

Annual Operations Report

Year Report Covers: 2025

Date of Report: 1/6/2026

Project/District Name: Central Massachusetts Mosquito Control Project

Count of Cities and Towns in Service Area: 44

Alphabetical List of Cities/Towns: Acton; Ashland; Auburn; Ayer; Berlin; Billerica; Blackstone; Bolton; Boxborough; Boylston, Chelmsford; Clinton; Dracut; Devens; Fitchburg; Gardner; Grafton; Holliston; Hopedale; Hopkinton; Hudson; Lancaster; Leominster; Littleton; Lowell; Lunenburg; Marlborough; Milford; Millbury; Millville; Natick; Northborough; Northbridge; Sherborn; Shrewsbury; Southborough; Stow; Sturbridge; Tewksbury; Webster; Westborough; Westford; Wilmington; Worcester

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

Municipality added: 0

Municipality removed: 0

HQ Address: 111 Otis Street, Northborough, MA 01532

Phone: (508)393-3055

Email: cmmcp@cmmcp.org

Report Prepared By: Tim McGlinchy, Frank Cornine, & Daniel Cole

Mission Statement, if available: The objective of the Project is to attain an efficient, economic mosquito control operation which will provide the best results possible and be consistent with all ecological aspects and the best interests of the member towns.

Our goal is to reduce mosquito exposure to the public, and the potential for disease transmission by mosquitoes, by utilizing proven, sound mosquito control techniques. CMMCP believes the best way to accomplish this task is by practicing an Integrated Pest Management (IPM) approach as it relates to mosquito control in Massachusetts. IPM utilizes a variety of control techniques and evaluation procedures. Control efforts are undertaken only after surveillance data has been collected and analyzed. Training, experience and common sense dictate our response in any given situation.

It is our desire and responsibility for this Project to have the best mosquito control for the communities that we serve.

ORGANIZATION SETUP

Commissioner Names:

Richard Day, Chair

Dean Mazarella

Paul Mazzuchelli

Pablo Noguera

Sam Telford

Superintendent/Director Name: Timothy McGlinchy
 Frank Cornine

Asst. Superintendent/Director Name:

District/Project Website: <https://www.cmmcp.org>

Please list below any additional social media accounts:

Twitter/X: @CMassMosquito

Facebook page: <http://www.facebook.com/Central.Mass.Mosquito> (not currently active)

Staffing levels for the year of this report:

Full time: 20 Part time: 1 Seasonal: 8 Other: (please describe)

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 Timothy McGlinchy, Frank Cornine, Stephenie Strongberg | <input checked="" type="checkbox"/> Facilities Timothy Welch | <input checked="" type="checkbox"/> Public relations Timothy McGlinchy, Frank Cornine, various staff |
| <input checked="" type="checkbox"/> Biologist Frank Cornine | <input checked="" type="checkbox"/> Information technology Frank Cornine | <input checked="" type="checkbox"/> Wetland scientist Katrina Proctor |
| <input checked="" type="checkbox"/> Educator Frank Cornine, Daniel Cole | <input checked="" type="checkbox"/> Laboratory Daniel Cole | <input type="checkbox"/> Other (please describe) |
| <input checked="" type="checkbox"/> Entomologist Daniel Cole | <input checked="" type="checkbox"/> Operations Timothy McGlinchy, Frank Cornine | |

Comments:

During the season, the following were maintained:

Count	Equipment Type	Type(s)
2	Modified wetland equipment	Link Belt 1600, John Deere 350
4	Larval control equipment	Muryama backpack sprayers
15	ULV sprayers	ProMist HD
1	Electric Vehicles	Ford F150 Lightning
25	Gas Powered Vehicles	Ford Rangers, Ford F150s, Chevy Silverados
2	Other: Hybrid Vehicles	Ford Maverick Hybrids
1	Dump Body	Kodiak Dump Truck

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"/> Larval mosquito surveillance |
| <input checked="" type="checkbox"/> Adult mosquito surveillance | <input type="checkbox"/> Open Marsh Water Management |
| <input checked="" type="checkbox"/> Ditch maintenance | <input checked="" type="checkbox"/> Research |
| <input checked="" type="checkbox"/> Education, Outreach & Public education | <input checked="" type="checkbox"/> Source reduction |
| <input checked="" type="checkbox"/> Larval mosquito control | <input type="checkbox"/> Other (Please List:) |

Comments:

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 monitor mosquitoes in the larval stage to assess the need for larval control and any non-target impacts post treatment.

What months is this program active? March - October

Describe the process of monitoring / sampling: Standing water is sampled for larvae/pupae, results of inspection are entered into database

Describe the habitat that is being sampled: Wetlands, catch basins, stormwater structures, abandoned pools, containers (tires, etc.)

What environmental conditions (vegetation, water quality, predators) are observed? Habitat types and general comments are allowed in database. Any observed non-target impacts are noted post treatment.

How frequently are sites monitored? Technicians are in towns weekly, rotating through historical sites

Comments: CMMCP has begun a larval sampling program specifically for *Culiseta melanura*, which will take place throughout the year.

