



Coachella Valley Mosquito and Vector Control District

43420 Trader Place, Indio, CA 92201 | (760) 342-8287 | cvmosquito.org

Board of Trustees Meeting

Tuesday, May 14, 2024

6:00 p.m.

AGENDA

The Board of Trustees will take action on all items on the agenda.

Materials related to an agenda item that are submitted to the Board of Trustees after distribution of the agenda packets are available for public inspection in the Clerk of the Board's office during normal business hours and on the District's website.

This meeting will be conducted by video and/or teleconference as well as in person at the District office located at the address listed above. To view/listen/participate in the meeting live, please join by calling 1-888-475-4499 (toll-free), meeting ID: [835 4466 2453](https://us02web.zoom.us/j/83544662453), or click this link to join: <https://us02web.zoom.us/j/83544662453>

TELECONFERENCE NOTICE

Pursuant to Government Code section 54953(b), President John Peña will participate from the Hyatt Regency Huntington Beach Resort and Spa, 21500 Pacific Coast HWY, Huntington Beach, CA 92648. This Notice and Agenda will be posted at the teleconference location. Accessibility to and public comment from this address will be provided as required by Government Code section 54953(b)(3).

Assistance for those with disabilities: If you have a disability and need an accommodation to participate in the meeting, please contact the Clerk of the Board at (760) 342-8287 at least 48 hours prior to the meeting to inform us of your needs and to determine if accommodation is feasible. The District will attempt to accommodate you in every reasonable manner.

1. Call to Order – John Peña, President

A. Roll Call

2. Pledge of Allegiance

3. Confirmation of Agenda

4. Public Comments

Members of the public may provide comments in person or remotely at the time of the meeting as set forth in the agenda. Public comments may also be sent by E-mail to the Clerk of the Board by 4:00 p.m. on May 14, 2024, at mscarborougheckel@cvmosquito.org. E-mails received prior to 4:00 p.m. on the day of the Board meeting will be made part of the record and distributed to the Board. This method is encouraged as it gives the Board of Trustees the opportunity to reflect upon your input. E-mails will not be read at the meeting.

A. PUBLIC Comments — NON-AGENDA ITEMS: This time is for members of the public to address the Board of Trustees on items of general interest (a non-agenda item) within the subject matter jurisdiction of the District. The District values your comments; however, pursuant to the Brown Act, the Board cannot take action on items not listed on the posted Agenda. **Comments are limited to a total of three (3) minutes per speaker for non-agenda items.**

B. PUBLIC Comments — AGENDA ITEMS: This time is for members of the public to address the Board of Trustees on agenda items (Open and Closed Sessions). **Comments are limited to three (3) minutes per speaker per agenda item.**

All comments are to be directed to the Board of Trustees and shall be devoid of any personal attacks. Members of the public are expected to maintain a professional, courteous decorum during public comments.

5. Announcements, Presentations, and Written Communications

- A. None

6. Items of General Consent

The following items are routine in nature and may be approved by one blanket motion upon unanimous consent. The President or any member of the Board of Trustees may request an item be pulled from Items of General Consent for a separate discussion.

- A. Minutes for April 9, 2024, Board Meeting **(Pg. 7)**
- B. Approval of expenditures for April 4, 2024 – May 9, 2024 **(Pg. 13)**
- C. Informational Items:
 - Financials — **David l’Anson, Administrative Finance Manager (Pg. 15)**
 - Important Budget Meeting Dates — **Finance Committee (Pg. 30)**
 - Pacific Southwest Center of Excellence in Vector-Borne Diseases Annual Progress and Planning Meeting, April 4-5, 2024, Tempe, AZ — **Jennifer A. Henke, MS, BCE, Laboratory Manager (Pg. 32)**
 - #GSMCON (Government Social Media Conference), April 16-18, 2024, Palm Springs, CA. — **Robert Gaona and Fernando Gutierrez, Community Liaisons (Pg. 33)**
- D. Approval of Resolution 2024-01 Subordination Request Relating to Proposed Issuance of Tax Allocation Refunding Bonds by the Successor Agency to the Redevelopment Agency for the County of Riverside to Refund Outstanding Tax Allocation Refunding Bonds for Desert Communities Redevelopment Project Area to Achieve Debt Service Savings —
David l’Anson, Administrative Finance Manager (Pg. 34)
- E. Approval to purchase Ultra-Low Volume (ULV) Adulticiding Software, Tablets, and Accessories from Frontier Precision, a sole source provider, in an amount not to exceed \$30,000 from Capital Replacement Equipment Fund #8415.13.210.000 –
Edward Prendez, Information Technology Manager and Gregorio Alvarado, Operations Manager (Pg. 42)

7. Business Session

- A. Old Business
 - i. None

B. New Business

- i. Discussion and/or approval of Resolution 2024-04 authorizing the District General Manager to enter into an agreement with the California Public Employees Retirement System (CalPERS) California Employers Pension Prefunding Trust (CEPPT) program to establish a section 115 trust —**David l’Anson, Administrative Finance Manager and Jeremy Wittie, MS, CSDM, General Manager (Pg. 45)**
- ii. Discussion and/or approval of Resolution 2024-02 and adoption of the CVMVCD Invasive Mosquito Species Response Plan — **Jennifer A. Henke, MS, BCE, Laboratory Manager (Pg. 49)**

C. Discussion and/or approval of Resolution 2024-03 and adoption of the 2024 CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan—**Jennifer A. Henke, MS, BCE, Laboratory Manager (Pg. 64)**

D. **Committee and Trustee Reports**

A. Executive Committee — **John Peña, Board President**

B. Finance Committee — **Clive Weightman, Board Treasurer**

Finance Committee oral report and Finance Committee minutes from April 9, 2024, and May 3, 2024 (**Pg. 111**)

C. Trustee Comments, Requests for Future Agendas Items, Travel, and/ or Staff Actions

The Board may not legally take action on any item presented at this time other than to direct staff to investigate a complaint or place an item on a future agenda unless (1) by a majority vote, the Board determines that an emergency exists, as defined by Government Code Section 54956.5, or (2) by a two-thirds vote, the board determines that the need for action arose subsequent to the agenda being posted as required by Government Code Section 54954.2(a). Each presentation is limited to no more than three minutes.

9. Reports

A. General Manager

- i. General Manager’s Presentation

B. Staff

- i. Arbovirus Risk and Response Update (as necessary) — **Jennifer A. Henke, MS, BCE, Laboratory Manager, Greg Alvarado, Operations Manager, Jeremy Wittie, MS, CSDM, General Manager**

C. General Counsel

Questions and/or comments from Trustees regarding the reports

10. Closed Session

Closed Session (s): None

A. Conference with Labor Negotiators pursuant to Government Code Section 54957.6

Agency Designated Representatives: Lena D. Wade, Crystal Moreno, and David I' Anson.

Employee Organizations: California School Employees Association and Teamsters Local 911.

11. Adjournment

At the discretion of the Board, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

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Certification of Posting

I certify that on May 10, 2024, I posted a copy of the foregoing agenda near the regular meeting place of the Board of Trustees of the Coachella Valley Mosquito & Vector Control District and on the District's website, said time being at least 72 hours in advance of the meeting of the Board of Trustees (Government Code Section 54954.2)

Executed at Indio, California, on May 10, 2024

Megan Scarborough-Eckel, Clerk of the Board

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Board of Trustees Meeting

DRAFT-Minutes

MEETING TIME: 6:00 p.m., April 9, 2024

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT

PRESIDENT: John Peña	La Quinta
VICE PRESIDENT: Benjamin Guitron	Indio
SECRETARY: Dr. Doug Kunz	Palm Springs
TREASURER: Clive Weightman	Indian Wells
Frank Figueroa	Coachella
Gary Gardner	Desert Hot Springs
Bito Larson	County at Large
Nancy Ross	Cathedral City
Doug Walker	Palm Desert

TRUSTEES ABSENT

Steve Downs	Rancho Mirage
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STAFF AND GENERAL COUNSEL PRESENT

Jeremy Wittie, General Manager
Lena D. Wade, Legal Counsel, SBEMP
Crystal Moreno, Human Resources Manager
David l'Anson, Administrative Finance Manager
Edward Prendez, Information Technology Manager
Greg Alvarado, Operations Manager
Graciela Morales, HR Specialist
Megan Scarborough-Eckel, Clerk of the Board

Other staff members joined the meeting as well.

MEMBERS OF THE PUBLIC PRESENT

Yes

1. Call to Order

President Peña called the meeting to order at 6:03 p.m. Due to technical difficulties, the meeting was suspended by President Peña at 6:06 p.m. The meeting was reconvened by President Peña at 6:14 p.m.

A. Roll Call

At roll call nine (9) out of ten (10) Trustees were present.

2. Pledge of Allegiance

Everyone in attendance recited the Pledge of Allegiance.

3. Confirmation of Agenda

President Peña inquired if there was a need to make any adjustments to the agenda. The agenda was confirmed as presented.

4. Public Comments

None.

5. Items of General Consent

The following items are routine in nature and may be approved by one blanket motion upon unanimous consent. The President or any member of the Board of Trustees may request an item be pulled from Items of General Consent for a separate discussion.

- A. Minutes for March 12, 2024, Board Meeting
- B. Approval of expenditures for March 7, 2024, to April 3, 2024
- C. American Mosquito Control Association Conference, March 4-8, 2024, Dallas, TX
 - Important Budget Meeting Dates
 - National Pollutant Discharge Elimination System (NPDES) Annual Reports — Jennifer A. Henke, M.S., BCE, Laboratory Manager
 - California Environmental Quality Act (CEQA) Mitigated Negative Declaration Annual Compliance Report — Jennifer A. Henke, M.S., BCE, Laboratory Manager

On a motion from Trustee Gardner, seconded by Trustee Ross, the Board of Trustees approved all Items of General Consent.

Ayes: President Peña, Trustees Figueroa, Gardner, Guitron, Kunz, Larson, Ross, Walker, Weightman

Noes: None

Abstained: None

Absent: Trustee Downs

6. Business Session

A. Old Business

- I. Discussion and/or approval of change order with KYA Services to install concrete pad for staff meeting area in an amount not to exceed \$90,000 from Capital Replacement Fund #8415.14.950.000 — **Jeremy Wittie, M.S., CSDM, General Manager, and David l'Anson, Administrative Finance Manager**

On a motion from Trustee Figueroa, seconded by Trustee Gardner, the Board of Trustees approved all Items of General Consent.

Ayes: President Peña, Trustees Figueroa, Gardner, Guitron, Kunz, Larson, Ross, Walker, Weightman

Noes: None

Abstained: None

Absent: Trustee Downs

B. New Business

- I. Approval to purchase two A1 Super Duty Mist Sprayer, in an amount not to exceed \$50,000 from Fund 13 Capital Replacement Reserve for Equipment — **Greg Alvarado, Operations Manager**

On a motion from Trustee Walker, seconded by Trustee Kunz, the Board of Trustees approved all Items of General Consent.

Ayes: President Peña, Trustees Figueroa, Gardner, Guitron, Kunz, Larson, Ross, Walker, Weightman

Noes: None

Abstained: None

Absent: Trustee Downs

7. Committee and Trustee Reports

A. Executive Committee — John Peña, Board President

President Peña announced that the Executive Committee had not met to discuss the draft April 9, 2024 Board agenda due to it being condensed.

B. Finance Committee — Clive Weightman, Board Treasurer

Finance Committee oral report and Finance Committee minutes from February 13, 2024 Treasurer Weightman mentioned that the Finance Committee held their budget workshop meeting as scheduled.

C. Trustee Comments, Requests for Future Agendas Items, Travel, and/ or Staff Actions

It was announced that Trustee Figueroa was a recipient of the 30th Steve Chase Humanitarian Award.

8. Reports

A. General Manager and Staff

- i. General Manager's Report — **Jeremy Wittie, M.S., CSDM, General Manager**

Jeremy Wittie gave a brief update to the Board and staff present.

B. General Counsel

No comments.

9. Closed Session

Closed Session (s):

A. Conference with Labor Negotiators pursuant to Government Code Section 54957.6

Agency Designated Representatives: Lena D. Wade, Crystal Moreno, and David I' Anson.

Employee Organizations: California School Employees Association and Teamsters Local 911.

Upon return from Closed Session, Lena Wade, General Counsel announced there was no reportable action

10. Adjournment

President Peña adjourned the meeting at 6:42 p.m.

John Peña
President

Dr. Doug Kunz
Secretary

May 3, 2024

Coachella Valley Mosquito and Vector Control District (CVMVCD)

43420 Trader Pl.

Indio, CA. 92201

760.342.8287 – www.cvmosquito@cvmvcd.org

Re: Written letter to be entered in the Public record and made available for public inspection for the May 3, 2024 (1:PM) CVMVCD Finance committee meeting - Agenda Item(s): 4.A and 6.

Dear current appointees,

Please review my written statement listed below prior to the consideration of each agenda item as listed.

1) Agenda Item: 4.A (Non-Agenda Public comment)

Bad CVMVCD policies appeared to be constructed and implemented to subvert the ability of the public to be secure in good governance of CVMVCD operations. Having ONLY three (3) appointed CVMVCD Board of Trustees assigned to the CVMVCD Finance committee is clearly unprofessional and a blatant subversion of best practice protocols for California governmental agency sub-committees. Consider allowing other CVMVCD Board of Trustees the unique opportunity to serve (at taxpayer's expense) on CVMVCD operational sub-committees.

Also,

Consider following California's long established Brown Act safeguards (best practices) and resume allowing citizens the opportunity to attend your organization's pre-circulated open public meetings without undue influence to supply public testimony without being allowed all related District controlled information prior to being forced to comment prior to the board's consideration of agenda items that the speaker requested to comment on.

2) Agenda Item: 6 (CVMVCD budget scenarios)

CVMVCD administration common practice of re-naming employment positions and financial terms appears to be a successful CVMVCD subversion scheme that confuses external entities from discovering potential unethical behavior of CVMVCD operations.

Sterile Insect Techniques (SIT) progressive program should be disbanded and completely abandoned by CVMVCD. It's reasonable to consider that the CVMVCD administration (also CVMVCD Board of Trustees) have been allowing Public collected dollars to support special Interests to establish the CVMVCD organization (SIT) progressive program without reasonable Public notification and Public Input in regards to such a radical potentially political unconscionable manipulation over nature.

It's clear that the CVMVCD administration have taken radical maneuvers to obscure the fact that CVMVCD operations have been repeatedly demonstrated to have failed CVMVCD self proclaimed mission towards the Coachella Valley, Riverside County California.

Sincerely,

Brad Anderson | 

Cc:

Coachella Valley Mosquito and Vector Control District

Checks Issued for the Period of:

April 4 - May 9, 2024

Check No	Payable To	Description	Check Amount	Total Amount
	Payroll Disbursement	April 12, 2024	193,356.53	
	Payroll Disbursement	April 26, 2024	217,540.35	
				410,896.88
Pre-Approved Expenditures Utilities/Benefits:				
45195	SoCalGas	Natural Gas Usage Charge	1,159.98	
45200	Burrtec Waste & Recycling Svcs.	Waste Disposal	481.81	
45201	CalPERS Healthcare Acct	May 2024 Healthcare	99,758.35	
45203	CalPERS - Retirement Acct	Retirement Contributions: 4/12/24PP, 4/26/24PP	66,763.52	
45204	MissionSquare (Plan# 302318)	Deferred Compensation: 4/12/24PP, 4/26/24PP	23,114.76	
45205	Imperial Irrigation District	District Electricity Usage	1,883.45	
45206	Imperial Irrigation Dist-Lab Acct	Lab Bldg Electricity Usage	6,301.69	
45207	Indio Water Authority	District Water Usage	1,215.74	
45208	Principal Life Insurance Co.	Life/Dental Insurance May 2024	12,571.37	
45209	SoCalGas	Natural Gas Usage Charge	1,102.14	
				214,352.81
Pre-Approved Expenditures less than \$10,000.00:				
45177	Abila, Inc.	Cloud Computing Services	1,009.83	
45178	Advance Imaging Systems	Contract Services	495.94	
45179	Airgas USA, LLC	Lab Supplies & Expenses	1,954.37	
45180	Burrtec Waste Industries	Repair & Maintenance	10.95	
45181	Cintas Corporation #3	Uniform Expense	946.71	
45182	CleanExcel	Janitorial Services	4,192.00	
45183	ClientFirst Consulting Group LLC	Computer & Network Services	2,312.50	
45184	CSI Ceja Security International	Contract Services	1,547.00	
45185	Desert Air Conditioning Inc.	Repair & Maintenance	681.94	
45186	Dudek & Associates	Civil Engineering - Parcel Project	293.75	
45187	Employee Relations Inc.	Recruitment/Advertising	714.05	
45188	Ewing Irrigation	Repair & Maintenance	130.16	
45189	Ferguson Enterprises	Repair & Maintenance	202.73	
45190	Frontier Communications-Internet	IT Communications	445.98	
45191	Frontier Communications-Toll/POTS	IT Communications	229.06	
45192	Holt Architects, Inc.	Architectural Services	1,840.00	
45193	Inova Holding III, LLC dba Inova Payroll of Southern CA LLC	HRIS Services: February 2024	364.56	
45194	Johnson Controls, Inc.	District Facility Capital Replacement (Fund 14)	4,450.50	
45196	Total Compensation Systems, Inc.	GASB 74/75 Valuation	1,845.00	
45197	Verizon Wireless	IT Communications	3,352.01	
45198	VISUAL LEASE LLC	Cloud Computing Services	5,000.00	
45210	Abila, Inc.	Cloud Computing Services	1,009.83	
45211	Advance Imaging Systems	Contract Services	382.17	
45212	Airgas USA, LLC	Lab Supplies & Expenses	1,644.50	
45213	American Red Cross	Staff Training	6,240.80	
45214	Big Tex Trailers	Capital Outlay - Capital Replacements Internal	4,722.81	
45215	Burrtec Waste Industries	Repair & Maintenance	12.43	
45216	Carrot Top Industries	Repair & Maintenance	155.58	
45217	CDW Government, Inc	Capital Replacement	1,453.75	
45218	Clairemont Equipment	Equipment Rental	171.86	
45219	CleanExcel	Janitorial Services	4,192.00	
45221	CSI Ceja Security International	Contract Services	3,094.00	
45222	Del Valle Informador Inc.	Advertising	2,730.00	
45223	Desert Air Conditioning Inc.	Repair & Maintenance	232.04	
45224	Desert Alarm, Inc.	Burglar & Fire Alarm Monitoring Services	1,544.26	
45225	Desert Electric Supply	Repair & Maintenance	13.87	
45226	Dudek & Associates	Civil Engineering - Parcel Project	1,006.25	
45227	Eisenhower Medical Center	Safety Expense	1,200.00	
45228	Employee Relations Inc.	Recruitment/Advertising	661.59	
45229	Excel Landscape South	Contract Services	1,620.00	
45230	Ferguson Enterprises	Repair & Maintenance	232.62	
45231	Gulf California Broadcast Company	Advertising	8,000.00	
45233	Jennifer Henke	Professional Development	431.01	
45234	Glazcon Industries, Inc.	Repair & Maintenance	547.02	
45235	Indio Emergency Medical Group	Physician Fees	890.00	
45236	Inova Holding III, LLC dba Inova Payroll of Southern CA LLC	HRIS Services: March 2024	332.56	
45237	Jernigan's Sporting Goods, Inc.	Safety Expense	298.13	
45238	Izzy Motors Inc. dba La Quinta Chevrolet	Vehicle Parts & Supplies	803.19	
45239	Linde Gas & Equipment Inc.	Offsite Vehicle Maintenance & Repair	66.64	
45240	Mowers Plus	Repair & Maintenance	141.89	
45241	nfpAccounting Technologies, Inc.	Cloud Computing Services	3,995.00	
45245	Prudential Overall Supply	Uniform Expense	3,142.72	
45246	Quench USA Inc.	Employee Support	117.24	
45247	Refrigeration Supplies Distributor	Repair & Maintenance	59.98	
45248	RM Broadcasting LLC	Public Outreach Advertising	6,000.00	
45252	Veolia ES Technical Solutions, LLC	Lab Supplies & Expenses	654.71	
45253	Vector Control Joint Powers Agency	Employee Assistance Program	567.45	
45254	Verizon Wireless	IT Communications	3,489.06	
Cash - California Bank & Trust Checking				93,876.00
Cash - California Bank & Trust Checking				
45199	UMPQUA Bank Commercial Card OPS	Credit Card April 2024 Statement	72,189.25	
45220	ClientFirst Consulting Group LLC	Professional Services	20,963.75	

Coachella Valley Mosquito and Vector Control District

Checks Issued for the Period of:

April 4 - May 9, 2024

<u>Check No</u>	<u>Payable To</u>	<u>Description</u>	<u>Check Amount</u>	<u>Total Amount</u>
45232	HARC, Inc. Health Assessment and Research for Communities	Research Project	45,314.00	
45242	PC Connection	Capital Replacement	14,342.72	
45249	Salton Sea Air Service	Aerial Applications	35,452.92	
45250	Slovak Baron Empey Murphey & Pinkney LLP	Attorney Fees	17,168.00	
45251	SC Commercial LLC dba SC Fuels	Motor, Fuel & Oil	11,252.77	
Cash - California Bank & Trust Check Run Total to be Approved				216,683.41
Total Expenditures: April 4 - May 9, 2024				935,809.10

John Pena, President

Clive Weightman, Treasurer

Coachella Valley Mosquito and Vector Control District
 FINANCES AT A GLANCE
 ALL FUNDS COMBINED
 For the Month Ended March 31, 2024

	Beginning of the Month	Change During the Month	End of the Month
INVESTMENTS	17,134,768	(943,435)	16,191,333
CASH	479,004	(141,050)	337,954
INVESTMENTS & CASH	17,613,771	(1,084,485)	16,529,287
CURRENT ASSETS	1,799,172	(66,309)	1,732,863
FIXED ASSETS	9,167,979	-	9,167,979
OTHER ASSETS	6,646,282	-	6,646,282
TOTAL ASSETS	35,227,205	(1,150,794)	34,076,411
TOTAL LIABILITIES	6,198,581	(74,323)	6,124,258
TOTAL DISTRICT EQUITY	29,028,624	(1,076,471)	27,952,153
TOTAL LIABILITIES & EQUITY	35,227,205	(1,150,794)	34,076,411
RECEIPTS			
		\$ 93,278	
CASH DISBURSEMENTS			
Payroll	\$ 776,676		
General Admin	\$ 405,097		
	.		
Total Cash Disbursements		\$ (1,181,773)	
NON-CASH ENTRIES:			
Accrual Modifications -		\$ (62,299)	
Changes in A/P, A/R & Pre-paid insurance		_____	
Change during Month - Excess of Cash over Receipts & Non-Cash Adjustments		\$ (1,150,794)	

