# MASSACHUSETTS MOSQUITO CONTROL

## *ANNUAL OPERATIONS REPORT*

Year Report Covers: 2024 Date of Report: 01/10/2025

Project/District Name: **Plymouth County Mosquito Control Project**

Address: 272 South Meadow Rd

City/Town: Plymouth Zip: 02360

Phone: 781-585-5450 Fax: 781-582-1276

E-mail: PCMCP@mass.gov

**Report prepared by:** ***Ross Rossetti, Ellen Bidlack, and Matthew McPhee***

NPDES permit no. **MAG870003**

If you have a mission statement, please include it here: The goal of mosquito control is to prevent the transmission of mosquito-borne disease, maintain quality of life, and minimize adverse impacts to the economy by using techniques of integrated pest management to reduce mosquito populations in the most environmentally responsible and efficient manner possible.

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## ORGANIZATION SETUP:

**Commissioner names:**

John Sharland(Chair)
Ann Motyka(Vice Chair/Secretary)
Thomas Reynolds
Elaine Fiore
Joyce Krystofolski

**Superintendent/Director name:** Ross Rossetti
**Superintendent/Director contact phone number:** 781-585-5450
**Asst. Superintendent/Director name:** Matthew McPhee

**District/Project website:** http://Plymouthmosquito.org
**Twitter handle:** @
**Facebook page:** http://www.facebook.com/

**Staffing levels for the year of this report:**
Full time: 13
Part time: 2
Seasonal: 4
Other: (please describe)

**Of the above, how many are:**
(Please check off all that apply, and list employee name(s) next to each category)

☒ Administrative Ross Rossetti, Matthew McPhee, Denise Deluca
☐ Biologist
☒ Educator Erin Morrill
☒ Entomologist Ellen Bidlack
☒ Facilities Matthew McPhee, Russell Mazzilli
☒ Information technology Ellen Bidlack, Ross Rossetti
☒ Laboratory Ellen Bidlack
☒ Operations Ross Rossetti, Matthew McPhee, Russell Mazzilli
☒ Public relations Erin Morrill
☐ Wetland scientist
☒ Other (please describe) Pilot-Ross Rossetti, Pilot-Thomas Foley, General Foreman - Russell Mazzilli, Equipment Operator- Christopher Hoppie, Field Technicians - Jesse Anderson, Brian Callahan, Nic Disano, Christoper Hanna, Stephanie Dugan, Mason Taft, Kendric Stiles

For the year of this report, the following were maintained (enter number in the column to the left):

0 Modified wetland equipment (list type)
17 Larval control equipment (list type) A-1 Mist Sprayer, hydraulic sprayer, backpack sprayers, pump can
8 ULV sprayers (list type) Clarke Pro Mist Dura
18 Vehicles
Other (please be specific): 1 CAT 305 mini excavator, 1 John Deere 323E Compact Track Loader, 1 Mustang Skid-steer, 1 Cessna AG Wagon w/boom nozzle & grandular spreader

**Comments:** _____

How many cities and towns are in your service area?* 28
Alphabetical list: Abington, Bridgewater, Brockton, Carver, Cohasset, Duxbury, East Bridgewater, Halifax, Hanover, Hanson, Hingham, Hull, Kingston, Lakeville, Marion, Marshfield, Mattapoisett, Middleboro, Norwell, Pembroke, Plymouth, Plympton, Rochester, Rockland, Scituate, Wareham, West Bridgewater, Whitman

Were there any changes to your service area this year? No
Cities/towns added:
Cities/towns removed:

***Please attach a map of your service area (or a website link to that map).**

## INTEGRATED PEST MANAGEMENT (IPM):

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

☒ **Adult mosquito control**

☒ **Adult mosquito surveillance**
☒ **Ditch maintenance**
☒ **Education, Outreach & Public education**
☒ **Larval mosquito control**
☒ **Larval mosquito surveillance**
☐ **Open Marsh Water Management**
☒ **Research**
☒ **Source reduction (tire removals)**
☒ **Other (please list): Pesticide resistance testing**

**Comments: _____**

## LARVAL MOSQUITO CONTROL:

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

Describe the purpose of this program: The larval suppression program is one of our most effective methods to reduce the number of biting mosquitoes by preventing larvae from maturing into adults. The Project treats stagnant water with larvae by airplane, truck mounted sprayers, backpack blowers, and by hand. The Project larvicides over 14,000 acres and treats between 50 and 60 thousand catch basins per year.

What months is this program active? Spring and Summer months

Describe the types of areas where you use this program: A variety of fresh water wetland, salt marshes, drainage basins, and stagnant water within the district.

Do you use:
☒ **Ground application (hand, portable and/or backpack, etc.)**
☒ **Aerial applications**
☒ **Other (please list): A-1 Mist Sprayer, hydraulic sprayer**
**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** | **Targeted life stage** | **Habitat Type** | **Total finished product applied** |
|---|---|---|---|---|---|---|
| Vectobac 12AS | 73049-38 | 1 pint per acre | Aerial | Larvae | ☐ Catch basins<br>☐ Containers<br>☒ Wetland<br>☐ Other (please list): | 1,855 gals. |
| Vectobac 12AS | 73049-38 | 5oz per acre | Hydraulic Sprayer | Larvae | ☐ Catch basins<br>☒ Containers<br>☒ Wetland<br>☐ Other (please list): | 26 gals. |
| Four Star 90 Day Briquet | 83362-3 | 1 Briquet per 100 sq. feet surface area | Hand | Larvae | ☐ Catch basins<br>☐ Containers<br>☒ Wetland<br>☐ Other (please list): | 47.1 lbs. |
| Summit Briquets | 6218-47 | 1briquet /10'x10' surface area | Hand | Larvae | ☐ Catch basins<br>☒ Containers<br>☒ Wetland<br>☐ Other (please list): | 17 lbs |
| VectoLex WSP | 73049-20 | 1 pouch per basin | Hand | Larvae | ☒ Catch basins<br>☐ Containers<br>☐ Wetland<br>☐ Other (please list): | 444.3 lbs. |
| VectoMax WSP | 73049-429 | 1 pouch per basin | Hand | Larvae | ☒ Catch basins<br>☐ Containers<br>☐ Wetland<br>☐ Other (please list): | 817.5 lbs. |
| Four Star 45 Day Briqute | 83362-3 | 1 Briquet per 100 sq. feet surface area | Hand | Larvae | ☐ Catch basins<br>☐ Containers<br>☒ Wetland<br>☐ Other (please list): | 88.5 lbs. |

**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** | **Targeted life stage** | **Habitat Type** | **Total finished product applied** |
|---|---|---|---|---|---|---|
| BVA 2 Larvacide Oil | 70589-1 | 1-5 Gallons per acre depending on vegitation | Wand Sprayer | Larvae/pupae | ☐ Catch basins<br>☐ Containers<br>☒ Wetland<br>☐ Other (please list): | 12.7 gals. |
| Vectolex WDG | 73049-57 | .5-1.5 lbs/acre | Hydraulic Sprayer | Larvae | ☐ Catch basins<br>☒ Containers<br>☒ Wetland<br>☐ Other (please list): | 8.22 lbs. |
| Vectobac DT | 73049-447 | 1 Tablet per 13.2 gallons | Hand | Larvae | ☐ Catch basins<br>☒ Containers<br>☒ Wetland<br>☐ Other (please list): | 20 grams |
| VectoLex FG | 73049-20 | 5-10 lbs. per acre | Backpack | Larvae | ☐ Catch basins<br>☒ Containers<br>☒ Wetland<br>☐ Other (please list): | 1,749.4 lbs. |
| VectoLex FG | 73049-20 | 15lb per acre | Aerial | Larvae | ☐ Catch basins<br>☐ Containers<br>☒ Wetland<br>☐ Other (please list): | 3,800 lbs. |
| | | | | Choose one | ☐ Catch basins<br>☐ Containers<br>☐ Wetland<br>☐ Other (please list): | |
| | | | | Choose one | ☐ Catch basins<br>☐ Containers<br>☐ Wetland<br>☐ Other (please list): | |

