



City of Oakbrook Terrace

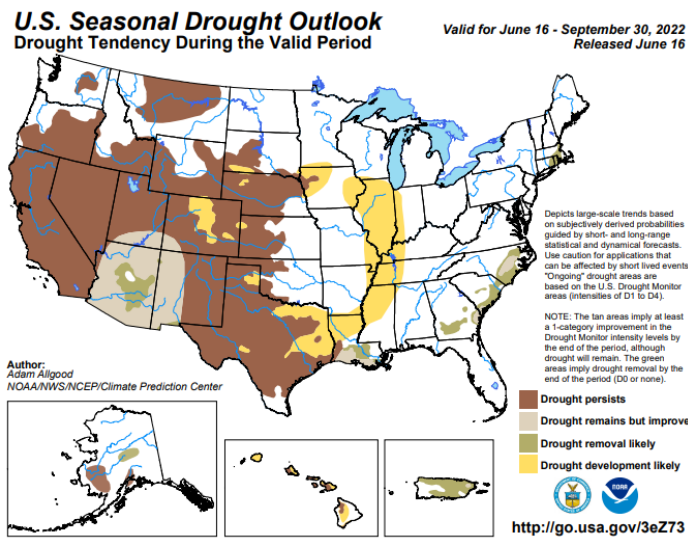
July 2022 - Status Report

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.

Abnormally Dry Soil Moisture Conditions Intensified Across Illinois

The following United States Drought Monitor map and O’Hare rainfall data show an abnormally weather pattern with drought development likely across Illinois:



2022 O'HARE RAINFALL			
Month	Actual	Normal	+ or - %
April	3.87	3.68	5.2%
May	4.93	3.38	45.9%
June	2.64	3.63	-27.3%

Source: Weather Underground

Following above normal rainfall amounts in April and May, June saw a significant shift to an abnormally dry pattern with rainfall **27.3%** below normal. The last O’Hare brood-hatching major rain was on June 13th. In addition, the temperature pattern has been above normal as shown by the number of year-to-date 90 degree days, compared to recent years:



90° Days Thru June 30 th	
Year	No. Days
2019	0
2020	7
2021	9
2022	9
Source: ABC7 Chicago Weather	

As a result, the floodwater mosquito (*Aedes vexans*) population has diminished with only spotty annoyance going into early July. Due to the persistent hot and dry pattern, *Culex* mosquitoes are expected to increase under stagnant water conditions. Accordingly, Clarke operations will focus on permanent larval development habitats for the control of the northern house mosquito, the WNV disease vector. Truck ULV adulticide applications will be recommended as warranted by surveillance data for WNV and annoyance levels.

Floodwater Mosquito Brood Prediction – DuPage County Airport

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	Rain Date	Rain Amount	Brood Prediction Date
Du Page Co.	04/22/2022	0.83	05/15/2022
Du Page Co.	04/30/2022	1.18	05/23/2022
Du Page Co.	05/03/2022	0.66	05/27/2022
Du Page Co.	05/20/2022	0.94	06/11/2022
Du Page Co.	05/26/2022	0.63	06/17/2022
Du Page Co.	06/06/2022	0.54	06/25/2022
Du Page Co.	06/08/2022	0.60	06/24/2022
Du Page Co.	06/25/2022	0.54	07/09/2022

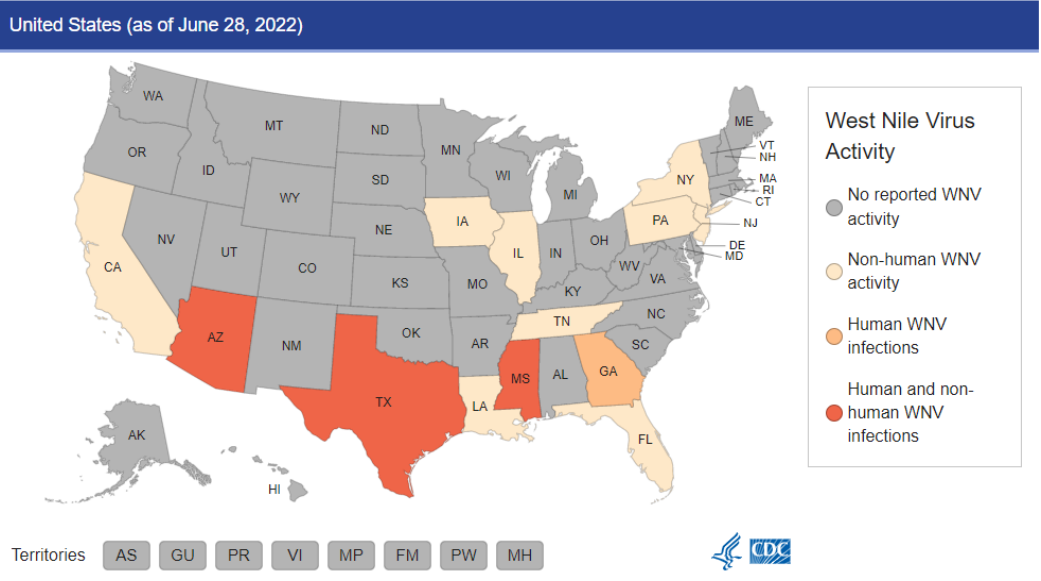


MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2022 – USA. As of June 28th, ten (10) USA human WNV cases have been reported to the CDC in AZ, GA, MS and TX.

West Nile Virus Activity by State 2022



2022 – Illinois. As of June 29th, no Illinois human WNV cases have been reported to IDPH. The following chart compares 2022 to the same YTD periods in 2021 and 2012 (the last year of a major WNV outbreak):



West Nile Virus Activity Comparison and Summary (as of June 29, 2022)

	Number Collected in all Counties	# WNV Positives	% WNV Positives
2022 Data as of June 29			
2022 Mosquito Surveillance Samples	2,811	18	0.6%
2022 Bird Surveillance Samples	62	0	0%
2022 WNV Positive Counties	9		
2022 Human Cases as of June 29	0		
2021 Historical Data as of June 29 for Comparison			
2021 Mosquito Surveillance Samples	3,754	9	0.2%
2021 Bird Surveillance Samples	44	0	0%
2021 WNV Positive Counties	3		
2021 Total Human Cases	64		
2012 Historical Data as of June 29 for Comparison			
2012 Mosquito Surveillance Samples	4,711	128	2.7%
2012 Bird Surveillance Samples	289	18	6.2%
2012 WNV Positive Counties	19		
2012 Total Human Cases	290		

2022 – DuPage County Surveillance Data & Personal Protection Index – June 25, 2022.

2022		
DUPAGE COUNTY WEST NILE VIRUS SURVEILLANCE DATA 2022	YTD 2022	WEEK: 25 6/19-25
Mosquitoes Tested	9,363	2,186
WNV Total Tests	224	47
WNV Positive Tests	3	0
Positive Mosquito Pool Rate %	1%	0%
Reported Human Cases onset	0	0
Communities with Human WNV Cases	--	--
Personal Protection Index	Risk Level >>>	0

FIGHT the WNV

TODAY'S PERSONAL PROTECTION INDEX

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



OPERATIONS UPDATE

Services Performed - June 2022

Service Item	Start Date
NatularG30 Helicopter Prehatch	06/01/2022
Complete Site Larval Insp Serv	06/07/2022
Natular G30 Bike CB (WSP)	06/07/2022
Merus Truck ULV	06/21/2022
NatularG30 Helicopter Prehatch	06/29/2022

Upcoming July 2022 Operations

Service Item	Number of Treatments
Merus 4th of July Truck ULV	1
Complete Site Larval Insp Serv	1
Targeted Site Larval Insp Serv	1