

**AMENDMENT IN THE NATURE OF A SUBSTITUTE
TO H.R. 3650
OFFERED BY MR. BAIRD OF WASHINGTON**

Strike all after the enacting clause and insert the following:

1 SECTION 1. SHORT TITLE.

2 This Act may be cited as the “Harmful Algal Blooms
3 and Hypoxia Research and Control Amendments Act of
4 2010”.

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

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

15 SEC. 3. DEFINITIONS.

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

1 **“SEC. 602A. DEFINITIONS.**

2 “In this title:

3 “(1) ADMINISTRATOR.—The term ‘Adminis-
4 trator’ means the Administrator of the Environ-
5 mental Protection Agency.

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

9 “(3) STATE.—The term ‘State’ means each of
10 the several States of the United States, the District
11 of Columbia, the Commonwealth of Puerto Rico, the
12 Virgin Islands; Guam, American Samoa, the Com-
13 monwealth of the Northern Mariana Islands, any
14 other territory or possession of the United States,
15 and any Indian tribe.

16 “(4) UNDER SECRETARY.—The term ‘Under
17 Secretary’ means the Under Secretary of Commerce
18 for Oceans and Atmosphere.”.

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

“Sec. 602A. Definitions.”.

1 **SEC. 4. NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA**
2 **PROGRAM.**

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

5 **“SEC. 603A. NATIONAL HARMFUL ALGAL BLOOM AND HY-**
6 **POXIA PROGRAM.**

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

12 “(b) **DUTIES.**—The Under Secretary, through the
13 Program, shall coordinate the efforts of the Task Force
14 to—

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

19 “(2) integrate the research of all Federal pro-
20 grams, including ocean and Great Lakes science and
21 management programs and centers, that address the
22 chemical, biological, and physical components of ma-
23 rine and freshwater harmful algal blooms and hy-
24 poxia;

25 “(3) coordinate and work cooperatively with
26 State, tribal, and local government agencies and pro-

1 grams that address marine and freshwater harmful
2 algal blooms and hypoxia;

3 “(4) identify additional research, development,
4 and demonstration needs and priorities relating to
5 monitoring, prediction, prevention, control, mitiga-
6 tion, and response to marine and freshwater harmful
7 algal blooms and hypoxia;

8 “(5) encourage international information shar-
9 ing and research efforts on marine and freshwater
10 harmful algal blooms and hypoxia, and encourage
11 international mitigation, control, and response activi-
12 ties;

13 “(6) ensure the development and implementa-
14 tion of methods and technologies to protect the eco-
15 systems affected by marine and freshwater harmful
16 algal blooms;

17 “(7) integrate, coordinate, and augment exist-
18 ing education programs to improve public under-
19 standing and awareness of the causes, impacts, and
20 mitigation efforts for marine and freshwater harmful
21 algal blooms and hypoxia;

22 “(8) assist in regional, State, tribal, and local
23 efforts to develop and implement appropriate marine
24 and freshwater harmful algal bloom and hypoxia re-
25 sponse plans, strategies, and tools;

1 “(9) provide resources for and assist in the
2 training of State, tribal, and local water and coastal
3 resource managers in the methods and technologies
4 for monitoring, controlling, mitigating, and respond-
5 ing to the effects of marine and freshwater harmful
6 algal blooms and hypoxia events;

7 “(10) oversee the development, implementation,
8 review, and periodic updating of the Regional Re-
9 search and Action Plans under section 603B; and

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

12 “(A) the projects maintained and estab-
13 lished by the Program; and

14 “(B) the research and management needs
15 and priorities identified in the Regional Re-
16 search and Action Plans.

17 “(c) COOPERATIVE EFFORTS.—The Under Secretary
18 shall work cooperatively and avoid duplication of efforts
19 with other offices, centers, and programs within the Na-
20 tional Oceanic and Atmospheric Administration and other
21 agencies represented on the Task Force established under
22 section 603(a), States, tribes, and nongovernmental orga-
23 nizations concerned with marine and freshwater aquatic
24 issues related to harmful algal blooms and hypoxia.

1 “(d) FRESHWATER PROGRAM.—With respect to the
2 freshwater aspects of the Program, the Administrator and
3 Under Secretary, through the Task Force, shall carry out
4 the duties otherwise assigned to the Under Secretary
5 under this section and section 603B, including the activi-
6 ties described in subsection (e). The Administrator’s par-
7 ticipation under this subsection shall include—

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

10 “(2) monitoring and event response of fresh-
11 water harmful algal blooms in lakes, rivers, estuaries
12 (including their tributaries), and reservoirs;

13 “(3) mitigation and control of freshwater harm-
14 ful algal blooms; and

15 “(4) an identification in the President’s annual
16 budget request to Congress of how much funding is
17 proposed in that request for carrying out the activi-
18 ties described in subsection (e).

19 “(e) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
20 STRATION ACTIVITIES.—As part of the program under
21 this section, the Under Secretary shall—

22 “(1) maintain and enhance existing competitive
23 grant programs at the National Oceanic and Atmos-
24 pheric Administration relating to marine and fresh-
25 water harmful algal blooms and hypoxia;

1 “(2) carry out marine and freshwater harmful
2 algal bloom and hypoxia events response activities;
3 and

4 “(3) enhance communication and coordination
5 among Federal agencies carrying out marine and
6 freshwater harmful algal bloom and hypoxia activi-
7 ties, and increase the availability to appropriate pub-
8 lic and private entities of—

9 “(A) analytical facilities and technologies;

10 “(B) operational forecasts; and

11 “(C) reference and research materials.

12 “(f) INTEGRATED COASTAL AND OCEAN OBSERVA-
13 TION SYSTEM.—All monitoring and observation data col-
14 lected under this Act shall be collected in compliance with
15 all data standards and protocols developed pursuant to the
16 National Integrated Coastal and Ocean Observation Sys-
17 tem Act of 2009 (33 U.S.C. 3601 et seq.), and such data
18 shall be made available through the System established
19 under that Act.

20 “(g) ACTION STRATEGY.—

21 “(1) IN GENERAL.—Not later than 12 months
22 after the date of enactment of the Harmful Algal
23 Blooms and Hypoxia Research and Control Amend-
24 ments Act of 2010, the Under Secretary, through
25 the Task Force established under section 603(a),

1 shall transmit to the Congress an action strategy
2 that identifies—

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

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

10 “(2) FEDERAL REGISTER.—The Under Sec-
11 retary shall publish the action strategy in the Fed-
12 eral Register.

13 “(3) PERIODIC REVISION.—The Under Sec-
14 retary shall periodically review and revise the action
15 strategy prepared under this subsection as nec-
16 essary.

17 “(h) REPORT.—Two years after the submission of
18 the action strategy, the Under Secretary shall prepare and
19 transmit to the Congress a report that describes—

20 “(1) the activities carried out under the Pro-
21 gram and the Regional Research and Action Plans
22 and the budget related to these activities;

23 “(2) the progress made on implementing the ac-
24 tion strategy; and

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

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

“Sec. 603A. National Harmful Algal Bloom and Hypoxia Program.”.

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

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

10 **“SEC. 603B. REGIONAL RESEARCH AND ACTION PLANS.**

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

13 “(1) identify the appropriate regions and sub-
14 regions to be addressed by each Regional Research
15 and Action Plan; and

16 “(2) oversee the development and implementa-
17 tion of the Regional Research and Action Plans.

18 “(b) CONTENTS.—The Plans developed under this
19 section shall identify—

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

23 “(2) research, development, and demonstration
24 activities needed to develop and advance technologies
25 and techniques for minimizing the occurrence of

1 harmful algal blooms and hypoxia and improving ca-
2 pabilities to prevent, predict, monitor, control, and
3 mitigate harmful algal blooms and hypoxia;

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

7 “(4) research and methods to address human
8 health dimensions of harmful algal blooms and hy-
9 poxia;

10 “(5) mechanisms, including the potential costs
11 and benefits of those mechanisms, to protect vulner-
12 able ecosystems that could be or have been affected
13 by harmful algal blooms and hypoxia events;

14 “(6) mechanisms by which data, information,
15 and products are transferred between the Program
16 and State, tribal, and local governments and rel-
17 evant research entities;

18 “(7) communication, outreach, and information
19 dissemination methods that State, tribal, and local
20 governments and stakeholder organizations can un-
21 dertake to educate and inform the public concerning
22 harmful algal blooms and hypoxia; and

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

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 sements, 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.

13 “(d) DEVELOPMENT OF PLANS.—The Under Sec-
14 retary shall develop Plans under this section with assist-
15 ance from the individuals and entities described in sub-
16 section (f).

17 “(e) PLAN TIMELINE AND UPDATES.—The Under
18 Secretary, through the Task Force established under sec-
19 tion 603(a), shall ensure that the Plans developed under
20 this section are completed not later than 24 months after
21 the date of enactment of the Harmful Algal Blooms and
22 Hypoxia Research and Control Amendments Act of 2010,
23 and updated once every 5 years thereafter.

1 “(f) COORDINATION AND CONSULTATION.—In devel-
2 oping the Plans under this section, as appropriate, the
3 Under Secretary—

4 “(1) shall coordinate with State coastal man-
5 agement and planning officials;

6 “(2) shall coordinate with tribal resource man-
7 agement officials;

8 “(3) shall coordinate with water management
9 and watershed officials from both coastal States and
10 noncoastal States with water sources that drain into
11 water bodies affected by harmful algal blooms and
12 hypoxia; and

13 “(4) shall consult with—

14 “(A) public health officials;

15 “(B) emergency management officials;

16 “(C) science and technology development
17 institutions;

18 “(D) economists;

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

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

25 “(G) other stakeholders.”.

