



Orange County Mosquito and Vector Control District

Serving Orange County Since 1947

**NOTICE AND AGENDA
OF THE REGULAR MEETING OF THE BOARD OF TRUSTEES
THURSDAY MARCH 15, 2018
856TH REGULAR MEETING 3:00 P.M.
13001 GARDEN GROVE BLVD.
GARDEN GROVE, CA 92843
WEBSITE ADDRESS: www.ocvector.org
REGULAR MEETING 3:00 P.M.**

A. PLEDGE OF ALLEGIANCE, ROLL CALL, AND LATE COMMUNICATIONS

1. Call business meeting to order 3:00 p.m.
2. Pledge of Allegiance
3. Roll Call - (If absences occur, consider whether to deem those absences excused based on facts presented for the absence — such determination shall be the permission required by law.)

PRESIDENT:	Lucille Kring	Anaheim
VICE-PRESIDENT:	Cheryl Brothers	Fountain Valley
SECRETARY:	Shari Horne	Laguna Woods

Aliso Viejo	Phillip B. Tsunoda	Lake Forest	Bob Holtzclaw
Anaheim	Lucille Kring	Los Alamitos	Mark Chirco
Brea	Cecilia Hupp	Mission Viejo	Robert Ruesch
Buena Park	Michael Davis	Newport Beach	Scott Peotter
Costa Mesa	Sandra Genis	Orange	Michael Alvarez
Cypress	Paulo Morales	Placentia	Craig Green
Dana Point	Richard Viczorek	Rancho Santa Margarita	April Josephson
Fountain Valley	Cheryl Brothers	San Clemente	Michelle Schumacher
Fullerton	Jennifer Fitzgerald	San Juan Capistrano	Pam Patterson
Garden Grove	Stephanie Klopfenstein	Santa Ana	Cecilia Aguinaga
Huntington Beach	Mike Posey	Seal Beach	Sandra Massa-Lavitt
Irvine	Lynn Schott	Stanton	Al Ethans
La Habra	James Gomez	Tustin	Letitia Clark
La Palma	Marshall Goodman	Villa Park	Bill Nelson
Laguna Beach	Toni Iseman	Westminster	Sergio Contreras
Laguna Hills	Barbara Kogerman	Yorba Linda	Peggy Huang
Laguna Niguel	John Mark Jennings	County of Orange	Lilly Simmering
Laguna Woods	Shari Horne		

4. Late/Other Communications

B. PUBLIC COMMENTS

(Individual Public Comments may be limited to a 3-minute or less time limit)

During Public Comments, the public may address the Board on any issue within the District's jurisdiction which is not on the agenda. The public may comment on any item on the Agenda at the time that item is before the Board for consideration. Any person wishing to speak must come up and speak from the lectern. There will be no dialog between the Board and the commenter. Any clarifying questions from the Board must go through the Board President.

C. PRESENTATIONS

1. High Risk Area 9 Update and 2018 Work Plan, Presented by Rick Howard
2. OCMVCD 2017 SWOT Analysis, Presented by Rick Howard
3. A Day in the Life of an Inspector, Presented by Larry Shaw

D. OCMVCD COMMITTEE REPORTS TO THE BOARD OF TRUSTEES

E. CONSENT CALENDAR

All matters listed under the CONSENT CALENDAR are considered by the District to be routine and will be enacted by one motion. Any member of the Board may pull an item from the Consent Calendar for additional clarification or action.

1. Approval of DRAFT [Minutes](#) for the regular meeting of February 15, 2018
2. [Approve Warrant Register for January 2018 \(Exhibit A\)](#)
3. [Approve Monthly Financial Report for January 2018 \(Exhibit A\)](#)

F. BUSINESS AND ACTION ITEMS

G. INFORMATIONAL ITEMS ONLY (NO ACTION NECESSARY)

1. Staff Presentation: Senior staff will give an update of vector activity in Orange County
2. [Statement of Economic Interests 700 Forms for Filing](#)
3. [Report of District Activities](#)

H. PRESIDENT'S REPORT AND TRUSTEE COMMENTS

I. DISTRICT MANAGER'S REPORT – Discussion and Possible Action

J. DISTRICT LEGAL COUNSEL REPORT – Discussion and Possible Action

CLOSING

K. CORRESPONDENCE – Discussion and Possible Action

[Staff and Trustee reports from conferences attended in February and March](#)

L. FUTURE AGENDA ITEMS

M. ADJOURNMENT

1. Adjourn to the next regular meeting of April 19, 2018 starting at 3:00 p.m. at the Orange County Mosquito and Vector Control District offices, 13001 Garden Grove Blvd., Garden Grove, CA 92843

“This agenda shall be made available upon request in alternative formats to persons with a disability, as required by the American with Disabilities Act of 1990 (42 U.S.C. § 12132) and the Ralph M. Brown Act (California Government Code § 54954.2). Persons requesting a disability related modification or accommodation in order to participate in the meeting should contact the Orange County Mosquito and Vector Control District at (714-971-2421), during regular business hours, at least twenty-four hours prior to the time of the meeting.”

"Materials related to an item on the Agenda submitted after distribution of the agenda packet are available for public inspection in the District Office located at Orange County Mosquito and Vector Control District offices, 13001 Garden Grove Blvd., Garden Grove, CA 92843 during normal business hours."

C. PRESENTATIONS

- 1. HIGH RISK AREA 9 UPDATE AND 2018 WORK PLAN, PRESENTED BY RICK HOWARD**
- 2. OCMVCD 2017 SWOT ANALYSIS, PRESENTED BY RICK HOWARD**
- 3. A DAY IN THE LIFE OF AN INSPECTOR, PRESENTED BY LARRY SHAW**

D. OCMVCD COMMITTEE REPORTS TO THE BOARD OF TRUSTEES

E. CONSENT CALENDAR

All matters listed under the CONSENT CALENDAR are considered by the District to be routine and will be enacted by one motion. Any member of the Board may pull an item from the Consent Calendar for additional clarification of action.

1. **APPROVE DRAFT MINUTES FOR THE REGULAR MEETING OF FEBRUARY 15, 2018**
2. **APPROVE WARRANT REGISTER FOR JANUARY 2018 (EXHIBIT A)**
3. **APPROVE MONTHLY FINANCIAL REPORT FOR JANUARY 2018 (EXHIBIT A)**

MINUTES OF THE 855TH MEETING
BOARD OF TRUSTEES
Orange County Mosquito and Vector Control District

TIME: 3:00 P.M. February 15, 2018

PLACE: 13001 Garden Grove Blvd., Garden Grove, CA 92843

PRESIDENT:	Lucille Kring	Anaheim
VICE-PRESIDENT:	Cheryl Brothers	Fountain Valley
SECRETARY:	Shari Horne	Laguna Woods

TRUSTEES PRESENT:

Anaheim	Lucille Kring	Lake Forest	Bob Holtzclaw
Brea	Cecilia Hupp	Los Alamitos	Mark Chirco
Buena Park	Michael Davis	Mission Viejo	Bob Ruesch
Costa Mesa	Sandra Genis	Newport Beach	Scott Peotter
Cypress	Paulo Morales	Orange	Mike Alvarez
Dana Point	Rick Viczorek	Placentia	Craig Green
Fountain Valley	Cheryl Brothers	Rancho Santa Margarita	April Josephson
Fullerton	Jennifer Fitzgerald	San Clemente	Michelle Schumacher
Huntington Beach	Mike Posey	San Juan Capistrano	Pam Patterson
La Habra	James Gomez	Seal Beach	Sandra Massa-Lavitt
Laguna Beach	Toni Iseman	Stanton	Al Ethans
Laguna Hills	Barbara Kogerman	Tustin	Letitia Clark
Laguna Niguel	John Mark Jennings	Villa Park	Bill Nelson
Laguna Woods	Shari Horne	Westminster	Sergio Contreras
		Yorba Linda	Peggy Huang

TRUSTEES ABSENT:

Aliso Viejo	Philip Tsunoda	Santa Ana	Cecilia Aguinaga
Garden Grove	Stephanie Klopfenstein	County of Orange	Lilly Simmering
Irvine	Lynn Schott		
La Palma	Marshall Goodman		

*Trustees Klopfenstein and Simmering had an Excused Absence

OTHERS PRESENT:

Rick Howard, District Manager
 Robert Cummings, Director of Scientific Technical Services
 Larry Shaw, Director of Operations
 Lora Young, Director of Communications
 Tawnia Pett, Executive Assistant/Clerk of the Board
 Dana Zamora, Operations Specialist
 Alan Burns, District Counsel

A. Opening:

1. **Call the Business Meeting to Order:** President Kring called the meeting to order at 3:01 P.M.
2. **Pledge of Allegiance:** President Kring asked former Trustee Voigts to lead the Pledge of Allegiance.
3. **Roll Call:** Roll call indicated 25 Trustees were present with Trustees Viczorek, Josephson, Clark, and Huang arriving late to bring the total to 29 out of the current Board membership of 35.
4. **Late/Other Communications:**
 - Late Communications:**
 - 1) Trustee Brother's Travel Report from MVCAC Annual Conference
 - Other Communications:**
 - 1) Integrated Pest Management Booklet from the Department of Pesticide Regulation Award Ceremony

Before public comments, President Kring had Trustee Chirco introduce himself.

B. Public Comments: None**C. Presentations:**

1. President Kring recognized outgoing Trustee Voigt's years of service
2. Janice Jean Von Raabe, a West Nile Virus survivor, gave a presentation about living with WNV
3. Director of Communications Young gave a presentation entitled OCMVCD 2017 Year in Review
4. District Counsel Burns gave a presentation entitled Trustee Roles and Responsibilities
5. Director of Scientific Technical Services Cummings gave a presentation entitled Vector 101

D. OCMVCD Committee Reports to the Board of Trustees: None**E. Consent Calendar: Items for Approval by General Consent**

On motion from Trustee Posey, seconded by Trustee Peotter, and passed by unanimous vote, the Board of Trustees approved Consent Calendar Items E.2 and E.5. Agenda Item E.1 was passed by majority vote due to absences at the previous Board Meeting (Abstained: Trustees Hupp, Genis, Fitzgerald, Posey, Gomez, and Chirco)

Ayes: Trustees Kring, Hupp, Davis, Genis, Morales, Viczorek, Brothers, Fitzgerald, Posey, Gomez, Iseman, Kogerman, Jennings, Horne, Holtzclaw, Chirco, Ruesch, Peotter, Alvarez, Green, Josephson, Schumacher, Patterson, Massa-Lavitt, Ethans, Clark, Nelson, Contreras, and Huang.

