

**Metropolitan  
Mosquito Control District**

**Commission Meeting  
February 26, 2025  
9:15 AM**

*Information Packet*

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# METROPOLITAN MOSQUITO CONTROL DISTRICT COMMISSION MEETING AGENDA

FEBRUARY 26, 2025, 9:15 AM

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 December 18, 2024
4. Approval of Organizational Meeting Minutes for January 9, 2025
5. Approval of Checks and Claims  
    General      79736- 79969

## REGULAR AGENDA

6. Legislative Update – Peg Larsen, Kim Scott
7. Budget and Levy Development Schedule – Arleen Schacht
8. 2024 Season in Review – Jon Peterson
9. Public Affairs Presentation – Alex Carlson
10. Executive Director’s Report
11. Other Items
12. Adjournment

\* Action Requested

**Next Executive Committee Meeting: Wednesday, March 26, 2025 at 9:15 a.m.**

**Next Commission Meeting: Wednesday, April 23<sup>rd</sup>, 2025 at 9:15 a.m.**

COMMISSIONER	COUNTY	COMMISSIONER	COUNTY
___ Mandy Meisner	Anoka	___ Angela Conley	Hennepin
___ Jeff Reinert	Anoka	___ Heather Edelson	Hennepin
___ John Heinrich	Anoka	___ Rena Moran	Ramsey
___ John Fahey	Carver	___ Garrison McMurtrey	Ramsey
___ Lisa Anderson	Carver	___ Kelly Miller	Ramsey
___ Mary Hamann-Roland	Dakota	___ Tom Wolf	Scott
___ Laurie Halverson	Dakota	___ David Beer	Scott
___ Liz Workman	Dakota	___ Bethany Cox	Washington
___ Kevin Anderson	Hennepin	___ Fran Miron	Washington

**METROPOLITAN MOSQUITO CONTROL DISTRICT  
COMMISSION MEETING**

MINUTES

DECEMBER 18, 2024 – 6:00 PM

Chair Fran Miron called the meeting to order at 6:05pm.

**Roll Call:**

Commissioner Fran Miron, Chair	Washington County
Commissioner Mandy Meisner	Anoka County
Commissioner Jeff Reinert	Anoka County
Commissioner Julie Jeppson	Anoka County
Commissioner Gayle Degler	Carver County
Commissioner John Fahey	Carver County
Commissioner Liz Workman	Dakota County
Commissioner Mary Hamann-Roland	Dakota County
Commissioner Kevin Anderson	Hennepin County
Commissioner Heather Edelson	Hennepin County
Commissioner Angela Conley	Hennepin County
Commissioner Rena Moran	Ramsey County
Commissioner Nicole Frethem	Ramsey County
Commissioner Mai Chong Xiong	Ramsey County
Commissioner Tom Wolf	Scott County
Commissioner David Beer	Scott County
Commissioner Gary Kriesel	Washington County

**Staff:**

Daniel Huff, Business Director  
Arleen Schacht, Business Administrator  
Jon Peterson, District Operations Manager  
Mark Smith, Technical Services Manager  
Alex Carlson, Public Affairs Manager  
Monte Ebbesen, Administrative Support

Consent Agenda

Commissioner Reinert offered the following resolution and moved its adoption.

**Resolution 1:**

The following administrative items were moved in one motion.

Approval of Commission Meeting Minutes for October 23, 2024  
Approval of Financial Statements November 30, 2024  
Approval of Checks and Claims. General 78321-79735

Commissioner Delger seconded the motion; the resolution was approved unanimously.

Commissioner Halverson arrived after the consent agenda vote was conducted and did not vote.

Truth and Taxation Public hearing was called to order at 6:11 pm

Commission Chair Miron invited any of the public in attendance, the floor was open to ask any questions or make any comments.

No members of the public attended.

Commission Fahey made a motion to close the Truth and Taxation meeting.

Commission Hamann-Roland seconded the motion, and the resolution was approved unanimously.

Truth and Taxation Public hearing was closed at 6:25 pm.

Approval of the 2025 Proposed Levy

Commissioner Anderson made a motion to approve the 2025 Levy.

**Resolution 2:**

**Whereas**, the Metropolitan Mosquito Control Commission has reviewed the proposed property tax levy for payable 2025 considering the needs of the program, and

**Whereas**, the 2025 levy is proposed in the amount of \$20,502,106 a 3% increase over the 2024 original levy of \$19,904,957, and

**Whereas**, the Commission has held a public hearing conforming with truth in taxation requirements,

**Be it now resolved**, the Metropolitan Mosquito Control Commission adopts the payable 2025 levy in the amount of \$20,502,106 to the Minnesota Department of Revenue, a 3% increase over the 2024 levy of \$19,904,957, and authorizes staff to certify the levy to the Minnesota Department of Revenue and the Counties of the District.

Commissioner Conley seconded the motion, and the resolution was approved unanimously.

Approval of the 2025 Proposed Budget

Commissioner Anderson made a motion to approve the 2025 Budget.

**Resolution 3:**

**Whereas**, the Metropolitan Mosquito Control Commission has reviewed the proposed 2025 operations budget of \$21,352,106, a 5% increase from the original 2024 budget, which is sufficient to meet the needs of the program, and

**Whereas**, the operations budget includes capital equipment and maintenance of \$850,000 for replacement equipment and facility improvements, and

**Whereas**, the budget leaves intact the MMCD’s unassigned working capital account which needs to cover approximately 55% of expenditures and leaves \$5,641,882 for emergency disease control, employee benefits, control materials and other assigned funds,

**Be it now resolved**, the Metropolitan Mosquito Control Commission approves the final 2024 operations budget in the amount of \$20,232,943 and adopts the proposed 2025 expenditures budget in the amount of \$21,352,106, an increase of 5% from the 2024 budget.

Commissioner Wolf seconded the motion the resolution was approved unanimously.

### **Approval of MMCD Statewide Policy Initiatives for 2025**

#### **Policy Priorities**

##### **Maintain access for the materials, technologies, and authorities MMCD uses to complete its mission**

1. Drones: Maintain ability to use the best and most economical drone technology for MMCD activities.
2. Treatment Materials: Protect MMCD’s ability to use treatment materials such as pesticides in an appropriate manner to complete its public health objectives while minimizing nontarget impacts and protecting pollinators, and people.
3. Tires: Advocate for opportunities to reduce costs to the public for tire collection and disposal.
4. MMCD statutory powers and duties: Monitor for proposed changes and modify as needed.

#### **Strategies**

- 1) **Legislator outreach and education**
  - a) Host a donut and coffee reception for legislators at the Capitol in February (depending on room availability). Include a slide show, invitations to all legislators and MMCD commission members, plus Vectoria.
  - b) Targeted legislative meetings for committee members of the Environment, Agriculture, and Health committees with members who are in an MMCD district. Include MMCD commission members as available and appropriate.
- 2) **Outreach to agencies**
  - a) Department of Natural Resources (DNR): collaborate on data gathering, movement of invasive species, and work on DNR controlled lands.
- 3) **Coalition building**
  - a) Build and leverage relationships with Association of Minnesota Counties (AMC), League of Minnesota Cities (LMC), and others to support and move legislative priorities.

Commissioner Edelson requested a copy of the presentation to provide to cities

Commissioner Conley suggested Commissioners be invited to the Donut/coffee reception. Stated pesticides has and can have a bad wrap so important for Commissioners can present in the correct way.

Alex Carlson, Public Affairs Manager, key talking points for Commissioners can use will be prepared.

Commissioner Hamann-Roland suggested including public health and developing relationships with representatives.

Executive Director Huff thanked Kim Scott and Peg Larsen for all their work on Policy Priorities and Strategies.

Commissioner Hamann-Roland made a motion to approve the Statewide Policy Initiatives for 2025.

**Resolution 4:**

**Whereas**, the Metropolitan Mosquito Control Commission has reviewed the Policy Priorities to maintain access for the materials, technologies, and authorities MMCD uses to complete its mission, and

**Whereas**, the Metropolitan Mosquito Control Commission has reviewed the Strategies for additional outreach to members of the state legislature with the goals of relationship building and to gain additional support for the mission and work of MMCD.

**Be it now resolved**, the Metropolitan Mosquito Control Commission approves the Statewide Policy Initiatives for 2025

Commissioner Frethem seconded the motion; the resolution was approved unanimously.

**Approval of Kennedy and Graven as legal counsel for the Commission and approve contract for services with Kennedy and Graven**

Commission Chair Miron stated the Executive Committee recommends the change and thanked Joe Langel, attorney with Ratwik, Roszak & Maloney for the service they provided.

Commissioner Workman stated she personally had a previous bad experience with Kennedy and Graven, and they were not the lowest bid and would be voting no.

Commission Chair Miron and Arleen Schacht, Business Administrator, both thanked Joe Langel for the years of service.

Joe Langel, responded it was interesting, fun and a pleasure to work with MMCD and wishes MMCD good luck.

Commissioner Degler made a motion to approve Kennedy and Graven as legal counsel for the Commission and contract services

**Resolution 5:**

**Whereas**, the MMCD last solicited for legal services to serve the Commission and MMCD in 2015.

**Whereas**, the current contract for legal services with Ratwik, Roswak and Maloney expires on December 31, 2024.

**Be it now resolved**, the Commission approves Kennedy & Graven as legal counsel for the Commission and approves the contract for services.

Commissioner Kriesel seconded the motion the resolution, it was not approved unanimously, Commissioner Workman voted no.

**Approval of the 10-year Goal for the District Strategic Plan- (BHAG-Big Hairy Audacious Goal)**

10-year Goal for the District:

*We protect all people in the district from vectors and improve their time outdoors.*

Commissioners agreed it was important the goal thinks about ‘people’ rather than land and all agreed this is an internal goal for the District.

Commissioner Hamann-Roland made a motion to approve the 10-year Goal for the District Strategic Plan.

**Resolution 6:**

**Whereas**, the Metropolitan Mosquito Control Commission reviewed the 10-year Goal for the District Strategic Plan, as formulated by the Metropolitan Mosquito Control Strategic Planning Committee.

**Be it now resolved**, the Metropolitan Mosquito Control Commission approves the 10-year Goal for the District Strategic Plan.

Commissioner Wolf seconded the motion the resolution was approved unanimously.

**Commissioner Recognition**

Three MMCD Commissioners are retiring from public office this year.

Commissioner Nicole Frethem joined the Commission in 2022

Commissioner Gayle Degler joined the Commission in 2021

Commissioner Gary Kriesel joined the Commission in 2011

The District expresses its gratitude for your dedicated service to protecting our community from ticks, black flies and mosquitoes and the diseases they carry. Your commitment to public office and the betterment of our community has made a lasting impact. Your hard work, leadership, and thoughtful decision-making have shaped the future of our county in meaningful ways.

As you retire from public office, we thank you for your years of service and wish you all the best in your future endeavors. The District is better for your contributions.

**Operations and Public Affairs Report**

District Operations Manager Jon Peterson updated Commissioners on off-season activities, including field mapping. He informed the Commissioners of the addition of two drones, totaling eight drones available for use in the 2025 season.

Technical Services Manager Mark Smith noted that MMCD staff, Dr. Nancy Read and Dr. Scott Larson, had recently presented at conferences.

Public Affairs Manager Alex Carlson shared the following call totals by county from 2024:

- Anoka: 683 calls
- Carver: 675 calls
- Hennepin: 649 calls
- Washington: 295 calls
- Scott: 253 calls
- Dakota 211 calls
- Ramsey: 199 calls

The City of Carver alone accounted for 351 calls. There are an estimated 2,013 households in Carver according to the U.S. Census which means about 1 in 6 households called MMCD in 2024.

Alex also shared that in 2024 MMCD staff completed presentations at 29 different schools and we participated in 37 public events, not including parades. Some event highlights included Grand Old Day, a new partnership with the Science Museum, and the Minnesota State Fair.

We also had 71 appearances in local media in 2024.

### **Other Items**

#### **Executive Director 6-Month Performance evaluation and salary increase**

The Executive Committee had a closed meeting and conducted the 6-month performance evaluation.

The Executive Committee made a recommendation to approve an 8% salary increase to the Executive Director, with an annual salary of \$150,120 for year 2025.

Commissioner Jeppson inquired why the 6-month performance evaluation that should have taken place in July, took so long, and expressed the need to provide retroactive pay due to the fact the Executive Director had no control over the lateness of the evaluation. Commission Workman stated, and other Executive Committee members agreed, at 6-months they would not have recommended an 8% increase.

Commissioner Hamann-Roland made a motion to accept the Executive Committee recommendation of an 8% increase, an annual increase to \$150,120.

Commissioner Frethem seconded the motion and was approved unanimously.

### **Adjournment**

Commissioner Degler made a motion to adjourn the meeting.

Commissioner Hamann-Roland seconded the motion.

Commission Chair Miron adjourned the meeting at 7:42pm.



**METROPOLITAN MOSQUITO CONTROL DISTRICT  
ORGANIZATIONAL MEETING**

MINUTES

JANUARY 9, 2025 – 9:15 AM

Chair Rena Moran called the meeting to order at 9:23am.

**Roll Call:**

Commissioner Rena Moran, Chair	Ramsey County
Commissioner Mandy Meisner	Anoka County
Commissioner Jeff Reinert	Anoka County
Commissioner John Heinrich	Anoka County
Commissioner Lisa Anderson	Carver County
Commissioner John Fahey	Carver County
Commissioner Liz Workman	Dakota County
Commissioner Mary Hamann-Roland	Dakota County
Commissioner Kevin Anderson	Hennepin County
Commissioner Heather Edelson	Hennepin County
Commissioner Angela Conley	Hennepin County
Commissioner Kelly Miller	Ramsey County
	Ramsey County
Commissioner Tom Wolf	Scott County
Commissioner David Beer	Scott County
Commissioner Fran Miron	Washington County
Commissioner Bethany Cox	Washington County

**Staff:**

Daniel Huff, Executive Director  
Arleen Schacht, Business Administrator  
Alex Carlson, Public Affairs Manager  
Monte Ebbesen, Administrative Assistant

**Visitors:**

Sam Ketchum, MMCD Legal Counsel  
Siobhan Tolar, MMCD Legal Counsel

Chair Rena Moran welcomed all in attendance.

Commissioner Stan Karwoski of Washing County District 2 acted as a substitute Commissioner in place of Fran Miron, who was unable to attend. MMCD Legal Counsel Sam Ketchum and Siobhan Tolar legitimized Commissioner Karwoski’s presence as a temporary voting member.

Primary MMCD legal counsel, Sam Ketchum, swore in all Commissioners present at 9:33am.

**Consent Agenda**

Election of Officers

Executive Director Daniel Huff reiterated to the Commissioners the rotation of the Commission officers.

Executive Director Daniel Huff moved to nominate Commissioner Rena Moran as Chair, to replace Commissioner Fran Miron. Commissioner Angela Conley seconded the motion. The motion was approved unanimously.

Executive Director Daniel Huff moved to nominate John Fahey as Vice-Chair, to replace Commissioner Nicole Frethem. Commissioner Tom Wolf seconded the motion. The motion was approved unanimously.

Executive Director Daniel Huff moved to nominate Jeff Reinert as Secretary, to replace Commissioner Gayle Degler. Commissioner Hamann-Roland seconded the motion. The motion was approved unanimously.

Appointment of the Executive Committee

Chair Rena Moran reviewed the composition of the Executive Committee.

**Other Issues**

Meeting Schedule

All present Commissioners reviewed the proposed 2025 meeting schedule. All Commissioners assented to the schedule as it stood.

## METROPOLITAN MOSQUITO CONTROL COMMISSION MEETING

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<b><u>Presented by:</u></b>	<b><u>Informational:</u></b>
Arleen Schacht	MMCD 2025 Budget and Levy Development Schedule

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Commission and Executive Committee provide direction to develop budget.	May / June 2025
Commission approves preliminary 2026 levy and budget direction	July 24, 2025
Approved proposed levy deadline for the District (Proposed Levy due to MN Dept of Revenue)	August 1, 2025
Review 2026 budget and levy proposals	August 28, 2025
Proposed levy certification due (Proposed levy due to Counties with TNT notice)	September 15, 2025
Executive Committee reviews proposed budget (Subject to change)	September 25, 2025
Commission reviews proposed budget (Subject to change)	October 23, 2025
Executive Committee reviews budget	November 21, 2025
Commission adopts Final 2026 Levy & Budget (December Commission meeting)	December 18, 2025
Truth in Taxation Hearing (Commission & Staff)	December 18, 2025
Continuation Hearing, if necessary, (Commission & Staff)	December 18, 2025
Certify Adopted Payable 2026 Levy (Due to MN Dept Revenue and Counties)	December 27, 2025

## METROPOLITAN MOSQUITO CONTROL COMMISSION MEETING

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**Presented by:**

Jon Peterson

**Informational:**

2024 Season in Review

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In 2024, a mild winter, with little snow, turned into a busy spring with late March snowfall and a rainy April. The rain continued throughout the season, peaking with the second wettest June on record. The District received 27.08 inches of rain, which is well above the average of 19.64 inches. All this rain filled the wetlands back to predrought levels. This led to the most larval acres treated (261,888 acres) since 2016 (305,990 acres). It also created some great habitat areas for our cattail mosquitoes (*Cq. perturbans*). We found over 45,000 acres of wetlands breeding cattails mosquitoes during our inspection period of August-October. This is the most cattail mosquito acreage we have ever found. To help complete all the work during the 2024 season, we hired 195 seasonal staff, which is one more than we hired in 2023. With staff responding to rain events, we had less time for vector and public health work, treating fewer catch basins and conducting less adult surveillance.

Highlights of the 2024 season –

- Highest number of larval acres treated since 2016
- Doubled drone treatment acres
- Perturban acres increased to pre-drought numbers
- Adult treatment acres remained low
- Fewer catch basins were treated

The summary of the 2024 field operations can be seen below in table 1. We treated 261,888 larval acres over 15 broods this summer. That is the most acres we have treated since 2016 (Figure 1) and 50,000 acres more than our 10-year average of 211,028 acres. Without the three previous years of drought, and given the amount of rainfall, we would have had even more acres to treat.

In 2024, field staff submitted 29,831 larval samples (Fig. 2). The 25-year average is 19,560 larval samples per year. From mid-May to the end of August, near weekly one-inch rainfalls resulted in staff sampling many sites for floodwater *Aedes*. At times, back-to-back broods occurred.

As a larval control agency, we can maximize mosquito control while dramatically minimizing our environmental impact. We carefully select and use control materials that specifically target mosquitoes and have little to no effect on other insects, animals and plants in the environment. Most of the larval acres we treated in 2024 (178,358 acres) was with *Bti*, a natural soil bacterium ingested by mosquito larvae causing their digestive system to break down. Once in the water this material is effective for about 24-48 hours.

We also use longer-lasting materials, which we refer to as pre-hatch. These materials can last up to 30 days. During the 2024 season, we treated 83,499 acres (47% of the total acres) with pre-hatch. Pre-hatch materials cost more but reduce the staff time required to treat subsequent broods. Pre-hatch is more economical if we treat more than 3 broods in a given month. Our pre-hatch materials work in a variety of ways. Methoprene, commercially known as Altosid® and MetaLarv®, is an insect growth regulator that mimics a larval growth hormone preventing mosquitoes to mature into adults. Spinosad, which is

commercially known as Natular®, disrupts larval nervous systems causing paralysis. By using a variety of larval control materials, we lessen the likelihood of developing resistance to control materials by rotating the control materials the mosquitoes are exposed to.