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

“Sec. 603B. Regional research and action plans.”.

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

7 Section 604 is amended to read as follows:

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

9 “(a) TASK FORCE INITIAL PROGRESS REPORTS.—
10 Not later than 12 months after the date of enactment of
11 the Harmful Algal Blooms and Hypoxia Research and
12 Control Amendments Act of 2010, the Administrator,
13 through the Mississippi River/Gulf of Mexico Watershed
14 Nutrient Task Force, shall complete and transmit to the
15 Congress and the President a report on the progress made
16 by Task Force-directed activities toward attainment of the
17 goals of the Gulf Hypoxia Action Plan 2008.

18 “(b) TASK FORCE 2-YEAR PROGRESS REPORTS.—
19 After the initial report required under subsection (a), the
20 Administrator, through the Task Force, shall complete
21 and transmit to Congress and the President a report every
22 2 years thereafter on the progress made by Task Force-
23 directed activities toward attainment of the coastal goal
24 of the Gulf Hypoxia Action Plan 2008.

1 “(c) CONTENTS.—The reports required by this sec-
2 tion shall assess progress made toward nutrient load re-
3 ductions, the response of the hypoxic zone and water qual-
4 ity throughout the Mississippi/Atchafalaya River Basin,
5 and the economic and social effects. The reports shall—

6 “(1) include an evaluation of how current poli-
7 cies and programs affect management decisions, in-
8 cluding those made by municipalities and industrial
9 and agricultural producers;

10 “(2) evaluate lessons learned; and

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

14 **SEC. 7. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
15 **SOUND HYPOXIA.**

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

18 **“SEC. 604A. PACIFIC NORTHWEST, ESTUARIES, AND PUGET**
19 **SOUND HYPOXIA.**

20 “(a) ASSESSMENT REPORT.—Not later than 12
21 months after the date of enactment of the Harmful Algal
22 Blooms and Hypoxia Research and Control Amendments
23 Act of 2010, the Task Force established under section 603
24 shall complete and submit to Congress and the President
25 an integrated assessment of hypoxia in the coastal and

1 estuarine waters of the Pacific Northwest that examines
2 the status of current research, monitoring, prevention, re-
3 sponse, and control efforts.

4 “(b) PLAN.—The Task Force shall include in the re-
5 gionally appropriate Regional Research and Action Plan
6 developed under section 603B a plan, based on the inte-
7 grated assessment submitted under subsection (a), for re-
8 ducing, mitigating, and controlling hypoxia in the coastal
9 and estuarine waters of the Pacific Northwest. In devel-
10 oping such plan, the Task Force shall consult with State,
11 Indian tribe, and local governments, and academic, agri-
12 cultural, industry, and environmental groups and rep-
13 resentatives. Such plan shall include incentive-based part-
14 nership approaches. The plan shall also address the social
15 and economic costs and benefits of the measures for reduc-
16 ing, mitigating, and controlling hypoxia.”.

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

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

21 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

22 (a) AUTHORIZATION.—Section 605 is amended to
23 read as follows:

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

25 “There are authorized to be appropriated—

1 “(1) to the Under Secretary to carry out sec-
2 tions 603A and 603B, \$34,000,000 for each of fiscal
3 years 2011 through 2015, of which, for each fiscal
4 year—

5 “(A) \$2,000,000 may be used for the de-
6 velopment of the Regional Research and Action
7 Plans and the reports required by section 604A;

8 “(B) \$3,000,000 may be used for the re-
9 search and assessment activities related to ma-
10 rine and freshwater harmful algal blooms at re-
11 search laboratories of the National Oceanic and
12 Atmospheric Administration;

13 “(C) \$8,000,000 may be used to carry out
14 the Ecology and Oceanography of Harmful
15 Algal Blooms Program (ECOHAB);

16 “(D) \$5,500,000 may be used to carry out
17 the Monitoring and Event Response for Harm-
18 ful Algal Blooms Program (MERHAB);

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

22 “(F) \$5,000,000 may be used to carry out
23 the Coastal Hypoxia Research Program
24 (CHRP);

1 “(G) \$5,000,000 may be used to carry out
2 the Prevention, Control, and Mitigation of
3 Harmful Algal Blooms Program (PCM);

4 “(H) \$1,000,000 may be used to carry out
5 marine and freshwater harmful algal bloom and
6 hypoxia events response activities; and

7 “(I) \$3,000,000 may be used for increased
8 availability, communication, and coordination
9 activities; and

10 “(2) to the Administrator to carry out sections
11 603A, 603B, and 604, \$7,000,000 for each of fiscal
12 years 2011 through 2015.”.

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

