

**SENATE . . . . . No. 556**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

*Adam G. Hinds*

*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 providing for the public health by establishing an ecologically based mosquito management program in the Commonwealth.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	
<i>Adam G. Hinds</i>	<i>Berkshire, Hampshire, Franklin and Hampden</i>	
<i>Lindsay N. Sabadosa</i>	<i>1st Hampshire</i>	<i>2/16/2021</i>
<i>James B. Eldridge</i>	<i>Middlesex and Worcester</i>	<i>3/8/2021</i>
<i>Michael O. Moore</i>	<i>Second Worcester</i>	<i>4/6/2021</i>
<i>Paul R. Feeney</i>	<i>Bristol and Norfolk</i>	<i>4/12/2021</i>

**SENATE . . . . . No. 556**

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By Mr. Hinds, a petition (accompanied by bill, Senate, No. 556) of Adam G. Hinds, Lindsay N. Sabadosa, James B. Eldridge, Michael O. Moore and others for legislation to provide for the public health by establishing an ecologically based mosquito management program in the Commonwealth. Environment, Natural Resources and Agriculture.

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**The Commonwealth of Massachusetts**

**In the One Hundred and Ninety-Second General Court  
(2021-2022)**

An Act providing for the public health by establishing an ecologically based mosquito management program in the Commonwealth.

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

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

5 SECTION 2. Chapter 252 of the General Laws, entitled IMPROVEMENT OF LOW  
6 LAND AND SWAMPS, is hereby repealed and replaced with the following chapter:

7 CHAPTER 252.

8 ESTABLISHING AN ECOLOGICALLY BASED MOSQUITO MANAGEMENT  
9 PROGRAM IN THE COMMONWEALTH.

10 Section 1. The term "board" means the mosquito management board created in section  
11 four.

12 The term "adulticiding" means the use of pesticides intended to kill adult mosquitoes.

13 The term "biodiversity survey" means an accounting of the diversity, evenness, and  
14 richness of species relevant to mosquito management in a given area.

15 The term "breeding history" means the level of larval and adult mosquito abundance in a  
16 given area.

17 The term "council" means the governing body of the mosquito management districts  
18 created in section 7.

19 The term "disease vector" means any species of mosquito which contributes to the  
20 amplification or transmission of any disease, including Eastern Equine Encephalitis (EEE) or  
21 West Nile Virus (WNV), among human or non-human populations by injection of salivary gland  
22 fluid during biting.

23 The term "district" means a mosquito management district created in section 7.

24 The term "ecologically based mosquito management" (EBMM) means an ecologically  
25 sustainable approach to the management of mosquito populations combining cultural, physical,  
26 biological, and, when strictly necessary to protect public health, least-toxic chemical control  
27 strategies. EBMM prioritizes preventative measures, including surveillance, monitoring, and  
28 public education on eliminating breeding sites and taking personal protective action. EBMM  
29 involves the selection, integration, and implementation of mosquito control strategies based on  
30 predicted ecological, epidemiological, and economic consequences. EBMM seeks maximum use

31 of naturally occurring mosquito controls, including weather, disease agents, predators, and  
32 parasitoids. In addition, EBMM utilizes various biological and physical controls and habitat  
33 modification techniques. Chemical controls are imposed as a last resort and only as required to  
34 keep a pest from surpassing tolerable population levels predetermined from accurate assessments  
35 of the ecological, public health, and economic costs of the control measures.

36 The term “ecologically based mosquito management plan” means the long term plans  
37 developed by the mosquito management board and councils under sections 5 and 8.

38 The term “habitat manipulation” means an approach to reducing mosquito abundance by  
39 naturally altering the landscape. Habitat manipulation aims to create unfavorable conditions for  
40 mosquito populations, and favorable conditions for mosquito predators.

41 The term “habitat quality” means the ability of the environment to provide conditions  
42 appropriate for the persistence of mosquito predators at the individual and population level.

43 The term “larviciding” means the use of pesticides intended to kill larval or pupal  
44 mosquitoes.

45 The term “low impact development” means development that incorporates best  
46 management practices to reduce impervious surfaces; preserve natural vegetation, soils, and  
47 hydrology; and reduce stormwater volumes and pollution. Low impact development practices  
48 include, but are not limited to, project designs that reduce the amount of impervious cover,  
49 porous pavements, gravel wetlands, and green rooftops. Low impact development practices are  
50 designed to infiltrate water into the ground or disperse it slowly through vegetation, avoiding  
51 ponding or other retention that may create mosquito habitat.

52           The term “nuisance” means mosquitoes which may cause irritation or discomfort to  
53 humans, but do not pose and are not expected in the immediately predictable future to pose a  
54 significant risk to public health in Massachusetts.

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

63           The term “PFAS” means a class of fluorinated organic chemicals containing at least one  
64 fully fluorinated carbon atom.

65           The term “secretary” means the secretary of the executive office of energy and  
66 environmental affairs.

67           The term “sentinel species” means an animal species that may contract an arbovirus  
68 before the arbovirus spreads to the human population, or a species in which an arbovirus  
69 outbreak may be more widespread than it is in the human population. A sentinel species may  
70 serve as an indicator of the presence of the arbovirus in area mosquito populations.

