

MASSACHUSETTS MOSQUITO CONTROL ANNUAL OPERATIONS REPORT



2007 Year of Report

Date of Report: 03/15/08

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

Address: 39 Industrial Dr.

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Report prepared by: **Bruce A. Landers**

If you have a mission statement, please include it here: To provide the Cities of Boston And Chelsea a scientific based program of cost effective mosquito control using larvicides and to provide assistance with disease outbreaks.

ORGANIZATION SETUP:

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

Full time: 2

Part time:

Seasonal: 2

Other: (please describe)

Please break these down into the following areas:

Administrative staff: 1.5

Field staff: 2.5

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

- Public relations B.Landers
- Information technology
- Entomologist B.Landers
- Wetland Scientist B.Landers
- Biologist B.Landers
- Education B.Landers
- Laboratory B.Landers
- Operations B.Landers
- Facilities B.Landers
- Other (please list)

For the year of this report, we maintained:

1 vehicles

modified wetland equipment (list type)

1 ULV sprayers (list type) LecoHD

3 Larval control equipment (list type) Solo 425 manual

Other (please be specific): Leco P1 hand held ULV and the Solo 423 motorized backpack

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):

Comments: _____

LARVAL MOSQUITO CONTROL:

Do you have a larval mosquito suppression program? Yes

If yes, please describe the purpose of this program: To control mosquitoes to a level where adulticide is not needed or at least to a level where adulticiding will be more effective

Please give the time frame for this program: Spring hatch in April to end of season.

Describe the areas that this program is used: Freshwater swamps and marshes, saltmarshes, catchbasins, and anywhere else larvae are discovered.

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: TeknarHPD 70051-51

Catch basins: VectolexWSP 73049-20 and Altosid PelletsWSP 2724-448

Containers: TeknarHPD 70051-51 and VectolexWSP73049-20 and AltosidWSP2724-448

Other (please list):

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

Wetlands: 1pt./acre

Catch basins: 1 WSP

Containers: Squirt of TeknarHPD or 1 WSP(packet) of VectolexWSP or AltosidWSP

Other:

Comments: _____

ADULT MOSQUITO CONTROL:

Do you have an adult mosquito suppression program? Yes

If yes, please describe the purpose of this program: To reduce the mosquito population near breeding areas and to contain populations from moving into other neighborhoods. This is most needed when rainstorms are heavy (more than an inch) and when they occur with high frequency.

Please give the time frame for this program: Usually not till middle of May and only if spring rains cause a lot of breeding. Adulticiding would be implimented through September if weather conditions warant it.

Describe the areas that this program is used: The closer you are to a wetland area the bigger the problem you have and the more likely you are going to need adulticiding.

Do you use:

Truck applications

Portable applications

Aerial applications

Other (please list):

Comments: _____

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

1). Anvil10+10ULV 1021-1688-8329

2). Scourge 18+54MF Formula2 432-667

- 3). Flit-10EC
4).

8329-67

Please list your application rates for each product:

- 1). Anvil10+10 3oz/acre of a mixture of 2 parts Anvil 10+10 AND 3.5 parts soybean oil
- 2). SCOURGE 18+54 3oz/acre of a mixture of Scourge 18+54 and 4.5 parts soybean oil
- 3). Flit-10-EC a barrier spray formulation containing 6.5 oz OF Flit-10EC./ gal.of water
- 4).

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

Most areas get no adulticiding; some get 2-4 treatments; a few very close to breeding sites would get more if needed. Without some sort of emergency, there would be a seven day period between spray applications.

Comments: _____

SOURCE REDUCTION

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

If yes, please describe your program:

Comments: Containers would be turned over but tires are treated with larvicides. Tire dumps are reported to that City's Health Dept.

DITCH MAINTENANCE

Do you have a ditch maintenance program? Yes

Please check all that apply:

- Inland/freshwater
 Saltmarsh

If yes, please describe: Clean debris from freshwater ditches.

