



Coachella Valley
Mosquito and Vector
Control District

43420 Trader Place
Indio, CA 92201
Phone (760) 342-8287
www.cvmvcd.org

Board of Trustees Meeting

Tuesday, May 9, 2017

6:00 p.m.

AGENDA

Assistance for those with disabilities: If you have a disability and need accommodation to participate in the meeting, please call the Clerk of the Board at (760) 342-8287 for assistance so the necessary arrangement can be made.

1. **Call to Order** – Doug Walker, President
2. **Pledge of Allegiance**
3. **Roll Call**
4. **Motion to Excuse Absences**
5. **Confirmation of Agenda**
6. **Public Comment**
 - Those wishing to address the Board should complete a Public Comment Card and provide it to the Clerk of the Board.
 - Non-Agenda Items: Anyone wishing to address the Board on items not on the agenda should do so at this time. Each presentation is limited to no more than 3 minutes.
 - Agenda Items: Comments should be made when the agenda item is called. Each presentation is limited to no more than 3 minutes.
7. **Announcements**
 - Trustee Recognition – **Doug Walker, Board President**
 - Fight the Bite 5K Summary – **Jill Oviatt, MCDM, Public Information Manager**

8. **Board Reports**

A. President's Report – **President Walker**

- Executive Committee (**Pg. 1**)

B. Finance Committee – **Treasurer Kaplan**

- Finance Committee Minutes for March 14, 2017 (**Pg. 3**)
- Finance Committee Minutes for April 18, 2017 (**Pg. 5**)
- Finance Committee Minutes for May 2, 2017 (**Pg. 7**)

9. **Items of General Consent**

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

A. Minutes for March 14, 2017, Board Meeting (**Pg. 11**)

B. Correspondence (**Pg. 16**)

C. Approval of Expenditures for March 15-31, 2017, April 1-30, 2017, and May 1-9, 2017 (**Pg. 18**)

D. Informational Items:

- Certificate of Achievement for Excellence in Financial Reporting (**Pg. 25**)
- District Travel (**Pg. 26**)
- Staff reports from:
 - MVCAC Annual Conference, March 26-29, 2017, in San Diego, CA (**Pg. 27**)

E. Department Reports (**Pg. 28**)

F. Approval of Resolution 2017-07 amending the CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan – **Jennifer Henke, Laboratory Manager (Pg. 47)**

10. **Old Business**

A. None.

11. **New Business**

A. Discussion and/or approval to replace District's expiring accounting software, FundWare with Abila MIP, in an amount not to exceed \$80,000, which includes installation and staff training – **David l'Anson, Administrative Finance Manager (Pg. 87)**

12. **Closed Session**

A. **Closed Session:** Conference with Labor Negotiations District Representatives: Mark H. Meyerhoff, Chief Negotiator and Jeremy Wittie, MS, General Manager;

13. **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 situation 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 3 minutes.

14. **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.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 43420 Trader Place, Indio, California

Certification of Posting

I certify that on May 5, 2017, 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, 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 5, 2017.

Crystal G. Moreno, Clerk of the Board

SECTION

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BOARD REPORTS

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Executive Committee Meeting Minutes

TIME: 4:00 P.M. APRIL 27, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

Cathedral City	Shelley Kaplan	La Quinta	Doug Hassett
Coachella	Betty Sanchez	Palm Desert	Doug Walker

OTHERS PRESENT:

Jeremy Wittie, General Manager
David l'Anson, Administrative Finance Manager
Crystal Moreno, Clerk of the Board

1. Call to Order: President Walker called the meeting to order at 4:02 P.M.

2. Roll Call: Roll call indicated four (4) committee members out of four (4) were present.

3. Confirmation of Agenda

4. Public Comments: None.

5. Review of May 9, 2017, Board Agenda:

The draft Agenda for the May Board Meeting was reviewed by the Committee. A discussion ensued. The Committee requested: that the title, for New Business item A, be updated to reflect that the cost includes installation and training.

6. Closed Session:

- Conference Regarding Upcoming Union Negotiations Pursuant to Government Code § 54957.6

Returning from Closed Session, President Walker announced that there was no reportable action.

7. Trustee/Staff Comments:

- Vice-President Hassett praised the Fight the Bite 5K and commented that it was organized very well.
- General Manager Wittie distributed strategic planning proposals to the Committee and commented that he would like them to review them for discussion at the June Executive Committee Meeting.

8. Confirmation of Next Meeting Date: The next Executive Committee Meeting was scheduled for June 5, 2017 at 4:00 P.M.

9. Adjournment: The meeting was adjourned by President Walker at 5:02 P.M.

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COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting Minutes

TIME: 4:30 P.M. MARCH 14, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

Cathedral City	Shelley Kaplan	Indian Wells	Clive Weightman
Coachella	Betty Sanchez		

TRUSTEES ABSENT:

Desert Hot Springs	Adam Sanchez
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OTHERS PRESENT:

Jeremy Wittie, General Manager
David l'Anson, Administrative Finance Manager
Crystal Moreno, Clerk of the Board

- 1. Call to Order:** Treasurer Kaplan called the meeting to order at 4:37 p.m.
- 2. Roll Call:** Roll call indicated three (3) committee members out of four (4) were present.
- 3. Confirmation of Agenda**
- 4. Public Comments:** None.
- 5. Items of General Consent:**

5A – Approval of Minutes from January 10, 2017, Finance Committee Meeting: On motion from Trustee B. Sanchez seconded by Treasurer Kaplan, and passed by unanimous vote, the Committee approved the minutes as presented. Trustee Weightman abstained.

Ayes: Trustees Kaplan and B. Sanchez.

Noes: None.

Abstained: Trustee Weightman.

Absent: Trustee A. Sanchez.

6. Discussion and/or Approval:

6A. Review of Check Report from FundWare for the period February 8, 2017 to March 8, 2017: Reviewed by Committee.

6B. CalCard Charges February 2017: Reviewed by Committee

6C. Review of February 2017 Financials: Reviewed by Committee.

6D. Treasurer's Report and Review of Investments for February 2017: Reviewed by Committee.

6E. Approval to transfer \$500,000 from First Foundation to CalTrust Medium Term: On motion from Treasurer Kaplan seconded by Trustee Weightman, and passed by unanimous vote, the Committee approved the minutes as presented.

Ayes: Trustees Kaplan, B. Sanchez, and Weightman.

Noes: None.

Abstained: None.

Absent: Trustee A. Sanchez.

6F. Finance Seminars: Trustee B. Sanchez interested in GFOA Conference – will check schedule to see if she is available.

6G. Budget Calendar: Reviewed by Committee.

7. Old Business: None.

8. New Business: None.

9. Schedule Next Meeting: The next Finance Committee Meeting will be held on Tuesday, April 18th, at 3:00pm.

10. Trustee and/or Staff Comments/Future Agenda Items: None.

11. Adjournment: The meeting was adjourned by Treasurer Kaplan at 5:34 p.m.

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting Minutes

TIME: 3:00 P.M. APRIL 18, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

Cathedral City	Shelley Kaplan	Indian Wells	Clive Weightman
Coachella	Betty Sanchez	Palm Desert	Doug Walker
Desert Hot Springs	Adam Sanchez		

TRUSTEES ABSENT:

OTHERS PRESENT:

Jeremy Wittie, General Manager
David l'Anson, Administrative Finance Manager
Crystal Moreno, Clerk of the Board

1. Call to Order: Treasurer Kaplan called the meeting to order at 3:07 p.m.

2. Roll Call: Roll call indicated three (3) committee members out of four (4) were present; President Walker attended the meeting, as well.

3. Confirmation of Agenda

4. Public Comments: None.

5. Items of General Consent:

5A – Approval of Minutes from March 14, 2017, Finance Committee Meeting: On motion from Trustee Weightman seconded by Treasurer Kaplan, and passed by unanimous vote, the Committee approved the minutes as presented. Trustee A. Sanchez abstained.

Ayes: Trustees Kaplan and Weightman.

Noes: None.

Abstained: Trustee A. Sanchez.

Absent: Trustee B. Sanchez.

Trustee B. Sanchez arrived at 3:13p.m.

6. Discussion and/or Approval:

6A. Review of Check Report from FundWare for the period March 14, 2017 to April 13, 2017: Reviewed by Committee.

6B. CalCard Charges March 2017: Reviewed by Committee

6C. Review of March 2017 Financials: Reviewed by Committee.

6D. Treasurer's Report and Review of Investments for March 2017: Reviewed by Committee.

6E. Auditor Engagement Letter: Reviewed by Committee.

7. Old Business: None.

8. New Business:

8A. FY2017-2018 Draft Budget for Finance Committee Review: Reviewed by Committee and revisions recommended; requested revisions will be made to the draft budget and distributed to the Committee on Friday, April 28th.

9. Schedule Next Meeting: The next Finance Committee Meeting will be held on Tuesday, May 2nd, at 3:00 p.m.

10. Trustee and/or Staff Comments/Future Agenda Items: None.

11. Adjournment: The meeting was adjourned by Treasurer Kaplan at 4:47 p.m.

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting Minutes

TIME: 3:00 P.M. MAY 2, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

Cathedral City	Shelley Kaplan	Indian Wells	Clive Weightman
Coachella	Betty Sanchez	Palm Desert	Doug Walker
Desert Hot Springs	Adam Sanchez		

TRUSTEES ABSENT:

OTHERS PRESENT:

Jeremy Wittie, General Manager
David I'Anson, Administrative Finance Manager
Crystal Moreno, Clerk of the Board

1. Call to Order: Treasurer Kaplan called the meeting to order at 3:08 p.m.

2. Roll Call: Roll call indicated three (3) committee members out of four (4) were present; President Walker attended the meeting, as well.

3. Confirmation of Agenda

4. Public Comments: None.

Trustee B. Sanchez arrived at 3:11p.m.

5. Old Business:

5A. FY2017-2018 Draft Budget for Finance Committee Review: Reviewed by Committee and revisions recommended; requested revisions will be made to the draft budget and distributed to the Committee and full Board, along with the May Board Packet. The full Board is invited to attend the Budget Workshop on Tuesday, May 9th, prior to the Board Meeting.

5B. Responses to External Forces on Revenue Expenditure Update: Reviewed by Committee.

6. New Business: None.

7. Confirmation of Next Meeting: The next Finance Committee Meeting will be held on Tuesday, May 9th, at 3:30 p.m.

10. Trustee and/or Staff Comments/Future Agenda Items: None.

11. Adjournment: The meeting was adjourned by Treasurer Kaplan at 4:59 p.m.

SECTION

9



ITEMS OF GENERAL CONSENT

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Board of Trustees Meeting Minutes

CALLED TO ORDER: 6:00 P.M. MARCH 14, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

PRESIDENT:	Doug Walker	Palm Desert
VICE-PRESIDENT:	Doug Hassett	La Quinta
TREASURER:	Shelley Kaplan	Cathedral City
SECRETARY:	Betty Sanchez	Coachella

County at Large	Franz DeKlotz	Indio	John B. Stevens
County at Large	Bito Larson	Palm Springs	Dr. Doug Kunz
Desert Hot Springs	Adam Sanchez	Rancho Mirage	Michael Monroe
Indian Wells	Clive Weightman		

TRUSTEES ABSENT:

None.

OTHERS PRESENT:

Jeremy Wittie, General Manager
Kathy Jenson, Legal Counsel
David l'Anson, Administrative Finance Manager
Anita Jones, Human Resources Manager
Edward Prendez, IT Manager
Jennifer Henke, Laboratory Manager
Rod Chamberlain, Interim Operations Manager
Kim Hung, Vector Ecologist
Olde Avalos, Field Supervisor
Bobbye Dieckmann, Field Supervisor
Mike Martinez, Field Supervisor
Edgar Castro, Public Outreach Coordinator

1. **Call to Order:** President Walker called the meeting to order at 6:00pm.
2. **Pledge of Allegiance:** Trustee Monroe led the Pledge of Allegiance.
3. **Roll Call:** Roll call indicated eleven (11) Trustees out of eleven (11) were present.
4. **Motion to Excuse Absences**
5. **Confirmation of Agenda**

6. Public Comment: None.

7. Announcements:

General Manager's Report: General Manager Wittie gave a brief update on District business.

Date Festival Summary: Public Outreach Coordinator Castro gave an update on the District's involvement at the Riverside County Date Festival.

Trustee Recognition: President Walker presented former Trustee Sam Torres with a plaque of appreciation for his service and dedication to the District.

Environmental Update: Laboratory Manager Henke gave a presentation on the District's environmental compliance.

8. Board Reports:

8A – President's Report: Executive Committee Met on March 6th: President Walker reported on his attendance at the AMCA Annual Conference. He also reported that seven (7) Trustees would be attending the upcoming MVCAC Annual Conference and reminded any Trustees, who have not yet submitted their Form 700, to do so as soon as possible.

8B – Finance Committee: Finance Committee Met Prior to Board Meeting: Treasurer Kaplan reported that the Committee met to review the finances and that there has been no significant revenue received. He also reported that the District has received 53% of revenue-year to date.

8C – ad hoc Thermal Committee: Vice-President Hassett reported that the ad hoc Committee has been meeting and working on moving forward. The Committee is currently looking into capping the northeast corner of the Thermal property and an item to go out to bid for an engineering company is on tonight's agenda.

9. Items of General Consent:

- A. Minutes for February 7, 2017, Board Meeting
- B. Correspondence
- C. Approval of Expenditures for February 7-28, 2017 and March 1-14, 2017
- D. Informational Items:
 - District Travel
 - Cancellation of April Board Meeting
 - Treasurer to Approve Release of Payment to Vendors for April
 - National Pollutant Discharge Elimination System (NPDES) Annual Report – **Jennifer A. Henke, M.S., Laboratory Manager**

- EPA Pesticide Environmental Stewardship Program (PESP) – **Jennifer A. Henke, M.S., Laboratory Manager**
 - California Environmental Quality Act (CEQA) Mitigated Negative Declaration Annual Compliance Report – **Jennifer A. Henke, M.S., Laboratory Manager**
 - Staff reports from:
 - MVCAC Lobby Day, February 6-7, 2017, in Sacramento, CA
 - AMCA Annual Conference, February 13-17, 2017, in San Diego, CA
- E. Department Reports
- F. Approval to renew annual maintenance contract with ESRI in an amount not to exceed \$19,000.00, from Fund #7675.01.210, Computer and Network Systems Maintenance Contracts – **Edward Prendez, Information Systems Manager**
- G. Approval to contract with Aerial Services for aerial reconnaissance services of the Coachella Valley's urban areas for neglected water features, in the amount not to exceed \$18,500.00, from Fund #7575.01.210, Aerial Surveillance – **Edward Prendez, Information Technology Manager**
- H. Approval of Resolution 2017-04 designating the week of April 16-22, 2017, as Mosquito Awareness Week and funding for the Spring Advertising campaign in an amount not to exceed \$36,000.00, from Existing Budget Funds – **Jill Oviatt, MCDM, Public Information Manager**
- I. Approval for State Department Employee, David Jones, to attend the MVCAC Annual Conference, March 26-29, 2017, in San Diego, CA, in an amount not to exceed \$1,200.00 – **Jeremy Wittie, MS, General Manager**
- J. Approval for Human Resources Manager to attend the Government Finance Officers Association's (GFOA) Annual Conference, May 21-24, 2017, in Denver, Colorado, in an amount not to exceed \$1,500.00 from Fund #7600.01.02, Professional Development – **Anita Jones, Human Resources Manager**
- K. Approval of Resolution 2017-05 Subordination Request Relating to Proposed Refunding Bond Issue for Desert Communities Redevelopment Project Area of the Successor Agency to the Redevelopment Agency for the County of Riverside – **David I'Anson, Administrative Finance Manager**
- L. Approval of Resolution 2017-06 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 – **David I'Anson, Administrative Finance Manager**

On motion from Treasurer Kaplan seconded by Secretary B. Sanchez, and passed by unanimous vote, the Board of Trustees approved the Items of General Consent.

Ayes: Trustees DeKlotz, Hassett, Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, Stevens, Walker, and Weightman.

Noes: None.

Abstained: None.

Absent: None.

10. Old Business: None.

10A. Update on the status and discussion about Strategic Plan 2015-17 – Jeremy Wittie, MS, General Manager: General Manager Wittie gave a brief presentation on the current status of the District's Strategic Plan. A discussion ensued.

10B. Discussion and/or approval to contract with a Civil Engineer to draw plans for extending the asphalt pavement to the currently unpaved north east section of the Thermal Yard – Jeremy Wittie, MS, General Manager: General Manager Wittie gave a brief report. A discussion ensued.

On motion from Secretary B. Sanchez seconded by Vice-President Hassett, and passed with ten (10) for and one (1) against, the Board of Trustees approved the Items of General Consent.

Ayes: Trustees DeKlotz, Hassett, Kaplan, Kunz, Monroe, A. Sanchez, B. Sanchez, Stevens, Walker, and Weightman.

Noes: Trustee Larson.

Abstained: None.

Absent: None.

11. New Business:

11A. Discussion and/or approval to contract for Services with NetworkFleet Inc. for Fleet Telematics, a Global Positioning System (GPS) Vehicle Tracking System, in an amount not to exceed \$13,000.00, from Fund #7675.01.300, Maintenance Contracts – Edward Prendez, Information Systems Manager: Information Systems Manager Prendez gave a brief report. A discussion ensued.

On motion from Secretary B. Sanchez seconded by Trustee Monroe, and passed with ten (10) for and one (1) against, the Board of Trustees approved the Items of General Consent.

Ayes: Trustees DeKlotz, Hassett, Kaplan, Kunz, Monroe, A. Sanchez, B. Sanchez, Stevens, Walker, and Weightman.

Noes: Trustee Larson.

Abstained: None.

Absent: None.

11B. Legal Counsel Update regarding New California Supreme Court Decision on Public Records Act relating to data on privately owned devices and discussion of implications of case – M. Katherine Jenson, General Counsel: General Counsel Jenson gave a brief report. A discussion ensued.

12. Closed Session: Conference with Labor Negotiations District Representatives: Mark H. Meyerhoff, Chief Negotiator and Jeremy Wittie, MS, General Manager; Employee Organization: Teamsters, Local 911, and California School Employees Association (“CSEA”), Chapter 2001

Returning from Closed Session, there was no reportable action taken.

13. Trustee Comments, Requests for Future Agenda Items, Travel and/or Staff Actions: None.

14. Adjournment: The meeting was adjourned by President Walker at 9:14 p.m.

From: Graciela Morales
Sent: Monday, March 13, 2017 1:38 PM
To: DistrictWideGroup <districtwidegroup@cvmvcd.org>
Subject: Call received from the public

Steve Eisenstaedt of Palm Springs called. VCT I, Trinidad Haro, recently visited his property and provided him with information about bees. He stated: "What a great, great guy!" "Thank you for the great service I received".

Grace Morales
Accounting Technician I

From: James David. Young
Sent: Tuesday, March 28, 2017 3:03 PM
To: Roberta Dieckmann
Cc: Jeff Rushing
Subject: Satisfied RIFA Customer

Mr. Paul Summer of Bermuda Dunes called to say that he was very happy with Jeff Rushing's RIFA treatment on his property a few days ago.

James D. Young
Seasonal Call Center Operator

From: Sarah Crenshaw
Sent: Thursday, April 13, 2017 3:44 PM
To: DistrictWideGroup <districtwidegroup@cvmvcd.org>
Subject: Compliment Call - Jonathan H.

Hi Everyone,

We received a call from a resident who said that Jonathan Herrera is a wonderful young man and has great customer service skills. She said that he was patient, kind, and considerate. She also said that he provided her with helpful information and was very timely.

Great job Jonathan! 😊

Thank you,
Sarah L Crenshaw
Administrative Clerk

Emily Boothe
Research Associate
Louisiana State University
584 Life Sciences Building
Baton Rouge, LA 70803
Office: 225-578-7229
Cell: 225-505-5846
eboothe@agcenter.lsu.edu

May 02, 2017

Jeremy Wittie, M.S.
General Manager
Coachella Valley Mosquito & Vector Control District
43420 Trader Place
Indio, CA 92201

Dear Jeremy:

I am writing concerning our professional services agreement by and between the Coachella Valley Mosquito and Vector Control District and Louisiana State University Agricultural Center. I have received a job offer and accepted with an industry partner and will begin work on May 22nd, 2017. Due to the conflict of interest and my not being employed by the LSU AgCenter after May 19th, 2017, we will need to terminate the aforementioned contract and not accept the \$5000 research stipend.

I sincerely apologize for any issues this may have caused CVMVCD, but hope to work with your organization in some capacity in the future. Thank you for your support and understanding in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Emily Boothe".

Emily Boothe

Coachella Valley Mosquito and Vector Control District

Checks Issued for the Period of:

April 11, 2017 to May 3, 2017

Check No	Payable to:	Purchase	Check Amount	Total Amount
	Payroll Disbursement 4/21/2017		177,712.17	
	Payroll Disbursement 5/5/2017		173,004.33	
Pre-Approved Expenditures:				350,716.50
Cash - First Foundation Bank Checking				
40745	CalPERS-California Public	Healthcare Premiums: May 2017	68,462.39	
40746	CalPERS-OPEB Contributions	OPEB Contributions: April 2017	26,035.00	
40747	CalPERS Employee Retirement Sy	Retirement Contributions PP: 3/19 - 4/1/2017	22,873.58	
40748	DIRECTV, Inc.	Satellite Service Fees: 3/25 - 4/24/2017	64.99	
40749	Frontier Communications-Intern	Internet Service Fees: 3/25 - 4/24/2017	450.75	
40750	Frontier Communications-Toll/P	Landline Service Fees: 3/28 - 4/2/2017	150.54	
40751	Gas Co.	Gas Service Fees: 2/24 - 3/27/2017	331.11	
40752	ICMA Retirement Trust	Deferred Compensation PP: 3/19 - 4/1/2017	7,914.33	
40753	Imperial Irrigation District	Electric Service Fees: 3/8 - 4/5/2017	820.59	
40754	IID - Lab Account	Lab Electric Service Fees: 3/8 - 4/5/2017	4,648.69	
40755	Indio Water Authority	Water Service Fees: 3/2 - 4/4/2017	184.58	
40756	Indio Water Authority	Water Service Fees: 3/2 - 4/4/2017	186.14	
40757	Indio Water Authority	Water Service Fees: 3/2 - 4/4/2017	327.95	
40758	Sarah Crenshaw Petty Cash Checking	Petty Cash Checking Replenishment	781.29	
40759	Sarah Crenshaw Petty Cash Custodian	Petty Cash Replenishment	137.36	
40760	Verizon Business	VOIP Phone Service Fees: April 2017	1,171.82	
40761	Verizon Wireless	Mobile Communication Service Fees: 2/8 - 3/7/2017	3,235.40	
40762	Vision Service Plan	Vision Insurance Premiums: May 2017	955.01	
				138,731.52
Cash - First Foundation Bank Checking				
40763	Airgas Carbonic, Inc	Lab Operating Supplies	658.83	
40764	AIS	Office Supplies	1,106.52	
40765	Audio Visual Innovations, Inc.	Boardroom Audio & Video System	49,829.46	
40766	C&R Wellness Works	Employee Assistance Program	264.00	
40767	Car Quest Auto Parts	Vehicle Parts & Supplies	804.93	
40768	Cisco WebEx, LLC.	Maintenance Contracts	99.00	
40769	Clairemont Equipment	Promotion & Education	421.07	
40770	CleanExcel	Contract Services	3,140.00	
40771	Daniel's Tire Service	Vehicle Parts & Supplies	906.33	
40772	Roberta Dieckmann	Professional Development	598.20	
40773	Eisenhower Occupational Health	Physician Fees	645.00	
40774	Equipment Direct, Inc.	Safety Expense	1,099.08	
40775	Fisher Scientific	Equipment Parts & Supplies	405.54	
40776	G & K Services	Uniform Expense	1,645.98	
40777	Gempler's	Safety Expense	123.59	
40778	Interstate All Battery Center	Vehicle Parts & Supplies	120.84	
40779	Jernigan's Sporting Goods, Inc	Safety Expense	175.00	
40780	Shelley Kaplan	Trustee Travel	694.94	
40781	Kisco Sales, Inc.	Operating Supplies	95.23	
40782	Doug Kunz	Trustee Travel	766.83	
40783	Liebert Cassidy Whitmore	Attorney Fees	3,220.00	
40784	Life Technologies Corporation	Internal Mosquito PCR	3,593.14	
40785	Marlin Leasing	Contract Services	606.34	
40786	Crystal Moreno	Tuition Reimbursement	948.27	
40787	NAPA Auto & Truck Parts	Vehicle Parts & Supplies	256.02	
40788	National Cine Media, LLC.	Public Outreach Advertising	2,208.00	
40789	Jill Oviatt	MVCAC Annual Conference	179.34	
40790	Palm Springs Pump Inc.	Repair & Maintenance	125.00	
40791	Praxair Distribution, Inc.	Equipment Parts & Supplies	46.50	
40792	Provision First Aid	Safety Expense	601.06	
40793	Pure Water Technology, Inc.	Employee Support	213.15	
40794	Ricky Brands dba Kassmo Produc	Promotion & Education	2,996.06	
40795	Rutan & Tucker, LLP	Attorney Fees	5,263.22	
40796	Salton Sea Air Service	Aerial Application	4,650.00	
40797	The SoCo Group, Inc.	Motor Fuel & Oils	9,211.06	
40798	Tops N Barricades, Inc.	Promotion & Education	937.50	
40799	U.S. Bank	CalCard	74,488.12	
40800	Universal Brake & Alignment	Offsite Vehicle Maintenance & Repair	120.00	
40801	UPS	Postage	331.49	
40802	Valley Lock & Safe	Repair & Maintenance	23.51	
40803	Verizon Wireless	Mobile Equipment	465.00	
40804	Doug Walker	Trustee Travel	144.32	
40805	Waxie Sanitary Supply	Maintenance Supplies	188.47	
40806	Clive Weigman	Trustee Travel	709.10	
40807	Western Pump	Repair & Maintenance	736.58	
Cash - First Foundation Bank Check Run Total to be Approved				175,861.62
Total Expenditures: April 11, 2017 to May 3, 2017				665,309.64

Coachella Valley Mosquito and Vector Control District
FINANCES AT A GLANCE
ALL FUNDS COMBINED
For the Month Ended April 30 2017

	Beginning of the Month	Change During the Month	End of the Month
INVESTMENTS	\$ 10,837,738	\$ (553,746)	\$ 10,283,992
CASH	\$ 79,825	96,348	\$ 176,174
INVESTMENTS & CASH	\$ 10,917,564	\$ (457,398)	\$ 10,460,166
CURRENT ASSETS	\$ 1,549,762	(14,699)	1,535,063
FIXED ASSETS	\$ 11,188,461	-	11,188,461
OTHER ASSETS	\$ 3,854,043	-	3,854,043
TOTAL ASSETS	<u>\$ 27,509,830</u>	<u>\$ (472,097)</u>	<u>\$ 27,037,733</u>
TOTAL LIABILITIES	\$ 5,184,693	\$ (18,622)	\$ 5,166,071
TOTAL DISTRICT EQUITY	\$ 22,325,137	(453,475)	21,871,662
TOTAL LIABILITIES & EQUITY	<u>\$ 27,509,830</u>	<u>\$ (472,097)</u>	<u>\$ 27,037,733</u>
RECEIPTS		\$ 18,506	
CASH DISBURSEMENTS			
Payroll	\$ 175,154		
General Admin	\$ 300,750		
Total Cash Disbursements		\$ (475,904)	
NON-CASH ENTRIES:		\$ (14,699)	
Accrual Modifications -			
Changes in A/P, A/R & Pre-paid insurance			
Change during Month - Excess of Cash over Receipts & Non-Cash Adjustments		<u>\$ (472,097)</u>	

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT INVESTMENT FUND BALANCES AS OF APRIL 30, 2017						
INSTITUTION	IDENTIFICATION	Issue Date	Maturity Date	YIELD	BALANCE	PERCENT OF TOTAL INVESTMENTS
LAIF	Common Investments Funds 51105, 51110 and			0.88%	6,171,556	60.01%
Riverside County	51115			0.95%	3,435,307	33.40%
CalTRUST	Medium Term			1.24%	491,231	4.78%
First Foundation	Market Rate			0.10%	185,898	1.81%
	Total Investments				\$ 10,283,992	100.00%

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT LISTING OF MONTHLY RECEIPTS For April 30, 2017				
DATE	RECEIVED FROM	AMOUNT	DESCRIPTION	
4/7/2017	American Mosquito Control Association - 232	500.00	Reimbursement	
4/10/2017	Active Network - 324	750.00	5K Registration	
4/14/2017	Local Agency Investment Fund - 72	11,784.51	LAIF Interest	
4/18/2017	Torres Martinez Tribal TANG - 326	375.00	5K Registration	
4/18/2017	Orange County Mosquito and Vector Control District - 29	500.00	Mosquito Fish	
4/19/2017	Aflac - 327	30.12	Reimbursement	
4/27/2017	Vector Control Joint Powers Agency - 73	1,050.00	Claim on damaged solar panel	
4/28/2017	ChronoTrack Systems Corp	305.00	5K Registration	
4/28/2017	Vector Control Joint Powers Agency - 73	3,174.00	CARMA Dividend	
4/30/2017	First Foundation	37.55	Bank Interest	
Monthly Total		\$ 18,506.18		

Coachella Valley Mosquito and Vector Control District
REVENUE AND EXPENDITURE
For the Month Ended April 30, 2017

	Revised Budget 2016-17	This Month	Y-T-D	Budget Balance	% Y-T-D
REVENUES					
Current Taxes	7,789,222	-	3,999,425	3,789,797	51%
Miscellaneous Revenue	63,000	6,184	108,624	(45,624)	172%
Prior Taxes	25,500	-	17,824	7,676	70%
Interest Income	50,000	11,822	54,367	(4,367)	109%
Benefit Assessment Income	1,441,381	-	780,918	660,463	54%
TOTAL REVENUES	9,369,103	18,006	4,961,159	4,387,503	53%
Payroll Expense					
5101 Payroll - Full Time	4,396,912	163,531	3,173,504	1,223,408	72%
5102 Payroll - Seasonal	189,600	9,076	123,078	66,522	65%
5105 Overtime Expenses	30,300	-	16,514	13,786	55%
5150 CalPERS Employer Payment of Unfunded Lia	98,586	-	95,099	3,487	96%
5150 CalPERS State Retirement Expense	380,060	13,980	271,428	108,632	71%
5155 Social Security Expense	278,282	10,965	198,711	79,571	71%
5165 Medicare Expense	65,082	2,564	50,760	14,322	78%
5170 Cafeteria Plan Expense	986,626	68,775	871,559	115,067	88%
5172 Retiree Healthcare	342,420	27,679	284,356	58,064	83%
5180 Deferred Compensation	93,291	3,380	65,928	27,363	71%
5195 Unemployment Insurance	29,895	563	31,238	(1,343)	104%
Total Payroll Expense	6,891,055	300,514	5,182,177	1,708,878	75%
Administrative Expense					
5250 Tuition Reimbursement	20,000	2,581	15,224	4,776	76%
5300 Employee Incentive	10,000	-	3,247	6,753	32%
5301 Employee Support	4,000	395	3,492	508	87%
5302 Wellness Program	5,000	-	328	4,672	7%
5305 Employee Assistance Program	2,800	-	2,024	776	72%
6000 Property & Liability Insurance	95,402	11,960	42,571	52,831	45%
6001 Workers' Compensation Insurance	144,461	19,386	133,762	10,699	93%
6050 Dues & Memberships	22,300	-	20,114	2,186	90%
6060 Public Outreach Materials	22,300	143	5,566	16,734	25%
6065 Recruitment/Advertising	4,000	1,422	3,463	537	87%
6070 Office Supplies	15,200	2,362	15,549	(349)	102%
6075 Postage	6,250	146	5,773	477	92%
6080 Computer & Network Systems	5,400	123	3,197	2,203	59%
6085 Bank Service Charges	200	-	74	126	37%
6090 Local Agency Formation Commission	1,000	-	1,044	(44)	104%
6095 Professional Fees	-	-	-	-	-
Administration	30,000	-	11,720	18,280	39%
Information Systems	3,500	485	765	2,735	22%
District Wide	20,000	881	14,969	5,031	75%
Surveillance	15,730	-	-	15,730	0%
6100 Attorney Fees	-	-	-	-	-
General Counsel	60,000	5,263	29,718	30,282	50%
Labor Relations	20,000	-	570	19,430	-
Personnel	10,000	-	6,407	3,593	64%
6106 HR Risk Management	4,500	-	4,365	135	97%
6110 Conference Expense	-	-	-	-	-
MVCAC Committee Assignments	12,000	-	4,954	7,046	41%
Annual Conference Expense	13,200	6,005	8,950	4,250	68%
Trustee Travel	16,800	3,538	13,060	3,740	78%
6115 Trustee In-Lieu Expense	13,200	-	9,900	3,300	75%
6120 Trustee Support Expense	4,000	226	3,166	834	79%
6200 Meetings Expense	3,000	111	931	2,069	31%
6210 Promotion & Education	20,000	7,151	19,501	499	98%
6220 Public Outreach Advertising	40,000	2,208	4,720	35,280	12%
6500 Benefit Assessment Expense	88,440	-	86,685	1,755	98%
Total Administrative Expense	732,683	64,386	475,808	256,875	65%

Coachella Valley Mosquito and Vector Control District
REVENUE AND EXPENDITURE
For the Month Ended April 30, 2017

	Revised Budget 2016-17	This Month	Y-T-D	Budget Balance	% Y-T-D
Utility Expense					
6400 Utilities	105,000	6,564	74,578	30,422	71%
6410 Telecommunications	25,400	1,893	19,326	6,074	76%
Total Utility Expense	130,400	8,457	93,904	36,496	72%
Operating Expense					
7000 Uniform Expense	19,775	433	17,019	2,756	86%
7050 Safety Expense	20,050	396	15,271	4,779	76%
7100 Physician Fees	10,000	645	1,581	8,419	16%
7150 IT Communications	22,500	3,614	17,145	5,355	76%
7200 Maintenance Supplies	3,500	188	3,571	(71)	102%
7300 Building & Grounds Maintenance	50,000	2,240	36,725	13,275	73%
7310 Calibration & Certification of Equipment	13,300	-	5,407	7,893	41%
7350 Permits, Licenses & Fees	11,800	590	6,829	4,971	58%
7400 Vehicle Maintenance & Repair	28,500	1,591	23,663	4,838	83%
7420 Offsite Vehicle Maintenance & Repair	7,500	120	4,968	2,532	66%
7450 Equipment Parts & Supplies	21,300	748	14,978	6,322	70%
7500 Small Tools Expense	4,000	17	899	3,101	22%
7550 Lab Operating Supplies	36,200	1,222	16,271	19,929	45%
7570 Green Pool Surveillance	25,000	-	-	25,000	0%
7575 Surveillance	50,900	5,050	48,967	1,933	96%
7600 Staff Training	-	-	-	-	-
State Certified Technician Fees	6,000	-	5,870	130	98%
State Required CEU	3,750	-	-	3,750	0%
Professional Development	50,650	1,505	20,903	29,747	41%
7650 Equipment Rentals	1,000	-	773	227	77%
7675 Contract Services	-	-	-	-	-
Administration	7,000	300	4,862	2,138	69%
Information Systems	51,460	1,612	37,613	13,847	73%
Fleet	15,300	-	-	15,300	0%
Facilities	72,400	4,015	55,177	17,223	76%
Operations	6,000	300	3,581	2,419	60%
7700 Motor Fuel & Oils	73,200	4,308	48,253	24,947	66%
7750 Ops Operating Supplies	7,500	827	7,212	288	96%
7800 Control	-	-	-	-	-
Chemical Control	665,000	49,131	728,260	(63,260)	110%
Physical Control	12,500	-	-	12,500	0%
7850 Aerial Applications	-	-	-	-	-
Rural	50,400	4,650	57,498	(7,098)	114%
Urban	75,280	-	60,890	14,391	81%
8415 Operating Equipment	33,200	11,632	33,852	(652)	102%
8487 Furniture & Equipment	10,000	5	2,060	7,940	21%
8510 Research Projects	150,000	-	116,504	33,496	78%
8510 UCD VC of CA Mosq Research - Zika	-	-	30,000	-	-
8510 USDA - COOP expenses to be refunded	-	-	-	-	-
Total Operating Expense	1,614,965	95,140	1,426,601	218,364	88%
TOTAL EXPENSES	9,369,103	468,496	7,178,491	2,190,612	77%
Total Operations Revenue Less Expenses	0	(450,490)	(2,217,332)		
CAPITAL EXPENSES					
6095 Professional Fees	10,000	-	496	9,504	5%
8463 Interior Equipment Upgrade	80,000	-	-	80,000	0%
8487 Facility Improvements	30,000	-	-	30,000	0%
TOTAL CAPITAL EXPENSES	120,000	-	496	119,504	0%
Total Operations Revenue Less Expenses	(120,000)	(450,490)	(2,217,828)		

Coachella Valley Mosquito and Vector Control District
BALANCE SHEET
For the Month Ended April 30 2017

	General Fund	Capital Replacement	Other Governmental Funds	Total
ASSETS				
<u>Cash and Investments</u>				
Cash - Checking	\$ (88,280)	\$ -	\$ -	(88,280)
Cash - Payroll	\$ 262,454	\$ -	\$ -	262,454
Cash - Building Fund Checking	\$ -	\$ -	\$ -	-
Cash - Petty Cash	\$ 2,000	\$ -	\$ -	2,000
Investment Balances	\$ 8,837,292	\$ 1,041,242	\$ 405,458	10,283,992
Total Cash and Investments	\$ 9,013,466	\$ 1,041,242	\$ 405,458	10,460,166
<u>Current Assets</u>				
Accounts Receivable	\$ -	\$ -	\$ -	-
Interest Receivable	\$ -	\$ -	\$ -	-
Lease Payment Receivable	\$ -	\$ -	\$ -	-
Allowance for Bad Debts	\$ -	\$ -	\$ -	-
Chemical - Inventory	\$ 399,575	\$ -	\$ -	399,575
Shop - Inventory	\$ 12,116	\$ -	\$ -	12,116
Prepays and Deposits	\$ 1,123,372	\$ -	\$ -	1,123,372
Total Current Assets	\$ 1,535,063	\$ -	\$ -	1,535,063
<u>Fixed Assets</u>				
Construction in Progress	\$ -	\$ -	\$ -	-
BIO Control Building	\$ 6,963,768	\$ -	\$ -	6,963,768
Vehicles	\$ -	\$ 1,510,661	\$ -	1,510,661
Computer Equipment	\$ 113,607	\$ 227,751	\$ -	341,358
Computer Equipment GIS	\$ -	\$ 301,598	\$ -	301,598
Office Furniture and Equipment	\$ 1,027,317	\$ 167,882	\$ -	1,195,199
Bio Control Equipment/Furniture	\$ 32,034	\$ -	\$ -	32,034
Land	\$ 417,873	\$ -	\$ -	417,873
Oleander Building	\$ 5,665,862	\$ -	\$ -	5,665,862
Signage	\$ 23,651	\$ -	\$ -	23,651
Structures and Improvements	\$ 2,976,296	\$ -	\$ -	2,976,296
Accumulated Depreciation	\$ (6,374,807)	\$ (1,865,032)	\$ -	(8,239,839)
Total Fixed Assets	\$ 10,845,602	\$ 342,859	\$ -	11,188,461
<u>Other Assets</u>				
Deferred Outflows of Resources	\$ 338,926	\$ -	\$ -	338,926
Resources to be Provided	\$ 3,515,117	\$ -	\$ -	3,515,117
Total Other Assets	\$ 3,854,043	\$ -	\$ -	3,854,043
TOTAL ASSETS	\$ 25,248,174	\$ 1,384,102	\$ 405,458	\$ 27,037,733

Coachella Valley Mosquito and Vector Control District
BALANCE SHEET
For the Month Ended April 30 2017

	General Fund	Capital Replacement	Other Governmental Funds	Total
LIABILITIES AND EQUITY				
LIABILITIES				
<u>Current Liabilities</u>				
Accounts Payable	\$ 108,025	\$ (0)	\$ -	108,025
Accrued Payroll and Payroll Taxes	\$ 2,295	\$ -	\$ -	2,295
Deferred Revenue	\$ -	\$ -	\$ -	-
Retentions Payable - Capital Fund	\$ -	\$ -	\$ -	-
Claims/Judgments Payable	\$ (52)	\$ -	\$ -	(52)
Union Dues/Charity Payable	\$ (254)	\$ -	\$ -	(254)
Total Current Liabilities	\$ 110,014	\$ -	\$ -	110,014
<u>Long Term Liabilities</u>				
Deferred Inflows of Resources	\$ 613,465	\$ -	\$ -	613,465
Net Pension Liability	\$ 622,269	\$ -	\$ -	622,269
Pollution Remediation Obligation	\$ 2,100,000	\$ -	\$ -	2,100,000
OPEB Obligation	\$ 1,172,619	\$ -	\$ -	1,172,619
Compensated Absences Payable	\$ 547,704	\$ -	\$ -	547,704
Total Long Term Liabilities	\$ 5,056,057	\$ -	\$ -	5,056,057
TOTAL LIABILITIES	\$ 5,166,071	\$ -	\$ -	\$ 5,166,071
EQUITY - FUND BALANCE				
Non - Spendable Fund Balance				
Invested in Capital Assets	\$ 10,845,602	\$ 342,859	\$ -	11,188,461
Inventory	\$ 516,559	\$ -	\$ -	516,559
Prepays & Deposits	\$ 1,391,699	\$ -	\$ -	1,391,699
Committed Fund Balance	\$ 12,753,859	\$ 342,859	\$ -	13,096,719
Designated for Emergency Service	\$ 3,123,034	\$ -	\$ -	3,123,034
Assigned Fund Balance				
Designated for Other Post Employment Ben	\$ 436,469	\$ -	\$ -	436,469
Designated for Environmental Remediation	\$ -	\$ -	\$ 429,276	429,276
Designated for General Reserve	\$ 5,621,462	\$ -	\$ -	5,621,462
Designated for Replacements & Emergency	\$ 365,106	\$ -	\$ -	365,106
Designated for Future Construction	\$ -	\$ -	\$ -	-
Designated for Equipment Replacement	\$ -	\$ 277,787	\$ -	277,787
Designated for Vehicle Replacement	\$ -	\$ 957,646	\$ -	957,646
Unassigned Fund Balance	\$ 6,423,037	\$ 1,235,432	\$ 429,276	8,087,745
Unassigned	\$ -	\$ -	\$ -	-
Excess Revenue over (under) Expenditures	\$ (2,217,828)	\$ (194,190)	\$ (23,819)	(2,435,836)
TOTAL EQUITY	\$ 20,082,102	\$ 1,384,102	\$ 405,458	21,871,662
TOTAL LIABILITIES AND EQUITY	\$ 25,248,174	\$ 1,384,102	\$ 405,458	27,037,733



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Coachella Valley
Mosquito and Vector Control District
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO



**Coachella Valley Mosquito and Vector
Control District**

Staff Report

May 9, 2017

Agenda Item: Informational Item

District Travel – **Crystal G. Moreno, Executive Assistant**

Background:

The following are conferences and meetings that are currently scheduled to be attended:

Imported Fire Ant Annual Conference (5/16-18):

Jennifer Henke, Laboratory Manager

Kim Hung, Vector Ecologist

Bobbye Dieckmann, Field Supervisor

Government Finance Officers Association (5/21-24):

Anita Jones, Human Resources Manager



Coachella Valley Mosquito and Vector Control District

Staff Report

May 9, 2017

Agenda Item: Informational Item

Staff report from:

- MVCAC Annual Conference, March 26-29, 2017 in San Diego, CA

Report:

The annual meeting of the Mosquito and Vector Control Association of California (MVCAC) is an opportunity for staff to meet with leading mosquito workers from across the state.

Melissa Snelling, Biologist, presented a poster during the poster session on how to rear mosquitoes. *Arturo Gutierrez*, Laboratory Assistant II, presented a poster detailing the creation of a cage stand designed to hold multiple cages of mosquitoes, making efficacy trials more efficient. *Michael Martinez*, Field Supervisor, presented a poster on the equipment used to make aerial larvicide treatments. *Oldembour Avalos*, Field Supervisor, presented a poster on creating a Congested Area Flight Plan for the aerial applications over residences.

Jennifer Henke was invited to speak in the managing invasive *Aedes* mosquitoes in California symposium about the work conducted in the District to combat *Aedes aegypti*. Jennifer was also invited to speak in the pesticide resistance symposium about the work completed at the District to ensure that we are making effective treatments. *Jill Oviatt* organized and moderated the Community Engagement and Advocacy symposium.

This year the MVCAC Annual Conference hosted sessions on:

- Community engagement and advocacy
- Mosquitofish programs
- Information technology
- Operations
- Pesticide resistance
- Disease and biology of vectors

ATTENDEES:

Doug Walker, Trustee
Bito Larson, Trustee
Shelley Kaplan, Trustee
Adam Sanchez, Trustee
Doug Kunz, Trustee
Clive Weightman, Trustee
Jeremy Wittie, District Manager
Jennifer Henke, Laboratory Manager
Jill Oviatt, Public Information Manager
Kim Hung, Vector Ecologist

Michael Martinez, Field Supervisor
Oldembour Avalos, Field Supervisor
Melissa Snelling, Biologist
Arturo Gutierrez, Laboratory Assistant II
Geneva Ginn, Lead Technician

FINANCE

The financial reports show the balance sheet, receipts, and the revenue and expenditure reports for the month ending April 30, 2017. The revenue and expenditure report shows that the operating budget expenditure for July 1, 2016 to April 30, 2017 is \$7,178,490; total revenue is \$4,961,159 resulting in excess revenue over (under) expenditure for the year to April 30, 2017 of \$(2,217,331).

THREE YEAR FINANCIALS

	4/30/2017	4/30/2016	4/30/2015
Total Revenue	4,961,159	4,739,197	4,485,965
Expenses			
Payroll	5,182,177	5,246,520	4,817,878
Administrative Expense	475,808	461,305	598,779
Utility	93,904	88,028	89,275
Operating Expense	1,426,601	1,084,144	1,040,683
Total Expenses	7,178,490	6,879,997	6,546,615
Profit (Loss)	(2,217,331)	(2,140,800)	(2,060,650)
Capital Expenses	496	80,838	100,630

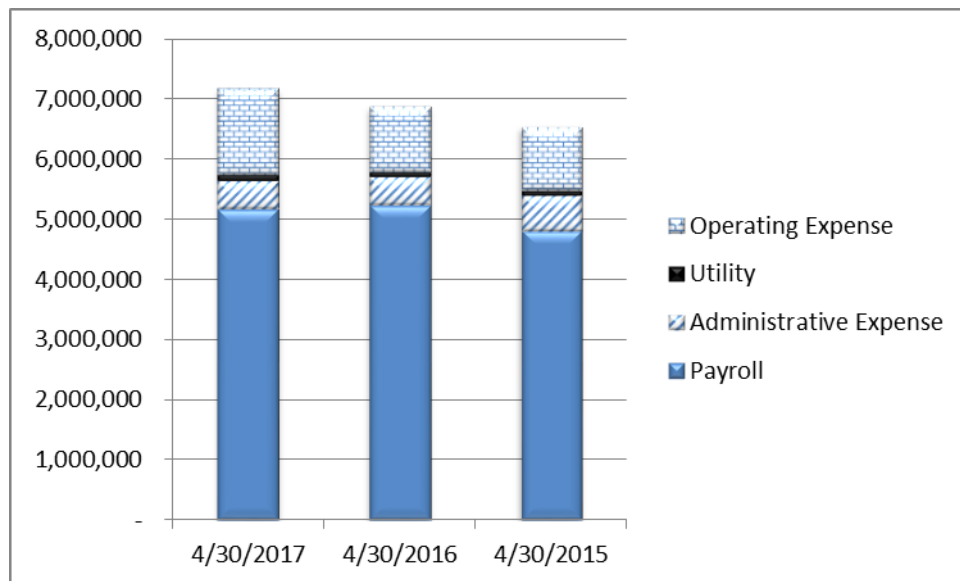


Figure 1 Same Period Three Year Expenditure

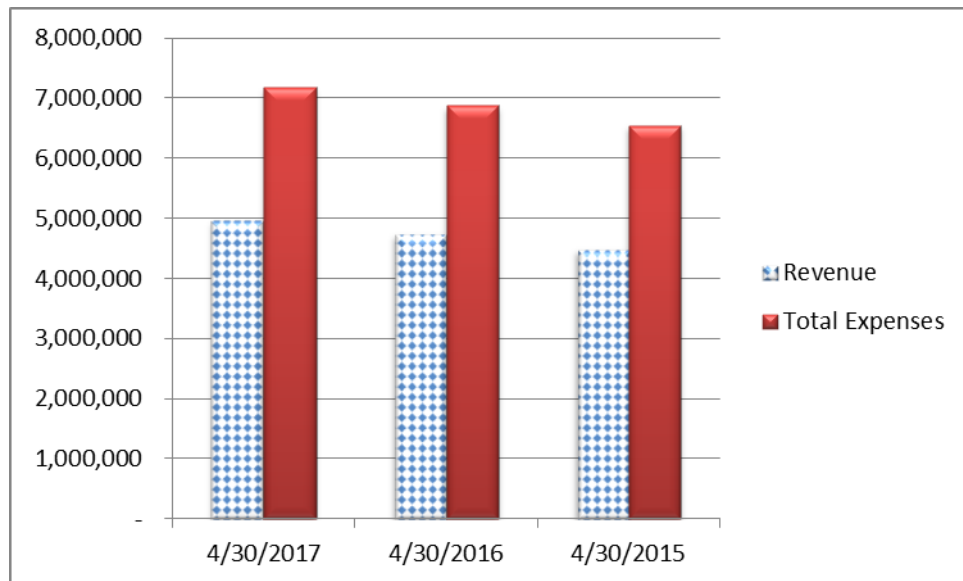


Figure 2 Same Period Three Year Revenue & Expenditure

THREE YEAR CASH BALANCE

CASH BALANCES	4/30/2017	4/30/2016	4/30/2015
Investment Balance	10,283,992	10,726,844	11,151,209
Checking Accounting	(88,280)	5,088	5,965
Payroll Account	262,454	66,096	123,352
Building Account	-	-	22,236
Petty Cash	2,000	2,000	2,000
TOTAL CASH BALANCES	10,460,166	10,800,029	11,304,762

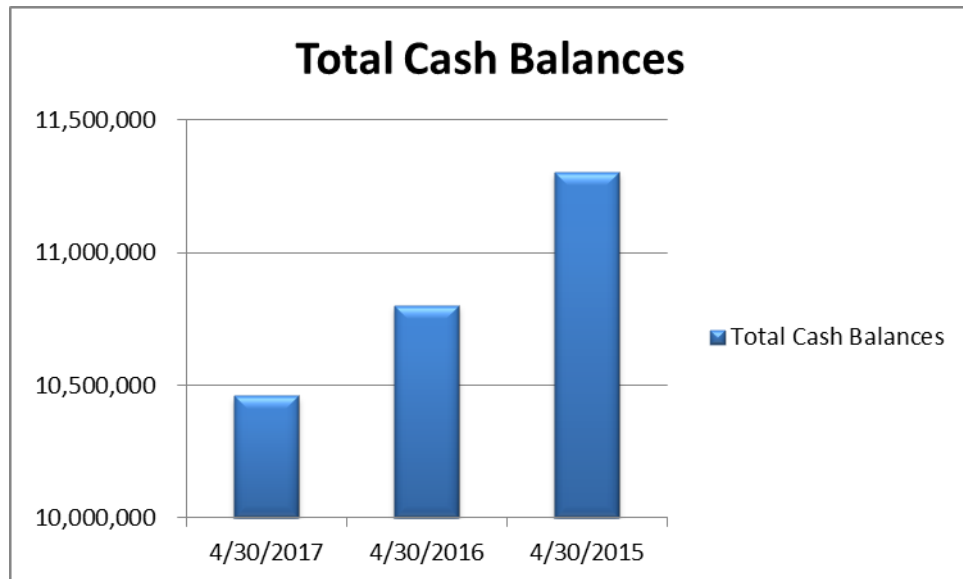


Figure 3 Same Period Three Year Cash Balances

DISTRICT INVESTMENT PORTFOLIO 4/30/2017

The District's investment fund balance for the period ending April 30, 2017 is \$10,283,992 the portfolio composition is shown in the pie chart. Local Agency Investment Fund (LAIF) accounts for 60% of the District's investments; the Riverside County Pooled Investment Fund is 33% of the total.

The LAIF yield for the end of April 2017 was 0.88% and the Riverside County Pooled Investment Fund was 0.95%; this gives an overall weighted yield for District investments of 0.91%.

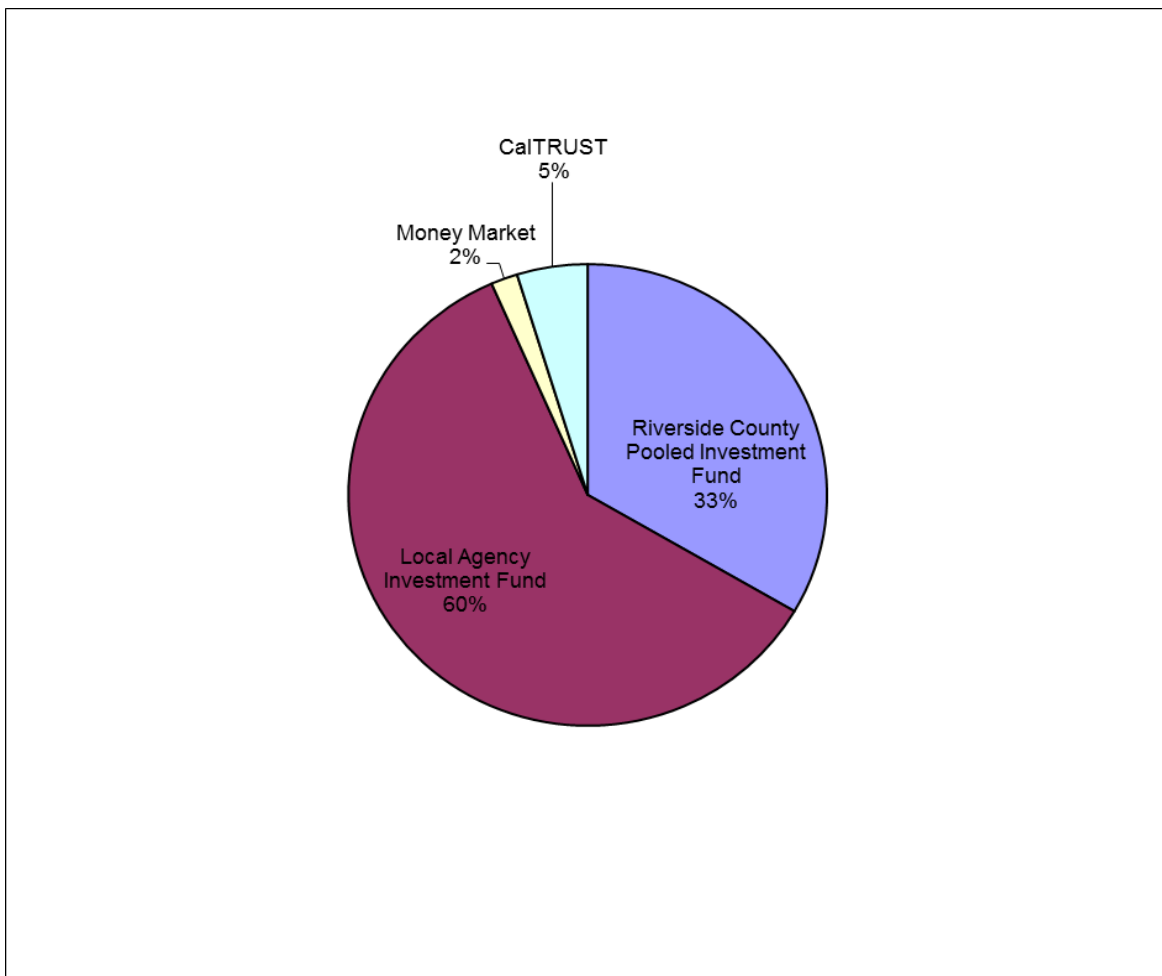


Figure 4 Investment Portfolio 4-30-17

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	0.66	0.67	0.66	0.64	0.65	0.61	0.60	0.56	0.56	0.54	0.53	0.52
2012	0.53	0.51	0.50	0.50	0.47	0.46	0.47	0.43	0.43	0.41	0.39	0.34
2013	0.33	0.34	0.33	0.32	0.32	0.32	0.32	0.32	0.31	0.30	0.32	0.29
2014	0.27	0.30	0.33	0.31	0.30	0.30	0.34	0.37	0.35	0.37	0.35	0.39
2015	0.37	0.40	0.36	0.35	0.37	0.39	0.41	0.41	0.43	0.43	0.44	0.46
2016	0.50	0.55	0.57	0.56	0.54	0.61	0.57	0.63	0.64	0.63	0.69	0.73
2017	0.74	0.75	0.81	0.91								

Figure 5 District Investments Weighted Yield

HUMAN RESOURCES

RECRUITMENT

Recruitment is continuing for the position of Operations Manager. Recruitment will begin for the position of Seasonal Vector Control Operator in May.

