

**AGENDA**  
1068<sup>th</sup> MEETING OF THE BOARD OF TRUSTEES  
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
MAY 8TH, 2019

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

1. Call to order.
2. Roll call.
3. President Hentschke 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 the minutes of the 1067<sup>th</sup> meeting held April 10<sup>th</sup>, 2019 (**Board action required**)
5. Presentation and approval of the final budget for fiscal year 2019-20 (**Board action required**)
6. Presentation of the preliminary Engineers Report for fiscal year 2019-2020 by Melanie Guillory-Lee from SCI Consulting Group (Information only).
7. Resolution 1068-1 intending to continue assessments for fiscal year 2019-20, preliminarily approving the engineer's report, and providing for notice of hearing. (**Board action required**)
8. Presentation by Lab Director, Dr. Eric Haas-Stapleton, on the District's current research into UAS & AI technology to monitor larval mosquitoes (Information only)
9. Financial Reports as of April 30<sup>th</sup>, 2019: (Information only).
  - a. Check Register
  - b. Income Statement
  - c. Investments, reserves, and cash report
  - d. Balance Sheet
10. Presentation of the Monthly Staff Report for May 2019 (Information only).

11. Presentation of the Manager's Report for May 2019 (Information only).
  - a. Trustee & Staff Anniversaries
  - b. Manager evaluation committee to begin the evaluation process (see attached)
12. Board President asks for reports on conferences and seminars attended by Trustees.
13. Board President asks for announcements from members of the Board.
14. Board President asks trustees for items to be added to the agenda for the next Board meeting.
15. 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](http://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 or email at [acmad@mosquitoes.org](mailto:acmad@mosquitoes.org) to request an alternative format.

## MINUTES

### 1067<sup>th</sup> MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

April 10<sup>th</sup>, 2019

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TIME: 5:00 P.M.  
PLACE: Office of the District, 23187 Connecticut Street, Hayward  
TRUSTEES: Eric Hentschke, President, City of Newark  
Wendi Poulson, Vice-President, City of Alameda  
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Robert Dickinson, City of Piedmont  
Kathy Narum, City of Pleasanton  
Victor Aguilar, City of San Leandro  
Subru Bhat, City of Union City

1. Vice-President Poulson, called the regularly scheduled board meeting to order at 5:01 P.M.
2. Trustees Poulson, Beatty, Roache, Brown, Cooley, Young, Marquez, Doggett, Dickinson, Narum and Bhat were present. Trustees Hentschke and Washburn were absent. Trustee Aguilar arrived at 5:04 P.M.
3. Vice-President Poulson invited members of the public to speak on any issue relevant to the District. Mosquito Control Technician Jeremy Sette was present to record the minutes.
4. Approval of minutes of the 1066<sup>th</sup> meeting held March 13<sup>th</sup>, 2019.  
**Motion:** Trustee Marquez moved to approve the minutes  
**Second:** Trustee Beatty  
**Vote:** motion carries: unanimous.
5. Review of a change order to install four electric vehicle charging stations to the solar project  
**Discussion:**  
The General Manager presented the change order to install four electric vehicle charging stations to the solar project and fielded the following discussion. Trustee Bhat asked about the cost of the project (in the Board packet). Trustee Marquez asked for clarification if the project was for four stations (yes).  
**Motion:** Trustee Beatty moved to approve a change order to install four electric vehicle charging stations to the solar project.  
**Second:** Trustee Brown  
**Vote:** motion carries: unanimous.

6. First draft of the 2018-19 budget for discussion.

**Discussion:**

The General Manager presented the first draft of the 2018-19 budget and fielded the following discussion questions. Trustee Marquez asked for if our CalPERS pension is 76% funded (yes, but the funded status is higher if you include the PARS pension stabilization fund). Trustee Beatty asked what SCI stood for (staff did not know what the acronym SCI stands for, but they are the engineers for our benefit assessment) and asked what the special tax is (it was passed in 1983 Measure as measure K, Trustee Doggett mentioned that there were many mosquitoes present that year). Trustee Beatty commented that he liked and appreciated the touch-screen presentation and how easy it was to follow along. Trustee Marquez asked if the Finance Committee reviewed the budget documents before the board meeting (yes). Trustee Dickinson asked where the items in the capital expense were reflected in the budget (reserve allocations page, linked through formulas to the summary page).

7. Report on projected financial impact from recently signed MOU with ACMAD Employee Association.

**Discussion:**

The General Manager reported on the projected financial impact from the recently signed MOU with the ACMAD Employee Association and fielded the following discussion. Trustee Marquez asked when the MOU was ratified (the Board approved the agreement on February 13<sup>th</sup>, the ACMAD Employee Association signed-off shortly thereafter, and Board President Hentschke ratified the copy on behalf of the salary committee on March 13<sup>th</sup>). Trustee Beatty asked what longevity pay was (a type of bonus given to employees to award them for years of service with the District beginning at 5 years of service and increasing at each 5-year increment, subsequently). Trustee Marquez asked for clarification that at 5 years the number was 1% (yes). Trustee Narum brought up a comparison where teachers had a similar system of employee retention incentivization.

8. LAFCO (Local Agency Formation Commission) Special District Seat Election May 8<sup>th</sup>, 2019

**Discussion:**

The General Manager recommended nominating incumbent Ayn Wieskamp of East Bay Regional Park District as a LAFCO and recommended designating Board President Hentschke as the ACMAD Presiding Officer to the Election.

**Motion:** Trustee Narum moved to approve nominating incumbent Ayn Wieskamp of East Bay Regional Park District to the LAFCO Commission and designating Board President Hentschke as the ACMAD Presiding Officer to the Election.

**Second:** Trustee Doggett

**Vote:** motion carries: unanimous

9. Presentation of the Financial Reports as of March 31<sup>st</sup>, 2019.

**Discussion:**

The General Manager presented the Financial Reports as of March 31<sup>st</sup>, 2019.

10. Presentation of the Monthly Staff Report for March 2019.

**Discussion:**

The General Manager presented the Monthly Staff Report for February 2019 and fielded the following discussion. Trustee Dickinson asked when the District would expect the West Nile virus season to ramp up (since it is a wet year so far, WNV could be less prevalent than in dry years). Trustee Roache asked if ACMAD will have a booth for the Livermore ag event (ACMAD will be at the Eden Ag event, and will place the Livermore event in next year's calendar—this year the only event in Livermore will be at a downtown festival). Trustee Aguilar asked if the District attends the San Leandro Cherry Festival (yes). Trustee Roache mentioned an Oakland

ag event as well (the District is always looking for more event options). Trustee Beatty asked how AB 320 is funding the UC system (through our arbovirus database, CalSurve hosted by UC Davis). Trustee Roache mentioned that in her recent Board Meeting, residents were concerned with glyphosate and if the District was aware of this issue (yes, the District is aware of this issue). Trustee Brown asked if the District could drop off fish in green pools by drone (no, according to current ACMAD policy). Trustee Bhat commented on the privacy concerns of drones flying over residential properties.

11. Presentation of the Manager's Report for March 2019.

**Discussion:**

The General Manager presented the Manager's Report for March 2019 and fielded the following discussion. Trustee Marquez mentioned the possibility of using Hayward City Hall for the District of Distinction training event if construction is still ongoing at the District.

12. Vice-President Poulson asked for reports on conferences and seminars attended by Trustees.  
None.

13. Vice-President Poulson asked for announcements from the Board. Trustee Marquez brought up acboost.org as a down-payment benefit program for public safety employees and teachers. She also mentioned a recently-approved down payment loan program for City of Hayward employees.

14. Vice-President Poulson asked trustees for items to be added to the agenda for the next Board meeting. Trustee Marquez thanked Mosquito Control Technician Jeremy Sette for changes and improvements to the format of the board meeting minutes and mentioned how it was easy to follow (Sette thanked her and the General Manager for his help and guidance with the minutes' format).

15. The meeting adjourned at 5:55 P.M.

**Respectfully submitted,**

Approved as written and/or corrected  
at the 1068<sup>nd</sup> meeting of the Board of  
Trustees held May 8<sup>th</sup>, 2019

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Eric Hentschke, President  
BOARD OF TRUSTEES

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P. Robert Beatty, Secretary  
BOARD OF TRUSTEES



Salaries 7/1/19 - 6/31/20

Date of hire	Position	2019/20 3.5% COLA	Longevity	Longevity Amount	New Salary	# mo	Subtotal	Deferred Comp.	(per pay period)
Jul-99	VS5	\$ 9,206.28	4%	\$ 368.25	\$ 9,574.53	12	\$ 114,894	\$ 574.47	\$ 23.94
Mar-14	VB2	\$ 8,645.49	1%	\$ 86.45	\$ 8,731.94	12	\$ 104,783	\$ 523.92	\$ 21.83
Aug-18	Asso. VS1	\$ 6,665.40	0%	\$ -	\$ 6,665.40	1	\$ 6,665	\$ 33.33	\$ 1.39
	Asso. VS2	\$ 6,779.25	0%	\$ -	\$ 6,779.25	6	\$ 40,676	\$ 203.38	\$ 8.47
	Asso. VS3	\$ 7,120.80	0%	\$ -	\$ 7,120.80	5	\$ 35,604	\$ 178.02	\$ 7.42
Apr-02	VB2	\$ 8,645.49	3%	\$ 259.36	\$ 8,904.85	12	\$ 106,858	\$ 534.29	\$ 22.26
Nov-03	VB2	\$ 8,645.49	3%	\$ 259.36	\$ 8,904.85	12	\$ 106,858	\$ 534.29	\$ 22.26
Feb-12	VB2	\$ 8,645.49	1%	\$ 86.45	\$ 8,731.94	12	\$ 104,783	\$ 523.92	\$ 21.83
Mar-02	RPA5	\$ 9,294.38	3%	\$ 278.83	\$ 9,573.21	12	\$ 114,879	\$ 574.39	\$ 23.93
Jul-15	Mgr	\$ 13,310.56	0%	\$ -	\$ 13,310.56	12	\$ 159,727		
Sep-15	MCT5	\$ 7,842.52	0%	\$ -	\$ 7,842.52	2.5	\$ 19,606	\$ 98.03	\$ 4.08
	VB1	\$ 8,234.64	0%	\$ -	\$ 8,234.64	9.5	\$ 78,229	\$ 391.15	\$ 16.30
Jul-15	IT5	\$ 9,250.32	0%	\$ -	\$ 9,250.32	12	\$ 111,004	\$ 555.02	\$ 23.13
Jul-15	LAB5	\$ 10,441.39	0%	\$ -	\$ 10,441.39	12	\$ 125,297	\$ 626.48	\$ 26.10
Jul-91	Sup 5	\$ 10,442.54	5%	\$ 522.13	\$ 10,964.67	12	\$ 131,576	\$ 657.88	\$ 27.41
Apr-16	Admin5	\$ 5,794.57	0%	\$ -	\$ 5,794.57	12	\$ 69,535	\$ 347.67	\$ 14.49
Apr-14	VB2	\$ 8,645.49	1%	\$ 86.45	\$ 8,731.94	12	\$ 104,783	\$ 523.92	\$ 21.83
Sep-15	VB2	\$ 8,645.49	0%	\$ -	\$ 8,645.49	12	\$ 103,746	\$ 518.73	\$ 21.61
May-15	VB1	\$ 8,234.64	0%	\$ -	\$ 8,234.64	10.5	\$ 86,464	\$ 432.32	\$ 18.01
	VB2	\$ 8,645.49	1%	\$ 86.45	\$ 8,731.94	1.5	\$ 13,098	\$ 65.49	\$ 2.73
Feb-15	Mech 5	\$ 9,030.88	0%	\$ -	\$ 9,030.88	7.5	\$ 67,732	\$ 338.66	\$ 14.11
	Mech 5	\$ 9,030.88	1%	\$ 90.31	\$ 9,121.19	4.5	\$ 41,045	\$ 205.23	\$ 8.55
							<b>12 \$ 1,847,842</b>	<b>\$ 8,440.58</b>	

Seasonals:

Rate (ave)	#	Hours						
\$	18.00	9	1,000				CalPERS Ret.	\$ 360,538
			\$162,000				Seasonals	\$ 167,508
Unemployment	\$ 16,000.00		\$5,508.00				Subtotal	\$ 2,375,888
			<b>\$167,508.00</b>				Mgr 457	\$ 12,000.00
							Staff 457	\$ 8,441
CalPERS		Wages	Employer rate	Unfunded Liability Payment	Total PERS Payments		Medicare tax	\$ 29,223
10.152% Classic		\$ 1,173,401.41	\$ 119,123.71	\$ 192,789.00	\$ 311,912.71		Social Security	\$ 1,620
7.072% Pepra		\$ 674,440.89	\$ 47,696.46	\$ 929	\$ 48,625.46		<b>Grand Total</b>	<b>\$ 2,425,551.63</b>
		\$ 1,847,842.30			\$ 360,538.17			

<u>Employee</u>	CalPERS			Total Health Costs	Dental Rates		Life Ins.		Vision		SDI	Benefit Cost per person
	Plan Code	Health Rates 2019	Health Rates 2020 (est)		2019/20	Total Dental	Rates 2019/20	Total Life Insurance	Rates 2019/20	Total Vision		
	3753	1,997.45	2,157.25	24,928.18	251.93	3,023.16	9.25	111.00	33.01	396.12		28,458.46
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	1043	1,997.45	2,157.25	24,928.18	251.93	3,023.16	9.25	111.00	33.01	396.12		28,458.46
	1041	768.25	829.71	9,587.76	251.93	3,023.16	9.25	111.00	13.40	160.80		12,882.72
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	1043	1,997.45	2,157.25	24,928.18	251.93	3,023.16	9.25	111.00	33.01	396.12		28,458.46
	4503	1,997.45	2,157.25	24,928.18	251.93	3,023.16	9.25	111.00	33.01	396.12		28,458.46
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	4542	1,536.50	1,659.42	19,175.52	161.05	1,932.60	9.25	111.00	20.81	249.72		21,468.84
	1042	1,536.50	1,659.42	19,175.52	161.05	1,932.60	9.25	111.00	20.81	249.72		21,468.84
	1062	1,536.50	1,659.42	19,175.52	251.93	3,023.16	9.25	111.00	20.81	249.72		22,559.40
	1042	1,536.50	1,659.42	19,175.52	94.06	1,128.72	9.25	111.00	13.40	160.80		20,576.04
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	1041	768.25	829.71	9,587.76	94.06	1,128.72	9.25	111.00	13.40	160.80		10,988.28
	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
<i>Subtotal</i>		22,309.44		278,421.81	2,838.09	34,057.08	157.25	1,887.00	348.08	4,176.96	18,478.42	337,021.27
.5% Admin Cost				1,392.11								1,392.11
<b><u>Staff Totals</u></b>				<b>279,813.92</b>		<b>34,057.08</b>		<b>1,887.00</b>		<b>4,176.96</b>	<b>18,478.42</b>	<b>338,413.38</b>



Annuitant	CalPERS				Dental 2019		Life Ins.	Total Life	Vision	SDI	Benefit Cost per person	
	Plan Code	Health Rates 2019	Health Rates 2020 (est)	Total Health Costs	Rates	Total Dental	Rates 2016/17	Ins. 2016/17	2018/19 Rates			Total Vision
	1141	323.74	349.64	4,040.28	-	1,500.00			33.01	396.12	5,936.40	
	3391	394.83	426.42	4,927.48	94.06	1,128.72			33.01	396.12	6,452.32	
	1041	768.25	829.71	9,587.76	94.06	1,128.72			33.01	396.12	11,112.60	
	1321	394.83	426.42	4,927.48	94.06	1,128.72			33.01	396.12	6,452.32	
	0	-	-	-	94.06	1,128.72			33.01	396.12	1,524.84	
	3322	720.82	778.49	8,995.83	161.05	1,932.60			33.01	396.12	11,324.55	
	1161	360.41	389.24	4,497.92	101.58	1,219.02			33.01	396.12	6,113.05	
	1042	1,536.50	1,659.42	19,175.52	161.05	1,932.60			33.01	202.80	21,310.92	
	3291	813.47	878.55	10,152.11	94.06	1,128.72			33.01	396.12	11,676.95	
	1321	394.83	426.42	4,927.48	-	1,500.00			33.01	396.12	6,823.60	
	3342	720.82	778.49	8,995.83	161.05	1,932.60			33.01	396.12	11,324.55	
	1142	647.48	699.28	8,080.55	161.05	1,932.60			33.01	396.12	10,409.27	
	1042	647.48	699.28	8,080.55	161.05	1,932.60			33.01	396.12	10,409.27	
	1032	1,375.98	1,486.06	17,172.23	161.05	1,932.60			33.01	396.12	19,500.95	
	1043	1,536.50	1,659.42	19,175.52	251.93	3,023.16			33.01	396.12	22,594.80	
<b>Subtotal</b>		<b>10,635.94</b>		<b>132,736.53</b>		<b>24,481.38</b>			<b>495.15</b>	<b>5,748.48</b>	<b>162,966.39</b>	
		.5% Admin Costs=		663.68							663.68	
<b>Annuitant Totals</b>				<b>133,400.21</b>		<b>24,481.38</b>				<b>5,748.48</b>	<b>163,630.07</b>	
<b>Grand Total</b>				<b>413,214.13</b>		<b>58,538.46</b>		<b>1,887.00</b>		<b>9,925.44</b>	<b>18,478.42</b>	<b>502,043.45</b>
												<b>502,043.45</b>

Account	BUDGET CATEGORY	staff	Budget 19/20	Budget 18-19	Budget 17-18	Actual 17-18	Actual 16-17	Budget 16-17
610001	<b>CLOTHING AND PERSONAL SUPPLIES (PURCHASED)</b>	MW	<b>\$8,000</b>	<b>\$6,000</b>	\$8,500	\$7,309	\$8,955	\$8,500
610011	<b>LAUNDRY SERVICE AND SUPPLIES (RENTED)</b>	MW	<b>\$12,750</b>	<b>\$9,500</b>	\$9,000	\$9,819	\$8,840	\$9,000
610021	<b>UTILITIES</b>		<b>\$12,600</b>	<b>\$36,500</b>				\$35,900
610021.1	Garbage (Waste Mgmt)	MM	\$4,000	\$3,500	\$3,000	\$3,167	\$3,410	\$2,400
610021.2	PG & E	MM	\$2,600	\$26,000	\$24,000	\$22,677	\$19,499	\$24,000
610021.3	Hayward Water & Sewage	MM	\$6,000	\$7,000	\$7,000	\$2,002	\$4,175	\$6,000
610022	<b>COMMUNICATIONS</b>		<b>\$39,300</b>	<b>\$40,800</b>				
610022.1	Telephone Service & Internet (Telepacific)	RF	\$9,900	\$14,400	\$14,000	\$15,119	\$12,412	\$13,800
610022.3	Website hosting	RF	\$2,400	\$2,400	\$1,200	\$216	\$903	\$850
610022.4	Cell phone service (Verizon)	MW/RF	\$20,000	\$18,000	\$17,000	\$16,284	\$6,962	\$9,000
610022.5	Microsoft Office 365	RF	\$5,000	\$4,000	\$4,000	\$0		
610022.6	Azure Server Hosting	RF	\$2,000	\$2,000		\$0		
610122	<b>MAINTENANCE STRUCTURES &amp; IMPROVEMENTS</b>		<b>\$25,000</b>	<b>\$25,000</b>				\$15,000
61022.1	Landscaping service	MW	\$5,000	\$5,000	\$3,600	\$3,540	\$5,095	\$3,600
61022.2	Facility Maintenance	MW	\$20,000	\$20,000	\$25,000	\$17,835	\$14,408	\$10,000
610141	<b>MAINTENANCE OF EQUIPMENT</b>	MW	<b>\$35,000</b>	<b>\$35,000</b>	\$45,000	\$43,585	\$27,051	\$45,000
610191	<b>TRANSPORTATION, TRAVEL, TRAINING, &amp; BOARD</b>		<b>\$134,260</b>	<b>\$134,210</b>				
610191.1	Fuel and GPS (WexMart)	MW	\$50,000	\$50,000	\$45,000	\$40,971	\$37,173	\$40,000
610191.3	Meetings, conferences, & travel	RC	\$35,000	\$35,000	\$35,000	\$33,372	\$26,116	\$35,000
610191.4	Board meeting expenses	RC	\$650	\$600	\$800	\$648	\$554	\$1,000
610191.5	Board payments in lieu	RC	\$18,900	\$18,900	\$16,800	\$13,900	\$12,400	\$16,800
610461.54	Board plaques and nameplates	RC	\$500	\$500	\$500	\$0	\$216	\$1,000
610461.53	Continuing Education fees	RC	\$4,210	\$4,210	\$4,210	\$0	\$2,141	\$4,000
610191.7	Staff Training (staff development/ college courses)	RC	\$25,000	\$25,000	\$55,000	\$42,439	\$46,443	\$80,000
610261	<b>PROFESSIONAL SERVICES</b>	x	<b>\$169,320</b>	<b>\$190,620</b>				
610261.1	Audit	MM	\$13,000	\$14,000	\$13,000	\$11,650	\$13,135	\$13,000
610261.2	Actuarial reports	MM/RC	\$700	\$4,000	\$5,500	\$700	\$1,300	\$3,000
610261.3	Helicopter service	JH	\$35,000	\$35,000	\$35,000		\$0	\$30,000
610261.4	Legal Services	RC	\$5,000	\$12,000	\$13,000	\$2,404	\$1,692	\$20,000
610261.5	Collaborative Research	EHS	\$5,000	\$5,000	\$5,000			\$5,000
610261.7	Tax collection service (SCI)	RC	\$33,000	\$32,000	\$35,000	\$32,366	\$32,372	\$35,000
610261.8	Payroll service (OnePoint)	MM	\$11,000	\$10,000	\$10,000	\$8,864		\$6,000
610261.9	Environmental consultant/ EcoAtlas	EC	\$25,000	\$25,000	\$15,000	\$0		\$5,000
610261.10	HR Services (RGS & other)	RC	\$10,000	\$15,000	\$15,000	\$11,431	\$13,675	\$25,000
610261.11	OPEB management (PFM)	RC	\$25,000	\$22,000	\$22,000	\$24,898	\$19,909	\$0
610261.12	Financial advising	RC	\$5,000	\$15,000	\$16,270	\$8,250		\$0
610261.13	Pre-employment physicals	RC	\$1,620	\$1,620	\$0	\$0		\$0

Account	BUDGET CATEGORY	staff	Budget 19/20	Budget 18-19	Budget 17-18	Actual 17-18	Actual 16-17	Budget 16-17
610351	<b>MEMBERSHIPS, DUES &amp; SUBSCRIPTIONS</b>		<b>\$22,655</b>	<b>\$21,402</b>		\$15,933	\$20,191	
	AMCA (sustaining membership)	EHS	\$4,000	\$2,500	\$4,000			\$4,000
	CSDA	RC	\$5,000	\$5,000	\$5,000			\$5,500
	ACSDA	RC		\$100	\$100			
	MVCAC	RC	\$12,500	\$12,000	\$12,000			\$12,000
	SOVE	RC		\$0	\$0			\$200
	LAFCo	RC	\$780	\$790	\$780			\$778
	ESA	EHS		\$150	\$150			\$172
	Misc (ACSDA, REHS, HAZWOPR, ESA, EMA, SOVE, AMA)	RC	\$375	\$862	\$100			\$285
610378	<b>INSURANCE - VCJPA</b>	RC	\$132,666	<b>\$122,471</b>		\$130,739		
610378.1	Employee Assistant Program	MM	\$880	\$880	\$880	\$654		
610378.2	UAS insurance	EHS		\$4,500	\$5,000			
610451	<b>COMMUNITY EDUCATION</b>	EC	<b>\$40,000</b>	<b>\$33,000</b>		\$64,109	\$40,222	
610461	<b>OPERATIONS</b>		<b>\$228,500</b>	<b>\$234,000</b>				
610461.1	Pesticides	JH	\$180,000	\$180,000	\$200,000	\$116,853	\$142,304	\$200,000
610461.2	Field supplies (dippers etc)	JH	\$2,500	\$2,500	\$2,200	\$1,307	\$344	\$1,000
610461.3	Sentinel Chickens	EHS	\$0	\$0	\$0	\$0	\$0	\$0
610461.4	Mosquitofish program	MW	\$3,500	\$4,000	\$6,000	\$2,663	\$3,202	\$4,000
610461.6	Spray equipment	MW	\$10,000	\$15,000	\$30,000	\$8,624	\$10,506	\$12,000
610461.7	Safety	MW	\$8,500	\$8,500	\$2,000	\$7,881		\$2,000
610461.51	Aerial Pool Survey	JH	\$20,000	\$20,000	\$20,000	\$33,908	\$16,954	\$17,000
610461.52	Permits	EC	\$4,000	\$4,000	\$100	\$6,893	\$3,232	\$3,000
620021	<b>HOUSEHOLD EXPENSES</b>	MW	<b>\$15,850</b>	<b>\$19,350</b>			\$17,373	\$5,000
620021.1	Janitorial service	MW	\$7,000	\$6,000	\$6,500	\$5,220		\$0
620021.2	Supplies (+ emergency)	MW	\$2,850	\$2,000	\$2,000	\$3,407		\$0
620021.3	Alarm service	RF	\$6,000	\$11,000	\$11,000	\$8,986		\$9,000
620021.4	Drinking water, emergency kit	MM/MW		\$350	\$510	\$488		\$480
620041	<b>OFFICE EXPENSES</b>		<b>\$14,500</b>	<b>\$15,100</b>		\$10,753	\$18,590	
	Office Supplies (2 copiers + \$5,000 supplies)	MM	\$1,200		\$10,000			\$20,000
	Postage + Meter	MM			\$2,500			\$2,000
	Pitney Bowes – postage meter rental	MM	\$0		\$550			\$400
620042	<b>INFORMATION TECHNOLOGY</b>	RF	<b>\$77,800</b>	<b>\$81,400</b>		\$71,236		
	Computers, supplies and software	RF	\$20,000	\$20,000	\$15,000		\$17,333	\$15,000
	3rd party IT consultant	RF	\$50,000	\$50,000	\$30,000		\$16,517	\$25,000
	Mapvision service fee	RF	\$7,800	\$7,800	\$27,800			
	Backhaul	RF	\$0	\$3,600	\$600			
620141	<b>LABORATORY SUPPLIES</b>		<b>\$137,000</b>	<b>\$118,148</b>	\$105,000	\$113,961		
620141.10	Mosquito and pathogen monitoring	EHS	\$98,000	\$86,000				
620141.11	Insecticide resistance	EHS	\$17,000	\$15,200				
620141.12	Research	EHS	\$22,000	\$16,948				
620261	<b>SMALL TOOLS AND INSTRUMENTS</b>	MW	<b>\$3,000</b>	<b>\$2,500</b>	\$8,500	\$8,376	\$2,513	\$2,500
<b>Total</b>			<b>\$1,108,201</b>	<b>\$1,125,001</b>	<b>\$1,217,580</b>	<b>\$1,090,160</b>		<b>\$1,001,047</b>

Estimate of Cash Carryover from Fiscal Year 18/19 to 19/20

	debits	credits	balance	
LAI & County Balance as of January 31 2019			\$ 2,858,677	
February check batch #1	\$ 112,000		\$ 2,746,677	
February check batch #2	\$ 132,000		\$ 2,614,677	
Balance as of February 28 2019			\$ 2,515,061	<u>estimates below</u>
March check batch #1	\$ 115,000		\$ 2,400,061	
March check batch #2	\$ 150,000		\$ 2,250,061	
Balance as of March 31 2019			\$ 2,250,061	
April check batch #1	\$ 150,000		\$ 2,100,061	
April check batch #2	\$ 150,000		\$ 1,950,061	
Balance as of April 30 2019			\$ 1,950,061	
Deposit		1,900,000		
May check batch #1	\$ 150,000		\$ 3,700,061	
May check batch #2	\$ 150,000		\$ 3,550,061	
Balance as of May 31 2019			\$ 3,550,061	
June check batch #1	\$ 175,000		\$ 3,375,061	
June check batch #2	\$ 175,000		\$ 3,200,061	
Balance as of June 30 2019				
<b>Totals</b>	\$ 1,215,000	\$ 1,900,000	\$ 3,200,061	
Unused capital projects			\$ 146,749	
<b>Operational requirement (July-December)</b>			<b>\$ 2,861,191</b>	
<b><u>Estimated Cash Carried Over</u></b>			<b>\$ 485,619</b>	

