AGENDA

1051st MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

DECEMBER 14TH, 2017

TIME: 5:00 P.M.

PLACE: Office of the District, 23187 Connecticut Street, Hayward

TRUSTEES: Kathy Narum, President, City of Pleasanton

Elisa Marquez, Vice-President, City of Hayward Wendi Poulson, Secretary, City of Alameda Humberto Izquierdo, County-at-Large P. Robert Beatty, City of Berkeley Richard Guarienti, City of Dublin Betsy Cooley, City of Emeryville George Young, City of Fremont James N. Doggett, City of Livermore Eric Hentschke, City of Newark Jan O. Washburn, City of Oakland Robert Dickinson, City of Piedmont Ed Hernandez, City of San Leandro

City of Union City, vacant

- 1. Call to order.
- 2. Roll call.
- 3. President Narum 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. Passing of Trustee Ronald Quinn of Union City (Information only).
- 5. Approval of the minutes of the 1050th meeting held November 8, 2017 (**Board action required**)
- 6. Resolution 1051-1 honoring trustee Richard Guarienti, trustee for the City of Dublin (**Board** action required)
- 7. Nominating Committee (Hernandez, Izquierdo, Cooley) nominates a slate of 2018 District Officers for Board approval (Board action required)
- 8. Appointment of members to the Personnel Committee (Board action required)
- 9. Report from the Finance Committee on PARS (Public Agency Retirement Services) as a pension rate stabilization fund (Information only).
 - a. Draft Administrative Service Agreement (Information only).
- 10. Resolution 1051-2 Authorizing participation in the PARS Post-Employment Benefits Trust Program to be administered by PARS and U.S. Bank, appointing the General Manager as

the District's Plan Administrator, and authorizing the General Manager to execute the documents to implement the Program (Board action required)

- 11. Execution of reserve funding goals, approved in the 2017-18 budget. (Board action required)
- 12. Proposal to update the monthly financial reports (Board action required)
- 13. Report on the storage shed replacement project (Information only)
- 14. Financial Reports:
 - a. Review of warrants dated November 15, 2017 numbering 024718 through 026918 amounting to \$104,787.37 and warrants dated November 30, 2017 numbering 027018 through 030118 amounting to \$133,437.79 (Information only).
 - b. Review of Budget as of November 30, 2017, (Information only).
 - c. Investments, Reserves, and Cash Balance as of November 30, 2017.
- 15. Presentation of the Monthly Staff Report for November 2017 (Information only).
- 16. Presentation of the Manager's Report for November 2017 (Information only).
 - a. CSDA Annual Dinner March 23rd, 2017, Redwood Canyon Golf Course
 - b. MVCAC Annual Conference, Monterey January 28-31, 2018 (over ten District staff in attendance: 2 speakers, 3 posters
 - c. CSDA Board Leadership Workshop: Monterey April 15-18, 2018
 - d. AB 1234 training overdue for Trustees Dickinson and Doggett
 - e. Trustee volunteer needed to review audit in January
 - f. Trustee per diem rate locked in at \$100, per state law
 - g. Policy review to be scheduled with Policy Committee: additional trustees needed
 - h. December 7th presentation by Eric Haas-Stapleton at the coastal region continuation education seminar on: Engineered and Sterile Insects for Mosquito Control.
 - i. Tentative strategic planning meeting prior to January 10th Board meeting—details to follow.
- 17. Board President asks for reports on conferences and seminars attended by Trustees.
- 18. Board President asks for announcements from members of the Board.
- 19. Board President asks trustees for items to be added to the agenda for the next Board meeting.
- 20. 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: 1051.5

MINUTES

1050th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

NOVEMBER 8TH, 2017

TIME: 5:00 P.M.

PLACE: Office of the District, 23187 Connecticut Street, Hayward

TRUSTEES: Kathy Narum, President, City of Pleasanton

Elisa Marquez, Vice-President, City of Hayward Wendi Poulson, Secretary, City of Alameda Humberto Izquierdo, County-at-Large

P. Robert Beatty, City of Berkeley Richard Guarienti, City of Dublin Betsy Cooley, City of Emeryville George Young, City of Fremont James N. Doggett, City of Livermore Eric Hentschke, City of Newark Jan O. Washburn, City of Oakland Robert Dickinson, City of Piedmont Ed Hernandez, City of San Leandro Ronald Quinn, City of Union City

Board President Narum called the regularly scheduled Board meeting to order at 5:00pm.

Trustees Narum, Marquez, Poulson, Izquierdo, Guarienti, Cooley, Young, Doggett, Hentschke, Washburn, Dickinson and Quinn were present; Trustee Beatty was absent. Trustee Hernandez arrived at 5:10pm.

Board President Narum invited members of the public to speak on any issue relevant to the District. California Asset Management Program (CAMP) representative Christopher Presley and Staff member Vector Biologist Miguel Cardenas were here to present. Mosquito Control Technician Jeremy Sette was present to record the minutes.

The Board approved the minutes of the 1049th meeting held October 11th, 2017. (Guarienti, Quinn) –unanimous.

Board President Narum reported on behalf of the Finance Committee regarding proposed reserve funds.

Christopher Presley presented on behalf of CAMP. Board President Narum asked how easy it is to transfer funds into accounts (via a phone call or online). Trustee Doggett asked if there was a fee out-of-pocket (the listed yield is net of fee, currently at 13 basis points). Trustee Guarienti noted that he was familiar with CAMP's other clients. Vice President Marquez asked who did the reference checks (Board President Narum noted that the Finance Committee and General Manager looked into it). Trustee Hernandez asked about the pros/cons of CAMP in relation to other asset management programs (another option

was presented, but CAMP better met the District's needs). Trustees Cooley and Dickinson suggested to end the discussion regarding the competitive programs in this forum.

After questions from Trustees Hentschke and Doggett regarding the participant duties of a CAMP member and if their votes are weighted by investment ratio (as a participant, the District will have a proportional say in the investment strategy and a District Trustee could become a Trustee of the JPA, if so desired), the Board approved Resolution 1050-1 to join with other public agencies as a participant of the California Asset Management trust and to invest in shares of the trust and in individual portfolios (Hernandez, Washburn)— unanimous.

The Board appointed Trustees Hernandez, Izquierdo and Cooley to the Nomination Committee. (Izquierdo, Young)—unanimous.

The Board entered closed session to discuss proposed amendments to the District Manager's employee contract pursuant to Government Code Section 54957.6. The Board came out of closed session and Board President Narum reported that a \$7,500 performance bonus must also be added to the draft contract. (Marquez, Washburn)—unanimous.

Staff Employee Vector Biologist Miguel Cardenas presented the District's 2017 pool surveillance program. Trustee Izquierdo asked if the numbers of pools went up this year (70 less pools, however the cumulative number grows every year). Trustee Dickinson asked what is the definition of a "new pool" ("new" would pertain to a green pool not previously in the District's database) and asked how many green pools of the total surveyed this year (~40%) and asked if "filtered" refers to the number of pools that were confirmed as "not functioning" (yes). Trustee Guarienti asked if the new pools were duplicates (no, new to the District database). Board President Narum asked if the Tri-Valley area had the highest amount of pools because of its climate (yes, but there were also many in the Fremont area). Trustee Izquierdo asked if 40% of the pools go green (yes, but some are fixed by the time the District employees inspect) and asked if the fly-over presents a timing issue (yes, pools can breed mosquitoes all year round so it is essential to have up to date knowledge on every pool's status). Trustee Hernandez asked if drones could be used for aerial surveillance (yes, theoretically, however there are privacy concerns at this time), if mosquito abatement districts were aiding Santa Rosa in the aftermath of the fires (there is no official mutual aid from adjacent mosquito control districts), and offered the many opportunities that artificial intelligence offers. Trustee Washburn agreed that drone use should be evaluated carefully prior to use.

Vice President Marquez from the Sustainability Committee reported on the Sustainability Committee meeting that occurred prior to the regular meeting. Trustee Hernandez offered that he is an alternate board member to East Bay Community Energy and is available as an informational resource.

The Board reviewed warrants dated October 15, 2017 numbering 019118 through 021718 amounting to \$152,807.16 and warrants dated October 31, 2017 numbering 021818 through 024618 amounting to \$143,445.43. Trustee Guarienti asked about the total costs of the shed project (the shed is complete with a report in the December board meeting) Trustee Hernandez asked if the District had a credit card for expenses (yes).

The General Manager presented the Staff report for October 2017 and reminded Trustees of the open house prior to the next meeting, from 3:00pm on, with dinner served at 4:00pm.

The General Manager presented the Manager's report for October 2017.

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

Board President Narum asked for announcements from the Board, which were none.

Board President Narum asked trustees for items to be added to the agenda at the next Board meeting. Trustee Quinn requested an evaluation on the Trustee per diem amount. Trustee Hernandez asked for a report on updates on the financial policies, specifically the warrant process update. Board President Narum noted that the Financial Committee will meet next Wednesday regarding these issues along with hearing proposals for a pension stabilization fund.

The meeting adjourned at 6:30 P.M.

Approved as written and/or corrected at the 1051st meeting of the Board of Trustees held December 13th, 2017

Kathy Narum, President BOARD OF TRUSTEES

Wendi Poulson, Secretary BOARD OF TRUSTEES

RESOLUTION NO. 1051-1

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT

COMMENDATION TO: Richard Guarienti

| WHEREAS: | You, Richard Guarienti, served on the Board of Trustees of the District, representing the City of Dublin since your appointment in 2013, and | | | | | | | | |
|------------------|---|----------------------------|--|--|--|--|--|--|--|
| WHEREAS: | As Board president in 2016, you effectively led the personnel committee through a fair MOU negotiation with the employees; with the Policy Committee, you patiently edited the entire District policy manual with a keen eye for detail; your dedication to public service was evident by your regular attendance and consistent involvement, such as reviewing details of the manager's contract which required several on-site meetings; you also provided confidence to District staff by your support at both city and governing board presentations, and | | | | | | | | |
| RESOLVED: | We, the undersigned Board of Manager, do hereby extend ou your dedication of service to the | r sincere appreciation for | | | | | | | |
| Kathy Narum | Elisa Marquez | Wendi Poulson | | | | | | | |
| Jan O. Washburn | Robert Dickinson | Ron Quinn | | | | | | | |
| George Young | James N. Doggett | Ed Hernandez | | | | | | | |
| P. Robert Beatty | Betsy Cooley | Eric Hentschke | | | | | | | |

Ryan Clausnitzer, mgr

Humberto Izquierdo

Agenda item: 1051.9

Action:

Adopt the Resolution authorizing participation in the PARS Post-Employment Benefits Trust Program to be administered by Public Agency Retirement Services (PARS) and U.S. Bank, appointing the General Manager as the District's Plan Administrator, and authorizing the General Manager to execute the documents to implement the Program.

Objective:

Consider adoption of the Resolution authorizing the establishment of the PARS Post-Employment Benefits Trust Program which could be used to pre-fund pension obligations.

Background:

In 2012, the Government Accounting Standards Board (GASB) issued Statement No. 68, *Accounting and Financial Reporting for Pensions*. GASB 68 requires that governmental employers that sponsor Defined Benefit plans (i.e., CalPERS) must recognize a net pension liability (unfunded accrued liability) on their balance sheet. This is the difference between the District's total pension liability (actuarial accrued liability) and actual plan assets. GASB 68 will become effective for fiscal years starting after June 15, 2014.

To address the GASB 68 net pension liability figure, the District's only prior option was to commit additional funds to CalPERS (in excess of its annual required contributions). However, a recent private letter ruling received by PARS from the IRS established that the District could create a separate trust to "pre-fund" its CalPERS unfunded liability. This would provide the District with an alternative to sending funds to CalPERS that will allow for greater local control over assets, investment by a professional fund management team selected and monitored by the District, with future excess contributions transferred to CalPERS at the District's discretion.

