

---

**Town of Gypsum  
2025 Annual Report  
Mosquito Control Program**

---

A photograph of a man and a woman sitting at an outdoor table, smiling and talking. The man is wearing a denim shirt and the woman is wearing a patterned shirt. There are plates of food and glasses on the table. The background shows a natural setting with trees and a body of water. The photo is partially framed by a white geometric shape and overlaid with a white topographic map pattern.

**NO TWO  
COMMUNITIES  
ARE THE SAME.  
YOUR PLAN  
SHOULDN'T BE  
EITHER.**

**Vector Disease Control International  
7000 N. Broadway Suite 108 Denver, CO 80537  
Phone 970-962-2582 Fax 866-929-1204  
Website: [www.vdci.net](http://www.vdci.net)**

**Town of Gypsum  
Mosquito Management Operations  
Annual Report 2025**



**Table of Contents**

---

	<b>Page</b>
<b>MISSION STATEMENT AND PROGRAM OBJECTIVES</b>	3
<b>VDCI IN COLORADO</b>	4
<b>WEST NILE VIRUS</b>	5
HISTORICAL CONTEXT	
COLORADO WNV DATA	
<b>2025 SEASON PERSPECTIVE</b>	6-8
CLIMATE COMPARISON DATA	
<b>VDCI SURVEILLANCE LABORATORY</b>	9
<b>LARVAL MOSQUITO CONTROL</b>	9-10
LARVAL CONTROL METHODS	
LARVAL SITE INSPECTIONS & TREATMENTS	
LARVICIDE PRODUCT APPLICATION BY TYPE	
<b>ADULT MOSQUITO CONTROL</b>	10-13
SEASON DETAILS WITH ANNUAL COMPARISON	
ADULT MOSQUITO CONTROL APPLICATION REPORT	
<b>PUBLIC RELATIONS AND EDUCATION</b>	14-15
<b>SUMMARY</b>	16

## ***MISSION STATEMENT***

At VDCI, our mission is to protect public health and improve quality of life by reducing the threat of mosquitoes and mosquito-borne diseases through science-driven, environmentally responsible, and community-focused mosquito management solutions.



## ***PROGRAM OBJECTIVES***

### **1) Protect Public Health**

→ *Reduce the risk of mosquito-borne illnesses such as West Nile virus, Zika, dengue, and malaria through proactive surveillance and control strategies.*

### **2) Implement Science-Based Solutions**

→ *Utilize the latest technology, research, and data-driven practices to deliver safe, effective, and sustainable mosquito management programs.*

### **3) Safeguard the Environment**

→ *Apply integrated mosquito management (IMM) techniques that prioritize ecological balance, minimize pesticide use, and protect non-target species.*

### **4) Engage and Educate Communities**

→ *Provide education, outreach, and resources to empower residents, municipalities, and organizations to take proactive steps in mosquito prevention and protection.*

### **5) Support Local Governments and Partners**

→ *Collaborate with public health agencies, municipalities, and communities to design and implement tailored mosquito control programs that meet unique regional needs.*

### **6) Commit to Continuous Improvement**

→ *Invest in staff training, emerging technologies, and best practices to ensure our programs remain innovative, efficient, and adaptable.*

## *VDCI IN COLORADO*

VDCI has been serving Colorado communities for decades, bringing science-based mosquito management programs to municipalities, counties, and special districts across the state. Since expanding operations into Colorado, VDCI has established offices in Boulder, Denver, Loveland, Pueblo, Gunnison, and Garfield, tailoring mosquito control strategies to meet the unique needs of both urban and rural environments.

Colorado's diverse geography—from the Front Range to the Western Slope—presents unique mosquito management challenges. Along the Front Range, rapidly growing communities contend with stormwater systems, irrigated landscapes, and dense populations, while in mountain towns, seasonal wetlands and changing river flows create conditions for large mosquito populations each summer. VDCI has worked alongside local governments to develop programs that address these varied landscapes while balancing environmental stewardship with public health protection.



When mosquito populations reach public health thresholds, adult control measures are introduced in a precise and limited manner to protect residents while minimizing environmental impact. This approach reflects VDCI's broader commitment across Colorado: using integrated mosquito management (IMM) to deliver effective, sustainable solutions tailored to each community.

