

## Program/Service Information Report

# 2019 West Nile Virus Summary

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To: Board of Health

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## Key Points

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- Wellington-Dufferin-Guelph Public Health (WDGPH) implemented its 17<sup>th</sup> consecutive West Nile Virus (WNV) Prevention Program in 2019.
- This program aims to reduce human WNV exposure through public education, larval and adult mosquito surveillance and larviciding activities.
- WDGPH contracted Canadian Centre for Mosquito Management Inc. (CCMM) and Entomogen Inc. to accomplish WNV field activities.
- City of Guelph Property Standards staff addressed 17 standing water complaints.
- CCMM addressed 8 standing water complaints.
- One human case of WNV was confirmed in 2019.
- One avian case of WNV was reported.
- No WNV-positive mosquito pools were identified in Wellington, Dufferin, Guelph (WDG).
- 2019 was the final year of the contract with CCMM. A Request for Proposals was issued in early March 2020 for a new surveillance and larvicide contract, which will be in place for April 2020.

# Program Requirements

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## Compliance with OPHS and Accountability Indicators:

In compliance

Not in compliance. If not in compliance, provide additional information about the variance and how it will be addressed.

## Highlights

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### Larvicide Program

The 2019 larvicide program involved larval surveillance, catch basin (storm drain) and surface water treatments, post-treatment surveillance, live adult mosquito trapping, and responding to standing water complaints, all of which were conducted by CCMM. Mosquito species identification and viral-testing of adult mosquitoes were carried out by Entomogen Inc. Standing water complaints within the borders of the City of Guelph were addressed through the City of Guelph's Standing Water By-law (By law Number (2003) – 1719) by the City of Guelph's Property Standards Inspection Department and with WDGPH and CCMM staff. Catch basin treatments began on June 28<sup>th</sup> and ended on August 30<sup>st</sup>, 2019. A total of 92,405 roadside catch-basins and 183 non-roadside catch basin treatments were made.

Stagnant surface-water sites received 1,386 site inspections and 166 applications of larvicide, beginning July 2, 2019 and ending on September 27, 2019. All treatments were made to surface-water sites that had been identified in previous years as potentially important and all treated sites were located on public property. The predominant stagnant-water sources for mosquito development were storm-water management ponds and roadside ditches. In total, 0.539 hectares of stagnant surface-waters were treated with larvicide.

In June 2019, a Public Notice was placed in three local media outlets before larviciding treatments began. Public notification is required by the Ministry of the Environment Conservation and Parks (MECP) to obtain larvicide application permits. The public was encouraged to have catch basins located on their own properties treated. Larviciding service was offered for free and promoted through local media and WDGPH website.

The public was encouraged to notify WDGPH of standing water that may be conducive to mosquito-breeding. Seventeen standing water complaints were addressed by City of Guelph Property Standards and 8 standing water complaints addressed by CCMM. Weekly collection of adult mosquitos, for species identification and viral analysis, began June 17, 2019 and ended on September 24, 2019. Twelve trap-site locations were selected throughout WDG. A total of 177 mosquito trap samples were analyzed.

## Surveillance

Surveillance activities included adult and larval collection of vector species, *Culex restuans* and *Culex pipiens*. Larval vector species determine the application of larvicide. Trapped adults were identified by Entomogen Inc. and vector and bridge species were pooled (mosquitoes of the same species) and tested for WNV.

In 2019, there were no WNV-positive mosquito pools confirmed in WDG. However, there was one WNV-positive bird confirmed. One human WNV infection (probable) was investigated 2019. Trapped mosquito data is presented in the table below.

Year	Mosquitoes Trapped
2017	3,116
2018	10,098
2019	35,199

## Public Education

Key public messages included: mosquito bite prevention, elimination of standing water to reduce mosquito breeding areas and encouragement to contact WDGPH for free larvicide treatment for municipally-owned catch basins on their property.

## Related Reports

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- Program/Service Information Report BH.01.MAY0119.C09 - 2018 West Nile Virus Summary - Program-Service Information Report (<https://wdgpublichealth.ca/board-health/board-health-meetings/may-1-2019-agenda/bh01may0119c09-2018-west-nile-virus-summary>)