

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 2016.

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.

The 2016 season began dry with a low water table, dry conditions increased into the summer season. Efforts were directed at larval mosquitoes starting with the spring brood. We ground larvicided 4,600 acres and aerial larvicided 15,432 acres and this 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 1, 2016 and ended on September 9, 2016. The Project responded to 13,775 requests for spraying and larval checks from residents covering all of the towns within the district.

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

Massachusetts Department of Public Health has developed an "Arbovirus Surveillance and Response Plan" for the state. The Plan creates a system which estimates the human risk for contracting Eastern Equine Encephalitis and West Nile using several factors including the number of infected mosquitoes. Based on guidelines defined by the Plan, all towns in Plymouth County Mosquito Project were at the "Low Level Risk" for Eastern Equine Encephalitis. We are pleased to report that in 2016 there were no human, or horse EEE cases in the district. There were 3 pools of mosquitoes found to be infected with EEEV. They were in the following towns: Kingston, Middleboro, and West Bridgewater.

West Nile Virus was not found within the district. All towns within the district remained at the "Low Level Risk" category for West Nile Virus. We are also pleased to report that in 2016 that there were no human or horse West Nile Virus cases in Plymouth County Mosquito Control district. As part of our West Nile Virus control strategy a total of 47,391 catch basins were treated with larvicide in all of our towns to prevent WNV.

The Health threat of EEE and WNV continues to ensure cooperation between the Plymouth County Mosquito Control Project, local Boards of Health and the Massachusetts Department of Public Health. In an effort to keep the public informed, EEE and WNV activity updates are regularly posted on Massachusetts Department of Public Health website.

In conjunction with the MDPH we began a trapping program to monitor *Aedes albopictus* expansion in the state. *Ae. albopictus* is an introduced mosquito that has the potential to become a serious pest and a vector of disease. The mosquito has been present in the Massachusetts since 2009. The larvae live in containers and are closely linked with human activity. They are especially associated with used tires. In mid-summer the mosquito was detected in the District for the first time. We think the population is small, but expect the mosquito to spread. As a result, we plan to expand our *Ae. albopictus* surveillance program.

The figures specific to the town of Marshfield 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 Marshfield residents.