Noes: None.

Abstained: None.

Absent: Trustees Tsunoda, Klopfenstein, Schott, Goodman, Aguinaga, and Simmering.

1. **Approval of Minutes:** Approved, without reading, the Minutes of the 854th Meeting of the Board of Trustees held January 18, 2018.
2. **Warrant Register for December 2017: (Exhibit A)** Received and filed.
3. **Monthly Financial Report for November and December 2017: (Exhibit A)** Received and filed.
4. **Approved Surplus Vehicles to Auction: (Exhibit A)** Approved District surplus items for auction.
5. **Approved Board of Trustee Committee Assignments for 2018: (Exhibit A)** Approved the committee assignments as presented in Exhibit A

F. Business and Action Items:

1. **Adopted Resolution No. 460 Authorizing Relief Efforts for Natural Disaster Victims: (Exhibit A)**
On motion from Trustee Posey, seconded by Trustee Gomez, the Board of Trustees unanimously approved Resolution No. 460 authorizing the deployment of vector personnel and resources for natural disaster relief works

Ayes: Trustees Kring, Hupp, Davis, Genis, Morales, Viczorek, Brothers, Fitzgerald, Posey, Gomez, Iseman, Kogerman, Jennings, Horne, Holtzclaw, Chirco, Ruesch, Peotter, Alvarez, Green, Josephson, Schumacher, Patterson, Massa-Lavitt, Ethans, Clark, Nelson, Contreras, and Huang.

Noes: None.

Abstained: None.

Absent: Trustees Tsunoda, Klopfenstein, Schott, Goodman, Aguinaga, and Simmering.

G. Informational Items Only (NO ACTION NECESSARY):

1. **Staff Presentation:** Director of Scientific Technical Services Cummings gave an update on the recent vector activity in Orange County.
2. **Statement of Economic Interests 700 Forms for Filing:** Received and filed. Clerk of the Board Pett reported that the Statement of Economic Interests Forms are due April 3, not April 1 as stated in the agenda report.
3. **2018 Budget Preparation Schedule:** Received and filed.
4. **Report of District Activities:** Received and filed.

H. President's Report and Trustee Comments:

1. President Kring:
 - a) Thanked the staff for the Trustee open house luncheon and exhibits
 - b) Reported that she attended the DPR award ceremony where the District won an award for its IPM practices
2. Trustee Posey thanked staff for their detailed conference reports
3. Trustee Kogerman thanked staff for the digital agenda posted at the meeting

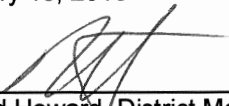
I. District Manager's Report: District Manager Howard:

1. Thanked the Trustees for attending the Open House
2. Announced that he would give a presentation on the District's SWOT analysis in March
3. Expanded on President Kring's report of receiving the Integrated Pest Management award from the Department of Pesticide Regulation
4. Reported that staff gave nine presentations at the MVCAC Annual Conference

J. District Legal Counsel Report: None**K. Correspondence:** Staff reports from meetings attended in January**L. Future Agenda Items: None****M. Adjournment:**

1. President Kring adjourned the meeting at 4:14 p.m. in memory of Trustee Aguinaga's son, Director of Administrative Services Goodson's husband, and to the seventeen students and teachers that lost their lives in Parkland, Florida to the next regularly scheduled meeting on Thursday, March 15, 2018.

I certify that the above minutes substantially reflect the actions taken by the Board of Trustees at its meeting held February 15, 2018

 FOR RICHARD HOWARD

Richard Howard, District Manager

Approved as written and/or corrected by the Board of Trustees at its _____
_____ meeting held _____

ATTEST: _____
Shari Horne, Secretary



ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

March 15, 2018

AGENDA REPORT

AGENDA ITEM # E.2

Prepared By: Terry Pospisil, Accounting Specialist
Submitted By: Rick Howard, District Manager

Agenda Title:

Warrant Register for January 2018

Recommended Action:

Receive and file.

Executive Summary:

Receive and file payment of warrant register (**Exhibit A**) dated March 15, 2018 for \$455,762.55 as presented by in-house check runs dated January 5, 11, 18, 24, 30, and 31, 2018.

Fiscal Impact:

Amount Requested \$ N/A

Sufficient Budgeted Funds Available:

Category: Pers. Optg. Cap. -or- CIP# Fund#

Previous Relevant Board Actions for This Item:

Exhibits:

Exhibit A: January Warrant Report

ORANGE COUNTY MOSQUITO & VECTOR CONTROL DISTRICT

REGISTER OF DEMANDS

MARCH 15, 2018

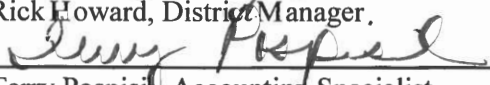
ACCOUNTS PAYABLE REGISTER

A/P Check Run Date 01/05/18	33,368.75
A/P Check Run Date 01/11/18	23,687.75
A/P Check Run Date 01/18/18	57,558.09
A/P Check Run Date 01/30/18	24,490.52
A/P Check Run Date 01/31/18	12,471.68
Medicare Premium Allow. Reimb. (Feb) 01/31/2018 / Split	738.38
Retiree Medical Allow. Reimb. (Feb) 01/31/2018 / Split	3,008.60
Trustee-in-Lieu (Jan) 01/31/2018	2,700.00
P/R CalPERS Retirement 01/11/18	56,251.02
P/R CalPERS1 Health Remittance 01/11/18	31,228.83
P/R EDD Remittance 01/11/18	22,281.11
P/R EE ASSOC Remittance 01/11/18	840.00
P/R ICMA Remittance 01/11/18	36,175.56
P/R IRS Remittance 01/11/18	32,553.19
P/R Nationwide Remittance 01/11/18	4,065.00
P/R TASC Remittance 01/11/18	2,531.43
P/R PARS Remittance 01/11/18	770.76
P/R CalPERS1 Health Remittance 01/24/18	30,569.18
P/R EDD Remittance 01/24/18	20,724.40
P/R EE ASSOC Remittance 01/24/18	825.00
P/R ICMA Remittance 01/24/18	18,309.09
P/R IRS Remittance 01/24/18	32,926.91
P/R Nationwide Remittance 01/24/18	4,065.00
P/R TASC Remittance 01/24/18	2,531.43
P/R PARS Remittance 01/24/18	1,090.87
TOTAL	455,762.55

I hereby certify that the claims or demands covered by the foregoing listed warrants have been audited as to accuracy and availability of funds for payment thereof. Subscribed and sworn on this fifteenth day of March 2018, by:



Rick Howard, District Manager.



Terry Pospisil, Accounting Specialist

Accounts Payable

Checks by Date - Summary by Check Date

User: tpospisl
 Printed: 2/21/2018 10:42 AM



O.C. MOSQUITO AND VECTOR CONTROL DISTRICT
 13001 GARDEN GROVE BLVD.
 GARDEN GROVE, CA 92843

Check No	Vendor No	Vendor Name	Check Date	Check Amount
21573	AIRGAS	AIRGAS USA, LLC	01/05/2018	296.59
21574	AT T	AT T	01/05/2018	132.87
21575	AT T FAX	AT T	01/05/2018	286.06
21576	BIO QUIP	Bio Quip Products	01/05/2018	881.86
21577	CAGATE	California Gate & Entry System	01/05/2018	143.61
21578	COSTCO	Capital One National Association.	01/05/2018	137.61
21579	SPECTRUM	Charter Communications Holdings, LLC	01/05/2018	2,191.77
21580	DELIRA A	Anthony De Lira	01/05/2018	150.00
21581	DRAKE	John Drake	01/05/2018	161.50
21582	EWING	Ewing Irrigation Products, Inc.	01/05/2018	218.51
21583	GK	G & K Services	01/05/2018	3,963.64
21584	GRAINGER	Grainger	01/05/2018	162.33
21585	GRIFFIN	Griffin Hardware Company	01/05/2018	15.08
21586	HARBOR	Harbor Freight Tools	01/05/2018	73.21
21587	IDW	IDW LLC	01/05/2018	97.20
21588	IRON	Iron Mountain Records Mgmt, Inc.	01/05/2018	73.69
21589	LIEBERT	Liebert Cassidy Whitmore	01/05/2018	3,775.00
21590	MILLER D	David B. Miller	01/05/2018	34.74
21591	MILLER J	Jon Miller	01/05/2018	164.00
21592	NITRO	Nitro Software, Inc.	01/05/2018	456.39
21593	OCWD	O. C. Water District	01/05/2018	400.50
21594	OREILLY	O'Reilly Auto Enterprises, LLC	01/05/2018	1,589.20
21595	ORVAC	ORVAC ELECTRONICS	01/05/2018	70.79
21596	PCMG	PCMG, Inc.	01/05/2018	1,344.23
21597	PEPITOS	Pepito's Restaurant Inc.	01/05/2018	403.25
21598	PRAXAIR	Praxair Distribution, Inc	01/05/2018	364.10
21599	GG DISP	Republic Waste Svcs of So. Calif., LLC	01/05/2018	1,171.80
21600	SCHORR	Schorr Metals	01/05/2018	27.07
21601	SMART	Smart & Final Stores Corp	01/05/2018	233.52
21602	SCE	Southern Calif. Edison	01/05/2018	4,043.96
21603	STERI	Stericycle, Inc.	01/05/2018	1,064.00
21604	AMAZON	AMAZON/SYNCB	01/05/2018	902.89
21605	ULINE	Uline Shipping Supply Specialists	01/05/2018	789.42
21606	VERIZON	Verizon Wireless Services LLC	01/05/2018	6,098.64
21607	VORTEX	Vortex Industries, Inc.	01/05/2018	1,449.72
Total for 1/5/2018:				33,368.75
ACH	CalPERS	Calif. Public Employees' Retirement	01/11/2018	56,251.02
ACH	CalPERS1	CalPERS	01/11/2018	31,228.83
ACH	EDD	Employment Development Dept.	01/11/2018	22,281.11
ACH	EEASSOC	OCVCD Employee Association	01/11/2018	840.00
ACH	ICMA	ICMA	01/11/2018	36,175.56
ACH	IRS	Internal Revenue Service	01/11/2018	32,553.19
ACH	NATION	Nationwide Retirement Solutions	01/11/2018	4,065.00
ACH	TASC	Total Administrative Services Corp.	01/11/2018	2,531.43
ACH	USB	PARS/U.S. Bank N.A. Minnesota	01/11/2018	770.76

