



FIVE-YEAR STRATEGIC PLAN
2022-2026

Advance Planning Committee

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Paula Macedo, General Manager

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I. INTRODUCTION

This is the seventh Five-Year Plan adopted by the Contra Costa Mosquito and Vector Control District (CCMVCD). The previous plan, initiated under the previous General Manger, concluded in 2020. District staff started working with the Advance Planning Committee in 2020 to formulate the new plan, which would cover the years of 2021-2025. In 2020, coronavirus (COVID-19) outbreaks in the United States prompted some unprecedented measures, such as the temporary closure of the District to the public, and adjustments were needed to continue providing the essential services of protecting Contra Costa County residents from vectors of disease and harm, while reducing the risk of COVID-19 transmission to District employees. Increasing scientific data regarding the pandemic helped shape new local and statewide directives. In 2020 and 2021, the District continued its mission of protecting the community from mosquitoes and other vectors of disease but Board meetings and meetings of standing committees of the Board were held virtually. Due to the increased workload on staff and the ever-changing priorities during the pandemic, work on the 5-year plan was delayed. The committee resumed work on the plan in 2022. This 5-year plan will consist of plans for years 2022 through 2026 and will serve as a framework for decision-making. The summary of the work accomplished in 2021 is provided.

2021

In 2021, the District continued to use Integrated Vector Management (IVM) as our core approach to reducing risk of vector-borne diseases to the community. Although West Nile Virus (WNV) has continued to dominate the landscape, invasive *Aedes* mosquito species, *Aedes albopictus* and *Aedes aegypti*, have been established in various regions of the United States including San Joaquin County, Sacramento County, and Solano County, which share borders with Contra Costa County. Their associated mosquito borne diseases, such as Dengue, Chikungunya and Zika, have been locally transmitted in the southern United States. The District hired a new Laboratory technician and increased surveillance to be able to detect early introductions of these mosquito species in the county. In addition, the District continued to keep watch for introduction of additional new mosquito-borne diseases such as Ross River and Japanese encephalitis, and for tick-borne diseases.

When the District closed temporarily to the public in 2020 due to COVID-19, mosquitofish could not be provided directly to residents who, in previous years, would come to the office to pick fish up. That created an opportunity for the District to adjust the program to deliver the fish and provide an inspection to the residents. By changing the program, it allowed District employees to determine if mosquitofish were the appropriate solution to address mosquito issues in the property and offer additional advice as needed.

2021 was a big year with many changes in the Operations department, such as the adoption and implementation of the new operational software, workload evaluations and re-zoning, and the consolidation of different services in each zone. District staff continued to regularly survey and treat more than 10,000 acres of marshland along the waterfront, 60,000 acres of irrigated farmland in the eastern portion of the county, and numerous ponds, creeks, and residential sources countywide.

In addition to the regular monitoring and treatment of know vector sources, the District responds to service requests made by Contra Costa County residents. Requests for service have varied over the years and are used by the District in the analysis of workloads. In 2020 and 2021, requests for service were affected by the global COVID-19 pandemic and numbers should be evaluated carefully. The table below shows the breakdown of service requests provided by city and adjusted for the number of residents (Table 1). In 2021, requests for service per capita were highest in Orinda, Moraga, Martinez and Lafayette. The cities of San Pablo and Hercules had the lowest service request ratio per capita. The total number of service requests in 2021 was lower than the average before COVID-19.

Table 1. Service requests to CCMVCD, 2021.

Area	Service Requests	Per 1,000 residents	Area	Service Requests	Per 1,000 residents
Cities					
Antioch	120	1.0	Oakley	44	1.0
Brentwood	96	1.5	Orinda	174	8.9
Clayton	39	3.5	Pinole	17	0.9
Concord	219	1.7	Pittsburg	47	0.6
Danville	133	3.1	Pleasant Hill	137	4.0
El Cerrito	116	4.5	Richmond	139	1.2
Hercules	12	0.5	San Pablo	10	0.3
Lafayette	140	5.5	San Ramon	97	1.1
Martinez	216	5.8	Walnut Creek	262	3.7
Moraga	108	6.4	Unincorporated	284	1.6
			Total Service Requests	2410	2.1

Requests for mosquito services usually peak during the spring and summer months. In 2020 and 2021, the District received significantly less requests than previous years, as shown in the graphs below (Figures 1 to 3). This was speculated to be due to the COVID-19 pandemic, and analysis in future years will be very important.

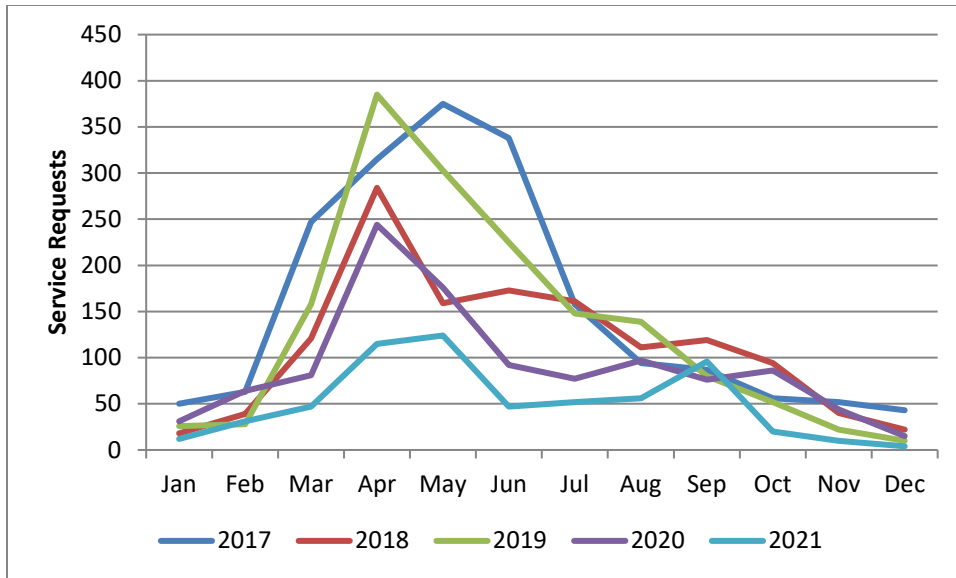


Fig. 1. Monthly requests for mosquito service, 2017-2021

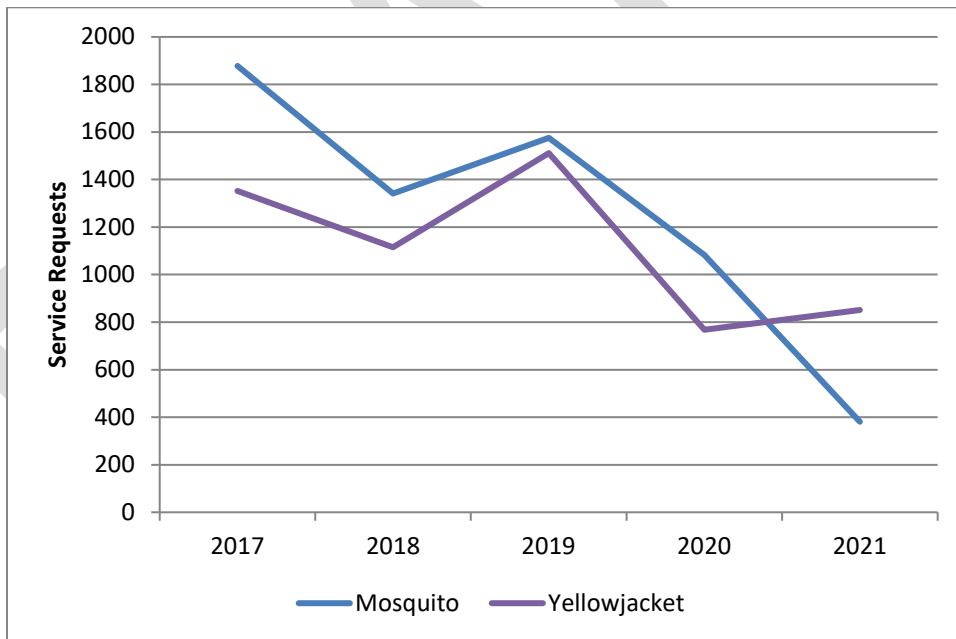


Fig. 2. Mosquito and yellowjacket service requests, 2017-2021

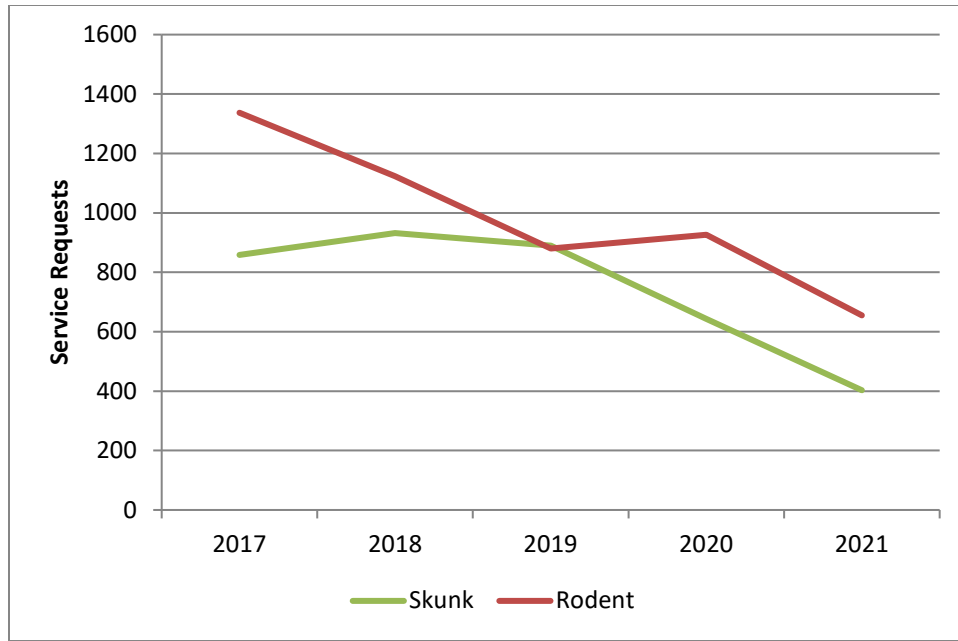


Fig. 3. Skunk and rodent-related service requests, 2017-2021

In the Administration department, staff continued to look for ways to improve processes and be more efficient. Staff moved the new employee onboarding to an online platform, updated the accounting/payroll software to a new version, created manuals for each process, and upgraded technology as needed. A new position of Human Resources and Risk Manager was approved by the Board and filled at the end of the year. In addition, the District has continued to be fiscally conservative. In 2021, the Board approved a new methodology for future property taxes projections using 60% of a moving 5-year average for a dynamic long-range budget. The same methodology was approved for the Benefit Assessment, except for year one, which is projected by the Engineers Report, and based on an actual benefit assessment assigned to each parcel. Revenues from property taxes and benefit assessment continued to make up approximately 95% of the District's total revenues. Other sources of funding for the District are contract billing and interest income and corresponded to less than 5% of total revenue.

2022-2026

II. THE PLANNING PROCESS

The strategic planning process was carried out in a series of steps as outlined below:

- A. Strategic Thinking
- B. Long-Range Planning
- C. Critical Issues Analysis
- D. Tactical Planning – annual

A. STRATEGIC THINKING

This is the first step of the planning process because it is important to have congruence among our District Management, Staff, and Trustees on the nature and scope of our business, the principles under which we intend to operate, and the direction in which we should be moving as an organization. The strategic thinking process include the discussion of the Mission and the values or principles under which we operate. The process was completed in 2019 with final Board approval in January 2020.

MISSION STATEMENT:

The Contra Costa Mosquito and Vector Control District is a public health agency dedicated to protecting the community from mosquitoes and other vectors of disease.

PRINCIPLES:

Established in 1927, the Contra Costa Mosquito and Vector Control District is committed to:

Public Health – We use Integrated Vector Management (IVM) as our core approach to reducing risk to the community.

Environmental Stewardship – We use materials and methods that meet or exceed all applicable regulatory requirements.

Science and Technology – We work diligently with the scientific community to ensure that our methods are scientifically sound and to advance the state of the art of our discipline.

Public Education – We educate and help our resident understand the role they play in assisting us in reducing the risk from vectors of disease.

Safety – We are committed to the safety of employees and the public through ongoing attention to facilities, equipment and training.

Management Effectiveness – We use management systems, protocols and methods that allow us to fulfill our mission in an efficient, transparent and fiscally responsible manner.

Teamwork and Collaboration – We believe that a productive work environment requires teamwork, active collaboration and clear and open communication within and across all entities, to develop the future.

B. LONG-RANGE PLANNING

We have identified key strategic areas on which collective attention will be focused for the duration of this plan. Determining these major areas will help us identify critical strategic issues that need to be addressed over the next 5 years while carrying our mission and operating under our core values or principles. Analyzing our **key strategic areas** will help us determine our **critical issues** and develop our **tactical planning**.

KEY STRATEGIC AREAS

1. Management Succession
2. Staff Development and Training
3. Program Capability and Capacity
4. Research and Development
5. Finances
6. Alliances
7. Legislative and Regulatory Impacts
8. Safety
9. Emergency Planning
10. District Facilities and Grounds

1. Management Succession

a. General Manager

Hiring the General Manager is the responsibility of the Board of Trustees. The Board shall establish a search committee and may consider an in-house search or the use of external consultants. At the time of recruitment, the Board shall evaluate a variety of characteristics, including but not limited to management and supervisory experience, financial background, community involvement and knowledge, administrative experience, working knowledge of mosquito and vector surveillance and control, and understanding of current and future challenges. Qualifications for the position shall be clearly stated during recruitment.

In the event the General Manager can no longer perform their responsibilities either temporarily for an extended period of time or permanently, the Board president shall call for an

emergency meeting of the Board of Trustees to decide whether assigning an interim General Manager is appropriate. The General Manager will have set contingency measures to maintain the operations of the District until the Board makes its decision.

The positions below fall under the responsibility of the General Manager. Job descriptions should be updated regularly and accurately represent the tasks performed by each position. Job requirements and essential functions of each position should be clearly stated in the job descriptions.

b. Administrative Services Manager

Cross training of additional employees in the Administration Department on the Administrative Services Manager’s responsibilities and functions.

Evaluation of responsibilities and functions that could be performed by outside vendors or contractors in the case of an extended absence of the Administrative Services Manager or during recruitment for a vacant position.

Recruitment for a vacant position of Administrative Services Manager should follow the requirements stated on the job description. Alternatively, due to the dynamic nature of the Administration department, which includes many different specialties, in the case of a vacant position of Administrative Services Manager, it may be beneficial to re-evaluate and reclassify the position depending on the current needs.

c. Human Resources and Risk Manager

Cross training of additional employees in the Administration Department on Human Resources (HR) and Risk Manager’s responsibilities and functions that can be performed by them during the Human Resources and Risk Manager’s absence.

Evaluation of responsibilities and functions that could be performed by outside vendors or contractors in the case of an extended absence of the Human Resources and Risk Manager or during recruitment for a vacant position.

Recruitment for a vacant position of Human Resources and Risk Manager should follow the requirements stated on the job description. Internal candidates may be considered if they qualify.

d. Scientific Programs Manager

Cross training of Vector Ecologists on Scientific Programs Manager’s responsibilities and functions.

Recruitment for a vacant position of Scientific Programs Manager should follow the requirements stated on the job description. Internal candidates may be considered if they qualify.

e. Operations Manager

Cross training of Program Supervisors on Operations Manager's responsibilities and functions. Higher responsibilities may be taken temporarily by the General Manager in the case of an extended absence or vacancy of the Operations Manager position.

Recruitment for a vacant position of Operations Manager should follow the requirements stated on the job description. Internal candidates may be considered if they qualify.

2. Staff Development and Training

To help maintain a safe and productive workplace and to comply with all regulations, employees should be adequately trained on their obligations under the law and to the District. Training at the Contra Costa Mosquito and Vector Control District meets or exceeds the requirements and recommendations of several agencies, such as Cal/OSHA, Vector Control Joint Powers Association (VCJPA), Centers for Disease and Control and Prevention (CDC), Mosquito and Vector Control Association of California (MVCAC), California Department of Public Health (CDPH), Contra Costa County Health Services - Environmental Health Division, Contra Costa County Department of Agriculture Weights & Measure, and others, as well as recommendations from legal counsel.

a. Managers and Supervisors

- Ethics training (AB 1234) – every 2 years
- Harassment, Discrimination, Retaliation training (AB 1825 and 1661)– every year
- Continuing education to maintain required certifications
- Computer training as needed
- Financial and accounting programs as appropriate
- Human Resources training as appropriate
- Supervisory training as appropriate
- Employment Risk Management Authority (ERMA) training as available
- California Special Districts Association (CSDA) training as appropriate
- Attendance at conferences as appropriate:
 - ✓ Mosquito and Vector Control Association of California (MVCAC)
 - ✓ American Mosquito Control Association (AMCA)
 - ✓ California Special Districts Association (CSDA)
 - ✓ Vector Control Joint Powers Agency (VCJPA)
 - ✓ Entomological Society of America (ESA)
 - ✓ Society of Vector Ecology (SOVE)
 - ✓ Vertebrate Pest Conference
 - ✓ Society for Human Resource Management (SHRM)
 - ✓ Legal conferences, such as Liebert Cassidy Whitmore (LCW)
 - ✓ Public Relations Society of America (PRSA)

b. Administration staff (including HR, IT, and Public Affairs)

