HOUSE No. 845

The Commonwealth of Massachusetts

PRESENTED BY:

Kathleen R. LaNatra

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act establishing an ecologically-based mosquito management program in the Commonwealth to protect public health.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
Kathleen R. LaNatra	12th Plymouth	1/13/2023
Lindsay N. Sabadosa	1st Hampshire	1/26/2023
Jessica Ann Giannino	16th Suffolk	1/27/2023
Vanna Howard	17th Middlesex	2/2/2023
Adrian C. Madaro	1st Suffolk	2/6/2023
Margaret R. Scarsdale	1st Middlesex	2/10/2023
Colleen M. Garry	36th Middlesex	2/13/2023
Denise C. Garlick	13th Norfolk	2/15/2023
Paul McMurtry	11th Norfolk	2/15/2023
Joanne M. Comerford	Hampshire, Franklin and Worcester	2/21/2023
James K. Hawkins	2nd Bristol	2/23/2023
David Paul Linsky	5th Middlesex	3/6/2023
Samantha Montaño	15th Suffolk	3/20/2023
Simon Cataldo	14th Middlesex	8/11/2023
Tommy Vitolo	15th Norfolk	10/4/2023
Kristin E. Kassner	2nd Essex	2/1/2024
Natalie M. Blais	1st Franklin	2/2/2024

HOUSE No. 845

By Representative LaNatra of Kingston, a petition (accompanied by bill, House, No. 845) of Kathleen R. LaNatra and others relative to establishing an ecologically-based mosquito management program in the Commonwealth to protect public health. Environment and Natural Resources.

The Commonwealth of Alassachusetts

In the One Hundred and Ninety-Third General Court (2023-2024)

An Act establishing an ecologically-based mosquito management program in the Commonwealth to protect public health.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

- 2 SECTION 1. Section 2 of chapter 21A of the General Laws is hereby amended by
- 3 inserting after paragraph 30 the following paragraph:- (31) consistent with their statutory
- 4 responsibilities, implement the ecologically-based mosquito management program established
- 5 pursuant to Chapter 252A.

- 6 SECTION 2. Chapter 252 of the General Laws is hereby repealed.
- 7 SECTION 3. The General Laws are hereby amended by inserting after chapter 251 the
- 8 following chapter:
- 9 CHAPTER 252A. ECOLOGICALLY-BASED MOSQUITO MANAGEMENT.

- Section 1. As used in the chapter, the following words shall, unless the context clearly requires otherwise, have the following meanings:—
- "Adulticiding", the use of pesticides intended to kill adult mosquitoes.
- "Biodiversity survey", an accounting of the diversity, evenness, and richness of species relevant to mosquito management in a given area.
- "Board", the mosquito management board under section 4.
- "Breeding history", the level of larval and adult mosquito abundance in a given area.
- "Council", the governing body of a mosquito management district under section 7.
 - "Disease vector", any species of mosquito which contributes to the amplification or transmission of any disease, including Eastern Equine Encephalitis or West Nile Virus, among human or non-human populations by injection of salivary gland fluid during biting.
- "District", a mosquito management district under section 7.

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22 "Ecologically-based mosquito management" or EBMM, an ecologically sustainable 23 approach to the management of mosquito populations combining cultural, physical, biological, 24 and, when strictly necessary to protect public health, least-toxic chemical control strategies. 25 EBMM prioritizes preventative measures, including surveillance, monitoring, and public 26 education on eliminating breeding sites and taking personal protective action. EBMM involves 27 the selection, integration, and implementation of mosquito control strategies based on predicted 28 ecological, epidemiological, and economic consequences. EBMM seeks maximum use of 29 naturally occurring mosquito controls, including weather, disease agents, predators, and 30 parasitoids. In addition, EBMM utilizes various biological and physical controls and habitat

modification techniques. Under EBMM, chemical controls are imposed as a last resort and only as required to keep a pest from surpassing tolerable population levels predetermined from accurate assessments of the ecological, public health, and economic costs of the control measures.

"Ecologically-based mosquito management plan" the long term plans developed by the mosquito management board and councils under sections 5 and 8.

"EEE", Eastern Equine Encephalitis.

"Habitat manipulation", an approach to reducing mosquito abundance by naturally altering the landscape. Habitat manipulation aims to create unfavorable conditions for mosquito populations, and favorable conditions for mosquito predators.

"Habitat quality", the ability of the environment to provide conditions appropriate for the persistence of mosquito predators at the individual and population level.

"Larviciding", the use of pesticides intended to kill larval or pupal mosquitoes.

"Low impact development", development that incorporates best management practices to reduce impervious surfaces; preserve natural vegetation, soils, and hydrology; and reduce stormwater volumes and pollution. Low impact development practices include, but are not limited to, project designs that reduce the amount of impervious cover and retain natural drainage patterns. Low impact development practices are designed to infiltrate water into the ground or disperse it slowly through vegetation, avoiding ponding or other water retention that may create mosquito habitat.

"Nuisance", mosquitoes which may cause irritation or discomfort to humans, but do not pose and are not expected in the immediately predictable future to pose a significant risk to public health.

"Pesticide", a substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant; provided, that the term "pesticide" shall not include any article that is a "new animal drug" within the meaning of section 201(w) of the federal food, drug and cosmetic act (21 U.S.C. Section 321 (v)), or that has been determined by the secretary of the United States Department of Health and Human Services to be a new animal drug by a regulation establishing conditions of use for the article, or that is an animal feed within the meaning of section 201(x) of such act (21 U.S.C. Section 321(w)).

"PFAS", a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

"Secretary", the secretary of the executive office of energy and environmental affairs.

"Sentinel species", an animal species that may contract an arbovirus before the arbovirus spreads to the human population, or a species in which an arbovirus outbreak may be more widespread than it is in the human population. A sentinel species may serve as an indicator of the presence of the arbovirus in area mosquito populations.

"Source reduction", a method of managing mosquitoes that relies on reducing or eliminating the ability of larval habitats to support the development of larvae, including removal of artificial sources of standing, stagnant water or the restoration of natural flows and wetland systems to improve access by predators, water quality, and overall aquatic health.

"Wetlands or wildlife ecologist", an expert with a master's or doctorate degree in wetland ecology, wildlife ecology, or a closely related field of ecological study.

Section 2. When it is necessary for the purpose of protecting public health or for other purposes to control or abate mosquitoes or greenhead flies, measures shall be taken as specified in this chapter. Nothing in this chapter shall prohibit a municipality from conducting its own mosquito or greenhead fly management program, except that no municipality shall conduct aerial spraying of adulticides or larvicides. Nothing in this chapter shall prohibit any resident from controlling or abating mosquitos or greenhead flies on his or her property.

Section 3. There is hereby established within the executive office of energy and environmental affairs a mosquito management office that shall be administered by the secretary. The secretary shall appoint all necessary employees within the mosquito management office, except as may be otherwise provided by law. The secretary shall direct the mosquito management office, consistent with state law and policies and directives of the board, to adopt, and from time to time amend, rules, regulations, procedures, standards, guidelines, and policies that shall constitute the Massachusetts ecologically-based mosquito management program.

Section 4. (a) There shall be in the mosquito management office a mosquito management board. The function of the board shall be to regulate and oversee all disease vector mosquito and related nuisance organism management activities in the commonwealth; to prepare an ecologically-based mosquito management plan and a state emergency arbovirus response plan; to review and certify ecologically-based mosquito management plans submitted by councils; to create policies and procedures for ecologically-based mosquito management to control vector-borne diseases; to authorize and carry out investigations and keep records; to carry out mosquito

management programs in areas of the commonwealth outside of any mosquito management district; and to develop policies and procedures to insure that all mosquito management activities comply with the intent of section 5 of chapter 40; sections 1 through 63, inclusive, of chapter 91; section 105 of chapter 130 and sections 40 and 40A of chapter 131 as applicable; provided, however, the usual and customary activities associated with the state emergency arbovirus response plan or the ecologically based mosquito management plan of the state or of a council, as certified, shall not require filings or hearings under section 40 of chapter 131, but rather simple notice to the conservation commission of a municipality of proposed actions in any regulated wetland; and to carry out all other powers and functions granted to the board by this chapter.

(b) The board shall consist of (1) the following members or their designees: the commissioner of the department of environmental protection, who shall serve as chair; the commissioner of the department of public health; the commissioner of the department of agricultural resources; the commissioner of the department of fish and game; the director of the natural heritage and endangered species program of the division of fisheries and wildlife; and the director of the division of ecological restoration of the department of fish and game. (2) the following 5 members designated by the secretary: one person representing a statewide land conservation organization or a regional or statewide river protection organization; one person representing beekeepers; one person representing groups concerned about native pollinators; an expert in pesticides and mosquito control and an ecological risk assessor with a background in ecotoxicology. Each of these five designated members shall be designated for a term of four years, except for persons designated to fill vacancies, who shall serve for the unexpired term.

Any member appointed under this clause shall be eligible for reappointment, so long as no specific member shall serve for more than 2 terms.

- (c) The board members shall receive no additional compensation for service on the board, but shall be entitled to their reasonable traveling and other expenses incurred in the performance of their duties. The board may draw staff support from the departments represented with the consent of the respective commissioners.
- (d) The board shall meet at the call of any 2 members or at the call of the board chair, but not less than 6 times annually. The board may elect a secretary and other officers as it finds necessary.
- (e) The board may purchase, lease, or rent equipment and supplies to be used in performance of the board's duties and to facilitate the ecologically-based management of mosquitoes. Such supplies may be made available to councils by petition to the board, but shall remain the property of the board.
- (f) No member of the board shall have current or reasonably foreseeable conflicts, as defined by chapter 268A.
- Section 5. (a) The board shall prepare a state ecologically-based mosquito management plan. Any action taken under this chapter shall be included in the state plan, in a district plan certified by the board pursuant to section 8, or in the state emergency arbovirus response plan pursuant to section 9. Before adoption of the state ecologically-based mosquito management plan, a public hearing shall be held by the board in each mosquito control district. The state ecologically-based mosquito management plan shall prioritize preventive action and non-pesticide control measures and shall include the management activities under this section.

(b) (1) The state ecologically-based mosquito management plan shall establish a public education and outreach campaign aimed at informing residents and businesses how to reduce mosquito breeding sites in and around their properties and the community at large, preventive measures individuals can take to protect themselves, and proper use of larvicides. The campaign shall be overseen by the board, with assistance from mosquito management councils. (2) The public education and outreach campaign shall inform residents of how mosquito-borne diseases are transmitted and the difference between nuisance and disease vector mosquitoes, inform residents of the environmental and health hazards associated with mosquito adulticides and larvicides, and advise residents how they can opt-out of adulticide applications. The public education and outreach campaign may include, but mot be not limited to, the following methods of public outreach: (i) a publicly accessible website and social media pages; (ii) campaign branded pamphlets, infographics, and fact sheets; (iii) public meetings and open houses; (iv) videotaped and digital presentations; (v) advertisements in public spaces; (vi) local public access television or other local media sources; (vii) inserts in utility bills; (viii) posting on the apiary program website of the division of agriculture resources; and (ix) in-state registration notifications for pesticide applicators.

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(c) (1) The state ecologically-based mosquito management plan shall establish a program for trapping adult mosquitoes. Within mosquito management districts, trapping shall be overseen by the mosquito management councils. In areas of the commonwealth not within mosquito management districts, the board shall oversee trapping and testing of adult mosquitoes, pursuant to section 6. (2) Trapping shall occur during a time period corresponding with mosquito activity. The acting authority, whether the board or a mosquito management council, may, at its own discretion, change these dates based upon climatic conditions or other outstanding factors. Traps

shall be placed at locations based on risk of disease spread. Mosquito counts from mosquito traps shall be recorded at regular intervals in a publicly accessible location, such as the board or council's website. (3) Trapped mosquitoes may be tested for the following mosquito-borne diseases: (i) West-Nile Virus; (ii) Eastern Equine Encephalitis; (iii) Jamestown Canyon Virus; or (iv) other arboviruses of local or regional concern. (4) Based on positive findings of a mosquito-borne disease in tested mosquitoes, or at the discretion of the board, the board may test sentinel host species for the presence of mosquito-borne disease.

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(d) (1) The state ecologically-based mosquito management plan shall establish a program for monitoring and mapping larval breeding sites. Within mosquito management districts, monitoring and mapping shall be overseen by the mosquito management councils. In areas not within mosquito management districts, the board shall oversee monitoring and mapping, pursuant to section 6. (2) The acting authority, whether the board or a mosquito management council, shall oversee the creation of a map of larval mosquito breeding sites within the commonwealth or mosquito management district that classifies breeding sites based on habitat quality and breeding history. The following classifications may shall be used: (i) Low quality ecological habitat and low breeding history; (ii) High quality ecological habitat and low breeding history; (iii) Low quality ecological habitat and high breeding history; and (iv) High quality ecological habitat and high breeding history. (3) The acting authority shall monitor larval mosquito populations on a regular interval using a diptest. Particular attention is to be paid to sites where known vector mosquitoes breed, and sites with low quality ecological habitat and high breeding history. The monitoring period shall correspond with mosquito activity in the area monitored. The acting authority may, at its own discretion, change these dates based upon climatic conditions or other outstanding factors. The map of larval mosquito breeding sites, their

classification, and larval monitoring data shall be maintained in a publicly accessible location, such as the board or council's website. (4) The acting authority shall regularly conduct an ecological analysis and biodiversity survey in mosquito larval breeding sites. Such a survey shall be conducted in consultation with a wetlands or wildlife ecologist. The acting authority shall work with the wetlands or wildlife ecologist to classify breeding sites based on habitat quality and breeding history, using the classifications listed in subsection (2) to characterize ecological health in the context of mosquito abundance and mosquito-borne disease transmission in the area. The assessment shall aim to further develop non-pesticidal management approaches to reduce mosquito populations. (5) The acting authority shall make all data and analysis analyses under this section available in a publicly accessible location, such as the board or council's website within 10 business days of acquiring data, and completing analyses, classifications, and plans.

(e) (1) The state ecologically-based mosquito management plan shall employ source reduction and wetlands restoration as the preferred methods of managing mosquito populations. Within mosquito management districts, source reduction and wetlands restoration shall be overseen by the mosquito management councils in coordination with a wetlands or wildlife ecologist. In areas of the commonwealth not within mosquito management districts, the board shall oversee source reduction and wetlands restoration, pursuant to section 6. (2) Source reduction may include, but not be limited to, removal of tires, trash, abandoned containers or structures, and other sources of artificial standing water, and water management strategies to avoid and eliminate artificially created mosquito breeding areas such as use of low impact development techniques for stormwater management. (3) Wetlands restoration shall be designed to restore natural flows, improve water quality and fish access, mosquito predator access, and

increase overall wetland ecosystem diversity and function. Wetlands restoration may include, but not be limited to, upgrading culverts, removing dams, and otherwise restoring degraded wetlands. All wetlands restoration must comply with applicable federal, state, and local laws. The state ecologically-based mosquito management plan shall include the involvement of local conservation commissions and the division of ecological restoration in wetlands restoration projects.

