

DELTA MOSQUITO & VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER MAY 2024

I. Water and Weather

The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported an average high temperature of 85.3°F with an average low of 56.4°F and 0.55 inches of rainfall as of May 30, 2024. The National Oceanic and Atmospheric Administration 1991-2020 seasonal averages for high and low temperatures in April were 80.6°F and 61.5°F respectively, with average rainfall of 0.36 inches.

Water storage at Pine Flat Reservoir increased to 982,340 acres-feet as of May 30, 2024. Pine Flat Reservoir's water inflow rate is 8,384 cubic feet per second (CFS) while its release is 7,717 CFS. The Lake Kaweah Reservoir storage increased to 185,607 acres-feet. Lake Kaweah's water inflow rate is 1,891 CFS and its release increased to 1,919 CFS as of May 30, 2024.

II. Narrative

Field operations received 110 mosquito service requests and 15 fish requests in May 2024. The service request inspections consisted of a Vector Control Technician inspecting the reported property for any standing water that mosquito larvae could breed in. During this time, the technician used an integrated vector management (IVM) strategy to reduce any mosquito-breeding found. In addition, technicians used this opportunity to educate residents on mosquito-breeding prevention and how to protect themselves from mosquito bites and mosquito-borne diseases.

Operations

We have seen an increase in mosquito activity along with green pools that need inspected. We are starting the second phase of catch basins.

We have been having problems getting parts for the older Colorados. Two of the trucks we had to take out of service due to failed ABS Control Modules which are no longer

available. We have had to resort to purchasing online in hopes that they satisfactorily function. This may be an ongoing problem with the older Chevy Colorados as they are 20 years old, and Chevy is no longer making a full line of parts for that vehicle. We have been maintaining these trucks as best we can, but it gets more difficult each year to obtain parts, we were able to get T33 and T37 up and running.

So, we have preordained five Ford Maverick's in hopes of getting approval to purchase them. That way we can get rid of the older trucks that have reached their lifespan as fleet vehicles.

Bryan Ferguson did two Drone treatments, one at the Woodlake rock plant and one at Ivanhoe sewer farm. Both are covered by heavy vegetation and the drone is the best way to treat those areas.

Outreach

This month, the DMVCD took part in three outreach events: the Lions Breakfast Club Car Show in downtown Visalia, the annual Senior Day at the Park at Mooney Grove Park, and the first event in the six-part series for the Dinuba Farmers Market. Our full-page ad in the Live and Play Summer Activity Guide by the City of Visalia is on page 22. The Visalia Farmers Market schedule for Saturdays and Wednesdays will begin in June. We met with the senior center coordinator for the CSET Senior Centers, and a schedule is being made to present at senior centers in Farmersville, Exeter, Woodlake, and Cutler/Orosi. Presentations at Visalia and Dinuba senior centers are also being scheduled.

Outreach attended the Kern County Mosquito Season Media Day, a press event for updates on the upcoming and previous seasons.

The annual aerial pool list was compiled in early May, and an inspection form was created to help urban technicians' complete inspections more quickly and efficiently. Maintenance of the aerial pool list survey is ongoing, and urban operations technicians have completed over 1,000 pool inspections.

Laboratory

Routine mosquito trapping continued through May 2024. Traps were set throughout the District in Goshen, Traver, London, Delft Colony, Dinuba, Orosi, Seville, Kings River area, Elderwood, Woodlake, Lemon Cove, Ivanhoe, Exeter, Farmersville, and Visalia.

A total of 35,643 mosquitoes were collected across 1,743 trap nights. The District-wide average of 20.4 mosquitoes per trap night for May was 21.7% higher than the previous 5-year average of 16.8 and 35.7% lower than the 2023 average of 31.8 mosquitoes per trap night for the same time. The top 3 mosquito species caught in May were *Culex quinquefasciatus* at 85.5%, followed by *Cx. stigmatosoma* at 5.9% and *Cx. tarsalis* at

4.1%. Compared to May of 2023, the top 3 mosquito species caught were Cx. quinquefasciatus at 68.1%, followed by Cx. tarsalis at 27.8% and Cx. stigmatosoma at 2.9%. Arbovirus testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western equine encephalitis virus (WEEV) continued through May. As of June 3, 2024, DMVCD tested 910 of the 1,008 mosquito samples collected in May. The dead bird brain samples collected for this year have all tested negative for WNV, SLEV, and WEEV. No samples were positive for a mosquito-borne disease. No kissing bugs have been reported to the district so far in May.

Technicians brought in 137 mosquito larvae samples to the laboratory for species identification in May 2024. There were 27 larval samples collected in May 2023.

There were 48 technician and homeowner mosquitofish requests in May 2024 to distribute 2,286 fish. In May 2023, there were 53 technician and homeowner mosquitofish requests to distribute 2,974 fish. Approximately 2,113 mosquitofish fry were produced by May 31, 2024.

Routine laboratory maintenance continued during May 2024. Monthly safety checks for fire extinguishers and emergency lights were performed as well as weekly safety showers and eyewash inspections.

The laboratory staff tested zero mosquito samples from Tulare Mosquito Abatement District (MAD) and zero samples collected from Tulare by Vector Disease Control International in May 2024.

There were 110 service requests in May 2024.

2024 Service Request Summary

2024	Mosquitofish	Inspection	Mosquito	Source	Other	Total
January	0	2	2	1	0	5
February	3	5	1	12	0	21
March	5	17	6	5	0	33
April	4	25	1	6	0	36
May	15	110	0	0	0	125
Total	27	186	10	24	0	247

III. Vector and Disease Surveillance

Delta MVCD Summaries:

Humans: No new human cases reported to DMVCD in May 2024. In 2023, there were three confirmed human cases of WNV and SLEV co-infection, one probable WNV and SLEV co-infection, one confirmed WNV case, and six probable WNV cases. There was one potential WNV death in 2024 but the patient contracted WNV in 2023. It is unclear whether the patient had other co-morbidities.

Birds: 3 dead birds were reported to DMVCD in May 2024 and all 3 were negative.

Mosquitoes: 910 out of the collected 994+ May samples have been tested as of June 3, 2024. There are no positives. Last year, 7,082 mosquito samples were tested with 473 positive samples for WNV, 172 positives for SLEV, and 47 positives for both WNV and SLEV.

State Surveillance:

Humans: As of May 31, 2024, 0 human cases of WNV from 0 counties and 0 cases of SLEV from 0 counties have been reported.

Birds: As of May 31, 2024, 17 dead birds from 5 counties tested positive.

Mosquitoes: As of May 31, 2024, 25 mosquito samples from 6 county have tested positive for WNV. Also, 1 sample from 1 county has tested positive for SLEV.

V1. Expenditures & Revenues – 2023/24

Total Budget \$5,068,115.26

EXPENDITURES – July 1, 2023, to May 31, 2024

Salaries	\$2,666,791.77
Services & Supplies	\$1,135,307.37
Tax Admin Fee	\$75,283.00
Capital	\$61,527.19
Long-Term Debt	\$117,828.06
TOTAL EXPENDITURES	\$4,056,737.39

REVENUE RECEIVED - July 1, 2023– May 31, 2024

July	\$75.00
August	\$39,702.16
September	\$31,916.62
October	\$7,591.00
November	\$523.77
December	\$2,635,329.40
January	\$285,794.26

February	\$13,558.44
March	\$55,614.48
April	\$1,509,823.04
May	Unavailable
TOTAL REVENUE TO DATE	\$4,579,928.17

IV. **Timesheet Summary**

Month	Available Hours	Sick Hrs Used	Total Hrs Avail. For Work	Pct. Of Hrs Avail for Work
July	6,048	129	5,919	97.86
August	6,440	320.4	6,119.60	95.02
September	5,376	150.5	5,225.50	97.2
October	4,400	265.75	4,134.25	93.9
November	2,992	178	2,814	94.0
December	2,688	104	2,584	96.13
January	3,128	118	3,010	96.22
February	2,432	95.25	2,336.75	96.08
March	2,856	163	2,693	94.3
April	5,632	84.5	5,547.5	98.5
May	5,984	126	5,858	97.89

The District has a vacation policy that requires 24-hour notice 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.

**** May expenditures and revenue are not available as of 6/7/2024**