Massachusetts Lobstermen's Association
8 Otis Place ~ Scituate, MA 02066
781.545.6984

August 25, 2021

Massachusetts Mosquito Task Force

RE: Mosquito spraying efforts in the Commonwealth

Dear Task Force Members,

The Massachusetts Lobstermen's Association (MLA) respectfully submits this letter of great concern on behalf of its 1800 members regarding mosquito spraying being undertaking in the Commonwealth. The MLA members greatly depend upon smart and ecofriendly measures to mitigate mosquitos while protecting the healthy ecosystem they depend upon to earn a living.

The MLA has been hearing from several of its members about these ongoing efforts and they are greatly concerned that the impacts to the lobster resource will be equal to what happened in Long Island Sound LIS) in the early 2000's when the EEE outbreak happened. Unfortunately, the lobsters and several other species in the LIS were killed and have yet to return.

Established in 1963, the MLA is a member-driven organization that accepts and supports the interdependence of species conservation and the members' collective economic interests. The membership is comprised of fishermen from Maryland to Canada and encompasses a wide variety of gear types from fixed gear and mobile gear alike. The MLA continues to work conscientiously through the management process with the Division of Marine Fisheries and the Atlantic States Marine Fisheries and the New England Fisheries Management Council to ensure the continued sustainability and profitability of the resources in which our commercial fishermen are engaged in.

While there have been several "new" laws and several "new" chemicals created over the last twenty years to protect the ecosystem while killing mosquitos and their larvae, the MLA does not believe there are any safe chemicals that have been created that will not only kill the mosquitos and their larvae but also the lobsters and their larvae. The detrimental impact this will have on the entire commercial lobster industry would be catastrophic.

The Commonwealth has over 750 active commercial lobstermen that employ thousands of crew and support the local shoreside businesses while landing over 18 million pounds of American Lobster with an estimated value of 380 million dollars to the local economy. The negative economic impact would be catastrophic and felt in the local restaurants, stores, and on the tax base as the industry would be shut down should there be any use of chemicals near any watershed feeding into the ocean.

The MLA has been following the ongoing LIS issue over the years and after reviewing numerous papers and articles we are extremely concerned about any use of the chemicals that were used in Connecticut. The paper Malathion immunotoxicity in the American lobster (*Homarus americanus*) upon experimental exposure by *Sylvain De Guise a,∗, Jennifer Maratea a, Christopher Perkins ba and the Department of Pathobiology and Veterinary Science, University of Connecticut,* concluded that "our results suggest that lobsters are highly sensitive to both the lethal and sub-lethal toxicity of malathion in sea water. A reduction in immune functions could likely result in an increase susceptibility to infectious agents, and could have contributed to the mass mortality if exposure was sufficient."

Furthermore, the report RESPONDING TO A RESOURCE DISASTER: AMERICAN LOBSTERS IN LONG ISLAND SOUND 1999 – 2004 by: *Nancy Balcom1 and Penelope Howell2, CTSG-06-02, 1Connecticut Sea Grant, University of Connecticut 2CT Dept. Environmental Protection, Marine Fisheries Division* found that "Pesticides were being applied in both states to combat the spread of the West Nile virus, which had caused seven human deaths by early September. Lab studies showed that these pesticides can have sub-lethal or lethal effects on the various life stages of lobsters, depending on the exposure time and concentration."

The Massachusetts Lobstermen's Association continues to monitor this most sensitive issue up and down the coast as the last thing we want to see is a repeat of Long Island Sound here in Massachusetts. Thank you for your thoughtful consideration and should you have any follow up questions please feel free to reach out to me directly.

Sincerely,

Beth Casoni
MLA, Executive Director
www.lobstermen.com

2021-09-16

Dear Mosquito Control for the 21st Century Task Force,

I am a primary care physician licensed in Massachusetts and want to express my concerns regarding the proposed Act to Mitigate Arbovirus in the Commonwealth based on my experience with patients who have a variety of illnesses as a result of exposure to environmental chemicals, including pesticides.

I am advocating that you eliminate the practice of widespread aerial and truck spraying of both adulticides and larvicides in your plans. Chemicals should be applied locally and specifically on target species to minimize impact on humans and non-target species. Personal Property Exclusions should be honored, even in a declared public health emergency.

As a patient population, chemically injured patients are extremely ill, often permanently disabled, and remain extremely sensitive to additional exposures to environmental chemicals and pesticides, even minute amounts. I am deeply concerned about a policy of spraying pesticides, aerially or by truck, and especially the policy of cancelling Personal Property Exclusions during a declared state of health emergency. These patients can remain sensitive to the effects of pesticide exposure long after the reported dissipation of the chemicals, which worsens their condition and result in a cascade of health effects, and even more, can render them homeless if they cannot safely return to their residence after spraying. Per the Coast Range Forest Group, aerial drift has been measured up to 8 miles from a target area (https://coastrangeforestwatch.org/research-and-resources-on-the-negative-effects-of-pesticide-and-aerial-spray/).

I recommend that you refer to the testimony of Jean Lemieux, president of the MA Association of the Chemically Injured, sent to this task force in a letter dated 05/05/2021. She quotes Ashford and Miller: “Among the most hazardous exposures for patients seem to be pesticides sprayed outdoor or indoors. Alone, pesticides have accounted for some of the most advanced and persistent cases . . . pesticide exposures are associated with the recurrence of symptoms . . . and can, worsen their level of . . . intolerance . . . . The existing standards of OSHA, EPA and state agencies do not . . . protect those individuals.”

Ms. Lemieux further states that surveys find that 4-6% of the population are chemically injured to the point of chronic and permanent illness. In MA, that would come to ~276,000 – 414,000 residents. A 2002 Western MA survey by the nonprofit Environmental Health Coalition of Western Massachusetts (EHCWM) found that 57% of chemically injured respondents had experienced homelessness and that the rate of homelessness was significantly higher than the general population (https://fdocuments.net/document/environmental-health-group-2002-mcs-housing-survey.html). I have witnessed chemically injured patients under my care lose their homes and belongings due to pesticide use and spray in their area, including chemical drift incidences.

Proposed remedies to the impact of exposure are inadequate and untenable. Many of these patients have taken great pains to find a home and environment in which they are safe and can tolerate. To ask them to leave an area during chemical spraying and until the chemicals break down is not possible. Additionally, homes w/ closed windows are still permeable unless they have positive air pressure, unlikely in residential properties. HEPA filters are unlikely able to successfully filter pesticide particles. Degradation indoors is likely to be different from that which is measured outdoors (in direct sunlight, for instance).

I feel I cannot overstate the risk to the health and well-being of this vulnerable population. I have witness firsthand among patients I care for the difficulties they face in finding safe housing and environments. I strongly urge you to avoid a policy that includes widespread, non-targeted aerial and truck spraying for the sake of this group of individuals, as well as for many others who are susceptible to ill-effects from this practice, including patients with asthma, cancer, immune disorders, children and those who are pregnant. Additionally, Personal Property Exclusions for health reasons should be honored, even in a declared public health emergency – in order to prevent another health emergency among these individuals.

Sincerely,
Linnea Meyer, MD

Jones River Watershed Association

781-585-2322 • 55 LANDING ROAD, KINGSTON, MASSACHUSETTS 02364 • WWW.JONESRIVER.ORG

17 September 2021

Via Website Comment upload

Mosquito Control for the Twenty-First Century Task Force
Executive Office of Energy and Environmental Affairs
Department of Public Health
c/o Beth Card
https://www.mass.gov/orgs/mosquito-control-for-the-twenty-first-century-task-force

RE: Comments on ERG August 2021 Report to the Task force

Dear Chair Card and Members of the Task Force,

The Jones River Watershed Association (JRWA) offers the following comments in hope that the Commonwealth can ultimately cease and desist from the aerial and truck mounted application of pesticides in Massachusetts under the pretense that this is the best use of limited financial resources to curb the threat of mosquito borne disease. We do not doubt that unchecked and prolific population booms of mosquitoes can increase the threat of disease, rather, we are convinced, from direct observations over decades, that more harm than good is delivered to the environment through the use of this method of attempted control. The ERG Report does not dispel this belief.

JRWA has been working for over thirty-five years within the southeast region to restore, protect and conserve natural resources for current and future generations. We live and work on the front line of climate change and spend the better part of our time on projects that preserve the integrity of wild spaces, improve water quality, restore riverine habitats for native and migrating species, and reconnect this vital ecosystem that brought people to this region in the first place.

Over time, since the late 70's members of our organization have argued and fought against various excuses for broad reaching pesticide applications from the air including sevin, malathion, anvil 10 + 10 and others. First as organic farmers in the cranberry world we saw not only pollinators, but other insects that voraciously eat all manner of pests, especially the dragon fly, be decimated by the misguided application of poison from the air—even though, **theoretically**, water supply reservoirs we were farming next to, were intended to be exempt.

The headwater of the Jones River is Silver Lake, the overused water supply for the City of Brockton and Town of Whitman. Silver Lake is a glacial lake, 80 feet at its deepest location. It is one of the twelve largest lakes in Massachusetts. The Jones River is the largest river draining to Cape Cod Bay. Both the Jones River and Silver Lake have been reclassified as Coldwater Fish Resource after removal of two mainstem dams and stormwater improvement and sewer projects in town. This should be evidence of local commitment to our environment.

The State should NEVER apply pesticides to the Jones River or Silver Lake. Yet this is done as evidenced by the spray route maps of 2019 and 2020, and the PFAS found in Silver Lake. It also occurred in each spray season before the recent episode. This does significant, known and visible damage. DMF never agreed to the pesticide applications—yet for some unknown reason the State views itself as exempt. Each and every aerial application over the past 40 years has had some damaging impact—whether it was the Glen Charlie and Agawam River fish kill of more than a million in 1990, the floating dead mud crabs in the Jones at low tide in 2006, or the gazillion other creatures in the mud that we don't see to count. Mosquitos do not survive in a healthy river, pond or lake. They are food for fish and birds. They are not the treat. They are eaten before they can bite. How is it defensible for the Commonwealth to liberally apply known aquatic poisons to such important resources? The ERG Report failed to even bring up this issue as part of its study.

We do not doubt the need for monitoring, the management of stagnant sites, especially stormwater infrastructure, tires, gutters, and rain barrels. People and communities need way more education. The Report could have covered this in some detail and did not. The education provided by the Towns and Districts is mostly limited to alerts, which instills panic not protective action. People need to physically be engaged. We need a "Manual for Protection Against Mosquito Disease", especially if we are starting to watch out for the carriers of *dengue* and the like, as the Report suggests. "What every homeowner needs to know". "How to keep your community safe" a "Homeowner Association's Guide to tend their stormwater ponds and ditches"…..

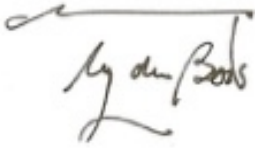
These are a few suggestions. Information on how fast a mosquito turns from a larval stage to disease spreader would be helpful. Life cycle information is vital to comprehensive management. Going after one thing and destroying everything else, and calling it a good job, with no real efficacy standard is theft of taxpayer money. But more than that, it takes needed resources away from restoration practices to undo and correct the useless, damaging and degraded post-industrial era leftovers. We need to put more funding into restoring river and stream connectivity—not into pretending that flying over a wooded swamp at night or dawn applying pesticides will do anything other than damage needed species and flush the funds, and the poisons, down the flowing drain. Restoration is a big one-time expenditure and does require less rigorous maintenance. But it gives back—it does not take away. Poisoning the environment degrades ecosystems. Is it any wonder the fish and eels are disappearing? These creatures control way more mosquito breeding than any human with a poison wand. The Report should have addressed missed opportunities and the real deal about IPM. Killing off our main defense mechanisms is not the key to survival.

There is no evidence in the Report that broad scale spraying reduces disease. There is evidence from the labels that most if not all are harmful to fish and aquatic invertebrates, arguably the most effective population control system we have. The constant practice of the Pesticide Board is to support use of chemicals. The practice of DPH is to be so fearful of an outbreak of EEE and now WNV that they have been willing to allow the widespread use of chemicals, whether that use directly reduces the threat of disease or not, and regardless of the unintended consequences to human and environmental health. We understand the fear. We do not understand or accept that subjecting humans and animals to further harm justifies their use. Nor do we understand ERG's model that suggests "*if all chemical mosquito control methods were stopped there would be more than double the number of WNV cases and a 275 percent increase in EEE cases.*" This adds more confusion to the discussion. Is ERG equating BTI larvicide, with Duet, Anvil, Maverick etc.? Is ERG suggesting the alternative is to just stop all control efforts? This is a mischaracterization of the objections to current practices. Noone is saying "don't do anything to control mosquito breeding and disease. What we are saying is we have more tools in the tool box to manage this threat. We need to understand and improve stormwater retention basin stormwater basins and catch basin maintenance. For example, we also can adopt and properly fund some routine maintenance and improve drainage so these places do not explode with nuisance or disease vectors? In what world would we do nothing?

In addition, in our town we have lots of former cranberry bog acreage. The ditches are usually blocked and flow is absent or stagnant. We need a strategy to systematically map these and begin to provide restoration of the natural habitats that will keep mosquito breeding in check. This is where the MCDs are needed with their manpower and equipment. A program for mapping hotspots and a schedule for addressing them. Sharing information, rather than protecting the pesticide turf is what is needed most. This way the community can engage and learn more too.

Thank you for the opportunity to comment and the work of the Mosquito Control Task Force. We urge greater caution in the use of poisons. An ALL STOP for repetitive aerial pesticide applications from planes or vehicles broadcasting along residential roadways. We urge MORE on the ground maintenance of man-made and abandoned infrastructure and impounded bogs and ditches coupled with efforts to create habitat connectivity. We support Senate Bill 556 and MORE comprehensive public and community-based education.

Sincerely,



Pine duBois, Executive Director
pine@jonesriver.org
781-424-0353

cc:
Rep. Kathleen LaNatra; Senator Su Moran

Arlington
Bedford
Belmont
Boston
Brookline
Burlington
Cambridge
Chelsea
Concord
Everett
Framingham
Lexington
Lincoln
Maynard

THE COMMONWEALTH OF MASSACHUSETTS
STATE RECLAMATION & MOSQUITO CONTROL BOARD

EAST MIDDLESEX MOSQUITO CONTROL PROJECT
SUFFOLK COUNTY MOSQUITO CONTROL PROJECT
11 Sun Street, Waltham, MA 02453-4101
Phone: 781-899-5730 Fax: 781-647-4988
https://sudbury.ma.us/emmcp/
emmcp.ma@verizon.net

Malden
Medford
Melrose
Newton
North Reading
Reading
Sudbury
Wakefield
Waltham
Watertown
Wayland
Wellesley
Weston
Winchester

September 17, 2021

Task Force Members,

My name is Brian Farless, Superintendent for East Middlesex Mosquito Control Project (EMMCP) and Suffolk County Mosquito Control Project (SCMCP). In regards to the Eastern Research Group report, I would like to bring to your attention a couple of items.

Page 121, Table 4-4. Overview of Bacterial Insecticides Used in the Commonwealth of Massachusetts
The table lists that zero pounds of Vectobac G and Vectobac GS were used by all of the Mosquito Control Districts (MCD) from 2018-2020. As seen in the Annual Reports, Suffolk County and East Middlesex used Vectobac G/GS during 2018-2020.

- During 2018, SCMCP used 360 lbs of Vectobac G
- During 2018, EMMCP used 9,532.5 lbs of Vectobac G.
- During 2019, no G or GS was used by SCMCP.
- During 2019, EMMCP used 9,920 lbs of Vectobac G.
- During 2020, no G or GS was used by SCMCP.
- During 2020, EMMCP used 9,880 lbs of Vectobac GS.

Page 198, Table 4-1. MCD Budgets for Education and Public Engagement
The table lists 0% of the Suffolk County budget was used for education and public engagement. In the spreadsheet that was supplied by Suffolk County, it was listed that 15% of the budget was for education, outreach, public education and research.

Page 204, Table 5-2. MA MCDs and Projects That Reported Stormwater Device Management Activities Between 2016 and 2020
Under the column “Catch Basin Cleaning”, the chart says that Berkshire County, Norfolk County, Northeast and Suffolk County does catch basin cleaning. None of the mosquito control districts clean catch basins. Cleaning catch basins isn’t a form of mosquito control.

Catch basins are cleaned to prevent flooding and clogged pipes. Whether using a clam or vacuum truck, catch basin cleaning is not a mosquito control measure. When catch basins are cleaned with a clam truck (removing solids), mosquito larvae remain in the basin, and the basin water will continue to attract egg laying mosquitoes. When a vacuum truck is used, not all of the water is removed, therefore not all of the mosquito larvae are removed. Furthermore, the water remaining in the basin is still attractive for egg laying mosquitoes.

Both East Middlesex and Suffolk County communicate with each municipality as to when catch basins are cleaned. All of the 28 cities and towns in East Middlesex and Suffolk County clean catch basins yearly. MCD personnel coordinate with the municipality as to when basins will be cleaned, that way, larvicide can be applied after the catch basins have been cleaned. Applying larvicide after basins have been cleaned ensures that larvicide won't be removed during the cleaning process.

Thanks for taking the time to consider these items during your discussions.

Kind regards,

Brian Farless, Superintendent
East Middlesex Mosquito Control & Suffolk County Mosquito Control

TOWN OF LINCOLN
BOARD OF HEALTH
CONSERVATION COMMISSION
AGRICULTURAL COMMISSION
16 LINCOLN RD LINCOLN, MA 01773
WWW.LINCOLNTOWN.ORG

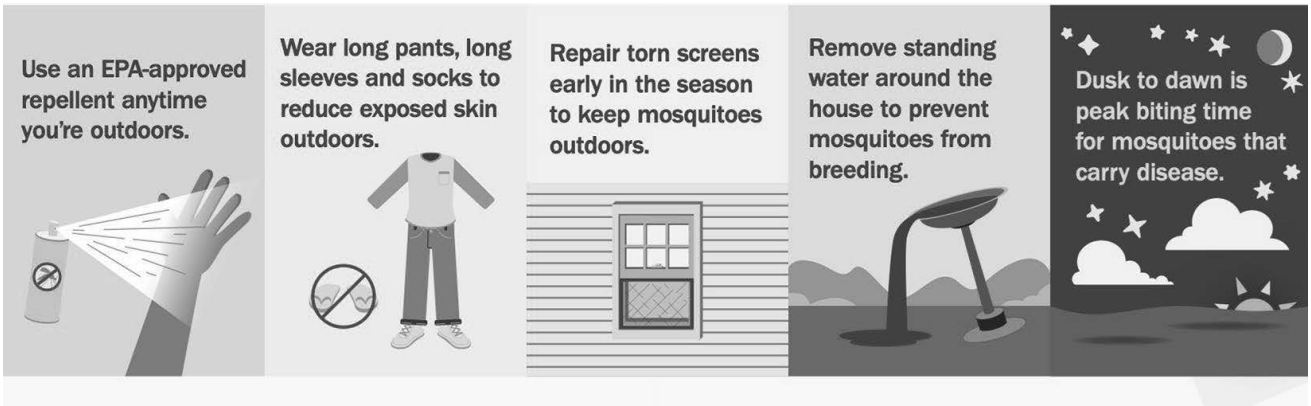
LINCOLN LAND
CONSERVATION TRUST
P.O. BOX 10
LINCOLN, MA 01773
WWW.LINCOLNCONSERVATION.ORG

April 2021

Dear Lincoln Neighbor,

Mosquito season is upon us! As such, the Lincoln Board of Health, the Conservation Commission, the Agricultural Commission, and the Lincoln Land Conservation Trust are reaching out to you with the enclosed brochure that describes ways for you to deter mosquitoes and prevent their bites while enjoying the outdoors. These preferred prevention measures do not include the spraying of chemicals designed to kill mosquitoes or their larvae. Instead, the emphasis is on preventing bites through personal protection and repelling the mosquitoes. This approach has the additional benefit of preventing unintended harmful consequences of chemical spraying to humans, pets, livestock, crops, insects, birds, and the entire food chain.[i]

There are many companies who sell mosquito and tick prevention services to residents, most of which include chemical management techniques. These companies often imply that the insecticides they spray on yards are safe for everything except mosquitoes and/or ticks. However, some of these companies are also very reluctant to reveal what chemicals they use.[ii] Instead of hiring a company to spray chemicals on and around your yard, we hope you will focus on the prevention measures outlined in the enclosed brochure. Furthermore, no spraying may be performed within 100 feet of a wetland or 200 feet of a year-round flowing stream without it first being reviewed and approved by the Conservation Commission.



Lincoln is part of the East Middlesex Mosquito Control District (EMMCD) and the Town pays for annual mosquito surveys and surveillance. This involves select trapping and testing of mosquitoes in Lincoln. The results of the testing are shared with the Lincoln Board of Health and if infected mosquitoes are discovered in Lincoln, residents will be notified. Please note that the Town does not fund annual spraying of mosquito larvae or adults and therefore, EMMCD does not conduct any chemical management in Lincoln.[iii]

Mosquitoes are a deterrable pest. It is important we all do our part to prevent mosquito bites because a very small number of mosquitoes may be infected with diseases such as West Nile Virus and Eastern Equine Encephalitis (EEE). Fortunately, the risk of such diseases is extremely low in Lincoln. Historical surveillance data available at the Department of Public Health revealed that there have been ZERO instances of mosquitoes with EEE detected in Lincoln in over 60 years.

We hope you find the enclosed brochure helpful, and that it provides you with the tools you need to confidently enjoy the outdoors without worrying about mosquitoes and their bites. If you have any questions, please do not hesitate to reach out to us. We look forward to seeing you on Lincoln's trails!

Sincerely,

The Lincoln Board of Health

The Lincoln Conservation Commission

The Lincoln Agricultural Commission

The Lincoln Land Conservation Trust

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i Chemicals used to kill mosquitoes are toxic to invertebrate and fish populations. See "Mosquito Control and Spraying" at www.mass.gov/service-details/mosquito-control-and-spraying.

ii To learn what active ingredients there are in many of the chemicals that mosquito companies use, see: https://colinpurrington.com/2018/09/buzz-on-mosquito-sprays/.

iii In 2019, the Board of Health authorized a one-time emergency spraying of the area around the Lincoln schools when parents expressed concerns after a child from Sudbury was diagnosed with EEE.

PROTECT YOURSELF from MOSQUITO BITES

Preventing Mosquito Bites

This brochure was produced by the MA Department of Public Health with modifications made by the Town of Lincoln (www.lincolntown.org)

Why is it important to prevent mosquito bites?

Mosquitoes can spread diseases that make you sick. In Massachusetts, mosquitoes can give you Eastern Equine Encephalitis (EEE) virus and West Nile virus (WNV).

West Nile virus infections are more common than EEE, but still rare. Most WNV infections do not cause any symptoms. Mild WNV infections can cause fever, headache, and body aches, often with a skin rash and swollen lymph glands. A small number of people (less than 1 out of 100) who get infected with WNV develop more serious illness; this is more common in people over the age of 50. Symptoms of serious illness can include headache, high fever, stiff neck, confusion, muscle weakness, tremors, convulsions, coma, swelling of the brain, and sometimes death.

Eastern equine encephalitis (EEE) is an extremely rare but serious disease. Symptoms include high fever, stiff neck, headache, and lack of energy. Swelling of the brain, called encephalitis, is the most dangerous complication, and can cause coma and death. Most cases in Massachusetts occur in the southeastern part of the state, but recently there has been an increase in cases occurring in other parts of the state. See your doctor if you develop these symptoms.

What is the best way to prevent mosquito bites?

- When weather permits, wear long-sleeves, long pants and socks when outdoors.
- Be aware of peak mosquito hours. The hours from dusk to dawn are peak biting times for many species of mosquitoes. Take extra care to use an EPA-approved repellent and protective clothing during evening and early morning. Make sure to follow directions on the repellent label.
- Be aware of mosquitoes around you. If mosquitoes are biting you, reapply repellent, or think about going inside.
- Use mosquito netting on baby carriages or playpens when your baby is outdoors.
- Make sure screens are repaired and are tightly attached to doors and windows.
- Remove standing water from places like gutters, old tires, and wheel barrows. Replace the water frequently in bird baths and wading pools. Mosquitoes can begin to grow in any puddle of standing water that lasts for more than four days, so don't let water collect around your home.

Only a small number of mosquitoes are infected at any given time, so being bitten by a mosquito does not mean you will get sick. However, the best way to avoid both of these illnesses is to prevent mosquito bites.

What can I do to protect my animals?

Mosquitoes can infect horses and other animals. Horses are susceptible to WNV; and horses, llamas, alpacas, and certain birds can get EEE. WNV and EEE viruses are not spread from horses or other mammals to humans in any way.

WNV and EEE viruses are not spread from horses or other mammals to humans in any way.

- Licensed vaccines for horses are considered highly protective and can even be used in some other animals. Talk with your veterinarian about vaccinating your animals.
- Eliminate standing water by getting rid of items that can collect and hold water such as flower pots, tires, and containers. Cleaning out (not just topping off) animal water buckets and troughs at least twice weekly will reduce mosquito breeding habitats.
- Consider screening stalls if possible or install fans to help deter mosquitoes.
- Keep animals indoors during peak periods of mosquito activity (dusk and dawn).
- Avoid turning on lights inside barns during the evening and overnight because mosquitoes are attracted to light.
- Apply mosquito repellents approved for use on animals. Read the product label before using, and follow all instructions.

Town of Lincoln
16 Lincoln Road
Lincoln, Massachusetts 01773

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September 17, 2021

Mosquito Control for the Twenty-First Century Task Force
Executive Office of Energy and Environmental Affairs
100 Cambridge St.
Suite 900
Boston, MA 02114

Dear Members of the Mosquito Control for the Twenty-First Century Task Force,

Thank you for the opportunity to provide comment on the Mosquito Control Task Force (MCTF) Report. The Report confirms that there is no quantifiable evidence that current practices, which include routine spraying of synthetic pyrethroid adulticides, are effective in reducing mosquito-borne diseases. It is recognized that synthetic pyrethroids used to manage mosquitoes can be carcinogenic, harm the liver, disrupt the endocrine (hormone) system, and persist in the environment; these chemicals are further identified as being "very highly toxic" to aquatic fish and invertebrates. Despite acknowledging the dangers of these pesticides and lack of data on effectiveness of the current program, the Report claims that reducing spraying could increase cases of WNV and EEE. This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. Ultimately, the current mosquito control regime in Massachusetts does more harm and good, and poses significant risks to the Commonwealth's economy, society, and environment.

The MCTF Report provides a range of information about the history and current practices of mosquito control in Massachusetts, however, it fails to fulfill its scope of work in critically important areas relevant to the efforts of the MCTF. The modeling in Section 8 is fundamentally flawed, and we request that this comment be included in the corrections/errata section of compiled comments on the report:

- The analyses of impacts of pesticides on vulnerable populations, pollinators, and ecological health are incomplete. The Report provides details on honeybees but does not account for the hundreds of species of native bees, or the thousands of other beneficial insects (e.g. moths and other native pollinators and parasitic wasps and tachnid flies) that help keep agricultural and forest pests in check.
- While data on the risk and cost of mosquito borne diseases are provided a detailed analysis, a similar review is not provided for pesticide-induced diseases. The Report mentions some health and environmental impacts from the pesticides used but does not characterize risk in a statistical format, or account for the health care costs of pesticide-induced diseases or damage to the wider environment. Furthermore, the modeling of predicted increases in mosquito-borne disease if spraying were to be halted is fundamentally flawed and unscientific, especially in the absence of data on how current practices are actually influencing disease risk.
- Hazardous PFAS compounds were detected in the pesticide used by the state to aerially spray mosquitoes, yet there are no recommendations for sampling all pesticides for PFAS and evaluating "inert" chemicals in product formulations to be certain the materials used for mosquito control do not impact water quality, pollinators, and the environment.

Notwithstanding glaring omissions, the Report provides sufficient evidence to recommend a complete overhaul of Massachusetts' approach to mosquito management:

- At present, the Commonwealth, through the State Reclamation Board, is primarily responsible only for deciding whether to aerially spray pesticides and does not substantively assist with other mosquito abatement activities, such as public education, larviciding, and source reduction.
- Mosquito Control Districts (MCDs) operate in a decentralized way that limits data sharing and implementation of best practices. State agencies and MCDs are generally out of line even with best practices established by the American Mosquito Control Association.
- For all but one MCD, standards are not applied to target larviciding and adulticiding towards nuisance or disease vector mosquitoes. The lack of differentiation between nuisance and disease vector mosquitoes in determining whether to spray means that there is no actual basis for the statistical modeling in the Report on the effect of pesticides in reducing disease vectors.
- Communities that are not part of MCDs are left with very limited resources for mosquito surveillance or abatement. Despite an opt-out program, the state can override opt-out requests from local communities, beekeepers, gardens, schools, land trusts, and chemically sensitive individuals.
- State agencies and MCDs are not adequately assessing resistance within target mosquitoes, particularly disease carrying mosquitoes. The Report notes that there are no data on whether *C. perturbans*, the primary vector for EEE, is resistant to synthetic pyrethroids. It is noted that the state and MCDs do not widely share data on resistance tests or track the general effectiveness of their management strategies.
- The Report indicates that reducing pesticide use - both by public agencies and private businesses - and emphasizing non-chemical strategies can reduce insecticide resistance. This will ensure that toxic pesticides are effective when true public health emergencies exist.

In Section 4 the Report discusses the need to consider tradeoffs, like the removal of nuisance mosquitoes against the ecological risk that results from an application. This is the outdated mindset that the Commonwealth must move beyond. Furthermore, the report confirms that there is no data available upon which to measure or weigh these trade-offs. Applications of highly toxic pesticides for nuisance mosquitoes is not in line with best practices, places human health and the environment at unnecessary risk, and is not representative of a 21st century approach to mosquito management. Mosquito management must be reoriented towards a focus on stopping mosquito borne disease through ecologically-based control measures that target disease-carrying mosquitoes.

In sum, despite its oversights the Report provides a basis for reorienting the role of state agencies in mosquito management, including adoption of the comprehensive, centralized approach outlined in H.937/S.556, *An Act providing for the public health by establishing an ecologically based mosquito management program in the Commonwealth* (Representative Gouveia/Senator Hinds). This approach would enhance coordination around mosquito management (including education, source reduction, and habitat restoration) within the Commonwealth while permitting home rule over toxic pesticide use. We urge the MCTF to address the deficiencies within the Report and the Commonwealth's current management approach by using H.937/S.556 as the basis for policy recommendations to Massachusetts lawmakers.

Sincerely,

Beyond Pesticides

Community Action Works Campaigns

Conservation Law Foundation

LEAD for Pollinators

Jones River Watershed Association

Massachusetts Association of Conservation Commissions

Massachusetts Sierra Club

NOFA/Mass

Mass Audubon
Policy & Advocacy Team
208 South Great Road, Lincoln, MA 01773
781.259.2172 hricci@massaudubon.org

September 17, 2021

Mosquito Control for the Twenty-First Century Task Force (MC21CTF)
Beth Card, Undersecretary of Environmental Policy and Climate Resilience
Executive Office of Energy and Environmental Affairs
100 Cambridge St.
Suite 900
Boston, MA 02114

Re: **Consultant's Report on Mosquito Control**

Dear Ms. Card and Fellow Members of the Task Force:

On behalf of Mass Audubon, I submit the following comments on the report prepared by a consultant, Energy Research Group (ERG). This report was commissioned by the Executive Office of Energy and Environmental affairs (EEA), pursuant to Chapter 120 of the Acts of 2020, "*An Act to Mitigate Arbovirus in the Commonwealth*" (the Act), the law that also established the MC21CTF[1] We appreciate the opportunity to participate on the MC21CTF and to provide comments on the report.

These comments are divided into **1. corrections** on the report and **2. comments** on mosquito control based on the report and other information. I have consulted with Mass Audubon's Conservation Science staff and several external experts in conducting my review of the report.

According to the Act, the report was intended to be a comprehensive evaluation of current mosquito control practices in Massachusetts. "*The evaluation shall determine the effectiveness of any spraying by examining the impact of the spraying on arbovirus diseases, the cost-effectiveness of the spraying, the impact of spraying on the environment, agriculture and wildlife and other factors.*"

Summary Comment:

The report includes a compilation of available information about mosquito control programs and practices in Massachusetts, and identifies significant gaps in that need to be addressed. These include gaps in record keeping and analysis, discrepancies between best available industry standards and science vs. actual practice, and lack of information about the impacts of mosquito control practices on human health and the environment. It confirms that significant reforms are needed to bring the program into the 21st Century. It also confirms that the program is fragmented and inconsistent. The focus for reform should be on protecting human health and the environment, based on science and with systems established to monitor efficacy and cost-effectiveness. The rights individuals and communities to avoid undesired exposures to toxic chemicals must also be respected.

[1] Note: The report abbreviates the task force as MCTF, but the full title is important, as the legislature specifically formed the task force to bring this antiquated program into the Twenty-First Century. Therefore I use the acronym MC21CTF.

The report concluded that there is no quantifiable data available on the effectiveness of mosquito control as currently practiced (p.184), as well as significant gaps in science and an inability of the consultant to conduct a quantifiable analysis of the impacts of mosquito control pesticides on human health (p.138) or on the environment and ecological health (p.301). Despite this, Section 8 of the report attempts to create a model of potential mosquito-borne disease impacts that would be associated with curtailing or discontinuing current practices. This model lacks scientific rigor and is based on fundamentally flawed assumptions. It should not be given any weight in considering recommendations for the future of the program.

1. **Corrections and Omissions**

Title and Introduction: The report is entitled "Mosquito Control Task Force Report," but it was not produced by the task force. It would more correctly be entitled something like "Consultant Report to the MC21CTF." The introductory paragraphs at the beginning of the report do not accurately characterize the process by which it was produced. This introduction correctly states that the Act calls for the task for to commission an independent expert study. However, the task force actually had a limited role and the production of the report was coordinated between the consultant and the agencies directly. The MC21CTF provided input to EEA on the scope for the Request for Proposals that was issued through the State's procurement system, and reviewed the sole bid that was received in relation to the bid criteria. The task force had no opportunity to review and provide feedback on report drafts, although the state agencies did. It is unclear whether this internal agency review also included opportunities for the mosquito districts to review and provide comments on the draft report. In any case, the report is not a product of the MC21CTF, and the task force did not "commission" the study as stated in the introduction.

Ecotoxicology and Human Health Expertise and Assessment: The MC21CTF voted to approve the bid, on the condition that EEA would negotiate with ERG to ensure that the necessary expertise on ecotoxicology and human health effects of pesticides would be included on the consultant team. When the report was presented to the task force on 9/2/21, the task force was informed that those additions to the team had not occurred as originally planned, but that ERG had attempted to cover these subjects through consultation with other, unidentified experts. The lack of this expertise on the consultant team is, unfortunately, reflected in those portions of the report.

The RFP included:

- *Research, analyze, and report on the quantifiable impact of chemical-based mosquito control aerial and ground-based spraying in Massachusetts.*
    - *When determining quantifiable impacts, report must account for, but is not limited to: Public health; Human health; Medical; Agricultural land including organic farms, Farm animals; Apiaries; Commerce; Recreation; Tourism; Drinking water sources including groundwater and surface water, and with consideration of established exclusion buffer zones around active public water system reservoirs and/or inlets during aerial spraying events; Ecological health including aquatic ecosystems; Native wildlife species including, but not limited to, birds, invertebrates (e.g. bees, odonates, lepidoptera, beetles, sensitive aquatic invertebrates), fish, and other pollinators and mosquito predators.*[2]

The report, in Sections 4, acknowledged that there is literature indicating potential human health impacts of mosquito control pesticides that are still under study by the EPA and others. Section 4 also summaries toxicity categorization of mosquito control pesticides, Sections 4 and 8 note that the pyrethroid pesticides in particular are highly toxic to a wide range of organisms. These include

[2] Request for Proposals: Mosquito Control Task Force Study. The Executive Office of Energy and Environmental Affairs seeks applicants to conduct a study that evaluate the Massachusetts mosquito control process. BD-21-1042-ENV-ENV01-58054. ENV 21 POL 03

pollinators like bees (including hundreds of species of native bees), beetles, flies, and moths, as well as fish and aquatic invertebrates. They are also highly toxic to other beneficial organisms like parasitic wasps and tachnid flies that keep agricultural and forestry pests in check. But there have been few studies on the ecological effects of these pesticides, so little is understood about the impacts, particularly of repeated exposures from routine roadside mosquito spraying operations alone or in combination with other pesticide applications that occur. Table 5-8 in Section 4 indicates no wildlife endocrine or ecotoxicological concerns reported by government agencies for most of the pesticides used in mosquito control. **Absence of data does not mean absence of impact. This should be noted in the corrections/errata section of comments on the report.**

Government agencies are not the only source of scientific information on these aspects of the scoped review. There is a good deal of evidence of impacts and the need for further studies in several of the references cited in the report, but that information is not well summarized in the report. Further commentary on this is provided in the Comments section below.

There has been a persistent failure by Massachusetts to study the ecological and human health impacts of mosquito control practices, despite many requests over the past several decades by many organizations and individuals.

2. Comments

Lack of Efficacy and Noncompliance with IPM Standards

The report confirms that there is no centralized system for tracking the activities of the mosquito districts. Data on mosquito populations, positive disease detections, breeding source locations, and mosquito control services conducted (education, source reduction, larvaciding, adulticiding) cannot be correlated to each other or to the locations of the rare occurrences of EEE or WNV is humans or other animals. Therefore it is not possible to determine the efficacy of their operations. The districts claim to employ Integrated Pest Management (IPM), but the lack of a systematic approach indicates it is not a science-based IPM system.

"While all 11 MCDs, along with other state agencies, participate in larval and adult mosquito surveillance efforts, there is a lack of detailed reporting on their specific IPM activities. Expenditures for each component of IPM are presented in Sections 3.1.2.1 and 3.1.2.2. To date, quantitative assessments of IPM's efficacy at reducing mosquito populations in Massachusetts (both nuisance and vector mosquitoes) and the human health risks from vector mosquitoes have not been undertaken (EEA, personal communication, July 2021)." p. 184

See also Table 3-1 on pp. 238-240. Several aspects of IPM standards recommended by the American Mosquito Control Association are not followed.

Practices vary across districts. Cape Cod has a relatively sophisticated and rigorous approach, and works extensively with local officials including conservation commissions on water management in both salt marshes and fresh water settings. Some of these practices can be ecologically beneficial, e.g. helping to reduce the impacts of sea level rise on salt marshes and enhancing fish access to salt marshes and freshwater wetlands. This district rarely uses adulticides and only in conjunction with positive mosquitoes and high risk of disease in specific locations. While we do not endorse all of these practices (e.g. Bti for nuisance control due to literature data on ecological effects), the overall direction the program should be heading is one that is more ecologically based and data driven.

Some of the districts routinely spray adulticides from trucks even when there is no evidence of mosquito-borne disease. This appears to be contrary to the pesticide labels, e.g. this from the Duet label:

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are foraging in the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations[3].

The report also notes this label requirement, and suggests that applicators should be informed when blooming plants are present in their areas. Anyone with a basic understanding of Massachusetts ecosystems knows that blooming plants are widely occurring across the state from early spring through the first hard frosts in the fall. Many plants that commonly grow along roadsides and in yards and meadows produce blooms that attract pollinators. According to Table 5-6, the half-life of pyrethroid pesticides carrying this label warning range from 2.1 to 6.7 days. Therefore, any roadside spraying that is occurring absent any evidence of presence of mosquito-borne disease in the vicinity appears to be a violation of the label.

Nontarget Impacts

The analyses of impacts of pesticides on vulnerable populations, pollinators, and ecological health are incomplete.

Beyond the label requirements, the pyrethroid pesticides are also highly toxic to thousands of native beneficial species Many of native pollinators rest at night on plants in the field (e.g. wild bees, beetles). Moths fly at night and are likely to be directly exposed to spray. Available literature also indicates concerns about potential impacts to vertebrates including fish, birds, and amphibians[4]

Parasitic wasps and flies that keep agricultural and forest pests in check are highly vulnerable to these pesticides as well but are not addressed in the report.

The analysis of impacts to bats is unscientific. It says impacts on bats are unlikely because mosquitoes are a small part of their food supply – but the pesticides are toxic to many of the other flying insects that bats eat too[5]. There is a lawsuit in Vermont on the risks of mosquito control pesticides to endangered bats[6]. Similar conclusions on fish and birds are also flawed.

The report cites several studies and literature review summary reports on human health and ecological impacts of mosquito control pesticides, including both larvacides and pesticides. See, for example these:

Mazzacano, C., & Black, S. H. (2013). *Ecologically Sound Mosquito Management in Wetlands: An Overview of Mosquito Control Practices, the Risks, Benefits, and Nontarget Impacts, and Recommendations on Effective Practices that Control Mosquitoes, Reduce Pesticide Use, and Protect Wetlands*. The Xerces Society for Invertebrate Conservation.

Utah Physicians for a Healthy Environment. (2019). *Mosquito Pesticide Spraying*. Retrieved June 22, 2021 from https://www.uphe.org/priority-issues/mosquito-pesticide-spraying/

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[3] https://www.clarke.com/filebin/productpdf/duet.pdf

[4] E. Török et al, *Unmeasured Side Effects Of Mosquito Control On Biodiversity,* European Journal of Ecology, 6.1 (71-76), 2020.

[5] https://www.burlingtonfreepress.com/story/news/2021/08/17/environmental-groups-sue-vermont-agency-failing-protect-bats/8161620002/

[6] https://www.burlingtonfreepress.com/story/news/2021/08/17/environmental-groups-sue-vermont-agency-failing-protect-bats/8161620002/

City of Boulder. (2018). *Review of the Scientific Literature for Impacts of Bacillus thuringiensis sub-species israelensis (Bti) for Mosquito Control*.

The inclusion of these sources and brief summaries of some of the findings are useful. However, we had expected a more rigorous review of this topic in relation to actual practices in Massachusetts. The lack of data on what practices are actually being applied and where, combined with the limited time available to the consultant and lack of ecological expertise on the consultant team resulted in a cursory review that did not fulfill the intention of this portion of the law on the comprehensive study.

Effects of Reducing or Eliminating Mosquito Control

The modeling of projected WNV and EEE cases if mosquito control was discontinued is deeply flawed. Section 8 of the report uses information on the range of percentages of mosquitoes temporarily eliminated by larviciding or adulticiding, then uses that as a proxy for reduction in number of cases of EEE or WNV. There is no basis for this proxy assumption. Reducing mosquitoes by, for example, 50% does not necessarily reduce the number of disease cases by 50%. Other factors such as whether or not people take precautions to prevent exposure to mosquito bites may have more of an effect on outcomes. Since these diseases are extremely rare (0.3 cases per million people per year for EEE, 1.6 for WNV), and mosquito populations are so large and prevalent, even reducing the mosquito population by 50% still means there are millions of mosquitoes present. The Department of Public Health's Arbovirus Surveillance and Response Plan emphasizes that personal protection measures are the first line of defense, and must always be taken even after aerial or ground spraying has taken place.

Ecologically Based Mosquito Management

The sections on stormwater management and on dam removals and culvert upgrades are not complete. Piped stormwater systems with catch basins create prime habitat for the mosquitoes that carry WNV. Rain gardens and bioswales do not create mosquito habitat if properly built and maintained. More cooperative efforts should be put into updating municipal rules for stormwater management to emphasize Low Impact Development techniques that do not create mosquito habitat.

Dam removals and culvert upgrades not only remove ponded stagnant water – they allow fish and eels to get into headwaters. Restoring eel[7] access to headwater wooded swamps could reduce the mosquitoes that amplify EEE. Those mosquitoes breed in "crypts" under tree roots in swamps. Even aerial Bti can't reach those crypts, but eels can.

Opt Outs

Municipalities and landowners should be able to opt-out from pesticide treatments they do not want, while having access to services such as surveillance, education, and ecologically based source control.

The current system for landowner opt outs is cumbersome and should be streamlined, including an easy electronic method for annual renewal.

Opt-outs for organic farms should not be limited to certified organic farms. Mass Audubon's Drumlin Farm employs sustainable farming practices that exceed organic standards, but the farm has not undergone the certification process. Income from crops at Drumlin Farm exceed $450,000 annually and sales to customers including farmers markets, restaurants, and our Community Supported Agriculture members would be jeopardized if the farm were forced to endure pesticide spraying.

[7] https://www.youtube.com/watch?v=GpPpBwZ_s8A

Conclusion

Mass Audubon looks forward to working with the task force and state government to update and refocus the program on public health and ecological management. There should be an emphasis on prioritizing public education, source control, and wetlands/river restoration.

Sincerely,

E. Heidi Ricci
Director of Policy and Advocacy

September 16, 2021

To the members of the Mosquito Control Task Force,

I am a resident of Massachusetts. I am also a small-scale farmer, growing fruit, vegetables, and grains using organic practices, and I grow native plants as insect habitat. I am alarmed by the use of pesticides to manage mosquitoes, and request that the Task Force develop an ecological mosquito management policy that prioritizes preventative measures.

Such a policy should include: monitoring, public education and personal protective measures, emphasis on eliminating breeding sites, consideration of local ecology, and a tiered approach to management. This would start with habitat manipulation (e.g. dam removal to allow fish to re-enter habitat, restoring flow/ infiltration to stagnant roadside ditches, cleaning up tire dumps), followed by larvicide applications if monitoring indicates necessity based on pre-defined thresholds, and finally, aldulticide as a last resort during public health emergencies with significant threat based on pre-defined thresholds, after all other methods have been attempted and found ineffective.

Ongoing studies should evaluate whether pesticide applications actually reduce the incidence of arbovirus in humans, and the program should be adapted accordingly.

Adulticide should never be employed on nuisance mosquito populations, and aerial spraying should never be employed under any circumstance. If science-based measures are followed, personal protective measures can address nuisance mosquitoes, and monitoring, surveillance, habitat manipulation and judicious use of larvicides will effectively protect the public from mosquito-borne diseases. The public must be notified of mosquito control measures—larvicide or adulticide use, including full disclosure of the pesticide ingredients, location, date, time, and reason for treatment (i.e. results of recent testing and relation to preset thresholds).