**CAPITAL EXPENDITURES**

	<b>2016-2017</b>	<b>2017-2018</b>	<b>2018-2019</b>	<b>2019-20</b>
Computer Database	\$ 218,000			
Hardware (monitors & tablets)	\$ 10,000			
Board room expansion	\$ 40,000			
Lab equip	\$ 27,000			
<b>Total</b>	<b>\$ 295,000</b>			
				<b>Capital expenses not purchased</b>
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
<b>Total</b>		<b>\$240,000</b>		<b>\$131,948</b>
				<b>Capital expenses not purchased</b>
Curation & Larval ID Room			\$61,199	\$61,199
Remodel Project		\$258,550		\$21,550
V35 Lab Truck		\$39,474		\$2,000
Lab centrifuge		\$10,000		
Carports, Wash Rack, & Interior Paint		\$27,000		\$27,000
Shop & Facility Inventory Program		\$5,000		\$5,000
UAS		\$30,000		\$30,000
<b>Total</b>		<b>\$431,223</b>		<b>\$146,749</b>
<b>Capital Reserve</b> (new assets & non-capital projects)				
Treatment UAS				\$52,000
Waterproof UAS				\$11,000
Larvicide rig				\$17,000
Lab centrifuge				\$10,500
Exterior and interior painting				\$39,000
Interior Flooring				\$75,000
<b>Total</b>				<b>\$204,500</b>
<b>Repair and Replace</b> (replacement assets)				
V40 (Sarah)				\$40,000
V45 (Nick)				\$40,000
<b>Total</b>				<b>\$80,000</b>

<u>Fund</u>	<u>Target Level</u>	<u><sup>1</sup>Current Level</u>	<u>Transfers</u>	<u>Current Funded %</u>	<u>Proposed Funded %</u>
VCJPA Property Contingency fund	\$0	\$51,332	-\$51,332	100%	0%
VCJPA Member Contingency fund	\$327,918	\$343,715	\$0	100%	105%
LAI--Operating Fund	NA	\$ 2,846,896	\$0	NA	NA
OPEB	NA	\$4,239,191	\$0	100%	100%
CalPERS Retirement Fund (2 years prior)	\$12,080,425	\$9,177,513	\$0	76%	76%
PARS: Pension Rate Stabilization	\$2,612,621	\$994,764	\$500,000	38%	57%
CAMP: Public Health Emergency	\$500,000	\$502,062	\$0	100%	100%
CAMP: Repair and Replace	\$4,319,711	\$511,823	\$1,196,000	12%	40%
CAMP: Operating reserve	\$2,452,450	\$1,893,291	-\$592,561	77%	53%
CAMP: Capital reserve	\$204,500	\$251,738	\$51,332	0%	148%
<b><u>TOTAL</u></b>			\$1,103,439		

<sup>1</sup> As of March 2019



# **ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT**

**MOSQUITO AND DISEASE CONTROL ASSESSMENT**

## **ENGINEER'S REPORT**

FISCAL YEAR 2019-20

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

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## **ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT**

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### **BOARD OF TRUSTEES**

Eric Hentschke, President, City of Newark  
Wendi Poulson, Vice President, City of Alameda  
P. Robert Beatty, Secretary, City of Berkeley  
Cathy Roach, County-at-large  
P. Robert Beatty, Secretary, City of Berkeley  
Alan Brown, City of Dublin  
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Robert Dickinson, City of Piedmont  
Kathy Narum, City of Pleasanton  
Victor Aguilar, City of San Leandro  
Subru Bhat, City of Union City

### **GENERAL MANAGER**

Ryan Clausnitzer

### **ENGINEER OF WORK**

SCI Consulting Group

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## INTRODUCTION

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### 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:<sup>1</sup>

- 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.

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<sup>1</sup> 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 XIIC 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 benefits<sup>2</sup>
- 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 4<sup>th</sup> 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

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<sup>2</sup> 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 2019-20, the assessments would be submitted to the County Auditor for inclusion on the property tax rolls for fiscal year 2019-20.

## GENERAL DESCRIPTION OF THE DISTRICT AND SERVICES

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### 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 17 employees including a General Manager, Field Operations Supervisor, Lab Director, Mechanic Specialist, Regulatory & Public Affairs Director, IT Director, Accounting Associate, six Vector Biologists and two Mosquito Control Technicians, a Vector Scientist, Associate Vector Scientist, and seasonal 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.

<b>Final Level of Service</b>	=	<b>Baseline Level of Service</b>	+	<b>Enhanced Level of Service</b>
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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 erythrothorax</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](http://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

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**FIGURE 1 – COST ESTIMATE – FY 2019-20**

Alameda County Mosquito Abatement District Mosquito and Disease Control Assessment Estimate of Cost - Fiscal Year 2019-20		Preliminary Budget
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Mosquito Control Services and Related Expenditures		
Mosquito Control and Disease Prevention		\$2,921,474
Materials, Utilities and Supplies <sup>1</sup>		\$1,100,915
Capital Expenditures		\$632,847
Contingency		\$50,000
<b>Total Mosquito Control Services and Related Expenditures</b>		<b>\$4,705,236</b>
<hr/>		
<b>Total Benefits of Mosquito and Disease Control</b>		<b>\$4,705,236</b>
Single Family Equivalent Units (SFEs)		456,104
<b>Benefit Received per SFE Unit</b>		<b>\$10.32</b>
<hr/>		
Less		
Revenue from property taxes/ other sources		(\$3,564,976)
<b>Total Mosquito &amp; Disease Control Services and Incidentals</b>		<b>\$1,140,260</b>
<hr/>		
<b>Budget Allocation to Property</b>		
<b>Total Assessment Budget<sup>3</sup></b>		<b>\$1,140,260</b>
	Total SFE Units <sup>4</sup>	456,104
	<b>Assessment Rate per SFE<sup>5</sup></b>	<b>\$2.50</b>
<hr/>		

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 2019-20, the District has allocated \$632,847 for capital improvements to include the following: treatment and research UAS, larvicide spray equipment, lab centrifuge, two trucks, and some facility repair work including new flooring and interior/ exterior painting. The remainder will be used to fund future capital projects including improvements to the aquaculture rearing infrastructure.

## METHOD OF ASSESSMENT

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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."<sup>3</sup>

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:

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<sup>3</sup> 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.<sup>4</sup>*

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,

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<sup>4</sup> 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.<sup>5</sup> 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.”<sup>6</sup>*

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:

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<sup>5</sup> 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.

<sup>6</sup> 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.”<sup>7</sup>*

#### **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.<sup>8</sup> 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.”<sup>9</sup>*

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

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

<sup>8</sup> 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.

<sup>9</sup> 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.”<sup>10</sup>*

*“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.”<sup>11</sup> (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:

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

<sup>11</sup> 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. <sup>12</sup>*

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 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:

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<sup>12</sup> 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.*<sup>13</sup>

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.*<sup>14</sup>

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.

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<sup>13</sup> 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>

<sup>14</sup> 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.”<sup>15</sup>*

*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 mosquitoes<sup>16</sup>*

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.<sup>17</sup> 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:

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<sup>15</sup> 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](http://www.aphis.usda.gov/vs/ceah/cnabs/nahms/equine/wnv2002_CO_NB.pdf)

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

<sup>17</sup> 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.<sup>18</sup>

## 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:

<b>Total Benefit</b>	=	<b>General Benefit</b>	+	<b>Special Benefit</b>
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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,<sup>19</sup>” but outside the narrowly-drawn Assessment District and to “the public at

<sup>18</sup> 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.

<sup>19</sup> 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

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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%.<sup>20</sup> 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.

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<sup>20</sup> 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**

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

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 \$4,705,236. Of this total budget amount, the District will contribute \$3,564,976 or 75.77% 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.<sup>21</sup>

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<sup>21</sup> 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.<sup>22</sup>

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 special benefit conferred upon a specific parcel is derived as a sum function of the applicable special benefit type (such as improved safety (i.e. disease risk reduction) on a parcel for a mosquito assessment) and a parcel-specific attributes (such as the number of residents living on the parcel for a mosquito assessment) which supports that special benefit. Calculated special benefit increases accordingly with an increase in the product of special benefit type and supportive parcel-specific attribute.

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<sup>22</sup> 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.

The calculation of the special benefit per parcel is summarized in the following equation:

$$\text{Special Benefit}_{(\text{per parcel})} = \sum f(\text{Special Benefits, Property Specific Attributes}^1)_{(\text{per parcel})}$$

1. Such as use, property type, and size.

## 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	<b>1.00</b>
Condominium	103,373	37,417	2.76	0.91	0.66	<b>0.60</b>
Duplex, Triplex, Fourplex	144,626	57,815	2.50	0.82	0.56	<b>0.46</b>
Multi-Family Residential (5+ Units)	286,957	136,173	2.11	0.69	0.47	<b>0.32</b>
Mobile Home on Separate Lot	13,464	6,660	2.02	0.66	0.41	<b>0.27</b>

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**

<b>Type of Commercial/ Industrial Land Use</b>	<b>Average Employees Per Acre <sup>1</sup></b>	<b>SFE Units per Fraction Acre <sup>2</sup></b>	<b>SFE Units per Acre After 5</b>
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**

<b>Other Types of Land Use</b>	<b>Average Employees Per Acre <sup>1</sup></b>	<b>SFE Units per 1/4 Acre <sup>2</sup></b>
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 2019-20 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 General Manager or his or her designee will promptly review the appeal and any information provided by the property owner. If the General 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 General 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 General 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

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**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 2019-20 is generally as follows:

**FIGURE 5– SUMMARY COST ESTIMATE – FY 2019-20**

Mosquito Abatement & Disease Control Services	\$2,921,474
Materials, Utilities and Supplies	\$1,100,915
Capital Equipment and Fixed Assets	\$632,847
Contingency	\$50,000
<b>Total Mosquito Control Services and Related Expenditures</b>	<b>\$4,705,236</b>
Less Contributions from Other Sources:	
Other Revenue	(\$3,564,976)
Net Amount To Assessments	<b>\$1,140,260</b>
General Contribution to Total Mosquito Control Services and Relate Expenditures	75.77%

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 2017 to December 2018 was 4.49% Therefore, the maximum assessment rate for fiscal year 2019-20 is the maximum rate for fiscal year 2018-19 (\$6.30) increased by 3%. Consequently, the maximum authorized Assessment rate for fiscal year 2019-20 is \$6.49 per single-family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2019-20 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 2019-20. 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 2019-20 for each parcel or lot of land within the Alameda County Mosquito Abatement District- Mosquito and Disease Control Assessment.<sup>23</sup>

Dated: April XX, 2019

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<sup>23</sup> 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.

Engineer of Work

By \_\_\_\_\_  
John W. Bliss, License No. C052091

## **ASSESSMENT DIAGRAM**

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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

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

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

## **ASSESSMENT ROLL**

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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. 1068-1**

**A RESOLUTION INTENTION TO CONTINUE ASSESSMENTS FOR FISCAL YEAR 2019-20, 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 2019-20 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 change in the CPI from December 2017 to December 2018 was 4.49% Therefore, the maximum assessment rate for fiscal year 2019-20 is the maximum rate for fiscal year 2018-19 (\$6.30) increased by 3%. Consequently, the maximum authorized Assessment rate for fiscal year 2019-20 is \$6.49 per single-family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2019-20 at the rate of \$2.50, which is below the maximum authorized assessment rate.
4. The estimated fiscal year 2019-20 cost of providing the Services is \$ \$1,140,260. This cost results in a proposed assessment rate for fiscal year 2019-20 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 12, 2019, 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 2019-20.
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 8, 2019, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
President, Board of Trustees, Alameda County Mosquito  
Abatement District

**ATTEST:**

\_\_\_\_\_  
Secretary, Board of Trustees, Alameda County  
Mosquito Abatement District

Alameda County Mosquito Abatement Dist.  
**Check Register**  
For the Period From Apr 1, 2019 to Apr 15, 2019

Filter Criteria includes: Report order is by Date.

<b>Check #</b>	<b>Date</b>	<b>Payee</b>	<b>Amount</b>
1529	4/11/19	Payroll	67,680.35
1530	4/15/19	Argo Adventure	8,038.88
1531	4/15/19	Airgas	38.80
1532	4/15/19	Adapco	3,976.74
1533	4/15/19	All-Ways Green Services	1,205.00
1534	4/15/19	Cintas	478.14
1535	4/15/19	CarQuest	121.32
1536	4/15/19	Grainger	137.11
1537	4/15/19	Industrial Park Landscape Maintenance	215.00
1538	4/15/19	JCR Custom/ Paul Builders	26,800.00
1539	4/15/19	KBA Docusys	380.41
1540	4/15/19	NBC Supply Corp	626.01
1541	4/15/19	PFM Asset Management	1,606.22
1542	4/15/19	PG&E	417.66
1543	4/15/19	Solar Technologies	17,939.00
1544	4/15/19	Treds	446.08
1545	4/15/19	Techniclean	134.76
1546	4/15/19	VCJPA	267.92
1547	4/15/19	U.S Bank Corporate Payment System	20,798.64
1548	4/15/19	CalPERS 457	2,420.00
1549	4/15/19	Leading Edge Associate, Inc.	26,000.00
1550	4/15/19	Voya Institutional Trust Company	150.00
ACH	4/15/19	CalPERS Retirement	11,985.79
<b>Total Expenditures 04/15/2019</b>			<b>191,863.83</b>

Alameda County Mosquito Abatement Dist.  
**Check Register**  
 For the Period From Apr 16, 2019 to Apr 30, 2019

Filter Criteria includes: Report order is by Date.

