

Annual Operations Report

Year Report Covers: 2025

Date of Report: 1/20/2025

Project/District Name: Northeast Mass. Mosquito Control Wetlands Management

Count of Cities and Towns in Service Area: 34* (**Greenhead fly control only)

Alphabetical List of Cities/Towns: Amesbury, Andover, Beverly, Boxford, Danvers, Essex**, Georgetown, Gloucester**, Groveland, Hamilton, Haverhill, Ipswich, Lynn, Lynnfield, Manchester-by-the-Sea, Marblehead, Merrimac, Methuen, Middleton, Nahant, Newbury, Newburyport, North Andover, Peabody, Revere, Rowley, Salem, Salisbury, Saugus, Swampscott, Topsfield, Wenham, West Newbury and Winthrop

* https://www.nemassmosquito.org/sites/g/files/vyhlf4751/f/uploads/2025-towns_we_serve_0.pdf

Were there any changes to your service area this year? NO

Municipality added: 0

Municipality removed: 0

HQ Address: 118 Tenney Street, Georgetown, MA 01883

Phone: 978-352-2800

Email: nemmc@mass.gov

Report Prepared By: *Kimberly A. Foss, Robyn Januszewski, Barry Noone, Jennifer Sforza, Steve Przyjemski*

Mission Statement, if available: The prime directive of the Northeast Massachusetts Mosquito Control and Wetlands Management District is to protect the citizens of each member community from mosquito-borne diseases by targeting precise, measured, and preemptive responses to specific risks as prescribed by the District's annually-revised "Integrated Pest & Vector Management Plan" (IPVMP) and each community's "Best Management Practice" (BMP) plans. To ensure that our citizens' quality of life, health and regional economy is not severely impacted by abundant pestiferous mosquito outbreaks and arbovirus, strategies to reduce dominant mosquito populations are implemented and are designed to incorporate the District's environmentally sensitive and cost-effective mosquito control strategies with the specific needs and concerns of each member community.

ORGANIZATION SETUP

Commissioner Names:

John W. Morris, CHO, Chairman

Joseph Giarrusso, Conservation Officer Retired

Paul Sevigny, RS, Vice-Chair

Rosemary Decie, RS

Superintendent/Director Name: Barry Noone, District Director

Asst. Superintendent/Director Name:

District/Project Website: <http://www.nemassmosquito.org>

Please list below any additional social media accounts:

<http://www.facebook.com/people/Northeast-Massachusetts-Mosquito-Control-Wetlands-Management-District/100082224488750/>

Staffing levels for the year of this report:

Full time: 9 Part time: 1 Seasonal: 0 Other: 1 (please describe) Finance/HR Manager

Of the above, how many are:

(Please check off all that apply, and list how many are Full Time, Part Time, Or Seasonal)

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Administrative: 2 Full Time,
1 Other/Part Time | <input checked="" type="checkbox"/> Information technology: 1
Full Time | <input checked="" type="checkbox"/> Public relations: 2 Full Time,
1 Part Time |
| <input checked="" type="checkbox"/> Biologist: 1 Full Time | <input checked="" type="checkbox"/> Laboratory: 1 Full Time | <input checked="" type="checkbox"/> Wetland scientist: 1 Full
Time |
| <input checked="" type="checkbox"/> Educator: 2 Full Time | <input checked="" type="checkbox"/> Operations: 9 Full Time, 1
Other/Part Time | <input checked="" type="checkbox"/> Other (please describe): 1
Part Time (Finance/HR Manager) |
| <input checked="" type="checkbox"/> Entomologist: 1 Full Time | | |
| <input checked="" type="checkbox"/> Facilities: 2 Full Time | | |

Comments: NONE

During the season, the following were maintained:

