

Of the above, how many are:

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

- Administrative Christopher Horton
- Biologist
- Educator Christopher Horton, Mya Wiles, Mollie Dimise
- Entomologist
- Facilities Christopher Horton, Michael Healey
- Information technology Christopher Horton
- Laboratory Christopher Horton, Mya Wiles, Mollie Dimise, Jamie Henderson
- Operations Christopher Horton, Mya Wiles, Mollie Dimise, Jaimie Henderson, Michael Healey
- Public relations Christopher Horton
- 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) Two Gasoline (London Fog), 1 Electric (Beecomist)
- Vehicles

Other (please be specific):

Comments: _____

How many cities and towns are in your service area?* 10

Alphabetical list: Clarksburg, Hinsdale, Lanesborough, Otis, Pittsfield, Richmond, Sheffield, Sherwood Greens RMD, Stockbridge, Tyringham

Were there any changes to your service area this year? No

Cities/towns added: <https://www.berkshiresmosquito.org/sites/bcmcp/files/imce/map-new-edited.jpg>

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): Wetland restoration related to beaver mitigation.

Comments: _____

LARVAL MOSQUITO CONTROL:

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

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

What months is this program active? April through October

Describe the types of areas where you use this program: Larval control is used in wetlands, floodplain, catch basins and artificial container environments.

Do you use:

- Ground application (hand, portable and/or backpack, etc.)
- Aerial applications
- Other (please list):

Comments: All larvicide applications are currently performed manually

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

Product Name	EPA #	Application Rate(s)	Application Method	Targeted life stage	Habitat Type	Total finished product applied
Vectobac G	73049-10	4 - 10 lbs/acre	manual	Larvae	<input type="checkbox"/> Catch basins <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> Wetland <input checked="" type="checkbox"/> Other (please list): floodplain	2,019 lbs.
Fourstar 90 Briquet	83362-3	1 briquet per basin	manual	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	3,069 briquets
Vectolex WSP	73049-20	1 packet per basin	manual	Larvae	<input checked="" type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	728 pouches
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> 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 Rate(s)	Application Method	Targeted life stage	Habitat Type	Total finished product applied
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> Other (please list):	
				Choose one	<input type="checkbox"/> Catch basins <input type="checkbox"/> Containers <input type="checkbox"/> Wetland <input type="checkbox"/> 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: present
- Other (please describe):

Comments: _____

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

<https://www.berkshiresmosquito.org/sites/bcmcp/files/imce/map-new-edited.jpg>

ADULT MOSQUITO CONTROL:

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

Describe the purpose of this program: The purpose of the adult mosquito control program is to reduce the presence of flying mosquitoes in the target area in order to check population increase and reduce the number of vector mosquitoes 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
- 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
Duet	1021-1795-8329	.62 oz. per acre	Truck mounted ULV	82.22 gal
Mavrik	2724-478	.5 oz. per 1000 sq. ft.	Backpack	24 oz.

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

Maximum frequency for Duet would be 1 application per week. Maximum frequency for Mavrik would be 1 application per month. Application frequency may be increased to label maximum in 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 calls are used as a catalyst for investigation which would include trapping and landing counts.)
- Landing rates (Describe trigger for application 5 mammal biting species per minute)
- Light trap data (Describe trigger for application 250 mammal biting species per trap night. (Or threshold indicated in specific municipal plan))

Comments: _____

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

<https://www.berkshiresmosquito.org/sites/bcmcp/files/imce/map-new-edited.jpg>

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: BCMCP collects tires for recycling at community events, neighborhood cleanup projects and locations identified during MCP operations in member towns.

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, else skip ahead to the next section.

Please check all that apply:

- Inland/freshwater
- Saltmarsh

Please describe your program: BCMCP performs manual cleaning and maintenance on existing drainage systems and structures in member communities.

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

Maintenance Type	Estimate of cumulative length of culverts, ditches, swales, etc. maintained (ft)
<input checked="" type="checkbox"/> Culvert cleaning	250 ft.
<input checked="" type="checkbox"/> Hand cleaning	5,300 ft.
<input type="checkbox"/> Mechanized cleaning	
<input type="checkbox"/> Stream flow improvement	
<input checked="" type="checkbox"/> Other (please list): Wetland restoration	Restoration of historical flow at three mitigation

after beaver mitigation	sites.
-------------------------	--------

Comments: _____

For saltmarsh ditch maintenance, check off all that apply:

Maintenance Type	Estimate of cumulative length of ditches maintained (ft)
<input type="checkbox"/> Hand cleaning	
<input type="checkbox"/> Mechanized cleaning	
<input type="checkbox"/> Other (please list):	

Comments: _____

What time frame during the year is this method employed?

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:

Ground ULV Adulticide:

Ground ULV treatments are initiated by surveillance data collected weekly.

Larvicide – catch basins:

Catch basins are visually inspected as product lifespan expires

Larvicide-hand/small area

Larval surveillance is an ongoing process throughout the season. Known breeding locations are surveilled several times during the season.

Open Marsh Water Management:

Source Reduction:
proper function.

Source reduction sites are monitored seasonally to verify

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):

We rely mainly on trap data to initiate treatment and determine efficacy. Trap counts, complaint calls, field observations and virus isolations initiate adult mosquito control response. Subsequent trap data indicates efficacy and directs future treatment decisions.

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

Research Project	Details
Bottle assays	Participated in CDC training workshop,
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 adult mosquito surveillance program provides data relevant to trends in mosquito populations as well as the presence of arboviruses in mosquito populations.

What months is this program active? June 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)
<input type="checkbox"/> ABC light trap	<input type="checkbox"/>	
<input type="checkbox"/> ABC light trap w/CO ₂	<input type="checkbox"/>	
<input type="checkbox"/> CDC light trap	<input type="checkbox"/>	
<input checked="" type="checkbox"/> CDC light trap w/CO ₂	<input type="checkbox"/>	6-8 per week
<input checked="" type="checkbox"/> Gravid trap		15-25 per week
<input type="checkbox"/> Landing rate test		
<input type="checkbox"/> NJ light trap	<input type="checkbox"/>	
<input type="checkbox"/> NJ light trap w/CO ₂	<input type="checkbox"/>	
<input type="checkbox"/> Ovitrap		
<input type="checkbox"/> Resting box		
<input type="checkbox"/> Other (please describe):		
<input type="checkbox"/> Other (please describe):		
<input type="checkbox"/> Other (please describe):		

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

If yes, how many:

Sites that have consistently yielded positive isolations of WNV and or EEE are maintained as long term trap sites. We currently have 20 sites that are long term.

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

- | | |
|--|---|
| <input checked="" type="checkbox"/> <i>Ae. albopictus</i> | <input type="checkbox"/> <i>Oc. abserratus</i> |
| <input type="checkbox"/> <i>Ae. cinereus</i> | <input checked="" type="checkbox"/> <i>Oc. canadensis</i> |
| <input checked="" type="checkbox"/> <i>Ae. vexans</i> | <input type="checkbox"/> <i>Oc. cantator</i> |
| <input checked="" type="checkbox"/> <i>An. punctipennis</i> | <input checked="" type="checkbox"/> <i>Oc. j. japonicus</i> |
| <input checked="" type="checkbox"/> <i>An. quadrimaculatus</i> | <input type="checkbox"/> <i>Oc. sollicitans</i> |
| <input checked="" type="checkbox"/> <i>Cq. perturbans</i> | <input type="checkbox"/> <i>Oc. taeniorhynchus</i> |
| <input checked="" type="checkbox"/> <i>Cx. pipiens</i> | <input type="checkbox"/> <i>Oc. triseriatus</i> |
| <input checked="" type="checkbox"/> <i>Cx. restuans</i> | <input checked="" type="checkbox"/> <i>Oc. trivittatus</i> |
| <input type="checkbox"/> <i>Cx. salinarius</i> | <input checked="" type="checkbox"/> <i>Ps. ferox</i> |
| <input checked="" type="checkbox"/> <i>Cs. melanura</i> | <input type="checkbox"/> <i>Ur. sapphirina</i> |
| <input type="checkbox"/> <i>Cs. morsitans</i> | |
| <input type="checkbox"/> Others (please list): | |

Number of adult mosquitoes collected this season (whether submitted to DPH or not): @75,000

Number of adult mosquito pools collected this season (submitted and unsubmitted): 1,194

Number of ovitrap collections this season, if any: 6

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: 421

How many pools do you submit weekly on average? 15

Number of traps in your service area **placed by MDPH**: 0

Were these long-term trap sites or supplemental trapping sites? Choose one

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
<input type="checkbox"/> Eastern Equine Encephalitis (EEE)			
<input checked="" type="checkbox"/> West Nile Virus (WNV)	1		
<input type="checkbox"/> 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	low	low
WNV	low	low

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 purpose of the outreach program is to make the public aware of the importance of mosquito control in their community and to provide information relative to the availability and scope of our services.

What time frame during the year is this method employed? We pursue any opportunity for outreach as time permits. Generally 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: 50,000
Comments:

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

1. Pittsfield (Third Thursday Streetfair)
2. Flying Cloud Educational Program
3. Stockbridge Board of Health (Sponsored) Meeting

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 Workshop on resistance testing (CDC NEVBD, Cornell University)
- Another mosquito control district/project
- Another state agency (DCR, DPH, etc.)
- Environmental groups
- Industry

List any training/education your staff received this year: Staff participated in continuing education programs through MDAR, Northeastern Mosquito Control Association, American Mosquito Control Association and NEVBD.

Please list the certifications and degrees held by your staff: Bachelor Science

Comments: _____

INFORMATION TECHNOLOGY (IT)

Does your program use (check all that apply):

- Aerial Photography
- Databases
- Dataloggers (monitoring for temperature, etc.)
- GIS mapping (Describe: Frontier Precision (Sentinel))
- 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 Year	Approved Budget	Notes
Previous	2018	253,031.30	Lanesborough Joined Project
Current	2019	267,914.00	
Future	2020	275,325.00	

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):

- Clarksburg \$5,225.
- Lanesborough \$16,464.
- Pittsfield \$146,137.
- Sheffield \$25,010.
- Stockbridge \$36,702.
- Hinsdale \$12,964.
- Otis \$27,253.
- Richmond \$17,541.
- SGRMD \$1,800.
- Tyringham \$8,259.

Comments: _____

SERVICE REQUESTS

How many service requests did you receive this season? 184

How many were for larviciding? 28

How many were for aduaticiding? 184

Was this an increase or decrease over last season? Decrease

Comments:

EXCLUSIONS

How many exclusion requests did you receive this season? 81

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. MA Audubon and Trustees of Reservations exclude properties from 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:
- 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: Beaver mitigation work described above.
- 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: One of the main goals of many of our source reduction projects is to improve water quality and enhance success of native predators.

CHILDREN AND FAMILIES PROTECTION ACT (CFPA)

Is your program impacted by the CFPA? Yes

If yes, please explain: We have Schools and State Listed Daycare facilities in the project area.

If you have data on compliance rates with the CFPA within your program area, please list here:
We have two facilities in the project area that have BCMCP listed on the IPM Plan.

Describe any difficulties you have had with the implementation of your program due to the CFPA, please elaborate here: We exclude applicable facilities from pesticide applications.

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: _____