

AGENDA
1113th MEETING OF THE BOARD OF TRUSTEES
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
MAY 10TH, 2023

TIME: 5:00 P.M.

PLACE: Join in person at the Office of the District
23187 Connecticut Street, Hayward, CA 94545 or
Join remotely via teleconference: <https://us02web.zoom.us/j/83799532529>
see below for additional details.

TRUSTEES: Victor Aguilar, President, City of San Leandro
Cathy Roache, Vice-President, County-at-Large
Steve Cox, Secretary, City of Livermore: *from 1188 S. Livermore Ave, Livermore, CA*
Tyler Savage, City of Alameda: *from 2315 Lincoln Ave, Alameda, CA*
Robin López, City of Albany: *from 435 Gooding Way #456 Albany, CA*
P. Robert Beatty, City of Berkeley
Kashef Qaadri, City of Dublin
Courtney Welch, City of Emeryville: *from 6301 Shellmound St, Emeryville CA*
George Young, City of Fremont
City of Hayward, vacant
Eric Hentschke, City of Newark
Jan O. Washburn, City of Oakland
Hope Salzer, City of Piedmont: *from 76 Cambrian Ave, Piedmont, CA*
Valerie Arkin, City of Pleasanton: *from 3740 Newton Way, Pleasanton, CA*
Subru Bhat, City of Union City

1. Call to order.
2. Roll call.
3. President Aguilar 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 1112th Regular Meeting held April 12th, 2023 (**Board action required**).
5. Approval of the final budget for fiscal year 2023-24 (**Board action required**)
6. Presentation of the preliminary Engineers Report for fiscal year 2023-2024 by Melanie Guillory-Lee from SCI Consulting Group (Information only).
7. Resolution 1113-1 intending to continue assessments for fiscal year 2023-24, preliminarily approving the engineer's report, and providing for notice of hearing. (**Board action required**)
8. Proposal to switch change transfer bank from Bank of the West to Five Star Bank (**Board action required**).
 - a. Staff report
 - b. Five Star Bank Proposal

9. Financial Reports as of April 30th, 2023: (Information only).
 - a. Check Register
 - b. Income Statement
 - c. Investment, reserves, and cash report
10. Presentation of the Monthly Staff Report (Information only).
11. Presentation of the Manager's Report (Information only).
 - a. Trustee Anniversary Recognition
 - b. CDPH Weekly Arbovirus report
 - c. CSDA Annual Conference: Monday, August 28th – Thursday, August 31st in Monterey
 - d. National Special District Coalition update: Summary of Washington D.C. fly-in (April 17-20), and upcoming Florida Association of Special District Conference (June 12-15)
California CLASS JPA update
 - e. LAFCO Independent Special District Selection Committee election for the Non-Enterprise Special District Commissioner on May 10th at 10am, after the ACSDA meeting at 224 W Winton Ave Room 160.
 - f. Training due: Ethics Education (AB 1234): Lopez
Training for Supervisors (AB 1825): Lopez, Young
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.

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

Please Note: Board Meetings are accessible to people with disabilities and others who need assistance. Individuals who need special assistance or a disability-related modification or accommodation (including auxiliary aids or services) to observe and/or participate in this meeting and access meeting-related materials should contact Ryan Clausnitzer at least 48 hours before the meeting at 510-783-7744 or acmad@mosquitoes.org.

IMPORANT NOTICE REGARDING MEETING PARTICIPATION:

All members of the public seeking to observe and/or to address the local legislative body may participate in the meeting by attending in person at the address listed above, telephonically, or otherwise electronically in the manner described below.

HOW TO OBSERVE THE MEETING:

In Person: Attend in person at the Office of the District located at 23187 Connecticut Street, Hayward, CA 94545.

Telephone: Listen to the meeting live by calling Zoom at **(669) 900-6833** Enter the **Meeting ID# 837 9953 2529** followed by the pound (#) key.

Computer: Watch the live streaming of the meeting from a computer by navigating to <https://us02web.zoom.us/j/83799532529>

Mobile: Log in through the Zoom mobile app on a smartphone and enter **Meeting ID# 837 9953 2529**

HOW TO SUBMIT PUBLIC COMMENTS:

Before the Meeting: Please email your comments to acmad@mosquitoes.org, write "Public Comment" in the subject line. In the body of the email, include the agenda item number and title, as well as your comments. If you would like your comment to be read aloud at the meeting (not to exceed three minutes at staff's cadence), prominently write "Read Aloud at Meeting" at the top of the email. All comments received before 12:00 PM the day of the meeting will be included as an agenda supplement on the district's website under the relevant meeting date and provided to the Trustees at the meeting. Comments received after this time will not be read aloud but will be added to the record after the meeting.

During the Meeting: The Board President or designee will announce the opportunity to make public comments. Speakers will be asked to provide their name and city of residence, although providing this is not required for participation. Each speaker will be afforded up to 3 minutes to speak unless another time is specified. Speakers should remain silent and/or will be muted until their opportunity to provide public comment.

In Person: Members of the public may raise their hand and wait to be recognized by the Board President or designee.

Telephone: Press star (*)9, which will alert staff that you have a comment to provide.

Computer or Mobile: Use the "raise hand" feature to alert staff that you have a comment to provide.

PUBLIC RECORDS:

Public records that relate to any item on the open session agenda for a meeting are available for public inspection. Those records that are distributed after the agenda posting deadline for the meeting are available for public inspection at the same time they are distributed to all or a majority of the members of the Board. The Board has designated the District's website located at <https://www.mosquitoes.org/board-of-trustees-regular-meetings> as the place for making those public records available for inspection. The documents may also be obtained by emailing acmad@mosquitoes.org.

CEQA NOTICE:

Unless expressly stated otherwise on the agenda (that an MND or EIR is being considered), discretionary actions taken on agenda items will include a finding by the Board that the action is exempt under CEQA. More information about the CEQA determination can be found in the corresponding staff report.

MINUTES

1112th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

April 12th, 2023

TIME: 5:00 P.M.
PLACE: Join in person at the Office of the District
23187 Connecticut Street, Hayward, CA 94545 or
Join remotely via teleconference: <https://us02web.zoom.us/j/85139556831>
see below for additional details.
TRUSTEES: Victor Aguilar, President, City of San Leandro
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Robin López, City of Albany: *from 435 Gooding Way #456 Albany, CA*
P. Robert Beatty, City of Berkeley
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Valerie Arkin, City of Pleasanton: *from 3740 Newton Way, Pleasanton, CA*
Subru Bhat, City of Union City

1. Board President Aguilar called the regularly scheduled board meeting to order at 5:03 P.M.
2. Trustees Aguilar, Roache, Beatty, Qaadri, Young, Cox, Hentschke, Washburn and Bhat were present in-person at the district. Trustees Savage, Salzer, and Arkin attended remotely from the publicly posted locations noted above. Trustee Welch logged into the zoom meeting at 5:12 P.M. Trustee López was absent.
3. Introduction of new Board Member Mr. Kashef Qaadri, representing the City of Dublin (Information only). Trustee Qaadri provided a brief introduction to the Board and was welcomed by all.
4. Board President Aguilar invited members of the public to speak on any issue relevant to the District. Information & Technology Director, Robert Ferdan, was present for technical support. Financial & HR Specialist, Michelle Robles, was present for item #8 and to record minutes. No public comments were submitted.
5. Approval of the minutes of the 1111th meeting held March 8th, 2023.
Motion: Trustee Washburn moved to approve the minutes
Second: Trustee Cox
Vote: Motion carries: unanimous.
6. Election of Board Secretary (**Board action required**)

Discussion:

(President Aguilar moved this item up awaiting the arrival of Supervisor Márquez), The General Manager gave a brief background on the process for electing the Board Secretary.

Motion: Trustee Beatty moved to elect Trustee Cox as the Board Secretary

Second: Trustee Arkin

Vote: Motion carries: unanimous.

7. Resolution 1112-1 honoring former City of Hayward Trustee, Alameda County Supervisor Elisa Márquez (**Board action required**)

Discussion:

Board President Aguilar read Resolution 1112-1 honoring former City of Hayward Trustee, Alameda County Supervisor Elisa Márquez. Trustees expressed their appreciation for all Márquez has done for this District with Trustee Roache mentioning her appearance at the Supervisor's swearing-in ceremony. Márquez thanked everyone and expressed that it has been an honor to serve on the Board.

Motion: Trustee Beatty moved to approve the resolution for former City of Hayward Trustee and current Alameda County Supervisor Elisa Márquez.

Second: Trustee Bhat

Vote: Motion carries: unanimous.

8. First draft of the 2023-24 budget for discussion only; appointment of a Finance Committee Chair (**Board action required**)

Discussion:

The General Manager explained that former City of Hayward Trustee, Alameda County Supervisor Elisa Márquez was the Chair for the Finance Committee, since Trustee Bhat has been a long-time member of the committee, it is recommended that Bhat be appointed Chair. The General Manager also mentioned that Trustee Roache has joined the Finance Committee based on her experience with County budgeting. Trustee Bhat presented on behalf of the Finance Committee and explained that the committee has reviewed the budget in detail twice now. The General Manager gave a background on the timeline of the budget process and fielded the following discussion: Trustee Beatty asked if the initials on the staff report are for the individual staff that are responsible for that specific account (yes). Trustee Qaadri asked for clarification on why there was a large swing in the Miscellaneous revenue (during the 21/22 fiscal year the district received a COVID relief fund from CSDA and the IT director provided services to a neighboring district) and asked about the change in professional services (while the percent change may look large, the actual values aren't a huge difference). Trustee Salzer mentioned that it may be more appropriate to have the helicopter service in the operations category (yes, that will be changed). Trustee Washburn gave a background on the experience the district has had in the past using the helicopter service.

Motion: Trustee Beatty moved to appoint Trustee Bhat as the Finance Committee Chair

Second: Trustee Washburn

Vote: Motion carries: unanimous.

9. Financial Reports as of March 31st, 2023:

Discussion: The General Manager went over the Financial Reports and thanked the Trustees for signing checks.

10. Presentation of the Monthly Staff Report

Discussion:

The General Manager summarized the staff report.

11. Presentation of the Manager's Report

Discussion:

The General Manager reported that he has completed the city council presentations for Fremont, Piedmont, and Emeryville and explained that he is still waiting to hear back from Alameda County and Oakland. Trustee Bhat asked if there are any costs associated with switching the districts email domain to .gov (no).

12. Board President Aguilar asks for reports on conferences and seminars attended by Trustees:

Discussion:

None.

13. Board President Aguilar asks for brief announcements from members of the Board:

Discussion:

None.

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

Discussion:

The General Manager noted that the 2nd reading of the budget, a benefit assessment presentation by SCI Consulting, and a proposal from the Finance Committee to switch transfer banks will be on the agenda.

15. Adjournment at 6:07 pm

Respectfully submitted,

Approved as written and/or corrected
at the 1112th meeting of the Board of
Trustees held April 12th, 2023

Victor Aguilar, President
BOARD OF TRUSTEES

Secretary
BOARD OF TRUSTEES

	Budget 23/24	Year to year % budget change	Budget 22/23	Actual 21/22	A vs B	Budget 21/22	Actual 20/21	Budget 20/21	Actual 19/20	Budget 19/20
REVENUES										
Ad Valorem Property Taxes	\$ 2,842,050	3%	\$ 2,755,397	\$ 2,759,272	7%	\$ 2,580,814	\$ 2,624,188	\$ 2,300,000	\$ 2,502,132	\$ 2,494,800
Special Tax & Benefit Assessment	\$ 2,008,405	1%	\$ 1,981,814	\$ 1,988,520	0%	\$ 1,981,959	\$ 1,962,192	\$ 1,821,600	\$ 1,951,959	\$ 1,986,806
Interest earned (restricted fund interest NOT included as revenue)	\$ 20,000	0%	\$ 20,000	\$ (4,799)	-116%	\$ 30,000	\$ 19,208	\$ 30,000	\$ 176,499	\$ 30,000
Sale of Property and Equipment & Misc.	\$ 5,000	100%	\$ 2,500	\$ 121,218	2324%	\$ 5,000	\$ 1,038	\$ 5,000	\$ 14,775	\$ 5,000
Reimbursable Retiree Health Benefits and fees from OPEB	\$ 133,348	-5%	\$ 140,946	\$ 135,592	-19%	\$ 168,091	\$ 163,355	\$ 164,913	\$ 163,355	\$ 163,630
Total Revenue (see figure 1)	\$ 5,008,804	2%	\$ 4,900,658	\$ 4,999,803	5%	\$ 4,765,864	\$ 4,769,981	\$ 4,321,513	\$ 4,808,720	\$ 4,680,236
EXPENDITURES										
Salaries (including deferred comp.)	\$ 2,462,469	4%	\$ 2,371,703	\$ 2,121,872	-5%	\$ 2,236,282	\$ 2,037,043	\$ 2,116,177	\$ 1,980,518	\$ 2,035,791
CalPERS Retirement	\$ 553,955	4%	\$ 534,559	\$ 471,085	-1%	\$ 473,950	\$ 423,110	\$ 423,350	\$ 378,833	\$ 360,538
Medicare & Social Security	\$ 40,292	4%	\$ 38,763	\$ 30,026	-9%	\$ 33,062	\$ 27,867	\$ 31,278	\$ 29,651	\$ 30,843
Fringe Benefits	\$ 605,491	7%	\$ 564,969	\$ 484,487	-16%	\$ 579,596	\$ 502,898	\$ 527,031	\$ 465,466	\$ 502,043
Total Salaries, Retirement, & Benefits (pgs. 2,3) (see figure 3)	\$ 3,662,207	4%	\$ 3,509,995	\$ 3,107,470	-6%	\$ 3,322,891	\$ 2,990,918	\$ 3,097,836	\$ 2,854,468	\$ 2,929,215
Service & Supplies (Clothing & Personal supplies)	\$ 9,000	0%	\$ 9,000	\$ 7,882	-21%	\$ 10,000	\$ 4,859	\$ 10,000	\$ 6,214	\$ 8,000
Service & Supplies (Laundry services & supplies)	\$ 13,000	0%	\$ 13,000	\$ 10,417	-31%	\$ 15,000	\$ 9,125	\$ 15,000	\$ 10,648	\$ 12,750
Utilities	\$ 23,700	9%	\$ 21,700	\$ 18,135	7%	\$ 17,000	\$ 15,422	\$ 12,000	\$ 25,962	\$ 12,600
Small tools and instruments	\$ 3,000	0%	\$ 3,000	\$ 1,963	-35%	\$ 3,000	\$ 2,189	\$ 3,000	\$ 2,056	\$ 3,000
Maintenance (Landscaping & Facility)	\$ 30,000	0%	\$ 30,000	\$ 26,671	-24%	\$ 35,000	\$ 20,262	\$ 25,000	\$ 16,679	\$ 25,000
Maintenance (Equipment)	\$ 30,000	0%	\$ 30,000	\$ 25,355	-28%	\$ 35,000	\$ 22,290	\$ 35,000	\$ 20,600	\$ 35,000
Transportation, travel, training, & board	\$ 127,990	7%	\$ 119,840	\$ 120,419	-6%	\$ 127,630	\$ 74,653	\$ 122,400	\$ 95,814	\$ 134,260
Professional services	\$ 122,950	-19%	\$ 152,200	\$ 97,726	-52%	\$ 203,450	\$ 91,623	\$ 176,200	\$ 112,887	\$ 169,320
Memberships, dues, & subscriptions.	\$ 27,000	-27%	\$ 37,000	\$ 25,103	5%	\$ 24,000	\$ 22,906	\$ 23,337	\$ 26,317	\$ 22,655
Insurance - VCJPA	\$ 211,959	18%	\$ 179,436	\$ 160,933	7%	\$ 150,611	\$ 141,650	\$ 137,524	\$ 134,834	\$ 133,546
Community education	\$ 53,000	-4%	\$ 55,000	\$ 26,225	-34%	\$ 39,500	\$ 26,317	\$ 38,575	\$ 22,734	\$ 40,000
Operations	\$ 261,500	15%	\$ 227,500	\$ 182,576	-24%	\$ 239,000	\$ 223,362	\$ 241,000	\$ 179,659	\$ 228,500
Household expenses	\$ 21,350	7%	\$ 19,950	\$ 25,388	46%	\$ 17,350	\$ 15,881	\$ 16,750	\$ 14,817	\$ 15,850
Office expenses	\$ 13,000	8%	\$ 12,000	\$ 7,003	-42%	\$ 12,000	\$ 9,748	\$ 12,000	\$ 13,761	\$ 14,500
Information Technology/ Communication	\$ 104,000	-3%	\$ 107,400	\$ 74,950	-33%	\$ 112,400	\$ 71,771	\$ 111,400	\$ 83,135	\$ 117,100
Laboratory	\$ 140,000	6%	\$ 132,500	\$ 82,354	-43%	\$ 144,000	\$ 64,136	\$ 139,000	\$ 100,878	\$ 137,000
Total Staff Budget (pg. 4) (see figure 4)	\$ 1,191,449	4%	\$ 1,149,526	\$ 893,100	-25%	\$ 1,184,941	\$ 816,194	\$ 1,118,186	\$ 866,995	\$ 1,109,081
Contingency	\$ 48,000	4%	\$ 46,000	\$ -		\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 50,000
Total Expenditures (see figure 2)	\$ 4,901,656	4%	\$ 4,705,521	\$ 4,000,570	-12%	\$ 4,557,832	\$ 3,807,112	\$ 4,266,022	\$ 3,721,463	\$ 4,088,296
SURPLUS (DEFICIT)	\$ 107,148		\$ 195,136	\$ 2,842		\$ 208,032	\$ 962,869	\$ 55,491		\$ 591,940
CASH CARRIED OVER (pg. 5)	\$ 1,238,682		\$ 882,264			\$ 1,530,673		\$ 161,656		\$ 485,003
SURPLUS (DEFICIT) AFTER OPERATIONAL CASH NEEDS	\$ 1,345,829		\$ 1,077,400			\$ 1,738,705		\$ 217,147		\$ 1,076,943
RESERVE ACCOUNT ALLOCATIONS										
			Transfers	Actual 21/22		Budget 21/22	Actual 20/21	Budget 20/21	Actual 19/20	Budget 19/20
VCJPA Member Contingency Fund	\$ (4,351)		\$ (43,103)	\$ -		\$ -	\$ -	\$ -	\$ (51,332)	\$ (51,332)
PARS: Pension Rate Stabilization	\$ 336,457		\$ 269,350	\$ 434,676		\$ 434,676	\$ -	\$ -	\$ 500,000	\$ 500,000
CA CLASS: Public Health Emergency Fund	\$ (43,310)		\$ (26,732)	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -
CA CLASS: Repair and Replace Fund (pg. 7)	\$ 987,024		\$ 537,912	\$ 1,311,625		\$ 1,311,625	\$ -	\$ 314,315	\$ 1,086,170	\$ 1,196,000
CA CLASS: Operating Reserve Fund	\$ -		\$ -	\$ -		\$ -	\$ (25,000)	\$ -	\$ -	\$ (619,057)
CAMP: Capital Reserve Fund	\$ 70,009		\$ 339,974	\$ 10,006		\$ (7,596)	\$ (72,168)	\$ -	\$ 155,162	\$ 51,332
Total reserve allocations (pg. 7) (see figure 5)	\$ 1,345,829		\$ 1,077,400	\$ 1,756,307		\$ 1,738,705	\$ 217,147	\$ 1,690,000	\$ 1,690,000	\$ 1,076,943
SURPLUS (DEFICIT) AFTER RESERVE ALLOCATIONS	\$ -		\$ -			\$ -	\$ -	\$ -		\$ -