Check No	Vendor No	Vendor Name	Check Date	Check Amount
21608	ACCOUNT	Accountemps	01/11/2018	4,070.01
21609	AMCA	AMCA	01/11/2018	2,370.00
21610	GGALARM	City of Garden Grove	01/11/2018	25.00
21611	HOME DEP	Home Depot Credit Services	01/11/2018	2,781.37
21612	PAPA	Pesticide Applicators Professional Assoc. Ir	01/11/2018	620.00
21613	COLONIAL	Colonial Life & Accident Insurance Co	01/11/2018	1,161.89
21614	Guard	Guardian - Appleton	01/11/2018	11,533.58
21615	VSP	Vision Service Plan	01/11/2018	1,105.90
Total for 1/11/2018:				210,364.65
21616	OCFAIR	32nd District Agricultural Assoc.	01/18/2018	100.00
21617	ACCELA	ACCELA, INC. 774375	01/18/2018	4,532.50
21618	ACCOUNT	Accountemps	01/18/2018	2,079.68
21619	ADAPCO	ADAPCO, INC.	01/18/2018	10,951.71
21620	ALANS	Alan's Lawn & Garden Center, Inc.	01/18/2018	31.00
21621	ALL STAR	All Star Glass, Inc.	01/18/2018	333.90
21622	AT T	AT T	01/18/2018	228.04
21623	BIO QUIP	Bio Quip Products	01/18/2018	421.58
21624	CABELAS	CABELA'S INC.	01/18/2018	1,206.51
21625	CALCHAME	California Chamber of Commerce	01/18/2018	97.78
21626	COSTCO	Capital One National Association	01/18/2018	38.97
21627	GG WATER	City of Garden Grove	01/18/2018	854.35
21628	CLARKE	Clarke Mosquito Control Prod Inc.	01/18/2018	10,118.51
21629	DUBOSE	Michael DuBose	01/18/2018	50.01
21630	ECO	Eco-Analysts	01/18/2018	2,600.50
21631	FM	F M CREDIT CARD	01/18/2018	4,516.32
21632	GK	G & K Services	01/18/2018	1,240.64
21633	GGFD	Garden Grove Fire Department	01/18/2018	173.00
21634	GEIGER	GEIGER	01/18/2018	1,334.62
21635	GFS	Governmental Financial Services	01/18/2018	1,380.00
21636	HARPER	Harper & Burns, LLP	01/18/2018	3,460.30
21637	JAYS	Jay's Catering	01/18/2018	209.00
21638	KWEST	K'WEST Printing	01/18/2018	37.71
21639	PLAYERS	Michael J. Mackenzie	01/18/2018	287.16
21640	HASLER	MAIL FINANCE INC.	01/18/2018	566.36
21641	MARTIN D	Daniel Martinez	01/18/2018	575.00
21642	MCFADDEN	McFadden-Dale Industrial Hardware, LLC	01/18/2018	19.38
21643	OCVCD	OCMVCD	01/18/2018	381.27
21644	OCCJ	Orange Coast Chrysler Jeep	01/18/2018	532.27
21645	ORVAC	ORVAC ELECTRONICS	01/18/2018	202.09
21646	PCMG	PCMG, Inc.	01/18/2018	2,763.20
21647	PRAXAIR	Praxair Distribution, Inc	01/18/2018	277.40
21648	PARS	Public Agency Retirement Svcs	01/18/2018	300.00
21649	SEA LIFE	Sea Life Designs, Inc.	01/18/2018	350.24
21650	SHERWIN	Sherwin Williams	01/18/2018	78.72
21651	SIMPSON	Simpson Chevrolet of Garden Grove	01/18/2018	1,465.00
21652	SCG	Southern Calif. Gas Co.	01/18/2018	456.31
21653	SPARK	Sparkletts	01/18/2018	134.52
21654	STODDARD	Jodie Stoddard	01/18/2018	399.41
21655	TOYOTAGG	Toyota Place	01/18/2018	526.52
21656	TRUCPAR	Truck & Auto Supply, Inc.	01/18/2018	1,053.22
21657	VORTEX	Vortex Industries, Inc.	01/18/2018	358.00
21658	XEROX	Xerox Corporation	01/18/2018	835.39
Total for 1/18/2018:				57,558.09

Check No	Vendor No	Vendor Name	Check Date	Check Amount
ACH	CalPERS1	CalPERS	01/24/2018	30,569.18
ACH	EDD	Employment Development Dept.	01/24/2018	20,724.40
ACH	EEASSOC	OCVCD Employee Association	01/24/2018	825.00
ACH	ICMA	ICMA	01/24/2018	18,309.09
ACH	IRS	Internal Revenue Service	01/24/2018	32,926.91
ACH	NATION	Nationwide Retirement Solutions	01/24/2018	4,065.00
ACH	TASC	Total Administrative Services Corp.	01/24/2018	2,531.43
ACH	USB	PARS/U.S. Bank N.A. Minnesota	01/24/2018	1,090.87
Total for 1/24/2018:				111,041.88
ACH	BENNETT	Stephen Bennett	01/29/2018	234.05
ACH	EDISON	SUZANNE R. EDISON	01/29/2018	282.00
ACH	Goedhart	Gerard Goedhart	01/29/2018	234.05
ACH	HEARST	Michael Hearst	01/29/2018	434.05
ACH	Huff	Robert Huff	01/29/2018	234.05
ACH	KELLER	JUSTINE KELLER	01/29/2018	83.41
ACH	KIMBALL	Deborah Kimball	01/29/2018	234.05
ACH	KOENIG	Steve Koenig	01/29/2018	234.05
ACH	MCCARTY	Danny McCarty	01/29/2018	234.05
ACH	MONTANI	Karen Montani	01/29/2018	68.99
ACH	PARSONS	John Parsons	01/29/2018	234.05
ACH	REES	EARL REES	01/29/2018	250.20
ACH	Rehders	Renee Rehders	01/29/2018	234.05
ACH	REINIG	Allyson Reinig	01/29/2018	234.05
ACH	Reynolds	Thomas Reynolds	01/29/2018	53.78
ACH	RINCON	Claudio Rincon	01/29/2018	234.05
ACH	SIPE	Russell Sipe	01/29/2018	234.05
Total for 1/29/2018:				3,746.98
ACH	AGUINAGA	X. Cecilia Aguinaga	01/30/2018	100.00
ACH	BROTHERS	Cheryl Brothers	01/30/2018	100.00
ACH	CONTRERA	Sergio Contreras	01/30/2018	100.00
ACH	DAVIS	Michael Davis	01/30/2018	100.00
ACH	ETHANS	Al Ethans	01/30/2018	100.00
ACH	GOODMAN	Marshall Goodman	01/30/2018	100.00
ACH	GREEN C	Craig S. Green	01/30/2018	100.00
ACH	HOLTZCLA	Bob Holtzclaw	01/30/2018	100.00
ACH	HORNE	Shari Lucas Horne	01/30/2018	100.00
ACH	HUANG	Peggy Huang	01/30/2018	100.00
ACH	JOSEPH	April Josephson	01/30/2018	100.00
ACH	KLOPFEN	Stephanie L. Klopfenstein	01/30/2018	100.00
ACH	KOGERMAN	Barbara D. Kogerman	01/30/2018	100.00
ACH	KRING	Lucille Kring	01/30/2018	100.00
ACH	MORALES	Paulo Morales	01/30/2018	100.00
ACH	NELSON B	William E. Nelson	01/30/2018	100.00
ACH	PATTER	Pam Patterson	01/30/2018	100.00
ACH	PEOTTER	Scott Peotter	01/30/2018	100.00
ACH	RUESCH	Robert J. Ruesch	01/30/2018	100.00
ACH	SCHUMACI	Michelle Schumacher	01/30/2018	100.00
ACH	TSUNODA	Phillip B. Tsunoda	01/30/2018	100.00
21668	ALVAREZ	Michael Alvarez	01/30/2018	100.00
21669	CLARK	Letitia Clark	01/30/2018	100.00
21670	ISEMAN	Toni Iseman	01/30/2018	100.00
21671	JENNINGS	John Mark Jennings	01/30/2018	100.00
21672	MASSA-LA	Sandra Massa-Lavitt	01/30/2018	100.00

Check No	Vendor No	Vendor Name	Check Date	Check Amount
21673	VICZOREK	Richard Viczorek	01/30/2018	100.00
21674	ACCOUNT	Accountemps	01/30/2018	2,599.60
21675	ART	Art Supply Warehouse	01/30/2018	26.97
21676	AT T FAX	AT T	01/30/2018	234.48
21677	BELLPIPE	Bakersfield Pipe and Supply, Inc.	01/30/2018	7.15
21678	BIO QUIP	Bio Quip Products	01/30/2018	904.62
21679	CABELAS	CABELA'S INC.	01/30/2018	131.31
21680	CAGATE	California Gate & Entry System	01/30/2018	123.75
21681	COSTCO	Capital One National Association	01/30/2018	120.00
21682	COSD DEH	County of San Diego	01/30/2018	560.00
21683	CROWN	Crown Maintenance	01/30/2018	215.00
21684	FEDEX	Federal Express Corp.	01/30/2018	1,072.12
21685	GK	G & K Services	01/30/2018	565.66
21686	HILLS	Hill's Bros. Lock & Safe, Inc.	01/30/2018	37.01
21687	HOIST	Hoist Service Inc,	01/30/2018	513.42
21688	HOME DEP	Home Depot Credit Services	01/30/2018	1,994.02
21689	IRON	Iron Mountain Records Mgmt, Inc.	01/30/2018	73.69
21690	ALARM	Thomas E. Kindschi	01/30/2018	270.00
21691	PLAYERS	Michael J. Mackenzie	01/30/2018	72.04
21692	MORENO	Antonio J. Moreno	01/30/2018	150.00
21693	NCUE	National Conference of Urban Entomology	01/30/2018	325.00
21694	OFFICE	OFFICE DEPOT, INC.	01/30/2018	94.36
21695	OC FIRE	Orange County Fire Protection	01/30/2018	303.83
21696	PRAXAIR	Praxair Distribution, Inc	01/30/2018	182.05
21697	SMART	Smart & Final Stores Corp	01/30/2018	392.07
21698	SCE	Southern Calif. Edison	01/30/2018	3,938.57
21699	STAPLES	Staples Business Advantage	01/30/2018	5,035.13
21700	STERI	Stericycle, Inc.	01/30/2018	1,064.00
21701	TT DEPOT	The Technology Depot, Inc.	01/30/2018	67.50
21702	WOODRUFF	Woodruff Spradlin & Smart	01/30/2018	1,735.50
21703	ZASIO	Zasio Enterprises, Inc.	01/30/2018	1,681.67
Total for 1/30/2018:				27,190.52
ACH	CALPERS	Calif. Public Employees' Retirement	01/31/2018	11,926.68
21704	AMCA	AMCA	01/31/2018	395.00
21705	DRAKE	John Drake	01/31/2018	150.00
Total for 1/31/2018:				12,471.68
Report Total (180 checks):				455,742.55



ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

March 15, 2018

AGENDA REPORT

AGENDA ITEM # E.3

Prepared By: Julie Matsumoto, Contractor
Submitted By: Rick Howard, District Manager

Agenda Title:

Monthly Financial Report for January 2018

Recommended Action:

Receive and file.

