AGENDA

1075th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT <u>DECEMBER 11TH, 2019</u>

TIME: PLACE:	5:00 P.M. Office of the District, 23187 Connecticut Street, Hayward
TRUSTEES:	Eric Hentschke, President, City of Newark
	Wendi Poulson, Vice-President, City of Alameda
	P. Robert Beatty, Secretary, City of Berkeley
	Cathy Roache, County-at-Large
	Alan Brown, City of Dublin
	Betsy Cooley, City of Emeryville
	George Young, City of Fremont
	Elisa Marquez, City of Hayward
	James N. Doggett, City of Livermore
	Jan O. Washburn, City of Oakland
	Robert Dickinson, City of Piedmont
	Kathy Narum, City of Pleasanton
	Victor Aguilar, City of San Leandro
	Subru Bhat, City of Union City
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- 1. Call to order.
- 2. Roll call.
- 3. President Hentschke invites any member of the public to speak at this time on any issue relevant to the District. (Each individual is limited to three minutes).
- 4. Approval of the minutes of the 1074th meeting held November 13th, 2019 (**Board action required**)
- 5. Resolution 1075-1 honoring Miguel Cardenas for his service to the District (**Board action required**)
- 6. Nominating Committee (Beatty, Hernandez, Cooley) nominates a slate of 2020 District Officers for Board approval **(Board action required)**
- 7. Appointment of members to the Personnel Committee (Board action required)
- 8. Financial Reports as of November 30th, 2019: (Information only).
 - a. Check Register
 - b. Income Statement
 - c. Investments, reserves, and cash report
 - d. Balance Sheet
- 9. Presentation of the Monthly Staff Report for December 2019 (Information only).
- 10. Presentation of the Manager's Report for December 2019 (Information only).
 - a. Trustee Anniversary
 - b. Erick Gaona hired as an Assistant Mosquito Control Technician
 - c. LAFCo annexation application approved at 11/14/19 meeting

- d. Alameda County Special District Association meeting at ACMAD on 1/8/20
- 11. Board President asks for reports on conferences and seminars attended by Trustees.
- 12. Board President asks for announcements from members of the Board.
- 13. Board President asks trustees for items to be added to the agenda for the next Board meeting.
- 14. Adjournment.

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

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

MINUTES

1074th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT November 13th, 2019

TIME:

- 5:00 P.M. PLACE: Office of the District, 23187 Connecticut Street, Hayward TRUSTEES: Eric Hentschke, President, City of Newark Wendi Poulson, Vice-President, City of Alameda P. Robert Beatty, Secretary, City of Berkeley Cathy Roache, County-at-Large Alan Brown, City of Dublin Betsy Cooley, City of Emeryville George Young, City of Fremont Elisa Marquez, City of Hayward James N. Doggett, City of Livermore Jan O. Washburn, City of Oakland Robert Dickinson, City of Piedmont Kathy Narum, City of Pleasanton Victor Aguilar, City of San Leandro Subru Bhat, City of Union City
- 1. Board President Hentschke called the regularly scheduled board meeting to order at 5:00 P.M.
- 2. Trustees Hentschke, Beatty, Roache, Cooley, Young, Marquez, Doggett, Washburn, Narum, Aguilar and Bhat were present. Trustees Poulson and Brown were absent. Trustee Dickinson arrived at 5:05 P.M.
- Board President Hentschke invited members of the public to speak on any issue relevant to the District. Lab Director Dr. Eric Haas-Stapleton and Regulatory and Public Affairs Director Erika Castillo were present to give a presentation about Mosquito Control on the SF Bay Shoreline. Vector Biologist Jeremy Sette was present to record the minutes.
- 4. Approval of minutes of the 1073rd meeting held October 9th, 2019.
 Discussion: The General Manager noted some corrections from the previous month's minutes: Trustee Washburn met with officials in 2015, not 2012; "recent" should be changed to "recently"; change "or" to "nor".
 Motion: Trustee Aguilar moved to approve the minutes with the changes Second: Trustee Marquez Vote: motion carries: unanimous.
- Appointment of a committee to nominate candidates for board offices.
 Discussion:
 Trustees Washburn, Narum and Doggett were recommended to be appointed to the committee to nominate candidates for Board offices.
 Motion: Trustee Beatty moved to approve the appointment of Trustees Washburn, Narum and Doggett to the Committee to Nominate Candidates for Board Offices
 Second: Trustee Bhat
 Vote: motion carries: unanimous.
- 6. Presentation: *Mosquito Control on the SF Bay Shoreline* by Regulatory and Public Affairs Director Erika Castillo and Lab Director Dr. Eric Haas-Stapleton.

Discussion:

The General Manager gave a background of the presentation and introduced Regulatory and Public Affairs Director Erika Castillo and Lab Director Dr. Eric Haas-Stapleton. Castillo and Haas-Stapleton gave their presentation and fielded the following discussion. Trustee Beatty asked for the definition of an ecotone (Haas-Stapleton answered: an ecotone is the transition space between two different types of ecological environments). The General Manager commended Castillo and Haas-Stapleton for their ongoing efforts and explained that ACMAD is leading the conversation on mosquito control issues in this arena. Castillo expressed the importance of having communication with cities on any future construction projects which might produce standing water, including ecotone horizontal levees. Trustee Marguez asked which criteria cities might use to know which projects to send over to ACMAD (Castillo answered: any projects would be useful). The General Manager asked Trustee Marquez which department to contact on building projects (Trustee Marguez answered: Community Development Department). Trustee Beatty commented on his interest in how ecotones are developed. Castillo commented that ACMAD wants to be ahead of the projects to give input during the design and planning phase of ecotone projects and is interested in becoming part of the permitting of ecotones. The General Manager commented that making land managers pay for costs would be a last resort scenario if ACMAD's comments are not considered when developing ecotones. President Hentschke asked how the District can fine land managers (the General Manager answered that they would follow Health and Safety Code laws which give the District authority to levy abatement penalties). Trustee Dickinson asked if there were certain building codes one had to follow for horizontal levees, similar to building codes, and if we could get involved there (Castillo answered: not currently, hence the need for continued efforts by the District to be involved with development and within CEQA regulations). Trustee Dickinson asked for the definition of CEQA (Castillo answered: California Environmental Quality Act which led to the District's own PEIR and mentioned that past efforts to reform CEQA to address mosquito control concerns fell through). The General Manager commented that there is a stress being placed on the development of the bay because of the housing crisis and that the District will be going to use data to drive the District's concerns and efforts. President Hentschke asked if there were any other interests that ACMAD could work with regarding mosquito control interests in ecotones (The General Manager answered: contact has been made with the East Bay Dischargers Association regarding any future development of ecotones in Alameda County and that it was important for the District to continue to go to special district meetings and conferences to discuss design ideas and changes with other land owners before they are built.

Presentation of the Financial Reports as of October 31st, 2019. Discussion:

The General Manager presented the Financial Reports as of October 31st, 2019.

8. Presentation of the Monthly Staff Report for October 2019.

Discussion:

The General Manager presented the Monthly Staff Report for October 2019 for Operations. Haas-Stapleton gave the Monthly Staff Report for the Lab and fielded the following discussion. Trustee Beatty asked for clarification on the KDR assay (mostly testing the top three *Culex* possible West Nile Virus carriers-*Culex pipiens, Culex tarsalis* and *Culex erythrothorax*) and asked how many mosquitoes were tested (every *Culex* species in the summer of 2019). Trustee Washburn will ask his contacts at the Vero Beach lab in Florida to send mosquitoes for testing. The General Manager commended seasonal employee Kelli Hager for her role on the KDR assay. Castillo gave the Monthly Staff Report for Public Affairs and fielded the following questions. Trustee Marquez commended Haas-Stapleton and Castillo's presentation and ongoing work and asked if Castillo could promote the District through city channels that broadcast council meetings. Trustee Narum commented that it would be beneficial to have ACMAD information shown in this forum.

- 9. Presentation of the Manager's Report for October 2019.
 - Discussion:

The General Manager presented the Manager's Report for October 2019 and fielded the following discussion. Trustee Dickinson announced he would be stepping down after the completion of this term. The General Manager commended Trustee Dickinson's service to the District, especially regarding his contributions to the financial reporting and investment advice. The General Manager announced that Trustee Brown will also be stepping down as he is moving out of Alameda County and asked the Board to let him know if anyone is interested in the upcoming conferences. Trustee Washburn asked if the General Manager would want any Board members to attend the LAFCo hearing (it may be worthwhile to have representation), asked if retired manager John Rusmisel might be attending (not sure), and also asked if the General Manager would be the only one from the District planning on speaking at the LAFCo hearing (yes). Trustee Marguez mentioned that there is usually not a rebuttal time after speakers during the LAFCo hearings and he should ask to speak last, if possible. Trustee Narum suggested mentioning that the District is very financially stable, with sufficient reserves, and has no need or plans to raise rates, and that mosquitoes do not know city boundaries. Trustees Beatty and Cooley gave advice to only stick to clearly defined facts. Trustee Bhat mentioned that he wrote a letter to the Mayor and City Council of Albany and Union City disputing erroneous statements by Mr. Gay at the Albany City Council meeting in September. Trustee Beatty commented that the Albany's City Council's mind was made up before the meeting in September which is unfortunate as they did not review the past LAFCo efforts at annexation, and that fairness, solvency, and clarity, are the District's strongest arguments. The General Manager thanked the Trustees for guidance in the LAFCo process and that he would be leaving a training session early to attend the LAFCo hearing.

- 10. Board President Hentschke asked for reports on conferences and seminars attended by Trustees. Trustee Narum brought up the California League of Cities and how she received mosquito education materials from Los Angeles County West Vector Control.
- 11. Board President Hentschke asked for announcements from the Board. The General Manager announced that Vector Biologist, Miguel Cardenas, had accepted a supervisorial position at Santa Clara County Mosquito and Vector Control, commended his long service at ACMAD, and that his last day at ACMAD would be on December 13th, 2019.
- 12. Board President Hentschke asked trustees for items to be added to the agenda for the next Board meeting. None.
- 13. The meeting adjourned at 6:34 P.M.

