

# AGENDA

## HUMAN SERVICES COMMITTEE

111 S. Michigan Ave., Room 200, Saginaw, MI 48602

**Monday, January 13, 2025 – 4:00 p.m.**

Members: Tracey Slodowski – Chair, Gerald Little – Vice-Chair, Lisa Coney, Michael Webster, Jack Tany

Others: Administrator, Finance Director, Civil Counsel, Board Staff, *Media*

- I. Call to Order
- II. Welcome
- III. Correction/Approval of Minutes (***December 2, 2024 – Attached***)
- IV. Public Comment (*Speakers limited to 3 minutes*)
- V. Agenda
  1. **William Stanuszek, SCMAC Director, re:**
    - **1-21-1** Presenting the Saginaw County Mosquito Abatement Commission 2024 Annual Report
  2. Any other matters to come before the committee
- VI. Miscellaneous
- VII. Adjournment

# MINUTES

## HUMAN SERVICES COMMITTEE

DRAFT

111 S. Michigan Ave., Room 200, Saginaw, MI 48602

**Monday, December 2, 2024 – 4:00 p.m.**

Present: Gerald Little – Chair, Tracey Slodowski – Vice-Chair, Lisa Coney, Christopher Boyd  
Absent: Michael Webster  
Others: Mary Catherine Hannah, Dave Gilbert, Darcie Totten, William Stanuszek, Mark Rankin, Isaac Blackmon, Harmony Fierke-Gmazel, Suzy Koepplinger, Renee Sharkey and Catherine Hicks

- I. Call to Order ---**Little at 4:01 p.m.**
- II. Welcome
- III. Correction/Approval of Minutes (**August 5, 2024**)  
---**Moved by Coney, seconded by Boyd, to approve. Motion carried.**
- IV. Public Comment (*Speakers limited to 3 minutes*)
  - **None**
- V. Agenda
  1. **Harmony Fierke-Gmazel, MSU Extension, re:**
    - **12-17-1** Shared the positive impact and value MSU Extension brings to the residents of Saginaw County speaking about the “Roles and Responsibilities of a Planning Commission” program offered in Saginaw Twp. and the “Saginaw County Citizen Planner” program hosted by James Twp.  
---(**No Action**)
  2. **William Stanuszek and Isaac Blackmon, Mosquito Abatement Commission, re:**  
Provided an update on the Mosquito Abatement Commission move from Congress to Towerline  
---(**No Action**)
  3. Any other matters to come before the committee ---**None**
- VI. Miscellaneous ---**None**
- VII. Adjournment ---**Boyd moved, seconded by Coney, to adjourn. Motion carried; time being 4:21 p.m.**

Respectfully Submitted,  
Gerald Little, Committee Chair  
Suzy Koepplinger, Committee Clerk



William W. Stanuszek, Director



January 8, 2025

Jack Tany, Chairman  
Saginaw County Board of Commissioners  
County of Saginaw  
111 S. Michigan Ave.  
Saginaw, MI 48602

**HUMAN  
SERVICES**

SAGINAW COUNTY BOC  
JAN 8 '25 PM2:22

1-21-1

Re: **MOSQUITO ABATEMENT'S 2024 ANNUAL REPORT**

Dear Chairman Tany:

The Saginaw County Mosquito Abatement Commission proudly presents our [2024 Annual Report](#). This report provides an account of the mosquito season's control efforts, services, public education, and mosquito surveillance. This accounting represents the hard work and efforts of our staff to protect the public from mosquitoes and the diseases they transmit. This report is available for public viewing on our website, [saginawmosquito.com](http://saginawmosquito.com).

Our operations responded to mosquito threats throughout the season with a concerted effort made to keep the public informed as well as remain accountable utilizing news releases, agency website, and social media. Our surveillance again noted the presence of mosquito-borne disease within the county's mosquitoes and birds.

SCMAC remains committed to providing a responsible public health service to all communities throughout our county. Providing relief from nuisance mosquitoes and lessening the threat of mosquito-borne disease is our priority.

I look forward to discussing our report at the January 13, 2025, Human Services Committee meeting.

Respectfully,

William W. Stanuszek  
Director



# Annual Report 2024

SAGINAW  
COUNTY  
MOSQUITO  
ABATEMENT  
COMMISSION

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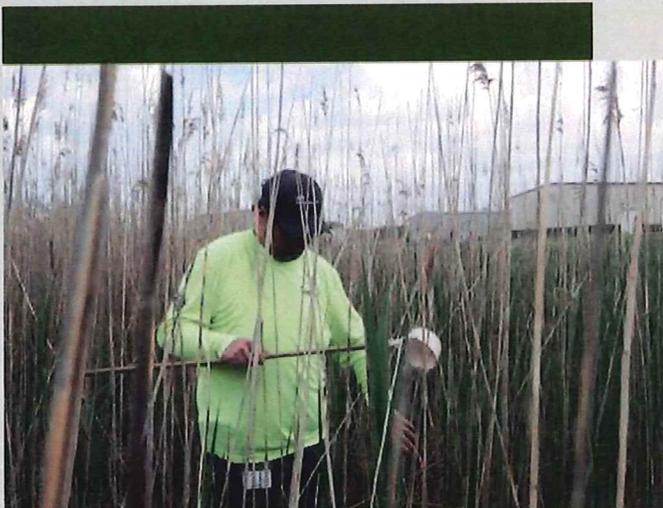
Service Requests, Reporting, Bti Distribution, and more

## 19 Professional Development

Continued education through meetings, conferences, and trainings

## 20 Technical Advisory Group

Top experts in their field helping guide SCMAC's mosquito control programs



Accountability and transparency documents are available under the Performance Dashboard at [www.saginawcounty.com](http://www.saginawcounty.com)

# DIRECTOR'S NOTE

It is an honor to present the Saginaw County Mosquito Abatement Commission's (SCMAC) 2024 Annual Report. This report encapsulates the efforts of our staff, alongside a synopsis of the mosquito season. With 48 seasons of experience, we continuously improve our ability to control mosquitoes and mosquito-borne diseases in a cost-effective manner. SCMAC commits to utilizing strategies that are scientifically grounded and regulatory-compliant, while minimizing the impact on our environment and pollinators.

Each season presents new insights into the behavior and environmental influence of mosquitoes within our communities. Notably, this year, communities bordering the Shiawassee State Game Area experienced an unusual late season mosquito nuisance. This phenomenon was a direct consequence of controlled flooding that takes place annually in September to produce waterfowl habitat. Fall temperatures are historically too cold to sustain mosquito activity; however, the prolonged warmer weather into October deviated from this established pattern and facilitated mosquito activity beyond its typical seasonal range.

It is essential to emphasize that this mosquito activity was not due to any alterations in control operations but rather the changing pattern of our seasons. Recognizing the significance of this development, SCMAC is collaborating with the Department of Natural Resources to gain a thorough understanding of this mosquito impact and other related phenomena stemming from the changing seasons. This collaboration aims to effectively address this specific mosquito nuisance in the future.

Our tenure at the 211 Congress facility, which has served as our operational headquarters since the early 1980s, is ending. We eagerly anticipate the transition to our new base at 705 N. Towerline Road in Buena Vista Township. The new facility aligns with our organizational goals, prioritizing the effective delivery of our programs and services. We are confident that it will serve us well for decades to come and enable us to continue making a meaningful impact on our community.

The Commission and its staff members recognize and embrace their essential role in protecting public health. I thank them for their efforts serving our community. Additionally, on behalf of the Commission, I would like to express our sincere appreciation to the residents of Saginaw County for their active participation in controlling mosquitoes in their yards and communities.



A handwritten signature in black ink that reads 'William W. Stanuszek'.

WILLIAM W. STANUSZEK



## STAFF

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**Director:** William Stanuszek

**Account Specialist:** Gabriel Brown

**Biologist:** Charles Pearce

**Chief Mechanic:** Jeremy Fabera

**Education Coordinator:** Mathys Kotze

**Field Technologies Coordinator:** Ryan DuRussel

**Foreman:** Travis Coughran

**Foreman:** Paul Gutka

**Office Manager:** Courtney Eggebrecht

**Operations Manager:** Isaac Blackmon

## BOARD OF TRUSTEES

---

**Chairman:** Christopher Klawuhn

**Vice-Chairman:** David Gutierrez

**Secretary:** Rene DeSander

**Trustee:** Randall Knepper

**Trustee:** Richard Spitzer

Saginaw County Environmental Health

Saginaw; Member-at-Large

Saginaw; Member-at-Large

Saginaw; Member-at-Large

Saginaw County Commissioner Representative

# MOSQUITO



- **Informing residents**, through our Public Education Program, of best practices to control mosquitoes and avoid their bites around the home or within their community.
- **Elimination or removal of mosquito breeding habitat** (standing water) in and around the home and community through our Source Reduction Programs, including household scrap tire collection.

- Our Biology Department **monitors mosquito populations and mosquito-borne disease**. This surveillance directs our control program. In addition, all control is monitored to ensure responsible and effective use of control products.
- **Larval mosquito control** is performed through treating standing water where larval mosquitoes are found. The majority of larval control is done with a bacterial (*Bti*) product which targets mosquito larvae and bio-degrades rapidly.

- Controlling the pupal stage is done with a fine, highly refined mineral oil. This oil biodegrades within 24 hours.
- **Adult mosquito control** reduces populations of biting adult mosquitoes. When surveillance notes certain populations of adult mosquitoes and/or presence or increase in mosquito-borne disease, an ultra-low volume (ULV) application is performed to decrease the mosquito threat.

# Community Education



*Providing the public with accessible information is our priority!*

SCMAC is dedicated to maintaining transparency regarding our services and products, including information about mosquito-borne disease threats within the community. Our objective is to provide access to information through diverse platforms, encompassing the digital realm and in-person interactions.

Our commission actively collaborates with professional organizations dedicated to mosquito control. This year, the Education Department and agency again participated in the Michigan Mosquito Control Association's (MMCA) Annual Conference held in February, as well as its 7F Certification Seminar held in October. Additionally, we have conducted our own Seasonal Employee Trainings. Cultivating relationships and networking with colleagues and stakeholders within the profession remains influential in combating mosquitoes and its related diseases within Saginaw County.

Our organization's digital presence, including our website, public notification application, social media platforms, and professional online profiles, offers valuable and interactive access to pertinent information and services. Our team's technical expertise in virtual webinars and presentations guaranteed an efficient and engaging experience for both internal and external stakeholders.

## Thank you...

We express our sincere gratitude to the various organizations that invite us annually, enabling us to educate residents about mosquitoes, the diseases they transmit, and effective control measures. In-person school presentations remain highly valued, and we greatly appreciate the schools and teachers who invite us to contribute to their programs.

The classroom presentations and civic events serve as effective platforms for engaging students and residents alike, fostering their active participation.



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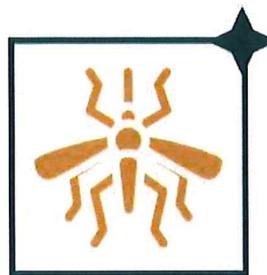
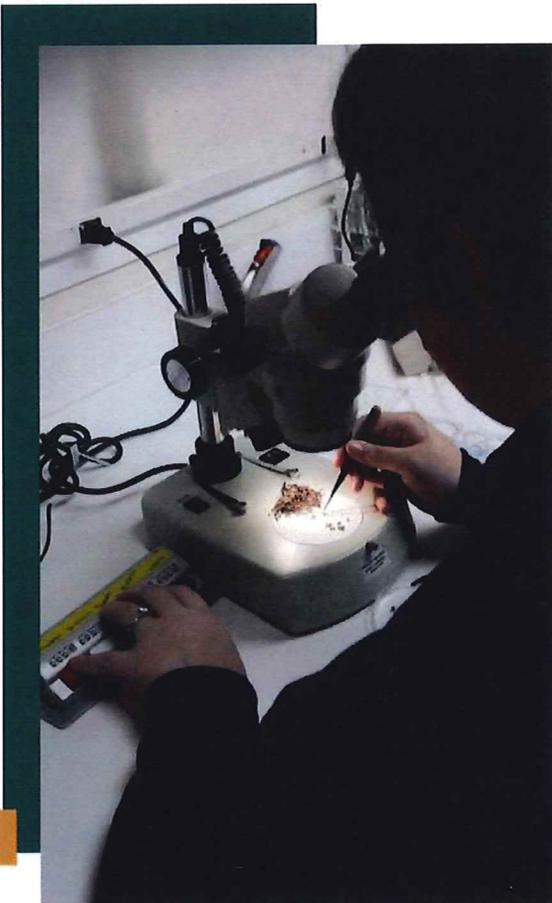


## 2024 Events

- Friday Night Live
- Commission on Aging Senior Picnic
- Saginaw County Fair
- School Presentations
- Saginaw County Parks' Events

# Disease Surveillance

Understanding and tracking mosquito-borne disease is crucial to promoting public health within the county. The presence, amount, and recent history of mosquito-borne virus activity dictates our control strategies as well as public notification and education. Our surveillance samples for five viruses known to cause human disease in the Midwest region: Eastern Equine encephalitis (EEE), Jamestown Canyon virus (JCV), La Crosse encephalitis (LAC), St. Louis encephalitis (SLE), and West Nile virus (WNV). Mosquito samples are submitted to the Michigan Department of Health and Human Services' Bureau of Laboratories while birds are sent to the Michigan State University Veterinary Diagnostic Laboratory for testing. Our surveillance efforts adapt according to the arrival and resurgence of mosquito-borne viruses.



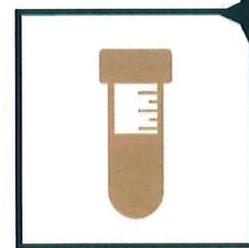
**2231**  
Mosquito  
Samples  
Tested

**18**  
Positive  
Mosquito  
Samples



**17**  
Dead  
Birds  
Tested

**8**  
West Nile  
Positive  
Birds



## Mosquito-Borne Virus Surveillance Results

### 2,231 mosquito samples submitted

- *Culex pipiens*: 8 WNV Positives
- *Culex Spp.*: 1 JCV, 4 WNV Positives
- *Anopheles punctipennis*: 4 JCV Positives
- *Coquillettidia perturbans*: 1 JCV Positive

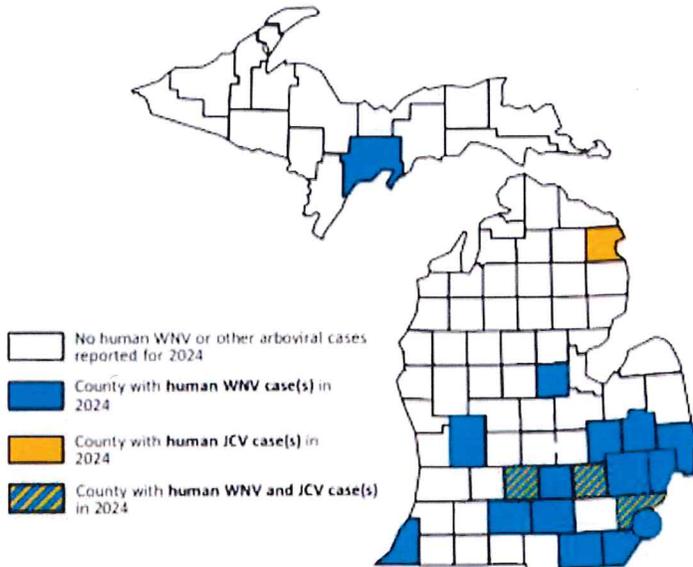
### 17 bird samples submitted

- Crows: 7 - WNV Positives
- Blue Jays: 1 - WNV Positive

# STATE OF MICHIGAN

## Arbovirus Surveillance

### Human Cases

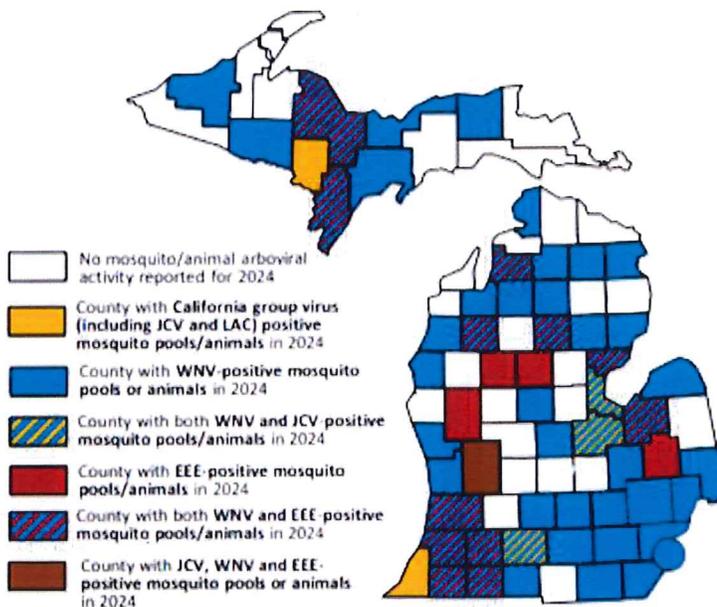


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*Arboviruses are viruses transmitted by mosquitoes or other insects*”

The State of Michigan reported **35 human cases of WNV, or other arboviruses** reported with most occurring in the southeast portion of the lower peninsula. No fatalities have been reported. **WNV** was also detected in **150 mosquito samples, 97 birds and 8 horses**.

### Animal Cases



**EEE cases** increased in 2024 infecting a total of **13 horses and 4 birds** throughout the lower peninsula. There were also **3 mosquito samples** found in Arenac, Cass, and Kent Counties. No human detection has been reported.

**Jamestown Canyon virus (JCV)** was detected in **14 mosquito samples** with **4 human cases** reported in Alpena, Eaton, Livingston, & Wayne Counties.

# MOSQUITO

# Surveillance

## BIOLOGY



**SCMAC** utilizes a variety of adult mosquito traps to monitor populations. In addition, mosquito breeding habitat (standing water) is sampled throughout the season noting the presence and abundance of larval mosquitoes. This mosquito surveillance not only allows for operations to respond to mosquito populations but offers improved understanding of mosquitoes and the factors that affect them.

## SEASONAL HIGHLIGHTS

**MARCH 12:** First mosquito larvae found

**APRIL 24:** First mosquito pupae found

**MAY 13:** First major adult emergence

**JUNE 5:** Peak Spring *Aedes* activity

**JUNE 12:** Summer *Culex* migrate up into tree canopy

**JULY 18-31:** Peak *Culex* activity

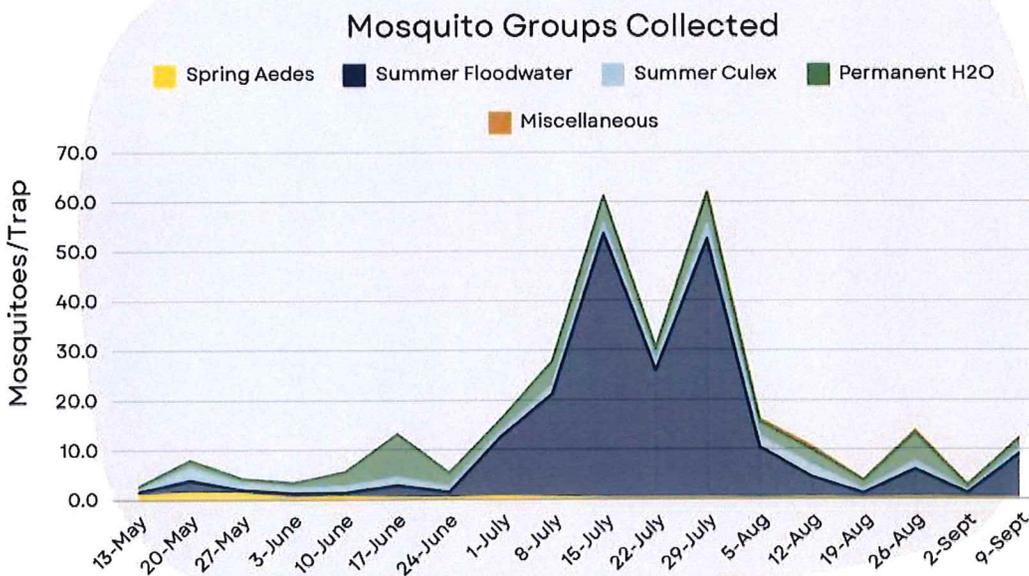
**AUGUST 1:** Peak Floodwater *Aedes* activity

**SEPTEMBER 19:** Larger peak Floodwater *Aedes* associated with managed flooding of the Shiawassee State Game Area

**W**eather conditions greatly influence mosquito populations, most notably temperature (development) and rainfall (abundance). SCMAC monitors rainfall throughout the county to better forecast impacts on mosquito populations. Routine surveillance determines when and if control is needed and offers insight into efficacy and efficiency of our control efforts.



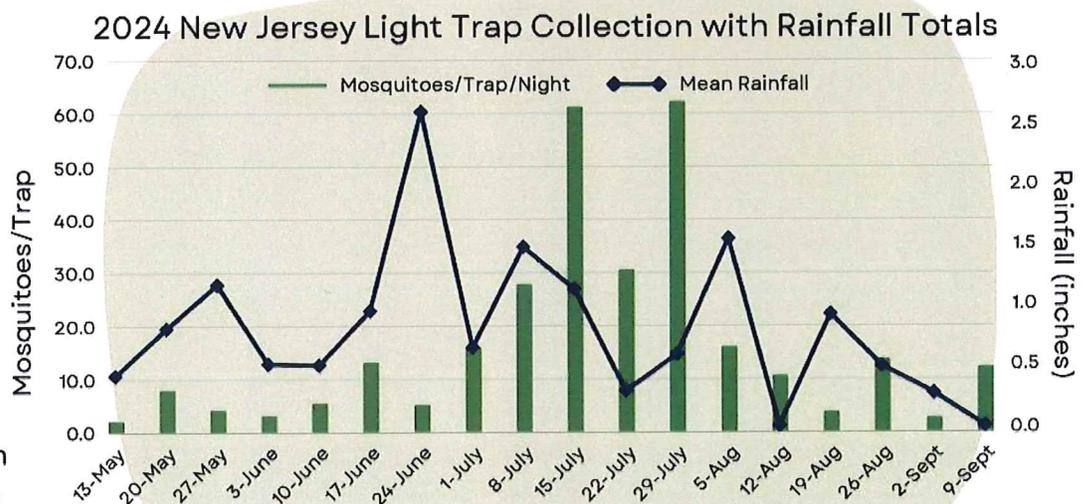
# NEW JERSEY LIGHT TRAPS



New Jersey Light Traps utilize a light source to sample adult mosquito populations. *Aedes* and *Anopheles* mosquitoes are most often captured in these traps. Twenty-five of these traps are geographically located throughout Saginaw County. These traps are placed at participating residences, and operated Monday, Wednesday, and Friday nights for 18 weeks during the mosquito season.



Biology staff collects the mosquitoes the following scheduled workday. These collections are counted and identified providing mosquito species and densities indicating where control is needed. This trap network monitors immediate and long-term changes within mosquito populations.





# CDC & GRAVID

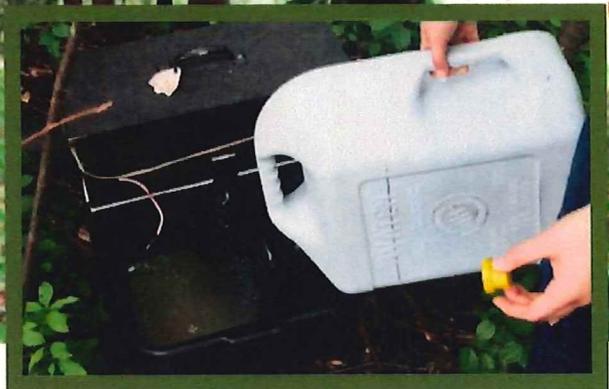
## TRAP SURVEILLANCE

### CDC Traps

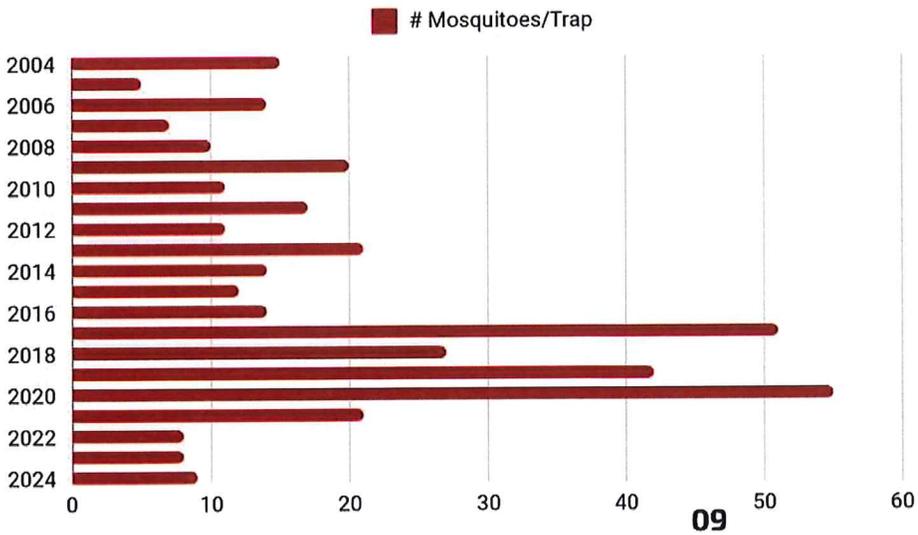
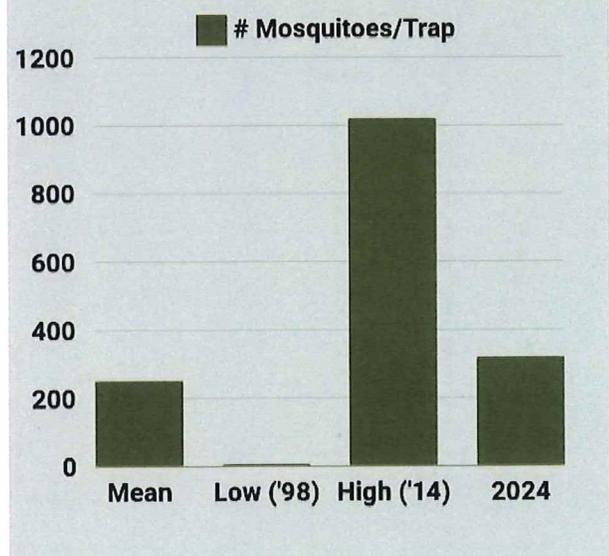
These traps are effective in defining local mosquito nuisance as well as sampling certain disease-carrying mosquitoes. They are baited with dry ice (carbon dioxide) which is very effective in attracting host-seeking mosquitoes, especially *Aedes* mosquitoes. Daily trapping occurs Monday - Thursday in varying locations.

### Elevated CDC Traps

Are placed 15 to 20 feet into the tree canopy to sample mosquito-borne disease by sampling summer *Culex* mosquitoes. *Culex* mosquitoes primarily feed on birds, this placement samples bird feeding occurring in roosting or nesting birds. Historically, this trapping method notes early season virus activity.



### CDC Mosquito Trap Totals: 1985-2024



### Gravid Traps

These specialized traps monitor mosquito-disease by baiting *Culex* mosquitoes with a fermented mixture of water, guinea pig pellets (hay), whey, and brewer's yeast. This "bait" is very attractive to female mosquitoes looking to lay their eggs. *Culex* will often lay eggs following a blood meal, commonly from a bird, which may contain a virus like West Nile virus. Five traps are placed at different sites Monday - Thursday.



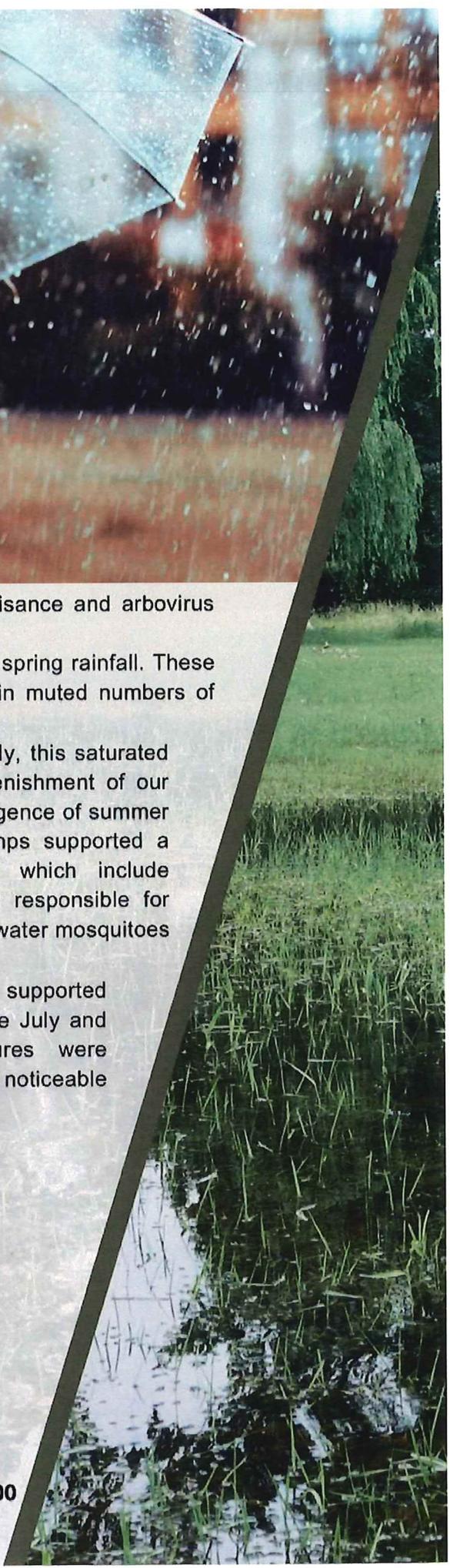
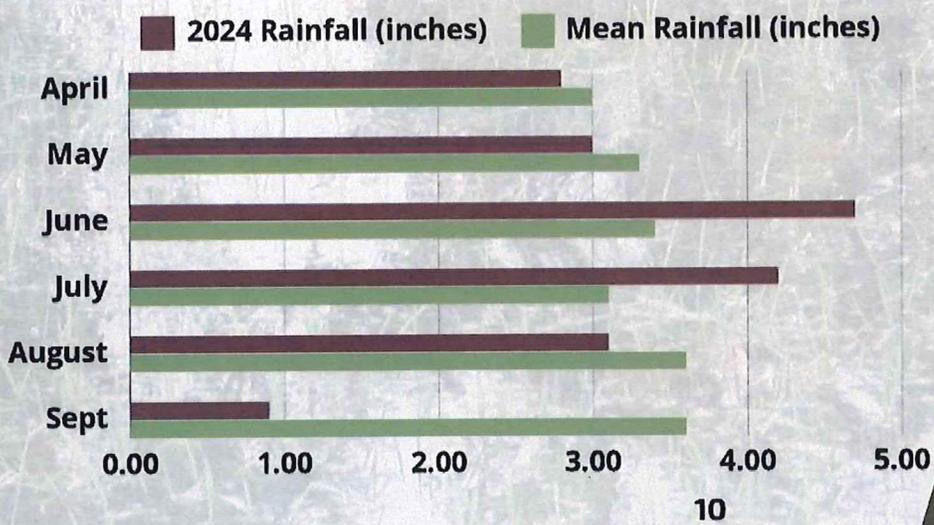
# Weather

Precipitation and temperature influence the amount of mosquito nuisance and arbovirus activity experienced within the mosquito season.

Our 2024 mosquito season began with below average snowmelt and spring rainfall. These conditions, along with a successful spring aerial program resulted in muted numbers of spring and nuisance mosquitoes.

When above average rainfall arrived at the end of June and into July, this saturated our ground resulting in an abundance of standing water and replenishment of our permanent water habitat. Due to this we had a large, sustained emergence of summer floodwater mosquitoes. While the replenished marshes and swamps supported a healthy population of permanent water mosquito populations, which include *Anopheles*, *Culex*, and cattail mosquitoes. These mosquitoes are responsible for disease amplification and are seasonal in nature as opposed to floodwater mosquitoes that hatch following heavy rainfalls.

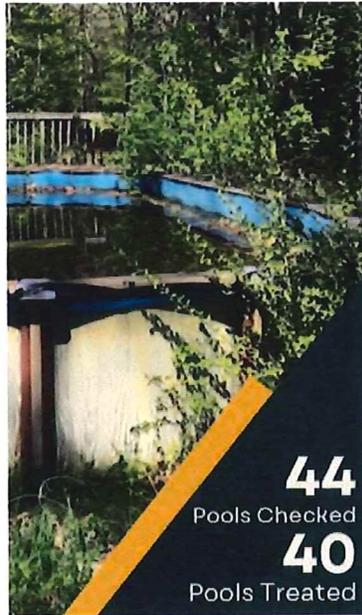
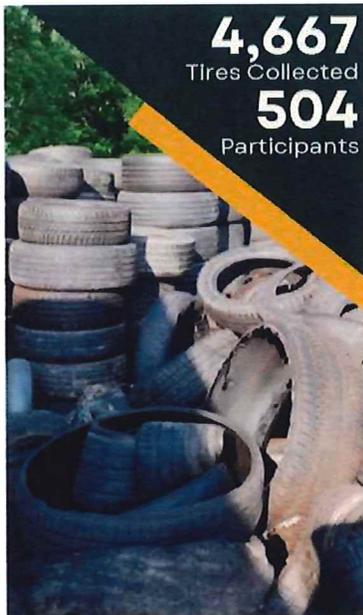
The warm temperatures along with early season dry conditions supported mosquito-borne disease activity. West Nile activity was noted in late July and increased through August. Warmer than average temperatures were experienced in September and early October, extending the noticeable mosquito activity and season.



# source reduction

## S A T U R D A Y T I R E D R I V E S

Hemlock - 750 Tires | St. Charles - 560 Tires | Taymouth - 654 Tires



### Scrap Tire Collection:

Tires are accepted at our facility May 1st - August 31st and transported to Environmental Rubber Recycling Center in Flint, Michigan. A portion of these efforts were funded through a Scrap Tire Grant from the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

#### Collection Criteria:

- Saginaw County residents only
- 10 tires per household
- No rims
- Passenger sized only
- No businesses

### Neglected Pools:

Neglected swimming pools are a major source of *Culex* mosquitoes which often carry West Nile virus (WNV). SCMAC works with the Saginaw County Health Department to help eliminate the public health threat. The intent of the program is to encourage homeowners to:

- Restore the pool to use
- Drain completely
- Remove pool

### Search & Inform:

Targeting residential mosquito breeding habitats, crews search includes:

- Tires
- Children's toys
- Bird baths
- Buckets

These man-made habitats are capable of producing both biting and disease-carrying mosquitoes, making elimination of these habitats crucial. With the homeowner's permission, crews survey and educate. When these sources cannot be dumped or removed, they are treated.

# POLLINATOR PROTECTION POLICY

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SCMAC is continuously aware of the presence and importance of pollinators in Saginaw County. In order to adequately protect honeybee colonies and other pollinators from possible pesticide exposure, there must be effective communication and cooperation from those involved.

Bees and many pollinators are most active between 8:00 a.m. and 8:00 p.m. Our ULV adult mosquito treatment begins after sunset, well after the time most bees have returned to their hives. Adult mosquito treatment only occurs in areas when needed based on mosquito population and mosquito-borne virus activity. The majority of our control efforts and budget are for larval control that utilizes biological products like *Bti*, which is applied directly to the water and does not affect pollinators.

SCMAC works with the Saginaw Valley Beekeepers Association to follow the Best Management Practices for bee colony/pollinator health in Saginaw County, as well as following the principles and practices set forth by the State of Michigan's "Managed Pollinator Protection Policy" and Michigan Mosquito Control Association's "Mosquito Control and Pollinator Protection Best Management Practices".



## Pollinator Response Plan:

- Reduce the presence of mosquito breeding habitat by eliminating standing water and artificial breeding containers
- Minimize pesticide exposure by following IMM principles and following product labels
- Prioritize use of larval control products to target the beginning stages of a mosquito's life cycle in standing water. This practice offers little-to-no risk to pollinators
- ULV adult mosquito management that applies the lowest effective rate of material to target mosquitoes
- Utilize ULV practices after sunset when honeybees and other pollinators are not active and foraging
- Avoid direct application of spray to flowering plants
- Monitor wind direction and speed to avoid insecticide drift
- Maintain open and frequent communication with beekeepers
- Work with beekeepers who wish to be a "no spray" resident
- Watch Michigan Department of Agriculture and Rural Development's Drift Watch website for hive locations and note on all treatment maps



# LARVAL CONTROL MATERIALS

Product	Pesticide Registration #	Active Ingredient	Amount Applied
VectoBac G	73049-10	Bti	269,125 lb.
MetaLarv XRP	73049-475	Methoprene	12,686 packets
MetaLarv S-PT	73049-475	Methoprene	4,479 lb.
BVA 2 Larviciding Oil	70589-1	Mineral Oil	214 gal.
Altosid XR Briquets	2724-421	Methoprene	4,510 briquets
Altosid pellets WSP	2724-448	Methoprene	21,472 packets
Altosid P35	89459-95	Methoprene	3,103 lb.
Duplex-G	89459-93	Bti/Methoprene	296 lb.
VectoLex WDG	73049-57	Bs	0.1 lb.
VectoBac WDG	73049-56	Bti	84 lb.
VectoMax WSP	73049-429	Bti/Bs	15,378 packets
Fourstar 180 Briquets	83362-3	Bti/Bs	1,047 briquets
Sumilarv 0.5G WSP	1021-2818	Pyriproxyfen	1,575 packets

Bti = *Bacillus thuringiensis israelensis*, Bs = *Bacillus sphaericus*



# ADULT CONTROL MATERIALS

Product	Pesticide Registration #	Active Ingredient	Amount Applied
Kontrol 4-4	73748-4	Permethrin	5,590 gal.
DeltaGard	432-1534	Deltamethrin	98 gal.

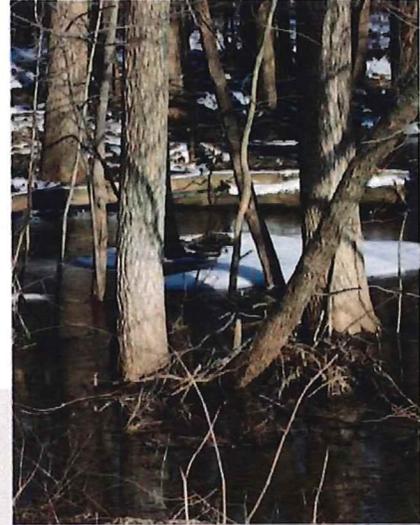
# SPRING AERIAL TREATMENT

In April of 2024, seven fixed-wing aircraft applied granular Bti at the very low rate of **2.5 - 3.0 pounds per acre** to control spring woodland mosquito populations.



Bti is a naturally occurring soil bacterium that biodegrades quickly without leaving a residual. Efficient and accurate aerial application is accomplished through Geographic Information Systems (GIS). Treatment areas are defined, and treatment can be tracked in real-time.

Awareness and notification for this annual event is provided through a local news release and contacting governmental, regulatory, and public safety agencies.



**53,200**  
ACRES TREATED

**95**  
WOODLAND POOLS  
CHECKED

**85 %**  
REDUCTION IN  
SPRING MOSQUITOES

Yearly evaluation of our aerial larviciding program is conducted to monitor the accuracy of aerial applicators and insecticide efficacy. Woodland pools are checked before and after treatment to determine program efficacy. Upon completion of aerial treatment, seasonal vector technicians begin ground larviciding of small, isolated flooded woodlands in and around populated areas. This year's sampling noted an 85% reduction in spring mosquitoes which compares to a historical average of **88% with a 32-year range of 72 - 96% reduction.**

# Larval Control

Larviciding is the most effective technique for controlling mosquitoes where habitat cannot be drained or removed. Out of a 16-hour workday, 12 hours are engaged in this activity. Larval sites are either known historical habitats that are checked routinely or from residents reporting standing water.



## Flooded Fields

Summer floodwater sites are inventoried within our GIS software, and number in the thousands. These sites routinely breed nuisance mosquitoes following rainfall events that result in the creation of floodwater habitat. Upon property owner request, SCMAC conducts a visit and treats any mosquito breeding found on the property. This season, **1,264 site visits** were conducted of which **233 needed treatments**.

## Retention | Detention Ponds

Retention and detention ponds are designed to collect stormwater from paved surfaces such as parking lots. There are **440 retention/detention** ponds that are routinely checked and treated when necessary. Treatment acres for these ponds are rainfall dependent and treated with Bti or Duplex-G at a rate of 5 to 10 pounds per acre. Pupae are treated with a larviciding oil applied at a rate of three gallons per acre. A total of **127 treatments** occurred this season.



## Tires Neglected Pools

Unused swimming pools and scrap tires can be difficult to remove and are capable of breeding disease carrying mosquitoes all season long. These habitats are therefore inspected and treated with extended-release products when possible. A total of **44 pool sites** were monitored, **42 required treatments**. Pool sites are reported by residents, local governments, and the Health Department. A total of **284 tire site visits completed**, many businesses, were monitored requiring **159 treatments** with Bti and larviciding oil.



## Sewage Lagoons



Saginaw County has **16 sewage lagoon sites** that are monitored throughout the season. These habitats are a prolific source of disease carrying Culex mosquitoes due to the high organic matter. Monitoring and treating these sites are crucial to disease prevention. When breeding is found, treatment is done using Vectolex WDG at a rate of 1 pound per acre. Due to the unusual weather experienced this season, our sewage lagoons only required **3 treatments**.

# EXTENDED LARVAL CONTROL

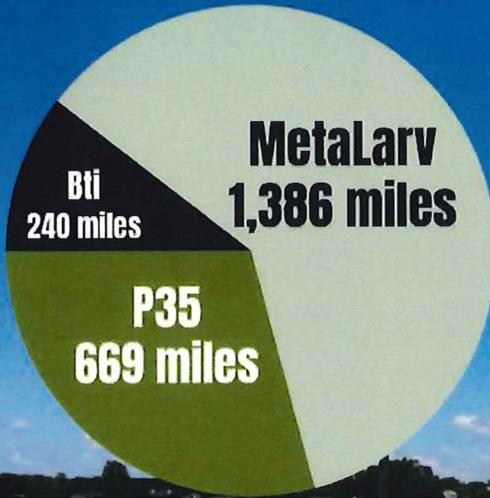
DITCHES

**2,295 MILES**  
of Treated Ditch

Roadside ditches are treated throughout our 27 townships, villages and cities. Larval treatment commences in metro areas and villages every 4-6 weeks with an extended-release control product. Ditches in other areas are monitored and treated with Bti following large rain events.

