MASSACHUSETTS MOSQUITO CONTROL

ANNUAL OPERATIONS REPORT

Year Report Covers: 2017 Date of Report: 01/31/2018

Project/District Name: **East Middlesex Mosquito Control Project**

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Report prepared by: ***Brian Farless***

NPDES permit no. **MAG87A020**

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 Massachusettes, the Massachusetts Arbovirus Surveillance and Response Plan and the policies of the State Reclamation and Mosquito Control Board.

ORGANIZATION SETUP:

Commissioner names:

Executive Committee: Lenny Izzo, Chair, representing Wellesley; Gerard Cody, Lexington; Tom Creonte, Waltham; Julia Junghanns, Wayland and Deborah Rosati, Watertown, Rich Sullivan, Weston.
Other Commissioners: Christine Bongiorno, Arlington; Heidi Porter, Bedford; Wesley Chin, Belmont; Patrick Maloney, Brookline; Christine Mathis, Burlington; Wendy Robinson, Cambridge; Anthony Kiszewski, PhD, Concord; Elaine Silva, Everett; Sam Wong, Framingham; Elaine Carroll, Lincoln; Chris Webb, Malden; Kelly Pawluczonek, Maynard; MaryAnn O'Connor, Medford; Ruth Clay, Melrose and Wakefield; Robin Williams, Newton; Bob Bracey, North Reading; Laura Vlasuk, Reading; William Murphy, Sudbury and Jennifer Murphy, Winchester.

Superintendent/Director name: Brian Farless, David Henley (retired)
Superintendent/Director contact phone number: 781-899-5730
Asst. Superintendent/Director name: Michael Bryant

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

Staffing levels for the year of this report:
Full time: 6
Part time: 1
Seasonal: 6
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 Brian Farless, David Henley, Katherine Swan
☐ Biologist
☐ Educator
☒ Entomologist Douglas Bidlack, Ph.D.
☒ Facilities Brian Farless, David Henley, Michael Bryant
☐ Information technology
☐ Laboratory
☒ Operations Full time: Michael Bryant, Christopher Gagnon, Cam Kelley. Seasonal: Henry Judge, Matt Restuccia, Salvatore Restuccia, Allison Rittweger, Joe Sandore, Sean Wilson
☐ Public relations
☐ 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) Linkbelt 75 Spin Ace track mounted excavator
8 Larval control equipment (list type) 3 Solo backpack pump sprayers and 5 B&G pump sprayers.
2 ULV sprayers (list type) Clarke Cougar Smartflow with radar
7 Vehicles
Other (please be specific):

Comments: _____

How many cities and towns are in your service area?* 26
Alphabetical list: Arlington, Bedford, Belmont, Brookline, Burlington, Cambridge, Concord, Everett, Framingham, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Newton, North Reading, Reading, 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**
☒ **Larval mosquito control**
☒ **Larval mosquito surveillance**
☐ **Open Marsh Water Management**
☒ **Research**
☒ **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 and summer floodwater species and Culex 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 commonly involved in youth sports, recreational activities and outdoor maintenance and gardening projects. Summer floodwater species are controlled because they are aggressive mammal biting species and possible EEE human vectors. Culex species are controlled because they are considered enzootic and human vectors for West Nile virus.

What months is this program active? Spring floodwater mosquito larvae are controlled from late March through May. Summer floodwater mosquito larvae are controlled from late May through September. Culex mosquito larvae are controlled from June through mid-September.

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

Do you use:
☒ **Ground application (hand, portable and/or backpack, etc.)**
☒ **Aerial applications**
☐ **Other (please list):**
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**
Altosid Pellets	2724-448	8 grams per catch basin	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	407.33 lbs.
Altosid Pellets WSP	2724-448	1 packet per catch basin (10 grams)	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	212.30 lbs.
Altosid XR Briquets, Ingot design	2724-421	1 briquet per basin	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	340.72 lbs.
Vectobac 12 AS	275-102	8 oz. per acre 12 oz. per acre	backpack pump sprayer	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	12.85 gals.
Vectobac G	73049-10	5 lbs. per acre	aerially applied	Larvae	☐ Catch basins ☐ Containers ☒ Wetland ☐ Other (please list):	10,060 lbs.
Vectolex WSP	73049-20	1 packet per catch basin (10 grams per basin)	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	749.24 lbs.
VectoMax WSP	73049-429	1 packet per catch basin (10 grams per basin)	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	84.75 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**
Spheratax SPH WSP	84268-2	1 packet per catch basin (10 grams per basin)	hand applied	Larvae	☒ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	8.73 lbs.
				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):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ 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: 3 larvae per 10 samples
☐ Other (please describe):
Comments: Larval control in wetlands is funded by 24 communities. Helicopter larval control applications are funded by 18 communities. Catch basin larval control is funded by 22 communities. An additional 2 communities do their own catch basin larval control through their public works departments. Larval control at neglected swimming pools is done in cooperation with municipal health departments. Altosid Pellets, Altosid Pellets WSP and Altosid XR Briquets are applied to catch basins during the month of June as a pre-emergence treatment to control Culex larvae. Altosid Pellets, Altosid Pellets WSP, Altosid XR Briquets, Spheratax WSP, Vectolex WSP and VectoMax WSP were used to control Culex larvae in catch basins in July, August and September.

