



To the Mayor and Members of the City Council

August 6, 2024

Page 1 of 4

SUBJECT: UPDATE ON 2024 MOSQUITO SURVEILLANCE PROGRAM AND WEST NILE VIRUS CONTROL RESPONSE

The purpose of this Informal Report is to provide an update on the City's mosquito surveillance program and response to West Nile virus (WNV) activity.

Current West Nile Virus Activity

The Environmental Services Department oversees a mosquito surveillance program each year with mosquito trap samples collected between May 1 – October 31, in conjunction with partners and Tarrant County Public Health (TCPH). Each week during this period, staff or contractors collect samples from 53 locations within the City of Fort Worth. These mosquito samples are analyzed by a laboratory for the presence of WNV. Samples are collected from traps that are placed throughout the City at locations such as fire stations, parks, community centers, and public greenspaces. Figure 1 shows placement of mosquito traps for monitoring.

Figure 1: Mosquito Traps in Fort Worth (2024)

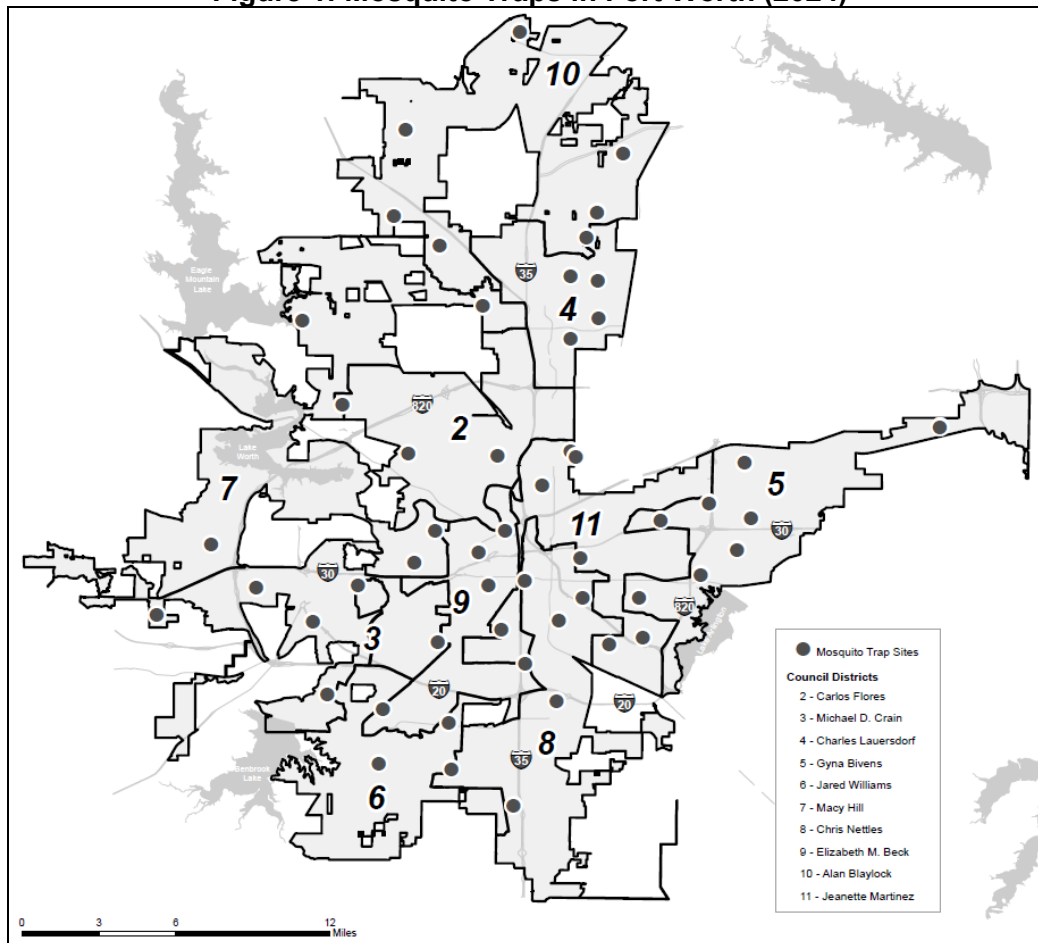


Figure displays 53 monitoring locations for mosquitoes in 2024.



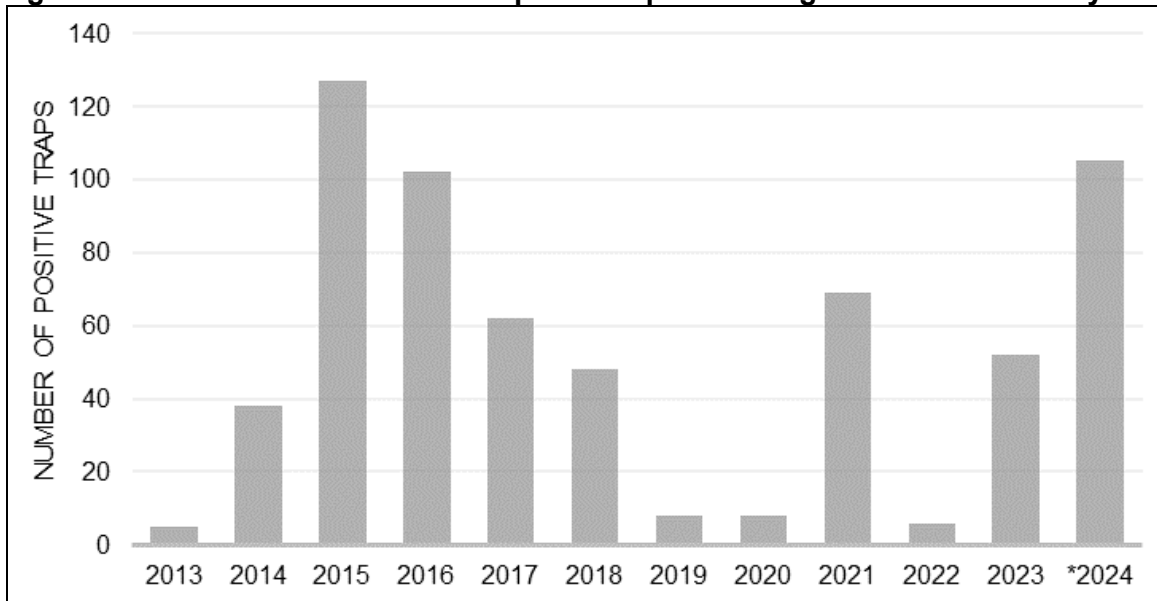
To the Mayor and Members of the City Council

August 6, 2024

Page 2 of 4

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According to data from the U.S. Centers for Disease Control and Prevention (CDC), Texas has more human cases of West Nile Virus than any other state in the country, this year, as of August 1, 2024; this is attributed to increased mosquito activity resulting from higher than normal summer rainfall. Increased prevalence of WNV in mosquitoes has also increased in other regions. As of August 1, 2024, there has been 105 positive WNV results for mosquito traps within the City's network of monitoring locations during the FY24 surveillance period. The number of local, positive trap test results are higher than in recent years, as shown in Figure 2, below. To date, TCPH has also reported three (3) human WNV illnesses within the City of Fort Worth. While the number of positive test results is high, and the number of reported human WNV cases remains low.

Figure 2: Number of Fort Worth Mosquito Samples Testing Positive for WNV by Year

Graph displays the number of mosquito samples which have tested positive for West Nile Virus in recent years during the sampling period of May 1 – October 31 of the respective year. Note: (*2024) values only display data collected from May 1 – August 1, 2024.

Each year, the City of Fort Worth works to remind individuals of steps to reduce mosquitoes and protective measures. When a positive test result is reported for a trap location, City staff work to increase education and outreach. Warning signs are posted in affected areas to remind residents to protect themselves from mosquitoes which helps to avoid the threat of WNV. Warning letters with respective maps are sent through City communications channels to include homeowners' associations and neighborhood groups in affected areas. As of August 1, the City has also conducted 15 targeted ground spray events to reduce the number of mosquitoes that may carry WNV. The need for targeted ground spraying is expected to continue throughout this year's mosquito season.



To the Mayor and Members of the City Council

August 6, 2024

Page 3 of 4

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Mosquito WNV Surveillance & Evidence-Based Response Activities

Since 2013, the City has operated its mosquito (vector) control surveillance program in partnership with Dr. Joonhak Lee, Medical Entomologist and Managing Member of DFW Environmental Health Service, LLC, and Tarrant County Public Health. This partnership is used to obtain data which assist in decision-making to deploy targeted responses to reduce the risk of WNV exposure to residents. Weekly mosquito surveillance and evidence-based response have been implemented since the inception of this partnership. The City has a response plan that is divided into five phases, based on the risk of illness, as shown in Figure 3. Appropriate actions combine public education, larviciding, and targeted ground spray activities in neighborhoods where mosquito surveillance tests have produced multiple positive WNV results.

