MASSACHUSETTS MOSQUITO CONTROL

ANNUAL OPERATIONS REPORT

Year Report Covers: 2023 Date of Report: 1/31/2024

Project/District Name: Pioneer Valley Mosquito Control District

Address: 67 North Main Street

City/Town: South Deefield Zip: 01373

Phone: (401) 580-6397 Fax: NA

E-mail: john.c.briggs@mass.gov

Report prepared by: John Briggs, District Director

NPDES permit no.

If you have a mission statement, please include it here:

ORGANIZATION SETUP:

Commissioner names:

<u>Jennifer Brown</u> <u>Carolyn Ness</u>

Jeanne Galloway, Chair Merridith O'Leary

Gregory Lewis

Superintendent/Director name: John Briggs

Superintendent/Director contact phone number: (401) 580-6397

Asst. Superintendent/Director name:

District/Project website: http://www.mass.gov/info-details/pioneer-valley-mosquito-control-

district-pvmcd

Twitter handle: @

Facebook page: http://www.facebook.com/

Other social media accounts:

Staffing levels for the year of this report:

Full time: 1 Part time: Seasonal:

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 John Briggs Biologist Educator John Briggs Entomologist John Briggs Facilities Information technology John Briggs Laboratory John Briggs Operations John Briggs Public relations John Briggs Wetland scientist Other (please describe)
For the year of this report, the following were maintained (enter number in the column to the left):
Modified wetland equipment (list type) Larval control equipment (list type) ULV sprayers (list type) 1 Vehicles Other (please be specific):
Comments:
How many cities and towns are in your service area?* 23 Alphabetical list: Amherst, Bernardston, Buckland, Chicopee, Deerfield, East Longmeadow, Gill, Granby, Greenfield, Hadley, Heath, Holyoke, Leyden, Northampton, Northfield, Palmer, Rowe, Shelburne, Shutesbury, South Hadley, Southampton, Sunderland, and West Springfield.
Were there any changes to your service area this year? Yes Cities/towns added: Northfield 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:
What months is this program active?
Describe the types of areas where you use this program:
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	Application	Targeted life	Habitat Type	Total finished
		Rate(s)	Method	stage		product applied
				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):	
				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):

Product Name	EPA#	Application	Application	Targeted life	Habitat Type	Total finished
		Rate(s)	Method	stage		product applied
				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):	
				Choose one	☐ Catch basins ☐ Containers ☐ Wetland ☐ Other (please list):	

Best professi Historical rec	onal judgment cords unts – please list e describe):		check all that apply)		
Please attach a i	map of your serv	vice area (or a v	vebsite link to that	map).	
ADULT MOSQUI		rogram plagsa fill	out the section below.	else skip ahead to the next sect.	ion
			out the section below, e	nse skip dhedd to the hext sect.	1011.
Describe the pur	pose of this prog	gram:			
What is the time	e frame for this p	rogram?			
Describe the typ	es of areas wher	e you use this p	orogram:		
Do you use: Aerial applica Portable app Truck applica Other (please Comments:	olications ations e list): —	t the name. FP/	A #, and application	rate(s):	
Product Name	EPA#	Application	Application	Total finished	
		Rate(s)	Method	product applied	
Please describe season and areas		mounts or freq	quency used in a pa	articular time frame such	as
Arbovirus dat Best professi Complaint ca Landing rates	,	ger for applicater for application	n)	y)	

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

SOURCE REDUCTION (Tire Removals)	
If you practice source reduction methods, such as tire i	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 meth	Shoulden be
what time frame during the year is this meth	od employed:
Comments:	
<u></u>	
WATER MANAGEMENT/DITCH MAINTENAN	CF
2	e 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:	
For inland/freshwater water management, of	
Maintenance Type	Estimate of cumulative length of culverts, ditches,
Culvert despins	swales, etc. maintained (ft)
Culvert cleaning	
Hand cleaning	
Mechanized cleaning	
Stream flow improvement	
Other (please list):	
Comments:	
For saltmarsh ditch maintenance , check off a	all that annly:
Maintenance Type	Estimate of cumulative length of ditches maintained
Mantenance Type	(ft)
Hand cleaning	
Mechanized cleaning	
Other (please list):	
Comments:	
What time frame during the year is this meth	od employed?
Comments:	

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

OPEN MARSH WATER MANAGEN	MENT
If you have an Open Marsh Water Mana next section.	agement program, please fill out the section below, else skip ahead to the
Describe the purpose of this prog	ram:
What months is this program acti	ve?
Please give an estimate of total so	quare feet or acreage:
Comments:	
Please attach a map of OMWM a	areas (or a website link to that map).
MONITORING (Measures of Effic	асу)
Describe monitoring efforts for e	each of the following:
Aerial Larvicide – wetlands:	
Ground ULV Adulticide:	
Larvicide – catch basins:	
Larvicide-hand/small area	
Open Marsh Water Management	:
Source Reduction:	
Other (please list):	
Provide or list standard steps, crit (pre and post data), and resistance	terion, or protocols regarding the documentation of efficacy ce testing (if any):
Check the boxes below, indicating	g if your program has performed any of the following:
Research Project	Details
Bottle assays	
Efficacy testing	
Other:	
Other:	

Α	DULT MOSQUITO SURVEILLANCE	
-	you have an adult mosquito surveillance prection.	ogram, please fill out the section below, else skip ahead to the next
D	escribe the purpose of this program	:
W	/hat months is this program active?	
С	heck off all trap types used this past	season by your program:
T	гар 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	
\triangleright	☐ CDC light trap w/CO2	419
\triangleright	Gravid trap	423
	Landing rate test	
	NJ light trap	
	NJ light trap w/CO ₂	
	Ovitrap	
	Resting box	
	Other (please describe):	
	Other (please describe):	
	Other (please describe):	
	o you maintain long-term trap sites yes, how many:	in any of your areas? Please choose one
	lease check off the species of conce Ae. albopictus Ae. cinereus Ae. vexans An. punctipennis An. quadrimaculatus Cq. perturbans	Oc. abserratus Oc. canadensis Oc. cantator Oc. j. japonicus Oc. sollicitans Oc. taeniorhynchus
	Cx. pipiens Cx. restuans Cx. salinarius Cs. melanura Cs. morsitans	∠ Oc. triseriatus∠ Oc. trivittatus∠ Ps. ferox∠ Ur. sapphirina

Others (please list):

Do you participate in the MDPH Arboviral Surveillance program? Yes How many pools do you submit weekly on average? 42 Total number of adult mosquito pools submitted to DPH this past season: 751 Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"):

Total number of adult mosquitoes submitted to DPH this past season: 15937 Number of adult mosquitoes collected this season but not submitted to DPH: 40028

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

Number of traps in your service area **placed by MDPH**: Varied weekly depending on need. Were these long-term trap sites or supplemental trapping sites? both

Which arboviruses were found in your area during this past mosquito season? Enter the number of positive pools and/or cases below:

Arbovirus	Positive Mosquito Pools	Equine Cases	Human Cases
Eastern Equine Encephalitis (EEE)	6	0	0
West Nile Virus (WNV)	18	0	2
Other (please list):			

Comments:	
COIIIIICIICO.	

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	Low	High
WNV	Low	High

Com	ments:	

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:

What time frame during the year is this method employed?

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):

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 past year: 1. Media/interviews 2. Presentations at Regional Heatlh Coalitions 3. Montly Newletter/Updates
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 UMASS: Submitted multiple species of mosquitoes to be tested for JCV. Another mosquito control district/project Another state agency (DCR, DPH, etc.) Environmental groups Industry
List any training/education your staff received this year: NMCA Annual Meeting and UMASS Pesticide Educatoin
Please list the certifications and degrees held by your staff: John Briggs, BS in Environmental Science.
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: Implementation of QGIS and

Describe any changes/enhancements in IT from the previous year: Implementation of QGIS and QField for the purpose mapping out potential vector habitat.

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

Commen	ts:			
REVENUE	S & EXPENDITU	JRES		
Please en		_	current, previous, and future fiscal years.	
	Date of Fiscal Year	Approved Budget	Notes	
Previous	FY2023	\$97,000		
Current	FY2024	\$97,000		
Future	FY2025	\$107,000	This is the proposed budget and would be approved in May 2024.	
	·	is funded via volunt lities using the cher	tary appropriations, and as a result, does not ery sheet.	
SERVICE I	REQUESTS			
How man	y service reque	sts did you receive t	this season?	
How many were for larviciding?				
How man	y were for adul	ticiding?		
Was this	an increase or d	ecrease over last se	eason? Choose one	
Commen	ts:			
EXCLUSIO	ONS			
How man	y exclusion req	uests did you receiv	e this season?	
Was this	an increase or d	ecrease over last se	eason? Choose one	
Do you ha	ave large areas	of pesticide exclusio	on, including priority habitat? Choose one	
SPECIAL F	PROJECTS			
Did your	program perfor	m any of the followi	ing 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:				
 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? No				
If yes, please explain:				
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:				