

# Annual Operations Report

Year Report Covers: 2025 Date of Report: January 15, 2026

Project/District Name: Cape Cod Mosquito Control Project

Count of Cities and Towns in Service Area: 15

Alphabetical List of Cities/Towns: Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Provincetown, Sandwich, Truro, Wellfleet, Yarmouth

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

Municipality added:

Municipality removed:

HQ Address: 86 Willow Street Unit 7 Yarmouthport, MA 02675

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Report Prepared By: Gabrielle Sakolsky, Caitlin Barrett, Audrey Russano

Mission Statement, if available:

## ORGANIZATION SETUP

Commissioner Names:

J. Gregory Milne, James Quirk, Rodney Collins, Emily Beebe, Dr. Theodore Andreadis

Superintendent/Director Name: Gabrielle Sakolsky-Hoopes  
Name: Barton Morris

Asst. Superintendent/Director

District/Project Website: ccmcp.net

Please list below any additional social media accounts:

Staffing levels for the year of this report:

Full time: 25

Part time:

Seasonal: 1

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 2FT | <input checked="" type="checkbox"/> Facilities 2FT             | <input checked="" type="checkbox"/> Public relations 2FT    |
| <input type="checkbox"/> Biologist                     | <input checked="" type="checkbox"/> Information technology 1FT | <input type="checkbox"/> Wetland scientist                  |
| <input checked="" type="checkbox"/> Educator 2FT       | <input checked="" type="checkbox"/> Laboratory 1FT             | <input checked="" type="checkbox"/> Other (please describe) |
| <input checked="" type="checkbox"/> Entomologist 2FT   | <input checked="" type="checkbox"/> Operations 3FT             | 20FT field crew personnel                                   |

**Comments:****During the season, the following were maintained:**

Count	Equipment Type	Type(s)
	Modified wetland equipment	
	Larval control equipment	
	ULV sprayers	
	Electric Vehicles	
	Gas Powered Vehicles	
	Other:	

**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 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 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: All larval habitats are monitored regularly throughout the treatment season. Data is entered into an ArcGIS online database and reviewed in a timely manner. Larvicide efficacy is checked at the beginning and end of the season at a minimum of 18 sites. Source reduction projects are evaluated on a yearly basis.

What months is this program active? April - November

Describe the process of monitoring / sampling: A minimum of 10 samples are taken at any location found to have standing water using a standard mosquito dipper. Random samples are brought back to the lab for identification.

Describe the habitat that is being sampled: All fresh water & salt water areas found to contain mosquito larvae and/or standing water for over 5 days.

What environmental conditions (vegetation, water quality, predators) are observed? Water level and mosquito population (presence and size)

How frequently are sites monitored? Freshwater sites are sampled every 2 weeks until dry. Saltwater sites are sampled after astronomical tides and/or rain events.

Comments:

## 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 assess populations to determine efficacy of program as well as identifying presence of vectors/arbovirus.

What months is this program active? April - November

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 <sub>2</sub>	<input type="checkbox"/>	
CDC light trap	<input type="checkbox"/>	
CDC light trap w/CO <sub>2</sub>	<input type="checkbox"/>	22
Gravid trap	<input type="checkbox"/>	22
Landing rate test	<input type="checkbox"/>	
NJ light trap	<input type="checkbox"/>	
NJ light trap w/CO <sub>2</sub>	<input type="checkbox"/>	
Ovitrap	<input type="checkbox"/>	18
Resting box	<input type="checkbox"/>	18
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: 42

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 type="checkbox"/> <i>An. punctipennis</i>	<input checked="" type="checkbox"/> <i>Cx. restuans</i>	<input checked="" type="checkbox"/> <i>Oc. trivittatus</i>
<input type="checkbox"/> <i>An. quadrimaculatus</i>	<input checked="" type="checkbox"/> <i>Oc. abserratus</i>	<input type="checkbox"/> <i>Ps. ferox</i>
<input checked="" type="checkbox"/> <i>Cq. perturbans</i>	<input checked="" type="checkbox"/> <i>Oc. canadensis</i>	<input type="checkbox"/> <i>Ur. sapphirina</i>
<input checked="" type="checkbox"/> <i>Cx. pipiens</i>	<input checked="" type="checkbox"/> <i>Oc. cantator</i>	<input type="checkbox"/> <i>Others:</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? 48  
 Total number of adult mosquito pools submitted to DPH this past season: 821  
 Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"): 2437  
 Total number of adult mosquitoes submitted to DPH this past season: 22,134

#### ADULT MOSQUITO SURVEILLANCE

Number of adult mosquitoes collected this season but not submitted to DPH: 69,052

Number of Ovitraps collections this season, if any: 126  
 Any other trap collections of note (please describe):

Number of traps in your service area placed by **MDPH**: 0  
 Were these long-term trap sites or supplemental trapping sites? Yes or No:

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)	9		
<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	8 remote, 7 low	8 remote, 7 low
WNV	15 low	10 low, 5 moderate

Comments:

#### 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 this program is to manage mosquito populations in Barnstable County below nuisance level and to protect human health.