Salaries 7/1/23 - 6/30/24

Date of hire	Position	2023-24	Longevity	Longevity Amount	New Salary	# mo	Subtotal	Deferred Comp.	(per pay period)
Jul-99	VS3	\$ 10,978.17	4%	\$ 439.13	\$ 11,417.30	11.5	\$ 131,299	\$ 656.49	\$ 28.54
	VS3	\$ 10,978.17	5%	\$ 548.91	\$ 11,527.08	0.5	\$ 5,764	\$ 28.82	\$ 28.82
Mar-14	VB2	\$ 10,309.43	1%	\$ 103.09	\$ 10,412.52	8	\$ 83,300	\$ 416.50	\$ 26.03
	VB2	\$ 10,309.43	2%	\$ 206.19	\$ 10,515.62	4	\$ 42,062	\$ 210.31	\$ 26.29
Aug-18	AS VC5	\$ 9,367.58	0%	\$ -	\$ 9,367.58	1	\$ 9,368	\$ 46.84	\$ 23.42
	VS1	\$ 9,919.52	1%	\$ 99.20	\$ 10,018.72	6	\$ 60,112	\$ 300.56	\$ 25.05
	VS2	\$ 10,434.47	1%	\$ 104.34	\$ 10,538.81	5	\$ 52,694	\$ 263.47	\$ 26.35
Apr-02	VB2	\$ 10,309.43	4%	\$ 412.38	\$ 10,721.81	12	\$ 128,662	\$ 643.31	\$ 26.80
Nov-03	VB2	\$ 10,309.43	3%	\$ 309.28	\$ 10,618.71	4.5	\$ 47,784	\$ 238.92	\$ 26.55
	VB2	\$ 10,309.43	4%	\$ 412.38	\$ 10,721.81	7.5	\$ 80,414	\$ 402.07	\$ 26.80
Mar-02	RPA5	\$ 11,083.21	4%	\$ 443.33	\$ 11,526.54	12	\$ 138,318	\$ 691.59	\$ 28.82
Jul-15	Mgr	\$ 16,556.12	1%	\$ 165.56	\$ 16,721.68	12	\$ 200,660		
Sep-15	VB2	\$ 10,309.43	1%	\$ 103.09	\$ 10,412.52	12	\$ 124,950	\$ 624.75	\$ 26.03
Jul-15	IT5	\$ 11,030.68	1%	\$ 110.31	\$ 11,140.99	12	\$ 133,692	\$ 668.46	\$ 27.85
Nov-19	MCT5	\$ 9,351.92	0%	\$ -	\$ 9,351.92	4.5	\$ 42,084	\$ 210.42	\$ 23.38
	VB1	\$ 9,819.50	0%	\$ -	\$ 9,819.50	7.5	\$ 73,646	\$ 368.23	\$ 24.55
Jul-15	LAB5	\$ 12,450.98	1%	\$ 124.51	\$ 12,575.49	12	\$ 150,906	\$ 754.53	\$ 31.44
Jul-91	Sup 5	\$ 12,452.35	6%	\$ 747.14	\$ 13,199.49	12	\$ 158,394	\$ 791.97	\$ 33.00
Jul-20	POC4	\$ 9,558.21	0%	\$ -	\$ 9,558.21	0.5	\$ 4,779	\$ 23.90	\$ 23.90
	POC5	\$ 10,036.12	0%	\$ -	\$ 10,036.12	11.5	\$ 115,415	\$ 577.08	\$ 25.09
Dec-22	MCT1	\$ 7,695.15	0%	\$ -	\$ 7,695.15	5	\$ 38,476	\$ 192.38	\$ 19.24
	MCT2	\$ 8,079.89	0%	\$ -	\$ 8,079.89	6	\$ 48,479	\$ 242.40	\$ 20.20
	MCT3	\$ 8,483.86	0%	\$ -	\$ 8,483.86	1	\$ 8,484	\$ 42.42	\$ 21.21
Apr-16	FHS3	\$ 9,809.53	1%	\$ 98.10	\$ 9,907.63	11	\$ 108,984	\$ 544.92	\$ 24.77
	FHS4	\$ 10,300.01	1%	\$ 103.00	\$ 10,403.01	1	\$ 10,403	\$ 52.02	\$ 26.01
Sep-15	VB2	\$ 10,309.43	1%	\$ 103.09	\$ 10,412.52	12	\$ 124,950	\$ 624.75	\$ 26.03
Jan-23	MCT2	\$ 8,079.89	0%	\$ -	\$ 8,079.89	6	\$ 48,479	\$ 242.40	\$ 20.20
	MCT3	\$ 8,483.86	0%	\$ -	\$ 8,483.86	6	\$ 50,903	\$ 254.52	\$ 21.21
Feb-15	Mech 5	\$ 10,769.00	1%	\$ 107.69	\$ 10,876.69	12	\$ 130,520	\$ 652.60	\$ 27.19
							\$ 2,353,982	\$ 10,766.61	

Seasonals:

Rate (ave)	#	Hours	Salary	\$ 2,353,982.34
\$ 20.00	4	1,000	CalPERS Ret.	\$ 553,954.90
		\$80,000	Seasonals	\$82,720.00
Unemployment	\$ 12,000.00	\$2,720.00	Subtotal	\$ 2,990,657.24
	\$82,720.00		Mgr 457	\$ 12,000.00
			Mgr Vehicle All.	\$ 3,000.00
			Staff 457	\$ 10,766.61
CalPERS	Wages	Employer rate	Unfunded Liability Payment	Total PERS Payments
13.26% Classic	\$ 1,300,842.44	\$ 172,491.71	\$ 297,212.00	\$ 469,703.71
8.00% Pepra	\$ 1,053,139.90	\$ 84,251.19	\$ -	\$ 84,251.19
			Medicare tax	\$ 35,332.18
			Social Security	\$ 4,960.00
			Grand Total	\$ 3,056,716.03
				\$ 553,954.90

CalPERS		Next Year											
Plan Code	Current Year Health Rates	Health Rates (est)	Total Health Costs	Dental Rates	Total Dental	Life Ins. Rates	Total Life Insurance	Vision Rates	Total Vision	SDI	Benefit Cost per person		
5332	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5331	913.74	968.56	11,293.83	94.06	1,128.72	6.11	73.32	13.40	160.80		12,656.67		
5331	913.74	968.56	11,293.83	94.06	1,128.72	6.11	73.32	13.40	160.80		12,656.67		
5333	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
5251	913.74	968.56	11,293.83	251.93	3,023.16	6.11	73.32	33.01	396.12		14,786.43		
5333	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
5253	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
5333	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
5252	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5331	913.74	968.56	11,293.83	94.06	1,128.72	6.11	73.32	13.40	160.80		12,656.67		
5252	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5332	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5333	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5332	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5333	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
5332	1,827.48	1,937.13	22,587.65	161.05	1,932.60	6.11	73.32	20.81	249.72		24,843.29		
5333	2,375.72	2,518.26	29,363.90	251.93	3,023.16	6.11	73.32	33.01	396.12		32,856.50		
Subtotal	32,529.12		402,059.92	3,334.09	40,009.08	109.98	1,319.76	437.75	5,253.00	22,174.11	470,815.87		
.33% Admin Cost			1,326.80								1,326.80		
Staff Totals			403,386.72		40,009.08		1,319.76		5,253.00	22,174.11	472,142.67		

CalPERS		Next Year											
Plan Code	Current Year Health Rates	Health Rates (est)	Total Health Costs	Dental Rates	Total Dental	Life Ins. Rates	Total Life Ins.	Vision Rates	Total Vision	SDI	Benefit Cost per person		
5361	283.25	300.25	3,500.97	-	1,500.00			20.81	249.72		5,250.69		
	-	-	-	94.06	1,128.72			20.81	249.72		1,378.44		
6051	420.02	445.22	5,191.45	94.06	1,128.72			13.40	160.80		6,480.97		
6082	840.04	890.44	10,382.89	161.05	1,932.60			20.81	249.72		12,565.21		
6051	420.02	445.22	5,191.45	94.06	1,128.72			13.40	160.80		6,480.97		
5361	283.25	300.25	3,500.97	161.05	1,932.60			20.81	249.72		5,683.29		
5331	913.74	968.56	11,293.83	94.06	1,128.72			13.40	160.80		12,583.35		
6081	420.02	445.22	5,191.45	94.06	1,128.72			13.40	160.80		6,480.97		
6051	420.02	445.22	5,191.45	-	1,500.00			13.40	160.80		6,852.25		
6052	840.04	890.44	10,382.89	161.05	1,932.60			20.81	249.72		12,565.21		
5362	566.50	600.49	7,001.94	161.05	1,932.60			20.81	249.72		9,184.26		
5362	566.50	600.49	7,001.94	161.05	1,932.60			20.81	249.72		9,184.26		
5362	566.50	600.49	7,001.94	161.05	1,932.60			20.81	249.72		9,184.26		
5362	566.50	600.49	7,001.94	161.05	1,932.60			20.81	249.72		9,184.26		
	7,106.40		87,835.10		22,171.80			254.29	3,051.48		113,058.38		
.33% Admin Costs=			289.86								289.86		
Annuitant Totals			88,124.96		22,171.80				3,051.48		113,348.24		

Grand Total	491,511.68	62,180.88	1,319.76	8,304.48	22,174.11	585,490.91
--------------------	-------------------	------------------	-----------------	-----------------	------------------	-------------------

Medicare Part B Reimb. 20,000.00

605,490.91

A/C #	BUDGET CATEGORY	staff	Budget 23/24	% change	Budget 22/23	% change	Actual 21/22	A vs B	Budget 21/22	Actual 20/21	Actual 19/20
SERVICE AND SUPPLIES											
5201	Clothing and personal supplies (purchased)	MW	\$ 9,000	0%	\$ 9,000	0%	\$ 7,882	-21%	\$ 10,000	\$ 4,859	\$ 6,214
5202	Laundry service and supplies (rented)	MW	\$ 13,000	0%	\$ 13,000	-13%	\$ 10,417	-31%	\$ 15,000	\$ 9,125	\$ 10,648
UTILITIES											
5301	Garbage (Waste Mgmt)	MR	\$ 4,200	14%	\$ 3,700	-8%	\$ 3,788	-5%	\$ 4,000	\$ 3,113	\$ 3,367
5302	PG & E	MR/ MW	\$ 15,000	11%	\$ 13,500	59%	\$ 10,959	29%	\$ 8,500	\$ 8,915	\$ 19,117
5303	Hayward Water & Sewage	MR	\$ 4,500	0%	\$ 4,500	0%	\$ 3,388	-25%	\$ 4,500	\$ 3,394	\$ 3,478
5401	SMALL TOOLS AND INSTRUMENTS	MW	\$ 3,000	0%	\$ 3,000	0%	\$1,963	-35%	\$ 3,000	\$ 2,189	\$ 2,056
MAINTENANCE											
5501	Landscaping service	MW	\$ 5,000	0%	\$ 5,000	0%	\$ 2,780	-44%	\$ 5,000	\$ 5,012	\$ 2,646
5502	Facility Maintenance	MW	\$ 25,000	0%	\$ 25,000	-17%	\$ 23,891	-20%	\$ 30,000	\$ 15,250	\$ 14,033
5503	Maintenance of equipment	MW	\$ 30,000	0%	\$ 30,000	-14%	\$ 25,355	-28%	\$ 35,000	\$ 22,290	\$ 20,600
TRANSPORTATION, TRAVEL, TRAINING, & BOARD											
5601	Fuel and GPS (WexMart)	MW	\$ 60,000	9%	\$ 55,000	2%	\$ 56,272	4%	\$ 54,000	\$ 38,922	\$ 41,906
5602	Meetings, conferences, & travel	RC	\$ 33,000	10%	\$ 30,000	-3%	\$ 30,366	-2%	\$ 31,000	\$ 7,494	\$ 29,831
5603	Board meeting expenses	RC	\$ 800	23%	\$ 650	0%	\$ 542	-17%	\$ 650	\$ -	\$ 295
5604	Board payments in lieu	RC	\$ 16,000	0%	\$ 16,000	-11%	\$ 14,700	-18%	\$ 18,000	\$ 15,300	\$ 13,000
5605	Board plaques and nameplates	RC	\$ 190	0%	\$ 190	6%	\$ 146	-19%	\$ 180	\$ 184	\$ 146
5606	Continuing Education fees	RC	\$ 3,000	0%	\$ 3,000	-21%	\$ 2,700	-29%	\$ 3,800	\$ 2,863	\$ 3,660
5607	Staff Training (staff dev./ college courses)	RC	\$ 15,000	0%	\$ 15,000	-25%	\$ 15,693	-22%	\$ 20,000	\$ 9,890	\$ 6,976
PROFESSIONAL SERVICES											
5701	Audit	MR	\$ 15,000	0%	\$ 15,000	0%	\$ 14,347	-4%	\$ 15,000	\$ 14,156	\$ 12,170
5702	Actuarial reports	MR	\$ 2,200	-48%	\$ 4,200	-11%	\$ 2,200	-53%	\$ 4,700	\$ 1,200	\$ 4,200
5704	Legal Services	RC	\$ 8,000	0%	\$ 8,000	0%	\$ 4,258	-47%	\$ 8,000	\$ 5,263	\$ 35,146
5706	Tax collection service (SCI)	RC	\$ 39,000	5%	\$ 37,000	6%	\$ 36,673	5%	\$ 34,890	\$ 35,545	\$ 34,502
5707	Payroll service (OnePoint)	MR	\$ 10,000	0%	\$ 10,000	-9%	\$ 8,650	-21%	\$ 11,000	\$ 8,835	\$ 8,537
5708	Environmental consultant/ EcoAtlas	EC	\$ 20,000	-9%	\$ 22,000	-56%	\$ 4,121	-92%	\$ 50,000	\$ 4,121	\$ -
5709	HR Services (RGS & other)	RC	\$ 2,500	0%	\$ 2,500	-72%	\$ 4,245	-53%	\$ 9,000	\$ 221	\$ (1,688)
5710	OPEB management (PFM & US Bank)	RC	\$ 25,000	0%	\$ 25,000	3%	\$ 22,542	-7%	\$ 24,360	\$ 22,187	\$ 19,685
5711	Financial advising	RC	\$ 500	-80%	\$ 2,500	-50%	\$ -	-100%	\$ 5,000	\$ -	\$ -
5712	Pre-employment physicals	RC	\$ 750	-25%	\$ 1,000	-33%	\$ 690	-54%	\$ 1,500	\$ 95	\$ 335
5801	MEMBERSHIPS, DUES & SUBSCRIPTIONS	RC	\$ 27,000	-27%	\$ 37,000	54%	\$ 25,103	5%	\$ 24,000	\$ 22,906	\$ 26,317
5802	INSURANCE - VCJPA	RC	\$ 211,959	19%	\$ 178,136	19%	\$ 159,952	7%	\$ 149,311	\$ 140,724	\$ 133,744
5803	Employee Assistant Program	MR	\$ -	-100%	\$ 1,300	0%	\$ 981	-25%	\$ 1,300	\$ 926	\$ 1,090
5901	COMMUNITY EDUCATION	EC	\$ 53,000	-4%	\$ 55,000	39%	\$ 26,225	-34%	\$ 39,500	\$ 26,317	\$ 22,734
OPERATIONS											
6101	Pesticides	JH	\$ 190,000	4%	\$ 182,000	-4%	\$ 143,588	-24%	\$ 190,000	\$ 174,993	\$ 145,342
6102	Field supplies (dippers etc)	JH	\$ 3,000	-14%	\$ 3,500	-30%	\$ 750	-85%	\$ 5,000	\$ 2,674	\$ 818
6103	Mosquitofish program	MW	\$ 5,000	43%	\$ 3,500	0%	\$ 1,315	-62%	\$ 3,500	\$ 2,722	\$ 2,232
6104	Spray equipment	MW	\$ 8,000	0%	\$ 8,000	-20%	\$ 5,367	-46%	\$ 10,000	\$ 7,620	\$ 3,104
6105	Safety	MW	\$ 8,500	0%	\$ 8,500	0%	\$ 8,894	5%	\$ 8,500	\$ 11,160	\$ 6,819
6106	Aerial Pool Survey	RF	\$ 20,000	0%	\$ 20,000	0%	\$ 21,300	7%	\$ 20,000	\$ 20,000	\$ 20,000
6107	Permits	EC	\$ 2,000	0%	\$ 2,000	0%	\$ 1,362	-32%	\$ 2,000	\$ 4,193	\$ 1,344
6108	Helicopter service	JH	\$ 25,000	0%	\$ 25,000	-29%	\$ -	-100%	\$ 35,000	\$ -	\$ -
HOUSEHOLD EXPENSES											
6201	Janitorial service	MW	\$ 7,500	0%	\$ 7,500	0%	\$ 5,940	-21%	\$ 7,500	\$ 7,357	\$ 5,023
6202	Supplies (+ emergency)	MW	\$ 2,850	0%	\$ 2,850	0%	\$ 1,753	-38%	\$ 2,850	\$ 2,235	\$ 2,012
6203	Alarm service	RF	\$ 11,000	15%	\$ 9,600	37%	\$ 17,695	153%	\$ 7,000	\$ 6,289	\$ 7,782
6301	OFFICE EXPENSES	MR	\$ 13,000	8%	\$ 12,000	0%	\$ 7,003	-42%	\$ 12,000	\$ 9,748	\$ 13,761
IT/ COMMUNICATIONS											
6401	IT Expenses	RF	\$ 70,000	0%	\$ 70,000	0%	\$ 50,704	-28%	\$ 70,000	\$ 42,997	\$ 52,813
6402	Telephone Service & Internet	RF	\$ 10,000	-9%	\$ 11,000	0%	\$ 10,018	-9%	\$ 11,000	\$ 9,778	\$ 8,951
6403	Website hosting	RF	\$ 3,000	25%	\$ 2,400	0%	\$ 2,400	0%	\$ 2,400	\$ 2,400	\$ 2,400
6404	Cell phone service	RF	\$ 15,000	-17%	\$ 18,000	-18%	\$ 8,942	-59%	\$ 22,000	\$ 13,149	\$ 16,151
6405	Microsoft Office 365	RF	\$ 6,000	20%	\$ 5,000	0%	\$ 2,886	-42%	\$ 5,000	\$ 3,240	\$ 2,820
6406	Azure Server Hosting	RF	\$ -	-100%	\$ 1,000	-50%	\$ -	-100%	\$ 2,000	\$ 207	\$ -
LABORATORY											
6501	Mosquito and pathogen monitoring	EHS	\$ 100,000	5%	\$ 95,000	-10%	\$ 66,017	-37%	\$ 105,000	\$ 50,024	\$ 69,571
6502	Insecticide resistance	EHS	\$ 5,000	-68%	\$ 15,500	-9%	\$ 11	-100%	\$ 17,000	\$ 1,943	\$ 7,562
6503	Research	EHS	\$ 35,000	59%	\$ 22,000	0%	\$ 16,326	-26%	\$ 22,000	\$ 12,169	\$ 23,745
Total			\$ 1,191,449	4%	\$ 1,149,526	-3%	\$ 893,100	-25%	\$ 1,184,941	\$ 816,194	\$ 866,995

Estimate of Cash Carryover from Fiscal Year 22/23 to 23/24

	debits	credits	balance
LAIF,County,BofW,CA CLASS,BofA Balances as of January 31, 2023			\$ 4,212,295
February check batch #1	\$ 158,000		\$ 4,054,295
February check batch #2	\$ 164,681		\$ 3,889,614
Balance as of February 28, 2023*			\$ 3,932,025
March check batch #1	\$ 141,911		\$ 3,790,114
<i>March check batch #2</i>	\$ 184,028		\$ 3,606,086
Balance as of March 31, 2023			\$ 3,524,825
April check batch #1	\$ 124,301		\$ 3,400,524
Deposit		2,360,644	
April check batch #2	\$ 274,669		\$ 5,486,499
Balance as of April 30, 2023			\$ 5,502,323
<i>May check batch #1</i>	\$ 100,000		\$ 5,402,323 <i>estimates below</i>
<i>May check batch #2</i>	\$ 160,000		\$ 5,242,323
<i>Balance as of May 31, 2023</i>			\$ 5,242,323
<i>June check batch #1</i>	\$ 175,000		\$ 5,067,323
<i>June check batch #2</i>	\$ 175,000		\$ 4,892,323
<i>Balance as of June 30, 2023</i>			
Totals	\$ 1,334,909	\$ 2,360,644	\$ 4,892,323
<i>Unused capital funds (pg. 6)</i>			\$ 70,000
<i>Reserve transfers from prior year</i>			\$ 737,426
Operational requirement (July-December)			\$ 2,986,215
<u>Estimated Cash Carried Over</u>			\$ 1,238,682

*As of February 2023, we are also accounting for CA: CLASS - Operational Fund.

