

DELTA VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER JULY 2019

I. Water and Weather

Temperatures began to increase in June. The average high temperature for the month was 98.7°F, and the average low was 64.6 °F, with 0.00 inches of rainfall reported as preliminary data by the National Weather Service, Hanford Station. The 30-year seasonal averages for high and low temperature in July are 94.1 °F and 66.7 °F respectively, with the 30-year average rainfall reported as 0.01 inches by the National Oceanic and Atmospheric Administration.

Water storage at Pine Flat Reservoir decreased to 877,634 acre-feet. By the end of the month Pine Flat Reservoir's inflow had decreased by over 60% to 3,600 cubic feet per second (CFS), while the release decreased to 6,942 CFS. Lake Kaweah Reservoir water storage decreased significantly during the month, by over 45%, to be 97,961 acre-feet at the end of the month. Lake Kaweah's inflow decreased by nearly 75% to 506 CFS, while its release increased slightly, ending the month at 2,418 CFS.

II. Narrative

The Delta Vector Control District laboratory staff continued its WNV surveillance program, *Aedes* surveillance program, and strategic trapping with both urban Biogents Sentinel (BG) traps and rural Encephalitis Virus Surveillance (EVS) traps. Gravid trap averages were slightly elevated from last year, for the month, at around 23 mosquitoes per trap per night, versus the 21 mosquitoes per trap per night we saw in 2018. Routed BG trap averages were increased, however, coming in around 35 mosquitoes per trap per night, versus the 10 mosquitoes per trap per night we got in 2018. Strategic traps aren't directly comparable due to the lack of consistency in trap placement, but strategic BG traps had higher counts whereas the EVS traps were slightly lower, compared to last year.

More of the invasive *Aedes* have been found across the District, with a total of 3,866 individual mosquitoes caught so far. For comparison, by the end of July in 2018, a total of 236 *Aedes aegypti* had been caught. Residents seem to be noticing the mosquitoes more this year as well, and there's been an increase in service requests for day biting mosquitoes. There are over fifty inspection areas where traps have caught more than the threshold ten adult female mosquitoes. The lab had completed nearly 900 inspections for these mosquitoes, by the end of July, finding breeding in just over a quarter of them. Of those found breeding, a little more than half have

required follow up inspections to verify the elimination of the breeding source. The lab had made an offer to fill the last remaining opening on their inspection team by the end of July.

Arbovirus screening for West Nile Virus (WNV), St. Louis Encephalitis Virus (SLEV), and Western Equine Encephalitis Virus (WEEV) continued in July. A total of 375 mosquitoes tested positive for WNV in July, and 33 tested positive for SLEV, out of the 897 samples that were tested in July. So far, no samples have tested positive for Western Equine Encephalitis Virus (WEEV).

Catch basin treatments remain on schedule. Weed control treatments have been kept within a 16 day return interval. Scheduled treatments of Bti have kept requested lagoon oil treatments to low numbers. We began making Adulticide treatments near the northwest area of Visalia due to high trap counts and positive WNV pools from the area. Adulticide treatments have also been made in other areas of Visalia, Farmersville, and Dinuba. Three new seasonal employees were hired at the end of July to fill vacated positions in the House mosquito crew, Weed crew, and Lab crews. We still have one seasonal employee out on injury from the House mosquito crew.

There were four hundred and fourteen service requests during the month of July:

2019 Service Request Summary

	Fish	Inspection	Mosquito	Source	Other	Total
January	0	4	1	1	1	7
February	0	9	0	0	0	9
March	3	14	0	4	0	21
April	7	29	27	29	0	92
May	5	23	23	25	0	76
June	9	25	116	58	0	208
July	6	31	290	81	6	414
Total	30	135	457	198	7	827

III. Vector and Disease Surveillance

Delta VCD Summaries

Humans:

No confirmed human cases of vector-borne disease have been reported to Delta VCD in 2019 to date.

Birds:

During the month of July, 22 dead birds were reported within Tulare County, 19 within the city of Visalia, one from the city of Exeter, one from the city of Farmersville, and one from the city

of Tulare. Nine of these birds from within the district met the requirements for arbovirus testing, and 6 birds from the city of Visalia tested positive for WNV. There have been a total of 19 testable dead birds from within the district in 2019, and 9 of them have tested WNV positive.

Mosquito:

Mosquito abundance data was collected weekly from 172 fixed gravid trap locations, 60 fixed BG trap locations, approximately 20 strategic BG trap locations, and approximately 20 strategic EVS trap locations. A total of 2,439 mosquito samples, each consisting of between 10 and 50 female mosquitoes, have been tested so far this year, with 486 samples testing positive for WNV, 38 samples testing positive for SLEV, and no samples testing positive for WEEV. Samples have tested positive from across the entire district.

State Surveillance:

Humans:

As of August 2nd, 2019, four human cases of WNV have been detected across the state of California, in four counties. Three were neuroinvasive disease and one was fatal. Seven asymptomatic infections have also been reported from five counties. At this date in 2018, twelve human cases of WNV had been detected in eight counties.

Birds:

As of August 2nd, 2019, 43 birds had tested positive for WNV from eight counties. At this date in 2018, 232 WNV positive birds had been reported from 16 counties.

Mosquitoes:

As of August 2nd, 2019, 1,371 mosquito samples have tested positive for WNV from 20 counties. Additionally, 95 mosquito samples from five counties, Fresno, Kern, Riverside, Imperial, and Tulare, have tested positive for SLEV. At this date in 2018, 674 mosquito samples had tested positive for WNV from 24 counties, and 161 mosquito samples had tested positive for SLEV from five counties.

IV. Expenditures & Revenues – 2019/20

TOTAL BUDGET \$4,053,625.97

EXPENDITURES – July 1, 2019 – July 31, 2019

Salaries	\$405,558.41
Services & Supplies	\$175,822.89
Tax Admin Fee	\$0
Capital	\$0
Building Improvements	\$4,605.00
TOTAL EXPENDITURES	\$585,986.30

REVENUE RECEIVED – July 1, 2019 – July 31, 2019

July	\$356.00
TOTAL REVENUE TO DATE	\$356.00

V. **Time Sheet Summary**

Month	Available Work Hrs	Sick Hrs Used	Total Hrs Available for Work	Pct. Of Hrs Avail for Work
July	4928	94.25	4833.75	98.08

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.