



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 10, 2018

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** – Shelley Kaplan, 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 Shelley Kaplan**
  2. Resolution 2018-12 approving Engineer's Report, Confirming Diagram and Assessment, and Ordering the Levy of Assessments for fiscal year 2018-19 for the Coachella Valley Mosquito and Vector Control District Mosquito, Fire Ant and Disease Control Assessment – **David l'Anson, Administrative Finance Manager (Pg. 6)**
  3. Close Public Hearing – **President Shelley Kaplan**
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. **Recognition**

- A. Approval of Resolution 2018-13 in recognition of Geneva Ginn for her 30 years of service to the District – **Jeremy Wittie, M.S., General Manager (Pg. 13)**

9. **Closed Session**

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

10. **Announcements**

- General Manager’s Report – **Jeremy Wittie, M.S., General Manager**
- Laboratory and Surveillance Update – **Jennifer A. Henke, M.S., Laboratory Manager**
- Operations Update – **J. Wakoli Wekesa, Ph.D., Operations Manager**

11. **Board Reports**

- A. President’s Report – **President Kaplan**
- B. Finance Committee – **Treasurer Weightman**
- Finance Committee Minutes (**Pg. 17**)
  - Budget Workshop Minutes, June 12, 2018 (**Pg. 19**)

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 12, 2018, Board Meeting (**Pg. 21**)
- B. Correspondence (**Pg. 26**)
- C. Approval of Expenditures for June 13-30, 2018, and July 1-10, 2018 (**Pg. 30**)
- D. Informational Items:
- Treasurer to Approve Release of Payment to Vendors for July (**Pg. 38**)
  - District Travel (**Pg. 39**)
  - Semi-annual research reports from the University of California at Davis, University of California at Riverside, and USDA for 2018 – **Jennifer A. Henke, M.S., Laboratory Manager (Pg. 40)**
  - Staff reports from:

- Pacific Branch of the Entomological Society of America Conference, June 10-13, in Reno, NV **(Pg. 60)**
  - E. Approval of Resolution 2018-14, Authorizing Attendance of Professional Development Conferences and Meetings by Members of The Board of Trustees and Employees of the District for Fiscal Year 2018-2019 – **Jeremy Wittie, M.S., General Manager (Pg. 61)**
  - F. Approval of Resolution 2018-15 Adopting Employee Pay Schedule, in conformance with California Code of Regulations, Title 2, Sections 570.5 and 571 – **Anita Jones, Human Resources Manager (Pg. 68)**
  - G. Approval for a paid intern for the Laboratory Department June 18 through August 24, 2018, in an amount not to exceed \$6,900.00, from Fund 5130.01.400, Payroll – *Budgeted Expense* – **Jennifer A. Henke, MS, Laboratory Manager (Pg. 73)**
  - H. Approval to purchase Microix Budgeting Software in an amount not to exceed \$10,000 from Capital Equipment Replacement Fund #8415.13.210 – *Budgeted Expense* – **David I’Anson, Administrative Finance Manager (Pg. 74)**
  - I. Approval to sell surplus District property – **Edward Prendez, Information Technology Manager (Pg. 75)**
  - J. Approval to contract with Hummingbird, Inc. for aerial adulticiding and larviciding services as needed for Fiscal Year 2018-19 – *Budgeted Expense* – **J. Wakoli Wekesa, PhD, Operations Manager (Pg. 76)**
  - K. Approval of Resolution 2018-16 Biennial Adoption of a Conflict of Interest Code – **Crystal G. Moreno, Clerk of the Board (Pg. 77)**
13. **Old Business: None**
14. **New Business**
- A. Discussion and/or approval to enter into Public Works contract for well destruction in an amount not to exceed \$25,000.00 – *Not Budgeted; Funds Available* – **David I’Anson, Administrative Finance Manager (Pg. 84)**
  - B. Discussion and/or 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 – *Budgeted Expense* – **J. Wakoli Wekesa, Ph.D. , Operations Manager (Pg. 85)**
15. **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.

**16. 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

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**Certification of Posting**

I certify that on July 6, 2018, 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 6, 2018.

\_\_\_\_\_  
Crystal G. Moreno, Clerk of the Board

ITEM

6



# **PUBLIC HEARING FOR BENEFIT ASSESSMENT**



**Coachella Valley Mosquito and Vector Control District**

**Staff Report**

**July 10, 2018**

**Agenda Item:** Public Hearing

Resolution 2018-12 approving Engineer's Report, Confirming Diagram and Assessment, and Ordering the Levy of Assessments for fiscal year 2018-19 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. 2018-11, accepted by the Board of Trustees June 12, 2018, approves the intention to levy assessments for fiscal year 2018-19, preliminarily approving engineer's report, and providing for notice of hearing for the CVMVCD Mosquito, Fire Ant and Disease Control Assessment.

***Resolution No. 2018-12 approves the Engineer's Report and orders the levy of the assessment at the rate of \$12.49.***

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 2018–2019 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 2017-18 were levied at the yearly rate of \$10.21 per single family equivalent benefit unit, as described in the Engineer's Report for fiscal year 2017-18, with estimated total annual revenue of approximately \$2.0 million.

The fiscal year 2018-2019 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 2017 to December 2018 is 3.61%, which is less than the 3% maximum allowed annual increase. The maximum authorized assessment rate for fiscal year 2018-19 is \$22.23 per single family equivalent benefit unit. The proposed fiscal year 2018-19 assessment rate per single family equivalent benefit unit for the Mosquito, Fire Ant and Disease Control

Assessment is \$12.49 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 2018-12, setting the annual benefit assessment amount to \$12.49 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 \$2.0 million for the fiscal year 2018-19 Budget.

**Attachments:**

- Resolution 2018-12
- Engineer's Report (Separate Attachment)

RESOLUTION NO. 2018-12

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 2018-19  
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 within 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 12, 2018, this Board adopted Resolution No. 2018-11 to continue to levy and collect Assessments for fiscal year 2018-19, preliminarily approving the Engineer's Report, and providing for notice of hearing on July 10, 2018, 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 2018-19 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 2018-19 shall be levied at the rate of TWELVE DOLLARS AND FORTY-NINE CENTS (\$12.49) per single-family equivalent benefit unit as specified in the Engineer's Report for fiscal year 2018-19 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 15<sup>th</sup> 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.

**PASSED, ADOPTED AND APPROVED, this 10<sup>th</sup> day of July, 2018.**

\_\_\_\_\_  
Shelley Kaplan, 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

**SECTION**

**8**



# **RECOGNITION**

	<p style="text-align: center;"><b>Coachella Valley Mosquito and Vector Control District</b></p> <p style="text-align: center;"><b>Staff Report</b></p>	<p style="text-align: center;"><b>July 10, 2018</b></p>
<p><b>Agenda Item:</b> Recognition</p> <p>Approval of Resolution 2018-13 in recognition of Geneva Ginn for her 30 years of service to the District – <b>Jeremy Wittie, MS, General Manager</b></p>		
<p><b>Background:</b></p> <p><i>Geneva Ginn</i> began her employment at the District on July 1, 1988, as a <i>Jr. Operator</i>. She has since been promoted to <i>Vector Control Technician II</i>, <i>Vector Control Technician III</i>, and again to <i>Lead Vector Control Technician</i>. <i>Geneva</i> has demonstrated an extraordinary commitment and dedication to the District.</p>		
<p><b>Staff Recommendation:</b></p> <p>Staff recommends approval of Approval of Resolution 2018-13 in recognition of Geneva Ginn for her 30 years of service to the District.</p>		
<p><b>Attachment:</b></p> <ul style="list-style-type: none"> <li>• Resolution 2018-13</li> </ul>		

**RESOLUTION NO. 2018-13**

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE  
COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL  
DISTRICT IN RECOGNITION OF GENEVA GINN'S  
THIRTY (30) YEARS OF SERVICE TO THE DISTRICT**

**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 with the mission of reducing the risk of disease transmission by mosquitoes and other vectors and the protection of residents and visitors of the Coachella Valley; and

**WHEREAS**, Geneva Ginn has worked for the District and given continuous, faithful, and loyal service for 30 years; and

**WHEREAS**, Geneva Ginn was hired as a Jr. Operator on July 1, 1988, was later promoted to Vector Control Technician II, Vector Control Technician III, and again to Lead Vector Control Technician; and

**WHEREAS**, Geneva Ginn has consistently demonstrated leadership ability, enthusiasm and dedication to the District; and

**WHEREAS**, Geneva Ginn's hard work and dedication to eye gnat control, mosquito surveillance and control, and rodent control has contributed to protecting the public health of the Coachella Valley; and

**WHEREAS**, the Board of Trustees of the District desire to recognize Geneva Ginn for her 25 years of continuous, faithful, and loyal service to the District.

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

**Section 1. Recitals.**

The recitals set forth above are true and correct.

**Section 2. Recognition of Service.**

Geneva Ginn is hereby recognized upon her thirty (30) year anniversary for her outstanding contributions and dedication to the District and the citizens of the Coachella Valley.

**Section 3. Effective Date.**

This Resolution shall take effect upon its adoption.

**Section 4. Certification.**

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

**PASSED, ADOPTED AND APPROVED, this 10th day of July, 2018.**

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**Shelley Kaplan, President  
Board of Trustees**

**ATTEST:**

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**Crystal G. Moreno, Clerk of the Board**

**APPROVED AS TO FORM:**

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**M. Kathy Jenson, General Counsel**

**REVIEWED:**

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**Jeremy Wittie, MS, General Manager**

ITEM  
**11**



# **BOARD REPORTS**

# COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

## Finance Committee Meeting Minutes

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**TIME:** 3:30 P.M. JUNE 12, 2018

**LOCATION:** 43420 Trader Place, Indio, CA 92201

**TRUSTEES PRESENT:**

Cathedral City	Shelley Kaplan	County at Large	Bito Larson
Coachella	Betty Sanchez	Indian Wells	Clive Weightman

**OTHERS PRESENT:**

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

1. **Call to Order:** Treasurer Weightman called the meeting to order at 3:37p.m.
2. **Roll Call:** Roll call indicated three (3) committee members out of three (3) were present plus President Kaplan as alternative.
3. **Confirmation of Agenda:** On motion from Trustee B. Sanchez seconded by Trustee Larson, and passed by unanimous vote, the Committee approved the agenda as presented.
4. **Public Comments:** Rancho Mirage resident, Brad Anderson, made a public comment stating that he was opposed to the benefit assessment increase.
5. **Items of General Consent:**
  - 5A – **Approval of Minutes from May 8, 2018, Finance Committee Meetings:** On motion from Trustee B. Sanchez seconded by President Kaplan, and passed by unanimous vote, the Committee approved item 5A.
6. **Discussion and/or Approval:**
  - 6A. **Review of Check Report from Abila MIP for the May 9, 2018 to June 5, 2018:** Reviewed by Committee.
  - 6B. **CalCard Charges April 2018:** Reviewed by Committee
  - 6C. **Review of April 2018 Financials:** Reviewed by Committee.
7. **Old Business**

**7A. Discussion regarding Draft FY 2018/19 Budget:** Reviewed by Committee.

**8. Confirmation of Next Meeting:** The next Finance Committee Meeting was scheduled for Tuesday, July 10<sup>th</sup>, at 4:30pm.

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

**10. Adjournment:** The meeting was adjourned by Treasurer Weightman at 4:15 p.m.

DRAFT

# COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

## Budget Workshop Minutes

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CALLED TO ORDER: 4:30 P.M. JUNE 12, 2018

LOCATION: 43420 Trader Place, Indio, CA 92201

### TRUSTEES PRESENT:

PRESIDENT:	Shelley Kaplan	Cathedral City
VICE-PRESIDENT:	Doug Hassett	La Quinta
SECRETARY:	Franz De Klotz	County at Large
TREASURER:	Clive Weightman	Indian Wells

Coachella                                      Betty Sanchez                                      Palm Springs                                      Dr. Doug Kunz

### TRUSTEES ABSENT:

County at Large	Bito Larson	Palm Desert	Doug Walker
Desert Hot Springs	Adam Sanchez	Rancho Mirage	Michael Monroe
La Quinta	Doug Hassett		

### OTHERS PRESENT:

Jeremy Wittie, General Manager  
David l'Anson, Administrative Finance Manager  
Anita Jones, Human Resources Manager  
Jill Oviatt, Public Information Manager  
Edward Prendez, IT Manager  
Wakoli Wekesa, Operations Manager

1. **Call to Order:** Treasurer Weightman called the meeting to order at 4:35pm.
2. **Roll Call:** Roll call indicated five (5) Trustees out of ten (10) were present. Trustee Kunz arrived at 4:44pm.
3. **Public Comment:** Rancho Mirage resident, Brad Anderson, made a public comment stating that he was not in favor of any assessment and that the District's reserves were massive and should not be that big.
4. **Overview/Discussion of Preliminary FY 2018/19 Budget:** Treasurer Weightman provided a brief introduction of the draft budget and thank Administrative Finance Manager l'Anson and his team for their work on the budget. A discussion ensued. General Manager Wittie gave a brief presentation regarding proposed organizational changes for FY 2018/19. A discussion ensued.
5. **Trustee Comments:** None.
6. **Adjournment:** The meeting was adjourned by Treasurer Weightman at 5:07 p.m.

ITEM  
**12**



**ITEMS OF GENERAL CONSENT**

# COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

## Board of Trustees Meeting Minutes

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CALLED TO ORDER: 6:00 P.M. JUNE 12, 2018

LOCATION: 43420 Trader Place, Indio, CA 92201

### TRUSTEES PRESENT:

PRESIDENT:	Shelley Kaplan	Cathedral City
VICE-PRESIDENT	Doug Hassett	City of La Quinta
SECRETARY:	Franz De Klotz	County at Large
TREASURER:	Clive Weightman	Indian Wells

Coachella  
County at Large  
Desert Hot Springs

Betty Sanchez  
Bito Larson  
Adam Sanchez

Palm Springs  
Rancho Mirage

Dr. Doug Kunz  
Michael Monroe

### TRUSTEES ABSENT:

Palm Desert                      Doug Walker

### OTHERS PRESENT:

Jeremy Wittie, General Manager  
David l'Anson, Administrative Finance Manager  
Anita Jones, Human Resources Manager  
Jill Oviatt, Public Information Manager  
J. Wakoli Wekesa, Operations Manager  
Edward Prendez, IT Manager  
Kim Hung, Vector Ecologist  
Olde Avalos, Field Supervisor

- 1. Call to Order:** President Kaplan called the meeting to order at 6:00pm.
- 2. Pledge of Allegiance:** Trustee Larson led the Pledge of Allegiance.
- 3. Roll Call:** Roll call indicated nine (9) Trustees out of ten (10) were present.
- 4. Motion to Excuse Absences:** On motion from Vice-President Hassett seconded by Trustee A. Sanchez, and passed by unanimous vote, the Board of Trustees excused the absence of Trustee Walker.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

**5. Confirmation of Agenda**

**6. Public Comment:**

- Rancho Mirage resident, Brad Anderson, made a public comment opposing the benefit assessment increase and requesting that the District run the public hearing public notice for ten days in various publications and to make the wording clearer.

- California School Employees Association Union Representative, Dale Wissman, made a public comment about the Memorandum of Understanding that is on the agenda. He commented that both Jess Lucia and Victor Scrima helped in the collaborative process and that he was looking forward to the MOU being approved at tonight's meeting.

**7. Announcements:** None.

**8. Board Reports:**

**8A – President's Report:** President Kaplan reported that staff has done a great job on the budget and the capital reserve requirements, he thanked General Manager Wittie for pulling together the Strategic Plan, and thanked the mosquitoes for staying away.

**8B – Finance Committee: Finance Committee Met Prior to Board Meeting:** Treasurer Weightman reported that the Finance Committee met tonight to review the finances. He commented that it was a big month for revenue; the Budget is within \$200,000 of what is expected; will probably close at \$9.7 million, which is slightly less than the estimate \$10 million; and the District's yield is still sitting at around 1.66%. Treasurer Weightman also reported that the budget is on the agenda for approval and reiterated his thanks to staff for a job well done.

**9. Items of General Consent:**

- A. Minutes for May 8, 2018, Board Meeting
- B. Correspondence
- C. Approval of Expenditures for May 9-31, 2018, and June 1-12, 2018
- D. Informational Items:
  - District Travel
  - Staff reports from:
    - National Conference on Urban Entomology & Invasive Pest Ant Conference, May 20-23, 2018, in Cary, NC
- E. Finance Report
- 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 – Budgeted Expense – **Edward Prendez, Information Technology Manager**

In regards to item 9F, Rancho Mirage resident Brad Anderson made a public comment stating that cost seemed high and that he would like to see the District go out to bid for printing services.