NEW EMPLOYEES

Heriberto Dismaya and *Jaime Perezchica* began work in the position of Seasonal Vector Control Operator.

TRAINING

Accounting Technician *Graciela Morales* attended training presented by CalPERS on Business Rules for Public Agency Employers in San Bernardino on January 25, 2017.

The District hosted the Coachella Valley Employment Relations Consortium workshops held on April 12th. Two different sessions were presented: 1) "Technology and Employee Privacy" from 9:00 am to 12:00 pm, and 2) "Best Practices for Document and Record Management" from 1:00 pm to 4:00 pm.

EMPLOYEE RECOGNITION

Congratulations to the following employee who received the following award:

Above and Beyond	
<i>Diana Reyes</i>	For suggesting and logistically figuring out how to get 2,000 flyers to Indio residents to promote the "Fight the Bite Block Party" when it became clear that many area residents did not receive the District's mailed postcard inviting them to the event.

PUBLIC OUTREACH DEPARTMENT

Fight the Bite 5K: We kicked off Mosquito Awareness Week in California with the District's second Annual **Fight the Bite 5K and Community Resource Fair** at the Palm Desert Civic Center Park. The race was held April 15 with more than 150 people registering for the event.

Nine local businesses donated food, water, granola bars, sunscreen, or services for the race, and we had 10 community partners with booths to show their support and share their resources with the public. Between employees, volunteers, racers, friends, and family we had more than 200 people in the park joining in the fun and learning about existing and emerging mosquito threats. The Palm Desert High School Drumline provided fantastic beats for the start of the run and for the awards ceremony and Cupcake the Clown provided face painting and balloon animals to entertain the kids.

We reached thousands more leading up to and following the event with ads about the race and mosquito threats on selected English and Spanish TV, Radio, and Newspaper, and also with interviews on KMIR (live in studio), Telemundo, KNEWS, La Poderosa, and El Informador. KESQ did a news story about the event on the 6pm news. General Manager *Jeremy Wittie*, Public Information Manager *Jill Oviatt*, and Public Outreach Coordinator *Edgar Castro* were interviewed.

PROMOTING VECTOR AWARENESS: Leading up to the Fight the Bite 5K, we passed out thousands of awareness materials and race postcards to City Halls, community centers, libraries, and parks. *Jeremy* invited a local Brownie troop in to educate them on standing water prevention, mosquitoes, and other vectors in the Valley. We continued our weekly job shadow program with a Coachella Valley High School student.

At the beginning of the month, we also organized a community meeting at Trilogy La Quinta focusing on fly and mosquito control. At the meeting, *Jeremy* updated residents on the District's efforts to conduct fly surveillance and prevention, as well as educate residential, business, and agricultural community members on the best strategies to reduce and control fly populations in the area.



Scenes from Mosquito Awareness Week.

About 60 people attended the meeting including *Jill*, *Jeremy*, and Trustee *Doug Hassett* representing the District, the La Quinta Mayor and a City Councilor, Riverside County Code Enforcement, City of La Quinta Code Enforcement, and the Agricultural Commissioner's Office. Residents voiced their concerns about flies and their appreciation of District efforts to reduce flies in the area.

SURVEILLANCE AND QUALITY CONTROL MANAGEMENT PROGRAM

The vector-borne statewide surveillance program was established in 1969. The District began encephalitis surveillance in the early 1980s, and the surveillance program has been in place since 1990. The District program includes the monitoring of vector and vector-borne diseases and the implementation, evaluation and analysis of integrated vector management strategies in the Coachella Valley. Information generated by this department is used by District Operations staff to ensure control measures are efficiently implemented in the field.

DISEASE SURVEILLANCE (AS OF 5/1/2017) ARBOVIRUS SURVEILLANCE TESTING – CALIFORNIA

	WNV – Positive 2017 YTD	WNV - Positive 2016 YTD	WNV – 5 year Average	WEE 2017 YTD	SLE 2017 YTD
Positive Counties	5	4	5	0	0
Human Cases	1	0	0	0	0
Positive Dead Birds / # Tested	3/116	14/168	6	0	0
Positive Mosquito Pools / # Tested	1/3,983	2/2,785	0	0	0

2017	Chikungunya	Dengue	Zika
Mosquito Pools YTD (positive/total tested)	0/108	0/108	0/108

ARBOVIRUS SURVEILLANCE TESTING – COACHELLA VALLEY

		MARCH/APRIL	2017 YTD	2016 YTD	5 YEAR AVERAGE YTD
HUMANS		0	0	0	0
DEAD BIRDS		0	0	0	0
MOSQUITO POOLS	WNV	1	1	0	0.8
	SLE	0	0	0	0
	# TESTED	1,396	1,581	1,341	7,868

ENDEMIC MOSQUITO SURVEILLANCE

CO₂ TRAPS

During the normal mosquito season (March through mid-November) the District Laboratory staff maintains 102 CO₂ (carbon dioxide) traps through the District to monitor the mosquito populations. Extra emphasis is placed on mosquito species that are known to be vectors of virus that cause human disease. These vector species in the Coachella Valley are *Culex tarsalis* and *Cx. quinquefasciatus*. In the rural areas *Cx. tarsalis* is the most abundant vector species. CO₂ traps release carbon dioxide to attract mosquitoes looking to obtain a blood meal and are very effective at collecting *Culex* mosquitoes. The average number of vectors captured per trap per night is monitored and used to guide operational activities of the District. The number of mosquitoes collected in half-month periods is compared to the previous 5-year average. The surveillance program mosquito abundance is broadly reported in two areas – Urban and Rural. These Urban and Rural areas are also broken down into smaller zones to look at more specific regions of the District when planning mosquito control activities.

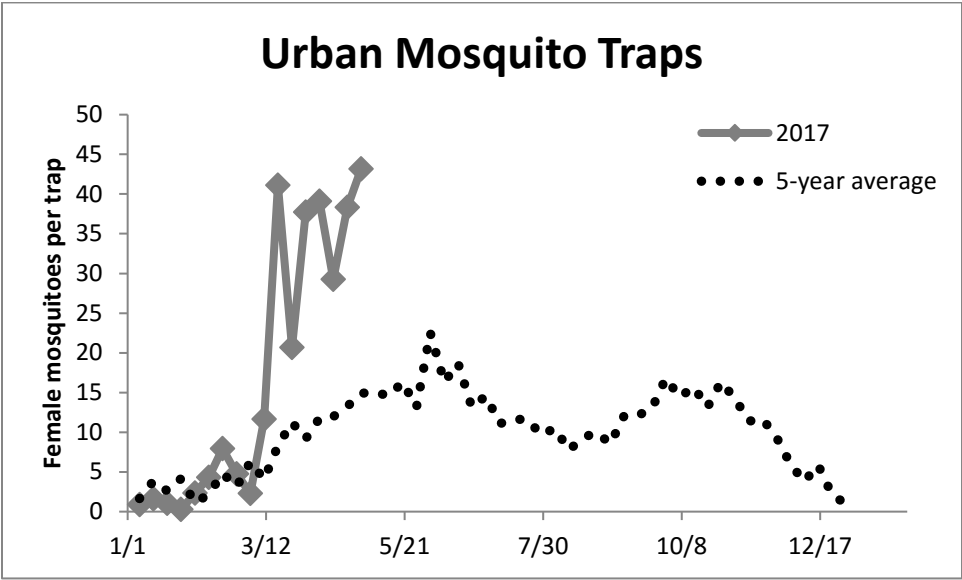


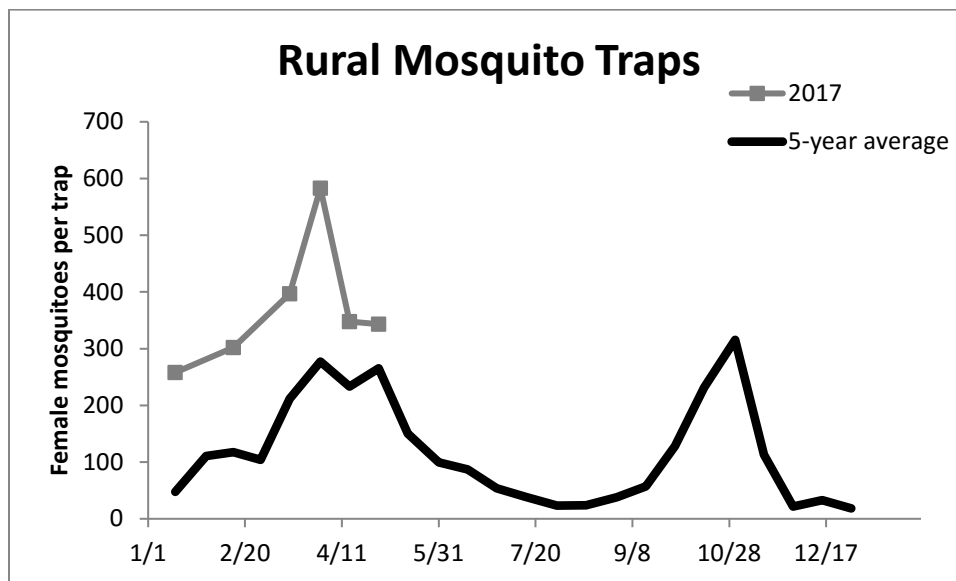
Gravid Traps

Gravid traps use water infused with organic matter such as alfalfa to attract mosquitoes looking to lay eggs. These traps are especially effective at collecting *Cx. quinquefasciatus* mosquitoes, which are the primary disease vector in the urban areas of the District. However, other mosquito species, including *Cx. tarsalis* are not attracted to these traps. Because of their use in targeting *Cx. quinquefasciatus* mosquitoes, these traps are placed in urban areas of Coachella Valley. The District currently uses gravid traps at 47 locations during the normal mosquito season.



MOSQUITO SURVEILLANCE ZONES





EXOTIC MOSQUITO SURVEILLANCE

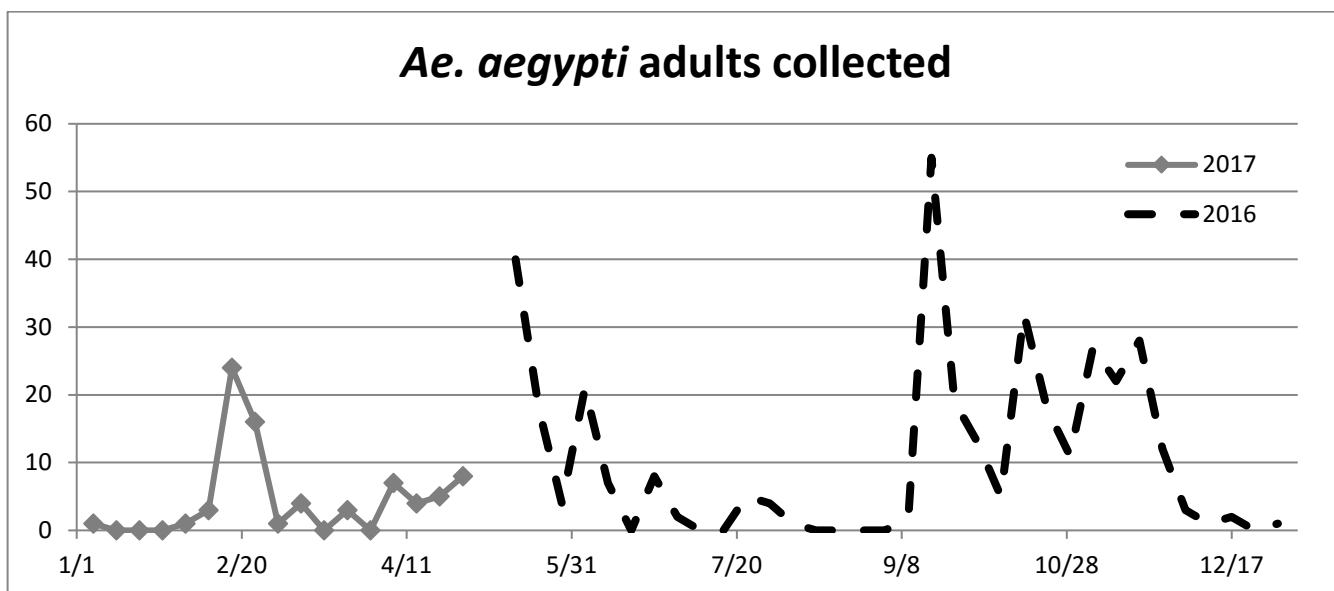
Aedes aegypti has been detected in 4 cities: Coachella (2 separate regions), Cathedral City, Indio, and Palm Springs. BG-Sentinel traps are deployed weekly at each region to detect adult mosquitoes. Coachella, Cathedral City, and Indio each have 8 permanent trap sites set weekly. North Coachella and Palm Springs have 5 or 6 traps sites set weekly at rotating locations. Ovicups are placed throughout the Coachella Valley region with higher cup density in areas with prior *Aedes* activity. These ovicups collect eggs and are examined weekly. To date this year, eggs have been detected at 2 locations in Palm Springs. In 2016, eggs were most abundant in November.



Left: BG Sentinel trap. Right: Autocidal Gravid Trap (AGO).

In addition to regular *Aedes aegypti* surveillance areas, BG traps have been placed in areas of Coachella and Indio where the mosquito has yet to be detected. This is a proactive effort to find *Aedes aegypti* activity early before the population becomes established. In 2017, the plan is to visit all cities in the Coachella Valley, targeting neighborhoods near areas that may receive a lot of visitors and where *Aedes aegypti* development may be likely. These include neighborhoods near major freeway or highway stops, near shopping centers, older neighborhoods, and neighborhoods with irrigation.

As of May 1, there have been 7 sites and 53 adult mosquitoes captured in Indio using BG-Sentinel and AGO traps. In Palm Springs, 12 adults have been captured at 6 locations. In Cathedral City 10 adults have been collected from 5 locations; in North Coachella 3 adults have been collected from 2 locations. The District went 6 months (from November 23, 2016 to April 21, 2017) without detecting *Aedes aegypti* in Coachella (where aerial larvicide applications were made in 2016). The District went one month without detecting *Aedes aegypti* in Indio (where a separate aerial larvicide campaign was conducted) from March 21 to April 26, 2017.



FLY SURVEILLANCE

The District uses aged egg bait for fly surveillance in an interface between residents and agriculture. It is comprised of a liquid egg mixture with citric acid and water. Roughly every two weeks, traps are placed in the field for 24 hours in 9 locations: 4 in the residential area and 5 in the agricultural area. The goal is to examine the fly seasonal activity throughout the year.

Concurrently, the efficacy of aged egg bait is being compared to three commercially available fly baits: Farnam Terminator, Fly Magnet, and Flies Be Gone. The fly baits are placed at 4 locations in the agricultural areas. The results of this study will determine the best bait to use for fly management.

PRODUCT EFFICACY

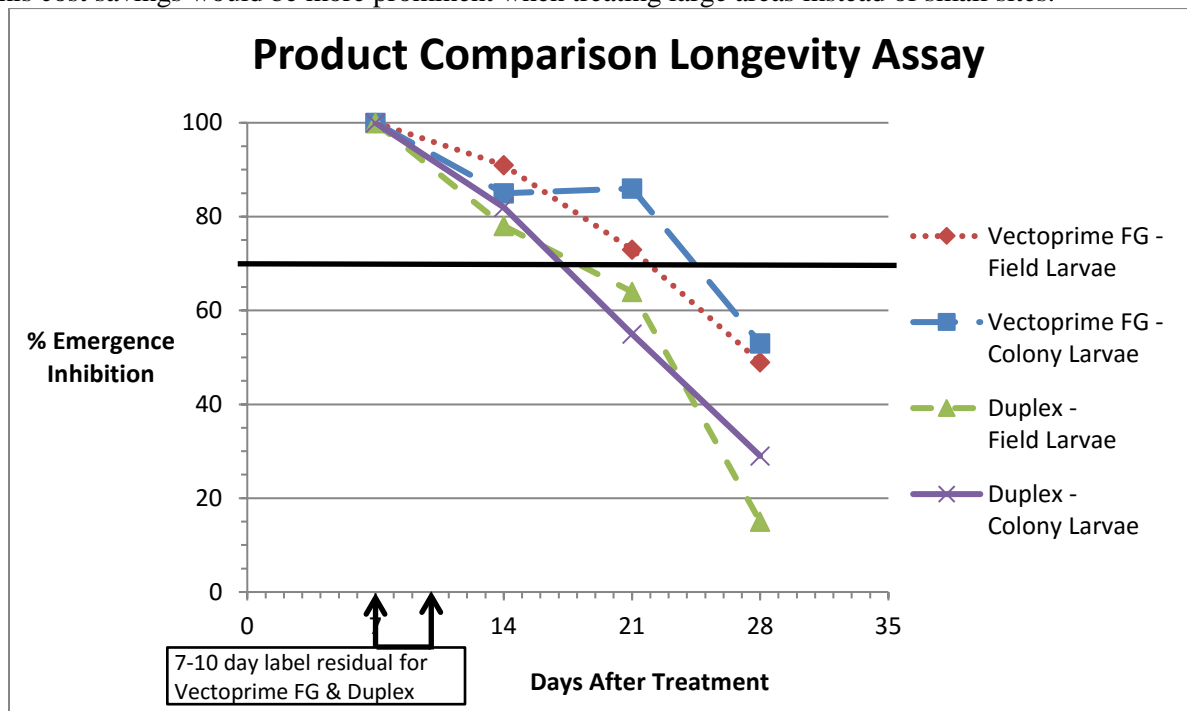
AERIAL LARVICIDE APPLICATIONS. District staff evaluated an aerial application of VectoBac WDG (active ingredient: *Bacillus thuringiensis israelensis* (Bti)) for the control of *Aedes aegypti* mosquitoes in Indio. The aerial application covered an area of approximately 540 acres. To confirm that the product would deposit in intended sites, plastic cups were placed at 20 residences within the spray area. Cups were also placed in 5 catch basins and 2 drywells within the application area. Cups were returned to the lab, where water and larval mosquitoes were added to determine if enough product reached to cup to have activity against mosquitoes. While the treatments at the residences matched previous work completed, the cups within the storm water structures had variable results. Wind direction, both above ground and within the storm water structures, likely impacts the movement of the product.



Aerial Larvicide Applications	Percent Larval Mortality in Catch Basins and Drywell at 48 Hours
February 25th	66%
March 4th	57%
March 11th	73%
March 25th	100%

VECTOPRIME FG EFFICACY. VectoPrime FG is a fine granular biorational larvicide that combines Bti with methoprene in a fused solid granule. It is a complete single brood control product controlling all stages of larvae and expected to provide control for 7 -10 days. The District has mixed VectoBac 12AS (active ingredient: *Bacillus thuringiensis israelensis*) with Altosid Liquid (active ingredient: methoprene) in a 6:1 ratio to treat all stages of mosquito larvae with a single treatment. This mixture, called Duplex, was compared to the new product VectoPrime FG at 2 duck club ponds in March. Both colony (lab-reared) and wild mosquitoes were used in the evaluation. Both products were effective past the predicted residual dates listed on the labels. VectoPrime FG did provide an additional week of control past the Duplex mixture.

The cost of the VectoPrime FG (at 10 lbs. per acre) treatment is \$39.50 per acre, while the price for Duplex (at 12 fluid ounces of VectoBac 12AS and 2 ounces of Altosid Liquid) is \$8.42 per acre. The longer residual efficacy of VectoPrime FG does save the cost of labor and time mixing the two products for the two treatments, and this cost savings would be more prominent when treating large areas instead of small sites.



EFFICACY OF FISH AT DUCK CLUBS. Mosquitofish were used as a treatment at five duck club ponds in October 2016. Although the fish do not survive the summer in shallow ponds, their presence in the fall controls and deters mosquito breeding. Mosquitofish were stocked at 3,000 fish per acre. We evaluated their effectiveness by comparing the number of treatments made to these ponds with ponds of comparable size that did not have fish. Ponds with fish needed fewer treatments to the entire pond to control mosquito breeding, which resulted in a reduction of chemical product used of 49%.

BIOLOGICAL CONTROL

MOSQUITOFISH (*Gambusia affinis*)

As of April 21, 2017, the District produced 43,300 mosquitofish which is approximately what was produced in the first four months of 2016. About 1,200 fish were stocked in neglected swimming pools, private ponds, detention basins, and animal water troughs.

ENVIRONMENTAL COMPLIANCE

CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION. The District has been working with Valent BioSciences and with the California Department of Public Health to determine what permits are needed for conducting aerial applications over residences. CDPR has asked for a Special Local Needs permit for area-wide applications of VectoBac WDG.

Operations Update – March/April 2017

Control Overview

The Operations Department in the month of March completed:

- 3,419 mosquito inspections (March 2016 = 2,527 inspections)
- 1,980 control applications on a total of 1,964 acres (March 2016 = 1,686 applications)

In the month of April operations personnel completed:

- 3,018 mosquito inspections (April 2016 = 2,534 inspections)
- 2,518 control treatments on 314 acres (April 2016 = 1,905 applications)

The reduction in total acreage in April compared to March 2017 is due to three aerial larvicide treatments performed in March in the Indio invasive Aedes area. There was a reduction in the total number of mosquito inspections performed in April compared to March, however there was an increase in the number of control treatments in April. This is primarily due to warmer weather and a higher percentage of sites found to be breeding.

For the RIFA program performed 189 RIFA control applications on 1,508 acres for the month of March. During the month of April 257 applications were been performed on 1255 acres. The difference in acreage results from a reduction in large property treatments in Country Clubs and Golf Courses and an increase in the treatment of relatively smaller School properties.

A total of 276 resident Service Requests were completed in the month of March and 317 requests were processed in April. The increase in Service Request activity was primarily due to an increase in the number of mosquito service requests received.

Arbovirus Response

One WNV positive mosquito pool was detected in Thousand Palms on April 28th. Trap counts in that area were at normal levels. Field Technicians were dispatched to inspect all breeding sites in the area to further reduce mosquito populations.

Invasive *Aedes aegypti* Control

During the month of March, 792 Invasive Aedes inspections were performed in the cities of Coachella, Indio, Cathedral City and Palm Springs. 796 inspections were done in April. The number of Aedes inspections and treatments, by city, for the month of March and April is presented in the table below.

CITY	# of Inspections- March	# of Inspections- April	# of Treatments- March	# of Treatments- April
Coachella (2 locations)	166	226	98	97
Cathedral City	232	189	138	84
Indio	315	262	187	184
Palm Springs	79	119	18	123

Three aerial larvicide applications were completed in March using Vectobac WDG in the City of Indio's invasive Aedes detection area. No aerial larvicides were done in the month of April. This area is approximately 550 acres between Golf Center Drive, Indio Boulevard, Monroe Street and the Whitewater channel.

Operations

3/1/2017 to 3/31/2017 Report

(AE) surfactant - reduces surface tension of water making it difficult for mosquito larvae and pupae to attach and causes them to drown

BS (*Bacillus sphaericus*) - soil-dwelling bacterium, used as a biological pesticide that during sporulation produces crystals that have insecticidal action when ingested by mosquito larvae

BTI (*Bacillus thuringiensis israelensis*) - soil-dwelling bacterium, commonly used as a biological pesticide that during sporulation produces crystal proteins that have insecticidal action when ingested by mosquito larvae

Methoprene - used as a biological pesticide that mimics natural juvenile hormone of insects and acts as a growth regulator. Juvenile hormone must be absent from mosquito pupa to molt to an adult. Mosquito pupae treated with Methoprene will be unable to successfully mature from pupae to the adult mosquito

Spinosad - a naturally-occurring soil-dwelling bacterium, *Saccharopolyspora spinosa*



71 Agriculture

APPLICATIONS

Applications FORMULATION: DRY Acreage

1	Bs/Bti	12.00
6	Bti	10.11
9	Methoprene	8.17
40	Spinosad	66.25

Applications FORMULATION: LIQUID Acreage

2	(AE) surfactant	6.37
3	Bti	0.81
4	Methoprene	0.19
6	Spinosad	0.77



34 Duck Club

APPLICATIONS

Applications FORMULATION: DRY Acreage

5	Bs/Bti	10.35
2	Bti	0.71
4	Methoprene	0.02
13	Spinosad	25.88

Applications FORMULATION: LIQUID Acreage

2	(AE) surfactant	0.28
2	Bti	3.33
1	Methoprene	3.00
5	Spinosad	1.15



610 Invasive Aedes

APPLICATIONS

Applications FORMULATION: DRY Acreage

166	Bti	0.76
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Applications FORMULATION: LIQUID Acreage

2	(AE) surfactant	0.00
166	Barrier	0.76
275	Fogging	73.84



1,261 Residential

APPLICATIONS

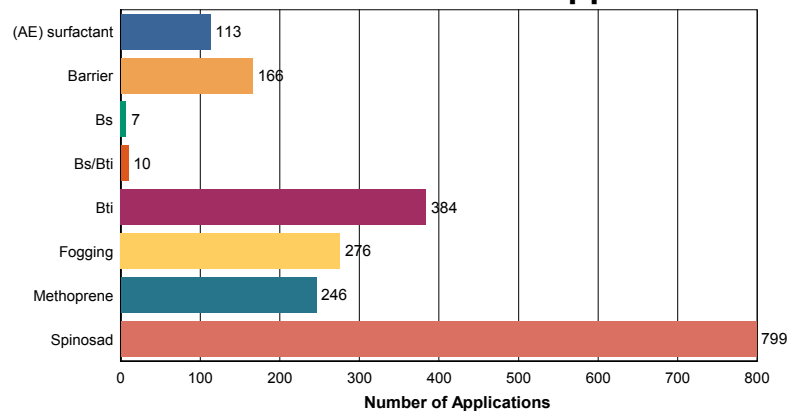
Applications FORMULATION: DRY Acreage

7	Bs	0.01
4	Bs/Bti	3.10
114	Bti	1.41
182	Methoprene	1.72
471	Spinosad	3.54

Applications FORMULATION: LIQUID Acreage

106	(AE) surfactant	0.43
83	Bti	0.21
41	Methoprene	0.20
251	Spinosad	10.17

Product Applications



Product Breakdown

		Total		
		Count	Acreage	Cost
FORMULATION: DRY	Total	1,040	209.69	\$15,403.55
	Bs	7	0.01	\$13.09
	Bs/Bti	10	25.45	\$2,127.64
	Bti	292	29.80	\$636.72
	Methoprene	197	11.92	\$3,076.87
	Spinosad	534	142.52	\$9,549.23
FORMULATION: LIQUID	Total	961	104.90	\$6,802.63
	(AE) surfactant	113	7.10	\$282.06
	Barrier	166	0.76	\$6,186.98
	Bti	92	5.99	\$27.90
	Fogging	276	73.84	\$72.18
	Methoprene	49	4.49	\$24.40
	Spinosad	265	12.71	\$209.11



25 **Salton Sea**
Marshes

APPLICATIONS

<i>Applications</i>	<i>FORMULATION: DRY</i>	<i>Acreage</i>
4	Bti	16.81
2	Methoprene	2.00
9	Spinosad	46.85
<i>Applications</i>	<i>FORMULATION: LIQUID</i>	<i>Acreage</i>
1	(AE) surfactant	0.01
4	Bti	1.64
3	Methoprene	1.10
2	Spinosad	0.61

Operations

4/1/2017 to 4/30/2017 Report

(AE) surfactant - reduces surface tension of water making it difficult for mosquito larvae and pupae to attach and causes them to drown

BS (*Bacillus sphaericus*) - soil-dwelling bacterium, used as a biological pesticide that during sporulation produces crystals that have insecticidal action when ingested by mosquito larvae

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Spinosad - a naturally-occurring soil-dwelling bacterium, *Saccharopolyspora spinosa*



100 Agriculture

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
2	Bs	0.30
3	Bs/Bti	0.27
22	Bti	15.70
8	Methoprene	0.63
38	Spinosad	35.65
Applications	FORMULATION: LIQUID	Acreage
4	(AE) surfactant	0.15
13	Bti	2.90
2	Methoprene	0.00
8	Spinosad	0.96



23 Duck Club

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
1	Bs/Bti	0.25
6	Bti	4.60
7	Methoprene	23.24
8	Spinosad	5.40
Applications	FORMULATION: LIQUID	Acreage
1	Bti	0.03



687 Invasive Aedes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
199	Bti	0.79
Applications	FORMULATION: LIQUID	Acreage
200	Barrier	0.79
288	Fogging	74.17



1,685 Residential

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
20	Bs	0.03
35	Bs/Bti	0.31
89	Bti	6.38
301	Methoprene	1.06
555	Spinosad	5.61
Applications	FORMULATION: LIQUID	Acreage
166	(AE) surfactant	0.73
274	Bti	1.36
99	Methoprene	0.77
144	Spinosad	1.01



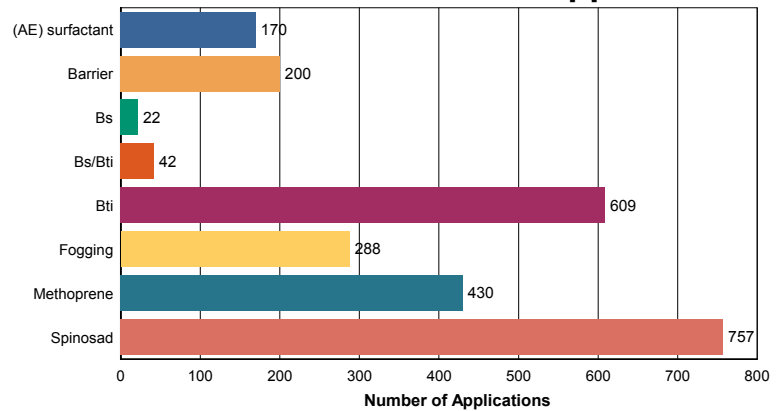
23 Salton Sea

Marshes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
3	Bs/Bti	3.55
5	Bti	6.11
12	Methoprene	55.70
3	Spinosad	100.40

Product Applications



Product Breakdown

		Total		
		Count	Acreage	Cost
FORMULATION: DRY	Total	1,318	265.98	\$39,436.96
	Bs	22	0.33	\$53.27
	Bs/Bti	42	4.38	\$508.85
	Bti	321	33.58	\$744.60
	Methoprene	328	80.63	\$22,260.75
	Spinosad	605	147.06	\$15,869.49
	Total	1,200	82.85	\$6,689.48
FORMULATION: LIQUID	(AE) surfactant	170	0.87	\$34.64
	Barrier	200	0.79	\$6,509.42
	Bti	288	4.28	\$29.94
	Fogging	288	74.17	\$72.53
	Methoprene	102	0.77	\$6.00
	Spinosad	152	1.97	\$36.97
	Total	1,200	82.85	\$6,689.48

Operations

3/1/2017 to 3/31/2017

Report



49 Country Club

APPLICATIONS

561.84 ACRES TREATED

47 BROADCAST TREATMENTS
2 SPOT TREATMENTS

7 Golf Course

APPLICATIONS

859.70 ACRES TREATED

7 BROADCAST TREATMENTS



128 Homeowner

APPLICATIONS

42.38 ACRES TREATED

126 BROADCAST TREATMENTS
2 SPOT TREATMENTS

4 Park

APPLICATIONS

41.54 ACRES TREATED

4 BROADCAST TREATMENTS



1 School

APPLICATIONS

3.00 ACRES TREATED

1 BROADCAST TREATMENTS

Red Imported Fire Ant



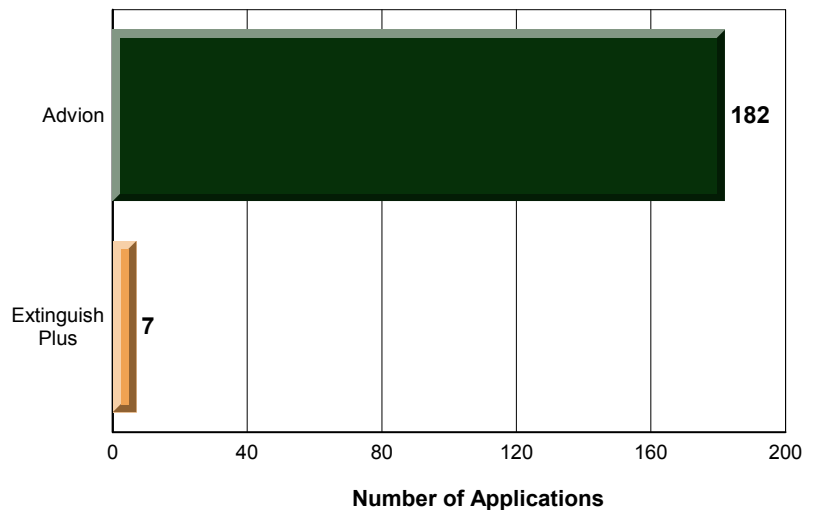
Scientific classification

Kingdom:	Animalia
Phylum:	Arthropoda
Class:	Insecta
Order:	Hymenoptera
Family:	Formicidae
Genus:	<i>Solenopsis</i>
Species:	<i>invicta</i>

Binomial name

Solenopsis invicta
(Buren, 1972)

Product Applications



Product Breakdown

		Advion	Extinguish Plus
Total	Acreage	648.75	859.70
	Amount (lbs.)	960.48	1,289.23
	Cost	\$9,086.13	\$8,302.64

ADVION® fire ant bait may be used to control imported fire ants, bigheaded ants* and pavement ants* in noncrop/nongrazed areas such as residential lawns, golf courses, recreational areas, industrial sites and other similar areas where imported fire ants, bigheaded ants and pavement ants are found. Rainfall or irrigation within 2 to 3 hours after application may reduce the effectiveness of ADVION® fire ant bait and a repeat application within 7 days may be necessary to achieve the desired level of control.

EXTINGUISH® PLUS is highly attractive to imported and native fire ants and other ants. Worker ants carry the bait into the mound as food for the colony. The ants will then begin feeding the bait to the rest of the colony. They eat it and feed it to the queen. EXTINGUISH® PLUS is a unique product containing a slow acting insecticide and an Insect Growth Regulator (IGR). This two-way action ensures complete control of fire ants. The IGR prevents rebound of the colony, while the insecticide insures rapid demise of the colony. EXTINGUISH® PLUS will start to kill ants after they feed on the bait. The colony will begin to decline in about a week, after the bait has been brought back to the mound. The mound is destroyed when the queen dies.