Respectfully submitted,

Approved as written and/or corrected at the 1075th meeting of the Board of Trustees held December 11th, 2019

Eric Hentschke, President BOARD OF TRUSTEES P. Robert Beatty, Secretary BOARD OF TRUSTEES

RESOLUTION NO. 1075-1

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

COMMENDATION TO: Miguel Cardenas

- WHEREAS: You, Miguel Cardenas, served the District as a seasonal employee from 2007 through 2012, and
 WHEREAS: You were hired as an Assistant Mosquito Control Technician in January of 2012, raising to the title of Vector Biologist in February of 2016, and
 WHEREAS: You were hired as an Assistant Mosquito Control Technician in January of 2012, raising to the title of Vector Biologist in February of 2016, and
- WHEREAS: You completed your bachelor's degree in Political Science and master's degree in Public Administration at California State East Bay during your employment, and
- WHEREAS: You sought out new challenges and responsibilities, such as requesting a transfer to a difficult marsh treatment zone, getting elected by your peers to lead them in labor negotiations as Employee Association President, and coordinating the District's first strategic plan, therefore be it
- RESOLVED: We, the undersigned Board of Trustees, and General Manager, do hereby extend our sincere appreciation for your dedication of service to this District.

Kathy Narum	Elisa Marquez	Wendi Poulson				
Jan O. Washburn	Alan Brown	Cathy Roache				
George Young	James N. Doggett	Victor Aguilar				
P. Robert Beatty	Betsy Cooley	Eric Hentschke				
Subru Bhat	Ryan Clausnitzer, mgr					

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

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Amount
1909	11/14/19	Payroll	76,078.76
1910	11/15/19	All-Ways Green Services	461.54
1911	11/15/19	Airgas	415.98
1912	11/15/19	Alco Sheet Metal and Heating, Inc.	405.00
1913	11/15/19	Bay Area MVCAC Regional Training Fund	1,440.00
1914	11/15/19	CalPERS 457	2,443.92
1915	11/15/19	Cintas	1,284.95
1916	11/15/19	F.H Dailey Chevrolet	62,198.14
1917	11/15/19	Guaranteed Auto Service	593.83
1918	11/15/19	Grainger	100.66
1919	11/15/19	Greenwood & Moore, Inc.	4,349.00
1920	11/15/19	Integrated DNA Technologies, Inc	25.68
1921	11/15/19	Leading Edge Associate, Inc.	7,800.00
1922	11/15/19	Long, Rick	40.88
1923	11/15/19	Lowe, Carol	40.88
1924	11/15/19	McMahon, Thomas J.	160.00
1925	11/15/19	PFM Asset Management	1,641.29
1926	11/15/19	PG&E	81.07
1927	11/15/19	SUNLOGIC dba Solar	106,748.25
1928	11/15/19	Safety-Kleen	175.00
1929	11/15/19	Schaeffer MFG.Co.	1,231.05
1930	11/15/19	Sette, Jeremy	160.00
1931	11/15/19	Techniclean	92.33
1932	11/15/19	Treds	140.00
1933	11/15/19	Voya Institutional Trust Company	177.41
1934	11/15/19	VCJPA	217.92
1935	11/15/19	Yung, Lance	40.88
1936		U.S Bank Corporate Payment System	20,634.41
ACH		CalPERS Retirement	13,148.11
		Total Expenditures - November 15, 2019	302,326.94

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

Filter Criteria includes: Report order is by Date.

Check #	Date	Payee	Amount
1937	11/25/19	Payroll	78,400.08
1938	11/27/19	Doggett, James N	100.00
1939	11/27/19	Dickinson, Robert	100.00
1940	11/27/19	Hentschke, Eric Armin	100.00
1941	11/27/19	Young, George	100.00
1942	11/27/19	Airgas	153.08
1943	11/27/19	All-Ways Green Services	237.70
1944	11/27/19	CalPERS 457	2,756.66
1945	11/27/19	Cintas	250.09
1946	11/27/19	Campbell, Cornelius	167.58
1947	11/27/19	Finn, Richard	40.88
1948	11/27/19	Integrated DNA Technologies, Inc	264.50
1949	11/27/19	JCR Custom/ Paul Builders	3,090.05
1950	11/27/19	PG&E	1,750.15
1951	11/27/19	Robles, Michelle	1,722.25
1952	11/27/19	Techniclean	49.16
1953	11/27/19	Voya Institutional Trust Company	177.41
1954	11/27/19	Verizon	1,425.70
1955	11/27/19	WEX Bank	3,860.57
ACH	11/27/19	Aguilar, Victor	100.00
ACH	11/27/19	Beatty, Robert .P	100.00
ACH	11/27/19	Bhat, Subrahmanya Y	100.00
ACH	11/27/19	Cooley, Elizabeth	100.00
ACH	11/27/19	Marquez, Elisa	100.00
ACH	11/27/19	Narum, Katherine	100.00
ACH	11/27/19	Roache, Cathy J Pinkerton.	100.00
ACH	11/27/19	Washburn, Jan	100.00
ACH	11/27/19	CalPERS Retirement	13,707.05
ACH	11/27/19	CalPERS Health	33,298.76
		Total Expenditures - November 30, 2019	142,551.67

