



# **2022 Year End Report**

## **Gem County Mosquito Abatement District**

**6846 West Highway 52  
Emmett, Idaho 83617**

## 2022 Mosquito Surveillance and Control Summary Report

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### ***Mission Statement***

The principal mission of the Gem County Mosquito Abatement District and the basic reason for its operation is to provide comprehensive and sustainable mosquito control as a means of protecting public and veterinary health by reducing the number of mosquitoes that transmit diseases. Secondary missions accomplished by the district's program include the improvement of human and animal welfare by reducing the number of nuisance mosquitoes, increasing yields and productivity in livestock, continual enjoyment of public and private outdoor recreation areas, and minimization of impacts mosquito populations may have on tourism and visitor-generated revenues for local area businesses.

### ***District History***

The Gem County Mosquito Abatement District (GCMAD) was created by election in 1960 using the "Idaho Abatement Act," Idaho Code Title 39, Chapter 28 for the purpose of alleviating the pressure mosquitoes were having on cattle production. Originally, the district was established to protect all of Gem County, but over time, several areas opted out of coverage. Currently, the district is approximately 145 square miles.

Mosquito control today utilizes an Integrated Pest Management program that realizes mosquito populations will not always be eliminated but can be suppressed to tolerable levels for protection of public health and welfare. The program is reviewed annually to adjust for regulatory and ecological changes and requirements. Only scientifically sound methods are used for mosquito control in the GCMAD, and decisions are based on consideration of what is ecologically and economically in the best interests of the district constituency over a sustainable period of time.

### ***G.C.M.A.D Management and Staff***

#### Board of Trustees:

Michele Chadwick, Co-Chairperson  
Tom Carlsen, Co-Chairperson  
Bonnie Diedrich, Member  
Anita Taylor, Member  
Scott Uhrig, Member

#### Full-time Staff:

Cody Johns, Manager  
Crystal Anderson, Administrative Assistant  
Billy Gloeckner, Mechanic/Larval Technician  
Conrad Patereau, Surveillance Coord.

#### Seasonal Positions:

#### Ex-Officio Members:

Southwest District Health Dept.  
Idaho Dept. of Agriculture  
University of Idaho Extension Office

10 Mosquito Control Technicians

## Manager's Letter

The 2022 mosquito control season presented many different challenges and provided several opportunities to further develop GCMAD program sustainability. The district had an uphill battle from the start. Finding quality candidates to fill the seasonal positions needed to operate during the season.

Weather patterns compounded our problems with temperatures soaring throughout summer. Hot temperatures both during the day and night allows for the mosquito to go from egg to flying adult in shorter amount of time. That coupled with large amounts of standing water created high numbers of mosquitoes this summer.

Gem County has continued to grow, this created and will create more impact on our control efforts. GCMAD will continue to increase public outreach as it will become essential for the public to help manage standing water in their yards, pastures and any other sites that they might be creating. GCMAD will be successful with everyone helping to fight the bite.

The GCMAD's robust integrated mosquito management program focused primarily on the identification and treatment of larval mosquito development sites. The district ensured long-lasting control in historically high-output larval mosquito production sites by applying residual products to the sites on a regular, appropriate schedule. As part of the district's pesticide selection plan, it utilized a larval mosquito control product, Altosid P-35™, in greater quantities to meet the district's needs in 2022 after district staff effectively applied and controlled larva. The district plans to increase the volume of these types of products in 2023, which will help reduce the impact we have on properties and reduce mosquito numbers.

GCMAD used a sUAV (small unmanned aerial vehicle), this drone was used for the application of granule larvicides across the district. It was a vital tool this season being able to access and apply products faster and more efficiently. The drone will continue to play a vital role in our district.

West Nile virus (WNV) was initially found in mosquitoes during routine surveillance on August 10, 2022. The isolation of WNV on August 8, 2022, was later than normal. Typically, west Nile is found in mid to late July. The district collected 15 positive samples of mosquitoes for WNV, No confirmed equine cases of WNV occurred in Gem County in 2022, and no confirmed human cases were reported.

The district continued to build on the significant improvements to its surveillance capabilities in 2022. We also used a greater amount of CO-2 baited traps to increase our Culex samples. This gave us more data and is reflected in our graphs and data as it shows an increase in Culex activity.

The district also had one aerial adulticide spray conducted this season. With both the incredibly high temperatures and being short staffed this aerial application was needed. It was focused on high Culex mosquito production areas of the district and high nuisance mosquitoes. This aerial spray was extremely productive in reducing our mosquito numbers in the district.

### **Memberships, Affiliations, and Leadership Roles**

- American Mosquito Control Association (AMCA), sustaining member, Cody Johns
- Northwest Mosquito and Vector Control Association, sustaining member.
- Idaho Mosquito and Vector Control Association, sustaining member.

### **Public Education**

The GCMAD understands that public education is a critical component of a modern mosquito control program. The following are examples of the district's public education efforts in 2022:

- The substantial use of the district's website: [www.gcmad.org](http://www.gcmad.org).
- Facebook and the flow of information from us to the constituents.
- Gem County Local Emergency Planning Committee participation.
- News releases from the district in the Emmett Messenger Index discussing pertinent and timely mosquito control information.
- Coordination with other mosquito control programs to ensure a coordinated message is relayed to media.
- Participation in the towns Youth Appreciation Day

### **Integrated Mosquito Management Policy**

The GCMAD supports management of mosquito populations when and where necessary by means of an integrated program designed to benefit or to have minimal adverse effects on people, domestic animals, wildlife, and the environment. This Integrated Mosquito Management Policy recognizes that mosquito populations cannot always be eliminated but must be suppressed to tolerable levels for the well-being of humans, domestic animals, and wildlife, and that selection of scientifically sound suppression methods must be based upon consideration of what is ecologically and economically in the long-term best interests of constituents of the GCMAD.