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 200 ft
Mechanized cleaning
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: Most of the breeding on SCMCP saltmarshes is on dredge spoil taken out of rivers to improve navigation.

ADULT MOSQUITO SURVEILLANCE

Do you have an adult mosquito surveillance program? Yes

Please check off all that apply:

- Gravid traps
- Resting boxes

- CDC light traps
- CDC light traps w/CO₂
- ABC light traps
- ABC light traps w/CO₂
- NJ light traps
- NJ light traps w/CO₂

- Canopy
- Canopy
- Canopy
- Canopy
- Canopy
- Canopy

Other (please describe): Walk through saltmarshes to check level of adults.

Please describe the purpose of this program: To monitor the population to see if it needs controlling and what control method would best fit the conditions.

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

If yes, please describe how you chose these long-term sites. Four sites have been continuous sites since 1974. Some are added or subtracted for various reasons. The grauids have only been in use since wnv was introduced.

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 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 type="checkbox"/> <i>An. punctipennis</i> | <input checked="" type="checkbox"/> <i>Oc. j. japonicus</i> |
| <input type="checkbox"/> <i>An. quadrimaculatus</i> | <input type="checkbox"/> <i>Oc. punctor</i> |
| <input checked="" type="checkbox"/> <i>Cq. perturbans</i> | <input checked="" 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 type="checkbox"/> <i>Oc. triseriatus</i> |
| <input 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? 40-50 unless it is a very dry year.

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: disease contracted in other locations.

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

WNV:

EEE:

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

WNV:

EEE:

Comments: _____

EDUCATION, OUTREACH & PUBLIC RELATIONS

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

If yes, please describe: Will speak on mosquitoes and other interesting insects depending upon age group.

Please check off all that apply:

- School based program
- Website
- PR brochures/handouts
- Community events
- Other (please describe): Meet regularly with City Public Health Depts.

Please give an estimate of attendance/participants in this program: Less than 30

Please list some events you participated in for the year of this report:

Please list training events your staff attended: Northeastern Mosquito Control Assoc.

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: Purchasing GPS sprayer technology

Please describe your current GIS abilities: Beginner

Give details if possible on your GIS abilities:

Comments: _____

REVENUES & EXPENDITURES

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

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: TeknarHPD
EPA Reg. #: 70051-51
Application method: Manual Backpack
Targeted life stage: Larvae
Total amount of concentrate applied: 6.38 gals.
Comments: _____

Product Name: VectolexWSP
EPA Reg. #: 73049-20
Application method: drop into catchbasin or other breeding situation
Targeted life stage: Larvae
Total amount of concentrate applied: 756 packets
Comments: _____

Product Name: AltosidPellets WSP
EPA Reg. #: 2724-448
Application method: drop into catchbasin
Targeted life stage: Choose one
Total amount of concentrate applied: 496 packets
Comments: _____

Product Name: Anvil10+10 ULV
EPA Reg. #: 1021-1688-8329
Application method: Truck mounted Leco ULV
Targeted life stage: Adult
Total amount of concentrate applied: 3.07gals.
Comments: _____

Product Name: Flit-10EC
EPA Reg. #: 8329-67
Application method: Motorized backpack sprayer
Targeted life stage: Adult
Total amount of concentrate applied: 1.4gals.
Comments: _____

Product Name: Scourge18+54MF Formula2
EPA Reg. #: 432-667
Application method: Motorized hand held ULV sprayer
Targeted life stage: Adult
Total amount of concentrate applied: .1oz.
Comments: Scourge will be used in this sprayer till last bit is gone but no new purchases are planned.

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. Although greatly improved recently, some areas with dirt roads go through these priority habitats and further inquiry may be necessary.

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? No

If yes, please elaborate:

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:

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:

GENERAL COMMENTS

Please list any comments or concerns not covered in this report: 2007 was dry most of the year. Spring rains were significant. Monthly saltmarsh high tides were lower than in some bad years so those hatches were manageable. There was the fear that dry conditions would lead to a WNV problem this year. There was low usage of insecticides this season.