

**An URGENT update from the Health Department
on EEE risk in Wayland**

Due to high risk for EEE designation, all Wayland public fields outdoor activities, including sports practices, should end at 6 p.m. until 8 a.m., all other non-school outdoor activities or events should follow this guidance. As of 9/06/19, the Massachusetts Department of Public Health (MDPH) raised the risk level for Eastern Equine Encephalitis (EEE) virus infection in Wayland to **HIGH**. This is due to 2 additional cases of EEE virus infection, a woman in her 60's from eastern Worcester County and a female under the age of 18 from southwestern Middlesex County. This brings the total number of human cases of EEE to seven this year in Massachusetts. Risk levels in Framingham, Marlborough, Northborough, and Sudbury have been raised to critical and the risk level in Berlin, Boylston, Hudson, Maynard, Stow and Wayland has been raised to high. We are following recommendations from the MDPH 2019 Arbovirus response plan and have increased mosquito surveillance for EEE virus in Wayland. We are also working on a plan for adult mosquito spraying in Wayland.

Residents should be aware that there are many communities in Massachusetts at high and critical risk for EEE. These risk levels are changing almost daily, so if you travel outside of Wayland to an adjacent community, you should check the local Health Department website for information on these towns and be aware of the risk of EEE. If a community is at high or critical risk you should consider staying indoors during the dusk to dawn hours to reduce exposure to mosquitoes. The state has conducted helicopter spraying in certain identified towns to control mosquito-borne illness for EEE and reduce mosquito populations, however this does not eliminate the risk of EEE transmission. **We strongly advise the public to protect yourself from mosquito bites and prevent your yard from becoming a breeding ground. The peak time for transmission of mosquito-borne illness extends through September here in Massachusetts.**

“Even though temperatures have cooled off, it is not unusual to see human EEE cases confirmed in September,” said Public Health Commissioner Monica Bharel, MD, MPH. “This is why we continue to urge the public to take seriously the threat that mosquitoes can pose and to take steps to avoid being bitten.” Please visit the Health Department website to view the full press release received 09/06/19.

All residents throughout the Commonwealth should continue to use mosquito repellent and those in high and critical risk communities should consider staying indoors during the dusk to dawn hours to reduce exposure to mosquitoes. Residents can learn more about EEE and about ways to protect themselves on DPH's website.

Information on risk levels in communities and updates from MDPH can be found on the Health Department website:

<https://www.wayland.ma.us/health-department/news/due-high-risk-eee-designation-all-wayland-public-fields-outdoor-activities>

Protecting yourself from mosquito bites and preventing mosquito breeding in your yard

Warm weather will continue through the next couple of weeks (or longer) and there will continue to be mosquito breeding and activity in the area. Please check your yards for items that can collect water and harbor mosquito breeding. As outlined further below in this memo we have provided recommendations for avoiding mosquito bites (which can lead to mosquito-borne illness) and how to prevent your yard from becoming a mosquito breeding area.

Catch basins have been treated for mosquitoes

The catch basins in town have been treated with Fourstar 90 day Briquets. This product has 1% Bti and 6% Bsph (Bacillus shpaericus). The product is supplied by the Wayland Board of Health and distributed by the East Middlesex Mosquito Control Project. This treatment is done every year to control mosquito larvae to reduce mosquito-borne illness. Fourstar is a larvicide in a briquet form that disrupts the normal growth pattern of immature mosquitoes in water and prevents them from becoming breeding, biting adults. This product is a long-term (up to 90 days), cost-effective and environmentally responsible mosquito control larvicide.

The treated catch basins have been marked with a white dot. The Town of Wayland contracts the services of the East Middlesex Mosquito Control Project for mosquito control including helicopter spraying using BTI larvicide in the spring and catch basin treatments in the early summer. Our program during mosquito season also includes mosquito trapping, identifying populations and surveillance for diseases and species.

Mosquito habitats and mosquito-borne illness

The “Culex” mosquito species is common in suburban communities such as Wayland. This mosquito species prefers to breed/lay eggs in small artificial containers such as birdbaths, old tires, buckets, clogged gutters, and other standing water sources which can be found in people’s backyards and other similar areas of the suburbs (including catch basins).

Culex mosquitoes are the primary vectors of West Nile Virus. West Nile Virus (WNV) is a mosquito-carried virus that can cause illness in people ranging from a mild fever to more serious disease like encephalitis or meningitis. WNV is most commonly spread to people through the bite of an infected mosquito. The Culex species are also known as “bridge” vectors that will feed on birds and people. As the summer continues to progress, birds could be infected with West Nile Virus and the virus could be transmitted to a human when a mosquito bites a bird carrying the WNV virus and then subsequently bites a person.

The catch basin treatments using Fourstar Briquets will reduce the population of Culex mosquito larvae (and other mosquito larvae) that could be growing in catch basins (standing water environment), decreasing the risk of West Nile Virus infection in humans.

To prevent a yard from becoming a source for Culex mosquitoes and potentially invasive mosquito species, homeowners should make a thorough inspection of their property and remove, empty, cover or treat water-holding containers. During the summer, mosquito larvae can complete their development in water within a week.

Breeding habitats for mosquitoes that can carry Eastern Equine Encephalitis (EEE) virus do not exist in Wayland. However, EEE transmission can occur (through a “bridge vector”)when certain mammal biting mosquito species bite a bird that is ill with the virus, and after the mosquito is infected with the virus it could bite a human or animal and transmit the EEE virus. EEE risk can also occur in Wayland from an adjacent community. EEE is a rare but serious and potentially fatal disease that can affect people of all ages. EEE occurs sporadically in Massachusetts with the most recent outbreak years occurring from 2004-2006 and 2010-2012. There were 22 human cases of EEE infection during those two outbreak periods with 14 cases occurring among residents of Bristol and Plymouth counties.

What to do in your yard to prevent mosquito breeding, West Nile Virus (WNV) and other Arboviral Diseases:

- Mosquito proof your home and drain standing water in your yard
- Containers where mosquitoes commonly lay eggs include neglected swimming pools, water in loose-fitting pool covers or tarps, unscreened rain barrels, rimless tires, and plastic toys, flower pots, trash barrels/containers. Check rain gutters, including all fittings and drains.
- Tires should be disposed of properly or stored inside.
- Rubbish barrels, wheelbarrows and small boats should be covered or stored upside down.

- The water in wading pools and birdbaths should be changed weekly.
- Infrequently used pools should be covered or properly maintained.
- Some mosquitoes like to come indoors. Keep them outside by having tightly-fitting screens on all of your windows and doors. Fix any holes in screens and screen doors and replace worn weather stripping.
- Keep the grass in your yard cut short and shrubs trimmed.
- Once a week empty and scrub, turn over, cover or throw out any items that hold water.
- Rainwater or rain/collection barrels tips:
 - Always use a mosquito-proof screen to seal and cover the rain barrel or other water-saving container. Mosquito-proof screen is a very fine mesh, usually 1/16 of an inch. If the barrel is covered, this will reduce the likelihood of mosquitoes becoming a problem.
 - If the barrel is holding a lot of water consider mosquitofish, or consider treating with products containing Bti (always read the product label and use according to the instructions).
 - Keep the rain barrel lid and connectors sealed to help keep bugs out.
 - Be sure to always remove the water that pools at the top of the barrel at least once or twice a week.
 - If possible, place your barrel on a surface that will soak up any water that overflows so it doesn't pool and create a mosquito habitat.
 - Regularly inspect your rain barrel system. Check for cracks or leaks. Be sure that all fittings and seals are intact and that no water accumulates on the ground around the barrel.
 - Clean the barrel on a regular basis. Drain it completely and clean it out at least twice a year.

What you should do to avoid mosquito bites

At this time of year mosquito populations are on the rise and residents should take precautions to avoid mosquito bites.

Be aware of peak mosquito hours:

- The hours from dusk to dawn are peak biting times for many mosquitoes. Mosquitoes are more active in damp, shady areas, during cloudy humid days, and at night. Consider rescheduling outdoor activities that occur during evening or early morning. Also, take extra care to use repellent and protective clothing.
- There are some emerging mosquito species that are out and active during the day. Be sure to protect yourself and family members during the day also.

Wear protective clothing:

- Clothing can help reduce mosquito bites. Although it may be difficult to do when it's hot, wearing long-sleeves, long pants and socks when outdoors will help keep mosquitoes away from your skin.
- Cover up the arms and legs of children playing outdoors. Baby carriages and playpens should be covered with mosquito netting.

Apply insect repellent when you go outdoors.

- Use a repellent with DEET (N, N-diethyl-m-toluamide), permethrin, picaridin (KBR 3023), IR3535 (3-[N-butyl-N-acetyl]-aminopropionic acid) or oil of lemon eucalyptus [p-menthane 3, 8-diol (PMD)].
- DEET products should not be used on infants under two months of age and should be used in concentration of 30% or less on older children.

- The Center for Disease Control has recently listed Oil of lemon eucalyptus as providing protection against mosquitoes; however, it should not be used on children under three years of age.
- Permethrin products are intended for use on items such as clothing, shoes, bed nets and camping gear and should not be applied to the skin.
- Protect pets and horses from mosquito bites.
- Always follow the instructions on the label of any repellent. More information on choosing and using repellents safely is listed below.

For further information on WNV or EEE, log onto the Massachusetts Department of Public Health web site at:

<https://www.mass.gov/mosquito-borne-diseases>

If residents have any questions about mosquitoes or how to control them: the East Middlesex Mosquito Control Project can be reached at:

<https://sudbury.ma.us/emmcp/>

Choosing and using repellents safely:

<https://www.epa.gov/insect-repellents>

<http://www.cdc.gov/westnile/faq/repellent.html>

The National Pesticide Information Center (NPIC) toll free at 1-800-858-7378 or online at <http://npic.orst.edu/index.html>. If you can't go online contact MDPH at (617)983-6800 for a hard copy of the fact sheet.

www.mass.gov/mosquitoesandticks

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