To date, One-Hundred Eleven (111) public agencies have adopted the Pension Rate Stabilization Program (PRSP) through PARS including the following agencies in Alameda County: City of Alameda, City of Dublin, City of Union City and East Bay Regional Park District.

Expected benefits offered by the PARS PRSP include:

- Contributions placed in an exclusive benefit trust could address the District's Net Pension Liability
- Investment flexibility with Section 115 Trust compared to restrictions on general fund investments (Govt. Code 53216)

- Increased risk diversification of plan investments
- Investments can be tailored to the District's unique demographics
- Oversight and control of fund management selection, monitoring of performance and ability to replace fund management based on performance criteria
- Increased flexibility on use of trust assets (i.e., trust assets can be accessed at anytime as long as the assets are used to fund the District's pension obligations)
- Lower investment management and administrative expenses compared to CalPERS
- Potential for positive rating agency and investor consideration.

In an effort to help public agencies address and manage their GASB 68 liability, PARS has developed the PARS Post-Employment Benefits Trust Program. PARS has assembled leading professionals to provide the District with the necessary services required under one program to pre-fund pension liabilities through an IRS reviewed program. The program has been established as a multiple employer trust so that public agencies regardless of size can join the program to receive the necessary economies of scale to keep administrative fees low and avoid any setup costs. The trust permits the District, under federal and state law, to invest in a more diversified array of investments to maximize investment returns long term and address the District's liability.

PARS has partnered with US Bank to serve as trustee and its sub-adviser HighMark Capital Management, Inc., to provide investment management services for the program.

Recommendation:

- PARS is strategically aligned to the District's need and would provide a Pension Rate Stabilization Program from a group of portfolios with a range from Conservative to Capital Appreciation, rather than yearly transfers into CalPERS.
- PARS has an extensive list of clients including many cities, counties, as well as several special districts including Napa Mosquito Abatement District.
- PARS' Trustee is US Bank, which is also the Trustee of ACMAD's OPEB fund managed by PFM.
- Costs are comparable to competing firms.
- Since our OPEB is with PFM, investing our Pension Rate Stabilization Program funds with PARS would give us increased diversification in our pension investments.

Therefore, it is recommended that the Board approve the District's establishment of the PARS Post-Employment Benefits Trust Program and adopt Resolution No.1051-2. It is also recommended that the Board authorize the General Manager, subject to the review and approval of the District's legal counsel, to sign all necessary documents.

AGREEMENT FOR ADMINISTRATIVE SERVICES

This agreement ("Agreement") is made this _____ day of _____, 2017, between Phase II Systems, a corporation organized and existing under the laws of the State of California, doing business as Public Agency Retirement Services and PARS (hereinafter "PARS") and the [Agency Name] ("Agency").

WHEREAS, the Agency has adopted the PARS Public Agencies Post-Employment Benefits Trust for the purpose of pre-funding pension obligations and/or OPEB obligations ("Plan"), and is desirous of retaining PARS as Trust Administrator to the Trust, to provide administrative services.

NOW THEREFORE, the parties agree:

- 1. **Services.** PARS will provide the services pertaining to the Plan as described in the exhibit attached hereto as "Exhibit 1A" ("Services") in a timely manner, subject to the further provisions of this Agreement.
- 2. **Fees for Services.** PARS will be compensated for performance of the Services as described in the exhibit attached hereto as "Exhibit 1B".
- 3. Payment Terms. Payment for the Services will be remitted directly from Plan assets unless the Agency chooses to make payment directly to PARS. In the event that the Agency chooses to make payment directly to PARS, it shall be the responsibility of the Agency to remit payment directly to PARS based upon an invoice prepared by PARS and delivered to the Agency. If payment is not received by PARS within thirty (30) days of the invoice delivery date, the balance due shall bear interest at the rate of 1.5% per month. If payment is not received from the Agency within sixty (60) days of the invoice delivery date, payment plus accrued interest will be remitted directly from Plan assets, unless PARS has previously received written communication disputing the subject invoice that is signed by a duly authorized representative of the Agency.
- 4. **Fees for Services Beyond Scope.** Fees for services beyond those specified in this Agreement will be billed to the Agency at the rates indicated in the PARS' standard fee schedule in effect at the time the services are provided and shall be payable as described in Section 3 of this Agreement. Before any such services are performed, PARS will provide the Agency with a detailed description of the services, terms, and applicable rates for such services. Such services, terms, and applicable rates shall be agreed upon in writing and executed by both parties.
- 5. **Information Furnished to PARS.** PARS will provide the Services contingent upon the Agency's providing PARS the information specified in the exhibit attached hereto as "Exhibit 1C" ("Data"). It shall be the responsibility of the Agency to certify the accuracy, content and completeness of the Data so that PARS may rely on such information without further audit. It shall further be the responsibility of the Agency to deliver the Data to PARS in such a manner that allows for a reasonable amount of time for the Services to be performed. Unless specified in Exhibit 1A, PARS shall be under no duty to question Data received from the Agency, to compute contributions made to the

Plan, to determine or inquire whether contributions are adequate to meet and discharge liabilities under the Plan, or to determine or inquire whether contributions made to the Plan are in compliance with the Plan or applicable law. In addition, PARS shall not be liable for non performance of Services to the extent such non performance is caused by or results from erroneous and/or late delivery of Data from the Agency. In the event that the Agency fails to provide Data in a complete, accurate and timely manner and pursuant to the specifications in Exhibit 1C, PARS reserves the right, notwithstanding the further provisions of this Agreement, to terminate this Agreement upon no less than ninety (90) days written notice to the Agency.

- 6. **Records.** Throughout the duration of this Agreement, and for a period of five (5) years after termination of this Agreement, PARS shall provide duly authorized representatives of Agency access to all records and material relating to calculation of PARS' fees under this Agreement. Such access shall include the right to inspect, audit and reproduce such records and material and to verify reports furnished in compliance with the provisions of this Agreement. All information so obtained shall be accorded confidential treatment as provided under applicable law.
- 7. **Confidentiality.** Without the Agency's consent, PARS shall not disclose any information relating to the Plan except to duly authorized officials of the Agency, subject to applicable law, and to parties retained by PARS to perform specific services within this Agreement. The Agency shall not disclose any information relating to the Plan to individuals not employed by the Agency without the prior written consent of PARS, except as such disclosures may be required by applicable law.
- 8. **Independent Contractor.** PARS is and at all times hereunder shall be an independent contractor. As such, neither the Agency nor any of its officers, employees or agents shall have the power to control the conduct of PARS, its officers, employees or agents, except as specifically set forth and provided for herein. PARS shall pay all wages, salaries and other amounts due its employees in connection with this Agreement and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.
- 9. **Indemnification.** PARS and Agency hereby indemnify each other and hold the other harmless, including their respective officers, directors, employees, agents and attorneys, from any claim, loss, demand, liability, or expense, including reasonable attorneys' fees and costs, incurred by the other as a consequence of, to the extent, PARS' or Agency's, as the case may be, negligent acts, errors or omissions with respect to the performance of their respective duties hereunder.
- 10. Compliance with Applicable Law. The Agency shall observe and comply with federal, state and local laws in effect when this Agreement is executed, or which may come into effect during the term of this Agreement, regarding the administration of the Plan. PARS shall observe and comply with federal, state and local laws in effect when this Agreement is executed, or which may come into effect during the term of this Agreement, regarding Plan administrative services provided under this Agreement.

- 11. **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of California. In the event any party institutes legal proceedings to enforce or interpret this Agreement, venue and jurisdiction shall be in any state court of competent jurisdiction.
- 12. **Force Majeure.** When a party's nonperformance hereunder was beyond the control and not due to the fault of the party not performing, a party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by such cause, including but not limited to: any incidence of fire, flood, acts of God, acts of terrorism or war, commandeering of material, products, plants or facilities by the federal, state or local government, or a material act or omission by the other party.
- 13. **Ownership of Reports and Documents.** The originals of all letters, documents, reports, and data produced for the purposes of this Agreement shall be delivered to, and become the property of the Agency. Copies may be made for PARS but shall not be furnished to others without written authorization from Agency.
- 14. **Designees.** The Plan Administrator of the Agency, or their designee, shall have the authority to act for and exercise any of the rights of the Agency as set forth in this Agreement, subsequent to and in accordance with the written authority granted by the Governing Body of the Agency, a copy of which writing shall be delivered to PARS. Any officer of PARS, or his or her designees, shall have the authority to act for and exercise any of the rights of PARS as set forth in this Agreement.
- 15. **Notices.** All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of the notices in person or by depositing the notices in the U.S. mail, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:
 - (A) To PARS: PARS; 4350 Von Karman Avenue, Suite 100, Newport Beach, CA 92660; Attention: President
 - (B) To Agency: [Agency]; [Address]; [City, State, Zip]; Attention: [Plan Administrator] Notices shall be deemed given on the date received by the addressee.
- 16. **Term of Agreement.** This Agreement shall remain in effect for the period beginning _______, 2017 and ending ________, 2020 ("Term"). This Agreement may be terminated at any time by giving thirty (30) days written notice to the other party of the intent to terminate. Absent a thirty (30) day written notice to the other party of the intent to terminate, this Agreement will continue unchanged for successive twelve month periods following the Term.
- 17. **Amendment.** This Agreement may not be amended orally, but only by a written instrument executed by the parties hereto.
- 18. **Entire Agreement.** This Agreement, including exhibits, contains the entire understanding of the parties with respect to the subject matter set forth in this Agreement. In the event a conflict arises between the parties with respect to any term, condition or

provision of this Agreement, the remaining terms, conditions and provisions shall remain in full force and legal effect. No waiver of any term or condition of this Agreement by any party shall be construed by the other as a continuing waiver of such term or condition.

- 19. **Attorneys Fees.** In the event any action is taken by a party hereto to enforce the terms of this Agreement the prevailing party herein shall be entitled to receive its reasonable attorney's fees.
- 20. **Counterparts.** This Agreement may be executed in any number of counterparts, and in that event, each counterpart shall be deemed a complete original and be enforceable without reference to any other counterpart.
- 21. **Headings.** Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.
- 22. **Effective Date.** This Agreement shall be effective on the date first above written, and also shall be the date the Agreement is executed.

| AGENCY: | |
|---------|-------------------------|
| BY: | |
| TITLE: | |
| DATE: | |
| PARS: | |
| BY: | Tod Hammeras |
| TITLE: | Chief Financial Officer |
| DATE: | |

EXHIBIT 1A

SERVICES

PARS will provide the following services for the [Agency Name] Public Agencies Post-Employment Benefits Trust:

1. Plan Installation Services:

- (A) Meeting with appropriate Agency personnel to discuss plan provisions, implementation timelines, actuarial valuation process, funding strategies, benefit communication strategies, data reporting, and submission requirements for contributions/reimbursements/distributions;
- (B) Providing the necessary analysis and advisory services to finalize these elements of the Plan;
- (C) Providing the documentation needed to establish the Plan to be reviewed and approved by Agency legal counsel. Resulting final Plan documentation must be approved by the Agency prior to the commencement of PARS Plan Administration Services outlined in Exhibit 1A, paragraph 2 below.

2. Plan Administration Services:

- (A) Monitoring the receipt of Plan contributions made by the Agency to the trustee of the PARS Public Agencies Post-Employment Benefits Trust ("Trustee"), based upon information received from the Agency and the Trustee;
- (B) Performing periodic accounting of Plan assets, reimbursements/distributions, and investment activity, based upon information received from the Agency and/or Trustee;
- (C) Coordinating the processing of distribution payments pursuant to authorized direction by the Agency, and the provisions of the Plan, and, to the extent possible, based upon Agency-provided Data;
- (D) Coordinating actions with the Trustee as directed by the Plan Administrator within the scope this Agreement;
- (E) Preparing and submitting a monthly report of Plan activity to the Agency, unless directed by the Agency otherwise;
- (F) Preparing and submitting an annual report of Plan activity to the Agency;
- (G) Facilitating actuarial valuation updates and funding modifications for compliance with GASB 45/75, if prefunding OPEB obligations;
- (H) Coordinating periodic audits of the Trust;
- (I) Monitoring Plan and Trust compliance with federal and state laws.
- 3. PARS is not licensed to provide and does not offer tax, accounting, legal, investment or actuarial advice.

EXHIBIT 1B FEES FOR SERVICES

PARS will be compensated for performance of Services, as described in Exhibit 1A based upon the following schedule:

An annual asset fee shall be paid from Plan Assets based on the following schedule:

| For Plan | Annual Rate: | | |
|--------------|---------------------|--------------|-------|
| \$0 | to | \$10,000,000 | 0.25% |
| \$10,000,001 | to | \$15,000,000 | 0.20% |
| \$15,000,001 | to | \$50,000,000 | 0.15% |
| \$50,000,001 | and | above | 0.10% |

Annual rates are prorated and paid monthly. The annual asset fee shall be calculated by the following formula [Annual Rate divided by 12 (months of the year) multiplied by the Plan asset balance at the end of the month]. Trustee and Investment Management Fees are not included.

EXHIBIT 1C

DATA REQUIREMENTS

PARS will provide the Services under this Agreement contingent upon receiving the following information:

- 1. Executed Legal Documents:
 - (A) Certified Resolution
 - (B) Adoption Agreement to the Public Agencies Post-Employment Benefits Trust
 - (C) Trustee Investment Forms
- 2. Contribution completed Contribution Transmittal Form signed by the Plan Administrator (or authorized Designee) which contains the following information:
 - (A) Agency name
 - (B) Contribution amount
 - (C) Contribution date
 - (D) Contribution method (Check, ACH, Wire)
- 3. Distribution completed Payment Reimbursement/Distribution Form signed by the Plan Administrator (or authorized Designee) which contains the following information:
 - (A) Agency name
 - (B) Payment reimbursement/distribution amount
 - (C) Applicable statement date
 - (D) Copy of applicable premium, claim, statement, warrant, and/or administrative expense evidencing payment
 - (E) Signed certification of reimbursement/distribution from the Plan Administrator (or authorized Designee)
- 4. Other information pertinent to the Services as reasonably requested by PARS and Actuarial Provider.

RESOLUTION NO. 1051-2

RESOLUTION OF THE GOVERNING BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT APPROVING THE ADOPTION OF THE PUBLIC AGENCIES POST-EMPLOYMENT BENEFITS TRUST ADMINISTERED BY PUBLIC AGENCY RETIREMENT SERVICES (PARS)

WHEREAS PARS has made available the PARS Public Agencies Post-Employment Benefits Trust (the "Program") for the purpose of pre-funding pension obligations and/or OPEB obligations; and

WHEREAS the Alameda County Mosquito Abatement District ("District") is eligible to participate in the Program, a tax-exempt trust performing an essential governmental function within the meaning of Section 115 of the Internal Revenue Code, as amended, and the Regulations issued there under, and is a tax-exempt trust under the relevant statutory provisions of the State of California; and

WHEREAS the District's adoption and operation of the Program has no effect on any current or former employee's entitlement to post-employment benefits; and

WHEREAS the terms and conditions of post-employment benefit entitlement, if any, are governed by contracts separate from and independent of the Program; and

WHEREAS the District's funding of the Program does not, and is not intended to, create any new vested right to any benefit nor strengthen any existing vested right; and

WHEREAS the District reserves the right to make contributions, if any, to the Program.

NOW THEREFORE, BE IT RESOLVED THAT:

- 1. The Governing Board hereby adopts the PARS Public Agencies Post-Employment Benefits Trust, effective December 13th, 2017; and
- 2. The Governing Board hereby appoints the General Manager, or his/her successor or his/her designee as the District's Plan Administrator for the Program; and
- 3. The District's Plan Administrator is hereby authorized to execute the PARS legal and administrative documents on behalf of the District and to take whatever additional actions are necessary to maintain the District's participation in the Program and to maintain compliance of any relevant regulation issued or as may be issued; therefore, authorizing him/her to take whatever additional actions are required to administer the District's Program.

| AYES: | NOES: | ABSENT: | ABSTAIN: |
|-------|-------|---------|----------|
| | | | |

STATE OF CALIFORNIA COUNTY OF ALAMEDA

Kathy Narum, the Board President of the Governing Board of Trustees of the Alameda County Mosquito Abatement District, State of California, hereby certifies that the above foregoing resolution was duly and regularly adopted by said District at a regular meeting thereof held on the 13th of December 2017, and passed by a unanimous vote of said Board.

IN WITNESS WHEREOF I have hereunto set my hand and seal this December 13th, 2017.

| President, Board of Trustees | |
|------------------------------|--|

Agenda item: 1051.11

Reserve Funding Strategies 2017-18

| FUND: | DESCRIPTION | CURRENT LEVEL | FUNDING GOAL PER 2017-18 BUDGET |
|------------------------------------|--|---|--|
| 1. CAMP | | | |
| Public Health Emergency Fund | \$500,000 designated by the Board | \$500,000 in LAIF | Transfer to CAMP |
| Repair and Replace Reserve Fund | Designation based on the replacement value of capital assets—currently at \$3 million. | \$500,000 as a line-item expense | Transfer \$500,000 from general fund to CAMP |
| Operating Reserve Fund | 60% of operating budget, or, a rainy-day, designated fund that covers operations if there is an unexpected loss of revenue | \$2,391,220 as a line-item expense; \$1,000,000 in LAIF | Transfer \$1,000,000 from LAIF to CAMP |
| Capital Reserve Fund | Amount designated by the District's strategic plan towards a long-term capital project. | \$0 | N/A |
| 2. PARS | | | |
| Pension Stabilization Reserve Fund | Restricted fund based on the actuarial report of pension unfunded liability | \$0 | Transfer \$500,000 from general fund to PARS |
| 3. PFM | | | |
| OPEB | Restricted Retiree Health Benefits | \$4,181,278 | Fully funded |
| 4. VCJPA (PFM) | | | |
| VCJPA Contingency | Member and property contingency funds for self-insurance | \$338,899 & \$50,368 | Fully funded |
| 5. LAIF | | | |
| General Reserve | No current designation; another reserve account | \$1,500,000 | N/A ¹ |

¹ After withdrawing funds, LAIF would have a zero balance.

| REVENUES | | Budgeted | 2015/16 Ac | tual 2015/16 | B vs A | 2016/17 | 2017/18 | % change fr prior yr | | |
|----------------------|---|-----------------|------------------|--------------|--------|--------------------|-----------------------|----------------------|----------------|-----------|
| | Ad Valoreum Property Taxes | \$1 | 1,616,830 | \$2,036,061 | 26% | \$1,823,586 | \$2,007,044 | 10.06% | | |
| | Special Tax (net of Admin) | | \$801,014 | \$817,114 | 2% | \$802,259 | \$812,884 | 1.32% | | |
| | Benefit Assessment (net of Admin) | \$1 | 1,017,089 | \$1,327,656 | 31% | \$1,096,858 | \$1,116,162 | 1.76% | | |
| | Interest on pooled money | | \$4,000 | \$27,303 | 583% | \$8,000 | \$8,000 | | | |
| | Charges for Services | | \$0 | \$0 | 0% | \$0 | \$0 | | | |
| | Sale of Property and Equipment | | \$5,000 | \$1,155 | -77% | \$5,000 | \$5,000 | 0.00% | | |
| | Total Tax and Other Revenue | \$3 | 3,588,933 | \$4,180,831 | 16% | \$3,928,713 | \$3,949,090 | 0.52% | | |
| | Total Revenue, including cash carryover | \$6,959,233 | 3 | | | \$7,595,713 | \$3,949,090 | NA | | |
| INTEREUNIR TRANSFERS | Deiselvers and Define Health Deserting from ODED | | * 400.000 | £4.40.000 | 450/ | #470.000 | 0470 750 | F 400/ | | |
| INTERFUND TRANSFERS | Reimburese Retiree Health Benefits from OPEB | , | \$130,000 | \$149,986 | 15% | \$170,909 | \$179,756 | | | |
| | Reimburse Management fees for OPEB | | \$15,000 | \$18,107 | | | \$22,100 | | Taken from C | DER |
| | Deposit to VCJPA Contingency Fund | NA | NA | | NA | \$77,000 | \$50,000 | | | |
| | CalPERS Retirement Fund Lump Sum Payment-pension liability | NA | NA | ١ | NA | \$200,000 | \$0 | | | |
| | Deposit into LAIF for Public Health Emergency | | | | | NA | \$350,000 | | | |
| | Deposit into ("trust #1") for pension rate stabilization | | | | | NA | \$1,300,000 | | | |
| | Deposit into ("trust #2") for remaining reserves: Contingency, Work | ting Capital, (| Capital Improv | vement | | NA | \$2,916,220 | | | |
| EXPENDITURES | Salaries (permanent) | \$1 | 1,432,149 | \$1,579,203 | 10% | \$1,550,594 | \$1,603,103 | 3.39% | | |
| | Retirement (CalPERS) | | \$202,026 | \$205,340 | 2% | | \$253,662 | | | |
| | Seasonal Staff | | \$141,400 | \$82,031 | -42% | | \$158,202 | | | |
| | Medicare | | \$26,781 | \$21,160 | -21% | | \$25,881 | | | |
| | Total Salaries + Retirement | \$1 | 1,802,356 | \$1,887,734 | | \$1,947,842 | \$2,064,418 | | | |
| | Fringe Benefits | | \$417,556 | \$554,630 | 33% | | \$506,368 | | | |
| | Services and Supplies | | \$985,642 | \$780,944 | -21% | | \$1,174,580 | | | |
| | Capital Expenditures | | \$227,000 | \$62,469 | -72% | \$295,000 | \$240,000 | | | |
| | Total Operating Expenditures | | 3,627,554 | \$3,335,777 | -8% | | \$3,985,366 | | If not equal t | o revenue |
| | Total operating Experimental of | | ,021,001 | 40,000,111 | 0,0 | \$0,010,200 | +0,000,000 | 0.0270 | come from c | |
| CASH CARRIED OVER | Cash Carried Over | \$3 | 3,000,000 NA | 1 | | | \$1,864,206 | | | |
| | | | | | | | | | | |
| RESERVES | Reserves for Working Capital (60% of operating costs) | \$2 | 2,714,106 | \$2,714,106 | 0% | \$2,307,743 | \$2,391,220 | | Move to Trus | |
| | Pension liability reserve, | NA | NA | | NA | \$1,441,731 | \$500,000 | | Move to Trus | |
| | Contingency | | \$25,000 | \$25,000 | | \$25,000 | \$25,000 | | Move to Trus | |
| | Reserves for Public Health Emergency | NA | NA | | NA | \$500,000 | \$500,000 | | Move to LAIF | |
| | Reserves for Capital Improvement | \$1 | 1,116,840 NA | ١ | NA | \$916,731 | \$500,000 | -45.46% | Move to Trus | t #2 |
| OTHER ASSETS | Reserve in VCJPA Contingency fund | 1 | | | | \$205,774 | \$284,557 | 38 29% | As of April 1 | |
| | LAIF | | | | | \$149,738 | \$150,599 | | As of April 1 | |
| | OPEB | | | | | \$3,900,576 | \$4,048,507 | | As of April 1 | |
| | CalPERS Retirement Fund (2 years prior) | | | | | \$9,569,301 | \$9,392,360 | | | |
| | Trust #1 (Pension rate stabilization) | | | | | \$0,000,001 | ψ0,00 2 ,000 | 1.0070 | Proposed | |
| | Trust #2 (Contingency, Working Capital, Capital Improvement) | | | | | | | | Proposed | |
| | | | | | | | | | | |
| | Changes from last board meeting (insurance, | | | | | | | | | |

Agenda item: 1051.12

Proposal to update financial statements:

The current financial reports given to the Board every month are not uniform reports—they are custom-made internal reports that are manually entered. To more accurately and uniformly reflect the financial health of the District, as well as save a tremendous amount of staff time, the following recommendations are being proposed:

<u>Currently:</u> <u>Proposed:</u>

Warrant List Ledger sent twice a month to trustees

Variance Report (Budget) Income Statement (statement of activities)

Balance Sheet (statement of financial position)

IRC Cash and Investments

Rationale:

Prior to July of 2017, the District was using an unsupported accounting software (Peachtree). Since updating to Sage, we are now able to more accurately book activity and reconcile accounts. Another benefit to fully utilizing this accounting software, is we can instantly prepare standard financial reports, rather than the custom reports, which were prone to entry error, were time-consuming, and were not well-integrated with the annual budget which will also undergo some format changes.

Warrant lists will be replaced by bi-monthly reports of purchases sent to Trustees via email directly from our ledger rather than being printed in the monthly board report, in the interest of saving paper (they are several pages long).

Timeline:

Our audit is currently underway, so any changes will be made after the audit is reported in the February board meeting. The goal is to have these updated financial reports ready by the March 2018 board meeting.

Storage Shed Replacement Project -- Summary

There were three categories in the scope that affected the cost of this project.

- 1. Plan Check revisions and modifications for permit approval including: special paint, door details, flashing, electrical & exhaust system, and additional masonry requirements. (20%)
- 2. Grade Adjustments: Hauling-off soils for inspection, water line location and capping, and additional concrete work due to unforeseen voids under remaining concrete. (6%)
 - After demolition began, the location of the underground water supply and electrical were not per original drawings so additional grading was needed, resulting in addition labor and materials.
- 3. Steel Cost Increase: Increase in new contractor pricing due to length of time to obtain permits from original quote (originally budgeted in 2014-15). **(10%)**
 - a. We reclassified the storage shed from an H-3 (Hazardous) to an S-1 (Basic Storage) due to the quantity and nature of the contents.

Original Estimate - \$149,965

Revisions to Complete - \$53,363

Final Cost - \$205,348

% increase - 136%

Conclusion:

In the future:

- A. Appropriate contingency budgets should accompany project costs to accommodate unforeseen increases.
- B. With improved planning (such as a capital replacement plan and strategic plan), capital replacement projects will not take three years to complete.

Prepared by- Mark Wieland

Mechanical Specialist

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT LIST OF WARRANTS DATED **NOVEMBER 15, 2017**

| WAR NO | | PAYEE | ACCT NO | | AMT OF CHARGE | | AMT OF NARRAN |
|-----------|--------------------------------------|---|------------|----|------------------|----|------------------|
| 024718 | Biological Specialist | Total salary less deductions for payroll period | 600001 | \$ | 2,785.05 | | MARKAN |
| 024718 | Mosq Control Tech | " | 600001 | \$ | 2,426.33 | | |
| 024718 | Lab Seasonal | | 600001 | \$ | 1,100.91 | | |
| 024718 | Lab Seasonal | | 600001 | \$ | 1,306.09 | | |
| 024718 | Vector Biologist | · · | 600001 | \$ | 2,938.44 | | |
| 024718 | Vector Biologist | · · | 600001 | \$ | 2,965.53 | | |
| 024718 | Mosq Control Tech | · · | 600001 | \$ | 2,301.49 | | |
| 024718 | Regulatory & Public Affairs Director | · · | 600001 | \$ | 2,922.66 | | |
| 024718 | District Manager | · · | 600001 | \$ | 3,760.03 | | |
| 024718 | Asst Mosq Control Tech | | 600001 | \$ | 2,325.43 | | |
| 024718 | IT Director | | 600001 | \$ | 3,120.97 | | |
| 024718 | Lab Director | | 600001 | \$ | 3,180.94 | | |
| 024718 | Outreach seasonal | | 600001 | \$ | 1,079.39 | | |
| 024718 | Field Operations Supervisor | · · | 600001 | \$ | 3.664.10 | | |
| 024718 | Lab Seasonal | · · | 600001 | \$ | 598.34 | | |
| 024718 | Accounting Associate | · · | 600001 | \$ | 1,801.13 | | |
| 024718 | Vector Biologist | · · | 600001 | \$ | 3,694,61 | | |
| 024718 | Lab Seasonal | · · | 600001 | \$ | 1,167.87 | | |
| 024718 | Mosq Control Tech | · · | 600001 | \$ | 2,758.97 | | |
| 024718 | Mosq Control Tech | · · | 600001 | \$ | 2,291.10 | | |
| 024718 | Mechanical Specialist | · · | 600001 | \$ | 3,401.73 | | |
| 024718 | IRS | Federal tax withheld (payroll) | 600001 | \$ | 8,615.30 | | |
| 024718 | 11/0 | Medicare Tax Withheld (payroll) | 600001 | \$ | 970.01 | | |
| 24718 | | District Contribution to Medicare (payroll) | 600401 | \$ | 970.01 | | |
| 24718 | State of California | State Tax withheld (payroll) | 600001 | \$ | 2,642.10 | | |
| 024718 | EDD EDD | Ca Disability | 600001 | \$ | 547.03 | \$ | 65,335 |
| 024818 | Public Employees' Retire- | Employee Contributions | 600001 | \$ | 16.00 | Ψ | 00,000 |
| 224010 | ment System | Employee Paid Member Contributions, 7% & 6.5% | 600001 | \$ | 4,583.57 | | |
| | mont dystem | Employer Contribution 9.599% & 6.908% | 600201 | \$ | 5,772.57 | \$ | 10,372 |
| 024918 | Aetna Life & Annuity | Employee Contributions | 600001 | Ψ | 0,112.01 | \$ | 150 |
| 025018 | CALPERS 457 Plan | Employee Contributions - PERS 457 | 600001 | | | \$ | 2,530 |
| 025118 | Delta Dental Plan | Monthly Premium | 600601 | | | \$ | 4,411 |
| 025218 | Vision Service Plan | Health premium | 600601 | | | \$ | 651 |
| 025318 | The Hartford | Life Insurance | 600601 | | | \$ | 78 |
| 025418 | Airgas | Dry ice cut block slab | 620141.1 | | | \$ | 912 |
| 25518 | All-Ways Green Services | Janitorial Service | 620021.1 | | | \$ | 410 |
| 025618 | Cintas | Laundry service | 610011 | \$ | 417.50 | φ | 410 |
| 22010 | Cilitas | Personal supplies | 610001 | \$ | 417.50 | \$ | 417 |
| 25718 | Corporate Park Landscaping | Landscape maintenance | 610122.1 | φ | - | \$ | 195 |
|)25718 | Clausnitzer, Ryan | Restock Petty cash | 620041 | | | \$ | 100 |
| 25918 | Employment Development Department | Letter L1516991264 | 600001 | | | \$ | 27 |
| 026018 | Grainger | Shop supplies | 610461.7 | \$ | 388.28 | φ | 21 |
| 020010 | Grainger | Shop supplies Shop supplies | 620021.2 | \$ | 2.425.86 | \$ | 2.814 |
| 026118 | Mar-Len Supply | Shop supplies Shop supplies | 610461.6 | Ф | 2,425.00 | \$ | 742 |
| 026218 | PFM Asset Management | | 610261.11 | | | \$ | 1,769 |
| 026218 | PG & E | Investment advisory services Utilities | 610021.2 | | | \$ | 72 |
| 026418 | Quench | Offilities Final billing for water machine | 620021.4 | | | \$ | 117 |
| | Regional Government Services | Contract services for Month | | | | \$ | |
| 026518 | • | | 610261.1 | | | \$ | 968 |
| 026618 | Sette, Jeremy | Reimbursement for conference | 610191.3 | | | | 520 |
| 026718 | Techniclean | Towels | 620021.2 | | | \$ | 171 |
| 26818 | Wieland, Mark | Reimbursement for parking | 610191.3 | | | \$ | 12 |
| J∠6818A | Young, George | Reimbursement for conference | 610191.3 | | | \$ | 1,072 |
| | Waste Management | Garbage, September Service | 610021.1 | | | | |

| AR O | PAYEE | ACCT NO | AMT OF CHARGE | AMT OF WARRAN |
|-----------------|--|------------|-------------------|---------------|
| 26918 U.S Bank | Amazon - Amazon prime fee | 620141.1 | \$ 12.0 | |
| .0910 O.S Balik | BioQuip - Chemical Lure | 620141.1 | \$ 936. | |
| | Wal-Mart - Madera project | 620141.1 | \$ 101.3 | |
| | Amazon - Cartridges | 620141.1 | \$ 32. | |
| | Target - Bleach | 620141.5 | \$ 12. | |
| | Amazon - Rechargeable batteries | 620141.1 | \$ 383. | |
| | The Home Depot - Aluminum scoop | 620141.1 | \$ 36. | |
| | | | \$ 36. \$ 16.0 | |
| | Commercial Industrial - Design Development | 620141.1 | | |
| | Spadepot - Spigot Elbow | 620141.1 | \$ 9.5 | |
| | Amazon - Personal fan | 620141.1 | \$ 24.0 | |
| | Amazon - Mason jars | 620141.1 | \$ 120. | |
| | Fisher Scientific - Lab supplies | 620141.3 | \$ 404. | |
| | Fisher Scientific - Lab supplies | 620141.3 | \$ 1,129. | |
| | Amazon - Ice Scraper | 620141.5 | \$ 22.0 | |
| | Lampire - Chicken blood | 620141.7 | \$ 234. | |
| | Stericycle - Waste pick up | 620141.7 | \$ 197. | |
| | Fisher Scientific - Lab supplies | 620141.7 | \$ 1,298. | 13 |
| | Fisher Scientific - Lab supplies | 620141.7 | \$ 59.: | 20 |
| | Fisher Scientific - Lab supplies | 620141.7 | \$ 206. | 63 |
| | Lampire - Chicken blood | 620141.7 | \$ 232. | |
| | Fisher Scientific - Lab supplies | 620141.8 | \$ 167. | |
| | Bart - Clipper card refill | 610191.3 | \$ 75. | |
| | Vista Print - Business Cards | 610451 | \$ 46. | |
| | Constant Contract | 610451 | \$ 20.0 | |
| | USPS - Shipment | 620041 | \$ 6.0 | |
| | • | | | |
| | JAMF Software - Refund | 620042 | | |
| | Amazon - Hand sanitizer | 610001 | \$ 44. | |
| | Amazon - Antibacterial wipes | 610001 | \$ 53.3 | |
| | Amazon - Hand Sanitizer | 610001 | \$ 21. | |
| | The lock door - Locks re-keyed | 610122.2 | \$ 222. | |
| | The Ford Store - Filter | 610141 | \$ 47.5 | 31 |
| | Amazon - Shop supplies | 610141 | \$ 107. | 41 |
| | Amazon - Key hider, magnetic key case | 610141 | \$ 30. | 94 |
| | The Ford Store - Battery | 610141 | \$ 141. | 98 |
| | Amazon - Dust ejector | 610141 | \$ 46. | |
| | Amazon - Fish supplies | 610461.4 | \$ 39. | |
| | Amazon - Algae scrubber | 610461.4 | \$ 13.4 | |
| | Amazon - Algae scrubber | 610461.4 | \$ 11.5 | |
| | Fimco - Shop supplies | 610461.6 | \$ 308.0 | |
| | | 620261 | \$ 14.9 | |
| | Amazon - Car charger | | | |
| | The Home Depot - Cargo Bar | 620261 | \$ 100. | |
| | Comcast - Comcast Service | 610021.1 | \$ 236. | |
| | TPX Communications - Communications | 610022.1 | \$ 1,157. | |
| | Best Buy - TV installation | 610122.2 | \$ 369. | 47 |
| | Clipper Card - Refill | 610191.7 | \$ 40.0 | 00 |
| | JAMF - Software | 620042 | \$ 32. | 00 |
| | Amazon - (5) Cable matter packs | 620042 | \$ 87. | 75 |
| | Apple Store - Apple TV | 620042 | \$ 195. | 56 |
| | Amazon - HDMI Display Adapter | 620042 | \$ 326. | |
| | Amazon - Apple TV mount | 620042 | \$ 43. | |
| | Credit | 620042 | \$ (326. | |
| | Amazon - Extension Cord | 620042 | \$ 42. | |
| | Best Buy - TV for Library | | \$ 1,081.0 | |
| | | 650031.1 | | |
| | Fastrak - Fastrak | 610191.1 | \$ 25.0 | |
| | CSDA - Training for J.S | 610191.3 | \$ 625. | |
| | Monterey Garage - Parking | 610191.3 | \$ 7.0 | |
| | Dos Victorias - Lunch for R.C | 610191.3 | \$ 9.3 | |
| | Southwest - Flight for J.S | 610191.3 | \$ 122. | |
| | Krua - Lunch for R.C | 610191.3 | \$ 17.0 | 09 |
| | Monterey Garage - Parking | 610191.3 | \$ 7.0 | 00 |
| | Grotto - Dinner for R.C | 610191.3 | \$ 23. | |
| | Starbucks - Breakfast for R.C | 610191.3 | \$ 8.4 | |
| | Marriott - Hotel for R.C | 610191.3 | \$ 307.4 | |
| | Taco Bell - Lunch for R.C | 610191.3 | \$ 507.5 | |
| | Marriott - Hotel for R.C | 610191.3 | \$ 195.0 | |
| | Trader Joes - Board supplies | 610191.4 | | |
| | | 6101914 | \$ 25. | 12 |
| | CSDA - Training for the board | 610191.7 | \$ 25.0 | |

\$ 10,933.65

\$ 104,787.37

ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT LIST OF WARRANTS DATED **NOVEMBER 30, 2017**

| WAR | | | ACCT | | AMT OF | | AMT OF |
|------------------|--|---|----------------------|----|----------------------|----|--------------------|
| NO | PAYEE | FOR | NO | | CHARGE | , | WARRANT |
| 027018 | Biological Specialist | Total salary less deductions for payroll period | 600001 | \$ | 2,871.72 | | |
| 027018 | Mosq Control Tech | " | 600001 | \$ | 2,426.33 | | |
| 027018 | Lab Seasonal | " | 600001 | \$ | 961.61 | | |
| 027018 | Lab Seasonal | " | 600001 | \$ | 1,050.26 | | |
| 027018 | Vector Biologist | | 600001 | \$ | 3,013.35 | | |
| 027018 | Vector Biologist | " | 600001 | \$ | 2,965.54 | | |
| 027018 027018 | Mosq Control Tech Regulatory & Public Affairs Director | " | 600001 600001 | \$ | 2,301.50 2.994.06 | | |
| 027018 | District Manager | п | 600001 | \$ | 4,265.61 | | |
| 027018 | Asst Mosq Control Tech | " | 600001 | \$ | 2,325.43 | | |
| 027018 | IT Director | n . | 600001 | \$ | 3,231.75 | | |
| 027018 | Lab Director | " | 600001 | \$ | 3,351.53 | | |
| 027018 | Outreach/ Office Seasonal | " | 600001 | \$ | 1,075.58 | | |
| 027018 | Field Operations Supervisor | • | 600001 | \$ | 3,710.94 | | |
| 027018 | Lab Seasonal | " | 600001 | \$ | 568.41 | | |
| 027018 027018 | Accounting Associate Vector Biologist | " | 600001 600001 | \$ | 1,801.14 3,694.61 | | |
| 027018 | Lab Seasonal | п | 600001 | \$ | 1,055.16 | | |
| 027018 | Mosq Control Tech | n . | 600001 | \$ | 2,758.95 | | |
| 027018 | Mosq Control Tech | п | 600001 | \$ | 2,291.11 | | |
| 027018 | Mechanical Specialist | n . | 600001 | \$ | 3,488.78 | | |
| 027018 | IRS | Federal Tax Withheld | 600001 | \$ | 8,925.64 | | |
| 027018 | | Medicare Tax Withheld | 600001 | \$ | 985.15 | | |
| 027018 | | District Contribution to Medicare | 600401 | \$ | 985.15 | | |
| 027018 | State of California | State Tax Withheld | 600001 | \$ | 2,773.04 | | |
| 027018 027118 | EDD CalPERS | Ca Disability | 600001 | \$ | 525.00 | \$ | 66,397.35 |
| 02/110 | Callers | Employee/ Employer contributions Employee paid member contributions, 7%, 6.5% | 600001 600001 | \$ | 16.00 4,580.92 | | |
| | | District contribution 9.559%, 6.908% | 600201 | \$ | 5,768.96 | \$ | 10,365.88 |
| 027218 | Aetna Life & Annuity | Employee contributions | 600001 | • | 0,7 00.00 | \$ | 150.00 |
| 027318 | CalPERS 457 Plan | Employees contributions - PERS 457 | 600001 | | | \$ | 2,530.00 |
| 027418 | CalPERS | Health insurance | 600601 | | | \$ | 31,691.78 |
| | P. Robert Beatty | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | - |
| 027518 | Elizabeth Cooley | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 027618 | James Doggett | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 027718 027818 | Robert Dickinson Richard Guarienti | Trustee in lieu expenses - 1050th meeting Trustee in lieu expenses - 1050th meeting | 610191.5 610191.5 | | | \$ | 100.00 100.00 |
| 027918 | Eric Hentschke | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028018 | Ed Hernandez | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028118 | Humberto Izquierdo | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028218 | Elisa Marquez | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028318 | Katherine Narum | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028418 | Wendi Poulson | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028518 | Ronald Quinn | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 |
| 028618 | Jan Washburn | Trustee in lieu expenses - 1050th meeting | 610191.5 | | | \$ | 100.00 100.00 |
| 028718 028918 | George Young Cintas | Trustee in lieu expenses - 1050th meeting Laundry Service | 610191.5 610011 | | | \$ | 250.11 |
| 029918 | California Special Districts Association | Membership | 610351 | | | \$ | 6,358.00 |
| 029118 | Castillo, Erika | Reimbursement for mileage to Sacramento | 610191.3 | | | \$ | 95.02 |
| 029218 | Donato Builders | Final billing for Shed project | 800002 | | | \$ | 4,450.20 |
| 029318 | Element One Architecture | Design for study/board room remodel | 800002 | | | \$ | 1,570.00 |
| 029518 | Ferdan, Robert | Reimbursement for mileage to Sacramento | 610191.3 | | | \$ | 102.08 |
| 029618 | Mar-Len Supply Inc | Shop supplies | 610122.2 | | | \$ | 487.10 |
| 029718 | Pitney Bowes | Postage | 620041 | | | \$ | 208.99 |
| 029818 029918 | PG & E Sonitrol | Utilities Monitoring charges and CCTV Fees | 610021.2 620021.3 | | | \$ | 1,494.42 750.00 |
| 029918A | | Permit | 610461.52 | | | \$ | 1,010.00 |
| 030018 | Techniclean | Towels | 620021.2 | | | \$ | 149.44 |
| 030118 | Wright Express | Fuel expenses, statement ended 11-15-17 | 610191.1 | | | \$ | 3,288.47 |
| | | Total Warrants | | | | \$ | 133,437.79 |
| | | Total Warrants November 30th | | | | \$ | 133,437.79 |
| | | Total Warrants November 15th | | | | | 104,787.37 |
| | | Total November Warrants | | | | \$ | 238,225.16 |

Alameda County Mosquito Abatement District Budget Summary

As of November 30, 2017. (5 of 12 mth, 42%)

| | | | XPENDED IN | E | EXPENDED TO | | | | | % |
|-----------|---|----|------------|----|--------------|----|--------------|----|--------------|----------|
| Account # | | (| (November) | | DATE | | BUDGETED | | BALANCE | EXPENDED |
| | SALARY & BENEFITS | | | | | | | | | |
| 600001 | Salary and Wages ¹ | | 144,361.24 | \$ | 763,221.81 | | 1,761,305.00 | \$ | 998,083.19 | 43% |
| 600401 | Contribution to Medicare | \$ | 1,955.16 | \$ | 8,973.23 | \$ | 25,881.00 | \$ | 16,907.77 | 35% |
| 600201 | Contribution to Retirement ² | \$ | 11,541.53 | \$ | 190,784.75 | \$ | 253,662.20 | \$ | 62,877.45 | 75% |
| 600601 | Contribution to Health Care | \$ | 36,833.70 | \$ | 185,348.40 | \$ | 506,368.08 | \$ | 321,019.68 | 37% |
| | SERVICE AND SUPPLIES | | | | | | | | | |
| 610001 | Clothing and personal supplies | \$ | 118.95 | \$ | 1,881.07 | \$ | 8,500.00 | \$ | 6,618.93 | 22% |
| 610011 | Laundry services and supplies | \$ | 667.61 | \$ | 3,368.88 | \$ | 9,000.00 | \$ | 5,631.12 | 37% |
| 610021 | Utilities | | | | | | | | | |
| 610021.1 | Garbage | \$ | 236.58 | \$ | 891.24 | \$ | 3,000.00 | \$ | 2,108.76 | 30% |
| 610021.2 | PG & E | \$ | 1,567.05 | \$ | 9,089.15 | \$ | 24,000.00 | \$ | 14,910.85 | 38% |
| 610021.3 | Hayward Water & Sewage | \$ | - | \$ | 1,834.15 | \$ | 7,000.00 | \$ | 5,165.85 | 26% |
| 610021.4 | Biohazard and Chermical Waste Disposal | \$ | - | \$ | - | \$ | 4,000.00 | \$ | 4,000.00 | 0% |
| | Communications | | | | | | | \$ | - | |
| 610022.1 | Telephone Service & Internet | \$ | 1,157.86 | \$ | 4,626.26 | \$ | 14,000.00 | \$ | 9,373.74 | 33% |
| 610022.3 | Website and email hosting | \$ | - | \$ | 205.37 | \$ | 1,200.00 | \$ | 994.63 | 17% |
| 610022.4 | | | - | \$ | 5,064.09 | \$ | 17,000.00 | \$ | 11,935.91 | 30% |
| 610022.5 | Microsoft Office 365 | | - | \$ | - | \$ | 4,000.00 | \$ | 4,000.00 | 30% |
| | | | | | | | • | | , | |
| 610141 | Maintenance of equipment | \$ | 374.30 | \$ | 7,122.86 | \$ | 45,000.00 | \$ | 37,877.14 | 16% |
| | Maintenance of structure and improvements | | | | | | | | | |
| 610122.1 | Landscaping service | \$ | 195.00 | \$ | 975.00 | \$ | 3,600.00 | \$ | 2,625.00 | 27% |
| 610122.2 | | | 3,505.33 | \$ | 5,468.07 | \$ | 25,000.00 | \$ | 19,531.93 | 22% |
| | Transportation, travel, & training | • | ., | | , | • | ., | • | ., | |
| 610191.1 | Fuel and GPS (WexMart) | \$ | 3,313.47 | \$ | 18,596.59 | \$ | 45,000.00 | \$ | 26,403.41 | 41% |
| 610191.3 | Meetings, conferences, & travel ³ | | 3,206.47 | \$ | | \$ | 35,000.00 | \$ | 28,919.15 | 17% |
| 610191.4 | Board meeting expenses | | 25.72 | \$ | 228.26 | \$ | 800.00 | \$ | 571.74 | 29% |
| 610191.5 | Board payments in lieu | | 1,300.00 | \$ | 6,000.00 | \$ | 16.800.00 | \$ | 10,800.00 | 36% |
| 610461.53 | Continuing Education fees | | 1,000.00 | \$ | 0,000.00 | \$ | 4,210.00 | \$ | 4,210.00 | 0% |
| 610191.7 | Staff Training (automotive, IT, staff development) | | 65.00 | \$ | 16,103.77 | \$ | 55,000.00 | \$ | 38,896.23 | 29% |
| 010101.7 | Professional services | Ψ | 00.00 | Ψ | 10,100.77 | Ψ | 00,000.00 | Ψ | 00,000.20 | 2070 |
| 610261.1 | Audit | \$ | _ | \$ | _ | \$ | 13,000.00 | \$ | 13,000.00 | 0% |
| 610261.2 | | | _ | \$ | 700.00 | \$ | 5,500.00 | \$ | 4,800.00 | 13% |
| 610261.3 | | | _ | \$ | - | \$ | 35,000.00 | \$ | 35,000.00 | 0% |
| 610261.4 | Legal services | | _ | \$ | 496.57 | \$ | 13,000.00 | \$ | 12,503.43 | 4% |
| 610261.5 | • | | _ | \$ | - | \$ | 5,000.00 | \$ | 5,000.00 | 0% |
| 610261.7 | Tax collection service - SCI | | _ | \$ | 16,048.77 | \$ | 35,000.00 | \$ | 18,951.23 | |
| 610261.8 | Payroll service | | _ | \$ | - | \$ | 10,000.00 | \$ | 10,000.00 | 0% |
| 610261.9 | Environmental consultant services for regulatory issues | | _ | \$ | - | \$ | 15,000.00 | \$ | 15,000.00 | 0% |
| 610261.1 | HR Services (Munical Resource Group) | | 968.93 | \$ | 2,312.68 | \$ | 15,000.00 | \$ | 12,687.32 | 15% |
| 610261.11 | OPEB service (PFM) | | 1,769.90 | \$ | 7,089.16 | \$ | 22,000.00 | \$ | 14,910.84 | 32% |
| 610261.12 | · · · | \$ | - | \$ | 2,642.17 | \$ | 16,270.00 | \$ | 13,627.83 | 16% |
| | Annual memberships and dues total | \$ | 6,358.00 | \$ | 15,606.00 | \$ | 22,130.00 | \$ | 6,524.00 | 71% |
| | Insurance total | \$ | - | \$ | 128,758.93 | \$ | 133,810.00 | \$ | 5,051.07 | 96% |
| 610451 | Community education total | \$ | 66.24 | \$ | 15,393.65 | \$ | 53,000.00 | \$ | 37,606.35 | 29% |
| | Special expenses | | | | | | | | | |
| 610461.1 | Pesticides | \$ | - | \$ | 36,427.32 | \$ | 200,000.00 | \$ | 163,572.68 | 18% |
| 610461.2 | Field supplies (dippers etc) | \$ | - | \$ | - | \$ | 2,200.00 | \$ | 2,200.00 | 0% |
| 610461.4 | Fish and Fish Maint. | \$ | 64.85 | \$ | 963.14 | \$ | 6,000.00 | \$ | 5,036.86 | 16% |
| 610461.51 | Aerial Pool Survey | | - | \$ | - | \$ | 20,000.00 | \$ | 20,000.00 | 0% |
| 610461.52 | Permits ⁴ | \$ | 1,010.00 | \$ | 3,517.38 | \$ | 100.00 | \$ | (3,417.38) | 3517% |
| 610461.54 | Board plaques and nameplates | | - | \$ | - | \$ | 500.00 | \$ | 500.00 | 0% |
| 610461.6 | Spray equipment | | 1,051.04 | \$ | 2,770.88 | \$ | 30,000.00 | \$ | 27,229.12 | 9% |
| 610461.7 | Safety | | 388.28 | | 2,056.66 | | | \$ | (56.66) | 103% |
| | Janitorial service | \$ | 410.00 | | 2,050.00 | | 6,500.00 | | 4,450.00 | |
| 620021.2 | | \$ | 320.50 | | 625.87 | | 2,000.00 | \$ | 1,374.13 | 31% |
| 620021.3 | Alarm Service- Sonitrol | \$ | 750.00 | \$ | 3,766.00 | \$ | 11,000.00 | \$ | 7,234.00 | 34% |
| 620021.4 | Drinking Water system & filter | \$ | 117.98 | \$ | 117.98 | \$ | 510.00 | | 392.02 | 23% |
| | Office supplies | \$ | 327.70 | \$ | 5,931.61 | \$ | 13,050.00 | | 7,118.39 | 45% |
| 620042 | Information technology 5 | \$ | (347.84) | \$ | 7,838.52 | \$ | 73,400.00 | \$ | 65,561.48 | 11% |
| 620141 | Laboratory total | \$ | 7,327.25 | \$ | 35,041.13 | \$ | 105,000.00 | \$ | 69,958.87 | 33% |
| 620261 | Small tools and instruments | \$ | 115.53 | \$ | 425.99 | \$ | 8,500.00 | \$ | 8,074.01 | 5% |
| 650031.1 | Capital expenditures | \$ | 1,081.63 | \$ | 86,208.45 | \$ | 240,000.00 | \$ | 153,791.55 | 36% |
| | TOTAL EXPENDITURES | \$ | 232,204.96 | \$ | 1,612,652.66 | \$ | 4,013,802.28 | \$ | 2,401,149.62 | 40% |
| | TOTAL WARRANTS | \$ | 238,225.16 | | | | | | | |
| | TOTAL DECEDIFIC EXPENDITURES | • | 0.000.00 | | | | | | | |

0.00

TOTAL RESERVES EXPENDITURES
AMOUNT DEPRECIATED 6,020.20 18,241.75

<u>Discrepancy Between Expenditures, Warrant, & Reserves</u>
1 - Adjustment made to A/C #610191.3
2 - Adjustment made to A/C #600201

^{3 -} Adjustment made to A/C #600001

A - Overage to be taken from contingency budget
 A/C #620042 has a negative balance due to large amount of credit

Investments, Reserves, and Cash Balance

| | | | | | Beginning Balance | | |
|-----------|--|----|---------------------|------------------|--------------------|-----|------------------|
| Account # | | Ac | itivity in November | Activity to Date | 7/1/17 | | Current Balance |
| | Budget Reserves | | | | | | |
| 800001 | Working Capital (Dry Period Cash) | \$ | - | \$ - | \$ 2,391,220.00 | \$ | 2,391,220.00 |
| 800002 | Capital Replacement | \$ | 6,020.20 | \$ 183,553.12 | \$ 500,000.00 | \$ | 316,446.88 |
| 800003 | Public Health | \$ | - | \$ - | \$ 500,000.00 | \$ | 500,000.00 |
| 800004 | Contingency | | | \$ 15,600.00 | \$ 25,000.00 | \$ | 9,400.00 |
| | | | | | | | |
| | | | | | | | |
| | | | October Balance | | | N | November Balance |
| | Investment Accounts | | | | | | |
| 800005 | LAIF (Public Health & Working Capital) | \$ | 1,502,955.33 | | | \$ | 1,502,955.33 |
| | OPEB Fund | \$ | 4,181,278.38 | | | N/A | 4 |
| 800006 | VCJPA Contingency | \$ | 334,557.00 | | | N/A | 4 |
| | CAMP | \$ | - | \$ - | \$ - | \$ | - |
| | | | | | | | |

| Cash Balances | | October Balance | | November Expenditures | | Deposits 1 | November Balance | |
|-------------------------------------|----|-----------------|----|-----------------------|----|--------------|------------------|--------------|
| Bank of America (Payroll Account) | | | | | | | \$ | 132,548.58 |
| Bank of The West (Transfer account) | | | | | | | \$ | 18,482.23 |
| County Account | \$ | 2,923,891.21 | \$ | 238,225.16 | \$ | (184,204.36) | \$ | 2,890,608.43 |
| | | | | | | | | |

| Interfund tranfers | November Expenditures | | | | |
|--------------------------|-----------------------|-----------|--|--|--|
| ACH Transfers to CalPERS | \$ | 20,738.02 | | | |

^{1 -} Amount Deposited in the County



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acmad@mosquitoes.org

MONTHLY STAFF REPORT -December 2017

Board of Trustees

President
Kathy Narum
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Vice-President
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Alameda

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Ryan Clausnitzer *District Manager*

Ronald E. Quinn

Union City

1. <u>OPERATIONS</u>

Exceptionally low rainfall amounts for the month of November posed an interesting and unique set of circumstances for the operations staff. The one significant rainfall event in November occurred around mid-month and totaled less than 1.5 inches throughout most of Alameda County. It was enough rain to flush catch basins, and clear out most remaining *Culex pipiens* larvae in much of the county, but it was also enough to leave minimal amounts of standing water in various sources.

Operations staff collected larvae of all ACMAD's winter species of mosquito in November: Aedes squamiger, Aedes washinoi, Aedes sierrensis and Culiseta inornata. Interestingly, first and second instar larvae of Culex tarsalis were collected, as under normal conditions, this species would be sequestered out of the environment as adults this time of year--set to emerge and lay eggs with the onset of spring with the warmer temperatures, and a shift in the photoperiod. Most of the larvae of these five species were collected in sources that would typically have much more standing water this time of year. Operations staff took advantage of the concentration of larvae in smaller bodies of water and treated any breeding of our winter species and Cx. tarsalis they encountered. For the three Aedes sp., this approach means that enough rainfall will need to occur to flood these sources and hatch out any more Aedes larvae. Treatments for Culiseta inornata will lessen the numbers of new generations of adults seeking standing water to lay eggs as more rain water accumulates. Treatments for Cx. tarsalis, will mean less adults going into sequestration for winter and thus less adults emerging to lay eggs in spring. The result of this proactive approach is that the operations staff will be working with a clean slate when the next significant rainfall occurs.

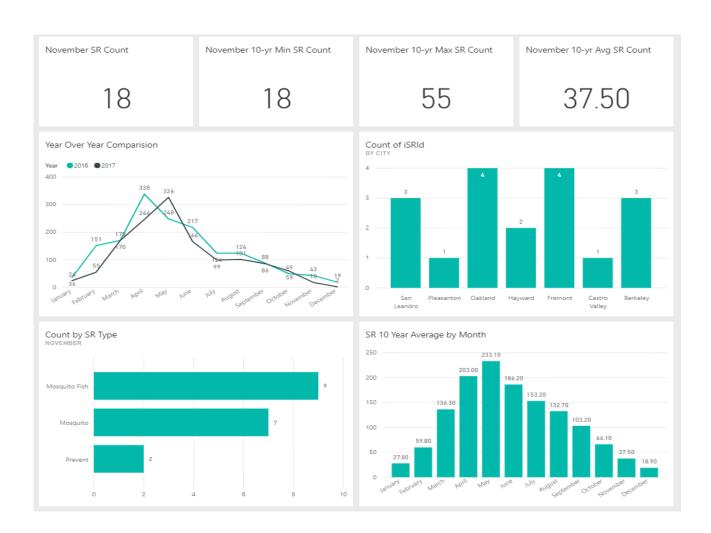
Even with a lack of rainfall and warmer days, very few service requests were received by the district in November. When the weather is clear and there is little rain, the temperatures during the day are warmer, and the sun is out--people tend to spend more time outside in the environment. This would normally be a set of circumstances that would expose people to more mosquitoes in the environment and generate more service requests. In November, ACMAD received only 18 requests for service. The 10-year average is over 37 and the highest number received during November in the last 10 years was 55. This November shaped up to be quite different in several aspects from previous ACMAD's Novembers.

District staff also recently completed the annual pesticide & respirator training which is required by state law and verified by the Alameda County Agricultural Commissioner's office.

Joseph Huston Field Operations Supervisor

A. Operational Data

1. Service Requests



2. Other

Number of all injuries during **2017** = 4

3. Activity Report

| Vacation Hours Used | 87 |
|---------------------|-----|
| Sick Hours Used | 80 |
| Workers Comp. | 0 |
| ETO Used | 70 |
| Total Leave | 237 |
| | |
| ETO Hours Accrued | 29 |

2. LAB

LAB

Arbovirus Surveillance

 No additional detection of arboviruses in birds during November 2017 (one crow from Oakland during July and another from Castro Valley during October were found to contain West Nile virus (WNV)). No mosquitoes have been found to contain WNV during 2017.

Native Mosquito Abundance

- Mosquito abundance was overall lower in November relative to prior months because of cooler temperatures (not shown). When abundance was assessed using CO₂ EVS traps, few mosquitoes were collected, and abundance was similar to or lower than prior years (Figure 1). Of exception, a brief spike in *Culex pipiens* abundance was observed during weeks 47 and 48, likely because of rain mid-November and higher than monthly average temperature during that period. When abundance was assessed using New Jersey Light Traps (NJLT), it was similar to or lower relative to the prior two years, with the exception of *Culex erythrothorax* which were collected each week of November in the NJLT located at South Marsh Pond in Union City (Figure 1B). County-wide, abundance was highest in the marshes that abut the city of Hayward where *Cx. erythrothorax* breed in tule habitats, and control of mosquito breeding can be difficult (Figure 2).
- The lab conducted a feasibility study to determine whether mosquito flight distance from a marsh habitat could be assessed. The intent was to evaluate the risk of arbovirus-containing mosquitoes in a marsh habitat transmitting the virus to humans that live and work in the surrounding communities. We placed several traps within and at increasing distance from Coyote Hills Regional Park (CHRP), and measured abundance from April – November 2017. On average, 74 mosquitoes were captured in each CO2 EVS trap that was placed within CHRP (Figure 3A). The number of mosquitoes collected dropped precipitously in traps that were placed 1 – 2.5 miles from CHRP (Figure 3A). When the proportion of species at the trap sites was evaluated, Cx. erythrothorax and Culex. tarsalis predominated in traps placed within CHRP (Figure 3B). Traps that were placed 1 mile or farther from CHRP collected relatively few Cx. erythrothorax, while Cx. tarsalis predominated in the traps distant from CHRP. The results suggest that a study of mosquito flight distance from breeding sites in marsh habitats is feasible, and hints to the likelihood that, as expected, Cx. erythrothorax do not disperse long distances from the marsh, while Cx. tarsalis and Aedes spp likely dispersed at least 1 mile from CHRP. With these results, the lab is encouraged to deepen and expand the assessment of mosquito flight distance from marsh habitats during 2018 with increased numbers of traps around CHRP and inclusion of additional sites in the county that regularly breed mosquitoes.
- Markedly lower abundance of urban mosquitoes during November has motivated the lab to focus
 upcoming mosquito surveillance efforts on marsh habitats that breed mosquitoes during the winter and
 spring.

Research

- The collaboration with Chan Zuckerberg Biohub (CZ Biohub) for sequencing the genomes and
 metagenomes of mosquitoes continues with collections made by six additional vector control districts
 having arrived at our facility for quality control checks. We anticipate providing the specimens to CZ
 Biohub for sequencing during December and January.
- In continued collaboration with Madera County MVCD, during September and October 2017, we evaluated the impact of the BG-Lure (a mimic of human skin odor) on the number of mosquitoes captured in BG Sentinel (BG-S) and Mosquito Magnet Traps (MMT). Although the peak of Aedes aegypti abundance in Madera County occurred during the prior month, abundance remained sufficiently high to conduct the study. Briefly, five of each trap type was deployed to sites in Madera County with known Ae. aegypti breeding. Over a four-week period, mosquitoes were retrieved weekly from each trap and enumerated. Each week, traps were randomly reassigned to one of the ten trap sites. The results show that MMT supplemented with the BG-Lure captured ten-times more Aedes aegypti mosquitoes compared to the BG-S with BG-Lure (MMT: 113.2 +/- 25.1; BG-S: 14.4 +/-3.9; P = 0.0004; Figure 4). Higher Ae. aegypti catch in the MMT supplemented with BG-Lure may have occurred because the MMT releases CO₂, heat and water vapor (all of which attract

mosquitoes), while the BG-S trap releases none of these additional attractants. Of note, our prior studies demonstrate that a MMT without BG-Lure collected relatively few mosquitoes during the peak period of *Ae. aegypti* abundance in Madera County (48.8 +/- 3.5 per trap). CDC and CDPH recommends the BG-S trap supplemented with BG-Lure for *Ae. aegypti* surveillance and control. Our results suggest that a MMT that is supplemented with BG-Lure may be a more effective trap for *Ae. aegypti* surveillance and control. This study will be presented by Dereje Alemayehu and John Busam at the upcoming Annual Meeting of the Mosquito and Vector Control Association of California.

Invasive Aedes Surveillance

- Invasive Aedes mosquitoes have not been detected in any mosquito trap placed in Alameda County during 2017.
- ACMAD will to maintain the Invasive Aedes Trap Network in the county until late 2018 when the efficacy of the program will be reassessed. We have submitted to California Department of Public Health (CDPH) the required progress report on our invasive Aedes surveillance and outreach activities, and have requested additional funds for supporting two seasonal lab staff during 2018 and to display an invasive Aedes awareness graphic on an electronic billboard for eight weeks. The submitted progress report is provided herein; the crux of the report has been provided to the Board of Trustees in prior Lab Staff Reports.

Progress Report on the use of CDC ELC funds that was submitted to CDPH in November 2017

Progress update on surveillance activities. We have achieved the outcomes for Aedes mosquito surveillance as anticipated and described in our application, demonstrating the successful deployment and maintenance of the trap network using two seasonal lab employees, is indeed feasible. During June 2017, we identified approximately half of the trap sites for the Invasive Aedes Trap Network using Google Maps Street View. The remainder of the trap sites were identified by sight, while driving in the trap area. The Invasive Aedes Trap Network was fully deployed during July 2017 (660 oviposition traps distributed throughput Alameda County; Figure 5). Traps were placed in each city of the county, with higher trap density in those that have warm weather, and higher risk for invasive Aedes becoming established (Figure 6). We found that it took less time to identify trap sites using Google Maps Street View for urban settings, while it was more efficient to set trap sites by sight while driving in suburban or rural settings. We attribute the difference to ease of finding parking while placing traps in suburban and rural settings. For use in the Invasive Aedes Trap Network, we manufactured and deployed oviposition bucket traps (OBT), which were developed by our agency for invasive Aedes surveillance. The OBT is comprised of a 1 gallon black bucket that contains water to attract gravid female mosquitoes, drainage holes to prevent the water from overfilling the trap, a perforated lid that prevents large debris from entering the trap, an oviposition substrate for collecting Aedes eggs, and an Altosid 30 day briquette (methoprene insecticide) that prevents mosquito breeding. Manufacture time for each trap was less than 3 minutes and a material cost of less than \$4 for each trap. Each trap was inspected for Aedes eggs approximately every 30 days. Approximately 7 % of traps were lost after initial deployment. likely because they had not been sufficiently concealed. Subsequently, less than 1 % of traps were lost during the month after the network was deployed. Notably, only two seasonal (temporary) lab employees were needed to manufacture, deploy and regularly inspect the traps in the Invasive Aedes Trap Network. When larvae were found in traps, they were identified to species; none were found to be invasive Aedes spp. When Aedes eggs were collected in the traps, they were sent to DART at UC Davis for identification using MALDI-TOF mass spectrometry. In each case, the Aedes eggs were found to be Aedes sierrensis. In addition to OBT, AGO traps were placed in high-risk areas (e.g. container opening facilities and large pottery distributors) and when possible, near sites that travel-related human arbovirus cases were reported by Alameda Public Health Department to our agency; invasive Aedes were not found in any AGO. Lastly, our agency has a network of more than 160 CO₂ EVS traps throughout the county that are placed and inspected approximately twice a month from May – November for monitoring native mosquito abundance (3,087 trap nights from March 1, 2017 through October 31, 2017). Invasive Aedes were not detected in these traps. In sum, over 800 traps at unique sites were regularly inspected for the presence of invasive Aedes mosquitoes during 2017, and none were found to contain Aedes aegypti or Aedes albopictus. If additional ELC funds are provided, we intend to continue maintaining the Invasive Aedes Trap Network in Alameda County until November 2018, when we will reassess the effectiveness and utility of the program.

Progress update on public outreach and communication activities. We have achieved the outcomes for public outreach and communication activities as anticipated and described in our application. During the

month of May 2017, our agency assisted with designing the graphic to be displayed on the electronic billboard (Figure 7). The graphic was displayed from June 5 – July 30, on both sides of an electronic billboard at Oakland Coliseum, along the 880 freeway, for 8 seconds, repeating every 64 seconds.

FIGURES

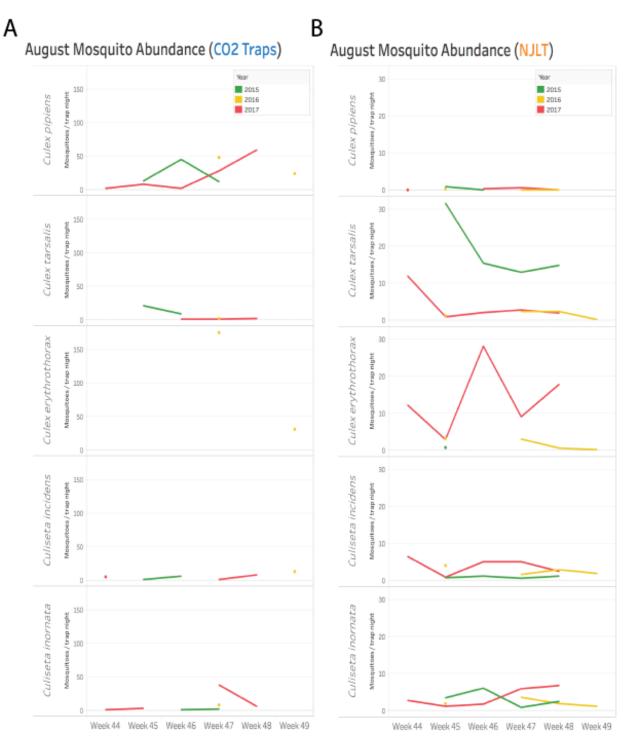


Figure 1. Abundance of the most prevalent mosquito species collected in Alameda County using CDC EVS CO₂ traps (A) and NJLT (B) during the month of November for 2015 (green line), 2016 (yellow line), and 2017 (red line).

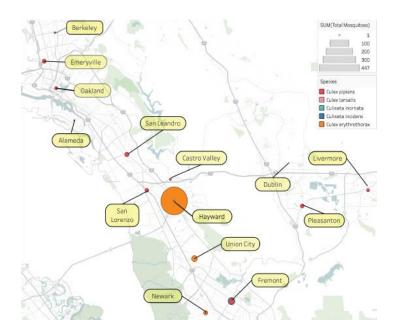


Figure 2. Mosquito abundance by species and city where traps were placed during November 2017. Larger diameter circles indicate higher number of mosquitoes. High abundance of *Cx. erythrothorax* in the Hayward area reflects mosquito breeding in marsh habitats that boarder the San Francisco Bay, not in highly populated urban areas.

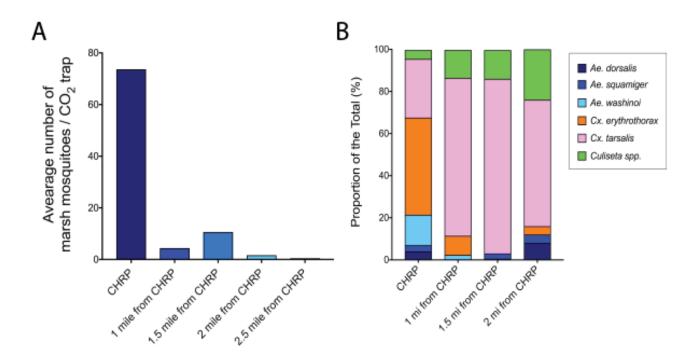


Figure 3. Mosquito abundance in and around Coyote Hills Regional Park (CHRP). CO₂ EVS traps were placed within and in the area around CHRP from April – November 2017. (A) Substantially more mosquitoes were collected in traps that were placed within CHRP relative to those placed in the surrounding communities. (B) The distribution of mosquito species that were collected in the traps demonstrate that *Cx. erythrothorax* do not disperse substantially outside of CHRP while *Cx. tarsalis* and *Aedes spp.* likely dispersed at least 1 mile from CHRP.

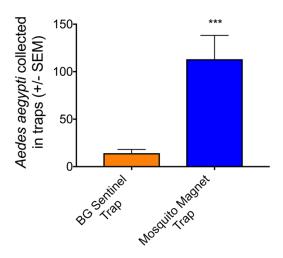


Figure 4. Comparison of BG-Sentinel (BG-S) and Mosquito Magnet Trap (MMT) supplemented with BG-Lure for collecting adult Ae. aegypti in Madera, CA. Over a four-week period, MMT and BG-S (both supplemented with BG-Lure) were placed at known Ae. aegypti breeding sites in Madera County (10 sites, 5 of each trap type). Each week, the number of mosquitoes in each trap were enumerated, and each trap was randomly reassigned to one of the ten trap sites. Over the four-week study period, significantly more Ae. aegypti were collected in the MMT relative to the BG-S (MMT: 113.2 +/- 25.1; BG-S: 14.4 +/- 3.9; P = 0.0004).

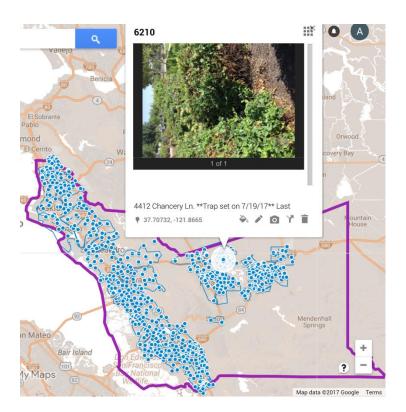


Figure 5. Invasive Aedes Trap Network for Alameda County. Oviposition bucket trap sites in Alameda County were identified using Google Maps Street View or by sight while driving (blue circles indicate trap sites, county boarder defined in purple). Trap locations were photographed, and the image geolocated in Google Maps to increase ease of locating and inspecting the trap for eggs (see popup window on the map of the photo of trap# 6210). Trap density was determined by estimating the relative risk of invasive Aedes mosquitoes becoming established in Alameda County. For example, the cities of Fremont and Livermore are warmer than Berkeley, and thus more likely to support mosquito breeding. Consequently, higher numbers of traps per square mile were placed in Fremont and Livermore compared to Berkeley. To ensure appropriate trap density, blue polygons were set onto the map to indicate how many traps should be placed in the area, and to establish the trap deployment / inspection schedule (e.g. traps in yellow polygons will be placed during the first week of July and inspected during the first week of subsequent months).

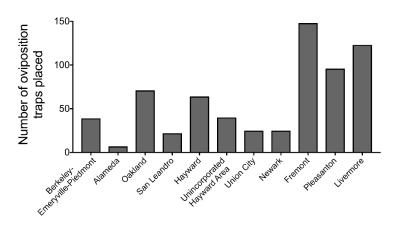


Figure 6. Number of oviposition bucket traps in the Invasive Aedes Trap Network, by city where they were placed.



Figure 7. Graphic that was displayed on the electronic billboard located at the Oakland Coliseum during June and July 2017.

3. PUBLIC EDUCATION

A. Events

i. Upcoming

- Center of Emerging and Neglected Diseases (CEND) at UC Berkeley "Tech Show & Tell" – Friday, January 12th, 11:30am-1pm (UC Berkeley, Li Ka Shing Center Auditorium, Room 245)
- STEAM Night Thursday, January 18th, 6pm-8pm (Thomas Hart Middle School, Pleasanton)
- **Spring Home & Garden Show** Friday, February 16th to Sunday, February 18th (Alameda County Fairgrounds, Pleasanton)

B. Google Analytics

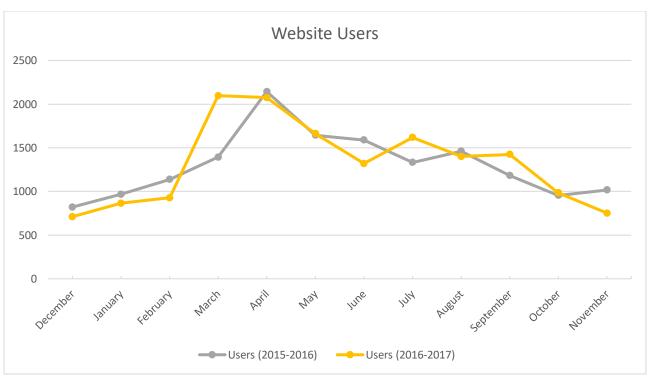
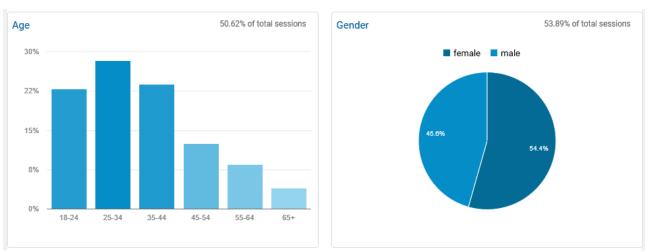
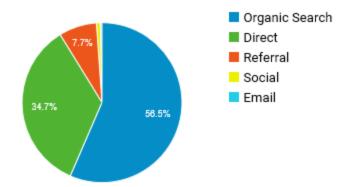


Figure 1. Comparison of Website Users Over Past Two Years



Figures 2 and 3. Total number of users in the month of November by age and gender

Top Channels



- **Organic Search** The website was found through a search engine, such as Google.
- Direct The website URL was typed directly into the search bar.
- Referral The website was accessed through another website.
- **Social** The website is accessed through links on our social media accounts.
- **Email** The website is accessed through a link sent in an email.

Figure 4. Top channels to our website

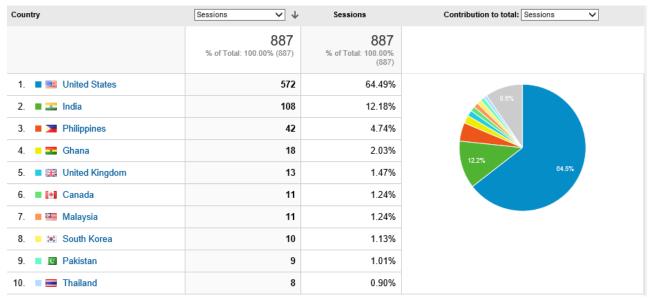


Figure 5. Visits to the website by country

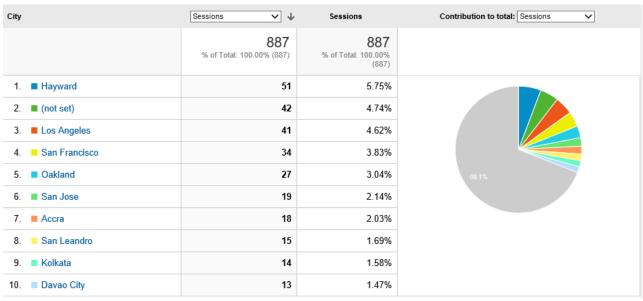


Figure 6. Visits to the website by City

887

% of Total: 100.00% (887)

1,693 % of Total: 100.00% (1,693)

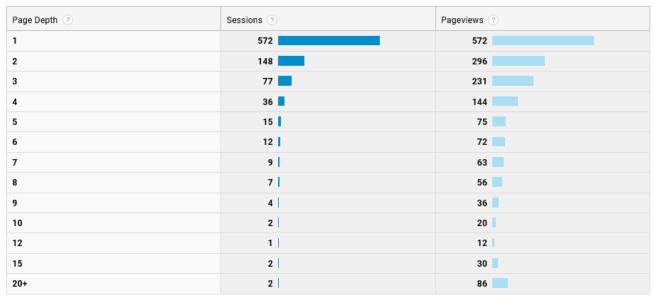
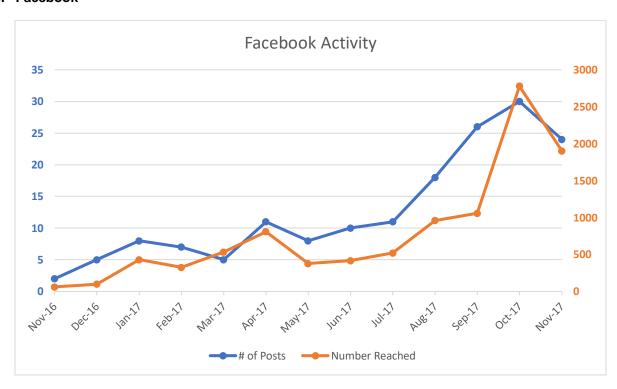


Figure 7. Breakdown of How Many Pages Were Viewed During Each Session

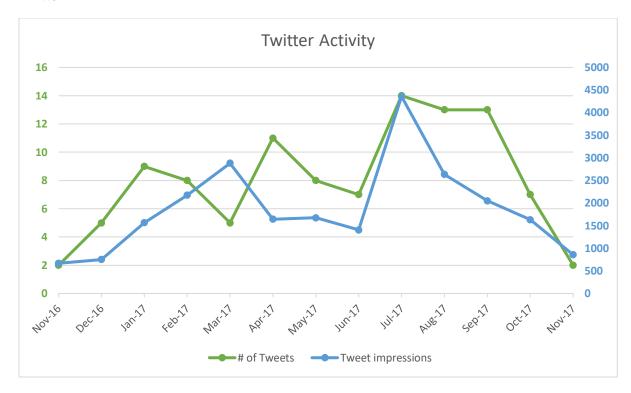
C. Facebook



Total Number of Followers: 144 (up from 142 in October)

November's Most Popular Post: #FlashBackFriday Keeping water moving in and out of the tidal marshes surrounding the shoreline is an important part of the physical control we do around the County. Our technicians are shown here during a past marsh ditching project where a massive log that was blocking the flow of a ditch was removed. Ditching is an effective way to eliminate mosquito breeding habitat and can reduce the need for additional mosquito control measures. [Picture]

D. Twitter



Number of Profile Visits in November: 204

Total Number of Followers (New This Month): 545 (3)

Top November Tweet: Happy #STEMday! We had the pleasure of giving a tour of our District recently to these #CalStateEastBay #MedicalEntomology students who are pursuing their passion for #science and #entomology! #CSUEB #STEM #STEAM [Pictures from District tour with CSUEB students]

Trustee per diem pay

Per CA Assembly Bill No. 1234, passed in 2005

Section 5536 of the Public Resources Code is amended to read:

- (a) The board shall establish rules for its proceedings.
- (b) The board may provide, by ordinance or resolution, that each of its members may receive an amount not to exceed one hundred dollars (\$100) per day for each attendance at a meeting of the board. For purposes of this section, a meeting of the board includes, but is not limited to, closed sessions of the board, board field trips, district public hearings, or meetings of a committee of the board. The maximum compensation allowable to a board member on any given day shall be one hundred dollars (\$100). Board members shall not receive any other compensation for meetings, and no board member shall receive more than five hundred dollars (\$500) compensation under this section in any one calendar month, except that board members of the East Bay Regional Park District may receive compensation for not more than 10 days in any one calendar month. A board member may elect to waive the per diem. In addition, the board may provide, by ordinance or resolution, that each of its members not otherwise eligible for an employer-paid or partially employer-paid group medical or group dental plan, or both, may participate in any of those plans available to permanent employees of the district on the same terms available to those district employees or on terms and conditions as the board may determine. A board member who elects to participate in any plan may also elect to have the premium for the plan charged against his or her per diem and may further elect to waive the balance of the per diem.