Village of Long Grove
May 2014 - Status Report

Season Perspective

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 that flourishes under stagnant water drought conditions.

The National Weather Service U.S. Seasonal Drought Outlook map shows the 2014 soil moisture level in northern Illinois has been restored to a "normal condition." The drought, that entrenched the area for several years, is now over. This sets the stage for an above average season for the floodwater mosquito.

Since late April at O'Hare International Airport, there has been a series of five (5) significant rainfalls and floodwater mosquito hatches. May rainfall at O'Hare totaled 3.33 inches compared to the normal amount of 3.68 inches. The impact of the projected floodwater broods has been diminished because of the cooler and inconsistent temperature pattern. During the spring period since March 1st, 60% of the daily temperatures have been below normal. May temperatures have rebounded to make May the first month in seven to average above normal. For the first part of June, Chicagoland temperatures are forecasted to be summerlike and above normal. This will increase the impact of floodwater mosquito broods that emerge in the first half of June.

Mosquito-Borne Disease Update

In 2013, there were 2,374 human cases of West Nile virus (WNV) across the United States reported by the Centers for Disease Control. This represents a decline of 41.8% versus the 2012 case count of 5,674 USA cases. The following are the top ten states that recorded the most WNV cases in 2013 in descending order: CA, CO, NE, TX, SD, ND, IL, OK, KS and MN. These 10 states accounted for 72% of the 2013 human case count.

So far in 2014, there has only been one (1) human case reported in the United States in Mississippi. There have been WNV-positive birds reported in CA and WI. WNV activity is anticipated to increase in June with the return of summerlike temperatures.

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 (inches)	Brood Prediction Date
South Lake Co.	04/29/2014	0.55	05/24/2014
South Lake Co.	05/12/2014	1.41	06/04/2014
South Lake Co.	05/20/2014	0.46	06/03/2014

Upcoming June Operations

1 Completed Inspection

Recommendations

The CDC currently shows a risk category 1. Biting adult mosquitoes activity and limited or sporadic epizootic activity in birds or mosquitoes. Conduct Integrated Vector Management program to monitor and reduce vector mosquito abundance. Conduct environmental surveillance to monitor virus activity (mosquitoes, sentinel chickens, avian mortality, etc.) Initiate community outreach and public education programs focused on personal protection and residential source reduction.

Operation and Surveillance Reports

Below is a report outlining all services performed in the month of May. These services could include the following:

- **0952 N. J. Light Trap Seasonal Service:** *Seasonal Light Trap Service for adult mosquito population monitoring.*
- **1252 Complete Site Larval Inspection Service:** *Inspection service of all potential mosquito larvae development sites.*
- **1302 Targeted Site Larval Inspection:** *Inspection of all targeted larval development sites.*
- **1502 5% Abate PG-Ground Prehatch:** *Treatment with 5% Abate for larval control.*
- **1752 Vectobac (B.T.I.) BP Larv:** *Backpack larviciding for biological control of mosquito larvae sites.*
- **1754 Hand Larviciding:** *Hand equipment larviciding for biological control of mosquito larvae.*
- **2009 Natular XRT CB Bike**: *Catch Basin treatment for larval control.*
- **2015 150-day Altosid Briq Street CB:** *Catch Basin treatment for larval control.*
- **2019 Altosid XR CB Bike - 150 day:** *Catch Basin treatment for larval control.*
- **2105 150-day Altosid Briq Street CB:** *Catch Basin treatment for larval control.*
- **2202 5% Abate Heli Prehatch:** *Helicopter prehatch application with Abate pellets for larval control.*
- **2888 Biomist 3+15 Truck ULV:** *ULV application insecticide for adult mosquito control.*

Services Performed May 2014:

Service Item	Start Date
ROS1252 - Complete Site Larval Insp Serv	05/14/2014
ROS1252 - Complete Site Larval Insp Serv	05/22/2014