On motion from Trustee A. Sanchez seconded by Treasurer Weightman, and passed by unanimous vote, the Board of Trustees approved the Items of General Consent.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

#### **10. Old Business:**

**10A. Discussion and/or approval of Resolution 2018-08 Adopting the 2018-2021 Strategic Plan:** General Manager Wittie provided a brief presentation on the strategic plan, mission statement, vision, and values.

On motion from Secretary De Klotz seconded by Vice-President Hassett, and passed by unanimous vote, the Board of Trustees approved the Resolution 2018-08.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

#### **11. New Business:**

**11A. Discussion and/or approval of Resolution 2018-09 Approving the ratification of the Tentative Agreement by and between the District and employees in the Bargaining Unit represented by CSEA, Chapter 2001:** General Manager Wittie provided a summary of the changes to the Memorandum of Understanding. A discussion ensued.

On motion from Vice-President Hassett seconded by Trustee Kunz, and passed by unanimous vote, the Board of Trustees approved Resolution 2018-09.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

**11B. Discussion and/or approval of Resolution 2018-10 Adopting FY 2018-19 Budget:**

General Manager Wittie thanked Administrative Finance Manager l'Anson for doing a lot of work on the budget, he thanked the Finance Committee, and Treasurer Weightman for his direction. Administrative Finance Manager l'Anson provided the highlights of the FY 2018-19 proposed budget.

On motion from Treasurer Weightman seconded by Vice-President Hassett, and passed by unanimous vote, the Board of Trustees approved Resolution 2018-10.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

**11C. Discussion and/or approval of Resolution 2018-11 intention to levy assessments for fiscal year 2018-19, 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:**

Administrative Finance Manager l'Anson gave a brief report on item 11C. President Kaplan commented that he understands that raising the assessment is a sensitive topic, the twenty cents per month increase is needed to maintain and fund capital supports. Vice-President Hassett commented that the increase was a good move since we have learned how fast we can go through funds when fighting the spread of Aedes aegypti.

On motion from Trustee Kunz seconded by Trustee A. Sanchez, and passed by unanimous vote, the Board of Trustees approved Resolution 2018-11.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

**11D. Discussion and/or approval to purchase two (2) Micronair AU6539 rotary atomizers and a controller for applications by air, in an amount not to exceed \$10,000.00, from account #7850.01.500.038 – Aerial Applications – Not Budgeted; Funds Available:**

Operations Manager Wekesa gave a brief overview on the proposed purchase. A discussion ensued.

On motion from Vice-President Hassett seconded by Trustee Larson, and passed by unanimous vote, the Board of Trustees approved the item 11D.

**Ayes:** Trustees De Klotz, Hassett Kaplan, Kunz, Larson, Monroe, A. Sanchez, B. Sanchez, and Weightman.

**Noes:** None.

**Abstained:** None.

**Absent:** Trustee Walker.

**12. Closed Session:** None.

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

- Trustee Larson commented that District staff were professional, organized, concise, during Riverside County Supervisor Manual Perez's District visit and that he was very impressed by staff.

**14. Adjournment:** The meeting was adjourned by President Kaplan at 6:27 p.m.

**From:** Michael Martinez  
**Sent:** Monday, June 11, 2018 11:40 AM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Compliment Call

Good Morning All,

On Friday, June 8<sup>th</sup> we received a call from a very pleased resident Steven K. for the services he received. Caller stated he wanted to thank **Linda Petersen** and **Gonzalo Valadez** for being very Professional, Knowledgeable, Pleasant Attitudes and for following up on with him. Thank you Linda and Gonzalo for the Great team work and representing the District so well.

Sincerely,  
Michael Martinez  
Field Supervisor

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**From:** Graciela Morales  
**Sent:** Monday, June 18, 2018 12:54 PM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Compliment call

Good afternoon,

Mr. Ray of Palm Desert called regarding the service she received from our seasonal employee, **Michael Silva**. Ms. Ray said, "He was just great; he visited my property to do a routine standing water check and was very professional."

*Grace Morales*  
Accounting Technician I

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**From:** Jill Oviatt  
**Sent:** Tuesday, June 19, 2018 4:32 PM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Congratulations Abby and Linda for a job well done!

Congratulations to **Abby Torres** and **Linda Petersen** for their excellent customer service. Bobbye and I received an appreciative call from a resident in Palm Springs who has been receiving service from the District for years and she wanted to share with us how much she appreciates the work that we do. She said all of the technicians who have come to her residence over the years have given excellent service, but today she wanted to call out two staff in particular for their professionalism, kindness, attentiveness, and knowledge – and that's Abby who answered her call at the Call Center and Linda who performed the SR.

On behalf of the District, thank you both for being such excellent ambassadors of CVMVCD.  
Go team!

**Jill Oviatt, M.C.D.M.**  
Public Information Manager

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**From:** Jeremy Wittie  
**Sent:** Friday, June 22, 2018 3:51 PM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Kudos to the District and Trini!

Good Afternoon Everyone,

I got a phone call today followed up by an email (listed below) regarding the exemplary work the District and more specifically Trini is doing out there in Palm Desert.

**Nice job Trinidad Haro!**

Dear Jeremy,  
I would like to compliment you for running an impressive department, much needed in the Coachella Valley.

Earlier this week I telephoned the CVMVCD Dept to report that I had seen mosquitoes in my garage. This morning I saw one of your vehicles in my neighborhood and had the pleasure of meeting Trinidad Haro. He explained that he had found stagnant water and breeding mosquitoes that would explain the insects in my garage. He then proceeded to look around my residence and found standing water in my neighbor's fountain which he drained and sprayed.

An hour later I saw him inspecting our country club grounds. He stopped and showed us a sample of mosquito larvae that he had found on the other side of the club property.

*Trinidad Haro is a very impressive young man. He told me that he has worked for the CVMVCD for ten years. He was personable, polite, informative....an exemplary employee. I feel fortunate to have him working in our neighborhood. I appreciate the time that he has taken to discover that Marrakesh does have a mosquito problem.*

Thank you for all that you do for the valley! It was a pleasure speaking with you today!

Sincerely,  
Lee

**Jeremy Wittie, MS**  
General Manager

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**From:** Roberta Dieckmann  
**Sent:** Monday, June 25, 2018 8:57 AM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Compliment Call - Marissa

Good morning,

I received a compliment call from a resident in Palm Springs about the fantastic work Marissa did at her property. She said Marissa was very professional, knowledgeable and cordial. She went on to say Marissa had great work ethics and service.

Thank-you Marissa for representing the District so well!!

Bobbye

Bobbye Dieckmann  
Field Supervisor

---

**From:** Roberta Dieckmann  
**Sent:** Thursday, June 28, 2018 10:31 AM  
**To:** DistrictWideGroup <districtwidegroup@cvmvcd.org>  
**Subject:** Compliment call

Good morning,

I received a compliment call from a resident in Palm Springs in regards to both **Linda Petersen** and Marissa. Linda responded yesterday to an SR at his home regarding mosquitos and mosquito bites. After her inspection Linda had Call Center set up an SR for Aedes for today. Marissa responded to that SR. He said that they were both excellent employees and if the rest of the government worked that well we would be in great shape. I am proud of both of you in representing the District so well. Great job!

Bobbye

Bobbye Dieckmann  
Field Supervisor

June 25, 2018

Mr. Jeremy Wittie, General Manager  
Coachella Valley Mosquito and Vector Control District  
43-420 Trader Place  
Indio, CA 92201

RE: District Transparency Certificate of Excellence Approval

Dear Mr. Wittie:

Congratulations! Coachella Valley Mosquito and Vector Control District has successfully completed the District Transparency Certificate of Excellence program through the Special District Leadership Foundation (SDLF).

On behalf of the SDLF Board of Directors, I would like to congratulate your district on achieving this important certificate. By completing the District Transparency Certificate of Excellence Program, the Coachella Valley Mosquito and Vector Control District has proven its dedication to being fully transparent as well as open and accessible to the public and other stakeholders. Your certificate is effective for two years.

Included in this letter is your window cling year stickers so that your district may showcase this important accomplishment. Please contact Beth Hummel at 916-231-2909 or [Bethh@sdlf.org](mailto:Bethh@sdlf.org) if you would like a presentation of your certificate to your board at your district office or at an upcoming CSDA event. You may also choose to receive your certificate by mail.

Congratulations and thank you for your dedication to excellence in local government.

Most sincerely,



David Aranda  
SDLF Board President



**Coachella Valley Mosquito and Vector Control District**

Checks Issued for the Period of:

June 13, 2018 to July 6, 2018

<b>Check No</b>	<b>Payable To</b>	<b>Description</b>	<b>Check Amount</b>	<b>Total Amount</b>
-	Payroll Disbursement 6/15/2018	-	173,890.71	
-	Payroll Disbursement 6/29/2018	-	216,963.79	<b>390,854.50</b>
<b>Pre-Approved Expenditures:</b>				
<b>Cash - First Foundation Bank Checking</b>				
41695	CalPERS-RETIREMENT ACCT	Retirement Expense 4/29/18 - 5/26/18	45,858.54	
41696	DIRECTV	Utilities 5/25/18-6/24/18	36.24	
41697	ICMA Retirement Trust	Deferred Compensation 4/29/18 - 5/26/18	17,051.04	
				<b>62,945.82</b>
<b>Cash - First Foundation Bank Checking</b>				
41698	Adapco	Chemical Control	54,344.56	
41699	Aerial Services	Green Pool Surveillance	17,496.00	
41700	Airgas Safety	Operating Supplies	1,063.01	
41701	Air & Hose Source	Repair & Maintenance	98.61	
41702	Alpha Media	Public Outreach Advertising	2,668.00	
41703	American Engraving	Reproduction & Printing	356.69	
41704	Burrtec Waste Industries	Utilities	10.80	
41705	Cintas Corporation	Uniform Expense	1,858.17	
41706	Daniel's Tire Service	Vehicle Parts & Supplies	1,105.93	
41707	Desert Fire Extinguisher	Safety Expense	1,786.72	
41708	Dudek & Associates	Repair & Maintenance - Thermal	9,537.75	
41709	G & C Smog and Auto Repair	Offsite Vehicle Maintenance & Repair	100.00	
41710	Henke, Jennifer	Professional Development	574.77	
41711	Jernigan's Sporting Goods	Safety Expense	234.87	
41712	KUNA-FM	Public Outreach Advertising	900.00	
41713	KUNA-TV Telemundo	Public Outreach Advertising	1,520.00	
41714	Liebert Cassidy Whitmore	Attorney Fees	2,716.50	
41715	Moreno, Crystal	Tuition Reimbursement	944.28	
41716	NAPA Auto & Truck Parts	Vehicle Parts & Supplies	519.28	
41717	Praxair Distribution	Equipment Parts & Supplies	47.28	
41718	Refrigeration Supplies Distributor	Repair & Maintenance	36.49	
41719	Rutan & Tucker	Attorney Fees	3,032.18	
41720	SoCo Group	Motor Fuel & Oils	11,880.77	
41721	TCI Thermal Combustion Innovators	Operating Supplies	405.39	
41722	UPS	Postage	137.42	
41723	Verizon Wireless	IT Communications	98.70	
41724	Waxie Sanitary Supply	Maintenance Supplies	254.74	
41725	Petty Cash Custodian	Petty Cash Disbursement	196.88	
41726	Petty Cash Custodian	Petty Cash Disbursement	24.50	
41727	Liebert Cassidy Whitmore	HR Risk Management	6,245.87	
41728	NFPAccounting Technologies	Professional Development	650.00	
41729	Waterlogic Americas	Employee Support	58.90	
<b>Cash - First Foundation Bank Check Run Total to be Approved</b>				<b>120,905.06</b>
<b>Total Expenditures: June 13, 2018 to July 6, 2018</b>				<b>574,705.38</b>

Shelley Kaplan, President

Clive Weightman, Treasurer

Coachella Valley Mosquito and Vector Control District  
**FINANCES AT A GLANCE**  
**ALL FUNDS COMBINED**  
For the Month Ended June 30, 2018  
Preliminary

	Beginning of the Month	Change During the Month	End of the Month
INVESTMENTS	\$ 13,598,288	\$ (687,246)	\$ 12,911,042
CASH	<u>\$ 312,447</u>	<u>(210,734)</u>	<u>\$ 101,713</u>
INVESTMENTS & CASH	<u>\$ 13,910,735</u>	<u>\$ (897,980)</u>	<u>\$ 13,012,755</u>
CURRENT ASSETS	1,547,901	\$ (32,566)	1,515,335
FIXED ASSETS	10,878,714	\$ 0	10,878,714
OTHER ASSETS	4,576,583	\$ -	4,576,583
TOTAL ASSETS	<u><u>\$ 30,913,933</u></u>	<u><u>\$ (930,546)</u></u>	<u><u>\$ 29,983,388</u></u>
TOTAL LIABILITIES	\$ 5,672,924	\$ (61,436)	\$ 5,611,488
TOTAL DISTRICT EQUITY	25,241,010	(869,110)	24,371,900
TOTAL LIABILITIES & EQUITY	<u><u>\$ 30,913,933</u></u>	<u><u>\$ (930,545)</u></u>	<u><u>\$ 29,983,388</u></u>
RECEIPTS		\$ 35,491	
CASH DISBURSEMENTS			
Payroll	\$ 601,588		
General Admin	\$ 331,882		
Total Cash Disbursements		\$ (933,470)	
NON-CASH ENTRIES:		\$ (32,566)	
Accrual Modifications -			
Changes in A/P, A/R & Pre-paid insurance			
Change during Month - Excess of Cash over Receipts & Non-Cash Adjustments		<u><u>\$ (930,546)</u></u>	

CVMVCD

Cash Journal - deposits  
 1000 - Cash - Investments  
 From 6/1/2018 Through 6/30/2018

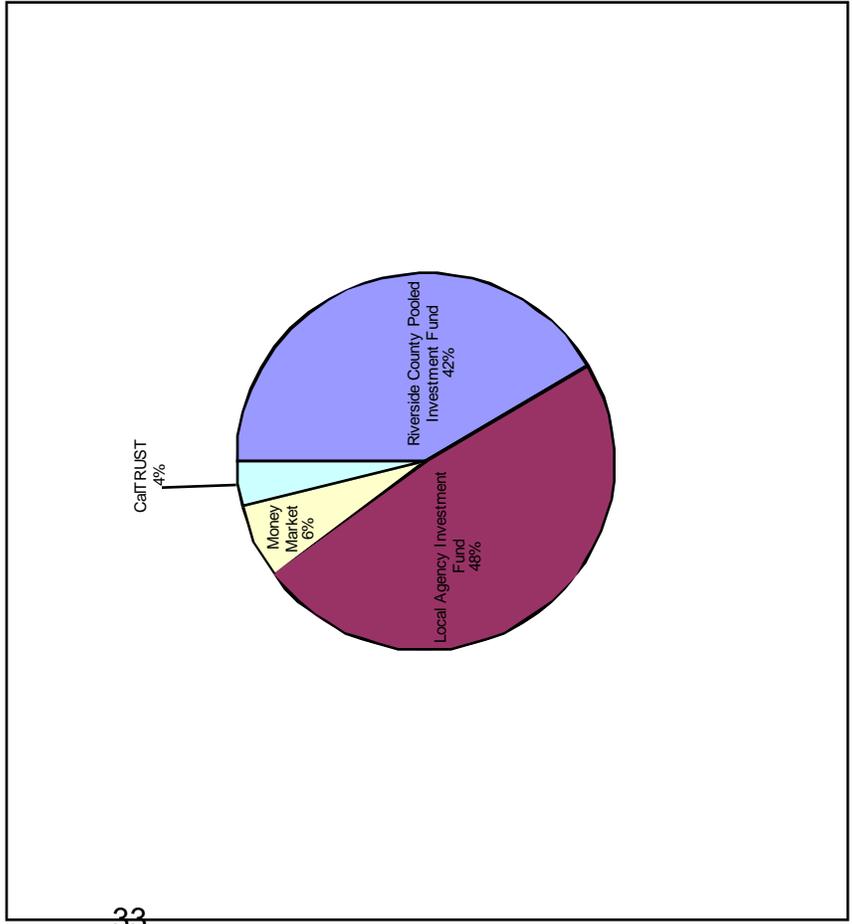
Document N...	ID	Payee/Recipient Name	Transaction Description	Effective ...	Deposits
CD00113	MARLINLEAS...	Marlin Leasing	June Receipts - Property Tax Rebate	6/4/2018	29.32
CD00114	VCJPA	Vector Control Joint Powers Agency	CARMA Dividend	6/4/2018	5,311.00
CD00115			Travel Reimbursement	6/18/2018	17.99
CD00112	RIVERSIDEC...	Riverside County	June Receipts - RDA Funds	6/19/2018	25,472.25
CD00111	RIVERSIDEC...	Riverside County	June Receipts - RDA Funds	6/20/2018	4,181.81
CD00110	RIVERSIDEC...	Riverside County	June Receipts - RDA	6/30/2018	333.90
CD00116	FIRSTFOUN...	First Foundation Bank	Accrued Account Interest	6/30/2018	144.57
Total 1000 - Cash - Investments					35,490.84
Report Total					35,490.84

**COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT**  
**INVESTMENT FUND BALANCES AS OF JUNE 30, 2018**

INSTITUTION	IDENTIFICATION	Issue Date	Maturity Date	YIELD	General Fund	Thermal Capital Fund	Equipment Fund	BALANCE
	<b>Investment Fund Balance</b>				12,020,851.27	439,814.83	450,376.37	\$ 12,911,042
L.A.IF	Common Investments			1.85%	5,813,942	212,719	217,827	\$ 6,244,488
Riverside County	Funds 51105 & 51115			1.82%	4,987,979	182,498	186,881	\$ 5,357,358
CalTRUST	Medium Term Fund			1.49%	457,762	16,748	17,151	\$ 491,661
First Foundation	Market Rate			0.25%	761,168	27,849	28,518	\$ 817,535
	<b>Total Investments</b>				12,020,851	439,815	450,376	\$ <b>12,911,042</b>

**PORTFOLIO COMPOSITION AS OF JUNE 30, 2018**

**WEIGHTED YIELD 1.72%**



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

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

Respectfully submitted

NOTED AND APPROVED

CVMVCD  
Statement of Revenue and Expenditures  
From 7/1/2017 Through 6/30/2018

		Budget - Original	Current Year Actual	Budget Variance	% Y-T-D
<b>Revenues</b>					
4000	Property Tax - Current Secured	<b>3,698,334.00</b>	3,440,879.98	(257,454.02)	93.0%
4010	Property Tax - Curr. Supplmntl	<b>30,000.00</b>	48,517.17	18,517.17	161.7%
4020	Property Tax - Curr. Unsecured	<b>141,427.00</b>	145,598.63	4,171.63	102.9%
4030	Homeowners Tax Relief	<b>46,936.00</b>	40,405.16	(6,530.84)	86.1%
4070	Property Tax - Prior Supp.	<b>18,500.00</b>	24,508.89	6,008.89	132.5%
4080	Property Tax - Prior Unsecured	<b>7,000.00</b>	0.00	(7,000.00)	0.0%
4090	Redevelopment Pass-Thru	<b>4,260,487.00</b>	4,164,356.52	(96,130.48)	97.7%
4520	Interest Income - LAIF/CDs	<b>100,000.00</b>	98,877.96	(1,122.04)	98.9%
4530	Other Miscellaneous Receipts	<b>63,000.00</b>	58,063.45	(4,936.55)	92.2%
4551	Benefit Assessment Income	<b>1,620,638.00</b>	<u>1,563,914.10</u>	(56,723.90)	96.5%
	<b>Total Revenues</b>	<b><u>9,986,322.00</u></b>	<u>9,585,121.86</u>	<u>(401,200.14)</u>	96.0%
<b>Expenditures</b>					
<b>Payroll Expenses</b>					
5101	Payroll - FT	<b>4,448,098.00</b>	4,269,086.18	179,011.82	96.0%
5102	Payroll Seasonal	<b>167,800.00</b>	189,759.50	(21,959.50)	113.1%
5103	Temporary Services	<b>6,900.00</b>	6,900.00	0.00	100.0%
5105	Payroll - Overtime Expense	<b>42,000.00</b>	18,092.19	23,907.81	43.1%
5150	CalPERS State Retirement	<b>490,340.00</b>	458,077.39	32,262.61	93.4%
5155	Social Security Expense	<b>286,090.00</b>	281,787.33	4,302.67	98.5%
5165	Medicare Expense	<b>66,909.00</b>	66,929.84	(20.84)	100.0%
5170	Cafeteria Plan	<b>1,030,961.00</b>	1,007,753.43	23,207.57	97.7%
5172	Retiree Healthcare	<b>342,420.00</b>	372,888.44	(30,468.44)	108.9%
5180	Deferred Compensation	<b>93,153.00</b>	83,314.97	9,838.03	89.4%
5195	Unemployment Insurance	<b>34,669.00</b>	34,600.31	68.69	99.8%
	<b>Total Payroll Expenses</b>	<b><u>7,009,340.00</u></b>	<u>6,789,189.58</u>	<u>220,150.42</u>	96.9%
<b>Administrative Expenses</b>					
5250	Tuition Reimbursement	<b>15,000.00</b>	7,813.00	7,187.00	52.1%
5300	Employee Incentive	<b>6,000.00</b>	5,282.68	717.32	88.0%
5301	Employee Support	<b>4,000.00</b>	3,813.19	186.81	95.3%
5302	Wellness	<b>2,500.00</b>	0.00	2,500.00	0.0%
5305	Employee Assistance Program	<b>2,800.00</b>	3,148.00	(348.00)	112.4%
6000	Property & Liability Insurance	<b>113,647.00</b>	32,170.17	81,476.83	28.3%
6001	Workers' Compensation Insurance	<b>252,350.00</b>	119,636.04	132,713.96	47.4%
6050	Dues & Memberships	<b>23,530.00</b>	23,442.50	87.50	99.6%
6060	Reproduction & Printing	<b>22,600.00</b>	7,884.21	14,715.79	34.9%
6065	Recruitment/Advertising	<b>4,000.00</b>	4,475.55	(475.55)	111.9%
6070	Office Supplies	<b>17,900.00</b>	13,810.98	4,089.02	77.2%
6075	Postage	<b>8,000.00</b>	5,595.08	2,404.92	69.9%
6080	Computer & Network Systems	<b>5,000.00</b>	4,967.32	32.68	99.3%
6085	Bank Service Charges	<b>200.00</b>	134.10	65.90	67.1%
6090	Local Agency Formation Comm.	<b>1,100.00</b>	1,184.22	(84.22)	107.7%
6095	Professional Fees	<b>72,000.00</b>	72,746.83	(746.83)	101.0%
6100	Attorney Fees	<b>81,000.00</b>	105,808.43	(24,808.43)	130.6%
6106	HR Risk Management	<b>4,500.00</b>	4,500.00	0.00	100.0%
6110	Conference Expense	<b>39,600.00</b>	38,573.40	1,026.60	97.4%
6115	In-Lieu	<b>13,200.00</b>	12,800.00	400.00	97.0%
6120	Trustee Support	<b>4,000.00</b>	4,033.52	(33.52)	100.8%
6200	Meetings Expense	<b>2,000.00</b>	2,033.80	(33.80)	101.7%

CVMVCD  
Statement of Revenue and Expenditures  
From 7/1/2017 Through 6/30/2018

		Budget - Original	Current Year Actual	Budget Variance	% Y-T-D
6210	Promotion & Education	20,000.00	21,071.82	(1,071.82)	105.4%
6220	Public Outreach Advertising	40,000.00	16,251.31	23,748.69	40.6%
6500	Benefit Assessment Expenses	88,440.00	95,761.11	(7,321.11)	108.3%
<b>Total Administrative Expenses</b>		<b>843,367.00</b>	606,937.26	236,429.74	72.0%
<b>Utilities</b>					
6400	Utilities	105,000.00	87,408.38	17,591.62	83.2%
6410	Telecommunications	11,300.00	7,676.64	3,623.36	67.9%
<b>Total Utilities</b>		<b>116,300.00</b>	95,085.02	21,214.98	81.8%
<b>Operating</b>					
7000	Uniform Expense	24,450.00	28,662.23	(4,212.23)	117.2%
7050	Safety Expense	20,550.00	19,687.77	862.23	95.8%
7100	Physican Fees	5,000.00	5,110.00	(110.00)	102.2%
7150	IT Communications	36,200.00	37,018.08	(818.08)	102.3%
7200	Household Supplies	4,000.00	2,839.66	1,160.34	71.0%
7300	Repair & Maintenance	42,000.00	32,788.35	9,211.65	78.1%
7310	Maintenance & Calibration	8,000.00	4,995.75	3,004.25	62.4%
7350	Permits, Licenses & Fees	12,500.00	4,945.81	7,554.19	39.6%
7400	Vehicle Parts & Supplies	29,000.00	27,875.69	1,124.31	96.1%
7420	Offsite Vehicle Maint & Repair	6,000.00	17,519.62	(11,519.62)	292.0%
7450	Equipment Parts & Supplies	19,500.00	17,082.41	2,417.59	87.6%
7500	Small Tools Furniture & Equip	1,700.00	1,080.54	619.46	63.6%
7550	Lab Supplies & Expense	30,500.00	23,968.69	6,531.31	78.6%
7570	Green Pool Surveillance	22,000.00	17,496.00	4,504.00	79.5%
7575	Surveillance	38,500.00	34,988.96	3,511.04	90.9%
7600	Staff Training	60,200.00	44,572.51	15,627.49	74.0%
7650	Equipment Rental	1,000.00	287.88	712.12	28.8%
7675	Contract Services	153,100.00	139,800.91	13,299.09	91.3%
7700	Motor Fuel & Oils	68,200.00	82,989.47	(14,789.47)	121.7%
7750	Field Supplies	9,400.00	3,956.53	5,443.47	42.1%
7800	Control Products	772,500.00	619,325.16	153,174.84	80.2%
7850	Aerial Applications	145,500.00	85,327.33	60,172.67	58.6%
8415	Capital Outlay	35,000.00	26,468.36	8,531.64	75.6%
8487	Furniture & Equipment	5,000.00	1,245.09	3,754.91	24.9%
8510	Research Projects	120,000.00	120,000.00	0.00	100.0%
9000	Contingency Expense	154,980.00	0.00	154,980.00	0.0%
<b>Total Operating</b>		<b>1,824,780.00</b>	1,400,032.80	424,747.20	76.7%
<b>Contribution to Capital Reserves</b>					
8900	Transfer to other funds	192,534.00	0.00	192,534.00	0.0%
<b>Total Contribution to Capital Reserves</b>		<b>192,534.00</b>	0.00	192,534.00	0.0%
<b>Total Expenditures</b>		<b>9,986,321.00</b>	8,891,244.66	1,095,076.34	89.0%
<b>Net revenue over/(under) expenditures</b>		<b>1.00</b>	693,877.20		

**CVMVCD**  
Balance Sheet  
As of 6/30/2018  
(In Whole Numbers)

		Current Year
<b>Assets</b>		
Cash and Investments		
1000	Cash - Investments	12,911,042
1016	Petty Cash	500
1017	Petty Cash Checking	1,500
1025	First Foundation - General	11,413
1026	First Foundation - Payroll	88,300
	Total Cash and Investments	13,012,755
Current Assets		
1080	Interest Receivable	11,730
1085	Inventory	445,852
1168	Prepaid Insurance	15,728
1169	Deposits	1,042,025
	Total Current Assets	1,515,335
Fixed Assets		
1300	Equipment/Vehicles	1,685,368
1310	Computer Equipment	417,111
1311	GIS Computer Systems	301,598
1320	Office Furniture & Equipment	1,206,328
1330	Land	417,873
1335	Oleander Building	5,665,862
1336	Signage	23,651
1340	Structures & Improvements	3,026,126
1341	Bio Control Building	6,963,768
1342	Bio Control Equip/Furn	32,034
1399	Accumulated Depreciation	(8,861,005)
	Total Fixed Assets	10,878,714
Other Assets		
1520	Resources to Be Provided	3,489,922
1525	Deferred Outflows of Resources	1,086,661
	Total Other Assets	4,576,583
	Total Assets	29,983,388
<b>Liabilities</b>		
Short-term Liabilities		
Accounts Payable		
2015	Credit Card Payable	139,173
2020	Accounts Payable	144,280
2030	Accrued Payroll	(4,276)
2035	Fundware AP Clearing	1
2040	Payroll Taxes Payable	(1,296)
2175	Claims/Judgements Payable	(144)
2185	Employee Dues	(54)

**CVMVCD**  
Balance Sheet  
As of 6/30/2018  
(In Whole Numbers)

		<b>Current Year</b>
	Total Accounts Payable	277,683
	Total Short-term Liabilities	277,683
	Long-term Liabilities	
2100	Pollution Remediation Obligati	2,100,000
2110	OPEB Obligation	1,032,754
2200	Net Pension Liability	1,392,005
2210	Deferred Inflows of Resources	229,218
2500	Compensated Absences Payable	579,827
	Total Long-term Liabilities	5,333,805
	Total Liabilities	5,611,488
	Fund Balance	
	Non Spendable Fund Balance	
3920	Investment in Fixed Assets	10,698,793
3945	Reserve for Prepaids & Deposit	1,053,466
3960	Reserve for Inventory	304,047
	Total Non Spendable Fund Balance	12,056,306
	Committed Fund Balance	
3965	Public Health Emergency	3,328,774
	Total Committed Fund Balance	3,328,774
	Assigned Fund Balance	
3910	Reserve for Operations	5,991,793
3925	Reserve for Future Healthcare Liabilities	994,582
3955	Thermal Remediation Fund	452,244
3970	Reserve for IT Replacement	195,714
3971	Reserve for Vehicle Replacement	762,192
3985	Reserve for Facility Capital Improvements	994,582
	Total Assigned Fund Balance	9,391,107
	Unassigned Fund Balance	
3900	Fund Equity	(531,750)
	Total Unassigned Fund Balance	(531,750)
	Current YTD Net Income	127,463
	Total Current YTD Net Income	127,463
	Total Fund Balance	24,371,900
	Total Liabilities and Net Assets	29,983,388



**Coachella Valley Mosquito and Vector  
Control District**

**Staff Report**

**July 10, 2018**

**Agenda Item:** Informational Item

Treasurer to Approve Release of Payment to Vendors for August – **David l’Anson,  
Administrative Finance Manager**

**Report:**

At the July 11, 2017 Board Meeting, the Trustees approved excluding the month of August from the regular meeting schedule, indefinitely. Resolution 1997-17, approved October 14, 1997, authorizes the Treasurer to release payment to vendors when a quorum, for the monthly Board Meeting, is not present. Due to the cancellation of the Board Meeting the release of payment to vendors will be approved by *Treasurer Shelley Kaplan*.

Payments to vendors that are approved by *Treasurer Shelley Kaplan* will be presented to the Board at the September 11, 2018 Board Meeting for final review.



**Coachella Valley Mosquito and Vector  
Control District**

**Staff Report**

**July 10, 2018**

**Agenda Item:** Informational Item

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

**Background:**

**September 24-27, 2018: CSDA Annual Conference (Indian Wells, 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 be made by the SEPTEMBER 2018 BOARD MEETING.**



## Coachella Valley Mosquito and Vector Control District

### Staff Report

July 10, 2018

#### **Agenda Item:** Informational Item

Semi-annual research reports from the University of California, Davis, University of California, Riverside, and the USDA for 2018 – 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 2017 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. Determine the number of mosquitoes feeding on sugar bait stations to allow for comparisons between current testing methods and testing sugar bait stations for arbovirus.
- b. Elucidate the most effective floral scent for attraction and use of sugar bait stations

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

- a. Examine the use of attractive toxic sugar bait stations with fungi and pyriproxifen as the toxic agents 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 spread of 3 types of biological control organisms (decapitating phorid flies) released during the project funded in 2014-2015.

#### **Exhibits:**

- Coffey Report
- Walton Report
- Oi Report

**Comparison of Floral Scent Attractants for *Culex* Mosquitoes in the Coachella Valley**

CVMVCD mid-year progress report

D. Swetnam, J. Stuart, K. Young, H. Lothrop, L. Coffey

**Note: Most of our efforts including the field component of this project will occur in the latter half of 2018.**

**Aim 1) Identify the floral scent that is most attractive to *Culex* mosquitoes for use with sugar-baited surveillance.**

Progress

A) Selection of site and study time.

In order to determine the most appropriate period to conduct the sugar-baited field study, mosquito abundance data was reviewed from the Coachella Valley Mosquito and Vector Control District (CVMVCD) (Figure 1). Mosquito counts were obtained from all sites in Coachella Valley between 2016 and 2017. Given that weekly deployments of sugar-baited traps will be coordinated with deployment of CO<sub>2</sub> traps, the data was filtered to focus on mosquito densities from CO<sub>2</sub> traps. Furthermore, only *Culex spp.* mosquitoes were considered because they are the vectors responsible for transmitting the 2 arboviruses currently circulating in California (St. Louis Encephalitis [SLEV] and West Nile virus [WNV]). Two species of *Culex* mosquitoes (*Culex tarsalis* and *Culex pipiens*) were identified in Coachella Valley during 2016 and 2017.

