MASSACHUSETTS MOSQUITO CONTROL

ANNUAL OPERATIONS REPORT

Year Report Covers: 2023 Date of Report: 1/30/24

Project/District Name: East Middlesex Mosquito Control Project

Address: 11 Sun St.

City/Town: Waltham Zip: 02453

Phone: 781-899-5730

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Report prepared by: Brian Farless

NPDES permit no. MAG87000X

If you have a mission statement, please include it here: The East Middlesex Mosquito Control Commission (the Commission) represents the interests of the participating communities and their residents in providing guidance and oversight to the East Middlesex Mosquito Control Project (the Project). The Commission strives to ensure that member communities receive services that are consistent with applicable laws and justified by the tenets of public health, vector control, environmental safety and fiscal responsibility. Integrated mosquito management services provided by the Project and approved by the Commission will be based on the State's Generic Environmental Impact Report on Mosquito Control in Massachusetts, the Massachusetts Arbovirus Surveillance and Response Plan and the policies of the State Reclamation and Mosquito Control Board.

Fax:

ORGANIZATION SETUP:

Commissioner names:

FY23 Executive Committee: Lenny Izzo, Chair, representing Wellesley; Christine Mathis, Burlington; Wendy Robinson, Cambridge; Tony Kiszewski, Concord

FY24 Executive Committee: Lenny Izzo, Chair, representing Wellesley; Christine Mathis, Burlington; Wendy Robinson, Cambridge; Tony Kiszewski, Concord; Sabrina Firicano, Everett

Other Commissioners or town representatives include the following: Natasha Waden, Arlington; Heidi Porter, Bedford; Wesley Chin, Belmont; Roland Lankah, Brookline; Bill Murphy, Framingham; Joanne Belanger, Lexington; Health Department Representative, Lincoln; Chris Webb, Malden; Ivan Kwagala, Maynard; MaryAnn O'Connor, Medford; Anthony Chui, Melrose, Stoneham and Wakefield; Victor Peiroten, Newton; Bob Bracey, North Reading; Ade Solarin, Reading; Vivian Zeng, Sudbury; Tom Creonte, Waltham; Abbey Myers, Watertown; Julia Junghanns, Wayland; Rich Sullivan, Weston and Jennifer Murphy, Winchester Superintendent/Director name: Brian Farless Superintendent/Director contact phone number: 781-899-5730 Asst. Superintendent/Director name: Chris Gagnon

District/Project website: http://sudbury.ma.us/emmcp Twitter handle: @ Facebook page: http://www.facebook.com/

Staffing levels for the year of this report:

Full time: 4 Part time:

Seasonal: 4

Other: in addition to the above, 1.5 full time and 1 part-time administrative workers share their time between Suffolk County Mosquito Control and East Middlesex Mosquito Control (please describe)

Of the above, how many are:

(Please check off all that apply, and list employee name(s) next to each category)

Administrative Brian Farless, Dave Henley, Katherine Swan

____ Biologist

____ Educator

Entomologist Doug Bidlack, Ph.D.

Facilities Brian Farless, Chris Gagnon, Cam Kelley, Allison Rittweger

Information technology

Laboratory Doug Bidlack

Operations Doug Bidlack, Brian Farless, Chris Gagnon, Cam Kelley, Peter Mirata, Matt

Restuccia, Allison Rittweger, Rex Schrader, Eliza Weinberger

- Public relations Doug Bidlack, Brian Farless, Chris Gagnon, Katherine Swan
- Wetland scientist

Other (please describe)

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

1 Modified wetland equipment (list type) 2006 Linkbelt 75 Spin Ace track mounted excavator

3 Larval control equipment (list type) backpack pump sprayers

2 ULV sprayers (list type) Clarke Cougar Smartflow with radar

6 Vehicles

Other (please be specific): Stihl backpack mistblower

Comments: _____

How many cities and towns are in your service area?* 27

Alphabetical list: Arlington, Bedford, Belmont, Brookline, Burlington, Cambridge, Concord, Everett, Framingham, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Newton, North Reading, Reading, Stoneham, Sudbury, Wakefield, Waltham, Watertown, Wayland, Wellesley, Weston, Winchester