Executive Summary:

Accept for inclusion as **Exhibit A**, the Orange County Mosquito and Vector Control District Monthly Financial Report for January 2018.

Fiscal Impact:

Amount Requested \$ N/A

Sufficient Budgeted Funds Available:

Category: Pers. Optg. Cap. -or- CIP# Fund#

Previous Relevant Board Actions for This Item:

Exhibits:

Exhibit A: Monthly Financial Report for January 2018

Orange County Mosquito and Vector Control District
Monthly Financial Report
Month Ending January 31, 2018

Fund No.	Fund	Cash Balance 12/31/2017	Revenue	Expenditures	Transfers	Accrual Adjustment	Cash Balance 1/31/2018	Cash Balance 1/31/2017
10	Operating	10,927,680	1,074,442	750,229	-	(26,079)	11,225,814	9,150,730
20	Vehicle Replacement	598,793	1,309	-	-	-	600,102	527,326
30	Liability Reserve	461,664	1,010	-	-	-	462,674	459,353
40	Equipment Replacement	456,597	998	-	-	-	457,595	370,048
50	Emergency Vector Control	1,154,586	2,525	-	-	-	1,157,111	1,148,807
60	Facility Improvement	1,560,906	25,899	6,071	-	-	1,580,734	1,385,738
70	Habitat Remediation	185,657	-	-	-	-	185,657	186,527
75	Environmental Fund	12,064	-	-	-	-	12,064	12,064
90	Retiree Medical Insurance	103,955	3,216	15,047	-	(8,577)	83,547	97,925
95	Retirement Contingency	1,063,478	2,326	-	-	-	1,065,804	1,058,155
99	Payroll Clearing	268,491	-	-	-	(272,051)	(3,560)	(2,003)
		\$ 16,793,871	\$ 1,111,725	\$ 771,347	\$ -	\$ (306,707)	\$ 16,827,542	\$ 14,394,670

Cash Reconciliation		
California LAIF	8,002,309	1.35%
O.C. Treasurer	1,642,683	1.17%
F&M Checking	6,702,230	n/a
Payroll Checking	324,224	n/a
F&M HBP	146,096	0.05%
Petty Cash - Checking	10,000	n/a
Cash and Investments	\$ 16,827,542	

Note: The PARS OPEB Trust has a balance of \$3,083,525 as of 12/31/2017 (the most recent information available). These monies are held in an irrevocable trust and are to be used exclusively for retiree medical payments.


 Richard Howard
 District Manager


 Julie Matsumoto
 Contractor

Monthly Cash Flow

Month	Revenue	Expenditures	Transfers	Accrual Adjustment	Monthly Cash Flow	FY '16-'17 Comparison
July	\$ 26,926	\$ 1,430,349	\$ -	\$ (126,421)	\$ (1,529,844)	\$ (1,481,319)
August	\$ 62,352	\$ 1,461,952	\$ -	\$ 367,390	\$ (1,022,210)	\$ (1,026,205)
September	\$ 160,080	\$ 649,107	\$ -	\$ (352,860)	\$ (841,887)	\$ (803,854)
October	\$ 118,662	\$ 1,455,607	\$ -	\$ 365,561	\$ (971,384)	\$ (686,253)
November	\$ 2,674,088	\$ 818,546	\$ -	\$ (383,367)	\$ 1,372,175	\$ 604,556
December	\$ 4,711,638	\$ 924,801	\$ -	\$ 327,153	\$ 4,113,990	\$ 4,580,932
January	\$ 1,111,725	\$ 771,347	\$ -	\$ (306,707)	\$ 33,671	\$ (156,097)
February	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (677,930)
March	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (64,115)
April	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,577,531
May	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (878,726)
June	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (678,760)
Total YTD	\$ 8,765,471	\$ 7,501,709	\$ -	\$ (109,251)	\$ 1,154,511	\$ 2,309,760

Revenues: 58% of Fiscal Year

10-Operating Fund	Year to Date		
	Annual Budget	Actual	Percentage
Property Taxes	5,631,000	3,616,120	64.2%
1996 Benefit Assessment	1,551,000	937,983	60.5%
2004 Benefit Assessment	5,669,600	3,401,763	60.0%
Interest and Concessions	70,000	37,874	54.1%
Miscellaneous	15,000	7,704	51.4%
Successor Agency Pass thru Money	400,000	284,882	71.2%
Rent for Cell Sites	26,600	15,834	59.5%
VCJPA Pooled Services	100,000	178,987	179.0%
CDPH - CA State Grant	138,000	51,392	37.2%
Charges for Services	70,000	25,160	35.9%
Total	\$ 13,671,200	\$ 8,557,699	62.6%

The major distributions of property tax and benefit assessments occur in four installments: December, January, April, and May.

LAIF interest is received in the month following each quarter end.

Timing of receipt is unpredictable.

Refund is typically received in November.

Grant receipt is invoiced monthly; revenue lags by one to two months.

Service levels vary each month and are invoiced after the fact.

No.	Other Funds	Budget	Actual	Percentage
20	Vehicle Replacement	20,000	2,962	14.8%
30	Liability Reserve	4,500	2,284	50.8%
40	Equipment Replacement	3,500	2,259	64.5%
50	Emergency Vector Control	11,500	5,712	49.7%
60	Facility Improvement	286,500	170,871	59.6%
90	Retiree Medical Insurance	174,000	18,423	10.6%
95	Retirement Contingency	7,500	5,261	70.1%
Total Revenue		\$ 14,178,700	\$ 8,765,471	61.8%

The anticipated sale of vehicles has not occurred yet.

Largest receipt is an annual drawdown from the OPEB Trust each June.

Expenditures: 58% of Fiscal Year

No.	Program	Budget	Actual	Percentage
110	Trustees	54,950	23,203	42.2%
120	District Manager	383,360	210,264	54.8%
130	Legal Services	130,000	34,229	26.3%
140	Non-Departmental	279,800	154,742	55.3%
	Executive	\$ 848,110	\$ 422,438	49.8%
210	Administrative Services	820,210	480,517	58.6%
220	Insurance	712,500	689,336	96.7%
	Administrative Services	\$ 1,532,710	\$ 1,169,853	76.3%
310	Technical Services	1,592,310	835,891	52.5%
	Scientific Technical Services	\$ 1,592,310	\$ 835,891	52.5%
410	Field Operations	6,944,900	3,545,894	51.1%
430	Vehicle Maintenance	774,440	411,946	53.2%
440	Building Maintenance	220,030	107,960	49.1%
	Operations	\$ 7,939,370	\$ 4,065,800	51.2%
510	Public Information	828,080	415,177	50.1%
520	Information Technology	675,700	333,563	49.4%
530	Public Service	155,920	88,975	57.1%
	Public Information	\$ 1,659,700	\$ 837,715	50.5%
Total Operating Fund Expenditures:		\$ 13,572,200	\$ 7,331,697	54.0%
20	Vehicle Replacement	-	-	0.0%
30	Liability Reserve	-	-	0.0%
40	Equipment Replacement	-	-	0.0%
50	Emergency Vector Control	-	-	0.0%
60	Facility Improvement	547,500	63,438	11.6%
70	Habitat Remediation	-	11	0.0%
75	Environmental	-	-	0.0%
90	Retiree Medical Insurance	174,000	106,563	61.2%
95	Retirement Contingency	-	-	0.0%
	Total Other Funds	\$ 721,500	\$ 170,012	23.6%
Total Expenditures		\$ 14,293,700	\$ 7,501,709	52.5%

Workers Comp, Liability & Property Insurance paid annually in July.

Majority of budget is capital-related facility projects; work is not yet underway.

Local Agency Investment Fund
P.O. Box 942809
Sacramento, CA 94209-0001
(916) 653-3001

www.treasurer.ca.gov/pmia-laif/laif.asp
February 02,
2018

ORANGE COUNTY VECTOR CONTROL DISTRICT

DIRECTOR OF ADMINISTRATIVE SERVICES
13001 GARDEN GROVE BLVD
GARDEN GROVE, CA 92843

PMIA Average Monthly Yields

Account Number:

16-30-008

// Tran Type Definitions

January 2018 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Authorized Caller	Amount
1/12/2018	1/11/2018	QRD	1559559	SYSTEM	25,270.80

Account Summary

Total Deposit:	25,270.80	Beginning Balance:	7,977,038.64
Total Withdrawal:	0.00	Ending Balance:	8,002,309.44



COUNTY OF ORANGE
OFFICE OF THE TREASURER-TAX COLLECTOR
 Shari L. Freidenrich, CPA, CCMT, CPFA, ACPFIM
 P. O. BOX 4515
 SANTA ANA, CA 92702-4515



ocgov.com/ocinvestments
 January 31, 2018

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

Attn: Richard Howard, District Manager
 13001 Garden Grove Blvd.
 Garden Grove, CA 92843

Monthly Apportionment Gross Yield: 1.231%
 Administration Fee: -0.060%
 Monthly Apportionment Net Yield: 1.171%

Fund Number : 9LK

JANUARY 2018 STATEMENT

CASH IN TREASURY

Transactions

Transaction Date	Transaction Description	Tran Type	Authorized Signer	Amount
01/01/18	December 2017 Admin Fee	AF		\$ (83.71)

Summary

Total Deposit:	\$ -	Beginning Balance:	\$ 1,642,767.20
Total Withdrawal:	\$ (83.71)	Ending Balance:	\$ 1,642,683.49

ACCRUED INVESTMENT INCOME

Transactions

Transaction Date	Transaction Description	Tran Type	Authorized Signer	Amount
02/01/18	January 2018 Interest	IN		\$ 1,718.61

Summary

Total Accrual:	\$ 1,718.61	Beginning Balance:	\$ 1,575.93
Total Payment:	\$ -	Ending Balance:	\$ 3,294.54

F. BUSINESS AND ACTION ITEMS

G. INFORMATIONAL ITEMS

1. **STAFF PRESENTATION: SENIOR STAFF WILL GIVE AN UPDATE OF VECTOR ACTIVITY IN ORANGE COUNTY**
2. **STATEMENT OF ECONOMIC INTERESTS 700 FORMS FOR FILING**
3. **REPORT OF DISTRICT ACTIVITIES**



ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

March 15, 2018

AGENDA REPORT

AGENDA ITEM # G.2

Prepared By: Tawnia Pett, Executive Assistant/Clerk of the Board
Submitted By: Rick Howard, District Manager

Agenda Title:

Statement of Economic Interests 700 Forms for Filing

Recommended Action:

Receive and file.

Executive Summary:

Each trustee is required to complete a Statement of Economic Interests Form 700 by April 2, 2018. (Please note there are penalties for late filing). The cover page of the form 700 must have an original signature in blue ink. Trustees may obtain the form and additional information online at <http://www.fppc.ca.gov/Form700.html> or file electronically as indicated below.

Electronic Filing: All trustees should have received information from the Clerk of the Board of Supervisors regarding filer instructions for electronically filing their Statement of Economic Interests Form 700, including log-ins, IDs, and passwords. The link to this site is

<https://www.southtechhosting.com/OrangeCounty/eDisclosure/>

Please contact Tawnia Pett if you have not received this information. Electronic filing is not mandatory.

Trustee Filing Disclosure is Category OC-1: All interests in real property in Orange County, as applicable, as well as investments, business positions, and sources of income (including gifts, loans, and travel payments) "Your Position" should be filed as "Board Trustee".

Fiscal Impact:

Amount Requested \$ N/A

Sufficient Budgeted Funds Available:

Category: Pers. Optg. Cap. -or- CIP# Fund#

Previous Relevant Board Actions for This Item:

Exhibits:

Fewer Scientists Are Studying Insects Here's Why That's So Dangerous

By Alexandra Sifferlin
February 14, 2018

In the summer of 2016, Jerome Goddard, a medical entomologist in Mississippi, received an email from the U.S. Centers for Disease Control and Prevention (CDC) with a desperate ask. The agency was conducting an “urgent” search for insect scientists around the U.S. who could take up to a six-month paid leave from work to help the CDC fight the Zika outbreak in the U.S., and possibly respond to areas with local transmission if needed. “That’s how bad it is—they need to borrow someone,” says Goddard, an extension professor of medical entomology at Mississippi State University. “We can’t find people to investigate an outbreak.” Medical entomology—the study of insects and arthropods that impact human health—has been a shrinking field for at least two decades, and the lack of bug scientists is now interfering with the nation’s ability to respond to infectious disease outbreaks. The CDC, which has about 12,000 employees, only has 13 medical entomologists on staff.

The dwindling workforce has serious consequences for human health; diseases spread by insects are on the rise in the United States. Chikungunya, a new disease spread by mosquitoes, has emerged in the past five years, and since 1999, seven new tick-borne diseases have been discovered in the United States. Cases of Lyme disease have increased from a reported 17,209 in 2001 to 36,429 in 2016—a 111% rise. (The CDC estimates that the number of people diagnosed with Lyme disease each year in the U.S. is much more—around 300,000.)

The recent emergence of the mosquito-borne Zika virus, in 2015, has heightened scientists’ concerns. At the start of the Zika epidemic, little was known about the virus’s ability to cause serious medical problems, and the CDC had to perform nearly 200,000 diagnostic tests itself. Amid the already complicated outbreak, a serious gap in the country’s response became clear: There simply were not enough scientists trained in medical entomology available to respond.

“We discovered during the Zika response that we didn’t have enough entomologists to send them out and consult,” says Ben Beard, the deputy director of the division of vector-borne diseases at the CDC’s National Center for Emerging & Zoonotic Infectious Diseases in Fort Collins, Colorado. “Not only that, but the states don’t have them and the counties don’t have them. Where have all the entomologists gone?” Researchers in and outside of the CDC say that young people are more interested in genetics and lab work than identifying and collecting bugs. “As professors have retired, they have been replaced with people who don’t have the practical field and control experience or even interest,” says Janet McAllister, a medical entomologist at the CDC. That leaves a concerning knowledge gap in today’s young entomologists, she says.

One possible reason why entomology is so unpopular is that young scientists just aren't learning about it. A few years ago, Goddard searched publicly available American and Canadian medical school curricula and found that only 11 of 120 participating institutions included course content about arthropods. "We need people who can go out in a village, town or jungle and figure out what a disease is, where is it coming from, what's the host, what's the vector, and what the heck can we do about it," he says. "There are hardly any of these people." Entomology is also one of many scientific fields that has been hit hard by budget cuts. When funding to hire and keep entomologists falls at the federal and local levels, Beard says it drives down the number of PhD candidates at universities who can graduate and find jobs.

That becomes a major problem when there's an outbreak. During those times, the need for medical entomologists increases, and funding spikes accordingly—but typically only temporarily. In 1999, the mosquito-borne West Nile Virus appeared in the United States, and by 2004, it was endemic in 48 states. That year, federal funding for state and local West Nile Virus surveillance and prevention efforts reached a high of \$24 million per year. But an assessment years later revealed that funding had dropped, and the proportion of states with adequate access to medical entomologists fell about 10% from 2004 to 2012. Those same gaps were clear during the Zika response, as the CDC struggled to find enough entomologists to respond to states' requests for help.

Yet despite the need, the number of young scientists entering the medical entomology field remains low, and it's contributing to inadequate mosquito surveillance and control systems across the U.S. In 2017, the CDC and National Association of County and City Health Officials (NACCHO) surveyed 1,083 vector control organizations throughout the U.S. and found that 84% reported needing improvement in at least one core competency area, like pesticide resistance testing, routine mosquito surveillance and species identification.

The CDC is working to address the gap. In 2017, the agency announced that it was providing nearly \$50 million in funding to universities in order to establish centers of excellence to help address emerging vector-borne diseases in the U.S. The five centers are tasked with providing training to rebuild what Beard calls "the next generation of public health entomologists," as well as research and other partnerships to help the U.S.'s ability to quickly and adequately respond to insect-spread diseases. In total, the CDC is providing \$220 million in supplemental funding for state, local and territorial health departments, non-profits and universities to support efforts related to Zika and health outcomes from the virus.

"This represents a commitment to rebuild that capacity to create new jobs and train new students," Beard says, "but also to train people who work in this area to make sure they have the skill sets to do this. Zika was a real shot in the arm to accomplish this."

Vector of the Month

Influx of Harmless 'Mosquito Hawks' Look Like Giant Mosquitoes



A crane fly perched on a person's fingers.

Photo Credit: San Diego County News Center

If you have noticed what looks like giant mosquitoes or daddy-longlegs with wings, flying around like crazy and bouncing off walls, you are not alone. Crane flies can appear in droves throughout the region during rainy winters. Crane flies are nothing to be afraid of. They have many nicknames, including "mosquito hawks," "skeeter-eaters," and "daddy longlegs." However, they are really just crane flies. Although they are pretty large for the average bug you see flying around in Orange County, they are completely harmless to people.

Their bodies sometimes reach an inch or more in length, but they can look even bigger because of their six, long, stilt-like legs. The easiest way to identify a crane fly is to see if it is bigger than a dime. If it is too large to be a mosquito, then it is most likely a crane fly. Bug experts sometimes call the crane flies "five-legged flies" because of their spindly, fragile legs. It is unusual to find one with all six of its legs intact.

There are a few myths and misconceptions that need to be debunked. First, they are related to mosquitoes, but crane flies are not mosquitoes. Most adult crane flies don't eat at all, but those that do will drink nectar. Since most adults do not consume, they are unable to bite, and therefore cannot transmit disease. That's the good news.

Unfortunately, crane flies do not eat mosquitoes. Crane flies have colorful but inaccurate nicknames such as "mosquito hawks" and "skeeter-eaters." Also, adults only live ten days at the most, unless they're gobbled up by birds, lizards or other predators. Spring is the peak season for crane flies. Their populations are high following a rain event. These bugs are attracted to lights, often drawing them into houses through open doors and windows.

H. PRESIDENT'S REPORT AND TRUSTEE COMMENTS

I. DISTRICT MANAGER'S REPORT – DISCUSSION AND POSSIBLE ACTION

J. DISTRICT LEGAL COUNSEL REPORT – DISCUSSION AND POSSIBLE ACTION

CLOSING

K. **CORRESPONDENCE – DISCUSSION AND POSSIBLE ACTION**

Staff and Trustee reports from conferences attended in February and March

L. **FUTURE AGENDA ITEMS**

M. **ADJOURNMENT**

1. **ADJOURN TO THE NEXT REGULAR MEETING OF APRIL 19, 2018 STARTING AT 3:00 P.M. AT THE ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT OFFICES, 13001 GARDEN GROVE BLVD., GARDEN GROVE, CA 92843**

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Lora Young – Director of Communications

Name of Conference/Event: 2018 CSDA Leadership Academy Conference

Date: February 5-7, 2018

Location: La Quinta, California


Significant points learned of benefit to the District and its ratepayers:

The California Special Districts Association (CSDA) Leadership Academy is developed as a resource for board members, general managers and other management staff to have a better understanding of the role each play within a special district. As a new member to the executive staff, this conference was very helpful in defining roles of the board versus staff. The academy addressed the following topics:

- Good governance, transparency and how to work with the board to develop policies and procedures to ensure operations.
- The boards role as a unified entity when speaking to the public and media on district issues. This presentation addressed when staff should address topics versus the board. One of the major topics was individual board members use of social media, public forums and media to address personal/individual beliefs versus the board consensus. This also lead to a discussion on when and how individual board members could express their thoughts, without representing the whole board.
- Staff versus the boards role in important financial concepts, reports, and policies specific to public agencies including special districts. This addressed topics such as the budget process, budget assessment, and communicating budget information to the public.

Over the conference was helping in providing a better understanding of staff role and the board's role in the mission, operation and communication of the District. I would recommend this academy for trustees that would like to get some additional resources on their roles within the District.

Date: 3/5/2018

Signed: 

Print Name: Lora Young

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: TINA PACIFIC

Name of Conference/Event: VCJPA ANNUAL WORKSHOP

Date: FEBRUARY 22-23, 2018

Location: SANTA CRUZ, CA

Significant points learned of benefit to the District and its ratepayers:


Attended the VCJPA Annual Workshop and Board Meeting. The workshop covered targeted information for Vector Control Districts statewide.

The presenters were from Bickmore and covered the following areas and topics:

- Safety and Risk Control- covered the various training available to us through our pool. We set up a walk through with the safety team to do a risk assessment which will take place in early April 2018.
- Pooled Liability Program – discussed layers of coverage and scenarios in which the various layers would be utilized.
- Pooled Worker's Compensation – AIMS presented information on Drug Formulary changes.
- Pooled Property and Auto Physical Damage program – Speaker presented overview of outstanding cases and coverages. Reminder that renewals were due at the end of Febuary for the 2018-19 coverage year.
- Legislative Updates – Discussed relevant legislation updates.
- Training Presentation – Leading Challenging (And Not So Challenging) Employees Through Challenging Situations to Create Great District Environments – this topic was especially important to our District as we are currently going through the Classification and Compensation Study. It will be a challenge for employees to articulate what it is that they do. I am looking forward to putting into practice some of the techniques that were discussed. Especially the employee participation/involvement part.

Overall, I foind this Annual Workshop to be especially good for relevant Vector Control related issues as well as networking with colleagues at other Districts throughout California.

Date: 02/28/2018

Signed: 

Print Name: Tina Pacific

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT
REPORT OF STAFF'S ATTENDANCE
AT CONFERENCE/EVENT

Staff Name and Title: Rick Howard

Name of Conference/Event: 2018 VCJPA Annual Meeting

Date: February 22 to 23, 2018

Location: Santa Cruz, CA

Significant points learned of benefit to the District and its ratepayers:

I attended the annual meeting of the Vector Control Joint Powers Authority (The District's Insurance Company) in Santa Cruz on February 22 and 23, 2018.

Discussions centered around the District's insurance pool and the different types of coverage utilized, including general liability, vehicle, crime, and worker's compensation.

Also, the JPA presented the overall financial stability of the pool. The overall pool presently has over \$29M in total assets, some of which are utilized to acquire additional higher threshold insurance for unforeseen catastrophic claims.

Other topics included the JPA's safety program (used by agencies) and legal challenges facing the industry, A copy of the agenda is attached.

Date: March 6, 2018

Signed: *Rick Howard*

Print Name: Rick Howard



VECTOR CONTROL JOINT POWERS AGENCY
29th ANNUAL VCJPA WORKSHOP AGENDA
Thursday, February 22, 2018
8:30 a.m.

Dream Inn
175 W. Cliff Drive
Santa Cruz, CA 95060
(844) 291-9681

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Documents and materials relating to an open session agenda item that are provided to the VCJPA Board less than 72 hours prior to a regular meeting will be available for public inspection and copying at 1750 Creekside Oaks Dr., Suite 200, Sacramento, CA 95833.

<u>Approx. Time</u>	<u>Page</u>	
8:30 AM		1. INTRODUCTIONS AND REVIEW
	4	A. Welcome, Introductions, and Opening Remarks by President Tamara Davis
	5	B. 2017 Year In Review and Looking Forward into 2018
8:45 AM		2. INVESTMENT AND FINANCIAL OVERVIEW
	8	*A. Financial Position Overview
9:10 AM		3. SAFETY AND RISK CONTROL
	20	*A. General Overview
	23	*B. Review of Safety Recognition Program
9:30 AM		4. POOLED LIABILITY PROGRAM
		A. General Overview:
	25	*1. Primary Pooled Layer, Mid-Layer Pool, and Aggregate Pool
	34	*2. Litigation Management Program
	41	*3. Excess Coverage - California Affiliated Risk Management Authorities (CARMA)
	43	*4. Employment Practices Liability Coverage - Employment Risk Management Authority (ERMA)
10:00 AM		15 MINUTE BREAK

- 10:15 AM **5. POOLED WORKERS' COMPENSATION PROGRAM**
- A. General Overview:
 - *1. Primary Pooled Layer, Mid-Layer Pool, and Aggregate Pool
 - *2. Excess Coverage – Local Agency Workers' Compensation Excess Joint Powers Authority (LAWCX)
 - *B. Presentation by Acclamation Insurance Management Services (AIMS) Regarding Medical Treatment Utilization Schedule (MTUS) Drug Formulary Changes
- 46
- 64
- 10:55 AM 73 **6. PRESENTATION BY ALLIANT INSURANCE SERVICES**
- *A. State of the Insurance Market
 - *B. Alliant Property Insurance Program (APIP)
 - *C. Alliant Crime Insurance Program (ACIP)
- 11:20 AM **7. POOLED PROPERTY PROGRAM**
- *A. General Overview
- 74
- 11:25 AM **8. POOLED AUTO PHYSICAL DAMAGE PROGRAM**
- *A. General Overview
- 76
- 11:35 AM **9. GROUP PURCHASED PROGRAMS**
- *A. General Overview of the Business Travel Accident Program and Employee Assistance Program
- 80
- 11:45 AM **10. LEGAL MATTERS**
- *A. Legislative Update
- 82
- 12:15 PM **LUNCH**
- 1:00 PM **11. PRESENTATIONS/TRAINING**
- A. Leading Challenging (And Not So Challenging) Employees Through Challenging Situations to Create Great District Environments
- 93
- 3:30 PM **12. REVIEW OF SERVICE PROVIDERS**
- A. Results of Membership Satisfaction Survey
 - 1. Bickmore – Program Administration, Accounting, Litigation Management, Workers' Compensation Claims Oversight, Loss Control, and Actuarial Services
 - 2. Acclamation Insurance Management Services (AIMS) – Workers' Compensation Third Party Claims Administration Services
- 94

3. Bartkiewicz, Kronick & Shanahan – Legal Counsel Services

4:00 PM

13. CONCLUSION OF WORKSHOP

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Robert F. Cummings, Director of Scientific Technical Services

Name of Conference/Event: 28th Vertebrate Pest Conference

Date: February 25 – March 1, 2018

Location: DoubleTree Hotel, Rohnert Park, California

Significant points learned of benefit to the District and its ratepayers:

The Vertebrate Pest Conference (VPC) held its 28th biennial meeting from February 25 – March 1, 2018, in Rohnert Park, California. The key purpose of the VPC is to advance environmentally-safe, vertebrate pest management methodology and coordination of activities among agencies concerned with the regulatory aspects of vertebrate pest management. The meeting brought together public health professionals, agricultural specialists, and private pest control companies to exchange ideas about the latest developments in the control of rats and other problematic rodents, feral pigs, and native wildlife that cause human conflict. Speakers made presentations on the development of birth control products for rats, problems caused by anticoagulant rodenticides to birds of prey, and the seriousness of rat problems in major metropolitan areas, such as the cities of New York, New York, and Oakland, California. These problems have been attributed largely to the lack of good waste disposal by these cities, expansion of homeless encampments, and old city infrastructure.

I held discussions with several researchers about the prospect of using synthetic birth control products on our commensal rat population in Orange County. The District is considering this type of non-anticoagulant control strategy in the near future, pending registration of the product in California; EPA registration has been completed for this rodent control method in other states. I also consulted with rodent control companies about their innovative auto-resetting, multi-use, carbon dioxide-powered rodent traps.

In addition to listening to talks, I gave a presentation on the 2017 outbreak of rat mites at the Villa Park Elementary School.

Date: March 2, 2018

Signed: *Robert F. Cummings*

Print Name: Robert F. Cummings

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Lawrence H. Shaw Director of Operations

Name of Conference/Event: 28th Vertebrate Pest Conference

Date: February 26 - March 1, 2018

Location: Rohnert Park, CA

Significant points learned of benefit to the District and its ratepayers:

Rat Lungworm has become a significant problem on the big island of Hawaii. The life cycle of the lungworm is in slugs and snails and circulates back to the rat when mollusks are eaten by the rat. Humans can acquire the lungworm by eating the very tiny stage of the slug or snail in a salad of raw fruit. The lung worm has not been detected yet in southern California but has the potential for becoming a problem since we have all the hosts living in the County.

There was a full day symposium dedicated to rodenticide residues in wildlife. The rat bait that the District stopped using (99% reduction) has been proven to have a half-life of 331 days and has serious impacts to predatory birds and carnivores including our pet dogs. Rats that have died after eating anticoagulants and are eaten and can cause sub-lethal health impacts to nontarget animals or if quantities are high enough cause death.

Beyond anticoagulant rodenticides there are some new specific toxins being developed that are specific to the species to be controlled without harming nontarget animals.

The Gray Wolf is making a comeback in the lower 48 states. With the introduction of wolves 25 years ago in Yellowstone National Park and the Idaho wilderness the wolves are thriving and expanding their range. A wolf pack has been observed in Northern California. They will not be here in Orange County.

Date: March 5, 2018

Signed: 

Print Name: Lawrence H. Shaw

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Jerry Sims—Senior Inspector 3

Name of Conference/Event: 28th Vertebrate Pest Conference

Date: February 26 – March 1, 2018

Location: Rohnert Park CA

Significant points learned of benefit to the District and its ratepayers:

Multiple presentations describing the most recent studies which illustrate conclusively the degree to which anticoagulant rodenticides and their residues are amplified in the food chain. Such bioaccumulation leads to significant negatives impacts on non-target wildlife, ranging from raptors and other bird species to large mammal predators such as mountain lions. In light of these recent studies, the decision of OCMVCD to discontinue routine rat baiting and emphasize foundational IVM to homeowners has proven to be a significant, proactive step.

As anticoagulant rodenticides are proving to carry significant environmental risk and face increasing restriction in California, alternative control products are being studied. One such product is Norbormide, an existing but infrequently used rodenticide. Norbormide is a rat-specific toxicant, with little or no toxicity to birds and other mammals. New research hopes to overcome palatability issues and address registration status.

Another alternative to anticoagulant rodenticides is Contrapest, a liquid, steroidal product that inhibits fertility in mammals, specifically developed for rodent control. It affects both sexes of rats (ovaries/sperm) and is 100% effective. Although it can be accumulated in non-target species, it is completely reversible once exposure ceases, with no ill effects. Currently registered in 49 states, with registration in CA expected in about one year. Interesting in its ability to flatten a rat population, although likely would still require use in conjunction with a lethal program.

An emerging health risk associated with rats is their ability to host parasitic lungworms. Multiple cases in Hawaii have been recently documented, whereby larvae of the parasitic worm are shed in their feces and remain active in soil,

where the lesser larval stages also infect slugs and snails. The smaller stages of slugs and snails may be inadvertently consumed by humans on produce, where due to their small size they may not be detected. The illness in humans can become quite severe as the worms multiple in the body.

Date: 3/5/18

Signed:  _____

Print Name: Jerry Sims

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: James Campbell, Lab Intern

Name of Conference/Event: 2018 28th Vertebrate Pest Conference

Date: Feb. 25 – March 1, 2018

Location: Rohnert Park, California

Significant points learned of benefit to the District and its ratepayers:

The Vertebrate Pest Conference is a biannual event where professionals and researchers in the fields involved with vertebrate pest control, mainly mammal and bird control, come together with the goal of addressing important and current issues, work, and scientific studies, not just on a state or national level but an international one. There were speakers and attendees from countries such as New Zealand, Australia, Norway, Canada, France, and others.

The first day of the conference was an all-day field trip where we visited a local winery, a local California University Research Extension Center, and a local vineyard. We also were taken through part of the area that was affected by the recent California wild fires. We didn't simple stop at these locations and look around, at each there was a group of talks relating to vertebrate control within the local area and California. At are first stop, the winery, we were given talks by the states mountain lion biologists, who is tasked to try and figure out the exact size of our mountain lion population in California. He also talked to the group about the procedure of for handling a depredating mountain lion, that is either encroaching on live stock or residents, and the other nuisances that go into trapping, hazing, or taking down a large cat. The second talk was from a vector biologist at Leg County Vector Control District. She discussed the importance of ticks and mosquitoes for disease transmission in the local area. At the second location, the California university extension center, we were given a PowerPoint presentation on the dangers of illegal marijuana grow operations in local national forests/federal land. This talk focused on the damning of streams to divert water, as well as the pollutants that have been found at abounded illegal grow operations, were the people running the site would store massive amounts of fertilizers, and pesticides out in the open exposed to the elements, and once done with the growing season they would leave all the unused material behind to soak into the soil, and water. Local wildlife has also been found scavenging

through rodenticide boxes filled with pesticides. It is believed that this pollution has led to the rise in algae blooms in local streams and rivers, as well as the die off of local animals due to exposure to large amounts of abandoned pesticides.

There were many great talks during the convention itself. I listened to all the talks on rodents, rodent control, and rodenticides. The symposiums on these topics had many great speakers from around the world, but what stood out to me the most was a talk from a local non-profit conservation group in Santa Cruz. The talk was about their upcoming project on genetically engineering a rodent (most likely a rat or mouse) in lab, to aid in rodent control. The process would use the latest techniques in gene manipulation to produce a rodent that would have specific genes that would cause every offspring produced by this rodent to always be male or female. They are leaning towards always male, which will help crash the rodent population due to their being no female rats in any new generations. This topic is far from being a reality yet and is still in its developmental stages. The presenter said they would like to have their first rodent built in as early as five years, but it would most likely be 15 to 20 years before they could conceive the use of these rodents in field operations. The main reason they wanted to present the topic at the conference is to get the ball rolling and professionals talking about it early so they are ready to address costumers and residence when it becomes a bigger story in the news and media in the years to come.

I was also at the conference to present my poster on my two-year project. I was accepted to attend the conference as a student presenting a poster, which means that I must complete a poster, and a paper that is to be printed in the proceedings of the conference, this later portion is the same requirement that individuals giving talks/presentations are required to complete. My poster covered the identification key I built to the twelve common fleas of southern California, and the mounting guide I had written on the procedures involved in clearing and mounting fleas (*Siphonaptera*). There was a poster session held on Wednesday night at 6:30, were all the students attending the conference had the opportunity to present what they had worked on to people that were interested. I was surprised to see how many people were from local vector control districts, as well as the number of individuals that either had degrees in entomology/parasitology or once worked in the filled and now work with large mammals and birds, both of which found some interest in the work that I had done.

Date: 3/5/2018

Signed: _____

Print Name: James Campbell

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Laura Krueger Prelesnik, Vector Ecologist

Name of Conference/Event: American Mosquito Control Association

Date: February 26-March 2, 2018

Location: Sheraton Crowne Center, Kansas City, MO

Significant points learned of benefit to the District and its ratepayers:

The following points are of benefit to protect the public health of OC taxpayers:

1).The novel mechanical insecticide (non-chemical) Imergard 25 WP is finely ground pumice stone that can be applied to surfaces where mosquitoes land. Flying mosquitoes generate static charge which facilitates the control release and attachment of the mechanical insecticide when the mosquito lands on a treated service. The finely ground pumice stone will then decay the mosquitoes who die within 2-3 hours.


2).The use of the AGO trap for control of Zika infected *Aedes aegypti* on Puerto Rico (Dr. Barerra CDC). Dr. Barerra states that an abundance of < 3 *Aedes aegypti* or less in an AGO checked weekly indicates that the *Aedes* population may not be at a level to support local transmission.

3). Application Dynamics is offering a high-pressure spray system for aerial use called AirStrike that produces uniform 8 micron sized droplets. This technology reduces the amount of pesticide applied to target mosquitoes by 90%. The technology could prove very useful for Orange County if West Nile virus or Zika outbreaks occur. www.applicationdynamics.net

4). The National Association of County & City Health Officials (NACCHO) released the report Mosquito Control Capabilities in the U.S. detailing the capacity for local mosquito control entities to respond to outbreaks of Zika and West Nile virus. The report is a fascinating read and states that <25% of Mosquito and Vector Control Districts in the US are not fully competent in 5 core competency areas. The OCMVCD is fully competent according to the report standards, since OCMVCD added pesticide resistance testing in 2015.

<https://www.naccho.org/uploads/downloadable-resources/Mosquito-control-in-the-U.S.-Report.pdf>

Date: March 5, 2018

Signed: 

Print Name: Laura M Krueger Prelesnik

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Roland Jen, Urban Water Compliance Planner

Name of Conference/Event: American Mosquito Control Assoc. Annual Meeting

Date: February 26 to March 2, 2018

Location: Kansas City, MO

Significant points learned of benefit to the District and its ratepayers:

Florida and Texas both experienced major flooding events last year, which led to emergency mosquito control measures taking place, lessons learned were:

- The importance of a plan to be set in place clearly ahead of time, with clear directives for employees;
- Being ready for emergency communications if cell phone towers and satellite phones are non-functional;
- Logistics and transport of emergency goods must be able to be established

The industry as a whole is also moving forward with unmanned air systems, or drones, for surveillance and treatment. The main benefits are in saving time and effort in large areas, as a drone can quickly sweep through. Issues include liability of a crashed drone.


Alternative control programs have seen a good amount of success. One highlight was sterile insect techniques, using sterile males or *wolbachia*. A district that released millions of *wolbachia* mosquitoes detected almost no fertility in new *Aedes spp.* after approximately 1-2 months of continuous release.

Other miscellaneous points:

- Several jurisdictions have seen success using aerial larviciding granules, which are able to penetrate areas even with thick canopy;
- Clark County MC in southern Nevada has seen *Ae. Aegypti* develop from egg to adult in as little as 3 days under hot temperatures;
- *Culex* has not been shown to have high competence to vector Zika
- *Aedes aegypti* were found to preferentially feed on humans, even with

- exposed to other potential hosts such as chickens and horses;
- One source that may be overlooked for *Aedes*: gas station window washing stations;
 - OCMVCD has a 3D printer that has been used for Communications projects. The printer can also be used for Operations, to fabricate specialty parts for pesticide equipment or the like, thus saving money;
 - The continuous use of pyrethroid pesticides has led to high resistance amongst most wild populations.

Date: March 6, 2018

Signed: 

Print Name: Roland Jen

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT
REPORT OF STAFF'S ATTENDANCE
AT CONFERENCE/EVENT

Staff Name and Title: Tawnia Pett, Executive Assistant/Clerk of the Board

Name of Conference/Event: AMCA Annual Conference

Date: February 26-March 2, 2018

Location: Kansas City, MO

Significant points learned of benefit to the District and its ratepayers:

The AMCA Conference had 957 attendees from multiple countries attend this year.

There were a number of interesting talks that could be relevant to the future of the District's vector control program. Clarke mosquito control spent 8 months in Miami working on *Aedes* control to stop the spread of Zika virus. One thing I thought was interesting is Clarke used a buffalo turbine to do truck mounted larval control rather than aerial spraying in some areas of Miami. The buffalo turbine could shoot product straight up into the air over 100 feet, mimicking an airplane flight. This might be something the District could use for smaller applications rather than aerial spraying in the future, if the conditions were right?

Another interesting talk was about using frogs for heterdissemination of mosquito larva products. While the study was in the very early stages and not really feasible for large scale mosquito larva control, this talk could stimulate others down this avenue and using another animal species to apply mosquito control products in the future could be a real thing.

A very exciting study (in my opinion) is being conducted by the USDA on alternative mosquito repellents to DEET. The USDA has been studying coconut oil, with the fatty acids, and studies have shown up to two weeks residual of the product and was showing equal or better repellency than DEET. The speaker said they hope to have the product to the EPA for approval as a mosquito repellent in the next few years after the studies are finalized.

Dirofilaria immitis (dog heartworm) is found in every state in the United States. Dog heartworm can stay in an infected dog for 1-2 years waiting for a mosquito to bite the animal and to be spread to another animal. Humans can contract dog heartworm and Texas has the most human cases of dog heartworm in the nation.

The study presented showed that dog heartworm would probably never be eradicated because there are so many wild hosts. Some of the potential wild hosts we have in Orange County are coyotes, skunks, and feral cats. Since the *Aedes notoscriptus* mosquito has been found in LA County and one has been found in Orange County, and is a known transmitter of dog heartworm, it will be very important to continue our surveillance for this mosquito.

