

DELTA VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER July 2018

I. Water and Weather

Temperatures continued to slowly increase in July, with the average temperature being 7 degrees greater than the month of June. The average high temperature for the month was 99°F and the average low was 67°F, with 0.00 inches of rainfall reported by Weather Underground, Visalia station. The 30-year seasonal averages for high and low temperature in June 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 was recorded at 429,617 acre-feet by the end of the month. Its inflow decreased to 1,159 cubic feet per second (CFS), while its outflow decreased by approximately 58% to 3,786 CFS. Lake Kaweah Reservoir was recorded at 23,399 acre-feet at the end of the month. The inflow decreased to 92 CFS, while the outflow decreased by approximately 27%, to be 519 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 Dairy Avenue, along the Kings River, and in the Kiwi and Citrus orchards near Dinuba, among other locations. Counts from the Kings River, Dairy Avenue and Kiwis/Citrus continued to fluctuate while overall remaining high. Gravid trap averages were down from last month, at 21 mosquitoes per trap versus 33 per trap in June.

The new *Aedes* surveillance program continued in July, with lab techs and interns setting 60 BGS traps on a weekly basis in the District's incorporated cities. Additional BGS were also set outside of the routed sites, called "Strategic BGS", to further monitor suspected high-risk areas (neighborhoods with yard drains, lush neighborhoods, historic *Aedes aegypti* infestation areas, and in response to service requests). *Ae. aegypti* were collected from 71 trap sets in July, with the average number of *Ae. aegypti* in each trap being 2.9, up from the previous month. Yard inspections were conducted following high trap counts and service requests in four neighborhoods in Visalia, and in one neighborhood each in Dinuba and Farmersville. Follow up inspections, trapping, and responses to doorhangers are ongoing.

Arbovirus screening continued in July, despite our BSL-3 being down for a week due to a fan malfunction. The lab has successfully caught up on testing, however, and found 4 mosquito collections tested positive for West Nile Virus (WNV) and 38 mosquito collections testing positive for St. Louis Encephalitis Virus (SLEV) in the month of July. No mosquito collections tested positive for Western Equine Encephalitis Virus (WEEV). So far this year, positive WNV has been detected from Northern Visalia, between Farmersville and Visalia, in Farmersville, in Exeter and along the Kings River. SLEV has been found in Visalia, Farmersville, between Farmersville and Visalia, and in the rural area north of Visalia.

One seasonal position remained unfilled in the House mosquito program, leaving the re-inspections of that area largely covered by the Supervisor. Catch basin treatments remain on schedule. Weed control treatments remained within a 14 day return interval. The presence of Anopheles mosquitoes in the Shannon Ranch trap areas prompted an Adulticide treatment in the area as well as larviciding areas of stagnant water along the St. Johns River just north of the neighborhood.

There were forty-eight service requests during July 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
Total	17	64	28	47	3	159

III. Vector and Disease Surveillance

Delta VCD Summaries

Humans: No human cases of vector-borne disease have been reported to Delta VCD in 2018 to date.

Birds: Six dead birds were reported within Tulare County, all within the city of Visalia. Two birds met the requirements for arbovirus testing; neither tested positive for WNV, SLEV or WEEV.

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 763 mosquito pools were tested with 4 pools testing positive for WNV and 38 pools testing positive for SLEV. No pools tested positive for WEEV.

State Surveillance:

Humans: As of July 27th, 2018, 12 human cases of WNV have been reported from 8 counties. At this date in 2017, six human cases had been detected from 4 counties.

Birds: As of July 27th, 2018, 167 birds had tested positive for WNV from 14 different counties. At this date in 2017, 115 WNV positive birds had been reported from 19 different counties.

Mosquitoes: As of July 27th, 2018, 480 pools have tested positive for WNV from 23 counties and 126 mosquito pools have tested positive for SLEV from 5 counties (Fresno, Kern, Kings, Riverside, and Tulare). At this date in 2017, 1,125 mosquito collections had tested positive for WNV from 22 counties and 17 mosquito collections had tested positive for SLEV from 4 counties.

IV. Expenditures & Revenues – 2018/19

TOTAL BUDGET \$3,092,198.15

EXPENDITURES – July 1, 2018 – July 31, 2018

Salaries	\$356,323.41
Services & Supplies	\$167,969.99
Tax Admin Fee	
Capital	\$12,401.40
Building Improvements	
TOTAL EXPENDITURES	\$536,694.80

REVENUE RECEIVED – July 1, 2018 – July 31, 2018

July*	
TOTAL REVENUE TO DATE	\$0.00

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

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.

**July revenue not available from Tulare County as of 8/3/18.*