

AGENDA
1056th MEETING OF THE BOARD OF TRUSTEES
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

MAY 9TH, 2018

TIME: 5:00 P.M.
PLACE: Office of the District, 23187 Connecticut Street, Hayward
TRUSTEES: Elisa Marquez, President, City of Hayward
Wendi Poulson, Vice-President, City of Alameda
Eric Hentschke, Secretary, City of Newark
Humberto Izquierdo, County-at-Large
P. Robert Beatty, City of Berkeley
Alan Brown, City of Dublin
Betsy Cooley, City of Emeryville
George Young, City of Fremont
James N. Doggett, City of Livermore
Jan O. Washburn, City of Oakland
Robert Dickinson, City of Piedmont
Kathy Narum, City of Pleasanton
Ed Hernandez, City of San Leandro
Subru Bhat, City of Union City

1. Call to order.
2. Roll call.
3. President Marquez invites any member of the public to speak at this time on any issue relevant to the District. (Each individual is limited to three minutes).
4. Approval of minutes of the 1055th meeting held April 11th, 2018 (**Board action required**)
5. Presentation and approval of the final budget for fiscal year 2018-18 (**Board action required**)
6. Presentation of the preliminary Engineers Report for fiscal year 2018-2019 by Melanie Guillory-Lee from SCI Consulting Group (Information only).
7. Resolution 1056-1 intending to continue assessments for fiscal year 2018-19, preliminarily approving the engineer's report, and providing for notice of hearing. (**Board action required**)
8. Second reading of revisions to chapter 300 of ACMAD policy (**Board Action Required**)
9. Second reading of revisions to chapter 400 of ACMAD policy (**Board Action Required**)
 - a. §405: Policy for use of Unmanned Aircraft System (extracted for review)
10. Presentation of the Proposed Unmanned Aircraft System (UAS) public outreach campaign by Regulatory & Public Affairs Director, Erika Castillo (Information only)
 - a. Report

- b. Frequently Asked Questions
- c. Social Media Plan

11. Financial Reports as of April 30th, 2018 (Information only):

- a. Journal entries
- b. Income statement
- c. Investments, Reserves, and Cash

12. Presentation of the Monthly Staff Report for May 2018 (Information only).

13. Presentation of the Manager's Report for May 2018 (Information only).

- a. 2016-17 Draft Biennial Report
- b. ACMAD staff succession in management's absence
- c. CSDA April Newsletter; CSDA Leg Day: 5/22-5/23
- d. MVCAC Quarterly Meeting summary
- e. AB 1825 in-house staff training on April 23rd, team building exercise April 25th
- f. Financial reports updates: balance sheet forthcoming, e-signatures for warrants
- g. NACCHO Report: Mosquito Control Capabilities in the U.S.
- h. *NY Times* article: Tick and Mosquito Infections Spreading Rapidly, C.D.C. Finds

14. Board President asks for reports on conferences and seminars attended by Trustees.

15. Board President asks for announcements from members of the Board.

16. Board President asks trustees for items to be added to the agenda for the next Board meeting.

17. Adjournment.

RESIDENTS ATTENDING THE MEETING MAY SPEAK ON ANY AGENDA ITEM AT THEIR REQUEST.

Please Note: A copy of this agenda is also available at the District website, www.mosquitoes.org or via email by request. Alternative formats of this agenda can be made available for persons with disabilities. Please contact the district office at (510) 783-7744, via FAX (510) 783-3903 or email at acmad@mosquitoes.org to request an alternative format.

MINUTES

1055th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

APRIL 11TH, 2018

TIME: 5:00 P.M.
PLACE: Office of the District, 23187 Connecticut Street, Hayward
TRUSTEES: Elisa Marquez, President, City of Hayward
Wendi Poulson, Vice-President, City of Alameda
Eric Hentschke, Secretary, City of Newark
Humberto Izquierdo, County-at-Large
P. Robert Beatty, City of Berkeley
Alan Brown, City of Dublin
Betsy Cooley, City of Emeryville
George Young, City of Fremont
James N. Doggett, City of Livermore
Jan O. Washburn, City of Oakland
Robert Dickinson, City of Piedmont
Kathy Narum, City of Pleasanton
Ed Hernandez, City of San Leandro
Subru Bhat, City of Union City

1. Board President Marquez called the regularly scheduled board meeting to order at 5:01 PM.
2. Trustees Marquez, Hentschke, Izquierdo, Brown, Young, Doggett, Washburn, Dickinson, Narum and Bhat were present; Trustee Beatty arrived at 5:05PM. Trustees Poulson, Cooley and Hernandez were absent.
3. Board President Marquez invited members of the public to speak on any issue relevant to the District. Field Operations Supervisor Joseph Huston and Laboratory Director Eric Haas-Stapleton were present to discuss the swimming pool inspection aerial imagery process module and review of bids and awarding of contract for the purchase of an unmanned aircraft system for aerial mosquito source imagery, respectively. Mosquito Control Technician Jeremy Sette was present to record the minutes.
4. Approval of minutes of the 1054th meeting held March 14th
Motion: Trustee Doggett moved to approve the minutes
Second: Trustee Narum
Vote: motion carries: unanimous
5. Approval of swimming pool inspection aerial imagery process module for the District's Mapvision database
Discussion:
Field Operations Supervisor Joseph Huston provided the rationale for improving the swimming pool inspection processes. Trustee Dickinson asked if the swimming pool inspection aerial imagery process module would be custom developed for the District (yes, it will be tailored to

the District's needs). Trustee Brown asked how often the swimming pool "fly over" occurs (done once a year currently). Mr. Huston commented on the multitude of variables contributing to non-functioning pools in Alameda County and the importance of inspecting and treating said pools for public health and safety, especially as a deterrent to species of mosquitoes that could possibly carry and transmit the West Nile virus. The General Manager noted that the District is looking into satellite imagery and detection of possible "bad" pools as a streamlined/live process in addition to this module. Trustee Brown asked if the District would need new personnel for drones (drone questions will be addressed in the next agenda item). Trustee Washburn asked if the District had a contact at Google for implementing pool satellite imagery (yes, but to forward any that Trustee Washburn may have). Trustee Dickinson asked if the purchase of the module would be a one-time cost (yes) and asked who would own the rights to the developed system (Leading Edge Associates). Trustee Bhat requested how Leading edge calculated this price (Mr. Huston answered that the cost includes programming and administration time).

Motion: Trustee Narum moved to approve the purchase of the aerial imagery processing module

Second: Trustee Washburn

Vote: motion carries –unanimous

6. Review of bids and awarding of contract for the purchase of an unmanned aircraft system (UAS, or "drone") for aerial mosquito source imagery

Discussion:

Laboratory Director Haas-Stapleton proposed the purchase of the industrial-grade small rotary-wing UAS DJI Matrice 210 RTK as well as the Sentra AGX710 and SlantRange 3PX cameras. Trustee Narum asked if staff could monitor location through GPS (yes). President Marquez asked if both cameras could adapt well to the drone (yes, and each has different capabilities). Trustee Brown asked that once water is detected and identified by the drone, would a technician be sent out to inspect (yes, and the drone would contribute to increased productivity). Trustee Dickinson asked if there were other benefits to drone use (safety of staff, less impact on environment). Trustee Beatty asked how long the District estimates the drone and camera technology would be good, taking into regards our fast-changing technological world (our depreciation schedule assumes 5 years). Trustee Bhat asked if the proposal was for both cameras (yes). Trustee Dickinson asked to what extent will the drones fly over populated areas (District pilots will follow federal and state laws along with district policies). Trustee Narum requested that the Board needed a policy to further explain drone usage and restrictions (Section 405 in the policy manual addresses drone usage). Trustee Washburn commented that the Strategic Planning Committee will be outlining protocols, as well. Mr. Huston commented that the pilot license restricts use over habitable structures. Trustee Brown asked for clarification that the Board would be approving the purchase of one drone with two cameras (yes). Trustee Narum commented on the importance of clear definitive language regarding District drone usage and requested that the General Manager have an agenda item on the next agenda to address a modified policy and Public Relations communication plan. Trustee Dickinson agreed.

Motion: Trustee Narum moved to approve the purchase of an unmanned aircraft system, but restricted flying until the Board approves more specific policies regarding privacy, use, and public outreach.

Second: Trustee Bhat

Vote: motion carries –unanimous

7. Second reading of revisions to chapter 100, 300, 400, 500, 600, 700, 800 of ACMAD policy.

Discussion:

The General Manager commented on an inconsistent language in section 300 regarding alternate work schedules. Trustee Washburn suggested bringing back sections 300 (includes alternate work schedules) and 400 (unmanned air systems) to the next meeting for approval.

Motion: Trustee Doggett moved to approve sections 100, 500, 600, 700, 800 of the policy manual. Sections 300, & 400 will be moved to the May agenda.

Second: Trustee Washburn

Vote: motion carries –unanimous

8. First draft of the 2017-18 budget for discussion

Discussion:

The General Manager presented the first draft of the 2017-18 budget. Trustee Beatty commented that he thought the Board room expansion was already budgeted for 2017-18 (yes, but less than \$2,000 was spent on only architecture fees) and asked if the estimated cash carry over was for budget items not spent (yes). Trustee Dickinson suggested the correct term “working capital” be used for capital requirement (dry period cash). President Marquez asked how far back the General Manager reviews budget records to evaluate trends (currently looking back to 2009). Trustee Washburn asked if there was a consistent underestimate of income revenue (Trustee Dickinson answered yes on behalf of the Finance Committee). Trustee Bhat commented that a consulting firm could help evaluate the budget trends. Trustee Dickinson commented that the Finance Committee was working towards a balanced budget. President Marquez asked if the General Manager would address the budget trends in the next meeting (yes).

9. Report from the Strategic Planning Committee

Discussion:

Trustee Washburn reported on the progress of the Strategic Planning process.

10. Financial Reports:

Discussion:

The Board reviewed warrants dated March 15, 2018 numbering 046218 through 048218 amounting to \$121,504.70 and warrants dated March 31, 2018 numbering 048318 through 052518 amounting to \$281,120.53. The Board reviewed the Budget, as well as Investments, Reserves, and Cash Balance as of March 31, 2018. The General Manager commented on having corrected the warrant numbers in this agenda compared to the version that was provided on 4/6/18. Trustee Dickinson asked for clarification on what the \$4,000 fence project entailed (repair and replacement of slats).

11. Presentation of the Monthly Staff Report for March 2018

Discussion:

Mr. Huston presented the field operations section of the staff report. President Marquez asked if Huston is expecting more service requests due to the heavy rains throughout March (yes, as per normal), and asked how he managed staff and availability during busy times (Mr. Huston answered that the District strongly adheres to addressing service requests within 24-hours and further explained that he makes sure that there is sufficient staff that can help cover any areas that may need attention due to lower staff numbers at any given time), and also asked if service request calls were more frequent during business hours or after hours (Huston answered that most were during business hours, but there are some calls after hours and on weekends that are promptly addressed the next business day. The service request process is evolving as the District receives more online request submissions.) Mr. Haas-Stapleton presented the Lab Operations section of the staff report. Trustees Beatty and Dickinson requested clarification one of the mosquito abundance graphs and asked if both District technicians and laboratory staff both identified mosquitoes (yes, however field operation staff focus on larval identification

and laboratory staff focus on adult identification.) Trustee Brown asked if the Lab monitors any areas outside of Alameda County (no, but the Lab does keep open communications with adjacent districts). President Marquez requested elaboration of ongoing outreach efforts (answered by the General Manager via the staff report) and requested copies of future legislative support or oppose letters be sent to Trustees (yes).

12. Presentation of the Manager's Report for March 2018

Discussion:

The General Manager presented the Manager's report for March 2018. Mr. Haas-Stapleton addressed the proposed title change from "Biological Specialist" to "Scientist". Trustee Beatty commented that the title "Scientist" normally reflects an employee with a PhD and suggested that "Scientist" be re-titled. Trustee Dickinson agreed and commented that in the private sector the term "Scientist" also reflected a PhD. The General Manager agreed that there would be further discussion and revision to the title change. Mr. Huston commented on the ditching process and further explained ACMAD's long-term efforts in attaining a permit. Trustee Beatty asked if ditching would occur along the bay-shore (Mr. Huston answered that it would occur where there are tidal marshes). President Marquez asked if the permit would be good for 10 years (yes). The General Manager reported that Vice-President Poulson and Trustee Bhat will be attending the Special District Leadership Academy in Monterey, April 16-18. Trustee Bhat expressed interest in attending the MVCAC Spring Meeting. Trustee Washburn provided additional background to the history of mosquito control in Albany. President Marquez asked for a timeline on the efforts in Albany (it is up to the City of Albany). Trustee Brown asked if the District was receiving revenue from Albany (no).

13. Board President Marquez asked for reports on conferences and seminars attended by Trustees. Trustee Bhat reported on his enjoyment at the ACSDA Dinner.

14. Board President Marquez asked for announcements from the Board. The General Manager announced his Master of Public Affairs Degree graduation from UC Berkeley will occur in May of 2018 and he plans for a family vacation in June. President Marquez asked who would take over when the General Manager is out (the chain of command based on number of subordinates under each supervisor: Mr. Huston, Mr. Haas-Stapleton, Ms. Castillo, Mr. Ferdan). Trustee Washburn commented that a goal of the Strategic Planning Committee was to further formalize this agreement.

15. Board President Marquez asked trustees for items to be added to the agenda for the next Board meeting. (None)

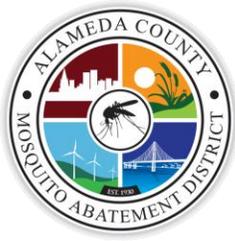
16. The meeting adjourned at 6:39 P.M.

Respectfully submitted,

Approved as written and/or corrected
at the 1056th meeting of the Board of
Trustees held May 9th, 2018

Elisa Marquez, President
BOARD OF TRUSTEES

Eric Hentschke, Secretary
BOARD OF TRUSTEES



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Board of Trustees

May 4th, 2018

President

Elisa Marquez

Hayward

Vice-President

Wendi Poulson

Alameda

Secretary

Eric Hentschke

Newark

RE: ACMAD's 2018-19 Budget: Final Draft

Dear ACMAD Board,

Please accept the final draft of the 2018-2019 budget.

The revenue and expenditure estimates allow us to maintain our benefit assessment amount in 2018-19.

Changes from the first draft include:

- Prior year actual revenue and expenditure amounts are now added to the budget summary page
- OPEB Reimbursement was as revenue (previously categorized as an interfund transfer)
- Revenue projections have increased, based on more recent estimates from Alameda County
- Final numbers for life insurance and VCJPA are now included (both lower than estimated)

These higher revenue estimates and lower expenditure costs result in more funds diverted to the Operating Reserve fund.

I am happy to answer any questions.

Sincerely,

Ryan Clausnitzer
General Manager

Humberto Izquierdo

County at Large

P. Robert Beatty

Berkeley

Betsy Cooley

Emeryville

Alan Brown

Dublin

George Young

Fremont

James N. Doggett

Livermore

Jan O. Washburn

Oakland

Robert Dickinson

Piedmont

Kathy Narum

Pleasanton

Ed Hernandez

San Leandro

Subru Bhat

Union City

Ryan Clausnitzer

General Manager

REVENUES	Budget 15/16	Actual 15/16	B vs A	Budget 16/17	Actual 16/17	B vs A	Budget 17/18	Budget 18/19	% budget change
Ad Valorem Property Taxes	\$1,616,830	\$1,892,482	17%	\$1,823,586	\$2,029,076	11%	\$2,007,044	\$2,268,000	13%
Special Tax (net of Admin)	\$801,014	\$817,114	2%	\$802,259	\$821,676	2%	\$812,884	\$844,239	4%
Benefit Assessment (net of Admin)	\$1,017,089	\$1,471,235	45%	\$1,096,858	\$1,128,235	3%	\$1,116,162	\$1,150,260	3%
Redevelopment		\$171,178		\$0	\$180,474		\$0		
Interest earned	\$4,000	\$27,303	583%	\$8,000	\$34,156	327%	\$8,000	\$30,000	275%
Charges for Services	\$0	\$0	0%	\$0	\$0		\$0	\$0	
Sale of Property and Equipment, misc	\$5,000	\$1,155	-77%	\$5,000	\$20,824	316%	\$5,000	\$5,000	0%
Reimburse Retiree Health Benefits from OPEB	\$130,000	\$149,986	15%	\$170,909	\$170,229	0%		\$179,229	
Reimburse Management fees for OPEB	\$15,000	\$15,000	-100%	\$22,100		-100%		\$22,000	
Total Revenue	\$3,588,933	\$4,180,831	16%	\$3,928,713	\$4,366,903	11%	\$3,949,090	\$4,476,728	13%
EXPENDITURES									
Salaries	\$1,573,549	\$1,661,234	6%	\$1,700,594	\$1,677,469	-1%	\$1,761,305	\$1,933,182	10%
CalPERS Retirement	\$202,026	\$205,340	2%	\$222,589	\$219,892	-1%	\$253,662	\$301,812	19%
Medicare	\$26,781	\$21,160	-21%	\$24,659	\$21,368	-13%	\$25,881	\$28,031	8%
Fringe Benefits	\$417,556	\$554,630	33%	\$500,000	\$453,877	-9%	\$506,368	\$508,680	0%
Total Salaries, Retirement, & Benefits (pgs. 2,3)	\$2,219,912	\$2,442,364	10%	\$2,447,842	\$2,372,606	-3%	\$2,547,216	\$2,771,705	9%
Clothing and personal supplies (purchased)	\$8,500	\$7,169	-16%	\$8,500	\$8,955	5%	\$8,500	\$6,000	-29%
Laundry service and supplies (rented)	\$9,000	\$7,162	-20%	\$9,000	\$8,840	-2%	\$9,000	\$9,500	6%
Utilities	\$22,000	\$22,415	2%	\$35,900	\$27,084	-25%	\$38,000	\$36,500	-4%
Communications-IT	\$65,770	\$32,756	-50%	\$63,650	\$54,128	-15%	\$109,600	\$122,200	11%
Maintenance: structures & improvements	\$15,000	\$6,739	-55%	\$15,000	\$19,503	30%	\$28,600	\$25,000	-13%
Maintenance of equipment	\$40,000	\$24,175	-40%	\$45,000	\$27,051	-40%	\$45,000	\$35,000	-22%
Transportation, travel, training, & board	\$121,600	\$75,326	-38%	\$176,800	\$124,827	-29%	\$156,810	\$134,210	-14%
Professional services	\$172,500	\$159,499	-8%	\$142,000	\$82,082	-42%	\$184,770	\$190,620	3%
Memberships, dues, & subscriptions	\$20,625	\$14,540	-30%	\$22,935	\$20,191	-12%	\$22,130	\$21,402	-3%
Insurance - VCJPA	\$151,902	\$106,268	-30%	\$115,138	\$113,867	-1%	\$133,810	\$122,471	-8%
Community education	\$33,000	\$12,450	-62%	\$33,000	\$40,222	22%	\$53,000	\$33,000	-38%
Operations	\$217,000	\$187,490	-14%	\$240,000	\$176,758	-26%	\$260,800	\$234,000	-10%
Household expenses	\$13,950	\$13,790	-1%	\$5,000	\$17,373	247%	\$20,010	\$19,350	-3%
Office expenses	\$21,400	\$14,195	-34%	\$14,480	\$18,590	28%	\$13,050	\$15,100	16%
Laboratory supplies	\$79,240	\$76,130	-4%	\$83,444	\$80,008	-4%	\$105,000	\$118,148	13%
Small tools and instruments	\$1,500	\$1,155	-23%	\$2,500	\$2,513	1%	\$8,500	\$2,500	-71%
Total Staff Budget (pg. 4)	\$985,642	\$780,944	-21%	\$1,078,397	\$821,993	-24%	\$1,173,580	\$1,125,001	-4%
Contingency	\$25,000	\$25,000	0%	\$25,000	\$1,039	-96%	\$25,000	\$50,000	100%
Total Expenditures	\$3,648,110	\$3,625,554	-1%	\$4,046,239	\$3,649,516	-10%	\$3,985,796	\$3,946,706	-1%
SURPLUS (DEFICIT)								\$530,021	
CASH CARRIED OVER (pg. 5)								\$1,269,782	
SURPLUS (DEFICIT) AFTER ADDING THE CASH CARRIED OVER								\$1,799,803	
RESERVE ACCOUNT ALLOCATIONS							Budget 2017/18	Budget 2018/19	Proposed funded %
VCJPA Contingency Fund							\$50,000	\$0	100%
PARS: Rate Stabilization							\$500,000	\$500,000	67%
CAMP: Public Health Emergency							\$500,000	\$0	100%
CAMP: Repair and Replace (pg. 6)							\$1,000,000	\$193,161	100%
CAMP: Operating reserve							\$1,000,000	\$856,642	79%
CAMP: Capital reserve							\$0	\$131,752	100%
Total reserve allocations (pg. 7)								\$1,799,803	
SURPLUS (DEFICIT) AFTER SUBTRACTING RESERVE ALLOCATIONS								\$0	

Salaries 7/1/18 - 6/31/19

Employee	Date of hire	Pos	2018/19 3.5% COLA	Longevity	Longevity Amount	New Salary	# mo	Subtotal
			\$ 5,332.02	0%	\$ -	\$ 5,332.02	3	\$ 15,996
			\$ 5,598.62	0%	\$ -	\$ 5,598.62	9	\$ 50,388
			\$ 8,894.96	3%	\$ 266.85	\$ 9,161.81	12	\$ 109,942
			\$ 7,956.17	0%	\$ -	\$ 7,956.17	8	\$ 63,649
			\$ 8,353.13	1%	\$ 83.53	\$ 8,436.66	4	\$ 33,747
			\$ 8,353.13	3%	\$ 250.59	\$ 8,603.72	12	\$ 103,245
			\$ 8,353.13	2%	\$ 167.06	\$ 8,520.19	4.5	\$ 38,341
			\$ 8,353.13	3%	\$ 250.59	\$ 8,603.72	7.5	\$ 64,528
			\$ 8,353.13	1%	\$ 83.53	\$ 8,436.66	12	\$ 101,240
			\$ 8,980.08	3%	\$ 269.40	\$ 9,249.48	12	\$ 110,994
			\$ 13,357.44	0%	\$ -	\$ 13,357.44	12	\$ 160,289
			\$ 7,217.70	0%	\$ -	\$ 7,217.70	8	\$ 57,742
			\$ 7,577.31	0%	\$ -	\$ 7,577.31	4	\$ 30,309
			\$ 8,937.51	0%	\$ -	\$ 8,937.51	12	\$ 107,250
			\$ 10,088.30	0%	\$ -	\$ 10,088.30	12	\$ 121,060
			\$ 10,089.41	5%	\$ 504.47	\$ 10,593.88	12	\$ 127,127
			\$ 8,353.13	0%	\$ -	\$ 8,353.13	9.5	\$ 79,355
			\$ 8,353.13	1%	\$ 83.53	\$ 8,436.66	2.5	\$ 21,092
			\$ 8,353.13	0%	\$ -	\$ 8,353.13	12	\$ 100,238
			\$ 7,217.70	0%	\$ -	\$ 7,217.70	4	\$ 28,871
			\$ 7,577.31	0%	\$ -	\$ 7,577.31	6	\$ 45,464
			\$ 7,956.17	0%	\$ -	\$ 7,956.17	2	\$ 15,912
			\$ 8,725.49	0%	\$ -	\$ 8,725.49	12	\$ 104,706
			\$ 5,925.43	0%	\$ -	\$ 5,925.43	6	\$ 35,553
			\$ 6,440.00	0%	\$ -	\$ 6,440.00	6	\$ 38,640
								\$ 1,765,674

Seasonals:

Rate (ave)	#	Hours		Employer paid PERS	
\$ 18.00	9	1,000	\$162,000	\$	301,812
Unemployment	\$ 16,000.00	\$5,508.00		Seasonals	\$ 167,508
		\$167,508.00		Subtotal	\$ 2,234,995

CalPERS	Wages	Employer rate	Unfunded Liability Payment	Total PERS Payments	Medicare tax	
10.152% Classic	\$ 1,037,210.75	\$ 99,136.60	\$ 151,625.00	\$ 250,761.60		\$ 32,407
7.266% Pepra	\$ 728,463.63	\$ 50,482.53	\$ 568	\$ 51,050.53	Grand Total	\$ 2,267,401.92
				\$ 301,812.13		

<u>Employee</u>	PERS Plan Code	PERS RATES 2018	PERS RATES 2019 (est)	Total PERS Costs	Dental Rates 2018/19	Total Dental	Life Ins. Rates 2018/19	Total Life Insurance	Vision Rates 2018/19	Total Vision	SDI	Benefit Cost per person
	3753	2,027.64	2,189.85	25,304.95	251.93	3,023.16	9.25	111.00	33.01	396.12		28,835.23
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1043	2,027.64	2,189.85	25,304.95	251.93	3,023.16	9.25	111.00	33.01	396.12		28,835.23
	1041	779.86	842.25	9,732.65	251.93	3,023.16	9.25	111.00	13.40	160.80		13,027.61
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1043	2,027.64	2,189.85	25,304.95	251.93	3,023.16	9.25	111.00	33.01	396.12		28,835.23
	4503	2,027.64	2,189.85	25,304.95	251.93	3,023.16	9.25	111.00	33.01	396.12		28,835.23
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	4542	1,559.72	1,684.50	19,465.31	161.05	1,932.60	9.25	111.00	20.81	249.72		21,758.63
	1042	1,559.72	1,684.50	19,465.31	161.05	1,932.60	9.25	111.00	20.81	249.72		21,758.63
	1062	1,559.72	1,684.50	19,465.31	251.93	3,023.16	9.25	111.00	20.81	249.72		22,849.19
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1041	779.86	842.25	9,732.65	94.06	1,128.72	9.25	111.00	13.40	160.80		11,133.17
	1043	2,027.64	2,189.85	25,304.95	251.93	3,023.16	9.25	111.00	33.01	396.12		28,835.23
(new)	1041	779.86	842.25	9,732.65	251.93	3,023.16	9.25	111.00	13.40	160.80		13,027.61
<i>Subtotal</i>		21,056.24		262,781.88	2,744.03	32,928.36	148.00	1,776.00	334.68	4,016.16	13,607.00	328,137.01
.5% Admin Cost				1,313.91								1,313.91
Staff Totals				264,095.78		32,928.36		1,776.00		4,016.16	13,607.00	329,450.92

Annuitant	PERS	PERS	PERS	Total PERS	Dental 2017	Life Ins.	Total Life	Vision	Total Vision	SDI	Benefit Cost
	Plan Code	RATES 2018	RATES 2019 (est)	Costs	Rates	Rates 2016/17	Ins. 2016/17	Rates 2018/19			per person
	1141	316.34	341.65	3,947.92	-	1,500.00		33.01	396.12		5,844.04
	3391	382.30	412.88	4,771.10	94.06	1,128.72		33.01	396.12		6,295.94
	1041	779.86	842.25	9,732.65	94.06	1,128.72		33.01	396.12		11,257.49
	1321	382.30	412.88	4,771.10	94.06	1,128.72		33.01	396.12		6,295.94
	0	-	-	-	94.06	1,128.72		33.01	396.12		1,524.84
	3322	691.94	747.30	8,635.41	161.05	1,932.60		33.01	396.12		10,964.13
	1161	345.97	373.65	4,317.71	101.58	1,219.02		33.01	396.12		5,932.84
	1042	1,559.72	1,684.50	19,465.31	161.05	1,932.60		33.01	202.80		21,600.71
	3291	718.98	776.50	8,972.87	94.06	1,128.72		33.01	396.12		10,497.71
	1321	382.30	412.88	4,771.10	-	1,500.00		33.01	396.12		6,667.22
	3342	691.94	747.30	8,635.41	161.05	1,932.60		33.01	396.12		10,964.13
	1142	632.68	683.29	7,895.85	161.05	1,932.60		33.01	396.12		10,224.57
	1042	1,559.72	1,684.50	19,465.31	161.05	1,932.60		33.01	396.12		21,794.03
	1032	1,407.92	1,520.55	17,570.84	161.05	1,932.60		33.01	396.12		19,899.56
	1043	2,027.64	2,189.85	25,304.95	251.93	3,023.16		33.01	396.12		28,724.23
Subtotal		11,879.61		148,257.53		24,481.38		495.15	5,748.48		178,487.39
		.5% Admin Costs=		741.29							741.29
Annuitant Totals				148,998.82		24,481.38			5,748.48		179,228.68
Grand Total				413,094.61		57,409.74	1,776.00		9,764.64	13,607.00	508,679.60
											508,679.60

Account	BUDGET CATEGORY	Budget 15-16	Actual 15-16	Budget 16-17	Actual 16-17	% change	Budget 17-18	Budget 18-19	% change
610001	CLOTHING AND PERSONAL SUPPLIES (PURCHASED)	\$8,500	\$7,169	\$8,500	\$8,955	0%	\$8,500	\$6,000	0%
610011	LAUNDRY SERVICE AND SUPPLIES (RENTED)	\$9,000	\$7,162	\$9,000	\$8,840	0%	\$9,000	\$9,500	6%
610021	UTILITIES	\$22,000	\$22,415	\$35,900		63%		\$36,500	
610021.1	Garbage (Waste Mgmt)	\$1,500 x		\$2,400	\$3,410	60%	\$3,000	\$3,500	17%
610021.2	PG & E	\$15,000 x		\$24,000	\$19,499	60%	\$24,000	\$26,000	8%
610021.3	Hayward Water & Sewage	\$5,500 x		\$6,000	\$4,175	9%	\$7,000	\$7,000	0%
610022	COMMUNICATIONS	x						\$40,800	
610022.1	Telephone Service & Internet (Telepacific)	\$13,500	\$13,539	\$13,800	\$12,412	2%	\$14,000	\$14,400	3%
610022.3	Website hosting	\$270	\$242	\$850	\$903	215%	\$1,200	\$2,400	100%
610022.4	Cell phone service (Verizon)	\$10,000	\$8,433	\$9,000	\$6,962	-10%	\$17,000	\$18,000	6%
610022.5	Microsoft Office 365						\$4,000	\$4,000	0%
610022.6	Azure Server Hosting							\$2,000	
610122	MAINTENANCE STRUCTURES & IMPROVEMENTS	\$15,000	\$6,739	\$15,000		0%		\$25,000	
61022.1	Landscaping service	x		\$3,600	\$5,095		\$3,600	\$5,000	39%
61022.2	Facility Maintenance	x		\$10,000	\$14,408		\$25,000	\$20,000	-20%
610141	MAINTENANCE OF EQUIPMENT	\$40,000	\$24,175	\$45,000	\$27,051	13%	\$45,000	\$35,000	-22%
610191	TRANSPORTATION, TRAVEL, TRAINING, & BOARD							\$134,210	
610191.1	Fuel and GPS (WexMart)	\$40,000	\$37,042	\$40,000	\$37,173	0%	\$45,000	\$50,000	11%
610191.3	Meetings, conferences, & travel	\$45,000	\$21,956	\$35,000	\$26,116	-22%	\$35,000	\$35,000	0%
610191.4	Board meeting expenses	\$800	\$501	\$1,000	\$554	25%	\$800	\$600	-25%
610191.5	Board payments in lieu	\$16,800	\$12,056	\$16,800	\$12,400	0%	\$16,800	\$18,900	13%
610461.54	Board plaques and nameplates	\$500	\$240	\$1,000	\$216	100%	\$500	\$500	0%
610461.53	Continuing Education fees	\$4,000	\$3,771	\$4,000	\$2,141	0%	\$4,210	\$4,210	0%
610191.7	Staff Training (staff development/ college courses)	\$15,000 x		\$80,000	\$46,443	433%	\$55,000	\$25,000	-55%
610261	PROFESSIONAL SERVICES	\$171,500	\$159,499 x			x		\$190,620 x	
610261.1	Audit	\$13,000 x		\$13,000	\$13,135	0%	\$13,000	\$14,000	8%
610261.2	Actuarial reports	\$3,000 x		\$3,000	\$1,300	0%	\$5,500	\$4,000	-27%
610261.3	Helicopter service	\$25,000 x		\$30,000	\$0	20%	\$35,000	\$35,000	0%
610261.4	Legal Services	\$15,000 x		\$20,000	\$1,692	33%	\$13,000	\$12,000	-8%
610261.5	Collaborative Research	\$5,000 x		\$5,000	\$0	0%	\$5,000	\$5,000	0%
610261.7	Tax collection service (SCI)	\$35,000 x		\$35,000	\$32,372	0%	\$35,000	\$32,000	-9%
610261.8	Payroll service (OnePoint)	\$5,500 x		\$6,000		9%	\$10,000	\$10,000	0%
610261.9	Environmental consultant/ EcoAtlas	\$10,000 x		\$5,000		-50%	\$15,000	\$25,000	67%
610261.10	HR Services (RGS & other)	\$60,000 x		\$25,000	\$13,675	-58%	\$15,000	\$15,000	0%
610261.11	OPEB management (PFM)	x		\$0	\$19,909		\$22,000	\$22,000	0%
610261.12	Financial advising	x	x			x	\$16,270	\$15,000	-8%
610261.13	Pre-employment physicals	\$1,000 x		\$0		-100%	\$0	\$1,620	

Account	BUDGET CATEGORY	FY 15-16	Actual 15-16	Budget 16-17	Actual 16-17	% change	FY 17-18	FY 18-19	% change
610351	MEMBERSHIPS, DUES & SUBSCRIPTIONS	\$20,625	\$14,540		\$20,191			\$21,402	
	AMCA (sustaining membership)	\$4,000	x	\$4,000		0%	\$4,000	\$2,500	-38%
	CSDA	\$5,500	x	\$5,500		0%	\$5,000	\$5,000	0%
	ACSDA						\$100	\$100	0%
	MVCAC	\$10,000	x	\$12,000		20%	\$12,000	\$12,000	0%
	SOVE	\$325	x	\$200		-38%	\$0	\$0	
	LAFCo	\$650	x	\$778		20%	\$780	\$790	1%
	ESA	\$150	x	\$172		15%	\$150	\$150	0%
	Misc Memberships (REHS, HAZWOPR)		x	\$285			\$100	\$862	762%
610378	INSURANCE - VCJPA	\$44,083	\$42,532					\$122,471	
610378.1	Employee Assistant Program						\$880	\$880	0%
610378.2	UAS insurance						\$5,000	\$4,500	-10%
610451	COMMUNITY EDUCATION		\$12,450		\$40,222			\$33,000	
610461	OPERATIONS							\$234,000	
610461.1	Pesticides	\$175,000	\$155,761	\$200,000	\$142,304	14%	\$200,000	\$180,000	-10%
610461.2	Field supplies (dippers etc)	\$500	\$576	\$1,000	\$344	100%	\$2,200	\$2,500	14%
610461.3	Sentinel Chickens	\$0	\$0	\$0	\$0		\$0	\$0	
610461.4	Mosquitofish program	\$4,000	\$4,534	\$4,000	\$3,202	0%	\$6,000	\$4,000	-33%
610461.6	Spray equipment	\$15,000	\$8,276	\$12,000	\$10,506	-20%	\$30,000	\$15,000	-50%
610461.7	Safety	\$2,000	x	\$2,000		0%	\$2,000	\$8,500	325%
610461.51	Aerial Pool Survey	\$17,000	\$17,000	\$17,000	\$16,954	0%	\$20,000	\$20,000	0%
610461.52	Permits	\$3,000	\$1,104	\$3,000	\$3,232	0%	\$100	\$4,000	3900%
620021	HOUSEHOLD EXPENSES	\$5,500	\$4,629	\$5,000	\$17,373	-9%		\$19,350	
620021.1	Janitorial service	\$0	x	\$0			\$6,500	\$6,000	-8%
620021.2	Supplies	\$0	x	\$0			\$2,000	\$2,000	0%
620021.3	Alarm service - Sonitrol	\$8,000	\$9,025	\$9,000		13%	\$11,000	\$11,000	0%
620021.4	Drinking water, emergency kit	\$450	\$137	\$480		7%	\$510	\$350	6%
620041	OFFICE EXPENSES	\$21,400	\$14,195		\$18,590			\$15,100	
	Office Supplies (2 copiers + 5000 supplies)	\$20,000	x	\$20,000		0%	\$10,000		-50%
	Postage	\$1,000	x	\$2,000		100%	\$2,500		25%
	Pitney Bowes - postage meter rental	\$400	x	\$400		0%	\$550		-100%
620042	INFORMATION TECHNOLOGY							\$81,400	
	Computers, supplies and software	\$12,000	\$10,541	\$15,000	\$17,333	25%	\$15,000	\$20,000	33%
	3rd party IT consultant	\$30,000		\$25,000	\$16,517	-17%	\$30,000	\$50,000	67%
	Mapvision service fee						\$27,800	\$7,800	-72%
	Backhaul						\$600	\$3,600	500%
620141	LABORATORY SUPPLIES	\$79,240	\$50,891					\$118,148	
620141.10	Mosquito and pathogen monitoring							\$86,000	
620141.11	Insecticide resistance							\$15,200	
620141.12	Research							\$16,948	
620261	SMALL TOOLS AND INSTRUMENTS	\$1,500	\$1,155	\$2,500	\$2,513	67%	\$8,500	\$2,500	-71%
	Total	\$985,642		\$1,001,047		2%	\$1,112,580	\$1,125,001	11%

Estimate of Cash Carryover from Fiscal Year 2015-16 to 2016-17

	debits	credits	balance
Balance as of February 28 2017			\$ 3,277,412
Warrants March 15	\$ 121,505		\$ 3,155,907
Warrants March 31	\$ 281,121		\$ 2,874,786
Balance as of March 31 2017			\$ 2,874,786
Warrants April 15	\$ 117,228		\$ 2,757,558
Warrants April 30	\$ 157,030		\$ 2,600,528 <i>estimates below</i>
Balance as of April 30 2017			\$ 2,600,528
Deposit		1,900,000	
Warrants May 15	\$ 150,000		\$ 4,350,528
Warrants May 30	\$ 150,000		\$ 4,200,528
Balance as of May 31 2017			\$ 4,200,528
Warrants June 15	\$ 150,000		\$ 4,050,528
Warrants June 30	\$ 150,000		\$ 3,900,528
Balance as of June 30 2017			
Totals	\$ 1,276,884	\$ 1,900,000	\$ 3,900,528
Unused capital projects			\$ 131,948
Operational requirement (July-December)			\$ 2,762,694
<u>Estimated Cash Carried Over</u>			\$ 1,269,782

CAPITAL EXPENDITURES

	2015-2016	2016-2017	2017-2018	2018-2019	
Total					
Pesticide Shed	\$120,000				
Locker Room Expansion	\$70,000				
Brake Lathe	\$9,000				
Metal Brake	\$10,000				
New fish tank with filter and pump system	\$16,000				
Total	\$225,000				
Computer Database	\$ 218,000				
Hardware (monitors & tablets)	\$ 10,000				
Board room expansion	\$ 40,000				
Lab equip	\$ 27,000				
Total	\$ 295,000				
					Capital expenses not purchased
Board room expansion			\$55,000		\$53,500
V21 Explorer replacement			\$35,000		\$2,038
V31 Lab Truck replacement			\$35,000		\$2,038
New Argo with trailer			\$35,000		\$35,000
Three UASs (application & surveillance)			\$46,000		\$16,863
ATV & Trailer			\$9,000		\$9,000
Smart board & library monitor			\$15,000		\$7,585
Server			\$10,000		\$10,000
Total			\$240,000		\$131,948
Curation & Larval ID Room				\$61,199	
Remodel Project				\$258,550	
V35 Lab Truck				\$39,474	
Lab centrifuge				\$10,000	
Carports, Wash Rack, & Interior Paint				\$27,000	
Shop & Facility Inventory Program				\$5,000	
UAS				\$30,000	
Total				\$431,223	

<u>Fund</u>	<u>Target Level</u>	<u>¹Current Level</u>	<u>Transfers</u>	<u>Current Funded %</u>	<u>Proposed Funded %</u>
VCJPA Property Contingency fund		\$50,263		100%	100%
VCJPA Member Contingency fund		\$336,801		100%	100%
LAIF	NA	\$7,048		NA	NA
OPEB	NA	\$4,239,191		100%	100%
CalPERS Retirement Fund (2 years prior)	\$12,080,425	\$9,177,513		76%	76%
PARS: Rate Stabilization	\$1,500,000	\$499,634	\$500,000	33%	67%
CAMP: Public Health Emergency	\$500,000	\$502,062		100%	100%
CAMP: Repair and Replace	\$695,223	\$502,062	\$193,161	72%	100%
CAMP: Operating reserve	\$2,368,024	\$1,003,403	\$856,642	42%	79%
CAMP: Capital reserve	\$250,000	\$0	\$250,000	0%	100%
<u>TOTAL</u>			\$1,799,803		

¹ As of May 1st 2018



ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

MOSQUITO AND DISEASE CONTROL ASSESSMENT

ENGINEER'S REPORT

FISCAL YEAR 2018-19

PURSUANT TO THE HEALTH AND SAFETY CODE, GOVERNMENT CODE AND
ARTICLE XIID OF THE CALIFORNIA CONSTITUTION

ENGINEER OF WORK:

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ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

BOARD OF TRUSTEES

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Wendi Poulson, Vice President, City of Alameda
Eric Hentschke, Secretary, City of Newark
Humberto Izquierdo, County-at-large
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Subru Bhat, City of Union City

DISTRICT MANAGER

Ryan Clausnitzer

ENGINEER OF WORK

SCI Consulting Group

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INTRODUCTION

OVERVIEW

The Alameda County Mosquito Abatement District (“District”) is an independent special District in Alameda County (“County”) that covers all cities within the county except for the City of Albany. The District’s services encompass more than 800 square miles and are provided to properties accommodating over 1.6 million residents.

In 1930, the Alameda County Mosquito Abatement District was officially formed in accordance with local authority provided by the Mosquito Abatement Act of 1915. The District’s services are further supported by the California Health and Safety Codes. The District is overseen by a Board of Trustees (the “Board”) comprised of fourteen members. Each City Council within the District and the Board of Supervisors of Alameda County appoint one Trustee. A Trustee serves a two-year term and can be reappointed.

The District provides control for both disease carrying mosquitoes and non-disease carrying mosquitoes within its boundaries (the “Assessment Area” or “Assessment District”). The purpose of the Alameda County Mosquito Abatement District is to reduce the risk of mosquito-borne disease and mosquito nuisance to property and the inhabitants of property within the District. The District services are available to all properties within the established boundary of the District.

The District’s core services are summarized as follows:

- Early detection of public health threats through comprehensive mosquito and disease surveillance.
- Elimination and control of mosquitoes to protect public health and to diminish the nuisance and harm caused by mosquitoes.
- Protection of public health by reducing mosquitoes or exposure to mosquitoes that transmit diseases on property
- Appropriate, timely response to customer requests to prevent/control mosquitoes and the diseases they can transmit.

The District currently provides a “baseline” level of mosquito and disease control services in the County. Over the past few years, costs of providing services has exceeded revenue and without the additional assessment Services would have deteriorated. The services provided to the Assessment Area consist of maintaining the current level of services and in some cases expanded services, as listed below, above the existing baseline level of services.

The Assessment Area is narrowly drawn to include only properties that may request and/or receive direct and more frequent service, that are located within the scope of the mosquito surveillance area, that are located within flying or traveling distance of potential mosquito sources monitored by the District, and that will benefit from a reduction in the amount of mosquitoes reaching and impacting the property as a result of the enhanced mosquito

surveillance and control. The Assessment Diagram included in this report shows the boundaries of the Assessment Area.

The following is an outline of the primary services, programs and related costs that are funded by the mosquito and disease control assessment:¹

- Mosquito control and abatement
- Surveillance for mosquito-borne diseases
- Mosquito inspections
- Response to service requests
- Mosquitofish for backyard fish ponds and other appropriate habitats
- Mosquito surveillance and disease testing
- Monitor mosquito populations and survey for mosquito-borne disease agents
- Upgrading of the equipment utilized by the District
- Presentations to schools and civic groups

This Engineer's Report ("Report") defines the benefit assessment, which provides funding for these improved mosquito and disease control services for property throughout the District, as well as related costs for equipment, capital improvements and services, facilities necessary and incidental to mosquito and disease control programs.

As used within this Report and the benefit assessment ballot proceeding, the following terms are defined:

"Vector" means any animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury, including, but not limited to, mosquitoes, flies, mites, ticks, other arthropods, and small mammals and other vertebrates (Health and Safety Code Section 2002(k)).

"Vector Control" shall mean any system of public improvements or services that is intended to provide for the surveillance, prevention, abatement, and control of vectors as defined in subdivision (k) of Section 2002 of the Health and Safety Code and a pest as defined in Section 5006 of the Food and Agricultural Code (Government Code Section 53750(m)).

Note: The District is the only dedicated agency controlling mosquitoes within its boundaries, in Alameda County. There are however, other agencies dedicated to the control of other types of vectors, such as rats. In any case, the California Code sections and other applicable citations within this report pertain specifically to mosquito and disease control even when the term vector is used.

¹ The improved mosquito and disease prevention services materially increase the usefulness, utility, livability and desirability of properties in the Assessment Area.

The District is controlled by Mosquito Abatement and Vector Control District Law of the State of California. Following are excerpts from the Mosquito Abatement and Vector Control District Law of 2002, codified in the Health and Safety Code, Section 2000, et. seq. which serve to summarize the State Legislature's findings and intent with regard to mosquito abatement and other vector control services:

2001. (a) The Legislature finds and declares all of the following:

(1) California's climate and topography support a wide diversity of biological organisms.

(2) Most of these organisms are beneficial, but some are vectors of human disease pathogens or directly cause other human diseases such as hypersensitivity, envenomization, and secondary infections.

(3) Some of these diseases, such as mosquito borne viral encephalitis, can be fatal, especially in children and older individuals.

(4) California's connections to the wider national and international economies increase the transport of vectors and pathogens.

(5) Invasions of the United States by vectors such as the Asian tiger mosquito and by pathogens such as the West Nile virus underscore the vulnerability of humans to uncontrolled vectors and pathogens.

(b) The Legislature further finds and declares:

(1) Individual protection against the vector borne diseases is only partially effective.

(2) Adequate protection of human health against vector borne diseases is best achieved by organized public programs.

(3) The protection of Californians and their communities against the discomforts and economic effects of vector borne diseases is an essential public service that is vital to public health, safety, and welfare.

(4) Since 1915, mosquito abatement and vector control districts have protected Californians and their communities against the threats of vector borne diseases.

(c) In enacting this chapter, it is the intent of the Legislature to create and continue a broad statutory authority for a class of special districts with the power to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors.

(d) It is also the intent of the Legislature that mosquito abatement and vector control districts cooperate with other public agencies to protect the public health, safety, and welfare. Further, the Legislature encourages local communities and local officials to adapt the powers and procedures provided by this chapter to meet the diversity of their own local circumstances and responsibilities.

Further the Health and Safety Code, Section 2082 specifically authorizes the creation of benefit assessments for vector control, as follows:

(a) A district may levy special benefit assessments consistent with the requirements of Article XIID of the California Constitution to finance vector control projects and programs.

This Engineer's Report ("Report") was prepared by SCI Consulting Group (SCI) to describe the mosquito, disease surveillance and control services and related costs that are funded by the assessments, to establish the estimated costs for those Services, to determine the special benefits and general benefits received by property from the Services and to apportion the assessments to lots and parcels within the District based on the estimated special benefit each parcel receives from the services funded by the benefit assessment.

LEGISLATIVE ANALYSIS

PROPOSITION 218

This assessment was formed consistent with Proposition 218, The Right to Vote on Taxes Act, which was approved by the voters of California on November 6, 1996, and is now Article XIII C and XIID of the California Constitution. Proposition 218 provides for benefit assessments to be levied to fund the cost of providing services, improvements, as well as maintenance and operation expenses to a public improvement which benefits the assessed property.

Proposition 218 describes a number of important requirements, including a property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process used to establish this assessment. When Proposition 218 was initially approved in 1996, it allowed for certain types of assessments to be "grandfathered" in, and these were exempted from the property-owner balloting requirement.

Beginning July 1, 1997, all existing, new, or increased assessments shall comply with this article. Notwithstanding the foregoing, the following assessments existing on the effective date of this article shall be exempt from the procedures and approval process set forth in Section 4:

(a) Any assessment imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, sewers, water, flood control, drainage systems or vector control.

Mosquito and vector control was specifically "grandfathered in," underscoring the fact that the drafters of Proposition 218 and the voters who approved it were satisfied that funding for mosquito and vector control is an appropriate use of benefit assessments, and therefore confers special benefit to property.

SILICON VALLEY TAXPAYERS ASSOCIATION, INC. V. SANTA CLARA COUNTY OPEN SPACE AUTHORITY

In July of 2008, the California Supreme Court issued its ruling on the Silicon Valley Taxpayers Association, Inc. v. Santa Clara County Open Space Authority ("SVTA vs. SCCOSA"). This ruling is the most significant legal document in further legally clarifying

Proposition 218. Several of the most important elements of the ruling included further emphasis that:

- Benefit assessments are for special benefit to property, not general benefits²
- The services and /or improvements funded by assessments must be clearly defined
- Special benefits are directly received by and provide a direct advantage to property in the assessment district

This Engineer's Report, and the process used to establish this assessment is consistent with the SVTA vs. SCCOSA decision.

DAHMS V. DOWNTOWN POMONA PROPERTY

On June 8, 2009, the 4th Court of Appeal amended its original opinion upholding a benefit assessment for property in the downtown area of the City of Pomona. On July 22, 2009, the California Supreme Court denied review. On this date, Dahms became good law and binding precedent for assessments. In Dahms the Court upheld an assessment that was 100% special benefit (i.e. 0% general benefit) on the rationale that the services and improvements funded by the assessments were directly provided to property in the assessment district. The Court also upheld discounts and exemptions from the assessment for certain properties.

BONANDER V. TOWN OF TIBURON

On December 31, 2009, the 1st District Court of Appeal overturned a benefit assessment approved by property owners to pay for placing overhead utility lines underground in an area of the Town of Tiburon. The Court invalidated the assessments on the grounds that the assessments had been apportioned to assessed property based in part on relative costs within sub-areas of the assessment district instead of proportional special benefits.

BEUTZ V. COUNTY OF RIVERSIDE

On May 26, 2010, the 4th District Court of Appeal issued a decision on the Steven Beutz v. County of Riverside ("Beutz") appeal. This decision overturned an assessment for park maintenance in Wildomar, California, primarily because the general benefits associated with improvements and services were not explicitly calculated, quantified and separated from the special benefits.

GOLDEN HILL NEIGHBORHOOD ASSOCIATION V. CITY OF SAN DIEGO

On September 22, 2011, the San Diego Court of Appeal issued a decision on the Golden Hill Neighborhood Association v. City of San Diego appeal. This decision overturned an assessment for street and landscaping maintenance in the Greater Golden Hill neighborhood of San Diego, California. The court described two primary reasons for its

² Article XIII D, § 2, subdivision (d) of the California Constitution states defines "district" as "an area determined by an agency to contain all parcels which will receive a special benefit from the proposed public improvement or property-related service."

decision. First, like in *Beutz*, the court found the general benefits associated with services were not explicitly calculated, quantified and separated from the special benefits. Second, the court found that the City had failed to record the basis for the assessment on its own parcels.

COMPLIANCE WITH CURRENT LAW

This Engineer's Report is consistent with the requirements of Article XIII C and XIII D of the California Constitution and with the *SVTA* decision because the Services to be funded are clearly defined; the Services are available to and will be directly provided to all benefiting property in the Assessment District; and the Services provide a direct advantage to property in the Assessment District that would not be received in absence of the Assessments.

This Engineer's Report is consistent with *Dahms* because, similar to the Downtown Pomona assessment validated in *Dahms*, the Services will be directly provided to property in the Assessment District. Moreover, while *Dahms* could be used as the basis for a finding of 0% general benefits, this Engineer's Report establishes a more conservative measure of general benefits.

The Engineer's Report is consistent with *Bonander* because the Assessments have been apportioned based on the overall cost of the Services and proportional special benefit to each property. Finally, the Assessments are consistent with *Beutz* because the general benefits have been explicitly calculated and quantified and excluded from the Assessments.

ASSESSMENT PROCESS

In order to allow property owners to ultimately decide whether additional funding should be provided for the District's mosquito and disease control services, the Board authorized by Resolution the Initiation of proceedings for a benefit assessment on February 13, 2008. In March and April of 2008, the District conducted an assessment ballot proceeding pursuant to the requirements of Article XIII D of the California Constitution ("The Taxpayer's Right to Vote on Taxes Act") and the Government Code. During this ballot proceeding, owners of property in the District were provided with a notice and ballot for the proposed special assessment. A 45-day period was provided for balloting and a public hearing was conducted on April 30, 2008.

It was determined after the conclusion of the public input portion of the public hearing that 70.19% of the weighted ballots returned were in support of the assessment. Since the assessment ballots submitted in opposition to the proposed assessments did not exceed the assessment ballots submitted in favor of the assessments (with each ballot weighted by the proportional financial obligation of the property for which ballot was submitted), the District gained the authority to approve the levy of the assessments for fiscal year 2008-09 and to continue to levy them in future years. The authority granted by the ballot proceeding includes an annual increase in the maximum authorized assessment rate equal to the annual change in the Consumer Price Index for the San Francisco Bay Area, not to exceed 3%. 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 Board took action, by Resolution No.937-1 passed on May 14, 2008, to approve the levy of the assessments.

In each subsequent year for which the assessments will be levied, the Board must preliminarily approve an updated Engineer's Report for the upcoming fiscal year at a noticed public hearing. The Engineer's Report should include a budget for the upcoming fiscal year's costs and services and an updated assessment roll listing all parcels and their proposed assessments for the upcoming fiscal year.

If the Board approves this Engineer's Report and the assessments it establishes for fiscal year 2018-19, the assessments would be submitted to the County Auditor for inclusion on the property tax rolls for fiscal year 2018-19.

GENERAL DESCRIPTION OF THE DISTRICT AND SERVICES

ABOUT THE MOSQUITO ABATEMENT DISTRICT

The Alameda County Mosquito Abatement District (the “District”) is an independently funded public agency that controls and monitors mosquitoes and the diseases they carry in Alameda County. The District protects the usefulness, desirability and livability of property and the inhabitants of property within its jurisdictional area by controlling and monitoring disease-carrying and public nuisance mosquitoes. In addition, the District regularly tests for diseases carried by mosquitoes and educates property owners and the occupants of property in the District about how to protect themselves from mosquito-borne diseases.

The District staff consists of 16 employees including a District Manager, Field Operations Supervisor, Entomologist, Mechanic, Environmental Specialist, Systems Specialist, Administrative/Financial Manager, five Vector Biologists and one Mosquito Control Technician, two Assistant Mosquito Control Technicians, a Biological Specialist and other support staff.

The District is governed by the Alameda County Mosquito Abatement District Board of Trustees. The Board meetings are held at 5:00 p.m. on the second Wednesday of every month, and residents are welcome to attend.

DESCRIPTION OF MOSQUITO ABATEMENT PROGRAM

As mentioned earlier, the District currently provides a “baseline” level of services in the County as permitted with the limited funding available. The Assessment provides the additional funding to operate the program and expand the services provided in the Assessment Area to an optimum level necessary to protect the usefulness, utility, desirability and livability of property within its jurisdictional area.

INTRODUCTION

Following are the Services and resulting level of service for the Assessment Area. As previously noted, the District provides a baseline level of service in the County. These Services are over and above the current baseline level of service. The formula below describes the relationship between the final level of service, the existing baseline level of service, and the enhanced level of service to be funded by the assessment.

Final Level of Service	=	Baseline Level of Service	+	Enhanced Level of Service
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The assessment provides funding for the continuation and enhancement of the service, surveillance, disease prevention, abatement, and control of mosquitoes within the District boundaries. Such mosquito abatement and disease prevention projects and programs include, but are not limited to, source reduction, biological control, larvicide applications,

adulticide applications, disease monitoring, public education, reporting, accountability, research and interagency cooperative activities, as well as capital costs, maintenance, and operation expenses (collectively “Services”). The cost of these Services also includes capital costs comprised of equipment, capital improvements and facilities and other expenses necessary and incidental to the mosquito control program.

VECTORS AND VECTOR-BORNE DISEASES IN THE DISTRICT SERVICE AREA

MOSQUITOES

Mosquitoes generally occur where there is adequate vegetation for harborage and where water is standing and/or stagnant. Although mosquitoes have seasonal cycles, some species reproduce continuously while conditions are suitable. The mosquito species listed in the table below can be generally described as floodwater, permanent water, and container-breeding mosquitoes and they are currently important in the District:

GENUS & SPECIES	LARVAL HABITAT	ABUNDANCE	HOSTS	DISEASE ASSOCIATIONS
<i>Aedes dorsalis</i> (Salt marsh mosquito)	Salt marshes	All year	Humans and other mammals	Serious Pest
<i>Aedes sierrensis</i> (Tree hole mosquito)	Tree holes, Tires, Miscellaneous Containers	Spring, Summer	Humans and other large mammals	Serious pest; Vector of Canine Heartworm
<i>Aedes squamiger</i> (Winter salt marsh mosquito)	Salt marshes	Spring	Humans and other large mammals	Serious pest
<i>Aedes washinoi</i> (Woodland pool mosquito)	Temporary woodland ponds	Spring, Summer	Humans and other large mammals	Serious Pest
<i>Anopheles freeborni</i> (Western malaria mosquito)	Seepages, Streams, Lakes, Gravel Pits	Summer	Humans and other large mammals	Vector of Malaria
<i>Anopheles punctipennis</i>	Cool, shaded grassy pools in creeks and lake seepages	Summer	Humans and other large mammals	Vector of Malaria
<i>Culex erythrorhax</i> (Tule mosquito)	Ponds, lakes, marshes with tules and cattails	Spring, Summer	Humans, Other Mammals, and Birds	Serious Pest; Vector of Encephalitis
<i>Culex pipiens</i> (House mosquito)	Storm Drain Systems, Septic Tanks, Roadside Ditches, Utility	Spring, Summer, Fall, Winter	Humans, Other Mammals, and Birds	Serious Pest; Vector of Encephalitis, West Nile Virus

<i>Culex stigmatosoma</i> (Foul water mosquito)	Foul Water, Sewage, Temporary Pools	Spring, Summer, Fall, Winter	Birds	Vector of West Nile Virus
<i>Culex tarsalis</i> (Encephalitis mosquito)	Creeks, Marshes, Temporary Pools, Roadside Ditches, Fresh Water	Spring, Summer, Fall, Winter	Birds, humans, and other mammals	Moderate Pest; Vector of Encephalitis, West Nile Virus
<i>Culiseta incidens</i> (Fish pond mosquito)	Fish Ponds, Temporary Pools, Catch Basins, Roadside Ditches	Spring, Summer, Fall, Winter	Humans and other large mammals	Serious Pest; Possible Vector of Canine Heartworm
<i>Culiseta inornata</i> (Winter salt marsh mosquito)	Marshes, Temporary Pools, Roadside Ditches	Fall, Winter, Spring	Humans and other large mammals	Serious Pest

Mosquitoes that lay their eggs in damp soil that might be flooded several years later occupy floodwater habitats. Once the area floods, most of the eggs hatch, producing a large number of mosquitoes that emerge as adults around the same time. The District has several floodwater species of concern. These include all of the *Aedes* species. Floodwater mosquitoes are most active at dawn and dusk, but they also bite during the day. *Aedes dorsalis* and *Aedes squaminger* produce multiple generations due to recurring tidal and rainwater flooding and resulting in high abundance. These species are strong flyers that can travel many miles from their source.

Mosquitoes that lay their eggs on the surface of standing water occupy permanent water habitats. Such habitats include both temporary and long-lasting standing water. Eggs are laid while mosquitoes are active and usually hatch within two to three days. *Anopheles*, *Culex*, and *Culiseta* mosquitoes inhabiting the District breed in these types of sources and have multiple generations. All of these mosquitoes are active at dawn and dusk, but *Culex* and *Culiseta* will bite well into the night. *Anopheles* and *Culex erythrothorax* can also bite during the day under shade.

Outdoor containers that hold standing water are common mosquito habitats in Alameda County. Containers include naturally occurring holes in trees, discarded buckets, cans, jars and tires; neglected swimming pools, wading pools, spas and boats; ornamental ponds, bird baths, cemetery flower cups, crumpled plastic and plugged rain gutters. *Aedes sierrensis* breeds in many species of tree holes, especially oaks, sycamores and cottonwoods, but can also inhabit artificial containers full of leaf litter. Eggs are deposited above the water line and hatch after sufficient rain accumulates to reach them. *Ae. sierrensis* normally produces one generation per year. It is an aggressive biter and can reach great abundance locally but does not fly far.

Mosquito-transmitted diseases in the District are caused by several pathogens. These include the following viruses: St. Louis encephalitis (SLE), Western equine encephalitis

(WEE) and West Nile virus (WNV); the protozoan parasite of malaria, *Plasmodium falciparum* or *P. vivax*; or the nematode parasite of canine heartworm, *Dirofilaria immitis*. This region has historically had sporadic detections of WEE and SLE, two arboviruses (arthropod-borne) that have been established in California for decades. Starting in 2004, WNV was found in wild birds, sentinel chicken flocks, mosquito pools and horses. To date there have been no human cases of West Nile Virus locally acquired in Alameda County.

Malaria is not locally transmitted in California at this time, but it used to be a major health problem in the Central Valley. Trappers, miners and other immigrants introduced malaria into California in the 1800's from areas where malaria was common. Effective mosquito control and drugs to cure malaria in humans led to the eradication of malaria in California in the 1950's. Consistent reintroduction by humans from areas where the disease is endemic creates a constant threat from malaria. In addition, some strains of malaria found in the world today are resistant to drugs that helped to eradicate the disease in the 1950's. The mosquitoes that can spread malaria are still abundant in our region and are capable of redistributing this serious health threat if the virus should somehow be reintroduced to the area.

Canine heartworm is a disease that infects wild and domestic dogs and occasionally cats. Although it can be life-threatening, pet owners can protect their animals by giving them medicine that kills the parasites. Heartworm medication is available through veterinary facilities.

Mosquito-borne diseases of most concern in the District are: Western equine encephalitis (WEE), St. Louis encephalitis (SLE), West Nile virus (WNV), and malaria, which are all transmitted by indigenous mosquitoes and for which no human vaccines exist. Vaccines are available to protect horses from WEE and WNV. Among the principal threats to which the Alameda County Mosquito Abatement District currently responds are:

- Human and animal diseases associated with mosquitoes
- Annoyance and economic disruption caused by mosquitoes
- Potential introduction of invasive mosquito species and/or diseases.

INTEGRATED PEST MANAGEMENT

As noted, the District's services address several types of mosquitoes and share general principles and policies. These include the identification of mosquito problems; responsive actions to control existing populations of mosquitoes, prevention of new sources of mosquitoes from developing, and the management of habitat in order to minimize mosquito production; education of land-owners and others on measures to minimize interaction with mosquitoes; and provision and administration of funding and institutional support necessary to accomplish these goals.

In order to accomplish effective and environmentally sound mosquito management, control of mosquitoes must be based on careful surveillance of their abundance, habitat (potential

abundance), pathogen load, and potential contact with people and animals; the establishment of treatment criteria (thresholds); and appropriate selection from a wide range of control methods. This dynamic combination of surveillance, treatment criteria, and use of multiple control activities in a coordinated program is generally known as Integrated Pest Management (IPM).

The Alameda County Mosquito Abatement District's Mosquito Management Program, like any other IPM program, involves procedures for minimizing potential environmental impacts. The District employs IPM principles by first determining the species and abundance of mosquitoes through evaluation of public service requests and field surveys, trapping of immature and adult pest populations, and, if the populations exceed predetermined criteria, using the most efficient, effective, and environmentally sensitive means of control. For all mosquito species, public education is an important control strategy. In appropriate situations, water management or other physical control activities (historically known as "source reduction" or "physical control") can be instituted to reduce mosquito-breeding sites. The District also uses biological control such as the stocking of mosquitofish in ornamental ponds, unused swimming pools and other artificial water bodies. When these approaches are not effective or are otherwise inappropriate, materials that have been, approved and labeled by the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation are used to treat specific pest-producing or pestharboring areas. The District chooses materials that are highly specific, have the lowest impact on nontargets, selectively applied to places where mosquitoes occur. These materials are considerably more expensive than less specific pesticides and are labor intensive to apply.

The District's approach is organized into two principle sections to accomplish IPM. First, the administrative element provides leadership, expertise, public relations/education, and interface with other governmental authorities. Second, the operational and laboratory sections include technicians that perform IPM in the field. The technicians perform control and surveillance functions by responding to complaints from individual residents and by extensive examination of aquatic sites for mosquito larvae. The technicians and lab staff also monitor the treated areas to be sure that their control efforts have been successful.

The District has the capability of applying liquid and granular larvicides to treat sources of immature mosquitoes and aerosolized adulticides for area treatment of adult mosquitoes. Adulticiding is used to reduce significant populations of adult mosquitoes and to prevent or to reduce the spread of mosquito-borne disease in the environment. Applications are made by personnel licensed by the California Department of Public Health (or under the direct supervision of certified personnel) who are trained in the proper use of the products and specialized equipment used for this type of public health pest control. All insecticide products employed by the District are used with consideration of existing environmental conditions in order to minimize the impact on non-target organisms.