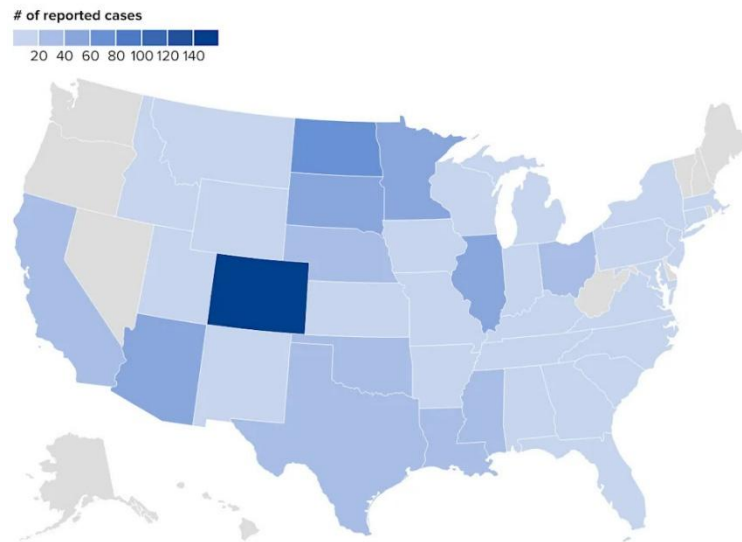
As mosquito-borne diseases like West Nile virus became a concern in Colorado, VDCI strengthened its efforts statewide by implementing data-driven surveillance, developing threshold-based treatment plans, and conducting public education campaigns. Over the years, these programs have helped reduce mosquito populations, lower the risk of disease, and make outdoor spaces safer for families, businesses, and visitors across the state.

Today, VDCI continues to play an essential role in Colorado's public health landscape. From larger cities along the Front Range to smaller mountain communities, our history in Colorado reflects a commitment to innovation, environmental responsibility, and partnership with the communities we serve.

## WEST NILE VIRUS

### Reported cases of West Nile virus in 2025

So far this year, there have been 771 confirmed human disease cases in the U.S. Click or hover over a state for details.



Note: Last updated September 11, 2025 at 1 PM ET. The District of Columbia has 0 confirmed cases.

Map: Taylor Johnston / CBS News • Source: CDC

West Nile virus entered the U.S. in 1999 during an outbreak in New York City, then spread west, reaching Colorado by 2002. The state's worst year came in 2003 when Colorado recorded roughly 2,947 human cases and 63 deaths, accounting for ~30% of U.S. cases that year.

Since 2003, WNV has become endemic in Colorado with seasonal activity each summer driven by transmission between birds and *Culex* mosquitoes. Risk typically peaks in August and September, with activity usually running from May through October and occasionally later in mild years. Local surveillance work and statewide hydrologic studies have tied higher risk to mosquito abundance and certain wet/dry patterns.

Colorado has seen periodic spikes since the early 2000s. Recent seasons illustrate that variability: 2021 (11 deaths) and 2022 (20 deaths) were significant, while 2023 was exceptional with 634 human cases and 51 deaths, the highest state total in the nation that year. 2024 was comparatively milder in Colorado.

Colorado confirmed the first human cases of 2025 on July 22 (Adams County). The first death followed on July 25 (a Lafayette adult). By August 13, state officials had reported 41 cases across 11 counties and 3 deaths; additional deaths were reported later in Larimer County (Aug 25) and Montrose County (Aug 26) as activity intensified in the typical August-September peak.

The CDC's ArboNET dashboard (data current Sept 2, 2025) lists 74 reported human cases for Colorado. Colorado's own CDPHE dashboard showed 95 people affected, 42 hospitalized, 42 with neurologic symptoms, and 6 deaths on a late-August update. Differences reflect normal reporting lags and definitions between state and federal systems.

The 2025 season has been active but, as of early September, remains well below 2023's historic levels. Colorado's risk period typically continues into October (and occasionally later), so totals can still change as investigations are finalized. As of September 11<sup>th</sup>, there have been 771 confirmed human cases in the U.S.

## 2025 SEASON PERSPECTIVE

The winter of 2024-2025 delivered a modestly positive start for snowpack in Gypsum’s region. As of January 1, 2025, the Colorado River Headwaters Basin, which includes Gypsum and surrounding SNOTEL sites, registered 102% of median snow water equivalent (SWE), indicating a near-normal accumulation early in the season. Similarly, December precipitation came in at 76% of the median, contributing to soil moisture levels that were favorable for runoff retention.

