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**WEST NILE VIRUS
APPLICATION OF PESTICIDES TO WETLAND RESOURCE AREAS
AND BUFFER ZONES,
AND PUBLIC WATER SYSTEMS**

Effective Date: July 3, 2001

Guideline No. BRPG01-02

Program Applicability: Local Conservation Commissions, Boards of Health, and Public Water Suppliers; and DEP Wetlands and Drinking Water Programs

Approved by: [SIGNED]
Glenn Haas, Acting Assistant Commissioner
For Resource Protection

To control the spread of mosquitoes carrying West Nile Virus, application of pesticides (larvicides and adulticides) within wetland resource areas and their associated 100 foot buffer zones (e.g. catch basins) may be necessary, in accordance with the Massachusetts Department of Public Health (MDPH) Massachusetts Surveillance and Response Plan (SRP) for Mosquito-Borne Disease, dated April 25, 2001.

The following approaches should be used to determine if mosquito control work (e.g. application of pesticides, including larvicides and adulticides) is exempt or requires an Emergency Certification under the Wetlands Protection Act, and whether application of pesticides to a public water source for mosquito control can go forward:

State Reclamation and Mosquito Control Board and Mosquito Control Districts:

- ***Wetlands Protection:*** Mosquito control work conducted by the State Reclamation and Mosquito Control Board (SRMCB) or a Mosquito Control District (MCD) pursuant to MGL Chapter 252 is exempt from the Wetlands Protection Act, MGL Chapter 131 Section 40. Therefore, Conservation Commissions should not review mosquito control work conducted pursuant to Chapter 252 by the SRMCB or MCD. This exemption only pertains to mosquito control work. Mosquito control work includes, but is not limited to, the maintenance of

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existing mosquito control ditches and the application of pesticides (e.g. larviciding of catch basins, and ground-based application of adulticides). Larvicides used in Massachusetts typically include *Bacillus thuringiensis israelensis* (*Bti*), *Bacillus sphaericus* (*Bs*) and Methoprene. However, mosquito source reduction measures that involve dredge or fill, such as maintenance of existing mosquito control ditches or debris clearance from stream channels, while exempt from the Wetlands Protection Act, may require a Water Quality Certification from DEP pursuant to Section 401 of the Federal Clean Water Act and 314 CMR 9.04. No Water Quality Certification is required for pesticide application, including larviciding. In the event of an emergency where immediate mosquito control activities within a wetland subject to Section 401 are essential to abate an immediate threat to the public health or safety, DEP may authorize such work in writing pursuant to 314 CMR 9.12.

- **Public Water Systems:** Application of pesticides to a Zone I of a public groundwater source is not allowed pursuant to 333 CMR 12.03, and 310 CMR 22.21(1)(b)(4) and (5). Application of pesticides to surface public water sources or their tributaries may only occur with the prior review and written approval of the DEP Drinking Water Program pursuant to 333 CMR 13.03(16) and (21), and 333 CMR 13.05(3)(c)(5) (please see the DEP Drinking Water Program West Nile Virus Fact Sheet). In order to apply to DEP for review of pesticide application to a surface water source, the proponent should submit a letter to the appropriate DEP Regional Office's Drinking Water Program, with a copy to the local Board of Health and Public Water Supplier, documenting:
 - the mosquito surveillance results (e.g. mosquito larvae counts, infested birds or horses, etc.);
 - written findings from the local Board of Health determining there is a public health threat and ordering application of pesticides;
 - the pesticides proposed to be used along with the method of application; and
 - map depicting the location of the surface public water source (including the tributary if it is to be treated) and the geographic area to be treated.

For Municipalities not within Mosquito Control Districts:

- **Wetlands Protection:** Mosquito control work conducted in accordance with Chapter 252 Section 5B ordered in writing by the Board of Health of a municipality not within a MCD, is exempt from the Wetlands Protection Act, MGL Chapter 131 Section 40. Therefore, Conservation Commissions should not review mosquito control work conducted in accordance with Chapter 252 Section 5B ordered in writing by a Board of Health of a municipality not within a MCD. This exemption only pertains to mosquito control work. Such mosquito control work is most likely to include larviciding of catch basins and possibly adulticiding. The pesticide applicator must be licensed to apply pesticides (larvicide application training is available from DFA for municipal employees), and pesticides must be applied in accordance with label requirements. Mosquito control activities **not** ordered in writing by such Boards of Health, or their designee, are subject to review under the Wetlands Protection Act and require review by the Conservation Commission (see the discussion below on Activities Not Exempt from the Wetlands Protection Act.). Mosquito source reduction measures that involve dredge or fill ordered by such Boards of Health, such as maintenance of existing mosquito control ditches or debris clearance from stream channels, while exempt from the Wetlands Protection Act, require a Water Quality Certification from DEP pursuant to Section 401 of the Federal Clean Water Act and 314 CMR 9.04. No Water Quality Certification is required for pesticide application, including larviciding. In the event of an

emergency where immediate mosquito control activities within a wetland subject to Section 401 are essential to abate an immediate threat to the public health or safety, DEP may authorize such work in writing pursuant to 314 CMR 9.12.

- **Public Water Systems:** The same restrictions and limitations which apply to the SRMCB and MCD apply to municipalities not participating in MCDs. See the discussion above under the section pertaining to the SRMCB and MCD.
- If your municipality is not a member of a MCD, but is interested in joining one, contact the SRMCB for information (see listed contacts).

Mosquito Control Activities Not Exempt from the Wetlands Protection Act:

- Mosquito control work not done pursuant to Chapter 252 or ordered in writing by the SRMCB, MCD or Board of Health within a municipality not located within a MCD, **and** conducted within a wetland resource area or Buffer Zone, is subject to prior review under the Wetlands Protection Act, and prior written authorization from the Conservation Commission or DEP Wetlands Program is required. These circumstances are expected to be rare since the SRP requires the SRMCB, MCD, and Boards of Health to take certain responses when surveillance indicates West Nile Virus, Eastern Equine Encephalitis, or other mosquito carried virus, pose a public health threat. Emergency Certifications should be issued, using the DEP Emergency Certification Form (see Wetlands Program contacts listed on page 3 to obtain copy of form), to authorize such mosquito control work pursuant to 310 CMR 10.06, provided that:
 - MDPH surveillance reports indicate West Nile or other virus has been documented in mosquitoes, birds, horses or humans, within or near the geographic area proposed for pesticide application; and
 - A state or municipal agency issues a written order requiring the mosquito control measures, or is performing the work; and the following Special Conditions are included in the Emergency Certification:
 1. The applicator must be licensed or certified to apply pesticides by the Massachusetts Department of Food and Agriculture Pesticide Bureau (larvicide application training is available from the Department of Food and Agriculture for municipal employees);
 2. Pesticides must be applied in accordance with label requirements;
 3. No pesticides, including larvicides, may be applied to any surface waters or their tributaries used for public water supplies without prior written authorization from the DEP Drinking Water Program pursuant to 333 CMR 13.03(16) and (21), and 333 CMR 13.05(3)(c)(5);¹
 4. No larvicide or pesticide may be applied within Zone I of a public groundwater supply pursuant to 333 CMR 12.03, and 310 CMR 22.21(1)(b)(4) and (5).

Note: Any draining or modification of wetlands, including beaver ponds, not specified as a mosquito control measure in the SRP should not be employed as a strategy to control mosquito hatching except for that done as part of maintenance of established mosquito ditches.

1. See Page 2 for Drinking Water Program application process.

For further information, please refer to:

- Massachusetts Department of Environmental Protection web site:
<http://www.state.ma.us/dep> or contact the appropriate DEP Regional Wetlands or Drinking Water Program. The Wetlands Program contacts are NERO: Michael Abell at 978-661-7811 or Gillian Davies at 978-661-7812; CERO: Nancy Reed at 508-767-2781; WERO: Susan Gillan at 413-755-2147 or Terry Eucker at 413-755-2144; SERO: Carlos Fragata at 508-946-2885; or Boston: Thomas Maguire at (617) 292-5602. The Drinking Water Program contacts are: NERO: Chester Masel at (978) 661-7760; CERO: Paula Caron at (508) 792-7650 x3719; WERO: Doug Paine (413) 755-2281 or Jim Gibbs at (413) 755-2299; and SERO: Larry Dayian at (508) 946-2769. DEP Wetlands Emergency Certification Forms may be downloaded from the DEP web site:
<http://www.state.ma.us/dep/appkits/emercert.doc>
- Massachusetts Department of Public Health West Nile Virus web site:
<http://www.state.ma.us/dph/wnv/wnv1.htm> or contact the West Nile Virus hotline at 1-866-MASS-WNV (627-7968). Daily surveillance reports are posted at the web site.
- Massachusetts State Reclamation and Mosquito Control Board web site:
<http://www.massdfa.org/mosquito/> or contact John Kenney of the SRMCB at the Massachusetts Department of Food and Agriculture at (617) 626-1781.