

**MASSACHUSETTS MOSQUITO CONTROL
ANNUAL OPERATIONS REPORT**



2012 Year of Report

Date of Report: 1/15/13

Project/District Name: **Berkshire County Mosquito Control Project**

Address: 19 HARRIS ST

City/Town: PITTSFIELD

Zip: 01201

Phone: 413 447-9808

Fax: 413 447-7185

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Report prepared by: Christopher Horton

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

ORGANIZATION SETUP:

Please list your Commissioner's names:

WALLY TERRILL, CHAIRMAN
RYAN GRENNAN
JAMES MC GRATH

Please list the Supt./Director's name: Christopher Horton

Please list the Supt./Director's contact phone number: 413 447-9808

Please list your Asst. Supt./Asst. Director's name:

Do you have a website? No

If yes, please list the web address here: http://

Please list your staffing levels for the year of this report:

Full time: 1

Part time:

Seasonal: 2

Other: (please describe)

Please break these down into the following areas:

Administrative staff: 1

Field staff: 2

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

- Public relations Christopher Horton
- Information technology Christopher Horton
- Entomologist
- Wetland Scientist
- Biologist
- Education Christopher Horton
- Laboratory Christopher Horton
- Operations Christopher Horton, George Lowe, Daniel Sala
- Facilities Christopher Horton
- Other (please list)

For the year of this report, we maintained:

5 vehicles

modified wetland equipment (list type)

2 ULV sprayers (list type) Beecomist, London-Air.

Larval control equipment (list type) 2 Backpack sprayers with granular, mist, and ULV capability.

Other (please be specific):

Comments: _____

How many cities & towns in your service area? 7

Please list: Clarksburg, Hinsdale, Otis, Pittsfield, Sheffield, Stockbridge, Tyringham.

***Please attach a link to a map of your service area if possible.**

INTEGRATED PEST MANAGEMENT (IPM):

DEFINITION: a comprehensive strategy of pest control whose major objective is to achieve desired levels of pest control in an environmentally responsible manner by combining multiple pest control measures to reduce the need for reliance on chemical pesticides; more specifically, a combination of pest controls which addresses conditions that support pests and may include, but is not limited to, the use of monitoring techniques to determine immediate and ongoing need for pest control, increased sanitation, physical barrier methods, the use of natural pest enemies and a judicious use of lowest risk pesticides when necessary.

Please check off all of the services that you currently provide to your member cities and towns as part of your IPM program; details of these services are in the next sections.

Larval mosquito control

- Adult mosquito control**
- Source reduction**
- Ditch maintenance**
- Open Marsh Water Management**
- Adult mosquito surveillance**
- Education, Outreach & Public education**
- Research**
- Other (please list):**

Comments: _____

LARVAL MOSQUITO CONTROL:

Do you have a larval mosquito suppression program? Yes

If yes, please describe the purpose of this program: Eliminate nuisance mosquitoes in district member communities and reduce the presence of possible disease vectors.

Please give the time frame for this program: April thru mid September

Describe the areas that this program is used: Woodland pools, marshlands, bogs, permanent water swamps, floodplains, and municipal drainage systems.

Do you use:

- Ground applied (includes hand, portable and/or backpack)**
- Helicopter applications**
- Other (please list):**

Comments: _____

What products do you use in – (please use product name and EPA#)

Wetlands: Vectobac G #275-50

Catch basins: Altosid WSP Packets #2724-448, Vectolex Packets #73049-20

Containers: Vectobac G #275-50

Other (please list):

Please list the rates of application for the areas listed above:

Wetlands: 4 lbs per acre

Catch basins: 1 per basin

Containers: As needed

Other:

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

- Larval dip counts – please list trigger for application: 3-5 Larve per dip
- Historical records
- Best professional judgment

Comments: _____

***Please attach a link to maps of treatment areas if possible.**

ADULT MOSQUITO CONTROL:

Do you have an adult mosquito suppression program? Yes

If yes, please describe the purpose of this program: Reduce adult mosquito populations in district member towns.

Please give the time frame for this program: June 1st thru October 1st

Describe the areas that this program is used: Parks, Summer Camps, Campgrounds, Residential developments, District town streets, Recreational Venues. Also any areas that test positive for WNV or EEE.

Do you use:

- Truck applications**
- Portable applications**
- Aerial applications**
- Other (please list):**

Comments: _____

Please list the names of the products used with EPA #:

- 1). DUET # 1021-1795-8329
- 2). FLIT 10EC #8329-67
- 3).
- 4).
- 5).
- 6).

Please list your application rates for each product:

- 1). .62 oz. per acre
- 2). .01lb. per acre
- 3).
- 4).
- 5).
- 6).

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

Weekly

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

- Landing rates - please list trigger for application 3-5 Mosquitoes per minute
- Light trap data - please list trigger for application
- Complaint calls - please list trigger for application
- Arbovirus data
- Best professional judgment

Comments: Our service area is rural and we sometimes receive requests from isolated areas, therefore we use professional judgement as a trigger for applications.

***Please attach a link to maps of treatment areas if possible.**

SOURCE REDUCTION

Do you perform source reduction methods such as tire/container removal? Yes

If yes, please describe your program: When responding to a service request, if tires or containers are found in the area we will remove, treat, or explain to the individual the significance of containers as breeding habitat.

What time frame during the year is this method employed? June thru September

Comments: _____

DITCH MAINTENANCE

Do you have a ditch maintenance program? Yes

Please check all that apply:

- Inland/freshwater
- Saltmarsh

If yes, please describe:

Please check off all that apply INLAND DITCH MAINTENANCE:

- Hand tools**
- Mechanized equipment**
- Other (please list):**

Comments: _____

Please check off all that apply SALT MARSH DITCH MAINTENANCE:

- Hand cleaning
- Mechanized cleaning
- Other (please list):

Comments: _____

Please give an estimate of cumulative length of ditches maintained from the list above **INLAND:**

Hand cleaning 6,790 LINEAR FEET

Mechanized cleaning

Other (please list):

Comments: _____

Please give an estimate of cumulative length of ditches maintained from the list above **SALT MARSH:**

Hand cleaning

Mechanized cleaning

Other (please list):

What time frame during the year is this method employed?

Comments: _____

***Please attach a link to maps of ditch maintenance areas if possible.**

MONITORING (Measures of Efficacy)

Please describe monitoring efforts for each of the following:

Aerial Larvicide – wetlands:

Larvicide – catch basins:

Larvicide-hand/small area

Ground ULV Adulticide:

Source Reduction:

larval development

Open Marsh Water Management:

Pre and post dipping

Pre and post landing rates and trap counts

Source reduction sites are monitored for

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):

OPEN MARSH WATER MANAGEMENT

Do you have an OMWM program? No

If yes, please describe:

Please give an estimate of total square feet or acreage:

What time frame during the year is this method employed?

Comments: _____

***Please attach a link to maps of OMWM areas if possible.**

ADULT MOSQUITO SURVEILLANCE

Do you have an adult mosquito surveillance program? Yes

Please list the number (not location) of MDPH traps in your service area: 0

Please check off all the types of surveillance that apply to your program:

- | | |
|--|---------------------------------|
| <input checked="" type="checkbox"/> Gravid traps | |
| <input type="checkbox"/> Resting boxes | |
| <input checked="" type="checkbox"/> CDC light traps | <input type="checkbox"/> Canopy |
| <input type="checkbox"/> CDC light traps w/CO ₂ | <input type="checkbox"/> Canopy |
| <input checked="" type="checkbox"/> ABC light traps | <input type="checkbox"/> Canopy |
| <input type="checkbox"/> ABC light traps w/CO ₂ | <input type="checkbox"/> Canopy |
| <input type="checkbox"/> NJ light traps | <input type="checkbox"/> Canopy |
| <input type="checkbox"/> NJ light traps w/CO ₂ | <input type="checkbox"/> Canopy |

Other (please describe):

Please describe the purpose of this program: Gravid traps are deployed in each of the member towns to monitor mosquito abundance and to detect the presence of arbovirus in the area.

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

If yes, please describe how you chose these long-term sites.

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

- | | |
|--|---|
| <input type="checkbox"/> <i>Ae. albopictus</i> | <input checked="" type="checkbox"/> <i>Oc. cantator</i> |
| <input type="checkbox"/> <i>Ae. cinereus</i> | <input checked="" type="checkbox"/> <i>Oc. excrucians</i> |
| <input checked="" type="checkbox"/> <i>Ae. vexans</i> | <input type="checkbox"/> <i>Oc. fitchii</i> |
| <input 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. punctor</i> |
| <input checked="" type="checkbox"/> <i>Cq. perturbans</i> | <input type="checkbox"/> <i>Oc. sollicitans</i> |
| <input checked="" type="checkbox"/> <i>Cx. pipiens</i> | <input type="checkbox"/> <i>Oc. stimulans</i> |
| <input checked="" type="checkbox"/> <i>Cx. restuans</i> | <input type="checkbox"/> <i>Oc. taeniorhynchus</i> |
| <input type="checkbox"/> <i>Cx. salinarius</i> | <input checked="" type="checkbox"/> <i>Oc. triseriatus</i> |
| <input type="checkbox"/> <i>Cs. melanura</i> | <input checked="" type="checkbox"/> <i>Oc. trivittatus</i> |
| <input type="checkbox"/> <i>Cs. morsitans</i> | <input type="checkbox"/> <i>Ps. ferox</i> |
| <input checked="" type="checkbox"/> <i>Oc. abserratus</i> | <input type="checkbox"/> <i>Ur. sapphirina</i> |
| <input checked="" type="checkbox"/> <i>Oc. canadensis</i> | |

Other (please list):

Do you participate in the MDPH Arboviral Surveillance program? Yes

How many pools do you submit weekly on average? 10

Please check off the arboviruses found in your area in the past 5 years:

- West Nile Virus
 Eastern Equine Encephalitis
 Other Please list:

Did the above listed diseases cause human or horse illnesses? Yes

Please explain: 1 Human Case WNV in Pittsfield

At what arbovirus risk level did the year begin in your area? (If more than one please list)

WNV: REMOTE
EEE: REMOTE

At what arbovirus risk level did the year end in your area? (If more than one please list)

WNV: HIGH
EEE: MODERATE

What time frame during the year is this method employed? Mid June thru October

Comments: _____

***Please attach a link to maps of surveillance areas if possible.**

EDUCATION, OUTREACH & PUBLIC RELATIONS

Do you have an education/public outreach program program? Yes

If yes, please describe: The superintendent has participated in several television and radio interviews and has attended city council, board of health, and selectboard meetings to discuss mosquito related issues. We try to use each interaction with the public as an opportunity to explain our methods and the significance of our work. We plan to include school visits and a possible local access television show in our future public relations efforts.

Please check off all that apply:

- School based program
- Website
- PR brochures/handouts
- Community events
- Science fairs
- Meeting presentations
- Other (please describe):

Please give an estimate of attendance/participants in this program: 1000+

Please list some events you participated in for the year of this report: Town meetings, Board of Health meetings, Selectboard meetings, Radio and Television interviews.

What time frame during the year is this method employed? Year round

Have you performed any research projects, efficacy, bottle assays, etc.? Not at this time

If yes, please elaborate on your research projects:

Are you involved in any collaboration with academia, industry, environmental groups, etc.? Yes

If yes, please elaborate on your collaborations this past year: Provided presentation with forum discussion on aspects of mosquito control at Berkshire Community College.

Please provide a list of technical reports, white/grey papers, publication in journal or trade magazines, etc.

Does your staff participate in educational opportunities? Yes

If yes, please list the training and education your staff received this year: Clarke mosquito workshops, NMCA Field Days, NMCA Annual Meeting

Please list the certifications and degrees held by your staff: Pesticide Licenses Certification and Applicator. Bachelors degree Natural Science.

Comments: _____

BIOLOGICAL CONTROL EFFORTS

Do you have a biological control program? No

If yes, please describe:

Is this program the introduction of mosquito predators or the enhancement of habitat for native predators?

Please check off all that apply:

- Predatory fish
- Predatory invertebrates
- Other (please describe):

What time frame during the year is this method employed?

Comments: _____

INFORMATION TECHNOLOGY

Does your program use (check all that applies):

- Computers
- GIS mapping
- GPS equipment
- Computer databases
- Aerial Photography
- Other (please describe):

Please describe your capabilities in these areas: Service Request, Larvicide Operations and Adulticide Operations are currently GIS based.

Please describe your current GIS abilities: Intermediate

Give details if possible on your GIS abilities: We have purchased and implemented the Sentinel GIS System for Service Request, Larvicide, and Adulticide.

Please describe any changes/enhancements in this area from the previous year:

Comments: _____

REVENUES & EXPENDITURES

Please give a concise statement of revenues & expenditures for the prior fiscal year ending June 30.

EXPENDITURES \$ 213,622

REVENUES \$ 219,065

List each **member municipality along with the corresponding (cherry sheet) funding assessment** dollar amount for the prior fiscal year.

**Comments: Clarksburg \$3,914 , Hinsdale \$ 9,090, Otis \$19,278
Pittsfield \$116,812, Sheffield \$21,059, Stockbridge \$26,760, Tyringham \$5,887.**

PESTICIDE USAGE

Please total your pesticide usage with information from your Mass. Pesticide Use Report, WNV Larvicide Use records and contracted pesticide applications. Applications methods include; hand/backpack, aerial, ULV, mistblower, other (please explain)

Product Name: VECTOBAC G

EPA Reg. #: 275-50

Application method: HAND

Targeted life stage: Larvae

Total amount of concentrate applied: 3,191 LBS.

Comments: _____

Product Name: ALTOSID WSP PACKETS

EPA Reg. #: 2724-448

Application method: HAND

Targeted life stage: Larvae

Total amount of concentrate applied:

Comments: _____

Product Name: VECTOLEX WSP PACKETS

EPA Reg. #: 73049-20

Application method: HAND

Targeted life stage: Larvae
Total amount of concentrate applied: 85.5 LBS>
Comments: _____

Product Name: DUET
EPA Reg. #: 1021-1795-8329
Application method: TRUCK MOUNTED ULV SPRAYERS
Targeted life stage: Adult
Total amount of concentrate applied: 173.5 GALS.
Comments: _____

Product Name: FLIT 10EC
EPA Reg. #: 8329-67
Application method: Backpack Sprayer
Targeted life stage: Adult
Total amount of concentrate applied: 2.3GALS.
Comments: _____

Product Name:
EPA Reg. #:
Application method:
Targeted life stage: Choose one
Total amount of concentrate applied:
Comments: _____

Product Name:
EPA Reg. #:
Application method:
Targeted life stage: Choose one
Total amount of concentrate applied:
Comments: _____

Product Name:
EPA Reg. #:
Application method:
Targeted life stage: Choose one
Total amount of concentrate applied:
Comments: _____

Product Name:
EPA Reg. #:
Application method:
Targeted life stage: Choose one
Total amount of concentrate applied:
Comments: _____

LARGE AREA EXCLUSIONS

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. We do have areas of priority habitat and consult GIS maps prior to treatment.

SPECIAL PROJECTS

Do you perform any inspectional services such as inspections at sewage treatment facilities or review sub division plans? Yes

If yes, please elaborate

Do you work with DPW departments or other local or state officials to address stormwater systems, clogged culverts or other areas that you have identified as man-made mosquito problem areas? Yes

If yes, please elaborate: We notify DPW officials of clogged culverts, broken pipes / tubes we correct problems if possible.

Have you worked with these departments on long term solutions? Yes

If yes, please elaborate: We are now working with DPW's to maintain ditches and drainage outflows as requested.

Did you conduct or participate in any cooperative research or restoration projects?

If yes, please elaborate:

Did you or participate on any **State/Regional/National workgroups or panels or attend any meeting pertaining to the above?**

If yes, please elaborate: YES NMCA ANNUAL MEETING

CHILDREN AND FAMILIES PROTECTION ACT

Is your program impacted by the Children and Families Protection Act? Yes

If yes, please explain: We maintain a list of school properties and daycare centers and do not larvicide or adulticide at these locations.

If you have data on compliance with this Act and your program, please list here:

If you had difficulties with implementation of your program due to this law, please elaborate here: With recent arbovirus findings we will have to prepare for possible applications subject to the Children and Families Protection Act.

Comments:

GENERAL COMMENTS

Please list any comments not covered in this report: BUDGET FISCAL YEAR 2012

AO1	SALERIES INCLUSIVE	\$ 72143
A08	OVERTIME PAY	\$ 2,500
B02 200	IN STATE TRAVEL	\$ 85
BO5	TRAINING, REGISTRATION + MEMBERSHIP	\$ 231
D09	FRINGE BENEFITS (HEALTH INS, MEDICARE ETC)	\$ 17,789
D20	RETIREMENT ASSESSMENT	\$ 12,612
E01	OFFICE + ADMINISTRATIVE EXPENSES	\$ 350
E02	PRINTING EXPENSES + SUPPLIES	\$ 150
300	POSTAGE	\$ 288
E13	ADVERTISING EXPENSE	\$ 0
E19	LICENSES, INS. VEHICLE/LIABILITY, TOLLS	\$ 15,752
EE2	CONFERENCE TRAINING + REGISTRATION	\$ 205
F09	CLOTHING + FOOTWEAR	\$ 93
F11 200 78	CLEANING SUPPLIES	\$ 189
F24	MOTORIZED VEHICLE EQUIPMENT, REPAIR	\$ 598
G01	SPACE RENTAL	\$ 15,072
G03	ELECTRICITY	\$ 1,509

G05	FUEL FOR VEHICLES	\$ 8,662
G11	NATURAL GAS	\$ 1,475
K11	HEAVY EQUIPMENT	\$ 15,706
L44	MOTORIZED VEHICLE MAINTENANCE + REPAIR	\$ 3,900
N50	MONITOR ALARM SYSTEM	\$ 240
N52	FACILITY MAINTENANCE + REPAIR	\$ 351
200		
N64	PESTICIDES + SUPPLIES	\$ 30,000
U02	TELECOMMUNICATIONS SERVICES	\$ 2,226
FY12	TOTAL EXPENSES	\$ 213,622
FY 12	ORIGINAL BUDGET SUBMITTED	\$ 202,800
	ROLLOVER FUNDS 2011 BUDGET	\$ 16,265
	FINAL FY 2012 BUDGET	\$ 219,065