71           The term “source reduction” means a method of managing mosquitoes that relies on  
72 reducing or eliminating the ability of larval habitats to support the development of larvae. This  
73 may include removal of artificial sources of standing, stagnant water or the restoration of natural

74 flows and wetland systems to improve access by predators, water quality, and overall aquatic  
75 health.

76 The term “wetlands or wildlife ecologist” means an expert with a master’s or doctorate  
77 degree in wetland ecology, wildlife ecology, or a closely related field of ecological study.

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

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

91 Section 4. (a) There shall be in the mosquito management office a mosquito management  
92 board. The function of the board shall be to regulate and oversee all disease vector mosquito and  
93 related nuisance organism management activities in the commonwealth; to prepare an  
94 ecologically based mosquito management plan and a state emergency arbovirus response plan; to  
95 review and certify ecologically based mosquito management plans submitted by councils; to

96 create policies and procedures for ecologically based mosquito management to control vector-  
97 borne diseases; to authorize and carry out investigations and keep records; to carry out mosquito  
98 management programs in areas of the commonwealth outside of any mosquito management  
99 district; and to develop policies and procedures to insure that all mosquito management activities  
100 comply with the intent of chapter 131, sections 40 and 40A; chapter 130, section 105; chapter 91,  
101 sections 1 through 63; and chapter 40, section 5, as applicable; provided, however, the usual and  
102 customary activities associated with the state emergency arbovirus response plan or the  
103 ecologically based mosquito management plan of the state or of a council, as certified, shall not  
104 require filings or hearings under chapter 131, section 40, but rather simple notice to the  
105 conservation commission of a municipality of proposed actions in any regulated wetland; and to  
106 carry out all other powers and functions granted to the board by this chapter.

107 (b) (1) The board shall consist of the following members or their designees: the  
108 commissioner of the department of public health, who shall serve as chair; the commissioner of  
109 the department of environmental protection; the commissioner of the department of agricultural  
110 resources; the commissioner of the department of fish and game; and the director of the division  
111 of ecological restoration.

112 (2) The board shall consist further of the following 4 members. Two members shall be  
113 designated by the joint committee on environment, natural resources and agriculture: one person  
114 representing a statewide land conservation organization or a regional or statewide river  
115 protection organization and one person representing beekeepers and groups concerned about  
116 pollinators. Two members shall be designated by the joint committee on public health: an expert  
117 in pesticides and mosquito control and an ecological risk assessor with a background in  
118 ecotoxicology. Each of these four designated members shall be designated for a term of four

119 years, except for persons designated to fill vacancies, who shall serve for the unexpired term.  
120 Any member shall be eligible for reappointment.

121 (c) The board members shall receive no additional compensation for service on the board,  
122 but shall be entitled to their reasonable traveling and other expenses incurred in the performance  
123 of their duties. The board may draw staff support from the departments represented with the  
124 consent of the respective commissioners.

125 (d) The board shall meet at the call of any two members or at the call of the board chair,  
126 but not less than bimonthly. The board may elect a secretary and other officers as it finds  
127 necessary.

128 (e) The board may purchase, lease, or rent equipment and supplies to be used in the  
129 performance of the board's duties and to facilitate the ecologically based management of  
130 mosquitoes. Such supplies may be made available to councils by petition to the board, but shall  
131 remain the property of the board.

132 Section 5. (a) The board shall prepare a state ecologically based mosquito management  
133 plan. Any action taken under this chapter shall be included in the state plan, in a district plan  
134 certified by the board pursuant to section 8, or in the state emergency arbovirus response plan  
135 pursuant to section 9. Before adoption of the state ecologically based mosquito management  
136 plan, a public hearing shall be held by the board in each of the existing mosquito control  
137 districts. The state ecologically based mosquito management plan shall prioritize preventative  
138 action and non-pesticide control measures and shall include the management activities described  
139 below.



140 (b) (1) Public education and outreach (PEO). The state ecologically based mosquito  
141 management plan shall establish a public education and outreach campaign aimed at informing  
142 residents and businesses how to reduce mosquito breeding sites in and around their properties  
143 and the community at large, preventative measures individuals can take to protect themselves,  
144 and proper use of larvicides. The campaign shall be overseen by the board, with assistance from  
145 mosquito management councils.

146 (2) The PEO campaign shall inform residents of how mosquito-borne diseases are  
147 transmitted and the difference between nuisance and disease vector mosquitoes. The PEO  
148 campaign shall inform residents of the environmental and health hazards associated with  
149 mosquito adulticides and larvicides, and advise residents how they can opt-out of adulticide  
150 applications. The PEO campaign may include but is not limited to the following methods of  
151 public outreach:

- 152 (i) A publicly accessible website;
- 153 (ii) Campaign branded pamphlets, infographics, and fact sheets;
- 154 (iii) Public meetings and open houses;
- 155 (iv) Videotaped presentations;
- 156 (v) Advertisements in public spaces;
- 157 (vi) Local public access television or other local media sources;
- 158 (vii) Inserts in utility bills; and
- 159 (viii) Inserts into state registration notifications for beekeepers.