Count	Equipment Type	Type(s)
14	Modified wetland equipment	1987 Kassbohrer PB270DS "PistenBully" Flail Mower; 2013 Kassbohrer "PistenBully" 100 All-Season Flail Mower; 1987 Bombadier "Muskeg" Off-Road Dump Body/Backhoe; 1999 LinkBelt 1600 Excavator; 1996 Hudson Spray Trailer; 1996 Rokon all-terrain Motorcycle; 1987 ARGO 8 wheel Amphibious ATV; 2023 ARGO Conquest 950 Outfitter with spreader; 2012 Starcraft 14' Aluminum Boat; 2012 20hp Mercury Outboard Motor; 2022 Venture VB-1300 Boat Trailer; 2021 Takeuchi TL8RZ-CR skid-steer; 2021 Takeuchi TB257FR Excavator with Takeuchi Forestry Mulcher TBL1EX75
5	Larval control equipment	Larval control equipment (list type) Maruyama MD300 Backpack Dusters
8	ULV sprayers	ULV sprayers (list type) Clarke "ProMist Dura" sprayers2
2	Electric/Gas Hybrid Vehicles	2024 Ford Maverick

14	Gas Powered Vehicles	2010 Ford Ranger, 2019 Chevy Silverado 1500, 2022 Chevy Colorado, 2008 (2) Ford Ranger, 2016 (3) Chevy Colorado, 2020 Chevy Colorado, 2019 Chevy Colorado, 2019 Chevy Tahoe, 2025 Freightliner Dump, 2018 Chevy HD 3500
	Other: Misc operating equipment (barrier sprayers, ULV sprayers, backpacks, vegetation sprayer)	2 A1 Mist Sprayers "Ranger" Barrier Sprayers; 1 Maruyama MM181 Backpack Mistblower, 1 Invasive Vegetation Sprayer: Roots ID # 865-105-20 Rears Ag Sprayer S-95-1044, 1 Hand operated Solo Backpack Sprayers for Invasive Vegetation Control

Comments:

INTEGRATED PEST MANAGEMENT (IPM):

Check off all services that your district/project currently provides to member municipalities as part of an IPM program (details will be provided in the sections below):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Adult mosquito control
<input checked="" type="checkbox"/> Adult mosquito surveillance
<input checked="" type="checkbox"/> Ditch maintenance
<input checked="" type="checkbox"/> Education, Outreach & Public education
<input checked="" type="checkbox"/> Larval mosquito control
<input checked="" type="checkbox"/> Larval mosquito surveillance
<input type="checkbox"/> Open Marsh Water Management | <input checked="" type="checkbox"/> Research
<input checked="" type="checkbox"/> Source reduction
<input checked="" type="checkbox"/> Other (Please List:) Inspectional services including wastewater and water treatment facilities, greenhead fly control, wetlands management and restoration |
|---|---|

Comments: The District routinely inspects and treats known breeding areas and will assess areas of concern as requested by residents and local Boards of Health. The District also provides inspection services for planned developments upon request from member municipalities to advise on reducing potential mosquito breeding habitat.

LARVAL MOSQUITO SURVEILLANCE

If you have a larval mosquito surveillance program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: To detect, monitor, and control mosquito populations at the larval stage to reduce the risk of mosquito-borne diseases and nuisance mosquitoes. Focusing on larvae and larval habitats is more effective and cost-efficient than reacting to adult mosquitoes.

What months is this program active? January - December

Describe the process of monitoring / sampling: Mosquito larval monitoring and sampling are conducted through a systematic field-based process to identify breeding sites, assess larval abundance, and guide control actions. Potential

habitats are identified using mapping tools (FieldSeeker), historical records, adult mosquito surveillance, and public reports. Field staff assess environmental conditions including water presence and depth, habitat and vegetation type, water movement and quality, and the presence of predators or other notable organisms. Larval sampling is performed using a standard dipper, with multiple random dips taken along perimeters, within habitats, and in microhabitats such as shaded areas or containers, and average larval density and stage of development is recorded. Representative larval samples are collected for species identification by the entomologist. All observations and results are documented in FieldSeeker GIS. Treatment decisions are based on species, larval stage, and density, and when warranted, appropriate larvicides are applied in accordance with regulatory requirements and best management practices. Sites are revisited as necessary to evaluate treatment efficacy and monitor for reinfestation.

Describe the habitat that is being sampled: Fresh and saltwater wetlands, swamps/bogs, temporary wetlands, stormwater control structures, spring snowmelt, forested pools, parking lot puddles, floodwater areas, tire piles, catch basins, construction sites, tire ruts, agricultural ditches/fields, grassy lawns, ditches, tree holes, any man-made containers, beaver dam impacted areas.

What environmental conditions (vegetation, water quality, predators) are observed? High organic floating debris, organic substrate, muddy water, decaying leaves, dense shrubs, hay, shaded to partly shaded shallow puddles, grassy/lawn substrate, stagnant water, duck weed, green algae high pH water, tannic rich low pH water, lack of predators: we commonly see chaoborids, chironomids, isopods, water mites, mysid shrimp, surface spiders, water striders, water beetles, dragon and damselfly larvae, amphipods in small populations; bacterial larviciding doesn't reduce the baseline populations. Salamanders, fish, frogs and frog eggs (vernal pool indicator species) are absent in habitats that require larvicides. Catch basins usually have a large population of copepods and daphnia along with Culex larvae; larviciding doesn't reduce the baseline copepod/daphnia populations.

How frequently are sites monitored? Starting in January swamps and bogs are monitored for melanura larvae, this is done 4-6x per year. Salt marshes are monitored weekly from May to October, daily if after flood tide. Resident requests for property inspections ~6 per week from May to October. BOH property inspections ~2 per week from April to November. Spring larviciding April to June checked 2x or more depending on temperature/precipitation/snowmelt. Catch basins are treated 1x per year by prioritized zones for WNV risk, basins may be re-treated in a WNV risk area, random basins are dipped mid-summer. From June to October summer larval sites are monitored every 3 weeks and 3-5 days following precipitation or tidal event. Floodwater sites checked 2 -3 days after flood event. Construction sites and other random areas with temporary water are checked and treated as needed. New sites are monitored seasonally to determine breeding potential.

ADULT MOSQUITO SURVEILLANCE

If you have an adult mosquito surveillance program, please fill out the section below, otherwise skip ahead to the Next section.

Describe the purpose of this program: To monitor mosquito species, particularly vector and bridge vector species, for management of populations and testing for arbovirus. From Introduction to "Best Management Plans" and as outlined in our Integrated Pest and Vector Management Plan (IPVMP): The District focus is to collect a representative sample of mosquitoes in participating cities or towns on a weekly basis through the surveillance season. Historical collection stations are in areas where substantial portions of municipality residents reside to determine arboviral risk. Supplemental trapping is initiated after WNV/EEE positives are detected from historical surveillance trap sites, or after adulticide for arbovirus, or if increases in vector mosquitoes are noticed in historic trap sites around elevated risk areas.

What months is this program active? May through October, end date depends primarily on minimum temperature for adulticide virus response.

Check off all trap types used this past season by your program:

Trap Type	Canopy? (check box for yes)	Number of traps (leave blank if zero)
ABC light trap	<input type="checkbox"/>	
ABC light trap w/CO ₂	<input type="checkbox"/>	
CDC light trap	<input type="checkbox"/>	
CDC light trap w/CO ₂	<input type="checkbox"/>	35
Trap Type	Canopy? (check box for yes)	Number of traps (leave blank if zero)
Gravid trap		37
Landing rate test		
NJ light trap	<input type="checkbox"/>	
NJ light trap w/CO ₂	<input type="checkbox"/>	
Ovitrap		
Resting box		160
Other (please describe):		
Other (please describe):		
Other (please describe):		

Do you maintain long-term trap sites in any of your areas? Yes or No: YES
If yes, how many: 54

ADULT MOSQUITO SURVEILLANCE

Please check off the species of **concern** in your service area:

