



## Village of Round Lake Beach May 2020 - Status Report

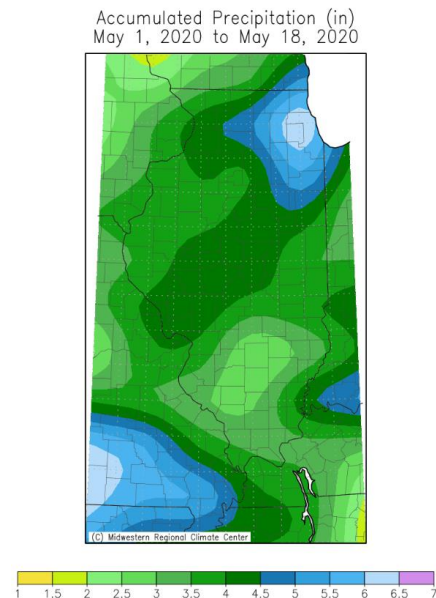
### SEASON PERSPECTIVE

Introduction. 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 and drought conditions.

**May 2020 - the wettest month of May on record!** May-2020 was the wettest May on record for the third consecutive year as shown by the following chart:

Year	Total May Rainfall (inches)
2019	8.25
2018	8.21
*2020	9.51
*The wettest May in 150 years of record-keeping	

The following map by the Illinois State Climatologist Office shows the deluge of flooding rains that hit the Chicagoland area. Most areas received a range between 5.0 and 6.5 inches of rain through May 19<sup>th</sup>:



The series of May flooding rains triggered six (6) floodwater mosquito (*Aedes vexans*) brood hatches predicted to impact the Chicagoland area during the last week of May. If temperatures reach near or above normal levels, excessive mosquito annoyance conditions can be anticipated.



During this early part of the season, Clarke operations will focus on floodwater mosquito larval development habitats for the control of these early season hatches. Truck ULV adulticide applications could be recommended, as warranted by surveillance data, to suppress the adult mosquito population by late May and early June.

**Floodwater Mosquito 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	04/28/2020	1.71	05/27/2020
Northlake	04/29/2020	1.94	05/27/2020
Northlake	05/10/2020	0.48	05/30/2020
Northlake	05/13/2020	0.92	06/05/2020
Northlake	05/14/2020	1.94	06/05/2020
Northlake	05/16/2020	0.87	05/30/2020
Northlake	05/17/2020	1.62	05/31/2020
Northlake	05/23/2020	1.06	06/06/2020

**MOSQUITO-BORNE DISEASE UPDATE**

**West Nile Virus (WNV)**

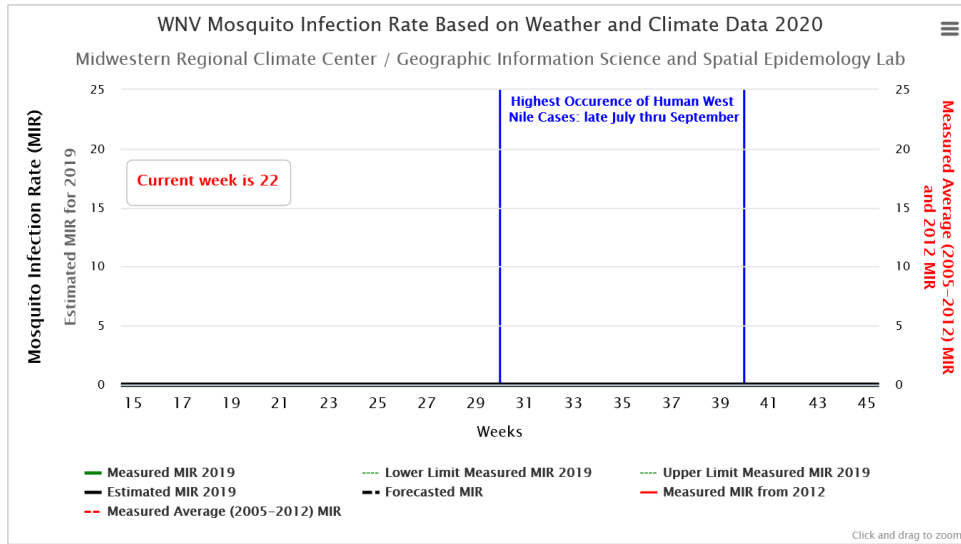
**2019 – USA.** Since 1999, West Nile virus (WNV) has rapidly spread across the United States causing over 50,981 human cases, including over 2,334 fatalities, during the past 20 years. Because WNV is so widespread in bird and mosquito populations, the virus has become well established as an annual mosquito-borne disease threat. In 2019, there were 917 human cases of WNV across the United States reported by the Centers for Disease Control & Prevention (CDC). The following are the top ten states that recorded the most WNV cases in 2019 in descending order: CA-AZ-CO-NV-NM-NE-IL-LA-MS and MI. These 10 states accounted for 76% of the 2019 human case count.

**2019 – Illinois.** In 2019, the State of Illinois recorded 28 human WNV cases, including 1 fatality, compared to 174 in 2018, and 90 in 2017.

**2020 – USA.** As of May 19<sup>th</sup>, No USA human WNV cases States have been reported to the CDC.



**Midwest Regional Climatic Center (MRCC) WNV Prediction Model – Week 22– 5/29/20**



**OPERATIONS UPDATE**

**Services Performed May 2020:**

Service Item	Start Date
ROS1302 - Targeted Site Larval Insp Serv	05/18/2020

**Upcoming June Operations**

- 1 Completed Inspection
- 2 Targeted Inspections
- 1 Catch Basin Treatment