Number of Mosquito Broods (enough rain fell to react with the helicopter)	15
Larval Inspections and/or Treatments	141,038
Larval Samples	29,831
Larval Treatments	261,888 Acres
Catch Basin Treatments	274,303
Adult Aspirator (Suco) Sampling	945
Adult Treatments	2,040 Acres
Black Fly Inspections	681
Black Fly Treatments	95 treatments, 5,429 gal
Tires Removed	10,411 Tires
Customer Calls	3,045

Table 1 – Summary of 2024 Field Activities

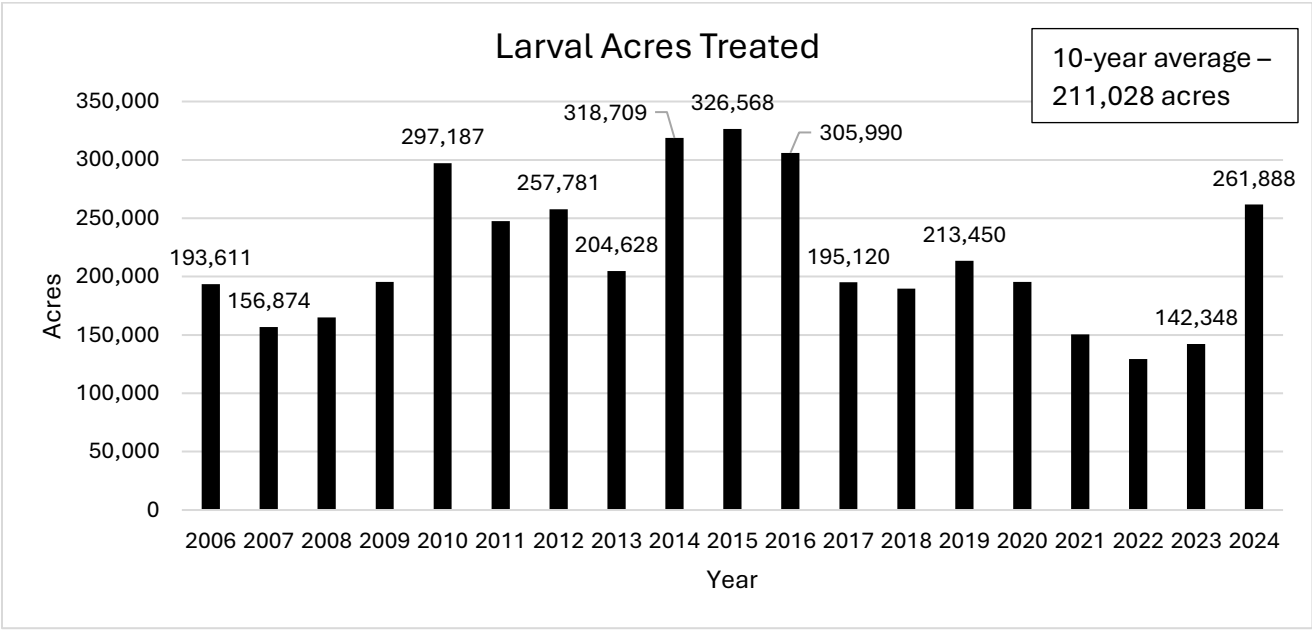


Figure 1 – Larval acres treated per year 2006 – 2024.

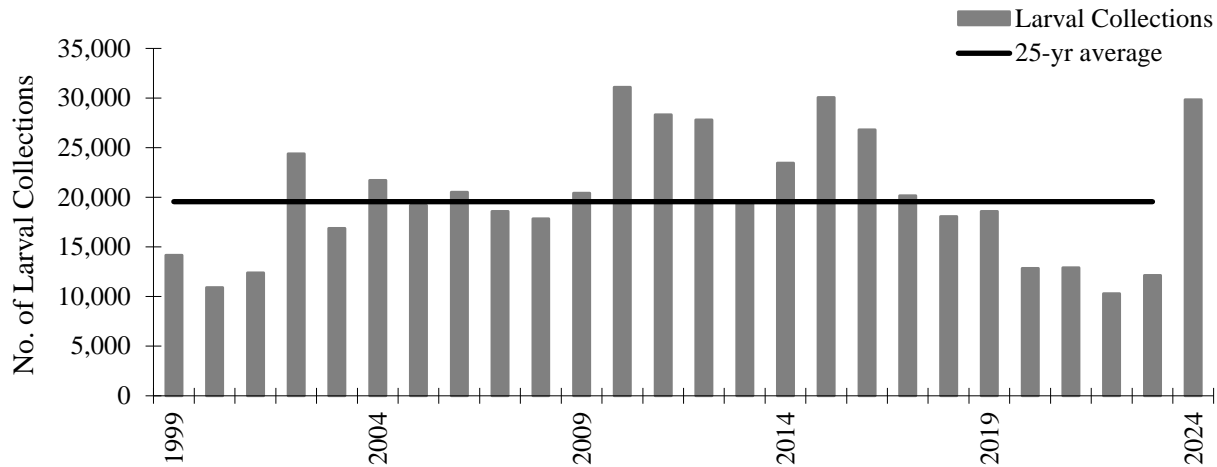


Figure 2. Yearly total larval collections, 1999-2024, and 25-year average.

An exciting part of the larval treatments in 2024 were our drone treatments. We used three (3) DJI drones for the season and treated 3,839 acres (Figure 3). We increased treatments by 132% from 2023. For the 2025 season, we hope to add an additional five (5) drones that will allow for treatments to occur at every one of our facilities.

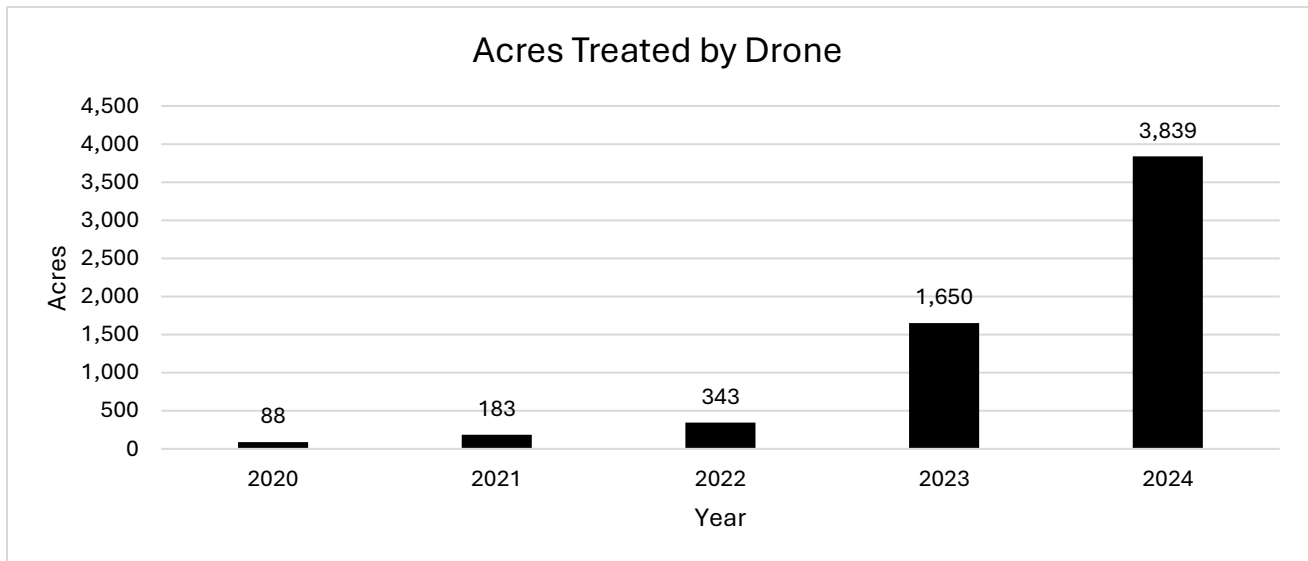


Figure 3 – Drone treatments 2020 – 2024.

A surprise to MMCD staff was the number of cattail acres (43,636) found breeding during the fall of 2024 (Figure 4). Staff predicted the previous three years of drought conditions would lower larvae numbers. Fewer adult cattail mosquitoes were captured in our weekly surveillance traps supported this hypothesis. Instead, we found the largest number of cattail acres breeding over the past 10 years. An additional piece of information found in Figure 3 is the timing of the inspections compared to the treatments. Most of the acres that are found breeding cattail mosquitoes are inspected in the fall and treated the following spring. As you can see, in the 2024/2025 area of the graph, we still have approximately 38,000 acres of cattail acres to treat in 2025.

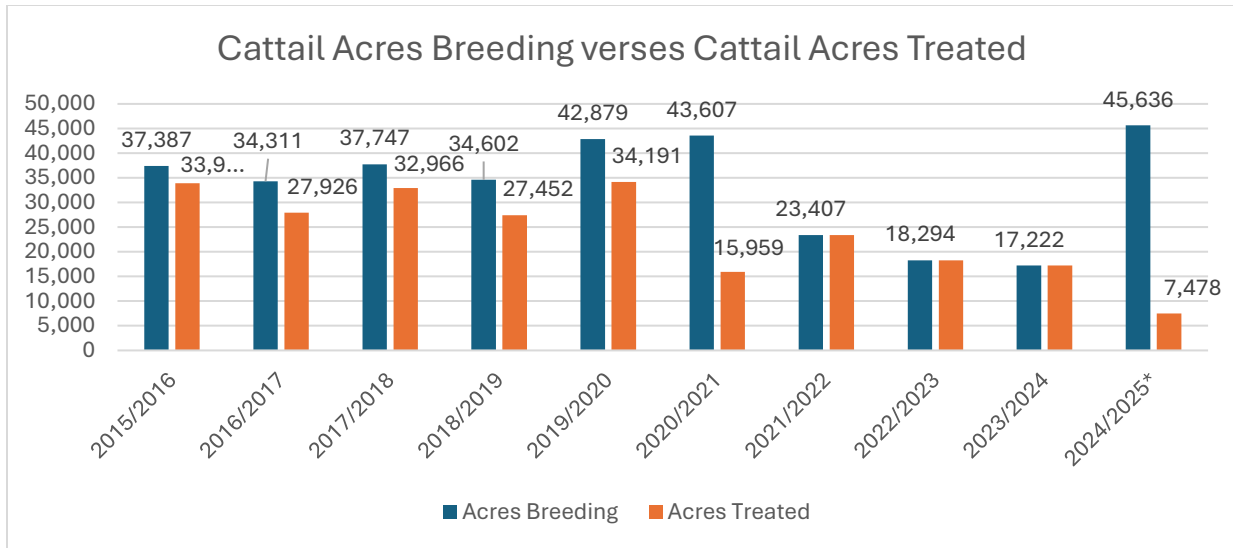


Figure 4 – Cattail Acres breeding and Acres Treated 2014 – 2025.

During the 2024 season, the number of acres treated for adult mosquitoes remained low at 2,040 acres (Figure 5). We used two products in 2024, Permethrin and Etofenprox, which are synthetic pyrethroids. As we focus our adulticide on potential vector mosquitoes, public events, and high use parks, we continue to use fewer adult treatments. By using best management practices, we reduce the impact of adult treatments on other species. However, these materials can negatively impact all insect species, including pollinators. The effectiveness of our district-wide larval program allows us to successfully control mosquitoes with minimal use of adult treatments.

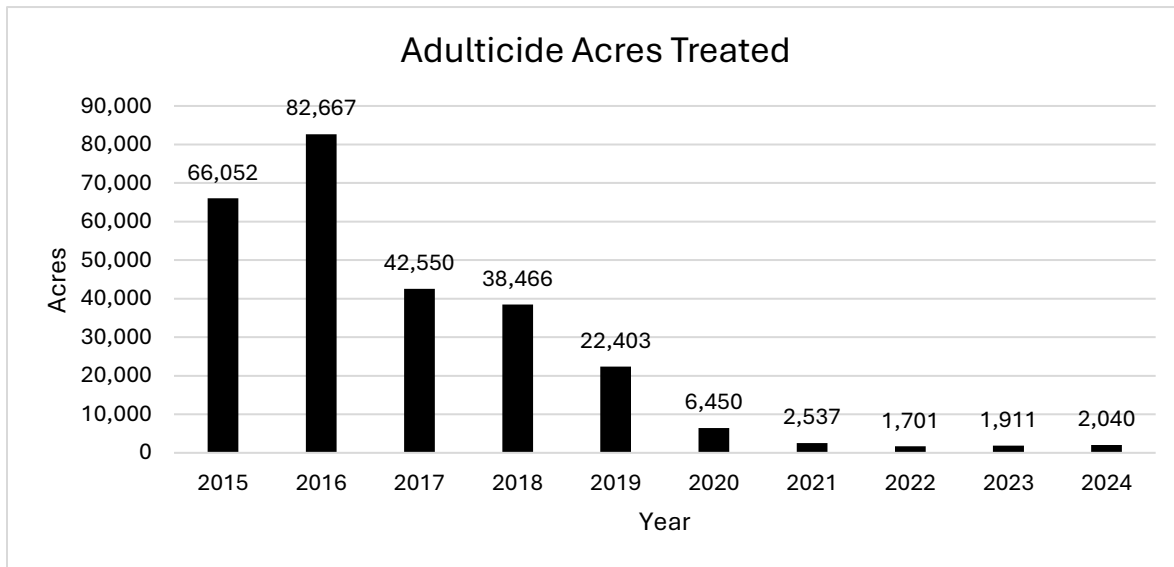


Figure 5 – Adulticide acres treated per year 2015 – 2024.

We did face a few challenges during the 2024 season.

- Staffing levels at the beginning of the season and end of the season remained a challenge. Climate change is extending our mosquito season. Mosquitoes are active and breeding earlier in the spring and later into the fall. However, a majority of our seasonal staff are students who only

work from May to August. As our climate continues to change, and the mosquito season continues to lengthen, staffing will continue to be a challenge.

- Due to the busy treatment season, our entomology lab had to focus on high priority samples to assist our field operations. The lab identifies targeted larval species for helicopter, drone, vector, and ground operations. In 2024, the mosquito species composition was different than other years which also increased identification time. As a result, our low priority samples (15,600 samples) could not be identified in a timely manner and had to be retained for future identification. Staff still have 4,118 samples to identify.
- Seasonal staffing numbers are 13.5% less than they were during our last rainy season, 2018. Given the variability in rainfall, balancing workload and staff numbers will always be a challenge. Significant increases in efficiencies, including drones, help alleviate some of these issues.
- With all the rain during the 2024 season, field staff had to react to 15 different broods. In comparison, in 2023 we only had 7 broods. This added work resulted in some of our normal tasks not being completed. We treated 13.5% fewer catch basins (storm drains) in 2024 (Figure 6). Catch basins are an excellent breeding ground for *Culex* mosquitoes, the vector of West Nile Virus. We also took 43% fewer aspirator (suco's) adult samples than the previous year (Figure 7). These samples are an important part of our disease surveillance and public health protection program.
- The rainy season resulted in Cattail mosquitoes rebounding much more quickly than we anticipated. Staff worked very hard prioritizing and getting to these wetlands last fall. However, a record 38,000 acres of cattail mosquito larvae have yet to be treated. We plan to treat these with pre-hatch materials this spring. This added treatment was not anticipated in our 2025 budget.

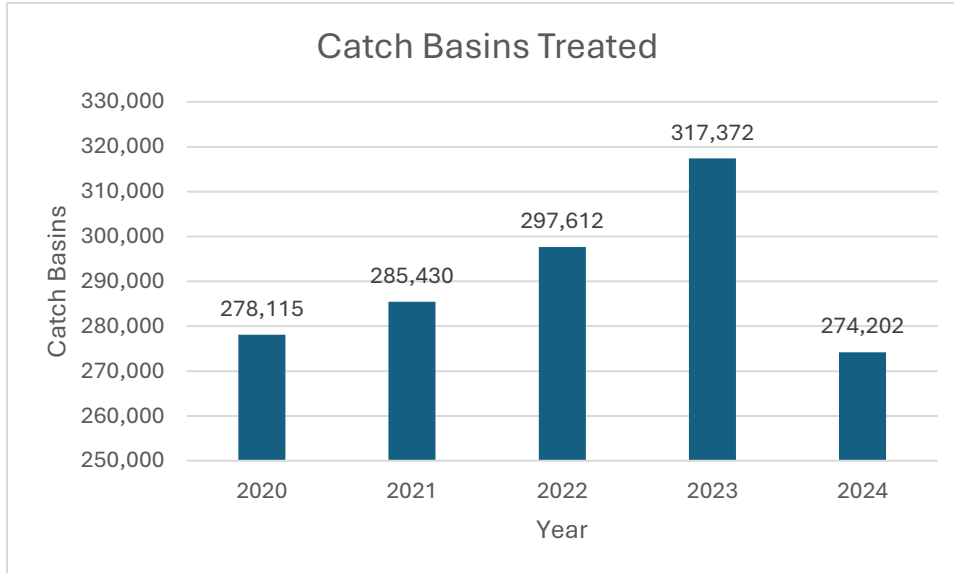


Figure 6 – Catch basin treatments per year 2020 – 2024.



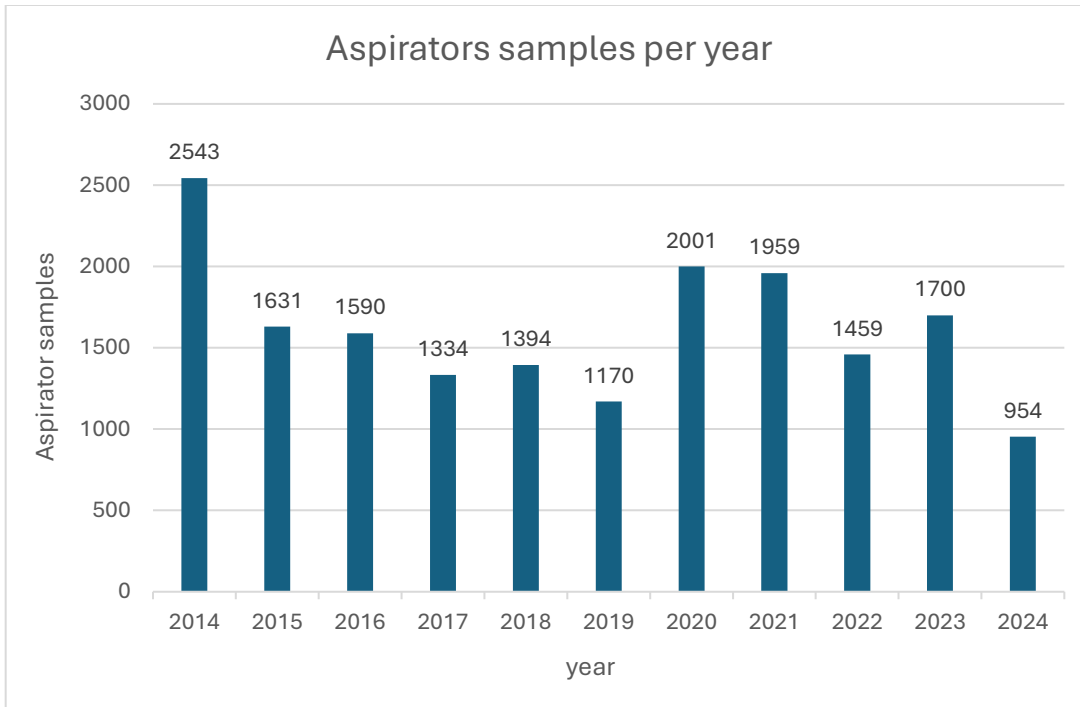


Figure 7 – Adult Aspirator (Suco’s) samples 2014 – 2024.