CAPITAL EXPENDITURES (Outlay)						
	2019-20 Budgeted	2020-21	2020-21	2021-22	2022-23	2023-24
<u>19/20 Capital Reserve</u> (new assets & non-capital projects)	\$52,000					
Treatment UAS	\$11,000					
Waterproof UAS	\$17,000					
Larvicide rig	\$10,500					
Lab centrifuge	\$39,000					
Exterior and interior painting	\$75,000					
Interior Flooring	\$204,500					
19/20 Capital Reserve Total						
<u>19/20 Repair and Replace</u> (replacement assets)						
V40	\$40,000					
V45	\$40,000					
19/20 Repair and Replace Total	\$80,000					
Unused capital funds (cash carried over)						
<u>20/21 Capital Reserve</u> (new assets & non-capital projects)						
Exterior & carport painting			\$39,000			
Lobby display			\$20,000			
20/21 Capital Reserve Total			\$59,000			
Unused capital funds (cash carried over)			\$20,500			
<u>20/21 Capital Reserve</u> (new assets & non-capital projects)						
Lobby display				\$ 30,000		
<u>21/22 Repair and Replace</u> (replacement assets)						
V42				\$ 40,000		
20/21 Repair and Replace Total				\$ 70,000		
Unused capital funds (cash carried over)				\$ 30,000		
<u>22/23 Capital Reserve</u> (new assets & non-capital projects)						
Fish Enclosure					\$ 250,000	
Lobby Display					\$ 30,000	
22/23 Capital Reserve Total					\$ 280,000	
<u>22/23 Repair and Replace</u> (replacement assets)						
MapVision - Gen 3					\$ 70,000	
Microscope					\$ 23,000	
22/23 Repair and Replace Total					\$ 93,000	
Unused capital funds (cash carried over)					\$ 70,000	
<u>23/24 Capital Reserve</u> (new assets & non-capital projects)						
23/24 Capital Reserve Total						\$ -
<u>23/24 Repair and Replace</u> (replacement assets)						
MapVision - Gen 3						\$ 140,000
23/24 Repair and Replace Total						\$ 140,000
Unused capital funds (cash carried over)						\$ 70,000

<u>Committed Reserve Funds</u>	<u>Target Level</u>	<u>As of April 30, 2023</u>	<u>Transfers²</u>	<u>Current Funded %</u>	<u>Proposed Funded %</u>
VCJPA Member Contingency Fund ¹	\$341,986	\$346,337	-\$4,351	101%	100%
CA CLASS: Public Health Emergency Fund	\$500,000	\$543,310	-\$43,310	109%	100%
CA CLASS: Repair and Replace Fund	\$4,319,711	\$2,699,941	\$987,024	63%	85%
CA CLASS: Operating Reserve Fund	\$2,823,313	\$2,003,235	\$0	71%	71%
CAMP: Capital Reserve Fund ²	\$236,000	\$365,499	\$70,009 NA		NA
<u>Restricted Reserve Funds</u>					
PARS: Pension Rate Stabilization ³	\$2,690,429	\$2,068,515	\$336,457	77%	89%
Other Post Employment Benefit Fund (OPEB) ⁴	\$3,260,094	\$4,550,632		140%	140%
<u>TOTAL</u>		<u>\$12,577,469</u>	<u>\$1,345,829</u>		

¹ Balance as of December 31, 2022.

² - Capital Reserve transferred at start of fiscal year to also include repair and replace purchases, all other transfers occur after the fiscal year.

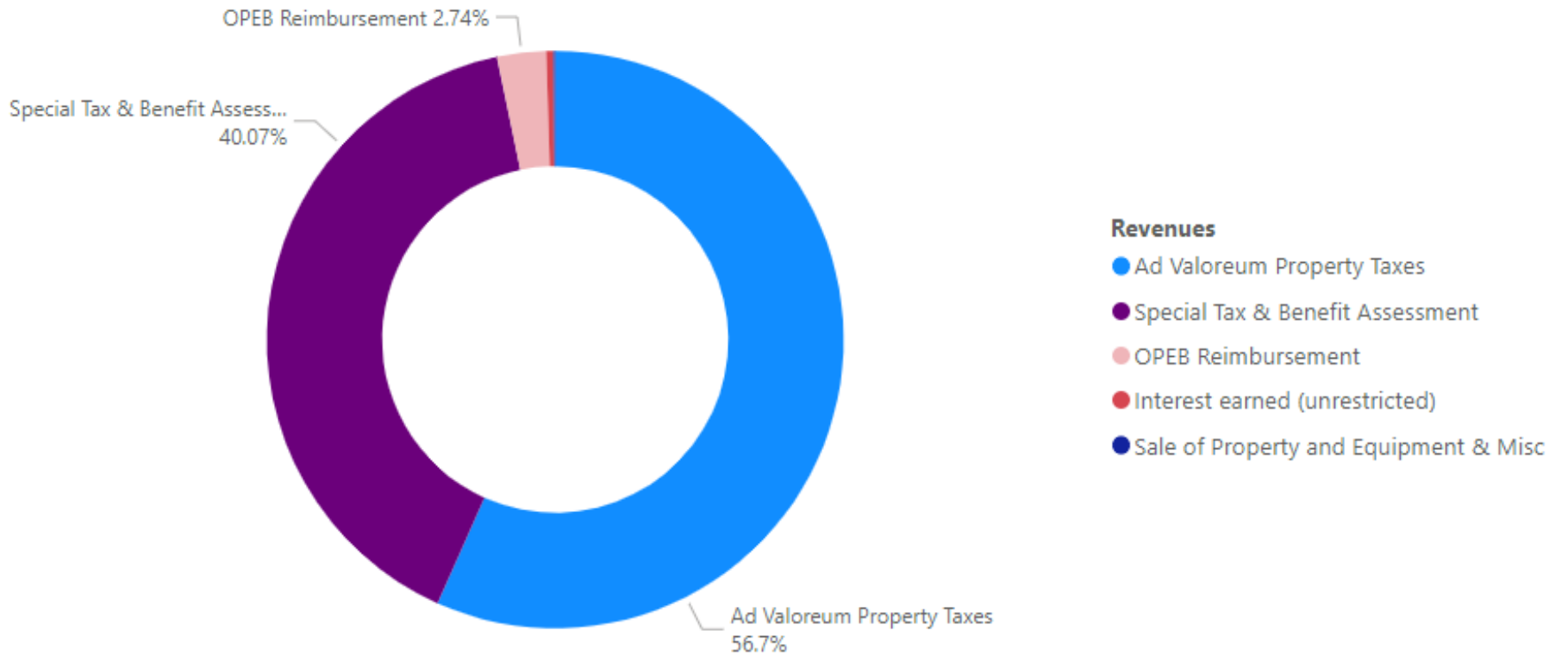
³ - Balance as of January 31, 2023. Unfunded Accrued Liability as of June 30, 2021.

⁴ - OPEB liability as of June 30, 2022.

Alameda County Mosquito Abatement District
FY 2023/24

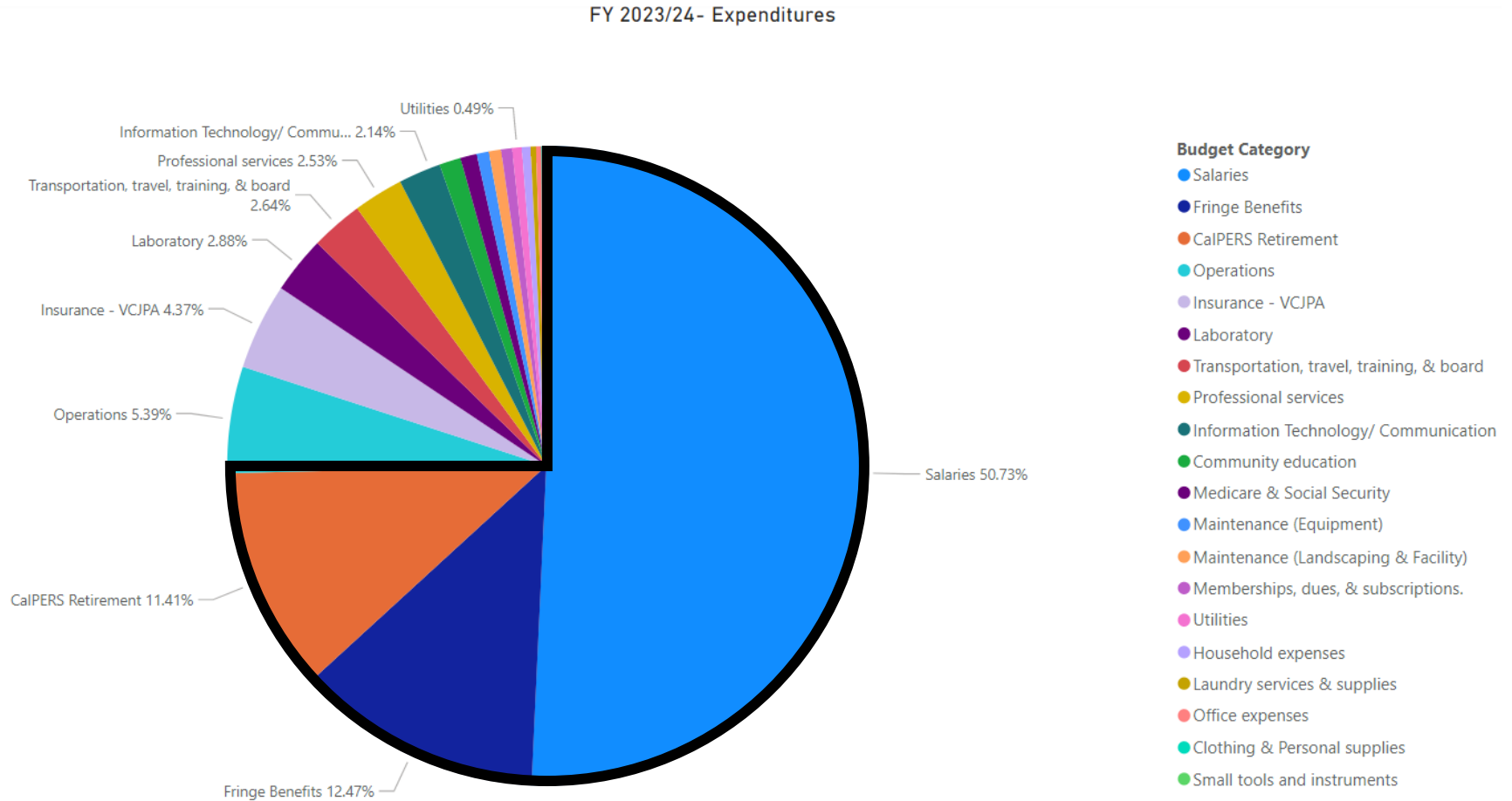
Figure 1: The District is anticipating to receive a total of \$5,008,804 in revenue for the 2023/24 fiscal year. The breakdown of the revenue is as follows: Ad Valorem Property Taxes (\$2,842,050), Special Tax & Benefit Assessment (\$2,008,405), OPEB Reimbursement (\$133,348), Interest Earned – non-restricted(\$20,000), and Sale of Property and Equipment & Misc (\$5,000). We are expecting a 2% increase from the previous fiscal year.

FY 2023/24 - Budgeted Revenue



Alameda County Mosquito Abatement District FY 2023/24

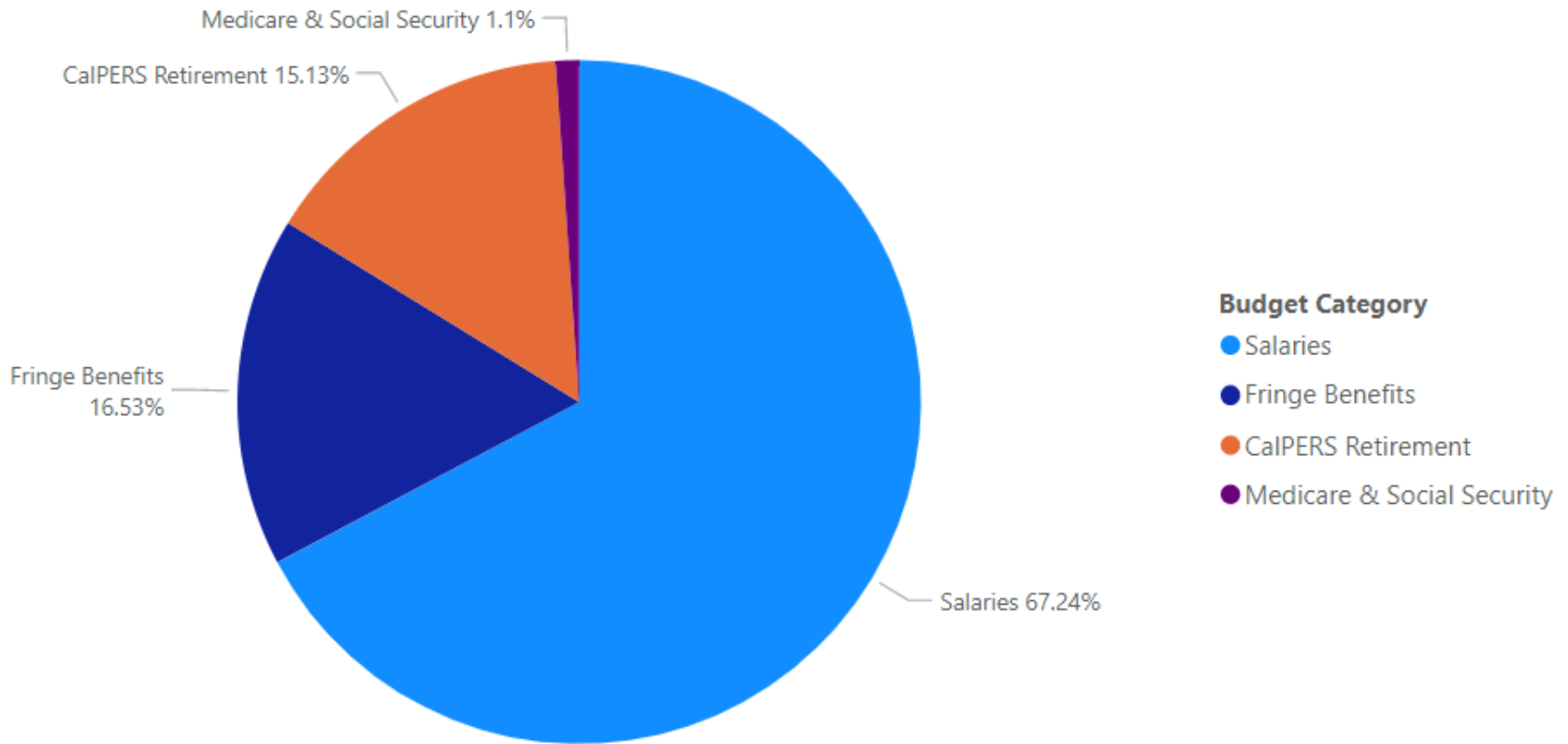
Figure 2: The breakdown for the total expenditures (\$4,901,656) is shown on the pie chart below. The total expenditure has increased 4% from the previous fiscal year.



Alameda County Mosquito Abatement District
FY 2023/24

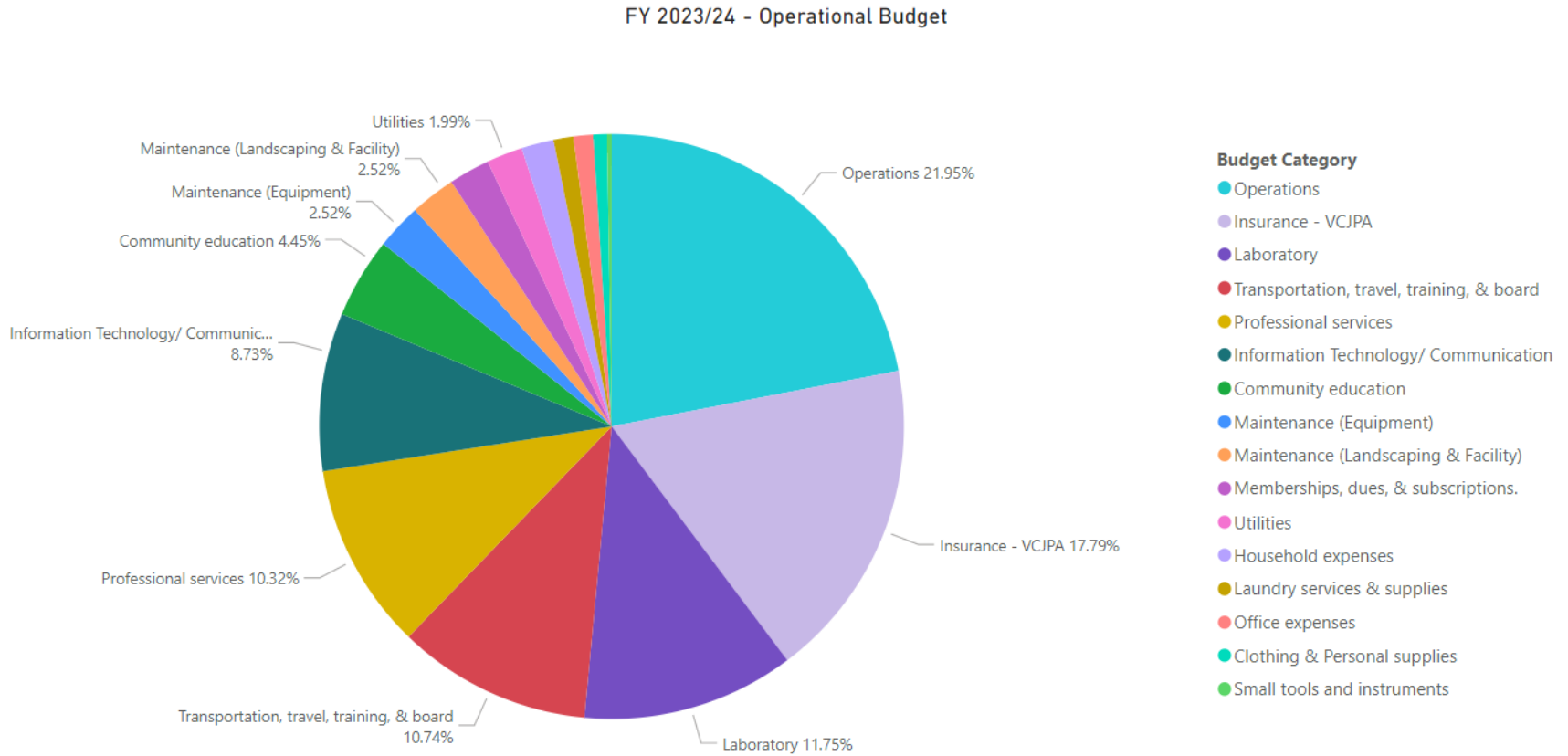
Figure 3: The breakdown for Salaries (\$2,462,469), Retirement (\$553,955), Medicare & Social Security (\$40,292) and Fringe Benefits (\$605,491) are shown in the pie chart below. There is a 4% increase from the previous fiscal year.

FY 2023/24 - Salaries, Retirement, Medicare, Social Security & Fringe Benefits



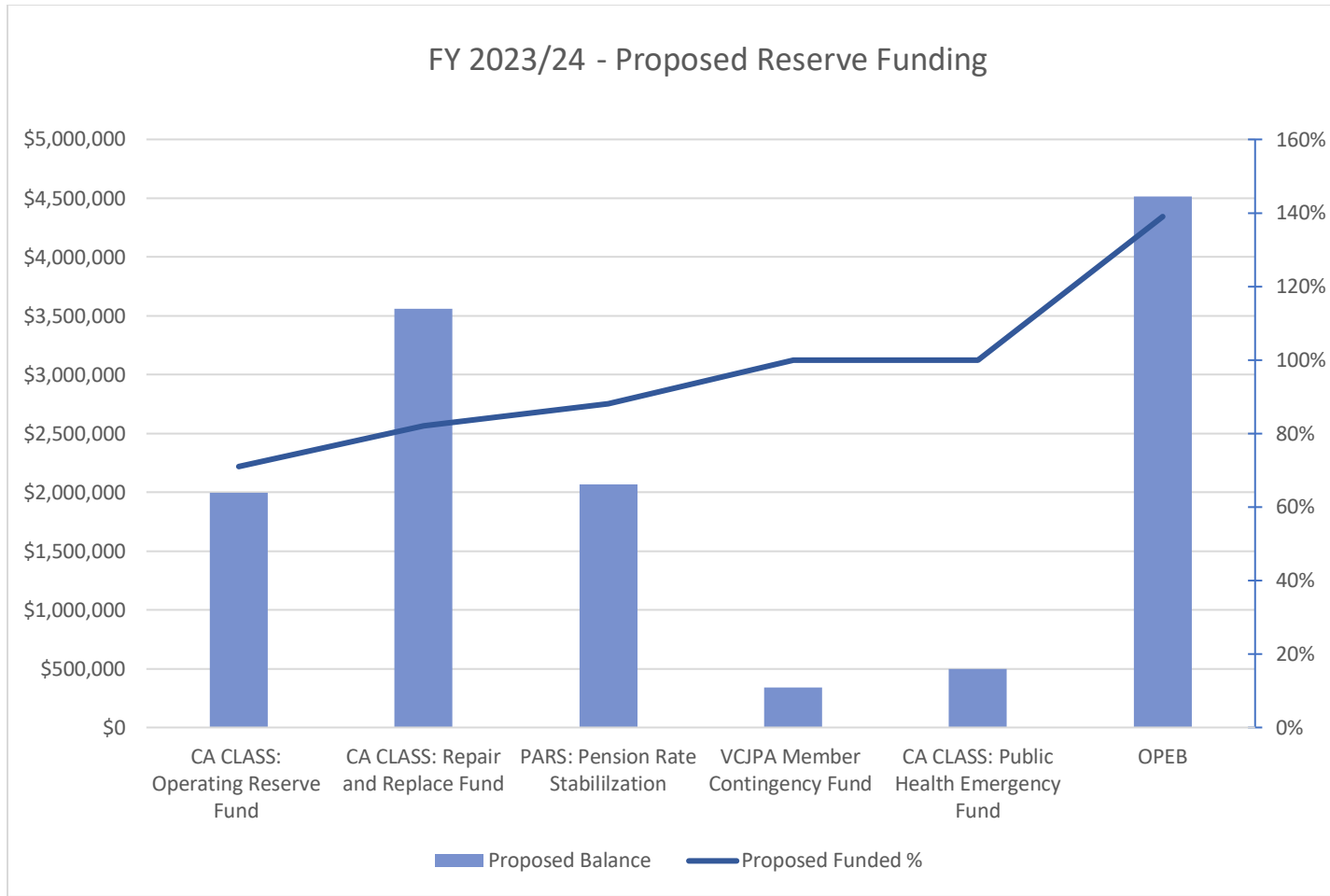
Alameda County Mosquito Abatement District
FY 2023/24

Figure 4: The breakdown for the total staff budget (\$1,191,449) is shown on the pie chart below. There is a 4% increase from the previous fiscal year.



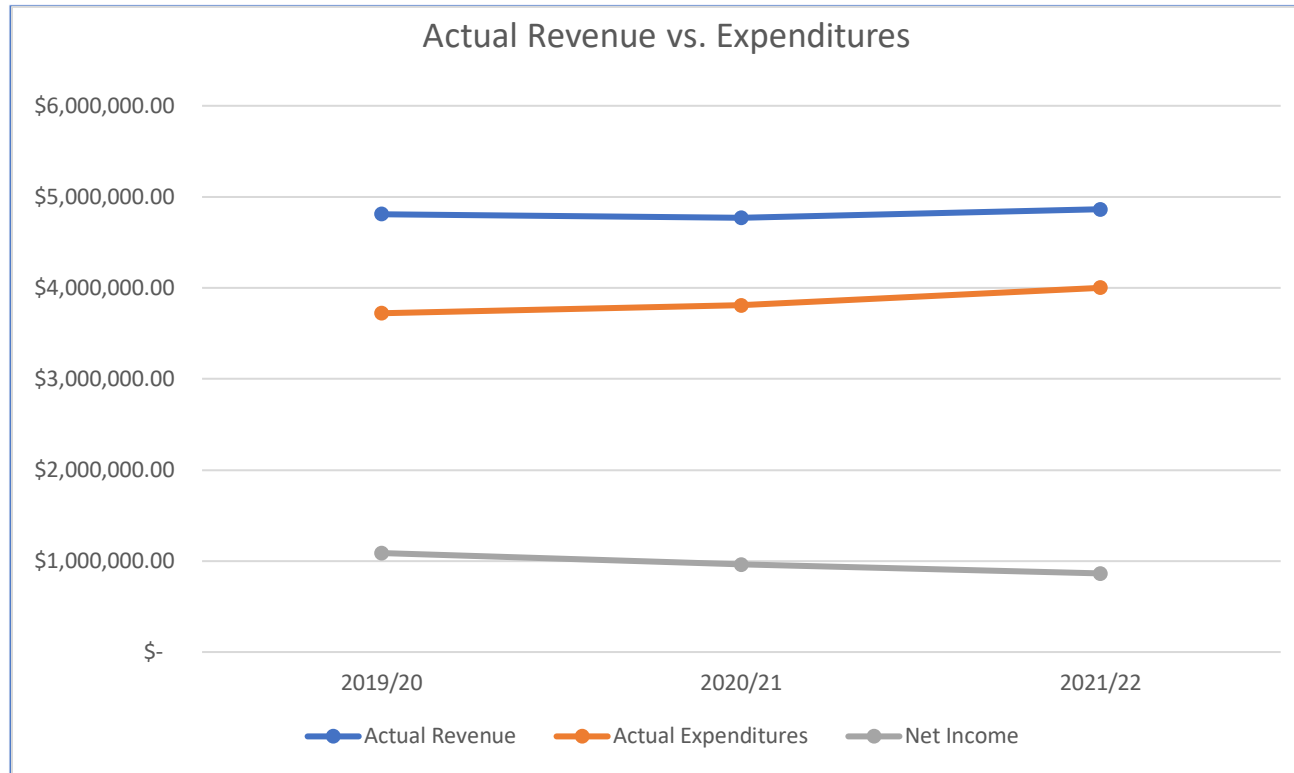
Alameda County Mosquito Abatement District
FY 2023/24

Figure 5: The chart below shows the Proposed Reserve Funding for fiscal year 2023/24.



Alameda County Mosquito Abatement District
FY 2023/24

Figure 6: The chart below shows the actual revenue vs. expenditures for the previous fiscal years.





Alameda County

Mosquito Abatement District

Mosquito and Disease Control Assessment

Fiscal Year 2023-24
Engineer's Report

Pursuant to the Health and Safety Code, Government Code and
Article XIID of the California Constitution

Engineer of Work:



4745 Mangels Boulevard
Fairfield, California 94534
707.430.4300
www.sci-cg.com

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Alameda County Mosquito Abatement District

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Engineer of Work

SCI Consulting Group

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Introduction

Overview

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 fifteen 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 Alameda County Mosquito Abatement District ("District") is an independent special District in Alameda County ("County"). The District's services encompass more than 800 square miles and are provided to properties accommodating over 1.649 million residents.

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 have exceeded revenue, and without the additional assessment, services would have deteriorated. The services provided to the Assessment Area consist of maintaining the current level of services and in some cases expanded services, as listed below, above the existing baseline level of services.

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

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

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

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

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

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

"Vector Control" shall mean any system of public improvements or services that is intended to provide for the surveillance, prevention, abatement, and control of vectors as defined in subdivision (k) of Section

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

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)).

The District is the only dedicated agency controlling mosquitoes in Alameda County. There are however, other agencies dedicated to the control of other types of vectors. 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.

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 imposes a number of important requirements, including 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 District (2008) 44 Cal.4th 431

On July 14, 2008, the California Supreme Court issued its ruling in *Silicon Valley Taxpayers Association, Inc. v. Santa Clara County Open Space District* (“*Silicon Valley*”). Several of the most important elements of the ruling are:

- Benefit assessments are for special, not general benefit
- 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 *Silicon Valley* decision.

Dahms v. Downtown Pomona Property (2009) 174 Cal.App.4th 708

On June 8, 2009, the 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 granted review and transferred the case back to the Court of Appeal for reconsideration in light of the Supreme Court’s discussion in the *Silicon Valley* case. In *Dahms*, the Appellate Court then upheld the assessment that was 100% special benefit (i.e. 0% general benefit) holding 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 (2009) 46 Cal.4th 646

On December 31, 2009, the 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 each individual property’s proportional special benefits.

Beutz v. County of Riverside (2010) 184 Cal.App.4th 1516

On May 26, 2010, the California Court of Appeal issued its decision in *Steven Beutz v. County of Riverside* (“*Beutz*”). 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 (2011)199 Cal.App.4th 416

On September 22, 2011, California Court of Appeal issued its decision in *Golden Hill Neighborhood Association v. City of San Diego*. 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 decision. First, as 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 document the basis for the assessment on city-owned parcels.

Compliance with Current Law

This Engineer’s Report is consistent with the requirements of Article XIIC and XIID of the California Constitution and with the *Silicon Valley* decision because the Services to be funded are clearly defined; the Services are available to and will be directly provided to all benefited property in the Assessment District; the Services provide a direct advantage to property in the Assessment District that would not be received in the absence of the Assessment.

This 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. While *Dahms* could be used as the basis for a finding of 0% general benefits, this Engineer’s Report establishes a more generous separation and quantification of general benefits.

This Report is also consistent with *Bonander* because the Assessment has been apportioned based on the overall cost of the services and proportional special benefit to each property. Furthermore, the Assessment is consistent with *Beutz* and *Golden Hill* because the general benefits have been explicitly calculated, quantified, and excluded from the Assessment.

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 XIID of the California Constitution ("The Taxpayer's Right to Vote on Taxes Act") and the Government Code. During this ballot proceeding, property owners 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.

Upon approval of the Engineer's Report and the assessments for fiscal year 2023-24, the assessments would be submitted to the County Auditor for inclusion on the property tax roll.

General Description of the District and Services

About the Mosquito Abatement District

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

The District staff consists of 18 employees including a General Manager, Field Operations Supervisor, Laboratory Director, Mechanical Specialist, Regulatory & Public Affairs Director, Information Technology Director, Financial & HR Specialist, Public Outreach Coordinator, five Vector Biologists, one Assistant Mosquito Control Technician, 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.

<i>Final Level of Service</i>	=	<i>Current Baseline Level of Service</i>	+	<i>Proposed Enhanced Level of Service</i>
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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 squamiger* 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 pest-harboring areas. The District chooses materials that are highly specific, have the lowest impact on nontargets, selectively applied to places where mosquitoes occur. These materials are considerably more expensive than less specific pesticides and are labor intensive to apply.

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

The District has the capability of applying liquid and granular larvicides to treat sources of immature mosquitoes and aerosolized adulticides for area treatment of adult mosquitoes. Adulticiding is used to reduce significant populations of adult mosquitoes and to prevent or to reduce the spread of mosquito-borne disease in the environment.

Applications are made by personnel licensed by the California Department of Public Health (or under the direct supervision of certified personnel) who are trained in the proper use of the products and specialized equipment used for this type of public health pest control. All insecticide products employed by the District are used with consideration of existing environmental conditions in order to minimize the impact on non-target organisms.

General Surveillance and Control Procedures

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

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

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

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

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

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

Chemical control agents employed by the District to control immature mosquitoes include stomach toxins bacterial derived control agents, insect growth regulators (IGR's) and other contact pesticides. Stomach toxins are products of natural bacteria that are commercially manufactured and formulated as bacterial larvicides. The District employs two agents, *Bacillus thuringiensis israelensis* (Bti) and *Bacillus sphaericus* (Bs).

The spores of these bacteria can be applied as either a liquid or a granule. The stomach toxin is activated after the spores are eaten by larvae, restricting use of these agents to the feeding stages of larval development. Bti has the advantage of specificity, only affecting mosquitoes and related groups of flies. Bs has the added advantage over Bti of effectively controlling larvae in highly polluted water and sometimes reproducing, extending the duration of its effectiveness. Another product utilized by ACMAD is Spinosad, derived from the fermentation of the naturally occurring soil bacterium, *Saccharopolyspora spinosa*. It causes the excitation of the mosquito nervous system, ultimately leading to paralysis and death. Its action on the target organism is either by contact or by ingestion. This product can be applied in liquid or granular formulations.

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

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

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

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

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

Public Relations, Outreach, and Education

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

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

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

Research and Testing

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

Service Requests

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

Estimate of Cost

Figure 1 – Cost Estimate – FY 2023-24

Alameda County Mosquito Abatement District Mosquito and Disease Control Assessment	
Mosquito Control Services and Related Expenditures	
Mosquito Control and Disease Prevention Operations	\$3,662,207
Materials, Utilities and Supplies ¹	\$1,190,722
Capital Expenditures	\$140,000
Contingency	\$48,000
Total Mosquito Control Services and Related Expenditures	\$5,040,929
Total Benefits of Mosquito and Disease Control	
Single Family Equivalent Units (SFEs)	464,688
Benefit Received per SFE Unit	\$10.85
Less	
Contributions from Other Sources²	
Revenue from property taxes/ other sources	(\$3,879,209)
Total Mosquito & Disease Control Services and Incidentals	\$1,161,720
Budget Allocation to Property	
Total Assessment Budget³	\$1,161,720
Total SFE Units ⁴	464,688
Assessment Rate per SFE⁵	\$2.50

Consolidated ER Notes:

1. Includes assessment administration costs including county collection charges for placement on the annual property tax bills.
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 2023-24, the District has allocated \$140,000 for capital improvements.

Method of Assessment

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

The Mosquito and Disease Control Assessment area consists of the Assessor Parcels within the Alameda County Mosquito Abatement District.

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 XIII D 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."²

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

² Howard Jarvis Taxpayers Association, "Statement of Drafter's Intent", January 1997.

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:

Allows special benefit assessments to finance vector control projects and programs, consistent with Proposition 218.³

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.

³ Senate Bill 1588, Mosquito Abatement and Vector Control District Law, Legislative bill analysis

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, 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.⁴ 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

⁴ 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.

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.”⁵

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:

“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.”⁶

⁵ Assembly Concurrent Resolution 52, chaptered April 1, 2003

⁶ Riesen William K. (2008). Delinquent Mortgages, Neglected Swimming Pools, and West Nile Virus, California. Emerging Infectious Diseases. Vol. 14(11).

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.⁷ 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.”⁸

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

“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.

⁷ 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.

⁸ Assembly Concurrent Resolution 52, chaptered April 1, 2003

“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.”⁹

“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.”¹⁰ (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:

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.¹¹

⁹ Rose, Robert. (2001). Pesticides and Public Health: Integrated Methods of Mosquito Management. Emerging Infectious Diseases. Vol. 7(1); 17-23.

¹⁰ Center for Disease Control. (2004). West Nile Virus Activity --- United States, November 9--16, 2004. Morbidity and Mortality Weekly Report. 53(45); 1071-1072.

¹¹ 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 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:

*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.*¹²

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:

¹² 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>

*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.*¹³

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.

*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."*¹⁴

*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*¹⁵

¹³ 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

¹⁴ 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

¹⁵ Jennings, Allen. (2001). USDA Letter to EPA on Fenthion IRED. United States Department of Agriculture, Office of Pest Management Policy. March 8, 2001.

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.¹⁶ 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:

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

¹⁶ Sources of mosquitoes on residential, business, agricultural, range and other types of properties include removable sources such as containers that hold standing water.

*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.
(6) Inform the owner of the property that before complying with the requirements of the notice, the owner may appear at a hearing of the board of trustees at a time and place stated in the notice.*

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.¹⁷

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 Versus 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.

¹⁷ 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.

In other words:

$\textit{Total Benefit} = \textit{General Benefit} + \textit{Special Benefit}$
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There is no widely-accepted or statutory formula for general benefit from mosquito and disease control services. General benefits are benefits from improvements or services that are not special in nature, are not “particular and distinct” and are not “over and above” benefits received by other properties. General benefits are conferred to properties located “in the district,¹⁸” but outside the narrowly-drawn Assessment District and to “the public at large.” *Silicon Valley* 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:

$\begin{aligned} & 1.) \textit{Benefit to Real Property Outside the Assessment District} \\ + & 2.) \textit{Benefit to Real Property Inside the Assessment District that is} \\ & \textit{Indirect and Derivative} \\ + & 3.) \textit{Benefit to the Public at Large} \\ \hline = & \textit{General Benefit} \end{aligned}$

¹⁸ *Silicon Valley* 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 contains 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 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.”

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 *Silicon Valley* 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. XIID, 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 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 *Silicon Valley*, 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%.¹⁹ 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:

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 of the

436,350 Parcels in the District

Calculation:

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%.

¹⁹ 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.

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.

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 *Silicon Valley* 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

$$\begin{aligned}
 & 1.0\% \quad (\text{Outside the Assessment District}) \\
 + & 0.0\% \quad (\text{Property within the Assessment District}) \\
 + & \underline{6.0\%} \quad (\text{Public at Large}) \\
 = & 7.0\% \quad (\text{Total General Benefit})
 \end{aligned}$$

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 \$5,040,929. Of this total budget amount, the District will contribute over 76% 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 *Silicon Valley* 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 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 *Silicon Valley* 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.²⁰

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.

²⁰ 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.”

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 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.²¹

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

²¹ 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.

benefit. Calculated special benefit increases accordingly with an increase in the product of special benefit type and supportive parcel-specific attribute.

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

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

Commercial/Industrial Properties

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

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

To determine employee density factors, this Report utilizes the findings from the San Diego County Association of Governments Traffic Generators Study (the “SANDAG Study”) because these findings were approved by the State Legislature which determined the SANDAG Study to be a good representation of the average number of employees per acre of land area for commercial and industrial properties. As determined by the SANDAG

Study, the average number of employees per acre for commercial and industrial property is 24. As presented in Figure 3, the SFE factors for other types of businesses are determined relative to their typical employee density in relation to the average of 24 employees per acre of commercial property.

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

Figure 3 – Commercial/Industrial Benefit Assessment Factors

<i>Type of Commercial/ Industrial Land Use</i>	<i>Average Employees Per Acre ¹</i>	<i>SFE Units per Fraction Acre ²</i>	<i>SFE Units per Acre After 5</i>
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.)

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 4 below.

Figure 4 – Other Land Benefit Assessment Factors

<i>Other Types of Land Use</i>	<i>Average Employees Per Acre ¹</i>	<i>SFE Units per 1/4 Acre ²</i>
Self-Storage or Parking Lot	1.00	0.021
Wineries	12.00	0.250
Golf Course	3.00	0.063
Cemeteries	0.10	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 XIIID 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 2023-24 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

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 5, 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 2023-24 is generally as follows:

Figure 5– Summary Cost Estimate – FY 2023-24

Mosquito Abatement & Disease Control Services	\$3,662,207
Materials, Utilities and Supplies	\$1,190,722
Capital Equipment and Fixed Assets	\$140,000
Contingency	\$48,000
Total Mosquito Control Services & Expenditures	\$5,040,929
Less Contributions from Other Sources:	(\$3,879,209)
Net Amount To Assessments	\$1,161,720
General Contribution to Total Mosquito Control Services & Expenditures	76.95%

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 2021 to December 2022 was 4.8818%. Therefore, the maximum assessment rate for fiscal year 2023-24 is the maximum rate for fiscal year 2022-23 (\$7.09) plus 3% was used to increase the maximum authorized assessment rate. Consequently, the maximum authorized Assessment rate for fiscal year 2023-24 is \$7.31 per single-family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2023-24 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 2023-24. 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 2023-24 for each parcel or lot of land within the Alameda County Mosquito Abatement District- Mosquito and Disease Control Assessment.²²

Dated: May XX, 2023

Engineer of Work

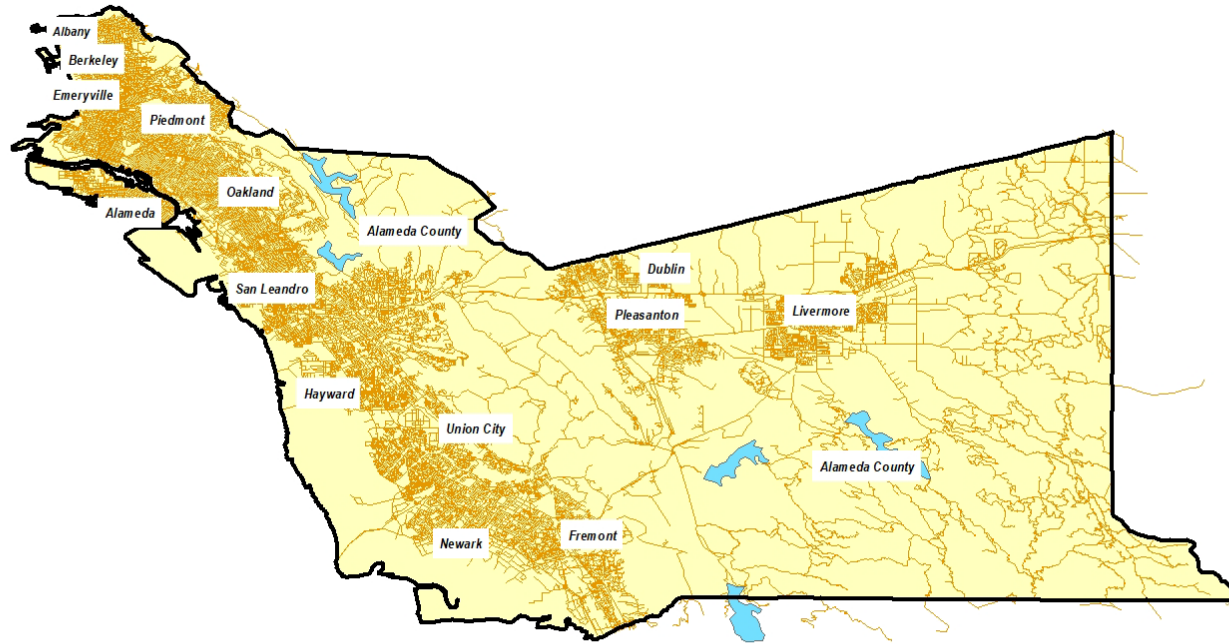
By _____
John Bliss, License No. C52091

²² 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.

Assessment Diagram

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

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



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

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. 1113-1

A RESOLUTION INTENTION TO CONTINUE ASSESSMENTS FOR FISCAL YEAR 2023-24, 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 2023-24 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 2021 to December 2022 was 4.8818%. Therefore, the maximum assessment rate for fiscal year 2023-24 is the maximum rate for fiscal year 2022-23 (\$7.09) plus 3% was used to increase the maximum authorized assessment rate. Consequently, the maximum authorized Assessment rate for fiscal year 2023-24 is \$7.31 per single-family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2023-24 at the rate of \$2.50, which is below the maximum authorized assessment rate.
4. The estimated fiscal year 2023-24 cost of providing the Services is \$1,161,720. This cost results in a proposed assessment rate for fiscal year 2023-24 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. The Board of Trustees will hold a public hearing on June 14, 2023, at 5:00 p.m. to consider the ordering of the Services, and the levy of the assessments for fiscal year 2023-24. Members of the public may join the meeting in person at the Alameda County Mosquito Abatement District office located at 23187 Connecticut Street, Hayward, California or remotely via teleconference at <https://us02web.zoom.us/j/85139556831>.
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 10, 2023, by the following vote:

AYES:

NOES:

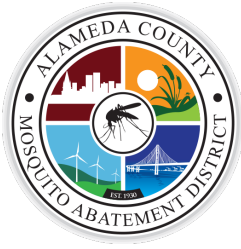
ABSENT:

ABSTAIN:

President, Board of Trustees, Alameda County Mosquito
Abatement District

ATTEST:

Secretary, Board of Trustees, Alameda County
Mosquito Abatement District



23187 Connecticut Street
Hayward, CA 94545

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acmad@mosquitoes.org

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Eric Hentschke

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Hope Salzer

Piedmont

Valerie Arkin

Pleasanton

Subru Bhat

Union City

Ryan Clausnitzer

General Manager

Background:

Currently, the district operates a checking account with Bank of the West used solely for transfers. Although we have not had any significant issues with this bank, we are always looking for ways to eliminate costs and streamline processes. While we are not charged a monthly maintenance fee, we are charged for every ACH transaction and the current process for updating our authorized signers is burdensome. Staff met with Five Star Bank to determine if their services would be a better option for the district.

Analysis:

Currently, the district pays anywhere between \$70.00 - \$100.00 per month in fees to send/receive ACH payments. To update our authorized signers with Bank of the West, we must pick up the signature cards from the branch and return the signed signature card within a tight time period with all authorized signers signing the signature card.

Five Star Bank is a business affiliate of the California Special District Association and offers unlimited checking accounts, **free of charge**. The following services are included:

- Online banking
- ACH capability
- Wire transfer capability
- Remote Deposit Capture w/free scanner provided
- Positive pay for checks as well as ACH

Five Star Bank also offers a more modern approach to update our signers allowing us to, for example, remove a signer without requiring all authorized signers to re-sign the signature card in a short timeframe.

Recommendation:

The Finance Committee and staff are recommending moving our transfer payment account from Bank of the West to Five Star Bank.

Attachment:

- Proposal from Five Star Bank
- Five Star Bank tops 2022 large community bank rankings.



March 8, 2023

Mr. Ryan Clausnitzer
General Manager
Alameda County Mosquito Abatement District
23187 Connecticut Street
Hayward, CA 94545

Dear Mr. Clausnitzer,

Thank you for the opportunity to present this proposal to the Alameda County Mosquito Abatement District.

We believe that you deserve nothing less than outstanding customer service, reliability, competitive pricing, efficient means of managing your accounts electronically and direct access to a team of qualified banking professionals. We are keenly knowledgeable with special districts and municipalities, the statutes that pertain to public funds and who also have the experience of having managed at a public entity. We have the experience, expertise and hands on approach that sets us apart.

We believe Five Star Bank is the perfect partner for the Alameda County Mosquito Abatement District. As a sign of our partnership, Five Star Bank is offering the District:

- **All your checking accounts free of all charges - We are offering as many checking accounts as you need with no fees.**
- **A public money market account at 3.25%.** - Interest is paid monthly on the 1st of the month. Money market accounts are limited to 6 withdrawals per month (wires, ACH, checks, transfers).

These accounts will include the following:

- **Free checking accounts with ability to write checks**
- **Free online banking with online transfer capability between accounts**
- **Free ACH capability (requires credit approval)**
- **Free Wire transfer capability**
- **Free Remote Deposit Capture w/free scanner provided**
- **Free Positive Pay for checks as well as ACH**
- **Free Mobile Deposit**
- **Five Star Bank will also provide your initial order of checks, deposit slips, and endorsement stamps at no charge.**

Five Star Bank also can provide all the financing to meet the District's needs including refinancing existing loans, new equipment & vehicles, buildings, infrastructure, lines of credit as well as pension obligation bonds. We also can offer credit cards for purchasing and merchant services to accept payments by credit card in person, online or by phone.

This opportunity is very important to our Bank and, as always, we will take every measure possible to ensure your success. We can assure you that we will personally oversee the entire transition, provide your staff with all the necessary training they need and provide you with designated backup personnel as well. We will be your partner every step of the way, from pre-conversion through conversion and implementation.

Please let us know if we can discuss the opportunity in greater detail and plan the next steps to move forward. Thank you once again for this opportunity. We look forward to the chance to build a long, sustainable future with the Alameda County Mosquito Abatement District!

Sincerely,

Jerry Legg



Jerry Legg, CTP
SVP/Government Banking Manager

t: [916-640-1512](tel:916-640-1512) | m: [916-471-9977](tel:916-471-9977)

e: jlegg@fivestarb.com

a: 2240 Douglas Blvd., Suite 100
Roseville, CA 95661



**Alameda County Mosquito Abatement District
Investment, Reserves, and Cash Balance Report
April 30, 2023. (10 of 12 mth, 83%)**

Account #	Investment Accounts	Beginning Balance	Deposits	Withdrawals	Earnings ¹	Ending Balance
1004	LAIF	\$ 99,903.73	\$ -	\$ -	\$ 6,610.15	\$ 106,513.88
1005	OPEB Fund	\$ 4,516,542.86	\$ -	\$ -	\$ 34,089.59	\$ 4,550,632.45
1006	VCJPA Member Contingency ²	\$ 346,337.00	\$ -	\$ -	-	\$ 346,337.00
1011	CAMP: Capital Reserve Fund ³	\$ 364,008.12	\$ -	\$ -	\$ 1,490.88	\$ 365,499.00
1012	PARS: Pension Stabilization ⁴	\$ 2,068,514.96	\$ -	\$ -	\$ 34,069.03	\$ 2,102,583.99
1013	California CLASS: Public Health Emergency Fund	\$ 541,084.92	\$ -	\$ -	\$ 2,224.90	\$ 543,309.82
1014	California CLASS: Operational Fund ⁵	\$ 2,791,148.80	\$ -	\$ (360,421.25)	\$ 11,041.91	\$ 2,441,739.46
1015	California CLASS: Repair and Replace Fund	\$ 2,688,884.88	\$ -	\$ -	\$ 11,056.51	\$ 2,699,941.39
1016	California CLASS: Operating Reserve Fund	\$ 1,995,031.14	\$ -	\$ -	\$ 8,203.43	\$ 2,003,234.57
Total		\$ 15,411,456.41	\$ -	\$ (360,421.25)	\$ 108,786.40	\$ 15,159,791.56
Cash Accounts		Beginning Balance	Deposits	Activity	Ending Balance	
1001	Bank of America (Payroll Account) *	\$ 151,267.47	-	-	\$ 233,829.12	
1002	Bank of The West (Transfer Account) *	\$ 378,297.65	-	-	\$ 359,612.30	
1003	County Account **	\$ 238,761.11	-	-	\$ 2,360,629.42	
1017	Petty Cash	\$ 491.10	\$ -	\$ (7.00)	\$ 484.10	
Total		\$ 768,817.33	\$ -	\$ (7.00)	\$ 2,954,554.94	

1 - Earnings are booked as unrealized gains/losses. These earnings would not be recognized as "realized" gains/losses until the accounts are liquidated.

2 - VCJPA Member Contingency balance is as of December 31, 2022.

3 - \$1,500.00 transferred from CAMP: Capital Reserve to Bank of the West for expenditures relating to the fish project.

4- PARS - Pension Stabilization balance is as of March 31, 2023.

5 - \$360,451.25 transferred from CA:CLASS Operational Fund to Bank of the West for April expenditures.

* - Ending balance differs from beginning balance due to checks clearing the account.

** - As of April 12th, 2023.

RESEARCH & ANALYSIS

California-based Five Star Bank tops 2022 large community bank rankings

Tuesday, March 21, 2023 11:46 AM PT

By Zain Tariq and Zuhaib Gull

Market Intelligence

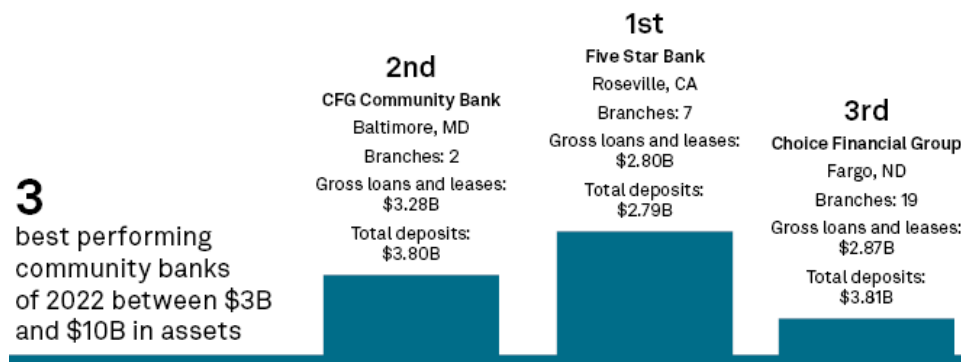
Roseville, Calif.-based Five Star Bank took the crown in S&P Global Market Intelligence's 2022 large US community bank ranking.

About this analysis

To compile this ranking, S&P Global Market Intelligence calculated scores for each company based on seven metrics: pretax return on tangible common equity; efficiency ratio; cost of funds; five-year average operating revenue growth; five-year average net charge-offs to average loans and leases ratio; nonperforming assets and loans 90 days or more past due as a percentage of total assets; and leverage ratio. Each company's standard deviation from the industry mean was calculated for every ranking metric, weighted, then combined to derive a performance score. To help normalize the data and mitigate the impact of outliers, caps and floors were applied for each metric.

Criteria for the ranking included a gross loans and leases-to-total assets ratio of at least 33% with no more than half of those loans in credit cards; a leverage ratio of at least 5%; no active severe enforcement action; a result other than "substantial noncompliance" or "needs to improve" in the bank's most recent Community Reinvestment Act exam; a yield on loans and leases of no more than three times the industry median of 4.88%; and no more than half of the entity's revenue coming from nontraditional banking activities. Additionally, industrial banks, nondepository trusts, companies with a bankers' bank certification and banks with parent companies that have total assets of \$10 billion or more were omitted.

Based on the above criteria, 196 banks and thrifts were eligible for ranking.



Data compiled Mar. 3, 2023.
Source: S&P Global Market Intelligence.
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Five Star Bank, established in 1999 and operating with seven branches in California, outperformed the median for all 196 banks in the analysis in all seven metrics analyzed.

The bank crossed \$3 billion in assets during the third quarter of 2022, ending the year with \$3.22 billion in total assets, up 26.1% from the end of 2021. About 92% of the bank's loan portfolio is made up of real estate loans.

According to the company's fourth-quarter 2022 financial disclosures, the increase in total assets was primarily due to \$1.4 billion in non-Paycheck Protection Program loan originations, partially offset by PPP loan forgiveness and loan payoffs.

Another new entrant to the \$3 billion club, Baltimore-based CFG Community Bank, came in at No. 2, helped by its 37.91% return on average tangible common equity before tax and 32.8% five-year average operating revenue growth. The bank had the second-highest cost of funds among the top 50, thanks to its 35.4% concentration in CDs, compared to 11.7% median for the group.

Century-old Fargo, N.D.-based Choice Financial Group, in the third spot, operates 14 branches in North Dakota and five in Minnesota and grew its total assets by 33.5% over the year. Gross loans and leases increased by 20.9%, primarily driven by real estate loans, which were up \$334.3 million from a year ago.

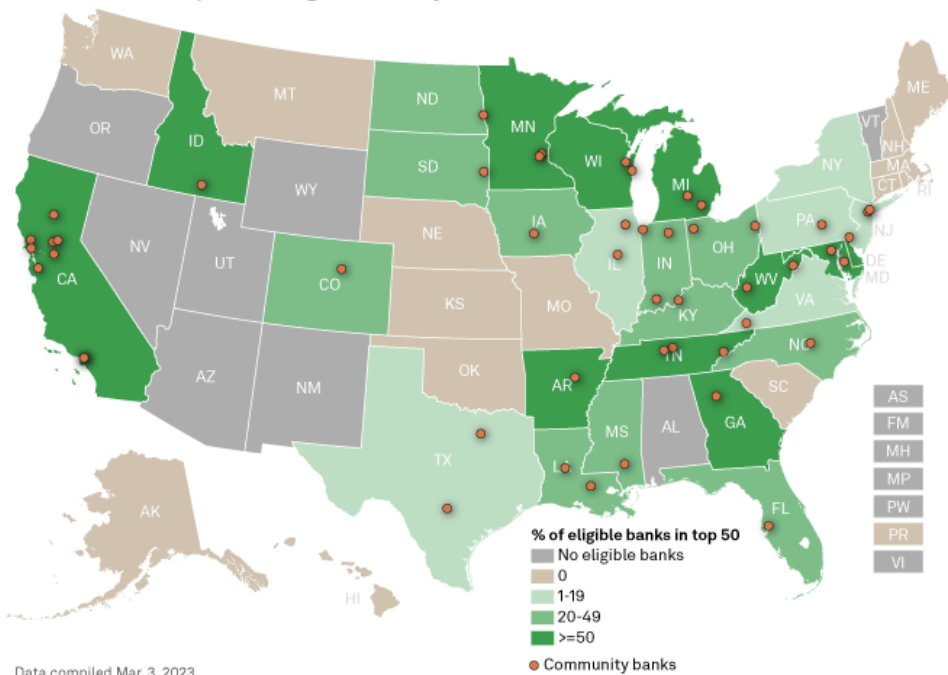
Best performing community banks of 2022 between \$3B and \$10B in assets

Based on financials for the year ended Dec. 31, 2022

Rank	Company (top-level ticker)	City, state	Ranking metrics							NPA & loans 90+ PD/total assets (%)	Leverage ratio (%)
			Total assets (\$M)	ROATCE before tax and extra (%)	Efficiency ratio (%)	Cost of funds (%)	5-year avg. operating revenue growth (%)	5-year avg. NCOs/avg. loans and leases (%)			
1	Five Star Bank (FSBC)	Roseville, CA	3.22	25.49	33.20	0.44	24.4	0.13	0.01	10.69	
2	CFG Community Bank	Baltimore, MD	4.25	37.91	38.13	1.40	32.8	0.04	0.17	9.31	
3	Choice Financial Group	Fargo, ND	4.23	27.28	47.16	0.45	21.7	0.06	0.15	9.44	
4	American Business Bank (AMBZ)	Los Angeles, CA	3.84	26.69	46.07	0.07	17.6	0.00	0.18	8.75	
5	RBB Bancorp (RBB)	Los Angeles, CA	3.92	23.22	39.43	0.91	16.5	0.02	0.31	11.67	
6	Mid Penn Bank (MPB)	Millersburg, PA	4.48	17.58	53.54	0.39	31.8	0.01	0.21	10.71	
7	Fidelity Bank	Fuquay-Varina, NC	3.73	34.80	51.95	0.04	13.9	-0.01	0.50	8.18	
8	Preferred Bank (PFBC)	Los Angeles, CA	6.43	30.07	26.95	0.85	14.0	0.09	0.40	10.32	
9	Metropolitan Commercial Bank (MCB)	New York, NY	6.27	17.70	56.71	0.45	31.6	-0.01	0.02	10.02	
10	TriCo Bancshares (TCBK)	Chico, CA	9.93	23.96	51.56	0.11	13.2	0.00	0.34	10.14	
11	First National Bank of America	East Lansing, MI	4.55	48.28	26.02	1.67	21.5	0.03	1.46	8.71	
12	Farmers & Merchants Bancorp (FMCB)	Lodi, CA	5.33	22.03	44.21	0.07	11.1	0.01	0.05	9.36	
13	Bank First NA (BFC)	Manitowoc, WI	3.66	21.61	46.10	0.39	18.2	0.12	0.19	9.93	
14	Bridgewater Bancshares Inc. (BWB)	Saint Louis Park, MN	4.35	21.74	41.50	0.96	19.0	0.00	0.02	9.55	
15	River City Bank (RCBC)	Sacramento, CA	4.04	20.46	26.40	0.56	14.7	-0.02	0.00	8.68	
16	Old Second National Bank (OSBC)	Aurora, IL	5.88	21.68	55.92	0.07	21.7	0.06	0.59	9.32	
17	West Bank (WTBA)	West Des Moines, IA	3.61	20.57	41.82	0.74	9.1	-0.01	0.01	11.37	
18	Metro City Bank (MCBS)	Doraville, GA	3.44	29.51	35.35	0.97	12.0	0.03	0.71	9.63	
19	German American Bancorp Inc. (GABC)	Jasper, IN	6.16	24.80	58.07	0.31	14.8	0.10	0.23	10.53	
20	First Bancshares Inc.	Merrillville, IN	6.73	25.44	47.86	0.50	11.0	0.07	0.15	9.98	
21	Heritage Commerce Corp (HTBK)	San Jose, CA	5.15	22.06	48.54	0.19	11.6	0.02	0.05	9.15	
22	First Bank & Trust	Brookings, SD	4.38	21.10	57.76	0.41	25.2	0.03	0.74	9.26	
23	Frandsen Financial Corp.	Arden Hills, MN	3.17	41.57	60.40	0.09	11.6	-0.01	0.14	7.26	
24	First Bancorp Inc.	Lebanon, VA	3.14	22.38	47.15	0.56	12.4	0.01	0.16	9.91	
25	The Bancorp Inc. (TBBK)	Wilmington, DE	7.90	26.99	51.42	0.44	15.5	0.07	0.77	9.63	
26	CapStar Bank (CSTR)	Nashville, TN	3.11	15.60	54.66	0.47	19.5	0.10	0.39	12.10	
27	City Holding Co. (CHCO)	Charleston, WV	5.88	26.30	48.53	0.16	6.8	0.07	0.39	10.01	
28	Premier Financial Corp. (PFC)	Defiance, OH	8.46	21.89	52.42	0.51	20.9	0.06	0.48	9.37	
29	Farmers National Bank of Canfield (FMNB)	Canfield, OH	4.07	32.01	53.84	0.39	11.4	0.08	0.41	8.76	
30	Stock Yards Bancorp Inc. (SYBT)	Louisville, KY	7.51	23.26	58.19	0.26	17.3	0.06	0.21	9.33	
31	Bank of Ann Arbor	Ann Arbor, MI	3.02	22.98	51.57	0.24	12.2	0.07	0.25	9.78	
32	The First Bancshares Inc. (FBMS)	Hattiesburg, MS	6.47	19.09	58.49	0.45	25.6	0.04	0.50	9.26	
33	BCB Community Bank (BCBP)	Bayonne, NJ	3.55	21.39	44.39	0.55	12.6	0.02	0.45	9.88	
34	Vantage Bank Texas	San Antonio, TX	3.35	19.59	56.56	0.26	82.9	0.31	0.77	10.67	
35	HBT Financial Inc. (HBT)	Bloomington, IL	4.28	23.58	54.49	0.19	5.7	0.01	0.12	10.58	
36	SmartBank (SMBK)	Pigeon Forge, TN	4.63	16.66	61.08	0.44	28.1	0.02	0.10	8.90	
37	Bank of Marin Bancorp. (BMRC)	Novato, CA	4.15	18.91	53.29	0.05	11.0	0.00	0.11	9.60	
38	Poppy Bank	Santa Rosa, CA	5.32	20.75	34.60	1.19	19.7	0.02	1.30	10.20	
39	ANB Bank	Denver, CO	3.20	33.16	61.46	0.07	4.4	0.01	0.06	8.49	
40	Lakeland Financial Corp. (LKFN)	Warsaw, IN	6.43	21.70	45.14	0.64	7.4	0.09	0.27	11.50	
41	Summit Community Bank Inc. (SMMF)	Moorefield, WV	3.89	20.12	45.92	0.75	14.9	0.07	0.36	10.40	
42	D.L. Evans Bank	Burley, ID	3.04	22.92	57.08	0.16	11.5	-0.01	0.13	9.02	
43	Nicolet Bankshares Inc. (NIC)	Green Bay, WI	8.76	24.02	51.74	0.49	17.9	0.03	0.46	8.17	
44	First Security Bancorp	Searcy, AR	7.73	13.52	44.50	0.44	3.2	-0.01	0.06	18.42	
45	Red River Bank (RRBI)	Alexandria, LA	3.08	18.58	55.70	0.20	10.7	0.05	0.21	11.00	
46	Inwood Bancshares Inc.	Dallas, TX	4.36	21.29	41.51	0.31	7.5	0.00	0.42	9.05	
47	Wilson Bank Holding Co. (WBHC)	Lebanon, TN	4.27	18.73	55.84	0.48	10.8	0.02	0.02	11.18	
48	Bank of Tampa	Tampa, FL	3.07	26.87	57.80	0.08	11.9	0.05	0.17	7.58	
49	Business First Bancshares Inc. (BFST)	Baton Rouge, LA	6.01	19.08	64.48	0.72	36.4	0.05	0.35	9.49	
50	Shore United Bank NA (SHBI)	Easton, MD	3.48	14.95	59.12	0.33	19.9	0.02	0.25	9.92	

California	19.25	58.08	0.46	10.8	0.06	0.34	9.63
Median for all 196 banks	19.25	58.08	0.46	10.8	0.06	0.34	9.71

50 best-performing community banks of 2022 with \$3B-\$10B in assets



total assets between \$3 billion
 iculated for each metric for each
 ze the data.
 ans in credit cards; a leverage ratio
 ne bank's most recent CRA exam;
 nue coming from nontraditional
 ; with parent companies that have

Data compiled Mar. 3, 2023.
 S&P Global Market Intelligence used seven diversely weighted metrics to identify top-performing U.S. community banks with total assets between \$3 billion and \$10 billion. The mean for each metric was identified across the data set, and standard deviations from these means were calculated for each metric for each institution and aggregated to determine a relative performance score. Scores for each metric were also capped to help normalize the data.
 Map credit: Joe Felizadio.
 Source: S&P Global Market Intelligence.
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Download a refreshable template containing the underlying data used in the rankings and the list of top 50.

See the 2021 rankings for the top-performing community banks with less than \$3 billion in assets and those with \$3 billion to \$10 billion in assets.

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Licensed to

Alameda County Mosquito Abatement Dist.
Check Register
 For the Period From Apr 1, 2023 to Apr 15, 2023

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Amount
3575	4/12/23	Airgas	1,093.50
3576	4/12/23	Argo Adventure	142.78
3577	4/12/23	AT&T	85.34
3578	4/12/23	Belden Consulting Engineers	1,500.00
3579	4/12/23	Cintas	658.78
3580	4/12/23	Clarke	696.62
3581	4/12/23	Coverall North America, Inc.	495.00
3582	4/12/23	Industrial Park Landscape Maintenance	486.00
3583	4/12/23	KBA Docusys	590.20
3584	4/12/23	Lawton, Sarah	296.06
3585	4/12/23	PC Professional	60.00
3586	4/12/23	PG&E	784.66
3587	4/12/23	Pierce, Judith	371.91
3588	4/12/23	The Hartford	113.30
3589	4/12/23	U.S Bank Corporate Payment System	14,070.99
3590	4/12/23	Voya Institutional Trust Company	181.43
ACH	4/12/23	Alameda County Mosquito Abatement Dist (Payroll)	83,283.87
ACH	4/12/23	CalPERS Retirement	15,611.66
ACH	4/12/23	CalPERS 457	3,778.64
Total Expenditures - April 15, 2023			124,300.74

Alameda County Mosquito Abatement Dist.

Check Register

For the Period From Apr 16, 2023 to Apr 30, 2023

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Amount
3591	4/25/23	Adapco	3,635.93
3592	4/25/23	Airgas	688.84
3593	4/25/23	Cintas	220.56
3594	4/25/23	Delta Dental	4,424.70
3595	4/25/23	Grainger	182.44
3596	4/25/23	Hentschke, Eric Armin	100.00
3597	4/25/23	Jarvis, Fay, & Gibson, LLP	3,384.00
3598	4/25/23	PG&E	236.96
3599	4/25/23	Techniclean	269.11
3600	4/25/23	UC Davis AR Lockbox	616.00
3601	4/25/23	VCJPA	245.16
3602	4/25/23	Verizon	9.20
3603	4/25/23	Voya Institutional Trust Company	181.43
3604	4/25/23	VSP	646.83
3605	4/25/23	WEX Bank	3,737.72
3606	4/25/23	Young, George	100.00
ACH	4/25/23	Alameda County Mosquito Abatement Dist (Payroll - 4/30/23)	83,973.02
ACH	4/25/23	Alameda County Mosquito Abatement Dist (Payroll - 5/15/23)	83,283.87
ACH	4/25/23	Aguilar, Victor	100.00
ACH	4/25/23	Arkin, Valerie	100.00
ACH	4/25/23	Beatty, Robert .P	100.00
ACH	4/25/23	Bhat, Subrahmanya Y	100.00
ACH	4/25/23	CalPERS Health	41,242.59
ACH	4/25/23	CalPERS Retirement	15,611.66
ACH	4/25/23	CalPERS 457	3,778.64
ACH	4/25/23	Cox, Steven	100.00
ACH	4/25/23	Qaadri, Kashef	100.00
ACH	4/25/23	Roache, Cathy J Pinkerton.	100.00
ACH	4/25/23	Salzer, Hope	100.00
ACH	4/25/23	Savage, Tyler	100.00
ACH	4/25/23	Washburn, Jan	100.00
ACH	4/25/23	Welch, Courtney	100.00
Total Expenditures - April 30, 2023			247,668.66

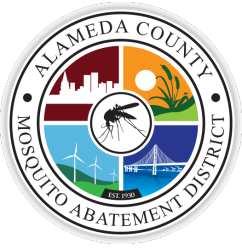
Alameda County Mosquito Abatement District
Income Statement
April 30, 2023. (10 of 12 mth, 83%)

REVENUES	Actual 2020/21	Actual 2021/22	Current Month	Year to Date 2022/23	Budget 2022/23	Actual vs Budget
Total Revenue	\$ 5,150,753.15	\$ 5,386,808.18	\$ 1,705.00	\$ 3,210,868.06	\$ 4,900,658.00	66%

EXPENDITURES	Actual 2020/21	Actual 2021/22 ¹	Current Month ²	Year to Date 2022/23	Budget 2022/23	Actual vs Budget
Salaries	\$ 2,029,103.97	\$ 2,129,077.24	\$ 267,805.82	\$ 2,015,326.63	\$2,371,703	85%
CalPERS Retirement	\$ 423,110.21	\$ 471,085.19	\$ 18,173.48	\$ 489,030.21	\$534,559	91%
Medicare & Social Security	\$ 27,866.82	\$ 30,025.60	\$ 3,704.92	\$ 29,735.70	\$38,763	77%
Fringe Benefits	\$ 502,898.39	\$ 484,487.10	\$ 46,427.42	\$ 516,192.22	\$564,969	91%
Total Salaries, Retirement, & Benefits	\$ 2,982,979.39	\$ 3,114,675.13	\$336,112	\$3,050,285	\$3,509,994	87%
Clothing and personal supplies (purchased)	\$ 4,859.20	\$ 7,881.80	\$ 583.30	\$ 4,967.22	\$9,000	55%
Laundry service and supplies (rented)	\$ 9,124.98	\$ 10,417.41	\$ 879.34	\$ 11,105.23	\$13,000	85%
Utilities	\$ 15,421.56	\$ 18,134.35	\$ 1,021.62	\$ 16,894.82	\$21,700	78%
Communications-IT	\$ 71,771.02	\$ 74,950.03	\$ 1,491.12	\$ 68,587.34	\$107,400	64%
Maintenance: structures & improvements	\$ 20,261.51	\$ 26,671.36	\$ 586.69	\$ 14,911.53	\$30,000	50%
Maintenance of equipment	\$ 22,290.34	\$ 25,354.56	\$ 2,412.17	\$ 22,945.70	\$30,000	76%
Transportation, travel, training, & board	\$ 74,653.03	\$ 120,418.29	\$ 11,390.13	\$ 108,887.83	\$119,840	91%
Professional services	\$ 91,622.03	\$ 97,726.00	\$ 3,384.00	\$ 77,714.16	\$127,200	61%
Memberships, dues, & subscriptions	\$ 22,906.45	\$ 25,103.23	\$ -	\$ 20,955.00	\$37,000	57%
Insurance - (VCJPA, UAS)	\$ 141,650.37	\$ 160,932.64	\$ 245.16	\$ 177,717.48	\$179,436	99%
Community education	\$ 26,317.23	\$ 26,225.45	\$ 1,773.40	\$ 16,080.31	\$55,000	29%
Operations	\$ 223,362.22	\$ 182,575.57	\$ 3,874.18	\$ 74,614.00	\$252,500	30%
Household expenses	\$ 15,882.05	\$ 25,388.02	\$ 898.28	\$ 14,068.09	\$19,950	71%
Office expenses	\$ 9,747.67	\$ 7,002.84	\$ 847.07	\$ 4,671.08	\$12,000	39%
Laboratory supplies	\$ 64,135.55	\$ 82,354.03	\$ 4,421.22	\$ 81,338.48	\$132,500	61%
Small tools and instruments	\$ 2,189.34	\$ 1,963.31	\$ 557.08	\$ 1,325.92	\$3,000	44%
Total Staff Budget	\$ 816,194.55	\$ 893,098.89	\$ 34,364.76	\$ 716,784.19	\$1,149,526	62%
Total Operating Expenditures	\$ 3,799,173.94	\$ 4,007,774.02	\$ 370,476.40	\$ 3,767,068.95	\$4,659,520	81%

1 - As of June 30, 2022.

2 - Total Operating Expenditures in current month may not match the check register due to accounts receivable and petty cash transactions.



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MOTHLY STAFF REPORT –1112

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Jan O. Washburn

Oakland

Eric Hentschke

Newark

Hope Salzer

Piedmont

Valerie Arkin

Pleasanton

Subru Bhat

Union City

Ryan Clausnitzer

General Manager

OPERATIONS REPORT

In April, ACMAD operations spent most of their time inspecting and treating larval *Culex spp.* mosquitoes. The main species were *Culex tarsalis* and *Culex erythrothorax* with some *Culex pipiens* detected as well. Control of these three species will be the primary focus of operations for the months to come. All three are competent vectors of West Nile virus and control of their larvae is the focus of ACMAD's WNV program. Many sources for *Cx. tarsalis* and *Cx. erythrothorax* still have very high-water levels that will keep these areas productive for mosquito breeding for months to come. Other sources for all three species that had received significant flushing from the heavy rains also began to show signs that they were becoming viable for mosquito breeding including: creeks, canals, catch basins, and storm drains. *Cx. pipiens* will start utilizing the tens of thousands of catch basins in the next month or so as the water is no longer receiving consistent flushing.

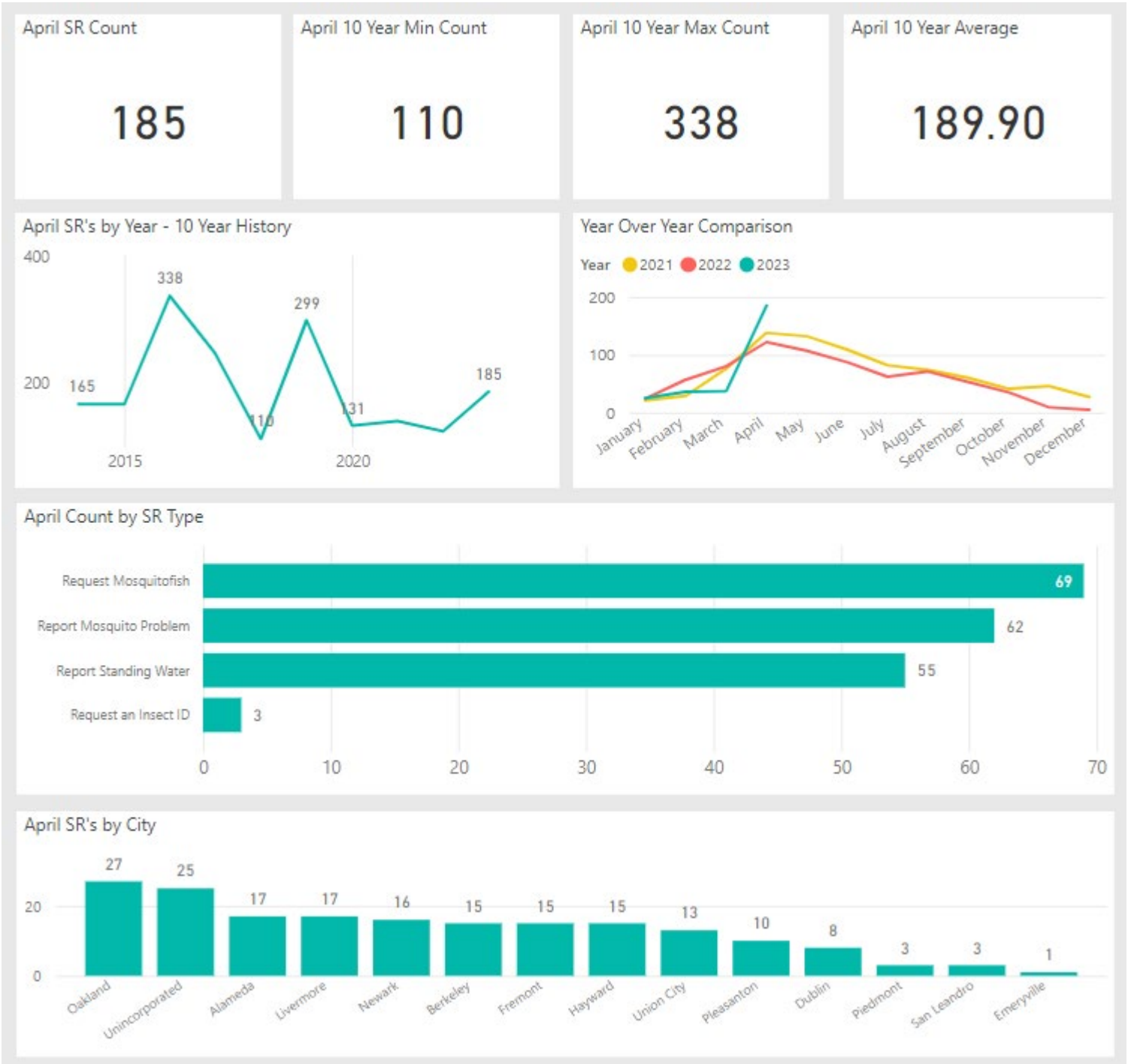
As for our fall /winter species: *Aedes squamiger*, *Ae. washinoi*, and *Ae. sierrensis* they have finished their cycles for this season. So far very few adult *Ae. squamiger* adults have been detected in adult mosquito traps, during field observations, and none were attributed to any requests for service received from the public. This aggressive, day-biting mosquito also travels great distances and causes great discomfort for the public. This mosquito was the main catalyst for our district's formation in 1930, and control of its larvae remains imperative for operations. Adults of both *Ae. washinoi* and *Ae. sierrensis* have been collected in several areas of the county but mostly in lower numbers. Neither species tends to travel far from their emergence sources, so they tend to be localized in areas of dense willows for the former and areas of dense vegetation, oak, and bay trees in riparian settings for the latter. So far this season, no adult *Ae. washinoi* have been attributed to requests for service and about five requests for service were attributable to *Ae. sierrensis*, primarily in the Sunol region of the county. Our final winter species, *Culiseta inornata*, were still being collected both as larvae and as adults in April but their numbers were dropping. Adult females of this, our largest mosquito species, will begin to sequester for the spring/summer months as the temperatures climb and the rainfall ceases for the season.

Requests for service received by the district from the public were significantly higher than in the past few months and in prior years. Over 60 of these requests were not entered as they were instead cleared by office staff after determining that the complaints were not mosquito related. One hundred eighty-five requests were responded to by operations staff in April and this number was just under the ten-year average for the month. Spring-like conditions for much of April, after an exceptionally wet rainy season, resulted in a boom for many insect species, especially midges and crane flies. These two non-biting "mosquito like" species often appear in mass and can generate a lot of "requests to report a mosquito problem." In April, well over sixty percent of these calls were attributable to midges and several to crane flies. Most requests received to "report standing water" were related to unmaintained swimming pools of the callers or adjacent neighbors. Several of these requests were also made to report water standing in lots and construction sites. The highest number of requests were "requests for mosquito fish" over ninety percent of these requests were for fish for back yard ponds with a few for unmaintained swimming pools and livestock watering troughs. Three "requests for an insect ID were received and two of the specimens were determined to be midges. No "reports of dead birds" were received in April.

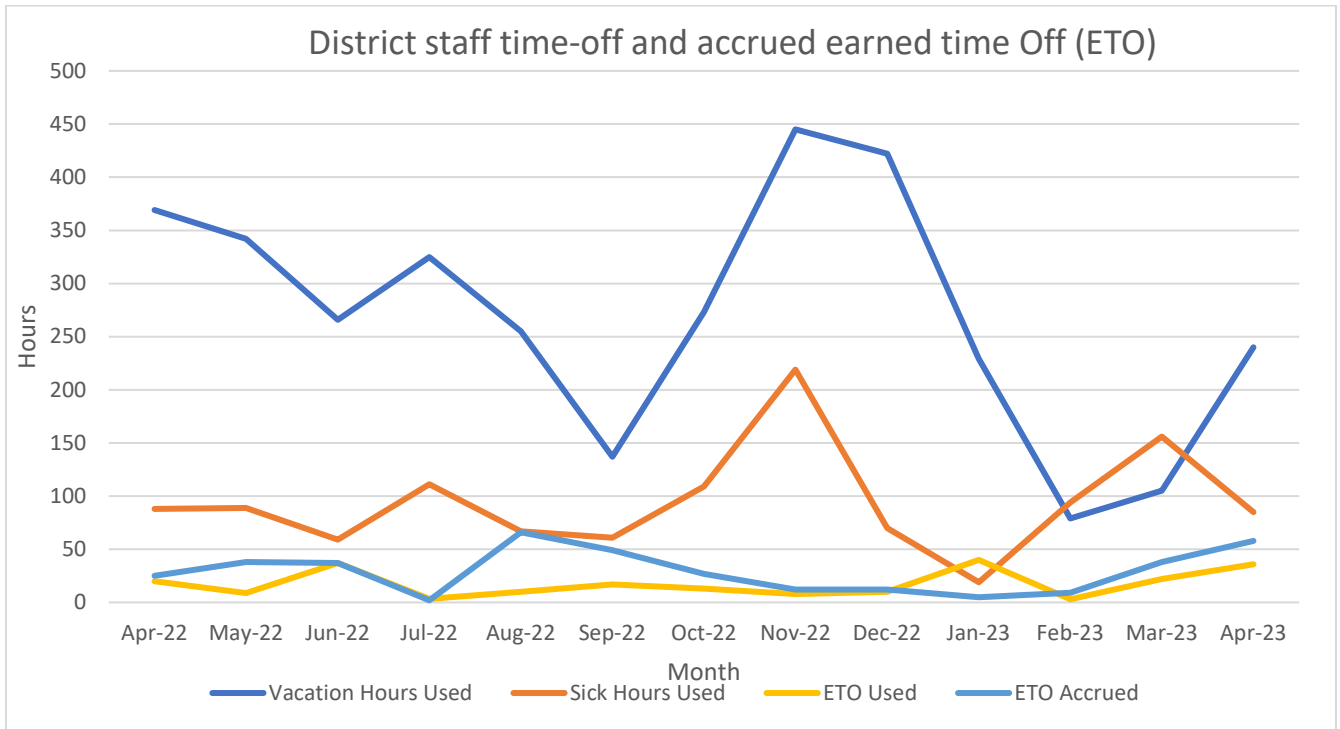
Field Operations Supervisor
Joseph Huston

Operational Report

Service Requests April 2023

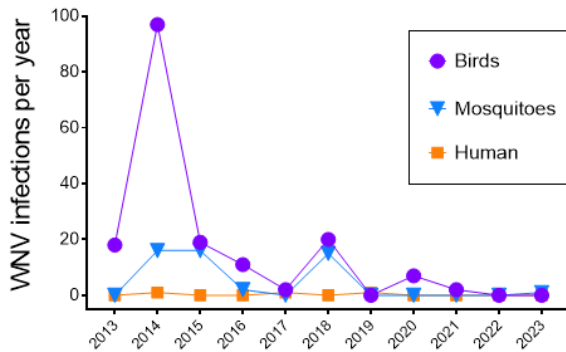


Activity Report

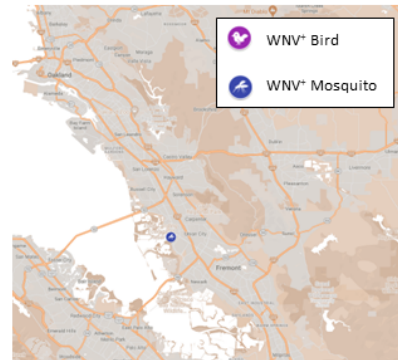


WNV Activity

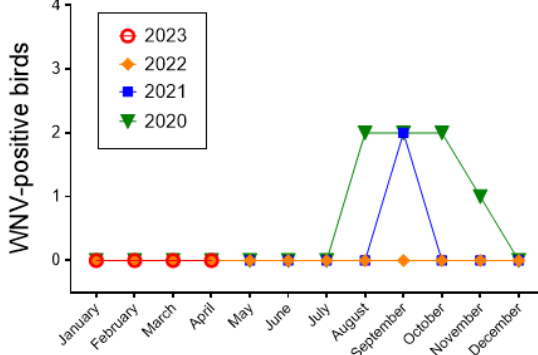
WNV infections detected in Alameda County 2013 – 2023



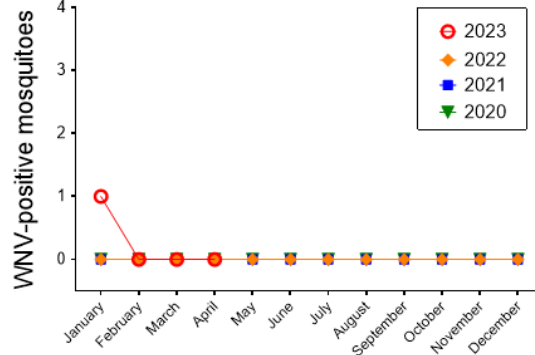
Locations of WNV-infected mosquitoes and birds in Alameda County during 2023



WNV-infected birds collected in Alameda County



WNV-infected mosquitoes collected in Alameda County



A. LAB

Summary

- *Arboviruses in mosquitoes.* The vector species that were collected in mosquito traps during April were not infected with West Nile virus (WNV), Saint Louis encephalitis virus (SLEV) or Western equine encephalitis virus (WEEV). For the year, mosquitoes from a single trap were found to contain WNV (collected during January, 2023)
- *Arboviruses in birds.* WNV, SLEV, and WEEV were not detected in birds during March of 2023.
- *Native mosquitoes.* A total of 333 encephalitis virus survey (EVS) traps, baited with CO₂ and a human scent lure, were placed during April, catching 6,825 adult female mosquitoes (20.5 mosquitoes per trap night). Mosquito magnet traps (MMT) collected 2,395 adult female *Aedes washinoi* mosquitoes.
- Sentinel chicken flocks will be returned to service during mid-spring of 2023.
- Invasive *Aedes* mosquitoes were not detected in Alameda County during 2023.

Arbovirus Monitoring

- A total of 36 collections of vector species that were collected in EVS traps this month were tested for WNV, SLEV, and WEEV. WNV was last detected in mosquitoes during January 2023 (WNV Activity figure, above). SLEV and WEEV have not been detected in the County for over a decade.
- WNV was not detected in birds or mosquitoes during April. WNV was last detected in birds collected in Alameda County during September 2021 (WNV Activity figure, above).
- No human WNV cases have been reported during 2023. The most recent human case in the county was reported for 2022.
- The sentinel chicken flocks will be returned to service during mid-spring of 2023.

Native Mosquito Abundance

- The following three species are the principal transmitters of WNV, SLEV and WEEV in California: *Culex pipiens* (occurs predominantly in urban settings), *Culex tarsalis* (associated with marsh and peri-urban areas), and *Culex erythrorhax* (occurs exclusively in marsh but adults can disperse into nearby communities).
- Warmer temperatures and limited rainfall allowed for increased numbers of EVS traps to be placed. During the month of April, 333 EVS traps were placed that collected a total of 6,825 adult female mosquitoes (20.5 mosquitoes per trap night), which was 2.0-fold higher than the prior month. Adult mosquito abundance for April was slightly higher than 2022, but substantially higher than 2021 for the same period (Figure 1). The increased overall abundance can be attributed to two species, *Culex tarsalis* and *Culiseta inornata* (Figure 2 and Figure 3). Adult female *Aedes sierrensis* (the western tree hole mosquito), *Aedes dorsalis* (the summer salt marsh mosquito), and *Aedes squamiger* (the winter salt marsh mosquito) were collected in traps as well. Fortunately, very low numbers of *Ae. squamiger* were found, and with the seasons transitioning to warmer weather, it's unlikely that large numbers of this species will be detected in the coming months. Mosquito magnet traps captured a relatively high number of *Ae. dorsalis* at Coyote Hills Regional Park (Figure 2; 2,395 during the month), suggesting that the high rainfall during prior months increased the capacity for this mosquito to reproduce beyond what is typical.
- Low mosquito abundance was recorded for the northern and eastern regions of the county, with slightly higher abundance observed in the southern bayside region (Figure 4). Higher adult mosquito abundance was recorded in the central bayside region (Newark and Union City), likely due to the high quantity of water in the wetlands that persisted for months longer than usual.

LAB FIGURES

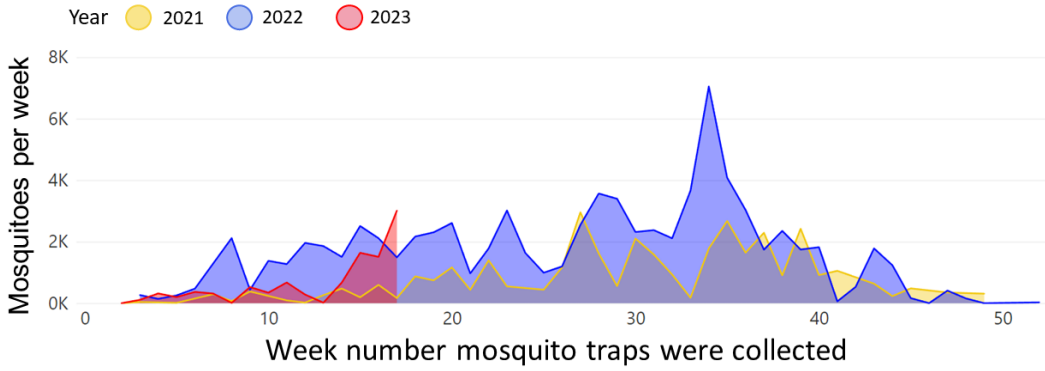


Figure 1. Mosquitoes captured in EVS CO₂ traps from 2021 – 2023. A total of 9,227 adult female mosquitoes were captured in CO₂-baited traps during the month and identified to species. Week 24 of 2021 was excluded from the graph because the high anomalous abundance that week skewed the y-axis.

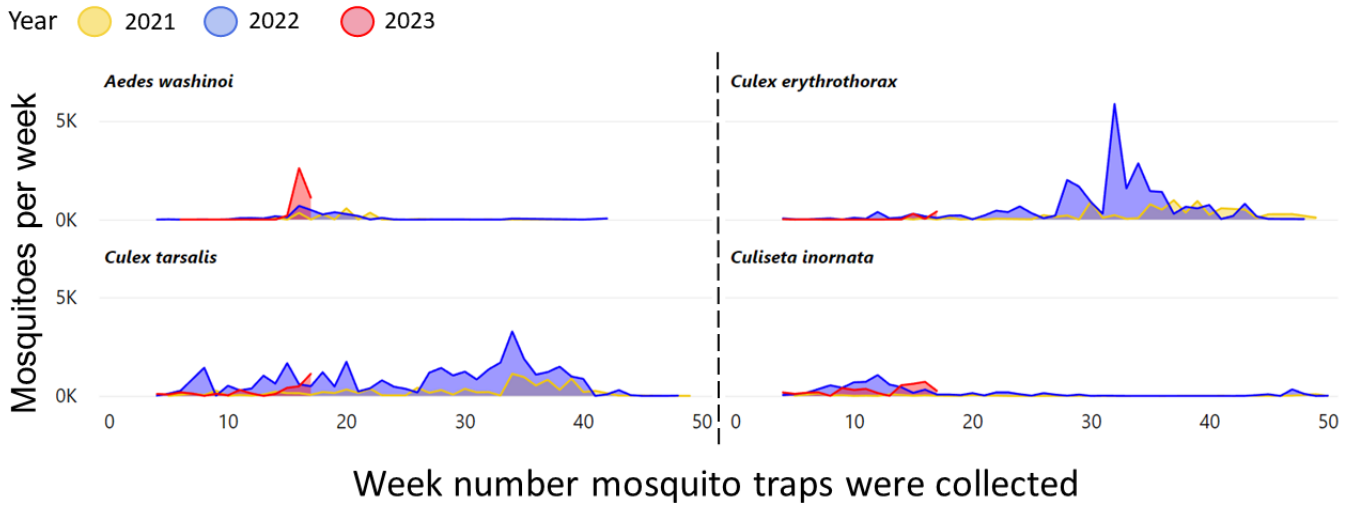


Figure 2. Weekly abundance of important mosquito species during 2021, 2022 and 2023.

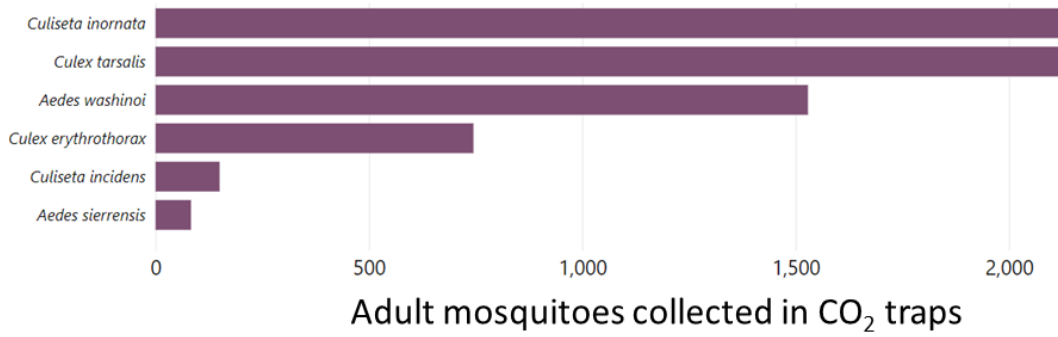
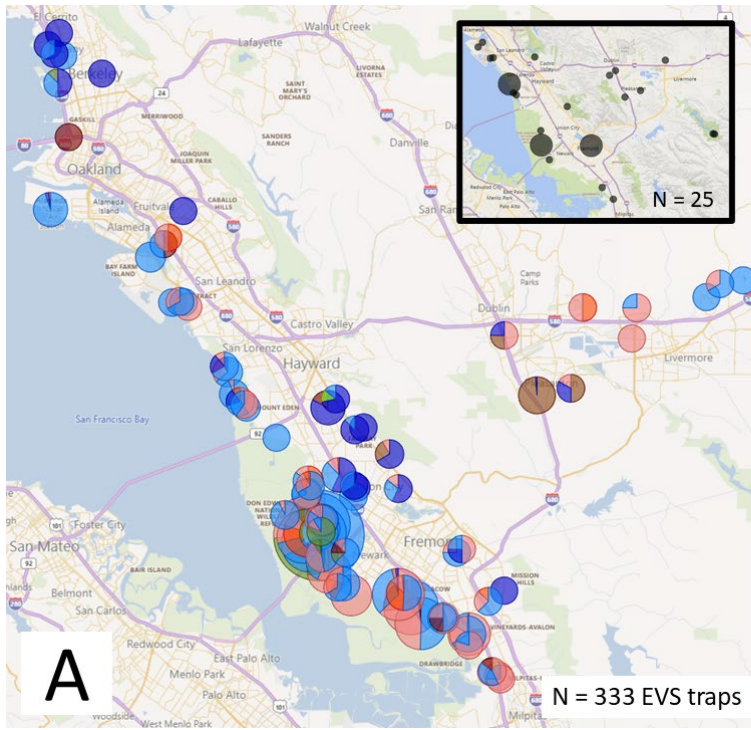


Figure 3. The most abundant species of mosquito captured using EVS CO₂ traps during the month of this report. Larger squares and rectangles indicate higher abundance of that species.



Species

- *Culiseta inornata*
- *Culex tarsalis*
- *Aedes washinoi*
- *Culex erythrothorax*
- *Culiseta incidens*
- *Aedes sierrensis*
- *Culiseta particeps*
- *Culex pipiens*
- *Aedes dorsalis*
- *Aedes squamiger*
- No mosquitoes

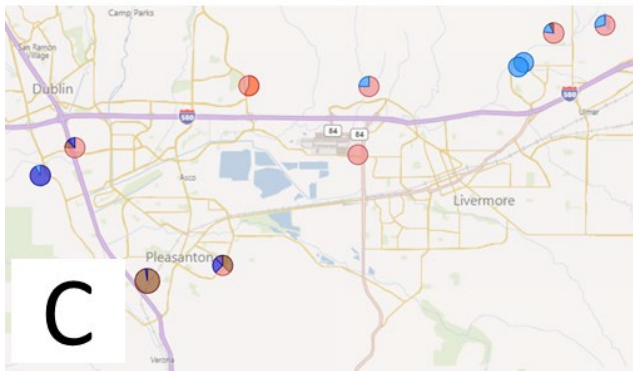
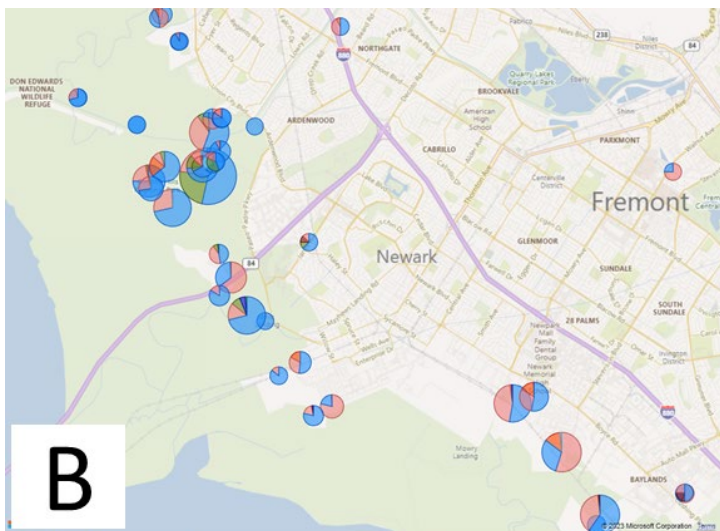


Figure 4. Mosquito abundance by trap site evaluated using EVS CO₂ traps. Pie charts over trap sites indicate the distribution of mosquito species collected at the trap site. The size of each pie chart indicates the relative number of mosquitoes at each site during the month in (A) Alameda County (the insert shows traps that were placed but did not collect mosquitoes), (B) the central bayside region, and (C) the eastern region of the county.

