



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, 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 public and many municipalities remain confused about how the work of mosquito control districts is consistent with public health recommendations. Due to outdated laws and the lack of operational standards, there are no clear mechanisms to ensure that consistency.

There are nine separate mosquito control districts in Massachusetts. They operate in nine different ways with no single set of required Best Management Practices (BMPs) to follow. 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.

The Massachusetts Executive Office of Energy and Environmental Affairs' Department of Agricultural Resources Pesticide Bureau houses the State Reclamation and Mosquito Control Board that oversees the districts. In 1998, the Secretary of Environmental Affairs required that the Board establish standards for mosquito control water management practices. The Secretary required that "*additional study and research work is necessary to truly document the effectiveness of mosquito control techniques and their impact on the environment*" (Draft Generic Environmental Impact Report Certificate). Eight years later none of the required updates or standards have been issued.

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.

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 a request be made that the district voluntarily limit itself to the actions called for in the DPH *Plan*, and that no nuisance control spraying 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 draft BMP manual for freshwater wetlands mosquito management practices should be finalized to guide ditch cleaning and other mosquito district activities in wetlands.

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 to accomplish that goal has been re-filed in 2007 on our behalf as *An Act providing for the Public Health by Managing Mosquitoes in the Commonwealth (S. 495)*.

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