- Harassment, Discrimination, Retaliation training (SB 1343 if non-supervisory)– every year
- Drivers training every 3 years
- Human Resources training as appropriate
- Computer training as needed
- In-service safety training with office equipment
- Financial and accounting programs as appropriate
- Tax preparation training as appropriate
- Social media training as appropriate
- Attendance at conferences as appropriate:
 - ✓ MVCAC
 - ✓ CSDA
 - ✓ VCJPA

c. Scientific Programs staff

- Harassment, Discrimination, Retaliation training (SB 1343 if non-supervisory)– every year
- Drivers training every 3 years
- Skill training with laboratory equipment
- In-service safety training with laboratory equipment
- Continuing education to maintain required certifications
- Computer training as needed
- Entomology and ecology training as appropriate
- Attendance at conferences as appropriate:
 - ✓ MVCAC
 - ✓ AMCA
 - ✓ SOVE
 - ✓ ESA

d. Operations staff

- Harassment, Discrimination, Retaliation training (SB 1343 if non-supervisory)– every year
- Drivers training every 3 years
- In-service safety training
- Skill training with operational equipment as needed
- Continuing education to maintain required certifications
- Computer training as needed
- Mechanical and automotive training as appropriate
- Attendance at conferences as appropriate:
 - ✓ MVCAC
 - ✓ Vertebrate Pest Conference

3. Program Capability and Capacity

a. Administration Department

- The Administration department includes the front office (reception, benefits, payroll, accounts payable and receivable etc.), information technology, public affairs, and human resources.
- Staffing levels are currently: General Manager, Administrative Services Manager, Human Resources and Risk Manager, Public Affairs Director, Administrative Analysts I and II, IT Systems Administrator, and Public Information and Technology Officer.
- Consultants are used to supplement the programs (attorneys, financial software specialists, maintenance contracts, auditors).
- Expansion is expected in future programs, but they will be incorporated into the job performed by current staff. Expansion is expected in human resources with the recent hire for the position of Human Resources and Risk Manager, which was approved by the Board in July 2021.

b. Scientific Programs Department

- Staffing levels are currently: Scientific Programs Manager, Vector Ecologists I and II, Biologist, Laboratory technician, laboratory assistants (seasonal, usually 2).
- Seasonal laboratory assistants usually hired from April through October but were not hired in 2020 and 2021 due to the COVID-19 pandemic.
- Expansion is expected in the Scientific Programs department with the recently hired Laboratory Technician to support the expansion.

c. Operations Department

- Staffing levels are currently: Operations Manager (vacant), Program Supervisors (3), Vector Control Planner (VCP, vacant), Mechanic/technician (vacant), Vector Control Technicians (VCT) and Inspectors (VCI) (18), and Vector Control Aids (VCA, seasonal, usually 4).
- Seasonal technicians (VCAs) usually hired from April through October but were not hired in 2020 and 2021 due to the COVID-19 pandemic.
- Expansion is expected in all Operations programs, but no staff level change is required at this time. The position of Vector Control Planner will remain vacant until the Operations Manager position is filled, so that further program evaluation can occur to better define the role of the Vector Control Planner.

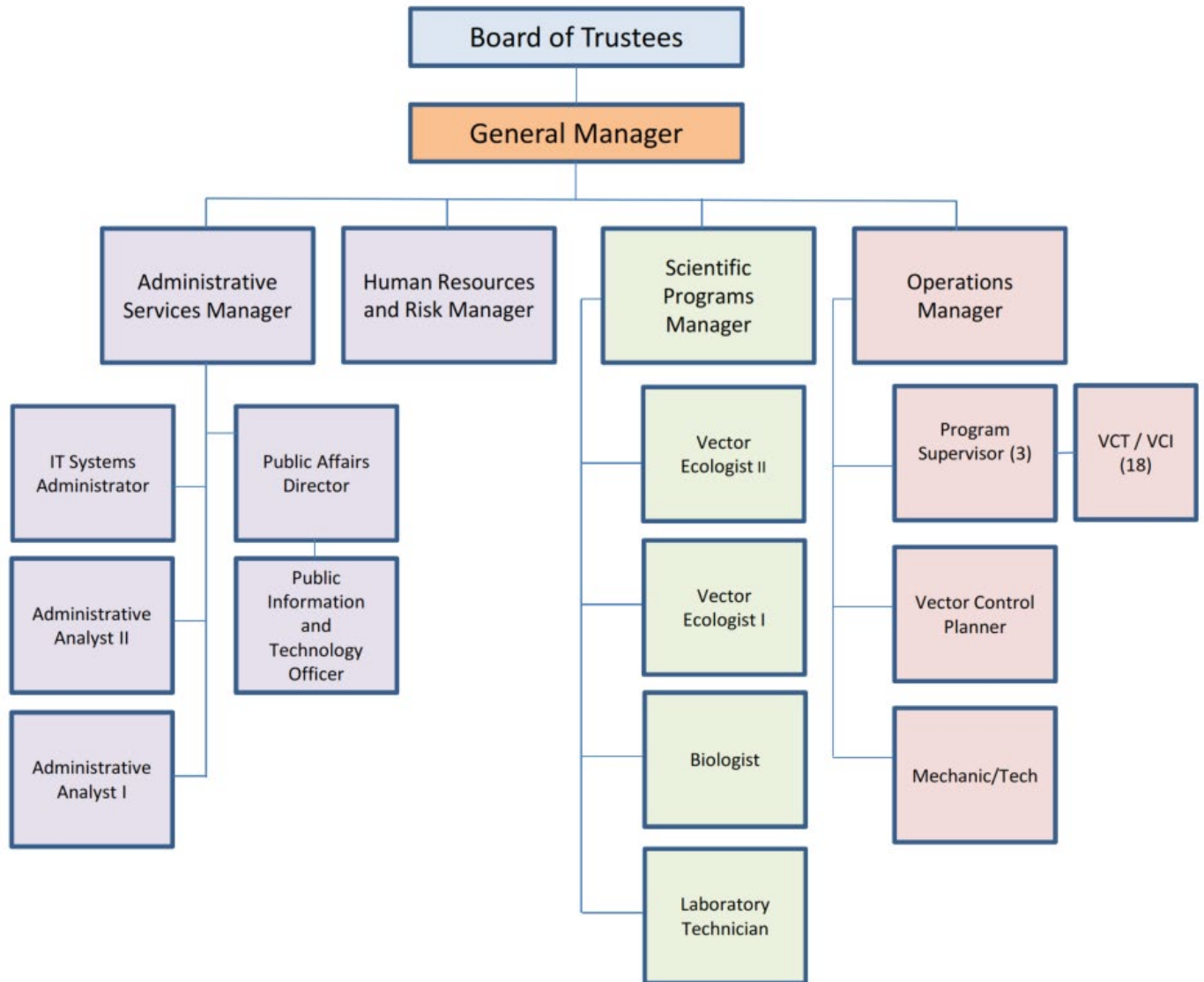


Fig. 4. Approved Organizational Chart

Table 2. Personnel Projections (*denotes classifications in which there is a vacancy currently)

	Classification	Actual 15-16	Projected 20-21	Classification	Actual 20-21	Actual 21-22	Projected 26-27
Administration	General Manager	1	1	General Manager	1	1	1
	Assistant Manager	1	1	Administrative Services Manager	1	1	1
	Accounting & Benefits Specialist	1	1		0	0	0
	Administrative Assistant	1	1	Administrative Analyst II	1	1	1
	Receptionist – seasonal	1	1	Administrative Analyst I	1	1	1
	IT Administrator	1	1	IT Administrator	1	1	1
	Public Affairs Manager	1	1		0	0	0
	Community Affairs Representative	2	2	Public Affairs Director	1	1	1
				Public Info and Tech Officer	1	1	1
			HR and Risk Manager	0	1	1	
	Total	9	9		7	8	8
Scientific Programs	Scientific Programs Manager	1	1	Scientific Programs Manager	1	1	1
	Vector Ecologist I	1	1	Vector Ecologist I	1	1	1
	Vector Ecologist II	1	1	Vector Ecologist II	1	1	1
	Biologist	1	1	Biologist	1	1	1
	Seasonals	2	2	Seasonals	2*	2*	2
				Laboratory Technician	1	1	1
	Total	6	6		7	7	7
Operations	Operations Manager	0	1	Operations Manager	1*	1*	1
	Program Supervisor	3	3	Program Supervisor	3	3	3
	Vector Control T/I	17	17	Vector Control T/I	18	18*	18
	Mechanic II	1	1		0	0	0
	Vector Control Planner	0	1	Vector Control Planner	1	1*	1
	VCA – Seasonals	3	4	VCA – Seasonals	4*	4*	4
				Mechanic/Technician	1	1*	1
	Total	24	27		27	27	27
Total		33 + 6	36 + 6		35 + 6	36 + 6	36 + 6

