

MASSACHUSETTS MOSQUITO CONTROL ANNUAL OPERATIONS REPORT



2007 Year of Report

Date of Report:

Project/District Name: **Central Mass. Mosquito Control Project**

Address: 111 Otis Street

City/Town: Northborough, MA

Zip: 01532

Phone: (508) 393-3055

Fax: (508) 393-8492

E-mail: cmmcp@cmmcp.org

Report prepared by: *Tim Deschamps, Exec. Director*

If you have a mission statement, please include it here: The objective of the Project is to attain an efficient, economic mosquito control operation which will provide the best results possible and be consistent with all ecological aspects and the best interests of the member towns.

Our goal is to reduce mosquito exposure to the public, and the potential for disease transmission by mosquitoes, by utilizing proven, sound mosquito control techniques. CMMCP believes the best way to accomplish this task is by practicing an Integrated Pest Management (IPM) approach as it relates to mosquito control in Massachusetts. IPM utilizes a variety of control techniques and evaluation procedures. Control efforts are undertaken only after surveillance data has been collected and analyzed. Training, experience and common sense dictate our response in any given situation.

It is our desire and responsibility for this Project to have the best mosquito control for the communities that we serve.

ORGANIZATION SETUP:

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

Full time: 18

Part time: 0

Seasonal: 6

Other: (please describe)

Please break these down into the following areas:

Administrative staff: 7

Field staff: 17

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

- Public relations Tim Deschamps
- Information technology Tim Deschamps
- Entomologist Curtis Best
- Wetland Scientist Amanda Hope
- Biologist Frank Cornine
- Education Tim Deschamps, Curtis Best
- Laboratory Curtis Best
- Operations Tim McGlinchy, Ed Storonsky, Tim Welch
- Facilities Tim Welch
- Other (please list) GIS - Frank Cornine

For the year of this report, we maintained:

27 vehicles

1 modified wetland equipment (list type) Link Belt 1400 excavator; John Deere backhoe

12 ULV sprayers (list type) 5 ProMist, 7 LECO

2 Larval control equipment (list type) Muryama backpack sprayers

Other (please be specific):

Comments: _____

INTEGRATED PEST MANAGEMENT (IPM):

Definition TBD

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): GIS

Comments: Our GIS department is new

LARVAL MOSQUITO CONTROL:

Do you have a larval mosquito suppression program? Yes

If yes, please describe the purpose of this program: To control mosquitoes in the larval stage to reduce mosquito emergence and reduce adulticide use

Please give the time frame for this program: March through September

Describe the areas that this program is used: Wetlands, catch basins, stormwater structures, containers (tires).

Do you use:

Ground applied (includes hand, portable and/or backpack)

Helicopter applications

Other (please list):

Comments: 1,800 acres by helicopter, one new town added. Plans for additional towns in 2008.

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

Wetlands: Vectobac G, EPA# 73049-10; Agnique MMF, EPA #53263-28; Witco GB1111 EPA#8898-16

Catch basins: Altosid WSP, EPA#2724-448

Containers: Vectobac G, EPA#73049-10; Agnique MMF, EPA#53263-28; Witco GB1111 EPA#8898-16

Other (please list):

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

Wetlands: Vectobac, 5-10 lbs/acre; Agnique MMF, 0.5-1 gal/acre; Witco GB1111, 1-3 gal/acre

Catch basins: one WSP per basin

Containers: Vectobac, 5-10 lbs/acre; Agnique MMF, 0.5-1 gal/acre; Witco GB1111, 1-3 gal/acre

Other:

Comments: _____

ADULT MOSQUITO CONTROL:

Do you have an adult mosquito suppression program? Yes

If yes, please describe the purpose of this program: To suppress populations of adult mosquitoes

Please give the time frame for this program: Early June through end of August

Describe the areas that this program is used: streets, yards, recreational areas

Do you use:

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

Comments: Program is resident request only

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

- 1). Anvil 10+10, EPA# 1021-1688-8329
- 2).
- 3).
- 4).

Please list your application rates for each product:

- 1). 0.0012 lbs a.i./acre, 1.9 oz. per minute at 15mph.
- 2).
- 3).
- 4).

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

Comments: _____

SOURCE REDUCTION

Do you perform source reduction methods such as tire/container removal? No

If yes, please describe your program:

Comments: Tire removal program intended for 2008/2009

DITCH MAINTENANCE

Do you have a ditch maintenance program? Yes

Please check all that apply:

- Inland/freshwater
- Saltmarsh

If yes, please describe: Maintenance of existing ditch systems by removal of accumulated organic debris.

Please check off all that apply INLAND DITCH MAINTENANCE:

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

Comments: _____

Please check off all that apply SALTMARSH 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 140,000
Mechanized cleaning 5,000
Other (please list):
Comments: _____

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

Hand cleaning
Mechanized cleaning
Other (please list):

Comments: _____

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:

Comments: _____

ADULT MOSQUITO SURVEILLANCE

Do you have an adult mosquito surveillance program? Yes

Please check off all that apply:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Gravid traps | |
| <input checked="" type="checkbox"/> Resting boxes | |
| <input checked="" type="checkbox"/> CDC light traps | <input checked="" type="checkbox"/> Canopy |
| <input checked="" type="checkbox"/> CDC light traps w/CO ₂ | <input checked="" type="checkbox"/> Canopy |
| <input 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: Monitor for species population trends, and virus isolations

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

If yes, please describe how you chose these long-term sites. Prior virus isolations, geography and collection data

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

- | | |
|--|---|
| <input type="checkbox"/> <i>Ae. albopictus</i> | <input type="checkbox"/> <i>Oc. cantator</i> |
| <input checked="" type="checkbox"/> <i>Ae. cinereus</i> | <input checked="" type="checkbox"/> <i>Oc. excrucians</i> |
| <input checked="" type="checkbox"/> <i>Ae. vexans</i> | <input checked="" type="checkbox"/> <i>Oc. fitchii</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. 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 checked="" type="checkbox"/> <i>Cx. salinarius</i> | <input checked="" type="checkbox"/> <i>Oc. triseriatus</i> |
| <input checked="" type="checkbox"/> <i>Cs. melanura</i> | <input 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? 75

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: Sporadic isolations of EEE, WNV endemic to area

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

WNV: Low/moderate
EEE: Low/moderate

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

WNV: Moderate
EEE: Low/moderate

Comments: _____

EDUCATION, OUTREACH & PUBLIC RELATIONS

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

If yes, please describe: Letters sent out to all school superintedents regarding our program;

Please check off all that apply:

- School based program
- Website
- PR brochures/handouts
- Community events
- Other (please describe): Rotating displays in town halls & libraries

Please give an estimate of attendance/participants in this program: 1500

Please list some events you participated in for the year of this report: Uxbridge Annual Meeting; Boylston Cable system; Charlton Annual Meeting, 10+ elementary schools

Please list training events your staff attended: Clarke seminar; NMCA meeting; UMASS Extension classes; Mass HRD training; excavator safety/training; forklift safety/training; chain saw safety; CPR/AED training

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):

Comments: _____

INFORMATION TECHNOLOGY

Does your program use (check all that apply):

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

Please describe your capabilities in these areas: Beginning to use GIS systems; all computers networked

Please describe your current GIS abilities: Beginner

Give details if possible on your GIS abilities:

Comments: Will begin to use handheld data collection devices in 2008/2009.

REVENUES & EXPENDITURES

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

\$1,473,888 budget FY07. \$1,353,916 expended, \$119,972 surplus. Major expenditures included 9 new trucks, 2 ULV sprayers, computer and software for GIS analyst, large format printer for GIS department.

Comments: _____

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. #: EPA# 73049-10
Application method: Hand/backpack
Targeted life stage: Larvae
Total amount of concentrate applied: 5,793 lbs.
Comments: _____

Product Name: Vectobac G
EPA Reg. #: EPA# 73049-10
Application method: aerial
Targeted life stage: Larvae
Total amount of concentrate applied: 9,000 lbs.
Comments: 3 towns

Product Name: Witco GB1111
EPA Reg. #: 8898-16
Application method: pumpcan
Targeted life stage: Larvae/pupae
Total amount of concentrate applied: 11.57 gal.
Comments: _____

Product Name: Agnique MMF
EPA Reg. #: 53263-28
Application method: pumpcan
Targeted life stage: Larvae/pupae
Total amount of concentrate applied: 33.63 gal.
Comments: _____

Product Name: Altosid WSP
EPA Reg. #: 2724-448
Application method: hand
Targeted life stage: Larvae
Total amount of concentrate applied: 23.71 lbs. methoprene
Comments: basins only

Product Name: Anvil 10+10
EPA Reg. #: 1021-1688-8329
Application method: truck mounted/portable
Targeted life stage: Adult
Total amount of concentrate applied: 25.058 gal.
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 include maps if possible. Only a few ACEC's, Sudbury Valley Trustees Property, and Assabet River National Refuge

SPECIAL PROJECTS

Do you perform any inspectional services such as inspections at sewage treatment facilities or review sub division plans? No

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: On a requested, as needed basis

Have you worked with these departments on long term solutions? No

CHILDREN AND FAMILIES PROTECTION ACT

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

If yes, please explain: Incomplete compliance by schools regarding our products, including larval control products

If you have data on compliance with this Act and your program, please list here: 224 schools, only 114 w/electronic plans, only 49 w/some sort of mosquito control language.

If you had difficulties with implementation of your program due to this law, please elaborate here: We have sent letters and hand delivered information packets to the School Superintendents' offices for 4 years now, compliance is slowly rising.

GENERAL COMMENTS

Please list any comments or concerns not covered in this report: