

# METROPOLITAN MOSQUITO CONTROL DISTRICT

COMMISSION MEETING

August 24, 2022

9:15 A.M.

*Information Packet*

METROPOLITAN MOSQUITO CONTROL DISTRICT  
COMMISSION MEETING AGENDA

August 24, 2022, 9:15 A.M.

1. Roll Call
2. Welcome and Introduction

CONSENT AGENDA \*The following items (3-5) are administrative in detail and will be approved in one motion unless a commissioner wishes to withdraw an item for discussion.

3. Approval of Commission Meeting Minutes for July 27, 2022
4. Financial Statements July 31, 2022
5. Approval of Checks and Claims  
General 76369 – 76494

REGULAR AGENDA

6. Intergovernmental Issues – (Peg Larsen, Kim Scott)
7. Early Season Hiring Deficit: Service Delivery Plans
8. Executive Director’s Report
9. Operations Report (Jon Peterson, Kirk Johnson)
10. Public Affairs Report (Alex Carlson)
11. Other Items
12. Adjournment

\* Action Requested

**Next Commission Meeting: Wednesday, October 26, 2022, 9:15 a.m.**  
**Next Executive Meeting: Wednesday, September 28, 2022, 9:15 a.m.**

COMMISSIONER	COUNTY	COMMISSIONER	COUNTY
___ Mandy Meisner	Anoka	___ Angela Conley	Hennepin
___ Mike Gamache	Anoka	___ Chris LaTondresse	Hennepin
___ Robyn West	Anoka	___ Jim McDonough	Ramsey
___ Gayle Degler	Carver	___ Nicole Frethem	Ramsey
___ Tom Workman	Carver	___ Rafael Ortega	Ramsey
___ Mary Hamann-Roland	Dakota	___ Michael Beard	Scott
___ Laurie Halverson	Dakota	___ David Beer	Scott
___ Liz Workman	Dakota	___ Gary Kriesel	Washington
___ Kevin Anderson	Hennepin	___ Fran Miron	Washington

METROPOLITAN MOSQUITO CONTROL DISTRICT  
COMMISSION MEETING

MINUTES  
JULY 27, 2022  
9:15 A.M.

Chair Angela Conley called the meeting to order at 9:16 a.m. Due to the ongoing COVID-19 pandemic, this meeting was conducted remotely using GoToMeeting software. Roll call votes were recorded for each item because this meeting was conducted remotely.

**Roll Call:**

Commissioner Angela Conley, Chair	Hennepin County
Commissioner Mike Gamache	Anoka County
Commissioner Robyn West	Anoka County
Commissioner Gayle Degler	Carver County
Commissioner Mary Hamann-Roland	Dakota County
Commissioner Liz Workman	Dakota County
Commissioner Kevin Anderson	Hennepin County
Commissioner Chris LaTondresse	Hennepin County
Commissioner Rafael Ortega	Ramsey County
Commissioner David Beer	Scott County

**Staff:**

Stephen Manweiler, Executive Director  
Arleen Schacht, Business Administrator  
Kirk Johnson, Vector Ecologist  
Jon Peterson, District Operations Manager  
Alex Carlson, Public Affairs Manager  
Cassie Sweeney-Truitt, Administrative Assistant

**Visitors:**

Joe Langel, MMCD Legal Counsel  
Peg Larsen, RCS Consulting  
Kim Scott, RCS Consulting  
Cathy Lydon, CPA, Redpath & Company,

Chair Angela Conley welcomed all in attendance and thanked them for attending the meeting.

Commissioner Rafael Ortega offered the following resolution and moved its adoption.

**Resolution 1:**

The following administrative items were approved in one motion.

Approval of Commission Meeting Minutes for April 27, 2022

Financial Statements June 30, 2022  
Approval of Checks and Claims. General 75951 – 76368

Commissioner Hamann-Roland seconded the motion and the Commissioners voted as follows:

Commissioner Angela Conley, Chair	Yes
Commissioner Mike Gamache	Yes
Commissioner Robyn West	Yes
Commissioner Gayle Degler	Yes
Commissioner Mary Hamann-Roland	Yes
Commissioner Liz Workman	Yes
Commissioner Kevin Anderson	Yes
Commissioner Chris LaTondresse	Yes
Commissioner Rafael Ortega	Yes
Commissioner David Beer	Yes

### **Auditor’s Report on MMCD Financial Statements Ending December 31, 2021**

Cathy Lydon, CPA, Redpath & Company, reviewed the results of the audit of MMCD financial statements ending December 31, 2021. She described four aspects of the audit report.

Opinion on the Fair Presentation of the Financial Statements  
Report on Internal Controls  
Report on Compliance with Minnesota Legal Compliance Audit Guide for Political Subdivisions  
Communication with Those Charged with Governance

Cathy reported that the financial statements are fairly presented, in all material respects, in accordance with GAAP which means a totally clean report. She noted that the auditor report does not include any findings, just the compliance.

Cathy reported no findings on internal control over financial reporting. She also reported no legal compliance findings. Cathy reported that the District has a net OPEB asset of \$3,762,420. The District’s pension liability is \$2,313,189.