GENERAL SURVEILLANCE AND CONTROL PROCEDURES

Surveillance: Surveillance of mosquitoes in the District is accomplished by a combination of methods. First, technicians actively examine potential sites by sampling water, collecting

larvae, and identifying the larvae to species. Second, a variety of trap types are placed throughout the District for collecting adult mosquitoes (e.g. visual attractant Fay-Prince and New Jersey Light traps to monitor male and female mosquito abundance, and carbon dioxide- or human scent baited traps that attract host-seeking females or the eggs deposited by mosquitoes (e.g. ovitrap cups). The traps are set throughout the year, and the collected mosquitoes or eggs are enumerated and identified to species for adults and at least to genus for eggs. The majority of the collected mosquitoes that can transmit WNV, SLE or WEE are tested for the presence of these viruses. Finally, individual residents and property owners call the District directly to report mosquitoes or to provide information about the locations of standing water that could produce mosquitoes.

Mosquito sources are scattered throughout the District. All properties within the District are within mosquito-flying range of one or more mosquito sources. Alameda County has 22 species of mosquitoes, each with a unique breeding source, and several of which are capable of vectoring diseases to humans and animals.

Mosquito populations are surveyed using a variety of field methods and traps. Surveillance is conducted in a manner based upon an equal spread of resources throughout the District boundaries, focusing on areas of likely sources. Treatment strategies are based upon the results of the surveillance program, and are specifically designed for individual areas. The surveillance traps are located and spread throughout the District in a balanced approach such that the traps measure mosquito levels throughout the District.

Viruses transmitted by mosquitoes are surveyed by testing mosquito vectors, and bird or mammal reservoirs, for WNV, SLE and WEE. The Davis Arbovirus Research and Training Lab at UC Davis or the Mosquito Lab at the District headquarters tests mosquitoes, birds or mammals using quantitative reverse transcription polymerase chain reaction or an immunoassay. The District participates in the statewide dead bird surveillance program for WNV, responding to reports of dead birds from the public and testing these birds deemed appropriate. Various County, State and private laboratories throughout California and elsewhere test humans and horses for WNV. DPH obtains and compiles results from all testing facilities and reports them to the appropriate local mosquito control agencies.

Control: The District's objective is to provide the properties a District-wide level of consistent mosquito control such that all properties would benefit from equivalent reduced levels of mosquitoes. Surveillance and monitoring are provided on a District-wide basis. The District, though, cannot predict where control measures will be applied because the type and location of control depends on the surveillance and monitoring results. However, the control thresholds and objectives are comparable throughout the District.

The District uses several techniques to control mosquito larvae and pupae (immatures), including biological, chemical, and physical control. The District uses the mosquitofish, *Gambusia affinis*, for biological control. These mosquito-eating fish work particularly well during warm months in a variety of permanent water sources. Artificial water sources are stocked at the request of the property resident or in other situations where biological control

is judged to be the best action to be taken. Other methods of biological control include the use of mosquito pathogens, parasites and predators.

Chemical control agents employed by the District to control immature mosquitoes include stomach toxins bacterial derived control agents, insect growth regulators (IGR's) and other contact pesticides. Stomach toxins are products of natural bacteria that are commercially manufactured and formulated as bacterial larvicides. The District employs two agents, *Bacillus thuringiensis israelensis* (Bti) and *Bacillus sphaericus* (Bs). The spores of these bacteria can be applied as either a liquid or a granule. The stomach toxin is activated after the spores are eaten by larvae, restricting use of these agents to the feeding stages of larval development. Bti has the advantage of specificity, only affecting mosquitoes and related groups of flies. Bs has the added advantage over Bti of effectively controlling larvae in highly polluted water and sometimes reproducing, extending the duration of its effectiveness. Another product utilized by ACMAD is Spinosad, derived from the fermentation of the naturally occurring soil bacterium, *Saccharopolyspora spinosa*. It causes the excitation of the mosquito nervous system, ultimately leading to paralysis and death. Its action on the target organism is either by contact or by ingestion. This product can be applied in liquid or granular formulations.

The IGR used by the District is methoprene. Methoprene mimics a natural insect hormone that prevents successful development of larvae. It is available as a short-lived liquid and longer-acting granules and briquets. The product is absorbed into the larva, disrupting the hormone system and preventing successful completion of the life cycle. Methoprene must be applied prior to development of fourth instar larvae to ensure effectiveness. This product can be applied in liquid or granular formulation.

Additionally, the District uses surface active agents to control immature mosquitoes. The surface active agent is an oil combined with surfactants. Surface agents are effective against immature mosquitoes when inhaled at the water surface or by physically forming a surface film that drowns the mosquito. Surface active agents have the advantage of killing both larvae and pupae and are used in situations where other materials will not work.

Chemical control agents employed by the District to control adult mosquitoes contain pyrethrin, a natural plant-based insecticide, or pyrethroids, synthetic analogues of pyrethrin. These products provide rapid knockdown and kill of adult mosquitoes.

The District uses physical control as required; its application can temporarily or permanently alter habitats so that they do not produce mosquitoes. Technicians are educated to use physical control when it is appropriate. Examples of physical control include clearing vegetation around pond or stream banks, improving drainage by maintenance and debris removal from channels and waterways, removing water from containers, and providing access for other types of control work. All physical control and source reduction activities are accomplished in a way that does not impact mature trees, threatened or endangered species, or sensitive habitat areas.

Monitoring: For the most part, monitoring is the continuation of surveillance activities. District personnel specifically check treatment sites to be sure that applications were successful. In addition to physically checking the site, traps can be utilized to evaluate the success of the program.

PUBLIC RELATIONS, OUTREACH, AND EDUCATION

The public health risks of West Nile Virus mosquito-borne diseases create a need for regular and extensive media contacts, outreach and education. This includes making press releases, publishing brochures, responding to requests for interviews from all media, informing other government agencies, and giving presentations. The District participates in a wide variety of special events including Home and Garden shows, the Alameda Country Fair, government information events, “Bug Days” at nature centers, or presentations to garden clubs, city councils, etc.

The District maintains a web site to provide mosquito control and related information on the internet. The District web site address is www.mosquitoes.org. The District has most of its publications on the site, Board of Trustee documents (agendas, minutes, financial, laboratory, and operational reports), specialized technical information (mosquito biology, mosquito-borne diseases, and technical reports), press releases, upcoming events, and additional general information about District services and links to other related web sites.

The District currently interacts professionally at many levels with other agencies. The District is a member of the Mosquito and Vector Control Association of California (MVCAC); employees attend meetings at both the regional and state level. District employees also attend and receive periodic continuing education programs designed to reinforce surveillance and control protocols and learn about new and emerging technologies. The District is a member of the American Mosquito Control Association; District staff participates in national programs relating to mosquito and disease control. The District is also an active member in the California Special Districts Association (CSDA), the Entomological Society of America (ESA), and the Society of Vector Ecologists (SOVE).

RESEARCH AND TESTING

The District cooperates with and conducts research in collaboration with other academic and government agencies located in California (e.g. University of California and California State University). The outcomes of this research presented at scientific conferences and published in scientific journals.

SERVICE REQUESTS

The District responds to service requests within its boundaries. Any property owner, business or resident in the District may contact the District to request mosquito control related service or inspection and a District field technician will respond promptly to the particular property to evaluate the property and situation and to perform appropriate surveillance and control services. The District responds to all service requests in a timely manner, (typically, within 24 hours), regardless of location, within its boundaries.

ESTIMATE OF COST

FIGURE 1 – COST ESTIMATE – FY 2018-19

	Preliminary Budget
Mosquito Control Services and Related Expenditures	
Mosquito Control and Disease Prevention	\$2,771,706
Materials, Utilities and Supplies	\$1,125,001
Capital Expenditures	\$431,223
Contingency	\$50,000
Total Mosquito Control Services and Related Expenditures	\$4,377,930
Incidental Costs ¹	
Allowance for Uncollectable Assessments	\$500
County Collection, Levy Administration, and Other Incidentals	\$30,400
Total Incidental Costs	\$30,900
Total Budget	\$4,408,830
Total Benefits of Mosquito and Disease Control	\$4,408,830
Single Family Equivalent Units (SFEs)	456,104
Benefit Received per SFE Unit	\$9.67
Less	
Contributions from Other Sources²	
Revenue from property taxes/ other sources	(\$3,268,570)
Total Mosquito & Disease Control Services and Incidentals	\$1,140,260
<hr/>	
Budget Allocation to Property	
Total Assessment Budget³	\$1,140,260
	Total SFE Units ⁴ 456,104
	Assessment Rate per SFE⁵ \$2.50

Consolidated ER Notes:

1. Includes allowance for uncollectable assessments from assessments on public agency parcels, county collection charges and assessment administration costs.
2. Contributions from other sources to cover the costs of any general benefits and special benefits not funded by the assessments.
3. The assessment amounts are rounded down to the even penny for purposes of complying with the collection requirements from the County Auditor. Therefore, the total assessment amount for all parcels subject to the assessments may vary slightly from the net amount to be assessed.
4. SFE Units means Single Family Equivalent Benefit Units. See method of assessment in the following Section for further definition.
5. The assessment rate per SFE is the total amount of assessment per Single Family Equivalent benefit unit.

Note: For fiscal year 2018-19, the District has allocated \$431,223 for capital improvements to include the following: curation and larval ID room, remodel project, V35 lab truck, lab centrifuge, carports, wash rack, interior paint, shop and facility inventory program, and UAS.

METHOD OF ASSESSMENT

This section of the Report explains the benefits to be derived from the Services provided for property in the District, and the methodology used to apportion the total assessment to properties within the Mosquito and Disease Control Assessment area.

The Mosquito and Disease Control Assessment area consists of the Assessor Parcels within the Alameda County Mosquito Abatement District, with the exception of the City of Albany (*which decided not to be part of the District*).

The method used for apportioning the assessment is based upon the proportional special benefits to be derived by the properties in the District over and above general benefits conferred on real property in the Assessment District. Special benefit is calculated for each parcel in the Assessment District using the following process:

1. Identification of total benefit to the properties derived from the Services
2. Calculation of the proportion of these benefits that are special vs. general
3. Determination of the relative special benefit within different areas within the Assessment District
4. Determination of the relative special benefit per property type and property characteristic
5. Calculation of the specific assessment for each individual parcel based upon special vs. general benefit; location, property type and property characteristics

DISCUSSION OF BENEFIT

In summary, the assessments can only be levied based on the special benefit to property. This benefit is received by property over and above any general benefits. This special benefit is received by property over and above any general benefits from the additional Services. With reference to the engineering requirements for property related assessments, under Proposition 218 an Engineer must determine and prepare a report evaluating the amount of special and general benefit received by property within the Assessment District as a result of the improvements or services provided by a local agency. That special benefit is to be determined in relation to the total cost to that local entity of providing the service and/or improvements.

Proposition 218 as described in Article XIID of the California Constitution has confirmed that assessments must be based on the special benefit to property:

"No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel."

The below benefit factors, when applied to property in the Assessment Area, confer special benefits to property and ultimately improve the safety, utility, functionality and usability of property in the Assessment Area. These are special benefits to property in the Assessment

Area in much the same way that storm drainage, sewer service, water service, lighting, sidewalks and paved streets enhance the safety, utility and functionality of each parcel of property served by these improvements, providing them with more utility of use and making them safer and more usable for occupants.

It should also be noted that Proposition 218 included a requirement that existing assessments in effect upon its effective date were required to be confirmed by either a majority vote of registered voters in the Assessment Area, or by weighted majority property owner approval using the new ballot proceeding requirements. However, certain assessments were excluded from these voter approval requirements. Of note is that in California Constitution Article XIID Section 5(a) this special exemption was granted to assessments for sidewalks, streets, sewers, water, flood control, drainage systems and vector control. The Howard Jarvis Taxpayers Association explained this exemption in their Statement of Drafter's Intent:

"This is the "traditional purposes" exception. These existing assessments do not need property owner approval to continue. However, future assessments for these traditional purposes are covered."³

Therefore, the drafters of Proposition 218 acknowledged that mosquito control assessments were a "traditional" and therefore acknowledged and accepted use.

Since all assessments, existing before or after Proposition 218 must be based on special benefit to property, the drafters of Proposition 218 inherently found that mosquito and disease control services confer special benefit on property. Moreover, the statement of drafter's intent also acknowledges that any new or increased mosquito control assessments after the effective date of Proposition 218 would need to comply with the voter approval requirements it established. This is as an acknowledgement that additional assessments for such "traditional" purposes would be established after Proposition 218 was in effect. Therefore, the drafters of Proposition 218 clearly recognized mosquito and disease control assessments as a "traditional" use of assessments, acknowledged that new mosquito and disease assessments may be formed after Proposition 218 and inherently were satisfied that mosquito control services confer special benefit to properties.

The Legislature also made a specific determination after Proposition 218 was enacted that mosquito control services constitute a proper subject for special assessment. Health and Safety Code section 2082, which was signed into law in 2002, provides that a district may levy special assessments consistent with the requirements of Article XIID of the California Constitution to finance mosquito and disease control projects and programs. The intent of the Legislature to allow and authorize benefit assessments for mosquito and disease control services after Proposition 218 is shown in the Assembly and Senate analysis the Mosquito Abatement and Vector Control District Law where it states that the law:

³ Howard Jarvis Taxpayers Association, "Statement of Drafter's Intent", January 1997.

Allows special benefit assessments to finance vector control projects and programs, consistent with Proposition 218.⁴

Therefore the State Legislature unanimously found that mosquito and disease control services are a valuable and important public service that can be funded by benefit assessments. To be funded by assessments, mosquito and disease control services must confer special benefit to property.

MOSQUITO AND DISEASE CONTROL IS A SPECIAL BENEFIT TO PROPERTIES

As described below, this Engineer's Report concludes that mosquito and disease control is a special benefit that provides direct advantages to property in the Assessment District. For example, the assessment provides reduced levels of mosquitoes on property throughout the Assessment District. Moreover, the assessment will reduce the risk of the presence of diseases on property throughout the Assessment District, which is another direct advantage received by property in the Assessment District. Moreover, the assessment funds Services that improve the use of property and reduce the nuisance and harm created by mosquitoes on property throughout the Assessment District. These are tangible and direct special benefits that are received by property throughout the specific area covered by the Assessment.

The following section, Benefit Factors, describes how and why mosquito control services specially benefit properties in the Assessment Area. These benefits are particular and distinct from its effect on property in general or the public at large.

BENEFIT FACTORS

In order to allocate the assessments, the Engineer identified the types of special benefit arising from the aforementioned mosquito and disease control Services and that would be provided to property within the District. The following benefit factors have been established that represent the types of special benefit to parcels resulting from the Services financed with the assessment proceeds. These types of special benefit are as follows:

REDUCED MOSQUITO POPULATIONS ON PROPERTY AND AS A RESULT, ENHANCED DESIRABILITY, UTILITY, USABILITY AND FUNCTIONALITY OF PROPERTY IN THE ASSESSMENT DISTRICT.

The assessments provide enhanced services for the control and abatement of nuisance and disease-carrying mosquitoes. These Services will materially reduce the number of mosquitoes on properties throughout the Assessment District. The lower mosquito populations on property in the Assessment District is a direct advantage to property that will serve to increase the desirability and "usability" of property. Clearly, properties are more desirable and usable in areas with lower mosquito populations and with a reduced risk of mosquito-borne disease. This is a special benefit to residential, commercial, agricultural,

⁴ Senate Bill 1588, Mosquito Abatement and Vector Control District Law, Legislative bill analysis

industrial and other types of properties because all such properties will directly benefit from reduced mosquito populations and properties with lower mosquito populations are more usable, functional and desirable.

Excessive mosquitoes in the area can materially diminish the utility and usability of property. For example, prior to the commencement of mosquito control and abatement services, properties in many areas in the State were considered to be nearly uninhabitable during the times of year when the mosquito populations were high.⁵ The prevention or reduction of such diminished utility and usability of property caused by mosquitoes is a clear and direct advantage and special benefit to property in the Assessment District.

The State Legislature made the following finding on this issue:

“Excess numbers of mosquitoes and other vectors spread diseases of humans, livestock, and wildlife, reduce enjoyment of outdoor living spaces, both public and private, reduce property values, hinder outdoor work, reduce livestock productivity; and mosquitoes and other vectors can disperse or be transported long distances from their sources and are, therefore, a health risk and a public nuisance; and professional mosquito and vector control based on scientific research has made great advances in reducing mosquito and vector populations and the diseases they transmit.”⁶

Mosquitoes emerge from sources throughout the Assessment District, and with an average flight range of two miles, mosquitoes from known sources can reach all properties in the Assessment District. These sources include standing water in rural areas, such as marshes, pools, wetlands, ponds, drainage ditches, drainage systems, tree holes and other removable sources such as old tires and containers. The sources of mosquitoes also include numerous locations throughout the urban areas in the Assessment District. These sources include underground drainage systems, containers, unattended swimming pools, leaks in water pipes, tree holes, flower cups in cemeteries, over-watered landscaping and lawns and many other sources. By controlling mosquitoes at known and new sources, the Services will materially reduce mosquito populations on property throughout the Assessment District.

A recently increasing source of mosquitoes is unattended swimming pools:

⁵ Prior to the commencement of modern mosquito control services, areas in the State of California such as the Alameda County, San Mateo Peninsula, Napa County, Lake County and areas in Marin and Sonoma Counties had such high mosquito populations that they were considered to be nearly unlivable during certain times of the year and were largely used for part-time vacation cottages that were occupied primarily during the months when the natural mosquito populations were lower.

⁶ Assembly Concurrent Resolution 52, chaptered April 1, 2003

“Anthropogenic landscape change historically has facilitated outbreaks of pathogens amplified by peridomestic vectors such as Cx. pipiens complex mosquitoes and associated commensals such as house sparrows. The recent widespread downturn in the housing market and increase in adjustable rate mortgages have combined to force a dramatic increase in home foreclosures and abandoned homes and produced urban landscapes dotted with an expanded number of new mosquito habitats. These new larval habitats may have contributed to the unexpected early season increase in WNV cases in Bakersfield during 2007 and subsequently have enabled invasion of urban areas by the highly competent rural vector Cx. tarsalis. These factors can increase the spectrum of competent avian hosts, the efficiency of enzootic amplification, and the risk for urban epidemics.”⁷

INCREASED SAFETY OF PROPERTY IN THE ASSESSMENT DISTRICT.

The Assessments result in improved year-round proactive Services to control and abate mosquitoes that otherwise would occupy properties throughout the Assessment District. Mosquitoes are transmitters of diseases, so the reduction of mosquito populations makes property safer for use and enjoyment. In absence of the assessments, these Services would not be provided, so the Services funded by the assessments make properties in the Assessment District safer, which is a distinct special benefit to property in the Assessment District.⁸ This is not a general benefit to property in the Assessment District or the public at large because the Services are tangible mosquito and disease control services that are provided directly to the properties in the Assessment District and the Services are over and above what otherwise would be provided by the District or any other agency.

This finding was confirmed in 2003 by the State Legislature:

“Mosquitoes and other vectors, including but not limited to, ticks, Africanized honey bees, rats, fleas, and flies, continue to be a source of human suffering, illness, death, and a public nuisance in California and around the world. Adequately funded mosquito and vector control, monitoring and public awareness programs are the best way to prevent outbreaks of West Nile Virus and other diseases borne by mosquitoes and other vectors.”⁹

Also, the Legislature, in Health and Safety Code Section 2001, finds that:

⁷ Riesen William K. (2008). Delinquent Mortgages, Neglected Swimming Pools, and West Nile Virus, California. Emerging Infectious Diseases. Vol. 14(11).

⁸ By reducing the risk of disease and increasing the safety of property, the Services will materially increase the usefulness and desirability of certain properties in the Assessment Area.

⁹ Assembly Concurrent Resolution 52, chaptered April 1, 2003

“The protection of Californians and their communities against the discomforts and economic effects of vectorborne diseases is an essential public service that is vital to public health, safety, and welfare.”

REDUCTIONS IN THE RISK OF NEW DISEASES AND INFECTIONS ON PROPERTY IN THE ASSESSMENT DISTRICT.

Mosquitoes have proven to be a major contributor to the spread of new diseases such as West Nile Virus, among others. A highly mobile population combined with migratory bird patterns can introduce new mosquito-borne diseases into previously unexposed areas.

“Vector-borne diseases (including a number that are mosquito-borne) are a major public health problem internationally. In the United States, dengue and malaria are frequently brought back from tropical and subtropical countries by travelers or migrant laborers, and autochthonous transmission of malaria and dengue occasionally occurs. In 1998, 90 confirmed cases of dengue and 1,611 cases of malaria were reported in the USA and dengue transmission has occurred in Texas.”¹⁰

“During 2004, 40 states and the District of Columbia (DC) have reported 2,313 cases of human WNV illness to CDC through ArboNET. Of these, 737 (32%) cases were reported in California, 390 (17%) in Arizona, and 276 (12%) in Colorado. A total of 1,339 (59%) of the 2,282 cases for which such data were available occurred in males; the median age of patients was 52 years (range: 1 month--99 years). Date of illness onset ranged from April 23 to November 4; a total of 79 cases were fatal.”¹¹ (According to the Centers for Disease Control and Prevention on January 19, 2004, a total of 2,470 human cases and 88 human fatalities from WNV have been confirmed).

A study of the effect of aerial spraying conducted by the Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) to control a West Nile Virus disease outbreak found that the SYMVCD's mosquito control efforts materially decreased the risk of new diseases in the treated areas:

¹⁰ Rose, Robert. (2001). Pesticides and Public Health: Integrated Methods of Mosquito Management. Emerging Infectious Diseases. Vol. 7(1); 17-23.

¹¹ Center for Disease Control. (2004). West Nile Virus Activity --- United States, November 9--16, 2004. Morbidity and Mortality Weekly Report. 53(45); 1071-1072.

After spraying, infection rates decreased from 8.2 (95% CI 3.1–18.0) to 4.3 (95% CI 0.3–20.3) per 1,000 females in the spray area and increased from 2.0 (95% CI 0.1–9.7) to 8.7 (95% CI 3.3–18.9) per 1,000 females in the untreated area. Furthermore, no additional positive pools were detected in the northern treatment area during the remainder of the year, whereas positive pools were detected in the untreated area until the end of September (D.-E.A Elnaiem, unpub. data). These independent lines of evidence corroborate our conclusion that actions taken by SYMVCD were effective in disrupting the WNV transmission cycle and reducing human illness and potential deaths associated with WNV.¹²

The Services funded by the assessments help prevent on a year-round basis the presence of mosquito-borne diseases on property in the Assessment District. This is another tangible and direct special benefit to property in the Assessment District that would not be received in absence of the assessments.

PROTECTION OF ECONOMIC ACTIVITY ON PROPERTY IN THE ASSESSMENT DISTRICT.

As recently demonstrated by the SARS outbreak in China and outbreaks of Avian Flu, outbreaks of pathogens can materially and negatively impact economic activity in the affected area. Such outbreaks and other public health threats can have a drastic negative effect on tourism, business and residential activities in the affected area. The assessments help to prevent the likelihood of such outbreaks in the District.

Mosquitoes hinder, annoy and harm residents, guests, visitors, farm workers, and employees. A mosquito-borne disease outbreak and other related public health threats would have a drastic negative effect on agricultural, business and residential activities in the Assessment District.

The economic impact of diseases is well documented. According to a study prepared for the Centers for Disease Control and Prevention, economic losses due to the transmission of West Nile Virus in Louisiana was estimated to cost over \$20 million over approximately one year:

¹² Carney, Ryan. (2008), Efficiency of Aerial Spraying of Mosquito Adulticide in Reducing the Incidence of West Nile Virus, California, 2005. Emerging Infectious Diseases, Vol 14(5)

The estimated cost of the Louisiana epidemic was \$20.1 million from June 2002 to February 2003, including a \$10.9 million cost of illness (\$4.4 million medical and \$6.5 million nonmedical costs) and a \$9.2 million cost of public health response. These data indicate a substantial short-term cost of the WNV disease epidemic in Louisiana. ¹³

Moreover, a study conducted in 1996-97 of La Crosse Encephalitis (LACE), a human illness caused by a mosquito-transmitted virus, found a lifetime cost per human case at \$48,000 to \$3,000,000 and found that the disease significantly impacted lifespans of those who were infected. Following is a quote from the study which references the importance and value of active mosquito control services of the type that would be funded by the assessments:

The socioeconomic burden resulting from LACE is substantial, which highlights the importance of the illness in western North Carolina, as well as the need for active surveillance, reporting, and prevention programs for the infection. ¹⁴

The Services funded by the assessments help prevent the likelihood of such outbreaks on property in the Assessment District and will reduce the harm to economic activity on property caused by existing mosquito populations. This is another direct advantage received by property in the Assessment District that would not be received in absence of the assessments.

PROTECTION OF ASSESSMENT DISTRICT'S AGRICULTURE, TOURISM, AND BUSINESS INDUSTRIES.

The agriculture, tourism and business industries will benefit from reduced levels of harmful or nuisance mosquitoes. Conversely, any outbreaks of emerging mosquito-borne pathogens such as West Nile Virus could also materially negatively affect these industries. Diseases transmitted by mosquitoes can adversely impact business and recreational functions.

¹³ Zohrabian A, Meltzer MI, Ratard R, Billah K, Molinari NA, Roy K, et al. West Nile Virus economic impact, Louisiana, 2002. Emerging Infectious Disease, 2004 Oct. Available from <http://www.cdc.gov/ncidod/EID/vol10no10/03-0925.htm>

¹⁴ Utz, J. Todd, Apperson, Charles S., Maccormack, J. Newton, Salyers, Martha, Dietz, E. Jacquelin, Mcpherson, J. Todd, Economic And Social Impacts Of La Crosse Encephalitis In Western North Carolina, Am J Trop Med Hyg 2003 69: 509-518

A study prepared for the United States Department of Agriculture in 2003 found that over 1,400 horses died from West Nile Virus in Colorado and Nebraska and that these fatal disease cases created over \$1.2 million in costs and lost revenues. In addition, horse owners in these two states spent over \$2.75 million to vaccinate their horses for this disease. The study states that “Clearly, WNV has had a marked impact on the Colorado and Nebraska equine industry.”¹⁵

Pesticides for mosquito control impart economic benefits to agriculture in general. Anecdotal reports from farmers and ranchers indicate that cattle, if left unprotected, can be exsanguinated by mosquitoes, especially in Florida and other southeast coastal areas. Dairy cattle produce less milk when bitten frequently by mosquitoes¹⁶

The assessments serve to protect the businesses and industries and the employees and residents that benefit from these businesses and industries. This is a direct advantage and special benefit to property in the Assessment District.

REDUCED RISK OF NUISANCE AND LIABILITY ON PROPERTY IN THE ASSESSMENT DISTRICT

In addition to mosquito-borne disease risks, uncontrolled mosquito populations create a nuisance and health risk (e.g. allergic reactions, secondary infections from mosquito bites) for the occupants of property in the Assessment District. Properties in the Assessment District, therefore, benefit from the reduced nuisance factor that is created by the Services. Agricultural and rangeland properties also benefit from the reduced nuisance factor and harm to livestock and employees from lower mosquito populations.

Agricultural, range, golf course, cemetery, open space and other such lands in the Assessment District contain large areas of mosquito habitat and are therefore a significant source of mosquito populations. In addition, residential and business properties in the Assessment District can also contain significant sources.¹⁷ It is conceivable that sources of mosquitoes could be held liable for the transmission of diseases or other harm. According to CA Health and Safety Code 2061:

¹⁵ S. Geiser, A. Seitzinger, P. Salazar, J. Traub-Dargatz, P. Morley, M. Salman, D. Wilmot, D. Steffen, W. Cunningham, Economic Impact of West Nile Virus on the Colorado and Nebraska Equine Industries: 2002, April 2003, Available from http://www.aphis.usda.gov/vs/ceah/cnabs/nahms/equine/wnv2002_CO_NB.pdf

¹⁶ Jennings, Allen. (2001). USDA Letter to EPA on Fenthion IRED. United States Department of Agriculture, Office of Pest Management Policy. March 8, 2001.

¹⁷ Sources of mosquitoes on residential, business, agricultural, range and other types of properties include removable sources such as containers that hold standing water.

2061 (a) Whenever a public nuisance exists on any property within

a district or on any property that is located outside the district

from which vectors may enter the district, the board of trustees may notify the owner of the property of the existence of the public nuisance.

(b) The notice required by subdivision (a) shall do all of the

following:

(1) State that a public nuisance exists on the property, describe the public nuisance, and describe the location of the public nuisance on the property.

(2) Direct the owner of the property to abate the nuisance within a specified time.

(3) Direct the owner of the property to take any necessary action within a specified time to prevent the recurrence of the public nuisance.

(4) Inform the owner of the property that the failure to comply with the requirements of the notice within the specified times may result in the district taking the necessary actions, and that the owner shall be liable for paying the costs of the district's actions.

(5) Inform the owner of the property that the failure to comply with the requirements of the notice within the specified times may result in the imposition of civil penalties of up to one thousand dollars (\$1,000) per day for each day that the public nuisance continues after the specified times.

The Services serve to protect the businesses and industries in the Assessment District. This is a direct advantage and a special benefit to property in the Assessment District.

IMPROVED MARKETABILITY OF PROPERTY.

As described previously, the Services specially benefit properties in the Assessment District by making them more useable, livable and functional. The Services also make properties in the Assessment District more desirable, and more desirable properties also benefit from

improved marketability. This is another tangible and direct special benefit to property which will not be enjoyed in absence of the Services.¹⁸

BENEFIT FINDING

In summary, the special benefits described in this Report and the expansion of Services in the Assessment District directly benefit and protect the real properties in the Abatement District in excess of the assessments for these properties. Therefore, the assessment engineer finds that the cumulative special benefits to property from the Services are reasonably equal to or greater than the annual assessment amount per benefit unit.

GENERAL VS. SPECIAL BENEFIT

Article XIII C of the California Constitution requires any local agency proposing to increase or impose a benefit assessment to “separate the general benefits from the special benefits conferred on a parcel.” The rationale for separating special and general benefits is to ensure that property owners subject to the benefit assessment are not paying for general benefits. The assessment can fund the special benefits to property in the Assessment Area but cannot fund any general benefits. Accordingly, a separate estimate of the special and general benefit is given in this section.

In other words:

Total Benefit	=	General Benefit	+	Special Benefit
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There is no widely-accepted or statutory formula for general benefit from mosquito and disease control services. General benefits are benefits from improvements or services that are not special in nature, are not “particular and distinct” and are not “over and above” benefits received by other properties. General benefits are conferred to properties located “in the district,¹⁹” but outside the narrowly-drawn Assessment District and to “the public at

¹⁸ If one were to compare two hypothetical properties with similar characteristics, the property with lower mosquito infestation and reduced risk of mosquito-borne disease will clearly be more desirable, marketable and usable.

¹⁹ SVTA vs. SCCOSA explains as follows:

OSA observes that Proposition 218’s definition of “special benefit” presents a paradox when considered with its definition of “district.” Section 2, subdivision (i) defines a “special benefit” as “a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large.” (Art. XIII D, § 2, subd. (i), italics added.) Section 2, subdivision (d) defines “district” as “an area determined by an agency to contain all parcels which will receive a special benefit from a proposed public improvement or property-related service.” (Art. XIII D, § 2, subd. (d), italics added.) In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be

large.” SVTA vs. SCCOSA provides some clarification by indicating that general benefits provide “an indirect, derivative advantage” and are not necessarily proximate to the improvements and services funded by the assessments.

A formula to estimate the general benefit is listed below:

General Benefit	=	Benefit to Real Property Outside the Assessment District	+	Benefit to Real Property Inside the Assessment District that is Indirect and Derivative	+	Benefit to the Public at Large
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Special benefit, on the other hand, is defined in the state constitution as “a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large.” The SVTA v. SCCOSA decision indicates that a special benefit is conferred to a property if it “receives a direct advantage from the improvement (e.g., proximity to a park).” In this assessment, the overwhelming proportion of the benefits conferred to property is special, since the advantages from the mosquito and disease control/protection funded by the Assessments are directly received by the properties in the Assessment District and are only minimally received by property outside the Assessment District or the public at large.

Proposition 218 twice uses the phrase “over and above” general benefits in describing special benefit. (Art. XIII D, sections 2(i) & 4(f).) There currently are some mosquito and disease control related services being provided to the Assessment District area. Consequently, there currently are some mosquito control related benefits being provided to the Assessment District and any new and extended service provided by the District would be over and above this baseline. Arguably, all of the Services funded by the assessment therefore are a special benefit because the additional Services would particularly and distinctly benefit and protect the Assessment District over and above the previous baseline benefits and service.

Nevertheless, arguably some of the Services would benefit the public at large and properties outside the Assessment District. In this report, the general benefit is conservatively estimated and described, and then budgeted so that it is funded by sources other than the assessment.

In the 2009 Dahms case, the court upheld an assessment that was 100% special benefit on the rationale that the services funded by the assessments were directly provided to property in the assessment district. Similar to the assessments in Pomona that were validated by Dahms, the Assessments described in this Engineer’s Report fund mosquito and disease

construed as being general benefits since they are not “particular and distinct” and are not “over and above” the benefits received by other properties “located in the district.”

control services directly provided to property in the assessment area. Moreover, as noted in this Report, the Services directly reduce mosquito and vector populations on all property in the assessment area. Therefore, Dahms establishes a basis for minimal or zero general benefits from the Assessments. However, in this report, the general benefit is more conservatively estimated and described, and then budgeted so that it is funded by sources other than the assessment.

CALCULATING GENERAL BENEFIT

Without this assessment the District would lack the funds to extend the additional Services to the Assessment District. The only additional service that is being provided is the vector control program assessment-funded Services. Consistent with footnote 8 of SVTA v. SCCOSA, and for the reasons described above, the District has determined that all parcels in the Assessment District receive a shared direct advantage and special benefit from the Services. The Services directly and particularly serve and benefit each parcel, and are not a mere indirect, derivative advantage. As explained above, Proposition 218 relies on the concept of “over and above” in distinguishing special benefits from general benefits. As applied to an assessment proceeding concurrent with the annexation this concept means that all mosquito and disease control services, which provide direct advantage to property in the Assessment District, are over and above the baseline and therefore are special.

Nevertheless, the Services provide a degree of general benefit, in addition to the predominant special benefit. This section provides a conservative measure of the general benefits from the Assessments.

BENEFIT TO PROPERTY OUTSIDE THE DISTRICT

Properties within the Assessment District receive almost all of the special benefits from the Services because the Services funded by the Assessments are provided directly to protect property within the Assessment District from mosquitoes and mosquito-borne diseases. However, properties adjacent to, but just outside of, the District boundaries may receive some benefit from the Services in the form of reduced mosquito populations on property outside the Assessment District. Since this benefit, is conferred to properties outside the district boundaries, it contributes to the overall general benefit calculation and will not be funded by the assessment.

A measure of this general benefit is the proportion of Services that would affect properties outside of the Assessment District. Each year, the District will provide some of its Services in areas near the boundaries of the Assessment District. By abating mosquito populations near the borders of the Assessment District, the Services could provide benefits in the form of reduced mosquito populations and reduced risk of disease transmission to properties outside the Assessment District. If mosquitoes were not controlled inside the Assessment District, more of them would fly from the Assessment District. Therefore control of mosquitoes within the Assessment District provides some benefit to properties outside the Assessment District but within the normal flight range of mosquitoes, in the form of reduced mosquito populations and reduced mosquito-borne disease transmission. This is a measure

of the general benefits to property outside the Assessment District because this is a benefit from the Services that is not specially conferred upon property in the assessment area.

The mosquito potential outside the Assessment District is based on studies of mosquito dispersion concentrations. Mosquitoes can travel up to two miles, on average, so this destination range is used. Based on studies of mosquito destinations, relative to parcels in the Assessment District average concentration of mosquitoes from the Assessment District on properties within two miles of the Assessment District is calculated to be 6%.²⁰ This relative mosquito population reduction factor within the destination range is combined with the number of parcels outside the Assessment District and within the destination range to measure this general benefit and is calculated as follows:

CRITERIA:

Mosquitoes may fly up to 2 miles from their breeding source.
 38,786 parcels within 2 miles of, but outside of the District, MAY receive some mosquito and disease protection benefit
 6% portion of relative benefit that is received
 436,350 Parcels in the District

Calculations:

Total Benefit = 38,786 parcels * 6% = 2,327 parcels equivalents
 Percentage of overall parcel equivalents = 2,327 / 436,350 = **0.53%**

Therefore, for the overall benefits provided by the Services to the Assessment District, it is determined that 0.53% of the benefits would be received by the parcels within two miles of the Assessment District boundaries. Recognizing that this calculation is an approximation, this benefit will be rounded up to 1.0%.

BENEFIT TO PROPERTY *INSIDE* THE DISTRICT THAT IS *INDIRECT AND DERIVATIVE*

The “indirect and derivative” benefit to property within the Assessment District is particularly difficult to calculate. As explained above, all benefit within the Assessment District is special because the mosquito and disease control services in the Assessment District would provide direct service and protection that is clearly “over and above” and “particular and distinct” when compared with the level of such protection under current conditions. Further the properties are within the Assessment District boundaries and this Engineer’s Report demonstrates the direct benefits received by individual properties from mosquito and disease control services.

²⁰ Tietze, Noor S., Stephenson, Mike F., Sidhom, Nader T. and Binding, Paul L., “Mark-Recapture of *Culex Erythrothorax* in Santa Cruz County, California”, Journal of the American Mosquito Control Association, 19(2):134-138, 2003.

In determining the Assessment District area, the District was careful to limit it to an area of parcels that will directly receive the Services. All parcels directly benefit from the surveillance, monitoring and treatment provided on an equivalent basis throughout the Assessment District in order to maintain the same improved level of protection against mosquitoes and reduced mosquito populations throughout the area. The surveillance and monitoring sites are spread on a balanced basis throughout the area. Mosquito control and treatment is provided as needed throughout the area based on the surveillance and monitoring results. The shared special benefit - reduced mosquito levels and reduced presence of mosquito-borne diseases - is received on an equivalent basis by all parcels in the Assessment District. Furthermore, all parcels in the Assessment District directly benefit from the ability to request service from the District and to have a District field technician promptly respond directly to the parcel and address the owner's or resident's service need. The SVTA vs. SCCOSA decision indicates that the fact that a benefit is conferred throughout the Assessment District area does not make the benefit general rather than special, so long as the Assessment district is narrowly drawn and limited to the parcels directly receiving shared special benefits from the service. This concept is particularly applicable in situations involving a landowner-approved assessment-funded extension of a local government service to benefit lands previously not receiving that particular service. The District therefore concludes that, other than the small general benefit to properties outside the Assessment District (discussed above) and to the public at large (discussed below), all of the benefits of the Services to the parcels within the Assessment District are special benefits and it is not possible or appropriate to separate any general benefits from the benefits conferred on parcels in the Assessment District.

BENEFIT TO THE PUBLIC AT LARGE

With the type and scope of Services provided to the Assessment District, it is very difficult to calculate and quantify the scope of the general benefit conferred on the public at large. Because the Services directly serve and benefit all of the property in the Assessment Area, any general benefit conferred on the public at large is small. Nevertheless, there is some indirect general benefit to the public at large.

The public at large uses the public highways, streets and sidewalks, and when traveling in and through the Assessment Area they will benefit from the Services. A fair and appropriate measure of the general benefit to the public at large therefore is the amount of highway, street and sidewalk area within the Assessment Area relative to the overall land area. An analysis of maps of the Assessment Area shows that approximately 6% of the land area in the Assessment Area is covered by highways, streets and sidewalks. This 6% therefore is a fair and appropriate measure of the general benefit to the public at large within the Assessment Area

SUMMARY OF GENERAL BENEFITS

Using a sum of the measures of general benefit for the public at large and land outside the Assessment Area, we find that approximately 7.0% of the benefits conferred by the Mosquito and Disease Control Assessment may be general in nature and should be funded by sources other than the Assessment.

General Benefit Calculation

1.0% (Outside the Assessment District)
 + **0.0%** (Property within the Assessment District)
 + **6.0%** (Public at Large)
 = **7.0%** (Total General Benefit)

Although this analysis supports the findings that 7.0% of the assessment may provide general benefit only, this number is increased by the Assessment Engineer to 10% to conservatively ensure that no assessment revenue is used to support general benefit. This additional amount allocated to general benefit also covers general benefit to parcels in the Assessment Area if it is later determined that there is some general benefit conferred on those parcels.

The Mosquito and Disease Control Assessment total mosquito abatement, disease control, and capital improvement is \$4,377,930. Of this total budget amount, the District will contribute \$3,268,570 or 74.66% of the total budget from sources other than the Mosquito and Disease Control Assessment. This contribution offsets any general benefits from the Mosquito and Disease Control Assessment Services.

ZONES OF BENEFIT

The District's mosquito and disease control programs, projects and Services that are funded by the Mosquito and Disease Control Assessment are provided in all areas within the District. Parcels of similar type in the District would receive similar mosquito abatement benefits on a per parcel and land area basis. Therefore, zones of benefit are not justified.

The SVTA vs. SCCOSA decision indicates:

In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be construed as being general benefits since they are not “particular and distinct” and are not “over and above” the benefits received by other properties “located in the district.”

We do not believe that the voters intended to invalidate an assessment district that is narrowly drawn to include only properties directly benefiting from an improvement. Indeed, the ballot materials reflect otherwise. Thus, if an assessment district is narrowly drawn, the fact that a benefit is conferred throughout the district does not make it general rather than special. In that circumstance, the characterization of a benefit may depend on whether the parcel receives a direct advantage from the improvement (e.g., proximity to park) or receives an indirect, derivative advantage resulting from the overall public benefits of the improvement (e.g., general enhancement of the district's property values).

In the Assessment Area, the advantage that each parcel receives from the Services is direct and the boundary for the Service Area is narrowly drawn so the Service Area includes parcels that receive the similar levels of benefit from the Services. Therefore, the even spread of assessment for similar properties in the narrowly drawn Service Area within the Program is indeed consistent with the OSA decision.

METHOD OF ASSESSMENT

As previously discussed, the Assessments fund enhanced, comprehensive, year-round mosquito control, disease surveillance and control Services that will reduce mosquito populations on property and will clearly confer special benefits to properties in the Assessment Area. These benefits can also partially be measured by the occupants on property in the Improvement District because such parcel population density is a measure of the relative benefit a parcel receives from the Improvements. Therefore, the apportionment of benefit is partially based the population density of parcels. It should be noted that many other types of "traditional" assessments also use parcel population densities to apportion the assessments. For example, the assessments for sewer systems, roads and water systems are typically allocated based on the population density of the parcels assessed.

Moreover, assessments have a long history of use in California and are in large part based on the principle that any benefits from a service or improvement funded by assessments that is enjoyed by tenants and other non-property owners ultimately is conferred directly to the underlying property.²¹

²¹ For example, in *Federal Construction Co. v. Ensign* (1922) 59 Cal.App. 200 at 211, the appellate court determined that a sewer system specially benefited property even though the direct benefit was to the people who used the sewers: "Practically every inhabitant of a city either is the owner of the land on which he resides or on which he pursues his vocation, or he is the tenant of the owner, or is the agent or servant of such owner or of such tenant. And since it is the inhabitants who make by far the greater use of a city's sewer system, it is to them, as lot owners or as tenants, or as the servants or agents of such lot owners or tenants, that the advantages of actual use will redound. But this advantage of use means that, in the final analysis, it is the lot owners themselves who will be especially benefited in a financial sense."

With regard to benefits and source locations, the assessment engineer determined that since mosquitoes readily fly from their breeding locations to all properties in their flight range and since mosquitoes are actually attracted to properties occupied by people or animals, the benefits from mosquito control extend beyond the source locations to all properties that would be a “destination” for mosquitoes. In other words, the control and abatement of mosquito populations ultimately confers benefits to all properties that are a destination of mosquitoes, rather than just those that are sources of mosquitoes.

Although some primary mosquito sources may be located outside of residential areas, residential properties can and do generate their own, often significant, populations of mosquitoes and other organisms. For example, storm water catch basins in residential areas are a common source of mosquitoes. Since the typical flight range for a female mosquito, on average is 2 miles, most homes in the Assessment Area are within the flight zone of many mosquito sources. Moreover, there are many other common residential sources of mosquitoes, such as miscellaneous backyard containers, neglected swimming pools, leaking water pipes and tree holes. Clearly, there is a potential for mosquito sources on virtually all types of property. More importantly, all properties in the Assessment Area are within the destination range of mosquitoes and most properties are actually within the destination range of multiple mosquito source locations.

Because the Services are provided throughout the Assessment District with the same level of control objective in each zone, mosquitoes can rapidly and readily fly from their breeding locations to other properties over a large area, and because there are current or potential breeding sources literally everywhere in the Assessment District, the Assessment Engineer determined that all similar properties in the Assessment District have generally equivalent mosquito “destination” potential and, therefore, receive equivalent levels of benefit throughout the Assessment District.

In the process of determining the appropriate method of assessment, the Engineer considered various alternatives. For example, a fixed assessment amount per parcel for all residential improved property was considered but was determined to be inappropriate because agricultural lands, commercial property and other property also receive benefits from the assessments. Likewise, an assessment exclusively for agricultural land was considered but deemed inappropriate because other types of property, such as residential and commercial, also receive the special benefit factors described previously.

A fixed or flat assessment was deemed to be inappropriate because larger residential, commercial and industrial properties receive a higher degree of benefit than other similarly used properties that are significantly smaller. (For two properties used for commercial purposes, there is clearly a higher benefit provided to a property that covers several acres in comparison to a smaller commercial property that is on a 0.25 acre site. The larger property generally has a larger coverage area and higher usage by employees, customers, tourists and guests that would benefit from reduced mosquito populations, as well as the reduced threat from diseases carried by mosquitoes. This benefit ultimately flows to the

property.) Larger commercial, industrial and apartment parcels, therefore, receive an increased benefit from the assessments.

In conclusion, the assessment engineer determined that the appropriate method of assessment apportionment should be based on the type and use of property, the relative size of the property its relative population and usage potential, and its destination potential for mosquitoes. This method is further described below.

ASSESSMENT APPORTIONMENT

The special benefits derived from the Mosquito and Disease Control Assessment are conferred on property and are not based on a specific property owner's occupancy of property or the property owner's demographic status, such as age or number of dependents. However, it is ultimately people who do or could use the property and who enjoy the special benefits described above. The opportunity to use and enjoy property within the Assessment District without the excessive nuisance, diminished "livability" or the potential health hazards brought by mosquitoes and the diseases they carry is a special benefit to properties in the Assessment District. This benefit can be in part measured by the number of people who potentially live on, work at, visit or otherwise use the property, because people ultimately determine the value of the benefits by choosing to live, work and/or recreate in the area, and by choosing to purchase property in the area.²²

In order to apportion the cost of the Services to property, each property in the Assessment District is assigned a relative special benefit factor. This process involves determining the relative benefit received by each property in relation to a single family home, or, in other words, on the basis of Single Family Equivalents (SFE). This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefit. For the purposes of this Engineer's Report, all properties are designated a SFE value, which is each property's relative benefit in relation to a "benchmark" parcel in the Assessment District. The "benchmark" property is the single family detached dwelling on a parcel of less than one acre. This benchmark parcel is assigned one Single Family Equivalent benefit unit or one SFE.

The calculation of the special benefit apportionment and relative benefit to properties in the Assessment Area from the Services is summarized in the following equation:

$$\text{Special Benefit (per property)} = \sum f (\text{Special Benefits}) * \sum f (\text{Property Specific Attributes}^1)$$

1. Such as use, property type, size, as well as vector-specific attributes such as destination potential and population potential

²² It should be noted that the benefits conferred upon property are related to the average number of people who could potentially live on, work at or otherwise could use a property, not how the property is currently used by the present owner.

RESIDENTIAL PROPERTIES

Certain residential properties in the Abatement District that contain a single residential dwelling unit and are on a lot of less than or equal to one acre are assigned one Single Family Equivalent or 1.0 SFE. Traditional houses, zero-lot line houses, and town homes are included in this category of single family residential property.

Single family residential properties in excess of one acre receive additional benefit relative to a single family home on up to one acre, because the larger parcels provide more area for mosquito sources and the mosquito and disease control Services. Therefore, such larger parcels receive additional benefits relative to a single family home on less than one acre and are assigned 1.0 SFE for the residential unit and an additional rate equal to the agricultural rate described below of 0.0021 SFE per one-fourth acre of land area in excess of one acre. Mobile home parcels on a separate parcel and in excess of one acre also receive this additional acreage rate.

Other types of properties with residential units, such as agricultural properties, are assigned the residential SFE rates for the dwelling units on the property and are assigned additional SFE benefit units for the agricultural-use land area on the property.

Properties with more than one residential unit are designated as multi-family residential properties. These properties, along with condominiums, benefit from the Services in proportion to the number of dwelling units that occupy each property, the average number of people who reside in each property and the average size of each property in relation to a single family home in the District. This Report analyzed Alameda County population density factors from the 2000 US Census as well as average dwelling unit size for each property type. After determining the Population Density Factor and Square Footage Factor for each property type, an SFE rate is generated for each residential property structure, as indicated in Figure 2 below.

The SFE factor of 0.46 per dwelling unit for multifamily residential properties applies to such properties with two to four units (duplex, triplex, fourplex). Properties in excess of 5 units typically offer on-site management, monitoring and other control services that tend to offset some of the benefits provided by the Mosquito Abatement District. Therefore the benefit for properties in excess of 5 units is determined to be .32 SFE per unit for the first 20 units and 0.10 SFE per each additional unit in excess of 20 dwelling units.

FIGURE 2– RESIDENTIAL ASSESSMENT FACTORS

Type of Residential Property	Total Population	Occupied Households	Persons per Household	Pop. Density Equivalent	SqFt Factor	Proposed Rate
Single Family Residential	866,596	284,662	3.04	1.00	1.00	1.00
Condominium	103,373	37,417	2.76	0.91	0.66	0.60
Duplex, Triplex, Fourplex	144,626	57,815	2.50	0.82	0.56	0.46
Multi-Family Residential (5+ Units)	286,957	136,173	2.11	0.69	0.47	0.32
Mobile Home on Separate Lot	13,464	6,660	2.02	0.66	0.41	0.27

Source: 2000 Census, Alameda County, and property dwelling size information from the Alameda County Assessor data and other sources.

COMMERCIAL/INDUSTRIAL PROPERTIES

Commercial and industrial properties receive relatively lower levels of benefit in comparison to a single family home because they are generally open and operated for more limited times and employees of indoor businesses tend to spend less time outdoors. Since the hours of operation and the potential exposure to mosquitoes are measures of relative benefit, commercial and industrial properties receive lower relative levels of benefit. Therefore, commercial and industrial properties are determined to receive 0.50 SFE of benefit per one-quarter acre (10,890 square feet) of land area.

The SFE values for various commercial and industrial land uses are further defined by using average employee densities because the special benefit factors described previously are also related to the average number of people who work at commercial/industrial properties.

To determine employee density factors, this Report utilizes the findings from the San Diego County Association of Governments Traffic Generators Study (the “SANDAG Study”) because these findings were approved by the State Legislature which determined the SANDAG Study to be a good representation of the average number of employees per acre of land area for commercial and industrial properties. As determined by the SANDAG Study, the average number of employees per acre for commercial and industrial property is 24. As presented in Figure 3, the SFE factors for other types of businesses are determined relative to their typical employee density in relation to the average of 24 employees per acre of commercial property.

Self-storage and golf course property benefit factors are similarly based on average usage densities. Figure 3 below lists the benefit assessment factors for such business properties.

AGRICULTURAL, RANGELAND, AND CEMETERY PROPERTIES

Utilizing research and agricultural employment reports from UC Davis and the California Employment Development Department and other sources, this Report calculated an average usage density of 0.05 people per acre for agriculture property, 0.01 for rangelands

and timber and .10 for cemeteries. Since these properties typically are a source of mosquitoes and/or are typically closest to other sources of mosquitoes, it is reasonable to determine that the benefit to these properties is twice the usage density ratio of commercial and industrial properties. The SFE factors per 0.25 acres of land area are shown in the following Figure 3.

FIGURE 3 – COMMERCIAL/INDUSTRIAL BENEFIT ASSESSMENT FACTORS

Type of Commercial/ Industrial Land Use	Average Employees Per Acre ¹	SFE Units per Fraction Acre ²	SFE Units per Acre After 5
Commercial	24	0.500	0.500
Office	68	1.420	1.420
Shopping Center	24	0.500	0.500
Industrial	24	0.500	0.500

1. Source: San Diego Association of Governments Traffic Generators Study, University of California, Davis and other studies and sources.

2. The SFE factors for commercial and industrial parcels indicated above are applied to each fourth acre of building area or portion thereof. (Therefore, the SFE rate for any assessable parcel with 10,890 square feet or less in these categories is the SFE Units listed above.)

FIGURE 4 – OTHER LAND BENEFIT ASSESSMENT FACTORS

Other Types of Land Use	Average Employees Per Acre ¹	SFE Units per 1/4 Acre ²
Self-Storage or Parking Lot	1.00	0.021
Wineries	12.00	0.250
Golf Course	3.00	0.063
Cemeteries	1.20	0.050
Agriculture / Vineyards	0.05	0.0021
Timberland / Dry Rangeland	0.01	0.00042

1. Source: San Diego Association of Governments Traffic Generators Study, University of California, Davis and other studies and sources.

2. The SFE factors for commercial and industrial parcels indicated above are applied to each fourth acre of land area or portion thereof. (Therefore, the minimum assessment for any assessable parcel in these categories is the SFE Units listed herein.)

OTHER PROPERTIES

Article XIID stipulates that publicly owned properties must be assessed unless those properties are reasonably determined to receive no special benefit from the assessment. All properties that are specially benefited are assessed. Publicly owned property that is used for purposes similar to private residential, commercial, industrial or institutional uses is benefited and assessed at the same rate as such privately owned property.

Other public properties such as watershed parcels, parks, open space parcels are determined to, on average, receive similar benefits as a single family home. Therefore such parcels are assessed an SFE benefit factor of 1. Miscellaneous, small and other parcels such as roads, right-of-way parcels, and common areas typically do not generate significant numbers of employees, residents, customers or guests and have limited economic value. These miscellaneous parcels receive minimal benefit from the Services and are assessed an SFE benefit factor of 0.

Church parcels, institutional properties, and property used for educational purposes typically generate employees on a less consistent basis than other non-residential parcels. Many of these properties with higher population factors provide on-site management, monitoring and other control services that tend to offset some of the benefits provided by the District. Therefore, these parcels are determined to, on average, receive similar benefits as a single family home. Therefore such parcels are assessed an SFE benefit factor of 1.

Miscellaneous, small and other parcels such as roads, right-of-way parcels, and common areas typically do not generate significant numbers of employees, residents, customers or guests and have limited economic value. These miscellaneous parcels receive minimal benefit from the Services and are assessed an SFE benefit factor of 0.

DURATION OF ASSESSMENT

It is proposed that the Assessment be levied for fiscal year 2018-19 and continued every year thereafter, so long as mosquitoes remain in existence and the Alameda County Mosquito Abatement District requires funding from the Assessment for its Services in the District. As noted previously, if the Assessment and the duration of the Assessment are approved by property owners in an assessment ballot proceeding, the Assessment can continue to be levied annually after the Alameda County Mosquito Abatement District Board of Trustees approves an annually updated Engineer's Report, budget for the Assessment, Services to be provided, and other specifics of the Assessment. In addition, the District Board of Trustees must hold an annual public hearing to continue the Assessment.

APPEALS AND INTERPRETATION

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 Manager of the Alameda County Mosquito Abatement 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. Upon the

filing of any such appeal, the District Manager or his or her designee will promptly review the appeal and any information provided by the property owner. If the District Manager or his or her designee finds that the assessment should be modified, the appropriate changes shall be made to the assessment roll. If any such changes are approved after the assessment roll has been filed with Alameda County for collection, the District Manager or his or her designee is authorized to refund to the property owner the amount of any approved reduction. Any dispute over the decision of the District Manager, or his or her designee, shall be referred to the District Board of Trustees. The decision of the District Board of Trustees shall be final.

ASSESSMENT

WHEREAS, the Alameda County Mosquito Abatement District Board of Trustees contracted with the undersigned Engineer of Work to prepare and file a report presenting an estimate of costs of Services, a diagram for the benefit assessment area, an assessment of the estimated costs of Services, and the special and general benefits conferred thereby upon all assessable parcels within the Alameda County Mosquito Abatement District - Mosquito and Disease Control Assessment;

NOW, THEREFORE, the undersigned, by virtue of the power vested in me under Article XIID of the California Constitution, the Government Code and the Health and Safety Code and the order of the Alameda County Mosquito Abatement District Board of Trustees, hereby make the following determination of an assessment to cover the portion of the estimated cost of the Services, and the costs and expenses incidental thereto to be paid by the Mosquito and Disease Control Assessment.

The District has evaluated and estimated the costs of extending and providing the Services to the Assessment District. The estimated costs are summarized in Figure 1 and detailed in Figure 4, below.

The amount to be paid for the Services and the expenses incidental thereto, to be paid by the Alameda County Mosquito Abatement District for fiscal year 2018-19 is generally as follows:

FIGURE 5– SUMMARY COST ESTIMATE – FY 2018-19

Mosquito Abatement & Disease Control Services	\$2,771,706
Materials, Utilities and Supplies	\$1,125,001
Capital Equipment and Fixed Assets	\$431,223
Contingency	\$50,000
Total Mosquito Control Services and Related Expenditures	\$4,377,930
Incidentals	\$30,900
Total Budget	\$4,408,830
Less Contributions from Other Sources:	
Other Revenue	(\$3,268,570)
Net Amount To Assessments	\$1,140,260
General Contribution to Total Mosquito Control Services and Relate Expenditures	74.66%

An Assessment Diagram is hereto attached and made a part hereof showing the exterior boundaries of the assessment area. The distinctive number of each parcel or lot of land in the Mosquito and Disease Control Assessment is its Assessor Parcel Number appearing on the Assessment Roll.

I do hereby determine and apportion the net amount of the cost and expenses of the Services, including the costs and expenses incidental thereto, upon the parcels and lots of land within the Mosquito and Disease Control Assessment, in accordance with the special benefits to be received by each parcel or lot, from the Services, and more particularly set forth in this Engineer's Report.

The assessment determination is made upon the parcels or lots of land within the assessment area in proportion to the special benefits to be received by the parcels or lots of land, from the Services.

The assessment is subject to an annual increase tied to the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual increase not to exceed 3%. Any change in the CPI in excess of 3% shall be cumulatively reserved as the "Unused CPI" and shall be used to increase the maximum authorized assessment rate in years in which the CPI is less than 3%. The maximum authorized assessment rate is equal to the maximum assessment rate in the first fiscal year the assessment was levied adjusted annually by the minimum of 1) 3% or 2) the change in the CPI plus any Unused CPI as described above.

The change in the CPI from December 2016 to December 2017 was 2.94% and the Unused CPI carried forward from the previous year is 21.22%. Therefore, the maximum authorized increase in the Assessment rate for fiscal year 2018-19 is 24.16%, and the maximum authorized assessment rate is \$6.30 per single family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2018-19 at the rate of \$2.50, which is below the maximum authorized assessment rate.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the County of Alameda for the fiscal year 2018-19. For a more particular description of the property, reference is hereby made to the deeds and maps on file and of record in the office of the County Assessor of the County of Alameda.

I hereby place opposite the Assessor Parcel Number for each parcel or lot within the Assessment Roll, the proposed amount of the assessment for the fiscal year 2018-19 for each parcel or lot of land within the Alameda County Mosquito Abatement District- Mosquito and Disease Control Assessment.²³

²³ Each parcel has a uniquely calculated assessment based on the estimated level of special benefit to the property as determined in accordance with this Engineer's Report.

Dated: May 7, 2018

Engineer of Work

By _____
John W. Bliss, License No. C052091

ASSESSMENT DIAGRAM

The Alameda County Mosquito Abatement District, Mosquito and Disease Control Assessment area includes all properties within the boundaries of the Alameda County Mosquito Abatement District.

The boundaries of the Mosquito and Disease Control Assessment Area are displayed on the following Assessment Diagram.

FILED IN THE OFFICE OF THE DISTRICT MANAGER
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT
DISTRICT, COUNTY OF ALAMEDA,
CALIFORNIA, THIS _____ DAY OF _____,
20____.

SECRETARY OF THE BOARD OF TRUSTEES

RECORDED IN THE OFFICE OF THE
DISTRICT MANAGER OF THE ALAMEDA COUNTY
MOSQUITO ABATEMENT DISTRICT,
COUNTY OF ALAMEDA, CALIFORNIA,
THIS _____ DAY OF _____, 20____.

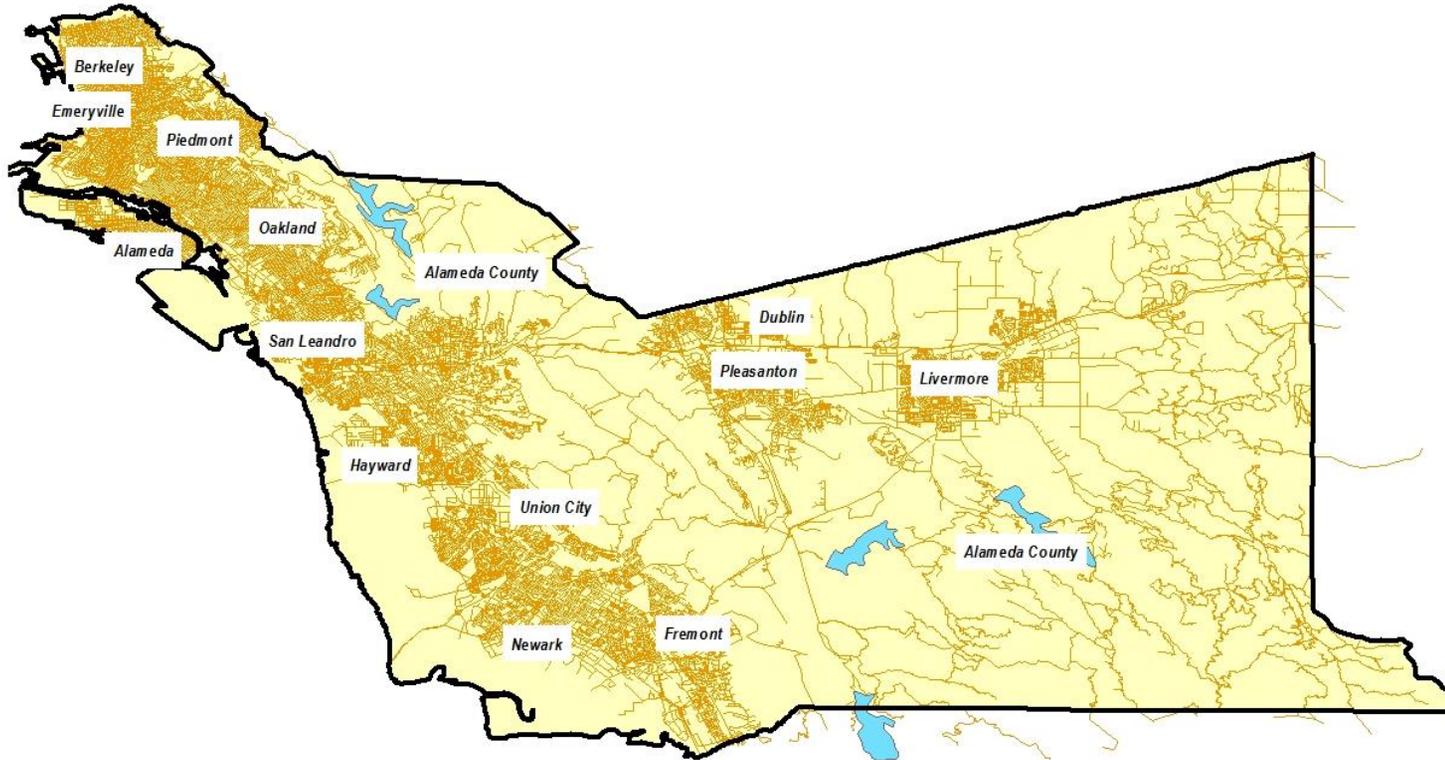
SECRETARY OF THE BOARD OF TRUSTEES

AN ASSESSMENT WAS CONFIRMED AND
LEVIED BY THE BOARD OF TRUSTEES
OF ALAMEDA COUNTY, ON THE LOTS,
PIECES AND PARCELS OF LAND
ON THIS ASSESSMENT DIAGRAM
ON THE _____ DAY OF _____, 20____
FOR THE CURRENT FISCAL YEAR
AND SAID ASSESSMENT DIAGRAM
AND THE ASSESSMENT ROLL FOR SAID
FISCAL YEAR WERE FILED IN THE OFFICE
OF THE COUNTY AUDITOR
OF THE COUNTY OF ALAMEDA
ON THE _____ DAY OF _____, 20____.
REFERENCE IS HEREBY MADE TO SAID
RECORDED ASSESSMENT ROLL
FOR THE EXACT AMOUNT OF EACH
ASSESSMENT LEVIED AGAINST
EACH PARCEL OF LAND.

SECRETARY OF THE BOARD OF TRUSTEES

FILED THIS _____ DAY OF _____, 20____ AT THE
HOUR OF _____ O'CLOCK _____ M. IN THE OFFICE
OF THE COUNTY AUDITOR OF THE COUNTY
OF ALAMEDA, STATE OF CALIFORNIA,
AT THE REQUEST OF THE BOARD OF
TRUSTEES OF THE COUNTY OF ALAMEDA,
ALAMEDA COUNTY MOSQUITO ABATEMENT
DISTRICT.

COUNTY AUDITOR, COUNTY OF ALAMEDA



Note:
REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS
OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE
COUNTY OF ALAMEDA FOR A DETAILED DESCRIPTION
OF THE LINES AND DIMENSIONS OF ANY PARCELS SHOWN
HEREIN. THOSE MAPS SHALL GOVERN FOR ALL DETAILS
CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS.
EACH PARCEL IS IDENTIFIED IN SAID MAPS BY ITS
DISTINCTIVE ASSESSOR'S PARCEL NUMBER.

SCI Consulting Group
4745 Mangels Blvd.
Fairfield, CA 94534

Legend
~ District Boundary

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
MOSQUITO AND DISEASE CONTROL ASSESSMENT DIAGRAM**

ASSESSMENT ROLL

Reference is hereby made to the Assessment Roll in and for the assessment proceedings on file in the office of the Alameda County Mosquito Abatement District, as the Assessment Roll is too voluminous to be bound with this Report.

RESOLUTION NO. 1056-1

A RESOLUTION INTENTION TO CONTINUE ASSESSMENTS FOR FISCAL YEAR 2018-19, PRELIMINARILY APPROVING THE ENGINEER'S REPORT, AND PROVIDING FOR NOTICE OF HEARING FOR THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT MOSQUITO AND DISEASE CONTROL ASSESSMENT

WHEREAS, on May 14th, 2008 by its Resolution No. 937-1, the Board of Trustees of the Alameda County Mosquito Abatement District (the "Board") authorized the levy of assessments for the Mosquito and Disease Control Assessment (the "Assessment") pursuant to the provisions of the Health and Safety Code section 2080 et seq. and Article XIID of the California Constitution; and

WHEREAS, such mosquito and disease control services provide tangible health benefits, reduced nuisance benefits and other special benefits to the public and properties within the areas of such services; and

WHEREAS, the purpose of the Assessment is for mosquito control projects and programs including projects, programs, public improvements and services intended to provide for the surveillance, prevention, abatement and control of mosquitoes and the diseases they carry throughout its boundaries ("Services"); and

WHEREAS, the Alameda County Mosquito Abatement District ("the 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 and disease control services; and

WHEREAS, the Assessment was authorized by an assessment ballot proceeding conducted in 2008 and approved by 70.19% of the weighted ballots returned by property owners, and such assessments were levied by the Board by Resolution No. 937-1, passed on May 14, 2008;

WHEREAS, an annual adjustment to the Assessment rate equal to the change in the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%, was also authorized by the assessment ballot proceeding conducted in 2008;

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Alameda County Mosquito Abatement District that:

1. SCI Consulting Group, the Engineer of Work, has prepared an Engineer's Report in accordance with Article XIID of the California Constitution and Section 2082, et. seq., of the Health and Safety Code (the "Report"). The Report has been made, filed with the secretary of the board and duly considered by the Board and is 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.
2. It is the intention of this Board to levy and collect the continued assessments for the Mosquito and Disease Control Assessment for fiscal year 2018-19 for the proposed projects and services set forth in the Report. Within the Service Area, the proposed projects, services and programs are generally described as surveillance, disease prevention, abatement, and control of mosquitoes within the District boundaries. Such mosquito control and disease prevention projects and programs include, but are not limited to, source reduction, biological control, larvicide applications, adulticide applications, disease monitoring, public education, reporting, accountability, research and interagency cooperative activities, as well as capital costs, maintenance, and operation expenses and incidental expenses (collectively "Services"). The cost of these Services also includes capital costs comprised of equipment, capital improvements and facilities necessary and incidental to the District's mosquito and disease control program.

3. The levy of the Assessment may be continued annually and may be adjusted by up to the maximum annual CPI adjustment without any additional assessment ballot proceeding. The change in the CPI from December 2016 to December 2017 was 2.94% and the Unused CPI carried forward from the previous year is 21.22%. Therefore, the maximum authorized increase in the Assessment rate for fiscal year 2018-19 is 24.16%, and the maximum authorized assessment rate is \$6.30 per single family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2018-19 at the rate of \$2.50, which is below the maximum authorized assessment rate.
4. The estimated fiscal year 2018-19 cost of providing the Services is \$ \$1,140,260. This cost results in a proposed assessment rate for fiscal year 2018-19 of TWO DOLLARS AND FIFTY CENTS (\$2.50) per single-family equivalent benefit unit. Reference is hereby made to the Report for a full and detailed description of the proposed assessments upon assessable lots and parcels of land.
5. Notice is hereby given that on June 13, 2018, at the hour of 5:00 p.m. at the Alameda County Mosquito Abatement District office located at 23187 Connecticut Street, Hayward, California; the Board will hold a public hearing to consider the ordering of the Services, and the levy of the continued assessments for fiscal year 2018-19.
6. The clerk of the board shall cause a notice of the hearing to be given by publishing a notice, at least ten (10) days prior to the date of the hearing above specified, in a newspaper circulated in the District.

PASSED and ADOPTED by the Board of Trustees of the Alameda County Mosquito Abatement District, State of California on May 19, 2018, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

President, Board of Trustees, Alameda County Mosquito
Abatement District

ATTEST:

Secretary of the Board of Trustees, Alameda County
Mosquito Abatement District

CHAPTER 300. SALARIES AND WORKING CONDITIONS OF EMPLOYEES

Section 301. Salaries

301.1 Compensation Plan

- 301.1.1 The District has developed a compensation plan that is intended to achieve and support the following goals and objectives:
- (a) The plan enables the District to recruit and retain highly qualified employees;
 - (b) The plan provides equitable salaries within a structure where positions are paid in appropriate relationship to each other in the organization and comparable agencies;
 - (c) The plan recognizes employee performance and motivates employees to improve their level of performance on the job; and
 - (d) The plan is flexible in administration.
- 301.1.2 Salaries, benefits and working conditions are subject to the meet and confer process with recognized employee bargaining units. In establishing a framework for review of compensation, the District takes into account compensation in place in Alameda County as well as adjacent mosquito abatement districts, unless otherwise modified through the bargaining process.
- 301.1.3 The salary of the General Manager shall be considered independently of other District positions.

301.2 Salary Steps

- 301.2.1 Entry-level field personnel shall be hired at the position of Assistant Mosquito Control Technician for a minimum of six months and until certification as a Mosquito Control Technician is received, at which time they shall advance to the position of Mosquito Control Technician. The salary for the position of Assistant Mosquito Control Technician is approximately 5% below that of Mosquito Control Technician step 1.
- 301.2.2 The recommended plan for the positions of Mosquito Control Technicians, Accounting Associate, Lab Director, and Field Operations Supervisor consists of a series of salary ranges, each containing five steps. Each step is approximately 5% above the preceding step in that range.

- 301.2.3 For each salary range, the first step is considered the entrance rate and the top step the maximum, unless the General Manager finds merit the candidate possesses exceptional skills or qualifications that would be highly beneficial to the District; or due to the difficult nature of the recruitment, few qualified candidates were available and it is necessary to hire at an advanced step in order to obtain a person to fill the vacancy. Ordinarily, new employees would be started at the minimum rate and progress to the second step after six months of satisfactory service. The third step is achieved after an additional six months of satisfactory service. Each remaining step is reached after one year of satisfactory service at the preceding step. This provision applies to all represented employees.
- 301.2.4 The position of Vector Biologist consists of two steps. Vector Biologist step 2 is 5% above the salary range of step 1 and can be achieved after one year of satisfactory service.
- 301.2.5 The positions of IT Director, Regulatory & Public Affairs Director, Mechanical Specialist, and Laboratory Scientist consist of a series of salary ranges, each containing five steps. Each step is 2.5% above the preceding step in that range. Progression from step 1 through step 5 follows the plan described in 301.2.3, above.
- 301.2.6 If an employee is promoted or changes position in the District service to another position in a higher salary schedule, the salary shall be the amount provided in the schedule step for the new position, which is at least one step higher than the amount received in the former position, but may not exceed the salary schedule. Such salary will be pro-rated from the effective date of promotion to the end of the subject pay period. The date of promotion or advancement will be the new anniversary date established for the employee for purposes of evaluation and advancement in the salary range.
- 301.2.7 The Board may provide for longevity pay as agreed upon in the Employees' Association Memorandum of Understanding.

301.3. Workweek and Pay Days

- 301.3.1 The standard workweek is defined as any consecutive seven-day period at 12:00 a.m. of any Sunday and ending at 11:59 p.m. the following Saturday.
- 301.3.2 Established paydays for the District are the 15th and last working day of the month. Employees will be paid for time worked from the 1st through the 15th on the 15th of the month; time worked between the 16th and the end of the month will be paid on the last working day of the month.

301.4. Alternate Workweek

- 301.4.1 The General Manager may approve an alternate work schedule (including a 9/80 schedule, a 4/10 schedule, or some other alternate schedule based on a 40-hour workweek) for individual employees based on staffing needs, the employee's performance and the nature of the position. An alternate work schedule for an employee may be implemented at the sole discretion of the General Manager and may be thereafter modified or eliminated as needed, at any time by the District General Manager.
- 301.4.2 Employees approved to work an alternate 9/80 work schedule will work nine (9) hours for four fixed days in each workweek, and eight (8) hours the remaining day of one workweek. The employee will be off work on the remaining day in the other workweek. As such, during the two-week work period, the employee will work a total of 44 hours one calendar week and 36 hours the other calendar week, with the hours worked split between two workweeks as defined in Section 301.4.3, below.
- 301.4.3 The Fair Labor Standards Act (FLSA) workweek for employees on the 9/80 schedule will begin and end 4 hours into the day of the week the employee is normally scheduled to have a day off. Using this method, an employee will work a total of 40 hours during each scheduled workweek. Overtime and compensation time apply to non-exempt employees for hours worked beyond 40 in any established workweek.
- 301.4.4 The employee will be eligible to request a 9/80 work schedule following at least six months of employment, subject to the recommendation of his/her supervisor, and the approval of the General Manager. Employees must complete a signed agreement approved by their supervisor and the General Manager, to be eligible for the 9/80 work schedule.
- 301.4.5 The employee will continue accruing vacation and sick leave hours at the same rate as before being assigned to an alternative work schedule. An employee who is using vacation or sick leave will be charged the number of hours of use.
- 301.4.6 Compensation for holidays will change when an employee is assigned to an alternative work schedule. Employees normally receive 8 hours of holiday pay when assigned to a regular 40 hour per week work schedule. Under the 9/80 work schedule option, an employee will continue to receive 8 hours of holiday pay, even if the holiday falls on a day when the employee is scheduled to work 9 hours. The employee will use his/her accrued compensatory time off time or vacation time to make up the one-hour difference.

301.5 Working Hours

- 301.5.1 Established hours of District operation are between 7 a.m. and 5:30 p.m. each day. Reporting times, defined as the time when employees are expected to be present and ready to start work, may vary based on the specific job requirements. The supervisor will establish the reporting times for each group of employees.
- 301.5.2 Employees must be present at their job during the “core hours” of 8 a.m. to 11 a.m. and 1:30 p.m. to 3:30 p.m., unless their supervisor and/or the General Manager modify those hours. For employees approved to use an alternate work schedule, the employee and the employee’s supervisor will establish the work hours for the employee based on established guidelines and as determined by the supervisor and General Manager.
- 301.5.3 Each employee is provided a 30-minute unpaid meal period on any workday the employee works longer than 6 hours.
- 301.5.4 Employees are entitled to take one 10-minute rest period-for every four hours of work. Rest periods may not be combined with the 30-minute meal period or be used to arrive late to work or leave work early.
- 301.5.5 Employees are expected to arrive at work at their regularly-scheduled reporting time.
- (a) If an unforeseen delay results in arriving at work 15 minutes or less past the regularly-scheduled reporting time, the employee is expected to make that time up at the end of the work shift.
 - (b) If an unforeseen delay results in arriving at work more than 15 minutes past the regular reporting time, the period of absence is to be charged to the employee’s accrued vacation balance or compensatory time off.

301.6 Overtime

- 301.6.1 “Overtime work” for a non-exempt employee is hours worked over 40 hours in any one workweek. For the purpose of calculating overtime, holidays are considered work hours. Vacation and sick hours taken during the workweek will not be credited towards overtime hours.

Overtime must be for definite work performance and ordered and approved by the supervisor or General Manager. The General Manager or authorized designee may authorize overtime work during Saturdays, Sundays or holidays for any or all personnel.

- 301.6.2 Overtime work shall be compensated at the rate of one and one-half times the base hourly rate for each hour worked in excess of 40 hours in a workweek, and two hours for each hour worked on a holiday that is recognized by the

District. Overtime may be paid in cash, or accrued as compensatory time off (CTO) as set forth in Section 301.7, below.

301.7 Compensatory Time Off (CTO)

- 301.7.1 Compensatory time off (CTO) may be granted to those non-exempt employees who work overtime as provided in Section 301.6, above, and with whom the District has a prior agreement or understanding that the employee will accept CTO in lieu of cash payment for overtime.
- 301.7.2 Compensatory time off is earned at the overtime rate (one and one-half hour for each hour worked in excess of 40 hours in a workweek and two hours for each hour worked on a holiday that is recognized by the District).
- 301.7.3 Employees are encouraged to use their accrued CTO, and the District will make every effort to grant reasonable requests for the use of CTO when sufficient advance notice is given and the workplace is not unduly disrupted.
- 301.7.4 The maximum number of CTO hours that an employee may accrue is eighty (80) hours. Any employee who has reached this maximum shall not work any additional overtime until the employee's accrued compensatory time has fallen below the maximum allowed, unless the employee receives advance written authorization and receives payment in cash for any such additional overtime.
- 301.7.5 The District reserves the right at any time to pay an employee in cash for any or all accrued compensatory time and/or to require the employee to use accumulated CTO.
- 301.7.6 Employees who separate from District service for any reason shall be paid for accrued and unused CTO.

301.8 Uniform Allowance

- 301.8.1 The District shall grant designated employees a sufficient number of uniforms to maintain an adequate supply for the changes necessary to keep same clean and in good condition, and also will supply a laundry service. The color and type of uniform will be determined by the General Manager with the cooperation of the employees.
 - (a) The uniforms will include the District's insignia placed on the shirts and jackets selected.
 - (b) The District shall also furnish each employee with name patches, to be placed on the front of the shirt or jacket so as to be visible at all times. This clothing shall be worn during working hours unless specifically

exempted by the General Manager. Uniforms shall not be modified without permission from the General Manager.

- 301.8.2 The District, in order to reduce injuries to workers, will provide an allowance not to exceed the limits set by the Board of Trustees to purchase safety boots that meet Cal/OSHA standards for toe and penetration protection. Safety shoes are to be above ankle height. Employees are to be reimbursed up to the allowance set by the Board upon presenting a receipt of purchase to the District. Employees may have the option of purchasing safety boots at an approved supplier that will then bill the District.

All employees of the District working outside of the office are required to wear approved safety boots or other approved footwear. Safety boots are not required for attending meetings or continuing education training.

301.9 Professional Development

- 301.9.1 It is the policy of the District to encourage participation by all employees in continuing education. The General Manager is authorized to reimburse employees for job-related education and training.
- 301.9.2 General Manager approval is required for any educational or training course work for which an employee will be seeking reimbursement. Approval must be granted before the course begins.
- 301.9.3 Reimbursement for approved job-related education and training will be processed, following successful completion of the course or training, upon presentation of documentation of successful completion and all associated receipts.
- 301.9.4 Training should be scheduled so that it is not disruptive to the employee's normal job duties.

302. Health and Welfare Benefits

302.1 Health, Dental, and Vision Benefits

- 302.1.1 Health Insurance is available to full-time employees of the District, as well as eligible members of the employee's family as defined in plan documents. Dental, and Vision Benefits are available to full-time employees after six months of satisfactory service. The District reserves the right to select and contract with Health, Dental and Vision Insurance providers, and to change providers and plans. Impacts associated with changes in Health, Dental and Vision Insurance coverage or carriers will be negotiated with affected employee bargaining groups.

302.1.2 District contributions to health, dental, and vision insurance premiums are negotiated as a part of the bargaining process, and are documented in the relevant Memoranda of Understanding and/or Compensation Agreements. Health Plan summaries and specific plan information are available from the General Manager or designee.

302.2 Group Term Life Insurance

Full-time regular employees are provided, at District cost, group term life insurance coverage. The General Manager or designee can provide additional information, plan documents, and literature regarding this benefit.

302.3 Unemployment Insurance

Unemployment insurance provides compensation payable to individuals unemployed through no fault of their own who are actively seeking employment and are available and able to work. The District will adhere to California Employment Development Department (EDD) unemployment insurance requirements for claim responses. The decision to provide an individual with unemployment insurance is solely at the discretion of the EDD. The General Manager or designee can provide additional information regarding this benefit.

302.4 Consolidated Omnibus Budget Reconciliation Act (COBRA)

302.4.1 Employees and dependents who lose group health coverage due to termination of employment or other “qualifying events” (i.e., death of employee, divorce or separation) may continue health and dental coverage on a self-pay basis under the COBRA option for eighteen (18) months, or the limits specified by law.

302.4.2 Upon an employee’s termination of employment, the District will issue a Notice of Right to Elect COBRA Continuation Coverage for health care coverage. To continue health care coverage under COBRA, the employee will fill out and sign forms provided by the District. The terminating employee must pay the full cost of coverage, plus the allowable administrative fee, by the deadlines set forth in the Notice.

302.5 Retirement Plan

302.5.1 Classic PERS Members. The District offers a retirement benefit package to all eligible full-time employees through the California Public Employment Retirement System (CalPERS). Full-time employees hired prior to January 1, 2013 and Classic PERS members will be covered under the 2% @ age 55 formula in CalPERS.

New PERS Members. The District offers a retirement benefit package to all full-time employees hired on or after January 1, 2013 and are New PERS members will be covered under the 2% @ age 62 formula in CalPERS.

- 302.5.2 In accordance with California Public Employees' Pension Reform Act of 2013 (CalPEPRA), as lawfully applicable, New PERS Members will contribute 50% of the cost of the CalPERS contribution rate. Service credit will be credited in accordance with CalPERS plan guidelines. More information on the retirement program can be obtained by contacting the General Manager or designee.

302.6 Social Security

Employees are not covered under the full federal Social Security program. The District participates in the federal Medicare portion of Social Security for all employees. The employee and the District contribute the mandatory amount into Medicare.

302.7 Workers' Compensation

- 302.7.1 Employees who are injured on the job, no matter how slightly, must report the incident immediately to their supervisor. Failure to follow District procedures may affect eligibility to receive Workers' Compensation benefits.
- 302.7.2 If an employee has an illness or injury that is either caused by his/her job, or incurred within the course and scope of his/her employment, the employee may be entitled to medical care and leave (time away from the job based on health care provider's orders). These benefits are administered by the District's workers' compensation carrier.
- 302.7.3 Following the required three (3)-day waiting period, the employee may be entitled to partial wage continuation during time he or she is off work due to a work-related illness or injury. This partial wage continuation will be in the form of temporary disability payments through the District's workers' compensation carrier.
- 302.7.4 The injured employee will be allowed to integrate any accrued and unused sick leave, vacation, and compensatory time off with the workers' compensation temporary disability payment to retain the full regular rate of pay. After the employee has exhausted available accrued leave the sole source of income will be the temporary disability payments through the workers' compensation carrier. Workers Compensation will run concurrently with Family Care Leave.
- 302.7.5 The District will not allow any form of retaliation against individuals who file a workers' compensation claim.

302.8 Reasonable Accommodation

In compliance with federal and state laws, the District provides reasonable accommodation for employees who are unable to perform the essential duties of their jobs due to illness or injury.

- (a) An employee may request an accommodation when an illness or injury limits the employee's ability to perform the essential duties of his or her job. An employee seeking a reasonable accommodation to perform the essential job functions of his/her job should make such a request, preferably in writing, to the General Manager. The request must identify: (a) the job-related functions at issue; and (b) the desired accommodation(s).
- (b) The District will consider the request for an accommodation consistent with federal and state laws including, but not limited to the American with Disabilities Act.
- (c) Following receipt of a request for accommodation, the General Manager may require additional information, such as reasonable documentation of the existence of a disability.
- (d) The District may require an employee to undergo a fitness for duty examination at the District's expense to determine whether the employee can perform the essential functions of the job with or without reasonable accommodation. The District may also require that a District-approved health care provider conduct the examination.
- (e) After receipt of reasonable documentation of a disability and/or a fitness for duty report, the General Manager will arrange for an interactive discussion, in person or via telephone conference call, with the employee and his/her representative(s), if any. The purpose of the discussion is to work in good faith to fully consider all feasible potential reasonable accommodations.
- (f) Following the conclusion of the interactive discussion, the ~~District~~ General Manager will determine whether reasonable accommodation(s) can be made, and the type of accommodation(s) that will be offered. The District may not provide accommodation(s) that would pose an undue hardship upon District finances or operations, or that would endanger the health or safety of the employee or others. The General Manager will inform the applicant or employee of his/her decision as to reasonable accommodation(s) in writing.
- (g) Periodic evaluation of the accommodation will be conducted and the continuance of the accommodation is not guaranteed. An accommodation may be modified, or ended at any time with notice.

Section 303. Leaves

303.1 Holidays

303.1.1 The District shall provide full-time employees time off with pay for the following recognized holidays:

- (a) January 1st, known as New Year Day;
- (b) The third Monday in January, known as “Dr. Martin Luther King Jr. Day”;
- (c) February 12th, known as “Lincoln’s Birthday”;
- (d) The third Monday in February, known as “President’s Day”;
- (e) The last Monday in May, known as “Memorial Day”;
- (f) July 4th, known as “Independence Day”;
- (g) The first Monday in September, known as “Labor Day”;
- (h) September 9th, known as “Admission Day”;
- (i) The second Monday in October, known as “Columbus Day”;
- (j) November 11th, known as “Veterans Day”;
- (k) Thanksgiving and the day after Thanksgiving;
- (l) December 24th, known as “Christmas Eve”;
- (m) December 25th, known as “Christmas”; and
- (n) Other or alternate holidays agreed upon between the District and employee bargaining groups, as documented in the Employees’ Association Memorandum of Understanding.

303.1.2 In the event that any of the holidays provided fall on Sunday, the Monday following will be observed, and in the event any of the holidays provided fall on a Saturday, the Friday preceding will be observed.

303.1.3 A day off with pay for full-time employees under this Section shall be recognized as eight (8) hours.

303.2 Vacation Leave

303.2.1 Accrual of vacation leave under the District’s vacation plan will be administered as stated below, unless modified by Employees’ Association Memorandum of Understanding. The General Manager may increase the rate of accrual for the purposes of recruitment and as a reward for consistent outstanding performance for any employee who is at the top step of the employee’s classification wage range.

<u>Years of Employment</u>	<u>Days Vacation Accrued/Month</u>
Beginning of 1 st year through end of 3 rd year	1 day/month =12 days/year

Beginning of 4 th year through end of 7 th year	11/4 days/month = 15 days/year
Beginning of 8 th year through end of 12 th year	1 2/3 day/month = 20 days/year
Beginning of 13 th year and after	2 1/12 days/month =25 days/year

- 303.2.2 Vacation leave accrued and taken in any calendar year may not exceed the number of days the employee would be entitled to for the number of years of service they have accumulated with the District.
- 303.2.3 If the General Manager determines that the best interest of the District will be served by delaying all or part of the vacation leave due such employee, unused vacation leave so accumulated shall be added to leave subsequently due, not to exceed a maximum of two years' vacation allowance in the case of any employee in a calendar year.
- 303.2.4 An employee who has reached the maximum vacation accrual level of two years allowance will cease accruing vacation until sufficient vacation is taken that the accrual balance is less than the stated maximum, unless otherwise approved by the General Manager.
- 303.2.5 Vacation credit shall begin on the first day of the month if employment began on that date, or the first business day following the first of the month; otherwise it shall begin on the first day of the succeeding calendar month.
- 303.2.6 Employees who separate from District service for any reason will be paid for accrued and unused vacation.

303.3 Sick Leave

- 303.3.1 Paid sick leave provides time off without loss of pay for reasons, and under the conditions, specified in this policy, as may be modified by MOU or applicable law. The District's Sick Leave Policy conforms to Healthy Families Act of 2014 (CA Paid Sick Leave.) Every employee should use sick leave with respect for the intent of the policy and the impact on fellow employees. All employees are responsible for the proper administration of the sick leave provision.
- 303.3.2 Accrual of paid sick leave is set forth below, as may be amended or modified by specific provisions in relevant Memoranda of Understanding and/or adopted Compensation Resolutions.
 - (a) Regular Full-time Employees: Sick leave with pay shall accrue to regular full-time employees at the rate of one work day for each calendar month of service, or according to current Memoranda of Understanding or Compensation Agreements. Sick leave credits shall accrue only while an employee is in paid status with the District.

- (b) Part-time and Seasonal Employees: After working a minimum of 30 calendar days for the District, 3 days (24 hours) of paid sick leave shall accrue to part-time, seasonal and temporary employees. The accrual will be capped at 3 days or 24 hours.

303.3.3 Approved Sick Leave may be granted to all full-time employees for the following reasons:

- (a) For the diagnosis, care or treatment of an existing health condition, or preventive health care for the employee or a member of the employee's immediate family.
- (b) Enforced quarantine of the employee in accordance with community health regulations.
- (c) To allow a victim of domestic violence and/or a victim of sexual assault to obtain relief or attempt to obtain relief to help ensure his/her health, safety, or welfare, or that of his or her child(ren).
- (d) To allow a victim of domestic violence and/or a victim of sexual assault to seek medical attention, to obtain services from a domestic violence program or psychological counseling, or to participate in safety planning.
- (e) Complication or disability resulting from or contributed to any pregnancy, termination of pregnancy, or recovery therefrom.

303.3.4 One-half (50%) of the Sick Leave accrued by a full-time employee in any one year shall be granted if needed for the reasons cited in 303.3.3(a),(c),or (d).

303.3.5 After meeting the eligibility and waiting period requirements set forth in this policy, accrued Sick Leave can be taken by eligible part-time, seasonal and temporary employees for the following reasons:

- (a) The diagnosis, care or treatment of a health condition or for preventive care of the employee or a member of the employee's immediate family.
- (b) For specified purposes when an employee is a victim of domestic violence, sexual assault or stalking.
- (c) Sick Leave under this Section can only be taken for an absence from a previously scheduled work shift.

303.3.6 Supervisory personnel are charged with the responsibility for reviewing and evaluating sick leave usage.

(a) Sick leave misuse or abuse is generally defined as use of sick leave for reasons other than are set forth in this policy. Potential indicators of abuse are:

- (1) A pattern of sick leave use involving days adjacent to scheduled days off and holidays.
- (2) Refusal or inability to provide medical substantiation when requested.
- (3) Frequent absences with vague or questionable substantiation.
- (4) Frequent or recurring exhaustion of sick leave soon after it is earned (unless for substantiated medical reasons).
- (5) Other evidence of employee activity that is inconsistent with the legitimate use of sick leave, such as usage higher than the District average for the previous calendar year (deduct serious illness or injury) and two or more indicators above.

(b) When it is determined, by investigation, that sufficient evidence exists to demonstrate that an employee has abused or is abusing or misusing the sick leave privilege, the General Manager may cause such disciplinary action to occur as deemed appropriate to deter future misuse. If it is found that the claim for sick leave was fraudulent, the claim for sick leave will not be paid. Sick leave taken under Sections 303.3.4 and 303.3.5, above, shall not be considered in determining abuse or misuse of the sick leave privilege.

303.3.7 Except for sick leave taken under Sections 303.3.4 and 303.3.5, above, the District may require a health care provider's certificate for absences due to illness when the employee has been put on notice of being suspected of misuse of sick leave and that future absences will require a health care provider's certificate. The health care provider's certificate shall be requested at the earliest possible time and prior to the employee's return to work, whenever possible. The request for a health care provider's certification will adhere to 303.3.7 (b).

(a) Fitness for Duty Exam - Any employee may be required by the General Manager to submit to an examination by a licensed health care provider or psychologist at any time, subject to sufficient cause existing, by the District at its expense in order to determine the state of the employee's health and fitness to perform assigned tasks.

(b) Privacy laws restrict employers from requesting certain medical or health information. Therefore, if asking for a health care provider's certification or other verification of absence due to illness, the District may ask when the employee is anticipated to return to work, with or without restrictions, but cannot ask for a diagnosis or prognosis.

303.3.8 Paid sick leave provides time off without loss of pay for qualifying reasons. It is a non-vested benefit which carries no cash value. Except as may be provided as Accrual Incentives or Retiree Service Credit in designed Memoranda of Understanding or Compensation Resolutions, there is no provision for a pay-out of accrued and unused sick leave upon separation from District employment.

If a part time, seasonal or temporary employee separates and returns within one (1) year of separation, unused sick leave hours shall be restored to the employee. If the employee returns after one (1) year of the previous separation, the sick leave hours shall not be restored to the employee.

303.4 Voting Time Off

303.4.1 In the event an employee does not have sufficient time outside of working hours to vote in an election, the employee may take a limited amount of time off without loss of pay to vote.

303.4.2 Voting time off should be taken at the beginning or end of the regular work schedule, whichever allows the most free time for voting and the least time off from work. An employee will be allowed a maximum of two (2) hours of voting leave on Election Day.

303.4.3 Employees should notify their supervisor of the need for time off to vote at least three (3) working days prior to Election Day.

303.5 Military Leave

303.5.1 Military leave will be granted in accordance with state and federal law. An employee requesting leave for this purpose shall promptly provide the General Manager a copy of the military orders specifying the dates, site, and purpose of the activity or mission. Within the limits of such orders, the District may determine when the leave is to be taken and may modify the employee's work schedule to accommodate the request for leave.

In an emergency situation, if orders are not available at the time of the ordered leave, oral notice should be given as soon as possible, with a copy of the military orders to be provided to the District as soon as it is available.

- 303.5.2 Employees ordered into active federal military duty as a member of the National Guard or Naval Militia will be granted military leave for a period not to exceed five (5) years, unless there is an authorized exemption. Authorized exemptions to the five-year limit include: initial enlistments lasting longer than five years, periodic National Guard and Reserve training duty, and involuntary active duty extensions and recalls.
- 303.5.3 Employees ordered to temporary active duty, or for training, will be granted military leave for a period not to exceed 180 calendar days, including time spent traveling to and from such duty.
- 303.5.4 Employees will receive District pay while on military leave, as outlined by law.
- 303.5.5 The District will continue to pay the District's portion of the cost of Health Insurance for an employee while he or she is on any military leave to the same extent it would if the employee were working, regardless of pay status in accordance with the law.
- 303.5.6 Employees on temporary military leave and who have at least one year of service with the District or at least one year of combined military/District employment service, continue to accrue the same vacation, sick leave, and holiday benefits for up to a maximum of 180 days. This provision also applies to employees who are members of the National Guard.
- (a) Employees on active military leave are not entitled to accrue sick leave or vacation during the period of Military Leave.
 - (b) Employees who are members of the National Guard and are on active military leave accrue vacation and holiday benefits, but not sick leave, for the first 30 days of active service.
- 303.5.7 An employee returning from active duty after serving in time of war or national emergency must seek reemployment within six months after completing military service, but not later than six months after the end of the war or national emergency. Reemployment rights do not extend to an employee who fails to return to his/her position within 12 months after the first date on which he or she could terminate active military service.
- (a) An employee on military leave for reasons other than war or national emergency must return to work or seek reemployment as set forth below:
 - (1) An employee whose military leave lasted from 1 to 30 days must report to the District by the beginning of the first full

regularly scheduled work day on the first full calendar day following the completion of the period of service.

- (2) An employee whose military service lasted from 31 to 180 days must submit a reemployment application (verbally or in writing) with the District no later than 14 days after the completion of the period of service.
- (3) An employee whose military leave lasted more than 180 days must submit a reemployment application (verbally or in writing) with the District no later than 90 days after the completion of the period of service.

- (b) An employee who fails to report to work or submit a reemployment application as set forth in this Section may be deemed to be on Unauthorized Leave from the District.

303.6 Family Care Leave

Although the District has fewer than 50 employees and is not required to provide family and medical leave under either the Family and Medical Leave Act (FMLA) or the California Family Rights Act (CFRA), it will grant eligible employees family care leave similar to the provisions of the FMLA and CFRA, their corresponding regulations, and this rule. If, at any time, the District employs 50 or more employees, this rule will also govern leave procedures under the FMLA and CFRA. The Family Care Leave policy may be found at Appendix 300.

303.7 Pregnancy Disability Leave

303.7.1 The District will provide up to four months, or seventeen and one-third (17 1/3) weeks of Pregnancy Disability Leave to eligible employees as required by State law. Pregnancy Disability Leave is without pay.

303.7.2 An employee who has been advised by her health care provider that she is disabled due to pregnancy or a pregnancy-related condition, and who has provided timely notice of this determination to the District, is entitled to Pregnancy Disability Leave. There is no minimum service requirement for eligibility.

303.7.3 Pregnancy Disability Leave is available when a woman is actually disabled by her pregnancy, childbirth, or a related medical condition. The reasons for leave include:

- (a) time off needed for prenatal care;
- (b) severe morning sickness;

- (c) doctor-ordered bed rest; and/or
- (d) childbirth, recovery from childbirth, and any related medical condition.

A woman does not have to be completely incapacitated or confined to her bed to qualify as being disabled by pregnancy. However, as a general rule, a woman must be, in the opinion of her health care provider, unable to perform one or more essential functions of her job without undue risk to herself or to other persons, or without undue risk to successful completion of her pregnancy.

- 303.7.4 The duration of Pregnancy Disability Leave is limited to four months (17 1/3 weeks) during the period the employee is disabled by pregnancy or a pregnancy-related condition.
- 303.7.5 Pregnancy Disability Leave may be accounted for in increments of no greater than one hour, or the increment utilized to account for use of other forms of leave (if the same is less than one hour).
- 303.7.6 An employee disabled by pregnancy is eligible for intermittent or reduced schedule leave if recommended by her treating health care provider.
 - (a) If intermittent leave is medically advisable, it may be necessary to temporarily transfer the employee to an available alternative position with an equivalent rate of pay and benefits.
 - (b) The employee must be qualified for the available alternative position.
 - (c) The equivalent position must better accommodate recurring periods of leave than the employee's regular job.
 - (d) If there is no available alternative position, the District may consider altering the employee's existing position on a temporary basis to accommodate intermittent leave or reduced schedule.
- 303.7.7 The District will consider temporary reasonable accommodations that are determined to be medically advisable by the employee's health care provider, and reasonable by the District. Temporary accommodations may include:
 - (a) Additional leave after the employee has exhausted her right to four months of Pregnancy Disability Leave;

- (b) Transfer to a less strenuous or hazardous position if the employee's health care provider states that it is medically advisable and the employee is qualified for the position;
- (c) Creation of a temporary light-duty assignment, or modification of current job on a temporary basis;
- (d) Modifying the work schedule on a temporary basis; and/or
- (e) Allowing more frequent restroom breaks.

303.7.8 An employee seeking a temporary accommodation in conjunction with pregnancy or a pregnancy-related condition shall provide notice of the need for such an accommodation in advance of the needed accommodation, unless such notice is not possible.

- (a) The request for accommodation must include Medical Certification that documents the specific limitations the health care provider has set forth for the employee, as well as the anticipated duration of those limitations.
- (b) The District shall engage in an interactive process with an employee seeking a temporary accommodation in conjunction with pregnancy or a pregnancy-related condition to identify, discuss, evaluate, and implement accommodations that are consistent with the recommendations of the health care provider.

303.7.9 Employees on approved Pregnancy Disability Leave will be required to exhaust accumulated leave balances before being placed on unpaid leave.

303.7.10 The District will continue to pay the District's portion of the cost of "Health Insurance" for an employee while she is on an approved Pregnancy Disability Leave to the same extent it would if the employee were working, regardless of pay status, for a maximum of four (4) months.

- (a) "Health Insurance" is defined as medical, vision, and dental insurance. The employee must continue to pay his/her employee contribution to Health Insurance either through payroll deduction while using leave balances, or by direct payment to the District while on unpaid leave.
- (b) Coverage on a particular plan may be dropped if the employee is more than 30 days late in making a premium payment. However, the employee shall receive a notice at least 15 days

before coverage is to cease, advising that she will be dropped if the premium payment is not paid by a certain date.

- (c) Contribution amounts for all employees are subject to any change if changes in rates occur while the employee is on leave.
- (d) The total combined duration of District contribution toward Health Insurance available during unpaid leaves due to any combination of pregnancy disability, the employee's serious health condition, and family care purposes will not exceed twenty-nine and one-third (29.33) weeks in a twelve (12) month period.

303.7.11 Leave available under the California Family Rights Act will not run concurrently with Pregnancy Disability Leave. An employee may have separate eligibility for "bonding" leave following the birth of a child under the California Family Rights Act. Refer to the District Family and Medical Care Leave policy for information about eligibility requirements.

303.7.12 Employees must provide at least thirty (30) days' advance notice of the need for Pregnancy Disability Leave, or the need for a temporary reasonable accommodation, or transfer in conjunction with pregnancy, if the need is foreseeable. If such notice is not possible due to a change in circumstances, medical emergency, or other good cause, the employee is required to provide notice as soon as practicable.

303.7.13 Medical certification will be required to support the need for Pregnancy Disability Leave or other reasonable accommodation in conjunction with pregnancy or a pregnancy-related condition.

(a) Medical certification is to be provided by the employee's health care provider, and must include:

- (1) the date on which the employee became disabled due to pregnancy;
- (2) the anticipated duration of the period of disability; and
- (3) an explanatory statement that, due to the disability, the employee is unable to work at all, or is unable to perform any one or more of the essential functions of her position without undue risk to herself, the successful completion of her pregnancy, or to other persons.

303.7.14 An employee returning from Pregnancy Disability Leave or temporary accommodation shall be reinstated to the same position she held prior to taking leave or undertaking a temporary

accommodation in conjunction with pregnancy or a pregnancy-related condition, except as provided below.

- (a) The employee may not be reinstated to the exact same position if the employee would not have been employed for reasons unrelated to the leave, such as a layoff.
- (b) If the exact same position is not available, the employee will be reinstated to a comparable position. A comparable position is one that is virtually identical to the employee's previously held position, including wages, benefits, working conditions, and shift.

303.7.15 Lactation

In accordance with California Labor Code section 1030, the District shall provide a reasonable amount of break time to accommodate an employee desiring to express breast milk for the employee's infant child. The break time, if possible, shall run concurrently with the employee's regular break time.

In accordance with California Labor Code section 1031, the District shall make all reasonable efforts to provide the employee with the use of a room or other location, other than the restroom, in close proximity to the employee's work area, for the employee to express milk in private.

303.8 Bereavement Leave

- 303.8.1 A leave of absence with pay because of death in the immediate family of a person in the District employ, as defined in Section 303.15, below, may be granted by the General Manager for a period not to exceed three days.
- 303.8.2 For out-of-state funerals the Board authorizes an additional day (for a total of four days).
- 303.8.3 Entitlement to a leave of absence under this Section shall be in addition to any sick leave, emergency leave, or any other leave to which the employee may be entitled.

303.9 Jury Duty

- 303.9.1 The District will grant time off in conjunction with service on a jury in response to a subpoena pursuant to the requirements of the Federal Jury System Improvement Act of 1978 and California Labor Code section 230. Compensation during authorized jury will be provided pursuant to the terms of this policy, as may be modified by relevant Memoranda of Understanding or approved Compensation Agreements. Proof of jury duty must be provided to District.

- 303.9.2 In the event an employee is called for jury duty, no deduction from salary will be made for the absence while serving as a juror or in answering the call for jury duty; provided, however, that the employee shall endorse payments from the Courts for jury duty to the District.
- 303.9.3 Employees may retain any reimbursement for mileage issued by the Courts in conjunction with jury service.
- 303.9.4 Employees called to jury duty must report to work before or return to work following their service whenever practical.
- (a) If an employee does not have to report to the jury room/court for full days in the midst of their service, he or she is expected to report to work whenever practical.
 - (b) An employee's failure to report to work may be considered to be an absence without leave and could be subject to disciplinary action.
 - (c) Employees who must report for jury duty on their regular days off will not be eligible for jury duty pay. Such service is considered to be a civic duty and not compensable by the District.
- 303.9.5 In the event an employee is subpoenaed to appear as a witness in a trial related to District business, no deduction from salary will be made for the absence while serving as a witness or in answering the subpoena; provided, however, that the employee shall endorse all payments, if any, for witness duty to the District.

303.10 School Activities Leave

- 303.10.1 Parents, guardians, grandparents, or individuals serving as parents with custody of minor children are entitled to take up to forty (40) hours of time off work each year to attend school-related activities for the following reasons:
- (a) when a student has been suspended and the parent, guardian or grandparent is required to appear at the school pursuant to the school's request; and/or
 - (b) to attend designated Child-Related activities. Child-Related activities include: attending school functions, activities and programs; finding, enrolling or reenrolling a child in a school or with a licensed child care provider; addressing a child care or school emergency, including closure or unexpected unavailability of the school (excluding planned holidays) or a natural disaster.

- 303.10.2 Except for the need to address a child care provider or school emergency, the use of School Activities Leave is limited to 8 hours per month.
- 303.10.3 The District may require proof of an employee's participation in these activities.
- 303.10.4 The employee must provide reasonable advance notice to his or her supervisor before taking any time off under this policy.
- 303.10.5 Employees must use accrued paid time off for the absence. If the employee does not have any accrued paid time off, the absence will be unpaid. However, exempt employees will be paid their full salary for any week in which they perform any work for the District that is interrupted by the need for time off under this policy.

303.11 Time Off for Crime Victims

- 303.11.1 Employees who have been victims of serious or violent felonies, as specified under California law, or felonies relating to theft or embezzlement, may take time off work to attend judicial proceedings related to the crime.
- 303.11.2 Employees also may take time off if an immediate family member has been a victim of such a crime and the employee needs to attend judicial proceedings related to the crime.
- 303.11.3 Employees must give their supervisor a copy of the court notice given to the victim of each scheduled proceeding before taking time off, unless advance notice to the District of the need for time off is not feasible. When advance notice is not feasible, the employee must provide the District with documentation evidencing the judicial proceeding, within a reasonable time after the absence. The documentation may be from the court or government agency setting the hearing, the district attorney or prosecuting attorney's office, or the victim/witness office that is advocating on behalf of the victim.
- 303.11.4 Employees will be paid under this section only to the extent they have accrued vacation or compensatory time off available.

303.12 Catastrophic Leave

- 303.12.1 A leave of absence with pay for up to five days annually may be granted in the case of a catastrophic event (such as earthquake, flood or fire) that directly impacts the employee, or a member of the employee's immediate family as defined in Section 303.15, below. Employees must request and receive approval from the General Manager to receive paid Catastrophic Leave. Catastrophic Leave

shall be in addition to any other entitled sick, vacation or other leave benefit.

303.13 Medical Leave Donation Program

- 303.13.1 Any District employee who accrues vacation credit may voluntarily donate those credits to any other District employee if the recipient employee experiences a catastrophic illness or injury and has exhausted all accrued leave credits, i.e. sick leave, vacation, compensatory time off, due to illness or injury, including pregnancy and maternity leave.
- 303.13.2 Employees may donate a maximum of forty (40) hours of vacation per fiscal year in increments of eight hours in support of fellow employees who experience a catastrophic illness or injury. Unused donated time will be returned proportionally to the donors.
- 303.13.3 Donated time will be “banked,” using the value of each hour of donated time as the basis for credit.
- 303.13.4 An employee may request a grant of donated time under the program when he/she has a catastrophic illness or injury, and has exhausted all accrued paid leave benefits. Grants may be requested when the employee must care for a member of his/her immediate family under the same conditions. The request must include documentation of the catastrophic illness or injury, the limitations of that condition, and the anticipated duration of the condition.
- 303.13.5 A request for donated time under this program may be submitted by the legal representative or an employee’s immediate family member with the employee’s authorization. The request must include documentation of the catastrophic illness or injury, the limitations of that condition, and the anticipated duration of the condition.
- 303.13.6 Grants of donated time will be approved by the General Manager, with consideration being given to the amount of available donated time and the demonstrated need of the employee. In no event will a grant of donated time be approved for an employee who has a history or record of sick leave abuse or failure to responsibly use accrued leave benefits.
- 303.13.7 Grants will be awarded as hours from the leave bank. Donated vacation credit may not exceed continuance of the employee’s regular rate of compensation.
- 303.13.8 While an employee is on catastrophic leave using donated time, the employee shall not accrue any vacation or sick leave.

303.13.9 Donations are subject to applicable tax laws. Recipient employees will be responsible for any applicable state and federal income taxes on the donated time. There is no tax liability to donors.

303.14 Leave Without Pay

303.14.1 A leave of absence without pay may be granted by the Board of Trustees upon the request of a District employee and recommendation of the General Manager, but such leave shall not be for longer than six months

303.14.2 Unless otherwise specifically provided in the policies in this Chapter, or set forth in provisions of the Employee's Memorandum of Understanding, the General Manager is directed NOT to pay the health benefits of employees at any time that they are on leave without pay from the District.

303.15 Definition of Immediate Family

303.15.1 The definition of "Immediate Family" shall be consistently applied to all leave policies set forth in this Chapter. The District purposefully elects a broad and consistent definition, which may, in some circumstances, be beyond what is required by law and regulation, to ensure efficient and consistent administration of leave policies.

303.15.2 For purposes of leave administration in this Chapter, "Immediate Family" is defined as an employee's: Spouse (including a lawfully married same-sex spouse), state registered domestic partner, child, (including a biological, adopted, or foster child, legal ward, or a child to whom the employee stands in loco parentis) child of registered domestic partner, stepchild, brother, stepbrother, sister, stepsister, mother, stepmother, father, stepfather, parent-in-law, grandparent and grandchild.

Section 304. Probation and Performance Management

304.1 Probationary Period

304.1.1 The probationary period is regarded as a part of the selection process for regular employees and is utilized for the purpose of determining the employee's ability to satisfactorily perform the essential job duties, with or without reasonable accommodations, prescribed for the position, and determining the employee's ability to work with other employees. All probationary employees are considered to be "at-will." Temporary, part-time, and seasonal employees are at-will employees and are not subject to a

probationary period. The probationary period policy does not apply to at-will management employees.

- 304.1.2 All initial and promotional appointments shall be tentative and subject to a probationary period of actual District service in the new position. The probationary period does not include time served under any temporary or provisional appointment. The length of the initial and promotional probationary period shall be six (6) months for all full-time employees.
- 304.1.3 The probationary period of an individual employee may be extended by the General Manager prior to the expiration of probation, upon the request of the supervisor and approved by the General Manager, for a period not to exceed an additional six (6) months.
 - (a) Probation may be extended if there has been insufficient opportunity to fully evaluate the employee's ability to perform the duties prescribed for the regular position. Such an extension must be approved by the General Manager, and the employee shall be notified in writing of the extension of the probationary period.
 - (b) If the number of leaves of absences (paid or unpaid) totals thirty (30) or more days, it will automatically extend the probationary period the equivalent amount of time the employee was absent from work.
- 304.1.4 A supervisor may determine that a probationary employee should not pass probation at any time during the employee's probationary period or extension thereof. When the supervisor makes such a determination, he/she shall notify the General Manager in writing. Upon approval of the General Manager, the supervisor shall terminate employment of the probationary employee by written notice prior to the expiration of probation.
- 304.1.5 Probationary employees serve in an at-will capacity. Any release from probation shall not be for cause but rather, because the employee failed to meet the standards of the class/position. The employee has no right of appeal of failure to pass probation.
- 304.1.6 An employee who fails to pass probation following a promotional appointment and held regular status in his/her former classification shall be reinstated to his/her former position or to a vacant position in the same classification.
- 304.1.7 If an employee is promoted during a probationary period, the employee shall serve the probationary period in the new position. If the employee does not pass the probationary period of the

promotion, there are no specific employee rights to return to his/her previous job, since regular status was not obtained.

304.2 Performance Evaluations

- 304.2.1 The performance management system at the District is designed to motivate, recognize and reward employees' efforts and achievements. The District strives to create a work environment in which employees are recognized and rewarded for their contributions and where employees understand, contribute and help meet the District's overall goals.
- 304.2.2 Goal-oriented performance objectives should be established and clearly communicated for each employee. Both performance and behavioral objectives may be established. It is important that employees understand the District's expectations.
- 304.2.3 The District encourages individual feedback to employees on a regular basis. The District's performance management system is designed so that each regular full-time employee will be evaluated at least annually, and quarterly while the employee is on probation.
- 304.2.4 Employees will be eligible for consideration of a salary step increase in conjunction with the annual evaluation. The first increase will be considered with the evaluation at the employee's six-month anniversary.
- 304.2.5 All employee evaluations shall be prepared in written form and shall be signed by the employee's supervisor. (The General Manager's supervisor is the Board of Trustees or its chosen representatives.)
- 304.2.6 For each evaluation, there shall be a performance evaluation review meeting between the employee and the employee's supervisor, during which the written evaluation shall be presented and discussed.
 - (a) Upon completion of the performance evaluation review meeting, the employee shall sign the evaluation to show that the interview was completed.
 - (b) The employee shall have the opportunity to provide written comments regarding the evaluation within seven calendar days of the interview.
 - (c) The General Manager shall review the performance evaluation and employee comments. The General Manager shall sign the performance evaluation to indicate that the process was completed. A copy of the completed performance evaluation,

and the employee's comments, shall be provided to the employee. The original copy will be kept in the employee's personnel file.

- 304.2.7 An employee evaluation that is less than satisfactory requires preparation of a performance improvement plan to be signed by the employee, and a follow-up evaluation within six months.
- 304.2.8 The performance evaluation is not subject to the grievance process set forth in Chapter 700 of this Policy Manual.

Section 305. Job Abandonment

Attendance and punctuality that is observant of scheduled hours on a regular basis is an essential function of all classification. A constructive resignation occurs and is effective when an employee has been absent from duty for three (3) or more consecutive working days without authorized leave. The District may consider that a constructive resignation has occurred due to the absence, or that the absence provides a reasonable basis for believing that the employee has abandoned the job.

At minimum, one phone call in an attempt to speak with the employee will occur. A voice message may be left for the employee.

After being absent for three consecutive working days, a written notice will be sent via U.S.P.S. Priority Mail to the employee. If known, an e-mail may also be sent to the employee's personal e-mail address. The employee will be given written notice, at employee's address of record, of the circumstances of the job abandonment, and an opportunity to provide an explanation for employee's unauthorized absence. The employee will be provided five (5) calendar days to respond, in writing, why employee's employment with the District should not be terminated due to job abandonment, or can arrange for an appointment with the General Manager or designee before final action is taken to explain the unauthorized absence and failure of timely notification. The decision of the General Manager is final.

Section 306. Drug Free Workplace

- 306.1 The District is committed to providing a work environment that is safe, healthy, and free of any adverse effects caused by alcohol or controlled substances. The District is concerned about employees or other persons working, contracting, or volunteering with the District being under the influence of alcohol, drugs, and/or controlled substances at work or while on District premises. The purpose of this policy is to promote a drug and alcohol-free workplace and to eliminate substance abuse and its effects in the workplace.

- 306.2 A District employee is prohibited from working or being subject to call-in if impaired by alcohol or any controlled substance.
- 306.3 An employee must notify his/her supervisor before beginning work when taking medications or drugs that could interfere with the safe and effective performance of duties or operation of District equipment. If there is a question regarding an employee's ability to perform assigned duties safely and effectively while using prescribed medications, the District may require medical clearance.
- 306.4 Compliance with this policy is a condition of District employment. Disciplinary action will be taken against those who violate this policy.
- 306.5 In order to promote a safe, productive, and efficient workplace, the District has the right to search and inspect all District property, including but not limited to lockers, storage areas, furniture, District vehicles, and other places under the common or joint control of the District and employees, without prior notice. No employee has any expectation of privacy in any District building, property, or communications system. No personal property items, such as personal cell phones or other personal electronic devices, purses, backpacks, briefcases, etc., will be searched under this policy.
- 306.6 Except as provided otherwise in a Memorandum of Understanding, the District has discretion to test a current employee for alcohol or drugs following any work-related accident or any violation of safety precautions or standards.

Section 307. Workplace Violence

The goal of the District is to provide every employee a safe work environment. To this end it is the District's policy that violence, or the threat of violence, in the workplace will not be tolerated in any form. It is inappropriate to use violence or threats of violence for any reason or to in any way interfere with providing a safe workplace. Violence, or the threat of violence, against or by any employee of the District or any other person is unacceptable.

- 307.1 Should a non-employee or District Trustee on District property demonstrate or threaten violent behavior, the District will call law enforcement and he/she may be subject to criminal prosecution. Should an employee demonstrate or threaten violent behavior, he/she may be subject to disciplinary action up to and including termination.
- 307.2 The following actions are considered violent acts, but not limited:
- (a) Striking, punching, slapping or assaulting another person.
 - (b) Fighting or challenging another person to a fight.
 - (c) Grabbing, pinching or touching another person in an unwanted way whether sexually or otherwise.

- (d) Engaging in dangerous, threatening or unwanted horseplay.
 - (e) Threat with the use of a gun, knife or other weapon of any kind on District property, including parking lots, other interior and exterior premises, District vehicles, or while engaged in activities for the District in other locations.
 - (f) Verbal assaults. Verbal assaults are statements that would place a reasonable person in fear of harm for the safety of himself/herself or others and that serve no legitimate workplace purpose.
 - (g) Threatening harm or harming another person, or any other action or conduct that implies the threat of bodily harm.
- 307.3 Any employee or Trustee who is a victim of any violent threatening or harassing conduct, any employee or Trustee witness to such conduct, or any employee or Trustee receiving a report of such conduct, whether the perpetrator is a District employee or a non-employee, shall immediately report the incident to their supervisor or other appropriate person in the chain of command. The General Manager must be notified.
- 307.4 No one, acting in good faith, who initiates a complaint or reports an incident under this policy will be subject to retaliation or harassment by the District.
- 307.5 Any employee reported to be a perpetrator, will be provided due process before the District takes disciplinary action.
- 307.6 Anyone who fears for the safety of persons at the scene of the violent act should call law enforcement immediately.

Section 308. Exit Interviews

- 308.1 The General Manager, or immediate supervisor, shall meet with each employee at the end of their employment at the District.

CHAPTER 300. SALARIES AND WORKING CONDITIONS OF EMPLOYEES

Section 301. Salaries

301.1 Compensation Plan

301.1.1 The District has developed a compensation plan that is intended to achieve and support the following goals and objectives:

- (a) The plan enables the District to recruit and retain highly qualified employees;
- (b) The plan provides equitable salaries within a structure where positions are paid in appropriate relationship to each other in the organization and comparable agencies;
- (c) The plan recognizes employee performance and motivates employees to improve their level of performance on the job; and
- (d) The plan is flexible in administration.

301.1.2 Salaries, benefits and working conditions are subject to the meet and confer process with recognized employee bargaining units. In establishing a framework for review of compensation, the District takes into account compensation in place in Alameda County as well as adjacent mosquito abatement districts, unless otherwise modified through the bargaining process.

301.1.3 The salary of the District General Manager shall be considered independently of other District positions.

301.2 Salary Steps

301.2.1 Entry-level field personnel shall be hired at the position of Assistant Mosquito Control Technician for a minimum of six months and until certification as a Mosquito Control Technician is received, at which time they shall advance to the position of Mosquito Control Technician. The salary for the position of Assistant Mosquito Control Technician is approximately 5% below that of Mosquito Control Technician step 1.

301.2.2 The recommended plan for the positions of Mosquito Control Technicians, ~~Accounting Associate, and Administrative Assistant, Entomologist~~ Lab Director, and Field Operations Supervisor consists of a series of salary ranges, each containing five steps. Each step is approximately 5% above the preceding step in that range.

301.2.3 For each salary range, the first step is considered the entrance rate and the top step the maximum, unless the District General Manager finds merit in a the candidate possesses exceptional skills or qualifications that would be highly beneficial to the District; or due to the difficult nature of the recruitment, few qualified candidates were available and it is necessary to hire at an advanced step in order to obtain a person to fill the vacancy. ~~candidate's related work experience and training.~~ Ordinarily, new employees would be started at the minimum rate and progress to the second step after six months of satisfactory service. The third step is achieved after an additional six months of satisfactory service. Each remaining step is reached after one year of satisfactory service at the preceding step. This provision applies to all represented employees.

301.2.4 The position of Vector Biologist consists of two steps. Vector Biologist step 2 is 5% above the salary range of step 1 and can be achieved after one year of satisfactory service.

301.2.5 The positions of Administrative Assistant, Regulatory & Public Affairs Director, Environmental Specialist, Mechanical Specialist, Mechanical Specialist, Information Technology Coordinator, IT Director, and Biological Specialist Laboratory Scientist consist of a series of salary ranges, each containing five steps. Each step is 2.5% above the preceding step in that range. Progression from step 1 through step 5 follows the plan described in 301.2.3, above.

301.2.6 If an employee is promoted or changes position in the District service to another position of in a higher salary schedule, the salary ~~received~~ shall be the amount provided in the schedule step for the ~~latter~~ new position, which is at least one step higher than the amount received in the former position, but may not exceed the salary schedule. Such salary will be pro-rated from the effective date of promotion to the end of the subject pay period. The date of promotion or advancement will be the new anniversary date established for the employee for purposes of evaluation and advancement in the salary range.

301.2.7 The Board may provide for longevity pay as agreed upon in the Employees' Association Memorandum of Understanding.

301.3. Workweek and Pay Days

301.3.1 The standard workweek ~~as used herein~~ is hereby defined as any consecutive seven-day period commencing at 12:00 a.m. of any Sunday and ending at 11:59 p.m. the following Saturday.

301.3.2 Established payday for the District are the 15th and last working day of the month. Employees will be paid for time worked from the 1st through the 15th on the 15th of the month; time worked between the 16th and the end of the month will be paid on the last working day of the month.

301.4. Alternate Workweek

301.4.1 The District General Manager may approve an alternate work schedule (including a 9/80 schedule, a 4/10 schedule, or some other alternate schedule based on a 40-hour workweek) for individual employees based on staffing needs, the employee's performance and the nature of the position. An alternate work schedule for an employee may be implemented at the sole discretion of the District General Manager and may be thereafter modified or eliminated as needed, at any time by the District General Manager.

301.4.2 Employees approved to work an alternate 9/80 work schedule will work nine (9) hours for four fixed days in each ~~one~~ workweek, and eight (8) hours the remaining day of one workweek. The employee will be off work on the ~~corresponding fifth remaining~~ day in the ~~following other~~ workweek. As such, during the two-week work period, the employee will work a total of 44 hours one calendar week and 36 hours the ~~following other~~ calendar week, with the hours worked split between two workweeks as defined in Section 301.4.3, below.

301.4.3 The Fair Labor Standards Act (FLSA) workweek for employees on the 9/80 schedule will begin ~~at "mid-day of an employee's scheduled 8-hour workday" and end "mid-day of the employee's scheduled workday on the same day of the following week."~~and end 4 hours ~~into the day of the week the employee is normally scheduled to have a day off.~~ Using this method, an employee will work a total of 40 hours during each scheduled workweek. Overtime and compensation time apply to non-exempt employees for hours worked beyond 40 in any established workweek.

301.4.4 The employee will be eligible to request a 9/80 work schedule following at least six months of employment, subject to the recommendation of his/her supervisor, and the approval of the District General Manager. Employees must complete a signed agreement approved by their supervisor and the District General Manager, to be eligible for the 9/80 work schedule.

301.4.5 The employee will continue accruing vacation and sick leave hours at the same rate as before being assigned to an alternative work

schedule. An employee who is using vacation or sick leave will be charged the number of hours of use.

- 301.4.6 Compensation for holidays will change when **an employee is** assigned to an alternative work schedule. Employees normally receive 8 hours of holiday pay when assigned to a regular 40-hour per week work schedule. Under the 9/80 work schedule option, an employee ~~will continue~~s to receive 8 hours of holiday pay, even if the holiday falls on a day when the employee is scheduled to work 9 hours. The employee will use his/her accrued compensatory time off time or vacation time to make up the one-hour difference.

301.5 Working Hours

- 301.5.1 Established hours of District operation are between 7 a.m. and 5:30 p.m. each day. Reporting times, defined as the time when employees are expected to be present and ready to start work, may vary based on the specific job requirements. The supervisor will establish the reporting times for each group of employees.
- 301.5.2 Employees must be present at their job during the “core hours” of 8 a.m. to 11 a.m. and 1:30 p.m. to 3:30 p.m., unless their supervisor and/or the District General Manager ~~these hours are~~ modifies those hours ~~by their supervisor and/or the District Manager~~. For employees approved to use an alternate work schedule, the employee and the employee’s supervisor will establish the work hours for the employee based on established guidelines and as determined by the supervisor and District General Manager.
- 301.5.3 Each employee is provided ~~required to take~~ a 30-minute unpaid meal period ~~lunch break~~ on any workday ~~that he or she~~ the employee works longer than 6 hours.
- 301.5.4 Employees are entitled to take one 10-minute ~~break~~ rest period for every four hours of work. ~~Breaks~~ Rest periods may not be combined with the 30-minute ~~lunch~~ meal period or be used to arrive late to work or leave work early.
- 301.5.5 Employees are expected to arrive at work at their regularly-scheduled reporting time.
- (a) If an unforeseen delay results in ~~arrival to~~ **arriving at** work 15 minutes or less past the regularly-scheduled reporting time, the employee is expected to make that time up at the end of the work shift.
- (b) If an unforeseen delay results in ~~arrival to~~ **arriving at** work more than 15 minutes past the regular reporting time, the period of

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absence is to be charged to the employee's accrued vacation balance or compensatory time off.

301.6 Overtime

301.6.1 "Overtime work" ~~as used herein is hereby defined as all time that for~~ a non-exempt employee of the District is required to work in excess of ~~is actual hours worked over~~ 40 hours in any one workweek. ~~For the purpose of calculating overtime, holidays are considered work hours.~~ ~~except that, in any workweek in which a holiday or holidays occur, all time worked in excess of 40 hours in a workweek, less the number of hours (but not to exceed 8 hours in any one day) normally worked by such employee on such day or days if they were not holidays shall be considered as overtime.~~ ~~Vacation, and sick, and holiday hours taken during the workweek will not be credited towards overtime hours.~~

Commented [EC2]: Holiday hours have been defined as work hours so non-exempt employees will be compensated for hours worked outside of their normally scheduled time during weeks when there are holidays.

Overtime service must be for definite work performance and ordered and approved by the supervisor or District General Manager. The District General Manager or authorized designee may authorize overtime work during Saturdays, Sundays or holidays for any or all personnel.

301.6.2 Overtime work shall be compensated at the rate of one and one-half times the regular base hourly rate for each hour worked in excess of 40 hours in a workweek, and two hours for each hour worked on a holiday that is recognized by the District. Overtime may be paid in cash, or accrued as compensatory time off (CTO) as set forth in Section 301.7, below.

301.7 Compensatory Time Off (CTO)

301.7.1 Compensatory time off (CTO) may be granted to those non-exempt employees who work overtime as provided in Section 301.6, above, and with whom the District has a prior agreement or understanding that the employee will accept CTO compensatory time in lieu of cash payment for overtime.

301.7.2 Compensatory time off is earned at the overtime rate (one and one-half hour for each hour worked in excess of 40 hours in a workweek and two hours for each hour worked on a holiday that is recognized by the District).

301.7.3 Employees are encouraged to use their accrued CTO compensatory time, and the District will make every effort to grant reasonable requests for the use of compensatory time CTO when sufficient advance notice is given and the workplace is not unduly disrupted.

301.7.4 The maximum number of ~~compensatory time~~ CTO hours that an employee may accrue is eighty (80) hours. Any employee who has reached this maximum shall not work any additional overtime until the employee's accrued compensatory time has fallen below the maximum allowed, unless the employee receives advance written authorization and receives payment in cash for any such additional overtime.

301.7.5 The District reserves the right at any time to pay an employee in cash for any or all accrued compensatory time and/or to require the employee to use accumulated CTO ~~compensatory time~~.

301.7.6 Employees who separate from District service for any reason shall be paid for accrued and unused CTO ~~compensatory time-off~~.

301.8 Uniform Allowance

301.8.1 The District shall grant designated employees a sufficient number of uniforms to maintain an adequate supply for the changes necessary to keep same clean and in good condition, and also **will** supply a laundry service. ~~for said uniforms, The color and type of uniform will~~ to be determined by the District General Manager with the cooperation of the employees.

(a) ~~The District uniforms will include the District's insignia, to be placed on the shirts and jackets selected.~~

(b) The District shall also furnish each employee with name patches, to be placed on the front of the shirt or jacket so as to be visible at all times. This clothing shall be worn during working hours unless specifically exempted by the District General Manager. Uniforms shall not be modified without permission from the District General Manager.

301.8.2 The District, in order to reduce injuries to workers, will provide an allowance not to exceed the limits set by the Board of Trustees to purchase safety boots that meet Cal/OSHA standards for toe and penetration protection. Safety shoes are to be above ankle height. Employees are to be reimbursed up to the allowance set by the Board upon presenting a receipt of purchase to the District. Employees may have the option of purchasing safety boots at an approved supplier that will ~~then~~ bill the District.

(a) All employees of the District working outside of the office are required to wear approved safety boots or other approved footwear. Safety boots are not required for attending meetings or continuing education training.

301.9 Professional Development

- 301.9.1 It is the policy of the District to encourage participation by all employees in continuing education. The District General Manager is authorized to reimburse employees for job-related education and training.
- 301.9.2 District General Manager approval is required for any educational or training course work for which an employee will be seeking reimbursement. Such Approval must be granted before the course begins.
- 301.9.3 Reimbursement for approved job-related education and training will be processed, following successful completion of the course or training, upon presentation of documentation of successful completion and all associated receipts.
- 301.9.4 Training should be scheduled so that it is not disruptive to the employee's normal job duties.