4. Research and Development

The following research and development projects are expected for each department:

a. Administration Department

i. General

1. Evaluation and expansion of internal controls
2. Digitalization of records and other processes
3. Implementation of accounts payable/receivable management software
4. Evaluation of current policies and procedures and cataloguing
5. PEIR addendum/supplement
6. Renewal of NPDES permit
7. Organization of files

ii. Public Affairs

1. Website evaluation and re-design for improvements and compliance
2. Inclusion of dashboards on the website
3. Evaluation and increase of social media presence
4. Coordination of local town hall meetings
5. Countywide survey (every 5 years)
6. Heartworm program

iii. Information Technology

1. Expansion of VPN capabilities
2. Creation and management of an intranet environment for internal communication and document storage
3. Evaluation of internet bandwidth and District needs
4. Evaluation of current video and alarm for building security
5. Evaluation of better sound and video for meeting and training rooms
6. Research and evaluation of a new HR software platform for employee benefits and time keeping records
7. Evaluation and replacement of obsolete equipment
8. Research and implementation of e-signatures

b. Scientific Programs Department

1. Additional surveillance – augmenting existing surveillance with additional trapping and testing
2. Pesticide Resistance testing of additional local mosquito populations
3. Collaboration with Operations on field trials of currently used and new control products in various habitats

4. Collaboration with Operations on field trials using UAS (drones) for surveillance and control

c. Operations Department

i. Mosquitoes

1. Evaluation of the workload in each new zone and adjustments as needed
2. Improvements to the new operations software – MapVision
3. Update of the Operations Manual
4. Use of UAS (drones) to perform surveillance and control, including larvicides and ultra-low volume (ULV) treatments

ii. Yellowjackets

1. Evaluation of a surveillance program for yellowjackets in areas where they are more prevalent
2. Evaluation of yellowjacket baiting

iii. Rodents

1. Evaluation of the use of UAS (drones) for rodent inspections
2. Collaboration with other agencies for testing for resistance to second-generation anticoagulant rodenticides
3. Efficacy testing of rodent baits

iv. Skunks

1. Evaluation of submission of animals for rabies testing
2. Investigation of skunk population dynamics and mobility (females versus males)
3. Investigation of new technologies, such as the use of electronic monitoring for traps

5. Finances

a. REVENUE: PROPERTY TAXES AND BENEFIT ASSESSMENT

Revenues from property taxes and benefit assessment make up approximately 95% of the District's total revenues. Over the past 6 years, property taxes have continuously increased, but the percentage change in the property taxes has varied from 3% to 9%. The District cannot extrapolate its share of the property tax revenue because there is no direct correlation with the property value changes in the county. County tax levy is based on the assessed values as of the preceding January 1st. The County has supplemental property taxes, which are levied based on changes in assessed values between the date of real property sales or construction completion and the preceding assessment date. These taxes are based on the "new" value, which can be drastically different from the January 1st amounts. The District property tax revenues are driven by the net adjustments to total appropriations and the changes in property parcels annexations and detachments within Contra Costa County. Therefore, the District will receive an adjusted percentage on the property tax revenues. These adjustments come in the following year(s).

Another variance in the property tax revenues is due, in part, to Bill AB26 – the Redevelopment Agency Dissolution from 2012. The District has received between \$300,000 and \$600,000 on a yearly basis. The District will continue to receive what is called a "residual payment" until they are fully dissolved which can take up to 30 years.

On the other hand, the Benefit Assessment is relatively stable because there is a "special assessment" placed on each county parcel, which is based on the zone and classification of property. The small change in Benefit Assessment is a slight increase (CPI rate adjustment), along with the number of parcels or classification of parcels.

The District will continue to be fiscally conservative. The methodology approved by the Board in 2021 for future property taxes projections uses 60% of a moving 5-year average for a dynamic long-range budget. The same methodology applies for the Benefit Assessment, except for year one, which is always projected by the Engineers Report, and based on an actual benefit assessment assigned to each parcel. As shown on the table below, the actual changes from property taxes in the past 5-years ranged from 2.28% increase to 13.20%. Future projections were calculated at 4.02% for property taxes and 0.31% for benefit assessments.

	Fiscal Year	Property Taxes	Benefit Assessment	% Change YoY Property Taxes	% Change YoY Benefit Assessment
Actual (Audited)	2015-2016	4,771,963	2,010,813	8.22%	0.33%
	2016-2017	5,401,903	2,019,712	13.20%	0.44%
	2017-2018	5,524,853	2,035,215	2.28%	0.77%
	2018-2019	5,958,949	2,044,430	7.86%	0.45%
	2019-2020	6,293,493	2,054,797	5.61%	0.51%
	2020-2021	6,580,371	2,062,943	4.56%	0.40%
Adopted	2021-2022	6,538,745	2,073,724	4.88%	0.67%
Current Budget	2022-2023	6,801,654	2,080,111	4.02%	0.31%
Projected	2023-2024	7,075,134	2,086,517	4.02%	0.31%
	2024-2025	7,359,609	2,092,943	4.02%	0.31%
	2025-2026	7,655,523	2,099,388	4.02%	0.31%
	2026-2027	7,963,335	2,105,854	4.02%	0.31%

Table 3. Property Taxes and Benefit Assessment values and percent change, 2015-2027

b. OTHER REVENUE: CONTRACTS AND INTEREST INCOME

Other sources of funding for the District are contract billing and interest income and correspond to less than 5% of total revenue. The funds are not guaranteed or stable. Interest income is based on the balances in the District’s LAIF account (Investment), as well as the APY earned. The large increase over the past three years has been driven by \$3 million increase in LAIF balance along with short terms rates spiking. Starting in 2019, the US Treasury 1-year rates averaged 1.8% due to an inverted yield curve. LAIF has an average duration of 3 years and the inverted short end allowed the District to experience higher interest rates than normal. Contract revenue comes from service abatement agreements and is not a guaranteed source of income. Monies are received through annual contracts negotiated with other agencies and commercial properties.

In the table below, Contract and Interest revenues were forecasted at a flat, standard inflationary 2% rate. This rate will be used unless the District projects a drastic change of the interest rate or if the investment accounts significantly change balance, which would have an effect on the flat rate projection.

	Fiscal Year	Contract Revenue	Interest Revenue	% Change YoY Contract Revenue	% Change YoY Interest Revenue
Actual (Audit)	2015-2016	34,932	13,764	-58.69%	-41.78%
	2016-2017	75,372	42,710	115.77%	88.43%
	2017-2018	53,318	233,173	-29.26%	6.64%
	2018-2019	43,782	111,976	-17.89%	4.24%
	2019-2020	65,128	169,116	48.76%	225.64%
	2020-2021	28,479	44,244	-56.27%	-43.04%
Adopted	2021-2022	50,000	51,265	75.6%	15.87%
Current Budget	2022-2023	51,000	52,290	2.00%	2.00%
Projected	2023-2024	52,020	53,336	2.00%	2.00%
	2024-2025	53,060	54,403	2.00%	2.00%
	2025-2026	54,122	55,491	2.00%	2.00%
	2026-2027	55,204	56,601	2.00%	2.00%

Table 4. Contract and Interest revenue values and percent change, 2015-2027

c. EXPENSES: OPERATING COSTS, SALARY AND BENEFITS, and CAPITAL

The District has been historically fiscally prudent, and a look back over the past 6 years shows that revenue has mostly exceeded expenses each year, which contributed to a growing LAIF balance. In FY 2017-2018, the increased costs were driven by an increase on CCCERA rates (3%) that year, coupled with the increase in OPEB contribution and regular salary adjustments. In FY 2018-2019, the main driver for the increase was the fact that the District had all positions filled, and a 9% negotiated adjustment for represented employees, which also led to higher CCCERA costs. In FY 2019-2020, the District was not fully staffed, which led to a decrease on salaries and benefits costs.

In the table below, the expenses were also forecasted using the same methodology of a dynamic 5-year moving average. To budget for mid-year inflationary pressures, the modeling uses 80% of the moving 5-year average to account for expenditure changes.