Cathy stated that as of December 31, 2021, The District’s unassigned fund balance was \$15,779,479 which is \$7,067,872 above the minimum defined in the District’s Fund Balance Policy (\$8,711,607). This minimum defines the amount of money needed to support cash flow between January and July when the first tax payments are received.

Cathy reported that no difficulties were encountered while performing the audit and that there were no disagreements with District management. Cathy thanked the MMCD staff for their assistance, especially Arleen Schact and Jennifer Machia.

Commissioner Tom Workman joined the meeting at the end of the Auditor’s report.

## Intergovernmental Affairs Report

The main focus right now for many candidates is the upcoming primary on August 9. Already elected Representatives and Senators cannot send out any updates from their legislative offices this close to an election. Most updates have been made up of simple information and nothing too political. We will keep you apprised of results of the primaries at the August meeting. There may be some interesting results.

Talk of holding a special legislative session has largely died down. It is possible that the Governor and Legislature could come together after the August 9 primary, as Senate Finance Chair Rosen suggested earlier in the summer, but there does not seem to be the political will on all sides to come to an agreement. Without a special session, Minnesota will unlikely be able to put up the matching funds to access some of the federal infrastructure dollars.

A [full list](#) of current legislators not seeking re-election or running for another position has been compiled by the Legislative Reference Library.

Click [here](#) to see how you were redistricted.

Click [here](#) to see who is running for 2022 elections in Minnesota.

### Important Upcoming Dates:

August 9: Primary Election

November 8: Election Day

January 10, 2023: 2023 Legislative session commences

## 2022 Plans and Initial 2023 Budget and Levy Discussion

Stephen Manweiler reviewed the three goals of the long-term plan which are (1) restore District reserves to the minimum required for cash flow needs [achieved end 2019]; (2) restore all 2017 service cuts; and (3) enable the District to provide all services to a greater area within the District as human population expands in the District.

In 2020, we paused the long-term plan because of feared levy deficits due to the COVID-19 pandemic by keeping the 2021 levy and budget the same as 2020 which delayed achieving goal 2 by one year. In 2021, we resumed the long-term plan by approving a 2022 levy of \$19,038,676 which is a 2% increase over 2020 and 2021.

We anticipate impacts to the transportation (fuel) and wage portions of the current and 2023 budgets because of high inflation (8.9%) during the last year. For this reason, we recommend a 1% increase in the 2023 budget. We also recommend continuing with the long-term plan by increasing the 2023 levy by 2%.

We reviewed three 2023 levy scenarios to highlight impacts to when we achieve goal 2 and the estimated cumulative cost of restoring all 2017 service cuts between now (2022) and when we achieve goal 2 (2025 or 2026).

Approving a 2% increase in the 2023 levy (preliminary in July) enables us to observe how the economy performs between July and December. We cannot increase the levy after July, but we can decrease it in December if we decide the economic situation justifies a decrease.

In July 2020, we approved a 0% increase in the 2021 levy because of a feared levy deficit and potential recession. Neither of those had happened by December 2020 but we were unable to increase the 2021 levy because of our decision in July 2020.

We discussed the District’s unassigned fund balance relative to the minimum amount required and how it relates to (1) enabling the District to restore all 2017 service cuts in 2022 which is three years before the budget and levy are forecasted to become equal and (2) providing resources to deliver services in high service demand years without decreasing the unassigned fund balance below the minimum required to support cash flow.

Commissioner Liz Workman offered the following resolution and moved its adoption.

**Resolution 2**

**Whereas**, the Metropolitan Mosquito Control District is required to certify a preliminary levy for payable 2023 to the Minnesota Department of Revenue by August 1, 2022; and

**Whereas**, the Metropolitan Mosquito Control Commission has reviewed property tax levy options to maintain District operational plans; be it now

**Resolved**, the Metropolitan Mosquito Control Commission certifies the preliminary payable 2023 levy in the amount of \$19,419,450 to the Minnesota Department of Revenue, a 2% increase over the 2022 levy of \$19,038,676.

Commissioner Robyn West seconded the motion. The Commissioners voted as follows.

Commissioner Mike Gamache	Yes
Commissioner Robyn West	Yes
Commissioner Gayle Degler	Yes
Commissioner Tom Workman	Yes
Commissioner Mary Hamann-Roland	Yes
Commissioner Liz Workman	Yes
Commissioner Kevin Anderson	Yes
Commissioner Angela Conley	Yes
Commissioner Chris LaTondresse	Yes
Commissioner Rafael Ortega	Yes
Commissioner David Beer	Yes

**Executive Committee Report for May 25, 2022 and June 22, 2022**

Stephen Manweiler reported that the current rental (lease) agreement with the Metropolitan Emergency Services Board will expire on December 31, 2022. At their May 25 meeting, the Executive Committee

approved a two-year renewal agreement that was unchanged from the current agreement except for a 3% increase in rent to cover maintenance and utilities cost increases.

