



**Commonwealth of Massachusetts**  
STATE RECLAMATION AND MOSQUITO CONTROL BOARD



**NORTHEAST MASSACHUSETTS MOSQUITO CONTROL  
AND WETLANDS MANAGEMENT DISTRICT**

118 Tenney Street  
Manchester, MA 01833  
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[www.nemassmosquito.org](http://www.nemassmosquito.org)

**Operations**

Barry Noone: *District Director*  
Kimberly A. Foss.: *Entomologist*  
Robyn A. Januszewski: *IT Coordinator / Biologist*  
Steven Przyjemski: *Wetlands Project Coordinator*

**Commissioners**

John W. Morris, CHO: *Chair*  
Paul Sevigny, RS, CHO: *Vice Chair*  
Joseph T. Giarrusso, *Conservation Officer Retired*  
Rosemary Decie, RS

## ***2026 Best Management Practice Plan Report & 2025 Year in Review*** **Manchester-by-the-Sea**

### **District Control Measures Specific to Manchester**

Adult Mosquito Surveillance Program

Vector / Virus Intervention

GIS Mapping of Mosquito Habitats and Treatment Areas

Catch Basin Treatments (**BT/BS products only, No Methoprene will be used**)

Larviciding (**Resident and/or Board of Health requests, BT/BS products only, No Methoprene will be used**)

Adulticiding (**Resident and/or Board of Health requests**)

Barrier Treatments on School Properties (**School officials / IPM coordinator request**)

Barrier Treatments on Municipal Owned Public Spaces (**Board of Health request**)

Ditch Maintenance / Wetlands Management/ Mosquito Habitat Mitigation

Tire Recycling Program

Property Inspections

Educational Resources

**NOTE:** Any adulticiding, larviciding or treatment of catch basins for mosquito control on public school property requires a current IPM (Integrated Pest Management) Plan. We are often asked by local Boards of Health and/or athletic directors to treat ball fields and/or parks that may be owned/used by the school departments, and without a school IPM plan that includes our current pesticide products we may not be able to assist.

*-Committed to the principals of mosquito control and wetland management -*

## Summary of NEMMC District Operations Completed in Manchester during 2025

Date	Activity Completed
1/9/2025	EPA NPDES Pesticide General Permit updated and 2024 Annual Permit filed
1/15/2025	Integrated Pest and Vector Management Plan for district 2025 completed
1/26/2025	Residential Pesticide Exclusions Received (1)
2/17/2025	Residential Pesticide Exclusions Received (1)
2/27/2025	Residential Pesticide Exclusions Received (4)
3/4/2025	Residential Pesticide Exclusions Received (1)
3/5/2025	Residential Pesticide Exclusions Received (1)
3/13/2025	Residential Pesticide Exclusions Received (1)
3/27/2025	Residential Pesticide Exclusions Received (1)
3/28/2025	Residential Pesticide Exclusions Received (1)
4/14/2025	Residential Pesticide Exclusions Received (1)
4/17/2025	Larviciding- Sweeny Field (Summer Street) (9.57 Lbs VectoBacG)
4/17/2025	Habitat Inspections (16)
5/6/2025	Residential Pesticide Exclusions Received (1)
5/6/2025	NEMMC held district-wide town hall zoom meeting for all BOH/DPW 11:00 am re: protocols and questions
5/9/2025	Residential Pesticide Exclusions Received (1)
5/11/2025	Residential Pesticide Exclusions Received (3)
5/14/2025	Residential Pesticide Exclusions Received (1)
5/19/2025	Adult mosquito surveillance starts for the season
5/22/2025	NEMMC attendance of Manchester BOH zoom meeting @ 6:00pm
5/28/2025	Weekly adult mosquito surveillance and Identification
6/1/2025	Residential Pesticide Exclusions Received (1)
6/3/2025	Weekly adult mosquito surveillance and Identification
6/5/2025	Residential Adulticiding Requests completed (1)
6/10/2025	Weekly adult mosquito surveillance and Identification
6/12/2025	Residential Adulticiding Requests completed (6)
6/17/2025	Weekly adult mosquito surveillance and Identification
6/18/2025	Residential Adulticiding Requests completed (3)
6/24/2025	Weekly adult mosquito surveillance and Identification
6/24/2025	Resident request site inspection- Forest Lane
6/26/2025	Residential Adulticiding Requests completed (1)
7/1/2025	Residential Pesticide Exclusions Received (1)
7/2/2025	Residential Adulticiding Requests completed (1)
7/8/2025	Weekly adult mosquito surveillance and Identification-1 batches sent to DPH for testing- NEGATIVE for WNV/EEE
7/10/2025	Residential Adulticiding Requests completed (7)
7/10/2025	Resident request site inspection- Magnolia Avenue
7/15/2025	Weekly adult mosquito surveillance and Identification-1 batches sent to DPH for testing- NEGATIVE for WNV/EEE
7/17/2025	Residential Adulticiding Requests completed (6)
7/22/2025	Weekly adult mosquito surveillance and Identification-1 batches sent to DPH for testing- NEGATIVE for WNV/EEE
7/24/2025	Residential Adulticiding Requests completed (5)
7/29/2025	Weekly adult mosquito surveillance and Identification-1 batches sent to DPH for testing- NEGATIVE for WNV/EEE