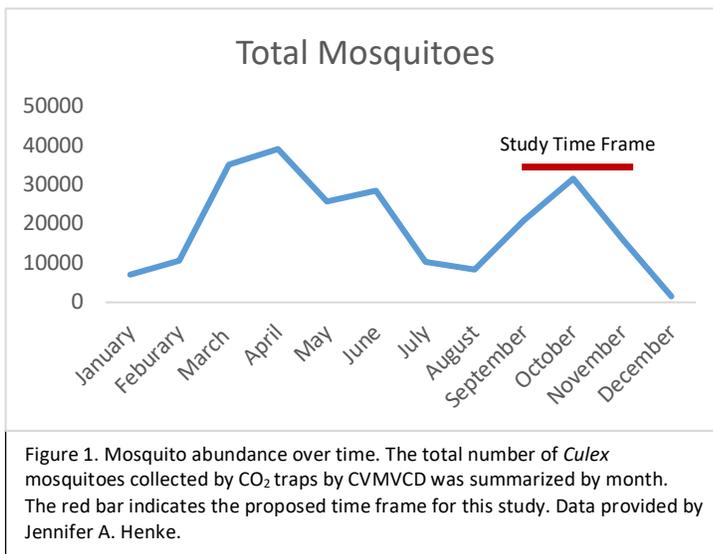


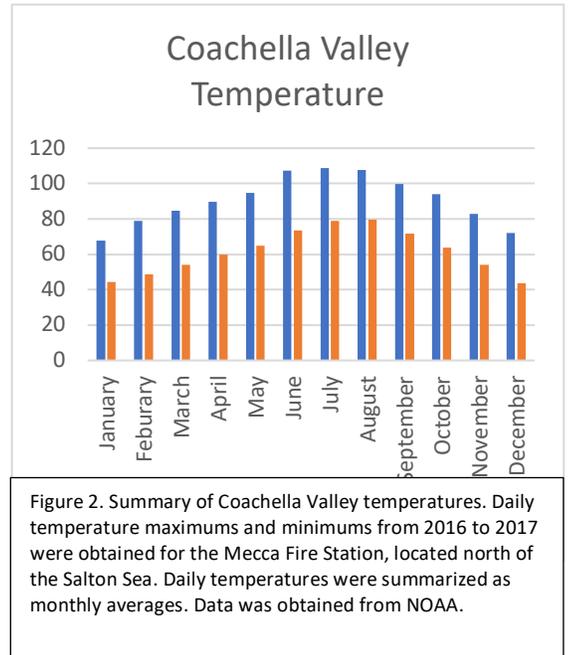
Figure 1. Mosquito abundance over time. The total number of *Culex* mosquitoes collected by CO<sub>2</sub> traps by CVMVCD was summarized by month. The red bar indicates the proposed time frame for this study. Data provided by Jennifer A. Henke.

In the initial project design, it was proposed that a field study comparing floral scents would be conducted during a 12-week period from May 2018 through July 2018. However, analysis of data obtained from CVMVCD (Figure 1) indicated that this period was not optimal to conduct the sugar-baited study for the reasons below:

- 1) While there is elevated detection of WNV and SLEV from May to July (data not shown), mosquito abundance declines during this time (Figure 1). We want to conduct the field study while mosquito abundance is highest to maximize the chances of collecting mosquitoes in sugar-baited traps.
- 2) One of the most significant advantages of the sugar-baited traps is their ability to detect WNV activity as much as two weeks earlier than traditional CO<sub>2</sub> and gravid traps (Lothrop et al. 2012, Steiner et al. 2018). While the reasons for earlier sugar-baited

detections are not known, it is possible that ecological conditions, such as temperature or precipitation, may affect mosquito sugar-feeding behavior.

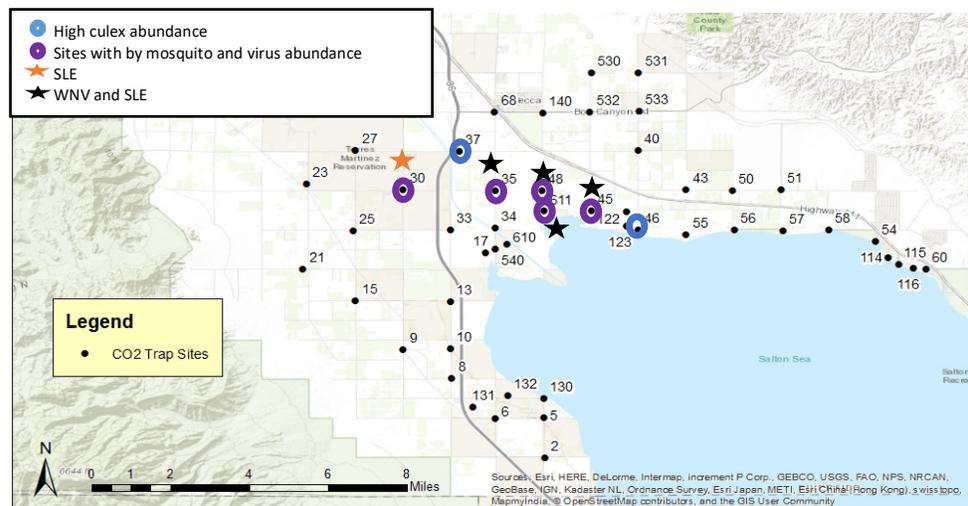
Collecting mosquitoes across a broad range of temperatures will also allow us to determine if environmental conditions that affect mosquito activity also influence floral scent preference. In order to evaluate ecological conditions of the Coachella Valley area, historic temperature data collected at the Mecca Fire Station (USC00045502) from January 1, 2016 to December 31, 2017 were obtained from the National Oceanic and Atmospheric Administration (NOAA) (Figure 2). In Coachella Valley, the average monthly temperature fluctuated 13°F between May and July, but by 17-18°F between September and November.



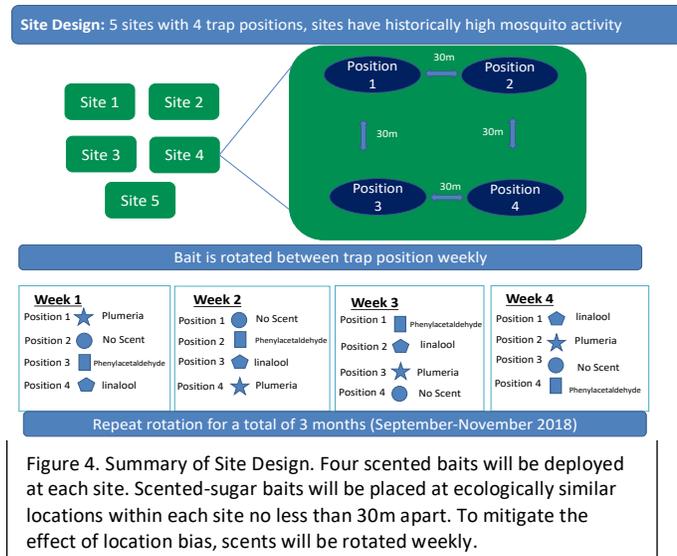
Since temperatures vary more in September-November compared to May-August, a three-month period spanning September-November was chosen for this field study.

## B) Site selection and Design

The optimal locations for the sugar-baited trap study were determined using historic data provided by CVMVCD. The following sites reported the highest total counts of *Culex* mosquitoes between 2016 and 2017: 30, 35, 37, 45, 46, 48, 121, 327, 540, 611 (Figure 3). The sugar-baited traps will be deployed at 5 to 6 of the top sites, which will be chosen by Hugh Lothrop.



At each site, 4 sugar-baited traps will be placed in a standard latin square design (Figure 4). All traps will be placed a minimum of 30 meters away from other sugar-baited or CO<sub>2</sub> traps. Each trap will be treated with a test scent (plumeria scent [Plumeria fine fragrance mist, Bath and Body Works], phenylacetaldehyde, linalool, or water) and collected and processed by Hugh Lothrop weekly. Traps will also be rotated on a weekly basis to eliminate the effect of confounding factors associated with location.



## Aim 2) Speciate and enumerate collected mosquitoes to determine whether traps scented with different floral compounds attract different mosquitoes

Progress:

### A) Trap design

One limitation of the sugar-baits we initially designed is that they were not engineered to capture mosquitoes that fed on the baits. For this study, it we need to trap the mosquitoes that visit to allow subsequent speciation and enumeration. To overcome this limitation, the sugar-baits will be paired with a passive mosquito trap to allow collection of insects that visit each bait. In the original proposal, a device known as the Sentinel Mosquito Arbovirus Capture Kit (SMACK) (Johnson et al. 2015) was proposed to house the baits and capture mosquitoes. However, personal communications with the SMACK trap designer, Scott Richie, revealed that a similar study that relied on scented lures and did not utilize CO<sub>2</sub> failed to collect significant numbers of mosquitoes. It is likely that the SMACK traps worked well with CO<sub>2</sub> lures, but not scented lures because the CO<sub>2</sub> falls downward, creating a plume that attracts mosquitoes through the trap entrance. However, scented lures that do not rely on CO<sub>2</sub> dissipate randomly and can travel through the mesh sides of the trap. This random diffusion pattern does not produce a scent gradient for the mosquitoes to follow to the trap entrance.

To address this concern, three additional passive traps were designed (Figure 5) and are currently being tested in the laboratory and at several field locations in the Sacramento and Yolo Mosquito and Vector Control District. In traps 1 and 2, sticky fly paper (yellow) was attached to the inside of the peat pot containing the sugar-bait. As mosquitoes attempt to find

and feed on the sugar-baits, they bump the sticky paper and are captured. The design of trap 3 is based on a commercially available passive trap with solid sides that would only allow diffusion of the scent through the trap entrance. The design should create a scent gradient that will attract mosquitoes through the trap entrance, which consists of a hole in a metal mesh funnel.

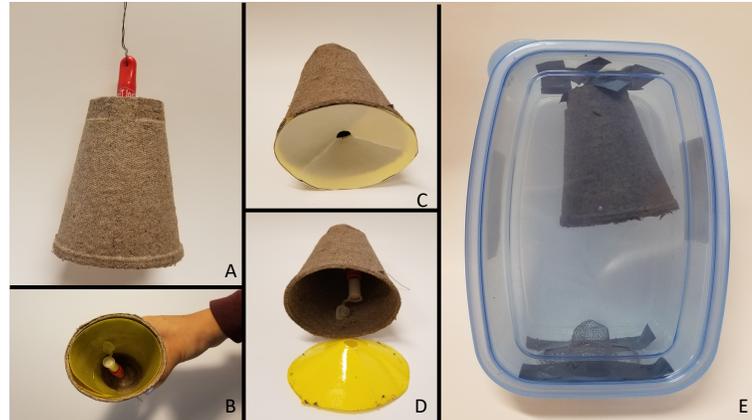


Figure 5. Trap Design. Three possible traps were tested: trap 1 (A and B), trap 2 (C and D) and trap 3 (E). All traps included the sugar-bait tube, scented lure (plumeria) and peat pot. Traps 1 and 2 rely on sticky paper to capture the mosquitoes that visit the sugar-bait. In trap 3, the sugar-baits are housed in an 82.2 oz plastic container with a mesh funnel. Mosquitoes enter the trap through a 1-inch hole in the mesh funnel and are unable to escape because they are averse to flying downward.

For the laboratory studies, the trap designs were compared using *Culex tarsalis* mosquitoes from the Davis Arbovirus Research and Training colony, which was established from mosquitoes collected in the Kern National Wildlife Reserve in 2002. Forty adult mosquitoes were placed in a 1-foot x 1-foot x 1-foot cage with a sugar-baited trap. There was no other source of sugar water available for the mosquitoes to ingest. A negative control cage was created that contained no trap and no sugar water to determine baseline survival rates. Five days later, the number of captured mosquitoes was evaluated for each trap.

For the ongoing field studies, 3 locations were chosen based on recommendations from Marcia Reed at the Sacramento and Yolo Mosquito and Vector Control District and data obtained from the California Vectorborne Disease Surveillance Gateway (CalSurv). Site 1 was located in Cache Creek in Vernon, Nicholas Community Park. Site 2 was located in an agricultural area in Dunnigan, CA with high levels of *Cx. tarsalis*. Site 3 was located near the Davis Cemetery where high levels of *Cx. pipiens* were reported.

While the trap design pilot studies are still ongoing, initial results indicate that trap design 1 is the most promising. Field studies have demonstrated that trap 1 is the most robust design with no evidence that environmental conditions will negatively affect the trap's performance. Traps 2 and 3 both encountered challenges relating to the adherence of sticky paper and wire.

Thus far, trap 1 has also been the most successful trap in the colony. However, additional studies are ongoing to achieve statistical significance and to further evaluate trapping efficiency. Future studies will utilize sugar-water colored with blue food coloring. Mosquitoes that feed on blue sugar water can be easily identified by blue abdomens. This will help us distinguish between mosquitoes that were trapped before and after feeding. It will also allow us to identify mosquitoes that feed on the sugar-bait but escaped the trap.

## B) Statistical design

In order to determine that the study design was sufficient to detect a statistically significant ( $p$ -value  $< 0.05$ ) difference between the mosquito preference for each of the floral scent treatments, a power analysis was conducted using the program G-power (Figure 6). The results of the power analysis indicated that a total sample size of 20 traps per week was required to ensure the study is adequately powered (power = 0.8) to detect a significant difference with a small effect size ( $f = 0.2$ ) between the 4 scented treatment groups over a 12-week period. Assuming that all scents will be tested at each site, at least 5 sites will be needed to achieve a total sample size of 20.

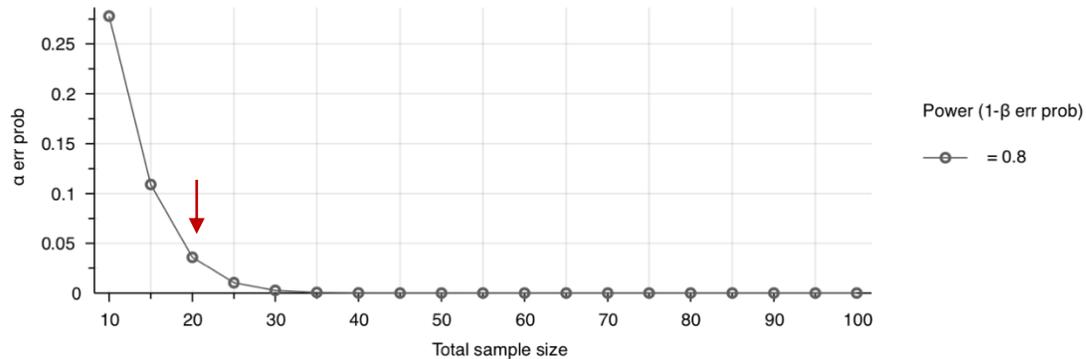


Figure 6. Results of the power analysis. A power analysis was performed in Gpower version 3.1 to determine the number of sites necessary to detect a statistically significant difference between mosquito preference for the floral scents using a repeated measures ANOVA test. The probability of type I error or  $p$ -value ( $\alpha$  err prob) represents the likelihood of incorrectly detecting a difference. The probability of a type II error (power  $(1-\beta)$ ) represents the likelihood of failing to detect a difference that is present. The red arrow indicates the sample size at which the  $p$ -value drops below 0.05.

# ***Progress Report, June 2018: Attractive Toxic Bait Station Control of Mosquitoes in Underground Storm Drain Systems of the Coachella Valley***

William E. Walton, Ph.D., Eric Huynh and David A. Popko, M.S.  
Department of Entomology, University of California, Riverside, CA 92521

## *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 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 field conditions.

## *Experimental Design for USDS Field Study*

A total of twelve USDS located in the cities of Coachella (CO-5 sites), La Quinta (LQ-3 sites), and Palm Desert (PD-4 sites) were selected for field ATSB experiments in spring of 2018. All USDS were monitored weekly for adult (CDC light traps - Figure 1) and larval (dipper samples) activity starting March 23, 2018. Four USDS with the lowest adult mosquito catch rates at each site from the initial CDC light trap survey were excluded from ATSB deployment. Each of the eight remaining USDS contained a single ATSB and were grouped into four pairs, each pair with a treatment and control on opposite sides of a shared street within a 100 m radius. Freshly prepared ATSBs were inserted into USDS on March 31 and the impact was monitored over a 1 month period. Air temperatures in the USDS region (CIMIS, La Quinta II station) averaged 70 °F (maximum = 95 °F) during March 31-April 19 assays and increased to 82°F (maximum = 98 °F) during the final assay (April 26).

A metal frame surrounded by a large insect rearing bag (1 m x 0.66 m) with an access zipper on one side and an ATSB at center formed the basic mesh enclosure layout. In addition, two 200 mL glass bowls for mosquito larval placement were secured to the top edges of the metal frame and rested on a cardboard spacer above the ATSB. Each glass bowl was sunken halfway into a protective/stabilizing plastic bowl and covered with a plastic splash shield to minimize loss of mosquito larvae. Each ATSB enclosure was threaded through a protective metal disc cover and attached with hooked adjustable rubber straps to a USDS ladder. The vertical placement of each enclosure was halfway between the USDS ceiling and standing water reservoir (= floor in dry structures). Given robust adult numbers in CDC light traps and an appreciable number of larval

breeding sites (see Results), it was decided to keep mesh enclosures open for unfettered mosquito access to examine ATSB efficacy based on wild mosquito population interactions.



