

2010 REPORT OF THE NORFOLK COUNTY MOSQUITO CONTROL PROJECT

The operational program of the Project integrates all proven technologies into an Integrated Pest Management (IPM) system of mosquito control and vector management that is rational, environmentally sensitive and cost effective.

Surveillance: Surveys, inspections, and monitoring in support of our program include GIS mapping of breeding areas, larval and adult collections, and fieldwork evaluations leading to better water management. West Nile virus and Eastern Equine Encephalitis have been active in Norfolk County over the past several years which has resulted in an expansion of the surveillance program in collaboration with the Massachusetts Department of Public Health (MDPH), State Laboratory Institute. MDPH has requested that the Norfolk County Mosquito Control Project expand mosquito surveillance across the county for the purpose of detecting viruses in collected mosquitoes as an early warning system for the residents of the county. Considerable manpower has been reallocated to these efforts, which is not reflected in this report. All mosquito eggs need water to hatch and to sustain larval growth.

Water Management Activities: An important component of our IPM approach is the management of shallow, standing, stagnant water, and the maintenance of existing flow systems which if neglected can contribute to mosquito breeding. Site visits, pre and post monitoring, photographic documentation, survey measurements, flagging, accessing assessors information, maintenance of paperwork and electronic forms, communication with and/or meeting on site with residents, town/state/federal officials and maintaining regulatory compliance are all important aspects of this program. In addition to normal drainage system maintenance, Project personnel advise residents on removal of water holding artificial containers on their property for the purpose of eliminating potential West Nile virus mosquito breeding habitat.

Drainage ditches checked/cleaned	2,970 feet	Culverts checked /cleaned	34 culverts
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Larval Control: Treatment of mosquito larvae during aquatic development is the next most effective control effort. These applications were conducted after devoting many man hours to collecting larval data which is used for targeting purposes as well as for determining efficacy of these applications. The products used during these applications were Bti (*Bacillus thuringiensis israelensis*) and Methoprene.

Aerial larvicide applications	241 acres
Larval control - briquette & granular applications by hand	4.3 acres
Rain Basin treatments – briquettes by hand (West Nile virus control)	1,123 basins

Adult Control: The suppression of flying adult mosquitoes becomes necessary when they are numerous, annoying, and/or threaten public health. These applications are conducted based on residential complaints as well as by analyzing adult mosquito population data collected from light traps. Additional applications may have occurred following identification of mosquito born viruses such as West Nile virus and Eastern Equine Encephalitis. The product used during these applications was Sumithrin.

Adult control aerosol applications from trucks	4,186 acres
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Respectfully submitted, _____ John J. Smith, Director