## PRODUCTS

Products used in ditches:  
**VectoBac G** - 840 pounds  
**MetaLarv S-PT** - 4,479 pounds  
**Altosid P35** - 3,103 pounds

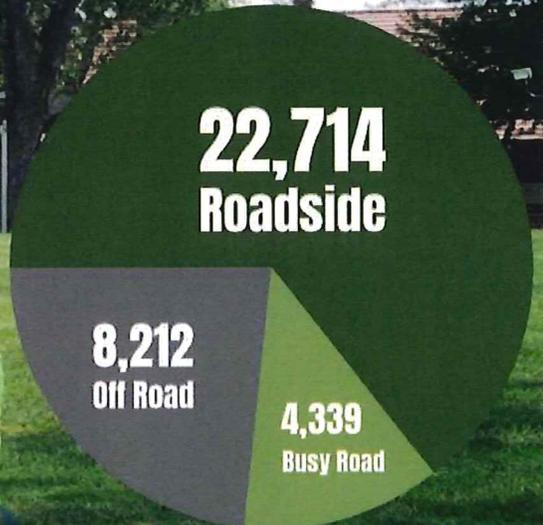


Catch basins are a major breeding source for *Culex* mosquitoes which can transmit WNV and SLE. Extended-release products are used to control mosquitoes for weeks to months at a time. The Biology Department routinely checks for infestation and control efficacy.

## PRODUCTS

Product selection for use in catch basins depends on location of the basin, which we differentiate into Roadside, Off Road and Busy Road.

Products include:  
**VectoMax WSP** - bacterial  
**Altosid WSP** - growth regulator  
**Altosid XR briquets** - growth regulator  
**MetaLarv XRP** - growth regulator



**51,111**  
**Total**  
Treatments

CATCH BASINS



## ADULT CONTROL

Ultra-Low Volume (ULV) adulticiding is the introduction of control products into the air to kill adult mosquitoes while they are in flight using truck mounted sprayers. Each ULV machine is calibrated monthly to dispense approximately 1.0 ounce of spray product per acre. These machines break down insecticides into the proper droplet sizes, which range from 12-25 microns. Weather permitting and justified, ULV treatment normally takes place Monday through Friday from sunset to 12:30 a.m., as to coincide with peak mosquito activity. If mosquito densities are high, additional spray shifts may be conducted on weekends or prior to sunrise which correlates to a second peak of mosquito activity.

The County of Saginaw is divided into 9 service zones. Adult spraying is performed after analysis of biological data from traps, disease surveillance, and citizen calls. Our ULV spraying primarily utilized a 4% permethrin formulation.



## ULV APPLICATIONS ARE NOT CONDUCTED IF:

- MOSQUITO OR VIRUS THRESHOLDS NOT MET
- TEMPERATURE BELOW 55°F
- WINDS ABOVE 10MPH
- ACTIVE PRECIPITATION

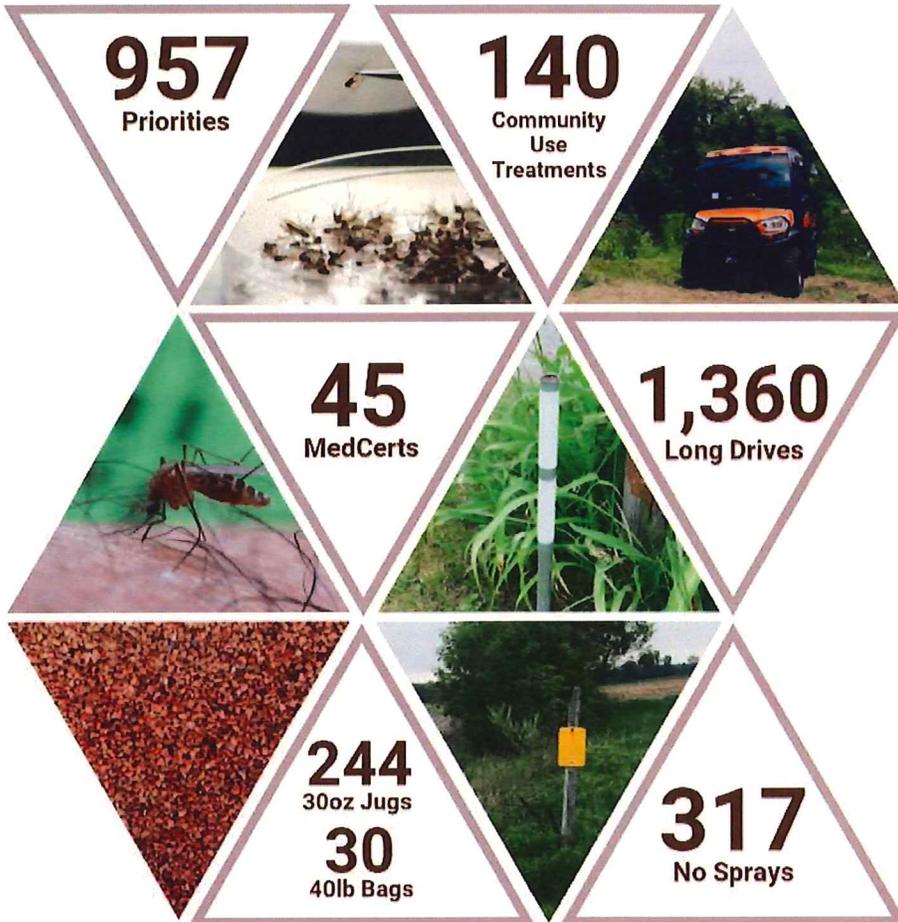
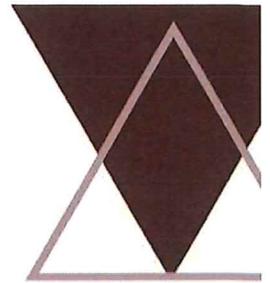
## QUALITY CONTROL

In addition to monitoring larval control product effectiveness, SCMAC conducts multiple laboratory and field tests on current and possible adult control products. ULV caged-mosquito tests ensure adult control product efficacy in the field, while laboratory bottle bioassays monitor for possible adulticide resistance in Saginaw's mosquito population.

This year's accomplishments included: continued field evaluation of ULV formulations and extended-release larval control products including new pyriproxyfen formulations. We also continued to examine the seasonality of various mosquito-borne viruses including the resurgence of Jamestown Canyon virus.

**Nightly treatment information was updated by 2:00 p.m. Monday - Friday (May - September)**  
**Website | Hotline | Facebook | Mobile App**

# Citizen Requests & Programs



## Priority Requests

Each year, residents are allotted 2 priority sprays for events when availability allows. On the requested date, staff are dispatched to the property and perform an adult treatment spray. A liability release form is signed for authorized off-drive treatment.

## Medical Certification

Residents who obtain medical confirmation of an extreme reaction or other medical difficulty related to biting mosquitoes may apply for our Medical Certification Program. Paperwork is renewed annually and those who qualify will receive yard treatment when a ULV zone sweep is conducted in their township (no more than once every 10 days).

## Long Drive Treatment

To improve adult control in their area, homeowners may request driveway treatment during a ULV zone sweep. Driveway treatment criteria:

- Home is >300' from the road
- Adequate turnaround
- Vegetation/Harborage

Approved addresses are placed on our route maps and reflective markers are placed at the end of the driveways.

## Bti Distribution

Property owners that have persistent stagnant water may obtain a limited amount of Bti product. The amount of product given is based on acreage of land and amount of water present. Along with the product, residents are given a copy of the product label, proper treatment instructions, and answers to frequently asked questions.

## No Spray

Property owners may "opt out" of any or all mosquito control services. Organic farm operations are not treated due to their organic designation. Residents desiring to be excluded from treatment must complete a No Spray Request Form each year to ensure accuracy. Residents are provided yellow reflective signs to post at their property lines to assist with awareness. In addition to visible signs, these properties are included in GIS for operational reference.