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 for species density, population trends and virus isolations.

What months is this program active? May - October

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"/>	38
Gravid trap	<input type="checkbox"/>	57
Landing rate test	<input type="checkbox"/>	
NJ light trap	<input type="checkbox"/>	
NJ light trap w/CO ₂	<input type="checkbox"/>	

Ovitrap	<input type="checkbox"/>	79
Resting box	<input type="checkbox"/>	12
Other (please describe): BG Sentinel Trap		34
Other (please describe):		
Other (please describe):		

Do you maintain long-term trap sites in any of your areas? Yes or No: No

If yes, how many:

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

<input checked="" type="checkbox"/> <i>Ae. albopictus</i>	<input type="checkbox"/> <i>Cx. salinarius</i>	<input type="checkbox"/> <i>Oc. sollicitans</i>
<input checked="" type="checkbox"/> <i>Ae. cinereus</i>	<input checked="" type="checkbox"/> <i>Cs. melanura</i>	<input 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: An. barberi, An. walkeri, Cx. territans, Cs. minnesotae</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? 100

Total number of adult mosquito pools submitted to DPH this past season: 1710

Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"): 3829

Total number of adult mosquitoes submitted to DPH this past season: 49,019

ADULT MOSQUITO SURVEILLANCE

Number of adult mosquitoes collected this season but not submitted to DPH: 103,508

Number of Ovitrap collections this season, if any: 985

Any other trap collections of note (please describe):

Number of traps in your service area placed by **MDPH**: 0-5 depending on season & budget/personnel restrictions

Were these long-term trap sites or supplemental trapping sites? Yes or No: long-term primarily

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)	108		2
<input type="checkbox"/> Other (please list):			

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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	*	1 remote, 43 low
WNV	44 low	1 low, 28 moderate, 15 high

Comments: *MDPH does not post historical risk levels, so hard to determine

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: To control mosquitoes in the larval stage to prevent emergence and reduce the demand/need for adulticide use.

What months is the program active? March - October

Describe the types of areas where you use this program: Wetlands, catch basins, stormwater structures, abandoned pools, containers (tires, etc.)

Do you use:

- Aerial applications. Describe operations: Aerial applications of Bti (Aquabac 200G) in large wetlands in Billerica, Boxborough, and Chelmsford under town-supplied supplemental funding.
- Portable applications. Describe operations: Hand applications, plus backpack where appropriate
- Other (please list):

LARVAL MOSQUITO CONTROL

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

- Best professional judgment. Describe:
- Historical records
- Larval dip counts – Describe trigger for application: 1 larvae per 5 dips average
- Other (please describe):

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 Product Applied
Aquabac 200G	62637-3	5-10 lbs/acre	hand/backpack & helicopter	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	9,871.88 lbs
BVA 2 Larvicide Oil	70589-1	1 gal/acre	pump can	Larvae/pupae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	0.57 gal
FourStar Microbial Briquets 45 Day	83362-3	1 briquet per 100 sq. ft.	hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	18,098 briquets
FourStar Microbial Briquets 90 Day	83362-3	1 briquet per 100 sq. ft.	hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input checked="" type="checkbox"/> Other (please list): abandoned swimming pools	12,962 briquets
FourStar Bti CRG	85685-4	7.5-10 lbs/acre	hand/backpack	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	1,105.35 lbs
VectoLex FG	73049-20	5-20 lbs/acre	hand/backpack	Larvae	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	1,160.33 lbs
VectoLex WSP	73049-20	1 pouch per 50 sq. ft.	hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	33,930 pouches
VectoMax WSP	73049-429	1 pouch per 50 sq. ft.	hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	28,012 pouches
					<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <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):	
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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 suppress adult mosquito populations and reduce risk from mosquitoes and mosquito-borne disease.

What is the time frame for this program? May - October

Describe the types of areas where you use this program: Streets, neighborhoods, recreational areas, schools (per CFPA), Fish and Game grounds, VFW properties, etc.

Do you use:

- Aerial applications. Describe operations:
- Portable applications. Describe operations:
- Truck applications. Describe operation:
- 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 product applied
Zenivex E4	2724-807	0.00175 lbs a.i./acre	truck mounted ULV	628.22 gal

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas:
Less than one application at highest label in 24 hours.

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

- Arbovirus data
- Best professional judgment
- Complaint calls. Describe trigger for application: >2 per square mile*
- Landing rates. Describe trigger for application:
- Light trap data. Describe trigger for application: >5 human-biting per night*

Comments: * recommendations from the mosquito control GEIR

Please attach maps of your service areas (or a website link to that map): <https://www.cmmcp.org/about-us/pages/service-area>

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: The program consists of four components: 1. Clean-up of large waste tire dumping sites that we have databased and that require repeated larval control measures; 2. Residential waste tire removal (curb-side); and 3. Removal of waste tires discarded on the side of the road. 4. Coordination with community events

What time frame during the year is this method employed? Year round, however our residential program does go on hiatus during the months of June, July and August.

Comments: 1,956 tires were collected in 2025.

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 of existing ditch systems by removal of accumulated organic debris and other obstructions

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	7,621
<input checked="" type="checkbox"/> Hand cleaning	229,507

<input checked="" type="checkbox"/> Mechanized cleaning	2,900
<input type="checkbox"/> Stream flow improvement	
<input type="checkbox"/> Other (Please List:)	

Comments:

Water Management/ Ditch Maintenance

For saltwater ditch maintenance, check off all that apply:

Maintenance Type	Estimate of cumulative length of ditches maintained (ft)
<input type="checkbox"/> Hand cleaning	
<input type="checkbox"/> Mechanized cleaning	
<input type="checkbox"/> Other (Please List:)	

Comments:

What time frame during the year is this method employed?

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

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: One dip stations per 250 acres treated (pre and post collections)

Ground ULV Adulticide: CDC light traps (pre and post application)

Larvicide – catch basins: Visual inspections/sampling when possible

Larvicide-hand/small area Recheck numbers post application when possible

Open Marsh Water Management:

Source Reduction:

Other (please list): Pesticide resistance monitoring

Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any): <https://www.cmmcp.org/research-efficacy>

Research Project	Details
Bottle assays	In partnership with NEVBD/Cornell
Efficacy testing	As resources allow
Other: Ovitrap egg collections	Monitor for Ae. albopictus
Other:	

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: Educating the public about mosquitoes and their biology is an important aspect of the Project's program. We offer a comprehensive program geared towards school-aged children from Kindergarten to High School in member communities. This program is tailored to meet the needs of intended audience. The Project produces public relations handouts, and all member Town Halls are stocked with information on CMMCP, our programs, and how the homeowner can reduce mosquito populations in their own area. Project staff is available to meet with civic organizations, town/city boards, and to participate in health fairs

What time frame during the year is this method employed? Year round but the majority is done in the spring and early summer.

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"/> School-based programs, science fairs, etc. |
| <input checked="" type="checkbox"/> Door-to-door canvassing (door hangers, speaking to property owners, etc.) | <input checked="" type="checkbox"/> Tabling at events (local events, annual meetings, etc.) |
| <input checked="" type="checkbox"/> Facebook page, Twitter, or other social media | <input checked="" type="checkbox"/> Website |
| <input type="checkbox"/> Mailings (Describe target audience(s):) | <input checked="" type="checkbox"/> Other (please describe): Program aimed at senior citizens, posted personal protection notices in public parks when virus was detected. |
| <input checked="" type="checkbox"/> Media outreach (interviews for print or online media sources, press releases, etc.) | |
| <input checked="" type="checkbox"/> Presentations at meetings | |

Estimate the audience reached this year using the education/outreach methods above: 1095

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

1. Interactions with public while conducting field work
2. Presentations at meetings, events
3. Elementary school mosquito awareness 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
- Another mosquito control district/project

- Another state agency (DCR, DPH, etc.)
- Environmental groups
- Industry

Please list any certifications and degrees held by your staff: Frank Cornine, B.S. in Biology & Masters in Public Health: Tim McGlinchy, MS non-profit mgmt. Katrina Proctor certifications in wetland science: Daniel Cole, B.S. in Ecology/Evolutionary Biology & MS in Biodiversity/Conservation Biology.

List any training/education your staff received this year: NMCA annual meeting/field day, pesticide license continuing education, hoist license continuing education, annual MassAchieve trainings, First Aid/CPR training

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):

- Aerial Photography
- Databases
- Dataloggers (monitoring for temperature, etc.)
- GIS mapping (Describe:) Frontier Precision mosquito software used, as well as ESRI products
- GPS equipment
- Smartphones
- Tablets/Toughbook
- Other (please describe):

Describe any changes/enhancements in IT from the previous year:

REVENUES & EXPENDITURES

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

	Date of Fiscal Year	Approved Budget
Previous	FY25	3,079,424.00
Current	FY26	3,158,200.50
Future	FY27	3,221,365.51 (requested)

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):

<https://dlsgateway.dor.state.ma.us/reports/rdPage.aspx?rdReport=CherrySheets.CSbyProgMunis.MuniBudgFinal>

Comments:

SERVICE REQUESTS

How many service requests did you receive this season? 11,401

How many were for larviciding? 122

How many were for adulticiding? 11,279

Was this an increase or decrease over last season? decrease

Comments: 121 tire recycling requests received as well

EXCLUSIONS

How many exclusion requests did you receive this season? 747

Was this an increase or decrease over last season? Yes or No: Decrease

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 type="checkbox"/> Inspectional services (inspections at sewage treatment facilities, review of subdivision plans, etc.)	
<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.	Coordinated with various DPWs regarding culvert maintenance
<input type="checkbox"/> Work with groups as described above on long-term solutions.	
<input checked="" type="checkbox"/> Conduct or participate in any cooperative research or restoration projects?	Pesticide resistance surveillance with NEVBD/Cornell University
<input checked="" type="checkbox"/> Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?	AMCA & NMCA annual meetings, NMCA field day, EEE panel, various seminars & webinars
<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: