

DELTA MOSQUITO & VECTOR CONTROL DISTRICT

Dr. Mustapha Debboun
General Manager

Post Office Box 310 * Visalia, California 93279-0310

Mir Bear-Johnson
Assistant Manager

1737 West Houston Avenue * Visalia, California 93291

Phone (559) 732-8606 * (877) 732-8606 * Fax (559)-732-7441

www.deltavcd.com

Hector Cardenas
Operations Program Manager

Crystal Grippin
Scientific Program Manager

Sheri D. Davis
Administrative Assistant

Andrea Troupin
Biologist

Javier Valdivias
Biologist

Mark Nakata
Biologist

REPORT OF THE MANAGER JUNE 2021

I. Water and Weather

There were several heat waves throughout the month of June. The average high temperature was 96.1°F with an average low of 66.3°F. The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported 0.07 inches of rainfall. The National Oceanic and Atmospheric Administration 1981-2010 seasonal averages for high and low temperatures in June were 89.1°F and 61.6°F respectively, with average rainfall of 0.14 inches.

Water storage at Pine Flat Reservoir decreased to 286,265 acre-feet by the end of the month. By June 30, 2021, Pine Flat Reservoir's inflow had decreased to 497 cubic feet per second (CFS) and its release increased dramatically to 3,242 CFS. The Lake Kaweah Reservoir ended the month with less water than the previous month, with 53,771 acre-feet on June 30, 2021. Lake Kaweah's inflow decreased to -12 CFS and its release was increased to 574 CFS.

II. Narrative

Continuous treatment of storm drain systems continued during the month of June throughout the Districts jurisdiction. Approximately 10,702 storm drains were treated with a Methoprene product. Sites include street drains, parking lots, parks, apartment complexes, and schools.

Larviciding aerial treatment for the Kaweah River Rock Plant Continued for the month of June, with the third treatment taking place on June 23, 2021. Due to high trap counts in the area, aerial treatment locations were altered to target high breeding locations. Product rotation also occurred using a BTI/BS product. During the month of June, 238 out of the 270 aerial pools have been inspected and completed. The remaining 32 are currently in progress due to non-responding residents. Warrant letters will be sent out during the first weeks of July.

Due to West Nile Virus presence the District conducted two adult mosquito applications in the area of Visalia that lasted 3 mornings due to field conditions. The first application was a two-night event on 6/15/2021-6/16/2021 which consisted of 7 different locations in the Visalia area which roughly covered 1,449 acres. The second operation was conducted on 6/30/2021 which consisted of three different locations in the Visalia region covering 567 acres.

Hector Cardenas attended an online webinar on elevating vector control by utilizing unmanned aircraft for surveillance, mapping, and applications on 6/24/2021. The presentation was hosted by Target Specialty and presented by the CEO Bill Reynolds from LeadingEdge.

The fish hatchery produced 5,357 fry in June. A total of 792 fish were distributed through 14 technician requests and 18 homeowner requests. So far, 2,180 fish have been placed in 88 sources in 2021.

Routine mosquito surveillance continued throughout June. A total of 10,232 mosquitoes were collected across 1,030 trap nights. The District-wide average of 9.9 mosquitoes per trap night for the month of June is 69.5% lower than the previous 5-year average of 32.5 and 62.5% lower than the 2020 average of 26.4 mosquitoes per trap night. The top 3 mosquito species caught in June were *Culex quinquefasciatus* at 58.9%, followed by *Aedes aegypti* at 15.6% and *Cx. erythrothorax* at 8.2%.

Mosquito-borne disease testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western Equine Encephalitis virus (WEEV) continued throughout June. DMVCD tested 212 mosquito samples in June with 23 positive for WNV. Additionally, 5 dead bird carcasses were tested with 4 positive for WNV. All the WNV positive mosquito samples and dead birds were collected from Visalia, south of highway 198.

DMVCD hosted two researchers from South Carolina, Melissa Nolan and Kyndall Braumuller, who trained laboratory staff in triatomine surveillance techniques. Triatomine bugs live in a variety of habitats and are capable of transmitting *Trypanosoma cruzi*, a parasite that causes Chagas disease. Additionally, some people have allergic reactions, including anaphylactic shock, to the bite of a triatomine bug.

Assistant Manager, Mir Bear-Johnson and Administrative Assistant, Sheri Davis attended the meeting of the local chapter of the California Special District Association (CSDA), on June 23, 2021.

Mir Bear-Johnson was interviewed by two different media outlets regarding mosquitoes and mosquito treatments. Both interviews aired on TV and were posted online after the fact.

General Manager, Mustapha Debboun, attended the CSDA General Manager Summit from June 27 to 29, 2021.

Throughout May, employees who were not fully vaccinated continued to complete the online screening of COVID-19 survey and take paid time off to seek test results when required. The District will continue to be proactive in keeping employees and the public safe. Staff are encouraged to be fully vaccinated and allowed to take work time to do so.

There were 182 service requests in June:

2021 Service Request Summary

| 2021 | Fish | Inspection | Mosquito | Source | Other | Inquiries | Total |
|-----------------|-------------|-------------------|-----------------|---------------|--------------|------------------|--------------|
| January | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| February | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| March | 0 | 0 | 7 | 17 | 1 | 2 | 27 |

| | | | | | | | |
|--------------|----|----|-----|-----|---|---|------------|
| April | 21 | 0 | 14 | 31 | 1 | 1 | 68 |
| May | 32 | 20 | 27 | 35 | 0 | 1 | 115 |
| June | 23 | 44 | 72 | 42 | 1 | 0 | 182 |
| Total | 75 | 64 | 121 | 129 | 3 | 4 | 397 |

III. Vector and Disease Surveillance

Delta MVCD Summaries

Humans: There were no human cases of an arbovirus reported by the local public health department for the month of June.

Birds: There were 5 dead birds reported to the District in June, with 4 positive for WNV. In 2021, a total of 4 dead birds were positive for WNV out of 9 dead birds tested.

Mosquitoes: There were 23 new WNV positive mosquito samples out of 212 tested in June. In 2021, a total of 23 mosquito samples were positive for WNV out of 463 tested.

State Surveillance:

Humans: No human cases have been reported across the state.

Birds: As of June 25, 2021, 22 dead birds have tested positive for WNV. So far, 26 dead birds from 4 counties have tested positive for WNV out of 737 tested in 2021.

Mosquitoes: As of June 25, 2021, 54 mosquito samples were positive for WNV. A total of 10,404 mosquito samples were tested for WNV, SLEV, and WEEV with 54 samples from 9 counties positive for WNV in 2021.

IV. Expenditures & Revenues – 2020/21

TOTAL BUDGET \$3,594,403.09

EXPENDITURES – July 1, 2020 – June 30, 2021

| | |
|---------------------------|-----------------------|
| Salaries | \$2,372,370.25 |
| Services & Supplies | \$669,507.38 |
| Tax Admin Fee | \$61,380.00 |
| Capital | \$9,765.74 |
| Building Improvements | \$355,882.69 |
| TOTAL EXPENDITURES | \$3,468,906.06 |

REVENUE RECEIVED – July 1, 2020 – June 30, 2021

| | |
|-----------|----------------|
| July | \$1,011.30 |
| August | \$0.00 |
| September | \$22,679.32 |
| October | \$4,651.34 |
| November | \$62.67 |
| December | \$1,551,138.77 |

| | |
|------------------------------|-----------------------|
| January | \$296,201.40 |
| February | \$2,082.40 |
| March | \$19,522.97 |
| April | \$861,016.79 |
| May | \$349,396.80 |
| June* | |
| TOTAL REVENUE TO DATE | \$3,107,763.76 |

V. **Time Sheet Summary**

| Month | Available Work Hrs | Sick Hrs Used | Total Hrs Available for Work | Pct. Of Hrs Avail for Work |
|------------------|--------------------|---------------|------------------------------|----------------------------|
| July | 5,632 | 50.25 | 5,581.75 | 99.10 |
| August | 5,376 | 133.25 | 5,242.75 | 97.53 |
| September | 4,816 | 99.75 | 4,716.25 | 97.93 |
| October | 3,520 | 123.25 | 3,396.75 | 96.50 |
| November | 2,016 | 132.00 | 1,884.00 | 93.46 |
| December | 1,960 | 100.00 | 1,860.00 | 94.90 |
| January | 1,950 | 146.00 | 1,804.00 | 92.52 |
| February | 2,100 | 30.25 | 2,069.75 | 98.55 |
| March | 2,576 | 93.25 | 2,482.75 | 96.38 |
| April | 3,664 | 88.00 | 3,576.00 | 97.60 |
| May | 5,120 | 122.25 | 4,997.75 | 97.62 |
| June | 5,544 | 53.25 | 5,490.75 | 99.04 |

The District has a vacation policy that requires 24-hour notice in order to ensure the operational integrity of the workforce. Sick leave for doctor, dentist and/ or family medical necessity also requires advance notice- in so much as it is possible. Illness is unplanned and therefore unscheduled. Attendance records for the current year are shown in the table.

**June Revenue not available from Tulare County as of 7/9/21.*