Alameda County Mosquito Abatement District Income Statement November 30, 2019. (5 of 12 mth, 42%)

				Year to Date		Actual vs
REVENUES	Actual 2017/18	Actual 2018/19 1	Current Month	2019/20	Budget 2019/20	Budget
Total Revenue	\$ 4,623,350.00	\$ 4,063,848.12	\$ 2,551.97	\$ 344,059.04	\$ 4,705,236.00	7%

	1						١	ear to Date		Actual vs
EXPENDITURES	Α	ctual 2017/18	A	ctual 2018/19 ¹	Cu	urrent Month ²		2019/20	Budget 2019/20	Budget
Salaries		\$1,744,412	\$	1,874,396.01	\$	169,368.84	\$	850,399.16	\$2,425,552	35%
CalPERS Retirement		\$262,107	\$	310,838.21	\$	15,267.32	\$	262,117.78	\$360,538	73%
Medicare		\$23,564	\$	25,149.24	\$	2,253.24	\$	11,319.38	\$30,843	37%
Fringe Benefits		\$449,954	\$	452,960.30	\$	33,298.76	\$	189,831.01	\$502,043	38%
Total Salaries, Retirement, & Benefits		\$2,480,037	\$	2,663,343.76		\$220,188		\$1,313,667	\$3,318,976	40%
Clothing and personal supplies (purchased)	\$	7,308.71	\$	8,899.04	\$	1,379.19	\$	2,596.48	\$8,000	32%
Laundry service and supplies (rented)	\$	9,819.37	\$	12,602.62	\$	624.52	\$	5,706.96	\$12,750	45%
Utilities	\$	29,830.25	\$	30,161.25	\$	1,831.22	\$	11,893.55	\$12,600	94%
Communications-IT	\$	102,855.59	\$	108,886.22	\$	15,398.22	\$	29,760.33	\$117,100	25%
Maintenance: structures & improvements	\$	21,374.70	\$	13,673.39	\$	2,358.18	\$	7,235.20	\$25,000	29%
Maintenance of equipment	\$	43,585.45	\$	43,628.61	\$	2,156.37	\$	5,134.70	\$35,000	15%
Transportation, travel, training, & board	\$	131,330.43	\$	98,432.96	\$	11,118.09	\$	38,589.56	\$134,260	29%
Professional services	\$	100,563.13	\$	112,944.66	\$	5,990.29	\$	45,262.04	\$169,320	27%
Memberships, dues, & subscriptions	\$	15,933.00	\$	20,773.00	\$	-	\$	20,049.00	\$22,655	88%
Insurance - (VCJPA, UAS)	\$	131,392.69	\$	125,189.76	\$	217.92	\$	133,359.84	\$133,546	100%
Community education	\$	64,109.47	\$	34,860.85	\$	41.16	\$	8,712.43	\$40,000	22%
Operations	\$	176,000.00	\$	206,731.27	\$	-	\$	50,219.83	\$228,500	22%
Household expenses	\$	18,101.06	\$	18,656.19	\$	876.87	\$	7,406.18	\$15,850	47%
Office expenses	\$	10,753.26	\$	11,795.67	\$	35.09	\$	2,426.99	\$14,500	17%
Laboratory supplies	\$	113,768.06	\$	95,640.16	\$	11,566.48	\$	54,049.59	\$137,000	39%
Small tools and instruments	\$	8,376.29	\$	2,211.74	\$	48.03	\$	273.02	\$3,000	9%
Total Staff Budget	\$	985,101.46	\$	945,087.39	\$	53,641.63	\$	422,675.70	\$1,109,081	38%
Total Operating Expenditures	\$	3,465,138.55	\$	3,608,431.15	\$	273,829.79	\$	1,736,343.03	\$4,428,057	39%

1 - Unaudited amount, as of July 31, 2019.

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

Alameda County Mosquito Abatement District Investment, Reserves, and Cash Balance Report November 30, 2019. (5 of 12 mth, 42%)

		Beginning	Deposits	Withdrawls	Interest	Ending
Account #	Investment Accounts	Balance			Activity	Balance
1004 LAIF		\$ 1,111,570.48	\$ -	\$ (273,000.00)	\$ -	\$ 838,570.48
1005 OPEB F	Fund	\$ 4,320,765.06	\$ -	\$ -	\$ 70,555.04	\$ 4,391,320.10
1006 VCJPA	Member Contingency	\$ 353,497.00	\$ -	\$ -	\$ 4,650.00	\$ 358,147.00
1007 VCJPA	Property Contingency	\$ 52,796.00	\$ -	\$ (52,796.00)	\$ -	\$ -
1008 CAMP:	Repair and Replace	\$ 335,145.96	\$ -	\$ (62,198.14)	\$ 468.11	\$ 273,415.93
1009 CAMP:	Public Health Emergency	\$ 520,688.12	\$ -	\$ -	\$ 805.96	\$ 521,494.08
1010 CAMP:	Operating Reserve	\$ 1,923,887.95	\$ -	\$ -	\$ 2,977.93	\$ 1,926,865.88
1011 CAMP:	Capital Reserve Fund	\$ 144,190.44	\$ -	\$ (108,723.95)	\$ 135.86	\$ 35,602.35
1012 PARS: I	Pension Stabilization ¹	\$ 1,580,993.68	\$ -	\$ -	\$ 12,786.83	\$ 1,593,780.51
Total		\$ 10,343,534.69				\$ 9,939,196.33
		Beginning				Ending
	Cash Accounts	Balance		Withdrawls	Activity	Balance
1001 Bank of	America (Payroll Account) *	\$ 39,573.94				\$ 113,348.83
1002 Bank of	The West (Transfer Account) *	\$ 261,293.69				\$ 283,702.29
1003 County	Account	\$ 559,413.09			\$ 2,551.97	\$ 561,965.06
1013 Petty Ca	ash	\$ 409.20			\$ (21.16)	\$ 388.04
Total		\$ 860,689.92				\$ 959,404.22

1- PARS - Pension Stabilization balance is as of October 31, 2019.

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

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

ASSETS

Current Assets Cash Bank of America payroll Bank of the West County Cash with LAIF VCJPA- Member Contingency CAMP - Repair and Replace CAMP - Public Health Emergency CAMP - Operating Reserve CAMP - Capital Reserve Fund PARS Petty cash	\$ 4,391,320.10 112,701.69 411,971.07 561,965.06 838,570.48 358,147.00 273,415.93 521,494.08 1,926,865.88 35,602.35 1,593,780.51 388.04	
Total Current Assets		11,026,222.19
Property and Equipment Acc Dep - equipment Acc Dep - stru & improv Construction in progress Equipment Structure/improvement Land	$(1,318,915.70) \\ (2,349,631.01) \\ 535,663.99 \\ 1,699,506.64 \\ 4,637,746.62 \\ 61,406.00$	
Total Property and Equipment		3,265,776.54
Other Assets Net OPEB Asset	716,666.00	
Total Other Assets	-	716,666.00
Total Assets	<u>\$</u>	15,008,664.73
LIABILITIES AND CAPITAL		
Current Liabilities Accounts payable Acc payroll/vacation Def inflow - 75	\$ 104,215.36 187,668.43 41,760.00	

recounts puyuble	φ 101,215.50	
Acc payroll/vacation	187,668.43	
Def inflow - 75	41,760.00	
Def inflow pen defer GASB 68	809,861.00	
Defer outflow pen cont GASB 68	(818,392.00)	
Net pension liability GASB 68	2,642,666.00	
Total Current Liabilities		2,967,778.79
OPEB Fund	4,391,320.10	
Total Liabilities		7,359,098.89
Capital		
Designated fund balances	4,100,295.19	
Investment in general fixed as	4,637,374.11	
Net Income	(1,088,103.46)	
Total Capital		7,649,565.84
Total Liabilities & Capital	\$	15,008,664.73

Unaudited - For Management Purposes Only



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

Board of Trustees

President Eric Hentschke Newark Vice-President Wendi Poulson Alameda Secretary P. Robert Beatty Berkeley

Cathy Roache **County at Large Betsy Cooley** Emervville Alan Brown Duhlin George Young Fremont Elisa Marquez Hayward James N. Doggett Livermore Jan O. Washburn Oakland **Robert Dickinson** Piedmont Kathy Narum Pleasanton Victor Aguilar San Leandro Subru Bhat **Union City**

Ryan Clausnitzer General Manager

MONTHLY STAFF REPORT - December 2019

1. OPERATIONS REPORT

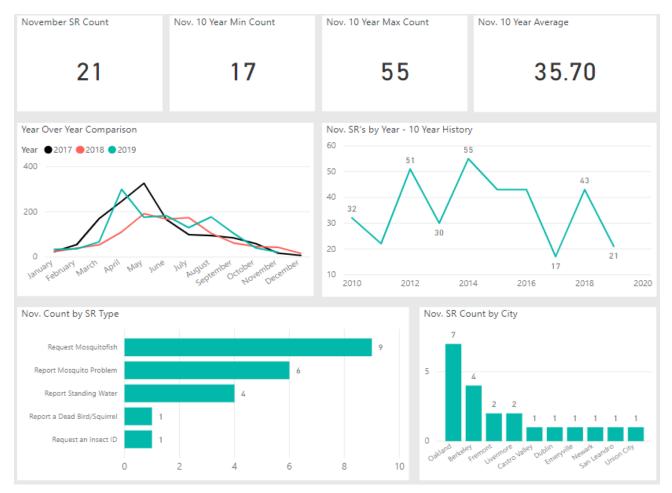
During November, operations staff noted the start of the shift from our summer species to the appearance of our winter species of mosquitoes. Efforts continued to focus on our active species of concern: Culex pipiens and Culex tarsalis. Inspections and treatments of catch basins, flooded basements/crawlspaces, sewer plants, freshwater marshes, creeks, canals, unmaintained swimming pools, cemetery urns, and ponds were conducted. Larvae of both species, especially Cx. tarsalis, were at low numbers and the first significant rains should contribute a downward trend in their population numbers. Operations staff also collected the first significant numbers of larval Culiseta inornata for the season. This species typically estivates over the summer months and adult females start reappearing and laying eggs as temperatures drop, the photoperiod shifts, and the first rains occur. These females seek out standing water suitable for egg deposition in a variety of sources. Adult females were collected in both light traps and traps set out by the lab for the last two months but in low numbers. As rainwater accumulates, inspections and treatments for Cs. inornata will intensify. As for our other winter mosquito species: Aedes squamiger, Aedes washinoi, and Aedes sierrensis, rainwater will need to accumulate enough to inundate and hatch eggs deposited in previous seasons before they hatch into this season's larvae.

