



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, July 11, 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 Hearing for Benefit Assessment**
 1. Open Public Hearing – **President Doug Walker**
 2. Resolution 2017-10 approving Engineer's Report, Confirming Diagram and Assessment, and Ordering the Levy of Assessments for fiscal year 2017-18 for the Coachella Valley Mosquito and Vector Control District Mosquito, Fire Ant and Disease Control Assessment – **David l'Anson, Administrative Finance Manager (Pg. 1)**
 3. Close Public Hearing – **President Doug Walker**
7. **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.

8. **Old Business**

- A. Discussion and Presentation by Scot Stormo, of Earth Systems, detailing the findings at the District's Thermal Property – **ad hoc Thermal Committee (Pg. 9)**

9. **Closed Session**

- A. **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
- B. **Closed Session:** Conference with Legal Counsel – Anticipated Litigation – Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9 (one matter).

10. **Announcements**

11. **Board Reports**

- A. President's Report – **President Walker**
- B. Finance Committee – **Treasurer Kaplan**
- Finance Committee Minutes (**Pg. 13**)
 - Budget Workshop Minutes for June 13, 2017 (**Pg. 15**)

12. **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 June 13, 2017, Board Meeting (**Pg. 19**)
- B. Correspondence (**Pg. 24**)
- C. Approval of Expenditures for June 14-30, 2017, and July 1-11, 2017 (**Pg. 25**)
- D. Informational Items:
- District Travel (**Pg. 32**)
 - Semi-annual research reports from the University of California at Davis, University of California at Riverside, and USDA for 2017 – **Jennifer Henke, MS, Laboratory Manager (Pg. 33)**

- E. Department Reports **(Pg. 49)**
- F. Approval of Resolution 2017-11, Authorizing Attendance of Professional Development Conferences and Meetings by Members of The Board of Trustees and Employees of the District for Fiscal Year 2017-2018 – **Jeremy Wittie, MS, General Manager (Pg. 72)**
- G. Approval to purchase control products from the lowest responsible bidder or sole-source providers, in the amount not to exceed \$650,000.00, from Fund #7800.02.500, Field Operations Chemical Control – **Roberta Dieckmann, Lead Supervisor (Pg. 78)**
- H. Approval to purchase 5X MagMax-96 Viral Isolation Kits and TaqMan Fast Virus MasterMix from ThermoFisher Scientific, in an amount not to exceed \$9,000.00, from account 7575.01.400.04, Internal Mosquito RT-PCR – **Jennifer Henke, MS, Laboratory Manager (Pg. 81)**
- I. Approval to purchase seventeen (17) vehicles, in an amount not to exceed \$540,000.00, from Capital Replacement Budget Fund #8415.13.300 – utilizing the State of California Contract #1-16-23-20D – **Edward Prendez, Information Technology Manager (Pg. 82)**
- J. Approval of proposed change in Board of Trustees regular meeting schedule to exclude the month of August – **Jeremy Wittie, MS, General Manager (Pg. 83)**

13. **New Business**

- A. Discussion and/or approval of the nomination of a Trustee for a position on the Mosquito and Vector Control Association of California's Trustee Council – **Doug Walker, President (Pg. 87)**

14. **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.

15. **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 July 7, 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 July 7, 2017.

Crystal G. Moreno, Clerk of the Board

ITEM

6



PUBLIC HEARING FOR BENEFIT ASSESSMENT



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: Public Hearing

Resolution 2017-10 approving Engineer's Report, Confirming Diagram and Assessment, and Ordering the Levy of Assessments for fiscal year 2017-18 for the Coachella Valley Mosquito and Vector Control District Mosquito, Fire Ant and Disease Control Assessment – **David I'Anson, Administrative Finance Manager**

Background:

Resolution No. 2017-09, accepted by the Board of Trustees June 13, 2017, approves the intention to levy assessments for fiscal year 2017-18, preliminarily approving engineer's report, and providing for notice of hearing for the CVMVCD Mosquito, Fire Ant and Disease Control Assessment.

Resolution No. 2017-10 approves the Engineer's Report and orders the levy of the assessment at the rate of \$10.21.

In 2005, Coachella Valley property owners approved a yearly fee of \$16.00 per residential unit for the Mosquito, Fire Ant, and Disease Control Assessment by 74.19%, the highest approval rating for a similar measure in the State of California that year. Included in the voter approval was an inflation escalator allowing for a 3% per year inflationary increase to the assessment. State law requires the District to renew the base assessment and any inflationary increase each year through a public hearing process.

The District's Board is now conducting a public hearing to consider the assessments for the 2016–2017 fiscal year to fund its programs and services. The District provides services and programs for disease and vector surveillance, disease prevention, control of vectors using integrated vector control management (IVM) methods and quality assessment. The mosquito abatement, vector control, and disease prevention projects and programs include, but are not limited to, source reduction, ground and aerial surveillance and control applications, disease monitoring, public education, quality control and applied research as well as maintenance of buildings, grounds and equipment and operating expenses. The District's services encompass approximately 2,400 square miles and are provided to properties accommodating over 400,000 permanent residents with a seasonal influx of over 100,000 people.

The majority of the District's funding is generated by a percentage of the 1% property tax collected from Coachella Valley property owners. Any property owner who feels that the assessment levied on the subject property is in error as a result of incorrect information being used to apply the foregoing method of assessment, may file a written appeal with the General Manager of the Coachella Valley Mosquito and Vector Control District or his or her designee. Any such appeal is limited to correction of an assessment during the then current

Fiscal Year or, if before July 1, the upcoming fiscal year.

In each subsequent year for which an assessment will be levied, the Board must;

- Preliminarily approve at a public meeting a budget for the upcoming fiscal year's costs and services;
- Preliminarily approve at a public meeting an updated annual Engineer's Report, and;
- Provide an updated assessment roll listing all parcels and their proposed assessments for the upcoming fiscal year and;
- Call for the publication in a local newspaper of a legal notice of the intent to continue the assessments for the next fiscal year and set the date for the noticed public hearing. At the annual public hearing, members of the public can provide input to the Board prior to the Board's decision on continuing the services and assessments for the next fiscal year.

The yearly assessment is subject to an annual adjustment tied to the Consumer Price Index-U for the Los Angeles-Riverside-Orange County Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%. The yearly assessment rate per single family equivalent benefit unit for the Mosquito, Fire Ant and Disease Control Assessment may increase in future years by an amount equal to the annual change in the CPI, not to exceed 3% per year. In the event that the annual change in the CPI exceeds 3%, any percentage change in excess of 3% can be cumulatively reserved and can be added to the annual change in the CPI for years in which the CPI change is less than 3%.

The assessments for 2016-17 were levied at the yearly rate of \$9.15 per single family equivalent benefit unit, as described in the Engineer's Report for fiscal year 2016-17, with estimated total annual revenue of approximately \$1.4 million.

The fiscal year 2017-2018 assessment budget includes:

- Outlays for West Nile Virus
- Surveillance and mosquito control
- RIFA control
- Capital equipment
- Supplies
- Disease testing programs
- Other vector programs

The annual CPI change for the Los Angeles-Riverside-Orange County Area from December 2014 to December 2015 is 2.03%, which is less than the 3% maximum allowed annual increase. The maximum authorized assessment rate for fiscal year 2017-18 is \$21.04 per single family equivalent benefit unit. The proposed fiscal year 2017-18 assessment rate per single family equivalent benefit unit for the Mosquito, Fire Ant and Disease Control

Assessment is \$10.21 which is less than the maximum allowable rate.

Since property owners in the assessment ballot proceeding conducted in 2005 approved the initial assessment including the CPI adjustment schedule, the assessment may be levied annually and may be adjusted by up to the maximum annual CPI adjustment without any additional assessment ballot proceeding.

OPTIONS TO CONSIDER:

1. To accept and adopt Resolution 2017-10, setting the annual benefit assessment amount to \$10.21 per single family equivalent family unit, in order to properly finalize and adopt the assessment proceedings accordingly defined in Proposition 218.

Staff Recommendation:

- That the Board of Trustees take whatever action it deems necessary.

Fiscal Impact:

By ordering the levy of assessments the District will receive an amount approximated at \$1.6 million for the fiscal year 2017-18 Budget.

Attachments:

- Resolution 2017-10
- Engineer's Report (Separate Attachment)

RESOLUTION NO. 2017-10

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

A RESOLUTION
APPROVING ENGINEER'S REPORT, CONFIRMING DIAGRAM AND ASSESSMENT, AND
ORDERING THE LEVY OF ASSESSMENTS
FOR FISCAL YEAR 2017-18
FOR THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT
MOSQUITO, FIRE ANT AND DISEASE CONTROL ASSESSMENT

WHEREAS, the Coachella Valley Mosquito and Vector Control District ("District") was established in 1928 as an independent special district by the Riverside County Board of Supervisors; and

WHEREAS, the mission of the District is to reduce the risk of disease transmission by mosquitoes and other vectors for the residents and visitors of the Coachella Valley; and

WHEREAS, the Coachella Valley Mosquito and Vector Control District is authorized, pursuant to the authority provided in Health and Safety Code Section 2082 and Article XIID of the California Constitution, to levy assessments for mosquito, vector and disease control services; and

WHEREAS, the District provides vector control services which includes a system of public improvements and services intended to provide for the surveillance, prevention, abatement and control of vectors as provided under Proposition 218 ("Services"); and such vector surveillance and control services provide tangible public health benefits, reduced nuisance benefits and other special benefits to the public and properties with the areas of service; and

WHEREAS, an assessment for mosquito, fire ant, vector and disease control projects and services has been given the distinctive designation of the "Mosquito, Fire Ant, and Disease Control Assessment" ("Assessment"), and is primarily described as encompassing the District jurisdictional boundaries, which covers nine incorporated cities along the I-10 Freeway (Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage), and the unincorporated areas in the greater Coachella Valley from the San Bernardino County line to the north to the Imperial and San Diego County lines to the south; and

WHEREAS, the Assessment was authorized by an assessment ballot proceeding conducted in 2005 and approved by 74.19% of the weighted ballots returned by property owners, and such assessments were levied by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District by Resolution No. 2005-04 passed on July 26, 2005;

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

SECTION 1. Willdan Financial Services, the Engineer of Work, prepared an engineer's report (the "Report") in accordance with Article XIID of the California Constitution and Section 2082, et seq., of the Health and Safety Code for the Assessment. The Report have been made, filed with the secretary of the board and duly considered by the Board and are hereby deemed sufficient and preliminarily approved.

The Report shall stand as the Engineer's Report for all subsequent proceedings under and pursuant to the foregoing resolution.

SECTION 2. On June 13, 2017, this Board adopted Resolution No. 2017-09 to continue to levy and collect Assessments for fiscal year 2017-18, preliminarily approving the Engineer's Report, and providing for notice of hearing on July 11, 2017, at the hour of six o'clock (6:00) p.m. at the meeting chamber of the Coachella Valley Mosquito and Vector Control District headquarters located at 43-420 Trader Place, Indio, California, 92201.

SECTION 3. At the appointed time and place the hearing was duly and regularly held, and all persons interested and desiring to be heard were given an opportunity to be heard, and all matters and things pertaining to the levy of Assessment were fully heard and considered by this Board, and all oral statements and all written protests or communications were duly heard, considered and overruled, and this Board thereby acquired jurisdiction to order the levy of assessment prepared by and made a part of the Engineer's Report to pay the costs and expenses thereof.

SECTION 4. The above recitals are true and correct

SECTION 5. The public interest, convenience and necessity require that the levy be made.

SECTION 6. The Engineer's Report for the Assessment together with the proposed assessment roll for fiscal year 2017-18 is hereby confirmed and approved.

SECTION 7. That based on the oral and documentary evidence, including the Engineer's Report offered and received at the public hearing, the Board expressly finds and determines that: (a) each of the several lots and parcels of land subject to the Assessment will be specially benefited by the services to be financed by the assessment proceeds in at least the amount of the assessment apportioned against such lots and parcels of land, respectively; (b) that the Assessment is levied without regard to property valuation; and (c) that there is substantial evidence to support, and the weight of the evidence preponderates in favor of, said finding and determination as to special benefit to property from the mosquito, fire ant, vector and disease control services to be financed with assessment proceeds.

SECTION 8. That assessments for fiscal year 2017-18 shall be levied at the rate of TEN DOLLARS AND TWENTY-ONE CENTS (\$10.21) per single-family equivalent benefit unit as specified in the Engineer's Report for fiscal year 2017-18 with estimated total annual assessment revenues as set forth in the Engineer's Report; and

SECTION 9. That the mosquito, fire ant and disease control services to be financed with assessment proceeds described in the Engineer's Report are hereby ordered.

SECTION 10. No later than August 10th following such adoption, the Board shall file a certified copy of the diagram and assessment and a certified copy of this resolution with the Auditor of the County of Riverside ("County Auditor"). Upon such filing, the County Auditor shall enter on the County assessment roll opposite each lot or parcel of land the amount of assessment thereupon as shown in the assessment. The assessments shall be collected at the same time and in the same manner as County taxes are collected and all the laws providing for collection and enforcement shall apply to the collection and enforcement of the assessments. After collection by the County, the net amount of the assessments, after deduction of any compensation due the County for collection, shall be paid to the Mosquito, Fire Ant and Disease Control Assessment.

SECTION 11. All revenues from Assessments shall be deposited in a separate fund established under the distinctive designation of the Coachella Valley Mosquito and Vector Control District, Mosquito, Fire Ant and Disease Control Assessment.

SECTION 12. The Assessment, as it applies to any parcel, may be corrected, cancelled or a refund granted as appropriate, by order of the Board of Trustees of the District. Any such corrections, cancellations or refunds shall be limited to the current fiscal year.

The foregoing Resolution was PASSED and ADOPTED by the Board of Trustees of the Coachella Valley Mosquito and Vector Control District at a regular meeting thereof held on July 11, 2017, at the Coachella Valley Mosquito and Vector Control District headquarters located at 43-420 Trader Place, Indio, California, 92201.

PASSED, ADOPTED AND APPROVED, this 11th day of July, 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

ITEM

8



OLD BUSINESS



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: Old Business

Discussion and Presentation by Scot Stormo, of Earth Systems, detailing the findings at the District's Thermal Property – **ad hoc Thermal Committee**

Background:

As part of the District's 2015 Strategic plan, a goal was set to review maintenance costs of the District's Thermal Property and determine whether the District should retain or sell the site.

In March 2016 the Board approved entering an agreement with Earth Systems to evaluate past soil testing and remediation at the District's Thermal property. At the direction of the Board of Trustees, Earth Systems carried out further soil studies at the Thermal property and met with the ad hoc Thermal committee and staff to review those findings. A final report was created by Earth Systems summarizing past site work, current soil studies, and provide recommendations.

The presentation is a summary of Earth Systems work over the past year detailing key findings and recommendations for the Thermal property for the full Board to review and discuss.

Staff Recommendation:

- That the Board review the final report submitted by Earth Systems and hold a special study session prior to the September 2017 Board meeting to review and discuss report conclusion.
- That the Board take whatever action deemed necessary.

Fiscal Impact:

- N/A



BOARD REPORTS

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Finance Committee Meeting Minutes

TIME: 3:30 P.M. JUNE 13, 2017

LOCATION: 43420 Trader Place, Indio, CA 92201

TRUSTEES PRESENT:

Cathedral City
Coachella

Shelley Kaplan
Betty Sanchez

Indian Wells
Palm Desert

Clive Weightman
Doug Walker

TRUSTEES ABSENT:

Desert Hot Springs

Adam Sanchez

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 3:37 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 May 9, 2017, Finance Committee Meeting: On motion from Secretary B. Sanchez seconded by Trustee Weightman and passed by unanimous vote, the Committee approved the minutes as presented.

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

Noes: None.

Abstained: None.

Absent: Trustee A. Sanchez,

6. Discussion and/or Approval:

6A. Review of Check Report from FundWare for the period May 10, 2017 to June 8, 2017: Reviewed by Committee.

6B. CalCard Charges May 2017: Reviewed by Committee

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

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

7. Old Business:

7A. FY2017-2018 Draft Budget for Finance Committee Review: Reviewed by Committee and recommendations made regarding wording and adding the Minimum Reserve Level – Benefit Assessment Trigger as an appendix.

8. New Business: None.

9. Schedule Next Meeting: The next Finance Committee Meeting will be held on Tuesday, July 11th, at 4:30 p.m.

10. Trustee and/or Staff Comments/Future Agenda Items:

- Trustee Weightman suggested that the District getting a reserve fund analysis completed; will be added to the July agenda.

11. Adjournment: The meeting was adjourned by Treasurer Kaplan at 4:17 p.m.

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Budget Workshop Minutes

TIME: 4:30 P.M. JUNE 13, 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
County at Large	Franz DeKlotz		

TRUSTEES ABSENT:

County at Large	Bito Larson	La Quinta	Doug Hassett
Desert Hot Springs	Adam Sanchez	Rancho Mirage	Michael Monroe
Indio	John B. Stevens	Palm Springs	Dr. Doug Kunz

OTHERS PRESENT:

Jeremy Wittie, General Manager
David I'Anson, Administrative Finance Manager
Crystal Moreno, Clerk of the Board
Anita Jones, Human Resources Manager
Jill Oviatt, Public Information Manager
Edward Prendez, IT Manager
Jennifer Henke, Laboratory Manager
Rod Chamberlain, Interim Operations Manager

1. Call to Order: Treasurer Kaplan called the meeting to order at 4:37 p.m.

2. Roll Call: Roll call indicated five (5) Trustees out of eleven (11) were present.

3. Public Comments: None.

4. Overview/Discussion of Preliminary FY 2017/18 Budget: Administrative Finance Manager I'Anson reported on the revisions made from the May draft budget to the current draft budget being presented for approval at tonight's Board Meeting. A discussion ensued.

5. Trustee Comments:

- President Walker thanked managers for their input on the budget.
- Secretary B. Sanchez commented that the Finance Committee and staff has had a healthy, long, discussion about the budget.
- Treasurer Kaplan commented that obviously David and staff have put in a lot of time on the budget and Trustee Weightman's comments have been helpful. He also added that the Engineer's report is a great report; a lot of good information.

6. Adjournment: The meeting was adjourned by Treasurer Kaplan at 4:51 p.m.



ITEMS OF GENERAL CONSENT

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

Board of Trustees Meeting Minutes

CALLED TO ORDER: 6:00 P.M. JUNE 13, 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:

OTHERS PRESENT:

Jeremy Wittie, General Manager
Crystal Moreno, Clerk of the Board
David I'Anson, Administrative Finance Manager
Anita Jones, Human Resources Manager
Jill Oviatt, Public Information Manager
Edward Prendez, IT Manager
Jennifer Henke, Laboratory Manager
Rod Chamberlain, Interim Operations Manager
Mike Martinez, Field Supervisor
Brad Anderson, Vector Control Technician I

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**

On motion from Secretary B. Sanchez seconded by Vice President Hassett, and passed by unanimous vote, the Board of Trustees confirmed the agenda as presented.

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

Noes: None.

Abstained: None.

Absent: None.

6. Public Comment: None.

7. Closed Session:

- A. 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
- B. Closed Session: Conference with Legal Counsel – Anticipated Litigation – Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9 (one matter).

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

8. Announcements:

Surveillance Update: Laboratory Manager Henke gave a presentation regarding the District's current surveillance and control efforts. A discussion ensued.

9. Board Reports:

9A – President's Report: Executive Committee Met on June 5th: President Walker reported that his term as the Southern Region Representative on the Mosquito and Vector Control Association Trustee Council is coming to an end and he has also termed. He commented that there would be a vacancy and if any of the Trustees were interested in being nominated, please let him know.

9B – Finance Committee: Finance Committee Met Prior to Board Meeting: Treasurer Kaplan reported that the Committee met prior to the Budget Workshop and reviewed the District's check report and other finances. The District received revenue of almost \$3.2 million, meeting 97% of the revenue projections. The District's total expenses are at 89% and are still on target for the year.

Secretary B. Sanchez excused herself from the meeting at 7:45pm.

10. Items of General Consent:

- A. Minutes for May 9, 2017, Board Meeting
- B. Correspondence
- C. Approval of Expenditures for May 10-31, 2017, and June 1-13, 2017
- D. Informational Items:
 - Legislative Update
 - District Travel
 - Staff reports from:
 - MVCAC Spring Meeting, May 4-5, 2017, in Seaside, CA
 - IFA Annual Conference, May 16-18, 2017, in Mobile, AL
- E. Department Reports
- F. Approval to continue network copying and printing services with Advance Imaging Solutions for 12-months, in an amount not to exceed \$9,500.00 per year, from account #7675.01.200 – Administration Contract Expense and #7675.01.500 – Operations Department Contract Expense – **Edward Prendez, Information Technology Manager**
- G. Approval of Work Order Agreement from Public Health Foundation Enterprises, Awarding the District \$110,000 for invasive Aedes Control from the California Department of Public Health Zika grant funding – **Jeremy Wittie, General Manager**
- H. Approval to dispose of surplus capital assets through public auction – **Edward Prendez, Information Technology Manager**

On motion from Treasurer Kaplan seconded by Trustee Stevens, 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, Stevens, Walker, and Weightman.

