MASSACHUSETTS MOSQUITO CONTROL

ANNUAL OPERATIONS REPORT

Year Report Covers: 2015      Date of Report: 01/13/2016

Project/District Name: Central Mass. Mosquito Control Project

Address:  111 Otis St.

City/Town:   Northborough, MA    Zip: 01532

Phone:      (508) 393-3055    Fax: (508) 393-8492

E-mail: cmmcp@cmmcp.org

Report prepared by: Tim Deschamps

NPDES permit no. MAG87A023

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:

Commissioner names:

Richard Day  Pablo Noguera
Dean Mazzarella   Paul Mazzuchelli
Sam Telford

Superintendent/Director name: Tim Deschamps
Superintendent/Director contact phone number: (508) 393-3055
Asst. Superintendent/Director name: Tim McGlinchy
District/Project website: http://www.cmmcp.org
Twitter handle: @CMassMosquito

Staffing levels for the year of this report:
Full time: 20
Part time:
Seasonal: 3
Other: (please describe)
Of the above, how many are:
(Please check off all that apply, and list employee name(s) next to each category)

- [x] Administrative 2.5
- [x] Biologist 2
- [x] Educator 5
- [x] Entomologist 3
- [x] Facilities 1
- [x] Information technology 2
- [x] Laboratory 3
- [x] Operations 3
- [x] Public relations 20
- [x] Wetland scientist 1
- [ ] Other (please describe)

For the year of this report, the following were maintained (enter number in the column to the left):

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified wetland equipment (list type) Link Belt 1600, John Deere 350</td>
<td>2</td>
</tr>
<tr>
<td>Larval control equipment (list type) Muryama backpack sprayers</td>
<td>4</td>
</tr>
<tr>
<td>ULV sprayers (list type) ProMist HD</td>
<td>16</td>
</tr>
<tr>
<td>Vehicles</td>
<td>28</td>
</tr>
<tr>
<td>Other (please be specific)</td>
<td></td>
</tr>
</tbody>
</table>

Comments: ______

How many cities and towns are in your service area?* 41
Alphabetical list: Acton; Ashland; Auburn; Ayer; Berlin; Billerica; Blackstone; Boxborough; Boylston, Chelmsford; Clinton; Dracut; Devens; Fitchburg; Gardner (effective July 1); Holliston; Hopedale; Hopkinton; Hudson; Lancaster; Leominster; Littleton; Lowell; Lunenburg; Marlborough; Milford; Millbury; Millville; Natick; Northborough; Northbridge; Sherborn; Shrewsbury; Southborough; Stow; Sturbridge; Tewksbury; Uxbridge (service ended June 30); Webster; Westborough; Westford; Wilmington

Were there any changes to your service area this year? Yes
Cities/towns added: Gardner
Cities/towns removed: n/a

*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):

- [x] Adult mosquito control
- [x] Adult mosquito surveillance
- [x] Ditch maintenance
Education, Outreach & Public education
- Larval mosquito control
- Larval mosquito surveillance
- Open Marsh Water Management
- Research
- Source reduction (tire removals)
- Other (please list):

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: To control mosquitoes in the larval stage to reduce mosquito emergence and reduce adulticide use

What months is this program active? March through October

Describe the types of areas where you use this program: Wetlands, catch basins, stormwater structures, containers (i.e. tires, etc.)

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

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

<table>
<thead>
<tr>
<th>Product Name</th>
<th>EPA #</th>
<th>Application Rate(s)</th>
<th>Application Method</th>
<th>Targeted life stage</th>
<th>Habitat Type</th>
<th>Total finished product applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vectobac G</td>
<td>73049-10</td>
<td>5-10 lbs./acre</td>
<td>hand/backpack</td>
<td>Larvae</td>
<td>Catch basins, Containers, Wetland, Other (please list):</td>
<td>2,988 lbs.</td>
</tr>
<tr>
<td>Vectobac G</td>
<td>73049-10</td>
<td>5 lbs./acre</td>
<td>helicopter</td>
<td>Larvae</td>
<td>Catch basins, Containers, Wetland, Other (please list):</td>
<td>10,040 lbs.</td>
</tr>
<tr>
<td>FourStar Microbial briquets</td>
<td>83362-3</td>
<td>one briquet per basin</td>
<td>hand</td>
<td>Larvae</td>
<td>Wetland, Other (please list):</td>
<td>9,664 briquets</td>
</tr>
<tr>
<td>Altosid WSP</td>
<td>2724-448</td>
<td>one pouch per basin</td>
<td>hand</td>
<td>Larvae</td>
<td>Catch basins, Containers, Wetland, Other (please list):</td>
<td>525,000 grams</td>
</tr>
<tr>
<td>Vectolex WSP</td>
<td>73049-20</td>
<td>one pouch per 50 sq. ft.</td>
<td>hand</td>
<td>Choose one</td>
<td>Wetland, Other (please list):</td>
<td>swimming pools</td>
</tr>
<tr>
<td>Altosid XR briquets</td>
<td>2724-421</td>
<td>one briquet per 200sq. ft.</td>
<td>hand</td>
<td>Choose one</td>
<td>Catch basins, Containers, Wetland, Other (please list):</td>
<td>2,088 briquets</td>
</tr>
<tr>
<td>BVA2 oil</td>
<td>70589-1</td>
<td>1-5 gal./acre</td>
<td>pump can</td>
<td>Larvae/pupae</td>
<td>Catch basins, Containers, Wetland, Other (please list):</td>
<td>26.53 gal.</td>
</tr>
</tbody>
</table>
List all products that you use for larval mosquito control in the table below (leave blank if not applicable):

<table>
<thead>
<tr>
<th>Product Name</th>
<th>EPA #</th>
<th>Application Rate(s)</th>
<th>Application Method</th>
<th>Targeted life stage</th>
<th>Habitat Type</th>
<th>Total finished product applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natular G</td>
<td>8329-80</td>
<td>5 lbs./acre</td>
<td>hand</td>
<td>Larvae</td>
<td>Catch basins</td>
<td>122 lbs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
<tr>
<td>Natular G30</td>
<td>8329-83</td>
<td>5 lbs./acre</td>
<td>hand</td>
<td>Larvae</td>
<td>Catch basins</td>
<td>14.75 lbs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
<tr>
<td>Choose one</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Catch basins</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
<tr>
<td>Choose one</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Catch basins</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
<tr>
<td>Choose one</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Catch basins</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
<tr>
<td>Choose one</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Catch basins</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Containers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wetland</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other (please list):</td>
<td></td>
</tr>
</tbody>
</table>
What is your trigger for larviciding operations? (check all that apply)

- [x] Best professional judgment
- [x] Historical records
- [x] Larval dip counts – please list trigger for application: >1 larvae per 5 dips avg.
- [ ] Other (please describe):

Comments: _____

Please attach a map of your service area (or a website link to that map). Basin application maps included as standard in town annual reports - check here:
http://www.cmmcp.org/about.htm

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: To supress populations of adult mosquitoes

Describe the types of areas where you use this program: streets, yards, recreational areas, schools (per the Children's Protection Act regulations)

What is the time frame for this program? May through October as weather conditions allow

Describe the types of areas where you use this program: see above

Do you use:

- [x] Aerial applications
- [x] Portable applications
- [x] Truck applications
- [ ] Other (please list):

Comments: _____

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

<table>
<thead>
<tr>
<th>Product Name</th>
<th>EPA #</th>
<th>Application Rate(s)</th>
<th>Application Method</th>
<th>Total finished product applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anvil 10+10</td>
<td>1021-1688-8329</td>
<td>0.0012 lbs a.i./acre</td>
<td>truck mounted ULV</td>
<td>256.67 gal.</td>
</tr>
<tr>
<td>Zenivex E20</td>
<td>2724-791</td>
<td>0.00175 lbs a.i./acre</td>
<td>truck mounted ULV</td>
<td>41.13 gal.</td>
</tr>
</tbody>
</table>

Please describe the maximum amounts or frequency used in a particular time frame such as season and areas
Less than one application at high rate in 24 hours
What is your trigger for adulticiding operations? (check all that apply)
- Arbovirus data
- Best professional judgment
- Complaint calls (Describe trigger for application: >2 per square mile*)
- Landing rates (Describe trigger for application >1 per minute*)
- Light trap data (Describe trigger for application >5 human-biting per night*)

Comments: * recommendations from the mosquito control GEIR

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

**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: The program consists of four components:
1. Clean-up of large waste tire dumping sites that we have databased and that require repeated larval control measures;
2. Residential waste tire removal (curb-side); and
3. Removal of waste tires discarded on the side of the road.
4. Coordination with community events

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

Comments: 2,821 tires (28.21 tons) recycled in 30 member communities in 2015. Total to date, 17,203.

**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: Maintenance of existing ditch systems by removal of accumulated organic debris and other obstructions.

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

<table>
<thead>
<tr>
<th>Maintenance Type</th>
<th>Estimate of cumulative length of culverts, ditches, swales, etc. maintained (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culvert cleaning</td>
<td>1,110</td>
</tr>
<tr>
<td>Hand cleaning</td>
<td>98,103 ft.</td>
</tr>
<tr>
<td>Mechanized cleaning</td>
<td>7,055 ft.</td>
</tr>
<tr>
<td>Stream flow improvement</td>
<td></td>
</tr>
<tr>
<td>Other (please list):</td>
<td></td>
</tr>
</tbody>
</table>

8
Comments: ____

For saltmarsh ditch maintenance, check off all that apply:

<table>
<thead>
<tr>
<th>Maintenance Type</th>
<th>Estimate of cumulative length of ditches maintained (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand cleaning</td>
<td></td>
</tr>
<tr>
<td>Mechanized cleaning</td>
<td></td>
</tr>
<tr>
<td>Other (please list):</td>
<td></td>
</tr>
</tbody>
</table>

Comments: ____

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

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: one dip station per 250 acres

Ground ULV Adulticide: evaluation of vector control spraying in 2015

Larvicide – catch basins:

Larvicide-hand/small area as many as time & manpower allow - 287 checks in 2015

Open Marsh Water Management:

Source Reduction: as directed in the BMP

Other (please list): adverse effects for NPDES monitoring were done when technicians revisited a treated area - notations were made on their work reports (no adverse effects noted in 2015)
Provide or list standard steps, criterion, or protocols regarding the documentation of efficacy (pre and post data), and resistance testing (if any):

2007: To test the efficacy of the CMMCP standard adulticide procedure, two sites were chosen per week for seven weeks with mosquito collections made for both sites every weekday evening. One of these sites was selected to be sprayed in the standard manner while the other is not sprayed and is used as the control site. Collections were made for each site Monday through Friday with the experimental site being adulticided on Wednesday evenings. Test sites were chosen from service requests received, while the control sites were selected from nearby areas that the residents were informed that their property would be treated as an exclusion area for that week. Of the seven weeks of trials, four were at residential sites, two at recreational locations, and one was at a transfer station. 2008: A local collection of recreational fields was selected as the site for this project based primarily on layout and dense barrier foliage, ideal for this type of application. The treatment and control sites were on separate fields towards the opposite ends of the complex. Once established, pre-application surveillance began at the two sites using model 512 CDC miniature light traps baited with CO2 (500ml/min), along with model 1512 collection bottle rotators. These traps were placed in the recreational field away from the foliage so that in order for the host-seeking mosquitoes to reach the traps, they would have to travel through the treated foliage.

Bottle assays (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 & 2015): The bottle assay procedure used by CMMCP was modeled after the CDC method where a baseline for resistance was established using specimens collected from an area without any historical adulticide exposure. This data could then be plotted against data from mosquito populations in areas where our records show past insecticide usage has occurred. This will determine if any degree of resistance has developed to our current adulticide product.

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

<table>
<thead>
<tr>
<th>Research Project</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottle assays</td>
<td>X</td>
</tr>
<tr>
<td>Efficacy testing</td>
<td>X</td>
</tr>
<tr>
<td>Other: field trials</td>
<td>Natular G &amp; Natular G30</td>
</tr>
<tr>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

**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: Monitor for species density, population trends and virus isolations

What months is this program active? May through October

Check off all trap types currently in use by your program:

- [ ] ABC light traps
- [ ] Canopy
ABC light traps w/CO₂
CDC light traps
CDC light traps w/CO₂
Gravid traps
Landing rate tests
NJ light traps
NJ light traps w/CO₂
Ovitraps
Resting boxes
Other (please describe):

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:

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

Do you participate in the MDPH Arboviral Surveillance program? Yes
How many pools do you submit weekly on average? 100

Number of traps in your service area placed by MDPH: 0-5 depending on season & budget/personnel restrictions
Were these long-term trap sites or supplemental trapping sites? both

Which arboviruses were found in your area during the previous mosquito season? Enter the number of pools/cases below:

<table>
<thead>
<tr>
<th>Arbovirus</th>
<th>Positive Mosquito Pools</th>
<th>Equine Cases</th>
<th>Human Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eastern Equine Encephalitis (EEE)</strong></td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>West Nile Virus (WNV)</strong></td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other (please list):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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):

<table>
<thead>
<tr>
<th>Arbovirus</th>
<th>Start of Season</th>
<th>End of Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEE</td>
<td>remote/low/moderate</td>
<td>remote/low/moderate</td>
</tr>
<tr>
<td>WNV</td>
<td>low</td>
<td>low/moderate</td>
</tr>
</tbody>
</table>

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: Educating the public about mosquitoes and their biology is an important aspect of the Project’s program. We offer a comprehensive program geared towards school-aged children from Kindergarten to High School in member communities. This program is tailored to meet the needs of intended audience. The Project produces public relations handouts, and all member Town Halls are stocked with information on CMMCP, our programs, and how the homeowner can reduce mosquito populations in their own area. Project staff is available to meet with civic organizations, town/city boards, and to participate in Health Fairs.

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): program aimed at senior citizens

Estimate the audience reached this year using the education/outreach methods above: 2,820
Comments: 67 presentations in 2015

List your program’s top 3 education/outreach activities for this year:
1. _____
2. _____
3. _____
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.) DPH - monitoring for Aedes albopictus
- Environmental groups
- Industry

List any training/education your staff received this year: Clarke Mosquito seminar, UMASS invasive plant certification, NMCA annual meeting

Please list the certifications and degrees held by your staff: Curtis Best, B.A. in Entomology: Frank Cornine, B.A. in Biology & Masters in Public Health: Todd Duval, B.A. in Biology & Master in Aquatic Biology: Tim McGlinchy, MS non-profit mgmt. Katrina Proctor certifications in wetland science; Tim Deschamps, numerous licenses and certifications

**Comments:**

**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/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 provide the amounts for your approved budgets for the current, previous, and future fiscal years. Please note if the budget for the next fiscal year is an estimate, or put “n/a” if it is not yet available.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Approved Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY/17</td>
<td>$2,171,306</td>
</tr>
<tr>
<td>FY/16</td>
<td>$2,029,800</td>
</tr>
</tbody>
</table>
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): http://www.mass.gov/dor/local-officials/municipal-databank-and-local-aid-unit/cherry-sheets/2016-cherry-shets/

Comments: _____

**SERVICE REQUESTS**

How many service requests did you receive this season? 16,487
How many were for larviciding? 559
How many were for adulticiding? 15,928

Was this an increase or decrease over last season? Increase

Comments: **13.5% increase from 2014**

**EXCLUSIONS**

How many exclusion requests did you receive this season? increases/decreases not tracked

Was this an increase or decrease over last season? Choose one

Do you have large areas of pesticide exclusion, such as estimated or priority habitats? No

If yes, please explain, and attach maps or a web link if possible.

**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:

- ☐ 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:

**CHILDREN AND FAMILIES PROTECTION ACT (CFPA)**

Is your program impacted by the CFPA? Yes

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

If you have data on compliance rates with the CFPA within your program area, please list here: approx. 85-90% compliance

Describe any difficulties you have had with the implementation of your program due to the CFPA, please elaborate here: We have sent letters and hand delivered information packets to the School Superintendents' offices for 9+ years now, compliance is slowly rising.

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: ______