Operations staff also continued progress on ditch maintenance efforts in November. Focus continued on Fremont tidal marsh areas. These marshes produce a significant number of *Aedes dorsalis* larvae from late spring into fall and pose several challenges for inspections and treatments. The intent is to lessen the impounding of tidal waters thus reducing the potential larval production sources for this species. Another reason for the focus in these marshes is access. After the first rainfall, the miles of levees utilized to access these sources becomes undrivable until they dry after the last rains of spring. Ditching efforts will then shift north to tidal marsh areas that remain accessible regardless of rainfall. Ditch maintenance in these areas will continue on a regular basis, rain or shine, until the end of January when this year's permit cycle ends.

Requests for service received from the public were well below the ten-year average for November. Nearly half the requests were for mosquito fish for back-yard ponds, unmaintained swimming pools, and livestock troughs. One request to retrieve a dead bird was received and results from the district lab from this, and other birds collected, and various adult mosquito samples all tested negative for West Nile virus. The six requests received to report adult mosquito issues were attributable to *Cx. pipiens* and *Culiseta incidens*. Most of the larvae collected in the field and identified by operations staff in November were also confirmed to be either *Cx. pipiens* or *Cs. incidens*. These two species are often associated with back yard sources or sources that are close to homes. Between the two, they are responsible for a majority of the requests for service involving adult mosquitoes received by ACMAD county-wide. *Cx. pipiens* numbers tend to drop significantly with the onset of winter but *Cs. incidens* are active year-around. The often close association of both species to residential properties, their wide-spread distribution, and their often cryptic/difficult to access breeding sources also make them some of the most challenging species for operations staff to locate and control.

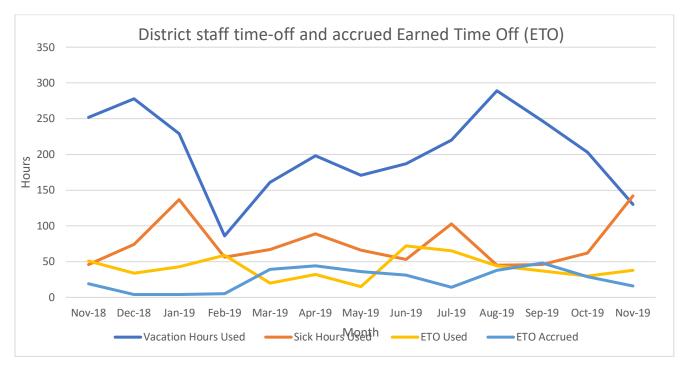
Field Operations Supervisor Joseph Huston

A. District Data



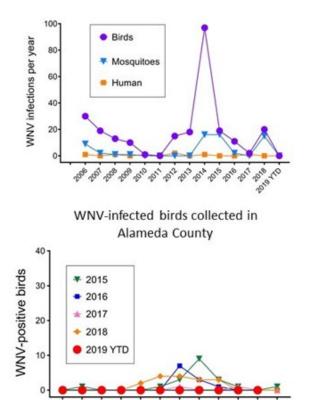
1. Service Requests

2. Activity Report



3. WNV Activity

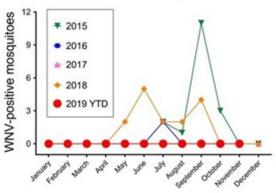
WNV infections detected in Alameda County 2005 – 2019 YTD



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



WNV-infected mosquitoes collected in Alameda County



2. <u>LAB</u> Summary

- West Nile virus (WNV) was not detected in birds or mosquitoes in November.
- Adult mosquito abundance during November 2019 was lower than the prior year.
- A total of 469 adult mosquitoes were captured and killed by lab traps during November.