160 (c) (1) Surveillance of adult mosquitos. The state ecologically based mosquito  
161 management plan shall establish a program for trapping adult mosquitoes. Within mosquito  
162 management districts, trapping shall be overseen by the mosquito management councils. In areas  
163 of the commonwealth not within mosquito management districts, the board shall oversee  
164 trapping and testing of adult mosquitoes, pursuant to section 6.

165 (2) Trapping shall occur during a time period corresponding with mosquito activity. The  
166 acting authority, whether the board or a mosquito management council, may, at its own  
167 discretion, change these dates based upon climatic conditions or other outstanding factors. Traps  
168 shall be placed based on risk of disease spread. Mosquito counts from mosquito traps shall be  
169 recorded at regular intervals in a publicly accessible location, such as the board or council's  
170 website.

171 (3) Trapped mosquitoes may be tested for the following mosquito-borne diseases:

172 (i) West-Nile Virus (WNV);

173 (ii) Eastern Equine Encephalitis (EEE);

174 (iii) Jamestown Canyon Virus; or

175 (iv) Other arboviruses of local or regional concern.

176 (4) Based on positive findings of a mosquito-borne disease in tested mosquitoes, or at the  
177 discretion of the board, the board may test sentinel host species for the presence of mosquito-  
178 borne disease.

179 (d) (1) Monitoring and mapping larval breeding sites. The state ecologically based  
180 mosquito management plan shall establish a program for monitoring and mapping larval

181 breeding sites. Within mosquito management districts, monitoring and mapping shall be  
182 overseen by the mosquito management councils. In areas of the commonwealth not within  
183 mosquito management districts, the board shall oversee monitoring and mapping, pursuant to  
184 section 6.

185 (2) The acting authority, whether the board or a mosquito management council, shall  
186 oversee the creation of a map of larval mosquito breeding sites within the commonwealth or  
187 mosquito management district that classifies breeding sites based on habitat quality and breeding  
188 history. The following classifications may be used:

- 189 (i) Low quality ecological habitat / Low breeding history;
- 190 (ii) High quality ecological habitat / Low breeding history;
- 191 (iii) Low quality ecological habitat / High breeding history; and
- 192 (iv) High quality ecological habitat / High breeding history.

193 (3) The acting authority shall monitor larval mosquito populations on a regular interval  
194 using a diptest. Particular attention is to be paid to sites where known vector mosquitoes breed,  
195 and sites with low quality ecological habitat and high breeding history. The monitoring period  
196 shall correspond with mosquito activity in the area monitored. The acting authority may, at its  
197 own discretion, change these dates based upon climatic conditions or other outstanding factors.  
198 The map of larval mosquito breeding sites, their classification, and larval monitoring data shall  
199 be maintained in a publicly accessible location, such as the board or council's website.

200 (4) The acting authority shall regularly conduct an ecological analysis and biodiversity  
201 survey in mosquito larval breeding sites. Such a survey shall be conducted in consultation with a

202 wetlands or wildlife ecologist. The acting authority shall work with the wetlands or wildlife  
203 ecologist to characterize ecological health in the context of mosquito abundance and mosquito-  
204 borne disease transmission in the area. Such an assessment shall have the aim of further  
205 developing non-pesticidal management approaches to reduce mosquito populations.

206 (5) The acting authority shall make all data and analysis available in a publicly accessible  
207 location, such as the board or council's website.

208 (e) (1) Source reduction and wetlands restoration. The state ecologically based mosquito  
209 management plan shall employ source reduction and wetlands restoration as the preferred  
210 methods of managing mosquito populations. Within mosquito management districts, source  
211 reduction and wetlands restoration shall be overseen by the mosquito management councils. In  
212 areas of the commonwealth not within mosquito management districts, the board shall oversee  
213 source reduction and wetlands restoration, pursuant to section 6.

214 (2) Source reduction may involve, but is not limited to,

215 (i) removal of tires, trash, abandoned containers or structures, and other sources of (ii)  
216 artificial standing water; and

217 (iii) water management strategies to avoid and eliminate artificially created mosquito  
218 breeding areas such as use of low impact development techniques for stormwater management.

219 (3) Wetlands restoration shall be designed to restore natural flows, improve water quality  
220 and fish access, and increase overall wetland ecosystem diversity and function. Wetlands  
221 restoration may involve, but is not limited to, upgrading culverts, removing dams, and otherwise  
222 restoring degraded wetlands. Any wetlands restoration must comply with applicable federal,

223 state, and local laws. The state ecologically based mosquito management plan shall encourage  
224 the involvement of local conservation commissions and the division of ecological restoration in  
225 wetlands restoration projects.

226 (f) (1) Mitigation of mosquito populations. The state ecologically based mosquito  
227 management plan shall provide for the mitigation activities described below. Within mosquito  
228 management districts, mitigation activities shall be overseen by the mosquito management  
229 councils. In areas of the commonwealth not within mosquito management districts, the board  
230 shall oversee the provision of these mitigation activities, pursuant to section 6.

231 (2) (i) Larviciding: The state ecologically based mosquito management plan shall  
232 establish scientifically based and quantifiable thresholds for larvicide use and shall provide for  
233 the application of larvicides based on the monitoring of breeding sites. Particular attention is to  
234 be paid to sites where known vector mosquitoes breed, and sites with low quality ecological  
235 habitat and high breeding history.

236 (ii) Larvicides shall not be used to manage nuisance mosquito populations and may be  
237 used only when source reduction and wetlands restoration have not been effective in abating  
238 disease risk. When applying larvicides, the applying authority, whether the board or a mosquito  
239 management council, shall select the larvicide that poses the least risk to human health and the  
240 environment, while remaining effective.

241 (iii) Aerial application of any larvicide is prohibited.

242 (3) (i) Adulticiding: The state ecologically based mosquito management plan shall  
243 provide that mosquito adulticides are considered the most dangerous and least effective method  
244 of reducing nuisance and vector mosquito populations. Adulticides shall not be used to manage

245 nuisance mosquito populations, and shall only be considered following the detection of a  
246 mosquito-borne pathogen in mosquito or sentinel species.

247 (ii) The state ecologically based mosquito management plan shall establish scientifically  
248 based and quantifiable thresholds for adulticide use based on the risk of mosquito-borne disease  
249 transmission.

250 (iii) Following the detection of a mosquito-borne pathogen in an adult mosquito or  
251 sentinel species, the acting authority, whether the board or a mosquito management council, shall  
252 take the following actions:

253 (A) Notify the public and increase public education and outreach, emphasizing  
254 personal protection measures;

255 (B) Begin or increase the trapping of adult mosquitoes in the area of detection;

256 (C) Begin or increase larval monitoring and management in the area of detection;

257 (D) Prioritize further testing for mosquito-borne diseases in the area of detection; and

258 (E) Consider non-pesticidal management approaches to reduce mosquito populations  
259 in the area of detection.

260 (iv) Following the detection of a mosquito-borne pathogen in an adult mosquito or  
261 sentinel species, if the established threshold has been met, the acting authority may consider the  
262 ground application of adulticide using a backpack applicator, provided that the backpack-applied  
263 adulticide application occurs only within the immediate area of detection and the backpack-  
264 applied adulticide is the least toxic adulticide available. Preference is given to adulticides that are

265 certified by the Organic Materials Review Institute (OMRI) or classified under the  
266 Environmental Protection Agency's minimum risk pesticide program.

267 (v) If monitoring and trapping data indicate a broader concern of mosquito-borne disease  
268 in the community, and education, prevention, habitat manipulation, larviciding, and backpack-  
269 applied adulticiding have all been attempted and determined insufficient to address an immediate  
270 threat to public health from mosquito-borne disease, the acting authority may, based on  
271 alignment with an established threshold, consider the truck-mounted ground application of a  
272 mosquito adulticide, provided the application occur within the most limited area possible to  
273 achieve effective reduction in adult vector mosquitoes. If necessary to protect public health, the  
274 truck-applied adulticide need not be certified by the Organic Materials Review Institute (OMRI)  
275 or be classified under the Environmental Protection Agency's minimum risk pesticide program,  
276 but it shall be the least toxic adulticide that will be effective in mitigating disease risk.

277 (vi) The acting authority shall increase monitoring and trapping following the application  
278 of a mosquito adulticide, and shall work with a wetlands or wildlife ecologist to characterize the  
279 impacts adulticide use had on the ecological health of the habitat where the adulticide was  
280 applied.

281 (vii) Aerial application of any adulticide is prohibited.

282 (viii) Any application of a mosquito adulticide shall be performed by a certified pesticide  
283 applicator.

284 (g) (1) In addition to the details of management activities, the ecologically based  
285 management plan shall include:

286 (i) A determination by the Natural Heritage and Endangered Species Program in the  
287 department of fish and game that the plan proposed will result in no alteration, as defined under  
288 chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special  
289 concern state or federally listed species;

290 (ii) Reasonable measures by the board to assure that the plan proposed will result in no  
291 runoff of any pesticide to any Ocean Sanctuary under chapter 132A, sections 13 through 16 and  
292 18, or specific actions to be taken to minimize detrimental impacts; and

293 (iii) Reasonable measures by the board to assure that plan action proposed will result in  
294 no detrimental effect on soils, sediments, surface waters, or groundwater, or specific actions to  
295 be taken to minimize detrimental impacts.

296 (h) The board shall complete this state ecologically based mosquito management plan  
297 within 6 months of the enactment of this act. The board shall review and revise the state  
298 ecologically based mosquito management plan whenever useful or necessary, but no less  
299 frequently than every 3 years.

300 Section 6. (a) (1) In carrying out the provisions of this chapter, the board may employ  
301 necessary engineers, scientists, assistants, or other agents, who may enter on premises that the  
302 board desires to survey or examine. The board may provide technical assistance to any council in  
303 the development and implementation of an ecologically based mosquito management program.

304 (2) The board shall carry out field investigations and other determinations of the need,  
305 method, and procedures for managing mosquitoes as deemed advisable, including all significant  
306 potential health and environmental impacts of the proposed management measures. Board



307 members and their agents are hereby authorized to enter or examine at any reasonable time those  
308 premises which the board considers necessary to carry out its responsibilities.

309 (b) (1) The board shall provide a menu of services to municipalities that are not members  
310 of mosquito control districts, with reasonable fees for each service selected by the municipality.  
311 This menu shall include public education and outreach, surveillance of adult mosquitoes,  
312 monitoring and mapping of larval breeding sites, source reduction and wetlands restoration, and  
313 larviciding and adulticiding services, subject to the state ecologically based mosquito  
314 management plan.

315 (2) A municipality may opt in to receiving any of the above services by approval of its  
316 legislative body and notification to the board and the municipality's conservation commission. In  
317 opting in to larviciding or adulticiding services, a municipality may impose additional  
318 restrictions not included in the state ecologically based mosquito management plan on the  
319 timing, location, or manner of application of larviciding or adulticiding. A municipality that has  
320 opted in to receiving any service may opt out at any time by approval of its legislative body. The  
321 fee charged for each service shall pay the full cost of the service. Any funds received for this  
322 purpose in excess of those required to provide the requested services shall be returned to the  
323 purchasing municipality. At least once per year, or more frequently if requested by a  
324 municipality, the board shall provide each municipality an accounting of the fees charged to the  
325 municipality that year.

326 (3) All amounts for which a municipality may be liable in connection with the above may  
327 be contributed by persons or bodies politic benefited by the services in proportion to their  
328 respective benefits or otherwise.

329 Section 7. (a) (1) Any municipality or two or more municipalities, may, by obtaining  
330 certification of the board, become a mosquito management district. The district shall be titled the  
331 \_\_\_\_\_ mosquito management district. Notice of the formation of a district must be  
332 filed with the secretary of state and the board with a description of the proposed boundaries of  
333 the district.

334 (2) By fulfilling the provisions of this section and obtaining certification of the board to  
335 that effect, the current mosquito control projects known by their identifying names as the  
336 Berkshire county mosquito control project, the Bristol county mosquito control project, the Cape  
337 Cod mosquito control project, the central Massachusetts mosquito control project, the Dukes  
338 county mosquito control project, the east Middlesex mosquito control project, the Norfolk county  
339 mosquito control project, the northeast Massachusetts mosquito control and wetlands  
340 management district, the Pioneer Valley mosquito control district, the Plymouth county mosquito  
341 control project, and the Suffolk county mosquito control project may remain in existence.  
342 Provided they meet the criteria for membership established by this section, commissioners of  
343 these projects and their employees may continue in their capacity under their existing terms of  
344 appointment, as members or employees of the newly formed councils, and may be reappointed as  
345 members of the councils.

346 (b) A council shall be established for each district and shall be called the \_\_\_\_\_  
347 mosquito management council. The council is declared to be the corporate authority of the  
348 district and shall exercise all the powers and control all of the affairs and property of the district.  
349 Any mosquito management council shall be composed of at least five members, all of whom  
350 must either live or work in the district. The members of the council are to be appointed by the  
351 mosquito management board and shall comprise: one person a representative of an

352 environmental protection or conservation organization or a municipal conservation commission;  
353 one person a member of a municipal board of health or a health care provider; one person a  
354 representative of the executive office of a municipality; and two citizens at large preferably with  
355 some background in engineering, law, chemistry, biology, or any other experience or education  
356 that would have relevance to mosquito control and management.

357 (c) The mosquito management board shall monitor the operations of the councils and  
358 shall require adherence to this act and to each council's certified ecologically based mosquito  
359 management plan.

360 (d) (1) Each district council shall appoint a superintendent who shall be a person of skill  
361 and experience or knowledge in the field of mosquito management and who shall be committed  
362 to the use of ecologically based mosquito management. Existing superintendents, provided they  
363 meet these conditions, as well as existing staff and employees, may continue in their present  
364 capacity, subject to adherence to the regular conditions of workplace and employment. The  
365 district superintendent, with the approval of the council, shall be empowered to hire sufficient  
366 staff and employees and purchase materials to fulfill the requirements of the council's certified  
367 ecologically based mosquito management plan. Employees and staff of the council shall not be  
368 subject to the provisions of chapter 30, section 9A or chapter 31.

369 (2) The superintendent shall keep regular records of all proceedings and financial affairs,  
370 which shall be open to inspection by the board or by the council at all times; and by the public at  
371 reasonable hours. The council shall have ultimate responsibility for the efficient financial and  
372 sound environmental management of the district and shall be required, at the discretion of the  
373 board, to audit its finances and submit said audit to the board for its review and oversight.

374 (e) The federal government, the commonwealth or its municipalities, or their  
375 administrative agencies, not members of a mosquito management district, may request mosquito  
376 or greenhead fly management services from the district, which the council may provide at a fee.  
377 That fee will pay the full cost of the mosquito or greenhead fly management services. The  
378 recipient of the services shall pay the full fee. Any funds received for this purpose in excess of  
379 those required to provide the requested services shall be returned to the purchaser.

380 (f) (1) The council shall provide a menu of services to participating municipalities, with  
381 reasonable fees for each service selected by the municipality. This menu shall include public  
382 education and outreach, surveillance of adult mosquitoes, monitoring and mapping of larval  
383 breeding sites, source reduction and wetlands restoration, and larviciding and adulticiding  
384 services to all municipalities within the district, subject to the district's certified ecologically  
385 based mosquito management plan.

386 (2) A municipality may opt in to receiving any of the above services by approval of its  
387 legislative body and notification to the council and the municipality's conservation commission.  
388 In opting in to larviciding or adulticiding services, a municipality may impose additional  
389 restrictions not included in the district ecologically based mosquito management plan on the  
390 timing, location, or manner of application of larviciding or adulticiding. A municipality that has  
391 opted in to receiving any service may opt out at any time. The fee charged for each service shall  
392 pay the full cost of the service. Any funds received for this purpose in excess of those required to  
393 provide the requested services shall be returned to the purchasing municipality. At least once per  
394 year, or more frequently if requested by a municipality, the council shall provide each  
395 municipality an accounting of the fees charged to the municipality that year.

396 (3) All amounts for which a municipality may be liable in connection with the above may  
397 be contributed by persons or bodies politic benefited by the services in proportion to their  
398 respective benefits or otherwise.

399 (4) The cost of district services may be shared by the board if the board deems, and in  
400 proportion as the board determines, that the service is in the larger interest of the commonwealth.

401 Section 8. (a) Within 90 days from the formulation of the board's ecologically based  
402 management plan, or from the establishment of a district, the council shall develop and submit to  
403 the board an ecologically based mosquito management plan. The district's ecologically based  
404 plan shall be constituted either by adopting the board's ecologically based mosquito management  
405 plan, or the board's plan with modifications. The district's ecologically based plan shall not  
406 authorize the use of adulticides, larvicides, or other pesticides when such use is prohibited by law  
407 or by the state ecologically based mosquito management plan. The board shall be allowed 30  
408 days to approve, disapprove, or modify the district's plan. If the board disapproves or requires  
409 amendment of the plan submitted by the council, the council shall have 30 days to make those  
410 amendments and resubmit the plan to the board for certification. The plan is adopted for the  
411 district upon certification by the board. Thereafter the plan shall be reviewed, amended if  
412 necessary, and submitted for recertification at minimum every 3 years, or more frequently if the  
413 council chooses.

414 (b) With the prior written certification of the board of the district's ecologically based  
415 mosquito management plan, as provided for in this section, the council shall have the power to  
416 take all necessary or proper steps for the management of mosquitoes within the district subject to  
417 the provisions of this chapter; to purchase supplies and materials and to employ labor, assistants,

418 scientists, or consultants as may be necessary or proper in furtherance of the objectives of the  
419 same; and generally to do all things, subject to the provisions of this chapter, necessary or  
420 incident to powers hereby granted and to carry out the objectives specified herein.

421 (c) (1) Any action taken under this chapter shall be included in the district's ecologically  
422 based mosquito management plan. Before adoption of a district ecologically based mosquito  
423 management plan, a public hearing shall be held by the council. A hearing required by a federal,  
424 state, or municipal agency on the program will suffice for purposes of this section. In addition to  
425 the details of management activities the ecologically based management plan shall include:

426 (i) A determination by the Natural Heritage and Endangered Species Program in the  
427 department of fish and game that the plan proposed will result in no alteration, as defined under  
428 chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special  
429 concern state or federally listed species;

430 (ii) Reasonable measures by the council to assure that the plan proposed will result in no  
431 detrimental runoff of any pesticide to any ocean sanctuary under chapter 132A, sections 13  
432 through 16 and 18, or specific actions to be taken to minimize detrimental impacts; and

433 (iii) Reasonable measures by the council to assure that the proposed plan will result in no  
434 detrimental effect on soils, sediments, surface waters, or groundwater, or specific actions to be  
435 taken to minimize unavoidable impacts.

436 Section 9. (a) Within 6 months of the enactment of this act the board shall complete an  
437 emergency arbovirus response plan to be exercised by the commissioner of the department of  
438 public health under this section. The emergency response plan shall specify scientifically based  
439 and quantifiable thresholds for determining the existence of an ongoing arbovirus public health

440 emergency. The emergency arbovirus response plan shall specify the mosquito management  
441 measures to be used in case of an ongoing arbovirus public health emergency and shall specify  
442 procedures for coordination among state agencies, municipal governments, the board, and the  
443 mosquito management districts. The emergency arbovirus response plan shall not authorize the  
444 aerial application of any adulticide or larvicide.

445 (b) Before adoption of the emergency response plan, a public hearing shall be held by the  
446 board in each of the existing mosquito control districts. The emergency response plan shall be  
447 reviewed and revised whenever useful or necessary, but no less frequently than every 3 years.

448 (c) The state emergency response plan shall be exercised only after a public health  
449 emergency is declared by the governor of the commonwealth on the recommendation of the  
450 commissioner of the department of public health and the board that the thresholds of the  
451 emergency response plan have been met. Such recommendation shall be accompanied by a  
452 public document detailing the evidence and the basis for the judgment that a public health  
453 emergency exists, the target organism, the expected management agents or chemicals and  
454 procedures to be used, and the areas to be so treated.

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

461 (e) The state of public health emergency shall be terminated automatically after 60 days,  
462 or by a declaration by the governor of the commonwealth. If the public health emergency is not  
463 resolved within 60 days, a subsequent declaration of public health emergency may be made,  
464 pursuant to the requirements of this section for making such declaration.

465 (f) In exercising the emergency arbovirus response plan, the notification and opt-out  
466 provisions of sections 10 and 11 shall continue to apply.

467 (g) (1) Following any declaration of an arbovirus public health emergency under this  
468 section and within 30 days after termination of the emergency, the commissioner of the  
469 department of public health shall complete and make available on the department's website for  
470 the public record a report of actions taken during the emergency, including, at a minimum:

471 (i) The target organism(s), their estimated population size(s), records of EEE or other  
472 mosquito-borne disease prevalence and infection rate, rainfall and temperature data, and an  
473 analysis of the geographic patterns indicated by these data, both prior to and following  
474 management activities;

475 (ii) Agents, chemicals, or source reduction activities used in the treatment, and times,  
476 rates and means of application;

477 (iii) Records of incidence of EEE or other mosquito-borne diseases and the effectiveness  
478 of the treatment in preventing the disease(s), the total number of confirmed human cases of EEE  
479 or other mosquito-borne diseases, the total number of horses and other animals confirmed as  
480 having been affected by EEE or other mosquito-borne diseases, the number of deaths in humans  
481 and other animals, the kinds of illness and disabilities, noting term and nature of sickness,  
482 recuperation, and rehabilitation in humans;



483 (iv) Effects of the treatments on soils and water, and on flora and fauna of the areas  
484 treated and other areas affected;

485 (v) Maps of the area treated with indications on the maps of localities treated; and

486 (vi) Any recommendations for changes in regulations or procedures for future  
487 interventions.

488 All actions taken under the authority of this section shall be designed to protect public  
489 health while minimizing any adverse effect to the environment.

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

495 (b) (1) Notice shall be provided to all residents within ½ mile of the planned adulticide  
496 application. Notice shall be provided through, at a minimum, any municipal emergency  
497 notification or community alert service, such as “CodeRED,” announcements in local  
498 newspapers or other press, and the website and social media feeds of the affected municipalities.  
499 Direct notice shall also be provided to

500 (i) the executive office of the affected municipality or municipalities;

501 (ii) appropriate local and regional boards and commissions, including boards of health  
502 and conservation commissions;

503 (iii) schools, child care centers, and school age child care programs within ½ mile of the  
504 planned aduIticide application;

505 (iv) property owners within ½ mile of the planned aduIticide application who have opted  
506 out of spraying based on exclusions pursuant to applicable regulations governing pesticide  
507 application;

508 agricultural entities, including beekeepers, cranberry growers, certified organic farms and  
509 aquaculture facilities within ½ mile of the planned aduIticide application; and

510 (v) any other person within ½ mile of the planned aduIticide application who informs the  
511 board through a form made available on the board’s website that they wish to be informed of  
512 aduIticide spraying in their region.

513 (c) Notice shall include, or direct recipients to the online location of, an educational  
514 factsheet about the planned spraying, including the aduIticide’s label and MSDS sheet, further  
515 information about the risks posed by the aduIticide, specific precautions residents may take to  
516 avoid exposure to the aduIticide or deposition of the aduIticide on sensitive private property  
517 (such as gardens and children’s play equipment), as well as personal protective measures and  
518 other preventative actions residents can take to reduce mosquito-borne disease transmission.

519 (d) If aduIticide application must be postponed due to weather conditions, notice  
520 provided before application shall remain in effect for 48 hours following the improvement of  
521 such weather conditions if postponement of spraying would extend beyond the dates indicated in  
522 the initial notice; provided, however, that, to the extent reasonably possible, the board shall make  
523 a good faith effort to inform the public of any changes to the application schedule.

524 Section 11. (a) The board shall maintain a “no spray list” and provide an online form on  
525 its website allowing residents to opt out of the application of adulticides. Residents on the “no  
526 spray list” shall be notified via reasonable means that they are on the list, and shall be reminded  
527 each year following, via reasonable means, that they remain on the “no spray list.”

528 (b) State registered beekeepers and certified organic farms shall be automatically placed  
529 on the “no spray list”, and shall be notified through reasonable means that they are on the list.

530 (c) Residents on the “no spray list” shall not have an adulticide applied within 300 feet of  
531 their property line.

532 (d) Any municipality may opt out of adulticide application conducted under section 9 by  
533 approval of its legislative authority, provided that the municipality opts in to receiving public  
534 education and outreach and surveillance of adult mosquitoes from either the board or a mosquito  
535 management district.

536 Section 12. Each year, the board and each council shall work alongside a wetlands or  
537 wildlife ecologist and other relevant experts to review the effectiveness of the board or council’s  
538 mosquito control program and publish the findings in a report. The report shall include successes  
539 and failures of the past year; a survey of the experience of state registered beekeepers and  
540 certified organic farms; records of the location, rates, and time of application of any chemical or  
541 biological pesticides applied that year; and additional steps the board or council will consider to  
542 further reduce reliance on pesticide use and improve local ecological capacity to naturally  
543 manage nuisance and vector mosquitoes.

544 Findings in the report are to be made available in a publicly accessible location, such as  
545 the board or council’s website.

546 Section 13. (a) A district council that determines it is necessary to control greenhead flies  
547 within the district shall create a greenhead fly management plan. The plan shall specify the  
548 monitoring and mitigation activities that will be undertaken to control greenhead flies. The plan  
549 shall specify how the costs of controlling greenhead flies are to be allocated among the member  
550 municipalities of the district. All greenhead fly control activities shall be carried out according to  
551 the district's plan.

552 (b) (1) Before adoption of a district greenhead fly management plan, a public hearing  
553 shall be held by the council. A hearing required by a federal, state, or municipal agency on the  
554 program will suffice for purposes of this section. In addition to the details of management  
555 activities the greenhead fly management plan shall include:

556 (i) A determination by the Natural Heritage and Endangered Species Program in the  
557 department of fish and game that the plan proposed will result in no alteration, as defined under  
558 chapter 131A, to any priority habitat or take of rare, threatened, endangered, or species of special  
559 concern state or federally listed species;

560 (ii) Reasonable measures by the council to assure that the action proposed will result in  
561 no detrimental effect on any ocean sanctuary under chapter 132A, sections 13 through 16 and 18,  
562 or specific actions to be taken to minimize detrimental impacts; and

563 (iii) Reasonable measures by the council to assure that the proposed action will result in  
564 no detrimental effect on soils, sediments, surface waters, or groundwater, or specific actions to  
565 be taken to minimize unavoidable impacts.

566 (c) The greenhead fly management plan shall not authorize the use of any chemical  
567 pesticide other than attractants, such as octenol, used to bait traps.

568           Section 14. (a) No pesticide containing PFAS shall be used as part of any mosquito or  
569 greenhead fly control activity conducted pursuant to this chapter. This prohibition includes  
570 pesticides that contain PFAS as an inactive or inert ingredient.

571           (b) Effective one year from the passage of this act, no pesticide shall be used as part of  
572 any mosquito or greenhead fly control activity conducted pursuant to this chapter unless the  
573 department of environmental protection has tested a sample of the pesticide and certified that the  
574 pesticide does not contain PFAS. This testing requirement shall not apply to a pesticide used  
575 during an arbovirus public health emergency pursuant to section 9 as long as (1) the  
576 commissioner of the department of public health has no reason to believe that the pesticide  
577 contains PFAS and (2) there are no equally or more effective pesticides available for use that the  
578 department of environmental protection has already tested and certified as not containing PFAS.

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

590 (b) If in making a determination which may be the subject of an adjudicatory hearing the  
591 board finds that an imminent hazard or an unreasonable adverse effect on the environment could  
592 result pending the conclusion of adjudicatory hearing, the board may order that the determination  
593 shall become provisionally effective and enforceable immediately upon issuance, and shall  
594 remain so notwithstanding and until the conclusion of any adjudicatory hearing procedures  
595 timely requested. In the event that the department has thus made a determination provisionally  
596 effective, it may later, at its discretion, shorten the duration of or waive the order.

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

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

610 Section 17. The board shall establish a process by which residents of the commonwealth  
611 may file complaints alleging violations of the provisions of this chapter or of the provisions of

612 the ecologically based mosquito management plan of the board or any district. The process for  
613 filing complaints shall, at a minimum, include a telephone hotline and allow for the submission  
614 of written complaints. Within 60 days of receiving a complaint, the board shall investigate and  
615 make a determination as to whether any violation has occurred and whether any action is  
616 required to remedy the violation or prevent such violation from occurring again.

617 The board shall maintain a publicly accessible online docket of complaints received, the  
618 outcome of its investigations, and any actions taken.

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

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

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

629 Section 21. All meetings of the board or councils shall comply with the provisions of the  
630 open meeting laws under the administrative procedure act, chapter 30A, sections eighteen  
631 through twenty-five. All regular board or council meetings shall be open to the public and all  
632 resolutions, actions, and records of its proceedings shall be open to public view.

633           Section 22. Any increase in cost for the control and management of mosquitoes and  
634 greenhead flies resulting from the promulgation of this act shall be directly appropriated by the  
635 commonwealth of Massachusetts.

636           Section 23. The board shall provide a report to the house and senate committees on ways  
637 and means and the joint subcommittee on environment, natural resources and agriculture by  
638 April first detailing all encumbrances, expenditures, and projected expenditures of funds and  
639 providing projections for needs and associated costs for the next fiscal year.

640           SECTION 3. This act shall take effect upon its passage.