Figure 1. Open portable mesh enclosures for field assessment of ATSBs in USDS in the Coachella Valley. Note the water levels at the same site (Coachella-A2) at day 1 (left) and day 20 (center) of the USDS trial.

The ATSB design deployed in the USDS was the tubing model (see Annual Report 2017) and stored nearly 2 liters of mosquito attractant/control compounds. Each treatment ATSB (designated PBBacid) consisted of attractive sugar bait with 1% boric acid (700 mL), pyriproxyfen (PPF-max label concentration) in wick (400 mL total) and absorbant crystal (800 mL) reservoirs, and a core contact zone of *Beauveria bassiana* powder (BGWP-1.5 g per 2000 cm<sup>2</sup>). Each control ATSB contained attractive sugar bait solution with water reservoirs and a dry core contact zone.

The larvicidal impact of ATSB-based PPF within glass bowls was determined during two-day exposures of early fourth instar *Culex quinquefasciatus* larvae from the UC Riverside laboratory colony. A batch of 15 larvae was transferred into each bowl and recovered after a two day period using a 30 mL turkey baster. Recovered individuals (late 4<sup>th</sup> instar larvae and pupae) were monitored for mortality and adult emergence in separate clean 200 mL glass bowls in the laboratory. Larval assays were repeated in ATSB enclosures aged 1, 6, 20, and 26 days in USDS.

A single CDC light trap was deployed overnight in each USDS to monitor native adult mosquito abundance. Collection chambers were transported in a cooler and dead mosquitoes were identified to species with a dissecting microscope. A subsample of dead *Culex quinquefasciatus* mosquitoes (maximum n = 50 males and n = 50 females per sample) and all live *Culex quinquefasciatus* in traps were monitored in the laboratory for fungal infection using standardized methods (e.g. Research Reports to CVMVCD 2014-present). Live adults were aspirated in the laboratory from collection chambers into 50 dram plastic vials with dental wicks saturated with 10% sugar solution and observed for mortality for up to 21 days. Dead specimens of all ages were disinfected with 70% ethanol and transferred to 24 well plates inside a 100% humidity chamber for up to 10 days. Mosquito cadavers were examined weekly for growth of

*Beauveria bassiana* from cuticular surfaces.

Immature mosquito abundance was assessed in USDS with sufficient standing water to accommodate a standard length pole attached to a 500 mL dipper cup. Water runoff from the street was evident in all USDS; however, typically only half of the total complement of USDS contained permanent water reservoirs that could be sampled every week (see Results) A total of 1-3 dipper samples were taken from each USDS and each sample volume was reduced with a mesh-windowed measuring cup and preserved with 95% ethanol. A dissecting light microscope was used to identify and quantify immature mosquitoes to species along with their associated invertebrates.

*Results: Laboratory Larvae Exposed to USDS*

An average of fourteen (out of 15) *Culex quinquefasciatus* larvae exposed to USDS enclosures were recaptured for laboratory rearing; although 100% mortality occurred in a single USDS (Coachella) during the final assay period (see Discussion). Unlike laboratory experiments, where dead adults were commonly found on the water surface of glass bowls after treatment exposure, dead adults from wild populations were absent in all water bowl enclosures. Overall emergence rates of exposed larvae (Figure 2) contrasted greatly between PBBacid ( $23 \pm 9\%$ ) and control ( $83 \pm 5\%$ ) treatments and temporal differences in emergence were evident for both. PBBacid emergence was lower at 1-20 days (mean =  $14 \pm 3\%$ ) compared to 26 days (mean =  $49 \pm 3\%$ ) and control emergence was lower in freshly deployed ATSBs (day 1 mean =  $69 \pm 2\%$ ) compared to ATSBs aged 6, 20, and 26 days (mean =  $88 \pm 1\%$ ). USDS cities were associated with similar average emergence rates for both PBBacid (CO =  $19 \pm 1\%$  vs. LQ =  $18 \pm 12\%$  vs. PD =  $22 \pm 10\%$ ) and control (CO =  $83 \pm 6\%$  vs. LQ =  $83 \pm 3\%$  vs. PD =  $83 \pm 5\%$ ) groups.

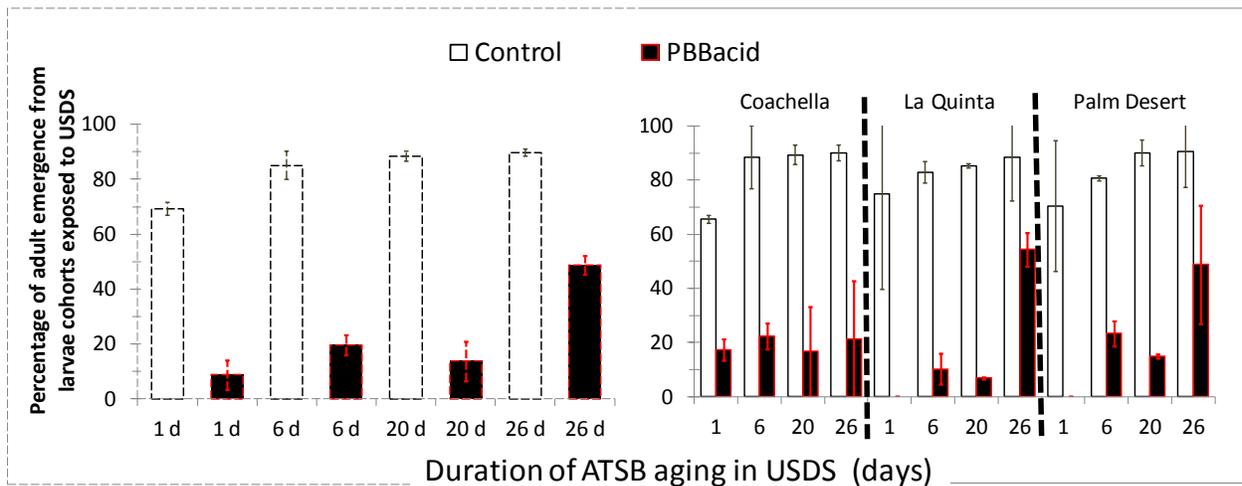


Figure 2. Emergence rates (mean  $\pm$  SE) of laboratory *Culex quinquefasciatus* larvae to adults after exposure to aged ATSB enclosures overall (left) and grouped by city (right).

### Results: Adult Mosquito Trends in USDS

Adults were commonly observed resting on the outside of enclosures (Figure 2), but were uncommon inside enclosures and dead specimens were never collected from enclosure surfaces (Popko, field observations). Red coloration within trapped females and males (Figure 2) was evident in a small proportion of adult cadavers, indicating wild adults were feeding to some extent on the red-dyed bait of ATSBs.



Figure 3. Arrows indicate resting adults on the outside of mesh enclosure in USDS (left). Red coloration of a female, male, and cohort (right) of wild mosquitoes collected from USDS (note lack of red in wild adults in right bottom well).

USDS light traps averaged 46 adult mosquitoes over a six week period encompassing the ATSB trial (Figure 4). *Culex quinquefasciatus* comprised more than 99% of all mosquitoes (total  $n = 3,853$ ) and *Culex tarsalis* was intermittently collected. Females were non-gravid (74%), gravid (22%), bloodfed (1%) or of unknown parity (3%) and about twice as abundant as males (mean = 63% females vs. 37% males). All adult cadavers examined for the presence of fungus were negative for *Beauveria bassiana*.

Adult mosquito production varied among and within city sites during the course of the study. Overall, Coachella traps produced greater numbers (mean = 50 adults per trap) than Palm Desert (mean = 36 adults per trap) and La Quinta (mean = 13 adults per trap); however declining Coachella abundance was surpassed by Palm Desert abundance by the end of the sample period. La Quinta trap counts were generally lower and more consistent than counts at Coachella and Palm Desert.

ATSB treatments averaged 55 (PBBacid), 30 (control), and 18 (no ATSB) adults per trap. Adult averages increased in PPBacid USDS over time to exceed 100 adults per trap on final dates; in contrast, means were more stable over time in USDS with controls (first half = 32 vs. second half = 29) and lacking ATSBs (first half = 17 vs. second half = 19).

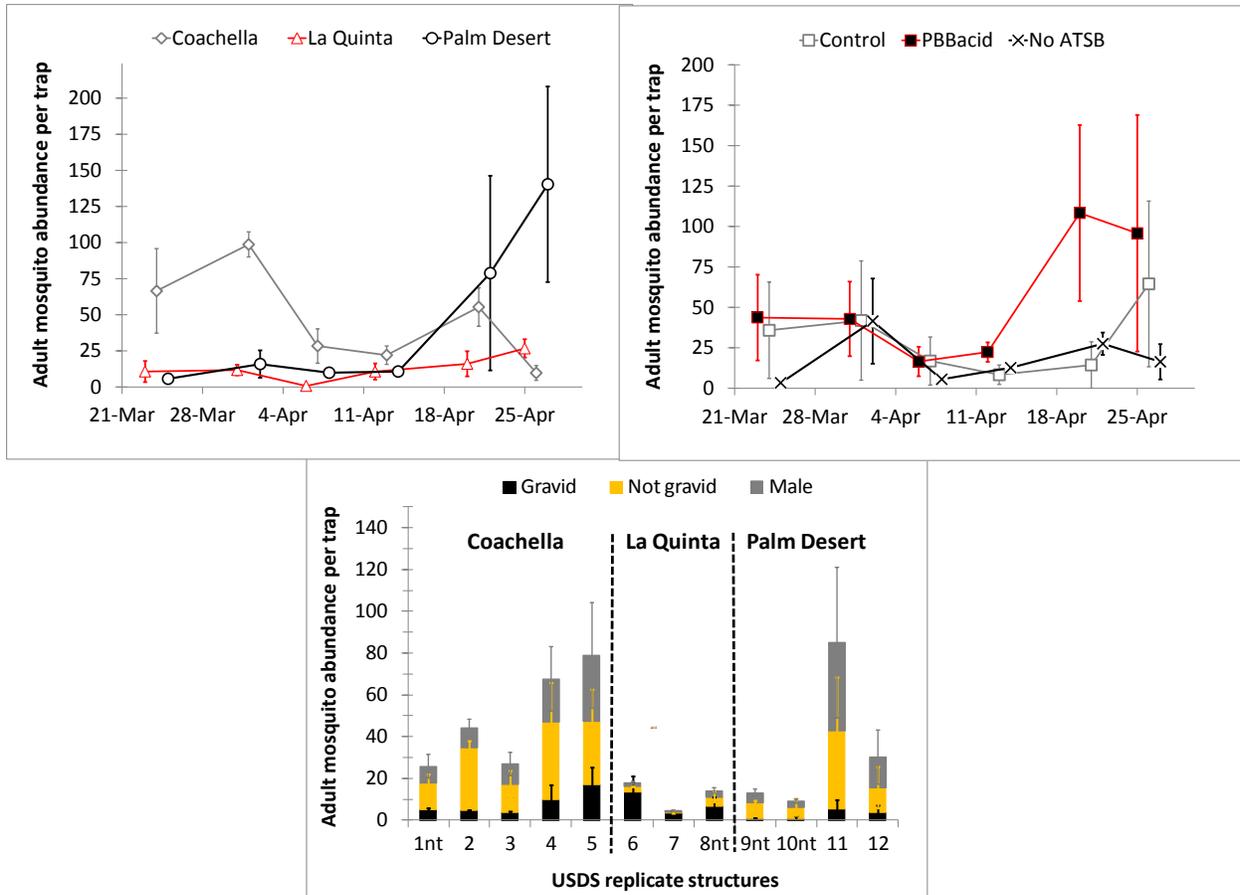


Figure 4. Adult mosquito abundance (mean  $\pm$  SE) in CDC-style light traps. USDS productivity is grouped by city (top left) and ATSB treatment (top right) in spring 2018. The relative abundance of gravid females, non-gravid females, and males for each individual USDS structure is represented in the bottom panel (nt = no ATSB deployed).

*Results: Immature Mosquito Trends in USDS*

Permanent water reservoirs that allowed weekly dipper sampling were present in a total of six USDS, two at Coachella (1-PBBacid, 1-control) and four at Palm Desert (1-PBBacid, 1-control, and 2-no ATSB). At the onset of the study (March 23) water depths at these sites ranged in depth from 20-81 cm; however water levels exceeded 1 m on occasion (Figure 1). Two USDS at Coachella (1 – PBBacid, 1 – control) were sampled intermittently when sufficiently flooded. Four USDS, one at Coachella (no ATSB) and all three at La Quinta (1-PBBacid, 1-control, 1-no ATSB), were never dipper sampled due to a lack of appreciable water pooling.

Immature *Culex* mosquitoes averaged 19 specimens per dipper sample (Figure 5) and were composed of 54% early instars (L1&2), 40% late instars (L3&4), 4% pupae, and 2% egg rafts. *Culex quinquefasciatus* predominated (> 99% of all mature larvae) and *Culex tarsalis* was rarely encountered. Overall mean counts were equivalent between Coachella and Palm Desert USDS; nevertheless the city-sites differed inversely over time – i.e. first-half productivity per dipper sample was greater at Coachella (23 immatures vs. Palm Desert = 5 immatures) and second-half productivity greater at Palm Desert (33 immatures vs. Coachella = 15 immatures). PBBacid USDS tended to generate greater numbers of immatures per dipper sample (mean =  $27 \pm 7$ ) than control (mean =  $12 \pm 4$ ) and ATSB-absent (mean =  $11 \pm 8$ ) USDS.

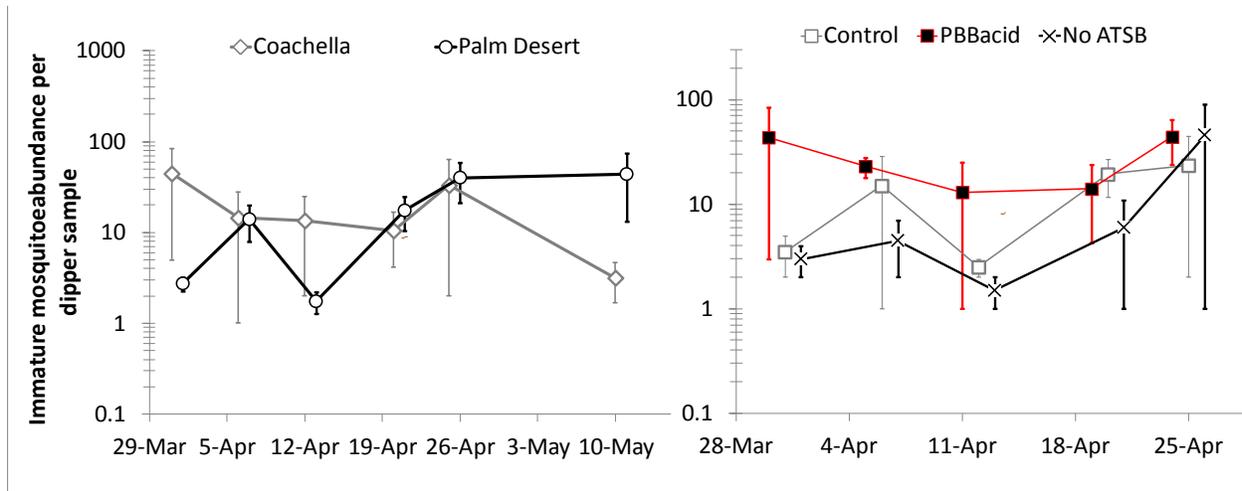


Figure 5. Immature mosquito abundance ( $N + 1$  transformed means  $\pm$  SE) from dipper samples grouped by city (left) and ATSB treatment in spring 2018. Note log scale.

### Discussion

A persistent wide gap in pupal mortality between pyriproxyfen (PPF) and control exposures demonstrated ATSBs curbed developmental success of laboratory larvae exposed to enclosures aged at least 3 weeks in USDS. The enclosure-based glass bowl system accounted for PPF transfer rates over short distances to provide baseline data for future experiments testing efficacy over variable distances. Upcoming field trials during the autumn season can include placement of larvae at the corners and center of each structure to better delineate spatial patterns of ATSB-based PPF throughout USDS. Larvae releases were in general a tricky feat given enclosure limitations and adverse USDS conditions (Figure 1) and require protective containers deployed in relatively cool temperatures (< 95 °F) to ensure successful recapture after two day exposures.

To better understand the relative importance of autodissemination and dissemination (non-mosquito) in PPF transfer, ongoing laboratory experiments are comparing cages with and without the presence of adult *Culex quinquefasciatus*. Preliminary results suggest adults can boost PPF efficacy by at least 50% compared to treatments without adults. A similar assessment of PPF autodissemination/dissemination rates in USDS is planned by pairing a closed enclosure/ATSB without mosquitoes with an open enclosure/ATSB or enclosure-free ATSB.