Arbovirus Monitoring

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

Native Mosquito Abundance

- Over the course of the month, 81 EVS CO₂ traps were placed; 271 mosquitoes were collected and identified to species (Figure 1). There was an average of 7.47 mosquitoes per trap night, a 2.2-fold decrease in the number of mosquitoes per trap night relative to the prior month (n = 1,927 mosquitoes collected during October 2019). *Culex pipiens* was the most abundant species collected in EVS CO₂ traps, followed by *Culex erythrothorax*, and *Culiseta incidens* (Figure 2). The geospatial distribution of mosquito species collected in EVS CO₂ traps at each trap site in the county is displayed in Figure 3. Overall, mosquito abundance during October 2019 as measured by EVS CO₂ traps was similar to the prior two years (Figure 1; 2019, red line; 2018, blue line; 2017, yellow line). There was a broader geographic distribution of adult *Cx. pipiens* throughout the county (particularly in Livermore and Pleasanton) than during the same period of 2018 (Figure 3A).
- Mosquito abundance, as measured using NJLT, was slightly lower than the prior month (Figure 4; 0.54 and 0.74 mosquitoes / trap night, respectively; total of 198 mosquitoes over 364 trap nights). Culex tarsalis was the most prevalent species collected in NJLT during October 2019, followed by Culiseta inornata and Culiseta incidens (Figure 5).

Invasive Aedes Monitoring

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

FIGURES

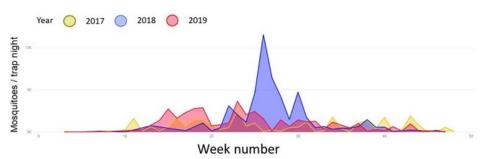


Figure 1. Mosquitoes captured in EVS CO₂ traps from 2017 – 2019. A total of 271 mosquitoes were captured in EVS CO₂ traps during November 2019 and identified to species.

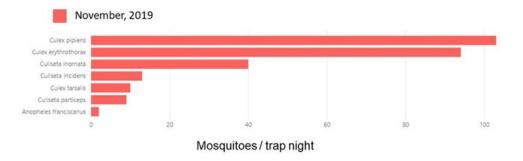


Figure 2. The six-most abundant species of mosquito captured during October 2019 using EVS CO_2 traps.

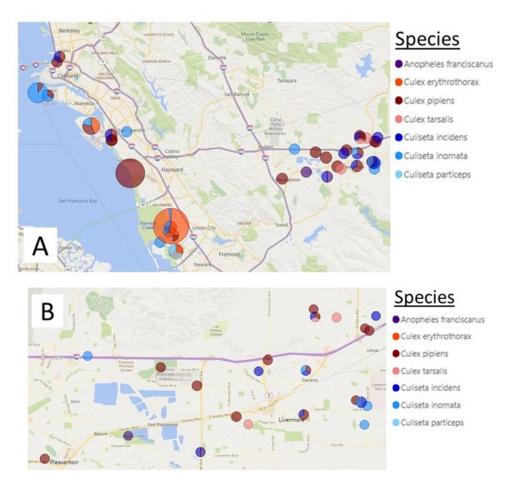


Figure 3. Mosquito abundance by trap site evaluated using EVS CO₂ traps. Pie charts over trap sites indicate the distribution of mosquito species collected at the trap site. The size of the pie charts indicates the relative number of mosquitoes at each site during November 2019. (A) Entirety of Alameda County. (B) Livermore and Pleasanton regions.

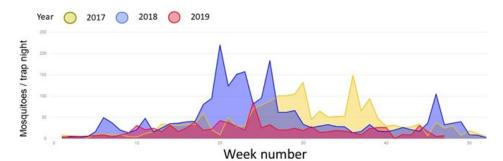


Figure 4. Mosquitoes captured in NJLT from 2017 – 2019. A total of 198 mosquitoes were captured in NJLT during November 2019 and identified to species.

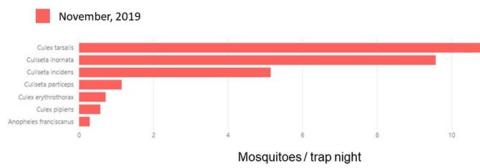


Figure 5. The six-most abundant species of mosquito captured during November 2019 in NJLT.

PUBLIC EDUCATION

A. Events

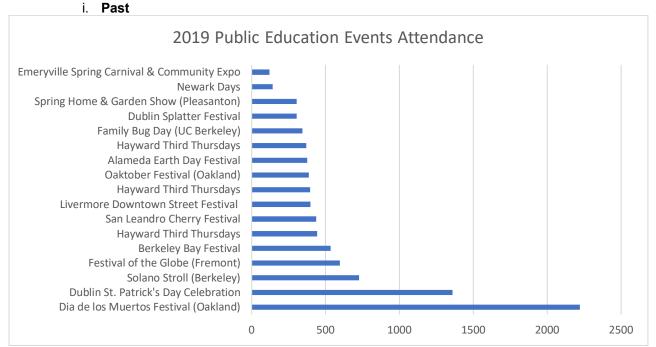


Figure 1. Number of visitors that attended each event

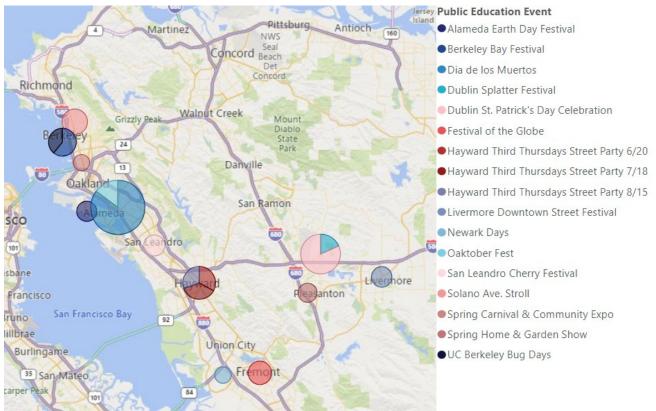


Figure 2. Public education events in 2019. ACMAD participated in 24 events during 2019. Booth attendance at events held on school campuses were not recorded. Booth attendance for the shows listed on the map was almost 9,500 people.

B. Google Analytics

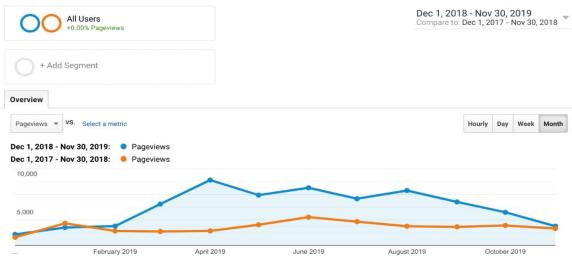


Figure 3. Comparison of website users over the past two years

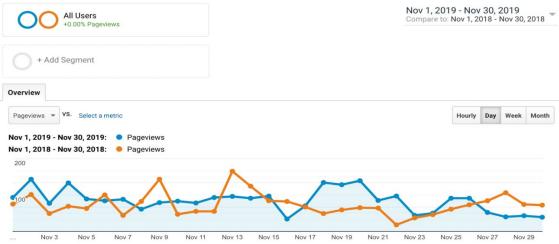
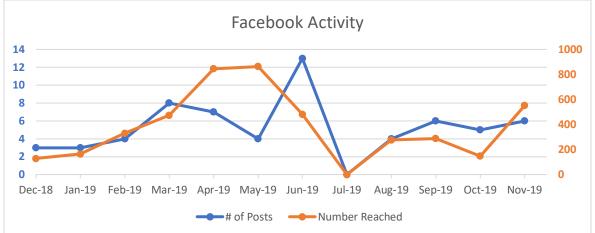
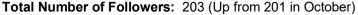


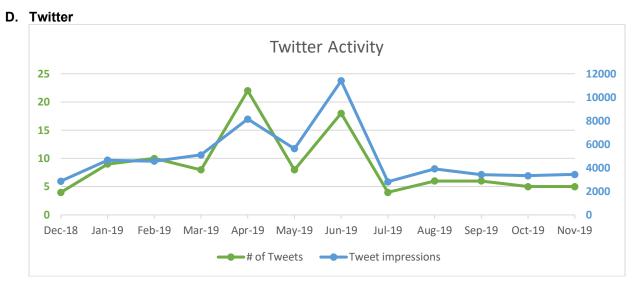
Figure 4. Comparison of website users over the past two years for November.

C. Facebook





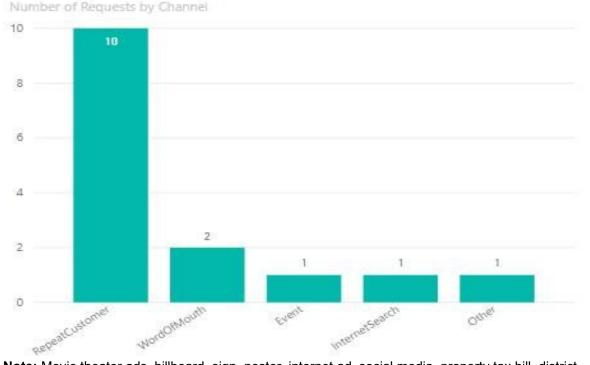
November's Most Popular Post: Rain is finally in our forecast this week! Make sure to cover or tip over any containers that might fill with water to help prevent mosquitoes from breeding later. \bigcirc & (photo)



Number of Profile Visits in November: 43

Total Number of Followers (New This Month): 689 (up from 680 in October) **Top November Tweet:** Rain is finally in our forecast this week! Make sure to cover or tip over any containers that might fill with water to help prevent mosquitoes from breeding later. \bigcirc

E. Service Request Referral Summary



<u>Note:</u> Movie theater ads, billboard, sign, poster, internet ad, social media, property tax bill, district vehicle, employee, and phone book are also options for this question but were not included on this chart because they were not selected in November. Those who selected "Other" did not specify how they heard about us.

4. LEGISLATIVE UPDATE:

Nothing new to report.



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Ryan Clausnitzer

General Manager

Trustee Anniversary Recognitions:

ACMAD is pleased to recognize and thank the following trustee on their anniversary in December.

Trustee	City	Years of Service	Anniversary Date
Betsy Cooley	Emeryville	3	December 6 th