

DELTA MOSQUITO & VECTOR CONTROL DISTRICT

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REPORT OF THE MANAGER February 2023

I. Water and Weather

The weather in January was cool and rainy. The Delta Mosquito and Vector Control District (DMVCD) Weather Station reported an average high temperature of 60.3°F with an average low of 37.3°F and 3.95 inches of rainfall. The National Oceanic and Atmospheric Administration 1981-2010 seasonal averages for high and low temperatures in January were 61.3°F and 41.6°F respectively, with average rainfall of 1.64 inches.

Water storage at Pine Flat Reservoir increased to 532,157 acre-feet by February 23, 2023. Pine Flat Reservoir's water inflow decreased to 1,897 cubic feet per second (CFS) while its release increased to 3,542 CFS. The Lake Kaweah Reservoir storage decreased to 35,336 acre-feet by February 23, 2023. Lake Kaweah's inflow decreased to 419 CFS and its release decreased to 3 CFS.

II. Narrative

Field operations received three service requests in February 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 7 fleet vehicle inspections. In addition to routine winter maintenance, vehicle T-5, T-49, and T-16, all received a cargo area spray equipment maintenance which included installation on chemical tanks with

wiring and hose installation. Vehicle T-15 received a new radiator, brake pads, brake rotor, and air conditioning blower motor.

The spare truck bed, tailgate and bumper from vehicle T-6 was sent to auction on Govdeals.com which is a public liquidity service marketplace. The items were at auction from January 26, 2023 to February 9, 2023 for a starting bid at \$270.00. The tailgate for T-6 was sold for \$232.00, and the bed of the vehicle was sold for \$310.00. During our maintenance inspection of T-29 ARGO, we found that the frame of the vehicle was cracked and rusted out. The ARGO went through a full breakdown and rebuild of any damaged components. The rebuild of the vehicle is still on-going (Figure 1).



Figure 1. Image of the rebuilt ARGO frame by our District staff members.

The District's plumbing project to reroute sewer lines, a sand oil interceptor, and lift station is still on-going. 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 project had delays due to extreme rain, but it is expected to be completed in early March.

Completing the January paint project in the Quonset, the District renovated its flooring to complete the updated appearance of the room. The District applied a colored epoxy to the floor giving the room a vibrant new look (Figure 2). In addition, staff members modified the extra Biologist office to a 2-person office (Figure 3).



Figure 2. The Quonset before and after image of the renovated floor epoxy (Left side of the image is the updated floor epoxy).

