

DELTA MOSQUITO & VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER NOVEMBER 2021

I. Water and Weather

The temperature remained low throughout the month of November. The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported an average high temperature of 64.1°F with an average low of 43.5°F and 1.23 inches of rainfall. The National Oceanic and Atmospheric Administration 1981-2010 seasonal averages for high and low temperatures in November were 66.9°F and 46.2°F respectively, with average rainfall of 0.28 inches.

Water storage at Pine Flat Reservoir increased to 230,981 acre-feet by the end of the month. By November 30, 2021, Pine Flat Reservoir's inflow had decreased to 257 cubic feet per second (CFS) and its release decreased to 100 CFS. The Lake Kaweah Reservoir ended the month with more water than the previous month, with 25,356 acre-feet on November 30, 2021. Lake Kaweah's inflow decreased at the end of the month, with the reading from November 30, 2021, showing 62 CFS and its release was increased slightly to 6 CFS.

II. Narrative

Due to recent rain, Operations continue to inspect flood basin sources to prevent mosquito breeding in residential neighborhoods. In November, we have completed 30 inspections and 12 mosquito treatment applications. Operations is also working on updating Fieldseeker, resetting all storm drain locations to "Needs treatment", and on plotting all park and school locations in our current database.

The District has adjusted its winter daily operations schedule from 7:00 am to 3:30 pm and begun winter maintenance which includes general maintenance, vehicle maintenance, safety repairs, and renovations. In November, operations worked on reinforcing the rolling front gate to provide additional security due to an unknown breach over our front gate during after closed hours. We also continue to assess for any additional points of entry. We have converted the server room to a two-person office to accommodate our Urban and *Aedes* team leaders. In addition, staff members have begun renovating the front office copy room to accommodate the Community Outreach & Education Coordinator. Currently, the project is under progress and with a completion goal of mid-December.

The staff have begun decluttering and organizing items in our mechanic workshop. The mechanic shop office has been converted from a two-person workstation to a three-person workstation. Interior painting has begun inside the mechanic workshop with half of the interior building completed. Our shop mechanics have also begun vehicle maintenance and the installation of a new winch on vehicle T-1.

The woodshop and metal shop are currently being converted into a surveillance trap room and wood shop. Staff members are currently working on decluttering and organizing items to better suite our District needs.

Staff have also installed a new mailbox by the front office building. All mail will be received to our current address, and our postal office box will be discontinued on December 31, 2021.

Mosquito surveillance did not take place in November because of the cool weather. Arbovirus testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western equine encephalitis virus (WEEV), did not take place in November. To date, a total of 3,052 mosquito samples have been tested with 274 samples positive for WNV and 4 positive for SLEV.

Mosquitofish requests decreased significantly during November. A total of 48 mosquitofish were distributed through one homeowner request. Fish tanks have been transitioned to overwinter settings to reduce mosquitofish production. Fry production decreased to 77 fry in November.

Laboratory staff began working on winter maintenance, repairs, and inventory. Repairs of potential safety issues have been prioritized.

In November, the Community Education and Outreach Coordinator designed a new District sign using the new District logo and name. Additionally, work was completed on updating paper documents with the old information, planning and preparations were started for the 100-year celebration. The newly designed sign is shown below:



The Delta Mosquito and Vector Control District has developed and updated its Strategic Plan of 2021-2023.

The District hosted the Vector Control Technician (VCT) exam for the California Department of Public Health (CDPH) on November 18, 2021. Thirty-one individuals from across the Southern San Joaquin region were scheduled to take the exam, including DMVCD staff.

Vector Control Technician III/Mechanic Mario Sanchez passed part B of the CDPH VCT examination. Since he previously had passed part A, he is now a certified Vector Control Technician. Erick Arriaga, the Community Education and Outreach Coordinator, passed part A of the examination and will take additional tests when offered again in May 2022.

Our former biologist, Jesse Erandio co-authored with Dr. Mustapha Debboun his first scientific article, entitled “Stability of West Nile virus in lysis solution and its implication on One Health” that has been accepted and published in the One Health & Implementation Research Journal.

Brian Ruiz, our Technician III was nominated by the General Manager and has been selected to receive the prestigious national American Mosquito Control Association (AMCA) Boyd-Arias Grassroots Award for 2022. This award is given to recognize excellent performance and dedication by mosquito control field staff.

Dr. Mustapha Debboun co-edited a new book with two colleagues from Iowa State University entitled, *Advances in Arthropod Repellents* that was published last week by Elsevier and Academic Press.

There were 17 service requests in November:

2021 Service Request Summary

2021	Fish	Inspection	Mosquito	Source	Other	Total
January	0	0	1	2	0	3
February	0	0	0	2	0	2
March	0	0	7	17	3	27
April	19	9	11	26	3	68
May	31	51	4	27	2	115
June	23	88	36	34	1	182
July	14	33	64	46	2	159
August	10	14	94	56	0	174
September	14	1	64	31	0	110
October	4	1	27	15	0	47
November	2	1	4	10	0	17
Total	117	198	312	266	11	904

III. Vector and Disease Surveillance

Delta MVCD Summaries

Humans: There were no human cases of an arbovirus reported in November within District boundaries. So far in 2021, there were 2 WNV human cases and 1 WNV/SLEV human case reported to the District by the local public health department.

Birds: The dead bird hotline has closed for the year and will open again in April of 2022. In 2021, a total of 5 dead birds were positive for WNV out of 12 dead birds tested.

Mosquitoes: No additional mosquito testing occurred in the month of November. In 2021, a total of 278 samples were positive for WNV and 4 for SLEV out of 3,052 tested.

State Surveillance:

Humans: A total of 14 new human cases have been reported since the previous report. So far in 2021, 106 human cases of WNV were reported in 26 counties including 8 from Tulare County. An additional 3 human cases of SLEV have also been reported.

Birds: There were no WNV positive dead birds since the last report. So far in 2021, 209 WNV positive dead birds have been reported from 19 counties.

Mosquitoes: Since the last report, 4 mosquito samples tested positive for WNV. In 2021, a total of 37,890 mosquito samples were tested for WNV with 2,260 samples positive from 25 counties. A total of 34,965 samples were also tested for SLEV with 44 SLEV positive samples from 8 counties.

IV. Expenditures & Revenues – 2021/22

TOTAL BUDGET \$3,974,072.78

EXPENDITURES – July 1, 2021 – November 30, 2021

Salaries	\$1,260,811.30
Services & Supplies	\$461,288.87
Tax Admin Fee	\$0.00
Capital	\$123,283.66
Long Term Debt	\$58,914.03
TOTAL EXPENDITURES	\$1,904,297.86

REVENUE RECEIVED – July 1, 2021 – November 30, 2021

July	\$137.48
August	\$0
September	\$12,309.21
October	\$35,667.25
November*	
TOTAL REVENUE TO DATE	\$48,113.94

V. Time Sheet Summary

Month	Available Work Hrs	Sick Hrs Used	Total Hrs Available for Work	Pct. Of Hrs Avail for Work
July	5,376	119.25	5,256.75	97.79
August	5,808	210.00	5,598.00	96.40
September	5,712	134.50	5,577.50	97.65
October	4,200	105.50	4,094.50	97.49
November	2,584	40.00	2,544.00	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.

**November Revenue not available from Tulare County as of 12/3/21.*