What is your trigger for larviciding operations? (check all that apply)
☒ Best professional judgment
☒ Historical records
☒ Larval dip counts – please list trigger for application: Refer to GEIR Table 17
☐ Other (please describe):
**Comments: _____**

**Please attach a map of your service area (or a website link to that map).**
**http://www.plymouthmosquito.org/service-area.html**

## ADULT MOSQUITO CONTROL:

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

Describe the purpose of this program: The goal of our program is to reduce the number of biting mosquitoes to protect human health and improve the quality of life of our residents. The Project takes residential, business, and town requests for adulticiding with ULV truck mounted sprayers.

What is the time frame for this program? June to October (end date depends on virus activity and weather conditions).

Describe the types of areas where you use this program: Streets, Fields, Schools (per Children's Protection Act regs), yards, recreation areas.

Do you use:
☐ **Aerial applications**
☒ **Portable applications**
☒ **Truck applications**
☒ **Other (please list): Hydraulic Sprayer, A-1 Mist Blower**
**Comments: _____**

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** |
|---|---|---|---|---|
| DUET | 1021-1795-8329 | .62oz.per acre | ULV | 775.4 gals. |
| Suspend SC | 432-763 | .75oz-1.5oz per 1,000sq ft | Hydraulic sprayer | 774 oz |
| | | | | |
| | | | | |
| | | | | |

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

Each resident household can request a maximum of 8 treatments per season.

What is your trigger for adulticiding operations? (check all that apply)
☒ Arbovirus data
☒ Best professional judgment
☒ Complaint calls (Describe trigger for application: 2 per geographical area)
☐ Landing rates (Describe trigger for application )
☒ Light trap data (Describe trigger for application 5 per night))
**Comments:** _____

**Please attach a map of your service area (or a website link to that map).**
**http://www.plymouthmosquito.org/service-area.html**

## SOURCE REDUCTION (Tire Removals)

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

Please describe your program: We often inspect properties and offer advice to landowners regarding actions they can take to reduce the amount of mosquito production on their property. We currently run a tire removal program year round. This year we removed 1,533 tires for recycling. The total for this program is 13,615 tires.

What time frame during the year is this method employed? Throughout the year

**Comments:** _____

## WATER MANAGEMENT/DITCH MAINTENANCE

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

Please check all that apply:
☒ Inland/freshwater
☒ Saltmarsh
Please describe your program: The project's water management program is conducted pursuant of chapter 252 of the MA General Laws and is compliant with US Army Corps guidance. The goal of the program is to maintain existing drainage in order to reduce the amount of flooding and stagnant water in the district. This kind of work can reduce the amount of pesticide used and the number of mosquitoes in the area. We seek to use the least impactful methods to maintain these waterways. Techniques include site monitoring both before and after work, hand cleaning of ditches, or use of mechanized equipment.

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

| **Maintenance Type** | **Estimate of cumulative length of culverts, ditches, swales, etc. maintained (ft)** |
|---|---|
| ☐ Culvert cleaning | |
| ☒ Hand cleaning | 104,387 Ft |

| | |
|---|---|
| ☒ Mechanized cleaning | 2,675 Ft |
| ☐ Stream flow improvement | |
| ☐ Other (please list): | |

**Comments:** _____

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

| **Maintenance Type** | **Estimate of cumulative length of ditches maintained (ft)** |
|---|---|
| ☐ Hand cleaning | |
| ☒ Mechanized cleaning | 735 Ft |
| ☐ Other (please list): | |

**Comments:** _____

What time frame during the year is this method employed? Jan-Dec

**Comments:** _____

**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, else 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:

**Comments:** _____

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

## MONITORING (Measures of Efficacy)

**Describe monitoring efforts for each of the following:**

Aerial Larvicide – wetlands: Pre and Post applications

Ground ULV Adulticide: Trapping data and Service Requests

Larvicide – catch basins: prior to application

Larvicide-hand/small area prior to application

Open Marsh Water Management:

Source Reduction: Pre and Post

Other (please list): Resistance Testing

Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any):
**Per established Mass. Best Management Practice Standards and State Reclamation and Mosquito Board G.E.I.R.**

Check the boxes below, indicating if your program has performed any of the following:

| **Research Project** | **Details** |
|---|---|
| Bottle assays | Mosquito larvae were sent to Cornell's Northeast Regional Cener for Excellence in Vector-Borne Disease. Where the larvae were raised to adult and the bottle assay was performed. |
| Efficacy testing | A cage trial was performed using mosquitoes collected from Middleboro. |
| Other: JVC testing | Mosquitoes were submitted to UMass for JCV testing |
| Other: | |

## ADULT MOSQUITO SURVEILLANCE

*If you have an adult mosquito surveillance program, please fill out the section below, else skip ahead to the next section.*

Describe the purpose of this program: The purpose of this program is three fold: to monitor the mosquitoes for diseases, to determine general population levels and to decide where we can better focus our larvaciding and adulticiding efforts.

What months is this program active? May-September

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 | ☐ | |
| ☒ ABC light trap w/$CO_2$ | ☐ | 10 |
| ☐ CDC light trap | ☐ | |
| ☒ CDC light trap w/$CO_2$ | ☐ | 10 |
| ☒ Gravid trap | | 26 |
| ☐ Landing rate test | | |
| ☒ NJ light trap | ☐ | 28 |
| ☐ NJ light trap w/$CO_2$ | ☐ | |
| ☐ Ovitrap | | |
| ☐ Resting box | | |
| ☐ Other (please describe): | | |
| ☐ Other (please describe): | | |
| ☐ Other (please describe): | | |

Do you maintain long-term trap sites in any of your areas? Yes
If yes, how many:
28 - NJ trap sites, 28 - CDC trap sites, and 33 - Gravid trap sites

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

- ☒ *Ae. albopictus*
- ☒ *Ae. cinereus*
- ☒ *Ae. vexans*
- ☒ *An. punctipennis*
- ☒ *An. quadrimaculatus*
- ☒ *Cq. perturbans*
- ☒ *Cx. pipiens*
- ☒ *Cx. restuans*
- ☒ *Cx. salinarius*
- ☒ *Cs. melanura*
- ☐ *Cs. morsitans*
- ☐ Others (please list):
- ☒ *Oc. abserratus*
- ☒ *Oc. canadensis*
- ☒ *Oc. cantator*
- ☒ *Oc. j. japonicus*
- ☒ *Oc. sollicitans*
- ☒ *Oc. taeniorhynchus*
- ☒ *Oc. triseriatus*
- ☒ *Oc. trivittatus*
- ☒ *Ps. ferox*
- ☐ *Ur. sapphirina*

Number of adult mosquitoes collected this season (whether submitted to DPH or not): 127,357
Number of adult mosquito pools collected this season (submitted and unsubmitted): 37,177 mosquitoes submitted in 824 pools, 115,484 mosquitoes in 1,389 not submitted pools
Number of ovitrap collections this season, if any: 0
Any other trap collections of note (please describe): Extra traping was done to collect mosquitoes for pesticide resistance testing, cage trial, JVC testing (250 pools) and extra EEEV testing.

Do you participate in the MDPH Arboviral Surveillance program? Yes
Total number of adult mosquito pools submitted to DPH this past season: 824
How many pools do you submit weekly on average? 52

Number of traps in your service area **placed by MDPH**: 22 locations and 1,296 trap nights
Were these long-term trap sites or supplemental trapping sites? both

Which arboviruses were found in your area during the previous mosquito season? Enter the number of pools/cases below:

| **Arbovirus** | **Positive Mosquito Pools** | **Equine Cases** | **Human Cases** |
|---|---|---|---|
| ☒ Eastern Equine Encephalitis (EEE) | 65 | 4 | 1 |
| ☒ West Nile Virus (WNV) | 109 | 0 | 0 |
| ☐ Other (please list): JCV | | 0 | 0 |

