

PUBLIC LAW 115-423—JAN. 7, 2019

NATIONAL INTEGRATED DROUGHT  
INFORMATION SYSTEM REAUTHORIZATION  
ACT OF 2018

Public Law 115–423  
115th Congress

An Act

Jan. 7, 2019  
[S. 2200]

To reauthorize the National Integrated Drought Information System, and for other purposes.

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

National  
Integrated  
Drought  
Information  
System  
Reauthorization  
Act of 2018.  
15 USC 8501  
note.

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “National Integrated Drought Information System Reauthorization Act of 2018”.

**SEC. 2. NATIONAL INTEGRATED DROUGHT INFORMATION SYSTEM PROGRAM.**

(a) IN GENERAL.—Section 3 of the National Integrated Drought Information System Act of 2006 (15 U.S.C. 313d) is amended—

(1) in subsection (b)—

(A) in paragraph (1)(A), by striking “in order to make usable, reliable, and timely forecasts of drought, including” and inserting “, including precipitation, soil moisture, and evaporative demand, in order to make usable, reliable, and timely forecasts of drought and”;

(B) in paragraph (3), by inserting “watershed,” after “regional”;

(C) in paragraph (4)—

(i) by inserting “, through interagency agreements” after “integrate”; and

(ii) by inserting “information” after “warning”;

(D) by amending paragraph (5) to read as follows:

“(5) utilize existing forecasting and assessment programs and partnerships, including forecast communication coordinators and cooperative institutes, and improvements in seasonal precipitation and temperature, subseasonal precipitation and temperature, and low flow water prediction; and”;

(E) in paragraph (6), by inserting “the prediction,” after “relating to”;

(2) by redesignating subsections (c) through (e) as subsections (d) through (f), respectively;

(3) by inserting after subsection (b) the following:

“(c) PARTNERSHIPS.—The National Integrated Drought Information System may—

“(1) engage with the private sector to improve drought monitoring, forecast, and communication if the Under Secretary determines the partnership is appropriate, cost-effective, and beneficial to the public and decisionmakers described in subsection (b)(2)(A);

“(2) facilitate the development of 1 or more academic cooperative partnerships to assist with National Integrated Drought Information System functions; and

“(3) utilize and support, as appropriate, monitoring by citizen scientists, including by developing best practices to facilitate maximum data integration.”;

(4) in subsection (d), as redesignated, by inserting “and sustainment” after “development”; and

(5) by striking subsection (f), as redesignated, and inserting the following:

“(f) SOIL MOISTURE.—Not later than 1 year after the date of enactment of the National Integrated Drought Information System Reauthorization Act of 2018, the Under Secretary, acting through the National Integrated Drought Information System, shall develop a strategy for a national coordinated soil moisture monitoring network.”.

Deadline.  
Strategy.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 4 of the National Integrated Drought Information System Act of 2006 (15 U.S.C. 313d note) is amended to read as follows:

**“SEC. 4. AUTHORIZATION OF APPROPRIATIONS.**

“There are authorized to be appropriated to carry out this Act—

- “(1) \$13,500,000 for fiscal year 2019;
- “(2) \$13,750,000 for fiscal year 2020;
- “(3) \$14,000,000 for fiscal year 2021;
- “(4) \$14,250,000 for fiscal year 2022; and
- “(5) \$14,500,000 for fiscal year 2023.”.

**SEC. 3. REAUTHORIZATION OF TITLE II OF THE WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2017.**

(a) REAUTHORIZATION OF TITLE II OF THE WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2017.—Section 1762 of the Food Security Act of 1985 (15 U.S.C. 8521) is amended—

(1) by amending subsection (j) to read as follows:

“(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the activities under this section—

- “(1) \$26,500,000 for fiscal year 2019;
- “(2) \$27,000,000 for fiscal year 2020;
- “(3) \$27,500,000 for fiscal year 2021;
- “(4) \$28,000,000 for fiscal year 2022; and
- “(5) \$28,500,000 for fiscal year 2023.”; and

(2) by adding at the end the following:

“(k) DERIVATION OF FUNDS.—Amounts made available to carry out this section shall be derived from amounts appropriated or otherwise made available to the National Weather Service.”.