Analysis and report by Eric Haas-Stapleton, PhD, Laboratory Director

B. PUBLIC EDUCATION

Events and Education

- Khmer New Year Festival (Oakland) – April 1
- Healthy Families Festival in Emeryville – April 8
- Livermore High School Ag Day – April 18
- Berkeley Bay Festival – April 22
- Family Science Night at MLK (Oakland) – April 26

Google Analytics

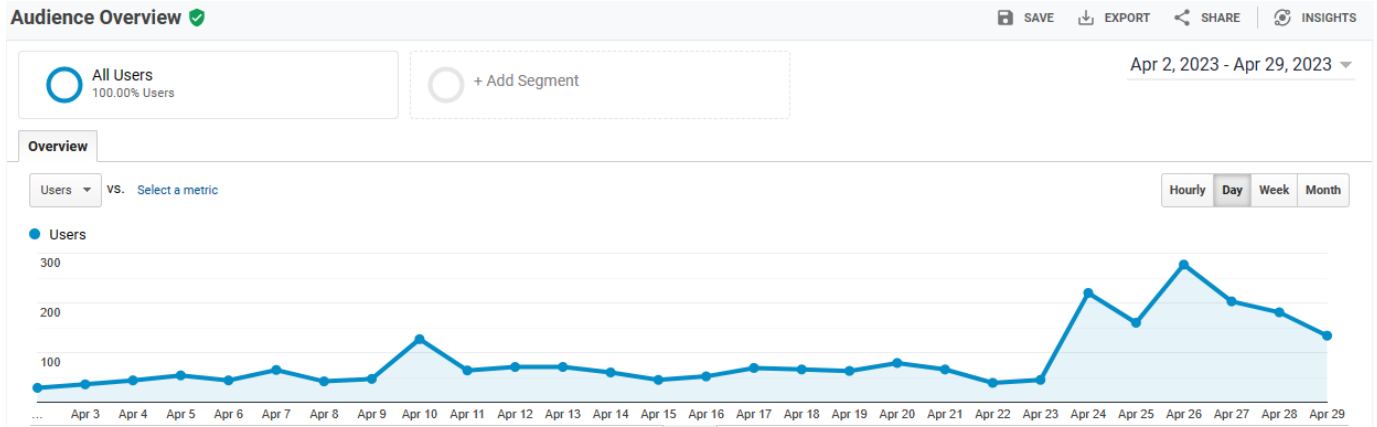
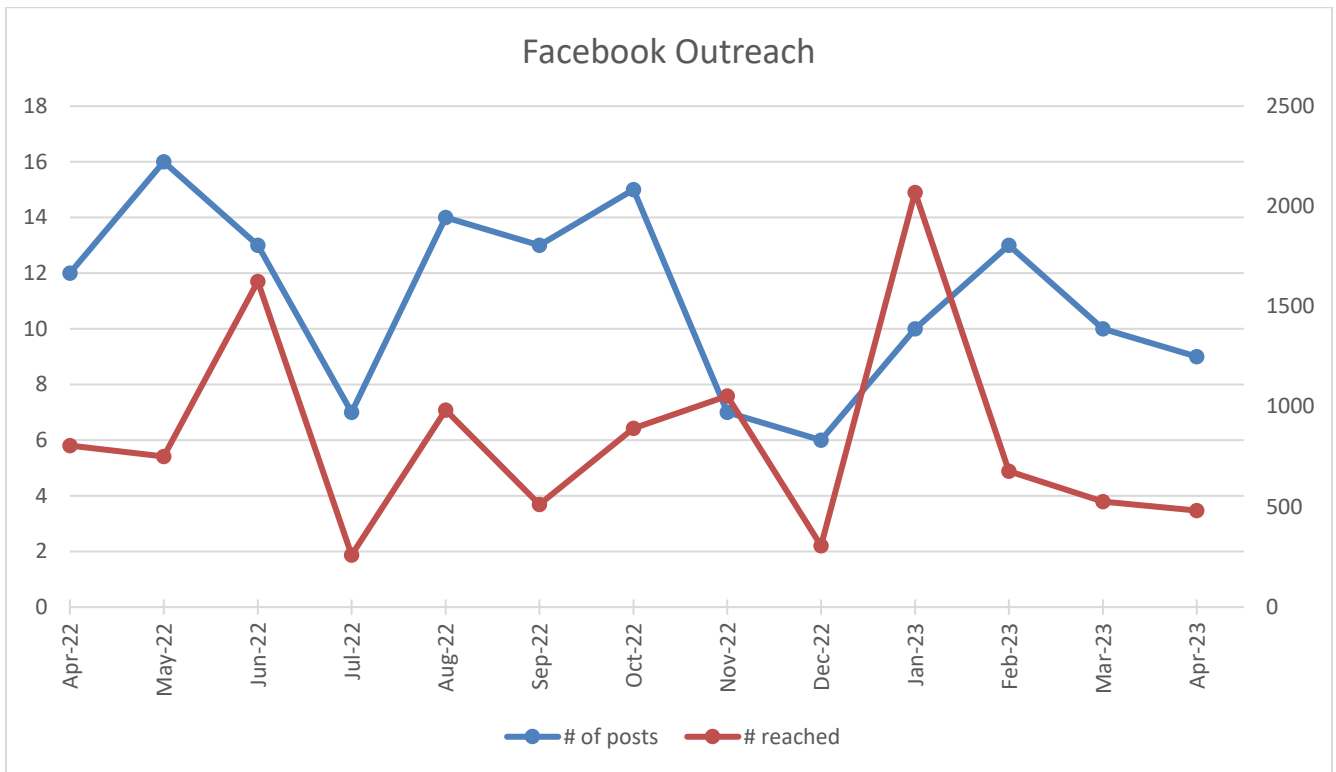
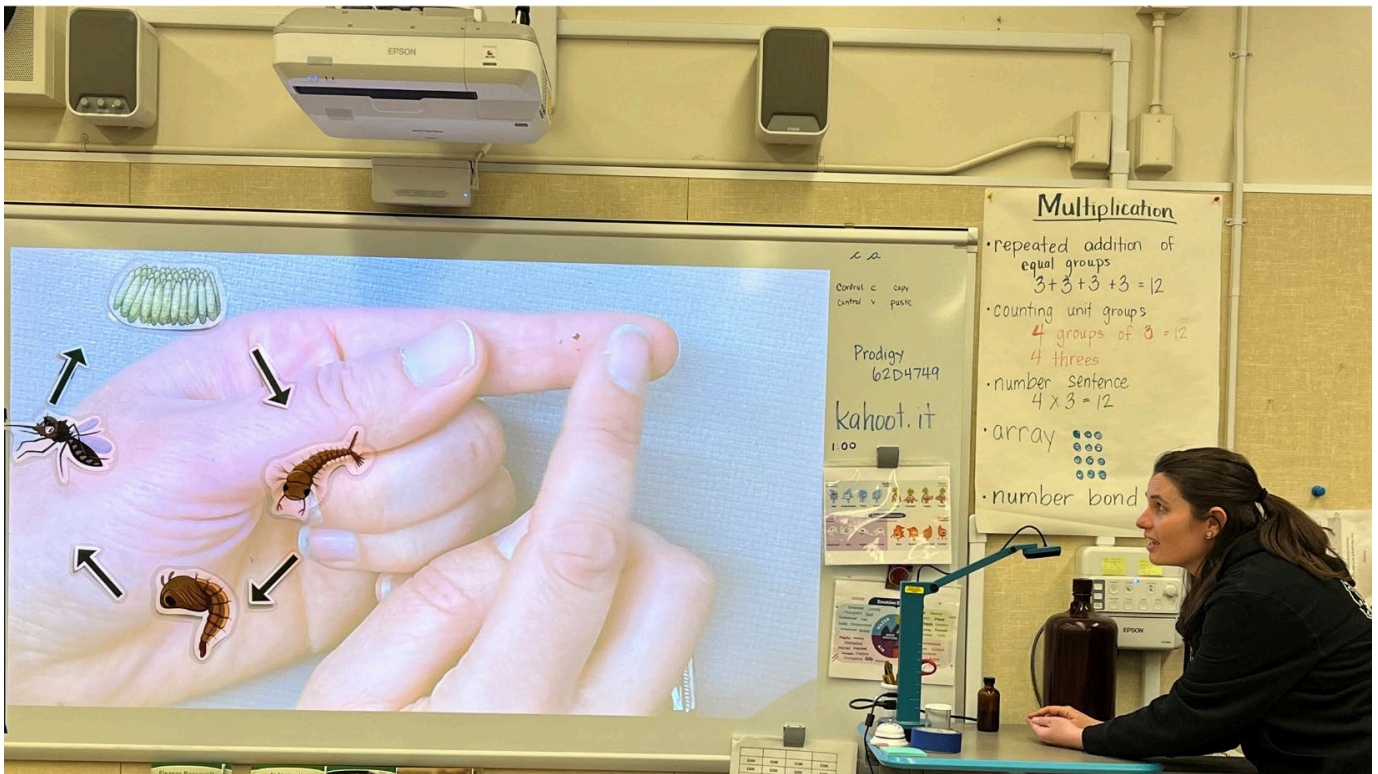


Figure 1: April website users 2023 (4/1 and 4/30 were removed to filter out bot data).

Facebook

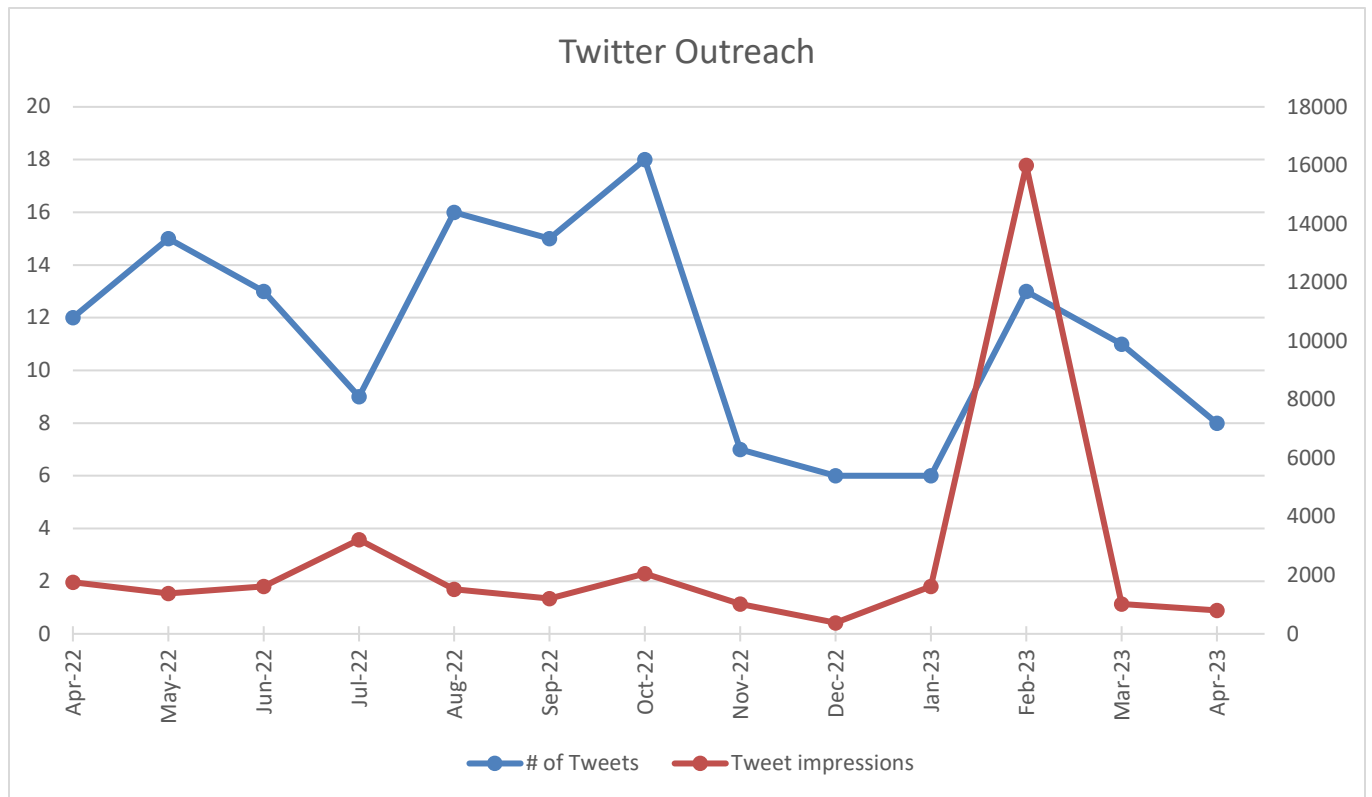


April Data: Posts-9 Reach – 482 Followers – 399



Top April Facebook Post: Mosquito education in action! Our educator, Judi, showed a classroom of 3rd graders how many eggs there are in an egg raft. If you know of a 3rd grade class that would like an engaging and standards aligned lesson on mosquitoes, contact us at 510-783-7744.

Twitter



April Data: Posts – 8 Impressions – 802 Followers – 807

Top April 2023 Twitter Post:



Alameda MAD @AlamedaMosquito · Apr 27

...

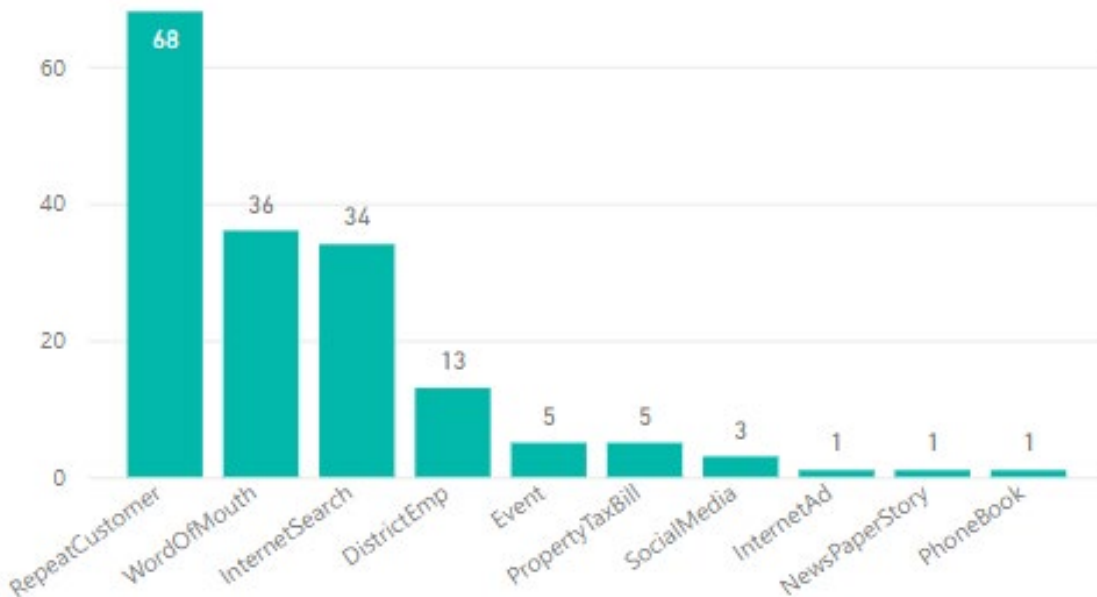
The California West Nile Virus (WNV) and Dead Bird Call Center is open! The California Department of Public Health operates the center to help track [#WestNileVirus](#). If you find a dead bird, call 1-877-WNV-BIRD, and operators tell you what to do with the bird.

The California
**WNV and Dead Bird
Call Center**
is now **LIVE!**

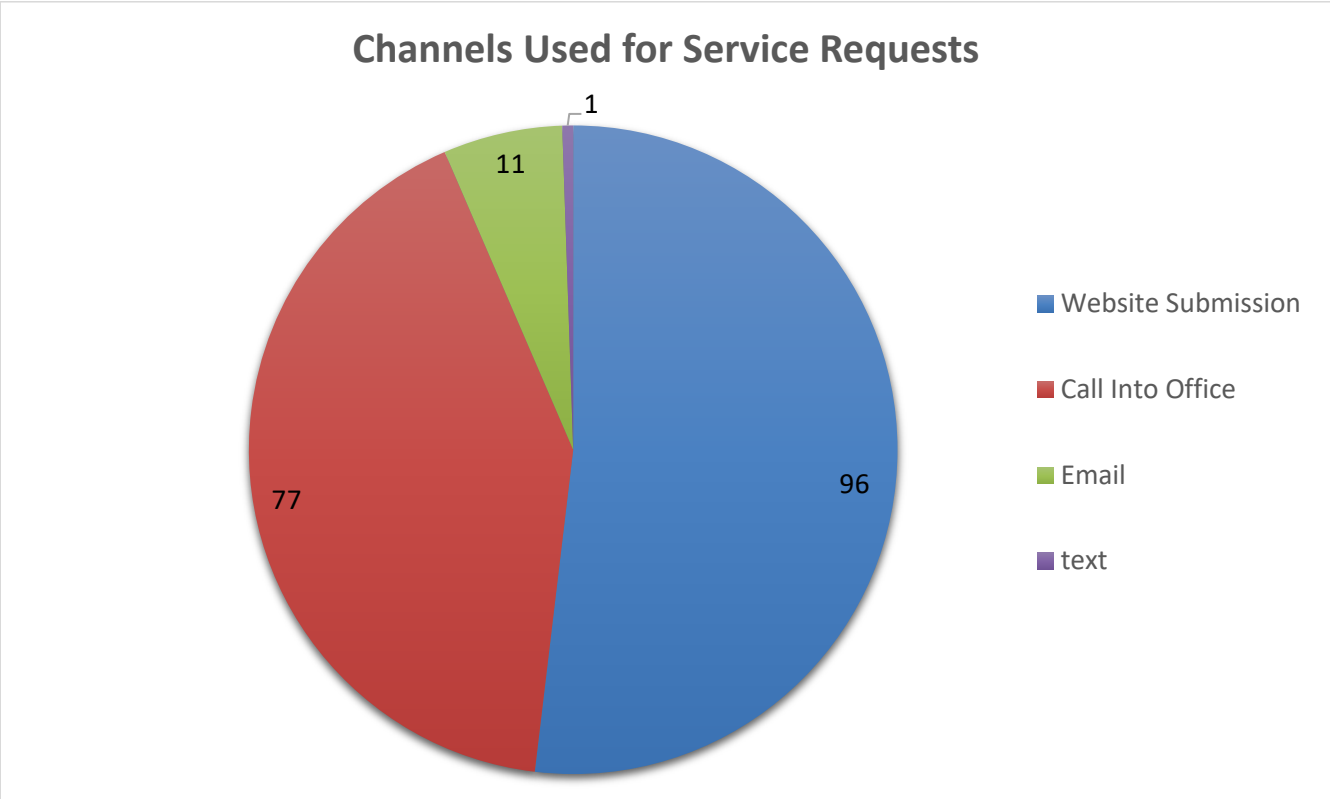
Call to report a dead bird
or learn more about WNV:
1-877-WNV-BIRD
(1-877-968-2473)

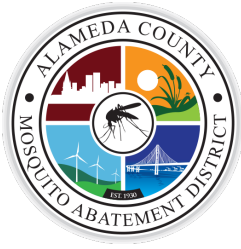
VECTOR-BORNE
DISEASE SECTION
CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

Service Request Referral Summary for April



Channels Used by Residents to Request Service





23187 Connecticut Street
Hayward, CA 94545

T: (510) 783-7744
F: (510) 783-3903

acmad@mosquitoes.org

Trustee Anniversary Recognition:

Board of Trustees

President

Victor Aguilar

San Leandro

Vice-President

Cathy Roache

County-at-Large

Secretary

Steven Cox

Livermore

Tyler Savage

Alameda

Robin López

Albany

P. Robert Beatty

Berkeley

Kashef Qaadri

Dublin

Courtney Welch

Emeryville

George Young

Fremont

vacant

Hayward

Jan O. Washburn

Oakland

Eric Hentschke

Newark

Hope Salzer

Piedmont

Valerie Arkin

Pleasanton

Subru Bhat

Union City

Ryan Clausnitzer

General Manager

Background:

ACMAD is pleased to recognize and thank the following Trustee on their anniversary.

Trustee	City	Years of Service	Anniversary Date
Hope Salzer	Piedmont	1	March 28 th

California Arbovirus Surveillance Bulletin #3

Week 17 Friday, April 28, 2023



WEEKLY UPDATE

Humans

No human infections have been reported in 2023.

Dead Birds

No new West Nile virus (WNV) positives were reported this week. In 2023, 1 WNV positive bird has been reported in 1 county. At this time last year, no dead birds had been reported positive.

Mosquito Pools

No new WNV positives were reported this week. In 2023, 2 WNV positive mosquito pools have been reported from 2 counties. At this time last year, 2 WNV positive mosquito pools had been reported from 2 counties.

Sentinel Chickens

No seroconversions have been reported in 2023.

2022 & 2023 YTD West Nile Virus Comparisons		
	2022	2023
Total No. Dead Bird Reports	866	1,117
No. Positive Counties	2	3
No. Human Cases	0	0
No. Positive Dead Birds / No. Tested	0 / 116	1 / 66
No. Positive Mosquito Pools / No. Tested	2 / 2,242	2 / 1,974
No. Seroconversions / No. Tested	0 / 65	0 / 0

California Arbovirus Surveillance Bulletin #3

Week 17 Friday, April 28, 2023

YTD WNV Activity by Element and County, 2023					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda				1	
Los Angeles				1	
Santa Clara			1		
Totals			1	2	

TESTING SUMMARIES

		WNV	SLEV	WEEV
Human Cases	Week	0	0	0
	YTD	0	0	0

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Dead Birds	Week	0 / 18					
	YTD	1 / 66					
Chicken Sera	Week	0 / 0	0 / 0	0 / 0			
	YTD	0 / 0	0 / 0	0 / 0			
Mosquito Pools	Week	0 / 569	0 / 569	0 / 569	0 / 0	0 / 0	0 / 0
	YTD	2 / 1,974	0 / 1,973	0 / 1,973	0 / 4	0 / 4	0 / 4

California Arbovirus Surveillance Bulletin #3

Week 17 Friday, April 28, 2023

TEST PROTOCOLS

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing with a plaque reduction neutralization test (PRNT).

Dead Birds

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

Sentinel Chickens:

Dried blood spot samples from sentinel chickens are tested at the California Department of Public Health Vector-Borne Disease Laboratory for IgG antibodies to West Nile, St. Louis encephalitis, and western equine encephalomyelitis viruses by an EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

Website Information: For updated information on WNV in California, please visit the California WNV website, <https://westnile.ca.gov>, or the California Vector-Borne Disease Surveillance System website, <https://maps.vectorsurv.org>.

Prepared by the Vector-Borne Disease Section (Infectious Diseases Branch), California Department of Public Health, 850 Marina Bay Parkway, Richmond, CA 94804. Questions concerning this bulletin should be addressed to Hannah Romo: Hannah.romo@cdph.ca.gov