<input checked="" type="checkbox"/> <i>Ae. albopictus</i>	<input checked="" type="checkbox"/> <i>Cx. salinarius</i>	<input checked="" type="checkbox"/> <i>Oc. sollicitans</i>
<input checked="" type="checkbox"/> <i>Ae. cinereus</i>	<input checked="" type="checkbox"/> <i>Cs. melanura</i>	<input checked="" type="checkbox"/> <i>Oc. taeniorhynchus</i>
<input checked="" type="checkbox"/> <i>Ae. vexans</i>	<input checked="" type="checkbox"/> <i>Cs. morsitans</i>	<input checked="" type="checkbox"/> <i>Oc. triseriatus</i>
<input checked="" type="checkbox"/> <i>An. punctipennis</i>	<input checked="" type="checkbox"/> <i>Cx. restuans</i>	<input checked="" type="checkbox"/> <i>Oc. trivittatus</i>
<input checked="" type="checkbox"/> <i>An. quadrimaculatus</i>	<input checked="" type="checkbox"/> <i>Oc. abserratus</i>	<input checked="" type="checkbox"/> <i>Ps. ferox</i>
<input checked="" type="checkbox"/> <i>Cq. perturbans</i>	<input checked="" type="checkbox"/> <i>Oc. canadensis</i>	<input checked="" type="checkbox"/> <i>Ur. sapphirina</i>
<input checked="" type="checkbox"/> <i>Cx. pipiens</i>	<input checked="" type="checkbox"/> <i>Oc. cantator</i>	<input checked="" type="checkbox"/> <i>Others</i> : Spring pest species: <i>Ae. punctor</i> , <i>Ae. excrucians</i> /stimulans/ <i>fitchii</i> complex. <i>An. crucians</i>
<input checked="" type="checkbox"/> <i>Cx. restuans</i>	<input checked="" type="checkbox"/> <i>Oc. j. japonicus</i>	

Do you participate in the **MDPH Arboviral Surveillance program**? (yes/no): YES

How many pools did you submit weekly on average? 30

Total number of adult mosquito pools submitted to DPH this past season: 504

Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"): 2,075

Total number of adult mosquitoes submitted to DPH this past season: 5,327

Number of adult mosquitoes collected this season but not submitted to DPH: 18,912

Number of Ovitrap collections this season, if any: 0

Any other trap collections of note (please describe): *Aedes albopictus* adults collected in Revere form gravid

Number of traps in your service area placed by **MDPH**: 4

Were these long-term trap sites or supplemental trapping sites? Yes or No: Supplemental (Lawrence, Rockport, Essex, Gloucester)

Which arboviruses were found in your area during this past mosquito season?

Enter the number of positive pools and/or cases below:

Comments:

Arbovirus	+ Mosquito Pools	Equine Cases	Human Cases
<input type="checkbox"/> Eastern Equine Encephalitis (EEE)			
<input checked="" type="checkbox"/> West Nile Virus (WNV)	17	0	1
<input type="checkbox"/> Other (please list):			

For each arbovirus listed below, please list number of municipalities at each risk level in your project area at both the start and peak of the season (say "all" if all municipalities are at same risk level):

Arbovirus	Start of Season	Peak of Season
EEE	Remote (7), Low (25)	Remote (7), Low (25)
WNV	Low (21), to Moderate (11)	Low (21), Moderate (9), High (2)

Comments: 2025 season data, WNV identified in vectors and bridge vectors collected from Danvers (2), Haverhill (2), Lawrence-MDPH (2), Lynn (1), Lynnfield (2), Nahant (1), Saugus (4), Revere (2), Swampscott (1). Human case (1) was identified in the southern part of our district. Lawrence, Rockport, Essex, Gloucester are NOT participants in NEMMC mosquito programs.

LARVAL MOSQUITO CONTROL:

If you have a larval mosquito control program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: The purpose of a larval mosquito control program is to prevent the emergence of adult mosquitoes by identifying and managing mosquito populations at the aquatic larval stage, thereby reducing public health risks and mosquito nuisance levels. By targeting larvae in their breeding habitats, the program interrupts the mosquito life cycle before mosquitoes can fly, bite, or transmit disease. Larval control allows for early detection of disease-vectors and invasive species, supports targeted and environmentally responsible use of larvicides, and minimizes the need for widespread adulticide applications. Overall, a larval mosquito control program protects public health, improves quality of life, and promotes effective, efficient, and regulatory-compliant mosquito management.

What months is the program active? January to December

Describe the types of areas where you use this program: Fresh and saltwater wetlands, swamps/bogs, temporary wetlands, stormwater control structures, spring snowmelt, forested pools, parking lot puddles, floodwater areas, tire

piles, catch basins, construction sites, tire ruts, agricultural ditches/fields, grassy lawns, ditches, tree holes, any man-made containers, beaver dam impacted areas.

Do you use:

- Aerial applications. Describe operations: salt marsh aerial bacterial liquid larvicide applications
- Portable applications. Describe operations: backpack for granular or oil, hand spreading for small areas
- Other (please list): Tire removal program, Resident/BOH inspection, education and container dumping, Inland/salt marsh/ditch manual clearing/mechanized runneling and maintenance, culvert clearing, stream clearing. Phragmites mowing.

Comments:

What is your trigger for larviciding operations? (check all that apply)

- Best professional judgment. Describe: Experienced staff and ability to pass on knowledge. Operational guidelines
- Historical records – Catch basins are completed in risk sequence same time every year.
- Larval dip counts – Describe trigger for application: If more than 3 larvae or pupae present in 5 dip average. Multiple spots within the site are dipped.
- Other (please describe): Adult mosquito virus notifications trigger additional site checks in foci

Comments:

List all products that you use for larval mosquito control in the table below (leave blank if not applicable):

Product Name	EPA #	Application Rate(s)	Application Method	Target Life Stage	Habitat Type	Total Finished Product Applied
VectoBac G	73049-10	2.5-10.0 lbs./acre	Hand or Backpack Sprayer	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input checked="" type="checkbox"/> Other (please list): salt marsh	278.46 lbs
VectoBac 12AS	73049-38	1 qt. / acre	Aerial by rotary helicopter	Larvae	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input checked="" type="checkbox"/> Other (please list): salt marsh	2,467 gal
Altosid WSP	2724-448	1 pouch/catch basin = 7 gm.	Hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	54,275 pouches
Fourstar CRG	85685-2	7.5-10.0 lbs./acre	Hand or Backpack Sprayer	Larvae	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland	2,018.13 lbs

					<input type="checkbox"/> Other (please list):	
					<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	

ADULT MOSQUITO CONTROL:

If you have an adult mosquito control program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: To reduce adult mosquito populations in response to virus positive mosquito pools and nuisance mosquito complaints

What is the time frame for this program? June through October, end date depends on virus activity and weather.

Describe the types of areas where you use this program: Residential streets, schools (per Children's Protection Act), and parks and recreational areas (per Municipal office request).

Do you use:

- Aerial applications. Describe operations:
- Portable applications. Describe operations:
- Truck applications. Describe operation: Annually calibrated truck mounted ULV sprayers and truck mounted barrier sprayers are used
- Other (please list):

For each product used, please list the name, EPA #, and application rate(s):

Product Name	EPA #	Application Rate(s)	Application Method	Total finished product applied
Zenivex E4RTU	2724-807	1.0 fl.oz/acre	truck mounted ULV sprayer	115.94 gal
Duet	1021-1795-8329	0.64 fl.oz/acre	truck mounted ULV sprayer	21.71 gal
Suspend Polyzone	432-1514	1.5 fl. oz : 1.0 gal water. 1.0 gal mix/min	truck mounted barrier sprayer	465.50 oz

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas:

Zenivex E4 RTU & Duet: No more than 1 application per site per week or 25 applications per site per year. (ULV applications)

Suspend SC: No more than 1 application per site within a two-week period. (Barrier applications)

Suspend Polyzone: No more than 1 application per site within a three-week period (Barrier applications)

*Applications are made in accordance with product label directions.

What is your trigger for adulticiding operations? (check all that apply)

Arbovirus data

Best professional judgment

Complaint calls. Describe trigger for application: Resident (If in a qualifying municipality) and/or BOH requests

Landing rates. Describe trigger for application: *Not performed due to the threat of WNV and/or EEE

Light trap data. Describe trigger for application: Increasing amount of disease carrying vectors

Comments: All applications on school property must be in compliance with Massachusetts Children and Families Protection Act.