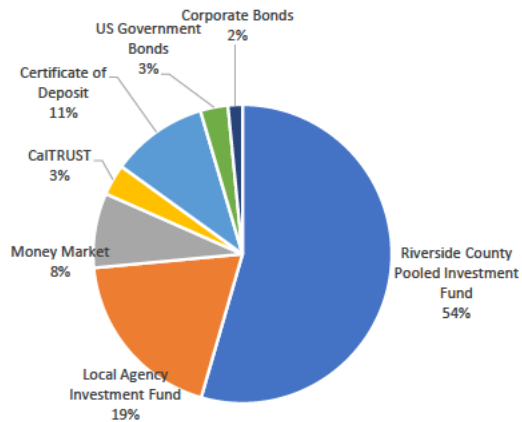
CVMVCD
Cash Journal - deposits
From 3/1/2024 Through 3/31/2024

Effective ...	Transaction Description	Deposits	Payee/Recipient Name
3/31/2024	March Receipts	1,433.45	California Bank & Trust
3/31/2024	March Receipts	28,505.87	Riverside County
3/31/2024	March Receipts - Calcard Rebate	3,782.85	US Bank
3/31/2024	March Receipts - Fund 51105	5,320.08	Riverside County
3/31/2024	March Receipts - Fund 51115	53,335.41	Riverside County
3/31/2024	March Receipts - Rebate	144.84	HOME DEPOT
3/31/2024	March Receipts - refund	69.19	Wells Fargo
3/31/2024	March Receipts - travel refund	<u>636.14</u>	Employment Risk Management Authority
Report Total		<u><u>93,227.83</u></u>	

**COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT
INVESTMENT FUND BALANCES AS OF MARCH 31, 2024**

INSTITUTION	IDENTIFICATION	Issue Date	Maturity Date	YIELD	General Fund	Thermal Capital Fund	Capital Equipment Replacement Fund	Capital Facility Replacement Fund	Capital Project Insectory Fund	BALANCE
LAIF	Common Investments			4.23%	2,134,304	28,250	90,036	534,973	168,979	\$ 2,956,542
Riverside County	Funds 51105 & 51115			4.34%	6,100,507	80,747	257,351	1,529,121	482,995	\$ 8,450,721
CalTRUST	Medium Term Fund			3.86%	375,847	4,975	15,855	94,208	29,757	\$ 520,642
CA Bank & Trust	Market Rate			1.75%	895,229	11,849	37,765	224,393	70,878	\$ 1,240,114
Pershing	Market Rate			0.00%	10,877	144	459	2,726	861	\$ 15,068
Federal Home Ln	US Government Bonds	11/24/2020	11/24/2025	0.63%		23,215	73,991	439,634	138,865	\$ 675,705
Federal Natl Mtg Assn	US Government Bonds	11/25/2020	11/25/2025	0.63%		23,367	74,474	442,508	139,773	\$ 680,123
Bank Amer Corp	Corporate Bonds	11/25/2020	11/25/2025	0.65%		15,376	49,006	291,183	91,974	\$ 447,540
US Treasury Securities	Treasury Note	1/17/2023	1/15/2026	3.88%		17,157	54,683	324,914	102,629	\$ 499,383
ALL IN American Cred	Certificate of Deposit	1/18/2023	1/19/2027	4.55%		8,332	26,557	157,793	49,841	\$ 242,524
Austin Telco	Certificate of Deposit	1/27/2023	1/27/2028	4.75%		7,628	24,311	144,453	45,627	\$ 222,020
Alaska USA Fed Cr	Certificate of Deposit	3/8/2023	3/8/2028	4.60%		8,278	26,385	156,771	49,518	\$ 240,952
Total Investments					9,516,764	229,321	730,873	4,342,678	1,371,696	\$ 16,191,333

**PORTFOLIO COMPOSITION AS OF MARCH 31, 2024
WEIGHTED YIELD 3.69%**



In compliance with the California Code Section 53646; the Finance Administrator of the Coachella Valley Mosquito and Vector Control District hereby certifies that sufficient liquidity and anticipated revenue are available to meet the District's budgeted expenditure requirements for the next six months.

Investments in the report meet the requirements of the Coachella Valley Mosquito and Vector Control District's adopted investment policy

Respectfully submitted

NOTED AND APPROVED

CVMVCD
Statement of Revenue and Expenditures
March 31, 2024

	Annual Budget	YTD Budget	YTD Actual	YTD Budget Variance	Current Period Budget	Current Period Actual	Current Period Variance	Annual Budget Variance	Percent Annual Budget	
Revenues										
4000	Property Tax - Current Secured	4,850,314	2,602,405	2,725,161	122,755	80,384	0	(80,384)	(2,125,153)	(44)%
4010	Property Tax - Curr. Supplmntl	31,172	0	90,998	90,998	0	24,678	24,678	59,826	192 %
4020	Property Tax - Curr. Unsecured	203,698	197,689	237,713	40,024	0	0	0	34,015	17 %
4030	Homeowners Tax Relief	35,949	17,975	18,550	576	0	0	0	(17,399)	(48)%
4070	Property Tax - Prior Supp.	53,097	0	71,772	71,772	0	3,828	3,828	18,675	35 %
4080	Property Tax - Prior Unsecured	3,193	0	0	0	0	0	0	(3,193)	(100)%
4090	Redevelopment Pass-Thru	7,432,521	3,716,261	3,977,280	261,020	0	0	0	(3,455,241)	(46)%
4520	Interest Income - LAIF/CDs	275,000	206,250	258,559	52,309	68,750	60,089	(8,661)	(16,441)	(6)%
4530	Other Miscellaneous Receipts	63,000	47,250	23,530	(23,720)	5,250	4,633	(617)	(39,470)	(63)%
4551	Benefit Assessment Income	2,370,094	1,266,525	1,285,328	18,803	0	0	0	(1,084,766)	(46)%
	Total Revenues	15,318,038	8,054,354	8,688,891	634,536	154,384	93,228	(61,156)	(6,629,147)	(43)%
Expenditures										
Payroll Expenses										
5101	Payroll - FT	6,374,624	4,768,810	4,411,545	357,265	535,274	503,309	31,966	1,963,079	31 %
5102	Payroll Seasonal	142,020	110,520	65,850	44,670	10,500	2,223	8,277	76,170	54 %
5103	Temporary Services	14,900	11,175	8,060	3,115	1,242	0	1,242	6,841	46 %
5105	Payroll - Overtime Expense	30,120	22,590	26,768	(4,178)	3,830	777	3,053	3,352	11 %
5150	CalPERS State Retirement	877,051	706,509	463,920	242,589	56,848	83,345	(26,498)	413,131	47 %
5155	Social Security Expense	390,377	292,288	282,134	10,154	32,697	33,548	(852)	108,244	28 %
5165	Medicare Expense	91,298	68,358	67,331	1,027	7,647	7,846	(199)	23,967	26 %
5170	Cafeteria Plan	1,332,664	996,162	951,852	44,309	112,168	111,892	277	380,812	29 %
5172	Retiree Healthcare	439,420	318,320	291,226	27,093	40,370	32,836	7,534	148,194	34 %
5180	Deferred Compensation	133,945	100,000	88,861	11,139	11,315	21,865	(10,550)	45,084	34 %
5195	Unemployment Insurance	33,802	25,352	24,709	643	2,817	439	2,378	9,094	27 %
	Total Payroll Expenses	9,860,221	7,420,083	6,682,255	737,827	814,708	798,080	16,627	3,177,966	32 %

CVMVCD
Statement of Revenue and Expenditures
March 31, 2024

		Annual Budget	YTD Budget	YTD Actual	YTD Budget Variance	Current Period Budget	Current Period Actual	Current Period Variance	Annual Budget Variance	Percent Annual Budget
Administrative Expenses										
5250	Tuition Reimbursement	20,000	15,000	646	14,354	1,667	0	1,667	19,354	97 %
5300	Employee Incentive	16,500	12,375	6,597	5,778	1,375	0	1,375	9,903	60 %
5302	Wellness	5,600	4,200	7,946	(3,746)	467	0	467	(2,346)	(42)%
5305	Employee Assistance Program	3,200	2,400	1,223	1,177	267	0	267	1,977	62 %
6000	Property & Liability Insurance	318,895	235,421	232,347	3,074	27,825	26,621	1,204	86,548	27 %
6001	Workers' Compensation Insurance	253,447	177,585	185,484	(7,899)	25,287	25,085	202	67,963	27 %
6050	Dues & Memberships	51,886	47,102	38,863	8,239	2,482	3,100	(618)	13,023	25 %
6060	Reproduction & Printing	27,950	20,963	19,635	1,327	6,413	2,596	3,817	8,315	30 %
6065	Recruitment/Advertising	10,000	7,500	1,643	5,857	833	71	762	8,357	84 %
6070	Office Supplies	19,385	14,539	8,602	5,937	1,615	1,423	192	10,783	56 %
6075	Postage	6,100	5,200	2,167	3,033	2,800	209	2,591	3,933	64 %
6080	Computer & Network Systems	13,399	10,049	1,217	8,832	1,117	0	1,117	12,182	91 %
6085	Bank Service Charges	500	375	256	119	42	40	2	244	49 %
6090	Local Agency Formation Comm.	3,500	3,500	2,911	589	0	0	0	589	17 %
6095	Professional Fees	92,500	73,375	36,587	36,788	3,708	6,590	(2,882)	55,913	60 %
6100	Attorney Fees	85,800	64,350	70,520	(6,170)	7,150	24,597	(17,447)	15,280	18 %
6105	Legal Services / Filing Fees	1,000	750	0	750	83	0	83	1,000	100 %
6106	HR Risk Management	5,210	5,210	5,885	(675)	0	0	0	(675)	(13)%
6110	Conference Expense	60,600	53,300	32,620	20,680	5,900	3,162	2,738	27,980	46 %
6115	In-Lieu	13,200	9,900	9,732	168	1,100	1,000	100	3,468	26 %
6120	Trustee Support	7,600	5,700	5,229	471	633	866	(232)	2,371	31 %
6200	Meetings Expense	26,060	19,545	7,119	12,426	2,172	1,187	985	18,941	73 %
6210	Promotion & Education	33,000	24,750	20,414	4,336	8,250	7,025	1,225	12,586	38 %
6220	Public Outreach Advertising	56,000	56,000	25,658	30,342	0	2,730	(2,730)	30,342	54 %
6500	Benefit Assessment Expenses	83,000	83,000	82,843	157	0	0	0	157	0 %
Total Administrative Expenses		1,214,332	952,089	806,145	145,944	101,185	106,302	(5,117)	408,187	34 %
Utilities										
6400	Utilities	137,783	103,337	94,216	9,121	11,482	10,532	950	43,567	32 %
6410	Telecommunications	1,824	1,368	1,913	(545)	152	214	(62)	(89)	(5)%
Total Utilities		139,607	104,705	96,129	8,576	11,634	10,746	888	43,478	31 %

CVMVCD
Statement of Revenue and Expenditures
March 31, 2024

	Annual Budget	YTD Budget	YTD Actual	YTD Budget Variance	Current Period Budget	Current Period Actual	Current Period Variance	Annual Budget Variance	Percent Annual Budget
Operating									
7000 Uniform Expense	60,025	45,144	35,602	9,542	4,960	6,724	(1,764)	24,423	41 %
7050 Safety Expense	36,520	27,490	28,339	(849)	3,010	9,110	(6,100)	8,181	22 %
7100 Physican Fees	7,000	5,250	570	4,680	583	0	583	6,430	92 %
7150 IT Communications	70,780	53,085	40,988	12,097	5,898	7,111	(1,213)	29,792	42 %
7200 Household Supplies	3,000	2,250	2,725	(475)	250	465	(215)	275	9 %
7300 Repair & Maintenance	47,000	35,250	45,412	(10,162)	3,917	9,360	(5,443)	1,588	3 %
7310 Maintenance & Calibration	6,800	6,800	5,702	1,098	0	3,500	(3,500)	1,098	16 %
7350 Permits, Licenses & Fees	8,522	8,207	6,136	2,071	105	2,593	(2,488)	2,386	29 %
7360 Software Licensing	33,512	13,740	25,952	(12,212)	200	21,160	(20,960)	7,560	23 %
7400 Vehicle Parts & Supplies	56,664	42,498	26,112	16,386	4,722	2,072	2,650	30,552	54 %
7420 Offsite Vehicle Maint & Repair	19,416	14,562	8,833	5,729	1,618	937	681	10,583	55 %
7450 Equipment Parts & Supplies	30,130	22,723	17,948	4,774	2,803	1,865	938	12,182	40 %
7500 Small Tools Furniture & Equip	4,700	3,525	4,049	(524)	392	1,597	(1,205)	651	14 %
7550 Lab Supplies & Expense	61,850	46,475	21,615	24,860	5,875	1,495	4,380	40,235	65 %
7570 Aerial Pool Surveillance	30,000	0	0	0	0	0	0	30,000	100 %
7575 Surveillance	128,810	116,282	77,008	39,274	4,176	2,470	1,705	51,802	40 %
7600 Staff Training	118,150	91,513	76,679	14,833	13,379	18,440	(5,060)	41,471	35 %
7650 Equipment Rental	1,500	1,125	2,247	(1,122)	125	205	(80)	(747)	(50)%
7675 Contract Services	141,333	107,724	103,299	4,425	15,190	9,422	5,767	38,034	27 %
7680 Cloud Computing Services	135,260	60,884	61,394	(510)	21,842	2,624	19,218	73,866	55 %
7700 Motor Fuel & Oils	160,500	120,375	80,051	40,325	13,375	3,084	10,291	80,450	50 %
7750 Field Supplies	9,000	6,750	8,507	(1,757)	750	0	750	493	5 %
7800 Control Products	704,016	630,664	617,163	13,501	70,840	13,501	57,339	86,853	12 %
7850 Aerial Applications	251,600	232,800	179,578	53,222	37,600	31,493	6,107	72,022	29 %
7860 Unmanned Aircraft Application Servic	20,000	15,000	17,309	(2,309)	1,667	11,477	(9,811)	2,691	13 %
8415 Capital Outlay	75,720	67,920	25,148	42,771	2,600	13,921	(11,321)	50,572	67 %
8510 Research Projects	380,000	380,000	230,761	149,239	0	58,280	(58,280)	149,239	39 %
9000 Contingency Expense	110,000	82,500	108,601	(26,101)	9,167	0	9,167	1,399	1 %
Total Operating	2,711,808	2,240,535	1,857,727	382,808	225,043	232,909	(7,866)	854,081	31 %

CVMVCD
Statement of Revenue and Expenditures
March 31, 2024

	Annual Budget	YTD Budget	YTD Actual	YTD Budget Variance	Current Period Budget	Current Period Actual	Current Period Variance	Annual Budget Variance	Percent Annual Budget
Contribution to Capital Reserves									
8900 Transfer to other funds	2,414,158	1,810,619	1,810,618	0	201,180	201,180	0	603,540	25 %
Total Contribution to Capital Reserves	2,414,158	1,810,619	1,810,618	0	201,180	201,180	0	603,540	25 %
Total Expenditures	16,340,126	12,528,030	11,252,874	1,275,156	1,353,749	1,349,217	4,533	5,087,252	31 %
Net revenue over/(under) expenditures	(1,022,088)	(4,473,676)	(2,563,984)	1,909,692	(1,199,365)	(1,255,989)	(56,624)		

CVMVCD
Balance Sheet - Unposted Transactions Included In Report
As of 3/31/2024

		Current Year
Assets		
Cash and Investments		
1000	Cash - Investments	16,191,332.66
1010	Cash - Co of Riverside 51115	0.00
1012	Cash - Clearing Account	0.00
1016	Petty Cash	500.00
1017	Petty Cash Checking	1,500.00
1025	First Foundation - General	0.00
1026	First Foundation - Payroll	0.00
1035	CB&T General Checking	63,341.28
1036	CB&T Payroll Checking	272,612.65
	Total Cash and Investments	16,529,286.59
Current Assets		
1050	Accounts Receivable	9,044.32
1051	Lease Payments Receivable	29,910.24
1055	Fundware AR Clearing	0.00
1080	Interest Receivable	3,254.44
1085	Inventory	458,639.66
1166	Prepaid IT Service	(0.03)
1167	Prepaid Research Proposals	116,692.62
1168	Prepaid Expenses	155,118.00
1169	Deposits	960,204.00
	Total Current Assets	1,732,863.25
Fixed Assets		
1170	Construction in Progress	61,542.43
1201	Leased Copier Asset #1 Ops Copier	14,694.42
1202	Leased Copier Asset #2 Admin Copier	19,670.89
1300	Equipment/Vehicles	2,171,814.40
1310	Computer Equipment	763,203.49
1311	GIS Computer Systems	301,597.91
1320	Office Furniture & Equipment	1,307,594.90

CVMVCD
Balance Sheet - Unposted Transactions Included In Report
As of 3/31/2024

		Current Year
1330	Land	417,873.30
1335	Oleander Building	5,665,861.83
1336	Signage	23,651.39
1340	Structures & Improvements	3,460,397.50
1341	Bio Control Building	6,923,882.74
1342	Bio Control Equip/Furn	43,986.77
1398	Amortization Leased Equipment	(34,365.30)
1399	Accumulated Depreciation	(11,973,428.02)
	Total Fixed Assets	9,167,978.65
	Other Assets	
1520	Resources to Be Provided	3,530,880.37
1525	Deferred Outflows of Resources	1,869,053.98
1530	Deferred Outflows of Resources - OPEB	1,246,348.00
1900	Due to/from	0.12
	Total Other Assets	6,646,282.47
	Total Assets	34,076,410.96
	Liabilities	
	Short-term Liabilities	
	Accounts Payable	
2015	Credit Card Payable	131,079.18
2017	Petty Cash Payable	0.00
2020	Accounts Payable	451,019.89
2030	Accrued Payroll	(28,138.42)
2035	Fundware AP Clearing	0.00
2040	Payroll Taxes Payable	(3,704.34)
2175	Claims/Judgements Payable	40.76
2185	Employee Dues	415.92
2401	Leased Copier Asset # 1	0.00
2402	Leased Copier Asset # 2	0.00
	Total Accounts Payable	550,712.99

CVMVCD
 Balance Sheet - Unposted Transactions Included In Report
 As of 3/31/2024

		Current Year
	Deferred Revenue	
2025	Deferred Revenue	0.00
	Total Deferred Revenue	0.00
	Total Short-term Liabilities	550,712.99
	Long-term Liabilities	
2100	Pollution Remediation Obligation	2,100,000.00
2110	OPEB Obligation	0.00
2200	Net Pension Liability	1,287,083.36
2210	Deferred Inflows of Resources	0.00
2230	Deferred Inflows - OPEB	367,983.00
2235	Deferred Inflow of Resources - Leases	29,910.25
2300	Net OPEB Liability	882,616.00
2500	Compensated Absences Payable	905,952.81
	Total Long-term Liabilities	5,573,545.42
	Total Liabilities	6,124,258.41
	Fund Balance	
	Non Spendable Fund Balance	
3920	Investment in Fixed Assets	10,673,170.66
3945	Reserve for Prepays & Deposit	1,041,259.68
3960	Reserve for Inventory	459,270.86
	Total Non Spendable Fund Balance	12,173,701.20
	Committed Fund Balance	
3965	Public Health Emergency	4,851,276.00
	Total Committed Fund Balance	4,851,276.00
	Assigned Fund Balance	
3910	Reserve for Operations	5,800,000.00
3925	Reserve for Future Healthcare Liabilities	453,746.00
3955	Thermal Remediation Fund	63,688.00
3970	Reserve for Equipment	726,018.00
3971	Reserve for Facility & Vehicle Replacement	2,659,312.00

CVMVCD
 Balance Sheet - Unposted Transactions Included In Report
 As of 3/31/2024

		Current Year
3985	Reserve for Facility Capital Improvements	0.00
3990	Reserve for Future Constructio	0.00
	Total Assigned Fund Balance	9,702,764.00
	Unassigned Fund Balance	
3900	Fund Equity	(568,650.76)
3991	Prior Year Adjustment GASB87	20,909.82
3999	P&L Summary	2,675,725.04
	Total Unassigned Fund Balance	2,127,984.10
	Current YTD Net Income	
4531	Lease Income	0.00
8310	Amortization	0.00
8320	Interest Expense	0.00
	Other	(903,572.75)
	Total Current YTD Net Income	(903,572.75)
	Total Fund Balance	27,952,152.55
	Total Liabilities and Net Assets	34,076,410.96

FINANCE

The financial reports show the balance sheet, receipts, and revenue and expenditure reports for the month ending March 31, 2024. The revenue and expenditure report shows that the operating budget expenditure for July 1, 2023, to March 31, 2024, is \$11,252,875 total revenue is \$8,688,891 resulting in excess revenue over (under) expenditure for the year to March 31, 2024, of (\$2,563,984).