**Comments: _____**

For each arbovirus listed below, please list the risk levels in your project area at both the start and end of the season (if more than one, please list all):

| Arbovirus | Start of Season | End of Season |
|---|---|---|
| EEE | all towns at low risk | Low Risk: Hull, Hingham, Cohasset, Scituate, Norwell, Whitman, Abington, Brockton, Rockland, Hanover, East Bridgewater, West Bridgewater, Hanson, Pembroke, Marshfield, Duxbury,<br>Moderate Risk: Bridgewater, Halifax, Middleboro, Plymouth, Kingston, Carver, Plympton, Lakeville, Rochester, Mattapoisett, Marion, Wareham<br>High Risk: Plymouth, Carver and Middleboro were temporarily at high risk and dropped to moderate risk in the fall |
| WNV | all towns at low risk | High risk: Brockton, Abington, Whitman, East Bridgewater, Rochester, Marion and Mattapoisett<br>Moderate risk: All the remaining towns. Hull, Hingham, Cohasset, Norwell, Hanover, Rockland, Scituate, Marshfield, Duxbury, Kingston, Pembroke, Hanson, Halifax, Bridgewater, West Bridgewater, Lakeville, Middleboro, Carver, Plympton, Plymouth and Wareham |

**Comments: _____**

## EDUCATION, OUTREACH & PUBLIC RELATIONS

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

Describe the purpose of this program: The over-arching purpose of the program is to enhance public health and safety of the residents of Project communities as it applies to mosquitoes and mosquito viruses. The Project employs the methods checked below to reach individuals and groups of people of all ages in our member communities and to communicate the messages of the Massachusetts Department of Public Health, The Centers for Disease Control, the Environmental Protection Agency, and the American Mosquito Control Association.

What time frame during the year is this method employed? Primarily April through October, but requests may take place any time of the year. The time period of November - March is generally a time for planning the focus of the next season's efforts.

Check off all education/outreach methods that were performed by your program this year:
☒ Development/distribution of brochures, handouts, etc.
☒ Door-to-door canvassing (door hangers, speaking to property owners, etc.)
☐ Facebook page, Twitter, or other social media
☒ Mailings (Describe target audience(s): BOH, COA, Libraries)
☒ 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): Youth Camp, Public Libraries, Town Recreation

Estimate the audience reached this year using the education/outreach methods above: In-person and zoom events- 1,000-2,000. Radio/TV/website/Facebook/Newspaper- 100,000+
Comments:

List your program's top 3 education/outreach activities for this year:
1. Presentations at events
2. In-person meetings with BOH's/COA's
3. Meeting with school/daycares and summer camps to update IPM plans

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 Cornell University, University of Massachusetts
☒ Another mosquito control district/project BCMCP, NMCP, CMMCP
☒ Another state agency (DCR, DPH, etc.) DPH
☐ Environmental groups
☒ Industry Clarke

List any training/education your staff received this year: Pesticide Applicators License Training, NMCA Annual Meeting, Hoisting License Continuing Ed., Mosquito Identification Training, NEAAA Convention, NMCA Field Day, Flight Training

Please list the certifications and degrees held by your staff:
-Ellen Bidlack: B.S. Wildlife Management, M.S. Entomology, Commercial Certification 47, Hoisting License 1c2a
-Ross Rossetti: B.S. Aviation Science, CORE Management Program, Commercial Pilots Cert for fixed wing/helicopter/UAV, Commercial Applicator Certification 47 and 34, Hoisting license 1c2a, Class A CDL
-Brain Callahan: Commercial Applicator Certification 47
-Christopher Hanna: Commercial Applicator Certification 47, 2a Hoisting License
-Matthew McPhee: B.A. Earth, Environment and Oceanic Sciences, CORE Management Program, Commercial Applicator Certification 47, 1c2a Hoisting License, Class A CDL

