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HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2009

JANUARY 13, 2010.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. GORDON of Tennessee, from the Committee on Science and Technology, submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

[To accompany H.R. 3650]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science and Technology, to whom was referred the bill (H.R. 3650) to establish a National Harmful Algal Bloom and Hypoxia Program, to develop and coordinate a comprehensive and integrated strategy to address harmful algal blooms and hypoxia, and to provide for the development and implementation of comprehensive regional action plans to reduce harmful algal blooms and hypoxia, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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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 Blooms and Hypoxia Research and Control Amendments Act of 2009".

SEC. 2. AMENDMENT OF 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. DEFINITIONS.

(a) AMENDMENT.—The Act is amended by inserting after section 602 the following:

"SEC. 602A. DEFINITIONS.

"In this title:

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

"(2) PROGRAM.—The term 'Program' means the National Harmful Algal Bloom and Hypoxia Program established under section 603A.

"(3) UNDER SECRETARY.—The term 'Under Secretary' means the Under Secretary of Commerce for Oceans and Atmosphere.".

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents in section 2 of the Coast Guard Authorization Act of 1998 is amended by adding after the item relating to section 602 the following new item:

"Sec. 602A. Definitions.".

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

(a) AMENDMENT.—The Act is amended by inserting after section 603 the following:

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

"(a) IN GENERAL.—Except as provided in subsection (d), the Under Secretary, through the Task Force established under section 603(a), shall establish and maintain a National Harmful Algal Bloom and Hypoxia Program pursuant to this section.

"(b) DUTIES.—The Under Secretary, through the Program, shall utilize the resources of the Task Force to—

"(1) develop and promote a national strategy to understand, detect, predict, control, mitigate, and respond to marine and freshwater harmful algal bloom and hypoxia events;

"(2) ensure the coordination of all Federal programs that address marine and freshwater harmful algal blooms and hypoxia, and other 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;

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

"(4) identify additional research, development, and demonstration needs and priorities relating to monitoring, prediction, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia;

"(5) encourage international information sharing and research efforts on marine and freshwater harmful algal blooms and hypoxia, and encourage international mitigation, control, and response activities;

"(6) ensure the development and implementation of methods and technologies to protect the ecosystems affected by marine and freshwater harmful algal blooms;

"(7) coordinate an education program that integrates and augments existing programs to improve public understanding and awareness of the causes, impacts, and mitigation efforts for marine and freshwater harmful algal blooms and hypoxia;

"(8) assist in regional, State, tribal, and local efforts to develop and implement appropriate marine and freshwater harmful algal bloom and hypoxia response plans, strategies, and tools;

"(9) provide resources for and assist in the training of State, tribal, and local water and coastal resource managers in the methods and technologies for monitoring, controlling, mitigating, and responding to the effects of marine and freshwater harmful algal blooms and hypoxia events;

"(10) oversee the development, implementation, review, and periodic updating of the Regional Research and Action Plans under section 603B; and

"(11) administer peer-reviewed, merit-based competitive grant funding to support—

"(A) the projects maintained and established by the Program; and

"(B) the research and management needs and priorities identified in the Regional Research and Action Plans.

"(c) COOPERATIVE EFFORTS.—The Under Secretary shall work cooperatively and avoid duplication of efforts with other offices, centers, and programs within the National Oceanic and Atmospheric Administration and other agencies represented on the Task Force established under section 603(a), States, tribes, and nongovernmental organizations concerned with marine and freshwater aquatic issues related to harmful algal blooms and hypoxia.

"(d) FRESHWATER PROGRAM.—With respect to the freshwater aspects of the Program, the Under Secretary and the Administrator shall jointly carry out the duties otherwise assigned to the Under Secretary under this section and section 603B, including each of the programs identified in subsection (e)(1) and (2). The Administrator's participation under this subsection shall include—

"(1) research on the ecology of freshwater harmful algal blooms;

"(2) monitoring and event response of freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs; and

"(3) mitigation and control of freshwater harmful algal blooms.

"(e) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION PROGRAMS.—

"(1) EXISTING PROGRAMS.—The Under Secretary shall maintain and enhance the following existing competitive programs:

"(A) The Ecology and Oceanography of Harmful Algal Blooms Program.

"(B) The Monitoring and Event Response for Harmful Algal Blooms Program.

"(C) The Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program.

"(D) The Coastal Hypoxia Research Program.

"(E) The Prevention, Control, and Mitigation of Harmful Algal Blooms Program.

"(2) NEW PROGRAMS.—The Under Secretary shall establish the following new programs:

"(A) An Event Response Program to coordinate and enhance, at the request of the States, marine and freshwater harmful algal blooms and hypoxia events response activities.

"(B) An Infrastructure Program to—

"(i) increase availability of—

"(I) analytical facilities and technologies;

"(II) operational forecasts; and

"(III) reference and research materials;

"(ii) improve integration of harmful algal bloom activities with existing monitoring and observational programs; and

"(iii) enhance communication and coordination required to meet the purposes of this Act.

"(f) ACTION STRATEGY.—

"(1) IN GENERAL.—Not later than 12 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, the Under Secretary, through the Task Force established under section 603(a), shall transmit to the Congress an action strategy that identifies—

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

"(B) the roles and responsibilities of each Federal agency in the Task Force established under section 603(a) in carrying out Program activities.

"(2) FEDERAL REGISTER.—The Under Secretary shall publish the action strategy in the Federal Register.

"(3) PERIODIC REVISION.—The Under Secretary shall periodically review and revise the action strategy prepared under this subsection as necessary.

"(g) REPORT.—Every 2 years after the submission of the action strategy, the Under Secretary shall prepare and transmit to the Congress a report that describes—

"(1) the activities carried out under the Program and the budget related to these activities;

"(2) the progress made on implementing the action strategy; and

"(3) the need to revise or terminate activities or projects under the Program.".

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents in section 2 of the Coast Guard Authorization Act of 1998 is amended by adding after the item relating to section 603 the following new item:

"Sec. 603A. National Harmful Algal Bloom and Hypoxia Program.".

SEC. 5. REGIONAL RESEARCH AND ACTION PLANS.

(a) AMENDMENT.—The Act is amended by inserting after section 603A the following:

"SEC. 603B. REGIONAL RESEARCH AND ACTION PLANS.

"(a) IN GENERAL.—The Under Secretary, through the Task Force established under section 603(a), shall—

"(1) identify the appropriate regions and subregions to be addressed by each Regional Research and Action Plan; and

"(2) oversee the development and implementation of the Regional Research and Action Plans.

"(b) CONTENTS.—The Plans developed under this section 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 prevent, predict, monitor, control, and mitigate harmful algal blooms and hypoxia;

"(3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including in times of emergency;

"(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 vulnerable ecosystems that could be or have been affected by harmful algal blooms and hypoxia events;

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

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

"(8) the roles that Federal agencies can play to assist in the implementation of the Plan.

"(c) BUILDING ON AVAILABLE STUDIES AND INFORMATION.—In developing the Plans under this section, the Under Secretary shall—

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

"(2) consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great Lakes, the Chesapeake Bay, and estuaries and tributaries.

"(d) DEVELOPMENT OF PLANS.—The Under Secretary shall develop Plans under this section with assistance from the individuals and entities described in subsection (g).

"(e) PLAN TIMELINE AND UPDATES.—The Under Secretary, through the Task Force established under section 603(a), shall ensure that the Plans developed under this

section are completed not later than 24 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, and updated once every 5 years thereafter.

"(f) REPORTS.—Not later than 6 months after the completion of each Regional Research and Action Plan, the Under Secretary shall transmit to the Congress a report that provides a summary of such Plan, and once every 30 months after the completion of such Plan, the Under Secretary shall transmit to the Congress a report that describes—

"(1) the activities taken to implement the Plan, including a description of research funded and actions and outcomes of Plan response strategies carried out; and

"(2) Federal funding provided to implement the Plan.

"(g) COORDINATION AND CONSULTATION.—In developing the Plans under this section, as appropriate, the Under Secretary—

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

"(2) shall coordinate with tribal resource management officials;

"(3) shall coordinate with 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

"(4) shall 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.".

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents in section 2 of the Coast Guard Authorization Act of 1998 is amended by adding after the item relating to section 603A, as added by section 4(b) of this Act, the following new item:

"Sec. 603B. Regional research and action plans.".

SEC. 6. NORTHERN GULF OF MEXICO HYPOXIA.

Section 604 is amended to read as follows:

"SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.

"(a) TASK FORCE INITIAL PROGRESS REPORTS.—Not later than 12 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, the Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, shall complete and transmit to the Congress and the President a report on the progress made by Task Force-directed activities toward attainment of the coastal goal of the 2008 Gulf Hypoxia Action Plan.

"(b) TASK FORCE 2-YEAR PROGRESS REPORTS.—After the initial report required under subsection (a), the Administrator, through the Task Force, shall complete and transmit to Congress and the President a report every 2 years thereafter on the progress made by Task Force-directed activities toward attainment of the coastal goal of the 2008 Gulf Hypoxia Action Plan.

"(c) CONTENTS.—The reports required by this section shall assess 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. The reports shall—

"(1) include an evaluation of how current policies and programs affect management decisions, including those made by municipalities and industrial and agricultural producers;

"(2) evaluate lessons learned; and

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

SEC. 7. PACIFIC NORTHWEST, ESTUARIES, AND PUGET SOUND HYPOXIA.

(a) AMENDMENT.—The Act is amended by inserting after section 604 the following:

"SEC. 604A. PACIFIC NORTHWEST, ESTUARIES, AND PUGET SOUND HYPOXIA.

"(a) ASSESSMENT REPORT.—Not later than 12 months after the date of enactment of this Act, the Task Force established under section 603 shall complete and submit to Congress and the President an integrated assessment of hypoxia in the coastal and estuarine waters of the Pacific Northwest that examines the status of current research, monitoring, prevention, response, and control efforts.

"(b) PLAN.—Not later than 2 years after the date of enactment of this Act, such Task Force 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 coastal and estuarine waters of the Pacific Northwest. In developing such plan, the Task Force shall consult with State, Indian tribe, and local governments, and academic, agricultural, industry, and environmental groups and representatives. Such plan shall include incentive-based partnership approaches. The plan shall also address the social and economic costs and benefits of the measures for reducing, mitigating, and controlling hypoxia. At least 90 days before submission of such plan to the Congress, a summary of the proposed plan shall be published in the Federal Register. After submission of the plan, the Task Force shall provide progress reports on the activities toward attainment of the goals set forth in the plan reduce, mitigate, and control hypoxia in the coastal and estuarine waters of the Pacific Northwest every 2 years.".

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents in section 2 of the Coast Guard Authorization Act of 1998 is amended by adding after the item relating to section 604 the following new item:

"Sec. 604A. Pacific Northwest, estuaries, and Puget Sound hypoxia.".

SEC. 8. AUTHORIZATION OF APPROPRIATIONS.

Section 605 is amended to read as follows:

"SEC. 605. AUTHORIZATION OF APPROPRIATIONS.

"There are authorized to be appropriated—

"(1) to the Under Secretary to carry out sections 603A and 603B, $35,000,000 for each of fiscal years 2010 through 2014, of which, for each fiscal year—

"(A) up to $3,000,000 shall be for the development of the Regional Research and Action Plans and the reports required by sections 604 and 604A;

"(B) $3,000,000 shall be for the research and assessment activities related to marine and freshwater harmful algal blooms at research laboratories of the National Oceanic and Atmospheric Administration;

"(C) $8,000,000 shall be used to carry out the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB);

"(D) $5,500,000 shall be used to carry out the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB);

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

"(F) $5,000,000 shall be used to carry out the Coastal Hypoxia Research Program (CHRP);

"(G) $5,000,000 shall be used to carry out the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM);

"(H) $1,000,000 shall be used to carry out the Event Response Program; and

"(I) $3,000,000 shall be used to carry out the Infrastructure Program; and

"(2) to the Administrator to carry out sections 603A and 603B, $6,000,000 for each of fiscal years 2010 through 2014, of which up to $3,000,000 for each fiscal year shall be for participation in carrying out section 603A(e), as described in section 603A(d).".

II. PURPOSE OF THE BILL

The purpose of this bill is to establish a National Harmful Algal Bloom and Hypoxia Program to develop and coordinate a comprehensive and integrated strategy to address harmful algal blooms and hypoxia, and to provide for the development and implementation of regional action plans to reduce harmful algal blooms and hypoxia.

III. BACKGROUND AND NEED FOR THE LEGISLATION

Harmful algal blooms (HABs) and hypoxia (severe depletion of oxygen) are one of the most scientifically complex and economically significant coastal management issues facing the nation. In the past, few regions of the U.S. were affected by HABs. Now, all U.S. coastal regions have reported major blooms and hypoxic events. These phenomena have devastating environmental, economic, and

human health impacts. Impacts include human illness and mortality 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; as well as dramatic fish, bird, and mammal mortalities. There are also devastating impacts to ecosystems, leading to environmental damage that may reduce the ability of those systems to sustain species due to habitat degradation, increased susceptibility to disease, and long-term alterations to community structure.

Scientific understanding of harmful algal blooms and hypoxic events has improved significantly since the early 1990s. However, there is a need for additional efforts in monitoring, prevention, control and mitigation of these complex phenomena. Practical and innovative approaches to address hypoxia and HABs in U.S. waters are essential for management of aquatic ecosystems and to fulfill a stronger investment in the health of the coasts, oceans, and waterways.

Recognizing this need, in 2004 Congress reauthorized and expanded the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (Public Law 105–383) by passing the Harmful Algal Bloom and Hypoxia Amendments Act of 2004 (Public Law 108–456). The 1998 Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA) 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. HABHRCA, reauthorized in 2004, required assessments of HABs in different coastal regions and the Great Lakes and 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, and reconstituted the Interagency Task Force on HABs and Hypoxia.

The 2004 reauthorization also directed NOAA to produce several reports and assessments in addition to authorizing funding for both new and existing programs and activities. The Prediction and Response Report, released in September 2007, addresses both the state of research and methods for HAB prediction and response, especially at the federal level. The National Scientific Research, Development, Demonstration, and Technology Transfer Plan for Reducing Impacts from Harmful Algal Blooms (RDDTT Plan) establishes research priorities to develop and demonstrate prevention, control and mitigation methods to advance current prediction and response capabilities. The law also required development of local and regional Scientific Assessment of Hypoxia and a Scientific Assessment of Harmful Algal Blooms.

The HABHRCA authorized funds were directed to conduct research and seek to control HABs and hypoxia in U.S. marine waters, estuaries and the Great Lakes. The 2004 reauthorization also required a report on The Scientific Assessment of Freshwater Harmful Algal Blooms that describes the state of knowledge of HABs in U.S. inland and freshwaters, and presents a plan to advance research and reduce the impacts on humans and the environ-

ment. There is a continued need to research and respond to HABs in marine waters, the Great Lakes, and in inland waterways, such as rivers, lakes and reservoirs.

The Environmental Protection Agency (EPA) oversees a wide array of programs specifically designed to protect and preserve the coastal and marine waters of the United States, including watershed protection programs working through partnerships and an array of regulatory programs. In conjunction with its statutory responsibilities to ensure water quality under the Clean Water Act and the Safe Drinking Water Act, EPA has a program of research and development on water treatment technologies, health effects of water pollutants, security from deliberate contamination, and watershed protection.

EPA and the National Oceanic and Atmospheric Administration (NOAA) are co-leads of a Federal Workgroup of thirteen federal agencies committed to supporting the Gulf of Mexico Alliance, a partnership formed by the five Gulf State Governors. In addition, EPA is also a participating member of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force. However, at present, there is a lack of significant federal research and development aimed at addressing freshwater HABs. Because of the agency's complementary work on inland water ecosystems, the EPA is a logical federal entity to partner with NOAA to develop and implement a research, development, and demonstration program to address freshwater harmful algal blooms and hypoxia through research, monitoring, prevention, mitigation, and control. As the lead agency with oversight over freshwater quality, the EPA should ensure the protection of aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife by conducting research to develop HAB prevention, control and mitigation technologies.

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. However, there is a need to expand Harmful Algal Blooms research to include both marine and freshwaters. The reauthorization of the HABHRCA should address both marine and freshwater blooms and hypoxia by building upon and utilizing the findings and results of various reports and assessments to formulate national and regional action strategies.

IV. Summary of Hearings

The Committee on Science and Technology Subcommittee on Energy and Environment held two hearings on harmful algal blooms and hypoxia.

The first hearing was held in the 110th Congress on Thursday, July 10, 2008. The hearing, entitled Harmful Algal Blooms: The Challenges on the Nation's Coastline, examined Harmful Algal Blooms (HABs) recent trends and impacts on the coast, ocean, and Great Lakes. The purpose of the hearing was to discuss the challenges harmful algal blooms and red tide events impose on the coastlines and in marine and fresh waters. The hearing also examined the current research on the microbial bloom ecology as well as the options for prevention, control, and mitigation. In addition, the hearing focused on the state of the science and recent trends

on an international level as it relates to national and global changes. The invited panel of witnesses was asked to comment on the National Plan for Algal Toxins and Harmful Algal Blooms, and how the plan will affect our nation's ability to control the HABs problem. The witnesses included:

Dr. Robert Magnien, Director of the Center for Sponsored Coastal Ocean Research in the National Oceanic and Atmospheric Administration, NOAA, discussed the current state of federally funded HABs research at NOAA, as well as options for prevention, control, and mitigation, and the National Plan for Algal Toxins and Harmful Algal Blooms.

Dr. Donald Anderson, Senior Scientist and Director of the Coastal Ocean Institute at Woods Hole Oceanographic Institution, discussed the current research on the ecology of the blooms of microorganisms on both the east and west coasts. He also discussed the issue and the state of the science on an international level, as well as commented on the National Plan for Algal Toxins and Harmful Algal Blooms.

Dr. H. Kenneth Hudnell, Vice President and Director of Science at SolarBee Inc., discussed the challenges and impacts of harmful algal blooms, specifically in fresh water. SolarBee is a solar-powered technology to improve water quality through high-flow, long-distance circulation. He also discussed the applications of new technologies for prevention and control of biotoxins in water.

Mr. Dan Ayres, Coastal Shellfish Manager and Lead Biologist at the Washington State Department of Fish and Wildlife Region Six Office, discussed the challenges harmful algal blooms and red tide events impose on the coastlines. He also discussed the impacts of harmful algal blooms on beach closures, tourism, human health, and the science behind these toxins.

The Energy and Environment Subcommittee held a second hearing in the 111th Congress on September 17, 2009 to receive testimony on Harmful Algal Blooms and Hypoxia research and response needs, and to receive testimony on the Committee Print entitled the Harmful Algal Blooms and Hypoxia Research and Control Act of 2009. The Subcommittee heard from the following witnesses:

Dr. Robert Magnien, Director of the Center for Sponsored Coastal Ocean Research, National Oceanic and Atmospheric Administration (NOAA). Dr. Robert Magnien discussed NOAA's current HABs and hypoxia activities, as well as the need to implement national and regional plans to address both marine and fresh water blooms and hypoxia events. Dr. Magnien expressed the NOAA's concerns over the draft bills apparent omission of current NOAA programs such as the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB); the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB); the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX); the Coastal Hypoxia Research Program (CHRP); and the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM). He also recommended establishing two new programs: an Event Response Program and an Infrastructure Program.

Ms. Suzanne E. Schwartz, Acting Director of the Office of Wetlands, Oceans, and Watersheds, U.S. Environmental Protection Agency (EPA). Ms. Suzanne E. Schwartz discussed EPA's current hypoxia activities focused on reduction of nutrient loading in the

Gulf of Mexico. Ms. Schwartz suggested the legislation provide EPA more direction in its role in the National Harmful Algal Blooms and Hypoxia Program and as it relates to freshwater HABs.

Mr. Dan Ayres, Coastal Shellfish Manager and Lead Biologist at the Washington State Department of Fish and Wildlife Region Six Office discussed the impacts HABs and hypoxia events impose on the west coast. He also highlighted the ongoing research and need for response and implementation plans regarding HABs and hypoxia for prevention, control, and mitigation on the west coast.

Dr. Donald Anderson, Senior Scientist and Director of the Coastal Ocean Institute at Woods Hole Oceanographic Institution discussed the impacts of HABs and hypoxia on U.S. coasts and oceans and how they have evolved over the past several years. He emphasized the need for more research, as well as implementation plans that improve monitoring, prevention, control, mitigation and response.

Dr. Greg L. Boyer, Professor of Biochemistry, State University of New York College of Environmental Science and Forestry and Director of the Great Lakes Research Consortium, discussed the science behind freshwater harmful algal blooms, as well as the impacts of HABs and hypoxia on inland and fresh waters, and the research and implementation needs to respond to freshwater HABs events.

Dr. Anderson and Dr. Boyer also suggested the legislation include the existing NOAA programs as well as create two new programs and provide more explicit direction to EPA. They also expressed concerns about the overlapping timelines for the action strategy and the regional research and action plans and requested a less aggressive timeline to allow adequate time for completion.

Dr. Donald Scavia, Graham Family Professor of Environmental Sustainability and Professor of Natural Resources and Environment, University of Michigan discussed the impacts of HABs and hypoxia on the Great Lakes and Chesapeake Bay areas, as well as the needs for an implementation strategy for hypoxia in the Northern Gulf of Mexico and Mississippi River. Dr. Scavia noted the importance for accountability and suggested the Gulf of Mexico timelines be more aggressive.

V. Committee Actions

On September 25, 2009, Representative Brian Baird of Washington, for himself and Representatives Ehlers of Michigan, Mack of Florida, Castor of Florida, Kratovil of Maryland, and Delahunt of Massachusetts introduced H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009. The bill was referred to the Committee on Science and Technology and the Committee on Natural Resources.

The Subcommittee on Energy and Environment met to consider H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009 on September 30, 2009. The Subcommittee considered the following amendments:

Subcommittee Chairman Baird and Mr. Ehlers of Michigan offered a managers amendment making several technical and clarifying changes and alters certain reporting requirements. The amendment was agreed to by a voice vote.

Ms. Edwards of Maryland offered an amendment, to amend Section 5 ("Regional Research Action Plans") to require that the Under Secretary "consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great Lakes, the Chesapeake Bay, and estuaries and tributaries" in developing the Regional Research Action Plans. The amendment was agreed to by a voice vote.

Mr. Baird moved that the Subcommittee favorably report H.R. 3650 to the full Committee on Science and Technology as amended. The motion was agreed to by a voice vote.

The Committee on Science and Technology met to consider H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, on October 7, 2009. The Committee considered the following amendments:

Mr. Baird and Mr. Ehlers offered a manager's amendment that made several technical and clarifying changes and amended Section 4 to require the Administrator of EPA to include research, monitoring, event response, mitigation, and control activities related to freshwater harmful algal blooms. The amendment also made adjustments to the Authorization of Appropriation section to include NOAA internal research funding. The amendment was agreed to by voice vote.

Mr. Hall offered an amendment to prohibit anything in the Act from being construed to require that that state, tribal, and local governments take any action that will result in increased financial burden to such government. The amendment failed by a roll call vote.

Mr. Smith offered an amendment to require that the Regional Research and Action plans be developed at the request of the states. The amendment failed by a roll call vote.

Mr. Broun offered an amendment to require that no funds under this Act could be used for lobbying the legislative or executive branches of the Federal, State, or local governments and no funds may be awarded to any entity if that entity or any employee of that entity has been charged by any Federal, State, or local government agency with fraud, waste, abuse of government funds, or any illegal activities. The amendment was withdrawn.

H.R. 3650, as amended, was agreed to by voice vote.

Mr. Gordon moved that the Committee favorably report H.R. 3650, as amended, to the House with the recommendation that the bill does pass. The motion was agreed to by voice vote.

VI. Summary of Major Provisions of the Bill

The Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, as amended, would establish and maintain a National Harmful Algal Bloom and Hypoxia Program. The program will be led by the National Oceanic and Atmospheric Administration (NOAA), as chair of the Task Force established in the 1998 HABHRCA. H.R. 3650 directs the Under Secretary to utilize the resources of the Task Force to ensure the Program: 1) develops a national strategy to address both marine and freshwater HABs and hypoxia; 2) coordinates all Federal programs related to HABs and hypoxia; 3) works with State, tribal, and local government agencies; 4) identifies additional research needs and priorities; 5) encourages international research efforts on HABs and hypoxia; 6)

develops and implements methods and technologies to protect ecosystems damaged by HABs; 7) coordinates an education program to improve public understanding; 8) assist in regional, State, tribal, and local efforts to implement response plans, strategies, and tools; 9) provides resources for training of State, tribal and local water and coastal resource managers; 10) oversees the updating of the Regional Research and Action Plans; and 11) administers peer-reviewed, merit-based competitive grant funding. In addition, the Act directs the Under Secretary to work cooperatively and avoid duplication of efforts with other offices, centers, and programs within NOAA, as well as with States, tribes, stakeholder organizations, and other agencies represented on the Task Force.

The bill directs the Under Secretary and the Administrator of the Environmental Protection Agency to jointly carry out the duties for the freshwater aspects of the Program. The Administrator of EPA is mandated to participate in the research of the existing and new programs to research the ecology of freshwater harmful algal blooms; monitoring and event response activities of freshwater harmful algal blooms; and mitigation and control efforts of freshwater harmful algal blooms. The bill directs NOAA to maintain and enhance the existing five competitive programs: the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB); the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB); the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX); the Coastal Hypoxia Research Program (CHRP); and the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM) and establish two new programs: an Event Response Program and an Infrastructure Program. The bill also requires the Under Secretary to transmit to Congress an action strategy that outlines the specific activities to be carried out by the Program, a timeline for such activities, and the programmatic roles of each Federal agency in the Task Force. The action strategy shall be published in the Federal Register and be periodically revised by the Under Secretary.

H.R. 3650 directs the Under Secretary, through the Task Force, to oversee the development and implementation of Regional Research and Action Plans, and identify the appropriate regions and sub-regions to be addressed by each Plan. The bill outlines some content the Plans should identify, including: (1) regional priorities for ecological, economic, and social research related to the impacts of HABs and hypoxia; (2) research, development, and demonstration activities to advance technologies and techniques for minimizing the occurrence and address the impacts of HABs and hypoxia; (3) ways to reduce the duration and intensity of HABs events; (4) research and methods to address the impacts of HABs on human health; (5) mechanisms and the potential costs of these mechanisms to protect vulnerable ecosystems that could be or have been affected by HABs; (6) mechanisms by which data is transferred between the Program and State, tribal, and local governments and relevant research entities; (7) communication, outreach, and dissemination methods used to educate and inform the public; and (8) the roles that Federal agencies can play to assist implementation of the Plan.

The bill explicitly directs the utilization of existing research, assessments, and reports and considers the impacts in all waterways,

including the Chesapeake Bay in the development of the Plans. The bill also provides a list of individuals and entities that the Under Secretary shall work with to develop the Plans. The bill also requires that the Plans be completed within a 2-year period after the date of enactment and updated once every 5 years. Furthermore, H.R. 3650 requires that the Under Secretary submit a report to Congress that provides a summary of each Plan not later than 6 months after the completion of each Regional Research and Action Plan and once every 30 months after the completion of the Plans, report on the activities taken to implement the Plans.

H.R. 3650 directs the Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, to transmit a report to Congress and the President on the progress made toward attainment of the coastal goals of the 2008 Gulf Hypoxia Action Plan. The initial report is required no later than 12 months after the date of enactment and every 2 years thereafter. The reports are required to assess progress made toward nutrient load reductions, the response of the hypoxia zone and water quality throughout the Mississippi/Atchafalaya River Basin and the economic and social effects. The bill also directs the Interagency Task Force to transmit an assessment report to Congress and the President within 12 months of the enactment of the Act and a plan within 2 years to address hypoxia in the coastal and estuarine waters of the Pacific Northwest by examining the current research, monitoring, prevention, response, and control efforts

H.R. 3650 provides an authorization of $35,000,000 each of the fiscal years 2010 through 2014 to the Under Secretary to carry out the Program, of which $3M is authorized in each of the fiscal years for the development of the Regional Research and Action Plans; $3M for research activities at the laboratories of NOAA; $8M for ECOHAB; $5.5M for MERHAB; $1.5M for NGOMEX; $5M for CHRP; $5M for PCM; $1M for the Event Response Program; and $3M for the Infrastructure Program. The bill also provides an authorization of $6,000,000 in each of the fiscal years 2010 through 2014 to the Administrator for the freshwater HABs activities of Program, of which up to $3M is mandated for participation in the existing and new programs outlined in previous sections of the Act.

VII. Section-by-Section Analysis

Purpose: To establish a National Harmful Algal Bloom and Hypoxia Program, to develop and coordinate a comprehensive strategy to address harmful algal blooms and hypoxia and to provide for the development and implementation of comprehensive regional action plans to reduce harmful algal blooms and hypoxia.

Section 1. Short title

The Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.

Section 2. Amendment of Harmful Algal Bloom and Hypoxia Research and Control Act of 1998

Explains that the text the bill modifies is the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, unless otherwise expressly stated.

Section 3. Definitions

Provides definitions for the Act, including: Administrator of the Environmental Protection Agency; the National Harmful Algal Bloom and Hypoxia Program; and the Under Secretary of Commerce for Oceans and Atmosphere; and Amends the Table of Contents.

Section 4. National Harmful Algal Bloom and Hypoxia Program

Directs the Under Secretary of Commerce for Oceans and Atmosphere to utilize the resources of the Task Force to establish and maintain a National Harmful Algal Bloom and Hypoxia Program. The bill outlines tasks for the Under Secretary to ensure the Program: (1) develops a national strategy to address both marine and freshwater HABs and hypoxia; (2) coordinates all Federal programs related to HABs and hypoxia; (3) works with State, tribal, and local government agencies; (4) identifies additional research needs and priorities; (5) encourages international research efforts on HABs and hypoxia; (6) develops and implements methods and technologies to protect ecosystems damaged by HABs; (7) coordinates an education program to improve public understanding; (8) assists in regional, State, tribal, and local efforts to implement response plans, strategies, and tools; (9) provides resources for training of State, tribal and local water and coastal resource managers; (10) oversees the updating of the Regional Research and Action Plans; and (11) administers peer-reviewed, merit-based competitive grant funding. In addition, the Act directs the Under Secretary to work cooperatively and avoid duplication of efforts with other offices, centers, and programs within NOAA, as well as with States, tribes, stakeholder organizations, and other agencies represented on the Task Force.

The bill directs the Under Secretary and the Administrator of the Environmental Protection Agency to jointly carry out the duties for the freshwater aspects of the Program. The Administrator of EPA is mandated to participate in the research of the existing and new programs to research the ecology of freshwater harmful algal blooms; monitoring and event response activities of freshwater harmful algal blooms; and mitigation and control efforts of freshwater harmful algal blooms. The bill directs NOAA to maintain and enhance the existing five competitive programs: the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB); the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB); the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX); the Coastal Hypoxia Research Program (CHRP); and the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM) and establish two new programs: an Event Response Program and an Infrastructure Program. The bill also requires the Under Secretary to transmit to Congress an action strategy that outlines the specific activities to be carried out by the Program, a timeline for such activities, and the programmatic roles of each Federal agency in the Task Force. The action strategy shall be published in the Federal Register and be periodically revised by the Under Secretary.

Section 5. Regional Research and Action Plans

Directs the Under Secretary, through the Task Force, to oversee the development and implementation of Regional Research and Action Plans by identifying the appropriate regions and sub-regions to be addressed by each Plan. The bill outlines some content the Plans should identify, including: 1) regional priorities for ecological, economic, and social research related to the impacts of HABs and hypoxia; 2) research, development, and demonstration activities to advance technologies and techniques for minimizing the occurrence and address the impacts of HABs and hypoxia; 3) ways to reduce the duration and intensity of HABs events; 4) research and methods to address the impacts of HABs on human health; 5) mechanisms and the potential costs of these mechanisms to protect vulnerable ecosystems that could be or have been affected by HABs; 6) mechanisms by which data is transferred between the Program and State, tribal, and local governments and relevant research entities; 7) communication, outreach, and dissemination methods used to educate and inform the public; and 8) the roles that Federal agencies can play to assist implementation of the Plan.

Section 5 explicitly directs the utilization of existing research, assessments, and reports and considers the impacts in all waterways, including the Chesapeake Bay, in the development of the Plans. The bill provides a list of individuals and entities that the Under Secretary shall coordinate with in developing the Plans. The bill requires that the Plans be completed within 2 years after the date of enactment, and updated once every 5 years. Section 5 requires that the Under Secretary submit a report to Congress that provides a summary of each Plan not later than 6 months after the completion of each Regional Research and Action Plan and once every 30 months after the completion of the Plans, report on the activities taken to implement the Plans.

Section 6. Northern Gulf of Mexico Hypoxia

Directs Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, to transmit a report to Congress and the President on the progress made toward attainment of the coastal goals of the 2008 Gulf Hypoxia Action Plan. The initial report is required no later than 12 months after the date of enactment and every 2 years thereafter. The reports are required to assess progress made toward nutrient load reductions, the response of the hypoxia zone and water quality throughout the Mississippi/Atchafalaya River Basin and the economic and social effects. The reports shall include an evaluation of current policies and programs, and lessons learned. In addition, Section 6 requires the reports to recommend appropriate actions to continue to implement or, if necessary, revise the strategy set forth in the 2008 Gulf Hypoxia Action Plan.

Section 7. Pacific Northwest, Estuaries, and Puget Sound Hypoxia

Directs the Task Force to transmit an assessment report to Congress and the President within 12 months of the enactment of the Act on the hypoxia in the coastal and estuarine waters of the Pacific Northwest by examining the current research, monitoring, prevention, response, and control efforts. Section 7 also requires the Task Force to develop a plan within 2 years of the enactment of

the Act for reducing, mitigating, and controlling hypoxia in the Pacific Northwest. In developing the Plan, the Task Force is directed to consult with State, tribal, and local governments as well as academic, agricultural, industry, and environmental groups and representatives. The Task Force is also directed to provide progress reports every 2 years after the submission of the Plan, on the activities toward attainment of the goals outlined in the Plan.

Section 8. Authorization of appropriations

Provides an authorization of $35,000,000 for each of the fiscal years 2010 through 2014 to the Under Secretary to carry out the Program, of which $3,000,000 is authorized in each of the fiscal years for the development of the Regional Research and Action Plans; $3,000,000 for research activities at the laboratories of NOAA; $8,000,000 for ECOHAB; $5,500,000 for MERHAB; $1,500,000 for NGOMEX; $5,000,000 for CHRP; $5,000,000 for PCM; $1,000,000 for the Event Response Program; and $3,000,000 for the Infrastructure Program. The bill also provides an authorization of $6,000,000 in each of the fiscal years 2010 through 2014 to the Administrator for the freshwater HABs activities of Program, of which up to $3,000,000 is mandated for participation in the existing and new programs outlined in previous sections of the Act.

VIII. Committee Views

H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, will help understand, detect, predict, control, mitigate, and respond to both marine and freshwater harmful algal blooms (HABs) and hypoxia events. It is the intent of the Committee that the research and activities also seek ways to reduce the duration and intensity of blooms that many US waterways currently experience so that individual bloom episodes do not last as long and are less intense when they do occur. This is particularly important in order to minimize times of emergency such as beach and tourism activity closures, cancellations, and evacuations and health and food warnings.

The Committee regards this legislation as the next necessary step to build upon and utilize the findings and results of various reports and assessments that have resulted from the previous two Harmful Algal Blooms and Hypoxia Research and Control Acts (1998 and 2004) in formulating the national and regional action strategies. 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. It is in the opinion of the Committee that the federal agencies established as the Interagency Task Force (1998 HABHRCA Act) and existing programs should collaborate and coordinate to address both marine and freshwater harmful algal blooms and hypoxia.

While the National Oceanic and Atmospheric Administration (NOAA) has been a lead agency in the country's HABs and Hypoxia research activities, it is the intent of the Committee that NOAA does not bear the burden of the entire Program. H.R. 3650 intends for NOAA to lead the National Harmful Algal bloom and Hypoxia Program in its role as the chair of the Interagency Task Force, not to just be a NOAA National Program. The Under Secretary of Com-

merce for Oceans and Atmosphere should outline the roles and responsibilities of each Federal agency in the Task Force to ensure all participation in the development and implementation of the national action strategy and regional research and action plans to address marine and freshwater HABs and Hypoxia. It is the intent of the committee that the Under Secretary ensures the coordination of the Task Force, as well as coordinates and works cooperatively with all Federal, State, and local programs, including NOAA internal programs and activities that address marine and freshwater HABs and Hypoxia.

Despite the fact that HABs and Hypoxia are not limited to marine waters, in recent years, research and related activities have seemingly focused on marine waters at the expense of freshwater issues. It is the intent of the Committee that H.R. 3650 expands the National Harmful Algal Bloom and Hypoxia Program to include freshwater HABs and Hypoxia. It is not the intent of the committee, at this juncture, to establish a separate freshwater HABs and Hypoxia program, but for the Program to address both marine and fresh waters with the coordination of all federal agency participants of the Interagency Task Force. As the lead agency with oversight over freshwater quality, Environmental Protection Agency is in the position to ensure the protection of aquatic ecosystems to protect human health, and promote freshwater economic and recreational activities by conducting both internal and extramural research to better understand, detect, prevent, control and mitigate freshwater HABs and Hypoxia. It is the intent of the Committee that the EPA not only continue its extensive Hypoxia work surrounding the Gulf of Mexico but to also participate in the Program with respects to the inland and freshwater needs of country. The Committee intends for EPA to work with NOAA in the five existing programs and the two new programs (Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB); the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB); the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX); the Coastal Hypoxia Research Program (CHRP); the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM); and the Event Response Program and Infrastructure Program established in H.R. 3650 for the research on ecology of freshwater HABs and Hypoxia; monitoring and event response of outbreaks in lakes, rivers, estuaries (including their tributaries and the watersheds), and reservoirs; and mitigation and control activities. The Committee intends for a portion of the funding provided to the Administrator of the Environmental Protection Agency to be used to participate in these programs. The Committee intends for NOAA and EPA to work together to expand the national HABs program to include not only marine but freshwater HABs and Hypoxia, while maintaining NOAA's current role in the Great Lakes as well as in the Gulf of Mexico.

Advances in knowledge, methods and technologies have led to significant improvements of responding to HABs and Hypoxia. It is the intent of the Committee that as H.R. 3650 seeks to not only control, mitigate, and respond to HABs and Hypoxia, but the monitoring and predicting of these blooms and Hypoxia utilize existing monitoring and observational systems and programs to further enhance research, communication, and coordination.

In the development and implementation of the Regional Research and Action Plans mandated by H.R. 3650, it is the Committee's intention for the Undersecretary to coordinate and collaborate with the State, local, and tribal governments that are directly affected by HABs and Hypoxia and to formulate plans that will not cause financial burdens on these governments. It is also the intent of the Committee for all participating agencies of the Interagency Task Force to participate in the development and implementation of the Plans. The Committee intends for the Regional Plans to also serve as vehicle to gain more public involvement of the people that live in and around the communities affected by HABs and Hypoxia. With more education of the public and outreach and information dissemination methods, the Committee does not intend for federal funds to be wasted, abused or utilized for lobbying the legislative or executive branches of the Federal, State, or local governments.

In U.S. waters, HABs as well as hypoxic events are found in an expanding number of locations and are also increasing in duration and severity. It is the intent of the Committee that the National Harmful Algal Blooms Program and NOAAs five existing programs and the funding be balanced to address all areas of the U.S. and waterways.

IX. Cost Estimate

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science and Technology prior to the filing of this report and is included in Section X of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 3650 does not contain new budget authority, credit authority, or changes in revenues or tax expenditures. Assuming that the sums authorized under the bill are appropriated, H.R. 3650 does authorize additional discretionary spending, as described in the Congressional Budget Office report on the bill, which is contained in Section X of this report.

X. Congressional Budget Office Cost Estimate

October 15, 2009.

Hon. Bart Gordon,
Chairman, Committee on Science and Technology,
House of Representatives, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.

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.

H.R. 3650—Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009

Summary: H.R. 3650 would amend current law to attempt to reduce the effects of harmful algal blooms and hypoxia (reduced oxygen level) in certain bodies of water. The bill would authorize the appropriation of $41 million a year over the 2010–2014 period for programs by the National Oceanic and Atmospheric Administration (NOAA) and Environmental Protection Agency (EPA) to mitigate the effects of harmful algal blooms and hypoxia. Assuming appropriation of the authorized amounts, CBO estimates that implementing the legislation would cost $153 million over the 2010–2014 period and $22 million after 2014. Enacting the legislation would not affect direct spending or revenues.

H.R. 3650 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 3650 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—					
	2010	2011	2012	2013	2014	2010–2014
SPENDING SUBJECT TO APPROPRIATION						
Spending Under Current Law [a]						
Authorization Level	30	0	0	0	0	30
Estimated Outlays	20	6	4	0	0	30
Proposed Changes						
Authorization Level	11	41	41	41	41	175
Estimated Outlays	7	29	36	40	41	153
Estimated Spending Under H.R. 3650						
Authorization Level	41	41	41	41	41	205
Estimated Outlays	27	35	40	40	41	183

[a] The 2010 level is the amount authorized for that year; a full-year appropriation for 2010 has not yet been provided for this program.

Basis of estimate: For this estimate, CBO assumes that H.R. 3650 will be enacted near the start of fiscal year 2010 and that the authorized amounts will be appropriated for each fiscal year. Estimated outlays are based on historical spending patterns for similar NOAA and EPA programs.

H.R. 3650 would authorize the appropriation of $35 million a year over the 2010–2014 period for a NOAA program to mitigate the effects of harmful algal blooms and hypoxia in coastal waters. The bill also would authorize the appropriation of $6 million annually through 2014 for NOAA and EPA to conduct similar programs for freshwater systems. (In 2010, $30 million is authorized to be appropriated for harmful algal blooms and hypoxia programs under current law.) The bill would direct NOAA to enhance several existing grant programs and establish two new programs related to algal blooms and hypoxia. The bill also would require NOAA to oversee and coordinate regional efforts to address related problems. Finally, the bill would require NOAA to submit biennial reports to the Congress describing the activities of the program.

Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 3650 would cost $153 million over the 2010–2014 period and $22 million after 2014.

Intergovernmental and private-sector impact: H.R. 3650 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Previous CBO estimate: On September 2, 2009, CBO transmitted a cost estimate for S. 952, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, as ordered reported by the Senate Committee on Commerce, Science, and Transportation on August 5, 2009. Both S. 952 and H.R. 3650 would amend and reauthorize the Harmful Algal Blooms and Hypoxia Research and Control Act of 1998, but S. 952 would authorize the appropriation of $45 million a year over the 2010–2014 period. The CBO cost estimates reflect that difference.

Estimate prepared by: Federal Costs: Jeff LaFave; Impact on State, Local, and Tribal Governments: Ryan Miller; Impact on the Private Sector: Amy Petz.

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

XI. Compliance With Public Law 104–4

H.R. 3246 contains no unfunded mandates.

XII. Committee Oversight Findings and Recommendations

The Committee on Science and Technology's oversight findings and recommendations are reflected in the body of this report.

XIII. Statement on General Performance Goals and Objectives

Pursuant to clause (3)(c) of House rule XIII, the goal of H.R. 3650 is to authorize the Under Secretary of Commerce for Oceans and Atmosphere and the Administrator of the Environmental Protection Agency to award grants to reduce harmful algal blooms and hypoxia.

XIV. Constitutional Authority Statement

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 3650.

XV. Federal Advisory Committee Statement

H.R. 3650 does not establish nor authorize the establishment of any advisory committee.

XVI. Congressional Accountability Act

The Committee finds that H.R. 3650 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) of the Congressional Accountability Act (Public Law 104–1).

XVII. Earmark Identification

H.R. 3650 does not contain any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in House Rule XXI, clause 9.

XVIII. Statement on Preemption of State, Local, or Tribal Law

This bill is not intended to preempt any state, local, or tribal law.

XIX. 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):

COAST GUARD AUTHORIZATION ACT OF 1998

SECTION 1. SHORT TITLE.

This Act may be cited as the "Coast Guard Authorization Act of 1998".

SEC. 2. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Short title.

* * * * * * *

TITLE VI—HARMFUL ALGAL BLOOMS AND HYPOXIA

Sec. 601. Short title.

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Sec. 602A. Definitions.

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Sec. 603A. National Harmful Algal Bloom and Hypoxia Program.
Sec. 603B. Regional research and action plans.

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Sec. 604A. Pacific Northwest, estuaries, and Puget Sound hypoxia.

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TITLE VI—HARMFUL ALGAL BLOOMS AND HYPOXIA

SEC. 601. SHORT TITLE.

This title may be cited as the "Harmful Algal Bloom and Hypoxia Research and Control Act of 1998".

* * * * * * *

SEC. 602A. DEFINITIONS.

In this title:

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

(2) PROGRAM.—The term "Program" means the National Harmful Algal Bloom and Hypoxia Program established under section 603A.

(3) UNDER SECRETARY.—The term "Under Secretary" means the Under Secretary of Commerce for Oceans and Atmosphere.

* * * * * * *

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

(a) IN GENERAL.—Except as provided in subsection (d), the Under Secretary, through the Task Force established under section 603(a), shall establish and maintain a National Harmful Algal Bloom and Hypoxia Program pursuant to this section.

(b) DUTIES.—The Under Secretary, through the Program, shall utilize the resources of the Task Force to—

(1) develop and promote a national strategy to understand, detect, predict, control, mitigate, and respond to marine and freshwater harmful algal bloom and hypoxia events;

(2) ensure the coordination of all Federal programs that address marine and freshwater harmful algal blooms and hypoxia, and other 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;

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

(4) identify additional research, development, and demonstration needs and priorities relating to monitoring, prediction, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia;

(5) encourage international information sharing and research efforts on marine and freshwater harmful algal blooms and hypoxia, and encourage international mitigation, control, and response activities;

(6) ensure the development and implementation of methods and technologies to protect the ecosystems affected by marine and freshwater harmful algal blooms;

(7) coordinate an education program that integrates and augments existing programs to improve public understanding and awareness of the causes, impacts, and mitigation efforts for marine and freshwater harmful algal blooms and hypoxia;

(8) assist in regional, State, tribal, and local efforts to develop and implement appropriate marine and freshwater harmful algal bloom and hypoxia response plans, strategies, and tools;

(9) provide resources for and assist in the training of State, tribal, and local water and coastal resource managers in the methods and technologies for monitoring, controlling, mitigating, and responding to the effects of marine and freshwater harmful algal blooms and hypoxia events;

(10) oversee the development, implementation, review, and periodic updating of the Regional Research and Action Plans under section 603B; and

(11) administer peer-reviewed, merit-based competitive grant funding to support—

(A) the projects maintained and established by the Program; and

(B) the research and management needs and priorities identified in the Regional Research and Action Plans.

(c) COOPERATIVE EFFORTS.—The Under Secretary shall work cooperatively and avoid duplication of efforts with other offices, centers, and programs within the National Oceanic and Atmospheric

Administration and other agencies represented on the Task Force established under section 603(a), States, tribes, and nongovernmental organizations concerned with marine and freshwater aquatic issues related to harmful algal blooms and hypoxia.

(d) FRESHWATER PROGRAM.—With respect to the freshwater aspects of the Program, the Under Secretary and the Administrator shall jointly carry out the duties otherwise assigned to the Under Secretary under this section and section 603B, including each of the programs identified in subsection (e)(1) and (2). The Administrator's participation under this subsection shall include—

(1) research on the ecology of freshwater harmful algal blooms;

(2) monitoring and event response of freshwater harmful algal blooms in lakes, rivers, estuaries (including their tributaries), and reservoirs; and

(3) mitigation and control of freshwater harmful algal blooms.

(e) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION PROGRAMS.—

(1) EXISTING PROGRAMS.—The Under Secretary shall maintain and enhance the following existing competitive programs:

(A) The Ecology and Oceanography of Harmful Algal Blooms Program.

(B) The Monitoring and Event Response for Harmful Algal Blooms Program.

(C) The Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program.

(D) The Coastal Hypoxia Research Program.

(E) The Prevention, Control, and Mitigation of Harmful Algal Blooms Program.

(2) NEW PROGRAMS.—The Under Secretary shall establish the following new programs:

(A) An Event Response Program to coordinate and enhance, at the request of the States, marine and freshwater harmful algal blooms and hypoxia events response activities.

