Annual Operations Report

Year Report Covers: 2025 Date of Report: 1/16/25

Project/District Name: Berkshire County Mosquito Control Project

Count of Cities and Towns in Service Area: 9

Alphabetical List of Cities/Towns: Clarksburg, Hinsdale, Lanesborough, Otis, Pittsfield, Richmond, Sheffield, SGRMD, Tyringham

Were there any changes to your service area this year?

Municipality added: 0

Municipality removed: 0

HQ Address: 19 Harris Street, Pittsfield, MA 01201

Phone: (413) 447-9808 Email: chris@berkshiremosquito.org

Report Prepared By: Christopher Horton

Misson Statement, if available:

ORGANIZATION SETUP

Commissioner Names:

Wally Terrill	Chairman
James Mcgrath	Member
Ryan Grennan	Member

Superintendent/Director Name: Christopher Horton Asst. Superintendent/Director Name:

District/Project Website: berkshiremosquito.org

Please list below any additional social media accounts:

Staffing levels for the year of this report:

Full time: 1 Part time: Seasonal: 4 Other: (please describe)

Of the above, how many are:

(Please check off all that apply, and list how many are Full Time, Part Time, Or Seasonal)

☒ Administrative 1 FT
☐ Biologist
☐ Educator
☐ Entomologist
☒ Facilities 1 FT
☒ Information technology 1 FT
☒ Laboratory 3 Seasonal
☒ Operations 5 1FT, 4 Seasonal
☒ Public relations 1 FT
☐ Wetland scientist
☐ Other (please describe)

Comments:

During the season, the following were maintained:

Count	Equipment Type	Type(s)
1	Modified wetland equipment	LGP Excavator
	Larval control equipment	
3	ULV sprayers	2 PROMIST HD, 1 London Fog
	Electric Vehicles	
4	Gas Powered Vehicles	3 Ford Ranger, 1 Isuzu pickup
 1 1 1	Other: AWD truck Tractor Rolloff Trailer	 Freightliner Freightliner Benlee

Comments:

INTEGRATED PEST MANAGEMENT (IPM):

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

☒ 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
☐ Other (Please List:)

Comments:

LARVAL MOSQUITO SURVEILLANCE

If you have a larval mosquito surveillance program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: The larval program is used to identify and control mosquito populations in their most concentrated and vulnerable state.

What months is this program active? April through November

Describe the process of monitoring / sampling: Potential and known breeding sites are mapped and surveilled through standard dipping procedure. The process is repeated continuously throughout the season with surveillance and treatment data logged in real time using field computer based GIS system.

Describe the habitat that is being sampled: Wetlands, floodplains, catch basins and artificial containers are sampled.

What environmental conditions (vegetation, water quality, predators) are observed? Environmental conditions are monitored relative to the likelihood that mosquito breeding would be occurring at the site.

How frequently are sites monitored? Sites are monitored continuously throughout the season with the goal of detecting larval development between treatment cycles and treatment window.

ADULT MOSQUITO SURVEILLANCE

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

Describe the purpose of this program: The purpose of adult mosquito surveillance is to evaluate the size and species composition of mosquito populations at various locations in the project area. Samples are also prepared for testing to detect the presence of arbovirus.

What months is this program active? May through October

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	☐	
CDC light trap	☐	
CDC light trap w/CO_2	☐	6
Trap Type	**Canopy?** (check box for yes)	**Number of traps** (leave blank if zero)
Gravid trap		20
Landing rate test		Used occasionally during field visits

NJ light trap	☐	
NJ light trap w/CO_2	☐	
Ovitrap		6
Resting box		
Other (please describe): BG Counter		Used to evaluate mosquito population levels and periods of peak activity.
Other (please describe):		
Other (please describe):		

Do you maintain long-term trap sites in any of your areas? Yes or No: Yes
If yes, how many: Any site that has a history of arbovirus becomes a long-term trap site.

ADULT MOSQUITO SURVEILLANCE

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

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

Do you participate in the **MDPH Arboviral Surveillance program**? (yes/no): Yes
How many pools did you submit weekly on average? 30
Total number of adult mosquito pools submitted to DPH this past season: 410
Number of adult mosquito pools collected but not submitted to DPH ("Unsubmitted"): 1,381

Total number of adult mosquitoes submitted to DPH this past season: 30,000+
Number of adult mosquitoes collected this season but not submitted to DPH: 30,000+

Number of Ovitrap collections this season, if any: Ovitraps placed with negative results.
Any other trap collections of note (please describe):

Number of traps in your service area placed by **MDPH**: 144
Were these long-term trap sites or supplemental trapping sites? Yes or No: yes

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

Comments:

Arbovirus	+ Mosquito Pools	Equine Cases	Human Cases
☐Eastern Equine Encephalitis (EEE)			
☒West Nile Virus (WNV)	21		
☐Other (please list):			

For each arbovirus listed below, please list number of municipalities at each risk level in your project area at both the start and peak of the season (say "all" if all municipalities are at same risk level):

Arbovirus	Start of Season	Peak of Season
EEE	low	low
WNV	low	moderate

Comments:

LARVAL MOSQUITO CONTROL:

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

Describe the purpose of this program: The larval mosquito control program is used to control mosquito populations through application of approved larval control agents to breeding habitat.

What months is the program active? April through October

Describe the types of areas where you use this program: This program is used in wetlands, floodplains, catch basins and artificial containers.

Do you use:

☐ Aerial applications. Describe operations:
☐ Portable applications. Describe operations:
☒ Other (please list): Larval applications are performed by hand.

Comments:

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

☒ Best professional judgment. Describe: Larval treatments are initiated when it is considered likely that adult mosquitoes would emerge from a specific site and that treatment would reduce or eliminate this emergence.
☒Historical records
☒ Larval dip counts – Describe trigger for application: Presence of larvae is the trigger for larval treatment.
☐ Other (please describe):

Comments:

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

Product Name	EPA #	Application Rate(s)	Application Method	Target Life Stage	Habitat Type	Total Finished Product Applied
Altosd XR Briquet	2724-421	1 briquet	Hand	larva	☒Catch basins ☐Containers ☐Wetland ☐Other (please list):	237 briquets
Fourtstar 90 Briquet	83362-3	1 briquet	Hand	larva	☒Catch basins ☐Containers ☐Wetland ☐Other (please list):	4102 briquets
Fourstar CRG	85685-2	10 lbs./acre	Hand	larva	☐Catch basins ☐Containers ☒Wetland ☐Other (please list):	20.5 lbs.
Natular G30	8329-83	10 lbs./acre	Hand	larva	☐Catch basins ☐Containers ☒Wetland ☐Other (please list):	27.9 lbs.

Product Name	EPA #	Application Rate(s)	Application Method	Target Life Stage	Habitat Type	Total Finished Product Applied
Vectobac G	73049-10	10 lbs./acre	Hand	larva	☐Catch basins ☐Containers ☒Wetland ☐Other (please list):	623.32 lbs.
Vectolex WSP	73049-20	1 packet	Hand	larva	☒Catch basins ☐Containers ☐Wetland ☐Other (please list):	2857 pouches
Vectomax FG	73049-429	10 lbs./acre	Hand	larva	☐Catch basins ☐Containers ☒Wetland ☐Other (please list):	86 lbs.
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland	

					☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	
					☐Catch basins ☐Containers ☐Wetland ☐Other (please list):	

ADULT MOSQUITO CONTROL:

If you have an adult mosquito control program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program: The purpose of adult mosquito control is to reduce the presence of flying mosquitoes in the target area to check population increase and reduce the number of vector and potential vector mosquitoes.

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

Describe the types of areas where you use this program: Municipal roads, public and private property with appropriate access.

Do you use:

☐ Aerial applications. Describe operations:
☐ Portable applications. Describe operations:
☒ Truck applications. Describe operation: Truck Mounted ULV.
☐ Other (please list):

For each product used, please list the name, EPA #, and application rate(s):

Product Name	EPA #	Application Rate(s)	Application Method	Total finished product applied
Duet	1021-1795-8329	.62 oz. per acre	Truck Mounted ULV	90.77 gal.
Merus 3.0	8329-108	1.00 oz. per acre	Truck Mounted ULV	44.28 gal.

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas:
Maximum application for Duet is 1 application per week. Application may increase to label maximum in response to efficacy or public health concerns.
Maximum application rate for Merus 3.0 is 1 application per week. Application may increase to label maximumin response to efficacy or public health concerns.

What is your trigger for adulticiding operations? (check all that apply)
☒ Arbovirus data
☒ Best professional judgment
☒ Complaint calls. Describe trigger for application: Complaint call linked to trap data
☒ Landing rates. Describe trigger for application: 10 plus
☒ Light trap data. Describe trigger for application: 250 total count

Comments:

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

SOURCE REDUCTION

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

Tire Removal

Please describe your program: BCMCP collects and delivers tires for recycling. Tires are collected at community events, neighborhood cleanup projects and locations identified during MCP operations in member communities.

What time frame during the year is this method employed? Source reduction is practiced year-round as weather permits.

Comments:

Water Management/ Ditch Maintenance

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

Please check all that apply:

☒ Inland/freshwater
☐ Saltmarsh

Please describe your program: Ditch maintenance is performed after the mosquito breeding season on existing drainage structures to improve water quality and reduce the potential and scope of mosquito breeding in the member community.

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	400ft.
☒ Hand cleaning	13,800ft.
☐Mechanized cleaning	
☐ Stream flow improvement	
☒Other (Please List:)	Drainage restoration after beaver mitigation (6 sites)

Comments:

For **saltwater 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?

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

Open Marsh Water Management

If you have an Open Marsh Water Management program, please fill out the section below, otherwise skip ahead to the next section.

Describe the purpose of this program:

What months is this program active?

Please give an estimate of total square feet or acreage:

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

MEASURES OF EFFICACY

Describe monitoring efficacy efforts for each of the following:

Aerial Larvicide – wetlands: N/A
Ground ULV Adulticide: Surveillance trapping is used to measure efficacy of ground ULV applications.
Larvicide – catch basins: Catch basin inspection is initiated in areas of arbovirus detection.
Larvicide-hand/small area Treatment efficacy is monitored through continuing larval surveillance.
Open Marsh Water Management:
Source Reduction: Source reduction efficacy is measured through larval and adult surveillance.
Other (please list):

Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any):

Research Project	**Details**
Bottle assays	
Efficacy testing	
Other: Resistance Testing	Training in Bottle assay and Topical assay protocol for resistance detection.
Other:	

EDUCATION, OUTREACH & PUBLIC RELATIONS

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

Describe the purpose of this program: Outreach is used to increase public understanding of relevant mosquito issues and to engage the community in measures related to the risk of mosquito borne disease and improving the quality of life in the project area.

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):)
- ☐ 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: 1,200

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

1. Board of Health updates
2. Community Support Group Meeting (18 Degrees)
3. Newspaper 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
- ☐ Another mosquito control district/project
- ☐ Another state agency (DCR, DPH, etc.)
- ☐ Environmental groups
- ☐ Industry

Please list any certifications and degrees held by your staff: Bachelors Science

List any training/education your staff received this year: Training for topical resistance assay.

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):

- ☒ Aerial Photography

☒ Databases
☐ Dataloggers (monitoring for temperature, etc.)
☒ GIS mapping (Describe:)
☒ GPS equipment
☒ Smartphones
☒ Tablets/Toughbook
☐ Other (please describe):

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

REVENUES & EXPENDITURES

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

	Date of Fiscal Year	Approved Budget
Previous	2025	$304,507.
Current	2026	$320,200.
Future	2027	$328,250.

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):

Project Name: __Berkshire County Mosquito Control Project

FY2026 Proposed Cherry Sheet Assessments Estimates
Based on the preliminary proposed Project budget
(2018 Equalized Valuations)

Name of Municipality	% of Total Budget	Project Share Amount*	State Reclamation Mosquito Control Board Share Amount*	Total Assessment Estimate*
Clarksburg	2%	$5,628	$218	$5,846
Hinsdale	5%	$17,303	$671	$17,974
Lanesborough	7%	$21,034	$816	$21,850
Otis	10%	$30,720	$1,191	$31,911
Pittsfield	56%	$180,672	$7,007	$187679
Richmond	7%	$22,939	$890	$23,829
Sheffield	10%	$33,249	$1,290	$34,539
Tyringham	3%	$8,656	$336	$9,992
TOTAL		$320,201	$12,419	$333,620
*Sherwood Greens RMD (Direct Funded)		$1,800		

Comments:

SERVICE REQUESTS

How many service requests did you receive this season? 82

How many were for larviciding?

How many were for adulticiding? 82

Was this an increase or decrease over last season? Decrease

Comments:

EXCLUSIONS

How many exclusion requests did you receive this season? 47

Was this an increase or decrease over last season? Yes or No: Decrease

Do you have large areas of pesticide exclusion, including priority habitat? Yes
Comments: Massachusetts Audubon and Trustees of Reservations exclude properties from mosquito control activities.

SPECIAL PROJECTS

Did your program perform any of the following special projects?

Project	Description
☒ Inspectional services (inspections at sewage treatment facilities, review of subdivision plans, etc.)	We work with local wastewater treatment facilities to address mosquito issues
☒ 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.	We address or report any issue related to drainage in member towns. We also work with DPW departments to address mosquito breeding issues.
☒ Work with groups as described above on long-term solutions.	We coordinate with local DPW agencies to increase efficiency and focus of mosquito control operations. Mainly related to source reduction and catch basin treatments.
☐ Conduct or participate in any cooperative research or restoration projects?	
☒ Participate in any state/regional/national workgroups or panels, or attend any meeting pertaining to the above?	NMCA Annual Meeting, AMCA Annual Meeting, NEVBD and NEWVEC training and research seminars.
☒ Work on any biological control projects, such as enhancement of habitat for native predators, release of predatory fish or invertebrates, etc.?	Source reduction and ditch maintenance projects focus on improving water quality with the goal of increasing fish access to encourage natural predation of mosquito larvae and reduce mosquito breeding potential.
☐ Other	

GENERAL COMMENTS

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