

DELTA VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER OCTOBER 2020

I. Water and Weather

The temperature in October began to decrease, although temperatures were unusually high for the entire month. The average high temperature for the month was 85.4°F, and the average low was 55.2°F, with 0.0 inches of rainfall reported as preliminary data from the Delta Vector Control District Weather Station. The 30-year seasonal averages for high and low temperatures in October were 78.2°F and 52.5°F respectively, with the 30-year average rainfall reported as 0.61 inches by the National Oceanic and Atmospheric Administration.

Water storage at Pine Flat Reservoir decreased minutely to 204,865 acre-feet by the end of the month. By October 30th, Pine Flat Reservoir's inflow had decreased to 324 cubic feet per second (CFS) and its release decreased significantly, by over 57% to 146 CFS. The Lake Kaweah Reservoir ended the month with less water than the previous month, with 9,414 acre-feet on the 30th of October. Lake Kaweah's inflow decreased by 95% to 1 CFS and its release was decreased by 57% to 23 CFS.

II. Narrative

The Delta Vector Control District laboratory staff stopped its combined native mosquito and invasive mosquito surveillance programs in the beginning of October, following low mosquito abundance numbers and a lack of positive samples from routed traps. Strategic trapping continued throughout the month. Half of the seasonal laboratory staff ended their term for the season, while the rest remained to assist with the increased number of service requests, particularly those involving the invasive *Aedes aegypti* mosquitoes.

Arbovirus screening for West Nile virus (WNV), St. Louis Encephalitis Virus (SLEV), and Western Equine Encephalitis Virus (WEEV) continued for October, with the last positive on the 20th. A total of 14 mosquito samples tested positive for WNV in October, and 6 tested positive for SLEV, out of the 333 samples that were tested in October. So far, no samples have tested positive for WEEV.

The invasive *Aedes* have continued to be found across the District, with inspections from service requests and from high count trap areas already taking place. As of the end of October, a total of 3,111 inspections for the invasive *Aedes aegypti* have been conducted. Of these

inspections, 2,710 were first time inspections, meaning the first time they were inspected this year, and 401 were re-inspections, i.e. that breeding had been found at least once on the property. Over 1,116 of the inspections have been directly related to service requests, with the remainder attributed to high trap counts found in the area either from strategic traps or routed surveillance traps. Last year at this time, 1,899 inspections were completed, of which 1,653 were first inspections and 1,017 related to service requests. This is not a count of individual properties, as some properties have required multiple inspections.

Zone Technicians assisted with catch basin treatments in all towns during the month of October, due to the unusually warm temperatures. Weed treatments ended, but Oil and *Bacillus thuringiensis israeliniensis* (BTI) treatments continued throughout the month.

Throughout October, employees continued to complete the online screening of COVID-19 survey and to take paid time off to seek test results when required. All employees at this time have tested negative. The District will continue to be proactive in keeping employees and the public safe, with no planned rollback of any of the safety precautions that have been put in place.

The Mosquito and Vector Control Association of California (MVCAC) Quarterly Meeting took place virtually this year, with Delta Vector Control District (DVCD) staff attending committee meetings as much as they were able. Due to changes in MVCAC guidelines, requirements for committee membership have changed, requiring written statements of interest. The DVCD staff have been encouraged to submit the requested interest statements. Additionally, all laboratory staff have submitted abstracts for the annual meeting of MVCAC, and some have also submitted abstracts for the American Mosquito Control Association (AMCA) annual meeting. Both of these annual meetings will be taking place virtually in 2021.

Javier Valdivias, our newest Biologist was selected as the American Mosquito Control Association Young Professional Spotlight in the national monthly News & Updates of October, 2020.

Crystal Grippin, one of our Biologists was promoted to the position of Scientific Program Manager effective November 1, 2020 and Paul Harlien, one of our Vector Control Tech III/Mechanic was promoted to the position of Foreman effective December 1, 2020.

Mir Bear-Johnson, the Assistant Manager was appointed to serve as the Chair of the MVCAC Vector and Vector-Borne Disease Committee starting in January 2021.

