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BOARD OF TRUSTEES

****MONDAY, MARCH 14, 2022****
7:00 PM

THIS MEETING WILL BE HELD VIA TELECONFERENCE/ZOOM

To join the meeting please follow the instruction below:

Access via the following link:

<https://us06web.zoom.us/j/94095162206?pwd=amp0UXhCSEt3a0Qxc2ludWJnVmVmZz09>

Audio only: If you do not have internet access, you may join by phone by using the following information, Dial by your location:

- +1 346 248 7799 US (Houston)
- +1 720 707 2699 US (Denver)
- +1 253 215 8782 US (Tacoma)
- +1 312 626 6799 US (Chicago)
- +1 646 558 8656 US (New York)
- +1 301 715 8592 US (Washington DC)

Meeting ID: 940 9516 2206

Passcode: 866980

Find your local number: <https://us06web.zoom.us/u/kb9DRS36p>

All portions of this meeting will be conducted by teleconferencing pursuant to Agenda Item #2 (if approved), in accordance with Government Code Section 54953(e).

Members of the public may participate in the meeting via Zoom or may listen to the meeting telephonically. No physical location will be available from which members may observe the meeting and offer public comment. Public comments may be submitted in advance of the meeting by emailing Paula Macedo at pmacedo@contracostamosquito.com. Alternatively, members of the public may offer spoken comments when public comment is requested, either at the beginning of the meeting as to non-agenda items, or regarding and agenda item at the time the item is considered. Comments shall be limited to three minutes per person, unless different time limits are set by the Chairperson.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation to participate in this meeting, please contact Paula Macedo, General Manager, as early as possible, and at least 48 hours before the meeting at (925) 457-8464 or pmacedo@contracostamosquito.com.

Protecting Public Health Since 1927

BOARD OF TRUSTEES

President MICHAEL KRIEG Oakley • Vice President PERRY CARLSTON Concord • Secretary DANIEL PELLEGRINI Martinez
Antioch Vacant • Brentwood JON ELAM • Clayton PEGGIE HOWELL • Contra Costa County JIM PINCKNEY, CHRIS COWEN & DARRYL YOUNG • Danville RANDALL DIAMOND
El Cerrito Vacant • Hercules DAMIAN WONG • Lafayette JAMES FITZSIMMONS • Moraga JAMES FRANKENFIELD • Orinda KEVIN MARKER • Pinole WARREN CLAYTON
Pittsburg RICHARD AINSLEY, PhD • Pleasant Hill JENNIFER HOGAN • Richmond Vacant • San Ramon PETER PAY • San Pablo Vacant • Walnut Creek JAMES MURRAY

AGENDA

1. CALL TO ORDER

- Roll Call
- Pledge of Allegiance

2.* AUTHORIZATION TO MEET VIA TELECONFERENCE

- A. Authorization to Meet Via Teleconference Pursuant to Government Code Section 54953, Subdivision (e)(1)(C) – Consider finding by a majority of vote under Gov. Code 54953 (e)(3) that, as result of the COVID-19 emergency, meeting in person would present imminent risks to the health or safety of attendees, and the meeting should be held by teleconference as authorized by and pursuant to Subdivision (e) of Section 54953 of the Government Code.

3.* AGENDA MANAGEMENT

4. PUBLIC INPUT ON NON-AGENDA ITEMS

This time is reserved for members of the public to address the Board relative to matters of the District NOT on the agenda. No action may be taken on non-agenda items unless authorized by law. Public comments may be submitted as specified above and will be limited to three minutes per person.

5. PRESENTATION

- Richard Ainsley, for 15 years of service
- Warren Clayton, for 10 years of service

6.* CONSENT CALENDAR

Any item may be pulled from the Consent Calendar and separately considered at the request of any Trustee. All items may be acted on by a single motion.

- A. Minutes of the February 14, 2022 Board of Trustees Special Meeting
- B. Expenditures for January 2021
- C. Payroll Expenditures January 2021
- D. Investment Activity for January 2021
- E. Financial Report

7. ANNUAL OPERATIONS REPORT

8. BOARD AND STAFF REPORTS

- A. Board
- B. General Manager
- C. Staff
- D. Legal Counsel

9. * **BOARD CONSIDERATION AND APPROVAL OF THE CONTRA COSTA MOSQUITO AND VECTOR CONTROL ELECTRONIC SIGNATURE POLICY**
10. **BOARD COMMITTEE REPORT**
 - A. Advanced Planning Committee Report
11. **BOARD DISCUSSION OF MEETING FORMAT FOR FUTURE BOARD MEETINGS**
12. **CLOSING COMMENTS**

This time is reserved for comments by Board members and/or staff and to identify matters for future Board business.
13. **ADJOURNMENT**

I hereby certify that the District Board of Trustee Agenda was posted 6 days before the noted meeting.

Natalie Martini, Administrative Analyst II

3/04/2022

Date

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT

MARCH 14, 2022 BOARD MEETING STAFF REPORT

1. No comment

2.* AUTHORIZATION TO MEET VIA TELECONFERENCE

- A. Authorization to Meet Via Teleconference Pursuant to Government Code Section 54953, Subdivision (e)(1)(C) – Consider finding by a majority of vote under Gov. Code 54953 (e)(3) that, as result of the COVID-19 emergency, meeting in person would present imminent risks to the health or safety of attendees, and the meeting should be held by teleconference pursuant to Subdivision (e) of Section 54953 of the Government Code.

BACKGROUND AND STATUS:

In light of the Governor’s declaration that a state of emergency exists due to the incidence and spread of the novel coronavirus, and the pandemic caused by the resulting disease COVID-19, the Board should consider whether meeting in person would present imminent risks to the health or safety of meeting attendees.

The Centers for Disease Control indicates that COVID-19 is a highly transmissible virus that is spread when an infected person breathes out droplets and very small particles that contain the virus, and such droplets and particles are breathed in by other people. Since June of 2021, a more infectious variant of the virus, known as the Delta Variant, has emerged and now accounts for the vast majority of COVID-19 cases.

Although effective vaccines have been approved by the U.S. Food and Drug Administration for emergency use, vaccination rates are slow and have not yet reached a point to significantly control community transmission. As of March 1, 2022, 73.8% of Californians (5 and older) are fully vaccinated.

Those who become infected with COVID-19 are at risk of serious illness and death. As of March 1, 2022, approximately 952,000 Americans have died from the virus. Many more have been hospitalized with serious illness. Currently, in Contra Costa County, there are 2,544 active COVID-19 cases and 62 people are hospitalized with COVID-19.

On September 20, 2021, the Contra Costa County Health Officer issued recommendations for safely holding public meetings that include recommended measures to promote social distancing. Among the Health Officer’s recommendations, online (teleconferencing) meetings are strongly recommended as those meetings present the lowest risk of transmission of SARS-CoV-2, the virus that causes COVID-19. Conducting meetings by teleconference would directly reduce the risk of transmission among meeting attendees, including members of the public and agency staff, which has the ancillary effect of reducing risk of serious illness and death as well as reducing community spread of the virus.

If the authorization to meet by teleconference is not approved by a majority vote, then the meeting will adjourn after this item and the remaining agenda items will be rescheduled to a future in-person meeting.

Recommendation - Move that the Board finds that, as a result of the COVID-19 emergency, meeting in person would present imminent risks to the health or safety of attendees, and the meeting should be held by teleconference as authorized by Subdivision (e) of Section 54943 of the Government Code.

3.* **AGENDA MANAGEMENT** – Consider order of items.

4. **PUBLIC INPUT ON NON-AGENDA ITEMS**

5. **PRESENTATION**

Richard Ainsley, for 15 years of service

Warren Clayton, for 10 years of service

6.* **CONSENT CALENDAR**

A. Minutes of the February 14, 2022 Board of Trustees Special Meeting (**Pages 8 - 11**). Approval of Minutes 21-8, Special Board Meeting, held on February 14, 2022.

B. Check Expenditures for payroll & accounts payable for January 2022 (**Pages 12-20**) – Approval of expenditures of January 1, 2022 through January 31, 2022 including:

Accounts payable January 14th checks No. 029495 through No. 029501

Payroll January 31st check No. 029502 through No. 029508

Accounts payable January 31st checks No. 029509 through No. 029523

Accounts Payable Total: \$30,386.56 Payroll Total: \$601.45

C. Direct Deposit Expenditures for payroll & accounts payable – Approval of payroll expenditures of January 1, 2022 through January 31, 2022, including:

Payroll January 14th No. D18055 through No. D18088

Payroll January 31st No. D18089 through No. D18129

Accounts payable January 12th No. E02680

Accounts payable January 14th No. E02681 through No. E02688

Accounts payable January 31st No. E02689 through No. E02696

Accounts Payable Total: \$118,810.88 Payroll Total: \$198,330.19

D. Investment Activity for January 2022 (**Pages 21-22**)

E. Financial Report (**Pages 23**)

Recommendation – Approval of the Consent Calendar

7. **ANNUAL OPERATIONS REPORT** - Scientific Programs Manager Schutz will present the Annual Operations Report, which is also included in the packet (*Pages 24-38*).

8. **BOARD AND STAFF REPORTS**

- A. Board
- B. General Manager
- C. Staff – staff reports have been submitted (*Pages 39-52*)
- D. Legal Counsel

9. **BOARD CONSIDERATION AND APPROVAL OF THE CONTRA COSTA MOSQUITO AND VECTOR CONTROL ELECTRONIC SIGNATURE POLICY** – This policy establishes the District’s approach to adopting electronic or digital signature technology and best practices to ensure digital signatures applied to District documents are legally valid and enforceable. (*Pages 53-57*)

BACKGROUND:

California Government Code section 16.5 states a digital signature shall have the same force and effect as a manual signature, if and only if: (1) it is unique to the person using it, (2) it is capable of verification, (3) it is under the sole control of the person using it, (4) it is linked to data in such a manner that if the data are changed, the digital signature is invalidated, and (5) it conforms to regulations adopted by the Secretary of State. The Secretary of State’s regulations define the types of technologies that are acceptable for creating digital signatures for use by public agencies. There are only five (5) approved digital signature certification authorities. The use of digital signatures could save time, money and effort on the part of staff and trustees for acquiring signatures on routine, internal documents such as Board meeting minutes, resolutions and employee forms.

Recommendation – Approval of the Contra Costa Mosquito and Vector Control District Electronic Signature Policy

10. **BOARD COMMITTEE REPORT**

- A. Advanced Planning Committee Report - Trustee Murray, Chair of the Advance Planning Committee will report on the meeting held on March 7, 2022.

11. **BOARD DISCUSSION OF MEETING FORMAT FOR FUTURE BOARD MEETINGS** – On March 1, 2022, the Deputy Health Officer for Contra Costa County issued Recommendations for Safely Holding Public Meetings (*Page 58*). The document will be reviewed with the Board with the assistance of legal counsel. Board will discuss and consider options for future meetings, including meeting in-person or a hybrid model.

12. **CLOSING COMMENTS**

This time is reserved for comments by Board members and/or staff, and to identify matters for future Board business.

13. ADJOURNMENT

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT
BOARD MEETING
MINUTES NO. 22-2

A special meeting of the Board of Trustees of the Contra Costa Mosquito and Vector Control District was held on Monday, February 14, 2022, via teleconference.

TRUSTEES PRESENT	Perry Carlston, Vice President Daniel Pellegrini, Secretary Richard Ainsley Warren Clayton Chris Cowen Jon Elam Jim Fitzsimmons James Frankenfield Jennifer Hogan Peggie Howell Thomas Minter James Murray Peter Pay Jim Pinckney Damian Wong Darryl Young
TRUSTEES ABSENT	Randall Diamond Michael Krieg Kevin Marker
VACANCIES	Antioch Richmond San Pablo
OTHERS PRESENT	Paula Macedo, General Manager Maria Bagley, Administrative Services Manager Natalie Martini, Administrative Analyst II

1. CALL TO ORDER

Vice President Carlston called the meeting to order at 7:00 p.m.

Roll Call: A roll call indicated that 16 Trustees were present, three Trustees were absent, and there are three vacancies.

Pledge of Allegiance

2.* AUTHORIZATION TO MEET VIA TELECONFERENCE

A. Authorization to Meet Via Teleconference Pursuant to Government Code Section 54953, Subdivision (e)(1)(C) – Consider finding that, as result of the COVID-19

emergency, meeting in person would present imminent risks to the health or safety of attendees, and the meeting should be held by teleconference as authorized by and pursuant to Subdivision (e) of Section 54953 of the Government Code.

** Motion was made by Trustee Ainsley and seconded by Trustee Clayton to approve the authorization to meet via teleconference. *Motion passed unanimously.*

3.* **AGENDA MANAGEMENT** - Agenda was adopted by rule.

4. **PUBLIC INPUT ON NON-AGENDA ITEMS** – None

5. **PRESENTATION**

Damian Wong, newly appointed Trustee representing the City of Hercules, introduced himself to the Board as a graduate from University of California Davis with a background in environmental policy analysis and planning and currently working on agriculture/horticulture.

6. **CONSENT CALENDAR**

A. MINUTES – Approval of Minutes of the January 10, 2022 Board of Trustees Meeting

B. Approval of expenditures of December 1, 2021 through December 31, 2021, including:

Payroll December 15th check No. 029450 through No. 029451

Accounts Payable December 15th check No. 029452 through No. 029461

Payroll December 30th check No. 029462 through No. 029476

Accounts Payable December 30th check No. 029477 through No. 029494

Accounts Payable Total: \$83,652.77 Payroll Total: \$509.10

C. Direct Deposit Expenditures for payroll & accounts payable – Approval of payroll expenditures of December 1, 2021 through December 31, 2021, including:

Accounts Payable December 10th No. E02656

Accounts Payable December 15th No. E02657 through No. E02669

Accounts Payable December 30th No. E02670 through No. E02679

Payroll December 15th No. D17965 through No. D17995

Payroll December 30th No. D17996 through No. D18037

Accounts Payable Total: \$150,396.84 Payroll Total: \$164,844.97

D. Investment Activity for December 2021

E. Financial Report

** Motion was made by Trustee Pellegrini and seconded by Trustee Pinckney to approve the consent calendar. *Motion passed unanimously.*

6. BOARD AND STAFF REPORTS

- A. BOARD – Vice President Carlston updated the Board on his attendance at the MVCAC annual meeting and mentioned that he found the presentations from District staff enjoyable and educational. He appreciated the presentation from the District’s Public Affairs Director, Nola Woods, who presented about Trustee Communications. Trustees Ainsley, Cowen and Frankenfield also provided feedback from their attendance at the MVCAC conference and the breakout sessions they attended. All Trustees in attendance found the meeting to be very informative.
- B. GENERAL MANAGER – General Manager Macedo noted the two staff members who presented during the MVCAC conference. Heidi Budge presented information on bioswales and Patrick Vicencio did a poster presentation about the potential sources of mosquito production found at refineries. In addition, Public Affairs Director Woods and Public Information and Technology Officer Pierce also presented at the conference. Much of the attention and many presentations focused on new technology currently being used or proposed to combat invasive mosquitoes. General Manager Macedo and Public Affairs Director Woods will be working on a communication plan for Trustees and how to respond to the public with respect to those.
- C. STAFF – Administrative Analyst II Martini noted that Trustees may start receiving information sent on behalf of NetFile, regarding the Statement of Economic Interest/Form 700 reports for 2021 annual statements, due April 1, 2022.
- D. LEGAL – None.

78. BOARD COMMITTEES REPORT

- A. Advance Planning Committee Report – The Advance Planning Committee met on February 7, 2022 to discuss the new 5-year plan. Advance Planning Committee Chair Murray provided a summary of the committee’s meeting and spoke about the building remodel project, which is one of the goals in the new 5-year plan, 2022 – 2026 and proposed the formation of an ad-hoc committee to oversee the project.

12. CLOSING COMMENTS – Trustee Carlston stated that he would like to include a discussion of in-person meetings at the next Board meeting.

13. ADJOURNMENT – 7:35 p.m.

I certify the above minutes were approved as read or corrected at the regular meeting of the Board held on March 14, 2022.

Ayes: _____

Noes: _____

Abstain: _____

Absent: _____

Daniel Pellegrini
2022 Secretary, Board of Trustees

Check Register

Journal Posting Date: 1/12/2022

Register Number: CD-000081

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount	
E02680	1/12/2022	0001072	Mt. Diablo Resource Recovery-Concord					Check Entry Number: 001
			MT. DIABLO RESOURCE	12/30/2021	602.60	0.00	602.60	
		G/L Account: 505037-00		Utilities Garbage:General				602.60
				Report Total:	602.60	0.00	602.60	
				Printed Check Total:			0.00	
				Electronic Payment Total:			602.60	

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount
XXXX95	1/14/2022	0000328	PG&E				Check Entry Number: 001
			PG&E DEC. 2021ELECTR	12/31/2021	1,105.15	0.00	1,105.15
			G/L Account: 505036-00	Utilities Electric:General			1,105.15
XXXX96	1/14/2022	0000386	US POSTAL SERVICE CMRS-FP				Check Entry Number: 001
			USPS POSTAGE METER R	1/6/2022	1,000.00	0.00	1,000.00
			G/L Account: 505023-00	Postage:General			1,000.00
XXXX97	1/14/2022	0000814	Staples Business Advantage				Check Entry Number: 001
			3495971353	12/28/2021	81.53	0.00	81.53
			G/L Account: 505020-00	Office Supplies - General:General			81.53
XXXX98	1/14/2022	0001049	ALSCO				Check Entry Number: 001
			DECEMBER INVOICE	1/5/2022	1,898.58	0.00	1,898.58
			G/L Account: 502021-16	Uniform Rental:Operations			1,898.58
XXXX99	1/14/2022	0001061	KBA DOCUMENT SOLUTIONS, LLC				Check Entry Number: 001
			55Y1240561	1/10/2022	202.26	0.00	202.26
			G/L Account: 504008-00	Printing Supplies:General			202.26
XXXX00	1/14/2022	0001113	Comcast				Check Entry Number: 001
			137874251	1/1/2022	393.41	0.00	393.41
			G/L Account: 505039-00	Utilities Internet:General			393.41
			137874255	1/1/2022	359.47	0.00	359.47
			G/L Account: 505040-00	Utilities Landline:General			359.47
			Check 029500 Total:		752.88	0.00	752.88
XXXX01	1/14/2022	0001117	Concentra				Check Entry Number: 001
			73916387	12/23/2021	185.00	0.00	185.00
			G/L Account: 500113-00	Medical Services - General:General			185.00
			73978355	12/30/2021	185.00	0.00	185.00
			G/L Account: 500113-00	Medical Services - General:General			185.00
			Check 029501 Total:		370.00	0.00	370.00
E02681	1/14/2022	0000314	Oppenheimer Investigations Group LLP				Check Entry Number: 001
			1787	12/22/2021	23,592.00	0.00	23,592.00
			G/L Account: 500111-00	Legal - Counsel Labor:General			23,592.00
E02682	1/14/2022	0000335	Concur Technologies, Inc				Check Entry Number: 001
			1.016E+11	1/5/2022	733.82	0.00	733.82
			G/L Account: 504005-00	I.T Subscriptions:General			733.82
E02683	1/14/2022	0000610	Liebert Cassidy Whitmore				Check Entry Number: 001
			210218	12/22/2021	3,420.00	0.00	3,420.00
			G/L Account: 505008-00	Employee - Training:General			3,420.00
E02684	1/14/2022	0000793	AFLAC				Check Entry Number: 001
			INV850608	1/13/2022	52.84	0.00	52.84
			G/L Account: 202100-00	Other Disability Insurance - Employee			52.84
E02685	1/14/2022	0000913	Guardian Security Agency				Check Entry Number: 001
			61116	1/7/2022	395.00	0.00	395.00
			G/L Account: 500116-00	Security Service:General			395.00
			61118	1/7/2022	493.75	0.00	493.75
			G/L Account: 500116-00	Security Service:General			493.75
			Check E02685 Total:		888.75	0.00	888.75
			Printed Check Total:				0.00
			Electronic Payment Total:				888.75
E02686	1/14/2022	0000925	iSolved Benefit Services				Check Entry Number: 001
			I116907552	1/10/2022	86.25	0.00	86.25
			G/L Account: 600175-00	FSA Admin Fee:General			86.25

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount
E02687	1/14/2022	0001077	Banksia Landscape, Inc.				Check Entry Number: 001
			11985	1/1/2022	513.00	0.00	513.00
		G/L Account: 500109-00		Landscaping Services:General			513.00
E02688	1/14/2022	0011125	CC Real Green Clean				Check Entry Number: 001
			CCM-202201	1/9/2022	1,500.00	0.00	1,500.00
		G/L Account: 500107-00		Janitorial Services:General			1,500.00
				Report Total:	36,197.06	0.00	36,197.06
				Printed Check Total:			5,410.40
				Electronic Payment Total:			30,786.66

Check Register

Journal Posting Date: 1/31/2022

Register Number: CD-000083

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount	
XXXX09	1/31/2022	0000009	Nationwide Retirement Solutions - 457 Plan					Check Entry Number: 001
			NATIONWIDE 457 DEFER	1/26/2022	4,150.00	0.00	4,150.00	
		G/L Account:	202140-00	457 Deferred Savings Plan				2,850.00
		G/L Account:	202140-00	457 Deferred Savings Plan				4,150.00
XXXX10	1/31/2022	0000011	Vision Service Plan					Check Entry Number: 001
			814215382	1/19/2022	619.50	0.00	619.50	
		G/L Account:	600140-00	Vision Insurance - Active Employees				619.50
XXXX11	1/31/2022	0000328	PG&E					Check Entry Number: 001
			GAS CHARGES 12/16,20	1/14/2022	2,230.89	0.00	2,230.89	
		G/L Account:	505038-00	Utilities Gas:General				2,230.89
XXXX12	1/31/2022	0000399	Contra Costa County - Fleet					Check Entry Number: 001
			704576	1/19/2022	4,286.99	0.00	4,286.99	
		G/L Account:	502001-16	Automotive - Gasoline:Operations				2,268.42
		G/L Account:	502002-16	Automotive - Repairs:Operations				2,018.57
XXXX13	1/31/2022	0000694	TD Ameritrade Institution					Check Entry Number: 001
			TD AMERITRADE 457 DE	1/26/2022	9,646.66	0.00	9,646.66	
		G/L Account:	202140-00	457 Deferred Savings Plan				9,686.66
		G/L Account:	202140-00	457 Deferred Savings Plan				9,221.66
		G/L Account:	202140-00	457 Deferred Savings Plan				26,054.06
		G/L Account:	202140-00	457 Deferred Savings Plan				9,646.66
XXXX14	1/31/2022	0000696	KBA DOCUMENT SOLUTIONS, LLC					Check Entry Number: 001
			8698909	1/21/2022	205.23	0.00	205.23	
		G/L Account:	505027-00	Service & Leasing Contracts:General				205.23
XXXX15	1/31/2022	0000814	Staples Business Advantage					Check Entry Number: 001
			3496864896	1/6/2022	26.21	0.00	26.21	
		G/L Account:	505022-00	Office Supplies - Kitchen:General				26.21
XXXX16	1/31/2022	0000899	Sun Life Financial					Check Entry Number: 001
			SUN LIFE INSURANCE F	1/20/2022	1,488.02	0.00	1,488.02	
		G/L Account:	202085-00	Employee Voluntary Life Ins - General				542.35
		G/L Account:	600155-00	Life Insurance - General				945.67
XXXX17	1/31/2022	0000969	Otis Elevator Company					Check Entry Number: 001
			1.00401E+11	1/12/2022	19.80	0.00	19.80	
		G/L Account:	505027-00	Service & Leasing Contracts:General				19.80
XXXX18	1/31/2022	0000975	Reliance Standard Life In					Check Entry Number: 001
			RELIANCE LTD - FEB20	1/20/2022	529.89	0.00	529.89	
		G/L Account:	600150-00	Disability Insurance - General				529.89
			RELIANCE STD - FEB20	1/20/2022	633.61	0.00	633.61	
		G/L Account:	600150-00	Disability Insurance - General				633.61
			Check 029518 Total:		1,163.50	0.00	1,163.50	
XXXX19	1/31/2022	0000981	Colonial Life					Check Entry Number: 001
			INV41350750113292	1/13/2022	509.16	0.00	509.16	
		G/L Account:	202100-00	Other Disability Insurance - Employee				509.16
XXXX20	1/31/2022	0000991	BOLD, POLISNER, MADDOW, NELSON & JUDSON					Check Entry Number: 001
			17932	1/13/2022	990.00	0.00	990.00	
		G/L Account:	500110-00	Legal - Counsel General:General				990.00
XXXX21	1/31/2022	0001063	OSCA					Check Entry Number: 001
			CBT2200719	1/10/2022	270.00	0.00	270.00	
		G/L Account:	505008-16	Employee - Training:Operations				270.00
XXXX22	1/31/2022	0001088	Verizon Wireless					Check Entry Number: 001
			9896970621	1/10/2022	1,915.20	0.00	1,915.20	

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount			
XXXX23	1/31/2022	0001117	G/L Account: 505035-00	Utilities Cell Phone:General			1,915.20			
			Concentra					Check Entry Number: 001		
			74051764	1/7/2022	270.00	0.00	270.00			
			G/L Account: 500113-00	Medical Services - General:General				270.00		
			74118707	1/19/2022	185.00	0.00	185.00			
			G/L Account: 500113-00	Medical Services - General:General				185.00		
Check 029523 Total:					455.00	0.00	455.00			
E02689	1/31/2022	0000007	SEIU UPE LOCAL 1021-Union Dues							
			SEIU LOCAL 1021 UNIO	1/26/2022	2,290.90	0.00	2,290.90	Check Entry Number: 001		
			G/L Account: 202150-00	SEIU Local 1021				2,134.66		
			G/L Account: 202150-00	SEIU Local 1021				2,290.90		
E02690	1/31/2022	0000010	CalPERS							
			CALPERS INVFE2022	1/24/2022	66,731.47	0.00	66,731.47	Check Entry Number: 001		
			G/L Account: 600165-00	CalPers Medical Admin Fee - Active Employees Gener				131.68		
			G/L Account: 600170-00	CalPers Medical Admin Fee - Retirees				34.73		
			G/L Account: 202050-00	CalPers Medical - Employee Contribution				8,954.40		
			G/L Account: 202040-00	CalPers Medical - Employer Contribution				43,718.53		
			G/L Account: 600145-00	Medical Insurance - Retirees				9,874.77		
			G/L Account: 202045-00	CalPers Medical - Retiree Contribution				4,017.36		
			E02691	1/31/2022	0000015	Health Care Dental Trust				
						FEB 2022 HEALTH CARE	1/20/2022	2,002.26	0.00	2,002.26
G/L Account: 202115-00	Dependent Care - Employee							2,002.26		
FEB2022 - HEALTH CAR	1/20/2022	2,935.52				0.00	2,935.52			
G/L Account: 600136-00	Dental Insurance: Operations							2,935.52		
Check E02691 Total:						4,937.78	0.00	4,937.78		
Printed Check Total:							0.00			
Electronic Payment Total:							4,937.78			
E02692	1/31/2022	0000486	Bay Alarm Company							
			BAY ALARM SERVICES F	1/15/2022	281.70	0.00	281.70	Check Entry Number: 001		
E02693	1/31/2022	0000714	Security Service:General				281.70			
			CDW Government, Inc.							
E02693	1/31/2022	0000714	CDW Government, Inc.							
			Q910537	1/17/2022	154.57	0.00	154.57	Check Entry Number: 001		
E02694	1/31/2022	0000913	I.T Subscriptions:Administration				154.57			
			Guardian Security Agency							
E02694	1/31/2022	0000913	Guardian Security Agency							
			61131	1/6/2022	395.00	0.00	395.00	Check Entry Number: 001		
			G/L Account: 500116-00	Security Service:General				395.00		
			61184	1/13/2022	523.25	0.00	523.25			
			G/L Account: 500116-00	Security Service:General				523.25		
			61230	1/20/2022	523.25	0.00	523.25			
			G/L Account: 500116-00	Security Service:General				523.25		
			61279	1/27/2022	418.60	0.00	418.60			
G/L Account: 500116-00	Security Service:General				418.60					
Check E02694 Total:					1,860.10	0.00	1,860.10			
Printed Check Total:							0.00			
Electronic Payment Total:							1,860.10			
E02695	1/31/2022	0000956	Waterlogic Americas LLC							
			1121831	12/27/2021	88.80	0.00	88.80	Check Entry Number: 001		
			G/L Account: 505042-00	Water - Drinking:General				88.80		
			1185330	1/24/2022	102.81	0.00	102.81			
G/L Account: 505042-00	Water - Drinking:General				102.81					

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount
Check E02695 Total:					191.61	0.00	191.61
Printed Check Total:							0.00
Electronic Payment Total:							191.61
E02696	1/31/2022	0001077	Banksia Landscape, Inc.				Check Entry Number: 001
		12204		2/1/2022	513.00	0.00	513.00
	G/L Account:	500109-00	Landscaping Services:General				513.00
Report Total:					104,937.29	0.00	104,937.29
Printed Check Total:							27,976.16
Electronic Payment Total:							76,961.13

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount	
E02697	1/31/2022	0000452	U.S. BANK CORPORATE PAYMENT SYSTEMS					Check Entry Number: 001
			1/11/2022	1/11/2022	70.28	0.00	70.28	
		G/L Account: 504000-05			Computer Equipment Supplies < \$100:Administration			37.95
		G/L Account: 505020-05			Office Supplies - General:Administration			19.21
		G/L Account: 504000-05			Computer Equipment Supplies < \$100:Administration			13.12
			1/13/2022	1/13/2022	4.33	0.00	4.33	
		G/L Account: 505023-00			Postage:General			4.33
			1/15/2022	1/15/2022	31.28	0.00	31.28	
		G/L Account: 504005-25			I.T Subscriptions:Public Affairs			15.96
		G/L Account: 504000-05			Computer Equipment Supplies < \$100:Administration			15.32
			1/17/2022	1/17/2022	186.98	0.00	186.98	
		G/L Account: 500113-00			Medical Services - General:General			173.84
		G/L Account: 502019-16			Tools & Instruments:Operations			13.14
			1/18/2022	1/18/2022	485.15	0.00	485.15	
		G/L Account: 502002-16			Automotive - Repairs:Operations			485.15
			1/19/2022	1/19/2022	2,142.63	0.00	2,142.63	
		G/L Account: 503002-10			General Lab Supplies & Materials:Lab			2,122.67
		G/L Account: 500115-00			Permits & Fees:General			9.49
		G/L Account: 500115-00			Permits & Fees:General			10.47
			1/2/2022	1/2/2022	512.40	0.00	512.40	
		G/L Account: 504005-00			I.T Subscriptions:General			512.40
			1/20/2022	1/20/2022	151.08	0.00	151.08	
		G/L Account: 502016-25			Safety & PPE:Public Affairs			16.45
		G/L Account: 502005-16			Building & Grounds Materials / Supplies:Operations			134.63
			1/21/2022	1/21/2022	1,300.34	0.00	1,300.34	
		G/L Account: 502016-16			Safety & PPE:Operations			613.95
		G/L Account: 502020-00			Uniform Professional Branded Wear:General			29.00
		G/L Account: 505032-00			Trustee - Training:General			350.00
		G/L Account: 502015-16			Equipment Small:Operations			307.39
			1/22/2022	1/22/2022	2.21	0.00	2.21	
		G/L Account: 504005-00			I.T Subscriptions:General			2.21
			1/3/2022	1/3/2022	518.76	0.00	518.76	
		G/L Account: 502002-16			Automotive - Repairs:Operations			108.34
		G/L Account: 502015-00			Equipment Small:General			410.42
			1/4/2022	1/4/2022	1,335.21	0.00	1,335.21	
		G/L Account: 504005-10			I.T Subscriptions:Lab			420.00
		G/L Account: 504005-05			I.T Subscriptions:Administration			44.00
		G/L Account: 502009-16			Control Materials - Other:Operations			294.13
		G/L Account: 502010-16			Control Materials - Vertebrate:Operations			278.82
		G/L Account: 502010-16			Control Materials - Vertebrate:Operations			298.26
			1/5/2022	1/5/2022	125.01	0.00	125.01	
		G/L Account: 502016-16			Safety & PPE:Operations			59.39
		G/L Account: 504008-05			Printing Supplies:Administration			65.62
			1/6/2022	1/6/2022	1,291.80	0.00	1,291.80	
		G/L Account: 502013-16			Equipment Repair:Operations			1,136.80
		G/L Account: 505003-05			District Membership & Subscription Dues:Administra			155.00
			1/7/2022	1/7/2022	329.67	0.00	329.67	
		G/L Account: 502013-16			Equipment Repair:Operations			67.17
		G/L Account: 502013-16			Equipment Repair:Operations			44.45
		G/L Account: 502013-16			Equipment Repair:Operations			80.06

CONTRA COSTA MOSQUITO AND VECTOR CONTROL DISTRICT (CCV)

Check Number	Check Date	Vendor	Invoice Number	Invoice Date	Invoice Amount	Discount Applied	Payment Amount
		G/L Account:	505023-00	Postage:General			12.99
		G/L Account:	500115-16	Permits & Fees:Operations			125.00
	1/8/2022			1/8/2022	44.29	0.00	44.29
		G/L Account:	504005-00	I.T Subscriptions:General			12.49
		G/L Account:	502019-16	Tools & Instruments:Operations			31.80
	1/9/2022			1/9/2022	53.40	0.00	53.40
		G/L Account:	504008-05	Printing Supplies:Administration			53.40
	12/22/2021			12/22/2021	13.37	0.00	13.37
		G/L Account:	504005-00	I.T Subscriptions:General			2.13
		G/L Account:	504005-00	I.T Subscriptions:General			11.24
	12/23/2021			12/23/2021	96.87	0.00	96.87
		G/L Account:	505039-00	Utilities Internet:General			96.87
	12/25/2021			12/25/2021	14.99	0.00	14.99
		G/L Account:	504005-16	I.T Subscriptions:Operations			14.99
	12/26/2021			12/26/2021	99.69	0.00	99.69
		G/L Account:	504000-05	Computer Equipment Supplies < \$100:Administration			62.75
		G/L Account:	502016-16	Safety & PPE:Operations			36.94
	12/27/2021			12/27/2021	29.00	0.00	29.00
		G/L Account:	504005-25	I.T Subscriptions:Public Affairs			14.00
		G/L Account:	502016-16	Safety & PPE:Operations			15.00
	12/28/2021			12/28/2021	40.51	0.00	40.51
		G/L Account:	503001-10	Aquaculture:Lab			28.51
		G/L Account:	501007-25	Marketing - Design:Public Affairs			12.00
	12/29/2021			12/29/2021	1,303.90	0.00	1,303.90
		G/L Account:	502002-16	Automotive - Repairs:Operations			1,223.60
		G/L Account:	503001-10	Aquaculture:Lab			49.06
		G/L Account:	505020-05	Office Supplies - General:Administration			31.24
	12/30/2021			12/30/2021	70.00	0.00	70.00
		G/L Account:	505007-10	Employee - Memberships:Lab			70.00
	12/31/2021			12/31/2021	207.34	0.00	207.34
		G/L Account:	502013-16	Equipment Repair:Operations			129.32
		G/L Account:	502016-16	Safety & PPE:Operations			78.02
		Check E02697 Total:			10,460.49	0.00	10,460.49
		Printed Check Total:					0.00
		Electronic Payment Total:					10,460.49
		Report Total:			10,460.49	0.00	10,460.49
		Printed Check Total:					0.00
		Electronic Payment Total:					10,460.49

CONTRA COSTA MOSQUITO & VECTOR CONTROL DISTRICT
 UNUSUAL ITEMS LIST (*New Policy Effective May 2021*)

- *Any checks or ACH over the amount of \$10,000.00 (excludes Procurement Policy General Manager Authority items: payroll taxes, employee fringe benefit payments, and aggregate corporate credit card amount).*
- *Any vendor that has not been paid by the District in the past 15 months.*
- *All legal fees over \$5,000.00 in one month*

<i>DATE</i>	<i>CHECK #</i>	<i>AMOUNT OF CHECK</i>	<i>VENDOR & DESCRIPTION</i>
January 14, 2022	E02681	\$23,592.00	Oppenheimer Investigations Group LLP: Legal/Labor Counsel - Investigation

TRANSACTION ACTIVITY REPORT

Month of January 2022

Transaction Number	Date	Wells Fargo	LAIF	Bank of the West	
	Balance	1/1/2022	65,436.29	11,426,288.17	434,249.80
1	1/7/2022	322,224.67			
2	1/14/2022		(240,191.26)	245,000.00	
3	1/20/2022	961.90			
4	1/29/2022		(280,000.00)	280,000.00	
5	1/31/2022	2.76		(570,809.41)	
	Balance	388,625.62	10,906,096.91	388,440.39	

Transaction Number & Brief Description

- 1 MISC Deposits Wells Fargo (Redevelopment, Medical etc.)
- 2 Transfer from LAIF to Bank of the West for Payroll & Vendor Checks - 4Q Int Earned LAIF
- 3 MISC Deposits Wells Fargo
- 4 Transfer from LAIF to Bank of the West
- 5 Interest Earned Wells Fargo, Bank of the West clearing of checks from Bank of the West for Payroll & Vendor

I certify that this report reflects all cash transactions and is in conformity with District Policy. The cash flow shown provides sufficient cash flow liquidity to meet the next six months expenditures.

Respectfully submitted,

*Paula Macedo
General Manager*



Local Agency Investment Fund
 P.O. Box 942809
 Sacramento, CA 94209-0001
 (916) 653-3001

February 25, 2022

[LAIF Home](#)
[PMIA Average Monthly Yields](#)

CONTRA COSTA MOSQUITO AND VECTOR CONTROL
 DISTRICT
 MANAGER
 155 MASON CIRCLE
 CONCORD, CA 94520

[Tran Type Definitions](#)

January 2022 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Web Confirm Number	Authorized Caller	Amount
1/14/2022	1/13/2022	QRD	1693853	N/A	SYSTEM	4,808.74
1/14/2022	1/13/2022	RW	1693536	N/A	PAULA MACEDO	-245,000.00
1/31/2022	1/31/2022	RW	1696797	N/A	PAULA MACEDO	-280,000.00

Account Summary

Total Deposit:	4,808.74	Beginning Balance:	11,426,288.17
Total Withdrawal:	-525,000.00	Ending Balance:	10,906,096.91

Contra Costa Mosquito and Vector Control District

FY22 Budget Year

(July 1 2021 - June 30 2022)

Board Packet

59% of the Year
completed

	FY22 <i>As of 1/31/22</i>	FY22 Budget	YTD FY22 VS Adopted Budget	ADOPTED FY22 VS FY22 \$
Personnel Costs				
Payroll & OT	2,080,530	3,835,140	54.2%	1,754,610
Retirement	1,357,846	1,357,846	100.0%	0
OASDI	119,523	249,284	47.9%	129,762
Medicare	29,160	55,610	52.4%	26,450
Health Insurance (Dental / Vision Etc)	328,952	599,415	54.9%	270,463
Unemployment	15,950	21,168	75.4%	5,217
Disability Ins	7,425	12,482	59.5%	5,057
Other Post Employment Benefits	-	215,000	0.0%	215,000
District Paid Health Retiree Cost & Fees	57,849	94,741	61.1%	36,892
Subtotal Personnel Costs	3,939,385	6,440,686	61.2%	2,501,301
Operational Costs				
Professional Services - Legal includes Settlements	146,069	73,000	200.1%	(73,069)
Professional Services - Building & Grounds Maint	3,106	25,000	12.4%	364,068
Professional Services - All Other	128,225	270,850	47.3%	142,625
Public Affairs	1,150	88,000	1.3%	86,850
Lab Services	21,935	45,421	48.3%	23,486
Information & Technology	33,188	206,200	16.1%	173,012
Operations - Control Materials	27,377	122,500	22.3%	95,123
Operations - Aerial	3,532	20,000	17.7%	16,468
Operation and Facilities - All Other	107,105	634,617	16.9%	527,512
General Office Administration - Insurance	347,277	340,811	101.9%	(6,466)
General Office Administration - Trustee Expense	3,929	15,800	24.9%	11,871
General Office - Research	0	20,000	0.0%	20,000
General Office Administration - Employee Travel & Training	15,394	66,500	23.1%	51,106
General Office Administration - Utilities	37,945	111,400	34.1%	73,455
General Office Administration - All Other	214,250	445,800	48.1%	231,550
Subtotal Operational Cost	1,090,483	2,485,899	43.9%	1,395,416
Capital				
Land				-
Structures and Improvements	0	2,500,000	0.0%	2,500,000
Vehicles	51,842	186,000	27.9%	134,158
Heavy Equipment	0	74,000	0.0%	74,000
Subtotal Capital	51,842	2,760,000	1.9%	2,708,158
Total Expenditures	5,081,710	11,686,584		
Revenues				
Property Taxes	3,402,149	6,538,745	52.0%	3,136,596
Benefit Assessment	1,141,131	2,073,724	55.0%	932,593
Contract Billing	20,724	50,000	41.4%	29,276
Interest Income (LAIF)	15,090	51,265	29.4%	36,175
Medical Reimbursement	0	82,000	0.0%	82,000
Fixed Asset Disposal	5,650	30,600	18.5%	24,950
Miscellaneous	8,262	66,300	12.5%	58,038
Grant Funds:General	0	-	0.0%	-
Subtotal Revenue	4,593,006	8,892,634	51.6%	4,299,628
Estimate Ending Balance	-488,704	-2,793,950		
Designated Reserves POLICY FY 22 (July 21 - Jun 22)				
Bond Reserve	-			
Public Health Emergency	2,500,000			
Capital Improvement	2,314,407			
Emergency Reconstruction Response	500,000			
Operations	-			
Vehicle & Equipment Replacement	150,000			
IT Equipment Replacement	200,000			
	5,664,407			



2021 Annual Operations Report

Prepared by Steve Schutz, Ph.D., Scientific Programs Manager
Submitted to the CCMVCD Board of Trustees on March 14th, 2022

1. Introduction and Summary

CEQA, the California Environmental Quality Act, requires all state and local agencies in California to evaluate and publicly report on the potential environmental impacts of their discretionary activities and to mitigate those impacts which could be significantly adverse. In March 2016, in order to ensure the fullest possible compliance with CEQA, the District completed a full Programmatic Environmental Impact Report (PEIR) which includes a comprehensive review of all District practices and policies, potential environmental impacts, and mitigation measures used to minimize or eliminate potential impacts. Although CEQA regulations do not mandate annual updates unless there are significant changes in our program, District Staff continues to produce an annual Operations Report. This report summarizes District activities during 2021, in comparison with the previous ten years.

The District has long emphasized environmental stewardship while accomplishing its public health mission, primarily through strict adherence to an IPM (Integrated Pest Management) approach to the control of mosquitoes and other vectors of human disease. As such, District policies emphasize training, vector and pathogen surveillance, the integration of biological and physical control practices with chemical control (public health pesticides), and the judicious use of appropriate control tools only when vectors exceed specific thresholds. During 2021 there were no new or extraordinary District activities or substantial changes in District policies which could have caused significant environmental impacts, and there were no substantial new regulations or research results which alter the conclusions in our PEIR regarding actual or potential environmental impacts.

2. Biological Control of Mosquitoes

District staff has traditionally implemented a four-pronged approach to biological control of mosquitoes. The general elements of biological control used by the District are 1) rearing, stocking, and providing the mosquitofish (*Gambusia affinis*) to eat larval mosquitoes in sites where mosquitofish are unlikely to cause significant adverse impacts on native species; 2) a program to identify, develop, and evaluate additional biocontrol agents that can be produced at reasonable cost; 3) collaboration with landowners and managers to implement land and water management practices that protect and support populations and dispersal of native mosquito predators; and 4) policies and training designed to protect native predators.

In 2020, the District discontinued providing fish directly to the public upon request, and switched to a service request/field inspection-based system where District staff was able to evaluate each site and determine whether or not fish were an appropriate solution. The District stocked approximately 44,000 mosquitofish in 2021, including 1,605 placed in unmaintained swimming pools. The total number of fish stocked was higher than the previous year (Figure 1). Artificial sources like unmaintained swimming pools continue to produce substantial numbers of mosquitoes, but the number of such sources varies with changing economic conditions. Fish stocking in pools continues to be a critical tool for addressing West Nile virus in urban and suburban areas, and poses essentially no environmental risk. Year-to-year variations in stocking in natural waters and other traditional sites (horse troughs, etc.) are due primarily to weather patterns that change the extent of appropriate stocking sites. Although the District continues to study potential use of native fish for mosquito control, mosquitofish stocking in natural sites will

most likely continue at similar rates in upcoming years. There was no substantial new research published nor regulations issued in the past year on the potential environmental consequences of mosquitofish.

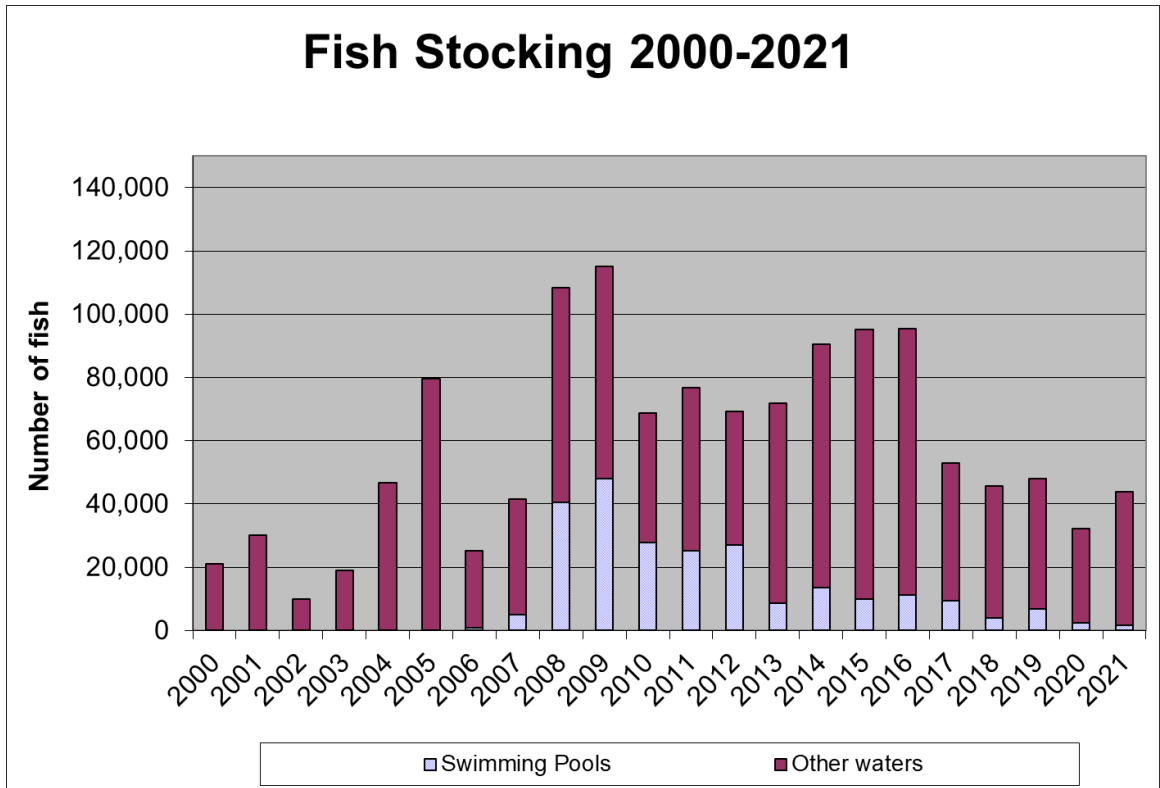


Figure 1: Use of mosquitofish for biological control, 2000 - 2021.

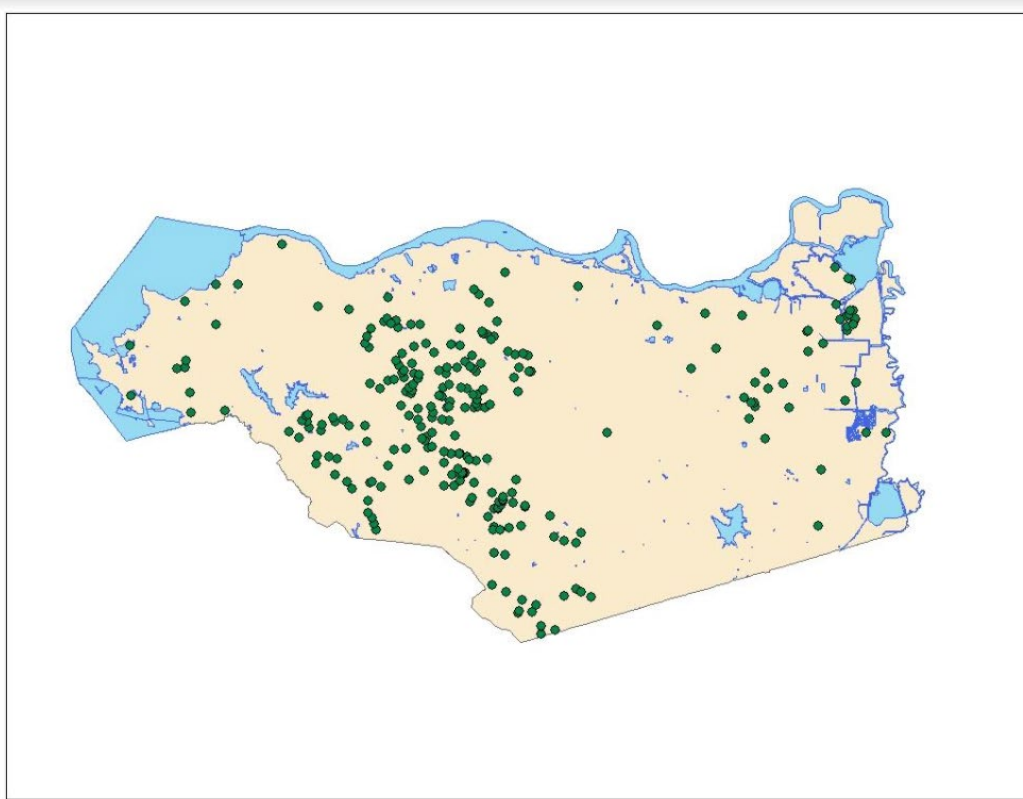


Figure 2. Locations where mosquitofish were stocked by District technicians in 2021.

While the mosquitofish remains the District's first choice for biological control, the District continues to be a lead agency for research on aquaculture and biological control capacity of California native fishes including Sacramento perch, California roach and Sacramento hitch. Because they are native species, the District has been exploring their potential to replace or augment mosquitofish and other aquatic mosquito predators in various sites, and significant in-house production and field releases have led to successful establishment in many moderate-sized permanent water bodies where the adults should be able to establish sustainable breeding populations over time. In 2021, our Biologist continued several native fish projects, including spawning Sacramento perch. Various planned environmental education projects have been postponed indefinitely due to COVID-19, and additional field stocking of native fishes is problematic due to California Fish and Wildlife's (CDFW) permitting process.

A high priority of the District is collaboration with landowners on improving land and water management to reduce mosquito production while maintaining other desirable ecological functions of the sites, and a major focus of this work is manipulating habitats to promote the survival, reproduction, and dispersal of natural aquatic predators, including fish and aquatic invertebrates such as water beetles and juvenile dragonflies. Target sites include refinery ponds, stormwater treatment facilities, irrigated pastures, duck clubs, sewer treatment marshes, etc. Environmental protection in these projects is ensured through close collaborations with resource and permitting agencies (CDFW, the Regional Water Quality Control Board (RWQCB), the Army Corps of Engineers (ACE), the Bay Conservation and Development Commission (BCDC),

etc.), as well as with landowners. Two sub-activities, Physical Control/Source Reduction and Vegetation Management, have been traditionally distinguished in this report, and are discussed below.

Finally, training and treatment protocols for pesticide use emphasize protection of predators when they are present in sites with mosquito larvae. The District's larvicide treatment protocols request field inspectors to observe whether a mosquito-producing site also has the presence of any significant populations of predators, and if so, to avoid pesticides or to use the pesticide with the least possible impact on natural predators if mosquito populations are sufficient to require prompt treatment.

3. Physical Control

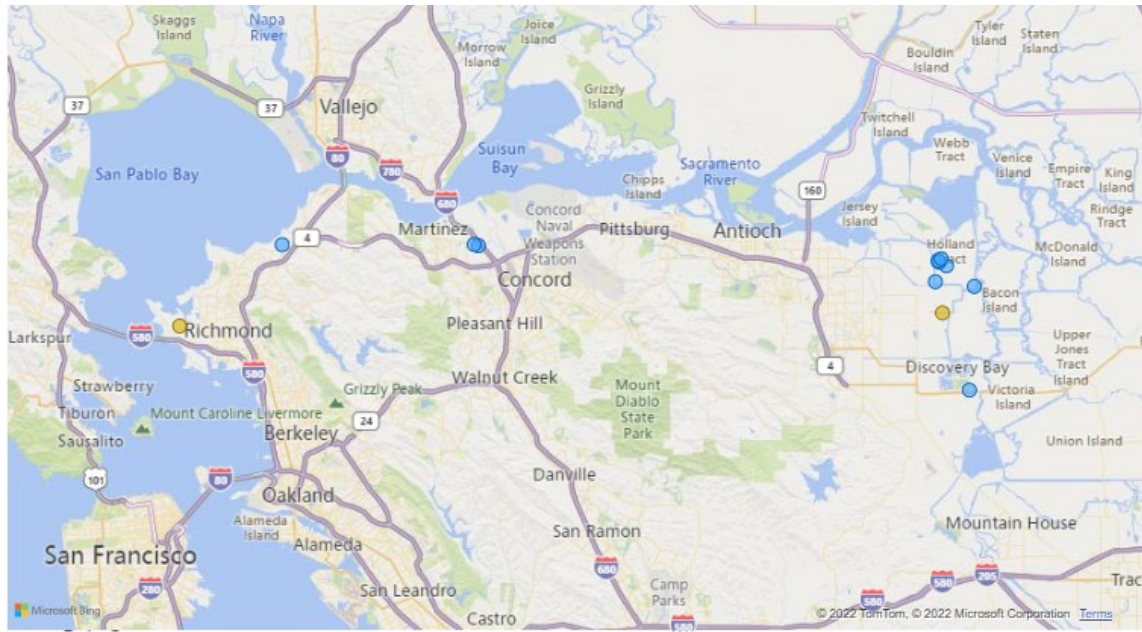
The District actively works with RWQCB, Contra Costa County Clean Water Program (CCCWP) and other agency staff and property managers to facilitate maintenance of conditions that encourage desirable species while discouraging mosquitoes, and also to reduce the need for staff time (for inspection and control) and for pesticide applications to sites where maintenance is not consistent. Some existing stormwater detention projects have become significant mosquito sources and disease risk foci due to inadequate design and/or maintenance, and our staff has been working closely with the responsible local authorities to correct these conditions, with some noteworthy success. Evaluations of past District source reduction projects continue to indicate that the environmental consequences of these projects have been positive and that increases in tidal action and proactive water management have particularly benefited a range of wetland-dependent native species.

4. Vegetation Management

The District did not apply any chemical herbicides in 2021. Vegetation management was conducted with hand tools ("brushing") as needed to allow access for vector surveillance as in past years. No significant or unanticipated problems were encountered.

5. Chemical Control (Pesticides)

The attached tables compare 2021 pesticide use with the previous ten years individually and with ten-year averages. This year, as in the preceding report, the quantity applied is reported as the total amount (pounds) of active ingredients applied. Overall pesticide use was lower in 2021 vs. 2020 (ca. 2,400 lb) (Fig. 5). The long-term trend has been a reduction in the use of larvicidal oils in favor of bacterial larvicides and growth regulators (Table 1). As in previous seasons, adulticides were applied in small quantities using vehicle-mounted ULV (ultra-low volume) or hand foggers in specific rural and residential areas where West Nile virus risk and/or adult mosquito counts were elevated (Fig. 3).



Material ● Suspend SC ● ZENIVEX E4

Figure 3. Locations where adulticides were used in 2021 by material

Pesticide Applications 2011-2021

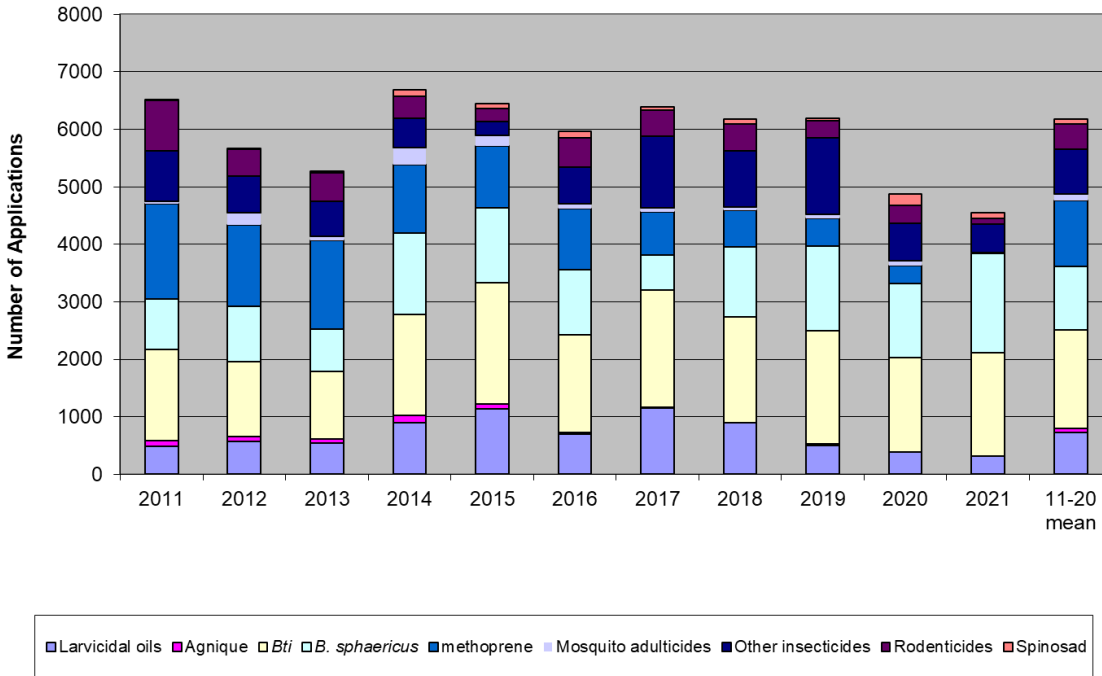


Figure 4. Number of pesticide applications* in 2021, by material
*see text for explanation

Mosquito larvicides dominate the District’s pesticide applications (Fig. 4), and four active ingredients dominate the District’s larvicide applications. In terms of number of applications, the insect growth regulator methoprene and the bacterial pesticides *Bacillus thuringiensis israelensis* (*Bti*) and *Bacillus sphaericus* (*Bs*), which are considered “biopesticides” by EPA and “least toxic pesticides” by virtually all regulators, are the larvicides of first choice at the District. These products continue to replace larvicidal oils such as GB-1111 and BVA. These light mineral oils, in contrast to all other products, are nearly 100% active ingredient and are applied at much higher quantities per acre (up to five gallons/acre in dense vegetation) since they must cover the entire surface area of the source with a thin film in order to suffocate air-breathing mosquito larvae. Therefore, they continue to dominate Figure 5, which shows pounds of active ingredient applied each year. Larvicidal oils are the only products currently used by the District that reliably control mosquito pupae, and therefore these products may continue to be used whenever mosquito pupae are encountered at densities exceeding our control thresholds.

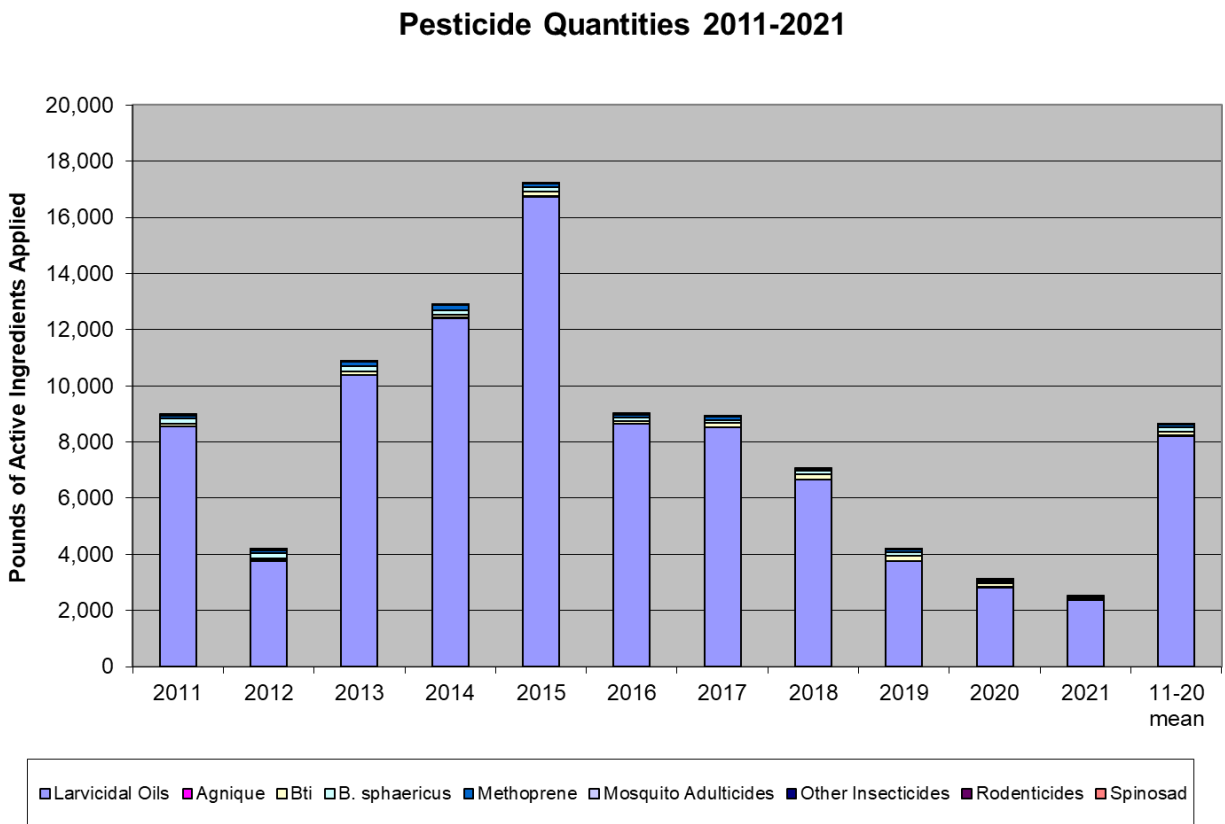


Figure 5. Amount of pesticide applied by material (pounds of active ingredient)

Because of the dominance of larvicidal oils in terms of pounds of active ingredient used annually, Figure 6 shows pesticide quantities with this product excluded to better compare the other products. Agnique, an alternative non-oil based surface film useful in swimming pools and other artificial containers, but not in open-water situations where wind and emergent vegetation tend to disrupt the film, was not used in 2021. Agnique is no longer being manufactured but we still have some granules in stock. Some new formulations of methoprene and *B. sphaericus*, and

combinations of *Bti* with *B. sphaericus* and methoprene have been introduced in recent years, but present no potential new environmental consequences. Natular™, containing the active ingredient spinosad, a bacterial fermentation product, continues to be used operationally in small amounts. Since it is similar or lower in risk classification than other biopesticides already in use by the District, it is not expected to have any significant environmental impact. It is also useful in rotation with other larvicides to reduce the likelihood of resistance developing in our local mosquito populations.

Pesticide Quantities (w/o Larv. Oils) 2011-2021

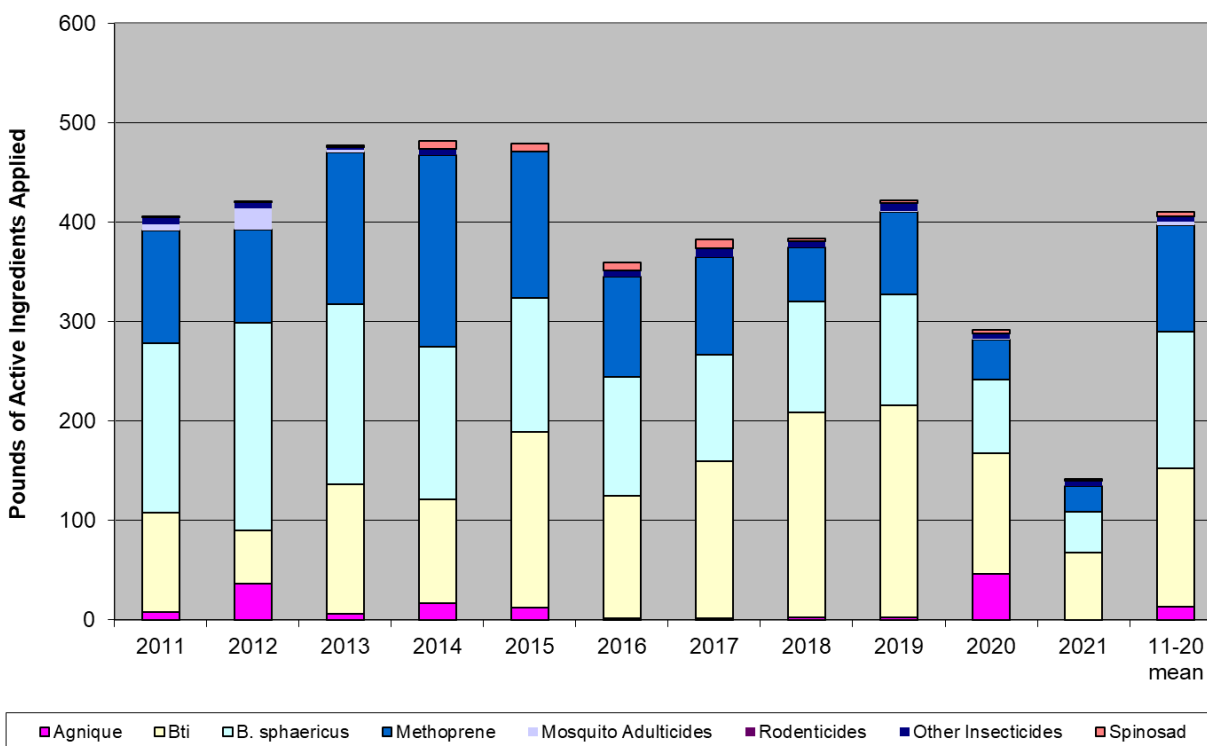


Figure 6. Amount of pesticide applied by material (pounds of active ingredient), excluding oils

District use of mosquito adulticides, in terms of quantity was lower in 2021 than the previous year due to low to moderate West Nile virus activity, and still well below the 10-year average. Overall, use of adulticides continues to be very small in comparison with larvicide use in terms of the number of applications (Fig. 4), the total amount of active ingredient applied (Fig. 6), and the area treated, in keeping with the District’s policy of preventing adult mosquito outbreaks through larval control whenever possible.

Adulticides used by the District in 2021 included the synthetic pyrethroids Zenivex (etofenprox) and Suspend (deltamethrin). Unlike other pyrethrins/pyrethroid products, Zenivex does not contain piperonyl butoxide (PBO) as a synergist and is thus regarded as a ‘reduced risk’ material. Historically, our usage of synthetic pyrethroids had been low compared with natural

pyrethrins (Fig. 7a,b); however, availability of natural pyrethrins varies from year to year, and there have been concerns about the presence of genes responsible for pyrethrin resistance in California mosquito populations. Resistance testing of *Culex tarsalis* collected in the Martinez waterfront area has demonstrated that this population is still susceptible to the active ingredient in Zenivex. We maintain a colony of fully susceptible *Culex tarsalis* in our insectary to provide a control group for resistance testing.

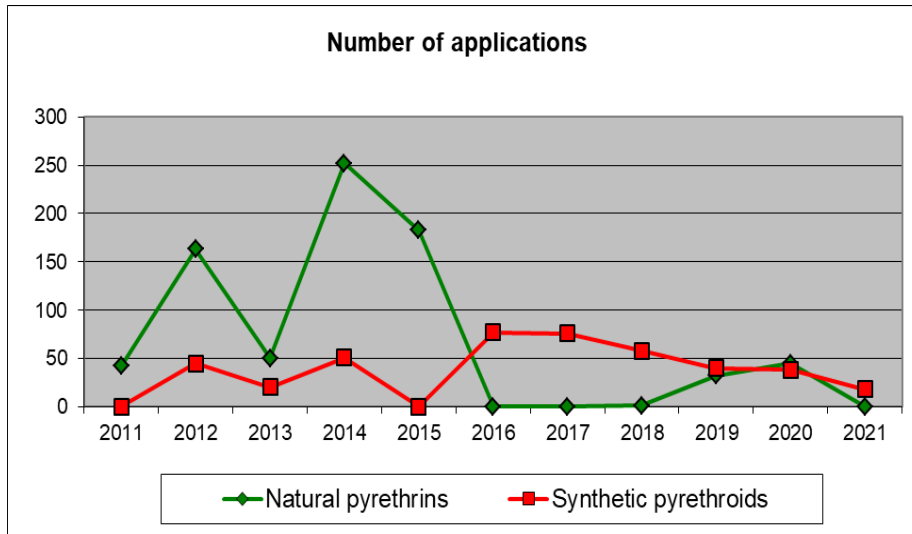


Figure 7 a. Number of adulticide applications by class of material.

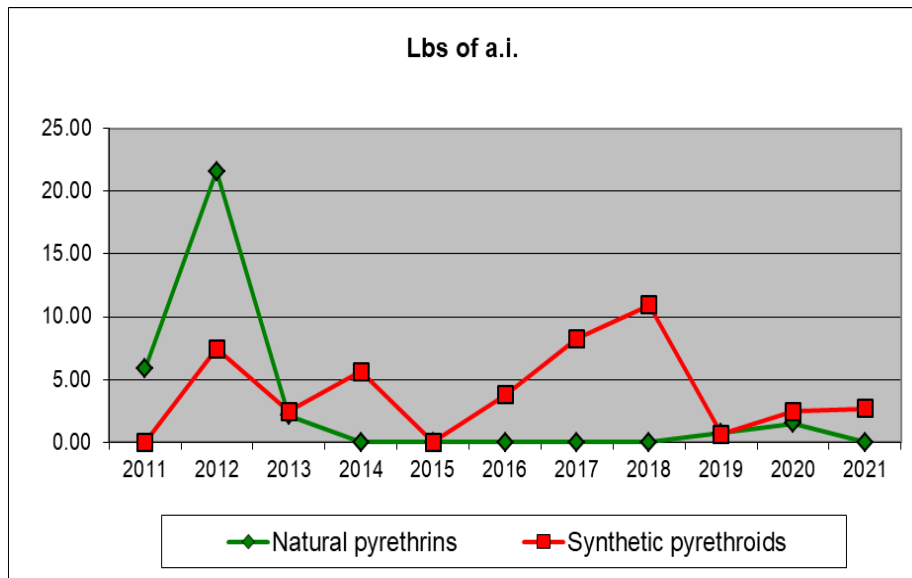


Figure 7b. Amount of a.i. applied by class of material

Applications of other insecticides by the District were limited to the pyrethroid dust product Drione, used to control yellowjacket nests. Usage of this material against ground-nesting yellowjackets was up slightly in 2021 due to an increase in yellowjacket service requests.

The number of rodenticide applications by District personnel was lower in 2021 vs. 2020, and the total quantity of rodenticide active ingredients applied also decreased (<0.01 lb), less than 2/10 ounce of active ingredient (due to the very low percentage of a.i. in these bait-based products), reflecting the District's focus on education and rodent exclusion, as well as increasingly sophisticated baiting practices. The modes of application continued to minimize the likelihood of accidental contact by the public, pets, or non-target wildlife. District policy continues to prohibit dispersal of rodenticides (or any other pesticides) directly to the public.

6. Other Activities

There were no District activities this year in the areas of Surveillance, Research, Public Education, or Administration which could have caused significant environmental impacts.

7. District Environmental Mitigation Activities

In the October 1999 Negative Declaration and the 2016 PEIR, the District recognized that established District policies require vector surveillance and the use of treatment criteria prior to chemical, biological, or physical control; monitoring and reporting of activities to appropriate agencies; and other measures to minimize potential environmental impacts. Five additional mitigation measures to ensure that these potential impacts remain insignificant were adopted:

- a. Maintenance of up-to-date maps and other information from the California Department of Fish and Wildlife Natural Diversity Data Base and other reliable sources on the location of Special Status Species and designated Natural Communities in the Project Service Area;
- b. Coordination of District activities with approved Habitat Conservation Plans;
- c. Adoption of new policies as needed and provision of continuing training to field personnel to ensure minimization of specific vector control activities and/or the use of alternative vector control methods at times and in places where those specific vector control activities might otherwise significantly impact Special Status Species or designated Natural Communities;
- d. Ensuring that mosquitofish are placed only in appropriate locations by District staff; and
- e. Review of agency lists for potential hazards (contaminated soils) prior to implementation of minor physical control projects in historically industrial zones; and additional, site-specific CEQA review prior to implementation of source reduction projects which might result in discharge of hazardous materials into the environment.

The District has adopted policies and practices to ensure that these requirements are met, and continually reviews their effectiveness. District staff, including the General Manager, Program Supervisors, and Scientific Programs Manager, interact with the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the American Mosquito Control Association, the Association of American Pesticide Control Officials, and other groups to ensure strong communications and cooperation, and plan and conduct training sessions for District personnel on environmental regulations and compliance measures.

Specific improvements continue to be made to ensure compliance. In 2021, the District maintained its subscription to GIS map layers of endangered species habitat distribution from CDFW. This enables us to provide our field employees with accurate maps of known populations of endangered or threatened species within their zones to avoid any potential conflicts. To improve the accuracy of our mosquitofish distribution data, all fish must be placed by District employees to ensure proper use, accurate data and avoid potential conflicts with native species. A new mobile database system should provide faster (near real-time) and more accurate recording of all District activities.

8. Regulations and Outside Research

The District continues to comply fully with all applicable Federal and State regulations, including FIFRA, CEQA, and the Clean Water Act (National Pollutant Discharge Elimination System - NPDES), as detailed in our District's PEIR. We also continue to collaborate with other agencies and groups, including the California Department of Public Health, the University of California, the California Department of Fish and Wildlife, and the US Department of Agriculture (USDA) on policies and projects that enhance our ability to protect public health and environmental quality.

9. Acknowledgement

I am grateful to the following individuals for their helpful suggestions and/or assistance with the preparation of the report: Paula Macedo, General Manager; David Wexler, Program Supervisor; Jeremy Shannon, Program Supervisor; Terry Davis, Program Supervisor; Eric Ghilarducci, Vector Ecologist II; Wayne Shieh, IT Technician, and Chris Miller, Biologist.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	11-20 mean	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	11-20 mean
Pesticide (units)																								
Mosquito Larvicides																								
Number of applications																								
Agnique (lbs)	96	91	78	121	80	26	24	4	21	9	0	55	7	36	5.71	16.81	12.35	1.01	0.92	1.86	1.98	46.43	0.00	13.03
Agnique (gal)	96	90	73	112	57	7	2	4	1	2	0	44	0.98	4.83	0.51	1.26	0.70	0.04	0.00	0.25	0.02	0.04	0.00	0.86
Agnique Granules (lb)		1	5	9	23	19	22	0	20	7	0	12		0.07	1.92	7.44	7.16	0.69	0.91	0.00	1.81	46.10	0.00	7.34
Methoprene (lbs)	1,666	1,419	1,552	1,248	1,076	1,069	750	637	478	3081	3881	1,020	113	94	152.72	193.06	146.77	100.47	98.43	54.77	82.75	39.671	25.771	107.52
Altosid Briquets (lbs)	192	126	55	75	65	235	126	41	39	49	34	100	0.30	1.90	0.47	0.70	0.59	4.36	0.00	0.34	0.27	0.80	0.16	0.97
Altosid XR Briquets (lbs)	504	640	55	62	26	48	0	0	0	0	0	134	10.35	15.27	0.25	0.65	0.13	0.89	0.00	0.00	0.00	0.00	0.00	2.75
Aquaprene XL Briquets (lbs)	1	0	0	0	0	0	0	0	0	0	0	0	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Altosid Granules (lbs)	0	0	1	0	23	0	0	0	0	0	1	2	0.00	0.00	0.03	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.02	0.04
Altosid XR Granules (lbs)	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Altosid XR Ingot (lbs)			726	400	239	138	129	41	19	12	177	213			23.63	16.79	3.76	1.83	0.00	1.20	0.26	0.20	0.60	5.96
Altosid Pellets (lbs)	360	345	514	490	475	516	339	187	146	193	161	357	100.30	67.07	125.21	174.43	141.70	88.83	92.69	51.65	17.22	37.63	24.14	89.67
Altosid Pellets WSP (lbs)	65	54	57	63	61	27	26	21	40	24	0	44	0.14	0.13	0.14	0.18	0.00	0.09	0.08	0.07	0.12	0.07	0.00	0.10
Aquaprene Tossits (lbs)	1	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Altosid P35 (lbs)									74	0	3	37									60.14	0.00	0.33	30.07
Altosid Liquid (Duplex) (gal)	543	252	135	158	187	104	107	9	41	30	0	157	0.23	0.12	0.10	0.04	0.03	0.51	0.63	0.04	0.49	0.11	0.00	0.23
MetalLarv S-PT (lbs)		2	9	0	0	1	0	0	0	0	0	1		8.16	2.14	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	1.16
VectoPrime FG (lbs)**							23	338	119	0	0	120							0.22	1.18	0.49	0.00	0.00	0.47
Duplex G (lbs)																								0.53
Larvicidal Oils (lbs)	491	567	540	904	1138	697	1147	895	505	383	321	727	8,551	3,753	10,390	12,415	16,738	8,634	8,522	6,646	3,746	2,802	2,363	8,219.79
Golden Bear 1111 (gal)	24	0	0	0	0	0	0	0	0	0	0	2	86	0	0.00	0.00	0.00	0	0	0	0	0	0	8.59
BVA Larvicidal Oil (gal)	467	567	540	904	1130	694	1147	872	470	377	318	717	1065	505	1398.38	1663.00	2245.00	1162	1147	872	470	377	318	1,090.46
CoCoBear (gal)					8	3	0	23	35	6	3	13				8.00	0	0	0	23	35	0	0	11.03
Bti (lbs)	1,584	1,304	1,168	1,761	2,115	1,706	2,036	1,833	1,974	1,227	1,802	1,671	101	54	130.62	104.01	176.19	123.60	158.69	206.49	213.35	121.33	67.02	138.89
Vectobac 12 AS (gal)	1400	762	939	856	830	591	686	364	349	400	66	718	11.45	2.80	2.58	1.06	9.16	1.59	2.93	0.09	1.31	0.26	0.04	3.32
Vectobac Granules (lbs)	37	60	26	11	313	237	42	18	79	23	3	85	5.22	9.16	8.48	1.26	0.90	25.26	0.32	0.53	6.13	1.31	0.12	5.86
FourStar Briquet* 45d (lbs)	27	0	9	1	0	0	0	0	0	0	0	4	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FourStar Briquet* 90d (lbs)	1	6	1	0	0	0	0	0	0	0	0	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FourStar Briquet* 180d (lbs)	105	405	28	554	3	44	5	3	0	0	0	115	0.84	6.38	0.19	9.54	0.01	0.17	0.01	0.00	0.00	0.00	0.00	1.71
FourStar CRG (lbs)									9	1	1	5								0.05	0.19	0.08	0.00	0.12
VectoMax CG* (lbs)	15	76	160	338	872	687	0	0	0	0	0	215	8.01	17.08	102.45	85.21	105.53	85.19	0.00	0.00	0.00	0.00	0.00	40.35
VectoMax WSP* (lbs)					97	147	497	389	332	327	1178	298				0.40	0.98	5.47	2.75	3.30	3.40	2.88	2.72	
VectoMax FG* (lbs)							783	721	1086	465	539	764						117.59	131.62	164.51	91.49	61.47	126.30	
VectoPrime FG** (lbs)							23	338	119	0	0	120							13.17	70.92	29.48	0.00	0.00	28.39
Aquabac 200G (lbs)												11										23.16	0.46	23.16
Duplex G (lbs)																								1.77
B. sphaericus (lbs)	872	957	732	1,407	1,307	1,125	1,385	1,226	1,469	963	1,723	1,144	170	209	181.27	153.88	135.50	119.93	107.06	111.44	112.04	74.06	41.58	137.47
Vectolex Granules (lbs)	585	331	451	381	313	237	83	106	42	46	41	258	110.40	53.10	39.50	35.20	65.30	67.65	32.05	30.70	10.93	15.42	0.19	46.02
Vectolex WDG (lbs)	78	73	27	2	8	0	1	0	0	0	1	19	48.18	106.29	77.58	5.38	6.66	0.00	1.02	0.00	0.00	0.00	2.05	24.51
Vectolex WSP (lbs)	62	70	54	130	14	10	16	7	0	0	0	36	1.90	1.13	1.18	4.87	0.15	0.15	0.12	0.10	0.00	0.00	0.00	0.96
FourStar Briquet* 45d (lbs)	27	1	6	1	0	0	0	0	0	0	0	4	0.12	0.00	0.35	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
FourStar Briquet* 90d (lbs)	1	6	1	0	0	0	0	0	0	0	0	1	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FourStar Briquet* 180d (lbs)	105	405	28	554	3	44	5	3	0	0	0	115	5.04	38.28	1.17	57.27	0.08	1.03	0.03	0.01	0.00	0.00	0.00	10.29
FourStar CRG (lbs)									9	1	1	5								0.42	1.71	0.72	1.07	
VectoMax CG* (lbs)	15	76	160	338	872	687	0	0	0	0	0	215	4.81	10.26	61.47	51.13	63.32	51.11	0.00	0.00	0.00	0.00	0.00	24.21
VectoMax WSP* (lbs)					97	147	497	389	332	0	1178	244				0.24	0.59	3.28	1.65	1.98	2.04	1.73	1.63	
VectoMax FG* (lbs)							783	721	1086	916	539	877						70.56	78.97	98.71	54.89	36.88	75.78	
Spinosad (lbs)	6	5	26	111	88	114	55	89	50	189	98	73	0.02	1.52	1.52	7.43	7.22	8.41	8.44	2.60	2.64	4.26	1.96	4.41
Natular T30 (lbs)	0	0	0	0	2	6	0	0	0	0	0	1	0.00	0.00	0.00	0.00	0.83	2.68	0.00	0.00	0.00	0.00	0.00	0.35
Natular G (lbs)	0	0	1	1	22	12	0	1	0	0	0	4	0.00	0.00	0.01	0.01	0.80	0.08	0.00	0.00	0.00	0.00	0.00	0.09
Natular G30 (lbs)			3	7	34	62	70	46	59	40	167	54		1.38	1.00	2.46	5.41	4.00	8.41	2.60	2.63	4.24	1.96	3.57
Natular G30 WSP (lbs)								3	0	26	2	2									0.01	0.00	0.00	0.01
Natular XRg (lbs)	0	1	2	50	0	5	1	0	0	0	0	6	0.00	0.13	0.45	0.50	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.11
Natular XRT (lbs)							29	2	11	15	14	14								1.45	0.02	0.00	0.26	0.49
Natular 2EC (gal)	6	1	16	26	2	11	2	0	0	0	0	6	0.00	0.00	0.01	0.46	0.02</							

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	11-20 mean	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	11-20 mean	
Pesticide (units)																									
Number of applications																									
Mosquito Adulticides																									
Natural Pyrethrins (lbs)	42	163	50	252	183	0	0	1	32	45	0	77	5.93	21.61	2.14	0.00	0.00	0.00	0.00	0.04	0.73	1.50	0.00	3.19	
Merus (gal)								1	0	0	0	0								0.0047	0.0000	0.0000		0.00	
Pyrenone 25-5 (gal)	2	0	1	0	0	0		0	2	9	0	2	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02		0.00	
Pyrocyde 7396 (gal)	40	163	22	0	0	0		0	0	0	0	25	0.80	2.92	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.40	
Pyrocyde 7067 (gal)			27	252	183	0		0	30	36	0	75			0.47	2.97	2.34	0.00	0.00	0.00	0.10	0.19		0.76	
Synthetic Pyrethroids (lbs)	0	45	20	51	0	77	76	58	40	38	18	41	0.00	7.43	2.47	5.63	0.00	3.80	8.25	10.94	0.64	2.44	2.68	4.16	
Scourge (gal)	0	45	20	32	0	0	0	16	0	0	0	11	0.00	1.03	0.34	0.78	0.00	0.00	0.00	0.53	0.00	0.00		0.27	
Zenivex E4 (gal)				19	0	77	76	42	29	25	3	38				0.16	0.00	0.51	1.11	0.96	0.09	0.33	0.36	0.45	
Suspend SC (gal)									11	13	15	12									0.02	0.02	0.02	0.02	
Synergists* (lbs)													29.64	130.86	35.77	127.33	86.62	0.00	0.00	11.81	3.70	7.64	0.00	43.34	
Piperonyl butoxide (gal)	42	208	70	284	183	0	0	16	32	45	0	88	4.01	17.68	4.83	17.21	11.71	0.00	0.00	1.60	0.50	1.03	0.00	5.86	
Other Insecticides																									
Total (lbs)	871	632	469	503	241	636	1241	978	1337	661	500	757	7.2	5.8	3.0	6.0	0.6	5.9	8.7	6.4	8.0	4.7	5.0	5.62	
Drione (lbs)	871	632	310	499	241	636	1241	978	1337	661	322	741	7.19	5.79	2.68	6.01	0.55	5.87	8.72	6.43	7.99	4.67	5.03	5.59	
Delta Dust (lbs)			159	3	0	0	0	0	0	0	178	20			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
M-Pede (gal)	0	0	0	1	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
EcoPCO DX (lb)			117	0	0	0	0	0	0	0	0	15			0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
Essentria D (lb)			17	0	0	0	0	0	0	0	0	2			0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Rodenticides																									
Total (lbs)	851	444	375	386	343	522	452	444	290	309	98	442	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.004	0.001	0.01	
Contra Super-Size Blox (lbs)+	666	390	373	135	96	101	59	78	0	31	1	193	0.02230	0.01200	0.01583	0.00480	0.00390	0.00723	0.00525	0.00488	0.00000	0.00183	0.00001	0.01	
Contra Small Blox (lbs)+	24	27	1	0	14	3	0	0	98	164	30	33	0.00008	0.00033	0.00001	0.00000	0.00025	0.00001	0.00000	0.00000	0.00089	0.00103	0.00013	0.00	
Ditrac Blox (lbs)!	161	27	1	0	111	346	330	366	181	104	66	163	0.00805	0.00135	0.00005	0.00000	0.00190	0.00565	0.00598	0.00605	0.00299	0.00154	0.00079	0.00	
Ditrac Cake (lbs)										11	0	6									0.00130	0.00000	0.00000	0.00	
First Strike Blox (lbs)%	11	15	115	188	0	19	0	0	0	0	0	35	0.00018	0.00065	0.00793	0.00600	0.00000	0.00119	0.00000	0.00000	0.00000	0.00000	0.00000	0.00	
Terad 3 Blox (lbs)&	15	0	4	63	122	53	63	0	0	10	1	33	0.00071	0.00	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00

*PBO is a component of pyrethroid adulticides. Not listed separately prior to 2009

+Bromadiolone

!Diphacinone

%Difethialone

&Cholecalciferol

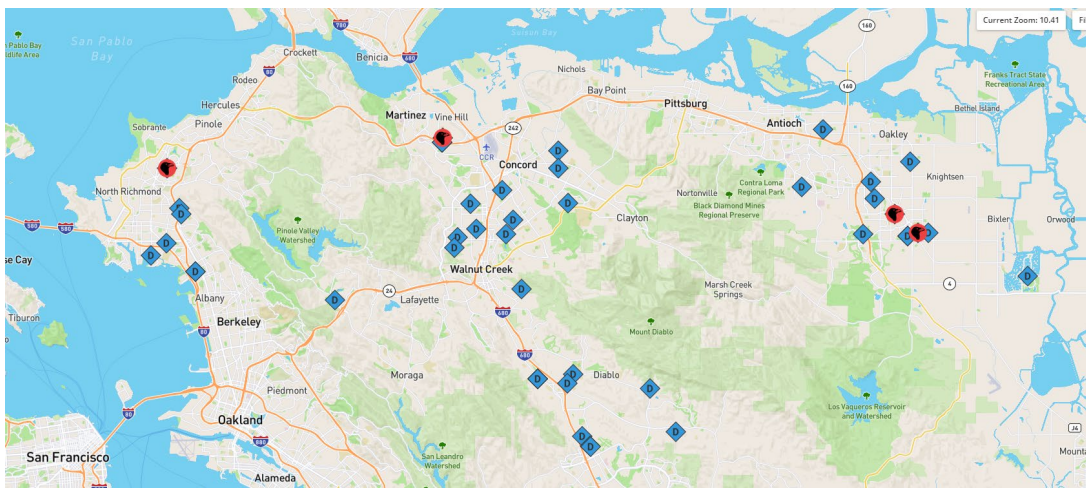
February 2022 Mosquito and Arbovirus Surveillance Report

Updated February 28th by Steve Schutz, Ph.D., Scientific Programs Manager

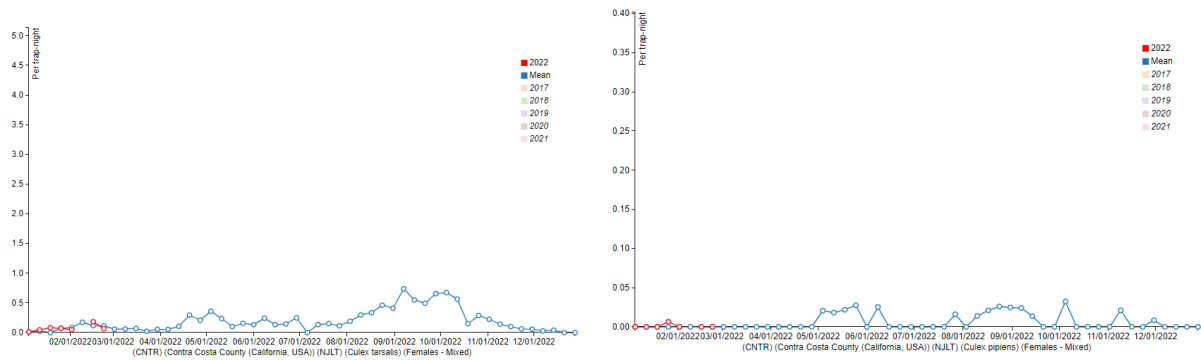
Human cases: 126 symptomatic human cases of WNV, including 13 fatalities, were reported statewide last year (see map at end of report). One locally acquired case (non-resident) and two non-locally acquired cases (residents) were reported in Contra Costa County last year.

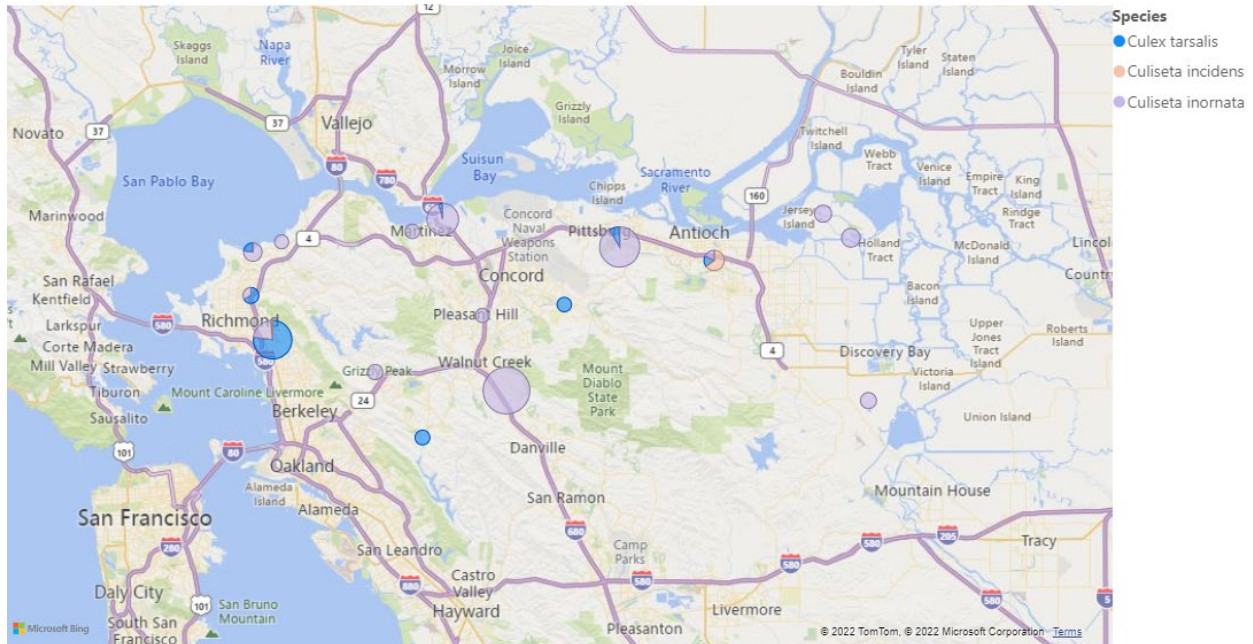
Equine cases: Thirteen equine WNV cases were reported statewide last year. An effective vaccine is available for horses; most affected horses are unvaccinated.

Dead birds: For calendar year 2021, 392 dead birds had been reported to the WNV Hotline, 37 tested (blue 'D'), four WNV positive (red crow symbols on map). Collection and testing of birds is currently suspended until Spring 2022.



Light trap counts: Twenty-three traps are being operated daily year-round, with collections made weekly by field technicians. *Culex tarsalis* and *Culex pipiens* counts are about average for winter, so far.





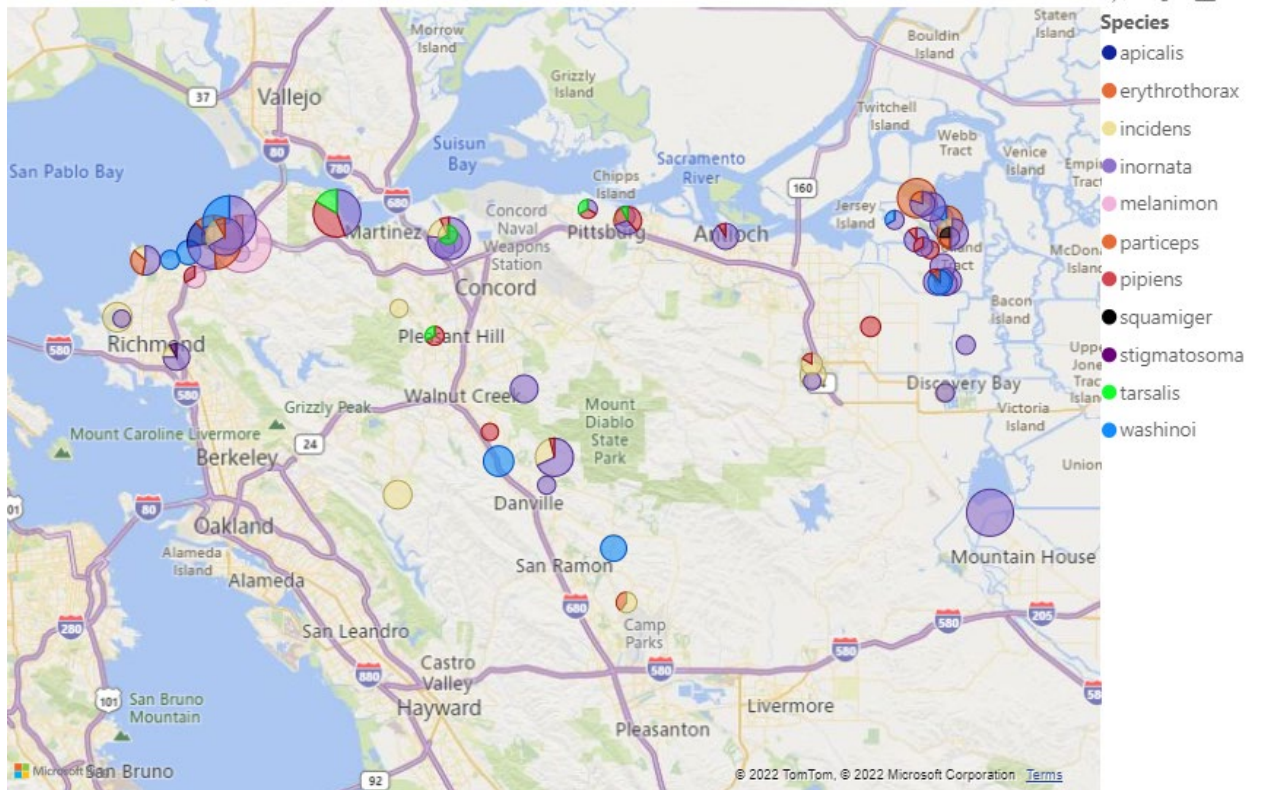
Map showing light trap locations and relative average species counts in February

‘Random’ traps: ‘Random’ trapping will be conducted throughout the surveillance season by Operations employees and Lab staff in selected areas, as needed.

Mosquito testing: Mosquito testing is suspended until weekly CO₂ trapping resumes in May or June.

Larval samples: Lab staff continues to process larval samples collected by field employees daily, year-round. In addition to species identification, larval samples are also used to monitor the effectiveness of our larval control program (pre- and post- treatment sampling).

Larval Count by Species



Map showing larval sample locations and relative species counts in February 2022.

Sentinel chickens: Statewide, 90 chickens were seropositive last season, none in Contra Costa County. Our sentinel flocks will be reinstated in April 2022.

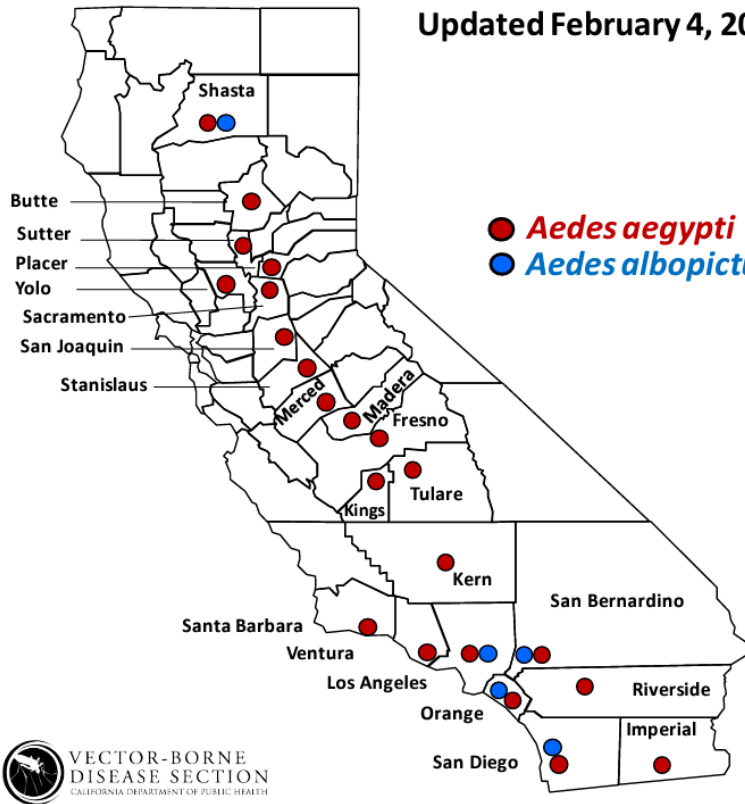
Other projects: Lab staff has collected ticks for CDPH, University of California and University of Nevada-Reno projects on *Rickettsia* and is also providing adult and larval mosquitoes of various species to North Carolina State University for a genetic study on species distribution in North America and collecting *Culicoides* (biting midges) for a researcher at UC Riverside. We are also continuing to work with Leading Edge staff on developing, refining and learning to work with our new database and field software. The Scientific Programs Manager completed a revision of the identification guide to Mosquitoes of California for the MVCAC, to include larvae and adults of invasive *Aedes* species, and the laboratory is currently collecting high-resolution photographs of key characteristics of California mosquito species, for eventual inclusion in a shared MVCAC photographic library.

Weather conditions: Current average overnight low temperatures are well below the 55 degree incubation threshold for West Nile virus. Rainfall was well above average during fall/early winter but has since tapered off and we are back to drought conditions for the season to date.

Invasive *Aedes*: We will continue to set 'BG Sentinel' traps at suspect locations as needed, but have not yet seen any evidence of invasive *Aedes* species in Contra Costa County. Statewide, *Aedes aegypti* continued to spread last year, with new reports in 2021 from Santa Barbara and as far north as Shasta, and new areas in Sacramento, Yolo and Solano Counties. Map shows locations where *Aedes aegypti* (red) and *Ae albopictus* (blue) have been detected.

Aedes aegypti and *Aedes albopictus* Mosquitoes in California by County/City

Updated February 4, 2022



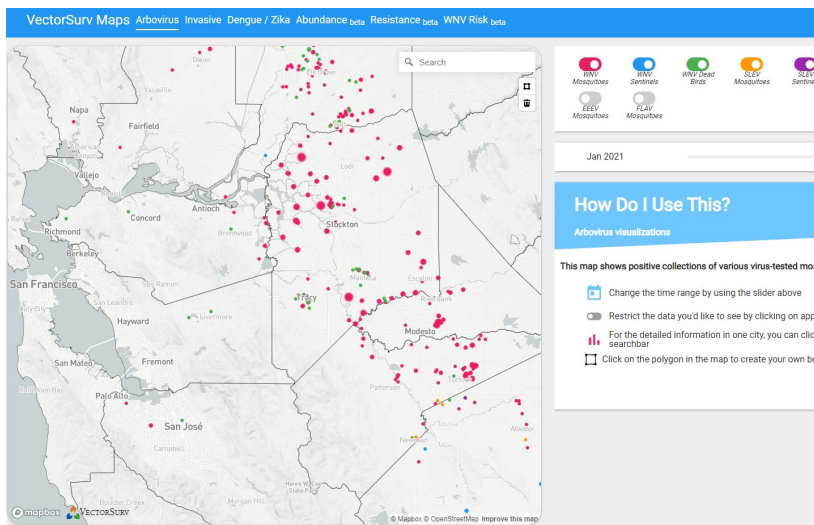
Counties with *Aedes aegypti* only:
 Butte, Fresno, Imperial, Kern, Kings, Madera, Merced, Placer, Riverside, Sacramento, San Joaquin, Santa Barbara, Stanislaus, Sutter, Tulare, Ventura, Yolo

Both *Aedes aegypti* and *Aedes albopictus*:
 Los Angeles, Orange, San Bernardino, San Diego, Shasta

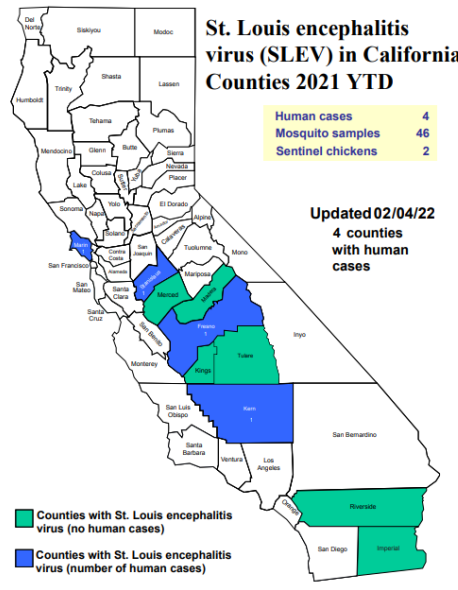
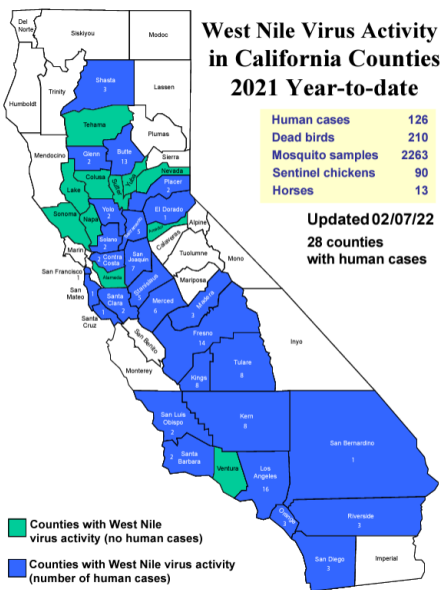
See pages 2 – 8 for *Aedes* detections by city or census-designated place in each county.

1

Regional: In 2021, West Nile virus activity (positive dead birds and/or mosquito samples) was reported in Sacramento, Yolo and San Joaquin Counties, as well as in Contra Costa, Alameda, Solano, Santa Clara, Napa and Sonoma Counties. We saw the typical yearly pattern of 'spillover' of virus activity from the Central Valley into the Coastal Region later in the season.



Statewide: 126 symptomatic human cases of WNV were reported in 2021 as of February 7th 2022 (note that the State maps below show human cases by county of residence rather than county of exposure, hence '2' for Contra Costa despite only one case locally acquired). Thirteen equine cases, 210 West Nile virus positive dead birds, 90 seropositive sentinel chickens and 2,263 positive mosquito samples were reported in California, including locations in San Joaquin, Sacramento, Yolo, Solano, Alameda, Santa Clara, Napa and Sonoma Counties. Overall activity was lower than last year and well below the 5-year average. In addition, St. Louis encephalitis virus was detected in 46 Fresno, Tulare, Riverside, Imperial, Stanislaus, Kings, Merced and Madera County mosquito samples and 2 sentinel chickens; human cases were reported in Fresno, Stanislaus and Marin County (Marin case was probably not locally infected).



February 2022 Operations Report

Prepared March 1st, 2022 by David Wexler, Terry Davis, and Jeremy Shannon,
Program Supervisors

General: Winter work has been completed. This includes preparing new trailers for use, annual maintenance and calibration of equipment, thorough cleaning of District vehicles, properly disposing of stored hazardous materials, and various maintenance tasks around the facility. Supervisors have been working on annual appraisals, updates to the annual report, workload evaluations, training, coordinating equipment, Personal Protective Equipment (PPE), and safety needs for employees. We have also been spending time learning the ins and outs of MapVision. Some employees attended the MVCAC Conference, where two of our District's field inspectors, Patrick and Heidi, presented a poster and an oral presentation respectively. They represented our District well and received positive feedback.

Mosquitoes: In February 2022 we received 28 service requests for mosquitoes and 17 requests for mosquitofish in the county, compared to February 2021, when we responded to 12 service requests for mosquitoes, and 17 for mosquitofish. In addition to service requests, technicians and inspectors recorded 1304 inspection activities of known sources, 156 larval surveillance actions, and collected 73 adult trap samples. Mild temperatures in the last few weeks have field personnel on the lookout for *Aedes washinoi* developing in rainwater pools, channels, and seasonal wetlands, finding at least 11 locations where these larvae are present. If not monitored consistently and treated appropriately, a few warm days may result in the adult emergence of this aggressive day-biting species which can be a serious localized pest. Field personnel are also on the lookout for the Western Treehole Mosquito, *Aedes sierrensis*, which typically begin to emerge in March depending on weather conditions.

Rodents: In February 2022 we received 34 requests for service for rats and mice, which is less than we received in 2021 (44 in February 2021). Rodent inspection training continues in the field with individual inspectors. In addition to service requests, technicians and inspectors recorded 72 inspection activities and continue to evaluate sites within their geographic boundaries for baiting activities.

Skunks: The number of service requests for skunks in February 2022 (30) was similar to February 2021 (34). Skunks are currently in mating season, and males are aggressively competing for females, often resulting in increased spray events. Females may be entering their gestation period, generally seeking a sheltered location at this time. This results in a seasonal spike in skunk service requests as they sometimes inhabit residential locations for their "den."

Yellowjackets: Fertilized queens hibernate during colder winter months. Workers and males usually do not survive winter, so at this time of the year, the District does not receive many service requests for yellowjackets. We received 3 requests in February 2022 (2 in February 2021).

February 2022 Public Affairs Report to the Board of Trustees

Prepared March 1, 2022 by Nola Woods, Public Affairs Director

Presentations & Events

In February 2022, Public Affairs staff participated in the MVCAC Annual Conference by providing presentations and attending seminars that provided information beneficial to the Public Affairs Department and District in General.

- Nola Woods provided a Communications presentation to trustees at the Trustee Session.
- Nola and Public Information and Technology Officer Andrew Pierce also provided a joint presentation regarding the District's countywide survey and customer service survey cards at the 2022 MVCAC Conference in Sacramento

Nola provided a presentation to the District's new Trustee Damian Wong during his New Trustee Orientation on February, 3, 2022.

Andrew provided a presentation to the Walnut Creek Garden Club on February 28, 2022.

Advertising

February marks the beginning of preliminary discussions/planning for the District's 2022 advertising campaign. Public Affairs Department staff will examine current advertising options and vendors and will discuss possible updates to existing artwork and clientele, as well as scheduling.



Social Media

The District uses a combination of Twitter, Nextdoor and Facebook to conduct District outreach on social media.

Twitter Activity — Account @CCMosquito

Yearly Comparisons

February 2022 Twitter Activity

1403 Followers
2 Tweets
79 Impressions
0 Media Engagements
0 Retweets

February 2021 Twitter Activity

1376 Followers
0 Tweets
964 Impressions
0 Media Engagements
0 Retweets

0 Likes
0 Replies
1 Link Clicks
2 Detail Expands
0 Profile Clicks
0 Profile Visits

0 Likes
0 Replies
0 Link Clicks
0 Detail Expands
0 Profile Clicks
69 Profile Visits



CC Mosquito & Vector @CC... · 2/17/22 ...

Winter is Here—So Are Skunks
See (or more likely, smell) skunks lately? As winter continues, skunks seek a mate. After mating, skunks look for a place to raise their young—often under decks or sheds.

How to reduce the risk of skunks on your property:

conta.cc/3rkoKHe



Most Popular @ccmosquito tweet February 17, 2022

45 Impressions
2 Detail Expands
1 Link Click

Nextdoor Activity

Public Affairs Department staff are evaluating the options available from Nextdoor to the District to disseminate information. Specifically, the Public Affairs Department is looking more closely at paid targeted messaging as needed, as the plan to use free accounts has not come to fruition in the manner that had been described by Nextdoor.

- 176 Recommendations
- Reach: 61 Neighborhoods (Concord & Martinez)
- Reach: 20,685 Neighbors (Concord & Martinez)

Facebook Activity — Account @CCMosquito

February 2022 Facebook Activity

9 Followers

2 Posts

16 People Reached

1 Likes

0 Post Clicks

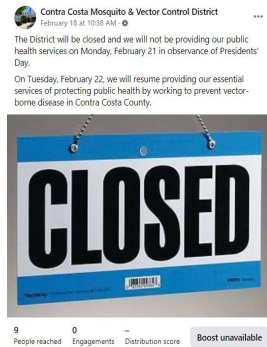
0 Share

0 Photo View

0 Page Views

0 Page Like

0 Link Click



Most Popular @ccmosquito Facebook Post February 18, 2022

9 Followers

1 Post

9 People Reached

Publications

- **Employee Newsletter**

- An Employee Newsletter was not sent in February 2022

- **Mosquito Bytes Newsletter**

- A Mosquito Bytes newsletter was not sent in February 2022

- **Total Constant Contact Subscribers**

- Constant Contact is how the District distributes Mosquito Bytes newsletters, Employee Newsletters, Adult Mosquito Control Notifications, and News Releases.
 - February 2022
 - 2853 Subscribers
 - February 2021
 - 2699 Subscribers

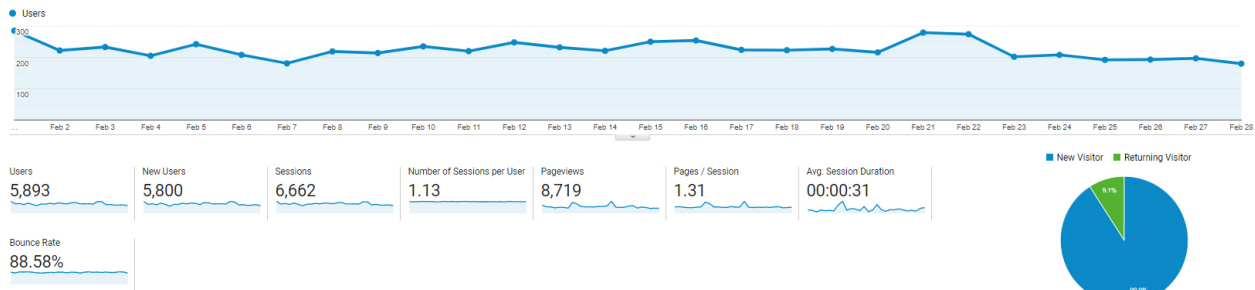
Website:

Terms - Website Statistics

- **Users:** Person visiting the website
- **New Users:** New person who, according the website data, has never visited the website before
- **Sessions:** A group of user interactions with the website that take place within a given time frame.
- **Number of Sessions per User:** The total number of sessions divided by the total number of users.
- **Pageviews:** An instance of a page being loaded (or reloaded) in a browser. Pageviews is a metric defined as the total number of pages viewed.
- **Pages/Sessions:** Average of individual pages visited and individual sessions per user.
- **Avg. Session Duration:** Average length of each session
- **Bounce Rate:** Single-page sessions divided by all sessions, or the percentage of all sessions on the website in which users viewed only a single page.

Website Statistics

● Overview of website visitors (February 1-28, 2022)



● Overview of website visitors (February 1-28, 2021)



● **Top 10 web pages viewed (February 1-28, 2022)**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate
	8,719 % of Total: 100.00% (8,719)	7,388 % of Total: 100.00% (7,388)	00:01:39 Avg for View: 00:01:39 (0.00%)	6,662 % of Total: 100.00% (6,662)	88.58% Avg for View: 88.58% (0.00%)
1. /rodents_virus_risk.htm	4,585 (52.59%)	4,317 (58.43%)	00:04:40	4,314 (64.76%)	94.39%
2. /index.html	1,141 (13.09%)	888 (12.02%)	00:00:59	842 (12.64%)	55.94%
3. /agendas_minutes.htm	350 (4.01%)	65 (0.88%)	00:00:50	24 (0.36%)	91.67%
4. /mites.htm	301 (3.45%)	289 (3.91%)	00:03:55	289 (4.34%)	95.16%
5. /surefire_ways_article.htm	295 (3.38%)	285 (3.86%)	00:06:32	285 (4.28%)	96.84%
6. /service_request.htm	220 (2.52%)	175 (2.37%)	00:02:49	40 (0.60%)	70.00%
7. /asian_tiger_mosquito.htm	131 (1.50%)	125 (1.69%)	00:02:36	125 (1.88%)	94.40%
8. /advance_planning_comm_agendas_minutes.htm	89 (1.02%)	28 (0.38%)	00:00:35	19 (0.29%)	100.00%
9. /executive_comm_agendas_minutes.htm	86 (0.99%)	27 (0.37%)	00:00:27	18 (0.27%)	100.00%
10. /personnel_comm_agendas_minutes.htm	78 (0.89%)	23 (0.31%)	00:01:00	18 (0.27%)	100.00%

● **Top 10 web pages viewed (February 1-28, 2021)**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate
	5,378 % of Total: 100.00% (5,378)	4,944 % of Total: 100.00% (4,944)	00:01:39 Avg for View: 00:01:39 (0.00%)	4,319 % of Total: 100.00% (4,319)	89.49% Avg for View: 89.49% (0.00%)
1. /bot-traffic.icu	1,957 (36.39%)	1,952 (39.48%)	00:00:00	1,952 (45.20%)	99.74%
2. /rodents_virus_risk.htm	979 (18.20%)	921 (18.63%)	00:04:40	916 (21.21%)	94.43%
3. /index.html	576 (10.71%)	455 (9.20%)	00:00:52	430 (9.96%)	44.19%
4. /mites.htm	203 (3.77%)	193 (3.90%)	00:04:37	190 (4.40%)	93.68%
5. /service_request.htm	155 (2.88%)	127 (2.57%)	00:02:09	23 (0.53%)	78.26%
6. /covid_19.htm	103 (1.92%)	84 (1.70%)	00:02:06	7 (0.16%)	57.14%
7. /rats_mice.htm	87 (1.62%)	69 (1.40%)	00:01:05	59 (1.37%)	52.54%
8. /agendas_minutes.htm	83 (1.54%)	66 (1.33%)	00:01:36	37 (0.86%)	100.00%
9. /trustees.htm	80 (1.49%)	79 (1.60%)	00:01:31	75 (1.74%)	97.33%
10. /ticks.htm	60 (1.12%)	51 (1.03%)	00:03:28	44 (1.02%)	70.45%

● **Website device preference (February 1-28, 2022)**

Device Category	Acquisition			Behavior
	Users	New Users	Sessions	Bounce Rate
	5,895 % of Total: 100.00% (5,895)	5,804 % of Total: 100.03% (5,802)	6,664 % of Total: 100.00% (6,664)	88.58% Avg for View: 88.58% (0.00%)
1. mobile	4,259 (72.26%)	4,224 (72.78%)	4,809 (72.16%)	91.89%
2. desktop	1,501 (25.47%)	1,451 (25.00%)	1,708 (25.63%)	79.74%
3. tablet	134 (2.27%)	129 (2.22%)	147 (2.21%)	82.99%

● **Website device preference (February 1-28, 2021)**

Device Category	Acquisition			Behavior
	Users	New Users	Sessions	Bounce Rate
	3,198 % of Total: 100.00% (3,198)	3,152 % of Total: 100.00% (3,152)	4,319 % of Total: 100.00% (4,319)	89.49% Avg for View: 89.49% (0.00%)
1. mobile	1,670 (52.22%)	1,658 (52.60%)	2,192 (50.75%)	92.20%
2. desktop	1,435 (44.87%)	1,402 (44.48%)	2,001 (46.33%)	86.36%
3. tablet	93 (2.91%)	92 (2.92%)	126 (2.92%)	92.06%

Customer Service Program

- **Physical survey cards**
 - 30 cards (when possible) are sent out each week year-round to county residents at random
 - The postage paid cards are sent two weeks after the initial service request
- **“Contact Us” form via the District website**
 - Residents can provide questions, comments, and concerns at any time via [the District website](#) and messages are received in real time
 - The Public Affairs staff review all incoming online comments from residents and respond as deemed appropriate
- **Examples of Online “Contact Us” submitted comments**
 - Inquiry re: rules and regulations regarding rodent control at restaurants
 - Inquiry re: when to start baiting YJ traps
 - Inquiry re: provisions/guidelines/suggestions regarding bat houses
 - Inquiry re: agricultural pest insects

All submitted inquiries were answered accordingly.

- **Examples of February 2022 Survey Card Responses:**

“David was very knowledgeable and provided solutions for us.”

“I would have appreciated it if the technician was able to inspect underneath my house.”

“Joe is very professional, knowledgeable and friendly.”

February Administration Department Report

Prepared March 1, 2022 by Maria Bagley, Administrative Services Manager

- **457 transition almost completed**

The Administration department has been working with Empower to transition two 457 plans into one plan with Empower since September 2021. Staff has continued to meet weekly, has worked on defining the plan, set-up instructions, and has met with employees to give status updates. The plan is expected to go live in April 2022.

Empower offers a robust website with retirement calculators built-in, market sector analysis, and the ability to have our employees access their money quickly.

- **COVID -19**

Masking Mandates have been reduced by Contra Costa County and the District has followed suit, we still strongly encourage our employees to wear a mask.

- **IT & Software**

IT is currently working on transitioning our internet to high speed and changing providers. The District is going into VoIP with our phones.

Leading Edge, the company responsible for the Operations software Mapvision will be onsite for additional training in March. This will be a District-wide training. IT has continued to work with Leading Edge for additional enhancements in reporting and workflows for our software.

- **Human Resources & Benefits**

In the past month, Human Resources has been reviewing employee performance evaluations and revamping the District's internal checklist for separating employees.

- **General**

The front office has been down one employee for the entire month, so staff has been working overtime to get normal processing completed.

The District has continued to dispose of records based on the approved records retention policy. The District is still continuing to digitalize all records and files.

As we are getting into the beginning of the mosquito season, the front office has received several members of the public coming in for mosquitofish. At this time, the mosquitofish service is restricted to a delivery-only service so technicians can inspect the water feature to see if fish are necessary. Members of the public have been asked to fill out the mosquitofish request form, either online or in-person at the front desk, so that a technician can schedule a time to inspect and deliver fish.

Contra Costa Mosquito and Vector Control District
Electronic Signature Policy

Overview

Contra Costa Mosquito and Vector Control District (the “District”) is committed to efficient business practices and to compliance with all applicable laws, and wishes to adopt the use of electronic/digital signatures.

Purpose/Objectives

This Policy is to set forth the guidelines for the use of electronic signatures by Contra Costa Mosquito and Vector Control District (the “District”). This Policy establishes the requirements for the use of electronic signatures in lieu of manual or "wet" signatures. This Policy shall be used by District departments to increase productivity and ensure the convenient and timely access to District information by using electronic signature technology to collect and preserve documents quickly, securely, and efficiently. This Policy furthers the District’s goal of efficient business practices by reducing the consumption and storage of papers and the maintenance and supply of copiers and printers. Affixing an electronic signature to a document in a manner consistent with this Policy shall satisfy the District’s requirement for signing a document. As used in this Administrative Instruction, the term "signature" includes the use of initials on a document as one's signature.

Although the use of electronic signatures is suggested and encouraged when permitted, this Policy does not mandate the use of electronic signatures, nor can the District require that any third party signing a document use electronic signatures.

Scope and Exclusions

This Policy applies to all District employees and the Board of Trustees.

This policy is compliant with all Government Code Sections.

In 1995, the California Legislature passed Government Code Section 16.5, authorizing public entities to accept digital signatures if they comply with stringent verification requirements.

In 1999, California adopted a version of the Uniform Electronic Transactions Act ("UETA") (California Civil Code Sections 1633.1 to 1633.17), providing that electronic signatures would have the same legal effect as a wet or manual signature.

Not every state enacted UETA and, therefore, in 2000, the Federal Government enacted the Electronic Signatures in Global and National Commerce Act (ESIGN). ESIGN mandated the same treatment of electronic signatures in interstate or foreign commerce. (15 USC§§ 7001 et seq.)

In August 2016, Governor Brown signed AB 2296 to clarify that State and local agencies can use both electronic and digital signatures and that a digital signature is a subset of electronic signature in which Government Code Section 16.5 only applies when a public entity uses a digital signature.

Definitions

- “Digital Signature”, as defined by Government Code Section 16.5, is a type of electronic signature. Documents signed by hand and then faxed or sent as scanned attachments to an e-mail are considered electronic signatures for purposes of this Policy.

- "Electronic" means relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.
- "Electronic Record" means a record created, generated, sent, communicated, received, or stored by electronic means.
- "Electronic Signature," or "eSignature," means an electronic sound, symbol, or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record.
- "Proxy Signatures" mean when Person A authorizes Person B to sign Person A's signature on their behalf. Proxy signatures are prohibited under this Policy.
- "Record" means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.

Requirements of Electronic Signatures

The use of electronic signatures is permitted and shall have the same force and effect as the use of a "wet" or manual signature if all of the following criteria are met:

- The digital signature or initial must be generated in the signatory's own handwriting, or generic signatures generated can be substituted;
- The electronic signature is capable of verification;
- The electronic signature is under the sole control of the person using it;
 - These requirements prohibit the use of proxy signatures.
- E-mail notifications requesting digital signatures must not be forwarded unless delegation has been assigned;
- The digital signature is linked to the data in such a manner that it is readily ascertainable if the data is changed after the signature is applied;
- All documents submitted for electronic signature must be in PDF format.

Documents involving other parties

In the case of contracts or transactions which must be signed by outside parties, each party to the contract must agree in advance to the use of digital signature. No party to a contract or other document may be forced to accept a digital signature; they must be permitted to decide either way. Such consent may be withdrawn by the other party at any time such that future documents related to the withdrawn consent contract or transaction must be signed in hard-copy format.

When a document is digitally signed by all parties, the District, the outside party (if an outside party originates the agreement), or a third-party service provider facilitating the signatures on the document will notify the parties of the availability of and/or provide the parties with a copy of the digitally signed document in an electronic format that is capable of being retained and printed.

Electronic Signature Policy

The District employs a digital sign platform to attain electronic signatures. This is used for internal District operations and purposes as well with external vendors not affiliated with the District. The below chart outlines the authorized electronic signature program for each scenario. Departments should work with the General Manager or Administrative Services Manager to determine whether applicable laws permit an electronic signature to be used before proceeding if the document is not listed below.

DOCUMENT TYPE	USE OF ELECTRONIC SIGNATURE
Board Meetings, Resolutions, Agendas, Minutes, Packets, Materials, Task Orders, etc.	YES
Internal Memos (within the District)	YES
External Memos	YES
Letters and other correspondence from Board, from other public agencies or governments	YES
Applications	YES
HR Forms, Personnel Action Forms (PAF), all benefit forms, 457 plans, Etc. (Existing Employee)	YES
HR Forms (Future or Former Employee)	YES
Employee Performance Review	YES
Contracts, Amendments, Agreements	YES
Internal Financial Approvals (Department AR, AP, PO, PR, Cal-Cards)	YES
MOU Signatures	YES
Certificates	YES
Permits	YES
Bonds or debt agreements	YES
Worker's Comp forms	YES
Insurance agreements	YES

Storage and Archiving of Electronically signed Documents

If a document exists only electronically, steps should be taken by each department to ensure that a fixed version of the final document and audit trail, which details the electronic signature process, are provided to and stored in some manner with the District, and shall be compliant with the Record Retention policy. All final electronic documents must be stored in a manner consistent with applicable law and the District's document retention policies and any and all applicable laws.

Digital Solution Providers

The District's Information Technology (IT) will be responsible for determining acceptable technologies and digital providers consistent with all applicable legal requirements.

DRAFT



RECOMMENDATIONS FOR SAFELY HOLDING PUBLIC MEETINGS

Each local government agency is authorized to determine whether to hold public meetings in person, on-line (teleconferencing only), or via a combination of methods. The following are recommendations from the Contra Costa County Health Officer to minimize the risk of COVID 19 transmission during a public meeting.

1. Online meetings (i.e. teleconferencing meetings) are strongly recommended as these meetings present the lowest risk of transmission of SARS CoV-2, the virus that causes COVID 19. This is particularly important in light of the current community prevalence rate as of March 1, 2022. Our current trends as of March 1, 2022 in Covid-19 case rate, Covid-19 test positivity, and Covid-19 hospitalizations are decreasing, but cases rates remain high with the Omicron variant of Covid-19 being the predominant variant identified, the impact of which on the spread of Covid-19 has shown to dramatically increase COVID-19 transmission.
2. If a local agency determines to hold in-person meetings, offering the public the opportunity to attend via a call-in option or an internet-based service option is recommended, when possible, to give those at higher risk of and/or higher concern about COVID-19 an alternative to participating in person.
3. A written safety protocol should be developed and followed. It is recommended that the protocol require social distancing – i.e., six feet of separation between attendees – and face masking of all attendees.
4. Seating arrangements should allow for staff and members of the public to easily maintain at least six-foot distance from one another at all practicable times.
5. Consider holding public meetings outdoors. Increasing scientific consensus is that outdoor airflow reduces the risk of COVID-19 transmission compared to indoor spaces. Hosting events outdoors also may make it easier to space staff and members of the public at least 6 feet apart.
6. Current evidence is unclear as to the added benefit of temperature checks in addition to symptom checks. We encourage focus on symptom checks as they may screen out individuals with other Covid-19 symptoms besides fever and help reinforce the message to not go out in public if you are not feeling well.
7. Consider a voluntary attendance sheet with names and contact information to assist in contact tracing of any cases linked to a public meeting.

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