

# **DELTA VECTOR CONTROL DISTRICT**

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## **REPORT OF THE MANAGER JUNE 2019**

### **I. Water and Weather**

Temperatures began to increase in June. The average high temperature for the month was 95.4°F, and the average low was 62.3°F, with 0.00 inches of rainfall reported as preliminary data by the National Weather Service, Hanford Station. The 30-year seasonal averages for June are 89.1°F and 61.6°F respectively, with the seasonal average rainfall reported as 0.14 inches.

Water storage at Pine Flat Reservoir increased by over 25% to 941,635 acre-feet. By the end of the month Pine Flat Reservoir's inflow had increased by nearly 20% to 9,343 cubic feet per second (CFS), while the release decreased to 7,614 CFS. Lake Kaweah Reservoir water storage increased during the month, by over 20%, to be 179,180 acre-feet at the end of the month. Lake Kaweah's inflow decreased slightly to 1,943 CFS, while its release also decreased slightly, ending the month at 2,178 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 down from last year, for the month, at around 27 mosquitoes per trap per night, versus the 35 mosquitoes per trap per night we saw in 2018. Routed BG trap averages were increased, however, coming in around 23 mosquitoes per trap per night, versus the 13 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 had very similar counts, compared to last year.

More of the invasive *Aedes* have been found across the District, with a total of 2033 individual mosquitoes caught so far. For comparison, by the end of June in 2018, a total of 85 *Aedes aegypti* had been caught. Residents seem to be noticing the mosquitoes more this year as well, and there has been an increase in service requests for day biting mosquitoes. Additionally, there have been over twenty traps that have caught more than the threshold ten adult female mosquitoes that have precipitated inspections within the area. The lab had completed over 320

inspections for these mosquitoes, by the end of June, finding breeding in just under a third of them. Of those found breeding, a little less than half have required follow up inspections to verify the elimination of the breeding source. The lab continues to have an opening on their inspection team that they are looking to fill.

Arbovirus screening continued in June but was delayed for about a week near the end of the month due to issues with the HEPA filter and our monitoring program. The lab was able to catch up on testing, however, once the issue was resolved. A total of 84 mosquitoes tested positive for WNV in June, and 3 tested positive for SLEV, out of the 887 samples that were tested in June. Our first positive detection from birds also took place in June, with four birds from Visalia testing positive for WNV. So far, no samples have tested positive for Western Equine Encephalitis Virus (WEEV).

Following Memorial Day, work hours changed from 7:30am - 4:00pm to 6:30am - 3:00pm for most of the field personnel. Larval treatments to dairy lagoons remain on schedule and requested oil treatments remain low. Weed control treatments are again on a 14-day turnaround time. The House Mosquito program had one person go out with an injury and another quit in June. While looking for a replacement, the House Mosquito program receives help from Zone Technicians to keep catch basin treatments and source inspections on schedule.

There were two hundred and eight service requests during the month of June:

#### 2019 Service Request Summary

	<b>Fish</b>	<b>Inspection</b>	<b>Mosquito</b>	<b>Source</b>	<b>Other</b>	<b>Total</b>
<b>January</b>	0	4	1	1	1	<b>7</b>
<b>February</b>	0	9	0	0	0	<b>9</b>
<b>March</b>	3	14	0	4	0	<b>21</b>
<b>April</b>	7	29	27	29	0	<b>92</b>
<b>May</b>	5	23	23	25	0	<b>76</b>
<b>June</b>	9	21	120	58	0	<b>208</b>
<b>Total</b>	<b>24</b>	<b>100</b>	<b>171</b>	<b>117</b>	<b>1</b>	<b>413</b>

### III. Vector and Disease Surveillance

#### Delta VCD Summaries

##### Humans:

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

##### Birds:

During the month of June, 32 dead birds were reported within Tulare County, 21 within the city of Visalia, five from the city of Exeter, one from the city of Dinuba, one from Orosi, two from the city of Tulare, one from Strathmore and one from Porterville. Six birds from within the

district met the requirements for arbovirus testing, and four birds from the city of Visalia tested positive for WNV. These are the first positive birds from within the district in 2019.

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 1395 mosquito samples, each consisting of between 10 and 50 female mosquitoes, have been tested so far this year, with 87 samples testing positive for WNV, 5 samples testing positive for SLEV, and no samples testing positive for WEEV. Samples have tested positive from Visalia, Exeter, Farmersville, Dinuba, and Goshen.

**State Surveillance:**

Humans:

As of June 28<sup>th</sup>, 2019, no human cases of WNV have been detected across the state of California. At this date in 2018, nine human cases of WNV had been detected.

Birds:

As of June 28<sup>th</sup>, 2019, eight birds had tested positive for WNV from four counties: San Diego, Los Angeles, Fresno and Tulare. At this date in 2018, 13 WNV positive birds had been reported from six different counties.

Mosquitoes:

As of June 28<sup>th</sup>, 2019, 354 mosquito samples have tested positive for WNV from seven counties. Additionally, eight mosquito samples from four counties, Fresno, Kern, Riverside, and Tulare, have tested positive for SLEV. At this date in 2018, 47 mosquito samples had tested positive for WNV from eight counties, and 29 mosquito samples had tested positive for SLEV from three counties.

**IV. Expenditures & Revenues – 2018/19**

TOTAL BUDGET \$3,092,198.15

EXPENDITURES – July 1, 2018 – June 30, 2019

Salaries	\$2,146,849.45
Services & Supplies	\$553,433.54
Tax Admin Fee	\$59,174.00
Capital	\$58,610.66
Building Improvements	\$84,499.64
<b>TOTAL EXPENDITURES</b>	<b>\$2,902,567.29</b>

REVENUE RECEIVED – July 1, 2018 – June 30, 2019

July	\$47.38
August	\$262.76
September	\$14,274.20
October	\$1,338.16
November	\$1,280.52
December	\$1,322,084.51

January	\$356,387.57
February	\$5,843.24
March	\$19,739.58
April	\$790,056.90
May	\$352,846.06
June*	
<b>TOTAL REVENUE TO DATE</b>	<b>\$2,864,160.88</b>

V. **Time Sheet Summary**

Month	Available Work Hrs	Sick Hrs Used	Total Hrs Available for Work	Pct. Of Hrs Avail for Work
<b>July</b>	<b>4320</b>	<b>66.50</b>	<b>4253.50</b>	<b>98.46</b>
<b>August</b>	<b>5152</b>	<b>118.50</b>	<b>5033.50</b>	<b>97.70</b>
<b>September</b>	<b>3792</b>	<b>88.25</b>	<b>3703.75</b>	<b>97.68</b>
<b>October</b>	<b>3160</b>	<b>50.25</b>	<b>3109.75</b>	<b>98.41</b>
<b>November</b>	<b>2128</b>	<b>94.95</b>	<b>2033.05</b>	<b>95.54</b>
<b>December</b>	<b>1736</b>	<b>86.75</b>	<b>1649.25</b>	<b>95.01</b>
<b>January</b>	<b>2352</b>	<b>64.00</b>	<b>2288.00</b>	<b>97.28</b>
<b>February</b>	<b>2128</b>	<b>85.25</b>	<b>2042.75</b>	<b>96.00</b>
<b>March</b>	<b>3161</b>	<b>58.50</b>	<b>3102.50</b>	<b>98.15</b>
<b>April</b>	<b>5280</b>	<b>60.25</b>	<b>5219.75</b>	<b>98.86</b>
<b>May</b>	<b>5248</b>	<b>95.86</b>	<b>5152.14</b>	<b>98.18</b>
<b>June</b>	<b>4800</b>	<b>81.48</b>	<b>4718.52</b>	<b>98.31</b>

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 7/5/19.*