<b>Check #</b>	<b>Date</b>	<b>Payee</b>	<b>Amount</b>
1551	4/30/19	Payroll	74,389.08
1552	4/30/19	P. Robert Beatty	100.00
1553	4/30/19	James N Doggett	100.00
1554	4/30/19	Robert Dickinson	100.00
1555	4/30/19	Wendi Lynn Poulson	100.00
1556	4/30/19	George Young	100.00
1558	4/30/19	Airgas	873.10
1560	4/30/19	Dereje Alemayehu	75.40
1561	4/30/19	Adapco	3,203.48
1562	4/30/19	Argo Adventure	2,296.34
1563	4/30/19	Beck's Shoes	380.00
1564	4/30/19	Bay Alarm	930.00
1565	4/30/19	CalPERS 457	1,870.00
1566	4/30/19	California Department of Public Health	2,288.00
1567	4/30/19	CCCMA Occupational Clinic	250.00
1568	4/30/19	Clarke	13,421.10
1569	4/30/19	Cintas	544.14
1570	4/30/19	Delta Dental	4,505.91
1571	4/30/19	Grainger	69.45
1572	4/30/19	Andrea Lee	74.87
1573	4/30/19	JCR Custom/ Paul Builders	39,925.30
1574	4/30/19	Mar-Len Supply, Inc.	221.54
1575	4/30/19	Namakan West Fisheries	840.00
1576	4/30/19	National CineMedia, LLC	4,513.33
1577	4/30/19	PG&E	1,661.10
1578	4/30/19	Pitney Bowes	520.99
1579	4/30/19	Regional Government	503.75
1580	4/30/19	The Hartford	155.56
1581	4/30/19	Voya Institutional Trust Company	150.00
1582	4/30/19	VSP	667.19
1583	4/30/19	Verizon	1,432.77
1584	4/30/19	WEX Bank	3,319.76
1585	4/30/19	Waste Management of Alameda County	272.16
ACH	4/30/19	CalPERS Retirement	12,018.18
ACH	4/30/19	CalPERS Health	32,114.10
ACH	4/30/19	Victor Aguilar	100.00
ACH	4/30/19	Subrahmanya Y Bhat	100.00
ACH	4/30/19	Alan Brown	100.00
ACH	4/30/19	Elizabeth Cooley	100.00
ACH	4/30/19	Elisa Marquez	100.00
ACH	4/30/19	Katherine Narum	100.00
ACH	4/30/19	Cathy J Pinkerton. Roache	100.00

Voided Check

1557  
1559

**Total Expenditures 04/30/2019      204,686.60**

**Alameda County Mosquito Abatement District**  
**Income Statement**  
**Consolidated**  
**April 30, 2019. (10 of 12 mth, 83%)**

REVENUES	Actual 2015/16 <sup>1</sup>	Actual 2016/17 <sup>1</sup>	Current Month	Year to Date 2018/2019	Budget 2018/2019	Actual vs Budget
<b>Total Revenue</b>	<b>\$ 4,180,831.00</b>	<b>\$ 4,366,903.00</b>	<b>\$ 1,736,666.83</b>	<b>\$ 4,057,268.46</b>	<b>\$ 4,476,728.00</b>	<b>91%</b>

EXPENDITURES	Actual 2015/16	Actual 2016/17	Current Month <sup>2</sup>	Year to Date 2018/2019	Budget 2018/19	Actual vs Budget
Salaries	\$1,661,234	\$1,677,469	\$ 154,911.76	\$ 1,551,589.75	\$1,933,182	80%
CalPERS Retirement	\$205,340	\$219,892	\$ 13,697.35	\$ 283,221.97	\$301,812	94%
Medicare	\$21,160	\$21,368	\$ 2,054.29	\$ 20,802.24	\$28,031	74%
Fringe Benefits	\$554,630	\$453,877	\$ 37,442.76	\$ 382,380.12	\$508,680	75%
<b>Total Salaries, Retirement, &amp; Benefits</b>	<b>\$2,442,364</b>	<b>\$2,372,606</b>	<b>\$208,106</b>	<b>\$2,237,994</b>	<b>\$2,771,705</b>	<b>81%</b>
Clothing and personal supplies (purchased)	\$7,169	\$8,955	\$ 577.55	\$ 4,815.95	\$6,000	80%
Laundry service and supplies (rented)	\$7,162	\$8,840	\$ 1,022.28	\$ 9,820.34	\$9,500	103%
Utilities	\$22,214	\$27,084	\$ 2,350.92	\$ 24,801.82	\$36,500	68%
Communications-IT	\$32,756	\$54,128	\$ 8,590.43	\$ 67,018.16	\$122,200	55%
Maintenance: structures & improvements	\$6,739	\$19,503	\$ 1,010.00	\$ 7,402.87	\$25,000	30%
Maintenance of equipment	\$24,175	\$27,051	\$ 11,447.00	\$ 29,786.83	\$35,000	85%
Transportation, travel, training, & board	\$75,326	\$124,827	\$ 10,769.26	\$ 79,364.69	\$134,210	59%
Professional services	\$159,499	\$82,082	\$ 2,209.80	\$ 89,116.22	\$190,620	47%
Memberships, dues, & subscriptions	\$14,540	\$20,191	\$ 75.00	\$ 20,773.00	\$21,402	97%
Insurance - (VCJPA, UAS)	\$106,268	\$113,867	\$ 267.92	\$ 125,189.76	\$127,851	98%
Community education	\$12,450	\$40,222	\$ 6,269.33	\$ 20,736.41	\$33,000	63%
Operations	\$187,490	\$176,758	\$ 42,389.47	\$ 133,918.55	\$234,000	57%
Household expenses	\$13,790	\$17,373	\$ 1,474.76	\$ 17,552.22	\$19,350	91%
Office expenses	\$14,195	\$18,590	\$ 1,162.58	\$ 7,993.57	\$15,100	53%
Laboratory supplies	\$76,130	\$80,008	\$ 11,680.91	\$ 55,029.18	\$118,148	47%
Small tools and instruments	\$1,155	\$2,513	\$ 50.85	\$ 2,001.12	\$2,500	80%
<b>Total Staff Budget</b>	<b>\$ 780,944.00</b>	<b>\$833,192</b>	<b>\$ 101,348.06</b>	<b>\$ 695,320.69</b>	<b>\$1,130,381</b>	<b>62%</b>
<b>Total Operating Expenditures</b>	<b>\$ 3,032,263.00</b>	<b>\$3,479,710</b>	<b>\$ 309,454.22</b>	<b>\$ 2,933,314.77</b>	<b>\$3,902,086</b>	<b>75%</b>

1 - Subcategories in Fiscal years 2015/16 and 2016/17 do not add up due to accruals not being posted

2 - Total Operating Expenditures in current month do not match the check register due to Accounts receivable, capital purchases, and petty cash transfer.

**Alameda County Mosquito Abatement District**  
**Investment, Reserves, and Cash Balance Report**  
**April 30, 2019. (10 of 12 mth, 83%)**

Account #	Investment Accounts	Beginning Balance	Deposits	Withdrawals	Interest Activity	New Balance
800005	LAIF	\$ 2,055,827.04		\$ (308,000.00)	\$ 7,408.86	\$ 1,755,235.90
800006	OPEB Fund	\$ 4,244,383.81			\$ 76,689.62	\$ 4,321,073.43
101106	VCJPA Member Contingency	\$ 343,715.00		\$ -	\$ 4,631.00	\$ 348,346.00
101106.1	VCJPA Property Contingency	\$ 51,332.00		\$ -	\$ 693.00	\$ 52,025.00
800007.1	CAMP: Repair and Replace <sup>1</sup>	\$ 487,908.16		\$ (26,800.00)	\$ 985.32	\$ 462,093.48
800007.2	CAMP: Public Health Emergency	\$ 513,542.18		\$ -	\$ 1,076.36	\$ 514,618.54
800007.3	CAMP: Operating Reserve	\$ 1,897,484.45		\$ -	\$ 3,977.02	\$ 1,901,461.47
800007.4	CAMP: Capital Reserve Fund <sup>2</sup>	\$ 247,809.84		\$ (17,939.00)	\$ 494.42	\$ 230,365.26
800008	PARS: Pension Stabilization <sup>3</sup>	\$ 1,021,194.06			\$ 12,532.92	\$ 1,033,726.98
<b>Total</b>		<b>\$ 10,863,196.54</b>	<b>\$ -</b>			<b>\$ 10,618,946.06</b>
		Beginning Balance		Withdrawals	Activity	New Balance
Cash Accounts						
101110	Bank of America (Payroll Account)	\$ 119,671.24				\$ 117,488.75
101111	Bank of The West (Transfer Account)	\$ 293,041.75				\$ 410,208.82
100001	County Account	\$ 195,936.82				\$ 1,932,603.65
<b>Total</b>		<b>\$ 608,649.81</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,460,301.22</b>

- 1 - \$26,800.00 was transferred from CAMP- Repair and Replace to cover remodel project.  
2 - \$17,939.00 was transferred from CAMP - Capital Reserve Fund to cover solar project fees.  
3- PARS - Pension Stabilization balance is as of March 31, 2019.



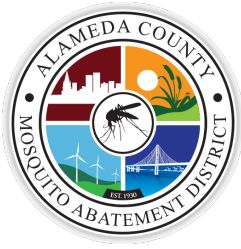
Alameda County Mosquito Abatement Dist.  
Balance Sheet  
April 30, 2019

ASSETS

Current Assets		
Pooled cash and investment	\$	1,932,603.65
VCJPA- Member Contingency		348,346.00
VCJPA - Property Contingency		52,025.00
Cash with LAIF		1,755,235.90
Bank of America payroll		117,546.69
Bank of the West		302,835.37
Petty cash		365.88
CAMP - Repair and Replace		462,093.48
CAMP - Public Health Emergency		514,618.54
CAMP - Operating Reserve		1,901,461.47
CAMP - Capital Reserve Fund		230,365.26
PARS		1,033,726.98
		8,651,224.22
Total Current Assets		8,651,224.22
Property and Equipment		
Acc Dep - stru & improv	(2,316,874.89)	
Acc Dep - equipment	(1,306,030.50)	
Land	61,406.00	
Structure/improvement	4,529,022.67	
Construction in progress	247,309.96	
Equipment	1,619,670.10	
		2,834,503.34
Total Property and Equipment		2,834,503.34
Other Assets		
Net OPEB Asset	716,666.00	
		716,666.00
Total Other Assets		716,666.00
Total Assets	\$	12,202,393.56

LIABILITIES AND CAPITAL

Current Liabilities		
Accounts payable	\$	67,167.63
AP Credit Card		0.10
Acc payroll/vacation		167,855.50
Defer outflow pen cont GASB 68		(818,392.00)
Net pension liability GASB 68		2,642,666.00
Def inflow pen defer GASB 68		809,861.00
Def inflow - 75		41,760.00
		2,910,918.23
Total Current Liabilities		2,910,918.23
Total Liabilities		2,910,918.23
Capital		
Investment in general fixed as	3,638,249.58	
Designated fund balances	4,100,295.19	
Net Income	1,552,930.56	
		9,291,475.33
Total Capital		9,291,475.33
Total Liabilities & Capital	\$	12,202,393.56



## Board of Trustees

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### San Leandro

Subru Bhat

### Union City

### Ryan Clausnitzer

General Manager

## MONTHLY STAFF REPORT – May 2019

### 1. OPERATIONS REPORT

Operations staff continued their push on *Culex tarsalis* during the month of April. These efforts were split with responding to a significant number of requests for service. The district received 299 requests for service in April, close to the 10 year high received for the month. As the weather shifted into spring-like conditions, the results of the late and heavy rains manifested into a lot of insects out in the environment. Significant emergences of Chironomid midges, crane flies and other “mosquito-like” insects caught the attention of residents county-wide. Of the 139 requests for service reporting “mosquito problems”, close to a third were ultimately attributed to midges, crane flies, fungus gnats, and march flies. Operations explain to callers that these insects do not bite or vector disease and that the materials we utilize to control mosquito larvae do not impact these insects. Over 20 of the mosquito call requests for service were resolved by operations staff eliminating or treating sources on the properties of the residents that had placed the call for service. This highlights the importance of ACMAD’s ongoing messaging to our residents; “please check your yards and dump and drain buckets, cans, tires tarps, and other items holding water after the rains”.

Another significant number of requests for service were requests for mosquito fish for backyard ponds, horse troughs and unmaintained swimming pools. Late winter/early spring is often a difficult time to acquire mosquito fish from commercial fisheries due to environmental and biological conditions. In order to keep up with the fish requests received, several members of the operations staff gathered mosquito fish from various sources in the county to stock the districts tanks to keep up with the demand until fish could be purchased from a fishery.

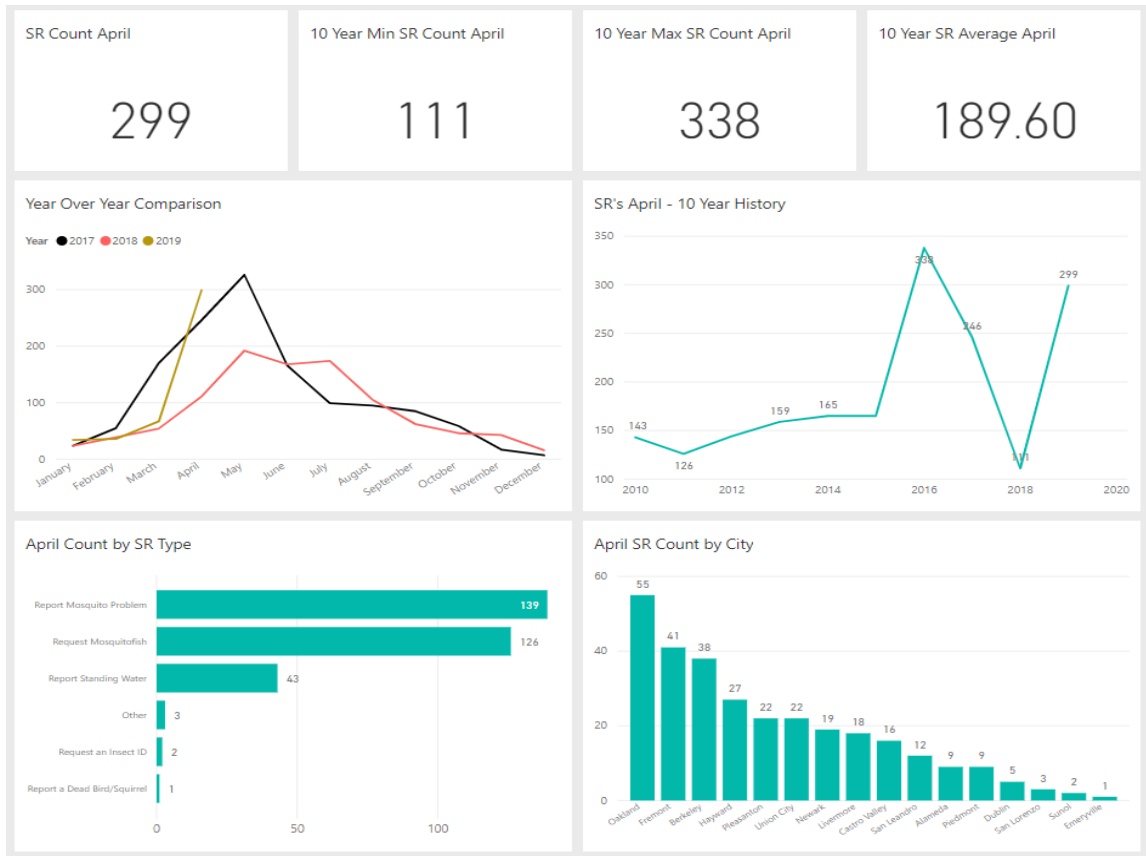
Based on the current weather conditions and field observations, operations staff expect calls regarding “mosquito-like” insects, requests for mosquito fish, and requests to inspect standing water to continue for some time forward. Field collections & observations, service request data, light trap data and CO<sub>2</sub> trapping data all indicate that high levels of control were achieved for our winter species of mosquitoes. Very few adults of *Aedes squamiger*, *Culiseta inornate*, and *Aedes washinoi* were collected in traps. There are a few localized anomalies in adult numbers of *Aedes washinoi* and *Aedes sierrensis* primarily due to access issues with the sources. Extensive rains also contributed to higher numbers of adult *Aedes sierrensis* throughout wooded areas of the county. This species is often very localized and unlike most mosquito species, it typically does not travel far from its source of emergence. Primary habitat for this species is tree-holes but they will also breed in containers and tires filled with leaf debris that mimics their natural breeding sites. Many of these areas are found in back yards, or other areas that are surrounded by poison oak or in difficult areas to locate and access for treatments. Operations staff are making efforts to locate sources so they can be screened, eliminated or pretreated prior to March of 2020.

