



City of Oakbrook Terrace

August 2024 - Status Report

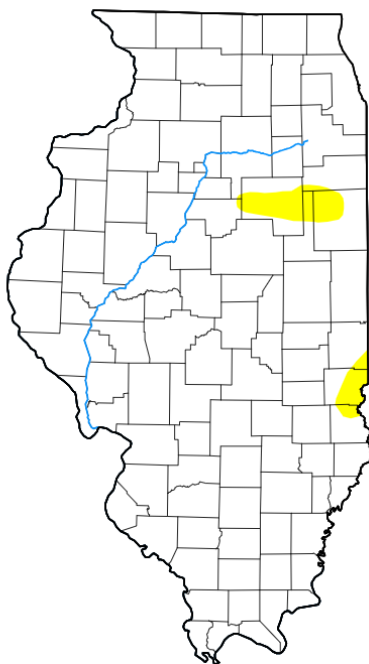
SEASON PERSPECTIVE

Introduction. The objectives of the 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 Chicagoland Soil Moisture Conditions Rebound and Improve

The following July 18th Illinois Drought Monitor map shows soil moisture improvement throughout Illinois and the Chicagoland area, compared to mid-June moderate drought conditions:



Map released: Thurs. August 1, 2024

Data valid: July 30, 2024 at 8 a.m. EDT

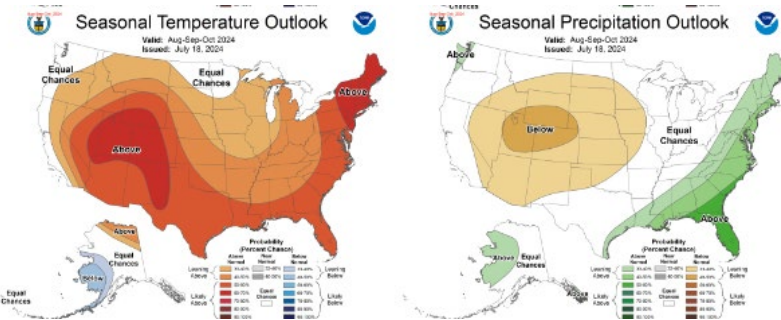
Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



Between July 1st and 15th at O’Hare Airport a series of six (6) heavy rains totaling 5.20 inches triggered floodwater mosquito brood hatches to peak during the last half of the month. The Clarke network of 100 New Jersey light traps continues to collect the largest catches of floodwater mosquitoes seen in many years. The impact of the excessive July rainfall was reflected in the number of citizen inquiries on the Clarke “Biteline” system through July 31st: 323 annoyance calls and 57 standing water reports.

The National Weather Service 30-day outlook:



The seasonal outlook for August thru October from the National Weather Service is for continued above normal temperatures and near normal rainfall.

West Nile virus (WNV) is starting to spike in Illinois. The following Illinois Department of Public Health news release was issued on July 17th announcing the first human case in Cook County:



NEWS RELEASE

FOR IMMEDIATE RELEASE
July 17, 2024

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IDPH Reports First Human Case of West Nile Virus in Illinois of 2024

CHICAGO – The Illinois Department of Public Health (IDPH) today announced the first human case of 2024 in Illinois of West Nile virus (WNV), the mosquito-borne illness. While commercial testing and clinical symptoms indicate a case of WNV, IDPH routinely sends the first positive case to CDC for confirmatory testing, which is pending. The individual is in their 60’s and lives in suburban Cook County. The onset of WNV symptoms was in mid-June.

In late July, the Clarke surveillance team saw an increase in WNV-positive mosquito reports. In northern Cook County, the North Shore Mosquito Abatement District reported 26.7% of their WNV samples were positive during the week of July 17th, 33.4% positive during the week of July



24th, and 53.0% positive during the week of July 31st. In addition, WNV human cases have been announced in Batavia and Villa Park.

Operations plan. As a result of this weather pattern, intense floodwater mosquito (*Aedes vexans*) annoyance is anticipated into August. With the spike in WNV-positive reports and the first Illinois human WNV case announcement on July 17th, the northern house mosquito (*Culex pipiens*) is anticipated to cause an increased public health risk in August. Accordingly, Clarke operations will focus on floodwater and permanent water habitats for the control of both target species. The booster round of street catch basin applications are underway, as well as the final helicopter pre-hatch round. Truck ULV adulticide applications will be recommended as warranted by surveillance data for nuisance and potential risk of WNV transmission.

