



2008

West Nile Virus Mosquito Control Program

FAQs

City of Boulder, Office of Environmental Affairs

What is West Nile Virus?

WNV is an arbovirus, a virus transmitted by arthropod hosts. The virus is primarily transmitted by mosquitoes of the genus *Culex*. In Colorado, the mosquito species *Culex tarsalis*, *Culex pipiens* and *Culex erythrothorax* are known to be involved in the transmission cycle of the virus.

When is the risk of WNV the highest?

May to September

What can happen to a person/bird, etc. if they are infected with the virus?

Any health related questions should be referred to Boulder County Public Health at (303) 441-1100.

What is the city's goal to reduce the risk for residents?

The overall goal of the city of Boulder's WNV control effort is to reduce the risk of human WNV infection while providing the most limited effect to the environment as possible.

What are the city's control efforts?

Monitoring:

Starting in May, all city-owned lands within the city limits and a portion of city-owned open space lands outside the city limits will be surveyed to evaluate whether the three WNV infected mosquitoes (*Culex*) are present.

Treating:

• **Larvae:**

The city will focus its efforts on larval treatment. Larvicide will be applied to wetlands where any of the three species is found. Larval control measures will consist of treatment of wetlands with a bacterium that attacks mosquito larvae (*Bacillus thuringiensis israelensis*, or *Bti*). This effort will reduce the population of mosquitoes that can carry WNV.

- **Adult Mosquitoes:**

The presence of mosquito-borne pathogens in Boulder, if detected, will prompt one or more responses or interventions. These interventions can range from continuing existing routine monitoring to, in worst-case scenarios, large-scale application of adulticides. Monitoring data will be used to assess the risk of an outbreak of human disease and the need to apply pesticides in a limited and targeted area to control adult mosquitoes. The control response will depend on a combination of thresholds being met that include, but are not limited to:

- the overall intensity and persistence of the WNV activity in adult *Culex* mosquitoes, humans, birds, and non-avian vertebrates;
- the proximity of WNV activity to human populations within the city;
- the time of year;
- vector index level (index of 0.75); and
- seasonal climate.

If spraying is deemed to be necessary (worst-case scenario) it will be done twice, three nights apart. Residents will be notified 48 hours in advance by 911 call back, ads in the newspapers, on the city's Web site (www.bouldercolorado.gov) and on Municipal Channel 8. **Residents can opt out of spraying** by calling the city's WNV Hotline at 303-441-4004 and leaving their name, address and phone number. The city will provide information on the adult mosquito traps to residents and work with neighborhood and volunteer groups to raise awareness as the season progresses.

What is *Bti* that is used to treat mosquito larvae?

Bti (*bacillus thuringiensis israelensis*) is an effective, non-toxic bacterium which kills mosquito larva when applied to wetland breeding areas. *Bti* is made from a naturally-occurring bacterium and has the least environmental impact of known mosquito controls.

Will the city treat for nuisance mosquitoes (those that don't carry WNV)?

The city of Boulder has launched a pilot program aimed at reducing the number of nuisance mosquitoes around several popular recreational areas. One goal of this project, a cooperative effort between the city and Boulder County, is to make outdoor recreation more comfortable by reducing adult mosquito populations. This will be achieved by applying a non-toxic mosquito larvicide (*Bti*) to Sombrero Marsh, Burke II and the Kentucky Property, in addition to wetland areas within Flatirons Golf Course, Boulder Reservoir, Stazio Ball Fields, East Boulder Community Park, Pleasantview Soccer Fields, Valmont City Park and Christensen Park. Parks and Recreation will continue to employ other controls, including mosquito magnets and mowing at Stazio Ball Fields and Flatirons Golf Course to further improve player comfort at these sites.

How will residents know if an area has been treated?

Signs will be posted providing notification of *Bti* treatment, according to the city's pesticide notification ordinance.

What can residents do to protect themselves?

Residents should take a look around their property and make sure they are not providing habitat for mosquitoes. Change the water in bird baths and baby pools every 2-3 days and check gutters for standing water. Try to avoid going out at dusk and dawn when mosquitoes are most active. Wear long-sleeved shirts and long pants while outdoors. Use insect repellants that contain DEET when outside.

How can I get more information?

- www.bouldercolorado.gov, click on “West Nile Virus”
- 303-441-4004 the city’s WNV hotline and phone information resource
- Jonathan Koehn, city of Boulder, environmental affairs manager, 303-441-1915, koehnj@bouldercolorado.gov.