

# **DELTA MOSQUITO & VECTOR CONTROL DISTRICT**

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## **REPORT OF THE MANAGER JUNE 2022**

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

The temperature increased throughout the month of June. The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported an average high temperature of 94.8°F with an average low of 63.9°F and 0.09 inches of rainfall. The National Oceanic and Atmospheric Administration 1981-2010 seasonal averages for high and low temperatures in June were 88.8°F and 61.5°F respectively, with average rainfall of 0.13 inches.

Water storage at Pine Flat Reservoir decreased to 483,165 acre-feet by the end of June. By June 30, 2022, Pine Flat Reservoir's inflow had decreased to 948 cubic feet per second (CFS) and its release increased significantly to 5,484 CFS. The Lake Kaweah Reservoir had less water than the previous month with 87,437 acre-feet on June 30, 2022. Lake Kaweah's inflow decreased, showing 75 CFS and its release was increased to 1,105 CFS.

### **II. Narrative**

June began with changes to the High Trap Count (HTC) Program. Esmeralda Andrade (Urban Zone operator 14) and Rebecca Harlien (Urban Zone operator 16) have been re-assigned as the HTC inspectors for 2022. They will also be assisting in Zone 14 Urban inspections. The floater employee, Merrit Horning, who previously assisted any Urban Zone Technician that requested additional assistance, has been reassigned to Zone 16. Urban staff began inspecting neglected pools from our fly-over list. While analyzing pool imagery, 493 pools have been identified as having a potential problem. The neglected pool list has been designated as Zones 13, 14, 15, 16, and 17. The fly-over coverage area included Visalia, Exeter, and Farmersville. Operations have made modifications to the 1<sup>st</sup> and 2<sup>nd</sup> inspection door hangers which allows residents to self-report their neglected swimming pools or hot tubs using a google voice number. Resident self-reporting will require an image of the swimming pool or hot tub and the door hanger placed at the residence with the address of the location.

On June 22 and 23, Mr. Dennis Candito, a representative from Adapco assisted Operations in completing ULV calibrations for two Duramist foggers. Both units have been calibrated for the product Fyfanon EW which is a Malathion based product. The equipment is currently calibrated to treat a 300-foot swath width at 10 miles per hour (MPH) at a flow rate of 6.3 ounces per minute.

Field operations received 114 service requests for the month of June. Service requests consist of a vector control technician inspecting the reported property for any standing water that can breed mosquito larvae. During this time, the technician uses an integrated vector management strategy to reduce any mosquito-breeding found. In addition, technicians use this opportunity to educate residents on mosquito breeding prevention, and how to protect themselves from mosquito bites. Field staff completed a total of 4,728 mosquito inspections throughout the District including rural and urban locations. Staff conducted 1,743 larval applications. Storm drain operations continued for the month of June. Operations treated 12,604 storm drains in relation to streets, parks, commercial complexes, and parking lots. Storm drains are treated using a 30-day residual product, Altosid WSP, and re-inspection occurs monthly.

The 2008 Go-4 Interceptor III vehicle was sent to auction on May 25, 2022, on Govdeals.com which is a liquidity service marketplace. The vehicle was sent to auction due to its safety concerns which had a potential to roll over and cause injury to an employee. It was at auction from May 25, 2022, to June 3, 2022, and was sold to a public member from Soledad, CA for \$2,125.00. The Govdeals received payment from the buyer on June 8, 2022, and retrieved the vehicle at the District on June 15, 2022. The District will receive the check of \$2,125.00 within 21 to 28 days from June 15, 2022.

Operations received the A1 Super Duty and A1 Boss Unit, equipment for wide area liquid larvicide spraying, the week of June 6, 2022. The A1 Boss unit has been calibrated and custom mounted by our shop Foreman, Mr. Paul Harlien on the ARGO vehicle for applications. The A1 Super Duty will be calibrated early July for correct droplet characterization for Wide Area Larviciding. On June 14, 2022, Miguel Ballesteros, Technician II attended the All-Terrain Vehicle/Utility Terrain Vehicle (ATV/UTV) training hosted by Consolidated Mosquito Abatement District located in Parlier, California.

Operations repaired trucks (T-1 and T-5) which both had a fuel pump malfunction. The T-20 clutch system was replaced due to malfunctioning slave cylinder and T-50 Idle valve control was replaced to control proper revolutions per minute (RPM). New doors have been installed for T-15 which is our storm drain vehicle that allows the driver for a more efficient treatment access, Figure 1.



Figure 1. T-15 has received new doors to better facilitate storm drain treatments.

Routine mosquito surveillance continued throughout June. A total of 28,918 mosquitoes were collected across 1,624 trap nights. The District-wide average of 17.8 mosquitoes per trap night for June is 32.2% lower than the previous 5-year average of 26.3, but 79.1% higher than the 2021 average of 9.9 mosquitoes per trap night. The

top three mosquito species caught in June were *Culex quinquefasciatus* at 76.0%, followed by *Aedes aegypti* at 13.4% and *Cx. tarsalis* at 6.6%.

Mosquito-borne disease testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western Equine Encephalitis virus (WEEV) continued in June. The DMVCD tested 693 mosquito samples and 1 bird carcass in June, with 15 samples positive for WNV. So far in 2022, 15 mosquito samples out of 1,214 samples tested were positive for WNV. Of the WNV positive mosquito samples, 13 were collected from Visalia, 1 from Dinuba, and 1 from a rural area between Dinuba and Visalia.

There were 15 technician and homeowner mosquitofish requests in June and 419 mosquitofish were distributed. A total of 841 mosquitofish fry were produced in June. Routine fish hatchery maintenance took place weekly during June.

A total of 44 mosquito larvae samples were brought to the laboratory for processing. Susceptible *Cx. quinquefasciatus*, *Cx. tarsalis*, and *Ae. aegypti* colonies were maintained for insecticide resistance testing.

Digital and printed versions of the 100<sup>th</sup> year Anniversary Celebration announcement invitations have been completed with the new staff photo for 2022. List of all invitees has been created with some receiving physical invites, and most receiving email invites. The date has been changed from October 1, 2022, to October 8, 2022.

We attended 10 events in June, i.e., two Rawhide baseball games, three Farmers Markets, Summer Movie night in Dinuba and gave a presentation during the Military Officers Association of America (MOAA) monthly luncheon on June 24, 2022. June was also the first time we attended the local flea market, in the Visalia Sales Yard, as our first step to improve our outreach and education for the Spanish speaking Hispanic Communities. A card with a QR code was created to use at events to allow the public to sign-up to receive notifications from the District with its updates.

Mosquito species flashcards were created to be attached on the operation technicians' ID badges to use when communicating with the residents during inspections.

There were 117 service requests in June:

2022 Service Request Summary

<b>2022</b>	<b>Fish</b>	<b>Inspection</b>	<b>Mosquito</b>	<b>Source</b>	<b>Other</b>	<b>Total</b>
<b>January</b>	0	0	0	5	0	<b>5</b>
<b>February</b>	2	0	7	7	0	<b>16</b>
<b>March</b>	4	0	7	14	0	<b>25</b>
<b>April</b>	12	0	10	17	0	<b>39</b>
<b>May</b>	15	6	9	23	0	<b>53</b>
<b>June</b>	10	43	28	36	0	<b>117</b>
<b>Total</b>	<b>43</b>	<b>49</b>	<b>61</b>	<b>102</b>	<b>0</b>	<b>255</b>

**III. Vector and Disease Surveillance**

**Delta MVCD Summaries**

Humans: There were no human cases of an arbovirus reported by the local public health department for June.

Birds: One dead bird was tested in June. So far, zero out of six dead birds have tested positive in 2022.

Mosquitoes: A total of 693 mosquito samples were tested in June. Twelve mosquito samples were positive for WNV. A total of 1,214 mosquitoes have been tested so far in 2022.

**State Surveillance:**

Humans: No human cases have been reported in 2022 as of June 30, 2022.

Birds: In June, 11 dead birds tested positive for WNV. So far, 12 out of 532 dead birds have tested positive in 2022.

Mosquitoes: In June, 82 new mosquito samples tested positive for WNV. So far, 87 mosquito samples out of 10,162 have tested positive for WNV.

**IV. Expenditures & Revenues – 2021/22**

TOTAL BUDGET \$4,437,260.50

EXPENDITURES – July 1, 2021 – June 30, 2022

Salaries	\$2,736,517.13
Services & Supplies	\$974,682.03
Tax Admin Fee	\$68,497.00
Capital	\$478,249.55
Long Term Debt	\$117,828.06
<b>TOTAL EXPENDITURES</b>	<b>\$4,375,773.77</b>

REVENUE RECEIVED – July 1, 2021 – June 30, 2022

July	\$137.48
August	\$0
September	\$12,309.21
October	\$35,667.25
November	\$0
December	\$2,379,114.09
January	\$290,119.86
February	\$0
March	\$10,513.35
April	\$1,247,001.75
May	\$378,415.05

<b>June*</b>	
<b>TOTAL REVENUE TO DATE</b>	<b>\$4,353,278.04</b>

**V. Time Sheet Summary**

<b>Month</b>	<b>Available Work Hrs</b>	<b>Sick Hrs Used</b>	<b>Total Hrs Available for Work</b>	<b>Pct. Of Hrs Avail for Work</b>
<b>July</b>	<b>5,376</b>	<b>119.25</b>	<b>5,256.75</b>	<b>97.79</b>
<b>August</b>	<b>5,808</b>	<b>210.00</b>	<b>5,598.00</b>	<b>96.40</b>
<b>September</b>	<b>5,712</b>	<b>134.50</b>	<b>5,577.50</b>	<b>97.65</b>
<b>October</b>	<b>4,200</b>	<b>105.50</b>	<b>4,094.50</b>	<b>97.49</b>
<b>November</b>	<b>2,584</b>	<b>40.00</b>	<b>2,544.00</b>	<b>98.46</b>
<b>December</b>	<b>1,920</b>	<b>60.00</b>	<b>1,860.00</b>	<b>96.88</b>
<b>January</b>	<b>2,720</b>	<b>178.50</b>	<b>2,541.50</b>	<b>93.44</b>
<b>February</b>	<b>2,720</b>	<b>16.00</b>	<b>2,704.00</b>	<b>99.42</b>
<b>March</b>	<b>3,864</b>	<b>38.00</b>	<b>3,826.00</b>	<b>99.02</b>
<b>April</b>	<b>4,712</b>	<b>108.50</b>	<b>4,603.50</b>	<b>97.70</b>
<b>May</b>	<b>6,160</b>	<b>108</b>	<b>6,052.00</b>	<b>98.24</b>
<b>June</b>	<b>6,160</b>	<b>102.5</b>	<b>6,057.50</b>	<b>98.33</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 as of **07/08/2022**