One vendor, Biogents, is working on a mosquito counter that counts and identifies mosquitoes as they go into the adult mosquito trap. The trap can differentiate between mosquito species and sex by the sound the wings make with the speed of the flapping. The trap was very accurate when counting two different mosquito species but the accuracy went down as more species were captured by the trap. This could be something the District could use in the future, rather than setting and collecting traps every week and getting only one night of data, the District could leave the traps to be serviced every couple of weeks but still collect data for every night. We could see differences and find patterns for the locations where we leave our traps.

I also met with vendors and made relevant connections for staff that did not attend the meeting. I brought back a number of pamphlets on various subjects and tried to set up a meet up for our laboratory and a company that provides flea control products to veterinarians. The company said they want to work on a collaboration with some vector districts. I thought this might be a good alliance with our typhus program. I also connected with a national West Nile Virus support group. I feel this is information that should be on our website so victims of WNV can find others to communicate with.

Date: March 5, 2018

Signed: **Tawnia Pett**

Print Name: Tawnia Pett

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Sokanary Sun, Laboratory Specialist

Name of Conference/Event: American Mosquito Control Association (AMCA) 2018

Date: February 26 – March 2, 2018

Location: Kansas City, MO

Significant points learned of benefit to the District and its ratepayers:

I would like to touch on some of the highlights per conference day:

Tuesday:

One of the plenary session speakers, Dr. Tracey McNamara, spoke passionately regarding the use of avian or other non-human animals as sentinel species for disease surveillance. Her main point was focused on how there is a severe information gap when it comes to disease surveillance. These sentinel species can give early warning detections of disease (such as chickens or wild birds for West Nile Virus detection) well before human mortality occurs, however, the CDC only tests humans (which means at this point it has already reach people) and the USDA only tests for cows (very information limiting when other animals can be tested). This is why our agency (vector control) is so important. The surveillance and early detections from animal species can help prevent disease outbreak.

Another Tuesday presentation, by Nicholas Indelicato, focused on using native frog species as a method of heterodissemination. This means that these frogs can distribute tablets of Insect-growth-regulators (IGR) that are physically attached to their bodies to help control mosquito larval in water habitats. Since frogs must live near water sources, they can potentially seek out mosquito larval swim in various water sources to help spread the IGR.

Wednesday:

Jay Brown (from the student symposium) discussed ways to prevent insect specimen (including adult mosquitoes) from damage when collected in various mosquito traps. This is important, especially for specimen identification. Identification can become difficult when certain key features are missing (such as striping on the legs, wing scales and patterns, scales on head and antennae, and

patterns on the proboscis or the biting mouth part). Jay stated that if there was simply a wet sponge secured in a trap, it leaves moisture for the mosquitoes to keep them from becoming dehydrated and brittle, preventing their bodies from breaking apart. He also stated that in a future study, he wants to see if the fan blades of a mosquito trap can be modified to further prevent specimen damage.

Also in the student symposium was Sung Woo Seok from Korea University. His presentation talked about using the predaceous mosquito larvae, *Toxorhynchites christophi*, as a means for mosquito larval control. *Toxorhynchites christophi* is a mosquito species whose adult life stage does not require a blood meal from hosts, because the larvae of these species in this specific genus eat other mosquito larvae (or other aquatic insects) and obtain their protein source for egg development. This mosquito species is native to Korea, so implementation of this mosquito species needs to be carefully considered as to not negatively impact the ecology and environment of areas where they are non-native (such as the US).

Thursday:

Alden S. Estep provided information regarding pyrethroid resistance in the southern US (Florida and Texas). Specifically, he and his colleagues looked at two genes in *Aedes aegypti* (the invasive Yellow Fever Mosquito) that are known to allow this species to be resistant to pyrethroid chemicals (approved neurotoxins used for adult mosquito control). These genes, called 1534C and 1016I, are the same genes that the California Department of Public Health in California tests for in our local *Aedes aegypti* population. Alden S. Estep found that there is strong pyrethroid resistance in their *Ae. aegypti* population, and a weak pyrethroid resistance in their *Ae. albopictus* population (the Asian Tiger Mosquito). Due to resistance and exposure to sub-lethal levels, it is best to rotate pesticide use to chemicals of different modes of actions, or by using alternative practices (like using biological control or environmental modification) if possible.

Friday:

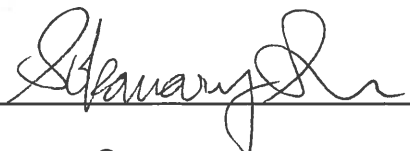
Herbert Nyberg from the University of Notre Dame spoke of acoustic larviciding. Essentially, there is a frequency generator that when used, breaks open the functional dorsal tracheal trunk (DTT), and disrupts the pressure within the mosquito larvae. The disruption of this pressure (rupture of this "air bubble") causes larvae to die.

Anita Schiller, from the Harris County Vector Control District, runs a mosquito insectary that rears *Toxorhynchites rutilis*. This is another one of those mosquito species with adults that do not blood feed. In her study, she used *Toxorhynchites rutilis* larvae to see if they could reduce populations for *Aedes*

albopictus and/or *Culex quinquefasciatus* (the Southern House Mosquito). It turned out that *Toxorhynchites rutilus* larvae was able to significantly decrease the abundance of the *Culex quinquefasciatus*. However, results were fluctuating for *Aedes albopictus*. This is good news, at least for control of *Culex quinquefasciatus*, the native mosquito that can transmit West Nile Virus, St Louis Encephalomyelitis, and Western Equine Encephalitis.

I only picked a few presentations to summarize here, but there were so many valuable talks available that I did not include in my short report. AMCA allows for this extensive knowledge to be shared and passed around, and is important because our District may potentially implement new and novel strategies for mosquito control and the prevention of diseases.

Date: 3/5/18

Signed:  _____

Print Name: Sokanary Sun

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

REPORT OF STAFF'S ATTENDANCE

AT CONFERENCE/EVENT

Staff Name and Title: Lora Young – Director of Communications

Name of Conference/Event: 2018 AMCA Annual Conference

Date: February 26 – March 2

Location: Kansas City, MO

Significant points learned of benefit to the District and its ratepayers:

The 2018 annual conference of the American Mosquito Control Association provided a wide variety of sessions on regulatory and public relations, operations, biology and innovative control techniques. The plenary session speakers included Dr. McNamara, who spoke on the preparedness of the nation for zoonotic disease and outbreaks. Her talk focused on using animals and birds as early indicators of outbreaks and responding to those early indicators to prevent human disease outbreaks.

The second panel during the plenary session was speakers from different levels of government discussing hurricane responses and vector control. The main message from all the speakers included:

- Have a plan in place prior to disasters that indicate key players, resources and ways to document the response effort. This will allow districts to only bring essential staff back into the disaster area and onsite.
- Communication is not always available therefore it is essential to have existing relationships with city and county officials to notify them of the course of action that may be needed prior to a disaster.
- Surveillance and historical data is essential in order to obtain reimbursement funding (if available). Data will also allow for strategic applications when needed.

The conference included multiple symposiums, I have included some highlights from the most informative presentations within the conference:

- **Competencies of Vector Control:** The National Association of County and City Health Officials (NACCHO) conducted a national survey of mosquito control districts and other entities that provided mosquito control. They rated the organizations based on 5 core competencies and 5 supplemental

competencies. Based on the surveys, NACCHO found that 84% of those providing vector control needed improvement, and only 8% were fully capable and meet the 10 competencies. Independent mosquito control districts were most likely to be fully capable when compared to public health or other organizations. I have included the link to the full report below.

<https://www.naccho.org/uploads/downloadable-resources/Mosquito-control-in-the-U.S.-Report.pdf>

- **Genetically Modified Mosquitoes:** The mosquito control district in the Florida Keys provided an update on the regulation of genetically modified mosquitoes. Their original plan was to provide an update on the regulation process, however the federal authority for the use of genetically modified mosquitoes reverted from the FDA back to the EPA and the District has to begin the approval process from the beginning once again.
- **Pollinators and Vector Control:** This presentation was by Bayer and spoke about the requirements on pesticide labeling due to the increased national and state environmental policies regarding pollinators. Although the global number of managed bee colonies has increased by approximately 45 percent over the last 50 years or so, overwintering colony losses in some countries in Europe and North America have been a serious cause for concern. The use of pesticides has been regulated by the EPA to display an Bee Box label on any Adulticiding products that can pose a risk to pollinators. However the timing of applications and notification to beekeepers can significantly reduce the risk. The use of Integrated Vector Management also helps to reduce risk by education of personal protection, removing breeding site, and larval control which poses low risk to pollinators. <https://beecare.bayer.com/what-we-do/bayer-bee-care-program>
- **Public Relations Symposium:** The symposium speakers addressed the challenges of developing and integrating school education programs. The keys to a successful program are aligning with school district and state standards, providing all program materials, and outreaching in new methods which includes staff meetings, in-person meetings and social media. Other speakers addressed the use of a mobile unit for education and
- **New and Innovative Technology:** One big focus of new technology was the use of Unmanned Aerial Systems (UAS), or drones, as a tool for surveillance and application. The use of UAS for public health is still a new and developing field, however several districts spoke about their programs. The key takeaways were:

- Each district needs to review how drones may increase their efficiency and reduce costs. This should be compared to the cost of developing a drone program
- When developing a program, districts need to develop procedures, safety standards, training programs, accident-incident responses, identify operators and supervisors. The need for training is essential beyond the FAA licensing to reduce risk and prepare pilots with standardized skills and training.
- Drone programs require outreach to the community and local municipalities. Depending the usage, there might be some concern about privacy rights. These issues need to be addressed prior to utilizing drones for public health surveillance.

Overall the conference provided a variety of information to help the District improve communications and operations. The research provided at this conference can be utilized to develop better messaging for Orange County residents, the research can also help as we develop and research the use of new technologies within our District.

Date: 3/5/2018

Signed: 

Print Name: Lora Young

ORANGE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

UPCOMING MEETING CALENDAR

MEETING	LOCATION	DATE
VCJPA Annual Workshop	Santa Cruz, CA	February 22-23 2018
Vertebrate Pest Conference	Rohnert Park, CA	February 26-Mar 1, 2018
AMCA Annual Conference	Kansas City, MO	February 26-Mar 2, 2018
MVCAC Legislative Day	Sacramento, CA	March 6-7, 2018
MVCAC Spring Quarterly Meeting	South Lake Tahoe, CA	April 26-27, 2018
AMCA Legislative Days	Washington D.C.	May 14-16, 2018
RIFA Conference	Cary, NC	May 20-23 2018
CSDA Legislative Days	Sacramento, CA	May 22-23, 2018