## Community Use Sites

Sites that are frequently utilized by the public such as parks, campgrounds, and clubs are routinely checked and treated for mosquitoes to promote community enjoyment and use. Each site is unique and receives site-specific IMM. While most sites receive routine larval treatment, adult control may occur as needed, event-based, or not at all. There are currently 24 sites within this program.

# Professional Development

## Permanent Staff:

SCMAC values and promotes training of our staff regarding safety, policies and regulations, operations, and professional development. The mosquito control profession is always changing. Permanent staff members are involved with numerous national and state associations, attend meetings, conferences, trainings, and seminars to stay abreast of new technologies, mosquito control practices, products, and science.

Various SCMAC staff attended professional meetings including:

- American Mosquito Control Association
- Michigan Mosquito Control Association
- Midwest Center of Excellence in Vector-Borne Disease
- Entomological Society of America

SCMAC also works closely with the Saginaw County Health Department, Parks and Recreation, and Public Works. The annual Michigan Mosquito Control Association Conference was held in Kalamazoo and the American Mosquito Control Association annual meeting was held in Texas. Staff also participated in virtual and in person seminars including regional mosquito control, novel equipment, GIS technologies, and regulatory updates.



## Seasonal Staff:

Prior to employment, seasonal staff had to pass the Michigan Department of Agriculture and Rural Development (MDARD) Core or Category 7F test to become registered technicians or commercial applicators. In addition to passing the MDARD test, employees receive intensive hands-on training, consisting of closely supervised fieldwork. Employees also receive training addressing safety, policies, control products, application techniques, technology, equipment, and professionalism.

# TECHNICAL ADVISORY GROUP

<b>Chairman:</b> Edward Walker, Ph.D.	Michigan State University
George Balis	Clarke
Eric Benbow, Ph.D.	Michigan State University
Rachel Burkholder	Michigan Department of Health & Human Services
Stephen Dawson	MDHHS Bureau of Laboratories
Emily Dihn, Ph.D.	Michigan Department of Health & Human Services
David Driver	Veseris
Kristen Finch	Michigan Department of Health & Human Services
Kevin Kern	Michigan Department of Agriculture & Rural Development
Tom Kessler	Clarke
Chris Klawuhn	Saginaw County Environmental Health Services
Ken Luzynski, Ph.D.	Saginaw Valley State University
Chris Novak	Clarke
Emily Pochubay	Michigan Department of Agriculture & Rural Development
Diana Riner, Ph.D.	MDHHS Bureau of Laboratories
JD Snell	Target Specialty
Scott Simmons	United States Fish & Wildlife Services
Jean Tsao, Ph.D.	Michigan State University
Brian Wendling	Saginaw County Public Works
Bryant Wilke	Sanilac County Health Department



## 2024 Meeting Topics

### March

- SCMAC's 2024 Program Plan
- Program Changes
- Season Projects
- State and Federal Permitting
- 2024 Mosquito-Borne Disease Surveillance

### December

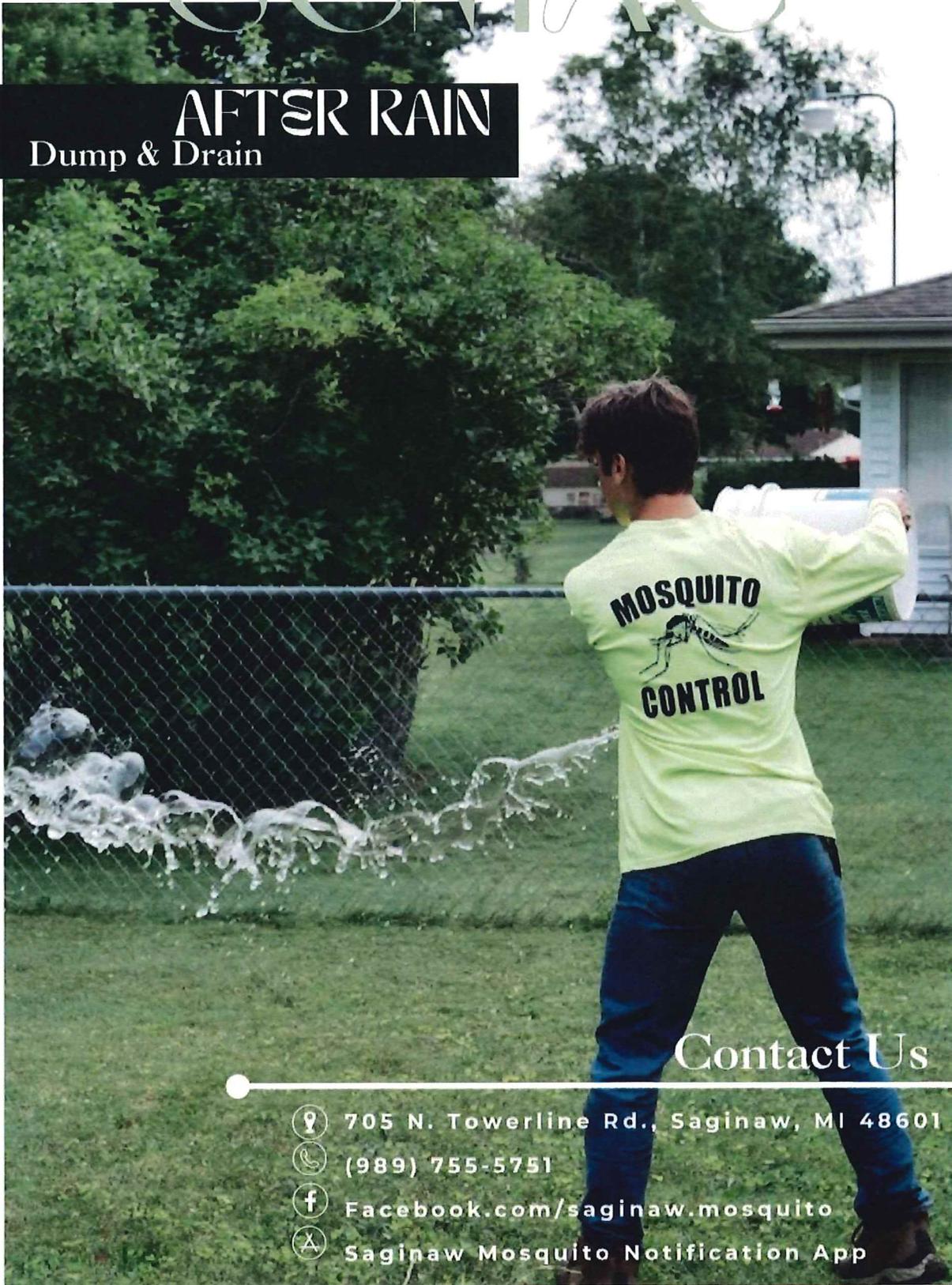
- SCMAC's 2024 Annual Report
- 2024 Season Highlights
- Mosquito Surveillance Results
- Disease Detection Results
- Post Season Plans



Saginaw County Mosquito Abatement Commission's Technical Advisory Group was established in 1992 and meets twice a year, typically in March and December. This group consists of experts in a variety of fields who assist and provide input to our agency's program and practices.

# SCMAC

**AFTER RAIN**  
Dump & Drain



## Contact Us

- 📍 705 N. Towerline Rd., Saginaw, MI 48601
- ☎️ (989) 755-5751
- 📘 Facebook.com/saginaw.mosquito
- 📲 Saginaw Mosquito Notification App

[www.saginawmosquito.com](http://www.saginawmosquito.com)