-Russell Mazzilli: B.S. Criminal Justice, Commercial Applicator Certification 47, Class A CDL, Hoisting License 1c2a
-Stephanie Dugan: B.S. Environmental Biology, Commercial Applicator Certification 47, Hoisting License 1c2a
-Christopher Hoppie: Commercial Applicator Certification 47, Hoisting License 1c2a
-Mason Taft: Applicator License
-Kendric Stiles: Applicator License Hoisting License 1c2a
-Jesse Anderson: B.S. Psychology, Class A CDL, Hoisting License 1c2a
-Nic Disano: B.A. Real Estate, Applicator License, Hoisting License 1c2a
-Erin Morrill: Master of Public Administration Management
-Thomas Foley- B.S. Computer Science, Airline Transport License

**Comments: _____**

## INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):
☒ Aerial Photography
☒ Databases
☐ Dataloggers (monitoring for temperature, etc.)
☒ GIS mapping (Describe: Site planning, exclusion mapping, larvicide/adulticide tracking)
☒ GPS equipment
☒ Smartphones
☒ Tablets/Toughbooks
☐ Other (please describe):

Describe any changes/enhancements in IT from the previous year: We continue to work with Frontier Precision to fine tune the Fieldseeker app for our mapping, data tracking, and service requests.

Describe any difficulties your program had with IT software/equipment this year:

**Comments: _____**

## REVENUES & EXPENDITURES

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

| | **Date of Fiscal Year** | **Approved Budget** | **Notes** |
|---|---|---|---|
| Previous | FY24 | $2,082,220.00 | |
| Current | FY25 | $2,123,864.40 | |
| Future | FY26 | $2,261,915.59 | Not approved at this time |

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? 16,502
How many were for larviciding? 570
How many were for adulticiding? 15932

Was this an increase or decrease over last season? Increase

**Comments: There was an increase of 3,000 due to the high EEE and WNV activity compared to last season.**

## EXCLUSIONS

How many exclusion requests did you receive this season? 554

Was this an increase or decrease over last season? Increase

Do you have large areas of pesticide exclusion, such as estimated or priority habitats? Yes

If yes, please explain, and attach maps or a web link if possible. In 2024 NHESP placed restrictions on a large number of acres in the district. No adulticiding was permitted on 19,201 acres. Restrictions on 99,996 acres for ditch and culvert maintenance and tire removal. Restrictions were placed on the use of oil larvicides on 6,727 acres. Review of products with methoprene was required for use in any 2021 Priority Habitat.

## SPECIAL PROJECTS

Did your program perform any of the following special projects? Check all that apply.

- ☐ Inspectional services (inspections at sewage treatment facilities, review of subdivision plans, etc.)

  Describe:

- ☒ 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

  Describe: We continually work with local DPW and MassDOT on water management projects.

- ☒ Work with groups as described above on long term solutions?

Describe: We work with DPW's and MassDOT to identify areas with need for ongoing maintenance.

- ☒ Conduct or participate in any cooperative research or restoration projects?

  Describe:

  This year we continued our relationship with Cornell University. We sent them mosquitoes for pesticide resistance testing. Met with Mass Audubon and the Division of Ecological Restoration to discuss future cranberry bog restoration projects. Ongoing work with Mattapoisett Land Trust, Buzzards Bay Coalition, and other land conservation groups for salt marsh restoration.

- ☒ Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?

  Describe: Attended stakeholder meetings with Buzzards Bay Coalition to discuss and learn about new methods for salt marsh restoration.

- ☐ Work on any biological control projects, such as enhancement of habitat for native predators, release of predatory fish or invertebrates, etc.?

  Describe:

## CHILDREN AND FAMILIES PROTECTION ACT (CFPA)

Is your program impacted by the CFPA? Yes

If yes, please explain: Incomplete listing of our products delays or prohibits treating for mosquitoes on school property.

If you have data on compliance rates with the CFPA within your program area, please list here: PCMCP checks IPM plans for every school before it schedules an application.

Describe any difficulties you have had with the implementation of your program due to the CFPA, please elaborate here: No problems, schools are anxious to make sure that they were in compliance with the CFPA.

Comments:

## NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT PROGRAM

Did your program report any adverse incidents during this reporting period? No

If yes, please list any corrective actions here: _____

## GENERAL COMMENTS

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