Figure 3: Phased Response to West Nile Virus in Fort Worth

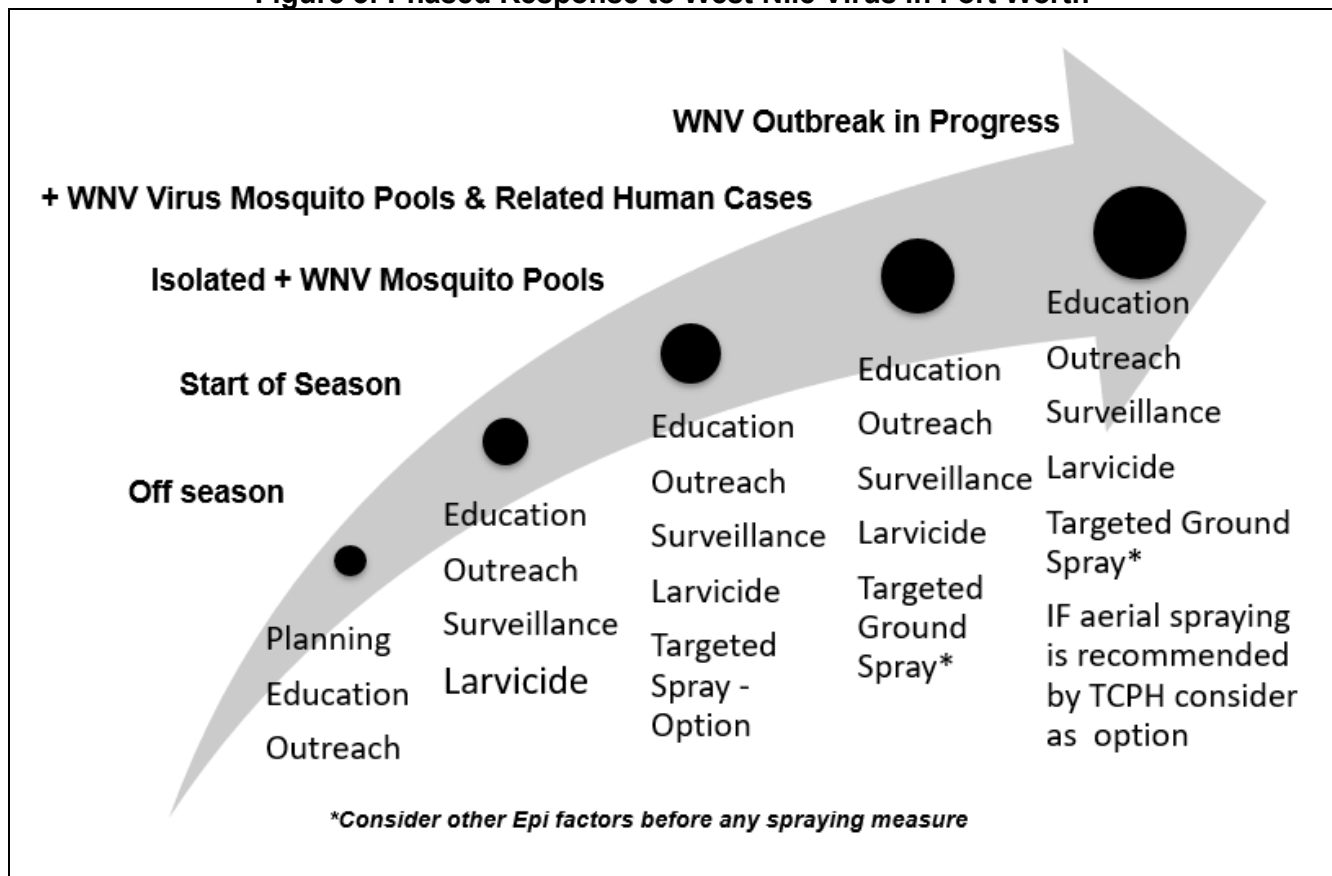


Figure displays the five phase of planned response to West Nile Virus in Fort Worth.

Education efforts focus on reducing risk of mosquito-borne disease by eliminating mosquito breeding sites near homes and in neighborhoods while emphasizing the use of personal protection to prevent mosquito bites (such as using effective insect repellants).

**To the Mayor and Members of the City Council****August 6, 2024**

Page 4 of 4

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Ground spraying is one tool that can be used to reduce mosquito populations for a short time. Following weekly sampling results, the decision to conduct targeted ground spraying is based on an analysis of several factors, including:

- Number of consecutive positive test results (at any one site)
- Number of mosquitoes caught in each trap
- Environmental investigation results of the surrounding area (mosquito breeding sites)
- Vector index (a measure of illness risk)
- Weather conditions

Additionally, if the City receives a report of a human WNV illness, staff conducts an environmental investigation within the approximate residential area surrounding the human case. Results from additional mosquito traps set in the same area are also evaluated.

As reminders to help protect yourself, your family and the community, remember:

- Dump standing water in and around your home by emptying and scrubbing all outdoor containers such as pools, toys, planters, birdbaths and trash containers.
- Tightly cover water storage containers such as buckets, cisterns and rain barrels so that mosquitoes cannot get inside to lay eggs. Clean out gutters to avoid standing water. Examine gutters for damage that would cause water to collect.
- Inspect your yard after every rainfall and empty any containers or areas where water has collected. Also watch for puddles where condensation gathers from the AC unit.
- Use screens on windows and doors and repair holes in the screens.
- Apply insect repellent anytime you're outside. Use insect repellent with one of these active ingredients: DEET, Picaridin or oil of lemon/eucalyptus or other EPA-approved repellent.

For additional information related to WNV, visit: www.fortworthtexas.gov/mosquitoes or <https://www.cdc.gov/west-nile-virus>.

For questions regarding information in this report, please contact Interim Assistant Environmental Services Director, Wyndie Turpen, at (817) 392-6982.

David Cooke
City Manager