Village of Romeoville
June 2024 - Status Report

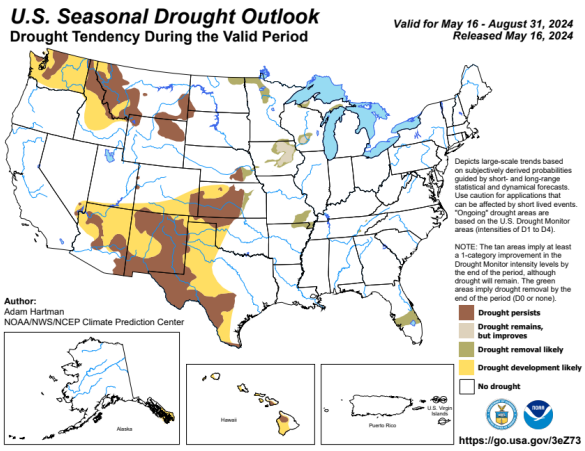
SEASON PERSPECTIVE

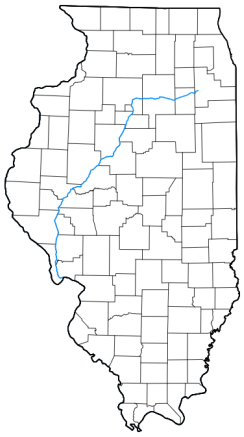
Introduction. The objectives of the WNV program are to protect the public health by controlling nuisance mosquitoes, reducing the potential of mosquito-borne disease transmission, and providing a comfortable and healthy atmosphere for district residents.

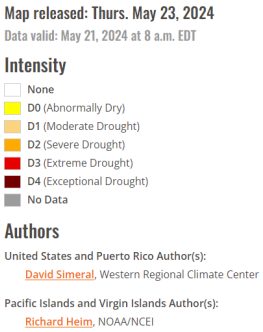
Weather conditions critically affect the seasonal mosquito population. Excessive rainfall periods trigger hatches of floodwater mosquitoes (*Aedes vexans*), the dominant annoyance species in northern Illinois that has a flight range of 15 to 20 miles. The other target species is the northern house mosquito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

2024 Northern Illinois Soil Moisture at Normal Levels

The following United States Drought Monitor maps depict that the northern Illinois soil moisture is at a normal level with no drought conditions expected this summer.







The following chart shows year and month-to-date precipitation amounts at Chicago O'Hare:

Period	2024	Normal
May	3.85"	3.95"
Year-to-date	16.22"	15.06""

Since April 1st, the series of eight (8) key rainfalls at O'Hare hatched floodwater mosquito (*Aedes vexans*) broods. The first three weeks of May were 5-degrees above normal. The mid-summerlike temperatures stimulated early mosquito annoyance activity until temperatures crashed after the Memorial Day weekend. Accordingly, during the early part of the 2024 season, floodwater mosquitoes and annoyance conditions are anticipated at above normal levels, especially when cool temperatures rebound. By contrast, 2023 was a much dryer spring with only three (3) floodwater hatches due to developing drought conditions. Clarke operations will focus on floodwater larval development habitats for the control of *Aedes vexans* and proceed with the first round of catch basins and helicopter prehatch applications. Prior to the 4th of July holiday, truck ULV adulticide applications will be recommended as warranted by surveillance data.

Floodwater Mosquito Brood Prediction

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Floodwater mosquito population hatches, 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	Rain Date	Rain Amount	Brood Prediction Date
Will Co.	05/02/2024	0.59	05/16/2024
Will Co.	05/07/2024	0.90	05/21/2024
Will Co.	05/09/2024	1.34	05/23/2024
Will Co.	05/13/2024	1.11	05/27/2024
Will Co.	05/24/2024	0.76	06/07/2024
Will Co.	05/26/2024	0.97	06/09/2024
Will Co.	06/01/2024	0.69	06/15/2024
Will Co.	06/05/2024	0.49	06/19/2024
Will Co.	06/13/2024	0.40	06/27/2024
Will Co.	06/23/2024	0.97	07/07/2024

New Jersey Light Trap Counts

(*Red numbers indicate an annoyance level)

Trap Location	5/13	5/15	5/17	5/20	5/22	5/24	5/28	5/29	5/31
750 Yates Ave	2	3	15	7	2	3	10	1	3
401 Normantown Rd	1	1	12	3	1	5	0	0	4

Trap Location	6/03	6/05	6/07	6/10	6/12	6/14	6/17	6/19	6/21
750 Yates Ave	7	5	7	3	22	53	21	9	25
401 Normantown Rd	1	3	2	2	10	11	11	0	6

MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2024 – USA. As of June 1st, the first human WNV case has been reported in Shelby County, Tennessee by the Shelby County Health Department and Tennessee Department of Health.

2024 – Illinois. The Illinois Department of Public Health (IDPH) has confirmed the first two batches of mosquitoes to test positive for West Nile virus in Illinois in 2024, in Cook County (Hoffman Estates) and Morgan County (Jacksonville).

West Nile Virus Activity Comparison and Summary (as of May 31, 2024)

	Number Collected in all Counties	# WNV Positives	% WNV Positives
2024 Data as of May 31			
2024 Mosquito Surveillance Samples	713	4	0.6%
2024 Bird Surveillance Samples	20	3	15.0%
2024 WNV Positive Counties	6		
2024 Human Cases as of May 31	0		
2023 Historical Data as of May 31 for Comparison			
2023 Mosquito Surveillance Samples	945	9	1.0%
2023 Bird Surveillance Samples	34	0	0%
2023 WNV Positive Counties	1		
2023 Total Human Cases	67		
2012 Historical Data as of May 31 for Comparison			
2012 Mosquito Surveillance Samples	909	12	1.3%
2012 Bird Surveillance Samples	145	8	5.5%
2012 WNV Positive Counties	5		
2012 Total Human Cases	290		

Surveillance, testing, and analysis of Culex mosquitoes for West Nile virus has resumed for the 2024 season with the collaboration of the following agencies:

- Clarke Environmental Mosquito Management, Inc.
- Illinois Department of Public Health

OPERATIONS UPDATE

Services Performed - May & Early June 2024:

Service Item	Start Date
N.J. Light Trap Seasonal Serv	05/13/2024
Natular G 5#/Acre Hand	06/03/2024
Complete Site Larval Insp Serv	06/03/2024
Biomist 3+15 Truck ULV	06/04/2024
Biomist 3+15 Truck Festival	06/05/2024
Biomist 3+15 Truck Festival	06/07/2024
Biomist 3+15 Truck Festival	06/12/2024
Natular G 5#/Acre Hand	06/17/2024
Targeted Site Larval Insp Serv	06/17/2024
Biomist 3+15 Truck Festival	06/19/2024

Upcoming June 2024 Operations

Work Type	Number of Treatments
Complete Site Larval Insp Serv	2
Biomist 3+15 Truck ULV	8
Targeted Site Larval Insp Serv	1
Biomist 3+15 Truck ULV	2