(B) An Infrastructure Program to—

(i) increase availability of—

(I) analytical facilities and technologies;

(II) operational forecasts; and

(III) reference and research materials;

(ii) improve integration of harmful algal bloom activities with existing monitoring and observational programs; and

(iii) enhance communication and coordination required to meet the purposes of this Act.

(f) ACTION STRATEGY.—

(1) IN GENERAL.—Not later than 12 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, the Under Secretary, through the Task Force established under section 603(a), shall transmit to the Congress an action strategy that identifies—

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

(B) the roles and responsibilities of each Federal agency in the Task Force established under section 603(a) in carrying out Program activities.

(2) FEDERAL REGISTER.—The Under Secretary shall publish the action strategy in the Federal Register.

(3) PERIODIC REVISION.—The Under Secretary shall periodically review and revise the action strategy prepared under this subsection as necessary.

(g) REPORT.—Every 2 years after the submission of the action strategy, the Under Secretary shall prepare and transmit to the Congress a report that describes—

(1) the activities carried out under the Program and the budget related to these activities;

(2) the progress made on implementing the action strategy; and

(3) the need to revise or terminate activities or projects under the Program.

SEC. 603B. REGIONAL RESEARCH AND ACTION PLANS.

(a) IN GENERAL.—The Under Secretary, through the Task Force established under section 603(a), shall—

(1) identify the appropriate regions and subregions to be addressed by each Regional Research and Action Plan; and

(2) oversee the development and implementation of the Regional Research and Action Plans.

(b) CONTENTS.—The Plans developed under this section 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 prevent, predict, monitor, control, and mitigate harmful algal blooms and hypoxia;

(3) ways to reduce the duration and intensity of harmful algal blooms and hypoxia, including in times of emergency;

(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 vulnerable ecosystems that could be or have been affected by harmful algal blooms and hypoxia events;

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

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

(8) the roles that Federal agencies can play to assist in the implementation of the Plan.

(c) BUILDING ON AVAILABLE STUDIES AND INFORMATION.—In developing the Plans under this section, the Under Secretary shall—

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

(2) consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great Lakes, the Chesapeake Bay, and estuaries and tributaries.

(d) DEVELOPMENT OF PLANS.—The Under Secretary shall develop Plans under this section with assistance from the individuals and entities described in subsection (g).

(e) PLAN TIMELINE AND UPDATES.—The Under Secretary, through the Task Force established under section 603(a), shall ensure that the Plans developed under this section are completed not later than 24 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, and updated once every 5 years thereafter.

(f) REPORTS.—Not later than 6 months after the completion of each Regional Research and Action Plan, the Under Secretary shall transmit to the Congress a report that provides a summary of such Plan, and once every 30 months after the completion of such Plan, the Under Secretary shall transmit to the Congress a report that describes—

(1) the activities taken to implement the Plan, including a description of research funded and actions and outcomes of Plan response strategies carried out; and

(2) Federal funding provided to implement the Plan.

(g) COORDINATION AND CONSULTATION.—In developing the Plans under this section, as appropriate, the Under Secretary—

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

(2) shall coordinate with tribal resource management officials;

(3) shall coordinate with 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

(4) shall 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.

[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, and $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) TASK FORCE INITIAL PROGRESS REPORTS.—Not later than 12 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, the Administrator, through the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, shall complete and transmit to the Congress and the President a report on the progress made by Task Force-directed activities toward attainment of the coastal goal of the 2008 Gulf Hypoxia Action Plan.

(b) TASK FORCE 2-YEAR PROGRESS REPORTS.—After the initial report required under subsection (a), the Administrator, through the Task Force, shall complete and transmit to Congress and the President a report every 2 years thereafter on the progress made by Task Force-directed activities toward attainment of the coastal goal of the 2008 Gulf Hypoxia Action Plan.

(c) CONTENTS.—The reports required by this section shall assess 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. The reports shall—

(1) include an evaluation of how current policies and programs affect management decisions, including those made by municipalities and industrial and agricultural producers;

(2) evaluate lessons learned; and

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

SEC. 604A. PACIFIC NORTHWEST, ESTUARIES, AND PUGET SOUND HYPOXIA.

(a) ASSESSMENT REPORT.—Not later than 12 months after the date of enactment of this Act, the Task Force established under section 603 shall complete and submit to Congress and the President an integrated assessment of hypoxia in the coastal and estuarine waters of the Pacific Northwest that examines the status of current research, monitoring, prevention, response, and control efforts.

(b) PLAN.—Not later than 2 years after the date of enactment of this Act, such Task Force 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 coastal and estuarine waters of the Pacific Northwest. In developing such plan, the Task Force shall consult with State, Indian tribe,

and local governments, and academic, agricultural, industry, and environmental groups and representatives. Such plan shall include incentive-based partnership approaches. The plan shall also address the social and economic costs and benefits of the measures for reducing, mitigating, and controlling hypoxia. At least 90 days before submission of such plan to the Congress, a summary of the proposed plan shall be published in the Federal Register. After submission of the plan, the Task Force shall provide progress reports on the activities toward attainment of the goals set forth in the plan reduce, mitigate, and control hypoxia in the coastal and estuarine waters of the Pacific Northwest every 2 years.

SEC. 605. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated—

(1) to the Under Secretary to carry out sections 603A and 603B, $35,000,000 for each of fiscal years 2010 through 2014, of which, for each fiscal year—

(A) up to $3,000,000 shall be for the development of the Regional Research and Action Plans and the reports required by sections 604 and 604A;

(B) $3,000,000 shall be for the research and assessment activities related to marine and freshwater harmful algal blooms at research laboratories of the National Oceanic and Atmospheric Administration;

(C) $8,000,000 shall be used to carry out the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB);

(D) $5,500,000 shall be used to carry out the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB);

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

(F) $5,000,000 shall be used to carry out the Coastal Hypoxia Research Program (CHRP);

(G) $5,000,000 shall be used to carry out the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM);

(H) $1,000,000 shall be used to carry out the Event Response Program; and

(I) $3,000,000 shall be used to carry out the Infrastructure Program; and

(2) to the Administrator to carry out sections 603A and 603B, $6,000,000 for each of fiscal years 2010 through 2014, of which up to $3,000,000 for each fiscal year shall be for participation in carrying out section 603A(e), as described in section 603A(d).

* * * * * * *

XX. Committee Recommendations

On October 7, 2009, the Committee on Science and Technology favorably reported by voice vote the bill, H.R. 3650, as amended, to the House with the recommendation that the bill, as amended, do pass.

XXI. Additional Views

ADDITIONAL VIEWS OFFERED BY REPRESENTATIVES RALPH HALL, F. JAMES SENSENBRENNER, LAMAR SMITH, DANA ROHRABACHER, ROSCOE BARTLETT, VERN EHLERS, FRANK LUCAS, BOB INGLIS, BRIAN BILBRAY, ADRIAN SMITH, PAUL BROUN AND PETE OLSON

As a whole, the reauthorization of harmful algal blooms and hypoxia research and development has been a bipartisan effort. This bill is the second reauthorization since the original law passed in 1998. Throughout the committee process, both sides have worked well together to put forth a good bill that takes this important research and development (R&D) to the next step. However, some concerns remain.

H.R. 3650 is intended to address a problem that affects nearly every State, however, we want to make sure that the regional research and action plans that are called for are not a top-down mandate, but a true collaboration between the Federal government and the States and local areas directly affected by these blooms. We want to make sure we are not imposing undue burdens on States that they would not voluntarily take on themselves. Although the onus is currently on the Federal government, the activities identified in these plans are ones that will most likely be executed by State, tribal and local governments. As it is written right now, H.R. 3650 does not contain any safeguards against unfunded mandates, which would result if State, tribal and local governments were forced to undertake the activities identified in the plans that the Federal government is responsible for developing and implementing.

During the markup, we offered amendments that would address the concern that States not be overly encumbered with potentially undesired requirements by the Federal government. The first amendment would have prevented any increased financial burden to State, tribal or local governments as a result of anything in the bill or the law it amends. Despite receiving bipartisan support, the amendment was ultimately rejected. A second amendment would have required the development and implementation of the plans initiated only at the request of the States—not the Federal government's mandate. Unfortunately, this amendment was also rejected after a roll call vote.

State, tribal and local governments are already shouldering the burden of the effects of harmful algal blooms and hypoxia, since these events have a direct impact on local and regional economies. Furthermore, in the current economic climate, these governments are struggling to prioritize and fund the most basic of services. The amendments we offered at Committee would ensure that these gov-

ernments would not be forced to choose between cutting necessities like teachers or police in order to fund Federal requirements set out in the Regional Research and Action Plans.

We hope as this bill moves forward in the legislative process, these basic protections of States' rights will be incorporated.

RALPH M. HALL.
JIM SENSENBRENNER.
LAMAR SMITH.
DANA ROHRABACHER.
ROSCOE G. BARTLETT.
VERNON J. EHLERS.
FRANK D. LUCAS.
BOB INGLIS.
BRIAN P. BILBRAY.
ADRIAN SMITH.
PAUL C. BROUN.
PETE OLSON.

ADDITIONAL VIEWS OF REPRESENTATIVE GRAYSON

Mr. Chairman, I would like to take this opportunity to thank you and the Committee staff for your commitment to ensure that watershed language be identified in the final report on H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009. As we know, watersheds, or drainage basins, collect excess water from an area, whether it be rain or melting snow, and channel this into a waterway. As this water flows over the ground and along rivers, it also has the ability to pick up high levels of toxins, agricultural runoff, and other water pollutions which have negative implications on the ecological processes and wildlife downriver.

Mr. Chairman, my state of Florida is both surrounded by waters that are no stranger to hypoxia, and home to some of the most fragile wetlands and watersheds in the country, including roughly 4 million acres that belong to our national treasure, the Everglades. The agricultural usage of artificial fertilizers high in nitrogen, potassium and phosphorous have continued to threaten both humans and the rich flora and fauna ecologies of these invaluable wetlands and watersheds. As we take up legislation regarding harmful algal blooms and hypoxia, I believe it is essential that we not overlook the devastating effects these also play on our inland freshwaters such as watersheds.

As a representative of the state of Florida, I feel it is important to identify or include watershed language into the final report, which will ensure that watersheds are included along with the research and dissemination of information regarding the monitoring, prevention, control, and mitigation of harmful algal blooms and hypoxia to our fresh and inland waters, estuaries, and tributaries.

ALAN GRAYSON.

XXII. EXCHANGE OF COMMITTEE CORRESPONDENCE

U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

James L. Oberstar
Chairman

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

John L. Mica
Ranking Republican Member

James W. Coon II, Republican Chief of Staff

December 14, 2009

The Honorable Bart Gordon
Chairman
Committee on Science and Technology
U.S. House of Representatives
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Gordon:

I write to you regarding H.R. 3650, the "Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009".

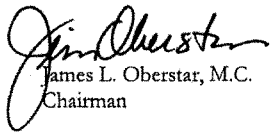
H.R. 3650 contains provisions that fall within the jurisdiction of the Committee on Transportation and Infrastructure. I recognize and appreciate your desire to bring this legislation before the House in an expeditious manner and, accordingly, I will not seek a sequential referral of the bill. However, I agree to waive consideration of this bill with the mutual understanding that my decision to forgo a sequential referral of the bill does not waive, reduce, or otherwise affect the jurisdiction of the Committee on Transportation and Infrastructure over H.R. 3650.

Further, the Committee on Transportation and Infrastructure reserves the right to seek the appointment of conferees during any House-Senate conference convened on this legislation on provisions of the bill that are within the Committee's jurisdiction. I ask for your commitment to support any request by the Committee on Transportation and Infrastructure for the appointment of conferees on H.R. 3650 or similar legislation.

Please place a copy of this letter and your response acknowledging the Committee on Transportation and Infrastructure's jurisdictional interest in the Committee Report on H.R. 3650 and in the *Congressional Record* during consideration of the measure in the House.

I look forward to working with you as we prepare to pass this important legislation.

Sincerely,



James L. Oberstar, M.C.
Chairman

cc: The Honorable Nancy Pelosi, Speaker
The Honorable John L. Mica, Ranking Member
The Honorable Ralph M. Hall, Ranking Member, Committee on Science and Technology
The Honorable John Sullivan, Parliamentarian

BART GORDON, TENNESSEE
CHAIRMAN

RALPH M. HALL, TEXAS
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE AND TECHNOLOGY
SUITE 2321 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6301
(202) 225–6375
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December 14, 2009

The Honorable James L. Oberstar
Chairman
Committee on Transportation and Infrastructure
U.S. House of Representatives
2165 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Oberstar:

Thank you for your letter regarding H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009. Your support for this legislation and your assistance in ensuring its timely consideration are greatly appreciated.

I agree that provisions in the bill are of jurisdictional interest to the Committee on Transportation and Infrastructure. I acknowledge that by forgoing a sequential referral, your Committee is not relinquishing its jurisdiction and I will fully support your request to be represented in a House-Senate conference on those provisions over which the Committee on Transportation and Infrastructure has jurisdiction in H.R. 3650. A copy of our letters will be placed in the Committee Report on H.R. 3650 and in the *Congressional Record* during consideration of the bill on the House floor.

I value your cooperation and look forward to working with you as we move ahead with this important legislation.

Sincerely,

BART GORDON
Chairman

cc: The Honorable Nancy Pelosi, Speaker
The Honorable Ralph M. Hall, Ranking Member
The Honorable John L. Mica, Ranking Member,
Committee on Transportation and Infrastructure

NICK J. RAHALL II, WV
CHAIRMAN
DALE E. KILDEE, MI
ENI F.H. FALEOMAVAEGA, AS
NEIL ABERCROMBIE, HI
FRANK PALLONE, JR., NJ
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DAN BOREN, OK
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CAROL SHEA-PORTER, NH
NIKI TSONGAS, MA
FRANK KRATOVIL, JR., MD
PEDRO R. PIERLUISI, PR

JAMES H. ZOIA
CHIEF OF STAFF

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

DOC HASTINGS, WA
RANKING REPUBLICAN MEMBER
DON YOUNG, AK
ELTON GALLEGLY, CA
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CATHY McMORRIS RODGERS, WA
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ADRIAN SMITH, NE
ROBERT J. WITTMAN, VA
PAUL C. BROUN, GA
JOHN FLEMING, LA
MIKE COFFMAN, CO
JASON CHAFFETZ, UT
CYNTHIA M. LUMMIS, WY
TOM McCLINTOCK, CA
BILL CASSIDY, LA

TODD YOUNG
REPUBLICAN CHIEF OF STAFF

November 12, 2009

The Honorable Bart Gordon
Chairman
Committee on Science and Technology
2321 Rayburn H.O.B.
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for the opportunity to work with you on H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, which was referred to the Committee on Science and Technology, and in addition to the Committee on Natural Resources.

Because of the continued cooperation and consideration that you have afforded me and my staff in developing these provisions, and knowing of your interest in expediting this legislation, I am willing to waive further consideration of H.R. 3650 by the Committee on Natural Resources at this time. Of course, this waiver is not intended to prejudice any future jurisdictional claims over the provisions of this legislation or similar language. I also reserve the right to seek to have conferees named from the Committee on Natural Resources on these provisions, and request your support if such a request is made.

Please place this letter into the committee report on H.R. 3650 and into the Congressional Record during consideration of the measure on the House floor.

With warm regards, I am

Sincerely,

NICK J. RAHALL, II
Chairman
Committee on Natural Resources

BART GORDON, TENNESSEE
CHAIRMAN

RALPH M. HALL, TEXAS
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE AND TECHNOLOGY
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November 12, 2009

The Honorable Nick J. Rahall, II
Chairman
Committee on Natural Resources
U.S. House of Representatives
1324 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Rahall:

Thank you for your letter regarding H.R. 3650, the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009. Your support for this legislation and your assistance in ensuring its timely consideration are greatly appreciated.

I agree that provisions in the bill are of jurisdictional interest to the Committee on Natural Resources. I acknowledge that by discharging the Committee on Natural Resources from further consideration of H.R. 3650, your Committee is not relinquishing its jurisdiction and I will fully support your request to be represented in a House-Senate conference on those provisions over which the Committee on Natural Resources has jurisdiction. A copy of our letters will be placed in the Committee Report on H.R. 3650 and in the *Congressional Record* during consideration of the bill on the House floor.

I value your cooperation and look forward to working with you as we move ahead with this important legislation.

Sincerely,

BART GORDON
Chairman

cc: The Honorable Nancy Pelosi, Speaker
The Honorable Ralph M. Hall, Ranking Member, Committee on Science and Technology
The Honorable Doc Hastings, Ranking Member, Committee on Natural Resources
The Honorable John Sullivan, Parliamentarian

XXIII. PROCEEDINGS OF THE MARKUP BY THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT ON H.R. 3650, HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2009

WEDNESDAY, SEPTEMBER 30, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY AND ENVIRONMENT,
COMMITTEE ON SCIENCE,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Brian Baird [Chairman of the Subcommittee] presiding.

Chairman BAIRD. Good morning. The Subcommittee will now come to order.

Pursuant to notice, the Subcommittee on Energy and Environment meets to consider the following measures: H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009;* H.R. 3585, the *Solar Technology Roadmap Act;* and H.R. 3598, the *Energy and Water Research Integration Act.* Today we will consider these there bills that cover a wide range of topics in this subcommittee's purview.

First, the Subcommittee will consider my bill, H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.* As we heard in this subcommittee two weeks ago, rapid overproduction of algae can have devastating effects on aquatic plant and animal life and human health. Unfortunately, despite years of research, the frequency and duration of the harmful algal blooms and hypoxia are on the rise, and affecting more of our coastlines and inland waters. This bill directs the National Oceanic and Atmospheric Administration to implement research strategies and plans to better understand and respond to these blooms and hypoxic events. I look forward to discussing the bill more when we call it up for consideration.

Our third bill will be H.R. 3585. We are changing the order slightly in order for Chairman Gordon to make an Energy and Commerce markup, so our third bill will be H.R. 3585, the *Solar Technology Roadmap Act,* authored by the Space and Aeronautics Subcommittee Chair, Ms. Gabrielle Giffords. This bill instructs the Department of Energy to create a comprehensive and updatable roadmap for solar research, development and demonstration activities with strong private and public input. This roadmap will be

critically important to using our limited research dollars as effectively as possible in harnessing the truly immense solar resources we have in the U.S.

Then our second bill will be H.R. 3598, the *Energy and Water Research Integration Act,* authored by the Full Committee Chairman, Mr. Bart Gordon. A little over a year ago, the Chairman began a comprehensive review of our federal research and technology development efforts to improve utilization of our precious water resources. The Committee has since held five hearings and passed out of the House three bills pertaining to this important topic. We now look forward to hearing from Chairman Gordon on this next installment, which addresses the critical linkage between our nation's energy and water resources and directs the Department of Energy to better integrate water into existing federal efforts in this field.

The three bills we have before us today target several important research needs. I thank you all for your attendance and participation this morning, and I look forward to a productive markup.

I recognize Mr. Inglis to present his opening remarks.

[The prepared statement of Chairman Baird follows:]

PREPARED STATEMENT OF CHAIRMAN BRIAN BAIRD

I welcome everyone to this morning's Energy and Environment Subcommittee markup.

Today we will consider three bills that cover a wide range of topics in this subcommittee's purview.

First, the Subcommittee will consider my bill, H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.* As we heard in this subcommittee two weeks ago, rapid overproduction of algae can have devastating effects on aquatic plant and animal life and human health.

Unfortunately, despite years of research, the frequency and duration of the harmful algal blooms and hypoxia are on the rise, and affecting more of our coastlines and inland waters. This bill directs the National Oceanic and Atmospheric Administration to implement research strategies and plans to better understand and respond to these blooms and hypoxic events. I look forward to discussing the bill more when we bring it up for consideration.

Next, we will consider H.R. 3585, the *Solar Technology Roadmap Act,* authored by the Space and Aeronautics Subcommittee Chair, Ms. Gabrielle Giffords. This bill instructs the Department of Energy to create a comprehensive, updatable roadmap for solar research, development, and demonstration activities with strong private and public input.

This roadmap will be critically important to using our, limited research dollars as effectively as possible in harnessing the truly immense solar resources we have in the U.S.

Finally, we will take up H.R. 3598, the *Energy and Water Research Integration Act,* authored by the Full Committee Chairman, Mr. Bart Gordon. In the last Congress the Chairman announced his intention to undertake a comprehensive review of our federal research and technology development efforts to improve utilization of our precious water resources. We have since held five hearings and passed out of the House three bills pertaining to this important topic.

We now look forward to hearing from Chairman Gordon on this next installment which addresses the critical linkage between our nation's energy and water resources, and directs the Department of Energy to better integrate water into existing federal efforts in this field.

The three bills we have before us today target several important research needs. I thank you all for your attendance and participation this morning, and I look forward to a productive markup.

Mr. INGLIS. Thank you, Mr. Chairman. Today we address three pieces of legislation that aim to improve the health of our environment, our investment in solar energy and impact of energy use and development on water resources.

The first bill we will look at is the *Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2009.* It will advance efforts at the federal level to reduce the negative impact that algal blooms have on the environment. Every summer we hear stories about the impact of runaway algae growth on local water quality, animal deaths and environmental quality. Not only do these blooms impact recreation, they burden marine, commerce and human health. This legislation will promote a better understanding of algal blooms and will help us effectively prevent and respond to blooms and hypoxia.

Second, we will discuss the *Solar Technology Roadmap Act.* This bill aims to increase the strength of our domestic solar technology industry through a coordinated research and development program and public-private partnerships. It also requires industry, academia and government researchers to develop a long-term roadmap that will advance our clean energy alternatives. I hope we can ensure the roadmap is not focused on technology options we are already aware of but also emphasizes cutting-edge advancements that will define the future of solar power.

Finally, we turn to the *Energy and Water Research Integration Act,* which directs the Department of Energy to take into consider energy-related water issues in research, development and demonstration projects. While I agree with the intent of the bill, I am concerned that this only reframes existing DOE priorities and ignores the large role that water resource information should play. I am looking forward to working together to improve the bill.

Thank you again, Mr. Chairman, and I look forward to addressing this legislation.

Chairman BAIRD. Thank you, Mr. Inglis. Members may place statements for the record at this point.

We will now consider H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.* I recognize myself for five minutes to describe the bill.

H.R. 3650 reauthorizes the *Harmful Algal Blooms and Hypoxia Act of 1998.* This bill requires the Under Secretary of Commerce for Oceans and Atmosphere at NOAA to establish and maintain the National Harmful Algal Bloom and Hypoxia Program. The Under Secretary is required to work cooperatively with other offices, centers and programs within NOAA as well as with the States, tribes, non-governmental organizations and other federal agencies to avoid duplication of efforts. H.R. 3650 explicitly directs the EPA Administrator and the Under Secretary to coordinate efforts to address freshwater harmful algal blooms and hypoxia. The bill requires the Under Secretary to transmit to Congress an action strategy that outlines the specific activities for the program and also directs the Task Force established in the 1998 law to transmit a report to Congress on hypoxia in the coastal and estuarine waters of the Pacific Northwest and develop a plan for reducing, mitigating and controlling hypoxia. To accomplish these objectives, the bill provides an authorization of $35 million per year over five years for NOAA for the overall program and $6 million per year for five years for EPA to conduct a freshwater HABs program.

I am proud to say the bill has been a joint effort with my colleague from Michigan, Mr. Ehlers, or Dr. Ehlers, and I want to

particularly commend him for his many years of work on this and his commitment to the Great Lakes region on a host of topics. I also want to thank him for being a consistent champion for NOAA and these related issues. There are also several other co-sponsors, Mr. Mack and Ms. Castor of Florida, Mr. Delahunt of Massachusetts and Mr. Kratovil of Maryland. On that note, I would encourage all of my fellow Subcommittee colleagues to co-sponsor this important legislation. I look forward to further improvements as we move it to the Full Committee, and I now recognize Mr. Inglis to present any remarks on the bill.

[The prepared statement of Chairman Baird follows:]

PREPARED STATEMENT OF CHAIRMAN BRIAN BAIRD

H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* reauthorizes the *Harmful Algal Blooms and Hypoxia Act of 1998.* The Act establishes a National Harmful Algal Bloom and Hypoxia Program to develop and coordinate a comprehensive strategy to address harmful algal blooms and hypoxia. The Act also mandates the development and implementation of comprehensive regional action plans.

The Under Secretary of Commerce for Oceans and Atmosphere is directed to establish and maintain the National Harmful Algal Bloom and Hypoxia Program as Chair of the Task Force established in the 1998 law. The Act outlines tasks for the Under Secretary to ensure are carried out through the Program. The Under Secretary is required to work cooperatively with other offices, centers, and programs within NOAA, as well as, with states, tribes, non-governmental organizations, and other federal agencies on the Task Force to avoid duplication of efforts.

H.R. 3650 explicitly directs the Administrator of the Environmental Protection Agency and the Under Secretary to work together to address the freshwater harmful algal blooms and hypoxia.

H.R. 3650 also requires the Under Secretary to transmit to Congress an action strategy that outlines the specific activities to be carried out by the Program, a timeline for such activities, and the programmatic roles of each federal agency in the Task Force.

H.R. 3650 directs the Under Secretary to oversee the development and implementation of the Regional Research and Action Plans by identifying the appropriate regions and sub-regions to be addressed by each Plan. The Plans must also identify research, activities, and technologies needed to predict, monitor, prevent, control, and mitigate harmful algal blooms. and hypoxia. In addition, the Under Secretary is directed to utilize and build upon existing research, assessments, and reports in the development of these Plans.

The bill directs the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to transmit a report to Congress on the progress made toward attaining the coastal goals of the 2008 Gulf Hypoxia-Action Plan. The reports must include an assessment of the progress made on nutrient load reductions, the response of the hypoxia zone and water quality throughout the Mississippi/Atchafalaya River Basin and the economic and social impacts.

H.R. 3650 directs the Task Force established in the 1998 law to transmit an assessment report to Congress on the hypoxia in the coastal and estuarine waters of the Pacific Northwest and develop a Plan for reducing, mitigating, and controlling hypoxia.

Finally, H.R. 3650 provides an authorization of $35,000,000 for each fiscal year from 2010 through 2014, to the Under Secretary of Commerce for Oceans and Atmosphere to implement the Program; $5,000,000 is for each of the fiscal years for the development of the Regional Research and Action Plans. H.R. 3650 authorizes $6,000,000 for each fiscal year from 2010 through 2014 to the Administrator of the Environmental Protection Agency for the freshwater HABs activities of Program:

This bill has been a joint effort with Mr. Ehlers of Michigan. Thank you for being a consistent champion for NOAA and these issues. We also have several co-sponsors on this bill—Mr. Mack of Florida; Ms. Castor, also of Florida, Mr. Delahunt of Massachusetts; Mr. Kratovil of Maryland; and thank you all for your support on this bill and we hope to move an even better bill at today's markup.

I urge the support of all Members of the Subcommittee for this bill.

Mr. INGLIS. Thank you, Mr. Chairman. At our hearing two weeks ago, we heard a considerable amount about work being done to understand HABs and hypoxia and to improve national communication about events. We also heard about promising approaches to take action to prevent, control and mitigate the negative effects of runaway algal growth. H.R. 3650 is the next step in creating response programs nationwide and reducing the negative effects of HABs and hypoxia on recreation and our marine economy.

I would like to thank the Majority staff for working with Minority staff on this legislation and look forward to its passage.

[The prepared statement of Mr. Inglis follows:]

PREPARED STATEMENT OF REPRESENTATIVE BOB INGLIS

At our hearing two weeks ago, we heard a considerable amount about work being done to understand HABs (pronounced "habs") and hypoxia and improve national communication about events. We also heard about promising approaches to take action to prevent, control, and mitigate the negative effects of runaway algae growth. H.R. 3650 is the next step in creating response programs nation wide and reducing the negative impacts of HABs and hypoxia on recreation and our marine economy. I'd like to thank the Majority staff for working with Minority staff on this legislation.

Chairman BAIRD. Does any other Member wish to be recognized? Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman, for your kind words and thank you especially for your work on this issue. It continues to be a major issue and a major danger to much of the life in our seas and Great Lakes, and I appreciate the effort you have put into it and updating it and improving it from its original form, and thank you for all the good work you have done on it. I yield back.

[The prepared statement of Mr. Ehlers follows:]

PREPARED STATEMENT OF REPRESENTATIVE VERNON J. EHLERS

H.R. 3650 is an important step in responding to the problem of harmful algal blooms and hypoxia, which threaten our coastlines in addition to our inland freshwaters.

This reauthorization will build upon the 1998 *Harmful Algal Bloom and Hypoxia Research and Control Act* and the 2004 reauthorization by establishing a National Harmful Algal Bloom and Hypoxia Program, along with a number of Regional Research and Action plans to address the unique challenges of harmful algal blooms and hypoxia across the country.

I am proud to co-sponsor this legislation, and I thank Chairman Baird for his leadership and willingness to work together in producing this legislation. I urge my colleagues to support it.

Chairman BAIRD. Thank you, Dr. Ehlers. Any other Members wish to be recognized? If not, then I ask unanimous consent that the bill is considered as read and open to amendment at any point. Without objection, so ordered.

The first amendment on the roster is a manager's amendment. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 3650, amendment number 036, offered by Mr. Baird of Washington and Mr. Ehlers of Michigan.

Chairman BAIRD. I ask unanimous consent to dispense with the reading. Without objection, so ordered. I recognize myself for five minutes to explain the amendment.

The manager's amendment makes a series of clarifying changes throughout the bill, many in response to suggestions made in the Subcommittee hearing two weeks ago, and at this point I want to

make sure I put into the record our gratitude for the outstanding testimony we had from witnesses. We went very carefully through all of their written and spoken testimony and believe that the vast majority of the recommendations, which were quite sound, have been included in the amendment.

The amendment makes changes to reflect the addition of existing NOAA activities to the program and provides for the establishment of an Event Response Program and an Infrastructure Program as recommended. Deadlines for the reports to Congress are changed to allow adequate time for completion of the action strategy, regional plans, and reports while also maintaining a responsible level of accountability. Language is also added to ensure that NOAA works in coordination with and does not duplicate the efforts of other federal agencies. The amendment also expands the authorization of an appropriations section to provide more specificity to the direction of the funding in the bill. The amendment again is the product of discussions between Majority and Minority staff. It improves the bill and ensures a more effective, efficient and highly collaborative program. I urge colleagues to support the amendment.

Is there further discussion on the amendment? If no, the vote occurs on the amendment. All in favor, say aye. Those opposed, no. The ayes have it and the amendment is agreed to.

The second amendment on the roster is an amendment offered by the gentlelady from Maryland, Ms. Edwards. Are you ready to proceed with your amendment?

Ms. EDWARDS. I am, Mr. Chairman. I have an amendment at the desk.

Chairman BAIRD. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 3650, amendment number 045, offered by Ms. Edwards of Maryland.

Chairman BAIRD. I ask unanimous consent to dispense with the reading. Without objection, so ordered. I recognize the gentlelady from Maryland for five minutes to explain the amendment.

Ms. EDWARDS. Thank you, Mr. Chairman, for your important leadership on this issue. As you know, these harmful algal blooms are having a substantially negative impact on our waterways, and as a representative of Maryland, the health and welfare of the Chesapeake Bay and its tributaries is a top priority of mine. The Chesapeake Bay is the largest estuary in the country and currently nitrogen and phosphorus pollution are the most serious problems facing the bay. Too much nitrogen and phosphorus cause these algal blooms that block sunlight to underwater grasses, and when the blooms decompose they consume oxygen and create dead zones all through the bay and its tributaries where dissolved oxygen levels are too low to sustain marine life. The impact is negative to the plants and the sea life in the bay and its tributaries. For example, from the 1950s to the 1970s, the average annual oyster catch was about 25 million pounds per year and the blue crab harvest contributed nearly a third of the Nation's catch. Today the bay's oyster population is a mere two percent of its historic level and reduced amounts of the underwater grass habitat in addition to low summer levels of dissolved oxygen continue to keep the crab population well below average.

The health of the Chesapeake Bay is so grave that on May 12, 2009, President Obama issued Executive Order 13508 to protect and restore the Bay watershed. Four federal agencies are tasked with looking out for the health of the Chesapeake Bay.

I wanted to make sure this bill addressed the bay and other similar bodies of water. Therefore, my amendment amends Section 5, Regional Research and Action Plans, to require that the Under Secretary consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters including the Great Lakes, the Chesapeake Bay and estuaries and tributaries in developing the Regional Research and Action Plans. Last week in this committee room, the Director of the National Oceanographic Atmospheric Administration, NOAA, indicated that harmful algal blooms are a threat to the health of Americans and to the national economy, which is why we must have a comprehensive and all-inclusive approach at addressing this issue on a national level.

Again, I thank you for your leadership and look forward to the consideration of this amendment, and I urge my colleagues to adopt the amendment.

[The prepared statement of Ms. Edwards follows:]

PREPARED STATEMENT OF REPRESENTATIVE DONNA F. EDWARDS

Thank you Mr. Chairman for your important leadership on this very important issue.

As you know these harmful algal blooms are having a substantially negative impact on our waterways. As a Representative of Maryland, the health and welfare of the Chesapeake Bay and its tributaries is a top priority of mine.

Currently, nitrogen and phosphorus pollution are the most serious problems facing the Chesapeake Bay. Too much nitrogen and phosphorus cause these algae blooms that block sunlight to underwater grasses. When the blooms decompose, they consume oxygen and create "dead zones," where dissolved oxygen levels are too low to sustain marine life. Marine life cannot survive in these dead zones. The impact is negative to the plants and the sea-life in the Bay and its tributaries. For example from the 1950's to the 1970's the average annual oyster catch was about 25 million pounds per year, and the blue crab harvest contributed nearly a third of the Nation's catch.

Today, the Bay's oyster population is a mere TWO PERCENT of its historic level, and reduced amounts of the underwater grass habitat, in addition to low summer levels of dissolved oxygen, continue to keep the crab population well-below average.

The health of the Chesapeake Bay is so great that on May 12, 2009, President Obama issued Executive Order 13508 to protect and restore the Bay Watershed. Four federal agencies are tasked with looking out for the health of the Chesapeake Bay.

I wanted to make sure this bill addressed the Chesapeake Bay and other similar bodies of water. Therefore, my amendment amends Section 5 ("Regional Research Action Plans") to require that the Under Secretary "consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great Lakes, the Chesapeake Bay, and estuaries and tributaries" in developing the Regional Research Action Plans.

Last week, in this committee room, the Director of the National Oceanic Atmospheric Administration (NOAA) indicated that harmful algal blooms are a threat to the health of Americans and to the national economy, which is why we must have a comprehensive and all inclusive approach at addressing this issue on a national level.

Chairman BAIRD. I thank the gentlelady. The Chesapeake Bay has a true champion in Ms. Edwards, and Mr. Kratovil has also expressed his interest in this, but Ms. Edwards, you know we have a similar experience up in the Pacific Northwest with the great Puget Sound and we also have oysters, crab and shellfish and

harmful algal blooms and hypoxia are problematic there too, so I share in your commitment to this and applaud your efforts.

[The prepared statement of Chairman Baird follows:]

PREPARED STATEMENT OF CHAIRMAN BRIAN BAIRD

Thank you Ms. Edwards for your continuous input on this subcommittee. I understand and support your amendment. It is a simple provision that brings attention to the Chesapeake Bay area. This area has many of the same concerns we experience on the west coast and algae has caused tremendous difficulties and problems.

I thank the gentlelady for this amendment and urge its adoption.

Chairman BAIRD. Is there any further discussion of the amendments? If no, the vote occurs on the amendment. All in favor, say aye. Those opposed, no. The ayes have it and the amendment is agreed to.

Any other Members wishing to comment further? If no, then the vote is on the bill, H.R. 3650, as amended. All those in favor will say aye. All those opposed, no. In the opinion of the Chair, the ayes have it.

I now recognize myself to offer a motion. I move that the Subcommittee favorably report H.R. 3650 as amended to the Full Committee. Furthermore, I move that staff be instructed to prepare the Subcommittee report and make necessary technical and conforming changes to the bill in accordance with the recommendations of the Subcommittee.

The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it, and the bill is favorably reported. Without objection the motion to reconsider is laid upon the table. Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on the measure.

With that, I thank my colleagues for their input and the outstanding staff for their work on this legislation, and with that, this markup stands adjourned.

[Whereupon, at 11:15 a.m., the Subcommittee was adjourned.]

Appendix:

H.R. 3650, Section-by-Section Analysis, Amendment Roster

.....
(Original Signature of Member)

111TH CONGRESS
1ST SESSION

H. R. 3650

To establish a National Harmful Algal Bloom and Hypoxia Program, to develop and coordinate a comprehensive and integrated strategy to address harmful algal blooms and hypoxia, and to provide for the development and implementation of comprehensive regional action plans to reduce harmful algal blooms and hypoxia.

IN THE HOUSE OF REPRESENTATIVES

Mr. BAIRD (for himself and Mr. EHLERS) introduced the following bill; which was referred to the Committee on _____

A BILL

To establish a National Harmful Algal Bloom and Hypoxia Program, to develop and coordinate a comprehensive and integrated strategy to address harmful algal blooms and hypoxia, and to provide for the development and implementation of comprehensive regional action plans to reduce harmful algal blooms and hypoxia.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009''.

SEC. 2. AMENDMENT OF 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. DEFINITIONS.

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

''SEC. 602A. DEFINITIONS.

''In this title:

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

''(2) PROGRAM.—The term 'Program' means the National Harmful Algal Bloom and Hypoxia Program established under section 603A.

1 "(3) UNDER SECRETARY.—The term 'Under
2 Secretary' means the Under Secretary of Commerce
3 for Oceans and Atmosphere.".

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

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

8 **"SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HY-**
9 **POXIA PROGRAM.**

10 "(a) IN GENERAL.—Except as provided in subsection
11 (d), the Under Secretary, through the Task Force estab-
12 lished under section 603(a), shall establish and maintain
13 a National Harmful Algal Bloom and Hypoxia Program
14 pursuant to this section.

15 "(b) DUTIES.—The Under Secretary, through the
16 Program, shall—

17 "(1) develop and promote a national strategy to
18 understand, detect, predict, control, mitigate, and
19 respond to marine and freshwater harmful algal
20 bloom and hypoxia events;

21 "(2) ensure the coordination of all Federal pro-
22 grams that address marine and freshwater harmful
23 algal blooms and hypoxia, and other ocean and
24 Great Lakes science and management programs and
25 centers that address the chemical, biological, and

1 physical components of marine and freshwater
2 harmful algal blooms and hypoxia;
3 "(3) coordinate and work cooperatively with re-
4 gional, State, tribal, and local government agencies
5 and programs that address marine and freshwater
6 harmful algal blooms and hypoxia;
7 "(4) identify additional research, development,
8 and demonstration needs and priorities relating to
9 monitoring, prevention, control, mitigation, and re-
10 sponse to marine and freshwater harmful algal
11 blooms and hypoxia;
12 "(5) support international research efforts on
13 marine and freshwater harmful algal blooms and hy-
14 poxia, and support international information shar-
15 ing, mitigation, control, and response activities;
16 "(6) ensure the development and implementa-
17 tion of methods and technologies to protect the eco-
18 systems affected by marine and freshwater harmful
19 algal blooms;
20 "(7) coordinate an outreach, education, and
21 training program that integrates and augments ex-
22 isting programs to improve public education about
23 and awareness of the causes, impacts, and mitiga-
24 tion efforts for marine and freshwater harmful algal
25 blooms and hypoxia;

"(8) facilitate regional, State, tribal, and local efforts to develop and implement appropriate marine and freshwater harmful algal bloom and hypoxia response plans, strategies, and tools, including outreach programs and information dissemination mechanisms;

"(9) facilitate and provide resources for training of regional, State, tribal, and local coastal and water resource managers in the methods and technologies for monitoring, preventing, controlling, mitigating, and responding to marine and freshwater harmful algal blooms and hypoxia events;

"(10) develop and enhance critical observations, monitoring, modeling, data management, information dissemination, and operational forecasts;

"(11) oversee the development, implementation, review, and periodic updating of the Regional Research and Action Plans under section 603B; and

"(12) administer peer-reviewed, merit-based competitive grant funding to support—

"(A) the projects maintained and established by the Program; and

"(B) the research and management needs and priorities identified in the Regional Research and Action Plans.

"(c) COOPERATIVE EFFORTS.—The Under Secretary shall work cooperatively with other offices, centers, and programs within the National Oceanic and Atmospheric Administration and other agencies represented on the Task Force established under section 603(a), States, tribes, and nongovernmental organizations concerned with marine and freshwater aquatic issues related to harmful algal blooms and hypoxia.

"(d) FRESHWATER PROGRAM.—With respect to the freshwater aspects of the Program, the Under Secretary and the Administrator shall jointly carry out the duties otherwise assigned to the Under Secretary under this section and section 603B.

"(e) ACTION STRATEGY.—

"(1) IN GENERAL.—Not later than 12 months after the date of enactment of the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009, the Under Secretary, through the Task Force established under section 603(a), shall transmit to the Congress an action strategy that identifies—

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

"(B) the roles and responsibilities of each Federal agency in the Task Force established under section 603(a) in carrying out Program activities.

"(2) FEDERAL REGISTER.—The Under Secretary shall publish the action strategy in the Federal Register.

"(3) PERIODIC REVISION.—The Under Secretary shall periodically review and revise the action strategy prepared under this subsection as necessary.

"(f) REPORT.—Every 2 years after the submission of the action strategy, the Under Secretary shall prepare and transmit to the Congress a report that describes—

"(1) the activities carried out under the Program and the budget related to these activities; and

"(2) the progress made on implementing the action strategy.".

SEC. 5. REGIONAL RESEARCH AND ACTION PLANS.

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

"SEC. 603B. REGIONAL RESEARCH AND ACTION PLANS.

"(a) IN GENERAL.—The Under Secretary, through the Task Force established under section 603(a), shall—

1 "(1) identify the appropriate regions and sub-
2 regions to be addressed by each Regional Research
3 and Action Plan; and
4 "(2) oversee the development and implementa-
5 tion of the Regional Research and Action Plans.
6 "(b) CONTENTS.—The Plans developed under this
7 section shall identify—
8 "(1) regional priorities for ecological, economic,
9 and social research on issues related to the impacts
10 of harmful algal blooms and hypoxia;
11 "(2) research, development, and demonstration
12 activities needed to develop and advance technologies
13 for improving capabilities to predict, monitor, pre-
14 vent, control, and mitigate harmful algal blooms and
15 hypoxia;
16 "(3) actions to minimize the occurrence of
17 harmful algal blooms and hypoxia;
18 "(4) ways to reduce the duration and intensity
19 of harmful algal blooms and hypoxia, including in
20 times of emergency;
21 "(5) research and methods to address human
22 health dimensions of harmful algal blooms and hy-
23 poxia;

1 "(6) mechanisms to protect vulnerable eco-
2 systems that could be or have been affected by
3 harmful algal blooms and hypoxia events;
4 "(7) mechanisms by which data, information,
5 and products are transferred between the Program
6 and State, tribal, and local governments and rel-
7 evant research entities;
8 "(8) communication, outreach, and information
9 dissemination methods that State, tribal, and local
10 governments and nongovernmental organizations can
11 undertake to educate and inform the public con-
12 cerning harmful algal blooms and hypoxia; and
13 "(9) the roles that Federal agencies can play to
14 help facilitate implementation of the Plan.
15 "(c) BUILDING ON AVAILABLE STUDIES AND INFOR-
16 MATION.—In developing the Plans under this section, the
17 Under Secretary shall utilize and build on existing re-
18 search, assessments, and reports, including those carried
19 out pursuant to existing law and other relevant sources.
20 "(d) DEVELOPMENT OF PLANS.—The Under Sec-
21 retary may develop Plans under this section with assist-
22 ance from the individuals and entities described in sub-
23 section (g).
24 "(e) PLAN TIMELINE AND UPDATES.—The Under
25 Secretary, through the Task Force established under sec-

1 tion 603(a), shall ensure that the Plans developed under
2 this section are completed not later than 12 months after
3 the date of enactment of the Harmful Algal Blooms and
4 Hypoxia Research and Control Amendments Act of 2009,
5 and updated once every 5 years thereafter.

6 ''(f) REPORTS.—Not later than 12 months after the
7 date of enactment of this Act, and once every two years
8 after the completion of the Regional Research and Actions
9 Plans, the Under Secretary shall transmit to the Congress
10 a report that describes—

11 ''(1) the contents of each Plan;

12 ''(2) the activities taken to implement the
13 Plans, including a description of research funded
14 and actions and outcomes of Plan response strate-
15 gies carried out; and

16 ''(3) Federal funding provided to implement the
17 Plans.

18 ''(g) CONSULTATION.—In developing the Plans under
19 this section, as appropriate, the Under Secretary shall
20 consult with—

21 ''(1) State coastal management and planning
22 officials;

23 ''(2) tribal resource management officials;

24 ''(3) water management and watershed officials
25 from both coastal States and noncoastal States with

1 water sources that drain into water bodies affected
2 by harmful algal blooms and hypoxia;
3 "(4) public health officials;
4 "(5) emergency management officials;
5 "(6) nongovernmental organizations concerned
6 with marine and aquatic issues;
7 "(7) science and technology development insti-
8 tutions;
9 "(8) economists;
10 "(9) industries and businesses affected by ma-
11 rine and freshwater harmful algal blooms and hy-
12 poxia;
13 "(10) scientists, with expertise concerning
14 harmful algal blooms or hypoxia, from academic or
15 research institutions; and
16 "(11) other stakeholders.".

17 **SEC. 6. NORTHERN GULF OF MEXICO HYPOXIA.**

18 Section 604 is amended to read as follows:

19 **"SEC. 604. NORTHERN GULF OF MEXICO HYPOXIA.**

20 "(a) TASK FORCE INITIAL PROGRESS REPORTS.—
21 Not later than 2 years after the date of enactment of the
22 Harmful Algal Blooms and Hypoxia Research and Control
23 Amendments Act of 2009, the Mississippi River/Gulf of
24 Mexico Watershed Nutrient Task Force shall complete
25 and transmit to the Congress and the President a report

1 on the progress made by Task Force-directed activities to-
2 ward attainment of the coastal goal of the 2008 Gulf Hy-
3 poxia Action Plan.

4 ''(b) TASK FORCE 5-YEAR PROGRESS REPORTS.—
5 After the initial report required under subsection (a), the
6 Task Force shall complete and transmit to Congress and
7 the President a report every 5 years thereafter on the
8 progress made by Task Force-directed activities toward
9 attainment of the coastal goal of the 2008 Gulf Hypoxia
10 Action Plan.

11 ''(c) CONTENTS.—The reports required by this sec-
12 tion shall assess progress made toward nutrient load re-
13 ductions, the response of the hypoxic zone and water qual-
14 ity throughout the Mississippi/Atchafalaya River Basin,
15 and the economic and social effects. The reports shall—

16 ''(1) include an evaluation of how current poli-
17 cies and programs affect management decisions, in-
18 cluding those made by municipalities and industrial
19 and agricultural producers;

20 ''(2) evaluate lessons learned; and

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

1 **SEC. 7. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
2 **SOUND HYPOXIA.**

3 The Act is amended by inserting after section 604
4 the following:

5 **"SEC. 604A. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
6 **SOUND HYPOXIA.**

7 ''(a) ASSESSMENT REPORT.—Not later than 12
8 months after the date of enactment of this Act, the Task
9 Force established under section 603 shall complete and
10 submit to Congress and the President an integrated as-
11 sessment of hypoxia in the coastal and estuarine waters
12 of the Pacific Northwest that examines the status of cur-
13 rent research, monitoring, prevention, response, and con-
14 trol efforts.

15 ''(b) PLAN.—Not later than 2 years after the date
16 of enactment of this Act, such Task Force shall develop
17 and submit to Congress a plan, based on the integrated
18 assessment submitted under subsection (a), for reducing,
19 mitigating, and controlling hypoxia in the coastal and es-
20 tuarine waters of the Pacific Northwest. In developing
21 such plan, the Task Force shall consult with State, Indian
22 tribe, and local governments, and academic, agricultural,
23 industry, and environmental groups and representatives.
24 Such plan shall include incentive-based partnership ap-
25 proaches. The plan shall also address the social and eco-
26 nomic costs and benefits of the measures for reducing,

1 mitigating, and controlling hypoxia. At least 90 days be-
2 fore submission of such plan to the Congress, a summary
3 of the proposed plan shall be published in the Federal
4 Register. After submission of the plan, the Task Force
5 shall provide progress reports on the activities toward at-
6 tainment of the goals set forth in the plan reduce, miti-
7 gate, and control hypoxia in the coastal and estuarine
8 waters of the Pacific Northwest every 2 years.''.

9 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

10 Section 605 is amended to read as follows:

11 **''SEC. 605. AUTHORIZATION OF APPROPRIATIONS.**

12 ''There are authorized to be appropriated—

13 ''(1) to the Under Secretary to carry out sec-
14 tions 603A and 603B, $35,000,000 for each of fiscal
15 years 2010 through 2014, of which $5,000,000 for
16 each such fiscal year shall be for the development of
17 the Regional Research and Action Plans required by
18 section 603B; and

19 ''(2) to the Administrator to carry out sections
20 603A and 603B, $6,000,000 for each of fiscal years
21 2010 through 2014.''.

SECTION-BY-SECTION ANALYSIS OF
H.R. 3650, THE HARMFUL ALGAL BLOOMS AND
HYPOXIA RESEARCH AND CONTROL
AMENDMENTS ACT OF 2009

The Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009

Purpose: To establish a National Harmful Algal Bloom and Hypoxia Program, to develop and coordinate a comprehensive strategy to address harmful algal blooms and hypoxia and to provide for the development and implementation of comprehensive regional action plans to reduce harmful algal blooms and hypoxia.

Section 1: Short Title

The Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009

Section 2: Amendment of Harmful Algal Bloom and Hypoxia Research and Control Act of 1998

Section 2 explains that the text the bill modifies is the *Harmful Algal Bloom and Hypoxia Research and Control Act of 1998,* unless otherwise expressly stated.

Section 3: Definitions

Section 3 provides definitions for the Act, including: Administrator of the Environmental Protection Agency; the National Harmful Algal Bloom and Hypoxia Program; and the Under Secretary of Commerce for Oceans and Atmosphere.

Section 4: National Harmful Algal Bloom and Hypoxia Program

Section 4 directs the Under Secretary of Commerce for Oceans and Atmosphere, through the Interagency Task Force, to establish and maintain a National Harmful Algal Bloom and Hypoxia Program. The bill outlines tasks for the Under Secretary to ensure the Program: 1) develops a national strategy to address both marine and freshwater HABs and hypoxia; 2) coordinates all federal programs related to HABs and hypoxia; 3) works with regional, State, tribal, and local government agencies; 4) identifies additional research needs and priorities; 5) supports international research efforts on HABs and hypoxia; 6) develops and implements of methods and technologies to protect ecosystems damaged by HABs; 7) coordinates an outreach, education, and training program; 8) facilitates regional, State, tribal, and local efforts to implement response plans, strategies, and tools; 9) provides resources for training of regional, State, tribal and local coastal and water resource managers; 10) enhances observations, monitoring, modeling, data management, information dissemination, and operational forecasts; 11) oversees the updating of the Regional Research and Action Plans; and 12) administers peer-reviewed, merit-based competitive grant funding.

In addition, Section 4 directs the Under Secretary to work cooperatively with other offices, centers, and programs within NOAA, as well as, with States, tribes, non-governmental organizations, and other agencies represented on the Task Force. Section 4 also directs the Under Secretary and the Administrator of the Environmental Protection Agency to jointly carry out the duties for the freshwater aspects of the Program.

This bill also requires the Under Secretary to transmit to Congress an action strategy that outlines the specific activities to be carried out by the Program, a timeline for such activities, and the programmatic roles of each federal agency in the Task Force. The action strategy shall be published in the *Federal Register* and be periodically revised by the Under Secretary. Section 4 also requires the Under Secretary to prepare a report to Congress describing the budget, activities, and progress of the Program.

Section 5: Regional Research and Action Plans

Section 5 directs the Under Secretary, through the Task Force, to oversee the development and implementation of Regional Research and Action Plans by identifying the appropriate regions and sub-regions to be addressed by each Plan. The bill outlines some contents the Plans should identify, including: 1) regional priorities for ecological, economic, and social research related to the impacts of HABs and hypoxia; 2) research, development, and demonstration activities to advance technologies to address the impacts of HABs and hypoxia; 3) actions to minimize the occurrence of HABs and hypoxia; 4) ways to reduce the duration and intensity of

HABs events; 5) research and methods to address the impacts of HABs on human health; 6) mechanisms to protect vulnerable ecosystems that could be or have been affected by HABs; 7) mechanisms by which data is transferred between the Program and State, tribal, and local governments and relevant research entities; 8) communication, outreach, and dissemination methods used to educate and inform the public; and 9) the roles that federal agencies can play to assist implementation of the Plan.

Section 5 directs the utilization of existing research, assessments, and reports in the development of the Plans. Section 5 also provides a list of individuals and entities that the Under Secretary may work with to develop the Plans. The bill also requires that the Plans be completed within 12 months of the date of enactment and updated once every five years. Furthermore, Section 5 requires that the Under Secretary submit a report to Congress not later than 12 months after the date of enactment and once every two years after the completion of the Regional Research and Actions Plans.

Section 6: Northern Gulf of Mexico Hypoxia

Section 6 directs the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to transmit a report to Congress and the President on the progress made toward attainment of the coastal goals of the 2008 Gulf Hypoxia Action Plan. The initial report is required no later than two years after the date of enactment and every five years thereafter. The reports are required to assess progress made toward nutrient load reductions, the response of the hypoxia zone and water quality throughout the Mississippi/Atchafalaya River Basin and the economic and social effects. The reports shall include an evaluation of current policies and programs and lessons learned. In addition, Section 6 requires the reports to recommend appropriate actions to continue to implement or, if necessary, revise the strategy set forth in the 2008 Gulf Hypoxia Action Plan.

Section 7: Pacific Northwest, Estuaries, and Puget Sound Hypoxia

Section 7 directs the Task Force to transmit an assessment report to Congress and the President within 12 months of the enactment of the Act on the hypoxia in the coastal and estuarine waters of the Pacific Northwest by examining the current research, monitoring, prevention, response, and control efforts. Section 7 also requires the Task Force to develop a plan within two years of the enactment of the Act for reducing, mitigating, and controlling hypoxia in the Pacific Northwest. In developing the Plan, the Task Force is directed to consult with State, tribal, and local governments as well as academic, agricultural, industry, and environmental groups and representatives. The Task force is also directed to provide progress reports every two years after the submission of the Plan, on the activities toward attainment of the goals outlined in the Plan.

Section 8: Authorization of Appropriations

Section 7 provides an authorization of $35,000,000 each of the fiscal years 2010 through 2014 to the Under Secretary to carry out the Program, of which $5,000,000 is authorized each of the fiscal years for the development of the Regional Research and Action Plans. Section 7 also provides an authorization of $6,000,000 each of the fiscal years 2010 through 2014 to the Administrator for the freshwater HABs activities of Program.

COMMITTEE ON SCIENCE AND TECHNOLOGY
ENERGY AND ENVIRONMENT
SUBCOMMITTEE MARKUP
September 30, 2009

AMENDMENT ROSTER

H. R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009*

No.	Sponsor	Description	Results
1	Mr. Baird/Mr. Ehlers (Manager's Amendment)	Makes several technical and clarifying changes to the bill. Amends Section 4 ("National Harmful Algal Bloom and Hypoxia Program") to require that the Under Secretary of Commerce for Oceans and Atmosphere maintain and enhance certain existing NOAA programs, and that the Under Secretary establish two new programs: an "Event Response Program" and an "Infrastructure Program." Amends Section 8 ("Authorization of Appropriations") to direct funding for these programs. Amends Section 5 ("Regional Research Action Plans") to require that the Regional Research Action Plans be completed no later than 24 months after the date of enactment of the Act, and amends the Under Secretary's reporting requirements related to those Plans. Amends Section 6 ("Northern Gulf of Mexico Hypoxia") to shorten the timeline for the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to complete and transmit an initial progress report to Congress and the President from two years to 12 months, and shortens the timeline for further progress reports from every five years thereafter to every two years thereafter.	Agreed to by voice vote
2	Ms. Edwards	Amends Section 5 ("Regional Research Action Plans") to require that the Under Secretary "consider the impacts, research, and existing program activities of all United States coastlines and fresh and inland waters, including the Great Lakes, the Chesapeake Bay, and estuaries and tributaries" in developing the Regional Research Action Plans.	Agreed to by voice vote

AMENDMENT TO H.R. 3650
OFFERED BY MR. BAIRD OF WASHINGTON AND MR. EHLERS OF MICHIGAN

Page 3, line 16, insert ''utilize the resources of the Task Force to'' after ''Program, shall''.

Page 4, lines 3 and 4, strike ''regional,''.

Page 4, line 9, insert ''prediction,'' after ''monitoring,''.

Page 4, line 12, strike ''support international'' and insert ''encourage international information sharing and''.

Page 4, lines 14 and 15, strike ''support international information sharing,'' and insert ''encourage international''.

Page 4, lines 20 and 21, strike ''outreach, education, and training program'' and insert ''education program''.

Page 4, line 22, strike ''education about'' and insert ''understanding''.

Page 5, line 1, strike ''facilitate'' and insert ''assist in''.

Page 5, lines 4 through 6, strike ", including outreach programs and information dissemination mechanisms".

Page 5, lines 7 through 9, strike "facilitate and provide resources for training of regional, State, tribal, and local coastal and water" and insert "provide resources for and assist in the training of State, tribal, and local water and coastal".

Page 5, line 10, strike "preventing,".

Page 5, line 11, insert "the effects of" after "responding to".

Page 5, lines 13 through 15, strike paragraph (10) (and redesignate the subsequent paragraphs accordingly).

Page 6, line 2, insert "and avoid duplication of efforts" after "work cooperatively".

Page 6, line 14, and page 7, line 12, redesignate subsections (e) and (f) as subsections (f) and (g), respectively.

Page 6, after line 13, insert the following new subsection:

1 "(e) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
2 ISTRATION PROGRAMS.—

1 "(1) EXISTING PROGRAMS.—The Under Sec-
2 retary shall maintain and enhance the following ex-
3 isting competitive programs:
4 "(A) The Ecology and Oceanography of
5 Harmful Algal Blooms Program.
6 "(B) The Monitoring and Event Response
7 for Harmful Algal Blooms Program.
8 "(C) The Northern Gulf of Mexico Eco-
9 systems and Hypoxia Assessment Program.
10 "(D) The Coastal Hypoxia Research Pro-
11 gram.
12 "(E) The Prevention, Control, and Mitiga-
13 tion of Harmful Algal Blooms Program.
14 "(2) NEW PROGRAMS.—The Under Secretary
15 shall establish the following new programs:
16 "(A) An Event Response Program to co-
17 ordinate and enhance, at the request of the
18 States, marine and freshwater harmful algal
19 blooms and hypoxia events response activities.
20 "(B) An Infrastructure Program to de-
21 velop and enhance the critical observations,
22 monitoring, modeling, data management, infor-
23 mation dissemination, and operational forecasts
24 required to meet the purposes of this Act.".

Page 7, line 16, strike "; and" and insert a semicolon.

Page 7, line 18, strike "strategy." and insert "strategy; and".

Page 7, after line 18, insert the following new paragraph:

1 "(3) the need to revise or terminate activities or
2 projects under the Program.".

Page 8, lines 13 and 14, strike "for improving capabilities to predict, monitor, prevent," and insert "and techniques for minimizing the occurrence of harmful algal blooms and hypoxia and improving capabilities to prevent, predict, monitor,".

Page 8, lines 16 and 17, strike paragraph (3) (and redesignate the subsequent paragraphs accordingly).

Page 9, line 1, insert ", including the potential costs and benefits of those mechanisms," after "mechanisms".

Page 9, line 14, strike "help facilitate" and insert "assist in the".

Page 9, line 21, strike "may" and insert "shall".

Page 10, line 2, strike "12 months" and insert "24 months".

Page 10, lines 6 through 17, amend subsection (f) to read as follows:

1 "(f) REPORTS.—Not later than 6 months after the
2 completion of each Regional Research and Action Plan,
3 the Under Secretary shall transmit to the Congress a re-
4 port that provides a summary of such Plan, and once every
5 30 months after the completion of such Plan, the Under
6 Secretary shall transmit to the Congress a report that de-
7 scribes—
8 "(1) the activities taken to implement the Plan,
9 including a description of research funded and ac-
10 tions and outcomes of Plan response strategies car-
11 ried out; and
12 "(2) Federal funding provided to implement the
13 Plan.".

Page 10, line 18, insert "COORDINATION AND" before "CONSULTATION".

Page 10, lines 19 and 20, strike "shall consult with".

Page 10, line 21, insert "shall coordinate with" before "State coastal".

Page 10, line 23, insert "shall coordinate with" before "tribal resource".

Page 10, line 24, insert "shall coordinate with" before "water management".

Page 11, line 2, insert "and" after "and hypoxia;".

Page 11, after line 2, insert the following new paragraph:

1 "(4) shall consult with—

Page 11, lines 3 through 16, redesignate paragraphs (4) through (11) as subparagraphs (A) through (H), respectively.

Page 11, line 21, strike "2 years" and insert "12 months".

Page 12, line 4, strike "5-YEAR" and insert "2-YEAR".

Page 12, line 7, strike "5 years" and insert "2 years".

Page 14, lines 13 through 18, amend paragraph (1) to read as follows:

2 "(1) to the Under Secretary to carry out sec-
3 tions 603A and 603B, $35,000,000 for each of fiscal
4 years 2010 through 2014, of which, for each fiscal
5 year—

"(A) up to $5,000,000 shall be for the development of the Regional Research and Action Plans;

"(B) $8,000,000 shall be used to carry out the Ecology and Oceanography of Harmful Algal Blooms Program (ECOHAB);

"(C) $6,000,000 shall be used to carry out the Monitoring and Event Response for Harmful Algal Blooms Program (MERHAB);

"(D) $2,000,000 shall be used to carry out the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment Program (NGOMEX);

"(E) $5,000,000 shall be used to carry out the Coastal Hypoxia Research Program (CHRP);

"(F) $5,000,000 shall be used to carry out the Prevention, Control, and Mitigation of Harmful Algal Blooms Program (PCM);

"(G) $1,000,000 shall be used to carry out the Event Response Program; and

"(H) $3,000,000 shall be used to carry out the Infrastructure Program.

AMENDMENT TO H.R. 3650

OFFERED BY MS. EDWARDS OF MARYLAND

Page 9, lines 15 through 19, amend subsection (c) to read as follows:

1 "(c) BUILDING ON AVAILABLE STUDIES AND INFOR-
2 MATION.—In developing the Plans under this section, the
3 Under Secretary shall—
4 "(1) utilize and build on existing research, as-
5 sessments, and reports, including those carried out
6 pursuant to existing law and other relevant sources;
7 and
8 "(2) consider the impacts, research, and exist-
9 ing program activities of all United States coastlines
10 and fresh and inland waters, including the Great
11 Lakes, the Chesapeake Bay, and estuaries and tribu-
12 taries.

XXIV. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 3650, HARMFUL ALGAL BLOOMS AND HYPOXIA RESEARCH AND CONTROL AMENDMENTS ACT OF 2009

WEDNESDAY, OCTOBER 7, 2009

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The Committee met, pursuant to call, at 10:38 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Bart Gordon [Chairman of the Committee] presiding.

Chairman GORDON. Good morning, everyone. The Committee will come to order. Pursuant to notice, the Committee on Science and Technology meets to consider the following measures: H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* H.R. 3585, the *Solar Technology Roadmap Act,* and H.R. 3598, the *Energy and Water Research Integration Act.*

First, we will consider a bill by the Subcommittee's Chairman, Brian Baird, and co-authored by Research and Science Education Ranking Member, Dr. Ehlers. H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* seeks to address the devastating effects that the rapid overproduction of algae can have on aquatic plant and animal life and human health.

The bill directs the National Oceanic and Atmospheric Administration to implement research strategies to better understand and respond to algal blooms and hypoxic events.

Next, we will consider H.R. 3585, the *Solar Technology Roadmap Act,* authored by the Space and Aeronautics Subcommittee Chair, Ms. Gabrielle Giffords. This bill instructs the Department of Energy to coordinate with public and private sector entities in developing a comprehensive, updated roadmap for solar research, development and demonstration activities in the United States.

This roadmap will be a critical tool in utilizing limited research dollars as effectively as possible to harness the truly immense solar resources we have in the United States.

Finally, we will take up H.R. 3598, the *Energy and Water Research Integration Act.* In the last Congress, this committee undertook a comprehensive review of federal research and technology development efforts focusing in on improving utilization of our precious water resources. We have since held five hearings and passed out of the House three bills pertaining to this important topic.

H.R. 3598, in which we will address the critical linkage between our nation's energy and water resources by directing the Department of Energy to better integrate water into existing federal energy research efforts.

The three bills we have before us today target several important research needs. And as always, we appreciate the Minority offering a number of valuable ideas and suggestions, and we have worked hard to incorporate almost all of them in an effort to improve these bipartisan bills.

I now recognize Mr. Hall to present his opening remarks.

[The prepared statement of Chairman Gordon follows:]

PREPARED STATEMENT OF CHAIRMAN BART GORDON

Good Morning. Today the Committee will consider three bills reported last week from the Energy and Environment Subcommittee.

First, we will consider a bill by the Subcommittee's Chairman, Dr. Baird, and co-authored by the Research and Science Education Ranking Member, Dr. Ehlers. H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* seeks to address the devastating effects that rapid overproduction of algae can have on aquatic plant and animal life and human health.

The bill directs the National Oceanic and Atmospheric Administration to implement research strategies to better understand and respond to algal blooms and hypoxic events.

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This roadmap will be a critical tool in utilizing limited research dollars as effectively as possible to harness the truly immense solar resources we have in the U.S.

Finally, we will take up my bill, H.R. 3598, the *Energy and Water Research Integration Act.* In the last Congress this committee undertook a comprehensive review of federal research and technology development efforts focused on improving utilization of our precious water resources. We have since held five hearings and passed out of the House three bills pertaining to this important topic.

With H.R. 3598 we address the critical linkage between our nation's energy and water resources by directing the Department of Energy to better integrate water into existing federal energy research efforts.

The three bills we have before us today target several important research needs. As always we appreciate the Minority offering a number of valuable ideas and suggestions, and we have worked hard to incorporate almost all of them in an effort to improve these bipartisan bills.

Despite this, I see that the Minority will have a number of amendments. While it is unfortunate these concerns could not be resolved before the markup I look forward to a healthy debate on the amendments, and supporting these bills for final passage.

I thank you all for your attendance and participation this morning, and I look forward to a productive markup.

I now recognize Mr. Hall to present his opening remarks.

Mr. HALL. I thank you, Mr. Chairman, and today, as you have pointed out, we are marking up H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* H.R. 3585, the *Solar Technology Roadmap Act,* and H.R. 3598, the *Energy and Water Research Integration Act.* I would like to thank you, Mr. Chairman, and thank your staff for working with us, working with the Minority, working with us on these bills and you helped us address as much as possible our concerns. Unfortunately, we were not able to come to an agreement on all of our concerns but I realize that that can't always be the case. I will elaborate on these when the bills are brought up for amendment. We will have amendments that address those areas of the bills that we

feel still need some attention, and particularly in the solar and energy and water bills. I do hope that the Chairman and other Members of this committee will give our amendments thoughtful consideration as we feel they are intended to improve the bills and enhance support for them.

With that, I yield back the balance of my time.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Today, we are marking up H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009,* H.R. 3585, the *Solar Technology Roadmap Act,* and H.R. 3598, the *Energy and Water Research Integration Act.* I would like to thank you, Mr. Chairman, and thank your staff for working with us, working with the Minority, working with us on these bills and you helped us address as much as possible our concerns. Unfortunately, we were not able to come to an agreement on all of our concerns but I realize that that can't always be the case. I will elaborate on these when the bills are brought up for amendment. We will have amendments that address those areas of the bills that we feel still need some attention, and particularly in the solar and energy and water bills. I do hope that the Chairman and other Members of this committee will give our amendments thoughtful consideration as we feel they are intended to improve the bills and enhance support for them.

Chairman GORDON. Members may place statements in the record at this point.

[The prepared statement of Mr. Mitchell follows:]

PREPARED STATEMENT OF REPRESENTATIVE HARRY E. MITCHELL

Thank you, Mr. Chairman.

Today we will mark up H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act,* H.R. 3585, the *Solar Technology Roadmap Act,* and H.R. 3598, the *Energy and Water Research Integration Act.*

I would like to take a moment to speak about H.R. 3585, the *Solar Technology Roadmap Act,* legislation which I believe is critical in order to spur further research and development of solar technology.

We're lucky in Arizona to enjoy over 300 days of sunshine. We have a real opportunity to brighten our state's future by investing in solar energy research and technology.

As solar technology advances, I believe that Arizona will be a leader in clean, alternative energy production. Refocusing our energy production on alternative sources such as solar is critical for our national security and the environment.

Moreover, investing in solar energy is vital to Arizona's economy.

With the help of solar tax credits, Abengoa Solar and Arizona Public Service are developing the world's largest solar energy plant outside of Gila Bend. The Solana solar generating station will create 1,500 to 2,000 jobs and provide clean, emission-free energy for 70,000 homes. Solana is expected to ultimately spur $1 billion in economic development.

H.R. 3585, the *Solar Technology Roadmap Act,* would take us one step further toward making large scale solar energy production a reality. Specifically, this legislation would establish a Solar Technology Roadmap Committee tasked with creating a Solar Technology Roadmap to evaluate near-term, mid-term, and long-term research, development, and demonstration needs in solar technology. This committee would include stakeholders in the solar industry to provide insights on the deployment of this technology.

I urge my colleagues to support this important measure, and at this time, I yield back.

Chairman GORDON. We will now consider H.R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.* I recognize the Chairman of the Energy and Environment Subcommittee, Dr. Baird, to describe the bill.

Mr. BAIRD. Thank you, Mr. Chairman.

H.R. 3650 as amended last week in the Energy and Environment Subcommittee markup establishes a national harmful algal bloom and hypoxia program. This program is charged with developing a comprehensive national strategy in coordinating regional research and action plans to address marine and freshwater harmful algal blooms and hypoxia. The Act requires the Under Secretary to work cooperatively with other offices, centers and programs at NOAA as well as with states, tribes, non-governmental organizations and other federal agencies on the taskforce and it requires that they avoid duplication of efforts with other entities. In addition, the Under Secretary is directed to build upon existing research and assessments and consider U.S. waterways such as the Chesapeake Bay in the development of the plans. The EPA Administrator and the NOAA Under Secretary are instructed to coordinate their efforts to address the freshwater harmful algal blooms and hypoxia. The bill directs the Mississippi Gulf of Mexico Watershed Nutrient Taskforce to transmit a report to Congress and upon progress made towards attaining the goals of the 2008 Gulf Hypoxia Action Plan. H.R. 3650 directs the interagency taskforce to transmit an assessment report and plan to Congress addressing hypoxia in the coastal and estuarine waters of the Pacific Northwest.

Finally, the bill provides an authorization, the $35 million a year to the Under Secretary for five years for the program and $6 million a year to the EPA Administrator for the freshwater HABs activities of the program. I want to thank particularly my colleague from Michigan, Dr. Ehlers, for his work this year and over many, many years leading the effort on harmful algal blooms and hypoxia. I also want to acknowledge the involvement of Congressman Connie Mack and of Ms. Kosmas, also from Florida. This is a bipartisan bill. It has been a privilege to work on it. In one context, Mr. Chairman, the week we were working on this bill, at a lake in my District, someone went there with their dog, threw their favorite tennis ball in the water. The dog jumped in, grabbed the tennis ball, got out of the water and died. That is how serious these harmful algal blooms can be. They are deadly toxins, not only in shellfish but in freshwater, and it was literally that quick, came out and died. So I appreciate the Committee's consideration and urge passage, and I yield back.

[The prepared statement of Mr. Baird follows:]

PREPARED STATEMENT OF REPRESENTATIVE BRIAN BAIRD

H.R. 3650, as amended last week in the Energy and Environment Subcommittee markup establishes a National Harmful Algal Bloom and Hypoxia Program. This program is charged with developing a comprehensive national strategy and coordinating regional research and action plans to address marine and freshwater harmful algal blooms and hypoxia.

The Act requires the Under Secretary to work cooperatively with other offices, centers, and programs within NOAA, as well as with states, tribes, non-governmental organizations, and other federal agencies on the Task Force, and avoid duplication of efforts with those entities.

In addition, the Under Secretary is directed to build upon existing research and assessments, and consider U.S. waterways such as the Chesapeake Bay, in the development of the Plans.

The EPA Administrator and the NOAA Under Secretary are instructed to coordinate their efforts to address the freshwater harmful algal blooms and hypoxia.

The bill directs the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force to transmit a report to Congress on progress made toward attaining the goals of the 2008 Gulf Hypoxia Action Plan.

H.R. 3650 directs the Interagency Task Force to transmit an assessment report and plan to Congress addressing hypoxia in the coastal and estuarine waters of the Pacific Northwest.

Finally, the bill provides an authorization of $35,000,000 a year to the Under Secretary for five years for the program, and $6,000,000 a year to the EPA Administrator for the freshwater HABs activities of the Program.

I want to thank my colleague from Michigan, Dr. Ehlers, for working with me on this important piece of legislation. I look forward to improving the bill at today's markup.

Chairman GORDON. I now recognize Mr. Hall to present any remarks on the bill.

Mr. HALL. I thank you, Mr. Chairman. First I would like to commend my colleagues, Dr. Ehlers and Dr. Baird, for working together to move this bill. They work very well together, and I think it is a very important piece of legislation, so much so that the bill itself and the manager's amendments are both at the Subcommittee and now at the Full Committee have been very bipartisan, but most of the issues have been worked out beforehand. There are still a few outstanding items.

Although this bill is intended to address a problem that affects nearly every state, we want to make sure that the research and action plans that are called for, that these plans are not a top-down mandate but a true collaboration between the Federal Government and the states and local areas that have been directly affected by these blooms. The bill calls for the development and implementation of these plans. The next obvious step is putting these plans into action. We want to make sure that they are not imposing undue burdens on states that they would not voluntarily take on themselves.

Finally, we want to make sure that all the groups involved in the development of these plans that will have roles in future implementation are ones with the highest levels of integrity. I will be offering an amendment to this bill that addresses our concerns with states' rights. Several of my colleagues on this side of the aisle will be offering other amendments that address some of the remaining concerns.

With that, I yield back my time and I thank you.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Thank you, Mr. Chairman. First, I would like to commend my colleagues, Dr. Ehlers and Mr. Baird, on working together to move this bill. They worked very well together to move this important piece of legislation, so much so that the bill itself, and the manager's amendments at both Subcommittee, and now, Full Committee, have been bipartisan. While most of the issues have been worked out beforehand, there are still a few outstanding items.

Although this bill is intended to address a problem that affects nearly every state, we want to make sure that the regional research and action plans that are called for are not a top-down mandate, but a true collaboration between the Federal Government and the states and local areas that have been directly affected by these blooms. The bill calls for the development and implementation of these plans; the next obvious step is putting these plans into action. We want to make sure that we are not imposing undue burdens on states that they would not voluntarily take on themselves. Finally, we want to make sure that all the groups involved in the development of these plans that will have roles in future implementation are ones with the highest level of integrity.

I will be offering an amendment to this bill that addresses our concerns with states' rights. Several of my colleagues on this side of the aisle will be offering other amendments that address some of these remaining concerns.

With that I yield back the balance of my time.

Chairman GORDON. Does anyone else wish to be recognized?

Mr. BILBRAY. Mr. Chairman.

Chairman GORDON. Mr. Bilbray.

Mr. BILBRAY. Yes, Mr. Chairman, I appreciate—this issue, I notice in the title and everything else that the issue of harmful algae blooms was specifically, and I would ask Dr. Baird specifically—does this bill recognize that most, if not much of, algae blooms are naturally occurring events?

Mr. BAIRD. It does—well, it varies. I mean, part of the purpose of the research is to understand why we have harmful algal blooms and why we have. There is no question there are harmful algal blooms that have been around for a long, long time, but the scientists who testified at our hearing and the preponderance of the scientific literature I am familiar with suggests that there is an increase in many areas in harmful algal blooms believed to be related to anthropogenic causes.

Mr. BILBRAY. I think there is the key, is there are certain areas. We have had documentation in California since 1769, the first Spanish recognized this. In fact, the local tribe specifically like the Lasania or the Kumiai would not stay on the coast during the summers when red tides came in. They actually migrated into the hills and basically lived in the hills away from that. So the fact of red tide, at least in California, the area I am very much aware of, working on water quality, is naturally occurring, has been going on for centuries, and actually is something that I want to make sure that we identify as being naturally occurring, even though it does cause problems. That is why you will see at least in the West, in my part of the world, and I assume your part of the world that, you know, shellfish collection has never been allowed during the summer because of this, and even the Native Americans recognized that and summered in the hills just because they didn't want to pick up the abalone during the summer.

Mr. BAIRD. If the gentleman would yield for a second? Your point is very well taken. The bill is not by any means solely or predominantly about identifying what is or is not anthropogenically caused. Part of the challenge and part of the progress of the bill over the last few years has been, for example, better predicting when naturally occurring harmful algal blooms will occur so you can better warn beachgoers, government regulatory agencies that deal with clam seasons, et cetera, and we have got some real progress on both coasts where research funded under prior iterations of this bill has allowed us to make better predictions about when harmful algal blooms that are, presumably in these cases, many times naturally occurring, so the gentleman's point is well taken.

Mr. BILBRAY. Mr. Chairman, my biggest concern is, the years that I served working on air—I mean water quality issues, the frustration was Washington designed a system based on experience in the Chesapeake and the Eastern Seaboard and its application in the Pacific was just absolutely off bounds and the *Clean Water Act* still has problems because it was engineered for the East Coast.

What is logical in Chesapeake would be absurd in the deep Pacific Ocean and so that is—I just want to make sure that we keep on that, that the Nation is, you know, global approach on all of this but the fact is that when we go to these regulations, we have got to give the local flexibility, reflect the environment in the neighborhood rather than just here in D.C., and I yield back.

Chairman GORDON. Thank you, Mr. Bilbray. I am sure that Dr. Baird being a West Coaster will keep that in mind.

And Dr. Ehlers, the co-sponsor of the bill, is recognized.

Mr. EHLERS. I just wanted to comment on one of the issues raised about whether this is increasing or not. It is increasing. In the Gulf Coast area, for example, it is considerably worse than it was some years ago, but also it is unique in the sense that we are now beginning to discover the same problem in the Great Lakes, particularly Lake Erie, and that is a matter of huge concern because they have not seen these sorts of things before in the Great Lakes and they are now beginning to see them, so it is whereas it used to be a local problem along the East and West Coasts and the Gulf Coast, it is now becoming a problem throughout the entire Nation.

Mr. BAIRD. Will the gentleman yield for one second?

Mr. EHLERS. I will be happy to yield.

Mr. BAIRD. The gentleman is absolutely right, and just for those of my colleagues who weren't on the Subcommittee, just to get a sense of how particularly the freshwater toxins—we are familiar with red tide. The freshwater toxins, if they were to invade your primary reservoir, a blue-green algae, all the normal ways we have of purifying our water, virtually all don't work. So we are used to killing protozoa with chlorine. We are used to filtering things out with filtration. We are used to saying you can boil your water. It turns out that if you boil water with blue-green algae in it, you actually concentrate the toxin that is in them, and the scientists actually boil the water. That is how they sort out the toxins. So if you get blue-green algae in your freshwater drinking water supply, you are in enormous trouble, and that is why it has been such a concern of Dr. Ehlers and the Great Lakes.

Thank you. I yield back.

Chairman GORDON. I hope no terrorist is hearing that. We better be quiet here. Does anyone else wish to be recognized? If not, then I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in order of the roster. Without objection, so ordered.

The first amendment on the roster is a manager's amendment offered by the gentleman from Washington, Dr. Baird. Are you ready to proceed with your amendment?

Mr. BAIRD. Indeed. I have an amendment at the desk.

Chairman GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 3650, amendment number 038, offered by Mr. Baird of Washington and Mr. Ehlers of Michigan.

Chairman GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for five minutes to explain the amendment.

Mr. BAIRD. The manager's amendment responds to concerns expressed by NOAA, EPA and other expert witnesses at the hearing and makes several clarifying changes.

The amendment strengthens and expands Section 4 to provide more direction to the Administrator of EPA in addressing freshwater harmful algal blooms. The amendment also clarifies language for the new infrastructure program to be established by the Under Secretary. Finally, the amendment makes small adjustments to the authorization section to provide specific direction for funding certain internal research efforts of NOAA. The amendment is the product again of discussions with Dr. Ehlers and Minority staff. It strengthens the bill to ensure an effective approach to both marine and freshwater harmful algal blooms. I urge my colleagues to support it, and yield back.

[The prepared statement of Mr. Baird follows:]

PREPARED STATEMENT OF REPRESENTATIVE BRIAN BAIRD

The manager's amendment responds to concerns expressed by NOAA, EPA, and other expert witnesses at the hearing, and makes several clarifying changes.

The amendment strengthens and expands the language in Section 4 to provide more direction to the Administrator of EPA in addressing the freshwater harmful algal blooms.

The amendment also clarifies language for the new Infrastructure Program to be established by the Under Secretary.

Finally, the amendment makes small adjustments to the Authorizations section to provide specific direction for funding certain internal research efforts of NOAA.

This amendment is the product of discussions Dr. Ehlers and Minority staff, and strengthens the bill to ensure an effective approach to addressing both marine and freshwater harmful algal blooms.

I urge my colleagues to support the amendment.

Chairman GORDON. Is there further discussion on the amendment?

Mr. HALL. Mr. Chairman?

Chairman GORDON. Mr. Hall is recognized.

Mr. HALL. I thank you, and I would like to applaud Dr. Ehlers and Dr. Baird for working together so well on this manager's amendment. They work the direct opposites in some ways and yet they are so parallel in many ways and they really work well together. It provides greater direction to agencies of the taskforce on what are the most important issues they should focus on. Although I am not in favor of overly burdensome directives, too much directive allows agencies sometimes to misinterpret the intent of Congress. This amendment walks that very fine line. It balances between too much and not enough. I think Dr. Ehlers might have said too much and Dr. Baird not enough, or maybe just the opposite way, but it is a good amendment and I encourage my associates to support it. I yield back.

Chairman GORDON. It sounds like the baby bear's porridge there. Is there further discussion on the amendment? If no, the vote occurs on the amendment. All in favor, say "aye." Opposed, "no." The ayes have it and the amendment is agreed to.

The second amendment on the roster is an amendment offered by my friend, the Ranking Member, Mr. Hall. Are you ready to proceed with your amendment?

Mr. HALL. I have an amendment at the desk.

Chairman GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 3650, amendment number 015, offered by Mr. Hall of Texas.

Chairman GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for five minutes to explain the amendment.

Mr. HALL. Mr. Chairman, this amendment would prevent H.R. 3650 from forcing State, tribal or local governments to shoulder the economic burdens through the requirements of the Federal Government. H.R. 3650 aims to ensure dialogue with State, tribal and local governments. However, this bill calls for the development of regional research and action plans that will then need to be implemented. This implementation could lead to an unintended financial burden on these government entities, and although the onus is currently on the Federal Government, the activities identified in these plans are the ones that will most likely be executed by State, tribal and local governments. As it is written right now, H.R. 3650 does not contain any safeguards against unfunded mandates which would result if the State, tribal and local governments were forced to undertake the activities identified in the plans that the Federal Government is responsible for developing and implementing. That is my problem, and I yield back.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF REPRESENTATIVE RALPH M. HALL

Mr. Chairman, this amendment would prevent H.R. 3650 from forcing State, tribal or local governments to shoulder the economic burdens through the requirements of the Federal Government.

H.R. 3650 aims to ensure dialogue with State, tribal and local governments. However, this bill calls for the development of regional research and action plans that will then need to be implemented. This implementation could lead to unintended financial burdens on these governmental entities. Although the onus is currently on the Federal Government, the activities identified in these plans are ones that will most likely be executed by State, tribal and local governments. As it is written right now, the H.R. 3650 does not contain any safeguards against unfunded mandates which would result if State, tribal and local governments were forced to undertake the activities identified in the plans that the Federal Government is responsible for developing and implementing.

I yield back.

Chairman GORDON. Is there further discussion on the amendment? Ms. Johnson.

Ms. JOHNSON. Thank you very much, Mr. Chairman and Ranking Member. On yesterday, my Subcommittee had a hearing on this very thing, and it is—we have had hearings on most of the large bodies of water in the country. All of them are contaminated. We do not have the money to correct all of it but what we are attempting to do is get all the stakeholders around like the Chesapeake and other large bodies of water and each of them takes some responsibility for keeping it clean. It seems to me that this would interfere with that but we know that we cannot clean up the Chesapeake without the participation of Pennsylvania, New York and all the other places that it touches, and it is the same with the Sound in New York, and we talked about trying to develop reasonable plans where these large bodies of water exist because the government is not going to be able to do all of it by itself, so we are asking local governments to be stakeholders in it. This might

interfere with that but it is because of the contamination we are experiencing, we talked directly on this wild lily thing and how it is causing a number of seafood deaths because it produces a lot of nitrogen. For that reason, I have some question on whether this would interfere with regional plans. You know, we have got states all over the country fussing with each other about water but somehow we have got to pull all that together and get various states to work together, and we thought it might be better if it was reasonably organized so that Mr. Bilbray won't be talking about what the Northeast Coast is doing, he will be talking about what the West Coast is doing.

Mr. BILBRAY. Will the gentlelady yield?

Ms. JOHNSON. Yes.

Mr. BILBRAY. I agree that the coordination needs to be done. I don't think anyone here would assume that those of us from Texas or California care more about Long Island Sound than the people that live in New York and New Jersey. So I think that this is one of those issues of saying we are-Washington wants to work with the local communities but let us not take the position of we know better, we care more, we have more of a vested interest and——

Ms. JOHNSON. We are speaking to every official that has anything to do with water in each of these states.

Mr. BILBRAY. And I think that the amendment basically says that we will do our part and we will pay for what we think ought to be done right but we won't basically be imposing a cost on the states or the local community that basically are the ones who have the biggest vested interest, so we work with them and not on top of them, and so I appreciate that, but again, I will just say that I think the people in the local communities, we ought to give them more credit that they have more at stake than we do and work with them and not——

Ms. JOHNSON. Reclaiming my time. I agree with you. That is why we are working with them. We have had roundtables where we just sit around the table and talk about it. For example, Connecticut and New York are taking the full load right now of that contamination but we know that New Hampshire, Vermont and Massachusetts also have a lot of down flow that provides a lot of the contamination, and if the states' representatives themselves agree to work together to clean it up, I don't—I would like not to interfere with that. Thank you.

Chairman GORDON. Does anyone else wish to be recognized? Mr. Broun.

Mr. BROUN. Mr. Chairman, thank you. I yield to Mr. Hall.

Mr. HALL. I thank you, Dr. Broun. You know, local governments have fought unfunded mandates against State governments and State governments have fought unfunded mandates against the national government. Here we are trying to protect the local governments and the State governments, and my amendment wouldn't prevent stakeholders from pitching in. However, the concern is a top-down mandates that forces states to take on too much. It seems like it's a states' right deal or even the local governments amendment. I can't answer any better than unfunded mandates that we have all fought at one time or another, whether we were taking a local government's position—I have been a State county judge, I

have been a State Senator and I am a federal Congressman here, and I have fought unfunded mandates all the way up and down the road there. This is just another protection for stakeholders. It is another protection for local governments and another protection for states. It looks like it is okay to me but I recognize and I respect the wishes of others and the complaints of others and I am willing to let the Committee vote on it.

Mr. BROUN. Reclaiming my time. I support this amendment. I think it is a common sense amendment. Many states like my own State of Georgia is having difficulty balancing our budget. We have a balanced-budget amendment to our constitution in the State of Georgia and what we see is teachers' salaries are being cut, services are being cut. I was up in the mountains and I just talked to some of the Department of Natural Resources folks and they have had some of their biologists cut, and adding more unfunded mandates upon the states is going to put more of a financial burden upon those states. We in Georgia can't afford any more unfunded mandates from Washington, D.C., and I will continue to try to fight to get those unfunded mandate burdens off of my state as well as every state in this country. I think it is unfair to the states, it is unfair to the taxpayers and this is a common sense amendment. It just says the Federal Government is going to do their part. The states certainly have the prerogative and they have the interest and they have all the——

Ms. JOHNSON. Would the gentleman yield?

Mr. BROUN. If you will give me a half second, I will be glad to yield. They have every incentive to try to look at these problems but putting unfunded mandates from Washington, D.C., on states is unfair to the taxpayers of those states. It is unfair to the communities it affects. So I think it is important for us to stop these unfunded mandates on states from Washington, D.C., and I will yield.

Ms. JOHNSON. Thank you, sir. As you know, your state, Tennessee, and Florida have been fighting for the last probably 10 years over water, and we cannot get them together. We had to pass legislation to force them to work with each other. I should think that everyone ought to be willing to help to clean up the water that they drink, and this is a protection against allowing it to get to that point. Cleaning up before it gets to that point is much better than trying to clean up afterwards, which is what we are trying to do all over the country now. So if this does not affect the agreement between these areas, I don't know if we are going to get our states together because they have been fussing too long, but we are trying.

Thank you, and I yield back the time.

Mr. BROUN. I appreciate the lady's comments, but as far as I am concerned, water that falls on Georgia is Georgia's until it goes to Alabama, Tennessee or to Florida, but the thing is, we have got to protect the citizens of our states and the states cannot afford any more unfunded mandate, so this is a common sense amendment and I highly support it, and I yield back, Mr. Chairman.

Mr. HALL. Will the gentleman yield before he yields back?

Mr. BROUN. Certainly.

Mr. HALL. They ought to mention California in those fighting battles between north and southern California. If north and south-

ern California ever got together, they could pass almost anything they wanted to here, so it is to our benefit that they continue to fight over those water rights out in California.

Mr. BILBRAY. Absolutely, Mr. Chairman.

Mr. HALL. I yield back. Thank you.

Mr. BROUN. Thank you, Mr. Chairman.

Chairman GORDON. Five minutes to Dr. Baird to, among other things, to clarify whether Georgia can put a pipe in the Tennessee River by virtue of this bill.

Mr. BAIRD. I choose not to go there, Mr. Chairman. I understand the gentleman's intent and I have great respect for the Ranking Member. The challenge is, the research we have heard is, I mean, these are rivers, so rivers feed into estuaries, feed into the large waterways. The dead zone in the Gulf of Mexico is now hundreds of kilometers. Anything that swims into it or out of it, you know, you go into it, you die, so it is having a profound impact on the fisheries there. The coast of Florida, when they get red tides, their beaches are shut down, their tourism industry gets killed. So you have an unfunded mandate imposed on those states by the upriver states whose effluent is contributing to the harmful algal blooms and the hypoxia, and the problem is, if you don't have a Federal Government, one upriver state says well, nuts to the guys down river, we are just going to, you know, let whatever runs in there run in there, we are just not going to add the expense, and they pass on what is effectively an unfunded mandate. So it is not like a local control issue where you have just got to constrain city council boundaries. You have got a river that flows down into a body of water shared by many, many states and downriver folks, and as I read this bill, it is saying that—and I guess would just ask the gentleman from Texas or some of my colleagues, if we have evidence that something being done upriver is causing a lethal toxin to develop downriver, don't we have a right or a responsibility to tell the upriver folks they have to do something about that?

Mr. HALL. If you are asking me, I would rather withdraw my objection to it than to try to explain.

Mr. BAIRD. Well, I will reclaim my time. I mean, that is the challenge here. I understand the intent but that is the nature of this particular problem and I think we just have to defeat this however well-intentioned amendment because I think its adverse consequences will be grave and that we do have downriver impacts, and so I would urge its defeat.

Mr. HALL. On my amendment, I am going to mark "doubtful" by your name.

Mr. BAIRD. You may do so.

Mr. BROUN. Would the gentleman yield?

Mr. BAIRD. I would be happy to yield.

Mr. BROUN. Thank you. This may seem strange from a physician, but isn't that what the court is for is to try to sort all these types of things where one entity is harmed by another?

Mr. BAIRD. Well, if I reclaim my time I——

Mr. BROUN. Yes, sir.

Mr. BAIRD. The court must operate under laws. We establish laws like the *Clean Water Act* that the court then interprets, unless we are to going to somehow imply that there is a tort action from

one state against another for the pollution. I mean, we have federal laws, and what this bill predominantly is, I want to reiterate, is a research bill, but it also has—and I want to underscore something. Mr. Bilbray and others have talked about the importance of local planning and states' collaboration. The reason we have a taskforce, Mr. Bilbray, is precisely so it is not, say, a Chesapeake Bay solution provided to Sacramento or Los Angeles or Puget Sound. We have got regional entities. They are instructed to work with regional governments specifically in the bill, but at some point if you reach a point where upriver State activities are imposing undue burdens on the downriver states, you have got to have a mechanism to say you all have to cut that out, and the scientists are telling us that some of this hypoxia and harmful algal blooms seem to be connected to nitrogen and phosphorus in the water system and we are going to have to reduce that or we are imposing a huge unfunded mandate on the beaches that Mr. Mack represents or that folks in the Gulf represent or conceivably, in Mr. Ehlers' case, in the Great Lakes. So that is why I think we have to move forward, and I yield back.

Chairman GORDON. Mr. Inglis is recognized.

Mr. INGLIS. Thank you, Mr. Chairman, and a question for Dr. Baird is, the bill isn't asserting regulatory control rights so therefore if Mr. Hall's amendment really doesn't go to—there is no ability under the bill to mandate something in the scenario just described of downriver, right?

Mr. BAIRD. Well, let me read the language of the amendment, okay? "Nothing in this Act or the amendments made by the Act shall construe to require State, tribal or local government to take any action that may result in an increased financial burden to such government." The bill does include the development of regional plans, and the bill includes regional plans to try to reduce that. My concern is that the very broad language, absolute language of the proposed amendment would suggest that you can't require implementation at any point down the road. You might even say if the Act is funding research and the research knowledge is pointing to a particular pollutant in a particular state, you can't use that research knowledge generated by the Act to impose some kind of constraint on the behavior, the action, and that is the concern I have. I think it is just so broad, somebody is going to say you can't do anything based on this, and at some point you have to say that is part of what the Federal Government does is, it looks at these broad issues and tries to take action for the benefit of the overall good of all the states.

Mr. INGLIS. There is money in the bill, though, to pay for that research, right? So therefore—and to pay for the development of those plans, so it is either that we don't have jurisdiction over what Mr. Hall is asserting here because we don't have regulatory control, in which case the amendment would be harmless to the bill except for making a point about unfunded mandates. So in that way, I wonder if it is maybe acceptable—I mean, I know we are having this debate about unfunded mandates but it is really a situation where we don't have jurisdiction over regulation and there is money in the bill to pay for the expenses of the plan.

Mr. BAIRD. Would the gentleman yield?

Mr. INGLIS. Sure.

Mr. BAIRD. As far as the expenses of the plan, absolutely right. The money in the bill pays for that. The bill is not mandating that the states pay for these research plans. There would be an assumption and a hope that the states have some expertise and knowledge, you know, whether it is their department of fish and wildlife, fisheries, agriculture, whatever the State entities are, that they would participate. We are trying to cooperate with the states, not mandate that they deploy all these folks. If the gentleman's point is that the lack of immediate regulatory authority in the bill obviates the amendment, then we can just withdraw the amendment. I am okay with that. If you are saying that the amendment supports this because of the nature of the bill itself, I am certainly okay with that. But I am not okay with saying we are going to add this on here so that someone can retroactively come back and say no, this plan grew out of this bill and any effort to implement this plan that grew out of this bill was proscribed by this bill, I can't go with that.

Chairman GORDON. No further discussion——

Mr. ROHRABACHER. Mr. Chairman.

Chairman GORDON. Mr. Rohrabacher is recognized.

Mr. ROHRABACHER. Well, first of all, I want to congratulate——

Chairman GORDON. I guess we need to go to this side first since that was Mr. Inglis's——

Mr. ROHRABACHER. Pardon me.

Chairman GORDON. But I don't see anybody here, so Mr. Rohrabacher is recognized.

Mr. ROHRABACHER. First of all, let me congratulate Congressman Baird. I think this is an important issue, and the reason Brian knows about this and I know about this, we surfed in the red tide a lot and you get red skin and it is itchy, but I might note at night when you are surfing in the red tide, there is phosphorus and it is like a light show as you are going through the waves, but——

Mr. BAIRD. How is your hippocampus these days?

Mr. ROHRABACHER. Well, I will tell you, there are dead fish and things around as well and so we know this is really a significant issue and I want to be very supportive of the base of what you are trying to do and I will be supporting the bill. However, Mr. Hall's amendment does make sense. I mean, we are just talking about unfunded mandate. I, for example, have supported—we just were voting on the Chesapeake Bay bill the other day and I joined in with some of my other colleagues on both sides of the aisle and supported that because you are trying to what? You are doing something in a body of water that affects different states. Now, we provided money for that. This is saying that if there is an unfunded mandate, we should fund it if it is dealing with different states, right? I mean, this is——

Mr. BAIRD. Would the gentleman yield?

Mr. ROHRABACHER. Yes.

Mr. BAIRD. The problem with that is, it allows the states to be the least common denominator. If a certain upriver state says it is for other states to clean up their pollution, we are not going to clean up our pollution unless the Federal Government——

Mr. ROHRABACHER. This is my point. My point was that if we indeed are going to be doing something that requires some major expenditure by the states, well, we should just split all the money because by definition it is an interstate issue and not simply a one-state issue, and that is what the Federal Government is here for. The Federal Government is here to be involved with interstate issues that cost money, and so I don't see anything wrong with the Congressman talking about unfunded mandates to the state because that money should be coming from the Federal Government just as we just did with the Chesapeake Bay.

Mr. BILBRAY. Would the gentleman yield?

Mr. ROHRABACHER. Sure.

Mr. BILBRAY. I appreciate your bringing up the red tide issue. In fact, let me just say to anybody, if you haven't sailed through a red tide on a moonless night——

Mr. ROHRABACHER. It is incredible.

Mr. BILBRAY. It is the closest thing to flying through space with fire everywhere. Wherever the boat touches, it lights up and it is quite an experience. But I think that the gentlelady from Texas and the gentleman from—the doctor points out something that I think that everybody has to be aware of is, there is third-party victims in this sometimes. Nobody goes down in history as more of a villain in this kind of activity than the city of Chicago. You have got Chicago River flowing into your lake, which is your water supply. You have got pollution in our water supply, so what do you do? You dig a canal so you can send all—you make the Chicago River flow backwards into the Illinois, down the Mississippi and all the way to New Orleans and say it is not our problem anymore. So I think there is legitimate concern about when the Federal Government should step in. In fact, my wife is from New Orleans and she always talks about that she grew up in a city that the water was flushed 55 times before it got to her. And I think that Chicago is an example of what Dr. Baird is talking about. I only ask that we find that fault before we bring down the Federal Government's involvement to protect the third innocent party. What frustrates me, especially working the *Clean Water Act* authors, is that the third parties never existed in certain locations, especially where Hawaii is a good example of being required to fulfill the treatment standards and being able to have regulatory oversight by the Federal Government over something that didn't affect anybody but their own population. So all I ask is before we make the step to step into protect a third party, that the legislature or somebody down the line has to assure that there is a third party to be dependent, because right now you have got Hawaii having regulations imposed on them that there was never an intention by the authors of the *Clean Water Act* to impose that in those situations, but because it was specifically clarified that there needs to be a burden of proof, a burden that there is an innocent third party which triggers federal intervention, it always goes the other way. You always trigger and it ends up going over all. So I think the amendment is appropriate, Dr. Baird, as long as we ensure that there are going to be times that if the studies do—because this is a research bill. This research bill will probably bring up items that we do need to have the Federal Government intervene but there is many places that

we shouldn't, and all I ask that this time we don't take this step. We use the data and the science here to take the next step when the facts are located, and you know, we know where that is going to be and why but they are not going to be everywhere and that is why I think the amendment is appropriate.

Mr. HALL. Will the gentleman yield?

Mr. ROHRABACHER. I have the time. I will be happy to yield.

Mr. HALL. I just want to point out that the Federal Government is going to do the implementation, and that implementation could lead to what we would refer to as unintended financial burdens on governmental entities, and that is what this is guided toward, and the reason is, as it is written right now, H.R. 3650 doesn't contain any safeguards, none, against unfunded mandates. That is the reason for the amendment and that is the sole purpose of the amendment.

Chairman GORDON. The gentleman's time is expired. Is there still further discussion?

Mr. BARTLETT. Mr. Chairman.

Chairman GORDON. Dr. Bartlett.

Mr. BARTLETT. Thank you. I would just like to ask a procedural question. I do not know what rules have been changed. But if the rule for this bill does not waive points of order, could not a point of order be lodged against the bill if in fact there are unfunded mandates exceeding $5 million collectively?

Chairman GORDON. If the rules are not waived, that is correct.

Mr. BARTLETT. Would not Mr. Hall's concern, could it not be addressed on the Floor if the rule did not waive points of order? Why would we want on a bipartisan Committee to have a rule that waived points of order?

Chairman GORDON. You have two questions there.

Mr. BARTLETT. Yes, I would like you to answer both of them.

Chairman GORDON. First of all, you are correct, and secondly, it is the Rules Committee that makes that determination, not this committee.

Mr. BARTLETT. What would the Chair recommend to the Rule Committee?

Chairman GORDON. Do the right thing.

Mr. BARTLETT. What would the right thing be?

Mr. HALL. I think a vote will wipe out all these concerns, if you want go ahead and call a roll.

Chairman GORDON. Well, I think Ms. Biggert wants to defend Chicago.

Ms. BIGGERT. Absolutely. Thank you for yielding me the time. Actually, talking about going upstream or downstream, we now have a problem in Chicago and just outside of Chicago and having had to build an electronic barrier to keep the Asian carp out of Chicago and the whole Great Lakes and really it is a very serious problem but we do have the Asian carp swimming upstream from down states, and it is a real problem right now where we have had to have emergency funds because they are really approaching that electronic barrier in my District, so I think we should look at both upstream and downstream when you are considering this.

Chairman GORDON. Thank you, Ms. Biggert.

If there is no further discussion, the Clerk will call the roll.

The CLERK. Chairman Gordon?

Chairman GORDON. Excuse me. Pardon me. The vote occurs on the amendment. All those in favor, say "aye." Opposed, "no." The no's have it. Does the gentleman——

Mr. HALL. I ask for a recorded vote.

Chairman GORDON. The Clerk will call the roll.

The CLERK. Chairman Gordon?

Chairman GORDON. No.

The CLERK. Chairman Gordon votes no. Mr. Costello?

[No response.]

The CLERK. Ms. Johnson?

Ms. JOHNSON. No.

The CLERK. Ms. Johnson votes no. Ms. Woolsey?

[No response.]

The CLERK. Mr. Wu?

[No response.]

The CLERK. Mr. Baird?

Mr. BAIRD. No.

The CLERK. Mr. Baird votes no. Mr. Miller?

Mr. MILLER. No.

The CLERK. Mr. Miller votes no. Mr. Lipinski?

[No response.]

The CLERK. Ms. Giffords?

Ms. GIFFORDS. No.

The CLERK. Ms. Giffords votes no. Ms. Edwards?

Ms. EDWARDS. No.

The CLERK. Ms. Edwards votes no. Ms. Fudge?

Ms. FUDGE. No.

The CLERK. Ms. Fudge votes no. Mr. Luján?

Mr. LUJÁN. No.

The CLERK. Mr. Luján votes no. Mr. Tonko?

Mr. TONKO. No.

The CLERK. Mr. Tonko votes no. Mr. Griffith?

Mr. GRIFFITH. No.

The CLERK. Mr. Griffith votes no. Mr. Rothman?

[No response.]

The CLERK. Mr. Matheson?

Mr. MATHESON. No.

The CLERK. Mr. Matheson votes no. Mr. Davis?

Mr. DAVIS. No.

The CLERK. Mr. Davis votes no. Mr. Chandler?

Mr. CHANDLER. No.

The CLERK. Mr. Chandler votes no. Mr. Carnahan?

Mr. CARNAHAN. No.

The CLERK. Mr. Carnahan votes no. Mr. Hill?

Mr. HILL. No.

The CLERK. Mr. Hill votes no. Mr. Wilson?

Mr. WILSON. No.

The CLERK. Mr. Wilson votes no. Ms. Dahlkemper?

Ms. DAHLKEMPER. No.

The CLERK. Ms. Dahlkemper votes no. Mr. Grayson?

Mr. GRAYSON. No.

The CLERK. Mr. Grayson votes no. Ms. Kosmas?

Ms. KOSMAS. Yes.

The CLERK. Ms. Kosmas votes aye. Mr. Peters?
Mr. PETERS. No.
The CLERK. Mr. Peters votes no. Mr. Hall?
Mr. HALL. Aye.
The CLERK. Mr. Hall votes aye. Mr. Sensenbrenner?
[No response.]
The CLERK. Mr. Lamar Smith?
[No response.]
The CLERK. Mr. Rohrabacher?
Mr. ROHRABACHER. Yes.
The CLERK. Mr. Rohrabacher votes aye. Mr. Bartlett?
Mr. BARTLETT. Aye.
The CLERK. Mr. Bartlett votes aye. Mr. Ehlers?
Mr. EHLERS. Aye.
The CLERK. Mr. Ehlers votes aye. Mr. Lucas?
[No response.]
The CLERK. Ms. Biggert?
Ms. BIGGERT. Aye.
The CLERK. Ms. Biggert votes aye. Mr. Akin?
Mr. AKIN. Yes.
The CLERK. Mr. Akin votes aye. Mr. Neugebauer?
[No response.]
The CLERK. Mr. Inglis?
Mr. INGLIS. Aye.
The CLERK. Mr. Inglis votes aye. Mr. McCaul?
Mr. MCCAUL. Aye.
The CLERK. Mr. McCaul votes aye. Mr. Diaz-Balart?
[No response.]
The CLERK. Mr. Bilbray?
Mr. BILBRAY. Bilbray votes aye.
The CLERK. Mr. Bilbray votes aye. Mr. Adrian Smith?
Mr. SMITH OF NEBRASKA. Aye.
The CLERK. Mr. Adrian Smith votes aye. Mr. Broun?
Mr. BROUN. Aye.
The CLERK. Mr. Broun votes aye. Mr. Olson?
[No response.]
The CLERK. Mr. Wu is not recorded.
Mr. WU. No.
The CLERK. Mr. Wu votes no. Mr. Costello is not recorded.
Mr. COSTELLO. Votes no.
The CLERK. Mr. Costello votes no.
Mr. ROTHMAN. Mr. Chairman, I would like to be recorded "no" please.
The CLERK. Mr. Rothman votes no.
Chairman GORDON. If no one else is available, then the Clerk will report.
Mr. MITCHELL. Mr. Chairman.
Chairman GORDON. Oh, I am sorry.
The CLERK. Oh, I am sorry.
Chairman GORDON. Clerk, you need to——
The CLERK. Mr. Mitchell?
Mr. MITCHELL. Yes.
The CLERK. Mr. Mitchell votes aye.

Chairman GORDON. Would the Clerk clarify Mr. Mitchell's vote? It wasn't well heard up here.

The CLERK. Mr. Mitchell was recorded as voting aye. Are you ready for the roll?

Chairman GORDON. Yes.

The CLERK. Mr. Chairman, 13 Members vote aye and 22 Members vote no.

COMMITTEE ON SCIENCE AND TECHNOLOGY - 111th

DATE 10/7/09 **AMENDMENT NO. 015** **ROLL CALL NO.__1__**

Bill: H.R. 3650 – the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.

SPONSOR of AMEND – Mr. Hall

PASSED **VOICE VOTE**
DEFEATED X **WITHDRAWN**

Quorum – 15 to vote – 22 to report

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. GORDON, Chair		X		
2 Mr. COSTELLO - *IL*		X		
3 Ms. JOHNSON - *TX*		X		
4 Ms. WOOLSEY - *CA*				
5 Mr. WU - *OR*		X		
6 Mr. BAIRD - *WA*		X		
7 Mr. MILLER - *NC*		X		
8 Mr. LIPINSKI - *IL*				
9 Ms. GIFFORDS - *AZ*		X		
10 Ms. EDWARDS - *MD*		X		
11 Ms. FUDGE - *OH*		X		
12 Mr. LUJÁN - *NM*		X		
13 Mr. TONKO - *NY*		X		
14 Mr. GRIFFITH - *AL*		X		
15 Mr. ROTHMAN - *NJ*		X		
16 Mr. MATHESON - *UT*		X		
17 Mr. DAVIS - *TN*		X		
18 Mr. CHANDLER - *KY*		X		
19 Mr. CARNAHAN - *MO*		X		
20 Mr. HILL - *IN*		X		
21 Mr. MITCHELL - *AZ*	X			
22 Mr. WILSON - *OH*		X		
23 Mrs. DAHLKEMPER- *PA*		X		
24 Mr. GRAYSON – *FL*		X		
25 Ms. KOSMAS - *FL*	X			
26 Mr. PETERS - *MI*		X		
27 Vacancy				

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. HALL- *TX*	X			
2 Mr. SENSENBRENNER-*WI*				
3 Mr. LAMAR SMITH- *TX*				
4 Mr. ROHRABACHER- *CA*	X			
5 Mr. BARTLETT- *MD*	X			
6 Mr. EHLERS- *MI*	X			
7 Mr. LUCAS- *OK*				
8 Mrs. BIGGERT- *IL*	X			
9 Mr. AKIN- *MO*	X			
10 Mr. NEUGEBAUER- *TX*				
11 Mr. INGLIS- *SC*	X			
12 Mr. McCAUL- *TX*	X			
13 Mr. DIAZ-BALART- *FL*				
14 Mr. BILBRAY- *CA*	X			
15 Mr. ADRIAN SMITH- *NE*	X			
16 Mr. BROUN - *GA*	X			
17 Mr. OLSON- *TX*				
TOTALS	13	22		

Mr. Chairman, _____ Members vote Aye and _____ vote No

Chairman GORDON. The amendment fails. Somewhat out of order, let me also suggest that the Committee would like to wish our best on to Mr. Neugebauer. Hopefully he will be back with us soon, so if his staff is here, please convey that on behalf of the entire Committee.

The third amendment on the roster is an amendment offered by the gentleman from Nebraska, Mr. Smith. Are you ready to proceed with your amendment?

Mr. SMITH OF NEBRASKA. Yes, Mr. Chairman.

Chairman GORDON. The Clerk will report the amendment.

The CLERK. Amendment to H.R. 3650, amendment number 001, offered by Mr. Smith of Nebraska.

Chairman GORDON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for five minutes to explain the amendment.

Mr. SMITH OF NEBRASKA. Thank you, Mr. Chairman. This amendment would insert the phrase "at the request of the states" in two parts of the bill. The first is where H.R. 3650 outlines the duties of Under Secretary as head of the taskforce and requires the National Oceanic and Atmospheric Administration to oversee the development and the implementation and review and periodic updating of the regional research and action plans. The second is where H.R. 3650 describes the plan details including the fact it is the Under Secretary who is responsible for overseeing the development and implementation of the plans. Inserting this phrase would

ensure the states as part of regions affected by harmful algal blooms and hypoxia would be involved from the ground up in ascertaining there was a problem and identifying potential solutions.

The intent of H.R. 3650 is for NOAA to be responsible for the ultimate development and implementation of the plans. Although the bill requires NOAA to coordinate with State, tribal and local officials through this process, my amendment would strengthen the concept of states maintaining primacy over their freshwater and coastal resources by requiring states initiate the process, start with requesting the plans instead of having the plans forced upon them. It is not anticipated any state would refuse to request such a plan. Considering the widespread economic and environmental impacts blooms and hypoxia can impose, some states are already encouraging some sort of action on this issue. Compelling NOAA to wait until the states in each region request a plan would preserve State control over their freshwater and coastal resources.

Thank you, Mr. Chairman. I yield back.

[The prepared statement of Mr. Smith follows:]

PREPARED STATEMENT OF REPRESENTATIVE ADRIAN SMITH

Mr. Chairman and Members of the Committee,

This amendment would insert the phrase "at the request of the States" in two parts of the bill. The first would be where H.R. 3650 outlines the duties of Under Secretary as head of the Task Force and requires the National Oceanic and Atmospheric Administration to "oversee the development and implementation, review and periodic updating of the Regional Research and Action Plans." The second place would be where H.R. 3650 describes the plan details, including the fact it is the Under Secretary who is responsible for overseeing the development and implementation of the plans.

Inserting this phrase would ensure the states, as part of regions affected by harmful algal blooms and hypoxia, would be involved from the ground up, in ascertaining there was a problem and identifying potential solutions.

The intent of H.R. 3650 is for NOAA to be responsible for the ultimate development and implementation of the plans. Although the bill requires NOAA to coordinate with State, tribal and local officials through this process, my amendment would strengthen the concept states maintain primacy over their freshwater and coastal resources by requiring states initiate the process; start with requesting the plans instead of having the plans forced upon them.

It is not anticipated any state would refuse to request such a plan. Considering the widespread economic and environmental impacts blooms and hypoxia could impose, some states are already encouraging some sort of action on this issue. However, compelling NOAA to wait until the states in each region request a plan would preserve State control over their freshwater and coastal resources.

Chairman GORDON. Dr. Baird is recognized.

Mr. BAIRD. This amendment, though well intentioned, raises many of the same issues we just went over so I won't belabor those. The bill, as the gentleman mentioned, specifically instructs collaborative efforts with the States. My concern about the amendment is would effectively give one State or another veto power, and if that state happens to be a major contributor in some fashion to the factors that exacerbate harmful algal blooms, either fresh or saltwater, they would basically have veto power over the taskforce and I think that is a mistake, so I would urge its defeat.

Chairman GORDON. Is there further discussion?

Mr. SMITH OF NEBRASKA. Mr. Chairman.

Chairman GORDON. Without—okay. Mr. Rohrabacher.

Mr. ROHRABACHER. I request time. I yield to my colleague.

Mr. SMITH OF NEBRASKA. Thank you. I would just add that I would hope that this whole notion would not be the heavy hand of a Federal Government that comes down and that we urge states to step up. I guess it boils down to basic philosophy but certainly I think that this amendment would encourage states to work together that I think will bring about a much more effective product, work product in resolving these issues rather then encouraging states to pit one against another. Thank you, Mr. Chairman. I yield back.

Mr. ROHRABACHER. I yield back my time.

Chairman GORDON. If there is no further discussion, the vote occurs on the amendment. All in favor, say "aye." Those opposed, "no." The nays have it.

Mr. SMITH OF NEBRASKA. Mr. Chairman, I ask for a recorded vote, please.

Chairman GORDON. The Clerk will call the roll.

The CLERK. Chairman Gordon?

Chairman GORDON. No.

The CLERK. Chairman Gordon votes no. Mr. Costello?

Mr. COSTELLO. No.

The CLERK. Mr. Costello votes no. Ms. Johnson?

Ms. JOHNSON. No.

The CLERK. Ms. Johnson votes no. Ms. Woolsey?

[No response.]

The CLERK. Mr. Wu?

Mr. WU. No.

The CLERK. Mr. Wu votes no. Mr. Baird?

Mr. BAIRD. No.

The CLERK. Mr. Baird votes no. Mr. Miller?

Mr. MILLER. No.

The CLERK. Mr. Miller votes no. Mr. Lipinski?

Mr. LIPINSKI. No.

The CLERK. Mr. Lipinski votes no. Ms. Giffords?

Ms. GIFFORDS. No.

The CLERK. Ms. Giffords votes no. Ms. Edwards?

Ms. EDWARDS. No.

The CLERK. Ms. Edwards votes no. Ms. Fudge?

Ms. FUDGE. No.

The CLERK. Ms. Fudge votes no. Mr. Luján?

Mr. LUJÁN. No.

The CLERK. Mr. Luján votes no. Mr. Tonko?

Mr. TONKO. No.

The CLERK. Mr. Tonko votes no. Mr. Griffith?

[No response.]

The CLERK. Mr. Rothman?

[No response.]

The CLERK. Mr. Matheson?

[No response.]

The CLERK. Mr. Davis?

Mr. DAVIS. No.

The CLERK. Mr. Davis votes no. Mr. Chandler?

Mr. CHANDLER. No.

The CLERK. Mr. Chandler votes no. Mr. Carnahan?

Mr. CARNAHAN. No.
The CLERK. Mr. Carnahan votes no. Mr. Hill?
Mr. HILL. No.
The CLERK. Mr. Hill votes no. Mr. Mitchell?
Mr. MITCHELL. No.
The CLERK. Mr. Mitchell votes no. Mr. Wilson?
Mr. WILSON. No.
The CLERK. Mr. Wilson votes no. Ms. Dahlkemper?
Ms. DAHLKEMPER. No.
The CLERK. Ms. Dahlkemper votes no. Mr. Grayson?
Mr. GRAYSON. No.
The CLERK. Mr. Grayson votes no. Ms. Kosmas?
Ms. KOSMAS. No.
The CLERK. Ms. Kosmas votes no. Mr. Peters?
Mr. PETERS. No.
The CLERK. Mr. Peters votes no. Mr. Hall?
Mr. HALL. Aye.
The CLERK. Mr. Hall votes aye. Mr. Sensenbrenner?
[No response.]
The CLERK. Mr. Lamar Smith?
[No response.]
The CLERK. Mr. Rohrabacher?
Mr. ROHRABACHER. Yes.
The CLERK. Mr. Rohrabacher votes aye. Mr. Bartlett?
[No response.]
The CLERK. Mr. Ehlers?
Mr. EHLERS. Aye.
The CLERK. Mr. Ehlers votes aye. Mr. Lucas?
[No response.]
The CLERK. Ms. Biggert?
Ms. BIGGERT. Aye.
The CLERK. Ms. Biggert votes aye. Mr. Akin?
[No response.]
The CLERK. Mr. Neugebauer?
[No response.]
The CLERK. Mr. Inglis?
Mr. INGLIS. Aye.
The CLERK. Mr. Inglis votes aye. Mr. McCaul?
Mr. MCCAUL. Aye.
The CLERK. Mr. McCaul votes aye. Mr. Diaz-Balart?
[No response.]
The CLERK. Mr. Bilbray? Mr. Bilbray?
Mr. BILBRAY. Pass.
The CLERK. Mr. Bilbray passes. Mr. Adrian Smith?
Mr. SMITH OF NEBRASKA. Aye.
The CLERK. Mr. Adrian Smith votes aye. Mr. Broun?
Mr. BROUN. Aye.
The CLERK. Mr. Broun votes aye. Mr. Olson?
[No response.]
Chairman GORDON. How is Mr. Rothman recorded?
The CLERK. Mr. Rothman is not recorded.
Mr. ROTHMAN. I would like to be recorded as no, please.
The CLERK. Mr. Rothman votes no.
Chairman GORDON. And how is Mr. Akin recorded?

The CLERK. Mr. Akin is not recorded.

Mr. AKIN. I would like to be recorded as aye.

The CLERK. Mr. Akin votes aye.

Chairman GORDON. And how is Mr. Matheson recorded?

The CLERK. Mr. Matheson is not recorded.

Mr. MATHESON. No.

The CLERK. Mr. Matheson votes no.

Chairman GORDON. And Mr. Bilbray, how is he recorded?

The CLERK. Mr. Bilbray is reported as pass.

Mr. BILBRAY. Make that an aye, please.

The CLERK. Mr. Bilbray votes aye.

Chairman GORDON. Is there anyone else that hasn't been recorded? Ms. Edwards, were you recorded? Okay. The Clerk will report.

The CLERK. Mr. Chairman, 10 Members vote aye and 24 Members vote no.

COMMITTEE ON SCIENCE AND TECHNOLOGY - 111th

DATE 10/7/09 **AMENDMENT NO. 011** **ROLL CALL NO.__2__**

Bill: H.R. 3650 – the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009.

SPONSOR of AMEND – Mr. Smith

PASSED **VOICE VOTE**

DEFEATED X **WITHDRAWN**

Quorum – 15 to vote – 22 to report

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. GORDON, Chair		X		
2 Mr. COSTELLO - *IL*		X		
3 Ms. JOHNSON - *TX*		X		
4 Ms. WOOLSEY - *CA*				
5 Mr. WU - *OR*		X		
6 Mr. BAIRD - *WA*		X		
7 Mr. MILLER - *NC*		X		
8 Mr. LIPINSKI - *IL*		X		
9 Ms. GIFFORDS - *AZ*		X		
10 Ms. EDWARDS - *MD*		X		
11 Ms. FUDGE - *OH*		X		
12 Mr. LUJÁN - *NM*		X		
13 Mr. TONKO - *NY*		X		
14 Mr. GRIFFITH - *AL*				
15 Mr. ROTHMAN - *NJ*		X		
16 Mr. MATHESON - *UT*		X		
17 Mr. DAVIS - *TN*		X		
18 Mr. CHANDLER - *KY*		X		
19 Mr. CARNAHAN - *MO*		X		
20 Mr. HILL - *IN*		X		
21 Mr. MITCHELL - *AZ*		X		
22 Mr. WILSON - *OH*		X		
23 Mrs. DAHLKEMPER- *PA*		X		
24 Mr. GRAYSON – *FL*		X		
25 Ms. KOSMAS - *FL*		X		
26 Mr. PETERS - *MI*		X		
27 Vacancy				

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. HALL- *TX*	X			
2 Mr. SENSENBRENNER-*WI*				
3 Mr. LAMAR SMITH- *TX*				
4 Mr. ROHRABACHER- *CA*	X			
5 Mr. BARTLETT- *MD*				
6 Mr. EHLERS- *MI*	X			
7 Mr. LUCAS- *OK*				
8 Mrs. BIGGERT- *IL*	X			
9 Mr. AKIN- *MO*	X			
10 Mr. NEUGEBAUER- *TX*				
11 Mr. INGLIS- *SC*	X			
12 Mr. McCAUL- *TX*	X			
13 Mr. DIAZ-BALART- *FL*				
14 Mr. BILBRAY- *CA*	X			
15 Mr. ADRIAN SMITH- *NE*	X			
16 Mr. BROUN - *GA*	X			
17 Mr. OLSON- *TX*				
TOTALS	10	24		

Mr. Chairman, _____ Members vote Aye and _____ vote No

Chairman GORDON. The amendment fails.

The fourth amendment on the roster is an amendment offered by the gentleman from Georgia, Dr. Broun. Are you ready to proceed with your amendment or——

Mr. BROUN. Mr. Chairman, I withdraw my amendment.

Chairman GORDON. Thank you, Mr. Broun. The Clerk will—so the vote is now on the bill, H.R. 3650 as amended. All those in favor will say "aye." All those opposed, "no." In the opinion, the ayes have it. And the ayes have it. I now recognize myself for a motion.

I move the Committee favorably report H.R. 3650 as amended to the House with the recommendation that the bill be passed. Furthermore, I move that staff be instructed to prepare the Committee legislative report and make necessary technical and conforming changes and that the Chairman take all necessary steps to begin to bring the bill before the House for consideration.

The question is now on the motion to report the bill favorably. Those in favor of the motion will signify by saying "aye." Opposed, "no." The ayes have it. The bill is favorably reported.

Without objection, the motion to reconsider is laid upon the table. The Members will have two subsequent calendar days in which to submit supplemental Minority or additional views on this measure.

I want to thank the Members for their attendance and the staff on both sides for their good work. This concludes our Committee markup.

[Whereupon, at 3:55 p.m., the Committee was adjourned.]

Appendix:

H.R. 3650 AS AMENDED, AMENDMENT ROSTER

H.R. 3650, AS AMENDED BY THE SUBCOMMITTEE ON ENERGY AND ENVIRONMENT ON SEPTEMBER 30, 2009

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009''.

SEC. 2. AMENDMENT OF 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. DEFINITIONS.

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

"SEC. 602A. DEFINITIONS.

''In this title:

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

"(2) PROGRAM.—The term 'Program' means the National Harmful Algal Bloom and Hypoxia Program established under section 603A.

"(3) UNDER SECRETARY.—The term 'Under Secretary' means the Under Secretary of Commerce for Oceans and Atmosphere.".

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) IN GENERAL.—Except as provided in subsection (d), the Under Secretary, through the Task Force established under section 603(a), shall establish and maintain a National Harmful Algal Bloom and Hypoxia Program pursuant to this section.

"(b) DUTIES.—The Under Secretary, through the Program, shall utilize the resources of the Task Force to—

"(1) develop and promote a national strategy to understand, detect, predict, control, mitigate, and

respond to marine and freshwater harmful algal bloom and hypoxia events;

"(2) ensure the coordination of all Federal programs that address marine and freshwater harmful algal blooms and hypoxia, and other 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;

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

"(4) identify additional research, development, and demonstration needs and priorities relating to monitoring, prediction, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia;

"(5) encourage international information sharing and research efforts on marine and freshwater harmful algal blooms and hypoxia, and encourage international mitigation, control, and response activities;

"(6) ensure the development and implementation of methods and technologies to protect the eco-

1 systems affected by marine and freshwater harmful
2 algal blooms;
3 "(7) coordinate an education program that inte-
4 grates and augments existing programs to improve
5 public understanding and awareness of the causes,
6 impacts, and mitigation efforts for marine and fresh-
7 water harmful algal blooms and hypoxia;
8 "(8) assist in regional, State, tribal, and local
9 efforts to develop and implement appropriate marine
10 and freshwater harmful algal bloom and hypoxia re-
11 sponse plans, strategies, and tools;
12 "(9) provide resources for and assist in the
13 training of State, tribal, and local water and coastal
14 resource managers in the methods and technologies
15 for monitoring, controlling, mitigating, and respond-
16 ing to the effects of marine and freshwater harmful
17 algal blooms and hypoxia events;
18 "(10) oversee the development, implementation,
19 review, and periodic updating of the Regional Re-
20 search and Action Plans under section 603B; and
21 "(11) administer peer-reviewed, merit-based
22 competitive grant funding to support—
23 "(A) the projects maintained and estab-
24 lished by the Program; and

1 "(B) the research and management needs
2 and priorities identified in the Regional Re-
3 search and Action Plans.
4 "(c) COOPERATIVE EFFORTS.—The Under Secretary
5 shall work cooperatively and avoid duplication of efforts
6 with other offices, centers, and programs within the Na-
7 tional Oceanic and Atmospheric Administration and other
8 agencies represented on the Task Force established under
9 section 603(a), States, tribes, and nongovernmental orga-
10 nizations concerned with marine and freshwater aquatic
11 issues related to harmful algal blooms and hypoxia.
12 "(d) FRESHWATER PROGRAM.—With respect to the
13 freshwater aspects of the Program, the Under Secretary
14 and the Administrator shall jointly carry out the duties
15 otherwise assigned to the Under Secretary under this sec-
16 tion and section 603B.
17 "(e) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
18 ISTRATION PROGRAMS.—
19 "(1) EXISTING PROGRAMS.—The Under Sec-
20 retary shall maintain and enhance the following ex-
21 isting competitive programs:
22 "(A) The Ecology and Oceanography of
23 Harmful Algal Blooms Program.
24 "(B) The Monitoring and Event Response
25 for Harmful Algal Blooms Program.

1 "(C) The Northern Gulf of Mexico Eco-
2 systems and Hypoxia Assessment Program.
3 "(D) The Coastal Hypoxia Research Pro-
4 gram.
5 "(E) The Prevention, Control, and Mitiga-
6 tion of Harmful Algal Blooms Program.
7 "(2) NEW PROGRAMS.—The Under Secretary
8 shall establish the following new programs:
9 "(A) An Event Response Program to co-
10 ordinate and enhance, at the request of the
11 States, marine and freshwater harmful algal
12 blooms and hypoxia events response activities.
13 "(B) An Infrastructure Program to de-
14 velop and enhance the critical observations,
15 monitoring, modeling, data management, infor-
16 mation dissemination, and operational forecasts
17 required to meet the purposes of this Act.
18 "(f) ACTION STRATEGY.—
19 "(1) IN GENERAL.—Not later than 12 months
20 after the date of enactment of the Harmful Algal
21 Blooms and Hypoxia Research and Control Amend-
22 ments Act of 2009, the Under Secretary, through
23 the Task Force established under section 603(a),
24 shall transmit to the Congress an action strategy
25 that identifies—

1 "(A) the specific activities to be carried out
2 by the Program and the timeline for carrying
3 out such activities; and
4 "(B) the roles and responsibilities of each
5 Federal agency in the Task Force established
6 under section 603(a) in carrying out Program
7 activities.
8 "(2) FEDERAL REGISTER.—The Under Sec-
9 retary shall publish the action strategy in the Fed-
10 eral Register.
11 "(3) PERIODIC REVISION.—The Under Sec-
12 retary shall periodically review and revise the action
13 strategy prepared under this subsection as nec-
14 essary.
15 "(g) REPORT.—Every 2 years after the submission
16 of the action strategy, the Under Secretary shall prepare
17 and transmit to the Congress a report that describes—
18 "(1) the activities carried out under the Pro-
19 gram and the budget related to these activities;
20 "(2) the progress made on implementing the ac-
21 tion strategy; and
22 "(3) the need to revise or terminate activities or
23 projects under the Program.".

1 **SEC. 5. REGIONAL RESEARCH AND ACTION PLANS.**

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

4 **"SEC. 603B. REGIONAL RESEARCH AND ACTION PLANS.**

5 "(a) IN GENERAL.—The Under Secretary, through
6 the Task Force established under section 603(a), shall—

7 "(1) identify the appropriate regions and sub-
8 regions to be addressed by each Regional Research
9 and Action Plan; and

10 "(2) oversee the development and implementa-
11 tion of the Regional Research and Action Plans.

12 "(b) CONTENTS.—The Plans developed under this
13 section shall identify—

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

17 "(2) research, development, and demonstration
18 activities needed to develop and advance technologies
19 and techniques for minimizing the occurrence of
20 harmful algal blooms and hypoxia and improving ca-
21 pabilities to prevent, predict, monitor, control, and
22 mitigate harmful algal blooms and hypoxia;

23 "(3) ways to reduce the duration and intensity
24 of harmful algal blooms and hypoxia, including in
25 times of emergency;

1 "(4) research and methods to address human
2 health dimensions of harmful algal blooms and hy-
3 poxia;
4 "(5) mechanisms, including the potential costs
5 and benefits of those mechanisms, to protect vulner-
6 able ecosystems that could be or have been affected
7 by harmful algal blooms and hypoxia events;
8 "(6) mechanisms by which data, information,
9 and products are transferred between the Program
10 and State, tribal, and local governments and rel-
11 evant research entities;
12 "(7) communication, outreach, and information
13 dissemination methods that State, tribal, and local
14 governments and nongovernmental organizations can
15 undertake to educate and inform the public con-
16 cerning harmful algal blooms and hypoxia; and
17 "(8) the roles that Federal agencies can play to
18 assist in the implementation of the Plan.
19 "(c) BUILDING ON AVAILABLE STUDIES AND INFOR-
20 MATION.—In developing the Plans under this section, the
21 Under Secretary shall—
22 "(1) utilize and build on existing research, as-
23 sessments, and reports, including those carried out
24 pursuant to existing law and other relevant sources;
25 and

1 "(2) consider the impacts, research, and exist-
2 ing program activities of all United States coastlines
3 and fresh and inland waters, including the Great
4 Lakes, the Chesapeake Bay, and estuaries and tribu-
5 taries.

6 "(d) DEVELOPMENT OF PLANS.—The Under Sec-
7 retary shall develop Plans under this section with assist-
8 ance from the individuals and entities described in sub-
9 section (g).

10 "(e) PLAN TIMELINE AND UPDATES.—The Under
11 Secretary, through the Task Force established under sec-
12 tion 603(a), shall ensure that the Plans developed under
13 this section are completed not later than 24 months after
14 the date of enactment of the Harmful Algal Blooms and
15 Hypoxia Research and Control Amendments Act of 2009,
16 and updated once every 5 years thereafter.

17 "(f) REPORTS.—Not later than 6 months after the
18 completion of each Regional Research and Action Plan,
19 the Under Secretary shall transmit to the Congress a re-
20 port that provides a summary of such Plan, and once every
21 30 months after the completion of such Plan, the Under
22 Secretary shall transmit to the Congress a report that de-
23 scribes—

24 "(1) the activities taken to implement the Plan,
25 including a description of research funded and ac-

1 tions and outcomes of Plan response strategies car-
2 ried out; and
3 "(2) Federal funding provided to implement the
4 Plan.
5 "(g) COORDINATION AND CONSULTATION.—In devel-
6 oping the Plans under this section, as appropriate, the
7 Under Secretary—
8 "(1) shall coordinate with State coastal man-
9 agement and planning officials;
10 "(2) shall coordinate with tribal resource man-
11 agement officials;
12 "(3) shall coordinate with water management
13 and watershed officials from both coastal States and
14 noncoastal States with water sources that drain into
15 water bodies affected by harmful algal blooms and
16 hypoxia; and
17 "(4) shall consult with—
18 "(A) public health officials;
19 "(B) emergency management officials;
20 "(C) nongovernmental organizations con-
21 cerned with marine and aquatic issues;
22 "(D) science and technology development
23 institutions;
24 "(E) economists;

1 ''(F) industries and businesses affected by
2 marine and freshwater harmful algal blooms
3 and hypoxia;
4 ''(G) scientists, with expertise concerning
5 harmful algal blooms or hypoxia, from academic
6 or research institutions; and
7 ''(H) other stakeholders.''.

8 **SEC. 6. NORTHERN GULF OF MEXICO HYPOXIA.**

9 Section 604 is amended to read as follows:

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

11 ''(a) TASK FORCE INITIAL PROGRESS REPORTS.—
12 Not later than 12 months after the date of enactment of
13 the Harmful Algal Blooms and Hypoxia Research and
14 Control Amendments Act of 2009, the Mississippi River/
15 Gulf of Mexico Watershed Nutrient Task Force shall com-
16 plete and transmit to the Congress and the President a
17 report on the progress made by Task Force-directed ac-
18 tivities toward attainment of the coastal goal of the 2008
19 Gulf Hypoxia Action Plan.

20 ''(b) TASK FORCE 2-YEAR PROGRESS REPORTS.—
21 After the initial report required under subsection (a), the
22 Task Force shall complete and transmit to Congress and
23 the President a report every 2 years thereafter on the
24 progress made by Task Force-directed activities toward

1 attainment of the coastal goal of the 2008 Gulf Hypoxia
2 Action Plan.
3 ''(c) CONTENTS.—The reports required by this sec-
4 tion shall assess progress made toward nutrient load re-
5 ductions, the response of the hypoxic zone and water qual-
6 ity throughout the Mississippi/Atchafalaya River Basin,
7 and the economic and social effects. The reports shall—
8 ''(1) include an evaluation of how current poli-
9 cies and programs affect management decisions, in-
10 cluding those made by municipalities and industrial
11 and agricultural producers;
12 ''(2) evaluate lessons learned; and
13 ''(3) recommend appropriate actions to continue
14 to implement or, if necessary, revise the strategy set
15 forth in the 2008 Gulf Hypoxia Action Plan.''.
16 **SEC. 7. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
17 **SOUND HYPOXIA.**
18 The Act is amended by inserting after section 604
19 the following:
20 **''SEC. 604A. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
21 **SOUND HYPOXIA.**
22 ''(a) ASSESSMENT REPORT.—Not later than 12
23 months after the date of enactment of this Act, the Task
24 Force established under section 603 shall complete and
25 submit to Congress and the President an integrated as-

1 sessment of hypoxia in the coastal and estuarine waters
2 of the Pacific Northwest that examines the status of cur-
3 rent research, monitoring, prevention, response, and con-
4 trol efforts.

5 ''(b) PLAN.—Not later than 2 years after the date
6 of enactment of this Act, such Task Force shall develop
7 and submit to Congress a plan, based on the integrated
8 assessment submitted under subsection (a), for reducing,
9 mitigating, and controlling hypoxia in the coastal and es-
10 tuarine waters of the Pacific Northwest. In developing
11 such plan, the Task Force shall consult with State, Indian
12 tribe, and local governments, and academic, agricultural,
13 industry, and environmental groups and representatives.
14 Such plan shall include incentive-based partnership ap-
15 proaches. The plan shall also address the social and eco-
16 nomic costs and benefits of the measures for reducing,
17 mitigating, and controlling hypoxia. At least 90 days be-
18 fore submission of such plan to the Congress, a summary
19 of the proposed plan shall be published in the Federal
20 Register. After submission of the plan, the Task Force
21 shall provide progress reports on the activities toward at-
22 tainment of the goals set forth in the plan reduce, miti-
23 gate, and control hypoxia in the coastal and estuarine
24 waters of the Pacific Northwest every 2 years.''.

1 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

2 Section 605 is amended to read as follows:

3 **"SEC. 605. AUTHORIZATION OF APPROPRIATIONS.**

4 ''There are authorized to be appropriated—

5 ''(1) to the Under Secretary to carry out sec-
6 tions 603A and 603B, $35,000,000 for each of fiscal
7 years 2010 through 2014, of which, for each fiscal
8 year—

9 ''(A) up to $5,000,000 shall be for the de-
10 velopment of the Regional Research and Action
11 Plans;

12 ''(B) $8,000,000 shall be used to carry out
13 the Ecology and Oceanography of Harmful
14 Algal Blooms Program (ECOHAB);

15 ''(C) $6,000,000 shall be used to carry out
16 the Monitoring and Event Response for Harm-
17 ful Algal Blooms Program (MERHAB);

18 ''(D) $2,000,000 shall be used to carry out
19 the Northern Gulf of Mexico Ecosystems and
20 Hypoxia Assessment Program (NGOMEX);

21 ''(E) $5,000,000 shall be used to carry out
22 the Coastal Hypoxia Research Program
23 (CHRP);

24 ''(F) $5,000,000 shall be used to carry out
25 the Prevention, Control, and Mitigation of
26 Harmful Algal Blooms Program (PCM);

1 "(G) $1,000,000 shall be used to carry out
2 the Event Response Program; and
3 "(H) $3,000,000 shall be used to carry out
4 the Infrastructure Program; and
5 "(2) to the Administrator to carry out sections
6 603A and 603B, $6,000,000 for each of fiscal years
7 2010 through 2014.".

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COMMITTEE ON SCIENCE AND TECHNOLOGY
FULL COMMITTEE MARKUP
OCTOBER 7, 2009

AMENDMENT ROSTER

H. R. 3650, the *Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2009*

No.	Sponsor	Description	Results
1	Mr. Baird/Mr. Ehlers (Manager's Amendment) (038)	Makes several technical and clarifying changes to the bill. Amends Section 4 ("National Harmful Algal Bloom and Hypoxia Program") to require the Administrator to include certain research, monitoring, event response, mitigation, and control activities related to freshwater harmful algal blooms. Further modifies Section 4 to amend the requirements for the new Infrastructure Program. Amends Section 8 ("Authorization of Appropriations") to modify the dollar amounts allocated for the Regional Research and Action Plans and related reports, the Monitoring and Event Response for Harmful Algal Blooms (MERHAB) Program, and the Northern Gulf of Mexico Ecosystems and Hypoxia Assessment (NGOMEX) Program. Further amends Section 8 to specify that $3,000,000 of the funds authorized to be appropriated for each fiscal year 2010 through 2014 shall be for research and assessment activities related to marine and freshwater harmful algal blooms at NOAA research laboratories.	Agreed to by voice vote.
2	Mr. Hall (015)	Adds a section to the end of the bill stating that nothing in the Act shall be construed to require state, tribal, or local governments to take any action that may result in increased financial burden to	Defeated by roll call vote: Y-13 N-22

		such government.	
3	Mr. Smith (011)	Amends Section 4 ("National Harmful Algal Bloom and Hypoxia Program") to add "at the request of the States" to the provision requiring that the Under Secretary shall "oversee the development, implementation, review, and periodic updating of the Regional Research and Action Plans under section 603B." Amends Section 5 ("Regional Research and Action Plans") to add "at the request of the States" to the provision requiring the Under Secretary to "oversee the development and implementation of the Regional Research and Action Plans."	Defeated by roll call vote: Y-10 N-24

AMENDMENT TO H.R. 3650

OFFERED BY MR. BAIRD OF WASHINGTON AND MR. EHLERS OF MICHIGAN

Page 5, line 16, strike the period and insert ", including each of the programs identified in subsection (e)(1) and (2). The Administrator's participation under this subsection shall include—

1 "(1) research on the ecology of freshwater
2 harmful algal blooms;
3 "(2) monitoring and event response of fresh-
4 water harmful algal blooms in lakes, rivers, estuaries
5 (including their tributaries), and reservoirs; and
6 "(3) mitigation and control of freshwater harm-
7 ful algal blooms.".

Page 6, lines 13 through 17, amend subparagraph (B) to read as follows:

8 "(B) An Infrastructure Program to—
9 "(i) increase availability of—
10 "(I) analytical facilities and tech-
11 nologies;
12 "(II) operational forecasts; and

1 "(III) reference and research ma-
2 terials;
3 "(ii) improve integration of harmful
4 algal bloom activities with existing moni-
5 toring and observational programs; and
6 "(iii) enhance communication and co-
7 ordination required to meet the purposes
8 of this Act.".

Page 9, line 14, strike "nongovernmental organizations" and insert "stakeholder organizations".

Page 11, lines 20 and 21, strike subparagraph (C) and redesignate the subsequent subparagraphs accordingly.

Page 12, line 14, insert "Administrator, through the" after "2009, the".

Page 12, line 15, insert a comma after "Task Force".

Page 12, line 21, insert "Administrator, through the" after "subsection (a), the".

Page 12, line 22, insert a comma after "Task Force".

Page 15, lines 9 through 11, amend subparagraph (A) to read as follows:

1 "(A) up to $3,000,000 shall be for the de-
2 velopment of the Regional Research and Action
3 Plans and the reports required by sections 604
4 and 604A;

Page 15, after line 11, insert the following new subparagraph (and redesignate the subsequent subparagraphs accordingly):

5 "(B) $3,000,000 shall be for the research
6 and assessment activities related to marine and
7 freshwater harmful algal blooms at research
8 laboratories of the National Oceanic and At-
9 mospheric Administration;

Page 15, line 15, strike "$6,000,000" and insert "$5,500,000".

Page 15, line 18, strike "$2,000,000" and insert "$1,500,000".

Page 16, line 7, insert ", of which up to $3,000,000 for each fiscal year shall be for participation in carrying out section 603A(e), as described in section 603A(d)" after "through 2014".

AMENDMENT TO H.R. 3650
OFFERED BY MR. HALL OF TEXAS

At the end of the bill, add the following new section:

1 **SEC. 9. UNFUNDED MANDATES.**

2 Nothing in this Act or the amendments made by this
3 Act shall be construed to require a State, tribal, or local
4 government to take any action that may result in an in-
5 creased financial burden to such government.

AMENDMENT TO H.R. 3650

OFFERED BY MR. SMITH OF NEBRASKA

Page 4, line 20, insert ''at the request of the States'' after ''section 603B''.

Page 8, line 10, insert ''at the request of the States'' after ''(2)''.

AMENDMENT TO H.R. 3650

OFFERED BY MR. BROUN OF GEORGIA

At the end of the bill, add the following new section:

1 **SEC. 9. CONDITIONS ON FUNDING.**

2 None of the funds made available under this Act or
3 the amendments made by this Act—

4 (1) may be used for lobbying the legislative or
5 executive branches of the Federal, State, or local
6 governments; or

7 (2) may be awarded to any entity if that entity
8 or any employee of that entity has been charged by
9 any Federal, State, or local government agency with
10 fraud, waste, abuse of government funds, or any ille-
11 gal activities.

AMENDMENT

OFFERED BY Mr. Baird **TO THE AMENDMENT OFFERED BY MR. BROUN OF GEORGIA**

Page 1, lines 7 through 11, amend paragraph (2) to read as follows:

1 (2) may be awarded to an entity if that entity
2 has been convicted or held liable by any Federal,
3 State, or local government entity for fraud, waste, or
4 abuse of government funds.