Noes: None.

Abstained: None.

Absent: B. Sanchez.

11. Old Business: None.

12. New Business:

12A. Discussion and/or approval of Resolution 2017-08 Adopting FY 2017-18 Budget – David I’Anson, Administrative Finance Manager: Administrative Finance Manager I’Anson gave a brief report on the proposed FY 2017-18 Budget. A discussion ensued. General Manager Wittie thanked Administrative Finance Manager, staff, and the Board for their work on the budget.

On motion from Trustee Kunz seconded by Treasurer Kaplan, and passed by unanimous vote, the Board of Trustees approved Resolution 2017-08.

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

Noes: None.

Abstained: None.

Absent: B. Sanchez.

12B. Discussion and/or approval of Resolution 2017-09 intention to levy assessments for fiscal year 2017-18, preliminary approval of engineer's report, and providing for notice of hearing for the CVMVCD mosquito, fire ant, and disease surveillance and vector control assessment – David I’Anson, Administrative Finance Manager: A discussion ensued.

On motion from Treasurer Kaplan seconded by Vice President Hassett, and passed by unanimous vote, the Board of Trustees approved Resolution 2017-09, increasing the assessment rate to \$10.21.

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

Noes: None.

Abstained: None.

Absent: B. Sanchez.

12C. Discussion and/or approval for a paid intern for the Laboratory Department July 3 through September 15, 2017, in an amount not to exceed \$6,900.00, from Fund 5130.01.400, Payroll – Jennifer Henke, MS, Laboratory Manager:

On motion from Trustee DeKlotz seconded by Trustee Weightman, and passed by unanimous vote, the Board of Trustees approved item 12C.

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

Noes: None.

Abstained: None.

Absent: B. Sanchez.

13. Trustee Comments, Requests for Future Agenda Items, Travel and/or Staff Actions:

- Trustee Larson commented that he would like to attend the CSDA Annual Conference.

14. Adjournment: The meeting was adjourned by President Walker at 8:04 p.m.

Good afternoon,

Today we received a call from a resident in La Quinta Mrs. McDowell. She wanted to say **Fernando Fregoso** was one of the nicest service persons she has encountered. He was professional, courteous and provided more information than expected. She was very pleased with his mosquito service. Thank you Fernando for a Great Job and Representing the District.

Michael Martinez
Field Supervisor

Coachella Valley Mosquito and Vector Control District

Checks Issued for the Period of:

June 9, 2017 to July 6, 2017

Check No	Payable to:	Purchase	Check Amount	Total Amount
	Payroll Disbursement 6/16/2017		171,379.12	
	Payroll Disbursement 6/30/2017		171,375.48	
Pre-Approved Expenditures:				342,754.60
Cash - First Foundation Bank Checking				
40899	CalPERS-OPEB Contributions	OPEB Contributions: June 2017	26,035.00	
40900	CalPERS Employee Retirement Sys	Retirement Expense: 5/28 - 6/10/2017	22,343.65	
40901	DIRECTV, Inc.	Satellite Service Fees: 5/25 - 6/24/2017	69.24	
40902	Frontier Communications-Toll/Phone	Landline Service Fees: 5/28 - 6/27/2017	149.03	
40903	Gas Co.	Gas Service Fees: 4/25 - 5/24/2017	344.98	
40904	ICMA Retirement Trust	Deferred Compensation: 6/16/2017PP	7,834.74	
40905	Imperial Irrigation District	Electric Service Fees: 5/5 - 6/6/2017	1,188.78	
40906	IID - Lab Account	Electric Service Fees: 5/5 - 6/6/2017	5,727.19	
40907	Sarah Crenshaw Petty Cash Custodian	Petty Cash Replenishment	324.57	
40908	Principal Life Insurance Co.	Dental & Life Insurance Premiums: June 2017	9,919.39	
40909	Verizon Business	Mobile Communications: June 2017	1,171.82	
				75,108.39
Cash - First Foundation Bank Checking				
40898	SWG, Inc. DBA Earth Southwest	Professional Fees	4,735.95	
40910	Airgas Carbonic, Inc	Lab Operating Supplies	844.28	
40911	AIS	Office Supplies	487.42	
40912	Artemia International, LLC	Equipment Parts & Supplies	628.00	
40913	Burrtec Waste & Recycling Svcs	Control Products - Physical Control	952.63	
40914	C&R Wellness Works	Employee Assistance Program	264.00	
40915	Car Quest Auto Parts	Vehicle Parts & Supplies	341.98	
40916	CDW Government, Inc	Office Supplies	185.65	
40917	Cisco WebEx, LLC.	Maintenance Contacts	99.00	
40918	Clean Harbors Environmental Svc	Safety Expense	2,344.10	
40919	CleanExcel	Contract Services	3,140.00	
40920	Crystal Chrysler Center	Vehicle Parts & Supplies	156.69	
40921	Daniel's Tire Service	Vehicle Parts & Supplies	1,482.72	
40922	Desert Feed Bag	Lab Operating Supplies	206.52	
40923	Desert Fire Extinguisher Co.,	Safety Expense	1,485.41	
40924	Equipment Direct, Inc.	Equipment Parts & Supplies	968.29	
40925	Fedak & Brown, LLP	Professional Fees	2,100.00	
40926	Fiesta Ford-Lincoln-Mercury	Offsite Vehicle Parts & Supplies	764.01	
40927	G & K Services	Uniform Expense	2,389.83	
40928	Health Career Connection	Lab Intern	6,900.00	
40929	Interstate All Battery Center	Computer & Network System	42.99	
40930	Jernigan's Sporting Goods, Inc	Safety Expense	959.03	
40931	Kwik Kleen Of The Desert	Offsite Vehicle Parts & Supplies	154.00	
40932	Antonio Molina	Tuition Reimbursement	1,625.97	
40933	Crystal Moreno	Tuition Reimbursement	800.00	
40934	Mosquito & Vector Control Asn	Corporate Dues & Memberships	9,000.00	
40935	NAPA Auto & Truck Parts	Vehicle Parts & Supplies	955.23	
40936	nfpAccounting Technologies, Inc.	IT Capital Outlay	21,600.00	
40937	Pentair Aquatic Eco-Systems, I	Equipment Parts & Supplies	363.37	
40938	Praxair Distribution, Inc.	Equipment Parts & Supplies	46.50	
40939	Pure Water Technology, Inc.	Employee Support	272.05	
40940	Puretec Industrial Water	Repair & Maintenance	253.12	
40941	Rutan & Tucker, LLP	Attorney Fees	4,104.00	
40942	Salton Sea Air Service	Aerial Applications	13,950.00	
40943	The SoCo Group, Inc.	Motor Fuel & Oils	4,086.03	
40944	TCI	Lab Operating Supplies	311.18	
40945	U.S. Bank	CalCard	69,588.64	
40946	UPS	Postage	140.85	
40947	Vector Control Joint Powers Ag	2017-18 Insurance Premiums	368,468.00	
40948	Vector-Borne Disease Account	State Required Fees	6,030.00	
40949	Verizon Wireless	IT Communications	33.60	
40950	Waxie Sanitary Supply	Maintenance Supplies	348.12	
40951	Liebert Cassidy Whitmore	HR Risk Management	4,500.00	
40952	Liebert Cassidy Whitmore	Dues & Memberships	850.50	
40953	Marlin Leasing	Contract Services	606.34	
40954	County of Riverside	2017-18 LAFCO Fees	1,184.22	
Cash - First Foundation Bank Check Run Total to be Approved				540,750.22
Total Expenditures: June 9, 2017 to July 6, 2017				958,613.21

Doug Walker, President

Shelley Kaplan, Treasurer

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

	Beginning of the Month	Change During the Month	End of the Month
INVESTMENTS	\$ 13,509,461	\$ (760,109)	\$ 12,749,352
CASH	\$ 295,237	(201,927)	\$ 93,310
INVESTMENTS & CASH	<u>\$ 13,804,699</u>	<u>\$ (962,036)</u>	<u>\$ 12,842,662</u>
CURRENT ASSETS	\$ 1,436,038	(32,859)	1,403,179
FIXED ASSETS	\$ 11,188,461	308,854	11,497,315
OTHER ASSETS	\$ 3,913,178	-	3,913,178
TOTAL ASSETS	<u>\$ 30,342,377</u>	<u>\$ (686,042)</u>	<u>\$ 29,656,335</u>
TOTAL LIABILITIES	\$ 5,527,591	\$ (282,461)	\$ 5,245,130
TOTAL DISTRICT EQUITY	\$ 24,814,786	(403,580)	24,411,205
TOTAL LIABILITIES & EQUITY	<u>\$ 30,342,377</u>	<u>\$ (686,042)</u>	<u>\$ 29,656,335</u>
RECEIPTS		\$ 12,164	
CASH DISBURSEMENTS			
Payroll	\$ 544,682		
General Admin	\$ 429,519		
Total Cash Disbursements		\$ (974,201)	
NON-CASH ENTRIES:		\$ 275,996	
Accrual Modifications -			
Changes in A/P, A/R & Pre-paid insurance			
Change during Month - Excess of Cash over Receipts & Non-Cash Adjustments		<u>\$ (686,042)</u>	

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT INVESTMENT FUND BALANCES AS OF JUNE 30, 2017						
INSTITUTION	IDENTIFICATION	Issue Date	Maturity Date	YIELD	BALANCE	PERCENT OF TOTAL INVESTMENTS
LAIF	Common Investments			0.97%	6,171,556	48.41%
	Funds 51105, 51110 and					
Riverside County	51115			1.03%	5,809,663	45.57%
CalTRUST	Medium Term			1.27%	492,242	3.86%
First Foundation	Market Rate			0.10%	275,832	2.16%
	Total Investments				\$ 12,749,293	100.00%

COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT LISTING OF MONTHLY RECEIPTS			
For June 30, 2017			
DATE	RECEIVED FROM	AMOUNT	DESCRIPTION
6/1/2017	US Bank	3,721.71	CalCard Rebate
6/14/2017	A Jones	922.66	Reimbursement travel
6/22/2017	Riverside County	1,098.33	RDA Asset Distribution
6/30/2017	Riverside County	621.54	Homeowners Tax Exemption Suppl
6/30/2017	Riverside County	4,941.64	Interest Fund 51115
6/30/2017	Riverside County	798.10	Interest Fund 51105
6/30/2017	First Foundation	59.67	Bank Interest
Monthly Total		\$ 12,163.65	

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

	<u>Revised Budget 2016-17</u>	<u>This Month</u>	<u>Y-T-D</u>	<u>Budget Balance</u>	<u>% Y-T-D</u>
REVENUES					
Current Taxes	7,789,222	1,720	7,517,997	271,225	97%
Miscellaneous Revenue	63,000	152	109,384	(46,384)	174%
Prior Taxes	25,500	-	18,995	6,505	74%
Interest Income	50,000	5,799	62,508	(12,508)	125%
Benefit Assessment Income	1,441,381	-	1,391,624	49,757	97%
TOTAL REVENUES	9,369,103	7,671	9,100,508	227,091	97%
Payroll Expense					
5101 Payroll - Full Time	4,396,912	319,628	4,171,967	224,945	95%
5102 Payroll - Seasonal	189,600	17,659	179,379	10,221	95%
5105 Overtime Expenses	30,300	777	18,444	11,856	61%
5150 CalPERS Employer Payment of Unfunded Lia	98,586	-	95,099	3,487	96%
5150 CalPERS State Retirement Expense	380,060	5,196	332,590	47,470	88%
5155 Social Security Expense	278,282	21,549	266,139	12,143	96%
5165 Medicare Expense	65,082	5,040	66,511	(1,428)	102%
5170 Cafeteria Plan Expense	986,626	14,978	971,468	15,159	98%
5172 Retiree Healthcare	342,420	26,035	338,453	3,967	99%
5180 Deferred Compensation	93,291	14,548	78,092	15,199	84%
5195 Unemployment Insurance	29,895	360	33,603	(3,708)	112%
Total Payroll Expense	6,891,055	425,770	6,551,745	339,310	95%
Administrative Expense					
5250 Tuition Reimbursement	20,000	1,439	16,664	3,336	83%
5300 Employee Incentive	10,000	-	3,374	6,626	34%
5301 Employee Support	4,000	431	4,136	(136)	103%
5302 Wellness Program	5,000	-	605	4,395	12%
5305 Employee Assistance Program	2,800	264	2,816	(16)	101%
6000 Property & Liability Insurance	95,402	11,960	66,491	28,911	70%
6001 Workers' Compensation Insurance	144,461	19,386	172,533	(28,072)	119%
6050 Dues & Memberships	22,300	160	21,273	1,027	95%
6060 Public Outreach Materials	22,300	280	7,222	15,078	32%
6065 Recruitment/Advertising	4,000	551	4,058	(58)	101%
6070 Office Supplies	15,200	1,340	18,744	(3,544)	123%
6075 Postage	6,250	84	6,958	(708)	111%
6080 Computer & Network Systems	5,400	358	3,593	1,807	67%
6085 Bank Service Charges	200	-	89	111	44%
6090 Local Agency Formation Commission	1,000	-	1,044	(44)	104%
6095 Professional Fees	-	-	-	-	-
Administration	30,000	2,100	13,820	16,180	46%
Information Systems	3,500	-	765	2,735	22%
District Wide	20,000	1,417	26,875	(6,875)	134%
Surveillance	15,730	-	-	15,730	0%
6100 Attorney Fees	-	-	-	-	-
General Counsel	60,000	7,495	37,213	22,787	62%
Labor Relations	20,000	9,524	13,314	6,686	-
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	19	7,114	4,886	59%
Annual Conference Expense	13,200	-	8,950	4,250	68%
Trustee Travel	16,800	325	14,596	2,204	87%
6115 Trustee In-Lieu Expense	13,200	1,100	13,200	-	100%
6120 Trustee Support Expense	4,000	417	3,932	68	98%
6200 Meetings Expense	3,000	256	1,334	1,666	44%
6210 Promotion & Education	20,000	(4,755)	16,553	3,447	83%
6220 Public Outreach Advertising	40,000	13,138	27,623	12,377	69%
6500 Benefit Assessment Expense	88,440	-	86,685	1,755	98%
Total Administrative Expense	732,683	67,290	612,346	120,337	84%

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

	Revised Budget 2016-17	This Month	Y-T-D	Budget Balance	% Y-T-D
Utility Expense					
6400 Utilities	105,000	8,358	90,213	14,787	86%
6410 Telecommunications	25,400	2,434	23,692	1,708	93%
Total Utility Expense	130,400	10,792	113,905	16,495	87%
Operating Expense					
7000 Uniform Expense	19,775	2,928	21,592	(1,817)	109%
7050 Safety Expense	20,050	5,122	24,287	(4,237)	121%
7100 Physician Fees	10,000	170	1,751	8,249	18%
7150 IT Communications	22,500	3,495	21,577	923	96%
7200 Maintenance Supplies	3,500	328	4,290	(790)	123%
7300 Building & Grounds Maintenance	50,000	8,990	46,475	3,525	93%
7310 Calibration & Certification of Equipment	13,300	-	5,407	7,893	41%
7350 Permits, Licenses & Fees	11,800	35	9,054	2,746	77%
7400 Vehicle Maintenance & Repair	28,500	3,039	30,388	(1,888)	107%
7420 Offsite Vehicle Maintenance & Repair	7,500	918	5,886	1,614	78%
7450 Equipment Parts & Supplies	21,300	2,293	18,325	2,975	86%
7500 Small Tools Expense	4,000	50	949	3,051	24%
7550 Lab Operating Supplies	36,200	2,154	19,808	16,392	55%
7570 Green Pool Surveillance	25,000	17,496	17,496	7,504	70%
7575 Surveillance	50,900	232	50,695	205	100%
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	2,979	28,083	22,567	55%
7650 Equipment Rentals	1,000	-	773	227	77%
7675 Contract Services	-	-	-	-	-
Administration	7,000	303	5,701	1,299	81%
Information Systems	51,460	1,711	45,253	6,207	88%
Fleet	15,300	7,308	7,308	7,992	48%
Facilities	72,400	4,015	66,540	5,860	92%
Operations	6,000	303	4,302	1,698	72%
7700 Motor Fuel & Oils	73,200	4,120	62,848	10,352	86%
7750 Ops Operating Supplies	7,500	-	7,417	83	99%
7800 Control	-	-	-	-	-
Chemical Control	665,000	55,323	859,254	(194,254)	129%
Physical Control	12,500	1,953	1,953	10,547	16%
7850 Aerial Applications	-	-	-	-	-
Rural	50,400	7,175	64,673	(14,273)	128%
Urban	75,280	700	61,590	13,691	82%
8415 Operating Equipment	33,200	-	33,852	(652)	102%
8487 Furniture & Equipment	10,000	-	2,060	7,940	21%
8510 Research Projects	150,000	-	110,754	39,246	74%
8510 UCD VC of CA Mosq Research - Zika	-	-	30,000	-	-
8510 USDA - COOP expenses to be refunded	-	-	-	-	-
Total Operating Expense	1,614,965	133,140	1,676,212	(31,247)	104%
TOTAL EXPENSES	9,369,103	636,992	8,954,207	414,895	96%
Total Operations Revenue Less Expenses	0	(629,320)	146,301		
CAPITAL EXPENSES					
6095 Professional Fees	10,000	-	496	9,504	5%
8463 Interior Equipment Upgrade	80,000	-	49,829	30,171	62%
8487 Facility Improvements	30,000	-	-	30,000	0%
TOTAL CAPITAL EXPENSES	120,000	-	50,325	69,675	42%
Total Operations Revenue Less Expenses	(120,000)	(629,320)	95,976		

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

	General Fund	Capital Replacement	Other Governmental Funds	Total
ASSETS				
<u>Cash and Investments</u>				
Cash - Checking	\$ 11,967	\$ -	\$ -	11,967
Cash - Payroll	\$ 79,343	\$ -	\$ -	79,343
Cash - Petty Cash	\$ 2,000	\$ -	\$ -	2,000
Investment Balances	\$ 11,361,541	\$ 987,090	\$ 400,722	12,749,352
Total Cash and Investments	\$ 11,454,851	\$ 987,090	\$ 400,722	12,842,662
<u>Current Assets</u>				
Accounts Receivable	\$ -	\$ -	\$ -	-
Interest Receivable	\$ -	\$ -	\$ -	-
Lease Payment Receivable	\$ -	\$ -	\$ -	-
Allowance for Bad Debts	\$ -	\$ -	\$ -	-
Chemical - Inventory	\$ 334,101	\$ -	\$ -	334,101
Shop - Inventory	\$ 11,424	\$ -	\$ -	11,424
Prepays and Deposits	\$ 1,057,654	\$ -	\$ -	1,057,654
Total Current Assets	\$ 1,403,179	\$ -	\$ -	1,403,179
<u>Fixed Assets</u>				
Construction in Progress	\$ -	\$ 54,153	\$ -	54,153
BIO Control Building	\$ 6,963,768	\$ -	\$ -	6,963,768
Vehicles	\$ -	\$ 1,685,368	\$ -	1,685,368
Computer Equipment	\$ 113,607	\$ 227,751	\$ -	341,358
Computer Equipment GIS	\$ -	\$ 301,598	\$ -	301,598
Office Furniture and Equipment	\$ 1,027,317	\$ 179,011	\$ -	1,206,328
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	\$ 3,026,126	\$ -	\$ -	3,026,126
Accumulated Depreciation	\$ (6,374,807)	\$ (1,845,997)	\$ -	(8,220,804)
Total Fixed Assets	\$ 10,895,431	\$ 601,883	\$ -	11,497,315
<u>Other Assets</u>				
Deferred Outflows of Resources	\$ 338,926	\$ -	\$ -	338,926
Resources to be Provided	\$ 3,574,252	\$ -	\$ -	3,574,252
Total Other Assets	\$ 3,913,178	\$ -	\$ -	3,913,178
TOTAL ASSETS	\$ 27,666,640	\$ 1,588,973	\$ 400,722	\$ 29,656,335

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

	General Fund	Capital Replacement	Other Governmental Funds	Total
LIABILITIES AND EQUITY				
LIABILITIES				
<u>Current Liabilities</u>				
Accounts Payable	\$ 105,742	\$ 24,225	\$ -	129,967
Accrued Payroll and Payroll Taxes	\$ (0)	-	-	(0)
Deferred Revenue	\$ -	-	-	-
Retentions Payable - Capital Fund	\$ -	-	-	-
Claims/Judgments Payable	\$ -	-	-	-
Union Dues/Charity Payable	\$ (29)	-	-	(29)
Total Current Liabilities	\$ 105,713	\$ 24,225	\$ -	129,938
<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	\$ 606,839	-	-	606,839
Total Long Term Liabilities	\$ 5,115,192	\$ -	\$ -	5,115,192
TOTAL LIABILITIES	\$ 5,220,905	\$ 24,225	\$ -	\$ 5,245,130
EQUITY - FUND BALANCE				
Non - Spendable Fund Balance				
Invested in Capital Assets	\$ 10,895,431	\$ 601,883	\$ -	11,497,315
Inventory	\$ 516,559	-	-	516,559
Prepays & Deposits	\$ 1,391,699	-	-	1,391,699
Committed Fund Balance	\$ 12,803,689	\$ 601,883	\$ -	13,405,572
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	\$ 95,976	\$ (272,568)	\$ (28,555)	(205,147)
TOTAL EQUITY	\$ 22,445,735	\$ 1,564,748	\$ 400,722	24,411,205
TOTAL LIABILITIES AND EQUITY	\$ 27,666,640	\$ 1,588,973	\$ 400,722	\$ 29,656,335



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: Informational Item

District Travel – **Crystal G. Moreno, Executive Assistant/Clerk of the Board**

Background:

September 25-28, 2017: CSDA Annual Conference (Monterey, CA) ~ “The CSDA Annual Conference & Exhibitor Showcase is the one conference special district Leaders can't afford to miss! It is the most densely packed educational and networking experience available to special districts. Come together with other special district leaders from across the state to meet with industry suppliers, hear from the best in special district-specific topics with over thirty breakout session options, network with your peers and more at the leadership conference for special districts.”

