

MOSQUITO CONTROL IN CENTRAL MASSACHUSETTS

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INTRODUCTION

- State agency, 40 cities & towns in Middlesex & Worcester counties
- Overseen by State Reclamation & Mosquito Control Board, consisting of reps from Dept. of Agricultural Resources, Dept. of Environmental Protection & Dept. of Conservation & Recreation – w/close coordination with Dept. of Public Health
- Year round program of Integrated Mosquito Management (IMM)
- \$73,000 approximate annual cost



DISEASE MONITORING

- Weekly trapping and testing of mosquito samples
- Indications if WNV or EEE is in the environment
- Risk communication to residents



REDUCTION IN DISEASE RISK

- Press releases to the public
- Spraying to lower mosquito populations
- Determination of infection rates in local mosquito population





MAINTENANCE OF DITCH SYSTEMS

- Restores historic flow patterns
- Management for beaver impacts
- Reduces larval mosquito habitat



EDUCATION

- Coordination with residents on mosquito biology & disease
- Information on risk reduction
- Information to school systems & senior populations (*at risk)





REGIONAL PROGRAM

- Cost sharing with other communities
- More effective – mosquito fly beyond town borders
- Better risk communication





SCOPE OF SERVICES

- Public Education
 - Education to schools, senior centers, etc
 - Educational materials in town hall, libraries...
- Larval Mosquito Control
 - Biological (organic) controls targeted to most vulnerable life stage
 - Catch basin program for WNV control



SCOPE OF SERVICES

- Mosquito Surveillance
 - Specialized trapping on a weekly basis
 - Samples sent for virus testing
- Ditch Maintenance
 - Restore historic flow patterns
 - Supervised by Wetland Scientist on staff
 - Best Management Practices guidance document



SCOPE OF SERVICES

- Research & Efficacy
 - Test new products & current procedures
- Adult control (spraying)
 - Residents request service
 - Any areas can be excluded
 - State & Federal regulations in place for environmental & human health protection
 - Notification system in place





SCOPE OF SERVICES

- **Source Reduction (tire recycling)**
 - Curbside, large tire removal, coordination with community events
 - Reduces larval mosquito habitat
 - 10,000+ tires recycled in 3 years
- **Beaver mitigation**
 - New for 2014
 - Working under emergency permitting from BOH & ConCom
 - All work using CMMCP staff & materials, no additional cost



HUMAN HEALTH RISK

- No effects noted after aerial spraying by State in 2010 & 2012*
- Residents can register location & opt out of spraying
- Notification system in place
- Consumer based pesticides: low risk & low use rates

*<http://www.mass.gov/eea/agencies/agr/pesticides/mosquito/mosquito-control-updates.html>



ENVIRONMENTAL RISK

- No effects noted after aerial spraying by State in 2010 & 2012*
- Buffer zones for sensitive areas
- No restrictions in endangered species habitat (NHESP)
- Federal NPDES permit requires investigation if notified
 - none to date
- *<http://www.mass.gov/eea/agencies/agr/pesticides/mosquito/mosquito-control-updates.html>



RISK TO BEE POPULATIONS

- No effects noted after aerial spraying by State in 2010 & 2012*
- Beekeepers can register location & opt out of spraying
- Spraying is done after sunset
- State regulations in place for bee protection

*<http://www.mass.gov/eea/agencies/agr/pesticides/mosquito/mosquito-control-updates.html>





RISK TO NON-TARGET SPECIES

- Pesticides used in pet products
- Risk to other wildlife classified as “does not pose an unreasonable risk” by EPA*

*<http://www2.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>



Exclusion properties (No Sprays)

- Letters sent to all City/Town Clerks in January
- Can register with Clerk, CMMCP or through our website
- Detailed list sent with all pesticide applicators & on GPS units



Spray Notifications

- Monthly schedules sent to all Boards of Health, City/Town Clerks & Police Dept. 2 weeks prior to start of each month
- Street listings on CMMCP phone system after 3:30pm each day
- Street listing on CMMCP website after 3:30pm each day.
- Detailed listing given to Police Dept. each afternoon



Adult Control (cont.)

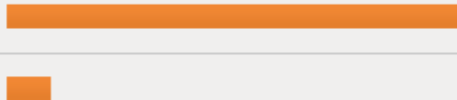
- If no service requests are received from residents, then no spraying will be done. Other work like larval control, landing counts, etc. may be performed in town on the scheduled day/evening.
- If spraying is done for virus control, will be done only after consultation with local and state officials



Research & Efficacy

Resident Survey 2005-2010

- 92.3% (avg.) are satisfied with service
- 98.5% (avg.) will use service again
- 1,260 respondents from 6,000 (21%)

Overall, are you happy with the service provided this year by CMMCP?			
2012		Response	Response
		Percent	Count
Yes		91.1%	246
No		8.9%	24