

DELTA MOSQUITO & VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER March 2023

I. Water and Weather

The weather in March was cool and rainy, with flooding in several regions within the District. The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported an average high temperature of 62.8°F with an average low of 43.8°F and 5.38 inches of rainfall. The National Oceanic and Atmospheric Administration 1981-2010 seasonal averages for high and low temperatures in March were 66.9°F and 45.4°F respectively, with average rainfall of 1.82 inches.

Water storage at Pine Flat Reservoir increased to 725,043 acre-feet. Pine Flat Reservoir's water inflow increased to 5,435 cubic feet per second (CFS) while its release increased to 8,462 CFS. The Lake Kaweah Reservoir storage increased to 131,778 acre-feet. Lake Kaweah's inflow also increased to 2,875 CFS and its release increased to 5,167 CFS.

II. Narrative

Field operations received 11 service requests in March which consisted of a Vector Control Technician inspecting the reported property for any standing water that mosquito larvae could breed in. During this time, the technician used 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.

Operations continued with fleet vehicle winter maintenance. All vehicles received a multi-point inspection which included engine, transmission, cabin filter, air conditioning, heater system, front and rear brake pads, rotors, parking brake, fluids (brake fluid, engine oil, etc.), and lights. Staff completed all remaining vehicles for winter maintenance.

We also completed the work on the Honda Pioneer, i.e., blower has been mounted along with a backpack blower, tank sprayer, and a new winch (Figure 1.)



Figure 1. Image of the added accessories to the Honda Pioneer.

The truck (T-4)'s flatbed was restored, and a new bed liner coating was applied as seen in Figure 2.



Figure 2. Image of the before and after restoration of Truck (T-4) flatbed.

T-29 Argo's frame due to extensive damage from rust and cracks as seen in Figure 3 was completely rebuilt and replaced with new metal as seen in Figure 4.



Figure 3. Image of extensive damage to T-29 Argo from rust and cracks.



Figure 4. Image of the replacement of T-29 Argo's damaged frame with a new metal frame

Additional upgrades to T-29 Argo such as winch, new brakes, new bearings, and all 8 new tires were added to its complete rebuild as seen in Figure 5.



Figure 5. Image of the rebuilt T-29 Argo.

The District's plumbing project to reroute sewer lines, a sand oil interceptor, and lift station was completed as seen in Figure 6. The project consisted of connecting the lounge and mechanic shop restroom to the main sewer line in front of the laboratory building. The front of the wash bay received a sand and oil interceptor with a sewage pump system to assist with the gradient slope of the project. The final completion of all plumbing work was on March 31, 2023.



Figure 6. Before and after images of the District plumbing project.

We repaired the floor around the outdoor fish tank area due to holes in the concrete with metal plates over the holes which are a tripping and safety hazard from the old fish tank setup. We filled the holes with sand left over from the plumbing project and covered the sand with concrete as seen in Figure 7.



Figure 7. Before and after images of the repaired floor around the outdoor fish tank area.

We also replaced the tops of the park benches because they started to crack, crumble and be unsafe to sit on as seen in Figure 8.



Figure 8. Before and after images of the replacement of the cracked and broken tops of the park benches.

It has been a very busy month, and I'm very proud of the Operations Team who worked hard in repairing the vehicles, equipment, and other building structures. Two laboratory staff attended the Annual Conference of the American Mosquito Control Association (AMCA) from February 27 to March 3, 2023, and presented two posters. Andrea Troupin, a Biologist, won second place in the poster competition at the AMCA conference with her poster on the surveillance and disease testing practices of mosquito control districts of California (Figure 9). Laboratory staff also attended the virtual MVCAC Spring Committee meetings in March. Crystal Grippin, Scientific Program Manager, serves on the Laboratory Technologies and Training and Certification Committees, while Mark Nakata serves on the Integrated Vector Management Committee and Fish Subcommittee.

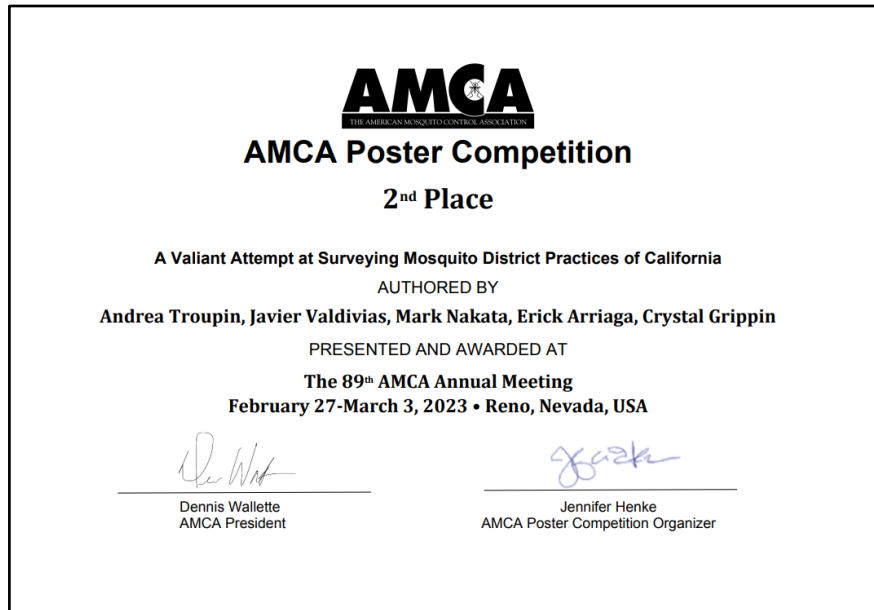


Figure 9. Andrea Troupin, Biologist, won second place in the poster competition at the 2023 AMCA Annual Conference.

The California Department of Public Health (CDPH) Proficiency Panel for mosquito-borne disease testing was completed by Andrea Troupin in March and the results were submitted to CDPH. A passing result for the CDPH Proficiency Panel is required for the District to submit in-house disease test results to the state.

Routine maintenance and repairs continued in March. Air filters were replaced on the fish hatchery dehumidifiers and BSL-2/3 HVAC systems. Pipettes were sent out for calibration and decontamination. Laboratory and fish hatchery gutters and drains were cleaned out (Figure 10). The fish feeders and racks were cleaned, repainted, and repaired as necessary. The underground pipe space from the old outdoor fish tank setup has been filled with dirt and cemented over. The microscope chill plates were disassembled, cleaned, and repaired as necessary. An in-line water filter to remove chlorine was added to the insectary faucet and aerators were added to the larval rearing trays to improve colony rearing. The water filter on the labware dishwasher was replaced. Monthly safety checks for fire extinguishers and emergency lights were performed as well as weekly safety shower and eyewash inspections.



Figure 10. The gutters and roof drainage systems on the laboratory and fish hatchery buildings were cleaned in March.

Routine mosquito surveillance and arbovirus testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western equine encephalitis virus (WEEV) did not take place in March. To date, no mosquito samples have been tested in 2023. One dead bird was collected in March. Test results are pending. March tick flagging was canceled due to weather. No kissing bugs have been reported to the district so far in March.

There were two mosquitofish requests in March. There was also one mosquitofish technician request to distribute to a water basin. Approximately 4,879 mosquitofish fry were produced in March.

No mosquito larvae samples were brought to the laboratory for species identification or resistance testing in March. Last year, similarly, no larval samples were collected in March. Susceptible *Culex quinquefasciatus* and *Aedes aegypti* colonies were maintained for insecticide resistance testing.

The schedule of the Visalia Rawhide Baseball season schedule was posted and DMVCD Education and Outreach Coordinator will be attending 24 games. In addition, a DMVCD 30 second ad will be shown during TV broadcasts and a pre-game mention of DMVCD will be broadcasted at each home game. The first game will be on Tuesday, April 11. Rick Alvarez, a Vector Control Supervisor and Erick Arriaga, Education and Outreach Coordinator attended the College of Sequoia Agriculture Job Fair at their Tulare Campus.

The list of future outreach events DMVCD will be attending in April are:

Visalia Rawhide Games on April 11, 12, 26, 28, and 30; presentations at Exeter Garden Club on April 3, at Sequoia High School on April 13, and at a Public Cemetery Alliance in Visalia on April 19; a display booth during Tulare County Museum Jamboree at Mooney Grove Park, Visalia on April 15; and a display booth during Earth Day Celebration at Summer Park, Visalia on April 29.

New graphics were installed on all trucks to improve public visibility and raise awareness of our presence within DMVCD (Figure 11).



Figure 11. Tailgate of a truck with new graphics next to another tailgate without the graphs.

The plaque for the Employee of the Quarter was updated with the employee, Juan Pablo Ortega as the award recipient of the first quarter of 2023 (Figure 12).



Figure 12. Updated plaque for Employee of the 1st Quarter in 2023.

All cell phones for the seasonal positions were updated and set up uniformly with contact information, applications, and settings to have continuity within all devices.

The staff of DMVCD and three members of the Board of Trustees attended a Barbeque Luncheon to celebrate the start of the 2023 Mosquito Season.

There were 11 service requests in March:

2023 Service Request Summary

2023	Mosquito -Fish	Inspection	Mosquito	Source	Other	Total
January	0	0	5	0	0	5
February	1	0	4	0	0	5
March	3	0	7	0	1	11
Total	4	0	16	0	1	21

III. Vector and Disease Surveillance

Delta MVCD Summaries

Humans: No human cases of a mosquito-borne disease have been reported so far in 2023.

Birds: One dead bird was reported in March with pending test results.

Mosquitoes: No mosquitoes have been tested for an arbovirus so far in 2023.

State Surveillance:

Humans: No human cases so far in 2023.

Birds: No positive dead birds so far in 2023.

Mosquitoes: Two mosquito samples from two counties have tested positive for WNV.

IV. Expenditures & Revenues – 2022/23

TOTAL BUDGET \$4,958,310.00

EXPENDITURES – July 1, 2022 – March 31, 2023

Salaries	\$2,196,803.99
Services & Supplies	\$835,444.40
Tax Admin Fee	\$39,947.00
Capital	\$66,774.99
Long Term Debt	\$58,914.03
TOTAL EXPENDITURES	\$3,197,884.41

REVENUE RECEIVED – July 1, 2022 – March 31, 2023

July	\$1,120.28
August	\$0.00
September	\$19,435.29
October	\$3,534.31
November	\$6,595.69
December	\$2,409,228.69
January	\$252,528.83
February	\$11,235.47
March*	Still unavailable
TOTAL REVENUE TO DATE	\$2,703,678.56

V. Timesheet Summary

Month	Available Work Hrs.	Sick Hrs. Used	Total Hrs. Available for Work	Pct. Of hrs. Avail for Work
July	5,880	20.5	5,859.5	99.65
August	6,440	39.5	6,400.5	99.38
September	5,456	48.25	5,407.75	99.12
October	5,040	32	5,008	99.37
November	3,168	88	3,080	97.22
December	2,304	160	2,144	93.05
January	3,024	264	2,760	91.30
February	2,736	203	2,533	92.58
March	3,312	144.75	3,167.25	95.63

The District has a vacation policy that requires 24-hour notice 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.

** March expenditures and revenue not available as of 4/7/2023*