



# Village of Hainesville

## July 2017 - Status Report

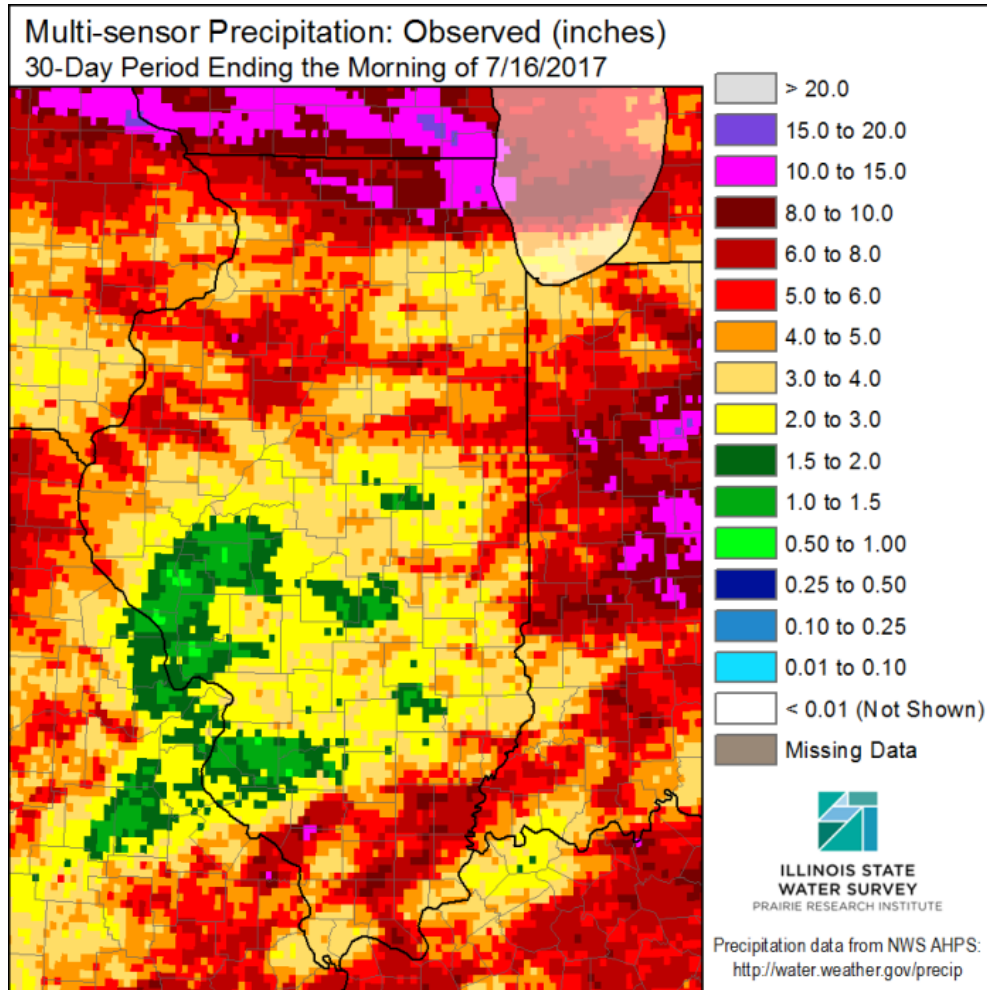
### Season Perspective

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.

Record summer precipitation since June 1<sup>st</sup> has hatched eight floodwater mosquito broods that set the stage for periods of extreme mosquito annoyance conditions. The National Weather Service reported that the month of July 2017 at O'Hare International Airport was the 6<sup>th</sup> wettest on record. The following chart lists the amount of rainfall received at four locations, from north to south, in the Chicagoland area since June 1<sup>st</sup>:

LOCATION	COUNTY	TOTAL RAINFALL June 1 – July 24	NORMAL RAINFALL	% of NORMAL
Mundelein	Lake	18.72	7.01	267%
O'Hare	Cook	11.09	6.2	179%
Midway	Cook	6.58	7.09	93%
Romeoville	Will	6.68	7.91	84%

By far, the rainfall pattern over the past 30 days was most intense across the northern tier of Illinois counties: Lake, McHenry, Boon and Winnebago. Historic flooding occurred, and as the waters recede, major mosquito hatches are anticipated. The following Illinois State Water Survey map depicts the rainfall amounts received across the state over the past 30 days ending on July 16<sup>th</sup>:



While the floodwater mosquito population spikes in early August, above normal temperatures are also conducive to accelerating the development of the *Culex* population. As of July 26<sup>th</sup>, eight days have been over 90°. The first human case of West Nile virus (WNV) in Will County was announced by the Illinois Department of Public Health on July 20<sup>th</sup>. There have been reports of 289 West Nile virus-positive (WNV+) mosquitoes collected in 30 Illinois counties. The majority of the samples (201 of 289 – 72.7%) have been collected in the immediate Chicagoland area in Cook DuPage, Kane, McHenry and Will Counties.

July and into August, surveillance and larval control activities will focus on the *Culex* and floodwater mosquito populations. To protect the public health, proactive truck ultra-low volume (ULV) adulticide applications will be recommended for the following reasons:

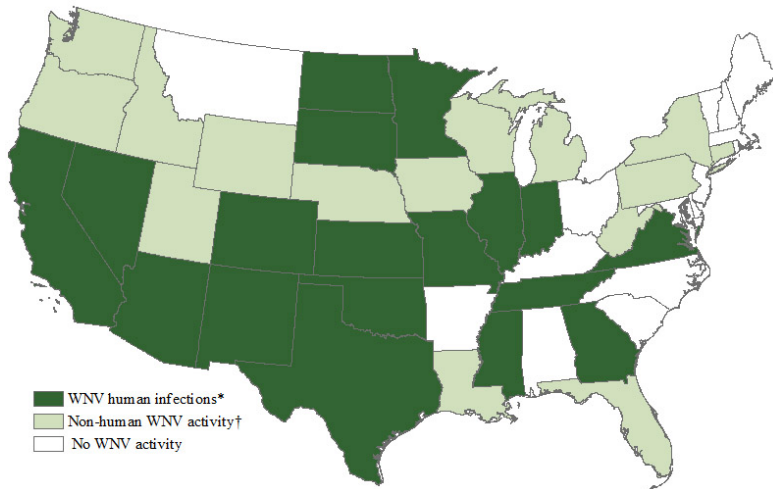
- The increased risk of WNV; and
- The increase of mosquito annoyance conditions.



**MOSQUITO-BORNE DISEASE UPDATE**

**West Nile Virus (WNV)**

2017 Centers for Disease Control & Prevention (CDC) WNV Summary: As of July 25, 2017, a total of 33 states have reported WNV infections in people, birds, or mosquitoes in 2017. Overall, 67 cases of WNV disease in people have been reported to CDC. Of these, 40 (60%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 27 (40%) were classified as non-neuroinvasive disease. The following map depicts current WNV activity in the United States:



**Mosquito-Borne Disease Update**

2017 Illinois WNV Update

- On May 30<sup>th</sup>, the Illinois Department of Public Health (IDPH) reported the first WNV+ mosquitoes in downstate Madison County.
- On June 1<sup>st</sup>, the DuPage County Health Department reported the first WNV+ mosquitoes in Wheaton and Wayne
- The first Illinois WNV human case was reported on July 20<sup>th</sup> in Will County.

County	Birds	Mosquito Batches
COOK	2	294
DUPAGE	0	40
KANE	1	8
KENDALL	0	8
MCHENRY	0	3
STEPHENSON	2	0
WILL	0	15
<b>TOTAL</b>	<b>10</b>	<b>472</b>



**Zika virus (ZIKV)**

The CDC reports the following ZIKV human case summaries for 2016 and year-to-date in 2017, as of July 19, 2017:

ZIKV CASE TYPE	UNITED STATES		US TERRITORIES		NOTES
	2016	2017 - YTD	2016	2017 - YTD	
Travelers returning from affected areas	4,830	174	142	0	<b>2016 breakdown:</b> 49 states & DC; IL - 103
Acquired through presumed <u>local</u> mosquito-borne disease transmission	224	0	35,937	532	<b>2016 breakdown:</b> FL-218, TX-6. PR-34,963
Acquired through other routes (e.g. sexual, laboratory or blood-borne transmission)	48	1	0	0	
<b>HUMAN CASE TOTALS</b>	<b>5,102</b>	<b>175</b>	<b>36,079</b>	<b>515</b>	

**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	Brood Prediction Date
Northlake	06/14/2017	1.70	07/04/2017
Northlake	06/17/2017	1.12	07/06/2017
Northlake	06/22/2017	1.22	07/10/2017
Northlake	06/28/2017	2.57	07/16/2017
Northlake	07/09/2017	1.01	07/25/2017
Northlake	07/11/2017	2.59	07/30/2017
Northlake	07/12/2017	2.19	07/31/2017
Northlake	07/19/2017	0.77	08/02/2017
Northlake	07/20/2017	0.45	08/03/2017
Northlake	07/21/2017	1.38	08/04/2017
Northlake	07/23/2017	1.06	08/06/2017

**Upcoming August Operations**

- 1 Completed Inspection
- 1 Targeted Inspection



**Services Performed 2017:**

Service Item	Start Date
ROS1302 - Targeted Site Larval Insp Serv	07/05/2017
ROS2712 - Biomist ATV/ULV Appl. Nights	07/14/2017
ROS2888 - Biomist 3+15 Truck ULV	07/14/2017
ROS1252 - Complete Site Larval Insp Serv	07/20/2017
ROS2888 - Biomist 3+15 Truck ULV	07/20/2017
ROS2222 - Vectolex Heli Prehatch (5#/A)	07/25/2017
ROS2888 - Biomist 3+15 Truck ULV	07/27/2017