



155 Mason Circle  
Concord CA 94520  
phone (925) 685-9301  
fax (925) 685-0266  
[www.contracostamosquito.com](http://www.contracostamosquito.com)

BOARD OF TRUSTEES  
***ADVANCE PLANNING COMMITTEE MEETING***

**\*\*MONDAY, APRIL 8, 2019\*\***

DISTRICT OFFICE  
155 Mason Circle  
Concord, CA 94520  
**6:00 PM**

AGENDA

CALL TO ORDER:

Roll Call  
Pledge of Allegiance

1. PUBLIC INPUT ON NON AGENDA ITEMS

Public Participation: Members of the public may address the Board of Trustees regarding items of interest that are within the subject matter jurisdiction of the Board of Trustees. Generally, the Board will not enter into a dialogue during this period.

Speakers should have a “Speaker Card” completed and presented to the Clerk of the Board prior to the start of the Board meeting. Public input on agenda items will be taken at the beginning of the discussion of those agenda items.

Comments shall be limited to **three minutes per person**, unless different time limits are set by the Chairperson.

2. APPROVAL OF MINUTES FROM ADVANCE PLANNING COMMITTEE MEETING HELD ON APRIL 16, 2018

3. DISCUSSION OF FORMAT CHANGES TO FUTURE FIVE-YEAR PLANS

4. FIVE YEAR PLAN 2016-2020

5. BOARD AND GENERAL MANAGER ANNOUNCEMENTS


*Protecting Public Health Since 1927*

BOARD OF TRUSTEES

President MICHAEL KRIEG Oakley • Vice President PERRY CARLSTON Concord • Secretary DANIEL PELLEGRINI Martinez  
Antioch LOLA ODUNLAMI • Brentwood MARSHON THOMAS • Clayton PEGGIE HOWELL • Contra Costa County JIM PINCKNEY CHRIS COWEN & DARRYL YOUNG  
Danville RANDALL DIAMOND • El Cerrito Vacant • Hercules Vacant • Lafayette JAMES FITZSIMMONS • Moraga ROBERT LUCACHER • Orinda KEVIN MARKER • Pinole WARREN CLAYTON  
Pittsburg RICHARD AINSLEY PhD • Pleasant Hill RICHARD MEANS • Richmond SOHEILA BANA PhD • San Pablo Vacant • San Ramon PETER PAY • Walnut Creek JAMES MURRAY

6. ADJOURNMENT

I hereby certify that the District Board of Trustee Agenda was posted 10 days, before the noted meeting.

  
\_\_\_\_\_  
Natalie Martini, Administrative Assistant

3/29/2019  
\_\_\_\_\_  
Date

*The Contra Costa Mosquito & Vector Control District will provide reasonable accommodations for persons with disabilities planning to attend CCMVCD meetings who contact Natalie Martini at least 24 hours before the meeting, at (925) 771-6100.*

*Agenda materials are available to the public for inspection at no charge during business hours at our administrative office located at 155 Mason Circle, Concord, California.*

**CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT**

**APRIL 8, 2019 ADVANCE PLANNING COMMITTEE MEETING**

1. No comment, see agenda
2. APPROVAL OF MINUTES FROM ADVANCE PLANNING COMMITTEE MEETING HELD ON APRIL 16, 2018 (Pages 4-5)
3. DISCUSSION OF FORMAT CHANGES TO FUTURE FIVE-YEAR PLANS – General Manager Macedo will present ideas for incorporation to the format of future 5-year plans.
4. FIVE YEAR PLAN 2016-2020 (Pages 6-15) – *General Manager Macedo will provide updates on the current 5-year plan goals and objectives.*
- 5 - 6. No comment

ADVANCE PLANNING COMMITTEE  
MEETING MINUTES

An Advanced Planning Committee meeting of the Board of Trustees of the Contra Costa Mosquito and Vector Control District was held on Monday, April 16, 2018, in the District office at 155 Mason Circle, Concord, California.

TRUSTEES PRESENT	James Murray (2018 Chair) Warren Clayton Mark Lewis Robert Lucacher Richard Means Lola Odunlami Daniel Pellegrini
TRUSTEES ABSENT	Richard Ainsley
OTHERS PRESENT	Paula Macedo, General Manager Natalie Jones, Administrative Assistant

1. The Committee meeting was called to order at 5:02 p.m.
2. Roll call indicated that seven trustees were present and one was absent.
3. PUBLIC INPUT AND NON AGENDA ITEMS  
None.
4. APPROVAL OF MINUTES FROM ADVANCE PLANNING COMMITTEE MEETING HELD ON APRIL 3, 2017  
  
\*\* Motion was made by Trustee Pellegrini and seconded by Trustee Lucacher to approve minutes as amended for the Committee meeting held on April 3, 2017. Motion passed unanimously.
5. FIVE YEAR PLAN 2016-2020

General Manager Macedo reported on progress of District goals and objectives to date according to the previously approved plan. In addition, the committee discussed the budget, staffing levels, and the progress of the new operational software, and how they relate to the goals and objectives set for the 2016 to 2020 plan. The Committee discussed how to better restructure the future five-year plans and recommended that General Manager Macedo brings the process for future discussion at the next Committee meeting. The currently adopted format will be used until the end of the current five-year plan (2020).

6. BOARD AND STAFF ANNOUNCEMENTS

A. BOARD – Chairperson Murray suggested that the District evaluate the current safety program. General Manager Macedo explained the current program and told the Board she is currently looking into it and working with the Safety committee to improve the program. Chairperson Murray commented on the public outreach program and asked about the program’s outreach to young children. General Manager Macedo explained the current program was developed by previous management and mentioned her vision and the changes she will be implementing to the program.

B. STAFF – None

7. ADJOURNMENT

There being no further business, the meeting was adjourned at 6:54 p.m.

I certify the above minutes were approved as read or corrected at a meeting of the Advance Planning Committee held on April 8, 2019.

AYES:

NOES:

ABSENT:

ABSTAIN:

---

Warren Clayton, 2019 Chair  
Advanced Planning Committee

## **Excerpted from CCMVCD Five Year Plan 2016 - 2020.**

### **Goals and Objectives**

The District intends to continue to improve its overall public health service delivery. Program priorities could change over the next five years with the spread and arrival of new vectors or diseases, or changing economic conditions. It is intended that all programs and services will continue to be flexible to meet ongoing and future demands.

#### **i. Operations**

The current workforce for adequate public protection from diseases such as West Nile virus is being tested. Mainly due to new legislation, more and more obstacles are being implemented by other governmental agencies every year. The use of seasonal help supplementing the current full-time workforce may prove adequate. Continued pressure by introductions of new mosquito vectors or mosquito-borne diseases may require increased revenues. Although rodent service requests remain level, the desire to increase proactive control measures remains. Skunk service requests have stabilized. The program emphasizes that the property owner employs exclusion methods and only in limited situations are trapping services offered. Yellowjacket requests are variable year to year but are efficiently handled by seasonal help with periodic assistance by full-time field employees.

The District's marshland source reduction program has been limited in recent years due to the enormous liability and regulations on contaminated soils along the northern county waterfront. Source reduction projects in the future will be the landowner's responsibility.

It remains to be seen if the Africanized Honey Bee will establish in the county. Similar to other areas of the country, the local fire departments should provide emergency response to swarm complaints. The District would respond to non-emergency swarm and nest complaints in a fashion similar to the yellowjacket nest response. Nevertheless, there will be some impact to existing personnel because this would still require field coordination and supervisory oversight.

Any increases to field personnel translates into an increased workload to the maintenance program. Although current maintenance personnel are capable of absorbing some additional work, there may be a need for seasonal help in the future.

#### **Specific Goals and Objectives - Operations:**

- Continue to enhance the Integrated Mosquito and Vector Management Program (IMVMP) to prevent/reduce current and introduced vectors and vector-borne diseases.

*2016, 2017 - Ongoing.*

*2018 – The District continues to use Integrated Vector Management (IVM) practices to prevent and/or reduce vectors.*

- Enhance collaboration with governmental agencies on planning and maintenance.

*2016 - Recruitment/Hiring of position, Vector Control Planner, in progress.*

*2017 - Vector Control Planner hired. Accomplishments include coordinating maintenance or repair projects with multiple agencies to reduce vector sources, including Contra Costa County Public Works, City of Concord, Delta Diablo, City of Pittsburg, Dublin San Ramon Services District, and private landowners. In addition, the vector control planner has met with municipal planning departments and associated entities to establish or modify project notifications for the District, and has provided feedback and comments on projects as needed.*

*2018 – Vector Control Planner has continued to reach out and coordinate projects with various outside agencies. He has started conversations about the importance of involving the District when planning projects and has attempted to introduce language that includes mosquito preventive and/or control measures on projects by other agencies or their collaborations.*

- Strive to enhance roof rat surveillance and education programs.

*2016 - Addition of canvassing/public education element in evaluation. A pilot program conducted in 2015 proved to be well received by public/media and is being monitored for short/long term success.*

*2017 - Implementation of canvassing and increase in public education continue to be evaluated.*

*2018 – The rodent Program Supervisor has retired unexpectedly and recruitment/hiring is ongoing for that position. Rat surveillance and public education continued to be carried on by technicians in the program. New supervisor will be evaluating the program.*

- Evaluate new vector control methods.

*2016 - Ongoing. Supervisory/scientific staff recently attended a workshop hosted by the District on a new spray application method for treating cryptic breeding sources of invasive Aedes species, albopictus and aegypti.*

*2017 - Ongoing. Federal funding has been obtained for implementation of invasive species surveillance.*

*2018 – The new Operations Manager was hired in 2018, and he has attended conferences/meetings and has started to visit other mosquito control districts. New ideas and potential new control methods will be evaluated in 2019.*

- Continue evaluation of native fishes and other promising biological control methods.

*2016 - The District is continuing its research on California native fish species. We are currently working with California roach (*Lavinia symmetricus*) and Sacramento Hitch (*Lavinia exilicauda exilicauda*). Other species that we plan to conduct research on are the Hardhead (*Mylopharodon conocephalus*) and Splittail (*Pogonichthys macrolepidotus*). We are in talks with California Fish and Wildlife to get a permit to stock these native in public waters.*

*2017 - The District is continuing its research on California native fish species. We continue to rear the California roach (*Lavinia symmetricus*) and have initiated research on the Hardhead (*Mylopharodon conocephalus*). We have obtained individuals that will be of breeding age in Spring of 2018. We continue the talks with California Department of Fish and Wildlife regarding permits to stock native fish species in Contra Costa County. Recommendations have gone to committee and specific conditions will be outlined in 2018.*

*2018 – The District has continued to explore the potential of native species to replace or augment mosquitofish in various sites. The District continued to work with the California Roach (*Lavinia symmetricus*), Sacramento Splittail (*Pogonichthys macrolepidotus*), and Hardhead (*Mylopharodon conocephalus*). In 2018 the District stocked the California Roach in non-maintained swimming pools and private ponds for the control of mosquito larvae. There are still restrictions in place by the California Department of Fish & Wildlife (CDFW) that do not allow the District to stock them in public waters of Contra Costa County. The District continued to work with CDFW to get permits to stock this species as well as other California native fish where appropriate.*

## **ii. Technical**

The existing entomology program can support current vector programs. It may become necessary to increase our disease surveillance capabilities due to new or existing vector-borne diseases and vectors. The District will continue to develop interagency projects in an effort to develop a better understanding of where mosquitoes come from and how they move and disperse. This may lead to regional control capabilities in the event of large-scale disease presence. This regional principle will also apply to other program collaborations. If the District expands surveillance and in-house testing for other diseases such as plague, Hantavirus, and rabies, or other regional projects of value, additional personnel, equipment and facilities will be required.

The District's mosquitofish program continues at full capacity. Fish will continue to be made available to agencies within our region. The program continues to receive annual certification by the Department of Fish & Wildlife (CDFW), in compliance with their regulations that prohibit the stocking of diseased fish. The District presently is working on cooperative projects with the CDFW on culturing native mosquito-eating fishes for



stocking for mosquito control. Additionally, an albino mosquitofish strain that shows some retail and research potential has been created and will be maintained.

### **Specific Goals and Objectives - Technical:**

- Enhance Geographical Information System (GIS) technology to improve analysis of vector and disease distribution and human risk.

*2016 - Our current GIS system has seen limited use due to being available on only two workstations (both in the Lab) and only having one employee fully trained in its use. The district is currently evaluating several new map-based database systems which would fully integrate both GIS mapping and field data collection and make this data available to all employees in the field using mobile devices (IPad, tablet e.g.) on a real-time or near real-time basis (see 'mobile data entry solution' below).*

*2017 - Our current GIS system continues to have limited use mostly due to having only one employee fully trained in its use. The District has contracted with Digital Maps to provide a map-based database system which integrates both GIS mapping and field data collection and make this data available to all employees in the field using mobile devices (iPads and iPhones) on a real-time basis.*

*2018 – We continued to work with Digital Maps to develop an operations software that suits our needs. The software/database is currently being tested by our technicians and will go live in May 2019.*

- Stay abreast of new surveillance and control technologies, such as unmanned aerial vehicles (UAVs), Auto-Dissemination Augmented by Males (ADAM), sterile insect technique (SIT) and other inundative releases.

*2016 - We continue to stay current on these technologies through workshops and publications. At present some of these technologies are still in the experimental stage and/or not available for species currently present in our area.*

*2017 - We continue to stay current on these technologies through workshops and publications. We have purchased a UAV and are in the process of developing guidelines for its use. One employee has been through the certification program to operate the UAV and he is working on developing the program.*

*2018 – We have developed policies and procedures for use of the UAV and they have been approved by the Board. We have used the UAV in 2018 for surveillance purposes and are investigating the technology for use for control once it is approved for that purpose. We have stayed current on new technologies through attendance at meetings and conferences.*

- Continue to assess pesticide resistance in the county. The frequency of the kdr gene (now present in the county) in mosquito field populations correlates to future pyrethroid resistance.

*2016 - We are currently incorporating alternative adulticides (e.g. Zenivex) into our program, which should reduce or at least delay the development of resistance.*

*2017 - We are evaluating the addition of resistance testing in our program in order to evaluate the resistance profiles of the mosquito populations in Contra Costa County. The lab will be rearing mosquitoes again and will be trained at neighboring Districts to test for pesticide resistance.*

*2018 – The lab is planning to start rearing mosquitoes in the insectary again in 2019 and has registered for training on resistance testing to renew their skills in that subject.*

- Expand in-house testing for arboviruses as new rapid test kits are developed.

*2016 - Our current testing capabilities are adequate; we continue to coordinate with the University of California (UC) for testing of new or emerging pathogens.*

*2017 - We are currently coordinating with the University of California for testing of mosquitoes, birds and chickens. We will continue to look for new rapid test kits that can be incorporated into our program and can be conducted in-house.*

*2018 – Mosquito, dead bird and chicken samples continue to be tested by Davis Arbovirus Research and Training (DART) at UC Davis. In-house rapid tests kits have been discontinued because the California Department of Public Health does not currently accept results from those tests. If those become available in the future, we will evaluate them for use in our programs.*

- Look into a mobility data entry solution. The project should determine if we can use electronic portable devices to replace desktop computers. It might overhaul the entire in-house data system (VXS). Electronic data collection can save time by eliminating transfer data between paper and database, decreasing access time to data and information. Also, data can be scrutinized real time to ensure data accuracy. In addition, we can consolidate multiple devices (geographical positioning system (GPS)/personal computer (PC)/phone) and simplify our operation process.

*2016 - Evaluation of several commercially available mobile systems is currently in progress. District Operations and Technical staff is working with the vendors to assess how well the available software fits, or can be customized to suit our specific needs and procedures, and to test the practicality of field data entry devices.*

*2017 - We have contracted with Digital Map Products and they have developed a map-based, real-time data system for our District. Employees will use an iPad and iPhone for data entry in the field and to generate reports. Digital Maps engineers are working closely with our technicians and are customizing the product to our needs. They are currently training staff and the product should go live in the coming month.*

*2018 – We continued to work with Digital Maps as outlined above. Product development took longer than expected to ensure the final product suited our needs. The software/database is currently in the last phase of evaluation and it is being tested by our technicians in the field, with a live date set for May 2019.*

### **iii. Public Relations & Outreach**

The public affairs department is staffed with three employees and is strategically structured to handle all communication, including emergency communication. All staff is cross-trained in each other's duties and each maintains a protocol binder specific to their duties and roles.