THREE YEAR FINANCIALS

	Actual 3/31/2024	Budget	Actual 3/31/2023	Actual 3/31/2022
Revenue	8,688,891	8,054,354	7,715,548	6,946,133
Expenses				
Payroll	6,682,255	7,420,083	6,741,173	7,449,774
Administrative Expe	806,145	952,089	640,952	612,814
Utility	96,129	104,705	93,758	93,755
Operating Expense	1,857,727	2,240,535	1,529,151	1,295,823
Contribution to Capital	1,810,619	1,810,618	1,912,012	360,975
Total Expenses	11,252,875	12,528,030	10,917,046	9,813,141
Profit (Loss)	(2,563,984)	(4,473,676)	(3,201,498)	(2,867,008)

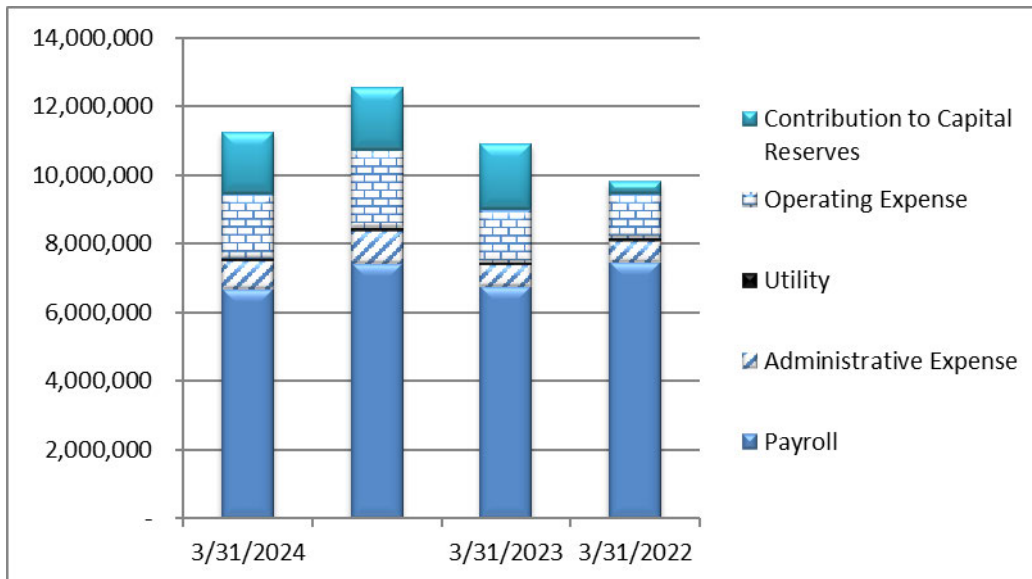


Figure 1 - Three Year Expenditure

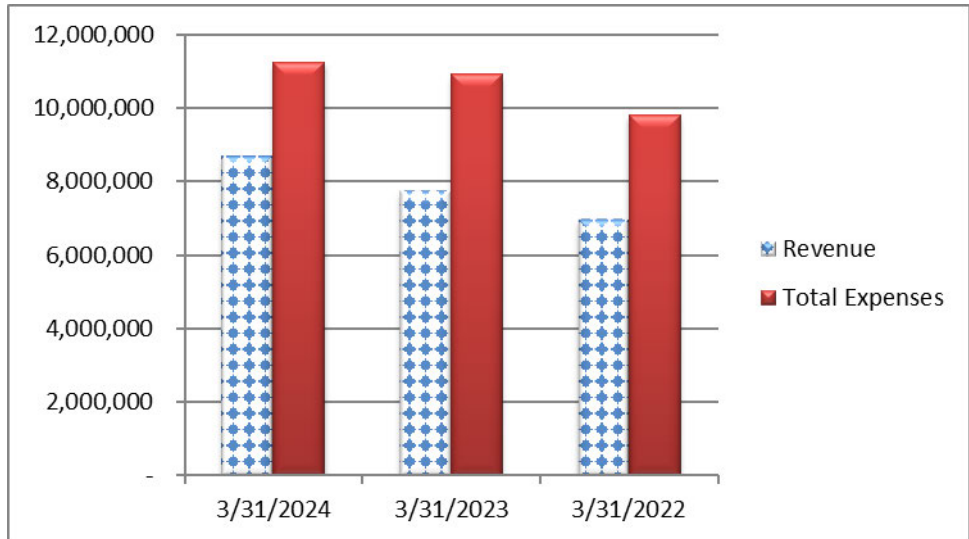


Figure 2 - Three-Year Revenue & Expenditure

THREE-YEAR CASH BALANCE

Cash Balances	3/31/2024	3/31/2023	3/31/2022
Investment Balance	16,191,333	13,791,546	12,478,385
Checking Accounting	63,341	(298,161)	81,627
Payroll Account	272,613	79,905	342,060
Petty Cash	2,000	2,000	2,000
Total Cash Balances	16,529,287	13,575,291	12,904,071

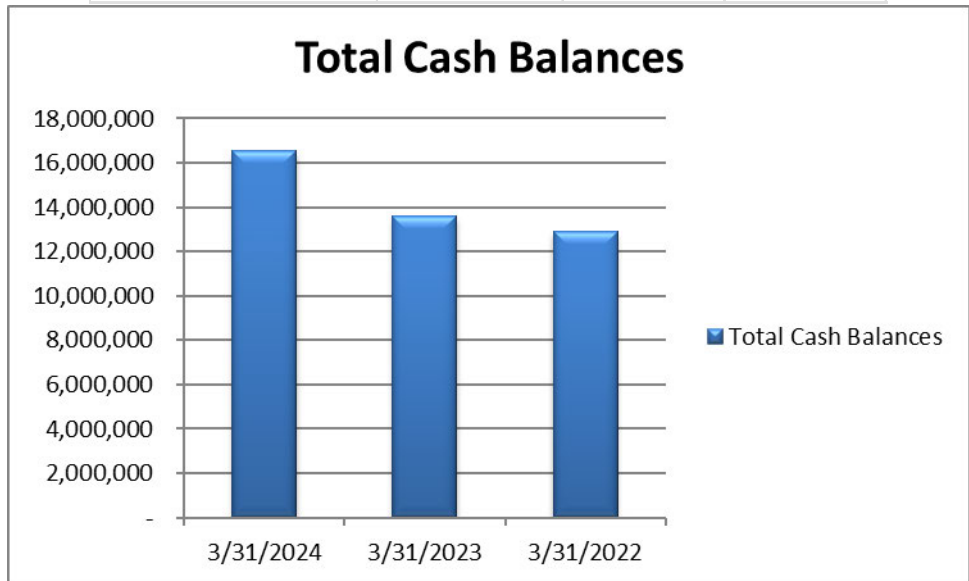


Figure 3 - Cash Balances

DISTRICT INVESTMENT PORTFOLIO 3/31/2024

The District’s investment fund balance for the period ending March 31, 2024, is \$16,191,333. The portfolio composition is shown in the pie chart. Local Agency Investment Fund (LAIF) accounts for 18% of the District’s investments; the Riverside County Pooled Investment Fund is 52% of the total. The LAIF yield for the end of March was 4.23% and the Riverside County Pooled Investment Fund was 4.34 %. This gives an overall weighted yield for District investments of 3.69%.

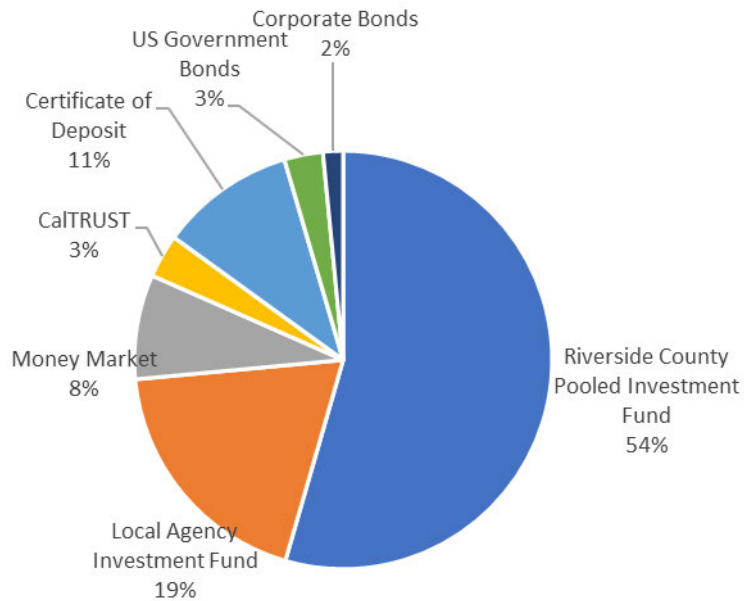


Figure 4 - Investment Portfolio 3/31/24

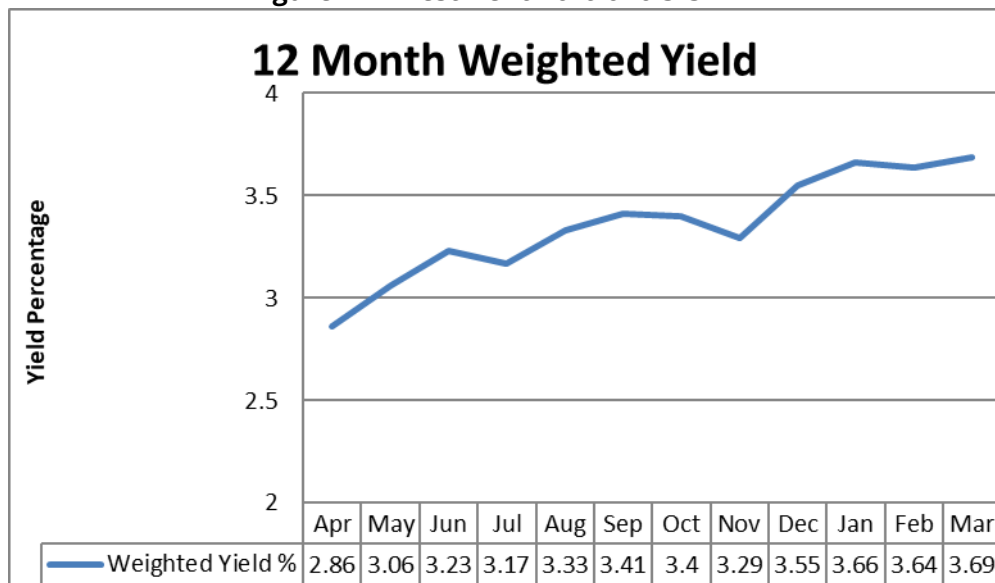
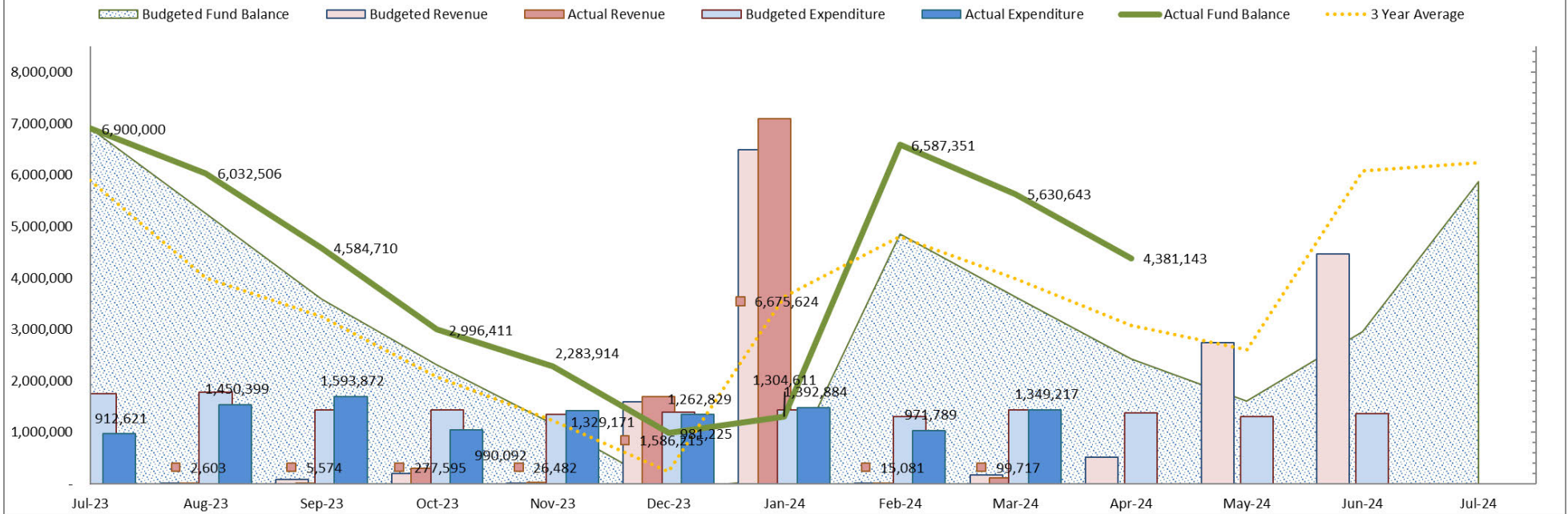


Figure 5 - District Investments Weighted Yield

General Fund Operational Cash Flow

Fiscal Year 2023- 2024



The **General Fund Operational Cash Flow** graph outlines the District's working capital for the fiscal year July 1, 2023, to June 30, 2024. The beginning fund balance is \$6.9 million and the ending fund balance is \$5.9 million. Expenditure is approximately divided by 12 equal months, with some differences accounting for the seasonality of the program for example control products and seasonal employment which are greater in the mosquito breeding season. July expenditure is higher than average because of the prefunding lump sum of \$0.2 million for CalPERS unfunded liability. The budget also accounts for prepayments. The revenue follows a different pattern, Riverside County distributes the property tax revenue in January and May with advancements in December and April. The shaded area represents the **Budgeted Fund Balance** which has a formula of (beginning) **Fund Balance** plus **Revenue** minus **Expenditure**. The green line represents the **Actual Fund Balance** and is graphed against the shaded area **Budgeted Fund Balance**. The three-year average Fund Balance is the orange dash line.

The graph shows a \$6.9 million **Fund Balance** plus total Revenue for July 1 to March 31, 2024, of \$8,688,891 minus total Expenses of \$11,252,876 is \$4,381,143. Revenue shows a favorable variance of \$634,536 this is due distribution of redevelopment agency assets not budgeted, property taxes compared with last year are approximately 7% higher, budget forecast is 5% higher. Payroll expenses show a favorable variance of \$814,708, a number of positions were budgeted but either not recruited or recruited after a delay, \$200,000 is earmarked for prefunding in Section 115 trust for pension liabilities, Administrative Expenses show a favorable variance of \$145,944, \$40,000 is budgeted for IT strategic plan, only \$6k has been expensed for this item, public outreach advertising was budgeted monthly instead of May/June when most of the expenses occur, Operations has a favorable variance of \$382,808, reasons include IT Communication budget over estimated, Research budget is \$100,000 over estimated and Urban Aerial Applications has a surplus because WALS treatments were replaced by truck mounted applications. The total favorable variance is \$1,909,692. For planning purposes, the District is under budget. As long as the green line stays out of the shaded area the District is within budget, as of March 31, 2024, the line is outside the shaded area.

FY2024-25 BUDGET CALENDAR

STAGE	TASK TO BE COMPLETED	ACTIVITIES	STAKEHOLDERS	DEADLINE
STAFF	Budget Templates created	Templates in Microix Budget Workflow Created. Sent to Department Budget managers	Administrative Finance Manager	January 19, 2024
	Personnel Salary & Benefits	Updated information from Payroll & benefits added to Workflow. Budget spreadsheets & formulae created.	Administrative Finance Manager	Ongoing
	Budget Workshop for Managers	Help facilitate & train staff to build budget in Workflow	Management Team	February 8, 2024
	Budget docs to AFM & GM	General Manager to review and approve budget documents	GM, Management Team	March 8, 2024
	Completion of first draft	Team to review and adjust budget according to GM & AFM suggestion & direction	GM, Management & Supervisory Team	March 22, 2024
	Draft 1 Budget	Preparation of first draft of FY2024/2025 Budget for Finance Committee Budget Meeting. PDF and hard copy to FC Trustees	Finance	March 28, 2024
FINANCE COMMITTEE	Draft 1 for Finance Committee	Emailed to Finance Committee For Review email questions or meet. Reserve Study to be emailed with draft Budget	Finance Committee Department heads, General Manager & Administrative Finance Manager	April 5, 2024
	Draft 1 for Finance Committee	Finance Committee to review draft budget & reserve study & discuss in meeting **FINANCE COMMITTEE MEETING	Finance Committee General Manager & Administrative Finance Manager	Tuesday April 9, 2024 3:00 p.m.
STAFF	Updated salary	Salary & Benefits Proposals & scenarios	Administrative Finance Manager	April 26, 2024

FINANCE COMMITTEE	Final Draft for Finance Committee	Final draft of FY2024/2025 Budget for Finance Committee Budget Meeting, attended by General Manager, Finance Committee, and Administrative Finance Manager. **FINANCE COMMITTEE MEETING	Finance Committee General Manager & Administrative Finance Manager	Friday May 3, 2024, 1:00pm to 3pm TBD
BOARD	Final Draft for Budget Workshop	Budget Workshop for in depth discussion BOARD MEETING	Board of Trustees Workshop	May 14, 2024 4:30 pm – 5:30 pm
	Adoption of Final Draft	Adoption of FY2024/2025 Budget BOARD MEETING	Board of Trustees Board Meeting	June 11, 2024
	Set Benefit Assessment Rate	Adopt Resolution – Intention to Levy Assessment, Preliminary approval of engineer’s report, and providing notice of hearing for the CVMVCD mosquito, fire ant, and disease surveillance and vector control assessment BOARD MEETING	Board of Trustees Board Meeting	June 11, 2024
	Adopt Benefit Assessment Resolution	Adopt Resolution approving Engineer’s Report, Confirming Diagram and Assessment, and Ordering the Levy of Assessments for fiscal year 2024/2025 for the Coachella Valley Mosquito and Vector Control District Mosquito, Fire Ant and Disease Control Assessment Public Hearing BOARD MEETING	Public Hearing	July 9, 2024



Coachella Valley Mosquito and Vector Control District

May 14, 2024

Staff Report

Agenda Item: Informational Item

Staff report from: Pacific Southwest Center of Excellence in Vector-Borne Diseases Annual Progress and Planning Meeting, April 4-5, 2024, in Tempe, Arizona

Report:

In 2017, the Centers for Disease Control and Prevention (CDC) established five universities as regional centers of excellence to prevent and rapidly respond to emerging vector-borne diseases across the United States. The Pacific Southwest Center of Excellence in Vector-Borne Diseases (COE) is a joint venture of several universities in the western United States, where researchers address public health challenges using cutting-edge research in surveillance, vector control, genetics, epidemiology, and effective insecticide development. This year was the second of a 5-year funding cycle where they aim to address mosquito and tick prevention and suppression; training a new generation of public health entomologists; and strengthen collaboration between the academic community and local public health organizations. The COE holds an annual meeting, where researchers meet with CDC officials and vector control professionals to discuss accomplishments and plan for the coming year. This year, attendees reflected on the active West Nile virus season in California, the low transmission in Arizona, and its impacts on Utah and Nevada surveillance. Another discussion point was the detection and response to the locally acquired dengue case in California last year.

The District has had an active role in providing material and working with several of the researchers on projects that benefit the residents of the Coachella Valley, as well as southwestern U.S. Crystal Hepp, Ph.D., presented her work on West Nile virus surveillance in the Southwest, which suggested while there has been a connection between Maricopa County and the Coachella Valley for West Nile virus, the more recent transmission may be that the virus is endemic to the valley. Nik Nikbakhtzadeh, Ph.D. of Cal State San Bernardino and Ben Nyman of UC Riverside updated colleagues on two training programs that the District participated in in 2023 to increase student interest in careers in public health. Marco Metzger, Ph.D. of CDPH discussed the work that the District organized with Riverside Public Health, Northwest MVCD, and Riverside Environmental Health on the tabletop exercise for preparing for dengue transmission. Dr. Olivia Winokur presented her current work on developing training videos for vector control in collaboration with the MVCAC Laboratory Technologies committee, which Kim Hung, Ph.D. chairs.

ATTENDEES:

Jennifer A. Henke, Laboratory Manager



**Coachella Valley Mosquito and
Vector Control District**

May 14, 2024

Staff Report

Agenda Item: Informational Item

GSMCON (Government Social Media Conference) 2024, April 16-18, Palm Springs, CA

Report:

The 2024 conference focused on developing technology such as AI generators, utilizing AI systems to create graphic and sound content for agencies across the nation. One area particularly focused on was new AI tools that can create visual content, such as vertical videos or reels. These formats are the most preferred for connecting with audiences through relatable, authentic, and entertaining content. The conference also offered sessions on the importance of branding, accessibility, and crisis communication, all of which are beneficial and essential in addressing our social media needs, and in planning our approach to social media.

We were able to put this new program to use by creating a song that blended two different music styles. This song emphasizes the importance of dumping and draining standing water, using repellents, and working together as a community to keep mosquitoes at bay. These tools are valuable in that they can strengthen the connection between the District and the community, which is essential for successful community engagement.

Attendees: Robert Gaona and Fernando Gutierrez

Exhibits:

- Pop version: <https://suno.com/song/c4927e84-59b9-42d5-96a0-c646028eef4b>
- Rock version: <https://suno.com/song/58a34334-1313-4eaf-8fc5-4830eff5de56>



EXECUTIVE OFFICE

JEFFREY A. VAN WAGENEN, JR.
COUNTY EXECUTIVE OFFICER

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CHIEF OPERATING OFFICER

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PUBLIC SAFETY

ZAREH SARRAFIAN, ASSISTANT
CEO
HEALTH SYSTEMS

April 9, 2024

Coachella Valley Mosquito & Vector Control District
43-420 Trader Place
Indio, CA 92201

Re: Subordination Request Relating to Proposed Issuance of Tax Allocation Refunding Bonds by the Successor Agency to the Redevelopment Agency for the County of Riverside to Refund Outstanding Tax Allocation Refunding Bonds for Desert Communities Redevelopment Project Area to Achieve Debt Service Savings

Ladies and Gentlemen:

This letter is being sent to the Coachella Valley Mosquito & Vector Control District (the "Taxing Entity") by the undersigned on behalf of the Successor Agency to the Redevelopment Agency for the County of Riverside (the "Agency") pursuant to Sections 33607.5(e) and 34177.5(c) of the California Health and Safety Code (the "Code"). Under Sections 33607.5(e) Section 34177.5(c) of the Code, the Agency may, with an affected taxing entity's approval, subordinate amounts required to be paid to such taxing entity from property tax revenue of a redevelopment project area pursuant to Sections 33607.5 and 34183(a)(1) of the Code (the "Statutory Pass-through Payments") to the payment of bonds or other indebtedness issued or incurred by the Agency pursuant to Section 34177.5(a) of the Code for such project area.

At this time, the Agency anticipates issuing a series of tax allocation refunding bonds (the "2024D Bonds") payable from, and secured by, tax revenues from the Agency's Desert Communities Redevelopment Project Area (the "Project Area"). The net proceeds of the 2024D Bonds will be used to refund the outstanding Successor Agency to the Redevelopment Agency For the County of Riverside Desert Communities Redevelopment Project Area 2014 Tax Allocation Refunding Bonds, Series D (the "2014D Bonds") to take advantage of the current lower interest rates and thereby reduce its overall debt service costs. The Agency expects that the reduction in overall debt service will increase the residual property tax revenues for affected taxing entities in the Project Area, including the Taxing Entity. In connection with the issuance of the 2014D Bonds, the Taxing Entity previously subordinated its right to receive Statutory Pass-through Payments from the Project Area to the payment of the 2014D Bonds.

COUNTY ADMINISTRATIVE CENTER
4080 LEMON STREET, 4TH FLOOR
RIVERSIDE, CA 92501
(951) 955-1110 | RivCo.org

Coachella Valley Mosquito & Vector Control District
April 9, 2024
Page 2

By this letter, the Agency requests that the Taxing Entity subordinate its right to receive the Statutory Pass-through Payments from the Project Area to the payment of the 2024D Bonds.

Enclosed for your review, pursuant to Section 34177.5(c)(2) of the Code, is a summary of tax revenues projected to be generated from the Project Area, which includes projected debt service coverage, prepared by Urban Analytics LLC (the "Fiscal Consultant"). The Fiscal Consultant's summary shows that the Agency can reasonably expect to have sufficient funds available to pay both debt service on the 2024D Bonds and all the Statutory Pass-through Payments owed to the various affected taxing entities in the Project Area, including the Taxing Entity. The 2024D Bonds will not be issued unless the debt service on such bonds is lower than the debt service on the 2014D Bonds.

For the benefit of the Agency's records, we kindly request that the Taxing Entity complete the attached acknowledgment and return it to the Successor Agency to the Redevelopment Agency for the County of Riverside, 4080 Lemon Street, 4th Floor, Riverside, California 92501, Attention: Don Kent, by no later than Friday, May 24, 2023. In accordance with Section 34177.5(c)(3) of the Code, if the Taxing Entity does not respond to the requested subordination within forty-five (45) days of the date it receives this letter, the requested subordination will be automatically deemed approved by the Taxing Entity and such approval shall be final and conclusive. Furthermore, to disapprove this subordination of the Statutory Pass-through Payments as requested in this letter, the Taxing Entity must find, based upon substantial evidence, that the Agency will not be able to make the payments due on both the 2024D Bonds and the Statutory Pass-through Payments required to be paid to the Taxing Entity in connection with the Project Area.