Requests to attend must have been made by the JULY 2017 BOARD MEETING.

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

ESRI Annual User Conference (7/10-7/12):
Edward Prendez, IT Manager



Coachella Valley Mosquito and Vector Control District

July 11, 2017

Staff Report

Agenda Item: Informational Item

Semi-annual research reports from the University of California, Riverside and Davis, and the USDA for 2017 – Jennifer A. Henke, MS, Laboratory Manager

Background:

The Research Department (Department 600) supports cooperative work with the University of California system and other research institutions for conducting mosquito-borne disease and vector research, optimizing control measures, and understanding of vector biology. The proposals include finding a new methodology for detecting arboviruses and controlling adult mosquitoes, using biological control organisms to target adult mosquitoes in storm water systems, examining new control strategies for adult mosquitoes, and releasing biological control organisms to help control red imported fire ants. Each of the proposals were approved by the Research Committee and later approved by the full Board of Trustees at the November 2016 Meeting.

As described in District's Research Funding Policy and Procedure, researchers are to provide semiannual progress reports. The reports are from the following proposals:

1. UC Davis (Dr. L. Coffey) – The proposal includes:

- a. Compare the effectiveness of scented sugar bait stations for arbovirus detection to the District's current methods.
- b. Examine a new testing method for sugar bait stations and other surveillance samples for arboviruses.

2. UC Riverside (Dr. W. Walton) – The proposal includes:

- a. Examine the use of attractive toxic sugar bait stations with fungi as the toxic agent in storm drains

3. USDA (Dr. D. Oi) – The proposal includes:

- a. Examine the efficacy of water resistant baits as a control product for red imported fire ants.
- b. Evaluate the establishment and spread of 3 types of biological control organisms (decapitating phorid flies, the microsporidian pathogen *Kneallihazia solenopsae*, and the virus SINV-3) released during the project funded in 2014-2015.

A fourth project was funded, but the researcher has since started a new position and terminated the agreement.

Exhibits:

- Coffey Report
- Walton Report
- Oi Report

Semiannual Research Progress Report #3 for CVMVCD grant:
June 30, 2017

Fire ant IPM in the Coachella Valley: Improving fire ant bait efficacy in irrigated landscapes and
monitoring fire ant biocontrol agents

David H. Oi and Steven M. Valles
USDA Agricultural Research Service,
Center for Medical, Agricultural, and Veterinary Entomology
1600 SW 23rd Drive, Gainesville, FL 32605

Background Information from 2016.

- Three water-resistant fire ant bait formulations were tested against laboratory fire ant colonies.
 - All three formulations caused an average 68-100% reduction in brood volumes after being either: a) soaked in water, b) soaked in water then allowed to air dry for 18-23 hours, or c) left dry. Reduced amounts of brood is indicative of effective delivery of the insect growth regulating active ingredient (pyriproxyfen) used in all tested baits.

Summary of Activity January through June 2017.

- Three water-resistant fire ant bait formulations were further tested in irrigated, potted plants infested with fire ant colonies after modifying methods to address probable colony escapes that occurred in 2016.
 - Colonies extracted from pyriproxyfen baited pots had worker brood reductions of 87 - 100%. However, results were confounded by the dramatic reduction in brood recovery from all treatments, including the control 4 - 7 weeks after treatment.
 - Fire ants fed on all bait formulations applied in piles even after irrigation directly soaked the bait.
 - A field test of a water resistant fire ant bait formulation was initiated at three locations in the Coachella Valley. Evaluations will be scheduled in late August and October, 2017.
- *Solenosis invicta* virus 3 monitoring was conducted at the El Dorado and La Quinta Medical Center sites on May 7-8, 2017.
 - SINV-3 was detected in 24% and 13% of samples from El Dorado and La Quinta Medical, respectively.
 - Positive samples were collected beyond the release sites and the 2016 sampling locations.
- Phorid fly trapping at Monterey Country Club and La Quinta Medical Center was conducted on May 8, 2017.
 - A total of 47 flies and 2 species, *Pseudacteon obtusus* and *P. curvatus*, were collected at Monterey.
 - Flies were collected on the south slope of the wash for first time.
 - Flies were not collected again at the La Quinta Medical Center site.

Water Resistant Baits

Prolonging the physical stability and palatability of fire ant baits exposed to water would markedly advance the ability to control fire ants in wet conditions. Efforts have been made to decrease the negative effects of precipitation and/or irrigation on fire ant baits that utilize a corn-grit carrier. Moisture renders corn-grit carriers mushy and unpalatable to fire ants. One example of water-resistant baits (Hsip bait), replaces the corn-grit with dried distiller's grains solubles (DDGS) (Kafle et al 2010). Another approach protects the corn-grit carrier from moisture by spraying the corn protein zein on standard fire ant bait (J. Chen, personal communication). Three water-resistant fire ant bait formulations (Hsip, Zein, Ars) plus a standard fire ant bait (Esteem) and a control bait (Table 1) were evaluated in 2016 on laboratory colonies of red imported fire ants, *Solenopsis invicta*.

Table 1. Baits tested for water-resistance.

Bait	% AI	Carrier	Manufacturer
Hsip	0.5% pyriproxyfen	DDGS	Chung Hsi Chemical
Zein	0.5% pyriproxyfen	corn grit	ARS Stoneville, MS
Ars	0.5% pyriproxyfen	corn grit	ARS Stoneville, MS
Esteem	0.5% pyriproxyfen	corn grit	Valent
Control	0.0% no active ingred.	corn grit	---

Water Resistant Baits – Irrigated nursery pots

Based on the results of the laboratory studies conducted in 2016, all four pyriproxyfen (0.5%) bait formulations and a control of 20% once-refined soybean oil absorbed onto pregel defatted corn grit were tested in irrigated, potted boxwood shrubs that contained a fire ant colony. The methods used for the irrigated potted plants in 2016 were as follows: Bait (10 g /pot) was applied in a pile under a micro-sprinkler immediately before water sprayed on the bait for 10 minutes (Fig. 1). Thereafter the sprinkler was on for 10 minutes at 8 am, 12 noon, and 4 pm, for seven days, which was an irrigation cycle used by a local nursery. For each 10 minute spray, 1.5 liters (0.4 gal) of water was applied. Pots were contained in fluon-lined trays to prevent ant escapes and held for 6-7 weeks outdoors under a covered lanai to allow for the appearance of pyriproxyfen effects. Frozen crickets, 10% (w/v) sugar solution, and water were added to the pots 48 hr after baiting to provide sustenance to fire ant colonies. Fire ants were extracted from the pots by cutting the trunk at the soil line, placing the root ball in a bucket, and slowly dripping water into the bucket until the accumulating water forced the ants out of the root ball. The size of the extracted colonies were visually estimated by counting the number of live ants and comparing the worker brood volume (not the reproductive caste brood) to photos of measured brood volume. Colonies also were examined for the presence of their queen.



Fig. 1. Bait pile under micro-sprinkler.

The recovery of fire ant colonies from the irrigated potted plants was confounded by the inconsistent volume of brood extracted from the control treatment. We suspected colonies may have been escaping due to the relatively large volume of water the plants were receiving and the length of time plants were held outdoors before evaluation. Thus in 2017 methods were modified by 1) reducing the irrigation cycle to 2 minutes, three times per day resulting in less saturation of the soil while still thoroughly wetting the bait; and 2) extracting colonies within a week after the irrigation regime ended,

and rearing the colonies in the lab to observe the effects of baiting at 4-6 weeks after treatment which is the typical time that the insect growth regulating effects of pyriproxyfen are observable.

Results of the first trial with the modified protocol are presented in Tables 2 and 3. There was a drastic reduction in worker brood volume and worker numbers in all treatments including the control. Percent reduction in work brood, which is the earliest indicator of pyriproxyfen impact, was very high in the controls (89%) with no evidence of recovery. The presence of reproductive brood, and indicative of pyriproxyfen effects was seen in the Hsip treatment where it was the only type of brood recovered, unlike the other baits. Worker counts were also lower than expected, but not to the same degree as the brood. Field collected colonies with several queens were used in this trial, and due to the potential of alate queens losing their wings, it was difficult to distinguish which reproductives were viable, reproducing queens. Further modifications to the extraction method will be made, most likely by slowly desiccating the potted soil instead of flooding colonies out with dripping water. Despite the difficulties of the irrigated potted plant trials, as indicated in the 2016 report, the fire ants were observed foraging on the water soaked baits between irrigation cycles, with the Hsip bait drying quickly and thus more easily carried by the ants.

Table 2. Percent reduction of worker brood volume from the initial brood volume 4 to 7 weeks after initial bait access.

	Worker brood (ml)	Percent reduction in worker brood			
Treatment	0 week	4 week	5 week	6 week	7 week
Ars	25	92.0	99.8	98.0	100.0
Hsip	20	100.0	100.0	100.0	98.8
Zein	15	86.7	96.7	96.7	98.3
Esteem	25	98.0	100.0	100.0	99.0
Control	9	88.9	88.9	97.2	100.0

Table 3. The number of live worker ants 4 to 7 weeks after initial bait access.

	Number of worker ants				
Treatment	0 week	4 week	5 week	6 week	7 week
Ars	15,000	3,000	4,000	4,000	1,000
Hsip	5,000	1,500	3,000	2,500	1,500
Zein	10,000	2,500	4,000	2,500	3,500
Esteem	10,000	1,000	2,000	1,000	2,000
Control	5,000	1,500	2,000	2,000	2,000

Water Resistant Baits – Field study in Coachella

Based on the laboratory and pot tests, Hsip bait and the standard Esteem fire ant baits were selected for the field trial in the Coachella Valley that was initiated on June 20, 2017. The CVMVCD staff identified several potential test sites of which four locations in the cities of Indio, Bermuda Dunes, and La Quinta were selected for the study. In Indio, the Doug York Plaza, and grassy lots at the corner of Smurr St., Miles Ave., & Indio Blvd; and the north lot at Towne St & Bliss Ave were used for two replicates. In Bermuda Dunes, the grass area of the Desert Oasis Healthcare (JFK Medical) building was replicate 3. In La Quinta, the grounds of the Arnold Palmer Restaurant served as the fourth replicate. At Doug York Plaza and JFK Medical, small plots (ca. 3478 - 6600 sq. ft.) were treated, while at the grass lots

in Indio, a 15 ft. wide band was treated along the perimeter sidewalks. At Arnold Palmer Restaurant, an 8-10 foot wide band was applied to the perimeter of seven sand traps, as well as along the front driveway curb. The Doug York and JFK plots had visible fire ant nests within the turf area, while the sites where band treatments were made, fire ant nests were generally visible along the sidewalk/curb and sand trap edges.

Treatments consisted of 1) the Hsip water resistant bait, 2) Esteem fire ant bait (standard), both broadcasted at a rate of 1.5 lbs. per acre, and 3) the Esteem bait placed as discrete ½ teaspoon piles in a grid pattern in the plots or at fixed intervals in the band applications, again at 1.5 lbs. per acre. A single replicate of the Hsip bait dispensed in discrete piles was applied along the driveway curb at Arnold Palmer Restaurant. Immediately after the broadcast applications, bait was sprayed with water using a handheld pump sprayer to moisten bait since sprinklers would generally be on at night and prior to sunrise. However, after bait was applied at Arnold Palmer on June 22 (ca. 11 am) sprinklers went on. When bait was dispensed in piles, each pile was immediately sprayed until wet with the handheld sprayer. Bait applications were made on June 21-22, and temperatures ranged from 84 to low 100s °F. Broadcast and band bait applications were made with a battery powered, handheld spreader (Wizz, Scotts Co. LLC, Marysville, OH.) with spreader settings at 2.5 for Hsip bait and 2.75 for Esteem. A Pesticide Research Authorization (#1705082) was obtained from the California Dept. of Pesticide Regulation. A notice of intended pesticide application and the experimental trial report form were submitted to the Riverside County Agriculture Commissioner.

A day before baits were applied, a transect of 10 Vienna sausage slices was set in each plot and fire ants on the slices counted after 30-45 minutes to estimate fire ant population levels. In addition approximately five nest per plot were examined and assigned a population index rating (PI), which is a visual rating estimate of the number of adults and presence or absence of worker brood in a fire ant nest (Lofgren & Williams 1982). PIs are useful in evaluating insect growth regulating baits because it accounts for effects on brood development. Evaluations are scheduled to occur approximately 2 and 4 months after treatment.

Observations of Esteem bait piles 2.5 to 6 hrs after application and wetting with the water sprayer, the piles dried hard in the sun, however fire ants were seen on the bait pile (Fig. 2a). After sprinklers were operating, the Esteem bait pile rehydrated and became soft and mushy. Nevertheless, fire ants were seen feeding on the rehydrated piles (Fig. 2b).



Fig. 2. a) Fire ants foraging on a dry, hard Esteem fire ant bait pile. b) Fire ants foraging on Esteem bait pile that was rehydrated with sprinkler irrigation.

Fire Ant Biological Control Monitoring

Solenopsis invicta virus-3.

Fire ants were inoculated with *Solenopsis invicta* virus-3 (SINV3) at the El Dorado site on June 11, 2014 and at the La Quinta Medical Center site on Jan. 26 and Oct. 22, 2015. Surveys conducted in 2014 and 2015 revealed that the virus had established at both sites and continued to persist and spread based on sampling in May 2016. The most recent survey conducted on May 7 - 8, 2017 indicated that SINV3 was present at both the El Dorado and the La Quinta Medical Center sites. At El Dorado, SINV3 was detected in 24% (8/33) of the samples which were collected in transects that traversed the original inoculation and monitoring plots between the irrigation cannons (4 positive/19 samples =21%) and areas beyond the original release plots (4/14=28.6%). These areas included the north ditch that parallels the non-inoculated plots C2 and C3. The positive samples were collected farther from the inoculated plot than previous detections. At the La Quinta Medical site, SINV3 was found in 13% (2/15) of the samples. Positive samples were obtained from fire ant nests located on the south end of Washington St. and on the Caleo Bay Alzheimer's Care facility property. SINV-3 is persisting at both sites despite the reduced irrigation in 2016.

Phorid fly monitoring.

Releases of the little decapitating fly *Pseudacteon curvatus* and the larger decapitating fly *Pseudacteon obtusus* were made at the Monterey Country Club on May 15-16 and Nov. 6-7, 2014. Releases also were made at the La Quinta Medical Center site on Nov. 6-7, 2014. Both species were confirmed to have established in 2015 at Monterey. On May 8, 2017, ARS and CVMVCD personnel deployed 12 phorid fly traps (Fig. 3) at Monterey and 4 traps at La Quinta Medical Center to monitor their spread and determine establishment at each site, respectively.

A total of 47 flies of either *Pseudacteon obtusus* or *P. curvatus* were collected at Monterey. For the first time flies were collected on the south slope of the wash. The majority of the flies were trapped west of the Monterey Ave. overpass. Thirty-three of the 47 flies were *P. curvatus*, and interestingly 3 were males which are not typically collected.



Fig. 3. Phorid fly trap. Inverted pizza box stand coated with tangle-foot will catch phorids attracted to fire ants contained in petri dish by fluon (white film).

Flies were not collected at La Quinta Medical Center. This continues the pattern of the previous four surveys at this release site of no evidence of establishment (Table 2). Sampling will be discontinued at this location.

Table 2. Fire ant decapitating phorid flies collected at release sites in Coachella Valley, CA. Releases were predominately *Pseudacteon curvatus*, instead of *Pseudacteon obtusus*.

Site	Release dates	Survey dates					
		6/11/14	10/28-29/14	1/27/2015	5/13-14/2015	5/4-5/2016	5/8/2017
Monterey	5/16/14 11/6-7/14	0	<i>P. obtusus</i> : 2 male	<i>P. obtusus</i> : 1 female	<i>P. obtusus</i> : 19 male, 5 female <i>P. curvatus</i> : 1 female	<i>P. obtusus</i> : 4 male	<i>P. obtusus</i> : 11 m, 3 f <i>P. curvatus</i> : 30 female 3 male
Sonrisa	5/15/14	0	0	0	0	na**	na**
La Quinta Medical Center	11/6-7/14	na*	na	0	0	0	0

*na, not applicable; releases not made until Nov. 2014.

**monitoring discontinued due to consistent absence of phorids and low fire ant nest densities.

Table 3. Milestones for water-resistant bait development and monitoring fire ant biocontrol agents in the Coachella Valley.

Year / Quarter	Lab test water resist. baits	Outdoor testing baits FL	CA bait field trial: site selection	CA bait field trial: treat & sample	Biocontrol monitor
2016 Jan-Mar	Done				
2016 Apr-Jun	Done				Done
2016 Jul-Sep	Not needed	Done			
2016 Oct-Dec		Done			
2017 Jan-Mar			Done		
2017 Apr-Jun				Done	Done
2017 Jul-Sep				X	
2017 Oct-Dec					

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- Lofgren, C. S., and D. F. Williams. 1982. Avermectin B1a: Highly potent inhibitor of reproduction by queens of the red imported fire ant (Hymenoptera: Formicidae). *Journal of Economic Entomology* 75: 798-803.

Progress Report, June 2017: Attractive Toxic Bait Stations for Control of Mosquitoes in Underground Storm Drain Systems of the Coachella Valley

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Objectives:

The goals of this project are to investigate the efficacy of an attractive toxic sugar bait (ATSB) station to transmit and promote mosquito-propagated (autodissemination) transmission of chemical and biological control agents against mosquitoes inhabiting underground storm drain systems (USDS). We propose (i) to develop an ATSB design that effectively attracts adult *Culex quinquefasciatus* mosquitoes and exposes them to delayed-onset control agents via contact and/or ingestion under laboratory conditions, (ii) to assess lethal and sublethal effects on mosquito life stages in laboratory exposure assays with an ATSB-based entomopathogenic fungus, biocidal/reproductive sterilizing agent, or insect growth regulator (IGR), and (iii) to determine the efficacy of multiple ATSB-based control agents against mosquito adults and immature stages at developmental sites in release and recapture trials under laboratory and semi-field conditions.

ATSB Design Development

Materials used in laboratory and semi-field trials to assess the efficacy of ATSB-based control agents against adults and larvae of *Culex quinquefasciatus* are pictured in Figure 1. Three features were added to the previously discussed ATSB design (see Annual Report, December 2016) to enhance control agent efficacy: (1) water absorbing crystals saturated with 100 mL of pyriproxyfen (PPF; PivotTM10, Control Solutions Inc., Pasadena, TX) diluted to the maximum label-recommended concentration (12 mL concentrate per gallon of water), (2) a fabric lining (bath towel) covering the foam core to increase the surface area for retention of dry *Beauveria bassiana* powder (BG 22WP) and (3) an increase in the size and number of core access points in the plastic protective shell (12 windows total = 20% of total shell surface area). The measured and potential benefit of each modification and the results of deployment of this ATSB design in a semi-field trial are detailed in this report.

ATSB in the Laboratory: Autodissemination for Larval Control

Adult female mosquito cohorts ($n = 30$) exposed to PPF (max concentration) stored in ATSB wick/vials were linked to significant reductions in pupal emergence in water bowls with 4th instar larvae ($n = 30$) compared to water controls (Figure 2). Trials using host-seeking or gravid female resulted in similar reductions in pupal emergence. Water absorbing crystals spread along the base of each ATSB in storage 'moats' connecting wick/vials were included in a subsequent experiment. Fresh and 7 day-old control agents resulted in an additional overall average reduction in pupal emergence ($8 \pm 8\%$) compared to PPF-ATSBs lacking crystals ($30\% \pm 25\%$) and water ATSBs (crystals: absent $79 \pm 6\%$ vs. present $95 \pm 4\%$). PPF was generally less

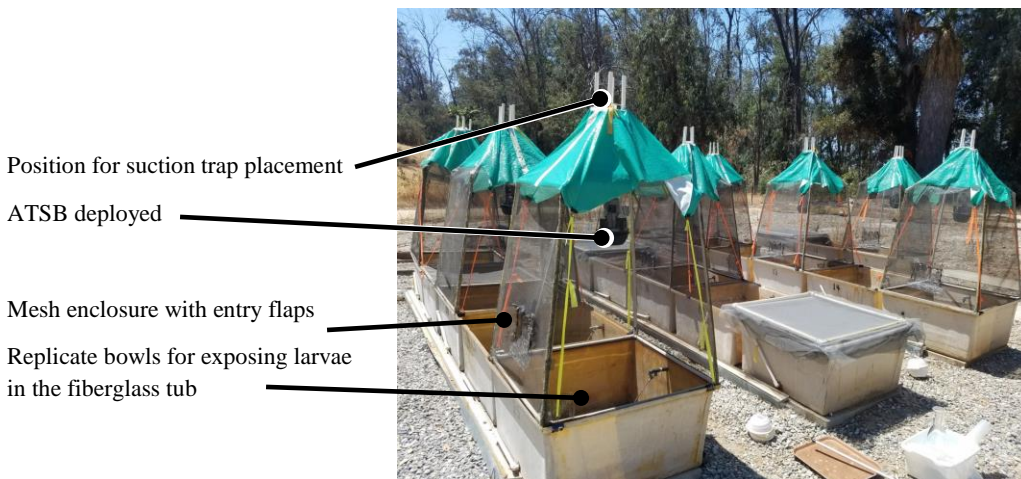
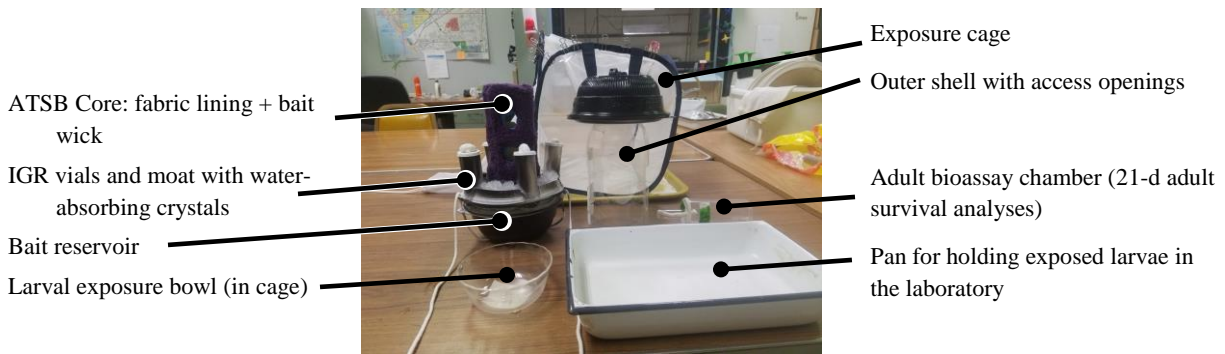


Figure 1. Components of the release and recapture experiments with mosquito adults and larvae exposed to ATSB-based control agents under laboratory (top) and semi-field (bottom) conditions.

effective over time and pupal emergence was greater in one-week-old ATSBs ($36 \pm 19\%$) compared to fresh ATSBs ($4 \pm 4\%$). Simultaneous exposure of adults to ATSB and bowls containing larvae appeared to be a key to successful PPF transmission, since removal of a PPF-ATSB one day before bowl placement resulted in no appreciable reduction in pupal emergence compared to controls.

ATSB in the Laboratory: Adult Mortality and Infection

In general, ATSB-deployed *Beauveria bassiana* (BG 22WP), PPF, and the combination of BG and PPF significantly increased adult female mosquito mortality compared to water controls (Figures 3 and 4). In the presence of PPF and BG, mortality (mean = $27 \pm 3\%$) and infection (mean = $7 \pm 3\%$) rates were similar among assays of host-seeking and gravid females. In the absence of PPF, BG-associated mortality for gravid females was similar to assays with PPF, even though sublethal *Beauveria* infection was evident in appreciable numbers of gravid adults killed

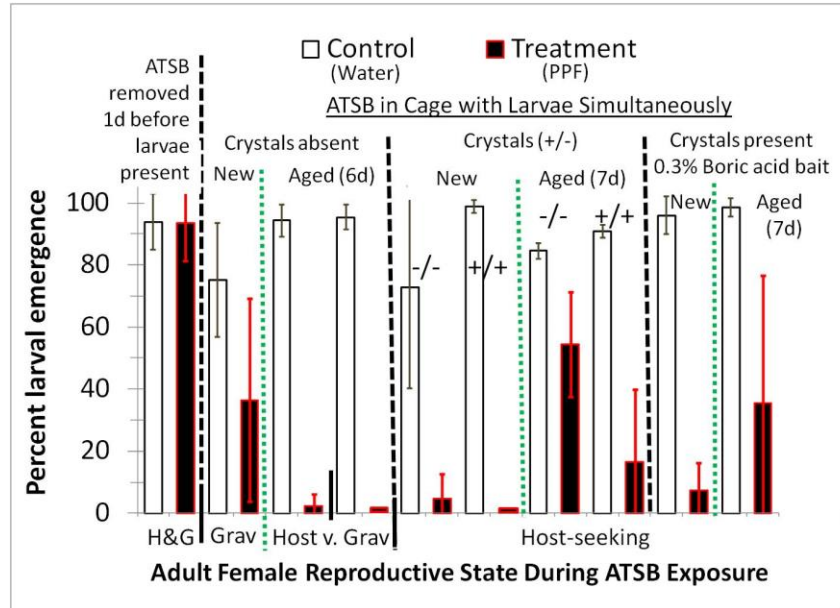


Figure 2. Mosquito larval control efficacy of absorbing crystals in an ATSB design with PPF or water in laboratory cage exposures of adults.

after the 21-day assay time period. In contrast, host-seeking females in the absence of PPF exhibited the highest BG-related mortality and infection rates (means $\geq 60\%$) among associated assays. Experiments at first suggested water absorbing crystals did not alter adult mortality or infection linked to PPF in wicks/vials (Figure 3); nevertheless, the magnitude of adult mortality more than doubled in a subsequent deployment of PPF crystals with host-seeking females (Figure 4). This rise in crystal potency may have been due to changes in experimental methods that increased total numbers and included ‘super-saturated’ crystals with visible PPF excess for an additional ~15 g of crystal weight per ATSB (~115 g instead of the initial 100 g).

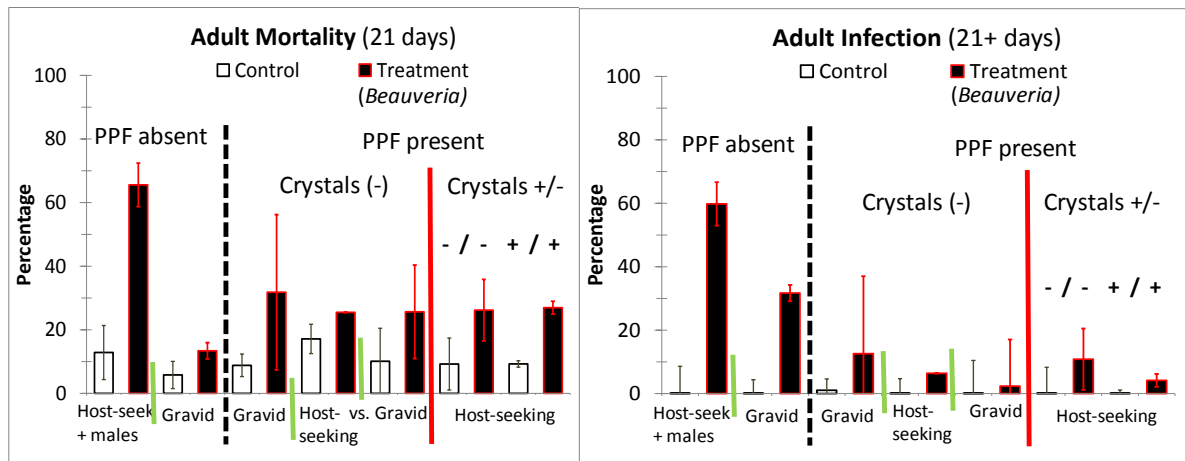


Figure 3. Mean (± SD) percentages of *Culex quinquefasciatus* (left) mortality and (right) fungal infection in laboratory bioassays.

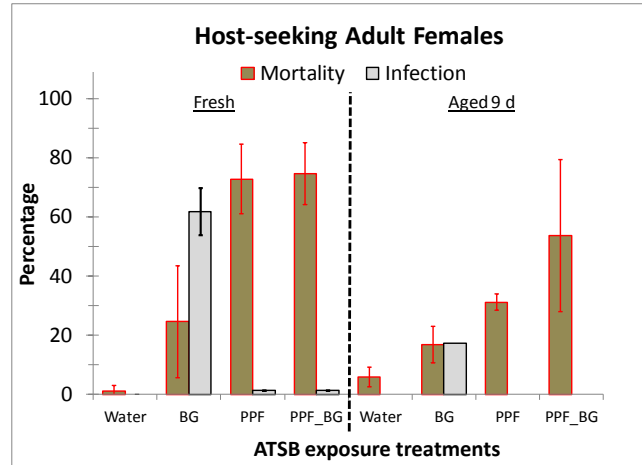


Figure 4. Laboratory comparison of mortality and infection rates (mean \pm SD) in host-seeking *Culex quinquefasciatus* exposed to four treatments: (1) water, (2) *Beauveria bassiana* (BG), (3) pyriproxyfen (PPF), and (4) their combination (PPF_BG). Each ATSB design included wick/vials, moats with dense packages of crystals (~115 mL PPF), fabric-lined cores, and protective shells with 12 access windows.

Semi-Field Trial at UC Riverside: Larval and Adult Efficacy

Two semi-field experiments were performed in pyramidal mesh enclosures at the ‘Midgeville’ site on the UC Riverside campus. The efficacy of PPF and *Beauveria bassiana* using the ATSB platform was assessed against *Culex quinquefasciatus* larvae (Figure 5) and adults (Table 1). The first trial included a 10-day release and recapture experiment with gravid adult females ($n = 50$) and adult males ($n = 50$) in November 2016 (See Annual Report of 2016). Each enclosure contained an ATSB treated with dry BG powder and PPF wick/vials without crystals hung 1 m above a single plastic bowl with 4th instar larvae ($n = 30$). The enclosures

PPF Autodissemination in Midgeville Enclosures

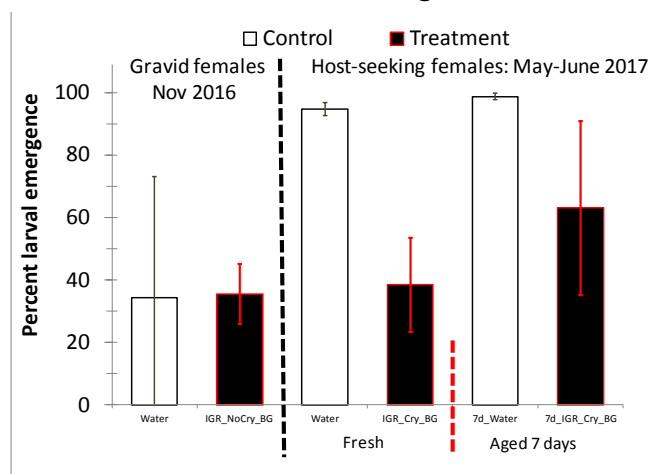


Figure 5. Emergence rates of *Culex quinquefasciatus* larvae after placement in mesh enclosures with ATSB and adult mosquito treatments.

were placed on a cement slab. Dead adults were collected daily for 10 days, larvae were removed after day 4, and live adults were collected on days 4-6 with CDC suction traps run overnight from the top of enclosures. The PPF/BG treated ATSB enclosures generated slight increases in the average mortality of immatures (Figure 5) and in the average mortality and infection rates of adults (Table 1) compared to controls; however, the significance of these differences was low. Low recovery of adults and significant larval mortality in controls were problematic in the first trial.

The second trial included two 5-day release/recapture experiments over a two week period (release #1: freshly deployed and release #2: aged 7 days) in May and June 2017 and differed from the previous trial in a number of ways. Firstly, the number of females per enclosure was increased ($n = 75$) and host-seeking females were used instead of gravid females. Males were excluded since they were harder to recapture and are less likely to survive and transmit IGR to larval developmental sites compared to females. Secondly, larvae were deployed over 2 days at a higher total number per enclosure ($n = 75$) under acceptable density levels (1 larva per 10 mL) within three glass bowls spaced equidistantly inside a fiberglass tub. The larvae were provided a daily feeding regime of 0.5 mL laboratory diet plus replacement of water lost to evaporation. Thirdly, mesh enclosures were modified with access flaps and elevated on fiberglass tubs to facilitate the release and recapture of adults and larvae (Figure 1) and to reduce losses of adult mosquitoes to foraging ants. Lastly, each ATSB design was upgraded with crystals to promote PPF transfer and cloth covered cores with a more permeable protective shell to promote *Beauveria* powder transmission.

Midgeville Field Site: Mesh Enclosures with Hanging ATSB and Larval rearing bowls			Field release, exposure, recapture + Post-field Laboratory			
			Percent recaptured (mean \pm SD)	Proportion Alive (mean \pm SD)	Percent Infection (mean \pm SE)	Percent Lab Mortality (mean _{21d} \pm SE)
Nov 2016 (10 d) ATSB-BG/IGR (NO Crystals)	Gravid females (n = 50)	Water	56 \pm 10	0.65 \pm 0.14	0	72 \pm 2
		BG/IGR	50 \pm 16	0.50 \pm 0.16	5.5 \pm 3.8	81 \pm 10
	Males (n = 50)	Water	33 \pm 2	0.50 \pm 0.06	1.5 \pm 1.5	94 \pm 6
		BG/IGR	47 \pm 14	0.36 \pm 0.05	4.7 \pm 2.8	100
May 2017 (5 d) ATSB-BG/IGR (YES Crystals)	Host-seeking females (n = 75)	Water	73 \pm 8	1	3.7 \pm 2.2	31 \pm 9
		BG/IGR	26 \pm 14	0.21 \pm .09	20 \pm 3.8	100 _(8d)
		7d-Water	47 \pm 11	0.92 \pm 0.04	0	65 \pm 11
		7d-BG/IGR	40 \pm 23	0.19 \pm 0.17	2.7 \pm 2.0	87 \pm 8

Table 1. *Culex quinquefasciatus* adult trends in release and recapture trials with ATSB-deployed PPF and *Beauveria bassiana* under semi-field conditions at UC Riverside.

Results of the second trial indicated larval mortality (Figure 5) and adult mortality and infection (Table 1) were clearly higher in enclosures with an ATSB station compared to control enclosures, especially in exposures to freshly deployed ATSBs. In the PPF/BG enclosures

(average of fresh and 7-day old) about half of all larvae failed to emerge as adults, dead specimens comprised about four-fifths of all the adults recaptured, and the *Beauveria* infection rate (fresh ATSB) peaked at 20%. In comparison, within control enclosures nearly all larvae successfully completed their development and > 90% of adults recaptured were alive. Interestingly, a low level of *Beauveria* infection was detected in fresh control enclosures (no infection evident in laboratory controls) and may have been a result of movement of fungal spores from treated enclosures (e.g. wind-aided).

Discussion

Adult mortality from PPF alone was surprising given that previous studies in the peer-reviewed literature reported PPF was not an effective contact-based adulticide; however, PPF ingestion has been linked to adult mortality and likely occurred during feeding on attractive bait contaminated with PPF (most likely leaked from crystals) and/or drinking PPF solutions directly off wick/crystal surfaces. Assays with PPF-based baits would be warranted to understand this mechanism for optimal adult control. Current assays are exploring a mesh bag modification that holds four times the numbers of crystals (400 g vs. 100 g) and allows a greater contact surface area with resting/foraging mosquitoes compared to moats. This modification is intended to enhance PPF potency and increase effective control for at least 2 weeks or more.

Beauveria bassiana, and not PPF, was originally intended to be the primary adulticide and, given the reduction in infection in the presence of PPF, the importance of the fungus to the efficacy of the ATSB design may be questioned. *Beauveria* efficacy was not appreciably impacted by using less concentrated PPF at $\frac{1}{4}$ and $\frac{1}{2}$ the maximum label rate, but reducing the concentration of PPF reduced the efficacy of larval mosquito control (data not shown). Nevertheless, the combination of *Beauveria* and PPF at the maximum label application rate may enhance adult female mortality compared to PPF alone, especially as the ATSB ages (Figure 4), and the spread of *Beauveria* infection from treatment to control enclosures suggests wind-driven spread of the fungus could support the mosquito-driven transmission zone of a PPF-ATSB. Additional trials are needed to determine if *Beauveria* is a necessary component of the ATSB designs going forward.

Aim 1A) Identify trapping sites in the Coachella Valley Mosquito and Vector Control District (CVMVCD) that are most likely to experience arbovirus activity (i.e. 'hotspots') from May through October, 2017.

1A Progress: Trapping sites in Coachella Valley likely to show arbovirus activity in May to October 2017 were identified based on 2017 year-to-date WNV or SLEV positive chickens or mosquito pools, as well as locations with WNV or SLEV positive dead birds, chickens, or mosquitoes in 2016. SmartTraps will be placed at sites with highest activity, defined as WNV or SLEV detections in both birds and mosquitoes.

Aim 1B) Place SmartTrap devices at sites identified in Aim 1A and compare arbovirus detection (fraction of viral RNA positive baits/total baits deployed) to conventional surveillance methods (minimum mosquito infection rates).

1B Progress: The SmartTrap prototypes unfortunately developed a mechanical problem in laboratory testing that resulted in less sensitive RT-LAMP detection of arboviral RNA and a slower detection time than previous prototypes. Our engineer colleagues at Sandia think that these issues stem from reagent loss or reduced enzyme activity as the reagents dry or a thermal problem causing the assay to fail to reach the proper temperature during the incubation. They are currently troubleshooting both possibilities and plan to deliver prototypes to UC Davis for laboratory testing in July 2017.

Aim 2A) Screen floral odors as potential attractants for adult mosquitoes of both sexes in field trials.

2A Progress:

Floral Sampling and Chamber Construction: Flowers from *Tamarix spp* and *Pluchea sericea* (arrowweed) were collected from along Lincoln Street south of 70th Avenue in Riverside. Flowers of *Lantana montevidensis* and a *Lantana* hybrid were collected from the landscape at the CVMVCD. Flowers of *Plumeria spp* were collected from a landscape in La Quinta. Choice chambers (Figure 1) were constructed to test compounds identified by gas chromatography. The chambers consist of 2 inch ID plexiglass tubes with 12 inch arms connected to a 6 inch entry tube. Each end is fitted with a styrene box. The entry box has a 12V 40mm cooling computer case fan that draws air through the chamber from both sides providing a chemical gradient. The arms terminate with a screen cone to hold mosquitoes in the terminal box. A hose barb is fitted on the terminal boxes to provide hoses for treated and untreated terminals. Chambers are placed in a fume hood to prevent contamination of the untreated side by escaped chemicals while the untreated hose draws clean air from outside the hood.

Attractant Trials: Two initial tests of the first chamber using a high dose of phenylacetaldehyde (300 µl) placed on filter paper in a cup at the intake of the right chamber resulted in negative attraction based upon 2 replicates. These results indicate that the testing protocol should start at low doses of potential attractant. Three more chambers were constructed. Preliminary testing of all 4 chambers is ongoing to establish an estimate of mosquito distribution without treatment. Insufficient replicates have been done to draw conclusions, but the initial chamber appears to have residual phenylacetaldehyde in the treated side, where in 3 replicates without treatment of all 4 chambers, 3.6 times as many mosquitoes were captured on the previously treated side compared to nearly equal distribution in the 3 other chambers.

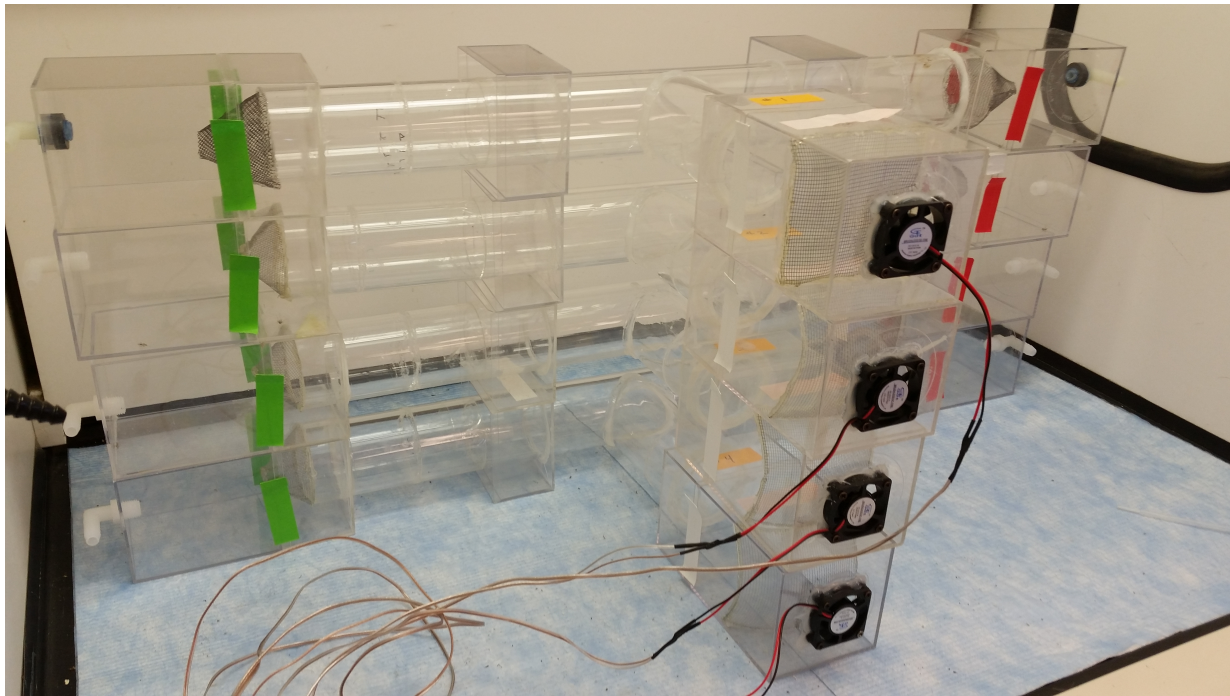


Figure 1. Stacked choice chambers used to determine attractiveness of floral compounds to mosquitoes.

Aim 2B) Conduct preliminary analyses of crude floral odors that show attractiveness to mosquitoes in Aim 2A.

Aim 2B Progress:

Collection of Floral Volatiles. Collections of volatiles from the headspace of flowers were carried out on five plant species. These consisted of *Pluchea sericea* (arrowweed), a *Plumeria* species, a *Tamarisk* species, and two species of *Lantana*. The collections were carried out in one-pint glass mason jars with air entering through charcoal filters and being removed via vacuum through a collector with roughly 50 mg of 50-200 mesh activated charcoal. The airflow passing through the jar was set to 500 mL/min. In all cases, the jars were almost completely filled with snipped floral material of the respective plant species, with the majority of the vegetative tissue removed. Collections were run for 24 hours, after which the collectors were eluted with 500 μ L of dichloromethane into 1/2 dram glass vials and stored in a freezer until analyzed.

Analysis of Floral Volatiles. The extracts of floral volatiles were analyzed on an Agilent 7820A gas chromatograph (GC) interfaced with an Agilent 5977E mass selective detector (MS). The GC was equipped with a HP-5MS column, and the temperature program consisted of a starting temperature of 40°C with an initial ramp of 4°C/minute to 160°C followed by a second ramp of 20°C/minute to 280°C. All samples were first run using split injections, and extracts that appeared to have lower concentrations of compounds were then analyzed again using splitless injection to get better sensitivity. A representative gas chromatogram of floral volatiles from a *Lantana* hybrid is shown in **Figure 2**.

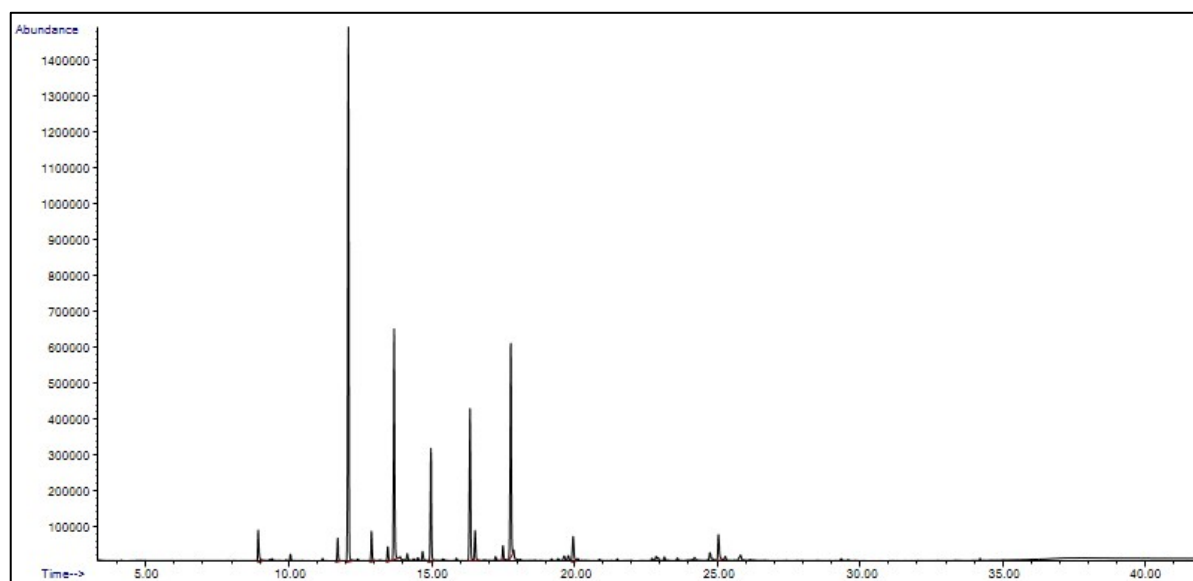


Figure 2: Representative gas chromatogram of *Lantana* hybrid floral volatiles. Each peak corresponds to a different odor compound. Gas chromatogram are derived to identify compounds attractive to mosquitoes.

Compounds in each extract were tentatively identified by matching their spectra to those in the National Institute of Standards mass spectral database (**Table 1**). Where possible, identifications were then confirmed by matching the mass spectra and GC retention times to those of authentic standards. Work is continuing to identify the remaining compounds by interpretation of their mass spectra.

A sample of plumeria-scented “Fine Fragrance Mist” (Bath and Body Works) that was used on sugar baits deployed in the summers of 2015 and 2016 in Sacramento and Yolo Counties was also analyzed by collection of headspace volatiles with a solid phase microextraction device, followed by thermal desorption of the trapped volatiles directly into the GC-MS. However, approximately half of the compounds in this product were tentatively identified as being unnatural, made-made fragrance compounds, and so these analyses have not been pursued further at this time.

Flower species	# of compounds found in volatiles extracts	# tentatively identified through database matches
<i>Lantana</i> hybrid	13	11
<i>Lantana montevidensis</i>	53	43
<i>Tamarisk</i>	25	21
<i>Arrowweed</i>	11	9
<i>Plumeria</i>	21	17

Table 1: Compounds in volatile extracts from plants collected in Riverside County, California.

FINANCE

The financial reports show the balance sheet, receipts, and the revenue and expenditure reports for the month ending June 30, 2017. The revenue and expenditure report shows that the operating budget expenditure for July 1, 2016 to June 30, 2017 is \$8,954,208; total revenue is \$9,100,508 resulting in excess revenue over (under) expenditure for the year to June 30, 2017 of \$146,300.

THREE YEAR FINANCIALS

	6/30/2017	6/30/2016	6/30/2015
Total Revenue	9,100,508	8,179,130	7,795,391
Expenses			
Payroll	6,551,745	6,360,426	5,906,598
Administrative Expense	612,346	577,599	674,439
Utility	113,905	103,815	104,821
Operating Expense	1,676,212	1,255,332	1,241,238
Total Expenses	8,954,208	8,297,172	7,927,096
Profit (Loss)	146,300	(118,042)	(131,705)
Capital Expenses	50,325	80,838	159,983

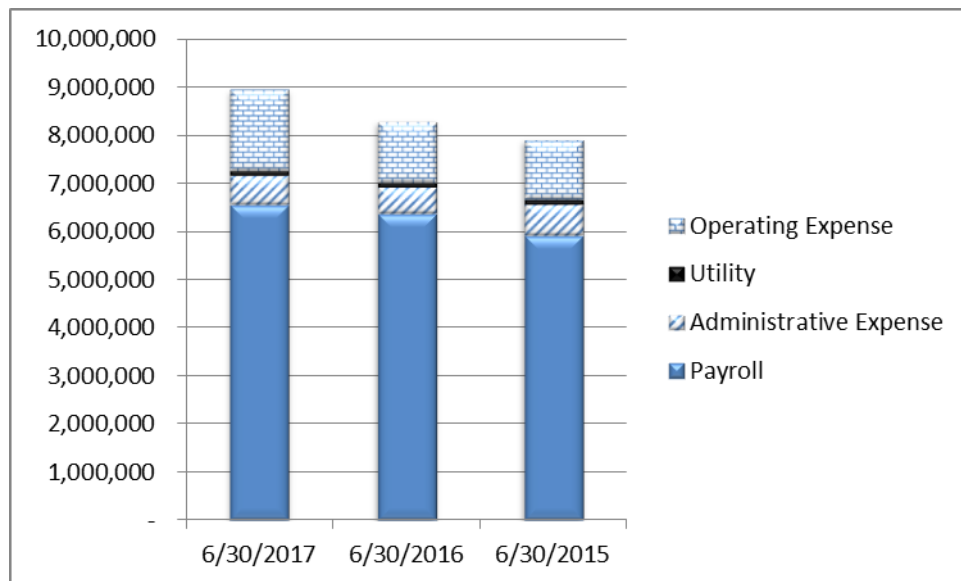


Figure 1 Same Period Three Year Expenditure

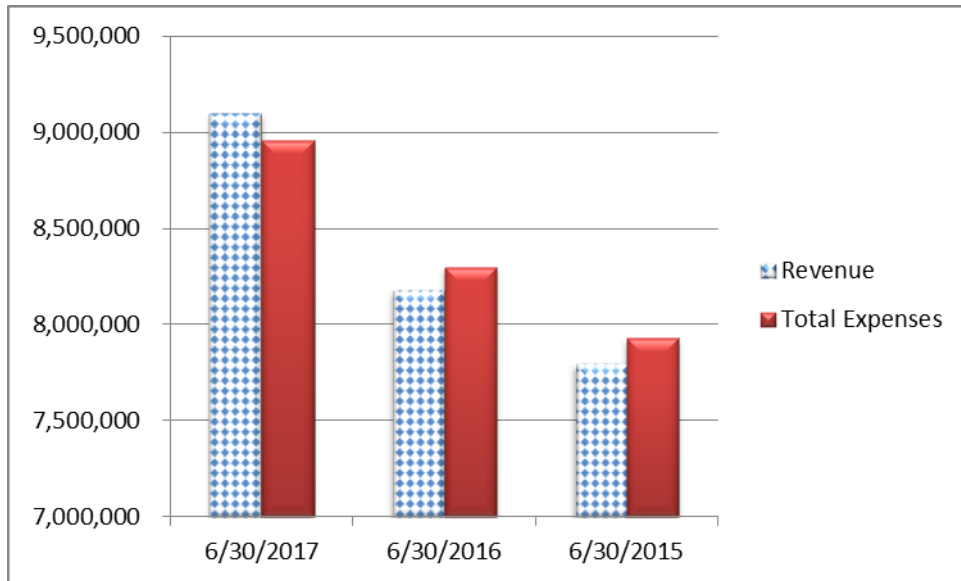


Figure 2 Same Period Three Year Revenue & Expenditure

THREE YEAR CASH BALANCE

CASH BALANCES	6/30/2017	6/30/2016	6/30/2015
Investment Balance	12,749,352	12,808,685	13,253,609
Checking Accounting	11,967	5,088	5,965
Payroll Account	79,343	232,951	226,222
Building Account			22,236
Petty Cash	2,000	2,000	2,000
TOTAL CASH BALANCES	12,842,662	13,048,724	13,510,032

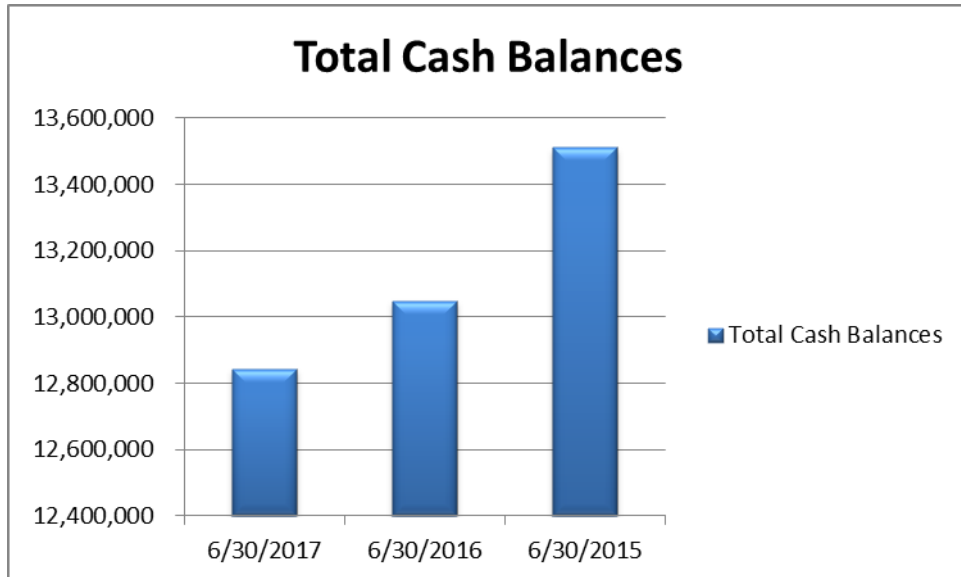


Figure 3 Same Period Three Year Cash Balances

DISTRICT INVESTMENT PORTFOLIO 6/30/2017

The District's investment fund balance for the period ending June 30, 2017 is \$12,749,293 the portfolio composition is shown in the pie chart. Local Agency Investment Fund (LAIF) accounts for 48% of the District's investments; the Riverside County Pooled Investment Fund is 46% of the total.

The LAIF yield for the end of June was 0.97% and the Riverside County Pooled Investment Fund was 1.03%; this gives an overall weighted yield for District investments of 0.99%.

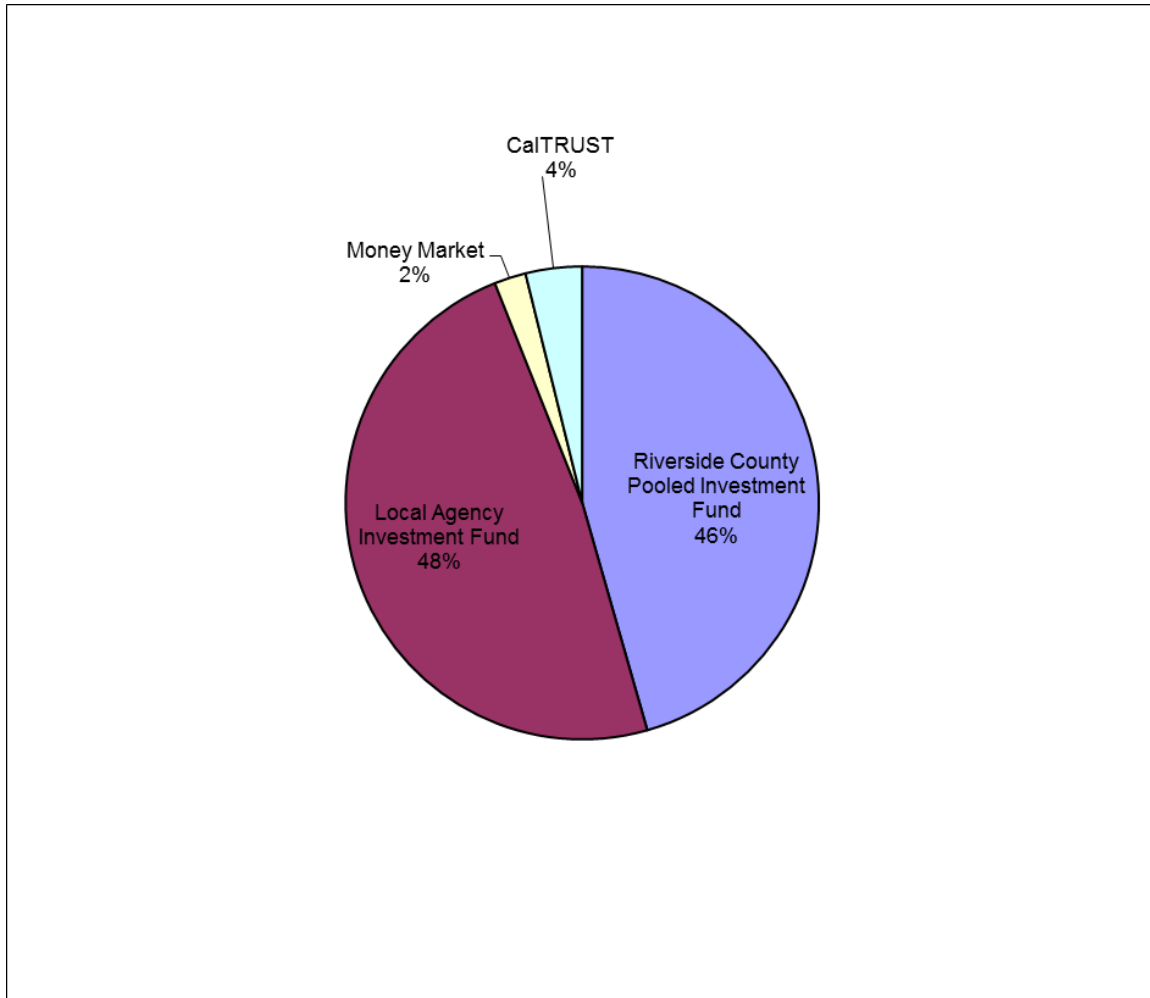


Figure 4 Investment Portfolio 6-30-17

	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	0.92	0.99						

Figure 5 District Investments Weighted Yield

HUMAN RESOURCES

RECRUITMENT

Recruitment is continuing for the position of Operations Manager and Seasonal Vector Control Operator.

PROMOTION

Salvador Becerra, Vector Control Technician I, has been promoted to the position of Vector Control Technician II effective July 3, 2017. Sal has worked at the District for nine years.

TRAINING

Administrative Clerk *Sarah Crenshaw* completed webinar training presented by the American Society of Administrative Professionals on the Proactive Administrative Professional on June 8, 2017. Laboratory Technician *Charles Rodriguez* attended Basic Electricity for the Non-Electrician training presented by TPC Trainco June 26-27, 2017.

OPEN ENROLLMENT

Open Enrollment for the District's CalPERS health plans will take place *September 11, 2017* and continue through *October 6, 2017*. Open enrollment is an opportunity to make changes to current benefit plans. Changes become effective January 1, 2018.

During Open Enrollment, employees can:

- Add dependents to their health coverage
- Change their CalPERS health plan
- Delete dependents from their health coverage
- Discontinue their existing CalPERS health coverage
- Enroll in a CalPERS health plan if they do not currently have CalPERS health coverage

At the Board of Trustees meeting on June 14, 2011, the Board approved Resolution 2011-12 which gave Trustees the option to elect coverage for health and welfare benefits offered to District employees, provided that the covered Trustees pay **100%** of the premiums, dues or other charges, and the applicable policies permit such coverage.

PUBLIC OUTREACH DEPARTMENT

May and June 2017 were active for both West Nile virus (WNV) in the Coachella Valley and the expansion of *Aedes aegypti*, which resulted in a number of outreach activities to inform Valley residents of the threats.

MEDIA: We sent out **three news releases** in May and June, about WNV-positive samples from Thousand Palms to the east Valley. We received coverage in the **Desert Sun**, **El Informador**, **KESQ TV**, **KMIR TV**, and **KNEWS Radio**. Public Information Manager *Jill Oviatt* and Laboratory Manager *Jennifer Henke* did television interviews. *Jill* did a 20-minute live, in-studio radio interview. Our spring advertising campaign continued through the end of June in selected newspapers, radio stations, television stations, and movie theaters.

OUTREACH EVENTS: To help residents learn how to rid their neighborhoods of invasive *Aedes*, we held a “Fight the Bite Block Party” June 17 in Cathedral City, cosponsored by the City of Cathedral City. Close to 100 people attended from 6:30 to 8:30pm in Ocotillo Park on the hottest day of the year to take part in a scavenger hunt for immature and adult mosquitoes and standing water in two backyard displays. Participants received a prize, a free ice cream, and educational materials. *Jill Oviatt*, Public Outreach Coordinator *Edgar Castro*, Administrative Clerk *Diana Reyes*, and Vector Control Technician *Sal Becerra* worked the event and four Cathedral City High School students volunteered their time to help and receive community service hours. Thanks to Board Trustee *Shelly Kaplan* for attending the event and practicum student *David Jones* for helping out. We also had a booth at the “Coachella Summer Kick off.” *Jill Oviatt* gave a presentation at La Quinta Museum as part of their “Trending Topics” series and General Manager *Jeremy Wittie* presented at the Cathedral City Rotary Club and Indian Wells City Council. Thanks to Board Trustee *Clive Weightman* for assisting with the presentation.



SCHOOLS: About 80 Cathedral City Elementary School students traveled took a field trip to the District and staff from every department showed them how we fight vectors. Coachella Valley High School student Osiel Salinas wrapped up his 8-week job shadow program. Biologist *Christopher Cavanaugh* and Public Outreach Coordinator *Edgar Castro* set up a booth at the **Environmental and Sustainability Expo at the CSUSB Palm Desert Campus** interacting with about 300 middle and high school students.

CERTIFIED VECTOR CONTROL TECHNICIAN EXAM: Edgar Castro and Vector Ecologist Kim Hung successfully passed their exams and are now both fully certified vector control technicians by the California Department of Public Health.

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 6/30/2017) ARBOVIRUS SURVEILLANCE TESTING – CALIFORNIA

	WNV – Positive 2017 YTD	WNV - Positive 2016 YTD	WNV – 5 year Average	WEE 2017 YTD	SLE 2017 YTD
Positive Counties	17	23	23	0	2
Human Cases	3	0	1	0	0
Positive Dead Birds / # Tested	39/815	372/1,115	222	0	0
Positive Mosquito Pools / # Tested	412/16,451	433/16,680	263	0	4/14,317

2017	Chikungunya	Dengue	Zika
Mosquito Pools YTD (positive/total tested)	0/486	0/486	0/486

ARBOVIRUS SURVEILLANCE TESTING – COACHELLA VALLEY

		MAY/JUNE	2017 YTD	2016 YTD	5 YEAR AVERAGE YTD
HUMANS		0	0	0	0
DEAD BIRDS		0	0	0	0
MOSQUITO POOLS	WNV	47	48	8	17
	SLE	0	0	0	0
	# TESTED	1,169	2,750	2,513	1,579

ENDEMIC MOSQUITO SURVEILLANCE

CO₂ TRAPS

During the normal mosquito season (March through mid-November) the District Laboratory staff maintains 102 CO₂ (carbon dioxide) traps throughout 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.

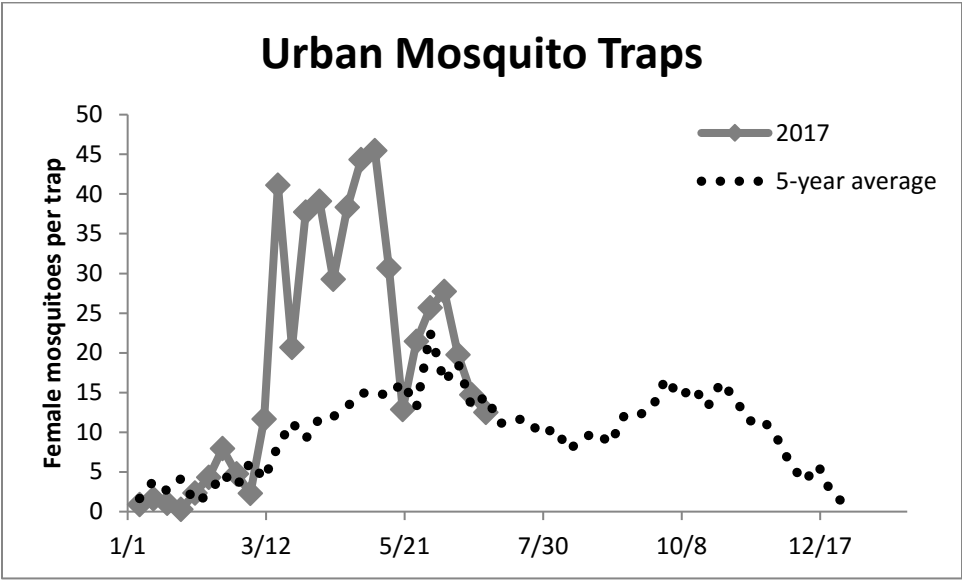


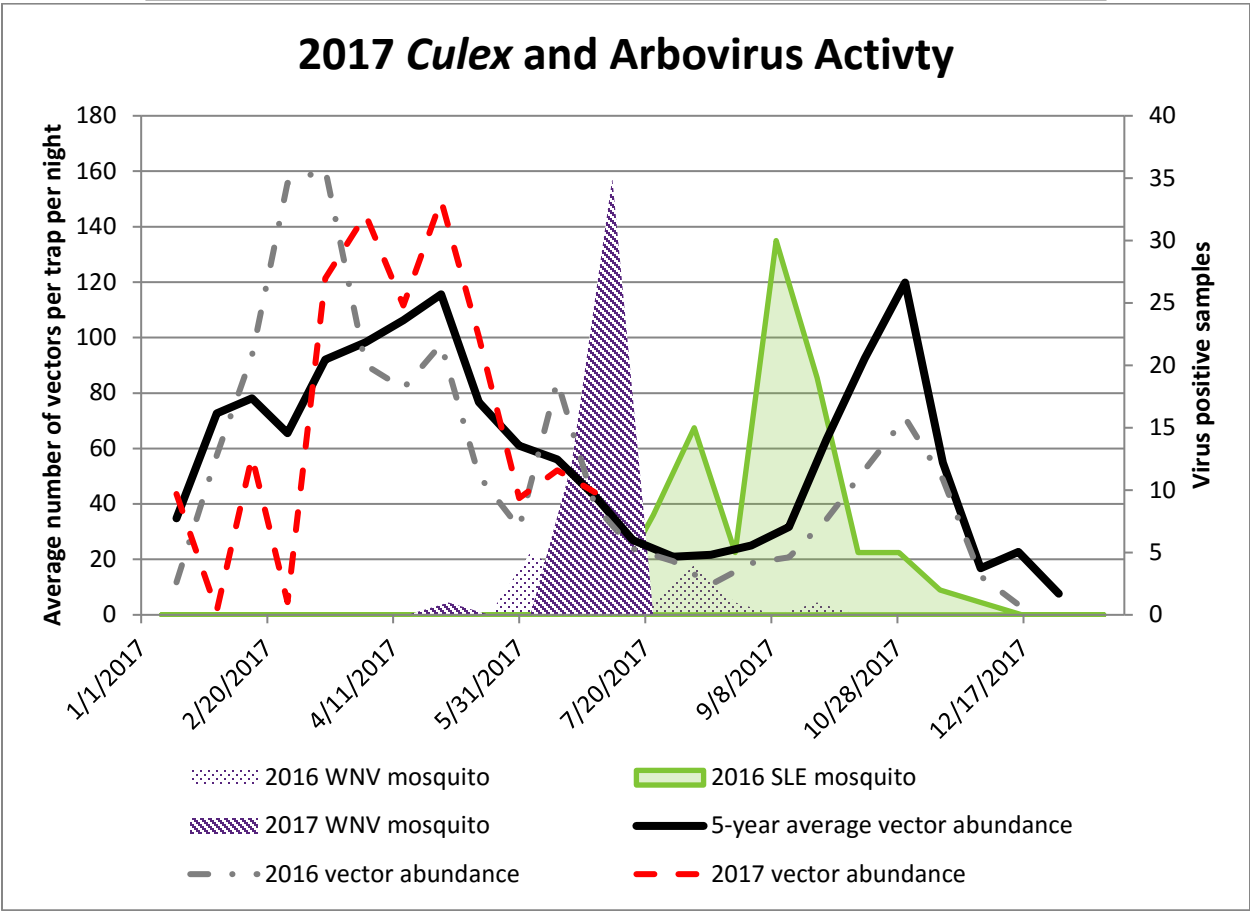
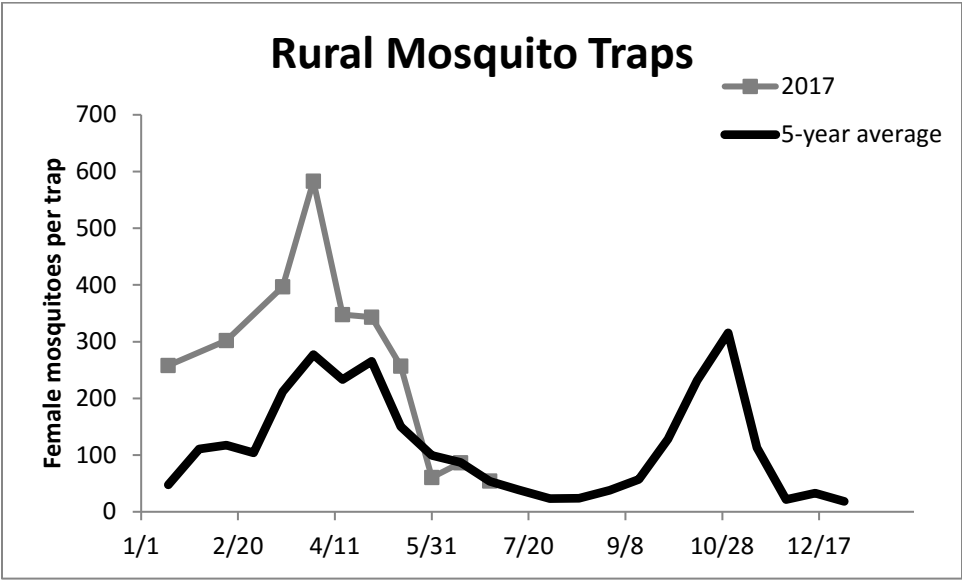
Gravid Traps

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 5 locations in Palm Springs. In 2016, eggs were most abundant in November.

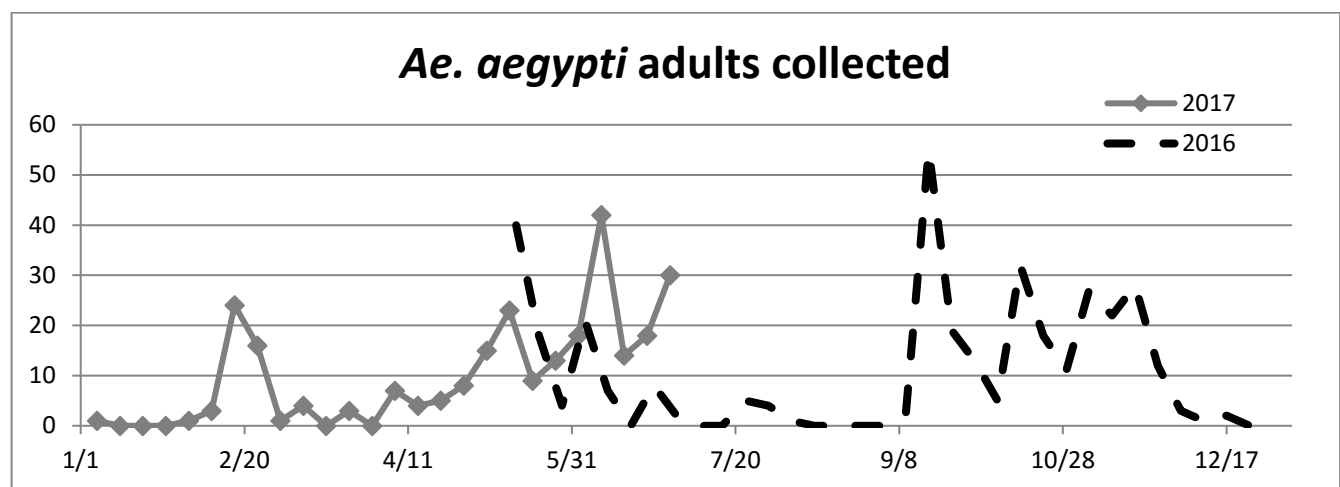


Left: BG Sentinel trap. Right: Autocidal Gravid Trap (AGO).

In addition to regular *Aedes aegypti* surveillance areas, BG traps have been placed in areas throughout the valley 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.

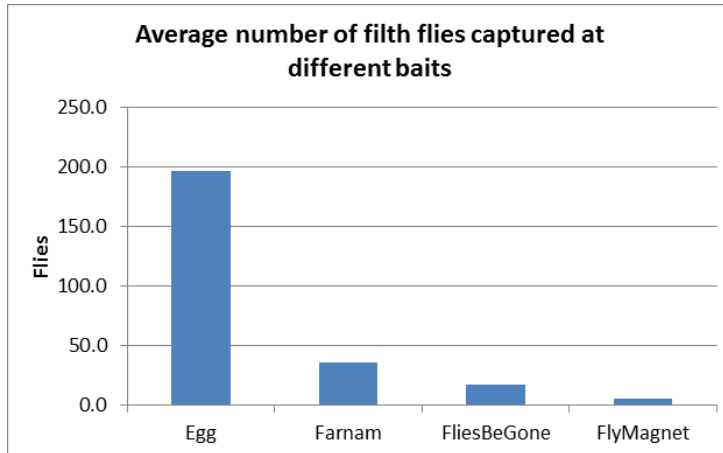
As of June 26, 159 *Aedes aegypti* adults have been collected. Adults have been collected in Coachella where the aerial larvicides were conducted on 3 instances in AGO traps in April and May. We believe that that AGO traps are more sensitive in areas with low populations based on work conducted at Consolidated Mosquito Abatement District.

Laboratory staff have been re-inspecting properties where *Aedes aegypti* have been found. In 2017, 24 properties have been found to have eggs or larvae collected on the property. Of these, 16 have been re-inspected and 14 of those had no additional mosquitoes 1 week after treatment. Residents at the other two properties have discussed potential corrective measures with the Biologist, and an inspection is scheduled for the near future.



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 was 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 (left) showed that the aged egg bait worked better than the commercial baits, so we will continue to use that for our surveillance and trapping.

PRODUCT EFFICACY

RESISTANCE ASSAYS. District staff conducted bottle bioassays using adult mosquitoes from throughout the valley to examine which adult control products would be most effective. Mortality between field populations and a known susceptible population are compared at the same amount of time of exposure to a product. When reduced mortality is seen in the field population, resistance is considered to be likely. *Culex tarsalis* mosquitoes were collected from the rural areas. While Aqua-Reslin (permethrin and piperonyl butoxide) and Scourge 18 + 54 (resmethrin and piperonyl butoxide) had greater than 90% mortality of adults when compared to susceptible mosquitoes, Duet (prallethrin, sumithrin, and piperonyl butoxide) had 82-98% mortality. The mortality was lowest in the population from the west shore area. The three products were also tested against *Culex quinquefasciatus* mosquitoes from La Quinta, Cathedral City, and Indio. All three mosquito populations showed some to near complete resistance to the three mosquito products. Bottle bioassays are known to detect resistance at very low doses. These control products may still work in the field, but the results show a trend towards resistant mosquitoes, building upon previous assays conducted in the lab. Additional mosquito products should be considered for future applications.



AERIAL LARVICIDE APPLICATIONS. District staff evaluated an aerial application of Altosid Liquid (active ingredient: methoprene) for the control of *Aedes aegypti* mosquitoes. The aerial application was conducted at the airfield to determine if enough product reached the ground to control mosquitoes. Plastic cups were placed approximately every 50 feet in the middle of a set of lines parallel to and perpendicular to the flight path. Cups were returned to the lab, where water and larval mosquitoes were added. Mortality was seen in cups downwind of the application.

NUVAN PROSTRIPS+ EFFICACY. Nuvan Prostrips+ is a solid formulation with an active ingredient of dichlorvos (organophosphate) that uses controlled release technology to slowly diffuse a deep penetrating vapor in enclosed spaces. The clean odorless vapor is evenly distributed throughout an enclosed treatment area, killing visible and hidden insects on contact. We are testing the efficacy in 5 urban catch basins where water accumulates and mosquitoes may breed. The product was placed into a plastic hanger (right) and suspended about 10 inches



above the water surface. Between May 3 and June 15, 2017, an average of 1.7 adult mosquitoes per basin were trapped in comparison to an average of 5.3 mosquitoes trapped in untreated control basins. The sites will continue to be evaluated until product failure.

BIOLOGICAL CONTROL

MOSQUITOFISH (*Gambusia affinis*)

As of June 23, 2017, the District produced 95,600 mosquitofish which is more than what was produced in the first six months of 2016. About 2,900 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

Control Overview

The Operations Department in the month of May completed:

- 3,987 mosquito inspections (May 2016 = 3,314 inspections)
- 2,523 control applications on a total of 456 acres (May 2016 = 1,389 applications)

In the month of June through 6/28 operations personnel completed:

- 2,992 mosquito inspections (June 2016 = 2,617 inspections)
- 1,551 control treatments on 418 acres (June 2016 = 1,389 applications)

The reduction in the total number of inspections and treatments in June compared to May 2017, is due to a shift of available Field Technicians from Invasive *Aedes* residential inspections and treatments to West Nile Virus surveillance in June as well as June having 3 working days less than May this year due to the timing of this report. May and June of 2017 were up in inspections and treatments compared to the same dates in 2016.

The RIFA program performed 262 RIFA control applications on 2,649 acres for the month of May and 207 applications on 3,297 acres in June. The increase in acreage in June is primarily due to an increase in the size of the individual large property treatments in Country Clubs and Golf Courses.

A total of 309 resident Service Requests were completed in the month of May and 281 requests were processed in June through 6/28. The decrease in Service Request activity in June when compared to May was primarily due to a reduction in the number of RIFA residential complaints received in June so far. Overall 2017 Service Requests are slightly down in all categories in May and June compared to 2016.

Arbovirus Response

In the month of June 41 WNV positive mosquito pools have been detected at 14 locations. The majority of positive mosquitoes were found in the Duck Club/Salton Sea shoreline area and in and around the town of Mecca. Field Technicians were dispatched to inspect all breeding sites in the areas as well as barrier treatments and two aerial adulticide operations in the Duck Club/Salton Sea shoreline area, and 6 nights of ground based ULV operations in the Mecca area were done to respond to the virus activity. No SLE virus has been detected so far in 2017.

Invasive *Aedes aegypti* Detections and Control

The number of *Aedes aegypti* mosquito adults, pupae, larvae and egg detections and the additional property added to the detection areas is shown in the table below, (June data through 6/28/2017).

CITY	# of Aedes Detections- May	# of Aedes Detections- June	Net # of Parcels Involved - May	Net # of Parcels Involved- June
Coachella (2 locations)	6	2	290	52
Cathedral City	7	23	275	297
Indio	5	15	221	284
Palm Springs	33	31	942	670

During the month of May, 993 Invasive Aedes inspections were performed in the cities of Coachella, Indio, Cathedral City and Palm Springs and 1,192 inspections were done in June. Field Technicians performed 229 barrier treatments and 297 residential fogging applications during May and 251 barrier treatments and 274 fogging treatments through 6/28 /2017. The number of Aedes inspections and treatments, by city, for the month of May and June is presented in the table below.

CITY	# of Inspections- May	# of Inspections- June	# of Treatments- May	# of Treatments- June
Coachella (2 locations)	241	65	100	33
Cathedral City	111	124	76	64
Indio	176	77	116	61
Palm Springs	465	926	234	367

Operations

5/1/2017 to 5/31/2017 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*



125 Agriculture

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
5	Bs/Bti	10.00
33	Bti	29.60
4	Methoprene	2.17
26	Spinosad	28.03
Applications	FORMULATION: LIQUID	Acreage
27	Bti	5.44
1	Methoprene	0.02
29	Spinosad	13.00



11 Duck Club

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
2	Bs/Bti	0.51
3	Bti	3.82
2	Methoprene	0.21
2	Spinosad	1.00
Applications	FORMULATION: LIQUID	Acreage
1	Methoprene	0.25
1	Spinosad	0.40



755 Invasive Aedes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
228	Bti	1.45
1	Spinosad	0.00
Applications	FORMULATION: LIQUID	Acreage
229	Barrier	1.18
297	Fogging	72.79



1,611 Residential

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
18	Bs	0.03
26	Bs/Bti	1.25
137	Bti	2.41
391	Methoprene	2.49
584	Spinosad	2.04
Applications	FORMULATION: LIQUID	Acreage
37	(AE) surfactant	0.13
215	Bti	5.63
74	Methoprene	0.57
124	Spinosad	3.02



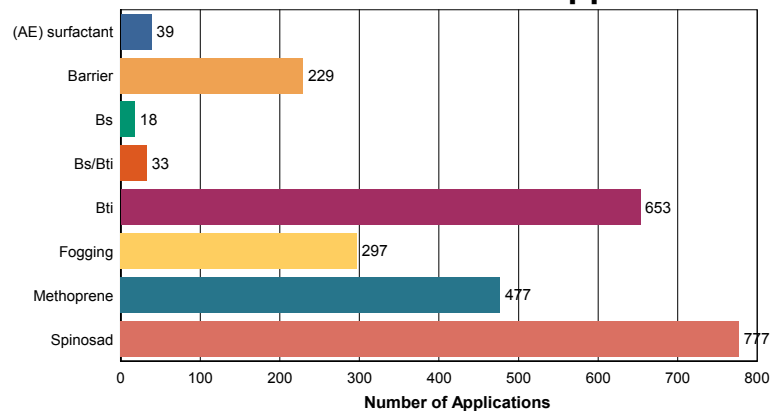
21 Salton Sea

Marshes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
2	Bti	11.00
4	Methoprene	4.50
5	Spinosad	23.72
Applications	FORMULATION: LIQUID	Acreage
2	(AE) surfactant	0.09
7	Bti	0.81
1	Spinosad	0.28

Product Applications



Product Breakdown

		Total		
		Count	Acreage	Cost
FORMULATION: DRY	Total	1,476	124.24	\$9,161.25
	Bs	18	0.03	\$33.03
	Bs/Bti	33	11.76	\$1,120.26
	Bti	403	48.28	\$1,031.72
	Methoprene	401	9.37	\$3,016.75
	Spinosad	621	54.80	\$3,959.49
FORMULATION: LIQUID	Total	1,047	103.61	\$10,166.58
	(AE) surfactant	39	0.22	\$6.01
	Barrier	229	1.18	\$9,742.63
	Bti	250	11.88	\$97.17
	Fogging	297	72.79	\$70.66
	Methoprene	76	0.84	\$6.74
	Spinosad	156	16.69	\$243.38

Operations

6/1/2017 to 6/29/2017 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*



75 Agriculture

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
9	Bs/Bti	4.47
15	Bti	9.16
9	Methoprene	5.43
8	Spinosad	9.21
Applications	FORMULATION: LIQUID	Acreage
11	Bti	5.60
6	Methoprene	1.19
17	Spinosad	4.53



14 Duck Club

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
1	Bs/Bti	6.00
3	Bti	19.89
5	Methoprene	1.78
3	Spinosad	9.45
Applications	FORMULATION: LIQUID	Acreage
2	Methoprene	0.41



747 Invasive Aedes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
240	Bti	2.72
1	Spinosad	0.00
Applications	FORMULATION: LIQUID	Acreage
240	Barrier	2.72
265	Fogging	105.04
1	Spinosad	0.00



708 Residential

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
28	Bs	0.07
27	Bs/Bti	0.09
67	Bti	0.23
138	Methoprene	0.50
213	Spinosad	2.38
Applications	FORMULATION: LIQUID	Acreage
14	(AE) surfactant	0.07
72	Bti	2.26
48	Methoprene	0.35
100	Spinosad	4.95



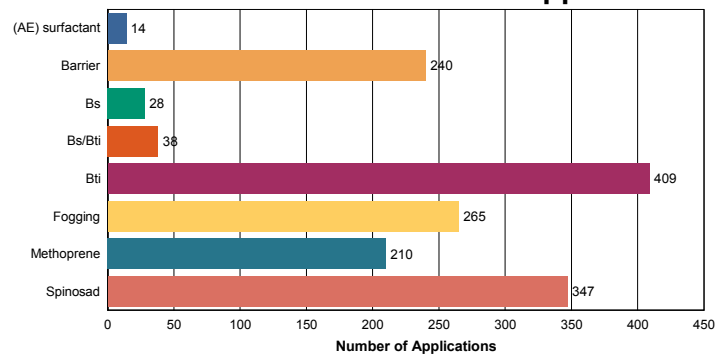
7 Salton Sea

Marshes

APPLICATIONS

Applications	FORMULATION: DRY	Acreage
1	Bs/Bti	1.25
2	Methoprene	1.50
4	Spinosad	7.47

Product Applications



Product Breakdown

		Total		
		Count	Acreage	Cost
FORMULATION: DRY	Total	774	81.62	\$8,839.62
	Bs	28	0.07	\$74.16
	Bs/Bti	38	11.81	\$1,202.63
	Bti	325	32.01	\$729.92
	Methoprene	154	9.21	\$2,632.58
	Spinosad	229	28.52	\$4,200.32
FORMULATION: LIQUID	Total	777	127.12	\$23,414.59
	(AE) surfactant	14	0.07	\$2.87
	Barrier	240	2.72	\$22,353.97
	Bti	84	7.86	\$687.00
	Fogging	265	105.04	\$99.41
	Methoprene	56	1.95	\$5.63
	Spinosad	118	9.48	\$265.72

Operations

5/1/2017 to 5/31/2017

Report

Red Imported Fire Ant



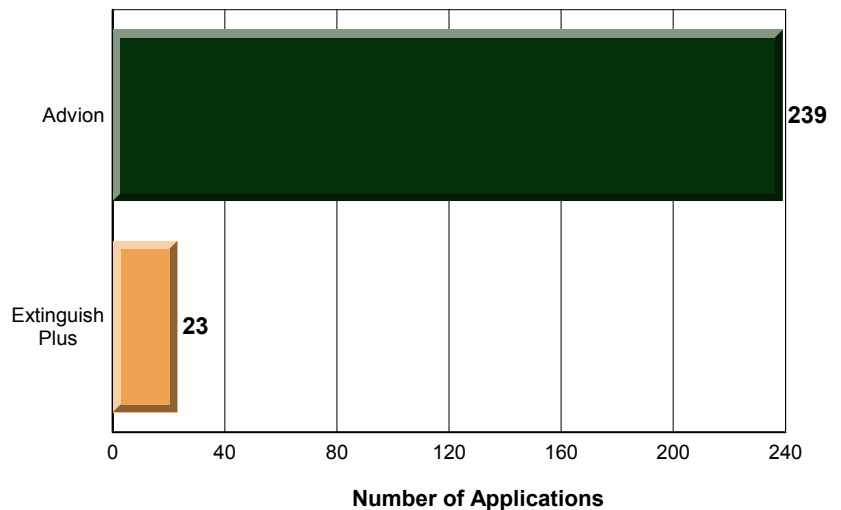
Scientific classification

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	655.20	1994.64
	Amount (lbs.)	982.97	2,991.91
	Cost	\$9,298.90	\$19,267.90



47 Country Club

APPLICATIONS

329.31 ACRES TREATED

47 BROADCAST TREATMENTS



23 Golf Course

APPLICATIONS

1,994.64 ACRES TREATED

23 BROADCAST TREATMENTS



140 Homeowner

APPLICATIONS

45.63 ACRES TREATED

140 BROADCAST TREATMENTS



47 Park

APPLICATIONS

257.56 ACRES TREATED

47 BROADCAST TREATMENTS



5 School

APPLICATIONS

22.70 ACRES TREATED

5 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.

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

6/1/2017 to 6/30/2017

Report

Red Imported Fire Ant



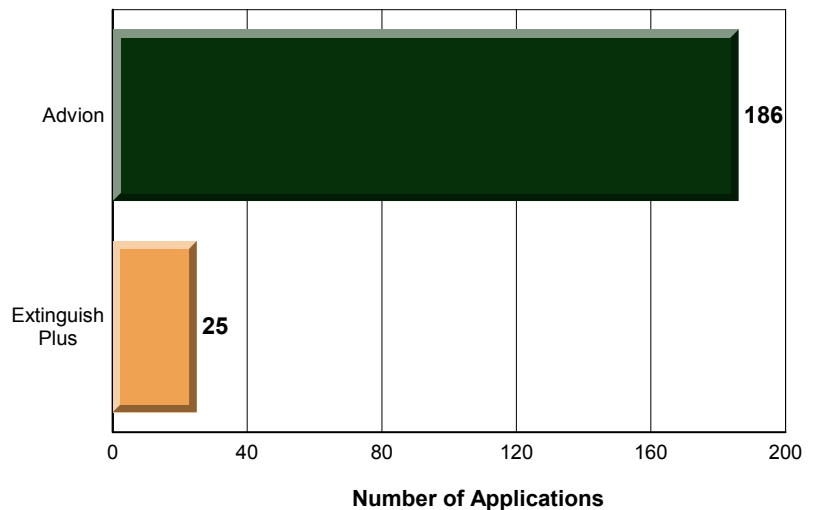
Scientific classification

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	518.08	2779.26
	Amount (lbs.)	774.66	4,168.95
	Cost	\$7,328.30	\$26,848.04



49 Country Club

APPLICATIONS

457.84 ACRES TREATED

49 BROADCAST TREATMENTS



24 Golf Course

APPLICATIONS

2,739.23 ACRES TREATED

24 BROADCAST TREATMENTS



132 Homeowner

APPLICATIONS

22.09 ACRES TREATED

130 BROADCAST TREATMENTS
2 SPOT TREATMENTS

2 Park

APPLICATIONS

41.19 ACRES TREATED

2 BROADCAST TREATMENTS



4 School

APPLICATIONS

36.99 ACRES TREATED

4 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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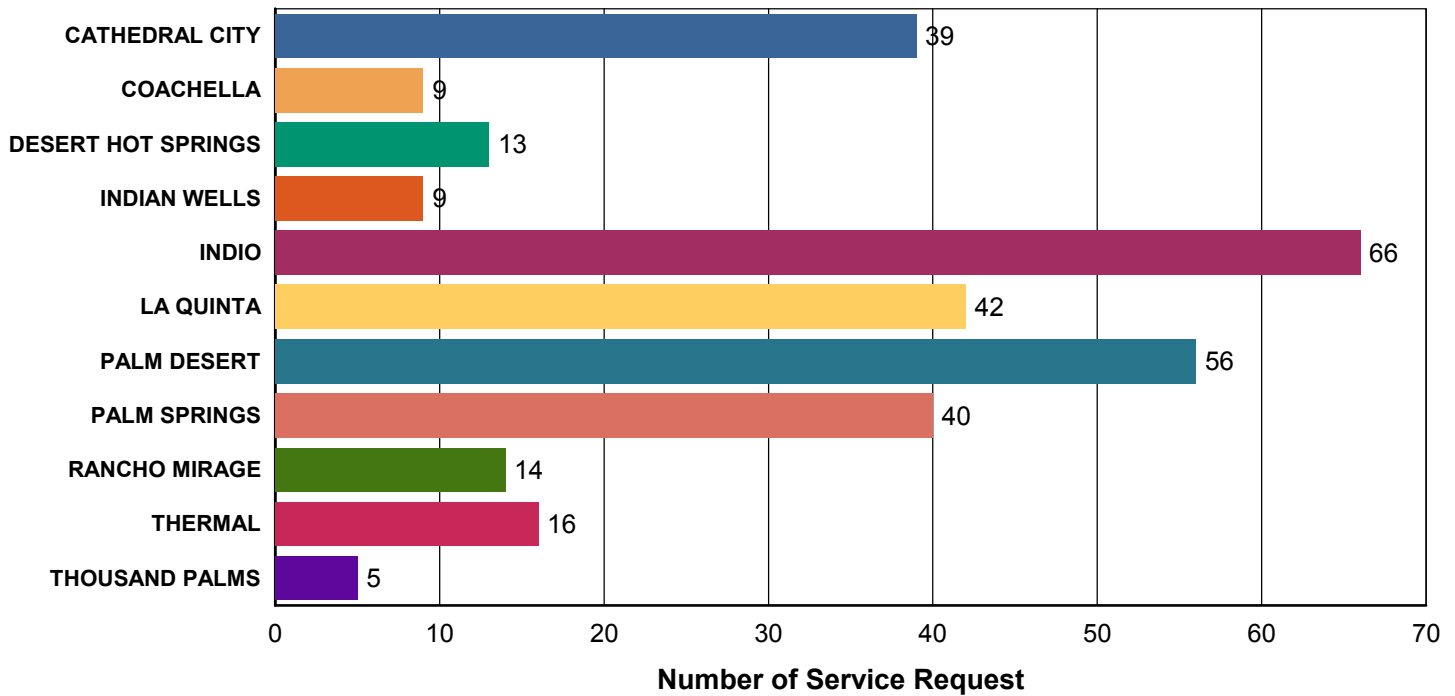
Operations

5/1/2017 to 5/31/2017 Report

Service Request Types

	TOTAL	STANDING WATER	NEGLECTED POOL	FLY/EYE GNATS	MOSQUITO	RODENTS	BEEES	RIFA	OTHER
TOTAL	309	24	35	25	43	1	10	170	1
CATHEDRAL CITY	39	1	4	0	5	1	2	26	0
COACHELLA	9	0	0	3	2	0	0	4	0
DESERT HOT SPRINGS	13	2	1	0	1	0	1	8	0
INDIAN WELLS	9	1	4	0	1	0	0	3	0
INDIO	66	6	5	2	9	0	2	42	0
LA QUINTA	42	4	7	7	4	0	1	18	1
PALM DESERT	56	2	6	3	11	0	0	34	0
PALM SPRINGS	40	6	6	1	5	0	2	20	0
RANCHO MIRAGE	14	0	2	2	0	0	1	9	0
THERMAL	16	1	0	7	5	0	1	2	0
THOUSAND PALMS	5	1	0	0	0	0	0	4	0

Service Request by City



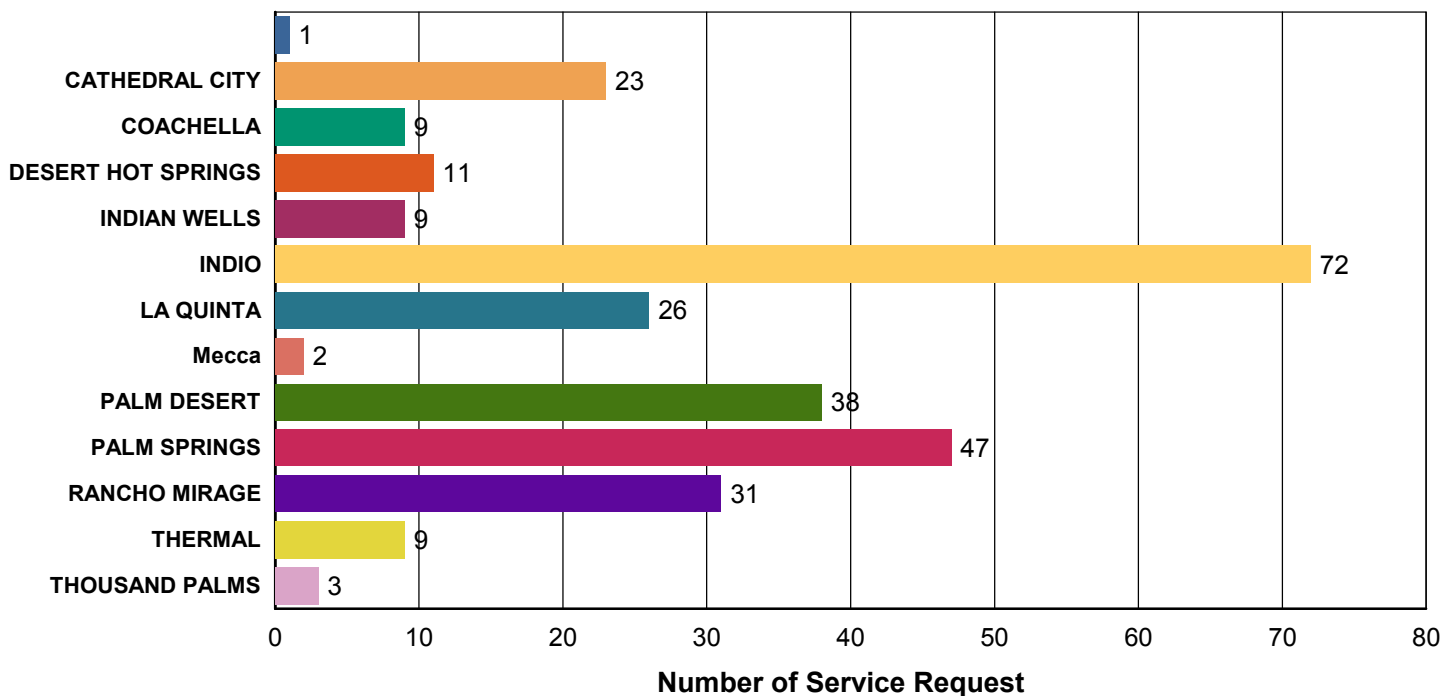
Operations

6/1/2017 to 6/30/2017 Report

Service Request Types

	TOTAL	STANDING WATER	NEGLECTED POOL	FLY/EYE GNATS	MOSQUITO	RODENTS	BEEES	RIFA	OTHER
TOTAL	281	22	29	22	43	1	10	153	1
	1	0	0	1	0	0	0	0	0
CATHEDRAL CITY	23	0	1	1	5	0	1	15	0
COACHELLA	9	1	0	2	1	0	2	3	0
DESERT HOT SPRINGS	11	1	3	2	2	0	1	2	0
INDIAN WELLS	9	0	0	0	2	0	0	7	0
INDIO	72	6	6	1	7	0	4	47	1
LA QUINTA	26	0	4	3	7	0	1	11	0
Mecca	2	0	0	2	0	0	0	0	0
PALM DESERT	38	1	1	0	7	1	0	28	0
PALM SPRINGS	47	12	10	0	7	0	0	18	0
RANCHO MIRAGE	31	0	4	2	5	0	1	19	0
THERMAL	9	1	0	8	0	0	0	0	0
THOUSAND PALMS	3	0	0	0	0	0	0	3	0

Service Request by City



Information Systems

Security – Port Scanning: Firewalls have “ports” that can be opened to let specific types of traffic through, or closed to stop traffic. While ports are opened with the intent of permitting authorized legitimate traffic, hackers have become adept at developing mechanisms for using these points of entry to gain access to networks for unauthorized and often malicious or illegal purposes.

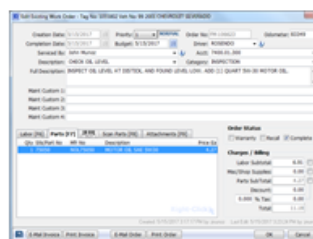
Port Scan: A port scan is a series of messages sent by someone attempting to break into a computer to learn which computer network services, each associated with a "well-known" port number, the computer provides. Port scanning, a favorite approach of computer hackers, gives the assailant an idea where to probe for weaknesses.

The District's Firewall is configured to either ‘Drop silently’ or ‘Terminate connections’ port scanning based on signatures and policies. The map below displays the countries port scanning the District's Firewall.

FLEET MAINTENANCE PROGRAM

Maintenance – Work Orders: FLEETMATE, is the District's Fleet Maintenance Software Application, which enable the District to record all maintenance and/or repair activities performed on a vehicle via a Work Order. Work orders capture Labor lines, and any number of replacement Parts. We can also associate one or more external documents or scanned images to a work order via Attachment records. From May 26 through June 26, 2017, the Fleet Maintenance Program completed 66 FLEETMATE Works.

66
Completed
\$7,782.28 Labor & Parts



Recall – Silverado 1500: All 2017 Chevrolet Silverado Trucks are experiencing oil loss in the engine compartment. Each truck has been taken down to the Dealership for inspection and documentation. All work has been covered under the vehicle's warranty.

FACILITIES

SOLAR PANELS – The following charts show the total yield from the solar panels during May and June, and a comparison between the power output per hour for May 31, 2017 and June 30, 2017.

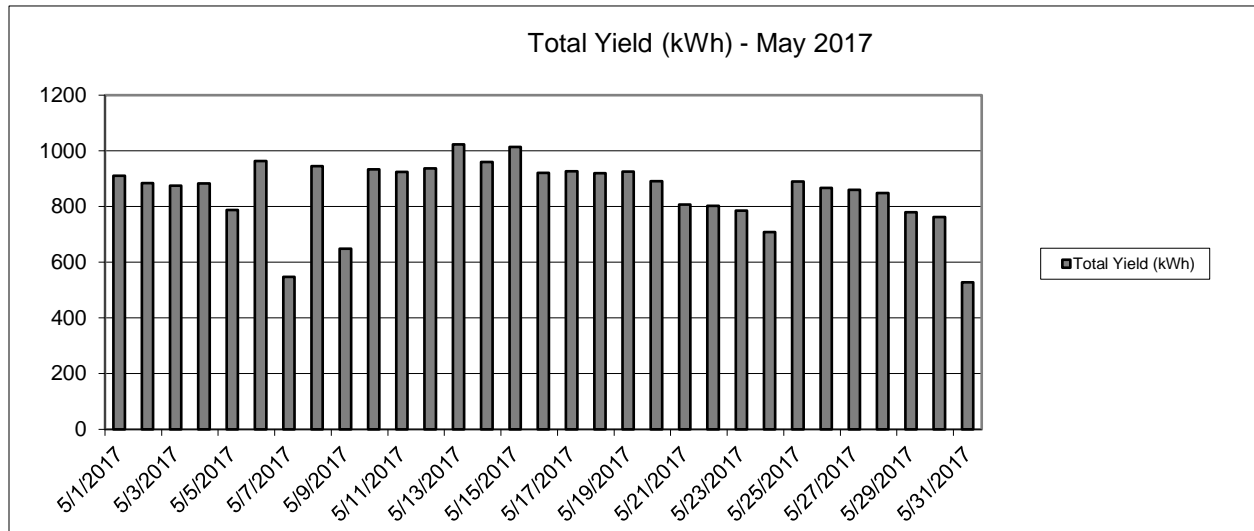


Figure 1 May 2017 Daily Solar Yield

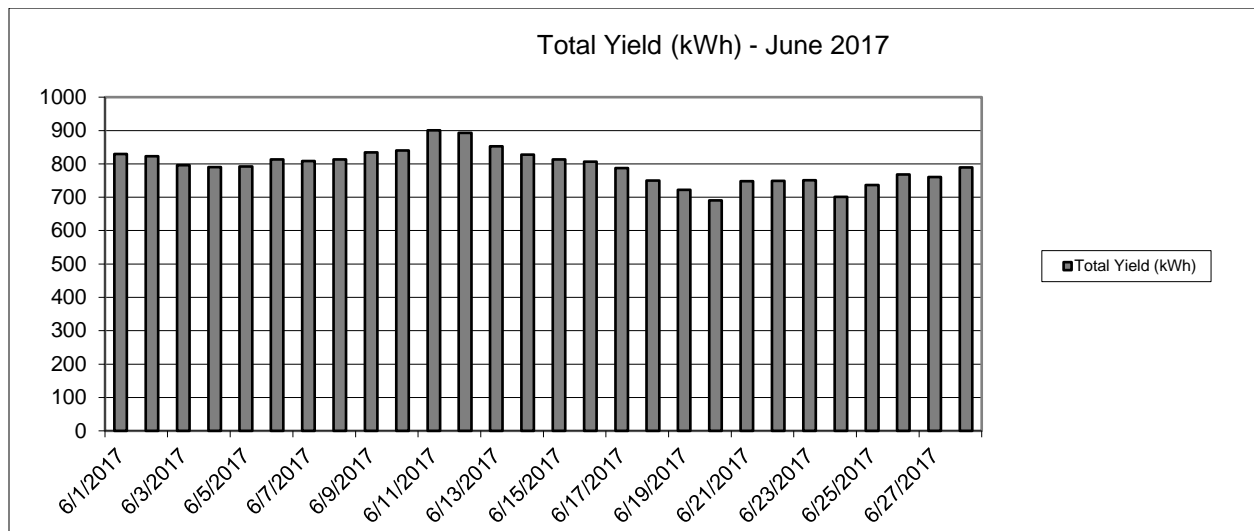


Figure 2 June 2017 Daily Solar Yield

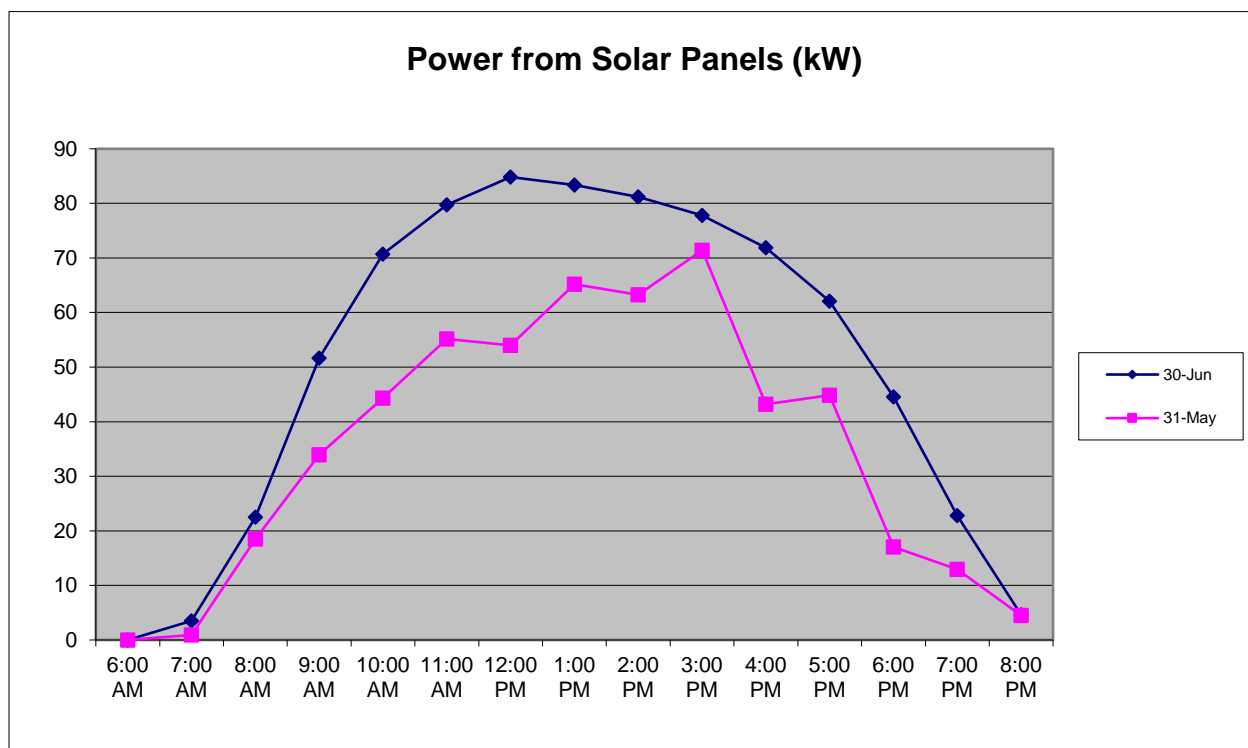
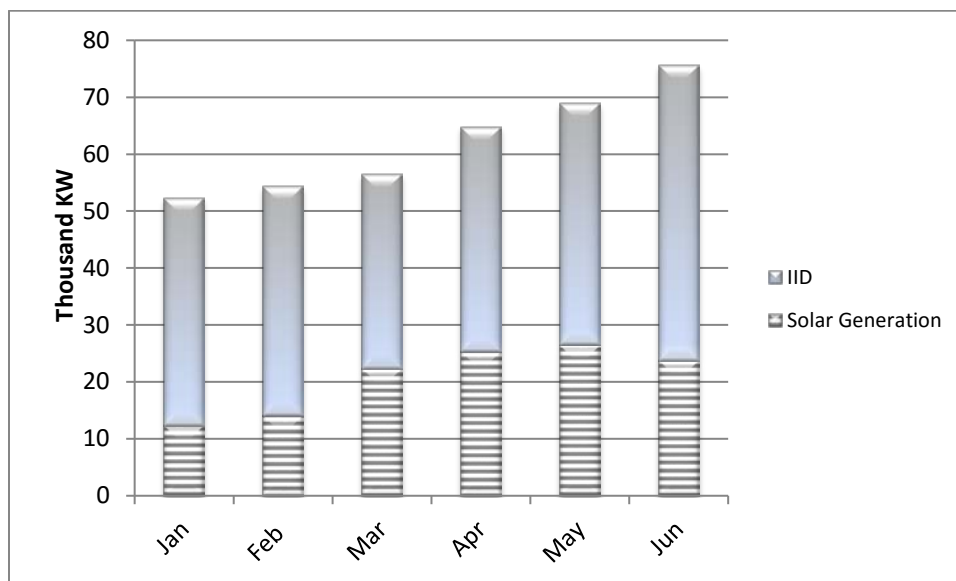


Figure 3 Hourly Solar Yield for May 31, 2017 and June 30, 2017

Energy Consumption



For 2017, 33% of the Districts energy consumption percentage is provided by solar the rest is provided by IID.



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: Items of General Consent

Approval of Resolution 2017-11 Authorizing Attendance of Professional Development Conferences and Meetings by Members of the Board of Trustees and Employees of the District for Fiscal Year 2017-2018 – **Jeremy Wittie, MS, General Manager**

Background:

In 2009, an ad hoc travel committee comprised of the Board of Trustees directed staff to develop a travel resolution for Board adoption of the types of travel by Board members and employees to be authorized on an as needed basis. Resolution 2009-05, Authorizing Attendance of Professional Development Conferences and Meetings by Members of the Board of Trustees and Employees of the District for Fiscal Year 2009-2010, was approved at the May 2009 Board Meeting and accomplished this purpose.

Resolution 2017-11 would authorize attendance at conferences and meetings for Fiscal Year 2017-2018. Schedule "A" of Resolution 2017-11 contains a list of educational conferences and meetings that staff and/or Board members would be authorized to attend, based on need, between July 1, 2017 and June 30, 2018, and also designates which staff and Board members would be authorized to attend each conference or meeting.

Resolution 2017-11 would also limit Board members to a maximum of two (2) conferences or meetings that involve overnight travel, and would limit staff to a maximum of two (2) conferences or meetings per function performed by the employee. An exception to this limitation would be made for meetings and conferences where it is necessary to carry out a committee assignment such as the Mosquito and Vector Control Association of California committee assignments.

Staff Recommendation:

- Staff recommends that the Board approve Resolution 2017-11.

Fiscal Impact:

- Not determined.

Exhibits:

- Resolution 2017-11
- 2017-2018 Professional Development Conferences & Meetings

RESOLUTION NO. 2017-11

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT AUTHORIZING ATTENDANCE OF PROFESSIONAL DEVELOPMENT CONFERENCES AND MEETINGS BY MEMBERS OF THE BOARD OF TRUSTEES AND EMPLOYEES OF THE DISTRICT FOR FISCAL YEAR 2017-2018

WHEREAS, the Coachella Valley Mosquito and Vector Control District ("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 is also a "local agency" within the meaning of Section 53600 of the California Government Code; and

WHEREAS, pursuant to Health and Safety Code Section 2051 and the District's adopted Travel and Expense Policy, the Board of Trustees ("Board") of the District may authorize members of the Board and District employees to attend professional, educational, or vocational meetings, and cause the District to pay their actual and necessary traveling expenses while on official business.

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. Authorization and Approval for Attendance.

Subject to Section 3 hereof, the Board hereby authorizes and approves the conference and meeting list attached hereto and incorporated herein by this reference as Exhibit "A," for the fiscal year 2017-2018, for attendance by Board members and/or employees of the District as designated therein. The Board finds that the list of conferences and meetings satisfies the criteria set forth in Health and Safety Code Section 2051 and the District's Travel and Expense Policy, and that the proposed attendance at the conferences and meetings on the list will result in a benefit to the District.

Section 3. Limitations.

In order to preserve the District's finances, Board members shall attend no more than two conferences or meetings per fiscal year which involve overnight travel. Employees shall attend no more than two conferences or meetings per function performed by the employee. These limitations shall not apply where attendance at a meeting or conference is necessary to carry out a committee assignment, such as in the case of at the Mosquito and Vector Control Association of California committee assignment.

Section 4. Severability.

The Board 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 5. Repeal of Conflicting Provisions.

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

Section 6. Effective Date.

This Resolution shall take effect upon its adoption.

Section 7. 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 INTENTIONALLY LEFT BLANK]

PASSED, ADOPTED AND APPROVED, this 11th day of July, 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

PROFESSIONAL DEVELOPMENT JULY 1, 2017 – JUNE 30, 2018			
Conference or Meeting (including subcommittees)	Attendance Authorized For	Date	Place
American Mosquito Control Association (AMCA)	General Manager, Public Information Manager, Laboratory Manager, Operations Manager, Vector Ecologist, One (1) Biologist with a talk or poster presentation	Feb. 26-Mar. 2, 2018	Kansas City, MS
CalPERS Educational Forum	Administrative Staff	Oct. 23-25, 2017	Rancho Mirage, CA
CALPELRA Conference	Human Resources Manager	Dec. 4-8, 2017	Monterey, CA
California Special District Association (CSDA) Annual Conference	General Manager, Administrative Finance Manager	Sept. 25-28, 2017	Monterey, CA
California Special District Association (CSDA) Annual Clerk of the Board Conference	Executive Assistant	Oct. 22-24, 2017	Anaheim, CA
CSDA Various Seminars and Webinars	Administrative Staff	TBA	TBA
Abila MIP Fund Accounting Training	Administrative Finance Manager, Accounting Technician II, Accounting Technician I	TBA	TBA
Entomological Society of America (ESA) Annual Conference	Laboratory Manager	Nov. 3-8, 2017	Denver, CO
Environmental Systems Research Institute (ESRI) Annual Conference	IT Manager	July 10-14, 2017	San Diego, CA
GFOA Seminars	Administrative Finance Manager	Various	Various
Invasive and Pest Ant Conference	Laboratory Manager <u>or</u> Vector Ecologist, One (1) Biologist, Field Supervisor	May 20-23, 2018	Cary, NC

PROFESSIONAL DEVELOPMENT JULY 1, 2017 – JUNE 30, 2018			
Conference or Meeting (including subcommittees)	Attendance Authorized For	Date	Place
Liebert Cassidy Whitmore Conference	Human Resources Manager	Feb. 26-28, 2018	San Francisco, CA
Local Agency Investment Fund (LAIF) Annual Conference	General Manager, Administrative Finance Manager, Finance Committee Trustee(s)	TBA	Sacramento, CA
Mosquito & Vector Control Association of California (MVCAC)	General Manager, Administrative Finance Manager, IT Manager, Public Information Manager, Operations Manager, Laboratory Manager, Vector Ecologist, Two (2) Biologists with a talk or poster presentation or One (1) Biologist and One (1) Laboratory Assistant II with a talk or poster presentation Two (2) Field Supervisors, and One (1) Lead Technician	Jan. 28-31, 2018	Monterey, CA
MVCAC Quarterly Meetings	General Manager, Committee Members, President of the Board of Trustees or Designee	Oct. 31 – Nov. 2, 2017 April 26-27, 2018	Sacramento, CA Lake Tahoe, CA
MVCAC Planning Session	Committee Chairs	Nov. 30 – Dec. 1, 2017	Emeryville, CA
National Conference on Public Health	Public Information Manager	Nov. 4-8, 2017	Atlanta, GA
Vector Control Joint Powers Agency Annual Workshop	General Manager, Administrative Finance Manager, Finance Committee Trustee(s)	TBA	TBA



Coachella Valley Mosquito and Vector Control District

July 11, 2017

Staff Report

Agenda Item: Items of General Consent

Approval to purchase control products from the lowest responsible bidder or sole-source providers in the amount not to exceed \$650,000.00 from Fund #7800.02.500. Field Operations Chemical Control – **Roberta Dieckmann, Lead Supervisor**

Background:

In 2014 the pesticide purchase process was changed to approval of a yearly purchase of products based on a multi-year historical analysis of pesticide usage to predict total product requirements and delivery schedules.

Upon approval by the Board, the following control products will be awarded to the lowest responsible bidder or sole-source supplier. The FY 2017-2018 bid decision will consider the level of technical support provided by chemical distributors and/or manufacturers will be considered when determining the final award for each product. The amount and quality of service does vary from company to company and technical support and expertise is seen as an added benefit to the District and increases the value of the money spent on control products.

The purchase of the following control products for the Operations control program is needed for work to be done during the 2017-2018 fiscal year. Products will be delivered and billed on or near the projected delivery date or as needed if determined by the Operations Lead Supervisor and approved by the General Manager.

Product	Target	Total Amount	Cost
ADVION	RIFA	9,000 LBS.	\$88,920
EXTINGUISH PLUS	RIFA	21,000 LBS.	\$125,365
ALTOSID PELLETS	MOSQ.	4,356 LBS	\$125,650
AQUABAC 200G	MOSQ.	3,200 LBS.	\$6,325
NATULAR G30	MOSQ.	4,800 LBS.	\$78,440
NATULAR G	MOSQ.	3,200 LBS.	\$18,035
VECTOBAC WDG	MOSQ.	1,500 LBS.	\$60,645
VECTOBAC G	MOSQ.	3,200 LBS.	\$8,600
VECTOMAX FG	MOSQ.	3,200 LBS.	\$30,310

	METALARV SPT	MOSQ.	1,600 LBS.	\$42,925	
	VECTOPRIME FG	MOSQ.	1,600 LBS.	\$7,050	
	SCOURGE 18-54	MOSQ.	55 GAL.	\$29,775	
	AQUARES LIN	MOSQ.	60 GAL.	\$14,630	
			TOTAL:	\$636,670	
Staff Recommendation:					
<ol style="list-style-type: none"> 1. The Operations Department is requesting Board approval to purchase control products in the amount not to exceed \$650,000.00. 					
Fiscal Impact:					
	FY2017-18 Approved Budget Chemical Control	Current Available Funds	Proposed Expense	Remaining Available Funds	
	7800-02-500	770,500	650,000	120,500	
Exhibits:					
<ul style="list-style-type: none"> • Chemical Delivery Schedule • Non-Sole Source Successful Chemical Bids 					

Exhibit A

CHEMICAL DELIVERY SCHEDULE 2017/18 (LBS./GALS.)

CHEMICAL NAME	Delivery Date						Total
	7/18/2017	8/1/2017	9/1/2017	12/1/2017	3/1/2018	6/1/2018	Purchase
<u>RIFA</u>							
Advion			3000		3000	3000	9000
Extinguish Plus	5000		5000		6000	5000	21000
<u>MOSQUITO</u>							
Altosid Pellets			1452	2904			4356
Aquabac 200G		1600			1600		3200
Natular G			1600		1600		3200
Natular G30	1600		1600	1600			4800
Vectobac G		1600			1600		3200
Vectobac WDG		900	600				1500
Vectomax FG		1600			1600		3200
Metalarv SPT					1600		1600
Vectoprime					1600		1600
<u>ADULTICIDES</u>							
<u>ULV Adulticide</u>							
Scourge 18-54	55						55
Aquareslin	60						60



Coachella Valley Mosquito and Vector Control District

July 11, 2017

Staff Report

Agenda Item: Items of General Consent

Approval to purchase 5X MagMax-96 Viral Isolation Kits and TaqMan Fast Virus MasterMix from ThermoFisher Scientific in an amount not to exceed \$9,000.00 from account 7575.01.400.04, Internal Mosquito RT-PCR – Jennifer A. Henke, M.S., Laboratory Manager

Background:

The 5X MagMax-96 Viral Isolation Kits are reagents used to conduct the arbovirus testing of mosquito samples. This particular kit helps to recover the virus out of the cells of the mosquitoes so that we can determine if a mosquito sample has West Nile virus, St. Louis encephalitis virus, or western equine encephalomyelitis virus.

The District is able to purchase these at a price of \$1,109.16 per kit when purchasing 5 kits due to a pricing agreement between ThermoFisher Scientific and the member agencies of the Mosquito and Vector Control Association of California. This price is a 21% discount per kit of the regular retail price of \$1,251.36 per kit. Each kit can be used to test approximately 500 samples, so the five kits will allow us to test 2,500 samples (not including the controls needed for each plate). The pricing agreement is in place through December 31, 2017. Seven kits will cost \$5,545.80 before tax and shipping.

The District also needs to purchase TaqMan Fast Virus. TaqMan improves the specificity when conducting PCR. The purchase price in the agreement with ThermoFisher Scientific is \$2,402.40 before tax and shipping.

Staff Recommendation:

- The Laboratory Department requests Board approve the purchase of reagents needed for testing mosquito samples for arboviruses in the amount not to exceed \$9,000.00.

Fiscal Impact:

FY2017-18 Budget 7575.01.400.04	Current Available Funds	Proposed Expense	Remaining Available Funds
32,500	32,500	9,000	23,500



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: Items of General Consent

Approval to purchase seven (17) vehicles, in an amount not to exceed \$500,000.00, from Capital Replacement Budget Fund #8415.13.300 – utilizing the State of California Contract #1-16-23-20D – **Edward Prendez, Information Technology Manager**

Background:

This purchase request is for seventeen (17) replacement vehicles, Standard Cab Trucks estimated to cost \$28,702.75 each for Operations. They will be equipped with a Century DCU Commercial and all seventeen (17) trucks will be full-size and have four-wheel drive.

The District's Purchasing Policy allows exceptions to competitive bidding when the purchase or contract is directly related to another government agency's purchase order or contract authorized or approved through the respective government agency's competitive bidding procedures. This provision allows the District to piggyback on other government agency contracts including the State of California Contract #1-16-23-20D.


The vehicles to be replaced will either be reassigned or sold as surplus. The Capital Outlay budget item for Fleet Maintenance – vehicle purchases is \$487,946.75.

Staff Recommendation:

Approval to purchase seven (17) vehicles utilizing the State of California Contract #1-16-23-20D.

Fiscal Impact:

FY2017-18 Amended Budget 8513.13.300	Current Available Funds	Proposed Expense	Remaining Available Funds
\$540,000	\$540,000	\$500,000	\$40,000

	<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;">July 11, 2017</p>
<p>Agenda Item: Items of General Consent</p> <p>Discussion and/or approval of proposed change in Board of Trustees regular meeting schedule, to exclude the month of August – Jeremy Wittie, MS, General Manager (Pg.)</p>		
<p>Background:</p> <p>Currently, the Board of Trustees (“Board”) regularly meets the second Tuesday of every month throughout the year. This is in conformance with Section 2028 of the California Health and Safety Code, which provides that a board of trustees is required to meet “at least once every three months.”</p> <p>Resolution 1997-17, approved on October 14, 1997, authorizes the Treasurer to release payment to vendors when a quorum, for the monthly Board Meeting, is not present. If the August Board Meeting is cancelled, the release of payments to vendors will be approved by the Treasurer.</p>		
<p>Staff Recommendation:</p> <ul style="list-style-type: none"> • Staff recommends approving going dark for the month of August 2017. 		
<p>Fiscal Impact: N/A</p>		
<p>Exhibits: N/A</p>		

ITEM
13



NEW BUSINESS



Coachella Valley Mosquito and Vector Control District

Staff Report

July 11, 2017

Agenda Item: New Business

Discussion and/or approval of the nomination of a Trustee for a position on the Mosquito and Vector Control Association of California's Trustee Council – **Doug Walker, President**

Background:

The Mosquito and Vector Control Association of California (MVCAC) Trustee Council is comprised of Trustees from different mosquito and vector control districts in California. The purpose and goal of the Trustee council is to advise the Association regarding policy, fiscal, budgetary, and legislative matters, and to provide appropriate support to actions initiated by the Association. The Trustee Council represents trustees at the MVCAC meetings and is involved in planning Trustee sessions at the annual conference and the fall meeting. They are currently working on improving communications between the MVCAC and trustees throughout the state meet during each of the MVCAC Board meetings and conference.

Vice-President Doug Hassett has voiced his interest in serving on the Council and would like the support of the Board.

Staff Recommendation:

- That the Board take whatever action deemed necessary.

Fiscal Impact:

- N/A