STATE OF NEW YORK

8356--A

IN SENATE

January 22, 2024

Introduced by Sens. MAY, HARCKHAM -- read twice and ordered printed, and when printed to be committed to the Committee on Environmental Conservation -- reported favorably from said committee and committed to the Committee on Finance -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

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:

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

§ 2. Legislative findings and declarations. The legislature finds that the state of New York has a responsibility to maintain the health and safety of its abundant clean water resources, upon which the residents of New York state, as well as its many visitors, rely on for drinking, agriculture, tourism, recreation, and their livelihoods. Because the waters of the state are under threat by harmful algal blooms (HABS), which are known to be toxic and even fatal to humans, pets, and wildlife, the state has a responsibility to provide coordinated, statewide monitoring, evaluation, prevention and mitigation, going beyond water body-specific data collection and isolated mitigation efforts. While the causes of HABS are complex and varied, with a coordinated and standardized approach to monitoring and evaluation, patterns can more readily be identified to isolate the combination of relevant causes specific to different bodies of water across the state and determine the most effective targeted interventions. To address this threat, the state must develop and maintain a comprehensive state clearinghouse to bring together existing and new available statewide cross-sectional and longitudinal data and information on harmful algal blooms, potential and known causes, best practice interventions, expertise, and funding resources. This data and subsequent report will enable the state to effectively and efficiently administer a central grant program support-

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

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ing data-driven best practices in prevention and mitigation of harmful algal blooms.

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

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

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

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

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

c. "Waters of the state" means all waterways, or bodies of water located within New York state or that part of any body of water which is adjacent to New York state over which the state has territorial jurisdiction.

2. Comprehensive statewide data collection consolidation and analysis; report. a. The commissioner shall develop a program to further the comprehensive and consistent collection, consolidation, analysis and meta-analysis of statewide data relating to the monitoring, evaluation, prevention, and mitigation of harmful algal bloom outbreaks. The commissioner shall provide guidelines for the submission of existing and historical harmful algal bloom monitoring, evaluation, mitigation, and prevention data and strategies from relevant institutions, organizations, and individuals with experience in peer-reviewed research, grantmaking, or other like activities in the area of water quality relating to the monitoring, evaluation, prevention, and mitigation of harmful algal bloom outbreaks, including but not limited to research programs, clinics, labs, and project management.

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

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

d. The department shall annually publish and update a list of vetted best practice strategies for harmful algal bloom monitoring, evaluation, prevention, and mitigation, which shall be differentiated by region or water body with unique confirmed causal pathways for the related harmful algal bloom outbreak trends. Such strategies shall be supported by findings of the harmful algal bloom database created pursuant to subdivision three of this section, as well as external evaluation, including but not limited to strategies approved by the federal environmental protection agency, certification that such strategies meet or exceed the American National Standards for health effects of drinking water treatment chemicals (NSF/ANSI/CAN-60), or testing for efficacy by center of excellence in healthy water solutions. The department shall publish such list and

findings supporting the strategies on such list on the department's website.

e. No later than five years after the effective date of this section, the commissioner, in consultation with the commissioner of agriculture and markets, shall prepare a report providing comprehensive analysis and meta-analysis of the data collected pursuant to this section, including findings and recommendations for establishing, maintaining, and improving upon a coordinated system of monitoring, evaluation, prevention, and mitigation of harmful algal bloom outbreaks across New York state. The department shall:

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

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

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

iv. provide meaningful opportunities for public comment from all segments of the populations that live near, or are reliant upon for drinking, recreation, or economic activity, the waters of the state included in the report;

v. seek out input from institutions or organizations with relevant expertise, citizen scientists, and labs testing water quality in relation to harmful algal blooms;

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

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

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

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

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

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

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

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

iv. available sources of financing for algal bloom monitoring, evaluation, prevention, and mitigation, including federal, state, municipal, and/or private funding, grants, or other monies; and

v. information on institutions with expertise in peer-reviewed grant-making and research in the area of water quality and/or harmful algal blooms, including but not limited to the New York sea grant at Stony Brook University, the New York water resource institute at Cornell University, the center of excellence in healthy water solutions, the bureau of water supply protection, the New York city department of environmental protection, the department of agriculture and markets, community-based nonprofit organizations with missions that specifically involve monitoring, evaluating, mitigating, or preventing harmful algal blooms, and any other institution or organization providing data compiled pursuant to this section, and the contact information, relevant research programs, clinics, labs, staff, and published research of such institutions.

4. Rules and regulations. The commissioner shall, in a manner which is coordinated with and supports efforts by federal, state, municipal, and non-governmental organizations, promulgate rules and regulations to:

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

b. monitor and mitigate harmful algal bloom outbreaks.

5. Program development. The commissioner shall establish and support new and existing programs and organizations relevant to the health of waters of the state that have not implemented strategies to monitor, evaluate, prevent, or mitigate harmful algal bloom outbreaks.

6. Harmful algal bloom grant program. In addition to the financing to be identified pursuant to subparagraph iv of paragraph b of subdivision three of this section:

a. The commissioner, in consultation with the commissioner of agriculture and markets, the commissioner of health, and the president of the empire state development corporation, shall establish a harmful algal bloom grant program which shall provide funding to municipalities, intermunicipal organizations, community-based nonprofits, or academic institutions for the deployment of harmful algal bloom monitoring, evaluation, prevention, and mitigation strategies and best practices.

b. The program shall require that applicants for the harmful algal bloom grant program conduct and submit a study, as part of their application, assessing the most appropriate mitigation and prevention strategies for relevant waters of the state and best practices therefor, as informed by the harmful algal bloom database created pursuant to subdivision three of this section.

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

i. aeration;

ii. hydrological manipulations;

iii. mechanical mixing;

iv. reservoir drawdown or desiccation;

v. surface skimming;

vi. ultrasound; or

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

d. In determining which applicants shall be awarded grants pursuant to this subdivision, second preference shall be given to applicants who

demonstrate expertise with previous experience treating water bodies in the United States larger than one thousand acres, with proven success using accepted strategies, including but not limited to strategies that:

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

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

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

iv. utilize products that are modular and can be used as a preventative measure;

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

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

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

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

ix. utilize products manufactured in the United States.

e. The commissioner shall make monies available from the harmful algal bloom monitoring and prevention fund, as established pursuant to section ninety-nine-ss of the state finance law, within amounts appropriated therefor, pursuant to this section.

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

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

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

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

4. Moneys of the fund shall be available to the commissioner of environmental conservation for the harmful algal bloom monitoring and prevention program established pursuant to section 15-0519 of the environmental conservation law.

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