

**AGENDA**  
1060<sup>th</sup> MEETING OF THE BOARD OF TRUSTEES  
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

SEPTEMBER 12TH, 2018

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

1. Call to order.
2. Roll call.
3. President Marquez invites any member of the public to speak at this time on any issue relevant to the District. (Each individual is limited to three minutes)
4. Approval of minutes of the 1059<sup>th</sup> meeting held August 8<sup>th</sup>, 2018 (**Board action required**)
5. Review proposed updates to the General Manager's Job Description (**Board action required**)
6. First draft of the 2018-2021 Strategic Plan for discussion (Information only)
7. Financial Reports as of August 31st, 2018 (Information only):
  - a. Check register
  - b. Income statement
  - c. Investments, reserves, and cash report
8. Presentation of the Monthly Staff Report for September 2018 (Information only)
9. Presentation of the Manager's Report for September 2018 (Information only)
  - a. Staff and Trustee anniversaries
  - b. Marsh circulation ditch work beginning in September
  - c. UAS mission status
  - d. Social Security deductions now included for Seasonal Employees
  - e. Finance Committee investment policy review awaiting OPEB actuarial study
  - f. Special District Administrator (SDA) Certification obtained by General Manager; ACMAD renews the District Transparency Certificate of Excellence;

Alameda County Special District Association given Chapter of the Year award  
(awards to be presented at the CSDA Annual Conference)

10. Board President asks for reports on conferences and seminars attended by Trustees
11. Board President asks for announcements from members of the Board
12. Board President asks trustees for items to be added to the agenda for the next Board meeting
13. Adjournment

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

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

## MINUTES

### 1059<sup>th</sup> MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

AUGUST 8<sup>TH</sup>, 2018

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

1. Board President Marquez called the regularly scheduled board meeting to order at 5:02 PM.
2. Trustees Marquez, Hentschke, Izquierdo, Brown, Young, Doggett, Washburn, and Bhat were present. Trustees Poulson, Beatty, Cooley, Dickinson, Narum and Hernandez were absent.
3. Board President Marquez invited members of the public to speak on any issue relevant to the District. The recently-hired permanent staff member, Assistant Laboratory Scientist Miguel Barretto, was present and introduced himself to the Board.
4. Approval of minutes of the 1058<sup>th</sup> meeting held July 11<sup>th</sup>, 2018.  
**Motion:** Trustee Washburn moved to approve the minutes  
**Second:** Trustee Doggett  
**Vote:** motion carries
5. The board entered closed session to discuss proposed amendments to the General Manager's employee contract pursuant to Government Code Section 54957.6. The Board came out of closed session and President Marquez reported that a future meeting agenda item will discuss the General Manager's job description and how it relates to emergency preparedness.  
**Motion:** Trustee Doggett moved to approve the contract amendments to the General Manager's employee contract.  
**Second:** Trustee Washburn  
**Vote:** motion carries –unanimous.

6. Update to the General Manager performance evaluation form  
**Motion:** Trustee Bhat moved to approve the updated evaluation form  
**Second:** Trustee Doggett  
**Vote:** motion carries
7. Report from the Strategic Planning Committee  
**Discussion:**  
Trustee Washburn gave a report from the latest Strategic Planning Committee meeting. President Marquez asked if the goals will be measurable? Trustee Washburn answered that the goals are direct and easily measurable.
8. Financial Reports as of July 31<sup>st</sup>, 2018  
**Discussion:**  
The General Manager presented the Financial Reports as of July 31<sup>st</sup>, 2018.
9. Presentation of the Monthly Staff Report for July 2018  
**Discussion:**  
The General fielded the following questions from Trustees. Trustee Brown asked if he could have a shirt with the District's logo (yes) and offered his assistance in lessening the impact construction developments may have on mosquito breeding sources. President Marquez echoed this sentiment while offering a suggestion that ACMAD staff contact each city's economic development office to review upcoming housing projects, as there are many planned (yes, this is an ongoing process). Trustee Hentschke mentioned that ACMAD should be prepared for additional housing developments near the wetlands in Newark. Trustee Washburn asked if ACMAD reviews the UC Berkeley University Village bioswales (no, as these are outside of the District's service area). Trustee Washburn asked if a West Nile virus historical chart can be added to future reports comparing current years to prior both longitudinally and geographically. Trustee Brown asked if the District gives out mosquito fish to private residents (yes). President Marquez asked if the District promotes its mosquitofish program via social media (yes, and at public education events).
10. Presentation of the Manager's Report for June 2018  
**Discussion:**  
The General Manager presented the Manager's Report for June 2018 and fielded the following questions. Trustees Bhat and Washburn asked if they could be registered for the annual MVCAC conference. Trustee Bhat asked what AMCA stood for (American Mosquito Control Association). President Marquez asked if a Trustee term is two years (yes) and mentioned the letter sent by the General Manager to the Alameda Vector Control Services District regarding the problems caused by promoting overlapping mosquito control services to the residents of the District's service area. Trustee Washburn echoed these concerns with added comments provided by the General Manager regarding the current situation being caused by the City of Albany's lack of mosquito control.
11. Board President Marquez asked for reports on conferences and seminars attended by Trustees, there were none.
12. Board President Marquez asked for announcements from the Board, there were none.
13. Board President Marquez asked trustees for items to be added to the agenda for the next Board meeting. Trustee Brown would like to discuss emergency management and how that role fits in the General Manager's job description.
14. The meeting adjourned at 5:50 P.M.

**Respectfully submitted,**

Approved as written and/or corrected  
at the 1059<sup>th</sup> meeting of the Board of  
Trustees held August 8<sup>th</sup>, 2018

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Elisa Marquez, President  
BOARD OF TRUSTEES

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Eric Hentschke, Secretary  
BOARD OF TRUSTEES

# General Manager

## **DEFINITION**

Under authority of the Board of Trustee, the General Manager plans, organizes, and provides administrative direction and oversight for all District functions and activities; provides policy guidance and program evaluation to the Board and management staff; encourages and facilitates provision of services; fosters cooperative working relationships with partner agencies, State and local intergovernmental and regulatory agencies and various public and private groups.

## **DISTINGUISHING CHARACTERISTICS**

This is an at-will contract position. The General Manager serves as the chief executive of the District, and responsible for enforcement of all District policies, state and federal codes, regulations and laws, the conduct of all financial activities and the efficient and economical performance of the District's operations.

## **SUPERVISION RECEIVED AND EXERCISED**

Exercises direct and general supervision of the entire District staff through subordinate levels of supervision.

## **Accountability**

The General Manager is accountable to and receives policy direction from the Board.

## **EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES**

- Plans, organizes, and administers, either directly or through subordinate management and supervisory staff, coordinates and evaluates the work of the District in accordance with applications laws, code and regulations, and adopted policies and objectives of the District;
- Directs and coordinates the development and implementation of goals, objectives, and program for the Board and the District; develops administrative policies, procedures, and work standards to ensure that the goals and objectives are met and that programs provide mandated services in an effective, efficient, and economical manner;
- Oversees the preparation of the annual budget for the District; authorizes directly or through staff, budget transfers, expenditures and purchase; provides information regarding the financial condition and needs to the Board;
- Advises the Board on issues, programs, and financial status; prepares and recommends long- and short-term plans for District service provision, capital improvements, and funding; and directs the development of specific proposals for actions regarding current and future District needs;
- Oversees the administration, use and maintenance of all District facilities and equipment.
- Represents the District and the Board in meetings with governmental agencies, community groups, and various business, professional, regulatory and legislative organizations; acts as the primary District liaison with the media;
- Oversees the District's community outreach, including but not to social media, neighborhood meetings, and the District's website.
- Provides for the investigation and resolution of complaints regarding the administration of and services provided by the District;
- Oversee the District's general liability programs;

- Serves as the Emergency Manager during declared Alameda County/ Office of Emergency Services emergencies,
- Provides for contract services and ensures proper performance of obligations to the District; has responsibility for enforcement of all District policies, codes and regulations;
- Oversees the selection, training, professional development, and work evaluation of District staff; oversees the implementation of effective employee relations and related programs; provides policy guidance and interpretation to staff;
- Directs the preparation of and prepares a variety of correspondence, reports, policies, procedures, and other written materials;
- Ensures the maintenance of working and official District files;
- Ensures that the Board is kept informed of District functions, activities, and financial status, and of legal, political, and economic issues affecting District activities;
- Monitors changes in laws, regulation, and technology that may affect District operations; implemental policy and procedural changes as required;
- Builds and maintains positive working relationships with District employees, elected officials, contractors, and the public using principles of good customer service.
- Maintains attendance and punctuality that is observant of scheduled hours on a regular basis; and
- Performs other duties as assigned.

## **EMPLOYMENT STANDARDS**

### **Knowledge**

- Administrative principles and practices, including goal setting, program development, implementation, and evacuation and supervision of staff, either directly or through subordinate levels of supervision;
- Principles, practices, and procedures of public administration;
- Functions, services, and funding sources of a mosquito district;
- Applicable federal and state laws, codes, ordinances, and regulations;
- Principles and practices of budget development, administration, and accountability;
- Current political and economic trends affecting District services;
- Modern office practices, methods, computer equipment and computer applications; and
- Recordkeeping principles and procedures;

### **Skills**

- English usage, grammar, spelling, vocabulary, and punctuation;
- Communicate effectively, orally and in writing; prepare written and oral presentations;
- Techniques for effective representing the District in contacts with government agencies, community groups, and various business, professional, regulatory, and legislative organizations; and
- Techniques for providing a high level of customer service by effectively dealing with public, vendors, contractors and District staff.

### **Abilities**

- Plan, administer, coordinate, review, and evaluate the functions, activities, and staff of the District;
- Work cooperatively with, provide highly complex and responsible staff support to, and implement the policies of the Board;

- Develop and implement goals, objectives, policies, procedures, work standards, and internal controls;
- Oversee the District financial activities, including administering investments, the development and implementation of the District budget and the control of all expenditures and purchases;
- Interpret, apply, and explain complex laws, codes, and regulations;
- Conduct effective negotiations and effectively represent the District in meetings with governmental agencies, community groups, and various business, professional, regulatory and legislative organizations and the media;
- Direct the preparation of and prepare clear and concise reports, correspondence, policies, procedures, and other written materials;
- Analyze problems, identify alternative solutions, project consequences of proposed actions, and implemental recommendations in support of goals;
- Use sound independent judgment within general legal, policy, and procedural guidelines;
- Organize own work, coordinate projects, set priorities, and meet critical time deadlines;
- Operate modern office equipment, including computer equipment and specialized software applications programs;
- Use English effectively to communicate in person, over the telephone, and in writing;
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines; and
- Establish and maintain effective working relationships with those contacted in the course of work.

## **JOB RELATED AND ESSENTIAL QUALIFICATIONS**

### **Education/Training and Experience Guidelines**

Any combination equivalent to experience and training that would likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

#### **Experience**

Three (3) years of management or administrative experience in a public agency setting. At least one (1) of the three (3) years with experience in mosquito abatement is preferred.

#### **Education/Training**

A Bachelor's degree from an accredited college or university with major work in public or business administration, finance, biological science, or related field. An advance degree is preferred.

#### **License or Certificate**

A valid California class C driver's license issues by the California State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier. Or the ability to arrange alternate and timely means of transportation in the performance of assigned duties.

Possession of or ability to obtain and maintain the following certifications from the California Department of Public Health within one (1) year of employment:

- Mosquito Control Technician Certificate
- Vertebrate Vector Certificate

- Invertebrate Certificate

### **WORKING CONDITIONS/PHYSICAL REQUIREMENTS**

Work is performed indoors in a carpeted and air-conditioned office with natural and fluorescent lighting and moderate noise levels, and no direct exposure to hazardous physical substances.

#### **Working Conditions**

- Medium Work – This is primarily a sedentary office classification. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard, typewriter keyboard or calculator, and to operate standard office equipment. Must possess vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. Occasionally bend, stoop, kneel, reach, push and pull drawers open and closed to retrieve and file information. Employee must possess the ability to lift, carry, push and pull materials and objects weighing up to 25 pounds.
- Mobility – Must possess mobility to work in a standard office setting; standing in work areas and walking between work areas may be required and use standard office equipment, including a computer, to operate a motor vehicle and to visit various District and meeting sites;
- Other Conditions – Work is frequently disrupted by the need to respond to in-person and telephone inquiries. Employee may interact with upset staff and/or public in interpreting and enforcing District policies and procedures.

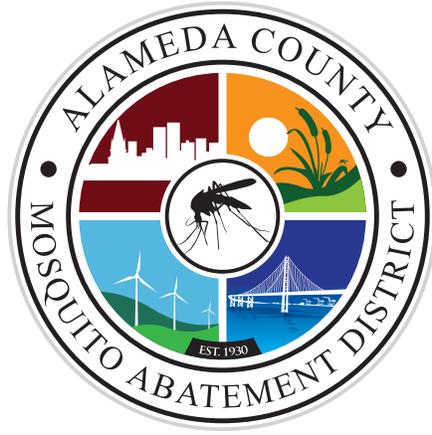
Adopted Date: 10/12/17

Revised:

Retitled: N/A

FLSA Designation: Exempt

At-Will Contract Position



# ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

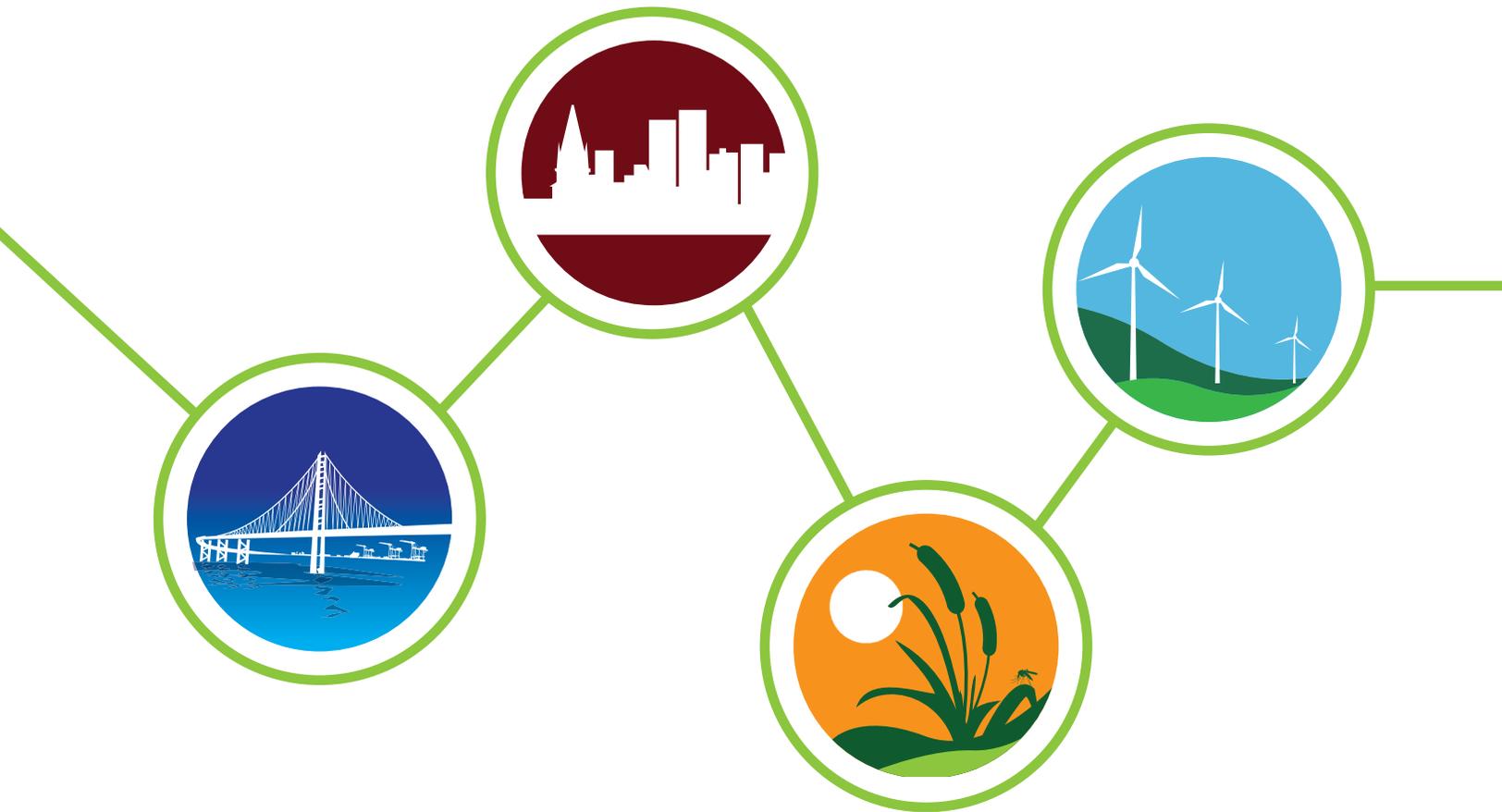
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## STRATEGIC PLAN

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2018-2021

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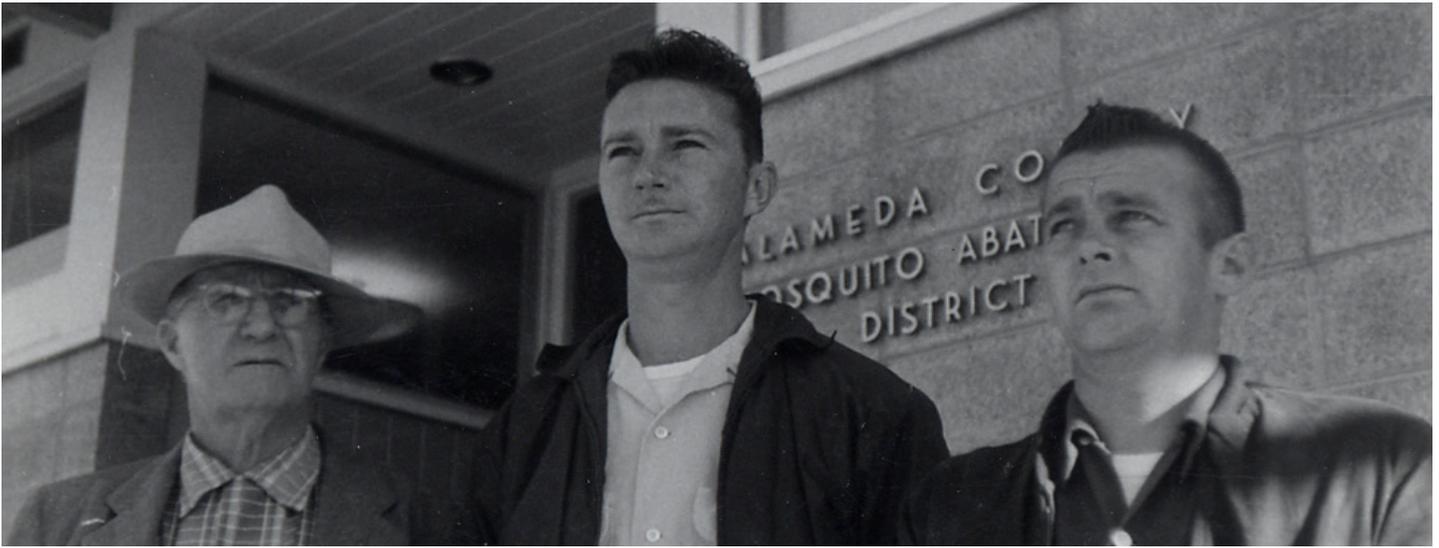
# MANAGEMENT STATEMENT

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Alameda County Mosquito Abatement District (ACMAD) has a proud history of effective and efficient mosquito control through its prudent financial planning, collaborative decision-making, and balanced integration with partner agencies. The current political, financial, and social climates, combined with the existing staff and Board personnel, offered an ideal opportunity to develop and implement a strategic plan—the first for the District.

The goals of this project are multifaceted. The first is to leverage existing assets towards known and unforeseen future challenges. Secondly, we aim to align individual performance goals into a comprehensive District strategy. Our third goal is to improve communication to realize these goals both internally and externally. Lastly, we will formalize performance and accountability measures by documenting improvements to the District's operating procedures.

With our 100-year anniversary of public service approaching in the next decade, it is important for ACMAD to reaffirm its strong relationship with the community. One method of reaffirming our relationship with the community is through thoughtful planning that leads to effective resource allocations of public funds. District staff, through the leadership of the Board of Trustees, will continue to provide high-quality, and valuable service to the people of Alameda County.



## OUR HISTORY

During late 1928 through early 1929, the city councils of Alameda, Berkeley, Emeryville, Hayward, Oakland, Piedmont, and San Leandro passed a resolution endorsing the formation of Alameda County Mosquito Abatement District (ACMAD). Over 32,000 signatures in support of the resolution for establishing ACMAD were collected throughout Alameda County by January 28, 1930. ACMAD was officially formed when the Board of Supervisors passed ordinance B organizing ACMAD on March 11, 1930; three days later, the Secretary of State of California filed the certificate of incorporation.

Initially, ACMAD focused its efforts on ditching in marshes to promote drainage of habitats where salt marsh mosquitoes breed. With the reduction of salt marsh mosquito abundances, citizens started noticing fresh water mosquitoes around their properties and requested service for relief from those mosquitoes as well. To fulfill the demands for mosquito control throughout the county, personnel and equipment were needed to accommodate the increase in services. ACMAD funding from ad valorem property taxes was stable until Proposition 13 passed in 1978. After the passage of Proposition 13, the District's budget was reduced by half. To provide adequate service to Alameda County residents, in 1982 Measure K was approved by over two thirds of Alameda County voters, this allowed for a maximum assessment of \$1.75 per single home as a Special Tax. Around this time, the District consolidated the three depots in Oakland, Pleasanton, and Union City into a single office and shop at the present site in Hayward.

West Nile virus (WMV) was introduced via wild bird transmission into Alameda County during 2003, and control for the mosquitoes that transmit this virus increased ACMAD operation costs by \$280,000 a year. These costs covered additional seasonal staff, pesticides, equipment, and public outreach education programs. ACMAD's Long Range Benefit Committee reviewed methods for adding to the District's revenue stream to meet the increasing financial needs of the District. The Board of Trustees proposed levying a benefit assessment, and a survey was prepared and mailed to 14,500 property owners in Alameda County during the fall of 2007. The survey evaluated the public's support for a benefit assessment, and the results showed greater than 71% approved of the proposed benefit assessment. On May 14, 2008, the ACMAD Board of Trustees passed the resolution approving the benefit assessment.

The approved benefit assessment allows the District to provide enhanced services to the residents of Alameda County while preparing the District for future public health threats caused by mosquitoes. Notably, the District's benefit assessment level has not increased in over ten years. While mosquito control techniques, regulations that monitor our activities, and the public sector financial situation have changed in the past 88 years, the District's dedication and effectiveness has not.



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## OUR STRATEGY

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### OUR MISSION

Alameda County Mosquito Abatement District is committed to improving the health and comfort of Alameda County residents by controlling mosquitoes and limiting the transmission of mosquito-borne diseases.

### OUR VISION

To serve all residents of Alameda County in a transparent and equitable manner by providing knowledge-driven and environmentally-conscious mosquito control. We strive to provide an exemplary model of good government through fiscal transparency and accountability.



## OUR CORE VALUES

### ENVIRONMENTAL STEWARDSHIP

- Ecologically responsible
- Proactive in environmental legislation
- Responsive to environmental changes
- Emphasis on biorational treatments for mosquito control

### KNOWLEDGEABLE

- Science-based decision making
- Data-driven
- Technology enabled
- Safety program adherent

### PROFESSIONAL

- Honest
- Reliable
- Respectful
- Responsive
- Committed
- Inclusionary

## ENVIRONMENTAL SCAN

An Environment Scan is a self-assessment process that allows organizations to identify their internal and external strengths, weaknesses, and foreseeable changes that may impact service delivery.

### STRENGTHS

- Data sharing and integration of laboratory and operations
- Larval-based control program
- Financial stability and accountability
- Timely responses to public request for service
- Public accessibility to staff and District information
- Culture of independence that fosters effective collaboration
- Innovative methods to monitor mosquito abundance

### WEAKNESSES

- Limited mosquito control products
- Limited ability to increase scale of operations in short amount of time
- Low diversity of revenue sources

### FORESEEABLE CHANGES THAT MAY IMPACT SERVICE DELIVERY

- Climate change
- Insecticide resistance
- Changes in regulations
- Human population growth
- Introduction of invasive mosquito species
- Emerging mosquito borne infectious diseases
- Natural disasters

## OUR GOALS FOR 2018-2019

Provide standardized financial reporting to the Board

Improve the credit card purchase process to include management review and application approval

Adjust staffing in the lab to enable the goals outlined in the strategic plan

Develop and implement maintenance and user safety protocols for drone equipment

Phase out old telephone hardware in favor of voice over internet protocol and hosted services

Setup Skype for Business for cross platform integration with desktop and cell phone

Obtain authorization to conduct operations using drone

Review zone workloads utilizing data from field work and service request data.

Determine feasibility of executing a legal abatement proceeding via the Alameda County legal system

Evaluate land use and water conservation strategies in Alameda County as they pertain to existing and potential mosquito breeding sites

Identify mosquito breeding sites that may be controlled using drone applications

Visit home offices of elected officials

## OUR GOALS FOR 2019-2020

Run financial models on future revenue and expenditure predictions

Transfer operating funds to an interest earning account

Reevaluate benefit packages during next memorandum of understanding via a 3rd party

Create a staff community outreach full-time position

Implement an electronic data, inventory, and service program for assets

Complete the integration of new adulticide hardware and software to existing spray unit

Research and deploy physical offsite backup plan for District data

Create dashboards and live data analyses of current and future data

Use drone to evaluate water accumulation on land surfaces

Evaluate adult mosquito abundance in catch basins

Evaluate efficacy of supplemental chemical attractants with adult mosquito traps

Conduct review of the ACMAD invasive Aedes response plan

Analyze the field operation's supervisor position and duties and succession planning

Enhance District relations and collaboration with regulatory agencies, wetland restoration groups, and land management agencies

# OUR GOALS FOR 2020-2021

Obtain Government Finance Officers Association award in financial reporting

Improve facilities energy efficiency, plumbing fixtures, heating, ventilation, and air conditioning

Use drone to estimate breeding intensity of mosquito larvae in water

Develop and evaluate solar-powered New Jersey Light Trap to improve trap safety and efficacy

Develop and implement models for assessing mosquito resistance to adulticide and larvicide

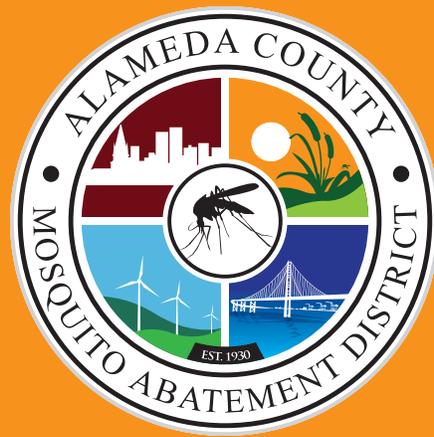
Evaluate correlations between larval and adult mosquito abundance data

Create a Crisis Communications Plan

Update District Control Program document

Develop an education program for Alameda County students

Increase outreach to local school districts to promote education program



**510-783-7744**

 [www.mosquitoes.org](http://www.mosquitoes.org)

 Alameda County Mosquito Abatement District

 @AlamedaMosquito

***[www.mosquitoes.org](http://www.mosquitoes.org)***

Alameda County Mosquito Abatement Dist.  
 Check Register  
 For the Period From Aug 1, 2018 to Aug 31, 2018

Filter Criteria includes: Report order is by Date.

<b>Check #</b>	<b>Date</b>	<b>Payee</b>	<b>Amount</b>
1082	8/7/18	Alameda County Mosquito Abatement Dist	73,833.26
1083	8/15/18	Voya Institutional Trust Company	150.00
1084	8/15/18	CalPERS 457	3,220.00
1085	8/15/18	Airgas	552.29
1086	8/15/18	All-Ways Green Services	820.00
1087	8/15/18	Adapco	16,559.08
1088	8/15/18	Alpine Helicopter Service, Inc	5,154.00
1090	8/15/18	Cintas	437.88
1091	8/15/18	Delta Dental	4,411.85
1092	8/15/18	Grainger	826.36
1093	8/15/18	GSO	17.67
1094	8/15/18	Hayward Water System	42.00
1095	8/15/18	The Hartford	74.08
1096	8/15/18	Industrial Park Landscape Maintenance	215.00
1097	8/15/18	Kimball Midwest	404.00
1098	8/15/18	LifeSaver CPR	765.00
1099	8/15/18	Thomas J. McMahon	87.78
1100	8/15/18	NBC Supply Corp	26.34
1101	8/15/18	Namakan West Fisheries	400.00
1102	8/15/18	PG&E	48.28
1103	8/15/18	PFM Asset Management	1,761.52
1104	8/15/18	Sonitrol	750.00
1105	8/15/18	Techniclean	110.27
1106	8/15/18	Verizon	2,106.62
1107	8/7/18	U.S Bank Corporate Payment System	13,434.55
1108	8/8/18	California Department of Public Health	32.00
ACH	8/8/18	CalPERS Retirement	12,051.64

Voided check  
 1089V

**Total Expenditures 08/15/18** **138,291.47**

Alameda County Mosquito Abatement Dist.  
**Check Register**  
 For the Period From Aug 16, 2018 to Aug 31, 2018

Filter Criteria includes: Report order is by Date.

<b>Check #</b>	<b>Date</b>	<b>Payee</b>	<b>Amount</b>
1109	8/31/18	Alameda County Mosquito Abatement Dist	74,524.20
1110	8/31/18	Voya Institutional Trust Company	150.00
1111	8/31/18	CalPERS 457	3,220.00
1112	8/31/18	Subrahmanya Y Bhat	100.00
1113	8/31/18	Alan Brown	100.00
1114	8/31/18	James N Doggett	100.00
1115	8/31/18	Eric Armin Hentschke	100.00
1117	8/31/18	Anibal Humberto Izquierdo	100.00
1118	8/24/18	Elisa Marquez	100.00
1119	8/24/18	Jan Washburn	100.00
1120	8/31/18	George Young	100.00
1121	8/31/18	Airgas	614.71
1122	8/31/18	Adapco	9,870.50
1123	8/31/18	Cintas	1,545.56
1124	8/31/18	CCCMA Occupational Clinic	235.00
1125	8/31/18	Fisher Healthcare	14,848.93
1126	8/31/18	Guaranteed Auto Service	863.38
1127	8/31/18	Grainger	298.15
1128	8/31/18	Kimball Midwest	191.82
1129	8/31/18	MVCAC	380.00
1130	8/31/18	NBC Supply Corp	951.75
1131	8/31/18	Pitney Bowes	208.99
1132	8/31/18	PG&E	1,649.76
1133	8/31/18	Regional Government	872.49
1134	8/31/18	SCI Consulting Group	20,550.01
1135	8/31/18	Verizon	1,368.89
1136	8/31/18	Water Cannon, Inc	156.98
1137	8/31/18	Mackenzie Wieland	100.00
1138	8/31/18	WEX Bank	4,278.55
1139	8/31/18	QPCS LLC	1,750.25
ACH 1	8/31/18	CalPERS Health	31,760.92
ACH 2	8/31/18	CalPERS Retirement	11,925.84

Voided checks

1117V

1140V

**Total Expenditures 08/31/18                      \$ 183,116.68**

**Alameda County Mosquito Abatement District**  
**Income Statement**  
**Consolidated**  
**August 31, 2018. (2 of 12 mth, 17%)**

REVENUES	Actual 2015/16 <sup>1</sup>	Actual 2016/17 <sup>1</sup>	Current Month	Year to Date 2018/2019	Budget 2018/2019	Actual vs Budget
<b>Total Revenue</b>	<b>\$ 4,180,831.00</b>	<b>\$ 4,366,903.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,476,728.00</b>	<b>0%</b>

EXPENDITURES	Actual 2015/16	Actual 2016/17	Current Month	Year to Date 2018/2019	Budget 2018/19	Actual vs Budget
Salaries	\$1,661,234	\$1,677,469	\$ 163,195.08	\$ 321,031.70	\$1,933,182	17%
CalPERS Retirement	\$205,340	\$219,892	\$ 13,681.67	\$ 174,006.68	\$301,812	58%
Medicare	\$21,160	\$21,368	\$ 2,198.19	\$ 4,321.67	\$28,031	15%
Fringe Benefits	\$554,630	\$453,877	\$ 36,246.85	\$ 74,582.46	\$508,680	15%
<b>Total Salaries, Retirement, &amp; Benefits</b>	<b>\$2,442,364</b>	<b>\$2,372,606</b>	<b>\$215,322</b>	<b>\$573,943</b>	<b>\$2,771,705</b>	<b>21%</b>
Clothing and personal supplies (purchased)	\$7,169	\$8,955	\$ 949.02	\$ 949.02	\$6,000	16%
Laundry service and supplies (rented)	\$7,162	\$8,840	\$ 1,122.20	\$ 1,781.52	\$9,500	19%
Utilities	\$22,214	\$27,084	\$ 1,740.04	\$ 3,623.13	\$36,500	10%
Communications-IT	\$32,756	\$54,128	\$ 9,044.07	\$ 19,244.07	\$122,200	16%
Maintenance: structures & improvements	\$6,739	\$19,503	\$ 648.21	\$ 667.53	\$25,000	3%
Maintenance of equipment	\$24,175	\$27,051	\$ 1,513.80	\$ 1,702.67	\$35,000	5%
Transportation, travel, training, & board	\$75,326	\$124,827	\$ 5,923.76	\$ 11,677.33	\$134,210	9%
Professional services	\$159,499	\$82,082	\$ 26,811.50	\$ 28,498.06	\$190,620	15%
Memberships, dues, & subscriptions	\$14,540	\$20,191	\$ 162.60	\$ 11,610.60	\$21,402	54%
Insurance - VCJPA	\$106,268	\$113,867	\$ -	\$ 124,034.00	\$127,851	97%
Community education	\$12,450	\$40,222	\$ 204.40	\$ 9,490.39	\$33,000	29%
Operations	\$187,490	\$176,758	\$ 29,503.12	\$ 38,948.76	\$234,000	17%
Household expenses	\$13,790	\$17,373	\$ 1,680.27	\$ 2,446.27	\$19,350	13%
Office expenses	\$14,195	\$18,590	\$ 267.53	\$ 267.53	\$15,100	2%
Laboratory supplies	\$76,130	\$80,008	\$ 6,442.56	\$ 7,177.78	\$118,148	6%
Small tools and instruments	\$1,155	\$2,513	\$ 67.16	\$ 244.31	\$2,500	10%
<b>Total Staff Budget</b>	<b>\$ 780,944.00</b>	<b>\$833,192</b>	<b>\$ 86,080.24</b>	<b>\$ 262,362.97</b>	<b>\$1,130,381</b>	<b>23%</b>
<b>Total Operating Expenditures</b>	<b>\$ 3,032,263.00</b>	<b>\$3,479,710</b>	<b>\$ 301,402.03</b>	<b>\$ 836,305.48</b>	<b>\$3,902,086</b>	<b>21%</b>

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

**Alameda County Mosquito Abatement District  
Investment, Reserves, and Cash Balance Report  
August 31, 2018. (2 of 12 mth, 17%)**

Account #	Investment Accounts	Beginning Balance	Deposit	Interest Earned	New Balance
800005	LAIF	\$ 1,595,081.74	\$ (356,000.00)		\$ 1,239,081.74
800006	OPEB Fund	\$ 4,359,217.67		\$ 55,988.97	\$ 4,415,206.64
101106	VCJPA Member Contingency	\$ 338,010.00			\$ 338,010.00
101106.1	VCJPA Property Contingency	\$ 50,263.00			\$ 50,263.00
800007.1	CAMP: Repair and Replace <sup>1</sup>	\$ 698,721.97	\$ (14,849.00)	\$ 1,256.73	\$ 685,129.70
800007.2	CAMP: Public Health Emergency	\$ 505,405.04		\$ 910.27	\$ 506,315.31
800007.3	CAMP: Operating Reserve	\$ 1,867,418.64		\$ 3,363.34	\$ 1,870,781.98
800007.4	CAMP: Capital Reserve Fund	\$ 250,201.81		\$ 450.63	\$ 250,652.44
800008	PARS: Pension Stabilization	\$ 499,016.94			\$ 499,016.94
Cash Accounts	Cash Accounts	Beginning Balance	Expenditures	Deposits/ Income	New Balance
101110	Bank of America (Payroll Account)	\$ 128,309.98			\$ 127,300.82
101111	Bank of The West (Transfer Account)	\$ 102,931.15			\$ 128,024.82
100001	County Account <sup>2</sup>	\$ 102,378.28			\$ 346,239.92

1 - \$14,849.00 transferred to Bank of the West for -80 freezer

2- Account balance increased in August due to County interfund transfers



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MONTHLY STAFF REPORT – August 2018

## Board of Trustees

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### **San Leandro**

Subru Bhat

### **Union City**

### **Ryan Clausnitzer**

General Manager

## 1. OPERATIONS REPORT

West Nile virus (WNV) activity continued during the month of August in Alameda County. This included the first WNV positive birds (a crow and a scrub jay) and one WNV positive mosquito in Livermore. Operations staff continued to inspect and treat all potential sources for *Culex* species throughout the county with a concentration in areas near the WNV positive locations.

Alameda County Public Works completed a project to provide access for ACMAD field staff to inspect and treat a marsh in Union City. This mosquito breeding source produced significant numbers of *Culex erythrothorax* in an area with abundant WNV activity. This also happened to be the same marsh treated by a helicopter in July.

Operations staff inspected and treated over 500 unmaintained pools that were identified by the District's annual aerial swimming pool survey. A report from this work will be provided in a future board report. This project has been an important component to operation's efforts to limit the numbers of *Culex tarsalis*, *Cx. Pipiens*, and *Culiseta incidens* in the environment. Unmaintained swimming pools as mosquito sources produce significant numbers of mosquitoes if they are not treated by larvicidal materials or stocked with mosquito fish.

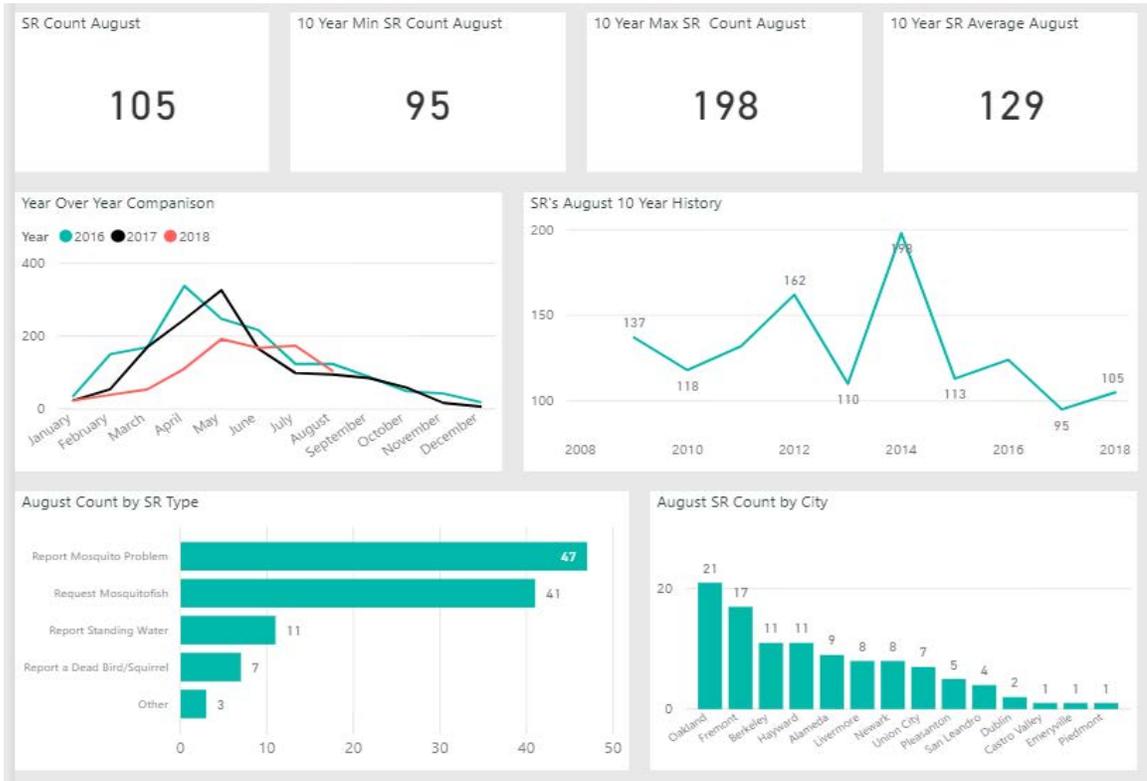
ACMAD's new adulticiding equipment arrived in August with a preliminary set-up and dry-run conducted thereafter. As the software is installed and finalized, the machine will be calibrated and re-tested in September. This will further ensure that if adulticiding is necessary to control diseased mosquitoes, the district will be prepared. This project also includes the possibility of using larvicidal materials with this equipment, if the need arises. This larviciding fogging method has been shown effective in combating invasive *Aedes sp.* mosquitoes.

Another round of high tides in August triggered hatches of *Aedes dorsalis* in areas with tidal influence along the salt marshes. Operations staff worked well together to perform timely treatments of this aggressive day-biting mosquito resulting in adequate control. This successful effort was confirmed by the traps placed by lab staff, and by very few service requests being attributed to this species (compared to July, where a fly-off did result in a spike in requests for service). In general, service requests received in August were below the 10-year average for the month.

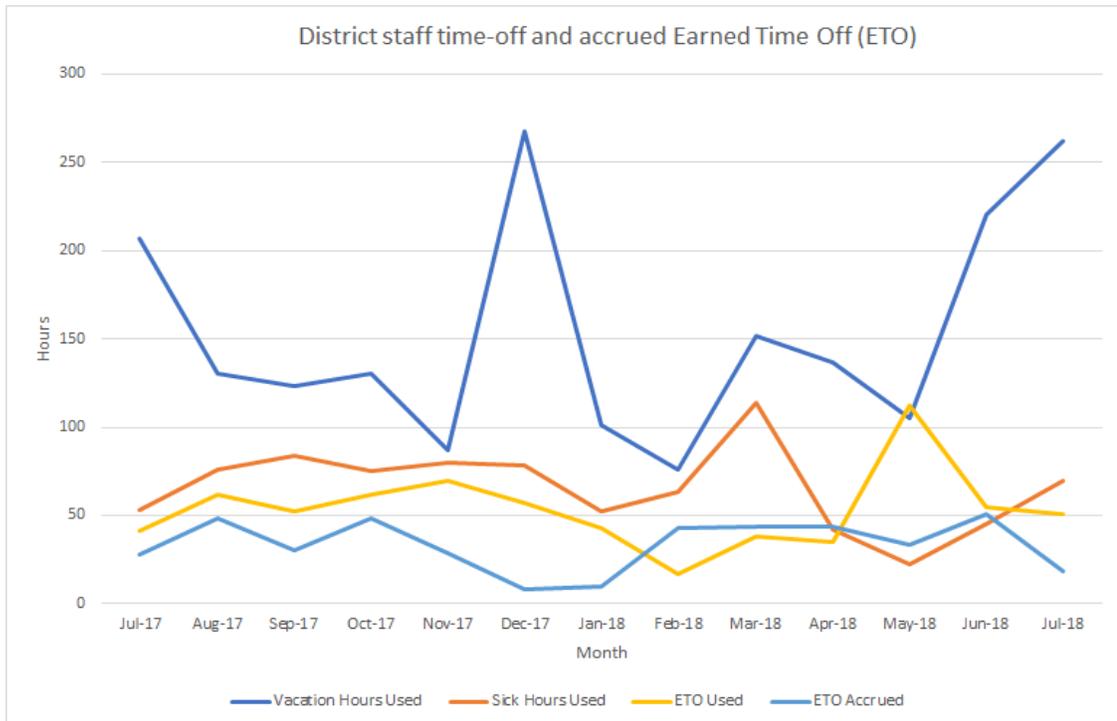
Joseph Huston  
Field Operations Supervisor

## A. District Data

### 1. Service Requests

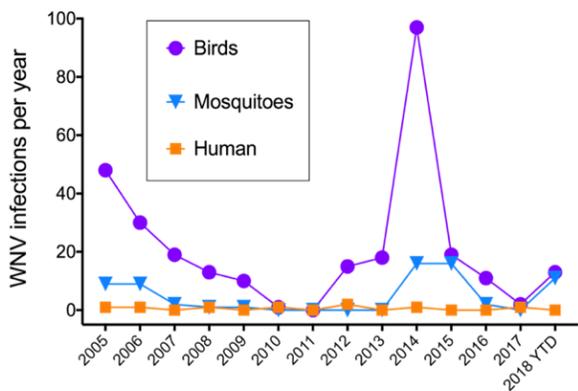


### 2. Activity Report

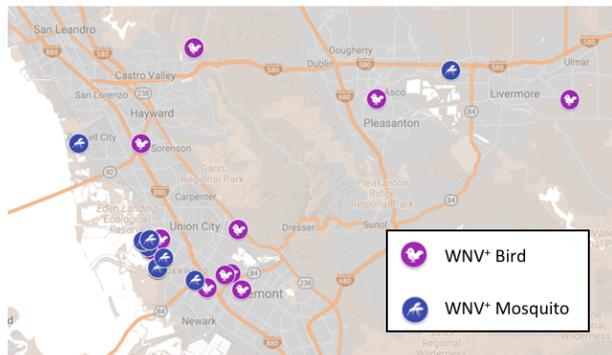


### 3. WNV Activity

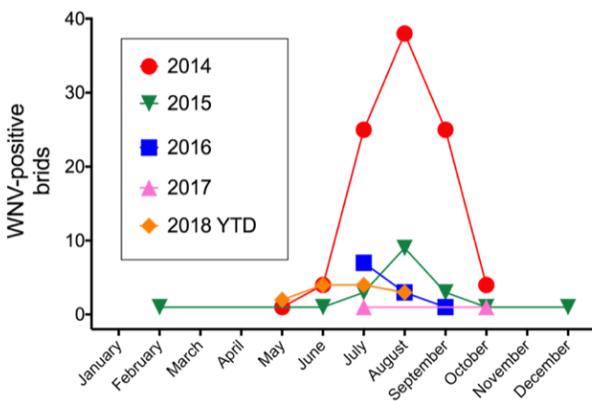
WNV infections detected in Alameda County  
2005 – 2018 YTD



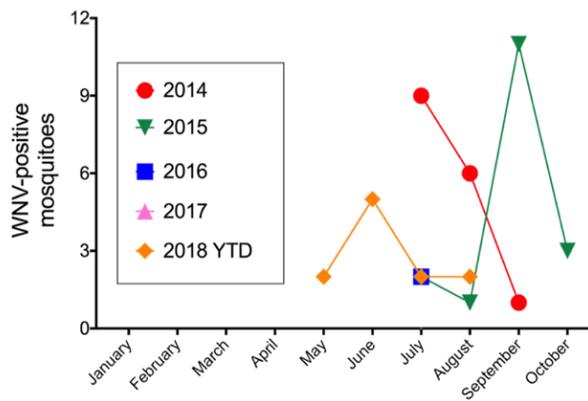
Locations of WNV-infected mosquitoes and birds  
collected in Alameda County during 2018



WNV-infected birds collected in  
Alameda County



WNV-infected mosquitoes collected in  
Alameda County



## 2. LAB

### Summary

- West Nile virus (WNV) was detected in 2 American Crows, 1 California Scrub Jay, and 2 groups of mosquitoes during August 2018.
- Mosquito abundance was moderately lower in August relative to the prior month.
- The ACMAD unmanned air system (UAS; drone) fitted with a multispectral camera successfully captured imagery of a marsh that distinguished water from other landscape features and quantified the proportion of the landscape that contained vegetation. A zoom camera that was mounted to the UAS flown at 15 – 20 feet above ground level successfully imaged mosquito larvae in water.

### Arbovirus Monitoring

- During the month of August 2018, West Nile virus (WNV) was detected in 2 American Crows, 1 California Scrub Jay, and two collections of mosquitoes (see District Data). To date, a total of 14 birds and 11 collections of mosquitoes have been found to contain WNV during 2018.
- None of the mosquitoes or birds that were collected during 2018 were found to contain Saint Louis encephalitis virus (SLEV) or Western equine encephalitis virus (WEEV).

### Native Mosquito Abundance

- For the month of July, there was no recorded rainfall and the average maximum temperature was 72 °F, (Hayward, CA). The prior two months had average maximum temperatures of 74 °F and 74 °F.
- Over the course of the month, 335 EVS CO<sub>2</sub> traps were placed; 2,437 mosquitoes were collected and identified to species (Figure 1). There was an average of 7.3 mosquitoes per trap night, a 4.8-fold decrease in the number of mosquitoes collected relative to the prior month. The decrease in the number of mosquitoes can be attributed to reduced abundance of *Culex erythrothorax* in marsh habitats. *Culex pipiens* was the most highly abundant species collected in EVS CO<sub>2</sub> traps, followed by *Culex erythrothorax* and *Culiseta incidens* (Figure 2). The geospatial distribution of mosquito species collected in EVS CO<sub>2</sub> traps at each trap site is displayed in Figure 3.
- Mosquito abundance, as measured using NJLT, was similar to the prior month (Figure 4; 1.13-fold lower relative to July; total of 1011 mosquitoes over 595 trap nights). *Culiseta incidens* was the most prevalent species collected in NJLT during August 2018, followed by *Culex tarsalis*, and *Culex pipiens* (Figure 5).

### Invasive Aedes Monitoring

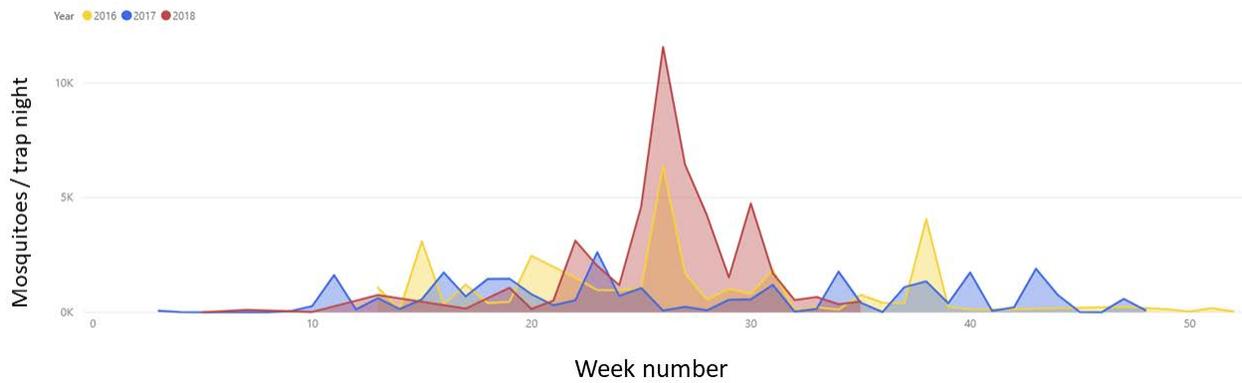
- Invasive *Aedes* mosquitoes have not been detected in any mosquito trap placed in Alameda County during 2018.

### Imagery captured using the ACMAD unmanned air system

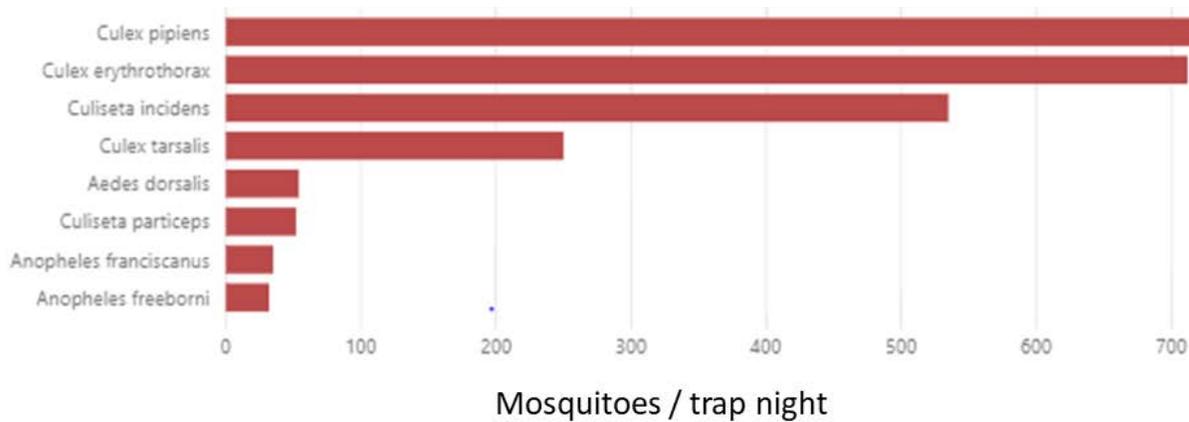
- The ACMAD unmanned air system (UAS; drone) fitted with a multispectral camera was used to image Ecology Marsh (Newark, CA) at 150 feet above ground level (AGL). The marsh was a site that was ditched previously to reduce the accumulation of water after high tide and heavy rain events (Figure 6). The multispectral camera was used to capture imagery that when processed, showed the location of accumulated water (Figure 7) and density of vegetation (Figure 8). The vegetative index showed that approximately 2.5% of the landscape consisted of bare soil or accumulated water with the remainder consisting of vegetation (Figure 8). Algorithms applied to the imagery that highlighted water showed that approximately 0.25% of the surface area contained surface water (Figure 7).

- The AMCAD UAS flown at 20 feet AGL was used to image mosquito larvae contained within a plastic tray (Figure 9). The UAS flown at 15 feet AGL successfully imaged mosquito larvae in water that was collected from a natural pond (Figure 10).

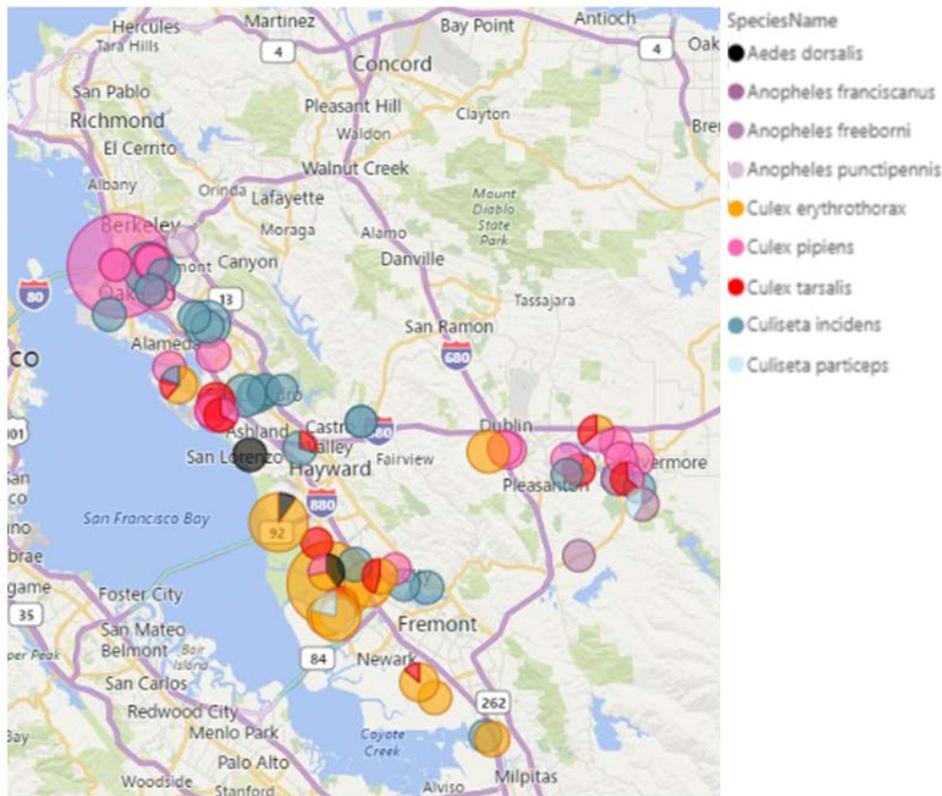
## FIGURES



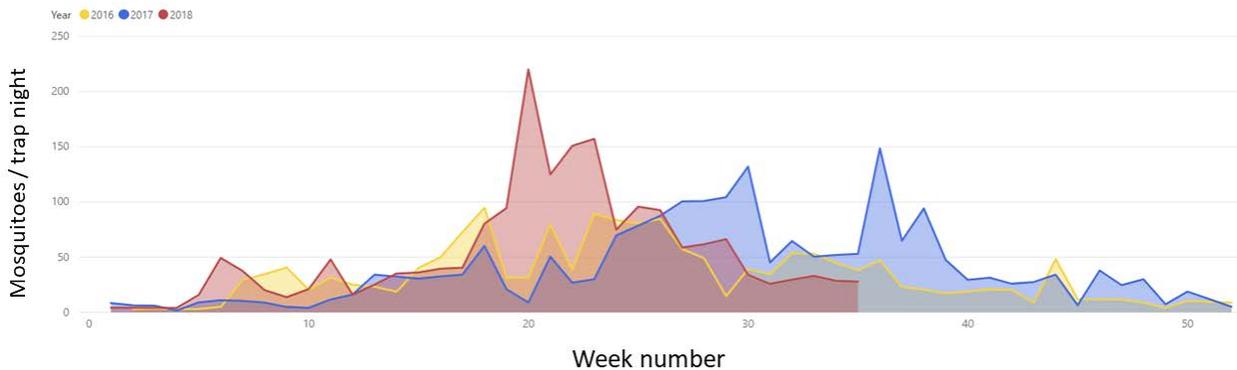
**Figure 1. Mosquitoes captured in EVS CO<sub>2</sub> traps from 2016 – 2018.** A total of 2,437 mosquitoes were captured in EVS CO<sub>2</sub> traps during August 2018 and identified to species.



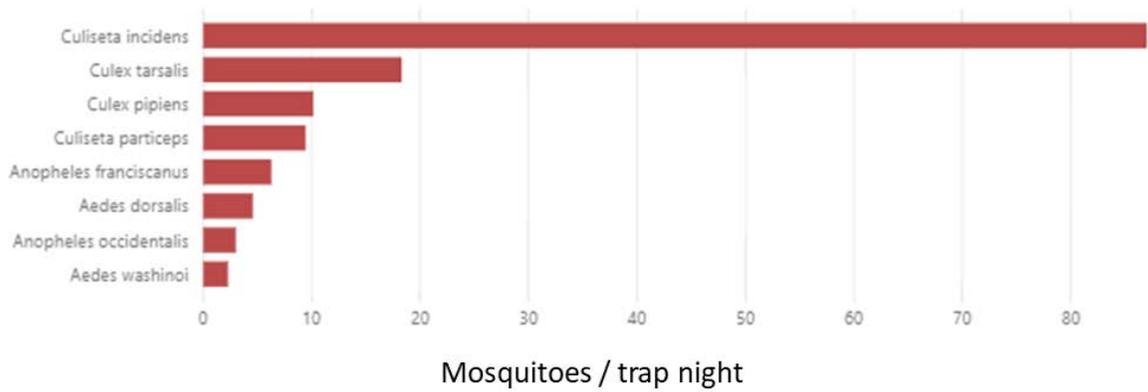
**Figure 2. The eight-most abundant species of mosquito captured during August 2018 using EVS CO<sub>2</sub> traps.**



**Figure 3. Mosquito abundance by trap site evaluated using EVS CO<sub>2</sub> traps.** Pie charts over trap sites indicate the distribution of mosquito species collected at the trap site. The size of the pie charts indicates the relative number of mosquitoes at each site during August 2018. Sites with five or fewer mosquitoes collected in the traps are not shown on the map. The largest pink pie chart over Berkeley – Emeryville indicates a total 319 female *Culex pipiens* that were collected near East Bay Municipal Water District.