	Fiscal Year	Operating Costs	Salary & Benefits	Capital	% Change YoY Operating Costs	% Change YoY Salary & Benefits	% Change YoY Capital
Actual (Audit)	2015-2016	1,155,729	5,389,292	143,448	-7.45%	-3.59%	-8.47%
	2016-2017	1,212,730	5,299,454	228,950	4.93%	-1.67%	59.60%
	2017-2018	1,394,562	5,492,325	127,921	14.99%	3.64%	-44.13%
	2018-2019	1,451,966	5,752,382	121,423	4.12%	4.73%	-5.08%
	2019-2020	1,548,735	5,684,203	96,363	6.66%	-1.19%	-20.64%
	2020-2021	1,677,025	5,942,961	157,371	8.28%	4.55%	63.31%
Adopted	2021-2022	2,485,898	6,440,686	2,760,000*	48.23%	8.38%	1653.82%
Current Budget	2022-2023	2,177,800	6,538,133	288,000	-12.39%	1.51%	-89.57%
Projected	2023-2024	2,177,800	6,538,133	288,000	0.00%	0.00%	0.00%
	2024-2025	2,218,154	6,659,283	293,337	1.85%	1.85%	1.85%
	2025-2026	2,259,256	6,782,679	298,772	1.85%	1.85%	1.85%
	2026-2027	2,301,120	6,908,361	304,308	1.85%	1.85%	1.85%

*\$2.5 M Budget for Building

Table 5. Expenditures values and percent change, 2015-2027

6. Alliances

The Contra Costa Mosquito and Vector Control District is an independent special district, separate from other government agencies. The District maintains cooperative relationships with many local, state and federal agencies, as well as community, nonprofit, and private stakeholders.

a. Federal:

United States Department of Agriculture (USDA) – Agricultural Research Service (ARS)

Centers for Disease Control (CDC)

United States Fish and Wildlife Service (USFWS)

b. State:

California Department of Transportation (Caltrans)

California Governor's Office of Emergency Services (OES)

California Department of Public Health (CDPH), Vectorborne Disease Section

California Department of Fish and Wildlife (CDFW)

California Department of Water Resources (DWR)

California Department of Pesticide Regulation (CDPR)

State Legislators

Mosquito and Vector Control Districts

c. County and local:

Contra Costa County Public Works Maintenance (Flood Control)

Contra Costa County Health Services – Communicable Disease

Contra Costa County Health Services - Public Health Laboratory

Contra Costa County Health Services - Environmental Health Division (EHD)

Contra Costa County Department of Agriculture Weights & Measure

Contra Costa County Animal Services

Contra Costa County Communications & Media

Contra Costa County Conservation and Development

Contra Costa Water District

Contra Costa County Fire Protection District

East Bay Regional Parks District (EBRPD)

Holland Tract Marina

Ironhouse Sanitary District

Rodeo Sanitary District

West County Wastewater District

Central Contra Costa Sanitary District

Public Works Departments

Parks and Recreation

Code Enforcement Departments

Local School Districts

City councils

d. Associations and Organizations:

Mosquito and Vector Control Association of California (MVCAC)

American Mosquito Control Association (AMCA)

Entomological Society of America (ESA)

California Special Districts Association (CSDA)

Contra Costa Special Districts Association (CCSDA)

Society for Vector Ecology (SOVE)

e. Colleges and Universities:

University of California at Davis and Berkeley

Sonoma State University

California Polytechnic University, previously Humboldt State University

University of Nevada – Reno

North Carolina State University

f. Others:

Environmental groups

Rotary, Kiwanis

Homeowners' associations

Garden clubs, Realtors associations

7. Legislative and Regulatory Impacts

a. NPDES Permit

National Pollutant Discharge Elimination System (NPDES) permit with the State Water Resources Control Board for the discharge of pesticides to waters of the United States to control mosquitoes. The permit covers the application of mosquito adulticides and larvicides and their potential discharge to surface waters from applications to control mosquitoes in Contra Costa County.

b. Future Legislative Bills

COVID-19 Relief Funding – The U.S. Senate passed the Federal American Rescue Act, which included \$350 billion for states, territories, tribes, counties, and cities – all of which would have the authority to transfer relief funding to special districts. The District is supporting efforts led by the California Special Districts Association (CSDA) to craft strategies to leverage this transfer authority. Under the Senate version of the act, relief could be used through December 31, 2024. Differences exist between the Senate and the House bill at this point.

Future of remote meetings – Assembly Bill 361 (Rivas), introduced in February 2021, provided local agencies with the ability to meet remotely during proclaimed state emergencies under modified Brown Act requirements. Assembly Bill 2449 (Rubio) establishes another avenue for local agencies to meet remotely under modified Brown Act requirements, provided that the agency abides by the strict substantive and procedural requirements. If signed, the bill would take effect at the start of 2023.

We continue to work closely with the Legislative and Regulatory committees from the Mosquito and Vector Control Association of California and with the California Special District Association, which provide legal and public policy expert overview of the most significant new bills that will impact our work and the community we serve.

8. Safety

The District is firmly committed to maintaining a safe and healthful work environment with the enactment of the Illness and Injury Prevention Program. The District is responsible for providing safe and healthful working conditions and facilities. The District will furnish adequate devices to ensure safety and sanitation within the requirements of existing laws or regulations applicable to the District. The District and all its employees shall observe all applicable federal and state safety standards. Each employee is responsible for their tools, equipment and work area. Required tools and equipment and protective garments necessary to safeguard the health of or prevent injury to an employee shall be provided by the District. The objective for the Injury and Illness Prevention Program is to prevent injuries and illnesses. In addition, in 2020 the District implemented the COVID-19 IIPP supplement. This COVID-19 IIPP Supplement was established in accordance with the Cal/OSHA Interim General Guidelines on Protecting Workers from COVID-19 and the Injury & Illness Prevention Program (Title 8 Section 3203) requirements. Under the IIPP hazard assessment requirements, it has been determined exposure to the COVID-19 virus is a potential hazard in our workplace. Therefore, infection control measures as directed in the Cal/OSHA mandatory guidance have been developed and implemented accordingly. A COVID Prevention Plan (CPP) was developed and updated as needed.

To provide organization and communication, the responsibility for the implementation and maintenance of the IIPP is assigned to the General Manager, but responsibility for safety also lies with each individual employee. A District Safety Committee exists to evaluate safety procedures and conditions. The District Safety Committee is an advisory committee, and it was established to develop and maintain a responsible, proactive approach to meeting the safety needs of the District. All enforcement of safety and health rules and policies within the District is the responsibility of the designated Safety Officer, which is currently the Human Resources and Risk Manager, or, in their absence, the General Manager.

The Safety Committee provides information and recommendations to management about occupational safety and health conditions and provides a forum for information exchange. The chart below explains how the committee is structured, with one main member and one alternate from each group (Figure 5). Committee Chair and members serve for a maximum of 2 years – one year as the alternate and one year as the main member. The committee, under guidance from the Safety Officer, assists the District with hazard assessments, inspections, and accident investigations.

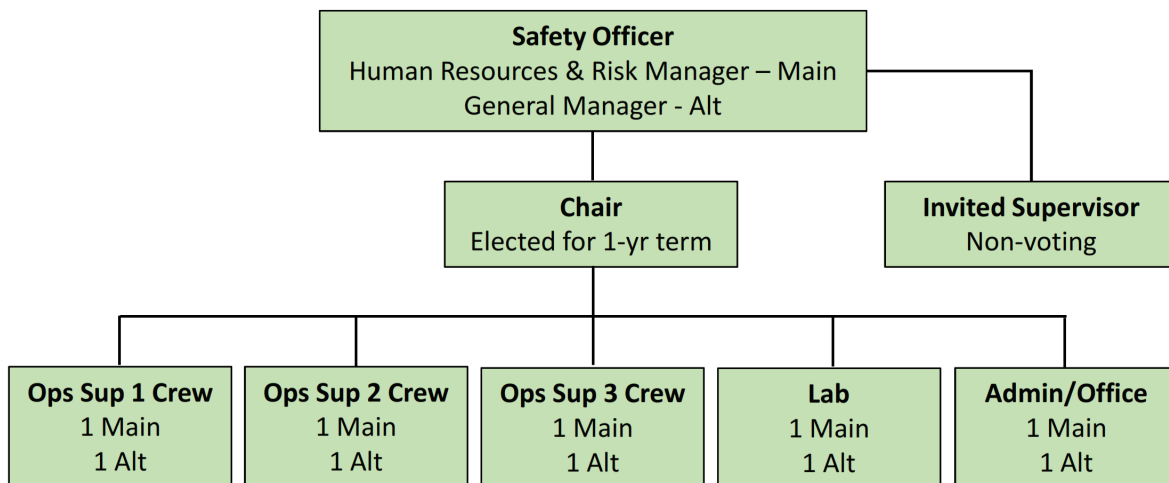


Fig. 5. Safety Committee Flowchart

9. Emergency Planning

California regulation requires agencies who handle hazardous substances to develop emergency response plans and procedures and develop and implement an AB2185 Plan, known as the Emergency Action Plan. The plan documents the following emergency response information:

- Notification Alarm Procedures;
- Emergency Equipment, including the location and use of each equipment;
- Emergency Response Procedures, listing procedures for handling a release of hazardous materials and a list of emergency contact personnel;
- Employee Training requirements, including and all training documentation;
- Site Layout and Facility Maps, including location of each hazardous material handling area, type of storage, and location of emergency response equipment.

The Emergency Action Plan (AB2185) is updated annually and submitted to the Contra Costa County Health Services Department (California Environmental reporting System – CERS).

In addition, in 2019, due to events such as acts of nature, technological emergencies, public health events, security-related incidents, and the changing threat paradigm, which contributed to shift awareness to the need of a plan for viable continuity of operations and capabilities that would enable the District to continue its essential functions, the Board had recommended the preparation and implementation of an Emergency Preparedness Plan. Discussions for the Emergency Preparedness Plan started in August of 2019. In 2020, these discussions were halted due to COVID-19, as the best time to work on a document to prepare for an emergency was not in the middle of one. Many lessons were learned during the COVID-19 public health emergency, which can be used for new discussions on the Emergency Preparedness Plan.

10. District Facilities and Grounds

The addition to the District main building was completed over 20 years ago. Since then, ground shifts and movement over time, as well as time/age, have caused many issues in the building, with cracks on the walls, windows that do not seal properly, cement cracked on the front of the building creating potential trip hazards, issues with the heating/air ducts, etc. In addition, the District has grown since then, and additional office and cubicle spaces are needed. Consideration should also be given to increase the security of the property.

The District has started the process to obtain an architectural design which will include the following:

- Expansion of the front of the building to accommodate a more secure front central lobby area and additional office space in the front;
- Expansion to accommodate growth – offices, cubicles, break room, small meeting room;
- ADA compliance;
- Parking garage for work trucks and equipment;
- Addition of emergency exit in Operations room;
- Heating and Air ductwork;
- Addition of desk spaces in the laboratory (currently only tall bench spaces);
- Improved security;
- Relocation of the shop/maintenance building, thicker concrete pad to support vehicle lift;
- New insulation for insectary;
- Addition of second emergency generator;
- Others.

C. CRITICAL ISSUES ANALYSIS

1. Strengths

a. General/Board

1. The District follows a science-based approach to vector control.
2. District staff is well-qualified and experienced, and the District has low turnover.
3. The District has a consistent and stable source of revenue and has been fiscally responsible and prudent, maintaining expenses adequate relative to revenues.
4. District staff has worked on streamlining, modernizing, and automating processes.
5. The District collaborates with various agencies at the county, state and federal level.
6. The District has remained flexible and adaptable under emergencies and extenuating circumstances.
7. The Board of Trustees is large and diverse, including a broad range of expertise, varied backgrounds, and skill sets, and is generally united in its support of the District's mission and goals.
8. The District is well-respected within Contra Costa county communities.

b. Administration Department (Front Office, Public Affairs, Human Resources, and Information Technology)

1. The District is in a stable financial position due to fiscally responsible decisions made throughout the years.
2. The Administration department has experienced staff in the areas of finance and accounting, information technology, and public relations.
3. The Administration department is in the process of standardizing platforms and has implemented better comprehensive solutions for front office processes.
4. Employees are projected-oriented and work efficiently to achieve department goals.
5. Employees work cooperatively within the department, with other departments, and with outside agencies.

c. Scientific Programs Department

1. Laboratory staff is highly trained and experienced.
2. Surveillance program is well established but still flexible to adapt to changes in priorities and other challenges.
3. Staff is cross-trained in most tasks.
4. Mosquitofish program is well-established and produces a large number of fish.
5. The laboratory is large and well-equipped with the needed surveillance equipment and staff is efficient and effective with the resources the department has.

d. Operations Department

1. All field employees are trained and certified by the Vector Control Technician Certification Program with the California Department of Public Health.
2. The Operations department has experienced and knowledgeable staff, some of which have worked at the District for over 20 years.
3. The mosquito control program is mostly a larval-based program, i.e., mosquitoes are targeted in their larval stage.
4. The department responds timely to requests for service.
5. The District offers services for several vectors.
6. The department maintains good communication and has established strong alliances with the cities we serve and with other agencies.
7. The department has state-of-the-art equipment to perform their operations.

2. Limitations

a. General/Board

1. The District facility has limited scope for future expansion.
2. The District faces challenges keeping employee morale high.
3. The services provided by the District are not always clear or understood by all residents or other agencies.
4. The District is a small agency, with a small administrative and managerial staff.
5. Trustees do not have a good understanding of each other's areas of expertise or backgrounds.
6. Number of vacancies on the Board of Trustees. Issues with representation and quorum for meetings.
7. Lack of clear expectations of the Board of Trustees or full understanding of their role of oversight.
8. Programmatic Environmental Impact Report (PEIR) significantly limits District's ability to use new products or technology that may actually be better for the environment.

b. Administration Department (Front Office, Public Affairs, Human Resources, and Information Technology)

1. Administrative staff still being trained on several tasks due to rearrangement of the department and reclassification of jobs.
2. Previous lack of cross training among Administrative staff.
3. Several processes are still manual and antiquated, which can lead to errors and more time spent.
4. Not enough staff to deal with several large projects at the same time.
5. Low diversity of revenue sources.
6. Antiquated equipment, including computers and other technology.
7. Reluctance to accept change.
8. Lack of a clear understanding from the part of employees in general of each position and its role within the District.

c. Scientific Programs Department

1. Difficulty in coordinating surveillance and special projects with the Operations department.
2. Surveillance data not fully utilized by Operations department.
3. Lack of desk space for additional staff, such as the new position of laboratory technician.
4. Delays on response from other collaborating agencies.
5. Timelines established by other agencies for data or sample submission.
6. Some programs, such as the dead bird program, rely on passive reporting by the public.

d. Operations Department

1. Limited collaboration and lack of data integration between Operations and Laboratory.
2. Limited products.
3. Increased requirements and rules to access certain sites, such as refineries.
4. Increased reporting requirements to outside agencies.
5. Lack of employee engagement and team environment.
6. Reluctance to accept change, new products, and new technology.
7. Limited ability to increase operations scale in short amount of time.

3. Opportunities

a. General/Board

1. Utilization of new technology, such as larger and more capable drones, new systems and software, and new lab tests, to improve efficiency or expand capabilities in all departments.
2. The upcoming switch from vector to geographic-oriented operations is an opportunity to improve efficiencies, job satisfaction and hopefully morale.
3. Enhance reputation and credibility of the District and staff as leaders in the field.
4. Create more continuity and institutional memory by revising the composition of Board committees and their charges.

b. Administration Department (Front Office, Public Affairs, Human Resources, and Information Technology)

1. Continue looking for better comprehensive solutions to improve front office processes.
2. Evaluate Human Resources information systems for automation of timecard processing, benefit selection, online accesses to information etc.
3. Continue to look for and evaluate better ways to provide communication internally and externally.
4. Explore virtual ways to provide information and engage the community.
5. Unify messaging and branding.
6. Continue cross training of employees.
7. Continue to evaluate cloud-based services.
8. Create an intranet for better document storage and accessibility.
9. Continue to work on new and better ways to provide public outreach virtually and in-person.
10. Expand communication vehicles - evaluate the possibility of using different social media platforms to provide District messages.
11. Use data from the recently conducted county-wide survey to tailor District's messages and programs.

c. Scientific Programs Department

1. Collaborate with the Operations department and conduct an evaluation of the current changes to the Mosquitofish program due to COVID-19.
2. Collaborate with the Operations department on efficacy evaluations.
3. Continue to network with other agencies locally, statewide and nationally to identify new threats and challenges and share solutions.
4. Enhance data collection efficiency and data entry accuracy with the new database/software.
5. Expand department programs as needed.
6. Evaluate surveillance program to provide data to new zones accordingly.

d. Operations Department

1. Evaluate each program.
2. Increase education opportunities when providing service to the public.
3. Work with new urban and suburban developments to educate the new residents about the District and the services we provide.
4. Enhance collaboration with neighboring districts.
5. Enhance data utilization by the department by using the new tools with the new operations software.
6. Collaborate with the laboratory on evaluations of products and applications.

4. Threats

a. General/Board

1. Facility location may expose the district to various threats (proximity to a refinery, airport, industrial area).
2. Unforeseen events or emergencies leading to inability to use the District's facility or provide services.
3. Cyberattack due to increased use and reliance on technology and digital processes.
4. Arrival of new, invasive species, emergence of new vector-borne disease.
5. Loss of key personnel
6. Long term economic recession and the associated reduction in revenue, inflation and overall economic instability and variability.
7. Urban/suburban development and climate changes leading to changes in vector distribution, habitats, and duration and severity of disease.

b. Administration Department (Front Office, Public Affairs, Human Resources, and Information Technology)

1. Potential human errors due to manual processes
2. Cybersecurity
3. Reluctance to accept and to adapt to change, new technology, and new processes
4. Potential perception of lack of transparency
5. Public misinformation about our services
6. Public misinformation about pesticides and their use by the District
7. Changes in laws and regulations
8. Lack of a complete understanding by employees of how the departments fit together and their roles and responsibilities
9. Emergencies such as the current pandemic
10. Anti-government sentiment

11. Lack of public interest and engagement

c. Scientific Programs Department

1. Invasive mosquito species
2. New and emerging vector-borne diseases
3. West Nile virus apathy, especially as it relates to dead bird reporting
4. Pesticide resistance
5. Delay on release of information regarding human cases of diseases transmitted by vectors
6. Climate change
7. Lack of public trust in government
8. Public misinformation

d. Operations Department

1. Increased environmental restrictions
2. Land-use changes, urban development, new developments adjacent to wetlands, wetlands on previous pastures
3. Pesticide resistance
4. Public's ability to spread misinformation quickly through social media platforms
5. Invasive mosquitoes
6. New and emerging vector-borne diseases
7. New and changing regulations and legislation
8. Increase in homelessness in the County
9. Reluctance to accept change

TACTICAL PLANNING

1. Goals

a. BOARD

#1. Evaluate process to fill Board vacancies – There have been 2 to 5 vacancies on the Board of Trustees each year, which may become a problem for quorum at meetings and for representation for the cities with vacant seats on the Board. The current procedure is to contact the cities through email and regular mail, notifying them of the vacancy. Sometimes multiple follow ups are necessary to get a response. The level of engagement of the cities in the process has varied. In addition, the General Manager has attended and presented at the Mayors Conference and has engaged with city officials, with varying results. *(This goal addresses General/Board Limitation 6)*

#2. Update the Trustee Manual – The last full update to the Trustee Manual was done by previous management in 2016. Since then, staff has updated small sections of the manual as needed but some of the information is outdated, policies need to be re-evaluated, and new ones need to be created. In 2019, an Ad Hoc committee of the Board started working on the manual and the Board approved some changes to the manual in 2020. In the end of 2021, the Executive Committee recommended that staff continue working on the manual as time permits, and that a draft be presented to the committee when possible, for further discussion. Some of the topics to be reviewed in the manual are: role of the Board of Trustees, effective meetings, Board and staff interaction, new trustee orientation process, and others. *(This goal addresses General/Board Limitation 7)*

#3. Implement an Annual Trustee Workshop – Trustees have requested a special meeting in the form of a workshop to help promote better understanding of each trustee's background and experience and conduct other business, such as the evaluation of Board roles, committees, and their composition. *(This goal addresses General/Board Limitation 5; General/Board Opportunity 4)*

#4. Review for opportunities to enhance the efficacy of each committee's operation – The District Board of Trustees relies heavily on the work and recommendations of the individual Board Committees. During the past several years, there has been turnover in the Committee membership and key District personnel. Also, COVID 19 restrictions have limited the effectiveness of communication both among Trustees and between Trustees and District Staff. Each Committee may wish to review its purview, associated data requirements and other metrics in order to provide their approval recommendations, advice and oversight. *(This goal assists updating the Trustee Manual [see #2 above] and addresses General/Board Limitations 5,7; General/Board Opportunity 4)*

b. ADMINISTRATION

i. General

#1. Create processes for continuity and retention of institutional memory – In the past 5 years, there have been 11 retirements at the District, representing 1/3 of the total employees. Most of these have been key positions in the District and represented a real challenge for staff due to the loss of historical and institutional knowledge. Staff needs to continue working on better documentation of all processes and better planning for situations like this. *(This goal addresses Administration Limitation 1, 2; Administration Opportunity 6; General/Board Threat 5)*

#2. Improve process efficiency – Many of the processes in the District are/were antiquated and used outdated technology. Staff needs to continue working on evaluating processes, identifying areas of improvement, such as digitalization of records and organization of digital files, and improving efficiency of all processes. *(This goal addresses General/Board Limitation 4; Administration Limitation 3; Administration Opportunity 1; Administration Threat 1, 10; Scientific Programs Threat 7)*

#3. Enhance reputation and credibility of the District and staff – The District aspires to be one of the lead mosquito control agencies in California, especially in the areas of innovation and applied research, and we would like to promote greater participation of staff at conferences, more presentations, and collaboration with other agencies. We would also like to enhance the District's reputation with our own residents, by improving the general knowledge of the services provided. In addition, we would like to go through CSDA's District of Distinction Accreditation in order to highlight our prudent fiscal practices along with other areas important to effectively operate and govern a special district. *(This goal addresses General/Board Limitation 3; General/Board Opportunity 3; Scientific Programs Opportunity 3)*

#4. Improve transparency – In an effort to show transparency in the District's operations and governance, we would like to work towards CSDA's Transparency Certificate of Excellence. *(This goal addresses General/Board Opportunity 3; Administration Threat 4)*

#5. Continue to explore areas where consulting services can be used – The District is a small agency with limited staff. The District has used consultants when possible, to alleviate workloads as needed. Staff will look into additional areas where consultants should be used. *(This goal addresses General/Board Limitation 4; Administration Limitation 4)*

#6. Continue to assess organizational structure and needs – Reviewing the organizational structure on a regular basis will help ensure the District is set up for

optimal growth and maximum performance, and will enable the District to adapt to changes. *(This goal addresses Administration Limitation 1; Scientific Programs Opportunity 5; General/Board Threat 4, 5)*

#7. Evaluate mutual aid agreement with other agencies – In case of a real and immediate threat of invasive Aedes or another emergency that requires quick access to trained professionals and calibrated equipment on a short-term basis, having a mutual aid agreement with other mosquito control districts in the Coastal region would be extremely beneficial. *(This goal addresses Operations Limitation 7; Scientific Programs Opportunity 3; Operations Opportunity 4; Operations Threat 5; Scientific Programs Threat 5)*

#8. Establish relationships with new state, county and local elected officials – New laws and regulations are constantly being approved and enacted. Staying on top of these when they are first proposed and tracking them is extremely important, as is making sure elected officials know and understand the great work our District and the mosquito control industry as a whole do. *(This goal addresses General/Board Opportunity 3; Administration Opportunity 11, Administration Threat 7, Operations Threat 7)*

ii. Human Resources

#1. Evaluate HRIS for automation of processes – HRIS, or Human Resources Information Systems, is software designed to help businesses meet core HR needs and improve productivity. That software will be used for recruitment and onboarding, time and attendance, benefits administration, and other HR-related challenges. *(This goal addresses Administration Opportunity 2)*

#2. Continue working on employer-employee relations, improve overall morale, engagement and team environment – With the recent hire of the HR and Risk Manager, we plan to continue working on improving employee satisfaction and general relationships among staff, and supporting a safe, healthy, and positive workplace. *(This goal addresses General/Board Limitation 2; Administration Limitation 7, 8; Operations Limitation 5, 6; General/Board Threat #5; Administration Threat 3, 4; Operations Threat 9)*

iii. Information Technology

#1. Implement processes to prevent cyberattacks by improving cybersecurity and conducting training – With the continuously expanding reliance on computer systems, the internet and wireless network standards, and the growth of smart devices,

the District needs to develop a strong cybersecurity strategy to provide a good security posture against malicious attacks designed to access, alter, delete, destroy or extort systems and sensitive data, and to disrupt our operations. *(This goal addresses General/Board Threat 3, Administration Threat 2)*

#2. Continue assessing technology needs and updating equipment –

Technology evolves rapidly and may become obsolete and impede productivity. The District needs to continue to review the current technology landscape, and update or replace aging and obsolete equipment and software, and plan for purchase of new equipment as needed. *(This goal addresses Administration Limitation 6; Administration Opportunity 7)*

#3. Create and maintain the District Intranet/Google Workspace –

Having a private, secure network that can only be accessed by District employees and is managed in-house will enable better file storage and access and better communication among employees. It would also facilitate training and onboarding. *(This goal addresses Administration Opportunity 8)*

#4. Continue to provide training, create training videos that can be archived –

Live trainings are great but having an archive of recorded training videos will greatly aid on the training of new employees and may serve as a refresher training for current employees. *(This goal addresses Operations Limitation 6; Administration Limitation 7; Administration Threat 3; Operations Threat 9)*

iv. Finances

#1. Look into investment diversification –

Staff would like to look into other institutions besides LAIF to deposit District's funds. The District has an approved Investment Policy, which will continue to be followed. *(This goal addresses Administration Limitation 5; General/Board Threat 6)*

#2. Apply for and obtain the Certificate of Achievement for Excellence in

Financial Reporting – The Government Finance Officers Associations (GFOA) offers a program to encourage and assist local governments to go beyond the minimum requirements of generally accepted accounting principles to prepare annual comprehensive financial reports that show transparency and full disclosure. The District would like to obtain that certificate and will need to work with the auditors to ensure the financial statements have all the information needed before applying. *(This goal addresses General/Board Opportunity 3; Administration Threat 4)*

V. Public Affairs

#1. Expand public and other agencies' understanding of the District and services we provide – There seems to be much misunderstanding among other agencies regarding the services the District provides. Sometimes customers are referred to us by other agencies for services we do not provide, and sometimes there are missed opportunities for providing a service or collaboration because the agency was unaware of the services we provide. Messaging presented to other agencies should be tailored to each agency. *(This goal addresses General/Board Limitation 3; Scientific Programs Limitation 4, 5; Operations Limitation 3, 4; Administration Opportunity 5, 11; Administration Threat 5, 6, 10, 11; Scientific Programs Threat 5, 7, 8; Operations Opportunity 2)*

#2. Improve internal and external communication – Effective communication is fundamental in order to achieve many of the goals in this plan. *(This goal addresses Administration Opportunity 3; Administration Threat 8; Scientific Programs Threat 8)*

#3. Expand communication vehicles, explore other options on social media – There has been a great deal of change on the way different people choose to receive news and communicate, fueled by advances in technology. The District would like to evaluate different vehicles and expand the ways we communicate with the public. *(This goal addresses General/Board Limitation 3; Administration Opportunity 10, 11; Operations Threat 4)*

#4. Work with new developments to educate new residents on the services we provide – New housing continues to be developed in many areas of Contra Costa County. Many times, these are built in previous agricultural areas and adjacent to wetlands or additional agricultural areas. New residents may not be aware of the vector issues they may be facing or of the services we provide. *(This goal addresses Administration Opportunity 11; Operations Opportunity 2, 3)*

#5. Promote Dead Bird Program – With West Nile virus becoming endemic in the United States, and with it being present in Contra Costa County since 2004, there seems to be a fatigue in reporting dead birds to the District. By finding other ways to promote the dead bird program, we hope to increase reporting by the public, and therefore WNV testing and additional surveillance to protect them. *(This goal addresses Scientific Programs Limitation 6; Scientific Programs Threat 3)*

#6. Explore virtual ways to provide communication and engage the community – Many lessons were learned during the COVID pandemic. One of them was how to conduct virtual meetings and how to do it effectively. This may prove to be an excellent way from now on to continue engaging the community and to provide information. *(This goal addresses Administration Opportunity 4, 9, 11; Administration Threat 10, 11)*

#7. Website – The District website needs to be updated to comply with new legislation (ADA compliance), incorporate dashboards, improve transparency, and to be more user-friendly. *(This goal addresses Administration Opportunity 11; Administration Threat 4, 5, 6; Scientific Programs Threat 8)*

c. SCIENTIFIC PROGRAMS

#1. Enhance surveillance -Increase the number of traps set and number of areas surveyed. *(This goal addresses General/Board Opportunity 1, 2; General/Board Threat 4, 7; Scientific Programs Threat 1, 2; Operations Threat 5, 6)*

#2. Continue to evaluate pesticide resistance –Resistance can be very local, so populations from multiple locations should be evaluated for resistance to larvicides and adulticides. *(This goal addresses Scientific Programs Threat 4; Operations Threat 3)*

#3. Evaluate changes to mosquitofish program – During the COVID pandemic, the District’s mosquitofish service changed and needs to be re-evaluated. *(This goal addresses Scientific Programs Opportunity 1)*

#4. Improve collaboration with Operations on day to day activities and special studies and evaluations – Conduct studies evaluating new materials and efficacy evaluations. Collaborate with Operations on studies to address their needs. *(This goal addresses Operations Limitation 1, 2; Scientific Programs Limitation 1; Scientific Programs Opportunity 2, 6; Operations Opportunity 6)*

d. OPERATIONS

#1. MapVision software - Enhance data utilization, data collection efficiency and entry accuracy, continue troubleshooting and suggesting improvements to the software - *(This goal addresses Scientific Programs Limitation 2; General/Board Opportunity 1, 2; Operations Opportunity 5, Scientific Programs Opportunity 4)*

#2. Evaluate products and applications – Collaborate with the laboratory staff on product and application evaluations and efficacy studies. *(This goal addresses Scientific Programs Limitation 1; Operations Limitation 1, 2; Scientific Programs Opportunity 2; Operations Opportunity 6)*

#3. Evaluate and review procedures on the Skunk Program – Evaluate goals of the program and the service provided by the District, propose change in procedures. *(This goal addresses Scientific Programs Limitation 1; Operations Opportunity 1)*

#4. Evaluate and review procedures for baiting on Rodent Program – Evaluate areas where baiting can be used. *(This goal addresses Scientific Programs Limitation 1; Operations Opportunity 1)*

#5. Enhance drone surveillance program and apply and certify to be able to perform treatments with drones – Currently only one employee is certified to use the District drone for surveillance. We would also like to use a treatment drone to treat areas that are difficult to access more efficiently. *(This goal addresses Operations Opportunity 1; Operations Threat 2)*

#6. Facilitate employee cross-training with other districts and ride-along opportunities - *(This goal addresses Operations Opportunity 4)*

e. SPECIAL PROJECTS

#1. Emergency Planning - *(This goal addresses General/Board Threat 2; Administration Threat 9; Operations Threat 5, 6; Scientific Programs Threat 1, 2, 6)*

#2. PEIR revision or addendum to include new products and technologies - *(This goal addresses General/Board Limitation 8; Operations Threat 1, 3; Scientific Programs Threat 4)*

#3. New NPDES application - *(This goal addresses Operations Limitation 2; Administration Threat 7; Scientific Programs Threat 1, 2, 4; Operations Threat 1, 7)*

#4. Building expansion and upgrade - *(This goal addresses General/Board Limitation 1; Scientific Programs Limitation 3; General/Board Threat 1)*

2. Timeline

Table 6. Proposed Timeline for Goals

		2-2022	1-2023	2-2023	1-2024	2-2024	1-2025	2-2025	1-2026	2-2026
a. BOARD	#1. Vacancies	█	█			█				█
	#2. Trustee Manual		█	█						
	#3. Trustee Workshop			█		█		█		█
	#4. Committee Review		█		█		█		█	
		2-2022	1-2023	2-2023	1-2024	2-2024	1-2025	2-2025	1-2026	2-2026
b. ADMINISTRATION	i. GENERAL									
	#1. Institutional Memory	█	█	█	█	█				
	#2. Process Efficiency						█	█	█	█
	#3. Reputation and Credibility						█	█	█	█
	#4. Transparency	█					█	█	█	█
	#5. Consulting Services	█	█	█	█	█	█	█	█	█
	#6. Organizational Structure		█		█		█		█	
	#7. Mutual Aid Agreement	█								
	#8. Relationships	█	█	█	█	█	█	█	█	█
	ii. HUMAN RESOURCES									
	#1. HR Information System			█	█	█	█	█	█	█
	#2. Relations	█	█	█	█	█	█	█	█	█
	iii. INFORMATION TECHNOLOGY									
	#1. Cybersecurity	█	█	█	█	█	█	█	█	█
	#2. Technology needs	█	█	█	█	█	█	█	█	█
	#3. Google Workspace	█	█	█	█	█	█	█	█	█
	#4. Training				█	█	█	█	█	█
	iv. FINANCES									
	#1. Investment Diversification		█	█	█	█	█	█	█	█
#2. GFOA Certification		█	█	█	█	█	█	█	█	
v. PUBLIC AFFAIRS										
#1. Service awareness	█	█	█	█	█	█	█	█	█	

	#2. Communication #3. Social Media #4. New residents #5. Dead Bird Program #6. Virtual engagement #7. Website									
		2-2022	1-2023	2-2023	1-2024	2-2024	1-2025	2-2025	1-2026	2-2026
c. SCIENTIFIC PROGRAMS	#1. Surveillance #2. Pesticide Resistance #3. Mosquitofish Program #4. Research and evaluations									
		2-2022	1-2023	2-2023	1-2024	2-2024	1-2025	2-2025	1-2026	2-2026
d. OPERATIONS	#1. MapVision #2. Product evaluation #3. Skunk Program #4. Rodent Program #5. Drone Program #6. Cross-training									
		2-2022	1-2023	2-2023	1-2024	2-2024	1-2025	2-2025	1-2026	2-2026
e. SPECIAL PROJECTS	#1. Emergency Planning #2. PEIR Revision #3. NPDES #4. Building									

III. ACRONYMS AND ABBREVIATIONS

ADA – Americans with Disabilities Act

AMCA – American Mosquito Control Association

APY – Annual Percentage Yield

Cal/OSHA – California Occupational Safety and Health Administration

Caltrans – California Department of Transportation

CCCERA – Contra Costa County Employees’ Retirement Association

CCMVCD – Contra Costa Mosquito and Vector Control District

CCSDA – Contra Costa Special Districts Association

CDC – Centers for Disease Control and Prevention

CDFW – California Department of Fish and Wildlife

CDPH – California Department of Public Health

CDPR – California Department of Pesticide Regulation

CERS – California Environmental Reporting System

COVID – Coronavirus Disease

CPI – Consumer Price Index

CPP – COVID Prevention Plan

CSDA – California Special Districts Association

DWR – Department of Water Resources

EBRPD – East Bay Regional Park District

EHD – Environmental Health Division

ERMA – Employment Risk Management Authority

ESA – Entomological Society of America

GFOA – Government Finance Officers Association

HR – Human Resources

HRIS - Human Resources Information System

IIPP – Injury and Illness Prevention Plan
IT – Information Technology
IVM – Integrated Vector Management
LAIF – Local Agency Investment Fund
LCW – Liebert Cassidy Whitmore
MVCAC – Mosquito and Vector Control Association of California
NPDES – National Pollutant Discharge Elimination System
OES – Office of Emergency Services
OPEB – Other Post-Employment Benefits
PEIR – Programmatic Environmental Impact Report
PRSA – Public Relations Society of America
SHRM – Society for Human Resource Management
SOVE – Society for Vector Ecology
UAS – Unmanned Aircraft System
ULV – Ultra Low Volume
USDA – United States Department of Agriculture
USFWS - United States Fish and Wildlife Service
VCA – Vector Control Aide
VCI – Vector Control Inspector
VCJPA – Vector Control Joint Powers Association
VCP - Vector Control Planner
VCT - Vector Control Technician
WNV – West Nile Virus