

SALT LAKE CITY MOSQUITO ABATEMENT DISTRICT

Executive Director's Report

July 2025

1. Personnel:

Personnel	
Staff	Seasonal
12	38

Type of Work	2025	3 - Year Average
Adulticiding	25.50	25.92
Wetlands / Rural	1,037.25	923.67
Fish Culture	332.50	243.08
Catch Basins / Gutters	733.00	723.67
Tree Holes	266.25	298.17
Prison	55.00	16.17
Service Request	25.50	71.75
Traps	276.50	435.58
Laboratory	748.50	1,280.33
Office / Administration	744.00	780.58
Equipment Maintenance	252.00	360.50
Facility Maintenance	464.00	260.00
Training	95.50	50.50
Education	234.50	65.50
Unmanned Aerial System	275.00	254.83
CSU Grant	923.25	104.00
Other Work - U of U Research	32.50	85.33
Other / Errands	50.50	295.25
Comp. Time Used	63.00	90.42
Vacation	169.00	92.58
Additional Hours	0.00	90.67
Holidays	192.00	184.00
Sick Leave	57.50	36.75
Total	7,052.75	6,769.25

2. Office/Lab Activities:

- Executive Director Faraji and Aerial Operations Supervisor Sorensen met with representatives from the Department of Public Safety regarding cost sharing for a mechanic on 1 July 2025.
- Executive Director Faraji met with Faith Oi (UFL) and Laura Krueger (ESA) to discuss professional training on 8 July 2025.
- Executive Director Faraji and Assistant Director White met with Carrol-Loye Biological regarding field testing of a yeast-encapsulated essential oil larvicide for EPA evaluations on 8 July 2025.
- RaHP Vec Aerial trials were conducted on 8 July 2025.
- Executive Director Faraji and CFO Fairbanks met with Curtis Tonks (ULGT) regarding annual insurance plans on 9 July 2025.
- Executive Director Faraji and staff met with UNVC (Commissioning) representatives on 9 July 2025.
- Executive Director Faraji and staff attended the weekly construction meetings of the Owner/Architect/Engineers on 9 July 2025.
- Dr. Paula Lado from Valent Biosciences visited the District on 15 July 2025.
- Executive Director Faraji and Assistant Director White attended a meeting with Dr. Alex Chaspoukoulou (USDA) regarding the SOVE meetings and USDA visit in October on 16 July 2025.
- Executive Director Faraji and Assistant Director White attended a bi-weekly meeting of the Rockies and High Plains Vector-borne Diseases Center on 16 July 2025.
- Executive Director Faraji and staff met with Dr. Daniel Mendoza (UoU) regarding placement of an air pollution monitoring station at the District on 28 July 2025.
- RaHP Vec Aerial trials were conducted on 29 July 2025.
- Executive Director Faraji and Assistant Director White attended a bi-weekly meeting of the Rockies and High Plains Vector-borne Diseases Center on 30 July 2025.
- Executive Director Faraji attended a virtual meeting for the Subject Editors of the ESA's Journal of Medical Entomology on 30 July 2025.
- Executive Director Faraji and staff attended the weekly construction meetings of the Owner/Architect/Engineers on 30 July 2025.

Aleta Fairbanks, CFO

9 July 2025 – Brad, Ary, and I met with Curtis Tonks to discuss the helicopter insurance policy.

Greg White, Assistant Director

Weekly Construction Meetings plus other construction meetings

RaHP VEC biweekly calls – 7/16, 7/30

Renew SAM registration – 7/1

Review article for JME – 7/14

Work on ULV spray tunnel with intern – multiple days a week through the month

Review and edit press release on WNV from Salt Lake County Public Health – 7/23

Create map and table about urban potential larvicide trial sites to Carroll-Loye Biological Research – 7/24

Send pics and description of spray tunnel to Greg Williams, Superintendent at Hudson Regional Health Commission in NJ – 7/29

Talk with Tyson Paker of Box Elder MAD about bluetongue and Culicoides vectors – 7/31

Meet with Katie Graybeal from USU – weekly

Meeting with SLC International Airport Tower – 7/3

Meet with Carroll-Loye Biological Research – 7/8

UMAA Mangers Meeting – 7/10

Chris Bibbs, Laboratory Director

Jul 1	Sam Rund wild tarsalis bioassays and BG counter testing
Jul 2	Construction meeting (LBV modifications); Sam Rund guest lecture
Jul 3	Circadian rhythm project planning w/ Sam Rund for continued (remote) collaboration
Jul 8	Manuscript update call w/ Brad Willenberg
Jul 9	Shipping out Tox eggs to Fred Stell (Citrus County, FL); rotator trap data review for night trials
Jul 10	RaHP VEC wing samples, post-treatment counts, and summary graphs; data analysis for droplets
Jul 11	Surveillance update
Jul 15	RaHP VEC Night Trial 4
Jul 16	Statistical analysis for Exhale lures w/ AMCD and SLCMAD data
Jul 17	Board meeting surveillance update; Lit review for Exhale lures manuscript
Jul 18	Drafting introduction for Exhale manuscript
Jul 21	Exhale paper data analysis, making figures, and lit review
Jul 22	Materials and methods, results, and discussion for Exhale paper, rough draft sent out to AMCD for collaboration; <i>Toxorhynchites</i> egg shipment to Citrus Co Mosquito Control; RaHP VEC trial prep
Jul 23	Review for J FMCA
Jul 28	Review for PLoS ONE
Jul 29	RaHP Aerial Trial 6; dragonfly trial
Jul 30	Dragonfly field survey, taxonomic identification, and diel activity observations; construction meeting
Jul 31	<i>Ae. aegypti</i> surveillance planning in International Peace Gardens (w/ Amy); Drone/LiDAR proposal review for Isik Unlu (St. Tammany Parish); Brooklyn Rodgers internship evaluation for UVU; SRI summer report for University of Utah; Dragonfly data entry

Michele Rehbein, Education Specialist

- Dr. Rehbein sent out the July 2025 Issue 3 newsletter on 2 July.
- On 9 July, Dr. Rehbein was invited to speak in two symposiums for AMCA 2026, the Education symposium and the Social Media symposium.
- Dr. Rehbein sent out the July 2025 Issue 4 newsletter on 17 July.
- Dr. Rehbein went on the Inland Sea surveillance route with Rebecca Thoreley on 31 July.
- Dr. Rehbein attended an AMCA Legislative Event Planning Subcommittee meeting on 1 July.

- Dr. Rehbein and Evelyn Acosta participated in Partners in the Park tabling event at Riverside Park on 8 July.
- Dr. Rehbein attended an AMCA national campaign committee meeting on 10 July.
- Dr. Rehbein lead a safety meeting on heat safety and heat illness on 11 July.
- Dr. Rehbein, Andrew Dewsnap, and Brad Sorensen went to the USCF Greenhouse to continue plumbing the least chub fish tanks on 14 July.
- Dr. Rehbein spoke to Spencer Leverin from the Las Vegas Review Journal for an interview about other mosquito control district in metropolitan areas compared to Clark County, NV mosquito control on 16 July.
- Dr. Rehbein collaborated with Ellen Eiriksson from NHMU and Dr. Heath Ogden from UVU on a Moth Week event at the Fife Wetlands on 19 July. Evelyn Acosta and Natalee Boone also helped.
- Dr. Rehbein and Evelyn Acosta tabled at the Day-Riverside Library on 21 July.
- Dr. Rehbein attended an AMCA national campaign committee meeting on 24 July.
- Dr. Rehbein met with Dr. Isik Unlu to discuss the NIH Global Infectious Disease Research Training Program funding opportunity on 29 July.
- Dr. Rehbein attended the One Health in Action through the North American Association for Environmental Education webinar on 29 July.

Nate Byers, Molecular Biologist

RaHPVec trials

Completed RaHPVec trial summaries 1 & 2

Virus testing

Shipped Tox to Fred Stell twice

Mentored interns, assisted with experimental designs and data interpretation

Assisted Sam Rund (Notre Dame) in designing and implementing experiments on mosquito circadian behavior; 27 June through 3 July

Discussed trap failures with Jason Bird and Andrew Blackham (Utah County Mosquito Abatement District) by email and phone; 1 to 3 July

Represented SLCMAD at the Arboviral Coordination Call hosted by the Utah DHHS; 3, 17 & 31 July

Provided insight into PCR issues at Utah County MAD for Andrew Blackham; provided positive control reagent; 7 and 8 July

Visited the Grand River Mosquito Abatement District; 25 July

Had call with Steris Autoclave rep, obtained quote; 31 July

Brad Sorensen, Aerial Operations Supervisor

Worked on Phase 2

Worked on Aerial Operations Program Future Planning

Airbus build is progressing great

Most equipment and electronics are installed

Aircraft is moving into paint portion of build

Finalized FFE

Received Helicopter Insurance Quote from ULGT

Secured Helicopter Insurance (starting on day of delivery)

Aerial Program treated 1,239 Acres with UAS in July
 7/1 – Meeting with DPS about Airbus Maintenance
 7/2 – OAC Meeting
 7/8 – OAE Meeting on LBV vault issues
 7/9 – Meeting with ULGT about Helicopter Insurance (Quote)
 7/9 – UNVC meeting on systems controls
 7/9 – OAC meeting
 7/9 – VRF Integration Meeting
 7/14 – Continued Prison Fish Tank Install
 7/16 OAC Meeting
 7/21 – 7/ 25 – Training / Shadowing at Lee County Mosquito Control District
 7/30 OAC Meeting

Jason Hardman, Rural Field Supervisor

Field work, repair ATV W, License plates on ATVs, and adulticiding

Quinten Salt, Urban Field Supervisor

7/28 Complete second round of bicycle treatments
 Night time ULV treatment at Air National Guard base
 Loren from azelis

3. Field Data:

Control:

ACRES TREATED

	Adulticide		Larvicide		Total
	Ground	Aerial	Ground	Aerial	
July's Total	1,013.88	65,048.00	1,302.50	2,805.00	70,169.38
July's 3 Year Avg.	1,087.32	35,840.00	674.41	942.67	38,544.40

Service Requests:

MOSQUITO SERVICE OPPORTUNITIES RECEIVED BY MONTH

	March	April	May	June	July	Aug.	Sept.	Oct.	Total
2025	5	11	40	44	22				122
3-Year Avg.	4.00	11.33	26.33	40.00	34.00	19.33	9.67	20.33	164.99

Inspection and Surveillance:

Larval Collections		
Species	July	5-Year Average
<i>Ae. campestris</i>	0	0.0
<i>Ae. dorsalis</i>	66	44.4
<i>Ae. fitchii</i>	0	0.0
<i>Ae. increpitus</i>	0	0.6
<i>Ae. nigromaculis</i>	0	0.0
<i>Ae. niphadopsis</i>	0	0.0
<i>Ae. sierrensis</i>	0	0.0
<i>Ae. melanimon</i>	0	0.0
<i>Ae. varipalpus</i>	0	0.0
<i>Ae. vexans</i>	2	1.4
<i>Cx. erythrothorax</i>	3	1.8
<i>Cx. pipiens</i>	53	50.6
<i>Cx. tarsalis</i>	169	191.0
<i>Cx. impatiens</i>	0	0.0
<i>Cs. incidens</i>	78	19.2
<i>Cs. inornata</i>	15	8.8
<i>An. freeborni</i>	2	1.0
Total	388	318.8

4. Weather:

July's weather was warmer (by 1.8°) and drier (by 0.31") than normal.

Temperature:

	Monthly Avg.	Normal	High	Low
June	75.0°	71.6°	104°	45 °
July	82.9°	81.1°	100°	63 °

<https://www.weather.gov/wrh/Climate?wfo=slc>

Precipitation:

	Total for Month	Normal	Most in 24 hours	
June	0.16"	0.95"	0.16"	on 22 nd
July	0.18"	0.49"	0.16"	on 4 th

<https://www.weather.gov/wrh/Climate?wfo=slc>

Great Salt Lake (elevation in feet above sea level):

	Jun 1	Jul 1	Aug 1
2024	4,195.0	4,194.5	4,193.6
2025	4,193.2	4,192.7	4,192.0

UTAH

Drones are fighting a war in Utah — against mosquitoes

Modern technology aims to keep people safe from West Nile virus

Published: Aug 8, 2025, 6:43 p.m. MDT



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Brad Sorensen, aerial operations supervisor for Salt Lake City Mosquito Abatement District, right, pours Natular G30, a spinosad-based mosquito larvicide that controls mosquito larvae, into a drone, controlled by Sam Wilson, vector control technician for Salt Lake City Mosquito Abatement District, left, which will be sprayed over the wetland habitats near the Salt Lake City International Airport in Salt Lake City on Friday, Aug. 8, 2025. | Tess Crowley, Deseret News

[PURCHASE IMAGE](#)**By Amy Joi O'Donoghue**

Amy Joi has worked at the Deseret News for 25 years and for 14 years has devoted her coverage to the environment, agriculture and energy issues facing the West.

West Nile virus cases are ticking up in Utah in multiple counties and workers in various districts are trying to quell this problem. They have amped up efforts to keep people and vulnerable animals safe.

At the Salt Lake Mosquito Abatement District, for example, workers are utilizing an innovative technology to engage in high-tech battles against the bugs. Drones are hitting the skies to fight a deadly airborne pest — the mosquito — that can carry West Nile virus.

This is a modern day approach to fighting one of the world's most ancient species.

A three-member team was out Friday morning in this aerial war against the bugs. District manager Ary Faraji said they are using an innovative technology that takes modern state of the art applications to kill mosquitoes, a species of which there are more than 3,600.

Mosquitoes date back hundreds of millions of years — the time when dinosaurs roamed the earth. It is a bit odd an insect that has a lifespan of less than 60 days can create so much attention and demand such mitigation efforts.



Sam Wilson, vector control technician for Salt Lake City Mosquito Abatement District, operates a drone to spray Natular G30, a spinosad-based mosquito larvicide that controls mosquito larvae, over the wetland habitats near the Salt Lake City International Airport in Salt Lake City on Friday, Aug. 8, 2025. | Tess Crowley, Deseret News

[PURCHASE IMAGE](#)

According to the Utah Department of Health, West Nile virus is carried by mosquitoes and commonly found in Africa, West Asia, and the Middle East.

The agency reported that the first case appeared in the U.S. in 1999 and in Utah in August 2003.

The virus can cause disease in humans, birds, horses, and some other mammals.

While most people do not develop any symptoms, those who do become ill experience headaches, body aches, joint pain and stomach disorders.

The fight against the virus



Fish swim inside a tank in the fish hatchery at the Salt Lake City Mosquito Abatement District building in Salt Lake City on Friday, Aug. 8, 2025. The Mosquitofish are free to people within the district to take for their ornamental ponds to be used to control mosquitoes, as Mosquitofish eat mosquito larvae in ponds. | Tess Crowley, Deseret News [PURCHASE IMAGE](#)

Faraji said it is a constant battle. Mosquitoes are highly adaptive and hungry, adding that people on the higher benches of Salt Lake City seldom realize they are vulnerable.

In northern Utah, the virus in pools has been prevalent — although no human cases have been detected as of Aug. 2.



A drone touches down after spraying Natular G30, a spinosad-based mosquito larvicide that controls mosquito larvae, over the wetland habitats near the Salt Lake City International Airport in Salt Lake City on Friday, Aug. 8, 2025. | Tess Crowley, Deseret News [PURCHASE IMAGE](#)

But here is where the mosquitoes carrying the virus have been reported so far in various “pools” of where they gather:

- Bear River, 17
- Davis County, 11
- Salt Lake County, 10
- Utah County, 23

Year to date, as an example, the Davis County Mosquito Abatement District had tested 2,585 pools, with nearly 225,000 mosquitoes tested. Of those, 11 tested positive.



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In the past week, in this intense surveillance effort, 367 pools of mosquitoes were examined that included 33,059 of the pests. Eight tested positive in Davis County.

There is no way to protect yourself 100% against the bite of a mosquito or possibly getting the virus, but there are some ways to mitigate it, according to the [Centers for Disease Control and Prevention](#).

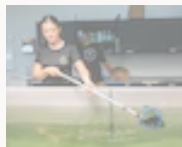
The agency said to use insect repellent, wear long-sleeved shirts and long pants and treat your clothing and gear with repellent when you are outdoors.



← 1 of 12 →



Reed Miles, left, and Sam Wilson, right, vector control technicians for Salt Lake City Mosquito Abatement District, and Brad Sorensen, aerial operations supervisor for Salt Lake City Mosquito Abatement District, center, operate drones to spray Natular G30, a spinosad-based mosquito larvicide that controls mosquito larvae, over the wetland habitats near the Salt Lake City International Airport in Salt Lake City on Friday, Aug. 8, 2025. | Tess Crowley, Deseret News [PURCHASE IMAGE](#)



Utah Today