ATSBs did not appear to impact wild mosquito populations in the USDS; one plausible explanation for this result points to the mesh enclosure acting as a barrier to the spread of control agents. Infrequent encounters with adults inside enclosures and minimal numbers of bait-dyed cadavers suggested contact and ingestion opportunities may have been low in number and/or duration. The mesh bag may have also slowed non-mosquito movement of PPF – e.g. due to leaks or weather disturbances – into the USDS habitat. An effective ATSB treatment most likely needs control agents to be accessible to mosquitoes and provide protection from environmental stresses. To this point, ATSB models that hang freely above USDS floors can be compared to floating models designed to withstand changing water levels and currents. Adult mosquitoes disturbed during sampling appeared to cluster at the surface of water reservoirs, especially at the entrance of partially flooded connecting pipes leading away from underground basins (Popko, field observations). A floating design that can be fed into less accessible areas is under development to determine optimum techniques for dispersal of ATSB-based control agents in USDS.

Semiannual Research Progress Report #1 for CVMVCD grant:  
June 30, 2018

Improving fire ant bait efficacy in irrigated landscapes in the Coachella Valley

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USDA Agricultural Research Service,  
Center for Medical, Agricultural, and Veterinary Entomology  
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**Background Information from 2017.**

- Three water-resistant fire ant bait formulations containing the insect growth regulating active ingredient (IGR) pyriproxyfen were tested against laboratory fire ant colonies.
  - All three formulations caused a significant reductions in brood volume 6 weeks after being provided bait that was either: a) soaked in water (70-89%); b) soaked in water then allowed to air dry for 18-23 hours (66-100% reduction); or c) if left dry (90-100%). In contrast the brood in the control colonies **increased** 60-70% after 6 weeks. Reduced amounts of brood is indicative of effective delivery of the IGR bait.
- Interestingly the non-water resistant standard fire ant bait (Esteem/Distance) also caused significant reductions in brood despite being a) soaked in water (100%); b) soaked in water and allowed to dry (99%); or c) remained dry (100%).
- In potted plants infested with fire ant colonies, fire ants were observed feeding on all baits (water resistant and standard) placed under sprinkler irrigation. While bait efficacy was inconclusive due to ant escapes and inconsistent brood recovery, the study indicated that baits placed in piles could better withstand heavy irrigation and be accessible to ants.
- Application and wetting of standard fire ant bait (Esteem/Distance) and the water resistant fire ant bait (Erasant) in irrigated field plots in the Coachella Valley both resulted in in significant reductions (44-51%) in fire ant activity when compared to the untreated control (1% increase) after 11 weeks.
  - Broadcast applications of both baits, plus the standard bait applied in piles did not differ significantly among each other after 11 weeks.
  - However, significant differences in fire ant foraging were not detected among all bait treatments and the untreated control, 21 weeks (Nov.) after bait applications. Evaluations of brood reductions and caste shifts were inconclusive due to the difficulty of sampling brood in the desert climate.

**Summary of Activity January through June 2018.**

- Three water-resistant fire ant bait formulations were further tested after changing the active ingredient to hydramethylnon. Hydramethylnon has a faster mode of action (2-4 weeks) where it kills adult workers in contrast to the IGR pyriproxyfen (6-8 weeks). The faster mode of action

on adult worker ants provided more definitive results since worker death is easier to observe and does not require extensive colony rearing to see IGR effects on brood.

- The water-resistant Erasant bait now includes a formulation with hydramethlynon (Erasant-Hydro). In laboratory testing, the new formulation and the standard bait (Amdro) both eliminated 2 of 3 fire ant colonies when wet and 3 of 3 colonies when dry. This suggested that water resistant formulation did not improve performance when wet bait is presented as piles in laboratory tests.
- Erasant-Hydro, the other water resistant carriers (Zein, Ars) formulated with hydramethylnon, and Amdro eliminated fire colonies in irrigated potted plants.
- Methods to compare water resistant bait applied in piles versus broadcasting on sod are being refined. Consistently extracting fire ant colonies from sod pieces has proved to be more difficult than expected, but we are making progress and expect the study to be completed this fall.

## 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 supposedly unpalatable to fire ants. One example of water-resistant baits (Erasant), 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 (Erasant-Hydro, Zein, Ars) plus a standard fire ant bait (Amdro) and a control bait (Table 1) were evaluated colonies of red imported fire ants, *Solenopsis invicta*. These carriers contained the active ingredient hydramethylnon, which has a faster mode of action than the insect growth regulating (IGR) active ingredient pyriproxyfen used in 2016 and 2017. Hydramethylnon kills adult workers in 2-4 weeks in contrast to pyriproxyfen which takes 6-8 weeks to show its effect of impeding worker brood development.

Table 1. Baits tested for water-resistance.

Bait	% AI	Carrier	Manufacturer
Erasant-Hydro	0.9% hydramethylnon	DDGS	Chung Hsi Chemical
Zein	1.0% hydramethylnon	corn grit	ARS Stoneville, MS
Ars	1.0% hydramethylnon	corn grit	ARS Stoneville, MS
Amdro	0.73% hydramethylnon	corn grit	Central Garden & Pet
Control	0.0% no active ingred.	corn grit	---

### Laboratory colony testing of water-soaked hydramethylnon baits.

The Erasant-Hydro, the standard fire ant bait Amdro, and the control bait were tested against laboratory colonies of red imported fire ants to confirm the efficacy of the Erasant bait with hydramethylnon because the combination of this active ingredient and the DDGS carrier was new. All baits were soaked in water for 30 minutes, allowed to drain for 10 minutes, and then presented to the colonies. Another set of colonies were presented dry bait for comparison. Colonies were starved for 24 hours, had access to bait for about 24 hours, and then laboratory diet of frozen crickets and 10% sugar solution were added. Data were collected on the third day after initial bait access and approximately weekly for 4 weeks. A randomized complete block design was used with blocks based on colony size. Each colony contained one queen with average ( $\pm$ std. err.) number of workers and brood volume (ml) per rep as follows: Rep 1: 1,317 ( $\pm$ 182), 7.3 ( $\pm$ 1.0) ml; Rep 2: 417 ( $\pm$ 31), 3.3 ( $\pm$ 0.3) ml; Rep3: 41,667 ( $\pm$ 1,667), 33.8 ( $\pm$ 4.6) ml. Percent reductions in worker numbers and brood volume from pretreatment values were analyzed by analysis of variance and Tukey's HSD test.

The water soaked Erasant-Hydro and the Amdro baits caused significant reductions in workers and brood volume and killed the queens in 2 of 3 colonies. Both of the dry baits eliminated all three colonies each, while all of the control colonies remained alive (Tables 2-4).

Table 2. Average ( $\pm$ SE) [n=3] percent reduction of *S. invicta* workers and milliliters of worker brood at specified weeks after exposure to wet or dry hydramethylnon bait. Negative values indicate colony growth. Means within a column followed by the same letter are not significantly different ( $P>0.05$ ) by analysis of variance and Tukey's HSD test.

Treatment	% Reduction in Worker Ants					
	Day 3	Week 1.0	Week 1.4	Week 2.4	Week 3.4	Week 4.3
Wet Control	0.0 c ( $\pm 0.0$ )	-8.3 bc ( $\pm 8.3$ )	0.0 b ( $\pm 0.0$ )	-8.3 b ( $\pm 4.2$ )	12.5 b ( $\pm 7.2$ )	38.8 <sup>a</sup> ab ( $\pm 48.8$ )
Wet Amdro	47.5 ab ( $\pm 13.8$ )	64.4 ab ( $\pm 12.4$ )	84.4 a ( $\pm 4.4$ )	89.7 a ( $\pm 4.2$ )	91.3 a ( $\pm 4.7$ )	93.9 a ( $\pm 3.5$ )
Wet Erasant-H	41.1 abc ( $\pm 15.6$ )	47.8 abc ( $\pm 19.5$ )	52.5 a ( $\pm 19.5$ )	54.7 a ( $\pm 21.5$ )	63.3 a ( $\pm 16.4$ )	66.4 a ( $\pm 16.5$ )
Dry Control	0.0 a ( $\pm 0$ )	-22.2 c ( $\pm 22.2$ )	-19.4 b ( $\pm 10.0$ )	-42.2 b ( $\pm 16.8$ )	-54.7 b ( $\pm 23.2$ )	-45.8 b ( $\pm 25.3$ )
Dry Amdro	86.9 a ( $\pm 1.9$ )	96.9 a ( $\pm 1.6$ )	98.3 a ( $\pm 1.7$ )	98.3 a ( $\pm 1.7$ )	99.2 a ( $\pm 0.8$ )	100 a ( $\pm 0.0$ )
Dry Erasant-H	40.6 bc ( $\pm 7.8$ )	48.9 abc ( $\pm 14.5$ )	77.9 a ( $\pm 8.1$ )	81.6 a ( $\pm 9.7$ )	83.7 a ( $\pm 10.9$ )	90.0 a ( $\pm 10.0$ )

<sup>a</sup>One colony had escaped between weeks 3.4 and 4.3

Table 3. Average ( $\pm$ SE) [n=3] percent reduction of worker brood at specified weeks after exposure to wet or dry hydramethylnon bait. Negative values indicate colony growth. Means within a column followed by the same letter are not significantly different ( $P>0.05$ ) by analysis of variance and Tukey's HSD test.

Treatment	% Reduction in Brood					
	Day 3	Week 1.0	Week 1.4	Week 2.4	Week 3.4	Week 4.3
Wet Control	0.0 a ( $\pm 0$ )	-8.3 ab ( $\pm 8.3$ )	-27.8 ab ( $\pm 2.8$ )	-77.8 b ( $\pm 64.1$ )	-55.6 ab ( $\pm 53.0$ )	-75.0 <sup>a</sup> b ( $\pm 75$ )
Wet Amdro	0.0 a ( $\pm 0$ )	15.1 a ( $\pm 8.3$ )	41.3 ab ( $\pm 12.5$ )	73.1 ab ( $\pm 16.1$ )	77.3 a ( $\pm 16.8$ )	88.7 a ( $\pm 8.4$ )
Wet Erasant-H	8.3 a ( $\pm 8.3$ )	12.0 a ( $\pm 7.2$ )	31.1 ab ( $\pm 13.6$ )	47.9 ab ( $\pm 14.2$ )	63.4 a ( $\pm 21.2$ )	76.9 a ( $\pm 12.9$ )
Dry Control	0.0 a ( $\pm 0$ )	-62.5 b ( $\pm 31.5$ )	-45.8 b ( $\pm 25.3$ )	-78.7 b ( $\pm 34.6$ )	-95.4 b ( $\pm 42.7$ )	-62.5 b ( $\pm 31.5$ )
Dry Amdro	1.7 ab ( $\pm 1.7$ )	32.2 ab ( $\pm 17.5$ )	53.1 ab ( $\pm 20.6$ )	71.7 a ( $\pm 23.5$ )	83.3 a ( $\pm 16.7$ )	100 a ( $\pm 0$ )
Dry Erasant-H	0.0 a ( $\pm 0$ )	1.7 ab ( $\pm 1.7$ )	32.2 ab ( $\pm 17.5$ )	53.1 ab ( $\pm 20.6$ )	71.7 a ( $\pm 23.5$ )	83.3 a ( $\pm 16.7$ )

<sup>a</sup>One colony had escaped between weeks 3.4 and 4.3

Table 4. Number of live *S. invicta* queens and the number of colonies at specified weeks after exposure to wet or dry hydramethylnon bait.

Treatment	Number of live queens/No. of colonies					
	Day 3	Week 1.0	Week 1.4	Week 2.4	Week 3.4	Week 4.3
Wet Control	3/3	3/3	3/3	3/3	3/3	2/2*
Wet Amdro	3/3	3/3	2/3	2/3	1/3	1/3
Wet Erasant-H	3/3	3/3	3/3	3/3	1/3	1/3
Dry Control	3/3	3/3	3/3	3/3	3/3	3/3
Dry Amdro	3/3	2/3	1/3	0/3	0/3	0/3
Dry Erasant-H	3/3	3/3	3/3	3/3	1/3	0/3

\*One colony escaped between weeks 3.4 and 4.3

### Irrigated nursery pots

The water resistant bait carriers Ars, Zein, and Erasant-Hydro, the standard fire ant bait Amdro, and a control of 20% once-refined soybean oil absorbed onto pregel defatted corn grit were tested on fire ant colonies nesting in irrigated, potted boxwood shrubs. The methods followed the protocol used in 2017: Bait (10 g /pot) was applied in a pile under a micro-sprinkler immediately before water sprayed on the bait for 2 minutes (Fig. 1). Thereafter the sprinkler was on for 2 minutes at 8 am, 12 noon, and 4 pm, for seven days, which was based on the irrigation schedule used by a local nursery. Pots were contained in fluoned-lined trays to prevent ant escapes and held for 4 weeks outdoors under a covered lanai to allow for the effects of hydramethylnon to be expressed. 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. After 4 weeks, 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 was determined by visually estimating the number of living ants based on photos of known numbers of fire ants in nest cells and comparing the brood volume to photos of measured brood volume. Colonies also were examined for the presence of their queen. Two replications were conducted for each bait.

Fig. 1. Bait pile under micro-sprinkler.

In addition to the colony extraction, fire ant activity was rated weekly using the following scale when the soil was disturbed by prodding with a stick or fingers: 0 = no ant activity seen; 1= 1-10 ants seen (no fear of stings when searching soil for ants with bare hand); 2= 11-100 ants milling about in soil, ant activity slow but obvious, and not boiling out of soil; 3= >100 ants aggressively boil out of disturbed soil, hesitant to place bare hand in soil.

Results are presented in Tables 5 - 7. There was a large reduction in workers and brood volume in all treatments except the control. Percent reduction in workers and brood for all water resistant baits and the standard Amdro, ranged from 90-100% and 70-100%, respectively, after 4 weeks. In contrast the controls had a reduction of 29% and an increase of 20% in workers, and reductions of 23 and 80% in brood. Live queens were not found in any of the hydramethylnon baited pots, while the queen was found in each of the control colonies (Table 7). Ant activity was obviously greater in the control pots as fire ants would boil out of soil when the soil was prodded with a stick, while no more than 100 ants would be seen milling about in the hydramethylnon treated pots beginning at 2 weeks after treatment. Thus, based on queen survivorship, the water resistant baits and the standard bait performed similarly when baits were piled and placed directly under irrigation. However, more replicates will be conducted to confirm results further.

Table 5. Number of living worker ants per colony 0 and 4 weeks after initial bait access for reps 1 & 2.

Treatment	Number of worker ants			
	Rep 1		Rep 2	
	Week 0	Week 4	Week 0	Week 4
Ars	13,000	0	10,000	600
Erasant-Hydro	10,000	0	12,000	1,200
Zein	8,000	0	10,000	500
Amdro	12,000	0	8,000	500
Control	10,000	12,000	14,000	10,000

Table 6. Worker brood volume per colony at 0 and 4 weeks after initial bait access for reps 1 & 2.

Treatment	Brood Volume (ml)			
	Rep 1		Rep 2	
	Week 0	Week 4	Week 0	Week 4
Ars	30	0	18	0.25
Erasant-Hydro	12	0	18	0
Zein	12	0	10	2
Amdro	20	0	10	3
Control	15	10	25	5

Table 7. Number of live queens per colony at 0 and 4 weeks after initial bait access for reps 1 & 2.

Treatment	Brood Volume (ml)			
	Rep 1		Rep 2	
	Week 0	Week 4	Week 0	Week 4
Ars	1	0	1	0
Erasant-Hydro	1	0	1	0
Zein	1	0	1	0
Amdro	1	0	1	0
Control	1	1	1	1

**Comparing broadcast versus piled bait application to examine the effects of irrigation on fire ant bait performance.**

Based on the results of the laboratory and pot tests, we hypothesized that the reported deleterious effects of irrigation on bait efficacy were due to the inaccessibility of bait because broadcast applications of bait exposes individual bait particles to greater moisture which facilitates deterioration and the washing away of bait particles. In contrast, piled baits are more protected from moisture and less prone to runoff. Thus, a study was initiated to compare the bait efficacy of broadcast and pile bait applications exposed to sprinkler irrigation.

Pieces of grass sod that contained either broadcast or piled fire ant bait (water resistant and standard hydramethylnon baits) were to be sprinkler irrigated then exposed to a fire ant colony (Fig. 2). Thus far, we are currently refining testing protocols because consistently extracting fire ant colonies

from the sod has proven to be more difficult than expected. Our most recent method of cutting the infested sod into small sections that can be placed in buckets to allow colony extraction by dripping water has been promising. We expect to complete this study in the fall.



Fig. 2. Fire ant colony provided access to grass sod. The lab colony typically moves into the sod on fabric strip from the rearing tray supported above the sod.

Table 1. Milestones for water-resistant bait development for the Coachella Valley.

Year / Quarter	Lab test broadcast vs pile bait application	Lab test water resistant baits	CA bait field trial: site selection	CA bait field trial: treat & sample
2018 Jan-Mar	In Progress			
2018 Apr-Jun	In Progress			
2018 Jul-Sep		X		
2018 Oct-Dec		X		
2019 Jan-Mar		X	X	
2019 Apr-Jun				X
2019 Jul-Sep				X
2019 Oct-Dec				

**References Cited.**

Kafle, L., W. J. Wu, and C. J. Shih. 2010. A new fire ant (Hymenoptera: Formicidae) bait base carrier for moist conditions. *Pest Management Science* 66: 1082-1088.

	<p><b>Coachella Valley Mosquito and Vector Control District</b></p> <p><b>Staff Report</b></p>	<p><b>July 10, 2018</b></p>
<p><b>Agenda Item:</b> Informational Item</p> <p>Staff report from:</p> <ul style="list-style-type: none"> <li>• Pacific Branch of the Entomological Society of American Annual Conference, June 10-13 in Reno, NV</li> </ul>		
<p><b>Report:</b></p> <p>The Pacific Branch of the Entomological Society of America Annual Conference provides an opportunity for researchers of insects from the western states of the U.S. to meet to discuss their latest research on a variety of topics. The meeting’s theme of “Practical Solutions through Science and Industry Partnerships” encouraged a variety of presentations on new pest management strategies, insect molecular biology techniques, and engaging the public with stories of insects.</p> <p>I was able to attend talks on the how board certified entomologists were making impacts in their fields, hear the benefits of multi-disciplinary education for those who were in a variety of fields, and speak with industry partners on their latest strategies. I spoke at a symposium organized by students on the career paths available for those interested in local government as well as on our aerial work to control mosquitoes. I served as the President-Elect during the meeting, and I was appointed to President on June 13.</p> <p><b>Attendees:</b> Jennifer A. Henke, Laboratory Manager</p>		



**Coachella Valley Mosquito and Vector  
Control District**

**Staff Report**

**July 10, 2018**

**Agenda Item:** Items of General Consent

Approval of Resolution 2018-14 Authorizing Attendance of Professional Development Conferences and Meetings by Members of the Board of Trustees and Employees of the District for Fiscal Year 2018-2019 – **Jeremy Wittie, M.S., 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 2018-14 would authorize attendance at conferences and meetings for Fiscal Year 2018-2019. Schedule "A" of Resolution 2018-14 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, 2018 and June 30, 2019, and also designates which staff and Board members would be authorized to attend each conference or meeting.

Resolution 2018-14 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 for the Mosquito and Vector Control Association of California.

**Staff Recommendation:**

- Staff recommends that the Board approve Resolution 2018-14.

**Fiscal Impact:**

- Not determined.

**Exhibits:**

- Resolution 2018-14
- 2018-2019 Professional Development Conferences & Meetings

**RESOLUTION NO. 2018-14**

**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 2018-2019**

**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 2018-2019, 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.

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**PASSED, ADOPTED AND APPROVED, this 10th day of July, 2018.**

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**Shelley Kaplan, President  
Board of Trustees**

**ATTEST:**

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**Crystal G. Moreno, Clerk of the Board**

**APPROVED AS TO FORM:**

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**M. Katherine Jenson, General Counsel**

**REVIEWED:**

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**Jeremy Wittie, M.S., General Manager**

**PROFESSIONAL DEVELOPMENT  
JULY 1, 2018 – JUNE 30, 2019**

<b>Conference or Meeting (including subcommittees)</b>	<b>Attendance Authorized For</b>	<b>Date</b>	<b>Place</b>
American Mosquito Control Association (AMCA)	General Manager, Public Information Manager, Laboratory Manager, Vector Ecologist, Laboratory Staff (1)	Feb. 25-Mar. 1, 2018	Orlando, FL
CalPERS Educational Forum	Administrative Finance Manager, Accounting Technician I, Accounting Technician II,	Oct. 22-24, 2018	Indian Wells, CA
CALPELRA Conference	Human Resources Manager	Dec. 3-7, 2018	Monterey, CA
California Stormwater Quality Association (CASQA) Annual Conference	Laboratory Manager	October 15-17, 2018	Riverside, CA
California Special District Association (CSDA) Annual Conference	General Manager, Administrative Finance Manager, Executive Assistant, Trustees	Sept. 24-27, 2018	Indian Wells, CA
CSDA Various Seminars and Webinars		TBA	TBA
Abila MIP Fund Accounting Training	Administrative Finance Manager, Accounting Technician I, Accounting Technician II	TBA	San Diego, CA
Entomological Society of America (ESA) Annual Conference	Laboratory Manager, Vector Ecologist	Nov. 11-14, 2018	Vancouver, Canada
Environmental Systems Research Institute (ESRI) Annual Conference	IT Manager	July 9-13, 2018	San Diego, CA
Invasive and Pest Ant Conference	Laboratory Manager or Vector Ecologist, Operations Manager or designee, Field Supervisor (1), Biologist (1)	TBA	TBA
International Public Management Association for Human Resources (IPMA-HR) Annual Conference	Human Resources Manager	September 22-26, 2018	Phoenix, AZ
Liebert Cassidy Whitmore Conference	General Manager, Administrative	Jan. 23-25, 2019	Palm Desert, CA

**PROFESSIONAL DEVELOPMENT  
JULY 1, 2018 – JUNE 30, 2019**

<b>Conference or Meeting (including subcommittees)</b>	<b>Attendance Authorized For</b>	<b>Date</b>	<b>Place</b>
Local Agency Investment Fund (LAIF) Annual Conference	Finance Manager, Human Resources Manager, IT Manager, Public Information Manager, Laboratory Manager, Vector Ecologist, Field Supervisor (4), Executive Assistant	TBA	TBA
Mosquito & Vector Control Association of California (MVCAC)	General Manager, Administrative Finance Manager, IT Manager, Public Information Manager, Public Information Department Staff (1), Laboratory Manager, Vector Ecologist, Laboratory Staff (2) with a talk or poster, Operations Manager, Field Supervisor (2), Lead Technician (1), Vector Control Technician (1), Executive Assistant, Trustees	Feb. 2-5, 2019	Burlingame, CA
MVCAC Quarterly Meetings	General Manager, Administrative Finance Manager, IT Manager, Public Information Manager, Laboratory Manager, Vector Ecologist, Operations Manager, Field Supervisor (1), Trustee Representative	Nov. 1-2, 2018  TBA	Palm Springs, CA  Sacramento, CA
MVCAC Planning Session	General Manager, Administrative Finance Manager, Public Information Manager, Laboratory Manager, Operations Manager, Trustee Representative	Dec. 6-7, 2018	Emeryville, CA
Pacific Branch – Entomological Society of America (PBESA) Meeting	Laboratory Manager	March 31-April 3, 2019	San Diego, CA
Society of Vector Ecology (SOVE)	Operations Manager, Field Supervisor	October 7-11, 2018	Yosemite, CA

<b>PROFESSIONAL DEVELOPMENT</b>			
<b>JULY 1, 2018 – JUNE 30, 2019</b>			
<b>Conference or Meeting (including subcommittees)</b>	<b>Attendance Authorized For</b>	<b>Date</b>	<b>Place</b>
Annual Conference	(1), Trustees		
Vector Control Joint Powers Agency Annual Workshop	General Manager or designee	TBA	TBA

	<p><b>Coachella Valley Mosquito and Vector Control District</b></p> <p><b>Staff Report</b></p>	<p><b>July 10, 2018</b></p>
<p><b>Agenda Item:</b> Items of General Consent</p> <p>Discussion and/or approval of Resolution 2018-15 Adopting Employee Pay Schedule, in conformance with California Code of Regulations, Title 2, Sections 570.5 and 571 – <b>Anita Jones, Human Resources Manager</b></p>		
<p><b>Background:</b></p> <p>On August 10, 2011, CalPERS adopted <i>California Code of Regulations (CCR) Title 2, Sections 570.5 and 571(b)</i>, which set specific requirements for making pay schedules publicly available. The stated purpose was to ensure consistency and enhance disclosure and transparency of public employee compensation.</p> <p>In order to fully meet the requirements of these regulations, the pay schedule must list a position title for every employee position, show a pay rate for each position, and indicate the time base for the pay rate (hourly, monthly, annually, etc.). The pay schedule shown on Exhibit “A” updates CSEA’s 2017-2018 pay rate reflected in the Memorandum of Understanding approved at the June 12, 2018, Board meeting. The pay schedule shown on Exhibit “B” reflects CSEA’s 2018-2019 pay rate reflected in the Memorandum of Understanding approved at the June 12, 2018, Board meeting.</p>		
<p><b>Staff Recommendation:</b></p> <ul style="list-style-type: none"> <li>• Staff recommends that the Board of Trustees approve Resolution 2018-15.</li> </ul>		
<p><b>Exhibits:</b></p> <ul style="list-style-type: none"> <li>• Resolution 2018-15</li> </ul>		

## RESOLUTION NO. 2018-15

### A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT APPROVING THE DISTRICT'S PAY SCHEDULE TO CONFORM WITH THE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 2, SECTION 570.5 AND AMENDMENTS TO CCR SECTION 571, SUBDIVISION (b)

**WHEREAS**, the Coachella Valley Mosquito and Vector Control District is a political subdivision and a "local agency" of the State of California, created and operating under the authority and provisions of California Health and Safety Code Section 2000 et. seq., and is also a "local agency" within the meaning of Section 53600 of the California Government Code; and

**WHEREAS**, California Code of Regulations, Title 2, Section 570.5 requires governing bodies of local agencies contracting with CalPERS to approve and adopt a publicly available pay schedule in accordance with public meeting laws; and

**WHEREAS**, the Board of Trustees wishes to meet the requirements of these regulations by adopting a Pay Schedule which sets forth the pay ranges for all District employee classifications in one single document;

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

#### **Section 1. Recitals.**

The recitals set forth above are true and correct.

#### **Section 2. Approval of Pay Schedule**

That the Board of Trustees hereby approves the pay schedule shown on Exhibit "A" for FY 2017-2018 and the pay schedule shown on Exhibit "B" for FY 2018-2019, which are incorporated herein by this reference, for classifications as designated on said schedules and incorporated herein by this reference.

#### **Section 3. Effective Date.**

This Resolution shall take effect upon its adoption.

#### **Section 4. Certification.**

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

**PASSED, ADOPTED AND APPROVED, this 10th day of July, 2018.**

---

Shelley Kaplan, President  
Board of Trustees

**ATTEST:**

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Crystal G. Moreno, Clerk of the Board

**APPROVED AS TO FORM:**

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M. Katherine Jenson, General Counsel

**REVIEWED:**

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Jeremy Wittie, MS, General Manager

**COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT**

**Monthly Pay Schedule - Effective 7/1/17**

	<u>Step 1</u>	<u>Step 2</u>	<u>Step 3</u>	<u>Step 4</u>	<u>Step 5</u>	<u>Step 6</u>
VCT Trainee	2,106.15	2,211.46	2,322.03	2,438.10	2,560.01	2,688.01
Laboratory Technician	2,963.56	3,111.74	3,267.33	3,430.67	3,602.20	3,782.31
VCT I, Utility Worker	3,782.35	3,971.47	4,170.04	4,378.50	4,597.43	4,827.30
VCT II, Laboratory Assttiant I	4,597.47	4,827.34	5,068.71	5,322.10	5,588.21	5,867.62
Mechanic I	4,827.34	5,068.71	5,322.15	5,588.21	5,867.62	6,161.00
Lead VCT, Lab Assistant II, Mechanic II	5,068.71	5,322.15	5,588.26	5,867.62	6,161.00	6,469.05
Administrative Clerk	4,267.00	4,480.00	4,703.00	4,939.00	5,185.00	5,445.00
Accounting Technician I	4,373.00	4,592.00	4,822.00	5,062.00	5,316.00	5,581.00
Accounting Technician II	4,888.00	5,132.00	5,389.00	5,659.00	5,942.00	6,238.00
Public Outreach Coord, IT/GIS Assist	5,677.00	5,961.00	6,259.00	6,572.00	6,900.00	7,246.00
Biologist	5,969.00	6,267.00	6,581.00	6,909.00	7,255.00	7,617.00
Field Supervisor	6,922.00	7,268.00	7,632.00	8,013.00	8,415.00	8,835.00
Environmental Biologist, Vector Ecologist, IT/GIS Analyst, Lead Supervisor	7,268.00	7,632.00	8,013.00	8,415.00	8,834.00	9,276.00
Executive Assistant/Clerk of the Board	5,823.79	6,114.98	6,420.73	6,741.76	7,078.85	7,432.80
Human Resources Manager, IT Manager, Public Information Manager, Operations Manager, Lab Manager	7,702.40	8,087.52	8,491.90	8,916.49	9,362.32	
Admin/Finance Manager	7,980.86	8,379.90	8,798.90	9,238.84	9,700.79	
General Manager	12,639.42					

**Educational Incentive Pay**

Certificate	1%	Master's Degree	4%
Associate Degree	2%	Doctorate Degree	5%
Bachelor's Degree	3%		

**Temporary - Out of Class**

5%

**COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT**

**Monthly Pay Schedule - Effective 7/1/18**

	<u>Step 1</u>	<u>Step 2</u>	<u>Step 3</u>	<u>Step 4</u>	<u>Step 5</u>	<u>Step 6</u>
VCT Trainee	2,148.28	2,255.69	2,368.47	2,486.89	2,611.23	2,741.79
Laboratory Technician	3,022.82	3,173.96	3,332.66	3,499.29	3,674.25	3,857.96
VCT I, Utility Worker	3,857.96	4,050.86	4,253.40	4,466.07	4,689.37	4,923.84
VCT II, Laboratory Assttistant I	4,689.37	4,923.84	5,170.03	5,428.53	5,699.96	5,984.96
Mechanic I	4,923.84	5,170.03	5,428.53	5,699.96	5,984.96	6,284.21
Lead VCT, Lab Assistant II, Mechanic II	5,170.03	5,428.53	5,699.96	5,984.96	6,284.21	6,598.42
Administrative Clerk	4,352.00	4,569.00	4,797.00	5,038.00	5,288.00	5,554.00
Accounting Technician I	4,460.00	4,684.00	4,918.00	5,164.00	5,423.00	5,693.00
Accounting Technician II	4,986.00	5,234.00	5,496.00	5,772.00	6,060.00	6,363.00
Public Outreach Coord, IT/GIS Assist	5,791.00	6,080.00	6,384.00	6,703.00	7,038.00	7,391.00
Biologist	6,088.00	6,392.00	6,713.00	7,048.00	7,400.00	7,770.00
Field Supervisor	7,060.00	7,413.00	7,784.00	8,173.00	8,583.00	9,012.00
Environmental Biologist, Vector Ecologist, IT/GIS Analyst, Lead Supervisor	7,413.00	7,784.00	8,173.00	8,583.00	9,011.00	9,461.00
Executive Assistant/Clerk of the Board	5,940.27	6,237.28	6,549.15	6,876.61	7,220.44	7,581.46
Human Resources Manager, IT Manager, Public Information Manager, Operations Manager, Lab Manager	7,856.45	8,249.27	8,661.74	9,094.82	9,549.56	
Admin/Finance Manager	8,140.48	8,547.50	8,974.88	9,423.62	9,894.80	
General Manager	12,639.42					

**Educational Incentive Pay**

Certificate	1%	Master's Degree	4%
Associate Degree	2%	Doctorate Degree	5%
Bachelor's Degree	3%		

**Temporary - Out of Class**

5%



**Coachella Valley Mosquito and Vector  
Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** Items of General Consent

Approval for a paid intern for the Laboratory Department June 18 through August 24, 2018, in an amount not to exceed \$6,900.00, from Fund 5130.01.400, Payroll – **Jennifer A. Henke, Laboratory Manager**

**Background:**

The Laboratory Department partnered with Health Career Connections in 2017 to host a young professional interested in a career in public health and healthcare professions. We created an internship this summer that would include the following duties: examine the compare efficacy and residual activity of two control products for mosquitoes; inspect residences for *Aedes* mosquitoes to determine if cleaning up a neighborhood had an impact on the mosquito population; and understand mosquito trapping and testing for arboviruses.

Because of the partnership and the agreement with Health Career Connections, the intern is part of the District payroll but is exempt from health care benefits.

**Staff Recommendation:**

- Approve funding for a paid intern for the Laboratory department from June through August 2018.

**Fiscal Impact:**

FY2018-19 Budget	Current Available Funds	Proposed Expense	Remaining Available Funds
<b>5103.01.400</b>			
<b>6,900</b>	<b>6,900</b>	<b>6,900</b>	<b>0</b>



**Coachella Valley Mosquito and Vector Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** Items of General Consent

Approval to purchase Microix Budgeting Software in an amount not to exceed \$10,000 from Capital Equipment Replacement Fund #8415.13.210– **David l’Anson, Administrative Finance Manager**

**Background:**

During the budget process District staff use multiple excel spreadsheets. Once budget is approved manually input each budget line item as budget entry into the accounting software. Microix Budgeting Software will help streamline this process, working with the District’s accounting software (Abila MIP) pulling information directly from the general ledger. The software has a multi-level approval process similar to the approval process for purchase orders. Once a manager has finalized their budget they will submit to finance, finance will review then forward to General Manager for review and approve then upon final approval from the Board of Trustees, the worksheets are automatically transferred to the accounting software as unposted budget entries.

The price includes 5 licenses, installation, support and training from NFP Accounting Technologies.

**Staff Recommendation:**

- Staff recommends purchase Microix Budgeting Software in an amount not to exceed \$10,000 from Capital Equipment Replacement Fund #8415.13.210.

**Fiscal Impact: Reserve for IT Replacement**

FY2018-19 Budget 8415.13.210	Current Available Funds	Proposed Expense	Remaining Available Funds
<b>\$40,750</b>	<b>\$40,750</b>	<b>\$9,300</b>	<b>\$31,450</b>



**Coachella Valley Mosquito and Vector  
Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** Items of General Consent

Approval to sell surplus District property – **Edward Prendez, Information Technology Manager**

**Background:**

The District has selected to utilize a third party marketplace to attract a wider audience, increase revenue, and eliminate any appearance of conflict of interest. The District has identified one (1) vehicles, seven (7) miscellaneous pieces of equipment and one (1) utility vehicles to be auctioned off as part of the District’s restructuring effort. Release of proposed vehicles to the third party marketplace will be determined when new vehicles are received in the new Fiscal Year 2018-2019.

The District contracted with Public Surplus to auction vehicles, utility equipment and trailers in 2017. Each item was open to the public via an on-line auction website, which was designed to be compliant with state and local regulations and policies. No cost was incurred by the District to process the sale of the excess equipment. All items were sold within the designated auction window.

**Light-Duty Trucks**

UNIT	MAKE	MODEL	STYLE	YEAR	MILEAGE	BLUE BOOK
160	Ford	Sportrack	SUV 4X4	2008	57,480	\$5,837

**Miscellaneous Equipment**

DECRPTION	MODEL	YEAR	BLUE BOOK
QTY (1) Containment Solutions – 2000 GAL Above Ground Tank	LDP2000P		\$8,000
QTY (2) Justrite – Special Purpose Industrial Containers 4 gal	Type II DOT		\$20 ea.
QTY (3) Justrite – Special Purpose Industrial Containers: 5 gal	Type II DOT		\$20 ea.

**Utility Vehicles**

UNIT	MAKE	MODEL	STYLE	YEAR	MILEAGE	BLUE BOOK
155	EZGO	Workhorse	4x2	2007		Stolen/Recovered

**Staff Recommendation:**

- Staff recommends utilizing Public Surplus as third party marketplace to ease the burden on District Staff to transport, show and answer questions from the public regarding the vehicle sales. Buyers of District Property will pay a premium of 7% or 10.5% depending upon the collection method.



**Coachella Valley Mosquito and Vector  
Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** Items of General Consent

Approval to contract with Hummingbird, Inc. for aerial adulticiding and larviciding services as needed for Fiscal Year 2018-19 - **J. Wakoli Wekesa, PhD, Operations Manager**

**Background:**

Currently, the District has a control contract with *Salton Sea Aerial Service, Inc.* to conduct adulticide and larvicide operations. Spray operations are demanding and readiness to provide such services for an extended period of time are exhaustive and require the District to consider all contingencies. *Hummingbird, Inc* based in Valley Center, California requires 24 hour notice before service is provided pending prior commitments and operates 2 helicopters for the service, and shall complete ferrying of equipment into location within the 24 hours. Upon award of the contract the contingency fee to be paid by the District is \$9,200.00 and shall be part of the first 4 hours of service when the contract is activated. This is based on the daily rate of \$2,300.00 times the minimum of 4 hours total \$9,200.00. The maximum amount will be based on service needs and will not exceed budget.

**Need Assessment:**

Operational: The application of control products in inaccessible areas such as Salton Sea marshes, wetlands, and duck clubs habitats requires large aerial applications. The need for this service is current and continuing in the feasible future. The need extends into agricultural and urban environments during high arboviral conditions and when invasive *Aedes* mosquitoes are causing public health risks. The current vendor has limited equipment and an aging staff that may require proactive action to put in place contingency plans. This contract is a backup contract and activated only and when our primary vendor is unable to service requests as submitted. The minimum cost to establish the contract and provide the initial service is \$9,200.00 billed to Aerial applications- rural 7850.01.500.029.

**Staff Recommendation:**

Staff recommends approval contract with Hummingbird, Inc. for aerial adulticiding and larviciding services as needed for Fiscal Year 2018-19

**Fiscal Impact:**

FY2018-19 <b>7850.01.500.029</b>	Current Available Funds	Proposed Expense	Remaining Available Funds
<b>\$82,500</b>	<b>\$82,500</b>	<b>\$9,200 - 82,500</b>	<b>\$0 - 73,300</b>



**Coachella Valley Mosquito and Vector  
Control District**

**Staff Report**

**July 10, 2018**

**Agenda Item:** Items of General Consent

Approval of Resolution 2018-16 Biennial Adoption of a Conflict of Interest Code – **Crystal G. Moreno, Clerk of the Board**

**Background:**

The Political Reform Act requires every local government agency to review its Conflict of Interest Code *biennially*. No later than October 1, of each even-numbered year, local government agencies are required to submit to the County Board of Supervisors a Notice indicating whether or not an amendment is necessary.

The District submitted the Notice to the County of Riverside Board of Supervisors June 27, 2016, with the intention of making a non-substantive amendment. These amendments are revising the titles of existing positions and deleting titles of positions that have been abolished.

With the approval of this Resolution by the County Board of Supervisors, all previously adopted District Conflict of Interest Codes are rescinded. The District's amended Code is not effective until it has been approved by the Board of Supervisors

**Staff Recommendation:**

- Approval of Resolution 2018-16 adopting a Conflict of Interest Code for the District.

**Fiscal Impact:**

- None

**RESOLUTION NO. 2018-16**

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT BIENNIAL ADOPTION OF CONFLICT OF INTEREST CODE**

**WHEREAS**, the Coachella Valley Mosquito and Vector Control District ("District") is a special district and local government agency required by Government Code Section 87300 to promulgate a Conflict of Interest Code; and

**WHEREAS**, the Political Reform Act (Government Code Section 81000, et seq.) requires the District to adopt and promulgate a conflict of interest code; and

**WHEREAS**, the Fair Political Practices Commission ("FPPC") has adopted a provision at Title 2, section 18730 of the California Code of Regulations which sets forth the terms of a standard model conflict of interest code which may be incorporated by reference so as to constitute the adoption of a Conflict of Interest Code by the District; and

**WHEREAS**, the FPPC requires that every local agency review its Conflict of Interest Code every even-numbered year to determine whether amendment of its code is necessitated by changed circumstances; and

**WHEREAS**, the District's Board of Trustees desires to amend the District's Conflict of Interest Code by adding to the list of persons designated as being subject to the Code, the position of Public Information Manager.

**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. Rescission.**

That all previously adopted resolutions approving the District's Conflict of Interest Code are hereby rescinded.

**Section 3. Code Adoption.**

The District hereby adopts, by this reference, the model conflict of interest code promulgated by the FPPC as Regulation 18730 of Title 2 of the California Code of Regulations ("FPPC Model Conflict of Interest Code") as the Conflict of Interest Code for the Coachella Valley Mosquito and Vector Control District ("District Conflict of Interest Code"). A copy of the FPPC Model Conflict of Interest Code effective as of the date of adoption of this resolution is attached as Exhibit A. Future amendments to the FPPC Model Conflict of

Interest Code approved by the Fair Political Practices Commission are hereby incorporated into the District Conflict of Interest Code.

**Section 4. Disclosure Categories and Designated Positions.**

(a) Those officials, employees and consultants designated in the attached Appendix A - Disclosure Categories and Designated Positions ("Appendix A"), incorporated herein by this reference as though fully set forth, shall be subject to the provisions of the District Conflict of Interest Code pursuant to the applicable disclosure categories.

(b) Any consultant who performs the ongoing duties of any of the designated positions shall be assigned the same disclosure categories as that position, subject to the following limitation: The District Manager may determine in writing that a particular consultant, although a designated position, is hired to perform a range of duties that is limited in scope and thus is not required to fully comply with the disclosure requirements in this section. Such written determination shall include a description of the consultant's duties and, based upon that description, a statement of the extent of disclosure requirements. The District Manager's determination shall be filed with the District's Secretary and is a public record and shall be retained for public inspection in the same manner and location as the District Conflict of Interest Code.

**Section 5. Filing.**

Pursuant to Title 2, section 18730(b)(4) of the California Code of Regulations, those officials, employees and consultants designated in Appendix A shall file statements of economic interest with the Finance Manager to whom the Board of Trustees of the Coachella Valley Mosquito and Vector Control District hereby delegates the authority to carry out the duties of filing officer. The annual statement of economic interests shall be duly filed no later than April 1 of each calendar year.

**Section 6. Prohibition Concerning Prospective Employment.**

No District employee who is designated in Appendix A shall make, participate in making, or otherwise use his or her official position to influence any governmental decision directly relating to any person with whom he or she is negotiating or has any arrangement concerning, prospective employment. For purposes of the District Conflict of Interest Code, the term "person" includes any natural person, corporation or other form of business entity and extends to any of its agents.

**Section 7. Ethics Training.**

Those employees designated in Appendix A shall be required to attend ethics training as set forth at Government Code section 53235.

**Section 8. Violations.**

Violations of the District Conflict of Interest Code by any employee designated in Appendix A may result in discipline up to and including termination. Alleged violations of this

Code by an employee shall be processed as otherwise provided in the District's personnel policies and procedures.

**Section 9. Transmission to the County.**

The Board of Trustees hereby authorizes the Secretary to transmit a copy of this Resolution to the Board of Supervisors of the County of Riverside ("Board of Supervisors") for their approval as the code reviewing body for the District.

**Section 10. Effective Date.**

This Resolution shall take effect upon its approval by the Board of Supervisors.

**Section 11. Certification.**

That the Clerk of the Board shall certify to the passage and adoption of this resolution, enter the same in the book for original resolutions of the District, and make a minute of passage and adoption thereof in the records of the proceedings of the Board, in the minutes of the meeting at which this resolution is passed and adopted.

**PASSED, ADOPTED AND APPROVED, this 10<sup>th</sup> day of July, 2018.**

\_\_\_\_\_  
Shelley Kaplan, President  
Board of Trustees

**ATTEST:**

\_\_\_\_\_  
Crystal G. Moreno, Clerk of the Board

**APPROVED AS TO FORM:**

\_\_\_\_\_  
M. Katherine Jenson, General Counsel

**REVIEWED:**

\_\_\_\_\_  
Jeremy Wittie, MS, General Manager

**EXHIBIT "A"**  
**FPPC MODEL CONFLICT OF INTEREST CODE**  
Effective as of July 10, 2018

[attached]

## APPENDIX A

### APPENDIX TO THE CONFLICT OF INTEREST CODE FOR THE COACHELLA VALLEY MOSQUITO AND VECTOR CONTROL DISTRICT

#### II. Disclosure Categories

The following categories of reportable economic interests are established:

Category 1: Persons in this category shall disclose on FPPC Form 700, Schedule B, all reportable interests in real property located within the jurisdictional boundaries of the District, or within two miles of the District's jurisdictional boundaries, or within two miles of land located outside the District's jurisdictional boundaries which is owned or used by the District..

Category 2: Persons in this category shall disclose on FPPC Form 700, Schedules C and D, all reportable income, loans and business positions.

Category 3: Persons in this category shall disclose on FPPC Form 700, Schedules A-1 and A-2, all reportable investments.

Category 4: Persons in this category shall disclose on FPPC Form 700, Schedules E and F, all reportable gifts and travel payments.

#### II. Designated Positions

A "Designated Position" is an officer, employee, member or consultant of the District whose position is designated in the District Conflict of Interest Code because the position entails the making or participation in the making of governmental decisions that may foreseeably have a material effect on any financial interest as set forth at Government Code section 82019.

Any Designated Employee whose position is listed in the following table shall be required to file a Statement of Economic Interest with the Board of Supervisors of the County of Riverside, the District's code reviewing body.

DESIGNATED POSITION	DISCLOSURE CATEGORY(IES)
General Manager	1, 2, 3, 4
Administrative Finance Manager	1, 2, 3, 4
Information Technology Manager	1, 2, 3, 4
Human Resources Manager	1, 2, 3, 4
Public Information Manager	1, 2, 3, 4
Laboratory Manager	1, 2, 3, 4
Operations Manager	1, 2, 3, 4
Clerk of the Board	1, 2, 3, 4
Consultants who perform the ongoing duties of any Designated Position	To be determined by the General Manager per the District Conflict of Interest Code

ITEM  
**14**



# **NEW BUSINESS**



**Coachella Valley Mosquito and Vector  
Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** New Business

Discussion and/or approval to enter into Public Works contract for well destruction in an amount not to exceed \$25,000.00 – **David I’Anson, Administrative Finance Manager**

**Background:**

The District uses well water for the fish ponds and for landscape irrigation. The well has not been operating since January 2018. A camera inspection of the well determined that it was no longer viable and a new well would need to be constructed costing over \$100,000. Following Riverside County requirements for well destruction, the cost will be around \$25,000. Reviewing the operating costs of the well (approximately \$1,000 per month electricity versus an extra \$300 a month for city water) staff recommends mothballing the well and using City water instead.

**Staff Recommendation:**

- Staff recommends to enter into Public Works contract for well destruction in an amount not to exceed \$25,000.00 funds from Capital Facility Replacement Fund #14

**Fiscal Impact: Reserve for IT Replacement**

FY2018-19 Budget <b>Capital Facility Replacement Fund</b>	Current Available Funds	Proposed Expense	Remaining Available Funds
<b>\$1,670,348</b>	<b>\$1,670,348</b>	<b>\$25,000</b>	<b>\$1,645,348</b>



**Coachella Valley Mosquito and Vector  
Control District**

**July 10, 2018**

**Staff Report**

**Agenda Item:** New Business

Discussion and/or approval to purchase control products from the lowest responsible bidders or sole-source providers in the amount not to exceed \$650,000.00 from Fund #7800.01.500.028. Field Chemical Control -- **J. Wakoli Wekesa, PhD, Operations Manager**

**Background:**

In 2014 the purchase of chemical control products was changed requiring approval of annual purchase of products based on multi-year historical analysis of pesticide usage to predict total product requirements and delivery schedules.

The approval by the Board of the FY 2018-2019 budget the following chemical control products will be awarded to the lowest responsible bidders or sole-source suppliers. The FY 2018-2019 bid decision will consider the level of technical support provided by the chemical distributors and/or manufacturers in determining the final award for each product. The amount and quality of service does vary from one company to another, and their technical support and expertise is an added benefit to the District and does increase value of funds spent on chemical products by the District.

The purchase of the following chemical control products for Operations Control program is required during the FY 2018-2019. Products will be delivered and billed on or near the projected delivery date or as needed if determined by the Operations Manager and approved by the General manager.

<b>PRODUCT</b>	<b>TARGET</b>	<b>TOTAL AMOUNT</b>	<b>COST</b>
ADVION	RIFA	10,000 LBS	\$96,390
EXTINGUISH PLUS	RIFA	21,000 LBS	\$119,910
ALOSID P35	MOSQUITO	4,000 LBS	\$69,000
ATOSID XR BRISQUETS	MOSQUITO	615 COUNT	\$2,267
NATULAR G	MOSQUITO	3,200 LBS	\$17,593
NATULAR G30	MOSQUITO	8,000 LBS	\$127,541
NATULAR T30	MOSQUITO	1,200 COUNT	\$1,897
NATULAR XRT	MOSQUITO	1,500 COUNT	\$6,839
VECTOBAC 12AS	MOSQUITO	25 GAL	\$1,099
VECTOBAC G	MOSQUITO	1,600 LBS	\$4,194
VECTOMAX FG	MOSQUITO	3,200 LBS	\$29,572
KONTROL LARVICIDE OIL	MOSQUITO	20 GAL	\$245
METALARV SPT	MOSQUITO	3,200 LBS	\$83,754
EVERGREEN ULV (5-25) GROUND	MOSQUITO	45 GAL	\$8,550
AQUA RESLIN	MOSQUITO	60 GAL	\$12,840
DEMAND CS	MOSQUITO	10 GAL	\$70.79
<b>TOTAL</b>			<b>\$581,762</b>

**Staff Recommendation:**

1. The Operations Department is requesting Board approval to purchase of chemical control products in the amount not to exceed \$650,000.00.

**Fiscal Impact:**

FY2018-19 Budget <b>7850.01.500.028</b>	Current Available Funds	Proposed Expense	Remaining Available Funds
<b>\$770,500</b>	<b>\$770,500</b>	<b>\$650,000</b>	<b>\$120,500</b>