



Plainfield Township

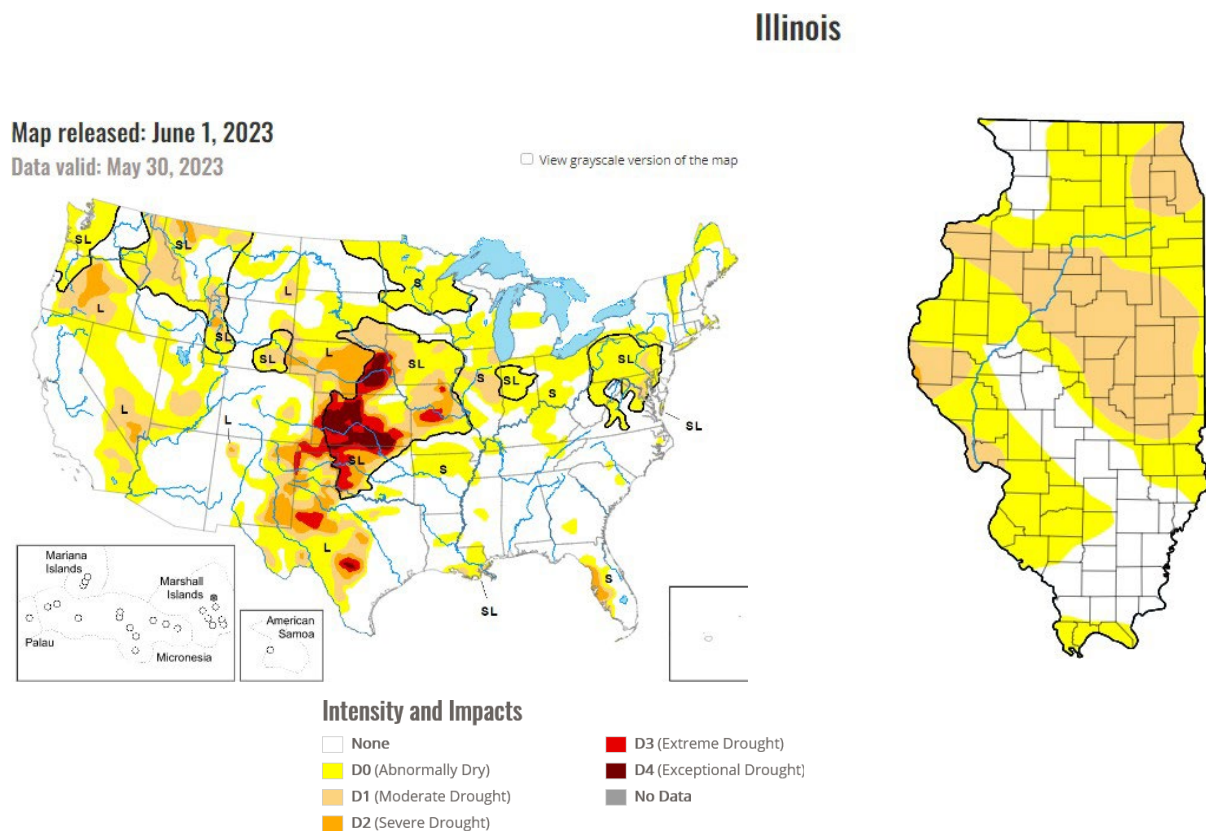
June 2023 - Status Report

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 2023 – One of the driest on record in Northeastern Illinois in the past 153 years!

The following United States Drought Monitor maps depict that Chicagoland soil moisture conditions have worsened from “no drought” in late April to “abnormally dry” moisture conditions and areas of “moderate drought,” as of June 1st:





The following chart shows the April and May rainfall deficit at O'Hare International Airport:

Month	Actual 2023 Rainfall	Normal Rainfall	% of Normal
April	2.02"	3.75"	- 46.1%
May	0.71"	4.49"	- 84.2%

Accordingly, during the early part of the 2023 season, floodwater mosquitoes (*Aedes vexans*) and annoyance conditions are anticipated to be at a low level, especially if the trend of dry weather persists. By contrast, 2022 was a much wetter spring with eight (8) floodwater mosquito brood hatches occurring by June 1st. The dry and stagnant water conditions could produce early development of the northern house mosquito (*Culex pipiens*). Clarke operations will focus on permanent water larval development habitats for the control of *Culex* and proceed with the first round of catch basins. Truck ULV adulticide applications will be recommended as warranted by surveillance data.

Floodwater Mosquito Brood Prediction – O'Hare International 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
Will Co.	4/19	0.46	5/14
Will Co.	5/12	0.63	6/3

New Jersey Light Trap Counts

(*Red numbers indicate an annoyance level)

Trap Location	5/15	5/17	5/19	5/22	5/24	5/26
24711 Easy St.	1	8	3	0	2	1



MOSQUITO-BORNE DISEASE UPDATE

West Nile Virus (WNV)

2023 – USA. As of June 1st, no USA human WNV cases have been reported to the CDC.

2023 – Illinois. The Illinois Department of Public Health (IDPH) has confirmed the first three batches of mosquitoes to test positive for West Nile virus in Illinois in 2023, both in Cook County. The North Shore Mosquito Abatement District collected a positive batch of mosquitoes in Evanston on May 30 and the Northwest Mosquito Abatement District collected two positive mosquito batches on May 31 in Park Ridge. The first positive mosquito pool in 2022 was reported on May 24th in Roselle in DuPage County. No human cases of West Nile virus have been reported so far this year.

	Number Collected in all Counties	# WNV Positives	% WNV Positives
2023 Data as of June 8			
2023 Mosquito Surveillance Samples	971	5	0.5%
2023 Bird Surveillance Samples	11	0	0%
2023 WNV Positive Counties	2		
2023 Human Cases as of June 8	0		
2022 Historical Data as of June 8 for Comparison			
2022 Mosquito Surveillance Samples	1,359	9	0.7%
2022 Bird Surveillance Samples	62	0	0%
2022 WNV Positive Counties	4		
2022 Total Human Cases	34		
2012 Historical Data as of June 8 for Comparison			
2012 Mosquito Surveillance Samples	1,458	23	1.6%
2012 Bird Surveillance Samples	206	14	6.8%
2012 WNV Positive Counties	10		
2012 Total Human Cases	290		

Testing, and analysis of Culex mosquitoes for West Nile virus has resumed for the 2023 season with the collaboration of the following agencies:

- Information Technology Department, GIS Division
- Clarke Environmental Mosquito Management, Inc.
- Forest Preserve Districts
- Illinois Department of Public Health
- Health Department Public Health Center and Health Promotions Staff



OPERATIONS UPDATE

Services Performed - May & Early June 2023:

Service Item	Start Date
Complete Site Larval Insp Serv	05/18/2023
Natular G 5#/Acre Hand	05/30/2023
Targeted Site Larval Insp Serv	05/30/2023
Natular XRT CB Bike	06/12/2023

Upcoming June 2023 Operations

Work Type	Number of Treatments
Targeted Site Larval Inspection Service	2
Natular XRT CB Bike	2
Complete Site Larval Insp Serv	1