The following principles are to be followed:

- Mosquito control measures should only be undertaken when there is adequate justification based on surveillance data.
- The combination of methods for mosquito control should be chosen after careful consideration of the efficacy, health effects, ecological effects, and the cost versus benefits of the various options, including public education, legal action, natural and biological control, elimination of development sources, and pesticide applications.
- Mosquito development sources, whether natural or created by human activity, should be altered in such a manner as to cause the least undesirable impact on the environment.
- Pesticide application methods should be used in the most efficient and least hazardous manner in accordance with all applicable laws, regulations, and available scientific data. The registered label requirements for the pesticide used will be followed. When choices are available among different effective pesticides, those offering the least hazard to non-

target organisms should be used. Pesticides will be chosen and used in a manner that will minimize the development of resistance in mosquito populations.

- Personnel involved in mosquito control programs should be properly trained and supervised, certified in accordance with relevant laws and regulations, and kept current with improvements in management techniques through continuing education and/or training programs.
- All necessary personal protective equipment should be provided to technicians making pesticide applications and proper handling, mixing, loading, and application training should be provided by supervisory staff, in accordance with all relevant pesticide label language.

## **Mosquito Surveillance and Control Objectives**

The GCMAD is an independent taxing district, formed, organized, and governed by Idaho Code and is mandated by law to protect public health by controlling mosquitoes and the transmission of mosquito-borne disease. Mosquito control in Gem County can start as early as April 1<sup>st</sup>. In 2022, the GCMAD started regular larval mosquito inspections and treatments by April 1<sup>st</sup>. Fogging for adult mosquitoes began in May 2022 and continued until the end of September. Mosquito control applications and operations were determined by mosquito surveillance conducted throughout the district. Only when control thresholds were reached or surpassed were applications made. Thresholds were determined using CO<sub>2</sub>-baited BG-pro EVS-style traps deployed at variable sites throughout the district. This allowed for real-time response to mosquito infestations. This report summarizes the results of surveillance conducted to monitor adult mosquito population dynamics, virus activity in adult mosquitoes, and the control products used in 2022.

The 2022 mosquito surveillance initiative began in the first week of June and continued through the third week of September. The initiative involved trapping adult mosquitoes with carbon dioxide (CO<sub>2</sub>)-baited BG-pro EVS-style traps that were deployed on a weekly basis at different sites to monitor mosquito populations for the presence of West Nile virus (WNV).

## **Commonly Found Mosquito Species in Gem County:**

### **Anopheles**

*Anopheles freeborni*, the Western Malaria Mosquito, overwinter in sheltered locations and emerge in early spring. The species is one of the first biters of the season, attacking when the air is still cold. They bite freely from dusk to dawn. Females lay eggs in permanent water sources associated with poor irrigation practices.

### **Aedes**

*Aedes nigromaculis*, the Irrigated Pasture Mosquito, is a common pest mosquito of the agricultural communities and surrounding areas of southern Idaho. It is a ferocious biter, inflicting a painful bite. It is a strong flyer and may migrate several miles from its development site. The primary habitat of this species has been largely created by agriculture; irrigated

pastures are the most common development sites. The winter is passed in the egg stage with hatching occurring within hours of flooding. This mosquito species can transmit WEE, SLE, and California encephalitis virus.

*Aedes vexans*, the Inland Floodwater Mosquito, overwinter in the egg stage and there are generally one or more broods per season. Irrigation practices with poor drainage suits this species well. The females feed in shady places during the day and can be particularly annoying at dusk and after dark. They are troublesome biters and have a flight range of 1 to 5 miles.

### **Culiseta**

*Culiseta inornata*, the Winter Marsh Mosquito, prefer to feed on larger mammals, and at times, are very troublesome to livestock. Active biting by this mosquito can occur during the fall. Dusk is the most common time for biting activity. They are active flyers and can disperse 5 to 10 miles from their emergence sites.

### **Culex**

*Culex pipiens*, the Northern House Mosquito, is named so because of its close association with human habitation. The species is considered a domesticated mosquito species because of this close association. It is a multi-brood mosquito and eggs are laid in rafts in temporary and permanent sites, such as catch basins, retention ponds, roadside ditches, and any open container where water may hold for ten days or longer. Birds are the preferred hosts for this mosquito. *Culex pipiens* is a vector of Western Equine Encephalitis (WEE), SLE, and WNV.

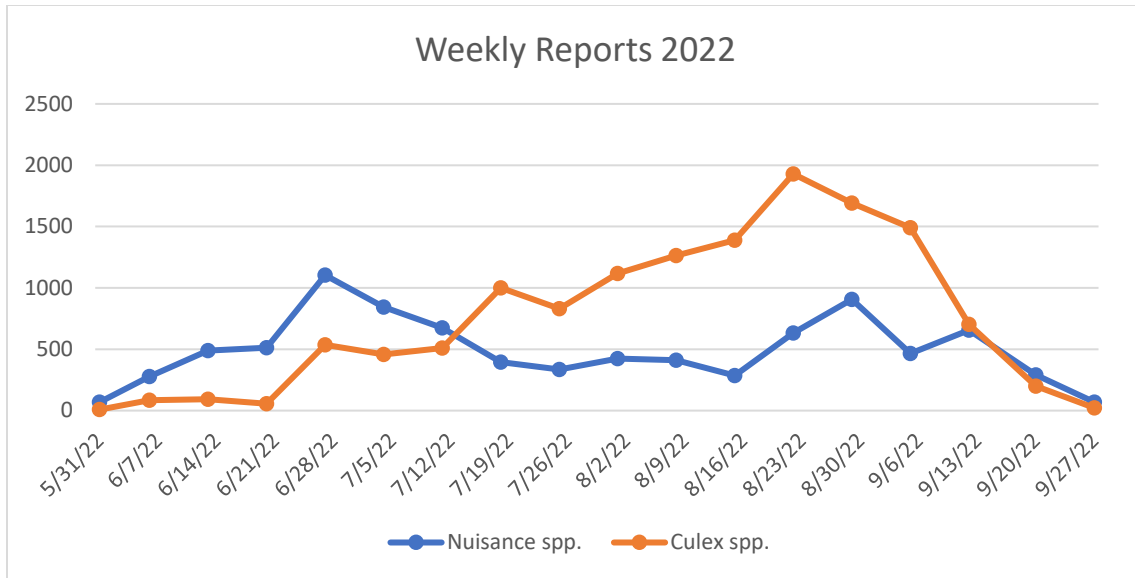
*Culex tarsalis*, the Western Encephalitis Mosquito, overwinter in protected places such as cellars, outbuildings, culverts, animal burrows and other sheltered locations. Upon emerging, the female seeks a blood meal to mature her eggs. Preferred breeding sites include temporary to permanent water sites such as marshes, waste irrigation water, ditches, retention ponds, catch basins, and open containers. Females are persistent biters and prefer birds in the spring, then later turn to mammals and humans as a source for a blood meal. *Culex tarsalis* is a vector of WEE, SLE, and WNV.

## **Mosquito Population Dynamics**

The ongoing mosquito surveillance project allows the GCMAD to assess the current mosquito populations on a week-to-week basis throughout the mosquito season. Each weekly trapping result determines whether or not necessary mosquito control procedures are warranted and should be implemented. Each week seven traps were set for a total of four days each week.

### **Procedures**

Insects were collected using CO<sub>2</sub>-baited BG-pro EVS-style traps for sorting and identification of mosquitoes. The number of vector mosquitoes (*Culex pipiens* complex and *Culex tarsalis*) and the number of nuisance mosquitoes (*Aedes* and *Anopheles* species) were determined for each week and reported. Included in weekly reports were updated line graphs to show population trends throughout the season (Figure 1). Also, three-year histories were collaborated and compared to determine where lack of control was occurring (Figure 2).



**Figure 1.** *Aedes* and *Culex* mosquito population levels during the 2022 mosquito season in the GCMAD. Fluctuations of nuisance and vector mosquitoes were seen throughout the season with largest populations occurring in late June for nuisance species and in mid too late August for vector species.

## Results

In 2022, 22,059 adult mosquitoes were collected and identified from CO<sub>2</sub>-baited BG-pro EVS-style traps. *Aedes* (nuisance mosquitoes) populations were highest in late June.

**Table 1.** Total numbers of mosquitoes collected by CO<sub>2</sub>-baited BG-pro EVS-style traps site in 2022.

| <u>Week of</u> | <u>Nuisance spp.</u> | <u>Culex spp.</u> |
|----------------|----------------------|-------------------|
| 5/31/22        | 68                   | 8                 |
| 6/6/2022       | 279                  | 86                |
| 6/13/2022      | 489                  | 92                |
| 6/20/2022      | 512                  | 56                |
| 6/27/2022      | 1,104                | 536               |
| 7/4/2022       | 844                  | 458               |
| 7/11/2022      | 675                  | 510               |
| 7/18/2022      | 395                  | 1,000             |
| 7/25/2022      | 335                  | 832               |
| 8/1/2022       | 423                  | 1,118             |
| 8/8/2022       | 410                  | 1265              |
| 8/15/2022      | 287                  | 1390              |
| 8/22/2022      | 633                  | 1929              |
| 8/29/2022      | 907                  | 1,692             |
| 9/5/2022       | 465                  | 1,490             |
| 9/12/2022      | 657                  | 704               |
| 9/20/2022      | 291                  | 200               |
| 9/27/2022      | 69                   | 22                |
| <b>Totals</b>  | <b>8,843</b>         | <b>13,216</b>     |

## Virus Monitoring in Mosquitoes

Disease prevalence and risk can be determined by monitoring mosquitoes for the presence or absence of viruses in the mosquito population. Virus monitoring allows for the identification of dominant mosquito species, minimum field infection rate determination, and indicates areas with virus activity/transmission occur. By monitoring vector species and virus activity, an important

assessment of virus activity at each location can be determined throughout the mosquito season and appropriate response protocols can be employed.

**Procedures**

Generally, mosquitoes were collected in different areas throughout the district with CO<sub>2</sub>-baited BG-pro EVS-style traps from June 1 until the last week in September. Traps operate on 22000 mAH power bank batteries and can be set up in any area of the district. After collection, mosquitoes were taken back to the GCMAD lab, sorted, identified, and pooled according to species, date, and location. *Culex* species were then sent to Idaho Bureau of Laboratories to be tested using reverse-transcriptase polymerase chain reaction analysis for the presence of WNV. Other species (*Aedes*) were identified, counted, and discarded, unless the specimens were identified as exotic species (*Aedes aegypti* or *Aedes albopictus*).

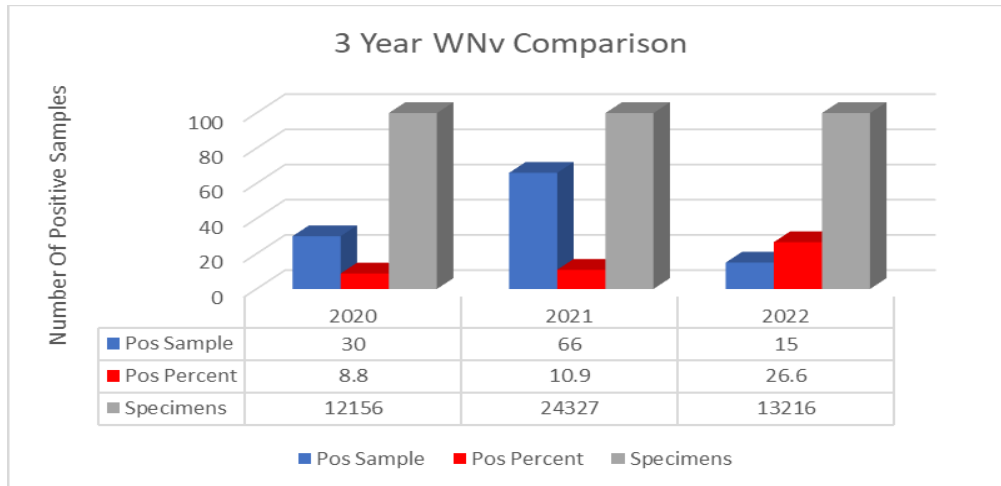
**Results**

A total of 13,216 vector species mosquitoes were processed from CO<sub>2</sub>-baited BG-pro EVS-style traps in 2022. The GCMAD sent all vector species pools to the Idaho Bureau of Laboratories to be tested using reverse-transcriptase polymerase chain reaction analysis. The minimum number of mosquitoes tested per sample was 1 and the maximum was 50. Of the 563 samples tested by the Idaho Bureau of Laboratories in 2022, 15 pools (26.6 of all samples) tested positive for WNV. *Table 2* indicates the number of pools of each species tested by the Idaho Bureau of Laboratories and the number of positive pools determined by testing. Figure 2 is a bar graph that shows the number of mosquitoes collected at different trapping events during the 2022 mosquito season as compared to previous seasons.

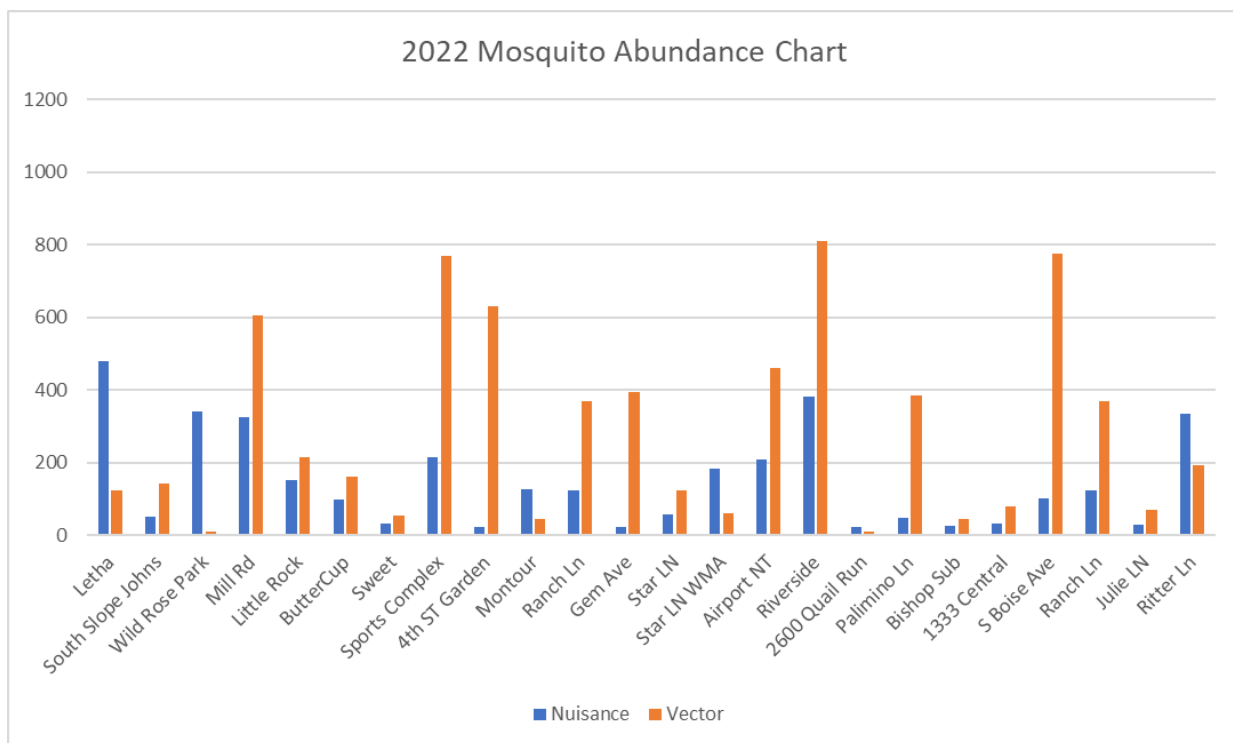
**Table 2.** Assay results of mosquito species tested by GCMAD in 2022. All WNV positives were Cx Pipiens

| <b>Mosquitoes Tested by GCMAD in 2022</b> |                     |                     |                             |                              |
|---|---------------------|---------------------|-----------------------------|------------------------------|
| <b>Species</b>                            | <b># of Samples</b> | <b># Mosquitoes</b> | <b># Positive WNV Pools</b> | <b># Positive SLEV Pools</b> |
| <i>Cx. pipiens</i>                        | 426                 | 11873               | 15                          | 0                            |
| <i>Cx. tarsalis</i>                       | 137                 | 1343                | 0                           | 0                            |
| <b>Season Totals</b>                      | <b>563</b>          | <b>13216</b>        | <b>15</b>                   | <b>0</b>                     |





**Figure 2.** District-wide three-year *Culex* collections. This years pos percent is significantly different because we have had less pools unlike the last two years.



### 2022 Citizen Service Requests and Complaints

The district used input from citizens, either by telephone or website, to correlate the mosquito population information generated from the population trap surveillance.

#### Procedures

Telephone and website service requests were recorded manually into a computer database. The information taken by the GCMAD administrative assistant included name, address, contact

information and reason for request. The requests were separated into three different categories: standing water/larval mosquito control applications, barrier applications, or fogging applications.

### Results

The GCMAD satisfied 101 service requests in 2022. Of those requests, there were 4 requests for barrier sprays (3%), 68 fogging requests (67%), and 29 requests to check standing water (9%) in 2022 (Figure 4). GCMAD also received 96 emails which consisted of no spray requests, custom fogging, and general inquiries.

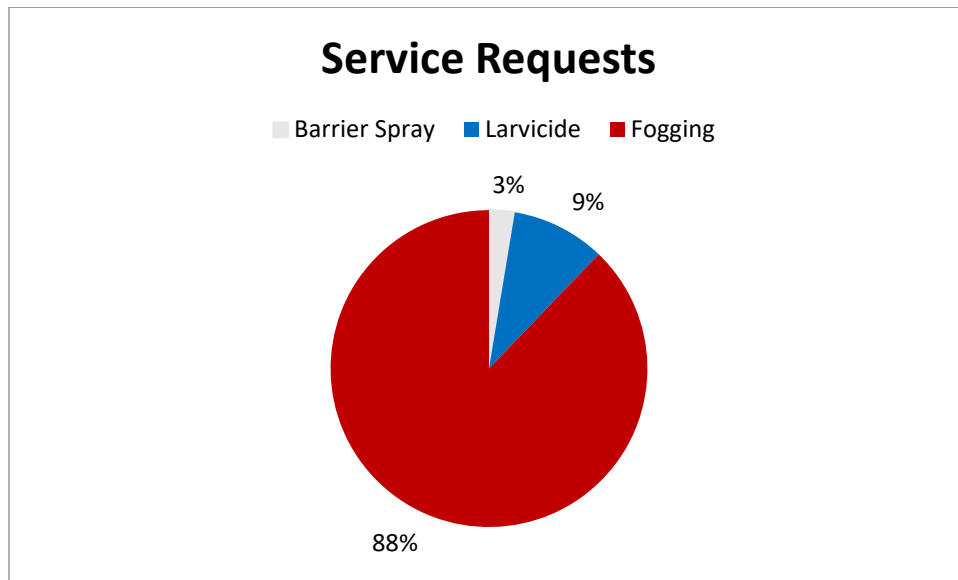


Figure 4. District-wide service requests received in 2022.

### Surveillance Summary

A total 25,059 of mosquitoes in were collected, identified, and processed by the GCMAD in 2022. When compared to the 2021 mosquito season, there was a decrease of 11,513 collected in CO<sub>2</sub>-baited BG-pro EVS-style traps. Sixteen mosquito samples tested positive for WNV in 2022 which was a decrease of WNV positive mosquito samples collected as compared to 2021.

### 2022 Dry Ice vs Yeast

In 2022 we compared dry ice baited traps vs yeast baited traps. Traps were set Monday through Wednesday with Dry Ice and Thursday through Friday with yeast. In comparison we could tell that yeast would last longer, (24 Hours) yet put off little Co<sub>2</sub>, compared to the dry ice that lasted 1/3 of the time yet had more co<sub>2</sub> output. Noticeably the dry ice yielded greater amounts of mosquitoes than yeast.

### Mosquito Control Report

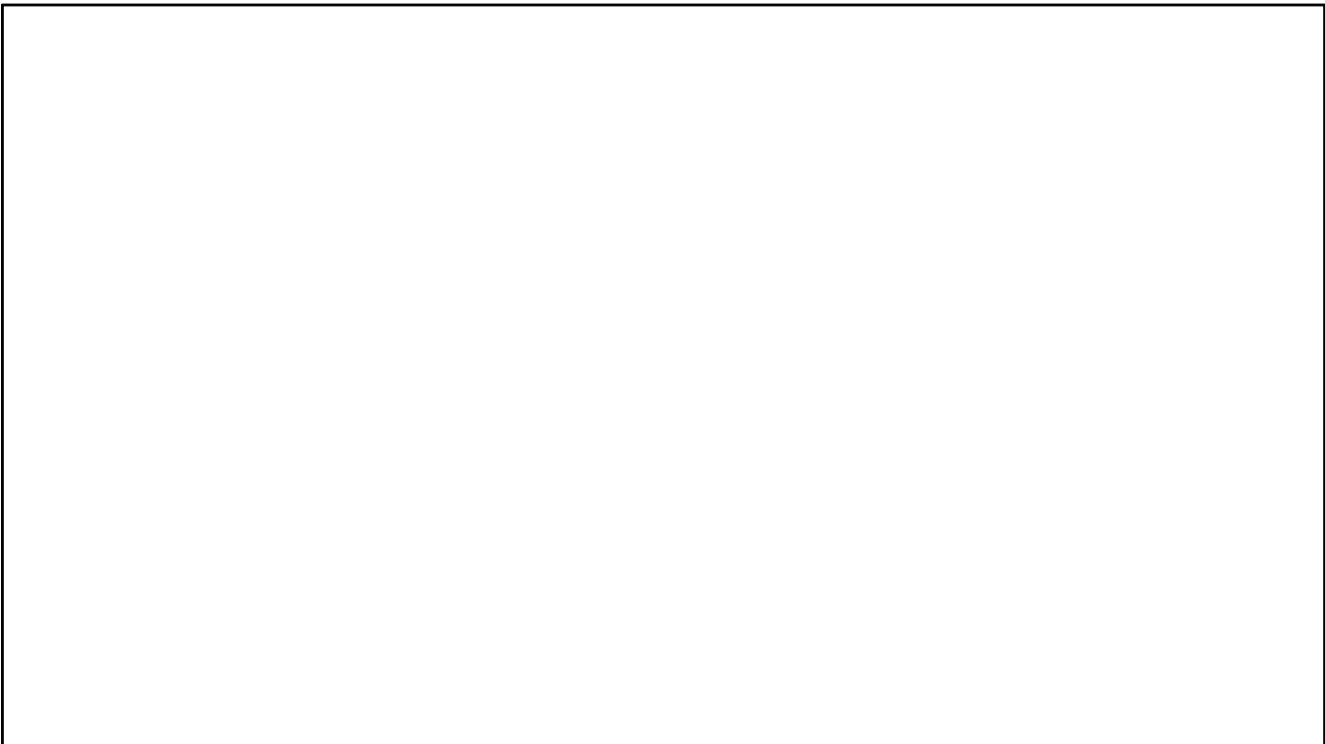
The goal of the GCMAD is to use a fully integrated approach to control mosquitoes and the spread of mosquito-borne disease. The district also strives to maintain a level of control that responsibly abates mosquitoes while limiting the effects of applications to the environment. Since environmental safety and preservation is a critical part of any responsible IMM program,

the GCMAD tracks and records how much larval mosquito and adult mosquito control products were used in the mosquito season.

### **Larval Mosquito Control Operations – 2022**

In Gem County, an aggressive larval mosquito control program, commonly called larviciding, is an important key to a successful IMM program. The GCMAD’s larviciding program is designed to control mosquitoes in standing water before they can emerge as adults. Larviciding is one of the most effective ways to control mosquitoes because focus is on a specific source. The GCMAD is divided into 5 operational sections. Trained larval mosquito control technicians work in groups of two, equipped with a pickup truck and trailer, all-terrain vehicles (ATVs), larval mosquito control products, backpack dusters, backpack sprayers, hand spreaders, global positioning system (GPS) handheld units for application data entry, and other equipment necessary to complete larval mosquito control objectives.

Larval treatments began in April to permanent sites, such as storm water retention ponds, catch basins, and some marshes. In the district, there are hundreds of development sites that are inspected throughout the summer. The GCMAD relies heavily on *Bacillus thuringiensis israelensis* (Bti) to control mosquitoes. The bacterium is applied to standing water in a granule or liquid formulation. The district applied 47.5 gallons of Bti liquid, 340 pounds of *Bacillus sphaericus* (Bs) granule, 24,360 pounds of Bti/Methoprene granule, 4,779 pounds of Methoprene granule to standing water in 2022. Additionally, the GCMAD applied 108 pounds of Methoprene (insect growth regulator) to control mosquito larvae in stock tanks, horse troughs, and other similar sites. The district applied 55 gallons of larviciding oil to standing water in 2022 for the control of pupae (the final stage before becoming an adult. Crews made a total of 22,342 inspections, with district staff treating 7,800 of the inspections, resulting in 8,910 acres of mosquito production habitat treated in 2022 (Figure 6). Table 3 shows larval mosquito control products and amounts used in 2022



**Figure 6.** Sites shaded represent sites identified as larval mosquito development sites.

**Table 3:** Larviciding products and amounts used in the past three years.

| Larvicide Usage in 2020, 2021, and 2022 |             |             |             |
|---|-------------|-------------|-------------|
| Product                                 | 2020        | 2021        | 2022        |
| Bti granule                             | 0 lbs.      | 0 lbs.      | 0 lbs.      |
| Bti liquid                              | 78.5 gal    | 47.65 gal   | 47.5 gal    |
| Bs granule                              | 649 lbs.    | 162 lbs.    | 340 lbs.    |
| Bti/methoprene granule                  | 27,660 lbs. | 25,551 lbs. | 24,360 lbs. |
| Methoprene:                             |             |             |             |
| 30d WSP                                 | 700 pouches | 0           | 0           |
| granule                                 | 2,280 lbs   | 3,374.5 lbs | 4,779 lbs   |
| Larviciding Oil                         | 36 gal      | 36.5 gal    | 55 Gals     |

**sUAV (drone)**

The district is licensed, insured and met all qualifications with the Certificate of Authorization (COA) to operate in Gem County. GCMAD put into full use the drone this season. 3,021 pounds of residual product was applied to standing water by drone this season. 2023 will see an increase in drone use again. The number of sites that can be positively impacted by this drone are substantial.



**Figure 2.1** GCMAD Drone

The drone has a twenty-five pound payload for granular products. With this payload capacity we see a huge reduction in man hours to complete the same amount of work normally done by ATV. This will allow us to cover more area and with greater accuracy.

### **Adult Mosquito Control Operations – 2022**

The mosquito population naturally increases as the season progresses. When these numbers reach a certain threshold, the district begins an adult mosquito control program, referred to as adulticiding or “fogging.” Adult mosquito populations can be reduced with adulticide applications. The best time to make applications for adult mosquitoes is at dawn or dusk, when mosquitoes are most active and looking for a host. When fogging for adult mosquitoes, only appropriate products that are effective are used. In addition, all fogging applications were recorded by a GPS field computer mounted in the cab of the fogging vehicles. The GPS unit recorded data such as time, temperature, location, wind direction and speed, data regarding the applicator, the product amount applied, and when and where the control product was applied. This information was then uploaded to the district’s geographic information system (GIS) and reports about fogging applications were quickly queried and referenced. The GCMAD used daily recorded telephone messages available by calling the district office to notify residents when adulticiding operations began and what areas were targeted for a specific evening. The GCMAD website was also updated every day with the areas targeted for adult mosquito control applications.

The GCMAD primarily relied on permethrin-based adulticide agents. Permethrin is a synthetic pyrethroid, a synthetically derived compound similar in composition to natural pyrethrins that

are isolated from chrysanthemum flowers. In 2022, the GCMAD used 295 gallons of permethrin-based agents (Figure 8). District personnel applied the adulticide products using truck-mounted ultra-low volume (ULV) foggers. Figure 9 shows a three-year comparison of the quantities of adult mosquito control products used in the GCMAD.

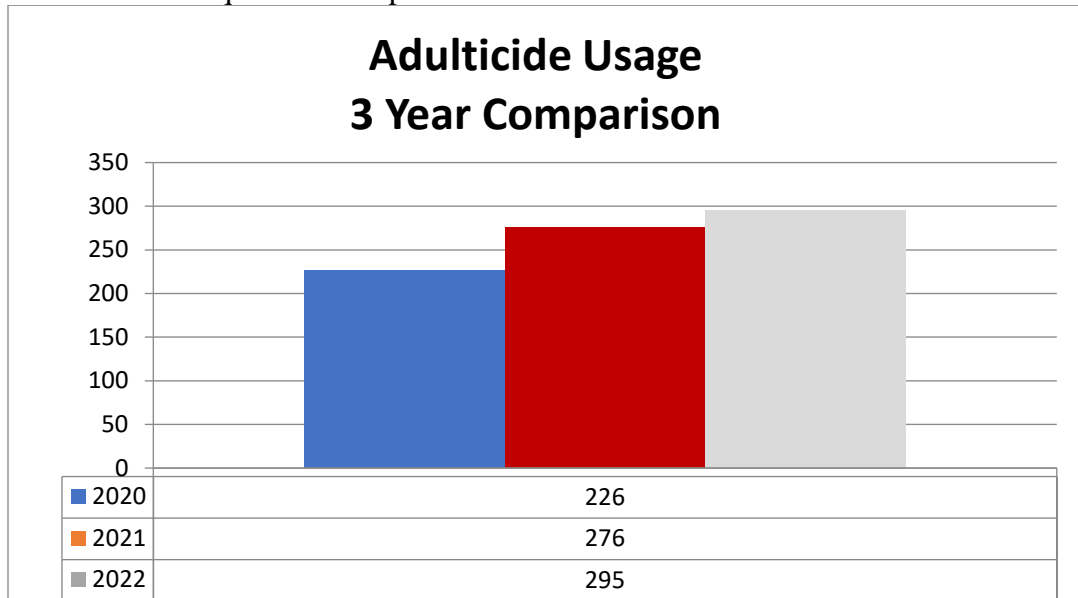


Figure 9. 3-year comparison of adult mosquito control products used in the GCMAD.

### Cost Comparisons

The GCMAD spent \$249,272.31 on mosquito control products in 2022. GCMAD spent \$191,236.24 on larval control products and \$58,036.07 on adulticide products. Figure 8 shows the amount of money spent on larvicide and adulticide products and the percentage of product budget spent on the respective product category. Figure 10 shows a 3 year comparison of product costs for the district.