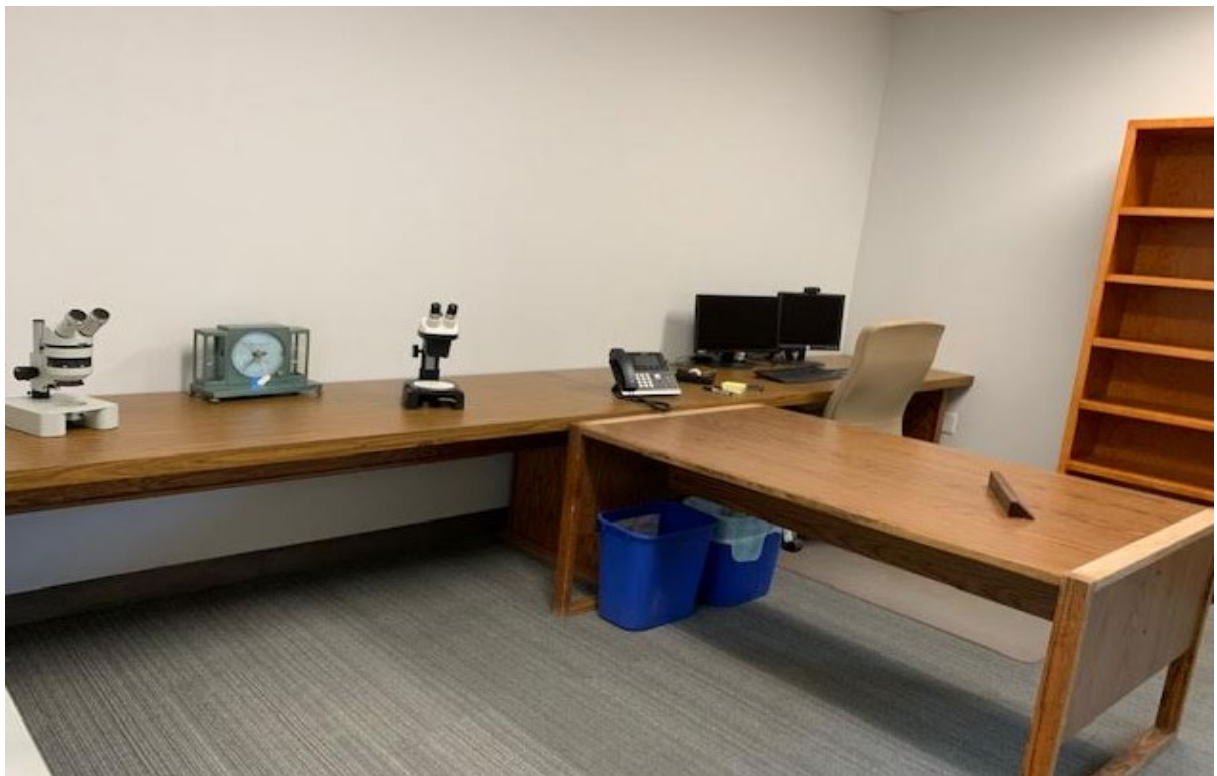


Figure 3. Image of the extra biologist renovated to a 2-person office.

Laboratory staff attended the Annual Conference of the Mosquito and Vector Control Association of California (MVCAC) from January 29 to February 1, 2023, where they gave two presentations and six poster presentations. Mark Nakata, a Biologist, won first place in the poster competition at the MVCAC conference with his poster comparing yeast fermentation as an alternative carbon dioxide source for BG-Sentinel traps while Javier Valdivias, a Biologist, won third place with his poster on truck-mounted wide-area larviciding to control *Aedes aegypti* (Figure 4).



Figure 4. Mark Nakata and Javier Valdivias, Biologists, won first and third place in the poster competition at the 2023 MVCAC Annual Conference.

Laboratory staff continued to participate in continuing education activities throughout February to maintain their Vector Control Technician Certification through the California Department of Public Health (CDPH). Javier Valdivias completed an online course titled Arthropod Research, Containment, Biosafety, and Beyond from the American Biological Safety Association (Figure 5). Laboratory staff also assisted in a tour of the District for Public Health Microbiologist Trainees from the Tulare County Public Health Department.

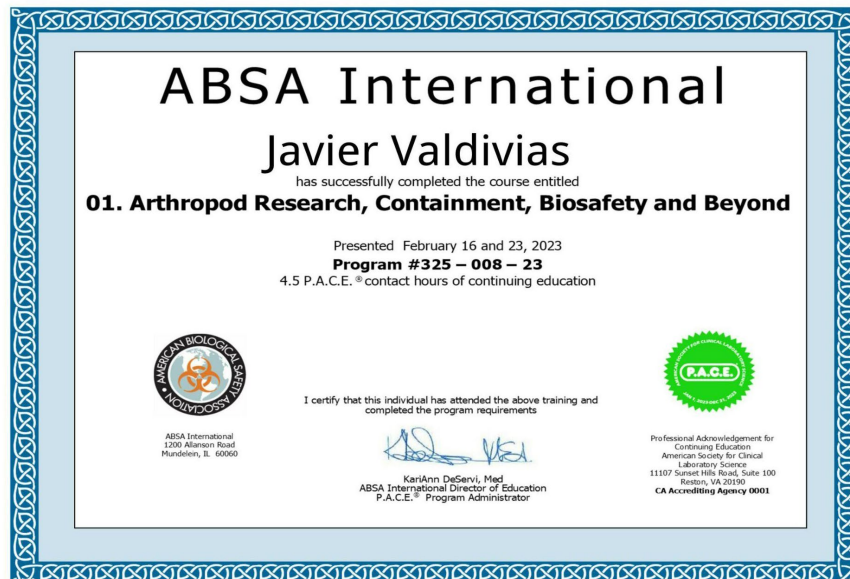


Figure 5. Javier Valdivias, a Biologist, completed an online course from the American Biological Safety Association International.

Routine maintenance and repairs continued during the month of February. The High Efficiency Particulate Absorbing (HEPA) filter for the BSL-3 HVAC was replaced and the system underwent annual testing. Additionally, the biological safety cabinet and chemical fume hood underwent annual inspection, testing, and certification. Air filters were replaced on the fish hatchery dehumidifiers and BSL-2/3 HVAC systems. Mosquito trap inspections and repairs were completed by the end of February.

The CDPH Proficiency Panel for mosquito-borne disease testing was shipped to the District at the end of February. Andrea Troupin, a Biologist, is preparing to run the proficiency panel and submit results by March 16, 2023. A passing result for the CDPH Proficiency Panel is required for the District to submit in-house vector-borne disease test results to the state.

Routine mosquito surveillance did not take place in February. Arbovirus testing for West Nile virus (WNV), St. Louis Encephalitis virus (SLEV), and Western equine encephalitis virus (WEEV) also did not take place. To date, no mosquito samples have been tested in 2023. February tick flagging was canceled due to extreme weather. No kissing bugs were reported to the District so far in February.

There was 1 mosquitofish request as of February 23, 2023. In February 2022, there were also no mosquitofish requests to distribute. Approximately, 490 mosquitofish fry were produced by February 23, 2023. In January 2022, 135 fry were produced.

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

On February 16, DMVCD was invited to give a presentation to the Woodlake Rotary Club, and it was attended by the Community Education and Outreach Coordinator and a District Biologist. On February 21, DMVCD hosted the Tulare County office of Public Health Trainees and gave them a tour of the Laboratory and Operations of the District (Figure 6). The Tulare County Public Health personnel were very happy with the District's tour and requested to return in the future for additional staff members to attend. These events will improve external agency communication between both parties in public safety matters.



Figure 6. Crystal Grippin gave a tour of the District Laboratory to the Tulare County Public Health trainees.

During the 2023 MVCAC Conference, Greater Los Angeles County Mosquito and Vector Control District (GLACMVCD) presented their neglected pool program and shared a door hanger that was very effective with communicating with the public. The District will be using similar door hanger format to improve neglected pool inspection times (Figure 7). This door hanger will allow residents to self-report images of their pools directly to the District without the use of physical technician hours.

NOTICE

We Need Access to Your Property

1st Notice on: _____ 2nd Notice on: _____

Our records indicate that there is a pool present at this property. **Out of service pools** have the potential to produce millions of mosquitoes. **Your cooperation is needed** to ensure that your pool is properly maintained. Please confirm the status of your pool by using the options below.

Failure to respond/comply may result in warrant inspection. Failure to comply with the District's requirements may lead up to \$1,000 penalty per day. CA HSC § 2063

Option 1: Submit self-report same day as this notice to avoid in-person inspection

Steps to Self-Report

1. Locate the pool/ hot tub
2. Snap a photo of door hanger and source in the photo (Entire pool & bottom of pool must be shown)
3. Text the image and **property address** to us at 559-471-0737



Option 2: If pool contains stagnant/ green water

Call to schedule an inspection for potential treatment and recommendation/consultation. Contact the inspector above.

Should your pool or pond require treatment for mosquito breeding, a Vector Control Specialist will treat it quickly at ZERO COST TO YOU. We only use products approved by the Environmental Protection Agency (EPA).

Our technicians will check and discuss options for larger water sources, like fountains, ponds, and unused pools.



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Hours of Operation: M - F 7:00 am - 4:00 pm

No representative of DMVCD will ever ask you to pay for services.

Figure 7. Current draft door hanger notice of access for neglected pool inspections.

The District's website has updated photos and biographies of the full-time staff. In addition, a web page has been created for the residents on what to expect during a property inspection which was also inspired by GLACMVCD. New truck decals have been designed and purchased (Figure 8) and will be installed on all vehicles in March. The decal includes a safety sign, "This Vehicle Makes Frequent Stops" and the District's contact information.



Figure 8. Decal design for all vehicles with District contact information and driver safety label.

There were four service requests in February:

2023 Service Request Summary

2023	Mosquito -Fish	Inspectio n	Mosquit o	Source	Other	Total
January	0	0	5	0	0	5
February	0	0	4	0	0	4
Total	0	0	9	0	0	9

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: No dead birds have been reported in 2023 so far.

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

State Surveillance:

Humans: No data is available for 2023 as of February 23, 2023.

Birds: No data is available for 2023 as of February 23, 2023.

Mosquitoes: No data is available for 2023 as of February 23, 2023.

IV. Expenditures & Revenues – 2022/23

TOTAL BUDGET \$4,958,310.00

EXPENDITURES – July 1, 2022 – February 28, 2023

Salaries	\$2,007,215.62
Services & Supplies	\$773,484.40
Tax Admin Fee	\$39,947.00
Capital	\$64,865.31
Long Term Debt	\$58,914.03
TOTAL EXPENDITURES	\$2,944,426.36

REVENUE RECEIVED – July 1, 2022 – February 28, 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	
TOTAL REVENUE TO DATE	\$2,692,443.09

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

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.

** February expenditures and revenue not available as of 3/3/2023*