Operations

4/1/2017 to 4/30/2017

Report

Red Imported Fire Ant



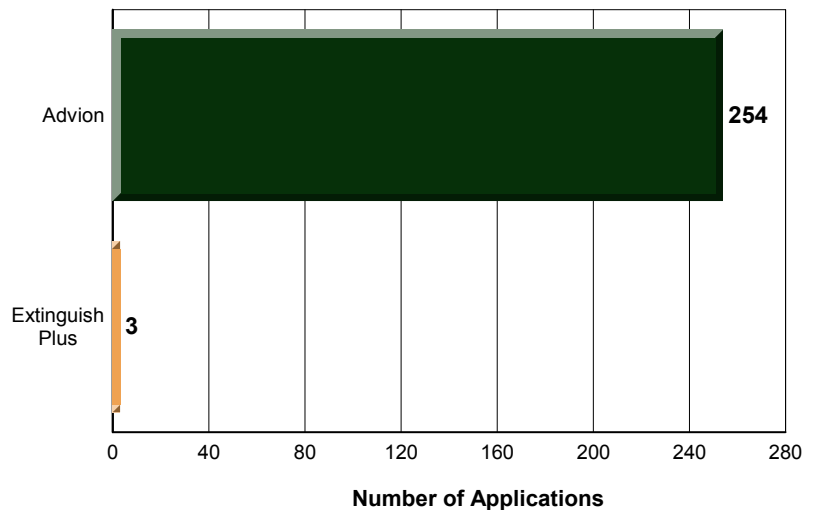
Scientific classification

Kingdom:	Animalia
Phylum:	Arthropoda
Class:	Insecta
Order:	Hymenoptera
Family:	Formicidae
Genus:	<i>Solenopsis</i>
Species:	<i>invicta</i>

Binomial name

Solenopsis invicta
(Buren, 1972)

Product Applications



Product Breakdown

		Advion	Extinguish Plus
Total	Acreage	896.91	358.44
	Amount (lbs.)	1,340.75	537.58
	Cost	\$12,683.53	\$3,462.02



40 Country Club

APPLICATIONS

249.17 ACRES TREATED

40 BROADCAST TREATMENTS



3 Golf Course

APPLICATIONS

358.44 ACRES TREATED

3 BROADCAST TREATMENTS



119 Homeowner

APPLICATIONS

45.38 ACRES TREATED

117 BROADCAST TREATMENTS

2 SPOT TREATMENTS



25 Park

APPLICATIONS

96.81 ACRES TREATED

25 BROADCAST TREATMENTS



70 School

APPLICATIONS

505.55 ACRES TREATED

70 BROADCAST TREATMENTS

ADVION® fire ant bait may be used to control imported fire ants, bigheaded ants* and pavement ants* in noncrop/nongrazed areas such as residential lawns, golf courses, recreational areas, industrial sites and other similar areas where imported fire ants, bigheaded ants and pavement ants are found. Rainfall or irrigation within 2 to 3 hours after application may reduce the effectiveness of ADVION® fire ant bait and a repeat application within 7 days may be necessary to achieve the desired level of control.

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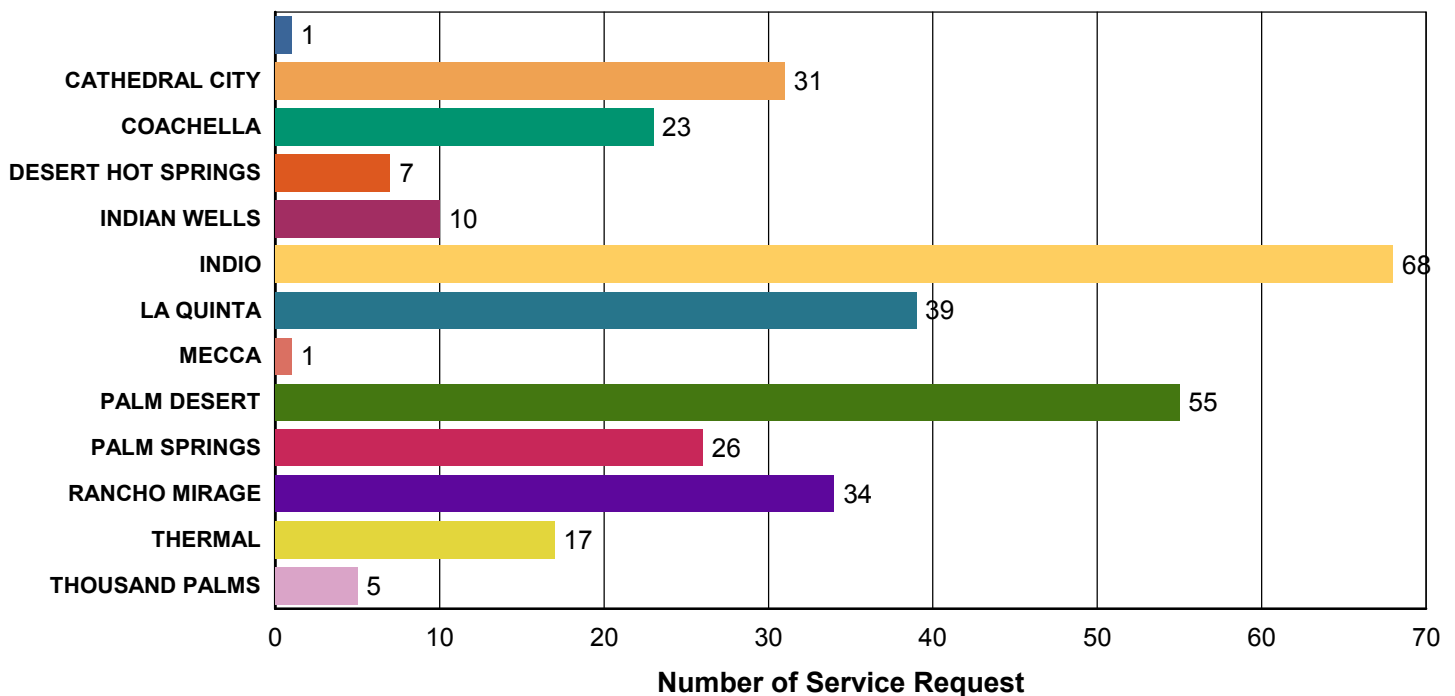
Operations

4/1/2017 to 4/30/2017 Report

Service Request Types

	TOTAL	STANDING WATER	NEGLECTED POOL	FLY/EYE GNATS	MOSQUITO	RODENTS	BEEES	RIFA	OTHER
TOTAL	317	9	38	27	70	2	15	147	9
	1	0	0	0	0	0	0	1	0
CATHEDRAL CITY	31	1	6	1	5	1	0	17	0
COACHELLA	23	0	0	3	10	0	3	2	5
DESERT HOT SPRINGS	7	0	1	2	2	0	1	1	0
INDIAN WELLS	10	0	1	0	0	0	0	9	0
INDIO	68	1	9	6	10	0	4	36	2
LA QUINTA	39	1	5	4	8	0	4	16	1
MECCA	1	0	0	0	1	0	0	0	0
PALM DESERT	55	3	7	3	13	0	0	29	0
PALM SPRINGS	26	1	7	0	7	1	2	8	0
RANCHO MIRAGE	34	1	2	2	4	0	1	24	0
THERMAL	17	1	0	6	8	0	0	2	0
THOUSAND PALMS	5	0	0	0	2	0	0	2	1

Service Request by City



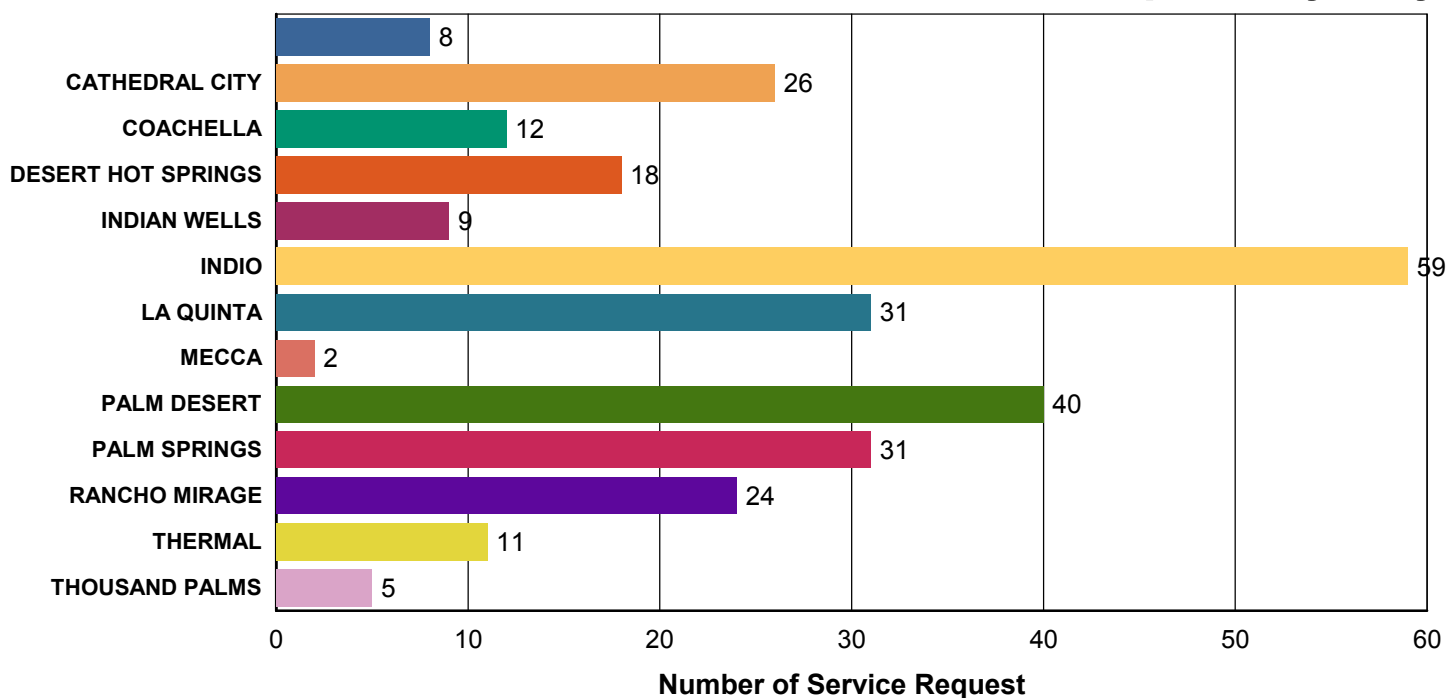
Operations

3/1/2017 to 3/31/2017 Report

Service Request Types

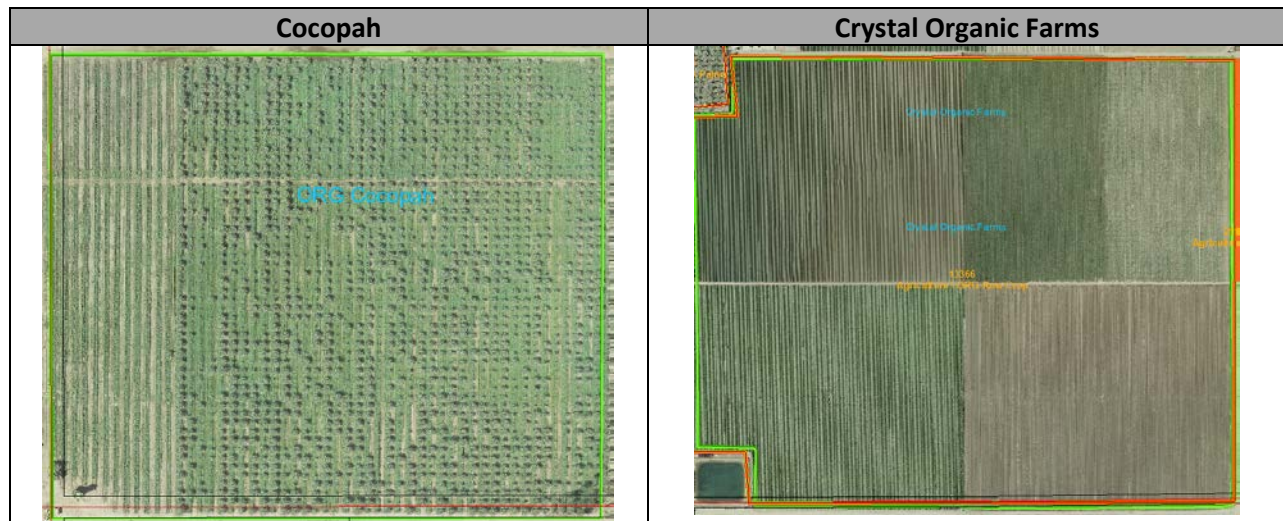
	TOTAL	STANDING WATER	NEGLECTED POOL	FLY/EYE GNATS	MOSQUITO	BEEES	RIFA	OTHER
TOTAL	276	8	38	21	53	10	143	3
	8	1	1	0	4	0	2	0
CATHEDRAL CITY	26	1	9	0	2	1	13	0
COACHELLA	12	1	0	5	3	1	2	0
DESERT HOT SPRINGS	18	0	3	1	8	2	2	2
INDIAN WELLS	9	0	0	0	1	0	8	0
INDIO	59	1	2	3	10	3	40	0
LA QUINTA	31	2	2	4	6	0	17	0
MECCA	2	0	0	0	2	0	0	0
PALM DESERT	40	0	5	3	4	1	27	0
PALM SPRINGS	31	1	10	0	5	1	13	1
RANCHO MIRAGE	24	0	6	1	1	0	16	0
THERMAL	11	1	0	3	5	0	2	0
THOUSAND PALMS	5	0	0	1	2	1	1	0

Service Request by City



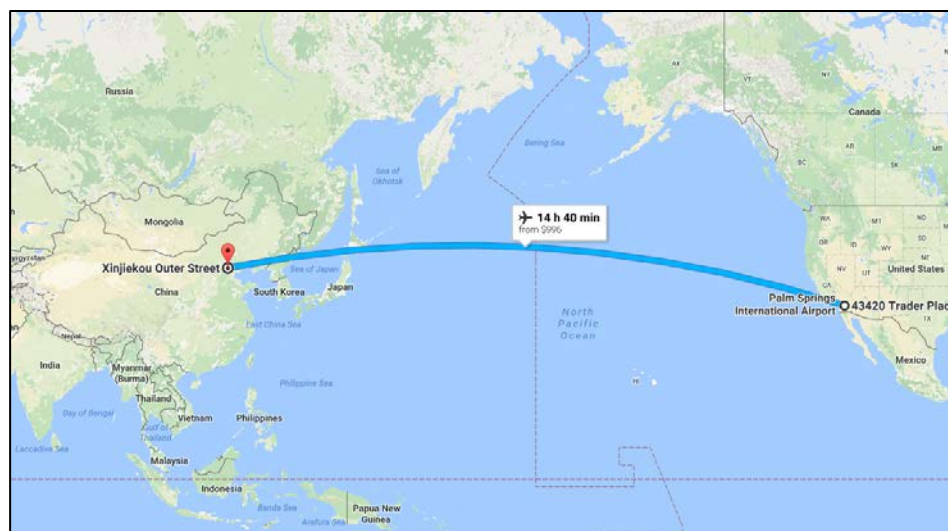
INFORMATION TECHNOLOGY


Organic Farms: IT/GIS inserted two new Organic Properties into the Organic Feature Class of the District's Mobile Inspection Application. A feature class is a collection of geographic features that share the same geometry type (such as point, line, or polygon) and the same attribute fields for a common area, Streets, well points, parcels, soil types, and census tracts are examples of feature classes. The Organic Feature Class is outlined in 'green' to indicate the property is organic and only Organic Material Review Institute (OMRI) approved materials can be applied. Currently, the Organic Feature Class contains 297 features.



Port Scanning: District's Firewall detected a port scan from IP address: 222.186.34.148, which originates outside of the United States. The map below depicts the location. A port scanner is an application designed to probe a server or host for open ports. This is often used by administrators to verify security policies of their networks and by attackers to identify network services running on a host and exploit vulnerabilities.

Port scan activity was dropped (disconnected) by Firewall configurations after repeated attempts were made.



	<p style="text-align: center;">Coachella Valley Mosquito and Vector Control District</p> <p style="text-align: center;">Staff Report</p>	<p style="text-align: center;">May 9, 2017</p>
<p>Agenda Item: Items of General Consent</p> <p>Approval of Resolution 2017-07 Amending the CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan – Jennifer A. Henke, MS, Laboratory Manager</p>		
<p>Background:</p> <p>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 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 10-day period while infectious viremia persists in vertebrate hosts, thus breaking the cycle by preventing new vector infections.</p> <p>The <i>CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan</i> 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 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 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.</p>		
<p>Staff Recommendation:</p> <p>Approval of Resolution 2017-07, revising the CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan.</p>		
<p>Fiscal Impact: N/A</p>		
<p>Exhibits:</p> <ul style="list-style-type: none"> • Resolution 2017-07 • CVMVCD Mosquito-borne Virus Surveillance and Emergency Response Plan 		

Resolution No. 2017-07

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE
COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL
DISTRICT AMENDING 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.

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.

[THE REMAINDER OF THIS PAGE LEFT INTENTIONALLY BLANK]

PASSED, ADOPTED AND APPROVED, this 9th day of May, 2017.

Doug Walker, President
Board of Trustees

ATTEST:

Crystal G. Moreno, Clerk of the Board

APPROVED AS TO FORM:

M. Katherine Jenson, General Counsel

REVIEWED:

Jeremy Wittie, MS, 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.cvmvcd.org

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I. INTRODUCTION

For over 47 years, 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 mission is to enhance the quality of life for our community by providing effective and environmentally sound vector control and disease prevention. 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 for no less than a 10-day period 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 12 mosquito-borne viruses known to occur in California, to date, only St. Louis encephalitis virus (SLE), western equine encephalomyelitis virus (WEE), 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, SLE and WEE 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 and CO₂-baited 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 State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**

B. MOSQUITO INFECTIONS

Early detection of virus activity may be accomplished by testing *Culex tarsalis* and *Culex quinquefasciatus*, the primary vectors of SLE, WEE, 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 State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**

C. DEAD BIRDS

Dead birds are reported to CDPH, then brain and eye tissue is sampled and tested at the District Laboratory for WNV. The dead bird testing algorithm is provided **in Appendix D of the California State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**

D. EQUINE INFECTIONS

Equine disease due to WEE and WNV are not a sensitive indicators of epizootic (infections only in animals) WEE 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 WEE or WNV is active in the region. California Department of Agriculture (CDFA) and CDPH annually contact veterinarians to insure equine vaccinations. Besides WEE 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 E of the California State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**

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 expending emergency control activities to prevent additional infections. (See **Appendices F and G of the California State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**)

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 from the CDPH – VBDS statewide will be used for forecasting purposes. For websites related to weather conditions refer to **Appendix I of the California State Mosquito-Borne Virus Surveillance & Response plan – April 2015.**

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 WEE, SLE, and WNV and request proper laboratory testing for their conformation. 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, enhanced public education will be conducted including, posted messages on the symptoms of encephalitis, public information about pesticide applications and recommendation 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 Service 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 from incorporated cities and two from the County at large.

The District mission is to reduce the risk from disease carried by mosquitoes and other vectors for residents in the Coachella Valley. **See Appendix H of the California State Mosquito-Borne Virus Surveillance & Response plan – April 2015** for compounds approved for mosquito control in California.

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, drainage in the urban areas, re-circulation of water at the 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 abandoned pools, and small ponds in the duck club area.

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), *Bacillus sphaericus* (Bs) 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 *Bacillus 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. More recently developed products based on the microbial-derived spinosad toxins have become 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 that create monomolecular surface films are 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 fixed wing 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 pyrethrin and pyrethroids such as resmethrin, sumithrin, etophenprox, lambda-cyhalothrin, permethrin, prallethrin, deltamethrin, and esfenvalerate. These products may be applied with a synergist such as piperonyl butoxide (PBO).