Please attach a map of your service area (or a website link to that map).
https://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, EEE human bridge vector mosquitoes and secondary WNV human bridge vector mosquitoes.

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

Describe the types of areas where you use this program: Suburban residential neighborhoods with a relatively dense configuration of streets that are situated near wetlands that serve as mosquito habitats.

Do you use:
☐ **Aerial applications**
☒ **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**
Anvil 10+10	1021-1688-8329	0.0024 lbs. per acre	truck mounted aerosol sprayer	30.48 gals.
Mavrik Perimeter	2724-428	0.04-0.1 oz. per gallon	Backpack mistblower	0.7 oz. (0.044 gals.)

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas
In 2017, the maximum number of times that wide area adult mosquito control occurred in any neighborhood was three times. The shortest interval between wide area spray applications in any neighborhood was fourteen days.

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 100-200 mammal biting mosquitoes depending on historical data for that area)
Comments: Scheduling adult mosquito control applications is based on mosquito population data and whether the community funds adult mosquito control. There are 9 commmunities that fund adult mosquito control. Spraying in the vicinity of an EEE or West Nile virus isolation or human case may be done if the community where the isolation or human case supports the application. Citizen requests for control are regarded as supplemental data that may influence the shape of the area where control is scheduled.

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

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, 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	3,008'
☒ Mechanized cleaning	2,726'
☐ 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? 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).

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 larval surveys were conducted at 73 sites. Post-application surveys were conducted at 33 sites. ArcView GIS maps of targeted wetlands are prepared prior to the application and then converted for use for the helicopter's Ag-Nav 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 using a Landers Ladle are done in June to determine the appropriate time to begin using Bacillus sphaericus. Random pre-application and post-application surveys using a Landers Ladle are undertaken during July, August and September to monitor Culex larval populations and determine the efficacy of Bacillus sphaericus applications. Random monitoring of paint marks on catch basins left by catch basin applicators is 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-application larval dip counts are undertaken with a minimum of 30 dips per site. Random post-application dip counts are done with a minimum of 30 dips at a site. The helicopter is supplied with shape files of wetlands to be larvicided. The shape files are prepared using ArcView GIS maps of targeted wetlands, which are then converted to shape files that will work in the helicopter's AgNav system. The completed AgNav maps recorded during the application are reviewed following the application to evaluate the coverage of treated wetlands.

At catch basins, sampling using a Landers Ladle is conducted during the early summer to determine when the presence of Culex larvae in untreated catch basins becomes common. Two collections using a Landers Ladle are taken at each sampled catch basin. Applicators are required to mark each catch basin grate with a spot of water soluble marking paint when they apply a larvicide to the catch basin. Monitoring of paint marks left on catch basin grates by applicators is conducted to evaluate coverage. The efficacy of Bacillus sphaericus applications is monitored by random sampling using a Landers Ladle.

For small area wetland larval control, applicators are required to sample for larvae by taking 10 dips at each wetland. Applications of Bti are only done if the applicator finds at least 3

larvae per 10 dips. Random post-application surveys of wetlands are conducted by the Operations Manager.
Before adult mosquito control is scheduled, three to five CO2-baited light traps are used to monitor mosquito populations in a community. A minimum of 100 to 200 mammal biting mosquitoes must be collected at a trap site before spraying will be scheduled in neighborhoods near a trap site. The variation in the minimum trap collection size to justify spraying is related to the normal mosquito collections found at a trap site. Trap collections below the minimum number result in a determination that spraying does not need to be scheduled in nearby neighborhoods or re-scheduled if the neighborhood has been recently sprayed.

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: The primary purposes are to measure populations of mammal biting species and populations of species considered enzootic or bridge vectors for West Nile virus and EEE. The data is used to evaluate the need for control. As funding is available, Culex species, Cs. melanura and other potential human bridge vector species are submitted to DPH for virus testing. The Project also used ovitraps near facilities engaged in interstate commerce to monitor for the presence of Aedes albopictus.