302. Health and Welfare Benefits

302.1 Health, Dental, and Vision Benefits

- 302.1.1 Health Insurance is available to full-time employees of the District, as well as eligible members of the employee's family as defined in plan documents. Dental, and Vision Benefits are available to full-time employees after six months of satisfactory service. The District reserves the right to select and contract with Health, Dental and Vision Insurance providers, and to change providers and plans. Impacts associated with changes in Health, Dental and Vision Insurance coverage or carriers will be negotiated with affected employee bargaining groups.
- 302.1.2 District contributions to health, dental, and vision insurance premiums are negotiated as a part of the bargaining process, and are documented in the relevant Memoranda of Understanding and/or Compensation Agreements. Health Plan summaries and specific plan information are available from the District General Manager or designee.

302.2 Group Term Life Insurance

Full-time regular employees are provided, at District cost, group term life insurance coverage. The District General Manager or designee can provide additional information, plan documents and literature regarding this benefit.

302.3 Unemployment Insurance

Unemployment insurance provides compensation payable to individuals unemployed through no fault of their own who are actively seeking employment and are available and able to work. The District will adhere to California Employment Development Department (EDD) unemployment insurance requirements for claim responses. The decision to provide an individual with unemployment insurance is solely at the discretion of the EDD. The District General Manager or designee can provide additional information regarding this benefit.

302.4 Consolidated Omnibus Budget Reconciliation Act (COBRA)

302.4.1 Employees and dependents who lose group health coverage due to termination of employment or other “qualifying events” (i.e., death of employee, divorce or separation) may continue health and dental coverage on a self-pay basis under the COBRA option for eighteen (18) months, or the limits specified by law.

302.4.2 Upon an employee’s termination of employment, the District will issue a Notice of Right to Elect COBRA Continuation Coverage for health care coverage. To continue health care coverage under COBRA, the employee will fill out and sign forms provided by the District. The terminating employee must pay the full cost of coverage, plus the allowable administrative fee, by the deadlines set forth in the Notice.

302.5 Retirement Plan

302.5.1 Classic PERS Members. The District offers a retirement benefit package to all eligible full-time employees through the California Public Employment Retirement System (CalPERS). Full-time employees hired prior to January 1, 2013 and Classic PERS members will be covered under the 2% @ age 55 formula in CalPERS.

New PERS Members. The District offers a retirement benefit package to all full-time employees hired on or after January 1, 2013 and are New PERS members will be covered under the 2% @ age 62 formula in CalPERS.

302.5.2 In accordance with California Public Employees’ Pension Reform Act of 2013 (CalPEPRA), as lawfully applicable, ~~employees hired after January 1, 2013~~ New PERS Members will contribute 50% of the cost of the CalPERS contribution rate. Service credit will be credited in accordance with CalPERS plan guidelines. More information on the retirement program can be obtained by contacting the District General Manager or designee.

302.6 Social Security

Employees are not covered under the full federal Social Security program. The District participates in the federal Medicare portion of Social Security for all employees. The employee and the District contribute the mandatory 1.45% each amount into Medicare.

302.7 Workers' Compensation

302.7.1 Employees who are injured on the job, no matter how slightly, must report the incident immediately to their supervisor. Failure to follow District procedures may affect eligibility to receive Workers' Compensation benefits.

302.7.2 If an employee has an illness or injury that is either caused by his/her job, or incurred within the course and scope of his/her employment, the employee may be entitled to medical care and industrial leave (time away from the job based on doctor's medicalhealth care provider's orders). These benefits are administered by the District's workers' compensation carrier.

302.7.3 Following the required three (3)-day waiting period, the employee may be entitled to partial wage continuation during time he or she is off work due to a work-related illness or injury. This partial wage continuation will be in the form of temporary disability payments through the District's workers' compensation carrier.

302.7.4 The injured employee will be allowed to integrate any accrued and unused sick leave, vacation, and compensatory time off with the workers' compensation temporary disability payment to retain the full regular rate of pay. After the employee has exhausted available accrued leave the sole source of income will be the temporary disability payments through the workers' compensation carrier.
Workers Compensation will run concurrently with Family Care Leave.

302.7.5 302.7.7-The District will not allow any form of retaliation against individuals who file a workers' compensation claim.

302.8 Reasonable Accommodation

302.7.5 In compliance with federal and state laws, the District provides reasonable accommodation a temporary light duty program for employees who are unable to perform the essential duties of their jobs due to illness or injury, sustain a workplace injury or illness.

(a) An employee may request an accommodation when an illness or injury limits the employee's ability to perform the essential duties of his or her job. The District will provide a temporary modified or light duty assignment, as available to an employee with an approved workers' compensation

Commented [EC3]: For consistency throughout the document (see sections 303.7.7, 303.7.13, and Appendix 300-1)

Commented [BB4]: REASONABLE ACCOMMODATION PROCESS MUST BE PROVIDED FOR INDUSTRIAL AND NON-INDUSTRIAL ILLNESS & INJURIES. DON'T PUT THIS INFORMATION ONLY UNDER WORKERS' COMP.

~~claim, once the employee has been released to temporary modified/restricted work by his/her treating physician. An employee seeking a reasonable accommodation to perform the essential job functions of his/her job should make such a request, preferably in writing, to the District General Manager. The request must identify: (a) the job-related functions at issue; and (b) the desired accommodation(s).~~

Commented [BB5]: MOVED FROM 505.3

~~(b) The District will consider the request for an accommodation consistent with federal and state laws including, but not limited to the American with Disabilities Act. Placement into a light duty position is on a temporary basis and should never become permanent. In no event shall a temporary light duty assignment exceed six (6) months.~~

~~(c) Following receipt of a request for accommodation, the District General Manager may require additional information, such as reasonable documentation of the existence of a disability.~~

Commented [BB6]: MOVED FROM 505.4

~~(d) The District may require an employee to undergo a fitness for duty examination at the District's expense to determine whether the employee can perform the essential functions of the job with or without reasonable accommodation. The District may also require that a District-approved medical/health care provider conduct the examination.~~

Commented [BB7]: MOVED FROM 503.5

~~(e) After receipt of reasonable documentation of a disability and/or a fitness for duty report, the District General Manager will arrange for an interactive discussion, in person or via telephone conference call, with the employee and his/her representative(s), if any. The purpose of the discussion is to work in good faith to fully consider all feasible potential reasonable accommodations.~~

Commented [BB8]: MOVED FROM 503.6

~~(f) Following the conclusion of the interactive discussion, the District General Manager will determine whether reasonable accommodation(s) can be made, and the type of accommodation(s) that will be offered. The District may not provide accommodation(s) that would pose an undue hardship upon District finances or operations, or that would endanger the health or safety of the employee or others. The District General Manager will inform the applicant or employee of his/her decision as to reasonable accommodation(s) in writing.~~

Commented [BB9]: MOVED FROM 503.7

~~(ge) Light duty Periodic evaluation of the accommodation will be conducted and the continuance of the accommodation is not guaranteed. An accommodation is not guaranteed, and may be modified, or ended at any time with notice, even if the employee's physician has not released him/her to regular duty.~~

~~302.7.6 If the treating physician has not cleared the injured employee to return to full duty the end of the light duty assignment or by the conclusion of the maximum period of industrial leave, the employee~~

may be entitled to the reasonable accommodation processes set forth under the provisions of the Americans with Disabilities Act.

~~302.7.7 The District will not allow any form of retaliation against individuals who file a workers' compensation claim.~~

Section 303. Leaves

303.1 Holidays

303.1.1 The District shall provide full-time employees time off with pay for the following recognized holidays:

- (a) January 1st, known as New Year Day;
- (b) The third Monday in January, known as "Dr. Martin Luther King Jr. Day";
- (c) February 12th, known as "Lincoln's Birthday";
- (d) The third Monday in February, known as "President's Day";
- (e) The last Monday in May, known as "Memorial Day";
- (f) July 4th, known as "Independence Day";
- (g) The first Monday in September, known as "Labor Day";
- (h) September 9th, known as "Admission Day";
- (i) The second Monday in October, known as "Columbus Day";
- (j) November 11th, known as "Veterans Day";
- (k) Thanksgiving and the day after Thanksgiving;
- (l) December 24th, known as "Christmas Eve";
- (m) December 25th, known as "Christmas"; and
- (n) Other or alternate holidays agreed upon between the District and employee bargaining groups, as documented in the Employees' Association Memorandum of Understanding.

303.1.2 In the event that any of the holidays provided for herein shall fall on Sunday, the Monday following will be observed, and in the event any of the holidays provided for herein shall fall on a Saturday, the Friday preceding will be observed.

303.1.3 A day off with pay for full-time employees under this Section shall be recognized as eight (8) hours.

303.2 Vacation Leave

303.2.1 Accrual of vacation leave under the District's vacation plan will be administered as stated below, unless modified by Employees' Association Memorandum of Understanding. The General Manager may increase the rate of accrual for the purposes of recruitment and as a reward for consistent outstanding performance for any

employee who is at the top step of the employee's classification wage range.

<u>Years of Employment</u>	<u>Days Vacation Accrued/Month</u>
Beginning of 1 st year through end of 3 rd year	1 day/month =12 days/year
Beginning of 4 th year through end of 7 th year	1 1/4 days/month = 15 days/year
Beginning of 8 th year through end of 12 th year	1 2/3 day/month = 20 days/year
Beginning of 13 th year and after	2 1/12 days/month =25 days/year

303.2.2 Vacation leave accrued and taken in any calendar year may not exceed the number of days the employee would be entitled to for the number of years of service they have accumulated with the District.

303.2.3 If the ~~District~~ **General** Manager determines that the best interest of the District will be served by delaying all or part of the vacation leave due such employee, unused vacation leave so accumulated shall be added to leave subsequently due, not to exceed a maximum of two years' vacation allowance in the case of any employee in a calendar year.

303.2.4 An employee who has reached the maximum vacation accrual level of two years allowance will cease accruing vacation until sufficient vacation is taken that the accrual balance is less than the stated maximum, unless otherwise approved by the ~~District~~ **General** Manager.

303.2.5 Vacation credit shall begin on the first day of the month if employment began on that date, or the first business day following the first of the month; otherwise it shall begin on the first day of the succeeding calendar month.

303.2.6 Employees who separate from District service for any reason will be paid for accrued and unused vacation.

303.3 Sick Leave

303.3.1 Paid sick leave provides time off without loss of pay for reasons, and under the conditions, specified in this policy, as may be modified by MOU or applicable law. **The District's Sick Leave Policy conforms to Healthy Families Act of 2014 (CA Paid Sick Leave.)** Every employee should use sick leave with respect for the intent of the policy and the impact on fellow employees. All employees are responsible for the proper administration of the sick leave provision.

303.3.2 Accrual of paid sick leave is set forth below, as may be amended or modified by specific provisions in relevant Memoranda of Understanding and/or adopted Compensation Resolutions.

- (a) Regular Full-time Employees: Sick leave with pay shall accrue to regular full-time employees at the rate of one work day for each calendar month of service, or according to current Memoranda of Understanding or Compensation Agreements. Sick leave credits shall accrue only while an employee is in paid status with the District.
- (b) Part-time and Seasonal Employees: After working a minimum of 30 calendar days for the District, 3 days (24 hours) of paid sick leave shall accrue to part-time, seasonal and temporary employees. The accrual will be capped at 3 days or 24 hours.

303.3.3 Approved Sick Leave may be granted to all full-time employees for the following reasons:

- (a) For the diagnosis, care or treatment of an existing health condition, or preventive health care for the employee or a member of the employee's immediate family.
- (b) Enforced quarantine of the employee in accordance with community health regulations.
- (c) To allow a victim of domestic violence and/or a victim of sexual assault to obtain relief or attempt to obtain relief to help ensure his/her health, safety, or welfare, or that of his or her child(ren).
- (d) To allow a victim of domestic violence and/or a victim of sexual assault to seek medical attention, to obtain services from a domestic violence program or psychological counseling, or to participate in safety planning.
- (e) Complication or disability resulting from or contributed to any pregnancy, termination of pregnancy, or recovery therefrom.

303.3.4 One-half (50%) of the Sick Leave accrued by a full-time employee in any one year shall be granted if needed for the reasons cited in 303.3.3(a),(c),or (d).

303.3.5 After meeting the eligibility and waiting period requirements set forth in this policy, accrued Sick Leave can be taken by eligible part-time, seasonal and temporary employees for the following reasons:

- (a) The diagnosis, care or treatment of a health condition or for preventive care of the employee or a member of the employee's immediate family.
- (b) For specified purposes when an employee is a victim of domestic violence, sexual assault or stalking.

- (c) Sick Leave under this Section can only be taken for an absence from a previously scheduled work shift.

303.3.6 Supervisory personnel are charged with the responsibility for reviewing and evaluating sick leave usage.

- (a) Sick leave misuse or abuse is generally defined as use of sick leave for reasons other than are set forth in this policy. Potential indicators of abuse are ~~set forth below~~:

- (1) A pattern of sick leave use involving days adjacent to scheduled days off and holidays.
- (2) Refusal or inability to provide medical substantiation when requested.
- (3) Frequent absences with vague or questionable substantiation.
- (4) Frequent or recurring exhaustion of sick leave soon after it is earned (unless for substantiated medical reasons).
- (5) Other evidence of employee activity that is inconsistent with the legitimate use of sick leave, such as usage higher than the District average for the previous calendar year (deduct serious illness or injury) and two or more indicators above.

- (b) When it is determined, by investigation, that sufficient evidence exists to demonstrate that an employee has abused or is abusing or misusing the sick leave privilege, the District General Manager may cause such disciplinary action to occur as deemed appropriate to deter future misuse. If it is found that the claim for sick leave was fraudulent, the claim for sick leave will not be paid. Sick leave taken under Sections 303.3.4 and 303.3.5, above, shall not be considered in determining abuse or misuse of the sick leave privilege.

303.3.7 Except for sick leave taken under Sections 303.3.4 and 303.3.5, above, the District may require a physician's medicalhealth care provider's certificate for absences due to illness when the employee has been put on notice of being suspected of misuse of sick leave and that future absences will require a physician's medicalhealth care provider's certificate. The physician's medicalhealth care provider's certificate shall be requested at the earliest possible time and prior to the employee's return to work, whenever possible. The request for a medicalhealth care provider's certification will adhere to 303.3.7 (b).

(a) Fitness for Duty Exam - Any employee may be required by the District General Manager to submit to an examination by a licensed physician medical/health care provider or psychologist at any time, subject to sufficient cause existing, by the District at its expense in order to determine the state of the employee's health and fitness to perform assigned tasks.

(b) Privacy laws restrict employers from requesting certain medical or health information. Therefore, if asking for a ~~physician's~~ medical/health care provider's certification or other verification of absence due to illness, a ~~supervisor~~ the District may ask when the employee is anticipated to return to work, with or without restrictions, but cannot ask for a diagnosis or prognosis.

303.3.8 Paid sick leave provides time off without loss of pay for qualifying reasons. It is a non-vested benefit which carries no cash value. Except as may be provided as Accrual Incentives or Retiree Service Credit in designed Memoranda of Understanding or Compensation Resolutions, there is no provision for a pay-out of accrued and unused sick leave upon separation from District employment.

~~(a)~~—If a part time, seasonal or temporary employee separates and returns within one (1) year of separation, unused sick leave hours shall be restored to the employee. If the employee returns after one (1) year of the previous separation, the sick leave hours shall not be restored to the employee.

303.4 Voting Time Off

303.4.1 In the event an employee does not have sufficient time outside of working hours to vote in an election, the employee may take a limited amount of time off without loss of pay to vote.

303.4.2 Voting time off should be taken at the beginning or end of the regular work schedule, whichever allows the most free time for voting and the least time off from work. An employee will be allowed a maximum of two (2) hours of voting leave on Election Day.

303.4.3 Employees should notify their supervisor of the need for time off to vote at least three (3) working days prior to Election Day.

303.5 Military Leave

303.5.1 **Military leave will be granted in accordance with state and federal law. An employee requesting leave for this purpose shall promptly provide the General Manager a copy of the military orders specifying the dates, site, and purpose of the activity or mission. Within the limits of such orders, the District may determine when the leave is to**

be taken and may modify the employee's work schedule to accommodate the request for leave.

In an emergency situation, if orders are not available at the time of the ordered leave, oral notice should be given as soon as possible, with a copy of the military orders to be provided to the District as soon as it is available.

- ~~303.5.1 The District provides paid and unpaid military leave in accordance with provisions of federal and state laws. Should this policy be in conflict with applicable laws, rules, regulations or agreements, those laws, rules, regulations or agreements shall control. Rights and obligations that are not specifically set forth below are set forth in the Uniformed Service Employment and Reemployment Rights Act of 1994 (USERRA).~~
- ~~303.5.2 Military Leave is available to all District employees, including part-time and seasonal employees who receive duly executed orders for active duty, active duty for training, initial active duty for training, inactive duty for training, full-time National Guard duty, and for examination to determine the fitness of a person to perform any such duty.~~
- ~~303.5.3 Temporary Military Leave is available to all District employees, including part-time and extra-help employees who receive duly executed orders for temporary military duty for purposes of active military training, encampment, navel cruises, special exercises or like activity as a member of the reserve corps or force of the Armed Forces of the United States, or the National Guard, or the Navel Militia.~~
- ~~303.5.4 Qualifying Exigency Leave is available to District employees when an immediate family member of the employee is a military member and is deployed or has been notified of an impending deployment to a foreign country. Details regarding eligibility for and limitations of Qualifying Exigency Leave are set forth in the District Family and Medical Care Leave Policy.~~
- ~~303.5.5 Military Caregiver Leave is available to District employees when the employee's immediate family member has a qualifying serious injury or illness. Details regarding eligibility for and limitations of Military Caregiver Leave are set forth in the District Family and Medical Care Leave Policy.~~
- ~~303.5.6 Employees requesting a Military Leave of Absence must provide advance notice of their intent to take military leave and provide copies of their orders (or provide other appropriate documentation to~~

~~substantiate the need for military leave if orders are not available, (i.e., Special Operations) to their supervisor, unless doing so is unreasonable or is precluded by military necessity. This request must identify the type of leave, anticipated dates and duration of the leave.~~

~~(a) In an emergency situation, if orders are not available at the time of the ordered leave, oral notice should be given as soon as possible, with a copy of the military orders to be provided to the District as soon as it is available.~~

303.5.72 Employees ordered into active federal military duty as a member of the National Guard or Naval Militia will be granted military leave for a period not to exceed five (5) years, unless there is an authorized exemption. Authorized exemptions to the five-year limit include: initial enlistments lasting longer than five years, periodic National Guard and Reserve training duty, and involuntary active duty extensions and recalls.

303.5.83 Employees ordered to temporary active duty, or for training, will be granted military leave for a period not to exceed 180 calendar days, including time spent traveling to and from such duty.

303.5.94 Employees will receive District pay while on military leave, as outlined by law, ~~as set forth below:~~

~~(a) Employees employed by the District for a period of not less than one year are entitled to pay for the first 30 days of military leave.~~

~~(b) National Guard members on military leave are entitled to receive pay for the first 30 days of leave, regardless of length of service with the District.~~

~~(c) The aggregate of payments for reserve training leave, temporary military leave, and military leave shall not exceed thirty (30) calendar days in any one fiscal year.~~

~~(d) If an employee's military leave exceeds 30 days in any fiscal year, the employee will have the option of using available vacation, compensatory time, or to move to military leave without pay (MLWOP) status.~~

303.5.105 The District will continue to pay the District's portion of the cost of Health Insurance for an employee while he or she is on any military leave to the same extent it would if the employee were working, regardless of pay status in accordance with the law, for a maximum of thirty (30) days. "Health Insurance" is defined as medical, vision, and dental insurance. The employee must continue to pay his/her

~~employee contribution to Health Insurance either through payroll deduction while using leave balances, or by direct payment to the District.~~

- 303.5.446 Employees on temporary military leave and who have at least one year of service with the District or at least one year of combined military/District employment service, continue to accrue the same vacation, sick leave, and holiday benefits for up to a maximum of 180 days. This provision also applies to employees who are members of the National Guard.
- (a) Employees on active military leave are not entitled to accrue sick leave or vacation during the period of Military Leave.
 - (b) Employees who are members of the National Guard and are on active military leave accrue vacation and holiday benefits, but not sick leave, for the first 30 days of active service.
- 303.5.427 An employee returning from active duty after serving in time of war or national emergency must seek reemployment within six months after completing military service, but not later than six months after the end of the war or national emergency. Reemployment rights do not extend to an employee who fails to return to his/her position within 12 months after the first date on which he or she could terminate active military service.
- (a) An employee on military leave for reasons other than war or national emergency must return to work or seek reemployment as set forth below:
 - (1) An employee whose military leave lasted from 1 to 30 days must report to the District by the beginning of the first full regularly scheduled work day on the first full calendar day following the completion of the period of service.
 - (2) An employee whose military service lasted from 31 to 180 days must submit a reemployment application (verbally or in writing) with the District no later than 14 days after the completion of the period of service.
 - (3) An employee whose military leave lasted more than 180 days must submit a reemployment application (verbally or in writing) with the District no later than 90 days after the completion of the period of service.
 - (b) An employee who fails to report to work or submit a reemployment application as set forth in this Section may be deemed to be on Unauthorized Leave from the District.

303.6 Family and Medical Care Leave

Although the District has fewer than 50 employees and is not required to provide family and medical leave under either the Family and Medical Leave Act (FMLA) or the California Family Rights Act (CFRA), it will grant eligible employees family care leave similar to the provisions of the FMLA and CFRA, their corresponding regulations, and this rule. If, at any time, the District employs 50 or more employees, this rule will also govern leave procedures under the FMLA and CFRA. The Family Care Leave policy may be found at Appendix 300.

~~303.6.1 The District will provide up to twelve (12) weeks of Family and Medical Care Leave in a twelve (12) month period for eligible employees as required by State and Federal Law. The following provisions set forth certain of the rights and obligations with respect to such leave. Rights and obligations that are not specifically set forth below are set forth in the Department of Labor regulations implementing the Federal Family and Medical Leave Act of 1993 ("FMLA"), and the regulations of the California Family Rights Act of 1993 ("CFRA"), as amended.~~

~~303.6.2 District employees who have been employed by the District for twelve (12) months and have worked one thousand two hundred and fifty (1,250) hours or more in the twelve (12) months immediately preceding the request for leave are eligible to take Family and Medical Care Leave.~~

~~303.6.3 Leave is only permitted for the following reasons:~~

- ~~(a) The birth of a child or to care for a newborn of an employee;~~
- ~~(b) The placement of a child with an employee in connection with the adoption or foster care of a child;~~
- ~~(c) Leave to care for an immediate family member, as defined in Section 303.15, below, who has a serious health condition;~~
- ~~(d) Leave because of a serious health condition that makes the employee unable to perform the functions of his/her position;~~
- ~~(e) Leave for a "qualifying exigency" arising out of the fact that an employee's immediate family member is on active duty or is called to active duty status in the regular Armed Forces, National Guard or Reserves who is deployed by the military to a foreign country; or~~
- ~~(f) Leave to care for an immediate family member of the service member or veteran within five years of discharge from the~~

military of the United States Armed Forces, National Guard or Reserves who has a serious injury or illness incurred in the line of duty while on active military duty.

~~303.6.4~~ An eligible employee may be granted up to a total of twelve (12) work weeks of Family and Medical Care Leave in a rolling twelve- (12) month period. This rolling twelve-month period will be measured forward from the date an employee uses any Family and Medical Care Leave. In the case of a serious health condition of an employee or an employee's family member, adequate medical certification is required.

(a) An eligible employee may be granted up to a total of twenty six (26) work weeks of Military Caregiver Leave during a single 12-month period to care for a covered service member or veteran within five years of discharge from the military who has a serious injury or illness incurred in the line of duty on active duty for which the service member is undergoing medical treatment, recuperation, or therapy; or otherwise in an outpatient status; or otherwise on the temporary disability retired list. The single 12-month period shall be measured forward from the date an employee's first FMLA leave to care for the covered service member begins. During the single 12-month period, an eligible employee's FMLA leave entitlement is limited to a combined total of 26 workweeks of FMLA leave for any qualifying reason.

(b) Where FMLA leave qualifies as both Military Caregiver Leave and care for a family member with a serious health condition, the leave will be designated as Military Caregiver Leave first.

~~303.6.5~~ If leave under this Section is requested for the birth, adoption or foster care placement of a child of the employee, leave must be concluded within one year of the birth or placement of the child. In addition, the basic minimum duration of such leave is two weeks. However, an employee is entitled to leave for one of these purposes (e.g., bonding with a newborn) for at least one day, but less than two weeks duration on any two occasions.

(a) If leave is requested to care for an immediate family member or the employee him/herself with a serious health condition, there is no minimum amount of leave that must be taken. However, the employee must comply with the notice and medical certification provisions of this policy.

~~303.6.6~~ Family and Medical Care Leave may be taken on an intermittent basis as separate blocks of time or on a reduced leave schedule due to a single qualifying event if it is medically necessary for medical

~~treatment of a serious health condition, for recovery from treatment or recovery from a serious health condition, or in conjunction with a chronic serious health condition of the employee or a member of the employee's immediate family.~~

- ~~(a) The employee must provide medical certification that such leave is medically necessary. "Medically necessary" means there must be a medical need for the leave and that the leave can best be accomplished through an intermittent or reduced leave schedule. It may also be taken to provide care or psychological comfort to an immediate family member with a serious health condition.~~
- ~~(b) Intermittent or reduced schedule leave after the birth or placement of a child for adoption or foster care may be taken only if the District agrees, unless the intermittent or reduced schedule leave is due to the mother's serious health condition or the baby's serious health condition. Intermittent leave must be taken in increments of at least one-half hour.~~
- ~~(c) An employee taking intermittent leave or leave on a reduced schedule for planned medical treatment or recovery from a serious health condition, or an employee permitted to take intermittent leave or reduced schedule leave for the birth or placement of a child, may be temporarily transferred to an available alternative position for which the employee qualifies which better accommodates recurring periods of leave than the employee's regular position. Although the alternative position may or may not have equivalent duties, the employee will receive equivalent pay and benefits during the time he/she works in the alternative position.~~
- ~~(d) Leave due to a qualifying exigency may be taken on an intermittent or reduced schedule basis.~~

~~303.6.7 Employees on approved Family and Medical Care Leave will be required to exhaust accumulated leave balances before being placed on unpaid leave, as provided below:~~

- ~~(a) If the need for leave is in conjunction with employee's own serious health condition, the employee must first exhaust accrued sick leave balances, then other leave balances including vacation, compensatory time off, and holiday time prior to moving to unpaid Family and Medical Care Leave.~~
- ~~(b) If the need for leave is in conjunction with the care of an immediate family member who has a serious health condition, the employee may use the limited allowance of sick leave hours~~

~~and then must use other leave balances including vacation, compensatory time off, and holiday time prior to moving to unpaid Family and Medical Care Leave.~~

~~(e) If the leave is requested for a non-medical reason such as bonding after the birth of a child, the employee must exhaust accrued vacation and other leave balances exclusive of sick leave prior to moving to unpaid Family and Medical Care Leave. (Compensatory time may be voluntarily elected.)~~

~~(d) An employee on leave that is qualifying under the California Family Rights Act (CFRA) and who is receiving either disability or paid family leave benefits through the State of California is not required to use leave accruals prior to moving to unpaid Family and Medical Care leave.~~

~~303.6.8 If an employee takes a leave for any reason that is FMLA/CFRA qualifying, the District may designate the requested leave as running concurrently with the employee's 12-week FMLA/CFRA leave entitlement. Upon District designation of leave as FMLA/CFRA qualifying, written notice of such shall be provided to the employee.~~

~~303.6.9 The District will continue to pay the District's portion of the cost of "Health Insurance" for an employee while he/she is on an approved Family and Medical Care Leave to the same extent it would if the employee were working, regardless of pay status.~~

~~(a) "Health Insurance" is defined as medical, vision, and dental insurance.~~

~~(b) The employee must continue to pay his/her employee contribution to Health Insurance" either through payroll deduction while using leave balances, or by direct payment while on unpaid leave.~~

~~(c) Coverage on a particular plan may be dropped if the employee is more than 30 days late in making a premium payment. However, the employee shall receive a notice at least 15 days before coverage is to cease, advising that he/she will be dropped if the premium payment is not paid by a certain date.~~

~~(d) Contribution amounts for all employees are subject to any change if changes in rates occur while the employee is on leave.~~

~~(e) If an employee fails to return to work after his/her leave entitlement has been exhausted or expires, the District shall have the right to recover its share of Health Insurance premiums for the entire leave period, unless the employee does not return~~

~~because of the continuation, recurrence, or onset of a serious health condition of the employee or his/her family member which would entitle the employee to leave, or because of circumstances beyond the employee's control.~~

~~303.6.10 An employee disabled by pregnancy is eligible for up to four (4) months of leave for medical disability related to pregnancy under State law. This leave may be in addition to up to twelve (12) weeks of Family and Medical Care Leave. Family and Medical Care Leave available under the California Family Rights Act will not run concurrent with Pregnancy Disability Leave.~~

~~(a) The total combined duration of District contribution toward Health Insurance available during unpaid leaves due to any combination of pregnancy disability, the employee's serious health condition, and family care purposes under this Section will not exceed twenty-nine and one-third (29.33) weeks in a twelve (12)-month period.~~

~~303.6.11 Although the District recognizes that emergencies arise that may require an employee to request immediate leave, the employee is required to give as much notice as possible of his/her need for leave.~~

~~(a) Except for qualifying exigency leave, if leave is foreseeable, at least 30 days written notice is required. If an employee knows that he/she will need leave in the future, but does not know the exact date(s) (e.g., for the birth of a child or to take care of a newborn), the employee is to inform his/her supervisor as soon as possible that such leave will be needed; this notice may be given orally.~~

~~(b) In the case of a qualifying exigency, the employee shall provide the District with a copy of the covered service member's active duty orders or other documentation issued by the military that indicate that the service member is on, or has been called to, active duty for deployment by the military to a foreign country and the dates of the active duty service. In addition, the employee will provide documentation that the leave is for a qualifying exigency listed in this policy and the anticipated length of the leave.~~

~~303.6.12 Following receipt of a Request for Medical Leave of Absence Form the District shall, within five (5) business days, send the employee a Notice of Eligibility and Rights and Responsibilities. At that time the employee will be given at least 15 calendar days to return to the District a completed Certification of Health Care Provider, either for~~

~~the employee's own serious health condition or for the serious health condition of an immediate family member.~~

~~303.6.13 An employee requesting Family and Medical Care Leave due to his or her own the serious health condition, or the serious health condition of a family member shall provide certification from the health care provider treating the individual.~~

~~(a) When a leave is requested for the serious health condition of a family member, the certification must include the date, if known, on which the serious health condition commenced; the probable duration of the condition; an estimate of the time the health care provider believes the employee needs to care for the individual; and a statement that the serious health condition warrants the participation of the employee to provide care during treatment.~~

~~(b) When a leave is requested for the serious health condition of the employee, the certification shall include the information included above, and a statement that, due to the serious health condition, the employee is unable to perform any one or more of the essential functions of the position.~~

~~(c) If the District has a good faith, objective reason to doubt the validity of a certification provided by the employee for his or her own serious health condition, the District may require a medical opinion of a second health care provider chosen and paid for by the District. If the second opinion is different from the first, the District may require the opinion of a third provider jointly approved the District and the employee, but paid for by the District. The opinion of the third provider will be binding. An employee may request a copy of the health care provider's opinions when there is a second or third medical opinion sought.~~

~~(d) Medical certification for a Military Caregiver Leave shall be from a United States Department of Defense, Department of Veteran's Affairs, or other authorized medical provider. It shall indicate:~~

~~(1) whether the service member has incurred a serious injury or illness;~~

~~(2) whether the injury or illness renders the service member medically unable to perform the duties of the member's position;~~

~~(3) whether the injury or illness was incurred in the line of duty while on active duty;~~

- ~~(4) whether the service member is undergoing medical treatment, recuperation, or therapy, or is otherwise on outpatient status, or is otherwise on the temporary disability retired list;~~
- ~~(5) the probable duration of the injury or illness;~~
- ~~(6) the frequency and duration of leave the family member requesting leave will require; and~~
- ~~(7) the family relationship of the eligible employee to the covered service member.~~
- ~~(e) When an employee's leave is foreseeable and at least 30 days' notice has been provided, if medical certification is requested, the employee must provide it before the leave begins. When this is not possible, the employee must provide the requested certification to the District within the timeframe requested by the District (which must allow at least 15 calendar days after the employer's request), unless it is not practicable under the particular circumstances to do so despite the employee's diligent, good faith efforts.~~
- ~~(f) If an employee provides an incomplete medical certification the employee will be given a reasonable opportunity to cure any such deficiency. However, if an employee fails to provide a medical certification within the time frame established by this policy, the District may delay the taking of Family and Medical Care Leave until the required certification is provided.~~
- ~~(g) Recertification of the serious health condition may be requested upon the expiration of the time period the health care provider originally estimated. Re-certification from a health care provider may only be requested after the first certification has expired.~~
- ~~(h) Upon receipt of the Certification of Health Care Provider, the District will send the employee a Family and Medical Care Leave Designation memo, indicating if the leave is approved, not approved or if additional information is needed to make a determination. If the leave is approved, the Family and Medical Care Leave Designation memo will set forth any conditions of the leave that may exist beyond what are provided in the Notice of Eligibility and Rights and Responsibilities.~~

~~303.6.14 An employee granted Family and Medical Care Leave in accordance with this policy shall, upon returning to work, generally be reinstated to the position of employment held before the leave commenced, or,~~

~~if such a position is not available, to an equivalent position with equivalent employment benefits, pay, and terms and conditions of employment.~~

~~(a) Employees have no greater rights to reinstatement, benefits, and conditions of employment than if the employee had been continuously employed during the leave period.~~

~~303.6.15 It is against District policy and State and Federal law to discriminate against any individual because that individual has exercised his or her right to Family and Medical Care Leave or leave taken under the California Family Rights Act.~~

~~303.6.16 An employee who fraudulently obtains or uses leave under the California Family Rights Act is not protected by job restoration or maintenance of health benefit provisions of that Act.~~

303.7 Pregnancy Disability Leave

303.7.1 The District will provide up to four months, or seventeen and ~~one-half (17.5)~~ **and one-third (17 1/3)** weeks of Pregnancy Disability Leave to eligible employees as required by State law. [Pregnancy Disability Leave is without pay.](#)

303.7.2 An employee who has been advised by her health care provider that she is disabled due to pregnancy or a pregnancy-related condition, and who has provided timely notice of this determination to the District, is entitled to Pregnancy Disability Leave. There is no minimum service requirement for eligibility.

303.7.3 Pregnancy Disability Leave is available when a woman is actually disabled by her pregnancy, childbirth, or a related medical condition. The reasons for leave include:

- (a) time off needed for prenatal care;
- (b) severe morning sickness;
- (c) doctor-ordered bed rest; and/or
- (d) childbirth, recovery from childbirth, and any related medical condition.

A woman does not have to be completely incapacitated or confined to her bed to qualify as being disabled by pregnancy. However, as a general rule, a woman must be, in the opinion of her [physician/health care provider](#), unable to perform one or more essential functions of her job without undue risk to herself or to other persons, or without

undue risk to successful completion of her pregnancy.

- 303.7.4 The duration of Pregnancy Disability Leave is limited to four months (17.5 ~~1~~¹/₃ weeks) during the period the employee is disabled by pregnancy or a pregnancy-related condition.
- 303.7.5 Pregnancy Disability Leave may be accounted for in increments of no greater than one hour, or the increment utilized to account for use of other forms of leave (if the same is less than one hour).
- 303.7.6 An employee disabled by pregnancy is eligible for intermittent or reduced schedule leave if recommended by her treating [physician/health care provider](#).
- (a) If intermittent leave is medically advisable, it may be necessary to temporarily transfer the employee to an available alternative position with an equivalent rate of pay and benefits.
 - (b) The employee must be qualified for the available alternative position.
 - (c) The equivalent position must better accommodate recurring periods of leave than the employee's regular job.
 - (d) If there is no available alternative position, the District may consider altering the employee's existing position on a temporary basis to accommodate intermittent leave or reduced schedule.
- 303.7.7 The District will consider temporary reasonable accommodations that are determined to be medically advisable by the employee's health care provider, and reasonable by the District. Temporary accommodations may include:
- (a) Additional leave after the employee has exhausted her right to four months of Pregnancy Disability Leave;
 - (b) Transfer to a less strenuous or hazardous position if the employee's health care provider states that it is medically advisable and the employee is qualified for the position;
 - (c) Creation of a temporary light-duty assignment, or modification of current job on a temporary basis;
 - (d) Modifying the work schedule on a temporary basis; and/or
 - (e) Allowing more frequent restroom breaks.

303.7.8 An employee seeking a temporary accommodation in conjunction with pregnancy or a pregnancy-related condition shall provide notice of the need for such an accommodation in advance of the needed accommodation, unless such notice is not possible.

- (a) The request for accommodation must include Medical Certification that documents the specific limitations the health care provider has set forth for the employee, as well as the anticipated duration of those limitations.
- (b) The District shall engage in an interactive process with an employee seeking a temporary accommodation in conjunction with pregnancy or a pregnancy-related condition to identify, discuss, evaluate, and implement accommodations that are consistent with the recommendations of the health care provider.

303.7.9 Employees on approved Pregnancy Disability Leave will be required to exhaust accumulated leave balances before being placed on unpaid leave. ~~However, if the employee is receiving either disability or paid family leave benefits, the employee is not required to use any of her paid time off, sick leave or accrued vacation during the qualifying leave.~~

303.7.10 The District will continue to pay the District's portion of the cost of "Health Insurance" for an employee while she is on an approved Pregnancy Disability Leave to the same extent it would if the employee were working, regardless of pay status, for a maximum of four (4) months.

- (a) "Health Insurance" is defined as medical, vision, and dental insurance. The employee must continue to pay his/her employee contribution to Health Insurance either through payroll deduction while using leave balances, or by direct payment to the District while on unpaid leave.
- (b) Coverage on a particular plan may be dropped if the employee is more than 30 days late in making a premium payment. However, the employee shall receive a notice at least 15 days before coverage is to cease, advising that she will be dropped if the premium payment is not paid by a certain date.
- (c) Contribution amounts for all employees are subject to any change if changes in rates occur while the employee is on leave.
- (d) The total combined duration of District contribution toward Health Insurance available during unpaid leaves due to any combination of pregnancy disability, the employee's serious health condition,

and family care purposes will not exceed twenty-nine and one-third (29.33) weeks in a twelve- (12) month period.

- 303.7.11 Leave available under the California Family Rights Act will not run concurrently with Pregnancy Disability Leave. An employee may have separate eligibility for "bonding" leave following the birth of a child under the California Family Rights Act. Refer to the District Family and Medical-Care Leave policy for information about eligibility requirements.
- 303.7.12 Employees must provide at least thirty (30) days' advance notice of the need for Pregnancy Disability Leave, or the need for a temporary reasonable accommodation, or transfer in conjunction with pregnancy, if the need is foreseeable. If such notice is not possible due to a change in circumstances, medical emergency, or other good cause, the employee is required to provide notice as soon as practicable.
- 303.7.13 Medical certification will be required to support the need for Pregnancy Disability Leave or other reasonable accommodation in conjunction with pregnancy or a pregnancy-related condition.
- (a) Medical certification is to be provided by the employee's health care provider, and must include:
- (1) the date on which the employee became disabled due to pregnancy;
 - (2) the anticipated duration of the period of disability; and
 - (3) an explanatory statement that, due to the disability, the employee is unable to work at all, or is unable to perform any one or more of the essential functions of her position without undue risk to herself, the successful completion of her pregnancy, or to other persons.
- 303.7.14 An employee returning from Pregnancy Disability Leave or temporary accommodation shall be reinstated to the same position she held prior to taking leave or undertaking a temporary accommodation in conjunction with pregnancy or a pregnancy-related condition, except as provided below.
- (a) The employee may not be reinstated to the exact same position if the employee would not have been employed for reasons unrelated to the leave, such as a layoff.
- (b) If the exact same position is not available, the employee will be reinstated to a comparable position. A comparable position is

one that is virtually identical to the employee's previously held position, including wages, benefits, working conditions, and shift.

303.7.15 Lactation

In accordance with California Labor Code section 1030, the District shall provide a reasonable amount of break time to accommodate an employee desiring to express breast milk for the employee's infant child. The break time, if possible, shall run concurrently with the employee's regular break time.

In accordance with California Labor Code section 1031, the District shall make all reasonable efforts to provide the employee with the use of a room or other location, other than the restroom, in close proximity to the employee's work area, for the employee to express milk in private.

303.8 Bereavement Leave

303.8.1 A leave of absence with pay because of death in the immediate family of a person in the District employ, as defined in Section 303.15, below, may be granted by the District General Manager for a period not to exceed three days.

303.8.2 For out-of-state funerals the Board authorizes an additional day (for a total of four days).

303.8.3 Entitlement to a leave of absence under this Section shall be in addition to any sick leave, emergency leave, or any other leave to which the employee may be entitled.

303.9 Jury Duty

303.9.1 The District will grant time off in conjunction with service on a jury ~~or serving as a witness~~ in response to a subpoena pursuant to the requirements of the Federal Jury System Improvement Act of 1978 and California Labor Code section 230. Compensation during authorized jury ~~or witness duty~~ will be provided pursuant to the terms of this policy, as may be modified by relevant Memoranda of Understanding or approved Compensation Agreements. Proof of jury duty must be provided to District.

303.9.2 In the event an employee is called for jury duty, no deduction from salary will be made for the absence while serving as a juror or in answering the call for jury duty; provided, however, that the employee shall endorse payments from the Courts for jury duty to the District.

303.9.3 Employees may retain any reimbursement for mileage issued by the Courts in conjunction with jury service.

303.9.4 ~~Unless otherwise provided for in the relevant Memoranda of Understanding, e~~ Employees called to jury duty must report to work before or return to work following their service whenever practical.

(a) If an employee does not have to report to the jury room/court for full days in the midst of their service, he or she is expected to report to work whenever practical.

(b) An employee's failure to report to work may be considered to be an absence without leave and could be subject to disciplinary action.

(c) Employees who must report for jury duty on their regular days off will not be eligible for jury duty pay. Such service is considered to be a civic duty and not compensable by the District.

303.9.5 In the event an employee is subpoenaed to appear as a witness in a trial related to District business ~~for which the employee is not a party of interest~~, no deduction from salary will be made for the absence while serving as a witness or in answering the subpoena; provided, however, that the employee shall endorse all payments, if any, for witness duty to the District.

303.10 School Activities Leave

303.10.1 Parents, guardians, grandparents, or individuals serving as parents with custody of minor children are entitled to take up to forty (40) hours of time off work each year to attend school-related activities for the following reasons:

(a) when a student has been suspended and the parent, guardian or grandparent is required to appear at the school pursuant to the school's request; and/or

(b) to attend designated Child-Related activities. Child-Related activities include: attending school functions, activities and programs; finding, enrolling or reenrolling a child in a school or with a licensed child care provider; addressing a child care or school emergency, including closure or unexpected unavailability of the school (excluding planned holidays) or a natural disaster.

303.10.2 Except for the need to address a child care provider or school emergency, the use of School Activities Leave is limited to 8 hours per month.

- 303.10.3 The District may require proof of an employee's participation in these activities.
- 303.10.4 The employee must provide reasonable advance notice to his or her supervisor before taking any time off under this policy.
- 303.10.5 Employees must use accrued paid time off for the absence. If the employee does not have any accrued paid time off, the absence will be unpaid. However, exempt employees will be paid their full salary for any week in which they perform any work for the District that is interrupted by the need for time off under this policy.

303.11 Time Off for Crime Victims

- 303.11.1 Employees who have been victims of serious or violent felonies, as specified under California law, or felonies relating to theft or embezzlement, may take time off work to attend judicial proceedings related to the crime.
- 303.11.2 Employees also may take time off if an immediate family member has been a victim of such a crime and the employee needs to attend judicial proceedings related to the crime.
- 303.11.3 Employees must give their supervisor a copy of the court notice given to the victim of each scheduled proceeding before taking time off, unless advance notice to the District of the need for time off is not feasible. When advance notice is not feasible, the employee must provide the District with documentation evidencing the judicial proceeding, within a reasonable time after the absence. The documentation may be from the court or government agency setting the hearing, the district attorney or prosecuting attorney's office, or the victim/witness office that is advocating on behalf of the victim.
- 303.11.4 Employees will be paid under this section only to the extent they have accrued vacation or compensatory time off available.

303.12 Catastrophic Leave

- 303.12.1 A leave of absence with pay for up to five days annually may be granted in the case of a catastrophic event (such as earthquake, flood or fire) that directly impacts the employee, or a member of the employee's immediate family as defined in Section 303.15, below. Employees must request and receive approval from the District General Manager to receive paid Catastrophic Leave. Catastrophic Leave shall be in addition to any other entitled sick, vacation or other leave benefit.

303.13 Medical Leave Donation Program

- 303.13.1 Any District employee who accrues vacation credit may voluntarily donate those credits to any other District employee if the recipient employee experiences a catastrophic illness or injury and has exhausted all accrued leave credits, i.e. sick leave, vacation, compensatory time off, due to illness or injury, including pregnancy and maternity leave.
- 303.13.2 Employees may donate a maximum of forty (40) hours of vacation per fiscal year in increments of eight hours in support of fellow employees who experience a catastrophic illness or injury. Unused donated time will be returned proportionally to the donors.
- 303.13.3 Donated time will be "banked," using the value of each hour of donated time as the basis for credit.
- 303.13.4 An employee may request a grant of donated time under the program when he/she has a catastrophic illness or injury, and has exhausted all accrued paid leave benefits. Grants may be requested when the employee must care for a member of his/her immediate family under the same conditions. The request must include documentation of the catastrophic illness or injury, the limitations of that condition, and the anticipated duration of the condition.
- 303.13.5 A request for donated time under this program may be submitted by the legal representative or an employee's immediate family member with the employee's authorization. The request must include documentation of the catastrophic illness or injury, the limitations of that condition, and the anticipated duration of the condition.
- 303.13.6 Grants of donated time will be approved by the District General Manager, with consideration being given to the amount of available donated time and the demonstrated need of the employee. In no event will a grant of donated time be approved for an employee who has a history or record of sick leave abuse or failure to responsibly use accrued leave benefits.
- 303.13.7 Grants will be awarded as hours from the leave bank. Donated vacation credit may not exceed continuance of the employee's regular rate of compensation.
- 303.13.8 While an employee is on catastrophic leave using donated time, the employee shall not accrue any vacation or sick leave.
- 303.13.9 Donations are subject to applicable tax laws. Recipient employees will be responsible for any applicable state and federal income taxes on the donated time. There is no tax liability to donors.

303.14 Leave Without Pay

- 303.14.1 A leave of absence without pay may be granted by the Board of Trustees upon the request of a District employee and recommendation of the District General Manager, but such leave shall not be for longer than six months. ~~Nothing herein contained shall limit or prevent the granting of a leave of absence without pay for a period longer than six months to any employee who is injured on the job or has a serious illness, or mental or physical impairment. However, such occurrence may result in the initiation of a reasonable accommodation evaluation under the Americans with Disabilities Act.~~
- 303.14.2 Unless otherwise specifically provided in the policies in this Chapter, or set forth in provisions of the Employee's Memorandum of Understanding, the District General Manager is directed NOT to pay the health benefits of employees at any time that they are on leave without pay from the District.

303.15 Definition of Immediate Family

- 303.15.1 The definition of "Immediate Family" shall be consistently applied to all leave policies set forth in this Chapter. The District purposefully elects a broad and consistent definition, which may, in some circumstances, be beyond what is required by law and regulation, to ensure efficient and consistent administration of leave policies.
- 303.15.2 For purposes of leave administration in this Chapter, "Immediate Family" is defined as an employee's: Spouse (including a lawfully married same-sex spouse), state registered domestic partner, child, (including a biological, adopted, or foster child, legal ward, or a child to whom the employee stands in loco parentis) child of registered domestic partner, stepchild, brother, stepbrother, sister, stepsister, mother, stepmother, father, stepfather, parent-in-law, grandparent and grandchild.

Section 304. Probation and Performance Management

304.1 Probationary Period

- 304.1.1 The probationary period is regarded as a part of the selection process for regular employees and ~~shall be~~ is utilized for the purpose of determining the employee's ability to satisfactorily perform the essential job duties, with or without reasonable accommodations, prescribed for the position, and determining the employee's ability to work with other employees. All probationary employees are considered to be "at-will." Temporary, part-time, and seasonal employees are at-will employees and are not subject to a

probationary period. The probationary period policy does not apply to temporary, part-time, seasonal or at-will management employees.

- 304.1.2 All initial and promotional appointments shall be tentative and subject to a probationary period of actual District service in the new position. The probationary period shall ~~shall~~ **does** not include time served under any temporary or provisional appointment. The length of the initial and promotional probationary period shall be six (6) months for all full-time employees.
- 304.1.3 The probationary period of an individual employee may be extended by the District General Manager prior to the expiration of probation, upon the request of the supervisor and approved by the District General Manager, for a period not to exceed an additional six (6) months.
- (a) Probation may be extended if there has been insufficient opportunity to fully evaluate the employee's ability to perform the duties prescribed for the regular position. Such an extension must be approved by the District General Manager, and the employee shall be notified in writing of the extension of the probationary period.
- (b) If the number of leaves of absences (paid or unpaid) totals thirty (30) or more days, it will automatically extend the probationary period the equivalent amount of time the employee was absent from work.
- ~~304.1.4~~ A supervisor may determine that a probationary employee should not pass probation at any time during the employee's probationary period or extension thereof. When the supervisor makes such a determination, he/she shall notify the District General Manager in writing. Upon approval of the District General Manager, the supervisor shall terminate employment of the probationary employee by written notice prior to the expiration of probation.
- 304.1.5 Probationary employees serve in an at-will capacity. Any release from probation shall not be for cause but rather, because the employee failed to meet the standards of the class/position. The employee ~~shall have~~ **has** no right of appeal of failure to pass probation.
- 304.1.6 An employee who fails to pass probation following a promotional appointment and held regular status in his/her former classification shall be reinstated to his/her former position or to a vacant position in the same classification. ~~if said employee held regular status in the classification.~~

304.1.7 If an employee is promoted during a probationary period, the employee shall serve the probationary period in the new position. If the employee does not pass the probationary period of the promotion, there are no specific employee rights to return to his/her previous job, since regular status was not obtained.

304.2 Performance Evaluations

304.2.1 The performance management system at the District is designed to motivate, recognize and reward employees' efforts and achievements. The District strives to create a work environment in which employees are recognized and rewarded for their contributions and where employees understand, contribute and help meet the District's overall goals.

304.2.2 Goal-oriented performance objectives should be established and clearly communicated for each employee. Both performance and behavioral objectives may be established. It is important that employees understand the District's expectations.

304.2.3 The District encourages individual feedback to employees on a regular basis. The District's performance management system is designed so that each permanent regular full-time employee will be evaluated at least annually, and quarterly while the employee is on probation.

304.2.4 Employees will be eligible for consideration of a salary step increase in conjunction with the annual evaluation. The first increase will be considered with the evaluation at the employee's six-month anniversary.

304.2.5 All employee evaluations shall be prepared in written form and shall be signed by the employee's supervisor. (The District General Manager's supervisor is the Board of Trustees or its chosen representatives.)

304.2.6 For each evaluation, there shall be a performance evaluation review meeting between the employee and the employee's supervisor, during which the written evaluation shall be presented and discussed.

(a) Upon completion of the performance evaluation review meeting, the employee shall sign the evaluation to show that the interview was completed.

(b) The employee shall have the opportunity to provide written comments regarding the evaluation within seven calendar days of the interview.

- (c) The District General Manager shall review the performance evaluation and employee comments. He/she The General Manager shall sign the performance evaluation to indicate that the process was completed. A copy of the completed performance evaluation, and the employee's comments, shall be provided to the employee. The original copy shall **will** be kept in the employee's personnel file.
- 304.2.7 An employee evaluation that is less than satisfactory shall requires preparation of a ~~remedial~~ performance improvement plan to be signed by the employee, and a follow-up evaluation within six months.
- 304.2.8 The performance evaluation is not subject to the grievance process set forth in Chapter 700 of this Policy Manual.

Section 305. Job Abandonment

Attendance and punctuality that is observant of scheduled hours on a regular basis is an essential function of all classification. A constructive resignation occurs and is effective when an employee has been absent from duty for three (3) or more consecutive working days without authorized leave. The District may consider that a constructive resignation has occurred due to the absence, or that the absence provides a reasonable basis for believing that the employee has abandoned the job.

At minimum, one phone call in an attempt to speak with the employee will occur. A voice message may be left for the employee.

After being absent for three consecutive working days, a written notice will be sent via U.S.P.S. Priority Mail to the employee. If known, an e-mail may also be sent to the employee's personal e-mail address. The employee will be given written notice, at employee's address of record, of the circumstances of the job abandonment, and an opportunity to provide an explanation for employee's unauthorized absence. The employee will be provided five (5) calendar days to respond, in writing, why employee's employment with the District should not be terminated due to job abandonment, or can arrange for an appointment with the General Manager or designee before final action is taken to explain the unauthorized absence and failure of timely notification. The decision of the General Manager is final.

Section 306. Drug Free Workplace

306.1 The ~~Alameda County Mosquito Abatement~~ District is committed to providing a work environment that is safe, healthy, and free of any adverse effects caused by alcohol or controlled substances. The District is concerned about employees or other persons working, contracting, or volunteering with the District being under the influence of alcohol, drugs, and/or controlled substances at work or while on District premises. The purpose of this policy is to promote a drug and

alcohol-free workplace and to eliminate substance abuse and its effects in the workplace.

- 3065.2 A District employee is prohibited from working or being subject to call-in if impaired by alcohol or any controlled substance.
- 3065.3 An employee must notify his/her supervisor before beginning work when taking medications or drugs that could interfere with the safe and effective performance of duties or operation of District equipment. If there is a question regarding an employee's ability to perform assigned duties safely and effectively while using prescribed medications, the District may require medical clearance.
- 3065.4 Compliance with this policy is a condition of District employment. Disciplinary action will be taken against those who violate this policy.
- 3065.5 In order to promote a safe, productive, and efficient workplace, the District has the right to search and inspect all District property, including but not limited to lockers, storage areas, furniture, District vehicles, and other places under the common or joint control of the District and employees, without prior notice. No employee has any expectation of privacy in any District building, property, or communications system. No personal property items, such as **personal cell phones or other personal electronic devices**, purses, backpacks, briefcases, etc., will be searched under this policy.
- 3065.6 Except as provided otherwise in a Memorandum of Understanding, the District has discretion to test a current employee for alcohol or drugs following any work-related accident or any violation of safety precautions or standards.

Section 307. Workplace Violence

The goal of the District is to provide every employee a safe work environment. To this end it is the District's policy that violence, or the threat of violence, in the workplace will not be tolerated in any form. It is inappropriate to use violence or threats of violence for any reason or to in any way interfere with providing a safe workplace. Violence, or the threat of violence, against or by any employee of the District or any other person is unacceptable.

307.1 Should a non-employee or District Trustee on District property demonstrate or threaten violent behavior, the District will call law enforcement and he/she may be subject to criminal prosecution. Should an employee demonstrate or threaten violent behavior, he/she may be subject to disciplinary action up to and including termination.

307.2 The following actions are considered violent acts, but not limited:

- (a) Striking, punching, slapping or assaulting another person.
- (b) Fighting or challenging another person to a fight.

- (c) Grabbing, pinching or touching another person in an unwanted way whether sexually or otherwise.
- (d) Engaging in dangerous, threatening or unwanted horseplay.
- (e) ~~Possession, use, or Threats with the~~ of use, of a gun, knife or other weapon of any kind on District property, including parking lots, other interior and exterior premises, District vehicles, or while engaged in activities for the District in other locations.
- (f) Verbal assaults. Verbal assaults are statements that would place a reasonable person in fear of harm for the safety of himself/herself or others and that serve no legitimate workplace purpose.
- (g) Threatening harm or harming another person, or any other action or conduct that implies the threat of bodily harm.

307.3 Any employee or Trustee who is a victim of any violent threatening or harassing conduct, any employee or Trustee witness to such conduct, or any employee or Trustee receiving a report of such conduct, whether the perpetrator is a District employee or a non-employee, shall immediately report the incident to their supervisor or other appropriate person in the chain of command. The General Manager must be notified.

307.4 No one, acting in good faith, who initiates a complaint or reports an incident under this policy will be subject to retaliation or harassment by the District.

307.5 Any employee reported to be a perpetrator, will be provided due process before the District takes disciplinary action.

307.6 Anyone who fears for the safety of persons at the scene of the violent act should call law enforcement immediately.

Section 308. Exit Interviews

308.1 The General Manager, or immediate supervisor, shall meet with each employee at the end of their employment at the District.

Chapter 400. OPERATIONS

Section 401. District Policy General

The following goals and guidelines have been adopted by the Board of Trustees of the District to be used by management in the formulation and implementation of District programs:

- (a) The District shall carry on a mosquito control program to provide an acceptable level of comfort and to protect the public from mosquito-borne disease.
- (b) The mosquito control program shall be consistent with prevailing land-use planning, comply with the California Environmental Quality Act of 1970 (adopted February 28, 1973), and be appropriately integrated with environmental management plans.
- (c) The mosquito control program shall emphasize environmental management techniques that reinforce already operating forces of natural control. Control agents and/or methodologies shall be selected on the basis of human and environmental safety and efficiency.

401.1 Other Pertinent Legislation and Cooperative Agreements impacting the Operations of the District:

- (a) California Department of Agriculture Pesticide Worker Regulation;
- (b) Cooperative Agreement, State Department of Public Health; and/or
- (c) Occupational Safety and Health Act.

401.2 Source Reduction Policy

401.2.1 It shall be the overall goal of the District to provide for the public's health and comfort by carrying on a program of mosquito source abatement that is responsive to the public, cost effective, compatible with the natural environment and consistent with prevailing land-use planning or zoning.

401.2.2 The primary objective of the District shall be the progressive elimination and/or management of mosquito breeding sources. This shall be accomplished through District review of local government planning processes, by educational means, by public projects accomplished by the District or in cooperation with regulatory agencies, by legal abatement procedures, or by other means.

401.2.3 When it is determined by the District that a mosquito source will require a continuing program of maintenance and/or water management, the District objective shall be to educate landowners and land managers to fully accept the responsibility for managing the mosquito source in a manner that will reduce mosquito production to a level determined to be satisfactory to the District.

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401.3.1 Under the following circumstances, the District shall initiate legal procedures to abate a mosquito source, and/or gain repayment of the costs of temporary control incurred by the District:

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The District shall initiate legal action to abate the source, or to gain repayment of costs incurred by the District, when the conditions specified above prevail.

Section 402. Injury and Illness Prevention Program

402.1 Policy Statement. The District will institute and administer a comprehensive and continuous occupational Injury and Illness Prevention Plan (IIPP) for all employees. The health and safety of the individual employee, whether in the field, shop, or office, takes precedence over all other concerns. Management's goal is to prevent accidents, to reduce personal injury and occupational illness and to comply with all safety and health standards.

402.2 Program Administration. Overall responsibility for the development, implementation, and monitoring of the IIPP shall be vested with the General Manager. Day-to-day responsibility for the IIPP shall be assigned to the {IIPP Administrator} as designated by the General Manager. Duties of the IIPP Administrator include but are not limited to:

- (a) Ensuring that all supervisors are trained in workplace safety and are familiar with the safety and health hazards to which employees under their immediate direction may be exposed, as well as applicable laws, regulations, and the District's safety rules and policies;
- (b) Ensuring that employees are trained in accordance with this program;
- (c) Inspecting, recognizing, and evaluating workplace hazards, including repetitive stress, on a continuing basis;
- (d) Developing methods for abating workplace hazards;
- (e) Ensuring that workplace hazards are abated in a timely and effective manner;
- (f) Maintaining current certification in CPR and first aid training; and
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402.3 Employee Compliance

- 402.3.1 All employees are responsible for carrying out the IIPP in their work areas. A copy of the IIPP shall be available from the IIPP Administrator or the General Manager, who shall be able to answer employee questions about the program.
- 402.3.2 Employees who follow safe and healthful work practices will have this fact recognized and documented on their performance reviews.
- 402.3.3 Employees who are unaware of correct safety and health procedures will be trained or retrained by the IIPP Administrator and/or their supervisor and this training will be documented in the IIPP Training Log.
- 402.3.4 Willful violations of safe work practices may result in disciplinary action in accordance with District policies set forth in Chapter 700. ~~below.~~

402.4 Communication

- 402.4.1 Matters concerning occupational safety and health will be communicated to employees by means of written documentation, staff meetings, formal and informal training and posting.
- 402.4.2 Communication from employees to the IIPP Administrator about unsafe or unhealthy conditions is encouraged and may be verbal or

written, as the employee chooses. The employee may use the Unsafe Condition Form and remain anonymous.

402.4.3 No employee shall be retaliated against for reporting hazards or potential hazards, or for making suggestions related to safety.

402.4.4 The results of the investigation of any employee safety suggestion or report of hazard will be distributed to all employees affected by the hazard, or posted on appropriate bulletin boards.

402.5 Inspections

402.5.1 The IIPP Administrator will conduct monthly inspections to identify unsafe work conditions and practices. The monthly inspection will also include all safety items such as fire extinguishers, eye wash stations, fire/smoke alarms and wash facilities. (See Emergency Equipment Maintenance Check Form.)

402.5.2 Employees are required to inspect equipment and the work site for unsafe conditions before beginning work each day.

402.5.3 The IIPP Administrator is also required to inspect new substances, processes, procedures, or equipment introduced into the workplace for occupational safety and work hazards.

402.6 Accident and Incident Investigation

402.6.1 All work-related accidents shall be investigated by the District immediately. Reported minor accidents and near misses shall be investigated as well as serious incidents. A "near miss" is an incident which, although not serious in itself, could have resulted in serious injury or significant property damage.

402.6.2 The investigation must obtain all the facts surrounding the occurrence including, but not limited to: what caused the situation to occur; who was involved; was/were the employee(s) qualified to perform the functions involved in the accident or near miss; were they properly trained; were proper operating procedures followed, and if not, why not; where else this or a similar situation might exist, and how it can be corrected. A written report of the investigation shall be prepared and submitted to the General Manager.

402.6.3 The accident and incident investigator (IIPP Administrator or person designated by the General Manager) must determine which aspects of the operation or process require additional attention to eliminate the cause of the accident or near miss.

402.6.4 Actions already taken to reduce or eliminate the exposures being investigated should be noted, along with those remaining to be addressed. Any interim or temporary precautions should also be noted. Any pending corrective action and reason for delaying its implementation shall be identified.

402.6.5 Corrective action shall be identified in terms of how it will prevent a recurrence of the accident or near miss in the future.

402.7 Correction of Unsafe or Unhealthful Conditions

402.7.1 Whenever an unsafe or unhealthful condition, practice or procedure is observed, discovered, or reported, the IIPP Administrator will take appropriate corrective measures in a timely manner based upon the severity of the hazard. Employees will be informed of the hazard, and interim protective measures taken until the hazard is corrected.

402.7.2 Employees may not enter an imminent hazard area without appropriate protective equipment, training, and prior specific approval given by the IIPP Administrator.

402.8 Training

402.8.1 The IIPP Administrator or designee shall assure that the supervisors receive training on recognizing the safety and health hazards to which employees under their immediate direction may be exposed.

402.8.2 Supervisors are responsible for seeing that those under their direction receive training on general workplace safety and specific instructions regarding hazards unique to any job assignment.

402.8.3 This safety training will be provided:

(a) To all employees and those given new job assignments for which training was not previously received;

(b) Whenever new substances, processes, procedures or equipment introduced to the workplace present a new hazard; and/or

(c) Whenever the employer is made aware of a new or previously recognized hazard.

402.8.4 When supervisory staff are unable to provide the required training themselves, they shall request that the training be given by others or designees.

402.8.5 A specific list of training requirements for employee instruction is contained in the California Code of Regulations, Title 8, Section 1510, "Safety Instructions for Employees."

402.9 Record Keeping

402.9.1 The IIPP Administrator or designee shall keep records of inspections, including the name of the person(s) conducting the inspection, the unsafe conditions and work practices identified, and action taken to correct those identified unsafe conditions and work practices. The records shall be maintained for three years.

402.9.2 The IIPP Administrator or designee shall also keep documentation of safety and health training attended by each employee, including employee name or other identifier, training dates, type(s) of training, and training providers in the IIPP folder. This documentation shall be maintained for three years. Training history may also be included in employees' personnel files with employees' signed acknowledgments.

402.9.3 The IIPP Administrator or designee shall keep records of all employees' safety and health-related certifications, including specifically certifications for pesticide application, first aid, and cardiopulmonary resuscitation. The IIPP Administrator or designee shall advise employees of the expected expiration of certifications in a timely manner so that certifications can be kept current. The IIPP Administrator or designee shall notify the General Manager immediately of the expiration of any employee's required certification.

402.9.4 The General Manager shall ensure that all required employee certifications are maintained.

402.10 Hazard Communication Program

402.10.1 The District has developed a Hazard Communication Program to enhance our employees' health and safety.

402.10.2 As a District we shall provide information about hazardous chemicals and the control of hazards via our comprehensive Hazard Communication Program, which includes container labeling, Safety Data Sheets (SDS), and training.