What months is the program active? April - November

Describe the types of areas where you use this program: All fresh water & salt water areas found to contain mosquito larvae

Do you use:

- ☐ Aerial applications. Describe operations:
- ☒ Portable applications. Describe operations:
- ☐ 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:
- ☐ 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
VectoBac 12 AS	73049-10	2.5 to 10 pounds per acre	Hand	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	379 gal
VectoBac WDG	73049-45	1.75 to 14 oz per acre	Hand	Larvae	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	88 oz
BVA 2 Larvicide Oil	70589-1	2 to 3 gallons per acre	Hand	Larvae/Pupae	<input checked="" type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	715 gal
VectoBac GS	73049-10	2.5 to 10 pounds per acre	Hand	Larvae	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	2496 lbs
VectoMax FG	73049-429	5 to 20 pounds per acre	Hand	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	7 lbs
VectoLex WSP	73049-20	1 packet per 50 sq ft	Hand	Larvae	<input checked="" type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	219 lbs
Fourstar 45 Day Briquet	83362-3	1-2 briq 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):	43 lbs
					<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):	
					<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:

What is the time frame for this program?

Describe the types of areas where you use this program:

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

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

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

- ☐ Arbovirus data
- ☐ Best professional judgment
- ☐ Complaint calls. Describe trigger for application:
- ☐ Landing rates. Describe trigger for application:
- ☐ Light trap data. Describe trigger for application:

Comments:

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



## 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:

What time frame during the year is this method employed?

**Comments:**

### 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:

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	884'
<input checked="" type="checkbox"/> Hand cleaning	169,755'
<input type="checkbox"/> Mechanized cleaning	
<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 checked="" type="checkbox"/> Hand cleaning	45,885'
<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:

Ground ULV Adulticide:

Larvicide – catch basins: gravid traps

Larvicide-hand/small area gravid traps, light traps, resting boxes, larval sampling

Open Marsh Water Management:

Source Reduction: gravid traps, light traps, resting boxes, larval sampling

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	Samples submitted to NEVBD
Efficacy testing	
Other:	
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: Education, outreach & public relations are part of our IPM approach

What time frame during the year is this method employed? Year-Round

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

- |   |   |
|---|---|
| <input type="checkbox"/> Development/distribution of brochures, handouts, etc.  | <input checked="" type="checkbox"/> Presentations at meetings                               |
| <input checked="" type="checkbox"/> Door-to-door canvassing (door hangers, speaking to property owners, etc.)           | <input checked="" type="checkbox"/> School-based programs, science fairs, etc.              |
| <input type="checkbox"/> Facebook page, Twitter, or other social media  | <input checked="" type="checkbox"/> Tabling at events (local events, annual meetings, etc.) |
| <input type="checkbox"/> Mailings (Describe target audience(s): )   | <input checked="" type="checkbox"/> Website   |
| <input checked="" type="checkbox"/> Media outreach (interviews for print or online media sources, press releases, etc.) | <input type="checkbox"/> Other (please describe):   |

Estimate the audience reached this year using the education/outreach methods above: 1000

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

1. Barnstable County Master Gardeners Presentations
2. Brewster Conservation Day
3. Cape Cod Community College Intro to Env. Sciences lectures

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: Mass Pesticide Applicator's Licenses, Commercial Certifications, CDL & Hydraulic Licenses, Master of Science Entomology, GIS Certification, Drone Certification

List any training/education your staff received this year: Mosquito Mayhem, NMCA Field Day, NMCA Annual Conference

## INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):

- ☒ Aerial Photography
- ☒ Databases
- ☐ Dataloggers (monitoring for temperature, etc.)
- ☒ GIS mapping (Describe:)
- ☒ 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	2025	\$3,194,426
Current	2026	\$3,274,287
Future	2027	\$3,356,144

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://dls-gw.dor.state.ma.us/reports/rdpage.aspx?rdreport=cherrysheets.csbyprogmunis.munibudgfinal>

Comments:

## SERVICE REQUESTS

How many service requests did you receive this season? 149

How many were for larviciding? 149

How many were for adulticiding? 0

Was this an increase or decrease over last season? Decrease

Comments:

## EXCLUSIONS

How many exclusion requests did you receive this season? 58

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.	Worked in 15 towns to maintain stormwater systems including opening culverts
<input checked="" 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?	Assist with restoration projects coordinated w/ APCC, Mass Audubon & Waquoit Bay NERR
<input checked="" type="checkbox"/> Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?	Member of Cape Restoration Action Team & Herring River Restoration Stakeholder Group
<input checked="" type="checkbox"/> Work on any biological control projects, such as enhancement of habitat for native predators, release of predatory fish or invertebrates, etc.?	Participated in salt marsh restoration projects and ditch maintenance in 15 towns
<input type="checkbox"/> Other	

## GENERAL COMMENTS

Please add any comments here for topics not covered elsewhere in this report: