

DELTA VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER September 2018

I. Water and Weather

Temperatures began to decline in September, with the average temperature being 74°F. The average high temperature for the month was 82°F and the average low was 67°F, with 0.00 inches of rainfall reported by Weather Underground, Visalia Municipal Station. The 30-year seasonal averages for high and low temperature in August are 87.7°F and 60.3°F respectively, with the 30-year average rainfall reported as 0.15 inches by the National Oceanic and Atmospheric Administration.

Water storage at Pine Flat Reservoir was recorded at 222,242 acre-feet by the end of the month. Its inflow increased to 699 cubic feet per second (CFS), while its outflow decreased almost 300% to 846 CFS. Lake Kaweah Reservoir water was recorded at 10,879 acre-feet at the end of the month, over 4,000 acre-feet lower than the previous month. The inflow increased to 55 CFS, while the outflow decreased to 90 CFS.

II. Narrative

The Delta Vector Control District laboratory staff continued its WNV surveillance program. In addition to routed gravid traps in populated areas, Encephalitis Virus Surveillance (EVS) traps were set to monitor mosquito activity around historical mosquito breeding sources, such as along the Kings River, at the Rock plant, surrounding Farmersville, and in the Kiwi and Citrus orchards near Dinuba, among other locations. The Kiwi and Citrus orchard counts began to come down, this month, with continued treatment by staff. Increased trapping around Farmersville followed notification of probable human case of WNV and continued once the case was confirmed. Gravid trap averages were very similar to last month, with 10.1 mosquitoes per trap in September, versus 10.6 mosquitoes per trap in August.

The *Aedes* surveillance program continued in September, with lab techs and interns setting 60 BGS traps on a weekly basis in the District's incorporated cities. The influx of *Aedes* related service requests continued through September and were answered with inspections and strategic BGS being placed, as quickly as possible. *Ae. aegypti* were collected from 162 traps sets in September, catching 227 total *Ae. aegypti*. Yard inspections continued to be conducted, following service requests and high trap counts, with expansion limited due to the sheer volume of *Ae. aegypti* breeding and adults being found. Current inspections are ongoing within Visalia, Dinuba, Exeter, Farmersville, and Sultana.

Arbovirus screening continued in September, finding 70 pools positive for disease. The lab found 24 mosquito collections tested positive for West Nile Virus (WNV), and 46 mosquito collections testing positive for St. Louis Encephalitis Virus (SLEV) in the month of September. No mosquito collections tested positive for Western Equine Encephalitis Virus (WEEV). So far this year, positive WNV has been detected from Visalia, Farmersville, Exeter, Goshen, Dinuba, Cutler-Orosi, along the Kings River, and the citrus and kiwi orchards outside of Dinuba. SLEV has been found in Visalia, Farmersville, Cutler-Orosi, Goshen, the citrus and kiwi orchards near Dinuba, and in the rural area north and south of Visalia.

The number of weekly Dairy lagoon treatments increased through September as weather started to cool, and the harvesting of silage corn displaced a large number of adults. Catch basin treatments remained on schedule through September. Seasonal help from Larval crew and the House mosquito programs were released from duty on September 20th, with one being assigned to the Lab to assist with *Aedes aegypti* inspections. The cooler weather has allowed the Zone Technicians to assume the duties vacated by the Seasonal help.

There were one hundred thirty-five service requests during September categorized as follows:

2018 Service Request Summary

	Fish	Inspection	Mosquito	Source	Other	Total
January		4	1			5
February		3				3
March		5		2		7
April	8	12	6	10	2	38
May	1	9	6	16		32
June	5	10	6	5		26
July	3	21	9	14	1	48
August	2	15	52	15	1	85
September	3	24	91	16	1	135
Total	22	103	171	78	5	379

III. Vector and Disease Surveillance

Delta VCD Summaries

Humans: Three confirmed human cases of WNV have been reported to Delta VCD as of September 28th, 2018, two in Porterville and one in Farmersville. Three probable cases of WNV within Tulare County have also been reported, none of these probable cases are within district borders.

Birds: In September, eight dead birds were reported within Tulare County, three within the city of Visalia, one in Tulare, and four in Porterville. Only one of the birds met the requirements for arbovirus testing and tested negative for all viruses.

Mosquito: Mosquito abundance data was collected weekly from 172 fixed gravid trap locations and 60 fixed BG trap locations. Mosquito pools were collected from traps in both fixed sites and strategic sites throughout the month. A total of 595 mosquito pools were tested in

September, with 24 pools testing positive for WNV, 46 pools testing positive for SLEV, and no pools testing positive for WEE.

State Surveillance:

Humans: As of September 28th, 2018, 114 human cases of WNV have been reported from 25 counties. At this date in 2017, 211 human cases had been detected from 18 counties.

Birds: As of September 28th, 2018, 469 birds had tested positive for WNV from 20 different counties. At this date in 2017, 428 WNV positive birds had been reported from 37 different counties.

Mosquitoes: As of September 28th, 2018, 1,889 pools have tested positive for WNV from 28 counties and 370 mosquito pools have tested positive for SLEV from 8 counties. At this date in 2017, 3,182 mosquito collections had tested positive for WNV from 26 counties and 166 mosquito collections had tested positive for SLEV from 13 counties.

IV. Expenditures & Revenues – 2018/19

TOTAL BUDGET \$3,092,198.15
 EXPENDITURES – July 1, 2018 – September 30, 2018

Salaries	\$709,231.79
Services & Supplies	\$255,061.06
Tax Admin Fee	
Capital	\$55,463.00
Building Improvements	
TOTAL EXPENDITURES	\$1,019,755.85

REVENUE RECEIVED – July 1, 2018 – September 30, 2018

July	\$47.38
August	\$262.76
September	\$14,274.20
TOTAL REVENUE TO DATE	\$14,584.34

V. Time Sheet Summary

Month	Available Work Hrs	Sick Hrs Used	Total Hrs Available for Work	Pct. Of Hrs Avail for Work
July	4320	66.50	4253.50	98.46
August	5152	118.50	5033.50	97.70
September	3792	88.25	3703.75	97.68

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.