



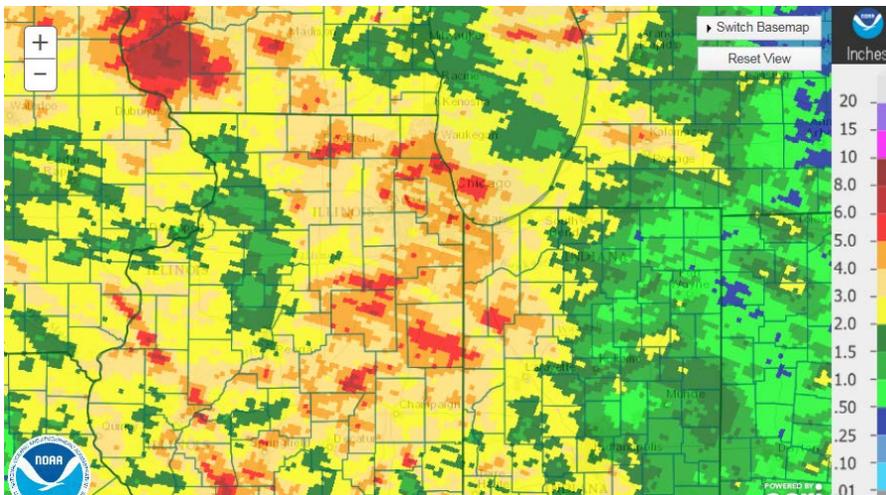
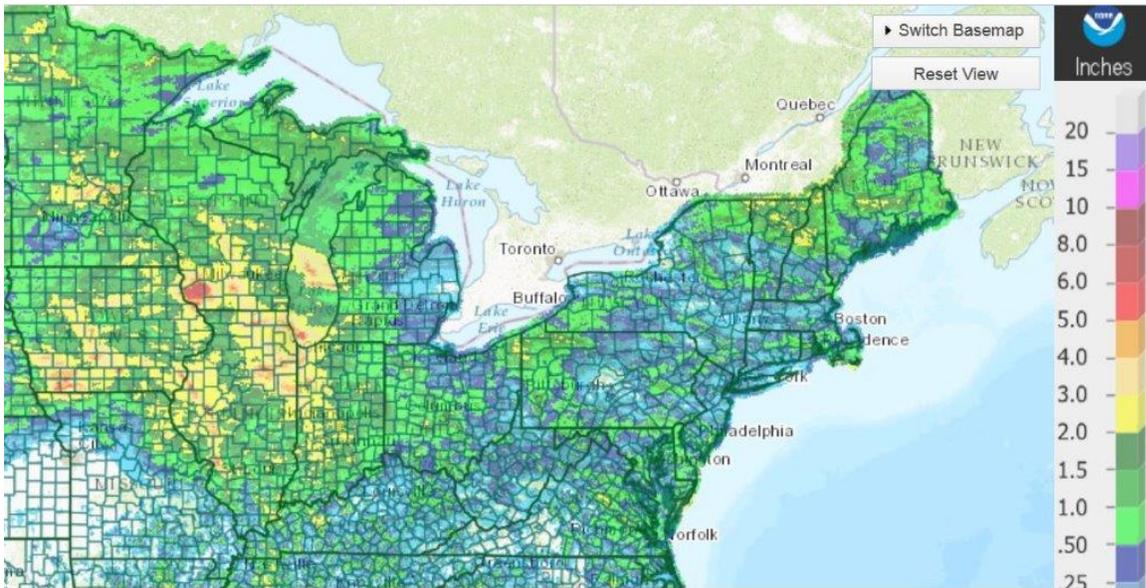
# Lisle Township

## July 2016 - Status Report

### Season Perspective

Weather conditions critically affect the seasonal mosquito population. Excessive rainfall periods trigger hatches of floodwater mosquitoes (*Aedes vexans*), the dominant annoyance species in northern Illinois that has a flight range of 15 to 20 miles. The other target species is the northern house mosquito (*Culex pipiens*), the primary vector of West Nile virus (WNV) that flourishes under stagnant water drought conditions.

July 2016 was the third wettest July on record, in which, 7.1 inches of rain fell. Between July 17<sup>th</sup> and 24<sup>th</sup>, most of the Chicagoland area received over 3.0 inches of rain due to a series of heavy thunderstorms, as shown by the following map:





Over that 8 day period, harder hit communities received more rain than typically falls during the entire month of July. The average July rainfall amount is 3.7 inches. The intense heatwave during that period could have caused some of the rain to soak in, but a significant floodwater mosquito population could impact the area in early August.

