

West Nile Virus

Questions & Answers

1. What is West Nile Virus?

West Nile Virus (WNV) was first detected in North America during the summer of 1999, when infection with the virus caused an outbreak of illnesses in New York City. Over the next four years, the virus has spread to almost all areas on this continent. The virus affects birds when bitten by infected mosquitoes. When birds become infected, other mosquitoes that feed off of them acquire the virus, resulting in an expanding cycle of WNV. When a large number of mosquitoes become infected in an area, certain infected mosquitoes that also bite people can spread infection to humans through their bites.

Although WNV can cause serious and even life-threatening illness in people, most infected persons have only a mild illness or have no symptoms at all. Mild cases of WNV infection may include low-grade fever, headache, and muscle pains and require no treatment. More severe illnesses may include seizures, paralysis, and meningitis. Elderly persons appear to be more likely to get severe illness from infection than do younger individuals. Most cases of WNV in humans occur during the late summer and early fall.

2. What parts of the State is affected by West Nile Virus? Is it spreading further?

During 2003, West Nile Virus was documented (through testing of dead birds and mosquitoes) in twelve of Maine's 16 counties. This was the third year in which WNV has been seen in Maine. Experts believe that WNV is well established in the ecologic systems of most areas in the United States and that it continues to spread and that it will remain with us for many years to come. The Maine Bureau of Health recommends that citizens and municipalities assume that the risk of acquiring WNV infection exists in *all* Maine communities.

3. What is the State doing about West Nile Virus?

The Maine Bureau of Health has developed a surveillance system to track the emergence of West Nile Virus in Maine, among birds, mosquitoes and people. By tracking the spread of the virus, prevention efforts can be better focused to help educate the public on ways in which they can protect themselves and their families from the disease. In addition, other state agencies, health professionals and non-governmental groups have worked together since 2000 to increase awareness and promote preventive measures.

4. Why should a town be concerned with West Nile Virus?

Although Maine has not yet experienced its first case of human WNV infection, it's only a matter of time before such a case occurs. It's likely that the risk of seeing human infections will continue for many years to come. During the past few years, municipal officials have increasingly been called upon to respond to concerns regarding WNV prevention and

control. Municipal officials may be approached by the citizens of affected communities to answer questions about prevention, as well as to discuss pest management strategies. Therefore, municipal officials should be aware of the facts about WNV and effective prevention and control measures.

5. How should a town respond to a report of a bird infected with the West Nile Virus?

It's important to inform the community that WNV has been documented in the area. Municipal officials can provide schools and other community institutions with printed information about WNV, educate on the importance of personal protection, assess possible mosquito breeding grounds (such as old tires, standing water, etc.), or consider more aggressive mosquito control measures. The exact location (e.g. street address) at which an infected dead bird is found has no particular importance; it only suggests the possible presence of WNV in the general area. For this reason, the Bureau of Health recommends that public information about this location refer only to the neighborhood or local area where the bird was found. For further guidance, municipal officials can contact state agencies including but not limited to the Maine Bureau of Health, the Department of Environmental Protection, the Board of Pesticide Control and the Department of Agriculture. (Note: it's also important for officials and citizens alike to understand that the lack of positive bird reports in an area does not mean that WNV is *not* present.)

6. Can a town spray in order to control mosquitoes?

Municipal employees must be licensed for any use of a pesticide as part of their official duties and may only apply pesticides to municipal properties. Municipal entities needing licenses include municipal and quasi-municipal organizations like Parks and Recreation Departments, Public Works, Cemetery Maintenance, Water & Sewer Districts, Housing Authorities, etc. The Board believes that government personnel compliance with higher standards sets the example for other professionals.

The Board also requires licensing whenever pesticides are applied in areas open to the public. These areas could include parks, campgrounds, apartment or condominium grounds, common areas of apartment buildings and many other areas. If a municipality hires an outside company to do pest control, that municipality must be sure the applicator company has the appropriate licenses. We recommend obtaining proof of licensure even before entertaining a bid from an outside pest control company.

Pesticides covered by these rules include insecticides to kill mosquito larvae like *Bacillus thuringiensis (var. israelensis)* (BTI) and temephos, insecticides to kill adult mosquitoes like malathion, naled and the pyrethroids and any other pest control products both organic and synthetic.

Pesticide applicator licenses are required to handle and apply even the over-the-counter product varieties—like mosquito dunks— by government employees or in public areas because of the greater potential for public exposure and the added liabilities resulting from that use. (Also refer to the answer in Question #9).

7. Can people use pesticides on their own property?

Individual property owners can use over-the-counter mosquito controls on their own property when applied to trees, shrubs and other upland vegetation or can treat enclosed waters i.e., dumpsters, old tires, birdbaths or other breeding sites not connected to any waters-of-the state without a commercial pesticide applicator license. (Also refer to the answer for Question #9).

8. When does a town/individual need a license to use a pesticide?

See Question #1 for the town part of the answer. Individual property owners need a commercial pesticide applicator license to treat any waters of the state or other areas open to the public. A commercial pesticide applicator license is also required for use of **any** pesticide as a service for which compensation is received. (Also refer to the answer for Question #9).

9. What does a town do to diminish the threat posed by standing water?

The answer to this question depends on if the standing water constitutes a natural resource protected by state law and what actions are proposed.

Protected resources consist of:

- a. Waters of the State, which means streams, rivers, lakes, ponds, marine waters, freshwater and coastal wetlands, and groundwater. (38 M.R.S.A. § 361-A (7))
- b. Protected Natural Resources, which means all of the above mentioned surface waters as well as coastal sand dune areas and significant wildlife habitats (38 M.R.S.A. § 480-B)

Waters of the State are regulated under the Protection and Improvement of Waters Law (38 M.R.S.A. § 316 et seq.), administered by the MEDEP's Division of Water Resource Regulation. Protected Natural Resources are regulated under the Natural Resource Protection Act (38 M.R.S.A. § 480 et seq.) and the Maine Wetland Protection Rules (06-096, CMR Chapter 310), administered by the MEDEP's Division of Land Resource Regulation.

Pesticides: The discharge of any pollutant, including a pesticide, to a Water of the State or to an area or structure that will cause its discharge to a Water of the State, requires a permit. (See DEP Fact Sheet: Aquatic Pesticide Applications for Mosquito Control and Fact Sheet: Permits for Application of Aquatic Pesticides to Control Vectors of West Nile Virus).

The discharge of a pollutant, including a pesticide, to standing water that does not constitute a Water of the State (containers, tires, swimming pools, etc.) and which will not enter a Water of the State does not require a permit from the MEDEP, but must still follow the requirements of the Board of Pesticide Control. It should be noted that discharges of pollutants to private ponds that are connected to surface or groundwaters would likely constitute a regulated discharge. Also, the discharge of pollutants to artificial structures designed to treat stormwater, phosphorus, etc. will at times cause a discharge to a Water of

the State. If these structures were required as part of another permit or license, alterations to them may otherwise be regulated. MEDEP's concerns are with potential impacts to aquatic life, habitats and other designated uses.

Physical Alterations: A permit is required under the Natural Resource Protection Act for any activity listed below located in, on, or over a protected natural resource or located adjacent to most protected natural resources such that soil or other materials may enter the resource. The activities referred to consist of dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials; draining or otherwise dewatering; filling; or construction, repair, or alteration of a permanent structure. Further, the placement of soil in a Water of the State constitutes the discharge of a pollutant, regulated as described above. It should also be noted that all temporary ponded areas are not without value. In the spring, areas known as vernal pools are ponded for only a short time, but provide critical breeding habitat for amphibians and may constitute a significant wildlife habitat.

To contact the MEDEP's Division of Water Resource Regulation in Augusta, please call (207) 287-3901 or 1-800-452-1942.

To contact the MEDEP's Division of Land Resource Regulation, please call the nearest office:

Location	Telephone Numbers
Portland	(207) 822-6300 or 1-888-769-1036
Augusta	(207) 287-2111 or 1-800-452-1942
Bangor	(207) 941-4570 or 1-888-769-1137

10. How might regulations pertaining to the use of pesticides change if we had human cases of WNV in our town?

The occurrence of cases of WNV infection in humans in an area does not in and of itself affect any of the pesticide regulations cited in this document. In the unlikely event of a *severe or extensive* outbreak of West Nile Virus infection, the Governor has the power to declare an "extreme public health emergency" that could include measures leading to the suspension of some regulations regarding pesticide use. In the event of such an unlikely scenario, that information will be made widely available through the media or through inquiries to any of the regulatory agencies involved.