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

| \boxtimes | Larval mosquito control |
|-------------|------------------------------------|
| \boxtimes | Larval mosquito surveillance |
| | Open Marsh Water Management |
| | Research |
| \boxtimes | Source reduction (tire removals) |
| | Other (please list): |

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: This program is focused on controlling larvae of spring floodwater species, summer floodwater species and artificial container species. Spring floodwater species are controlled because they are aggressive mammal biting species that are active during the late spring and early summer, when residents are frequently involved in outdoor activities. The mosquito species Culiseta melanura amplifies EEE within the bird population. Culiseta melanura mosquito populations are reduced as a result of spring larvicide applications. Summer floodwater species are controlled because they are aggressive mammal biting species, some of which are vectors of EEE. Culex pipiens/restuans species are controlled because they are the primary vectors for West Nile virus in Massachusetts. They are found in catch basins and other artificial water holding containers, as well as in freshwater wetland habitat.

What months is this program active? Late March through early October.

Describe the types of areas where you use this program: Intermittently flooded wetlands, stormwater detention basins, catch basins, neglected swimming pools and other water holding containers.

| Do | you use: |
|-------|---|
| \ge | Ground application (hand, portable and/or backpack, etc.) |
| | Aerial applications |
| | Other (please list): |
| Con | nments: |

| Product Name | EPA # | Application | Application | Targeted life | Habitat Type | Total finished |
|-----------------------------|-----------|--|---|---------------|---|-----------------|
| | | Rate(s) | Method | stage | | product applied |
| Vectolex WSP | 73049-20 | 1 pouch (10 grams) per catch basin or similar water holding container | hand applied | Larvae | ☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list): | 1,131.79 lbs |
| Altosid Pellets WSP | 2724-448 | 1 pouch (7 grams) per catch basin or similar water holding container | hand applied | Larvae | ☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list): | 75.28 lbs |
| MetaLarv XRP | 73049-475 | 18 grams per catch basin or similar water holding container | hand applied | Larvae | ☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list): | 375.52 lbs |
| VectoLex FG | 73049-20 | 5-20 lbs per acre, 10 grams per basin | hand applied, motorized blower | Larvae | ☐ Catch basins ☐ Containers ☑ Wetland ☐ Other (please list): | 520 lbs |
| Fourstar Briquet, 90 day | 83362-3 | 1 briquet/100 sq. ft. | hand applied | Larvae | Catch basins Containers Wetland Other (please list): | 2,300 briquets |
| Altosid P35 | 89459-95 | 9 grams per catch basin or similar water holding | hand applied | Larvae | ☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list): | 52.12 lbs |

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

| | | container | | | | |
|-------------|----------|----------------------|------------------------------------|--------|---|---------|
| Vectobac GS | 73049-10 | 5 pounds per acre | backpack blower/hand applied | Larvae | ☐ Catch basins ☐ Containers △ Wetland ☐ Other (please list): | 120 lbs |

| Product Name | EPA # | Application Rate(s) | Application Method | Targeted life stage | Habitat Type | Total finished product applied |
|---------------|----------|------------------------|------------------------------------|------------------------|---|-----------------------------------|
| Vectobac G | 73049-10 | 5 pounds per acre | backpack blower/hand applied | Larvae | Catch basins Containers Wetland Other (please list): | 160 lbs |
| Vectobac 12AS | 73049-38 | 8 ounces oer acre | back pack pump sprayer | Larvae | Catch basins Containers Wetland Other (please list): | 4.548 gal |
| | | | | Choose one | Catch basins Containers Wetland Other (please list): | |
| | | | | Choose one | Catch basins Containers Wetland Other (please list): | |
| | | | | Choose one | Catch basins Containers Wetland Other (please list): | |
| | | | | Choose one | Catch basins Containers Wetland Other (please list): | |
| | | | | Choose one | Catch basins Containers Wetland Other (please list): | |

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

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

Best professional judgment

 \boxtimes Historical records

Larval dip counts – please list trigger for application: 3 larvae per 10 samples

Other (please describe):

Comments:

Please attach a map of your service area (or a website link to that map). sudbury.ma.us/emmcp/

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: To reduce the number of mammal biting mosquitoes and EEE/WNV vector species.

What is the time frame for this program? May through September

Describe the types of areas where you use this program: Truck mounted ULV sprayers are used in residential neighborhoods with a relatively dense configuration of streets. A backpack mistblower is used in areas with high mosquito populations and/or in areas with an elevated disease risk.

Do you use:

| | Aerial applications |
|----------|-----------------------|
| \times | Portable applications |

Truck applications

Other (please list):

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 |
|---------------------|----------|--|------------------------|-----------------------------------|
| Zenivex E4 | 2724-807 | 0.00175 - 0.0070 pounds per acre | ULV truck sprayer | 152.05 gal |
| Suspend Polyzone | 432-1514 | 0.25-1.5 ounce per 1,000 square fee | backpack mistblower | 0.035 gal |
| | | | | |

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas All labels are followed.

As found on the Zenivex E4 label - Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. More frequent treatments may be made to prevent or control a threat to public and/ or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurance of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

As found on the Suspend Polyzone label - Treatments may be applied at 21-day intervals or as necessary to maintain adequate control.

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 at least 200 mosquitoes found in a trap from one night)

)

)

Comments: _____

Please attach a map of your service area (or a website link to that map). sudbury.ma.us/emmcp/

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: Containers are tipped over or removed as necessary.

What time frame during the year is this method employed? all 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: Ditch maintenance is done using either a LinkBelt 75 Spin Ace track mounted excavator or hand tools. When planning ditch maintenance activities, protocols are followed that are contained in the Massachusetts Best Management Practices and Guidance for Freshwater Mosquito Control.

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 | 19,493 ft. | | | |
| Mechanized cleaning | | | | |
| 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 | |
| Other (please list): | |
| _ | |

Comments:

What time frame during the year is this method employed? Ditch maintenance can be done year round, but most ditch maintenance activities are done between September and the end of March.

Comments: _____

Please attach a map of ditch maintenance areas (or a website link to that map). sudbury.ma.us/emmcp/

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-application and post-application larval surveys are conducted. Helicopters apply larvicide to wetlands containing mosquito larvae. GIS maps of targeted wetlands are prepared prior to the application and then converted for use for the helicopter's navigation system.

Ground ULV Adulticide: Pre-application adult mosquito surveys using CDC light traps are done to determine whether control is needed. Post-application surveys using CDC light traps are conducted to determine if additional ground ULV adulticiding is needed.

Larvicide – catch basins: Pre-application larval surveys are done in June to determine the appropriate time to begin using Bacillus sphaericus. Random pre-application and post-application surveys are undertaken during July, August and September to monitor Culex larval populations and to determine the efficacy of Bacillus sphaericus applications. Random monitoring of paint marks on catch basins left by catch basin applicators are conducted to evaluate the coverage in neighborhoods where larvicide applications have been completed.

Larvicide-hand/small area Pre-application larval surveys are conducted prior to each application. Random post-application surveys are conducted to monitor efficacy.

Open Marsh Water Management:

Source Reduction:

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):

For aerial larval control, pre and post-application larval dip counts are undertaken with a minimum of 30 dips per site. In addition, the applicator is supplied with ArcMap GIS maps of targeted wetlands that are used in the applicator's navigation systems. The geographical data recorded during the application are reviewed following the application to evaluate the coverage of treated areas. Catch basin water is sampled during early summer to determine when the presence of Culex larvae becomes common. Two water samples are taken at each sampled catch basin. Catch basin larvicide applicators are required to mark each catch basin with water soluble marking paint when larvicide is applied. Monitoring of paint marks left on catch basin grates is conducted to evaluate coverage. Random post application sampling is conducted to determine the efficacy of Bacillus sphaericus applications. For small area wetland larval control, applicators are required to find 3 larvae per 10 dips before a larvicide can be applied. Post-application surveys are carried out at random. Before adult mosquito control is scheduled in any area, CO2 baited CDC light traps are used to monitor mosquito populations in that area. A minimum of 200 mammal biting mosquitoes must be collected at a trap site before spraying will be scheduled.

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

| Research Project | Details |
|------------------|---------|
| Bottle assays | |
| Efficacy testing | |
| Other: | |
| 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: Measure populations of mammal biting species and populations of species considered enzootic or bridge vectors for WNV and EEE. The data is used to evaluate the need for further control. As funding is available, Culex species, Culiseta melanura, Coquillettidia perturbans and other potential human bridge vector species are submitted to DPH for virus testing. Municipalities are notified as EEE/WNV positive mosquitoes are found. As resources are available, East Middlesex also uses ovitraps to monitor for the presence of Aedes albopictus.

What months is this program active? May through October

| Тгар Туре | Canopy? | Number of traps |
|----------------------------------|---------------------|-----------------------|
| | (check box for yes) | (leave blank if zero) |
| ABC light trap | | |
| ABC light trap w/CO ₂ | | |
| CDC light trap | | |
| CDC light trap w/CO ₂ | | 159 |
| 🔀 Gravid trap | | 109 |
| Landing rate test | | |
| 🗌 NJ light trap | | |
| NJ light trap w/CO ₂ | | |
| 🗌 Ovitrap | | |
| Resting box | | |
| Other (please describe): | | |
| Other (please describe): | | |
| Other (please describe): | | |

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

Do you maintain long-term trap sites in any of your areas? Yes

If yes, how many:

There are 3 to 5 trap sites in most municipalities. In municipalities with significant wetland acreage, light trap sites are situated in locations that are in close proximity to major mosquito habitats for spring and summer floodwater mosquitoes. In densely populated areas, gravid traps are placed in locations with the goal of providing geographic spacing within the community.

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

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

Number of adult mosquitoes collected this season (whether submitted to DPH or not): 81,355 Number of adult mosquito pools collected this season (submitted and unsubmitted): Number of ovitrap collections this season, if any:

Any other trap collections of note (please describe):

Do you participate in the MDPH Arboviral Surveillance program? Yes Total number of adult mosquito pools submitted to DPH this past season: 233 How many pools do you submit weekly on average? 14.6

Number of traps in your service area **placed by MDPH**: 48 Were these long-term trap sites or supplemental trapping sites? long-term

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) | | | |
| West Nile Virus (WNV) | 19 | | 1 |
| Other (please list): | | | |

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 | remote, low | remote, low |
| WNV | low | moderate |

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 Project's public education program is designed to develop awareness within the public and private sectors as to their roles in mosquito control. The Project serves as a resource to residents, municipal officials and the local media on controlling mosquitoes, larval mosquito habitats and mosquito borne diseases.

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:

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):

 \boxtimes 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): Information is provided to health departments and they provide education materials to their residents; receiving phone calls and emails from residents; Employees frequently communicate with residents through phone calls and emails, and also when they are doing work throughout the district.

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

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

- <u>Coordinate with municipal officials to post notices on City/ Town List Servers and</u> <u>City/Town websites to notify residents, municipal departments and local media of</u> <u>planned helicopter Bti larval control applications, the pesticide exclusion process and</u> <u>planned neighborhood truck mounted adult mosquito control activities.</u>
- 2. <u>Phone calls/emails from residents and town officials.</u>
- 3. <u>Presentations for member communities.</u>

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 The Project shared administration with the Suffolk County Mosquito Control Project.

Another state agency (DCR, DPH, etc.) East Middlesex submitted mosquitoes to DPH to be tested for WNV/EEE.

Environmental groups

____ Industry

List any training/education your staff received this year: Doug Bidlack, Brian Farless, Chris Gagnon, Dave Henley, Cameron Kelley, Matt Restuccia, Allison Rittweger, Rex Schrader and Katherine Swan took the following online classes: Cybersecurity Awareness, Domestic Violence Awareness, Ensuring a Safe Workplace, Our Diverse Workplace, Preventing Workplace Harassment and Understanding Conflicts of Interest. Brian Farless also took Diversity and Your Team, Our Diverse Workplace, Paid Family Medical Leave, Successful Hybrid Teams and Your Role in Preventing Harassment. Chris Gagnon, Cam Kelley and Allsion Rittweger attended a 3day chainsaw training. Doug Bidlack, Brian Farless, Chris Gagnon, Cameron Kelley and Allison Rittweger attended the Northeastern Mosquito Control Association conference.

Please list the certifications and degrees held by your staff: Chris Gagnon is a Certified Pesticide Applicator. Brian Farless, Cameron Kelley and Allison Rittweger are Licensed Pesticide Applicators. Matt Restuccia, Rex Schrader and Eliza Weinberger are Permitted Catch Basin Applicators. Chris Gagnon and Cam Kelley have a 2A/1C Hoist Operator's License. Doug Bidlack has a Ph.D. in Entomology, an M.S. in Entomology and Plant Pathology and a B.S. in Biological Sciences. Brian Farless has a B.S. in Communications. Chris Gagnon has a B.S. in Wildlife Biology. David Henley has a B.B.A. in Management. Cam Kelley has a B.S. in Criminal Justice. Allison Rittweger has a B.A. in Italian/Spanish World Languages and Cultures. Matt Restuccia has a bachelor's degree in Accounting and Business/Management.

Comments: _____

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/Toughbooks
- Other (please describe):

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

)

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 | Approved Budget | Notes |
| | Year | | |

| Previous | FY23 | 840,038 | |
|----------|------|------------|--|
| Current | FY24 | 870,174.61 | |
| Future | | | |

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): The following are the approved appropriations for FY2024 from the cities and towns of the East Middlesex Mosquito Control District: Arlington - \$38,030, Bedford - \$42,042, Belmont -\$20,979, Brookline - \$15,091, Burlington - \$45,743, Cambridge - \$56,221, Concord - \$21,000, Everett - \$20,000, Framingham - \$60,526, Lexington - \$30,469, Lincoln - \$11,277, Malden -\$22,347.94, Maynard - \$14,483, Medford - \$25,728, Melrose - unknown, Newton - \$52,560, North Reading - \$50,513, Reading - \$45,028, Stoneham - unknown, Sudbury - \$55,620, Wakefield - \$30,500, Waltham - \$37,688, Watertown - \$20,740, Wayland - \$28,334.20, Wellesley - \$21,864.98, \$Weston - 45,918, Winchester - \$18,024

Comments: <u>The above amounts are the actual numbers that each municipality is providing</u> <u>for mosquito control.</u>

SERVICE REQUESTS

How many service requests did you receive this season? 77 How many were for larviciding? 33 How many were for adulticiding? 61

Was this an increase or decrease over last season? Increase

Comments:

EXCLUSIONS

How many exclusion requests did you receive this season? 144

Was this an increase or decrease over last season? Decrease

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. Great Meadows National Wildlife Refuge and the Assabet River National Wildlife Refuge manage wetland acreage in Bedford, Concord, Lincoln, Maynard, Sudbury and Wayland that they exclude from larval and adult mosquito control pesticide applications. They will only permit control when the Refuge Manager determines that there is an imminent local risk for mosquito borne disease. The Sudbury Valley Trustees, a private land trust, owns wetlands in Concord, Framingham, Sudbury and Wayland, and has excluded their properties from larval and adult mosquito control pesticide applications have excluded their properties from larval and adult mosquito control and adult mosquito control.

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: East Middlesex works with Inspectional Services to identify and remove mosquito habitat. Source reduction prevents mosquitoes from developing.

• 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: East Middlesex works with local DPW officials and Conservation Administrators to identify waterways and culverts that need to be cleared of sand and debris. Cleaning waterways and culverts allows water to flow as it was originally intended, and in turn helps reduce mosquito habitat. East Middlesex coordinated catch basin larvicide applications with local public works departments so as not to conflict with catch basin cleaning.

- Work with groups as described above on long term solutions?
 Describe:
- Conduct or participate in any cooperative research or restoration projects?
 Describe:
- Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?

Describe:

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: Per the provisions of the Act, the Project excludes schools, group day care centers and school age child care programs from adult mosquito control pesticide applications unless the pre-requisites for spraying are fulfilled.

If you have data on compliance rates with the CFPA within your program area, please list here:

Describe any difficulties you have had with the implementation of your program due to the CFPA, please elaborate here:

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: