

## A G E N D A

1010th MEETING OF THE BOARD OF TRUSTEES  
OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
June 11, 2014

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**TIME:** 5:00 P.M.  
**PLACE:** Office of the District, 23187 Connecticut Street, Hayward  
**TRUSTEES:** Barbara Halliday, President, City of Hayward  
Ryan Clausnitzer, Vice-President, City of Alameda  
George Young, Secretary, City of Fremont  
County-at-large, vacant  
City of Oakland, vacant  
James N. Doggett, City of Livermore  
City of Emeryville, vacant  
Richard Guarienti, City of Dublin  
Robert Dickinson, City of Piedmont  
Kathy Narum, City of Pleasanton  
Jim Prola, City of San Leandro  
Ronald Quinn, City of Union City  
William M. Spinola, City of Newark  
Jan O. Washburn, City of Berkeley

**The Manager's Evaluation committee will meet at 4:30 p.m. to discuss manager's annual evaluation.**

**The Regularly Scheduled Board Meeting will begin at 5:00 PM**

- 1. Call to order**
- 2. Roll call**
3. Closed session –Salary and Benefit negotiation pursuant to 54957.6 the Board will vote on promotion of District Manger Chindi Peavey from step 3 to step 4 in the manager's salary schedule. At the June 13<sup>th</sup> 2012 Board meeting District Manager Chindi Peavey was hired under the agreement that she would serve with review of performance and promotion to Step 4 in June of 2014. Each step is a 5% increase in salary (Board action required)
4. **Public Comment** President Halliday 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)
5. **Approval of the Minutes** of the 1009th meeting held May 14, 2014. (Board action required)
6. **Presentation of the Engineers Report** for fiscal year 2014-2015 by Melanie Guillory-Lee from SCI Consulting Group (Information only).
7. **Resolution 1010-1**, a resolution of intention to levy assessments for fiscal year 2014-15, preliminarily approving the Engineer's Report and providing for notice of hearing for the Alameda County Mosquito Abatement District Mosquito and Disease Control Assessment. (Board action required)
8. **Board of Trustees adopt budget** for fiscal year 2014/2015, Resolution 1010-2. (Board action required)

## 9. Financial Reports

- a. **Review of the Warrants** dated May 15, 2014 numbering 056614 through 059114 amounting to \$87,767.03 and warrants dated May 31, 2014 numbering 059214 through 061914 amounting to \$110,420.94 (Information only)
  - b. **Review of Account Balances** as of May 31, 2014. The handout for item gives the Amount Budgeted for each category, Amount Expended to date, Balances, and Percent Expended. (Information only)
  - c. **Review of Account Balance Summary** as of May 31, 2014. The handout for this item gives the total amount expended to date and the cash balance in the County Treasury (Information only)
  - d. **Review of Revenue Statement** as of May 31, 2014. (information only)
10. **Presentation of Monthly Operational Report** for May 2014. (Information only)
  11. **Manager's Report** for May 2014. (Information only unless otherwise noted)
  12. President Halliday asks trustees for items to be added to the agenda for the next Board meeting. (Information only)
  13. Reports on Conferences and Seminars attended by Trustees. (information only)
  14. Announcements from members of the Board. (Information only)
  15. Adjournment

CITIZENS ATTENDING THE MEETING MAY SPEAK ON ANY AGENDA ITEM AT THEIR REQUEST!

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

## **Chindi Peavey - Accomplishments in 2013-14**

### **Board Meetings**

Produced Board Packets and Minutes for monthly meetings

Further updated format for monthly financial reports by adding monthly reports on revenues received to date

Presented information to the Board about the effect of changes in redevelopment on District finances

Provided information to the board on projected rate increases for the CalPERS retirement system

Organized Trustee Field Day in December 2013 to continue promoting understanding of District operations among Board members and provide staff the opportunity to describe their work

Worked with the Finance Committee in 2013 to evaluate and designate District reserves. These designations were reflected in the audit for fiscal year 2012-13.

Prepared a draft capital replacement plan which has been reviewed by the Finance Committee

Worked with the District's Energy Conservation Committee on evaluating the costs and benefits of installing solar panels. It was decided that for the time being, solar panels are not cost effective and that the District is already implementing extensive energy conservation measures as well as water conservation measures.

Oversaw the implementation of a plan to have the CO2 trapping results entered into a computer database within one month of trap rather than at the end of the year

### **Interagency Communications/Regulatory Advocacy**

Met with state legislators and their staff during MVCAC Legislative Days

Made presentations to the City councils for the cities of Fremont, Union City, Hayward, Dublin, Alameda, Piedmont and Oakland

Met with representative of Supervisor Wilma Chan's Office on District Programs

Attended local and statewide meetings of the California Special District Association

Participated in MVCAC as member of the NPDES committee, acted as regional representative for the Coastal Region

Served as Regional coordinator of the Coastal Region Continuing Education Program, member of Continuing Education Committee of the MVCAC

Attended quarterly meeting of San Francisco Bay Joint Venture (SFBJV) as member of the Member of Board of Directors

Participated in quarterly meetings of the Conservation Delivery Committee of the SFBJV

Attended an annual meeting with representatives of the Communicable Disease branch of Alameda County Public Health. The District coordinates with the Communicable Disease Response staff on human cases of West Nile virus and other mosquito-borne diseases in Alameda County.

### **Finance**

Developed a budget for 2014-15 and reconfigured accounts so that each staff member will be able to track expenditures separately

Oversaw the audit for 2012

Reviewed internal controls and implemented additional ones

Attended workshops on the District's Insurance program with VCJPA and oversaw District's insurance program

### **Staff Development**

Worked with Board and staff to add one field technician in Operations, oversaw the reconfiguration of mosquito control zones to increase the effectiveness of mosquito control operations

Arranged for several staff members from the District's Operations and the Laboratory Departments to visit Madera County MAD where they received training on that District's experience with the introduction of *Ae. aegypti*. While there, our Laboratory staff met experts from the Centers for Disease Control (CDC) and received extensive training on detecting and controlling *Ae. aegypti*. The District has acquired 20 Autocidal Gravid Ovitrap (AGO) to use for detecting *Ae. aegypti* in Alameda County. Later also sent several staff members to San Mateo County to participate in surveillance and control work there.

Worked with the board and staff to increase staffing in the laboratory, oversaw the selection of a candidate for the position. The Biological Specialist is now entering trap data every month in the database and gave a poster presentation at the 2014 MVCAC Conference.

Arranged for the District's Biological Specialist to attend a 2-day workshop on the biology and conservation of California Tiger Salamanders. This is part of a long term goal of having 2 staff members become qualified as "certified biologists" with USFW for each of the endangered species in Alameda County.

Sent three staff members to the Annual Conference of the MVCAC to learn about new materials and techniques

## **Chindi Peavey Goals for 2014-15**

**West Nile Virus** – We will continue to plan and implement a surveillance and mosquito control program that minimizes the risk of WNV in Alameda County. We will coordinate our activities with those of Alameda County Public Health, State Department of Public Health and Coastal Region of MVCAC.

**Public Outreach** – The District's website will be redesigned and features added to it in 2014-15. The District will continue to do outreach on West Nile virus and *Aedes aegypti* and *Aedes albopictus*.

**Surveillance for *Aedes aegypti* and *Ae albopictus*** – We have acquired 20 Autocidal Gravid Ovitrap for these mosquitoes and will continue to expand surveillance for this mosquito in 2014-15.

**VCMS Replacement Database** – All staff members are currently entering daily work in the new database. We are now working on adding error checking and additional reports to the database. Over the next year I will be working with staff and the programmer consultant to smooth out any problems with the database.

**ACMAD Policy Review.** I will work with the trustee's committee in reviewing the District's policies in 2014-15.

**Financial Reporting** – Continue to improve the clarity and readability of the District's Budget documents, create and implement a Capital Fund for Capital Replacement Expenditures

**Infrastructure Repair/Replacement Planning.** I will continue to work with Finance/Capital Planning Committee to refine the Capital Replacement Plan. Projects for the immediate future include repaving of the lot, expansion of the men's locker room, and replacement of the pesticide storage shed.

**Programmatic Environmental Impact Report.** The Programmatic Environmental Impact Report is nearly complete and will be released and certified before the end of the fiscal year 2015.

**Staff Presentations at MVCAC conference.** ACMAD staff will give at least one presentation at the MVCAC Conference in 2015 and prepare a paper for the proceedings.

## MINUTES

### 1009th MEETING OF THE BOARD OF TRUSTEES OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT MAY 14, 2014

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TIME: 5:00 P.M.  
PLACE: Office of the District, 23187 Connecticut Street, Hayward  
TRUSTEES: Barbara Halliday, President, City of Hayward  
Ryan Clausnitzer, Vice-President, City of Alameda  
George Young, Secretary, City of Fremont  
County-at-Large, vacant  
City of Oakland, vacant  
James N. Doggett, City of Livermore  
Robert Dickinson, City of Piedmont  
City of Emeryville, vacant  
Richard Guarienti, City of Dublin  
Kathy Narum, City of Pleasanton  
Jim Prola, City of San Leandro  
Ronald Quinn, City of Union City  
William M. Spinola, City of Newark  
Jan O. Washburn, City of Berkeley

Board President Halliday called the Regularly Scheduled Board meeting to order at 5:00 PM

Trustee Bill Spinola was absent.

President Halliday invited members of the public to speak on issues relevant to the District. No members of the public were present.

The Board approved the Minutes of the 1008th meeting held April, 2014. (Prola / Washburn, unanimous)

Trustee Ryan Clausnitzer had been in a hearing for the San Francisco Department of Public Health and arrived at 5:10.

Board member Jan Washburn reported on the meeting of the Finance Committee, held at 12:00 PM on May 7, 2014. The committee reviewed the Draft Budget for 2014-15 and the Draft Long term Capital Improvement Plan.

Trustee Robert Dickinson arrived at 5:15 and was introduced to the Board as the new representative for the City of Piedmont.

The Board reviewed the Draft Budget for FY 2014-15. The final budget will be submitted to the board for approval at the June 11 Board meeting.

The Board voted to authorize the Sale of two surplus vehicles, a 1990 Ford F-150 pick up and a 2000 Ford Explorer. Both pieces of equipment will be sold at auction to the highest bidder (Doggett/Narum, unanimous.)

The Board reviewed Warrants dated April 15, 2014 numbering 050614 through 052814 amounting to \$85,718.32 and warrants dated April 30, 2014 numbering 052914 through 056514 amounting to \$135,464.88

The Board reviewed Account Balances and revenues received as of April 30, 2014.

The Board reviewed Revenues received as of April 30, 2014 for Fiscal Year 2013-14.

District Manager Chindi Peavey presented the Monthly Operational Report for April 2014.

District Manager Chindi Peavey presented the Manager's Report for April 2014.

1. Mosquito and Vector Control Association of California (MVCAC). District Manager Chindi Peavey and Environmental Specialist Erika Castillo attended the Spring Quarterly meeting in Santa Rosa ON April 30-May 2. Erika Castillo is a member of the MVCAC committee on Public Education, Chindi Peavey is a member of the MVCAC Board of Directors.
2. California Special District Association (CSDA). District Manager Chindi Peavey attended the meeting of the Alameda County chapter of the CSDA on May 14 and announced that the District has openings for trustees to represent the cities of Oakland and Emeryville. Trustee Barbara Halliday represented the District in voting for Ayn Wieskamp for the non-enterprise Districts to the Local Agency Formation Commission of Alameda County. Candidate Ayn Wieskamp was re-elected to the position.
3. Manager Peavey reported on presentations she gave to the City of Hayward and the City of Oakland. Trustee Prola suggested sending follow-up letters to the members of the City Council of Oakland regarding the open trustee position for that city.
4. The expansion of the men's locker room was discussed. Manager Peavey stated that not all of the bids have been received yet.
5. Reconfiguration of the zones was discussed. The Board asked that a pictorial map showing the new configuration be distributed to the Trustees at the next Board meeting.
6. The Aerial Survey for neglected swimming pools will be conducted in mid-May.
7. The Board discussed trustee participation at public education events. Trustees are encouraged to stop by the District's booth at events within the city they represent.
8. Status of Trustee appointments for Piedmont, Oakland, Emeryville and the County at Large was discussed. Piedmont has appointed Robert Dickinson, who



was introduced earlier in the Board meeting. The remaining three Trustee positions are still vacant.

President Halliday asked if there were any announcements from members of the Board.

President Halliday asked trustees for items to be added to the agenda for the next Board meeting. President Halliday asked that District Manager Chindi Peavey give a presentation on the District's plan for responding to the arrival of *Aedes aegypti* in Alameda County.

The meeting adjourned at 6:12 PM.

Respectfully submitted,

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George Young, Secretary

Approved as written and/or corrected  
at the 1010<sup>th</sup> meeting of the Board of  
Trustees held June 11, 2014

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Barbara Halliday, President  
BOARD OF TRUSTEES



# **ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT**

**MOSQUITO AND DISEASE CONTROL ASSESSMENT**

## **ENGINEER'S REPORT**

FISCAL YEAR 2014-15

PURSUANT TO THE HEALTH AND SAFETY CODE, GOVERNMENT CODE AND  
ARTICLE XIID OF THE CALIFORNIA CONSTITUTION

ENGINEER OF WORK:

**SCIConsultingGroup**

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## **ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT**

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### **BOARD OF TRUSTEES**

Barbara Halliday, President, City of Hayward  
Ryan Clausnitzer, Vice-President, City of Alameda  
George Young, Secretary, City of Fremont  
County-at-large, vacant  
City of Oakland, vacant  
James N. Doggett, City of Livermore  
City of Emeryville, vacant  
Richard Guarienti, City of Dublin  
Robert Dickinson, City of Piedmont  
Kathy Narum, City of Pleasanton  
Jim Prola, City of San Leandro  
Ronald Quinn, City of Union City  
William M. Spinola, City of Newark  
Jan O. Washburn, City of Berkeley

### **DISTRICT MANAGER**

Chindi Peavey

### **ENGINEER OF WORK**

SCI Consulting Group

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## INTRODUCTION

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### OVERVIEW

The Alameda County Mosquito Abatement District (“District”) is an independent special District in Alameda County (“County”) that covers all cities within the county except for the City of Albany. The District’s services encompass more than 800 square miles and are provided to properties accommodating over 1.5 million residents.

In 1930 the Alameda County Mosquito Abatement District was officially formed in accordance with local authority provided by the Mosquito Abatement Act of 1915. The District’s services are further supported by the California Health and Safety Codes. The District is overseen by a Board of Trustees (the “Board”) comprised of fourteen members. Each City Council within the District and the Board of Supervisors of Alameda County appoint one Trustee. A Trustee serves a two-year term and can be reappointed.

The District provides control for both disease carrying mosquitoes and non-disease carrying mosquitoes within its boundaries (the “Assessment Area” or “Assessment District”). The purpose of the Alameda County Mosquito Abatement District is to reduce the risk of mosquito-borne disease and mosquito nuisance to property and the inhabitants of property within the District. The District services are available to all properties within the established boundary of the District.

The District’s core services are summarized as follows:

- Early detection of public health threats through comprehensive mosquito and disease surveillance.
- Elimination and control of mosquitoes to protect public health and to diminish the nuisance and harm caused by mosquitoes.
- Protection of public health by reducing mosquitoes or exposure to mosquitoes that transmit diseases on property
- Appropriate, timely response to customer requests to prevent/control mosquitoes and the diseases they can transmit.

The District currently provides a “baseline” level of mosquito and disease control services in the County. Over the past few years, costs of providing services has exceeded revenue and without the additional assessment Services would have deteriorated. The services provided to the Assessment Area consist of maintaining the current level of services and in some cases expanded services, as listed below, above the existing baseline level of services.

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

surveillance and control. The Assessment Diagram included in this report shows the boundaries of the Assessment Area.

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

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

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

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

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

*"Vector Control" shall mean any system of public improvements or services that is intended to provide for the surveillance, prevention, abatement, and control of vectors as defined in subdivision (k) of Section 2002 of the Health and Safety Code and a pest as defined in Section 5006 of the Food and Agricultural Code (Government Code Section 53750(m)).*

Note: The District is the only dedicated agency controlling mosquitoes within its boundaries, in Alameda County. There are however, other agencies dedicated to the control of other types of vectors, such as rats. In any case, the California Code sections and other applicable citations within this report pertain specifically to mosquito and disease control even when the term vector is used.

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



The District is controlled by Mosquito Abatement and Vector Control District Law of the State of California. Following are excerpts from the Mosquito Abatement and Vector Control District Law of 2002, codified in the Health and Safety Code, Section 2000, et. seq. which serve to summarize the State Legislature's findings and intent with regard to mosquito abatement and other vector control services:

*2001. (a) The Legislature finds and declares all of the following:*

*(1) California's climate and topography support a wide diversity of biological organisms.*

*(2) Most of these organisms are beneficial, but some are vectors of human disease pathogens or directly cause other human diseases such as hypersensitivity, envenomization, and secondary infections.*

*(3) Some of these diseases, such as mosquito borne viral encephalitis, can be fatal, especially in children and older individuals.*

*(4) California's connections to the wider national and international economies increase the transport of vectors and pathogens.*

*(5) Invasions of the United States by vectors such as the Asian tiger mosquito and by pathogens such as the West Nile virus underscore the vulnerability of humans to uncontrolled vectors and pathogens.*

*(b) The Legislature further finds and declares:*

*(1) Individual protection against the vector borne diseases is only partially effective.*

*(2) Adequate protection of human health against vector borne diseases is best achieved by organized public programs.*

*(3) The protection of Californians and their communities against the discomforts and economic effects of vector borne diseases is an essential public service that is vital to public health, safety, and welfare.*

*(4) Since 1915, mosquito abatement and vector control districts have protected Californians and their communities against the threats of vector borne diseases.*

*(c) In enacting this chapter, it is the intent of the Legislature to create and continue a broad statutory authority for a class of special districts with the power to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors.*

*(d) It is also the intent of the Legislature that mosquito abatement and vector control districts cooperate with other public agencies to protect the public health, safety, and welfare. Further, the Legislature encourages local communities and local officials to adapt the powers and procedures provided by this chapter to meet the diversity of their own local circumstances and responsibilities.*

Further the Health and Safety Code, Section 2082 specifically authorizes the creation of benefit assessments for vector control, as follows:

*(a) A district may levy special benefit assessments consistent with the requirements of Article XIID of the California Constitution to finance vector control projects and programs.*

This Engineer's Report ("Report") was prepared by SCI Consulting Group (SCI) to describe the mosquito, disease surveillance and control services and related costs that are funded by the assessments, to establish the estimated costs for those Services, to determine the special benefits and general benefits received by property from the Services and to apportion the assessments to lots and parcels within the District based on the estimated special benefit each parcel receives from the services funded by the benefit assessment.

## **LEGISLATIVE ANALYSIS**

### **PROPOSITION 218**

This assessment was formed consistent with Proposition 218, The Right to Vote on Taxes Act, which was approved by the voters of California on November 6, 1996, and is now Article XIIC and XIID of the California Constitution. Proposition 218 provides for benefit assessments to be levied to fund the cost of providing services, improvements, as well as maintenance and operation expenses to a public improvement which benefits the assessed property.

Proposition 218 describes a number of important requirements, including a property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process used to establish this assessment. When Proposition 218 was initially approved in 1996, it allowed for certain types of assessments to be "grandfathered" in, and these were exempted from the property-owner balloting requirement.

*Beginning July 1, 1997, all existing, new, or increased assessments shall comply with this article. Notwithstanding the foregoing, the following assessments existing on the effective date of this article shall be exempt from the procedures and approval process set forth in Section 4:*

*(a) Any assessment imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, sewers, water, flood control, drainage systems or vector control.*

Mosquito and vector control was specifically "grandfathered in," underscoring the fact that the drafters of Proposition 218 and the voters who approved it were satisfied that funding for mosquito and vector control is an appropriate use of benefit assessments, and therefore confers special benefit to property.

### **SILICON VALLEY TAXPAYERS ASSOCIATION, INC. V. SANTA CLARA COUNTY OPEN SPACE AUTHORITY**

In July of 2008, the California Supreme Court issued its ruling on the Silicon Valley Taxpayers Association, Inc. v. Santa Clara County Open Space Authority ("SVTA vs. SCCOSA"). This ruling is the most significant legal document in further legally clarifying

Proposition 218. Several of the most important elements of the ruling included further emphasis that:

- Benefit assessments are for special benefit to property, not general benefits<sup>2</sup>
- The services and /or improvements funded by assessments must be clearly defined
- Special benefits are directly received by and provide a direct advantage to property in the assessment district

This Engineer's Report, and the process used to establish this assessment is consistent with the SVTA vs. SCCOSA decision.

#### **DAHMS V. DOWNTOWN POMONA PROPERTY**

On June 8, 2009, the 4<sup>th</sup> Court of Appeal amended its original opinion upholding a benefit assessment for property in the downtown area of the City of Pomona. On July 22, 2009, the California Supreme Court denied review. On this date, Dahms became good law and binding precedent for assessments. In Dahms the Court upheld an assessment that was 100% special benefit (i.e. 0% general benefit) on the rationale that the services and improvements funded by the assessments were directly provided to property in the assessment district. The Court also upheld discounts and exemptions from the assessment for certain properties.

#### **BONANDER V. TOWN OF TIBURON**

On December 31, 2009, the 1st District Court of Appeal overturned a benefit assessment approved by property owners to pay for placing overhead utility lines underground in an area of the Town of Tiburon. The Court invalidated the assessments on the grounds that the assessments had been apportioned to assessed property based in part on relative costs within sub-areas of the assessment district instead of proportional special benefits.

#### **BEUTZ V. COUNTY OF RIVERSIDE**

On May 26, 2010, the 4th District Court of Appeal issued a decision on the Steven Beutz v. County of Riverside ("Beutz") appeal. This decision overturned an assessment for park maintenance in Wildomar, California, primarily because the general benefits associated with improvements and services were not explicitly calculated, quantified and separated from the special benefits.

#### **GOLDEN HILL NEIGHBORHOOD ASSOCIATION V. CITY OF SAN DIEGO**

On September 22, 2011, the San Diego Court of Appeal issued a decision on the Golden Hill Neighborhood Association v. City of San Diego appeal. This decision overturned an assessment for street and landscaping maintenance in the Greater Golden Hill neighborhood of San Diego, California. The court described two primary reasons for its

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<sup>2</sup> Article XIII D, § 2, subdivision (d) of the California Constitution states defines "district" as "an area determined by an agency to contain all parcels which will receive a special benefit from the proposed public improvement or property-related service."

decision. First, like in *Beutz*, the court found the general benefits associated with services were not explicitly calculated, quantified and separated from the special benefits. Second, the court found that the City had failed to record the basis for the assessment on its own parcels.

#### **COMPLIANCE WITH CURRENT LAW**

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

This Engineer's Report is consistent with *Dahms* because, similar to the Downtown Pomona assessment validated in *Dahms*, the Services will be directly provided to property in the Assessment District. Moreover, while *Dahms* could be used as the basis for a finding of 0% general benefits, this Engineer's Report establishes a more conservative measure of general benefits.

The Engineer's Report is consistent with *Bonander* because the Assessments have been apportioned based on the overall cost of the Services and proportional special benefit to each property. Finally, the Assessments are consistent with *Beutz* because the general benefits have been explicitly calculated and quantified and excluded from the Assessments.

#### **ASSESSMENT PROCESS**

In order to allow property owners to ultimately decide whether additional funding should be provided for the District's mosquito and disease control services, the Board authorized by Resolution the Initiation of proceedings for a benefit assessment on February 13, 2008. In March and April of 2008, the District conducted an assessment ballot proceeding pursuant to the requirements of Article XIID of the California Constitution ("The Taxpayer's Right to Vote on Taxes Act") and the Government Code. During this ballot proceeding, owners of property in the District were provided with a notice and ballot for the proposed special assessment. A 45-day period was provided for balloting and a public hearing was conducted on April 30, 2008.

It was determined after the conclusion of the public input portion of the public hearing that 70.19% of the weighted ballots returned were in support of the assessment. Since the assessment ballots submitted in opposition to the proposed assessments did not exceed the assessment ballots submitted in favor of the assessments (with each ballot weighted by the proportional financial obligation of the property for which ballot was submitted), the District gained the authority to approve the levy of the assessments for fiscal year 2008-09 and to continue to levy them in future years. The authority granted by the ballot proceeding includes an annual adjustment in the maximum authorized assessment rate equal to the annual change in the Consumer Price Index for the San Francisco Bay Area, not to exceed 3%. In the event that the annual change in the CPI exceeds 3%, any percentage change in excess of 3% can be cumulatively reserved and can be added to the annual change in the CPI for

years in which the CPI change is less than 3%. The Board took action, by Resolution No.937-1 passed on May 14, 2008, to approve the levy of the assessments.

In each subsequent year for which the assessments will be levied, the Board must preliminarily approve an updated Engineer's Report for the upcoming fiscal year at a noticed public hearing. The Engineer's Report should include a budget for the upcoming fiscal year's costs and services and an updated assessment roll listing all parcels and their proposed assessments for the upcoming fiscal year.

If the Board approves this Engineer's Report and the assessments it establishes for fiscal year 2014-15, the assessments would be submitted to the County Auditor for inclusion on the property tax rolls for fiscal year 2014-15.

## GENERAL DESCRIPTION OF THE DISTRICT AND SERVICES

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### ABOUT THE MOSQUITO ABATEMENT DISTRICT

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

The District staff consists of 16 employees including a District Manager, Field Operations Supervisor, Entomologist, Mechanic, Environmental Specialist, Systems Specialist, Administrative/Financial Manager, five Vector Biologists and one Mosquito Control Technician, two Assistant Mosquito Control Technicians, a Biological Specialist and other support staff.

The District is governed by the Alameda County Mosquito Abatement District Board of Trustees. The Board meetings are held at 5:00 p.m. on the second Wednesday of every month, and residents are welcome to attend.

### DESCRIPTION OF MOSQUITO ABATEMENT PROGRAM

As mentioned earlier, the District currently provides a “baseline” level of services in the County as permitted with the limited funding available. The Assessment provides the additional funding to operate the program and expand the services provided in the Assessment Area to an optimum level necessary to protect the usefulness, utility, desirability and livability of property within its jurisdictional area.

### INTRODUCTION

Following are the Services and resulting level of service for the Assessment Area. As previously noted, the District provides a baseline level of service in the County. These Services are over and above the current baseline level of service. The formula below describes the relationship between the final level of service, the existing baseline level of service, and the enhanced level of service to be funded by the assessment.

<b>Final Level of Service</b>	=	<b>Baseline Level of Service</b>	+	<b>Enhanced Level of Service</b>
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The assessment provides funding for the continuation and enhancement of the service, surveillance, disease prevention, abatement, and control of mosquitoes within the District boundaries. Such mosquito abatement and disease prevention projects and programs include, but are not limited to, source reduction, biological control, larvicide applications,

adulticide applications, disease monitoring, public education, reporting, accountability, research and interagency cooperative activities, as well as capital costs, maintenance, and operation expenses (collectively "Services"). The cost of these Services also includes capital costs comprised of equipment, capital improvements and facilities and other expenses necessary and incidental to the mosquito control program.

## VECTORS AND VECTOR-BORNE DISEASES IN THE DISTRICT SERVICE AREA

### MOSQUITOES

Mosquitoes generally occur where there is adequate vegetation for harborage and where water is standing and/or stagnant. Although mosquitoes have seasonal cycles, they tend to reproduce continuously while conditions are suitable. The mosquito species listed in the table below can be generally described as floodwater, permanent water, and container-breeding mosquitoes and they are currently important in the District:

GENUS & SPECIES	LARVAL HABITAT	ABUNDANCE	HOSTS	DISEASE ASSOCIATIONS
<i>Aedes dorsalis</i> (Salt marsh mosquito)	Salt marshes	All year	Humans and other mammals	Serious Pest
<i>Aedes sierrensis</i> (Tree hole mosquito)	Tree holes, Tires, Miscellaneous Containers	Spring, Summer	Humans and other large mammals	Serious pest; Vector of Canine Heartworm
<i>Aedes squamiger</i> (Winter salt marsh mosquito)	Salt marshes	Spring	Humans and other large mammals	Serious pest
<i>Aedes washinoi</i> (Woodland pool mosquito)	Temporary woodland ponds	Spring, Summer	Humans and other large mammals	Serious Pest
<i>Anopheles freeborni</i> (Western malaria mosquito)	Seepages, Streams, Lakes, Gravel Pits	Summer	Humans and other large mammals	Vector of Malaria
<i>Anopheles punctipennis</i>	Cool, shaded grassy pools in creeks and lake seepages	Summer	Humans and other large mammals	Vector of Malaria
<i>Culex erythrothorax</i> (Tule mosquito)	Ponds, lakes, marshes with tules and cattails	Spring, Summer	Humans, Other Mammals, and Birds	Serious Pest; Vector of Encephalitis
<i>Culex pipiens</i> (House mosquito)	Storm Drain Systems, Septic Tanks, Roadside Ditches, Utility	Spring, Summer, Fall, Winter	Humans, Other Mammals, and Birds	Serious Pest Vector of West Nile Virus

<i>Culex stigmatosoma</i> (Foul water mosquito)	Foul Water, Sewage, Temporary Pools	Spring, Summer, Fall, Winter	Birds	Vector of West Nile Virus
<i>Culex tarsalis</i> (Encephalitis mosquito)	Creeks, Marshes, Temporary Pools, Roadside Ditches, Fresh Water	Spring, Summer, Fall, Winter	Birds, humans, and other mammals	Moderate Pest; Vector of Encephalitis
<i>Culiseta incidens</i> (Fish pond mosquito)	Fish Ponds, Temporary Pools, Catch Basins, Roadside Ditches	Spring, Summer, Fall, Winter	Humans and other large mammals	Serious Pest; Possible Vector of Canine Heartworm
<i>Culiseta inornata</i> (Winter salt marsh mosquito)	Marshes, Temporary Pools, Roadside Ditches	Fall, Winter, Spring	Humans and other large mammals	Serious Pest

Mosquitoes that lay their eggs in damp soil that might be flooded up to two years later occupy floodwater habitats. Once the area floods, most of the eggs hatch, producing a large number of mosquitoes for a short period of time. The District has several floodwater species of concern. These include all of the *Aedes* species except *sierrensis*. Floodwater mosquitoes are most active at dawn and dusk, but they also bite during the day. *Aedes dorsalis* produce multiple generations due to recurring tidal flooding resulting in high abundance in these species. *Aedes dorsalis* are strong flyers that can travel many miles from their source.

Mosquitoes that lay their eggs on the surface of standing water occupy permanent water habitats. Such habitats include both temporary and long-lasting standing water. Eggs are laid while mosquitoes are active and usually hatch within two to three days. *Anopheles*, *Culex*, and *Culiseta* mosquitoes inhabiting the District breed in these types of sources and have multiple generations. All of these mosquitoes are active at dawn and dusk, but *Culex* and *Culiseta* will bite well into the night. *Anopheles* and *Culex erythrothorax* can also bite during the day under shade.

Outdoor containers that hold standing water are common mosquito habitats in Alameda County. Containers include naturally occurring holes in trees, discarded buckets, cans, jars and tires; neglected swimming pools, wading pools, spas and boats; ornamental ponds, bird baths, cemetery flower cups, crumpled plastic and plugged rain gutters. *Aedes sierrensis* breeds in many species of tree holes, especially oaks, sycamores and cottonwoods, but can also inhabit artificial containers full of leaf litter. Eggs are deposited above the water line and hatch after sufficient rain accumulates to reach them. *Ae. sierrensis* normally produces one generation per year. It is an aggressive biter and can reach great abundance locally but does not fly far.

Mosquito-transmitted diseases in the District are caused by several pathogens. These include the following viruses: St. Louis encephalitis (SLE), Western equine encephalitis (WEE) and West Nile virus (WNV); the protozoan parasite of malaria, *Plasmodium*



*falciparum* or *P. vivax*; or the nematode parasite of canine heartworm, *Dirofilaria immitis*. This region has historically had sporadic detections of WEE and SLE, two arboviruses (arthropod-borne) that have been established in California for decades. Starting in 2004, WNV was found in wild birds, sentinel chicken flocks, mosquito pools and horses. To date there have been no human cases of West Nile Virus reported as contracted in Alameda County.

Malaria does not circulate in California at this time, but it used to be a major health problem in the Central Valley. Trappers, miners and other immigrants introduced malaria into California in the 1800's from areas where malaria was common. Effective mosquito control and drugs to cure malaria in humans led to the eradication of malaria in California in the 1950's. Consistent reintroduction in humans where the disease is endemic creates a constant threat from malaria. In addition, some strains of malaria found in the world today are resistant to drugs that helped to eradicate the disease in the 1950's. The mosquitoes that can spread malaria are still abundant in our region and are capable of redistributing this serious health threat if the virus should somehow be reintroduced to the area.

Canine heartworm is a disease that infects wild and domestic dogs and occasionally cats. Although it can be life-threatening, pet owners can protect their animals by giving them medicine that kills the parasites. Heartworm medication is available through veterinary facilities.

Mosquito-borne diseases of most concern in the District are: Western equine encephalitis (WEE), St. Louis encephalitis (SLE), West Nile virus (WNV), and malaria, which are all transmitted by indigenous mosquitoes and for which no human vaccines exist. Vaccines are available to protect horses from WEE and WNV. Among the principal threats to which the Alameda County Mosquito Abatement District currently responds are:

- Human and animal diseases associated with mosquitoes
- Annoyance and economic disruption caused by mosquitoes

#### **INTEGRATED PEST MANAGEMENT**

As noted, the District's services address several types of mosquitoes and share general principles and policies. These include the identification of mosquito problems; responsive actions to control existing populations of mosquitoes, prevention of new sources of mosquitoes from developing, and the management of habitat in order to minimize mosquito production; education of land-owners and others on measures to minimize interaction with mosquitoes; and provision and administration of funding and institutional support necessary to accomplish these goals.

In order to accomplish effective and environmentally sound mosquito management, the manipulation and control of mosquitoes must be based on careful surveillance of their abundance, habitat (potential abundance), pathogen load, and potential contact with people; the establishment of treatment criteria (thresholds); and appropriate selection from a wide range of control methods. This dynamic combination of surveillance, treatment criteria, and

use of multiple control activities in a coordinated program is generally known as Integrated Pest Management (IPM).

The Alameda County Mosquito Abatement District's Mosquito Management Program, like any other IPM program, involves procedures for minimizing potential environmental impacts. The District employs IPM principles by first determining the species and abundance of mosquitoes through evaluation of public service requests and field surveys, trapping of immature and adult pest populations, and, if the populations exceed predetermined criteria, using the most efficient, effective, and environmentally sensitive means of control. For all mosquito species, public education is an important control strategy. In appropriate situations, water management or other physical control activities (historically known as "source reduction" or "physical control") can be instituted to reduce mosquito-breeding sites. The District also uses biological control such as the stocking of mosquitofish in ornamental ponds, unused swimming pools and other standing water bodies. When these approaches are not effective or are otherwise inappropriate, materials that have been deemed safe, approved and labeled by the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation are used to treat specific pest-producing or pest-harboring areas. The District chooses materials that are highly specific, have the lowest impact on nontargets, selectively applied to places where mosquitoes occur. These materials are considerably more expensive than less specific pesticides.

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

The District has the capability of applying liquid and granular larvicides to treat sources of immature mosquitoes and aerosolized adulticides for area treatment of adult mosquitoes. Adulticiding is used to reduce significant populations of adult mosquitoes and to prevent or to reduce the spread of mosquito-borne disease in the environment. Applications are made by personnel licensed by the California Department of Public Health (or under the direct supervision of certified personnel) who are trained in the proper use of the products and specialized equipment used for this type of public health pest control. All insecticide products employed by the District are used with consideration of existing environmental conditions in order to minimize the impact on non-target organisms.

#### **GENERAL SURVEILLANCE AND CONTROL PROCEDURES**

Surveillance: Surveillance of mosquitoes in the District is accomplished by a combination of methods. First, technicians actively examine potential sites by sampling water, collecting larvae, and identifying the larvae to species. Second, various traps (light traps, carbon dioxide baited traps to attract host-seeking females and gravid traps to attract egg-laying females) are used to collect adult mosquitoes. The traps are set periodically during the

season, and the collected mosquitoes are subsequently classified and identified to species. Finally, individual residents and property owners call the District directly to report mosquitoes or to provide information about the locations of standing water that could produce mosquitoes.

The District has found mosquito sources scattered throughout the District. All properties within the District are within mosquito-flying range of one or more mosquito sources. Furthermore, the District area has long suffered from mosquitoes and includes a large number of sources.

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

Viruses transmitted by mosquitoes are surveyed by testing the mosquito vectors, the avian reservoirs, horses and humans. The California Department of Public Health (DPH), the California Department of Food and Agriculture, and the University of California perform viral tests of mosquitoes, birds, or mammals. The District participates in the statewide dead bird surveillance program for WNV, responding to reports of dead birds from the public. Dead birds deemed appropriate for testing are submitted to the California Animal Health and Food Safety Laboratory. The District also collects and submits blood samples from sentinel chickens located in fixed sites and cared for by property owners or residents. Blood samples are submitted to DPH for evidence of SLE, WEE and WNV. Mosquitoes to be tested for arboviruses are trapped and submitted to the UC Center for Mosquito-Borne Diseases. Various County, State and private laboratories throughout California and elsewhere test humans and horses for WNV. DPH obtains and compiles results from all testing facilities and reports them to the appropriate local mosquito control agencies.

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

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

Chemical control agents employed by the District to control immature mosquitoes include stomach toxins, insect growth regulators (IGR's) and other contact pesticides. Stomach toxins are products of natural bacteria that are commercially manufactured and formulated as bacterial larvicides. The District employs two agents, *Bacillus thuringiensis israelensis* (Bti) and *Bacillus sphaericus* (Bs). The spores of these bacteria can be applied as either a liquid or a granule. The stomach toxin is activated after the spores are eaten by larvae, restricting use of these agents to the feeding stages of larval development. Bti has the advantage of specificity, only affecting mosquitoes and related groups of flies. Bs has the added advantage over Bti of effectively controlling larvae in highly polluted water and sometimes reproducing, extending the duration of its effectiveness.

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

Additionally, the District uses a surface active agent to control immature mosquitoes. The surface active agent is an oil combined with surfactants. This agent spreads over the surface of water and is inhaled into the breathing tubes and tracheae of immature mosquitoes. Surface active agents have the advantage of killing both larvae and pupae and are used in situations where other materials will not work.

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

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

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

### **PUBLIC RELATIONS, OUTREACH, AND EDUCATION**

The recent emergence of West Nile Virus has created a need for regular and extensive media contacts, outreach and education. This includes making press releases, publishing brochures, responding to requests for interviews from all media, informing other government agencies, and giving presentations. The District has an elementary school and high school program whereby the District visits classrooms to present information about mosquito biology and control issues, as well as personal protection, and techniques used by the District to control pests of public health importance. The District participates in a wide variety of special events including Home and Garden shows, the Alameda Country Fair, government information events, "Bug Days" at nature centers, or presentations to garden clubs, etc.

The District maintains a web site to provide mosquito control and related information on the internet. The District web site address is [www.mosquitoes.org](http://www.mosquitoes.org). The District has most of its publications on the site, Board of Trustee documents (agendas, minutes, operational reports), specialized technical information (mosquito biology, bibliographies, and technical reports), a resource area for classroom teachers to find information about insects and mosquitoes on the internet, and additional general information about District services and links to other related web sites.

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

### **RESEARCH AND TESTING**

The District cooperates with University of California researchers and scientists to perform special research projects. These projects include research that directly relates to operational problems so that the results enhance protection of health and property within the District.

### **SERVICE REQUESTS**

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

## ESTIMATE OF COST

FIGURE 1 – COST ESTIMATE – FY 2014-15

Alameda County Mosquito Abatement District Mosquito and Disease Control Assessment Estimate of Cost Fiscal Year 2014-15			Total Budget
Mosquito Control Services and Related Expenditures			
	Mosquito Control and Disease Prevention Operations		\$4,752,354
	Materials, Utilities and Supplies		\$820,746
	Capital Expenditures		\$323,000
	Other		\$604,359
<b>Total Mosquito Control Services and Related Expenditures</b>			<b>\$6,500,459</b>
Incidental Costs <sup>1</sup>			
	Allowance for Uncollectable Assessments		\$500
	County Collection, Levy Administration, and Other Incidentals		\$48,292
<b>Total Incidental Costs</b>			<b>\$48,792</b>
<b>Total Budget</b>			<b>\$6,549,251</b>
Contributions from Other Sources <sup>2</sup>			
	Revenue from property taxes/other sources/reserves		(\$5,443,844)
<b>Total Mosquito &amp; Disease Control Services and Incidentals</b>			<b>\$1,105,407</b>
	(Net Amount to be Assessed)		
<b>Budget Allocation to Property</b>			
	Total SFE Units <sup>3</sup>	Assessment per SFE <sup>4</sup>	Total Assessment <sup>5</sup>
	442,163	\$2.50	\$1,105,407

## Notes:

1. Incidental Costs includes allowance for uncollectible assessments from assessments on public agency parcels, County collection charges and assessment administration costs.
2. At least 10% of the cost of the Services must be funded from sources other than the assessments to cover any general benefits from the Services. Therefore, out of the total cost of Services of \$6,549,251, the District must contribute at least \$654,925 from sources other than the assessments. The District will contribute over \$5,443,844, which is well over the estimated general benefits.
3. SFE Units means Single Family Equivalent benefit units. See method of assessment in the following Section for further definition.
4. The assessment rate per SFE is the total amount of assessment per Single Family Equivalent benefit unit.
5. The assessment amounts are rounded down to the even penny for purposes of complying with the collection requirements from the County Auditor. Therefore, the total assessment amount for all parcels subject to the assessments may vary slightly from the net amount to be assessed.

## METHOD OF ASSESSMENT

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

The Mosquito and Disease Control Assessment area consists of the Assessor Parcels within the Alameda County Mosquito Abatement District, with the exception of the City of Albany (*which decided not to be part of the District*).

The method used for apportioning the assessment is based upon the proportional special benefits to be derived by the properties in the District over and above general benefits conferred on real property in the Assessment District. Special benefit is calculated for each parcel in the Assessment District using the following process:

1. Identification of total benefit to the properties derived from the Services
2. Calculation of the proportion of these benefits that are special vs. general
3. Determination of the relative special benefit within different areas within the Assessment District
4. Determination of the relative special benefit per property type and property characteristic
5. Calculation of the specific assessment for each individual parcel based upon special vs. general benefit; location, property type and property characteristics

### DISCUSSION OF BENEFIT

In summary, the assessments can only be levied based on the special benefit to property. This benefit is received by property over and above any general benefits. This special benefit is received by property over and above any general benefits from the additional Services. With reference to the engineering requirements for property related assessments, under Proposition 218 an Engineer must determine and prepare a report evaluating the amount of special and general benefit received by property within the Assessment District as a result of the improvements or services provided by a local agency. That special benefit is to be determined in relation to the total cost to that local entity of providing the service and/or improvements.

Proposition 218 as described in Article XIID of the California Constitution has confirmed that assessments must be based on the special benefit to property:

*"No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel."*

The below benefit factors, when applied to property in the Assessment Area, confer special benefits to property and ultimately improve the safety, utility, functionality and usability of property in the Assessment Area. These are special benefits to property in the Assessment



Area in much the same way that storm drainage, sewer service, water service, lighting, sidewalks and paved streets enhance the safety, utility and functionality of each parcel of property served by these improvements, providing them with more utility of use and making them safer and more usable for occupants.

It should also be noted that Proposition 218 included a requirement that existing assessments in effect upon its effective date were required to be confirmed by either a majority vote of registered voters in the Assessment Area, or by weighted majority property owner approval using the new ballot proceeding requirements. However, certain assessments were excluded from these voter approval requirements. Of note is that in California Constitution Article XIID Section 5(a) this special exemption was granted to assessments for sidewalks, streets, sewers, water, flood control, drainage systems and vector control. The Howard Jarvis Taxpayers Association explained this exemption in their Statement of Drafter's Intent:

"This is the "traditional purposes" exception. These existing assessments do not need property owner approval to continue. However, future assessments for these traditional purposes are covered."<sup>3</sup>

Therefore, the drafters of Proposition 218 acknowledged that mosquito control assessments were a "traditional" and therefore acknowledged and accepted use.

Since all assessments, existing before or after Proposition 218 must be based on special benefit to property, the drafters of Proposition 218 inherently found that mosquito and disease control services confer special benefit on property. Moreover, the statement of drafter's intent also acknowledges that any new or increased mosquito control assessments after the effective date of Proposition 218 would need to comply with the voter approval requirements it established. This is as an acknowledgement that additional assessments for such "traditional" purposes would be established after Proposition 218 was in effect. Therefore, the drafters of Proposition 218 clearly recognized mosquito and disease control assessments as a "traditional" use of assessments, acknowledged that new mosquito and disease assessments may be formed after Proposition 218 and inherently were satisfied that mosquito control services confer special benefit to properties.

The Legislature also made a specific determination after Proposition 218 was enacted that mosquito control services constitute a proper subject for special assessment. Health and Safety Code section 2082, which was signed into law in 2002, provides that a district may levy special assessments consistent with the requirements of Article XIID of the California Constitution to finance mosquito and disease control projects and programs. The intent of the Legislature to allow and authorize benefit assessments for mosquito and disease control services after Proposition 218 is shown in the Assembly and Senate analysis the Mosquito Abatement and Vector Control District Law where it states that the law:

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<sup>3</sup> Howard Jarvis Taxpayers Association, "Statement of Drafter's Intent", January 1997.

*Allows special benefit assessments to finance vector control projects and programs, consistent with Proposition 218.<sup>4</sup>*

Therefore the State Legislature unanimously found that mosquito and disease control services are a valuable and important public service that can be funded by benefit assessments. To be funded by assessments, mosquito and disease control services must confer special benefit to property.

### **MOSQUITO AND DISEASE CONTROL IS A SPECIAL BENEFIT TO PROPERTIES**

As described below, this Engineer's Report concludes that mosquito and disease control is a special benefit that provides direct advantages to property in the Assessment District. For example, the assessment provides reduced levels of mosquitoes on property throughout the Assessment District. Moreover, the assessment will reduce the risk of the presence of diseases on property throughout the Assessment District, which is another direct advantage received by property in the Assessment District. Moreover, the assessment funds Services that improve the use of property and reduce the nuisance and harm created by mosquitoes on property throughout the Assessment District. These are tangible and direct special benefits that are received by property throughout the specific area covered by the Assessment.

The following section, Benefit Factors, describes how and why mosquito control services specially benefit properties in the Assessment Area. These benefits are particular and distinct from its effect on property in general or the public at large.

### **BENEFIT FACTORS**

In order to allocate the assessments, the Engineer identified the types of special benefit arising from the aforementioned mosquito and disease control Services and that would be provided to property within the District. The following benefit factors have been established that represent the types of special benefit to parcels resulting from the Services financed with the assessment proceeds. These types of special benefit are as follows:

#### **REDUCED MOSQUITO POPULATIONS ON PROPERTY AND AS A RESULT, ENHANCED DESIRABILITY, UTILITY, USABILITY AND FUNCTIONALITY OF PROPERTY IN THE ASSESSMENT DISTRICT.**

The assessments provide enhanced services for the control and abatement of nuisance and disease-carrying mosquitoes. These Services will materially reduce the number of mosquitoes on properties throughout the Assessment District. The lower mosquito populations on property in the Assessment District is a direct advantage to property that will serve to increase the desirability and "usability" of property. Clearly, properties are more desirable and usable in areas with lower mosquito populations and with a reduced risk of mosquito-borne disease. This is a special benefit to residential, commercial, agricultural,

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<sup>4</sup> Senate Bill 1588, Mosquito Abatement and Vector Control District Law, Legislative bill analysis

industrial and other types of properties because all such properties will directly benefit from reduced mosquito populations and properties with lower mosquito populations are more usable, functional and desirable.

Excessive mosquitoes in the area can materially diminish the utility and usability of property. For example, prior to the commencement of mosquito control and abatement services, properties in many areas in the State were considered to be nearly uninhabitable during the times of year when the mosquito populations were high.<sup>5</sup> The prevention or reduction of such diminished utility and usability of property caused by mosquitoes is a clear and direct advantage and special benefit to property in the Assessment District.

The State Legislature made the following finding on this issue:

*“Excess numbers of mosquitoes and other vectors spread diseases of humans, livestock, and wildlife, reduce enjoyment of outdoor living spaces, both public and private, reduce property values, hinder outdoor work, reduce livestock productivity; and mosquitoes and other vectors can disperse or be transported long distances from their sources and are, therefore, a health risk and a public nuisance; and professional mosquito and vector control based on scientific research has made great advances in reducing mosquito and vector populations and the diseases they transmit.”<sup>6</sup>*

Mosquitoes emerge from sources throughout the Assessment District, and with an average flight range of two miles, mosquitoes from known sources can reach all properties in the Assessment District. These sources include standing water in rural areas, such as marshes, pools, wetlands, ponds, drainage ditches, drainage systems, tree holes and other removable sources such as old tires and containers. The sources of mosquitoes also include numerous locations throughout the urban areas in the Assessment District. These sources include underground drainage systems, containers, unattended swimming pools, leaks in water pipes, tree holes, flower cups in cemeteries, over-watered landscaping and lawns and many other sources. By controlling mosquitoes at known and new sources, the Services will materially reduce mosquito populations on property throughout the Assessment District.

A recently increasing source of mosquitoes is unattended swimming pools:

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<sup>5</sup> Prior to the commencement of modern mosquito control services, areas in the State of California such as the Alameda County, San Mateo Peninsula, Napa County, Lake County and areas in Marin and Sonoma Counties had such high mosquito populations that they were considered to be nearly unlivable during certain times of the year and were largely used for part-time vacation cottages that were occupied primarily during the months when the natural mosquito populations were lower.

<sup>6</sup> Assembly Concurrent Resolution 52, chaptered April 1, 2003

*“Anthropogenic landscape change historically has facilitated outbreaks of pathogens amplified by peridomestic vectors such as Cx. pipiens complex mosquitoes and associated commensals such as house sparrows. The recent widespread downturn in the housing market and increase in adjustable rate mortgages have combined to force a dramatic increase in home foreclosures and abandoned homes and produced urban landscapes dotted with an expanded number of new mosquito habitats. These new larval habitats may have contributed to the unexpected early season increase in WNV cases in Bakersfield during 2007 and subsequently have enabled invasion of urban areas by the highly competent rural vector Cx. tarsalis. These factors can increase the spectrum of competent avian hosts, the efficiency of enzootic amplification, and the risk for urban epidemics.”<sup>7</sup>*

#### **INCREASED SAFETY OF PROPERTY IN THE ASSESSMENT DISTRICT.**

The Assessments result in improved year-round proactive Services to control and abate mosquitoes that otherwise would occupy properties throughout the Assessment District. Mosquitoes are transmitters of diseases, so the reduction of mosquito populations makes property safer for use and enjoyment. In absence of the assessments, these Services would not be provided, so the Services funded by the assessments make properties in the Assessment District safer, which is a distinct special benefit to property in the Assessment District.<sup>8</sup> This is not a general benefit to property in the Assessment District or the public at large because the Services are tangible mosquito and disease control services that are provided directly to the properties in the Assessment District and the Services are over and above what otherwise would be provided by the District or any other agency.

This finding was confirmed in 2003 by the State Legislature:

*“Mosquitoes and other vectors, including but not limited to, ticks, Africanized honey bees, rats, fleas, and flies, continue to be a source of human suffering, illness, death, and a public nuisance in California and around the world. Adequately funded mosquito and vector control, monitoring and public awareness programs are the best way to prevent outbreaks of West Nile Virus and other diseases borne by mosquitoes and other vectors.”<sup>9</sup>*

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

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<sup>7</sup> Riesen William K. (2008). Delinquent Mortgages, Neglected Swimming Pools, and West Nile Virus, California. Emerging Infectious Diseases. Vol. 14(11).

<sup>8</sup> By reducing the risk of disease and increasing the safety of property, the Services will materially increase the usefulness and desirability of certain properties in the Assessment Area.

<sup>9</sup> Assembly Concurrent Resolution 52, chaptered April 1, 2003

*“The protection of Californians and their communities against the discomforts and economic effects of vectorborne diseases is an essential public service that is vital to public health, safety, and welfare.”*

**REDUCTIONS IN THE RISK OF NEW DISEASES AND INFECTIONS ON PROPERTY IN THE ASSESSMENT DISTRICT.**

Mosquitoes have proven to be a major contributor to the spread of new diseases such as West Nile Virus, among others. A highly mobile population combined with migratory bird patterns can introduce new mosquito-borne diseases into previously unexposed areas.

*“Vector-borne diseases (including a number that are mosquito-borne) are a major public health problem internationally. In the United States, dengue and malaria are frequently brought back from tropical and subtropical countries by travelers or migrant laborers, and autochthonous transmission of malaria and dengue occasionally occurs. In 1998, 90 confirmed cases of dengue and 1,611 cases of malaria were reported in the USA and dengue transmission has occurred in Texas.”<sup>10</sup>*

*“During 2004, 40 states and the District of Columbia (DC) have reported 2,313 cases of human WNV illness to CDC through ArboNET. Of these, 737 (32%) cases were reported in California, 390 (17%) in Arizona, and 276 (12%) in Colorado. A total of 1,339 (59%) of the 2,282 cases for which such data were available occurred in males; the median age of patients was 52 years (range: 1 month--99 years). Date of illness onset ranged from April 23 to November 4; a total of 79 cases were fatal.”<sup>11</sup> (According to the Centers for Disease Control and Prevention on January 19, 2004, a total of 2,470 human cases and 88 human fatalities from WNV have been confirmed).*

A study of the effect of aerial spraying conducted by the Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) to control a West Nile Virus disease outbreak found that the SYMVCD's mosquito control efforts materially decreased the risk of new diseases in the treated areas:

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<sup>10</sup> Rose, Robert. (2001). Pesticides and Public Health: Integrated Methods of Mosquito Management. Emerging Infectious Diseases. Vol. 7(1); 17-23.

<sup>11</sup> Center for Disease Control. (2004). West Nile Virus Activity --- United States, November 9--16, 2004. Morbidity and Mortality Weekly Report. 53(45); 1071-1072.

*After spraying, infection rates decreased from 8.2 (95% CI 3.1–18.0) to 4.3 (95% CI 0.3–20.3) per 1,000 females in the spray area and increased from 2.0 (95% CI 0.1–9.7) to 8.7 (95% CI 3.3–18.9) per 1,000 females in the untreated area. Furthermore, no additional positive pools were detected in the northern treatment area during the remainder of the year, whereas positive pools were detected in the untreated area until the end of September (D.-E.A Elnaiem, unpub. data). These independent lines of evidence corroborate our conclusion that actions taken by SYMVCD were effective in disrupting the WNV transmission cycle and reducing human illness and potential deaths associated with WNV. <sup>12</sup>*

The Services funded by the assessments help prevent on a year-round basis the presence of mosquito-borne diseases on property in the Assessment District. This is another tangible and direct special benefit to property in the Assessment District that would not be received in absence of the assessments.

#### **PROTECTION OF ECONOMIC ACTIVITY ON PROPERTY IN THE ASSESSMENT DISTRICT.**

As recently demonstrated by the SARS outbreak in China and outbreaks of Avian Flu, outbreaks of pathogens can materially and negatively impact economic activity in the affected area. Such outbreaks and other public health threats can have a drastic negative effect on tourism, business and residential activities in the affected area. The assessments help to prevent the likelihood of such outbreaks in the District.

Mosquitoes hinder, annoy and harm residents, guests, visitors, farm workers, and employees. A mosquito-borne disease outbreak and other related public health threats would have a drastic negative effect on agricultural, business and residential activities in the Assessment District.

The economic impact of diseases is well documented. According to a study prepared for the Centers for Disease Control and Prevention, economic losses due to the transmission of West Nile Virus in Louisiana was estimated to cost over \$20 million over approximately one year:

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<sup>12</sup> Carney, Ryan. (2008), Efficiency of Aerial Spraying of Mosquito Adulticide in Reducing the Incidence of West Nile Virus, California, 2005. Emerging Infectious Diseases, Vol 14(5)

*The estimated cost of the Louisiana epidemic was \$20.1 million from June 2002 to February 2003, including a \$10.9 million cost of illness (\$4.4 million medical and \$6.5 million nonmedical costs) and a \$9.2 million cost of public health response. These data indicate a substantial short-term cost of the WNV disease epidemic in Louisiana.*<sup>13</sup>

Moreover, a study conducted in 1996-97 of La Crosse Encephalitis (LACE), a human illness caused by a mosquito-transmitted virus, found a lifetime cost per human case at \$48,000 to \$3,000,000 and found that the disease significantly impacted lifespans of those who were infected. Following is a quote from the study which references the importance and value of active mosquito control services of the type that would be funded by the assessments:

*The socioeconomic burden resulting from LACE is substantial, which highlights the importance of the illness in western North Carolina, as well as the need for active surveillance, reporting, and prevention programs for the infection.*<sup>14</sup>

The Services funded by the assessments help prevent the likelihood of such outbreaks on property in the Assessment District and will reduce the harm to economic activity on property caused by existing mosquito populations. This is another direct advantage received by property in the Assessment District that would not be received in absence of the assessments.

#### **PROTECTION OF ASSESSMENT DISTRICT'S AGRICULTURE, TOURISM, AND BUSINESS INDUSTRIES.**

The agriculture, tourism and business industries will benefit from reduced levels of harmful or nuisance mosquitoes. Conversely, any outbreaks of emerging mosquito-borne pathogens such as West Nile Virus could also materially negatively affect these industries. Diseases transmitted by mosquitoes can adversely impact business and recreational functions.

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<sup>13</sup> Zohrabian A, Meltzer MI, Ratard R, Billah K, Molinari NA, Roy K, et al. West Nile Virus economic impact, Louisiana, 2002. Emerging Infectious Disease, 2004 Oct. Available from <http://www.cdc.gov/ncidod/EID/vol10no10/03-0925.htm>

<sup>14</sup> Utz, J. Todd, Apperson, Charles S., Maccormack, J. Newton, Salyers, Martha, Dietz, E. Jacquelin, Mcpherson, J. Todd, Economic And Social Impacts Of La Crosse Encephalitis In Western North Carolina, Am J Trop Med Hyg 2003 69: 509-518

*A study prepared for the United States Department of Agriculture in 2003 found that over 1,400 horses died from West Nile Virus in Colorado and Nebraska and that these fatal disease cases created over \$1.2 million in costs and lost revenues. In addition, horse owners in these two states spent over \$2.75 million to vaccinate their horses for this disease. The study states that “Clearly, WNV has had a marked impact on the Colorado and Nebraska equine industry.”<sup>15</sup>*

*Pesticides for mosquito control impart economic benefits to agriculture in general. Anecdotal reports from farmers and ranchers indicate that cattle, if left unprotected, can be exsanguinated by mosquitoes, especially in Florida and other southeast coastal areas. Dairy cattle produce less milk when bitten frequently by mosquitoes<sup>16</sup>*

The assessments serve to protect the businesses and industries and the employees and residents that benefit from these businesses and industries. This is a direct advantage and special benefit to property in the Assessment District.

#### **REDUCED RISK OF NUISANCE AND LIABILITY ON PROPERTY IN THE ASSESSMENT DISTRICT**

In addition to health related factors, uncontrolled mosquito populations create a nuisance for the occupants of property in the Assessment District. Properties in the Assessment District, therefore, benefit from the reduced nuisance factor that is created by the Services. Agricultural and rangeland properties also benefit from the reduced nuisance factor and harm to livestock and employees from lower mosquito populations.

Agricultural, range, golf course, cemetery, open space and other such lands in the Assessment District contain large areas of mosquito habitat and are therefore a significant source of mosquito populations. In addition, residential and business properties in the Assessment District can also contain significant sources.<sup>17</sup> It is conceivable that sources of mosquitoes could be held liable for the transmission of diseases or other harm. For example, in August 2004, the City of Los Angeles approved new fines of up to \$1,000 per day for property owners who don't remove standing water sources of mosquitoes on their property.

The Services serve to protect the businesses and industries in the Assessment District. This is a direct advantage and a special benefit to property in the Assessment District.

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<sup>15</sup> S. Geiser, A. Seitzinger, P. Salazar, J. Traub-Dargatz, P. Morley, M. Salman, D. Wilmot, D. Steffen, W. Cunningham, Economic Impact of West Nile Virus on the Colorado and Nebraska Equine Industries: 2002, April 2003, Available from [http://www.aphis.usda.gov/vs/ceah/cnabs/nahms/equine/wnv2002\\_CO\\_NB.pdf](http://www.aphis.usda.gov/vs/ceah/cnabs/nahms/equine/wnv2002_CO_NB.pdf)

<sup>16</sup> Jennings, Allen. (2001). USDA Letter to EPA on Fenthion IRED. United States Department of Agriculture, Office of Pest Management Policy. March 8, 2001.

<sup>17</sup> Sources of mosquitoes on residential, business, agricultural, range and other types of properties include removable sources such as containers that hold standing water.



**IMPROVED MARKETABILITY OF PROPERTY.**

As described previously, the Services specially benefit properties in the Assessment District by making them more useable, livable and functional. The Services also make properties in the Assessment District more desirable, and more desirable properties also benefit from improved marketability. This is another tangible and direct special benefit to property which will not be enjoyed in absence of the Services.<sup>18</sup>

**BENEFIT FINDING**

In summary, the special benefits described in this Report and the expansion of Services in the Assessment District directly benefit and protect the real properties in the Abatement District in excess of the assessments for these properties. Therefore, the assessment engineer finds that the cumulative special benefits to property from the Services are reasonably equal to or greater than the annual assessment amount per benefit unit.

**GENERAL VS. SPECIAL BENEFIT**

Article XIII C of the California Constitution requires any local agency proposing to increase or impose a benefit assessment to “separate the general benefits from the special benefits conferred on a parcel.” The rationale for separating special and general benefits is to ensure that property owners subject to the benefit assessment are not paying for general benefits. The assessment can fund the special benefits to property in the Assessment Area but cannot fund any general benefits. Accordingly, a separate estimate of the special and general benefit is given in this section.

In other words:

<b>Total Benefit</b>	=	<b>General Benefit</b>	+	<b>Special Benefit</b>
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There is no widely-accepted or statutory formula for general benefit from mosquito and disease control services. General benefits are benefits from improvements or services that are not special in nature, are not “particular and distinct” and are not “over and above” benefits received by other properties. General benefits are conferred to properties located “in the district,<sup>19</sup>” but outside the narrowly-drawn Assessment District and to “the public at

<sup>18</sup> If one were to compare two hypothetical properties with similar characteristics, the property with lower mosquito infestation and reduced risk of mosquito-borne disease will clearly be more desirable, marketable and usable.

<sup>19</sup> SVTA vs. SCCOSA explains as follows:

large.” SVTA vs. SCCOSA provides some clarification by indicating that general benefits provide “an indirect, derivative advantage” and are not necessarily proximate to the improvements and services funded by the assessments.

A formula to estimate the general benefit is listed below:

General Benefit	=	Benefit to Real Property Outside the Assessment District	+	Benefit to Real Property Inside the Assessment District that is Indirect and Derivative	+	Benefit to the Public at Large
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Special benefit, on the other hand, is defined in the state constitution as “a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large.” The SVTA v. SCCOSA decision indicates that a special benefit is conferred to a property if it “receives a direct advantage from the improvement (e.g., proximity to a park).” In this assessment, the overwhelming proportion of the benefits conferred to property is special, since the advantages from the mosquito and disease control/protection funded by the Assessments are directly received by the properties in the Assessment District and are only minimally received by property outside the Assessment District or the public at large.

Proposition 218 twice uses the phrase “over and above” general benefits in describing special benefit. (Art. XIII D, sections 2(i) & 4(f).) There currently are some mosquito and disease control related services being provided to the Assessment District area. Consequently, there currently are some mosquito control related benefits being provided to the Assessment District and any new and extended service provided by the District would be over and above this baseline. Arguably, all of the Services funded by the assessment therefore are a special benefit because the additional Services would particularly and distinctly benefit and protect the Assessment District over and above the previous baseline benefits and service.

Nevertheless, arguably some of the Services would benefit the public at large and properties outside the Assessment District. In this report, the general benefit is conservatively

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OSA observes that Proposition 218’s definition of “special benefit” presents a paradox when considered with its definition of “district.” Section 2, subdivision (i) defines a “special benefit” as “a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large.” (Art. XIII D, § 2, subd. (i), italics added.) Section 2, subdivision (d) defines “district” as “an area determined by an agency to contains all parcels which will receive a special benefit from a proposed public improvement or property-related service.” (Art. XIII D, § 2, subd. (d), italics added.) In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be construed as being general benefits since they are not “particular and distinct” and are not “over and above” the benefits received by other properties “located in the district.”

estimated and described, and then budgeted so that it is funded by sources other than the assessment.

In the 2009 Dahms case, the court upheld an assessment that was 100% special benefit on the rationale that the services funded by the assessments were directly provided to property in the assessment district. Similar to the assessments in Pomona that were validated by Dahms, the Assessments described in this Engineer's Report fund mosquito and disease control services directly provided to property in the assessment area. Moreover, as noted in this Report, the Services directly reduce mosquito and vector populations on all property in the assessment area. Therefore, Dahms establishes a basis for minimal or zero general benefits from the Assessments. However, in this report, the general benefit is more conservatively estimated and described, and then budgeted so that it is funded by sources other than the assessment.

### **CALCULATING GENERAL BENEFIT**

Without this assessment the District would lack the funds to extend the additional Services to the Assessment District. The only additional service that is being provided is the vector control program assessment-funded Services. Consistent with footnote 8 of SVTA v. SCCOSA, and for the reasons described above, the District has determined that all parcels in the Assessment District receive a shared direct advantage and special benefit from the Services. The Services directly and particularly serve and benefit each parcel, and are not a mere indirect, derivative advantage. As explained above, Proposition 218 relies on the concept of "over and above" in distinguishing special benefits from general benefits. As applied to an assessment proceeding concurrent with the annexation this concept means that all mosquito and disease control services, which provide direct advantage to property in the Assessment District, are over and above the baseline and therefore are special.

Nevertheless, the Services provide a degree of general benefit, in addition to the predominant special benefit. This section provides a conservative measure of the general benefits from the Assessments.

### **BENEFIT TO PROPERTY OUTSIDE THE DISTRICT**

Properties within the Assessment District receive almost all of the special benefits from the Services because the Services funded by the Assessments are provided directly to protect property within the Assessment District from mosquitoes and mosquito-borne diseases. However, properties adjacent to, but just outside of, the District boundaries may receive some benefit from the Services in the form of reduced mosquito populations on property outside the Assessment District. Since this benefit, is conferred to properties outside the district boundaries, it contributes to the overall general benefit calculation and will not be funded by the assessment.

A measure of this general benefit is the proportion of Services that would affect properties outside of the Assessment District. Each year, the District will provide some of its Services in areas near the boundaries of the Assessment District. By abating mosquito populations near the borders of the Assessment District, the Services could provide benefits in the form

of reduced mosquito populations and reduced risk of disease transmission to properties outside the Assessment District. If mosquitoes were not controlled inside the Assessment District, more of them would fly from the Assessment District. Therefore control of mosquitoes within the Assessment District provides some benefit to properties outside the Assessment District but within the normal flight range of mosquitoes, in the form of reduced mosquito populations and reduced mosquito-borne disease transmission. This is a measure of the general benefits to property outside the Assessment District because this is a benefit from the Services that is not specially conferred upon property in the assessment area.

The mosquito potential outside the Assessment District is based on studies of mosquito dispersion concentrations. Mosquitoes can travel up to two miles, on average, so this destination range is used. Based on studies of mosquito destinations, relative to parcels in the Assessment District average concentration of mosquitoes from the Assessment District on properties within two miles of the Assessment District is calculated to be 6%.<sup>20</sup> This relative mosquito population reduction factor within the destination range is combined with the number of parcels outside the Assessment District and within the destination range to measure this general benefit and is calculated as follows:

**CRITERIA:**

Mosquitoes may fly up to 2 miles from their breeding source.  
 38,786 parcels within 2 miles of, but outside of the District, MAY receive some mosquito and disease protection benefit  
 6% portion of relative benefit that is received  
 436,350 Parcels in the District

**Calculations**

Total Benefit = 38,786 parcels \* 6% = 2,327 parcels equivalents  
 Percentage of overall parcel equivalents = 2,327 / 436,350 = **0.53%**

Therefore, for the overall benefits provided by the Services to the Assessment District, it is determined that 0.53% of the benefits would be received by the parcels within two miles of the Assessment District boundaries. Recognizing that this calculation is an approximation, this benefit will be rounded up to 1.0%.

**BENEFIT TO PROPERTY *INSIDE* THE DISTRICT THAT IS *INDIRECT AND DERIVATIVE***

The “indirect and derivative” benefit to property within the Assessment District is particularly difficult to calculate. As explained above, all benefit within the Assessment District is special because the mosquito and disease control services in the Assessment District would provide

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<sup>20</sup> Tietze, Noor S., Stephenson, Mike F., Sidhom, Nader T. and Binding, Paul L., “Mark-Recapture of *Culex Erythrothorax* in Santa Cruz County, California”, Journal of the American Mosquito Control Association, 19(2):134-138, 2003.

direct service and protection that is clearly “over and above” and “particular and distinct” when compared with the level of such protection under current conditions. Further the properties are within the Assessment District boundaries and this Engineer’s Report demonstrates the direct benefits received by individual properties from mosquito and disease control services.

In determining the Assessment District area, the District was careful to limit it to an area of parcels that will directly receive the Services. All parcels directly benefit from the surveillance, monitoring and treatment provided on an equivalent basis throughout the Assessment District in order to maintain the same improved level of protection against mosquitoes and reduced mosquito populations throughout the area. The surveillance and monitoring sites are spread on a balanced basis throughout the area. Mosquito control and treatment is provided as needed throughout the area based on the surveillance and monitoring results. The shared special benefit - reduced mosquito levels and reduced presence of mosquito-borne diseases - is received on an equivalent basis by all parcels in the Assessment District. Furthermore, all parcels in the Assessment District directly benefit from the ability to request service from the District and to have a District field technician promptly respond directly to the parcel and address the owner’s or resident’s service need. The SVTA vs. SCCOSA decision indicates that the fact that a benefit is conferred throughout the Assessment District area does not make the benefit general rather than special, so long as the Assessment district is narrowly drawn and limited to the parcels directly receiving shared special benefits from the service. This concept is particularly applicable in situations involving a landowner-approved assessment-funded extension of a local government service to benefit lands previously not receiving that particular service. The District therefore concludes that, other than the small general benefit to properties outside the Assessment District (discussed above) and to the public at large (discussed below), all of the benefits of the Services to the parcels within the Assessment District are special benefits and it is not possible or appropriate to separate any general benefits from the benefits conferred on parcels in the Assessment District.

#### **BENEFIT TO THE PUBLIC AT LARGE**

With the type and scope of Services provided to the Assessment District, it is very difficult to calculate and quantify the scope of the general benefit conferred on the public at large. Because the Services directly serve and benefit all of the property in the Assessment Area, any general benefit conferred on the public at large is small. Nevertheless, there is some indirect general benefit to the public at large.

The public at large uses the public highways, streets and sidewalks, and when traveling in and through the Assessment Area they will benefit from the Services. A fair and appropriate measure of the general benefit to the public at large therefore is the amount of highway, street and sidewalk area within the Assessment Area relative to the overall land area. An analysis of maps of the Assessment Area shows that approximately 6% of the land area in the Assessment Area is covered by highways, streets and sidewalks. This 6% therefore is a fair and appropriate measure of the general benefit to the public at large within the Assessment Area

### SUMMARY OF GENERAL BENEFITS

Using a sum of the measures of general benefit for the public at large and land outside the Assessment Area, we find that approximately 7.0% of the benefits conferred by the Mosquito and Disease Control Assessment may be general in nature and should be funded by sources other than the Assessment.

#### General Benefit Calculation

	<b>1.0%</b>	<b>(Outside the Assessment District)</b>
+	<b>0.0%</b>	<b>(Property within the Assessment District)</b>
+	<b>6.0%</b>	<b>(Public at Large)</b>
=	<b>7.0%</b>	<b>(Total General Benefit)</b>

Although this analysis supports the findings that 7.0% of the assessment may provide general benefit only, this number is increased by the Assessment Engineer to 10% to conservatively ensure that no assessment revenue is used to support general benefit. This additional amount allocated to general benefit also covers general benefit to parcels in the Assessment Area if it is later determined that there is some general benefit conferred on those parcels.

The Mosquito and Disease Control Assessment total budget for mosquito abatement, disease control, and capital improvement is \$6,549,251. Of this total budget amount, the District will contribute \$5,443,844 or 83% of the total budget from sources other than the Mosquito and Disease Control Assessment. This contribution offsets any general benefits from the Mosquito and Disease Control Assessment Services.

### ZONES OF BENEFIT

The District's mosquito and disease control programs, projects and Services that are funded by the Mosquito and Disease Control Assessment are provided in all areas within the District. Parcels of similar type in the District would receive similar mosquito abatement benefits on a per parcel and land area basis. Therefore, zones of benefit are not justified.

The SVTA vs. SCCOSA decision indicates:

*In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be construed as being general benefits since they are not “particular and distinct” and are not “over and above” the benefits received by other properties “located in the district.”*

*We do not believe that the voters intended to invalidate an assessment district that is narrowly drawn to include only properties directly benefiting from an improvement. Indeed, the ballot materials reflect otherwise. Thus, if an assessment district is narrowly drawn, the fact that a benefit is conferred throughout the district does not make it general rather than special. In that circumstance, the characterization of a benefit may depend on whether the parcel receives a direct advantage from the improvement (e.g., proximity to park) or receives an indirect, derivative advantage resulting from the overall public benefits of the improvement (e.g., general enhancement of the district's property values).*

In the Assessment Area, the advantage that each parcel receives from the Services is direct and the boundary for the Service Area is narrowly drawn so the Service Area includes parcels that receive the similar levels of benefit from the Services. Therefore, the even spread of assessment for similar properties in the narrowly drawn Service Area within the Program is indeed consistent with the OSA decision.

#### **METHOD OF ASSESSMENT**

As previously discussed, the Assessments fund enhanced, comprehensive, year-round mosquito control, disease surveillance and control Services that will reduce mosquito populations on property and will clearly confer special benefits to properties in the Assessment Area. These benefits can also partially be measured by the occupants on property in the Improvement District because such parcel population density is a measure of the relative benefit a parcel receives from the Improvements. Therefore, the apportionment of benefit is partially based the population density of parcels. It should be noted that many other types of "traditional" assessments also use parcel population densities to apportion the assessments. For example, the assessments for sewer systems, roads and water systems are typically allocated based on the population density of the parcels assessed.

Moreover, assessments have a long history of use in California and are in large part based on the principle that any benefits from a service or improvement funded by assessments that is enjoyed by tenants and other non-property owners ultimately is conferred directly to the underlying property.<sup>21</sup>

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<sup>21</sup> For example, in *Federal Construction Co. v. Ensign* (1922) 59 Cal.App. 200 at 211, the appellate court determined that a sewer system specially benefited property even though the direct benefit was to the people who used the sewers: "Practically every inhabitant of a city either is the owner of the land on which he resides or on which he pursues his vocation, or he is the tenant of the owner, or is the agent or servant of such owner or of such tenant. And since it is the inhabitants who make by far the greater use of a city's sewer system, it is to them, as lot owners or as tenants, or as the servants or agents of such lot owners or tenants, that the advantages of actual use will redound. But this advantage of use means that, in the final analysis, it is the lot owners themselves who will be especially benefited in a financial sense."

With regard to benefits and source locations, the assessment engineer determined that since mosquitoes readily fly from their breeding locations to all properties in their flight range and since mosquitoes are actually attracted to properties occupied by people or animals, the benefits from mosquito control extend beyond the source locations to all properties that would be a “destination” for mosquitoes. In other words, the control and abatement of mosquito populations ultimately confers benefits to all properties that are a destination of mosquitoes, rather than just those that are sources of mosquitoes.

Although some primary mosquito sources may be located outside of residential areas, residential properties can and do generate their own, often significant, populations of mosquitoes and other organisms. For example, storm water catch basins in residential areas are a common source of mosquitoes. Since the typical flight range for a female mosquito, on average is 2 miles, most homes in the Assessment Area are within the flight zone of many mosquito sources. Moreover, there are many other common residential sources of mosquitoes, such as miscellaneous backyard containers, neglected swimming pools, leaking water pipes and tree holes. Clearly, there is a potential for mosquito sources on virtually all types of property. More importantly, all properties in the Assessment Area are within the destination range of mosquitoes and most properties are actually within the destination range of multiple mosquito source locations.

Because the Services are provided throughout the Assessment District with the same level of control objective in each zone, mosquitoes can rapidly and readily fly from their breeding locations to other properties over a large area, and because there are current or potential breeding sources literally everywhere in the Assessment District, the Assessment Engineer determined that all similar properties in the Assessment District have generally equivalent mosquito “destination” potential and, therefore, receive equivalent levels of benefit throughout the Assessment District.

In the process of determining the appropriate method of assessment, the Engineer considered various alternatives. For example, a fixed assessment amount per parcel for all residential improved property was considered but was determined to be inappropriate because agricultural lands, commercial property and other property also receive benefits from the assessments. Likewise, an assessment exclusively for agricultural land was considered but deemed inappropriate because other types of property, such as residential and commercial, also receive the special benefit factors described previously.

A fixed or flat assessment was deemed to be inappropriate because larger residential, commercial and industrial properties receive a higher degree of benefit than other similarly used properties that are significantly smaller. (For two properties used for commercial purposes, there is clearly a higher benefit provided to a property that covers several acres in comparison to a smaller commercial property that is on a 0.25 acre site. The larger property generally has a larger coverage area and higher usage by employees, customers, tourists and guests that would benefit from reduced mosquito populations, as well as the reduced threat from diseases carried by mosquitoes. This benefit ultimately flows to the



property.) Larger commercial, industrial and apartment parcels, therefore, receive an increased benefit from the assessments.

In conclusion, the assessment engineer determined that the appropriate method of assessment apportionment should be based on the type and use of property, the relative size of the property its relative population and usage potential, and its destination potential for mosquitoes. This method is further described below.

## ASSESSMENT APPORTIONMENT

The special benefits derived from the Mosquito and Disease Control Assessment are conferred on property and are not based on a specific property owner's occupancy of property or the property owner's demographic status, such as age or number of dependents. However, it is ultimately people who do or could use the property and who enjoy the special benefits described above. The opportunity to use and enjoy property within the Assessment District without the excessive nuisance, diminished "livability" or the potential health hazards brought by mosquitoes and the diseases they carry is a special benefit to properties in the Assessment District. This benefit can be in part measured by the number of people who potentially live on, work at, visit or otherwise use the property, because people ultimately determine the value of the benefits by choosing to live, work and/or recreate in the area, and by choosing to purchase property in the area.<sup>22</sup>

In order to apportion the cost of the Services to property, each property in the Assessment District is assigned a relative special benefit factor. This process involves determining the relative benefit received by each property in relation to a single family home, or, in other words, on the basis of Single Family Equivalents (SFE). This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefit. For the purposes of this Engineer's Report, all properties are designated a SFE value, which is each property's relative benefit in relation to a "benchmark" parcel in the Assessment District. The "benchmark" property is the single family detached dwelling on a parcel of less than one acre. This benchmark parcel is assigned one Single Family Equivalent benefit unit or one SFE.

The calculation of the special benefit apportionment and relative benefit to properties in the Assessment Area from the Services is summarized in the following equation:

$$\text{Special Benefit (per property)} = \sum f(\text{Special Benefits}) * \sum f(\text{Property Specific Attributes}^1)$$

1. Such as use, property type, size, as well as vector-specific attributes such as destination potential and population potential

<sup>22</sup> It should be noted that the benefits conferred upon property are related to the average number of people who could potentially live on, work at or otherwise could use a property, not how the property is currently used by the present owner.

## RESIDENTIAL PROPERTIES

Certain residential properties in the Abatement District that contain a single residential dwelling unit and are on a lot of less than or equal to one acre are assigned one Single Family Equivalent or 1.0 SFE. Traditional houses, zero-lot line houses, and town homes are included in this category of single family residential property.

Single family residential properties in excess of one acre receive additional benefit relative to a single family home on up to one acre, because the larger parcels provide more area for mosquito sources and the mosquito and disease control Services. Therefore, such larger parcels receive additional benefits relative to a single family home on less than one acre and are assigned 1.0 SFE for the residential unit and an additional rate equal to the agricultural rate described below of 0.0021 SFE per one-fourth acre of land area in excess of one acre. Mobile home parcels on a separate parcel and in excess of one acre also receive this additional acreage rate.

Other types of properties with residential units, such as agricultural properties, are assigned the residential SFE rates for the dwelling units on the property and are assigned additional SFE benefit units for the agricultural-use land area on the property.

Properties with more than one residential unit are designated as multi-family residential properties. These properties, along with condominiums, benefit from the Services in proportion to the number of dwelling units that occupy each property, the average number of people who reside in each property and the average size of each property in relation to a single family home in the District. This Report analyzed Alameda County population density factors from the 2000 US Census as well as average dwelling unit size for each property type. After determining the Population Density Factor and Square Footage Factor for each property type, an SFE rate is generated for each residential property structure, as indicated in Figure 2 below.

The SFE factor of 0.46 per dwelling unit for multifamily residential properties applies to such properties with two to four units (duplex, triplex, fourplex). Properties in excess of 5 units typically offer on-site management, monitoring and other control services that tend to offset some of the benefits provided by the Mosquito Abatement District. Therefore the benefit for properties in excess of 5 units is determined to be .32 SFE per unit for the first 20 units and 0.10 SFE per each additional unit in excess of 20 dwelling units.

**FIGURE 2– RESIDENTIAL ASSESSMENT FACTORS**

Type of Residential Property	Total Population	Occupied Households	Persons per Household	Pop. Density Equivalent	SqFt Factor	Proposed Rate
Single Family Residential	866,596	284,662	3.04	1.00	1.00	<b>1.00</b>
Condominium	103,373	37,417	2.76	0.91	0.66	<b>0.60</b>
Duplex, Triplex, Fourplex	144,626	57,815	2.50	0.82	0.56	<b>0.46</b>
Multi-Family Residential (5+ Units)	286,957	136,173	2.11	0.69	0.47	<b>0.32</b>
Mobile Home on Separate Lot	13,464	6,660	2.02	0.66	0.41	<b>0.27</b>

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

### COMMERCIAL/INDUSTRIAL PROPERTIES

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

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

To determine employee density factors, this Report utilizes the findings from the San Diego County Association of Governments Traffic Generators Study (the "SANDAG Study") because these findings were approved by the State Legislature which determined the SANDAG Study to be a good representation of the average number of employees per acre of land area for commercial and industrial properties. As determined by the SANDAG Study, the average number of employees per acre for commercial and industrial property is 24. As presented in Figure 3, the SFE factors for other types of businesses are determined relative to their typical employee density in relation to the average of 24 employees per acre of commercial property.

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

### AGRICULTURAL, RANGELAND, AND CEMETERY PROPERTIES

Utilizing research and agricultural employment reports from UC Davis and the California Employment Development Department and other sources, this Report calculated an average usage density of 0.05 people per acre for agriculture property, 0.01 for rangelands

and timber and .10 for cemeteries. Since these properties typically are a source of mosquitoes and/or are typically closest to other sources of mosquitoes, it is reasonable to determine that the benefit to these properties is twice the usage density ratio of commercial and industrial properties. The SFE factors per 0.25 acres of land area are shown in the following Figure 3.

**FIGURE 3 – COMMERCIAL/INDUSTRIAL BENEFIT ASSESSMENT FACTORS**

<b>Type of Commercial/Industrial Land Use</b>	<b>Average Employees Per Acre <sup>1</sup></b>	<b>SFE Units per Fraction Acre <sup>2</sup></b>	<b>SFE Units per Acre After 5</b>
Commercial	24	0.500	0.500
Office	68	1.420	1.420
Shopping Center	24	0.500	0.500
Industrial	24	0.500	0.500

1. Source: San Diego Association of Governments Traffic Generators Study, University of California, Davis and other studies and sources.

2. The SFE factors for commercial and industrial parcels indicated above are applied to each fourth acre of building area or portion thereof. (Therefore, the SFE rate for any assessable parcel with 10,890 square feet or less in these categories is the SFE Units listed above.)

**FIGURE 4 – OTHER LAND BENEFIT ASSESSMENT FACTORS**

<b>Other Types of Land Use</b>	<b>Average Employees Per Acre <sup>1</sup></b>	<b>SFE Units per 1/4 Acre <sup>2</sup></b>
Self Storage or Parking Lot	1	0.021
Wineries	12	0.250
Golf Course	3.00	0.063
Cemeteries	1.20	0.050
Agriculture / Vineyards	0.05	0.0021
Timberland / Dry Rangeland	0.01	0.00042

1. Source: San Diego Association of Governments Traffic Generators Study, University of California, Davis and other studies and sources.

2. The SFE factors for commercial and industrial parcels indicated above are applied to each fourth acre of land area or portion thereof. (Therefore, the minimum assessment for any assessable parcel in these categories is the SFE Units listed herein.)

## **OTHER PROPERTIES**

Article XIIID stipulates that publicly owned properties must be assessed unless those properties are reasonably determined to receive no special benefit from the assessment. All properties that are specially benefited are assessed. Publicly owned property that is used for purposes similar to private residential, commercial, industrial or institutional uses is benefited and assessed at the same rate as such privately owned property.

Other public properties such as watershed parcels, parks, open space parcels are determined to, on average, receive similar benefits as a single family home. Therefore such parcels are assessed an SFE benefit factor of 1. Miscellaneous, small and other parcels such as roads, right-of-way parcels, and common areas typically do not generate significant numbers of employees, residents, customers or guests and have limited economic value. These miscellaneous parcels receive minimal benefit from the Services and are assessed an SFE benefit factor of 0.

Church parcels, institutional properties, and property used for educational purposes typically generate employees on a less consistent basis than other non-residential parcels. Many of these properties with higher population factors provide on-site management, monitoring and other control services that tend to offset some of the benefits provided by the District. Therefore, these parcels are determined to, on average, receive similar benefits as a single family home. Therefore such parcels are assessed an SFE benefit factor of 1.

Miscellaneous, small and other parcels such as roads, right-of-way parcels, and common areas typically do not generate significant numbers of employees, residents, customers or guests and have limited economic value. These miscellaneous parcels receive minimal benefit from the Services and are assessed an SFE benefit factor of 0.

## **DURATION OF ASSESSMENT**

It is proposed that the Assessment be levied for fiscal year 2014-15 and continued every year thereafter, so long as mosquitoes remain in existence and the Alameda County Mosquito Abatement District requires funding from the Assessment for its Services in the District. As noted previously, if the Assessment and the duration of the Assessment are approved by property owners in an assessment ballot proceeding, the Assessment can continue to be levied annually after the Alameda County Mosquito Abatement District Board of Trustees approves an annually updated Engineer's Report, budget for the Assessment, Services to be provided, and other specifics of the Assessment. In addition, the District Board of Trustees must hold an annual public hearing to continue the Assessment.

## **APPEALS AND INTERPRETATION**

Any property owner who feels that the assessment levied on the subject property is in error as a result of incorrect information being used to apply the foregoing method of assessment, may file a written appeal with the Manager of the Alameda County Mosquito Abatement District or his or her designee. Any such appeal is limited to correction of an assessment

during the then current fiscal year or, if before July 1, the upcoming fiscal year. Upon the filing of any such appeal, the District Manager or his or her designee will promptly review the appeal and any information provided by the property owner. If the District Manager or his or her designee finds that the assessment should be modified, the appropriate changes shall be made to the assessment roll. If any such changes are approved after the assessment roll has been filed with Alameda County for collection, the District Manager or his or her designee is authorized to refund to the property owner the amount of any approved reduction. Any dispute over the decision of the District Manager, or his or her designee, shall be referred to the District Board of Trustees. The decision of the District Board of Trustees shall be final.

## ASSESSMENT

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**WHEREAS**, the Alameda County Mosquito Abatement District Board of Trustees contracted with the undersigned Engineer of Work to prepare and file a report presenting an estimate of costs of Services, a diagram for the benefit assessment area, an assessment of the estimated costs of Services, and the special and general benefits conferred thereby upon all assessable parcels within the Alameda County Mosquito Abatement District - Mosquito and Disease Control Assessment;

**NOW, THEREFORE**, the undersigned, by virtue of the power vested in me under Article XIID of the California Constitution, the Government Code and the Health and Safety Code and the order of the Alameda County Mosquito Abatement District Board of Trustees, hereby make the following determination of an assessment to cover the portion of the estimated cost of the Services, and the costs and expenses incidental thereto to be paid by the Mosquito and Disease Control Assessment.

The District has evaluated and estimated the costs of extending and providing the Services to the Assessment District. The estimated costs are summarized in Figure 1 and detailed in Figure 4, below.

The amount to be paid for the Services and the expenses incidental thereto, to be paid by the Alameda County Mosquito Abatement District for fiscal year 2014-15 is generally as follows:

**FIGURE 5– SUMMARY COST ESTIMATE – FY 2014-15**

Mosquito Abatement & Disease Control Services	\$4,752,354
Materials, Utilities and Supplies	\$820,746
Capital Equipment and Fixed Assets	\$323,000
Other Expenses	\$604,359
Incidentals	\$48,792
<b>TOTAL BUDGET</b>	<b>\$6,549,251</b>
Less Contributions from Other Sources:	
Other Revenue	<u>(\$5,443,844)</u>
<b>Net Amount To Assessments</b>	<b>\$1,105,407</b>

An Assessment Diagram is hereto attached and made a part hereof showing the exterior boundaries of the assessment area. The distinctive number of each parcel or lot of land in

the Mosquito and Disease Control Assessment is its Assessor Parcel Number appearing on the Assessment Roll.

I do hereby determine and apportion the net amount of the cost and expenses of the Services, including the costs and expenses incidental thereto, upon the parcels and lots of land within the Mosquito and Disease Control Assessment, in accordance with the special benefits to be received by each parcel or lot, from the Services, and more particularly set forth in this Engineer's Report.

The assessment determination is made upon the parcels or lots of land within the assessment area in proportion to the special benefits to be received by the parcels or lots of land, from the Services.

The assessment is subject to an annual adjustment tied to the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%. Any change in the CPI in excess of 3% shall be cumulatively reserved as the "Unused CPI" and shall be used to increase the maximum authorized assessment rate in years in which the CPI is less than 3%. The maximum authorized assessment rate is equal to the maximum assessment rate in the first fiscal year the assessment was levied adjusted annually by the minimum of 1) 3% or 2) the change in the CPI plus any Unused CPI as described above.

The change in the CPI from December 2011 to December 2012 was 2.57% and the Unused CPI carried forward from the previous year is 9.28%. Therefore, the maximum authorized increase in the Assessment rate for fiscal year 2014-15 is 11.85%, and the maximum authorized assessment rate is \$5.62 per single family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2014-15 at the rate of \$2.50, which is below the maximum authorized assessment rate.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the County of Alameda for the fiscal year 2014-15. For a more particular description of the property, reference is hereby made to the deeds and maps on file and of record in the office of the County Assessor of the County of Alameda.

I hereby place opposite the Assessor Parcel Number for each parcel or lot within the Assessment Roll, the proposed amount of the assessment for the fiscal year 2014-15 for each parcel or lot of land within the Alameda County Mosquito Abatement District- Mosquito and Disease Control Assessment.<sup>23</sup>

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<sup>23</sup> Each parcel has a uniquely calculated assessment based on the estimated level of special benefit to the property as determined in accordance with this Engineer's Report.



Dated: May 30, 2014

Engineer of Work

By \_\_\_\_\_  
John W. Bliss, License No. C052091

## **ASSESSMENT DIAGRAM**

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

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



FILED IN THE OFFICE OF THE GENERAL MANAGER OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT, COUNTY OF ALAMEDA, CALIFORNIA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2014.

CLERK OF THE BOARD OF SUPERVISORS

RECORDED IN THE OFFICE OF THE GENERAL MANAGER OF THE ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT, COUNTY OF ALAMEDA, CALIFORNIA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2014.

CLERK OF THE BOARD OF SUPERVISORS

AN ASSESSMENT WAS CONFIRMED AND LEVIED BY THE BOARD OF SUPERVISORS OF ALAMEDA COUNTY, ON THE LOTS, PIECES AND PARCELS OF LAND ON THIS ASSESSMENT DIAGRAM ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2014 FOR THE FISCAL YEAR 2014-15 AND SAID ASSESSMENT DIAGRAM AND THE ASSESSMENT ROLL FOR SAID FISCAL YEAR WERE FILED IN THE OFFICE OF THE COUNTY AUDITOR OF THE COUNTY OF ALAMEDA ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 2014. REFERENCE IS HEREBY MADE TO SAID RECORDED ASSESSMENT ROLL FOR THE EXACT AMOUNT OF EACH ASSESSMENT LEVIED AGAINST EACH PARCEL OF LAND.

CLERK OF THE BOARD OF SUPERVISORS

Note:  
REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE COUNTY OF ALAMEDA FOR A DETAILED DESCRIPTION OF THE LINES AND DIMENSIONS OF ANY PARCELS SHOWN HEREIN. THOSE MAPS SHALL GOVERN FOR ALL DETAILS CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS. EACH PARCEL IS IDENTIFIED IN SAID MAPS BY ITS DISTINCTIVE ASSESSOR'S PARCEL NUMBER.

SCI Consulting Group  
4745 Mangles Blvd.  
Fairfield, CA 94534

### ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT MOSQUITO AND DISEASE CONTROL ASSESSMENT DIAGRAM

## **ASSESSMENT ROLL**

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Reference is hereby made to the Assessment Roll in and for the assessment proceedings on file in the office of the Alameda County Mosquito Abatement District, as the Assessment Roll is too voluminous to be bound with this Report.

**RESOLUTION NO. 1010-1**

**A RESOLUTION INTENTION TO CONTINUE ASSESSMENTS FOR FISCAL YEAR 2014-15, PRELIMINARILY  
APPROVING THE ENGINEER'S REPORT, AND PROVIDING FOR NOTICE OF HEARING FOR THE  
ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
MOSQUITO AND DISEASE CONTROL ASSESSMENT**

**WHEREAS**, on May 14th, 2008 by its Resolution No. 937-1, the Board of Trustees of the Alameda County Mosquito Abatement District (the "Board") authorized the levy of assessments for the Mosquito and Disease Control Assessment (the "Assessment") pursuant to the provisions of the Health and Safety Code section 2080 et seq. and Article XIID of the California Constitution; and

**WHEREAS**, such mosquito and disease control services provide tangible health benefits, reduced nuisance benefits and other special benefits to the public and properties within the areas of such services; and

**WHEREAS**, the purpose of the Assessment is for mosquito control projects and programs including projects, programs, public improvements and services intended to provide for the surveillance, prevention, abatement and control of mosquitoes and the diseases they carry throughout its boundaries ("Services"); and

**WHEREAS**, the Alameda County Mosquito Abatement District ("the District") is authorized, pursuant to the authority provided in Health and Safety Code Section 2082 and Article XIID of the California Constitution, to levy assessments for mosquito and disease control services; and

**WHEREAS**, the Assessment was authorized by an assessment ballot proceeding conducted in 2008 and approved by 70.19% of the weighted ballots returned by property owners, and such assessments were levied by the Board by Resolution No. 937-1, passed on May 14, 2008;

**WHEREAS**, an annual adjustment to the Assessment rate equal to the change in the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%, was also authorized by the assessment ballot proceeding conducted in 2008;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Trustees of the Alameda County Mosquito Abatement District that:

1. SCI Consulting Group, the Engineer of Work, has prepared an Engineer's Report in accordance with Article XIID of the California Constitution and Section 2082, et. seq., of the Health and Safety Code (the "Report"). The Report has been made, filed with the secretary of the board and duly considered by the Board and is hereby deemed sufficient and preliminarily approved. The Report shall stand as the Engineer's Report for all subsequent proceedings under and pursuant to the foregoing resolution.
2. It is the intention of this Board to levy and collect the continued assessments for the Mosquito and Disease Control Assessment for fiscal year 2014-15 for the proposed projects and services set forth in the Report. Within the Service Area, the proposed projects, services and programs are generally described as surveillance, disease prevention, abatement, and control of mosquitoes within the District boundaries. Such mosquito control and disease prevention projects and programs include, but are not limited to, source reduction, biological control, larvicide applications, adulticide applications, disease monitoring, public education, reporting, accountability, research and interagency cooperative activities, as well as capital costs, maintenance, and operation expenses and incidental expenses (collectively "Services"). The cost of these Services also includes capital costs comprised of equipment, capital

improvements and facilities necessary and incidental to the District's mosquito and disease control program.

3. The levy of the Assessment may be continued annually and may be adjusted by up to the maximum annual CPI adjustment without any additional assessment ballot proceeding. The change in the CPI in 2013 was 2.57% and the Unused CPI carried forward from the previous year is 9.28%. Therefore, the maximum authorized increase in the Assessment rate for fiscal year 2014-15 is 11.85%, and the maximum authorized assessment rate is \$5.62 per single family equivalent benefit unit. The estimate of cost and budget in this Engineer's Report proposes assessments for fiscal year 2014-15 at the rate of \$2.50, which is below the maximum authorized assessment rate.
4. The estimated fiscal year 2014-15 cost of providing the Services is \$1,105,406. This cost results in a proposed assessment rate for fiscal year 2013-14 of TWO DOLLARS AND FIFTY CENTS (\$2.50) per single-family equivalent benefit unit. Reference is hereby made to the Report for a full and detailed description of the proposed assessments upon assessable lots and parcels of land.
5. Notice is hereby given that on July 9, 2014, at the hour of 5:00 p.m. at the Alameda County Mosquito Abatement District office located at 23187 Connecticut Street, Hayward, California; the Board will hold a public hearing to consider the ordering of the Services, and the levy of the continued assessments for fiscal year 2014-15.
6. The clerk of the board shall cause a notice of the hearing to be given by publishing a notice, at least ten (10) days prior to the date of the hearing above specified, in a newspaper circulated in the District.

PASSED and ADOPTED by the Board of Trustees of the Alameda County Mosquito Abatement District, State of California on June 11, 2014, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

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Chairman, Board of Trustees, Alameda County Mosquito  
Abatement District

ATTEST:

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Clerk of the Board of Trustees, Alameda County  
Mosquito Abatement District

REVENUES	Category	2009/10*	2010/11	2011/12	2012/13	2013/14	2014/15	change	\$ change	Cause			
<b>PROPERTY TAX</b>	<b>Total Property Taxes</b>	<b>1,444,247</b>	<b>1,548,990</b>	<b>1,503,800</b>	<b>1,515,775</b>	<b>1,535,792</b>	<b>1,616,830</b>	<b>5.3%</b>	<b>81,038</b>	incr property values			
<b>OTHER REVENUE</b>	Special Tax (net of Admin)	805,000	805,000	797,200	801,098	810,000	801,014	-1.1%	(8,986)	accounts for county admin fee			
	Benefit Assessment (net of Admin)	1,070,000	1,075,000	1,077,044	1,083,018	1,104,854	1,082,918	-2.0%	(21,936)	accounts for county admin fee			
	Interest on pooled money	20,000	20,000	20,000	15,000	6,000	4,000	-33.3%	(2,000)	int rates are down			
	Charges for Services	5,000	\$ -	\$ -	\$ -	\$ -	\$ -						
	Sale of Property and Equipment	5,000	5,000	5,000	5,000	5,000	5,000	0.0%	-				
	Reimburse Retiree Health Benefits from OPEB						125,468	100.0%	125,468	changed to 2014-15 number			
	Reimburse Management fees for OPEB						12,000	100.0%	12,000	reimburs fr OPEB			
	<b>Total Other Revenue</b>	<b>1,905,000</b>	<b>1,905,000</b>	<b>1,899,244</b>	<b>1,904,115</b>	<b>1,925,854</b>	<b>2,030,400</b>	<b>5.4%</b>	<b>104,546</b>				
	<b>Total Tax and Other Revenue</b>	<b>3,349,247</b>	<b>3,453,990</b>	<b>3,403,044</b>	<b>3,419,890</b>	<b>3,461,646</b>	<b>3,647,230</b>	<b>5.4%</b>	<b>185,584</b>				
	Cash Carried Over	1,700,000	2,005,000	2,450,000	3,012,633	2,900,000	3,000,000	3.4%	100,000	estimated			
	<b>TOTAL REVENUES, including cash carryover</b>	<b>5,049,247</b>	<b>5,458,990</b>	<b>5,853,044</b>	<b>6,432,523</b>	<b>6,361,646</b>	<b>6,647,230</b>	<b>4.5%</b>	<b>285,584</b>				
<b>EXPENDITURES</b>	Salaries (permanent)	1,103,179	1,289,556	1,323,704	1,275,097	1,457,129	1,479,120	a 1.5%	21,991	2% COLA			
	Retirement (PERS)	333,192	357,673	370,992	369,676	169,085	182,376	b 7.9%	13,291	PERS Rate increase			
	Seasonal Staff				50,000	100,000	120,000	20.0%	20,000	incr number of seasonals			
	Medicare (separated out in 2013/14)					22,578	23,187	c 2.7%	609	incr in payroll			
	<b>Total Salaries + Retirement</b>	<b>1,436,371</b>	<b>1,647,229</b>	<b>1,694,696</b>	<b>1,694,774</b>	<b>1,748,792</b>	<b>1,804,683</b>	<b>3.2%</b>	<b>55,891</b>	cumulative incr			
	Fringe Benefits	311,176	323,681	333,067	412,892	435,048	434,621	d -0.1%	(428)	8% incr for half a year			
	Services and Supplies	582,010	703,773	761,731	805,370	970,773	896,362	e -7.7%	(74,411)	see Supp & Serv budget for detail			
	Capital Expenditures	57,500	95,700	117,000	178,500	204,000	323,000	f 58.3%	119,000	locker room and paving			
	Reserve for Contingencies	25,000	25,000	25,000	25,000	25,000	50,000	100.0%	25,000				
	Debt Service	222,071	111,035	\$ -	\$ -	\$ -	\$ -						
	Pesticide Shed Replacement						\$ 120,000						
	<b>Total Operating Expenditures</b>	<b>2,634,128</b>	<b>2,906,418</b>	<b>2,931,494</b>	<b>3,116,536</b>	<b>3,383,613</b>	<b>3,628,666</b>	<b>7.2%</b>	<b>245,053</b>				
	Transfer to Post Employment Benef	500,000	500,000	500,000	500,000	800,000	-	#####	(800,000)	no transfer to OPEB			
	CalPERS side fund payment				852,916		-			side fund is paid off			
	Operating expenses + OPEB	3,134,128	3,406,418	3,431,494	4,469,452	4,183,613	3,628,666	-13.3%	(554,947)	same as total Op Expend this year			
<b>Reserves</b>	Reserves for Dry Period Cash (60%	1,915,119	2,052,572	2,427,306	2,140,857	2,030,168	2,177,200	7.2%	147,032	60% of Op Expend			
	Reserves for Public Health Emergencies						250,000						
	Reserves for Capital Replacement					147,864	591,364	299.9%	443,500	Transfer to capital reserves instead of OPEB			
	<b>Total Expenditures</b>	<b>5,049,247</b>	<b>5,458,990</b>	<b>5,858,800</b>	<b>6,610,309</b>	<b>6,361,646</b>	<b>6,647,230</b>	<b>4.5%</b>	<b>285,584</b>				
<b>Comparisons with Previous</b>	Salaries + Retirement		15%	3%	0%	3%	3%						
	Operating Expenses		10%	1%	6%	9%	7.2%						
	Dry Period Cash		7%	18%	-12%	-5%	7.2%						
	Total Exp including Dry Period Cash		8%	7%	13%	-4%	4.5%						
	a	Increase in 2013/14 includes 2 additional staff members											
	b	Decrease for 2013/14 reflects employees paying share of retirement											
	c	Prior to 2013-14 Medicare was included in Fringe Benefits											
	d	Assumes an 8% increase in medical insurance, numbers not yet available											
	e	Decrease from prior year											
	f	Increase due to Locker Room Expansion and Parking Lot repavement											

For period between July 1, 2014 to June 30, 2015														
	Date of hire	Pos	13-14 Base Salary	COLA		New Base	Longevity	Amount	New Salary	# mo	Sub Total	Total	Cause	Next change
Alema	Jul-99	VB2	\$ 7,206.67	2.0%	\$ 144.13	\$ 7,350.80	3%	\$ 220.52	\$ 7,571.33	12	\$ 90,856	\$ 90,856	longevity	7/1/20
Busar	Apr-02	VB2	\$ 7,206.67	2.0%	\$ 144.13	\$ 7,350.80	2%	\$ 147.02	\$ 7,497.82	12	\$ 89,974	\$ 89,974	longevity	4/1/17
Cain	Oct-02	VB2	\$ 7,206.67	2.0%	\$ 144.13	\$ 7,350.80	2%	\$ 147.02	\$ 7,497.82	12	\$ 89,974	\$ 89,974	longevity	10/1/15
Camp	Nov-03	VB2	\$ 7,206.67	2.0%	\$ 144.13	\$ 7,350.80	2%	\$ 147.02	\$ 7,497.82	12	\$ 89,974	\$ 89,974	longevity	12/1/18
Carde	Feb-12	MCT3	\$ 5,930.53	2.0%	\$ 118.61	\$ 6,049.14	0	\$ -	\$ 6,049.14	2	\$ 12,098		MCT4	9/1/14
		MCT4	\$ 6,227.08	2.0%	\$ 124.54	\$ 6,351.62	0	\$ -	\$ 6,351.62	10	\$ 63,516	\$ 75,614	MCT5	9/1/15
Nick	Mar 15 201	AMCT	\$ 5,112.17	2.0%	\$ 102.24	\$ 5,214.41	0%	\$ -	\$ 5,214.41	2	\$ 10,429		MCT1	Sep 1 2014
		MCT	\$ 5,379.19	2.0%	\$ 107.58	\$ 5,486.77	0%	\$ -	\$ 5,486.77	6	\$ 32,921		MCT2	Mar 1 2015
		MCT2	\$ 5,648.14	2.0%	\$ 112.96	\$ 5,761.10	0%	\$ -	\$ 5,761.10	4	\$ 23,044	\$ 66,394	MCT3	Mar 1 2016
Leipzi	Jul-06	VB2	\$ 7,206.67	2.0%	\$ 144.13	\$ 7,350.80	1%	\$ 73.51	\$ 7,424.31	12	\$ 89,092	\$ 89,092	longevity	7/1/16
Tom	Apr-14	AMCT	\$ 5,112.17	2.0%	\$ 102.24	\$ 5,214.41	0	\$ -	\$ 5,214.41	3	\$ 15,643		MCT1	10/1/14
		MCT1	\$ 5,379.19	2.0%	\$ 107.58	\$ 5,486.77	0	\$ -	\$ 5,486.77	6	\$ 32,921		MCT2	4/1/15
		MCT2	\$ 5,648.14	2.0%	\$ 112.96	\$ 5,761.10	0	\$ -	\$ 5,761.10	3	\$ 17,283	\$ 65,847	MCT3	10/1/15
Castill	Mar-02	Env S	\$ 7,343.68	2.0%	\$ 146.87	\$ 7,490.55	2%	\$ 149.81	\$ 7,640.36	12	\$ 91,684	\$ 91,684	longevity	Mar 1 2017
Husto	Jul-91	Sup 5	\$ 8,704.65	2.0%	\$ 174.09	\$ 8,878.75	4%	\$ 355.15	\$ 9,233.90	12	\$ 110,807	\$ 110,807	longevity	Jul 1 2016
Kirkpa	Jun-98	Ent5	\$ 8,290.09	2.0%	\$ 165.80	\$ 8,455.89	3%	\$ 253.68	\$ 8,709.57	12	\$ 104,515	\$ 104,515	longevity	Jun 1 2018
Izumiz	Feb-09	LA5	\$ 7,343.68	2.0%	\$ 146.87	\$ 7,490.55	1%	\$ 74.91	\$ 7,565.46	12	\$ 90,785	\$ 90,785	longevity	Nov 1 2019
Lam	Dec-02	AFM 5	\$ 7,946.16	2.0%	\$ 158.92	\$ 8,105.08	2%	\$ 162.10	\$ 8,267.18	12	\$ 99,206	\$ 99,206	longevity	Jan 1 2018
Mead	Jul-86	SS5	\$ 7,343.68	2.0%	\$ 146.87	\$ 7,490.55	5%	\$ 374.53	\$ 7,865.08	12	\$ 94,381	\$ 94,381	SS5	Jul 1 2016
Peave	Jun-12	Mgr 4	\$ 11,038.47	2.0%	\$ 220.77	\$ 11,259.23	0	\$ -	\$ 11,259.23	11	\$ 123,852		Mgr 5	6/1/15
		Mgr 5	\$ 11,590.39	2.0%	\$ 231.81	\$ 11,822.20	0	\$ -	\$ 11,822.20	1	\$ 11,259	\$ 135,111	longevity	6/1/17
Wood	Nov-99	Mech	\$ 7,527.93	2.0%	\$ 150.56	\$ 7,678.49	3%	\$ 230.35	\$ 7,908.85	12	\$ 94,906	\$ 94,906	longevity	11/1/19
		Mech	(changes longevity in Nov from 2 to 3%)											
									<b>Total Salaries</b>		<b>\$ 1,479,120</b>	<b>\$ 1,479,120</b>		
								District share PERS Contribution	12.330%		Employer paid PERS	<b>\$ 182,376</b>		
											Total Wages + Dist share PERS		<b>\$1,661,496</b>	
	wage	# seas	Hrs/mo	Months (Apr-Oct)							Seasonals (4)	\$ 120,000		
	\$ 20	5	160	7	=	\$ 112,000					Total Permanent + Seasonal staff		\$1,599,120	
			SS Tax	=										
			unemployment			\$ 7,000					Medicare	\$ 23,187.24		
						\$ 119,000								
											Total Wages, Salaries, & retirement	\$ 1,804,683		



									Descrp. Of Major Category
	sub	staff	BUDGET CATEGORY	FY 11-12	FY 12-13	FY 13-14	FY 14-15		
#		GW	#3031 - CLOTHING AND PERSON	\$ 8,360.00	\$ 8,480.00	\$ 8,492.00	\$ 8,500.00	\$ 8,500.00	purchase of new uniforms, hip boots, raingear, jackets etc
#		GW	#3051 - HOUSEHOLD EXPENSES	4,790.00	4,828.00	5,375.00	5,500.00	5,500.00	cleaning supplies, janitorial service, hand towels etc
	A	GW	Janitorial service						
	B	GW	Supplies						
#		GW	#3071 - LAUNDRY SERVICE AND	8,100.00	8,100.00	8,100.00	9,000.00	9,000.00	uniform service, set up charges
#			#3111 - OFFICE EXPENSES	25,549.92	22,929.92	28,598.20		16,000.00	Office supplies, Computers & Comp supplies, postage
	A	CL	Office Supplies 10,000 for 2 copiers + 5000 supplies)				15,000.00		
	B	CL	Postage				1,000.00		
			<b>COMPUTERS AND SOFTWARE</b>						
		SM	Computers, supplies and software				12,000.00	52,000.00	
			LandVision subscription	2,000.00					
			BAAMA membership	50.00					
			Computer hardware						
			Computer software						
			Expendable supplies (toner cartridges, CD's etc)						
			Upgrade laptops and operating systems for database				40,000.00		
#			#3131 - LABORATORY SUPPLIES	15,998.90	18,048.90	22,960.00		18,150.00	Books, traps, trap , dry icebatteries
	A	BK	Mosquito Surveillance - traps, dry ice				9,400.00		
	B	BK	Disease surveillance - RAMP Supplies				1,900.00		
	C	BK	Mosquito pool testing (taken out of District special expense)				2,000.00		
	D	BK	Hood certification				200.00		
	E	BK	Misc lab equipment and supplies				4,500.00		
		BK	Reimbursement for light traps (move to here?)				150.00		

2014/15 BUDGET

SERVICES AND SUPPLIES

Final Draft June 11, 2014

#	GW	#3171 - SMALL TOOLS AND INST	2,400.00	2,400.00	2,400.00	1,500.00	1,500.00	
#		#3211 - MAINTENANCE STRUCTU	12,303.00	9,303.00	17,503.00		15,000.00	Landscaping,light, misc bldg and yard maint
A	GW	Landscaping service \$2,100 for reg maint, \$2,000 for new plants				5,000.00		
B	GW	Building Maintenance and repairs				10,000.00		
C	GW	Yard Maintenance and repairs						
#	GW	#3231 - MAINTENANCE OF EQUIP	45,997.00	38,294.00	41,284.00	35,000.00	40,000.00	
		Accident repair (for repair of vehicles, to be reimbursed by VCJPA)				5,000.00		
#		#3271 - UTILITIES	15,972.00	18,120.00	18,160.00		21,500.00	Garbage, PGE, Water-sewer
A	CL	Garbage (\$1,440)				1,500.00		
B	CL	PG & E (\$14,400)				14,500.00		
C	CL	Hayward Water & Sewage (\$5,400)				5,500.00		
#		#3291 - COMMUNICATIONS	11,575.00	14,145.00	15,125.00		17,075.00	Website subscript, public notices, telephone, cell phones, internet
A	CL	Telephone Service & Internet				12,000.00		
B	CP	Public Notices				500.00		
D	SM	Website and email hosting	375 every 3 yrs, due 2014-15			375.00		
E	GW	Cell phone service (Verizon)	about 350/mo			4,200.00		
#	CP	#3331 - MEMBERSHIPS, DUES & \$	32,181.00	26,433.84	25,843.84		22,750.00	AMCA, CSDALAFCo, MVCAC, SOVE Landvision
		AMCA (sustaing membership)				4,000.00		
		CSDA \$5,000 + 50 for local chapter)				5,050.00		
		MVCAC (raising cap to 10,000)				10,000.00		
		SOVE				325.00		
		LAFCo				650.00		
		ESA				150		
		LandVision				2,500.00		
		Emergency Managers Assoc				25.00		
		Bay Area Mapping Assoc				50.00		
#	CP	#3351 - TRANSPORTATION AND T	65,200.00	73,900.00	96,550.00		101,216.00	Gas, Conferences, Trustees, misc meeting supplies
A	CP	Fuel and GPS (WexMart)				40,000.00		
B	CP	GPS				4,000.00		
C	CP	Meetings and conferences				39,616.00		
D	CP	Board meeting expenses (plaques, coffee etc)				800.00		
E	CP	Trustee in lieu				16,800.00		
#		#3391 - DISTRICT SPECIAL EXPE	221,879.55	237,420.10	281,173.00		201,500.00	Pesticides, Chickens, Fish supplies, Aerial Pool photos, permits, spray equip
A	JH	Pesticides				150,000.00		

2014/15 BUDGET

SERVICES AND SUPPLIES

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B	JH	Field supplies (dippers etc)				500.00			
C	BK	Sentient Chickens				4,000.00			
D	SM	Fish and Fish Maint.				4,000.00			
E	CP	Aerial Pool Survey				17,000.00			
F	CP	Permits				3,000.00			
G	CP	Continuing Education fees				4,000.00			
H	CP	Board Plaques and nameplates				1,000.00			
I	CP	Seasonals (post ads, pre-empl phys could also sep into notices & physicals)				1,000.00			
J	GW	Safety				2,000.00			
K	GW	Spray equipment				15,000.00			
#	EC	#3392 - COMMUNITY EDUCATION	24,370.00	24,820.00	33,470.00	32,020.00	32,020.00	Erika's is done	
		Supplies							
		WNV Ads							
		Printing							
		Erika's section is finished							
#		#3411 - PROFESSIONAL / SPECIAL	150,180.00	178,680.00	246,470.00		217,700.00	page consult, database consult, helicopter, legal, SCI, Training	
A	CP	Audit				12,200.00			
B	CP	Actuarial report				3,000.00			
C	CP	Database consultant				30,000.00			
D	CP	Helicopter service				25,000.00			
E	CP	Legal Services				4,000.00			
F	CP	MVCAC Research Found				5,000.00			
G	CP	CEQA				10,000.00			
H	CP	OPEB management (should be reimbursed from OPEB Account)				12,000.00			
I	CP	Pre-employment physicals, hearing tests, respirator tests				1,000.00			
J	CP	County Assessor's fee for collection of special tax				0.00			
K	CP	Tax collection service - SCI	\$32061 for Special tax and BA			35,000.00			
L	CP	Albany survey				15,000.00			
M	CP	Albany balloting				35,000.00			
N	CP	Payroll service (ADP)				5,500.00			
O	CP	Environmental consultant services for regulatory issues				5,000.00			
P	CP	Training for trustees				1,000.00			
Q	CP	Staff Training (automotive, IT, staff development)				15,000.00			
R	SM	Contract services for Computer network				4,000.00			

2014/15 BUDGET

SERVICES AND SUPPLIES

Final Draft June 11, 2014

#		#3471 - INSURANCE - COLLISION	40,060.00	43,126.00	<b>37,538.00</b>		<b>32,048.00</b>	
		Liability				<b>23,263.00</b>		
		Property				<b>1,711.00</b>		
		General Fund				<b>7,074.00</b>		
		Fidelity/Fraud						
#		WORKERS COMPENSATION INSURANCE	44,547.00	44,363.00	<b>48,381.00</b>	<b>50,553.00</b>	<b>50,553.00</b>	
		#3531 INSURANCE FUND - SIRS	25,000.00	25,000.00	<b>25,000.00</b>	<b>25,000.00</b>	<b>25,000.00</b>	
#		#3551 - RENTS / LEASES OF EQU	7,268.00	7,478.00	<b>8,350.00</b>		<b>9,350.00</b>	<i>Postage meter, sonitrol, water service, lift</i>
A	CL	Pitney Bowes - postage meter				<b>400.00</b>		
B	CL	Drinking water system & filter				<b>450.00</b>		
C	GW	Alarm service - Sonitrol				<b>8,000.00</b>		
D	GW	Man lift for changing lights (put in with bldg maint?)				<b>500.00</b>		
		<b>Total</b>	<b>\$763,781.37</b>	<b>\$805,869.76</b>	<b>\$970,773.04</b>	<b>\$896,362.00</b>	<b>\$896,362.00</b>	



**District Contribution to Health Plans**

<u>Plan</u>	Employees	% chng	Annuitants	% chng	Total	% chng	Amt of dif
PERS Health Benefits	260,833.63	0%	97,599.94	7%	358,433.57	2%	\$ 6,757.57
Delta Dental Plan	41,128.92	-9%	20,096.64	1%	61,225.56	-6%	\$ (3,585.24)
Reimbursed Dental	-		3,600.00		3,600.00	0%	\$ -
Lincoln Financial Group Life	1,123.20	0%	-		1,123.20	0%	\$ -
Vision Service Plan	6,067.20	0%	4,171.20	0%	10,238.40	0%	\$ -
	309,152.95		125,467.78				<i>(annuitants cost to be reimbursed from OPEB trust in 2015-16)</i>

**Total Health Benefits for Current and Retired employees**

434,620.73

	<i>amt</i>	<i>Amt dif</i>	<i>% dif</i>
2012/13 Total Fringe Benefits	392,260.06		
2013/14 Total Fringe Benefits <i>includes 2 new staff</i>	431,448.40	39,188.34	10%
2014/15 Total Fringe Benefits <i>includes 2 new staff</i>	434,620.73	3,172.33	1%

Amounts for Dental, Vision and Life Insurance are up to date through June 2015

Amounts for Health Insurance assume an 8% increase after January 1, 2015

*as of 2013/14 Medicare is a separate line on the Revenue Summary sheet, unemployment is on Salary sheet*

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**2014-2015 PROPOSED CAPITAL PURCHASES****#5111 - STRUCTURES & IMPROVEMENTS**

Repair & Reseal parking lot in back & front service areas	\$90,000	
Shop Roof	\$40,000	
Skylights	\$12,000	
Outdoor Lights, upgrade ballasts	\$5,500	
Locker Room Expansion	\$70,000	
		\$217,500

**#5311 - EQUIPMENT**

2014 Ford F150 4 x4	\$26,000	
Laboratory truck (Toyota or Nissan)	\$32,000	
2014 ARGO	\$23,000	
New microscope for lab	\$7,000	
Digital Camera for Lab	\$2,500	
New fish tank with filter and pump system	\$16,000	
		\$106,500
<b>Total</b>	<b>\$324,000</b>	

# Alameda County Mosquito Abatement District

## BOARD OF TRUSTEES

Barbara Halliday, President  
Ryan Clausnitzer, Vice-President  
George Young, Secretary  
Robert Dickinson  
James N. Doggett  
Richard Guarienti  
Kathy Narum  
Jim Prola  
Ronald E. Quinn  
William M. Spinola  
Jan Washburn

Chindi Peavey Ph.D  
District Manager  
[cpeavey@mosquitoes.org](mailto:cpeavey@mosquitoes.org)

## AGENDA ITEM 8

### RESOLUTION 1010-2

The following is a copy of the Resolution passed by the Board of Trustees of the Alameda County Mosquito Abatement District at its meeting held on:

July 11, 2014

By a roll call vote, the manager's proposed 2014/15 budget was passed by the following Resolution:

#### RESOLVED:

That the following be, and the same is hereby adopted as the estimate of the Board as the amount of money required for fiscal year 2014/15

Salaries and Employees' Benefits	\$2,239,304
Services and Supplies	896,362
Capital Expenditures	323,000
Pesticide Storage Building Replacement	120,000
Reserve for Contingencies	50,000
Debt Service	0
Reserve for Dry Period Cash	2,177,200
Reserve for Capital Replacement	841,364

#### THE AMOUNT TO BE FUNDED BY THE FOLLOWING METHODS:

Property Taxes	\$1,616,830
Special Taxes	801,014
Benefit Assessment	1,082,918
Interest on pooled money	4,000
Reimbursement for Retiree Medical Expense from OPEB Trust	137,468
Charges for services	0
Sale of property and equipment	5,000
Cash carried over	3,000,000



THE SPECIAL TAX TO BE FIXED AT THE FOLLOWING RATES PER PARCEL  
IN THE FISCAL YEAR 2014/15 PURSUANT TO GOVERNMENT CODE SECTION 50077:

Single Family Residential	\$ 1.74/year
Residential (2-4 units)	3.50/year
Multiple dwellings (5 units or more)	8.74/year
Mobile Home Parcels	8.74/year
All other parcels	1.74/year

THE BENEFIT ASSESSMENT TO BE SET AT RATE OF \$2.50 PER SINGLE FAMILY EQUIVALENT AS SPECIFIED IN THE ENGINEER'S REPORT FOR FISCAL YEAR 2014-15 WITH ESTIMATED TOTAL REVENUES AS SET FORTH IN THE ENGINEER'S REPORT; and

BE IT FURTHER RESOLVED: That a certified copy of the foregoing resolution be forwarded to the County Auditor and Board of Supervisors pursuant to law.

The foregoing is a true and correct copy of the minutes of the Board.

AYES:

NOES:

ABSTAIN:

ABSENT:

I certify the above is a correct copy of the Resolution adopted by the Board of Trustees of the Alameda County Mosquito Abatement District at their regular meeting of July 11, 2014

BY: \_\_\_\_\_  
Chindi Peavey, District Manager

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 15, 2014**

<b>WAR NO</b>	<b>PAYEE</b>		<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
56614	Vector Biologist	Total salary less deduction for payroll	1011	2,445.22	
56614	Assistan Mosquito Control	"	1011	1,837.14	
56614	Vector Biologist	May 1 to May 15, 2014.	1011	2,589.74	
56614	Vector Biologist	"	1011	1,954.80	
56614	Vector Biologist	"	1011	2,665.97	
56614	Mosquito Control Technicia	"	1011	2,005.21	
56614	Environmental Specialist	"	1011	2,442.79	
56614	Seasonal	"	1011	1,202.66	
56614	Field Supervisor	"	1011	2,935.83	
56614	Biological Specialist	"	1011	2,639.62	
56614	Entomologist	"	1011	3,150.36	
56614	Finance Manager	"	1011	2,323.08	
56614	Vector Biologist	"	1011	2,326.58	
56614	Seasonal	"	1011	1,104.87	
56614	Assistan Mosquito Control	"	1011	2,341.74	
56614	IT Specialist	"	1011	2,542.70	
56614	District Manager	"	1011	3,231.02	
56614	Mechanic Specialist	"	1011	2,601.29	
56614	IRS	Federal tax withheld (payroll)	1011	7,245.67	
		Medicare Tax Withheld (payroll)	1011	844.21	
		District Contribution to Medicare (payroll)	1311	844.18	
56614	State of California	State Tax withheld (payroll)	1011	2,308.34	53,583.02
56714	Public Employees' Retirement System	Employee Contributions	1011	16.00	
		Employee Paid Member Contributions, 7% & 6.5%	1011	4,164.27	
		Employer Contribution 11.604% & 6.7%	1211	6,798.96	10,979.23
56814	Aetna Life & Annuity	Employee Contributions	1011		150.00
56914	CALPERS 457 Plan	Employee Contributions - PERS 457	1011		4,588.00
57014	Delta Dental Plan	Monthly Premium	1411		4,610.48
57114	Vision Service Plan	Health premium	1411		860.22
57214	Airgas NCN	Dry ice	3131		169.12
57314	Bayside	Janitorial services, May 2014	3051		300.00

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 15, 2014**

<b>WAR NO</b>	<b>PAYEE</b>		<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
57414	BioQuip	Repair traps	3131		517.33
57514	Cintas	Laundry service	3071	694.80	
		Personal supplies	3031	105.34	800.14
57614	Corporate Park Landscapin	Landscape maintenance	3211		170.00
57714	Cain, Lyle	Reimbursement, gas expenses	3351		20.00
57814	Dom's Surplus	Work boot for JB	3031		163.49
57914	Grainger	Mask, respirator cartridge	3391		230.27
58014	KBA Docusys	Canon copier rental	3111		381.97
58114	KBA Docusys	Contract rate charges	3111		96.40
58214	Kimball Midwest	Super fleet	3231	19.79	
		Mini disc	3171	39.45	59.24
58314	Mar Len Supply	Gas pump	3231	57.66	
		Drawer installation	3391	190.00	247.66
58414	NBC Supply	Gloves	3031	292.30	
		Masks	3391	140.54	432.84
58514	PFM Asset Mgt	Investment advisory services	3411		1,667.19
58614	Praxair	Dry ice	3131	95.55	
		Fish tank	3391	35.47	131.02
58714	Sonitrol	Repair phone line	3551		178.00
58814	TTM Communication	Change of phone lines	3291		756.25
58914	United Textile	Sleve	3211	384.00	
		Hand sanitizer	3051	67.00	
		Bandaid	3391	228.08	679.08
59014	Waste Management	Garbage service for April	3271		116.61
59114	Rocky Mountain	Mozy - computer storage	3111	120.45	
		Lookout - calendar software	3111	191.99	
		DigitalMap - Landvision subscription	3111	562.50	
		Godaddy - domain name renewal	3111	75.72	
		Lookout - calendar software	3111	253.90	
		Canon - copier rental	3111	347.62	
		UPS - shipping	3131	33.10	

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 15, 2014**

<b>WAR NO</b>	<b>PAYEE</b>	<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
	Artic - dry ice	3131	90.03	
	Artic - dry ice	3131	77.17	
	BioQuip - BG traps	3131	510.63	
	Target - cleaning supplies	3131	10.33	
	Home Depot - laboratory supplies	3131	63.12	
	Just Smog - smog test V 37	3231	31.75	
	IBS - battery	3231	94.04	
	Just Smog - smog test V 38	3231	31.75	
	Just Smog - smog test V 36	3231	31.75	
	Just Smog - smog test V 32	3231	31.75	
	Gorilla - light bar material	3231	110.65	
	Gorilla - light bar material	3231	10.19	
	Treds - tires for trailers	3231	180.18	
	Just Smog - smog test V 6	3231	40.00	
	Just Smog - smog test V 35	3231	31.75	
	TelePacific - communication expenses	3291	803.76	
	TelePacific - communication expenses	3291	803.76	
	Esquire - lunch, Legislative Day, CP/EC/JR	3351	65.51	
	Trader Joe - CSDA gift basket	3351	58.75	
	Michaels - CSDA gift basket	3351	42.10	
	Lucky - board meeting supplies	3351	24.27	
	ELK - parking, Sacramento	3351	10.00	
	Mike - chicken feed	3391	51.00	
	Orchard - ant control	3391	75.28	
	CTC - newsletter	3392	20.00	
	Papal - display material for show	3392	325.00	
	AAA - software	3392	39.00	
	Acorn - mosq life cycle replicas	3392	37.84	
	K Mart - CD holder	3392	21.84	
	Discount - portable ramp	3392	245.99	
	Tap Plastic - display case	3392	34.39	

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 15, 2014**

<b>WAR NO</b>	<b>PAYEE</b>	<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
	National Pen - show supplies	3392	247.14	
	Home Depot - totes	3392	43.47	
	Rocky Mountain Subtotal			5,879.47
<b>Total Warrants</b>				<b>87,767.03</b>

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 31, 2014**

<b>WAR NO</b>	<b>PAYEE</b>	<b>FOR</b>	<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
59214	Vector Biologist	Total salary less deductions for payroll period	1011	2,564.05	
59214	Assistan Mosquito Control 1	"	1011	1,837.14	
59214	Vector Biologist	"	1011	2,708.57	
59214	Vector Biologist	"	1011	1,954.80	
59214	Vector Biologist	"	1011	2,665.97	
59214	Mosquito Control Technicia	"	1011	2,005.20	
59214	Environmental Specialist	"	1011	2,561.62	
59214	Seasonal	"	1011	1,102.75	
59214	Field Supervisor	"	1011	2,935.84	
59214	Biological Specialist	"	1011	2,758.44	
59214	Entomologist	"	1011	3,269.19	
59214	Finance Manager	"	1011	2,397.34	
59214	Vector Biologist	"	1011	2,326.59	
59214	Seasonal	"	1011	1,009.89	
59214	Seasonal	"	1011	1,151.57	
59214	Assistan Mosquito Control 1	"	1011	2,341.75	
59214	IT Specialist	"	1011	2,542.70	
59214	District Manager	"	1011	3,231.02	
59214	Mechanic Specialist	"	1011	2,675.57	
59214	IRS	Federal Tax Withheld	1011	7,382.50	
		Medicare Tax Withheld	1011	860.61	
		District Contribution to Medicare	1311	860.60	
59214	State of California	State Tax Withheld	1011	2,330.42	55,474.13
59314	Public Employees' Retirement System	Employees contributions	1011	16.00	
		Employee paid member contributions, 7%, 6.5%	1011	4,164.27	
		District contribution 11.604%, 6.7%	1211	6,798.96	10,979.23
59414	Aetna Life & Annuity	Employee contributions	1011		150.00
59514	Calpers 457 Plan	Employees contributions - PERS 457	1011		4,588.00
59614	Calpers	Health insurance	1411		28,374.71
59714	Jefferson Pilot Financial	Life insurance premium	1411		87.75
	Elizabeth Anders	Trustee in lieu expenses - 1009th meeting	3351		-

**ALAMEDA COUNTY MOSQUITO ABATEMENT DISTRICT  
LIST OF WARRANTS DATED MAY 31, 2014**

<b>WAR NO</b>	<b>PAYEE</b>	<b>FOR</b>	<b>ACCT NO</b>	<b>AMT OF CHARGE</b>	<b>AMT OF WARRANT</b>
	Dennis Bray	Trustee in lieu expenses - 1009th meeting	3351		-
59814	Ryan Clausnitzer	Trustee in lieu expenses - 1009th meeting	3351		100.00
59914	James Doggett	Trustee in lieu expenses - 1009th meeting	3351		100.00
	James Golden	Trustee in lieu expenses - 1009th meeting	3351		-
60014	Richard Guarienti	Trustee in lieu expenses - 1009th meeting	3351		100.00
60114	Barbara Halliday	Trustee in lieu expenses - 1009th meeting	3351		100.00
	Denny McLeod	Trustee in lieu expenses - 1009th meeting	3351		-
60214	Katherine Narum	Trustee in lieu expenses - 1009th meeting	3351		100.00
60314	Jim Prola	Trustee in lieu expenses - 1009th meeting	3351		100.00
60414	Ronald Quinn	Trustee in lieu expenses - 1009th meeting	3351		100.00
	William Spinola	Trustee in lieu expenses - 1009th meeting	3351		-
60514	Jan Washburn	Trustee in lieu expenses - 1009th meeting	3351		100.00
60614	George Young	Trustee in lieu expenses - 1009th meeting	3351		100.00
60714	AT&T	Yellow pages listing	3392		60.00
60814	Airgas	Dry ice	3131		20.54
60914	Branan, Thomas	Dental reimbursement	1411		120.00
61014	Cardno Entrix	Programmatic EIR	3411		722.90
61114	Kell Mechanical	Maintenance for air conditioner	3211		200.00
61214	NBC Supply	Safety vest	3391		69.76
61314	PG & E	Utilities	3271		1,054.21
61414	Partsline	Blade assy	3231		55.13
61514	Sonitrol	Monitoring fee	3551		514.00
61614	Techniclean	Towels	3051		93.94
61714	Univar	Altosid	3391		1,883.52
61814	Verizon	Communication expenses	3291		649.92
61914	Wright Express	Fuel expenses, statement ended 05-15-14	3351		4,423.20
<b>Total Warrants</b>					<b>110,420.94</b>

**Account Balances as of April 30, 2014**

**Budget Year 2013-14**

Month 10 of 12 = 83% of Fiscal Year

	ACCOUNT	DESCRIPTION	EXPENDED IN MAY	EXPENDED TO DATE	BUDGETED	BALANCE REMAINING	% EXPENDED
<b>SALARIES &amp; BENEFITS</b>	1011	Salary and Wages	122,880.57	1,242,164.30	1,557,129.00	314,964.70	79.77%
	1311	District Contribution to Retirement	13,597.92	140,437.21	169,085.00	28,647.79	83.06%
	1411	District Contribution to Medicare	1,704.78	16,876.87	22,578.00	5,701.13	74.75%
	1211	District Contribution to Health Care	36,361.50	355,195.07	431,448.00	76,252.93	82.33%
		<b>TOTAL</b>	<b>174,544.77</b>	<b>1,754,673.45</b>	<b>2,180,240.00</b>	<b>425,566.55</b>	<b>80.48%</b>
<b>SERVICES &amp; SUPPLIES</b>	3031	Clothing and Personal Supplies	561.13	3,627.91	8,492.00	4,864.09	42.72%
	3051	Household Expenses	460.94	4,277.20	5,375.00	1,097.80	79.58%
	3071	Laundry Service and Supplies	694.80	5,076.91	8,100.00	3,023.09	62.68%
	3111	Office Expenses	2,030.55	16,547.39	28,598.20	12,050.81	57.86%
	3131	Laboratory Supplies	1,586.92	12,152.84	22,960.00	10,807.16	52.93%
	3171	Small Tools and Instruments	39.45	896.05	2,400.00	1,503.95	37.34%
	3211	Maintenance - Structures & Improveme	754.00	8,894.63	17,503.00	8,608.37	50.82%
	3231	Maintenance Equipment	726.39	10,514.19	41,284.00	30,769.81	25.47%
	3271	Utilities	1,170.82	16,979.96	18,160.00	1,180.04	93.50%
	3291	Communications	3,013.69	12,824.56	15,125.00	2,300.44	84.79%
	3331	Memberships, Dues, Subscriptions	0.00	15,852.00	25,843.84	9,991.84	61.34%
	3351	Transportation and Travel	5,543.83	65,228.14	96,550.00	31,321.86	67.56%
	3391	District Special Expenses	2,903.92	61,603.02	281,173.00	219,569.98	21.91%
	3392	Community Education	1,074.67	11,655.55	33,470.00	21,814.45	34.82%
	3411	Professional & Specialized Services	2,390.09	72,517.09	246,470.00	173,952.91	29.42%
	3471	Insurance - Collision, Liability etc	0.00	37,538.00	37,538.00	0.00	100.00%
	3491	Workers Compensation Insurance	0.00	48,381.00	48,381.00	0.00	100.00%
	3531	Insurance Fund - SIRS	0.00	0.00	25,000.00	25,000.00	0.00%
	3551	Rents, Leases - Equipment	692.00	6,545.00	8,350.00	1,805.00	78.38%
	<b>TOTAL</b>	<b>23,643.20</b>	<b>411,111.44</b>	<b>970,773.04</b>	<b>559,661.60</b>	<b>42.35%</b>	
<b>CAPITAL</b>	5111	Structures and Improvements	0.00	0.00	70,000.00	70,000.00	0.00%
	5311	Equipment	27,145.82	129,048.49	134,000.00	4,951.51	96.30%
		<b>TOTAL</b>	<b>27,145.82</b>	<b>129,048.49</b>	<b>204,000.00</b>	<b>74,951.51</b>	<b>63.26%</b>
		<i>Annual Operating Expenditures</i>	<b>225,333.79</b>	<b>2,294,833.38</b>	<b>3,355,013.04</b>	<b>1,060,179.66</b>	<b>68.40%</b>
<b>OTHER</b>		Reserve for Contingencies	0.00	0.00	25,000.00	25,000.00	0.00%
		Post Employment Benefit Account	0.00	800,000.00	800,000.00	0.00	100.00%
		<b>TOTAL</b>	<b>0.00</b>	<b>800,000.00</b>	<b>825,000.00</b>	<b>25,000.00</b>	<b>96.97%</b>
	<b>GRAND TOTAL</b>	<b>225,333.79</b>	<b>3,094,833.38</b>	<b>4,180,013.04</b>	<b>1,085,179.66</b>	<b>74.04%</b>	

Does not include 12/13 expenses paid in 13/14



**STATEMENT OF EXPENDITURES - MAY 31, 2014**  
**Budget Year 13-14**

	EXPENDITURES	TO-DATE	BUDGETED	BALANCE
Salary & Wages	174,544.77	1,754,673.45	2,180,240.00	425,566.55
Service and Supplies	23,643.20	411,111.44	970,773.04	559,661.60
Capital Expenditures	0.00	129,048.49	204,000.00	74,951.51
Reserve for Contingency	0.00	0.00	25,000.00	25,000.00
<b>TOTAL</b>	<b>198,187.97</b>	<b>2,294,833.38</b>	<b>3,380,013.04</b>	<b>1,085,179.66</b>

CASH BALANCE - May 31, 2014 : \$ 3,518,035.55 (Does not include interest revenue for May)

Sincerely,

Chindi Peavey  
District Manager



**Summary of Revenues Received to Date  
May 31, 2014**

	May	July-April	Received to Date	Budgeted	% of Budgeted
Ad Valorem Tax (includes redevelopment debits & credits)	\$ 96,914.72	\$ 1,658,957.57	\$ 1,755,872.29	\$ 1,535,792.00	114% <sup>a</sup>
Special Tax	\$ 70.66	\$ 800,747.43	\$ 800,818.09	\$ 810,000.00	99% <sup>a</sup>
Benefit Assessment	\$ 76.57	\$ 1,084,904.83	\$ 1,084,981.40	\$ 1,104,854.00	98% <sup>a</sup>
Other Revenues (Natl. Wildlife Refuge in lieu of taxes)	\$ -	\$ 194.53	\$ 194.53	\$ -	0%
Interest on Pooled Money	\$ -	\$ -	\$ -	\$ 6,000.00	0% <sup>b</sup>
Misc rebates		\$ 284.37	\$ 284.37	\$ -	0%
Sale of Equipment		\$ 1,407.00	\$ 1,407.00	\$ 5,000.00	28% <sup>c</sup>
<b>Total revenue received</b>	<b>\$ 97,061.95</b>	<b>\$ 3,546,495.73</b>	<b>\$ 3,643,557.68</b>	<b>\$ 3,461,646.00</b>	<b>105%</b>

<sup>a</sup> Taxes are received from the County Controller's office in 3 installments:

50% December 15  
40% April 15  
10% June 30

<sup>b</sup> Interest is posted by County later in the year

<sup>c</sup> 2 surplus right-hand drive trucks were sold at auction in February

This is preliminary data from the County Auditor-Controller's Office, Tax Analysis Unit.  
Some of the amounts credited to our account will be accrued to the past fiscal year  
when the annual financial statements are prepared by the District's auditor

# Alameda County Mosquito Abatement District

## BOARD OF TRUSTEES

Barbara Halliday, President  
Ryan Clausnitzer, Vice-President  
George Young, Secretary  
Robert Dickinson  
James N. Doggett  
Richard Guarienti  
Kathy Narum  
Jim Prola  
Ronald E. Quinn  
William M. Spinola  
Jan Washburn

Chindi Peavey Ph.D.

District Manager

[cpeavey@mosquitoes.org](mailto:cpeavey@mosquitoes.org)

## MONTHLY OPERATIONAL REPORT – MAY 2014

Dear Trustees:

### I. NARRATIVE

The District received a total of 194 requests for service during May. There were 52 mosquito-biting reports. The ten-year average for adult mosquito service requests in May is 53.2. 93 requests for mosquito-fish were received and 47 requests for inspection of potential mosquito sources.

Larval control efforts in May were focused primarily on four species of mosquitoes: *Culex pipiens*, the house mosquito; *Culex tarsalis*, the encephalitis mosquito; *Culiseta incidens*, the fish pond mosquito, and *Anopheles freeborni*, the malaria mosquito.

*Culex pipiens*, the house mosquito, is a vector of West Nile virus and is found throughout the year in Alameda County with its peak populations occurring in late summer and fall. The larvae are found in underground sources such as storm drains, catch basins, sumps and flooded basements as well as in water treatment plants.

*Culex tarsalis*, the encephalitis mosquito, is a vector of West Nile virus as well as St. Louis and Western Equine Encephalitis. This mosquito is found in most areas of the county from February through October. The larvae are found in freshwater sources of all types.

The fish pond mosquito, *Culiseta incidens*, is found throughout the year in Alameda County. This mosquito can utilize many different types of sources found around homes including fish ponds, fountains, bird baths, untreated swimming pools and pool covers, boats, spas, and many more.

*Aedes sierrensis*, The tree hole mosquito, starts to emerge towards the end of March each year. Inspection and treatment of tree holes begins in January and February and continues throughout the spring. Prolonged spring rains can provide additional sources so that this mosquito can stay active through June. Treehole mosquitoes are the vector of Canine Heartworm which is found in several areas of the County.

*Anopheles freeborni* (Western Malaria Mosquito ) Larvae of these species are found in clear water that contains algae and is well-lit. In the fall, the adult female may travel long distances and enter homes while seeking overwintering sites. On warm days during the water that contains algae and is well-lit. In the fall, the adult female may travel long distances and enter homes while seeking overwintering sites. On warm days during the winter and in the spring, females emerge from overwintering sites and seek a blood meal. Females are large, aggressive, and active during the day. *Anopheles freeborni* was the primary vector of human malaria in the Sacramento Valley in the early 1900s and the principal reason mosquito control was instituted in California. Although malaria is no longer endemic to this state, this species is capable of vectoring the disease, should the pathogen be re-introduced.



## Manager's Report

June 11, 2014

- a) Aerial Pool Survey. The annual survey for neglected swimming pools in Dublin, Pleasanton Livermore was received and technicians are checking pools now. A second aerial survey over the cities of Fremont, Union City Newark, Hayward and Castro Valley, was completed on May 27. (Information only)
- b) Update on Albany Survey – I have asked John Bliss of SCI to come to the July Board Meeting to provide information on surveying the residents of Albany about joining the district. Discussion of Albany will be placed on the July agenda. (Information only)
- c) The rate that the District pays for the Employer's share of CalPERS retirement costs will increase an additional 0.8% in 2015-16 due to the fact that no new employees will be joining the existing 2% @ 55 pool and that pool will rely on an ever-decreasing number of active employees in that pool. New employees are in a new 2% @ 62 pool. (Information only)
- d) Invasive Aedes Response Plan – A draft plan for the response to the potential introduction of *Aedes aegypti* or *Ae. albopictus* to Alameda County has been developed. The draft is in the Board packet. (Information only)
- e) Status of Trustee Appointments. A letter has been sent to each member of the Oakland City Council asking for their participation in appointing a new trustee for their city. I have contacted the City of Emeryville, and they are still having trouble finding an appointee but there are currently no candidates for the position. (Information only)
- f) Programmatic Environmental Impact Report. The Draft PEIR is still being edited. A new appendix E has been sent to Cardno-Entrix by Wes Maffei. The District is hoping to complete the Draft in late June and release it to the public. (information only)
- g) The 2012-13 Biennial Report has been finalized and is being distributed.
- h) Public Education events in June include the Alameda County Fair (June 18 - July 6) and Bug Days at the UC Botanical Garden on June 15.

## Invasive Aedes Response Plan (Aedes aegypti and Aedes albopictus)

### Detection

The District is currently conducting surveillance with 20 Autocidal Gravid Oviposition Traps and has incorporated surveillance for *Aedes aegypti* or *Ae albopictus* into the regular carbon dioxide-baited trap (CCO2 Trap) program. Technicians are deploying CO2 traps at all service request locations that are mosquito biting complaints, unless the cause of the problem is immediately apparent. We have also acquired 4 BG Sentinel Traps. These are a type of trap that is specific to the capture of *Ae aegypti* and *Ae albopictus*. These traps are cumbersome and expensive and not useful for other species of mosquitoes. Therefore, they are not being widely used except in cases where there is a complaint of mosquito biting that has not been solved with other types of traps. They will be more actively deployed after invasive Aedes species have been found.

Once we have detected either of these species within the county, the approach will be to use traps to determine the extent of the area infested, and conduct an extensive public education campaign. We will need to do extensive inspections of all properties within the infested area for potential sources of larval development. We will use an approach similar to that currently used for neglected swimming pools identified by aerial surveys – going to each property, attempting to make contact with the resident or owner, leaving notices on doors of those we could not make contact with and asking them to call for an appointment to inspect. Major challenges expected are

1. Language barriers in some neighborhoods where many residents that are at home during the day do not speak English. We will need the assistance of staff members who are bilingual, and we may need to translate some of our handouts
2. A large influx of call to the District, requiring additional help with answering phone
3. The need for additional personnel available for inspections of small containers in the yards of local residents

The exact plan will depend on where the infestation is found and how extensive it is. District staff has gained a great deal of experience in contacting large numbers of individual residents through our annual aerial swimming pool survey. Below is a list of the additional resources we anticipate needing after these mosquitoes have been detected.

### Additional Temporary Staff

2 bilingual assistants (Chinese, Spanish) to interpret when going house to house for inspections

2 additional people to help with trapping and mosquito ID's in the laboratory

1 additional staff person in the office to help answer phones

1 additional Mosquito Control Technician, if it was possible to get someone who had experience in mosquito control

## Control Materials

Estimate up to 40,000 for additional material

## Equipment

We are already purchasing an additional microscope for mosquito identification

We already have all of the material application equipment needed

We already have 20 Autocidal Gravid Oviposition Traps

4 additional BG Sentinel traps might be required after detection. We currently have 4

6 ipad tablets with translation software

Greater Los Angeles VCD uses Ipads with translation capability for field teams, this may be something we should consider at the time *Aedes aegypti* or *Ae. albopictus* are detected, depending on the location and circumstances

## Public Education

We have money budgeted for printing extra brochures

The biggest impact on public awareness would be achieved from articles in the news and there is no cost for that

We may need written translation services for our printed materials

Apex Translations - \$200 per flyer, quick turnaround



Invasive Aedes Response Plan  
Estimated Costs

Staffing

5 Additional Seasonals	\$ 120,000
1 Additional AMCT	\$ 80,000

Control Materials

Additional larvicide materials for containers	\$ 40,000
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Equipment

4 BG Sentinel Traps	\$ 800
Lure packets (6/pack,3 packs)	\$ 100
Batteries	\$ 640 8 @ \$80 each
Chargers	\$ 1,200 8 @ \$150 each
Total	\$ 2,740

ipads with translation software	\$ 5,000
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Public Education

Translation services for 5 brochures	<u>\$ 2,000</u>
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\$ 249,740