



A CALL FOR MOSQUITO CONTROL REFORM

Mass Audubon supports the Department of Public Health's (DPH) [Massachusetts Arbovirus Surveillance And Response Plan](#) for management of mosquito-borne diseases including Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV). This plan emphasizes monitoring of mosquitoes and mosquito-borne disease, public education, personal protection from mosquito bites, and elimination of artificial mosquito breeding sites around developed areas. It protects human health and the environment, striking an appropriate balance between the risks of mosquito borne diseases and those associated with pesticides and wetland alterations.

DPH recommends limited use of pesticides for adult mosquito control, based on the levels of mosquito and disease activity in a specific location. Since spraying of chemical pesticides to kill adult mosquitoes provides only localized and temporary reductions in mosquito populations, we believe the DPH *Plan* to be a sensible, rational, and reasonable approach. Widespread spraying is the most risky and least effective method of mosquito control. Resmethrin and sumithrin, the chemicals most often used for mosquito control spraying in Massachusetts, are highly toxic to pollinators, fish, and other beneficial wildlife. There are concerns about human health impacts associated with spraying as well. Repeated spraying may also lead to pesticide-resistant mosquitoes. Research has shown that truck-based pesticide spraying is not effective in reducing the human health risk of WNV in the typical Massachusetts neighborhood¹.

The Massachusetts Executive Office of Energy and Environmental Affairs' Department of Agricultural Resources Division of Crop and Pest Services houses the State Reclamation and Mosquito Control Board that oversees the nine mosquito control districts. The Board has produced a [Generic Environmental Impact Report](#) and [Operational Response Plan to Reduce the Risk of Mosquito Borne Disease in Massachusetts](#). These documents and the Board provide broad oversight of mosquito control programs. However, the nine mosquito control districts in Massachusetts operate with a good deal of autonomy and standard practices vary from district to district. Mosquito control activities carried out by districts are exempt from the Massachusetts Wetlands Protection Act and can often alter wetlands without any permits or environmental standards.

Recommendations:

Mass Audubon recommends that DPH guidelines be followed in response to West Nile Virus and Eastern Equine Encephalitis.

If a community is a member of a mosquito district, Mass Audubon recommends that the community request that the district voluntarily limit itself to the actions called for in the DPH

¹ Michael R. Reddy, et. al., *Efficacy of Resmethrin Aerosols Applied from the Road for Suppressing Culex Vectors of West Nile Virus*, Vector-Borne And Zoonotic Diseases, Vol. 6, No. 2, 2006.

Plan, and that no nuisance control spraying of chemicals for adult mosquito control be conducted.

However, under a Declared Public Health Emergency by the Governor, the Department of Public Health is ultimate decision maker on any mosquito control activities.

The mosquito control districts should develop cooperative programs with local departments of public works, planning boards, conservation commissions, and boards of health to ensure that stormwater systems are designed and maintained to minimize mosquito breeding and promote habitat for fish and other mosquito predators. Regular cleaning of catch basins and proper maintenance of detention basins reduces mosquito breeding while also protecting water quality. Mosquito districts should also conduct systematic roadside surveys, in cooperation with local officials and MassHighway, to identify and reduce sources of erosion and sedimentation from roadways. The BMP manual for freshwater wetlands mosquito management practices provides guidelines for ditch cleaning and other mosquito district activities in wetlands.

Local stormwater management practices and standards play an important role in mosquito management. Low Impact Development (LID) and Green Infrastructure techniques that direct rainwater and runoff into small vegetated areas where it quickly infiltrates into the ground are preferable to stormwater collection systems with catch basins and detention basins that often create mosquito breeding areas. LID and Green Infrastructure have many other benefits as well, including protection of water quality and fish habitat. Municipalities can promote the use of these techniques both through land use regulations for new development or redevelopment and through voluntary measures such as retrofitting of existing development.

Mass Audubon also calls upon the State Legislature to reform the outdated and inconsistent mosquito control “system” in Massachusetts. There should be increased oversight of mosquito control by state and local environmental and public health authorities, with environmentally sound standards consistent with the statewide mosquito-borne disease *Plan*, as well as increased public education on mosquito-borne diseases, risk, and protection. Legislation towards that goal has been re-filed in 2011 as [*An Act Relative to the Mosquito Borne Disease Control Board \(H.1126\)*](#).

For more information contact: Heidi Ricci, Senior Policy Analyst, 781-259-2172 or hricci@massaudubon.org.

May 2011