I have been alarmed by the representation that spraying for adult mosquitoes in the evening will avoid “pollinators”. Not only do pollinators continue to exist in the landscape and be vulnerable to pesticides even when they aren’t actively flying, but there are countless other insects important to biodiversity that are not pollinators, and are also vulnerable to pesticides at any time of day or night. Even the idea that larvicides are specific to mosquitoes is flawed; they kill the larvae of all kinds of flies that are food for birds, bats, dragonflies, and other insectivores.

Living during a pandemic has underscored the truth that public health is a community-wide education effort, rather than something that can be imposed from above. There are many risks in life; arbovirus is a serious one, and so is living in a world with broad-scale pesticide use, which can increase risk factors to human immune and respiratory systems, and has linkages with Parkinson’s Disease and other neurological disorders. Although mosquito control is just one instance of pesticide exposure, it is one that we can feel powerless to avoid when imposed upon whole regions with little opportunity for localities or individuals to successfully opt out.

As a small scale producer, not certified organic, I am concerned that my opt-out request may not be honored. I work hard to grow food organically, and hope I might continue to offer food that I can be certain is free of pesticides to my family and neighbors.

I hope the new policy will apply across the state, ensuring that Mosquito Control Districts abide by wetland regulations and share transparent, predetermined thresholds for treatment, and offer individual communities the opportunity to choose to emphasize measures that preclude pesticide use.

I'm excited for Massachusetts to take the lead in demonstrating how to successfully manage mosquito-borne illness with little to no pesticide use; I will be one among many residents watching closely to ensure this opportunity is not missed.

Thank you for your attention to this matter,

Julia Blyth
276 Old Wendell Rd.
Northfield, MA 01360

To whom it may concern:

The Task Force for the 21st Century will discuss the future of Mosquito control in Massachusetts. I would like to add my comments regarding the following:

Regarding Mosquito Control Practices in Massachusetts:

Adulticide and larvicide spraying by truck or by plane should only be used throughout the state in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.

If aerial spraying is practiced in Massachusetts, drift calculations must be considered and the results used to determine safe aerial practices. Communication regarding spraying needs to be as wide spread, varied and detailed with links to appropriate, accurate and timely information to allow persons impacted to plan to be out of the area.

Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency.

Accurate drift calculations must be calculated and communicated to protect opted out property.

Massachusetts must legislate stricter regulation of private pesticide use.

All ingredients, including inert ingredients, for products sold in Massachusetts must be required disclosures.

Regarding Municipal Opt Out Policy:

There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should request being opted in on an annual basis requiring local Boards of Health and the public to consider the current conditions in their municipality. Town Meeting and City Councils should be ready to address the annual assessment of their community's needs.

Municipalities need to be provided clear guidelines regarding criteria for approval in the opt out process. Guidelines regarding the criteria for approval must be published with sufficient time in advance for towns to plan and budget accordingly.

September 17, 2021

Mosquito Control for the Twenty-First Century Task Force
Executive Office of Energy and Environmental Affairs
100 Cambridge St.
Suite 900
Boston, MA 02114

Dear Members of the Mosquito Control for the Twenty-First Century Task Force,

Thank you for the opportunity to provide comments on the Mosquito Control Task Force (MCTF) Report (hereinafter the "Report"). After reviewing the Report, Public Employees for Environmental Responsibility (PEER) believes three things are abundantly clear: 1) the Report is profoundly flawed; 2) there is not enough evidence to conclude that larviciding and adulticiding are effective at reducing the incidence of West Nile Virus (WNV) or Eastern Equine Encephalitis (EEE); and 3) the human health and environmental effects of such larviciding and adulticiding are of grave concern. As such, Massachusetts' current mosquito control program must be radically transformed in order to protect both human and health and the environment of the Commonwealth. Our specific comments are set forth below.

The risk of WNV and EEE is miniscule, and as such, can be addressed through less harmful means. According to the Report, the average "annual risk of EEE across Massachusetts from 2000 to 2020 is 0.3 cases per million residents, and the range of risk across individual counties is 0 to 2.7 cases per million residents."[1] Specifically, there have been 114 cases of human EEE cases and 63 deaths in the past 82 years.[2] Moreover, even these data regarding the number of cases are likely skewed. As the Report acknowledges:

> …cases are indexed by the individual's county of residence and may not represent the location where the person became infected. It is possible that individuals were infected in other parts of the state, or even out of state, but were recorded as cases in their home counties. Further, the low total case counts and low populations of several Massachusetts

[1] Mosquito Control Task Force Report at 20
[2] Id. at 21

counties can create artifacts in the data that may or may not provide an accurate picture of risk.[3]

Given the toxicity of the pesticides used, which are discussed in more detail below, it is unfathomable that the Commonwealth is spraying millions of acres of the state to combat such a small risk, especially when adjusting human behavior is the most effective way of preventing disease.

The Report's reliance on "interviews" is unscientific and cannot be used as a basis for evaluating the current mosquito control program. Eastern Research Group (ERG), the consultant hired to write the Report, conducted 18 interviews with 21 respondents in order to "understand the effectiveness" of the Commonwealth's "policy and decision-making structure."[4] ERG interviewed Massachusetts state agency staff, Mosquito Control District (MCD) superintendents, MCD commissioners, local board of health representatives, MCTF members, environmental nonprofit representatives, and mosquito control experts from other states. However, nowhere did ERG disclose the precise affiliations of those 21 respondents. This failure makes it impossible to determine any bias that may be inherent in the responses to the interview questions.

For example, the Report states that, "more than half of respondents praised certain elements of the current policy structure…Respondents' primary suggestion was to increase membership in MCDs across the Commonwealth and improve cohesiveness of control efforts."[5] If more than half the Respondents are from MCDs or mosquito control experts, it is inevitable that they would praise the current policy structure. All surveys will be biased – indeed, if ERG interviewed more environmental non-profits than MCDs, the data may be skewed the other direction – but other than acknowledging that this bias exists,[6] ERG did nothing to disclose possible bias, or eliminate it. The interview data is therefore invalid; at the very least, the Report should have disclosed the affiliations of all 21 Respondents.

The Report contains errata and ignores relevant peer-reviewed studies. As PEER pointed out at the hearing where the Report was discussed with the MCTF, there are critical errors, such as listing piperonyl butoxide (PBO) as "not likely to be carcinogenic"[7] when the U.S. Environmental Protection Agency (EPA) considers PBO to be a possible human carcinogen.

The Report also ignores relevant peer-reviewed science. Table 5.7[8] (see below) states that the toxicity of Bti to invertebrates and birds is "Practically nontoxic," and the toxicity of pyrethroids to birds is "Generally not expected."

[3] Id
[4] Id. at 34
[5] Id. at 51
[6] Id. at 50
[7] Id. at 134
[8] Id. at 145

Table 5-7. Summary of Acute Toxicity Classifications for Active Ingredients Used by MCDs and the SRB in Mosquito Control

Active Ingredient	Freshwater Fish	Freshwater Invertebrates	Estuarine/Marine Fish	Estuarine/Marine Invertebrates	Birds	Non-target Insects
Bti	Practically nontoxic to slightly toxic	Moderately toxic	Practically nontoxic	Practically nontoxic	Practically nontoxic	Practically nontoxic
Bs[a]	Practically nontoxic	Practically nontoxic	Practically nontoxic	Practically nontoxic	Practically nontoxic	Practically nontoxic
Spinosad	Moderately toxic	Slightly toxic	Moderately toxic	Highly toxic	Low toxicity with acute exposure, more sensitive with chronic exposure[b]	Highly toxic
Methoprene	Moderately to highly toxic[b]	Highly toxic	Data not presented	Very highly toxic	Practically nontoxic	Data not presented
Mineral oil	Practically nontoxic	Highly toxic	Not toxic	Moderately toxic	Practically nontoxic	Practically nontoxic
Pyrethroids[c]	Very highly toxic	Very highly toxic	Very highly toxic	Very highly toxic	Generally not expected[b]	Highly toxic

[a] Given the similar biochemical profile to AM614's, EPA assumed AM614 is likely also nontoxic in the environment.
[b] EPA's rationale documentation did not classify the impacts following the standard categorization. The range exists due to different LD_{50} values for different fish species (USEPA, 2019a).
[c] The categorizations in this table are based on the pyrethroid category, not individual pyrethroid compounds. This is because, in the most recent evaluation of data for registration of 19 pyrethroids, EPA focused on nine specific compounds (bifenthrin, cyfluthrins, cyhalothrins, cypermethrins, deltamethrin, esfenvalerate, fenpropathrin, permethrin, and the pyrethrins) and provide rationale that all 19 pyrethroids did not need to go through full risk evaluations.

However, a cursory search of peer-reviewed literature shows that Bti:

> …may have more side effects on the food web than usually acknowledged…. Bti can decrease chironomid abundances and thereby threaten the reproduction of many vertebrate species, especially in spring when chironomid midges represent their key food resource… may subsequently lead to unwanted indirect negative effects for birds, bats, and other aquatic organisms feeding on them…[9]

The authors of this recent study conclude that "[i]ntensive mosquito control programs are likely to contribute to insect diversity loss, but these effects are both underestimated and understudied."[10] Moreover, another 2020 scientific paper concludes that permethrin has "negative effects on finch breeding success."[11] Yet another paper describes finding pyrethroids in 93% of wild bird eggs, suggesting that toxicological effects need to be studied.[12] Finally, other researchers found that Bti resulted in significantly lower bird clutch size and fledgling survival.[13]

While these peer-reviewed articles are not exhaustive, it indicates that there is independent, peer-reviewed research that the Report should have included, and did not. It is abundantly clear that ERG should not have relied primarily on EPA data to assess the toxicity of these insecticides.

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[9] E. Török et al, *Unmeasured Side Effects Of Mosquito Control On Biodiversity,* European Journal of Ecology, 6.1 (71-76), 2020

[10] Id.

[11] Bulgarella, M. et al. *Sub-lethal effects of permethrin exposure on a passerine: implications for managing ectoparasites in wild bird nests*, Conservation Physiology, Volume 8 (2020).

[12] Corcellas, C. et al., *Pyrethroid insecticides in wild bird eggs from a World Heritage Listed Park: A case study in Doñana National Park (Spain)*, Envir. Pollution, 228 (321-330) 2017

[13] Poulin, B., G. Lefebvre, and L. Paz, *Red flag for green spray: adverse trophic effects of Bti on breeding birds*, J. of Applied Ecology, Vol. 47(4), 884-889, 2010

PFAS in pesticides is of critical concern and should have been given more attention. As you are aware, PEER discovered per-and polyfluoroalkyl substances (PFAS) in Anvil 10+10, and brought it to the attention of Massachusetts Department of Environmental Protection (MADEP) and EPA. The Report states that, "…PFAS… have been detected in pesticide products used in Massachusetts for mosquito control. EPA identified the source of the contamination to be from the containers in which the product is packaged. However, there is some debate as to whether other pesticides contain PFAS through the products ingredients. EPA and EEA are continuing to work on this ongoing issue."[14] While PEER appreciates the work that MADEP has put into this issue, it is clear that the PFAS is not always from fluorinated containers, as EPA is alleging. It is imperative that the Commonwealth ensure that there is no PFAS in any pesticide product used in the state. Specifically, Table 4-2 shows that since 2010, more than 3 million acres of the Commonwealth have been sprayed with more than 14,000 gallons of Anvil 10+10.[15] Given the toxicity, persistence, and bioaccumulation of PFAS, we cannot afford to have any PFAS in pesticides.

Toxicity of pyrethroids was given short shrift in the Report. The Report discusses how permethrin has been reclassified under the Trump Administration as "suggestive evidence of carcinogenic potential" by the oral route. However, the Report neglects to mention that permethrin was previously classified permethrin as "Likely to be Carcinogenic to Humans" by the oral route.[16] Recent disclosures have revealed how EPA has been downplaying the risks of pesticides,[17] and it is obvious that EPA's reclassifications cannot be trusted.

In addition, recent independent research shows that permethrin is highly toxic. For example, one scientific study from 2020 states:

> …despite the extremely wide application of pyrethroids, there are many problems, such as insecticide resistance, lethal/sub-lethal toxicity to mammals, aquatic organisms or other beneficial organisms…its toxic effects on non-target organisms should be also considered. Pyrethroid resistance is present not only in insect mosquitoes but also in environmental microorganisms, which results in anti-pyrethroids resistance (APR) strains. Besides, photodegradation product dibenzofurans is harmful to mammals and environment. Additionally, pyrethroid metabolites may have higher hormonal interference than the parents. Particularly, delivery of pyrethroids in nanoform can reduce the discharge of more toxic substances (such as organic solvents, etc.) to the environment.[18]

Perhaps the most comprehensive scientific report on pyrethroids was entirely ignored by the Report. This review states:

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[14] Report at 112
[15] Id. at 114
[16] https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_PC-109701_1-Aug-09.pdf
[17] https://theintercept.com/2021/06/30/epa-pesticides-exposure-opp/
[18] Zhu, Q., et al, *Synthesis, insecticidal activity, resistance, photodegradation and toxicity of pyrethroids (A review)*, Chemosphere, Volume 254, 2020

> …these products are far from harmless to human health, and that every insecticide must be used with great caution. As these are commonly used products that are labeled safe for human use, thorough studies highlighting the long-term physical, neurodevelopmental, neurobehavioral, reproductive and cancer related dangers these pyrethroids pose to both low and high risk (high users) population groups are needed.[19]

PEER believes it is inappropriate to rely on EPA's risk assessments – which are suspect – and the Report should have done a more comprehensive literature search for the toxicity of pyrethroids. Indeed, the Report concedes that:

> There are also unknown ecological and human health risks that EPA is not evaluating. Not all ingredients in pesticide products are known, because companies protect their product formulations. Meanwhile, compounds may enter the products from containers, as demonstrated with the new issue related to PFAS. Ultimately, pesticides must be used with caution and consideration to the tradeoffs—for example, the need to remove mosquitoes active at nuisance levels versus the ecological risk that may occur as a result of the application.[20]

The Report also concedes that "pyrethroids are considered highly toxic to honey bees based on the low doses that can result in death…EPA's risk assessment for pyrethroids only assessed the risk to pollinators due to agricultural uses, not adulticiding, making this a potential exposure route that has not been evaluated by EPA."[21] Despite these acknowledgments that EPA is not evaluating all risks, the Report concludes:

> The U.S. Environmental Protection Agency (EPA) reviews all commercially available pesticides and approves their use for specific pests and end uses. Pesticide label instructions provide applicators with instructions for appropriate use and restrictions, which are ***generally protective*** of non-target receptors and must be followed according to federal law…Current practices in Massachusetts include several protective activities and mechanisms to confirm protective measures are being followed (emphasis added).[22]

PEER maintains that neither the labels nor current practices in Massachusetts are "generally protective" of human health or the environment. The Report should have included more independent research on the toxicity and effects of these pesticides. The research ERG did use was insufficient. Specifically, the Report states:

> In addition to reviewing EPA's information on these ingredients, ERG reviewed (Saillenfait et al., 2015)'s (sic) comprehensive literature review on pyrethroids and human health impacts. The authors state that the evidence of various health effects from low-level chronic exposure to pyrethroids is "limited and controversial" (Saillenfait et al., 2015). The epidemiological studies reviewed observed potential associations between

[19] Chrustek A, Hołyńska-Iwan I, Dziembowska I, et al. Current Research on the Safety of Pyrethroids Used as Insecticides. *Medicina (Kaunas)*. 2018;54(4):61. Published 2018 Aug 28. doi:10.3390/medicina54040061
[20] Report at 159
[21] Id. at 149
[22] Id. at 236

> pyrethroid exposure and sperm quality, sperm DNA, reproductive hormones, pregnancy outcomes, and neurobehavioral outcomes (e.g., attention-deficit/hyperactivity disorder) after in utero exposure [citations omitted]. However, the authors also note that these findings are inconclusive, and that further research is needed to determine the potential risks associated with long-term, low-level exposure to pyrethroids.[23]

ERG should have included the more recent studies mentioned above, and others.

Data regarding the half-life of pesticides is misleading. The Report correctly states that EPA's "ecological risk assessment, which focuses on aquatic toxicity, demonstrated that concentrations exceeding levels of concern may be present after application of pyrethroids for a variety of uses, including aerial spraying events to control mosquitoes."[24] Table 5-6,[25] reproduced below, shows the half-lives of various pesticides and their synergists.

Table 5-6. Summary of Physical/Chemical Property Information

Chemical	CASRN	$\log K_{ow}$	BCF	BAF	Half-Life (Days) in Various Systems				
					Biotransformation in Fish (kM)	"Typical" Soil[a]	Water with Sediment	Water Only	On Plant Surfaces
Larvicides									
Bti	68038-71-1	—	—	—	—	120[b]	—	—	1–4[b]
Bs ABTS 1743	143447-72-7	—	—	—	—	—	—	—	—
Bs AM614	143447-72-7	—	—	—	—	—	—	—	—
Spinosyn A	131929-60-7	3.9	10.5	—	1.16	24.3	126	16	2–16
Spinosyn D	131929-63-0	4.3	27.4	—	1.17	45.2	126	11	2–16
Mineral oil	8012-95-1	12.3	—	—	—	65	—	—	—
White mineral oil	8042-47-5	5	—	—	—	87	—	—	—
Methoprene	40596-69-8	5	143	—	0.955	10	1–28[c]		1.4[d]
Adulticides									
d-phenothrin	26002-80-2	6.01	475	355	2.68	1–2	—	—	6.0
Etofenprox	80844-07-1	6.9	3,900	137,000	3.51	11	13.3	5.7	2.1[d]
Deltamethrin	52918-63-5	4.6	415	1,760	3.23	58.2	65	17	6.5
Fluvalinate	69409-94-5	3.85	3,810	664	4.68	7	—	—	3.0
Prallethrin	23031-36-9	4.49	45.9	86.2	0.256	—	—	—	—
Permethrin	52645-53-1	6.1	563	1,060	2.34	13	40	23	6.7
PBO	51-03-6	4.75	105	249	4.19	13		<1[e]	14.3

— = data not available
[a] IUPAC uses "typical" to describe soils that are "given in the general literature and are often a mean of all studies field and laboratory" (Lewis et al., 2016).
[b] Data are from the USEPA Registration document for Bti (USEPA, 1999)
[c] The data source for this value, the National Pesticide Information Center, did not indicate the water system from which these values were collated.
[d] Data were not available for on plant surfaces only. This value indicates on *and in* plant matrices
[e] This value is reported as "in an aqueous solution when illuminated with sunlight."

Accompanying text in the Report states:

> Adulticides, which are to be sprayed in the air and avoid water bodies, have data indicating half-lives in water and soil of less than a month in most cases. The exception to this is deltamethrin, which has a half-life in soil of about two months. All the adulticides except for PBO have half-lives on plants of less than one week. PBO, the synergist used in some pyrethroid formulations, may take more than two weeks to degrade to half its original amount.[26]

[23] Id. at 292
[24] Id. at 148
[25] Id. at 143
[26] Id. at 144

However, in the Report's discussion about the persistence of these chemicals and their toxicity, they neglect to mention that because aerial spraying is allegedly only effective for two weeks,[27] and because of ground spraying, home misters, and aerial spraying, it is likely that some areas around the Commonwealth have an almost constant application of these pesticides. Therefore, the half-life of these toxins is meaningless, as re-application will result in an almost constant presence during mosquito season.

Finally, the EPA does not consider the toxicity and half-life of degradation products. For example, fluvalinate is a polyfluorianted organohalogen and likely has degradation products with long half-lives if not "forever".

Efficacy of aerial spraying on disease reduction is impossible to determine, and therefore cannot be used in forecasting impacts of eliminating aerial spraying. Perhaps the most troubling section of the Report is the reliance on and use of spray efficacy "data." First, the Report states that, "the total reduction in the number of mosquitoes can range significantly—from 20 to 89 percent—after aerial spraying with pyrethroid compounds. But this reduction is expected to be temporary."[28] Table 8-1,[29] reproduced below, shows the ranges of efficacy of overall mosquito mortality.

Table 8-1. Aerial Spray Efficacy: Percent Reduction in Mosquitoes Trapped

Aerial Intervention Location	Start Date	End Date	Total Reduction in Primary Mosquito Vector[a,b]	Total Reduction in Mosquitoes Trapped	Temperature Range (°F)[c]	Dewpoint Range (°F)[c]	Acres per Hour (Average Across All Hours of Spray)
Bristol/Plymouth	8/8/2006	8/9/2006	35–92%	59–86%	59–64	53–57	17,499
Bristol/Plymouth	8/22/2006	8/24/2006	0–94%	60–89%	57–69	55–62	34,191
Bristol/Plymouth	8/5/2010	8/7/2010	87–89%	77–87%	58–79	57–73	26,194
Bristol/Plymouth	7/20/2012	7/22/2012	14–84%	42–81%	56–73	54–61	30,701
Bristol/Plymouth	8/13/2012	8/14/2006	46–60%	36–47%	66–73	64–66	21,981
Bristol/Plymouth	8/8/2019	8/11/2019	66%	58%	55–72	50–70	20,112
Bristol/Plymouth	8/21/2019	8/25/2019	91%	25%	57–77	51–74	15,066
Middlesex/Worcester	8/26/2019	8/27/2019	38%	20%	53–64	45–57	16,212
Middlesex/Norfolk/ Worcester	9/10/2019	9/18/2019	—	—	52–70	42–69	16,975
Hampden/Hampshire /Worcester	9/16/2019	9/17/2019	—	—	48–58	47–51	14,388
Bristol/Plymouth	9/18/2019	9/24/2019	—	53%	54–70	51–67	12,125
Bristol/Plymouth	8/10/2020	8/11/2020	82%	70%	73-78	68-72	29,833

Source: (Bharel & Cranston, 2021a)
— = control not detected; calculations may be affected by small sample sizes.
[a] Primary mosquito vector is the mammal-biting species *Coquillettidia perturbans*, considered to be the mosquito most likely to spread EEE to humans.
[b] Data sources include DPH and the Bristol and Plymouth County MCDs. 2006–2012 data shown as ranges inclusive of all three data sources. 2019 combines data from all three sources into a single calculation.
[c] Weather data taken from Plymouth, Worcester, and Westover airports and may not accurately represent actual temperature and dewpoint at location of spraying.

[27] Id. at 282
[28] Id. at 157
[29] Id. at 158

In addition, Table 2-2[30] shows the alleged efficacy of larviciding and adulticiding against WNV and EEE.

Table 2-2. Efficacy of Different Mosquito Control Practices Against WNV and EEE

Control Type	Arbovirus	Efficacy Range	Source
Larviciding	EEE	24–76%	(Luo, 2019; Sun et al., 2014)
	WNV		
Adulticiding—ultra-low-volume truck spraying	EEE	26–85%	(Barber et al., 2007)
	WNV		
Adulticiding—aerial spraying	EEE	38–91%	(Bharel & Cranston, 2021b)
	WNV	20–82%	

The Report states that ERG used "the range of the total reduction in mosquitoes trapped after aerial spraying events in 2006, 2010, 2012, and 2019...When the report presented a range, ERG opted to use the average value of the range."[31] However, ERG never discloses if the efficacy data are normally distributed. This is a major assumption; if the data are *not* normally distributed, ERG should have either transformed the data, or used a more appropriate summary statistic (i.e., either the median or some other value).

