

## AMENDMENTS

2019—Pub. L. 115-423 substituted “the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998” for “the amendments made by this title”.

**§ 4002. National harmful algal bloom and hypoxia program**

**(a) Establishment**

Not later than 1 year after June 30, 2014, the Under Secretary, acting through the Task Force, shall maintain and enhance a national harmful algal bloom and hypoxia program, including—

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

(2) the comprehensive research plan and action strategy under section 4003 of this title.

**(b) Periodic revision**

The Task Force shall periodically review and revise the Program, as necessary.

**(c) Task Force functions**

The Task Force shall—

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

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

(3) support the implementation of the Action Strategy, including the coordination and integration of the research of all Federal programs, including ocean and Great Lakes science and management programs and centers, that address the chemical, biological, and physical components of marine and freshwater harmful algal blooms and hypoxia;

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

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

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

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

**(d) Lead Federal agency**

Except as provided in subsection (h), the National Oceanic and Atmospheric Administration shall have primary responsibility for administering the Program.

**(e) Program duties**

In administering the Program, the Under Secretary shall—

(1) promote the Program, including to local and regional stakeholders through the establishment and maintenance of a publicly accessible Internet website that provides information as to Program activities completed under this section;

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

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

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

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

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

(D) to accelerate the utilization of effective methods of intervention and mitigation to reduce the frequency, severity, and impacts of harmful algal bloom and hypoxia events;

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

(5) coordinate with the Secretary of State to support international efforts on marine and freshwater harmful algal bloom and hypoxia information sharing, research, prediction, mitigation, control, and response activities;

(6) identify additional research, development, and demonstration needs and priorities relating to monitoring, prevention, control, mitigation, and response to marine and freshwater harmful algal blooms and hypoxia, including methods and technologies to protect the ecosystems affected by marine and freshwater harmful algal blooms and hypoxia;

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

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

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

(A) communication of the contents of the Action Strategy and maintenance of online data portals for other information about harmful algal blooms and hypoxia to State, tribal, and local stakeholders; and

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

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

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

**(f) National Oceanic and Atmospheric Administration activities**

The Under Secretary shall—

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

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

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

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

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

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

(A) analytical facilities and technologies;

(B) operational forecasts; and

(C) reference and research materials;

(7) use cost effective methods in carrying out this Act; and

(8) develop contingency plans for the long-term monitoring of hypoxia.

**(g) Cooperative efforts**

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

**(h) Freshwater**

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

**(1) Participation**

The Administrator's participation under this section shall include—

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

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

**(2) Nonduplication**

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

**(i) Integrated Coastal and Ocean Observation System**

The collection of monitoring and observation data under this chapter shall comply with all data standards and protocols developed pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.). Such data shall be made available through the system established under that Act.

(Pub. L. 105–383, title VI, § 603A, as added Pub. L. 113–124, § 4, June 30, 2014, 128 Stat. 1379; amended Pub. L. 115–423, § 9(e), Jan. 7, 2019, 132 Stat. 5462.)

REFERENCES IN TEXT

The Integrated Coastal and Ocean Observation System Act of 2009, referred to in subsec. (i), is subtitle C (§12301 et seq.) of title XII of Pub. L. 111–11, Mar. 30, 2009, 123 Stat. 1427, which is classified generally to chapter 49 (§3601 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 3601 of this title and Tables.

AMENDMENTS

2019—Subsec. (e)(1). Pub. L. 115–423, § 9(e)(1)(A), inserted “, including to local and regional stakeholders through the establishment and maintenance of a publicly accessible Internet website that provides information as to Program activities completed under this section” after “Program”.

Subsec. (e)(3)(D). Pub. L. 115–423, § 9(e)(1)(B), added subpar. (D).

Subsec. (e)(4). Pub. L. 115–423, § 9(e)(1)(C), substituted “, and work cooperatively to provide technical assistance to,” for “and work cooperatively with”.

Subsec. (e)(7). Pub. L. 115–423, § 9(e)(1)(D), inserted “and extension” after “existing education” and “intervention,” after “awareness of the causes, impacts,”.

Subsec. (f)(3). Pub. L. 115–423, § 9(e)(2)(A), inserted “, which shall include unmanned systems,” after “infrastructure”.

Subsec. (f)(7), (8). Pub. L. 115–423, § 9(e)(2)(B)–(D), added pars. (7) and (8).

**§ 4003. Comprehensive research plan and action strategy**

**(a) In general**

Not later than 1 year after June 30, 2014, the Under Secretary, through the Task Force, shall develop and submit to Congress a comprehensive research plan and action strategy to address marine and freshwater harmful algal blooms and hypoxia. The Action Strategy shall identify—

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

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

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

**(b) Regional focus**

The regional and subregional parts of the Action Strategy shall identify—

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

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

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

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