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(f) (1) The state ecologically-based mosquito management plan shall provide for the mitigation activities described in this subsection. Within mosquito management districts, mitigation activities shall be overseen by the mosquito management councils. In areas of the commonwealth not within mosquito management districts, the board shall oversee the provision of these mitigation activities, pursuant to section 6. (2) (i) The state ecologically-based mosquito management plan shall establish scientifically based and quantifiable thresholds for larvicide use and shall provide for the application of larvicides based on the monitoring of breeding sites. Particular attention is to be paid to sites where known vector mosquitoes breed, and sites with low quality ecological habitat and high breeding history. (ii) Larvicides shall not be used to manage nuisance mosquito populations and may be used only when source reduction and wetlands restoration have not been effective in abating disease risk. When applying larvicides, the applying authority, whether the board or a mosquito management council, shall select the larvicide that poses the least risk to human health and the environment, while remaining effective. Preference is given to larvicides that are certified by the Organic Materials Review Institute or classified under the Environmental Protection Agency's minimum risk pesticide program. (iii) Aerial application of any larvicide is prohibited. (3) (i) The state ecologicallybased mosquito management plan shall provide that mosquito adulticides are considered the

most dangerous and least effective method of reducing nuisance and vector mosquito populations. Adulticides shall not be used to manage nuisance mosquito populations, and shall only be considered following the detection of a mosquito-borne pathogen in mosquito or sentinel species. (ii) The state ecologically-based mosquito management plan shall establish scientifically based and quantifiable thresholds for adulticide use based on the risk of mosquitoborne disease transmission. (iii) Following the detection of a mosquito-borne pathogen in an adult mosquito or sentinel species, the acting authority, whether the board or a mosquito management council, shall take the following actions: (A) notify the public and increase public education and outreach, emphasizing personal protection measures; (B) begin or increase the trapping of adult mosquitoes in the area of detection; (C) begin or increase larval monitoring and management in the area of detection; (D) prioritize further testing for mosquito-borne diseases in the area of detection; and (E) consider non-pesticidal management approaches to reduce mosquito populations in the area of detection. (iv) Following the detection of a mosquito-borne pathogen in an adult mosquito or sentinel species, if the established threshold has been met, the acting authority may consider the ground application of adulticide using a backpack applicator, provided that the backpack-applied adulticide application occurs only within the immediate area of detection and the backpack-applied adulticide is the least toxic adulticide available. Preference shall be given to adulticides that are certified by the Organic Materials Review Institute or classified under the Environmental Protection Agency's minimum risk pesticide program. (v) If monitoring and trapping data indicate a broader concern of mosquito-borne disease in the community, and education, prevention, habitat manipulation, larviciding, and backpack-applied adulticiding have all been attempted and determined insufficient to address an immediate threat to public health from mosquito-borne disease, the acting authority may, based on alignment with

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an established threshold, consider the truck-mounted ground application of a mosquito adulticide, provided the application occur within the most limited area possible to achieve effective reduction in adult vector mosquitoes. If necessary to protect public health, the truck-applied adulticide need not be certified by the Organic Materials Review Institute or be classified under the Environmental Protection Agency's minimum risk pesticide program, but it shall be the least toxic adulticide that will be effective in mitigating disease risk. (vi) The acting authority shall increase monitoring and trapping following the application of a mosquito adulticide, and shall work with a wetlands or wildlife ecologist to characterize the impacts adulticide use had on the ecological health of the habitat where the adulticide was applied. (vii) Aerial application of any adulticide is prohibited. (viii) Any application of a mosquito adulticide shall be performed by a certified pesticide applicator.

(g) (1) The ecologically-based management plan shall include: (i) a determination by the Natural Heritage and Endangered Species Program in the department of fish and game that the plan proposed will result in no alteration, as defined under chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special concern state or federally listed species; and (ii) reasonable measures by the board to assure that the plan proposed will avoid hazardous effects on human health and the environment, including effects to soils, sediments, surface waters, groundwater or any ocean sanctuary under sections 13 through 16 and 18 of chapter 132A. (h) The board shall review and revise the state ecologically based mosquito management plan whenever useful or necessary, but no less frequently than every 3 years.

Section 6. (a) (1) In carrying out the provisions of this chapter, the board may employ necessary engineers, scientists, assistants, or other agents, who may enter on premises that the board desires to survey or examine. The board may provide technical assistance to any council in

the development and implementation of an ecologically-based mosquito management program.

(2) The board shall carry out field investigations and other determinations of the need, method, and procedures for managing mosquitoes as deemed advisable, including all significant potential health and environmental impacts of the proposed management measures. Board members and their agents are authorized to enter or examine at any reasonable time those premises which the board considers necessary to carry out its responsibilities.