More importantly, however, is the fact that there is ***no way to assess the efficacy of pesticide application on disease reduction in humans.*** The Commonwealth measures efficacy of each aerial spray by "conducting pre- and post-spray trapping, both in areas not covered by the aerial spray (control traps) and inside the aerial spray zone (treatment traps). The efficacy of a spray event is then assessed by calculating the percent reduction in the mosquito population, using the Henderson-Tilton Formula."[32] The Commonwealth has not been forthcoming in revealing details about this pre- and post-spray testing; in other words, we do not know how many traps they use, where the traps are located (e.g., in the open, in vegetated areas, etc.), or how they deal with mortality versus knockdown. Even if an aerial spray event dramatically reduces the populations of mosquitoes in a particular area, we do not know if the mosquitoes killed were the ones carrying WNV or EEE. Indeed, a 2021 study concludes, "Aerial applications cannot and do not eliminate risk and must not be viewed by the public or municipalities as a solution to EEE risk."[33] ERG used data on the percent reductions in mosquito populations "as a proxy for efficacy in reducing vector-borne infections,"[34] and this is not appropriate. Therefore, ***all*** of the models ERG presented in the Report regarding disease incidence without intervention are meaningless and should be deleted.

In addition, there are other issues with ERG's statistics: ERG states that it used "Monte Carlo quantification to estimate how the number of cases of EEE and WNV will vary under different levels of mosquito control."[35] However, what ERG does not disclose is the distribution models of

[30] Id. at 282
[31] Id.
[32] Bharel, M., & Cranston, K. (2021). Massachusetts Arbovirus Surveillance and Response Plan, p. 16
[33] Id.
[34] Report at 281
[35] Id. at 279

the Monte Carlo model, so it is impossible to assess the validity of their statistics. Other statistical issues include assuming each county is the same, and combining all the years of data. The hard reality is that there are not adequate data to model this, and ERG should not have tried. The phrase "garbage in, garbage out" is appropriate in this case; in other words, poor quality input will always produce faulty output.

Conclusion. The Report is profoundly flawed, is statistically and scientifically unsound, likely skewed by affiliations of respondents to interviews, and fails to address the economic, ecological, and human health impacts of pesticides used in the Commonwealth. Because we have no idea whether spraying reduces the incidence of human disease, PEER urges the MCTF to recognize the shortcomings of this Report and use the precautionary principal to overhaul the Commonwealth's mosquito control program.

Sincerely,

Kyla Bennett

Kyla Bennett, PhD, JD
Science Policy Advisor
Public employees for Environmental Responsibility

It is very widely recognized that the use of pesticides is one of the major causes of declines in the numbers of our insects (bees, beetles, flies) and bats. These are not only the primary pollinators of most of our food crops, but they are also the primary food sources of our native birds. The declines in insect populations are endangering food production for us humans while also causing declines of our bird, frog, amphibian, and fish populations.

While mosquitoes are carriers for some human diseases, they are a major food source for our bats, birds, fish, and amphibians. Our own self-interest should direct us to find more environmentally sound ways to control mosquitoes that do not leave toxic residues in our water and on our plants that poison the very insects and other animal life that we need for our own survival.

I strongly oppose the use of highly toxic pyrethroid pesticides and hope that the State will choose more environmentally safe means of controlling mosquitoes. As an organic gardener myself, I also oppose the spraying of these chemicals which would fall on my garden without my choice.

BERKSHIRE ENVIRONMENTAL ACTION TEAM
20 Chapel St. Pittsfield, MA 01201 • thebeatnews.org
413-464-9402 • team@thebeatnews.org

Protecting the environment for wildlife in support of the natural world that sustains us all.

September 1st, 2021

Mosquito Control Task Force

Re: Mosquito Control Task Force Report

Dear Mosquito Control Task Force,

Please accept the following comments from the Berkshire Environmental Action Team, Inc. (BEAT). BEAT's mission is to protect the environment for wildlife in support of the natural world that sustains us all.

We appreciate the efforts of the Mosquito Control Task Force (MCTF) to put together this comprehensive study.

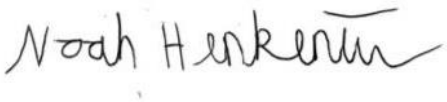
The study[1] states "Most active ingredients evaluated have properties that indicate a high potential for bioaccumulation. The main toxicological concern for all the products used in Massachusetts is ecological.." (112). This is a major concern for BEAT. We request that if the MCTF is not already doing so, they avoid using mosquito control management (especially larvicides) in or near vernal pools, especially those that are registered with the state's Natural Heritage and Endangered Species Program (NHESP) as certified vernal pools[2] or potential vernal pools[3]. Larvicides, especially *Bacillus thuringiensis israelensis* (Bti) can be harmful for tadpoles even in small concentrations[4]. We are also concerned with the use of Methoprene as it has been found to have non-target effects on pollinators such as butterflies (Lepidoptera spp.)[5] most notably, in addition to other insect taxa.

[1] https://www.mass.gov/doc/mosquito-control-task-force-report-august-2021/download
[2] https://massgis.maps.arcgis.com/home/item.html?id=dbe5591721504490ba22a2fa8644b774
[3] https://massgis.maps.arcgis.com/home/item.html?id=88d5ba624a3447c7a30c148a6f1692b0
[4] Lajmanovich, Rafael & Junges, Celina & Cabagna, Mariana & Attademo, Andrés & Peltzer, Paola & Maglianese, Mariana & Marquez, Vanina & Beccaria, Alejandro. (2014). Toxicity of Bacillus thuringiensis var. israelensis in aqueous suspension on the South American common frog Leptodactylus latrans (Anura: Leptodactylidae) tadpoles. Environmental Research. 136. 10.1016/j.envres.2014.10.022.
[5] https://www.mass.gov/doc/methoprenereviewfinalver20pdf/download

We appreciate that The State Reclamation and Mosquito Control Board (SRB) currently excludes priority habitats for rare species in mosquito control management. BEAT encourages the MCTF to work closely with wildlife stakeholders to minimize impacts of bioaccumulation and identify areas that should not be managed the protect sensitive wildlife.

Thank you for accepting our comments.

Sincerely,



Noah Henkenius
Stewardship Manager

Summary of Opt-Outs of Wide-Area Pesticide Applications

By Mass. Sierra Club
September 17, 2021

The memo analyzes the individual properties and communities that have requested to opt out of Wide-Area Pesticide Applications.[1] This memo expands upon Chapter 3 of the *Mosquito Control Task Force Report*.

Key findings:

- Opposition to spraying in the form of individual property opt outs has increased year over year. The number has tripled from 2017 to 2021. (See Figure 1.)
- In 2021, individual opt outs are found across the state in nearly every municipality and every type of municipality (urban/rural, high/low EEE rates). The number of communities where opt outs occur also appears to be growing. The rate of opt-outs in a given community range to a high of over 10% of housing units (as shown in Figure 2).
- 37 cities and towns submitted applications to opt out of wide-ware spraying by the state, which represents 10.5% of the 351 communities in the Commonwealth.[2] This includes the two that had submitted applications after the deadline and so were rejected by the state. At least eight more communities publicly discussed submitting an application, for a total of 45 municipalities (13% of all municipalities) in seven counties (see Appendix 1).

These numbers are indicative of significant opposition to wide-area spraying. The actual number of people who are opposed to spraying is much higher since these numbers represent only those property owners with the awareness of the state's spraying program and the resources to access the opt-out system.

Statewide Summary

The Massachusetts Sierra Club made a Public Records Request of the Massachusetts Department of Agricultural Resources (MDAR) of all individual opt outs since 2019. MDAR provided data through July 26, 2021.

Since 2019, there have been over seven thousand requests in total from 330 cities and towns out of the 351 in the Commonwealth. Since addresses were not provided in the data set there is no way of knowing how many were from the same property (although 63

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[1] Properties use this state Web page to request opt-out: https://www.mass.gov/how-to/how-to-request-an-exclusion-or-opt-out-from-wide-area-pesticide-applications
Note that opt-outs expire at the end of the calendar year.

[2] Eastern Research Group, *Mosquito Control Task Force Report*, p. 91

communities representing 410 properties had only one year with opt outs so those cannot be repeats).

Opposition to spraying in the form of opt outs have increased year over year:

Year	Opt-out Requests	% Annual Increase
2017	1,075	
2018	1,641	53%
2019	1,795	9%
2020	2,349	31%
2021	3,204	36%

Figure 1[3]

And the 2021 data covers just over half the year, although one could presume that few requests have been made since July 26. Forty-nine communities had their first opt out requests in 2021. Both of these facts indicate that opting out has become more of an issue for the public at large. There has been more focus on the issue lately with aerial spraying for EEE in some parts of the state in 2019 and 2020, news articles on spraying including PFAS contamination in pesticides,[4] and with the creation of the Mosquito Task Force.

Higher rates of opt out are seen outside of Southeastern Massachusetts, and likewise for municipal opt-outs under the program instituted in 2021.[5] However, this section of the state includes some counties that are often sprayed with adulticides, as well as some that are not sprayed (the Cape and Islands).

Analysis by County and Community

This analysis augmented the state data with housing unit counts from the 2020 Census. This serves as a proxy for the number of properties, data which was not readily available. This should be fairly accurate for municipalities with low percentages of multi-unit housing. Note that opt-out rates are *not* correlated with the number of housing units (r=0.1), which is not surprising. There appears to be some negative correlation with density.

There were opt outs in every county, but the rates were very low in Suffolk, and the Cape and Islands, where wide-area spraying does not generally occur. The highest opt-out rates were in Franklin and Hampshire (0.32% of all housing units) even though its Mosquito

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[3] Source for 2017-2020: Eastern Research Group, *Mosquito Control Task Force Report*, p. 90, Table 3-1, Requests Submitted, 2017–2020. Source for 2021, MDAR data request.

[4] See for example: https://www.bostonglobe.com/2020/12/01/metro/toxic-forever-chemicals-found-pesticide-used-millions-mass-acres-when-spraying-mosquitos/

[5] Source: Eastern Research Group, *Mosquito Control Task Force Report*, p. 92, Figure 3-1, Map of municipalities that applied to opt out by June 1, 2021

Control Project does not perform larviciding or adulticiding.[6] Franklin (24/26 or 92%)[7] and Hampshire (8/20 or 40%) were also the counties with by far the highest percentage of municipalities that considered opting out of spraying by the State Reclamation and Mosquito Control Board (which is primarily aerial). The next highest was Berkshire county which together indicates that opposition to spraying is higher in Western Massachusetts. Berkshire also had four communities (=13%) that considered aerial opt-out, which was the third-highest percentage statewide. Furthermore, the Berkshire MCP performs spraying but the number of opt outs are *double* the spray requests (see next section below for detail). Hampden county is lower than the others in the Pioneer Valley MCP perhaps due to its high level of urbanization (Springfield, etc.). Many if not most of the opt-outs in the Pioneer Valley MCP would seem to represent philosophical statements against state and local spraying, as well as possibly wanting to protect their properties from pesticides in the event of a policy change by the MCP that would result in ground-based spraying.

There are 11 more rural towns spread across five counties with an opt-out rate of at least 3%:

Town Name	COUNTY	Peak Annual Opt Outs	Total Housing Units	Peak Opt Outs per HU (%)
Leyden	Franklin	37	340	10.9%
Plainfield	Hampshire	33	335	9.9%
Cummington	Hampshire	46	477	9.6%
Wendell	Franklin	30	448	6.7%
Petersham	Worcester	34	558	6.1%
Bolton	Worcester	116	1,982	5.9%
Leverett	Franklin	34	827	4.1%
Worthington	Hampshire	25	625	4.0%
Boxford	Essex	97	2,818	3.4%
Wales	Hampden	28	896	3.1%
Sheffield	Berkshire	53	1,766	3.0%

Figure 2

Two communities (Bolton and Boxford) are in mosquito districts with high levels of spray requests. These high rates of opt out indicate stronger opposition to spraying. Four of these communities in the Pioneer Valley also applied for municipal opt-outs (Leyden, Plainfield, Wendell and Leverett).

[6] Eastern Research Group, *Mosquito Control Task Force Report* (draft), p. 66

[7] Six towns in Franklin county discussed opting out but did not ultimately submit applications to the state but the total is indicative of opposition to spraying.

Analysis by Mosquito Control District

Opt out rates vary with the twelve MCDs in the state as shown in Figure 3. Two MCDs have opt-out rates that are higher than spray requests, Berkshire and East Middlesex. (Suffolk could fall into this category with 2021 data.) As previously noted for counties, there are four MCDs with opt outs and no spray requests because the MCDs do not spray, Pioneer Valley, and the Cape and Islands. Within the five MCDs that spray heavily (Bristol, Central, Norfolk, Northeast and Plymouth), the opt outs as a percentage of spray requests range from a low of 1% in Bristol to 15% in Northeast. There is no ready explanation for this significant variation but education about mosquito control and philosophical attitudes towards spraying are possible candidates. Plymouth county, while not having the lowest ratio, did have had the highest number of EEE cases (n=15) in the last twenty years.[8] Plymouth and Bristol counties have the large amounts of EEE habitat[9] and have been sprayed aerially during the last four EEE outbreaks.[10] Yet, Essex county does too but the Northeast District has a relatively larger number of individual and municipal opt outs.[11]

[8] Source: Eastern Research Group, *Mosquito Control Task Force Report*, p. 21, Table 5, Incidence of Human Cases of EEE by County from 2000 to 2020

[9] Source: Eastern Research Group, *Mosquito Control Task Force Report*, p. 16, Table 3-2, Acres of EEE Mosquito habitat by MCD

[10] Source: Eastern Research Group, *Mosquito Control Task Force Report*, p. 118, Table 4-2, Aerial Spraying Due to an EEE Outbreak, 2009–2020

[11] Note that West Nile Positivity rates (as shown on Table 3-3 on page 19) do not seem to influence opt-out rates (and is, in fact, inversely correlated). East Middlesex and Pioneer Valley have high WNV rates for example.

MCD Name	Spray Requests (2020)	Opt-out Requests (2020)[12]	Ratio of Opt Outs to Sprays Requests	Total Housing Units (2020)	Spray Requests per Housing Unit	Opt-out Requests per Housing Unit
Berkshire County MCP	96	198	2.06	32,971	0.3%	0.6%
Bristol County MCP	12,979	128	0.01	243,464	5.3%	0.1%
Cape Cod MCP	0?	55		164,885		0.0%
Central Mass. MCP	16,831	660	0.04	442,957	3.8%	0.1%
Dukes MCP	0	0		17,530	0.0%	0.0%
East Middlesex MCP	102	114	1.12	406,868	0.0%	0.0%
Nantucket MCP[13]	1	0	0.00	12,169	0.0%	0.0%
Norfolk County MCD	9,107	295	0.03	250,905	3.6%	0.1%
Northeast Massachusetts	1,917	285	0.15	309,362	0.6%	0.1%
Pioneer Valley MCD	0	46		84,057	0.0%	0.1%
Plymouth County MCP	17,923	453	0.03	218,111	8.2%	0.2%
Suffolk County MCP	27	5	0.19	301,702	0.0%	0.0%
Total	58,983	2,239	0.04	2,484,981	2.4%	0.1%

Figure 3

Note: The Opt Out rates are *much higher for 2021* but the comparable spray request data is not available for 2021.

[12] Source: Eastern Research Group, *Mosquito Control Task Force Report*, p. 66, Table 4-5, Number of Exclusion and Service Requests by MCD in 2020, plus Opt-out requests from MDAR data for Dukes and Pioneer Valley.

[13] Nantucket MCP was only in existence from 2014 to 2018. Source: https://malegislature.gov/Bills/190/H4644/BillHistory

Appendix 1
Municipalities that Publicly Discussed Opting Out

Town Name	COUNTY	Municipal Opt out
Amherst	Hampshire	0
Ashby	Middlesex	0
Ashfield	Franklin	1
Becket	Berkshire	1
Bernardston	Franklin	-1
Beverly	Essex	1
Buckland	Franklin	1
Charlemont	Franklin	1
Colrain	Franklin	-1
Conway	Franklin	1
Egremont	Berkshire	1
Erving	Franklin	0
Gill	Franklin	1
Gloucester	Essex	1
Goshen	Hampshire	1
Greenfield	Franklin	1
Halifax	Plymouth	-1
Harvard	Worcester	0
Hatfield	Hampshire	1
Hawley	Franklin	-1
Heath	Franklin	1
Leverett	Franklin	0
Leyden	Franklin	1
Middlefield	Hampshire	1
Montague	Franklin	1
New Salem	Franklin	0
Northfield	Franklin	-1
Northampton	Hampshire	1
Orange	Franklin	0
Pelham	Hampshire	0
Pepperell	Middlesex	1
Pittsfield	Berkshire	-1
Plainfield	Hampshire	1
Rockport	Essex	1
Rowe	Franklin	1
Shelburne	Franklin	-1
Shutesbury	Franklin	0
Sunderland	Franklin	0

Town Name	COUNTY	Municipal Opt out
Uxbridge	Worcester	-1
Warwick	Franklin	-1
Wendell	Franklin	0
Westhampton	Hampshire	1
Whately	Franklin	1
Williamsburg	Hampshire	1

Key: 1 = Accepted, 0 = Denied, -1 = Discussed but no report submitted or accepted.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 24, 2021 11:08 am
Browser:	Safari 11.1.2 / OS X
IP Address:	73.218.192.105
Unique ID:	851595731
Location:	

Name	Joanne
Subject:	Mosquito spraying
Comments:	How about encouraging bluebird boxes and bat boxes on properties. Both have mosquitoes in their regular diet. I had hundreds of bats at dusk on my property until mosquito control and my neighbors began spaying insecticides indiscriminately. I've lost my bats! NEED TO EDUCATE THE PEOPLE.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 29, 2021 6:31 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	108.8.227.69
Unique ID:	853738740
Location:	

Name	Miriam Kurland
Organization / Affiliation:	Climate Action Now
Subject:	First Use should always be organic solutions rather than chemicals
Comments:	I believe that mosquito control must try natural, organic methods before any use of pesticides. The chemicals in pesticides are endangering the health and well being of so many species, our children and life on Earth. Please make policies that prioritize solutions that do not involve chemicals, whenever possible and strongly limit the use of pesticides when all other solutions have not worked and require extreme measures. thank you

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 29, 2021 8:32 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	67.142.100.29
Unique ID:	853761677
Location:	

Name	Ken Kipen
Subject:	Regarding Mosquito Control Practices in MA:
Comments:	Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. MA must legislate stricter regulation of private pesticide use. Inert ingredients for products sold in MA must be a required disclosure.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 12:48 am
Browser:	Mobile Safari 14.7 / iOS
IP Address:	209.6.8.120
Unique ID:	853810588
Location:	

Name	Emily Abbott
Subject:	Mosquito control
Comments:	To whom it may concern: As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following: • Regarding Mosquito Control Practices in MA: • Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. • If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. • Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. • MA must legislate stricter regulation of private pesticide use. • Inert ingredients for products sold in MA must be a required disclosure. • Regarding Municipal Opt Out Policy: • There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in. • In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly. • The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 7:16 am
Browser:	Chrome 92.0.4515.107 / OS X
IP Address:	97.80.115.90
Unique ID:	853884371
Location:	

Name	Mary Kolodny
Subject:	Pesticide spraying for mosquito control in MA
Comments:	Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. • If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. • Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. • MA must legislate stricter regulation of private pesticide use. • Inert ingredients for products sold in MA must be a required disclosure.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 7:18 am
Browser:	Safari 14.1.2 / OS X
IP Address:	76.118.101.197
Unique ID:	853884963
Location:	

Name	Patricia Neary
Organization / Affiliation:	Bridgewater Green Committee
Subject:	Mosquito Control
Comments:	We, the public, should be able to choose NOT to have our property sprayed aerially or by truck. To blanket spray, which has been proven NOT effective for the target, is detrimental to ALL insects (in spite of government propaganda).

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 9:26 am
Browser:	Firefox 91.0 / Windows
IP Address:	71.234.43.54
Unique ID:	853933519
Location:	

Name Amy Sophia Marashinsky

Comments:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: August 30, 2021 9:29 am
Browser: Chrome 92.0.4515.159 / Windows
IP Address: 73.238.155.189
Unique ID: 853935169
Location:

Name MaryJo Stanley

Subject: Mosquito Control Task Force

Comments:

In the course of trying to solve one issue, we humans are notorious for lover-riding the consequences for whichever option we decide to use, somehow convincing ourselves that one evil might be less evil than another and choose the lesser evil.

But what would happen if we all decided to choose only options that are 100% safe for all life? What if we refused to get into arguing over one dangerous approach over another? What if we focused on the problem with such integrity and dedication that we discovered the true resolution of any given problem? what if we ignored the pleas of various corporations, power mongers, cost wars, and emotional responses.

I implore you as a Task Force to do just that. We need to create a safer world, not add even one drop more of toxins upon our water, land, in the air. It make take a genius to find a solution to the issue of mosquitos, but let's remember that mosquitos are not a new phenomena, nor are any diseases they might incur. And nature is a powerful force, with billions of years of success at survival. We are babies on this planet, and as such are fully competent to make ill-advised choices, often stuck in the same mindset that has caused so many of today's crises.

I hope there are some women in this task force, ones not trained culturally to shoot at the enemy. We all know how that war ends. Widespread destruction and absolutely no resolution of the original problem. Perhaps a temporary peace, but with the festering remains of what caused the war to begin with.

Humans are not the most important beings on the planet, and only if we can finally learn how to live with nature in a harmonious, respectful manner, we are sure to be the next species of extinction.

I am not saying yes or no to spraying poisons to eradicate mosquitoes. I am saying we are dealing with dangerous stuff here, and an entire world, a web of nature we barely understand and throwing chemicals as a solution is no solution at all.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 9:47 am
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	24.91.28.172
Unique ID:	853943376
Location:	

Name Jodi Rodar

Subject: Mosquito Control In Massachusetts

Comments:

To whom it may concern:
As the Task Force for the 21 st Century discusses the future of Mosquito control in MA, here is
my position regarding the following:
? Regarding Mosquito Control Practices in MA:
? Due to the lack of efficacy and product danger, adulticide and larvicide spraying
by truck or by plane, should not be used throughout the state, even in a declared
state of health emergency. If larvicides are used, the briquette form should be
locally applied to the smallest targeted areas.
? If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
? Personal Opt Out Exclusions must be honored, regardless of regional impact,
even during a declared state of health emergency. Accurate drift calculations
must be calculated to protect opted out property.
? MA must legislate stricter regulation of private pesticide use.
? Inert ingredients for products sold in MA must be a required disclosure.
? Regarding Municipal Opt Out Policy:
? There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted
out, and allowed to request being opted in.
? In 2021, municipalities were not given guidelines regarding criteria for approval
in the opt out process. In 2022, that criteria must be published months in advance,
so towns have time to plan and budget accordingly.
? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt
out applications, the requirements for approval in 2022 cannot be retroactively
based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:01 am
Browser:	Chrome 92.0.4515.130 / Chrome OS
IP Address:	161.77.224.124
Unique ID:	853950428
Location:	

Name	Marilyn O'Neil
Subject:	Mosquito Control

Comments:

To whom it may concern:
As the Task Force for the 21 st Century discusses the future of Mosquito control in MA, here is
my position regarding the following:
? Regarding Mosquito Control Practices in MA:
? Due to the lack of efficacy and product danger, adulticide and larvicide spraying
by truck or by plane, should not be used throughout the state, even in a declared
state of health emergency. If larvicides are used, the briquette form should be
locally applied to the smallest targeted areas.
? If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
? Personal Opt Out Exclusions must be honored, regardless of regional impact,
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must be calculated to protect opted out property.
? MA must legislate stricter regulation of private pesticide use.
? Inert ingredients for products sold in MA must be a required disclosure.
? Regarding Municipal Opt Out Policy:
? There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted
out, and allowed to request being opted in.
? In 2021, municipalities were not given guidelines regarding criteria for approval
in the opt out process. In 2022, that criteria must be published months in advance,
so towns have time to plan and budget accordingly.
? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt
out applications, the requirements for approval in 2022 cannot be retroactively
based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:09 am
Browser:	Chrome 92.0.4515.130 / Chrome OS
IP Address:	161.77.224.124
Unique ID:	853954152
Location:	

Name	Marilyn O'Neil
Subject:	Mosquito Control
Comments:	I would also like to say that in this day and age, we know far better than to use pesticides and herbicides AT ALL ! It is absolutely absurd that in trying to make our lives more "comfortable; easy; and / or 'life saving'" - - we are in actuality killing ourselves fully, by killing the ecosystems which we totally depend on. NO PESTICIDES / NO HERBICIDES !!! Also - - there should be clear and stringent laws protecting private properties from neighboring private properties use of poisons that are then carried over to other properties by wind, etc.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:33 am
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	71.233.115.75
Unique ID:	853965869
Location:	

Name	Susan Roitman
Subject:	No pesticides please
Comments:	Please do more research about how the balance of nature will be disrupted resulting in more mosquitos, fewer birds, etc. There are better ways to control mosquitos. And most likely they will cost less than hiring pesticide companies. There are many other reasons. Please consult scientific experts. Thank you. Susan

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:36 am
Browser:	Safari 14.1.2 / OS X
IP Address:	67.142.100.136
Unique ID:	853967483
Location:	

Name	r tippens
Subject:	Mosquito control board
Comments:	Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. MA must legislate stricter regulation of private pesticide use. Inert ingredients for products sold in MA must be a required disclosure. Regarding Municipal Opt Out Policy: There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in. In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly. The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:49 am
Browser:	Safari 14.0.3 / OS X
IP Address:	107.77.225.157
Unique ID:	853974091
Location:	

Name	John Cohen
Subject:	mosquito-control spraying
Comments:	I am unilaterally opposed to any spraying meant to control mosquitos. The gains for human health do not justify the damages to the natural environment.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 11:59 am
Browser:	Safari 14.1.2 / OS X
IP Address:	161.77.224.114
Unique ID:	854011610
Location:	

Name Ziporah Hildebrandt

Subject: Mosquito spraying

Comments:

whom it may concern:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane,should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declaredstate of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control.Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

As someone who has been disabled with Multiple Chemical Sensitivities for over 25 years, I am very concerned about the application of pesticides, especially by aerial spraying. Pesticide exposure is one of the causes of my permanent disability.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: August 30, 2021 12:43 pm
Browser: Safari 12.0.2 / OS X
IP Address: 162.245.143.97
Unique ID: 854034629
Location:

Name	Joy Friedman
Subject:	Mosquito Control Practices
Comments:	To whom it may concern: As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following: • Regarding Mosquito Control Practices in MA: • Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. • If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. • Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. • MA must legislate stricter regulation of private pesticide use. • Inert ingredients for products sold in MA must be a required disclosure. • Regarding Municipal Opt Out Policy: • There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in. • In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly. • The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 1:01 pm
Browser:	Safari 14.1 / OS X
IP Address:	209.58.146.166
Unique ID:	854043770
Location:	

Name	Diana Laurenitis
Subject:	NO SPRAYING!!

Comments:

I am writing to say I highly, highly oppose any spraying for mosquitoes in the state.

Mass sprayings from planes and trucks over huge swathes of areas, with poisons that are non-specific and targeted, is incredibly harmful to all of the wildlife. Bug populations are on a steep decline, and as you hopefully know, they are the basis of the food web. It is no coincidence that bird populations are also declining.

I also have a family farm where we don't spray but are not certified organic. I have been putting much effort in for years to revitalize the land and create habitat for native pollinators. I DO NOT want any toxic chemicals sprayed on this land. There are enough toxins in the environment, and it is completely irresponsible and plain stupid to add more. These chemicals affect humans as well, which we have already been seeing work its way through the legal system with glyphosate and the cancer cases created by its use.

What would serve the Commonwealth better is promoting the things that actually take care of the mosquitoes as nature intended, such as increasing bird and bat populations. Nature has a solution to all of these issues, and things are out of balance because humans have made it so.

I live in this state because it is known to be progressive. How about we move beyond pesticides into the future where we can enhance nature not destroy it.

Diana Laurenitis

P.s. Attached is something not written by me, but I agree with all the points presented.

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:
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? Due to the lack of efficacy and product danger, adulticide and larvicide spraying
by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
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? Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
? ?
? Regarding Municipal Opt Out Policy:
? There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically

opted out, and allowed to request being opted in.

? In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.

? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.

MA must legislate stricter regulation of private pesticide use.

Inert ingredients for products sold in MA must be a required disclosure.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 1:29 pm
Browser:	Chrome 92.0.4515.159 / Windows 7
IP Address:	72.71.212.75
Unique ID:	854057443
Location:	

Name	Deborah Kelley-Milburn
Subject:	Chemical control of mosquitoes
Comments:	I am very concerned about the use of pesticides or any kind of chemical control of mosquitos. My understanding is that the risk off serious, mosquito-borne disease in the state is low, and I urge you to keep in mind that widespread spraying can severely impact vulnerable populations including children, the immune-compromised, the chemically sensitive, the elderly and pets, just to name a few. Spraying and other chemical measures should be used only in extreme circumstances, and local communities should be able to opt out. Thank You!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 2:28 pm
Browser:	Chrome Mobile 92.0.4515.159 / Android
IP Address:	96.252.36.7
Unique ID:	854086384
Location:	

Name	Louise Hetzler
Subject:	Mosquito spraying
Comments:	Dear Task Force, I urge you to stop aerial and ground spraying of mosquitoes with synthetic pyrethrins. In addition to possible PFAS contamination, synthetic pyrethrins such as Resmethrin and Anvil 10 + 10 are toxic to bees and fish, not to mention our lungs, butterflies and other pollinators, dragonflies, fireflies, and songbirds that eat poisoned mosquitoes. Dragonflies are beautiful and they eat mosquitoes. We must stop poisoning the earth and the beautiful creatures who live here. Future generations are counting on us to do the right thing. For many years I have transformed my yard into a pollinator sanctuary. My mint plants attract bees. The two times I saw the Central MA Mosquito Control truck come through the neighborhood in the last 5 years, my hundreds of bees and other pollinators disappeared for the rest of the season. Even with my property excluded, they still disappeared! There is an alternative that is nontoxic to bees and other beneficial insects, a garlic product called Mosquito Barrier that is used all over the world. Also, Disneyworld uses garlic for mosquito control. There are no mosquitoes on garlic fields. Garlic is toxic to mosquitoes. In 2019 the state used Anvil 10+10 contaminated with PFAS in the aerial spraying of over 2 million acres, according to a Boston Globe article on 12/1/20. Many Southeastern Mass towns later found PFAS in their water. Westborough now has PFAS in a couple of town wells from unknown sources. Could that be from the 2019 aerial spraying? We must protect nature and protect our air, soil, and water. Fireflies are flashing and mating at dusk when mosquito spraying occurs. The insect apocalypse is happening now. We need to take drastic steps now to reverse it if we are to survive. The crisis of Covid has given us a golden opportunity to reset our climate agenda to work for healthy soil, water, and air. This decade is our last best hope to turn the tide, regenerate our soil, and reverse climate change. Pollinators are an essential part of the plan. Let's protect them!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 3:23 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	96.233.163.244
Unique ID:	854112358
Location:	

Name	David Greenberg
Organization / Affiliation:	Resident of Colrain
Subject:	Mosquito Control Practices in MA

Comments:

To whom it may concern:

As the Task Force for the 21 st Century discusses the future of Mosquito control in MA, here is
my position regarding the following:
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? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt
out applications, the requirements for approval in 2022 cannot be retroactively
based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 4:26 pm
Browser:	Chrome 92.0.4515.131 / OS X
IP Address:	74.104.165.66
Unique ID:	854145073
Location:	

Name	Richard Lent
Organization / Affiliation:	Sustainable Stow
Subject:	Mosquito spraying
Comments:	I am very concerned about the impacts of mosquito spraying on our declining populations of insects, birds and bats. Given limited effectiveness and identified product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared health emergency. Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. MA must legislate stricter regulation of private pesticide use.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 4:31 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	65.96.242.143
Unique ID:	854147739
Location:	

Name	Christine Pellerin
Subject:	Mosquito Control

Comments:

As an organic farmer and someone with chronic health issues, I am concerned with the Task Force for the 21st Century's Mosquito Control Practices in MA. I would like to make the following comments on future planning:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. This created an unfair and arbitrary approval process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Respectfully,
Christine S. Pellerin
482 Turners Falls Rd.
Montague, MA 01351
cspellerin@comcast.net

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 9:38 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	71.235.164.198
Unique ID:	854257046
Location:	

Name	Louise Amyot
Subject:	mosquito control
Comments:	Deaths from mosquitoes in MA are few and far between while the risks to humans and friendly insects, such as bees, moths, butterflies are enormous. People can learn to mitigate their personal risks from mosquito-borne illnesses but none can protect themseelves from toxins distributed into the atmosphere, onto plants and into water. Mosquito control measures that provide for the indiscrimante dispersal of poisons into the atmosphere must not be allowed in Massachusetts or anywhere except in the most extreme circumstances.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 30, 2021 10:34 pm
Browser:	Mobile Safari 12.0 / iOS
IP Address:	73.167.47.68
Unique ID:	854274005
Location:	

Name	David King
Organization / Affiliation:	Coalition against abuse of pesticides
Subject:	Pesticides threaten people and the environment
Comments:	We oppose aerial spraying of pesticides. They do not meaningfully protect people from EEE and threaten human health, especially asthmatics, but also threatened and endangered species. You should expect vigorous legal action if you persist in this reckless and irresponsible action.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 1:49 am
Browser:	Chrome 92.0.4515.131 / Windows
IP Address:	134.174.110.12
Unique ID:	854318009
Location:	

Name	Carolyn Whiting
Subject:	Mosquito Control

Comments:

To whom it may concern:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

This is important to me because multiple sensitivities. Thank you for your consideration of my concerns.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 9:41 am
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	71.192.38.192
Unique ID:	854447859
Location:	

Name	Darcy Sweeney
Organization / Affiliation:	Climate Action Now, Western Massachusetts; Regenerative Farming, Forests, and Food Systems
Subject:	Stop spraying toxic pesticides for mosquito control
Comments:	I am writing to urge you to stop spraying toxic pesticides as a mosquito control measure. First, Eastern Equine Encephalitis and West Nile Virus are exceedingly rare in Massachusetts. In the EEE (the deadlier of the two diseases) outbreak in 2019, four people died. Compare this with the damaging health effects caused by pesticide spraying on the thousands of the most vulnerable among us: children - for whom toxins are especially dangerous -- and people with pre-existing health conditions. Furthermore, spraying toxic pesticides - whether from airplanes or trucks --indiscriminately kills native bumblebees and other pollinators, not to mention sickening or killing birds, amphibians, and countless other creatures. Commonsense tells us that wind drift makes it nearly impossible to control where pesticides land. "Opting out" of spraying is mostly just a fond wish. Ground spraying can drift up to 300 feet - with no wind - and aerial spraying can drift up to eight miles! Clearly, spraying has the potential for unintended contamination with the consequent harms. I urge the Commonwealth to develop and institute safe, effective, ecologically-sound mosquito control measures and to discontinue spraying toxic pesticides. Human health and the health of the environment depend on it.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:24 am
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	75.67.160.49
Unique ID:	854501910
Location:	

Name john shanley

Comments:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

JOHN P. SHANLEY AND GILDA SHANLEY
16 NICKERSON RD. LEXINGYON MA 02421
AND
28 WAQUOIT LANDING RD. E. FA;MOUTH MA 02536

Form Name: Comments for the Mosquito Control Task Force
Submission Time: August 31, 2021 11:37 am
Browser: Safari 12.1.2 / OS X
IP Address: 162.245.142.179
Unique ID: 854509290
Location:

Name	Susan Boscov
Subject:	Mosquito control
Comments:	Toxic spraying harms other insects, harms people, drifts, and is not necessary as EEE and West Nile are very rare.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:38 am
Browser:	Chrome Mobile 83.0.4103.106 / Android
IP Address:	172.58.222.211
Unique ID:	854509606
Location:	

Name	Newton, MA resident
Subject:	Pest Control restrictions for health of vulnerable populations
Comments:	Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:41 am
Browser:	Firefox 91.0 / Windows
IP Address:	216.193.164.165
Unique ID:	854511571
Location:	

Name	Laurel Facey
Organization / Affiliation:	Wendell AgCom
Subject:	mosquito control
Comments:	We must do all we can to protect our native pollinators! The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:42 am
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	73.16.240.3
Unique ID:	854512132
Location:	

Name	Navid HATFIELD
Organization / Affiliation:	Pioneer Valley Organics Landscaping
Subject:	mosquito spray options and IPM methodolgy
Comments:	Greetings, Massachussetts needs to adopt IPM methods in its land use policies. This starts with the question of whether or not any action should taken in the first place. Do the very small incidents of EEE and WNV warrant the mass exposure of people and wildlife to proven harmful pesticides. If yes, which I would question strongly, then what are the the least interruptive, carcinogenic, and broad spectrum products available to do that. Anvil 10 10 is not that! There are Organic and all natural products that have a higher efficacy at controlling mosquitos, ticks and fleas with out the residual negative effects on pollinators, water ways, amphibians and other wildlife. There is a great product called TICKILLS that uses potent yet biodegradable essential oils of peppermint and cedar. These have been proven to match the efficacy of products like Anvil without the negative costs associated with this chemical cocktail.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:45 am
Browser:	Safari 11.1.1 / OS X
IP Address:	68.118.192.148
Unique ID:	854513907
Location:	

Name	Marian Parker
Subject:	Massachusetts Mosquito Control
Comments:	Here's why I question aerial spraying of Mosquitos: Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 11:58 am
Browser:	Safari 13.1.3 / OS X
IP Address:	24.177.3.19
Unique ID:	854520943
Location:	

Name	annie o'connor
Subject:	Mosquito Control Taskforce: Anvil 10 + 10 HIGHLY TOXIC - DO NOT SPRAY!
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 12:13 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	73.167.110.47
Unique ID:	854528960
Location:	

Name rick roberts

Comments:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

Regarding Mosquito Control Practices in MA:
Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
MA must legislate stricter regulation of private pesticide use.
Inert ingredients for products sold in MA must be a required disclosure.

Regarding Municipal Opt Out Policy:
There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 12:39 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	162.245.143.137
Unique ID:	854542161
Location:	

Name	Peggy Wolff
Organization / Affiliation:	Leverett Climate Action Group
Subject:	Aerial spraying of toxic chemicals
Comments:	I strongly oppose the use of toxic chemicals to control mosquitoes, particularly with aerial spraying. I learned the hard way by becoming very ill for many years, in part due to pesticide spraying. The time is now to do the right thing. Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 1:15 pm
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	75.68.212.103
Unique ID:	854560021
Location:	

Name Lynne Man

Subject: Stop automatic spraying

Comments:

Dear Mosquito Control Task Force:

I am writing to request that MA cease routine or mandatory spraying for mosquito control. Many of us would rather suffer through mosquitos, than to poison pollinators and birds in what appears to be a pointless and expensive strategy. (We STILL have mosquitos!) Here are the talking point that I agree with:

Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.)

Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.)

Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. (My neighbor has a lung condition that is greatly aggravated by the drift from mosquito spraying).

The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives.

Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying.

We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Thank you for your consideration.

Lynne Man
Lunenburg, MA

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 2:02 pm
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	66.31.130.113
Unique ID:	854582963
Location:	

Name	Jessika Brenin
Comments:	Please do not conduct aerial spraying! I do not believe the risk benefit ratio is high enough to publicly condone contamination of our natural, food, and and water ecosystems with toxic spraying.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: August 31, 2021 3:29 pm
Browser: Safari 14.0.3 / OS X
IP Address: 73.149.246.72
Unique ID: 854625605
Location:

Name	Catherine LeBlanc
Subject:	Mosquito Spraying
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 4:51 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	24.218.183.165
Unique ID:	854663470
Location:	

Name	Laura Reiner
Subject:	Mosquito Spraying
Comments:	The harm to birds, bees and other pollinators caused by aerial spraying for mosquitos far outweighs the health benefits -- EEE and other mosquito-borne illnesses affect a tiny percentage of humans. Please put state funds to better use to improve the environment for all living things!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	August 31, 2021 7:14 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	24.60.63.44
Unique ID:	854740676

Name	Natalie Lashmit
Subject:	Mosquito spraying in Massachusetts

Comments:

To whom it may concern:

The Task Force for the 21st Century will discuss the future of Mosquito control in Massachusetts. I would like to add my comments regarding the following:

Regarding Mosquito Control Practices in Massachusetts:

Adulticide and larvicide spraying by truck or by plane should only be used throughout the state in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.

If aerial spraying is practiced in Massachusetts, drift calculations must be considered and the results used to determine safe aerial practices. Communication regarding spraying needs to be as wide spread, varied and detailed with links to appropriate, accurate and timely information to allow persons impacted to plan to be out of the area.

Personal Opt Out Exclusions must be honored, regardless of regional impact,
even during a declared state of health emergency.

Accurate drift calculations must be calculated and communicated to protect opted out property.

Massachusetts must legislate stricter regulation of private pesticide use.

All ingredients, including inert ingredients, for products sold in Massachusetts must be required disclosures.

Regarding Municipal Opt Out Policy:

There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should request being opted in on an annual basis requiring local Boards of Health and the public to consider the current conditions in their municipality. Town Meeting and City Councils should be ready to address the annual assessment of their community’s needs.

Municipalities need to be provided clear guidelines regarding criteria for approval
in the opt out process. Guidelines regarding the criteria for approval must be published with sufficient time in advance for towns to plan and budget accordingly.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 6:59 am
Browser:	Chrome 87.0.4280.88 / OS X 10.10 Yosemite
IP Address:	68.118.206.148
Unique ID:	854917032
Location:	

Name	Jack Czajkowski
Subject:	Spraying for Mosquitos
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 8:45 am
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	24.34.192.23
Unique ID:	854956934
Location:	

Name	Bill Pula
Organization / Affiliation:	Board of Health
Subject:	Mosquito Control
Comments:	I'm, chairman of the Board of Health. Pelham applied for the Opt Out option and were rejected We are a small town with volunteers staffing most positions and can't fulfill the conditions for that option. I understand mosquitoes are a vector for serious diseases. We are planning to join the Pioneer Valley Mosquito Control District. Many people in Town are opposed to Chemical control I am not but with the District and their monitoring and the town in control I think there would be more acceptance of treatment.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 1, 2021 9:52 am
Browser: Firefox 91.0 / Windows
IP Address: 73.47.253.211
Unique ID: 854989103
Location:

Name	Sue Phelan
Organization / Affiliation:	GreenCAPE
Subject:	Mosquito Control Task Force

Comments:

September 1, 2021

Members of the Mosquito Control Task Force:

On behalf of GreenCAPE, I would like to express concerns about the use of toxic pesticides to manage mosquitoes in MA, and urge this Task Force to develop a science-based mosquito management policy to submit to lawmakers next year--a policy that prioritizes surveillance, mosquito habitat adjustment, and public education. Unrestricted spraying of toxic pesticides raises serious health concerns, especially during a pandemic, as the same toxic pesticides sprayed for mosquitoes are known to elevate risk factors to immune and respiratory systems. The broad use of the synthetic pyrethroid Anvil 10+10 not only replaces one risk to human health with another, but creates a long-term risk to remedy a short-term problem. Beyond that, according to the Centers for Disease Control and Prevention (CDC), the use of adulticides is usually the least effective control technique. (http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnvguidelines2001pdf)

The pesticide Anvil 10+10, sprayed from a plane or truck driving through our neighborhoods, IS harmful to humans and this exposure should be avoided. Anvil is a synthetic pyrethroid, containing sumithrin, piperonyl butoxide (PBO) and undisclosed inert ingredients. Inhaling pyrethroids can cause coughing, wheezing, shortness of breath, runny or stuffy nose, chest pain, or difficulty breathing. One exposure can create chronic asthma in a previously healthy individual. Pyrethroids have been shown in the lab to disrupt the endocrine system by mimicking the effects of the female sex hormone estrogen. Endocrine disrupters can lower the sperm count and cause the growth of abnormal breast cells. Pyrethroids also have been suspected to be a kidney toxicant, a neurotoxicant, and harmful to the thyroid. Skin contact can cause a rash, itching, or blisters. PBO prevents insects from detoxifying sumithrin, is considered more hazardous than most chemicals, can cause skin and eye irritation, and has been classified by the Environmental Protection Agency (EPA) as a possible human carcinogen. Anvil's inert ingredient polyethylbenzene (PEB) is a hazardous chemical that the EPA believes to be potentially toxic. Inert ingredients for pesticide products sold/applied in MA must be a required disclosure.
In 2019, at the same time several Massachusetts communities were struggling to remove PFAS from their drinking water supplies, Massachusetts aerially sprayed 2.2 million acres of the state with Anvil 10+10 and, in 2020, sprayed more than 200,000 acres.
Recently published reports in the Boston Globe indicate this product contains undisclosed PFAS 'forever chemicals''. Tests commissioned by Public Employees for Environmental Responsibility (PEER) on Anvil 10+10 revealed it contained approximately 250 parts per trillion (ppt) of PFOA (perfluorooctanoic acid) and 260 - 500 ppt of HFPO-DA (hexafluoropropylene oxide dimer acid, a "GenX" replacement for PFOA).