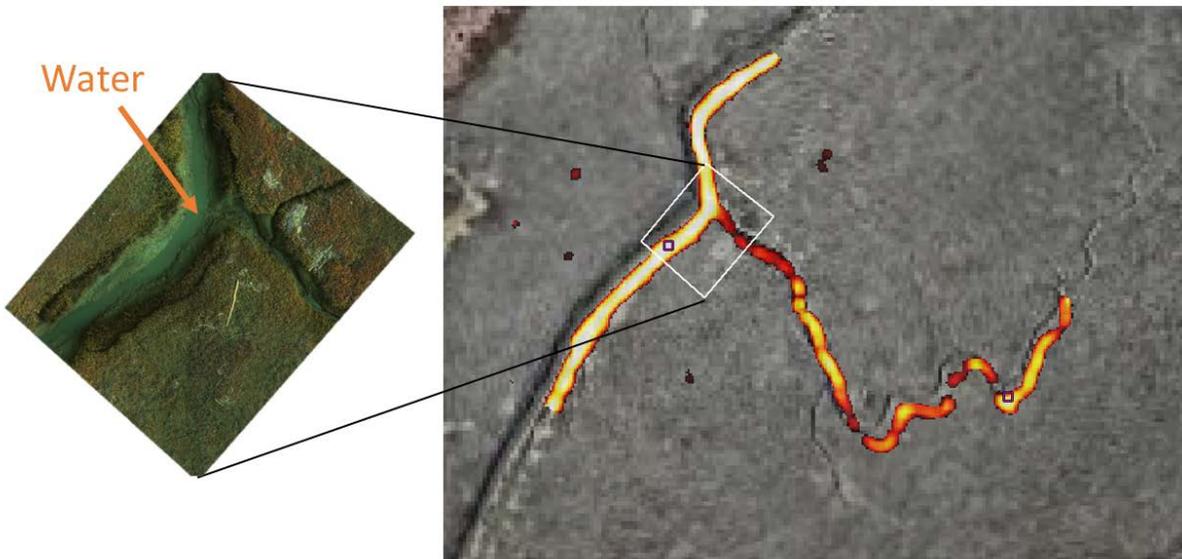
**Figure 4. Mosquitoes captured in NJLT from 2016 – 2018.** A total of 1,011 mosquitoes were captured in NJLT during August 2018 and identified to species.



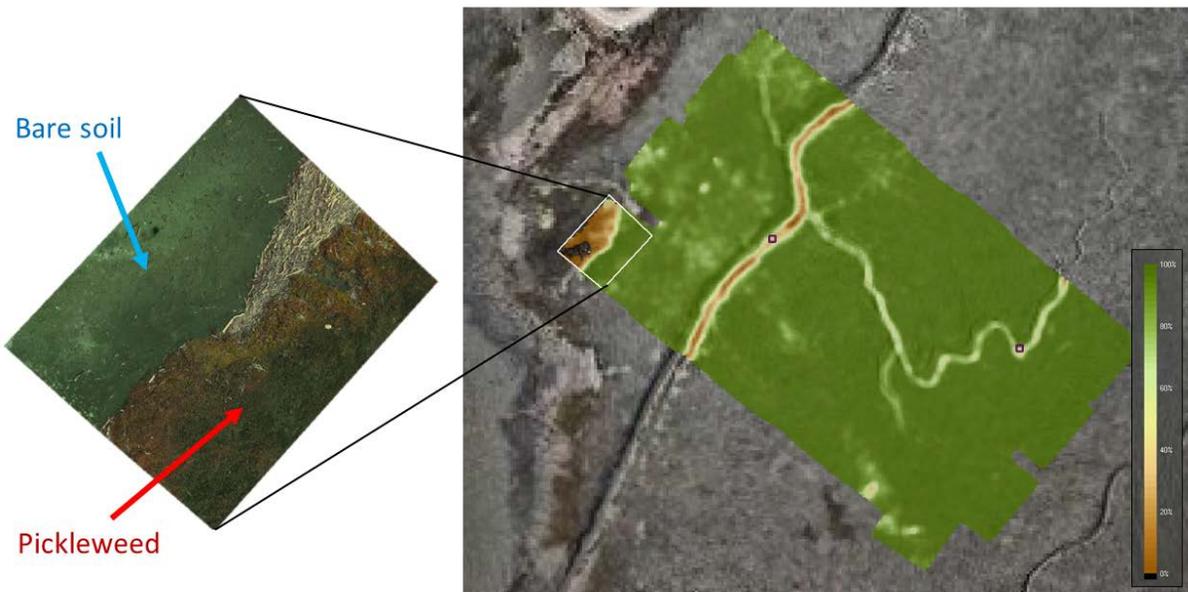
**Figure 5. The eight-most abundant species of mosquito captured during August 2018 in NJLT.**



**Figure 6. Section of Ecology Marsh with ditches that contain water.** The landscape was imaged at 150 feet above ground level using the ACMAD unmanned air system.



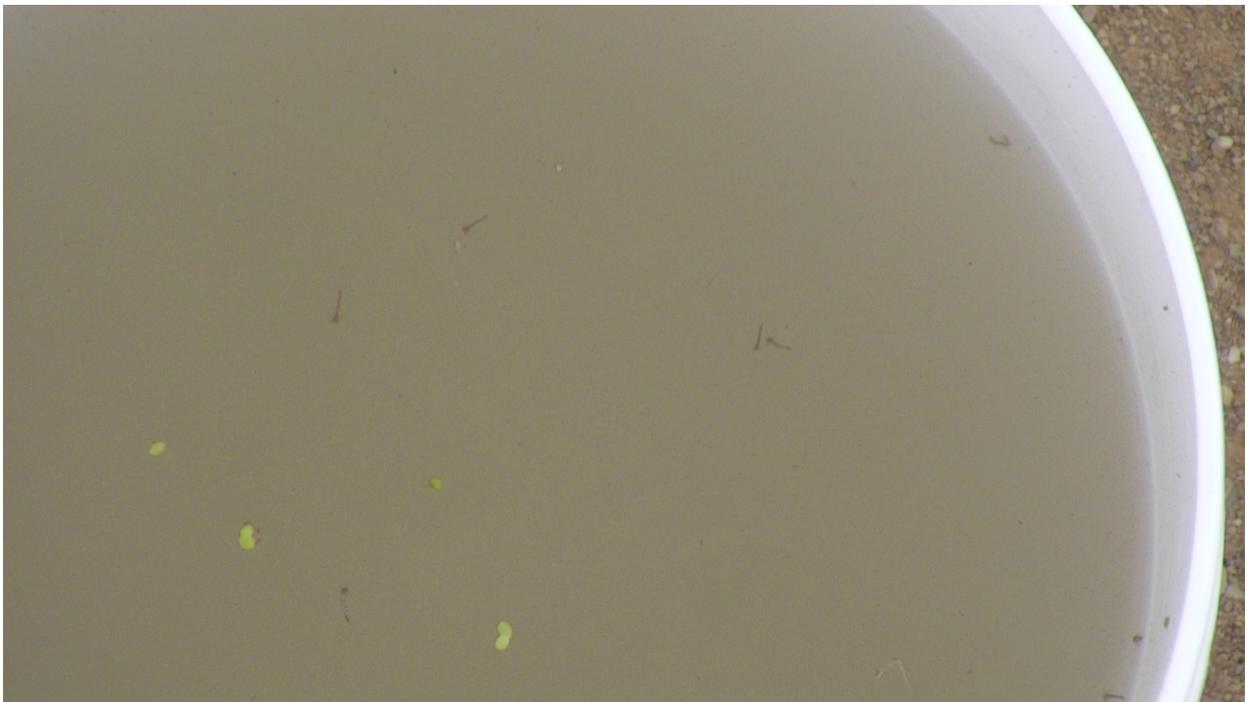
**Figure 7. Water on the landscape: Multispectral imagery captured using the ACMAD unmanned air system (UAS) at Ecology Marsh. (Right image) Red and yellow highlight areas in the imaged section of Ecology Marsh that contain water in the ditches. (Left image) Image captured from the UAS camera flown at 150 feet above ground level that shows water in the ditch (orange arrow).**



**Figure 8. Vegetation index: Multispectral imagery captured using the ACMAD unmanned air system (UAS) at Ecology Marsh. (Right image) Proportion of the landscape with vegetation is shown as green, with less vegetated land surface shown as yellow to brown. (Left image) Image captured from the UAS camera showing bare soil (blue arrow) and pickleweed (red arrow).**



**Figure 9. Mosquito larvae in clear water imaged using ACMAD unmanned air system flown at 20 feet above ground level.**



**Figure 10. Mosquito larvae in pond water imaged using ACMAD unmanned air system flown at 15 feet above ground level.**

### 3. PUBLIC EDUCATION

#### A. Events

##### i. Upcoming

- **Urban Shield Gray Command Alameda County Preparedness Fair** – Saturday, September 8<sup>th</sup> (Castro Valley)
- **Solano Stroll** – Sunday, September 9<sup>th</sup> (Berkeley/Albany)
- **Dublin Splatter** – Saturday, September 15<sup>th</sup> (Dublin)
- **Newark Days** – Sunday, September 23<sup>rd</sup> (Newark)
- **Alameda County Fall Home & Garden Show** – Friday, October 5<sup>th</sup> to Sunday, October 7<sup>th</sup> (Pleasanton)

##### ii. Past

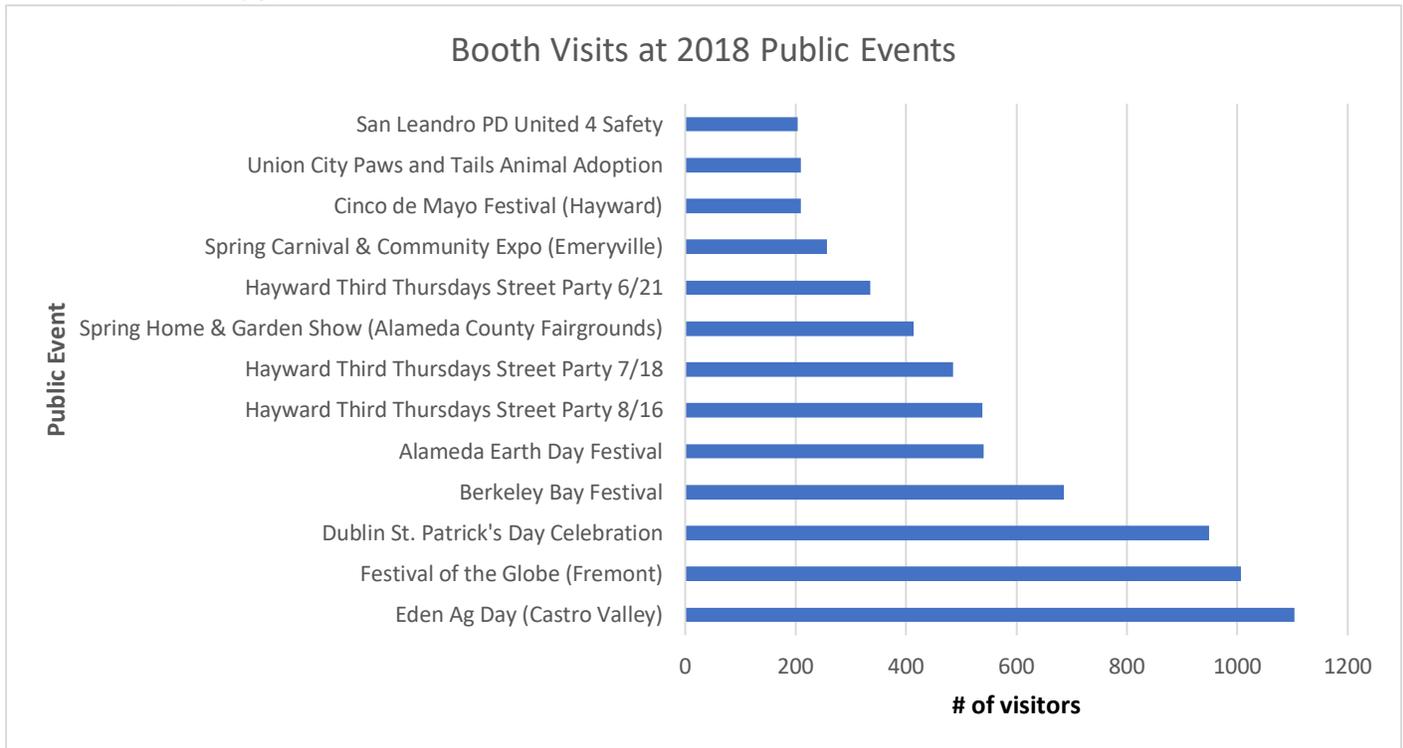


Figure 1. Number of visitors that attended events from January 1<sup>st</sup> to September 1, 2018

#### B. Advertisement Campaigns

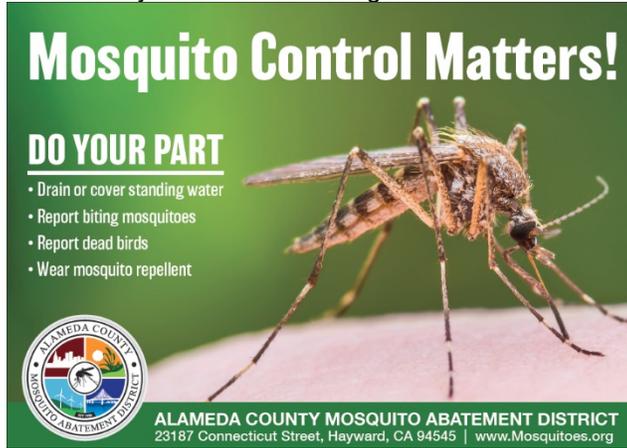
##### i. Internet Ads for invasive *Aedes* mosquitoes (ELC funded)

- Started May 20<sup>th</sup> and ran through July 18<sup>th</sup> (218,467 total impressions delivered)
- Displayed 42,550 times in May
- Displayed 110,058 times in June
- Displayed 65,859 times in July



ii. Print ads (East Bay Express)

- Started May 30<sup>th</sup> and run through November 27<sup>th</sup>



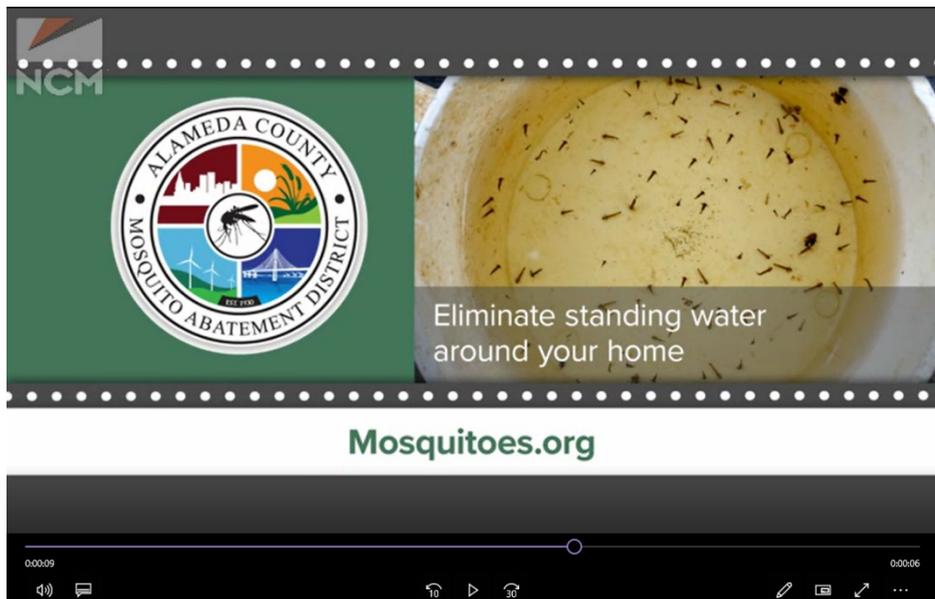
iii. Billboard Ad (ELC funded for 1 month)

- Started June 1<sup>st</sup> and ran through July 28<sup>th</sup>



iv. Movie Theater Ads

- Started June 8<sup>th</sup> and ran through August 15<sup>th</sup>
- Theaters locations: Century 25 Union Landing 25 (Union City), Century Pacific Commons 16 (Fremont), Hacienda Crossings 21 (Dublin), NewPark 12 (Newark)



v. Internet Ads for ACMAD

- Started June 24<sup>th</sup> and run through October 19<sup>th</sup>
- Displayed 26,460 times in June (one week only)
- Displayed 102,697 times in July



C. Google Analytics

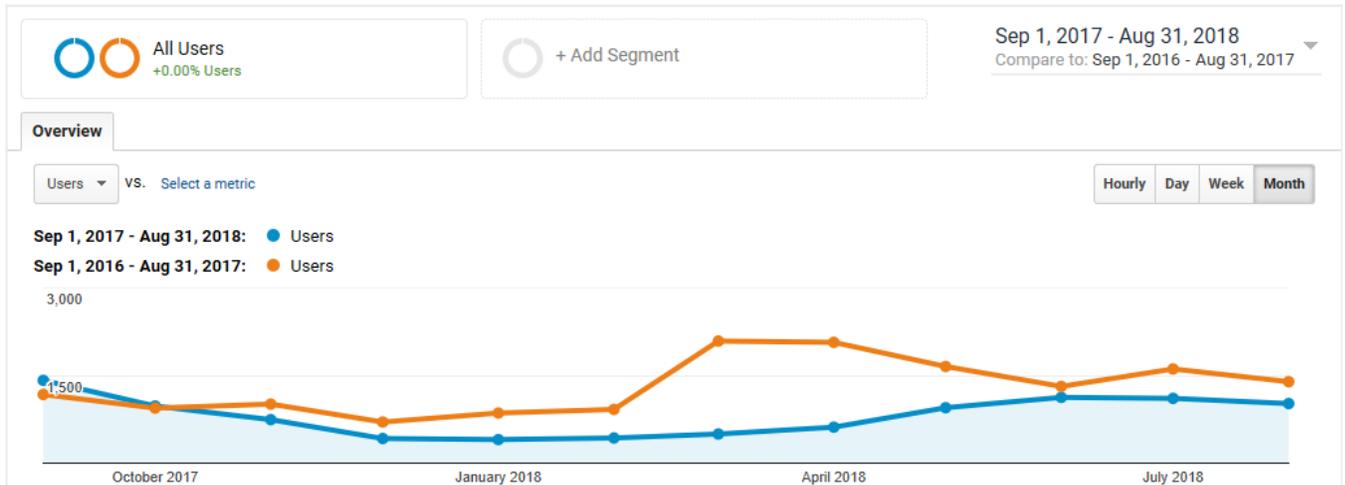


Figure 2. Comparison of website users over the past two years

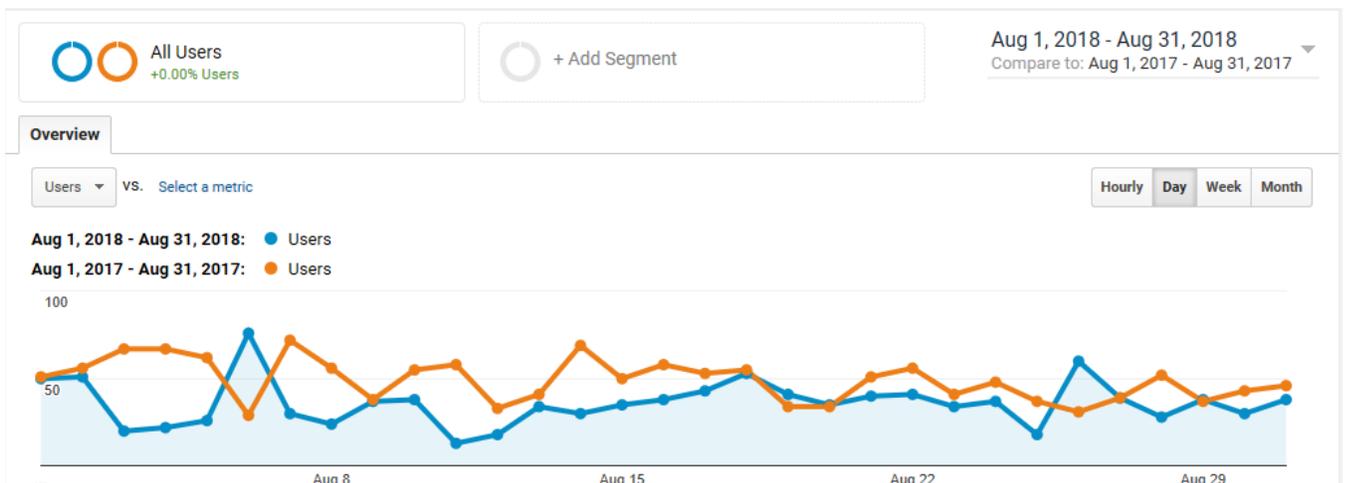
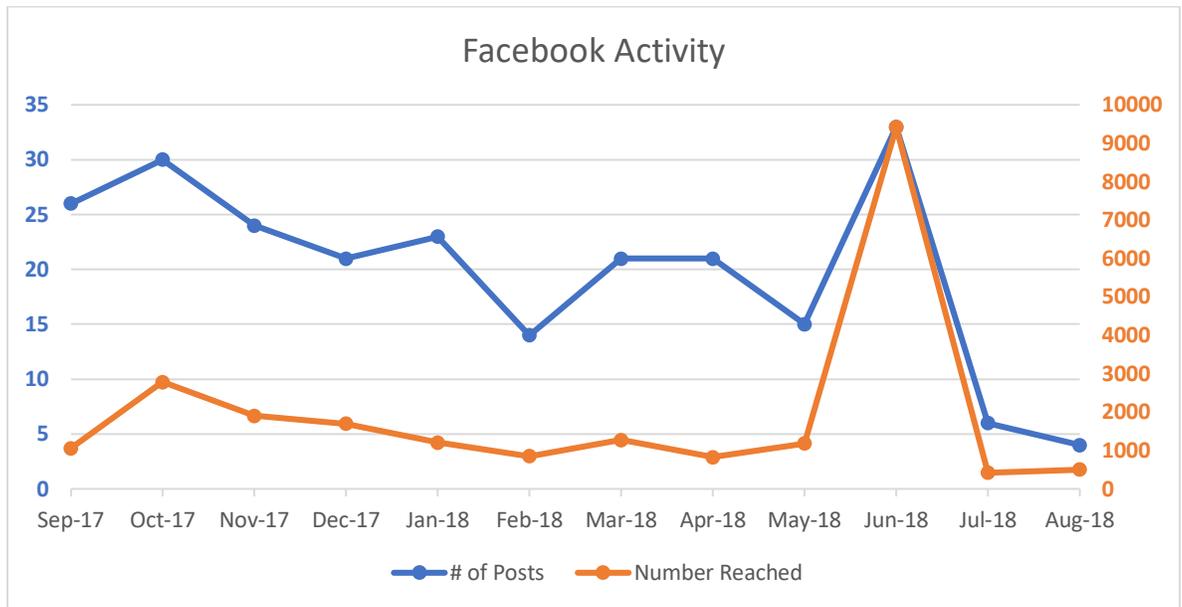


Figure 3. Comparison of website users over the past two years for the month of August.

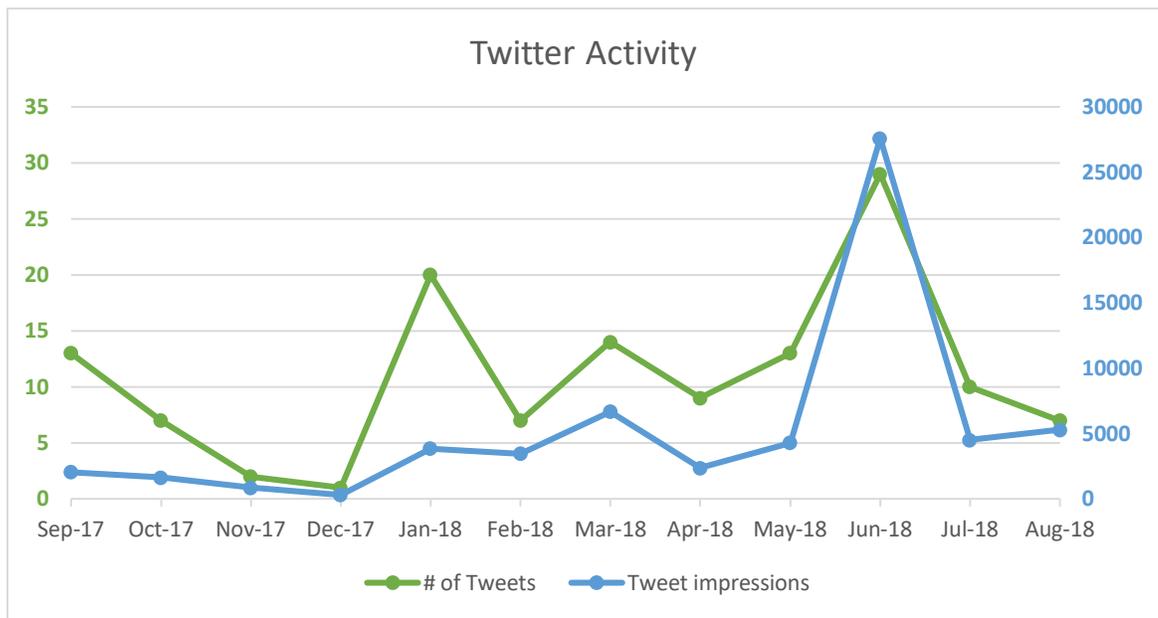
**D. Facebook**



**Total Number of Followers:** 170 (up from 167 in July)

**August's Most Popular Post:** Catch our booth at the last Hayward Street Party tonight! Come talk to our technicians and spin our #mosquito wheel for a free item. (picture)

**E. Twitter**

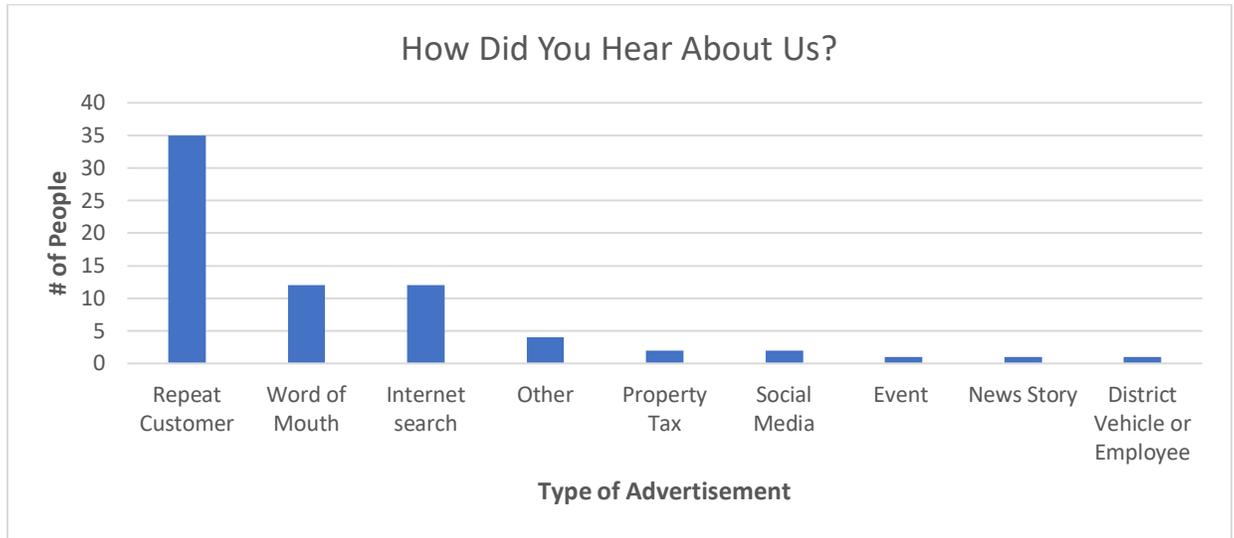


**Number of Profile Visits in August:** 143

**Total Number of Followers (New This Month):** 611 (3)

**Top August Tweet:** We're still having warm weather in the Bay Area this week! Make sure you're using repellent when outdoors and dumping any standing water in your yard to prevent these suckers from breeding. (picture)

**F. Service Request Referral Summary**



**Note:** Internet Ad, Billboard Ad, Movie Theater Ads and the Phone Book are also options for this question, but were not included on this chart, because they were not selected in the month of July. Four people chose "Other" including 1) an aquarium store and 2) Keystone Pest Control.

**4. LEGISLATIVE UPDATE:**

	Bill Name and description	Status	ACMAD Position	ACMAD Action
<i>California</i>				
<b>MVCAC</b>	<b>AB 2892:</b> This bill would create the California Mosquito Surveillance and Research Program, to be administered by the CDPH, and would require the department to maintain and fund an interactive website for management and dissemination of data on mosquito-borne virus and surveillance control, among other functions.	Suspended	Support	Legislative Visits and support letter
<b>CSDA</b>	<b>SB 929:</b> This bill would require every independent special district to maintain a website that clearly lists contact information for the special district.	Enrolled and awaiting action by Governor Brown	Support	Legislative Visits and support letters
<i>Federal</i>				
<b>AMCA</b>	<b>S.340 &amp; H.R 953:</b> These bills would amend the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Water Pollution Control Act to prohibit the Environmental Protection Agency or a state from requiring a permit under the National Pollutant Discharge Elimination System (NPDES) for a discharge of a pesticide from a point source into navigable waters if the discharge is approved under FIFRA.	Introduced in the Senate; Passed the House of Representatives	Support	Support Letter



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## Trustee and Staff Anniversary Recognitions:

### Board of Trustees

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#### *Vice-President*

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#### *Secretary*

Eric Hentschke

#### **Newark**

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James N. Doggett

#### **Livermore**

Jan O. Washburn

#### **Oakland**

Robert Dickinson

#### **Piedmont**

Kathy Narum

#### **Pleasanton**

Ed Hernandez

#### **San Leandro**

Subru Bhat

#### **Union City**

#### **Ryan Clausnitzer**

*General Manager*

### Background:

Starting this month, ACMAD will recognize the contribution of its Trustees and Staff in the regular board meeting packet. ACMAD is pleased to recognize and thank the following employees on their anniversaries in the months of July and August.

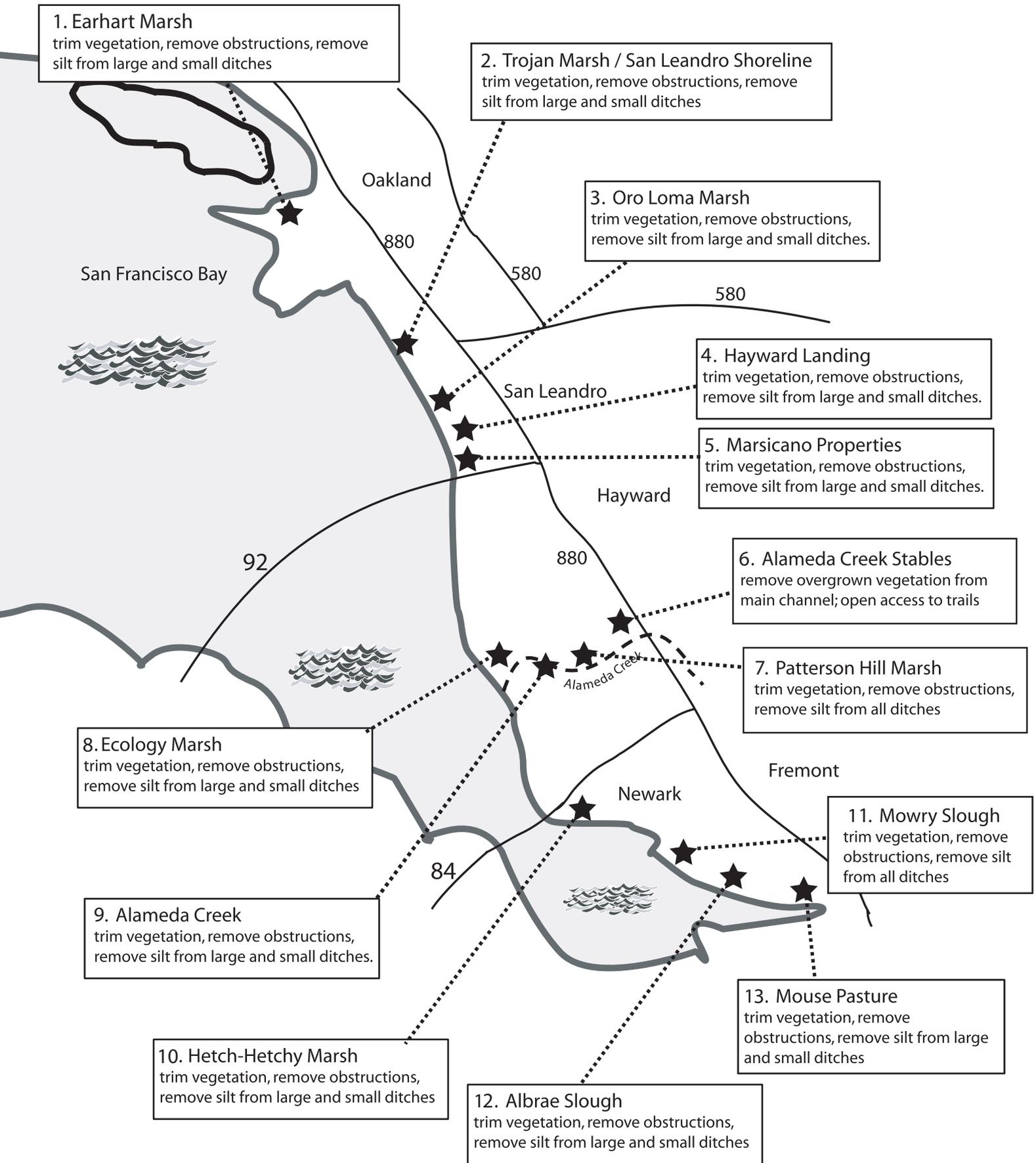
Employee	Job Title	Years of Service	Anniversary Date
Sarah Erspamer	Mosquito Control Technician	3	September 14 <sup>th</sup>
Ben Rusmisl	Vector Biologist	3	September 28 <sup>th</sup>

Day 1 of 2018-19 ACMAD Circulation Ditch-Work in Mowry Slough on Tuesday, September 2018.



\*\*\* Ditch work is done primarily by operations field staff on Tuesdays and Thursdays, September through January.

# Area map and overview of proposed projects for 2018-2019





## / PROGRAMS



### Special District Administrator Certification

The Special District Administrator Certification is a voluntary designation sought by individuals who strive to be the best. Administrators with various academic and professional backgrounds, as well as from all sizes of special districts, can be candidates for the program.

The certification examination and study guide were developed through the participation of over 100 volunteer subject matter experts who know special district administration. Guided by the SDLF Board, Certification Advisory Committee, and under direction by a professional examination development firm, this certification will give successful candidates recognition unmatched by any other program.

#### Is it for you?

- Demonstrates your commitment to the profession and special districts.
- Makes you stand out as one of the recognized "best in the field."
- Reflects achievement and that you have fulfilled a set of standards and requirements.
- Improves your career opportunities.
- Improves your overall skills and knowledge.
- Offers greater professional recognition from peers and agency governing boards.

#### Exam

This certification helps document and recognize a candidate's knowledge, skills and capabilities as a special district administrator. The two-hour exam covers all key aspects of special district administration, including:

- Governance
- Legal Requirements
- Policy Development
- Ethics in Public Service
- Strategic Planning
- Public & Customer Relations
- Organization
- Budget and Finance
- Personnel and Supervision
- And more...

To qualify for the examination, a candidate must have worked three out of the last five years in a position of management in a California special district. A total of 400 points is required to qualify for the opportunity to take the examination. Points are obtained through special district and related work experience, continuing education courses, higher education background and community service.

#### Application

To qualify for the examination, a candidate must have worked three out of the last five years in a position of management in a California special district. A total of 400 points is required to qualify for the opportunity to take the examination, to be obtained through professional special district and related work experience, continuing education courses, higher education background and community service.

[APPLICATION](#)