Please attach maps of your service areas (or a website link to that map):

<https://www.nemassmosquito.org/home/pages/about-us>

SOURCE REDUCTION

If you practice source reduction methods, such as tire removal, please fill out the sections below, otherwise skip ahead to the next section.

Tire Removal

Please describe your program: District personnel coordinate with local municipalities to remove tires at community events, such as Hazardous Waste Days, large tire dump sites, and tires discarded at roadside and/or wetland sites. Additionally, residents in member municipalities can submit a request directly to the District for removal of tires from their property.

What time frame during the year is this method employed? January-December

Comments: Total tire removed in 2025 = 617

Water Management/ Ditch Maintenance

If you have a water management or ditch maintenance program, please fill out the section below, otherwise skip ahead to the next section.

Please check all that apply:

Inland/freshwater

Saltmarsh

Please describe your program: Maintenance and restoration of both freshwater and salt marsh ditches to increase flow and reduce mosquito breeding habitat.

For **inland/freshwater water management**, check off all that apply:

Maintenance Type	Estimate of cumulative length of culverts, ditches, swales, etc. maintained (ft)
<input checked="" type="checkbox"/> Culvert cleaning	127
<input checked="" type="checkbox"/> Hand cleaning	40,945 (ft)
<input checked="" type="checkbox"/> Mechanized cleaning	3,630 (ft)
<input checked="" type="checkbox"/> Stream flow improvement	See comments
<input checked="" type="checkbox"/> Other (Please List:) Mechanized projects	10 total projects, 2 of which were old beaver dam removals

Comments: Total # of mechanized projects include BOTH fresh water and saltwater sites. Stream Flow Improvement is completed in conjunction with Hand Cleaning at all sites, same footage.

For **saltwater ditch maintenance**, check off all that apply:

Maintenance Type	Estimate of cumulative length of ditches maintained (ft)
<input checked="" type="checkbox"/> Hand cleaning	See comments
<input checked="" type="checkbox"/> Mechanized cleaning	9,322 (ft)
<input checked="" type="checkbox"/> Other (Please List:) Phragmites australis mowing to allow access for larval treatments and machine access for mechanized work	29.34 acres

Comments: Hand cleaning and piling spoil of excavated ditches and runnels is completed in conjunction with mechanized cleaning, same footage.

What time frame during the year is this method employed? Hand ditch maintenance is year-round and mechanized ditch maintenance goes from Fall through Spring. Salt marsh work is completed fall to spring.

Please attach a map of ditch maintenance areas (or a website link to that map). Maps available upon request

Open Marsh Water Management

If you have an Open Marsh Water Management program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program:

What months is this program active?

Please give an estimate of total square feet or acreage:

Please attach a map of OMWM areas (or a website link to that map).

MEASURES OF EFFACACY

Describe monitoring efficacy efforts for each of the following:

Aerial Larvicide – wetlands: Salt marsh: Pre and Post dips at up to ten dip stations per participating municipality
 Ground ULV Adulticide: Surveillance and supplemental traps set in all member municipalities
 Larvicide – catch basins: Random basins in each municipality checked post treatment as needed. Small study conducted to compare the efficacy of the 3 larvicides used by the District.
 Larvicide-hand/small area Pre-treatment dips with >3 larvae present in 5-dip average, post treatment dips as necessary
 Open Marsh Water Management: NEMMC no longer holds a current OMWM permit. NEMMC's relevant projects focus on restoring water movement so as to prevent creating new mosquito breeding habitats
 Source Reduction: Surveillance data, historical breeding sites, virus notifications and resident complaints
 Other (please list):

Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any):

Research Project	Details
Bottle assays	
Efficacy testing	
Other: NEVBD/Cornell	NEVBD pesticide resistance testing program
Other: Supplemental adult mosquito trapping	Determines presence of virus and mosquito populations pre and post adulticide in high-risk areas

EDUCATION, OUTREACH & PUBLIC RELATIONS

If you have an education/outreach program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: The District provides educational outreach on vector-borne disease, personal protection, residential source reduction, storm water management, habitat restoration, invasive species, and environmental science primarily relevant to mosquitoes. This information is made available to schools, civic organizations, not for profit organizations, public access TV, the public, as well as state, federal, and municipal officials upon request and / or during routine operations. District personnel are available to meet, in accordance with COVID-19 precautions, at government and community meetings (i.e. Conservation Commissions, US Army Corps, Public Works Departments, Boards of Health, Board of Selectmen, or others) to provide information related to all the above.

The District's website (www.nemassmosquito.org) provides information about operational strategies, procedures, videos, equipment and materials, links to other websites, including the

Massachusetts Department of Public Health, regarding disease/virus information and prevention as well as seasonal activity summaries

Other Media: The District has various handouts, posters and presentations which are available to the public upon request. Outreach Programs: The District creates educational programs tailored to the specific needs of schools, civic organizations, and public officials.

What time frame during the year is this method employed? January-December

Check off all education/outreach methods that were performed by your program this year:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Development/distribution of brochures, handouts, etc. | <input checked="" type="checkbox"/> Door-to-door canvassing (door hangers, speaking to property owners, etc.) |
|---|---|

- Facebook page, Twitter, or other social media
- Mailings (Describe target audience(s): District Newsletter to residents, BOH, Towns)
- Media outreach (interviews for print or online media sources, press releases, etc.)
- Presentations at meetings

- School-based programs, science fairs, etc.
- Tabling at events (local events, annual meetings, etc.)
- Website
- Other (please describe): Municipal and BOH televised meetings & presentations

Estimate the audience reached this year using the education/outreach methods above: ~80,000

List your program's top 3 education/outreach activities for this past year:

1. PSA Website/Facebook
2. Property owner outreach. Public contact, inquiry and engagement while conducting field work
3. Board of Health televised meetings and presentations

Were you involved in any collaborations with the following partners this year? Provide details below, including a list of technical reports, white/grey papers, journal publications, trade magazine articles, etc.:

- Academia: UMass Amhurst (JCV), Princeton University (PIPPOP 1&2)
- Another mosquito control district/project: NMCA Quarterly Newsletter contributions and presentations
- Another state agency (DCR, DPH, etc.): MA DPH, MA DOT, PRNWR
- Environmental groups: Pesticide Environmental Stewardship Program, Trustees of Reservations (ongoing 5-year study on the effects of runneling on the salt marsh), Conservation Committees.
- Industry: NEVBD Efficacy Studies.

Please list any certifications and degrees held by your staff: Various scientific and environmental degrees including Associates, Bachelors, Masters, and Doctoral degrees. District certifications and licensing include MA Pesticide Core License, Commercial Certification Category 47 (Public Health, Mosquito and Biting Fly), Category 39 (Aquatic Pests), and Category 40 (Right of Way), MA Hoisting Engineer Class 2A, 1C and 4G, MA Commercial Driver's license - Class A & B, and Massachusetts Trappers Certification, Supervisor Academy.

List any training/education your staff received this year: All District employees are trained annually in accordance with the Commonwealth's PACE Program. Attendance and participation in the Northeastern Mosquito Control Association conference. Additionally, the District's staff have attended the M.U.S.T. Excavation Safety Seminar, First Aid/CPR Certification, Chainsaw safety training and Pesticide trainings.

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):

- Aerial Photography
- Databases
- Dataloggers (monitoring for temperature, etc.)
- GIS mapping (Describe:) Fiekdseeker, ESRI
- GPS equipment
- Smartphones
- Tablets/Toughbook
- Other (please describe):

Describe any changes/enhancements in IT from the previous year: NONE

REVENUES & EXPENDITURES

Please enter your approved budgets for the previous, current, and future fiscal years.

	Date of Fiscal Year	Approved Budget
Previous	FY25	\$2,120,371.26
Current	FY26	\$2,205,186.11
Future	FY27	\$2,271,341.42 (proposed)

List each member municipality, along with the corresponding (cherry sheet) funding assessment dollar amount, for the current fiscal year (or provide a web link to this information):

Municipality	Project Share Amount	State Reclamation Mosquito Control Board Share Amount	Total Assessment Estimate
Amesbury	56,685	2,188	\$58,873
Andover	151,126	5,833	\$156,959
Beverly	92,081	3,554	\$95,635
Boxford	95,727	3,695	\$99,422
Danvers	71,010	2,741	\$73,751
Georgetown	53,007	2,046	\$55,053
Groveland	37,034	1,430	\$38,464
Hamilton	60,064	2,318	\$62,382
Haverhill	154,691	5,971	\$160,662
Ipswich	132,812	5,127	\$137,939
Lynn	83,214	3,212	\$86,426
Lynnfield	51,869	2,002	\$53,871
Manchester By the Sea	44,385	1,713	\$46,098
Marblehead	44,415	1,714	\$46,129
Merrimac	35,248	1,361	\$36,609
Methuen	109,760	4,237	\$113,997
Middleton	60,876	2,350	\$63,226
Nahant	8,818	340	\$9,158
Newbury	96,485	3,724	\$100,209
Newburyport	52,275	2,018	\$54,293
North Andover	122,399	4,725	\$127,124
Peabody	94,986	3,666	\$98,652
Revere	56,833	2,194	\$59,027
Rowley	73,483	2,836	\$76,319
Salem	57,029	2,201	\$59,230

Salisbury	64,183	2,477	\$66,660
Saugus	61,898	2,389	\$64,287
Swampscott	25,682	991	\$26,673
Topsfield	52,553	2,029	\$54,582
Wenham	32,174	1,242	\$33,416
West Newbury	53,759	2,075	\$55,834
Winthrop	18,625	719	\$19,344

Comments:

SERVICE REQUESTS

How many service requests did you receive this season? 3,386

How many were for larviciding? 163

How many were for adulticiding? 3,223

Was this an increase or decrease over last season? Increase from 2024 = 3,222

Comments:

EXCLUSIONS

How many exclusion requests did you receive this season? 286

Was this an increase or decrease over last season? Yes or No: Decrease from 2024 = 345

Do you have large areas of pesticide exclusion, including priority habitat? YES

Comments:

SPECIAL PROJECTS

Did your program perform any of the following special projects?

Project	Description
<input checked="" type="checkbox"/> Inspectional services (inspections at sewage treatment facilities, review of subdivision plans, etc.)	Inspections and treatments at District sewage treatment facilities, new housing developments/construction and Municipal stormwater designs/alterations
<input checked="" type="checkbox"/> Work with DPW departments or other local or state officials to address stormwater systems, clogged culverts, or other areas identified as man-made mosquito problem areas.	NEMMC works closely with local DPWs to coincide catch basin treatments with each municipality's cleaning schedule to use the most effective larvicide product in catch basins and stormwater structures.
<input checked="" type="checkbox"/> Work with groups as described above on long-term solutions.	Wetland restoration and ditch/stormwater projects completed to enhance drainage and reduce future mosquito breeding
<input checked="" type="checkbox"/> Conduct or participate in any cooperative research or restoration projects?	Trustees of Reservations, Governors Academy, NEVBD, UMASS Amherst, Princeton University, Parker River Refuge
<input checked="" type="checkbox"/> Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?	NMCA annual meeting, MADPH meetings
<input type="checkbox"/> Work on any biological control projects, such as enhancement of habitat for native predators, release of predatory fish or invertebrates, etc.?	
<input type="checkbox"/> Other	

GENERAL COMMENTS

Please add any comments here for topics not covered elsewhere in this report: The District's mosquito control program is conducted in full compliance with the Child and Families Protection Act. For the District to perform pesticide applications on school property, all products utilized must be explicitly listed in the school's Integrated Pest Management (IPM) plan. In recent years, the District has received requests from local Boards of Health to conduct adult mosquito control operations on municipal properties, including school athletic fields, particularly in response to confirmed or elevated mosquito-borne virus activity. Schools that do not include mosquito control within their IPM plans limit the District's ability to implement both routine and emergency mosquito control measures within those municipalities. Such limitations may increase the potential risk of virus transmission to surrounding communities and result in increased operational and public health response costs for the District.