

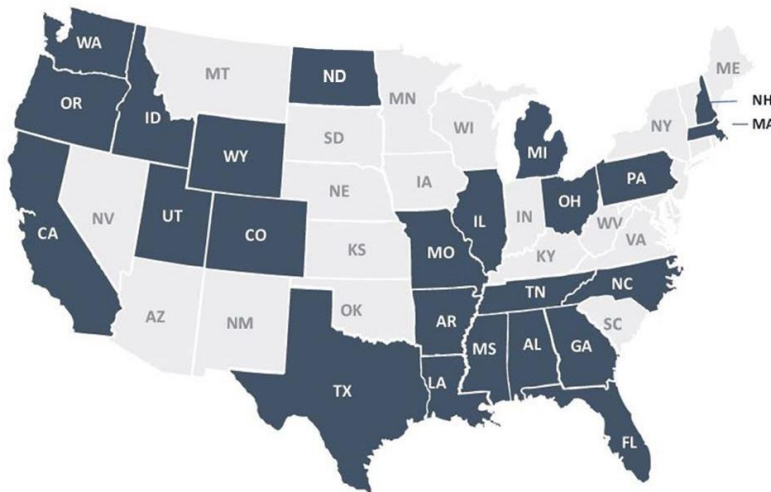


# Protecting Public Health: Vector Disease Management & Emergency Response



-  **VDCI Intro & History**
-  **Integrated Mosquito Management Programs**
-  **Emergency Response Plans**
-  **Uinta County**
  - Working with VDCI
  - Implementing IMM Into Community
  - Funding & Emergency Management Grants
  - Working with County Officials
  - Challenges & Successes

- **30** years providing mosquito control services
- **300+** active contracts throughout the United States
- **35,000,000+** aerial acres treated for Emergency Response



- **14** Fixed-Wing Aircraft
- **350+** Adultericide Trucks
- **300+** Full-Time Employees
- **150+** Seasonal Employees



Supplemental Services



Comprehensive Programs



Emergency Response

## Government Partnerships

*Our team's efforts service unique local needs  
that protect public health on a larger scale.*



# How Mosquitoes Threaten Public Health?

Mosquito populations and disease risk increase with:

- Urban development
- Weather events
- Abnormal temps (thrive in wet, warm environments)





- Surveillance & Disease Testing
- Larval & Adult Mosquito Control
- Public Education



## Larval Surveillance:

- Identify and treat breeding sites (standing water, yard equipment, etc.)

## Adult Surveillance:

- Regular trapping in different zones
- Understand population dynamics and species distribution

## Counting & Disease Testing:

- Provides insight into population levels
- Identifies presence of disease in the target area

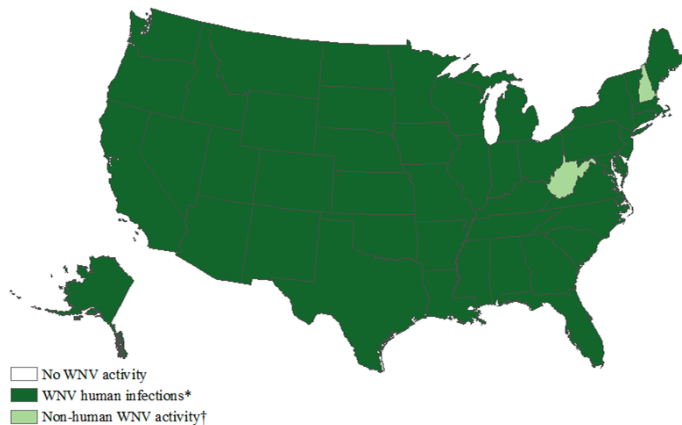


## 2021 Mosquito-Borne Diseases in U.S.



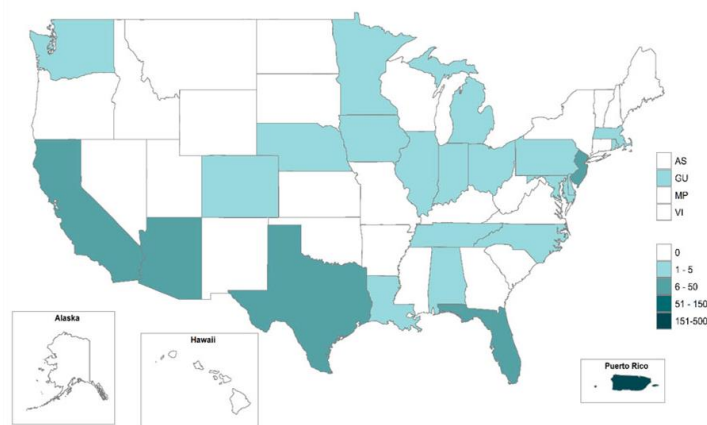
### West Nile virus

- 2021 Cases 2,445
- 2021 Deaths 165



### Dengue

- 2021 Cases 86



## Other Mosquito-Borne Diseases in U.S.

- Chikungunya
- Eastern Equine Encephalitis (EEE)
- Jamestown Canyon
- St Louis Encephalitis
- Western Equine Encephalitis (WEE)
- Zika











*Mosquito management efforts have a greater chance of long-term success with public support*

## The 4Ds: Help Prevent Mosquito Breeding & Bites

1. **Defend** - wear repellent when outdoors
2. **Dress** - keep skin protected with light color clothing, long sleeves and pants
3. **Drain** - empty standing water around home (tires, tarps, buckets, wheelbarrows)
4. **Dusk & Dawn** - limit time outside when mosquitoes are most active



## 1. Pre-Mission

- Mapping
- Pre-flight
- Product Preparation
- Trapping
- Count & ID
- Public Relations

## 2. Mission



## 3. Post-Mission

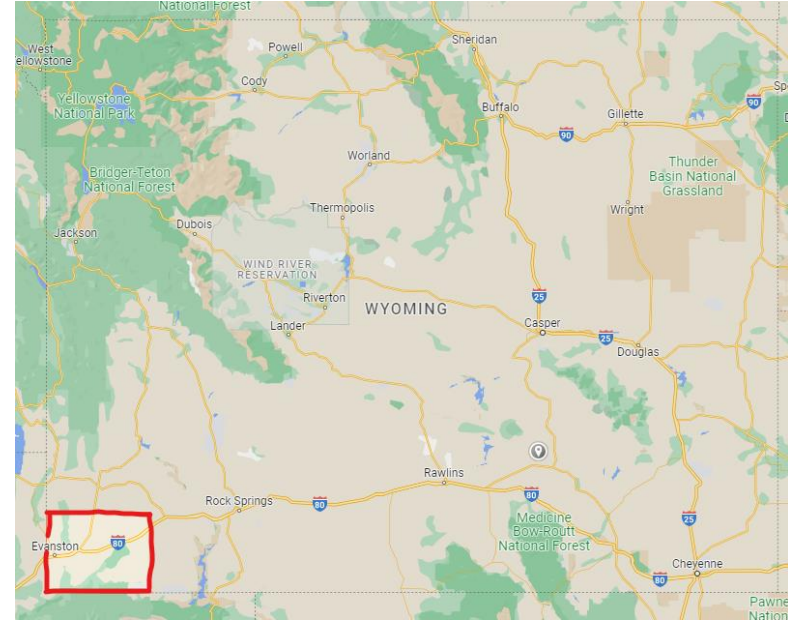
- Trapping
- Count & ID
- Mission Details
- Results to Customer





Historical Emergency Aerial Mosquito Control Sprayed Acres			
Year	Acres	State	Event
2021	~1.6 Million	LA	Hurricane Ida
2020	~1 Million	LA	Hurricane Delta
2020	~1 Million	LA	Hurricane Laura
2018	>1 Million	NC	Hurricane Florence
2018	>0.6 Million	FL	Hurricane Michael
2017	>2 Million	FL	Hurricane Irma
2017	>2 Million	TX	Hurricane Harvey
2014	>0.5 Million	TX	West Nile Virus Outbreak
2012	>1 Million	FL	Tropical Storm Debby
2012	>0.5 Million	LA	Hurricane Isaac
2011	>0.5 Million	NC/PA	Hurricane Irene
2008	>2 Million	Multiple	Hurricane Ike
2008	>1.5 Million	Multiple	Hurricane Gustav
2005	>2 Million	Multiple	Hurricane Katrina
2005	>1 Million	Multiple	Hurricane Rita
2004	>5 Million	FL	Multiple Hurricanes

- Started with Aerial Adulticiding
- Planes based in Ogden, UT
- Contingency Aerial Provider since 2012
- Long-term relationship between Uinta and Aerial Division



## About Uinta County

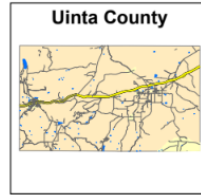
- Founded in 1869
- 2,088 square miles
- Population of 20,226
- 6500 ft. above sea level
- On 1-80 corridor approximately 84 miles east of Salt Lake Valley

1. 2019 Uinta County Mosquito Program Key Person(nel), Brad Asay, planning retirement
2. Request from Uinta County to propose a Full IMM based on current needs for the 2020 season
3. VDCI Operations and Business Development worked closely with Brad and the County to develop a program
1. Started Operations May, 2020





- Set up office and lab
- Map larval habitat
- Set up trap sites
- Set truck spray routes
- Connect with community (Bee-keepers, etc.)

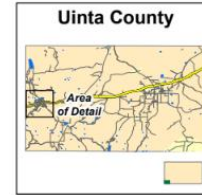
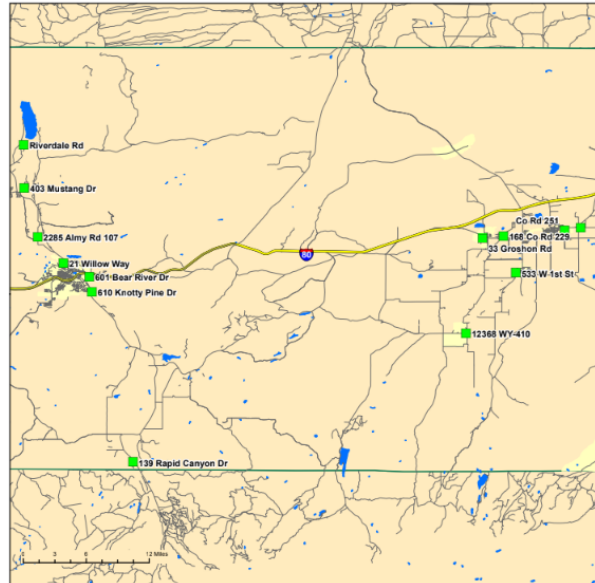


## Uinta County, Wyoming

Adult Surveillance Sites:  
May 2022



CDC Light Trap



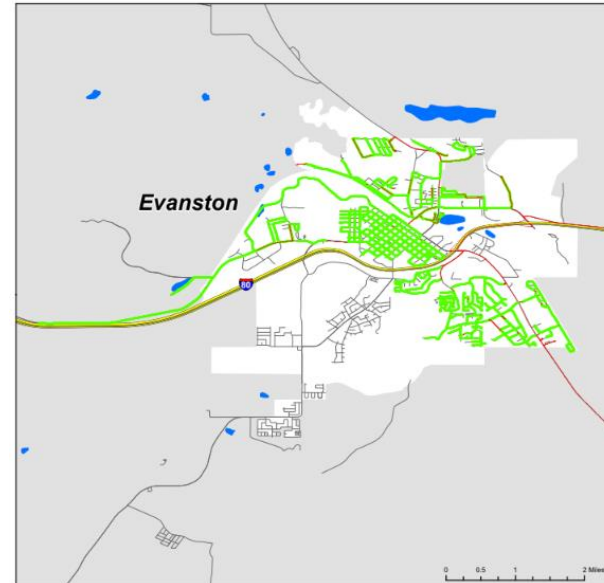
## Uinta County, Wyoming

Ground Adulticide Application Date:  
June 16, 2022

### Sprayer Status

Sprayer Off ●  
Sprayer On ●

Chemical: PermaSease 4-4  
Quantity Used: 20.4 gal  
Miles Treated: 54.3 Acres  
Treated: 1,973.0



- Retained current staff and hired locally
- Three of the technicians we hired had multiple years of experience each
- Knowledge of larval sites was invaluable
- Access to Uinta database



- Wyoming Emergency Insect Management Committee (WEIMC) Grant / Uinta County Weed and Pest District / General Budget
- Process of obtaining grant funding / Wyoming Mosquito Management Association Training UW
- Funding varies state by state





## Public Health Response

### Prevention

- Public education
  - Mosquito bite prevention
  - Clinical signs and symptoms
- Integrated Mosquito Management program with VDCI

### Surveillance of Outbreak

- Local medical facilities - notification to public health of suspected or probable case of WNV
- Confirmation by Wyoming State Lab for both human and animal WNV
- Contact tracing for origin of location



## Public Health Emergency Preparedness Response

- Notification of case to VDCI
- Initiate a Public Health Brief
- Initiation of Targeted Ground Spraying and enhanced surveillance

## Uinta County Emergency Response

- Public Notification
  - Social media, county website
  - Depending on severity/extent of outbreak, WARN and CodeRED are the primary sources of public notification in Uinta County
- Provide updates and guidance
  - If needed , initiate a hotline to field phone calls
- Liaison with the state for additional resources

- Identity roles and responsibilities for planning and prevention efforts
- Public education is an important pillar of mosquito control
- Mosquito control requires a collaborative approach with all partners
- VDCI takes pride in providing IMM tools to be an effective vector management program
- Working today to make a difference for tomorrow !!!







# Thank You!

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