### Mosquito Disease

The numbers of mosquito-borne disease cases were low in 2024. The District has an elevated number of *Culex* species (potential vectors) and staff closely monitored these species for disease risk. Staff will respond to areas of elevated risk and conduct additional surveillance and control operations. Theoretically, wet and cooler conditions provide poor environmental conditions for the survival of these viruses and may have contributed to lower case numbers in 2024.

2024 Mosquito Borne Illness	US cases	MN cases	District cases
La Crosse Encephalitis	35	1	0
West Nile Virus	1,466	18	8
Eastern Equine Encephalitis	19	0	0
Western Equine Encephalitis	0	0	0
Jamestown Canyon Virus	22	4	0

The surveillance of invasive mosquito species is another vector-borne concern. The district focuses upon two species, *Aedes albopictus* and *Aedes japonicus*. *Aedes albopictus* cannot overwinter in Minnesota but annually arrives in the tire recycling trade. *Aedes albopictus* is associated with more tropical diseases such as Zika virus and dengue. Staff closely monitor these tire facilities and eradicate these mosquito populations when detected. *Aedes japonicus* can survive in the Midwest and is becoming more established in our region. *Aedes japonicus* can spread a number of diseases including West Nile virus, eastern equine encephalitis, Zika, and dengue. In 2024, we found elevated numbers in our 2024 surveillance, and they may eventually outcompete our native species (Figure 8).

*Aedes Japonicus* adults collected in 2024 compared to 12-year average

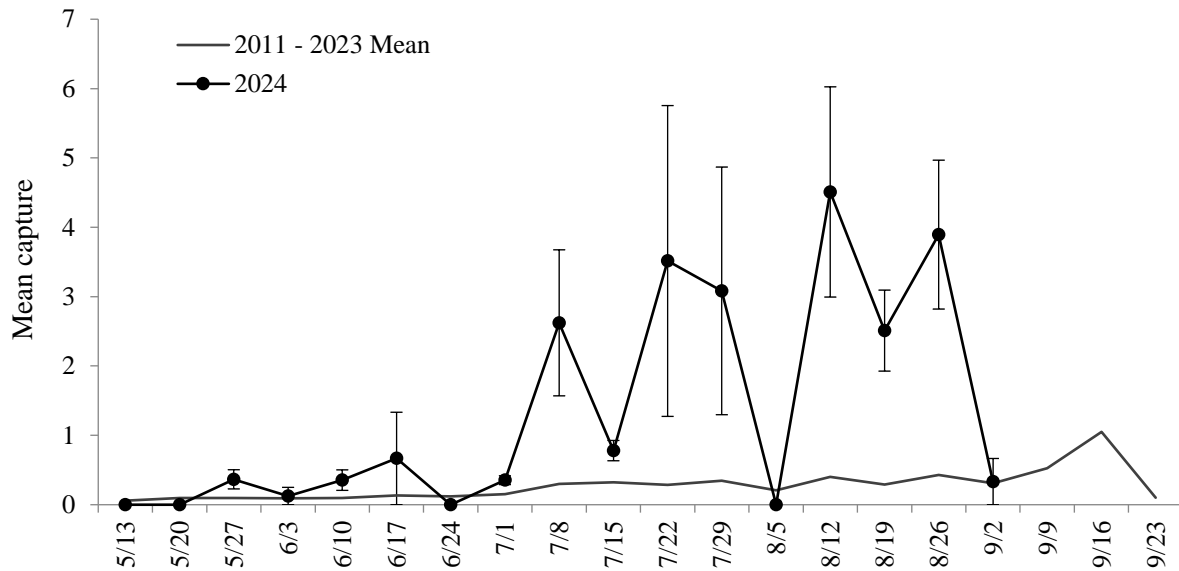


Figure 8 - Mean number of *Ae. japonicus* adults in 2024 aspirator samples plotted by week compared to mean captures for the corresponding weeks of 2011-2023.

Tick-borne illnesses remain a growing concern nationally. MMCD continues to monitor tick populations and is expanding methods to collect ticks. Small mammal trapping throughout the Twin Cities area and cloth dragging in high use parks are used for collecting ticks for pathogen testing. MMCD partners with the Minnesota Department of Health and the Centers for Disease Control for laboratory pathogen testing, public education, and monitoring of invasive ticks.

Technical services and operational staff continue to support District operations throughout the winter season. Many aspects include working with our Technical Advisory Board, filing annual organizational reports, obtaining permits, reviewing Endangered Species Act impacts, and conducting presentations at regional & national conferences.

As we continue to use our strategic planning process, our staff is developing new ways to measure what we do and aid in our ability to make data-driven decisions. We are creating new methods to help with our prioritization, efficiency, use of historic data, and new statistical analysis processes.

## METROPOLITAN MOSQUITO CONTROL COMMISSION MEETING

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**Presented by:**

Alex Carlson

**Informational:**

Public Affairs at MMCD

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In the District’s Integrated Pest Management plan “Educating the Public” is an essential part of the organization’s mission. It’s also the aspect of MMCD that involves every staff member from the dedicated front desk and public affairs staff to seasonal field technicians who may encounter people while working.

People reach out to MMCD for many reasons and the questions staff get asked can be challenging and help inform outreach. When doing public education, MMCD focuses on three major areas:

- **District Awareness** – Make residents aware of MMCD, the services provided, the materials being used, and the precautions undertaken to ensure safety and effectiveness.
- **Integrated Pest Management Essentials** – Inform people about the relationship between water and mosquitoes; the times of year certain species are active; and precautions residents can take to reduce the risks of vector-borne disease and the general nuisance of mosquitoes.
- **Environmental Stewardship** – Educate the public on the benefits of large-scale larval control and how District operations are designed to protect pollinators and other plants and animals.
- **Recruitment** – Notify job seekers of all ages that there are great opportunities for seasonal work at MMCD.

There are over 3,000,000 people in MMCD’s service area, and we use a variety of different tools to reach as many as possible. These are broken down into five main areas:

- 1) **Media Relations** – Television, radio/podcasts, and newspapers have a broad audience and the public affairs team issues press releases and works on relationship building to ensure MMCD is the primary source for expert information about mosquitoes, ticks, black flies, or vector-borne disease. MMCD also does outreach to city communications departments offering press releases and notifications of activity.
  - MMCD was featured as a primary source in **70 news stories** in 2024.
- 2) **Website** – Staff post timely information regarding planned treatments, weekly surveillance data, and guidance on reducing pests. The website also features blog posts with educational information and interactive public maps.

- MMCD.org had **114,464 visitors** in 2024.
- 3) **Social Media** – MMCD maintains pages on Facebook, Instagram, TikTok, Twitter/X, and Nextdoor to communicate with residents, provide important updates, and fun photos.
  - MMCD’s Facebook page has **2,211 followers**.
  - MMCD’s Twitter/X account has **1,074 followers**.
  - MMCD’s Instagram account has **644 followers**.
  - MMCD’s TikTok account has **393 followers**.
- 4) **Public Events** – MMCD attends public events like county fairs and city festivals with booths intended to educate people about mosquitoes, ticks, and black flies. Staff also walk in parades throughout the District with the MMCD Mascot “Vectoria” and a giant, inflatable mosquito float.
  - MMCD tabled at **37 public events** in 2024.
  - MMCD staff walked in **17 parades** in 2024.
- 5) **Presentations** – MMCD offers presentations to schools, cities, and community groups to educate people about Integrated Pest Management and provide seasonal updates. School presentations are interactive and can be customized and are offered for kids aged 3<sup>rd</sup> grade and up.
  - MMCD presented at **29 schools** in 2024.

These are just a few of the tools the MMCD uses to educate residents. Another important function of Public Affairs is taking resident calls or e-mails. The table below indicates the most common calls received by the District and how many have been coming in the past several years:

Yearly call totals (including emails) by service request type, 2014-2024

Service request type	Number of calls by year										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Check a larval site	1,068	447	886	1,151	601	802	438	234	472	684	198
Report adult mosquito annoyance	2,454	1,633	2,499	1,157	1,212	1,144	1,030	176	384	1,522	1,704
Public event, request treatment	93	91	105	101	91	71	12	43	61	64	63
Request tire removal	429	366	377	363	325	411	411	374	377	534	592
Calls about restricted access sites	146	139	158	126	75	69	76	73	79	87	78

**TO: COMMISSION MEMBERS**  
**FROM: DANIEL HUFF**  
**RE: EXECUTIVE DIRECTOR REPORT**  
**DATE: FEBRUARY 2025**

Welcome Commissioners John Heinrich (Anoka), Lisa Anderson (Carver), Kelly Miller (Ramsey), Garrison McMurtrey (Ramsey), and Bethany Cox (Washington) to the MMCD Commission. I look forward to working with you and all returning members.

We are reviewing applications and evaluating candidates for several positions, including the District's **Vector Ecologist** and **Quality Assurance Program Coordinator**. We are pleased to welcome new team members:

- **Field Operations Supervisors:** Trent Steffes, Mikayla Schweigert, Andrew Cleland
- **Lab Specialist:** Koudai Sugii

**Seasonal technician** positions are open, and we have already received 250 applications. Please share our recruitment website with your networks. Our seasonal positions are great opportunities for college students and retirees looking for a rewarding summer job. Please share our website, [mmcd.org](http://mmcd.org) with your contacts.

We had a productive meeting with the Regional Managers Team at the DNR to discuss how MMCD and DNR can collaborate and support each other's missions. Approximately 18% of mapped breeding habitats within the District are on DNR-managed land. We will continue working with the DNR on surveillance and treatment in these areas.

I presented an overview of MMCD to a meeting of Metro Watershed board members. As a result, we had a follow-up meeting with the Administrator of the Brown's Creek Watershed District. I hope to continue outreach efforts with watersheds and conservation districts.

I joined Public Affairs Manager Alex Carlson in presenting to the Carver, Scott, and Ramsey County boards. We appreciate the supportive comments from you and your colleagues during these meetings.

Anoka Field Operations Supervisor Rosa Mueller and I attended the Michigan Mosquito Control Association conference. It was great to see how our sister agencies manage similar mosquito species and habitats. Rosa gave an excellent presentation, providing an overview of our 2024 operations.

The Technical Advisory Board (TAB) met last week and provided helpful comments regarding our operations. We are making changes to how and when the TAB meets to better leverage their technical expertise. The board includes representatives from DNR, MDA, MNDOT, MDH, MPCA, Hennepin County Public Health, Three Rivers Parks, the US Fish and Wildlife Service, the EPA, and the University of Minnesota.

One of the more popular services we provide to District residents is our tire pickup program. To streamline this service, we are piloting drop-off dates in Carver, Dakota, and Scott counties and increasing our partnerships with cities.

I have initiated an internal reorganization of the Technical Services Division, elevating the District Entomologist to Senior Manager and a member of the Senior Leadership Team. The District Entomologist will report directly to the Executive Director, providing direct advice and overseeing the newly created

Entomology Division. Now that the Executive Director is no longer required to be an Entomologist, this change ensures that district operations and plans are based in science.

The Senior Leadership Team met with our new legal counsel, Sam Ketchum and Siobhan Tolar, to begin developing their 2025 work plan. Prioritized items for this year include:

- Revising personnel guidelines for seasonal technicians
- Reviewing the District's updated Affirmative Action Plan
- Reviewing the District's Other Post-Employment Benefits (OPEB) program
- Preparing for labor negotiations with City Employees Union, Local 363

Following today's meeting, we are hosting an open house for the strategic plan. MMCD staff will be available to share the work we have done and to gather your input. Your feedback is invaluable, and I hope you will attend. The open house is open to the public, has been publicly noticed, and should take approximately 20–30 minutes of your time.

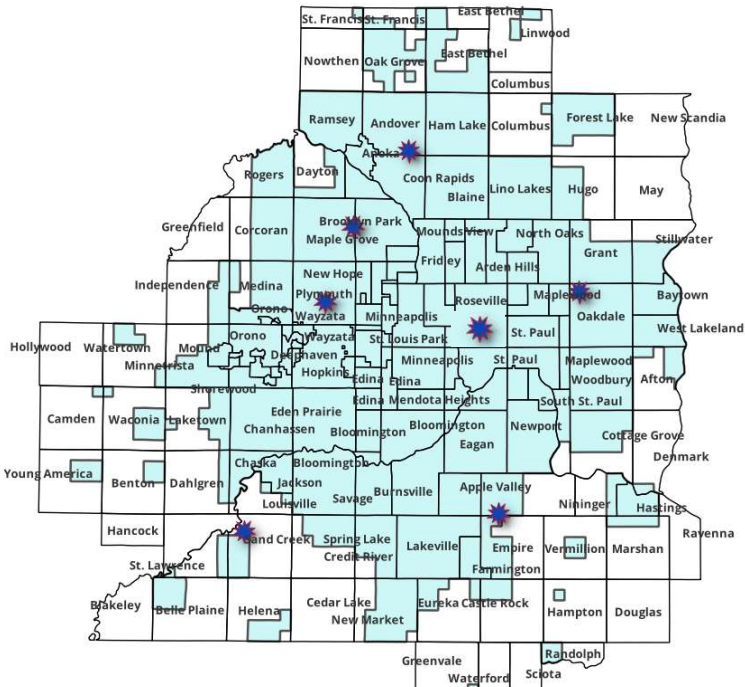
# 2024 Metropolitan Mosquito Control Year in Review



1

## Area of Operation

- Regional larvicide program
- 6 field offices and main office
- Cover over 2,975 square miles DHO
  - Over 84,000 mapped wetlands
  - Over 29,000 mapped structures
  - Over 365,000 mapped catch basins
- Efforts are focused on areas that will have the greatest impact on residents in the metro
- We do all this work with 52 RFT and 195 seasonal employees

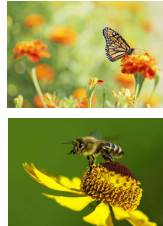


2



## Environmental Stewardship

- Mosquito control decisions are driven by surveillance – identify species, abundance, and location.
- Technical Advisory Board review
- U of M, MDA, MDH, DNR, MnDOT, USFWS, EPA
- Don Eaton, DNR Biologist, is current chair of TAB.
- Larval control over large land area
- Data for all sites on MMCD website.



3

## Larval Control Materials

- Minimal impact to other species
- Success based upon treating large geographic area.
- No Neonicotinoids, No PFAS, No Organophosphates
- Primary active ingredients used by MMCD:
  - *Bacillus thuringiensis israelensis* (B.t.i.)
  - *Bacillus sphaericus* (Bs.)
  - Methoprene (Insect Growth Inhibitor)
  - Spinosad (i.e. Natular)



4



# 2024 Season Highlights

- Largest number of larval samples since 2015
- Largest number of larval acres treated since 2016
- Spring larval treatments increased compared to 2023
- Doubled drone treatment acres
- Cattail acres increased to pre-drought numbers
- Adulticide use remained low



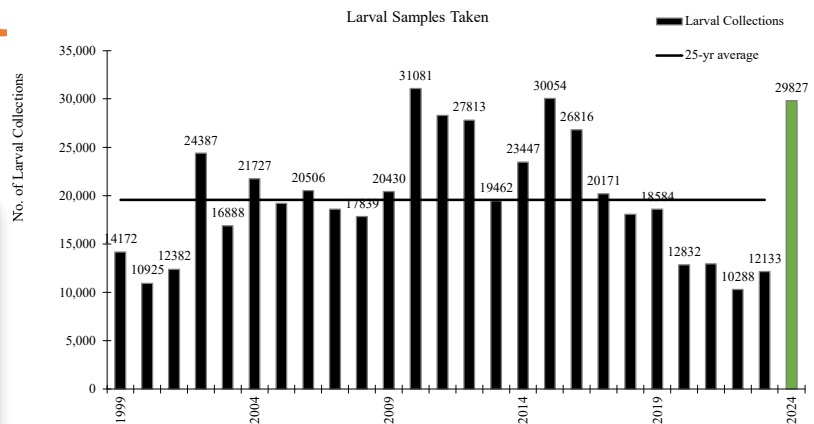
5

# 2024 Larval Samples

- Largest number of samples taken since 2015
- More than doubled the number of samples taken in 2023
- 4,000 samples remain from 2024



	2023	2024	Difference	25-Year Average
Larval Acres Treated	12,133 Samples	29,827 Samples	17,694 Samples	19,560 Samples

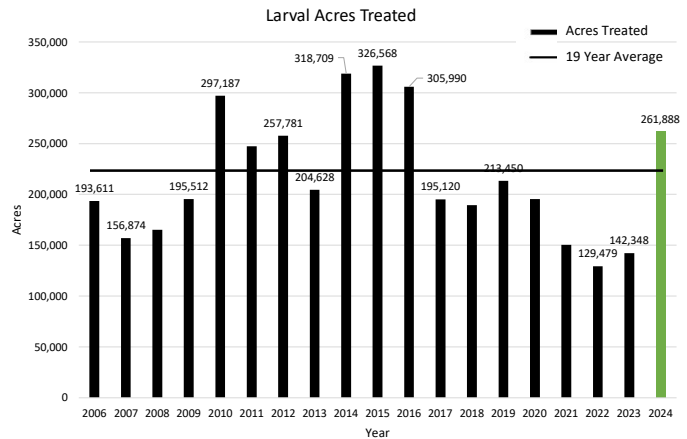


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# 2024 Larval Acres Treated

	2023	2024	Difference	19-Year Average
Larval Acres Treated	142,348 acres	261,888 acres	119,540 acres	218,267 acres

- Most larval acres treated since 2016
- Almost doubled the acres we treated in 2023

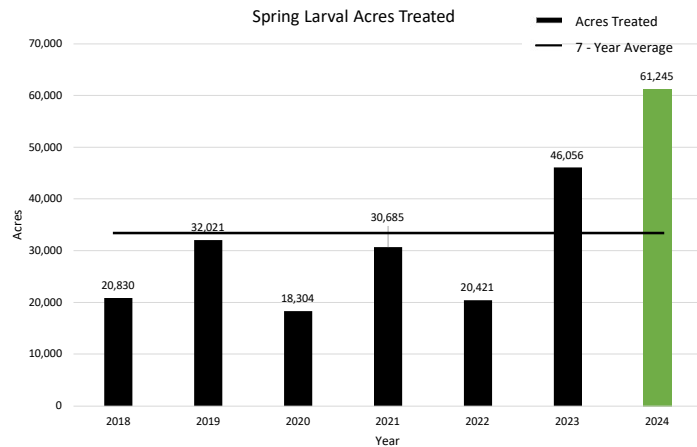


7

# 2024 Spring Larval Treatments

	2023	2024	Difference	7-Year Average
Spring Larval Acres Treated	46,056 acres	61,245 acres	15,189 acres	32,795 acres

- Most spring acres ever treated
- Aerial treatments began on April 20<sup>th</sup>
- Challenging work with limited seasonal staff




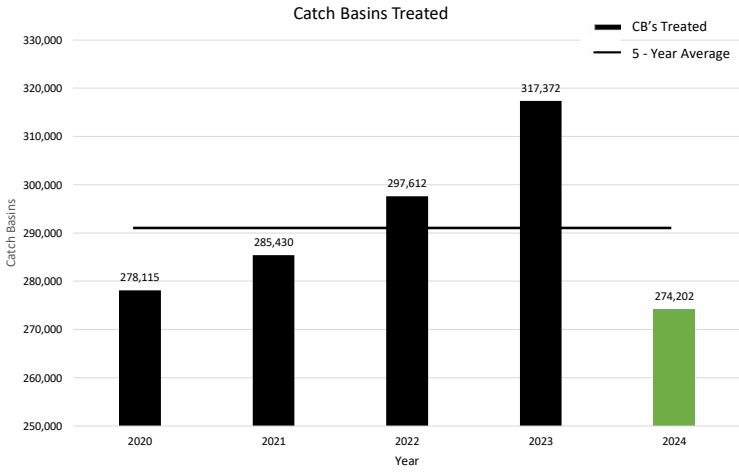
Treatments that occur typically April – early/mid May

8

# Catch Basin Treatments

	2023	2024	Difference	5-Year Average
Catch Basin Treatments	317,372 CB's Treated	274,202 CB's Treated	-43,170 CB's Treated	290,546 CB's Treated

- Treating these human-made habitats is an effective strategy for preventing mosquito-borne illnesses.


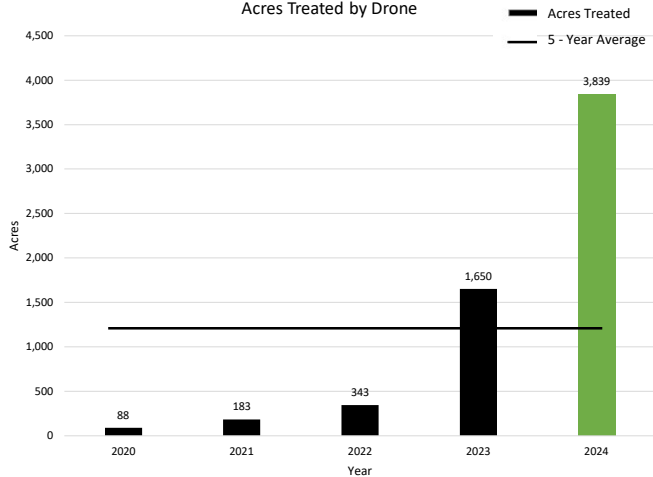



9

# 2024 Drone Treatments

	2023	2024	Difference	Percent Increase
Drone Larval Acres	1,650 acres	3,839 acres	2,189 acres	132%

- 132 % increase from 2023
- Used 3 treatment drones – DJI
- Each drone can carry up to 18-77 lbs.


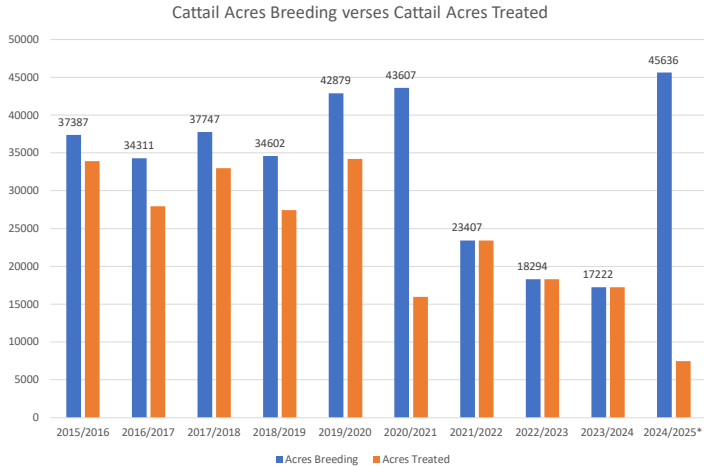



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# Cattail Mosquitoes - *Cq perturbans*

	2023	2024	Difference	10-Year average
Perturbans Larval Acres	17,222 acres	45,636 acres	28,414 acres	33,509 acres

- Unique mosquito that over winters by attaching to roots
- Inspect in fall, treat in the spring
- Acres exceed pre-drought numbers

**Cattail Acres Breeding versus Cattail Acres Treated**

Year	Acres Breeding	Acres Treated
2015/2016	37387	33500
2016/2017	34311	28000
2017/2018	37747	33000
2018/2019	34602	27500
2019/2020	42879	34000
2020/2021	43607	16000
2021/2022	23407	23500
2022/2023	18294	18500
2023/2024	17222	17500
2024/2025*	45636	7500

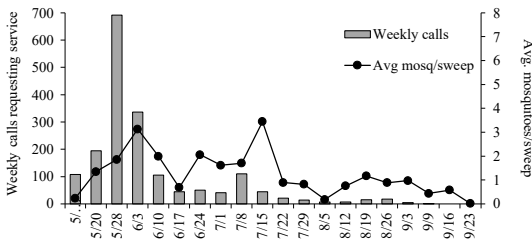
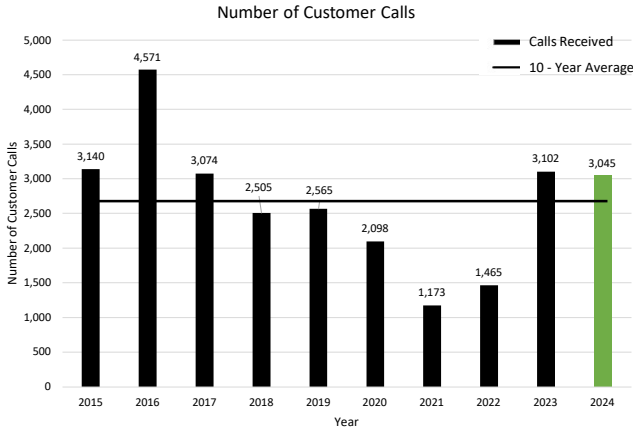
11

DHO

# Customer Calls

	2023	2024	Difference	10-Year average
Number of Customer Calls	3,102 Calls	3,045 Calls	-57	2,674 Calls

- Customer calls – record number of calls in May
- Calls peaked before Memorial Day and then returned to lower levels

**Number of Customer Calls**


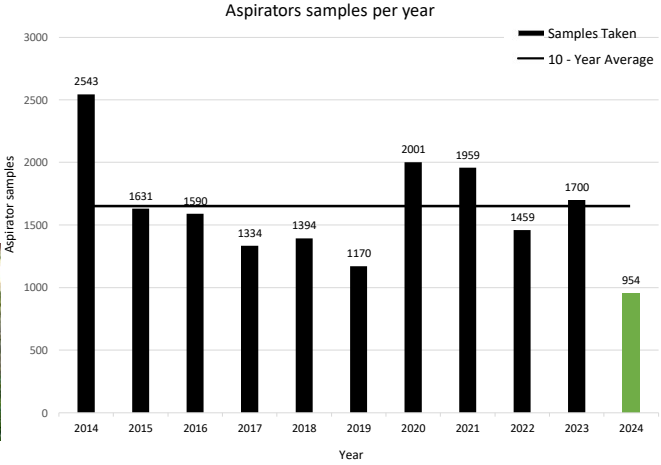
Year	Number of Customer Calls
2015	3,140
2016	4,571
2017	3,074
2018	2,505
2019	2,565
2020	2,098
2021	1,173
2022	1,465
2023	3,102
2024	3,045

12

# Adult Surveillance - Aspirators

	2023	2024	Difference	11-Year average
Number of Samples	1,700 Samples	954 Samples	-746 Samples	1,612 Samples

- Important for identifying mosquitoes that transmit La Crosse Encephalitis


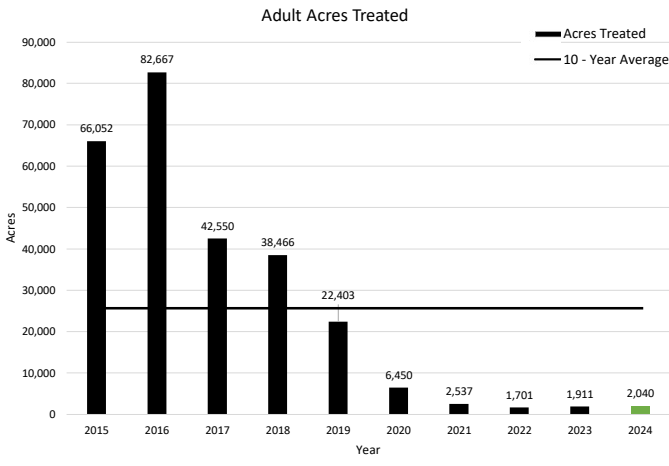
Year	Samples Taken
2014	2543
2015	1631
2016	1580
2017	1334
2018	1394
2019	1170
2020	2001
2021	1959
2022	1459
2023	1700
2024	954

13

# 2024 Season Adult Treatments

	2023	2024	Difference	10-Year average
Adult Acres Treated	1,911 acres	2,040 acres	129 acres	26,678 acres

- Adult treatment acres remained low
- Emphasis on targeting disease vectors, public events, and recreation areas or parks
- Permethrin, Sumithrin and Etofenprox

Year	Acres Treated
2015	66,052
2016	82,667
2017	42,550
2018	38,466
2019	22,403
2020	6,450
2021	2,537
2022	1,701
2023	1,911
2024	2,040

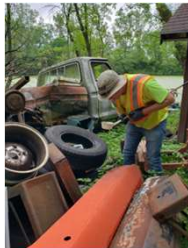
14



DH0

# Mosquito-borne Disease

To reduce the risk of mosquito-borne illnesses, District staff conducts vector surveillance, source reduction, control services, and public education.