402.10.3 It is the policy of the District that no container of hazardous substances will be released for use until the following label information is verified:

(a) Containers are clearly labeled as to the contents;

(b) Appropriate hazard warnings are noted; and

(c) The name and address of the manufacturer are listed.

402.10.4 The container labeling responsibility is assigned to the IIPP Administrator. All secondary hazardous material containers will be labeled.

402.10.5 Employees are responsible for ensuring that all secondary hazardous material containers are labeled with either an extra copy of the original manufacturer's label or with a generic label blocking the original while clearly identifying the contents, including safety hazard information.

402.11 Safety Data Sheets (SDS)

402.11.1 Copies of the Safety Data Sheets (SDS) for all hazardous substances to which employees of this District may be exposed will be kept in the Technician Room, and the IIPP Administrator will be responsible for obtaining and maintaining the SDS information for the District.

402.11.2 The IIPP Administrator shall review incoming SDS for new and significant health/safety information. Any new information shall be provided to the affected employees.

402.11.3 SDS will be reviewed for completeness by the IIPP Administrator. If an SDS is missing or obviously incomplete, a new SDS shall be requested from the manufacturer. Cal/OSHA shall be notified if a complete SDS is not received.

402.11.4 SDS shall be available to all employees in their work area for review. If SDS are not available or new hazardous substance(s) in use do not have SDS, contact the IIPP Administrator.

402.11.5 Employees are to attend a health and safety orientation set up by the IIPP Administrator prior to starting work to receive information and training on the following:

(a) An overview of the requirements contained in the Hazard Communication Program, including their rights under the regulation;

(b) Operations in their work area where hazardous substances are present;

(c) Location and availability of the written Hazard Communication Program;

- (d) Physical and health effects of the hazardous substances;
- (e) Methods and observation techniques used to determine the presence or release of hazardous substances in the work area;
- (f) How to lessen or prevent exposure to these hazardous substances;
- (g) Steps the District has taken to lessen or prevent exposure to these substances;
- (h) Emergency and first aid procedures to follow if employees are exposed to these substances; and
- (i) How to read labels and review SDS to obtain appropriate hazard information.

402.11.6 When new hazardous substances are introduced, the IIPP Administrator will review in a safety meeting the above items as they are related to the new material.

402.12 Hazardous Non-Routine Tasks

402.12.1 Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by the IIPP Administrator or person in charge of the project about hazards to which they may be exposed during such an activity. This information will include:

- (a) Specific hazards;
- (b) Protective/safety measures which must be utilized; and
- (c) Measures the District has taken to lessen the hazards.

402.13 Outside Contractors. To ensure that outside contractors work safely at our District, it is the responsibility of the IIPP Administrator to provide contractors the following information:

- (a) Hazardous substances to which they may be exposed while on the job site; and
- (b) Precautions the contractor's employees may take to lessen the possibility of exposure by usage of appropriate protective measures.

402.14 Plan Questions. Questions about this plan should be directed to the IIPP Administrator. The plan will be monitored by the IIPP Administrator to ensure that the policies are carried out and that the plan is effective.

402.15 ACMAD Safety Committee

402.15.1 The Safety Committee is to be made up of the General Manager, the IIPP Administrator, and two other employees representing the lab and field operations. The two other employees will serve on the committee for a one-year period (calendar year). Employees are to be rotated through the Safety Committee so that they might benefit from an increased awareness of safety at the District. At any time, a supervisor may attend a meeting. The Safety Committee is to meet at least quarterly.

The standing charges for the Safety Committee include:

- (a) Review all unsafe conditions reports to insure appropriate action has been taken. File reports with the IIPP Administrator.
- (b) Review all accident reports to make sure that such accidents are avoided in the future. Make recommendations for corrective action.
- (c) Review current safety record to determine trends.
- (d) Review new equipment to develop procedures for safe operation.
- (e) Review any new working procedures to modify as necessary to be safe.

Section 403. Computer, E-Mail, and Voice Mail Policy

403.1 The District's computer, network, electronic data, e-mail, Internet access, voice mail, facsimile and telephone systems ("information systems") are business tools made available to District employees in order to enhance efficiency in job performance, and are provided for the transmission of District business and information. These systems are to be used for District business only and not for personal purposes.

403.2 Personal telephone calls and/or e-mail during business hours, both incoming and outgoing, shall be confined to those which are absolutely necessary, and should be kept to a minimum.

403.3 The District owns the rights to all data and files in any computer, network, or other information system used in the District and to all data and files sent or received using any District system or using the District's access to any computer network, to the extent that such rights are not superseded by applicable laws relating to intellectual property. The District also reserves the right to monitor electronic mail messages and their content, as well as any and

all use by employees of the Internet and of computer equipment used to create, view, or access e-mail and Internet content. Employees must be aware that the electronic mail messages sent and received using District equipment or District-provided Internet access, including web-based messaging systems used with such systems or access, are not private and are subject to viewing, downloading, inspection, release, and archiving by District officials at all times. The District has the right to inspect any and all files stored in private areas of the network or on individual computers or storage media in order to assure compliance with District policies and State and Federal laws. No employee may access another employee's computer, computer files, or electronic mail messages without prior authorization from either the employee or the General Manager or Board President.

403.4 The District's information systems may not be used in any way that may be disruptive, offensive to others, or harmful to morale.

403.5 Use of Social Media

403.5.1 Social Media sites may be used by the District as an additional means of conveying District information to its residents, constituents, and community members, and maximizing the promotion of District programs and services.

403.5.2 The intended purpose of establishing social media pages for the District's use is to establish an interactive communication platform with local residents and to disseminate information from the District and about the District. This policy is also intended to mitigate associated risks from use of social media technology, where possible.

403.5.3 The District has an overriding interest and expectation in protecting the integrity of information posted on its social media pages and deciding what is "said" on behalf of the District. This policy applies wholly to the District and all District Trustees, employees or officials who use social media sites and/or technology on behalf of the District. Further, the District's social media presence is intended to serve only as a limited public forum.

403.5.4 All official District presences on social media sites are considered an extension of the District's information networks and are governed by District policies, including e-mail, Internet usage, and use of electronic media policies. In addition, the District's presence on social media sites is also subject to the District's policies on harassment, discrimination, political activity, and customer relations.

403.5.5 Employees representing the District via social media sites must conduct themselves at all times as representatives of the District.

Employees who fail to conduct themselves in an appropriate manner shall be subject to appropriate disciplinary actions.

- 403.5.6 Content posted on social media sites may be considered public records subject to disclosure under California's Public Records Act ("PRA" – Government Code §§ 6250, et. seq.). Any content maintained on any Approved District Social Media Site that is related to District business, including a list of subscribers, posted communication, and communication submitted for posting, as well as any deleted content, may be a public record subject to disclosure. All such content must be retained pursuant to the PRA and the District's retention policy. PRA requests for the production of posts or deleted content on an Approved District Social Media Site shall be referred to the General-Manager for review and response.
- 403.5.7 Parental consent must be obtained before posting images of minors on District social media platforms.

Section 404. Policy for District Vehicle Use

- 404.1 The General Manager may grant temporary use of a District vehicle to an employee for use after regular District work hours when it proves to be more efficient in the completion of District work.
- 404.2 No employee will be granted temporary use of a District vehicle under this policy who has not provided the District with proof of: (1) valid automobile insurance with coverage that meets current State minimums, and (2) a current DMV printout which documents that the employee has a valid California Driver's license, and an acceptable driving record.
- 404.3 At no time shall the General Manager grant use of a District vehicle to anyone other than a District employee or Trustee, and at no time shall the vehicle be used for any other purpose than District business.

Section 405. Policy for Use of District Unmanned Aircraft Systems (UAS)

UAS Purpose and Scope

- 405.1 The purpose of an UAS for the District, is to augment the existing mosquito monitoring and control program. Images collected using the UAS that contain personally identifiable information (PII) will not be retained. At no time shall District UAS be used for any purpose other than District business.

- 405.2 Each UAS mission must comply with Federal, State, and Local UAS regulations and adhere to restrictions made by air traffic control services that monitor the airspace of the operation.
- 405.3 UAS missions may be conducted only after the land owner or property manager has provided prior and verifiable permission for the operation, or when legal authority for the operation is provided.

UAS Operations

- 405.4 Only District employees that hold a valid Remote Pilot license which is issued by the US Federal Aviation Administration (FAA) and a properly trained flight crew are permitted to operate and participate in an operation that involves the use of UAS.
- 405.5 All operations that involve UAS must include a pilot in command (PIC) and at least one visual observer (VO).
- 405.6 The PIC and VO must maintain an unaided visual line of sight (VLOS) with the UAS.
- 405.7 Appropriate personal protective equipment must be used during all operations that involve UAS including safety glasses during UAS takeoff and landing.
- 405.8 The PIC may fly the UAS only if satisfied that the flight can be made safely. The PIC should conduct a preflight inspection, to include specific UAS and control station systems checks, to ensure that the UAS is in a condition for safe operation. The PIC should conduct a pre-mission survey of the flight area to evaluate local geography, identify hazards, minimum weather visibility of 3 miles from control station, and determine where PIC and VO should be positioned so that VLOS with the UAS is maintained throughout the operation. The PIC will always seek to minimize the risk of injury, property damage, and intrusion of privacy when planning and conducting operations with UAS. The UAS may not be flown within 25 feet of any person.
- 405.9 The elevation above ground level (AGL) that the UAS is flown should be minimized, preferably less than 100 feet AGL, and may not exceed 400 feet AGL.
- 405.10 All incidents of UAS loss of control, collisions (person, animal, or structure) must be reported verbally to the supervisor of the PIC as soon as it is safe, and a written summary of the incident provided to the supervisor of the PIC within one (1) working day of the incident.

405.11 The PIC shall report to FAA within ten (10) days of any operation that results in at least serious injury, or property damage of at least \$500.

UAS Data Management

405.12 A maintenance record book must be maintained for each UAS. A flight log book that records all UAS operations should be made by the PIC for each operation and retained for at least three (3) years after an operation (per ACMAD policy §800).

405.13 The PIC is responsible for destroying all photographs or videos (originals and copies) that are made using the UAS within seven (7) working days from the conclusion of each UAS operation if they contain PII. PII includes, but is not limited to, images of a face or vehicle license plate.

405.14 The PIC is responsible to make sure that no photograph or video (originals and copies) that are made using the UAS are shared with anyone outside the District without the written permission of the General Manager of the District. Data collected by the UAS, including photographs and or videos shall be used only by the District in accordance with its stated mission and objectives.

405.15 Flight imagery will be stored on a computer that is not connected to the internet to protect against data security risks.

Chapter 400. OPERATIONS

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402.9.3 The IIPP Administrator or designee shall keep records of all employees' safety and health-related certifications, including specifically certifications for pesticide application, first aid, and cardiopulmonary resuscitation. The IIPP Administrator or designee shall advise employees of the expected expiration of certifications in a timely manner so that certifications can be kept current. The IIPP Administrator or designee shall notify the District General Manager immediately of the expiration of any employee's required certification.

402.9.4 The District General Manager shall ensure that all required employee certifications are maintained.

402.10 Hazard Communication Program

402.10.1 ~~The Alameda County Mosquito Abatement~~ District has developed a Hazard Communication Program to enhance our employees' health and safety.

402.10.2 As a District we shall provide information about hazardous chemicals and the control of hazards via our comprehensive Hazard Communication Program, which includes container labeling, Safety Data Sheets (SDS), and training.

402.10.3 It is the policy of the District that no container of hazardous substances will be released for use until the following label information is verified:

- (a) Containers are clearly labeled as to the contents;
- (b) Appropriate hazard warnings are noted; and
- (c) The name and address of the manufacturer are listed.

402.10.4 The container labeling responsibility is assigned to the IIPP Administrator. All secondary hazardous material containers will be labeled.

402.10.5 Employees are responsible for ensuring that all secondary hazardous material containers are labeled with either an extra copy of the original manufacturer's label or with a generic label blocking the original while clearly identifying the contents, including safety hazard information.

402.11 Safety Data Sheets (SDS)

402.11.1 Copies of the Safety Data Sheets (SDS) for all hazardous substances to which employees of this District may be exposed will be kept in the Technician Room, and the IIPP Administrator will be responsible for obtaining and maintaining the SDS information for the District.

402.11.2 The IIPP Administrator shall review incoming SDS for new and significant health/safety information. Any new information shall be provided to the affected employees.

402.11.3 SDS will be reviewed for completeness by the IIPP Administrator. If an SDS is missing or obviously incomplete, a new SDS shall be requested from the manufacturer. Cal/OSHA shall be notified if a complete SDS is not received.

402.11.4 SDS shall be available to all employees in their work area for review. If SDS are not available or new hazardous substance(s) in use do not have SDS, contact the IIPP Administrator.

402.11.5 Employees are to attend a health and safety orientation set up by the IIPP Administrator prior to starting work to receive information and training on the following:

- (a) An overview of the requirements contained in the Hazard Communication Program, including their rights under the regulation;
- (b) Operations in their work area where hazardous substances are present;

- (c) Location and availability of the written Hazard Communication Program;
- (d) Physical and health effects of the hazardous substances;
- (e) Methods and observation techniques used to determine the presence or release of hazardous substances in the work area;
- (f) How to lessen or prevent exposure to these hazardous substances;
- (g) Steps the District has taken to lessen or prevent exposure to these substances;
- (h) Emergency and first aid procedures to follow if employees are exposed to these substances; and
- (i) How to read labels and review SDS to obtain appropriate hazard information.

402.11.6 When new hazardous substances are introduced, the IIPP Administrator will review in a safety meeting the above items as they are related to the new material.

402.12 Hazardous Non-Routine Tasks

402.12.1 Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee will be given information by the IIPP Administrator or person in charge of the project about hazards to which they may be exposed during such an activity. This information will include:

- (a) Specific hazards;
- (b) Protective/safety measures which must be utilized; and
- (c) Measures the District has taken to lessen the hazards.

402.13 Outside Contractors. To ensure that outside contractors work safely at our District, it is the responsibility of the IIPP Administrator to provide contractors the following information:

- (a) Hazardous substances to which they may be exposed while on the job site; and
- (b) Precautions the contractor's employees may take to lessen the possibility of exposure by usage of appropriate protective measures.

402.14 Plan Questions. Questions about this plan should be directed to the IIPP Administrator. The plan will be monitored by the IIPP Administrator to ensure that the policies are carried out and that the plan is effective.

402.15 ACMAD Safety Committee

402.15.1 The Safety Committee is to be made up of the ~~District~~ General Manager, the IIPP Administrator, and two other employees representing the lab and field operations. The "two other employees" will serve on the committee for a one-year period (calendar year). All Employees are to be rotated through the Safety Committee so that they might benefit from an increased awareness of safety at the District. At any time, a supervisor may attend a meeting. The Safety Committee is to meet at least quarterly.

The standing charges for the Safety Committee include:

- (a) Review all unsafe conditions reports to insure appropriate action has been taken. File reports with the IIPP Administrator.
- (b) Review all accident reports to make sure that such accidents are avoided in the future. Make recommendations for corrective action.
- (c) Review current safety record to determine trends.
- (d) Review new equipment to develop procedures for safe operation.
- (e) Review any new working procedures to modify as necessary to be safe.

Section 403. Computer, E-Mail, and Voice Mail Policy

403.1 The District's computer, network, electronic data, e-mail, Internet access, voice mail, facsimile and telephone systems ("information systems") are business tools made available to District employees in order to enhance efficiency in job performance, and are provided for the transmission of District business and information. These systems are to be used for District business only and not for personal purposes.

403.2 Personal telephone calls and/or e-mail during business hours, both incoming and outgoing, shall be confined to those which are absolutely necessary, and should be kept to a minimum.

403.3 The District owns the rights to all data and files in any computer, network, or other information system used in the District and to all data and files sent or

received using any District system or using the District's access to any computer network, to the extent that such rights are not superseded by applicable laws relating to intellectual property. The District also reserves the right to monitor electronic mail messages and their content, as well as any and all use by employees of the Internet and of computer equipment used to create, view, or access e-mail and Internet content. Employees must be aware that the electronic mail messages sent and received using District equipment or District-provided Internet access, including web-based messaging systems used with such systems or access, are not private and are subject to viewing, downloading, inspection, release, and archiving by District officials at all times. The District has the right to inspect any and all files stored in private areas of the network or on individual computers or storage media in order to assure compliance with District policies and State and Federal laws. No employee may access another employee's computer, computer files, or electronic mail messages without prior authorization from either the employee or the General Manager or Board President, ~~an appropriate District official.~~

403.4 The District's information systems may not be used in any way that may be disruptive, offensive to others, or harmful to morale.

403.5 Use of Social Media

403.5.1 Social Media sites may be used by the ~~Alameda County Mosquito Abatement~~ District as an additional means of conveying District information to its residents, constituents, and community members, and maximizing the promotion of District programs and services.

403.5.2 The intended purpose of establishing social media pages for the District's use is to establish an interactive communication platform with local residents and to disseminate information from the District and about the District. This policy is also intended to mitigate associated risks from use of social media technology, where possible.

403.5.3 The District has an overriding interest and expectation in protecting the integrity of information posted on its social media pages and deciding what is "said" on behalf of the District. This policy applies wholly to the District and all District Trustees, employees or officials who use social media sites and/or technology on behalf of the District. Further, the District's social media presence is intended to serve only as a limited public forum.

403.5.4 All official District presences on social media sites are considered an extension of the District's information networks and are governed by District policies, including e-mail, Internet usage, and use of electronic media policies. In addition, the District's presence on

social media sites is also subject to the District's policies on harassment, discrimination, political activity, and customer relations.

- 403.5.5 Employees representing the District via social media sites must conduct themselves at all times as representatives of the District. Employees who fail to conduct themselves in an appropriate manner shall be subject to appropriate disciplinary actions.
- 403.5.6 Content posted on social media sites may be considered public records subject to disclosure under California's Public Records Act ("PRA" – Government Code §§ 6250, et. seq.). Any content maintained on any Approved District Social Media Site that is related to District business, including a list of subscribers, posted communication, and communication submitted for posting, as well as any deleted content, may be a public record subject to disclosure. All such content must be retained pursuant to the ~~Public Records Act~~ PRA and the District's retention policy. PRA requests for the production of posts or deleted content on an Approved District Social Media Site shall be referred to the District ~~General~~ General Manager for review and response.

403.5.7 Parental consent must be obtained before posting images of minors on District social media platforms.

Section 404. Policy for District Vehicle Use

- 404.1 The General Manager may grant temporary use of a District vehicle to an employee for use after regular District work hours when it proves to be more efficient in the completion of District work.
- 404.2 No employee will be granted temporary use of a District vehicle under this policy who has not provided the District with proof of: (1) valid automobile insurance with coverage that meets current State minimums, and (2) a current DMV printout which documents that the employee has a valid California Driver's license, and an acceptable driving record.
- 404.3 At no time shall the District ~~General~~ General Manager grant use of a District vehicle to anyone other than a District employee or Trustee, and at no time shall the vehicle be used for any other purpose than District business.

Section 405. Policy for Use of District Unmanned Aircraft Systems (UAS)

UAS Purpose and Scope

405.1 The purpose of an UAS for the District, is to augment the existing mosquito monitoring and control program. Images collected using the UAS that contain personally

identifiable information (PII) will not be retained. At no time shall District UAS be used for any purpose other than District business.

405.2 Each UAS mission must comply with Federal, State, and Local UAS regulations and adhere to restrictions made by air traffic control services that monitor the airspace of the operation.

405.3 UAS missions may be conducted only after the land owner or property manager has provided prior and verifiable permission for the operation, or when legal authority for the operation is provided.

UAS Operations

405.4 Only District employees that hold a valid Remote Pilot license which is issued by the US Federal Aviation Administration (FAA) and a properly trained flight crew are permitted to operate and participate in an operation that involves the use of UAS.

405.5 All operations that involve UAS must include a pilot in command (PIC) and at least one visual observer (VO).

405.6 The PIC and VO must maintain an unaided visual line of sight (VLOS) with the UAS.

405.7 Appropriate personal protective equipment must be used during all operations that involve UAS including safety glasses during UAS takeoff and landing.

-

405.8 The PIC may fly the UAS only if satisfied that the flight can be made safely. The PIC should conduct a preflight inspection, to include specific UAS and control station systems checks, to ensure that the UAS is in a condition for safe operation. The PIC should conduct a pre-mission survey of the flight area to evaluate local geography, identify hazards, minimum weather visibility of 3 miles from control station, and determine where PIC and VO should be positioned so that VLOS with the UAS is maintained throughout the operation. The PIC will always seek to minimize the risk of injury, property damage, and intrusion of privacy when planning and conducting operations with UAS. The UAS may not be flown within 25 feet of any person.

405.9 The elevation above ground level (AGL) that the UAS is flown should be minimized, preferably less than 100 feet AGL, and may not exceed 400 feet AGL.

405.10 All incidents of UAS loss of control, collisions (person, animal, or structure) must be reported verbally to the supervisor of the PIC as soon as it is safe, and a written summary of the incident provided to the supervisor of the PIC within one (1) working day of the incident.

~~405.11 The PIC shall report to FAA within ten (10) days of any operation that results in at least serious injury, or property damage of at least \$500.~~

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~~405.2 Monitor and comply with Evolving Federal (14 CFR Part 107), State and Local UAS Laws.~~

~~405.3 Each UAS operation must comply with current FAA rules and recommendations, and adhere to restrictions made by air traffic control services that monitor the airspace of the operation. Operations using UAS may be conducted only after the land owner or property manager has provided prior and verifiable permission for the operation, or when legal authority for the operation is provided. A maintenance record book must be maintained for each UAS. A flight log book that records all UAS operations should be made by the PIC for each operation, and retained for at least three (3) years after an operation. The flight log book should record the following: date, time, location, weather conditions at the site and time of an operation, PIC, VO(s), completion of the preflight checklist, updates to maintenance records, purpose of the operation, and anomalous incidents.~~

Commented [EH1]: This is intended to cover court-authorized abatements.

~~405.4 The elevation above ground level (AGL) that the UAS is flown should be minimized, preferably less than 100 feet AGL, and may not exceed 400 feet AGL. Appropriate PPE must be used during all operations that involve UAS, including safety glasses during UAS takeoff and landing. All incidents of UAS loss of control (LOC), collisions (person, animal, or structure) must be reported verbally to the supervisor of the PIC as soon as it is safe, and a written summary of the incident provided to the supervisor of the PIC within one (1) working day of the incident. Incidents that are reportable to the FAA must be reported to the FAA. The PIC and VO must maintain an unaided visual line of sight (VLOS) with the UAS. The PIC may fly the UAS only if satisfied that the flight can be made safely. The PIC should conduct a pre-mission survey of the flight area to evaluate local geography, identify hazards, and determine where PIC and VO should be positioned so that VLOS with the UAS is maintained throughout the operation. The PIC will always seek to minimize the risk of injury, property damage, and intrusion of privacy when planning and conducting operations with UAS. The UAS may not be flown within 25 feet of any person.~~

Commented [EH2]: This is required of a FAA licensed Remote Pilot. Additionally, it is required for flying under Part 107 and with a COA.

~~405.5 If during an operation, someone asks the PIC to delete imagery collected using the UAS, do so, unless there is a good reason not to. The PIC is responsible for destroying all photographs or videos (originals and copies) that are made using the UAS within seven (7) working days from the conclusion of each UAS operation if they contain personally identifiable information (PII). PII includes, but is not limited to images of a face, vehicle license plate, or metadata that conclusively identifies the site if any part of the operation was conducted over private property (e.g. addresses or GPS coordinates). Photos or videos made using the UAS may be retained longer than seven (7) working days with approval of the General Manager, and only if all PII and metadata associated with the imagery is obfuscated or deidentified. The PIC is responsible to make sure that no photograph or video (originals and copies) that are made using the UAS is shared with anyone outside the District without the written permission of the General Manager of the District. Data collected by the UAS, including photographs and or videos shall be used only by the District in accordance with its stated mission and objectives. Monthly inspections (Ref. Section 402.5) shall cover all aspects of the usage of the UAS that includes reasonable effort to regularly monitor systems for breach and data security risks.~~

Commented [EH3]: Consider having images stored only on a computer that is specified for UAS image analysis, that is not connected to any network. This way, IT can set up a schedule to automatically delete files in a folder after 7 days.

Section 405. Policy for Use of District Unmanned Aircraft Systems (UAS)

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405.2 Each UAS mission must comply with Federal, State, and Local UAS regulations and adhere to restrictions made by air traffic control services that monitor the airspace of the operation.

405.3 UAS missions may be conducted only after the land owner or property manager has provided prior and verifiable permission for the operation, or when legal authority for the operation is provided.

UAS Operations

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405.9 The elevation above ground level (AGL) that the UAS is flown should be minimized, preferably less than 100 feet AGL, and may not exceed 400 feet AGL.

405.10 All incidents of UAS loss of control, collisions (person, animal, or structure) must be reported verbally to the supervisor of the PIC as soon as it is safe, and a written summary of the incident provided to the supervisor of the PIC within one (1) working day of the incident.

405.11 The PIC shall report to FAA within ten (10) days of any operation that results in at least serious injury, or property damage of at least \$500.

UAS Data Management

405.12 A maintenance record book must be maintained for each UAS. A flight log book that records all UAS operations should be made by the PIC for each operation and retained for at least three (3) years after an operation (per ACMAD policy §800).

405.13 The PIC is responsible for destroying all photographs or videos (originals and copies) that are made using the UAS within seven (7) working days from the conclusion of each UAS operation if they contain PII. PII includes, but is not limited to, images of a face or vehicle license plate.

405.14 The PIC is responsible to make sure that no photograph or video (originals and copies) that are made using the UAS are shared with anyone outside the District without the written permission of the General Manager of the District. Data collected by the UAS, including photographs and or videos shall be used only by the District in accordance with its stated mission and objectives.

405.15 Flight imagery will be stored on a computer that is not connected to the internet to protect against data security risks.

Section 405. Policy for Use of District Unmanned Aircraft Systems (UAS)

UAS Purpose and Scope

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UAS Operations

405.42 Only District employees that hold a valid Remote Pilot license which that is issued by the US Federal Aviation Administration (FAA) and a properly trained flight crew are permitted to operate and participate in an operation that involves the use of unmanned aircraft systems (UAS).

4405.53 All operations that involve UAS must include a pilot in command (PIC) and at least one visual observer (VO).

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1. ~~405.42~~ Monitor and comply with Evolving Federal (14 CFR Part 107), State and Local UAS Laws.

~~405.53~~ Each UAS operation must comply with current FAA rules and recommendations and adhere to restrictions made by air traffic control services that monitor the airspace of the operation.

~~405.6~~ Operations using UAS may be conducted only after the land owner or property manager has provided prior and verifiable permission for the operation, or when legal authority for the operation is provided.

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~~405.16 The PIC shall report to FAA within ten (10) days of any operation that results in at least serious injury, loss of consciousness, or property damage of at least \$500.~~

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Submitted by Subru Bhat

20 April 2018

Revised by Eric Haas Stapleton, 23 April 2018

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acmad@mosquitoes.org

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Ryan Clausnitzer

General Manager

Use of an unmanned aircraft system (UAS, i.e. drone) is a relatively new tool in mosquito control but has been used by other service agencies (police, firefighters, etc.) for several years. While there have not been any questions from the public regarding UAS use by other California mosquito and vector control districts, the urban nature of Alameda County could lead to an increased interest in our local program. Providing accurate and timely information to the public about the benefits of this emerging technology, its function within the District program, and the type of information that will be collected and stored is key to the successful incorporation of UAS technologies.

Proposed UAS Communication Plan:

Provide a page on the District website where the public can easily access information regarding the District's UAS program and policies. Promote awareness of the District UAS program and the advantages it provides through social media. Prepare a draft press release highlighting the advantages of a UAS program in anticipation of local media interest.

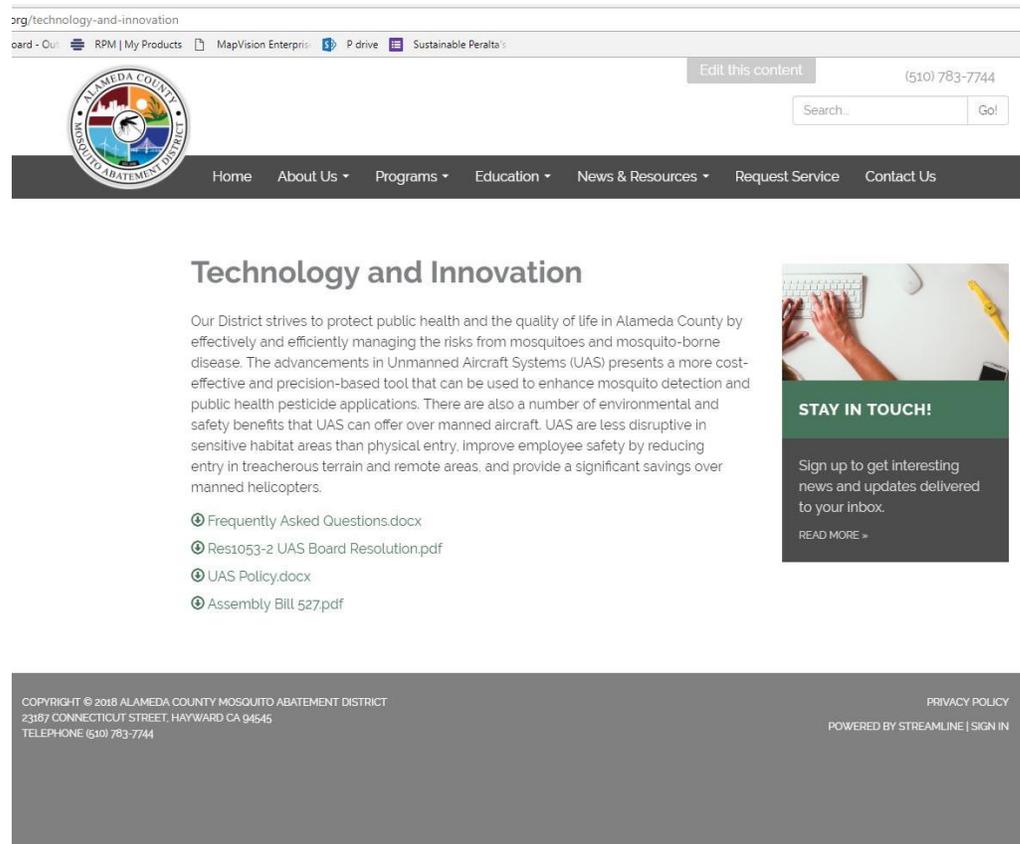


Figure 1. Draft webpage with drone information

Attachments:

1. **FAQs**
2. **Social media plan**

DRAFT Social Media 3-Week Content Calendar for ACMAD UAS Program

Week 1

	Monday	Tuesday	Wednesday	Thursday	Friday
Theme:	We are professionals				
Tweets/FB Posts:	District employees are certified public health vector control technicians through the California Department of Public Health http://www.mvcac.org/training-and-certification/certification/ #publichealth #professionals #knowledgeispower		Public health vector control technicians have 4 categories of certification: Pesticide Application and Safety, Mosquito Biology and Control, Terrestrial Invertebrate Vector Control, and Vertebrate Vector Control. #professionals #publichealth		Public health vector control technicians are required to attend educational training to maintain certification. #continuingeducation #CEUs #professionals #publichealth #knowledgeispower
Goal:	Showcase our certifications and continuous training				

Week 2

	Monday	Tuesday	Wednesday	Thursday	Friday
Theme:	We work in remote areas				
Tweets/FB Posts:	Just because we can't get to an area holding water doesn't mean a mosquito cannot. Female mosquitoes are experts at locating standing water or areas that will eventually be flooded.		Mosquito breeding sites can often be difficult to find. A small puddle of water in a marsh can breed hundreds of mosquitoes capable of flying long distances to bite people.		If a mosquito can get to it then we need to as well. Our larval control program is dependent on accessing the water where mosquitoes are breeding. If we cannot reach it, we cannot treat it.
Goal:	Show the need for alternate ways to locate and access random/remote pockets of water				

Week 3

	Monday	Tuesday	Wednesday	Thursday	Friday
Theme: UAS launch					
Tweets/FB Posts:	[Photo of District UAS and explanation of coloring]		[Video of a UAS flight and link to District webpage]		Benefits of UAS for mosquito abatement districts Highlight protection of PII
Goal: Explain our program and differentiate our UAS from hobbyists					

DRAFT

Alameda County Mosquito Abatement District (ACMAD)'s use of unmanned aircraft systems (UAS, or "drones")

Q: Why is ACMAD using UAS technology?

A: The District utilizes the most efficient and effective tools when monitoring and controlling mosquitoes. UAS technology has now advanced to a level that will augment our already robust mosquito inspection and treatment programs.

Q: How will ACMAD use UAS technology?

A: We will inspect ground surfaces for standing water in difficult to access, and sometimes sensitive habitats, such as in remote marshlands. Another application will be long-term monitoring of wetland restoration projects to evaluate their impacts on mosquito breeding. With the passage of AB 527 in 2017, mosquito and vector control districts will soon be allowed to apply mosquito control products via UAS technology. Regulations concerning these applications are expected to be finalized in late 2018.

Q: What is ACMAD's policy on images captured that contain people, vehicles, or other Personally Identifiable Information (PII)?

A: The District has strict policies on deleting images that contain PII. Most images will be taken in remote locations and may only capture light wavelengths that allow water to be visualized (people would not be visible in such images).

Q: Will these images be available to anyone upon request?

A: After completing a flight mission, the Pilot will review the flight imagery and delete all images that may contain PII or are not relevant to the mission objectives.

Q: How can I obtain more information about mosquito control in Alameda County?

A: The District's website is easy to remember: www.mosquitoes.org, where you can sign up for press alerts, and/or our quarterly newsletter. We are also active on social media through Facebook, Instagram, and Twitter. You can also call us at 510-783-7744, email at ACMAD@mosquitoes.org, or visit us at 23187 Connecticut St, Hayward, CA 94545.

Alameda County Mosquito Abatement Dist.
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Date	Account #	Vendor	Transaction Description	Debit Amt	Credit Amt
4/15/18	610461.1	Adapco	Vectobac #053518	12,095.65	
4/15/18	100001		Vectobac #053518		12,095.65
4/15/18	600001	Aetna	EE Contributions #052818	150.00	
4/15/18	100001		EE Contributions #052818		150.00
4/15/18	620141.1	Airgas	Dry ice #053418	280.35	
4/15/18	100001		Dry ice #053418		280.35
4/15/18	620021.1	All-Ways Green	Janitorial service for April #053318	410.00	
4/15/18	100001		Janitorial service for April #053318		410.00
4/15/18	101110	Bank of America	Transfer funds from Bank of America #052618	61,638.55	
4/15/18	100001		Transfer funds from Bank of America #052618		61,638.55
4/15/18	610141	Bay Area Dist	Shop supplies #053618	664.37	
4/15/18	100001		Shop supplies #053618		664.37
4/15/18	600001	CalPERS	EE Contribution #052718	18.00	
4/15/18	600001		EE Contribution #052718	4,761.01	
4/15/18	600201		ER Contribution #052718	5,961.98	
4/15/18	101111		Payment #052718		10,740.99
4/15/18	600001	CalPERS 457	EE Contributions #052918	2,570.00	
4/15/18	100001		EE Contributions #052918		2,570.00
4/15/18	610011	Cintas Corp	Laundry services #053718	434.76	
4/15/18	100001		Laundry services #053718		434.76
4/15/18	610122.1	Corporate Park	Landscape #053818	215.00	
4/15/18	610122.2		Landscape #053818	295.00	
4/15/18	100001				510.00
4/15/18	600601	Delta Dental	Dental insurance #053018	4,411.85	
4/15/18	100001		Dental insurance #053018		4,411.85
4/15/18	610141	G.A Goodman	Work on V#39 #054018	868.77	
4/15/18	100001		Work on V#39 #054018		868.77
4/15/18	620261	Grainger	Shop supplies #053918	84.90	
4/15/18	100001		Shop supplies #053918		84.90
4/15/18	610021.3	Hayward Water System	Hayward water #054118	42.00	
4/15/18	100001		Hayward water #054118		42.00
4/15/18	610141	Kimball Midwest	Shop supplies #054218	192.75	
4/15/18	100001		Shop supplies #054218		192.75
4/15/18	600001	OnePoint	04/15/18 Payroll #OnePoint	50,394.20	
4/15/18	600001		Federal W/H 04/15/18 Payroll #OnePoint	6,949.23	
4/15/18	600001		Medicare EE W/H 04/15/18 Payroll #OnePoint	928.44	
4/15/18	600401		Medicare ER W/H 04/15/18 Payroll #OnePoint	928.44	
4/15/18	600001		State W/H 04/15/18 Payroll #OnePoint	2,575.24	
4/15/18	600001		SDI W/H 04/15/18 Payroll #OnePoint	613.15	
4/15/18	600001		Transfer less to make up for last month 04/15/18 Payroll #OnePoint		750.15
4/15/18	101110		04/15/18 Payroll #OnePoint		61,638.55
4/15/18	610261.11	PFM Asset	Investment advisory services #054318	1,640.21	
4/15/18	100001		Investment advisory services #054318		1,640.21
4/15/18	610021.2	PG&E	Utilities #054418	399.46	
4/15/18	100001		Utilities #054418		399.46
4/15/18	600601	The Hartford	Life insurance coverage #053218	78.71	
4/15/18	100001		Life insurance coverage #053218		78.71
4/15/18	620141.1	U.S Bank - Dereje	Amazon - Glue board	53.88	
4/15/18	620141.1		The Home Depot - Caster Rubber	18.06	
4/15/18	100001		Payment		71.94
4/15/18	620141.2	U.S Bank - Eric	Amazon - Exam gloves	268.00	
4/15/18	620141.1		Amazon - (2) LED Lights	17.12	
4/15/18	620141.5		Apple - Lighting cable	38.24	
4/15/18	620141.5		Parallels - Parallels Desktop for MAC	99.99	
4/15/18	620141.5		Amazon - Microsoft Windows 10	119.99	
4/15/18	610191.3		Napa Farms Market - Breakfast for E.H	13.26	
4/15/18	610191.3		Napa Farms Market - Breakfast for E.H	9.44	
4/15/18	610191.3		Uber - Uber for E.H	32.71	
4/15/18	610191.3		Uber - Uber for E.H	4.90	
4/15/18	620141.2		Stericycle - Waste pick up	197.47	
4/15/18	610191.3		Grunauer - Dinner for E.H	30.13	
4/15/18	610191.3		Boulevard - Dinner for E.H	22.32	
4/15/18	610191.3		Crown Center - Dinner for E.H	12.47	
4/15/18	610191.3		Uber - Double charge, will be refunded	4.90	

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4/15/18	610191.3		Uber - Uber for E.H	4.65	
4/15/18	610191.3		Uber - Uber for E.H	31.05	
4/15/18	610191.3		Cafe Gratitude - Lunch for E.H	30.11	
4/15/18	610191.3		Crown - Breakfast for E.H	22.14	
4/15/18	610191.3		Sheraton - Hotel for E.H	758.20	
4/15/18	620141.1		Target - CREDIT		82.26
4/15/18	610141		Tonneaucovers - Cover for GMC	999.88	
4/15/18	620141.1		Fisher Scientific - Lab supplies	22.02	
4/15/18	610261.10		Indeed - Posting for job	25.84	
4/15/18	620141.2		Lifetech - King fisher, partial payment	128.63	
4/15/18	610191.3		Marriott - Refund		218.49
4/15/18	620141.2		Lifetech - Microamp reaction plate	1,596.81	
4/15/18	620141.2		Lifetech - King fisher, partial payment	200.29	
4/15/18	620141.2		Lampire - Chicken blood	255.00	
4/15/18	100001		Payment		4,644.81
4/15/18	610191.3	U.S Bank - Erika	ACE Parking - Parking for meeting	8.00	
4/15/18	610451		National Pen - Pens	532.55	
4/15/18	610191.3		ACE Parking for meeting	8.00	
4/15/18	610191.3		Sheraton - Hotel for S.E	947.75	
4/15/18	610191.3		BART - Bart to Airport	12.00	
4/15/18	610191.3		Jack Stack - Dinner for E.C & S.E	58.00	
4/15/18	610191.3		Crown Center - Lunch for E.C	20.77	
4/15/18	610191.3		Joe's - Lunch for E.C	19.14	
4/15/18	610191.3		Alaska Air - Checked bag at Airport	25.00	
4/15/18	610191.3		Jarocho - Dinner for E.C	33.00	
4/15/18	610191.3		Crown Center - Breakfast for E.C	3.55	
4/15/18	610191.3		Grunauer - Lunch for E.C	14.13	
4/15/18	610191.3		BART - Bart from Airport	9.00	
4/15/18	610191.3		Crown Center - Breakfast for E.C	3.55	
4/15/18	610191.3		Sheraton - Hotel for E.C	758.20	
4/15/18	610191.3		Sophias - Dinner for E.C	23.67	
4/15/18	610191.3		Statehouse - Lunch for E.C	13.25	
4/15/18	610191.3		Hyatt - Hotel for E.C	229.30	
4/15/18	610191.3		Dalziel Garage - Parking for meeting	11.00	
4/15/18	610451		Constant Contract - Contracts	20.00	
4/15/18	610191.3		Dalziel Garage - Parking for meeting	26.00	
4/15/18	610451		Quality Logo - Pencils	648.24	
4/15/18	610451		BB - Refund		48.44
4/15/18	100001		Payment		3,375.66
4/15/18	610461.2	U.S Bank - Joseph	Orchard Supply - Field supplies	98.74	
4/15/18	610461.2		Target - Field supplies	54.92	
4/15/18	610461.2		BioQuip - Field supplies	305.80	
4/15/18	100001		Payment		459.46
4/15/18	620261	U.S Bank - Mark	K&L Supply - Electric Lift	1,893.79	
4/15/18	610141		Argo ATV - Magnet	10.90	
4/15/18	610461.6		Amazon - (4) Radiator Water Faucet	53.76	
4/15/18	620021.2		Target - Household supplies	52.75	
4/15/18	620261		Northern Tool - Tools	389.89	
4/15/18	620261		Amazon - (3) Soldering Iron Tip	29.52	
4/15/18	610141		The Ford Store - Work on V#48	135.33	
4/15/18	620261		Amazon - Lab tools	5.10	
4/15/18	620261		Amazon - Replacement Iron	18.46	
4/15/18	620261		Amazon - Equipment	218.51	
4/15/18	100001		Payment		2,808.01
4/15/18	620041	U.S Bank - Michelle	CalChamber - Pamphlets	89.18	
4/15/18	620041		Quill - Office Supplies	104.06	
4/15/18	620041		Adobe - Software	179.88	
4/15/18	620041		Amazon - Office supplies	21.67	
4/15/18	100001		Payment		394.79
4/15/18	620042	U.S Bank - Robert	Cisco System - WebEx	228.00	
4/15/18	620042		Upwork - Subscription	32.00	
4/15/18	620042		Upwork - Freelance consultant	157.55	
4/15/18	620042		Amazon - (4) Webcams	157.60	
4/15/18	620042		Microsoft - Being disputed case #1421352113	99.99	

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4/15/18	620042		Upwork - Sharepoint work	1,558.38	
4/15/18	620042		Amazon - Webcam	59.38	
4/15/18	610022.1		TPX - Communications	1,156.64	
4/15/18	620042		Amazon - (3) RAM	207.36	
4/15/18	610351		MISAC- Membership	80.00	
4/15/18	620042		Comcast - Internet services	157.37	
4/15/18	610022.1		TPX - Communications	1,178.57	
4/15/18	620042		Upwork - Freelance consultant	123.30	
4/15/18	620042		Upwork - Freelance consultant	123.30	
4/15/18	100001		Payment		5,319.44
4/15/18	610191.3	U.S Bank - Ryan	Alaska Air - Checked bag for flight	25.00	
4/15/18	610191.3		Bryants - Dinner for R.C & E.H	29.22	
4/15/18	610191.3		Jarocho - Dinner for R.C	36.50	
4/15/18	610191.3		Joe's - Lunch for R.C & E.H	22.59	
4/15/18	610191.3		Nara - Dinner for R.C	33.40	
4/15/18	610191.3		Crown Center - Breakfast for R.C	9.61	
4/15/18	610191.7		UC Berkeley - Credit		25.00
4/15/18	610191.1		Joe's corner store - Gas	35.01	
4/15/18	610191.3		Crown Center - Breakfast for R.C	10.46	
4/15/18	610191.3		Geneos - Lunch for R.C	16.94	
4/15/18	610191.3		Jarocho - Lunch for R.C	18.28	
4/15/18	610191.3		Crown Center - Breakfast for R.C	7.64	
4/15/18	610191.3		Sheraton - Hotel for R.C	848.20	
4/15/18	610191.3		CSDA - Meeting for R.C	150.00	
4/15/18	610191.3		CSDA - Meeting for Board member	400.00	
4/15/18	610191.3		Statehouse - Lunch for R.C	15.15	
4/15/18	610191.3		Century Theatres - Dinner for R.C	17.90	
4/15/18	610191.3		Hyatt - Hotel for R.C	246.37	
4/15/18	610191.3		Hyatt - Food for R.C	6.93	
4/15/18	620041		Walgreens - Office supplies	6.54	
4/15/18	610191.3		Fastrak	25.00	
4/15/18	610191.3		City of Sac -Parking	12.50	
4/15/18	610191.4		Berkeley Bowl - Board supplies	25.12	
4/15/18	610191.4		Safeway - Board supplies	2.99	
4/15/18	610351		Industrial Emergency Council - Membership	95.00	
4/15/18	100001		Payment		2,071.35
4/15/18	600601	VSP	Vision coverage #053118	651.36	
4/15/18	100001		Vision coverage #053118		651.36
4/15/18	610021.1	Waste Management	Garbage services #054518	218.22	
4/15/18	100001		Garbage services #054518		218.22

Total 179,991.25 179,991.25

	\$	179,991.25	
	\$	(61,638.55)	Duplicate payroll posting
	\$	(374.19)	Credits
	\$	(750.15)	Payroll Transaction
	\$	117,228.36	Total 04/15/18 Warrants

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Date	Account #	Vendor	Transaction Description	Debit Amt	Credit Amt
4/30/18	600001	Aetna	EE Contributions #054918	150.00	
4/30/18	100001		EE Contributions #054918		150.00
4/30/18	620141.1	Airgas	Dry ice #056318	80.87	
4/30/18	100001		Dry ice #056318		80.87
4/30/18	630001	April 2018 Dep	April 2018 Depreciation - Structure	15,547.01	
4/30/18	203301		April 2018 Depreciation - Structure		15,547.01
4/30/18	630001		April 2018 Depreciation - Equipment	6,442.60	
4/30/18	203303		April 2018 Depreciation - Equipment		6,442.60
4/30/18	610501	Bank Fee	Bank Fee - County	924,120.24	
4/30/18	100001		Bank Fee - County		924,120.24
4/30/18	101110	Bank of America	Transfer funds to Bank of America #054718	63,444.83	
4/30/18	100001		Transfer funds to Bank of America #054718		63,444.83
4/30/18	610191.3	Bhat, Subru	Reimbursement for travel expenses #056418	179.18	
4/30/18	100001		Reimbursement for travel expenses #056418		179.18
4/30/18	800007.1	CAMP	Interest	759.19	
4/30/18	440110		Interest		759.19
4/30/18	800007.2	CAMP1	Interest	759.19	
4/30/18	440110		Interest		759.19
4/30/18	800007.3	CAMP2	Interest	1,517.29	
4/30/18	440110		Interest		1,517.29
4/30/18	610261.12	CSDA	Financial Consulting #056718	1,620.23	
4/30/18	100001		Financial Consulting #056718		1,620.23
4/30/18	600001	CalPERS 457	EE Contributions #055018	2,570.00	
4/30/18	100001		EE Contributions #055018		2,570.00
4/30/18	101111	CalPERS Health	Health insurance #055118		32,559.97
4/30/18	600601		Health insurance #055118	32,559.97	
4/30/18	600001	CalPERS Ret	EE Contributions # 054818	18.00	
4/30/18	600001		EE Contributions # 054818	4,758.74	
4/30/18	600201		ER Contributions # 054818	5,959.58	
4/30/18	101111		Transfer from Bank of the West to CalPERS		10,736.32
4/30/18	610451	Castillo, Erika	Reimbursement for booth application #056618	200.00	
4/30/18	100001		Reimbursement for booth application #056618		200.00
4/30/18	610011	Cintas	Laundry service #056518	445.10	
4/30/18	100001		Laundry service #056518		445.10
4/30/18	610461.1	Clarke	Pesticides #056818	19,543.03	
4/30/18	100001		Pesticides #056818		19,543.03
4/30/18	610141	G.A Goodman Inc	Work on V#46	249.57	
4/30/18	100001		Work on V#46		249.57
4/30/18	620261	Grainger	Shop supplies #056918	7.62	
4/30/18	610141		Shop supplies #056918	51.68	
4/30/18	100001		Shop supplies #056918		59.30
4/30/18	610351	Haas-Stapelton, Eric	Reimbursement for membership dues #057018	147.00	
4/30/18	100001		Reimbursement for membership dues #057018		147.00
4/30/18	101109	LAIF	Interest	24.29	
4/30/18	440110		Interest		24.29
4/30/18	620042	Leading Edge	Work on Database #057117	975.00	
4/30/18	100001		Work on Database #057117		975.00
4/30/18	800002	Magic Sky	Drone #057118A	14,900.36	
4/30/18	100001		Drone #057118A		14,900.36
4/30/18	610141	Naylor Steel	Shop supplies #057218	13.70	
4/30/18	100001		Shop supplies #057218		13.70
4/30/18	600001	OnePoint	Payroll 04/30/18 #OnePoint	51,043.92	
4/30/18	600001		Federal W/H 04/30/18 #OnePoint	7,194.73	
4/30/18	600001		State W/H 04/30/18 #OnePoint	2,690.58	
4/30/18	600001		SDI W/H 04/30/18 #OnePoint	628.52	
4/30/18	600001		Medicare EE W/H 04/30/18 #OnePoint	943.53	
4/30/18	600401		Medicare ER W/H 04/30/18 #OnePoint	943.55	
4/30/18	101110		Transfer funds to Bank of America		63,444.83
4/30/18	610021.2	PG&E	Utilities #057318	1,576.00	
4/30/18	100001		Utilities #057318		1,576.00
4/30/18	620041	Pitney Bowes	Postage and machine rental #057418	354.45	

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4/30/18	100001		Postage and machine rental #057418		354.45
4/30/18	610191.3	Poulson, Wendi	Travel Reimbursement #057418A	184.18	
4/30/18	100001		Travel Reimbursement #057418A		184.18
4/30/18	610261.10	Regional Gov Service	Contract services for Month #057518	718.75	
4/30/18	100001		Contract services for Month #057518		718.75
4/30/18	411010	Revenue/ Refund	Property taxes		1,919,895.51
4/30/18	411010		Property taxes		853.91
4/30/18	411010		Property taxes		17,834.70
4/30/18	411010		Property taxes		50.63
4/30/18	411010		Property taxes		494.06
4/30/18	411010		Property taxes		9,882.27
4/30/18	411010		Property taxes		257.62
4/30/18	411010		Property taxes		656.41
4/30/18	411010		Property taxes		126.88
4/30/18	411010		Property taxes		1,690.32
4/30/18	600001		Refund from ELC		1,639.60
4/30/18	100001		Revenue/Refund	1,953,381.91	
4/30/18	620021.3	Sonitrol	Alarm services #057618	750.00	
4/30/18	100001		Alarm services #057618		750.00
4/30/18	620021.2	Techniclean	Towels #057618A	89.18	
4/30/18	100001		Towels #057618A		89.18
4/30/18	610191.5	Trustee in Lieu	Trustee in Lieu #055218-056218	1,100.00	
4/30/18	100001		Trustee in Lieu #055218-056218		1,100.00
4/30/18	610022.4	Verizon	Communication expenses #057718	1,320.87	
4/30/18	100001		Communication expenses #057718		1,320.87
4/30/18	610191.1	WEX	Fuel expenses #057818	3,062.04	
4/30/18	100001		Fuel expenses #057818		3,062.04

Total 3,123,026.48 3,123,026.48

	\$	3,123,026.48	
	\$	(63,444.83)	Duplicate payroll posting
	\$	(21,989.61)	Amount Depreciated
	\$	(924,120.24)	County Fee
	\$	(759.19)	CAMP Interest
	\$	(759.19)	CAMP Interest
	\$	(1,517.29)	CAMP Interest
	\$	(24.29)	LAIF Interst
	\$	(1,953,381.91)	Revenue Received
	\$	157,029.93	Total 04/30/18 Warrants

**Alameda County Mosquito Abatement District
Income Statement
Consolidated
April 30, 2018. (10 of 12 mth, 83%)**

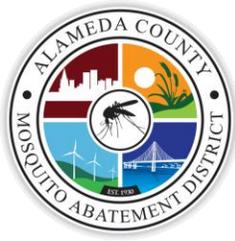
REVENUES	Actual 2015/16	Actual 2016/17	Current Month	Year to Date 2017/2018	Budget 2017/18	Actual vs Budget
Total Revenue	\$4,180,831	\$4,366,903	\$1,951,742	\$4,450,900	\$3,949,090	113%

EXPENDITURES	Actual 2015/16	Actual 2016/17	Current Month	Year to Date 2017/2018	Budget 2017/18	Actual vs Budget
Salaries	\$1,661,234	\$1,677,469	\$ 138,207.14	\$ 1,445,830.97	\$1,761,305	82%
CalPERS Retirement	\$205,340	\$219,892	\$ 11,921.56	\$ 231,234.19	\$253,662	91%
Medicare	\$21,160	\$21,368	\$ 1,871.99	\$ 19,532.80	\$25,881	75%
Fringe Benefits	\$554,630	\$453,877	\$ 37,701.89	\$ 374,101.25	\$506,368	74%
Total Salaries, Retirement, & Benefits	\$2,442,364	\$2,372,606	\$189,703	\$2,070,699	\$2,547,216	81%
Clothing and personal supplies (purchased)	\$7,169	\$8,955	\$ -	\$ 2,447.04	\$8,500	29%
Laundry service and supplies (rented)	\$7,162	\$8,840	\$ 879.86	\$ 7,153.36	\$9,000	79%
Utilities	\$22,415	\$27,084	\$ 2,235.68	\$ 23,012.23	\$38,000	61%
Communications-IT	\$32,756	\$54,128	\$ 7,535.31	\$ 59,979.19	\$109,600	55%
Maintenance: structures & improvements	\$6,739	\$19,503	\$ 510.00	\$ 18,926.97	\$28,600	66%
Maintenance of equipment	\$24,175	\$27,051	\$ 3,186.95	\$ 24,163.38	\$45,000	54%
Transportation, travel, training, & board	\$75,326	\$124,827	\$ 9,476.31	\$ 106,885.92	\$156,810	68%
Professional services	\$159,499	\$82,082	\$ 4,005.03	\$ 87,638.00	\$184,770	47%
Memberships, dues, & subscriptions	\$14,540	\$20,191	\$ 322.00	\$ 15,928.00	\$22,130	72%
Insurance - VCJPA	\$106,268	\$113,867	\$ -	\$ 128,758.93	\$133,810	96%
Community education	\$12,450	\$40,222	\$ 1,352.35	\$ 10,264.70	\$53,000	19%
Operations	\$187,490	\$176,758	\$ 32,151.90	\$ 94,504.48	\$260,800	36%
Household expenses	\$13,790	\$17,373	\$ 1,301.93	\$ 13,222.67	\$20,010	66%
Office expenses	\$14,195	\$18,590	\$ 755.78	\$ 8,303.06	\$13,050	64%
Laboratory supplies	\$76,130	\$80,008	\$ 3,294.46	\$ 63,104.89	\$105,000	60%
Small tools and instruments	\$1,155	\$2,513	\$ 2,647.79	\$ 4,413.99	\$8,500	52%
Total Staff Budget	\$ 780,944.00	\$833,192	\$ 69,655.35	\$ 668,706.81	\$1,196,580	56%
Total Operating Expenditures	\$ 3,032,263.00	\$3,479,710	\$ 259,357.93	\$ 2,739,406.02	\$4,250,164	64%

**Alameda County Mosquito Abatement District
Investment, Reserves, and Cash Balance Report
April 30, 2018. (10 of 12 mth, 83%)**

Account #	Budget Reserves	Beginning Balance	Deposit Withdrawals	Interest Earned	New Balance
800001	Working Capital (Dry Period Cash)	\$ 2,391,220.00			\$ 2,391,220.00
800002	Capital Replacement ¹	\$ 316,446.88	\$ 14,900.36		\$ 331,347.24
800003	Public Health	\$ -			\$ -
800004	Contingency	\$ 9,400.00			\$ 9,400.00
		\$ 2,717,066.88	\$ 14,900.36	\$ -	\$ 2,731,967.24
Account #	Investment Accounts	Beginning Balance	Deposit Withdrawals	Interest Earned	New Balance
800005	LAIF	\$ 7,024.00		\$ 24.29	\$ 7,048.29
800006	OPEB Fund	\$ 4,244,069.79		\$ (4,878.67)	\$ 4,239,191.12
101106	VCJPA Member Contingency	\$ 338,161.00		\$ (1,360.00)	\$ 336,801.00
101106.1	VCJPA Property Contingency	\$ 50,465.00		\$ (202.00)	\$ 50,263.00
800007.1	CAMP: Repair and Replace	\$ 502,061.65	\$ -	\$ 759.19	\$ 502,820.84
800007.2	CAMP: Public Health Emergency	\$ 502,061.65	\$ -	\$ 759.19	\$ 502,820.84
800007.3	CAMP: Operating Reserve	\$ 1,003,403.12	\$ -	\$ 1,517.29	\$ 1,004,920.41
800007.4	CAMP: Capital Reserve Fund	\$ -	\$ -	\$ -	\$ -
800008	PARS: Pension Stabilization	\$ 499,633.96		\$ 165.31	\$ 499,799.27
Account #	Cash Accounts	Beginning Balance	Expenditures	Deposits/ Income	New Balance
101110	Bank of America (Payroll Account)	\$ 132,583.95			\$ 126,282.50
101111	Bank of The West (Transfer Account)	\$ 226,463.60	\$ 54,121.83	\$ -	\$ 172,341.77
100001	County Account	\$ 2,864,145.88	\$ 220,221.01	\$ 1,249,482.68	\$ 3,893,407.55

1 - Drone purchase, check was made in the amount of \$14,900.36



Board of Trustees

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Elisa Marquez

Hayward

Vice-President

Wendi Poulson

Alameda

Secretary

Eric Hentschke

Newark

Humberto Izquierdo

County at Large

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Betsy Cooley

Emeryville

Alan Brown

Dublin

George Young

Fremont

James N. Doggett

Livermore

Jan O. Washburn

Oakland

Robert Dickinson

Piedmont

Kathy Narum

Pleasanton

Ed Hernandez

San Leandro

Subru Bhat

Union City

Ryan Clausnitzer

General Manager

1. OPERATIONS REPORT

Close to three inches of rain fell during the latter part of the first week of April. This resulted in a very late hatch of previously deposited eggs of two of our winter *Aedes* species: *Aedes squamiger* and *Aedes washinoi*. Though the collections of these larvae were rather localized and were made in just a few regions of the county, finding first instar larvae of both species during the second week of April was unprecedented in at least the last three decades. As mentioned in the last two operations reports, operations staff have been actively inspecting winter sources in anticipation of this type of event as a similar situation also occurred in March of this year.

This extra rain also recharged many of our marsh and vernal pool sources that operations staff have been consistently inspecting and treating for *Culex tarsalis* during the last few months. This added water will require attention through the month of May and well into June. Many of these sources are many acres in size and are geographically close to communities and population centers. Control of *Cx. tarsalis* larvae in these areas will be a key component in trying to keep West Nile virus in check for 2018.

As with the rainfall events experienced in March, the April rainfall helped significantly flush out catch basins, storm drains, canals, and creeks. This postponed the need to treat many of these sources for *Culex pipiens*, another one of our significant WNV vectors. Many of the creek and canal areas are also potential breeding sources for *Cx. tarsalis* and will come more to the forefront of our efforts as their flow slows and marsh sources begin to dry down for the season. Barring further rainfall, the district's catch basin control program for *Cx. pipiens* will begin in earnest in May.

Several sources were inspected and treated for *Culex erythrothorax*, another one of our WNV vectors. This species is almost always closely associated with tule and bulrush vegetation in fresh water habitats. This species will be another focus of our control program to keep WNV in check during the spring, summer and fall months.

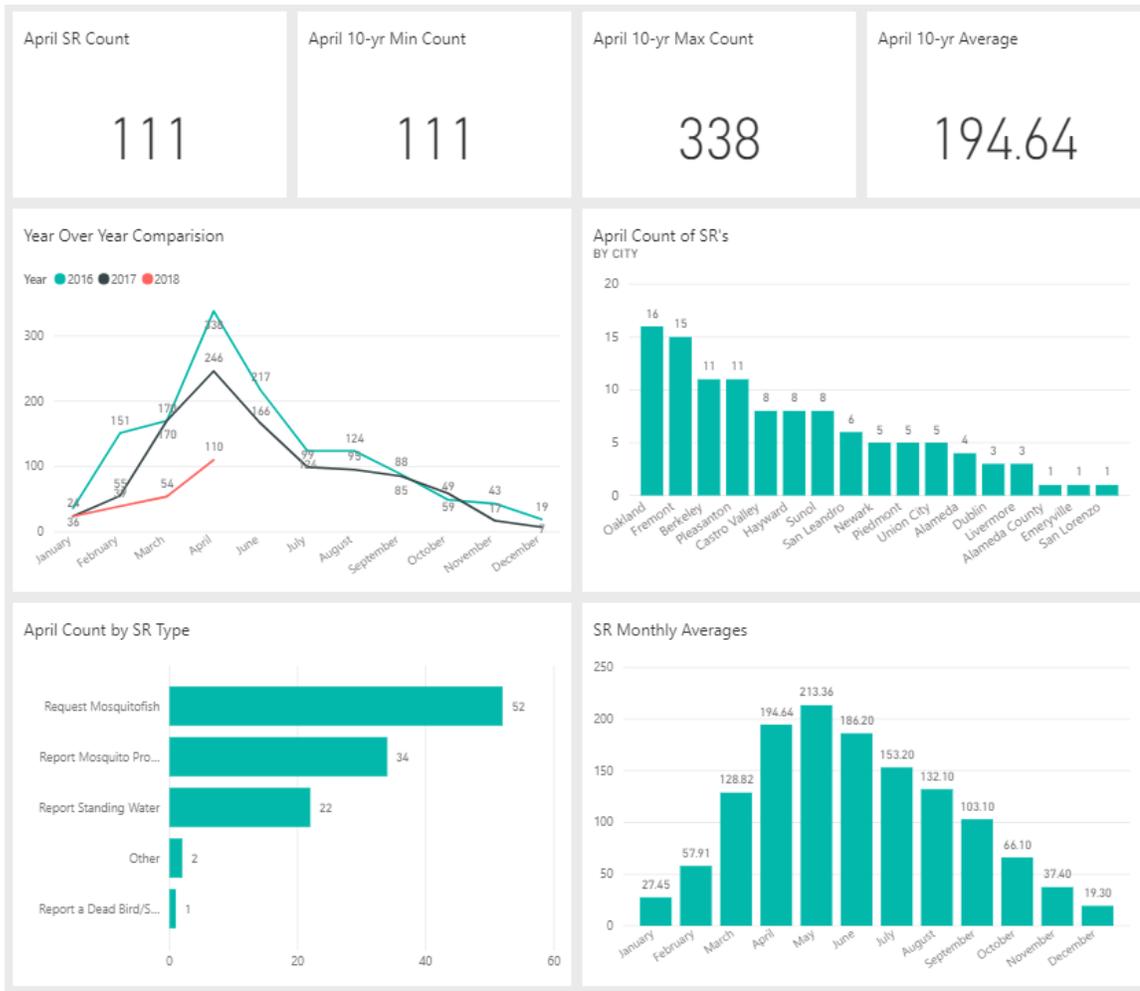
Few adult mosquitoes in the environment as evidenced by light trap data, CO₂ data, and field observations, coupled with weather conditions during the month of April, resulted in ACMAD receiving the lowest number of requests for service in 11 years: 111 requests. Half of the calls were requests for mosquitofish. There were 34 calls attributed to mosquitoes and 22 calls requesting inspecting sources of standing water.

April 2018 was unlike many Aprils and was a good test of the operation staff's ability to adapt to unexpected circumstances and to be able to adjust practices and expectations to meet conditions presented by the environment.