By April 1, however, statewide snow water equivalent had declined, with Colorado recording 85% of median snowpack, down from 112% the previous year. While northern basins like South Platte and North Platte were near normal, the Colorado Headwaters encompassing Gypsum also hovered near average SWE but faced mounting pressure from warm, dry conditions.

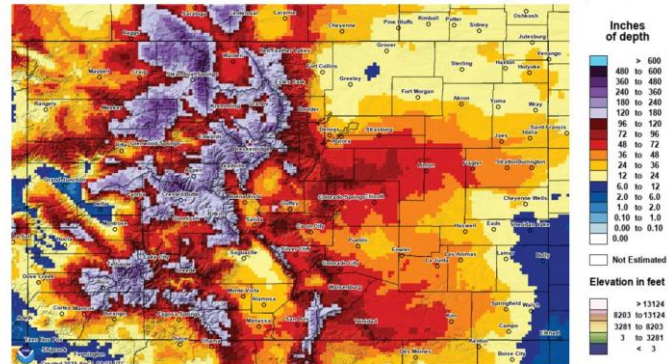
Starting in mid-April, snow loss accelerated dramatically. Across much of Colorado including the Headwaters region and a rapid decline in snow water equivalent dropped snow reservoirs from near-normal to the 10th percentile range within just one week, signaling an early and sharp melt-out.

By May 1, statewide SWE had plummeted to 57% of median, with southern basins faring markedly worse. The broader Upper Colorado Basin was estimated to be in the 60-65% of median range. This rapid melt compressed surface runoff into a shorter period, likely resulting in an abbreviated streamflow peak and early transition to low-flow conditions in local watercourses of direct relevance to mosquito habitats.

Early melt reduces duration of snow-fed wetlands and depressions, potentially limiting early summer larval habitat for snowmelt-driven species. Compressed runoff windows mean surveillance strategies may need to be scheduled earlier and more intensively, especially during the brief period where meltwater pools and flows are active. Dry-down by late spring increases susceptibility of shallow riparian zones to drying, reducing persistence of breeding sites in those areas. Conversely, early disappearance of flowing conditions can shift mosquito breeding later into irrigation or human-created water features, requiring adaptive monitoring. Warmer temperatures can also significantly shorten the timeframe of mosquito breeding leading to rapidly emerging adult populations.

In response to the 2024-2025 snowpack trends, VDCI adjusted its field monitoring plans around Gypsum accordingly. Earlier-season surveillance was essential to capture the short window of snowmelt-driven breeding. As habitats dry quickly, mosquito emergence is likely to shift toward agricultural, residential, or irrigation-related water sources. Recognizing this shift helped optimize resource allocation and maintain effective control strategies throughout the season.

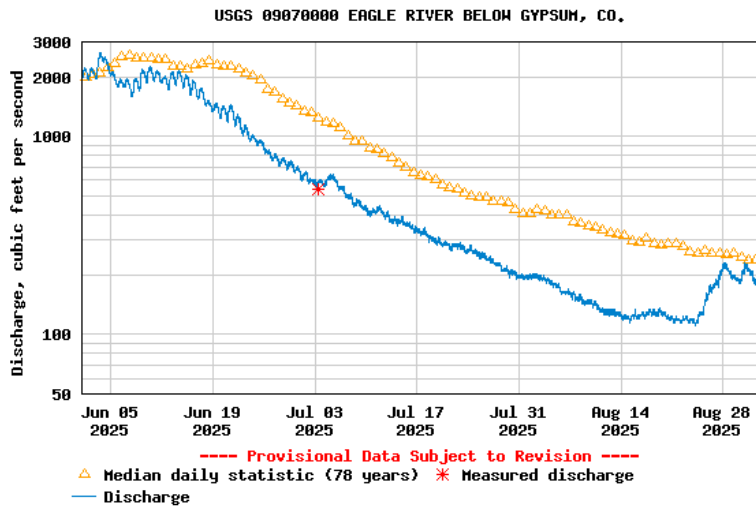
Seasonal accumulation of National Gridded Snowfall Analysis for April 6, 2025



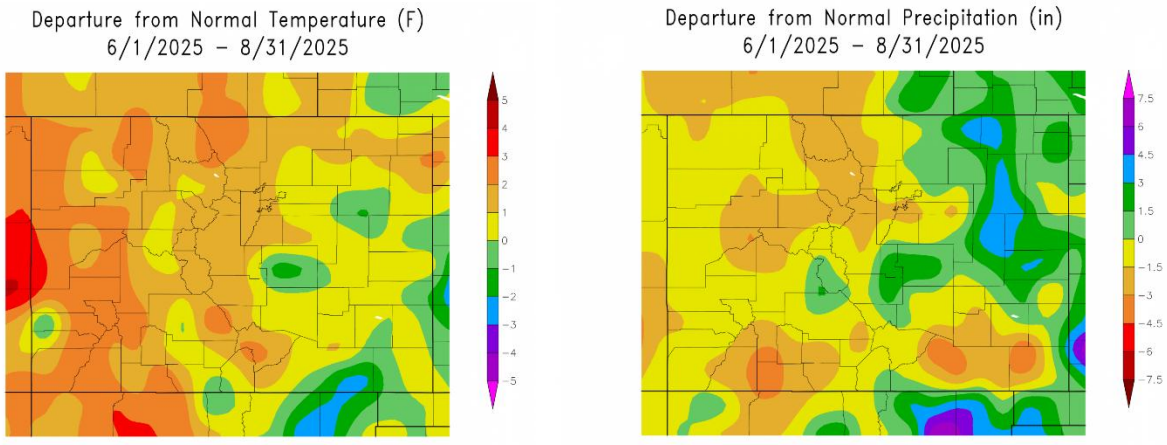
Streamflow dynamics in the Gypsum area during the summer of 2025 were shaped by the below-average and early-melting snowpack from the preceding winter. The Colorado Headwaters Basin, which feeds the Eagle River through Gypsum, began the runoff season near median levels but experienced an accelerated melt in April and May, pushing flows to peak earlier than normal. By late June, gage data from the USGS Eagle River below Gypsum showed flows receding more rapidly than in years with a slower, cooler runoff season.

Through July and August, discharge levels remained below the long-term seasonal median, consistent with regional hydrologic forecasts calling for a compressed water year. Unlike wetter summers, when runoff sustains shallow floodplains and backwater habitats into mid-season, 2025 flows dropped off early, leaving fewer snowmelt-fed wetlands available as mosquito habitat.

This condition shifted the primary breeding risk toward irrigation return flows, seepage ditches, and human-modified water features, which held water longer into the hot, dry summer.



The summer of 2025 in Gypsum unfolded under notably warmer and drier conditions compared to historical averages, shaping mosquito activity and habitat availability. Meteorologists from OpenSnow and NOAA predicted heat to settle in by June and persist through September, raising wildfire and drought concerns. Historically, Gypsum’s summer temperatures peak between 82-84 °F in July and August, with daytime highs typically in the mid-80s and nighttime lows in the upper 40s to mid-50s.



Generated 9/1/2025 using provisional data. ACIS Web Services. Generated 9/1/2025 using provisional data. ACIS Web Services.

The presence of widespread hot conditions across Colorado led to summer highs frequently exceeded these norms. This trend likely elevated daytime temperatures, accelerating evaporation rates and curtailing habitat duration for mosquito larvae in natural water bodies. While many sites were significantly smaller in size, these hot temperatures accelerate the breeding cycle and reproduction rates of mosquitos in the control area.

During the summer of 2025, temperatures in Gypsum, Colorado were consistently warmer than the historical average. Long-term climate records indicate that daily high and nighttime low temperatures exceeded seasonal norms, leading to an overall increase in average monthly temperatures compared to previous decades. This departure from the historical norm created environmental conditions that directly influenced mosquito development and population dynamics.

Mosquitoes are highly temperature-dependent, with warmer weather accelerating the time it takes for larvae to develop into adults. In Gypsum, the elevated summer temperatures shortened the mosquito life cycle, allowing for more rapid generational turnover and, in turn, an increase in the number of breeding cycles within a single season. Faster breeding cycles not only expanded the potential for higher mosquito populations but also heightened the risk of disease transmission, since shorter developmental times increase the proportion of mosquitoes reaching adulthood during peak summer activity.

For VDCI's mosquito management program, these warming trends underscore the importance of closely monitoring temperature and adjusting control strategies accordingly. The earlier onset and extended duration of optimal breeding conditions in Gypsum required proactive interventions to manage mosquito populations and reduce the risk of vector-borne disease spread within the community.

In 2025, the summer precipitation leaned toward below-normal levels across much of Colorado, especially given long-term drought and the timing of monsoon moisture. Although sporadic thunderstorms delivered bursts of rainfall, the overall pattern was drier than typical. This led to smaller and shorter lasting mosquito breeding sites with accelerated breeding cycles and an extended mosquito season duration due to consistently high temperatures.

## LARVAL MOSQUITO CONTROL

VDCI's approach begins with systematic larval surveillance, where trained technicians inspect known and potential breeding sites—ranging from natural puddles and roadside ditches to artificial containers like buckets, tires, and birdbaths. They sample these sites using standardized dipping methods (typically 3-5 dips per site), recording the presence and development stage of larvae to gauge infestation levels and focus control efforts effectively. This early detection allows for prompt intervention before mosquitoes mature into adult vectors.

When physical and habitat management strategies are insufficient, VDCI relies on targeted applications of biological and chemical larvicides. One primary biological tool is *Bacillus thuringiensis israelensis* (Bti), a naturally occurring bacterium that produces toxins lethal to mosquito larvae upon ingestion. Bti is highly selective, posing minimal risk to non-target species and making it a staple in mosquito control programs worldwide.



VDCI also applies insect growth regulators (IGRs) such as methoprene, which mimic juvenile hormones in mosquitoes. Methoprene halts the insect's development by preventing larvae from transitioning into pupae and adults. It's most often deployed in time-release formulations suitable for larger or hard-to-access water bodies. These larvicides are typically applied using truck-mounted or backpack sprayers, or via granular or liquid formulations that can be efficiently distributed across diverse aquatic habitats.

VDCI doesn't apply larvicides randomly and follows structured source reduction plans that prioritize areas based on surveillance data. Mapping technologies like GPS and GIS are used to



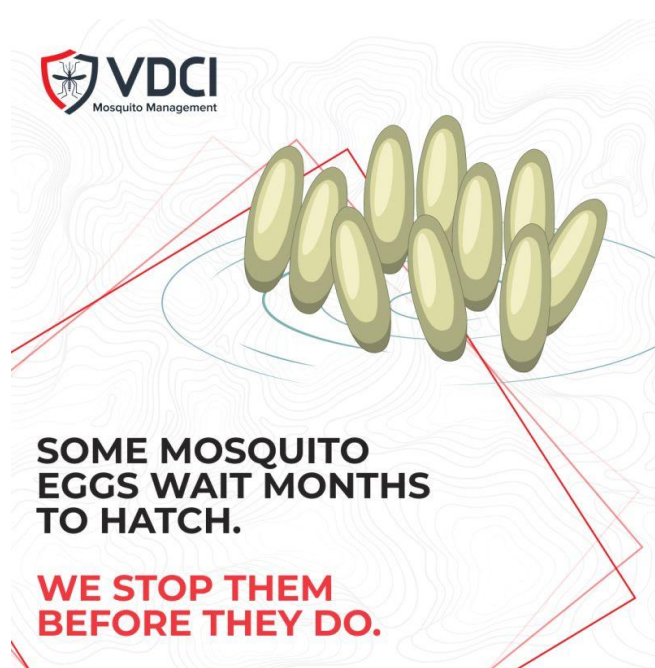
catalog breeding sites, enabling quick revisit for follow-up treatments, especially after rainfall events that restore standing water. Rain gauges are monitored multiple times weekly to anticipate when and where breeding habitats may re-emerge.

VDCI embeds these larval control methods within an Integrated Mosquito Management (IMM) framework. They emphasize starting mosquito control at the larval stage—where interventions

are most effective—while minimizing reliance on adulticide spraying. This results in smarter,

more sustainable, and environmentally balanced mosquito mitigation. In essence, VDCI's larval mosquito control is a layered, science-based approach that blends surveillance, habitat modification, biological and chemical interventions, mapping tools, and biological agents, all orchestrated within an IMM framework. This enables efficient, targeted control that neutralizes mosquito threats before they develop, safeguarding public health while minimizing ecological disruption.

In 2025, VDCI technicians began seasonal operations in early April. Hiring of seasonal field technicians began in January and continued into May. Field training by VDCI management and veteran employees lasted through May and full-time field activities were in full force by early June. New site mapping was a priority that included mapping several areas that had not previously been included in larval control operations.



**SOME MOSQUITO EGGS WAIT MONTHS TO HATCH.**

**WE STOP THEM BEFORE THEY DO.**

VDCI began larval site inspections in many areas by mid-April. Large-scale larval control began in early-May and continued through the end of August. Steady mosquito production was seen through the first half of the summer with significant increases in larval production coinciding with peak runoff in early June. Moderate spikes of productive breeding sites also coincided with precipitation events in July and August.

By the end of April, the first larvae detected by VDCI technicians was on the edge of the Eagle River near Willowstone Pl. While most of the water in this area was moving, a few sections closer to the road revealed dip counts above 50 per dip. The second detection of larvae occurred in early May with significant numbers of larvae/dip was

located on Black Bear Drive in the neighborhoods near Gypsum Creek Golf Course. Ditches along Whitetail Drive held standing water along with the cattail wetlands south of the road. These sites were inspected and treated weekly by technicians who routinely observed over fifty larvae/dip in this area.

As the summer progressed, snowmelt combined with heavy stream flows and irrigation practices led to a widespread proliferation of standing water throughout the Town of Gypsum. By early June meadows and depressions throughout Willowstone, Gypsum Creek Golf Course, Eagle Street and the wetlands around the Eagle River saw increasing temperatures and water levels. Large-scale weekly larvicide missions were conducted in these areas to cover as much ground as possible. Additionally, many smaller sites such as the Gypsum Campground and the ditches along Cottonwood Pass Road were inspected bi-weekly and routinely treated.

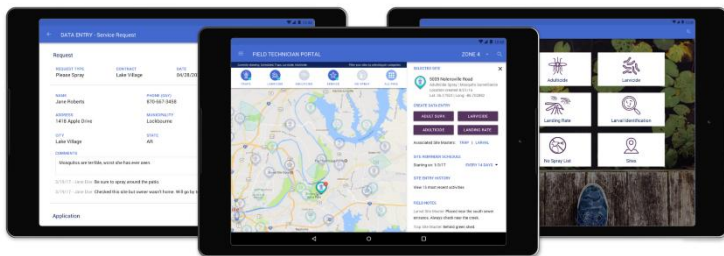
In 2025, Vector Disease Control field technicians performed 225 larval site inspections within the Gypsum Mosquito Control Area, of which 67 (57.7%) were wet upon inspection, 48 (71.6% of wet sites) resulted in the detection of mosquito larvae. In order to prevent larvae from emerging as adult mosquitoes, VDCI applied 355 lbs. of VectoBac (Bti) as well as 20 lbs. of

Altosid XR-G to 80 acres of sloughs, meadow, and other breeding sites in Gypsum. Vector Disease Control field technicians visited historically active sites based on data from previous seasons on a weekly basis until mid-August. Technicians also located and mapped 3 new sites, adding this information to our database to be utilized for future monitoring and larval inspections. Larvicide applications were completed on August 20th.

## *ADULT MOSQUITO CONTROL*

While larval management is the foundation of Integrated Mosquito Management, VDCI also implements targeted adult mosquito control when surveillance thresholds indicate that adult populations or disease risks have exceeded acceptable levels. These interventions are considered a secondary line of defense, deployed strategically to suppress adult vectors that may already pose a public health threat.

VDCI primarily utilizes Ultra-Low Volume (ULV) applications of EPA-registered adulticides. ULV technology disperses extremely fine droplets of insecticide into the air column, designed to contact flying mosquitoes without leaving significant residues on vegetation, structures, or other surfaces. Treatments are typically scheduled during evening or pre-dawn hours, when mosquito activity is highest and non-target insects such as pollinators are least active. Depending on geography and program needs, ULV applications may be conducted with truck-mounted sprayers for neighborhoods and accessible roadways, or aerial spraying for larger and less accessible areas.



VDCI integrates modern geospatial technologies into its adult control operations. GPS tracking systems are installed on all spray vehicles to record routes, treatment zones, and application timing. These data are combined with Geographic Information Systems (GIS) mapping to provide detailed visualizations of

treatment coverage, mosquito abundance, and disease risk. This integration allows health officials to monitor progress in real time and to confirm that adulticide applications are reaching the intended target areas.

In addition, VDCI leverages digital surveillance platforms that link trap data, virus test results, weather conditions, and spray histories into centralized dashboards. This ensures that treatments are only applied when necessary and that operations can be quickly adapted in response to changing environmental or epidemiological conditions. Weather-monitoring equipment also plays a critical role, as ULV spraying is only effective under specific wind speed and temperature conditions.

VDCI's adult mosquito control relies on a range of specialized equipment designed to maximize effectiveness and minimize unintended impacts. Truck-Mounted ULV Sprayers such as the London Fogger or Clarke Cougar models, generate aerosol droplets typically in the range of 15-

20 microns, the optimal size for targeting flying mosquitoes. They are calibrated to deliver precise volumes of adulticide per acre.

Aerial Application Systems are sometimes used in larger areas such as wetlands, floodplains, or rural landscapes, aircraft equipped with ULV technology are used to disperse adulticides across wide coverage zones. Flight paths are GPS-guided to ensure uniform application.

Monitoring and calibration tools ensure accuracy and VDCI technicians regularly calibrate spray equipment using droplet spectrometers and other measurement tools that verify droplet size and distribution patterns. This commitment to calibration ensures compliance with regulatory standards and enhances application efficiency.

VDCI's adult mosquito control program blends data-driven decision making with advanced technology and equipment to deliver highly targeted, effective, and environmentally responsible treatments. By combining ULV applications, GPS- and GIS-integrated mapping, aerial and ground-based equipment, and continuous monitoring, VDCI ensures that adult mosquito suppression is carried out with precision and accountability.

Handheld and Backpack Sprayers are utilized in smaller, localized sites such as event venues, parks, or problem hotspots, technicians deploy portable devices that allow for precision spraying in areas inaccessible to vehicles. This barrier spray bonds to foliage, where it acts as a mosquito repellent for multiple weeks. In 2025, Wisdom TC Flowable was the most commonly utilized barrier product by VDCI technicians. The active ingredient in Wisdom TC Flowable is bifenthrin, a pyrethroid insecticide.



Permethrin (used in truck-mounted ULV foggers) has been registered by the EPA since 1979. It is currently registered and sold in a number of products such as residential indoor and outdoor insect foggers and sprays, treated clothing, flea products for dogs, termite treatments, agricultural and livestock products, and mosquito abatement products. It is also regulated by the Food and Drug Administration as a treatment of head lice and scabies. Permethrin is the most widely used mosquito adulticide in the U.S. and is used to treat 9 to 10 million acres annually (out of 32-39 million acres treated with a mosquito adulticide). Permethrin's widespread use can be attributed to its low cost, high effectiveness, low incidence of pest resistance, and broad labeling.

In 2025, a continuing weekly evaluation of several factors was utilized to determine if a neighborhood or spray zone were to have ULV adult control operations conducted June through September. During the 2025 season a total of 337.9 Ultra Low Volume (ULV) miles of roads and access paths within the Town of Gypsum were sprayed using the adulticide Permanone 30-30 (Active Ingredient - Permethrin). A total of 3,160 ounces of Permanone 30-30 was applied over the mosquito control area. This was a notable increase in product used when compared to the 2024 mosquito season.



In addition to ULV Applications, a total of 2.88 Gallons of Wisdom TC (Active Ingredient - Bifenthrin) was applied as daytime adult barrier applications. In total, VDCI technicians performed 51 barrier applications with the use of our fleet of STHIL SR-450 Backpack Sprayers.



These applications were frequently conducted at residences near the Willowstone neighborhood, Sky Legend and public parks. Barriers were often our best tool for addressing mosquito nuisance throughout neighborhoods near Eagle Street where control options have been restricted due to proximity to beekeepers. These treatments were also critical in protecting the community during holidays and events in sites such as the Lundgren Amphitheater and the Gypsum Sports Park. Collaboration with city departments was maintained in 2025 to

further enhance our ability to respond to these public events. Additionally, citizens or public officials often contacted VDCI a week in advance of large private gatherings for special event treatments. Barrier treatments were conducted around the Lundgren Amphitheater before concerts and events on a regular basis.

In 2025, a number of calls were received from residents of the Sky Legend and Willowstone neighborhoods. In response, technicians conducted a multi-week barrier campaign throughout these sites until the problem was resolved. Barriers were often our best tool for addressing mosquito nuisance in Gypsum public parks where truck spraying was sometimes prevented by the abundance of people until late hours. This was especially true for parks along Valley Road where people consistently prevented truck mounted fogging, leading to weekly barrier treatments at these sites. Weekly backpack barrier treatments were also conducted at the Town of Gypsum Second Street Park to provide additional protection to residents utilizing this outdoor space.

Notice of spray events are posted on VDCI's spray schedule each season. When the need for adult mosquito control occurs, all of the products and methods utilized by our team are EPA

and Colorado state approved for public health applications. In 2026, our team will continue to focus on unique and innovative ways to protect public health from mosquito-borne diseases, while preserving the environment, and minimizing program costs.

## ***PUBLIC RELATIONS AND EDUCATION***

VDCI received 22 phone calls from Gypsum residents in 2025. VDCI received 3 calls from residents reporting larval mosquito sites in their area. Technicians visited each reported site and performed larvicide applications when dip tests confirmed the presence of larvae. VDCI received 4 calls from residents who were requesting information on adulticide products used or expressing safety concerns. VDCI provided the relevant information and directed them to our website for further information about the products used. VDCI received 1 call from residents requesting that their information be added or changed in VDCI's spray notification list so they could be notified of spraying in their area. VDCI received 14 mosquito nuisance calls in regard to application requests, applications that were scheduled, or applications that had recently been completed. These calls generally requested information about the timing and effectiveness of applications.

A core element of VDCI's Integrated Mosquito Management program is the belief that community engagement is as critical as surveillance and treatment. Our public relations and education efforts are designed to empower residents, build transparency, and foster a sense of shared responsibility in reducing mosquito populations and protecting public health.

Customer service is always a high priority for VDCI. We take pride in training each and every technician so that they have the knowledge to provide residents with the correct answers to their questions. Each field technician spends part of their day responding to resident concerns in their work area. This in-field customer service personalizes the mosquito control program, provides VDCI with local information on mosquito activity and presents a valuable opportunity to educate our residents about mosquito biology and control.

VDCI has provided Mosquito Hotlines to the residents in communities which we are contracted to also reduce workload by municipal personnel. This enables direct communication and response by mosquito control employees to resident's concerns about West Nile virus and larval site activity and treatment. VDCI maintains a log of calls received and will summarize call activity in monthly and annual reports.

VDCI continues to maintain a comprehensive Call Notification & Shutoff database and will notify residents on the list when conducting ULV adulticide spray applications within 2 blocks of their property or within the effective ULV spray drift distance (300-500 ft depending on wind speed



and direction). All Shutoff locations are mapped in ArcView GIS. Call & Shutoff forms are available online and may be submitted via mail or email.

In summary, VDCI's public relations and education initiatives continue to build a bridge between scientific operations and community action. By keeping the public informed, fostering transparency, and empowering individuals to take part in prevention, we ensure that mosquito management is not only effective but also collaborative.

### **MosquitoLine™**

VDCI maintains a toll-free telephone line: (877) 276-4306 to accept calls from the public concerning:

- ☛ Information about mosquito biology and source reduction of mosquito habitats
- ☛ information on program components, operations and monitoring
- ☛ Information on program components, operations, and monitoring
- ☛ Seasonal West Nile virus activity
- ☛ Personal protection options for mosquito annoyances and West Nile virus risk
- ☛ Reports about mosquitoes and possible larval mosquito habitats
- ☛ Requests to perform larvicide applications
- ☛ Opt-out of any adulticide spraying via a shut-off list
- ☛ Request notification when adulticide spraying is planned in their neighborhood
- ☛ Request health and safety information about mosquito control operations and pesticide products used

## ***SUMMARY***

The 2025 season was one of VDCI's most active and impactful years of mosquito management in the Town of Gypsum. Our team carried out a full suite of surveillance, larval control, and adult control activities designed to reduce nuisance populations and minimize the risk of mosquito-borne disease.

Over the course of the summer, VDCI technicians conducted hundreds of larval site inspections across the Town of Gypsum, using standardized dipping protocols to identify breeding habitats in wetlands, ditches, and artificial containers. Where larvae were present, treatments were applied with biological larvicides such as Bti and methoprene, resulting in effective population suppression before adult emergence. In total, hundreds of acres of standing water were treated through a combination of truck-mounted and backpack applications.

Adult control operations included routine ULV truck treatments across populated areas, supplemented by backpack applications in smaller sites. Each application was tracked by GPS and integrated into GIS mapping, ensuring accuracy and transparency. Collectively, these treatments covered tens of thousands of acres, providing measurable relief from mosquito pressure during peak summer months.

In summary, the 2025 Town of Gypsum mosquito management program represented a comprehensive, science-driven effort. Through a combination of larval and adult control, modern technology, and strong community engagement, VDCI delivered meaningful protection to residents, visitors, and ecosystems alike.