Detections of our other two *Culex sp.* of concern, *Culex pipiens* and *Culex erythrothorax*. were also made during this month. Operations staff will prioritize inspecting and treating these mosquitoes to lessen the possibility of West Nile virus in the environment.

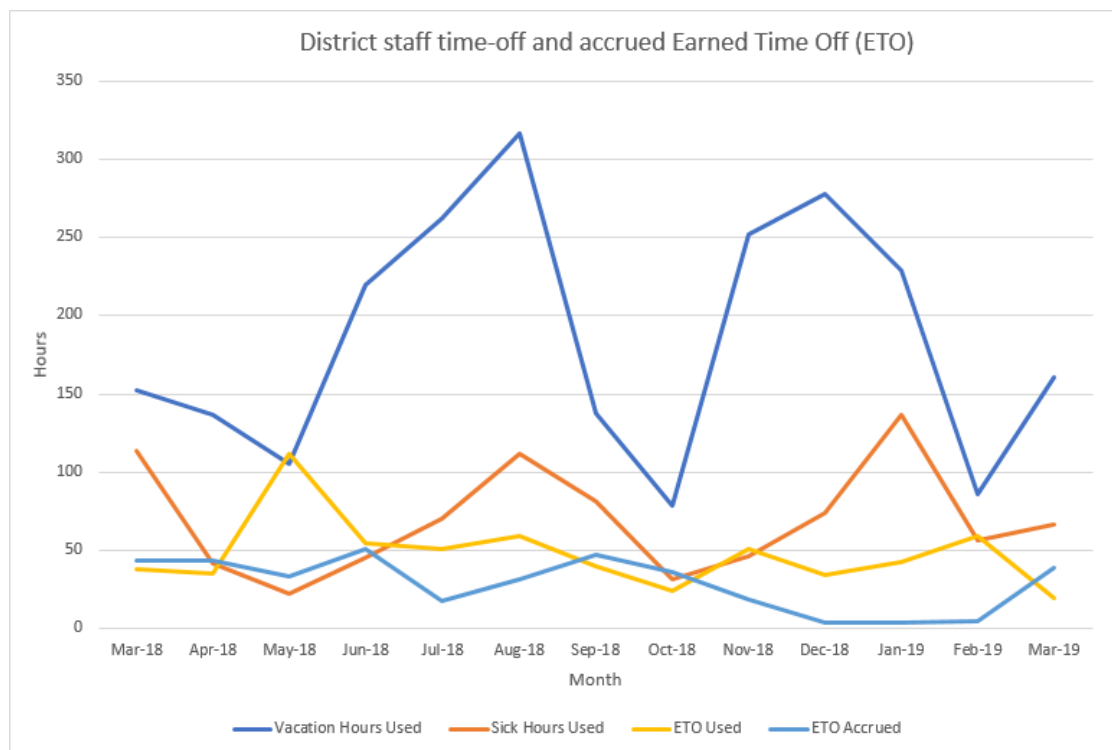
Joseph Huston  
Field Operations Supervisor

## A. District Data

### 1. Service Requests

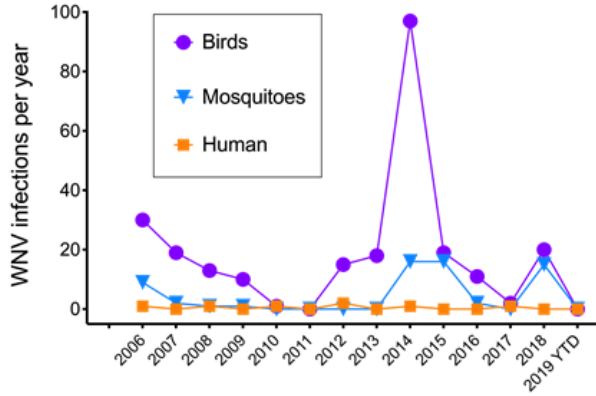


### 2. Activity Report

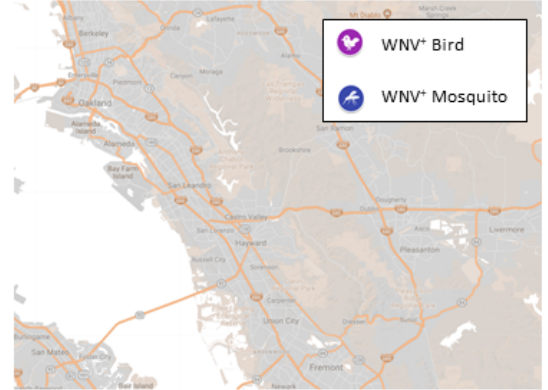


## 2. WNV Activity

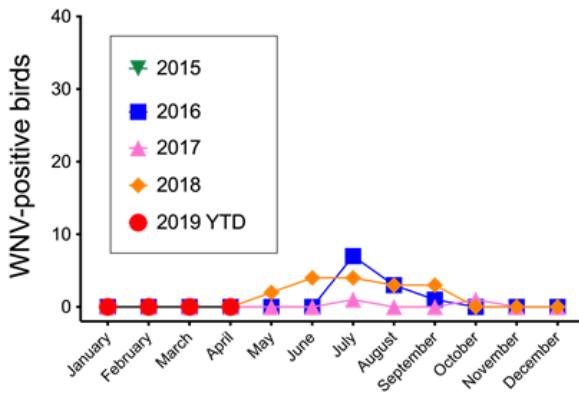
WNV infections detected in Alameda County  
2005 – 2019 YTD



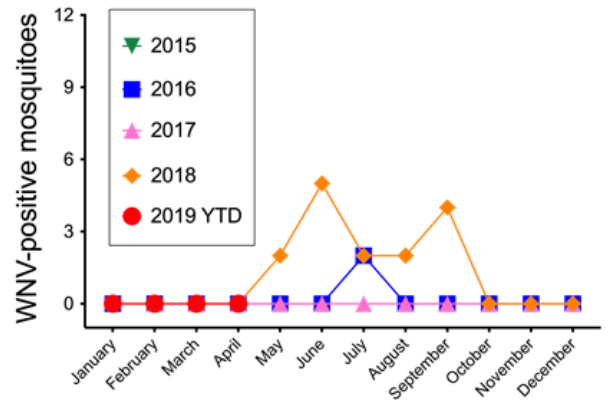
Locations of WNV-infected mosquitoes and birds collected in Alameda County during 2019



WNV-infected birds collected in  
Alameda County



WNV-infected mosquitoes collected in  
Alameda County



### 3. LAB

#### Summary

- West Nile virus (WNV) was not detected in birds or mosquitoes during the month of April.
- Adult mosquito abundance during April 2019 was slightly higher than the prior two years because of late season rainfall followed a rapid increase in temperature.

#### Arbovirus Monitoring

- West Nile virus (WNV) was not detected in birds or mosquitoes during the month of April 2019.
- None of the mosquitoes or birds that were collected during 2019 were found to contain Saint Louis encephalitis virus (SLEV) or Western equine encephalitis virus (WEEV).

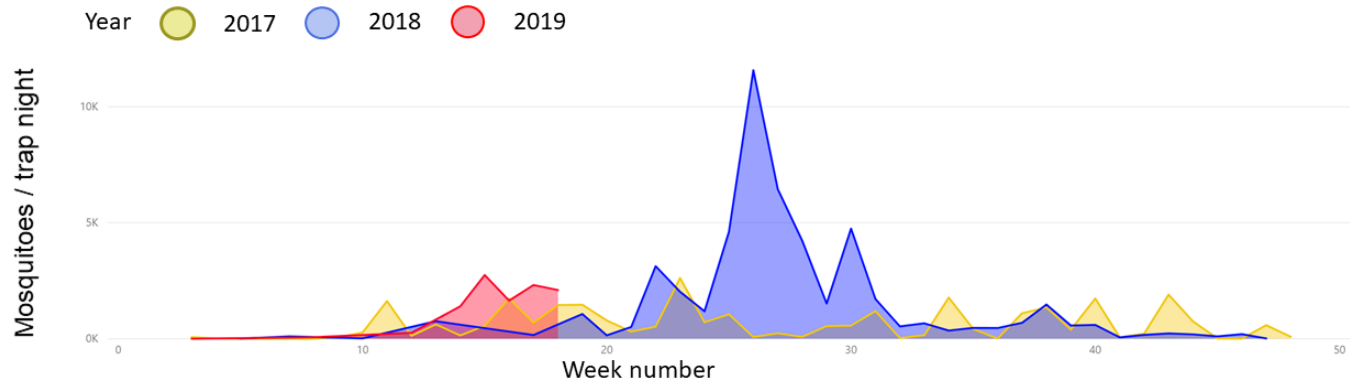
#### Native Mosquito Abundance

- For the month of April, there was 0.47 inches of rainfall and the average maximum temperature was 69 °F (Hayward, CA). The prior two months had average maximum temperatures of 63 °F and 61 °F.
- Warm weather and calm winds during April afforded ample opportunity for placing EVS CO<sub>2</sub> traps. Over the course of the month, 441 EVS CO<sub>2</sub> traps were placed; 10,200 mosquitoes were collected and identified to species (Figure 1). There was an average of 24.8 mosquitoes per trap night, a substantial increase in the number of mosquitoes collected relative to the prior month (n = 254 mosquitoes collected during March 2019). The increase is due to a rapid increase in temperature after moderately heavy rainfall during the prior months. *Culex tarsalis* was the most highly abundant species collected in EVS CO<sub>2</sub> traps, followed by *Aedes washioni* and *Culex erythrorhax* (Figure 2). The geospatial distribution of mosquito species collected in EVS CO<sub>2</sub> traps at each trap site is displayed in Figure 3. Overall, mosquito abundance during April 2019 as measured by EVS CO<sub>2</sub> traps was slightly higher than the prior two years because of higher mosquito abundance in marsh habitats.
- Mosquito abundance, as measured using NJLT, was slightly higher than the prior month (Figure 4; 1.09 and 1.02 mosquitoes / trap night, respectively; total of 786 mosquitoes over 721 trap nights). *Aedes washioni* was the most prevalent species collected in NJLT during April 2019, followed by *Culiseta inornata*, and *Cx. tarsalis* (Figure 5).
- The lab placed 8 Mosquito Magnet Traps in and around Coyote Hills Regional Park. During the month of April, these traps captured a total of 63,062 adult mosquitoes. When combined with the number of mosquitoes captured in EVS CO<sub>2</sub> traps and NJLT, a total of 74,048 adult mosquitoes were captured and killed by lab traps during the month on April.

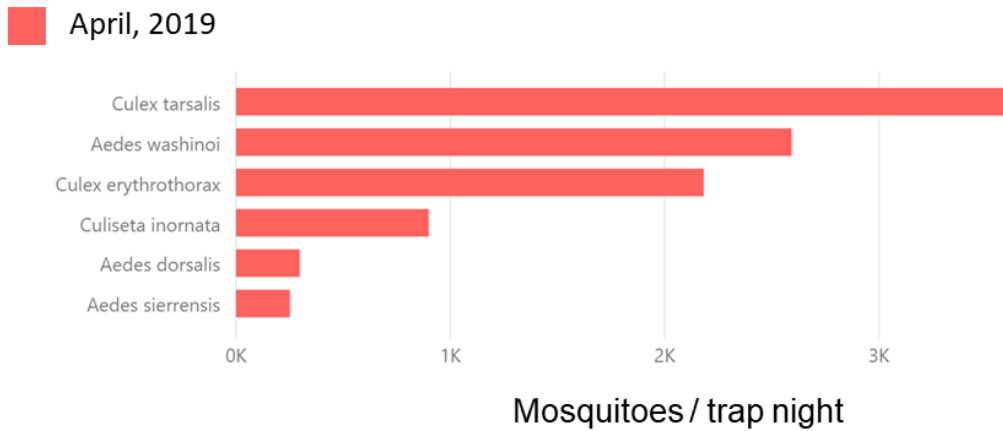
#### Invasive Aedes Monitoring

- Invasive *Aedes* mosquitoes have not been detected in any mosquito trap placed in Alameda County during 2019.

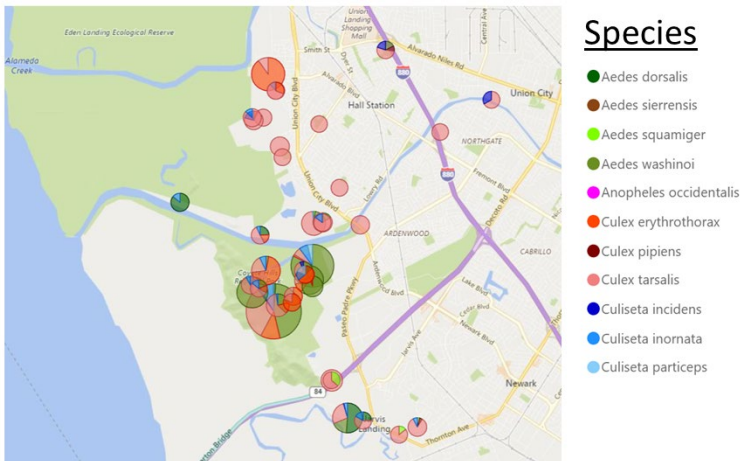
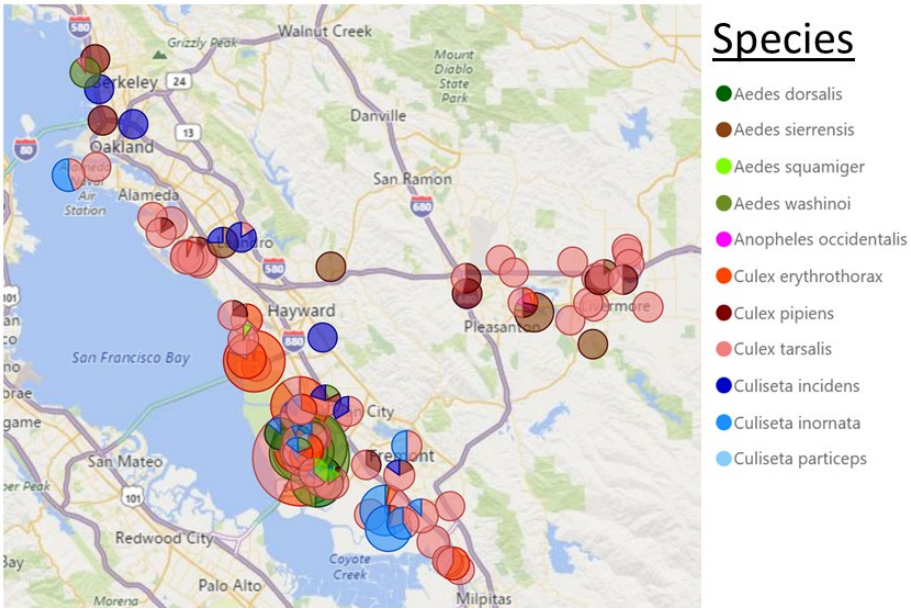
**FIGURES**



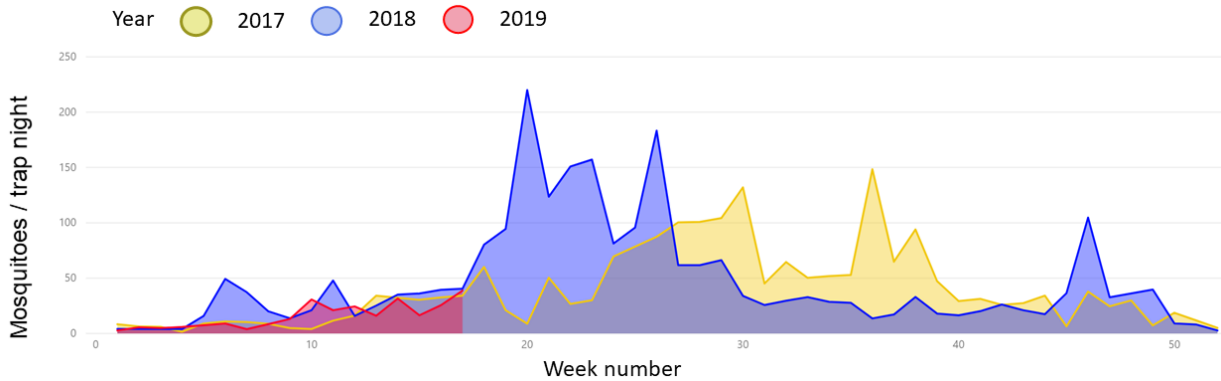
**Figure 1. Mosquitoes captured in EVS CO<sub>2</sub> traps from 2017 – 2019.** A total of 10,200 mosquitoes were captured in EVS CO<sub>2</sub> traps during April 2019 and identified to species.



**Figure 2. The six-most abundant species of mosquito captured during April 2019 using EVS CO<sub>2</sub> traps.**



**Figure 3. Mosquito abundance by trap site evaluated using EVS CO<sub>2</sub> traps.** Pie charts over trap sites indicate the distribution of mosquito species collected at the trap site. The size of the pie charts indicates the relative number of mosquitoes at each site during April 2019. Sites with five or fewer mosquitoes collected in the traps are not shown on the map. (Top) Entirety of Alameda County. (Bottom) Focus upon area around Coyote Hills Regional Park



**Figure 4. Mosquitoes captured in NJLT from 2017 – 2019.** A total of 786 mosquitoes were captured in NJLT during March 2019 and identified to species.

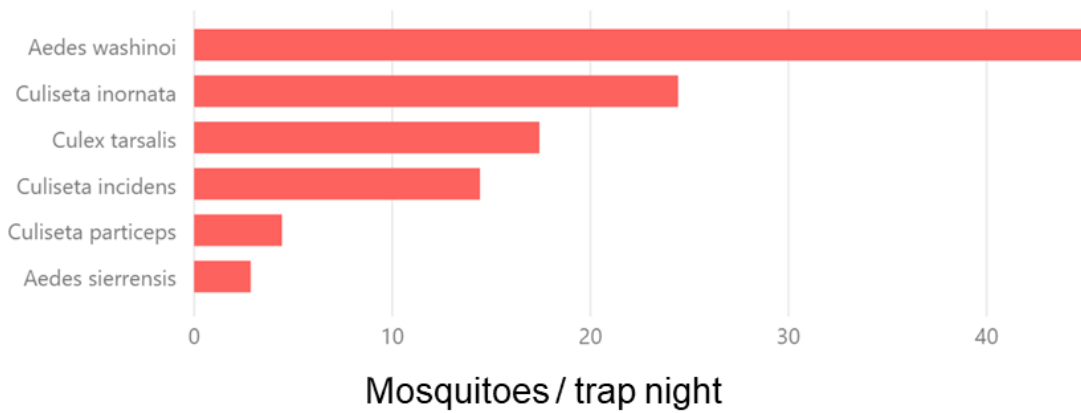


Figure 5. The six-most abundant species of mosquito captured during April 2019 in NJLT.

Slides for presentation by Eric Haas-Stapleton during meeting of the Board of Trustees

Assessing mosquito breeding sites from above

Eric Haas-Stapleton

ACMAD Board of Trustees Meeting  
May 2019

Innovations in Detection  
surface water supporting mosquito breeding

inspect landscape from the ground

hours+ to inspect a marsh  
extensive site knowledge

drone imagery

inspect at 1 acre / min  
simple to fly autonomously

Overview

**Use of drones to:**

- Assess the landscape for accumulated water
- Presence of mosquito larvae

San Francisco Bay Area

Complex airspace

- Most drones are limited to altitudes on grids
- Our COA from FAA permits drone flights up to 400 feet
- Allows landscape imaging

Innovations in Detection  
West Nile virus

cell culture and immunofluorescence

2 - 4 days for results  
laborious assay

RNA isolation and PCR

3 hours for results  
relatively simple assay

Project Rationale & Goal

**Rationale**

- Inspecting habitats from the ground is laborious, can lead to injury, & often not quantitative.

**Goal: use drones to increase capacity & efficiency**

- Quantitatively assess the landscape for standing water & mosquito larvae.
- Reduce impact on managed lands
  - Aerial preferred over terrestrial access to lands



## Our Imaging Drone

- DJI Matrice 210 RTK
- RTK: centimeter precision in location & mapping
- Positioning light
- DJI Z30 video camera with 180x zoom & polarizing filter (view into water)
- SentiRange 3px multispectral camera: evaluate landscape & detect surface water



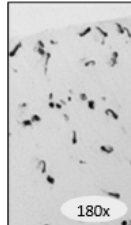
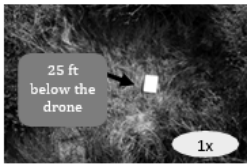
## Visualizing larvae from above more realistic conditions



- Filled black bucket with marsh water & *Culex pipiens* larvae
- Submerged in marsh
- Visualized 25 feet above using drone and video camera

## Visualizing larvae from above

- Placed *Culex pipiens* larvae in white tray
- Visualized 25 ft above with drone & video camera



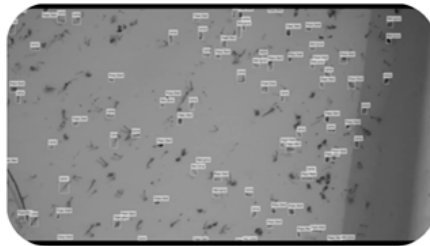
## Evaluate impact of clearing ditches on water accumulation

Locating surface water is crucial for determining where mosquitoes could breed



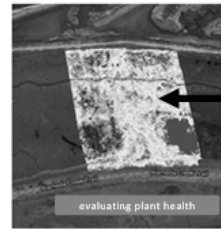
## Visualizing larvae from above

artificial intelligence to locate larvae



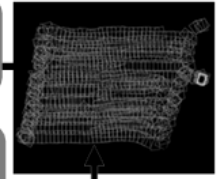
MATLAB with Deep Learning and Computer Vision Toolbox

## Image landscape with drone & multispectral camera



assemble all photos into single image mosaic map

multispectral camera takes 100's of photographs



Satellite imagery: Google Earth

### Evaluate impact of clearing ditches on water accumulation

multispectral camera

low  high  
surface water

located water on mosaic image map using an algorithm

135 acre tidal marsh adjacent to San Francisco Bay

Satellite Imagery: Google Earth

### Evaluate accumulated surface water under willow trees with video camera

~35° camera angle      ~10° camera angle

Vantance 3px multispectral camera

### Evaluate impact of clearing ditches on water accumulation

multispectral camera

low  high  
surface water

135 acre tidal marsh adjacent to San Francisco Bay

Satellite Imagery: Google Earth

### Why the difference?

~35° angle      multispectral camera ~10° angle

Solar elevation was 35° from the horizon

### Evaluate accumulated surface water under willow trees with multispectral camera

multispectral camera could not discriminate shadows from water under trees

shadow

water

### Ongoing development

Off-the-shelf solutions may not accomplish all of the goals

Mosquito Abatement CIVIC 1500 753 7764

Mosquito Abatement 1500 753 7764

## PUBLIC EDUCATION

### A. Events

#### i. Upcoming

- **Eden Ag Day** – Thursday, May 2<sup>nd</sup> (Rowell Ranch, Castro Valley)
- **Livermore Downtown Street Festival** – Saturday, May 18<sup>th</sup>-Sunday, May 19<sup>th</sup> (Livermore)
- **San Leandro Cherry Festival** – Saturday June 1 (San Leandro)
- **Alameda County Fair** – Friday, June 14<sup>th</sup>-Sunday, July 7<sup>th</sup> (Alameda County Fairgrounds, Pleasanton)

### B. Google Analytics

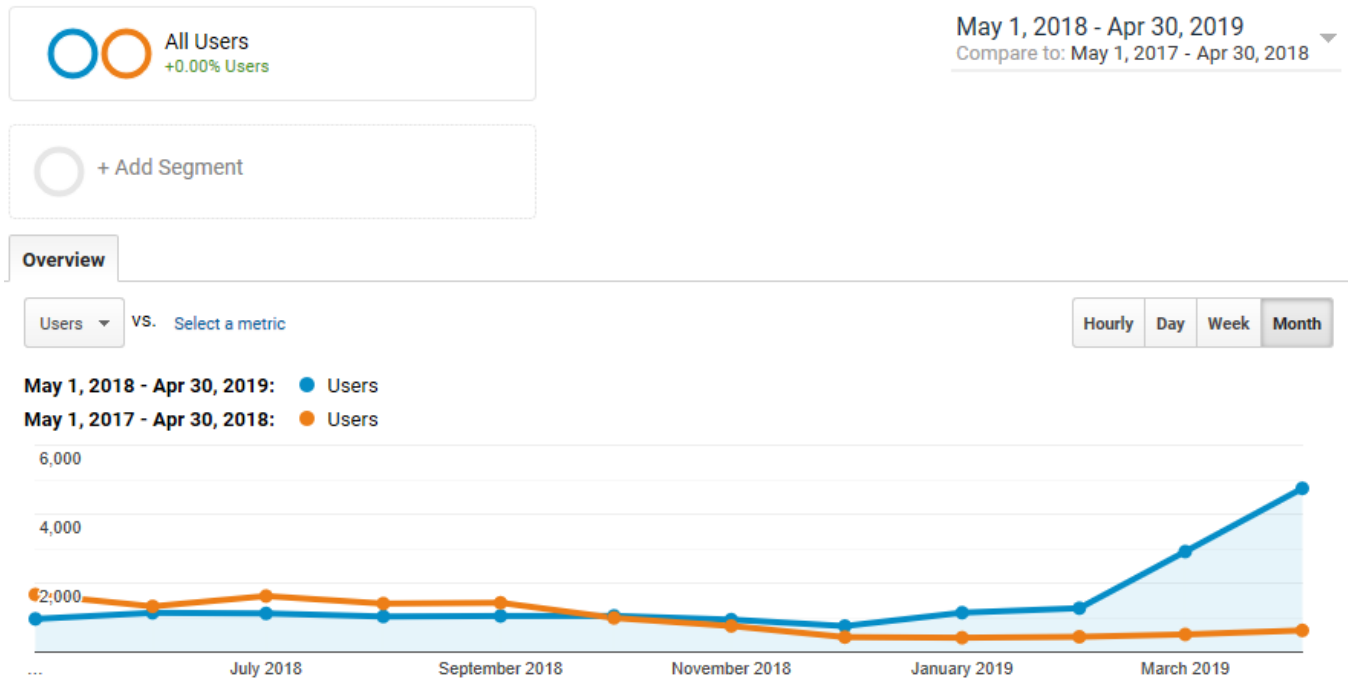


Figure 1. Comparison of website users over the past two years

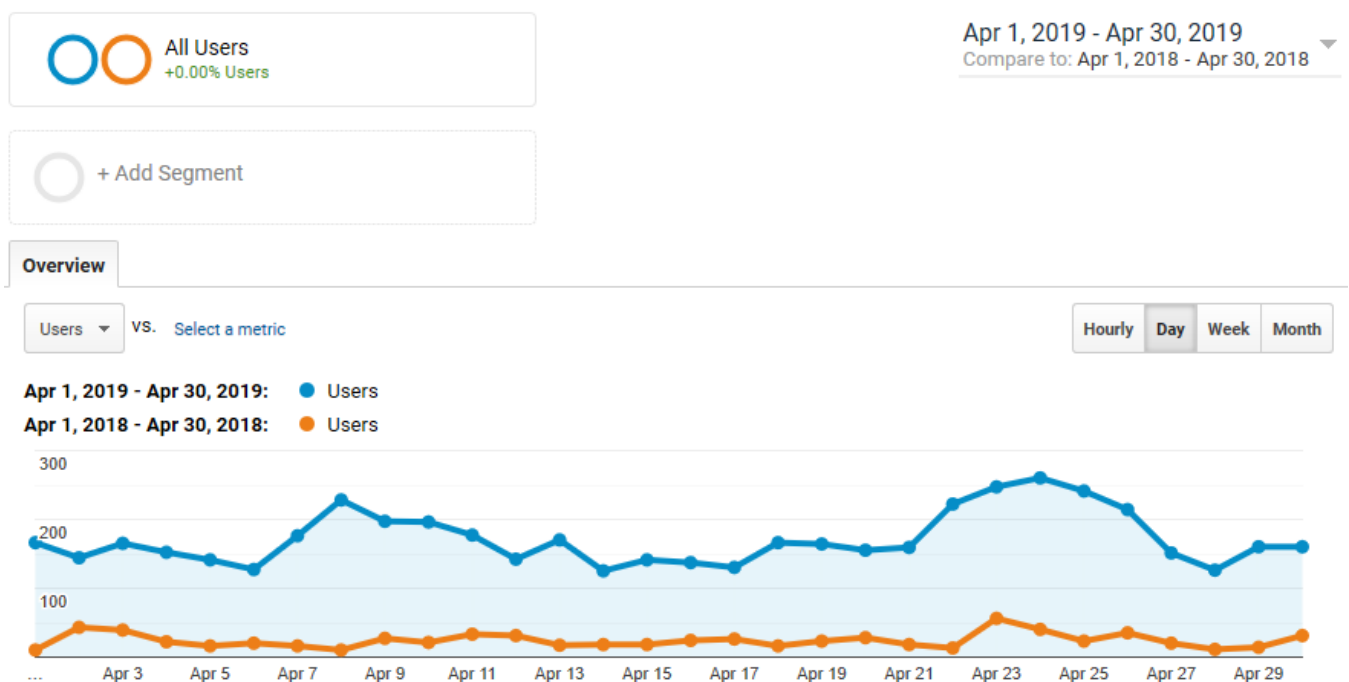
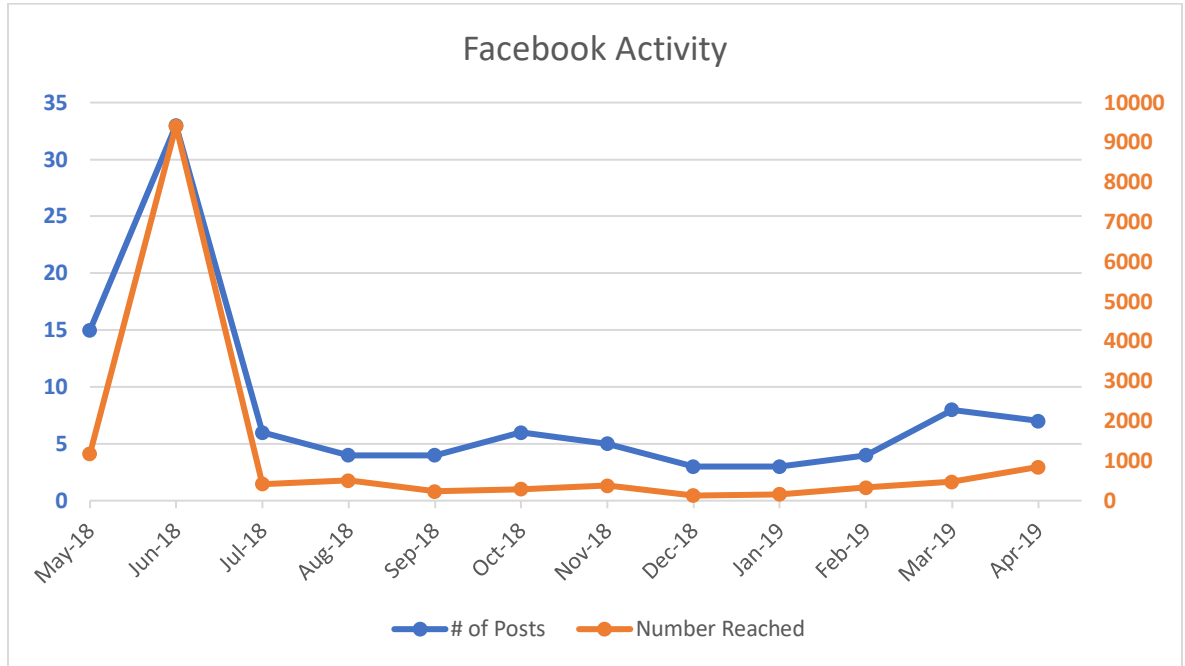


Figure 2. Comparison of website users over the past two years for the month of April.

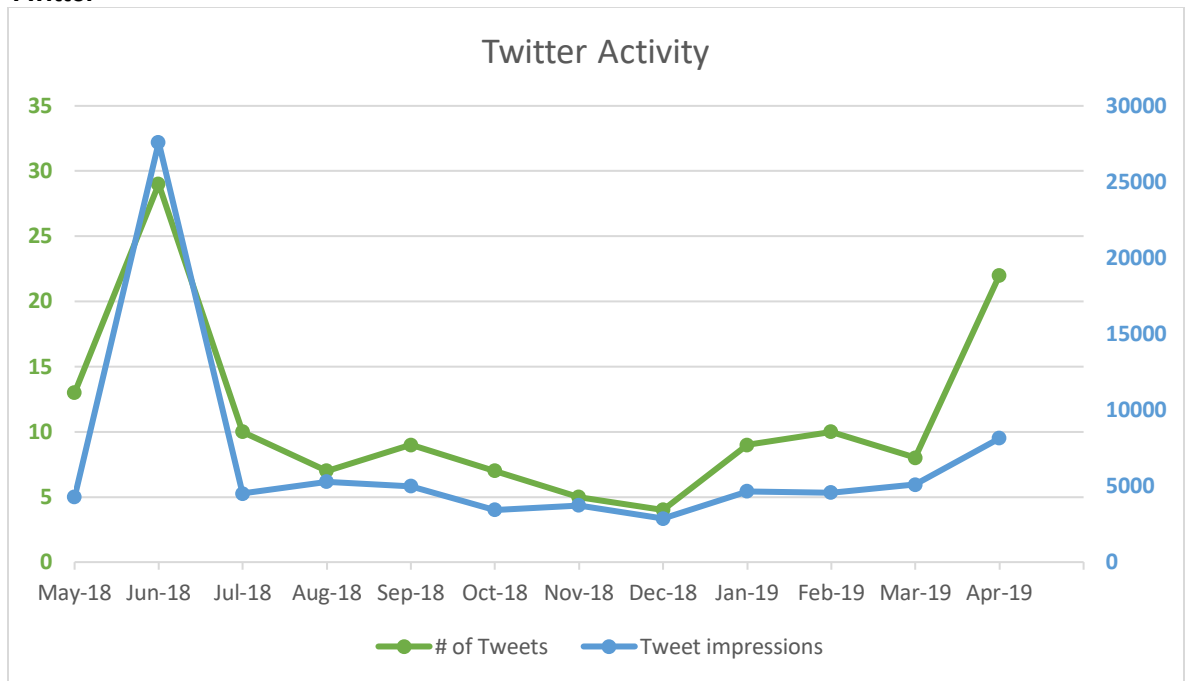
**C. Facebook**



**Total Number of Followers:** 186 (up from 181 in March)

**April's Most Popular Post:** If you missed the news last night be sure to check out our General Manager and Lab Director talking about this mosquito season and what to do if you find a dead bird in this news report. [□ \(Link to news story\)](#)

**D. Twitter**



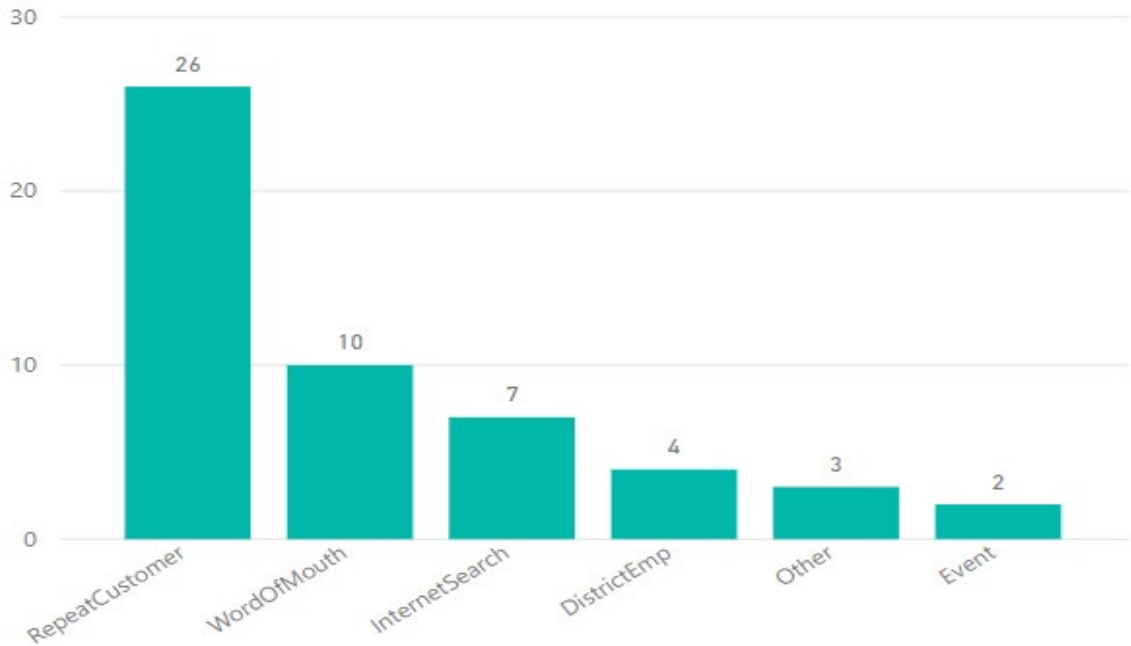
**Number of Profile Visits in April:** 162

**Total Number of Followers (New This Month):** 652 (up from 642 in March)

**Top April Tweet:** There's no rain in sight for the near future, but that doesn't mean there isn't left over water sitting around. This week looks like it will be a little warmer, so check your yard to make sure there isn't any water for mosquitoes to breed in! [□ ☁ ☀](#)

**E. Service Request Referral Summary**

Number of Requests by Channel



**Note:** Property Tax, Social Media, Internet Ad, Billboard Ad, Movie Theater Ads, and Phone Book are also options for this question, but were not included on this chart, because they were not selected in the month of March. Those who chose Other heard about us from the City of Newark, NextDoor, and their Home Owners Association.

4. **LEGISLATIVE UPDATE:**

	Bill Name and description	Status	ACMAD Position	ACMAD Action
<i>California</i>				
<b>MVCAC</b>	<b>AB 320:</b> This bill would create the California Mosquito Surveillance and Research Program, to be administered by the University of California, and would require the University to maintain an interactive internet website for management and dissemination of data on mosquito-borne virus and surveillance control and coordinate with the department, among other functions. The bill would make related findings and declarations.	On suspense in Appropriations Committee	Support	Letter of support



# TAKE ACTION BRIEF

## April 2019

The legislative session is in full swing as committee hearings continue throughout April. However, there will be a short break while legislators return to their districts for Spring Recess April 11 – 21. Hearings will run almost non-stop as legislators work to move their bills before the last day for policy committees on April 26. During this busy legislative season, CSDA encourages you to stay up to date on the current *Calls to Action* by visiting the Take Action page at [csda.net/take-action](http://csda.net/take-action) and sign up to receive the latest legislative alerts through Advocacy News available at [csda.net/advocate/advocacy-blog](http://csda.net/advocate/advocacy-blog).



### Inside this edition of the Take Action Brief:

- CSDA Supported Bill Creates 55% Vote Threshold for Bonds and Special Taxes.....2
- Video Monitoring Legislation Not Moving Forward in 2019.....3
- Developer Impact Fee Bills are Back.....4
- Should Districts Continue to Pay Disallowed Pensions?.....5
- Revised Court Opinion Passes the Cost of State Mandates to District Ratepayers .....6
- 2019 Student Video Contest Launches Next Month .....7
- Learn More, Utilize Resources, Join Today, and Stay Informed.....8

### Contact a local CSDA representative near you!

Dane Wadlé  
 Colleen Haley  
 Cole Karr  
 Steven Nascimento  
 Chris Palmer

Northern & Sierra Networks  
 Bay Area Network  
 Central Network  
 Coastal Network  
 Southern Network

[danew@csda.net](mailto:danew@csda.net)  
[colleenh@csda.net](mailto:colleenh@csda.net)  
[colek@csda.net](mailto:colek@csda.net)  
[stevonn@csda.net](mailto:stevonn@csda.net)  
[chrisp@csda.net](mailto:chrisp@csda.net)



## ➤ 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.*

### **CSDA Supported Bill Creates 55% Vote Threshold for Bonds and Special Taxes**

Currently, the California Constitution requires a two-thirds vote at the local level for both General Obligation (G.O.) bonds and special taxes, regardless of how the city, county, or special district proposes to use the funds.

ACA 1 creates a new constitutional vote threshold of 55 percent for both G.O. bonds and special taxes, when proposed specifically for the construction, reconstruction, rehabilitation, or replacement of public infrastructure or affordable housing, or the acquisition or lease of real property for those purposes. The bill also specifies requirements for voter protection, public notice, and financial accountability.

ACA 1 defines "public infrastructure" to include, but is not limited to, projects that provide the following:

- Water or protect water quality, sanitary sewer, treatment of wastewater or reduction of pollution from storm water runoff
- Protection of property from impacts of sea level rise
- Open space, parks and recreation facilities
- Improvements to transit and streets and highways
- Flood control
- Broadband internet access service expansion in underserved areas
- Local hospital construction
- Public safety buildings or facilities and equipment
- Public library facilities

Under current law, local officials propose a local bond or special tax and then the voters in that community decide whether or not they support the idea. Under ACA 1, voters would still need to overwhelmingly (with 55 percent of the vote) support a bond or special tax in order for it to be approved. ACA 1 will level the playing field and create parity between school districts and special districts, cities, and counties, so that all local governments have a viable financing tool to address community needs.

Cities, counties, and special districts face numerous challenges in securing funding for important local public infrastructure projects. ACA 1 would provide viable financing options while providing robust public accountability. If ACA 1 passes both houses of the Legislature with two-thirds of the vote, it would then be placed on a statewide ballot in 2020 for voter approval.

After securing amendments to include special districts in the new vote threshold for G.O. bonds, CSDA moved to full support of this measure and all special districts are encouraged to submit letters of support. You can find a sample letter on the Take Action page at [csda.net/take-action](https://www.csda.net/take-action).

Should you have any questions about the bill, please contact CSDA Legislative Representative Anthony Tannehill at [anthonyt@csda.net](mailto:anthonyt@csda.net).



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## ➤ 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*

### Video Monitoring Legislation Not Moving Forward in 2019

CSDA's sponsored legislation, [Assembly Bill 510 \(Cooley\)](#), is not moving forward in 2019. The bill, which would have allowed special districts, cities, and counties to adopt their own record retention policies to meet the specific needs of their agencies in lieu of the current one-year standard, has been made a 2-year bill.

In the face of opposition from the Consumer Attorneys, the bill's author, Assemblyman Ken Cooley (D-Ranch Cordova), has decided to delay moving the bill forward in 2019 in the hopes that CSDA and the opposition might find some middle ground before progressing with the bill in 2020, the second year of the two-year legislative session. The additional year to work on this legislation is an attempt to afford time to demonstrate to the opposition that public agencies are not attempting to delete potential evidence in litigation, but rather to save taxpayer dollars by no longer storing useless records at a significant cost.

While delayed for a year, the proposal to preserve significant financial resources associated with the storage of useless digital video records is not dead. Between now and 2020, CSDA staff will be working with special districts, cities, and counties to educate legislators on the costs of video storage and the impacts the current policies have on our limited financial resources.

Thank you to all the special districts that have already submitted letters of support for the legislation. Without your support we would not have made as much progress on elevating the significance of the issue as we have. With your continued support, we hope to successfully move our proposal forward in 2020. Expect to hear more from CSDA on this issue in 2019 and 2020 as we will request data from your agencies about how you currently utilize, store, and share video recordings at your district.

Should you have any questions, comments, or hope to share your experiences utilizing video recordings at your district, please contact CSDA Senior Legislative Representative Dillon Gibbons at [dillong@csda.net](mailto: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.

### Developer Impact Fee Bills are Back

The Legislature is taking a hard look at local policies on land use and accessory dwelling units (ADUs) in 2019. Developers and housing advocates have pushed ADU construction as an answer to California's affordable housing crisis. ADUs can be considered infill development and do not require opening new land for housing, an advantage for policy makers confronting local "NIMBY" (not in my back yard) movements.

This year seven bills on ADU policy have been introduced that affect special districts. The bills focus on promoting ADU construction with a combination of slashing local development fees on ADUs, reducing timeframes for ministerial approval of new units, and restricting local agencies' ability to place requirements on ADUs for parking and other considerations.

[SB 4 \(McGuire and Beall\)](#) – **OPPOSE UNLESS AMENDED** – Contains a package of laws aimed to reduce local discretion for permitting infill housing development. Relevant to special districts, SB 4 includes a ban on impact fees, except connection and capacity charges for sewer, water, and electrical infrastructure, for "neighborhood multifamily" developments. The bill defines neighborhood multifamily developments to include up to a four-unit building in urban communities or up to a duplex in non-urban communities. SB 4 would prevent park and fire districts from collecting impact fees on these developments. A deal has been reached with the author to remove the ban on impact fees until a study by the Department on Housing and Community Development can be completed this spring. Once this amendment is placed into print, CSDA will remove opposition.

[SB 13 \(Wieckowski\)](#) – **OPPOSE** – Prohibits impact fees on ADUs smaller than 750 square feet and significantly limits the impact fees that may be charged to larger ADUs. Given that revenue for local governments is tightly restricted by the California Constitution, fees are one of the few ways special districts can offset the indirect costs of growth. Impact fees are critical for park and fire protection districts trying to recoup their costs for providing infrastructure and services to new accessory dwelling unit developments.

[AB 68 \(Ting\)](#) – **OPPOSE UNLESS AMENDED** –

This bill is substantially similar to AB 2890 (Ting, 2018), which died in the Senate Appropriations Committee. CSDA removed opposition to AB 2890 after amendments were taken to remove provisions banning developer impact fees on ADUs. AB 68, however, contains language that prohibits capacity and connection fees on ADUs or junior ADUs that are "substantially" within the existing space of a single-family dwelling or accessory structure, including, but not limited to, reconstruction of an existing space with "substantially" the same physical dimensions as the existing accessory structure. This is an expansion of the exemption previously established in 2016 under SB 1069 (Wieckowski).

For more information, please contact CSDA Legislative Representative Rylan Gervase at [rylang@csda.net](mailto:rylang@csda.net).



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## ➤ 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.*

### Should Districts Continue to Pay Disallowed Pensions?

[Senate Bill 266](#) by Senator Connie Leyva (D-Chino), which will require public agencies to directly pay retirees for disallowed retirement benefits on an on-going basis, is currently making its way through the Legislature despite public agency opposition.

In 2012, the California State Legislature passed significant public pension reform legislation known as the Public Employees' Pension Reform Act (PEPRA), which took effect January 1, 2013. While the reforms were significant, they led to some confusion as to what may lawfully be offered as employee pension benefits. As a result, some public agencies and their represented employee organizations came to agreements on benefit packages that did not meet the new legal standards to be considered a pensionable benefit. Those future retirement benefits, which were being paid for by employers and employees into pension systems such as the California Public Employees Retirement System (CalPERS), were at some point determined to violate the law and were terminated. Terminated benefits that violate PEPRA are considered "disallowed benefits."

Under current law, once a benefit is determined to be disallowed, both the employer and the employee cease making future payments on that benefit, past contributions from the employee are returned to the employee, while past contributions from the employer are applied towards future payment. Unfortunately, in the case of a **retiree that received the disallowed benefit**, the pension system must recoup the overpaid benefit from the retiree. The pension system must recoup that overpayment from the retiree because it is unlawful to pay out a benefit that is not legally allowable or earned, despite the fact that the retiree did nothing wrong and was only receiving a retirement that was promised to them.

CSDA, along with the League of California Cities and the California State Association of Counties, believe public agencies cannot continue to make payments to retirees as proposed by SB 266 for the same legal basis that requires pension systems to recoup their disallowed retirement benefit payments to retirees. Continued payment of a disallowed benefit to a retiree would constitute a gift of public funds, in violation of Section 6, Article 16 of the California Constitution. While public agencies may feel compelled to make good on agreements reached with employees, they simply cannot continue to make payments directly to a retiree for a disallowed benefit in a manner that is Constitutionally permissible.

Please share any questions or concerns regarding SB 266 with CSDA Senior Legislative Representative Dillon Gibbons at [dillong@csda.net](mailto:dillong@csda.net).



## ➤ LEGAL ADVOCACY

CSDA is the leading legal advocacy voice for all special districts regarding public policy in California and actively tracks and reviews cases of significance affecting special districts in state and federal courts. Under the guidance of CSDA's Legal Advisory Working Group, CSDA files amicus briefs and opines on court cases when appropriate.

### Revised Court Opinion Passes the Cost of State Mandates to District Ratepayers

On March 20, the Third District Court of Appeal issued a revised opinion in [\*Paradise Irrigation District, et al. v. Commission on State Mandates, et al.\*](#), holding that water and irrigation districts are not entitled to reimbursement for state mandates because they may pass the cost to their ratepayers by raising local fees and charges. As justification, the court stated it must “presume voters will give appropriate consideration and deference to proposals of fees by the boards of the Water and Irrigation Districts.”

The Court of Appeal granted a petition for rehearing last year, and it appears to have done so simply to sharpen and clarify the legal analysis in its opinion. The revised opinion reaches the same unfavorable conclusion as the previous opinion issued in October 2018, although the revised opinion properly distinguishes between the statutory authority for water districts and irrigation districts and includes a broader analysis of whether a “voter-approval” requirement exists for increases in water service charges. The court held that the California Water Code provides water districts and irrigation districts statutory authority to “fix and collect charges” for services provided, and that the Proposition 218 protest procedure requirements does not divest them of their authority to levy such charges.

The court explicitly did not rule comprehensively on the issue of state mandate reimbursement eligibility for all special districts that do not receive tax revenue. Moreover, it rejected the trial court’s “try and fail” test, which suggested districts could potentially be entitled to reimbursement after demonstrating their residents defeated the proposed increase with a majority protest. Instead, the Court of Appeal stated it must “presume voters will give appropriate consideration and deference to proposals of fees by the boards of the Water and Irrigation Districts.”

CSDA has been involved in this case on behalf of its members for over two years. On August 23, the Sacramento Bee published an [op-ed by CSDA CEO Neil McCormick](#) calling out the Commission on State Mandates (“Commission”) for blocking mandate reimbursements to special districts that charge a fee for service. The op-ed presented the local government perspective and explained how the Commission’s actions force Californians to choose between sacrificing the quality of their local services and paying ever-higher local utility rates to fund new state programs they haven’t asked for.

In 2016, the Sacramento Superior Court held that some special districts are not eligible to claim reimbursement from the Commission because they do not collect or expend “proceeds of taxes” subject to the tax and spend limitations of Articles XIII A and B of the California Constitution. The court supported the Commission’s determination that reimbursement for a state mandate is required only if a local agency is compelled to rely on “proceeds of taxes” to meet the mandate. Furthermore, the Superior Court held that the period for filing a test claim by a special district does not begin to run until a district has “tried and failed” to recover the costs through fees or charges subject to the majority protest requirement.

In 2017, the Association of California Water Agencies (ACWA) and California Association of Sanitation Agencies (CASA) joined CSDA to file an [amicus brief](#) with the Court of Appeal.

The plaintiff special districts in this case may file a petition for review by the Supreme Court of California. Should that happen, CSDA is prepared to file a letter in support of the petition, as well as a brief on the merits to the Supreme Court.

If you have any questions about this case, contact Legislative Analyst – Attorney Mustafa Hessabi at [mustafah@csda.net](mailto:mustafah@csda.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](http://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.

### 2019 Student Video Contest Launches Next Month

On May 1, Districts Make the Difference will launch the 2019 Student Video Contest! The new submission period will run from **May 1 to September 30** to allow more students to participate.

It's never too early for students to start working on their videos starring special districts. Students are encouraged to be as creative as possible when making their 60-90 second videos. That's correct, the length of the videos has also been extended! Students can now create videos up to 90 seconds long.

Do you know a student who may be interested? Do you know a teacher, principal, superintendent, or school board member that can help promote the contest? Spread the word!

Chapters are also encouraged to hold a local contest in conjunction with the statewide competition. A toolkit detailing how to facilitate a local contest will be available by mid-April. Last year, the Alameda County Special Districts Association, Contra Costa Special Districts Association, and Santa Clara County Special Districts Association all held local contests and selected a local student winner from their communities.

Hosting a local contest is a wonderful way for students to learn about your special district and potentially win a scholarship! Promotional materials including a flyer and the social media graphics are also available on the Districts Make the Difference website at [www.DistrictsMakeTheDifference.org/video-contest](http://www.DistrictsMakeTheDifference.org/video-contest).

For more information about the contest and to watch last year's winning videos, visit the [Districts Make the Difference website](http://www.DistrictsMakeTheDifference.org).

The flyer features a dark blue header with the text "Show Us How Special Districts Make the Difference." Below this is a horizontal strip of small images representing various special districts. The main body of the flyer is light blue with a starburst pattern. The text "VIDEO contest coming soon" is prominently displayed in large, bold, yellow and white letters. Below this, the prize amounts are listed: "1ST PLACE-\$2,000 SCHOLARSHIP", "2ND PLACE-\$1,000 SCHOLARSHIP", and "3RD PLACE-\$500 SCHOLARSHIP". A blue starburst graphic contains the text "BEGINS May 1 2019". At the bottom, the website URL "www.DistrictsMakeTheDifference.org/video-contest" is provided.



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## ➤ OTHER WAYS TO TAKE ACTION

### Learn More

The 2019 General Manager Leadership Summit is coming back again this year in **Newport Beach** on **June 23-25, 2019!** The General Manager Leadership Summit is a way for you to come together with other special district leaders from throughout the state to network and learn more about your specific job responsibilities and emerging trends. This conference will feature two keynote speakers: Troy Hazard, Entrepreneur and Galen Emanuele, International Keynote Speaker. In addition, there will be breakout session speakers including Marcie Frost, CalPERS CEO. They will each get to talk and share tips, advice, and experiences on how you can be a successful manager.

Check out the official 2019 General Manager Leadership Summit page at [csda.net/gmsummit/home](https://csda.net/gmsummit/home) to register and view the complete schedule! Register by **Friday, May 24** to save \$50!

### Utilize Resources

Participants of CSDA's Commercial Card program recently received rebates totaling over \$29,000, with some agencies receiving more than \$2,000 cash back. Especially designed for CSDA members and administered by Umpqua Bank, the CSDA Commercial Card program provides online reporting tools, greater security over employee spending, and enhanced rebate opportunities. Fleet program benefits are also available. Contact Member Services at [877.924.2732](tel:877.924.2732) for more information.

### Join Today

Join an Expert Feedback Teams to provide CSDA staff with invaluable insights on policy issues. Email [marcusd@csda.net](mailto:marcusd@csda.net) to inquire about joining one of the following teams:

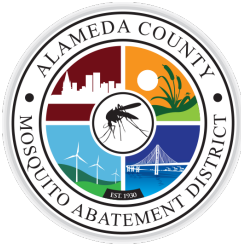
- Budget, Finance and Taxation
- Environment
- Formation and Reorganization
- Human Resources and Personnel
- Governance
- Public Works and Contracting

### 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](mailto:advocacy@csda.net) for help accessing these additional member resources.



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### Trustee & Staff Anniversary Recognitions:

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**San Leandro**

Subru Bhat

**Union City**

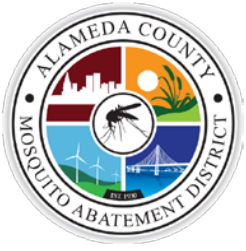
**Ryan Clausnitzer**

*General Manager*

**Background:**

ACMAD is pleased to recognize and thank the following Trustees & Staff on their anniversaries in the month of May

Trustee	City	Years of Service	Anniversary Date
Robert Dickinson	Piedmont	5	May 1st
Employee	Title	Years of Service	Anniversary Date
Jeremy Sette	Mosquito Control Technician	4	May 18th



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Victor Aguilar

### **San Leandro**

Subru Bhat

### **Union City**

### **Ryan Clausnitzer**

*General Manager*

## ACMAD Manager Evaluation Committee Annual Evaluation Process

Annually in June, the General Manager (GM) is evaluated by the Manager Evaluation Committee (the "committee") which consists of the current Board President, the past Board President, and the future Board President. The following timeline will attempt to assist those Trustees assigned to this task:

1. May regular Board meeting (2<sup>nd</sup> Wednesday of May)

An information item in the Manager's report will remind the committee that the evaluation will be due by the June's meeting.

2. Post-May regular board meeting

The GM will contact the committee members with copies of a blank evaluation form, a self-evaluation, along with the signed evaluation from the prior year.

The committee, led by the current Board President, will coordinate a meeting time with the other committee members to discuss and complete the evaluation.

3. At least one week before June regular board meeting

The Board President will contact the GM to set up a meeting to discuss the completed evaluation, giving her/him time to review before the June Board meeting. The GM and the committee have the option to meet prior to the June meeting to sign off on the evaluation, and discuss any updates related to compensation which could include a salary survey based on the San Mateo, Contra Costa, Napa, and Marin/Sonoma mosquito districts.

4. Prior to the June regular Board meeting

The Board President, and/or the committee, will meet with the GM prior to the regular board meeting to agree on the evaluation and compensation agreement.

5. June regular Board meeting

After the GM leaves the board room, the committee will provide printed copies of the evaluation to the Board in a closed session for discussion, collecting them after. The committee will also recommend the compensation for the following fiscal year.

The Board will come out of closed session, rejoined by the GM, where the Board President will report out the compensation request and ask for a motion to approve this action.