What months is this program active? May through October

Check off all trap types currently in use by your program:

- ☐ ABC light traps
- ☐ ABC light traps w/CO_2
- ☐ CDC light traps
- ☒ CDC light traps w/CO_2
- ☒ Gravid traps
- ☐ Landing rate tests
- ☐ NJ light traps
- ☐ NJ light traps w/CO_2
- ☒ Ovitraps
- ☐ Resting boxes
- ☐ Other (please describe):

- ☐ Canopy
- ☐ Canopy
- ☐ Canopy
- ☐ Canopy

- ☐ Canopy
- ☐ Canopy

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

If yes, please describe how you chose these long-term sites:
In most municipalities there are 3 to 5 trap sites. In municipalities with significant wetland acreage, light trap sites are located in yards that are in close proximity to major mosquito habitats for spring and summer floodwater mosquitoes, Cq. perturbans and Cs. melanura. In densely populated areas without significant wetland acreage, gravid trap sites are placed in yards or municipal properties with the goal of providing geographic spacing within the community. Light traps and gravid traps are also located near properties where people or horses are believed to have contracted EEE or West Nile virus in the past.

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*
- ☐ Other (please list):
- ☒ *Oc. abserratus*
- ☒ *Oc. canadensis*
- ☒ *Oc. cantator*
- ☒ *Oc. j. japonicus*
- ☒ *Oc. sollicitans*
- ☒ *Oc. taeniorhynchus*
- ☒ *Oc. triseriatus*
- ☒ *Oc. trivittatus*
- ☒ *Ps. ferox*
- ☐ *Ur. sapphirina*

Do you participate in the MDPH Arboviral Surveillance program? Yes
How many pools do you submit weekly on average? 20

Number of traps in your service area **placed by MDPH**: 40
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)	46		1
☐ Other (please list):			

Comments: 44 positive pools submitted by EMMCP and 2 positive pools submitted by MDPH.

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 and Low	Remote and Low

WNV	Low	Low and Moderate

Comments: For EEE, the following communities started and finished the year as declared low EEE risk: Concord, Framingham and Sudbury. The following communities started and finished the year as declared remote EEE risk: Arlington, Bedford, Belmont, Brookline, Burlington, Cambridge, Everett, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Newton, North Reading, Reading, Wakefield, Waltham, Watertown,Wayland, Wellesley, Weston and Winchester.
For WNV, all communities started the year at low WNV risk. By the end of the season, the following communities were declared at moderate risk of WNV: Arlington, Bedford, Belmont, Brookline, Burlington, Cambridge, Everett, Framingham, Lexington, Lincoln, Malden, Medford, Melrose, Newton, North Reading, Reading, Wakefield, Waltham, Watertown Wellesley, Winchester. Concord, Maynard, Sudbury, Weston, Wayland ended the year at low WNV risk.

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? It is an ongoing program that is active throughout the year.

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): In February of 2017, each person who excluded their property from pesticide applications in 2016, received a letter to explain the new exclusion process that went into effect in 2017. Each person who allowed the Project to put a survey trap on their property in 2016 received a letter informing them of the results on their property and requesting that the Project be allowed to use their property for surveillance in 2017.)
☒ 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):

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:

1. Coordinate with municipal officials to post notices on City/ Town List Servers and City/Town websites to notify residents, municipal departments and local media of planned helicopter Bti larval control applications, the pesticide exclusion process and planned neighborhood truck mounted adult mosquito control activities
2. Presentations by Douglas Bidlack on Mosquitoes and Ticks in North Reading and in Reading, which were organized by the North Reading and Reading Health Departments.
3. Gave presentations about our program to the following municipal officials, employees and Boards: the Everett, Medford and Reading Health Directors, the Sudbury Board of Health the Weston Conservation Commission and the staff of the Everett Inspectional Services Dept.

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 East Middlesex Project worked cooperatively with the Suffolk County Mosquito Control Project. The cooperation included shared administration, training on adult mosquito surveillance, mechanical repair of sprayers, helicopter larval control and outreach efforts. The two Projects collaborated on a paper on catch basin larval surveillance and control that was presented at the 2017 annual meeting of the American Mosquito Control Association.

☒ Another state agency (DCR, DPH, etc.) The Project collaborated with DPH to monitor for Aedes albopictus by submitting mosquito eggs collected in ovitraps.

