs the Task Force to periodically review and revise the program and specifies the Task Force's role with respect to the program, which includes expediting the interagency review processes, reviewing funding distribution, and promoting the development of new technologies to address HABs and hypoxia.

This section assigns NOAA, through the Task Force, primary responsibility for administering the program, except for the freshwater aspects of the program, which are to be carried out in coordination with the Administrator of the EPA. Section 4 requires the Under Secretary of Commerce for Oceans and Atmosphere (Under Secretary) to:

- (1) promote the program;
- (2) prepare work and spending plans;
- (3) administer merit-based, competitive grant funding;
- (4) coordinate with regional, State, tribal, and local government agencies and programs;
- (5) coordinate with the Secretary of State on international efforts;
- (6) identify additional research, development and demonstration needs;
- (7) integrate, coordinate and augment existing education programs;
- (8) facilitate and provide resources for training State and local coastal and water resource managers;
- (9) support regional efforts to control and mitigate outbreaks;
- (10) convene at least one meeting of the Task Force each year; and
- (11) perform other tasks delegated by the Task Force.

This section also directs the Under Secretary to: maintain and enhance existing competitive programs at NOAA relating to HABs and hypoxia; carry out marine and Great Lakes HABs and hypoxia response activities; establish new programs and infrastructure as necessary; enhance communication and coordination among Federal agencies carrying out marine and freshwater HAB and hypoxia activities and research; leverage existing resources and expertise; and increase availability of resources to appropriate public and private entities. Section 4 directs the Under Secretary to work cooperatively and avoid duplication with other programs, agencies, and entities.

Finally, this section requires that all data collection and monitoring under this title comply with the data standards and protocols of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.) and be made available through the integrated ocean observing system.

Section 5. Comprehensive Research Plan and Action Strategy.

This section directs the Under Secretary, via the Task Force, to develop a comprehensive research plan and action strategy to address marine and freshwater HABs and hypoxia, and to submit the plan and action strategy to Congress within one year of the date of enactment of this Act. It requires the Action Strategy to iden-

tify: specific program activities associated with a timeline; roles and responsibilities for each Federal agency in the Task Force; and region- and subregion specific research needs. With respect to the regional focus of the Action Strategy, this section also requires that the Action Strategy identify: regional research priorities; needed research, development, and demonstration activities; methods for reducing the duration and intensity of HABs and hypoxia; ways to address the human health impacts of HABs and hypoxia; mechanisms to protect affected ecosystems; ways to better share data among government and non-government entities; ways to improve public dissemination of information about HABs and hypoxia; and roles for Federal Agencies to play in implementing the Action Strategy.

Section 5 specifies that, in developing the Action Strategy, the Under Secretary must use existing research, assessments, reports, and program activities, and that the Under Secretary must coordinate with State, tribal, and regional officials, including water managers, public health officials, economists, industries, and other stakeholders.

This section requires publication of the Action Strategy in the Federal Register, with revisions as necessary.

Section 6. Reporting.

This section requires that, two years after the submission of the Action Strategy, the Under Secretary must report to Congress on the proceedings of the Task Force meetings, activities carried out under the program and the budget for those activities, progress made under the Action Strategy, and any need to revise or terminate program activities.

Section 7. Northern Gulf of Mexico Hypoxia.

Section 7 directs the Administrator of the EPA and the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to submit a progress report to Congress describing the progress toward attainment of the goals of the Gulf Hypoxia Action Plan 2008. The initial progress report is due within one year of the date of enactment of this Act, and updates are required every two years thereafter.

Section 8. Great Lakes Hypoxia and Harmful Algal Blooms.

Section 8 requires the Task Force to submit to Congress and the President, within 18 months of the date of enactment, an integrated assessment of the causes, consequences, and approaches for reducing HABs and hypoxia in the Great Lakes. This section also requires, within two years of the date of enactment, the Task Force to develop and submit to Congress a research plan based on the aforementioned integrated assessment. This section requires the research plan to address issues such as monitoring needs, budgetary requirements and timelines, model development and verification, and quantification of the ecological and economic effects of HABs and hypoxia in the Great Lakes. Finally, this section requires that the research plan be developed in consultation with a number of stakeholders, leverage existing activities and information, and be published in the Federal Register, and requires biennial progress reports on the research plan.

Section 9. Application with other Laws.

This section clarifies that nothing in this Act supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

Section 10. Definitions; Conforming Amendment.

This section provides definitions for the following terms: 'Action Strategy' means the comprehensive research plan and action strategy established under section 603B of HABHRCA; 'Administrator' means the Administrator of the EPA; '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 breakout; 'Hypoxia' means a condition where low dissolved oxygen in aquatic systems causes stress or death to resident organisms; 'Program' means the national harmful algal bloom and hypoxia program established under section 603A of HABHRCA; '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, and any

other territory or possession of the United States, and any Indian tribe; 'Task Force' means the Interagency Task Force established by section 603(a) of HABHRCA; 'Under Secretary' means the Under Secretary of Commerce for Oceans and Atmosphere (i.e., Administrator of NOAA); and 'United States Coastal Waters' includes the Great Lakes.

Section 11. Interagency Financing.

This section allows agencies represented on the Task Force to participate in interagency financing to carry out administrative or programmatic projects or activities under HABHRCA.

Section 12. Authorization of Appropriations.

Section 12 authorizes $20.5 million to be appropriated for each of the fiscal years 2014 through 2018 to implement the program and the action strategy. Of these appropriations, this section requires the Under Secretary to ensure a 'substantial portion' is allocated to extramural research activities.

AMENDMENTS TO S. 1254

OFFERED BY MR. POSEY OF FLORIDA AND MS. BONAMICI OF OREGON

Page 2, line 4, strike ''2013'' and insert ''2014''.

Page 3, line 11, strike ''2013'' and insert ''2014''.

Page 3, lines 12 and 13, strike ''establish and maintain'' and insert ''maintain and enhance''.

Page 5, line 9, insert ''peer-reviewed'' after ''administer''.

Page 5, line 19, insert ''with'' after ''coordinate''.

Page 7, lines 17 and 18, strike ''establish new programs and infrastructure, as necessary, to develop and enhance'' and insert ''develop and enhance, including with respect to infrastructure as necessary,''.

Page 10, line 5, strike ''2013'' and insert ''2014''.

Page 10, line 19, strike ''local, State, and regional''.

Page 14, line 22, strike ''2013'' and insert ''2014''.

Page 16, line 1, strike ''2013'' and insert ''2014''.

Page 16, line 19, strike ''2013'' and insert ''2014''.

Page 18, lines 1 through 6, amend subparagraphs (A) and (B) to read as follows:

''(A) coordinate with State and local governments;

''(B) consult with representatives from academic, agricultural, industry, and other stakeholder groups, including relevant Canadian agencies;

Page 18, lines 15, 17, and 21, redesignate subparagraphs (F) through (H) as subparagraphs (G) through (I), respectively.

Page 18, after line 14, insert the following new subparagraph:

''(F) ensure that the plan is technically sound and cost effective;

Page 19, lines 4 through 7, amend section 607 to read as follows:

''SEC. 607. EFFECT ON OTHER FEDERAL AUTHORITY.

''(a) AUTHORITY PRESERVED.—Nothing in this title supersedes or limits the authority of any agency to carry out its responsibilities and missions under other laws.

"(b) REGULATORY AUTHORITY.—Nothing in this title may be construed as establishing new regulatory authority for any agency.".

Page 21, lines 4 through 24, strike section 11.

Page 22, line 1, redesignate section 12 as section 11.

Page 22, line 2, strike ", as amended by section 11 of this Act, is further" and insert "is".

Page 22, line 3, strike "609" and insert "608".

Page 22, line 4, strike "**610**" and insert "**609**".

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
Full Committee Markup
May 21, 2014

AMENDMENT ROSTER

S. 1254, the "Harmful Algal Bloom and Hypoxia Research and Control Act of 2014"

No.	Amendment	Summary	
1	Amendment Offered by Rep. Posey (FL) and Rep. Bonamici (OR) (067)	Amends the program language to focus on enhancing and maintaining existing research and activities; directs consultation and coordination activities; requires that the task force action plan be technically sound and cost effective; and eliminates the section on interagency financing.	Agreed to by Voice Vote