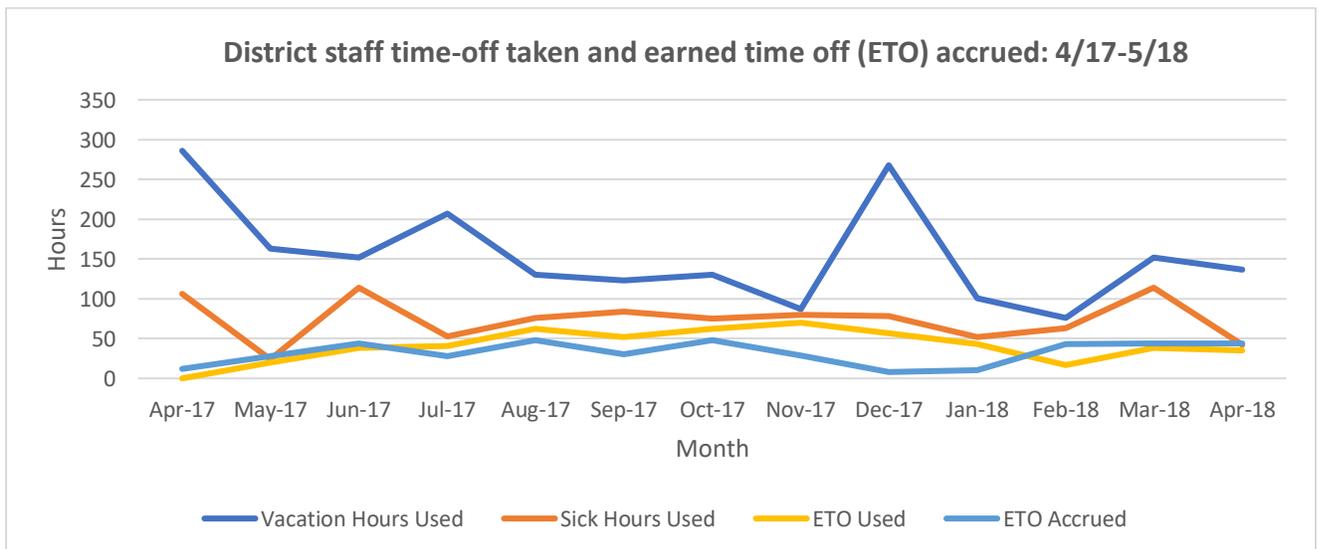
Joseph Huston
Field Operations Supervisor

A. Operational Data

1. Service Requests



2. Staff Leave Report



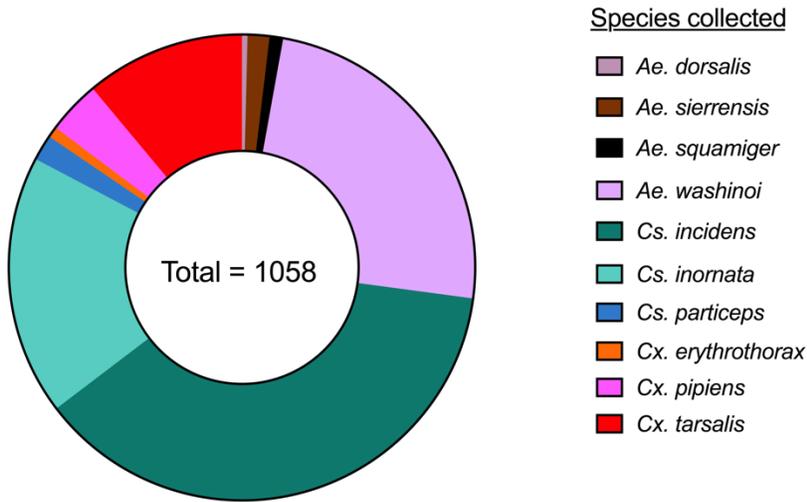


Figure 2. Mosquito abundance by species collected in NJLT during April 2018.

Submitted respectfully by Eric Haas-Stapleton, PhD on May 2, 2018.

3. PUBLIC EDUCATION

A. Events

i. Upcoming

- **Union City Paw and Tails Animal Adoption and Vaccination Event** – Saturday, May 12th (Kennedy Park, 1333 Decoto Rd.)
- **Alden Lane Nursery Fish Giveaway** – Saturday, May 12th (981 Alden Lane, Livermore)
- **Palomares Science Festival** – Tuesday, May 22nd (Palomares Elementary School, 6395 Palo Verde Rd, Castro Valley)
- **San Leandro Cherry Festival** – Saturday, June 2nd (San Leandro Blvd.)
- **Alameda County Fair** – Friday, June 15th -Sunday, July 8th (Alameda County Fairgrounds, Pleasanton)

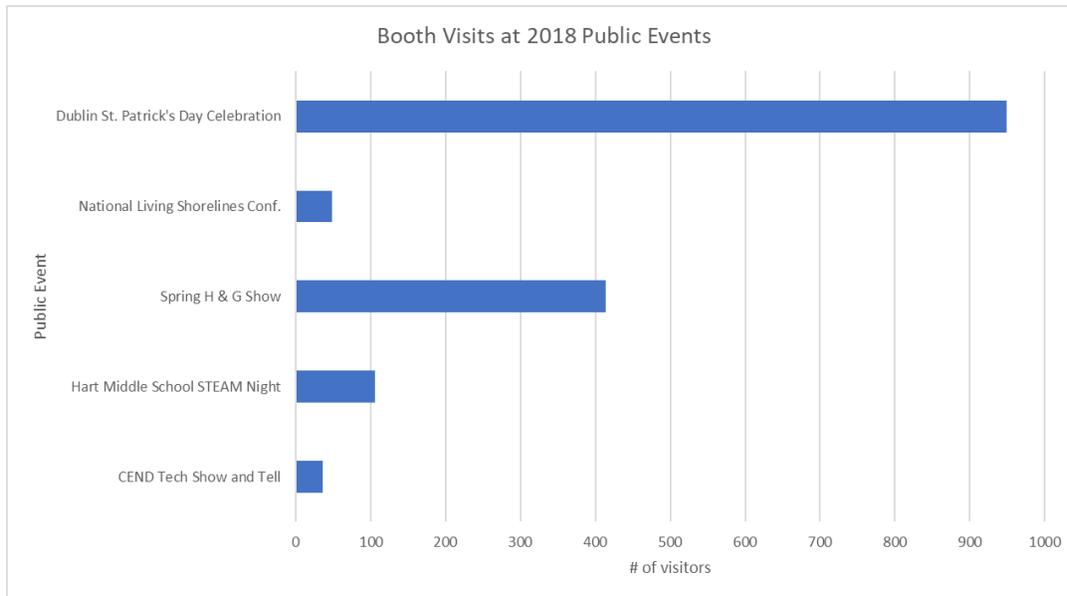


Figure 1. Number of public event visits by show (as of April 1)

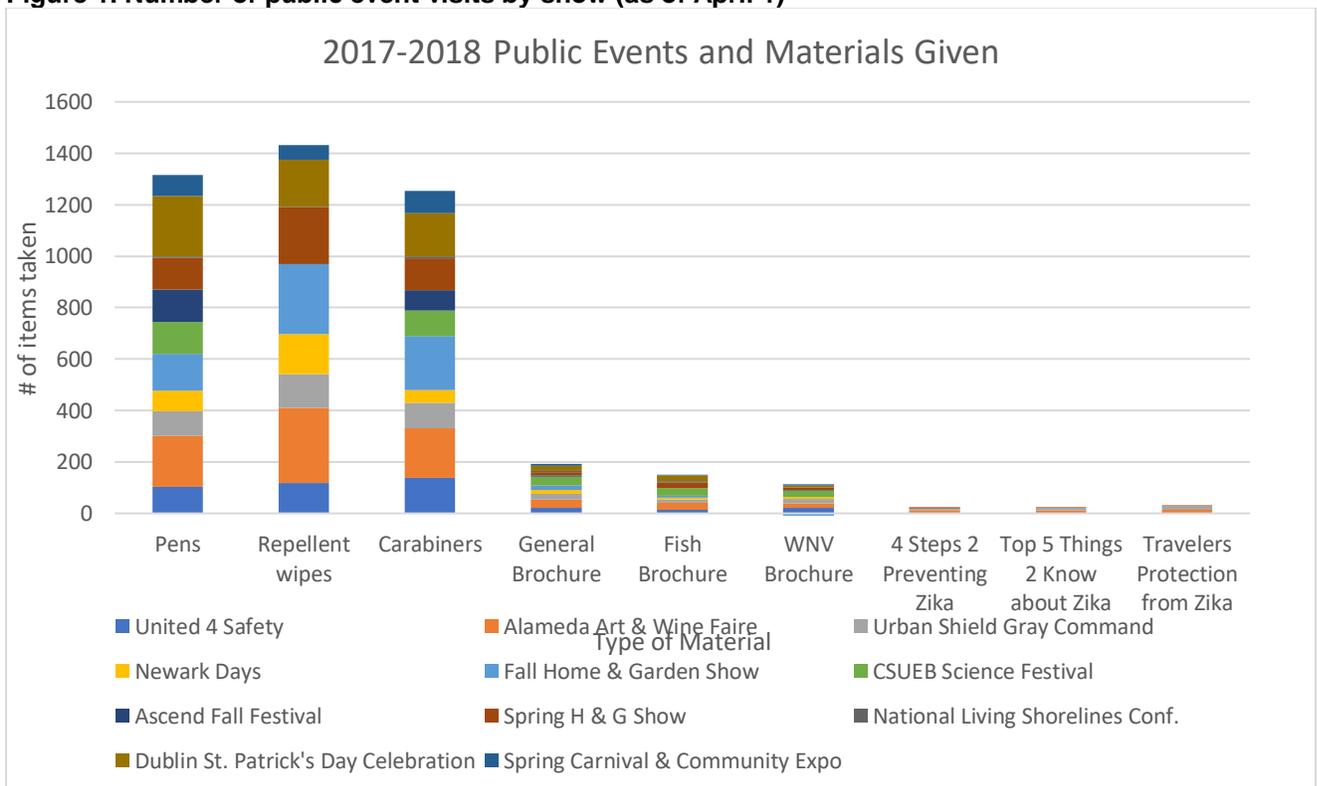


Figure 2. District Material Distribution at 2017-18 Public Events

B. Google Analytics

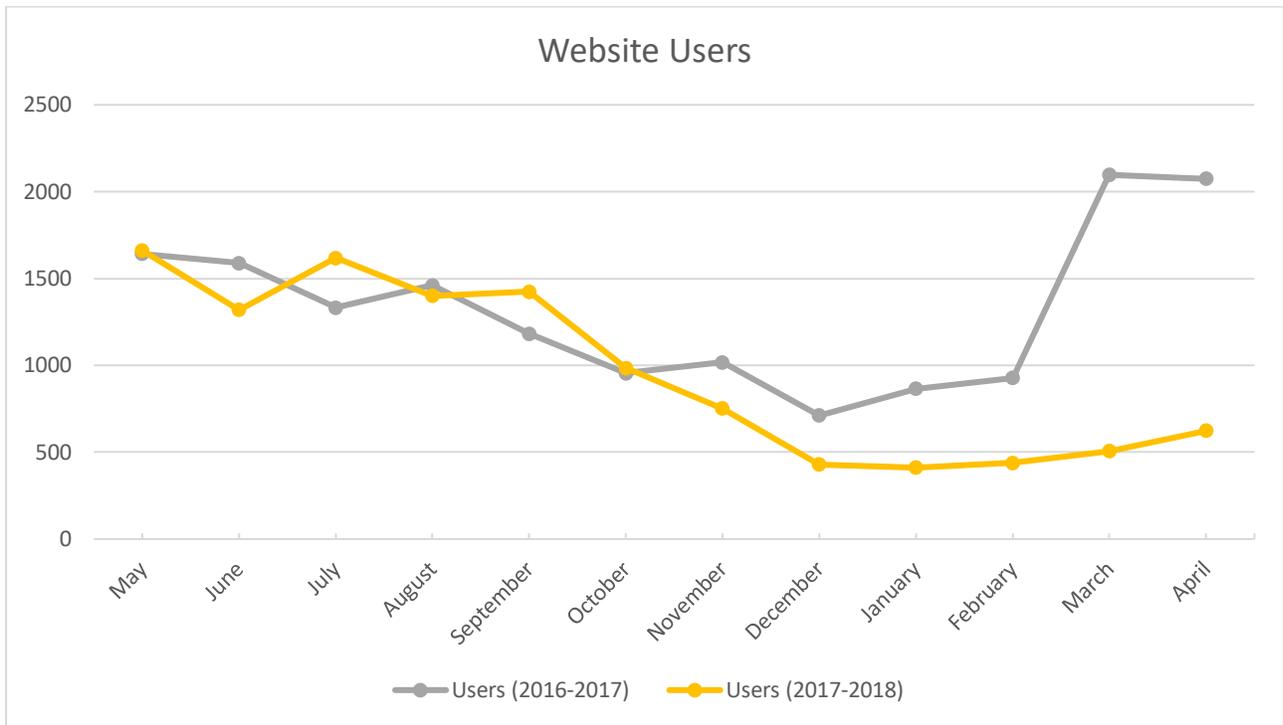


Figure 3. Comparison of website users over the past two years

Top Channels

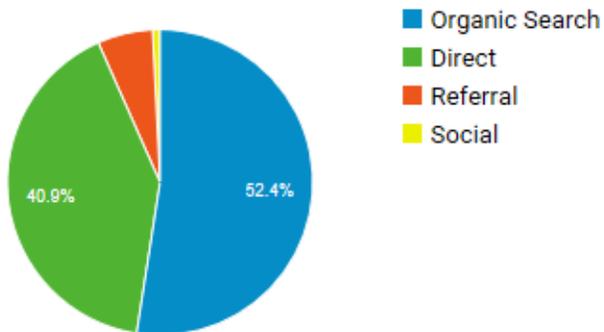
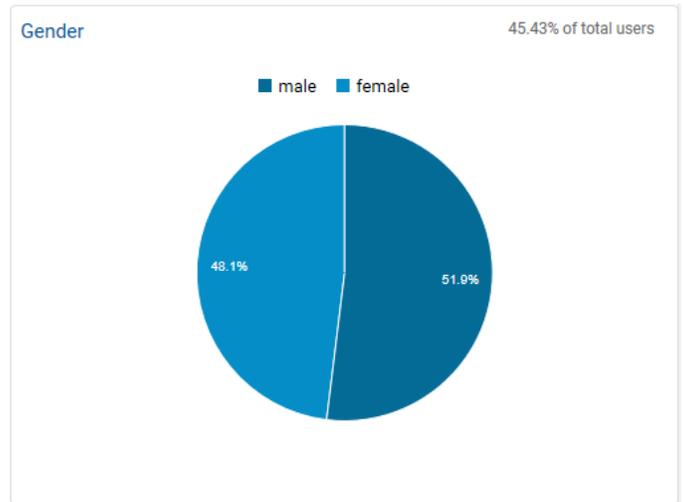
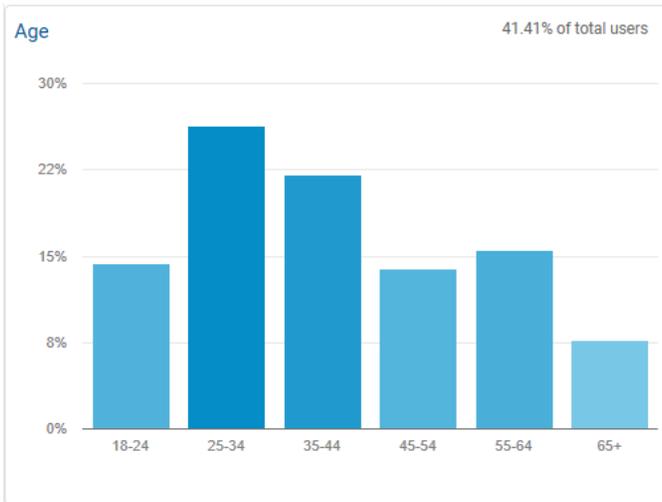


Figure 4. Top channels to our website in April

- **Organic Search** - The website was found through a search engine, such as Google.
- **Direct** - The website URL was typed directly into the search bar.
- **Referral** - The website was accessed through another website.
- **Social** - The website is accessed through links on our social media accounts.
- **Email** - The website is accessed through a link sent in an email.



Figures 5 and 6. Breakdown of users in the month of April by age and gender

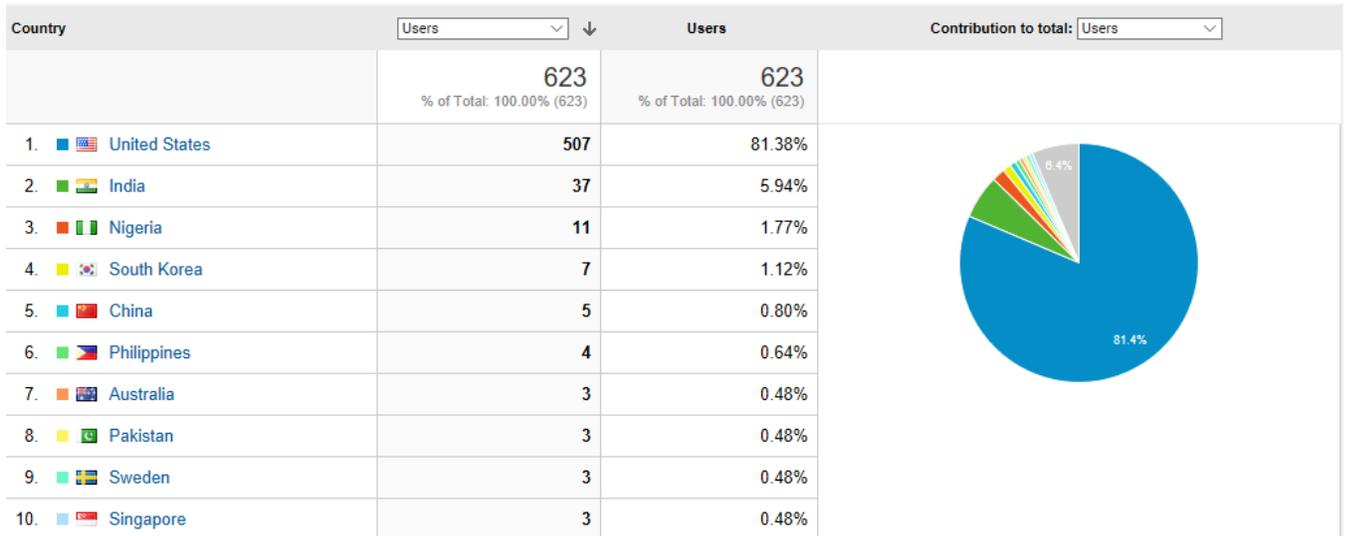


Figure 7. April visits to the website by country

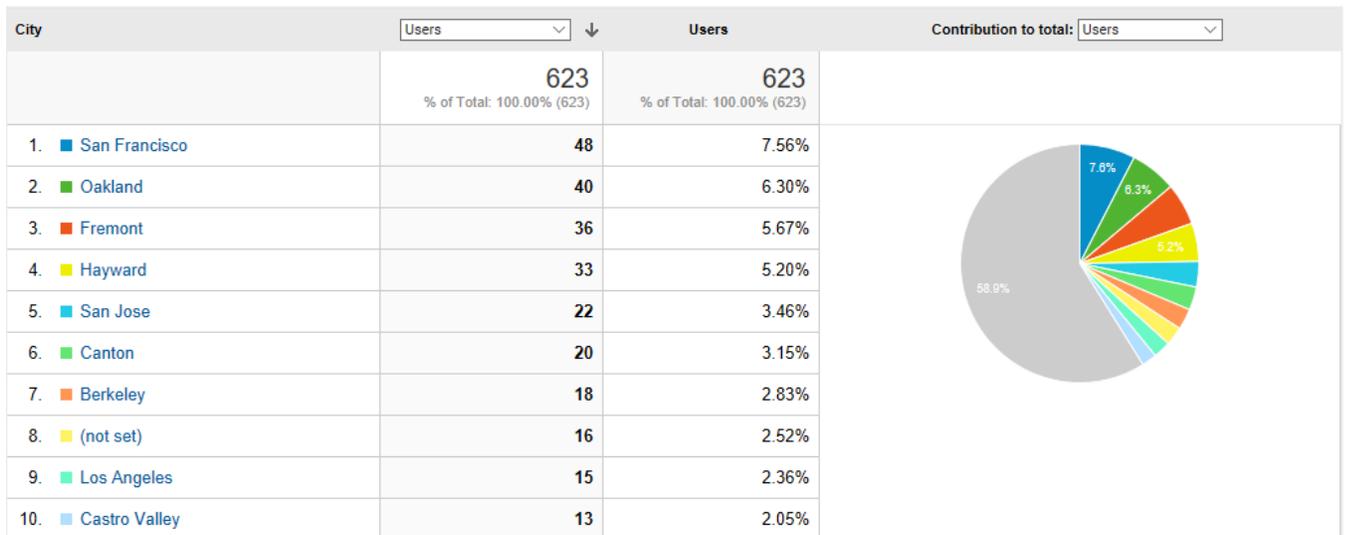


Figure 8. April visits to the website by city

Page Depth ?	Sessions ?	Pageviews ?
1	418	418
2	161	322
3	90	270
4	41	164
5	32	160
6	16	96
7	13	91
8	14	112
9	5	45
10	8	80
11	1	11
13	1	13
14	1	14
15	1	15
16	1	16
19	1	19
20+	2	57

Figure 9. April breakdown of how many pages were viewed during each session

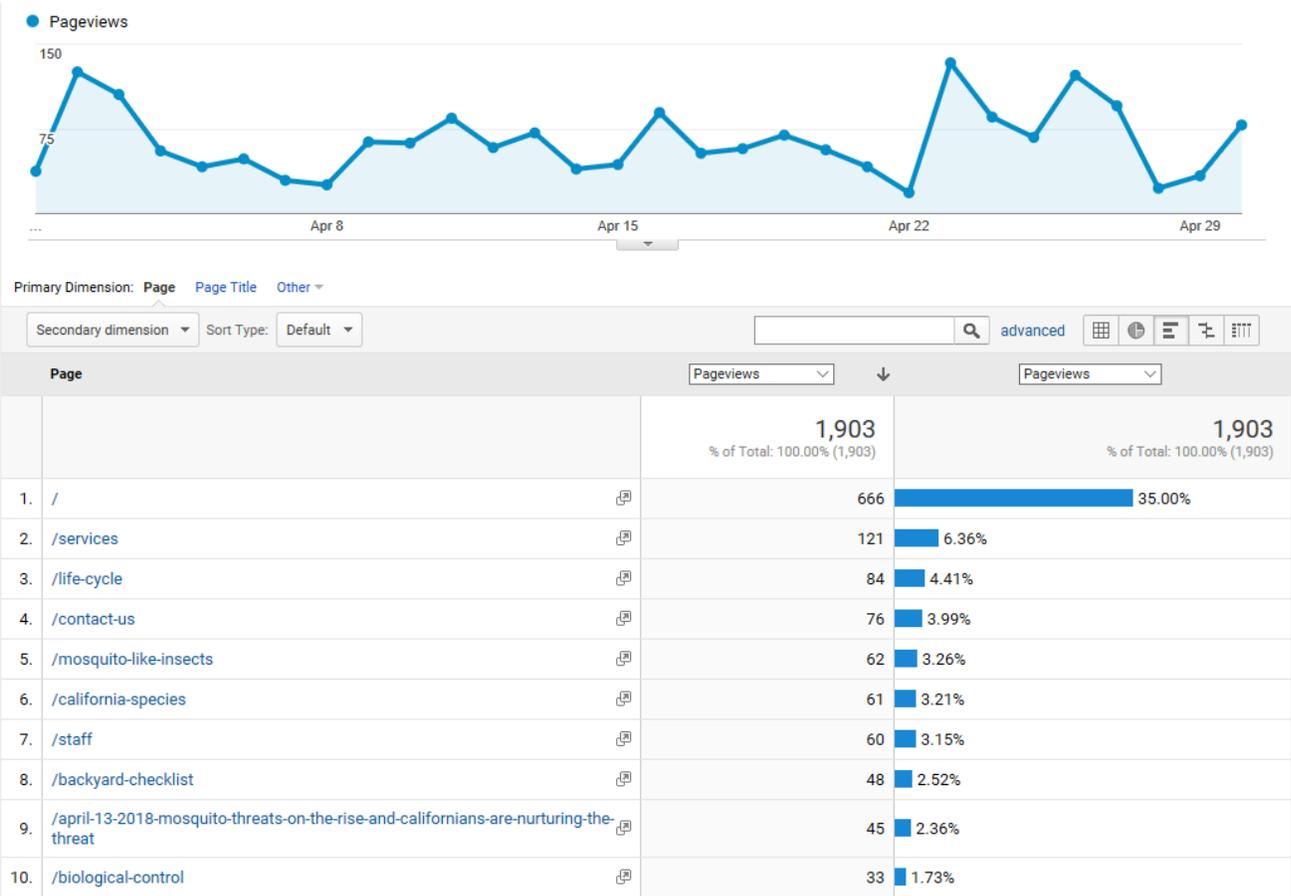


Figure 10. April breakdown of the top pages visited

C. Facebook

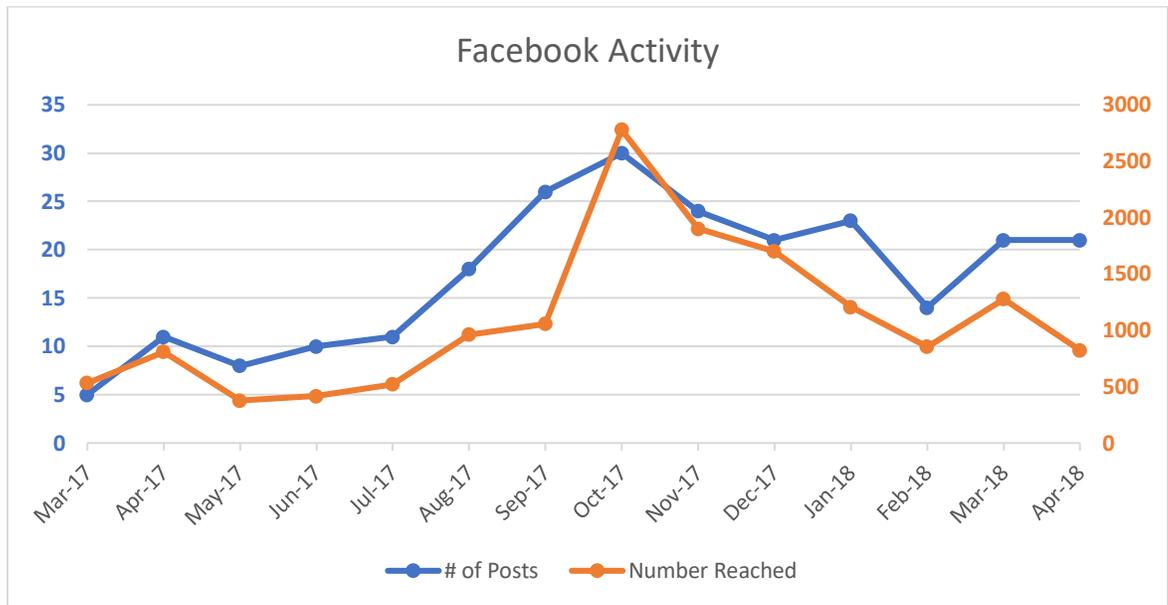


Figure 11. District Facebook Activity: 2017-2018

Total Number of Followers: 158 (up from 157 in March)

April's Most Popular Post: We hope everyone enjoyed the warm weather over the weekend because we're back to having some rain this week. Keep an eye out for containers in your yard that could potentially hold rain water!

D. Twitter

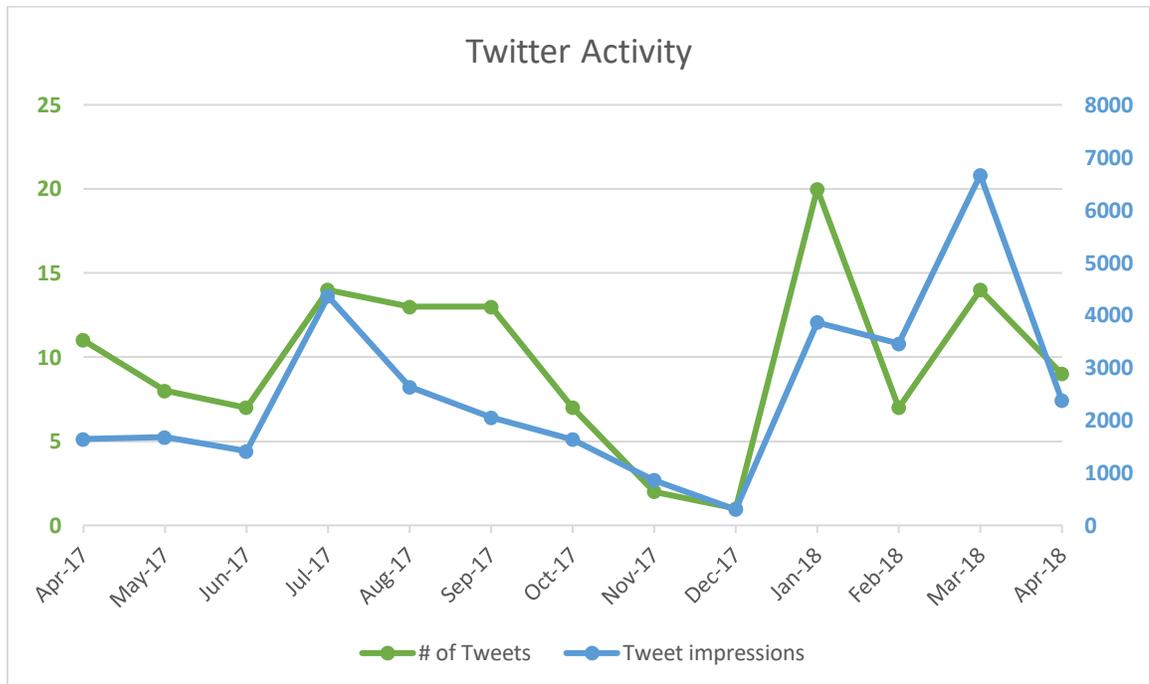


Figure 12. District Twitter Activity: 2017-2018

Number of Profile Visits in April: 137

Total Number of Followers (New This Month): 586 (9)

Top April Tweet: **#MosquitoWeek**: The Zika virus, transmitted through the bite of an infected mosquito, can cause miscarriage, stillbirth and severe birth defects. Here's how you can protect

yourself and your loved ones when traveling to areas with Zika: zikafreeca.com **#DontBringZikaHome**
 [Picture]

E. Service Request Referral Summary

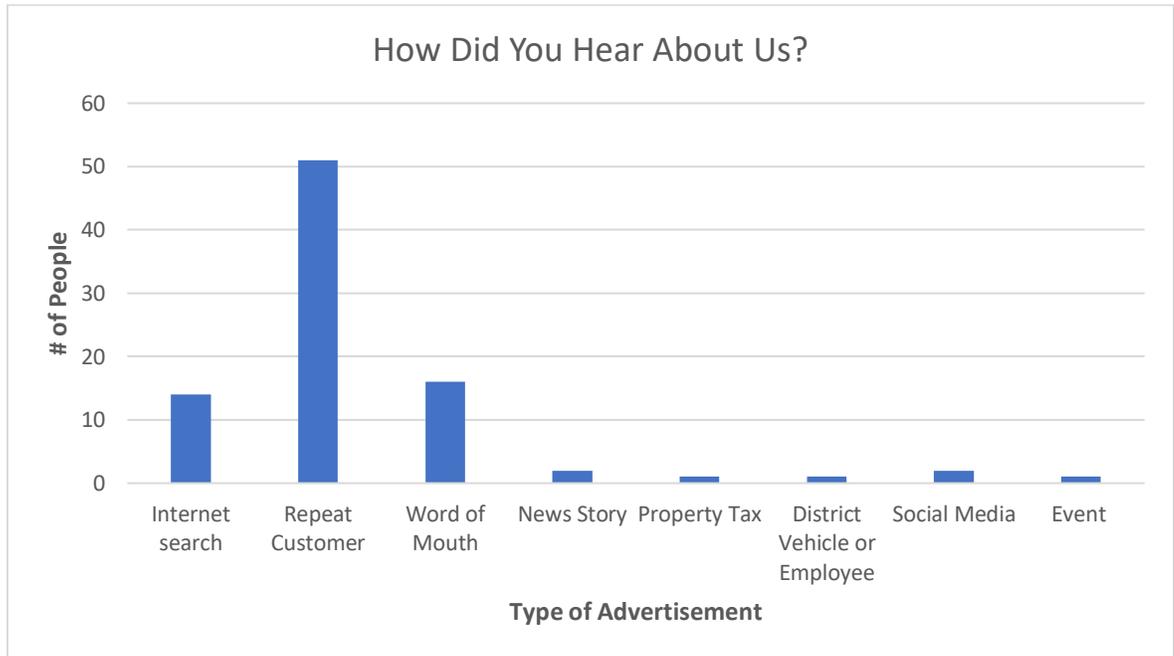


Figure 13. Service request survey results: How did you hear about us?

Note: Billboard Ad, Movie Theater Ad, Internet Ad, Phone Book, and Other are also options for this question, but were not included on this chart, because they were not selected in the month of April.

4. LEGISLATIVE UPDATE:

	Bill Name	Status	ACMAD Position	ACMAD Action
MVCAC	AB 2892: Mosquito Abatement	In Committee	Support	Legislative Visits
CSDA	SB 929: Special Districts- Internet Websites	Passed Senate, in Assembly	Support	Support Letter
AMCA	S.340 Sensible Environmental Protection Act of 2017	Introduced	Support	None*
	H.R.953 Reducing Regulatory Burdens Act of 2017	Passed House	Support	Support Letter

* Bill is not accepting position letters



The 85th and 86th Report for the
Alameda County Mosquito Abatement District
2016-2017

Dedicated to the Memory of

Ronald Quinn
Union City Board Member 2001-2017
Died December 2017



Leading the Way

The last two years has felt like a “golden age” for the District, an era I am proud to be a part of. The Alameda County Mosquito Abatement District has an impressive history and solid foundation to build upon, and we have continued our successful and unique traditions. These include a focus on larval-based mosquito control, fiscal responsibility, collaborative decision-making, interagency partnerships, and a supportive working environment for the employees. We built on our strengths through investment in technology innovations, research initiatives, operational cooperation, transparency, and public outreach. These advances were done without raising taxes, legal abatement, or service fees, and with existing staff that follows the direction of its Board of Trustees. Strategic planning will allow us to build off our assets while anticipating future challenges.

A contributing factor to the District’s effectiveness is the longevity of its staff and Board of Trustees who are working towards continual District and professional improvement. This institutional knowledge, along with accurate record keeping and storage, allows staff and Trustees to rely on both experience and research for its decision-making. A major initiative during the past two years was the integration of information technology into all aspects of the District workflows to improve record keeping and analyses.

The District now uses tablets in the field to record information on mosquito abundance and treatments which are integrated with GPS location data. These data are stored in the cloud, along with all District data, which allows for data security and improved access. The improvements in quality and accessibility of information allows field staff to make data-driven decisions via live dashboarding, saving resources through data-entry automation and report generation.

For the first time since 2011, the District acquired all of the necessary approvals for mosquito breeding source reduction work in the San Francisco Bay tidal wetlands, because of these improved reporting capabilities. This process began with the certification of the Programmatic Environmental Impact Report in 2016 (which began in 2010), followed by approvals from the San Francisco Bay Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the San Francisco Bay Conservation and Development Commission. While no ditching occurred during this reporting period, the District is poised to resume bay tidal drainage ditching during the 2018-19 season. The District was prepared for and supportive of ballot measure AA in 2016 (The San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Measure). With its passage, the District successfully had one of our staff appointed to the Bay Restoration Authority’s advisory committee, which advises the Board on implementation of the measure’s mission to fund shoreline project that will protect, restore, and enhance the San Francisco Bay using property tax funds collected from the nine bay area counties represented by the authority.

Advances in drone technology now allow for mosquito abundance assessment and treatments using unmanned aircraft systems (UAS, or “drones”). One of the first UAS mission proposals includes measuring the impact of sea level rise on marshland restoration projects. In 2017 the Board of Trustees authorized funding for drone technology and sent staff for flight training. As of this report, two employees are certified Federal Aviation Administration UAS pilots, after passing a rigorous exam.

UAS assessment of marsh restoration efforts and mosquito abundance will augment an already robust research program that already includes insecticide resistance testing, field evaluations of mosquito assessment technologies, and mosquito genome sequencing. As a publicly funded agency, the District laboratory staff must creatively find solutions to major problems. Partnerships with large non-profits (e.g., Chan Zuckerberg Biohub), universities (e.g. UC Berkeley and Cal State East Bay), and other mosquito control agencies allow the lab to continue its existing research mandates with cutting edge research.

Over the past two years, the District has presented several posters and talks at the annual Mosquito and Vector Control Association of California (MVCAC) conference, as well as a publication in the peer-reviewed *Journal of the American Mosquito Control Association.* Operations staff also presented, both orally and through posters, at both MVCAC conferences, locally at continuing education trainings, and at the California Stormwater Quality Association conference, in 2017. The focus of much of this outreach was the impact trash capture devices are having on mosquito control in California. ACMAD is a leader in the state in this regulatory area.

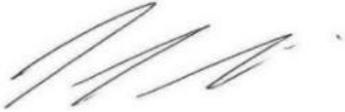
Our staff have consistently attended monthly county emergency meetings and subsequent trainings as a proactive planning measure. The District’s emergency manager also manages its safety, the aquaculture program, along with facility, vehicle, and equipment maintenance. The Board ensures financial support for equipment reliability in the form of a balanced budget, capital planning, and adequate reserve allocations.

In 2017 the District overhauled its reserve accounts by opening new interest-earning accounts with California Asset Management Program (i.e., operational, capital planning, repair and replace, public health emergency), and Public Agency Retirement Services (i.e., pension rate stabilization). This foresight will allow the District to continue its high-quality level of service to Alameda County residents without interruption and distraction from property value fluctuations, and rising pension and health care costs.

The public would be unaware of these accomplishments and value they receive without effective communication and outreach programs. The District continues to participate in public outreach at community events, and also utilizes many forms of media (e.g., billboard advertisements, newsletters, and social media platforms to inform the public on the services that the District provides.

If you are reading this report, you are a part of the District either directly, or through partnerships. If not, contact us to be a part of solving problems that affect us all—mosquitoes and the diseases that they spread.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Clausnitzer', written in a cursive style.

Ryan Clausnitzer
General Manager

DRAFT

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DRAFT

GOVERNING BOARD

The Alameda County Board of Supervisors and each of the elected councils of the 13 cities within the District appoint one trustee to represent its constituency on the governing board of the Alameda County Mosquito Abatement District. The Board of Trustees consists of individuals dedicated to community service and willing to accrue the knowledge required to govern a mosquito abatement district effectively. The District's Board members possess a variety of skills and expertise in academia, agriculture, art, business, chemical engineering, education, electrical engineering, entomology, environmental health, environmental health and safety, insurance, finance, government, human resources, mechanical engineering, and scientific research.

The diversity of knowledge possessed by the Trustees provides a broad, conceptual framework within which the Board decision-making occurs. This knowledge base provided by the Trustees is an invaluable resource.

Trustees serve two-year terms without compensation; however, they do receive allowances for expenses incurred while attending business meetings of the Board. The regular Board meetings are held on the second Wednesday of each month at the District office (23187 Connecticut Street, Hayward at 5:00 p.m.), and these meetings are open to the public.

Trustees for the years 2016 & 2017

<u>Trustee</u>	<u>Representing</u>	<u>Years of Service</u>
Scott Paulsen	County-at-large (2016)	2.0
Humberto Izquierdo	County-at-large (2016-2017)	1.5
Wendi Poulson	Alameda	2.5
Robert Beatty	Berkeley	1.5
Richard Guarienti	Dublin	4.5
Scott Donahue	Emeryville	2.0
Betsy Cooley	Emeryville (2017)	1.0
George Young	Fremont	5.0
Elisa Marquez	Hayward	3.0
James N. Doggett	Livermore	41.0
Jan O. Washburn	Oakland (Berkeley)	2.5 (21.0)
Eric Hentschke	Newark	2.0
Robert Dickinson	Piedmont	4.0
Kathy Narum	Pleasanton	4.5
Ursula Reed	San Leandro (2016)	1.0
Ed Hernandez	San Leandro (2017)	1.0
Ronald E. Quinn	Union City	16.0

Committee Assignments as of December 2017

Financial Committee

Purpose: The Finance Committee is a standing committee tasked with reviewing the annual budget, assessing the District's long-term capital needs, making

recommendations for designating reserves, and evaluating the allocation of the OPEB Trust.

Membership: Cooley, Dickinson, Hernandez, Narum, Young

Policy Committee

Purpose: The Policy Committee evaluates the District's Policies and updates and adds policies as needed. All District policies must be approved by a majority of the Board after staff review.

Membership: Doggett, Hernandez, Marquez

Manager Evaluation Committee

Purpose: The primary task of the Manager Evaluation Committee is to complete an annual review on the performance of the District Manager. Reviews are completed by the June meeting of the Board and used for determining compensation changes and contract adjustments., annually by the June board meeting. Compensation changes and contract adjustments will be based on this evaluation.

Membership: Past, present, and future Board Presidents: Narum, Marquez, Poulson

Public Health Emergency Committee

Purpose: The Public Health Emergency Committee meets with the District Manager and/or Staff to review District surveillance and treatment information pertaining to current or emerging public health threats and make recommendations to the board if necessary.

Membership: Washburn, Doggett, Poulson

Status: This committee only meets on an as needed basis.

Personnel Committee

Purpose: The Personnel Committee meets as needed if personnel issues rise to the level of an appeal to the board.

Membership: Current Board Officers: Marquez, Poulson, Hentschke, Beatty

Status: This committee only meets on an as needed basis.

Sustainability Committee

Purpose: The Sustainability Committee evaluates areas the District can improve its sustainability such as solar energy, refuse reduction, and fuel efficiency.

Membership: Izquierdo, Marquez, Poulson, Washburn

Status: This committee only meets on an as needed basis.

Strategic Planning Committee

Purpose: The Strategic Planning Committee assesses the future opportunities and challenges facing the District, the committee will review the current Mission and Vision and develop a five-year strategic plan that aligns the Mission and Vision with forecasted challenges in finance, technology, infrastructure, regulation, climate change and personnel.

Membership: Beatty, Hernandez, Poulson, Washburn, Young

DISTRICT PERSONNEL



<u>Name of Employee</u>	<u>Position</u>	<u>Years of Service</u>
Dereje Alemayehu	Biological Specialist	17.5
Nick Appice	Mosquito Control Technician (Zone 2)	3.5
John Busam	Vector Biologist (Zone 9)	15.5
Cornelius Campbell	Vector Biologist (Zone 8)	14.0
Miguel Cardenas	Vector Biologist (Zone 6)	6.0
Erika Castillo	Regulatory & Public Affairs Director	15.5
Ryan Clausnitzer	General Manager	2.5
Sarah Erspamer	Mosquito Control Technician (Zone 1)	2.5
Robert Ferdan	Information Technology Director	2.5
Eric Haas-Stapleton	Laboratory Director	2.5
Joseph Huston	Field Operations Supervisor	26.5
Clarence Lam	Administrative/Financial Manager	14.0
Michelle Matthes	Accounting Associate	1.5
Tom McMahan	Vector Biologist (Zone 10)	16.0
Ben Rusmisl	Vector Biologist (Zone 3 & 4)	2.5
Jeremy Sette	Mosquito Control Technician (Zones 5 & 7)	2.5
Jan Washburn	Interim District Manager	.5
Mark Wieland	Mechanical Specialist	3.0

Seasonal Employees

2016 – Danny Avila, Allen Esterly, Jacob Ferdan, Starla House, Kevin Huffstutler, Michelle Matthes

2017 – Danny Avila, Miguel Berreto, Allen Esterly, Brandon Garcia, Mel Go, Jacob Ferdan, Starla House, Rajni Lakha, Joanna Roacho, Jaime Sweeney

Representation Activities

The District is one of 63 agencies that conduct mosquito control in California and is a member of the Mosquito and Vector Control Association of California (MVCAC). The District participates in the activities of the MVCAC and the American Mosquito Control Association (AMCA) to promote coordination of our common goals and to increase our knowledge of mosquito control.

The District is also a member of the California Special District Association (CSDA) which has over 1,000 members state-wide and promotes good-governance and improved core local services through professional development, advocacy, and other services for all types of independent special districts. The District participates in other organizations to promote the role of special districts and mosquito management and to remain aware of emerging technologies. The following is a list of District employees who have participated in regional, statewide or national organizations:

Erika Castillo – MVCAC Public Relations Committee (2016 and 2017 Chair), MVCAC Regulatory Affairs Committee, San Francisco Bay Joint Venture Conservation Delivery Committee, San Francisco Bay Restoration Authority Advisory Committee

Ryan Clausnitzer – Alameda County Special District Association Board Member-at-large, California Special Districts Association Board (2017 Treasurer)

Sarah Erspamer – Alameda County Emergency Managers Association, American Mosquito Control Association Young Professional (2018 Industry Shadowing Program)

Robert Ferdan – MVCAC Information Technologies Committee

Eric Haas-Stapleton – Entomological Society of America, MVCAC Laboratory Technologies Committee, MVCAC Vector Control Research Committee (2017 Chair), Society for Invertebrate Pathology

Mark Wieland – Alameda County Emergency Managers Association, Alameda County Voluntary Organizations Active in Disasters

OPERATIONAL DATA

	2013	2014	2015	2016	2017
Physical Control Operations					
Maintenance of ditches (lineal feet)	0	0	0	0	0
Mosquitofish Operations					
Total number of sites stocked with Gambusia	761	691	606	891	762
Total number of fish planted	15986	13445	10664	13099	11656
Chemical Control Operations					
Pyrenone 25-5 adulticide (oz)	2	820	159	0	0
Surface Agents					
BVA2 larvicidal oil (gallons)	1937	1540	2170	1011	638
Cocobear (Gallons)	0	0.3	0.42	0	0
Biorational Larvicides					
Bacillus thuringiensis israelensis (B.t.i.)					
Vectobac 12AS liquid concentrate (gallons)	54	58	103	232	243
Vectobac GS (pounds)	0	0	481	1	0
Vectobac G granular (pounds)	2741	2464	3923	7894	5493
Bacillus sphaericus (B.s.)					
Vectolex CG (pounds)	1094	659	1460	2783	868
Vectolex WSP (pounds)	16	6	34	1.14	0
Vectolex WDG (pounds)	54	108	140	5	1
FourStar 180 day Briquets (pounds)	93	54	5	33	0
B.t.i. and B.s.					
Vectomax WSP (Pounds)	0	0	2	5	2
Vectomax FG (pounds)	0	0	4927	1917	2496
Spinosad					
Natular XRT (pounds)	153	581	1277	1098	833
Natular G30 (pounds)	916	29	1	80	5
Insect growth regulator (methoprene)					
Altosid Liquid Larvicide 20% (ounces)	311	275	626	1024	1152
Altosid Briquets (each)	1903	1685	3072	1873	1566
Altosid XR Briquets (each)	247	3910	2510	2793	3535
Altosid Pellets (ounces)	3094	6369	2289	2514	5706
Altosid WSP (Pounds)	0	0	0	5	2

OPERATIONS REPORT

Overview of ACMAD Operations

Access to mosquito breeding sources, timing of inspections, selection of treatment products, and timing of treatments is critical in maintaining a successful larval control program. Environmental factors such as temperature and rainfall can also affect the efficacy of treatments and the rate of mosquito development. Alameda County has 22 mosquito species. Each species has a suite of biological characteristics (e.g., breeding habitat, duration of time from egg to adult, and temporal pattern of adult activity) that must be well understood to deliver the correct product at the proper time for effective mosquito control. This requires the Operations staff to identify each species correctly and to have a thorough understanding of their biology and life history.

Effective mosquito control became even more challenging in 2016-2017 when Alameda County experience a record rainfall. After many years of drought, the winter seasons of 2016 and 2017 saw substantial and prolonged periods of rain, surpassing averages throughout the County. This resulted in more standing water that persisted for months longer than it had during the previous decade. Based on the number of adult mosquitoes that were collected in traps, the types and percentages of materials utilized, and the number of mosquito biting complaints received by the District, Operations staff executed ACMAD's larval program and environmental goals effectively under unusually difficult circumstances.

Mosquito Control Treatments

Alameda County Mosquito Abatement District has a long-standing strategy for controlling potential disease transmitting and nuisance mosquito species as larvae via environmentally conscientious measures. Despite many challenges, the District's operational staff continued these practices in 2016 and 2017. Treating mosquito larvae in aquatic sources reduces adult mosquito emergence and dispersal into the surrounding environments. Many mosquito species have long flight ranges and trying to control adult mosquitoes can be logistically difficult. All the District's treatments during this two-year period were for mosquito larvae in aquatic sources.

The products ACMAD uses for larval mosquito control are very effective and highly mosquito specific. Mosquito larvae hatch from an egg, move through four stages known as instars, molt into pupae, and if left untreated, emerge as adult mosquitoes. During the first three instars and partially into the 4th instar, mosquito larvae are actively feeding in their aquatic environment. When mosquito larvae reach the later stage of the 4th instar, they cease feeding and prepare to pupate. Bacterial products for control must be applied when larvae are still actively feeding for them to be ingested and kill the larvae. Growth regulators mimic an insect juvenile hormone and must penetrate the larvae's cuticle before they develop into the non-feeding pupa stage of the mosquito life cycle. Mosquito larvae that are exposed to juvenile hormone are prevented from completing development and emerging as adults. Once the larvae pupate, bacterial products and growth regulators are no longer effective, and surfactants must be utilized to prevent emergence. Surfactants coat the water surface and suffocate the mosquito larvae by preventing them

from breathing. When applied at the EPA-approved label rate, almost all the bacterial products and growth regulators do not harm populations of non-target aquatic organisms, many of which prey on mosquito larvae. This natural predator complex helps to keep the mosquito population from quickly rebounding after treatments are applied and further enhances mosquito control.

During 2016 and 2017 a total of 8,683 acres of aquatic habitat were treated for mosquito larvae. When broken down by product type, 5,680 acres (65%) were treated with bacterial products, 2,689 acres (31%) were treated with growth regulators, and 314 acres (4%) were treated with surfactants (Figure 1). As mentioned above, operations were not conducted for controlling adult mosquitoes during 2016 and 2017.

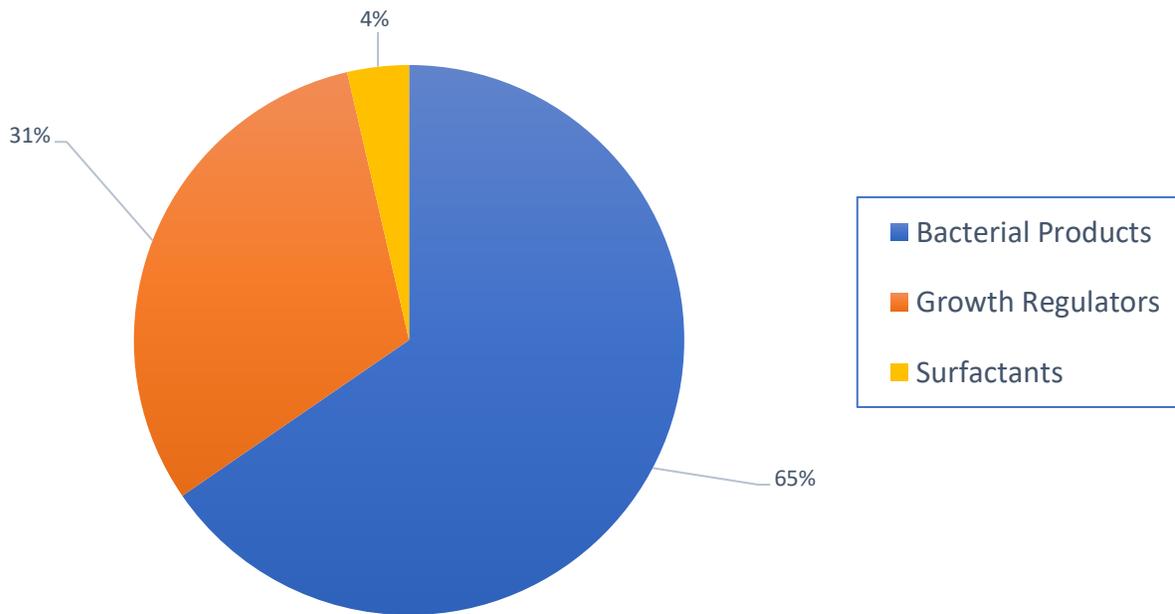


Figure 1. Product usage for 2016 and 2017 based on acreage.

Mosquitofish

Mosquitofish (*Gambusia affinis*) also play an important role in ACMAD's larval based integrated vector management (IVM) program. They have been utilized in California as a biological control agent for mosquito larvae since the early 1900's. Mosquitofish are not native to this region and are used by ACMAD exclusively in sources created by humans and their activities (e.g. ornamental fish ponds, fountains, unmaintained swimming pools and livestock/horse watering troughs). Most introductions of mosquitofish result in self-sustaining fish populations that provide effective biological control for many years. Mosquitofish are an excellent long-term solution for controlling mosquito breeding in a diversity of settings. During 2016 and 2017, Operations staff introduced mosquitofish into 1,657 breeding sites; in total, ~ 25,000 fish were planted into ornamental ponds, fountains, unmaintained swimming pools and watering troughs (roughly 10 acres of habitat).

Service Requests

Service requests represent the primary interaction between District staff and the residents of Alameda County. Residents of the County can either call the District or submit a request

through the District website to receive service. These communications are categorized as requests to resolve mosquito biting issues, to inspect standing water and potential mosquito breeding sources, to report a dead bird or squirrel (which is tested in the District’s lab for the presence of arboviruses), to identify an unknown insect or arachnid, and to request mosquitofish. The percentages of each of these request types are represented in Figure 2.

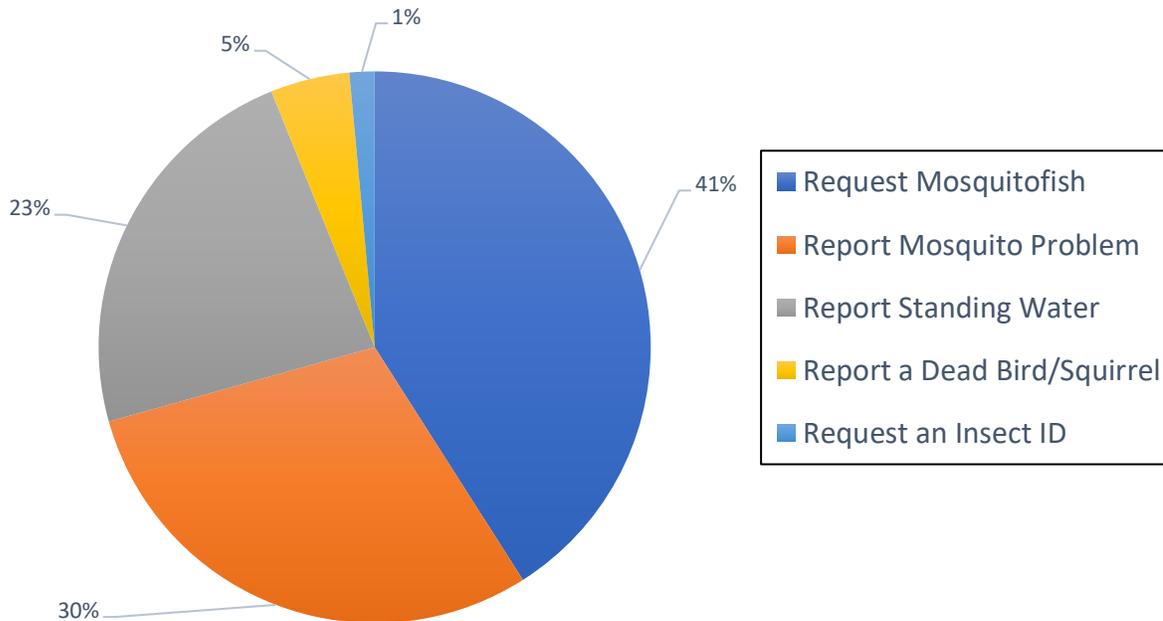


Figure 2. 2016-2017 Service Requests by category.

The number of service requests from the public varied by local during the past two years. The numbers of calls received by residents of a city are typically a reflection of the actual population of the city and the awareness of the city’s residents about our program. Figure 3 depicts a comparison of the number of service requests received during 2016 and 2017 from the cities we serve. Figure 4 breaks down the service requests for each city by request type and also shows the population of each city.

Environmental Compliance and Permitting

June 2016 marked the completion, certification, and adoption of ACMAD’s Programmatic Environmental Impact Report (PEIR), a multiyear project. The PEIR analyzed the potential environmental impacts of all District equipment, facilities, and activities. Apart from the potential use of an organophosphate adulticide, a necessary tool to protect public health when pyrethroid resistant arbovirus carrying adult mosquitoes are present, District activities were determined to be less than significant. Among the activities analyzed was the District’s source reduction program which involves the routine maintenance of circulation ditches in tidal marsh habitats. The PEIR was a required step to renew the permits necessary to reinstate source reduction work in tidal marshes. The final permits were submitted in the fall of 2017 and approved in early 2018.

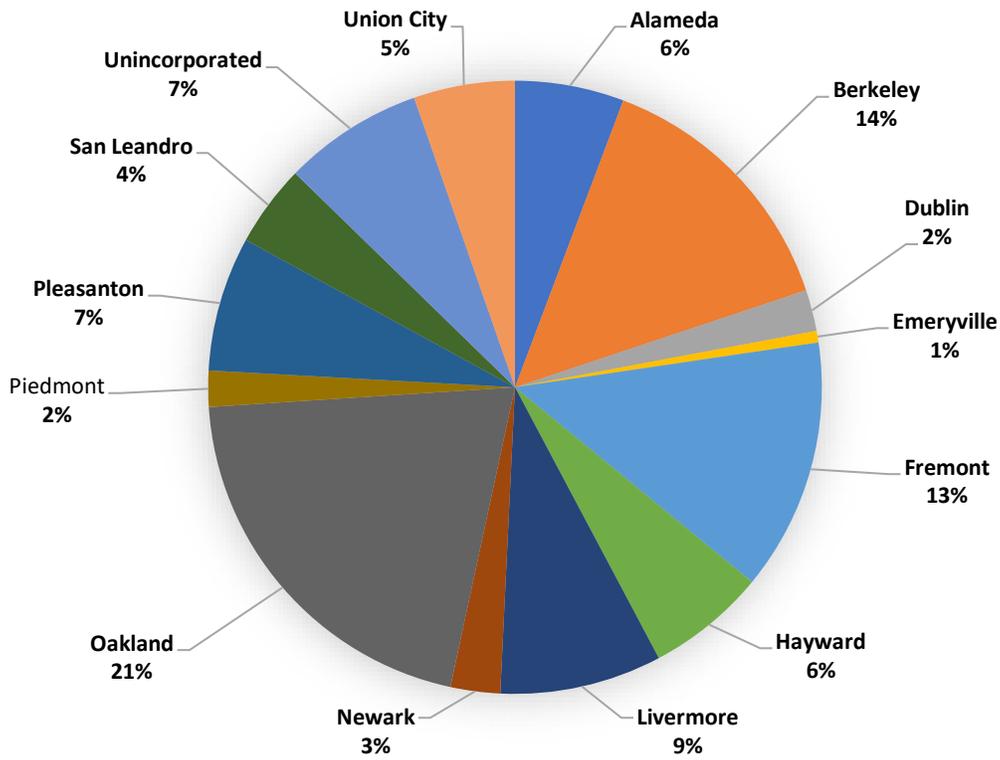


Figure 3. 2016-2017 Service Requests by city.

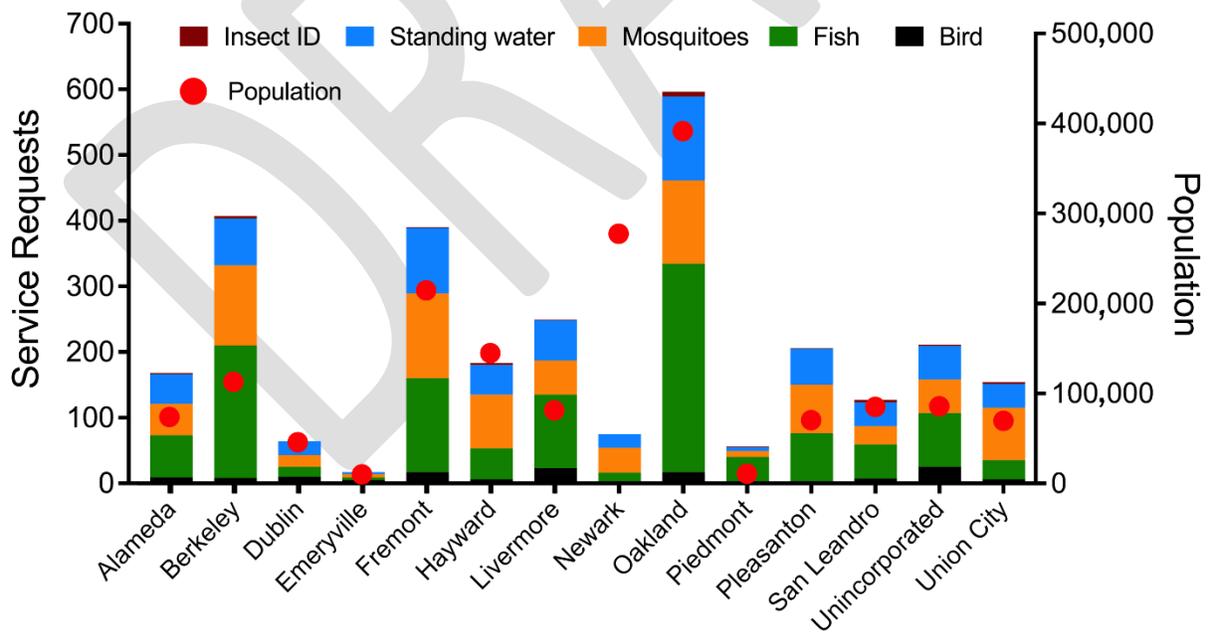


Figure 4. 2016-2017 Service Request counts by city.

LABORATORY REPORT

Overview of ACMAD Lab Activities

The Lab at ACMAD is principally responsible for assessing the abundance of adult mosquitoes, testing for the presence of arboviruses (arthropod-borne viruses) in birds and mosquitoes, evaluating mosquito resistance to insecticides, surveying habitats for the presence of invasive mosquitoes, and conducting research that supports the assessment of mosquito abundance and mosquito control. West Nile virus (WNV), Saint Louis encephalitis virus (SLEV) and Western equine encephalitis virus (WEEV) are arboviruses that can be transmitted to humans and birds by mosquitoes that are native to Alameda County. The prevalence of WNV, SLEV, and WEEV are assessed by testing dead birds and most collected mosquitoes that have the capability to transmit these viruses. Mosquito resistance to insecticides is evaluated using functional, biochemical, and genetic assays to ensure that products used for mosquito control are efficacious. The presence of invasive *Aedes* mosquitoes in California that can transmit Zika virus (ZIKV), dengue virus (DENV), and chikungunya virus (CHIKV) prompted intensified monitoring for these mosquitoes in Alameda County; an effort that was supported in part by the Centers for Disease Control and Prevention (CDC). Research during 2016 and 2017 included developing improved traps for detecting invasive *Aedes* mosquitoes, evaluating *Culex erythrorhax* abundance and control efforts at Hayward Regional Shoreline, and collaborating with Chan Zuckerberg Biohub on sequencing the genome of mosquitoes that occur in California. Publications and conference presentations based on research conducted by the ACMAD Lab from 2016 – 2017 include one peer-reviewed research article published in the *Journal of the American Mosquito Control Association*, four oral presentations, and six research poster presentations at the Annual Meetings of the Mosquito and Vector Control Association of California (MVCAC). Additionally, laboratory personnel published ten abstracts in the Proceedings of the MVCAC during 2016 and 2017.

Mosquito Abundance Assessments

Overview of assessing abundance. The ACMAD Lab assesses mosquito abundance by placing traps that capture adult mosquitoes or the eggs they lay (i.e., after oviposition) throughout Alameda County. Several trap types are used because they employ different attractants and collect different mosquito species. They include: light traps (light attractant), CDC carbon dioxide (CO₂) encephalitis virus surveillance traps (CO₂ traps; CO₂ attractant), oviposition traps (water attractant), Mosquito Magnet traps (MMT; CO₂, heat, and water vapor attractants), and BG-Sentinel traps (BGST; artificial human scent attractant).

Weather in Alameda County during 2016 and 2017. Because mosquitoes are ectothermic animals, environmental temperature plays a major role in their development from aquatic larvae to flying and biting adults. In general, temperature and development time are inversely correlated for mosquitoes; thus, higher temperatures can correlate with high mosquito abundance. Environmental temperatures that fall below 50 °F slow mosquito development. Growing Degree Days base 50 °F (GDD) is a summary heat index that measures heat accumulation in the environment when surface temperatures exceed 50

°F, conditions that facilitate rapid mosquito growth. There was no substantial difference in GDD for 2015, 2016, and 2017 (3928, 3957, and 4013 GDD, respectively as measured in Hayward, CA). Mean annual temperatures during 2015 – 2017 were identical (61 °F). Rainfall can also affect mosquito abundance by providing larger or long-lasting breeding sites for larvae, or depending upon the intensity of the rainfall, kill adult mosquitoes. Rainfall during 2015 (total of 7.75 inches) was lower than what was recorded for 2016 and 2017 (total of 14.43 and 15.42 inches, respectively).

Assessing mosquito abundance using Light Traps. Fourteen light traps (LT) were deployed during 2016 and 2017 to monitor adult mosquito abundance. The locations of LT are indicated on the trap site Google Map by red lightning bolt icons (Figure 5). LT at each site operate continuously throughout the year; trap contents are collected every seven days and analyzed. LT capture adult male and female mosquitoes. During 2016 and 2017, a total of 11,766 and 12,071 adult mosquitoes, respectively, were collected in LT and identified to species (Figure 6). *Culiseta incidens* was the most abundant species in LT collections during both years, representing 48% of the mosquitoes caught in LT during 2016 and 35% during 2017. This species does not transmit arboviruses to humans and breeds year-round in freshwater and urban habitats. Two other common species that were collected in LT during 2016 and 2017 were *Culex erythrothorax* and *Culex tarsalis* (percent of total mosquitoes captured in LT during 2016 and 2017: *Cx. erythrothorax*: 10% and 30%; *Cx. tarsalis*: 24% and 24%). In the absence of mosquito control efforts, both species breed intensively in marsh habitats and can transmit WNV, SLEV, and WEEV to birds and humans.

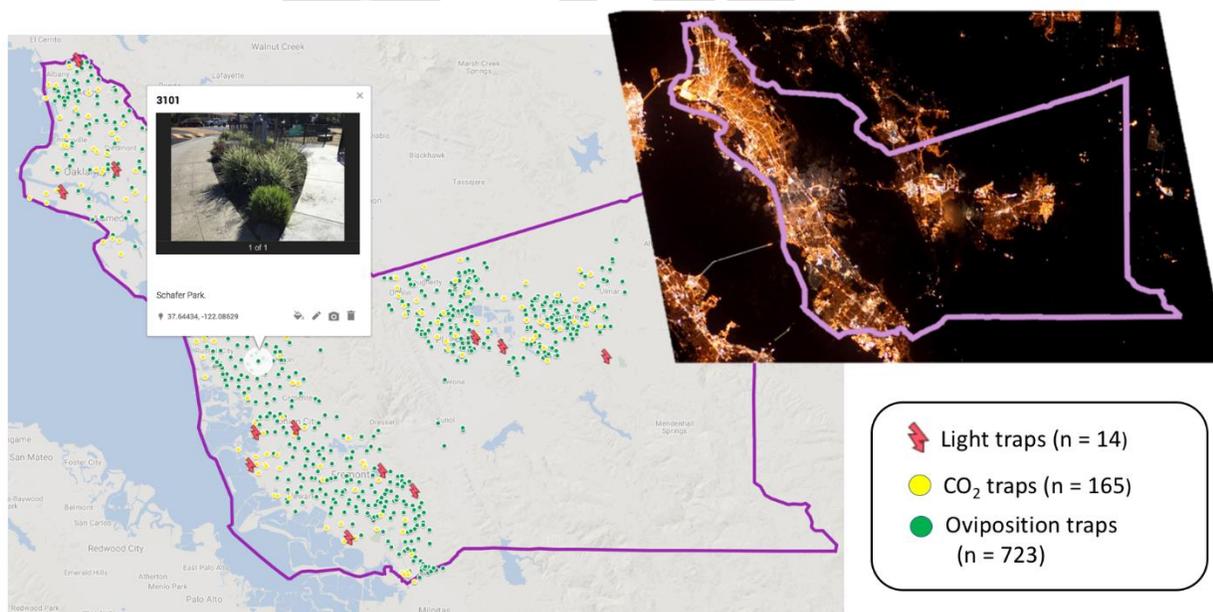


Figure 5. Location of the trap sites in Alameda County during 2017. The boundary of Alameda County is indicated in purple. The popup image on the map shows photographs added to Google Maps that aid staff in locating the traps. The inserted nighttime image of the Bay Area taken by an astronaut aboard the International Space Station is provided to illustrate that mosquito trap placements correlate with population density in Alameda County (astronaut photograph ISS037-E-2064 taken by Expedition 37 crew).

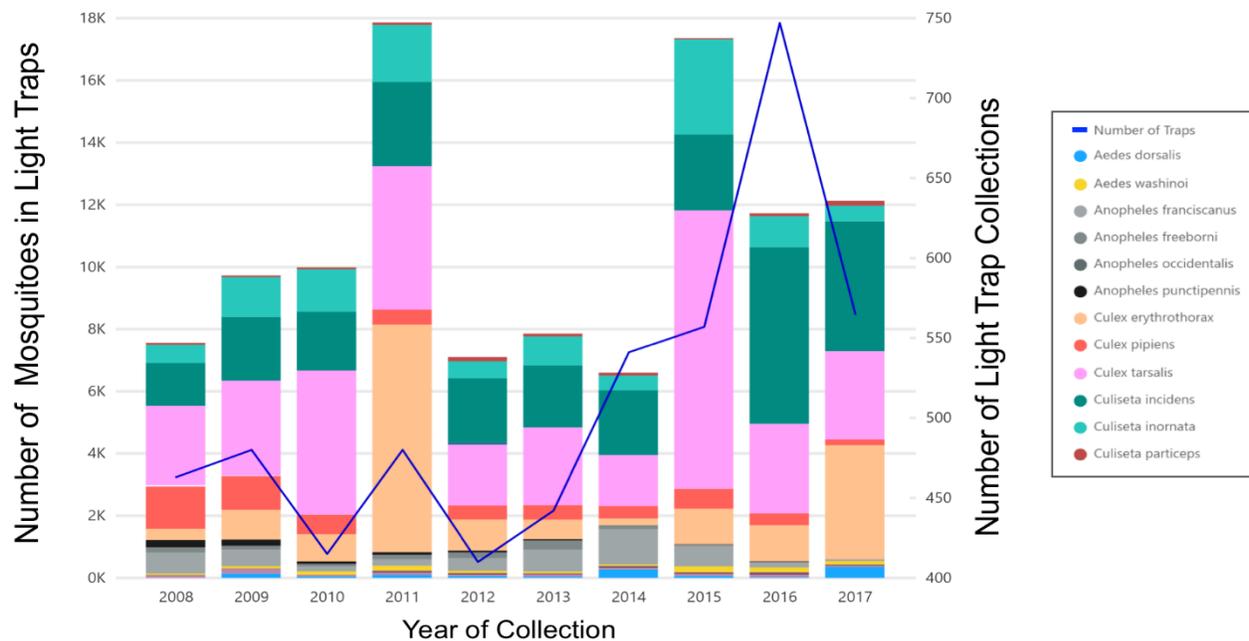


Figure 6. Mosquito monitoring in Alameda County using Light Traps. Left axis shows the number of mosquitoes collected in LT each year for 2008 – 2017. Stacked bars indicate the distribution of mosquito species captured in LT. Right axis shows the number of LT collections for each year.

Assessing mosquito abundance using CDC CO₂ encephalitis virus surveillance traps (CO₂ traps). During 2016 and 2017, over 150 sites in Alameda County were monitored for mosquito abundance using CO₂ traps (Figure 5). Because adult mosquito abundance in Alameda County is typically very low when the weather is cool, mosquito monitoring using CO₂ traps occurred predominantly from April – October. The traps were baited with dry ice that sublimates to release CO₂ gas that primarily attracts adult female mosquitoes seeking a blood meal. Traps were placed at sites for one day to capture adult mosquitoes when they are most active (i.e., the hours surrounding sunset and sunrise). Relative to 2014, the number of CO₂ traps placed and analyzed for mosquitoes was increased more than seven-fold for 2016 and more than twelve-fold for 2017 [Figure 7; Year (number of trap collections for the year): 2014 (131), 2015 (837), 2016 (967), and 2017 (1648)]. During 2016, a total of 33,330 adult mosquitoes were captured in CO₂ traps and identified to species, while 27,998 mosquitoes were captured during 2017. The most highly represented species in CO₂ traps for 2016 and 2017 were *Cx. erythrothorax*, *Cx. tarsalis*, and *Culex pipiens* (Figure 7, Table 1). While *Cx. erythrothorax* are restricted to marsh habitats, *Cx. tarsalis* can breed in marsh and urban environments, and *Cx. pipiens* breed predominantly in urban and suburban habitats. The number of mosquitoes per trap night is another widely used measure of mosquito abundance, and *Cx. erythrothorax* was the most abundant species during both 2016 and 2017 (Table 1). The abundance of *Cx. erythrothorax* in a marsh was the focus of a study to determine the efficacy of larvicide products and is described in the Mosquito Research section.

Assessing mosquito abundance using Mosquito Magnet Traps (MMT). High abundance of *Cx. erythrothorax* in a marsh that abuts the San Francisco Bay provided an opportunity to determine whether this species is better attracted by MMT or CO₂ traps. The results

are described in the Mosquito Research section; in summary, the MMT collected significantly more *Cx. erythrothorax* relative to CO₂ traps.

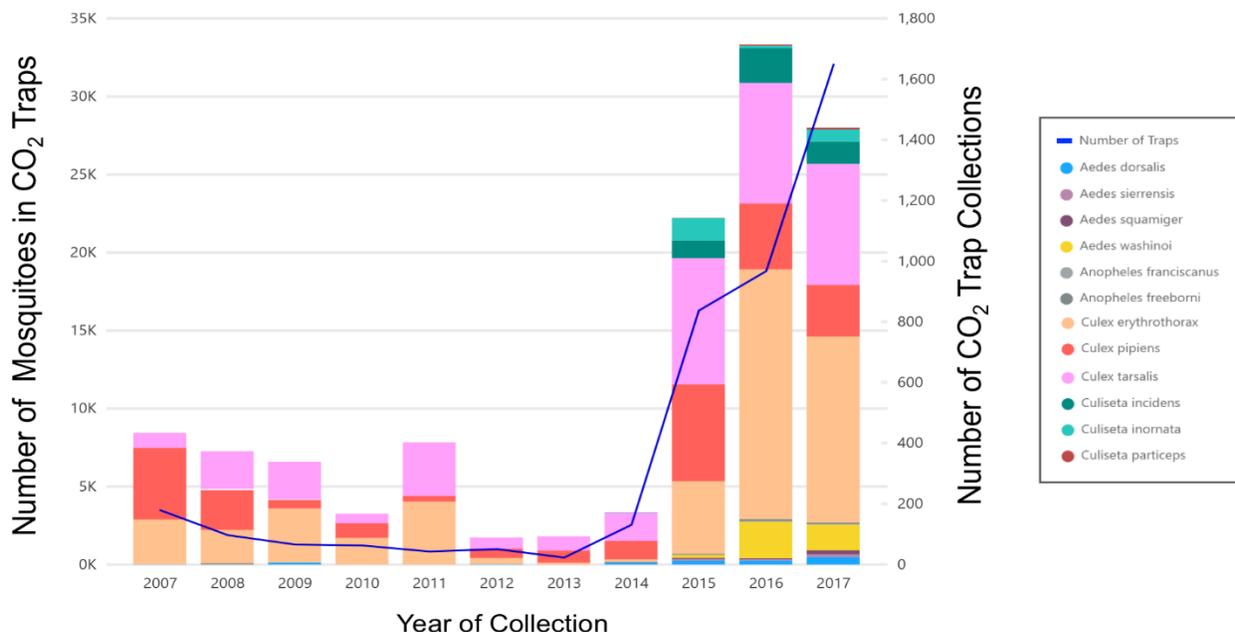


Figure 7. Mosquito monitoring in Alameda County using CO₂ traps. Left axis shows the numbers of mosquitoes collected in CO₂ traps each year for 2008 – 2017. Stacked bars indicate the distribution of mosquito species captured in CO₂ traps. Right axis shows the number of CO₂ trap collections for each year.

Species	2016		2017	
	% of total	Mosquitoes per trap night	% of total	Mosquitoes per trap night
<i>Cx. erythrothorax</i>	48%	16.6	43%	7.2
<i>Cx. tarsalis</i>	23%	8.0	28%	4.7
<i>Cx. pipiens</i>	13%	4.4	12%	2.0

Table 1. Highest abundance species of mosquito collected in CO₂ traps during 2016 and 2017.

Invasive Aedes assessment program. The establishment of invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) in the southern and central valley regions of California prompted intensified efforts by the ACMAD Lab to monitor the County for the presence of these mosquitoes. This increased effort was supported in part with funds awarded by the CDC for invasive *Aedes* monitoring and outreach programs. During 2016 invasive *Aedes* monitoring relied upon oviposition cup traps (OCT) and CDC autocidal gravid traps (AGO). Use of OCT in an extensive network of invasive *Aedes* mosquito traps is labor intensive because they need to be inspected approximately twice a week to replace the mosquito attractant, while the AGO are relatively costly and easy to damage. Consequently, we developed an oviposition bucket trap (OBT) that can be inspected once a month and are not costly to manufacture (\$2.80 for materials and 3 minutes of work effort). The abilities of OBT and OCT to collect *Ae. aegypti* eggs were evaluated in Madera, CA, in collaboration with the staff of the Madera County Mosquito and Vector Control District (MCMVCD). The study results are described in the Mosquito Research

section and show that the OBT collected significantly more *Ae. aegypti* eggs relative to OCT. Moreover, the use of OBT in a network of invasive *Aedes* traps required significantly less work effort at a reduced cost. During 2017 the ACMAD Lab deployed a network of invasive *Aedes* traps throughout the County, establishing higher trap densities in areas at higher risk for introduction and establishment of invasive *Aedes* mosquitoes (Figure 5). Over 700 traps were deployed in the county and inspected at approximately one month time intervals. In addition to OBT, AGO traps were placed in high-risk areas (e.g., container opening facilities and large pottery distributors) and when possible, near sites of travel-related human arbovirus cases. Invasive *Aedes* mosquitoes were not found in any mosquito trap placed in Alameda County during 2016 or 2017. The use of OBT in the mosquito assessment program was presented by the Laboratory Director as an oral presentation at the 2018 Annual Meeting of the MVCAC.

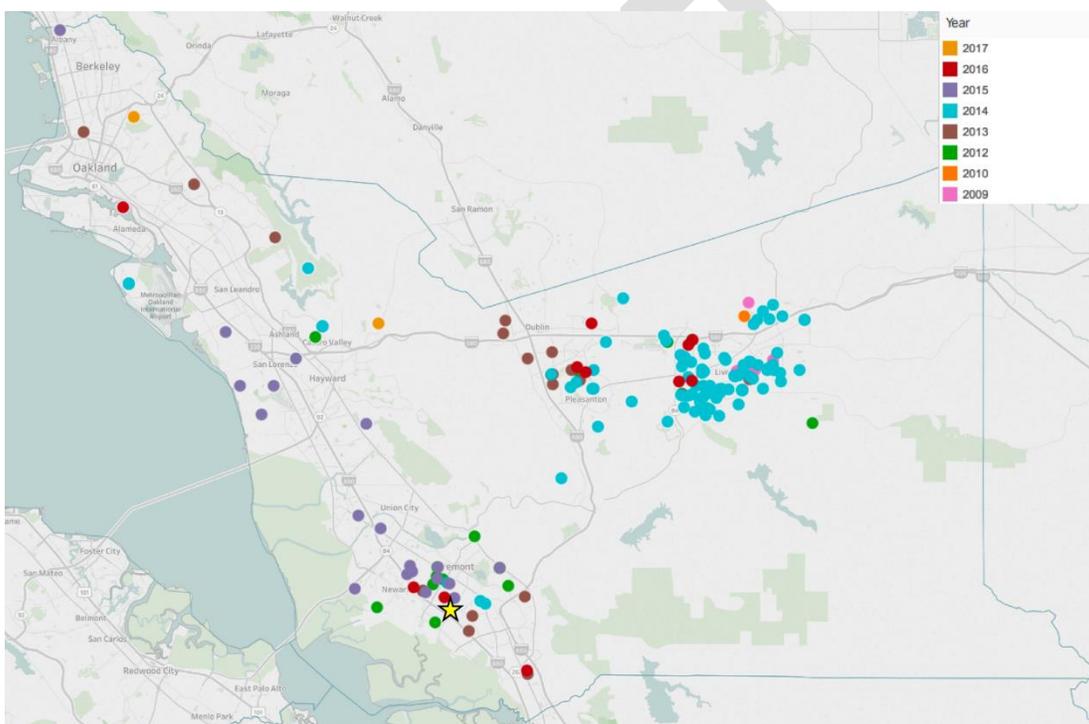


Figure 8. Location of WNV-infected birds collected from Alameda County, 2009 to 2017. The location of WNV-infected birds is indicated with colored circles that correspond to the year shown in the figure legend. WNV was not detected in any bird during 2011. The location of the WNV-infected mosquitoes collected during 2016 is indicated by a yellow star. To date (December 2017), no bird or mosquito in the County has been found to contain SLEV or WEEV.

Arbovirus assessment in mosquitoes and birds. Since 2015, the ACMAD Lab has conducted routine arbovirus monitoring of all mosquitoes captured in CO₂ traps placed throughout the County. More than 90% of arbovirus-competent species of mosquito that were collected in CO₂ traps were tested in-house for the presence of WNV, SLEV, and WEEV using quantitative polymerase chain reaction (QPCR). Whenever a dead bird was determined to be infected with WNV, lab personnel placed 25 – 30 CO₂ traps in an area no more than a quarter of a mile from where the dead bird was found. The lab tested most vector-competent species of mosquitoes that were collected in the CO₂ traps for WNV, SLEV, and WEEV. During 2016, eleven birds and one collection of mosquitoes were

found to contain; during 2017, two birds and none of the trapped mosquitoes contained WNV (Figure 8).

Mosquito Resistance to Insecticides

District staff rarely use insecticides that target the adult stages of mosquitoes. However, when adult mosquitoes are found to contain arboviruses, to protect public health, insecticides may be used to reduce mosquito abundance. To develop an insecticide resistance assessment program, Lab staff participated in a resistance workshop at the Sacramento-Yolo Mosquito and Vector Control District. There, they developed expertise in assays that: (1) assess functional resistance to insecticides which quantify the concentration of insecticides that kill mosquitoes (i.e., CDC bottle bioassay); (2) measure the activity of enzymes in mosquitoes that affect insecticide resistance by metabolizing and detoxifying insecticides (i.e., microtiter plate assays); and (3) evaluate insecticide target site insensitivity in the voltage gated sodium channel voltage gated channel (VGSC-1) of neurons using QPCR. The QPCR assay assesses resistance to the widely used insecticide, permethrin, that is mediated by a mutation in the knockdown resistance (*kdr*) loci of VGSC-1 that can confer complete resistance to permethrin-based insecticides. While the CDC bottle bioassay and microtiter plate assays can be conducted using any species of mosquito, the QPCR *kdr* assay is currently available only for *Cx. pipiens*.

The Lab began evaluating insecticide resistance in *Cx. erythrothorax*, a species that can be highly abundant in marsh habitats. Because it is very challenging to establish an inbred colony of *Cx. erythrothorax* for resistance testing, comparisons were made to an established colony of *Cx. pipiens* that is sensitive to insecticides. Results of the CDC bottle bioassay showed that *Cx. erythrothorax* were 6.1-fold more sensitive to permethrin relative to the sensitive lab colony of *Cx. pipiens* (Figure 9A). Piperonyl butoxide (PBO) is a chemical that can be added to an insecticide to inhibit the enzymes that metabolize and inactivate insecticides. When PBO was added to the CDC bottle assay, significantly fewer *Cx. erythrothorax* were alive after exposure to permethrin relative to tests made in the absence of PBO (Figure 9B). The time to knockdown (a measure of insecticide efficacy) was significantly reduced when PBO was included with 0.5 µg permethrin in the CDC bottle bioassay (Figure 9C). Field-caught *Cx. erythrothorax* were highly sensitive to both resmethrin, etofenprox, and naled, relative to the susceptible lab colony of *Cx. pipiens* (not shown).

Biochemical activity assays for enzymes in *Cx. erythrothorax* that metabolize insecticides demonstrated this species had significantly increased activity of oxidase, glutathione transferase, alpha esterase, and beta esterase relative to *Cx. pipiens* from a susceptible lab colony (Figure 10; unpaired t tests, $P < 0.0001$). Glutathione S-Transferase (GST), activity was similar for both species (unpaired t tests, $P > 0.9$) while levels of insensitive acetylcholinesterase were negligible (Figure 10). Results from our studies of insecticide resistance in *Cx. erythrothorax* were presented by a Seasonal Lab Technician in a talk at the 2017 Annual Meeting of the MVCAC.

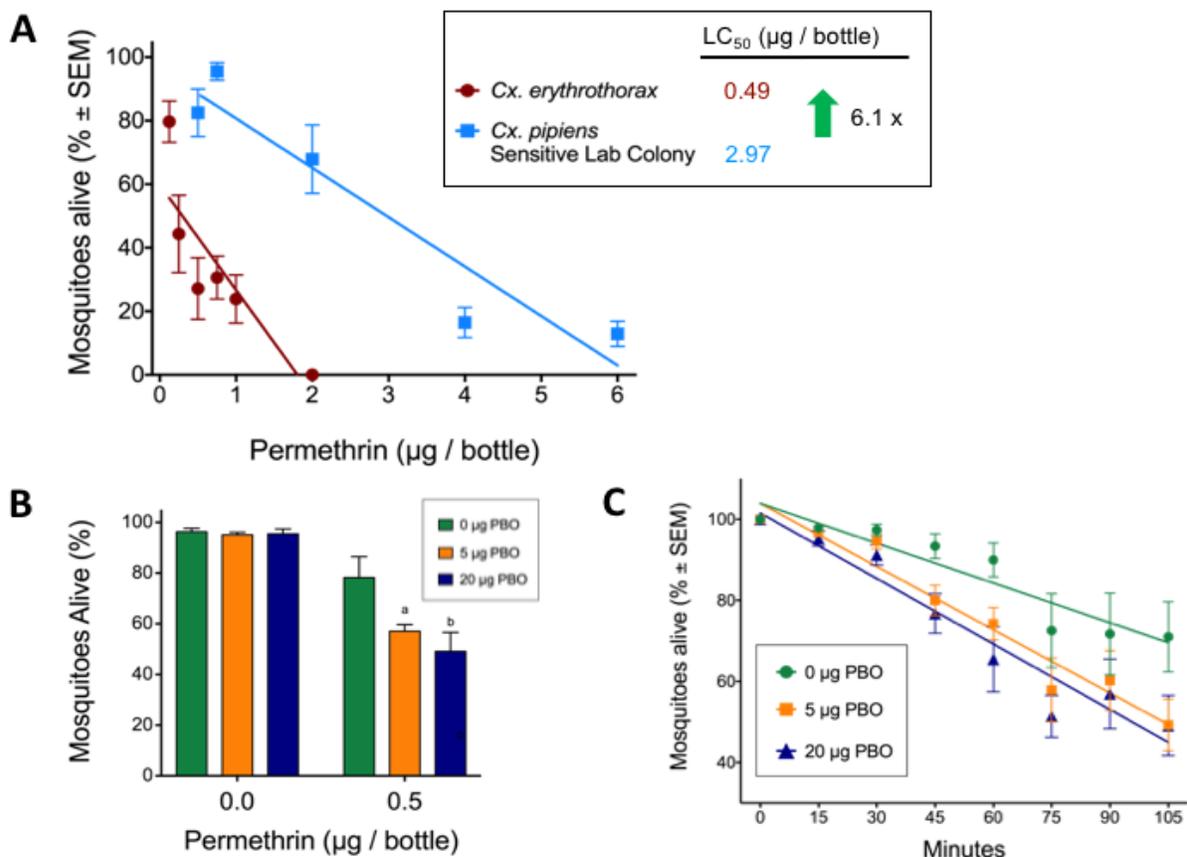


Figure 9. Resistance of *Cx. erythrothorax* to permethrin in the presence of PBO. (A) Using a CDC bottle bioassay, adult *Cx. erythrothorax* were more susceptible to permethrin relative to a lab colony of *Cx. pipiens* that are susceptible to insecticides (linear regressions, $R^2 > 0.73$). (B) Inclusion of PBO significantly increased the susceptibility of *Cx. erythrothorax* to permethrin in a CDC bottle bioassay. Bars with letters indicate significant differences between treatments with and without PBO ((paired t-tests, $P < .05$). (C) Time to knockdown of *Cx. erythrothorax* exposed to 0.5 µg of permethrin, with or without PBO in a CDC bottle bioassay (ANCOVA, slope: $P < 0.013$).

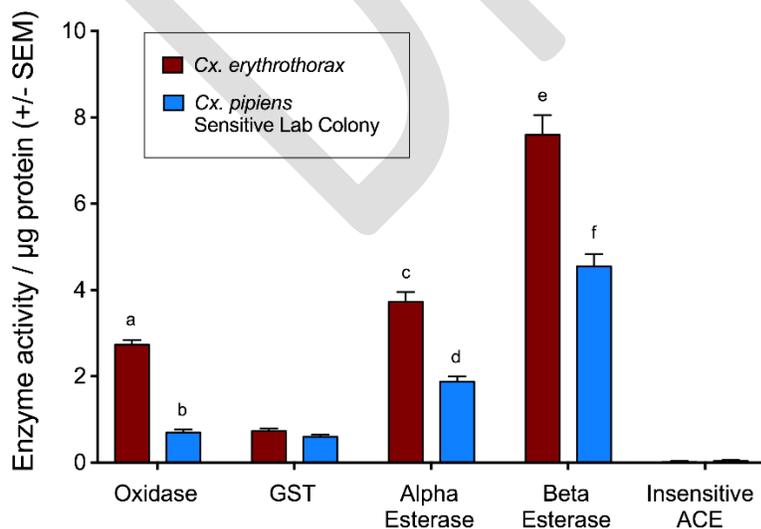


Figure 10. Activity of enzymes that metabolize insecticides in adult *Cx. erythrothorax* and a lab colony of *Cx. pipiens* that is sensitive to insecticides. Bars with letters indicate significant differences between *Cx. erythrothorax* and *Cx. pipiens* for the enzyme activity tested (paired test, $P < 0.0001$; $N > 20$ mosquitoes of each species tested for each enzyme).

To assess insecticide resistance in *Cx. tarsalis*, we conducted CDC bottle bioassays and enzyme activity assays using adult *Cx. tarsalis* that were collected in the field. The field-collected *Cx. tarsalis* were 3 – 16 times more resistant to permethrin relative to *Cx. pipiens* from the susceptible lab colony. Beta-esterase and oxidase enzyme activities were significantly higher in field-collected *Cx. tarsalis* relative to lab colony *Cx. pipiens* (not shown). The activity of α -esterase was significantly higher in *Cx. tarsalis* relative to lab colony *Cx. pipiens* (not shown). Interestingly, the activity of acetylcholinesterase was significantly lower in *Cx. tarsalis*, and insensitive acetylcholinesterase was not detected (not shown), suggesting that the tested *Cx. tarsalis* may be highly sensitive to organophosphate-based insecticides. The results of this study were presented by a Seasonal Lab Technician as a poster presentation at the 2018 Annual Meeting of the MVCAC.

QPCR genetic tests of pyrethroid resistance in *Cx. pipiens* have been successfully implemented in the ACMAD Lab. This genetic test determines whether mosquitoes have one or two copies of the mutant VGSC-1 gene, termed heterozygous or homozygous mutant, respectively, for the *kdr* allele. Mosquitoes that are heterozygous for *kdr* are considered partially susceptible to permethrin insecticides, while those that are homozygous mutant are considered fully resistant and may not be killed by pyrethroids. QPCR test of the *kdr* allele of the VGSC-1 gene in adult *Cx. pipiens* that were captured from four locations during 2017 showed that more than a third were heterozygous for the mutation that is associated with permethrin resistance (i.e., *kdr*), and approximately 5% were homozygous for the resistance-associated allele. The results of this study were presented by a Seasonal Lab Technician as a poster presentation at the 2018 Annual Meeting of the MVCAC.

Mosquito Research

Publications and conference presentations based on research conducted from 2016 – 2017 include one peer-reviewed research article published in the *Journal of the American Mosquito Control Association*, four oral presentations and six research poster presentations at the Annual Meetings of the MVCAC, and 10 research abstracts published in the Proceedings of the MVCAC.

Improved traps to assess invasive Aedes abundance: oviposition cup and bucket traps. Research during 2016 and 2017 focused primarily upon developing and testing improved traps for detecting invasive *Aedes* mosquitoes. The Lab redesigned the oviposition cup trap (OCT) that is widely used to detect invasive *Aedes* eggs in the environment. Use of OCT for a county-wide invasive *Aedes* trap network is limiting because each OCT requires weekly inspections for eggs and replacement of the water that attracts the mosquitoes. We developed a larger sized OCT based on a larger bucket-sized container, called an oviposition bucket trap (OBT; Figure 11A), which we tested in Madera, CA in collaboration with MCMVCD. The OBT collected significantly more *Ae. aegypti* eggs relative to the OCT (Figure 11B). Significantly more OBT contained *Aedes* eggs relative to the OCT (not shown; 83% of OBT and 65% of OCT; Fisher's exact test, $P = 0.0214$). Rearing collected *Aedes* eggs to adults in the lab at MCMVCD confirmed that eggs collected in OCT and OBT were *Ae. aegypti*. The results of this study were presented by

the Biological Specialist in an oral presentation at the 2017 Annual Meeting of the MVCAC and published in the *Journal of the American Mosquito Control Association* (<http://mosquito-jamca.org/doi/full/10.2987/17-6647.1>). Because we demonstrated that OBT captured more *Aedes* eggs than OCT, and use of OBT required less work effort to place and inspect the traps, OBT were used for the invasive *Aedes* trap network that was deployed by the Lab during 2017 (Figure 5).

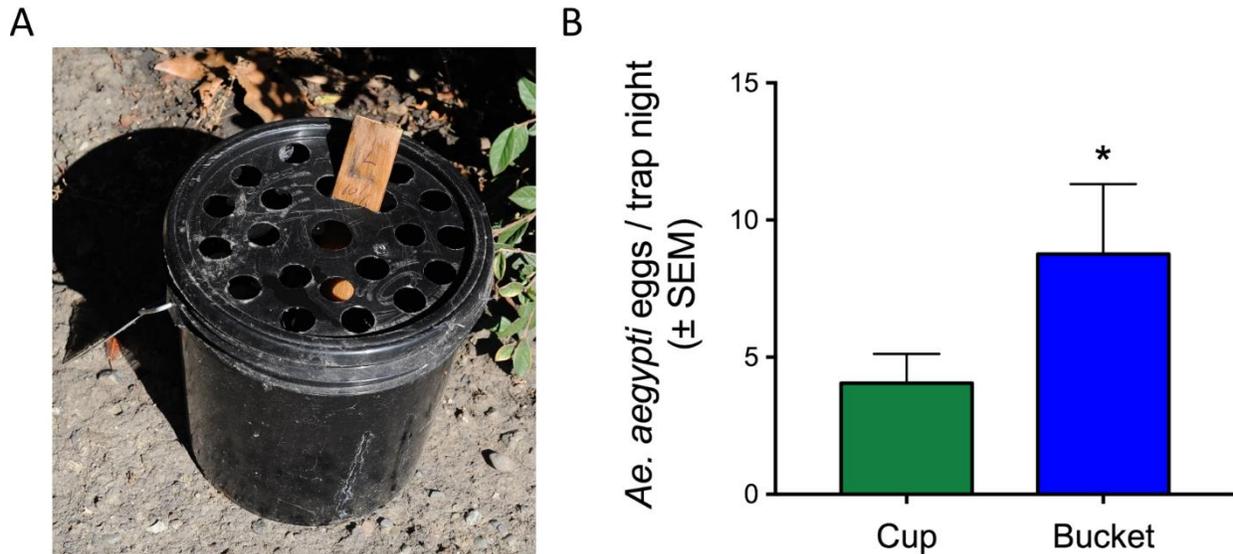


Figure 11. Comparison of the ACMAD OBT to the CDC OCT for detecting *Aedes aegypti* in Madera, CA. (A) OBT placed in the field to attract invasive *Aedes* mosquitoes. (B) The OBT collected significantly more *Ae. aegypti* eggs relative to the OCT (8.8 ± 2.6 and 4.1 ± 1.1 *Ae. aegypti* eggs / trap night, respectively; * paired t-test, $P = 0.0076$).

Culex erythrothorax: evaluation of control measures and trapping methods. *Culex erythrothorax* are competent vectors of WNV and can be highly abundant in marsh habitats with dense stands of tule and other vegetation. CO₂ traps were used to evaluate the impact of larvicide applications in a marsh over a one year period. During the months of May and June of 2016, a very high abundance of *Cx. erythrothorax* was observed at the marsh site. During late June Operations implemented intensified applications of larvicides aimed at reducing the populations of developing mosquito larvae at the site. Weekly applications were made of larvicide products, and the products were rotated each week (VectoMax, VectoBac G, or VectoLex CG). Within the first two weeks of the program (week 26 – 27), there was a substantial reduction in adult *Cx. erythrothorax* that were trapped at the site (Figure 12A). During week 35, mosquito abundance began to increase and returned to pre-treatment levels by week 37. Uncontrolled *Cx. erythrothorax* breeding at the site encouraged East Bay Regional Park District to remove much of the tule plants from the marsh. Removal of the tule from the site resulted in a substantial reduction in the number of adult *Cx. erythrothorax* at that site for the remainder of 2016 (Figure 12A) and 2017 (not shown).

Prior to the removal of the tule, the ability of MMT to capture *Cx. erythrothorax* was compared against CO₂ traps, with the aim of using MMT to suppress *Cx. erythrothorax* abundance, should the need arise. The MMT captured significantly more *Cx.*

erythrothorax relative to what was collected by CO₂ traps (Figure 12B), suggesting the MMT may be useful for reducing the number of adult *Cx. erythrothorax* in the environment. The results of this study were presented by a Vector Biologist in a poster presentation at the 2017 Annual Meeting of the MVCAC.

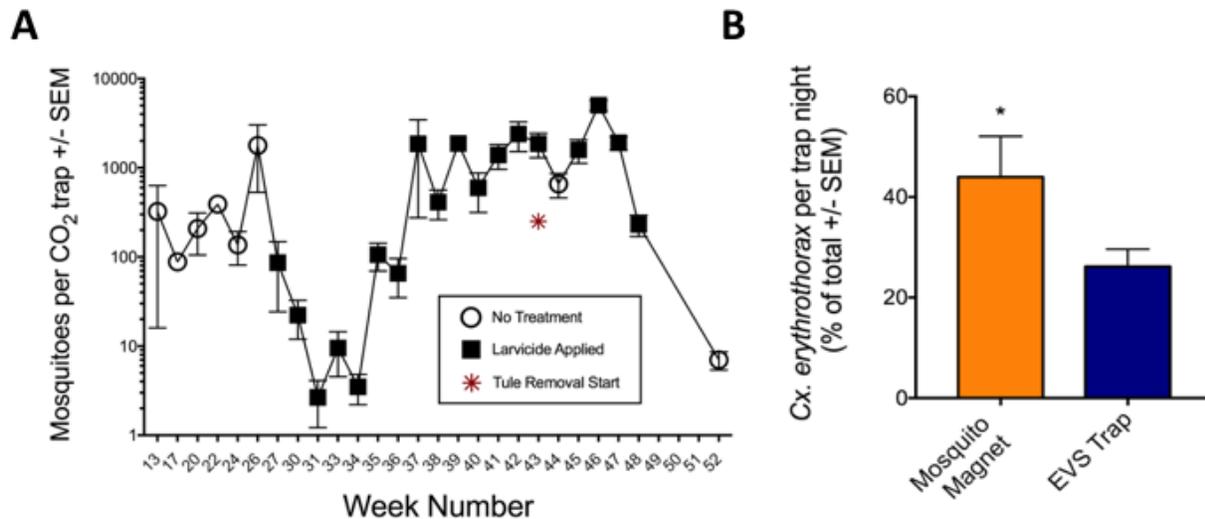


Figure 12. Larvicide impact on *Cx. erythrothorax* in a marsh and comparison of MMT with CO₂ traps for capturing *Cx. erythrothorax*. (A) Larvicide applications in a marsh reduced *Cx. erythrothorax* for several weeks, but abundance increased until tulle, a refuge for larval and adult *Cx. erythrothorax*, was removed. (B) MMT captured significantly more adult *Cx. erythrothorax* in a marsh relative to CO₂ traps (paired t tests, $P < 0.05$).

Genome and metagenome sequencing of mosquitoes in California with Chan Zuckerberg Biohub. The Lab is collaborating with the Chan Zuckerberg Biohub (CZ Biohub) to collect mosquitoes throughout Alameda County so that the genome and metagenome of each species can be sequenced. Recently, six other vector control agencies in California have joined the mosquito collection effort. The genome is the genetic code of the mosquito, while the metagenome is the genome of the microorganisms (e.g., bacteria and viruses) that inhabit the mosquitoes. The overall aims of the project as it relates to vector control agencies are: (1) to sequence the genomes of mosquitoes that need to be controlled because they transmit disease or are a nuisance, (2) discover genetic markers for insecticide resistance, and (3) screen mosquito populations for resistance prior to insecticide applications. CZ Biohub is interested in discovering novel microorganisms that inhabit mosquitoes and that may contribute to human disease in ways that are not currently appreciated (e.g., causing sub-acute infections in humans that increase susceptibility or severity of unrelated diseases). Genetic sequencing has been focused on *Cx. tarsalis* because high numbers of specimens were provided by ACMAD to develop nucleic acid isolation methods. To date the complete mitochondrial genome of *Cx. tarsalis* has been sequenced, as have several genes involved with insecticide resistance (e.g., VGSC-1, esterase, and oxidase genes). Sequencing has uncovered several microorganisms in *Cx. tarsalis* including viruses (e.g., members of flavivirus, bunyavirus, and orthomyxovirus families), trypanosomes, spirochetes, and borrelia. The preliminary results of this study were presented by the Laboratory Director as an oral presentation at the 2018 Annual Meeting of the MVCAC.

PUBLIC OUTREACH

Media Outreach

In 2016 and 2017 the District concentrated on increasing public outreach efforts through digital platforms. Internet advertisements during the summer months focused on draining standing water, reporting neglected swimming pools, and personal preventive measures to avoid mosquito bites. However, advertisements in the PennySaver publication and posters in Bay Area Rapid Transit (BART) stations were replaced by movie theater ads and an electronic billboard by the Oakland Coliseum (Figure 13). The billboard was made possible by federal Zika funding and focused on invasive *Aedes* awareness.



Figure 13. Oakland Coliseum Complex billboard.

Efforts were also made to increase the District’s social media presence. Starting in the summer of 2017, seasonal staff was hired to provide support for public education efforts, including social media. By the end of 2017, the District was regularly posting on both Facebook and Twitter (Figure 14). The District’s social media presence further increased in 2016 with the creation of an Instagram account. The District’s social media accounts can be found by searching each platform for AlamedaMosquito.

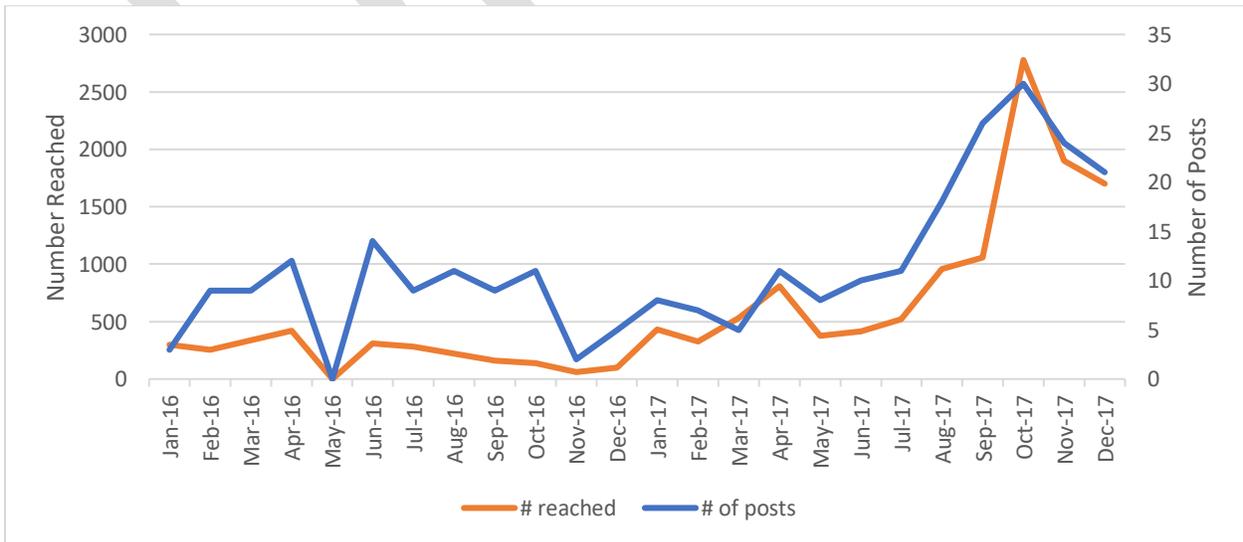


Figure 14. Facebook activity for 2016 and 2017.

Presentations

In addition to an increased digital presence, District employees gave over 30 presentations in 2016 and 2017. Presentations were provided to local schools (preschool through college), city council meetings, other agencies (East Bay Municipal Utility District, East Bay Parks and Recreation District, Livermore Area Parks and Recreation Department), community groups (Lions clubs, Sons in Community Emergency Response Team Retirement, Community Emergency Response Teams) and for conferences and trainings (California Stormwater Quality Association, Coastal Region continuing education meetings).

The focus of these presentations was on the District's mosquito assessment and control activities, with a highlight on invasive species of mosquito and the diseases they transmit. Also during 2016, the Lab Director and Regulatory & Public Affairs Director provided materials and guidance to staff at the San Francisco Exploratorium in support of their hands-on Teacher Institute Workshop entitled "The Deadliest Animals on Earth: Mosquitoes!". The document resulting from that workshop can be found at: <http://tinyurl.com/timosquitoes>. During 2016 and 2017, the Laboratory Director provided lectures on mosquito biology and the arboviruses they transmit at UC Berkeley and the University of Arizona, Tucson.

Partnerships

During 2016 and 2017, the ACMAD Lab partnered with the Fremont Math and Science Nucleus where we provided training and mosquito traps to advanced high school students so they could participate in monitoring for invasive species of *Aedes*. During 2016, the ACMAD General Manager and Laboratory Director served on a Panel Discussion for the UC Berkeley Zika Symposium: Frontline Update that was entitled "From Global to Local: California's Response to Zika" (<http://cgph.globalhealth.berkeley.edu/102916-uc-berkeley-zika-symposium-frontline-update/>). The Panel was moderated by Dr. Stefano Bertozzi, the Dean of the School of Public Health at UC Berkeley, and included Dr. James Watt, the Chief of the Division of Communicable Disease Control, California Department of Public Health. Afterwards, we were interviewed by the UC Berkeley Radio Station, KALX (90.7 FM). The ACMAD Lab sponsored a project to develop a novel invasive *Aedes* mosquito trap with the Hacking 4 Impact course at UC Berkeley during 2017 (course instructor: Professor Amy Herr; website: <http://hacking4impact.berkeley.edu/>). The role of the Lab was to connect the team with stakeholders in public health and vector control, and guide the team in trap design. The outcome was a trap design that identified in real time the species of the mosquito captured using wing beat frequency and images of the trapped insects. The resulting data were transmitted via public and private WiFi to vector control agencies. A UC Berkeley graduate student aims to produce a trap prototype that the Lab has agreed to test at our research sites outside of Alameda County where there are already established populations of *Ae. aegypti*.

Public Education Events

Public outreach through participation in local fairs and community events continued to be a staple of the District's public education program. Events the District participated in are listed in Table 2 and displayed geographically in Figure 15.

2016	2017
Thomas Hart STEAM Science night	Thomas Hart STEAM Science night
Alameda County Spring Home & Garden Show	Alameda County Spring Home & Garden Show
Dublin St. Patrick's Day Festival	Dublin St. Patrick's Day Festival
San Leandro Earth Day & Watershed Festival	Oakland Earth Expo
Oakland Earth Expo	Peralta Colleges Sustainability Eco Festival
CSUEB Hack Day	Alameda Earth Day Festival
Chabot College Return of the Swallows Festival	Hayward Cinco de Mayo Festival
Peralta Colleges Sustainability Eco Festival	Alden Lane Nursery Fish Giveaway
Alameda Earth Day Festival	Palomares Elementary School Science Expo & Watershed Festival
Tropics Mobile Home Park Senior Resource Fair (2)	Niles Wildflower, Art, Garden, & Quilt Show
Alden Lane Nursery Fish Giveaway	Share the Love Festival, Bridges Academy
Hayward Cinco de Mayo Festival	San Leandro Cherry Festival
Niles Wildflower, Art, Garden, & Quilt Festival	Alameda County Fair
Palomares Elementary School Science Expo & Watershed Festival	United for Safety, San Leandro Police Department
San Leandro Cherry Festival	Alameda Art & Wine Festival
UCB Botanical Garden "Bug Days"	Newark Days Festival
Alameda County Fair	Urban Shield (3 Crosses, CV)
Hayward Zucchini Festival	Alameda County Fall Home & Garden Show
Newark Days Festival	CSUEB Discovery Day Science Fair
Alameda County Fall Home & Garden Show	Ascend Fall Festival (Oakland)

Table 2. Public education events ACMAD attended in 2016 and 2017.

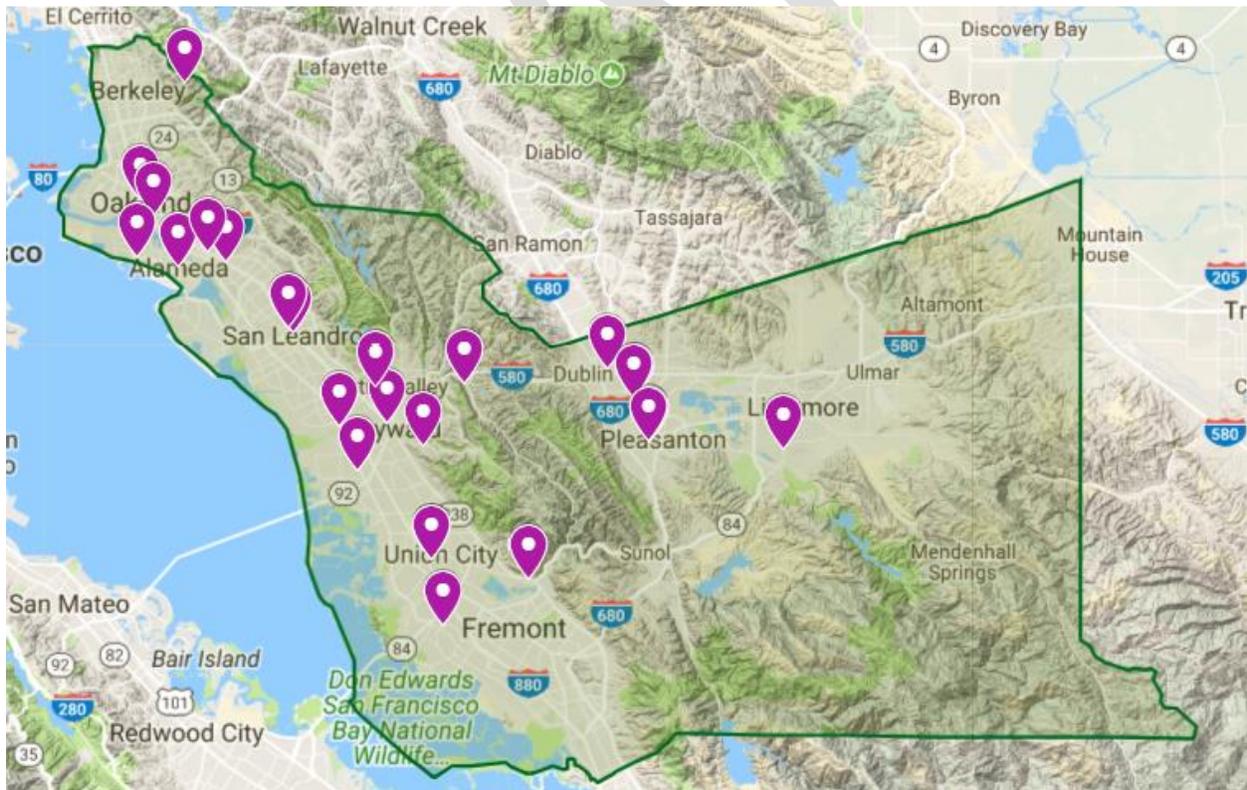


Figure 15. Geographic distribution of public education events during 2016 and 2017.

INFORMATION TECHNOLOGY UPDATE

ACMAD has been modernizing its Information Technology (IT) infrastructure, workflows, and analytical processes over the past 2 years. Our vision is to increase fiscal responsibility, efficiency, and transparency of the District to its employees, the Board of Trustees and the public.

In 2016 we analyzed the current District business model and developed solutions to enhance daily operations through modern technology (Figure 16). Internal systems, policies, and processes were systematically inspected for relevance. ACMAD has changed its operational model from a paper-based cumbersome organization, to a cloud-based, open and distributive environment. We learned through modernization projects that many mosquito districts share similar issues that arise from being small to medium sized government entities. To increase fiscal responsibility, we renegotiated contracts by partnering with larger entities to reduce cost.

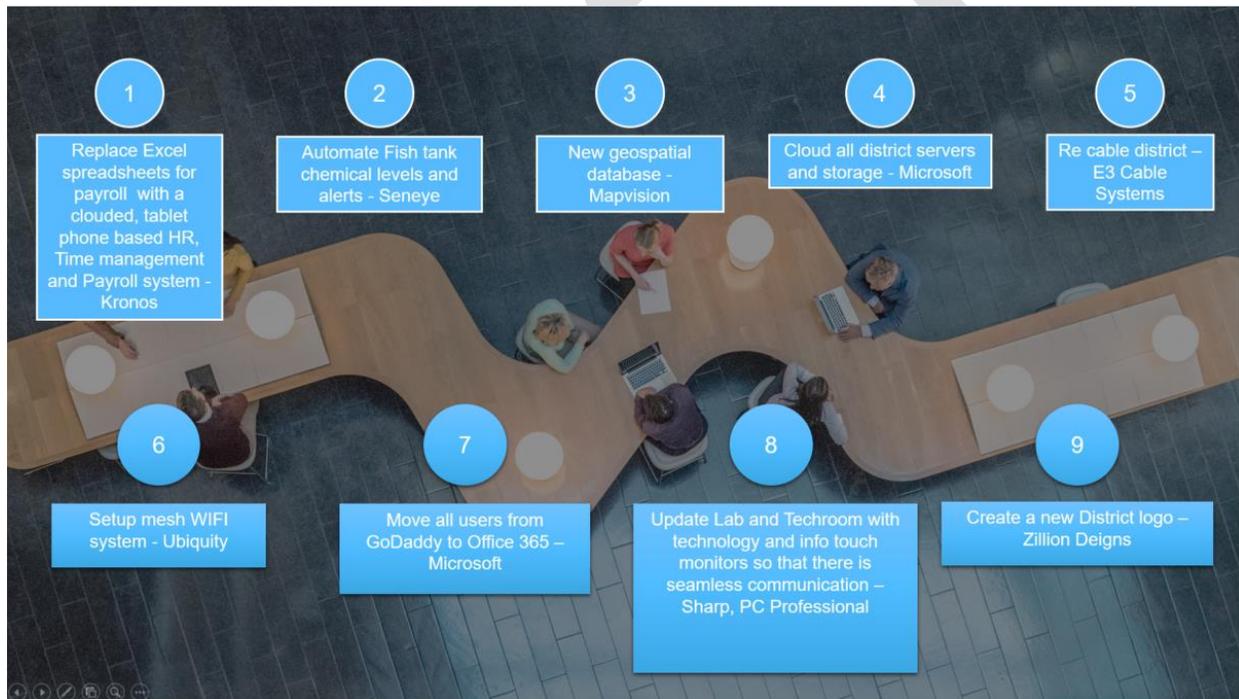


Figure 16. 2016-2017 IT Roadmap

Upgrading our IT infrastructure gave us the ability to move storage, human resources (HR), mosquitofish management and geodatabases into the cloud. Office 365 gives employees the ability to send and receive email and video conference with their supervisor on their tablets or from anywhere in the County. We are completely serverless and leverage Microsoft Cloud Services to store and keep our data safe. The District also has a full network solution including Mesh WIFI. By reducing reliance for hardware on premise, there is less need for IT resources. By adding redundancies to connecting systems we now have access to the system 24 hours a day, 365 days a year from any location.

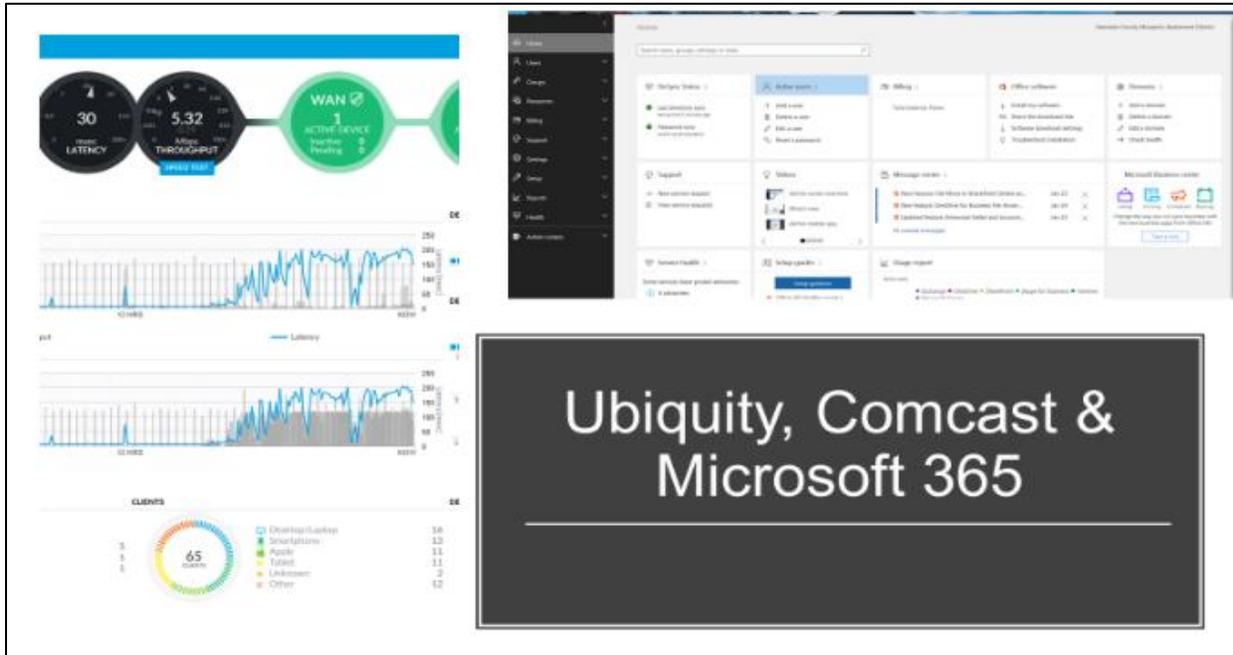


Figure 17. Realtime Graphical Network and Office 365 statistics

In 2016 we moved from a DOS based timecard system and excel spreadsheets to an automated HR solution. One Point - Kronos total HR solution, allows employees to clock in and out, request time off and view paycheck status from their phones and tablets (Figure 18). The system also tracks our complicated flex time schedule to ensure we stay with all federal and state labor laws. All aspects of human capital management can be handled in one interface.

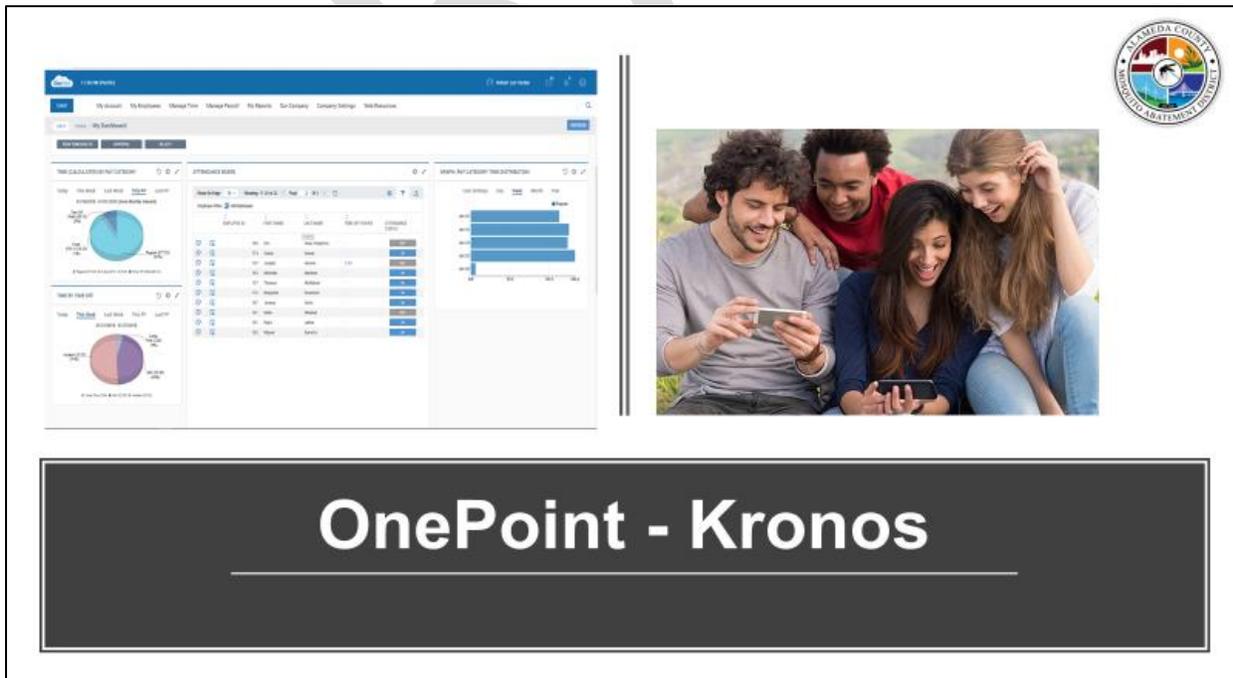


Figure 18. Web-based enterprise HR System

Developing a substantially enhanced geo-database allowed us to empower our employees in the field and lab to work collaboratively rather than in siloed departments. Information now flows instantly from support staff, operations and the lab. Service requests are automatically assigned to technicians in the field with zero wait-time. A technician can respond within 5 minutes after the office receives a call for service. We are now looking at innovations in satellite imagery, virtualization, unmanned aircraft systems and artificial intelligence as needed tools in the next evolution of the ever-changing landscape of mosquito control.

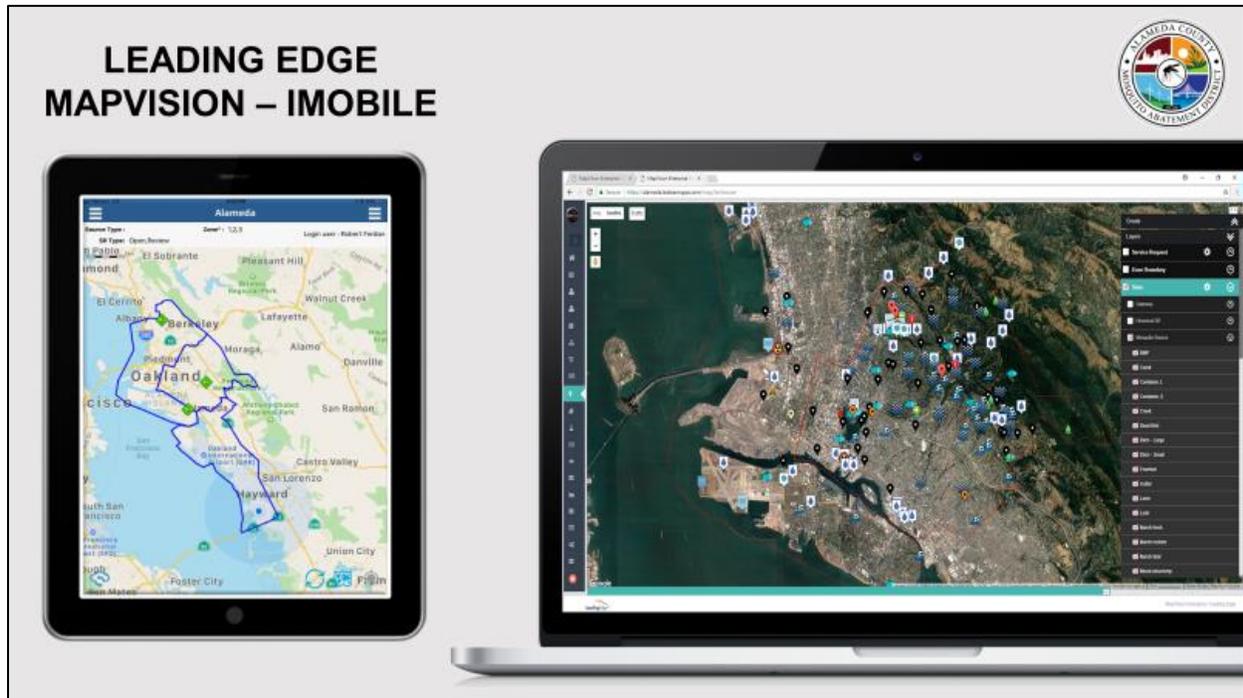


Figure 19. Geospatial mobile database - Mapvision

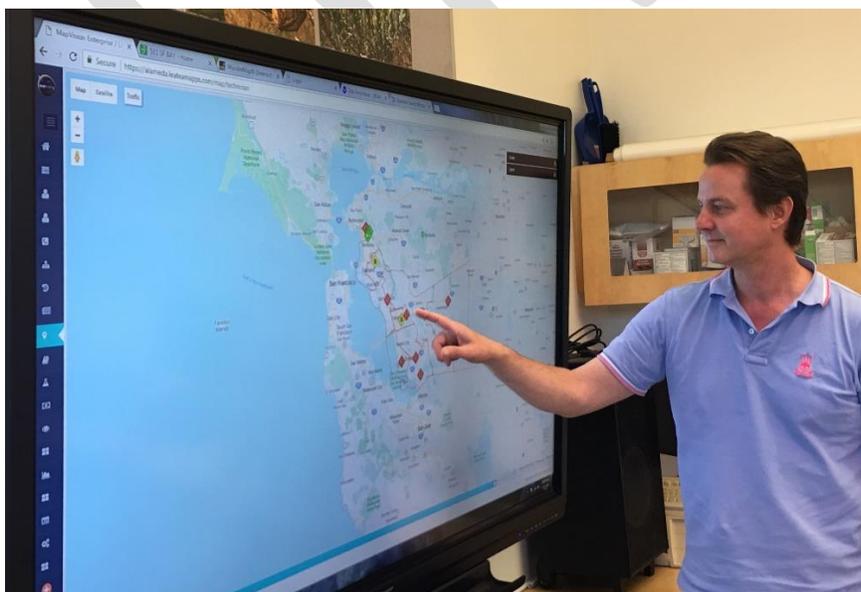


Figure 20. Touchscreen technology. The District technician room now houses a 70" touchscreen information system to deliver live content to operational staff. This dashboard facilitates the incorporation of data into the mosquito control decision making process.

FACILITY AND EQUIPMENT IMPROVEMENTS

Locker Room Expansion

Due to additional full-time District staff positions and an increase in our Lab Seasonal staff, it was necessary to expand the Men's Locker Room. Utilizing available space from the facility's original Tech-Room, an interior wall was relocated to provide more square footage for additional lockers and benches (Figure 21).

Low Energy Swing Door Operator (Main Lobby)

The need to repair the front door lock assembly gave the District an opportunity to upgrade the front door for ADA compliance. The Low-E Operator opens the door by use of a push button (inside and outside), or the door will open fully when the user begins opening it from either direction (Figures 22 and 23).

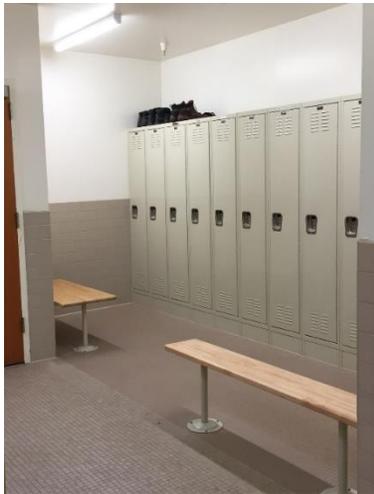


Figure 21



Figure 22



Figure 23

Landscaping

Sometimes even the simple things make a difference. Moving some rock and installing of landscape edging were easy solutions for a quick cleanup and refreshed look for the District headquarters. In addition, recycling the mulch from the trimmings of two Liquid Ambers and two Sycamores provided excellent ground covering (Figures 24 and 25).



Figure 24. Before landscaping



Figure 25. After landscaping

Storage Shed

The new pesticide and equipment storage shed was completed in 2017. There have been many changes over the years regarding underground supply and containment, as well as the types of pesticide and equipment used. The new storage shed has room to grow and adapt to the District's future needs. Maximizing the location of the original shed, the District was able to nearly double the square footage and at the same time update the shed's occupancy classification from an H-3 (High-Hazard contents and volumes) to an S-1 (Non-Hazardous per volume). Included are low wattage LED lighting and an upgraded ventilation system with thermostat control and exterior emergency shut-off.



Figure 26. Pesticide storage shed remodel project. (A) Demolition of the old pesticide storage shed. (B) Construction of the foundation for the new larger pesticide storage shed. (C) Completion of the foundation and walls for the new shed. (D) Hoisting the steel beams for the roof of the new shed. (E) Interior view of the completed pesticide shed.

Argo Trailer Nurse Tank

Water is not always accessible for Operations personnel in the, especially in large quantities, and even more so in the marsh areas. In some instances, returning to the District Facility was the only practical means to obtain water, taking valuable time out of

the day. Nurse tanks are a customary solution to on-site water needs. A nurse tank is an additional water source for refilling tanks that are typically mounted on a dedicated trailer or dropped off near the required location. Instead of an additional trailer or truck hosting a nurse tank, the existing Argo trailer was found to have the load capacity and room for a 100-gallon tank.