Thank you in advance for your cooperation in this matter. If you have any questions regarding this matter, please do not hesitate to call the undersigned at (951) 955-1110.

Sincerely,



Don Kent
Successor Agency to the Redevelopment
Agency for the County of Riverside

Enclosure

cc: Imelda Delos Santos, County of Riverside Executive Office
Michael Williams, Columbia Capital Management LLC
David Mealy, Urban Analytics
Juan Galvan, Anzel Galvan LLP

ACKNOWLEDGMENT
(Relating to Desert Communities Redevelopment Project Area)

In response to the request by Successor Agency to the Redevelopment Agency for the County of Riverside (the "Agency") set forth in a letter dated April 9, 2024 (the "Subordination Request"), to approve the Taxing Entity's subordination of Statutory Pass-through Payments relating to the Desert Communities Redevelopment Project Area, the Coachella Valley Mosquito & Vector Control District (the "Taxing Entity") hereby confirms its approval of the subordination of the Agency's obligation to pay Statutory Pass-through Payments to the Taxing Entity in connection with the Desert Communities Redevelopment Project Area to the Agency's payment obligations for the 2024D Bonds.

All capitalized terms used but not defined in this Acknowledgment have the meanings ascribed to them in the Subordination Request.

IN WITNESS WHEREOF, the undersigned has caused this Acknowledgment to be signed by its authorized representative on this __ day of _____, 2024.

Coachella Valley Mosquito & Vector Control District

By: _____
Name: _____
Title: _____

Desert Communities Project Area
Projected Tax Revenues With Subordinated Passthrough Coverage

Fiscal Year	Gross Tax Increment	Senior Pass-Through Payments	Other Senior Obligations	Debt Service	Net Tax Increment	Subordinated Passthrough Payments	Subordinated Passthrough Coverage
2023-24	\$42,185,431	\$ (10,670,878)	\$ (387,344)	\$ (11,589,487)	\$ 19,537,723	\$ (1,249,460)	15.64
2024-25	43,042,760	(10,885,574)	(395,216)	(11,582,688)	20,179,282	(1,293,373)	15.60
2025-26	43,917,235	(11,104,564)	(403,245)	(11,571,974)	20,837,451	(1,338,164)	15.57
2026-27	44,809,200	(11,327,934)	(411,435)	(11,574,192)	21,495,638	(1,383,851)	15.53
2027-28	45,719,004	(11,555,771)	(419,789)	(11,543,728)	22,199,715	(1,430,452)	15.52
2028-29	46,647,004	(11,788,165)	(428,310)	(11,536,483)	22,894,046	(1,477,985)	15.49
2029-30	47,593,564	(12,025,207)	(437,001)	(11,538,555)	23,592,800	(1,533,539)	15.38
2030-31	48,559,056	(12,266,990)	(445,866)	(11,529,046)	24,317,153	(1,590,204)	15.29
2031-32	49,543,857	(12,513,609)	(454,909)	(11,524,778)	25,050,561	(1,648,002)	15.20
2032-33	50,548,354	(12,765,159)	(464,132)	(11,515,575)	25,803,488	(1,706,956)	15.12
2033-34	51,572,941	(13,021,741)	(473,540)	(11,542,917)	26,534,743	(1,767,089)	15.02
2034-35	52,618,020	(13,283,455)	(483,136)	(11,534,448)	27,316,982	(1,828,425)	14.94
2035-36	53,684,000	(13,550,402)	(492,923)	(11,532,933)	28,107,742	(1,890,988)	14.86
2036-37	54,771,300	(13,822,689)	(502,907)	(11,525,328)	28,920,376	(1,954,802)	14.79
2037-38	55,880,346	(14,100,422)	(513,090)	(1,795,916)	39,470,918	(2,028,394)	19.46
2038-39	57,011,573	(14,383,709)	(523,477)	(1,366,982)	40,737,406	(2,103,458)	19.37
2039-40	58,165,425	(14,672,661)	(534,072)	(1,285,445)	41,673,247	(2,180,150)	19.11
2040-41	59,342,353	(14,967,393)	(544,878)	(922,939)	42,907,143	(2,258,421)	19.00
2041-42	60,542,820	(15,268,020)	(555,901)	(921,445)	43,797,455	(2,338,385)	18.73
2042-43	61,767,297	(15,574,659)	(567,144)	-	45,625,494	(2,419,947)	18.85
2043-44	63,016,263	(15,887,431)	(578,612)	-	46,550,220	(2,503,140)	18.60
2044-45	64,290,208	(16,206,458)	(590,309)	-	47,493,441	(2,587,998)	18.35

Debt service reflects existing housing and non-housing bonds.
Tax increment revenue is projected at a 2% annual growth rate.
Source: Urban Analytics



**Coachella Valley Mosquito and
Vector Control District**

May 14, 2024

Staff Report

Agenda Item: New Business

Discussion and/or approval of Resolution 2024-01 Subordination Request Relating to Proposed Issuance of Tax Allocation Refunding Bonds by the Successor Agency to the Redevelopment Agency for the County of Riverside to Refund Outstanding Tax Allocation Refunding Bonds for Desert Communities Redevelopment Project Area to Achieve Debt Service Savings — **David l'Anson, Administrative Finance Manager**

Background:

The County of Riverside is proposing to refund bonds of their former redevelopment agency to provide bent service savings. The County is requesting the District's approval to issue the bonds in fiscal year 2024-25 which will lower the Successor Agency to the Redevelopment Agency for the County of Riverside (Agency) debt service payments.

To disapprove the subordination request, the District must find based on substantial evidence that the Agency will not be able to pay the debt service on the bonds and the Agency's Statutory Pass Through Payments.

The County states that the bonds *will not be issued* unless *new debt service is lower than the debt service on the existing bonds*. The attached tax increment project summary, with debt service coverage analysis shows that the Agency can expect to have sufficient funds to pay both debt service on the bonds and all of the Agency's Statutory Pass Through Payments.

Staff Recommendation:

Approval of Resolution 2024-01 Subordination Request Relating to Proposed Issuance of Tax Allocation Refunding Bonds by the Successor Agency to the Redevelopment Agency for the County of Riverside to Refund Outstanding Tax Allocation Refunding Bonds for Desert Communities Redevelopment Project Area to Achieve Debt Service Savings

Fiscal Impact:

None

RESOLUTION NO. 2024-01

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE
COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT
SUBORDINATION REQUEST RELATING TO PROPOSED REFUNDING BOND ISSUE
FOR MID-COUNTY PROJECT AREA OF THE SUCCESSOR AGENCY TO THE
REDEVELOPMENT AGENCY FOR THE COUNTY OF RIVERSIDE**

WHEREAS, the Coachella Valley Mosquito and Vector Control District (“District”) is a political subdivision and a “local agency” of the State of California, created and operating under the authority and provisions of California Health and Safety Code Section 2000 *et seq.*; and

WHEREAS, the Board of Trustees (“Board”) of said District has been granted the statutory authority and responsibility to administer the financial affairs of the District; and

WHEREAS, AB1484 allows successor agencies to refund the bonds of their former redevelopment agencies to provide debt service savings; and

WHEREAS, the Successor Agency to the Redevelopment Agency for the County of Riverside (Agency) is proposing to refund bond issue to lower the total debt service payments for the project area and is seeking the District’s (taxing entity) approval pursuant to Section 33607.5(e) and Section 34177.5(c) of the California Health and Safety Code.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District that:

Section 1. Recitals.

The recitals set forth above are true and correct and incorporated herein.

Section 2. Approval of the Successor Agency to the Redevelopment Agency for the County of Riverside Subordination of Statutory Pass-through Payments

The Board hereby confirms its approval of the subordination of the Agency’s obligation to pay Statutory Pass-through Payments to the District in connection with

the Mid-Community Project Area to the Agency's payment obligations for the Bonds.

Section 3. Severability.

Should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 4. Repeal of Conflicting Provisions.

That all the provisions heretofore adopted by the Board that are in conflict with the provisions of this Resolution are hereby repealed.

Section 5. Effective Date.

This Resolution shall take effect immediately upon its adoption.

Section 6. Certification.

The Clerk of the Board shall certify to the adoption of this Resolution and shall cause the same to be processed in the manner required by law.

PASSED, ADOPTED AND APPROVED, this 14th day of May, 2024.

John Peña, President
Board of Trustees

ATTEST:

Megan Scarborough-Eckel, Clerk of the Board

APPROVED AS TO FORM:

Lena D. Wade, General Counsel

REVIEWED:

Jeremy Wittie, MS, CSDM, General Manager



Coachella Valley Mosquito and Vector Control District

Staff Report

May 14, 2024

Agenda Item: Consent Calendar

Approval to purchase Ultra-Low Volume (ULV) Adulticiding Software, Tablets and Accessories from Frontier Precision, a sole source provider, in an amount not to exceed \$30,000 from Capital Replacement Equipment Fund #8415.13.210.000 - **Edward Prendez, Information Technology Manager and Gregorio Alvarado, Operations Manager.**

Background:

The Operations Department has been using GeoTracker Platform to record, display and report Wide Area Larvicide (WALs), Ultra-Low Volume (ULV) and barrier missions for a decade. The software captures data on drivers, control products and sets application thresholds for applicators. The mission outputs are integrated into the monthly Agricultural Commissioners Report, used to document WALs, ULV, barrier locations, and aiding in the ongoing assessment of mission effectiveness.

Azelis formerly known as Adapco, a distributor renowned for its innovative insecticide products, technology, and software, has ceased development and support for the GeoTracker Platform. Azelis remains committed to enhancing and supporting their monitor hardware and has formed a partnership with Frontier Precision to replace the GeoTracker Platform, leveraging Frontier Precision's 15-year track record supporting the mosquito and vector control market.

The acquisition of Frontier Precision's FieldSeeker Software Platform and Mobile Mesa Tablets will sustain the District's data capture methods while empowering operators with features such as a dynamic moving map display, real-time restricted area warnings, and optimized route guidance.

The Budget for FY2023-24 was passed authorizing the purchase of new control equipment.

Item	Qty	Cost
FieldSeeker Office	2	\$3,450.00
Web Hosting	1	\$250.00
FieldSeeker Mobile	5	\$5,750.00
Mesa 4 Tablets	5	\$19,210.41
Total		\$28,660.41 ++

Staff Recommendation:

To approve the purchase of Ultra-Low Volume (ULV) Adulticiding Software, Tablets and Accessories from Frontier Precision, a sole source provider, in an amount not to exceed \$30,000 from Capital Replacement Equipment Fund #8415.13.210.000

Fiscal Impact:			
FY2019-20 Budget GL # 8415.01.210.000	Current Available Funds	Proposed Expense Fiscal Year 2023/24	Remaining Available Funds
\$321,256.00	\$68,591.00	\$30,000	\$38,591.00



NEW BUSINESS



**Coachella Valley Mosquito and
Vector Control District**

May 14, 2024

Staff Report

Agenda Item: New Business

Discussion and/or approval of Resolution 2024-04 authorizing the District General Manager to enter into an agreement with the California Public Employees Retirement System (CalPERS) California Employers Pension Prefunding Trust (CEPPT) program to establish a section 115 trust — **David I'Anson, Administrative Finance Manager**

Staff Recommendation:

Approval of Resolution 2024-04, authorizing the District General Manager to enter into an agreement with the California Public Employees Retirement System (CalPERS) California Employers Pension Prefunding Trust (CEPPT) program to establish a section 115 trust

Background:

The Finance Committee reviewed several options for Section 115 Trust pension stabilization fund. Presentations were made by CalPERS, Keenan, and PARS during Finance Committee meetings earlier this year. CalPERS and Keenan were favored over PARS, due to the investment option offered by PARS, who was going through transition, and there was no history of the new investment option.

During budget discussions, addressing the CalPERS unfunded liability by paying an additional discretionary payment in FY24-25 and shortening the amortization period was agreed as priority, saving \$1.8million in CalPERS interest payments, over funding a larger amount in Section 115 Trust.

CalPERS CEPPT was chosen over Keenan because of the lower fees and District's existing relationship with CalPERS. Since 2012, the District has contracted with the CalPERS California Employers Retiree Benefit Trust (CERBT), making contributions of \$3.5million, and receiving investment earnings of \$1.7million, resulting in the District's Retiree Healthcare Liability being fully funded.

Fiscal Impact:

Funds of \$200,000 were budgeted for this purpose.

RESOLUTION NO. 2024-04

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE
COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT
AUTHORIZING THE DISTRICT GENERAL MANAGER TO ENTER INTO AN
AGREEMENT WITH THE CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM
(CalPERS) CALIFORNIA EMPLOYERS PENSION PREFUNDING TRUST (CEPPT)
PROGRAM TO ESTABLISH A SECTION 115 TRUST**

WHEREAS, it is determined to be in the best interest of the Coachella Valley Mosquito and Vector Control District (“District”) to set aside funds for the pre-funding of its CalPERS pension obligation to be held in trust for the exclusive purpose of making future contributions of the District’s required pension contributions and any employer contributions in excess of such required contributions at the discretion of the District; and

WHEREAS, a tax-exempt trust performing an essential governmental function with the meaning of a Section 115 of the Internal Revenue Code (as amended) and the Regulations issued thereunder, and is a tax-exempt trust under the relevant statutory provisions of the State of California; and the Board of Trustees (“Board”) of said District has been granted the statutory authority and responsibility to administer the financial affairs of the District; and

WHEREAS, the District’s establishment of the Section 115 trust does not require a minimum initial or annual contribution; and

WHEREAS, staff evaluated several options available to establish and administer a Section 115 Trust; and

WHEREAS, the CEPPT program offered by CalPERS was determined to offer the best combination of member agencies, assets under management, fee schedule, and annualized returns; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District that:

Section 1. Recitals.

The recitals set forth above are true and correct and incorporated herein.

Section 2. Authorizations.

The Board of Trustees of the Coachella Valley Mosquito and Vector Control District authorizes and directs the General Manager to execute agreement with CalPERS to establish Section 115 Trust Fund, to include administrative, trustee/custodian, and investment advisory services.

Section 3. Severability.

Should any provision, section, paragraph, sentence or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 4. Repeal of Conflicting Provisions.

That all the provisions heretofore adopted by the Board that are in conflict with the provisions of this Resolution are hereby repealed.

Section 5. Effective Date.

This Resolution shall take effect immediately upon its adoption.

Section 6. Certification.

The Clerk of the Board shall certify to the adoption of this Resolution and shall cause the same to be processed in the manner required by law.

PASSED, ADOPTED AND APPROVED, this 14th day of May, 2024.

John Peña, President
Board of Trustees

ATTEST:

Megan Scarborough-Eckel, Clerk of the Board

APPROVED AS TO FORM:

Lena D. Wade, General Counsel

REVIEWED:

Jeremy Wittie, MS, CSDM, General Manager



Coachella Valley Mosquito and Vector Control District

May 14, 2024

Staff Report

Agenda Item: New Business

Discussion and/or approval of Resolution 2024-02 and adoption of the CVMVCD Invasive Mosquito Species Response Plan — **Jennifer A. Henke, MS, BCE, Laboratory Manager**

Background:

The District's mission is to protect the health of the public in the Coachella Valley from excessive nuisance, caused by mosquitoes, and to mitigate the risk from mosquito-borne viral disease through its ongoing mosquito surveillance and control program. Intensive control measures may be applied to reduce the potential for virus transmission to humans by suppressing infected mosquito populations for no less than a 45-day period while infectious viremia persists in people, thus breaking the cycle by preventing new vector infections.

The *CVMVCD Invasive Mosquito Management Program and Arbovirus Response Plan* describes an enhanced surveillance and response program for the Coachella Valley dependent on the level of risk of mosquito-borne virus transmission to humans. The plan was created in 2015 and updated in 2024. This updated plan follows changes in surveillance and new findings regarding invasive mosquitoes and arboviruses. *The Guidance for Surveillance of and Response to Invasive Aedes Mosquitoes and Dengue, Chikungunya, and Zika in California* generated by the California Department of Public Health is referenced in this document; however, the District's response plan includes information on surveillance, control, and public outreach activities relative to the conditions and communities in the Coachella Valley.

Staff Recommendation:

Approval of Resolution 2024-02 adopting the CVMVCD Invasive Mosquito Species Response Plan.

Exhibits:

- Resolution 2024-02
- CVMVCD Invasive Mosquito Species Response Plan
- [Response Plan Summary Video](#)

Resolution No. 2024-02

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT ADOPTING THE CVMVCD INVASIVE MOSQUITO SPECIES RESPONSE PLAN

WHEREAS, the Coachella Valley Mosquito and Vector Control District (the “District”) is a political subdivision of the State of California, created and operating under the authority and provisions of California Health and Safety Code Section 2000 et seq.; and

WHEREAS, the State of California annually adopts the California Guidance for Surveillance of and Response to Invasive *Aedes* Mosquitoes and Locally Acquired Exotic Mosquito-borne Infections Transmitted by These Mosquitoes in California (“State Invasive Mosquito Guidance”) which provides local agencies with a decision support system outlining the roles and responsibilities involved with mosquito-borne virus surveillance and response; and

WHEREAS, the District has prepared its own Invasive Mosquito Management Program and Arbovirus Response Plan, attached hereto as Exhibit “A” and incorporated herein by this reference (“District Invasive Mosquito Plan”), which incorporates the State Invasive Mosquito Guidance with certain adjustments made to benchmark ratings relative to the conditions in the Coachella Valley.

NOW, THEREFORE, THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals.

The recitals set forth above are true and correct.

Section 2. Adoption of District Invasive Mosquito Plan.

The Board of Trustees hereby adopts the District Invasive Mosquito Plan.

Section 3. Delegation of Authority.

The District’s General Manager is hereby delegated all authority necessary to implement the District Invasive Mosquito Plan in a manner that is consistent with the State Invasive Mosquito Guidance and the conditions in the Coachella Valley.

Section 4. Public Inspection and Copying.

A copy of the District Invasive Mosquito Plan shall be maintained at the District offices and shall be made available for public inspection and copying during regular business hours.

Section 5. Severability.

The Board of Trustees declares that should any provision, section, paragraph, sentence, or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 6. Repeal of Conflicting Provisions.

All the provisions of any resolution or policy heretofore adopted by the District that are in conflict with the provisions of this Resolution are hereby repealed.

Section 7. Effective Date.

This Resolution shall take effect upon its adoption.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

Section 8. Certification.

The Clerk of the Board shall certify as to the adoption of this Resolution and shall cause the same to be processed in the manner required by law.

PASSED, ADOPTED, AND APPROVED by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District this 14th day of May 2024.

John Peña, President
Board of Trustees

ATTEST:

Megan Scarborough-Eckel, Clerk of the Board

APPROVED AS TO FORM:

Lena D. Wade, General Counsel

REVIEWED:

Jeremy Wittie, MS, CSDM, General Manager

EXHIBIT "A"

**SEE ATTACHED
COACHELLA VALLEY MOSQUITO AND
VECTOR CONTROL DISTRICT
INVASIVE MOSQUITO SPECIES RESPONSE PLAN**

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

INVASIVE MOSQUITO MANAGEMENT PROGRAM AND ARBOVIRUS RESPONSE PLAN 2024



CVMVCD 43-420 Trader Place Indio, CA 92201
E-mail: cvmosquito@cvmvcd.org
www.cvmosquito.org

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I. OBJECTIVE

The purpose of this document is to provide guidance to Coachella Valley Mosquito and Vector Control District staff on how to prepare for, conduct surveillance of, and respond to the detection of invasive mosquitoes in the Coachella Valley. Mosquito species of immediate concern are the container-breeding *Aedes aegypti* and *Aedes albopictus*, both of which have been detected in multiple areas of California, including Riverside County. This document was developed based on the California Department of Public Health (CDPH) "**Guidance for Surveillance of and Response to Invasive Aedes Mosquitoes and Dengue, Chikungunya, and Zika in California**" published in June 2014, revised several times, and most recently updated in January 2024.

<https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/InvasiveAedesSurveillanceandResponseinCA.pdf>

II. INTRODUCTION

The detections of *Aedes albopictus* (Los Angeles area 2011), *Aedes aegypti* (Central Valley and Bay Area 2013), and *Aedes notoscriptus* (Los Angeles area 2014) demonstrated that California is vulnerable to colonization by these highly invasive mosquito species. In October of 2015, *Aedes aegypti* was discovered in Riverside and San Bernardino Counties. These discoveries alerted District staff that the detection of one of these invasive species may occur at any time within the Coachella Valley.

Aedes aegypti mosquitoes were detected in the Coachella Valley in May 2016. Since that time, the District staff have determined that BG traps are the most effective for collecting adequate numbers, examined pesticide efficacy, reviewed physical control strategies, and honed communication methods to best meet the needs of a variety of community groups. This work has led to the selection of appropriate surveillance, control, and outreach strategies outlined in this management and response plan.

In an effort to protect residents and visitors from invasive mosquito species and the viruses they transmit, the District plans to exercise its full abatement powers and exemptions for vector control as specified in the "**The Cooperative Agreement between the California Department of Public Health and Local Vector Control Agencies.**"

https://www.cdpr.ca.gov/docs/enforce/mous/dhs_cac.pdf

The District prioritizes active virus transmission and public health risks. Depending on the needs in other vector programs, work to manage invasive mosquitoes not actively transmitting arboviruses may be considered as a lower priority than the management of

mosquitoes, invasive or native, actively transmitting arboviruses. Please review the [District's Mosquito-Borne Surveillance and Emergency Response Plan](#) for additional information on the surveillance and response for West Nile virus, St. Louis encephalitis virus, and western equine encephalomyelitis virus and the mosquitoes that vector these viruses.

III. ANNUAL TRAINING

In March of each year, the Vector Ecologist will coordinate mosquito species training with all Surveillance and Quality Control department staff. The training will include information on all known invasive mosquito species currently established or likely to establish in California. Upon completion of training staff should be able to:

1. Identify all life stages of invasive mosquito species.
2. Have knowledge of the biology and ecology of the invasive mosquito species.
3. Be current on the latest surveillance and control methods being used for invasive mosquitoes in California.

An annual training for Operations and Public Outreach Departments will be coordinated by the leaders of those departments with the Surveillance and Quality Control department. The training should include:

1. Biology and ecology of invasive mosquito species in California.
2. Current surveillance and control methods used against relevant invasive mosquito species and the current distribution of invasive *Aedes* species in California.
3. Service Request procedures when responding to a potential report of an invasive mosquito species.

IV. NOVEL INVASIVE MOSQUITO RESPONSE PLAN

The District has a long history of effectively controlling vectors and minimizing vector-borne disease. However, new and emerging vectors and vector-borne diseases pose greater challenges, and there is little likelihood of eradicating them with current techniques. To maintain its ability to proactively respond to vectors and vector-borne diseases, the District prioritizes and tracks global emerging vector-borne disease threats most likely to arrive in the Coachella Valley.