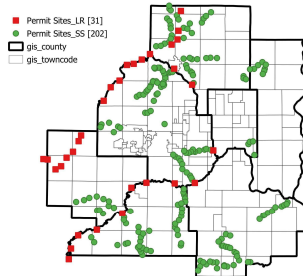
2024	US cases	MN cases	District cases
LaCrosse Encephalitis	35	1	0
West Nile Virus	1,466	18	8
Eastern Equine Encephalitis	19	0	0
Western Equine Encephalitis	0	0	0
Jamestown Canyon Virus	22	4	0



15

# Black Fly

- Small Streams
  - 202 sites on 32 streams
  - Sampled in April or May
- Large Rivers
  - 31 sites on 5 rivers
    - Minnesota, Mississippi, Crow, Rum, South Fork Crow
  - Sampled weekly May-September



16

## Tick Program

- Tick Distribution Study
  - Live trapping of small mammals
  - Primary host: white-footed mouse
  - Currently sampling 100 sites
- Cloth Drags
  - Tick sampling high-use parks
  - Ticks tested for pathogens by Centers for Disease Control
- Education and Collaboration



17

## 2024 Season Challenges

- Staffing <sup>DHO</sup>
- Record flooding
- 15 summer broods
- Significant increase in acres treated
- Significant increase in lab samples collected and identified
- Decrease in disease prevention work
  - Catch Basins
  - Aspirators
- Cattail Acres



18

## 2025 Season Plans

- Expand drone treatments
- Sharing staff between facilities
- Use our budget to treat according to our IPM plans and not hold back for potential expenditures later in the year
- Cattail treatments will increase
- No changes planned in larval or adult control materials
- Reviewing impact of Monarch being listed as a threaten species







## Public Affairs at MMCD

MMCD Commission Meeting  
February 26<sup>th</sup>, 2025

1

## Education Outreach

Educating the public is an important part of MMCD's Integrated Pest Management plan. It's also the aspect that involves every staff member from Public Affairs to Seasonal Field Technicians.

Three main objectives with Education Outreach:

1. **District Awareness**
  - What is MMCD? (*Who is responsible for those helicopters?!*)
  - What methods are used? (*Are products safe? Do they work?*)
  - What environmental precautions are taken?
2. **Integrated Pest Management Essentials**
  - Importance of water's relationship to mosquitoes.
  - Effective methods to reduce bug bites.
  - Times of year when vectors are active.
3. **Recruitment**
  - Inform people of the great opportunities for seasonal and full-time work at MMCD.



2

# Methods of Public Outreach

## Direct:

- Public Presentations
- Events
- Resident Calls, Interactions

## Indirect:

- Website/Social Media
- Traditional Media (TV/Newspapers)
- Fliers/Posters/Displays



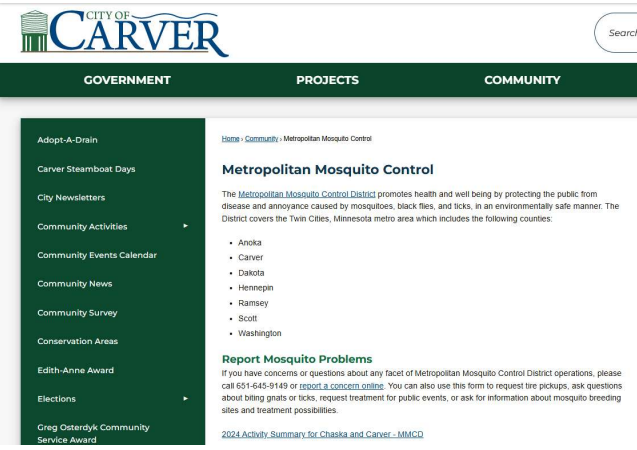
3

# Media Relations Example




4

# City Partnerships Example



The screenshot shows the City of Carver website with a navigation menu (GOVERNMENT, PROJECTS, COMMUNITY) and a sidebar with links like 'Adopt-A-Drain', 'Carver Steamboat Days', etc. The main content area is titled 'Metropolitan Mosquito Control' and includes text about the district's mission and a list of member cities: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. It also features a 'Report Mosquito Problems' section and a link to a '2024 Activity Summary for Chaska and Carver - MMCD'.

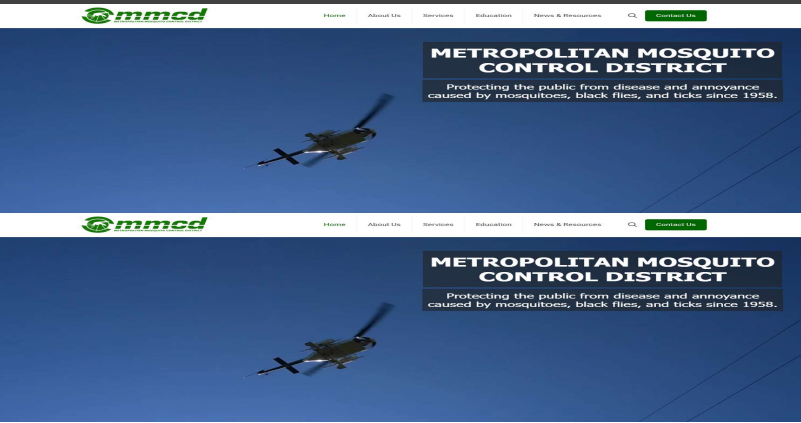


The Facebook post is from the 'City of Anoka, Minnesota' page, dated April 14, 2024. The text reads: 'It's mosquito season again...with the warming expected in the coming weeks, adult mosquito activity will increase in late April and May. Metropolitan Mosquito Control District (MMCD) will be conducting surveillance and treatment activities in the community to reduce the risk of disease and annoyance in an environmentally-sensitive manner. Each year field staff at MMCD monitors and treats wetlands that breed mosquitoes with a fleet of trucks and helicopters. Many of their seasonal staff begin working in April and residents may notice the green or white trucks with the MMCD logo, or staff on bikes or on foot wearing brightly colored "Mosquito Control" shirts. At times, MMCD employees may need to cross private property for access to check and treat areas for mosquito larvae. If you have questions about mosquito control activities, please call MMCD at 651-645-9149 or visit https://mmcd.org/ #anokamm #anokarealclassic #cityofanoka #mosquitocontrol'. The post includes a video of a helicopter and a photo of staff in field gear, and shows 17 likes and 6 shares.


5

# MMCD.org

- [Planned Treatment Notifications](#)
- [Weekly Surveillance Updates](#)
- Educational Info**
  - [Mosquitoes by Month](#)
  - [Camping Tips](#)
- [Resident's Guide](#)
- [Public Maps](#)



The screenshots show the MMCD.org website homepage. The top navigation bar includes links for Home, About Us, Services, Education, News & Resources, and a Contact Us button. The main banner features the MMCD logo and the text: 'METROPOLITAN MOSQUITO CONTROL DISTRICT. Protecting the public from disease and annoyance caused by mosquitoes, black flies, and ticks since 1958.' The background of the banner shows a helicopter in flight.



6



# Social Media

**Instagram Takeovers**

**metromosquito**

## Rosemount Facility Takeover!

**Metropolitan Mosquito Control District**  
Published by Instagram  
June 7, 2024

We have found our first Lone Star Tick of the year! This one was found during a tick drag in Hennepin County, just west of Rogers. This tick is rare in Minnesota and is known for causing alpha-gal syndrome which can make the human host allergic to red meat. Be on the lookout for this and other species of ticks as we remain in a high activity time of year!

Shawn P., Maple Grove facility

#lonestartick #alphagal #publichealth #tickseason #ticks #entomology

See insights and ads

Boost post

39

15 comments 238 shares

**TikTok**

## Day in the life of an MMCD technician

7

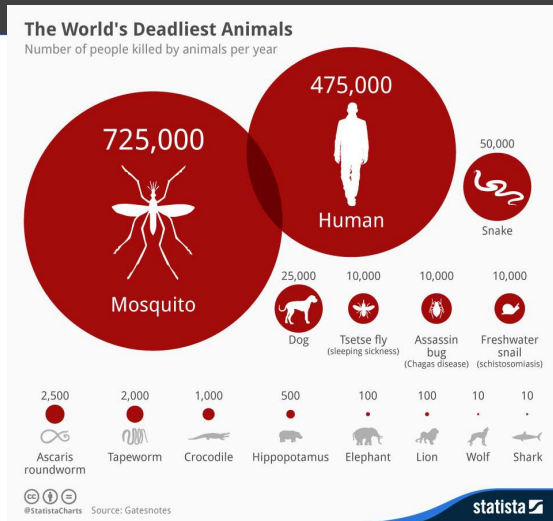
# School Presentations

**Library Presentation**

**Outdoor Presentation**

8

# Mosquitoes: Humankind's Biggest Enemy



- About **108 billion** people have ever lived on earth. Mosquitoes have killed an estimated **52 billion** people.
- Mosquitoes have altered the trajectory of conquests by Alexander the Great and even the Revolutionary War.
- Some scientists believe mosquitoes have even altered human DNA.

**Source:** *The Mosquito: A Human History of Our Deadliest Predator* by Timothy Winegard

**Image Source:** Statista.com



9

## TRIVIA!

- How many mosquito species are there in the entire world?
- How many species are found in Minnesota?



10

# Mosquito Species



**3,500** Species Worldwide



**52** Species in Minnesota



**~20-25** Species are a pest problem or transmit disease



11

# Adult Mosquito





- Mosquitoes require shallow, stagnant water to emerge.
- Water temperature determines speed of development, but usually 5-8 days for most mosquito species from egg hatch to adult emergence.



12

# Mosquito Math

1st Generation:  + **Blood meal** =  300 eggs  
150 females

2nd Generation: **150 females + mom = 151 egg rafts x 300 = 45,300 mosquitoes (22,650 females)**

3rd Generation: **22,650 females X 300 eggs = 6,795,000 mosquitoes (3,397,500 females)**

4th Generation: **3,397,500 females X 300 eggs = 1,319,250,000 mosquitoes**

**All in less than one month,  
from one female mosquito!**



13

# Public Events



14

## Questions?



Alex Carlson, Public Affairs Manager  
Metropolitan Mosquito Control District

[acarlson@mmcd.org](mailto:acarlson@mmcd.org)

[www.mmcd.org](http://www.mmcd.org)