Stephen Manweiler reported that the current contract with RCS Consulting for professional representation services expires on December 31, 2022. At their June 22 meeting, the Executive Committee reviewed the results of soliciting bids in October 2020 that resulted in the current contract being approved. The Executive Committee approved a two-year contract (2023-24) with the current lobbyists because Kim Scott and Peg Larsen (RCS Consulting LLC) have provided very effective representation by identifying legislation that could potentially impact District operations and bringing together authors of this legislation and District employees to craft amendments that mitigate negative impacts while preserving the intent of the legislation. Most of this legislation involves allowing cities to regulate and even ban pesticides that could potentially impact pollinators. Because of Kim and Peg's work, the District has been able to secure amendments exempting this District from these regulations and bans thereby preserving the District's ability to protect public health and quality of life. The renewal contract (2023-24) includes no changes to the current contract including no fee increases.

During a closed discussion at their June 22 meeting, the Executive Committee provided District negotiators with clear guidance for negotiating a new contract with the LIUNA bargaining unit to replace the current contract that expires on December 31, 2022.

At both their May 25 and June 22 meetings. The Executive Committee evaluated 2023 levy and budget proposals designed to enable to District to provide all desired services in a long-term sustainable manner.

### **Executive Director's Report**

Stephen Manweiler reported he, Jon Peterson (Operations), and Mark Smith (Technical Services) met with six facilities to thank seasonal and full-time employees for their excellent service delivery and to solicit their ideas about how to recruit more employees given competition from other agencies. We also asked how we can improve their work experience at MMCD.

Alex Carlson is facilitating a Pesticide Applicator Recertification workshop tomorrow (July 28) that MMCD employees can attend to receive CEU credits for their applicator licenses. Fees are waived for all MMCD employees who attend this workshop.

### **Operations Report**

Jon Peterson reported that July has continued to be mostly dry throughout the seven-county metro. Even with the most current rains, much of the metro remains in the moderate drought range. During the month of July, we responded to three isolated rain events, one in Anoka County, one in Washington and Ramsey counties, and the third in Scott and Carver counties. So far this month, we have treated approximately 2,200 acres with the helicopter. In total for 2022, we have treated approximately 84,000 acres by helicopter.

Adult mosquito levels remain very low throughout the metro. Because of this, our adult treatment acres are lower this year as well. These treatments have been in response to some high nuisance numbers (mainly in June), potential disease vector mosquitoes, and community events. We will continue to

monitor our Monday night surveillance trap results, inspect for disease vector mosquitoes, and treat areas if necessary.

Staff are still busy checking and treating the smaller ground sites. They are also very focused on disease prevention work. Some of the work that we do to prevent such diseases as WNV and La Crosse encephalitis include treating catch basins, treating permanent man-made structures such as culverts and washouts, wood lot inspections, and neighborhood inspections.

Another important aspect of disease prevention work that we do includes eliminating containers and removing tires that are in woodlots and in people's yards. This year, we have already removed 6,733 tires.

For MMCD's black fly program, we have made 55 treatments to small streams and 30 treatments to larger rivers (Minnesota, Mississippi, Rum, and Crow). Many of the rivers and streams are drying up quickly. In some areas of the Minnesota River, it is getting to be very difficult to use the boat launches. Overall, the adult black fly numbers have been low for the last two months.

Along with our field work, staff are meeting this month to discuss safety. It is also required by our AWAIR (A Workplace Accident and Injury Reduction) program that we meet annually with staff from all levels to discuss and improve safety.

As we move into August, we still start losing some of our staff as they resign and head to college.

West Nile virus (WNV) - Kirk Johnson stated that a total of 15 WNV cases in the U.S. (1 fatality) have been reported to CDC, including one Minnesota WNV case (Cass County) that is likely a Powassan infection, and four WNV positive mosquito pools of 284 tested (1.4% 2022, 1.8% 2021). Hot temperatures are ideal for WNV amplification.

Crews are making a considerable effort to control *Culex* vectors this year in catch basins, stormwater structures, wetlands, and residential sources.

La Crosse encephalitis (LAC) – There have been no Minnesota illnesses identified yet (zero U.S.). As to risk reduction, staff have eliminated 6,715 tires and 889 other habitats.

Jamestown Canyon virus – There have been no cases reported in U.S. yet.

Eastern Equine encephalitis (EEE) – There have been three illnesses in MN horses over past three years. Drought is resulting in reduction of larval habitat for primary vector; we are still closely monitoring adult population but expect low numbers for the late summer generations.

## Public Affairs Report

Call Totals

May 2022 = 249 total

June 2022 = 782 total

July 2022 (thru 7/22) = 95 total

1,126 total for this time span in 2022.



Same time span in:

2021 = 724 calls

2020 = 1,440 calls

2019 = 1,834 calls

For 2022:

74% of calls are for mosquito annoyance

16% of calls for tire pickups

10% for events, black fly/tick, restricted access requests, or other.

Category A+L Workshop

We will be hosting our annual workshop in partnership with the Department of Agriculture on Thursday, July 28. Speakers presenting from U of M Extension, Clarke Mosquito Control, and the DEET Education Program.

Presentation to Minneapolis Park and Recreation Board (MPRB)

We presented about MMCD operations to the Minneapolis Park Board on July 6. We plan to follow up by meeting with their staff and working on an updated agreement between MPRB and MMCD.

Preparations Underway for County Fairs and the State Fair

We will have new educational materials this year and some updated visuals and images. Stop by and see us at the Anoka County or Scott County fairs starting this weekend!

### **Other Issues**

Stephen Manweiler reminded everyone that during the June 22 Executive Committee meeting we decided to convene this July 27 Commission meeting remotely based upon Covid transmission and risk. We also agreed to review the situation at this (July 27) meeting to decide how to meet on August 24. Stephen reported that current Covid transmission is essentially the same as it has been between late May through now (July 27) and proposed convening the August 24 Commission committee meeting remotely. No Commissioners objected.

Commissioner Conley adjourned the meeting at 10:24 a.m.

METROPOLITAN MOSQUITO CONTROL DISTRICT				
FINANCIAL STATEMENT				
July 31, 2022				
COUNTY	2022 LEVY	REC'D TO DATE	DUE	
Anoka	\$ 1,801,059	945,402	\$	855,657
Carver	670,161	354,180		315,981
Dakota	2,478,836	1,306,987		1,171,849
Hennepin	8,793,964	4,490,412		4,303,552
Ramsey	2,791,070	1,419,812		1,371,258
Scott	902,433	475,628		426,805
Washington	1,601,153	839,936		761,217
Market Value Credit	0	0		0
<b>TOTAL</b>	<b>\$ 19,038,676</b>	<b>\$ 9,832,357</b>	<b>\$</b>	<b>9,206,319</b>
Tax Delinquent Income	\$ 0	\$ 53,040		
Miscellaneous (Rent/Misc./Non-Levy)	100,000	46,703		
Interest Income	25,000	52,552		
<b>TOTAL REVENUE</b>	<b>\$ 19,163,676</b>	<b>\$ 9,984,651</b>	<b>\$</b>	<b>9,179,025</b>
<b><u>BALANCE SHEET</u></b>				
<b><u>ASSETS</u></b>				
Cash and Investments		\$ 25,807,123		
Accounts Receivable		77,875		
Prepaid Expenses		99,206		
Consumable Material		1,274,002		
Equipment net of Acc Depreciation		2,097,476		
Land		1,118,867		
Building net of Acc Depreciation		2,696,985		
<b>TOTAL ASSETS</b>			<b>\$</b>	<b>33,171,534</b>
<b><u>LIABILITIES</u></b>				
Vouchers Payable		\$ 131,061		
Pass thru Revenue		0		
Deferred Revenue		77,875		
<b>TOTAL LIABILITIES</b>			<b>\$</b>	<b>208,936</b>
<b><u>NET WORTH</u></b>				
Fund Balance:				
Nonspendable		\$ 2,807,932		
Prepaid		0		
Committed		2,500,000		
Assigned		1,079,928		
Unassigned for Working Capital		19,858,493		
Total Fund Equity		\$ 26,246,353		
Assets-Equipment		5,913,328		
<b>TOTAL</b>		<b>\$ 32,159,681</b>		
ADD Income		9,984,651		
DEDUCT Expenditures		9,181,738		
<b>TOTAL NET WORTH</b>			<b>\$</b>	<b>32,962,594</b>
<b>TOTAL LIABILITIES AND NET WORTH</b>			<b>\$</b>	<b>33,171,534</b>

METROPOLITAN MOSQUITO CONTROL DISTRICT				
CUMULATIVE OPERATIONS STATEMENT				
July 31, 2022				
EXPENDITURES		ACTUAL	BUDGET	+OVER/-UNDER
<u>ADMINISTRATIVE</u>				
Operations	\$	570,002		
Capital Items		0		
Repairs		0		
<b>TOTAL ADMINISTRATIVE</b>	<b>\$</b>	<b>570,002</b>	<b>\$ 682,027</b>	<b>\$ (112,025)</b>
<u>CONTROL DIVISION</u>				
Operations	\$	8,329,123		
Capital Items		163,333		
Repairs		119,280		
<b>TOTAL CONTROL DIVISION</b>	<b>\$</b>	<b>8,611,736</b>	<b>\$ 12,148,319</b>	<b>\$ (3,536,583)</b>
<u>COMMISSION</u>				
Per Diem	\$	0		
Mileage		0		
<b>TOTAL COMMISSION</b>	<b>\$</b>	<b>0</b>	<b>\$ 1,804</b>	<b>\$ (1,804)</b>
<b>TOTAL EXPENDITURES</b>	<b>\$</b>	<b>9,181,738</b>	<b>\$ 12,832,149</b>	<b>\$ (3,650,411)</b>
<b>BUDGET REMAINING</b>			<b>\$ 6,909,619</b>	
<b>ORIGINAL BUDGET</b>			<b>\$ 19,741,768</b>	
<b>EMERGENCY FUNDS</b>			<b>0</b>	
<b>TOTAL BUDGET</b>			<b>\$ 19,741,768</b>	

## METROPOLITAN MOSQUITO CONTROL COMMISSION MEETING

AUGUST 24, 2022

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**Requested by:**

Stephen Manweiler  
Jon Peterson

**Informational:**

Early Season Hiring Deficit: Service Delivery  
Plans

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Hiring seasonal employees, especially those who can start work by May 1, has been difficult in recent years. Hiring was especially difficult during the months before the current (2022) season. Our recruitment group has tried many innovative ways to reach more qualified candidates with success meeting seasonal employee hiring targets by early June. Hiring enough employees who can start in April has been most difficult. In 2022, we were able to hire only slightly more than half of the desired seasonal employees who could start work by the end of April. We were up to about 84% by the end of May and close to target levels by mid-June.

Start by	Cumulative Hires	Target	% Shortfall
April (end)	66	128	48.4%
May (end)	155	180	13.9%
June (mid)	178	180	1.1%

Seasonal employees have reported (during discussions in July and early August 2022) that higher wages would be most attractive to them. They value PTO, paid holidays and consistent 40-hour work weeks. They reported leaving other jobs with slightly higher hourly wages that offered fewer hours per work week. They desire internships and other opportunities to participate in as many different kinds of work at MMCD as possible to help them develop their experience and resumés. We plan to determine how we can augment MMCD's seasonal wages and other perks to continue to enhance the attractiveness of seasonal jobs at MMCD.

More successful recruitment is only part of the solution. Being able to deliver desired services with fewer people is another. In 2005, MMCD completed its first large scale aerial treatments of summer floodwater sites that had a history of consistently producing mosquito larvae after significant (1+ inch rain in 24 hours) precipitation using longer lasting larvicides. The goal in 2005 was to expand the area to which we could provide larval control services with the same number of employees. Sites that consistently produced mosquito larvae over a three-year period were identified and treated with larvicides that remain effective for 28-days (currently includes Natular G30, MetaLarv S-PT, Altosid P35). Treatment with one of these larvicides meant we only needed to treat these consistent producer sites once each month instead of two-five time per month with Bti (VectoBac G) during wet years. This strategy enabled us to extend our reach about 20% farther out in terms of total acres we could treat during a floodwater brood.

We also have determined that these larvicides are equally effective in April and early May. We typically inspect (dip) sites several times in April through mid-May because eggs of several different species in the sites hatch at different times. Cooler water temperatures slow larval development which gives our employees more time to check all desired sites. We use larval surveillance data to decide when one Bti treatment will control the largest number of larvae. In a typical year, we still treat some of these sites two or more times with Bti during this period.

During the recent dry years, completing all desired early season larval control has been possible even with our hiring shortfalls. We probably would be negatively impacted during a very wet season with an early warm-up. To prepare for such a scenario we have identified early-season sites that consistently produced early-season mosquitoes and reviewed treatments made during wet years to evaluate how treating these consistent producer sites with a 28-day larvicide could save us time to finish inspecting and treating the remaining less consistent sites.

In the example below, treating the 1,858 sites (in solid outline box) once with 28-day larvicides would reduce treatments of those 1,858 sites by 610 treatments (2,468 treatments [including retreatments] with Bti down to 1,858 single treatments with 28-day larvicides). Total treatments would decrease from 4,414 to 3,804 (a 13.8% reduction, dashed outline box). We also would not need to dip these 1,858 sites which would save additional time.

	number of sites 2014	number of trts 2014	acres worth trts 2014	per-treatment acres (area treated)
Sites treated during 2+ years between 2014, 2015 and 2016	1,858	2,468	47,849	32,327
Sites treated only In 2014 (not treated In 2015 and 2016)	1,599	1,946	24,015	17,599
Total	3,457	4,414	71,864	49,926
New Total if sites treated 2+ years (Bti) treated once with 28-day larvicide	3,457	3,804	56,342	49,926
% fewer treatments ->		13.8%	21.6%	

We plan to review additional scenarios and strategies to determine the best way to complete all desired early season work with fewer seasonal staff.

TO: COMMISSION MEMBERS  
FROM: STEPHEN MANWEILER  
RE: EXECUTIVE DIRECTOR REPORT  
DATE: AUGUST 2022

## 1. DIRECTOR'S INITIATIVES

Several solid candidates for the Executive Director position were selected to be interviewed based upon their applications and Background & Experience responses. During the week of August 15, these candidates were interviewed by a panel of Mosquito Control Commissioners. Finalists selected from the outcome of the interview process will undergo additional evaluations by Dr. Jane Coffey with results provided to the panel of Mosquito Control Commissioners for their review between late August and early September.

## 2. MOSQUITO CONTROL SERVICES

August has finally brought a little rain to the seven-county metro. We reacted to significant rain that fell in parts of the metro between August 6 – 8. From this rain, we treated a total of 3,429 acres by helicopter. Overall, with it being so dry, most of the rain was soaked up by the vegetation in these wetlands. In previous years, a significant rain event such as this, would have resulted in MMCD treating many more acres by helicopter.

One of the goals that MMCD is working on for 2022, is to restore services, inspecting and treating more wetlands in P2, to levels we performed in 2016. Figure 1 shows the air treatments in 2016, blue sites in P1 and red sites are in P2. For 2022, it has been a challenge to treat more wetlands due to the dry conditions. However, even though we have not treated, due to the dryness and no larvae found, we still have expanded our services with inspections and treatments. Figure 2 shows both our inspections and treatments in 2022, blue sites in P1 and red sites in P2. As we plan our operations for 2023, we will continue to expand our services in P2 with our inspections and treatments.

Field staff are continuing to do important work in the field. Staff have made over 92,000 inspections and treatments to mosquito breeding sites. Staff are focusing on disease vector work including treating catch basins and permanent structures, performing neighborhood inspections including removing tires, emptying containers, and informing the public of the potential risk of having containers on their property that hold water.

Adult mosquito numbers continue to be very low throughout the metro. To date, we have treated 1,400 acres with adult control materials. These treatments have been in response to potential disease vector mosquitoes and community events. We will continue to monitor our Monday night traps, inspect for disease vector mosquitoes, and treat areas if necessary.

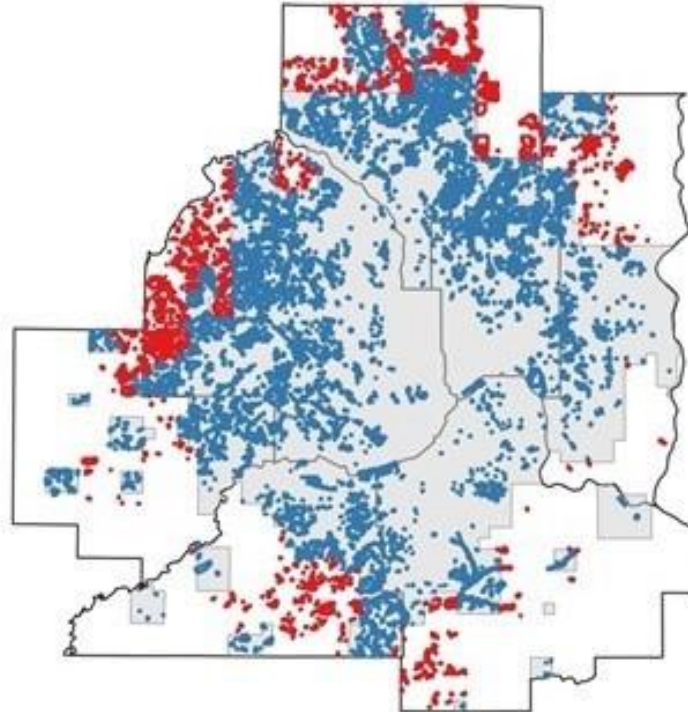


Figure 1. 2016 Air treatments. Blue sites are P1. Red sites are P2. Gray outline depicts P1.

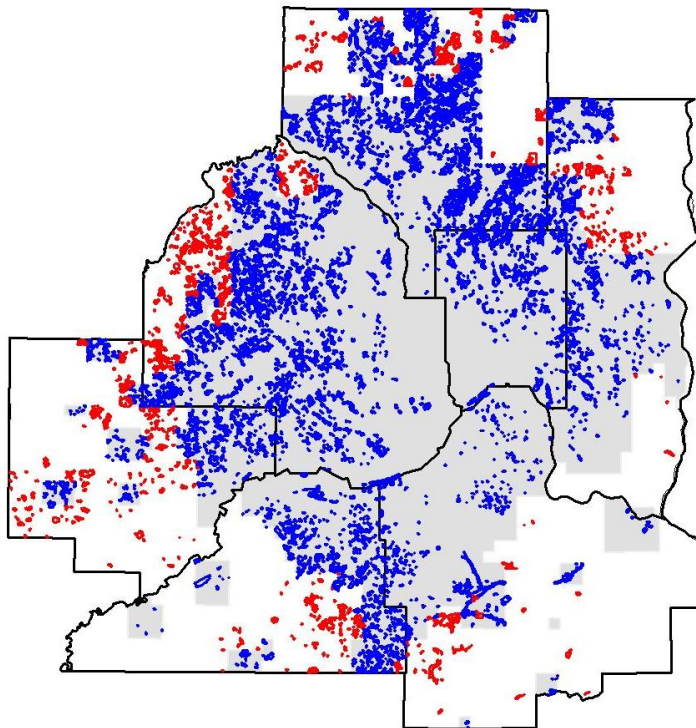


Figure 2. 2022 Air inspections and treatments. Blue sites are P1. Red sites are P2.

Staff have been busy representing MMCD at county fairs. We had a booth set up at the Dakota, Scott, Carver, Washington, and Anoka County fairs. We also had a booth set up at the Game Fair in Ramsey. Staff are looking forward to representing MMCD at the State Fair at the end of this month.

As we look towards the end of August, a large group of our seasonal staff will resign and head to college. The remainder of our seasonal staff will switch gears from inspecting and treating for our summer annoyance and vector mosquitoes, to looking for the mosquitoes that overwinter, attached to the roots of cattails. Staff have already started to look at these sites and determine if they need to be inspected or not, based on current water levels.

Staff continue to work in a safe and effective manner. Injuries and vehicle incidents have proven to be low this season. These low numbers of incidents show our staff's dedication to working in a safe and effective manner.

### 3. MOSQUITO-BORNE DISEASE

#### West Nile Virus (WNV)

West Nile virus activity in our region has been similar to what we experienced last year. One human illness was reported from northern Minnesota (Cass Co.) this year. In addition, an asymptomatic blood donor from northwest Minnesota (Polk Co.) was recently positive for WNV. North Dakota has reported five cases, South Dakota, one and Iowa, zero. Last year eight total cases had been reported by this time across the same region. By the end of 2021, 34 WNV illnesses had been confirmed in Minnesota with 27 of those in District residents. Nationally, 54 cases, including four fatalities, have been reported to CDC in 2022.

Fifteen of 406 MMCD mosquito samples tested have returned positive results for WNV. Positive samples have been collected in Anoka, Dakota, Hennepin, and Ramsey counties. Warm weather has allowed for the amplification of the virus over much of the summer and we have detected WNV in mosquitoes collected during seven of the past eight weeks. We are now in the peak risk period for human WNV infections, and we have been working to convince citizens to wear insect repellent even though they might not be experiencing as many mosquitoes as they are accustomed to seeing during wetter summers.

#### La Crosse Encephalitis (LAC)

This is the time of year when LAC risk is greatest. Most LAC infections in Minnesota occur from late July through early September. Since LAC cases are much more common in children than adults and the vector mosquitoes bite during the daytime, risk typically drops once the school year begins. La Crosse encephalitis has not been reported yet in Minnesota this year.

Due to a second consecutive year with drought conditions, our collections of *Aedes triseriatus*, Minnesota's native LAC vector, have been below average nearly the entire season. Crews have been responding with risk reduction services when prompted by surveillance results. In the few cases where isolated vector populations have been located, we are providing adult mosquito control. District staff are also constantly searching for and



eliminating small aquatic habitats used by mosquito larvae. Crews have removed 7,630 tires from the field for recycling and have eliminated 1,126 additional larval habitats.

Eastern Equine Encephalitis (EEE)

There have not yet been reports of human EEE illness in the U.S. this year. However, the virus appears to be active in Florida and Louisiana with equine illnesses reported in multiple counties/parishes in both states. Last year there was one EEE illness in a Minnesota horse. Drought conditions in the District are helping to reduce EEE risk again this year. Water levels in the bog habitats preferred for larval development by the primary EEE vector, *Culiseta melanura*, are receding.

**4. TECHNICAL SERVICES LAB**

As of August 11, the 7-county metro area was in moderate to severe drought. The lack of rainfall is visible in the number of floodwater species captured in CO<sub>2</sub> traps which are well below the 10-year average. (Figure 1). Recently, some areas received over one inch of rain (Aug 7-8 and Aug 12-13); however, much of the rain soaked into the ground and minimal mosquito production occurred.

Lab technicians have been busy processing all different types of samples we have including larval *Culex*, floodwater *Aedes*, container inhabiting, as well as adult surveillance including CO<sub>2</sub> traps, sucomatic (vacuum aspirator), and sweep nets. They have also had the opportunity to participate in a safety meeting as well as the Employee Advice Committee meeting. Additionally, one technician assisted the Maple Grove staff in picking up the multiplate samplers for the black fly program. Two technicians will be leaving in August to return to school (one to teach and one to learn), two others will be on until mid-September, and one will remain until early to mid-October.

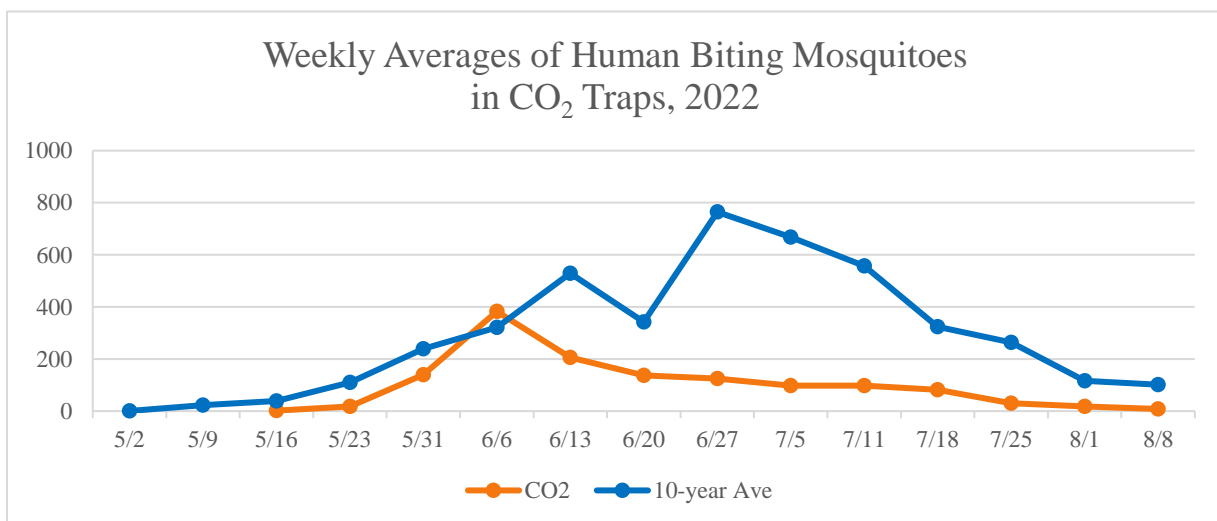


Figure 1. Average number of human biting mosquitoes per week in CO<sub>2</sub>-baited traps in 2022 (N = 138) versus the 10-year average. Traps are placed in various locations in the seven-county metropolitan area.

## 5. PUBLIC AFFAIRS

### Weekly Mosquito, Black Fly, and Tick Updates Posted on Website

We have continued posting weekly updates based on surveillance data from our Technical Services team and other updates from the lab and field. These have become popular posts and are often picked up by media outlets as part of their regular coverage.

Here is an example of a recent update from surveillance data at the beginning of August:

<https://mmcd.org/2022/08/08/weekly-update-august-1st-nuisance-mosquitoes-stay-low-west-nile-positives-increase/>

There is a new post every week that can be found on the homepage or under “Latest News” on the menu.

### Customer Calls

The customer calls slowed down throughout July as dry weather led to fewer overall mosquitoes. We received only 117 total calls between July 10 and August 10, most to request tire pickups (53) with the second most for mosquito annoyance (35). Here is a breakdown of calls coming in by county:

- Anoka County - 20 calls
- Carver County - 6 calls
- Dakota County - 10 calls
- Hennepin County - 42 calls
- Ramsey County - 12 calls
- Scott County - 11 calls
- Washington County - 14 calls

### Community and School Presentations

County fairs kicked off this month and we've been busy interacting with people throughout the District. Here are some of the recent events we've done:

- July 15-17 - Belle Plaine BBQ Days
- July 17 - Hopkins Raspberry Festival Parade
- July 26-31 - Anoka County Fair
- July 27-31 - Scott County Fair
- July 31 - Little Canada Canadian Days Parade
- August 3-7 - Washington County Fair
- August 8-14 - Dakota County Fair
- August 10-14 - Carver County Fair

### Minnesota Department of Agriculture Recertification Workshop

On Thursday, July 28 MMCD ran an all-day Category A+L Pesticide Recertification for 55 seasonal technicians and full-time field staff. Speakers were present from U of M Extension, Clarke Mosquito Control, and the DEET Education Program.

### Social Media

Our social media has been active this month with a focus on highlighting some of the control work being done and promoting mosquito and tick safety. Here is how metrics have changed:

- Facebook – 1,783 Page Likes (Up 7 from July 15)
  - Facebook.com/metromosquitocd
- Twitter – 942 Followers (Up 11 from July 15)
  - Twitter.com/metromosquito
- Instagram – 391 Followers (Up 8 from July 15)
  - Instagram.com/metromosquito
- TikTok – 373 Followers (Up 7 from July 15)
  - tiktok.com/@metromosquito

## 6. TICK-BORNE DISEASE

### Deer Ticks Will Be Out Soon!

Adult deer ticks are hard to come by right now, but they will be back out questing in a few weeks. We typically start to see them again between September 7-14 each year. Deer tick larvae will come out then to quest, too, but we don't typically encounter them as they are questing too low to the ground to be able to grasp onto us.

### MMCD Collaboration to Detect Exotic Ticks (Asian Longhorned Tick, Red Sheep Ticks)

Agencies involved in collaborative surveillance include Indian Health Services (northern MN), Minnesota Board of Animal Health, USDA Animal and Plant Health Inspection Service, Minnesota Department of Health, Metropolitan Mosquito Control District, University of Minnesota, and the Wildlife Rehabilitation Center of Minnesota.

As of August 12, no Asian longhorned ticks or red sheep ticks have been reported as being found in Minnesota.

### Tick Vector Field Projects

Our 2022 tick surveillance effort began April 25. Round 1 was completed June 23. As of August 12, 8 of 10 routes have been completed in our second round of surveillance.

### Public Education/Outreach

- Distribution and/or re-stocking of brochures, tick cards and posters is ongoing.
- We continue to inform our Facebook/Twitter/Instagram/Tik Tok followers of items of interest as they occur.
- Our Tick Risk Meter is currently set to MEDIUM. Adult and larval stage deer ticks will be out soon.
- **Be sure to check yourself for ticks after being in wooded habitat.**
- Signs to remind the public of deer ticks and disease prevention measures may be posted at dog parks and additional locations throughout the metro. For various reasons some signs remain up year-round.