

REPORT OF PLYMOUTH COUNTY MOSQUITO CONTROL PROJECT

The Commissioners of the Plymouth County Mosquito Control Project are pleased to submit the following report of our activities during 2012.

The Project is a special district created by the State Legislature in 1957, and is now composed of all Plymouth County towns, the City of Brockton, and the Town of Cohasset in Norfolk County. The Project is a regional response to a regional problem, and provides a way of organizing specialized equipment, specially trained employees, and mosquito control professionals into a single agency with a broad geographical area of responsibility.

As a result of a mild winter with little snow cover, the 2012 season began with a low water table and below average number of spring mosquitoes. Detection and treating larval mosquitoes was limited with the spring brood, because of the low water table, lack of larvae and budget constraints. The normal acreage aerial laticided using the Project plane was reduced and ground larviciding was accomplished using B.t.i., an environmentally selective bacterial agent. Upon emergence of the spring brood of mosquitoes, ultra-low volume adulticiding began on June 8, 2012 and ended on September 21, 2012. The Project responded to 13,698 spray requests for service from residents. As part of our West Nile Virus control strategy a total of 59,935 catch basins were treated with larvicide in all of our towns to prevent West Nile Virus (WNV).

In response to the continued threat of mosquito borne diseases in the district, we increased our surveillance trapping and ground larviciding, and adult spraying in areas of concern to protect public health.

The first virus isolations identified in Plymouth County was on July 10, 2012 by the Massachusetts Department of Public Health, a *Coquillettidia perturbans*, a mammal biting species was found to have (EEE) Eastern Equine Encephalitis virus in the town of Carver. West Nile Virus (WNV) from a *Coquillettidia perturbans*, a

EEE 126 positive pools

BRIDGEWATER	8
BROCKTON	1
CARVER	7
DUXBURY	2
HALIFAX	9
HANOVER	1
HANSON	4
KINGSTON	7
LAKEVILLE	8
MATTAPOISETT	10
MIDDLEBOROUGH	22
PLYMPTON	8
WEST BRIDGEWATER	38
WHITMAN	1

Based on guidelines defined by the Massachusetts Department of Public Health's "Vector Control Plan to Prevent WNV and EEE in Massachusetts", the season began with 24 Plymouth County towns at "Low Risk Level" and four towns at the "Moderate Risk Level" for WNV and EEE. The season ended with no Plymouth County towns at "Low Level", 8 towns at the "Moderate Level" for WNV and EEE risk, 15 towns at "high level" WNV and EEE risk category and 5 towns at "Critical" WNV and EEE risk level category. Two aerial interventions were needed to effectively reduce human biting bridge vector mosquitoes as well as enzootic transmission of EEE. Governor Patrick announced aerial spraying would take place on July 20, 2012 in southeastern Massachusetts. Communities sprayed within the district included Lakeville, Bridgewater, Carver, East Bridgewater, Halifax, Hanson, Pembroke, Kingston, Plympton, Middleboro, Rochester and West Bridgewater to help prevent further spread of EEE infected mosquitoes. The second aerial spray was focused on the six towns around the Hockomock swamp to reduce amplification of the EEE virus including Bridgewater and West Bridgewater on August 13, 2012.

There were two human

The figures specific to the Town of Mattapoisett are given below. While mosquitoes do not respect town lines the information given below does provide a tally of the activities which have had the greatest impact on the health and comfort of Mattapoisett residents.

Insecticide Application. 2,391 acres were treated using truck mounted sprayers for control of adult mosquitoes. More than one application was made to the same site if mosquitoes reinvaded the area. The first treatments were made in June and the last in September.

During the summer. 471 catch basins were treated to prevent the emergence of *Culex pipiens*, a known mosquito vector in West Nile Virus transmission.

Our greatest effort has been targeted at mosquitoes in the larval stage, which can be found in woodland pools, swamps, marshes and other standing water areas. Inspectors continually gather data on these sites and treat with highly specific larvicides when immature mosquitoes are present. Last year a total of 96 inspections were made to catalogued breeding sites.

Water Management. During 2012 crews removed blockages, brush and other obstructions from 325 linear feet of ditches and streams to prevent overflows or stagnation that can result in mosquito breeding. This work, together with machine reclamation, is most often carried out in the fall and winter.

Machine Reclamation. 2,800 linear feet of saltmarsh ditch was reconstructed in Mattapoisett using the Project's track driven excavator.

Finally, we have been tracking response time, which is the time between notice of a mosquito problem and response by one of our inspectors. The complaint response time in the Town of Mattapoisett was less than three days with more than 411 complaints answered.

Mosquito Survey. Our surveillance showed that the dominant mosquitoes throughout the district were generally *Oc. canadensis* and *Coquillettidia perturbans*. In