Strategically, the department's adequate staffing levels allow for the ebb and flow of vector control education and response needs. The most powerful communication methods of the internet, traditional media, and social media are easily utilized by current staff. Consistent research and evaluation of communication methods and constituent temperaments remain challenging, but feasible.

#### **Specific Goals and Objectives - Public Relations & Outreach:**

- Enhance social media communication by incorporating memes (a humorous image, video, piece of text, etc. that is copied (often with slight variations) and spread rapidly by Internet users.), videos and Graphics Interchange Format (GIF) images to increase sharing and click-through rates, as well as offering preferred education methods.

*2016 - The new In a Minute campaign allows for content sharing across multiple platforms: in social media on Twitter, on the website, in presentations, at events, and on Contra Costa Television which has run the videos hundreds of times. The In a Minute videos are designed to create awareness about the District's programs, services, and vector issues, as well as educate the public with the information and tools to manage their own vector issues in a creative manner. Studies show that a 1-minute video equals 1.8 million words and is more likely to be shared with others than longer, comprehensive communication in any medium.*

*GIFs always get a better response than static words and in one instance, a GIF resulted in the most-ever widespread sharing, "likes", and retweets for any tweet.*

*2017 - the Public Affairs Department produced and published 34 In a Minute Videos, which are approximately 1-minute vignettes detailing specific activities of*

*field, laboratory, and administrative staff that can be quickly edited and posted for publication online to our website, social media, and our e-newsletters.*

*In addition to the In a Minute videos, the public affairs department has enhanced social media communication by using memes and GIFs on Twitter, including a campaign of 90 Facts in 90 Tweets to mark the District's 90<sup>th</sup> Anniversary.*

*2018 - The Public Affairs Department remains committed to enhancing social media communication through social media content and through the use of additional platforms to expand our opportunities to share important vector control information and education. In 2018, the Public Affairs Department continued to share In a Minute Videos and GIFs within articles featured in the District's Mosquito Bytes Newsletters and tweets.*

- Redesign website to ensure appropriate accessibility on notebooks and smart phones.

*2016 - The new redesign ensures access by mobile users which make up nearly half of our website users: 44% use mobile devices while 56% use their desktop computers.*

*2017 - Completed. The new redesign ensures access by mobile users which make up nearly half of our website users: 44% use mobile devices while 56% use their desktop computers.*

*2018 – Goal completed in 2017. Nothing to report.*

- Leverage the website as an engagement tool and make our site a valuable and steadfast resource.

*2016 - Website engagement has increased with users' ability to access it via their mobile devices and with fresh and meaningful content such as the In a Minute videos. High website engagement to pages for spray notification, West Nile virus updates, and service requests by constituents, including media, continue to make the website our #1 communication tool.*

*2017 - Videos pertaining to what residents need to do in order to help our District staff better execute our services are highlighted on the District website. The website's main menu has been updated to incorporate an "I Want To..." menu option that, when clicked on, expands to reveal many of the most visited pages to allow visitors to quickly access areas of the website that are most sought after.*

*2018 – In an effort to provide more transparent information on the District website, we have updated the District's homepage to more prominently feature and provide direct access to Board of Trustees Meeting Agendas and Minutes.*

- Investigate the best technology to enhance participation and further cement us as a valuable resource.

*2016 – For more than two years, the public affairs manager has exerted much effort to obtain partnership with the social media tool NextDoor. To date, our District has finally been allowed to operate under the County umbrella which is not ideal. Inclusion and set-up in the system are forthcoming and under the County's direction and time line.*

*2017 - Ongoing. For more than three years, the District has attempted to join the social media tool Nextdoor and remains committed to working with the county to provide important information to our public.*

*2018 - The Public Affairs Department continued to try to work with the social media platform Nextdoor. Renewed requests to join Nextdoor directly as a public agency were denied. We have requested and are awaiting a response from the county to allow us to provide important information through the Contra Costa County Nextdoor page.*

- Develop strategies to engage residents in sustainable word of mouth movements.

*2016 – The 2017s new advertising campaign Mosquito Control is in Your Hands is a fresh approach to empowering our constituents to take mosquito control seriously and understand that they have a role in mosquito control. This approach abandons the "tell our constituents what to do", such as dump water, maintain pools, etc., and instead puts the onus on them in a partnership manner. Mosquito control is in Your hands graphically illustrates the word you and our-YOUR-a partnership in which we are all responsible.*

*2017 - The advertising campaign Mosquito Control is in Your Hands utilized in 2017 was very successful. In addition to that message, the District is working on an Invasive Species Campaign, Fight the New Bite, which will be used in brochures, internet banner advertising, digital logo touting, and a banner to be displayed at public events.*

*2018 – The advertising campaign Fight the NEW Bite involved increased outreach not only through District channels like our website, e-newsletters, presentations and events, but also through partnerships with cities across Contra Costa County that shared this invasive mosquito species campaign through their own websites and social media.*

#### **iv. Administration**

The District continues to make administrative improvements through technological changes, and will continue to do so. The need for accurate data by regulatory agencies,

the desire for instant information by the public, the additional administrative overhead generated by collaborating with cities on administrative citations and swimming pool surveillance has put an additional workload on the front office.

### **Specific Goals and Objectives - Administration:**

- Incorporate GIS into data collection and information expression.

*2016 - Evaluation of several commercially available mobile systems is currently in progress. District Operations and Technical staff is working with the vendors to assess how well the available software fits, or can be customized to suit our specific needs and procedures, and to test the practicality of field data entry devices.*

*2017 - The contract with Digital Maps and the final product will be customized to our needs and has a component for use by the front office for data entry. The company has worked closely with front office staff to ensure that it will suit their needs.*

*2018 – We have worked with Digital Maps on the development of the new operations software as mentioned above. One of the facets of the new software is the integration of the initial data entered by front office personnel for a service requested by the public with the operations part of the software, which was designed to allow access to parcel information and is easy to use and saves staff time. Software is in the final stages of testing and will go live in May 2019.*

- Make surveillance and control information available to public (web-based).

*2016 – Nothing to report.*

*2017 - Current virus activity and spraying information are available in our website.*

*2018 - Virus activity and spraying information continued to be available in our website. Additional limited surveillance data may now be viewed through [calsurv.org](http://calsurv.org) for the state.*

- Enhance collaboration with governmental agencies on enforcement activities.

*2016 – Recruitment/Hiring of position, Vector Control Planner, in progress.*

*2017 - Newly hired Vector Control Planner has worked with multiple agencies such as Contra Costa County Public Works, City of Concord, Delta Diablo, City of Pittsburg, Dublin San Ramon Services District, as well as municipal planning departments and associated entities, and various code enforcement divisions.*

*2018 – Vector Control Planner and Operations Manager are working on a revised swimming pool program and new procedures for enforcing and securing access for inspections and treatments of potential sources. We continue to communicate with code enforcement regarding issues that need attention and how we could work together to resolve them.*

**v. Facilities**

The present facility was expanded in 1999 to accommodate anticipated growth. Currently, we are not at capacity and can handle a few additional staff. The Brentwood substation continues to be leased to a private party.

**Specific Goals and Objectives - Facilities:**

- Continue to assess and maintain facilities and equipment. No additional facilities or additions are projected.

*2016 - Nothing to report.*

*2017 - Nothing to report.*

*2018 – Facilities and equipment needs continue to be assessed as needed. The current layout for the front area inside of the building, where staff interacts with members of the public, has been subject of discussion this year and staff is looking into ways to improve security, which may translate into a change in the design for the front office in 2019-2020. In addition, the settling/shifting ground beneath our building has been causing cracks on the floors and walls, and has also caused windows to leak and front door issues.*

- Catch up on a vehicle and equipment replacement schedule (delayed due to reduced revenues the past few years).

*2016 – Purchased four new trucks, new ULV truck mounted sprayer, and new Argo all-terrain vehicle.*

*2017 - Purchased three new trucks, one Honda side-by-side, and one ATV trailer.*

*2018 - Purchased two new trucks.*