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. 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

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. 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 multiplications/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 if birds that have tested positive (recent infections only) for WNV during the prior 30 days.	1	No WN positive dead bird in California		
	2	WN positive dead bird in neighboring state, but not CA		
	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 in Southern California.		
	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. WEE Surveillance Factor	Assessment Value	Benchmark	Value
1. Environmental conditions Considers ambient temperature.	1	Temperature well below average	
	2	Temperature below average	
	3	Temperature average	
	4	Temperature above average	
	5	Temperature 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 in Southern California	
	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. SLE Surveillance Factor	Assessment Value	Benchmark	Value	
1. Environmental conditions Favorable environmental conditions in the Coachella Valley for virus multiplications/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 in Southern California.		
	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			
	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 human cases
Response Activities by Role:
<p>General Manager</p> <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
<p>Laboratory Manager</p> <ul style="list-style-type: none">• With General 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• With Public Information Manager, send routine notifications to physicians and veterinarians
<p>Operations Manager</p> <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• Inventory pesticides and equipment
<p>Public Information Manager</p> <ul style="list-style-type: none">• Conduct routine public education (eliminate standing water around homes, use personal protection measures)• Release routine press notices• Send routine notifications to physicians and veterinarians
<p>Vector Ecologist</p> <ul style="list-style-type: none">• Conduct routine mosquito and virus surveillance activities• Evaluate pesticide resistance in vector species

Emergency Planning
Risk Rating 2.6-4.0

Conditions:
<ul style="list-style-type: none"> • Temperature and rainfall above average • Adult mosquito abundance >5-year average (150-300%) • One of more virus isolations from mosquitoes (MIR / 1000 is <5) • One or two equine cases • One human case statewide • Viral activity in small towns or suburban area • Evidence of recent infection in wild birds
Response Activities by Role:
<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>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>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>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

Conditions:
<ul style="list-style-type: none"> • Rainfall, temperature, wetland surface area • Adult vector population extremely high (>300%) • Virus isolates from multiple pools of mosquitoes (MIR /1000 > 5.0) • More than two equine cases in specific region • One or more human cases in region • Virus detection in urban or suburban areas • Increased seroprevalance rates in wild bird populations or die-off of susceptible species
Response Activities by Role:
<p>General Manager and Administrative Finance Manager:</p> <ul style="list-style-type: none"> • Ensure adequate emergency funding • Determine whether declaration of a local emergency should be considered by the County Board of Supervisors (or Local Health Officer) • Determine whether 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 • 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
- Maintain sentinel chicken flocks, obtain blood samples, and send them to laboratory
- Conduct routine control of immature mosquitoes
- Conduct control of adult mosquitoes when needed
- Educate public on mosquito avoidance
- 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 disperse payment for surveillance expenses
- Coordinate surveillance and response activities among member agencies
- Maintain a standby contract with a large scale aerial pesticide applicator
- Serves as spokesperson for member agencies
- Establish liaisons with press and government officials

3. California Department of Health Services

- Collate adult mosquito abundance data submitted by local agencies; provide summary of data to local agencies
- Coordinate submission of specimens for virus testing
- Maintain database of all specimens tested
- Test sentinel chicken sera for viral antibodies
- Test human specimens for virus
- Distribute a weekly bulletin summarizing surveillance test results
- Send weekly surveillance results to the UC Davis interactive website
- Immediately notify local vector control agency and public health officials when evidence of viral activity is found
- Conduct epidemiological investigations of cases of equine and human disease
- Coordinate and participate in a regional emergency response in conjunction with California Office of Emergency Services
- Conduct active surveillance for human cases
- Coordinate equine and “dead bird” surveillance programs for WNV and other arboviruses
- Provide oversight to local jurisdictions without defined vector-borne disease control program
- Maintain inventory of antigens and antisera to detect exotic viruses

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

- Conduct research on arbovirus surveillance, transmission of mosquito-borne diseases, and mosquito ecology and control
- Provide support for testing mosquito pools for virus
- 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 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 WEE and testing facilities available at UCD Davis Arbovirus Research and Training
- Conduct necropsies on dead crows and other birds
- Provide outreach to general public and livestock and poultry producers on the monitoring and reporting of equine and ratite encephalitides
- Facilitate equine and ratite sample submission from the field

6. Local Health Departments

- Refer human and equine specimens to CDPH for further testing
- Notify local medical community, including hospitals and laboratories, if evidence of viral activity present
- Participate in emergency response
- Assist in public education

7. Governor's Office of Emergency Services

- 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. 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

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)	42
2. Hand Spreaders	30
3. Maruyama Backpack Sprayers (Granular)	29
4. Maruyame Backpack Sprayer (Liquid)	6
5. Stihl Backpack Sprayers (Liquid)	4
6. Hand Backpack Sprayers	21
7. Argo – all terrain vehicle	1
8. Powered Liquid Skid Mounted Sprayer	3
9. ATV - quadbike	2
10. ATV - ranger	2
11. London Fog ULV Model 18-20	2
12. Guardian Model 190ES ULV Sprayer	1
13. Longray Portable Electric Fog Generator	8
14. Colt Hand Portable Fog Generator	2

Aerial applicators available for contact

1. Salton Sea Air Service, Inc.
101-111 Desert Air Drive
North Shore, CA 92254
2. Clarke Environmental Mosquito Management, Inc.
110 East Irving Park Road, 4th Floor

Roselle, IL 60172-9963
Telephone: (800) 323-5727

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 fulfil the emergency requirements. The Maximum Product Required listed in the table is the amount of stand-alone product required to fulfil the required treatment capability. 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	Treatment Capability and Seasonal Availability
Agnique MMF	Pupacide (liquid)	1 gal./Ac.	80 gals.	40 acres for 14 days – year round Retreat after 7 days 80 acres treated
Kontrol	Pupacide (liquid)	2 gal./Ac	160 gals.	
Metalarv SPT	IGR (granual)	10 lbs./Ac.	2500 lbs – April-Oct. 1500 lbs. – Nov.- March	250 acres for 14 days– April through October. 150 acres for 14 days November through March. Metalarv SPT/Altosid Pellets- 42-30 day retreat. 250 acres April–October, 150 acres November-March. Altosid Liquid– Retreat after 7 days. 500 acres April-October. 300 acres November-March.
Altosid Liquid	IGR (liquid)	4 oz./Ac.	15.6 gal.- April-Oct. 9.4 gal. – Nov.- March	
Altosid Pellets	IGR (granual)	7.5 lbs./Ac.	2500 lbs – April-Oct. 1500 lbs. -	

			Nov-March	
Aquabac 200G	Biological (granual)	10 lbs./Ac.	5000 lbs. – April - October	250 acres for 14 days – April through October Aquabac 200G/Vectobac G/Vectprime FG/VectoMax FG – Retreat after 7 days – 500 acres Vectobac 12AS – Retreat after 7 days – 500 acres Vectobac WDG – Retreat after 7 days – 500 acres Vectolex WDG – Retreat after 14 days – 250 acres
Vectobac 12AS	Biological (liquid)	16 oz./Ac.	62.5 gals. – April - October	
Vectobac G	Biological (granual)	10 lbs./Ac	5000 lbs. – April - October	
Vectobac WDG	Biological (granual)	7 oz./Ac	219 lbs. – April - October	
Vectolex WDG	Biological (granual)	1 lb./Ac.	250 lbs. – April - October	
Vectoprime FG	Biological (granual)	10 lbs./Ac	5000 lbs. – April - October	
VectoMax FG	Biological (granual)	10 lbs./Ac.	5000 lbs. – April - October	
Natular G	Spinosad (granual)	9 lbs./Ac.	4500 lbs. April-Oct. 1800 lbs. Nov.- March	250 acres for 14 days – April through October. 100 acres for 14 days – November through March. Natular G – Retreat after 7 days. 500 acres April – October. 200 acres November – March. Natular G30 – Retreat after 30 days. 250 acres April-October. 100 acres November – March. Natular 2EC – Retreat after 7 days. 500 acres April – October. 200 acres November – March.
Natular 2EC	Spinosad (liquid)	6.4 oz./Ac.	25 gals. April-Oct. 10 gals. Nov.- March	
Natular G30	Spinosad (granual)	10 lbs./Ac.	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 ground fogging, 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 fulfil the emergency requirements. The Maximum Product Required listed in the table is the amount of stand-alone product required to fulfil the required treatment capability. 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

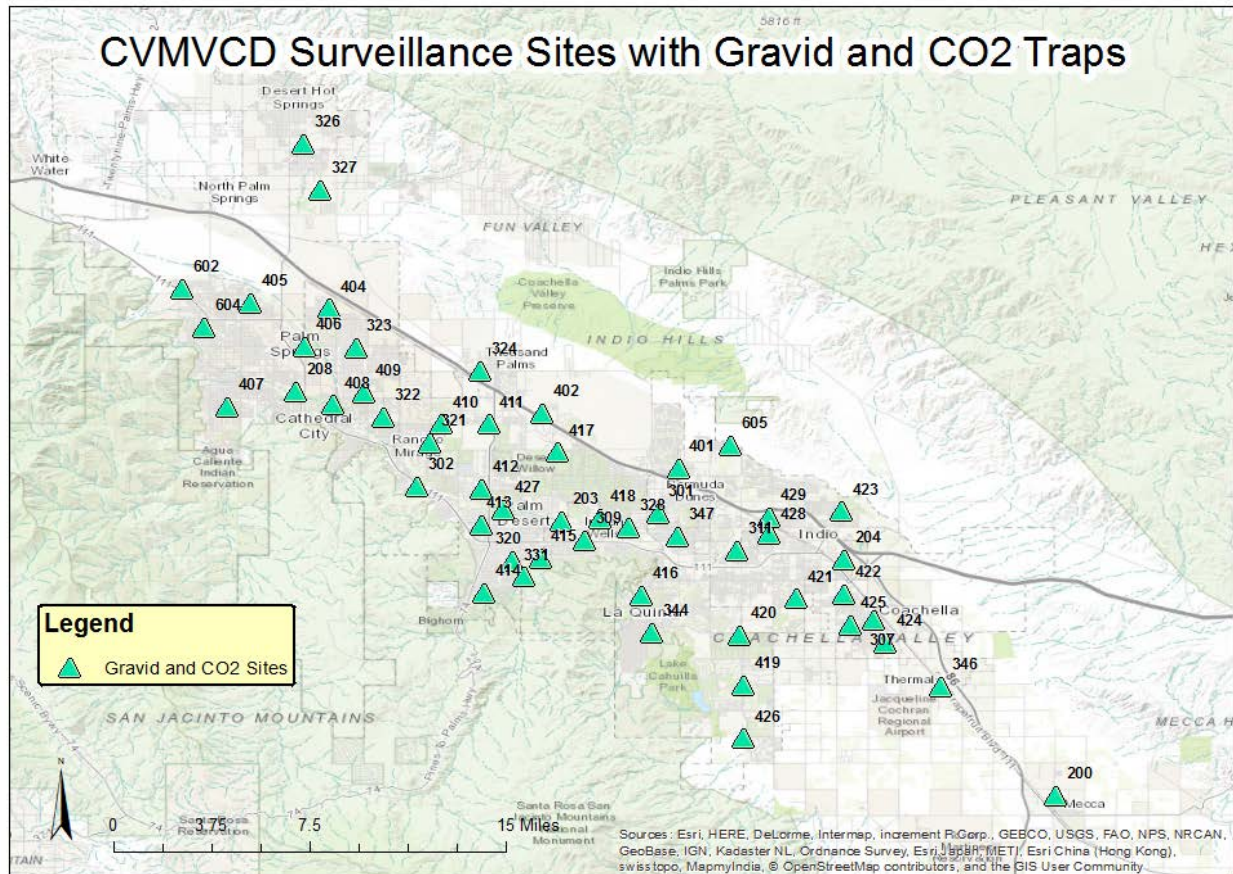
Adulticide Product	Classification	Treatment Rate	Maximum Product Required	Treatment Capability
Aquasolin	Adulticide	0.356 oz. Aquasolin/ Acre	Aquasolin – 23.7 gals.	6400 acres – rural fogging 2500 acres – urban fogging
Scourge 18-54	Adulticide	.593 oz. Scourge 18-54/ Acre	Scourge 16-54 – 37.4 gals.	
Duet	Adulticide	1.28 oz. Duet/Acre	Duet – 85 gals.	
Aquasolin	Barrier Spray	7.7 fl. oz./Acre barrier treatment	Aquasolin - .25 gals.	4 acres Barrier treatments
Demand CS	Barrier Spray	10 fl. oz./ Acre barrier treatment	Demand CS - .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.

IX. APPENDICES

Appendix A.1 – Map of Surveillance Locations with Gravid and CO₂ Traps in the Coachella Valley

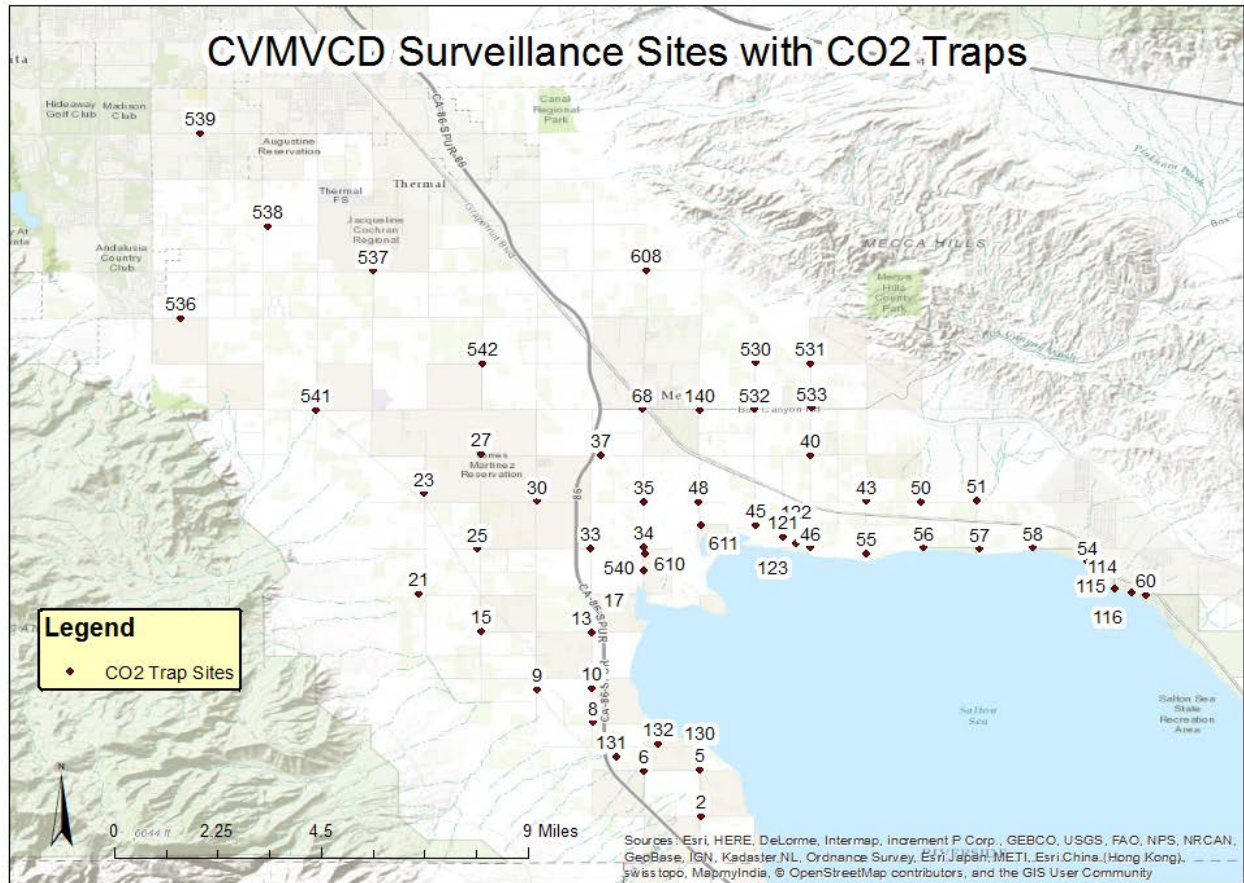


Appendix A.2 – List of Sites with Gravid and CO₂ Trap Locations in the Coachella Valley

<i>No.</i>	<i>Site ID</i>	<i>City</i>	<i>Location Description</i>	<i>Latitude</i>	<i>Longitude</i>
1	200	Mecca	Lincoln and Avenue 65	33.58057	-116.077744
2	203	Palm Desert	Sewer Plant- 43000 Cook St	33.733537	-116.351461
3	204	Indio	45500 Van Buran	33.712029	-116.19472
4	208	Palm Springs	Sewer Plant-4375 Mesquite Ave	33.80551	-116.498372
5	301	Bermuda Dunes	42901 Lima Hall Rd	33.738091	-116.298
6	302	Rancho Mirage	70-800 Hwy-Fire Station	33.752787	-116.43083
7	307	Coachella	1377 6th St- Fire Station #79	33.678478	-116.17849
8	309	Indian Wells	44900 EL Dorado Dr	33.722858	-116.33811
9	311	Indio	80940 Shenandoah	33.717312	-116.2538
10	320	Palm Desert	Shadow Mountain CC Golf Club Ln	33.711571	-116.37869
11	321	Rancho Mirage	70240 Frank Sinatra Tamarisk CC	33.776779	-116.42374
12	322	Cathedral City	69380 Converse Rd	33.791478	-116.449645
13	323	Cathedral City	Ximino Rd	33.829895	-116.464957
14	324	Thousand Palms	31920 Robert Rd	33.817166	-116.396122
15	326	Desert Hot Springs	Horton Treatment Plant	33.943333	-116.493889
16	327	Desert Hot Springs	Bubbling Wells and 18th	33.917922	-116.484575
17	328	Palm Desert	Texas Ave by Fred Warning	33.730071	-116.313953
18	331	Palm Desert	Portola and Haystack	33.70248	-116.37198
19	344	La Quinta	Washington/Ave 52	33.671577	-116.3014
20	346	Thermal	56075 Hwy 111	33.641392	-116.14132
21	347	La Quinta	44555 Adams St	33.725139	-116.286773
22	401	Palm Desert	Apricot Ln and Nectarine Dr	33.762498	-116.286569
23	402	Thousand Palms	Jack Ivey Dr and Stage Line Dr	33.79328	-116.361724
24	404	Cathedral City	Landau Blvd and Ontina Rd	33.851569	-116.479707
25	405	Palm Springs	N Cerritos Rd and E Powell Rd	33.854673	-116.52311
26	406	Palm Springs	San Joaquin Dr and Diamond Rd	33.830473	-116.493034
27	407	Palm Springs	E Marion Way and Yucca Pl	33.796928	-116.536236
28	408	Palm Springs	Lawrence St and Martha St	33.798006	-116.477619
29	409	Cathedral City	Date Palm Dr and Ortega Rd	33.80482	-116.460464
30	410	Rancho Mirage	Oakmont Dr and Pinewood Cir	33.787414	-116.417516
31	411	Rancho Mirage	Paris Way and Victor Hugo Rd	33.787475	-116.391408
32	412	Rancho Mirage	Vista Dunes Rd and Calle La Reina	33.750953	-116.395504
33	413	Palm Desert	Monterey Ave and Parkview Dr	33.731428	-116.395485
34	414	Palm Desert	Quail Hollow Dr and Shady View Dr	33.693441	-116.393893

35	415	Indian Wells	Vintage Dr W and Wren Dr	33.712899	-116.362891
36	416	La Quinta	Avenida El Nido & Avenida Fernando	33.691862	-116.307095
37	417	Palm Desert	Vista Royale Dr and Desert Falls Dr	33.771598	-116.353434
38	418	Indian Wells	Via Orvieto and Via Uzzano	33.734619	-116.330152
39	419	La Quinta	Madison St and Airport Blvd	33.642348	-116.250393
40	420	La Quinta	Via Savona and Via Dona	33.670096	-116.252775
41	421	Indio	Burnett Dr and Freeman Ct	33.690273	-116.221029
42	422	Coachella	Meadows Ln and Brianne Ln	33.69262	-116.194968
43	423	Indio	Canzone Dr and Acqua Ct	33.738833	-116.195902
44	424	Coachella	Genoa St and Ave Ave 53	33.665407	-116.171890
45	425	Coachella	Frederick St and Ave 51	33.675773	-116.191513
46	426	La Quinta	Madison and Ave 60	33.612400	-116.250240
47	427	Palm Desert	Gran Via and Casellana	33.739762	-116.383476
48	428	Indio	83488 Dillon Ave	33.726055	-116.236404
49	429	Indio	43181 Sunburst St	33.735454	-116.236404
50	602	Palm Springs	Mountain gates	33.862434	-116.560769
51	604	Palm Springs	270 Vereda Norte	33.841503	-116.549117
52	605	Indio	Ullswater Dr	33.775625	-116.257544

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



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

<i>No.</i>	<i>Site ID</i>	<i>City</i>	<i>Site Description</i>	<i>Latitude</i>	<i>Longitude</i>
1	2	Oasis	Johnson and Avenue 84	33.44056	-116.0607
2	5	Oasis	Johnson and Avenue 82	33.45524	-116.061172
3	6	Oasis	Lincoln and Avenue 82	33.4549	-116.078977
4	8	Oasis	Buchanan and Avenue 80	33.47019	-116.094818
5	9	Thermal	Pierce and King St	33.48065	-116.112692
6	10	Oasis	Buchanan and Avenue 79	33.48105	-116.095336
7	13	Thermal	Buchanan and Avenue 76	33.49877	-116.095372
8	15	Thermal	Filmore and Avenue 76	33.49896	-116.130198
9	17	Mecca	Lincoln and Avenue 73	33.5168	-116.082468
10	21	Thermal	Polk and Avenue 74	33.51079	-116.149466
11	23	Thermal	Polk and Avenue 70	33.54264	-116.148191
12	25	Thermal	Filmore and Avenue 72	33.52516	-116.131143
13	27	Thermal	Filmore and Avenue 68	33.55503	-116.130245
14	30	Mecca	Pierce and Avenue 70	33.54028	-116.112702
15	33	Mecca	Buchanan and Avenue 72	33.52522	-116.095513
16	34	Mecca	Lincoln and Avenue 72	33.52597	-116.078921
17	35	Mecca	Lincoln and Avenue 70	33.53999	-116.078863
18	37	Mecca	Buchanan and Avenue 68	33.55476	-116.092281
19	40	Mecca	Hayes and Avenue 68	33.55494	-116.026518
20	43	Mecca	Garfield and Avenue 70	33.54023	-116.008863
21	45	Mecca	Grant and Avenue 71	33.53269	-116.043672
22	46	Mecca	Hayes and Avenue 72	33.52538	-116.026382
23	48	Mecca	Johnson and Avenue 70	33.54005	-116.061755
24	50	Mecca	Arthur and Avenue 70	33.53997	-115.991758
25	51	Mecca	Cleveland and Avenue 70	33.54041	-115.974133
26	54	Northshore	Vanderveer and Avenue 73	33.52112	-115.939335
27	55	Mecca	Garfield and Avenue 72	33.5237	-116.008858
28	56	Mecca	Arthur and Avenue 72	33.52537	-115.991129
29	57	Meca	Cleveland and Avenue 72	33.52499	-115.97331
30	58	Northshore	Avenue 72 East of Cleveland	33.52548	-115.956632
31	60	Northshore	Salton Sea State Park	33.51077	-115.920793
32	68	Mecca	Lincoln and Avenue 66	33.56922	-116.079206
33	114	Northshore	Desert Mobile Home Park	33.51517	-115.93451
34	115	Northshore	Mecca Ave	33.51268	-115.930857
35	116	Northshore	South of Tripoli Rd	33.51122	-115.925506
36	121	Mecca	Colfax and Avenue 72	33.52908	-116.035213
37	122	Mecca	Gordon's Ranch	33.53225	-116.030868
38	123	Mecca	South of Gordon Ranch	33.52697	-116.030798
39	130	Oasis	Johnson and Avenue 81	33.46238	-116.061245
40	131	Oasis	81st Ave and Hwy 86	33.45942	-116.087272

41	132	Oasis	Johnson and Avenue 81	33.46359	-116.074278
42	140	Mecca	Johnson and Avenue 66	33.56911	-116.061466
43	530	Mecca	Grant and Avenue 64	33.58396	-116.04366
44	531	Mecca	Hayes and Avenue 64	33.5838	-116.026346
45	532	Mecca	Grant and Avenue 66	33.56923	-116.044161
46	533	Mecca	Hayes and Avenue 66	33.56967	-116.026249
47	536	Thermal	Orchid and Avenue 62	33.59809	-116.224755
48	537	Thermal	Tyler and Avenue 60	33.61307	-116.164041
49	538	Thermal	Van Buren and Avenue 58	33.62715	-116.196887
50	539	Coachella	Jackson and Avenue 54	33.65671	-116.218393
51	540	Mecca	Lincoln and Avenue 73	33.51823	-116.078914
52	541	Mecca	Harrison and Avenue 66	33.56895	-116.181827
53	542	Mecca	Fillmore and Avenue 64	33.58387	-116.129596
54	608	Mecca	Lincoln and Avenue 60	33.613174	-116.078175
55	610	Mecca	Lincoln near Whitewater Channel	33.523498	-116.078744
56	611	Mecca	End of Johnson	33.532468	-116.060957

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

MONTH	2012	2013	2014	2015	2016	5-year Average
JANUARY	0	0.15	0	0.11	0.76	0.204
FEBRUARY	0.03	0	0.08	0.04	0	0.03
MARCH	0.03	0.07	0	0.21	0	0.062
APRIL	0.06	0	0	0	0.34	0.08
MAY	0	0	0	0.07	0	0.014
JUNE	0	0	0	0	0	0
JULY	0.37	0.08	0	0.53	0	0.196
AUGUST	0.2	1.14	0.29	0	0	0.326
SEPTEMBER	1.42	0.14	0.13	0.02	0.21	0.384
OCTOBER	0	0	0	0.14	0	0.028
NOVEMBER	0	0.06	0	0	0.01	0.014
DECEMBER	0.09	0	0.13	0	0.57	0.158
YEAR TOTAL	2.2	1.64	0.63	1.12	1.89	1.496

*This data used for surveillance factor # 1 in the Mosquito Borne Virus Risk Assessment Table calculations for WNV, WEE, and SLE 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.

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

Month	2012			2013			2014			2015			2016			5-Year Average		
	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Jan 1-15	76	56	36	64	49	32	75	55	35	71	54	36	64	51	38	70	53	36
Jan 16-31	74	57	38	72	57	46	80	62	44	76	60	43	73	58	41	75	59	43
Feb 1-14	76	58	40	74	58	49	75	59	43	85	65	45	80	60	40	78	60	43
Feb 15-28	75	59	43	73	56	37	82	64	45	80	64	47	87	67	48	79	62	44
Mar 1-15	79	61	42	84	66	47	84	67	49	83	66	48	84	69	53	83	66	48
Mar 16-31	81	65	48	89	73	56	86	69	51	91	73	54	86	69	51	87	70	52
Apr 1-15	83	66	48	88	73	58	89	72	54	87	71	55	87	73	58	87	71	55
Apr 16-30	96	78	59	92	75	57	90	75	58	90	73	56	90	75	59	92	75	58
May 1-15	98	82	65	96	79	61	95	77	59	87	74	61	92	78	63	94	78	62
May 16-31	101	84	66	97	82	66	100	83	66	92	77	62	93	80	66	97	81	65
Jun 1-15	103	85	68	105	87	68	107	90	72	101	86	70	104	88	71	104	87	70
Jun 16-30	108	90	71	107	91	75	105	88	71	109	89	70	110	93	75	108	90	72
Jul 1-15	106	92	77	107	94	81	108	93	78	105	91	77	108	91	73	107	92	77
Jul 16-31	105	90	75	105	93	80	109	96	82	104	91	77	110	95	79	107	93	79
Aug 1-15	111	96	81	106	88	70	103	90	77	110	94	78	108	95	79	108	92	77
Aug 16-31	104	92	79	104	91	78	105	90	75	108	93	78	107	91	74	106	91	77
Sep 1-15	103	89	75	104	90	75	105	90	74	102	88	74	102	87	71	103	89	74
Sep 16-30	105	87	69	98	81	63	100	86	71	102	86	70	97	81	64	100	84	67
Oct 1-15	96	81	65	87	71	55	96	77	58	96	82	68	95	78	60	94	78	61
Oct 16-31	90	73	56	88	70	51	92	76	60	91	77	63	91	76	60	90	74	58
Nov 1-15	82	64	47	84	65	46	82	66	50	78	61	43	89	71	53	83	65	48
Nov 16-30	80	63	45	73	60	47	77	58	39	74	58	41	74	59	43	76	60	43
Dec 1-15	74	60	45	68	51	34	73	61	48	73	55	36	73	58	42	72	57	41
Dec 16-31	65	49	32	74	56	37	66	52	37	66	51	35	66	54	42	67	52	37

* This data used for surveillance factor # 1 in the Mosquito Borne Virus Risk Assessment Table calculations for WNV, WEE, and SLE 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.

Appendix E – Risk Assessment Maps

The seasonal transmission risk of the arboviruses WNV, WEE and SLE in the Coachella Valley, among other factors, is related to temperature, rainfall, mosquito infection rates, and vector abundance and population size of vertebrate hosts. Some of these factors are used on a bi-weekly basis to determine level of risk for WNV, SLE, and WEE virus 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

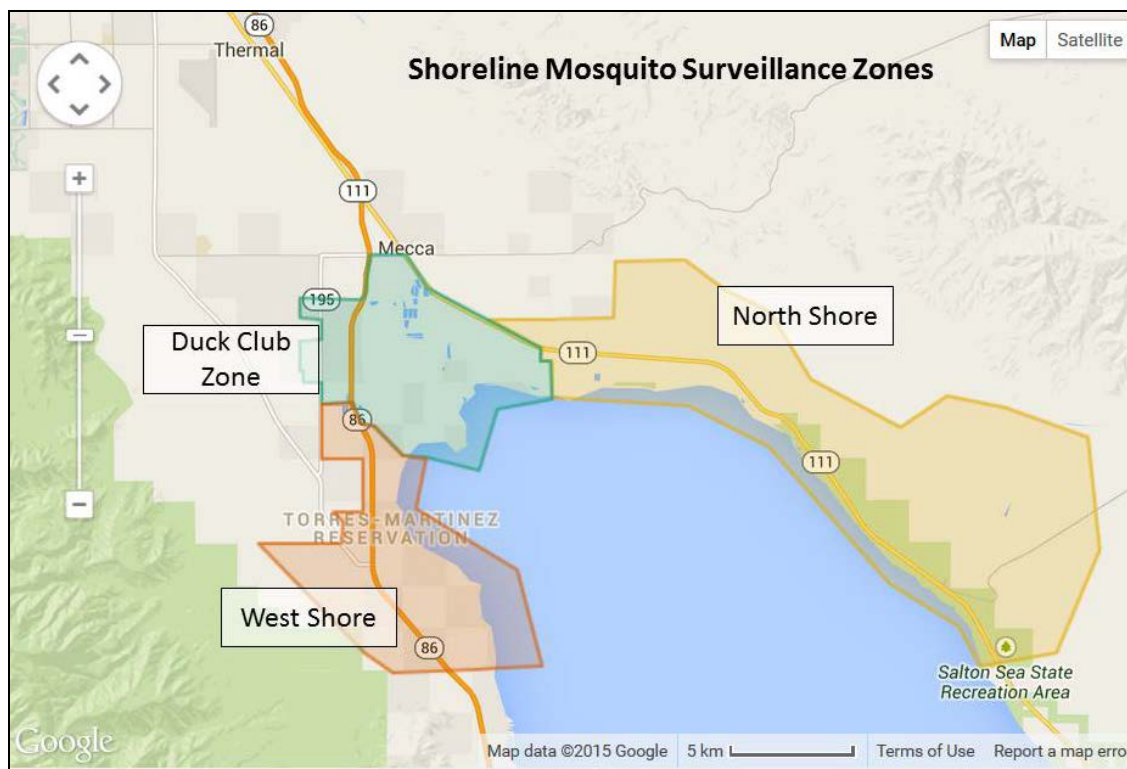


Table 6. North Shore Average Number of Vector Mosquitoes

MONTH	2012	2013	2014	2015	2016	<i>5-year Average</i>
JAN	29	110	69	86	39	<i>64</i>
FEB	25	42	75	114	158	<i>54</i>
MAR	148	223	161	193	472	<i>165</i>
APR	500	95	161	148	285	<i>173</i>
MAY	241	115	34	82	192	<i>75</i>
JUN	22	50	38	45	238	<i>39</i>
JUL	63	14	28	14	23	<i>21</i>
AUG	28	7	56	18	28	<i>19</i>
SEP	126	34	75	48	134	<i>76</i>
OCT	298	43	198	145	177	<i>138</i>
NOV	49	10	113	20	68	<i>23</i>
DEC	48	9	20	4	8	<i>11</i>

Table 7. Duck Club Zone Average Number of Vector Mosquitoes

MONTH	2012	2013	2014	2015	2016	<i>5-year Average</i>
JAN	40	181	77	415	81	<i>144</i>
FEB	49	51	104	369	331	<i>103</i>
MAR	437	668	626	366	1447	<i>528</i>
APR	766	406	532	414	885	<i>540</i>
MAY	1354	431	70	98	216	<i>186</i>
JUN	97	231	140	67	245	<i>131</i>
JUL	60	58	82	31	46	<i>54</i>
AUG	81	64	163	45	70	<i>74</i>
SEP	984	269	498	118	251	<i>404</i>
OCT	2907	284	1964	912	878	<i>987</i>
NOV	241	93	478	175	376	<i>147</i>
DEC	353	21	51	16	12	<i>35</i>

Table 8. West Shore Average Number of Vector Mosquitoes

MONTH	2012	2013	2014	2015	2016	<i>5-year Average</i>
JAN	84	63	55	114	86	<i>94</i>
FEB	102	47	105	248	302	<i>108</i>
MAR	268	305	210	158	397	<i>234</i>
APR	902	639	204	72	184	<i>298</i>
MAY	670	542	75	53	107	<i>177</i>
JUN	144	122	48	66	209	<i>82</i>
JUL	43	36	22	26	53	<i>44</i>
AUG	92	34	16	28	21	<i>33</i>
SEP	261	67	66	26	27	<i>76</i>
OCT	593	68	453	314	67	<i>264</i>
NOV	113	46	144	91	79	<i>70</i>
DEC	171	12	28	20	4	<i>29</i>

SECTION

11



NEW BUSINESS



Coachella Valley Mosquito and Vector Control District

May 9, 2017

Staff Report

Agenda Item: New Business

Discussion and/or approval to replace District's expiring accounting software, FundWare with Abila MIP, in an amount not to exceed \$80,000, which includes installation and staff training – **David I'Anson, Administrative Finance Manager**

Background:

The District has been using FundWare accounting information system software since 2006, Blackbaud the software developer has notified its clients that FundWare will no longer be supported from December 31, 2017, therefore the District is required to transition into new software.

A Request for Proposals (RFP) for Municipal Accounting Software and Implementation Services was issued February 24 to March 30. The District received 8 proposals, from Black Mountain Software, NFP Accounting Technologies, Tyler Technologies, Mitchell Humphrey, Seidor USA Corp, Phoenix Business Consulting, Computer Works NFP Solutions and Caselle, ranging from the lowest bid of \$60,367 to highest bid of \$351,880. Following review of all proposals, the three lowest bids were evaluated further.

Bidder	Purchase Amount	Network Hosted / Cloud
NFP Accounting Technologies	72,917	Network
Computer Works NFP Solutions	71,650	Network
Black Mountain Software	60,367	Cloud

Black Mountain Software was the lowest bid; this was cloud hosted software. Installation and training is remote, the firm is based in Montana most of the clients are based in the State of Montana. They have 10 clients in California. The next lowest bid was Computer Works NFP Solutions who proposed to use District hosted AccuFund software, they are based in Ontario, CA and have helped transition a number of FundWare clients to their proposed software. The third lowest bid was NFP Accounting Technologies who propose to use District network hosted Abila MIP software. NFP Accounting has also helped transition clients from FundWare to their new software and has been contracting with the District since 2006 providing support and maintenance to FundWare. The network hosted option rather than cloud hosted software is the preferable choice. Using cloud based software means that the District is at the will of the internet provider.

NFP Accounting Technologies clients include Desert Recreation District (DRD) and Agua Caliente Band of Cahuilla Indians Tribal Government. District staff have visited DRD to

observe the software in use. DRD staff are very happy with the new software process. DRD have been long term clients with NFP Accounting Technologies and transitioned from FundWare the same as the District.

The service received from NFP Accounting Technologies has been excellent since 2006.

Staff Recommendation:

- Staff recommends contracting with NFP Accounting Technologies to replace District's Accounting Software FundWare with Abila MIP in an amount not to exceed \$80,000 from Reserve for IT Replacement.

Fiscal Impact: Reserve for IT Replacement

FY2016-17 <i>Amended Budget</i> 3970.13.000	Current Available Funds	Proposed Expense	Remaining Available Funds
\$277,786.67	\$277,786.67	\$80,000	\$197,786.67