The Laboratory Manager reviews the potential for vector-borne disease transmission in the Coachella Valley; this review is shared with the District Board of Trustees and District leadership by February annually. By March, the Vector Ecologist will review and update the invasive mosquito surveillance plan as needed. Information is gathered through scientific literature; statewide and neighboring agency communications; and reports made at local and national meetings.

The Vector Ecologist will confirm the first detection of an invasive mosquito species in a new city or un-incorporated community. Then the Vector Ecologist will call for a special meeting immediately with the General Manager, Department Managers, and Field Supervisors. At this meeting, an initial assessment will be made and a post-detection response plan initiated. The Laboratory Manager will notify CDPH Vector-Borne Disease Section Biologists at the Ontario Field office.

V. INVASIVE *Aedes aegypti* MANAGEMENT PROGRAM

In the absence of evidence of the presence of arboviruses primarily transmitted by *Aedes aegypti* (such as chikungunya, dengue, yellow fever, and Zika), the following discusses the normal level response to the presence of *Aedes aegypti*.

1. Surveillance Response

BG traps are set one night per week at pre-defined trap locations throughout the season to monitor the detection area. When evaluations of control efforts are being considered, at least 8 BG traps per treatment plot will be set weekly at temporary locations. A report of trap count results is sent to the District staff by the end of the next business day.

2. Operations Response

Service Requests

Each Vector Control Technician (VCT) will be responsible for responding to service requests as assigned. If the presence of mosquitoes is confirmed at the residence of the requestor, the Technician will inspect the property. During the property inspection, the VCT will focus on educating the resident in ways to prevent mosquito breeding on their property as well as performing both physical and chemical control (larval and adult) as necessary based on the results of the inspection.

If the service request load becomes too great due to service request volume or response to other arbovirus threats that impede the ability to respond to Invasive *Aedes* service, the VCT will request assistance from their supervisor.

***Aedes* Area of Interest**

When the VCT requests assistance from their supervisor (as outlined above), additional Operations employees will be sent to the area to assist. The focus of the *Aedes* area of interest may be initiated when one of three thresholds has been reached:

- VCT “first responders” to a neighborhood if a human or positive mosquito sample for invasive *Aedes* vectored disease is reported to the District (see section VI below).

- Supplement the surveillance and control efforts of areas that are experiencing above-average Service Requests, adult *Aedes aegypti* trap counts, or high concentration of positive larval lab samples.
- Initiate [abatement powers](#) for repeat offender properties.

Seasonal Area-Wide Applications

Annual planning for seasonal area-wide applications is performed during the winter planning period in conjunction with the District's operations budget development.

When determining an area for area-wide applications for the coming season, the District's IVM team analyzes monthly historical *Aedes aegypti* population data by city or unincorporated county area to forecast peak mosquito activity for the coming season. Then using GIS software, District staff define areas within cities or unincorporated areas with the highest *Aedes aegypti* activity by examining and visualizing service requests, larval samples, and invasive *Aedes* trap count data. Based on this data analysis, specific sites within the District are prioritized and targeted for area-wide application to drive down the forecasted peak in the coming season.

Once sites are determined and the budget for the coming fiscal year is approved by the Board of Trustees, the IVM team begins planning for the area-wide application to determine the most appropriate means of public outreach to the affected local government entities and residents of the area-wide application area as well as to finalize the means of application and method of efficacy assessment.

3. Outreach Response

Outreach will lead general awareness outreach initiatives regarding invasive *Aedes* mosquitoes, as follows:

- a. Provide invasive *Aedes* outreach materials to cities for distribution in city offices, newsletters, websites, and social media.
- b. Distribute invasive *Aedes* awareness materials at public events such as community, city, and school presentations, fairs, other community engagements, and one-on-one meetings with city, county, state, and federal officials.
- c. Include invasive *Aedes* as a topic in standard presentations and other outreach efforts.
- d. Deliver *Aedes* detection programs designed for students in targeted elementary, middle, and high schools to teach students about invasive *Aedes*.

- e. Provide Vector Control Technicians with informational materials to distribute during Service Requests with residents.
- f. Post informational materials on District website page (<https://www.cvmosquito.org/>) promoting awareness of invasive *Aedes* risk and prevention.
- g. Promote awareness of invasive *Aedes* through social media channels.
- h. Provide media with interviews and informational materials on the threat of invasive *Aedes*.

VI. RESPONSE TO AN ARBOVIRUS VECTORED BY *Aedes aegypti*

1. Initial Communication Plan

- a. Arbovirus reported in a person or *Aedes aegypti*
- b. Riverside County Department of Public Health or California Department of Public Health notifies Laboratory Manager of a suspected, probable, or confirmed case of invasive *Aedes*-vectored disease case in a person; or the Laboratory Manager or Vector Ecologist is notified by DART of a virus-positive sample of *Aedes aegypti*.
- c. The Laboratory Manager calls an Action Plan meeting of the General Manager, Operations Manager, Field Supervisor in charge of *Aedes* field response, IT Manager, Public Information Manager, Vector Ecologist, and Executive Assistant. The objective of the meeting will be to discuss the District's response to the specific detection. Due to the distribution of *Aedes aegypti* within the Coachella Valley, the District considers that any case of an invasive *Aedes*-vectored disease case may lead to local transmission. All cases are treated as if *Aedes* mosquitoes may be in the vicinity.
- d. Upon conclusion of the meeting, State and County Public Health officials and neighboring vector control agencies will be notified by the General Manager or designee of the District's planned response.
- e. The District will work collaboratively with the Riverside County Public Health Department and CDPH to issue a joint media release to raise awareness of an increased threat potential while acknowledging that no locally-acquired case has yet been confirmed.

2. Surveillance Response

- a. For human cases, the Vector Ecologist or a Biologist along with a Lead Technician or Field Supervisor will inspect the residence as well as any additionally named addresses to determine the presence of *Aedes* mosquitoes.

- b. For both human cases and the presence of virus-positive mosquitoes, Laboratory Department staff will conduct enhanced adult surveillance with BG traps distributed within a 450-foot radius around the address. Traps in an area will be monitored for 45 days following the final detection of a disease agent in a person or a mosquito sample.
- c. Any adult female *Aedes aegypti* mosquitoes collected will be tested for chikungunya, dengue, and Zika viruses. Female mosquitoes are pooled together by trap and sent to the Davis Arbovirus Research and Testing (DART) facility. Results will be shared with the Action Plan group as well as with Riverside County Department of Public Health.
- d. Inspections conducted by Laboratory staff where *Aedes* mosquitoes are found will be reported to Operations to coordinate treatment and follow-up inspection.

3. Operations Response:

- a. Door-to-door inspection notifications will commence within 48 hours of the District's Action Plan Meeting.
- b. Operations Department will post signage in the area indicating that a mosquito virus is in the area. Signs will be posted in areas where deemed necessary in order for residents to see the information.
- c. After notification of residential and business properties within the buffered area, Operations staff initiates larval mosquito surveillance throughout a 450-foot radius around the suspect-case residence or initial positive trap and monitored for 45 days. Control strategies will be implemented when appropriate conditions for mosquito development or resting are detected.
- d. Samples of mosquitoes should be collected and submitted to Laboratory staff for identification.
- e. If invasive *Aedes* are discovered, Operations staff will conduct mandatory door-to-door inspections of each property extending 450-foot radius area from the positive property following post-detection Invasive *Aedes* control protocol.
- f. If Operations staff is not able to access a property under mandatory door-to-door inspections because the resident is absent or refuses, Operations staff will
 - i. Post the [Area Warrant](#) which will allow access after 24 hours from the date and time of posting.
 - ii. Notify the appropriate law enforcement about the need for coordination.

- iii. Return 24 hours from posting of the [Area Warrant](#) on the property and attempt to contact the resident. If the resident is unwilling or unable to cooperate, the Operations staff may execute the Warrant to Inspect and Abate and follow the protocols described in said Warrant.

4. Public Outreach Response

- a. The Public Information Manager contacts the city manager and county supervisor's office in affected city, cities, or unincorporated areas to inform them that an invasive Aedes-transmitted virus has been detected and a door-to-door inspection operation will begin. The Public Information staff proceeds with stakeholder notification.
- b. The Public Information Department will use the most appropriate channels below to reach the affected neighborhood regarding the door-to-door campaign:
 - i. Door Hangers
 - ii. Geo-targeted digital messaging
 - iii. Townhall, community, city, and school meetings
 - iv. Fairs and other community engagements
 - v. One-on-one meetings with city, county, state, and federal officials
 - vi. Media interviews
 - vii. Neighborhood listservs
 - viii. Homeowner Associations (HOA) outreach email, postcards, or printed postings

5. Using Area-wide Applications as a Response

- a. No later than the third day following notification of a positive case, human or mosquito, the Laboratory Manager calls a meeting to include General Manager, IT Manager, Operations Manager, Field Supervisor(s) overseeing response, Public Information Manager, Vector Ecologist, and Executive Assistant. At the meeting, the results of trap collections and inspections will be discussed.
- b. Aerial applications of larvicide will be made if traps in the affected neighborhood capture an average of more than 10 female Aedes mosquitoes per trap per night or if 40% of the properties inspected are found to have more than 10 larval Aedes mosquitoes. Applications will cover a 1-mile square surrounding the index case.

- c. Truck-mounted or aerial larvicide applications may be made if more than 5 female Aedes mosquitoes per trap per night are captured or if 20% of the properties inspected are found to have more than 10 larval Aedes mosquitoes.
- d. Neighborhoods outside of a 1-mile radius of the human case will be evaluated. If more than 10 female Aedes mosquitoes per night are captured on a 2-week cycle, those neighborhoods may be scheduled for larvicide applications to reduce the risk of virus transmission.
- e. Once the determination that area-wide application is necessary:
 - i. The Laboratory Manager will direct staff to evaluate the efficacy of the application through trapping.
 - ii. The Operations Manager will direct staff to continue inspections and treat the properties where immediate control of mosquitoes is needed.
 - iii. The Operations Manager will notify the Riverside County Agricultural Commissioner, law enforcement, and, if needed, the Federal Aviation Administration of area-wide applications.
 - iv. The Public Outreach Department will update the District stakeholders.



**Coachella Valley Mosquito and
Vector Control District**

May 14, 2024

Staff Report

Agenda Item: New Business

Discussion and/or approval of Resolution 2024-03 and adoption of the 2024 CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan — **Jennifer A. Henke, MS, BCE, Laboratory Manager**

Background:

The District’s mission is to protect the health of the public in the Coachella Valley from excessive nuisance, caused by mosquitoes, and to mitigate the risk from mosquito-borne viral disease through its ongoing mosquito surveillance and control program. Intensive control measures may be applied to reduce the potential for virus transmission to humans by suppressing infected mosquito populations for up to a 10-day period while infectious viremia persists in vertebrate hosts, thus breaking the cycle by preventing new vector infections.

The *CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan* describes an enhanced surveillance and response program for the Coachella Valley dependent on the level of risk of mosquito-borne virus transmission to humans, particularly for West Nile virus, St. Louis encephalitis virus, and western equine encephalomyelitis virus. The plan was created in 2003 and is updated every year to follow changes in surveillance and new findings regarding arboviruses. The Mosquito-borne Virus Surveillance & Response Plan generated by the California Department of Public Health, the Mosquito & Vector Control Association of California, and the University of California, is the core of this document; however, some necessary adjustments were made in benchmark ratings relative to the conditions in the Coachella Valley.

Staff Recommendation:

Approval of Resolution 2024-03 adopting the CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan.

Exhibits:

- Resolution 2024-03
- CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan
- [Response Plan Summary Video](#)

Resolution No. 2024-03

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE
COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL
DISTRICT ADOPTING THE CVMVCD MOSQUITO-BORNE VIRUS
SURVEILLANCE AND EMERGENCY RESPONSE PLAN**

WHEREAS, the Coachella Valley Mosquito and Vector Control District (the “District”) is a political subdivision of the State of California, created and operating under the authority and provisions of California Health and Safety Code Section 2000 et seq.; and

WHEREAS, the State of California annually adopts the California Mosquito-Borne Virus Surveillance and Response Plan (“State Risk Assessment Plan”) which provides local agencies with a decision support system outlining the roles and responsibilities involved with mosquito-borne virus surveillance and response; and

WHEREAS, the District has prepared its own Mosquito-Borne Virus Surveillance and Emergency Response Plan, attached hereto as Exhibit “A” and incorporated herein by this reference (“District Risk Assessment Plan”), which incorporates the State Risk Assessment Plan with certain adjustments made to benchmark ratings relative to the conditions in the Coachella Valley.

NOW, THEREFORE, THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals.

The recitals set forth above are true and correct.

Section 2. Adoption of Amended District Risk Assessment Plan.

The Board of Trustees hereby adopts the amended District Risk Assessment Plan.

Section 3. Delegation of Authority.

The District’s General Manager is hereby delegated all authority necessary to implement the District Risk Assessment Plan in a manner that is consistent with the State Risk Assessment Plan and the conditions in the Coachella Valley.

Section 4. Public Inspection and Copying.

A copy of the District Risk Assessment Plan shall be maintained at the District offices and shall be made available for public inspection and copying during regular business hours.

Section 5. Severability.

The Board of Trustees declares that should any provision, section, paragraph, sentence, or word of this Resolution be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this Resolution as hereby adopted shall remain in full force and effect.

Section 6. Repeal of Conflicting Provisions.

All the provisions of any resolution or policy heretofore adopted by the District that are in conflict with the provisions of this Resolution are hereby repealed.

Section 7. Effective Date.

This Resolution shall take effect upon its adoption.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

Section 8. Certification.

The Clerk of the Board shall certify as to the adoption of this Resolution and shall cause the same to be processed in the manner required by law.

PASSED, ADOPTED, AND APPROVED by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District this 14th day of May 2024.

John Peña, President
Board of Trustees

ATTEST:

Megan Scarborough-Eckel, Clerk of the Board

APPROVED AS TO FORM:

Lena D. Wade, General Counsel

REVIEWED:

Jeremy Wittie, MS, CSDM, General Manager

EXHIBIT "A"

**SEE ATTACHED
COACHELLA VALLEY MOSQUITO AND
VECTOR CONTROL DISTRICT
MOSQUITO-BORNE VIRUS SURVEILLANCE AND
EMERGENCY RESPONSE PLAN**

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

MOSQUITO-BORNE VIRUS SURVEILLANCE AND EMERGENCY RESPONSE PLAN



CVMVCD 43-420 Trader Place Indio, CA 92201
E-mail: cvmosquito@cvmvcd.org
www.cvmosquito.org

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I. INTRODUCTION

Since 1969, California has had a mosquito-borne disease surveillance program in place to monitor mosquito abundance and encephalitis virus activity. The state-wide surveillance program was established in 1969. The District started with surveillance in the early 1980s. The present program was established in 1990 through a cooperative effort of the Arbovirus Research Group at the School of Public Health, UC Berkeley (now the Davis Arbovirus Research and Training, UC Davis), and the Coachella Valley Mosquito and Vector Control District (the District).

The District's mission is to enhance the quality of life for our community by providing effective and environmentally sound vector control and vector-borne disease prevention programs. This mission is accomplished through an ongoing mosquito surveillance and control program. Intensive control measures may be applied to reduce the potential for virus transmission to humans by suppressing infected mosquito populations while infectious viremia persists in vertebrate hosts, thus breaking the cycle by preventing new vector infections.

This document describes an enhanced surveillance and response program for the Coachella Valley dependent on the level of risk of mosquito-borne virus transmission to humans. The Mosquito-borne Virus Surveillance & Response Plan generated by California Department of Health Services, Mosquito & Vector Control Association of California, and University of California, is the core of this document; however, some necessary adjustments were made in benchmark ratings relative to the conditions in the Coachella Valley.

Guidelines for adult mosquito surveillance, processing mosquitoes for arbovirus detection, and testing dead birds and equines, as well as information regarding compounds approved for mosquito control in California are part of the California State Mosquito-Borne Virus Surveillance & Response plan.

II. BACKGROUND INFORMATION

Mosquito-borne viruses belong to a group of arthropod-borne viruses referred to us as arboviruses (for **arthropod-borne**). From 15 mosquito-borne viruses known to occur in California, to date, only St. Louis encephalitis virus (SLEV), western equine encephalomyelitis virus (WEEV), and West Nile virus (WNV) have caused significant outbreaks of human disease. These viruses are maintained in nature in wild bird-mosquito cycles, and therefore they do not depend upon infections of humans or domestic animals for their persistence.

Surveillance includes the monitoring of immature and adult mosquito abundance and detecting virus activity by testing (a) adult female mosquitoes, (b) sentinel chickens and wild birds, (c) horses, and (d) humans for infection. Surveillance must include not only the monitoring of mosquito-borne viruses known to exist in California, but also the detection of newly introduced viruses.

III. MOSQUITO SURVEILLANCE OBJECTIVES

Mosquito control is the only practical method of protecting people and animals from WNV, SLEV, and WEEV infections. Larvae and pupae (immature stages) of *Culex tarsalis* and *Culex quinquefasciatus* can be found throughout the Coachella Valley in a wide variety of aquatic sources, ranging from urban retention basins to irrigated agricultural lands, Salton Sea marshes and duck club habitats.

A. MOSQUITO SURVEILLANCE

Surveillance includes monitoring of immature and adult mosquito abundance in the Coachella Valley throughout the year. To monitor mosquito larvae, “dippers” or long-handled ladles are used to collect samples from known and new water sources. At that time, the number of larvae and pupae per “dip” is estimated. These data are used to determine larval control measures. The records of the number and developmental stages of larvae, source size treated, product name, and amount used, with the control effectiveness data can provide an early warning tool for forecasting the size of the adult population.

Mosquito adult surveillance in the Coachella Valley is conducted by setting 53 gravid traps on a weekly basis and setting an additional 56 CO₂ traps on a bi-weekly basis. Adult mosquito abundance is a key factor when evaluating the risk of disease transmission. **Guidelines for mosquito surveillance are summarized in Appendix A of California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.**

B. MOSQUITO INFECTIONS

Early detection of virus activity may be accomplished by testing *Culex tarsalis* and *Culex quinquefasciatus*, the primary vectors of SLEV, WEEV, and WNV in the Coachella Valley for virus infection. Sampling of other mosquito species may be necessary to detect the introduction of viruses that do not have a primary avian-*Culex* transmission. Mosquitoes are trapped by using carbon-dioxide-baited traps and using gravid traps baited with water with enriched organic content and the females are then pooled in groups up to 50 for testing at the District. **Procedures for processing mosquitoes for virus infection are summarized in Appendix B California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.**

C. DEAD BIRDS

Dead birds are reported to CDPH, then either brain or eye tissue is sampled and tested at the District Laboratory for WNV. The dead bird testing algorithm is provided **in Appendix E of the California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.**

D. EQUINE INFECTIONS

Equine disease due to WEEV and WNV is not a sensitive indicator of epizootic (infections only in animals) WEEV and WNV activity in California. The reason for this is the widespread vaccination of equines. If confirmed cases do occur, it is a strong indication that WEEV or WNV is active in the region. California Department of Agriculture (CDFA) and CDPH annually

contact veterinarians to ensure equine vaccinations. Besides WEEV and WNV, other mosquito-borne viruses may also cause encephalitis in horses, and consequently, testing of equine specimens by CDPH has been expanded to include other viruses. **See Appendix F of the California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.**

E. HUMAN INFECTIONS

In general, human cases are not a sensitive surveillance indicator of virus activity because most human infections (>99%) have no, or only mild, symptoms. When severe encephalitis cases do occur, rarely are arboviruses suspected, and sera generally are not sent to CDPH for testing. Communication with key hospitals and local health officials has been enhanced in the last year. However, rapid detection and reporting of confirmed human cases is crucial to local mosquito control agencies in planning and expanding emergency control activities to prevent additional infections. **(See Appendices G and H of the California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.)**

F. DATA ANALYSIS AND INTERPRETATION

1. All weather reports received from state and local agencies that can affect mosquito breeding will be reviewed and analyzed by the District staff. Weekly and biweekly mosquito occurrence reports received from the CVMVCD laboratory and the CDPH – VBDS statewide will be used for forecasting purposes. For websites related to weather conditions refer to **Appendix K of the California Mosquito-Borne Virus Surveillance and Response Plan – May 2023.**

2. Reports from CVMVCD laboratory, CDPH – VBDS, and UCD on virus isolations in mosquito pools, confirmed human cases and horse cases of encephalitis will be used for operational program planning.

G. PUBLIC INFORMATION AND EDUCATION

Residents, farmers, and duck club owners can play an important role in reducing the number of adult mosquitoes by eliminating standing water that may support the development of immature mosquitoes. Farmers and ranchers can ensure that irrigation practices do not allow standing water for extended periods, and duck club owners can work with mosquito control agencies to determine appropriate flooding schedules. Education regarding personal protective measures will help reduce exposure to mosquitoes (insect repellents, protective clothing time of the exposure to mosquitoes). Equally important is the education of the medical community to recognize the symptoms of WEEV, SLEV, and WNV and request proper laboratory testing for their confirmation. Public health officials need to be alerted if a mosquito-borne viral disease is detected, especially if the public health risk is high.

The level of public information and education depends on the conditions and required response.

Level 1: During a normal mosquito-breeding season, routine public education will be conducted.

Level 2: Emergency planning and enhanced public education will be conducted. This includes posting messages on the symptoms of encephalitis, public information about pesticide applications, and recommendations about avoiding mosquito bites.

Level 3: Full-scale media campaign is required at this level. Coordinate with CDPH in a regional emergency response in conjunction with California Office of Emergency Services in informing County Board of Supervisors, Local Health Departments, city, and county officials.

IV. MOSQUITO CONTROL OBJECTIVES

Mosquito control in California is conducted by over 80 local agencies, including mosquito and vector control districts, environmental health departments, and county health departments.

The Coachella Valley Mosquito and Vector Control District is a Special District and public agency that operates under the California Health and Safety Code, section 2270 (2000). The District currently serves 2400 square miles and is governed by an 11 member board of Trustees, nine representing the incorporated cities and two from Riverside County at large.

The District's mission is to reduce the risk from disease carried by mosquitoes and other vectors for residents in the Coachella Valley. **See Appendix I and J of the California Mosquito-Borne Virus Surveillance and Response Plan - May 2023** for compounds approved for mosquito control in California and application methods.

A. LARVAL CONTROL

This strategy prevents producing another generation of mosquitoes capable of transmitting disease. Control of larvae is target-specific and covers a defined area. Larval mosquito control includes environmental manipulation, biological control, and chemical control.

Environmental manipulation decreases habitat availability for immature mosquitoes. It may include water management, such as conservative crop irrigation in the Coachella Valley in date and citrus orchards, removal of standing water in the urban areas, re-circulation of water at fish farms, and water disposal through evaporation, such as at duck clubs.

Biological control uses natural predators, parasites, or pathogens to suppress immature stages of mosquitoes. In the Coachella Valley, mosquitofish, *Gambusia affinis*, are the most widely used biocontrol agent. These fish are released annually in a variety of habitats, mostly in abandoned pools.