☒ Environmental groups Notices about planned wide area adult mosquito spraying were sent to the Middlesex County Beekeepers Association

☐ Industry

List any training/education your staff received this year: Brian Farless and Doug Bidlack attended the annual meeting of the American Mosquito Control Association. Six employees attended the annual Northeastern Mosquito Control Association (NMCA) meeting. Four employees attended the annual NMCA Field Day. Two employees completed PACE training on Preventing Workplace Violence, Preventing Sexual Harassment in the Workplace, training on Domestic Violence, Sexual Assault and Stalking Awareness, a training on Conflict of Interest, a training on Diversity (Disability Awareness). One employee complete a PACE course on Excel. One employee attended a Mosquito Surveillance and Control Workshop sponsored by the Centers for Disease and Control, the American Mosquito Control Association and Rutgers. One employee attended an Aedes albopictus workshop hosted by Bristol County Mosquito Control. Five employees attended a pesticide industry sponsered workshop discussing pesticides and proper mosquito control methods.

Please list the certifications and degrees held by your staff: Mike Bryant, Chris Gagnon and David Henley are Certified Pesticide Applicators. Brian Farless, Cameron Kelley and Joseph Sandore are Licensed Pesticide Applicators. Salvatore Restuccia, Matt Restuccia, Henry Judge, Sean Wilson and Allison Rittweger are Permitted Catchbasin Applicators. Chris Gagnon has a 2A/1C Hoist Operator's License. David Henley has a B.B.A. in Management, Mike Bryant has an

A.B. in Turf Management. Doug Bidlack has a Ph.D. in Entomology, an M.S. in Entomology and Plant Pathology and a B.S. in Biological Sciences. Chris Gagnon has a B.S. in Wildlife Biology. Brian Farless has a B.S. in Communications. Joe Sandore has a B.A. in Environment and Society. Cam Kelley has a B.S. in Criminal Justice.

Comments: David Henley was awarded the 2017 MEHA Mentor Award at the annual conference of the Mass. Environmental Health Association.

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):
☒ Aerial Photography
☒ Databases
☐ Dataloggers (monitoring for temperature, etc.)
☒ GIS mapping (Describe: Create maps using ESRI ArcGIS software for media purposes, in-house use and for the helicopter company that handles our aerial applications)
☒ 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 provide the amounts for your approved budgets for the current, previous, and future fiscal years. Please note if the budget for the next fiscal year is an estimate, or put "n/a" if it is not yet available.

Fiscal Year	Approved Budget
2017	702,281
2018	722,795.30

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 regular appropriations for FY 2018 from the cities and towns of the East Middlesex MCP: Arlington - $20,400, Bedford - $39,278, Belmont - $18,054, Brookline - $13,273, Burlington - $42,061, Cambridge - $29,301, Concord - $20,000, Everett - $16,000, Framingham - $52,790, Lexington - $27,069.16, Lincoln - $10,300, Malden - $20,550, Maynard - $13,000, Medford - $23,584, Melrose - $11, 771, Newton - $43,863, North Reading - $48,462, Reading - $40,000, Sudbury - $49,340, Wakefield - $19,330, Waltham - $35,746, Watertown -

$17,569, Wayland - $24,673.80, Wellesley - $20,101.34, Weston - $42,761 and Winchester - $16,518.

Comments: <u>The East Middlesex MCP also receives supplemental appropriations for excavator work and for the purchase of catch basin larvicides, if funding for those services or purchases is not included within the regular appropriation. For FY18, $7,000 for catch basins was received from Wakefield's Department of Public Works.</u>

SERVICE REQUESTS

How many service requests did you receive this season? 185
How many were for larviciding? 52
How many were for adulticiding? 31

Was this an increase or decrease over last season? Decrease

Comments: The East Middlesex Mosquito Control Project will respond to residents who request that an adjacent or nearby wetland be checked for mosquito larvae or to investigate obstructions in waterways. Decisions on adult mosquito spraying are based on mosquito and arbovirus surveillance data. A citizen request for adult mosquito spraying is considered supplemental information, which may influence the shape of the area where wide area spaying has been planned based on mosquito and arbovirus surveillance.

EXCLUSIONS

How many exclusion requests did you receive this season? 104

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. Great Meadows National Wildlife Refuge and the Assabet River National Wildlife Refuge manage large tracts of 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 from mosquito borne disease. The Sudbury Valley Trustees, a private land trust, that owns wetlands in Concord, Framingham, Sudbury and Wayland has excluded their property from larval and adult mosquito control pesticide applications.

Assabet River National Wildlife Refuge, topo map: www.farnwr.org/maps1.html
Great Meadows National Wildlife Refuge, map:
www.fws.gov/refuge/great_meadows/map.html
Sudbury Valley Trustees, trail maps: http://www.sudburyvalleytrustees.org/maps

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: The Project works with local DPW officials and Conservation Administrators to identify excess sedimentation and or debris that is obstructing waterways and culverts and to maintain those waterways and culverts. The Project coordinated catchbasin 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? Choose one

If yes, please list any corrective actions here: _____

GENERAL COMMENTS

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