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(b) (1) The board shall provide a menu of services to municipalities that are not members of mosquito control districts, with reasonable fees for each service selected by the municipality. This menu shall include public education and outreach, surveillance of adult mosquitoes, monitoring and mapping of larval breeding sites, source reduction and wetlands restoration, and larviciding and adulticiding services, subject to the state ecologically-based mosquito management plan. (2) A municipality may opt in to receiving any of the services under clause (1) by approval of its legislative body and notification to the board and the municipality's conservation commission. In opting in to larviciding or adulticiding services, a municipality may impose additional restrictions not included in the state ecologically-based mosquito management plan on the timing, location, or manner of application of larviciding or adulticiding. A municipality that has opted in to receiving any service may opt out at any time by approval of its legislative body. The fee charged for each service shall pay the full cost of the service. Any funds received for this purpose in excess of those required to provide the requested services shall be returned to the purchasing municipality. At least once per year, or more frequently if requested by a municipality, the board shall provide each municipality an accounting of the fees charged to the municipality that year. (3) All amounts for which a municipality may be liable in

connection with the above may be contributed by persons or bodies politic benefited by the services in proportion to their respective benefits or otherwise.

Section 7. (a) Any municipality or 2 or more municipalities, may, by obtaining certification of the board, become a mosquito management district. The district shall be titled the mosquito management district. Notice of the formation of a district must be filed with the secretary of state and the board with a description of the proposed boundaries of the district.

- (b) A council shall be established for each district and shall be called the mosquito management council. The council is declared to be the corporate authority of the district and shall exercise all the powers and control all of the affairs and property of the district. Any mosquito management council shall be composed of at least 5 members, all of whom must either live or work in the district. The members of the council are to be appointed by the mosquito management board and shall comprise: 1 person who represents an environmental protection or conservation organization or a municipal conservation commission; 1 person who is a member of a municipal board of health or a health care provider; 1 person who represents the executive office of a municipality; and 2 citizens at large preferably with some background in engineering, law, chemistry, biology, or any other experience or education that would have relevance to mosquito control and management.
- (c) The mosquito management board shall monitor the operations of the councils and shall require adherence to this act and to each council's certified ecologically-based mosquito management plan.
- (d) (1) Each district council shall appoint a superintendent who shall be a person of skill and experience or knowledge in the field of mosquito management and who shall be committed

to the use of ecologically-based mosquito management. The district superintendent, with the approval of the council, shall be empowered to hire sufficient staff and employees and purchase materials to fulfill the requirements of the council's certified ecologically based mosquito management plan. Employees and staff of the council shall not be subject to the provisions of section 9A of chapter 30, and chapter 31. (2) The superintendent shall keep regular records of all proceedings and financial affairs, which shall be open to inspection by the board or by the council at all times; and by the public at reasonable hours. The council shall have ultimate responsibility for the efficient financial and sound environmental management of the district and shall be required, at the discretion of the board, to audit its finances and submit said audit to the board for its review and oversight.

- (e) The federal government, the commonwealth or its municipalities, or their administrative agencies, not members of a mosquito management district, may request mosquito or greenhead fly management services from the district, which the council may provide at a fee, which shall pay the full cost of the mosquito or greenhead fly management services. The recipient of the services shall pay the full fee. Any funds received for this purpose in excess of those required to provide the requested services shall be returned to the purchaser.
- (f) (1) The council shall provide a menu of services to participating municipalities, with reasonable fees for each service selected by the municipality. This menu shall include public education and outreach, surveillance of adult mosquitoes, monitoring and mapping of larval breeding sites, source reduction and wetlands restoration, and larviciding and adulticiding services to all municipalities within the district, subject to the district's certified ecologically based mosquito management plan. (2) A municipality may opt in to receiving any of the above services by approval of its legislative body and notification to the council and the municipality's

conservation commission. In opting in to larviciding or adulticiding services, a municipality may impose additional restrictions not included in the district ecologically based mosquito management plan on the timing, location, or manner of application of larviciding or adulticiding. A municipality that has opted in to receiving any service may opt out at any time. The fee charged for each service shall pay the full cost of the service. Any funds received for this purpose in excess of those required to provide the requested services shall be returned to the purchasing municipality. At least once per year, or more frequently if requested by a municipality, the council shall provide each municipality an accounting of the fees charged to the municipality that year. (3) All amounts for which a municipality may be liable in connection with the receipt of services under this section may be contributed by persons or bodies politic benefited by the services in proportion to their respective benefits or otherwise. (4) The cost of district services may be shared by the board if the board deems, and in proportion as the board determines, that the service is in the larger interest of the commonwealth.

Section 8. (a) Within 90 days from the formulation of the board's ecologically-based management plan, or from the establishment of a district, the council shall develop and submit to the board an ecologically-based mosquito management plan. The district's ecologically-based plan shall be constituted either by adopting the board's ecologically-based mosquito management plan, or the board's plan with modifications. The district's ecologically-based plan shall not authorize the use of adulticides, larvicides, or other pesticides when such use is prohibited by law or by the state ecologically-based mosquito management plan. The board shall be allowed 30 days to approve, disapprove, or modify the district's plan. If the board disapproves or requires amendment of the plan submitted by the council, the council shall have 30 days to make those amendments and resubmit the plan to the board for certification. In disapproving or requiring

amendment of the plan submitted by the council, the board shall clearly state the areas of the plan that were deficient and what the deficiencies of the plan were. The plan shall be adopted for the district upon certification by the board. Thereafter the plan shall be reviewed, amended if necessary, and submitted for recertification no less than every 3 years, or more frequently if the council chooses.

- (b) With the prior written certification of the board of the district's ecologically-based mosquito management plan, as provided for in this section, the council shall have the power to take all necessary or proper steps for the management of mosquitoes within the district subject to the provisions of this chapter; to purchase supplies and materials and to employ labor, assistants, scientists, or consultants as may be necessary or proper in furtherance of the objectives of the same; and generally to do all things, subject to the provisions of this chapter, necessary or incident to powers hereby granted and to carry out the objectives specified herein.
- (c) (1) Any action taken under this chapter shall be included in the district's ecologically-based mosquito management plan. Before adoption of a district ecologically-based mosquito management plan, a public hearing shall be held by the council. A hearing required by a federal, state, or municipal agency on the program shall be sufficient for purposes of this section. In addition to the details of management activities the ecologically-based management plan shall include: (i) A determination by the Natural Heritage and Endangered Species Program in the department of fish and game that the plan proposed will result in no alteration, as defined under chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special concern state or federally listed species; and (ii) reasonable measures by the council to assure that the plan proposed will avoid hazardous effects on human health and the environment,

including effects to soils, sediments, surface waters, groundwater or any ocean sanctuary under sections 13 through 16 and 18 of chapter 132A.

Section 9. (a) The board shall complete an emergency arbovirus response plan to be exercised by the commissioner of the department of public health under this section. The emergency response plan shall specify scientifically based and quantifiable thresholds for determining the existence of an ongoing arbovirus public health emergency. The emergency arbovirus response plan shall specify the mosquito management measures to be used in case of an ongoing arbovirus public health emergency and shall specify procedures for coordination among state agencies, municipal governments, the board, and the mosquito management districts. The emergency arbovirus response plan shall not authorize the aerial application of any adulticide or larvicide.

- (b) Before adoption of the emergency response plan, a public hearing shall be held by the board in each of the existing mosquito control districts. The emergency response plan shall be reviewed and revised whenever useful or necessary, but no less than every 3 years.
- (c) The state emergency response plan shall be exercised only after a public health emergency is declared by the governor of the commonwealth on the recommendation of the commissioner of the department of public health and the board that the thresholds of the emergency response plan have been met. Such recommendation shall be accompanied by a public document detailing the evidence and the basis for the judgment that a public health emergency exists, the target organism, the expected management agents or chemicals and procedures to be used, and the areas to be so treated.

(d) Following a declaration of a public health emergency by the governor of the commonwealth, the emergency response plan shall be exercised by the commissioner of the department of public health. The board and the district councils shall act under the direction of the commissioner of the department of public health during the state of public health emergency. The costs incurred by the board or any councils due to the exercise of the emergency response plan shall be paid by the commonwealth.

- (e) The state of public health emergency shall be terminated automatically after 60 days, or by a declaration by the governor of the commonwealth. If the public health emergency is not resolved within 60 days, a subsequent declaration of public health emergency may be made, pursuant to the requirements of this section for making such declaration.
- (f) In exercising the emergency arbovirus response plan, the notification and opt-out provisions of sections 10 and 11 shall continue to apply.
- (g) (1) Following any declaration of an arbovirus public health emergency under this section and within 30 days after termination of the emergency, the commissioner of the department of public health shall complete and make available on the department's website for the public record a report of actions taken during the emergency, including, at a minimum: (i) the target organism or organisms, their estimated population size, records of EEE or other mosquito-borne disease prevalence and infection rate, rainfall and temperature data, and an analysis of the geographic patterns indicated by these data, both prior to and following management activities; (ii) agents, chemicals, or source reduction activities used in the treatment, and times, rates and means of application; (iii) records of incidence of EEE or other mosquito-borne diseases and the effectiveness of the treatment in preventing the disease or

diseases, the total number of confirmed human cases of EEE or other mosquito-borne diseases, the total number of horses and other animals confirmed as having been affected by EEE or other mosquito-borne diseases, the number of deaths in humans and other animals, the kinds of illness and disabilities, noting term and nature of sickness, recuperation, and rehabilitation in humans; (iv) effects of the treatments on soils and water, and on flora and fauna of the areas treated including pesticide incidents reported to apiary program of the division of agriculture resources and at their apiary and pesticide locator map and other areas affected; (v) maps of the area treated with indications on the maps of localities treated; and (vi) any recommendations for changes in regulations or procedures for future interventions. All actions taken under the authority of this section shall be designed to protect public health while minimizing any adverse effect to the environment.

Section 10. (a) At least 72 hours prior to the application of any adulticide, the authority overseeing such application, whether the board, a district council, or the commissioner of the department of public health, shall provide notice of the methods to be employed, including: the product to be applied; the locations, dates, and times of application; and any health risks and adverse environmental impacts associated with the product.

(b) Notice shall be provided to all residents within ½ mile of the planned adulticide application. Notice shall be provided through, at a minimum, any municipal emergency notification or community alert service, such as "CodeRED," announcements in local newspapers or other press, and the website and social media feeds of the affected municipalities. Direct notice shall also be provided to: (i) the executive office of the affected municipality or municipalities; (ii) appropriate local and regional boards and commissions, including boards of health and conservation commissions; (iii) schools, child care centers, and school age child care

programs within ½ mile of the planned adulticide application; (iv) property owners within ½ mile of the planned adulticide application who have opted out of spraying based on exclusions pursuant to applicable regulations governing pesticide application; (v) agricultural entities including beekeepers, cranberry growers, certified organic farms and aquaculture facilities within ½ mile of the planned adulticide application; and (vi) any other person within ½ mile of the planned adulticide application who informs the board through a form made available on the board's website that they wish to be informed of adulticide spraying in their region.

- (c) Notice shall include, or direct recipients to the online location of, an educational fact sheet about the planned spraying, including the adulticide's label and Material Safety Data Sheet, further information about the risks posed by the adulticide, specific precautions residents may take to avoid exposure to the adulticide or deposition of the adulticide on sensitive private property, including gardens and children's play equipment, as well as personal protective measures and other preventative actions residents can take to reduce mosquito-borne disease transmission.
- (d) If adulticide application must be postponed due to weather conditions, notice provided before application shall remain in effect for 48 hours following the improvement of such weather conditions if postponement of spraying would extend beyond the dates indicated in the initial notice; provided, however, that, to the extent reasonably possible, the board shall make a good faith effort to inform the public of any changes to the application schedule.
- Section 11. (a) The board shall maintain a "no spray list" and provide an online form on its website allowing residents to opt out of the application of adulticides. Residents on the "no

spray list" shall be notified via reasonable means that they are on the list, and shall be reminded each year following, via reasonable means, that they remain on the "no spray list."

- (b) State registered beekeepers and certified organic farms shall be automatically placed on the "no spray list", and shall be notified through reasonable means that they are on the list.
- (c) Residents on the "no spray list" shall not have an adulticide applied within 300 feet of their property line.
- (d) Any municipality may opt out of adulticide application conducted under section 9 by approval of its legislative authority, provided that the municipality opts in to receiving public education and outreach and surveillance of adult mosquitoes from either the board or a mosquito management district.

Section 12. Each year, the board and each council shall work alongside a wetlands or wildlife ecologist and other relevant experts to review the effectiveness of the board or council's mosquito control program and publish the findings in a report. The report shall include successes and failures of the past year; a survey of the experience of state registered beekeepers and certified organic farms; records of the location, rates, and time of application of any chemical or biological pesticides applied that year; and additional steps the board or council will consider to further reduce reliance on pesticide use and improve local ecological capacity to naturally manage nuisance and vector mosquitoes. Findings in the report are to be made available in a publicly accessible location, such as the board or council's website.

Section 13. (a) A district council that determines it is necessary to control greenhead flies within the district shall create a greenhead fly management plan. The plan shall specify the monitoring and mitigation activities that will be undertaken to control greenhead flies. The plan

shall specify how the costs of controlling greenhead flies are to be allocated among the member municipalities of the district. All greenhead fly control activities shall be carried out according to the district's plan.

- (b) Before adoption of a district greenhead fly management plan, a public hearing shall be held by the council. A hearing required by a federal, state, or municipal agency on the program will suffice for purposes of this section. In addition to the details of management activities the greenhead fly management plan shall include: (i) a determination by the Natural Heritage and Endangered Species Program in the department of fish and game that the plan proposed will result in no alteration, as defined under chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special concern state or federally listed species; and (ii) reasonable measures by the council to assure that the plan proposed will avoid hazardous effects on human health and the environment, including effects to soils, sediments, surface waters, groundwater or any ocean sanctuary under sections 13 through 16 and 18 of chapter 132A.
- (c) The greenhead fly management plan shall not authorize the use of any chemical pesticide other than attractants, such as octenol, used to bait traps.
- Section 14. (a) No pesticide containing PFAS shall be used as part of any mosquito or greenhead fly control activity conducted pursuant to this chapter. This prohibition includes pesticides that contain PFAS as an inactive or inert ingredient.
- (b) No pesticide shall be used as part of any mosquito or greenhead fly control activity conducted pursuant to this chapter unless the department of environmental protection has tested a sample of the pesticide and certified that the pesticide does not contain PFAS. This testing

requirement shall not apply to a pesticide used during an arbovirus public health emergency pursuant to section 9 as long as (1) the commissioner of the department of public health determines that it is infeasible to test the pesticide prior to application in response to the arborvirus public health emergency and (2) there are no equally or more effective pesticides available for use that the department of environmental protection has already tested and certified as not containing PFAS.

Section 15. (a) Any person aggrieved by a determination by the board or any council, including any party to a complaint and investigation under section 17, may request an adjudicatory hearing before the board under the provisions of chapter 30A. The determination shall contain a notice of right to request a hearing and may specify a time limit, not to exceed 21 days, within which persons may request a hearing before the board under the provisions of chapter 30A. If no such request is timely made, the determination shall be deemed assented. If a timely request is received, the board shall within a reasonable time hold a hearing and comply with the provisions of chapter 30A. In a hearing so held the board shall designate a hearing officer to preside over the hearing, to assemble an official record thereof, and to render a tentative decision as provided in paragraph (7) of section 11 of chapter 30A. The board shall make the final decision on the basis of the official record and tentative decision so rendered.

(b) If in making a determination which may be the subject of an adjudicatory hearing the board finds that an imminent hazard or an unreasonable adverse effect on the environment could result pending the conclusion of adjudicatory hearing, the board may order that the determination shall become provisionally effective and enforceable immediately upon issuance, and shall remain so notwithstanding and until the conclusion of any adjudicatory hearing procedures

timely requested. In the event that the department has thus made a determination provisionally effective, it may later, at its discretion, shorten the duration of or waive the order.

(c) A person aggrieved by a final adjudicatory determination of the board may obtain judicial review thereof pursuant to the provisions of chapter 30A.

Section 16. Whenever any council commences any mosquito management activity not permitted by the certified district ecologically-based mosquito management plan, including the use of pesticides when not permitted by the certified district ecologically-based mosquito management plan, or violates any rule or regulation of the board, the board shall have the power by written notice to order the violator to cease and desist immediately. If the violator does not conform to the board's order, the board may bring prosecution in the district court of the state. The board, without being required to enter into any recognizance or to give surety for cost, may institute proceedings in the name of the state. It shall be the duty of the attorney general to conduct the prosecution of the proceedings brought by the board. The board may obtain relief in equity or by prerogative writ whenever that shall be necessary for the proper performance of those duties.

Section 17. The board shall establish a process by which residents of the commonwealth may file complaints alleging violations of the provisions of this chapter or of the provisions of the ecologically-based mosquito management plan of the board or any district. The process for filing complaints shall, at a minimum, include a telephone hotline and allow for the submission of written complaints. Within 60 days of receiving a complaint, the board shall investigate and make a determination as to whether any violation has occurred and whether any action is required to remedy the violation or prevent such violation from occurring again. The board shall

maintain a publicly accessible online docket of complaints received, the outcome of its investigations, and any actions taken.

Section 18. Any municipality not a part of an existing district may be annexed by approval of the municipality's legislative body to a district upon approval by the district's council.

Section 19. Any municipality or subdivision thereof which lies within a district may be disconnected from the district in accordance with the district's separate governing enabling act, voluntary trust, or other legal instrument, by the decision of its legislative body.

Section 20. Any district organized under the provisions of this act may be dissolved and discontinued by appropriate action of either the board or the council, or as provided in the district's governing enabling act, voluntary trust, or other legal instrument. Notice of dissolution shall be filed with the secretary of the commonwealth and the board.

Section 21. All meetings of the board or councils shall comply with the provisions of the open meeting laws under sections 18 through 25, inclusive of chapter 30A. All regular board or council meetings shall be open to the public and all resolutions, actions, and records of its proceedings shall be open to public view.

Section 22. The board shall provide a report to the house and senate committees on ways and means and the committee on environment, natural resources and agriculture by April first each year detailing all encumbrances, expenditures, and projected expenditures of funds and providing projections for needs and associated costs for the next fiscal year.

SECTION 4. The current mosquito control projects known by their identifying names as the Berkshire county mosquito control project, the Bristol county mosquito control project, the Cape Cod mosquito control project, the central Massachusetts mosquito control project, the Dukes county mosquito control project, the east Middlesex mosquito control project, the Norfolk county mosquito control project, the northeast Massachusetts mosquito control and wetlands management district, the Pioneer Valley mosquito control district, the Plymouth county mosquito control project, and the Suffolk county mosquito control project may remain in existence if a project obtains certification from the mosquito management board that the project fulfills the provisions of section 7 of chapter 252A of the General Laws, inserted by this act. Existing superintendents, and existing staff and employees of the projects may continue in their present capacity, subject to adherence to the regular conditions of workplace and employment, provided that the superintendents, staff and employees shall meet the conditions of subsection (d) of said section 7. Commissioners of these projects and their employees may continue in their capacity under their existing terms of appointment, as members or employees of the newly formed councils, and may be reappointed as members of the councils, provided they meet the criteria for membership established by said section 7. The board shall arrange for an orderly transition of such mosquito control districts and mosquito control projects in compliance with said chapter 252A.

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SECTION 5. The mosquito management board shall complete the state ecologically-based mosquito management plan under section 5 of chapter 252A of the General Laws and the emergency arbovirus response plan under section 9 of said chapter 252A within 6 months of the enactment of this act.

SECTION 6. Section 14 of chapter 252A of the General Laws shall be effective 1 year from the passage of this act.

SECTION 7. The remainder of this act shall take effect upon its passage.