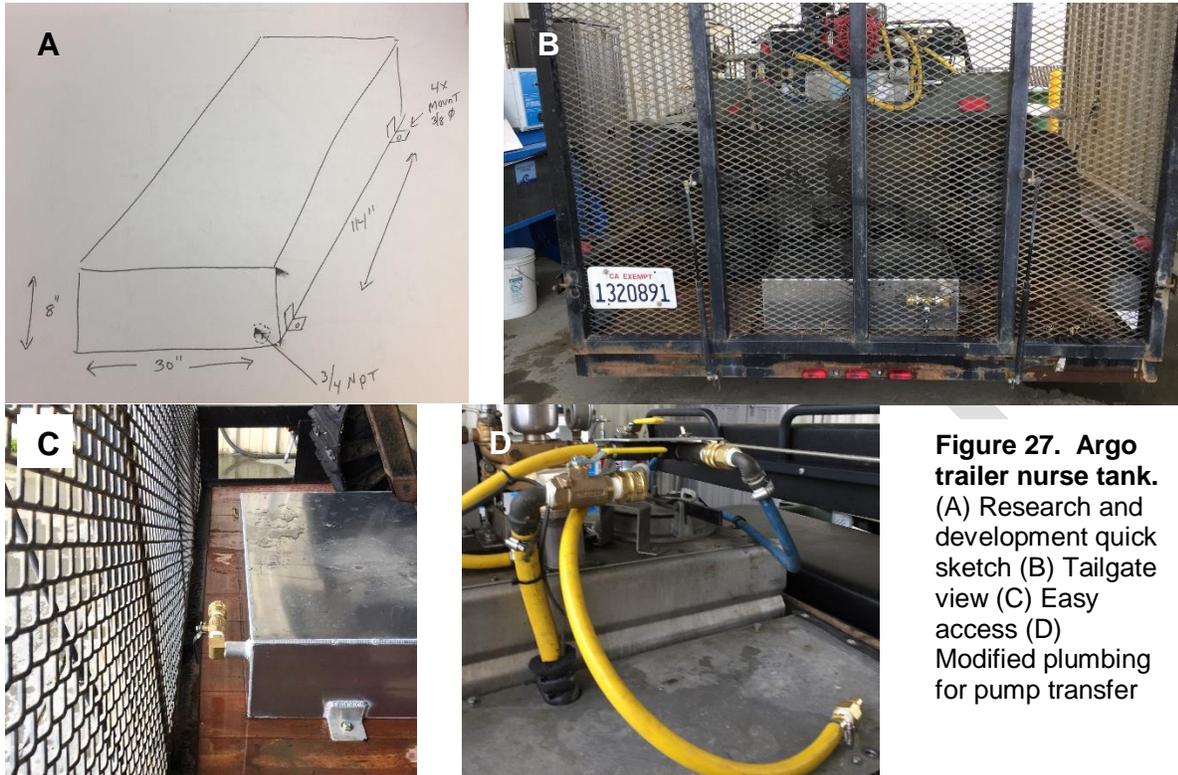


Figure 27. Argo trailer nurse tank. (A) Research and development quick sketch (B) Tailgate view (C) Easy access (D) Modified plumbing for pump transfer

Wash Rack Pressure Washer

Argo and vehicle preventative maintenance (PM) starts in the wash rack and removal of debris from the field is the first step. Brackish water, mud, tulle, and pickle weed are major contributors to equipment failure when not removed immediately and thoroughly. Hot water, environmentally safe detergent, and high pressure start the PM process. The addition of an air supply hose reel and an eye wash station complete the wash rack.



Figure 28. Wash rack improvements. (A) New pressure washer system. (B) New eye wash station.

FINANCIAL REPORT

**FOR FISCAL YEARS ENDING
JUNE 30, 2016 AND JUNE 30, 2017**

	2017	2016
Revenues :		
Property taxes	\$2,029,078	\$1,892,482
Redevelopment distribution	\$180,474	\$171,178
Special Assessments	\$1,916,198	\$1,903,257
Homeowners Property Tax Relief, State Subvention	\$15,954	\$15,662
Transfer from OPEB Trust	\$170,219	\$149,986
Interest	\$34,156	\$27,303
Miscellaneous	\$20,824	\$20,963
Total Revenues	\$4,366,903	\$4,180,831
Expenditures :		
Salaries and fringe benefits	\$2,369,690	\$2,133,833
Materials, supplies and services	\$833,192	\$780,944
Transfer to OPEB trust	\$0	\$0
Capital outlay	\$276,828	\$117,486
Total Expenditures	\$3,479,710	\$3,032,263
Net change in fund balances	\$887,193	\$1,148,568
Fund balances, beginning of period	\$5,526,318	\$4,377,750
Fund balances, end of period	\$6,413,511	\$5,526,318

**Alameda County Mosquito Abatement District
 Combined Balance Sheet For The Years
 Ending June 30, 2016 and June 30, 2017**

Assets	June 30, 2017	June 30, 2016
Current and Investments	\$ 6,255,478.00	\$ 5,425,074.00
Prepaid retirement expense	\$ 190,148.00	\$ 200,000.00
Accounts receivable	\$ -	\$ -
Capital Assets (Net)		
Non-depreciable assets	\$ 61,406.00	\$ 61,406.00
Depreciable assets, net	\$ 2,542,715.00	\$ 2,498,723.00
Net OPEB asset	\$ 1,999,232.00	\$ 2,219,351.00
Total Assets	\$ 11,048,979.00	\$ 10,404,554.00
Deferred Outflow	\$ 505,352.00	\$ 215,830.00
Liabilities		
Account Payable	\$ 32,115.00	\$ 98,756.00
Compensated Absences	\$ 139,906.00	\$ 124,597.00
Net Pension Liability	\$ 2,551,572.00	\$ 2,028,906.00
Total Liabilities	\$ 2,723,593.00	\$ 2,252,259.00
Net Assets		
Invested in Capital Assets	\$ 2,604,121.00	\$ 2,560,129.00
Unrestricted	\$ 5,317,714.00	\$ 5,244,509.00
Total Net Assets	\$ 7,921,835.00	\$ 7,804,638.00



April 2018

On April 2, the Legislature returned from Spring Recess and policy committee meetings immediately began reviewing the thousands of newly introduced bills. All bills with a fiscal impact must pass their respective policy committees by April 27. Read on for the latest details on legislation impacting special districts and visit csda.net/take-action to learn more.



Inside this edition of the Grassroots Action Brief:

- Redevelopment Bills Amended: Committee Hearings in April.....2
- JPAs and Their Member Agencies are Targeted by New Bill.....4
- Support Requested for Workable Website Transparency Legislation.....5
- Bill Proposes Consolidation of Failing Small Water Systems.....5
- Unions Seeking Changes to Employee Orientations... Already.....6
- More Public Outreach Tools Underway.....7
- Hot Legislation.....8
- Other Ways to Take Action (Learn, Engage, Give Feed Back, and Stay Informed)9

Contact a local CSDA representative near you!

Dane Wadlé
Colleen Haley
Steven Nascimento
Chris Palmer

Northern & Sierra Networks
Bay Area Network
Central Network
Coastal & Southern Network

danew@csda.net
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➤ REVENUE, FINANCES, AND TAXATION

CSDA's long range policy priority on revenue, finances, and taxation is to ensure adequate funding for special districts' safe and reliable core local service delivery. Protect special districts' resources from the shift or diversion of revenues without the consent of the affected districts. Promote the financial independence of special districts and afford them access to revenue opportunities equal to that of other types of local agencies.

Redevelopment Bills Amended: Committee Hearings in April

First established in 1945, Redevelopment Agencies (RDAs) were dissolved in 2011 after their share of the statewide property tax grew from 2 percent in 1977 to 12 percent—more than the total amount received by all special districts. RDAs unilaterally froze the property tax receipts of other local governments and schools in their jurisdiction and diverted the property tax growth, or “increment”, for over 40 years. RDAs borrowed against future growth to pay for redevelopment projects.

Since the dissolution of RDAs, CSDA has worked in partnership with cities and counties to provide local governments with new economic development tools that do not divert revenue from local service providers without their consent. Examples of these tools include Enhanced Infrastructure Finance Districts (EIFDs) and Community Revitalization and Investment Authorities (CRIAs). However, unlike former RDAs, these tools require a 55% vote to approve bonds, and they do not provide access to the school share of the local property tax. Therefore, with policymakers working to find solutions to California's housing crisis, old tools like RDAs are being revisited.

Recently, Assembly Members David Chiu and Chris Holden amended legislation to reestablish RDAs. Both [AB 3037 \(Chiu\)](#) and [AB 1778 \(Holden\)](#) would authorize the diversion of property tax increment away from special districts and other local agencies. However, AB 3037 attempts to then return the local revenue through a passthrough mechanism.

Neither of these measures require the consent of any special districts that would be part of the financial base of any revived RDA. CSDA has very serious concerns with the bills and proposes:

- Other recently created tools should be utilized before contemplating the return of RDAs.
- RDAs should not divert local property taxes away from other local agencies without their consent.
- All local agencies that voluntarily participate in RDAs should have access representation on the RDA board.

AB 3037 (Chiu) will be heard in the Assembly Housing and Community Development Committee on April 11th. Letters were due Wednesday April 4th for notice in that committee's analysis. However, the measure has been “double-referred”, meaning it must also be heard on April 18th or 25th in the Assembly Local Government Committee. This will provide concerned stakeholders with multiple opportunities to express their concern or opposition.

AB 1778 (Holden) is also “double-referred” and is scheduled to be heard in the Assembly Local Government Committee on April 18th. Should it be successful in that committee, it will be heard in the Assembly Housing and Community Development Committee shortly thereafter. For those districts or other entities who wish to express their concern or opposition, letters will be due one week prior to each hearing for notice in that committee's analysis.



Take Action:

- 1) **Send a letter expressing your concerns about reviving RDAs** without the consent of the affected districts, and without utilizing existing tools already in statute, to your legislators or to your CSDA legislative representative, Anthony Tannehill at anthonyt@csda.net, for distribution. A sample letter of concern or opposition can be found at csda.net/take-action. This legislation could affect all special districts that receive ad valorem property tax revenue, even if you did not lose revenue to former RDAs.
- 2) **If your district receives property tax revenue, please share with CSDA:**
 - During the RDA era, how was your district impacted by the diversion of the tax increment? How much of your revenue was diverted and what programs or projects were cut as a consequence?
 - With the dissolution of RDAs, most special districts have had a portion of their diverted property tax increment returned—called “residual”. How has this restoration of local funding benefited your district?
 - The return of RDA could impact any district that receives ad valorem property tax revenue—even if you didn’t previously have an RDA in your area. Prior to their dissolution, RDAs diverted approximately 12 percent of all local property taxes. What would happen to your local services and infrastructure if your district lost 12 percent of its property tax revenue?

CSDA will continue to work in partnership with the Legislature and other stakeholders to find tools that meet the challenges facing our State and local communities without requiring the diversion of local revenue from other local agencies delivering essential services and infrastructure.

For more information, please contact the CSDA Legislative Representative covering this issue: Anthony Tannehill, anthonyt@csda.net.



➤ GOVERNANCE AND ACCOUNTABILITY

CSDA's long range policy priority on governance and accountability is to enhance special districts' ability to govern as independent, local government bodies in an open and accessible manner. Encourage best practices that avoid burdensome, costly, redundant, or one-size-fits all approaches. Protect meaningful public participation in local agency formations, dissolutions, and reorganizations, and ensure local services meet the unique needs, priorities, and preference of each community

JPs and Their Member Agencies are Targeted by New Bill

Concerned with protecting the defined benefit pensions of the employees of Joint Powers Authorities (JPAs), Assembly Member Freddie Rodriguez has introduced [AB 1912](#). This legislation looks to make sweeping changes to JPAs in response to the failure of a single entity in Los Angeles County.

In 2017, the East San Gabriel Valley Human Services Consortium, a JPA also known as LA Works, disbanded while owing \$19.4 million to CalPERS in unfunded pension liabilities. As a result, CalPERS tried to collect the debt from the forming agencies of the JPA, which included four cities and a county. When the member agencies refused to pay, because they were not legally responsible for any of the liabilities of the JPA, CalPERS cut the pensions of over 150 employees and retirees from the JPA by roughly 60 percent.

AB 1912 places substantial burdens and new unworkable requirements on local and state agencies by applying retroactive, as well as prospective, joint and several liability for all retirement related obligations to any current or former member of a JPA throughout its existence. Such obligations include active employee normal pension costs, retiree unfunded accrued liabilities (UAL) as well as both active and retiree healthcare and other post-employment retirement benefits (OPEB). These costs cannot be overstated. According to the State Controller's Office most recently available data, the unfunded liability of California's 130 state and local government pension plans stand at \$241.3 billion and 125 billion for retiree healthcare costs.

Additionally, this bill conflicts with the California Constitution with regards to debt limits. The California constitutional debt limit prohibits an agency from incurring indebtedness beyond the agency's ability to pay the debt back from revenues received in the same fiscal year without the approval of two-thirds of its voters (Cal Const. art XVI, §18). These safeguards were placed in the State's constitution to avoid a situation in which the holders of an issue of bonds might compel an increase in taxes or foreclose on an agency's assets.

By applying retroactive joint and several liability to existing contracts, agencies will now incur significant debts that in many cases will exceed an agency's annual revenue without receiving voter approval—thus violating the sighted provision. Further, it can be argued that retroactively incurring debts of another agency violates article XVI, §6 of the California Constitution which prohibits an agency from giving or lending public funds to any person, public or private entity. A Joint Powers Authority is an independent governmental body whereby the agency members have no legal, statutory oversight or managing authority—liabilities from such entities retroactively applied to each member agency would constitute a gift of public funds to an individual(s) and/or public entity.

CSDA is strongly opposed to this legislation and will continue to engage with our membership and the Legislature on this issue. If you would like to learn more information about AB 1912, or participate in the working group addressing this legislation, please contact CSDA's Senior Legislative Representative, Dillon Gibbons, at dillong@cda.net.



Support Requested for Workable Website Transparency Legislation

In response to requests from the State Legislature and the Little Hoover Commission, and in furtherance of CSDA's efforts to increase the awareness, accessibility, and transparency of special districts, CSDA is sponsoring [SB 929 \(McGuire\)](#), which will require all special districts to have a website by 2020.

In late 2016, CSDA established a working group, consisting of districts of varying sizes and locations throughout the state, and spent over a year carefully crafting what is now SB 929 (McGuire). As written, the legislation recognizes barriers that prevent some districts from successfully maintaining a website and allows these districts to exempt themselves by detailing their hardship circumstances in a resolution adopted in a public meeting.

Take Action: Send a letter of support to your legislators encouraging them to vote for SB 929 when it comes before them. A sample letter of support can be found at csda.net/take-action.

Additionally, districts interested in applying for an SDLF scholarship to cover the cost of a special district website for 15 months should visit the SDLF website at www.sdlf.org. Should you have any questions about SB 929, please contact CSDA's Senior Legislative Representative, Dillon Gibbons, at dillong@csda.net.

➤ INFRASTRUCTURE, INNOVATION, AND INVESTMENT

CSDA's long range policy principal regarding infrastructure, innovation, and investment is to encourage prudent planning for investment and maintenance of innovative long-term infrastructure. CSDA supports the development of fiscal tools and incentives to assist special districts in their efforts to meet California's changing demands, ensuring the efficient and effective delivery of core local services.

Bill Proposes Consolidation of Failing Small Water Systems

[AB 2050](#), introduced by Assembly Member Caballero (D – Salinas), would consolidate failing small water systems into a new type of independent special district, known as a Small System Water Authority. The Authority would be empowered to absorb and operate failing water systems in a defined geographic area.

The bill is intended to address the large amount of small water systems that have consistently failed to provide clean water to their ratepayers. The State Water Resources Control Board has identified over 300 water systems in California that are currently failing to provide safe drinking water to their customers. These are predominately small privately-owned water systems serving disadvantaged communities. Many have failing water infrastructure and drinking water with a variety of manmade and natural contaminants. These failing small systems lack the financial, managerial, and technical resources to provide safe drinking to the communities they serve.

AB 2050 establishes a process, to be overseen by the State Water Resources Control Board and the county Local Agency Formation Commission, for the consolidation of failing small systems into a regional Authority. The Authority will provide improved governance and technical expertise, allowing failing small systems to address their water quality issues. Since the Authority is an independent special district, the communities it serves will be able to elect officials to the Authority's board, increasing accountability. The Authority will also potentially provide more affordable water rates from economies of scale.

CSDA has taken a support position on AB 2050. If you have any questions please contact Rylan Gervase at rylang@csda.net.



➤ HUMAN RESOURCES AND PERSONNEL

CSDA's long range policy priority on human resources and personnel is to promote policies related to hiring, management, and benefits and retirement that afford flexibility, contain costs, and enhance the ability to recruit and retain highly qualified, career-minded employees to public service. As public agency employers, support policies that foster productive relationships between management and employees, both represented and non-represented.

Unions Seeking Changes to Employee Orientations... Already

The ink is barely dry on the new requirement for all public agencies to not only provide employee orientations, but to allow unions an opportunity to meet with new employees during those orientations. Yet, the same union organizations that sought the orientations that became law on June 27, 2017, are already trying to make changes to the new law.

Since the orientation law went into effect, public employers have been required to provide all new employees with an onboarding orientation. If the employer has represented employees, the employer is required to allow an opportunity for employee representatives to meet with the new employees as part of the orientation, with the details of the time and structure of that meeting to be agreed upon between the employer and the exclusive representative(s). However, providing other necessary trainings and disclosures during new employee orientations, often required by state law, remain the responsibility of the employer.

Sponsored by the California Labor Federation, [AB 2970 \(Cooper\)](#) would require that the date, time, and place of orientations be confidential and not be shared with anyone other than employees or the exclusive representative. While union representatives may seek to have their portion of the orientations deemed confidential as to the date, time, and place of the orientation, it is reasonable for an employer to want, or need, the public to know about the orientations they are providing employees. Reasons that an employer may want information about its portion of new employee orientations to remain public include: promoting workplace harassment prevention efforts, promoting gender equality in the workforce, providing information about proper safety protocols, providing information about benefits and resources available to employees, and general recruiting efforts.

Another bill addressing employee orientations is [AB 2154 \(Bonta\)](#). Sponsored by the Service Employees International Union, AB 2154 is an attempt to address the potential negative financial impacts that the pending United States Supreme Court Case, *Janus vs. AFSCME*, may have on public employee unions. The bill seeks to add several new "release time" provisions to law, which would allow employee union representatives to carry out activities on behalf of unions on employer paid time. One of the proposed release time activities would be for an employee representative to attend and participate in new employee orientations. However, [AB 119](#), signed into law last year, made it clear that employee representative compensation for attending orientations was to be left up to negotiations in the collective bargaining process. AB 2154 removes this item from collective bargaining and will require employers to pay employee union representatives to attend employee orientations. This may not have a large impact on some districts, but for those districts with multiple bargaining units, or those regularly hiring and orienting new employees, AB 2154 could result in significant costs for services that do not directly benefit the public.

These are only two of the many bills we anticipate from unions this year looking to address the pending Supreme Court case and the recently passed employee orientation requirements. Should you have any questions about this legislation, please feel free to contact CSDA's Senior Legislative Representative, Dillon Gibbons, at dillong@cdda.net.



➤ DISTRICTS MAKE THE DIFFERENCE

Districts Make the Difference was created to increase public awareness and understanding of special districts across California. The campaign website, www.districtsmakethedifference.org provides a public place to learn more about special districts and the positive effect they have on their communities, while also serving as a resource for districts to download useful materials, collateral, and information.

More Public Outreach Tools Underway

Stay tuned as the Districts Makes the Difference campaign is currently developing several new outreach projects that will continue to promote public awareness and reflect the significance of special districts throughout California.

In the meantime, CSDA encourages you to share our current DMTD content, including our full suite of videos, and shareable infographics. Our new video highlighting the work of transit districts will be available later this month.

Also, CSDA is always looking for good content to share! Don't forget to use the hashtag **#DistrictsMakeTheDifference** when posting your stories on social media.



www.DistrictsMakeTheDifference.org

Learn more about our public outreach campaign at www.DistrictsMakeTheDifference.org and engage with us on social media:

- Like us on Facebook.com/CASpecialDistricts
- Follow us on Twitter @CA_Districts
- Subscribe to us on www.YouTube.com/c/CaSpecialDistrictsDMTD
- Download the logo to your homepage and link to www.DistrictsMakeTheDifference.org

If you have any questions about how to better utilize CSDA's public outreach campaign, or if you have any ideas for new materials we should provide, please contact CSDA's Public Affairs Team at pr@cda.net.



➤ HOT LEGISLATION

Here is where the hottest bills affecting special districts sit in the California Legislature this month:

- **Sexual Harassment Prevention Training—SB 1343 (Mitchell):** This bill would require every employer, with five or more employees, to provide their employees with two-hours of sexual harassment prevention training once every two years. Additionally, the bill would require the Department of Fair Employment and Housing to develop a training video that employers could use to provide the training.
CSDA's position: **Support if Amended** (reduce training to one hour)
Bill Location: Senate Labor and Industrial Relations Committee
- **Disposal of Surplus Land—AB 2065 (Ting):** Includes special districts in the list of local agencies that have to follow certain requirements for the disposal of surplus land. These requirements include offering the land for use for affordable housing, park and recreational facilities, and school construction. "Disposal" applies to the sale, lease, and transference of land owned by a public agency.
CSDA's position: **Oppose Unless Amended**
Bill Location: Assembly Local Government Committee
- **CA Voting Rights Act Lawsuits—AB 2432 (Oberholte):** If a public agency with at-large elections is sued under the California Voting Rights Act, this bill would prohibit a court from imposing district-based elections unless the plaintiff has established that district-based elections would alleviate the voting rights violations.
CSDA's position: **Pending**
Bill Location: Assembly Elections and Redistricting Committee
- **Elected Officials Interactive Database—AB 2707 (Mullin):** Would require the Secretary of State to have a website that has the names and contact information for each voter's specified local, state, and federal elected officials, which would be displayed upon a voter submitting his or her address information on the Internet Web site.
CSDA's position: **Pending**
Bill Location: Assembly Elections and Redistricting Committee
- **Data Storage and Protections for Local Agencies—AB 2812 (Limón):** Establishes the Office of Cloud Migration in the Department of Technology and requires the office to promote cloud-based data storage as an efficient and cost-effective means of data storage and protection for local agencies and to assist local agencies in integrating cloud-based storage into their information technology systems.
CSDA's position: **Pending**
Bill Location: Assembly Privacy and Consumer Protection Committee



➤ OTHER WAYS TO TAKE ACTION

Learn

Register now for **Special District Legislative Days, May 22 – 23**. Legislative Days is an interactive two-day conference in our State Capitol that includes pre-arranged meetings with State Legislators and staff and a keynote address from CalPERS CEO Marcie Frost. **The early bird discount deadline is April 20, 2018**. Visit csda.net to register today.

Engage

CSDA has launched a new online forum for members. CSDA Communities provide our members with an easy-to-use venue for discussing ideas, finding solutions, sharing documents, and building relationships. Use your email address to login at csda.net and get started.

Give Feedback

Join an Expert Feedback Teams to provide CSDA staff with invaluable insights on policy issues. Email marcusd@csda.net to inquire about joining one of the following teams:

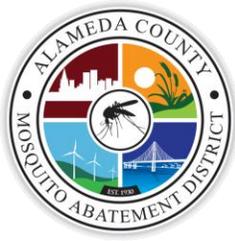
- Budget, Finance and Taxation
- Environment
- Formation and Reorganization
- Human Resources and Personnel
- Governance
- Public Works and Contracting

Stay Informed

In addition to the many ways you can **TAKE ACTION** with CSDA's advocacy efforts, CSDA offers a variety of tools to keep you up-to-date and assist you in your district's legislative and public outreach. Make sure you're reading these resources:

- CSDA's weekly e-Newsletter
- Districts in the News
- CSDA's CA Special District Magazine

Email advocacy@csda.net for help accessing these additional member resources.



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Topic: Staff succession in Management's Absence

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Succession at ACMAD is based on:

- The type of issue that requires attention (e.g. equipment, IT)
- The job classification
- Current number of supervised staff
- Seniority
- Field or Office based (for accessibility)

Using this qualification criteria, the order of succession is:

- | | | |
|----|-----------------------------------|--------------------------------------|
| 1. | Ryan Clausnitzer ^{\$} | General Manager |
| 2. | Joseph Huston ^{\$\$} | Field Operations Supervisor |
| 3. | Eric Haas-Stapleton ^{\$} | Lab Director |
| 4. | Erika Castillo ^{\$} | Regulatory & Public Affairs Director |
| 5. | Robert Ferdan | IT Director |
| 6. | Dereje Alemayehu | Biological Specialist |
| 7. | Mark Weiland | Mechanical Specialist |
| 8. | Michelle Matthes | Accounting Associate |

^{\$}Authorized to sign/ review warrants with a Trustee

*Vector Biologists rotate Operational coverage during each extended absence (> 2 days) by the Field Operational Supervisor

- Current ACMAD Vector Biologists:
 - John Busam
 - Neil Campbell
 - Miguel Cardenas
 - Tom McMahon
 - Ben Rusmiser

Mosquito Control Capabilities in the U.S.

October 2017

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Background & Methods

Mosquito-borne diseases are a constant public health concern in the United States. Zika virus (ZIKV) is a mosquito-borne virus spread to humans mainly through the bite of infected *Aedes aegypti* mosquitoes. The related *Ae. albopictus* mosquito can support ZIKV transmission in laboratory studies, so far.¹ Both mosquitoes inhabit a large portion of the U.S.

West Nile Virus (WNV), another mosquito-borne virus, is spread through the bite of infected *Culex* species mosquitoes. *Culex* mosquitoes can be found throughout the U.S., and WNV cases have been reported in every state within the continental U.S.

While local health departments and other local agencies are on the front lines of defense against ZIKV and WNV, almost no data exists on whether or not local agencies are prepared for a mosquito-borne virus outbreak. Without this information, federal and state efforts to support local response needs and address capacity gaps are significantly limited.

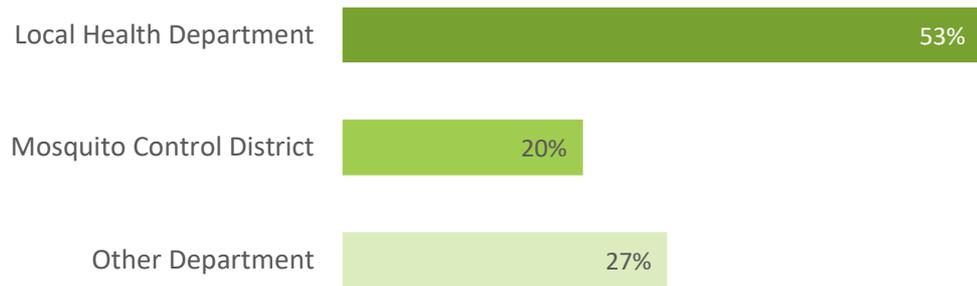
The Mosquito Surveillance and Control assessment was sent to the 1,906 vector control organizations in the U.S., representing all organizations identified by the Centers for Disease Control and Prevention (CDC), the American Mosquito Control Association (AMCA), and the National Association of County and City Health Officials (NACCHO).

A total of 1,083 vector control organizations completed the assessment for a 57% response rate.

Each vector control organization self-verified ongoing activities.

The assessment included 10 questions and was distributed online via Qualtrics Survey Software™.

Respondents represent vector control programs from different organizations across the United States



n = 1,083

Mosquito Surveillance and Control Assessment and Ranking

Definitions

A **Fully Capable** vector control organization performs all core and supplemental competencies.

A **Competent** vector control organization performs all core competencies.

A **Needs Improvement** vector control organization fails to perform one or more core competency.

A scoring matrix was created to prioritize or weight questions based on necessary capabilities of a competent vector control program. Using the CDC framework^{2,3} for vector control competency as guidance, five core competencies were used to rank each organization as **Fully Capable**, **Competent**, or **Needs Improvement**.

Core Competencies

1. Routine mosquito surveillance through standardized trapping and species identification
2. Treatment decisions using surveillance data
3. Larviciding, adulticiding, or both
4. Routine vector control activities (e.g., chemical, biological, source reduction, or environmental management)
5. Pesticide resistance testing

Supplemental Competencies

6. Licensed pesticide application
7. Vector control activities other than chemical control (e.g., biological, source reduction, or water management)
8. Community outreach and education campaigns regarding mosquito-borne diseases, how they spread, and how to prevent infection
9. Regular communication with local health departments regarding surveillance and epidemiology
10. Outreach (e.g., communication and/or cooperation) with nearby vector control programs



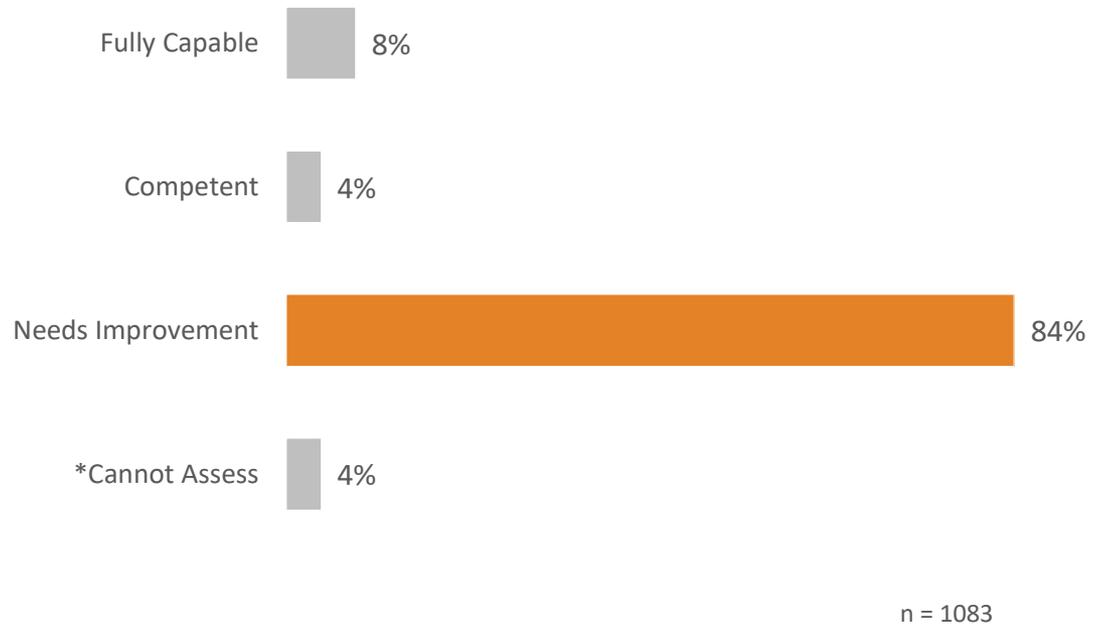
Vector Control Organization Competency

The overwhelming majority of vector control programs are in need of improvement

The assessment revealed that, based on the standards for competency developed and promoted by CDC and AMCA, **84% of respondents are in need of improvement** in at least one core competency area.

*Partially completed assessments were included for data analysis but could not be ranked for competency.

Percentage of vector control programs

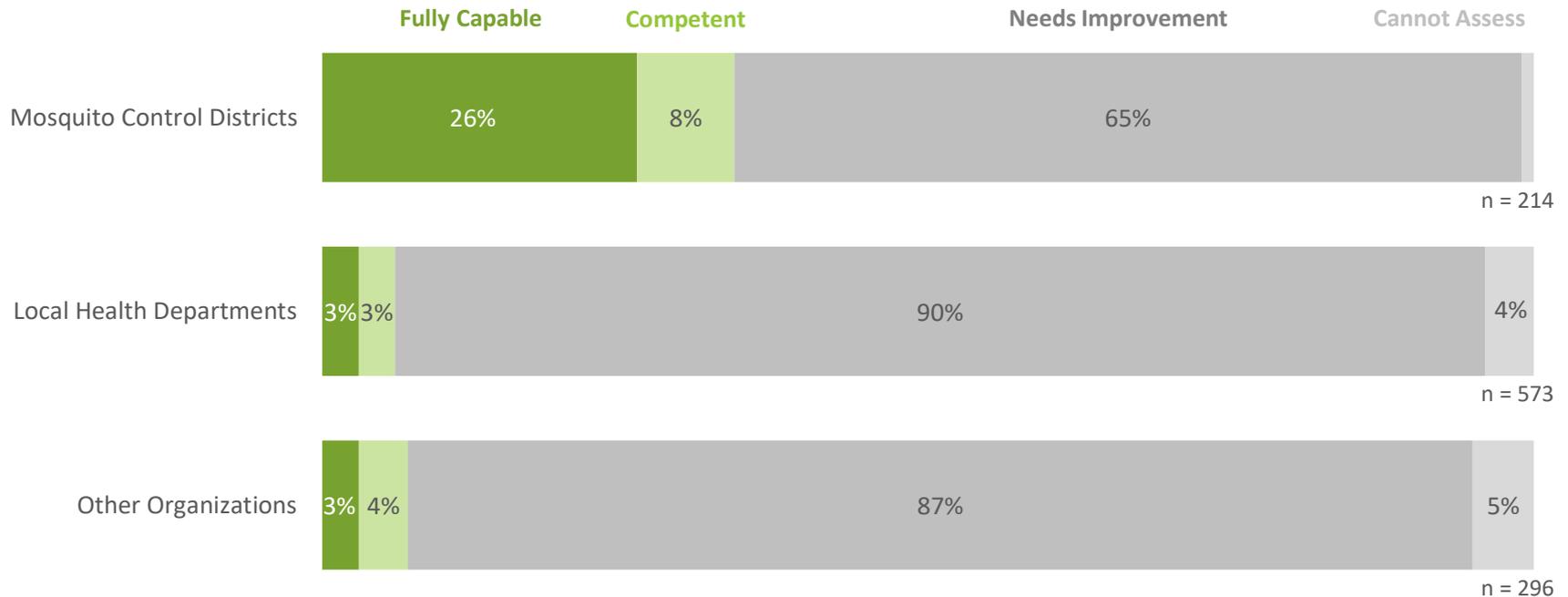


The level of vector control competency varies by organization type

Vector control programs are carried out by a variety of organizations across the U.S. Overall, they can be classified into three categories: **Local Health Departments**, **Mosquito Control Districts**, and **Others**.

“Other” includes a variety of city/local governmental agencies (e.g., public works departments, street and sanitation departments, Tribal networks, environmental health services, parish police juries, parks and recreation departments, weed and pest departments, and utilities departments).

These results reveal differences in mosquito surveillance and control capabilities based on organization type. For example, **mosquito control districts outperform** both local health departments and other city or local governmental agencies.

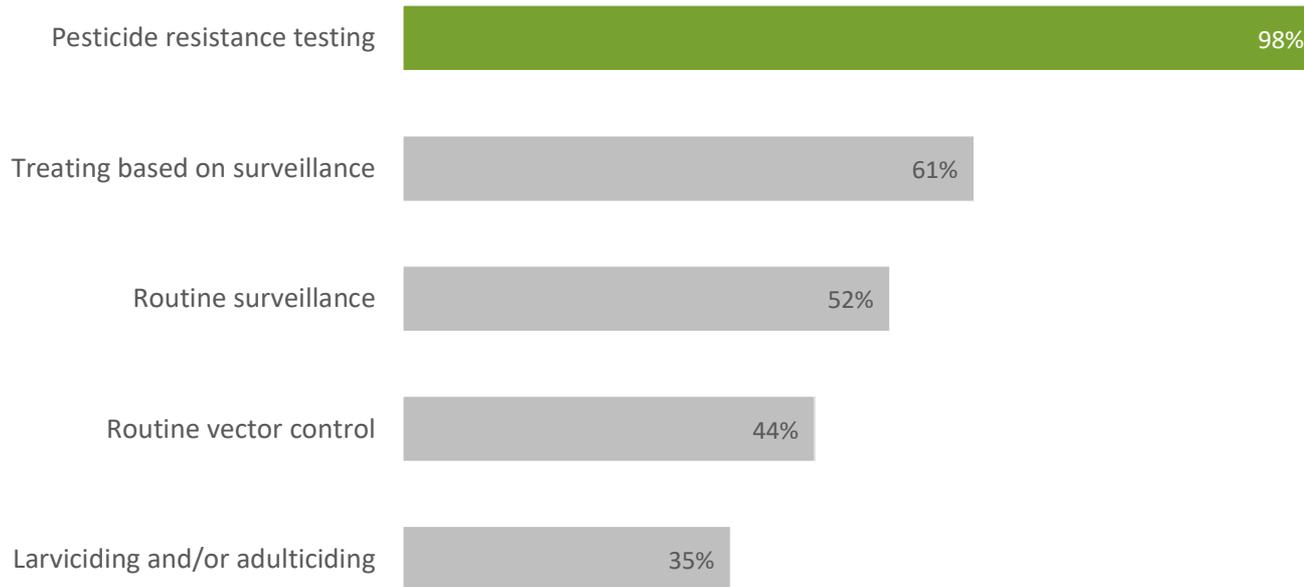


Pesticide resistance testing is the greatest competency gap for vector control programs

Of the vector control programs ranked as **Needs Improvement**, nearly all of them (98%) lack the capability or capacity to perform pesticide resistance testing.

More than half of these programs also lack competency in performing routine surveillance and species identification. Furthermore, gaps in competency exist related to using that surveillance data to make treatment decisions.

Percentage of “needs improvement” vector control programs lacking each core competency



n = 914



Core Competencies Performed by Vector Control Organizations

Routine standardized surveillance is NOT ROUTINE for all vector control programs

Mosquito surveillance

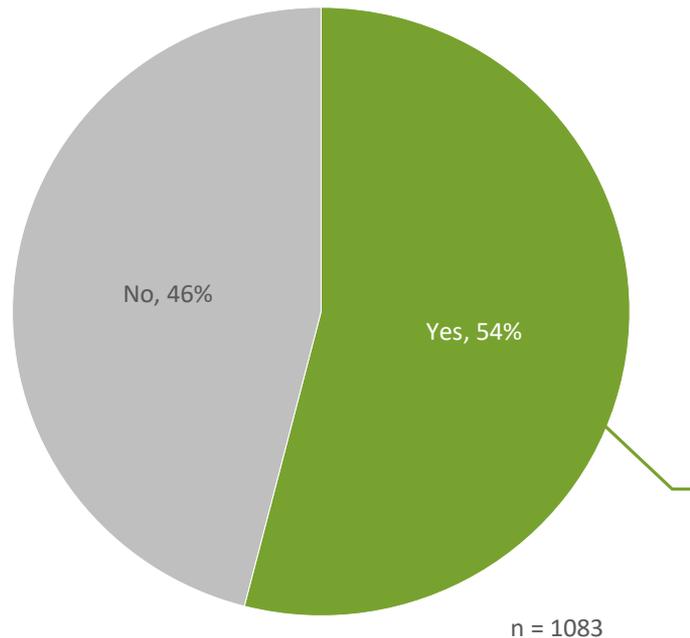
involves species identification, abundance, and spatial distribution within a geographic area through the collection of eggs, larvae, and adult mosquitoes. It is necessary for:

- Monitoring changes in abundance and species distribution;
- Evaluating control efforts; and
- Informing intervention decisions.⁴

46% of programs do not perform routine standardized surveillance.

Of those that do perform routine surveillance, 15% reported NOT using this information to inform mosquito-borne disease treatment decisions.

Percentage of vector control programs conducting routine surveillance for mosquitoes



Of these, 85% of vector control programs reported using the information gathered to make treatment decisions.

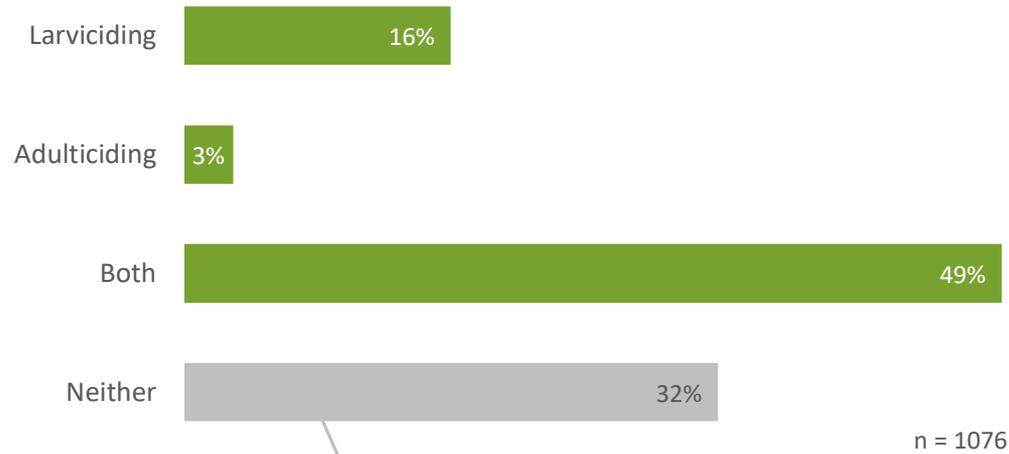
Chemical mosquito abatement is performed by most vector control programs

Larvicides (biopesticides and chemicals) inhibit the growth of mosquito larvae thereby reducing the number of adult mosquitoes in a given area.

Adulticides (insecticides) are toxic to mosquitoes, killing them via direct contact. Surveillance data is critical to justify the use of adulticides.

Chemical abatement using larvicides, adulticides, or a combination **is performed by the majority (68%) of vector control programs.**

Percentage of vector control programs conducting larviciding and/or adulticiding



Nearly one third of vector control programs do not perform any chemical abatement activities, leaving their communities at risk.

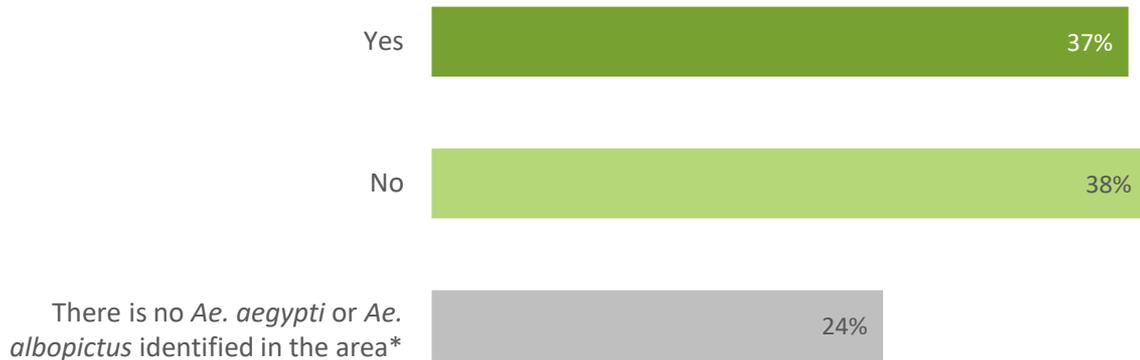
Routine species-specific mosquito control is NOT ROUTINE for all vector control programs

Species-specific vector control activities are not performed uniformly across the U.S. **38% of programs do not perform routine species-specific vector control.**

Routine species-specific vector control includes chemical, biological, source reduction, and/or environmental management activities tailored to the breeding and feeding habitats of different mosquito species.

* Respondents were not penalized if they indicated there is no *Ae. aegypti* or *Ae. albopictus* identified in the area.

Percentage of vector control programs engaging in routine vector control specifically for *Aedes aegypti* and/or *Aedes albopictus*



n = 1068

Vector control programs often lack pesticide resistance testing

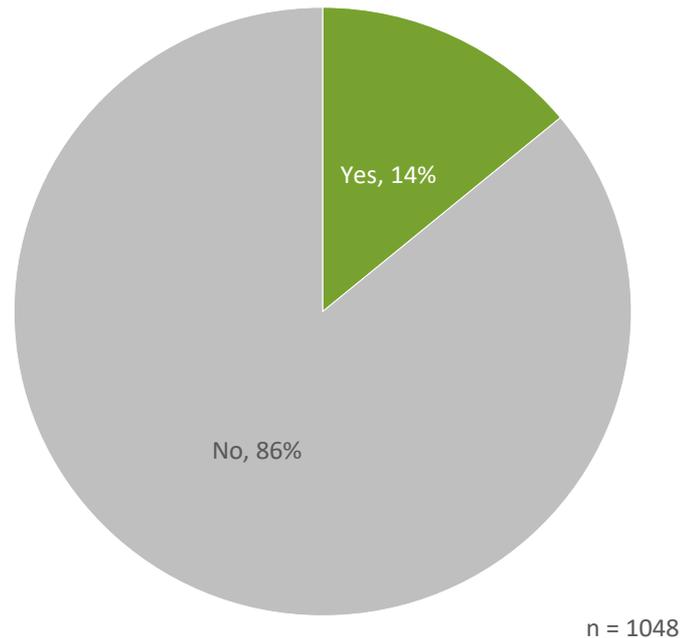
Pesticides and insecticides are chemicals used to control both larvae and adult mosquitoes. Mosquitoes repeatedly exposed to these chemicals over time can develop resistance.³

Pesticide resistance is an overall reduction in the ability of an insecticide to kill mosquitoes.

Of the responding vector control organizations, **86% do not perform pesticide resistance testing.**

To prevent or delay pesticide resistance from developing, vector control programs should include resistance testing, monitoring, and management.⁴

Percentage of vector control programs conducting pesticide resistance testing





Supplemental Competencies Performed by Vector Control Organizations

Licensed pesticide use varies among vector control programs across the United States

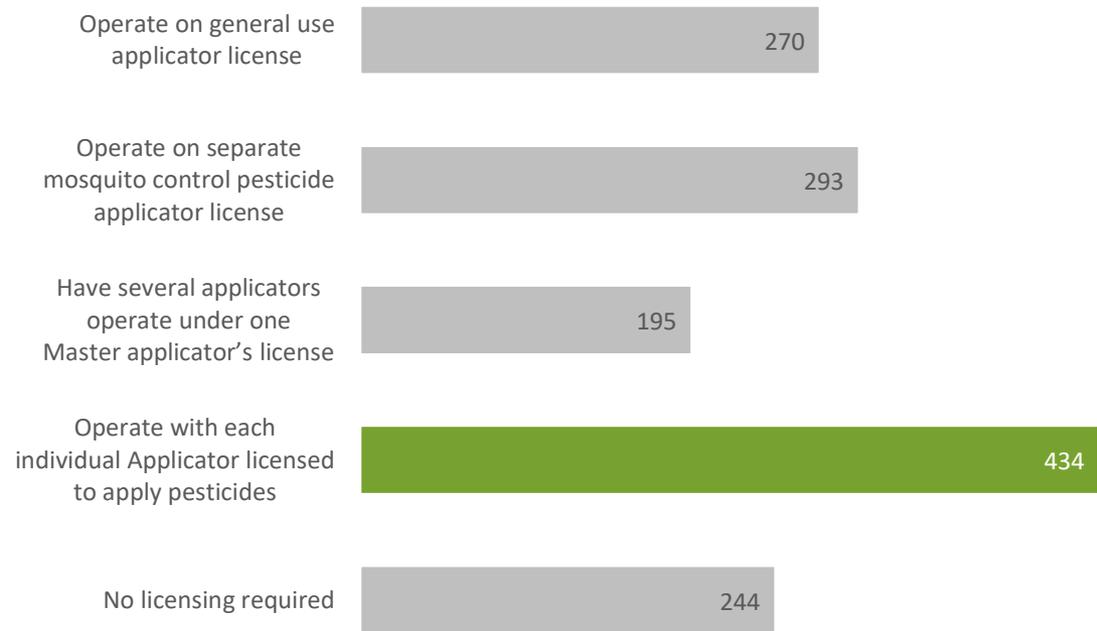
The majority of vector control programs require each operator to have an individual applicator license to apply pesticides.

Licensed pesticide application is one way to ensure that chemical mosquito abatement does not impact other non-target insects, plants, animals, and humans. Licensing requirements can vary by chemical type and state.

32% of programs applying larvicides and/or adulticides require no licensing, yet the assessment did not address their specific licensing requirements.

*Respondents were allowed to select all applicable answers.

Number of vector control programs in jurisdictions requiring licenses for pesticide application*



32% of those who do not require licensing are performing larviciding and/or adulticiding

n = 1436*

Alternatives to chemical control are not universally applied

Alternatives to chemical control of mosquitoes include:

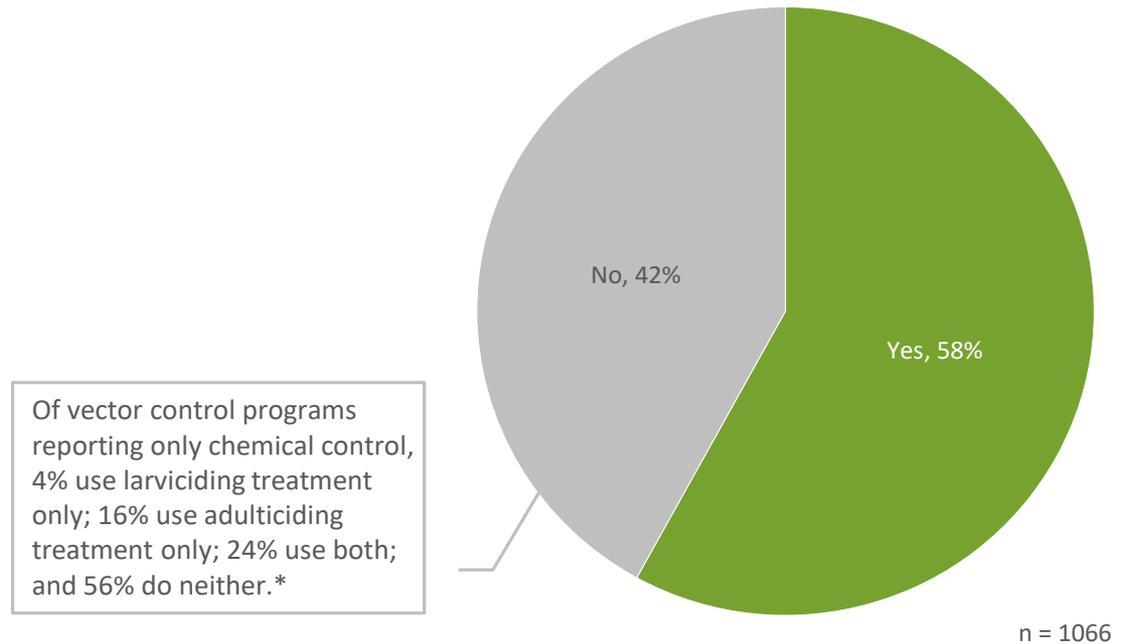
Larval source reduction is the most effective means of vector control. Mosquito larvae develop in standing, fresh water: through environmental modifications you can limit the water sources thereby reducing mosquito larvae.

Biological control entails using biological organisms to manage mosquitoes. These can include: aquatic predators and genetically modified organisms.

58% of programs perform non-chemical abatement activities, 42% do not.

*Of the programs reporting no non-chemical abatement, 56% do not perform any abatement activities, including chemical.

Percentage of vector control programs engaging in control activities other than chemical control



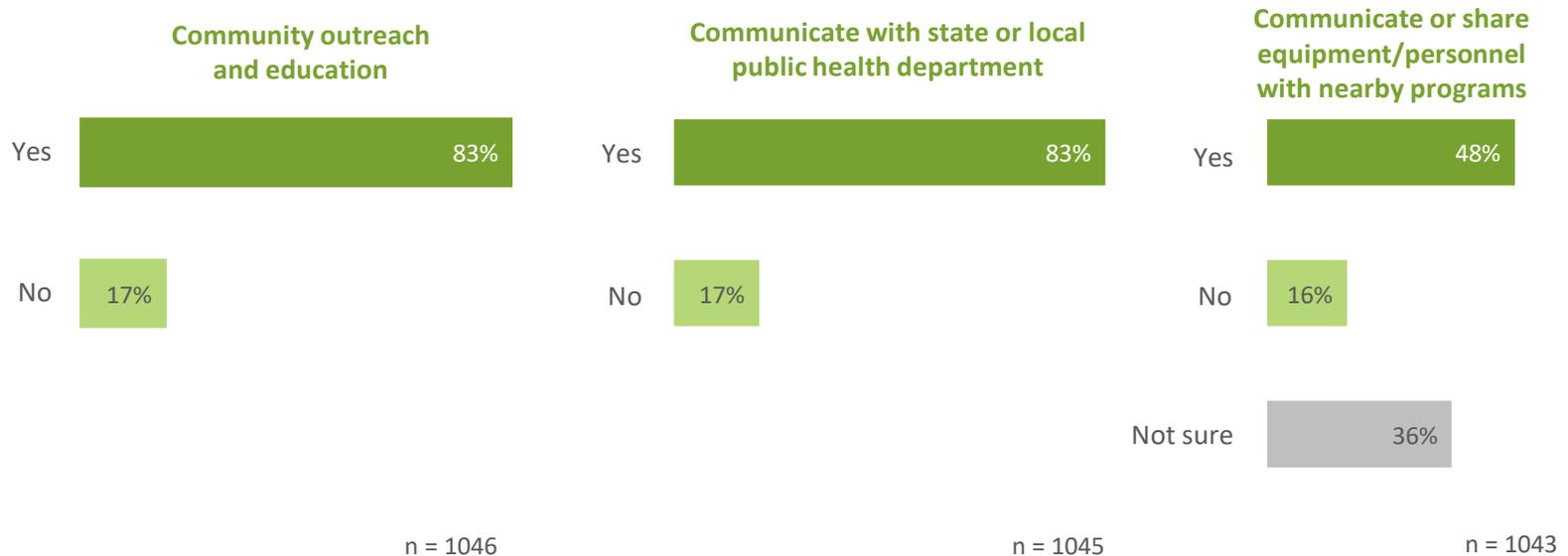
Community engagement and outreach is relatively common among vector control programs

The majority of vector control programs in the U.S. provide **community outreach activities to educate community members** on how to protect themselves from mosquito-borne diseases.

Programs also regularly **communicate with health departments** to receive human surveillance and epidemiology reports.

Nearly half of all programs are willing and able to **assist nearby vector control programs**, an important asset in controlling a disease outbreak.

Percentage of vector control programs engaging in activities





Competencies among U.S. Regions

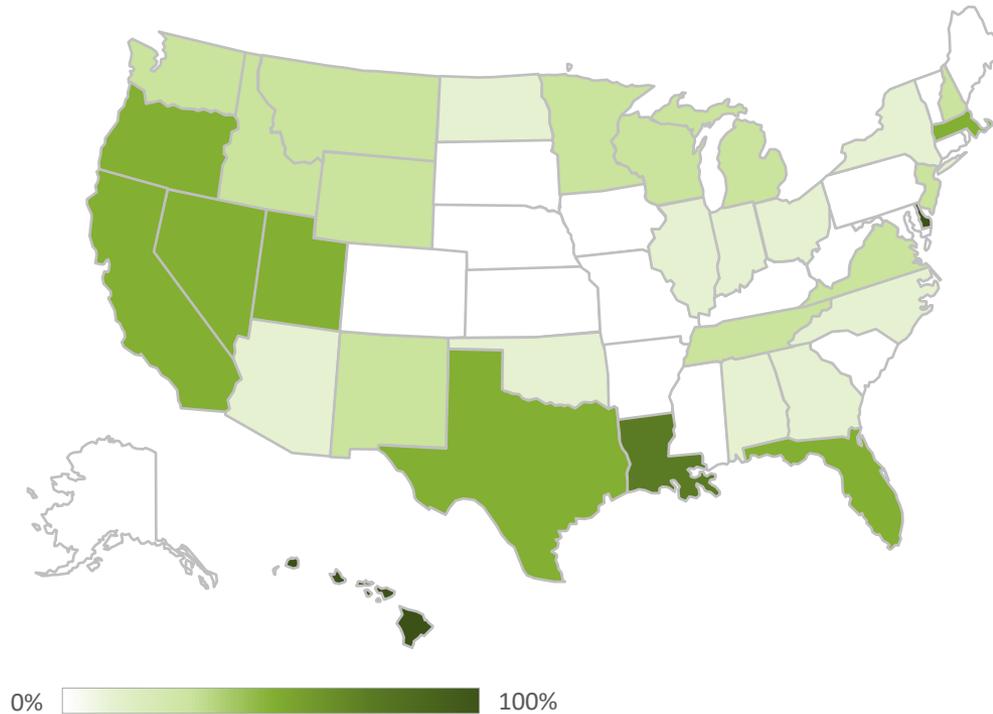
Vector control program competency varies across the United States

If you combine the fully capable and competent vector control programs in each state, the data reveals that **33 states had at least one vector control program meeting all core competencies**. All vector control programs in 17 states were rated needs improvement, indicating none of their vector control programs meet all core competencies.

Critical next steps include:

- **Identifying barriers** to implementing core competencies and
- **Revealing best practices** by fully capable and competent programs.

Percentage of vector control programs ranked as “fully capable” or “competent” by state





Limitations and Conclusions

Limitations and Conclusions

This report describes the first nation-wide baseline assessment of mosquito surveillance and control activities across the U.S. This national report provides comparable data on baseline mosquito control programs to help identify local agencies' preparedness for mosquito-borne virus outbreaks.

A comprehensive understanding of mosquito surveillance and control activities in the U.S. is necessary to identify gaps and needs specific to vector control. As illustrated here, **84% of vector control programs in the country have been identified as "needs improvement"** in one or more core competency.

Reviewing the areas in which vector control programs need improvement can inform decision-makers of the top vector control priorities when allocating resources.

Top Vector Control Priorities:

1. Pesticide resistance testing;
2. Treating based on surveillance data;
3. Routine mosquito surveillance and species identification;
4. Routine, species-specific vector control;
5. Larviciding and/or adulticiding; and
6. Non-chemical vector control (e.g., biological, source reduction, water management).

Challenges and Gaps

Vector control programs are structured and operated differently in each jurisdiction.

Resources, or lack thereof, to support vector control programs was not addressed.

Due to the 57% response rate, the presented responses may not reflect all vector control programs.

Only publicly-funded vector control programs were assessed. Any town or jurisdiction that contracted out services was expected to complete the survey based on the terms of their contract.



Recommendations

Recommendations

Increase mosquito surveillance and control capacity through:

Providing quality and ongoing staff training in standard mosquito surveillance and control techniques;

Increasing awareness of the importance of pesticide resistance testing and the proper training to perform it routinely;

Forming mosquito control districts (34% of mosquito control districts perform all core competencies versus 6% and 7% of local health departments and other organizations, respectively); and

Ensuring sustainable funding and resources are dedicated to local vector control programs to maintain properly trained staff and adequate supplies to perform chemical and non-chemical abatement activities.

Decrease barriers to mosquito surveillance and control competency through:

Identifying the barriers to routine mosquito surveillance and pesticide resistance testing;

Bolster public communication strategies to educate property and home owners on eliminating mosquito breeding grounds;

Supporting data collection and sharing across jurisdictions to monitor mosquito species and density over time and pre-/post-control activities; and

Ensuring all mosquito control decisions are supported by surveillance data with appropriate thresholds.

NACCHO supports federal, state, and local funding for local health departments and mosquito control agencies to provide technical assistance, education, and research to support integrated mosquito management programs designed to benefit or cause minimal harm to people, domestic animals, wildlife, and the environment.

THANK YOU

Acknowledgements

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Its contents are solely the responsibility of NACCHO and do not necessarily represent the official views of the sponsors.

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The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice with local health departments.

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HEALTH

Tick and Mosquito Infections Spreading Rapidly, C.D.C. Finds

Global Health

By DONALD G. McNEIL Jr. MAY 1, 2018

Farewell, carefree days of summer.

The number of people getting diseases transmitted by mosquito, tick and flea bites has more than tripled in the United States in recent years, federal health officials reported on Tuesday. Since 2004, at least nine such diseases have been discovered or newly introduced here.

The Centers for Disease Control and Prevention did not suggest that Americans drop plans for softball games or hammock snoozes. But officials emphasized that it's increasingly important for everyone — especially children — to be protected from outdoor pests with bug repellent.

New tickborne diseases like Heartland virus are showing up in the continental United States, even as cases of Lyme disease and other established infections are growing. On island territories like Puerto Rico, the threat is mosquitoes carrying viruses like dengue and Zika.

Warmer weather is an important cause of the surge, according to the lead author of a study published in the C.D.C.'s Morbidity and Mortality Weekly Report.

But the author, Dr. Lyle R. Petersen, the agency's director of vector-borne diseases, declined to link the increase to the politically fraught issue of climate change, and the report does not mention climate change or global warming. Many other factors are at work, he emphasized, including increased jet travel and a lack of vaccines.

"The numbers on some of these diseases have gone to astronomical levels," Dr. Petersen added.

C.D.C. officials called for more support for state and local health departments. Local agencies "are our first line of defense," said Dr. Robert Redfield, the new director at the agency, which is facing its own deep budget cuts. "We must enhance our investment in their ability to fight these diseases."

Although state and local health departments get brief infusions of cash during health scares like the Zika epidemic in 2016, they are chronically underfunded. A recent survey of mosquito control agencies found that 84 percent needed help with such basics as surveillance and testing for resistance to pesticides, Dr. Petersen said.

[READ: Tips for Protecting Yourself Against Mosquitoes and Ticks]

Between 2004 and 2016, about 643,000 cases of 16 insect-borne illnesses were reported to the C.D.C. — 27,000 a year in 2004, rising to 96,000 by 2016. (The year 2004 was chosen as a baseline because the agency began requiring more detailed reporting then.)

The real case numbers were undoubtedly far larger, Dr. Petersen said. For example, the C.D.C. estimates that about 300,000 Americans get Lyme disease each year, but only about 35,000 diagnoses are reported.

The study did not delve into the reasons for the increase, but Dr. Petersen said it was probably caused by many factors, including two related to weather: ticks thriving in regions previously too cold for them, and hot spells triggering outbreaks of mosquito-borne diseases.

Other factors, he said, include expanded human travel, suburban reforestation and a dearth of new vaccines to stop outbreaks.

More jet travel from the tropics means that previously obscure viruses like dengue and Zika are moving long distances rapidly in human blood. (By contrast, malaria and

yellow fever are thought to have reached the Americas on slave ships three centuries ago.)

A good example, Dr. Petersen said, was chikungunya, which causes joint pain so severe that it is called “bending-up disease.”

In late 2013, a Southeast Asian strain arrived on the Dutch Caribbean island of St. Maarten, its first appearance in this hemisphere. Within one year, local transmission had occurred everywhere in the Americas except Canada, Chile, Peru and Bolivia.

Tickborne diseases, the report found, are rising steadily in the Northeast, the Upper Midwest and California. Ticks spread Lyme disease, anaplasmosis, babesiosis, Rocky Mountain spotted fever, rabbit fever, Powassan virus and other ills, some of them only recently discovered.

Ticks need deer or rodents as their main blood hosts, and those have increased as forests in suburbs have gotten thicker, deer hunting has waned, and rodent predators like foxes have disappeared.

[READ: Lyme Disease’s Worst Enemy? It Might Be Foxes]

(A century ago, the Northeast had fewer trees than it now does; forests made a comeback as farming shifted west and firewood for heating was replaced by coal, oil and gas.)

Most disease outbreaks related to mosquitoes since 2004 have been in Puerto Rico, the Virgin Islands and American Samoa. But West Nile virus, which arrived in 1999, now appears unpredictably across the country; Dallas, for example, saw a big outbreak in 2012.

For most of these diseases, there are no vaccines and no treatment, so the only way to fight back is through mosquito control, which is expensive and rarely stops outbreaks. Miami, for instance, was the only city in the Western Hemisphere to halt a Zika outbreak with pesticides.

The only flea-borne disease mentioned in the C.D.C. report is plague, the bacterium responsible for the medieval Black Death. It remains rare but persistent: Between two and 17 cases were reported from 2004 to 2016, mostly in the Southwest. The infection can be cured with antibiotics.

Dr. Nicholas Watts, a global health specialist at University College London and co-

author of a major 2017 report on climate change and health, said warmer weather is spreading disease in many wealthy countries, not just the United States.

In Britain, he said, tick diseases are expanding as summers lengthen, and malaria is becoming more common in the northern reaches of Australia.

But Paul Reiter, a medical entomologist at the Pasteur Institute, has argued that some environmentalists exaggerate the disease threats posed by climate change.

The 2003-2014 period fell during what he described as “a pause” in global warming, although the notion is disputed by other experts.

Still, the dynamics of disease transmission are complicated, and driven by more than temperature. For example, transmission of West Nile virus requires that certain birds be present, too.

In the Dust Bowl years of the 1930s, St. Louis encephalitis, a related virus, surged, “and it looked like climate issues were involved,” Dr. Reiter said. But the increase turned out to depend more on varying hot-cold and wet-dry spells and the interplay of two different mosquito species. St. Louis encephalitis virtually disappeared, weather notwithstanding.

“It’s a complicated, multidimensional system,” Dr. Reiter said.

A. Marm Kilpatrick, a disease ecologist at the University of California, Santa Cruz, said many factors beside hot weather were at work in the United States, including “a hump-shaped relationship between temperature and transmission potential.”

Warm weather helps mosquitoes and ticks breed and transmit disease faster, he explained. But after a certain point, the hotter and drier it gets, the more quickly the pests die. So disease transmission to humans peaks somewhere between mildly warm and hellishly hot weather.

Experts also pointed out that the increase in reports of spreading disease may have resulted partially from more testing.

Lyme disease made family doctors begin to suspect tick bites in patients with fevers. Laboratories began looking for different pathogens in blood samples, especially in patients who did not have Lyme. That led to the discovery of previously unknown diseases.

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