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7/31/2025	Residential Adulticiding Requests completed (1)- <b>Cancelled</b> due to inclement weather
8/7/2025	Residential Adulticiding Requests completed (6)
8/12/2025	Weekly adult mosquito surveillance and Identification- 1 batch sent to DPH for testing- <b>NEGATIVE</b> for WNV/EEE
8/13/2025	Residential Adulticiding Requests completed (6)
8/18/2025	Catch basin larviciding (731 VectoMax WSP)
8/18/2025	Catch basins in Manchester completed- 731 Total basins
8/21/2025	Residential Adulticiding Requests completed (6)
8/26/2025	Weekly adult mosquito surveillance and Identification-1 batches sent to DPH for testing- <b>NEGATIVE</b> for WNV/EEE
8/28/2025	Residential Adulticiding Requests completed (6)
9/4/2025	Residential Adulticiding Requests completed (6)
9/11/2025	Residential Adulticiding Requests completed (5)
9/12/2025	Residential spray requests closed for the season
9/8/2025	Resident request site inspection -Collected 1 tire- Bennett Street
9/16/2025	Resident request site inspection -Collected 4 tires- Sea Street
9/4/2025	Greenhead trap season retrieval- 4 Total GH Traps 2025

- **66 residential adulticide (ULV) service requests, up from 42 in 2024**
- **0 Board of Health adulticide service requests (combined ULV and barrier treatments), unchanged from 2024**
- **4 residential property inspection service requests, unchanged from 2024**  
 Informing residents that they can contact the district to inspect for standing water and help identify new breeding areas can help reduce mosquito populations.
- **17 mosquito habitat site inspections were conducted**
- **Catch basin larviciding was completed on 8/18/2025: 731 total basins were treated**
- **20 Residential pesticide exclusions were filed with the district for Manchester during 2025, down from 30 during 2024**
- **5 abandoned tires were collected for disposal**

## **2025 Manchester-by-the-Sea Mosquito & Arbovirus Surveillance Summary**

There were no WNV/EEE mosquito isolations, human, or animal cases in Manchester in 2025. At the end of 2025, the arboviral risk level for Manchester remained at LOW for EEE and LOW for WNV. Risk Categories are described on pages 13, 22, 25 of the 2025 Massachusetts State Arbovirus Surveillance and Response Plan.

Massachusetts DPH assesses arboviral risk levels based on many factors including but not limited to mosquito isolations, locations of acquired veterinary and human infections, virus history locally and in bordering states, weather conditions present and predictions, and current mosquito populations and future trends.

State arbovirus risk updates: <https://www.mass.gov/info-details/massachusetts-arbovirus-update#risk-maps->

- 13 qualified mosquito batches were sent to UMass Amherst for JCV (Jamestown Canyon Virus) testing (May and June collections) all tested negative for JCV.

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- 6 mosquito pools/batches were sent from Manchester to the MDPH lab for testing in 2025, all batches tested negative for EEE/WNV.

Mosquito virus isolation history (WNV/EEE) in Manchester-by-the-Sea:

Collection Date	Species	Test Type	Result
9/23/2019	<i>Cs. melanura</i>	EEE	Positive
9/23/2019	<i>Cs. melanura</i>	EEE	Positive
9/4/2018	<i>Culex salinarius</i>	WNV	Positive
8/25/2016	<i>Culex pipiens</i>	WNV	Positive
9/15/2013	<i>Cx. pipiens/restuans</i> complex	WNV	Positive
9/2/2012	<i>Cs. melanura</i>	WNV	Positive
9/2/2012	<i>Cq. perturbans</i>	WNV	Positive
9/3/2007	<i>Cx. pipiens/restuans</i> complex	WNV	Positive
9/3/2007	<i>Cx. pipiens/restuans</i> complex	WNV	Positive

Total Mosquito Collected in Manchester	2024	2025	% Change
Resting Boxes (8)- EEE primary vectors	70	2	-97%
CDC CO2/Light Traps (1) - Mammal feeders/bridge vectors	553	571	3%
Gravid Traps (1)- WNV primary vectors	20	61	205%
<b>Totals</b>	<b>643</b>	<b>634</b>	<b>-1%</b>

Mosquito Species- pest/disease list- Manchester	2024	2025	% Change	WNV/EEE +	District Total % Change 2024 to 2025
<i>Culiseta melanura</i> (red maple swamp/acid bog)	138	1	-99%	NO	-95%
<i>Culex pipiens</i> (container/catch basins/heavy organics)	6	37	517%	NO	24%
<i>Culex restuans</i> (container/catch basins)	5	2	-60%	NO	21%
<i>Culex salinarius</i> (brackish water/phragmites/roadside ditches)	9	14	56%	NO	48%
<i>Coquillitidia perturbans</i> (cattail)	268	62	-77%	NO	-79%
<i>Aedes vexans</i> (rainwater/fresh floodwater)	11	6	-45%	NO	99%
<i>Aedes japonicus</i> (tree hole/container breeder)	10	4	-60%	NO	-16%
<i>Aedes sollicitans</i> (salt marsh)	0	1	-	NO	110%
<i>Aedes cantator</i> (salt marsh)	5	15	200%	NO	-12%
<i>Aedes canadensis</i> (snowmelt/woodland pool)	154	429	179%	NO	304%

For specific annual mosquito species information and summary please visit our IPVMP, see page 33 and 34 [https://www.nemassmosquito.org/sites/g/files/vyhlf4751/f/uploads/2026\\_ipvmp\\_final.pdf](https://www.nemassmosquito.org/sites/g/files/vyhlf4751/f/uploads/2026_ipvmp_final.pdf)

With forested wetlands, presence of vector and bridge vector mosquito species and arbovirus history in Manchester-by-the-Sea, there will always be concern for transmission and human infection from EEE and

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WNV. From July to the first hard frost, residents should take necessary precautions to reduce the risk of infection from these viruses, regardless of low mosquito populations and/or aggressiveness of control.

A hard, or killing frost, is defined meteorologically as two consecutive hours of temperatures below 28 degrees Fahrenheit or three hours below 32 degrees. This will occur at different times for different communities, and there may even be variation within communities based on local geography. Although mosquitoes are not killed until a hard frost occurs, they are extremely unlikely to be active when temperatures fall below 50 degrees in the evening (Page 15 of the 2025 MA Arbovirus Plan listed below).

Refer to the 2025 Massachusetts State Arbovirus Surveillance and Response Plan viewed online at:

<https://www.mass.gov/lists/arbovirus-surveillance-plan-and-historical-data#response-plan->

## Reminders

- **Board of Health meeting/ presentation with NEMMC**
  - Meetings will only be scheduled between the dates of October 1st - June 1<sup>st</sup>
- **Notify NEMMC with Health Department /Board of Health contact changes**
  - Work phone, cell phone, and email are required of primary and secondary contacts.
- **Review District Phased Response to WNV/EEE Virus Isolations in Integrated Pest and Vector Management Plan (IPVMP)**
- **Review login information for Municipal Toolbox on NEMMC website**
  - Contact the Board of Health Liaison (see contact below) for login information
- **Department of Public Health Notifications**
  - Due to DPH protocols for virus and risk level changes, please delay any public notifications and social media updates until NEMMC has contacted you.
- **Surveillance trap and virus locations are to remain confidential**
- **Scheduling barrier treatments/adulticiding municipally owned areas**
  - Will be scheduled upon request from BOH/Health Department or with NEMMC's recommendation and permission from BOH/Health Department.
  - School grounds may also be requested for treatment via the IPM Coordinator
  - NEMMC will coordinate with schools and other town departments for access to these areas.
  - NEMMC will provide Standard Written Notification.
  - Scheduled barrier treatments are recommended between July 15<sup>th</sup> – August 25<sup>th</sup>
- **School IPM Coordinator contact information should be kept up to date. NEMMC will alert IPM Coordinators with any pesticide product changes/additions.**

For any questions on where to find this information, scheduling, and/or how to complete these tasks, please reach out to our Board of Health Liaison:

Jennifer Sforza/Board of Health Liaison

Cell: (978) 971-7689

Office: (978) 352- 2800

Email: [Jennifer.Sforza@mass.gov](mailto:Jennifer.Sforza@mass.gov)

## 2026 NEMMC Protocols for District Arboviral Events

Climate change is expected to affect the geographic and seasonal patterns of mosquito-borne diseases in the U.S. The northeast is experiencing an increase in precipitation and unusually hot temperatures. Since EEE is more prevalent in wetter years and WNV in hotter years the likeness of the district experiencing EEE and/or WNV events in any given year is possible. In some years both viruses can present substantial risk. The district feels it is beneficial to our subscribing municipalities to set prevention and response criteria preparing for both mosquito-borne viruses.

### District Prevention for WNV and EEE

- Adult mosquito surveillance and DPH virus testing
- Larviciding areas that can promote mosquito breeding including municipal catch basins
- Public notification to use personal protective measures from spring to first hard frost
- Wetlands management and stormwater maintenance
- Property inspections to larvicide standing water and remove containers holding water
- Early barrier treatments for public parks, recreation areas and schools
- Tire disposal program

### District Response for WNV and EEE

If *risk level increases* for municipality but no virus in municipality:

- Will provide public notification for distribution to use personal protective measures
- Additional larviciding of freshwater wetlands and flooded areas
- Recommendation for municipality to complete barrier treatments

If *bird biting mosquitoes* in municipality test positive for virus:

- Will provide public notification for distribution to use personal protective measures
- Supplemental adult mosquito trapping and additional DPH virus testing in risk areas
- Additional larviciding of freshwater wetlands and flooded areas
- Retreatment of catch basins (if WNV) in focal area
- Retreatment of hummock swamps (if EEE) in focal area

If *human biting mosquitoes* in municipality test positive for virus:

- Will provide public notification for distribution to use personal protective measures
- Supplemental adult mosquito trapping and additional DPH virus testing in risk areas
- Additional larviciding of freshwater wetlands and flooded areas
- Recommendation for municipality to complete a block adulticide of focal area
- Recommendation for municipality to complete barrier treatments

If *mammal or human case* of WNV or EEE in municipality:

- Will provide public notification for distribution to use personal protective measures
- Supplemental adult mosquito trapping and additional DPH virus testing in risk areas
- Additional larviciding of freshwater wetlands and flooded areas
- Recommendation for municipality to complete a block adulticide of focal area
- Recommendation for municipality to complete barrier treatments