

AGENDA

1038th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

NOVEMBER 9TH, 2016

TIME: 5:00 P.M.
PLACE: Office of the District, 23187 Connecticut Street, Hayward
TRUSTEES: Richard Guarienti, President, City of Dublin
Kathy Narum, Vice-President, City of Pleasanton
Robert Dickinson, Secretary, City of Piedmont
Humberto Izquierdo, County-at-Large
Wendi Poulson, City of Alameda
P. Robert Beatty, City of Berkeley
Scott Donahue, City of Emeryville
George Young, City of Fremont
Elisa Marquez, City of Hayward
James N. Doggett, City of Livermore
Eric Hentschke, City of Newark
Jan O. Washburn, City of Oakland
Ursula Reed, City of San Leandro
Ronald Quinn, City of Union City

1. Call to order.
2. Roll call.
3. President Guarienti invites any member of the public to speak at this time on any issue relevant to the District. (Each individual is limited to five minutes).
4. Approval of the minutes of the 1037th meeting held September 14th, 2016 (**Board action required**).
5. Resolution 1038-1: Honoring Clarence Lam for his service as Administrative/ Finance Manager (**Board action required**)
6. Resolution 1038-2: Approval of new cap for CalPERS Health Benefits (**Board action required**)
7. Appointment of a committee to nominate candidates to Board Offices (**Board Action required**)
8. District job description revisions (Information only)
 - a. Phase two (of two): Mechanical Specialist, Vector Biologist, Assistant Mosquito Control Technician, Mosquito Control Technician, Seasonal Mosquito Lab

Technician, Seasonal Mosquito Control Technician, Seasonal Office & IT Assistant,
Seasonal Educational Outreach Assistant

9. Financial Reports:

- Review of warrants dated September 15, 2016 numbering 012517 through 01417 amounting to \$103,223.85 and warrants dated September 30, 2016 numbering 014817 through 018017 amounting to \$155,126.73 (Information only).
- Review of Budget as of September 30, 2016 (Information only).
- Investments, reserves, and cash statement: September 2016 (Information only).

- Review of warrants dated October 15, 2016 numbering 018117 through 020417 amounting to \$122,311.53 and warrants dated October 31, 2016 numbering 020517 through 021817 amounting to \$258,093.56 (Information only).
- Review of Budget as of October 31, 2016 (Information only).
- Investments, reserves, and cash statement: October 2016(Information only).

10. Presentation of the Monthly Staff Report for September & October 2016 (Information only).

11. Presentation of the Manager's Report for September & October 2016 (Information only).

- a. OPEB Account Update delayed until early-2017
- b. Annual Audit ongoing with Maze & Associates
- c. Harassment Trustee Training Due by end of year
- d. City Council and Alameda County Presentation Updates
- e. MVCAC Quarterly Meeting & CSDA Annual Conference
- f. ACMAD Participation in the 2016 UC Berkeley School of Public Health Zika Symposium
- g. Attendance at Bay Area Restoration Authority and Hayward Area Planning Agency meetings
- h. Research Partnership between Madera Mosquito and Vector Control District & Alameda County Mosquito Abatement District
- i. December 14th ACMAD Trustee open house with Staff

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

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

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

15. Adjournment.

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

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

Agenda item: 1038.4

MINUTES

1037th MEETING OF THE BOARD OF TRUSTEES
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

SEPTEMBER 14TH, 2016

TIME: 5:00 P.M.
PLACE: Office of the District, 23187 Connecticut Street, Hayward
TRUSTEES: Richard Guarienti, President, City of Dublin
Kathy Narum, Vice-President, City of Pleasanton
Robert Dickinson, Secretary, City of Piedmont
Humberto Izquierdo, County-at-Large
P. Robert Beatty, City of Berkeley
Wendi Poulson, City of Alameda
Scott Donahue, City of Emeryville
George Young, City of Fremont
Elisa Marquez, City of Hayward
James N. Doggett, City of Livermore
Eric Hentschke, City of Newark
Jan O. Washburn, City of Oakland
Ursula Reed, City of San Leandro
Ronald Quinn, City of Union City

Board President Guarienti called the regularly scheduled Board meeting to order at 5:01 P.M.

Trustees Guarienti, Beatty, Poulson, Donahue, Young, Marquez, Doggett, Hentschke, and Quinn were present; Trustees Narum, Izquierdo, Dickinson, and Reed were absent, Trustees Donahue and Washburn arrived at 5:12 P.M.

Board President Guarienti invited members of the public to speak on any issue relevant to the District, staff member and Field Operations Supervisor Joseph Huston was present.

After some changes suggested by the District Manager (errors on the July meeting date and meeting number), the Board approved the minutes of the 1036th meeting held August 10th, 2016. (Marquez, Hentschke)— unanimous; Trustees Beatty, Donahue, Doggett, Washburn -abstained.

After a presentation by the District Manager regarding the proposed changes to job titles, pay, and exemption status, Trustees asked the following questions, (answered by the District Manager): Trustee Doggett asked for the motivation behind the exemption change (reduce overtime accumulation, and allow for flexibility while not abusing the exemption status—flexible language included in the MOU amendment would allow staff, with the District Manager’s approval, to work weekends/ evenings and flex this through the week, the additional 40 hours of administrative time given annually will supplement the time over

40 hours accumulated throughout the week), is the 40 hours just replacing the compensation time (it is not earned at the 1.5 rate), could an employee use the 40 hours in one block at the end of June before it expires (theoretically, but all leave must be approved by the District Manager and this may be deemed as an abuse of that right), what was meant by the District Manager's statement on the job descriptions passing the HR "muster" and to remove the word "likely" from all descriptions (HR reviewed the descriptions to ensure they follow current labor laws; that change will be made); Board President Guarienti requested clarification on what "occasional sup." meant in the matrix (those positions would now be occasional supervisors), how this would be implemented (if approved, an amended MOU would need to be signed by employees of the employee association), why the different range of increases (to separate the salaries and based on the salary survey), why the Lab Director was not included in the survey or pay increase (the current salary is an average found during the recent salary survey), the Biological Specialist's position description reports to the Lab Director, not the Entomologist (that change will be made); Trustee Marquez asked why a salary survey was made for these positions (they were made for all positions during MOU research); Trustee Beatty offered that exemption is a common practice for supervisors. (Beatty, Washburn)– unanimous.

Regarding scheduling the October 12th Board Meeting, Board President Guarienti reaffirmed the value of attending a CSDA conference; Trustee Hentschke asked if a substitute could be used (rather than the District Manager); Trustee Washburn suggested that the District Manager contact the Trustees to determine if the October meeting should be: moved to October 5th, moved to October 19th, cancelled. The District Manager will begin that survey after the meeting.

The Board reviewed the bids and awarded the database contract to Leading Edge after asking the following questions (answered by the District Manager): Board President Guarienti asked if rate increases are planned every year (yes, according to the CPI), and what the next step would be (draft a scope of work between the District and Leading Edge); Trustee Beatty questioned the price difference (Leading Edge's Mapvision is a finished product used by many mosquito districts, Digital Map Products is attempting to enter the market with an unfinished product, and is priced as thus); Trustee Hentschke inquired if a public version is available (no public version, but there may be presentations available to view online); Trustee Washburn commented that through his conference attendances, he has seen both products and confirmed the District Manager's assessment of Leading Edge while also offering that this purchase may be the most important capital improvement investment in the past 15 years of the District.

The Board approved resolution 1037-1 expanding workers' compensation coverage to District volunteers assisting in mosquito research after asking the following questions (answered by the District Manager): Trustee Quinn asked what is covered (this resolution would only expand workers' compensation coverage, not health benefits); Trustee Marquez asked if other paperwork is required (besides a DMV driving record and valid driver's license, this resolution will suffice); Trustee Washburn asked if this would increase the liability and subsequent payments (it will not increase as the fee is based on the overall District's salary payments); Trustee Donahue commented that he is surprised that a fee raise will not occur, and Trustee Beatty added that this was a standard practice for non-paid student workers (Washburn, Quinn)– unanimous.

The Board reviewed warrants dated August 15, 2016 numbering 006717 through 009117 amounting to \$121,409.93 and warrants dated August 31, 2016 numbering 009217 through 012417 amounting to \$139,607.89

The Board reviewed the budget summary received as of August 31st, 2016.

The Board reviewed the Investments, Reserves, and Cash Statement as of August 31st, 2016.

The Field Operation Supervisor, Joseph Huston, along with the District Manager presented the Monthly Staff Report for August 2016. Trustee Beatty asked for the ration of tested crows to West Nile virus positive crows. Mr. Huston answered that it was about half West Nile virus positive. Board President Guarienti added that the Hayward Marsh has been a long-standing problem and if Mr. Huston has contacted the East Bay Regional Park board member regarding this. Mr. Huston only wrote a letter to the General Manager on the issue this past February. Trustee Quinn asked if the East Bay Regional Park bears the costs for these treatments. Mr. Huston responded that the District historically works with partner agencies to reduce mosquito breeding sources rather than charging for services or through legal abatement.

Board President Guarienti asked for reports on conferences and seminars attended by Trustees, there were none.

Board President Guarienti asked for announcement from the Board and asked for any nominations to the MVCAC Trustee Council, there were none. The District Manager announced the awarding of the CSDA Transparency Certificate of Excellence to ACMAD while reminding Trustees to complete their harassment and discrimination training.

Board President Guarienti asked trustees for items to be added to the agenda for the August Board meeting, there were none.

The meeting adjourned at 6:35 P.M.

Respectfully submitted,

Approved as written and/or corrected
at the 1038th meeting of the Board of
Trustees held November 9th, 2016

Richard Guarienti, President
BOARD OF TRUSTEES

Robert Dickinson, Secretary
BOARD OF TRUSTEES

RESOLUTION NO. 1038-1

ALAMEDA COUNTY MOSQUITO
ABATEMENT DISTRICT

COMMENDATION TO: Clarence Lam

WHEREAS: You, Clarence Lam, began on a temporary assignment in mid-2002 and then served the District as Administrative Assistant from December 2002 until 2010, and as Administrative/ Financial Manager from 2010 until your retirement in October 2016, and

WHEREAS: You directed the District's financial reporting, accounting, human resources, reception, service requests, external audits, and mosquitofish disbursements, and

WHEREAS: You were diligent in maintaining stability in the workplace for District employees, and were effective in all aspects of your position as Administrative/ Finance Manager, and

WHEREAS: You have served the District and residents of Alameda County for almost 14 years, therefore be it

RESOLVED: We, the undersigned Manager and President of the Board of Trustees, do hereby extend our sincere appreciation for your dedication and service to this District.

Richard Guarienti
President, ACMAD Board of Trustees

Ryan Clausnitzer
Manager, ACMAD

Agenda item: 1038.6

1038-2 RESOLUTION FIXING THE EMPLOYER'S CONTRIBUTION UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT

- WHEREAS, (1) Government Code Section 22892(a) provides that a local agency contracting under the Public Employees' Medical and Hospital Care Act shall fix the amount of the employer's contribution at an amount not less than the amount required under Section 22892(b)(1) of the Act, and
- WHEREAS, (2) Alameda County Mosquito Abatement District is a local agency contracting under the Act; now, therefore be it
- RESOLVED, (a) That the employer's contribution for each employee or annuitant shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members, in a health benefits plan or plans up to a maximum of \$733.39 per month with respect to employees or annuitants enrolled for self alone, \$1,466.78 per month for an employee or annuitant enrolled for self and one family member, and \$1,906.81 per month for an employee or annuitant enrolled for self and two or more family members, plus administrative fees and Contingency Reserve Fund Assessments; and be it further
- RESOLVED, (b) That Alameda County Mosquito Abatement District has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above.

Adopted at a regular/special meeting of the Alameda County Mosquito Abatement District at Hayward, California this 9th day of November 2016.

Signed: _____
Richard Guarienti, President

Attest: _____
Robert Dickinson, Secretary

INSTRUCTIONS

This resolution form is the approved form designated by the Public Employees' Retirement System. It should be used by a Public Agency which is contracting for coverage under the Public Employees' Medical and Hospital Care Act when the agency desires to change the employers' contribution towards the cost of their employees' and annuitant's enrollment to an amount equal to or greater than that prescribed by Section 22892(b) as authorized by Section 22892(a) of the Government Code.

The employer's contribution specified (if RESOLVED) will be **effective on the first day of the second month** following the month in which the resolution is filed (date stamped as received) in the office of the Board of Administration, Public Employees' Retirement System, 400 Q Street, P. O. Box 942714, Sacramento, CA 94229-2714.

WHEREAS, (2) should be completed with full name of the contracting agency.

RESOLVED, (a) should be completed to specify the amount of the employer's (agency's) contribution toward the cost of its employees' or annuitants' enrollments.

RESOLVED (b) should be completed with full name of the contracting agency.

Because resolutions serve as our legal contract, we require the original resolution, certified copy with original signatures, or a copy of the resolution with the agency's raised seal.

For resolution processing, deliver to the following:

Overnight Mail Service

California Public Employees' Retirement System
Office of Employer & Member Health Services
400 Q Street
Sacramento, CA 95811-6210

Regular Mail

California Public Employees' Retirement System
Office of Employer & Member Health Services
PO BOX 942714
Sacramento, CA 94229-2714

The certification shown following the resolution is to be completed by those individuals authorized to sign for the Public Agency in legal actions and is to include the name of the executive body; i.e. Board of Directors, Board of Trustees, etc., the location and the date of signing.

Mechanic Specialist

DEFINITION

Under the direction of the District Manager the Mechanical Specialist coordinates and performs mechanical repairs and maintenance of District facilities and equipment. In addition, is responsible for the implementation and documentation of the District Safety program.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the District Manager classification at the District, as that position possesses specialized responsibilities conducting and executing various aspects to manage and supervise personnel of the District.

SUPERVISION RECEIVED AND EXERCISED

Receives direct supervision by the District Manager. Responsibilities may include only technical supervising of staff assigned to his/her work.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Includes but is not limited to:

- Plans and follows a preventive maintenance schedule for District facilities, equipment and vehicles.
- Contracts or makes repairs as necessary to facilities, vehicles and equipment.
- Responsible for District Injury Illness Prevention Program (IIPP); insuring employees are properly trained in all safety procedures and programs while working at the facility.
- Provides instruction in the proper use and care of shop equipment, spray equipment and driver safety.
- Provides safety equipment and instruction on its proper use.
- Conducts and coordinates safety inspections of District facility including shop, office, equipment, vehicles and grounds.
- Maintains all District safety records in compliance with CAL OSHA standards.
- Responsible for budgeting, purchasing, record keeping and preparation of proposals for the purchase of District equipment, tools, spray equipment, vehicles and supplies for equipment and facilities maintenance.
- Contracts with outside agencies for disposal of District equipment.
- Schedules shop projects consisting of routine maintenance and repairs of equipment and vehicles.
- Along with the IT Director, responsible for the aquaculture program.
- As a member of the support team, assists and supports field technicians, office staff and district manager, and accomplishes field work, facility, and equipment maintenance as needed.

Accountability:

The employee is accountable to the District Manager to ensure that all equipment, vehicle and mechanical functions are carried out in accordance with the Mosquito Act, Government Code, and California Health and Safety Code Standards, Federal and State laws. Assignments may be

specific or general with only desired results being specified. Recommendations on improvements to Division activities are expected.

The employee is responsible for complying with all District safety requirements and practices. Additionally, the employee is responsible for ensuring that any direct reports also comply with all District's safety requirements and practices.

EMPLOYMENT STANDARDS

Knowledge of:

- Tools, techniques, equipment, and procedures used in the overhaul, repair, and adjustment of automotive and related power-driven equipment.
- Occupational hazards and safety practices and procedures related to the work.
- Techniques for dealing with the public, District staff, and others in an effective manner.
- General maintenance and repairs.

Skills in:

- Use a variety of tools and equipment.
- Drive a variety of vehicles safely.
- Communicating effectively in English both orally and in writing.
- Understanding, interpreting, and applying complex guidelines.

Ability to:

- Inspect automotive and related power-driven equipment to locate difficulties and estimate the cost and time of repairs.
- Perform minor and major mechanical repair on Agency owned mechanical equipment.
- Maintain a variety of shop and repair records.
- Understand and carry out oral and written directions.
- Acquire a general knowledge of division policies and procedures as related to shop operations.
- Communicate effectively in writing, orally, and with others to assimilate, understand, and convey information, in a manner consistent with job functions.
- Use initiative and independent judgment within established policy and procedural guidelines.
- Represent the Agency, the department, or the organizational unit effectively in contacts with representatives of other agencies, and the public.
- Establish and maintain cooperative relationships with those contacted in the course of the work.
- Take a proactive approach to customer service issues.
- Make process improvement changes to streamline procedures.
- Organize own work, set priorities, meet critical deadlines, and follow-up on assignments with a minimum of direction.
- Work in a safe manner, following Agency safety practices and procedures.
- Repair, research, design and operate equipment;
- Plan, estimate and lay out construction projects according to local codes and state labor laws.
- Operate common machine tools;

- Perform light welding;
- Keep records on vehicles and equipment;
- Obtain CDPH certifications;
- Read, understand, interpret, evaluate and apply laws, policies, rules, contracts, guidelines, and literature of the profession;
- Establish and maintain effective working relationships with those contacted in the course of work;
- Communicate with the public in a tactful, courteous, and professional manner.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Education/Training and Experience Guidelines:

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

Education/Training:

Equivalent to graduation from High School.

Experience:

Five (5) years of journey-level work experience in the maintenance and repair of automotive and other power-driven equipment.

License or Certificate:

A valid California Driver's license issued by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

Possession of and maintain Certification from the State Department of Public Health after one year of employment.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas and field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards.

Work Environment:

Essential duties require the following physical abilities and work environment:

Incumbent must be sighted in both eyes with the ability to demonstrate depth perception and color perception; have a minimum of single-ear aided hearing; be without physical limitations that would prevent climbing ladders and performing customary and usual activities associated with work in a repair shop. While performing the duties of this job, the employee is regularly exposed to moving mechanical parts, fumes, or airborne particles and toxic or caustic chemicals. The employee is frequently exposed to risk of electrical shock and vibration. The employee is occasionally exposed to wet and/or humid conditions, high, precarious places, and outside weather conditions. The noise level in the work environment is usually loud.

Working Conditions:

- **Medium Work** – Incumbent performs work in a shop and field setting, which involves frequent lifting, pushing and/or pulling of objects of approximately 75 pounds. Heavier lifting is an infrequent aspect of this position.
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects; be able to stand, stoop, reach and bend and to walk on uneven terrain, such as field, dirt banks, natural and cement stream beds, and shallow ponds as needed.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain.

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Retitled:

Rep Unit: ACMAD Employee Association

Vector Biologist

DEFINITION

Under the direction of the Field Operations Supervisor, the Vector Biologist conducts a planned program of mosquito detection and abatement in an assigned zone, assists support staff and does related work as required.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the Field Operations Supervisor classification at the District as there is no supervision of staff. This classification differs from a Mosquito Control Technician based on its responsibility of a specialized program and rotating coverage of Field Operation Supervisor duties.

SUPERVISION RECEIVED AND EXERCISED

General supervision is provided by the Field Operations Supervisor. Responsibilities may include only technical supervision of some classifications assigned to his/her projects.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Includes but is not limited to:

- Carries out a thorough inspection and treatment program for mosquito control in an assigned zone(s);
- Identifies both larval and adult stages of the species of mosquitoes found in Alameda County;
- Coordinates the work of team members within assigned zone(s);
- Follows district safety procedures and other regulatory requirements when using pesticides and district equipment;
- Plays a significant role in disease surveillance, entomological research, mapping, public education, public relations (including interviews with TV, radio and print media), training of new employees, equipment and facility maintenance programs;
- Rotates coverage of field operation supervisor duties (besides supervision) with other vector biologists: product inventory, service requests dispersal, zone coverage, daily report data review;
- Responsible for a specialized program or project (to be approved by the Field Operations Supervisor).
- Prepares daily work reports and maintains a record of activities in district software along with basic computer skills along with other duties as may be required.

Accountability:

The employee is accountable to the Field Operations Supervisor to ensure that planned program of mosquito detection and abatement field work functions are carried out in accordance with the Mosquito Act, Government Code, and California Health and Safety Code Standards, Federal and State laws, and District policies. Assignments may be specific or general with only desired results being specified. Recommendations on improvements to Division activities are expected.

The employee is responsible for complying with all District safety requirements and practices. Additionally, the employee is responsible for ensuring that any direct reports also comply with all District's safety requirements and practices.

EMPLOYMENT STANDARDS:

Knowledge of:

- Diagnostic characteristics of egg-laying, larval and adult habits of a variety of mosquitoes and biology of other vectors;
- Laws, regulations, and proper safety procedures;
- Endangered species as well as native/nonnative animals and plants;
- Proper English usage, spelling, grammar and punctuation.

Skills in:

- Use a variety of tools and equipment.
- Drive a variety of vehicles safely.
- Communicating effectively in English both orally and in writing.
- Interacting effectively with District staff and representatives of various public and private agencies;
- Understanding, interpreting, and applying complex guidelines.

Ability to:

- Work well under pressure;
- Manage and meet multiple and competing deadlines.
- Initiate and take responsibility for district projects such as presentations to the public, businesses, and local governmental agencies.
- Demonstrate cooperative behavior with colleagues, members of the public and supervisors;
- Collaborate effectively and share in decision making;
- Help create a proactive, adaptive district;
- Develop long-term mosquito control strategies;
- Write legibly and effectively in English and keep detailed records;
- Read, understand, interpret, evaluate and apply laws, policies, rules, contracts, guidelines, and literature of the profession;
- Instruct others, both verbally and in writing, in an effective and professional manner;
- Organize and maintain accurate records;
- Compile numerical information;
- Work with a high degree of independence;
- Understand and effectively carry out oral and written instructions;
- Establish and maintain effective relationships with those contacted in the course of work;
- Work congenially and cooperatively with others;
- Communicate with the public in a tactful, courteous, and professional manner;
- Lift objects weighing in excess of 50 pounds (frequently);
- Perform standard data processing using a MS Windows® based PC system;
- Operate a motor vehicle and other specialized types of transport associated with mosquito control in a safe and legal manner.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Education/Training and Experience Guidelines:

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

Experience

Three and a half (3 ½) years of employment in a mosquito control district including six (6) months as a Mosquito Control Technician at step five.

and

Education/Training

Equivalent to a Bachelor's Degree with major coursework in Biosciences or some college-level coursework in the science discipline.

or

Ten (10) years of work experience in the mosquito control field.

License or Certificate:

A valid California Driver's license issues by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

Possession of and maintain Certification from the State Department of Public Health:

- Mosquito Control Technician
- Vertebrate Vector
- Invertebrate

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas and field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards.

Work Environment:

Essential duties require the following physical abilities and work environment:

Incumbent must be sighted in both eyes with the ability to demonstrate depth perception and color perception; have a minimum of single-ear aided hearing; be without physical limitations that would prevent climbing ladders and performing customary and usual activities associated with field operational mosquito surveillance and control activities.

Working Conditions:

- **Medium Work** – Incumbent performs work, which involves frequent lifting, pushing and/or pulling of objects of approximately 50 pounds. Heavier lifting is an infrequent aspect of this position.

- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects; be able to stand, stoop, reach and bend and to walk on uneven terrain, such as field, dirt banks, natural and cement stream beds, and shallow ponds.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain.

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Rep Unit: ACMAD Employee Association

Assistant Mosquito Control Technician & Mosquito Control Technician

DEFINITION

Under supervision by the Field Operations Supervisor, the Assistant and the Mosquito Control Technicians conduct a planned program of mosquito detection and abatement in an assigned zone, assists support staff and does related work as required.

DISTINGUISHING CHARACTERISTICS

Assistant Mosquito Control Technician:

This class is the entry-level class within the ACMAD Mosquito Technician series. The class is distinguished from the Mosquito Control Technician by the performance of the more routine tasks and duties assigned to positions within the series including duties performed according to established procedures and changes in procedures or exceptions to rules explained in detail as they arise. It is also distinguished by the completion of categories A & B of the CDPH Vector Control Technician Certification. Since this class can be used as a training class, employees may have only limited or no directly related work experience.

Mosquito Control Technician:

Is the journey-level class within the ACMAD Mosquito Control technician series. Employees within this class are distinguished from the Assistant by the performance of the full range of duties as assigned including duties requiring the knowledge of ACMAD policies and procedures and completion of categories A & B of the CDPH Vector Control Technician Certification exam. Employees at this level received only occasional instructions or assistance as new or unusual situations arise, and are fully aware of the operation procedures and policies of the work. Positions in this class are flexibly staffed and are normally filled by advancement from the entry-level Assistant classification, or when filled from the outside, require prior Assistant Mosquito Control Technician experience.

Appointment to the journey level requires that the employee be performing the full range of duties for the class and meets the qualification standards for the class.

SUPERVISION RECEIVED AND EXERCISED

Assistant Mosquito Control Technician: The Field Operations Supervisor provides immediate and general supervision.

Mosquito Control Technician: The Field Operations Supervisor provides general supervision. Responsibilities may include technical supervising of Assistant Mosquito Control Technician and seasonal/temporary staff.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

- Carries out a thorough inspection and treatment program for mosquito control
- Identifies both larval and adult stages of mosquito species found in Alameda County
- Coordinates the work of team members within assigned zones(s)

- Follows District safety procedures and other regulatory requirements when using pesticides and District equipment
- Participates in disease surveillance, entomological research, mapping, public education, public relations (including interviews with TV, radio and print media)
- Assists in the training of new employees
- Participates in the maintenance of equipment and facilities
- Prepares daily work reports, maintains a record of activities and uploads field information into the District database

Accountability:

The employee is accountable to the Field Operations Supervisor to conduct a planned program of mosquito detection and abatement in an assigned zone is carried out in accordance with the Mosquito Act, Government Code, and California Health and Safety Code Standards, Federal and State laws, and District policies. Assignments may be specific or general with only desired results being specified. Recommendations on improvements to Division activities are expected.

The employee is responsible for complying with all District safety requirements and practices. Additionally, the employee is responsible for ensuring that any direct reports also comply with all District's safety requirements and practices.

EMPLOYMENT STANDARDS

Knowledge of (or willingness to learn):

- Identification, biology, ecology and public health importance of mosquitoes of Alameda County
- Control programs, materials and equipment used to detect, monitor and control mosquito populations
- Effective usage of insecticides and equipment according to safety regulations
- The laws pertaining to endangered species

Abilities:

- Establish and maintain cooperative working relationships with those contacted in the course of work;
- Proper English usage in order to communicate with the public
- Perform heavy physical labor, and lift up to 50 pounds
- Prepare, organize and maintain accurate records

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Education/Training and Experience Guidelines:

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

Experience:

Assistant Mosquito Control Technician:

Substantial academic or work experience in a related field.

Mosquito Control Technician:

Successful completion of categories A & B of the CDPH examinations and six (6) months as an Assistant Mosquito Control Technician or equivalent.

Education/Training

Equivalent to graduation from high school. Some college level courses in the biological sciences is highly preferred.

License or Certificate:

A valid California Driver's license issues by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

Mosquito Control Technician:

Possession of and maintain Certification from the State Department of Public Health:

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas and field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards.

Work Environment:

Essential duties require the following physical abilities and work environment:

Incumbent must be sighted in both eyes with the ability to demonstrate depth perception and color perception; have a minimum of single-ear aided hearing; be without physical limitations that would prevent climbing ladders and performing customary and usual activities associated with field operational mosquito surveillance and control activities.

Working Conditions

- **Medium Work** – Incumbent performs work, which involves frequent lifting, pushing and/or pulling of objects of approximately 50 pounds. Heavier lifting is an infrequent aspect of this position
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects; be able to stand, stoop, reach and bend and to walk on uneven terrain, such as field, dirt banks, natural and cement stream beds, and shallow ponds
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Rep Unit: ACMAD Employee Association

Seasonal Mosquito Lab Technician

DEFINITION

The Seasonal Mosquito Lab Technician is primarily responsible for supporting mosquito surveillance and research programs by applying the knowledge associated with the scientific disciplines of entomology, biology, ecology, molecular biology, microbiology, and biostatistics, and other duties as assigned.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the Biological Specialist and Laboratory Director classifications at the District, as they possess specialized responsibilities of conducting and executing various aspects to manage and supervise personnel of the Division.

SUPERVISION RECEIVED AND EXERCISED

The Laboratory Director provides general supervision.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

Includes but is not limited to:

- Drive a government vehicle to sites throughout Alameda County to place and retrieve mosquito traps.
- Interact with community members in Alameda County.
- Maintain mosquito colonies in the lab that are used for research and educational purposes.
- Assist with research projects.
- Follow District safety procedures and other regulatory requirements when using District equipment.
- Prepare reports that record daily activities and laboratory data.

EMPLOYMENT STANDARDS

Knowledge of (or willingness to learn):

- Methods of identification, biology, ecology and public health importance of mosquitoes present in Alameda County.
- Mosquito surveillance programs and equipment used to monitor mosquito abundance.

Ability to:

- Speak, write and understand English clearly in order to communicate with the public.
- Willingness to perform moderate physical labor.
- Prepare, organize, and maintain accurate records.
- Cooperate with other agencies, officials, employees and the public.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Education/Training and Experience Guidelines:

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

Experience, Education and Training:

Equivalent to graduation from high school. Some college level courses in biological sciences is highly preferred.

License/Certification

A valid California Driver's license issues by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas and field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards.

Work Environment:

Essential duties require the following physical abilities and work environment:

Incumbent must be sighted in both eyes with the ability to demonstrate depth perception and color perception; have a minimum of single-ear aided hearing; be without physical limitations that would prevent climbing ladders and performing customary and usual activities associated with field operational mosquito surveillance and control activities.

Working Conditions:

- **Medium Work** – Incumbent performs work, which involves frequent lifting, pushing and/or pulling of objects of approximately 50 pounds. Heavier lifting is an infrequent aspect of this position.
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects; be able to stand, stoop, reach and bend and to walk on uneven terrain, such as field, dirt banks, natural and cement stream beds, and shallow ponds.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain.

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Rep Unit: N/A

Seasonal Mosquito Control Technician

DEFINITION

Under supervision by the Field Operations Supervisor, the Seasonal Mosquito Control Technician conducts a planned program of mosquito detection and abatement in an assigned zone, assists support staff, and does related work as required.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the Assistant Mosquito Control Technician, Mosquito Control Technician, Vector Biologist, and Field Operations Supervisor classifications at the District, as they possess specialized responsibilities of by conducting and executing various aspects to manage and supervise personnel of the Division.

SUPERVISION RECEIVED AND EXERCISED

The Field Operations Supervisor provides general supervision.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES:

Includes but is not limited to:

- Drive a government vehicle to sites throughout Alameda County to treat catch basins for mosquito breeding
- Interact with community members in Alameda County.
- Assists field staff with mosquito control treatments
- Follows District safety procedures and other regulatory requirements when using District equipment.

EMPLOYMENT STANDARDS

Knowledge of (or willingness to learn):

- Methods of identification, biology, ecology and public health importance of mosquitoes present in Alameda County.
- Field equipment used to control mosquito abundance.

Ability to:

- Speak, write and understand English clearly in order to communicate with the public.
- Willingness to perform moderate physical labor.
- Prepare, organize, and maintain accurate records.
- Cooperate with other agencies, officials, employees and the public.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Education/Training and Experience Guidelines:

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

Experience, Education and Training:

Equivalent to graduation from high school. Some college level courses in biological sciences is highly preferred.

License/Certification

A valid California Driver's license issues by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas and field setting; exposure to cold, heat, noise, outdoors, inclement weather, dust, dirt, vibration, chemicals, traffic, traffic hazards, confining workspace, odors, mechanical hazards, electrical hazards, explosive hazards.

Work Environment:

Essential duties require the following physical abilities and work environment:

Incumbent must be sighted in both eyes with the ability to demonstrate depth perception and color perception; have a minimum of single-ear aided hearing; be without physical limitations that would prevent climbing ladders and performing customary and usual activities associated with field operational mosquito surveillance and control activities.

Working Conditions:

- **Medium Work** – Incumbent performs work, which involves frequent lifting, pushing and/or pulling of objects of approximately 50 pounds. Heavier lifting is an infrequent aspect of this position.
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects; be able to stand, stoop, reach and bend and to walk on uneven terrain, such as field, dirt banks, natural and cement stream beds, and shallow ponds.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain.

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Rep Unit: N/A

Seasonal Office / IT Assistant

DEFINITION

This Seasonal Office/IT Assistant position provides administrative assistance and support to the day-to-day office operations and program within ACMAD. The seasonal office/IT Assistant is the public's first interaction with the district. Work may be performed in a high stress environment, while interacting with concerned citizens of Alameda County. Incumbent will work with various databases, Microsoft Office, and proprietary software while researching and resolving common issues.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the Office Assistant classification at the District, as the latter possesses specialized responsibilities in the areas of finance, Human Resources and confidential matters for the District Manager. This classification is also distinguished from the IT Director classification at the District, as the latter is responsible for the coordination and effective planning of the District's information technology.

SUPERVISION RECEIVED AND EXERCISED

Receives direct supervision by the IT Director. May also receive functional or technical supervision from other staff members depending on projects assigned.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Includes but is not limited to:

- Interact with community members in Alameda County;
- Drive a government vehicle to sites throughout Alameda County;
- Follow District safety procedures and other regulatory requirements when using District equipment;
- Prepares reports that record daily activities;
- Answer phones and input service requests for technicians and office staff;
- Processing geospatial information into reports and summaries;
- District database maintenance, which include grooming, adding, deleting, and modifying records;
- Work on impromptu projects as needed by office staff;
- Create office templates and manuals;
- Copy, Bind, collate and distribute office materials for internal and public use.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Employment Standards

Knowledge of (or willingness to learn):

- Basic identification, biology, ecology and public health importance of arthropods with a specific focus on the mosquito species present in Alameda County;
- Mosquito surveillance and control techniques utilized by the District;
- Cooperation with other agencies, officials, employees and the public;
- Standard computer software applications used for word processing, presenting, and graphic design at a proficient level;
- Basic office skills that relate to working in a special district;
- High degree of skill with Microsoft Office products.

Ability to:

- Learn quickly and be self-driven;
- Speak, write and understand English clearly in order to communicate with the public;
- To perform moderate physical labor;
- Prepare, organize, and maintain accurate records.

Education/training and experience guidelines:

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

Education/Training and Experience

Equivalent to graduation from high school. College level courses in the biological sciences, communications, information technology, journalism, education, or related field is preferred.

License or Certification

Possession of a valid California Driver's license issued by the State Department of Motor Vehicles. Must be insurable under the guidelines set forth by the District's insurance carrier.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially the employee's working hours are spent in office areas. Work generally involves a high degree of sitting; extended exposure to computer screens. There may be some light to moderate physical work in the handling of supplies, files, computer and lab equipment, etc.

Work Environment:

Essential duties require the following physical abilities and work environment:

Requires adequate vision (which may be corrected) to read, write, perform fine technical computer work, and safely operate in the conditions listed below. Requires adequate hearing (which may be corrected) to hear alarms, horns, use of telephones, and radios.

Working Conditions:

- **Medium Work** – Incumbent performs work, which involves frequent use of a keyboard while seated and viewing a computer monitor. Requires the ability to move computer equipment to different locations for maintenance.
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county.

FLSA Designation: Non-Exempt

Adopted Date: November 9, 2016

Revised:

Retitled:

Unit: n/a

Seasonal Education Outreach Assistant

DEFINITION

The Seasonal Educational Outreach Assistant is primarily responsible for supporting public outreach to promote knowledge of mosquitoes, mosquito control, and mosquito related public health issues via educational presentations, curriculum development, and social media, and assistance in other mosquito control operational activities as assigned.

DISTINGUISHING CHARACTERISTICS

This classification is distinguished from the Regulatory & Public Affairs Director classification at the District, as the latter is responsible for the coordination and effective planning of the District's source prevention/reduction program and public relations program.

SUPERVISION RECEIVED AND EXERCISED

Receives direct supervision by the Regulatory & Public Affairs Director. May also receive functional or technical supervision from other staff members depending on projects assigned.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Includes but is not limited to:

- Interact with community members in Alameda County.
- Maintain and produce content for District social media sites.
- Assist with development of age-and grade-appropriate materials for school presentations.
- Drive a government vehicle to sites throughout Alameda County for educational presentations.
- Follow District safety procedures and other regulatory requirements when using District equipment.
- Prepares reports that record daily activities.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Employment Standards

Knowledge of (or willingness to learn):

- Basic identification, biology, ecology and public health importance of arthropods with a specific focus on the mosquito species present in Alameda County.
- Mosquito surveillance and control techniques utilized by the District.
- Standard computer software applications used for word processing, presenting, and graphic design.

Ability to:

- Use proper English to communicate clearly with the public and those contacted in the course of work;
- Prepare, organize, and maintain accurate records.
- Cooperate with other agencies, officials, employees and the public.

Education/Training and Experience Guidelines:

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

Experience, Education and Training:

Equivalent to graduation from high school with some college level courses in biological sciences, communications, journalism, education, or related field is highly preferred.

License/Certification

A valid California Driver's license issues by the State Department of Motor Vehicles and must be insurable under the guidelines set forth by the District's insurance carrier.

WORKING CONDITIONS/PHYSICAL REQUIREMENTS:

Essentially all of the employee's working hours are spent in an office, classroom setting, or driving between the two. There may be some light to moderate physical work in the handling of supplies, files, computer equipment, etc.

Work Environment:

Essential duties require the following physical abilities and work environment:

Requires adequate vision (which may be corrected) to read, write, and safely operate in the conditions listed below. Requires adequate hearing (which may be corrected) to hear alarms, horns, use of telephones, and radios; be without physical limitations that would prevent driving a District vehicle to set up classroom presentations.

Working Conditions:

- **Medium Work** – Incumbent performs work, which involves frequent use of a keyboard while seated and viewing a computer monitor. Requires the ability to move computer equipment to different locations for maintenance.
- **Mobility** – Incumbent must have complete and normal mobility of arms to reach and dexterity of hands to grasp and manipulate small objects.
- **Other Conditions** – Incumbent may be exposed to and handle toxic and hazardous substances; be available on call for evening and weekend emergencies, as assigned; travel within and out of the county; work, when necessary, in inclement weather including sun, cold and rain.

FLSA Designation: Non-exempt

Adopted Date: November 9, 2016

Revised:

Retitled:

Unit: n/a

Agenda item 1038.9a

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
LIST OF WARRANTS DATED **SEPTEMBER 15, 2016.**

WAR NO	PAYEE	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
012517	Biological Specialist	600001	\$ 2,498.79	
012517	Mosq Control Tech	600001	\$ 2,156.55	
012517	Vector Biologist	600001	\$ 2,823.83	
012517	Vector Biologist	600001	\$ 2,875.09	
012517	Mosq Control Tech	600001	\$ 2,183.23	
012517	Environment Specialist	600001	\$ 2,669.31	
012517	District Manager	600001	\$ 3,857.54	
012517	Asst Mosq Control Tech	600001	\$ 2,079.89	
012517	Lab Seasonal	600001	\$ 845.67	
012517	Field Seasonal	600001	\$ 1,117.56	
012517	IT Specialist	600001	\$ 3,002.62	
012517	Entomologist	600001	\$ 3,000.23	
012517	Office Seasonal	600001	\$ 886.59	
012517	Field Seasonal	600001	\$ 1,117.56	
012517	Field Supervisor	600001	\$ 3,550.43	
012517	Lab Seasonal	600001	\$ 556.65	
012517	Finance Manager	600001	\$ 2,574.72	
012517	Office Assistant	600001	\$ 1,593.80	
012517	Vector Biologist	600001	\$ 3,539.77	
012517	Mosq Control Tech	600001	\$ 2,565.95	
012517	Mosq Control Tech	600001	\$ 2,131.34	
012517	Mechanic Specialist	600001	\$ 3,222.68	
012517	IRS	600001	\$ 8,218.98	
012517	Medicare Tax Withheld (payroll)	600001	\$ 959.40	
012517	District Contribution to Medicare (payroll)	600401	\$ 959.42	
012517	State of California	600001	\$ 2,479.59	
012517	EDD	600001	\$ 569.05	\$ 64,036.24
012617	Public Employees' Retirement System	600001	\$ 17.00	
	Employee Contributions	600001	\$ 4,571.44	
	Employee Paid Member Contributions, 7% & 6.5%	600201	\$ 5,790.90	\$ 10,379.34
	Employer Contribution 9.558% & 6.930%	600001	\$	150.00
012717	Aetna Life & Annuity	600001	\$	2,960.00
012817	CALPERS 457 Plan	600001	\$	4,408.67
012917	Delta Dental Plan	600601	\$	638.16
013017	Vision Service Plan	600601	\$	248.90
013117	Airgas	620141.1	\$	300.00
013217	Bayside	620021	\$	
013317	Cintas	610011	\$ 252.18	
	Laundry service	610001	\$ -	\$ 252.18
	Personal supply	610122	\$	195.00
013417	Corporate Park Landscaping	610122	\$	25.00
013517	CA Dept of Public Health	610461.53	\$	185.30
013617	Campbell, Neil	610001	\$	15.00
013717	Clausnitzer, Ryan	610191.3	\$	
013817	Grainger	610122.2	\$ 20.27	
	Plug, connector	620261	\$ 116.24	\$ 136.51
	Bypass Lopper	620041	\$	462.60
013917	KBA Docusys	620041	\$	990.00
014017	Lifesaver CPR	610191.7	\$	260.00
014117	MVCAC	620141.3	\$	1,723.51
014217	PFM Asset	610261	\$	71.50
014317	Macke Water Systems	620021	\$	290.87
014417	Quill	620041	\$	1,485.00
014517	RJ Ricciardi Inc.	610261.1	\$	197.45
014617	Waste Management	610021	\$	
	Fee for information provided to new Auditor			
	Garbage, August service			

WAR NO	PAYEE	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
014717	U.S Bank			
	Amazon - Prime membership renewal	610001	\$ 108.90	
	Amazon - Short boots for JH	610001	\$ 185.74	
	Becks shoes - Safety boots for MW	610001	\$ 190.00	
	Walgreens - Household supplies	620021	\$ 21.70	
	Walgreens - Arm & Hammer	610011	\$ 6.59	
	Office Depot - Hanging files	620041	\$ 40.68	
	Canon - Canon copier rental	620041	\$ 341.01	
	Office Depot - Binders	620041	\$ 169.42	
	Idrive - Upgrade on drive account	620042	\$ 374.62	
	GoDaddy -Business email renewal	620042	\$ 448.70	
	GoDaddy -Deluxe hosting Linux renewal	620042	\$ 189.63	
	Apple - Mac mini	620042	\$ 1,318.90	
	JET - Hand pump	620141.1	\$ 10.77	
	VistaPrint - Self inking stamps	620141.1	\$ 106.67	
	The Home Depot - Extension cord, lab materials	620141.1	\$ 59.00	
	Stericycle - Waste Disposal	620141.3	\$ 188.53	
	Lifetech - Magmax lysis/binding	620141.3	\$ 622.00	
	Fisher Scientific - RND bottom 96 well plate	620141.3	\$ 214.27	
	Lifetech - Sequence detection primer	620141.3	\$ 221.11	
	Fisher Scientific - Flsk Erlmn Nm Glass	620141.3	\$ 270.45	
	Smart N Final - Foam Conta	620141.3	\$ 12.38	
	Amazon - Digital timer (4)	620141.3	\$ 63.96	
	Amazon - Chemglass (pack of 100)	620141.3	\$ 54.90	
	Fisher Scientific - Part #055396	620141.3	\$ 234.64	
	Amazon - Ultra sence gloves	620141.3	\$ 368.87	
	Lifetech - Taqman Qsy probe	620141.3	\$ 726.00	
	JCE Target - Trap supplies	620141.3	\$ 163.59	
	Golden State Overnight - Overnight delivery	620141.3	\$ 31.99	
	Amazon - Unbreakable wall file	620141.5	\$ 12.40	
	Amazon - Portable ice maker	620141.5	\$ 161.95	
	Walgreens - Band Aids, Gauze	620141.5	\$ 12.18	
	Target - Conair	620141.5	\$ 28.04	
	The Home Depot - Compact drill/driver	620141.5	\$ 124.17	
	Target - CREDIT	620141.5	\$ (28.04)	
	Amazon - Half sized food pans (2)	620141.7	\$ 69.98	
	Amazon - Food pan	620141.7	\$ 20.59	
	Chem tower - Permethrin solution	620141.7	\$ 451.60	
	Chem tower - Goods/ services	620141.7	\$ 144.20	
	Target - Peroxide (3)	620141.7	\$ 15.29	
	Amazon - Carlisle Polycarbonate flat lid	620141.7	\$ 20.59	
	Target - Toaster oven	620141.7	\$ 128.22	
	Lampire - Chicken blood	620141.8	\$ 207.25	
	Graphpad - Prism subscription	620141.8	\$ 200.00	
	Amazon - Chemglass (pack of 100)	620141.8	\$ 75.71	
	CBI Parallels - Parallels Desktop 11 for mac	620141.8	\$ 69.99	
	Northern tool - Diaphgram pump	620261	\$ 154.96	
	Amazon - Pesticide shed scale	620261	\$ 527.49	
	School Outfitters - Science table (2)	610122.2	\$ 1,463.54	
	San Leandro Chrysler - Vehicle check up, tire preasure	610141	\$ 310.50	
	The Ford Store - Brake work for V-50	610141	\$ 60.48	
	Telepacific - Communications	610022.1	\$ 1,088.52	
	Entomologic - ESA membership	610351	\$ 146.00	
	76 Gas Station - Gas	610191.1	\$ 80.89	
	Chevron - Gas	610191.1	\$ 85.65	
	76 Gas Station - Gas	610191.1	\$ 34.73	
	Ken's Garage - Oakland parking	610191.1	\$ 10.00	
	Chevron - Gas	610191.1	\$ 80.90	
	Amtrak - Train ticket to Sacramento for conference RC	610191.3	\$ 35.00	
	CSDA - CSDA Conference RC	610191.3	\$ 580.00	
	Southwest - Flight for CSDA Conference	610191.3	\$ 151.96	
	Nob Hill - Board meeting supplies	610191.4	\$ 62.20	
	Amazon - Waist belt	610461.6	\$ 14.98	
	Vista Print - Business cards	610451	\$ 78.60	
	Constant Contract - Contract	610451	\$ 20.00	
	Amazon - Proximity cards	610451	\$ 116.74	
	Amazon - Holographic overlay for ID cards	610451	\$ 12.48	
	Amazon - Shield and key ID card	610451	\$ 39.96	
	Amazon - Magnetic stripe card reader	610451	\$ 98.00	
	Intelius - Background check for RC	610261.1	\$ 49.95	
	intelius - Background check for MM	610261.1	\$ 49.95	
	Sub-total			\$ 13,812.62
	Total			\$ 103,223.85

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
LIST OF WARRANTS DATED **SEPTEMBER 30, 2016.**

WAR NO	PAYEE	FOR	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
014817	Biological Specialist	Total salary less deductions for payroll period	600001	\$ 2,842.98	
014817	Mosq Control Tech	September 16 to September 30, 2016.	600001	\$ 2,328.40	
014817	Vector Biologist	"	600001	\$ 2,900.18	
014817	Vector Biologist	"	600001	\$ 2,875.10	
014817	Mosq Control Tech	"	600001	\$ 2,183.23	
014817	Environmental Specialist	"	600001	\$ 2,888.39	
014817	District Manager	"	600001	\$ 4,108.91	
014817	Asst Mosq Control Tech	"	600001	\$ 2,180.48	
014817	Lab Seasonal	"	600001	\$ 1,130.61	
014817	Field Seasonal	"	600001	\$ 1,317.04	
014817	IT Specialist	"	600001	\$ 3,148.18	
014817	Entomologist	"	600001	\$ 3,114.15	
014817	Office Seasonal	"	600001	\$ 577.60	
014817	Field Seasonal	"	600001	\$ 1,341.29	
014817	Field Supervisor	"	600001	\$ 3,598.10	
014817	Lab Seasonal	"	600001	\$ 893.16	
014817	Finance Manager	Total salary less deductions for payroll period	600001	\$ 2,631.49	
014817	Office Assistant	"	600001	\$ 1,593.81	
014817	Vector Biologist	"	600001	\$ 3,539.76	
014817	Mosq Control Tech	"	600001	\$ 2,565.96	
014817	Mosq Control Tech	"	600001	\$ 2,131.33	
014817	Mechanic Specialist	"	600001	\$ 3,313.49	
014817	IRS	Federal Tax Withheld	600001	\$ 8,903.03	
014817		Medicare Tax Withheld	600001	\$ 1,008.42	
014817		District Contribution to Medicare	600401	\$ 1,008.43	
014817	State of California	State Tax Withheld	600001	\$ 2,750.56	
014817	EDD	Ca Disability	600001	\$ 570.82	\$ 67,444.90
014917	Public Employees' Retirement System	Employees contributions	600001	\$ 17.00	
		Employee paid member contributions, 7%, 6.5%	600001	\$ 4,646.86	
		District contribution 9.558%, 6.930%	600201	\$ 5,880.58	\$ 10,544.44
015017	Aetna Life & Annuity	Employee contributions	600001		\$ 150.00
015117	Calpers 457 Plan	Employees contributions - PERS 457	600001		\$ 2,960.00
015217	Calpers	Health insurance	600601		\$ 32,272.14
015317	The Hartford Group Benefits	Life insurance	600601		\$ 77.78
015417	P. Robert Beatty	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
015517	T Scott Donahue	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
015617	James Doggett	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
	Robert Dickinson	Trustee in lieu expenses - 1036th meeting	610191.5		\$ -
015717	Richard Guarienti	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
015817	Eric Hentschke	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
	Humberto Izquierdo	Trustee in lieu expenses - 1036th meeting	610191.5		\$ -
015917	Elisa Marquez	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
	Katherine Narum	Trustee in lieu expenses - 1036th meeting	610191.5		\$ -
016017	Wendi Poulson	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
016117	Ronald Quinn	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
	Ursula Reed	Trustee in lieu expenses - 1036th meeting	610191.5		\$ -
016217	Jan Washburn	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00
016317	George Young	Trustee in lieu expenses - 1036th meeting	610191.5		\$ 100.00

WAR NO	PAYEE	FOR	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
016417	Airgas	Dry ice pellets	620141.1		\$ 241.01
016517	Automatic Fire Sprinklers Inc.	New fire extinguishers/service	610141		\$ 1,332.86
016617	Beck's Shoes	Boots for M.C & N.A	610001		\$ 380.00
016717	Cintas	Personal supplies	610001	\$ 68.05	
		Laundry service	610011	\$ 549.91	\$ 617.96
016817	Kimball Midwest	Black cable, zymex eradicator	610141		\$ 116.04
016917	Municipal Resource	Human resources services	610261.4		\$ 6,950.00
017017	NBC Supply Corp	Gloves, eyewear	610461.6		\$ 382.80
017117	Pitney Bowes	Postage	620041		\$ 95.04
017217	PG & E	Utilities	610021		\$ 1,459.85
017317	Sonitrol	Monitoring charges	620021		\$ 743.00
017417	SCI Consulting Group	Administration of Mosquito and Disease control Assessment, parcel te	610261.7		\$ 16,121.98
017517	Team Builders Inc	Aerial pool survey	202100		\$ 7,830.00
017617	Techniclean	Towels	620021		\$ 155.21
017717	TTM Communications, INC.	Voicemail reprogramming	610022.1		\$ 262.50
017817	Verizon	Communication expenses	610022.4		\$ 637.51
017917	VCJPA	Employee Assistance Program	610261.4		\$ 217.92
018017	Wright Express	Fuel expenses, statement ended 09-15-16	610191.1		\$ 3,133.79
Total Warrants					\$ 155,126.73
Total Warrants August 31					\$ 155,126.73
Total Warrants August 15					\$ 103,223.85
Total August Warrants					\$ 258,350.58

Alameda County Mosquito Abatement District Budget Summary
As of September 30, 2016. (3 of 12 mth, 25%)

Account #		EXPENDED IN (September)	EXPENDED TO DATE	BUDGETED	BALANCE	% EXPENDED
SALARY & BENEFITS						
600001	Salary and Wages	\$ 144,985.59	\$ 436,407.80	\$ 1,700,594.00	\$ 1,264,186.20	26%
600401	Contribution to Medicare	\$ 1,967.85	\$ 5,947.78	\$ 24,659.00	\$ 18,711.22	24%
600201	Contribution to Retirement	\$ 11,671.48	\$ 318,642.01	\$ 422,589.00	\$ 103,946.99	75%
600601	Contribution to Health Care	\$ 37,396.75	\$ 115,064.85	\$ 500,000.00	\$ 384,935.15	23%
SERVICE AND SUPPLIES						
610001	Clothing and personal supplies	\$ 1,117.99	\$ 1,327.36	\$ 8,500.00	\$ 7,172.64	16%
610011	Laundry services and supplies	\$ 808.68	\$ 1,921.04	\$ 9,000.00	\$ 7,078.96	21%
610021	Utilities total	\$ 1,657.30	\$ 6,626.67	\$ 35,900.00	\$ 29,273.33	18%
Communications						
610022.1	Telephone Service & Internet	\$ 1,351.02	\$ 2,439.54	\$ 13,800.00	\$ 11,360.46	18%
610022.3	Website and email hosting	\$ -	\$ 31.25	\$ 850.00	\$ 818.75	4%
610022.4	Cell phone service (Verizon)	\$ 637.51	\$ 1,948.21	\$ 9,000.00	\$ 7,051.79	22%
610141	Maintenance of equipment	\$ 1,819.88	\$ 4,123.76	\$ 45,000.00	\$ 40,876.24	9%
610122	Maintenance of structure and improvements					
610122.1	Landscaping service	\$ 195.00	\$ 585.00	\$ 3,600.00	\$ 3,015.00	16%
610122.2	Building Maintenance and repairs	\$ 1,483.81	\$ 2,958.38	\$ 10,000.00	\$ 7,041.62	30%
610122.3	Yard Maintenance and repairs	\$ -	\$ -	\$ 1,400.00	\$ 1,400.00	0%
Transportation, travel, & training						
610191.1	Fuel and GPS (WexMart)	\$ 3,425.96	\$ 10,913.00	\$ 40,000.00	\$ 29,087.00	27%
610191.3	Meetings, conferences, & travel	\$ 781.96	\$ 1,759.92	\$ 35,000.00	\$ 33,240.08	5%
610191.4	Board meeting expenses	\$ 62.20	\$ 93.52	\$ 1,000.00	\$ 906.48	9%
610191.5	Board payments in lieu	\$ 1,000.00	\$ 3,000.00	\$ 16,800.00	\$ 13,800.00	18%
610461.53	Continuing Education fees	\$ 25.00	\$ 25.00	\$ 4,000.00	\$ 3,975.00	1%
610191.6	Training for trustees	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610191.7	Staff Training (automotive, IT, staff development)	\$ 990.00	\$ 1,590.28	\$ 80,000.00	\$ 78,409.72	2%
Professional services						
610261.1	Audit	\$ 1,485.00	\$ 1,485.00	\$ 13,000.00	\$ 11,515.00	11%
610261.2	Actuarial reports	\$ -	\$ 1,300.00	\$ 3,000.00	\$ 1,700.00	43%
610261.3	Helicopter service	\$ -	\$ -	\$ 30,000.00	\$ 30,000.00	0%
610261.4	Legal/OPEB service	\$ 8,891.43	\$ 13,081.47	\$ 20,000.00	\$ 6,918.53	65%
610261.5	MVCAC Research Foundation	\$ -	\$ -	\$ 5,000.00	\$ 5,000.00	0%
610261.6	UC Davis Zika virus vector competency research	\$ -	\$ 7,500.00	\$ 7,500.00	\$ -	100%
610261.7	Tax collection service - SCI	\$ 16,121.98	\$ 16,121.98	\$ 35,000.00	\$ 18,878.02	46%
610261.8	Payroll service	\$ -	\$ -	\$ 6,000.00	\$ 6,000.00	0%
610261.9	Environmental consultant services for regulatory issues	\$ -	\$ -	\$ 5,000.00	\$ 5,000.00	0%
610261.1	HR Services (RGS)	\$ 99.90	\$ 99.90	\$ 25,000.00	\$ 24,900.10	0%
610351	Annual memberships and dues total	\$ 146.00	\$ 9,149.00	\$ 22,935.00	\$ 13,786.00	40%
610378	Insurance total	\$ -	\$ 113,867.00	\$ 140,138.00	\$ 26,271.00	81%
610451	Community education total	\$ 365.78	\$ 2,129.45	\$ 35,000.00	\$ 32,870.55	6%
Special expenses						
610461.1	Pesticides	\$ -	\$ 4,576.00	\$ 200,000.00	\$ 195,424.00	2%
610461.2	Field supplies (dippers etc)	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610461.4	Fish and Fish Maint.	\$ -	\$ 1,190.08	\$ 4,000.00	\$ 2,809.92	30%
610461.51	Aerial Pool Survey	\$ -	\$ -	\$ 17,000.00	\$ 17,000.00	0%
610461.52	Permits	\$ -	\$ 1,104.00	\$ 3,000.00	\$ 1,896.00	37%
610461.54	Board plaques and nameplates	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610461.6	Spray equipment & Safety	\$ 397.78	\$ 1,421.10	\$ 14,000.00	\$ 12,578.90	10%
620021	Household expenses total	\$ 1,291.41	\$ 3,627.51	\$ 14,480.00	\$ 10,852.49	25%
620041	Office supplies total	\$ 1,399.62	\$ 3,339.88	\$ 22,400.00	\$ 19,060.12	15%
620042	Information technology					
620042.1	Computers, supplies and software	\$ 2,331.85	\$ 3,741.61	\$ 15,000.00	\$ 11,258.39	25%
620042.2	Contract services for Computer network	\$ -	\$ -	\$ 4,000.00	\$ 4,000.00	0%
620042.3	Database consultant	\$ -	\$ -	\$ 25,000.00	\$ 25,000.00	0%
620141	Laboratory total	\$ 5,813.16	\$ 18,626.77	\$ 88,594.00	\$ 69,967.23	21%
620261	Small tools and instruments	\$ 798.69	\$ 798.69	\$ 2,500.00	\$ 1,701.31	32%
650011	Structure/ improvement	\$ -	\$ -	\$ 544,731.00	\$ 544,731.00	0%
650031.1	Capital expenditures	\$ -	\$ 24,511.47	\$ 295,000.00	\$ 270,488.53	8%
TOTAL EXPENDITURES ¹		\$ 250,520.58	\$ 1,143,076.28	\$ 4,561,970.00	\$ 3,418,893.72	25%
TOTAL WARRANTS		\$ 258,350.58				
Discrepancy from Expenditures and Warrant list		\$ 7,830.00				

1- Warrant #017517 in account #610461.51, for the amount of \$7,830.00 is an accrual

Investments, Reserves, and Cash Balance

Account #		EXPENDED IN SEPTEMBER	EXPENDED TO DATE	BALANCE
Reserves				
800001	Working Capital (Dry Period Cash)	\$ -	\$ -	\$ 2,427,743.00
800002	Capital Replacement	\$ -	\$ 3,036.18	\$ 541,694.82
800003	Public Health	\$ -	\$ -	\$ 500,000.00
800004	Contingency	\$ -	\$ -	\$ 25,000.00
800006	VCJPA Contingency	\$ -	\$ -	\$ 287,282.00
Investment Accounts				
800005	LAIF	\$ -	\$ -	\$ 150,115.20
	OPEB Fund	\$ -	\$ -	\$3,908,948.80
	Bank of America (Payroll cash)			\$ 94,040.68
	Cash balance as of 9/30/16			\$ 4,050,515.79

Agenda item 1038.9b

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
LIST OF WARRANTS DATED OCTOBER 15, 2016.

WAR NO	PAYEE	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
018117	Biological Specialist	600001	\$ 2,622.80	
018117	Mosq Control Tech	600001	\$ 2,250.00	
018117	Vector Biologist	600001	\$ 2,823.83	
018117	Vector Biologist	600001	\$ 2,875.09	
018117	Mosq Control Tech	600001	\$ 2,183.22	
018117	Regulatory & Public Affairs Director	600001	\$ 2,800.77	
018117	District Manager	600001	\$ 3,857.54	
018117	Mosq Control Tech	600001	\$ 2,164.67	
018117	Lab Seasonal	600001	\$ 839.73	
018117	Field Seasonal	600001	\$ 1,117.56	
018117	IT Director	600001	\$ 3,120.87	
018117	Lab Director	600001	\$ 3,000.22	
018117	Field Seasonal	600001	\$ 1,117.56	
018117	Field Supervisor	600001	\$ 3,550.44	
018117	Lab Seasonal	600001	\$ 778.74	
018117	Finance Manager	600001	\$ 2,574.73	
018117	Office Assistant	600001	\$ 1,657.85	
018117	Vector Biologist	600001	\$ 3,539.77	
018117	Mosq Control Tech	600001	\$ 2,565.95	
018117	Mosq Control Tech	600001	\$ 2,131.33	
018117	Mechanic Specialist	600001	\$ 3,222.67	
018117	IRS	600001	\$ 8,352.33	
018117	Medicare Tax Withheld (payroll)	600001	\$ 961.82	
018117	District Contribution to Medicare (payroll)	600401	\$ 961.80	
018117	State of California	600001	\$ 2,554.64	
018117	EDD	600001	\$ 577.54	\$ 64,203.47
018217	Public Employees' Retirement System	600001	\$ 17.00	
	Employee Paid Member Contributions, 7% & 6.5%	600001	\$ 4,639.28	
	Employer Contribution 9.558% & 6.930%	600201	\$ 5,871.64	\$ 10,527.92
018317	Aetna Life & Annuity	600001		\$ 150.00
018417	CALPERS 457 Plan	600001		\$ 2,960.00
018517	Delta Dental Plan	600601		\$ 4,317.79
018617	Vision Service Plan	600601		\$ 651.36
018717	Airgas	620141.1		\$ 522.47
018817	Adapco	610461.1		\$ 7,145.60
018917	Bayside	620021		\$ 300.00
019017	Beck's Shoes	610001		\$ 380.00
019117	Bay Area Distributing	610141		\$ 545.70
019217	Cintas	610011	\$ 389.90	
	Personal supply	610001	\$ -	\$ 389.90
019317	Clarke Mosquito Control	610461.1		\$ 10,254.40
019417	Corporate Park Landscaping	610122		\$ 195.00
019517	Hayward Water System	610021		\$ 705.11
019617	KBA Docusys	620041		\$ 462.60
019717	Mar-Len Supply	610141		\$ 190.00
019817	PFM Asset	610261		\$ 1,721.47
019917	PC Professional	620042.3		\$ 4,717.50
020017	Spark Creative Design	610451		\$ 525.00
020117	Tire Treds	610141		\$ 757.96
020217	Techniclean	620021		\$ 128.65
020317	Waste Management	610021		\$ 197.45

WAR NO		PAYEE	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
020417	U.S Bank	Canon Copier - Canon Copier rental	620041	\$ 341.01	
		Amazon - Proximity cards	620042.1	\$ 111.74	
		Go Daddy - Deluxe classic hosting renewal	620042.1	\$ 9.99	
		Amazon - ID Card printer	620042.1	\$ 61.65	
		Amazon - Ziplock bags	620141.1	\$ 48.57	
		Amazon - Lithium Ion battery	620141.1	\$ 152.59	
		Amazon - Ziplock bags	620141.1	\$ 32.17	
		Amazon - Brushless compact drill	620141.1	\$ 117.67	
		Walgreens - ISO Alcohol	620141.1	\$ 9.72	
		The Home Depot - Supplies for traps	620141.1	\$ 19.09	
		Amazon - Battery charger	620141.1	\$ 37.81	
		Amazon - Wet vacuum	620141.1	\$ 228.80	
		AMS - Multi-stage sludge slammer	620141.1	\$ 636.58	
		Springstar - Sticky replacement boards	620141.1	\$ 363.52	
		Amazon - Battery charger	620141.1	\$ 165.80	
		Amazon - (4) single outlet pack	620141.1	\$ 229.16	
		Amazon - Battery feeder	620141.1	\$ 55.99	
		Univar - ATL Pste Tech solid box	620141.1	\$ 72.44	
		Uline - Plastic pail/lid	620141.2	\$ 111.12	
		Uline - Plastic pail/lid	620141.2	\$ 274.34	
		Amazon - Double track seal top bag	620141.2	\$ 158.07	
		Amazon - Double track seal top bag	620141.2	\$ 158.07	
		Amazon - Bug catcher vacuum	620141.7	\$ 19.99	
		Amazon - Insect vacuum	620141.7	\$ 33.90	
		Lampire - Chicken blood	620141.7	\$ 207.25	
		Fisher Scientific - Propanal certified	620141.7	\$ 322.84	
		Chem Tower - Permethrin solution	620141.7	\$ 188.20	
		The Home Depot - Waste basket	620141.7	\$ 50.50	
		Praxair - Non-Flammable gas	620141.7	\$ 361.46	
		Stericycle - Steri-Safe	620141.8	\$ 188.53	
		Fisher Scientific - Micro Bca kit	620141.8	\$ 276.76	
		Fisher Scientific - Lab coats	620141.8	\$ 365.22	
		Amazon - (2) hand saws	620261	\$ 23.94	
		Amazon - Ameristep folding saw	620261	\$ 21.98	
		The Ford Store - Alternator core price	610141	\$ 195.58	
		The Ford Store - CREDIT	610141	\$ (82.50)	
		Bay Area Battery Service - Battery service	610141	\$ 118.21	
		The Ford Store - Pulley	610141	\$ 11.35	
		The Home Depot - Multi brush	610141	\$ 26.42	
		Telepacific Communications - Communications	610022.1	\$ 1,088.52	
		ACE Parking - Oakland Parking	610191.1	\$ 10.00	
		ACE Parking - Oakland Parking	610191.1	\$ 10.00	
		Fastrak - Fastrak	610191.1	\$ 25.00	
		Squeeze Inn - Lunch (R.C)	610191.3	\$ 22.00	
		City of Sacramento - Parking	610191.3	\$ 1.75	
		Hampton Inns - Hotel room (madera trip) D.A	610191.3	\$ 138.05	
		Hampton Inns - Hotel room (madera trip) D.A	610191.3	\$ 138.05	
		Raley's - Board meeting supplies	610191.4	\$ 55.26	
		Skill Path - Management skills class	610191.7	\$ 299.00	
		Round Table - Lunch for staff training	610191.7	\$ 211.94	
		Abdul Noor - Ice	610191.7	\$ 5.39	
		Nob Hill - Food for staff meeting	610191.7	\$ 83.03	
		UCB Graduate Divison - Application fee	610191.7	\$ 105.00	
		Amazon - Garden hose filter	610461.4	\$ 36.95	
		The Home Depot - Spraymaster	610461.6	\$ 42.11	
		Amazon - Trac-Grabber	610461.6	\$ 359.94	
		Vista Print - Business Cards	610451	\$ 530.22	
		Constant Contract - Contract	610451	\$ 20.00	
		Vista Print - Business Cards	610451	\$ 44.78	
		Proper Vinyl - Acmad Graphic for vehicles	610451	\$ 704.66	
		Mayaco Marketing - Transparency Certificate of Excellence	610451	\$ 325.00	
		Safe Air - Shed project	800002	\$ 380.00	
		Sub-total			\$ 10,362.18
		Total			\$ 122,311.53

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT
LIST OF WARRANTS DATED **OCTOBER 31, 2016.**

WAR NO	PAYEE	FOR	ACCT NO	AMT OF CHARGE	AMT OF WARRANT
020517	Biological Specialist	Total salary less deductions for payroll period	600001	\$ 2,829.68	
020517	Mosq Control Tech	"	600001	\$ 2,250.01	
020517	Vector Biologist	"	600001	\$ 2,900.18	
020517	Vector Biologist	"	600001	\$ 2,875.09	
020517	Mosq Control Tech	"	600001	\$ 2,183.23	
020517	Regulatory & Public Affairs Director	"	600001	\$ 2,876.55	
020517	District Manager	"	600001	\$ 4,108.90	
020517	Mosq Control Tech	"	600001	\$ 2,164.66	
020517	Lab Seasonal	"	600001	\$ 517.71	
020517	Field Seasonal	"	600001	\$ 1,117.56	
020517	IT Director	"	600001	\$ 3,137.01	
020517	Lab Director	"	600001	\$ 3,114.15	
020517	Field Seasonal	"	600001	\$ 1,230.48	
020517	Field Supervisor	"	600001	\$ 3,598.09	
020517	Lab Seasonal	"	600001	\$ 632.32	
020517	Finance Manager	Total salary less deductions for payroll period	600001	\$ 2,631.49	
020517	Office Assistant	"	600001	\$ 1,657.85	
020517	Vector Biologist	"	600001	\$ 3,539.77	
020517	Mosq Control Tech	"	600001	\$ 2,565.95	
020517	Mosq Control Tech	"	600001	\$ 2,131.34	
020517	Mechanic Specialist	"	600001	\$ 3,313.49	
020517	IRS	Federal Tax Withheld	600001	\$ 8,594.79	
020517		Medicare Tax Withheld	600001	\$ 975.85	
020517		District Contribution to Medicare	600401	\$ 975.87	
020517	State of California	State Tax Withheld	600001	\$ 2,673.99	
020517	EDD	Ca Disability	600001	\$ 569.84	\$ 65,145.63
020617	Public Employees' Retirement System	Employees contributions	600001	\$ 17.00	
		Employee paid member contributions, 7%, 6.5%	600001	\$ 4,639.28	
		District contribution 9.558%, 6.930%	600201	\$ 5,871.64	\$ 10,527.92
020717	Aetna Life & Annuity	Employee contributions	600001		\$ 150.00
020817	CalPERS 457 Plan	Employees contributions - PERS 457	600001		\$ 2,960.00
020917	CalPERS	Health insurance	600601		\$ 32,272.14
021017	Airgas	Dry ice pellets	620141.1		\$ 399.55
021117	Alco Sheet Metal and Heating Inc.	Roof top hvac	610122.2	\$ 405.00	
			610461.6	\$ 625.00	\$ 1,030.00
021217	Cintas	Personal supplies	610001	\$ -	
		Laundry service	610011	\$ 244.02	\$ 244.02
021317	Leading Edge Associates, Inc.	Database	650031.1		\$ 137,070.00
021417	Bay Area Regional Training Fund	CEU Seminar	610191.7		\$ 1,350.00
021517	PG & E	Utilities	610021		\$ 1,496.20
021617	Sonitrol	Monitoring charges	620021		\$ 743.00
021717	Verizon	Communication expenses	610022.4		\$ 627.63
021817	Wright Express	Fuel expenses, statement ended 10-15-16	610191.1		\$ 4,077.47
Total Warrants					\$ 258,093.56
Total Warrants October 31					\$ 258,093.56
Total Warrants October 15					\$ 122,311.53
Total October Warrants					\$ 380,405.09

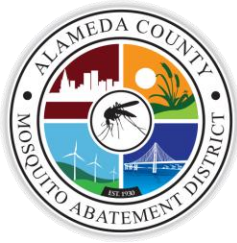
Alameda County Mosquito Abatement District Budget Summary
As of October 31, 2016. (4 of 12 mth, 33%)

Account #		EXPENDED IN (October)	EXPENDED TO DATE	BUDGETED	BALANCE	% EXPENDED
SALARY & BENEFITS						
600001	Salary and Wages	\$ 142,943.99	\$ 579,351.79	\$ 1,700,594.00	\$ 1,121,242.21	34%
600401	Contribution to Medicare	\$ 961.80	\$ 6,909.58	\$ 24,659.00	\$ 17,749.42	28%
600201	Contribution to Retirement	\$ 11,743.28	\$ 330,385.29	\$ 422,589.00	\$ 92,203.71	78%
600601	Contribution to Health Care	\$ 38,217.16	\$ 153,282.01	\$ 500,000.00	\$ 346,717.99	31%
SERVICE AND SUPPLIES						
610001	Clothing and personal supplies	\$ 380.00	\$ 1,707.36	\$ 8,500.00	\$ 6,792.64	20%
610011	Laundry services and supplies	\$ 633.92	\$ 2,554.96	\$ 9,000.00	\$ 6,445.04	28%
610021	Utilities total	\$ 2,398.76	\$ 9,025.43	\$ 35,900.00	\$ 26,874.57	25%
Communications						
610022.1	Telephone Service & Internet	\$ 1,088.52	\$ 3,528.06	\$ 13,800.00	\$ 10,271.94	26%
610022.3	Website and email hosting	\$ -	\$ 31.25	\$ 850.00	\$ 818.75	4%
610022.4	Cell phone service (Verizon)	\$ 627.63	\$ 2,575.84	\$ 9,000.00	\$ 6,424.16	29%
610141	Maintenance of equipment	\$ 1,762.72	\$ 5,886.48	\$ 45,000.00	\$ 39,113.52	13%
Maintenance of structure and improvements						
610122.1	Landscaping service	\$ 195.00	\$ 780.00	\$ 3,600.00	\$ 2,820.00	22%
610122.2	Building Maintenance and repairs	\$ 405.00	\$ 3,363.38	\$ 10,000.00	\$ 6,636.62	34%
610122.3	Yard Maintenance and repairs	\$ -	\$ -	\$ 1,400.00	\$ 1,400.00	0%
Transportation, travel, & training						
610191.1	Fuel and GPS (WexMart)	\$ 4,122.47	\$ 15,035.47	\$ 40,000.00	\$ 24,964.53	38%
610191.3	Meetings, conferences, & travel	\$ 299.85	\$ 2,059.77	\$ 35,000.00	\$ 32,940.23	6%
610191.4	Board meeting expenses	\$ 55.26	\$ 148.67	\$ 1,000.00	\$ 851.33	15%
610191.5	Board payments in lieu	\$ -	\$ 3,000.00	\$ 16,800.00	\$ 13,800.00	18%
610461.53	Continuing Education fees	\$ -	\$ 25.00	\$ 4,000.00	\$ 3,975.00	1%
610191.6	Training for trustees	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610191.7	Staff Training (automotive, IT, staff development)	\$ 2,054.36	\$ 3,644.64	\$ 80,000.00	\$ 76,355.36	5%
Professional services						
610261.1	Audit	\$ -	\$ 1,485.00	\$ 13,000.00	\$ 11,515.00	11%
610261.2	Actuarial reports	\$ -	\$ 1,300.00	\$ 3,000.00	\$ 1,700.00	43%
610261.3	Helicopter service	\$ -	\$ -	\$ 30,000.00	\$ 30,000.00	0%
610261.4	Legal/OPEB service	\$ 1,721.47	\$ 14,802.94	\$ 20,000.00	\$ 5,197.06	74%
610261.5	MVCAC Research Foundation	\$ -	\$ -	\$ 5,000.00	\$ 5,000.00	0%
610261.6	UC Davis Zika virus vector competency research	\$ -	\$ 7,500.00	\$ 7,500.00	\$ -	100%
610261.7	Tax collection service - SCI	\$ -	\$ 16,121.98	\$ 35,000.00	\$ 18,878.02	46%
610261.8	Payroll service	\$ -	\$ -	\$ 6,000.00	\$ 6,000.00	0%
610261.9	Environmental consultant services for regulatory issues	\$ -	\$ -	\$ 5,000.00	\$ 5,000.00	0%
610261.1	HR Services (RGS)	\$ -	\$ 99.90	\$ 25,000.00	\$ 24,900.10	0%
610351	Annual memberships and dues total	\$ -	\$ 9,149.00	\$ 22,935.00	\$ 13,786.00	40%
610378	Insurance total	\$ -	\$ 113,867.00	\$ 140,138.00	\$ 26,271.00	81%
610451	Community education total	\$ 2,149.66	\$ 4,279.11	\$ 35,000.00	\$ 30,720.89	12%
Special expenses						
610461.1	Pesticides	\$ 17,400.00	\$ 21,976.00	\$ 200,000.00	\$ 178,024.00	11%
610461.2	Field supplies (dippers etc)	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610461.4	Fish and Fish Maint.	\$ 36.95	\$ 1,227.03	\$ 4,000.00	\$ 2,772.97	31%
610461.51	Aerial Pool Survey	\$ -	\$ -	\$ 17,000.00	\$ 17,000.00	0%
610461.52	Permits	\$ -	\$ 1,104.00	\$ 3,000.00	\$ 1,896.00	37%
610461.54	Board plaques and nameplates	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	0%
610461.6	Spray equipment & Safety	\$ 1,027.05	\$ 2,448.15	\$ 14,000.00	\$ 11,551.85	17%
620021	Household expenses total	\$ 1,171.65	\$ 4,799.16	\$ 14,480.00	\$ 9,680.84	33%
620041	Office supplies total	\$ 803.61	\$ 4,143.49	\$ 22,400.00	\$ 18,256.51	18%
Information technology						
620042.1	Computers, supplies and software	\$ 183.38	\$ 3,924.99	\$ 15,000.00	\$ 11,075.01	26%
620042.2	Contract services for Computer network	\$ -	\$ -	\$ 4,000.00	\$ 4,000.00	0%
620042.3	Database consultant	\$ 4,717.50	\$ 4,717.50	\$ 25,000.00	\$ 20,282.50	19%
620141	Laboratory total	\$ 5,808.18	\$ 24,434.95	\$ 88,594.00	\$ 64,159.05	28%
620261	Small tools and instruments	\$ 45.92	\$ 45.92	\$ 2,500.00	\$ 2,454.08	2%
650011	Structure/ improvement	\$ -	\$ -	\$ 544,731.00	\$ 544,731.00	0%
650031.1	Capital expenditures	\$ 137,070.00	\$ 24,511.47	\$ 295,000.00	\$ 270,488.53	8%
TOTAL EXPENDITURES ¹		\$ 380,025.09	\$ 1,385,232.57	\$ 4,561,970.00	\$ 3,176,737.43	30%
TOTAL WARRANTS		\$ 380,405.09				
Discrepancy from Expenditures and Warrant list		\$ 380.00				

1- \$380.00 deducted from Capital Replacement Reserves, account #800002 on IRC page

Investments, Reserves, and Cash Balance

Account #		EXPENDED IN OCTOBER	EXPENDED TO DATE	BALANCE
Reserves				
800001	Working Capital (Dry Period Cash)	\$ -	\$ -	\$ 2,427,743.00
800002	Capital Replacement	\$ 380.00	\$ 3,416.18	\$ 541,314.82
800003	Public Health	\$ -	\$ -	\$ 500,000.00
800004	Contingency	\$ -	\$ -	\$ 25,000.00
800006	VCJPA Contingency	\$ -	\$ -	\$ 287,282.00
Investment Accounts				
800005	LAIF	\$ -	\$ -	\$ 150,343.29
	OPEB	\$ 170,219.23	\$ 170,219.23	\$ 3,828,970.94
	Bank of America (Payroll cash)			\$ 143,422.74
	Cash balance as of 10/31/16			\$ 3,840,329.93



MONTHLY STAFF REPORT – September & October 2016

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District Manager

1. OPERATIONS

A. Narrative

OPERATIONS REPORT SEPTEMBER & OCTOBER 2016

Both September and October had low numbers of service requests. This is normal for this time of year as summer shifts to fall. Already low numbers of spring & summer mosquito species began to trail off even further, and fall & winter species just started making their appearance, toward the end of October. This lull between seasons is common in Alameda County.

The shift in temperature and daylight hours typical with the onset of autumn in Alameda County has already had an impact on several species of mosquitoes. *Culex tarsalis* continue to decrease as have the numbers of *Culex pipiens* in many sources. This decrease was multiplied by the first significant rains of the season in mid-October. This rain event flushed out catch basins, storm drains, flood control channels, and numerous creeks. Inspections of these sources indicated that they should not be significant breeding problems until spring, provided there are not long periods of dry weather until then. Further rainfall at the end of October signaled a full shift in the activities, monitoring, and treatment schedules for field operations. The field seasonals have finished up their year with the district and field operation's focus is shifting to a different set of sources and mosquito species. Technicians, as of the close of October, have already collected larvae of *Aedes washinoi*, *Aedes squamiger*, and *Culiseta inornata* from various winter sources. These species represent most of the main mosquito species that the district focuses on in the autumn and winter months.

September and October each had one high tide event and neither produced significant numbers of *Aedes dorsalis*. This indicates that this species should be of little consequence again until spring. The very high tide events of November and December will be monitored but the expectation is that little if any breeding will be located.

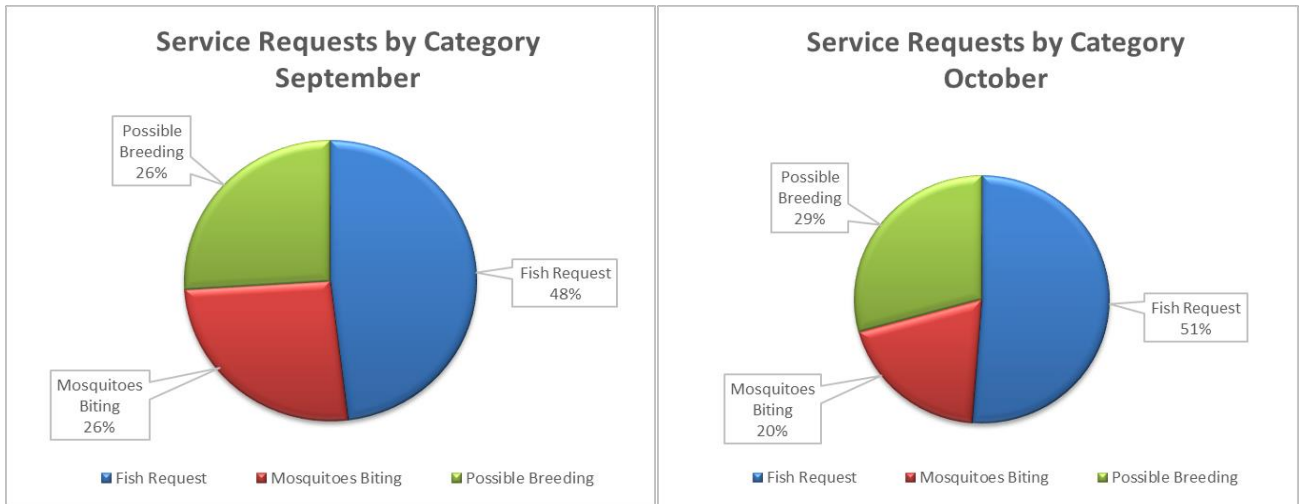
After a letter to the General Manager of the East Bay Regional Park District (EBRPD) in February, several meetings with EBRPD staff, and numerous joint efforts with ACMAD and EBRPD staff to treat *Culex erythrothorax* at Hayward Marsh, a resolution is now under way to better control the mosquito breeding. On October 10th, a source reduction operation began in the marsh. This is a physical control project undertaken by EBRPD utilizing a contractor specializing in the removal of bulrush, tule, aquatic vegetation, and weeds. This \$270,000 project is

scheduled to be completed by the close of 2016. Field operations has already seen large reduction in the amount of bulrush in the source. This, in and of itself, will reduce habitat for *Cx. erythrothorax* and will make for much better access for ACMAD inspections and treatments in the future. It is a significant effort and expense on the part of EBRPD to help resolve the large numbers of *Cx. erythrothorax* that have been breeding in the Hayward Marsh. The density and size of the stands of bulrush made it impossible to get materials into many of the areas that were breeding. This removal project is expected to yield significant results in the breeding and treatment issues we have encountered in this marsh in recent years. Updates will be forthcoming as the project continues.

Joseph Huston
Field Operations Supervisor

B. Operational Data

1. Service Requests



	September	October
Total Service Requests	=79	=42
Ten year average	=94	=64
Five year average	=81	=69
Last Year	=78	=73
Range (10 yr) =	=74-149	=41-92

Mosquito species attributed to service request	September	October
Cx tarsalis	26	1
Cs incidens	7	6
Cx pipiens	9	3
Midges	1	

2. Other

Number of all injuries during 2016 = 2

3. Activity Report

	September	October
Vacation Hours Used	146.75	137
Sick Hours Used	76.50	68.75
Workers Comp Used	4	3
ETO Used	33.5	10.5
Total Leave	260.75	219.25
ETO Accrued	25.5	6

2. LAB

Below is a summary of the activities from the Lab for September and October, 2016

Budget

- As of October 31, 2016 (month 4 of 12, 33 % of the year), 28 % of the lab budget has been expended. The highest category of expenditure year to date was for the purchase of mosquito surveillance supplies.

Mosquito Abundance Monitoring

- Comparison of mosquito abundance for weeks 1 – 43 during 2015 and 2016 show an ongoing and significant reduction in the average number of mosquitoes for 2016, as measured with New Jersey Light Traps (Figure 1; Paired t-test, $P < 0.0001$). Additionally, there was a significant decrease in total mosquito abundance as measured using NJLT for the months of September and October compared to the same period for 2015 (18.63 +/- 5.622 (Y2016) and 48.40 +/- 8.836 (Y2015), respectively; Paired t test, $P = 0.0130$).
- A comparison of Growing Degree Days for 2015 and 2016 (year to date) measured at Hayward, continue to show no significant difference (Paired t test, $P = 0.5178$). Moreover, there was no significant difference in Growing Degree Days for the months of September and October for 2015 and 2016 (Paired t test, $P = 0.3580$). These results suggest that there was no significant difference in heat accumulation that affected insect development rates, and that instead mosquito control activities may continue to be more effective for 2016 relative to 2015.
- Mosquito abundance for the months of September and October was measured using New Jersey Light Traps (NJLT) and CDC EVS CO₂ traps. Over this period, the contents of 152 CDC EVS CO₂ traps were enumerated, showing a total of 1,270 mosquitoes collected (excluding *Cx. erythrothorax*) and identified to species (8.36 mosquitoes / trap). In contrast, the same analysis for 2015 show that 241 CDC EVS CO₂ traps were placed during September and October, collecting a total of 4,253 mosquitoes (17.64 mosquitoes / trap). Analysis of mosquito abundance by species show higher numbers of *Culex tarsalis* and *Cx. pipiens* collected in CDC EVS CO₂ traps during 2015 (Figure 2A). Because of intensified CDC EVS CO₂ trapping at Hayward Regional Shoreline (HWS) during 2016, substantially higher abundance of *Cx. erythrothorax* were observed (Figure 2A). As noted previously, mosquito abundance as measured using NJLT remains significantly lower for 2016 relative to 2015 and 2014 (Figure 1, 2B). The only species with marginally higher abundance for September and October of 2016, relative to the prior two years, was *Culiseta incidens*, potentially because of low quantities of precipitation during these months of 2016, that was absent in 2014 and 2015 (source: Weather Underground, data not shown)
- Geospatial analysis by city of the most abundant mosquito species collected in the CDC EVS CO₂ traps show the highest number of mosquitoes in the city of Hayward (Figure 2C, yellow circles), with the majority being *Cx. erythrothorax* that were collected at HWS (not shown). Because of the ongoing monitoring of HWS, the East Bay Regional Parks system is currently working to remove tule plants from the ponds that produce the

greatest number of *Cx. erythrothorax*, with the goal to suppress breeding of this species. To support showing the impact of these efforts, the ACMAD Lab will continue weekly monitoring of HWS, weather permitting, until the conclusion of 2017. Elsewhere in the county, low numbers of *Cx. pipiens* and *Cx. tarsalis* were collected in the cities of Oakland, Alameda, San Leandro, and Livermore (Figure 2C, pink and red circles).

Arbovirus Monitoring

- For the months of September and October (2016), one West Nile virus (WNV)-positive American Crow was collected in Dublin. Mosquito trapping in the area around where the bird was collected resulted in relatively few mosquitoes collected, and none were found to contain WNV. For the year 2016, 11 dead birds have been found to contain WNV (Figure 3).
- For the year to date, 531 mosquito pools have been tested by the Lab for arboviruses and two were found to contain WNV. No WNV-positive mosquitoes were detected during September and October.

Research

- **Comparison of new trap design for invasive *Aedes* species.** The ACMAD Lab developed a new mosquito trap that we hypothesize may be more efficient for detecting invasive *Aedes* species in Alameda County, and that requires significantly less work time to monitor (photo of new trap in Figure 4A, 4B). Because invasive *Aedes* species have not yet been detected during 2016, we collaborated with Madera Mosquito and Vector Control to compare the efficacy of the new mosquito trap, which we call an ovi-bucket, with the ovi-cup that is widely used by mosquito control agencies for detecting invasive *Aedes* mosquitoes. The study site is shown in Figures 4C and 4D, with red pins indicating the location of the traps. The results show that the ovi-bucket collected significantly more *Ae. aegypti* eggs compared to the standard ovi-cup (Figure 4D, 4E), indicating this new trap design has greater potential for detecting invasive *Aedes*. Moreover, over the course of a 21-day monitoring plan, the ovi-bucket requires five times less staff time compared to monitoring the same period using ovi-cups. The results of this study will be included in a manuscript we plan on submitting to Journal of the American Mosquito Control Association (JAMCA).
- **Weekly abundance of *Culex erythrothorax* at Hayward Regional Shoreline (HRS).** Weekly monitoring of *Cx. erythrothorax* abundance at the HRS continues to show high mosquito abundance (Figure 5A). The trend of mosquito abundance from week 13 – 45 of 2016 aligns with the growing degree days (a measure of heat accumulation in the environment over one week), indicating that temperature may be an important factor in mosquito abundance at this site. Tule removal from the Dutra Duck Pond at HRS began mid-October (week 43) and is planned to be completed in approximately one month. Mosquito abundance will be monitored at HRS for the coming year to assess the impact of the tule removal project, and plans are to present the results at an upcoming MVCAC Annual Meeting.
- **Hourly abundance of *Culex erythrothorax* at HRS.** The abundance of *Cx. erythrothorax* at HRS was measured using a collection bottle rotator trap that was set to collect mosquitoes for three hour periods over the course of a single day. The collection was repeated for three consecutive days. On average, 10,041 +/- 5,332 (SEM) *Cx.*

erythrothorax were collected each day (Figure 5B), with peak mosquito abundance occurring in the first three hours after sunset, and declining sharply afterward (Figure 5C). *Cx. tarsalis* is another mosquito species that is routinely collected in traps placed at marsh sites, however few were collected at HRS during the course of the present study. To obtain hourly abundance data for *Cx. tarsalis* at a marsh, we collaborated with San Mateo County Mosquito and Vector Control District (SMCMVCD). Peak abundance of *Cx. tarsalis* occurred 3 – 6 hours after sunset, and remained relatively high until 12 hours after sunset (Figure 5C). The results of this study are planned for inclusion in a second manuscript that includes the pesticide resistance studies described below. We intend to submit the manuscript to the JAMCA with collaborators from SMCMVCD as co-authors.

- **Suppression of *Cx. erythrothorax* populations at HRS using Mosquito Magnet trap.** To determine whether the Mosquito Magnet trap can suppress populations of *Cx. erythrothorax* at HRS, we placed Mosquito Magnets and CO₂ traps 50 meters from one another (Figure 6A, 6B), and enumerated the number of mosquitoes collected in the traps over a 24-hour period. The results of one night of trapping indicate that the Mosquito Magnet is as efficient as CO₂ traps in collecting *Cx. erythrothorax* (Figure 6C), and thus should be useful for suppressing mosquito populations in areas with breeding *Cx. erythrothorax*. This study will be repeated, and we intend for the ACMAD Vector Biologist that is participating in the study to present the results at the 2017 Annual Meeting of the MVCAC.
- **Resistance of *Cx. erythrothorax* to chemical pesticides.** The susceptibility of *Cx. erythrothorax* to permethrin (with and without piperonyl butoxide (PBO)), resmethrin, naled and etofenprox was studied. On average, 2148 +/- 278 mosquitoes were tested for each pesticide (Figure 7A). The results demonstrate that the *Cx. erythrothorax* collected at HRS highly susceptible to permethrin, resmethrin, and naled (Figure 7B). Etofenprox was less effective than the other pesticides that were tested, although the difference was not significant (Unpaired t test, P = 0.1421). When permethrin with and without PBO was compared, there was a significant reduction in the number of *Cx. erythrothorax* living after being exposed to 0.5 µg of permethrin and 5 or 20 µg of PBO relative to mosquitoes exposed to permethrin alone (Figure 7C; Paired t test, P = 0.0355 and 0.0030, respectively). When *Cx. erythrothorax* were exposed to 2.0 µg of permethrin, there was a significant reduction in the number of mosquitoes living when 20 µg of PBO was included (Paired t test, P = 0.0354), however, the difference was not significant for treatments containing 5 µg of PBO (Paired t test, P = 0.1069). Work is ongoing to quantify the activity of pesticide detoxifying enzymes in the mosquitoes from this study. The results of this pesticide resistance and hourly abundance studies (described above) will be included in manuscript that we will submit to JAMCA for publication.

Public Engagement

- **The Mission San Jose High School and Fremont Math Science Nucleus.** On October 20, the Regulatory and Public Affairs Director (Erika Castillo) and I provided an hour-long presentation on mosquitoes and the diseases they carry to the Biology Honors class at Mission San Jose High School. Upon its conclusion, we were invited by the school to give similar presentations to other classes.

- UC Berkeley Zika Symposium: Frontline Update.** On October 29, The ACMAD District Manager (Ryan Clausnitzer) and I served on a Panel Discussion entitled “From Global to Local: California’s Response to Zika” (<http://cgph.globalhealth.berkeley.edu/102916-uc-berkeley-zika-symposium-frontline-update/>). The Panel was moderated by Dr. Stefano Bertozzi, the Dean of the School of Public Health at UC Berkeley, and included Dr. James Watt, the Chief of the Division of Communicable Disease Control, California Department of Public Health. Afterward, we were interviewed by the UC Berkeley Radio Station, KALX (90.7 FM).
- Mosquito and Vector Control Association of California (MVCAC).** The Fall Meeting of the MVCAC was held October 26-28. At the conclusion of the meeting of the Vector Control Research (VCR) Committee, on which I served during 2016, I was asked to lead the VCR Committee as the Chair during 2017.

Figures for the Lab Report

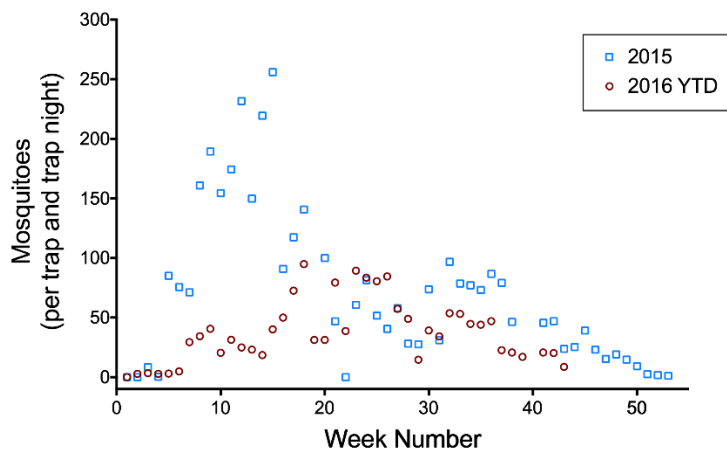


Figure 1. Mosquito abundance for 2015 and 2016 (year to date (YTD)) as measured using New Jersey Light Traps and reported as number of mosquitoes per trap per trap night.



Figure 2. Abundance of the most prevalent mosquito species collected in the County using NJLT (A) and CDC EVS CO₂ traps (B) during the months of September and October for 2014 – 2016. Geospatial distribution of the most prevalent mosquito species collected in each City during the month of September and October, 2016. Larger diameter circles indicate higher numbers of mosquitoes while color of the nested circles indicate the species.

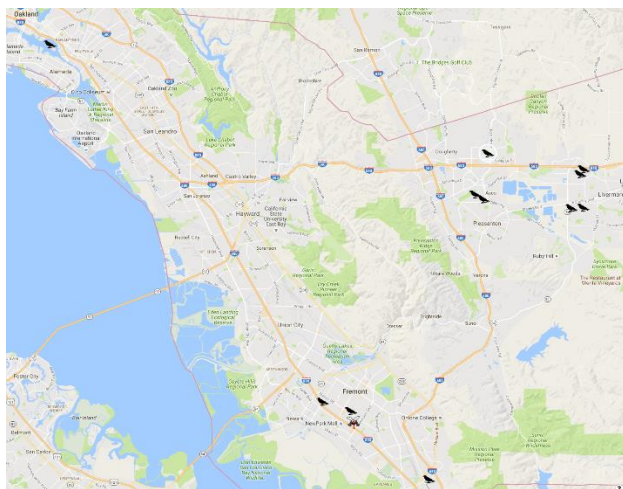


Figure 3. Geographic distribution of WNV-positive birds and mosquitoes in Alameda County.

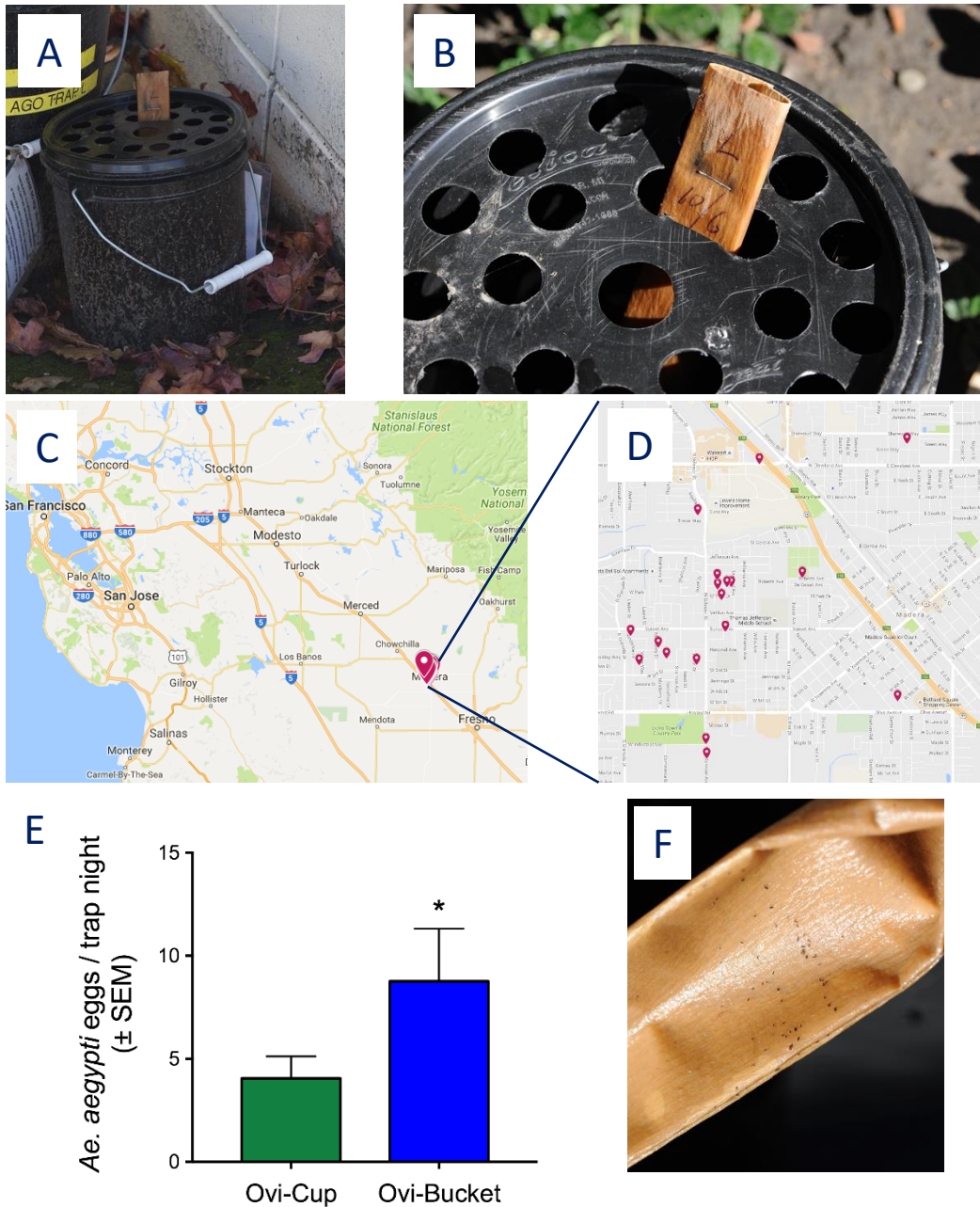


Figure 4. Comparison of ACMAD ovi-bucket trap design to CDC ovi-cup for detecting invasive *Aedes* spp. Construction of ACMAD ovi-bucket (A, B). Location of the study site in Madera, CA (C), and location of traps placed in the study (D). The ovi-bucket collected significantly higher numbers of invasive *Aedes* eggs relative to the CDC ovi-cup (E). *Aedes* eggs collected using the ovi-bucket (F).

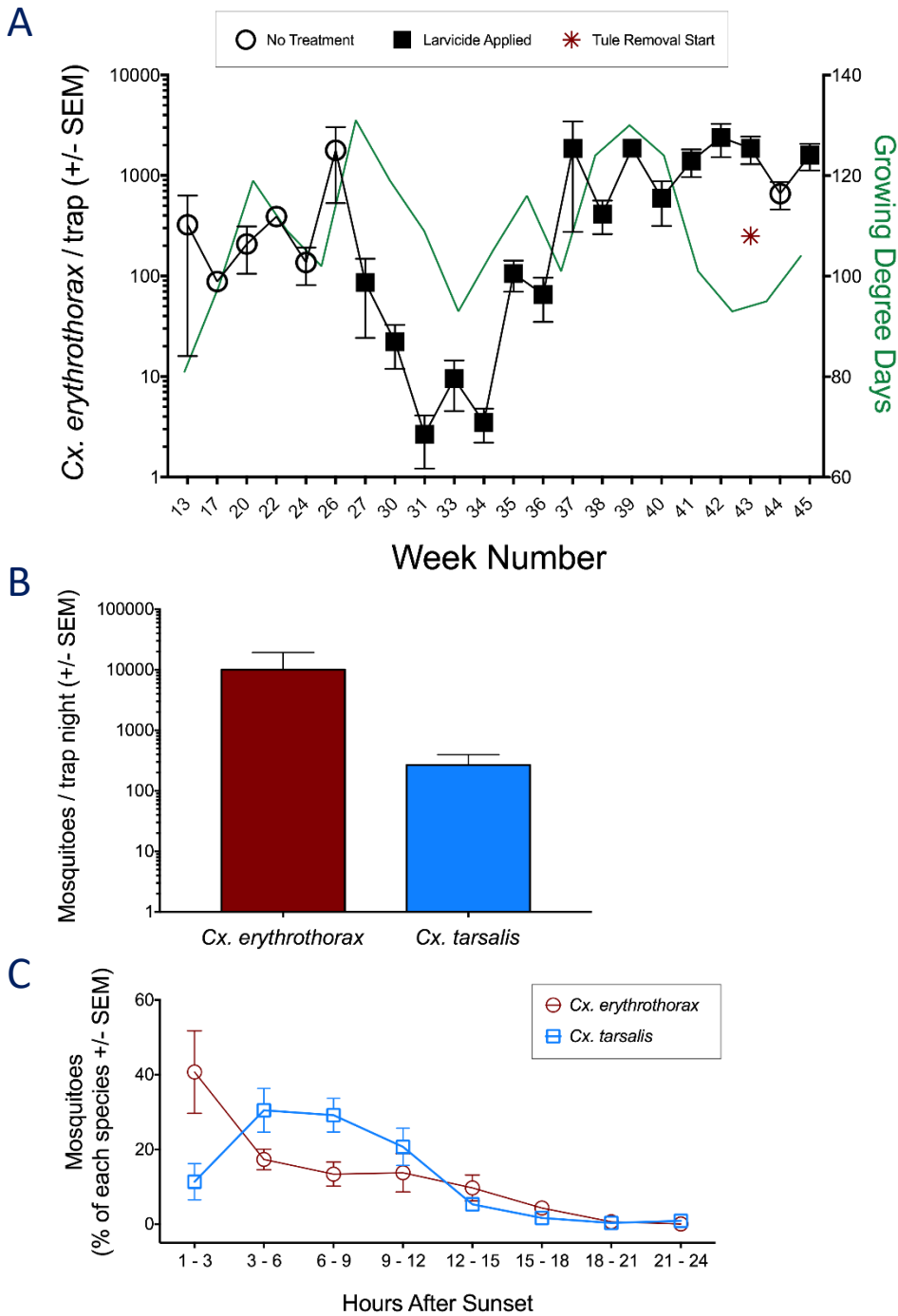


Figure 5. Abundance of *Cx. erythrothorax* at Hayward Regional Shoreline (HWS) and Bair Island. The abundance of *Cx. erythrothorax* remained relatively high throughout the year at HWS (A). Hourly collection of *Cx. erythrothorax* at HWS and *Cx. tarsalis* at a marsh near Bair Island (San Mateo, CA) showed high numbers of mosquitoes (B). Hourly abundance profiles showed high numbers of *Cx. erythrothorax* in the first three hours after sunset, with peak numbers of *Cx. tarsalis* 3-9 h after sunset (C).

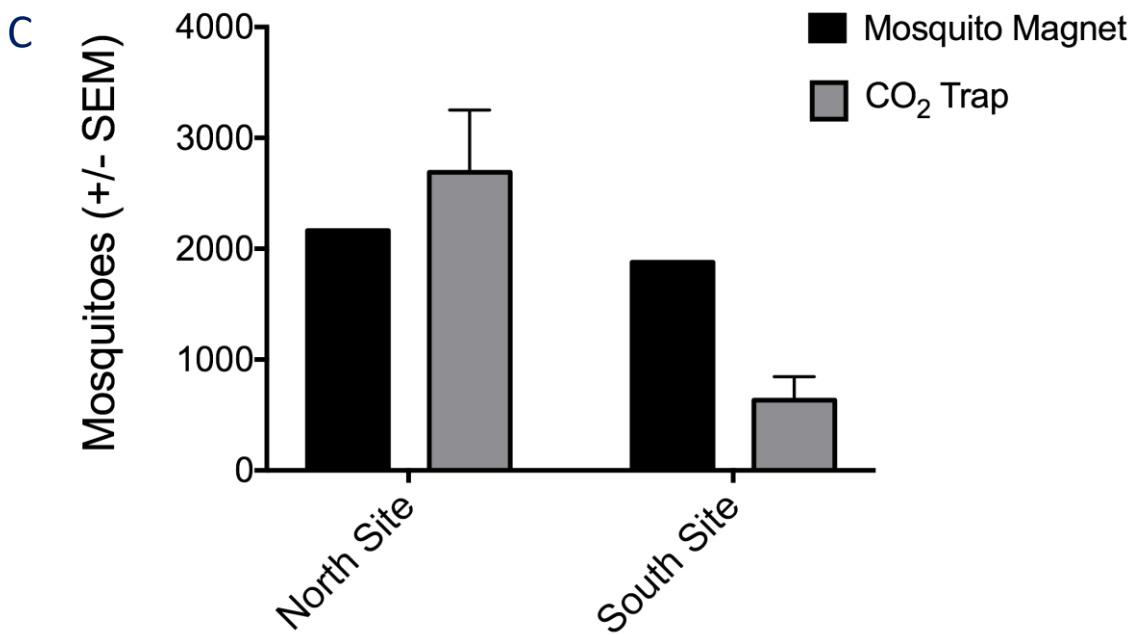
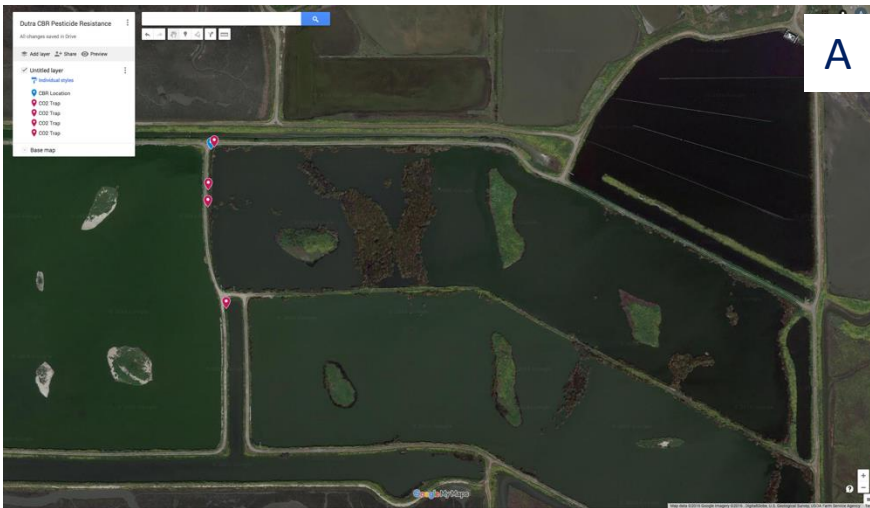


Figure 6. Mosquito Magnet traps efficiently collect *Cx. erythrothorax* in a marsh environment. Study location of CO₂ traps (n = 4) and Mosquito Magnets (n = 2) at Hayward Regional Shoreline (A). The Mosquito Magnet (B). The Mosquito Magnet and CO₂ traps captured similar numbers of *Cx. erythrothorax* (C).

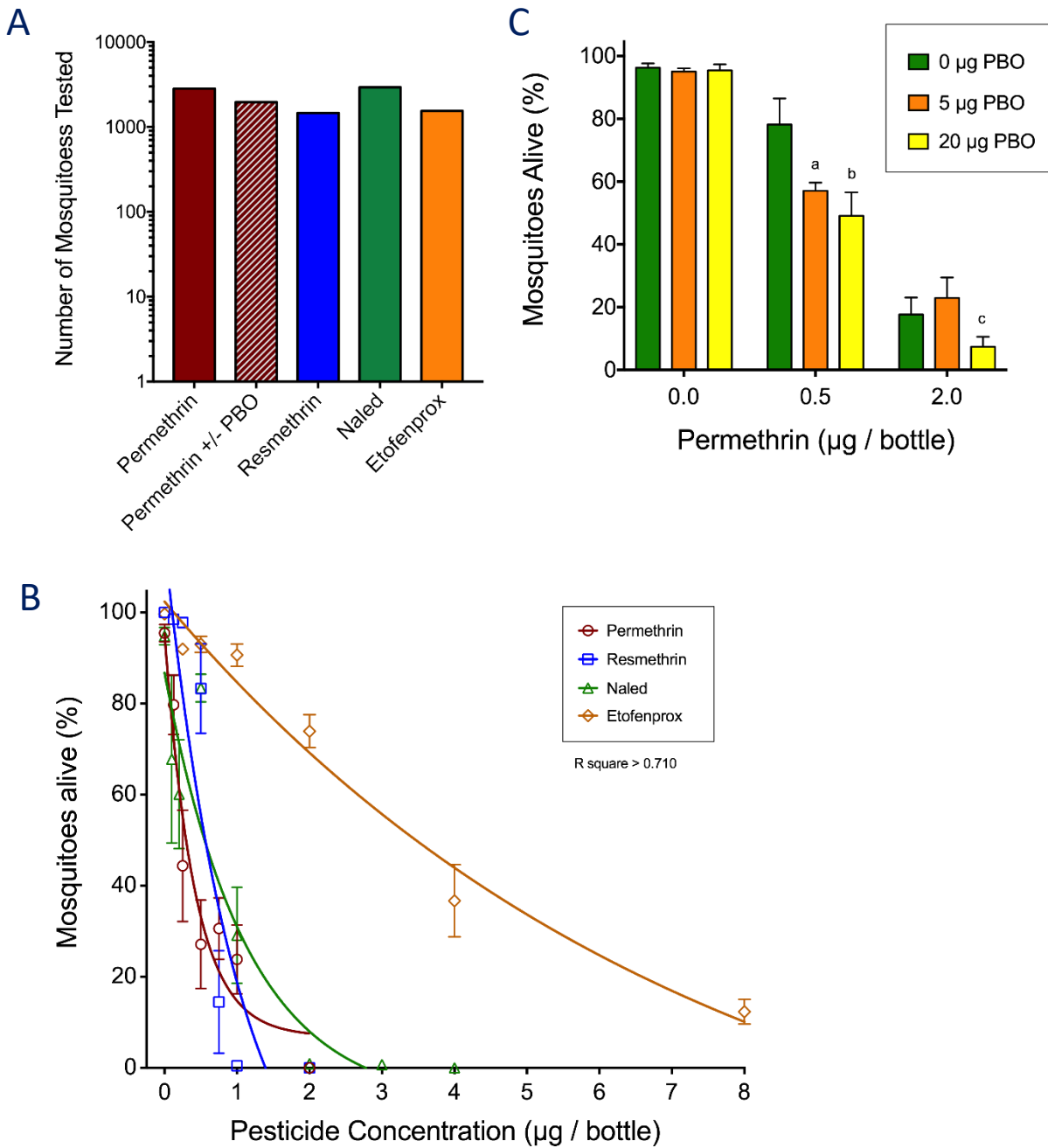


Figure 7. Resistance of *Cx. erythrothorax* to permethrin, resmethrin, naled, or etofenprox. Number of adult *Cx. erythrothorax* tested for each pesticide using the CDC bottle bioassay (A). Concentrations of 0.5 – 1 µg of permethrin, resmethrin and naled were effective for killing adult *Cx. erythrothorax*, while higher concentrations of etofenprox was needed to kill a similar proportion of *Cx. erythrothorax*.

Submitted respectfully by Eric Haas-Stapleton, PhD on November 3, 2016

3. PUBLIC EDUCATION

A. Upcoming Events

- **San Leandro Library Health Fair** – Saturday, December 3rd, 1pm-4pm (1241 Manor Blvd, San Leandro)

B. Google Analytics

	October 2016	September 2016
Number of Sessions	1,095	1,362
Users	955	1,182
Pageviews	1,994	2,649
Average Session Duration	1 minute 33 seconds	2 minute 10 seconds
New Visitors	918 (83.7%)	1,127 (82.8%)
Top Cities	San Francisco (7.8%), Hayward (6.6%), Oakland (3.7%), Not Set (3.7%), Los Angeles (2.5%)	San Francisco (5.4%), Oakland (4.6%), Hayward (4%), Not Set (3.5%), Los Angeles (2.6%)
Top Pages	Homepage (20%), California Species (15.9%), Education (9.3%), Mosquito Lifecycle (8.1%), Request Mosquitofish (3.1%)	Homepage (18%), CA Species (17.6%), Mosquito Education (9.33%), Lifecycle (7.3%), Mosquito-borne Diseases (3.3%)

C. Facebook

4.	October 2016	September 2016
Total Posts	11	9
Number Reached	136	161
Most Popular	WNV victim story	CDPH Press Release: Health officials urge removal of standing water
Total Number of “Likes”	112	110

D. Twitter

	October 2016	September 2016
Total Tweets	11	9
Tweet Impressions	2,324	1,195
Top Tweet (# Impressions)	Quarterly Newsletter (132)	Transparency Certificate of Excellence (132)
Profile Visits	61	79
New Followers (Total Followers)	3 (428)	7 (425)

I. Online Advertisements

SUMMARY PERFORMANCE CAMPAIGNS

Impressions **16,389** Clicks **23** CTR **0.14%**

CHART: Impressions

Sep 01 2016 - Sep 30 2016