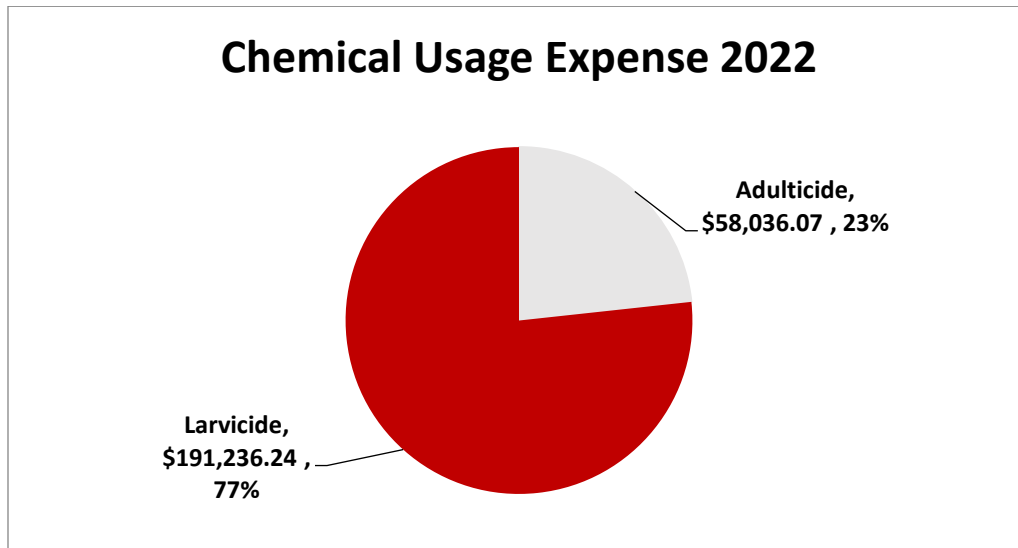
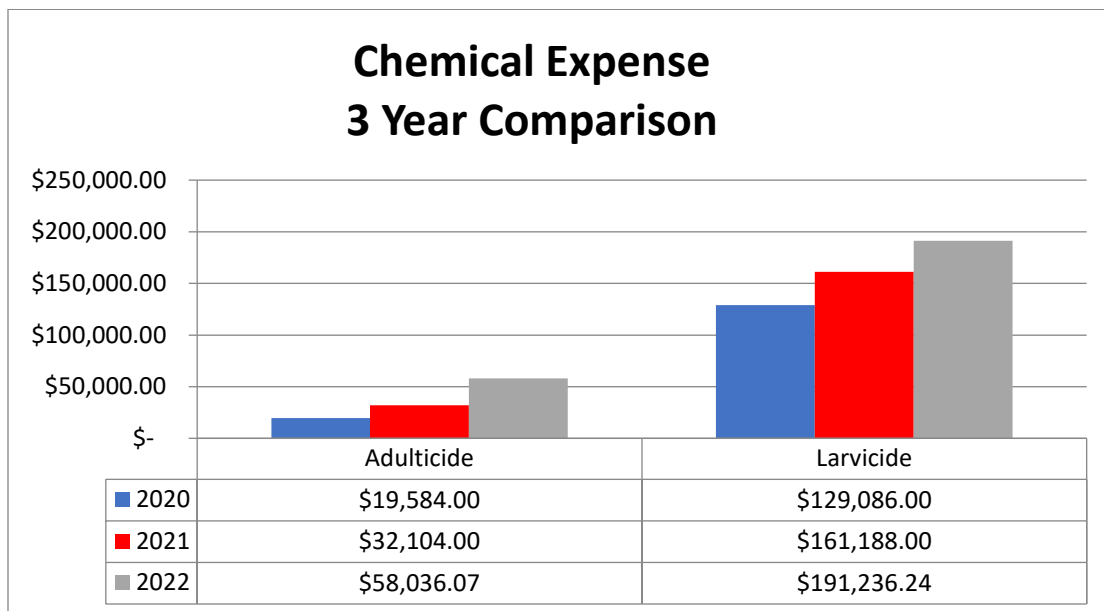


Figure 8. The amount of money spent on larvicide and adulticide products and the proportion of product budget spent on each category.



**Figure 10.** Three year comparison of product costs for the GCMAD.

## Other Control Initiatives

### Contractual Services:

Shadow Butte Elementary School, located outside of the current district boundaries, was provided service at the beginning of the 2022 school year. This was made possible by a contract between the GCMAD and the Emmett School District. Shadow Butte Elementary was treated with an ULV fogger on a regular basis when school was back in session in late August 2022 and received barrier treatments prior to the beginning of the school year.

## Closing Remarks

This report summarizes data from the 2022 mosquito control season. GCMAD focused heavily on controlling mosquitoes with what resources it had this summer. The difficulty of finding staff and excessive temps created a difficult season. GCMAD had one aerial flight for adulticiding and the acquisition of the drone for aerial larviciding. With no human cases of WNV in Gem County in 2022, GCMAD was happy with how the season went. Similar to past seasons, the district spent substantially more on larval mosquito control products as compared to adult mosquito control products in 2022. District operations focused on controlling mosquitoes during the larval stage of development, knowing that larval control is much more efficient and sustainable than adult mosquito control.

The GCMAD will continue to leverage more residual mosquito control product for long term control of mosquitoes in known, persistent areas of infestation in the 2023 mosquito season. The district wants to continue working closely with local governments, service and civic groups, and constituents to raise awareness and help reduce mosquito development habitat in the GCMAD. The GCMAD is confident that these goals are achievable. The district had a productive season due to the diligent work of many people. This success would not be possible

without the commitment, support, and efforts of all the citizens of the GCMAD, the GCMAD staff, and the GCMAD Board of Trustees.

**Declaration**

I, the undersigned, have read and approve the attached Gem County Mosquito Abatement District's "2022 Year-End Report" for the 2022 mosquito control season.

Gem County Mosquito Abatement  
District Board Members:

Gem County Commissioners:



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Michele Chadwick, Co-Chairperson

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Bill Buttici

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Tom Carlsen, Co-Chairperson

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Mark Rekow

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Bonnie Diedrich

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Kirk Wille

---

Anita Taylor

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Scott Uhrig

Appendix 1. Fiscal Year 2022 Accounting Review and Audit Report