Floodwater Mosquito Brood Prediction – DuPage County Airport

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
DuPage Co. Airport	06/22	1.99	07/06
DuPage Co. Airport	06/25	0.68	07/09
DuPage Co. Airport	07/03	0.57	07/17
DuPage Co. Airport	07/07	1.05	07/21
DuPage Co. Airport	07/09	0.62	07/23
DuPage Co. Airport	07/14	1.20	07/28
DuPage Co. Airport	07/15	0.70	07/29
DuPage Co. Airport	08/5	0.64	08/19

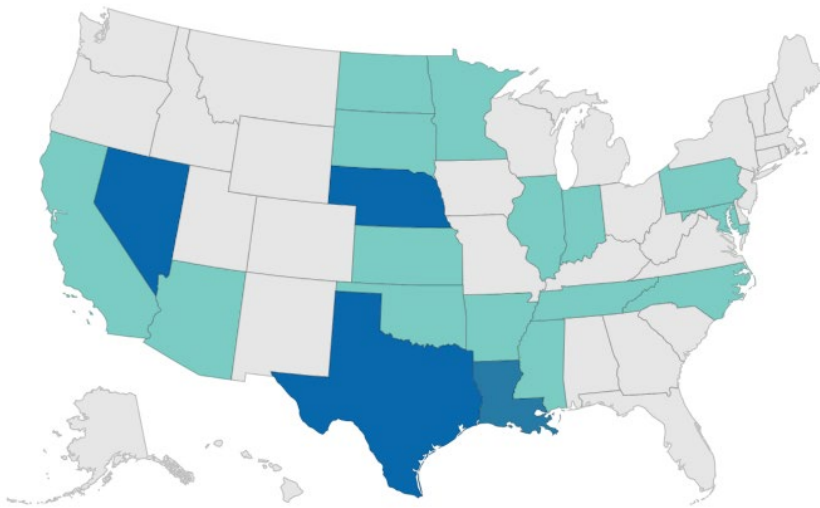


MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

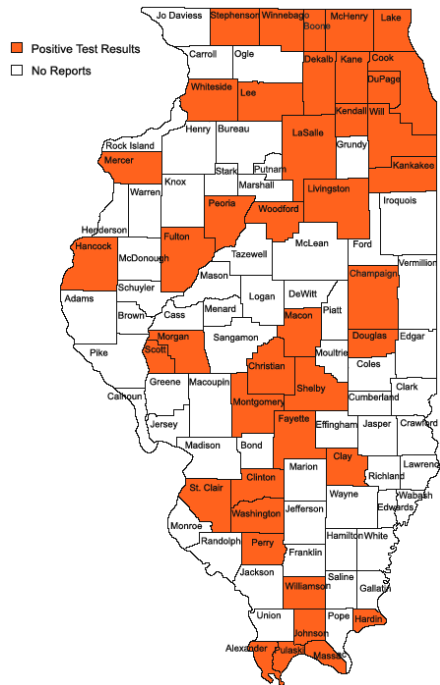
2024 – USA. As of July 30th, seventy-two (72) human WNV case have been reported to the Centers for Disease Control (CDC) in the following twenty-one (21) states:

West Nile virus human disease cases reported by state of residence, 2024



● 1 to 5 ● 6 to 8 ● 9 to 25 ● >25

2024 – Illinois. As of August 2nd, the Illinois Department of Public Health (IDPH) has confirmed 915 batches of mosquitoes to test positive for West Nile virus in Illinois in the following 41 highlighted counties:

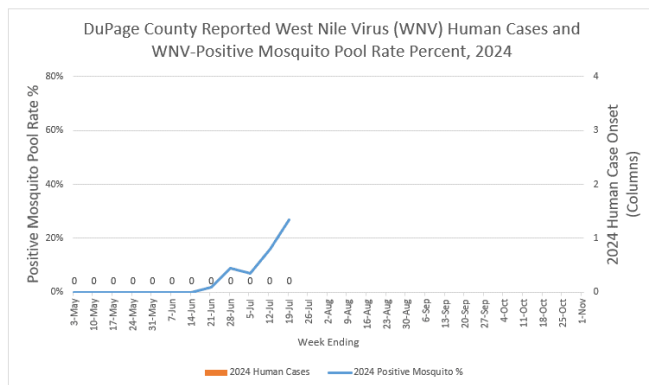


	Number Collected in all Counties	# WNV Positives	% WNV Positives
2024 Data as of August 2			
2024 Mosquito Surveillance Samples	8,619	915	10.6%
2024 Bird Surveillance Samples	117	22	18.8%
2024 WNV Positive Counties	41		
2024 Human Cases as of August 2	1		
2023 Historical Data as of August 2 for Comparison			
2023 Mosquito Surveillance Samples	9,854	1,015	10.3%
2023 Bird Surveillance Samples	101	11	10.9%
2023 WNV Positive Counties	41		
2023 Total Human Cases	119		
2012 Historical Data as of August 2 for Comparison			
2012 Mosquito Surveillance Samples	11,116	2,397	21.6%
2012 Bird Surveillance Samples	390	53	13.6%
2012 WNV Positive Counties	34		
2012 Total Human Cases	290		

IDPH announced the first human WNV case in Cook County on July 17th.

2024 – DuPage County Surveillance Data & Personal Protection Index – July 24, 2024

DuPage County West Nile Virus Surveillance Data 2024	Week: 29 7/15 - 7/19	Year to Date 2024
Mosquitoes Tested	1,596	18,487
WNV Total Tests	51	482
WNV Positive Tests	14	33
Positive Mosquito Pool Rate Percent (%)	27%	7%
Reported Human Cases	--	--
Communities with Human WNV Cases	--	--
Personal Protection Index	Risk Level 1	



FIGHT THE BITE

TODAY'S PERSONAL PROTECTION INDEX

1

LOW

Risk Level Recommendations

0: NONE

1: LOW
Drain items that collect standing water around home or business. Defend by using insect repellent containing DEET.

2: MODERATE
Drain; Defend; Wear repellent outdoors during Dusk to Dawn.

3: HIGH
Drain; Defend; Dusk to Dawn; Dress for the outdoors with long sleeves and pants.

DCHD

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

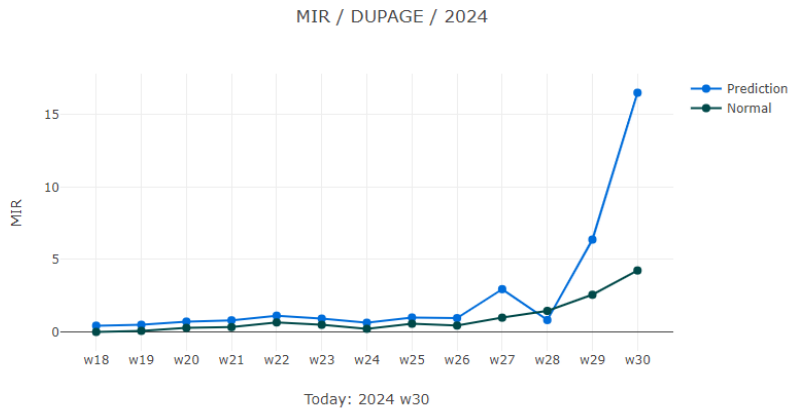


- DuPage County Information Technology Department, GIS Division
- City of Naperville
- Clarke Environmental Mosquito Management, Inc.
- Forest Preserve District of DuPage County
- Illinois Department of Public Health³
- DuPage County Health Department Public Health Center and Health Promotions Staff

University of Illinois Geographic Information Science & Spatial Epidemiology Lab

West Nile Virus – Mosquito Infection Rate (MIR) Prediction Model

Week 30 – (Week of July 21, 2024)



The MIR model showed a sharp spike of up to 16 for week 30. For reference, human cases have occurred when the MIR value surpasses 10.



OPERATIONS UPDATE

Services Performed - July & Early August 2024:

Service Item	Start Date
Natular G 5#/Acre Hand	07/08/2024
Targeted Site Larval Insp Serv	07/08/2024
Merus Truck ULV	07/11/2024
Natular XRT CB Bike	07/19/2024
Natular G 5#/Acre Hand	07/22/2024
Complete Site Larval Insp Serv	07/22/2024
NatularG30 Helicopter Prehatch	07/22/2024
Merus Truck ULV	07/25/2024

Upcoming August 2024 Operations

Work Type	Number of Treatments
Complete Site Larval Insp Serv	1
Targeted Site Larval Insp Serv	1