Clarke operates a network of 140 New Jersey light traps in the Chicagoland area to monitor the seasonal mosquito population. Year-to-date, the numbers of floodwater mosquitoes have been below the typical amount trapped. The *Culex* numbers have been steady and the DuPage County WNV prediction model indicates the mosquito infection rate (MIR) is running above the historical average. August is primetime for WNV transmission and operations will focus on *Culex* larval development, and truck ULV adulticide applications will be recommended to suppress the adult mosquito population.

## **MOSQUITO-BORNE DISEASE UPDATE**

### **West Nile Virus (WNV)**

In 2015 a total of 48 states and the District of Columbia reported West Nile virus (WNV) infections in people, birds, or mosquitoes in 2015. Overall, 2,060 cases of West Nile virus disease in people were reported to CDC, including 119 fatalities. Of these, 1,360 (66%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 700 (34%) were classified as non-neuroinvasive disease.

As of August 2<sup>nd</sup>, the Illinois Department of Public Health (IDPH) reported the following WNV information:

- 3 WNV+ human cases in downstate Illinois
- 22 counties WNV+ for mosquito, bird, horse or humans
- 3 WNV+ positive birds
- 114 WNV+ mosquito samples

### **Zika Virus (ZIKV)**

As of July 27, 2016, the CDC reported 1,658 travel-associated human cases of ZIKV in the United States, 14 of which were sexually transmitted. New York, Florida and California and have confirmed the most ZIKV travel-associated cases (449, 307 and 87 cases, respectively), The State of Illinois has reported 23. For the first time, local transmission of ZIKV from mosquitoes to humans has documented in Miami, Florida in at least fifteen (15) people. Intensive larval and adult mosquito control measures will be performed to put maximum pressure on the *Aedes aegypti* population.

The U.S. territories (U.S. Virgin Islands, American Samoa, and Puerto Rico) have reported 4,729 ZIKV human cases, with 4,666 being diagnosed in Puerto Rico.



**Brood Prediction**

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Distinct hatches of floodwater mosquito populations, or broods, are triggered by significant rainfall events. The Clarke Brood Prediction Model calculates peak annoyance periods based on rainfall and temperature data collected from weather stations in your area.

Weather Station Name	Rainfall Date	Rain Amount (inches)	Brood Prediction Date
Du Page Co.	06/22/2016	0.43	07/10/2016
Du Page Co.	07/05/2016	0.79	07/22/2016
Du Page Co.	07/07/2016	0.85	07/23/2016
Du Page Co.	07/17/2016	1.16	08/01/2016
Du Page Co.	07/21/2016	1.11	08/04/2016
Du Page Co.	07/23/2016	1.25	08/06/2016
Du Page Co.	07/28/2016	0.61	08/11/2016
Du Page Co.	07/29/2016	0.53	08/12/2016

**Upcoming August Operations**

- 1 Complete Inspection
- 1 Targeted Inspection
- 1 Catch Basin Treatment

**Operation and Surveillance Reports:**

Below is a report outlining all services performed in the month of July. These services could include the following:

- **0956 N.J. Light Trap (5 day/wk – WMAD)** - *Seasonal Light Trap Service for adult mosquito population monitoring.*
- **1252 Complete Site Larval Insp Serv:** *Inspection service of all potential mosquito larvae development sites.*
- **1302 Targeted Site Larval Insp Serv:** *Inspection of all targeted larval development sites.*
- **1352 Larval Site Service Call:** *Special inspection of standing water for mosquito breeding per hot line request.*
- **1752 Vectobac (B.T.I.) BP Larv:** *Backpack larviciding for biological control of mosquito larvae sites.*
- **2009 Natular XRT CB Bike:** *Catch Basin treatment for larval control.*
- **2010 Natular XRT BYCB Bike:** *Backyard catch basin treatment for larval control.*
- **2202 5% Abate Helicopter Prehatch:** *Helicopter prehatch application for larval control.*
- **2206 Natular T30 CB Bike:** *Catch Basin treatment for larval control.*
- **2552 Merus Truck ULV:** *Truck ULV application for adult mosquito control*
- **2888 Biomist 3+15 Truck ULV:** *Truck ULV application for adult mosquito control*
- **2902 0.5% FLIT (Permethrin) BP Barr:** *Backpack barrier strip application to reduce adult mosquito reinfestation.*
- **2922 0.5% FLIT (Permethrin) BP Barr:** *Backpack barrier strip application to reduce adult mosquito reinfestation.*



**Services Performed July 2016:**

<b>Service Item</b>	<b>Start Date</b>
ROS1252 - Complete Site Larval Insp Serv	07/08/2016
ROS2202 - 5% Abate Heli Prehatch	07/18/2016
ROS2802 - Anvil Truck ULV Application	07/19/2016
ROS1302 - Targeted Site Larval Insp Serv	07/20/2016
ROS2015 - Vectolex WSP Catch Basin Trtmt	07/21/2016