Dr. Mustapha Debboun, the General Manager was interviewed by the reporter Dennis Valera from the TV Eyewitness News 24 on Delta Vector Control District mosquito surveillance and control operations. In addition, he continued to work with John Bliss, the President of SCI Consulting Group on the Assessment Proposal for Comprehensive Funding to respond to the invasive mosquito, *Aedes aegypti* and with Jessica Ritter, the Facility Solutions Specialist from Sitelogic on the Solar Proposal.

The General Manager was also reappointed to the Baylor College of Medicine and the University of Houston School of Public Health Faculty as Adjunct Associate Professor to be part of the advancement of their institutional instruction mission, particularly in public health entomology and vector-borne diseases.

There were one-hundred and eighty-two service requests in October:

2020 Service Request Summary

2020	Fish	Inspection	Mosquito	Source	Other	Total
January	0	3	0	0	3	6
February	2	6	0	4	0	12
March	1	7	0	5	0	13
April	16	22	13	22	2	75
May	13	21	47	24	2	107
June	12	46	157	31	6	252
July	19	106	224	76	13	438
August	8	77	134	86	9	314
September	19	51	116	73	3	262
October	5	22	103	50	2	182
Total	95	361	794	371	40	1,661

III. Vector and Disease Surveillance

Delta VCD Summaries

Humans: One probable case of WNV has been reported in 2020 within Delta VCD boundaries. There have been no SLEV positive human cases or WEEV positive human cases reported within Delta VCD boundaries. At this time last year, 2 confirmed human cases of neuroinvasive WNV, 5 probable cases of neuroinvasive WNV and 6 probable cases of non-neuroinvasive WNV were reported from within District boundaries.

Birds: In October 2020, one dead bird was reported to the District, which was suitable for testing. It tested positive for WNV. At this time, a total of 44 dead birds have been reported to the District, 10 of which were viable for testing, and four of which have tested positive for WNV.

Mosquitoes: As of October 30th, 2020, 2,785 mosquito samples from within the District have been tested for WNV, SLEV and WEEV. 139 samples have tested positive for WNV and 37 samples have tested positive for SLEV. At this time last year, 3,767 samples were tested, with 772 testing positive for WNV and 89 testing positive for SLEV. No samples have tested positive for WEEV this year, or last year. The last mosquito positive sample was detected on the 20th of October and testing has been completed for the year due to low abundance and temperature conditions.

State Surveillance:

Humans: As of October 30th, 2020, 155 human cases of WNV have been reported from 21 counties within the state of California. Three human cases of SLEV have been detected from three counties. At this time in 2019, 178 human cases of WNV were detected from 20 counties, and five human cases of SLEV were reported from three counties.

Birds: As of October 30th, 2020, 336 WNV positive dead birds have been reported from 20 counties. At this time in 2019, 210 WNV positive dead birds were reported from 21 counties.

Mosquitoes: As of October 30th, 2020, 2,617 WNV positive mosquito samples have been reported across the state of California, from 28 counties. Additionally, a total of 509 SLEV positive mosquito pools have been reported from nine counties. At this date in 2019, 3,269 WNV positive mosquito samples were reported from 25 counties, and 355 SLEV positive mosquito samples from 12 counties.

IV. Expenditures & Revenues – 2020/21

TOTAL BUDGET \$3,516,071.89

EXPENDITURES – July 1, 2020 – October 31, 2020

Salaries	\$1,021,704.76
Services & Supplies	\$269,654.02
Tax Admin Fee	0
Capital	\$7,333.74
Building Improvements	\$54,904.86
TOTAL EXPENDITURES	\$1,353,597.38

REVENUE RECEIVED – July 1, 2020 – October 31, 2020

July	\$1,011.30
August	\$0.00
September	\$22,679.32
October	\$3,896.34
TOTAL REVENUE TO DATE	\$23,690.62

V. Time Sheet Summary

Month	Available Work Hrs	Sick Hrs Used	Total Hrs Available for Work	Pct. Of Hrs Avail for Work
July	5632	50.25	5581.75	99.10
August	5376	133.25	5242.75	97.53
September	4816	99.75	4716.25	97.93
October	3520	123.25	3396.75	96.50

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.