When the Massachusetts Department of Environmental Protection (MADEP) was alerted of these findings, it independently tested nine samples of Anvil 10+10 from five different containers, and found eight different PFAS, including PFOA and PFOS. https://cen.acs.org/environment/persistent-pollutants/PFAS-found-mosquito-spray-used/98/i47

The U.S. Environmental Protection Agency (EPA) has a 70 ppt Lifetime Health Advisory for PFOA and PFOS in drinking water. Massachusetts, has a much stricter regulatory limit than the EPA Advisory, i.e., 20 ppt for 6 PFAS substances combined (PFOA, PFOS, PFHxS, PFNA, PFHpA, and PFDA). PFAS are recognized to be persistent, bioaccumulative, and toxic and have been shown in the C-8 Study to be associated with a range of diseases. http://www.c8sciencepanel.org/prob_link.html

Should aerial spraying continue to be practiced MA, conclusive studies on drift must be conducted and the results incorporated into safer aerial practices and accurate drift calculations must reliably omit those properties that opt out. Personal opt out exclusions must be honored and a mechanism whereby municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control must be provided. Municipalities should be automatically opted out, until and unless they request to be opted in.

Spraying pesticides for mosquito control may be worse than ineffective; it may even make the situation worse. Spraying can increase mosquito populations by killing off natural predators (fish, other arthropods, birds, etc.) of the mosquitoes and their larvae, thereby removing natural checks on population levels. A 1997 study looked at trends in populations of Culiseta melanura, the mosquito primarily responsible for transmitting eastern equine encephalitis (EEE) among birds. Over a period of eleven years, Cicero Swamp in central New York State was sprayed fifteen times with the insecticide Dibrom (naled). Instead of declining, the population of Culiseta melanura grew fifteen-fold during this period. The study suggests that the pesticides may have altered the ecological balance of the swamp, killing organisms whose presence would ordinarily help limit the mosquito population. (Howard, John J. and Joanne Oliver. Impact of Naled (Dibrom 14) on the Mosquito Vectors of Eastern Equine Encephalitis Virus," Journal of the American Mosquito Control Association. Vol. 13, No. 4 (December 1997), pgs. 315-325.)

Dr. Ray Parsons, of the Harris County Mosquito Control Division in Houston, observed that malathion may actually aggravate Culex, causing an increase in aggressive biting behavior for an hour or two after spraying. (New York Public Interest Research Group, Interview with Dr. Ray Parsons. Harris County (Texas) Mosquito Control Division. September 11, 1999.)

It has been said that "every biocide selects for its own failure." This means that mosquitoes can and will become resistant to chemical efforts to destroy them. Overuse of pesticides may create resistant "super-mosquitoes" that require ever increasingly toxic chemicals to kill them.

Finally, residents living in sprayed areas may experience a false sense of security. If they "feel" that fewer mosquitoes are in the area due to

spraying, they may be less likely to use more proven measures to prevent mosquito breeding on their property and ignore or forget personal protective measures to reduce mosquito bites including the use of repellents, appropriate clothing, and avoidance of outdoor activity during twilight hours when many mosquitoes are most active.
Some Mosquito Control Districts-such as that on Cape Cod- have discontinued fogging and aerial spraying for mosquito control because these pose an unacceptable risk to residents, farmers, and tourists. As mentioned earlier-these measures are also ineffective in that they kill only a limited percentage of mosquitoes, increase the number of mosquitoes by destroying predators, create pesticide resistance by the mosquitoes to future control efforts, and can agitate mosquitoes to be more aggressive biters. Local mosquito control puts emphasis on monitoring mosquito populations, identification and elimination of breeding sites-primarily utilizing grounds crews and larvicides- along with public education to avoid dangerous and ineffective truck-based fogging and aerial spraying. Residents and tourists alike feel assured that the Cape Cod Mosquito Control Project is taking responsible action and not creating an even worse public health problem by needlessly exposing them to a mixture of harmful chemicals, not all of them identified or fully characterized with regard to impacts on human health and the environment.

We urge you to extrapolate this proactive model to other communities throughout the Commonwealth and be more diligent with early monitoring and habitat adjustment. We are opposed to adopting policy that involves automatic unnecessary spraying of mosquitoes and suggest the communities affected in the past might be better served with appropriate information on avoidance strategies and implementation of larvicidal services on known breeding sites earlier in the season ahead of a crisis. In the interests of protecting the health and safety of the residents of the Commonwealth, MA must legislate stricter regulation of private pesticide use as well and create a pesticide use database for all purchases and applications of pesticides in the State.

Sincerely,

Sue Phelan, Director
GreenCAPE
P.O. Box 631
West Barnstable, MA 02668
508.362.5927

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 10:52 am
Browser:	Safari 14.1.1 / OS X
IP Address:	161.77.224.126
Unique ID:	855019790
Location:	

Name	Leslie Cerier
Subject:	No spraying for mosquitoes

Comments:

To whom it may concern:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 11:20 am
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	98.229.127.147
Unique ID:	855035366
Location:	

Name	Patricia OHagan
Organization / Affiliation:	Mothers Out Front
Subject:	Spraying to kill mosquitos
Comments:	Please please do not spray hazardous chemicals on our lawns--they kill bees and beneficial insects. the spray is irritating to those with pulmonary conditions. EEE is rare, sports times can be changed away from dusk when mosquitos are out. NO to spraying to kill mosquitos

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 11:27 am
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	24.218.242.146
Unique ID:	855038897
Location:	

Name	Gail Alden
Subject:	NO to spraying for Mosquitos
Comments:	Spraying chemicals to kill mosquitos is a bad idea. It kills other insects and is toxic to humans. The risk of mosquito borne diseases in Mass. is extremely low. Our environment is more important than protecting the one or two who contract a disease from a mosquito bite. Vote NO on spraying. Thank you. Gail Alden

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 12:38 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	24.181.226.186
Unique ID:	855076709
Location:	

Name	Dr. Joann Lindenmayer
Organization / Affiliation:	Uxbridge Board of Health
Subject:	Oppose aerial spraying for adult mosquito control
Comments:	As a public health professional for the past 32 years (and veterinarian by training), I oppose the use of aerial spraying to control adult mosquito populations. My reasons for coming to this conclusion are the following: 1. Spraying eliminates only 38% of the population that is reached, leaving 62% untouched and still able to transmit arboviruses; 2) as a former Epidemic Intelligence Service officer trained in epidemiology by the Centers for Disease Control and Prevention, I know that it is impossible to measure the effectiveness of spraying by linking it to human illness and deaths. The only indicator that is measurable is the mosquito population reachable at the time of spraying, and, as noted above, this is only an indirect, proxy measure and ineffective. I have grave concerns about the insect and aquatic populations that would be harmed by aerial spraying for mosquitoes and believe strongly that, as we humans have overrun the environment, we will do greater damage to the environment that sustains us and all living things if we permit aerial spraying to proceed. The most effective measures to prevent human illness and deaths are personal protective measures undertaken by individuals and education and outreach undertaken by state and local health departments. Early application of larvicides can also be effective but this needs to be done in March/April. By the time adult mosquitoes pose a threat to people, it is too late for larvicide application and too dangerous to the environment for spraying. I fervently hope that aerial spraying is never again permitted in Massachusetts.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 12:51 pm
Browser:	Safari 14.1.1 / OS X
IP Address:	70.105.228.13
Unique ID:	855083369
Location:	

Name	Emily Haslett
Organization / Affiliation:	Mothers Out Front Lincoln
Subject:	Mosquito Spraying Should Not Happen in Massachusetts
Comments:	Hi, As a member of Mothers Out Front Lincoln and a mother of four, I am writing to list some of the many reasons Massachusetts should not spray for mosquitoes. EEE and West Nile are a miniscule threat compared to what the devastating human and ecological effects would be of the toxic spray. There is no way to control where the spray lands because of unpredictable wind conditions, and it will pollute waterways as well as farmland. We know too much about the hazards of wantonly spraying toxic chemicals. Let's stop, please. Enough is enough. Thank you for thinking about our children's and their children's future and about the fragility of this planet. Respectfully, Emily Haslett

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 12:51 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	66.30.51.59
Unique ID:	855083381
Location:	

Name	Stacey Parks
Subject:	Mosquito Spraying
Comments:	Please do not do this!!! It is ineffective in controlling West Nile virus and EEE. The spraying is not targeted enough and lands in waterways and on organic farmland. It is harmful to bees which are already in a dangerously dwindling state. Please, please, please pause. Thank you!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 1:07 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	76.19.120.246
Unique ID:	855091727
Location:	

Name	Linda Hillson
Organization / Affiliation:	Lunenburg Community Pollinator Habitat
Subject:	Please stop routine mosquito spraying
Comments:	Please stop routine mosquito spraying. Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 1:09 pm
Browser:	Safari 14.1.1 / OS X
IP Address:	173.76.107.157
Unique ID:	855092639
Location:	

Name	Belinda Gingrich
Subject:	Please don't spray!
Comments:	I would rather be exposed to a mosquito bite than to unknown chemicals which could have long term effects . Have we learned nothing since Rachel Carson published Silent Spring? We thought we knew what the long term effect of spraying was in the 60's and the cancer rate 30 years later was awful. I don't want my family to be exposed to these risks. There is no way spraying will eliminate mosquitoes but it will damage other insects and throws the balance off. Please don't spray!

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 1, 2021 1:21 pm
Browser: Safari 14.1.1 / OS X
IP Address: 134.174.140.250
Unique ID: 855098716
Location:

Name	Mohammed Hannan
Organization / Affiliation:	Hannan Agro Farms
Subject:	NO Mosquito spraying please!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 1:29 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	173.76.107.157
Unique ID:	855102553
Location:	

Name	Paul Gingrich
Subject:	Mosquito Spraying
Comments:	Dear Task Force, We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season. No more spraying of pesticides, please. Regards, Paul G.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 1:40 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	107.77.223.79
Unique ID:	855107577
Location:	

Name	Bryn Gingrich
Subject:	No spraying for the environment
Comments:	Please consider this submission of comments against mosquito spraying in MA. Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 2:01 pm
Browser:	Safari 12.1 / OS X
IP Address:	73.253.73.87
Unique ID:	855117765
Location:	

Name	NAncy Fleming
Subject:	NO to mosquito spraying
Comments:	Please do not spray chemicals on our yards, or fields and our animals to kill mosquitoes. If the spray kills mosquitoes, it also kills that which we depend on - our health, our food systems and our soils. it is hard to believe that with all we have learned in the last 50 years, that anyone would even be considering such actions. Please do NOT spray.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 4:33 pm
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	65.96.169.181
Unique ID:	855190674
Location:	

Name	Ann Spanel
Organization / Affiliation:	Mass. Association of Chemically Injured
Subject:	Comments to Mosquito Control Task Force

Comments:

Regarding Mosquito Control Practices in MA:
? Due to the lack of efficacy and product danger, adulticide and larvicide spraying
by truck or by plane, should not be used throughout the state, even in a declared
state of health emergency. If larvicides are used, the briquette form should be
locally applied to the smallest targeted areas.
? If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
? Personal Opt Out Exclusions must be honored, regardless of regional impact,
even during a declared state of health emergency. Accurate drift calculations
must be calculated to protect opted out property.
? MA must legislate stricter regulation of private pesticide use.
? Inert ingredients for products sold in MA must be a required disclosure.
? Regarding Municipal Opt Out Policy:
? There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted
out, and allowed to request being opted in.
? In 2021, municipalities were not given guidelines regarding criteria for approval
in the opt out process. In 2022, that criteria must be published months in advance,
so towns have time to plan and budget accordingly.
? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt
out applications, the requirements for approval in 2022 cannot be retroactively
based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 4:51 pm
Browser:	Safari 14.1.1 / OS X
IP Address:	73.186.54.164
Unique ID:	855199085
Location:	

Name	Sarah Bliss
Subject:	Mosquito control: ban pesticide aerial and truck spraying!
Comments:	As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following: • Regarding Mosquito Control Practices in MA: • Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. • If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. • Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. • MA must legislate stricter regulation of private pesticide use. • Inert ingredients for products sold in MA must be a required disclosure. • Regarding Municipal Opt Out Policy: • There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in. • In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly. • The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 4:54 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	71.192.11.60
Unique ID:	855200159
Location:	

Name	John Nelson
Organization / Affiliation:	Plainfield Conservation Commission
Comments:	Due to lack of data on effectiveness and safety of state-wide aerial spraying, it should not be used as the method of choice. If it is used at all, communities should, by default be "opted out" with the option of opting in. The better choice is to use selective measures, such as eliminating mosquito breeding sites and using biological control (e.g. B. thuringiensis var. Israeliencis, larvicide) in areas in which arbovirus has actually been detected.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 5:44 pm
Browser:	Chrome Mobile 83.0.4103.106 / Android
IP Address:	174.192.2.35
Unique ID:	855220397
Location:	

Name	Tracy Hartshorn
Subject:	Mosquito control legislation
Comments:	We should not be using mosquito controls in chemical form at all and especially if humans are not impacted greatly. The difference between 4 to 0 people is small. Furthermore, invest in biological controls of mosquitoes such as bats and dragonflies and birds. Plant more wild areas for flowers to grow to stimulate the proliferation of such wildlife. Lastly, encourage home owners and businessed to reduce grass only areas so that wild flowers can grow. Chemical sprays are detrimental for all wildlife and linger in the ecosystem through bioaccumulation. We must learn to become harmonious with nature and not to control it. All life has been wild longer than humans have existed. We need wildlife more than it needs us, so let's take care of wildlife.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 8:08 pm
Browser:	Firefox 78.0 / OS X
IP Address:	73.219.141.122
Unique ID:	855269314
Location:	

Name	rebecca muller
Subject:	opposition to the use of blanket mosquito spraying and an advocating for opt outs

Comments:

To whom it may concern:

As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following:

• Regarding Mosquito Control Practices in MA:
• Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas.
• If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
• Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property.
• MA must legislate stricter regulation of private pesticide use.
• Inert ingredients for products sold in MA must be a required disclosure.

• Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 1, 2021 8:19 pm
Browser:	Firefox 91.0 / Windows
IP Address:	75.68.213.210
Unique ID:	855272567
Location:	

Name	A McCall
Subject:	Don't Spray!
Comments:	Widespread spraying of noxious pesticide chemicals kills too many beneficial insects - not just mosquitoes. The insects covered with chemicals are ingested by all kinds of birds and other animals, which are then poisoned. We humans are killing too many other creatures for our own convenience. There are other ways to prevent mosquito bites and spread of disease. Please don't spray!

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 2, 2021 12:17 am
Browser: unknown / unknown
IP Address: 18.118.82.97
Unique ID: 855328954
Location:

Name K. Krusell

Subject: Feedback for the Mosquito Control Task Force

Comments:

Dear Task Force Members:

I respect your goal to mitigate Arboviruses.

As one of the 15% of citizens of the Commonwealth (i.e. approximately 1.6 million) who have been disabled by substances registered by the EPA at levels considered GRAS, my survival depends on your next steps. Accordingly, I ask you to incorporate the following.

Regarding Mosquito Control Practices in MA:
• Emphasis on IPM, public education, and larvaciding with briquettes should take precedence since these methods are the most effective, least toxic means of pest control.
• Widespread spraying, by plane or truck,should be discontinued since it has a history of nominal efficacy and significant detrimental impacts on human health.
• Personal Opt Out Exclusions should be granted to preserve and protect vulnerable populations.
• MA must review stricter regulations for private pesticide use, drift requirements, etc.
• So called inert ingredients for products sold in MA should be a required disclosure, ideally on the label.

Regarding Municipal Opt Out Policy:
• There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in.
• In 2021, municipalities say they were not given sufficient guidelines regarding criteria for approval in the opt out process. In 2022, that criteria should be published months in advance, so towns have time to plan and budget accordingly.
• The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Thank you for your time and consideration.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 2, 2021 9:38 am
Browser: Chrome 92.0.4515.159 / OS X
IP Address: 98.229.127.147
Unique ID: 855463299
Location:

Name	Phoebe Chatfield
Subject:	Spraying toxins is NOT worth the risk!
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 12:29 pm
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	74.104.165.66
Unique ID:	855544931
Location:	

Name	Sharon Brownfield
Organization / Affiliation:	First Parish Church Stow and Acton
Subject:	Comments on Mosquito Spraying
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season. Please reconsider any spraying - We in Stow certainly don't want it. There are ways individuals can protect themselves. Let's not further damage the environment.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 1:00 pm
Browser:	Firefox 91.0 / Windows
IP Address:	216.193.175.218
Unique ID:	855559314
Location:	

Name	Anna Hanchett
Organization / Affiliation:	Plainfield Agricultural Commission
Subject:	reasons for an environmentally friendly mosquito control program

Comments:

On behalf of the Plainfield Agricultural Commission I am writing to encourage your further efforts to change the emphasis of the state's mosquito control program from spraying pesticides, i.e. killing, to more environmentally sensible reduction of man-made mosquito breeding places and education of our residents to self-protective measures.

The aerial spraying of pesticides is both dangerous and relatively ineffective in reducing the target species. It does, however, have dangerous effects on many people and disastrous results in populations of untargeted species of many types from insects to fish to arachnids, amphibians, and small mammals. Almost all insects -- including honeybees, native bumblebees, and other pollinators -- are harmed or killed by aerial pesticide spraying. Many types of mosquito predators are also harmed by the insecticide, thus reducing the possibility of natural mosquito control. Spraying is a relatively uncontrollable means of spreading a pesticide due to drift, temperature, and the imprecision of aerial dispensing. It has the potential for unintended contamination of open water, gardens, and livestock and crops of both conventional and organic farms.

We must also remember that mosquitoes in each of their life stages provide important food to a wide variety of insects and animals.

Plainfield successfully opted-out of the state mosquito control spray program this year. We are actively continuing our public educational efforts using posters, handouts, tabling, and school projects to raise awareness of both the dangers and the necessity of mosquitoes and how we humans can safely live with what is admittedly a nuisance and sometimes a carrier of disease.

Respectfully submitted by the
Plainfield Agricultural Commission,

Anna Hanchett, chair
Bi-sek Hsiao
Ed Stockman
Sadie Stull
Education committee:
Anne Williamson
Chris Stockman

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 1:55 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	72.19.80.55
Unique ID:	855585679
Location:	

Name	Jason Rupp
Subject:	Aerial spraying
Comments:	To whom it may concern: As the Task Force for the 21st Century discusses the future of Mosquito control in MA, here is my position regarding the following: • Regarding Mosquito Control Practices in MA: • Due to the lack of efficacy and product danger, adulticide and larvicide spraying by truck or by plane, should not be used throughout the state, even in a declared state of health emergency. If larvicides are used, the briquette form should be locally applied to the smallest targeted areas. • If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices. • Personal Opt Out Exclusions must be honored, regardless of regional impact, even during a declared state of health emergency. Accurate drift calculations must be calculated to protect opted out property. • MA must legislate stricter regulation of private pesticide use. • Inert ingredients for products sold in MA must be a required disclosure. • Regarding Municipal Opt Out Policy: • There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted out, and allowed to request being opted in. • In 2021, municipalities were not given guidelines regarding criteria for approval in the opt out process. In 2022, that criteria must be published months in advance, so towns have time to plan and budget accordingly. • The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season." While municipalities may be held accountable for what they promised in their 2021 opt out applications, the requirements for approval in 2022 cannot be retroactively based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 4:00 pm
Browser:	Firefox 91.0 / Windows
IP Address:	71.233.112.226
Unique ID:	855644080
Location:	

Name	Ellen Moyer
Subject:	Stop the Spray
Comments:	Eastern Equine Encephalitis and West Nile Virus are exceedingly rare diseases. (The annual estimated WNV number of deaths in MA with no mosquito control of any kind is two. The estimated EEE number of deaths with no mosquito control is four.) Contrast these tiny numbers with the thousands of children and adults with pre-existing health conditions who are put at heightened risk of adverse health effects from aerial and truck spraying of toxins. (Children are much more susceptible to toxic pesticides than are adults.) Wind drift makes it difficult to control where pesticides land -- ground spraying can drift up to 300 feet even with no wind and aerial spraying can drift up to eight miles! Spraying has the potential for unintended contamination of open water, gardens, and organic farms. The state's current pesticide of choice, Anvil 10+10, is highly toxic and not acceptable, given the availability of minimum risk and organic certified alternatives. Birds, bees, wildlife in general, and insects -- including honeybees, native bees, and other pollinators -- as well as natural predators of mosquito larvae --are harmed or killed by aerial or roadside pesticide spraying. We are never going to get rid of all mosquitoes, nor do we want to as they are valuable food for other insects, birds, and bats. Municipalities and the Commonwealth must avoid the possible need for mosquito-spraying in the late summer by creating and instituting plans for safe, effective, and ecologically-sound mosquito control measures early in the season.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 4:02 pm
Browser:	Firefox 91.0 / Windows
IP Address:	161.77.41.41
Unique ID:	855644757
Location:	

Name	Kenneth Lederman
Subject:	use of pesticides for mosquito control
Comments:	Please limit the use of pesticides for mosquito control. They harm the environment and, over time, cause health problems for much of the population. Thank you. Kenneth Lederman and Helena Dinerman

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 4:14 pm
Browser:	Mobile Safari 14.1.2 / OS X
IP Address:	71.233.63.86
Unique ID:	855650646
Location:	

Name	Carol Houde
Subject:	Spraying for Mosquitoes
Comments:	Given the importance of protecting and encouraging pollinators including honeybees and bumblebees, and the fact that one bumble bee is already extinct, there should be a definitive guidelines for spraying pesticides, and only under the most dire circumstances. The public needs to take personal responsibility for their own safety by avoiding high biting times and wearing the appropriate clothing to prevent bites. There cannot be a cavalier attitude about this. Pesticides are also dangerous to wildlife. Recent bird die-offs have been attributed to the overuse of pesticides while spraying for cicadas. The balance of nature is important for the Planet. There is no Earth #2.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 9:41 pm
Browser:	Chrome 92.0.4515.159 / Windows
IP Address:	66.189.61.143
Unique ID:	855754345
Location:	

Name	Heidi A Dollard
Organization / Affiliation:	Massachusetts Pollinator Network
Subject:	Eliminate all mosquito spraying
Comments:	Mosquito spraying is damaging to human health as well as the environment. It is expensive and ineffective. It should be stopped completely.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 2, 2021 11:35 pm
Browser:	Safari 13.1.2 / OS X
IP Address:	71.174.216.22
Unique ID:	855779041
Location:	

Name	James Vander Poel
Subject:	Spraying for mosquitos: why?
Comments:	I live in Northborough, near the headquarters of the Central Massachusetts Mosquito Control Project. Over the years, spraying has been done in my neighborhood. I don't know what chemicals have been used in the past, but I do know that the amount of effort expended, and the toxic effect of today's chemicals on pollinating insects and humans is simply not worth it. Not enough lives are saved to warrant the environmental damage done by the spraying of toxic chemicals that do more damage to the environment. I live in an area where there is standing and/or slow-moving water, so I'm not unfamiliar with mosquitos. But I'd rather put up with them and have bees around. Let's put a stop to the spraying of toxic chemicals. Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 3, 2021 5:34 pm
Browser:	Chrome 90.0.4430.93 / Windows 8.1
IP Address:	98.229.37.69
Unique ID:	856110618
Location:	

Name	Jean Lemieux
Organization / Affiliation:	Massachusetts Association for the Chemically Injured
Subject:	Comments to the Task Force
Comments:	Please be sure to include the Comments that MACI sent in during the listening session.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 7, 2021 3:05 pm
Browser:	Chrome 92.0.4515.131 / Windows
IP Address:	108.20.24.17
Unique ID:	857297202
Location:	

Name	Cathleen Drinan
Organization / Affiliation:	Plymouth County Mosquito Control Project
Subject:	Hiedi Ricci's comment on pyrethroids
Comments:	During the 9-2-21 Taskforce meeting, Hiedi Ricci's comment ed that EPA says pyrethroids need more study. I cannot find that on EPA's website. Could you send us a link to that? What I found was this: What is The Current Regulatory Status of Pyrethroids? We are currently reevaluating all pyrethrins, pyrethroids and synergists through registration review. Registration review is our program for systematically reviewing all registered pesticides every 15 years to make sure that every pesticide can still perform its intended function without unreasonable adverse effects on human health or the environment. As a result of the Food Quality Protection Act, EPA must consider the cumulative risks of pesticides that, like the pyrethroids and pyrethrins, share a common mechanism of toxicity. In November 2011, we completed a cumulative risk assessment for the pyrethroids/pyrethrins and identified no cumulative risks of concern. This assessment is available from Regulations.gov, docket EPA-HQ-OPP-2011-0746.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 10, 2021 7:40 pm
Browser:	Safari 14.1.1 / OS X
IP Address:	96.230.1.107
Unique ID:	858925170
Location:	42.576698303223, -70.954902648926

Name	Ingrid Barry
Subject:	Chemical spraying for mosquito control
Comments:	Please do not make the standards for municipalities and landowners to opt-out of spraying of pyrethroid pesticides in your attempt to control mosquitoes. There are more effective ways to reduce the risk of WNV and EEE - including restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat. Too much harm to nature comes from the spraying and no guarantee of benefits.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 10, 2021 7:59 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	24.194.105.3
Unique ID:	858929241
Location:	43.131301879883, -74.35710144043

Name	Carolyb Bishop
Subject:	Mosquito Control

Comments:

> Back in the 1970s it was common for towns to routinely spray several times a year to 'control' various pests including mosquitoes. Sevin, malathion and other toxics were used.

In 1979 a statewide committee was formed to examine the role of the Pesticide Board and develop a Generic Environmental Impact Report on the use and impact of pesticides in mosquito control. I was on the Citizens Advisory Committee. The report was competed but never adopted until it was revised in 1995. (source available with "Pesticide Board" search).

The use of aerial spraying was heavily criticized as being ineffective and environmentally damaging. As one professional said "To be effective a drop of spray must hit the insect, like going after a butterfly with a machine gun"!

> There are so many alternatives for mosquito control: most simply public education on eliminating standing water where mosquitoes breed; then CO2 traps to monitor population, Bti in wetlands and Altocid briquets in storm drains, both for larval control and finally if necessary truck spraying with Sumethrin, a pyrethoid against EEE but recognizing the ineffectiveness of such broadcasting.. As shown aerial spraying is a disastrous method with negative side effects.

We are good at inventing toxic chemicals but not so good at controlling the uses or unintended consequences.
>

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 11, 2021 1:38 pm
Browser:	Chrome 92.0.4515.159 / OS X
IP Address:	75.67.170.223
Unique ID:	859113468
Location:	41.635398864746, -70.943496704102

Name	Marjorie Greville
Subject:	Mosquito Control Spraying
Comments:	I would like the state to halt all spraying of pesticides on landscapes until there is proof that the poison works. I believe most if not all of the sprayed pesticides hurt the environment by killing non-targeted insects, birds, and fish and contaminating farm soils. As a human - I do not want to breathe any of the spray.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 12, 2021 9:30 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	71.235.166.201
Unique ID:	859423739
Location:	42.634201049805, -72.602600097656

Name Jonathan Kennedy

Subject: Mosquito Control Task Force

Comments:

To whom it may concern:

As the Task Force for the 21 st Century discusses the future of Mosquito control in MA, here is
my position regarding the following:

? Regarding Mosquito Control Practices in MA:
? Due to the lack of efficacy and product danger, adulticide and larvicide spraying
by truck or by plane, should not be used throughout the state, even in a declared
state of health emergency. If larvicides are used, the briquette form should be
locally applied to the smallest targeted areas.
? If aerial spraying is practiced in MA, conclusive studies on drift must be conducted and the results used to determine safe aerial practices.
? Personal Opt Out Exclusions must be honored, regardless of regional impact,
even during a declared state of health emergency. Accurate drift calculations
must be calculated to protect opted out property.
? MA must legislate stricter regulation of private pesticide use.
? Inert ingredients for products sold in MA must be a required disclosure.
? Regarding Municipal Opt Out Policy:
? There should always be a mechanism where municipalities can exempt themselves from Reclamation Board and Mosquito Control Districts and maintain autonomous local control. Municipalities should be automatically opted
out, and allowed to request being opted in.
? In 2021, municipalities were not given guidelines regarding criteria for approval
in the opt out process. In 2022, that criteria must be published months in advance,
so towns have time to plan and budget accordingly.
? The 7/12/2021 letters from the EEA to municipalities approving opt out for municipalities, stated, "To facilitate planning improvements throughout the remainder of this season, please see attached for a document containing mosquito control resources for cities and towns. We expect that your municipality will review these materials and implement best practices to the maximum extent practicable throughout the rest of the season."

While
municipalities may be held accountable for what they promised in their 2021 opt
out applications, the requirements for approval in 2022 cannot be retroactively
based on expanded criteria changed mid-July.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 13, 2021 7:10 am
Browser:	Safari 14.1.2 / OS X
IP Address:	76.19.153.44
Unique ID:	859542077
Location:	

Name	Stuart Armstrong
Subject:	Mosquito control
Comments:	I do not support the use of spraying for mosquito control. The cost and benefit don't match up. And spraying kills a lot of other key insects and pollinators that has a negative impact on birds, amphibians, mammals, humans and agriculture. Please discontinue mosquito spraying as currently used and look for safer more effective more cost efficient alternatives.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 13, 2021 3:21 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	72.70.43.175
Unique ID:	859789794
Location:	

Name	Paulajean O'Neill
Subject:	Mosquito control
Comments:	Please NO CHEMICAL SPRAYING! It is 2021 and we need to use science based, ecologically sound methods to reduce health risks associated with mosquitoes.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 13, 2021 4:48 pm
Browser:	Safari 14.7 / OS X
IP Address:	24.34.108.108
Unique ID:	859832932
Location:	42.533500671387, -71.10359954834

Subject: Mosquito Control Policy in Massachusetts

Comments: I attempted to read your report, not easy for average citizen to understand the conclusions. I will say I'm opposed to spraying pesticides to kill mosquitoes because it's affecting more than just mosquitoes and it's appalling and inappropriate to force organic growers or municipalities to " opt out" instead of having an "opt in" system. Rather than harming nature by carpet bombing our land with pesticides can't we come up with a better solution? Aren't bees and other pollinators unnecessarily attacked by these methods? I personally apply mosquito repellent to myself when I walk in nature, I do not spray my surroundings, and this method works quite well. I change the water in my birdbath daily. These are not difficult things. I will be disappointed if the State can't come up with a better solution. We should be able to improve on past practices, not just continue spraying because it's easier.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 13, 2021 8:59 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	73.114.51.49
Unique ID:	859920063
Location:	

Name	beth thomson
Organization / Affiliation:	unaffiliated
Subject:	safe mosquito control
Comments:	Please find environmentally friendly mosquito control methods. Current practices endanger both human and environmental health. Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 14, 2021 12:20 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	71.234.243.83
Unique ID:	860203909
Location:	

Name	Ryan Dorsey
Subject:	Please stop spraying our communities with chemicals
Comments:	As a resident of Massachusetts for the last decade, I am deeply concerned by the state's widespread use of pyrethroid pesticides for mosquito control. Not only are these methods lacking in scientific evidence to support their effectiveness, they represent a grave danger to our state's already threatened biodiversity as well as to our residents. I encourage you to put the state's resources to better use by employing mosquito control methods that are rooted in ecological restoration, rather than statewide spraying as the default. Through science-based, ecological restoration approaches, we can still meet our goals of reducing the danger of disease, while also strengthening the nature-based solutions that we know are a win-win for our climate and communities.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 14, 2021 12:48 pm
Browser:	Firefox 92.0 / Windows
IP Address:	73.219.142.32
Unique ID:	860218924
Location:	42.181800842285, -71.196197509766

Name	Alyssa Foos
Subject:	No forced spraying please
Comments:	There are more effective ways to reduce the risk of WNV and EEE. These include personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat. Nature-based solutions can also have the added benefit of strengthening resilience to climate impacts like flooding. I work at the community garden in Norwood, and do not want our organic gardens full of pollinators/bees ruined by spraying. Thank you for listening.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 14, 2021 4:28 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	70.90.105.145
Unique ID:	860328660

Name	Michele Grzenda
Organization / Affiliation:	Lincoln Conservation Dept
Subject:	Mosquito Bite Prevention
Comments:	To whom it may concern, I oppose expanded pesticide spraying and support ecologically based management mosquito control focused on protection of human health and the environment. There are more effective ways to reduce the risk of WNV and EEE – including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat. attached is a town-wide flyer sent to all Lincoln residents. I urge the task force to consider increased education and outreach resources for towns and cities to share with their residents.
File	https://massgov.formstack.com/admin/download/file/11344886670

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 14, 2021 6:28 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	76.118.101.197
Unique ID:	860375984
Location:	42.08039855957, -70.939300537109

Name	Pat Neary
Organization / Affiliation:	Bridgewater Green Committee
Subject:	Mosquito Control
Comments:	There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat, than spraying everything! Why do you continue this polluting, wasteful practice?

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 14, 2021 9:23 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	71.233.115.75
Unique ID:	860430276
Location:	

Comments:

Please update your practices to reflect the reality of studies that show spraying to be ineffective and instead concentrate on public education about mosquito breeding places to eliminate and personal mosquito protection.

Thank you, Susan, a concerned citizen who doesn't want to see bees and many other beneficial insects destroyed by mosquito spraying. That is just financially foolish.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 15, 2021 6:30 am
Browser:	Safari 14.1.2 / OS X
IP Address:	67.142.100.219
Unique ID:	860544270
Location:	37.750999450684, -97.821998596191

Name	Ken Kipen
Organization / Affiliation:	PATH, Ashfield
Subject:	M osquito control vs. public & environmental health
Comments:	Please reconsider in favor of environmental health and safety! These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Your agency's analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. There are more effective ways to reduce the risk of WNV and EEE, including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 15, 2021 10:11 am
Browser:	Firefox 92.0 / Windows
IP Address:	71.192.36.90
Unique ID:	860630731
Location:	42.329399108887, -72.693901062012

Name	Hollis Wheeler
Organization / Affiliation:	Mass. Pollinater Network
Subject:	Mosquito Pesticide Spraying----DON'T DO IT
Comments:	Dear Task Force: We are ALREADY in the 7th Great Extinction of all animals, including insects other than mosquitos, and birds, that are affected by mosquito pesticide spraying. We are drowning the world and ourselves in pesticides, and it has to stop. This is intimately connected to global warming and the barren world we are leaving our children, grandchildren, and all God's creatures. A dozen cases/fatalities of mosquito borne illnesses a year PALES by comparison to the mega-death and destruction we are wielding with pesticides. Permit towns that want to opt out to be released. Hollis Wheeler

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 15, 2021 2:43 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	71.232.85.236
Unique ID:	860772390
Location:	42.55659866333, -71.908599853516

Name	Roberta Flashman
Organization / Affiliation:	Ashby Naturals
Subject:	Negative effects of mosquito spaying
Comments:	In an area of Massachusetts that has no/none EEE or WNV reported, it is irresponsible for the state to disallow an opt-out for the town of Ashby. We have many many farms in town, most of which are organic - either certified or otherwise. We also have many, many bee keepers in town. The sprays being proposed for indiscriminate use will negatively affect both bees, native and domesticated, and render false the organic label for all produce. In addition, the dense forests of Ashby have been shown to be basically impenetrable beyond 150 ft from a road. Also, wetlands are adversely affected, which echoes throughout the wildlife of Ashby into birds and mammals as well as humans. The opt out process was a joke. To continue forward as though it was valid is also a joke and shows a blatant disregard for people in this area of Massachusetts. Think again! Think about how far the state went to ensure that vaccination for COVID were accepted by the population and how many activities were curtailed. Then think about what you are doing on the other side of the spectrum to adversely affect areas not in harms way of the mosquito. Shame. Shame. Shame. Sincerely, Roberta Flashman

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 15, 2021 4:04 pm
Browser:	Chrome 93.0.4577.82 / Windows
IP Address:	100.0.125.66
Unique ID:	860811535
Location:	42.06079864502, -71.233703613281

Name Jane Pierce

Subject: Mosquito Control Programs

Comments:

As a Massachusetts landowner and wetland scientist, I am strongly opposed to expanded pesticide spraying. The state's existing mosquito control programs are antiquated and fragmented. Fundamental reform of legislation governing mosquito control is needed to update the programs and make them consistent with the best available public health based operating standards.

I strongly support the use of a scientifically and ecologically based mosquito-borne disease management program to protect public health, while minimizing environmental and public health risks associated with some forms of mosquito control.

The 2021 Mosquito Control Task Force Report summarizes current mosquito control practices and confirms that there is no quantifiable evidence that current practices, including the routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and also pose health risks to people. Despite the lack of data on effectiveness, the Report claims that reducing spraying would increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals.

The spraying of pesticides to control adult mosquitoes is the least effective and most environmentally damaging method of mosquito control. Because mosquitoes breed so rapidly and in so many locations, most current mosquito control practices have only local and temporary effects on numbers of biting mosquitoes.

From a human health perspective, the risks of mosquito-borne disease must be balanced against the risks of human health effects of pesticides. Spraying should only be conducted where the risk of human cases of WNV or EEE is high due to actual presence of WNV- or EEE-carrying mosquitoes in close proximity to concentrations of human habitation.

The Massachusetts Department of Public Health (DPH) should be the primary authority establishing the protocols for spraying based on best available science and risk assessments. The DPH's Massachusetts Arbovirus Surveillance and Response Plan emphasizes preventing mosquito bites through public education, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito eating predators to natural habitats. The DPH also supports judicious, targeted use of larvicides such as in catch basins.

The state recently denied requests from 11 communities to opt-out of chemical spraying, and has indicated that the standards for municipalities and landowners to opt-out will be made even more stringent next year. As a landowner who believes in nature's environmental processes, and who

grows food and pollinator gardens without pesticides, I do not want to be subjected to chemical spraying if the state program continues in this direction.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 15, 2021 10:40 pm
Browser:	Safari 11.1 / OS X
IP Address:	74.74.202.209
Unique ID:	860941361
Location:	43.166698455811, -77.825202941895

Name	Anne O'Connor
Subject:	Opposition to expanded pesticide spraying/Support for ecological mosquito control measures

Comments:

Dear Mosquito Control Task Force,

I am writing in opposition to expanded pesticide spraying and in support of ecologically based mosquito control measures focused on protection of human health and the environment.
According to the state's report on current mosquito control practices, there is no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases.

I am extremely concerned that such chemicals are being used. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals.

There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

My own community, Williamstown MA, where I served as a Member of the Select Board through May of this past year, does not do blanket spraying and would not want to move in that direction. In the past, our approach has involved the elimination of avoidable breeding areas, and targeted use of larvicides. Williamstown also passed a resolution in 2018 declaring our community "Pollinator-Friendly": widespread mosquito spraying violates this resolution and is not consistent with our Town's values or interests.

For these reasons, I urge you to reject any expansion of the mosquito control practices.

Anne O'Connor
201 Cole Ave, Apt 103
Williamstown, MA 01267

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 12:48 pm
Browser:	Firefox 92.0 / Windows
IP Address:	216.193.173.10
Unique ID:	861219015
Location:	42.173301696777, -72.771499633789

Name	Cindy Hartwell
Subject:	NO to Mosquito spraying!
Comments:	I greatly object to the routine spraying of pyrethroid pesticides for mosquito control in our communities and on private property. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. There are better, and much less harmful ways to protect against WNV and EEE without spraying the land with poison. Please reevaluate your study to consider harmful effects to pollinators, the environment - especially agriculture, and people's overall health. And lastly, you need to honor the wishes of any community who has requested an opt-out!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 1:00 pm
Browser:	Firefox 91.0 / Windows
IP Address:	174.192.16.205
Unique ID:	861224542
Location:	

Name	Mary Thomas
Subject:	Mosquito spraying
Comments:	Reports that insect populations have declined by 75% came out four years ago. It's irresponsible for Massachusetts not to have changed its aerial mosquito spraying policy in response. It's also extremely offensive to the communities who made the effort to apply to opt out to have those applications turned down. How dare some agency in Boston make these decisions for us? Human beings need to stop eliminating other species in order to prevent one or two human illnesses.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 1:27 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	216.193.165.160
Unique ID:	861238884
Location:	42.173301696777, -72.771499633789

Name	Amy Simmons
Subject:	Pesticides
Comments:	Please do not spray pesticides on Wendell. Let us choose our own insect repellents. We are all capable of applying bug repellent as needed. We do not need poison sprayed broadly over our town. Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 3:39 pm
Browser:	Mobile Safari 13.0.5 / iOS
IP Address:	216.193.164.114
Unique ID:	861300881
Location:	

Name	Clifford Dornbusch
Organization / Affiliation:	Tree warden of Wendell
Subject:	No pesticide spray for mosquitos; please
Comments:	Hi, I am writing to request on behalf of the ecological balance of the planet to not spray pesticides to reduce mosquito populations here in Massachusetts and especially in Wendell/ franklin county. Tho they are a nuisance this area is a swamp where mosquitos are in high population. This is also the home of large populations of dragon flies and bats. Poisoning the mosquitos will lead to ecological collapse of the fish, invertebrate, bird and other sensitive species that depend on healthy insects for their survival. Please do not put human comforts over the health and long terms success of these habitats and species at risk. With gratitude, Clifford P.S. Dornbusch

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 4:09 pm
Browser:	Firefox 90.0 / Windows
IP Address:	216.193.164.218
Unique ID:	861315473
Location:	42.173301696777, -72.771499633789

Subject: mosquito spraying

Comments:

Aside from the fact, literal proven FACT (science and proof ABOUND) that other methods of mosquito control WORK BETTER, there is OVERWHELMING and unquestionable scientific evidence that -- even pesticide labels and MSDS reflect this -- pesticide is harmful poison that injures health and well-being of people. Human beings and the environment deserve better. We deserve to live in good health and to utilize the MOST SAFE AND EFFECTIVE means of mosquito control.

Our survival DEPENDS on this. Our happiness depends on this. I know from experience and knowledge. I've been dealing with this for over twenty years.

Pesticide control agents are KNOWN to disrupt endocrine and respiratory function as well as central nervous system/inhibit acetylcholine. This isn't just documented fact, it is experienced by humans and animals upon exposure. They work the same on us as they do on insects. And the suffering is immense. Some of the damage is NOT REVERSIBLE.

I moved to Massachusetts from NY and CT after being exposed to pesticides sprayed for West Nile Virus because the spraying made me so sick. My health, including hormones, were never the same. BECAUSE THIS AREA DOES NOT SPRAY REGULARLY, I have been slowly able to recover some of my health.

If you spray here, where am I to go then? I can stay away from mosquitoes in my house or using other methods, but I CANNOT AVOID CHEMICAL AGENTS SPRAYED ALL AROUND ME.

The only time I ever saw a mosquito when they sprayed in CT was AFTER they sprayed. I watched friends and friends' children get sick from the spraying. I don't even want to get into what happened to my body, but the dangers of POISON cannot be understated.

I was exposed again three years ago to pesticide by a family member, and both myself and my partner suffered greatly. I had to go back on oxygen. Watching my partner get sick from it, who had been in good health prior, was a terrifying nightmare. He slowly got better but he has not recovered 100%.

People get sick from pesticides. Some of the reactions are rationalized to be something else and explained away, when they are FROM THE PESTICIDE. I have seen it time and time again. Including mood changes.

The only reason I have maintained any level of health since literally fleeing NY because of spraying is because THEY HAVEN'T BEEN SPRAYING HERE.

Organophosphates are basically nerve agents. And the agents supposedly "derived from chrysanthemums"/so-called "natural" ARE STILL

ENDOCRINE/HORMONE DISRUPTORS. They poison everything, not just insects. The effects are noticeable and immediate.

Furthermore, spraying them DOES NOT WORK. USE METHODS THAT ARE SAFER AND WORK BETTER.

If you have read this, you can no longer claim ignorance. I have told you. It's up to you now.

Read stories of pesticide poisoning if you have to. But DO NOT SPRAY HERE. I beg you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 6:52 pm
Browser:	Chrome 93.0.4577.82 / OS X
IP Address:	216.193.164.250
Unique ID:	861376257
Location:	42.173301696777, -72.771499633789

Name	Julia Rabin
Organization / Affiliation:	Town citizen
Subject:	Mosquito Spraying
Comments:	I do not want any spraying to take place to control the mosquito populations. This is a bad idea for the following reasons. Spraying will effect other important insect populations negatively. This will not reduce the risk of transmitted disease to zero, while effecting our environment in many negative ways. We need to do everything we can to protect wildlife populations, which in turn help the forests remain in better natural balance and this in turn helps keep human health in better balance, (humans are negatively effected by toxic spraying of chemicals too). Please do not do this spraying. Humans have to live with risk too!!!!!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 7:12 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	72.74.251.10
Unique ID:	861382126
Location:	41.978298187256, -70.746696472168

Name	Joan Lyons
Organization / Affiliation:	The Landing Environmental Group
Subject:	Toxic Chemical mosquito spraying
Comments:	The chemicals used in the spraying are highly toxic to bees, fish and other species beneficial to our environment, and also unhealthy for humans to breathe.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 16, 2021 7:53 pm
Browser:	Safari 14.1.2 / OS X
IP Address:	216.193.165.31
Unique ID:	861393109
Location:	42.173301696777, -72.771499633789

Name	Judy Hall
Subject:	Mosquito Spraying
Comments:	I believe it is unnecessary to use an insecticide spray against mosquitos in rural MA as we have many wildlife species that hunt/eat them, including swallows, dragonflies, bats, other birds, damselflies, tadpoles, turtles, frogs, and on. There is not enough scientific evidence that the sprays proposed do not harm other insect life, bats, pollinators, or humans.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 12:22 am
Browser:	Chrome 93.0.4577.82 / OS X
IP Address:	75.68.85.64
Unique ID:	861458637
Location:	42.617900848389, -70.715400695801

Name	Hazel Hewitt
Subject:	Recommendations for more effective, less harmful mosquito management policy

Comments:

Dear Members of the 21st Century Mosquito Task Force ,
As a Massachusetts resident I was extremely concerned by an unusual dearth of bees in my pollinator garden this year. I am deeply worried by current practices of aerial spraying to control mosquitoes, especially since the chemical of choice, ANVIL, has been found to contain highly toxic chemicals harmful not only to other beneficial insects and organisms but also to human health. Even more concerning is the finding in the recent report that there is no quantifiable evidence that these practices are effective in reducing the incidence of mosquito born diseases such as EEE and WNV,

More effective methods exist and I urge this Task Force to develop a science-based, ecological mosquito management policy to submit to lawmakers next year.

Ecological mosquito management prioritizes preventative measures, and includes:
- Monitoring and surveillance
- A strong focus on public education and personal protective measures
- Emphasis on eliminating breeding sites
- Consideration of local ecology
- A tiered approach to management: attempting non-toxic approaches such as habitat manipulation first; conducting Larvaciding based on monitoring for predefined thresholds; and permitting Adulticiding (spraying for adult mosquitoes) only during public health emergencies, when there is significant threat of mosquito-borne disease based on predefined thresholds, and all other, less toxic methods have been attempted and found ineffective

Application of any mosquito adulticide should be the least toxic product available.

In the event that pesticides are used under a clear public health emergency, it is critical that the 21st Century Mosquito Task Force ensure that local communities and residents of the Commonwealth have full disclosure of all pesticide use - including so-called 'inert' ingredients and potential contaminants like PFAS, advance notice of any planned spraying, and universally available opt-out opportunities.

It is essential to cease unrestricted spraying of toxic pesticides. This raises serious health concerns, especially during a pandemic, since the same toxic pesticides sprayed for mosquitoes are known to elevate risk factors to our immune and respiratory systems, which are attacked by Covid-19.

If science-based measures are followed, personal protective measures can address nuisance mosquitoes, and monitoring, surveillance, habitat manipulation and judicious use of larvicides will effectively protect the public from mosquito-borne diseases.

I urge this Task Force to incorporate these suggestions into the development of a 21st century mosquito policy for Massachusetts residents. Please seek out and consult with experts already enacting many of these measures, such as in Madison, WI; Boulder, CO; and Washington, DC. It is of the utmost importance to me and other concerned residents that this opportunity is not missed.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 2:24 pm
Browser:	Chrome Mobile 93.0.4577.62 / Android
IP Address:	174.255.65.85
Unique ID:	861811531

Name	Elysia Shanahan
Subject:	Mosquito Spraying Observations
Comments:	Care must be taken with pesticidal spraying over or near tidal rivers, salt marshes and shallow coastal ecosystems. These sensitive environments often suffer observable fishkill of minnows and small crustaceans, many of which are juvenile forms of future commercial catches, and/or are vital links in the complex food chains found in these ecosystems. I have witnessed silvery drifts of minnows washing up lifeless with the rising tide after mosquito sprays. Please ensure spraying is properly timed with the tides for minimal chemical concentration to minimize fishkill. Thank you!
File	https://massgov.formstack.com/admin/download/file/11366981464

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 2:55 pm
Browser:	Chrome 85.0.4183.121 / OS X
IP Address:	161.77.224.126
Unique ID:	861824881
Location:	42.587600708008, -72.599502563477

Name	Leslie Cerier
Subject:	No toxic spraying for mosquitos
Comments:	I oppose expanded pesticide spraying and I support ecologically based management mosquito control focused on protection of human health and the environment. Background: Last year, the Legislature created a Mosquito Control for the 21st Century Task Force to review and recommend updates to the state's antiquated mosquito control program. The state commissioned a report summarizing current mosquito control practices. It confirms that there is no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. The state recently denied requests from 11 communities to opt-out of chemical spraying and has indicated that the standards for municipalities and landowners to opt-out will be made even more stringent next year. If you are growing food or pollinator gardens without pesticides, you may be subjected to spraying if the program continues in this direction. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 3:06 pm
Browser:	Firefox 86.0 / OS X
IP Address:	161.77.226.108
Unique ID:	861829198
Location:	42.587600708008, -72.599502563477

Name	Rebecca
Comments:	Please allow towns and individuals to opt out of mosquito spraying. I have a chronic illness that impacts my lungs, and want to be able to not have chemicals sprayed on my home or near my home. Thank you!

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 3:08 pm
Browser:	Firefox 92.0 / Windows
IP Address:	71.234.43.54
Unique ID:	861830235
Location:	

Name	Amy Sophia Marashinsky
Subject:	the mosquito control task force
Comments:	We know that increased spraying of carcinogens will increases damage to humans and animals. There are more "forever" chemicals in our soil, water and food than ever before. Rather than continue to up the ante with toxic chemicals, it behooves us to find natural solutions. Natural solutions that don't harm humans and animals.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 3:22 pm
Browser:	Firefox 92.0 / OS X
IP Address:	91.149.244.254
Unique ID:	861835805
Location:	52.239398956299, 21.036199569702

Name	Marina Gurman
Subject:	I oppose expanded pesticide spraying
Comments:	I am writing to oppose expanded pesticide spraying and to support ecologically based management mosquito control focused on protection of human health and the environment. I disagree with the conclusions of the report made by the Mosquito Control for the 21st Century Task Force. The report stated that there is no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. The state recently denied requests from 11 communities to opt-out of chemical spraying and has indicated that the standards for municipalities and landowners to opt-out will be made even more stringent next year. People who are growing food or pollinator gardens without pesticides, may be subjected to spraying if the program continues in this direction. This is disgusting. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat. Where is your shame? Where is your conscience?

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 3:26 pm
Browser:	Mobile Safari 14.1.2 / iOS
IP Address:	24.62.200.170
Unique ID:	861837176
Location:	42.389598846436, -72.453399658203

Name	Julianna Smith
Subject:	Environmental Toxins
Comments:	I greatly appreciate your work to reduce the high risks we face in this area from mosquitoes. I know the consequences can be terrible. But as one who faces chronic health problems that are aggravated by environmental toxins, especially pesticides, I would like to see the state do more to support solutions that do not add toxic chemicals to the general environment, but enlist communities to reduce breeding environments, increase wetlands and fish access to breeding areas and look to the long term health of our land and people, including those of us with chronic illnesses. Thank for listening to those of us with small pockets, but big concerns.

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 17, 2021 3:50 pm
Browser: Chrome 93.0.4577.82 / Windows
IP Address: 71.10.236.222
Unique ID: 861846992
Location:

Name	Michelle Caron
Organization / Affiliation:	Homeowner/Business Owner of Harmony Way
Subject:	Against Current Mosquito Control
Comments:	I am a resident and business owner, as well as a pollinator gardener and herbalist in Wilbraham, MA. I also personally have an allergy to pyrethroid insecticides that is anaphalactic. These particular toxins, as with many insecticides, kill a vast majority of pollinators, rather than the intended mosquitoes/other pests. There are many less toxic, much more effective ways to handle mosquito control, based on the current scientific evidence available. These would likely be more cost-effective and would help to control the mosquito populations. The current plan is ineffective and creates a host of problems for pollinators and ecosystems. The current plan is also toxic to humans and to our food supply. This plan MUST be revised and made less toxic/more effective and more pollinator-friendly. It is disgraceful that our Commonwealth is wasting money and time on outdated practices that only cause harm, rather than actually alleviating mosquito problems and the illness issues that they bring with them. Better means must be obtained with the use of experts and available scientific data to utilize what actually works effectively, instead of the current plan in place. Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 4:07 pm
Browser:	Chrome 93.0.4577.82 / OS X
IP Address:	174.83.23.12
Unique ID:	861855003
Location:	42.131801605225, -71.973098754883

Name	Lucinda Pauley
Organization / Affiliation:	Lathrop Community
Subject:	Mosquito spraying
Comments:	I strongly believe that mosquito spraying is far worse than mosquitos. The chemicals create environmental problems and affect the health and well being of people and children, as well as animal and plant life. The chemicals do not biodegrade. This supports corporations who have little interest in the well being of the planet. People who are aware of this and don't want the spray need to be respected. Please attend to this problem.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 5:34 pm
Browser:	Chrome 93.0.4577.82 / Windows 7
IP Address:	96.233.164.137
Unique ID:	861884830
Location:	42.514801025391, -72.809097290039

Name	Ruth Heuberger
Organization / Affiliation:	private
Subject:	mosquito control
Comments:	Weighing all the pros and cons, we are in favor of reducing the plague of mosquitoes which we in no way encourage. With advance warning, we can keep ourselves, children and pets indoors until the spray has settled. .

Form Name: Comments for the Mosquito Control Task Force
Submission Time: September 17, 2021 5:50 pm
Browser: Chrome 93.0.4577.82 / OS X
IP Address: 66.31.106.111
Unique ID: 861889438
Location:

Name	Nicholas Rodenhouse
Organization / Affiliation:	None
Subject:	Comments regarding the Mosquito Control Task Force Report

Comments:

My area of research is avian ecology, and I have been monitoring the abundance insects - food for birds - for over 20 years. I am co-author of a paper that was published in Biological Conservation (Harris et al. 2019) about the decline of beetle abundance and diversity in a northeastern forest, the Hubbard Brook Experimental Forest, NH, USA. Because I have spent 40 years reading the scientific literature, I am pretty good at it. With that preface, my comments about the current mosquito control program in the Commonwealth of Massachusetts and the Mosquito Control Task Force Report follow. Because my comments are long, I begin with some bullet points.

• There seems to be no evidence that either roadside or aerial spraying is effective in reducing human risk from EEE.

• The current spray program is very likely to harm predators of mosquitoes, but the evidence is inadequate to determine whether this is true.

• Seemingly no research is being done to determine which methods of control are most effective in reducing human risk of mosquito-borne viruses.

• In addition, I can find no references to research being done to determine why EEE is spreading and threatening more communities.

•Insect abundance, biomass and diversity are collapsing in all sampled areas of the world, but not mosquito abundances. Declines are primarily in areas like the northeastern states that are dominated by settled areas. One of the primary causes suggested in most papers documenting these declines is the increasing, use over ever broader areas, of pesticides, particularly insecticides.

I am sure that all agree that something needs to be done to reduce the threat and contain the spread of EEE. But are current practices effective? Large areas of eastern and central Massachusetts have been sprayed from fixed-wing aircraft with a broad-spectrum insecticide and adjuvant (Anvil 10+10 and PBO) to kill the mosquitos that transmit EEE. From the ground, roadside fogging from trucks is done with the same goal.

If this spraying is effective in reducing the incidence of human disease, then it has to be done despite the environmental damage it also causes. However, the state has neither studied nor implemented via adaptive management alternative strategies for mosquito control. Because the efficacy of current practices is unknown, the state is merely giving its citizens a false sense of security, wasting taxpayer dollars, and potentially harming populations of beneficial insects, including predators that eat mosquitos.

In fact, we do not know that either roadside spraying or aerial spraying in Massachusetts is reducing the incidence of human disease. The 2019

Arbovirus Surveillance Plan states "Aerial applications cannot and do not eliminate risk and must not be viewed by the public or municipalities as a solution to EEE risk...." Few members of the public, politicians or even journalists have read this statement.

We don't know if, where or when aerial spraying works because apparently the research needed has not been done. The research needed must be done locally, because the literature clearly shows that the effectiveness of mosquito control methods depends heavily on many factors that vary greatly among locations. Suburban and rural Massachusetts are not at all like suburban Houston, Sacramento or Miami where some research has been done on the effectiveness of aerial spraying. I can find nothing in the scientific literature about the efficacy of roadside spraying as it is done in Massachusetts.

Because the ultimate source of EEE is mosquitos living in tree-covered swamps, sampling must be done there in a before-after, control-impact experiment (BACI) to determine if spraying is effective in reducing vector abundance for any period of time. Reductions in the abundance of mosquitos may not be occurring as the public expects, because even in open areas like Sacramento, small insects were found dead on the white sheets laid out to collect the insects killed, but no dead mosquitos were found on them (see Boyce et al., 2007, Journal of the American Mosquito Control Association, Vol. 23, pages 335-339).

In heavily forested areas like much of Massachusetts, with planes flying at 300' above ground, I wonder to what extent the spray is penetrating the forest canopy and subcanopy to reach where mosquitos are seeking blood meals. Also, spraying is done under a variety of weather conditions. Consequently, the effectiveness of the spray is expected to be highly variable in space and time. So, the Surveillance Plan is correct to emphasize the importance of individual protection from mosquito bites, and the public is justified in wondering if their tax dollars have been spent for nothing.

The state should be doing the research needed to assess the efficacy of their current mosquito surveillance and control actions. We are currently using the same methods developed and used in the 1940s to control mosquitos. The only difference is that we now use insecticides that are less directly harmful to people and their pets. Rachel Carson warned us about the dangers of broad-spectrum insecticides, but the Commonwealth has no other options, because it has not done or funded the essential research.

Numerous candidate means of control - alternatives to spraying with broad-spectrum insecticides -- are being developed and tested elsewhere. I was able to find many relevant studies in a few minutes by using Google Scholar. Here are some examples "Wolbachia-Based Interventions in an IVM Framework" (Niang et al. 2018), "The role of spiders as biological

control agents" (Ndava et al. 2018), "A fungal pathogen deploys a small silencing RNA that attenuates mosquito immunity and facilitates infection" (Cui et al. 2019), "Sterile Insect Technique in an Integrated Vector Management Program against Tiger Mosquito" (Tur et al. 2021), etc., etc..

It is essential to determine why and how EEE is spreading and to clarify the conditions that promote transmission to mosquitos that seek humans. This report and an extensive search of the scientific literature reveal that this is not being done. It is very helpful that we have long-term monitoring of mosquitos in the swamp forests where the cycle is maintained, but that information needs to be used to develop effective control methods that do not cause environmental harm.

To any critical observer, the control actions taken at present are at best ineffective and potentially harmful to the major checks on mosquito abundance - their invertebrate predators.

Last, the report notes that: "Community outreach is a core principle for IPM". Establishing and maintaining "public trust by providing accurate, timely, and actionable information to the public to inform communities of potential disease risk and prevention strategies" is essential, and such communications should contain adequate information to dispel rumors and misinformation (American Mosquito Control Association, 2017). I agree completely with these statements, but at present community outreach is completely misses 99% of those potentially affected, meaning that "accurate, timely, and actionable information" is unavailable to the public and therefore unable to dispel rumors and misinformation.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 6:02 pm
Browser:	Chrome Mobile 93.0.4577.82 / Android
IP Address:	108.7.47.69
Unique ID:	861892942
Location:	42.395500183105, -71.181602478027

Name	Judith Sheldon
Subject:	Mosquito Control: Please do not spray
Comments:	The state-commissioned report found no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 6:05 pm
Browser:	Chrome Mobile 93.0.4577.82 / Android
IP Address:	108.7.47.69
Unique ID:	861893635
Location:	

Name	Judith Sheldon
Subject:	Mosquito Control: Please do not spray
Comments:	The state-commissioned report found no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 6:15 pm
Browser:	Chrome 93.0.4577.82 / Windows
IP Address:	161.77.227.136
Unique ID:	861896724
Location:	42.587600708008, -72.599502563477

Name	Mary Lou Conca
Subject:	Protest Mosquito Spray
Comments:	I protest with force-the spraying of chemicals to kill mosquitos! The spraying of these pesticides will kill more than mosquitos, possibly causing cancer in humans, so please stop this activity! Thank you.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 7:38 pm
Browser:	Mobile Safari 14.0.2 / iOS
IP Address:	75.131.72.133
Unique ID:	861916231
Location:	44.876098632812, -73.417098999023

Name	Dori Rhodes
Organization / Affiliation:	Cornerstones Early Childhood Development
Subject:	Pesticides
Comments:	I am opposed to the spraying of pesticides!!! Not only are they harmful to humans but they destroy our ecosystem! The effects are seen on our bee population, hummingbirds, and butterflies. The birds are affected as well. Think about this for a minute and the ripple effect and which it has. When pesticides are sprayed into the air, not only does it pollute the air we breathe but it to settles into the soil, this means it affects local crops. As much as I despise getting bitten by mosquitoes,I am opposed! The future ramifications are unknown and far scariest than a few bites.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 11:00 pm
Browser:	Mobile Safari 14.0.2 / iOS
IP Address:	98.216.124.61
Unique ID:	861954920
Location:	42.813499450684, -70.886001586914

Comments:

Please find other ways to help control the mosquitoes, but toxic sprays are bad for the whole environment. We already have the data! Now we need to act appropriately. Thank you

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 11:37 pm
Browser:	Safari 13.1.2 / OS X
IP Address:	70.109.135.7
Unique ID:	861960856
Location:	

Name	Martha Rullman
Subject:	Concerned about state Mosquito Control program
Comments:	I am extremely concerned about the state's approach to mosquito control management using broad dispersal of toxic pesticides. The state's provision allowing communities to implement alternative "opt out" plans has also been disingenuous and is really aimed at taking away local control. In a time when climate change, insect decline, polluted private and public water supplies, and public health risks are a growing concern, the state's approach to blanketing communities with toxic chemicals to combat arboviruses just does not make sense. The approach of aerial spraying to control mosquito populations has been shown to be ineffective, and the long term effects of this strategy are disastrous. Organic farmers, gardeners, and beekeepers are at risk, and the effects on beneficial insects and other species that depend on them will suffer untold consequences. I will add that my husband and I have invested a lot in conserving our land to protect the forests, water and wildlife. Because of the shortsighted and misguided mosquito control policy with expanded use of aerial spraying, we now have to wonder what is the point if the state implements aerial spraying which ultimately render our efforts essentially pointless. I urge the state Mosquito Control Task Force to adopt science based policies that take into account the fact that we simply cannot afford indiscriminate spraying of these toxic chemicals. Thank you. Martha Rullman Northfield, MA

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 17, 2021 11:57 pm
Browser:	Chrome 93.0.4577.63 / Windows
IP Address:	70.109.135.7
Unique ID:	861963933
Location:	44.647499084473, -72.690101623535

Name John Schuster

Comments:

I would like to begin with a quote from the well known entomologist and author Doug Tallamy:

"The big problem today, of course, is that insects are declining," Mr. Tallamy said from Delaware in a recent interview. "And that is: we say 'declining' - we're killing them. That's why they're declining.

"We've had this war against insects forever, and now we're recognizing that we have global insect declines, and that becomes a serious problem. To make a long story short, humans will not survive on the earth without insects. So, we absolutely need them. Not just for pollination, but because they create the ecosystem services that support us."

And if insects are lost due to the overuse of pesticides, most birds will be lost as well, he added."

Many residents of Massachusetts, and all over the country, have become aware of how serious are the declines in bird and insect populations, not to mention amphibians, reptiles and bats. In the context of the global assault on these wonderful and essential creatures, they have awoken to the importance of taking immediate action in their own backyards. Professor Tallamy and others have been instrumental in teaching people how much of a difference they can make by simply managing their own property to eliminate toxic chemicals and planting native species of wildflowers, trees and shrubs. It is empowering to know that as an individual we can make a significant difference locally, We may not be able to protect a migratory bird on it's increasingly perilous journey, but if we can provide suitable nesting habitat and help that bird to successfully raise a clutch of nestlings to fledging, then we have done something of profound significance.

My wife and I, along with so many of our neighbors, are horrified and angered by the State's intrusion into the sanctity of our private property where we are endeavoring to make whatever meaningful difference we can in the face of the tragic reality of global extinction.

We do not want toxic pesticides used anywhere near our property which includes Core Habitat supporting Ste listed species. Today however, every scrap of habitat is Core Habitat, and every species is a State Listed species. We don't want these toxic chemicals used anywhere else either. The single exception would be a legitimate public health emergency.

We support legislation H. 937 and S. 556 to establish an ecologically based mosquito management program to provide for public health with minimum impact to the natural world on which we all depend.

John Schuster
Northfield, MA

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 18, 2021 9:30 am
Browser:	Chrome 90.0.4430.86 / Chrome OS
IP Address:	73.100.94.223
Unique ID:	862047881
Location:	

Comments:

There should be more public announcements about what homeowners should do to eliminate standing-water mosquito breeding.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 18, 2021 4:13 pm
Browser:	Chrome 93.0.4577.82 / OS X
IP Address:	71.234.176.223
Unique ID:	862132415
Location:	

Name	Susan McGinn
Subject:	oppose expanded pesticide spraying and to support ecologically based management mosquito control focused on protection of human health and the environment.
Comments:	The Mosquito Control Task Force Report - August 2021 confirms that there is no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Yet despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 18, 2021 4:15 pm
Browser:	Chrome 93.0.4577.82 / OS X
IP Address:	71.234.176.223
Unique ID:	862132714
Location:	

Name	Susan McGinn
Subject:	I oppose expanded pesticide spraying
Comments:	I oppose expanded pesticide spraying and support ecologically based management mosquito control focused on protection of human health and the health of the natural environment. The Mosquito Control Task Force Report - August 2021 confirms that there is no quantifiable evidence that the current practices, which include routine spraying of pyrethroid pesticides, are effective in reducing mosquitoes or mosquito-borne diseases. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Yet despite the lack of data on effectiveness, the report claims that reducing spraying could increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. There are more effective ways to reduce the risk of WNV and EEE - including personal protection measures, eliminating artificial breeding areas like discarded tires, and restoring wetlands and rivers to increase access by fish and other mosquito predators to natural breeding habitat.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 18, 2021 8:26 pm
Browser:	Chrome 93.0.4577.63 / OS X
IP Address:	146.115.151.33
Unique ID:	862172692
Location:	42.369899749756, -71.235298156738

Name	Lauren Eggbeer
Subject:	More Science
Comments:	I fully believe that the state can put the state's resources to better use by employing mosquito control methods that are rooted in ecological restoration, rather than statewide spraying as the default. Through science-based, ecological restoration approaches, we can still meet our goals of reducing the danger of disease, while also strengthening the nature-based solutions that we know are a win-win for our climate and communities.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 18, 2021 9:29 pm
Browser:	Firefox 92.0 / Windows
IP Address:	47.14.4.137
Unique ID:	862183055
Location:	

Name	Sharon McCarthy
Organization / Affiliation:	Harvard Board of Health
Subject:	Mosquito Control Spraying
Comments:	Harvard submitted an opt-out application, which was denied. We were told this was because EEA considered the town to be a moderate risk. This information was known to EEA before the application was submitted as it was based on the prior year's data. This information was NOT made available to the town prior to the submittal of the opt-out application. The Board of Health strongly disagrees with EEA's logic for making the decision as well as its full blown acceptance that spraying pyrethroid pesticides is the only way to protect public health from arborviruses. These chemicals are highly toxic to bees, fish, and many other beneficial species, and pose health risks to people too. Despite the lack of data on effectiveness, the report claims that reducing spraying would increase cases of West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). This analysis is deeply flawed, and fails to address the economic, ecological, and human health impacts of these toxic chemicals. Harvard's application emphasized other approaches including personal protection measures & eliminating artificial breeding areas like discarded tires. Our application also presented data on the forest canopy in our town and how ineffective aerial spraying will be under such environmental conditions.

Form Name:	Comments for the Mosquito Control Task Force
Submission Time:	September 19, 2021 2:47 pm
Browser:	Firefox 78.0 / OS X
IP Address:	72.92.128.30
Unique ID:	862356634
Location:	

Name	j w
Comments:	please use ecological methods of controlling mosquitos and not pesticides that harm bees and other living things. there are proven ways to deal with west nile and other mosquito spread illnesses. spraying pesticides goes against everything i believe in and i see it as an act of violence against nature and people. thanks for your time and consideration.