(b) UNITED STATES WEATHER RESEARCH AND FORECASTING IMPROVEMENT.—Section 110 of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8519) is amended to read as follows:

**“SEC. 110. AUTHORIZATION OF APPROPRIATIONS.**

“(a) IN GENERAL.—There are authorized to be appropriated to the Office of Oceanic and Atmospheric Research to carry out this title—

- “(1) \$136,516,000 for fiscal year 2019, of which—
  - “(A) \$85,758,000 is authorized for weather laboratories and cooperative institutes;

“(B) \$30,758,000 is authorized for weather and air chemistry research programs; and

“(C) \$20,000,000 is authorized for the joint technology transfer initiative described in section 102(b)(4);

“(2) \$148,154,000 for fiscal year 2020, of which—

“(A) \$87,258,000 is authorized for weather laboratories and cooperative institutes;

“(B) \$40,896,000 is authorized for weather and air chemistry research programs; and

“(C) \$20,000,000 is authorized for the joint technology transfer initiative described in section 102(b)(4);

“(3) \$150,154,000 for fiscal year 2021, of which—

“(A) \$88,758,000 is authorized for weather laboratories and cooperative institutes;

“(B) \$41,396,000 is authorized for weather and air chemistry research programs; and

“(C) \$20,000,000 is authorized for the joint technology transfer initiative described in section 102(b)(4);

“(4) \$152,154,000 for fiscal year 2022, of which—

“(A) \$90,258,000 is authorized for weather laboratories and cooperative institutes;

“(B) \$41,896,000 is authorized for weather and air chemistry research programs; and

“(C) \$20,000,000 is authorized for the joint technology transfer initiative described in section 102(b)(4); and

“(5) \$154,154,000 for fiscal year 2023, of which—

“(A) \$91,758,000 is authorized for weather laboratories and cooperative institutes;

“(B) \$42,396,000 is authorized for weather and air chemistry research programs; and

“(C) \$20,000,000 is authorized for the joint technology transfer initiative described in section 102(b)(4).

“(b) LIMITATION.—No additional funds are authorized to carry out this title and the amendments made by this title.”.

#### **SEC. 4. EARTH PREDICTION INNOVATION CENTER.**

(a) WEATHER RESEARCH AND FORECASTING INNOVATION.—Section 102(b) of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8512(b)) is amended by adding at the end the following:

“(4) Advancing weather modeling skill, reclaiming and maintaining international leadership in the area of numerical weather prediction, and improving the transition of research into operations by—

“(A) leveraging the weather enterprise to provide expertise on removing barriers to improving numerical weather prediction;

“(B) enabling scientists and engineers to effectively collaborate in areas important for improving operational global numerical weather prediction skill, including model development, data assimilation techniques, systems architecture integration, and computational efficiencies;

“(C) strengthening the National Oceanic and Atmospheric Administration’s ability to undertake research projects in pursuit of substantial advancements in weather forecast skill;

“(D) utilizing and leverage existing resources across the National Oceanic and Atmospheric Administration enterprise; and

“(E) creating a community global weather research modeling system that—

“(i) is accessible by the public;

“(ii) meets basic end-user requirements for running on public computers and networks located outside of secure National Oceanic and Atmospheric Administration information and technology systems; and

“(iii) utilizes, whenever appropriate and cost-effective, innovative strategies and methods, including cloud-based computing capabilities, for hosting and management of part or all of the system described in this subsection.”.

(b) UNITED STATES WEATHER RESEARCH PROGRAM.—Section 108(a) of the National Oceanic and Atmospheric Administration Authorization Act of 1992 (15 U.S.C. 8520(a)) is amended—

(1) in paragraph (10), by striking “; and” and inserting a semi-colon;

(2) in paragraph (11), by striking the period at the end and inserting “; and”; and

(3) by adding at the end the following:

“(12) carry out the activities of the Earth Prediction Innovation Center as described in section 102(b)(2) of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8512(b)(2)).”.

#### **SEC. 5. COMPUTING RESOURCES PRIORITIZATION.**

(a) IN GENERAL.—Section 108 of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8518) is amended to read as follows:

#### **“SEC. 108. COMPUTING RESOURCE EFFICIENCY IMPROVEMENT AND ANNUAL REPORT.**

“(a) COMPUTING RESOURCES.—

“(1) IN GENERAL.—In acquiring computing capabilities, including high performance computing technologies and super-computing technologies, that enable the National Oceanic and Atmospheric Administration to meet its mission requirements, the Under Secretary shall, when appropriate and cost-effective, assess and prioritize options for entering into multi-year lease agreements for computing capabilities over options for purchasing computing hardware outright.

“(2) ACQUISITION.—In carrying out the requirements of paragraph (1), the Under Secretary shall structure multi-year lease agreements in such a manner that the expiration of the lease is set for a date on or around—

“(A) the expected degradation point of the computing resources; or

“(B) the point at which significantly increased computing capabilities are expected to be available for lease.

“(3) PILOT PROGRAMS.—

“(A) IN GENERAL.—In order to more efficiently and effectively meet the mission requirements of the National Oceanic and Atmospheric Administration, the Under Secretary may create 1 or more pilot programs for assessing

Assessments.  
Contracts.

new or innovative information and technology capabilities and services.

“(B) PROGRAM REQUIREMENTS.—Any program created under paragraph (3) shall assess only those capabilities and services that—

“(i) meet or exceed the standards and requirements of the National Oceanic and Atmospheric Administration, including for processing speed, cybersecurity, and overall reliability; or

“(ii) meet or exceed, or are expected to meet or exceed, the performance of similar, in-house information and technology capabilities and services that are owned and operated by the National Oceanic and Atmospheric Administration prior to the establishment of the pilot program.

“(C) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated, out of funds appropriated to the National Environmental Satellite, Data, and Information Service, to carry out this paragraph \$5,000,000 for fiscal year 2019, \$10,000,000 for fiscal year 2020, and \$5,000,000 for each of fiscal years 2021 through 2023, to remain available until expended.

Coordination.  
Public  
information.

“(b) REPORTS.—Not later than 1 year after the date of enactment of the National Integrated Drought Information System Reauthorization Act of 2018, and triennially thereafter until the date that is 6 years after the date on which the first report is submitted, the Under Secretary, acting through the Chief Information Officer of the National Oceanic and Atmospheric Administration and in coordination with the Assistant Administrator for Oceanic and Atmospheric Research and the Director of the National Weather Service, shall produce and make publicly available a report that explains how the Under Secretary intends—

“(1) to continually support upgrades to pursue the fastest, most powerful, and cost-effective high performance computing technologies in support of its weather prediction mission;

“(2) to ensure a balance between the research to operations requirements to develop the next generation of regional and global models as well as highly reliable operational models;

“(3) to take advantage of advanced development concepts to, as appropriate, make next generation weather prediction models available in beta-test mode to operational forecasters, the United States weather industry, and partners in academic and Government research;

“(4) to use existing computing resources to improve advanced research and operational weather prediction;

“(5) to utilize non-Federal contracts to obtain the necessary expertise for advanced weather computing, if appropriate;

“(6) to utilize cloud computing; and

“(7) to create a long-term strategy to transition the programming language of weather model code to current and broadly-used coding language.”

(b) TABLE OF CONTENTS.—Section 1(b) of the Weather Research and Forecasting Innovation Act of 2017 (Public Law 115–25; 131 Stat. 91) is amended by striking the item relating to section 108 and inserting the following:

“Sec. 108. Computing resource efficiency improvement and annual report.”

**SEC. 6. SATELLITE ARCHITECTURE PLANNING.**

Section 301 of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8531) is amended by adding at the end the following:

“(c) NEXT GENERATION SATELLITE ARCHITECTURE.—

“(1) IN GENERAL.—The Under Secretary shall analyze, test, and plan the procurement of future data sources and satellite architectures, including respective ground system elements, identified in the National Oceanic and Atmospheric Administration’s Satellite Observing System Architecture Study that—

Analysis.

“(A) lower the cost of observations used to meet the National Oceanic and Atmospheric Administration’s mission requirements;

“(B) disaggregate current satellite systems, where appropriate;

“(C) include new, value-adding technological advancements; and

“(D) improve weather forecasting and predictions.

“(2) QUANTITATIVE ASSESSMENTS AND PARTNERSHIP AUTHORITY.—In meeting the requirements described in paragraph (1), the Under Secretary—

“(A) may partner with the commercial and academic sectors, non-governmental and not-for-profit organizations, and other Federal agencies; and

“(B) shall, consistent with section 107 of this Act, undertake quantitative assessments for objective analyses, as the Under Secretary considers appropriate, to evaluate relative value and benefits of future data sources and satellite architectures described in paragraph (1).

Analyses.

“(d) ADDITIONAL FORMS OF TRANSACTION AUTHORIZED.—

“(1) IN GENERAL.—Subject to paragraph (2), in order to enhance the effectiveness of data and satellite systems used by the National Oceanic and Atmospheric Administration to meet its missions, the Under Secretary may enter into and perform such transaction agreements on such terms as the Under Secretary considers appropriate to carry out basic, applied, and advanced research projects to meet the objectives described in subparagraphs (A) through (D) subsection (c)(1).

Contracts.

“(2) METHOD AND SCOPE.—

“(A) IN GENERAL.—A transaction agreement under paragraph (1) shall be limited to research and development activities.

“(B) PERMISSIBLE USES.—A transaction agreement under paragraph (1) may be used—

“(i) for the construction, use, operation, or procurement of new, improved, innovative, or value-adding satellites, instrumentation, ground stations, and data;

“(ii) to make determinations on how to best use existing or planned data, systems, and assets of the National Oceanic and Atmospheric Administration; and

“(iii) only when the objectives of the National Oceanic and Atmospheric Administration cannot be met using a cooperative research and development agreement, grants procurement contract, or cooperative agreement.

Deadline.  
Public  
information.  
Web posting.  
Estimate.

“(3) TERMINATION OF EFFECTIVENESS.—The authority provided in this subsection terminates effective September 30, 2023.

“(e) TRANSPARENCY.—Not later than 60 days after the date that a transaction agreement is made under subsection (d), the Under Secretary shall make publicly available, in a searchable format, on the website of the National Oceanic and Atmospheric Administration all uses of the authority under subsection (d), including an estimate of committed National Oceanic and Atmospheric Administration resources and the expected benefits to National Oceanic and Atmospheric Administration objectives for the transaction agreement, with appropriate redactions for proprietary, sensitive, or classified information.

“(f) REPORTS.—

“(1) IN GENERAL.—Not later than 90 days after September 30 of each fiscal year through September 30, 2023, the Under Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the use of additional transaction authority by the National Oceanic and Atmospheric Administration during the previous fiscal year.

“(2) CONTENTS.—Each report shall include—

“(A) for each transaction agreement in effect during the fiscal year covered by the report—

“(i) an indication of whether the transaction agreement is a reimbursable, non-reimbursable, or funded agreement;

“(ii) a description of—

“(I) the subject and terms;

“(II) the parties;

“(III) the responsible National Oceanic and Atmospheric Administration line office;

“(IV) the value;

“(V) the extent of the cost sharing among Federal Government and non-Federal sources;

“(VI) the duration or schedule; and

“(VII) all milestones;

“(iii) an indication of whether the transaction agreement was renewed during the previous fiscal year;

“(iv) the technology areas in which research projects were conducted under that agreement;

“(v) the extent to which the use of that agreement—

“(I) has contributed to a broadening of the technology and industrial base available for meeting National Oceanic and Atmospheric Administration needs; and

“(II) has fostered within the technology and industrial base new relationships and practices that support the United States; and

“(vi) the total value received by the Federal Government under that agreement for that fiscal year; and



“(B) a list of all anticipated reimbursable, non-reimbursable, and funded transaction agreements for the upcoming fiscal year. List.

“(g) **RULE OF CONSTRUCTION.**—Nothing in this section may be construed as limiting the authority of the National Oceanic and Atmospheric Administration to use cooperative research and development agreements, grants, procurement contracts, or cooperative agreements.”.

**SEC. 7. INTEGRATION OF OCEAN AND COASTAL DATA FROM THE INTEGRATED OCEAN OBSERVING SYSTEM.**

(a) **IN GENERAL.**—Section 301(a)(2) of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8531(a)(2)) is amended—

(1) in subparagraph (A), by striking “; and” and inserting a semicolon;

(2) in subparagraph (B), by striking the period at the end and inserting “; and”; and

(3) by adding at the end the following:

“(C) support increasing use of autonomous, mobile surface, sub-surface, and submarine vehicle ocean and fresh water sensor systems and the infrastructure necessary to share and analyze these data in real-time and feed them into predictive early warning systems.”.

(b) **COMMERCIAL WEATHER DATA; AUTHORIZATION OF APPROPRIATIONS.**—Section 302(c)(3) of the Weather Research and Forecasting Innovation Act of 2017 (15 U.S.C. 8532(c)(3)) is amended—

(1) by striking “2017 through 2020” and inserting “2019 through 2023”; and

(2) by inserting “the” before “National”.

**SEC. 8. IMPROVEMENTS TO COOPERATIVE OBSERVER PROGRAM OF NATIONAL WEATHER SERVICE.** 15 USC 8550.

(a) **IN GENERAL.**—The Under Secretary of Commerce for Oceans and Atmosphere, acting through the National Weather Service, shall improve the Cooperative Observer Program by—

(1) providing support to—

(A) State-coordinated programs relating to the Program; and

(B) States and regions where observations provided through the Program are scarce;

(2) working with State weather service headquarters to increase participation in the Program and to add stations in States and regions described in paragraph (1)(B);

(3) where feasible, ensuring that data streams from stations that have been contributing data to the Program for more than 50 years are maintained and continually staffed by volunteers;

(4) prioritizing the recruitment of new volunteers for the Program;

(5) ensuring that opportunities exist for automated reporting to lessen the burden on volunteers to collect and report data by hand; and

(6) ensuring that integrated reporting is available for qualitative observations that cannot be automated, such as drought conditions, snow observations, and hazardous weather events, to ensure that volunteers in the Program can report and upload observations quickly and easily.

Time period.

(b) **COORDINATION WITH STATES AND REGIONS.**—Not less frequently than every 180 days, the National Weather Service shall coordinate with State and regional offices with respect to the status of Cooperative Observer Program stations.

(c) **COORDINATION WITH FEDERAL AGENCIES.**—The National Weather Service shall coordinate with other Federal agencies, including the Forest Service, the Department of Agriculture, and the United States Geological Survey, to leverage opportunities to grow the Cooperative Observer Program network and to more effectively use existing infrastructure, weather stations, and staff of the Program.

Harmful Algal  
Bloom and  
Hypoxia  
Research and  
Control  
Amendments  
Act of 2017.  
33 USC 4001  
note.

**SEC. 9. HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL.**

(a) **SHORT TITLE.**—This section may be cited as the “Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2017”.

(b) **REFERENCES TO THE HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998.**—Except as otherwise expressly provided, wherever in this section 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 (33 U.S.C. 4001 et seq.).

(c) **INTER-AGENCY TASK FORCE.**—Section 603(a) (33 U.S.C. 4001(a)) is amended—

(1) in paragraph (12), by striking “and” at the end;

(2) by redesignating paragraph (13) as paragraph (14);

and

(3) by inserting after paragraph (12) the following:

“(13) the Army Corps of Engineers; and”.

(d) **SCIENTIFIC ASSESSMENTS OF FRESHWATER HARMFUL ALGAL BLOOMS.**—Section 603 (33 U.S.C. 4001) is amended—

(1) by striking subsection (f);

(2) by redesignating subsections (g), (h), (i), and (j) as subsections (f), (g), (h), and (i), respectively; and

(3) by amending subsection (g) to read as follows:

“(g) **SCIENTIFIC ASSESSMENTS OF MARINE AND FRESHWATER HARMFUL ALGAL BLOOMS.**—Not less than once every 5 years the Task Force shall complete and submit to Congress a scientific assessment of harmful algal blooms in United States coastal waters and freshwater systems. Each assessment shall examine both marine and freshwater harmful algal blooms, including those in the Great Lakes and upper reaches of estuaries, those in freshwater lakes and rivers, and those that originate in freshwater lakes or rivers and migrate to coastal waters.”.

Time period.

(e) **NATIONAL HARMFUL ALGAL BLOOM AND HYPOXIA PROGRAM.**—

(1) **PROGRAM DUTIES.**—Section 603A(e) (33 U.S.C. 4002(e)) is amended—

(A) in paragraph (1), by inserting “, 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”;

(B) in paragraph (3)—

(i) in subparagraph (B), by striking “; and” and inserting a semicolon;

(ii) in subparagraph (C), by inserting “and” after the semicolon at the end; and

(iii) by adding at the end the following:

“(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;”;

(C) in paragraph (4), by striking “and work cooperatively with” and inserting “, and work cooperatively to provide technical assistance to,”; and

(D) in paragraph (7)—

(i) by inserting “and extension” after “existing education”; and

(ii) by inserting “intervention,” after “awareness of the causes, impacts,”.

(2) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ACTIVITIES.—Section 603A(f) (33 U.S.C. 4002(f)) is amended—

(A) in paragraph (3), by inserting “, which shall include unmanned systems,” after “infrastructure”;

(B) in paragraph (5), by striking “and” at the end;

(C) in paragraph (6)(C), by striking the period at the end and inserting a semicolon; and

(D) by adding at the end the following:

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

and

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

(f) CONSULTATION REQUIRED.—Section 102 of the Harmful Algal Bloom and Hypoxia Amendments Act of 2004 (33 U.S.C. 4001a) is amended by striking “the amendments made by this title” and inserting “the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998”.

(g) HYPOXIA OR HARMFUL ALGAL BLOOM OF NATIONAL SIGNIFICANCE.— 33 USC 4010.

(1) RELIEF.—

(A) IN GENERAL.—Upon a determination under paragraph (2) that there is an event of national significance, the appropriate Federal official is authorized to make sums available to the affected State or local government for the purposes of assessing and mitigating the detrimental environmental, economic, subsistence use, and public health effects of the event of national significance. Assessment.

(B) FEDERAL SHARE.—The Federal share of the cost of any activity carried out under this paragraph for the purposes described in subparagraph (A) may not exceed 50 percent of the cost of that activity.

(C) DONATIONS.—Notwithstanding any other provision of law, an appropriate Federal official may accept donations of funds, services, facilities, materials, or equipment that the appropriate Federal official considers necessary for the purposes described in subparagraph (A). Any funds donated to an appropriate Federal official under this paragraph may be expended without further appropriation and without fiscal year limitation.

(2) DETERMINATIONS.—

(A) **IN GENERAL.**—At the discretion of an appropriate Federal official, or at the request of the Governor of an affected State, an appropriate Federal official shall determine whether a hypoxia or harmful algal bloom event is an event of national significance.

(B) **CONSIDERATIONS.**—In making a determination under subparagraph (A), the appropriate Federal official shall consider the toxicity of the harmful algal bloom, the severity of the hypoxia, its potential to spread, the economic impact, the relative size in relation to the past 5 occurrences of harmful algal blooms or hypoxia events that occur on a recurrent or annual basis, and the geographic scope, including the potential to affect several municipalities, to affect more than 1 State, or to cross an international boundary.

(3) **DEFINITIONS.**—In this subsection:

(A) **APPROPRIATE FEDERAL OFFICIAL.**—The term “appropriate Federal official” means—

(i) in the case of a marine or coastal hypoxia or harmful algal bloom event, the Under Secretary of Commerce for Oceans and Atmosphere; and

(ii) in the case of a freshwater hypoxia or harmful algal bloom event, the Administrator of the Environmental Protection Agency.

(B) **EVENT OF NATIONAL SIGNIFICANCE.**—The term “event of national significance” means a hypoxia or harmful algal bloom event that has had or will likely have a significant detrimental environmental, economic, subsistence use, or public health impact on an affected State.

(C) **HYPOXIA OR HARMFUL ALGAL BLOOM EVENT.**—The term “hypoxia or harmful algal bloom event” means the occurrence of hypoxia or a harmful algal bloom as a result of a natural, anthropogenic, or undetermined cause.

(h) **AUTHORIZATION OF APPROPRIATIONS.**—Section 609(a) (33 U.S.C. 4009(a)) is amended by inserting “, and \$20,500,000 for each of fiscal years 2019 through 2023” before the period at the end.

Approved January 7, 2019.

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**LEGISLATIVE HISTORY—S. 2200:**

**SENATE REPORTS:** No. 115–256 (Comm. on Commerce, Science, and Transportation).

**CONGRESSIONAL RECORD,** Vol. 164 (2018):

Dec. 18, considered and passed Senate.

Dec. 20, considered and passed House.

