

# STATE OF NEW YORK

8356

## IN SENATE

January 22, 2024

Introduced by Sen. MAY -- read twice and ordered printed, and when printed to be committed to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law and the state finance law, in relation to enacting the "harmful algal bloom monitoring and prevention act"

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

1 Section 1. Short title. This act shall be known and may be cited as  
2 the "harmful algal bloom monitoring and prevention act".

3 § 2. Legislative findings and declarations. The legislature finds that  
4 the state of New York has a responsibility to maintain the health and  
5 safety of its abundant clean water resources, upon which the residents  
6 of New York state, as well as its many visitors, rely on for drinking,  
7 agriculture, tourism, recreation, and their livelihoods. Because the  
8 waters of the state are under threat by harmful algal blooms (HABS),  
9 which are known to be toxic and even fatal to humans, pets, and wild-  
10 life, the state has a responsibility to provide coordinated, statewide  
11 monitoring, evaluation, prevention and mitigation, going beyond water  
12 body-specific data collection and isolated mitigation efforts. While the  
13 causes of HABS are complex and varied, with a coordinated and standard-  
14 ized approach to monitoring and evaluation, patterns can more readily be  
15 identified to isolate the combination of relevant causes specific to  
16 different bodies of water across the state and determine the most effec-  
17 tive targeted interventions. To address this threat, the state must  
18 develop and maintain a comprehensive state clearinghouse to bring  
19 together existing and new available statewide cross-sectional and longi-  
20 tudinal data and information on HABS, potential and known causes, best  
21 practice interventions, expertise, and funding resources. This data and  
22 subsequent report will enable the state to effectively and efficiently  
23 administer a central grant program supporting data-driven best practices  
24 in prevention and mitigation of harmful algal blooms.

25 § 3. The environmental conservation law is amended by adding a new  
26 section 15-0519 to read as follows:

27 § 15-0519. Harmful algal bloom monitoring and prevention program.

EXPLANATION--Matter in italics (underscored) is new; matter in brackets  
[-] is old law to be omitted.

LBD14115-02-4

1 1. Definitions. For the purposes of this section, the following terms  
2 shall have the following meanings:

3 a. "Harmful algal blooms" shall mean growths of blooms of algal  
4 species present in fresh or salt water that can produce toxins that are  
5 harmful to public health, the economy, or recreational enjoyment, or  
6 that can impair water quality and the natural ecology therein.

7 b. "Municipality" shall mean a county, city, town, or village.

8 c. "Waters of the state" means all waterways, or bodies of water  
9 located within New York state or that part of any body of water which is  
10 adjacent to New York state over which the state has territorial juris-  
11 dictions.

12 2. Comprehensive statewide data collection consolidation and analysis  
13 report. a. The commissioner shall promulgate rules and regulations to  
14 develop a program to further the comprehensive and consistent  
15 collection, consolidation, analysis and meta-analysis of statewide data  
16 relating to the monitoring, evaluation, prevention, and mitigation of  
17 harmful algal bloom outbreaks. The commissioner shall provide guidelines  
18 for the submission of existing and historical harmful algal bloom moni-  
19 toring, evaluation, mitigation, and prevention data and strategies from  
20 relevant institutions, organizations, and individuals with experience in  
21 peer-reviewed research, grantmaking, or other like activities in the  
22 area of water quality relating to the monitoring, evaluation,  
23 prevention, and mitigation of harmful algal bloom outbreaks, including  
24 but not limited to research programs, clinics, labs, and project manage-  
25 ment.

26 b. The data collected, consolidated, and analyzed shall consist of  
27 elements including but not limited to longitudinal data on the incidence  
28 of harmful algal blooms, contextual factors thought to be associated  
29 with the incidence of harmful algal blooms such as water temperature,  
30 turbidity, flow rate, salinity, nutrient levels for phosphorus and  
31 nitrogen, acidity (pH), dissolved oxygen levels, and results of harmful  
32 algal bloom interventions in New York state.

33 c. The data collected, consolidated, and analyzed shall meet a stand-  
34 ard that is consistent with the practices and expertise of institutions,  
35 organizations, or individuals with experience in peer-reviewed research,  
36 grantmaking, or other like activities in the area of water quality  
37 relating to the monitoring, evaluation, prevention, and mitigation of  
38 harmful algal bloom outbreaks, including but not limited to research  
39 programs, clinics, labs, and project management.

40 d. The department shall annually publish and update a list of vetted  
41 best practice strategies for harmful algal bloom monitoring, evaluation,  
42 prevention, and mitigation, which shall be differentiated by region or  
43 water body with unique confirmed causal pathways for the related harmful  
44 algal bloom outbreak trends. Such strategies shall be supported by find-  
45 ings of the harmful algal bloom database created pursuant to subdivision  
46 three of this section, as well as external evaluation, including but not  
47 limited to strategies approved by the federal environmental protection  
48 agency, certification that such strategies meet or exceed the American  
49 National Standards for health effects of drinking water treatment chemi-  
50 cals (NSF/ANSI/CAN-60), or testing for efficacy by center of excellence  
51 in healthy water solutions. The department shall publish such list and  
52 findings supporting the strategies on such list on the department's  
53 website.

54 e. No later than five years after the effective date of this section,  
55 the commissioner, in consultation with the commissioner of agriculture  
56 and markets, shall prepare a report providing comprehensive analysis and

1 meta-analysis of the data collected pursuant to this section, including  
2 findings and recommendations for establishing, maintaining, and improv-  
3 ing upon a coordinated system of monitoring, evaluation, prevention, and  
4 mitigation of harmful algal bloom outbreaks across New York state. The  
5 department shall:

6 i. update the report at least once every five years after the initial  
7 completion of the report;

8 ii. make the report publicly available on the department's website;

9 iii. hold at least six regional public comment hearings on the draft  
10 report and subsequent updates to the report, including three meetings in  
11 the upstate region and three meetings in the downstate region, and shall  
12 allow at least one hundred twenty days for the submission of public  
13 comment;

14 iv. provide meaningful opportunities for public comment from all  
15 segments of the populations that live near, or are reliant upon for  
16 drinking, recreation, or economic activity, the waters of the state  
17 included in the report, including but not limited to institutions or  
18 organizations with relevant expertise, citizen scientists, and labs  
19 testing water quality in relation to harmful algal blooms;

20 v. identify the magnitude of harmful algal blooms across the state and  
21 make recommendations on regulatory measures and other state or local  
22 actions to monitor, evaluate, prevent, or mitigate harmful algal blooms,  
23 including existing opportunities for coordination of federal, state,  
24 municipal, and non-governmental organizations;

25 vi. identify best practices, technology, and available federal, state,  
26 municipal, or private funding for and existing efforts in monitoring,  
27 evaluating, preventing, and mitigating harmful algal blooms; and

28 vii. identify the current need in specific bodies of water for the  
29 establishment of programs or organizations to further the monitoring,  
30 evaluation, prevention, and mitigation of harmful algal blooms, and the  
31 costs therefor.

32 3. Harmful algal bloom database. a. The commissioner shall establish  
33 and maintain a website providing public access to a harmful algal bloom  
34 database which shall contain all relevant data, research, and reporting  
35 required pursuant to subdivision two of this section.

36 b. Such database, and analysis of the comprehensive statewide data  
37 therein, shall support the coordination of efforts across the state to  
38 monitor, evaluate, prevent, and mitigate harmful algal blooms, and shall  
39 include, but not be limited to:

40 i. the geolocation of harmful algal bloom outbreaks, and efforts to  
41 monitor, evaluate, prevent, and mitigate such outbreaks;

42 ii. existing research, analysis, or reports relating to outbreaks of  
43 harmful algal blooms in the waters of the state and the causes of such  
44 outbreaks;

45 iii. known or developing strategies and best practices of state,  
46 municipal, and non-governmental organizations that monitor, evaluate,  
47 prevent, or mitigate harmful algal bloom outbreaks, the respective  
48 waters of the state in which such strategies and best practices have  
49 been conducted, and the geolocations of such waters;

50 iv. available sources of financing for algal bloom monitoring, evalu-  
51 ation, prevention, and mitigation, including federal, state, municipal,  
52 and/or private funding, grants, or other monies; and

53 v. information on institutions with expertise in peer-reviewed grant-  
54 making and research in the area of water quality and/or harmful algal  
55 blooms, including but not limited to the New York sea grant at Stony  
56 Brook University, the New York water resource institute at Cornell

1 University, the center of excellence in healthy water solutions, the  
2 bureau of water supply protection, the New York city department of envi-  
3 ronmental protection, the department of agriculture and markets, commu-  
4 nity-based nonprofit organizations with missions that specifically  
5 involve monitoring, evaluating, mitigating, or preventing harmful algal  
6 blooms, and any other institution or organization providing data  
7 compiled pursuant to this section, and the contact information, relevant  
8 research programs, clinics, labs, staff, and published research of such  
9 institutions.

10 4. Rules and regulations. The commissioner shall promulgate rules and  
11 regulations for the development of a program to support and coordinate  
12 efforts by federal, state, municipal, and non-governmental organizations  
13 to:

14 a. consistently monitor and evaluate waters of the state that do not  
15 contain harmful algal blooms for the purposes of collecting water quali-  
16 ty data;

17 b. limit and eliminate the causes of harmful algal bloom outbreaks;

18 c. monitor and mitigate harmful algal bloom outbreaks;

19 d. identify sources of financing to achieve the purposes of this  
20 section equitably; and

21 e. establish and support new and existing programs and organizations  
22 relevant to the health of waters of the state that have not implemented  
23 strategies to monitor, evaluate, prevent, or mitigate harmful algal  
24 bloom outbreaks.

25 5. Harmful algal bloom grant program. a. The commissioner, in consul-  
26 tation with the commissioner of agriculture and markets, the commis-  
27 sioner of health, and the president of the empire state development corpo-  
28 ration, shall promulgate rules and regulations for the establishment of  
29 a harmful algal bloom grant program which shall provide funding to muni-  
30 cipalities and intermunicipal organizations for the deployment of harm-  
31 ful algal bloom monitoring, evaluation, prevention, and mitigation stra-  
32 tegies and best practices.

33 b. The rules and regulations established pursuant to paragraph a of  
34 this subdivision shall require that applicants for the harmful algal  
35 bloom grant program conduct and submit a study, as part of their appli-  
36 cation, assessing the most appropriate mitigation and prevention strate-  
37 gies for relevant waters of the state and best practices therefor, as  
38 informed by the harmful algal bloom database created pursuant to subdivi-  
39 sion three of this section.

40 c. In determining which applicants shall be awarded grants pursuant to  
41 this subdivision, first preference shall be given to applicants who  
42 propose strategies that incorporate principles of least harm and great-  
43 est safety to applicators, the public, and the environment, and utilize  
44 passive or non-chemical physical controls, including but not limited to:

45 i. aeration;

46 ii. hydrological manipulations;

47 iii. mechanical mixing;

48 iv. reservoir drawdown or desiccation;

49 v. surface skimming;

50 vi. ultrasound; or

51 vii. other emerging technologies, as approved by the department.

52 d. In determining which applicants shall be awarded grants pursuant to  
53 this subdivision, second preference shall be given to applicants who  
54 demonstrate expertise with previous experience treating water bodies in  
55 the United States larger than one thousand acres, with proven success  
56 using accepted strategies, including but not limited to strategies that:

1 i. are aimed at reducing cyanotoxins in the water to less than harmful  
2 levels;

3 ii. employ ready-to-use technology that is means tested, reproducible,  
4 and generalizable, without limitation of size or shape of the water  
5 body;

6 iii. employ technology which allows for application under emergency  
7 situations and within less than ninety-six hours from approval;

8 iv. utilize products that are modular and can be used as a preventa-  
9 tive measure;

10 v. utilize products that are quick and easy to apply and are generally  
11 recognized as safe to the applicator, public, and environment;

12 vi. utilize products that float on the surface of the water and do not  
13 sink immediately to the bottom of the water column;

14 vii. utilize products that are distributed autonomously across the  
15 water body after a localized application;

16 viii. utilize products with a time-release mechanism that applies  
17 constant and prolonged oxidative stress of the cyanobacteria triggered  
18 by the programmed cell death signaling cascade, resulting in their  
19 collapse; and

20 ix. utilize products manufactured in the United States.

21 e. The commissioner shall make monies available from the harmful algal  
22 bloom monitoring and prevention fund, as established pursuant to section  
23 ninety-nine-rr of the state finance law, within amounts appropriated  
24 therefor, for the purposes of awarding grants to municipalities, inter-  
25 municipal organizations, community-based nonprofits, or academic insti-  
26 tutions for harmful algal bloom monitoring, evaluation, prevention, and  
27 mitigation strategies pursuant to this section.

28 § 4. The state finance law is amended by adding a new section 99-rr to  
29 read as follows:

30 § 99-rr. Harmful algal bloom monitoring and prevention fund. 1. There  
31 is hereby established in the joint custody of the state comptroller and  
32 commissioner of taxation and finance a special fund to be known as the  
33 "harmful algal bloom monitoring and prevention fund".

34 2. Such fund shall consist of all revenues received by the comptroller  
35 and all other moneys appropriated, credited, or transferred thereto from  
36 the general fund or any other fund or source pursuant to law. Nothing  
37 contained in this section shall prevent the state from receiving grants,  
38 gifts, or bequests for the purposes of such fund and depositing them  
39 into such fund according to law.

40 3. Moneys shall be paid out of the fund on the audit and warrant of  
41 the comptroller on vouchers certified or approved by the commissioner of  
42 environmental conservation or his or her designee.

43 4. Moneys of the fund shall be available to the commissioner of envi-  
44 ronmental conservation for the harmful algal bloom monitoring and  
45 prevention program established pursuant to section 15-0519 of the envi-  
46 ronmental conservation law.

47 § 5. This act shall take effect on the ninetieth day after it shall  
48 have become a law. Effective immediately, the addition, amendment and/or  
49 repeal of any rule or regulation necessary for the implementation of  
50 this act on its effective date are authorized to be made and completed  
51 on or before such effective date.