Chemical control presently includes products that are highly specific and have minimal impact on non-target organisms. These products include microbial control agents, such as *Bacillus thuringiensis israelensis* (Bti), *Lysinibacillus sphaericus* and spinosad. Microbial products control mosquito larvae within 24 - 48 hours, and Bti is used in short-term habitats, such as irrigated dates and citrus orchards. Microbial products with a longer residual, such as *Lysinibacillus sphaericus*, are mostly used at permanent habitats of *Culex tarsalis* where penetration of the product is not an issue, or is applied by air to force the granules through the dense vegetation. Products based on the microbial-derived spinosad toxins are an effective tool to control immature mosquitoes; at the doses used to control mosquitoes, there is little danger of non-target impacts. Spinosad-containing products come in a variety of formulations; some work quickly within 48 hours, and others have a residual effect of up to 180 days. Insect growth regulators, such as methoprene, are widely in use in permanent breeding sources of *Culex tarsalis*, for instance, salt marshes along the Salton Sea and duck club ponds. Lightweight oils and monomolecular surface films are also used, but have the drawback of suffocating non-target surface breathing aquatic organisms as well. These surface products are primarily used against sources with large numbers of pupae.

B. ADULT CONTROL

Adult mosquito control may be required as an additional measure to control populations of infected mosquitoes and stem an epidemic. Adult mosquito control products may be applied by ground-based equipment and airplanes or helicopters. Many factors need to be considered when selecting a pesticide and the target area for adult mosquito control treatments. These factors may include (1) efficacy against the target species or life cycle stages, (2) pesticide resistance (3) pesticide label requirements, (4) availability of pesticide and application equipment, (5) environmental conditions (6) cost, and (7) toxicity to non-target species, including humans. The products most likely used for adult mosquito control in the Coachella Valley include organophosphates, pyrethrin and pyrethroids. The two organophosphates that the District can use to control adult mosquitoes are malathion and naled. The pyrethrins and pyrethroids include active ingredients such as resmethrin, sumithrin, etofenprox, lambda-cyhalothrin, permethrin, prallethrin, deltamethrin, and esfenvalerate. These products may be applied with a synergist such as piperonyl butoxide (PBO). The District conducts routine evaluations of the effectiveness of the active ingredients against multiple mosquito populations to use the most effective suite of products.

V. RESPONSE LEVELS

The California Mosquito-borne Virus Surveillance and Response Plan is based on conditions that exist at three response levels identified as normal season, emergency planning, and epidemic conditions. Six risk factors that are analyzed to determine the appropriate response level include:

- Environmental conditions (wetland surface water area, rainfall, and temperature)
- Adult mosquito vector abundance
- Virus isolation rates from mosquitoes
- Infection rates in wild or domestic animals
- Human cases of mosquito-borne viruses
- Proximity of detected virus activity to urban or suburban regions

Sentinel chicken seroconversions should be used in areas where they are available. Each of these factors is rated on a scale of 1 to 5, with 5 representing conditions indicative of a high risk of human infection with a mosquito-borne virus. An average rating is determined for the six factors and is correlated with the response level as follows:

Level 1: Normal Season (1.0 to 2.5)

Level 2: Emergency Planning (2.6 to 4.0)

Level 3: Epidemic Conditions (4.1 to 5.0)

Tables 1 – 3 provide worksheets to assist in determining the appropriate rating for each of the risk factors. The term “average” refers to averages over non-epidemic years in a specific region, such as that within the boundaries of a local mosquito and vector control district. Averages typically are determined for the preceding five-year period. The roles and responsibilities of key agencies involved in carrying out the surveillance and response plan are outlined in “Key Agency Responsibilities.”

VI. MOSQUITO-BORNE VIRUS RISK ASSESSMENT TABLES

Table 1. West Nile virus

Table 1. WNV Surveillance Factor	Assessment Value	Benchmark	Value	
1. Environmental conditions Favorable environmental conditions in the Coachella Valley for virus multiplication or transmission Considers ambient temperature and rainfall for prior 2-week period	1	Temperature $\leq 56^{\circ}\text{F}$		
	2	Temperature 57 - 65°F		
	3	Temperature 66 - 72°F		
	4	Temperature 73 – 79°F		
	5	Temperature $> 79^{\circ}\text{F}$		
			<i>Cx tars</i>	<i>Cx quinq</i>
2. Adult <i>Culex tarsalis</i> and <i>Culex quinquefasciatus</i> abundance Area of North and West Shore in last 5 years = female mosquitoes /trap night for prior 2-week period.	1	Vector abundance well below average (<50%)		
	2	Vector abundance below average (50–90%)		
	3	Vector abundance average (90–150%)		
	4	Vector abundance above average (150–300%)		
	5	Vector abundance well above average (>300%)		
3. Virus isolation rate in <i>Culex tarsalis</i> and <i>Culex quinquefasciatus</i> mosquitoes Tested in pools of 50. Test results expressed as minimum infection rate (MIR) per 1,000 female mosquitoes tested for the prior 2-week period	1	MIR / 1000 = 0		
	2	MIR / 1000 = 0–1.0		
	3	MIR / 1000 = 1.1–2.0		
	4	MIR / 1000 = 2.1-5.0		
	5	MIR / 1000 > 5.0		
4. Dead bird infection Number of birds that have tested positive (recent infections only) for WNV during the prior 90 days.	1	No WN positive dead bird within 150 miles of District		
	2	WN positive dead bird within 150 miles of District		
	3	One WN positive dead bird in California		
	4	One WN positive dead bird in Coachella Valley.		
	5	Multiple WN positive dead bird reported in Coachella Valley		
5. Human cases Do not include this factor in calculations if no cases are detected in region	3	One or more human infections within 150 miles of District.		
	4	One human infection in Coachella Valley		
	5	Multiple human infections in Coachella Valley.		
			<i>Cx tars</i>	<i>Cx quinq</i>
Response Level / Average Rating: Normal Season (1.0 to 2.5) Emergency Planning (2.6 to 4.0) Epidemic (4.1 to 5.0)		TOTAL		

Table 2. Western Equine Encephalomyelitis virus

Table 2. WEEV Surveillance Factor	Assessment Value	Benchmark	Value
1. Environmental conditions Favorable environmental conditions in the Coachella Valley for virus multiplication or transmission Considers ambient temperature and rainfall for prior 2-week period	1	Cumulative rainfall and runoff well below average	
	2	Cumulative rainfall and runoff below average	
	3	Cumulative rainfall and runoff average	
	4	Cumulative rainfall and runoff above average	
	5	Cumulative rainfall and runoff well above average	
2. Adult <i>Culex tarsalis</i> abundance Area of North and West Shore in last 5 years = female mosquitoes /trap night/ month	1	Vector abundance well below average (<50%)	
	2	Vector abundance below average (50–90%)	
	3	Vector abundance average (90–150%)	
	4	Vector abundance above average (150–300%)	
	5	Vector abundance well above average (>300%)	
3. Virus isolation rate in <i>Culex tarsalis</i> mosquitoes Tested in pools of 50. Test results expressed as minimum infection rate (MIR) per 1,000 female mosquitoes tested	1	MIR / 1000 = 0	
	2	MIR / 1000 = 0–1.0	
	3	MIR / 1000 = 1.1–2.0	
	4	MIR / 1000 = 2.1-5.0	
	5	MIR / 1000 > 5.0	
4. Proximity to urban or suburban regions (score only if virus activity detected) Risk of outbreak is highest in urban areas because of high likelihood of contact between humans and vectors.	1	Virus detected in rural area	
	3	Virus detected in small town or suburban area	
	5	Virus detected in urban area	
5. Human cases Do not include this factor in calculations if no cases found in region or in agency.	3	One or more human cases within 150 miles of District	
	4	One human case in Coachella Valley.	
	5	More than one human case in Coachella Valley.	
Response Level / Average Rating: Normal Season (1.0 to 2.5) Emergency Planning (2.6 to 4.0) Epidemic (4.1 to 5.0)		TOTAL	
		AVERAGE	

Table 3. St. Louis Encephalitis virus

Table 3. SLEV Surveillance Factor	Assessment Value	Benchmark	Value	
1. Environmental conditions Favorable environmental conditions in the Coachella Valley for virus multiplication or transmission. Considers ambient temperature for prior 2-week period.	1	Temperature $\leq 56^{\circ}\text{F}$		
	2	Temperature 57 - 65°F		
	3	Temperature 66 - 72°F		
	4	Temperature 73 – 79°F		
	5	Temperature $> 79^{\circ}\text{F}$		
			<i>Cx tars</i>	<i>Cx quinq</i>
2. Adult <i>Culex tarsalis</i> and <i>Culex quinquefasciatus</i> abundance Area of North and West Shore in last 5 years = female mosquitoes /trap night for prior 2-week period.	1	Vector abundance well below average (<50%)		
	2	Vector abundance below average (50–90%)		
	3	Vector abundance average (90–150%)		
	4	Vector abundance above average (150–300%)		
	5	Vector abundance well above average (>300%)		
3. Virus isolation rate in <i>Culex tarsalis</i> and <i>Culex quinquefasciatus</i> mosquitoes Tested in pools of 50. Test results expressed as minimum infection rate (MIR) per 1,000 female mosquitoes tested for the prior 2-week period	1	MIR / 1000 = 0		
	2	MIR / 1000 = 0–1.0		
	3	MIR / 1000 = 1.1–2.0		
	4	MIR / 1000 = 2.1-5.0		
	5	MIR / 1000 > 5.0		
4. Human cases Do not include this factor in calculations if no cases are detected in region	3	One or more human infections within 150 miles of District		
	4	One human infection in Coachella Valley.		
	5	Multiple human infections in Coachella Valley.		
			<i>Cx tars</i>	<i>Cx quinq</i>
<u>Response Level / Average Rating:</u> Normal Season (1.0 to 2.5) Emergency Planning (2.6 to 4.0) Epidemic (4.1 to 5.0)	TOTAL			
	AVERAGE			

VII. CHARACTERIZATION OF CONDITIONS AND RESPONSES

Normal Season

Risk Rating: 1.0 – 2.5

Conditions:
<ul style="list-style-type: none">• Average or below average rainfall; average seasonal temperatures• Mosquito abundance at or below five-year average (key indicator = adults of vector species)• No virus isolations from mosquitoes• No equine cases• No recently infected arbovirus positive dead birds• No human cases
Response Activities by Role:
General Manager <ul style="list-style-type: none">• With Laboratory Manager, Operations Manager, and Public Information Manager, establish and maintain routine communication with local office of emergency services personnel; obtain Standardized Emergency Management System (SEMS) training• Ensure adequate emergency funding with Administrative Finance Manager
Laboratory Manager <ul style="list-style-type: none">• With General Manager, Operations Manager, and Public Information Officer establish and maintain routine communication with local office of emergency services personnel; obtain Standardized Emergency Management System (SEMS) training• With Public Information Manager, send routine notifications to physicians and veterinarians
Operations Manager <ul style="list-style-type: none">• With General Manager, Laboratory Manager, and Public Information Manager establish and maintain routine communication with local office of emergency services personnel; obtain Standardized Emergency Management System (SEMS) training• Coordinate routine mosquito larval control• Comply with National Pollutant Discharge Elimination System permit if applying pesticides to waters of the United States• Inventory pesticides and equipment

Public Information Manager

- Conduct routine public education (eliminate standing water around homes, use personal protection measures)
- Release routine press notices
- Send routine notifications to physicians and veterinarians

Vector Ecologist

- Conduct routine mosquito and virus surveillance activities
- Evaluate pesticide resistance in vector species

Emergency Planning
Risk Rating 2.6-4.0

<p>Conditions:</p> <ul style="list-style-type: none"> • Temperature and rainfall above average • Adult mosquito abundance >5-year average (150-300% above normal) • One or more virus isolations from mosquitoes (MIR / 1000 is <5) • Evidence of recent infection in 1-5 wild birds within the District • One human case within 150 miles of District • If WEEV, viral activity in small towns or suburban area
<p>Response Activities by Role:</p> <p>Laboratory Manager</p> <ul style="list-style-type: none"> • Coordinate epidemic response in consultation with General Manager • Review candidate pesticides for availability and susceptibility of vector mosquito species • Identify any special environmental compliance concerns in affected area and communicate with Lead District staff
<p>Operations Manager</p> <ul style="list-style-type: none"> • Review epidemic response plan • Increase surveillance and control of mosquito larvae • Coordinate localized chemical control of adult mosquitoes • Contact commercial applicators in anticipation of large scale adulticide applications
<p>Public Information Manager</p> <ul style="list-style-type: none"> • Review epidemic response plan • Enhance public education (include messages on signs and symptoms of encephalitis; seek medical care if needed; inform public about pesticide applications if appropriate) • Enhance information to public health providers • Ensure notification of key agencies of presence of viral activity, including the office of emergency services
<p>Vector Ecologist</p> <ul style="list-style-type: none"> • Review epidemic response plan • Increase adult mosquito surveillance • Increase number of mosquito pools tested for virus • Review candidate pesticides for availability and susceptibility of vector mosquito species

Epidemic Conditions
Risk Rating 4.1-5.0

<p>Conditions:</p> <ul style="list-style-type: none"> • Rainfall, temperature, wetland surface area well above average • Adult vector population extremely high (>300% above normal) • Virus isolates from multiple pools of mosquitoes (MIR /1000 > 5.0) • Increased seroprevalance rates in wild bird populations or die-off of susceptible species (more than 5) • One or more human cases in District • In the case of WEEV, virus detection in urban or suburban areas
<p>Response Activities by Role:</p> <p>General Manager and Administrative Finance Manager:</p> <ul style="list-style-type: none"> • Ensure adequate emergency funding • Determine whether a declaration of a local emergency should be considered by the County Board of Supervisors (or Local Health Officer) • Determine whether a declaration of a “State of Emergency” should be considered by the Governor at the request of designated county or city officials
<p>Administrative Finance Manager:</p> <ul style="list-style-type: none"> • Ensure state funds and resources are available to assist epidemic control efforts.
<p>Laboratory Manager:</p> <ul style="list-style-type: none"> • Coordinate epidemic response. • Coordinate the response with the local Office of Emergency Services or if activated, the Emergency Operation Center (EOC) • Request public health exemptions from FIFRA (40 CFR 166) and emergency tolerance exemptions (40 CFR 176) • With Operations Manager and Vector Ecologist, accelerate adult mosquito surveillance and control • Ensure remaining environmental compliance requirements are met.
<p>Operations Manager:</p> <ul style="list-style-type: none"> • With Laboratory Manager and Vector Ecologist, initiate mosquito surveillance and control in geographic regions without an organized vector control program • Continue enhanced larval surveillance and control of immature mosquitoes • Accelerate adult mosquito control
<p>Public Information Manager:</p> <ul style="list-style-type: none"> • Conduct full-scale media campaign • Alert physicians and veterinarians to expect cases

- Continue mosquito education and control programs until mosquito abundance is substantially reduced and no additional human cases are detected

Vector Ecologist:

- With Laboratory Manager and Operations Manager, initiate mosquito surveillance and control in geographic regions without an organized vector control program
- Broaden geographic coverage of adult mosquito surveillance and arbovirus testing.

VIII. PROGRAM SUPPORT

A. Key Agency Responsibilities

1. Local Mosquito and Vector Control Agencies

- Gather, collate, and interpret regional weather data
- Monitor abundance of immature and adult mosquitoes
- Collect and submit mosquito pools for virus isolation
- Pick up suitable dead birds and test for WNV
- Update the VectorSurv Gateway weekly to record all mosquito samples and birds that are tested
- Conduct routine control of immature mosquitoes
- Conduct control of adult mosquitoes when needed
- Comply with NPDES permit if applying pesticides to or near water of the United States
- Educate public on mosquito avoidance and reduction of mosquito sources
- Coordinate with local Office of Emergency Services personnel
- Communicate regularly with neighboring agencies

2. Mosquito and Vector Control Association of California

- Coordinate purchase of sentinel chickens
- Receive, track, and disburse payment for surveillance expenses
- Coordinate surveillance and response activities among member agencies
- Serves as spokesperson for member agencies
- Establish liaisons with press and government officials

3. California Department of Public Health

- Provide and maintain Vector Control Technician Certification program
- Maintain a WNV information hotline, 1-877-WNV-BIRD, and a website (<http://westnile.ca.gov>).
- Test sentinel chicken sera for viral antibodies
- Coordinate surveillance for human infections and conduct epidemiological investigations of cases of human disease
- Coordinate and oversee testing and acquisition of human specimens for virus and antiviral antibodies.
- Distribute a weekly bulletin summarizing surveillance test results
- Report weekly surveillance results to the CDC ArboNET surveillance system.
- Immediately notify local vector control agency and public health officials when evidence of viral activity is found
- Coordinate and participate in regional emergency response in conjunction with California Emergency Management Agency
- Provide oversight to local jurisdictions without defined vector-borne disease control program
- Maintain inventory of antigens, antisera, and RNA assays to detect exotic viruses
- Provide confirmation of tests done by local agencies

4. University of California at Davis, Davis Arbovirus Research and Training (DART)

- Conduct research on arbovirus surveillance, transmission of mosquito-borne pathogens, and mosquito ecology and control
- Provide support for testing mosquito and dead bird samples for endemic and exotic arboviruses
- Provide a panel of tests for a wide range of viruses for identification of viruses from human, equine, bird, or arthropod vectors
- Maintain an interactive website (<https://ca.vectorsurv.org/>) for dissemination of mosquito-borne virus information and data
- Maintain inventory of antigens and antisera to detect exotic viruses
- Provide confirmation of tests done by local or state agencies

5. California Department of Food and Agriculture

- Notify veterinarians and veterinary diagnostic laboratories about WEEV and WNV testing facilities available at California Animal Health and Food Safety Laboratory
- Provide outreach to general public and livestock and poultry producers on the monitoring and reporting of equine and ratite encephalitides
- Facilitate equine sample submission from the field
- Conduct investigations of confirmed WNV and WEEV equine cases and notify CDPH of positive equines.

6. Local Health Departments and Public Health Laboratories

- Test human specimens for arboviruses
- Refer human specimens to CDPH for further testing
- Notify local medical community, including hospitals and laboratories, if evidence of viral activity present
- Participate in emergency response
- Conduct epidemiological investigations of cases of human disease
- Report human arbovirus cases to CDPH
- Conduct public outreach and education

7. California Emergency Management Agency

- Coordinate the local, regional, or statewide emergency response under epidemic conditions in conjunction with CDPH via the Standardized Emergency Management System (SEMS)
- Serve as liaison with the Federal Emergency Management Agency (FEMA) in the event that a federal disaster has been declared

8. State Water Resources Control Board

- Review NPDES permit applications and respond in a timely manner

9. Centers for Disease Control and Prevention

- Provide consultation to state and local agencies in California if epidemic conditions exist
- Provide national surveillance data to state health departments
- Provide diagnostic consultation

B. Equipment

Monitoring of emergency levels of larvicide and adulticide control products will be done on a monthly basis and displayed in the monthly district inventory sheets located on the district M drive at M:\Mosquito\Inventory. If larvicide or adulticide levels fall below or are in danger of falling below the emergency treatment level capability, steps will be taken to replenish inventory levels to meet the emergency requirements.

APPLICATION EQUIPMENT

<i>Equipment</i>	<i>Number in use</i>
1. Hand Cans (1 gal)	49
2. Maruyama Backpack Sprayers (Granular)	30
3. Maruyama Backpack Sprayer (Liquid)	4
4. Stihl Backpack Sprayers (Liquid)	14
5. Hand Backpack Sprayers	40
6. Argo – all-terrain vehicle	2
7. Powered Liquid Skid Mounted Sprayer	5
8. ATV - quadbike	3
9. ATV - ranger	2
10. London Fog ULV Model 18-20	2
11. Guardian Model 190ES ULV Sprayer	1
12. Guardian Model 190G4 ULV Sprayer	2
13. Colt Hand Portable Fog Generator	8
14. A1 Super Duty Mister	2
15. Twister (Liquid)	2
16. Birchmeirer 4-Gal Liquid Backpack Sprayer	7
17. SP1 5-Gal Gas-powered Liquid Backpack Sprayer	1

18. SP2 5-Gal Gas-powered Liquid Backpack Sprayer	1
19. Micronair Liquid Barrier Sprayer	1
20. 25-Gal Power Sprayer	1
21. Polaris 15-Gal electric pump sprayer	1
22. Herd Spreader for Ranger	2

Aerial applicators available for contact

Salton Sea Air Service, Inc.
 101-111 Desert Air Drive
 North Shore, CA 92254

Clarke Environmental Mosquito
 Management, Inc.
 110 East Irving Park Road, 4th Floor
 Roselle, IL 60172-9963
 Telephone: (800) 323-5727

OceanAir Helicopters
 16603 Vesper Road
 Valley Center, CA 92082

Vector Disease Control International
 (VDCI)
 1320 Brookwood Drive, Suite H
 Little Rock, AR 72202
 Telephone: (800) 413-4445

C. Control Products

LARVAL CONTROL

Products – The District will maintain an emergency level of larval control product inventory to control mosquito breeding at the following listed levels for 14 consecutive days. This level would be sufficient for District personnel to evaluate the scope and magnitude of the emergency, formulate a specific response plan, and procure additional control products if needed.

The following products are stored at the District and emergency response amounts will be available in combination to treat the listed acreage during the specified season. A combination of products within the same classification can fulfill the emergency requirements. The Maximum Product Required listed in the table is the amount required to fulfill the required treatment capability, provided that no other product within that category is available. The combined acreage capability for each classification of product is displayed in the monthly inventory spreadsheet located at M:/Mosquito/Inventory.

LARVAL CONTROL PRODUCT INVENTORY EMERGENCY RESERVE

Product	Classification	Treatment Rate	Maximum Product Required	Required Treatment Capability and Seasonal Availability
PUPACIDES				
Agnique MMF	Pupacide (liquid)	1 gal./acre	80 gals.	40 acres for 14 days – year-round Retreat after 7 days 80 acres treated
CocoBear Mosquito Larvicide	Pupacide (liquid)	3 gal./acre	240 gals.	
INSECT GROWTH REGULATORS - methoprene				
MetaLarv S-PT	IGR (granule)	10 lbs./acre	2500 lbs. – April-Oct. 1500 lbs. – Nov.-March	250 acres April through October; 150 acres November through March.
Altosid Liquid	IGR (liquid)	4 oz./acre	15.6 gal. – April-Oct. 9.4 gal. – Nov.-March	Altosid Liquid – re-treat after 7 days 500 acres April – October treated. 200 acres November – March treated.
Altosid Pellets	IGR (granule)	7.5 lbs./acre	2500 lbs. – April-Oct. 1500 lbs. –	Altosid Pellets – re-treat after 42 days MetaLarv S-PT – re-treat after 42

			Nov-March	days 250 acres April - October treated 150 acres November - March treated
BACTERIAL PRODUCTS - Bti, <i>Lysinibacillus sphaericus</i>				
Aquabac 200G	Biological (granule)	10 lbs./acre	5000 lbs. - April - October	250 acres for 14 days - April through October Retreat after 7 days 500 acres treated
VectoBac 12AS	Biological (liquid)	16 oz./acre	62.5 gals. - April - October	
VectoBac G	Biological (granule)	10 lbs./acre	5000 lbs. - April - October	
VectoBac WDG	Biological (granule)	7 oz./acre	219 lbs. - April - October	
VectoLex WDG	Biological (granule)	1 lb./acre	250 lbs. - April - October	
VectoMax FG	Biological (granule)	10 lbs./acre	5000 lbs. - April - October	
SPINOSAD PRODUCTS				
Censor	Spinosad (granule)	9 lbs./acre	3000 lbs. April-Oct. 1200 lbs. Nov.-March	250 acres for 14 days - April through October. 100 acres for 14 days - November through March. Censor, Natular SC, and Natular G - Retreat after 7 days. 500 acres April - October treated. 200 acres November - March treated. Natular G30 - Retreat after 30 days. 250 acres April - October treated. 100 acres November - March treated.
Natular G	Spinosad (granule)	9 lbs./acre	1500 lbs. April-Oct. 600 lbs. Nov.-March	
Natular SC	Spinosad (liquid)	6.4 oz./acre	25 gals. April-Oct. 10 gals. Nov.-March	
Natular G30	Spinosad (granule)	10 lbs./acre	2500 lbs. April-Oct. 1000 lbs. Nov.-March	

ADULT CONTROL

Products – District emergency adult mosquito control product inventory for rural areas of the Coachella Valley is estimated to be 250 acres (35,000 linear feet), for 10 days of ground treatment, plus 640 acres for 10 days for aerial ULV treatments. Urban control is estimated to be 250 acres, (35,000 linear feet), for 10 days ground ULV. In addition, barrier treatment products capable of treating 4 acres, (29,000 linear feet by 6 foot), will also be available for emergency response. This level would be sufficient for district personnel to evaluate the scope and magnitude of the emergency, formulate a specific response plan, and procure additional control products if needed. A combination of products within the same classification can fulfill the emergency requirements. The Maximum Product Required listed in the table is the amount required to fulfill the required treatment capability, provided that no other product within that category is available. The combined acreage capability for each classification of product is displayed in the monthly inventory spreadsheet located at M:/Mosquito/Inventory.

District personnel may substitute products based on product availability, mosquito population resistance studies, and environmental impacts.

ADULT CONTROL PRODUCT INVENTORY EMERGENCY RESERVE

Adulticide Product	Classification	Treatment Rate	Maximum Product Required	Treatment Capability
Aqua-Reslin	Adulticide	0.536oz. Aqua-Reslin/Acre	23.7 gals.	6400 acres – rural fogging
Duet	Adulticide	1.28 oz. Duet/Acre	85 gals.	
EverGreen 5-25	Adulticide	0.876 oz. EverGreen 5-25/Acre	60.9 gals.	2500 acres – urban fogging
DeltaGard	Adulticide	1.007 oz. DeltaGard/Acre	39.3 gals.	2500 acres – urban fogging (no rural)
Aqua-Reslin	Barrier Spray	7.7 fl. oz./Acre barrier treatment	0.25 gals.	4 acres Barrier treatments
Demand CS	Barrier Spray	10 fl. oz./ Acre barrier treatment	0.32 gals.	

EMERGENCY CONTROL PRODUCT MONITORING

Monitoring of emergency levels of larvicide and adulticide control products will be done on a monthly basis and displayed in the monthly district inventory sheets located on the district M drive at M:\Mosquito\Inventory. If larvicide or adulticide levels fall below or are in danger

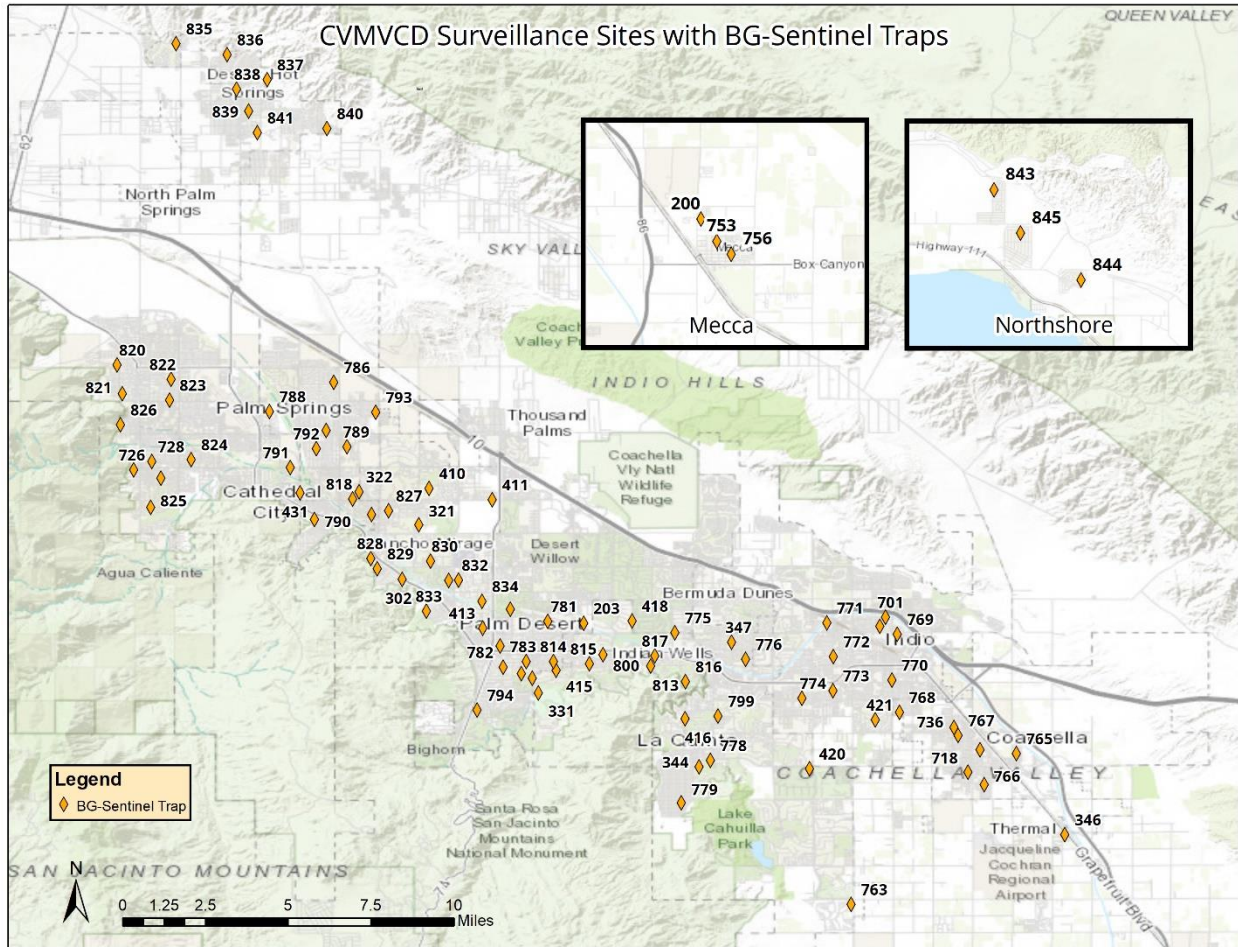
of falling below the emergency treatment level capability, steps will be taken to replenish inventory levels to meet the emergency requirements.

Appendix A.2 – List of Sites with Gravid Trap Locations in the Coachella Valley

No.	Site ID	City	Location Description
1	200	Mecca	Lincoln and Avenue 65
2	203	Palm Desert	Cook St and Sheryl Ave
3	204	Indio	Van Buren St and Enterprise Way
4	208	Palm Springs	Mesquite Ave and S Gene Autry Trl
5	301	Bermuda Dunes	Ave 42 and Washington St
6	302	Rancho Mirage	Thunderbird Rd and Hwy 111
7	307	Coachella	6th St and Palm Ave
8	309	Indian Wells	El Dorado Dr and Hwy 111
9	310	New Indio	Madison St and Avenue 46
10	320	Palm Desert	Portola Ave and Fairway Dr
11	321	Rancho Mirage	Frank Sinatra Dr and Da Vall Dr
12	322	Cathedral City	Plumley Rd and Gerald Ford Dr
13	323	Cathedral City	Ximino Rd and 30th Avenue
14	324	Thousand Palms	Robert Rd and Ramon Rd
15	326	Desert Hot Springs	Verbena Dr and Park Ln
16	327	Desert Hot Springs	Bubbling Wells Rd and 18th Avenue
17	328	Palm Desert	Fred Waring Dr and Warner Trail
18	331	Palm Desert	Portola Ave and Haystack Rd
19	344	La Quinta	Avenida Bermudas and 52 nd Ave
20	346	Thermal	Grapefruit Blvd and Airport Blvd
21	347	La Quinta	Miles Ave and Adams St
22	401	Palm Desert	Adams St and Ave 40
23	402	Thousand Palms	Jack Ivey Dr and Stage Line Dr
24	404	Cathedral City	Landau Blvd and Ontina Rd
25	406	Palm Springs	Gene Autry Trl and Clubhouse View Dr
26	407	Palm Springs	S Camino Real and E La Verne Way
27	409	Cathedral City	Date Palm Dr and Ortega Rd
28	410	Rancho Mirage	Gerald Ford Dr and Inverness Dr
29	411	Rancho Mirage	Gerald Ford Dr and Monterey Ave
30	412	Rancho Mirage	Verbenia Rd and Monterey Ave
31	413	Palm Desert	Monterey Ave and Parkview Dr
32	414	Palm Desert	Mesa View and Racquet Ln
33	415	Indian Wells	Vintage Dr and Fairway Dr
34	416	La Quinta	Eisenhower Dr & Coachella Dr
35	417	Palm Desert	Frank Sinatra Dr and Cook St
36	418	Indian Wells	Fred Waring Dr and Eldorado Dr
37	419	La Quinta	Madison St and Airport Blvd
38	420	La Quinta	Madison St and 52nd Avenue
39	421	Indio	Jackson St and Avenue 50

40	422	Coachella	Avenue 49 and Van Buren St
41	423	Indio	Golf Center Pkwy and Avenue 43
42	424	Coachella	Genoa St and Avenue 53
43	425	Coachella	Frederick St and Avenue 51
44	427	Palm Desert	Monterey Ave and Magnesia Falls Dr
45	428	Indio	Dillon Ave and Palo Verde St
46	429	Indio	Oleander Ave and Monroe St
47	430	Indio	Hwy 111 and Jefferson St
48	431	Palm Springs	Cathedral Canyon Dr and Dinah Shore Dr
49	432	Palm Springs	Whitewater Club and N Farrell Dr
50	602	Palm Springs	N Palm Canyon Dr and W Gateway Dr
51	604	Palm Springs	N Palm Canyon Dr and W Vista Chino
52	605	Indio	Madison St and Avenue 38
53	763	La Quinta	Avenue 60 and Monroe St

Appendix B.1 – Map of Surveillance Locations with BG-Sentinel Traps in the Coachella Valley



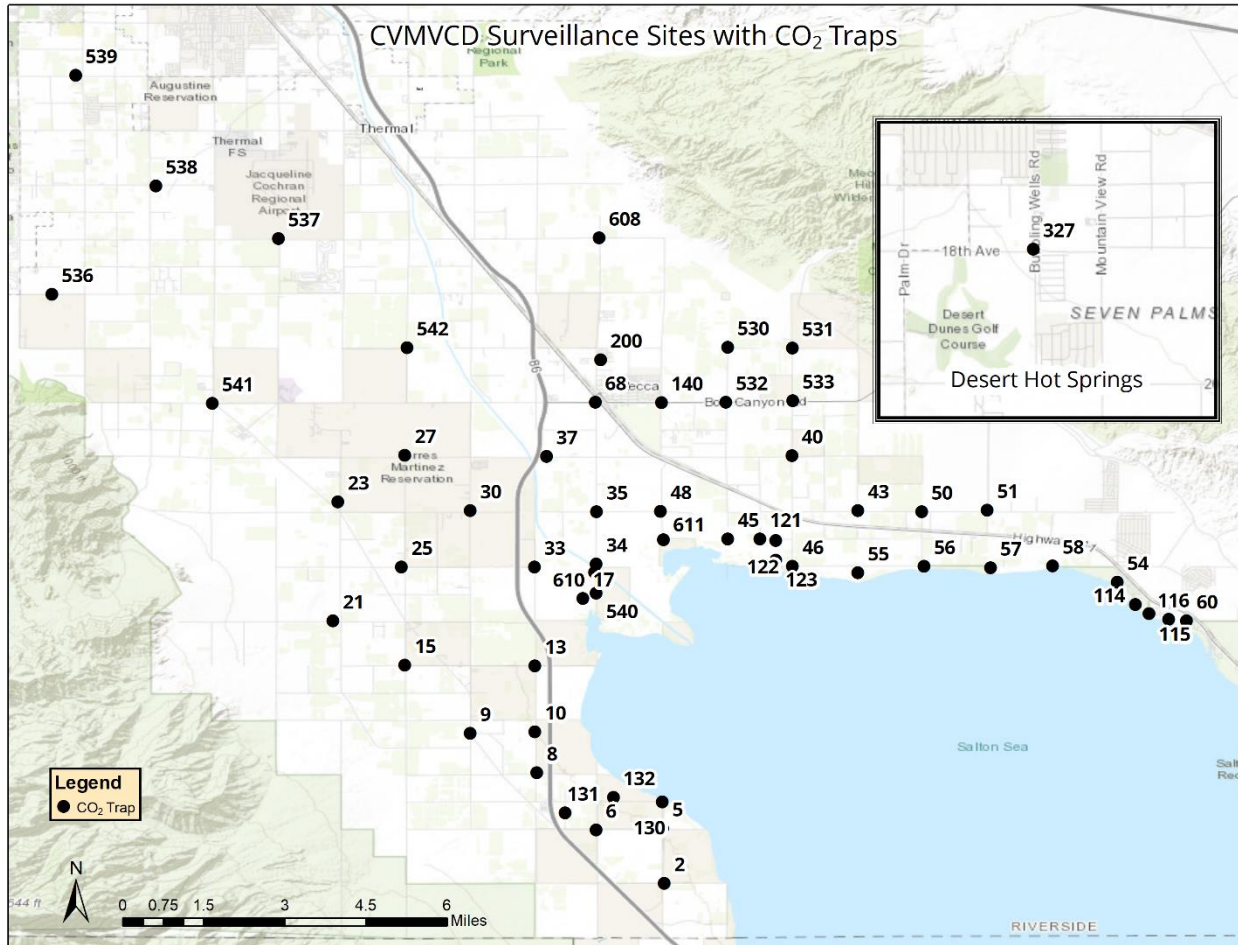
Appendix B.2 – List of Sites with BG-Sentinel Trap Locations in the Coachella Valley

No.	Site ID	City	Location Description
1	200	Mecca	Lincoln & Avenue 64
2	203	Palm Desert	Cook St and Sheryl Ave
3	302	Rancho Mirage	Thunderbird Rd and Hwy 111
4	307	Coachella	6th St and Palm Ave
5	320	Palm Desert	Portola Ave and Fairway Dr
6	321	Rancho Mirage	Frank Sinatra Dr and Da Vall Dr
7	322	Cathedral City	Plumley Rd and Gerald Ford Dr
8	331	Palm Desert	Portola Ave and Haystack Rd
9	344	La Quinta	Avenida Bermudas and 52nd Ave
10	346	Thermal	Grapefruit Blvd and Airport Blvd
11	347	La Quinta	Miles Ave and Adams St
12	407	Palm Springs	S Camino Real and E La Verne Way
13	410	Rancho Mirage	Gerald Ford Dr and Inverness Dr
14	411	Rancho Mirage	Gerald Ford Dr and Monterey Ave
15	413	Palm Desert	Monterey Ave and Parkview Dr
16	415	Indian Wells	Vintage Dr and Fairway Dr
17	416	La Quinta	Eisenhower Dr & Coachella Dr
18	418	Indian Wells	Fred Waring Dr and Eldorado Dr
19	420	La Quinta	Madison St and 52nd Ave
20	421	Indio	Jackson St and Ave 50
21	427	Palm Desert	Monterey Ave and Magnesia Falls Dr
22	431	Palm Springs	Cathedral Canyon Dr and Dinah Shore Dr
23	701	Indio	Avenue 43 and Jackson St (North Jackson Park)
24	708	Indio	Jackson St and Avenue 44
25	718	Coachella	Harrison St and Avenue 52
26	726	Palm Springs	S Palm Canyon Dr and W El Camino Way
27	728	Palm Springs	E Palm Canyon Dr and S Camino Real
28	736	Coachella	Avenue 50 and Frederick St
29	753	Mecca	7th Street and Date Palm St
30	756	Mecca	4th Street and Avenue 66
31	763	La Quinta	Avenue 60 and Monroe St
32	765	Coachella	Tyler St and Calle Bouganvillea
33	766	Coachella	Avenue 53 and Shady Lane
34	767	Coachella	Avenue 50 and Frederick St
35	768	Coachella	Jackson St and Avenue 48
36	769	Indio	Jackson St and Avenue 44
37	770	Indio	Jackson St and Dr. Carreon Blvd
38	771	Indio	Indio Blvd and Clinton St
39	772	Indio	Clinton St and Date Palm Ave

40	773	Indio	Highway 111 and Dr. Carreon Blvd
41	774	Indio	Avenue 48 and Shields Rd
42	775	Palm Desert	Fred Waring Dr and Warner Trail
43	776	La Quinta	Desert Stream and Dune Palms Rd
44	778	La Quinta	52nd Avenue and Washington St
45	779	La Quinta	Eisenhower Dr and Calle Madrid
46	780	Palm Desert	Monterey Ave and Highway 111
47	781	Palm Desert	Buttonwood and Deep Canyon Rd
48	782	Palm Desert	Ironwood Street and Shadow Mountain Dr
49	783	Palm Desert	Portola Ave and Shadow Mountain Dr
50	785	Palm Desert	Portola Ave and Vintage Dr W
51	786	Cathedral City	Date Palm Dr and Tachevah Dr
52	787	Cathedral City	Ramon Rd and Date Palm Dr
53	788	Cathedral City	San Antonio Dr and Diamond Rd
54	789	Cathedral City	Date Palm Dr and 33rd Ave
55	790	Cathedral City	E Palm Canyon and Cathedral Canyon Dr
56	791	Palm Springs	34th Avenue and Golf Club Dr
57	792	Cathedral City	33rd Avenue and Cathedral Canyon Dr
58	793	Cathedral City	DaVall Dr and Mccallum Way
59	794	Palm Desert	Highway 74 and Mesa View Dr
60	795	La Quinta	Eisenhower Dr and Avenida Montezuma
61	798	La Quinta	Washington St and Avenue 50
62	800	Indian Wells	Highway 111 and El Dorado Dr
63	813	Indian Wells	Iroquois Dr and Club Dr
64	814	Palm Desert	Deep Canyon Rd and Candlewood St
65	815	Indian Wells	Fairway Dr and Rancho Palmeras Dr
66	816	Indian Wells	Quail Run Ln and Iroquois Dr
67	817	Indian Wells	Club Dr and Highway 111
68	818	Cathedral City	Gerald Ford Dr and Plumley Rd
69	819	Cathedral City	Da Vall Dr and Sunny Lane
70	820	Palm Springs	W Vista Chino and N Via Norte
71	821	Palm Springs	W Alejo Rd and N Via Monte Vista
72	822	Palm Springs	N Sunrise Way and E Paseo El Mirador
73	823	Palm Springs	E Alejo Rd and N Sunrise Way
74	824	Palm Springs	E Sonora Rd and S Farrell Dr
75	825	Palm Springs	S Calle Palo Fierro and E Avenida Granada
76	826	Palm Springs	S Tahquitz Dr and W Baristo Rd
77	827	Rancho Mirage	Sunny Lane and Da Vall Dr
78	828	Rancho Mirage	Highway 111 and Mirage Cove Dr
79	829	Rancho Mirage	Highway 111 and Country Club Dr
80	830	Rancho Mirage	Morningside Dr and Country Club Dr
81	831	Rancho Mirage	Bob Hope Dr and Country Club Dr
82	832	Rancho Mirage	Bob Hope Dr and Palm Crest Dr

83	833	Rancho Mirage	Highway 111 and Indian Trail
84	834	Rancho Mirage	Clancy Ln and Monterey Ave
85	835	Desert Hot Springs	Indian Canyon Dr and Mission Lakes Blvd
86	837	Desert Hot Springs	San Ardo Rd and Verbena Dr
87	838	Desert Hot Springs	6th St and Palm Dr
88	839	Desert Hot Springs	Estrella Ave and Palm Dr
89	840	Desert Hot Springs	McCarger Rd and Hacienda Ave
90	841	Desert Hot Springs	Verbena Dr and Two Bunch Palms Trail
91	842	Desert Hot Springs	Dillon Rd and Bubbling Wells Rd
92	843	Northshore	68th Ave and Costa Mesa Dr
93	844	Northshore	72nd Ave and Windlass Dr
94	845	Northshore	70th Ave and Vander Veer Rd
95	846	Desert Hot Springs	Mission Lakes Rd and Santa Cruz Rd
96	847	La Quinta	Eisenhower Dr and Calle Chillon

Appendix C.1 – Map of Surveillance Locations with only CO₂ Traps in the Coachella Valley



Appendix C.2 – List of Surveillance Locations with only CO₂ Traps in the Coachella Valley

No.	Site ID	City	Site Description
1	2	Oasis	Johnson and Avenue 84
2	5	Oasis	Johnson and Avenue 82
3	6	Oasis	Lincoln and Avenue 82
4	8	Oasis	Buchanan and Avenue 80
5	9	Thermal	Pierce and King St
6	10	Oasis	Buchanan and Avenue 79
7	13	Thermal	Buchanan and Avenue 76
8	15	Thermal	Filmore and Avenue 76
9	17	Thermal	Lincoln and Avenue 73
10	21	Thermal	Polk and Avenue 74
11	23	Thermal	Polk and Avenue 70
12	25	Thermal	Filmore and Avenue 72
13	27	Thermal	Filmore and Avenue 68
14	30	Thermal	Pierce and Avenue 70
15	33	Thermal	Buchanan and Avenue 72
16	34	Mecca	Lincoln and Avenue 72
17	35	Mecca	Lincoln and Avenue 70
18	37	Mecca	Buchanan and Avenue 68
19	40	Mecca	Hayes and Avenue 68
20	43	Mecca	Garfield and Avenue 70
21	45	Mecca	Grant and Avenue 71
22	46	Mecca	Hayes and Avenue 72
23	48	Mecca	Johnson and Avenue 70
24	50	Mecca	Arthur and Avenue 70
25	51	Northshore	Cleveland and Avenue 70
26	54	Northshore	Vanderveer and Avenue 73
27	55	Mecca	Garfield and Avenue 72
28	56	Northshore	Arthur and Avenue 72
29	57	Northshore	Cleveland and Avenue 72
30	58	Northshore	Avenue 72 East of Cleveland
31	60	Northshore	Salton Sea State Park
32	68	Mecca	Lincoln and Avenue 66
33	114	Northshore	Desert Mobile Home Park
34	115	Northshore	Mecca Ave and Tripoli Dr
35	116	Northshore	South of Tripoli Rd
36	121	Mecca	Colfax and Ave 71
37	122	Mecca	East of Colfax and Avenue 71
38	123	Mecca	Avenue 72 between Hayes and Colfax

39	130	Oasis	Johnson and Avenue 81
40	131	Oasis	Avenue 81 and Buchanan
41	132	Oasis	Johnson and Avenue 81
42	200	Mecca	Lincoln and Avenue 65
43	140	Mecca	Johnson and Avenue 66
44	327	Desert Hot Springs	Bubbling Wells Rd and 18th Avenue
45	530	Mecca	Grant and Avenue 64
46	531	Mecca	Hayes and Avenue 64
47	532	Mecca	Grant and Avenue 66
48	533	Mecca	Hayes and Avenue 66
49	536	Thermal	Orchid and Avenue 62
50	537	Thermal	Tyler and Avenue 60
51	538	Thermal	Van Buren and Avenue 58
52	539	Thermal	Jackson and Avenue 54
53	540	Mecca	Lincoln and Avenue 73
54	541	Mecca	Harrison and Avenue 66
55	542	Mecca	Fillmore and Avenue 64
56	608	Mecca	Lincoln and Avenue 60
57	610	Mecca	Torres Martinez Wetland
58	611	Mecca	End of Johnson and Avenue 70

Appendix D – Table 4. Annual and monthly total and average rainfall (in.) for the Coachella Valley

MONTH	2019	2020	2021	2022	2023	5-year Average
JANUARY	0.57	0	0.3	0	0.27	0.252
FEBRUARY	1.29	0	0	0.02	0.07	0.399
MARCH	0.17	2.17	0.01	0.01	0.25	0.333
APRIL	0	0.72	0	0	0	0.376
MAY	0.01	2.89	0	0	0.14	0.304
JUNE	0	0	0	0	0	0.088
JULY	0.44	0	0.44	0	0	0.428
AUGUST	0	0	0.17	0	3.23	0.396
SEPTEMBER	0.51	0	0	0.05	0	0.058
OCTOBER	0	0	0.01	0.01	0	0.079
NOVEMBER	0.58	0	0	0.04	0.15	0.291
DECEMBER	1.42	0.21	0.13	0.03	0.35	1.88
YEAR TOTAL	4.99	5.99	1.06	0.16	4.46	4.884

*This data used for surveillance factor # 1 in the Mosquito-Borne Virus Risk Assessment Table calculations for WNV, WEEV, and SLEV on pages 9 – 11 of the Coachella Valley Mosquito-Borne Virus Surveillance and Emergency Response Plan. Data is from weather station KTRM in Thermal, CA (KPSP data is used if no information is available from KTRM).

Appendix E – Table 5. Average Minimum and Maximum temperatures (°F) in the Coachella Valley

Month	2019			2020			2021			2022			2023			5-Year Average		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Jan 1-15	66	52	40	70	52	37	75	55	38	71	52	33	67	54	41	69.80	53.05	37.89
Jan 16-31	74	60	47	75	58	43	69	55	41	74	57	40	67	52	36	71.85	56.43	41.40
Feb 1-14	66	54	42	70	55	38	77	62	46	79	61	42	72	56	39	72.81	57.60	41.47
Feb 15-28	68	56	43	81	62	44	76	58	38	73	57	38	66	53	37	72.83	57.19	40.04
Mar 1-15	76	66	54	75	61	45	75	60	44	76	61	45	72	61	50	74.75	61.92	47.57
Mar 16-31	85	71	56	74	63	53	82	67	50	87	71	54	73	61	45	80.05	66.57	51.68
Apr 1-15	89	75	61	78	67	56	94	79	63	88	73	57	83	68	51	86.48	72.63	57.49
Apr 16-30	95	82	66	95	80	64	90	76	59	91	76	60	95	79	60	93.21	78.54	61.79
May 1-15	93	80	68	99	86	71	97	82	62	94	79	55	88	75	62	94.28	80.24	63.75
May 16-31	88	76	64	99	85	68	95	82	66	97	81	63	96	81	67	94.98	81.03	65.50
Jun 1-15	105	89	72	101	87	70	104	88	70	105	89	70	94	77	55	101.72	86.09	67.49
Jun 16-30	104	90	73	104	90	75	111	95	59	106	92	75	102	88	73	105.39	90.91	70.97
Jul 1-15	110	95	79	109	95	71	109	93	65	108	94	78	110	95	77	109.20	94.37	73.93
Jul 16-31	109	97	81	111	96	80	107	95	82	107	95	83	112	99	85	109.10	96.49	82.09
Aug 1-15	111	98	83	111	96	79	109	96	81	101	89	77	101	87	74	106.48	93.27	78.66
Aug 16-31	110	97	81	110	98	85	106	92	77	106	95	81	102	92	81	106.80	94.68	81.12
Sep 1-15	106	92	77	107	94	79	106	92	75	100	89	79	100	89	78	103.83	91.32	77.43
Sep 16-30	95	81	67	107	93	77	98	83	68	100	87	73	93	80	67	98.52	84.85	70.35
Oct 1-15	90	73	55	102	82	60	89	73	58	96	83	69	97	78	58	94.92	77.68	60.04
Oct 16-31	88	70	51	91	71	46	86	69	52	86	71	56	86	71	57	87.33	70.37	52.36
Nov 1-15	87	64	45	82	64	48	88	69	52	73	59	45	80	65	51	82.03	64.13	48.01
Nov 16-30	73	58	45	79	60	43	81	61	44	74	56	39	72	57	44	75.75	58.45	43.13
Dec 1-15	69	57	46	73	60	48	73	55	40	66	51	35	74	55	39	70.97	55.49	41.45
Dec 16-31	64	50	38	70	58	47	66	53	39	68	51	37	68	55	44	67.20	53.24	40.95

* This data used for surveillance factor # 1 in the Mosquito-Borne Virus Risk Assessment Table calculations for WNV, WEEV, and SLEV on pages 9 – 11 of the Coachella Valley Mosquito-Borne Virus Surveillance and Emergency Response Plan. Data is from weather station KTRM in Thermal, CA with KPSP in Palm Springs as a backup.

Appendix F – Risk Assessment Maps

The seasonal transmission risk of the arboviruses WNV, WEEV, and SLEV in the Coachella Valley, among other factors, is related to temperature, rainfall, mosquito infection rates, vector abundance, and population size of vertebrate hosts. Some of these factors are used on a bi-weekly basis to determine the level of risk for WNV, SLEV, and WEEV transmission in various areas or zones of the Valley. Some of the zones used to calculate arbovirus transmission risk are shown in the figures below. For the surveillance zones around the Salton Sea (Figure 3), tables 6, 7, and 8 present the average number of *Cx. tarsalis* and *Cx. quinquefasciatus* female mosquitoes per trap per month.

Figure 1 – Map of the Coachella Valley risk assessment zone.



Figure 2 – Map of urban and agricultural risk assessment zones.

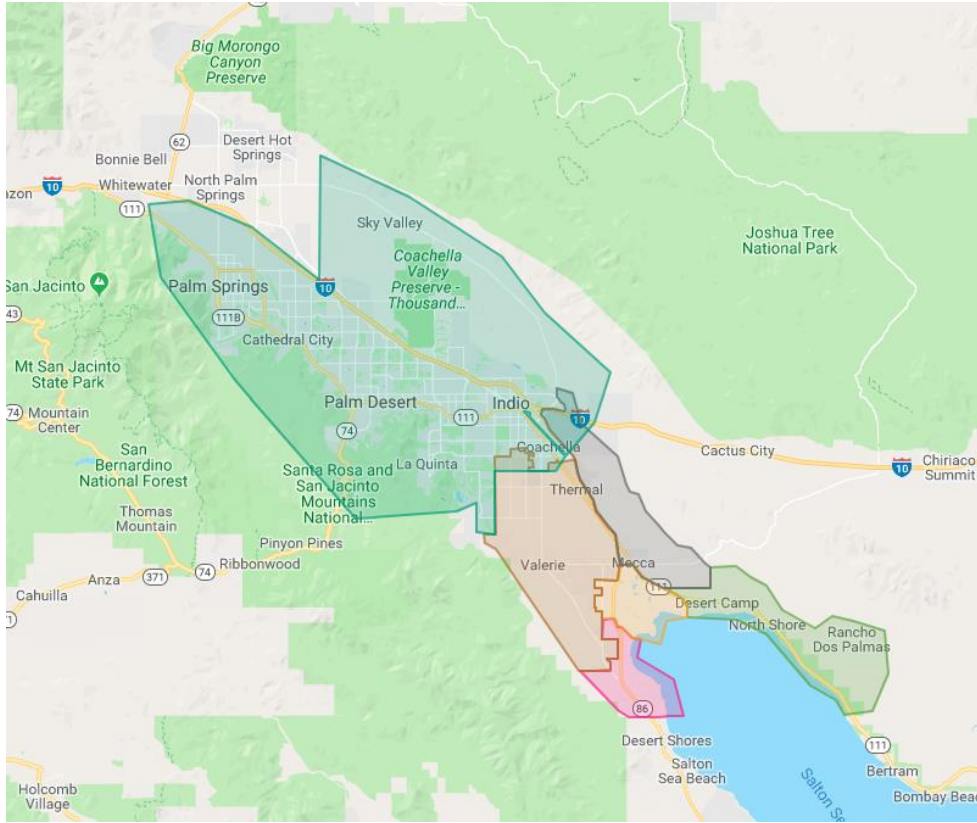


Figure 3 – Map of Salton Sea Shoreline Risk Assessment Zones

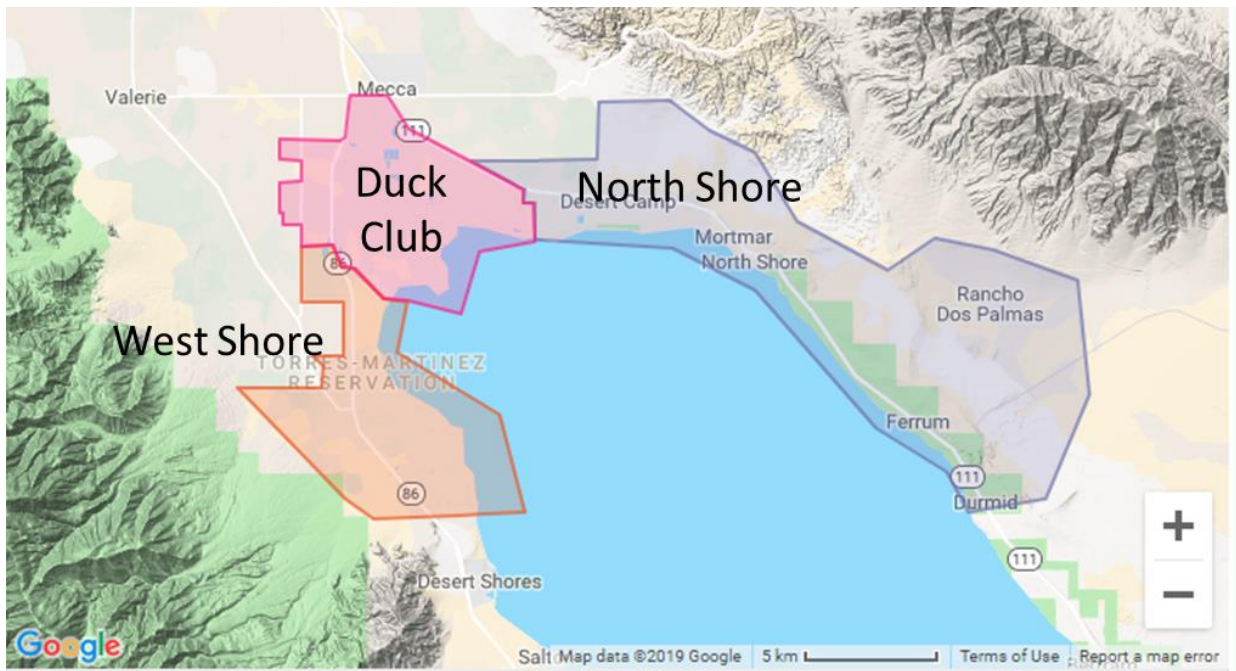


Table 6. North Shore Average Number of Vector Mosquitoes

MONTH	2019	2020	2021	2022	2023	<i>5-year Average</i>
JAN	14.33	81.33	207	18.67	122.5	88.77
FEB	11.67	45.67	67	214.33	75.13	82.76
MAR	175	284.78	456.13	269.63	104.83	258.07
APR	536.67	715.79	444.04	259.25	203.33	431.82
MAY	356.36	929.85	146.83	130.21	211.17	354.88
JUN	138.15	118.83	92.36	128.64	77.3	111.06
JUL	22.96	24.5	5.42	54.06	56.39	32.67
AUG	1.59	33.87	18.04	68.95	15.84	27.66
SEP	28.13	76.59	203.42	68.8	338.73	161.72
OCT	65.56	126.54	243.15	339.24	539.25	262.75
NOV	32.08	46.13	47.48	86.03	39.13	50.17
DEC	2.33	161		8.75	4.75	44.21

Table 7. Duck Club Zone Average Number of Vector Mosquitoes

MONTH	2019	2020	2021	2022	2023	<i>5-year Average</i>
JAN	104.67	126.9	109.6	113.69	840.55	259.08
FEB	15.11	27.2	50.45	288.73	188.25	113.95
MAR	630.3	1414.65	820.9	1282.3	469.58	923.55
APR	2426.07	2497.76	853.2	813.23	749.57	1467.97
MAY	1165.54	1674.89	345.9	342.17	794.86	864.67
JUN	1125.14	170.4	275.59	178.12	170.9	384.03
JUL	50.05	14.67	64.44	40.7	51.81	44.33
AUG	146.36	34.15	87.86	131.47	42.2	88.41
SEP	522.44	402.5	1229.87	692.56	1602.06	889.89
OCT	765.68	924.03	1045.61	2554.03	3105.08	1678.89
NOV	124.74	153	141.76	272.54	149.83	168.37
DEC	30.8	46.4		5.8	65.5	37.13

Table 8. West Shore Average Number of Vector Mosquitoes

MONTH	2019	2020	2021	2022	2023	<i>5-year Average</i>
JAN	23.5	120	29	6.5	503	<i>136.40</i>
FEB	26.5	4.5	80	298	246.5	<i>131.10</i>
MAR	87.14	135.43	200.38	489.64	729.64	<i>328.45</i>
APR	173.64	309.21	112.33	343.21	1650.43	<i>517.76</i>
MAY	158.29	165.57	119.14	370.5	733.21	<i>309.34</i>
JUN	318.79	55.59	118	222	786.58	<i>300.19</i>
JUL	89	6.21	16.71	53.89	218.19	<i>76.80</i>
AUG	69.48	30.56	18.81	26.38	23.78	<i>33.80</i>
SEP	45.93	59.05	90.68	154.79	437.54	<i>157.60</i>
OCT	174.57	100.86	36.64	424.36	574	<i>262.09</i>
NOV	50.79	8.43	22.69	57.57	34.85	<i>34.87</i>
DEC	15	7		3.5	6	<i>7.88</i>

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting
DRAFT - Minutes

TIME 4:30 p.m. **DATE:** April 9, 2024

LOCATION: 43420 Trader Place Indio, CA 92201

COMMITTEE MEMBERS PRESENT:

Indian Wells	Clive Weightman, Board Treasurer
Palm Desert	Doug Walker, Trustee
County at Large	Bito Larson, Trustee

COMMITTEE MEMBERS ABSENT: None

OTHER TRUSTEES PRESENT:

None

STAFF PRESENT:

Jeremy Wittie, General Manager
David l'Anson, Administrative Finance Manager
Graciela Morales, HR Specialist/Interim Clerk of the Board
Megan Scarborough-Eckel, Clerk of the Board

MEMBERS OF THE PUBLIC PRESENT:

No

Tasks and Ownership

1. Call to Order

Treasurer Weightman called the meeting to order at 3:06 p.m. Due to technical difficulties, the meeting was suspended by Treasurer Weightman at 3:08 p.m. The meeting was reconvened at 3:11 p.m.

2. Roll Call

Roll Call indicated that all three (3) Committee members were present.

3. Confirmation of Agenda

Treasurer Weightman inquired if any agenda items needed to be shifted. Upon no objections from the Committee, the agenda was confirmed as presented.

4. Public Comments

None

5. Items of General Consent

A. Approval of Minutes from March 12, 2024, Finance Committee Meeting

On a motion from Trustee Walker, seconded by Trustee Larson, and passed unanimously, the Committee approved the minutes from March 12, 2024.

Ayes: Treasurer Weightman, Trustee Walker, Trustee Larson

Noes: None

Abstained: None

Absent: None

6. Discussion of FY2023-24 Variance - David l'Anson, Administrative Finance Manager, and Jeremy Wittie, M.S., CSDM, General Manager

A discussion was held; Committee members did not have any questions or comments for staff.

7. Items Overview/Discussion of the DRAFT FY 2024-2025 Budget — Clive Weightman, Treasurer, David l'Anson, Administrative Finance Manager, and Jeremy Wittie, M.S., CSDM, General Manager

The group discussed the budget at length.

8. Trustee and/or Staff Comments/Future Agenda Items

None

9. Adjournment

Treasurer Weightman adjourned the meeting at 4:31 p.m.

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting

DRAFT - Minutes

TIME 1:00 p.m. **DATE:** May 3, 2024

LOCATION: 43420 Trader Place Indio, CA 92201

COMMITTEE MEMBERS PRESENT:

Indian Wells Clive Weightman, Board Treasurer
Palm Desert Doug Walker, Trustee

COMMITTEE MEMBERS ABSENT:

County at Large Bito Larson, Trustee

OTHER TRUSTEES PRESENT:

None

STAFF PRESENT:

Jeremy Wittie, General Manager
David l'Anson, Administrative Finance Manager
Graciela Morales, HR Specialist
Megan Scarborough-Eckel, Clerk of the Board

MEMBERS OF THE PUBLIC PRESENT:

Brad Anderson, Rancho Mirage

1. Call to Order

Treasurer Weightman called the meeting to order at 1:07 p.m.

2. Roll Call

Roll Call indicated that only two (2) Finance Committee members were present.

Trustee Larson was not present.

A quorum was established with Treasurer Weightman and Trustee Walker.

3. Confirmation of Agenda

Treasurer Weightman inquired if any agenda items needed to be shifted. Upon no objections from the Finance Committee, the agenda was confirmed as presented.

4. Public Comments

A. PUBLIC Comments — NON-AGENDA ITEMS:

Mr. Brad Anderson of Rancho Mirage stated that there should be more Trustees on the Finance Committee when there are currently 10 Trustees on the Board.

B. PUBLIC Comments — AGENDA ITEMS:

Mr. Brad Anderson of Rancho Mirage has an issue with the practice of re-naming positions at the Coachella Valley Mosquito and Vector Control District. He also believes that SIT (Sterile Insect Techniques) should be disbanded.

5. Items of General Consent

- A. Approval of Minutes from April 9, 2024, Finance Committee Meeting

On a motion from Trustee Walker, seconded by Treasurer Weightman, and passed unanimously, the Finance Committee approved the minutes from April 9, 2024.

Ayes: Treasurer Weightman, Trustee Walker

Noes: None

Abstained: None

Absent: Trustee Larson

6. Discussion of Budget Scenarios - David l'Anson, Administrative Finance Manager, and Jeremy Wittie, M.S., CSDM, General Manager

A discussion was held; Finance Committee members had questions and comments for staff.

7. Discussion of Pension Section 115 Trust — Clive Weightman, Treasurer, David l'Anson, Administrative Finance Manager, and Jeremy Wittie, M.S., CSDM, General Manager

The group discussed the Pension Section 115 Trust. Administrative Finance Manager, David l'Anson will recommend a motion to adopt a Resolution, authorizing establishment of a CEPPT at regular session Board Meeting.

8. Overview/Discussion of the DRAFT FY 2024-2025 Budget Document Structure — David l'Anson, Administrative Finance Manager, and Jeremy Wittie, M.S., CSDM, General Manager

The group discussed the FY 2024-2025 Budget at length.

9. Trustee and/or Staff Comments/Future Agenda Items

Treasurer Weightman asks that a single scenario be presented to the Board of Trustees. Administrative Finance Manager, David l'Anson, will present single scenario at Budget Workshop on Tuesday, May 14, 2024.

10. Adjournment

There being no further business to discuss, Treasurer Weightman adjourned the meeting at 2:12 p.m.

May 3, 2024

Coachella Valley Mosquito and Vector Control District (CVMVCD)

43420 Trader Pl.

Indio, CA. 92201

760.342.8287 – www.cvmosquito@cvmvcd.org

Re: Written letter to be entered in the Public record and made available for public inspection for the May 3, 2024 (1:PM) CVMVCD Finance committee meeting - Agenda Item(s): 4.A and 6.

Dear current appointees,

Please review my written statement listed below prior to the consideration of each agenda item as listed.

1) Agenda Item: 4.A (Non-Agenda Public comment)

Bad CVMVCD policies appeared to be constructed and implemented to subvert the ability of the public to be secure in good governance of CVMVCD operations. Having ONLY three (3) appointed CVMVCD Board of Trustees assigned to the CVMVCD Finance committee is clearly unprofessional and a blatant subversion of best practice protocols for California governmental agency sub-committees. Consider allowing other CVMVCD Board of Trustees the unique opportunity to serve (at taxpayer's expense) on CVMVCD operational sub-committees.

Also,

Consider following California's long established Brown Act safeguards (best practices) and resume allowing citizens the opportunity to attend your organization's pre-circulated open public meetings without undue influence to supply public testimony without being allowed all related District controlled information prior to being forced to comment prior to the board's consideration of agenda items that the speaker requested to comment on.

2) Agenda Item: 6 (CVMVCD budget scenarios)

CVMVCD administration common practice of re-naming employment positions and financial terms appears to be a successful CVMVCD subversion scheme that confuses external entities from discovering potential unethical behavior of CVMVCD operations.

Sterile Insect Techniques (SIT) progressive program should be disbanded and completely abandoned by CVMVCD. It's reasonable to consider that the CVMVCD administration (also CVMVCD Board of Trustees) have been allowing Public collected dollars to support special Interests to establish the CVMVCD organization (SIT) progressive program without reasonable Public notification and Public Input in regards to such a radical potentially political unconscionable manipulation over nature.

It's clear that the CVMVCD administration have taken radical maneuvers to obscure the fact that CVMVCD operations have been repeatedly demonstrated to have failed CVMVCD self proclaimed mission towards the Coachella Valley, Riverside County California.

Sincerely,

Brad Anderson | 

Cc: